1. Basic Diagnostic Procedure

A: PROCEDURE

	Step	Check	Yes	No
1	**PERFORM CUSTOMER INTERVIEW.** Using the Check List for Interview, ask the customer the condition of how the trouble occurred. <Ref. to AL(diag)-3, CHECK, Check List for Interview.>	Did you interview the customer?	Go to step **2**.	Interview the customer. <Ref. to AL(diag)-3, CHECK, Check List for Interview.>
2	**CHECK LAN SYSTEM.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Perform the inspection according to the diagnosis for LAN system.	Go to step **3**.
3	**CHECK AUTO HEADLIGHT BEAM LEVELER SYSTEM.** Using the Subaru Select Monitor, read DTC of the auto headlight beam leveler system inspection. <Ref. to AL(diag)-9, OPERATION, Read Diagnostic Trouble Code (DTC).> NOTE: If the communication function of the Subaru Select Monitor cannot be executed properly, check the communication circuit. <Ref. to AL(diag)-7, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, INSPECTION, Subaru Select Monitor.>	Is DTC displayed?	Record DTC and time stamp, and perform the diagnosis according to DTC. <Ref. to AL(diag)-12, LIST, List of Diagnostic Trouble Code (DTC).> NOTE: For time stamp, refer to “LAN SYSTEM”. <Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Go to step **4**.
4	**CHECK DIAGNOSTICS WITH PHENOMENON.** Check “Diagnostics with Phenomenon”. <Ref. to AL(diag)-17, Diagnostics with Phenomenon.>	Does the symptom apply?	Perform diagnosis according to the procedures in the diagnostics with phenomenon.	Go to step **5**.
5	**CHECK TROUBLE PHENOMENON.** 1) Perform the basic inspection and function check. <Ref. to AL(diag)-4, INSPECTION, General Description.> 2) Check the auto headlight beam leveler CM. <Ref. to AL(diag)-6, Control Module I/O Signal.> 3) Perform check of current data. <Ref. to AL(diag)-11, Read Current Data.> 4) Perform a unit check.	Was the trouble cause found?	Repair or replace the cause of trouble.	System is normal.

1. Basic Diagnostic Procedure

A: PROCEDURE

1. MODELS WITHOUT KEYLESS ACCESS

CAUTION:
When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CONFIRM NUMBER OF REGISTERED IMMOBILIZER KEY.** Confirm the number of registered immobilizer key. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is the number of registration 0?	Register the immobilizer system.	Go to step **2**.
2	**CHECK SECURITY INDICATOR LIGHT.** 1) Remove the ignition key from ignition switch. 2) Wait at least 60 seconds.	Does the security indicator light blink?	Go to step **3**.	Check the security indicator light circuit. <Ref. to IM(diag)-11, CHECK SECURITY INDICATOR LIGHT CIRCUIT, INSPECTION, Diagnostics Chart for Security Indicator Light.>
3	**CHECK KEY SWITCH.** Insert the ignition key in the ignition switch. (OFF or ACC)	Does the security indicator light remain blinking?	Check the key switch circuit. <Ref. to IM(diag)-13, CHECK KEY SWITCH CIRCUIT, INSPECTION, Diagnostics Chart for Security Indicator Light.>	Go to step **4**.
4	**CHECK SECURITY INDICATOR LIGHT.** Check the security indicator light status in the condition of step 3.	Does the security indicator light go off?	Go to step **7**.	Go to step **5**.
5	**CHECK SECURITY INDICATOR LIGHT.** Turn the ignition switch to ON.	Does the security indicator light go off?	Go to step **7**.	Go to step **6**.
6	**CHECK ENGINE START.** Turn the ignition switch to START.	Does the starter operate?	Check the LAN communication system. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Go to step **8**.
7	**CHECK ENGINE START.** Turn the ignition switch to START.	Does the engine start?	Immobilizer system is normal.	Go to step **9**.
8	**CHECK DTC.** Read the DTC of body integrated unit and ECM and time stamp using Subaru Select Monitor. NOTE: For time stamp, refer to "LAN SYSTEM". <Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Is the DTC displayed on screen?	Go to step **10**.	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>

Step		Check	Yes	No
9	**CHECK DTC.** Read the DTC of body integrated unit and ECM and time stamp using Subaru Select Monitor. NOTE: For time stamp, refer to “LAN SYSTEM”. <Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Is the DTC displayed on screen?	Go to step **10**.	Perform the diagnosis for engine system. <Ref. to EN(H4DO)(diag)-2, ENGINE, PROCEDURE, Basic Diagnostic Procedure.>
10	**CHECK FREEZE FRAME DATA.** Using the Subaru Select Monitor, check the Freeze Frame Data.	Are the data recorded?	Record the data. Go to step **11**.	Go to step **11**.
11	**PERFORM DIAGNOSIS.** 1) Inspect using the “Diagnostic Procedure with Diagnostic Trouble Code (DTC)”. <Ref. to IM(diag)-16, Diagnostic Procedure with Diagnostic Trouble Code (DTC).> 2) Repair the trouble cause. 3) Perform the Clear Memory Mode. 4) Read DTCs again.	Is the DTC displayed on screen?	Inspect using the “Diagnostic Procedure with Diagnostic Trouble Code (DTC)”. <Ref. to IM(diag)-16, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

2. MODELS WITH KEYLESS ACCESS

NOTE:
For immobilizer diagnosis of model with keyless access, refer to “Keyless Access with Push Button Start System”. <Ref. to KPS(diag)-2, Basic Diagnostic Procedure.>

1. Basic Diagnostic Procedure

A: PROCEDURE

1. COMBINATION METER

Step		Check	Yes	No
1	**PERFORM CUSTOMER INTERVIEW.** Using the Check List for Interview, ask the customer the condition of how trouble occurs.<Ref. to IDI(diag)-4, CHECK, Check List for Interview.>	Did you interview the customer?	Go to step **2**.	Interview the customer.<Ref. to IDI(diag)-4, CHECK, Check List for Interview.>
2	**CHECK CAN COMMUNICATION.** Read the DTC of the CAN system using the Subaru Select Monitor.<Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC.<Ref. to LAN(diag)-101, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK COMBINATION METER.** Using the Subaru Select Monitor, read DTC of combination meter.<Ref. to IDI(diag)-14, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Record DTC and time stamp, and perform the diagnosis according to DTC.<Ref. to IDI(diag)-23, LIST, List of Diagnostic Trouble Code (DTC).> NOTE: For time stamp, refer to “LAN SYSTEM”.<Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Go to step **4**.
4	**CHECK COMBINATION METER.** Check the operation of combination meter.<Ref. to IDI(diag)-19, System Operation Check Mode.>	Is it operating normally?	System is normal.	Replace the combination meter.<Ref. to IDI-18, Combination Meter.>

2. MFD

Step		Check	Yes	No
1	**PERFORM CUSTOMER INTERVIEW.** Using the Check List for Interview, ask the customer the condition of how trouble occurs.<Ref. to IDI(diag)-4, CHECK, Check List for Interview.>	Did you interview the customer?	Go to step **2**.	Interview the customer.<Ref. to IDI(diag)-4, CHECK, Check List for Interview.>
2	**CHECK CAN COMMUNICATION.** Read the DTC of the CAN system using the Subaru Select Monitor.<Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC.<Ref. to LAN(diag)-101, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK MFD.** Read the DTC relating the MFD using the Subaru Select Monitor.<Ref. to IDI(diag)-14, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Record DTC and time stamp, and perform the diagnosis according to DTC.<Ref. to IDI(diag)-23, LIST, List of Diagnostic Trouble Code (DTC).> NOTE: For time stamp, refer to "LAN SYSTEM".<Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Go to step **4**.
4	**CHECK MFD.** Check the MFD display using the system operation check mode of combination meter.<Ref. to IDI(diag)-19, System Operation Check Mode.>	Is the display normal?	System is normal.	Replace the MFD.<Ref. to IDI-25, Multi-function Display (MFD).>

1. Basic Diagnostic Procedure

A: PROCEDURE

NOTE:
When the sunload sensor check is performed indoors or in the shade, it could be diagnosed as sensor having an open circuit. Always perform the inspection in direct sunlight.

	Step	Check	Yes	No
1	**START INSPECTIONS.** 1) Prepare the tools.<Ref. to AC-18, PREPARATION TOOL, General Description.> 2) Perform the pre-inspection.<Ref. to AC(diag)-3, INSPECTION, General Description.>	Is any malfunction found in pre-inspection?	Fix the malfunction found in pre-inspection, and go to the next inspection step.Go to step **2**.	Go to step **2**.
2	**PREPARE SUBARU SELECT MONITOR.** Prepare the Subaru Select Monitor.	Is the Subaru Select Monitor ready?	Go to step **3**.	Go to step **4**.
3	**CHECK DTC.** 1) Under the failure condition, leave the vehicle for one minute or more. 2) Read the DTC using Subaru Select Monitor. NOTE: • If the communication function of the Subaru Select Monitor cannot be executed properly, check the communication circuit.<Ref. to AC(diag)-46, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Diagnostic Procedure for Subaru Select Monitor Communication.> • Record the time stamp and the freeze frame data recorded together with the DTC. For the time stamp, refer to LAN section.<Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Is DTC displayed?	<Ref. to AC(diag)-48, LIST, List of Diagnostic Trouble Code (DTC).>	Refer to Diagnostics with Phenomenon.<Ref. to AC(diag)-18, INSPECTION, Diagnostics with Phenomenon.>
4	**A/C CONTROL PANEL SELF-DIAGNOSIS.** 1) Under the failure condition, leave the vehicle for one minute or more. 2) Perform the self-diagnosis of A/C control panel.<Ref. to AC(diag)-8, OPERATION, Diagnostic Chart for Self-Diagnosis.>	Is a malfunction detected?	Perform the diagnosis according to the self-diagnosis procedure.	Refer to Diagnostics with Phenomenon.<Ref. to AC(diag)-18, INSPECTION, Diagnostics with Phenomenon.>

1. Basic Diagnostic Procedure

A: PROCEDURE

	Step	Check	Yes	No
1	**CHECK WARNING LIGHT.** Check whether the airbag warning light in the combination meter is lit.	Does the airbag warning light illuminate?	Go to step **2**.	Perform the diagnosis according to phenomenon of the problem.
2	**READ DTC.** 1) Turn the ignition switch to OFF. 2) Connect the Subaru Select Monitor to data link connector. 3) Turn the ignition switch to ON and run the Subaru Select Monitor. 4) Read the DTC.<Ref. to OD(diag)-12, OPERATION, Read Diagnostic Trouble Code (DTC).> NOTE: If the communication function of the Subaru Select Monitor cannot be executed properly, check the communication circuit.<Ref. to OD(diag)-11, INSPECTION, Subaru Select Monitor.> 5) Record all DTCs and freeze frame data.	Is DTC displayed?	Go to step **3**.	Go to "Airbag Warning Light Failure"<Ref. to AB(diag)-29, Airbag Warning Light Failure.>.
3	**PERFORM DIAGNOSIS.** 1) Determine the possible cause from "List of Diagnostic Trouble Code (DTC)"<Ref. to OD(diag)-18, List of Diagnostic Trouble Code (DTC).>. 2) Inspect the DTC using "List of Diagnostic Trouble Code (DTC)". 3) Repair the trouble cause. 4) Perform the Clear Memory Mode.<Ref. to OD(diag)-14, Clear Memory Mode.> 5) Perform the Inspection Mode.<Ref. to OD(diag)-13, Inspection Mode.> 6) Read any other DTCs displayed.	Is DTC displayed?	Perform the procedure 1) to 5) in step 3.	Finish the diagnosis.

1. Basic Diagnostic Procedure

A: PROCEDURE

	Step	Check	Yes	No
1	**CHECK WARNING LIGHT.** Check whether the airbag warning light in the combination meter is lit.	Does the airbag warning light illuminate?	Go to step **2**.	Perform the diagnosis according to phenomenon of the problem.
2	**READ DTC.** 1) Turn the ignition switch to OFF. 2) Connect the Subaru Select Monitor to data link connector. 3) Turn the ignition switch to ON and run the Subaru Select Monitor. 4) Read the DTC. (Current malfunction) <Ref. to AB(diag)-23, OPERATION, Read Diagnostic Trouble Code (DTC).> NOTE: If the communication function of the Subaru Select Monitor cannot be executed properly, check the communication circuit. <Ref. to AB(diag)-20, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, INSPECTION, Subaru Select Monitor.> 5) Record all DTCs, time stamp and freeze frame data. NOTE: For time stamp, refer to “LAN SYSTEM”. <Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Is DTC displayed?	Go to step **3**.	Go to “Airbag Warning Light Failure” <Ref. to AB(diag)-29, Airbag Warning Light Failure.>.
3	**PERFORM DIAGNOSIS.** 1) Determine the possible cause from “List of Diagnostic Trouble Code (DTC)” <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>. 2) Inspect the DTC using “List of Diagnostic Trouble Code (DTC)”. 3) Repair the trouble cause. 4) Perform the Clear Memory Mode. <Ref. to AB(diag)-25, Clear Memory Mode.> 5) Perform the Inspection Mode. <Ref. to AB(diag)-24, Inspection Mode.> 6) Read any other DTCs displayed.	Is DTC displayed?	Perform the procedure 1) to 5) in step 3.	Finish the diagnosis.

1. Basic Diagnostic Procedure

A: PROCEDURE

CAUTION:
• Subaru Select Monitor is required for reading DTC, performing diagnosis and reading current data.
• Remove foreign matter (dust, water, oil, etc.) from the body integrated unit connector during removal and installation.
• For model with immobilizer or model with keyless access, registration of immobilizer may be needed after the replacement of controller etc. For detailed procedure, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

NOTE:
• To check harness for open or short circuits, shake the suspected trouble spot or connector.
• Check List for Interview<Ref. to BC(diag)-3, Check List for Interview.>

	Step	Check	Yes	No
1	**CHECK PRE-INSPECTION.** Ask the customer when and how the trouble occurred using the interview check list.<Ref. to BC(diag)-3, Check List for Interview.>	Did you interview the customer?	Go to step **2**.	Interview the customer.
2	**BASIC INSPECTION.** Check components which might affect body control.<Ref. to BC(diag)-4, INSPECTION, General Description.>	Is the component that might influence the body control problem normal?	Go to step **3**.	Repair or replace each component.
3	**CHECK DTC.** 1) Read the DTC.<Ref. to BC(diag)-9, OPERATION, Read Diagnostic Trouble Code (DTC).> NOTE: If the communication function of the Subaru Select Monitor cannot be executed properly, check the communication circuit.<Ref. to LAN(diag)-11, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.> 2) Record all DTCs, time stamp and freeze frame data. NOTE: For time stamp, refer to "LAN SYSTEM".<Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Is DTC displayed on Subaru Select Monitor?	Go to step **5**.	Go to step **4**.
4	**PERFORM GENERAL DIAGNOSTICS.** Inspect using the "General Diagnostic Table".<Ref. to BC(diag)-39, General Diagnostic Table.>	Is result of inspection OK?	The body control system is normal.	Go to step **5**.
5	**PERFORM DIAGNOSIS.** 1) Correct the cause of trouble. 2) Perform the Clear Memory Mode.<Ref. to BC(diag)-10, OPERATION, Clear Memory Mode.> 3) Read the DTC.<Ref. to BC(diag)-9, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed on Subaru Select Monitor?	Repeat step 5 until DTC is not shown.	Finish the diagnosis.

1. Basic Diagnostic Procedure

A: PROCEDURE

CAUTION:
• Start the diagnosis after the engine has started. (Cruise control main switch does not turn on even if it is pressed before the engine starts.)
• When performing diagnosis, observe the legal speed limit on the road.
• The ECM cancel code and ACC forced cancel code will also appear when the cruise control is cancelled by the driver's operation. Do not confuse them.
• Be sure to get an assistant to support the diagnosis while driving, and have him/her operate the select monitor.
• Before clearing the memory, be sure to record the following data. (Obtain the data before inspection because the previous trouble or temporary stop history will be cleared once the memory clear is performed.)
• All Diagnostic Trouble Codes (DTCs)
• Cancel code of stereo camera
• Current data of stereo camera
(To obtain the data concerning camera adjustment information, previous trouble or temporary stop history, all data must be measured for a few seconds after the engine has started.)
• When the temporary stop occurs, the stereo camera may be affected by the dirt that the driver cannot recognize. In this case, cleaning of the windshield glass can reduce the development of this symptom.<Ref. to ES(diag)-8, WINDSHIELD GLASS AND DASHBOARD, INSPECTION, General Description.>

	Step	Check	Yes	No
1	**PREPARATION BEFORE INSPECTION.** Using the Check List for Interview, confirm the condition of the malfunction occurrence from the user.<Ref. to ES(diag)-3, CHECK, Check List for Interview.>	Is there any component that obviously seems to affect the malfunction?	Repair or replace the component that seems to affect the malfunction.	Go to step **2**.
2	**CHECK DTC.** Read the DTC using Subaru Select Monitor. NOTE: When communication with the stereo camera could not be established, check the circuit.<Ref. to ES(diag)-21, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, INSPECTION, Subaru Select Monitor.>	Is DTC displayed on Subaru Select Monitor?	Perform the diagnosis according to the List of Diagnostic Trouble Code (DTC).<Ref. to ES(diag)-78, List of Diagnostic Trouble Code (DTC).>If the diagnostic codes other than the stereo camera are displayed, refer to the diagnosis for the relevant codes.	Go to step **3**.
3	**CHECK CANCEL CODE.** Read the cancel code related to the stereo camera using the Subaru Select Monitor.	Is cancel code related to the stereo camera displayed on the Subaru Select Monitor?	Perform the diagnosis according to the List of Cancel Code.<Ref. to ES(diag)-82, List of Cancel Code.>	Go to step **4**.
4	**PERFORM DIAGNOSTICS WITH PHENOMENON.** Using the diagnostics with phenomenon, perform inspection.<Ref. to ES(diag)-63, Diagnostics with Phenomenon.>	Is the vehicle free from any problem described in the diagnostics with phenomenon? / Are indicators normal?	Finish the diagnosis.	Perform the diagnosis according to the diagnostics with phenomenon.

1. Basic Diagnostic Procedure

A: PROCEDURE

CAUTION:
• Subaru Select Monitor is required for reading DTC, performing diagnosis, reading current data, customizing and active test (compulsory drive).
• Remove foreign matter (dust, water, oil, etc.) from each control module connector during removal and installation.
• For model with immobilizer or model with keyless access, registration of immobilizer may be needed after the replacement of controller etc. For detailed procedure, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

NOTE:
• To check harness for open or short circuits, shake the suspected trouble spot or connector.
• Check List for Interview<Ref. to LAN(diag)-4, Check List for Interview.>

	Step	Check	Yes	No
1	**CHECK PRE-INSPECTION.** Ask the customer when and how the trouble occurred using the interview check list.<Ref. to LAN(diag)-4, Check List for Interview.>	Did you interview the customer?	Go to step **2**.	Interview the customer.
2	**BASIC INSPECTION (CAN DIAGNOSTIC IS NOT USED).** Check components which might affect CAN communication problem.<Ref. to LAN(diag)-8, INSPECTION WITHOUT USING CAN DIAGNOSTIC, INSPECTION, General Description.>	Is the component that might affect CAN communication problem normal?	Go to step **3**.	Repair or replace each component.
3	**CHECK COMMUNICATION FOR INITIALIZING.** Communicate with the all systems by connecting the Subaru Select Monitor.	Is the communication for initializing finished for all modules?	Go to step **4**.	Check the error of communication for initializing.<Ref. to LAN(diag)-11, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>
4	**BASIC INSPECTION (CAN DIAGNOSTIC IS USED).** Check components which might affect CAN communication problem.<Ref. to LAN(diag)-8, INSPECTION USING CAN DIAGNOSTIC, INSPECTION, General Description.>	Is the component that might affect CAN communication problem normal?	Go to step **5**.	Repair or replace each component.
5	**CHECK DTC.** 1) Start the engine and read all DTCs. NOTE: When the engine does not start, perform the diagnosis for the engine start malfunction.<Ref. to EN(H4DO)(diag)-62, Diagnostics for Engine Starting Failure.> 2) Record all DTCs, time stamp and freeze frame data. NOTE: For time stamp,<Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Is DTC U**** displayed on Subaru Select Monitor?	Go to step **6**.	Go to step **7**.

Step		Check	Yes	No
6	**CHECK DTC.** 1) Perform the inspection using the DTC check sheet.<Ref. to LAN(diag)-103, CHECK USING THE DTC CHECK SHEET, LIST, List of Diagnostic Trouble Code (DTC).> 2) Using the Subaru Select Monitor, read all DTCs.	Is DTC U**** displayed on Subaru Select Monitor?	Go to step **8**.	Go to step **7**.
7	**PERFORM GENERAL DIAGNOSTICS.** Inspect using the “General Diagnostic Table”.<Ref. to LAN(diag)-188, General Diagnostic Table.>	Is result of inspection OK?	LAN system is normal.	Go to step **8**.
8	**PERFORM DIAGNOSIS.** 1) Correct the cause of trouble. 2) Perform the Clear Memory Mode.<Ref. to LAN(diag)-39, OPERATION, Clear Memory Mode.> 3) Read the DTC.<Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed on Subaru Select Monitor?	Repeat step 8 until DTC is not shown.	Finish the diagnosis.

1. Basic Diagnostic Procedure

A: PROCEDURE

	Step	Check	Yes	No
1	**PERFORM CUSTOMER INTERVIEW.** Using the Check List for Interview, ask the customer the condition of how the trouble occurred. <Ref. to PRG(diag)-3, CHECK, Check List for Interview.>	Did you interview the customer?	Go to step **2**.	Interview the customer. <Ref. to PRG(diag)-3, CHECK, Check List for Interview.>
2	**INITIALIZATION OF PRG SYS.** 1) Open the PRG manually. 2) Manually close PRG to the partially latched position, and operate the auto closer to fully close PRG. 3) Press any of the PRG operation switches to perform the automatic operation of PRG. <Ref. to PRG-8, INITIALIZATION, PROCEDURE, Power Rear Gate System.>	Is the initialization operation possible?	Go to step **4**.	Go to step **3**.
3	**CHECK LAN SYSTEM.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Perform the inspection according to the diagnosis for LAN system.	Go to step **4**.
4	**CHECK POWER REAR GATE SYSTEM.** Using the Subaru Select Monitor, read DTC of power rear gate system. <Ref. to PRG(diag)-11, OPERATION, Read Diagnostic Trouble Code (DTC).> NOTE: If the communication function of the Subaru Select Monitor cannot be executed properly, check the communication circuit. <Ref. to PRG(diag)-10, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, INSPECTION, Subaru Select Monitor.>	Is DTC displayed?	Record DTC and perform the diagnosis according to the DTC. <Ref. to PRG(diag)-15, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **5**.
5	**CHECK DIAGNOSTICS WITH PHENOMENON.** Check “Diagnostics with Phenomenon”. <Ref. to PRG(diag)-55, Diagnostics with Phenomenon.>	Does the symptom apply?	Perform diagnosis according to the procedures in the diagnostics with phenomenon.	Go to step **6**.
6	**CHECK TROUBLE PHENOMENON.** 1) Perform the basic inspection. <Ref. to PRG(diag)-4, INSPECTION, General Description.> 2) Check the power rear gate CM. <Ref. to PRG(diag)-8, Control Module I/O Signal.> 3) Perform check of current data. <Ref. to PRG(diag)-13, Read Current Data.> 4) Perform a unit check.	Was the trouble cause found?	Repair or replace the cause of trouble.	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.

1. Basic Diagnostic Procedure

A: PROCEDURE

CAUTION:
• Subaru Select Monitor kit is required for reading DTC, performing diagnosis and reading current data.
• Before removal or installation, be sure to remove any foreign matter (dust, moisture, oil, etc.).
• For models with the keyless access system, registration of the immobilizer may be required after a replacement of the control module, etc. For detailed procedure, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

NOTE:
• Using the Function Setting (Customize), check that the keyless access system is not in a cancelled state. <Ref. to SL-112, OPERATION, Function Setting (Customize).>
• Check List for Interview <Ref. to KPS(diag)-3, Check List for Interview.>

	Step	Check	Yes	No
1	**CHECK BATTERY.** Using a tester, measure the battery voltage.	Is the voltage 11 V or more?	Go to step **2**.	Charge or replace the battery and perform check pre-inspection. Go to step **2**.
2	**CHECK PRE-INSPECTION.** Use the interview check list to interview the user. <Ref. to KPS(diag)-3, Check List for Interview.>	Was the symptoms of the trouble recorded in the interview?	Go to step **3**.	Interview the user again.
3	**BASIC INSPECTION.** Check the DTC of the LAN system. <Ref. to LAN(diag)-8, INSPECTION, General Description.>	Is LAN system normal?	Go to step **4**.	Follow the DTC of the LAN system to repair or replace.
4	**CHECK TROUBLE SYMPTOM.** 1) Read diagnostic trouble code (DTC) for the keyless access system. <Ref. to KPS(diag)-25, OPERATION, Read Diagnostic Trouble Code (DTC).> NOTE: If the communication function of the Subaru Select Monitor cannot be executed properly, check the communication circuit. <Ref. to KPS(diag)-23, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.> 2) Record all DTCs, time stamp and freeze frame data. NOTE: For time stamp, refer to "LAN SYSTEM". <Ref. to LAN(diag)-6, TIME STAMP, CAUTION, General Description.>	Is DTC displayed on Subaru Select Monitor?	Perform diagnosis according to the DTC.	Go to step **5**.
5	**CHECK PHENOMENON LIST.** Check the "Phenomenon List". <Ref. to KPS(diag)-97, General Diagnostic Table.>	Is there a symptom that corresponds in the phenomenon list?	Perform diagnosis according to the procedures in the phenomenon list.	Go to step **6**.
6	**CHECK TROUBLE PHENOMENON.** 1) Perform check of current data. 2) Perform a function check. 3) Perform a unit check.	Was the trouble cause found?	Repair the cause of trouble.	Repeat a basic check again.

1. Basic Diagnostic Procedure

A: PROCEDURE

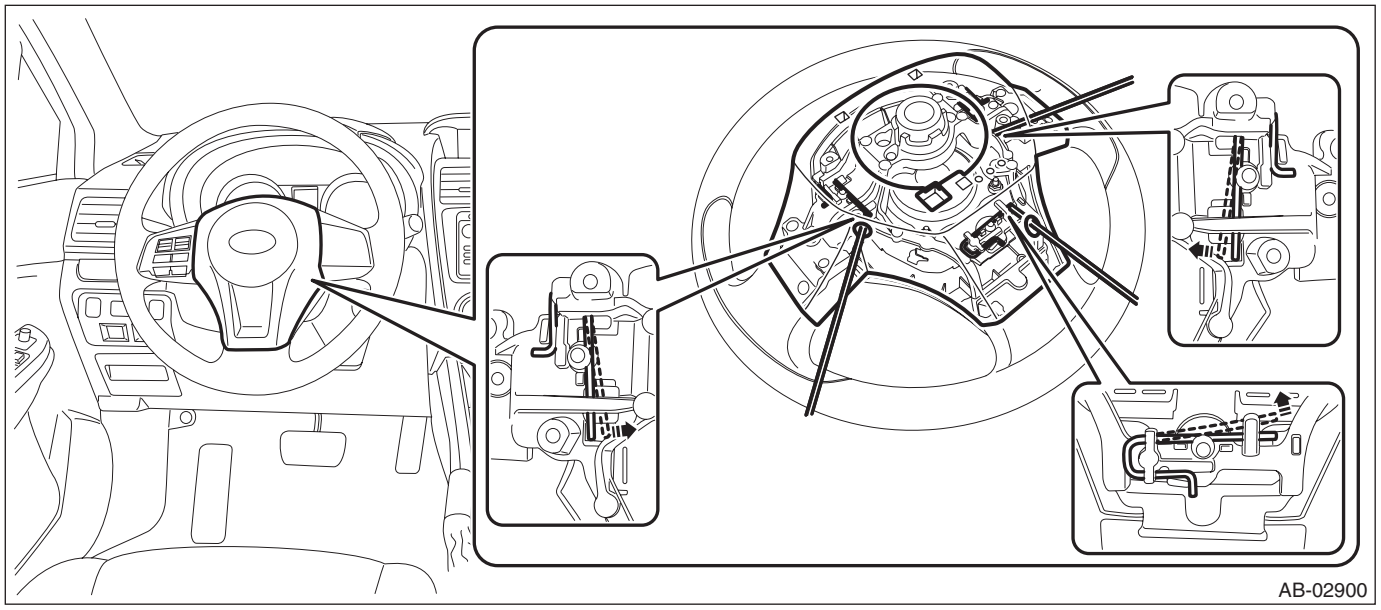
CAUTION:
• When performing the entire diagnosis or cruise control diagnosis, first start the engine and wait until initial illumination of the ABS/VDC warning light completes. (If you start the diagnostics before performing the above procedures, the cancel code "43" is recorded and CRUISE indicator does not illuminate even though the CRUISE switch is pressed.)
• When performing diagnosis, observe the legal speed limit on the road.
• The cancel code will also appear when the cruise control is cancelled by the driver's operation. Do not confuse them.
• Be sure to get an assistant to support the diagnosis while driving, and have him/her operate the select monitor.

	Step	Check	Yes	No
1	**CHECK MALFUNCTION INDICATOR LIGHT.** Make sure the malfunction indicator light illuminates.	Does the malfunction indicator light illuminate?	Go to step **5**.	Go to step **2**.
2	**CHECK CRUISE INDICATOR LIGHT.** Make sure the cruise indicator light blinks.	Does the cruise indicator light blink?	Go to step **7**.	Go to step **3**.
3	**CHECK CRUISE SWITCH OPERATION.** Check the CRUISE switch operation. (Check the illumination of the CRUISE indicator.)	Is the CRUISE switch turned on? (Does the CRUISE indicator illuminate?)	Go to step **4**.	Go to phenomenon 1. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
4	**CHECK CRUISE CONTROL SET OPERATION.** Check the cruise control setting operation.	Can the cruise control be set while driving at 40 km/h (25 MPH) or more?	Go to step **8**.	Go to step **7**.
5	**CHECK DTC.** Read all DTCs using the Subaru Select Monitor.	Is an engine or ABS/VDC related DTC displayed?	Record the DTC.Go to step **6**.	Go to phenomenon 2. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
6	**CHECK FREEZE FRAME DATA.** Using the Subaru Select Monitor, check the Freeze Frame Data or Information in Trouble State.	Was the Freeze Frame Data or Information in Trouble State recorded?	Record the data. Perform the diagnosis according to the engine or ABS/VDC related DTC.	Perform the diagnosis according to the engine or ABS/VDC related DTC.
7	**CHECK CANCEL CODE.** Using the Subaru Select Monitor, read the cancel codes. NOTE: • Do not turn the ignition switch to OFF after the cruise control is deactivated. • Do not operate the cruise control command switch after the cruise control is deactivated. If the above is performed, the cancel code will be cleared.	Is it possible to read the cancel codes?	Perform the diagnosis according to the cancel code.<Ref. to CC(diag)-13, LIST, List of Cancel Code.>	Go to step **8**.

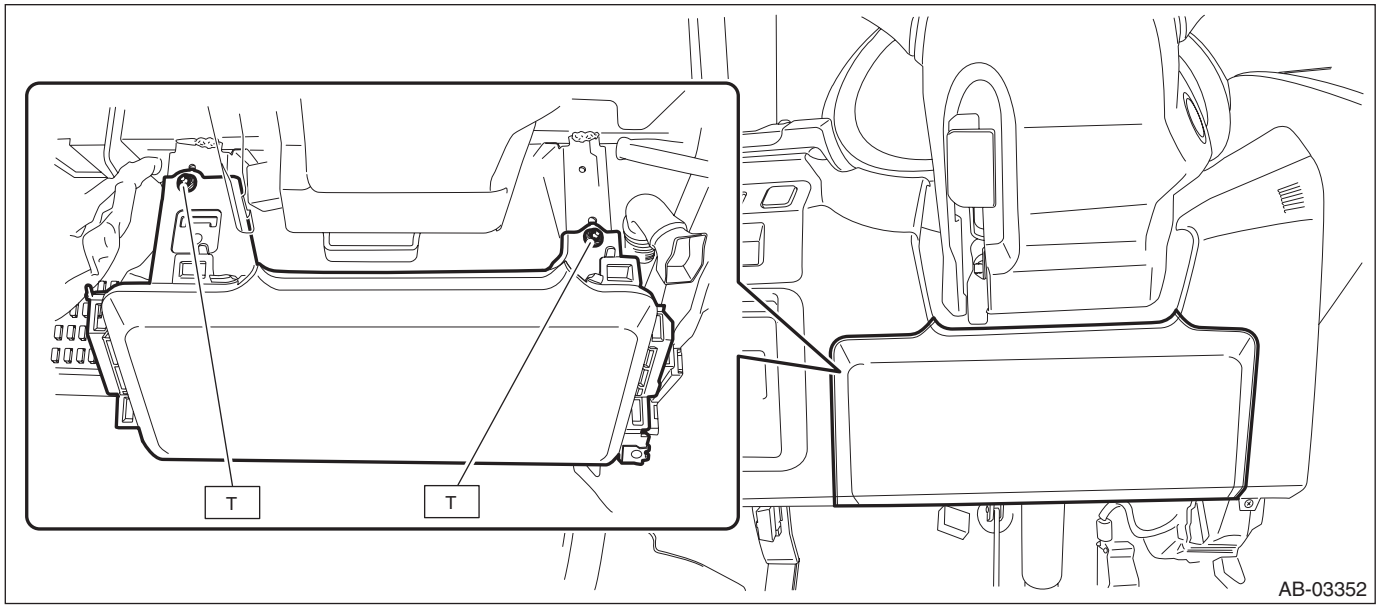
	Step	Check	Yes	No
8	**CHECK SET INDICATOR.** Check the illumination of the SET indicator.	Does the SET indicator illuminate?	Go to step **9**.	Go to phenomenon 3. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
9	**CHECK VEHICLE SPEED IS HELD WITHIN SET SPEED.** Make sure the vehicle speed is held within set speed.	Is the vehicle speed kept within setting speed ±3 km/h (±2 MPH)? (Make sure that on a level road.)	Go to step **10**.	Go to phenomenon 4. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
10	**CHECK RES/+ OPERATION.** Check the RES/+ switch operation.	Does the vehicle speed increase or return to set speed after RES/+ switch has been pressed?	Go to step **11**.	Go to phenomenon 5. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
11	**CHECK SET/– OPERATION.** Check the SET/– switch operation.	Does the vehicle speed decrease after SET/– switch has been pressed?	Go to step **12**.	Go to phenomenon 6. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
12	**CANCEL OPERATION CHECK.** Check the CANCEL switch operation.	Is the cruise control released after CANCEL switch has been pressed?	Go to step **13**.	Go to phenomenon 7. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
13	**CHECK CRUISE CONTROL RELEASE OPERATION.** Check the cruise control release operation.	Is the cruise control released after brake pedal has been depressed?	Go to step **14**.	Go to phenomenon 8. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

	Step	Check	Yes	No
14	**CHECK CRUISE CONTROL RELEASE OPERATION.** Check the cruise control release operation.	Is the cruise control released after shifting to the neutral position?	Go to step **15**.	Go to phenomenon 9. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
15	**CHECK CRUISE CONTROL RELEASE OPERATION.** Check the cruise control release operation.	Is the cruise control released after depressing the clutch pedal?	Finish the diagnosis.	Go to phenomenon 10. <Ref. to CC(diag)-11, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

1. DRIVER'S AIRBAG MODULE

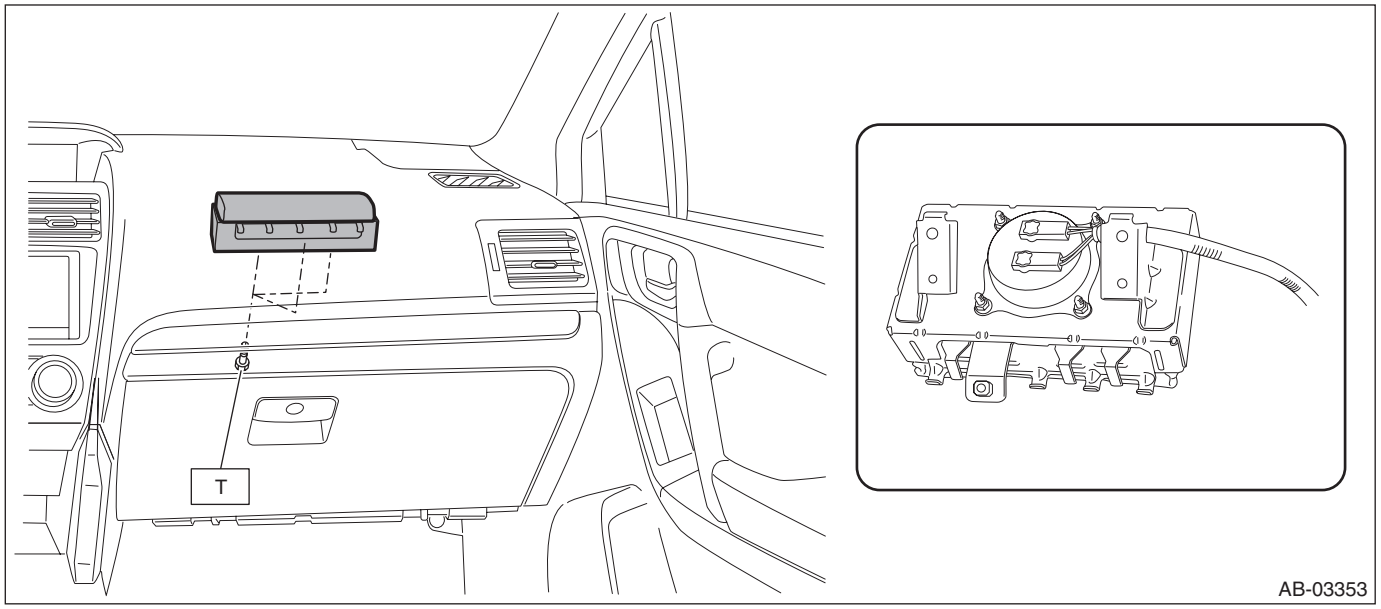


2. KNEE AIRBAG MODULE



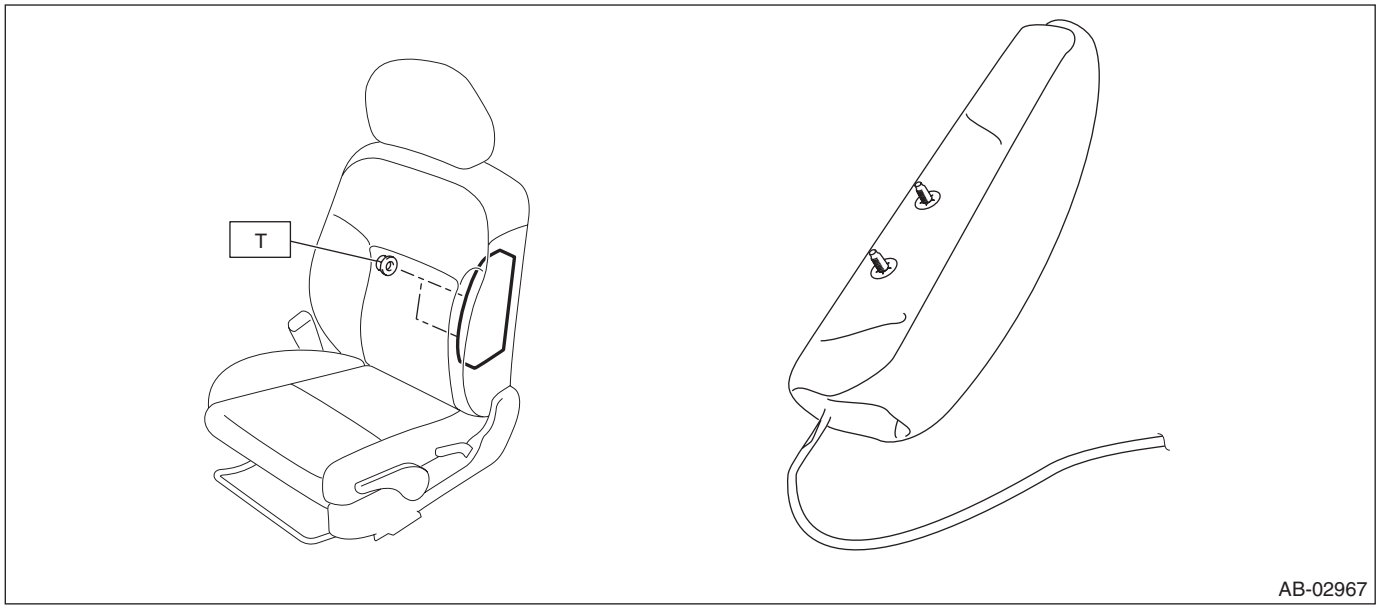
Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

3. PASSENGER'S AIRBAG MODULE



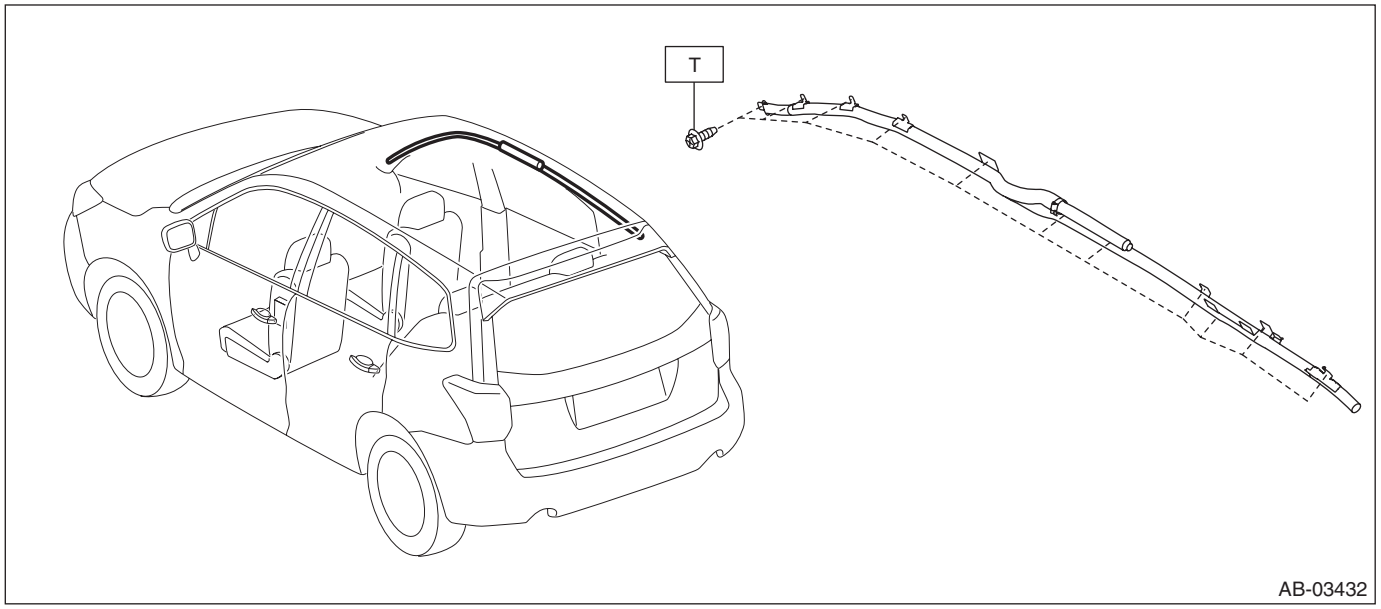
Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

4. SIDE AIRBAG MODULE



Tightening torque:
6 N·m (0.61 kgf-m, 4.4 ft-lb)

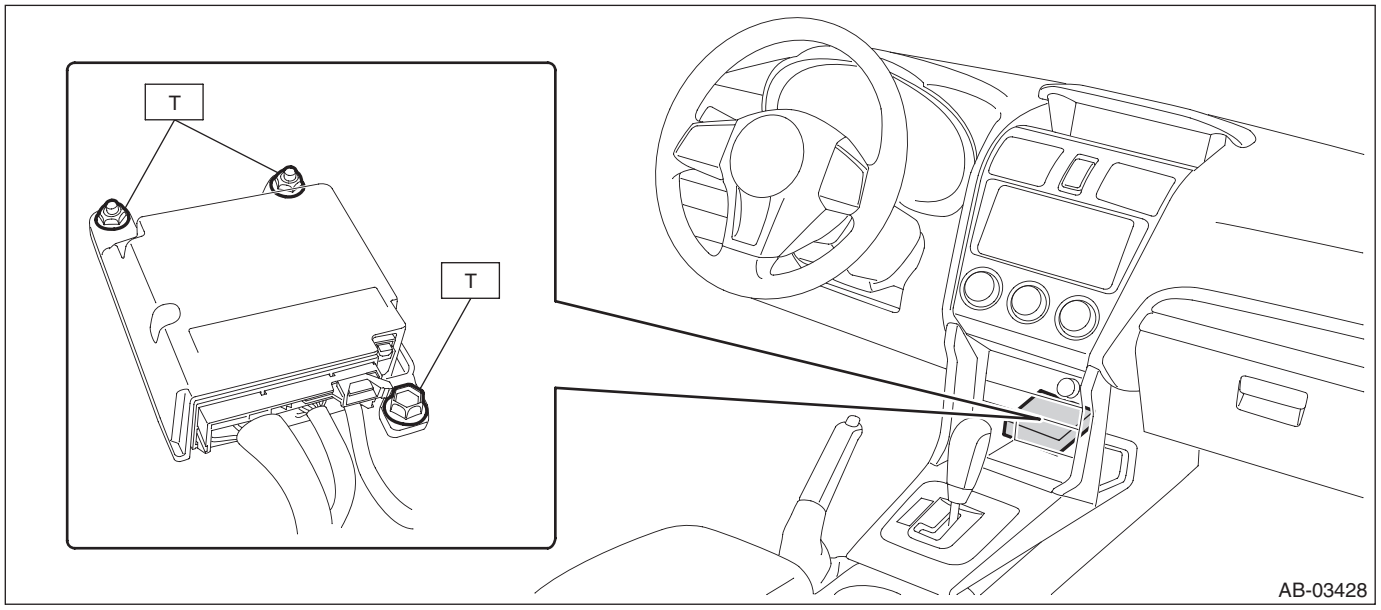
5. CURTAIN AIRBAG MODULE



Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

6. AIRBAG CONTROL MODULE

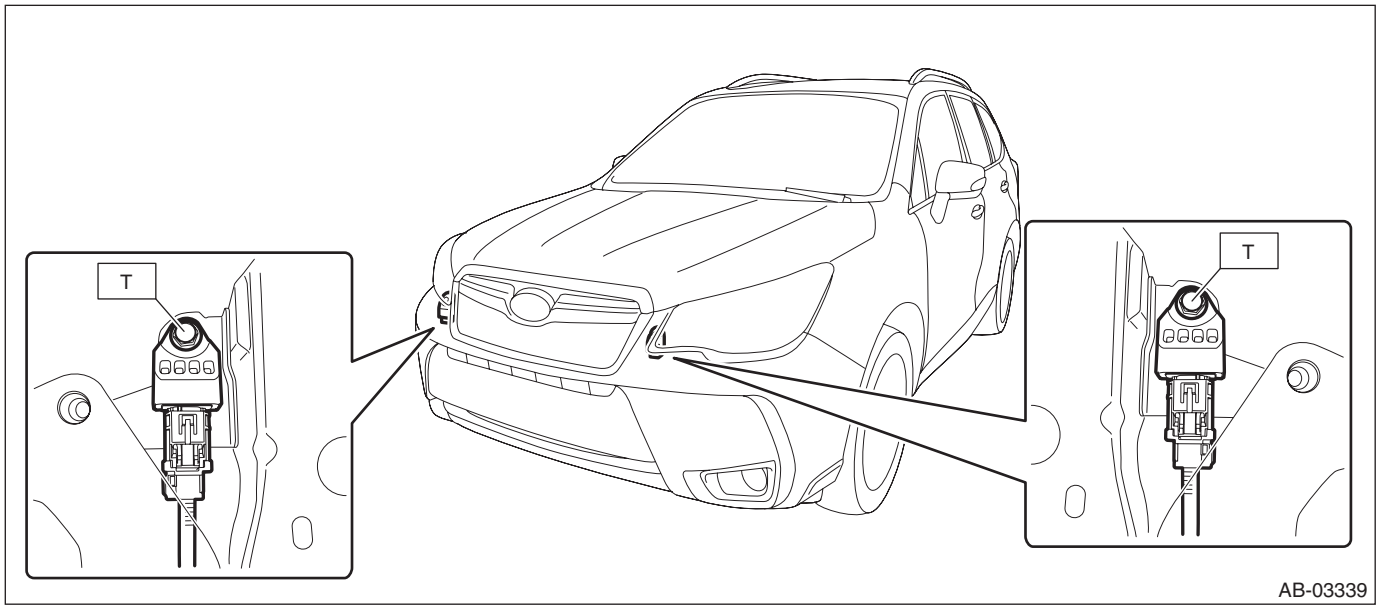
CAUTION:
Do not reuse mounting bolts and nuts.



Tightening torque:
25 N·m (2.55 kgf-m, 18.4 ft-lb)

7. FRONT SUB SENSOR

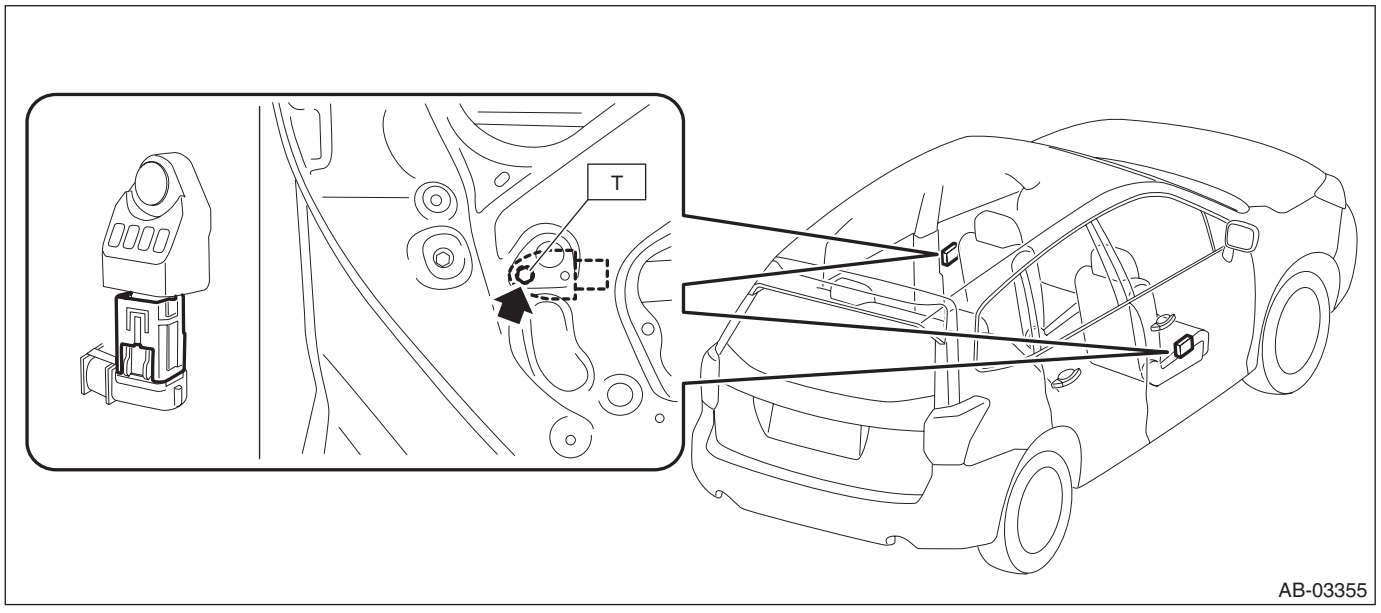
CAUTION:
Do not reuse mounting bolts and nuts.



Tightening torque:
13 N·m (1.33 kgf-m, 9.6 ft-lb)

8. FRONT DOOR IMPACT SENSOR

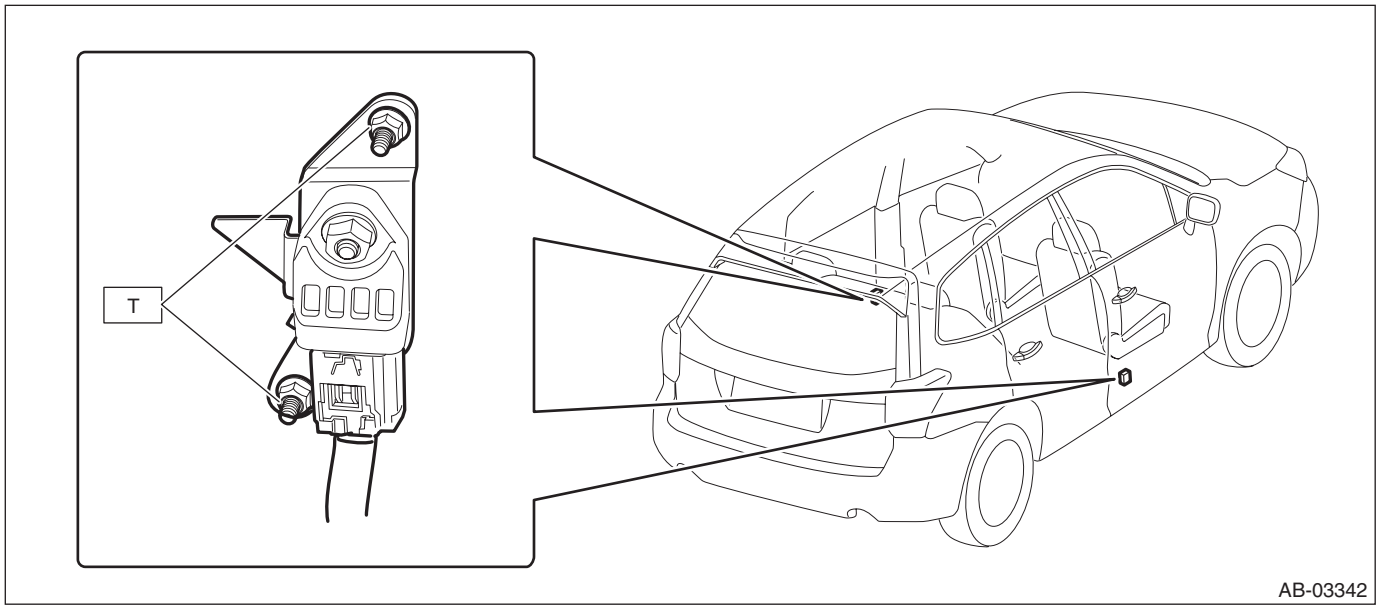
CAUTION:
Do not reuse mounting bolts and nuts.



Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

9. SIDE AIRBAG SENSOR

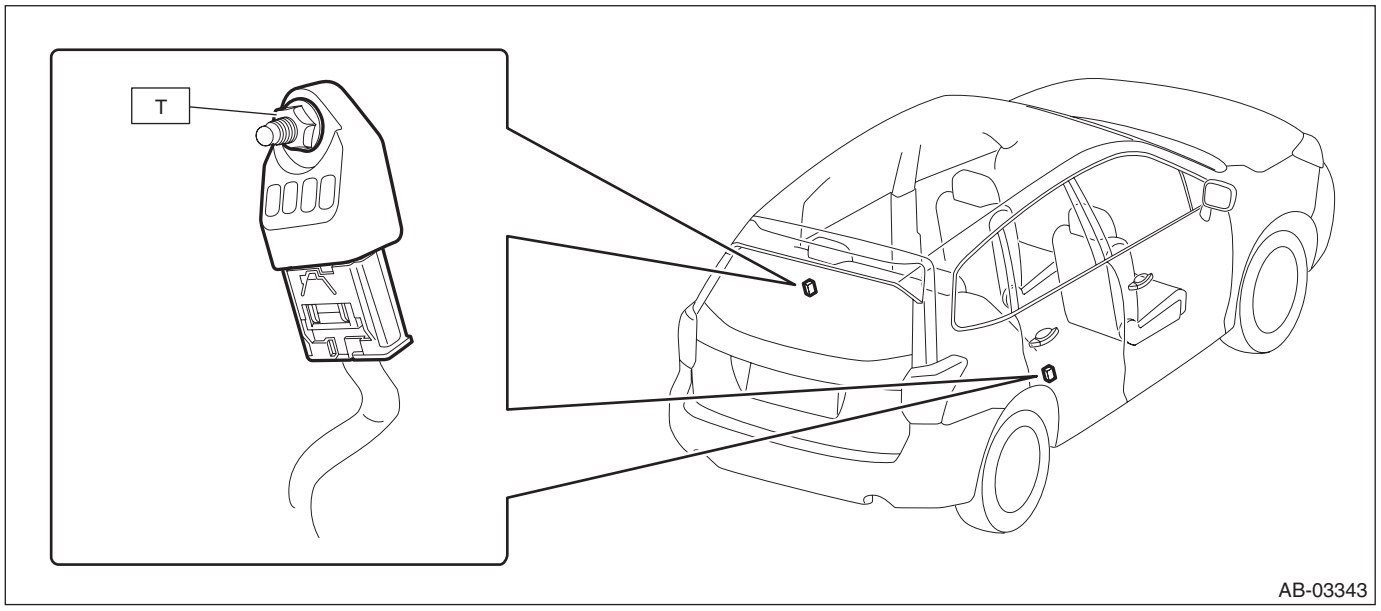
CAUTION:
Do not reuse mounting bolts and nuts.



Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

10.CURTAIN AIRBAG SENSOR

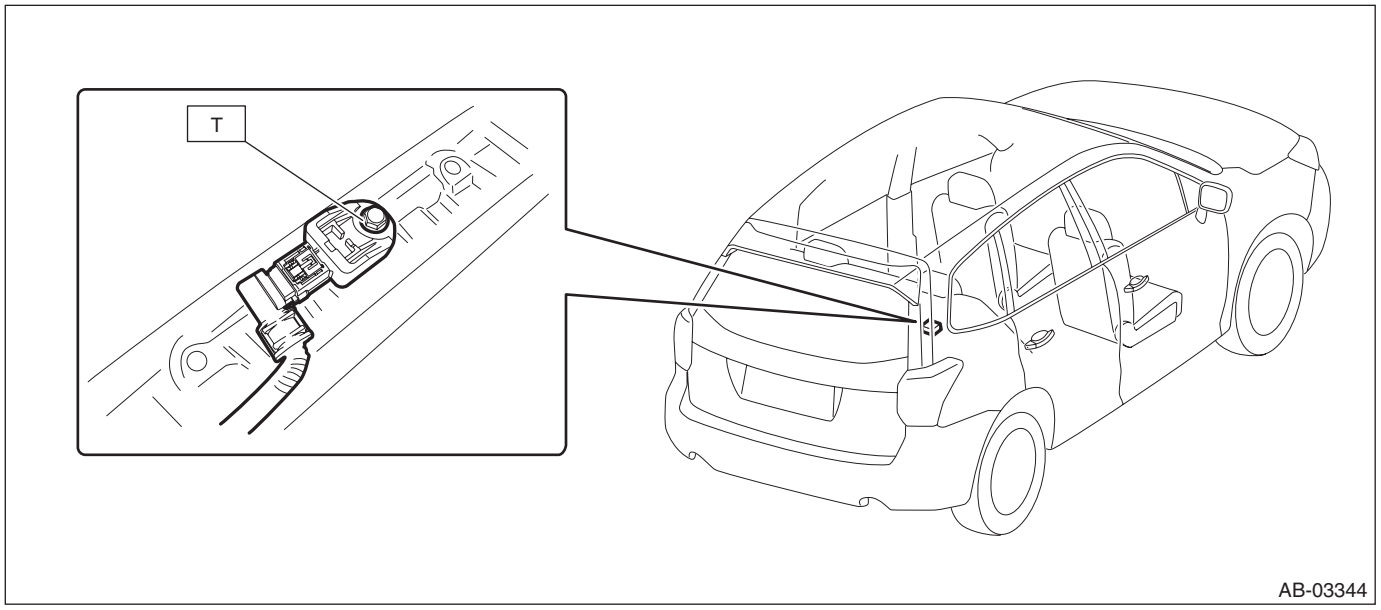
CAUTION:
Do not reuse mounting bolts and nuts.



Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

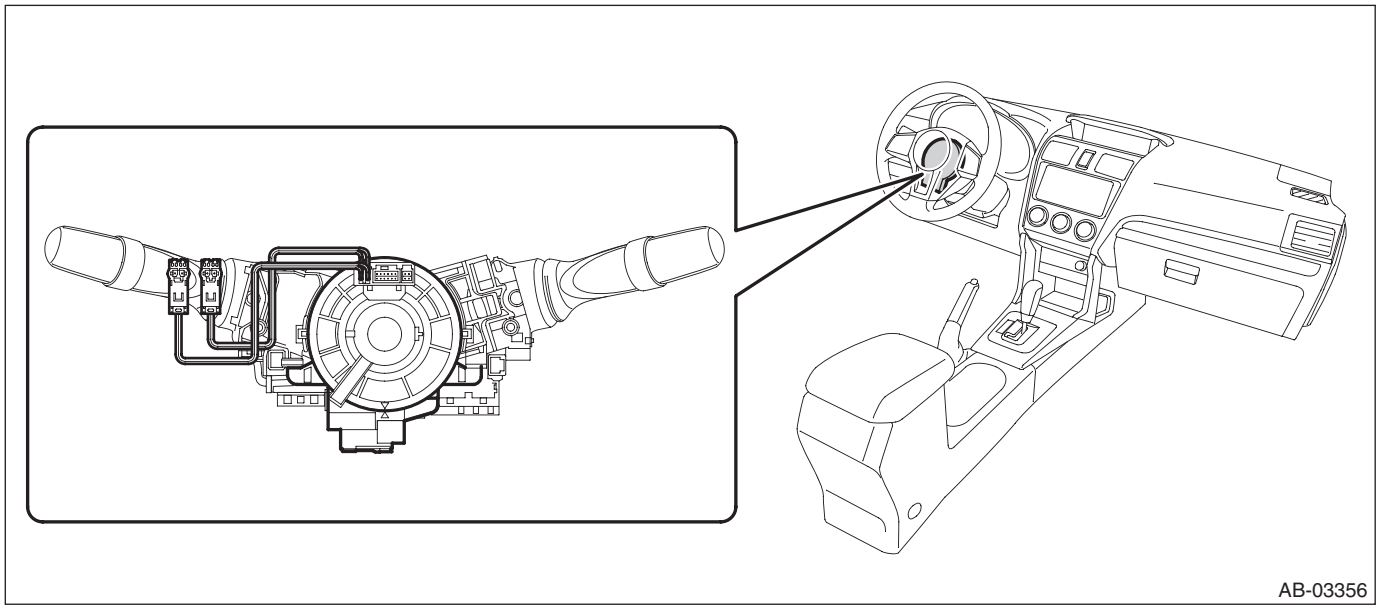
11.SATELLITE SAFING SENSOR

CAUTION:
Do not reuse mounting bolts and nuts.



Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

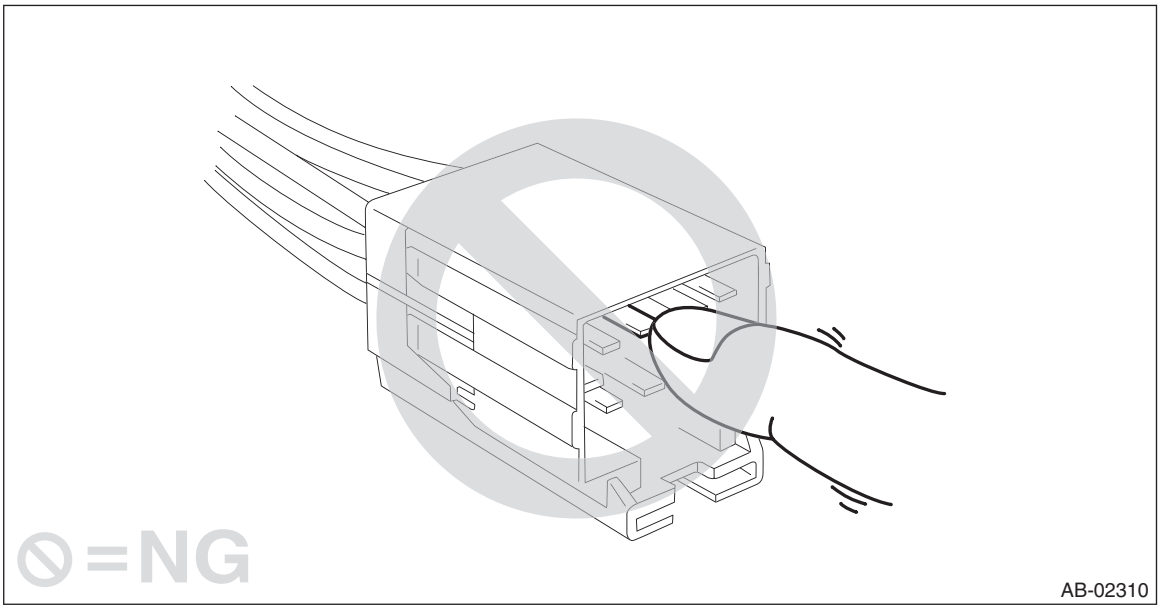
12.STEERING ROLL CONNECTOR



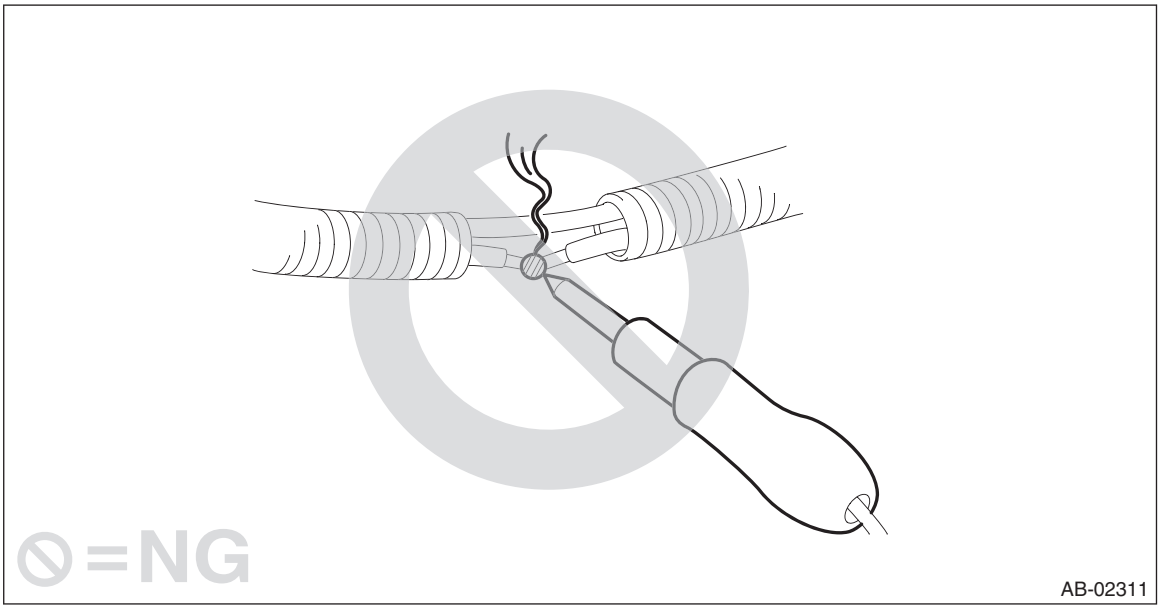
B: CAUTION

1. BEFORE STARTING ALL WORKS

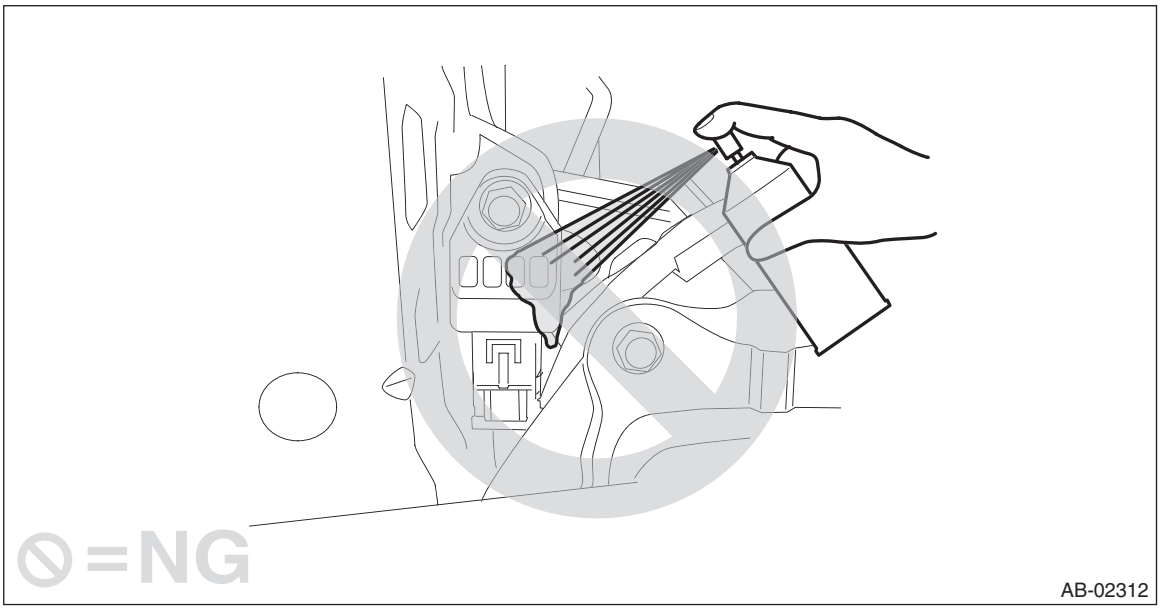
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds or more before starting the service of airbag system.
• When servicing a vehicle, be sure to turn the ignition switch to OFF, disconnect the ground cable from battery, and wait for 60 seconds or more before starting work.
• If the airbag warning light illuminates, check or repair the vehicle immediately to prevent it from airbag system malfunction.
• Do not allow water or oil to come in contact with the connector terminals. Also, do not touch the connector terminals directly.



• If damage, open circuit or rust is found on airbag system wiring harness, do not repair the harness. Always replace the faulty harness with a new genuine part.



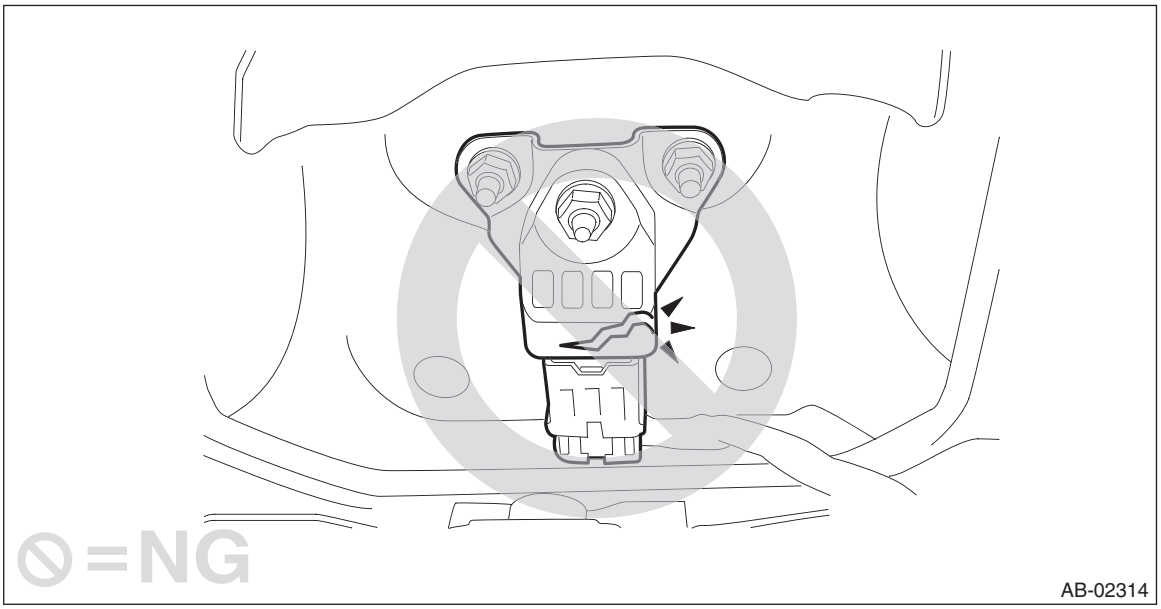
• When painting or performing sheet metal work on the front part of the vehicle, including the front wheel apron, front fender and radiator panel side, remove the front sub sensors and wiring harness of airbag system.
• When painting or performing sheet metal work on the side of the vehicle, including the side sill, center pillar and front and rear doors, remove the front door impact sensor, side airbag sensors, curtain airbag sensor, satellite safing sensor and wiring harness of the airbag system.



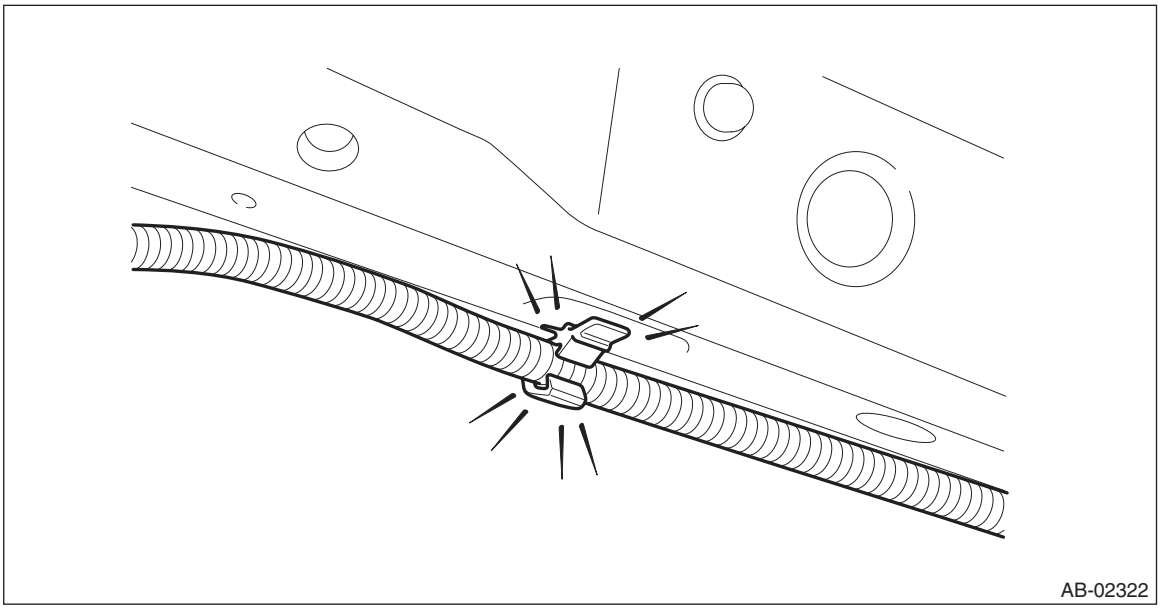
• When attaching the steering wheel and steering roll connector, be sure to adjust the steering roll connector.

2. BEFORE STARTING PARTS REPLACEMENT

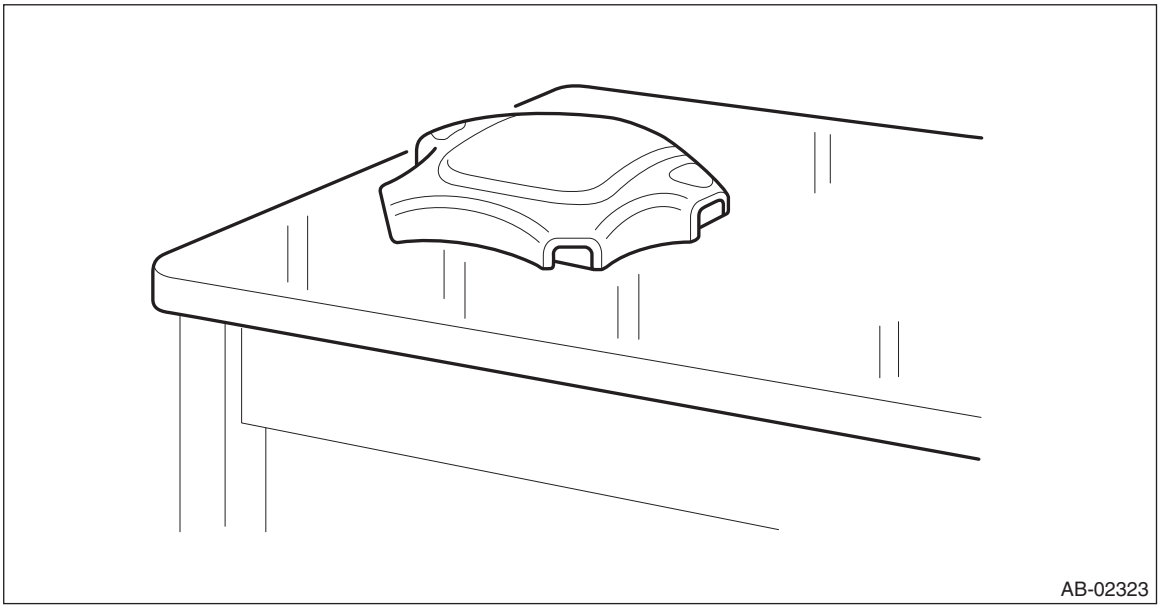
• If airbag sensors, airbag module, airbag control module, pretensioners, harnesses, or the cover - satellite safing are deformed or damaged, replace with new parts.



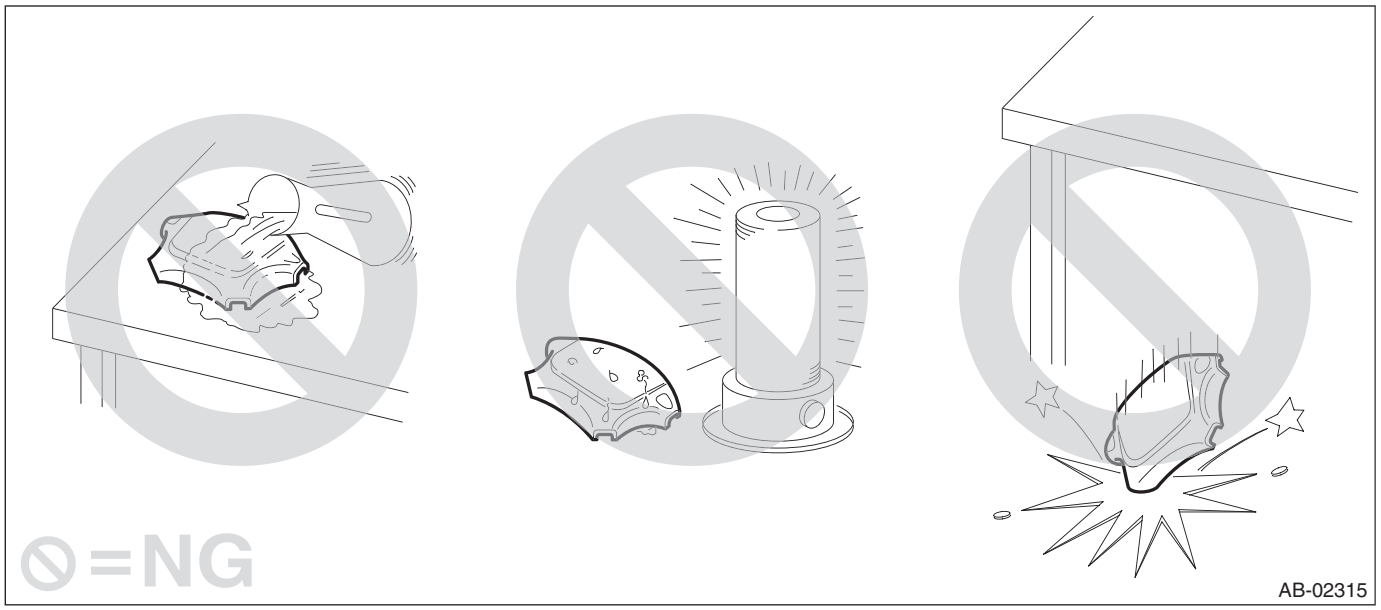
- Install the wiring harness securely with the specified clips to avoid interference or tangled with other parts.



- Do not use the airbag or pretensioner parts from other vehicles. Always replace the defective parts with new parts.
- Never reuse any activated airbag module and pretensioner.
- Do not discard undeployed airbag or pretensioner.
- When airbag control module, front sub sensor, front door impact sensor, side airbag sensor, curtain airbag sensor and satellite safing sensor are removed, do not reuse the bolts and nuts of them. Always replace with the specified new bolts and nuts.
- When attaching the steering wheel and steering roll connector, be sure to adjust the steering roll connector.
- After removing each parts of the airbag system, keep them with the pad side facing upward on a dry, clean and flat surface away from heat, light sources, moisture and dust.

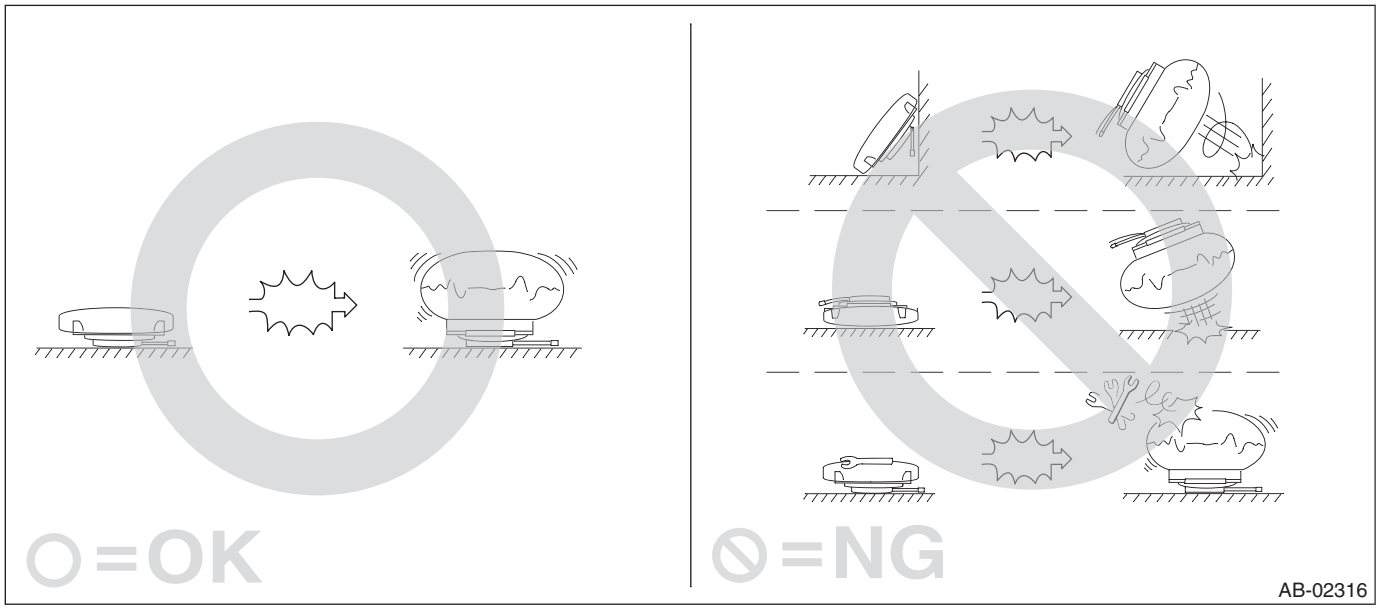


• Do not drop any airbag component, store them under high temperature of 85°C (185°F) or more, or let water, oil or grease get on them; the internal parts may be damaged or the reliability may be greatly lowered.

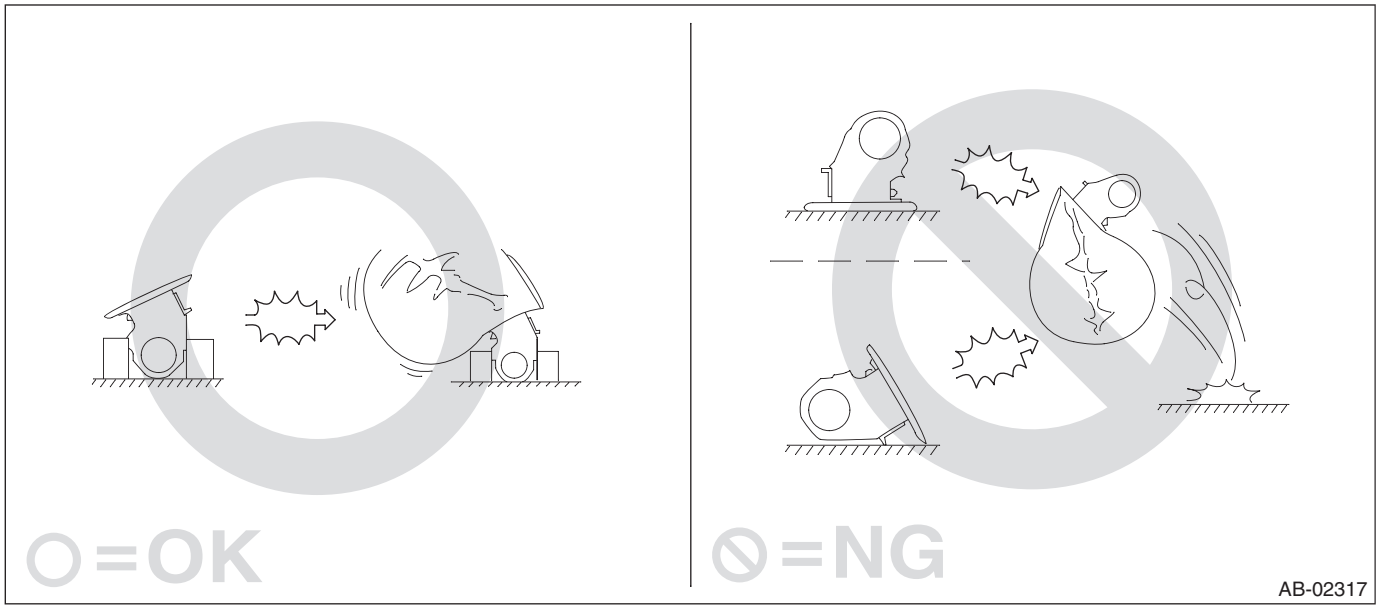


• When storing a removed airbag module, do not place it with the pad side facing downward. Do not place any objects on the airbag module. Do not pile up the airbag module. If the pad of the airbag module is in contact with other objects, it may cause a serious accident if the airbag accidentally operates.

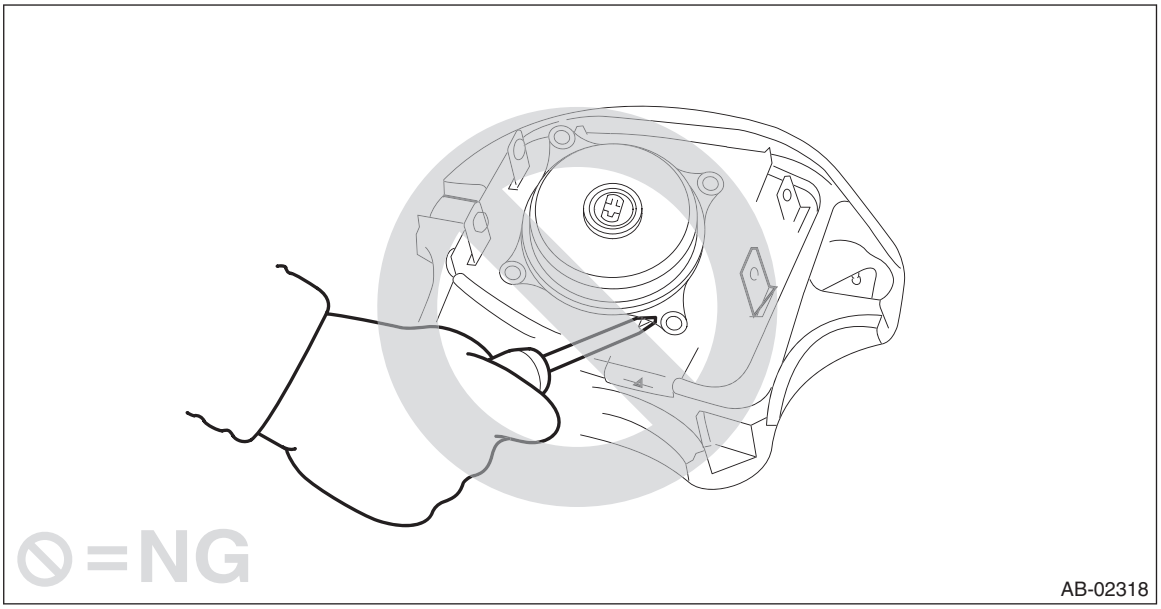
• Driver's airbag module



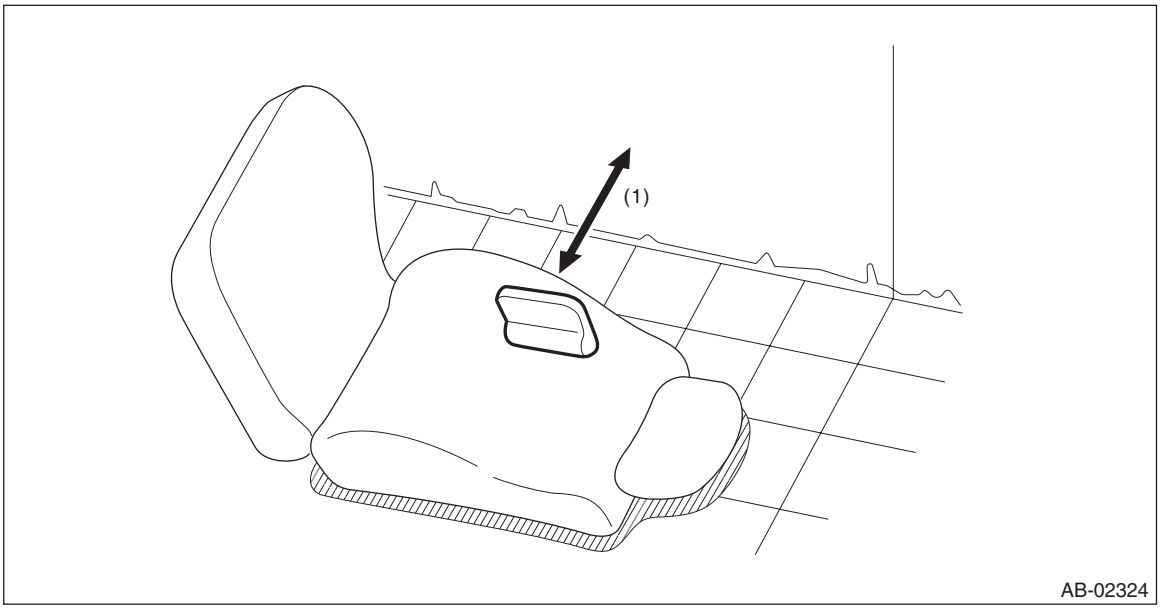
- Passenger's airbag module and side airbag module



- Do not disassemble driver's airbag module, knee airbag module, passenger's airbag module, side airbag module, curtain airbag module or pretensioner.



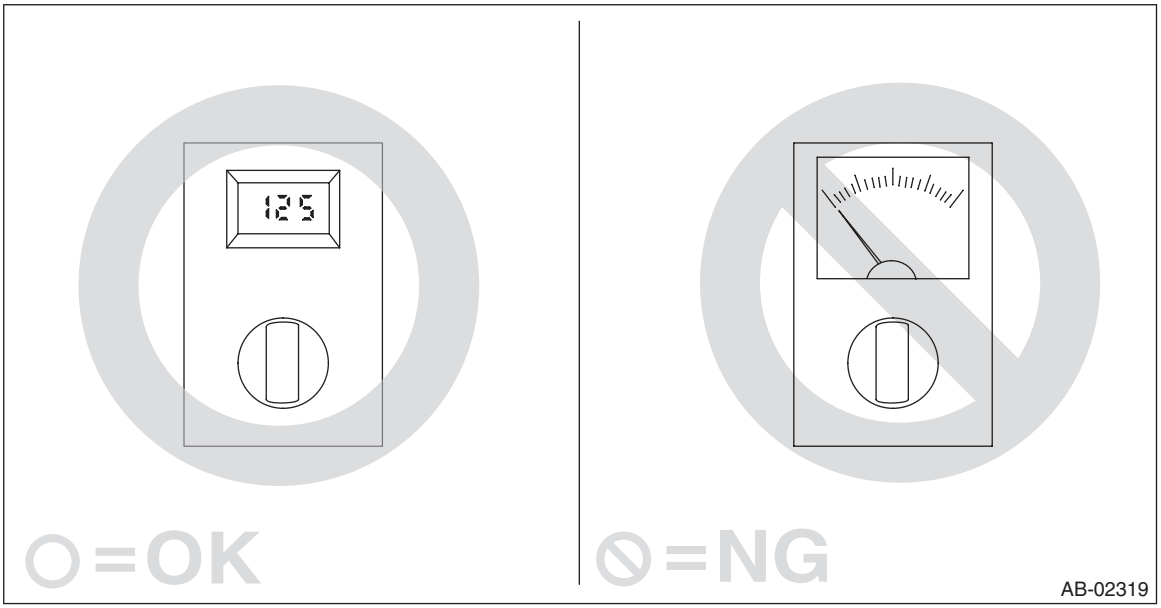
• The removed front seat with airbag module must be kept at least 200 mm (8 in) away from walls and other objects.



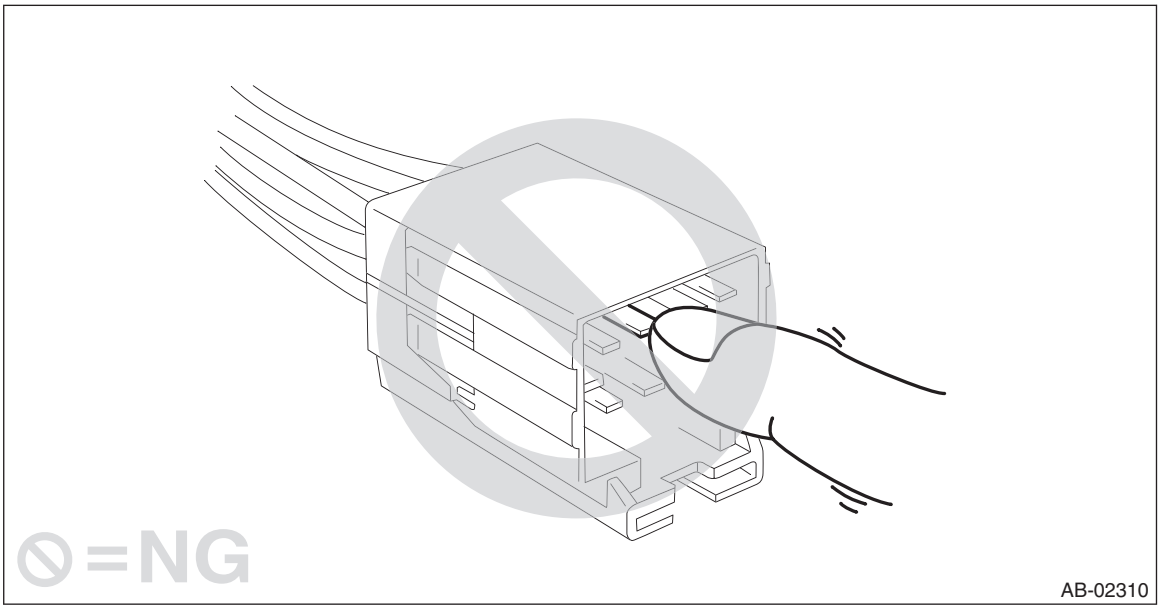
(1) 200 mm (8 in) or more

3. BEFORE STARTING TROUBLESHOOTING

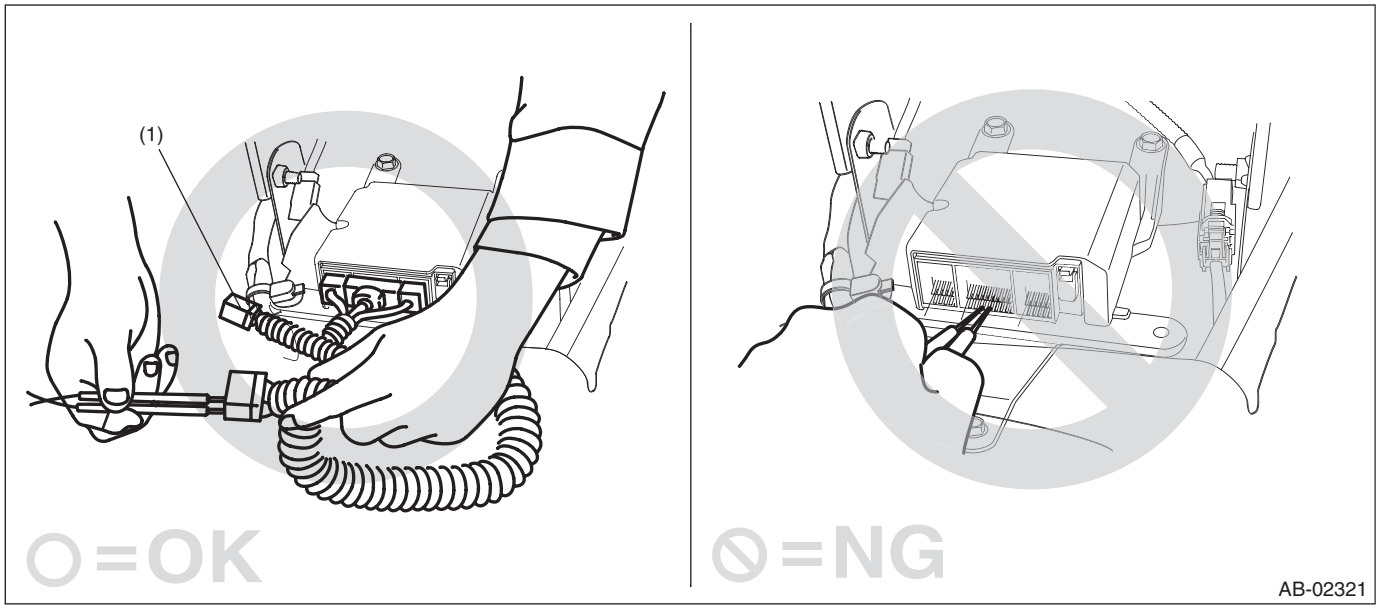
• Even if any part must be replaced as the result of troubleshooting, do not use an airbag part or pretensioner part from other vehicles. Always replace the defective parts with new parts.
• When checking the airbag system, be sure to use a digital circuit tester. Use of an analog circuit tester may cause the airbag to activate erroneously due to a minimal current inside tester.



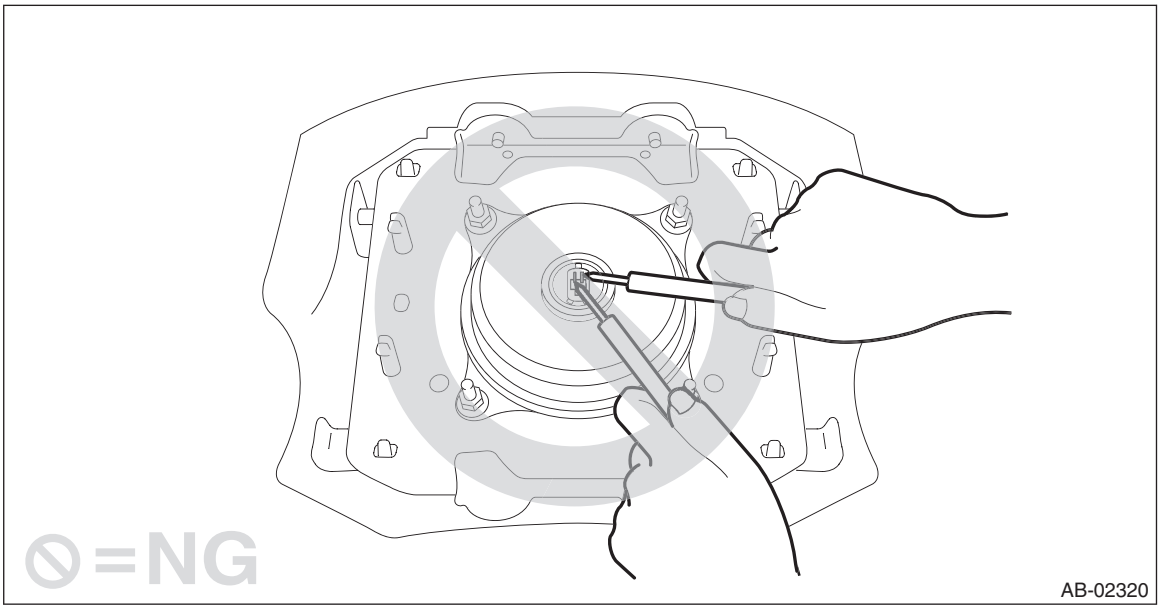
• Do not allow water or oil to come in contact with the connector terminals. Also, do not touch the connector terminals directly.



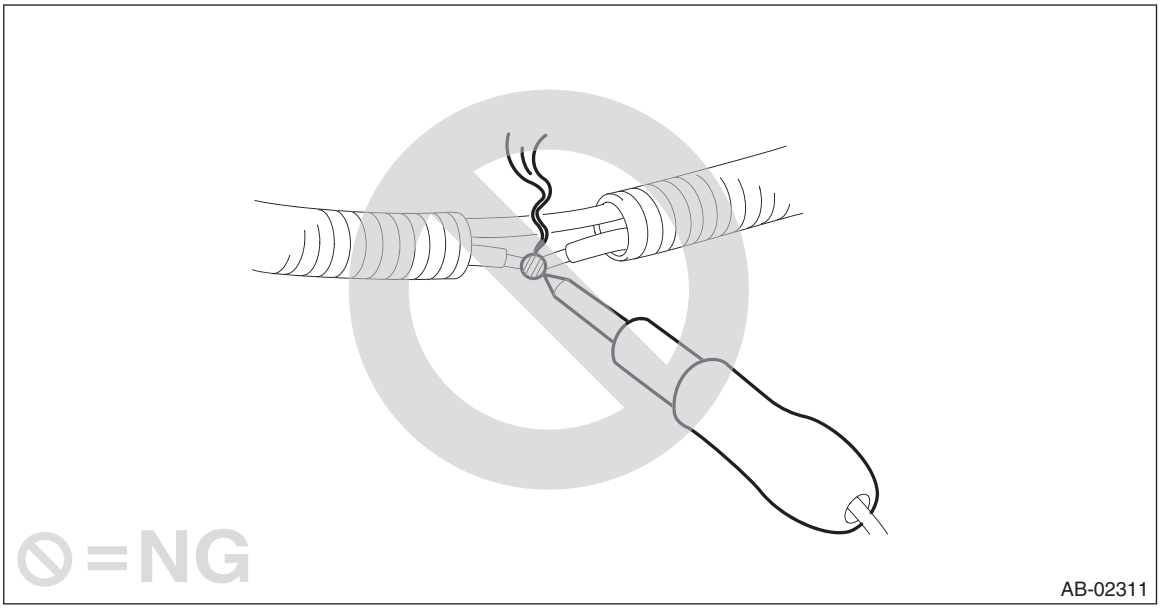
• When checking, use a test harness (1). Damage to connector terminal causes malfunction. Do not directly put the tester probe on airbag connector terminal.



• Do not check continuity of the driver's airbag module, knee airbag module, passenger's airbag module, side airbag module, curtain airbag module or pretensioner.



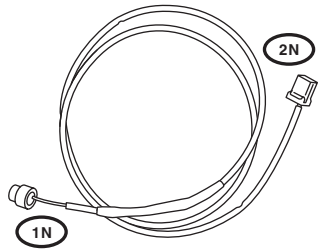
• If damage, open circuit or rust is found on airbag system wiring harness, do not repair the harness. Always replace the faulty harness with a new genuine part.



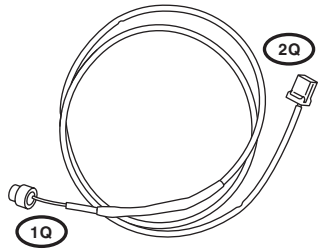
C: PREPARATION TOOL

1. SPECIAL TOOL

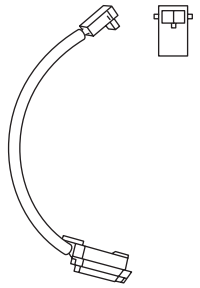
• TEST HARNESS N

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA000	98299SA000	TEST HARNESS N	Used for unit inspection of steering roll connector.

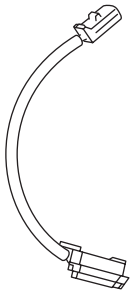
• TEST HARNESS Q

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA040	98299SA040	TEST HARNESS Q	Used for unit inspection of steering roll connector.

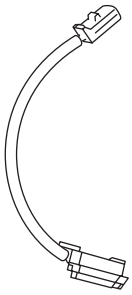
• TEST HARNESS ADAPTER D

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA010	98299SA010	TEST HARNESS ADAPTER D	• Used for operation process of knee airbag module. • Used for operation process of curtain airbag module. • Used together with AIRBAG DEPLOYMENT TOOL. (98299PA030)

- TEST HARNESS ADAPTER AM

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FJ000	98299FJ000	TEST HARNESS ADAPTER AM	• Used for operation process of passenger's airbag module. • Used together with AIRBAG DEPLOYMENT TOOL. (98299PA030)

- TEST HARNESS ADAPTER K

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FG010	98299FG010	TEST HARNESS ADAPTER K	• Used for operation process of side airbag module. • Used together with AIRBAG DEPLOYMENT TOOL. (98299PA030)

- AIRBAG DEPLOYMENT TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
ST98299PA030	98299PA030	AIRBAG DEPLOYMENT TOOL	• Used for operation process of airbag module. • Used together with each test harness adapter.

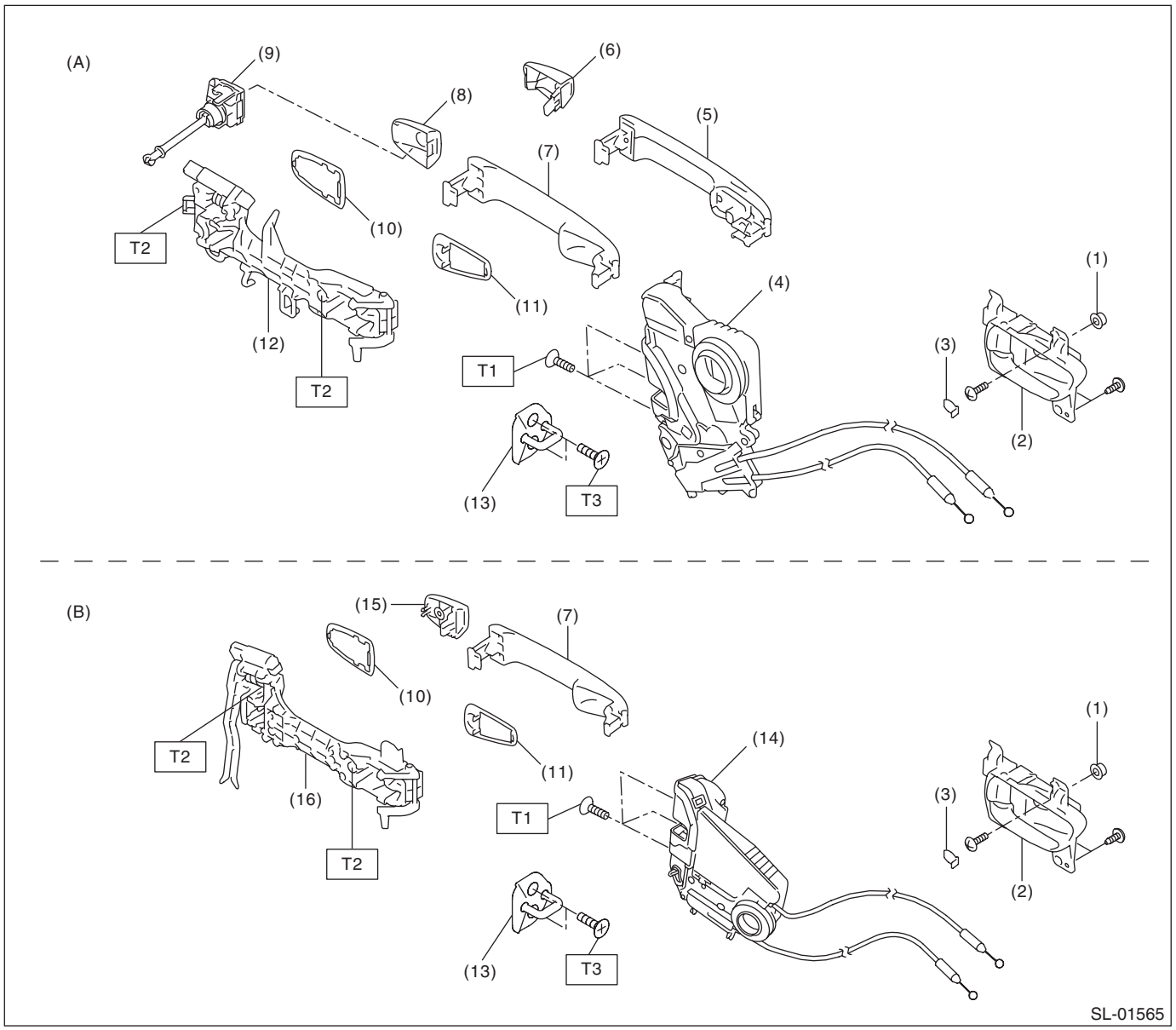
2. GENERAL TOOL

TOOL NAME	REMARKS
Steering wheel puller	Used for removing and installing the steering wheel.
TORX® T40	Used for removing and installing the beam COMPL - steering.

1. General Description

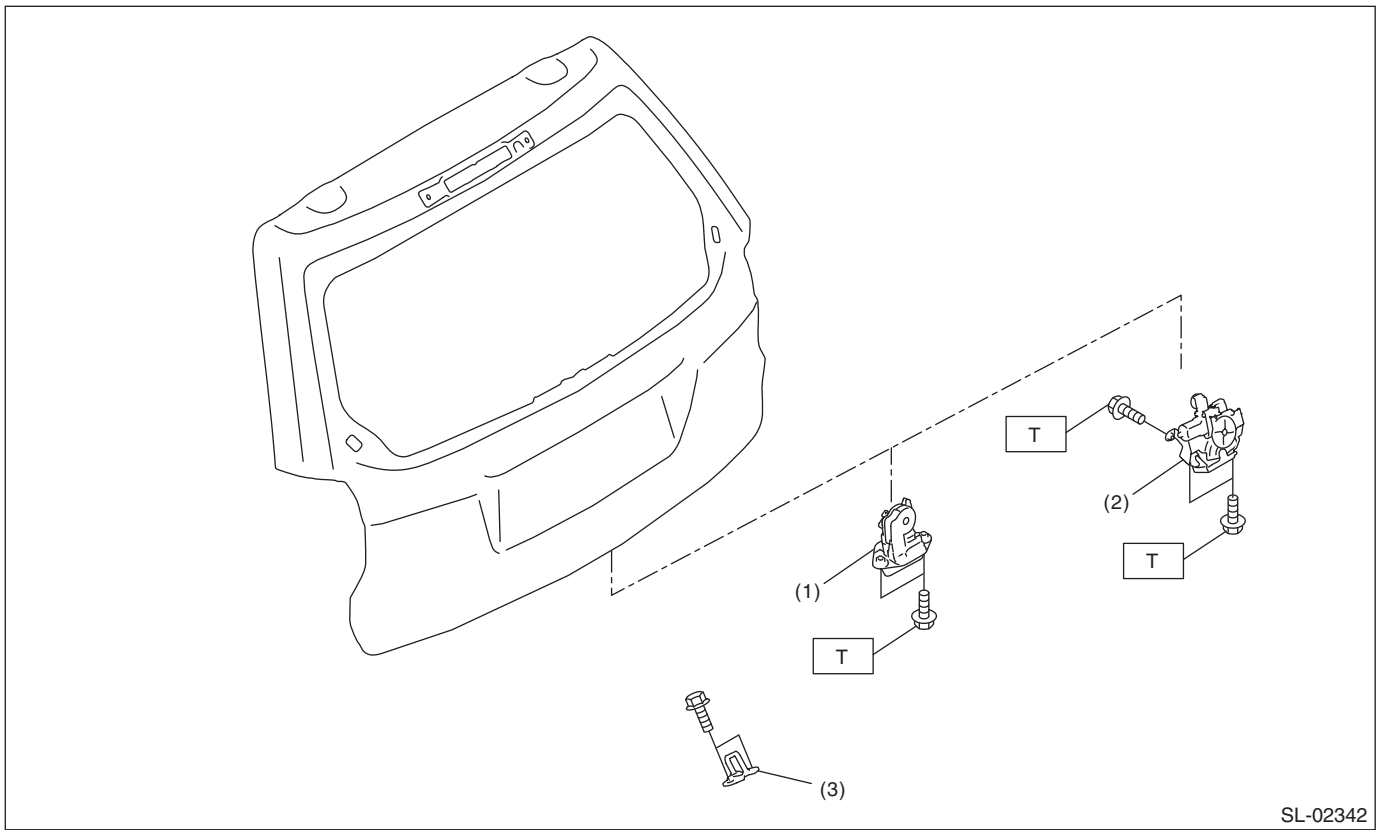
A: COMPONENT

1. DOOR LOCK ASSEMBLY



(A)	Front	(B)	Rear		
(1)	Grommet - screw	(8)	Cover - handle front outer (driver's seat)	(15)	Cover - handle rear outer
(2)	Remote ASSY - door	(9)	Key lock - door (driver's seat only)	(16)	Frame ASSY - rear door outer
(3)	Cap remote	(10)	Spacer - door handle outer B		
(4)	Latch & actuator ASSY - front	(11)	Spacer - door handle outer A	***Tightening torque:N·m (kgf-m, ft-lb)***	
(5)	Handle - door outer (model with keyless access)	(12)	Frame ASSY - front door outer	***T1:***	***6.5 (0.7, 4.8)***
(6)	Cover - handle front outer (passenger's seat)	(13)	Striker - door	***T2:***	***7.5 (0.8, 5.5)***
(7)	Handle - door outer (model without keyless access)	(14)	Latch & actuator ASSY - rear	***T3:***	***18 (1.8, 13.3)***

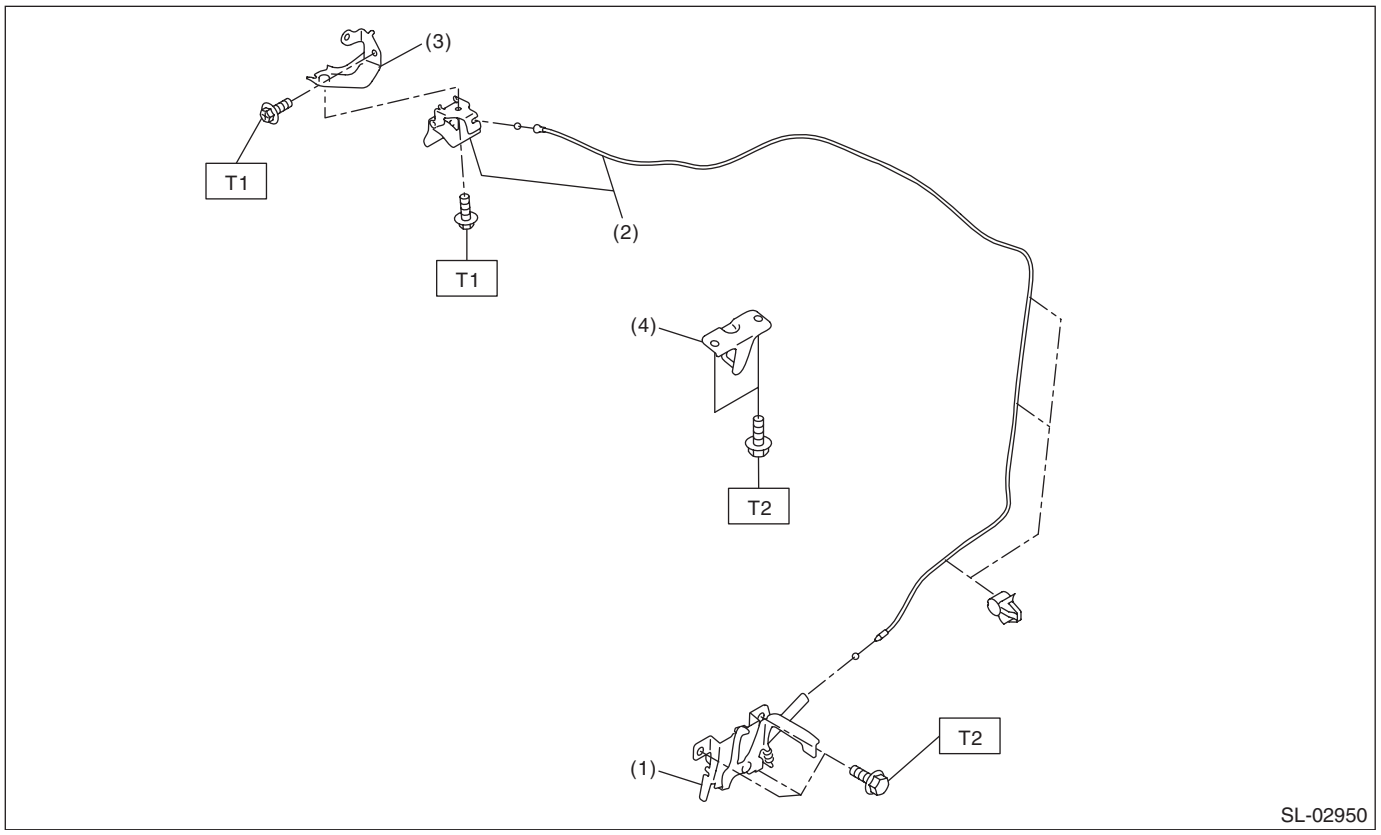
2. REAR GATE LOCK



(1) Latch & actuator - rear gate
(2) Power rear gate auto closer
(3) Striker - rear gate

Tightening torque: N·m (kgf-m, ft-lb)
T: 25 (2.55, 18.4)

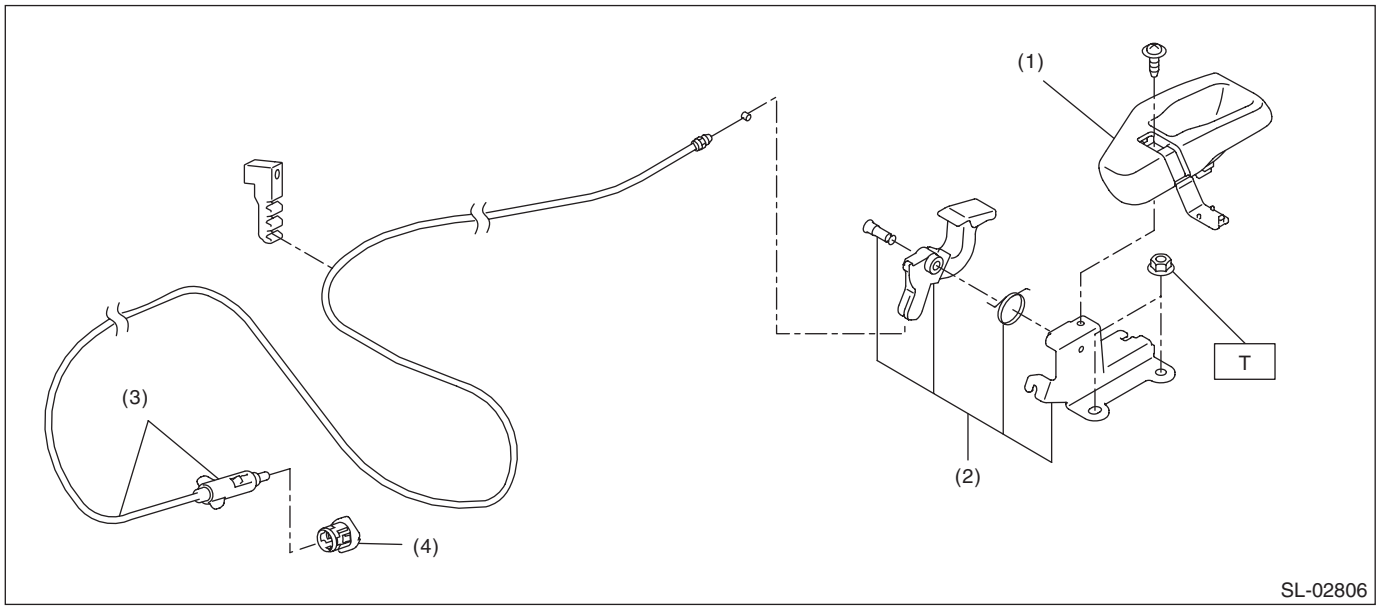
3. FRONT HOOD LOCK



(1) Lock ASSY - front hood
(2) Cable - front hood
(3) Bracket - opener handle
(4) Striker - front hood

Tightening torque:N·m (kgf-m, ft-lb)
T1: 7.5 (0.76, 5.5)
T2: 33 (3.36, 24.3)

4. FUEL FLAP OPENER

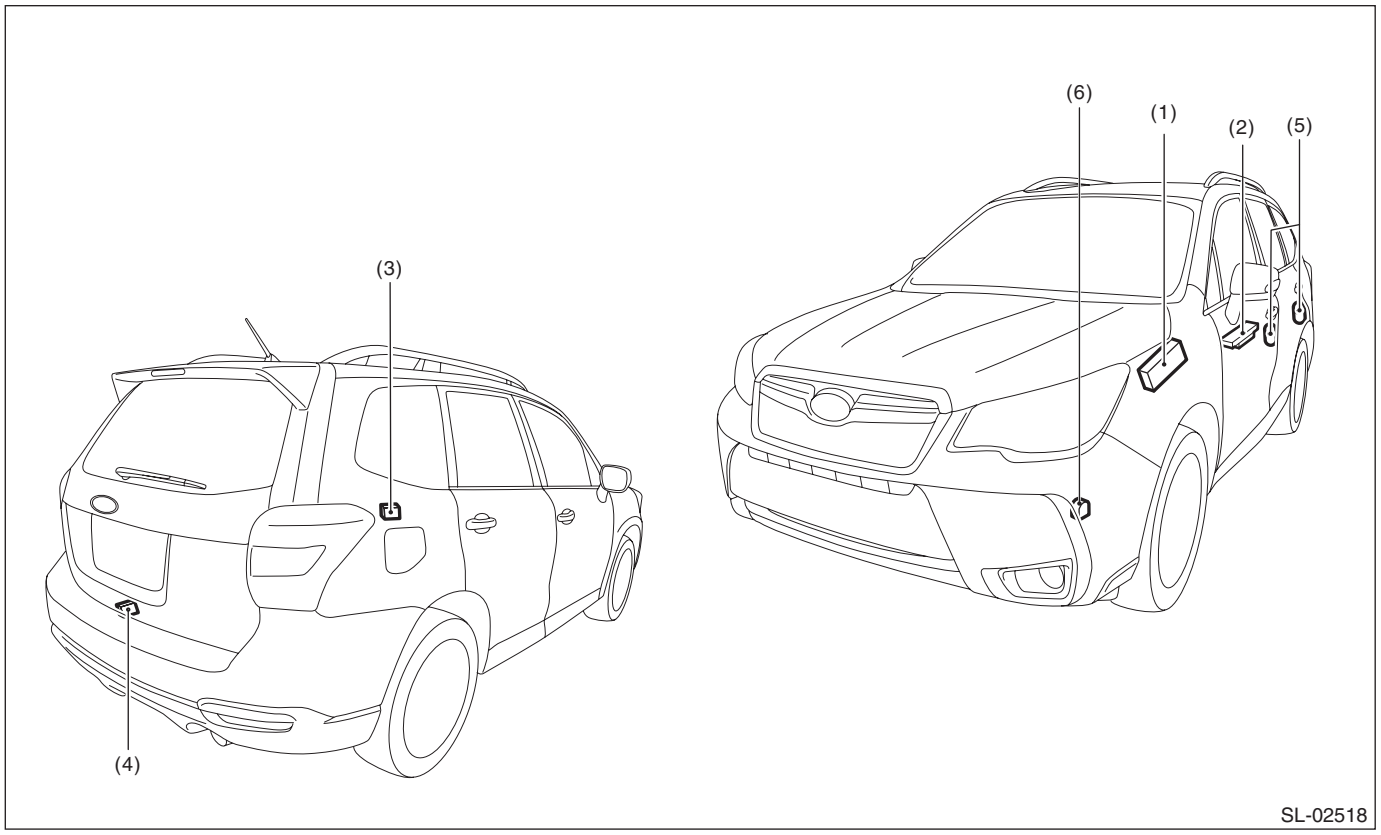


(1) Cover - handle
(2) Pull handle - opener
(3) Cable ASSY - fuel
(4) Holder

Tightening torque:N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

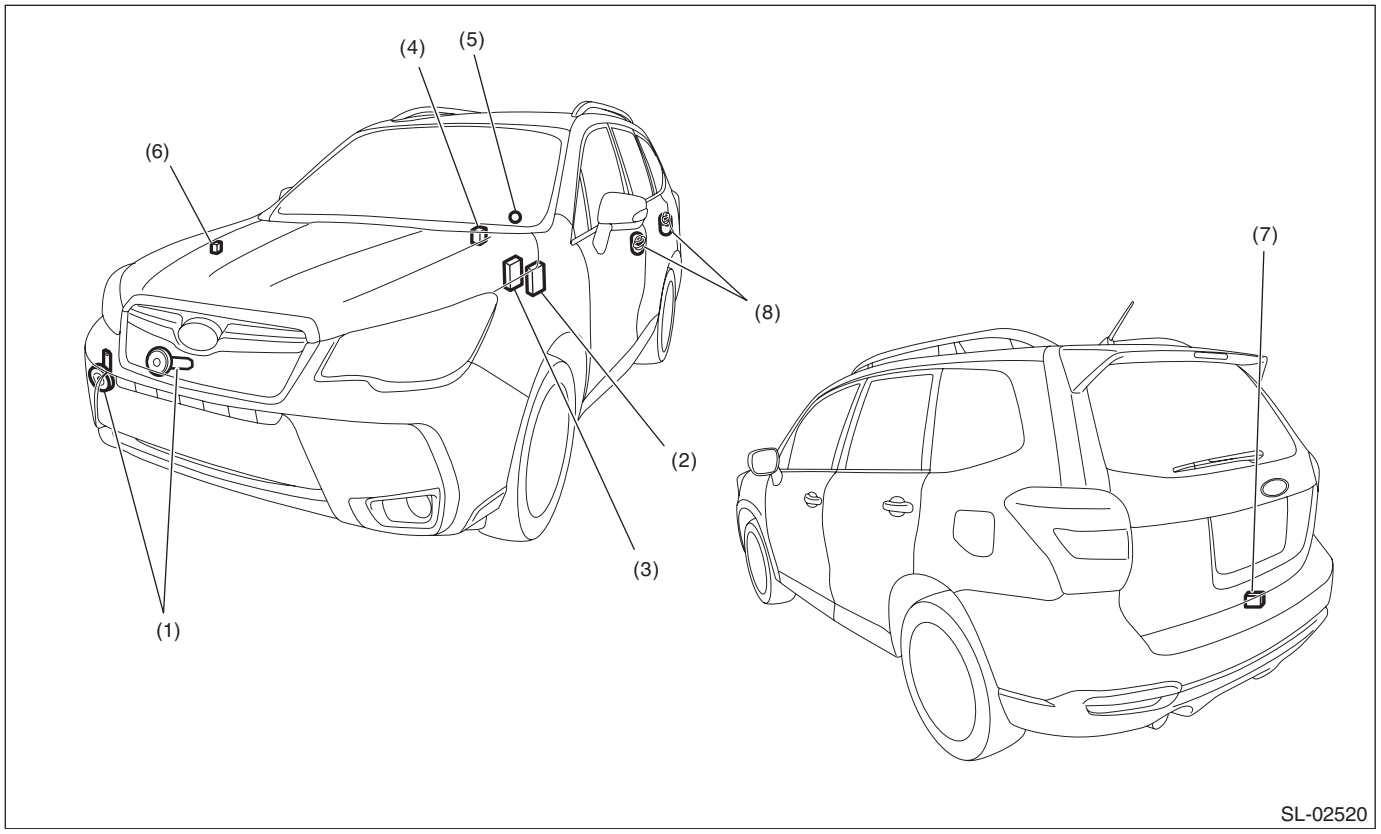
5. KEYLESS ENTRY SYSTEM

NOTE:
Except for model with keyless access.



(1) Body integrated unit
(2) Power window main switch
(3) Keyless entry control module
(4) Rear gate latch switch
(5) Door switch
(6) Keyless buzzer

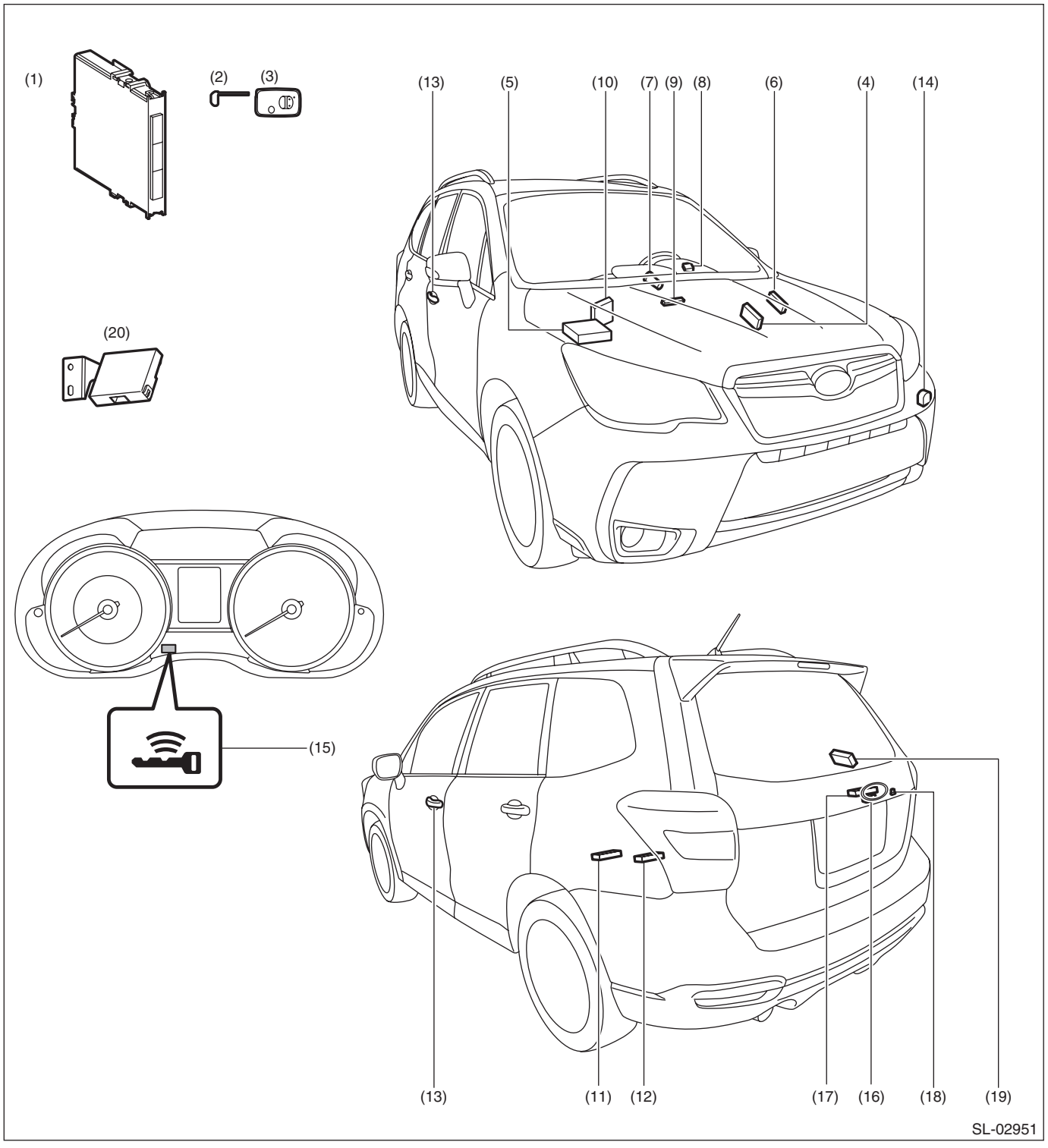
6. SECURITY SYSTEM



(1)	Horn	(4)	Turn signal and hazard module	(7)	Rear gate latch switch
(2)	Body integrated unit	(5)	Security indicator light (in combination meter)	(8)	Door switch
(3)	Impact sensor (driver's seat instrument panel side) (dealer option)	(6)	Horn relay (in main fuse box)		

7. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

NOTE:
Except for model without keyless access.



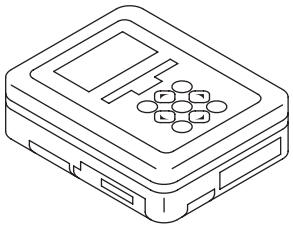
(1) Keyless access CM
(2) Mechanical key
(3) Access key
(4) TCM
(5) ECM (turbo model)
(6) Body integrated unit
(7) Push button ignition switch
(8) Steering lock CM
(9) Front interior antenna
(10) ECM (non-turbo model)
(11) Center interior antenna
(12) Rear interior antenna
(13) Front outer handle (front exterior antenna)
– Touch sensor (lock)
– Touch sensor (unlock)
(14) Access buzzer
(15) Access key warning light
(16) Rear gate opener button
(17) Rear exterior antenna
(18) Rear lock button
(19) Receiver
(20) ID code box (for C0 and C5 only)

B: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that the each component operates normally.
• If any immobilizer related part has been replaced, make sure to register the immobilizer.
• Do not use any electrical test equipment on the airbag system wiring harnesses and connector circuits.
• Be careful not to damage the airbag system wiring harness when servicing the ignition key cylinder.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, perform “VDC sensor midpoint setting mode” of the VDC. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system. NOTE: For detailed operation procedures of SUBARU SELECT MONITOR III KIT, refer to “PC application help for Subaru Select Monitor”.

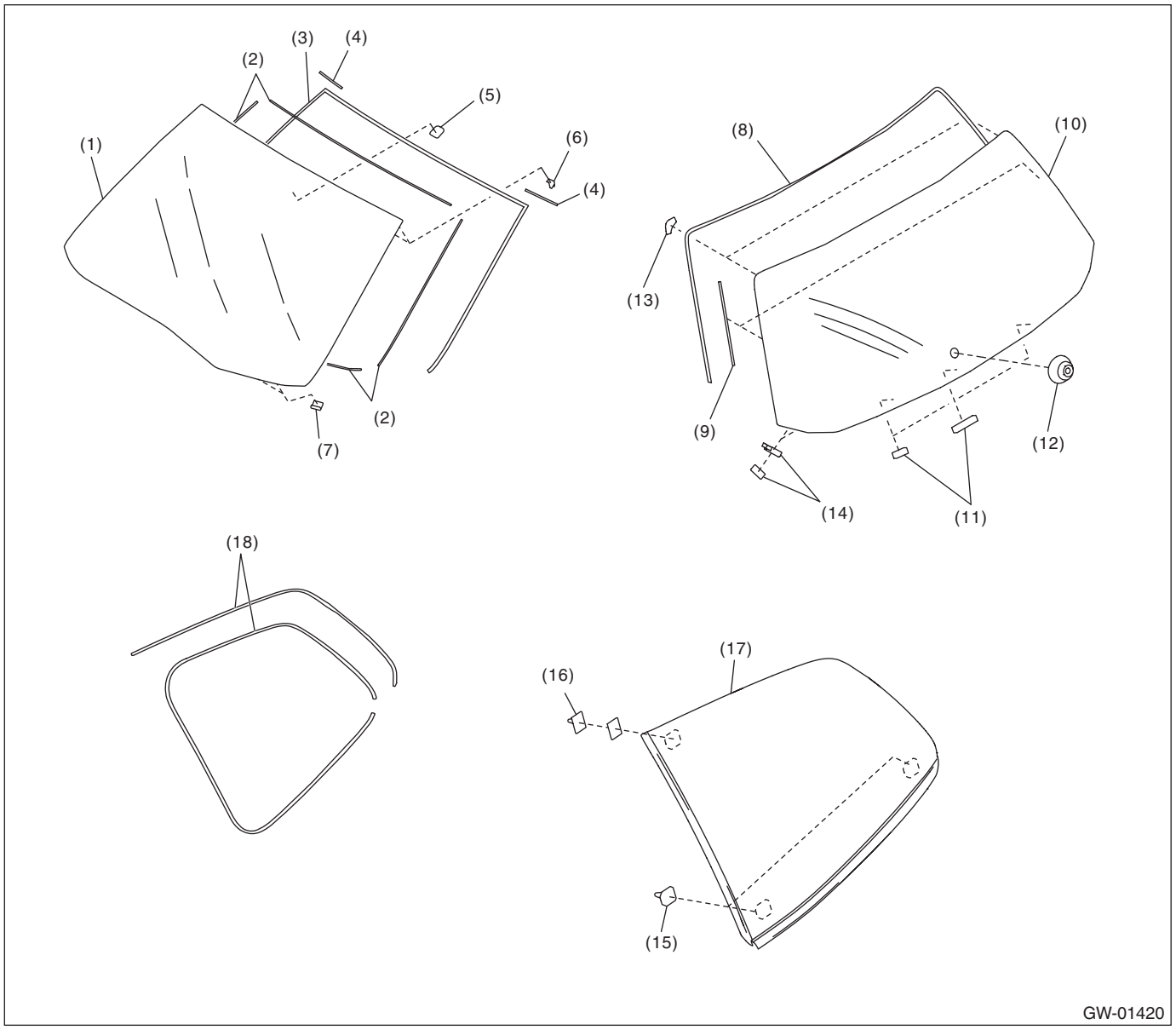
2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Drill	Used for replacing ignition key lock.
Reverse tap	Used for replacing ignition key lock.
TORX® T30	Used for removing and installing door outer handle cover and frame assembly.
Clip remover	Used for removing trim clip.

1. General Description

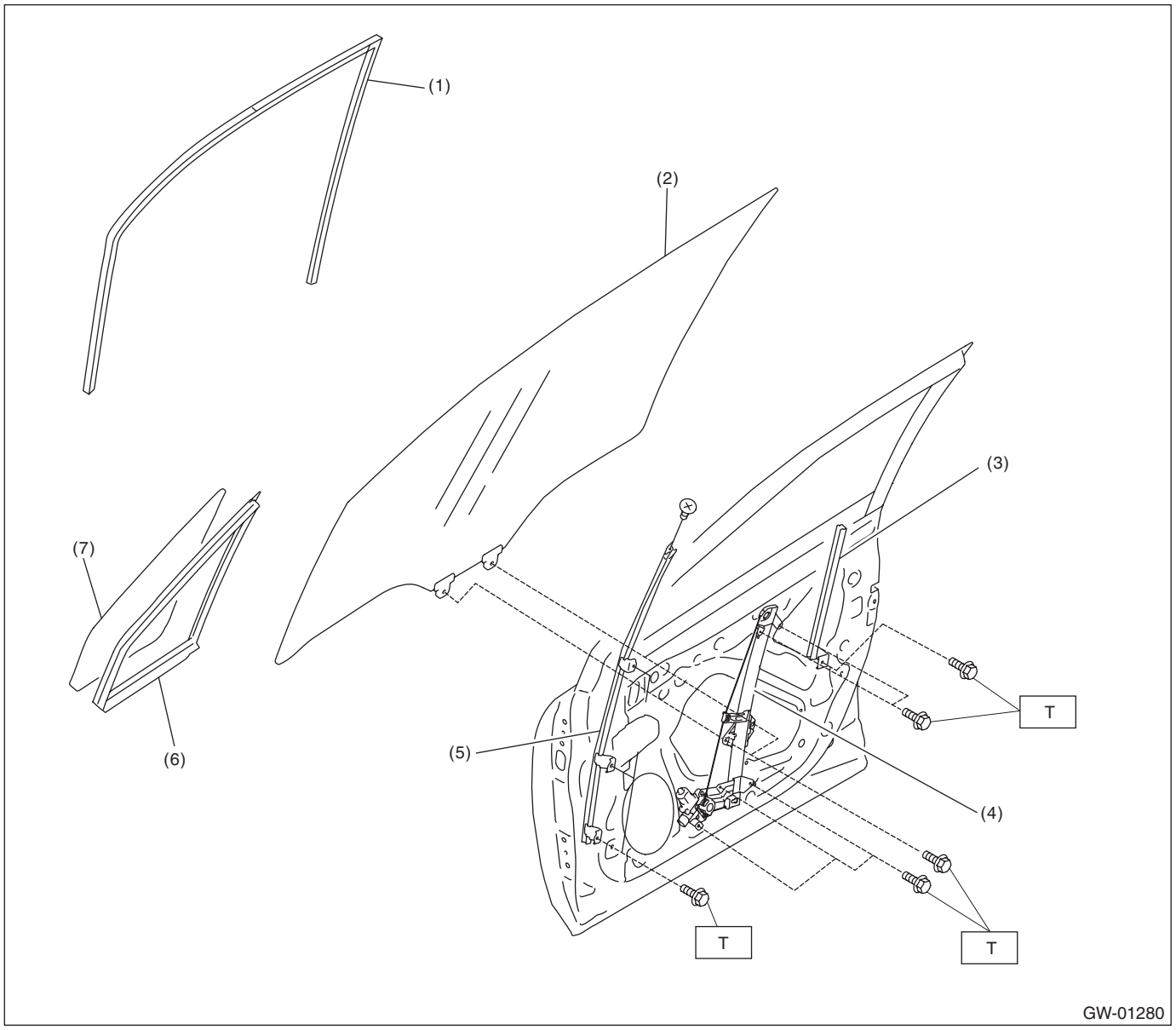
A: COMPONENT

1. FIXED GLASS



(1) Glass - front window
(2) Dam rubber - front
(3) Molding - front window
(4) Seal - upper
(5) Base - inner mirror
(6) Locating pin - front window
(7) Seal - lower
(8) Rubber - rear gate
(9) Dam rubber - rear gate
(10) Glass - rear gate
(11) Spacer - rear gate
(12) Cap - pivot
(13) Locating pin - rear gate
(14) Fastener - rear gate
(15) Locating pin - rear quarter
(16) Fastener - rear quarter
(17) Glass - rear quarter
(18) Dam rubber - rear quarter

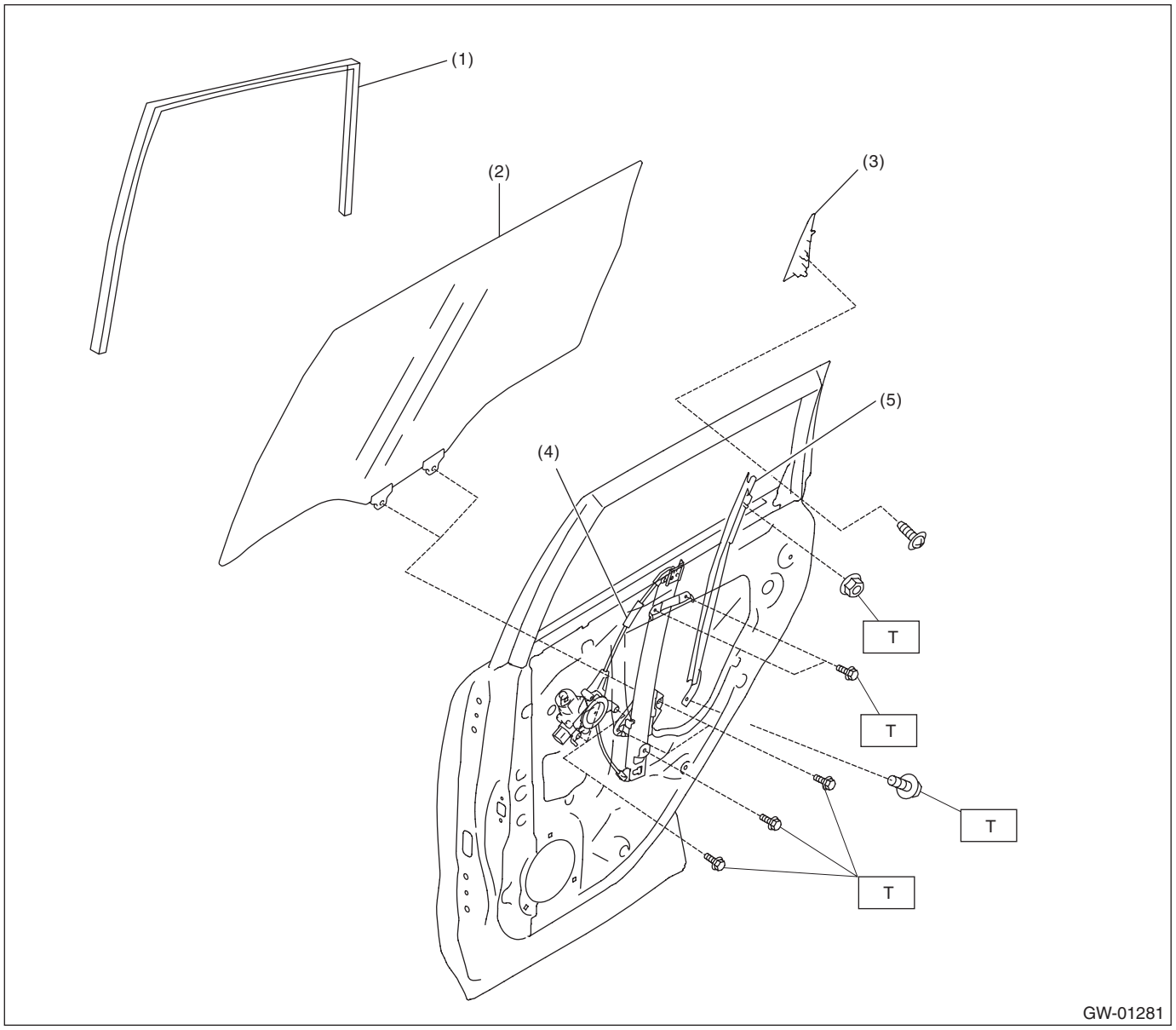
2. FRONT DOOR GLASS



(1) Running channel - front door
(2) Glass ASSY - front door
(3) Sash COMPL - lower
(4) Regulator & motor ASSY - front
(5) Sash COMPL - partition
(6) Weather strip - front door partition
(7) Glass - front door partition

Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

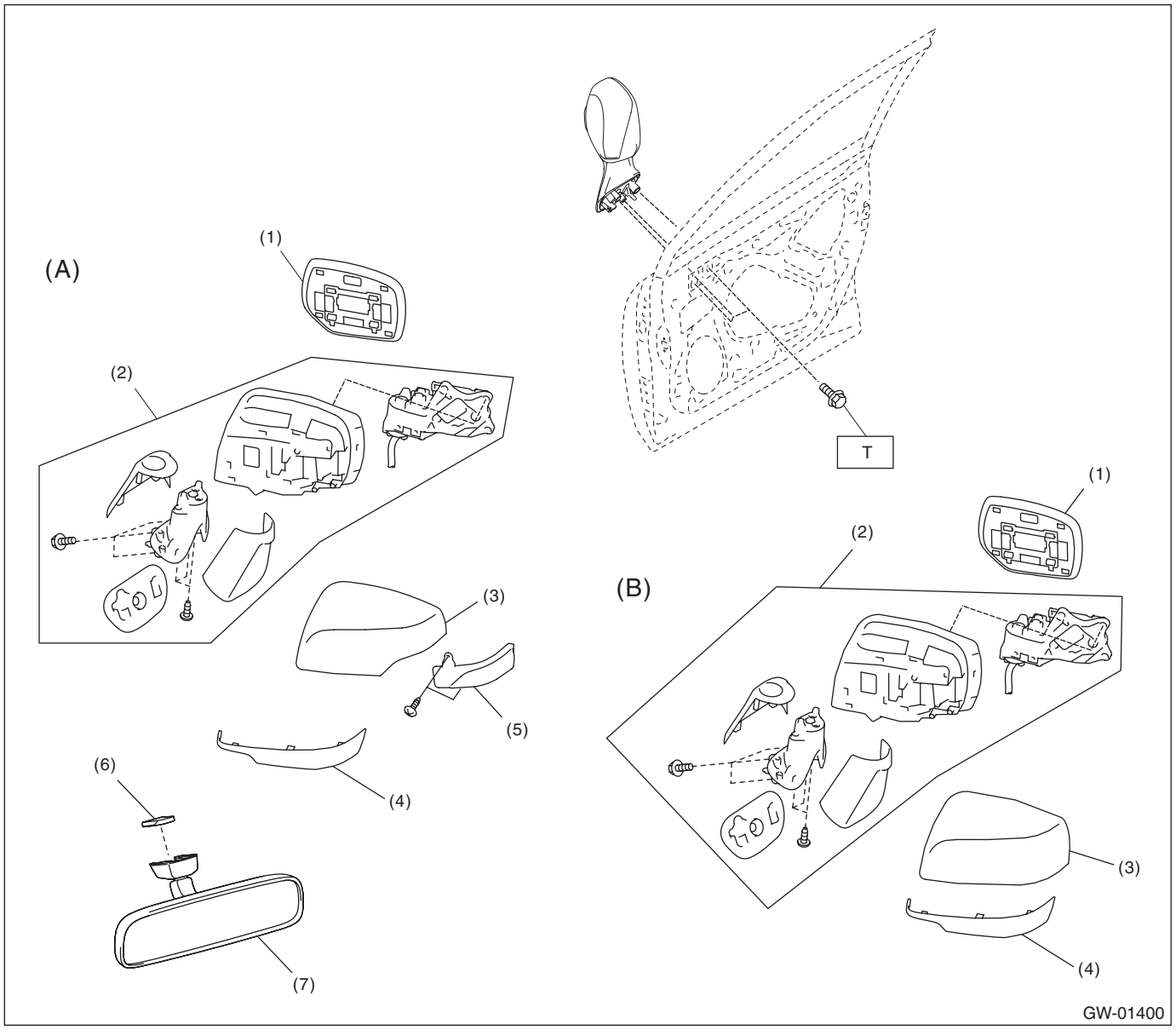
3. REAR DOOR GLASS



(1) Running channel - rear door
(2) Glass ASSY - rear door
(3) Rear outer gusset cover
(4) Regulator & motor ASSY - front
(5) Sash ASSY - rear door lower

Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

4. MIRROR



(A) Model with side turn
(B) Model without side turn

(1) Mirror - repair
(2) Mirror unit - door
(3) Cover - cap outer mirror
(4) Cover - cap outer mirror lower
(5) Light ASSY - side turn mirror
(6) Base - inner mirror
(7) Mirror ASSY - inner rearview

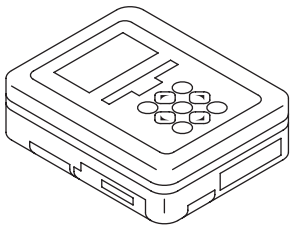
Tightening torque:N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

B: CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Avoid impact and damage to the glass.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Connect the connectors securely during reassembly.
- After reassembly, make sure that the each component operates normally.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for setting of each function and trouble-shooting for electrical system.

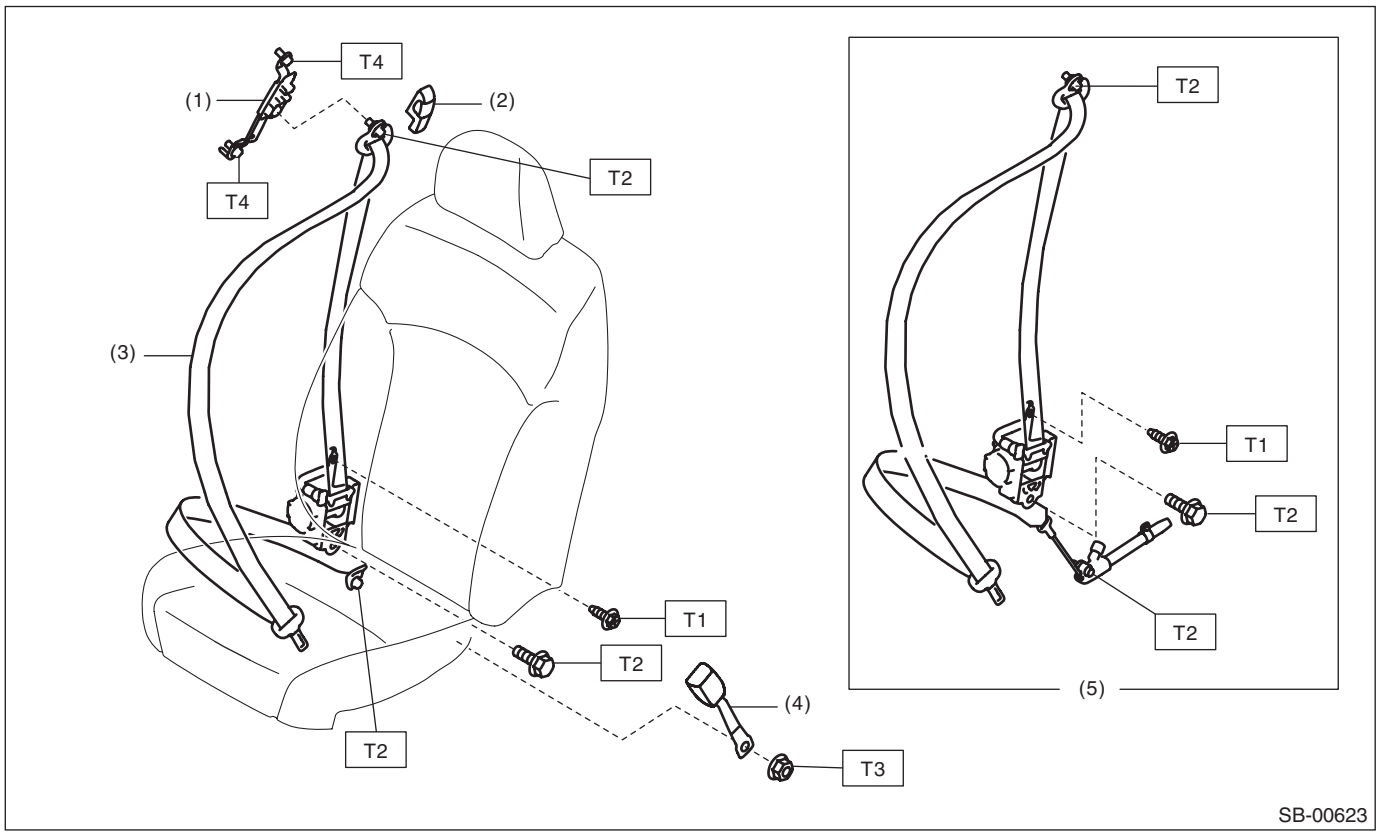
2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Piano wire	Used for removing the window glass.
Cutter knife	Used for removing the window glass.
Windshield glass knife	Used for removing the window glass.

1. General Description

A: COMPONENT

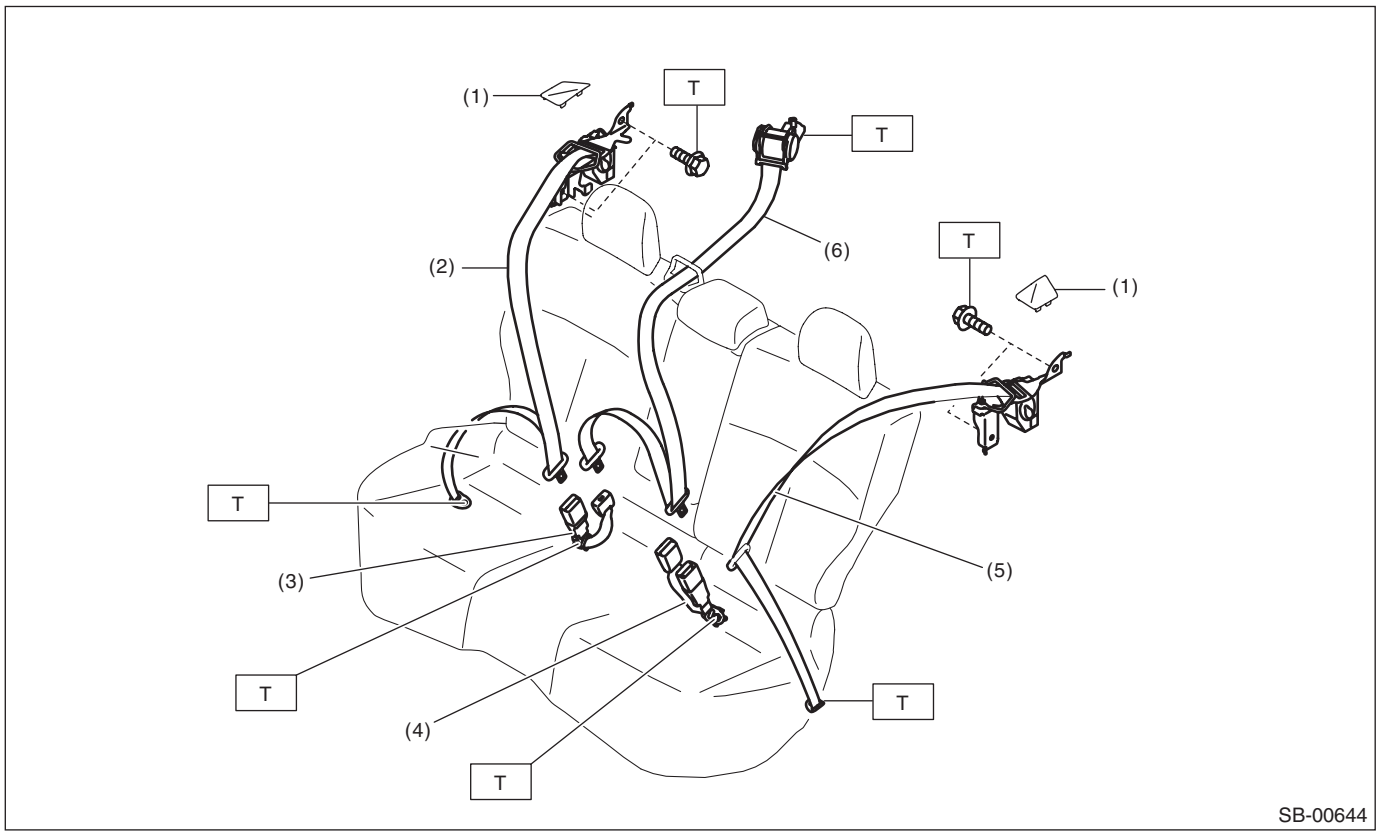
1. FRONT SEAT BELT



(1) Adjuster ASSY - seat belt
(2) Cover through
(3) Seat belt outer - front
(4) Seat belt inner - front
(5) Seat belt outer - front (lap seat belt pretensioner - passenger's side only)

Tightening torque: N·m (kgf-m, ft-lb)
T1: 7.5 (0.76, 5.5)
T2: 30 (3.06, 22.1)
T3: 38 (3.87, 28.0)
T4: 53 (5.40, 39.1)

2. REAR SEAT BELT



(1) Cap - belt
(2) Seat belt outer - rear RH
(3) Seat belt - CTR RH
(4) Seat belt - CTR LH
(5) Seat belt outer - rear LH
(6) Seat belt - rear shoulder CTR

Tightening torque: N·m (kgf-m, ft-lb)
T: 30 (3.06, 22.1)

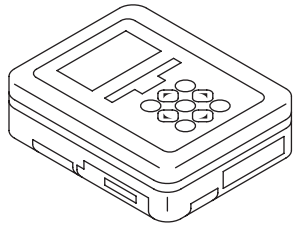
B: CAUTION

- Before starting the work, turn the ignition switch to OFF, disconnect the battery ground cable and wait for 60 seconds or more.
- The pretensioner system is fitted with a backup power supply. After disconnecting the battery ground cable, the pretensioner may operate if you do not wait for 60 seconds or more before starting pretensioner system servicing.
- Do not drop or apply any impact to the pretensioner.
- If oil, grease or water gets on the pretensioner, wipe it off immediately with a dry cloth.
- Do not expose the pretensioner to high temperature or flame.
- Do not allow current to flow through or voltage to reach the pretensioner. Do not use a circuit tester to check resistance of the pretensioner.
- Do not disassemble or attempt to repair the pretensioner. If it is dented, cracked or deformed, replace it with a new genuine part.
- Do not use the airbag or pretensioner parts from other vehicles. Always use a new genuine part for replacement.
- When handling a seat belt with deployed pretensioner, wear gloves and goggles. Wash your hands afterwards.
- Do not reuse a seat belt with deployed pretensioner.
- Before disposal, make sure to perform an operation process to the pretensioners.
- If material from the pretensioner enters the eyes or contacts skin during operation process, wash it away with clean water, and then consult a doctor.

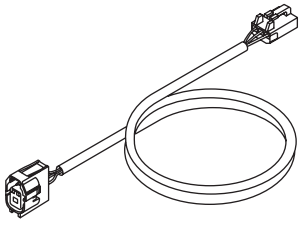
C: PREPARATION TOOL

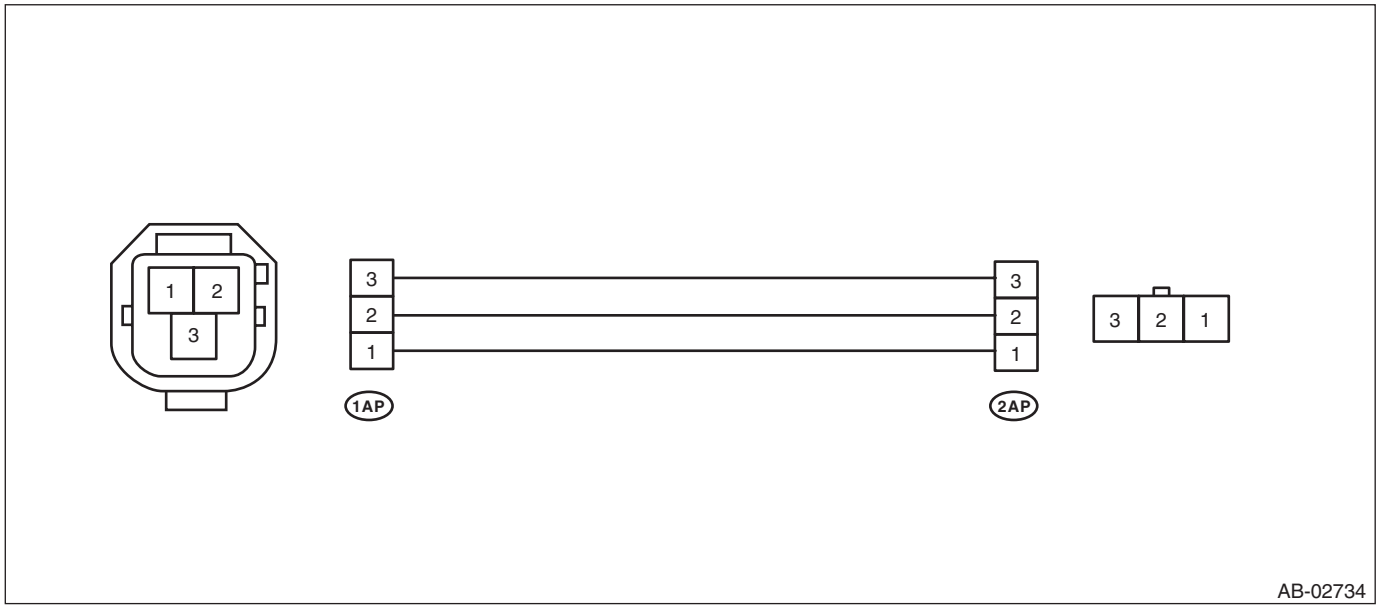
1. SPECIAL TOOL

- Subaru Select Monitor

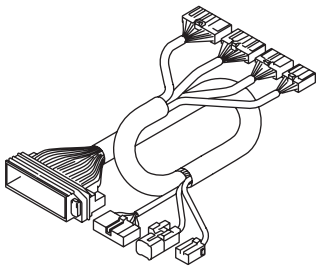
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for setting of each function and trouble-shooting for electrical system.

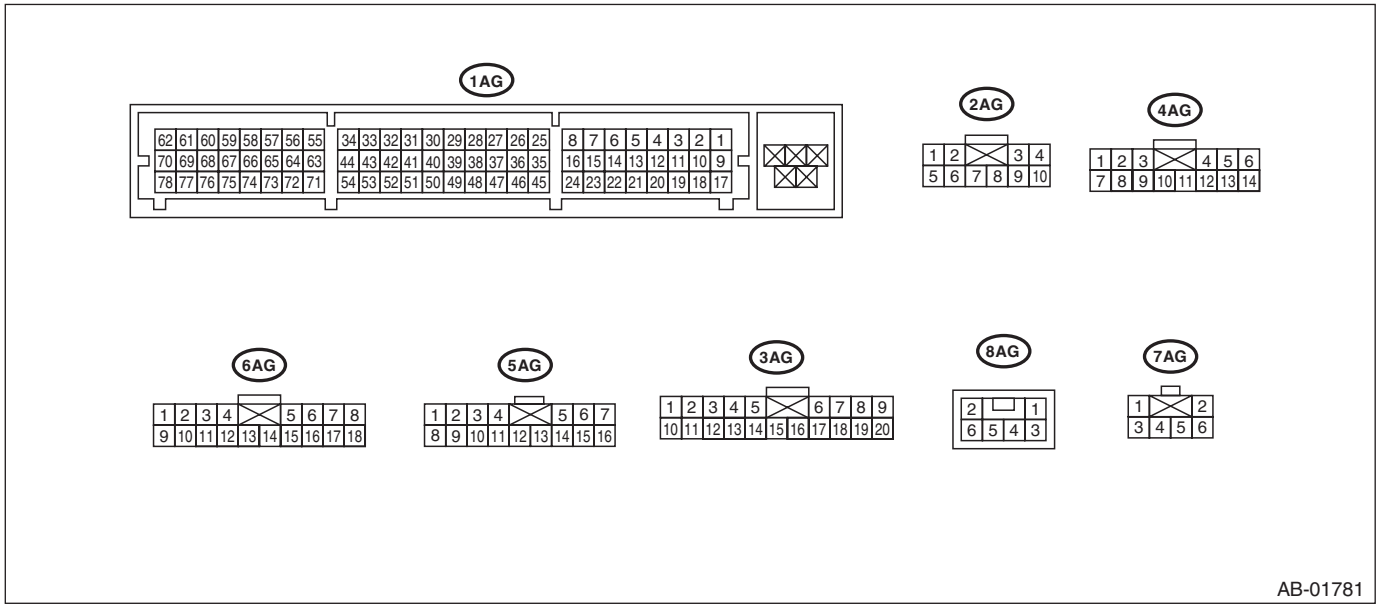
- TEST HARNESS AP

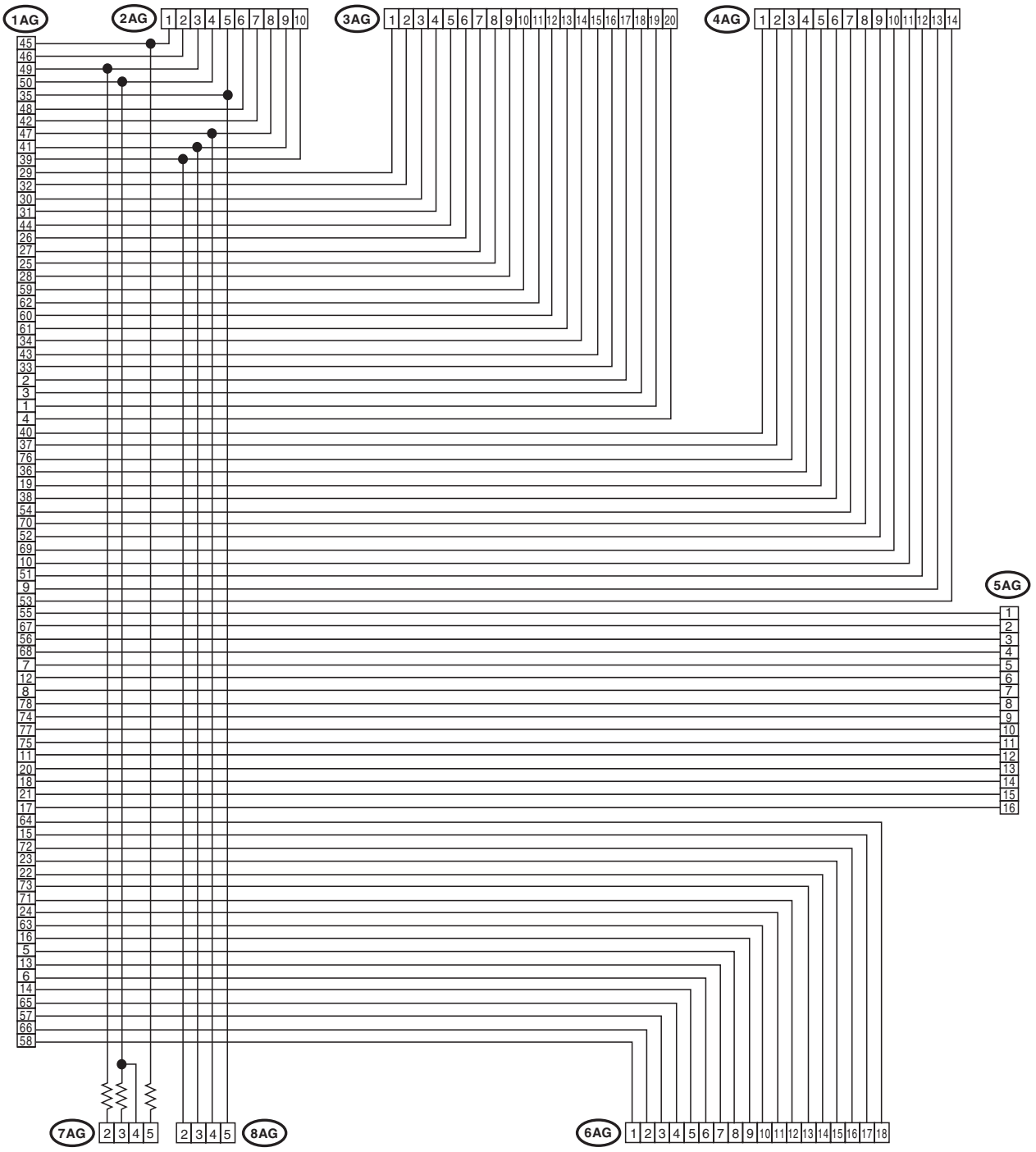
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FJ030	98299FJ030	TEST HARNESS AP	Used when measuring voltage and resistance of occupant detection system.



- TEST HARNESS AG

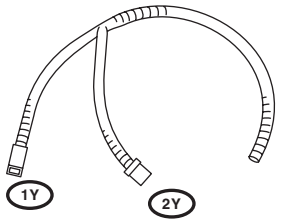
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG070	98299AG070	TEST HARNESS AG	Used when measuring voltage and resistance of airbag control module.

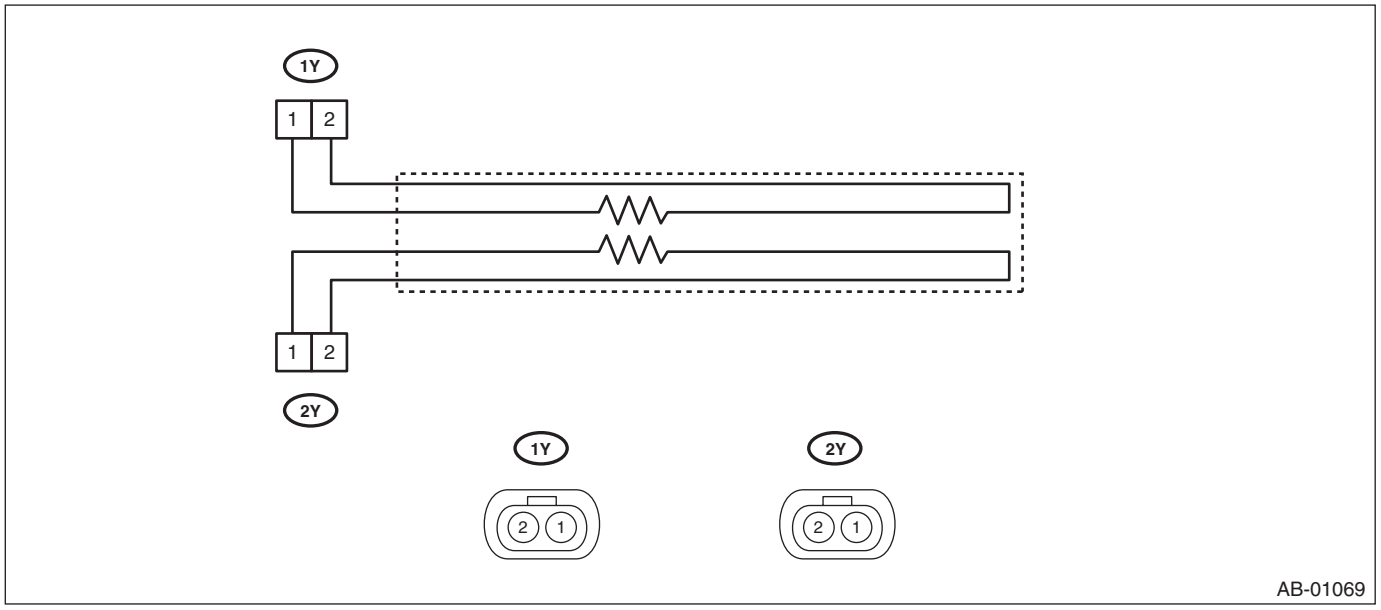




AB-01902

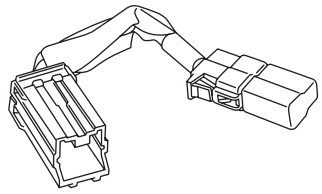
- TEST HARNESS Y

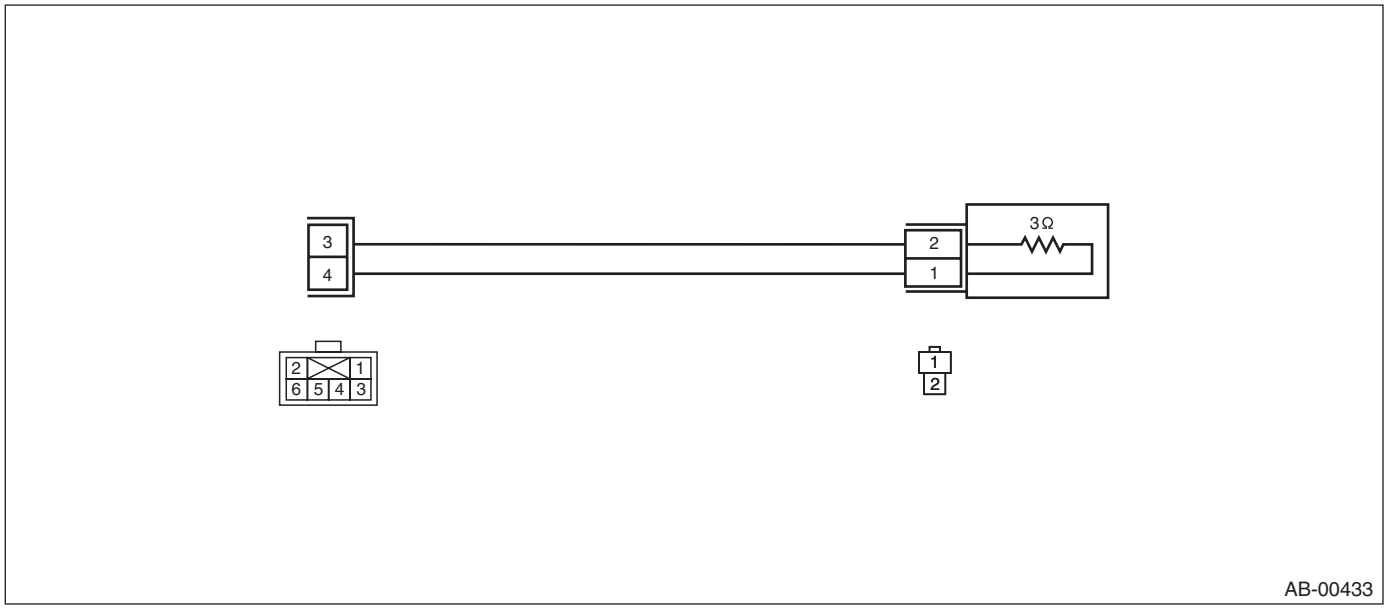
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG040	98299AG040	TEST HARNESS Y	Used for troubleshooting seat belt buckle switch.



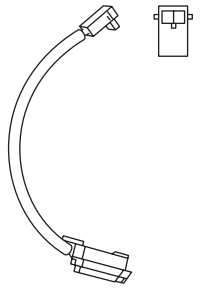
AB-01069

- AIRBAG RESISTOR

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299PA040	98299PA040	AIRBAG RESISTOR	Used in replacement of airbag module for which resistance value is same as airbag module.



- TEST HARNESS ADAPTER D

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA010	98299SA010	TEST HARNESS ADAPTER D	• Used for operation process of pretensioner. • Used together with AIRBAG DEPLOYMENT TOOL. (98299PA030)

- AIRBAG DEPLOYMENT TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
ST98299PA030	98299PA030	AIRBAG DEPLOYMENT TOOL	• Used for operation process of pretensioner. • Used together with each test harness adapter.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.

1. General Description

A: SPECIFICATION

Refer to “Body Repair Manual” for general description of body structure, reference points and reference dimensions.

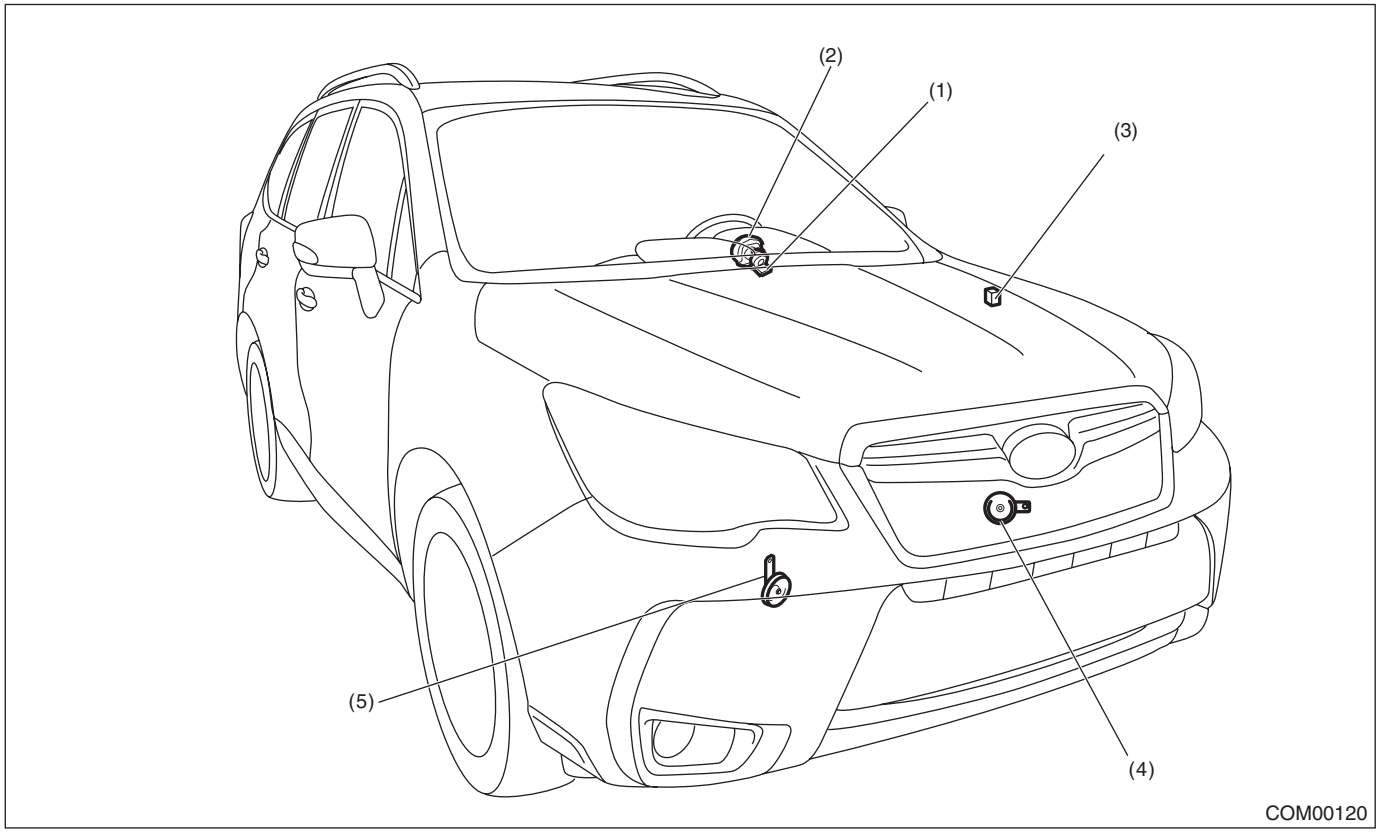
INSTRUMENTATION/DRIVER INFO

IDI

		Page
1.	General Description	2
2.	Relay and Fuse	7
3.	Combination Meter System	8
4.	Multi-function Display (MFD) System	13
5.	Combination Meter	18
6.	Speedometer	21
7.	Tachometer	22
8.	Fuel Gauge	23
9.	ECO Gauge	24
10.	Multi-function Display (MFD)	25
11.	Steering Switch	28

1. General Description

A: COMPONENT



(1) Horn switch (driver's airbag module ASSY)
(2) Roll connector
(3) Horn relay
(4) Horn ASSY - Lo
(5) Horn ASSY - Hi

B: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that the each component operates normally.
• Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of "AIRBAG SYSTEM" in this case. <Ref. to AB-9, CAUTION, General Description.>
• Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.

C: PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.

1. General Description

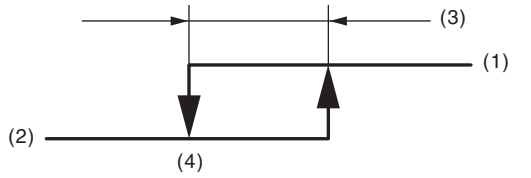
A: SPECIFICATION

1. HEATER SYSTEM

Item		Specifications	Condition
Heating capacity		5.0 kW (4,299 kcal/h, 17,059 BTU/h) or more	• Air flow control dial or switch: FOOT • Temperature control dial: HI (MAX HOT) • Temperature difference between hot water and inlet air: 65°C (149°F) • Hot water flow rate: 360 L (95.1 US gal, 79.2 Imp gal)/h
Air flow rate		290 m^3 (10,243 cu ft)/h	FOOT mode (FRESH), MAX HOT at 12.5 V
Max air flow rate		480 m^3 (16,954 cu ft)/h	• Temperature control dial: LO (MAX COOL) • Fan dial: HI (MAX) Auto A/C model: 7th position Manual A/C model: 4th position • FRESH/RECIRC switch: RECIRC
Heater core	Dimensions (W × H × T)	257.5 × 118.5 × 27 mm (10.1 × 4.67 × 1.06 in)	—
Blower motor	Type	Magnet motor 300 W or less	12 V
	Fan type and size (diameter × width)	Sirocco fan type 150 × 75 mm (5.91 × 2.95 in)	—

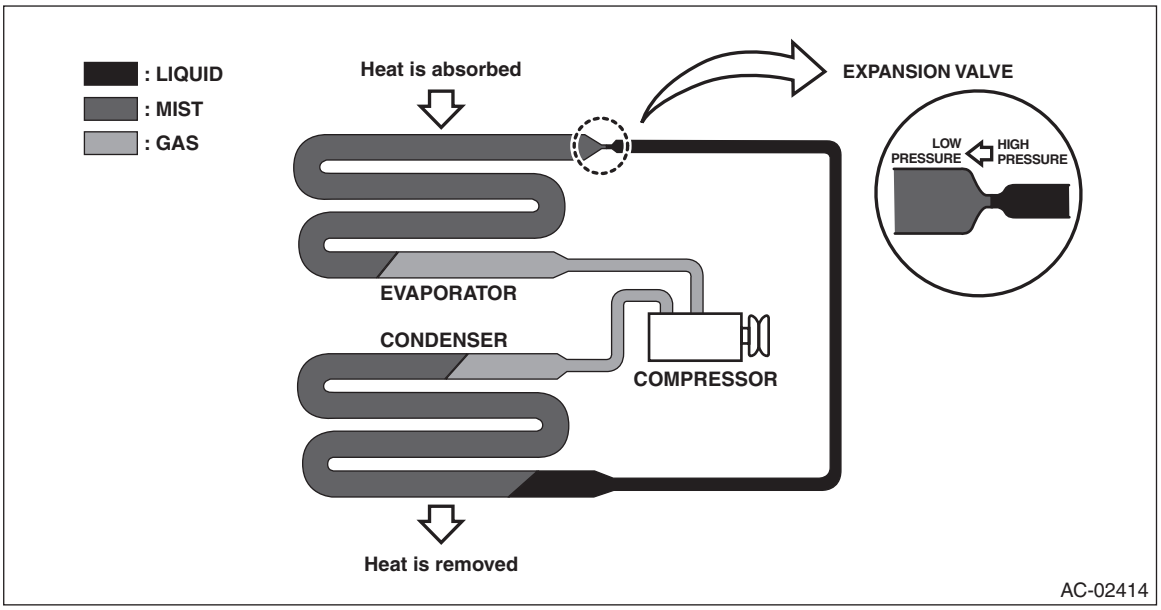
2. A/C SYSTEM

Item		Specifications
Type of air conditioner		Reheat air-mix type
Cooling capacity		5.0 kW (4,299 kcal/h, 17,059 BTU/h)
Refrigerant		HFC-134a (CH_2FCF_3) [0.475±0.025 kg (1.05±0.06 lb)]
Compressor	Type	Rotary fixed capacity (DKV-10Z)
	Discharge	105 cc (6.41 cu in)/rev
	Max. permissible speed	7,700 rpm
Magnet clutch	Type	Dry, single-disc type
	Power consumption	45 W
	Type of belt	V-belt 6 PK
	Pulley dia. (effective dia.)	110 mm (4.33 in)
	Pulley ratio	1.3
Condenser	Type	Sub cool type
	Core face area	0.188 m^2 (2.002 sq ft)
	Core thickness	16 mm (0.63 in)
	Radiation area	4.5 m^2 (48.44 sq ft)
Expansion valve	Type	Block
Evaporator	Type	Dual-tank
	Dimensions (W × H × T)	290.1 × 172 × 39 mm (11.42 × 6.77 × 1.54 in)
Blower fan	Fan type	Sirocco fan
	Outer diameter × Width	150 × 75 mm (5.91 × 2.95 in)
	Power consumption	280 W
Condenser fan (sub fan)	Motor type	Magnet
	Power consumption	120 W
	Fan outer diameter	318.5 mm (12.5 in)

Item			Specifications
Radiator fan (main fan)		Motor type	Magnet
		Power consumption	120 W
		Fan outer diameter	318.5 mm (12.5 in)
Idle speed		No load	Non-turbo MT model: 650±100 rpm Non-turbo CVT model: 675±100 rpm Turbo model: 700±100 rpm
		A/C ON	Non-turbo model: 850±100 rpm Turbo model: 700 — 835±50 rpm
Triple switch (Pressure switch)	Low-pressure switch operating pressure	ON → OFF	196±25 kPa (2.00±0.25 kgf/cm^2, 28.4±3.6 psi)
		OFF → ON	225±30 kPa (2.29±0.31 kgf/cm^2, 32.6±4.3 psi)
	High-pressure switch operating pressure	ON → OFF	2,940±200 kPa (29.98±2.04 kgf/cm^2, 426.3±29 psi)
		OFF → ON	2,350±200 kPa (24.00±2.04 kgf/cm^2, 340.7±29.0 psi)
	Middle-pressure switch operating pressure	ON → OFF	1,470±120 kPa (14.99±1.22 kgf/cm^2, 213.15±17.4 psi)
		OFF → ON	1,770±100 kPa (18.05±1.02 kgf/cm^2, 256.65±14.5 psi)
Thermo-control amplifier working temperature			 AC-00601 (1) ON (2) OFF (3) 1.5±0.3°C (34.7±0.5°F) (4) 1.0±0.5°C (33.8±0.9°F)

3. BASIC OPERATION

The cooling system cools down the compartment by using the pipes connecting parts and cycling the evaporable liquid (refrigerant) within the sealed system in a repeated process of “vaporization — liquefaction — re-vaporization”.

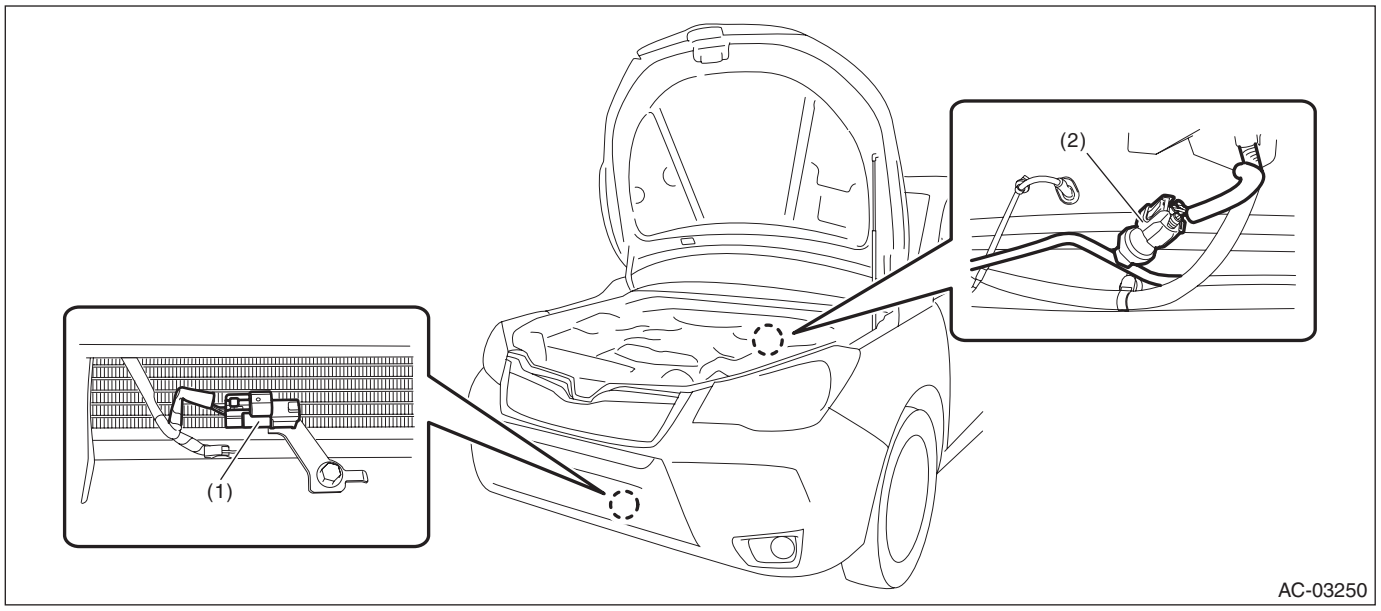


Item	Operation
Compressor	Sucks and pressurizes the low temperature, low pressure refrigerant gas that was vaporized at the evaporator by absorbing heat from the compartment, and sends the high temperature, high pressure refrigerant gas to the condenser.
Condenser	Cools the high temperature, high pressure refrigerant gas sent from the compressor for condense and liquefaction.
Expansion valve	• Sprays the high temperature, high pressure liquid refrigerant from the small hole in order to let the refrigerant expand rapidly to turn it into low temperature, low pressure mist. • The refrigerant amount is adjusted according to the refrigerant vaporization condition in the evaporator.
Evaporator	The evaporator turns into a low temperature condition when the mist refrigerant that was turned into a low temperature, low pressure condition at the expansion valve is vaporized in large quantity in the evaporator. Passing air flow through the low temperature evaporator emits cold air.

B: LOCATION

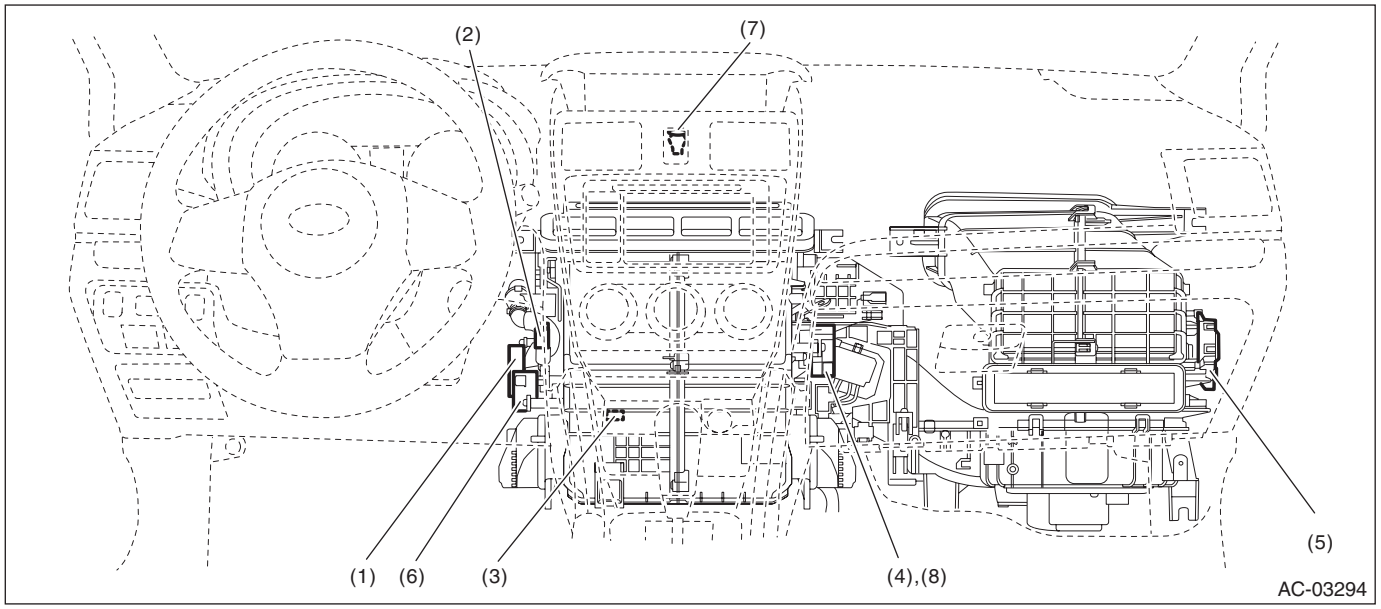
1. ELECTRICAL COMPONENT (ACTUATORS AND SENSORS)

- Engine compartment



(1) Ambient sensor
(2) Pressure switch

- Compartment

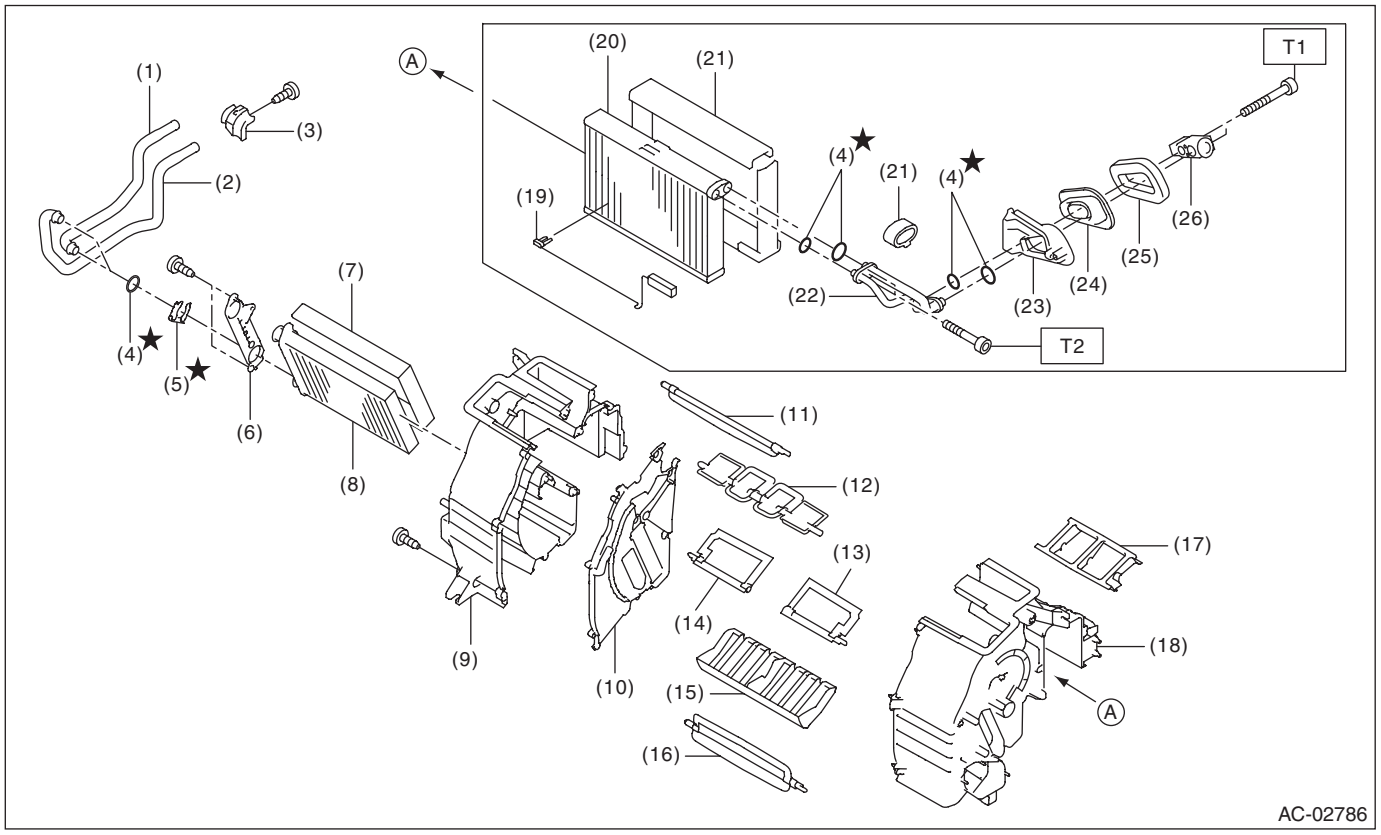


(1) Dual A/C air mix door actuator LH
(2) In-vehicle sensor
(3) Evaporator sensor
(4) Dual A/C air mix door actuator RH
(5) Intake door actuator
(6) Mode door actuator
(7) Sunload sensor
(8) Single A/C air mix door actuator

C: COMPONENT

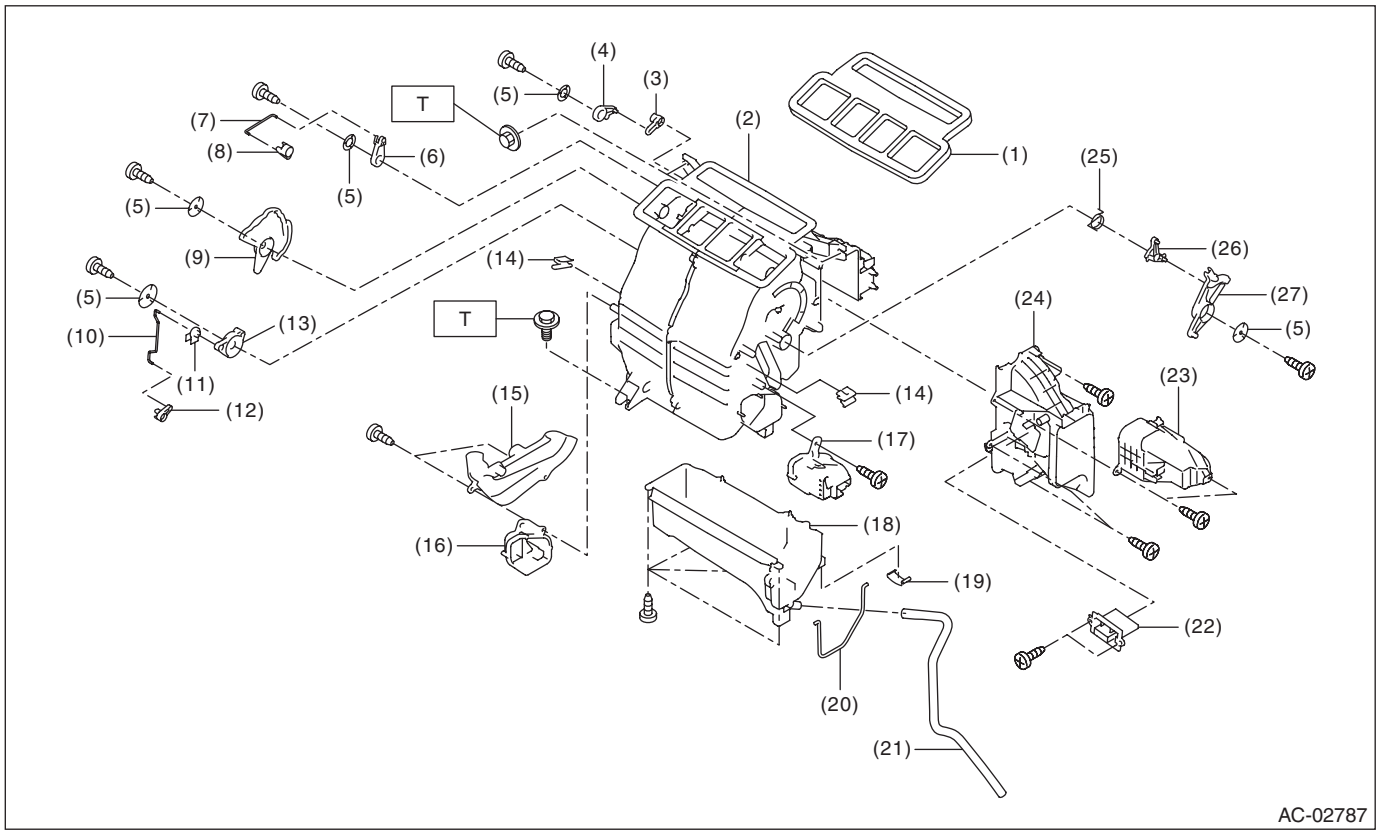
1. HEATER AND COOLING UNIT

- Manual A/C model



(1) Pipe - inlet
(2) Pipe - outlet
(3) Clamp - pipe
(4) Seal O-ring
(5) Clamp
(6) Plate - heater core
(7) Packing - heater core
(8) Heater core
(9) Case - heater unit UPR LH
(10) Plate CTR
(11) Shutter - defroster
(12) Shutter - vent
(13) Shutter - air mix RH
(14) Shutter - air mix LH
(15) Guide - heater unit
(16) Shutter - foot
(17) Case - vent duct
(18) Case - heater unit UPR RH
(19) Thermostat - cooling
(20) Evaporator ASSY - cooling
(21) Packing - evaporator core
(22) Pipe - evaporator core
(23) Case - expansion valve
(24) Seal - cooling
(25) Packing - heater unit
(26) Expansion valve - cooling

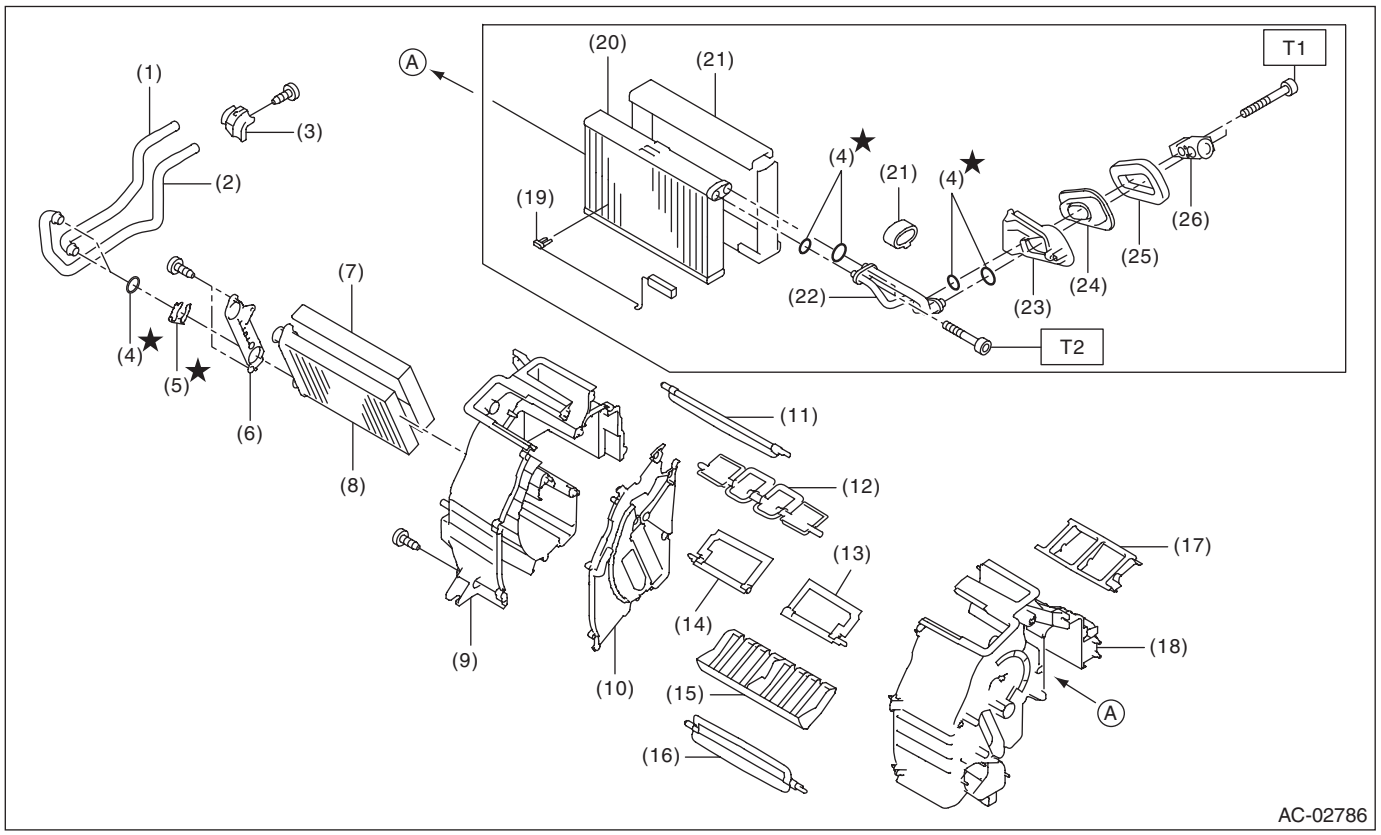
Tightening torque: N·m (kgf-m, ft-lb)
T1: 5.0 (0.51, 3.7)
T2: 6.7 (0.68, 4.9)



(1) Packing - heater unit
(2) Case - heater unit
(3) Lever - defroster
(4) Lever - defroster sub
(5) Washer - heater
(6) Lever - ventilator sub
(7) Rod - ventilator
(8) Lever - ventilator door
(9) Lever - mode
(10) Rod - foot
(11) Clip
(12) Lever - foot
(13) Lever - foot sub
(14) Clamp - cable
(15) Cover - heater pipe
(16) Duct - foot LH
(17) Duct - foot RH
(18) Case - heater LWR
(19) Clip - case
(20) Packing - evaporator cover
(21) Hose - drain
(22) Resistor
(23) Cover
(24) Cover - heater unit
(25) Spring - heater unit
(26) Lever A
(27) Lever B

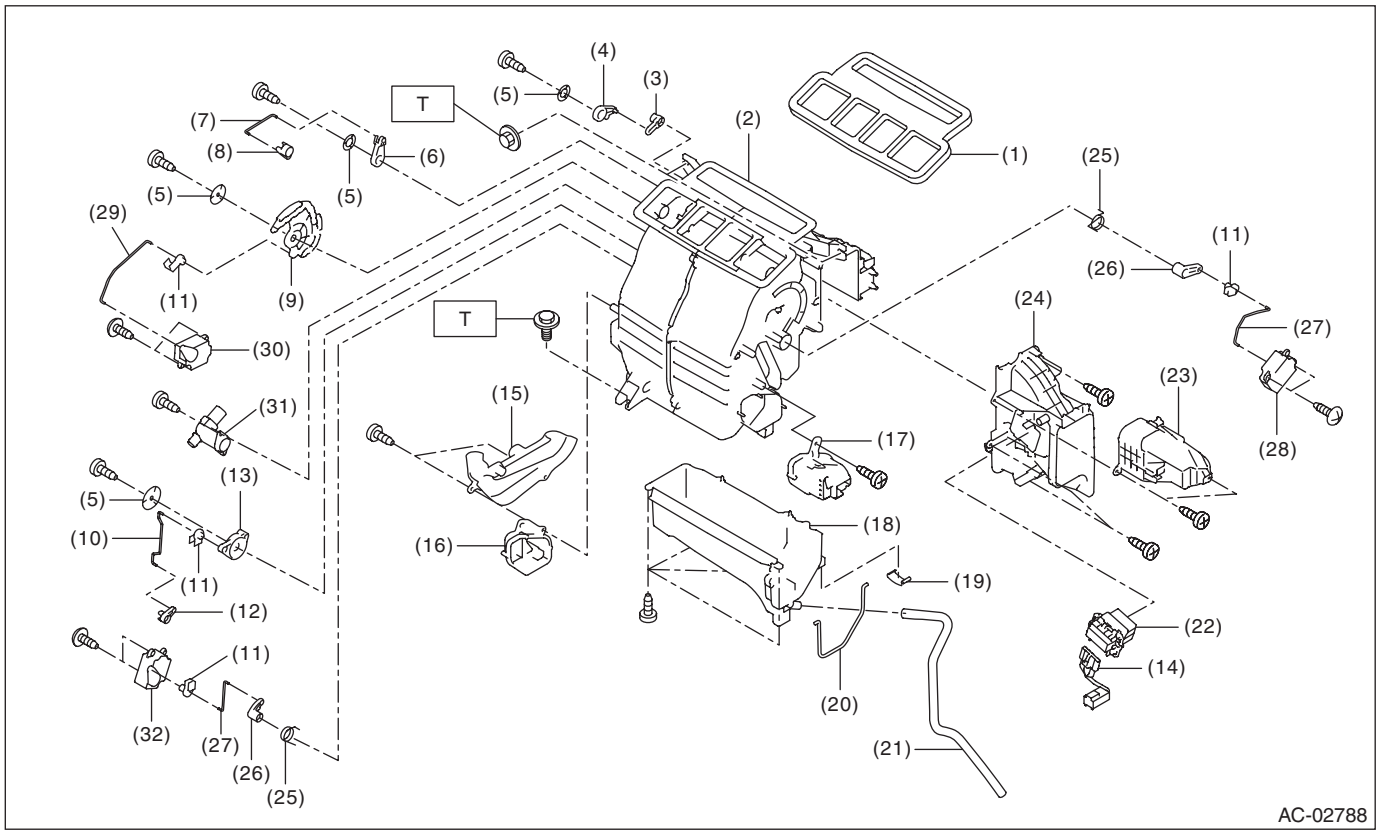
Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

- Auto A/C model



(1) Pipe - inlet
(2) Pipe - outlet
(3) Clamp - pipe
(4) Seal O-ring
(5) Clamp
(6) Plate - heater core
(7) Packing - heater core
(8) Heater core
(9) Case - heater unit UPR LH
(10) Plate CTR
(11) Shutter - defroster
(12) Shutter - vent
(13) Shutter - air mix RH
(14) Shutter - air mix LH
(15) Guide - heater unit
(16) Shutter - foot
(17) Case - vent duct
(18) Case - heater unit UPR RH
(19) Thermostat - cooling
(20) Evaporator ASSY - cooling
(21) Packing - evaporator core
(22) Pipe - evaporator core
(23) Case - expansion valve
(24) Seal - cooling
(25) Packing - heater unit
(26) Expansion valve - cooling

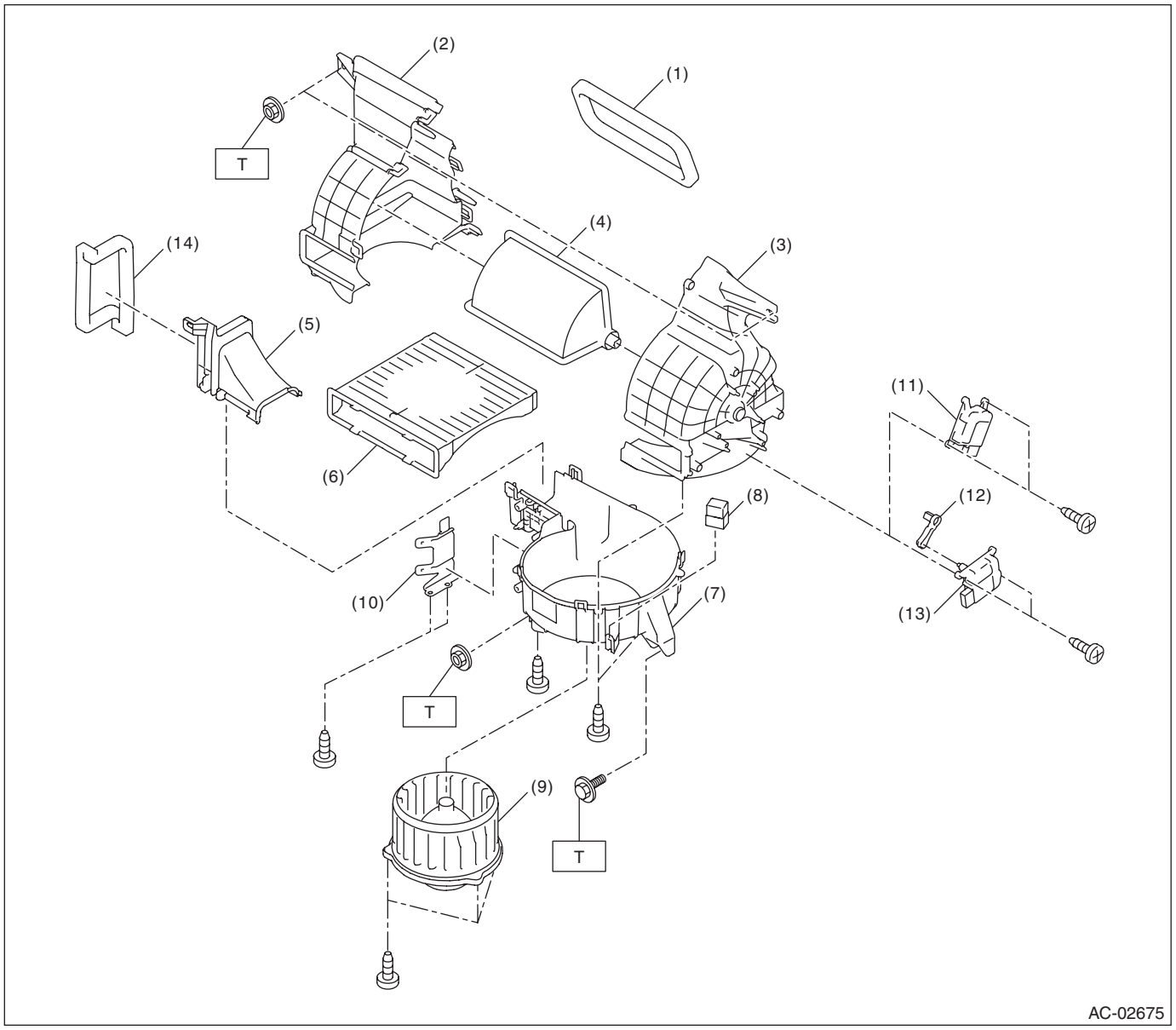
Tightening torque: N·m (kgf-m, ft-lb)
T1: 5.0 (0.51, 3.7)
T2: 6.7 (0.68, 4.9)



(1) Packing - heater unit
(2) Case - heater unit
(3) Lever - defroster
(4) Lever - defroster sub
(5) Washer - heater
(6) Lever - ventilator sub
(7) Rod - ventilator
(8) Lever - ventilator door
(9) Lever - mode
(10) Rod - foot
(11) Clip
(12) Lever - foot
(13) Lever - foot sub
(14) Harness - heater unit
(15) Cover - heater pipe
(16) Duct - foot LH
(17) Duct - foot RH
(18) Case - heater LWR
(19) Clip - case
(20) Packing - evaporator cover
(21) Hose - drain
(22) Power transistor
(23) Cover
(24) Cover - heater unit
(25) Spring - heater unit
(26) Lever - air mix
(27) Rod - air mix
(28) Motor - actuator mix RH
(29) Rod - mode
(30) Motor - actuator mode
(31) Aspirator - heater unit
(32) Motor - actuator mix LH (dual A/C model)

Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

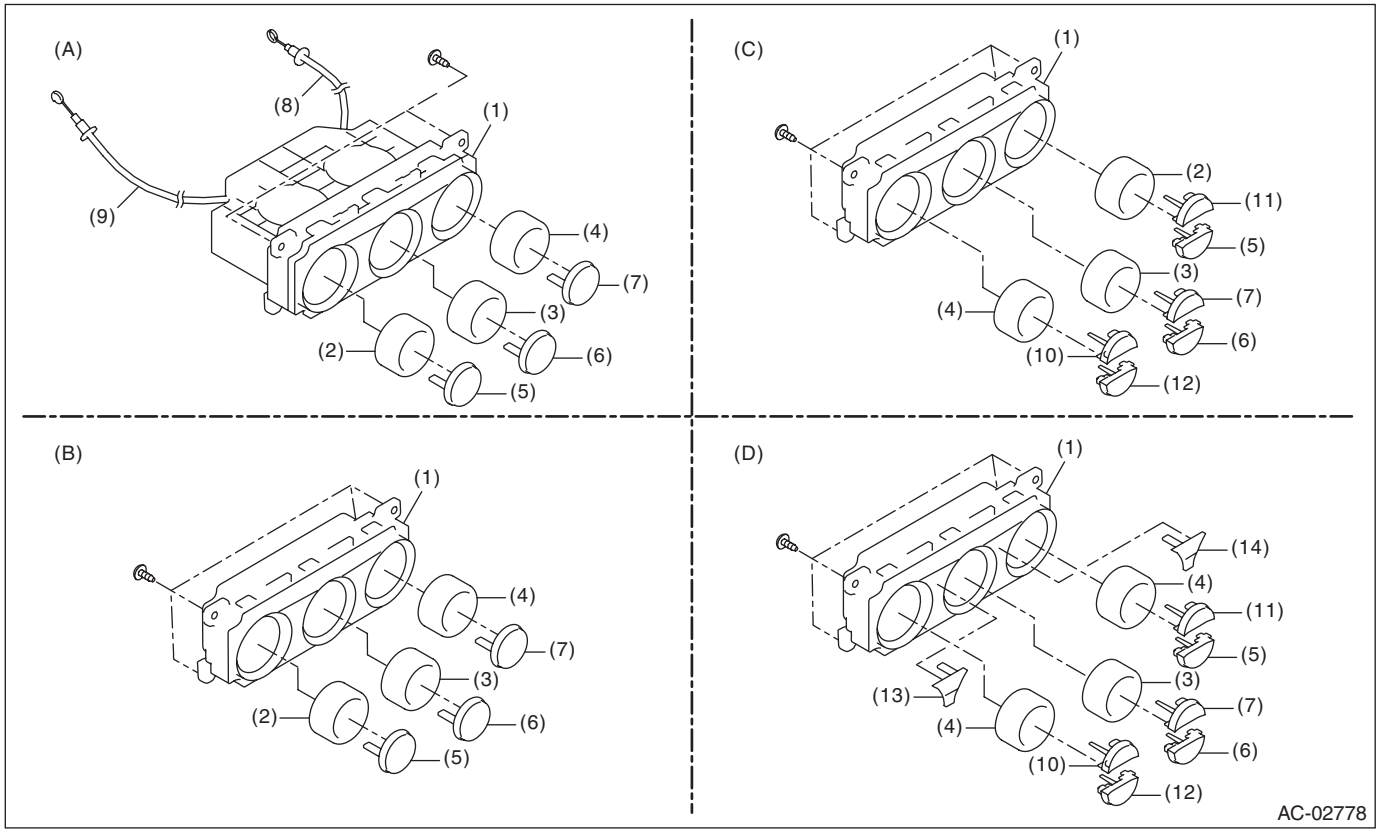
2. BLOWER MOTOR UNIT



(1) Packing - blower
(2) Case - blower intake LH
(3) Case - blower intake RH
(4) Shutter - blower
(5) Case upper - blower
(6) Filter kit
(7) Case lower - blower
(8) Blower motor relay
(9) Blower - motor
(10) Bracket
(11) Motor - actuator blower (auto A/C model)
(12) Lever
(13) Motor - actuator blower (manual A/C model)
(14) Packing

Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

3. CONTROL PANEL



(A) Manual A/C model

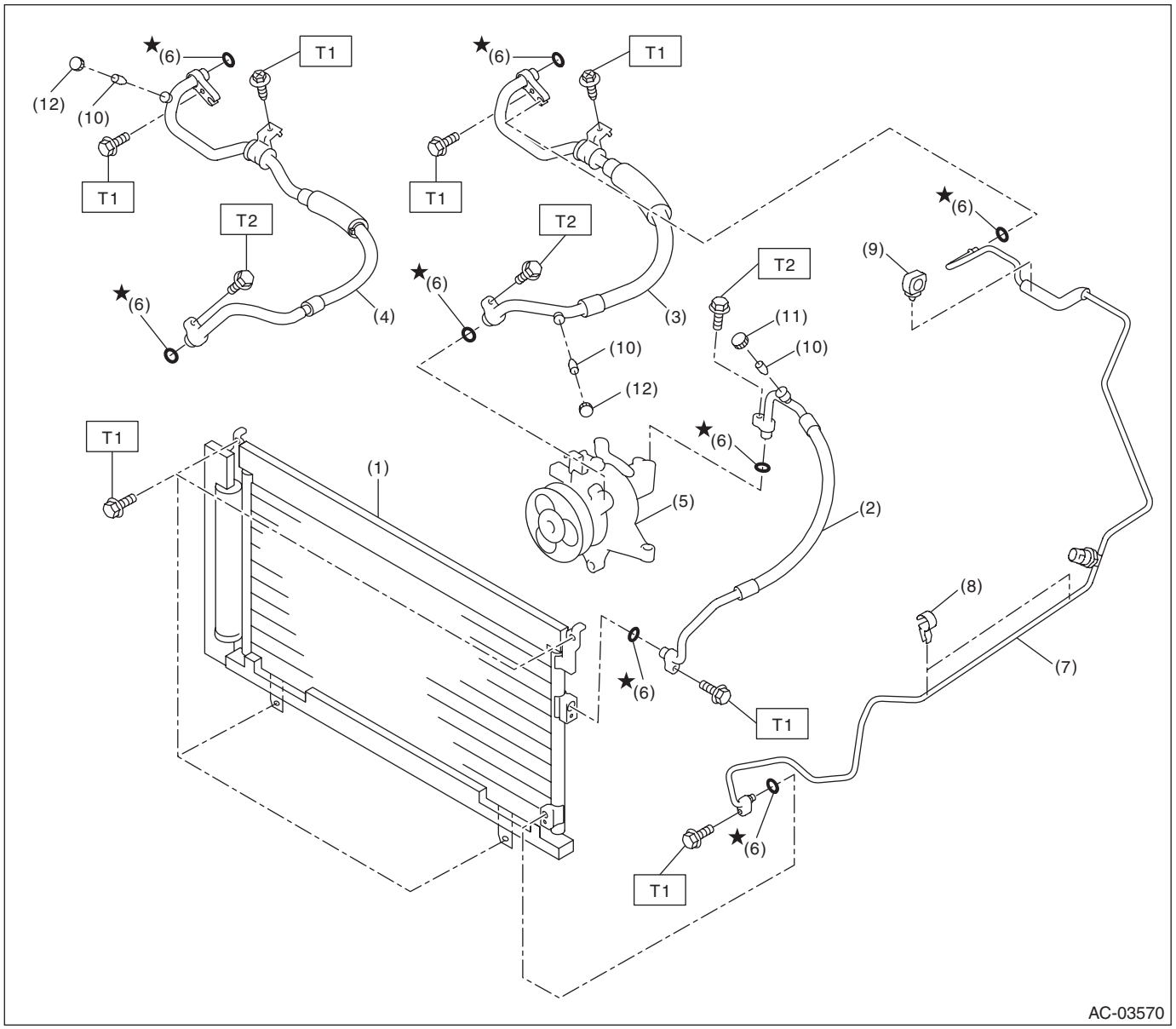
(B) Single auto A/C model (with standard MFD)

(C) Single auto A/C model (with high grade MFD)

(D) Dual auto A/C model

(1) Control case
(2) Air flow control dial
(3) Fan dial
(4) Temperature adjustment dial
(5) Rear window defogger switch
(6) FRESH/RECIRC switch
(7) A/C switch
(8) Temperature control cable
(9) Air flow control cable
(10) AUTO switch
(11) Defroster switch
(12) OFF switch
(13) Air flow control switch
(14) Dual switch

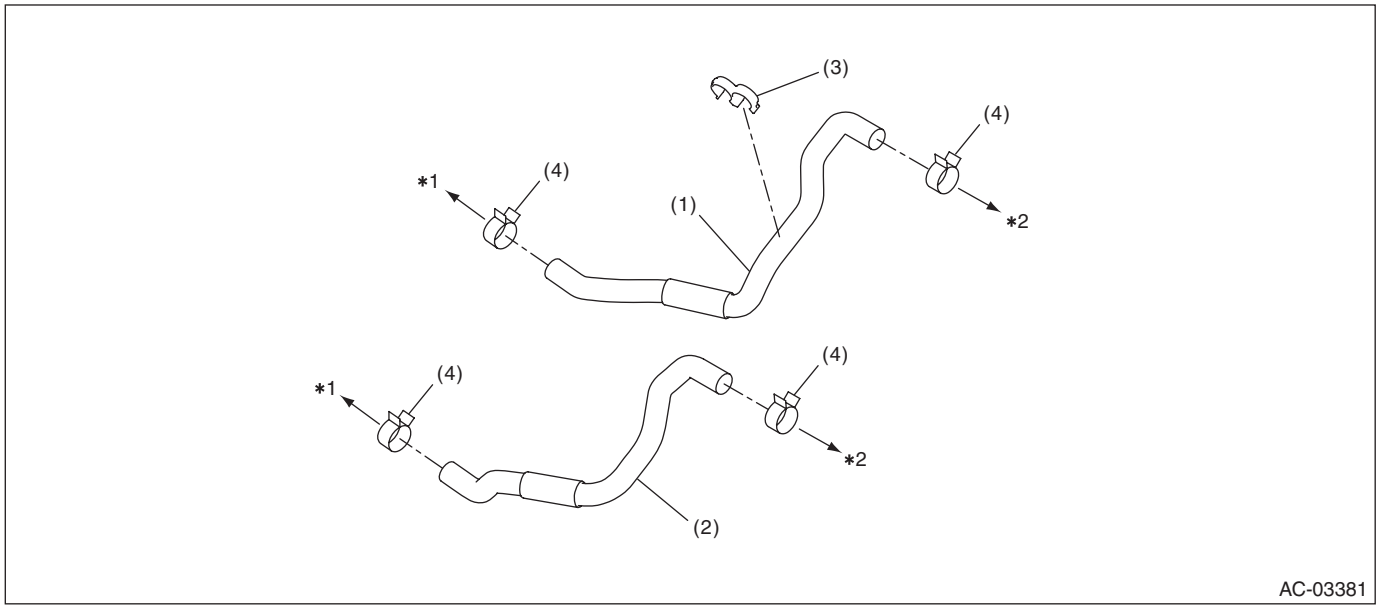
4. AIR CONDITIONING UNIT



(1)	Condenser ASSY - air conditioner	(7)	Pipe - evaporator cooling
(2)	Hose - pressure discharge	(8)	Clip - pipe
(3)	Hose - pressure suction (non-turbo model)	(9)	Clip
(4)	Hose - pressure suction (turbo model)	(10)	Valve - hose pressure
(5)	Compressor ASSY	(11)	Cap - hose pressure discharge
(6)	Seal O-ring	(12)	Cap - hose pressure suction

Tightening torque:N·m (kgf-m, ft-lb)
T1: 7.5 (0.76, 5.5)
T2: 10 (1.02, 7.4)

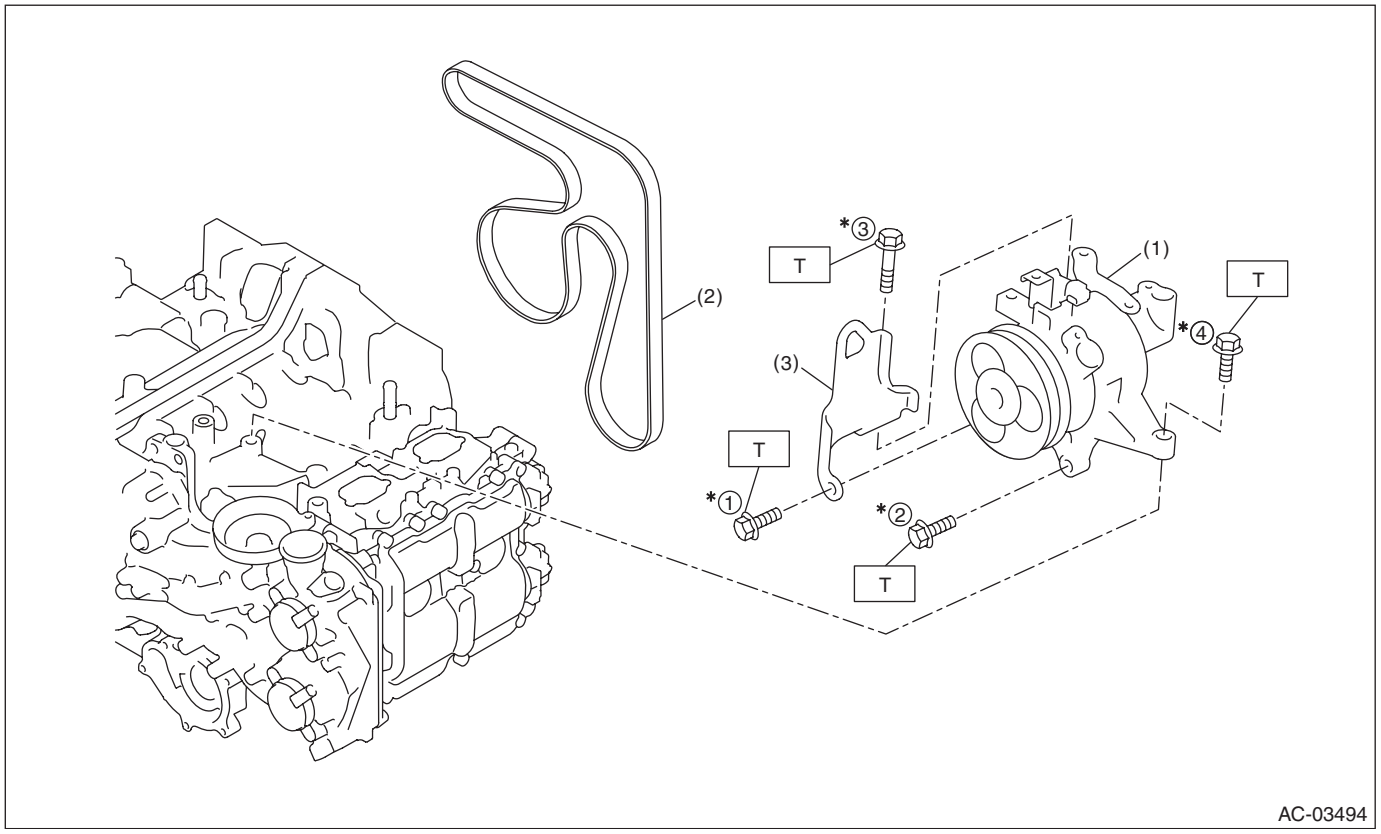
5. HEATER HOSE



(1) Hose - heater outlet
(2) Hose - heater inlet
(3) Clip
(4) Clamp

*1: Engine side
*2: Heater core side

6. COMPRESSOR

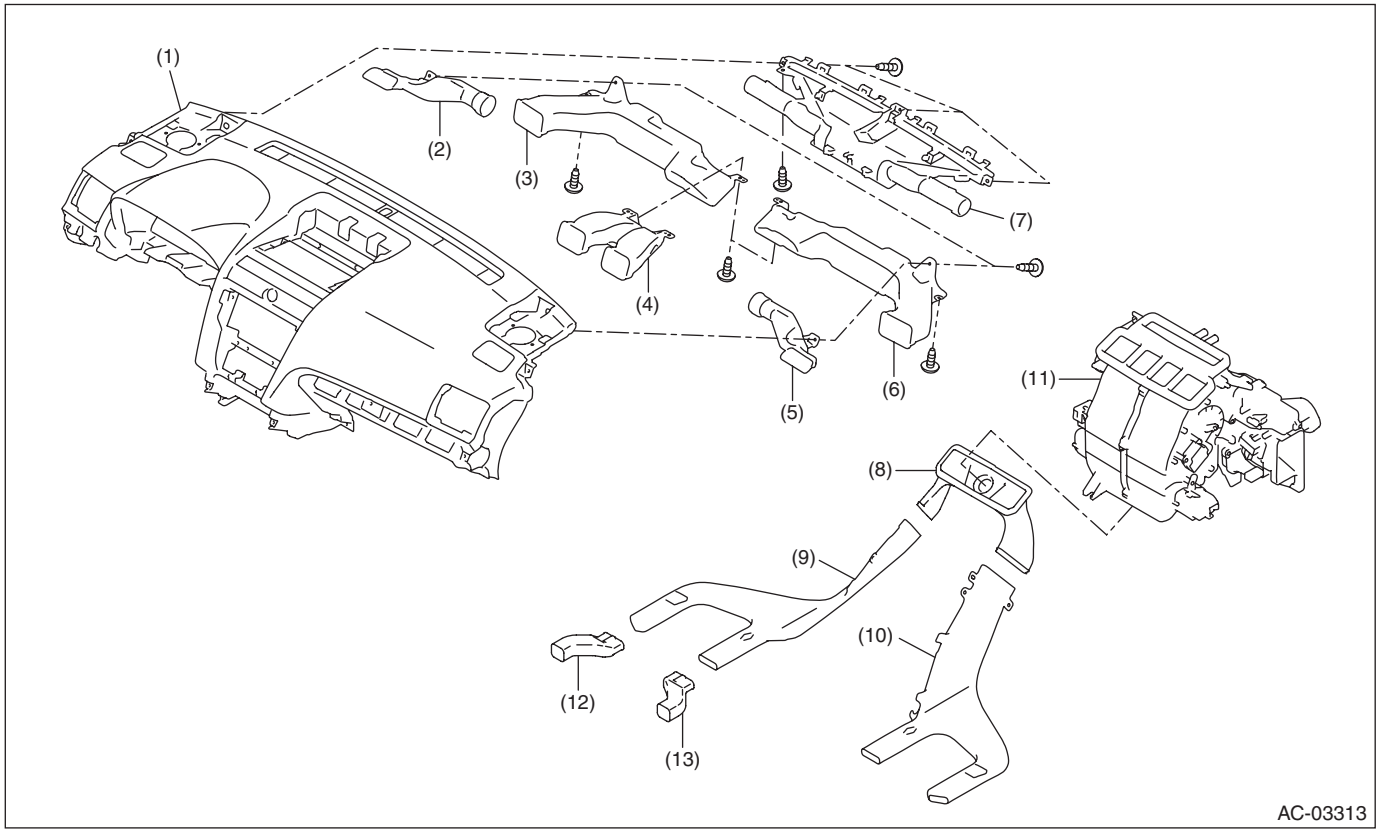


(1) Compressor ASSY
(2) V-belt (6 PK)
(3) Hanger - engine front

Tightening torque:N·m (kgf-m, ft-lb)
T: 36 (3.67, 26.6)

* Tighten the compressor in the numerical order as shown in the figure.

7. HEATER DUCT



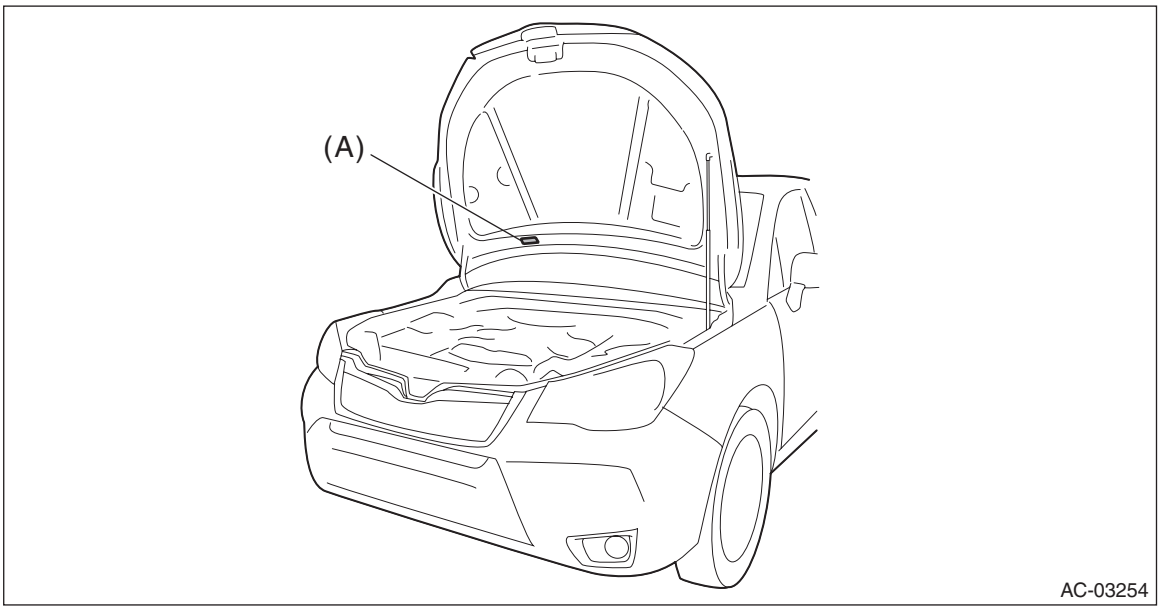
(1) Panel COMPL - instrument
(2) Duct - side defroster LH
(3) Duct - side ventilation LH
(4) Duct - center vent
(5) Duct - side defroster RH
(6) Duct - side ventilation RH
(7) Nozzle - front defroster
(8) Duct - rear heater CTR
(9) Duct - rear heater LH
(10) Duct - rear heater RH
(11) Heater and cooling unit ASSY
(12) Duct - rear heater extension LH (models with harman/kardon® audio system)
(13) Duct - rear heater extension RH (models with harman/kardon® audio system)

D: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the radio, control module, and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that each component operates normally.

1. HFC-134A A/C SYSTEM

• The cooling system components for the HFC-134a system such as the refrigerant and compressor oil are different from the conventional CFC-12 system components and they are incompatible with each other.
• Vehicles with the HFC-134a system can be identified by the label (A) attached to the vehicle.
Before maintenance, check A/C system which is installed to the vehicle.



2. COMPRESSOR OIL

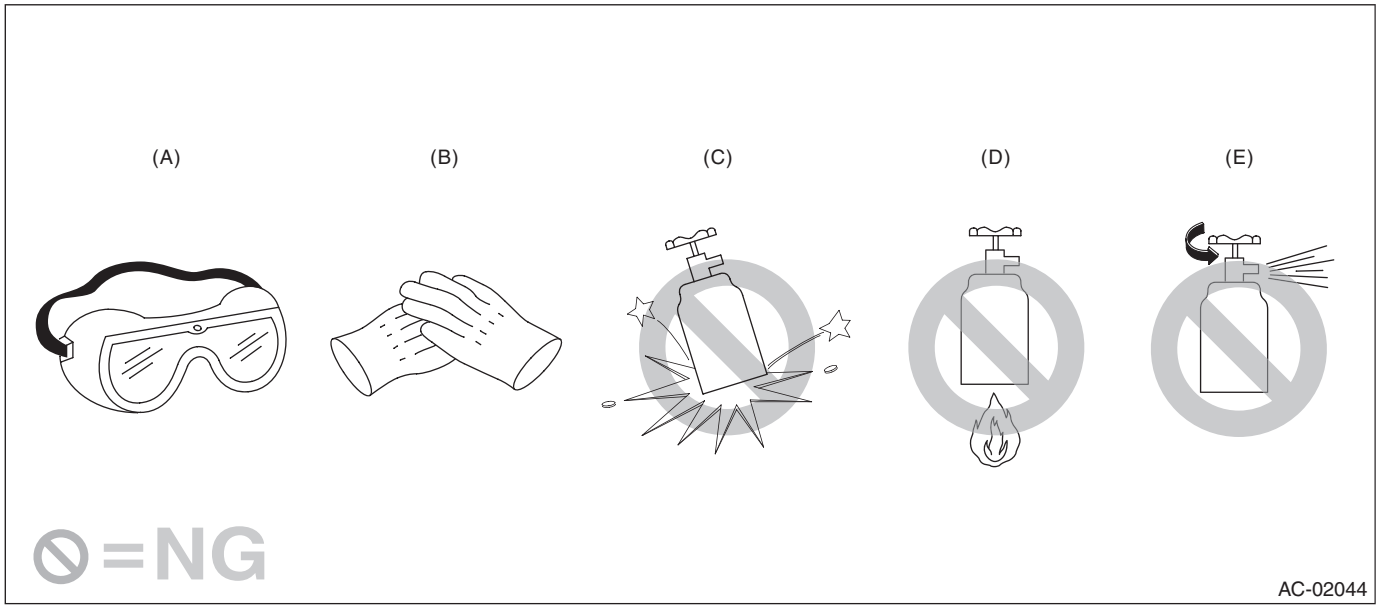
• HFC-134a compressor oil has no compatibility with that of CFC-12 system.
• Use only the manufacturer-authorized compressor oil for the HFC-134a system; only use DH-PR (ZXL200PG).
• Do not mix multiple compressor oils.
If CFC-12 compressor oil is used in the HFC-134a A/C system, the compressor may become stuck due to poor lubrication, or the refrigerant may leak due to swelling of rubber parts.
On the other hand, if HFC-134a compressor oil is used in a CFC-12 A/C system, the durability of the A/C system will be lowered.
• HFC-134a compressor oil is very hygroscopic. When replacing or installing/removing A/C parts, immediately isolate the oil from atmosphere using a plug or tape. In order to avoid moisture, store the oil in a container with its cap tightly closed.

3. REFRIGERANT

• CFC-12 refrigerant cannot be used in a HFC-134a A/C system. HFC-134a refrigerant, also cannot be used in a CFC-12 A/C system.
• If an incorrect or no refrigerant is used, it will result in poor lubrication and the compressor itself may be damaged.

4. HANDLING OF REFRIGERANT

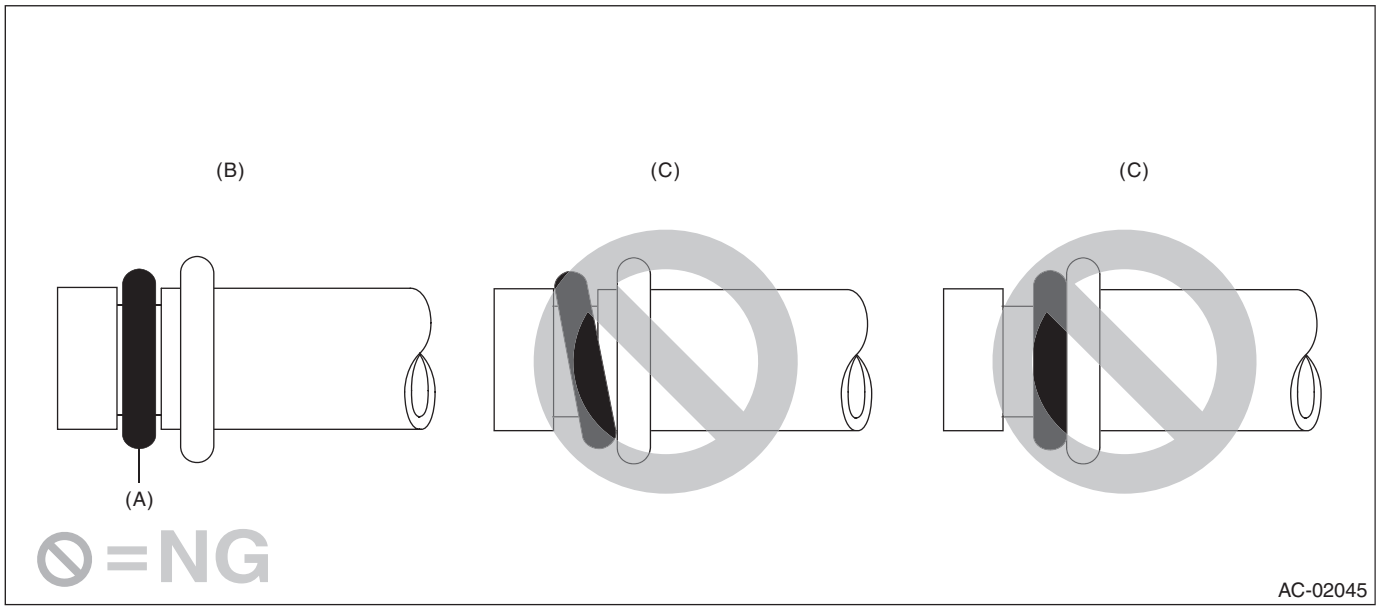
• The refrigerant boils at approx. –30°C (–22°F). When handling it, be sure to wear protective goggles and protective gloves. Direct contact of the refrigerant with skin may cause frostbite.
If the refrigerant gets into your eye, avoid rubbing your eyes with your hands. Wash your eye with plenty of water, and receive medical treatment from an eye doctor.
• Do not heat a service can. If a service can is directly heated, or put into boiling water, the inside pressure will become extremely high. This may cause the can to explode. If a service can must be warmed up, use warm water of 40°C (104°F) or less.
• Do not drop or impact a service can. (Observe the precautions and operation procedure described on the refrigerant can.)
• When the engine is running, do not open the high-pressure valve of manifold gauge. The high-pressure gas will back-flow resulting in an explosion of the can.
• Provide good ventilation and do not work in a closed area.
• In order to prevent global warming, avoid releasing HFC-134a into the atmosphere. Using a refrigerant recovery system, discharge and recycle the gas.



(A) Goggles
(B) Gloves
(C) Do not apply impact.
(D) No direct heat on container
(E) Do not discharge

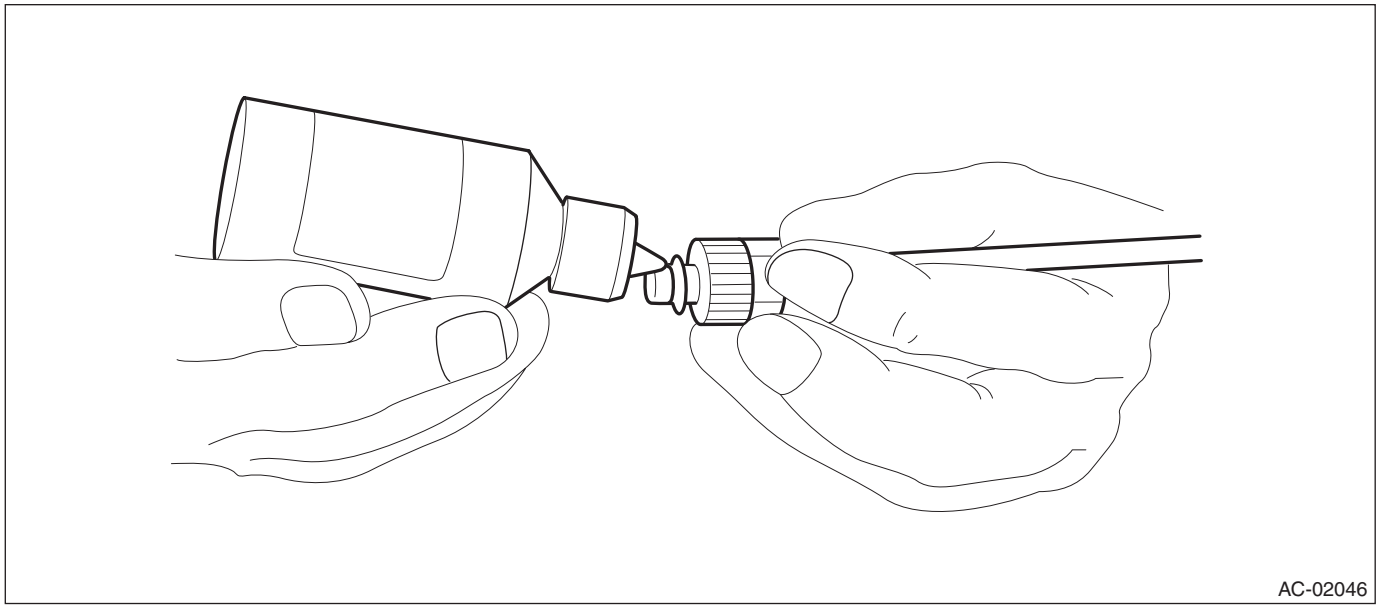
5. O-RING CONNECTIONS

- Always use a new O-ring.
- In order to keep the O-rings free of lint which will cause a refrigerant gas leak, perform work without using gloves or waste cloths.
- Apply compressor oil to O-rings to avoid sticking, before installation.
- Use a torque wrench to tighten the O-ring fittings. Over-tightening will result in damage of the O-ring and deformation of the pipe end.
- If the work is interrupted before completing pipe connections, recap the pipes, components and fittings with a plug or tape to prevent foreign matter from entering.
- Visually check the surfaces and mating surfaces of O-rings, threads and connecting points. If a failure is found, replace the applicable parts.
- Install the O-rings straight against the pipe groove.



(A) O-ring (B) OK (C) NG

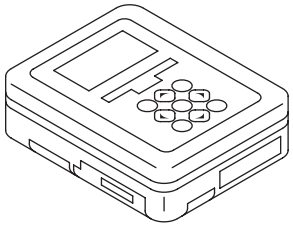
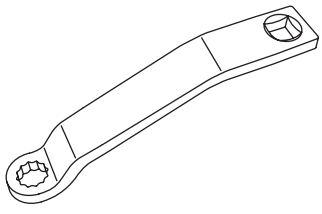
• Use compressor oil specified in the service manual to lubricate the O-rings.
Apply oil to the top and sides of O-rings before installation.
Apply compressor oil to the pipe grooves.



• After tightening, use a clean cloth to remove excess compressor oil from the connections and any oil which may have run on the vehicle body or other parts.
• If any leakage is suspected after tightening, do not tighten the connections further, but disconnect the connections, remove the O-rings, and check the O-rings, threads, and connections.

E: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system. NOTE: For detailed operation procedures of SUBARU SELECT MONITOR III KIT, refer to “PC application help for Subaru Select Monitor”.
 ST73099SG000	73099SG000	SPECIAL TOOL CONDENSER	Used for installing the condenser.

2. GENERAL TOOL

CAUTION:
When working on vehicles with a HFC-134a system, only use HFC-134a specified tools and parts. Do not mix CFC-12 tools and parts. If HFC-134a and CFC-12 refrigerant or compressor oil is mixed, it will result in poor lubrication and the compressor itself may be damaged.
In order to prevent the mixture of HFC-134a and CFC-12 parts and liquid, the type of tool and screw, and the replacement valves used are different. The gas leak detectors for the HFC-134a and CFC-12 systems must also not be interchanged.

	HFC-134a	CFC-12
Tool & screw type	Millimeter size	Inch size
Valve type	Quick joint type	Screw-in type

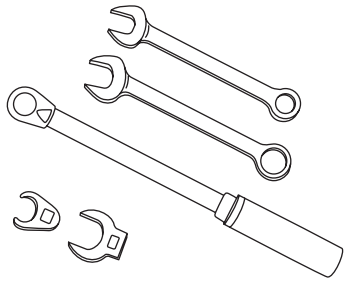
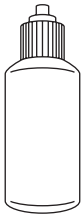
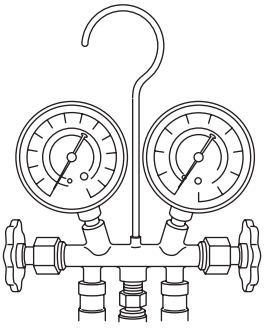
Illustration	Tools and Equipment
 AC-00213	Wrench Various **WRENCHES** will be required to service any A/C system.7 — 40 N·m (0.7 to 4.1 kgf-m, 5 to 30 ft-lb) torque wrench and various crow-foot wrenches will be needed. Open end or flare nut wrenches will be needed to affix the pipe and hose fittings.
 AC-00012	Applicator bottle A small **APPLICATOR BOTTLE** is recommended to apply compressor oil to the various parts. It can be available at a hardware store.
 AC-00013	Manifold gauge set A **MANIFOLD GAUGE SET** (with hoses) is available at either a refrigerant supplier or an automotive equipment supplier.

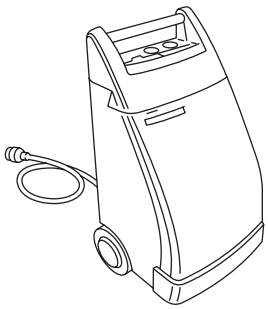
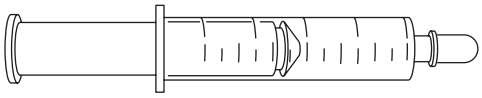
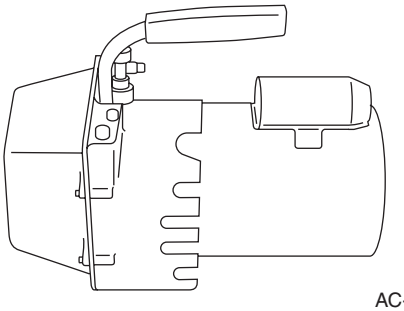
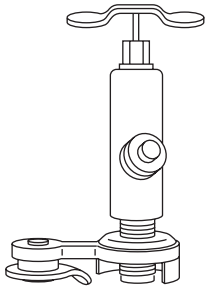
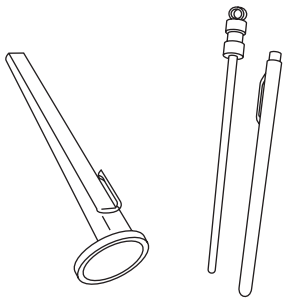
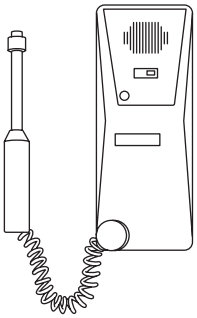
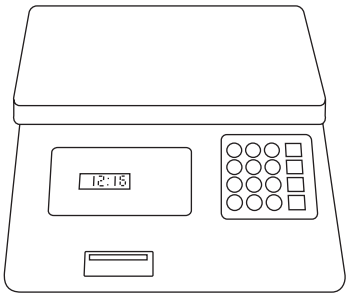
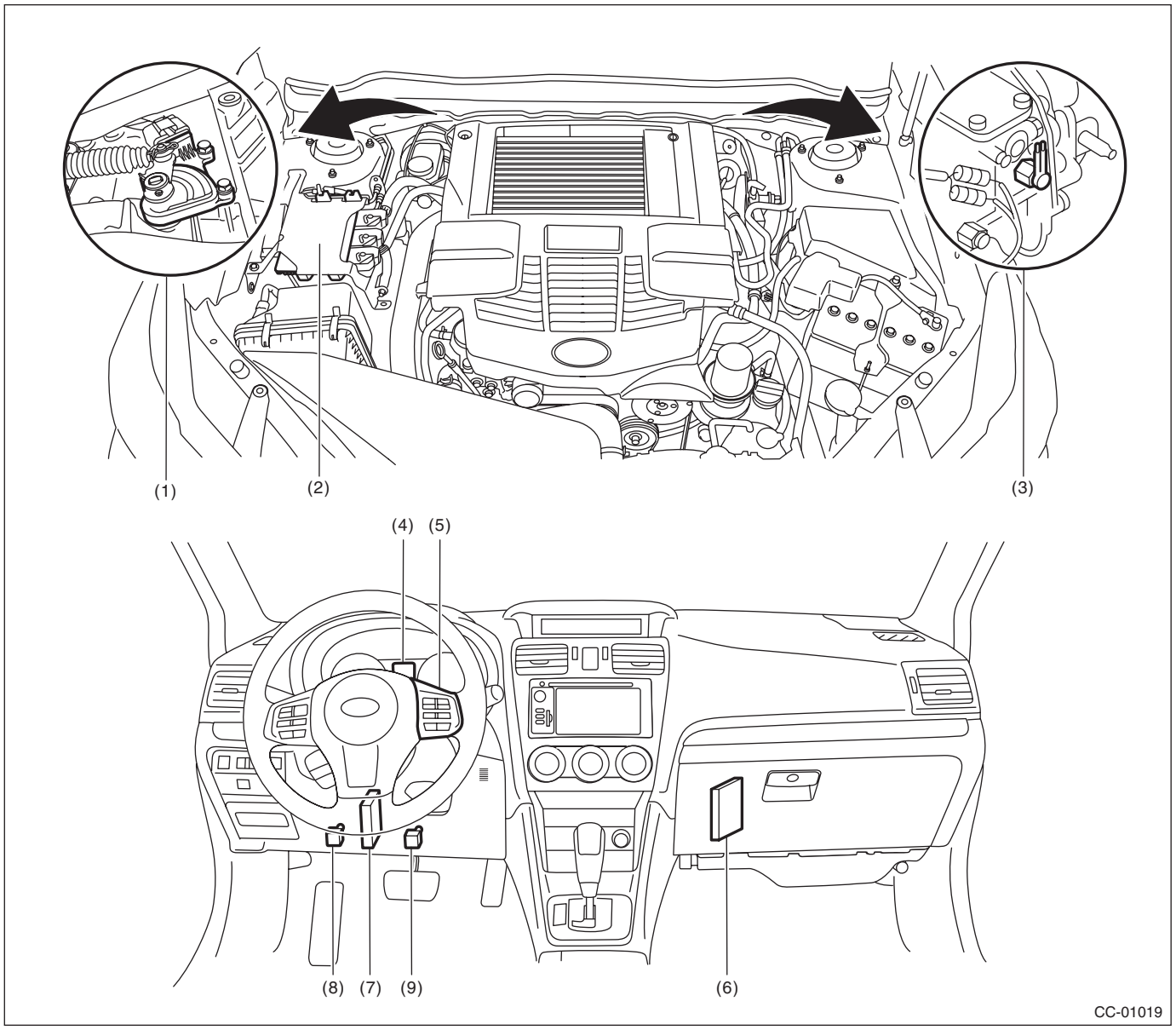
Illustration	Tools and Equipment
 AC-00014	Refrigerant recovery system A **REFRIGERANT RECOVERY SYSTEM** is used for the recovery and recycling of A/C system refrigerant after contaminants and moisture have been removed from the refrigerant.
 AC-00015	Syringe A graduated plastic **SYRINGE** will be needed to add oil into the system again. A syringe can be available at a pharmacy or drug store.
 AC-00016	Vacuum pump A **VACUUM PUMP** is necessary (for a good working condition), and may be available at either a refrigerant supplier or an automotive equipment supplier.
 AC-00017	Can tap A **CAN TAP** for the 397 g (14 oz.) can is available at an automotive equipment supplier.
 AC-00018	Thermometer A Pocket **THERMOMETER** is available at either a industrial hardware store or a refrigerant supplier.

Illustration	Tools and Equipment
 AC-00019	Electronic leak detector An **ELECTRONIC LEAK DETECTOR** can be available at either a specialty tool supplier or an A/C equipment supplier.
 AC-00020	Weight scale A **WEIGHT SCALE** such as an electronic charging scale or a bathroom scale with digital display will be needed, if a 13.6 kg (30 lb) refrigerant container is used.

1. General Description

A: COMPONENT



(1) Inhibitor switch (CVT model)
(2) Engine control module (turbo model)
(3) Neutral position switch (MT model)
(4) Cruise indicator light and cruise set indicator light
(5) Cruise control command switch
(6) Engine control module (non-turbo model)
(7) Transmission control module (CVT model)
(8) Clutch switch (MT model)
(9) Stop light and brake switch

B: CAUTION

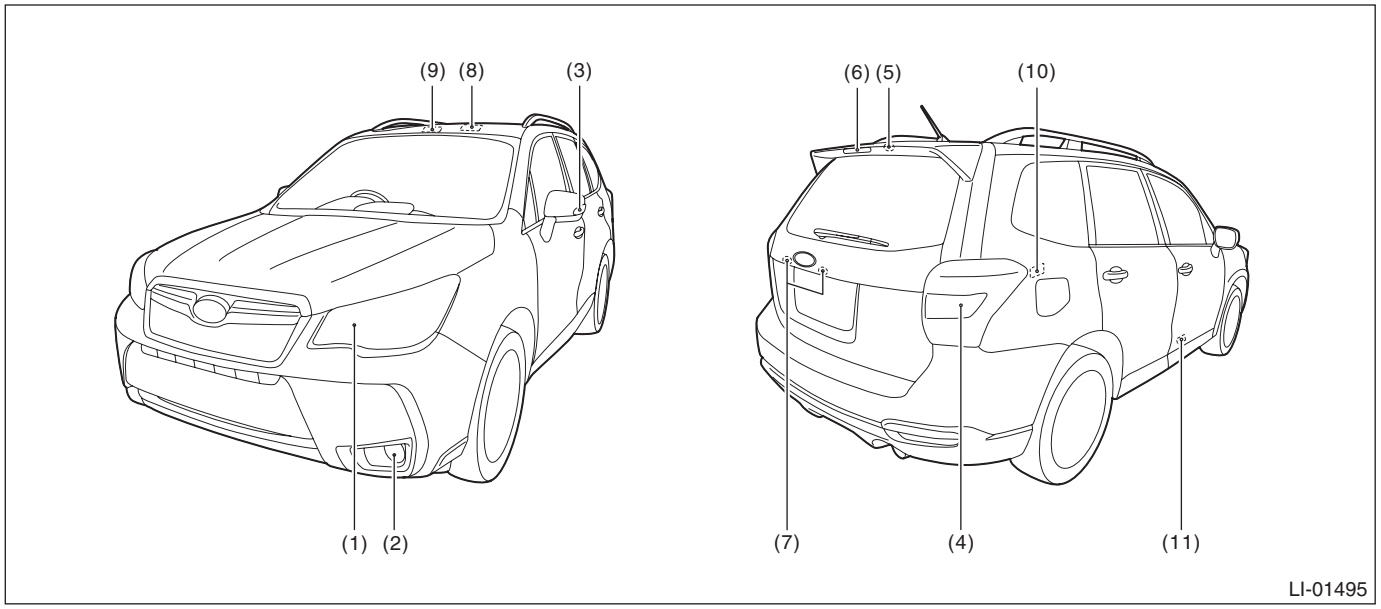
• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Adjust parts to the given specifications.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that the each component operates normally.
• Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of “AIRBAG SYSTEM” in this case. <Ref. to AB-9, CAUTION, General Description.>
• Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor. <Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDC-CM&H/U).>

C: PREPARATION TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Steering wheel puller	Used for removing the steering wheel.

1. General Description

A: SPECIFICATION



No.	Description		Capacity and wattage	Type
(1)	Headlight	Low beam (halogen type)	12 V — 55 W	H11
		Low beam (HID type)	12 V — 35 W	D4R
		High beam	12 V — 60 W	HB3
		Front turn signal light	12 V — 21 W	WY21W
		Parking light (halogen type)	12 V — 5 W	W5W
		Parking light (HID type)	12 V — 1.8 W (LED)	*1
		Side marker light	12 V — 5 W	W5W
(2)	Front fog light		12 V — 19 W	H16
(3)	Side turn signal light		12 V — 1.1 W (LED)	*1
(4)	Rear combination light	Tail & side marker/stop light	12 V — 5 / 21 W	W21/5W
		Back-up light	12 V — 16 W	W16W
		Turn signal light	12 V — 21 W	WY21W
		Tail light	12 V — 5 / 21 W	W21/5W*2
(5)	High-mounted stop light (rear gate type)		12 V — 1.2 W (LED)	*1
(6)	High-mounted stop light (rear spoiler type)		12 V — 1.2 W (LED)	*1
(7)	License plate light		12 V — 5 W	W5W
(8)	Room light		12 V — 8 W	—
(9)	Spot map light		12 V — 8 W	—
(10)	Luggage room light		12 V — 5 W	W5W
(11)	Door step light		12 V — 5 W	W5W

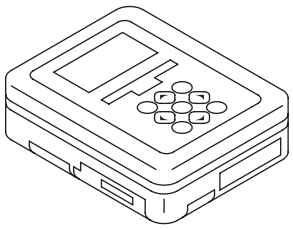
*1: Non-disassembly type
*2: Only 5W illuminates.

B: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that the each component operates normally.
• Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of “AIRBAG SYSTEM” in this case.<Ref. to AB-9, CAUTION, General Description.>
• Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor.<Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDC-CM&H/U).>
• When removing and installing the valve, use a dry and clean cloth so that no grease or water adheres to the glass portion.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for setting of each function and trouble-shooting for electrical system. NOTE: For detailed operation procedures of SUBARU SELECT MONITOR III KIT, refer to “PC application help for Subaru Select Monitor”.

2. GENERAL TOOL

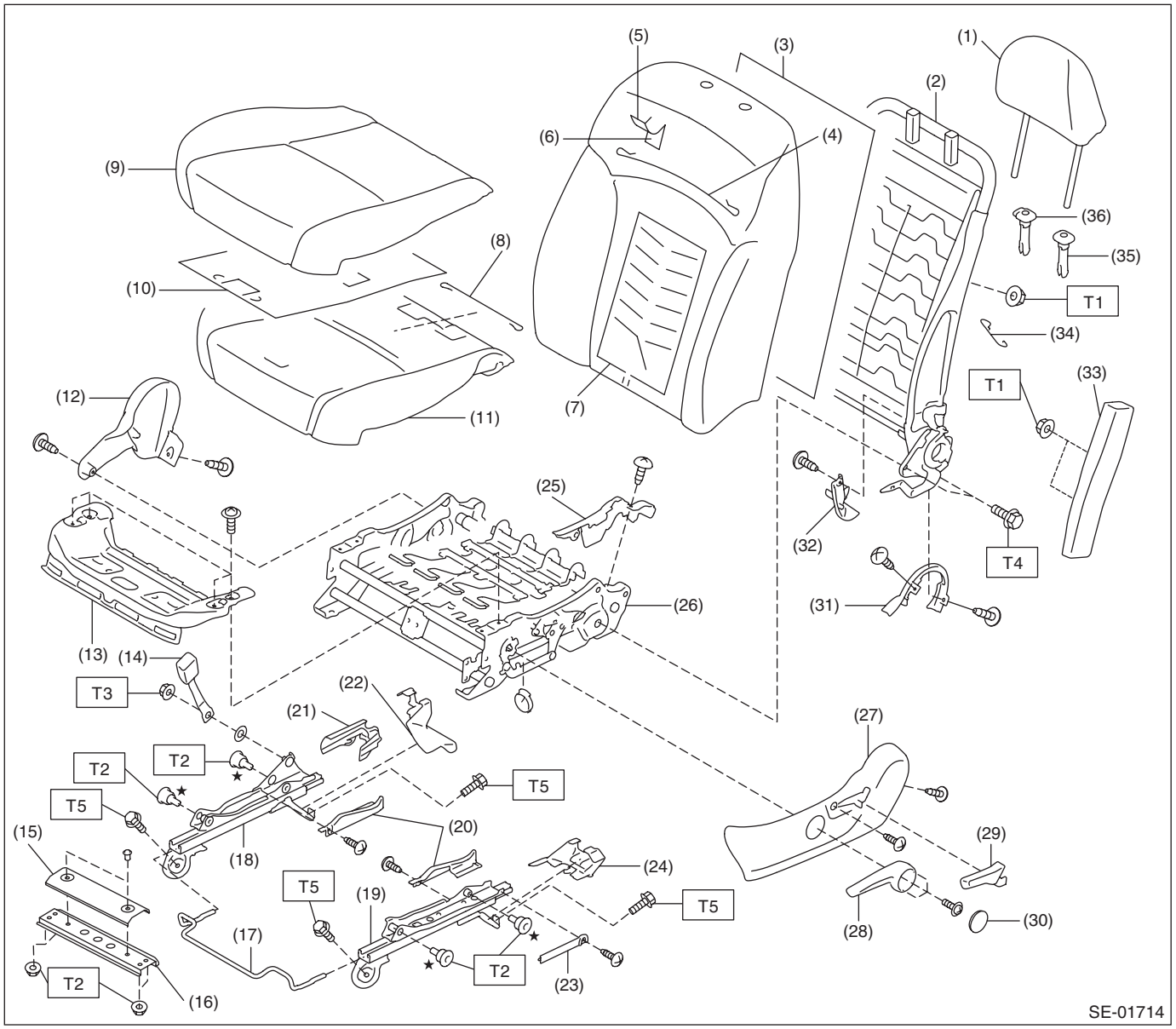
TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Steering wheel puller	Used for removing the steering wheel.

1. General Description

A: COMPONENT

1. FRONT SEAT

- Manual seat LH

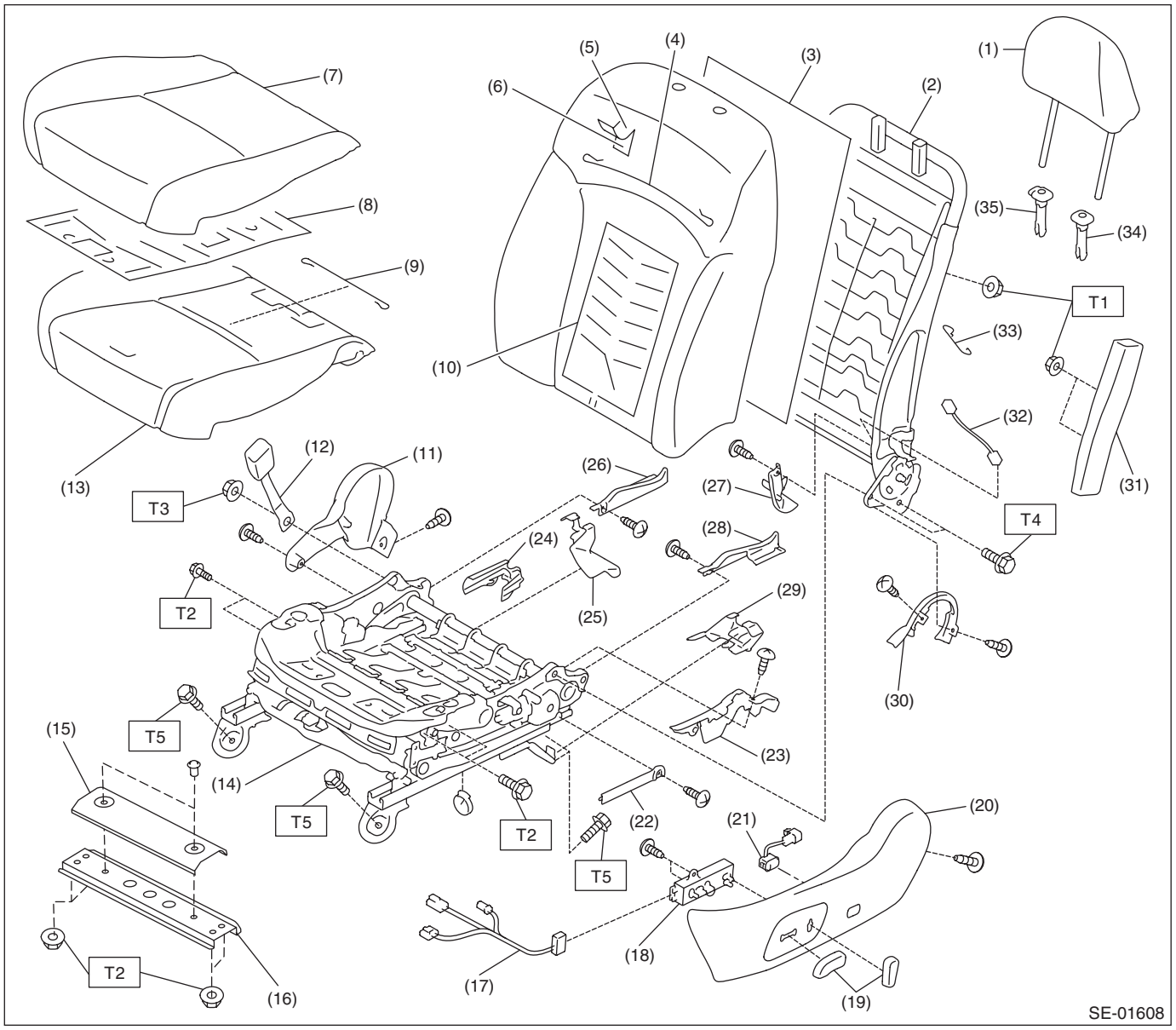


(1) Headrest ASSY - front
(2) Frame ASSY - front backrest
(3) Cover - silencer front seat backrest
(4) Wire set - front seat backrest
(5) Cover COMPL - front backrest
(6) Pad ASSY - front seat backrest
(7) Heater unit - front seat backrest
(8) Wire set - front seat cushion
(9) Cover - front cushion
(10) Heater unit - front seat cushion
(11) Pad ASSY - front seat cushion
(12) Cover - hinge front seat INN
(13) Panel - front seat
(14) Seat belt inner - front
(15) Member - cover
(16) Member - bracket
(17) Lever - towel bar
(18) Slide rail ASSY - INN
(19) Slide rail ASSY - OUT
(20) Cover - slide rail INN
(21) Leg cover UPR
(22) Cover - bolt rear INN
(23) Cover - slide rail OUT
(24) Cover - bolt rear OUT
(25) Cover - frame front cushion
(26) Frame ASSY - front cushion
(27) Cover - hinge front seat OUT
(28) Knob - lifter
(29) Lever - reclining
(30) Cap - lifter lever
(31) Cover - hinge base front seat
(32) Cover - inner front
(33) Side airbag module
(34) Hook - backrest front
(35) Bushing - free headrest
(36) Bushing - lock headrest

Tightening torque:N·m (kgf-m, ft-lb)

T1: 6 (0.61, 4.4)
T2: 18 (1.84, 13.3)
T3: 38 (3.87, 28.0)
T4: 52 (5.30, 38.4)
T5: 53 (5.40, 39.1)

- Power seat LH

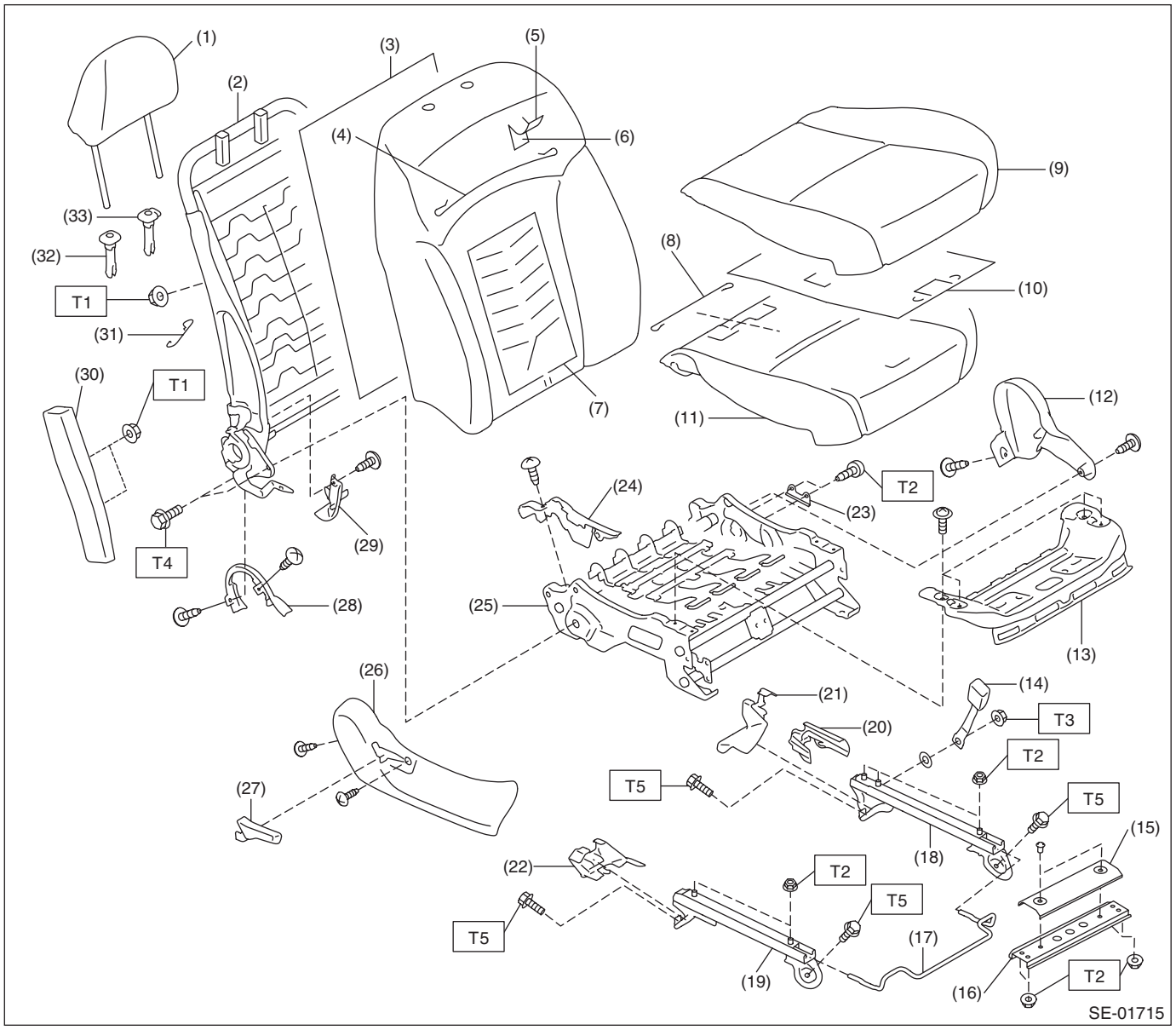


(1)	Headrest ASSY - front	(16)	Member - bracket	(31)	Side airbag module
(2)	Frame ASSY - front backrest	(17)	Harness ASSY - power seat	(32)	Harness ASSY - power seat
(3)	Cover - silencer front seat backrest	(18)	Switch ASSY - power seat	(33)	Hook - backrest front
(4)	Wire set - front seat backrest	(19)	Knob - power seat	(34)	Bushing - free headrest
(5)	Cover COMPL - front backrest	(20)	Switch ASSY - lumbar	(35)	Bushing - lock headrest
(6)	Pad ASSY - front seat backrest	(21)	Cover - hinge front seat OUT		
(7)	Cover - front cushion	(22)	Cover - slide rail OUT		
(8)	Heater unit - front cushion	(23)	Cover - frame front seat cushion		
(9)	Wire set - front seat cushion	(24)	Leg cover UPR		
(10)	Heater unit - front seat backrest	(25)	Cover - bolt rear INN		
(11)	Cover - hinge front seat INN	(26)	Cover - slide rail INN		
(12)	Seat belt inner - front	(27)	Cover - inner front		
(13)	Pad ASSY - front seat cushion	(28)	Cover - slide rail OUT		
(14)	Frame ASSY - front cushion	(29)	Cover - bolt rear OUT		
(15)	Member - cover	(30)	Cover - hinge base front seat		

Tightening torque:N·m (kgf-m, ft-lb)

T1: 6 (0.61, 4.4)
T2: 18 (1.84, 13.3)
T3: 38 (3.87, 28.0)
T4: 52 (5.30, 38.4)
T5: 53 (5.40, 39.1)

- Manual seat RH

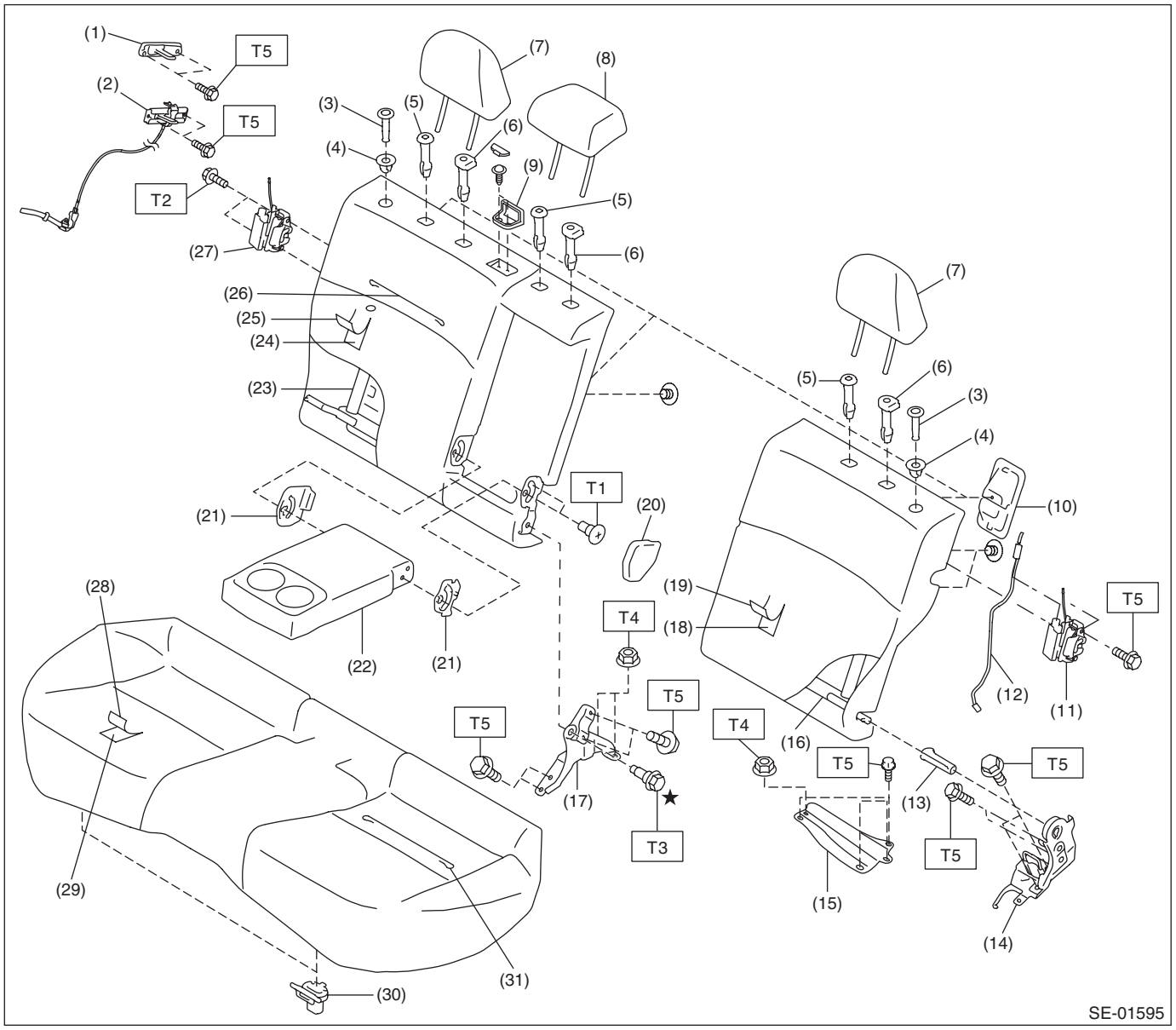


(1) Headrest ASSY - front
(2) Frame ASSY - front backrest
(3) Cover - silencer front seat backrest
(4) Wire set - front seat backrest
(5) Cover COMPL - front backrest
(6) Pad ASSY - front seat backrest
(7) Heater unit - front seat backrest
(8) Wire set - front seat cushion
(9) Cover - front cushion
(10) Heater unit - front seat cushion
(11) Pad ASSY - front seat cushion
(12) Cover - hinge front seat INN
(13) Panel - front seat
(14) Seat belt inner - front
(15) Member - cover
(16) Member - bracket
(17) Lever - towel bar
(18) Slide rail ASSY - INN
(19) Slide rail ASSY - OUT
(20) Leg cover UPR
(21) Cover - bolt rear INN
(22) Cover - bolt rear OUT
(23) J hook
(24) Cover - frame front cushion
(25) Frame ASSY - front cushion
(26) Cover - hinge front seat OUT
(27) Lever - reclining
(28) Cover - hinge base front seat
(29) Cover - inner front
(30) Side airbag module
(31) Hook - backrest front
(32) Bushing - free headrest
(33) Bushing - lock headrest

Tightening torque:N·m (kgf-m, ft-lb)

T1: 6 (0.61, 4.4)
T2: 18 (1.84, 13.3)
T3: 38 (3.87, 28.0)
T4: 52 (5.30, 38.4)
T5: 53 (5.40, 39.1)

2. REAR SEAT


(1)
T5
(2)
T5
T2
(27)
(3)
(5)
(4)
(7)
(8)
(6)
(9)
(5)
(6)
(26)
(25)
(24)
(23)
(21)
T1
(20)
(28)
(22)
(21)
T4
T5
T5
(17)
T3
(29)
(30)
(31)
(7)
(5)
(6)
(3)
(4)
(10)
(19)
(18)
T5
(12)
(11)
T4
(16)
T5
T5
(13)
T5
(15)
(14)
SE-01595

(1) Striker - backrest rear RH (except for reclining type)
(2) Striker - backrest rear RH (reclining type)
(3) Knob - backrest rear
(4) Knob - guide
(5) Bushing - headrest
(6) Bushing - lock ASSY
(7) Pillow ASSY - rear backrest
(8) Pillow ASSY - rear center
(9) Belt guide - rear seat
(10) Tether anchor cover
(11) Lock ASSY - backrest rear LH
(12) Remote control back rest actuator ASSY
(13) Bushing - backrest hinge
(14) Hinge ASSY - rear backrest
(15) Hinge ASSY - rear backrest stay
(16) Frame ASSY - rear backrest LH
(17) Hinge ASSY - backrest center
(18) Pad ASSY - rear seat backrest LH
(19) Cover COMPL - rear backrest LH
(20) Cover - armrest
(21) Bushing - rear armrest
(22) Armrest ASSY - rear center
(23) Frame ASSY - rear backrest RH
(24) Pad ASSY - rear seat backrest RH
(25) Cover COMPL - rear backrest RH
(26) Wire set - rear backrest
(27) Lock ASSY - backrest rear RH
(28) Cover - rear cushion
(29) Pad and frame ASSY - rear cushion
(30) Hook - seat cushion rear
(31) Wire set - rear cushion

Tightening torque: N·m (kgf-m, ft-lb)

T1: 9.8 (1.0, 7.2)
T2: 17.6 (1.79, 13.0)
T3: 22.5 (2.29, 16.6)
T4: 24.5 (2.50, 18.1)
T5: 33 (3.36, 24.3)

B: CAUTION

When removing the front seat from the vehicle, refer to “CAUTION” of “General Description” in “AIRBAG SYSTEM” section. <Ref. to AB-9, CAUTION, General Description.>

C: PREPARATION TOOL

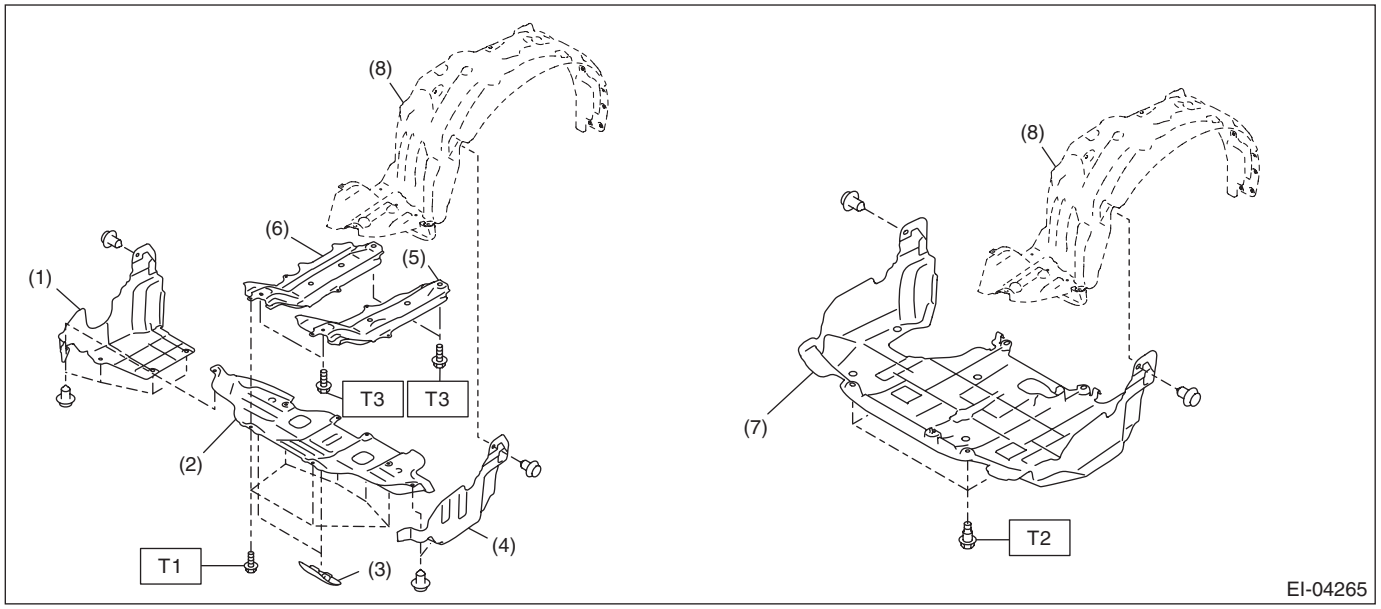
1. GENERAL TOOL

TOOL NAME	REMARKS
Long nose plier	Used for removing the hog ring.
Hog ring pliers	Used for installing the hog ring.
Circuit tester	Used for measuring resistance and voltage.

1. General Description

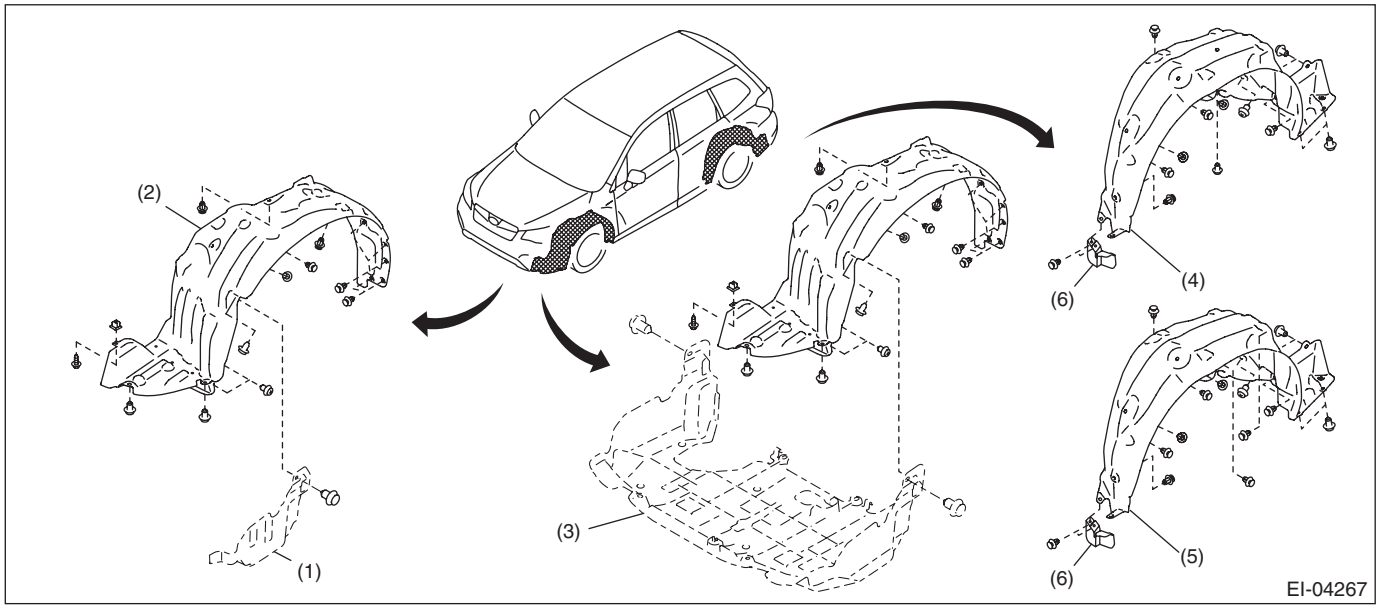
A: COMPONENT

1. FRONT UNDER COVER



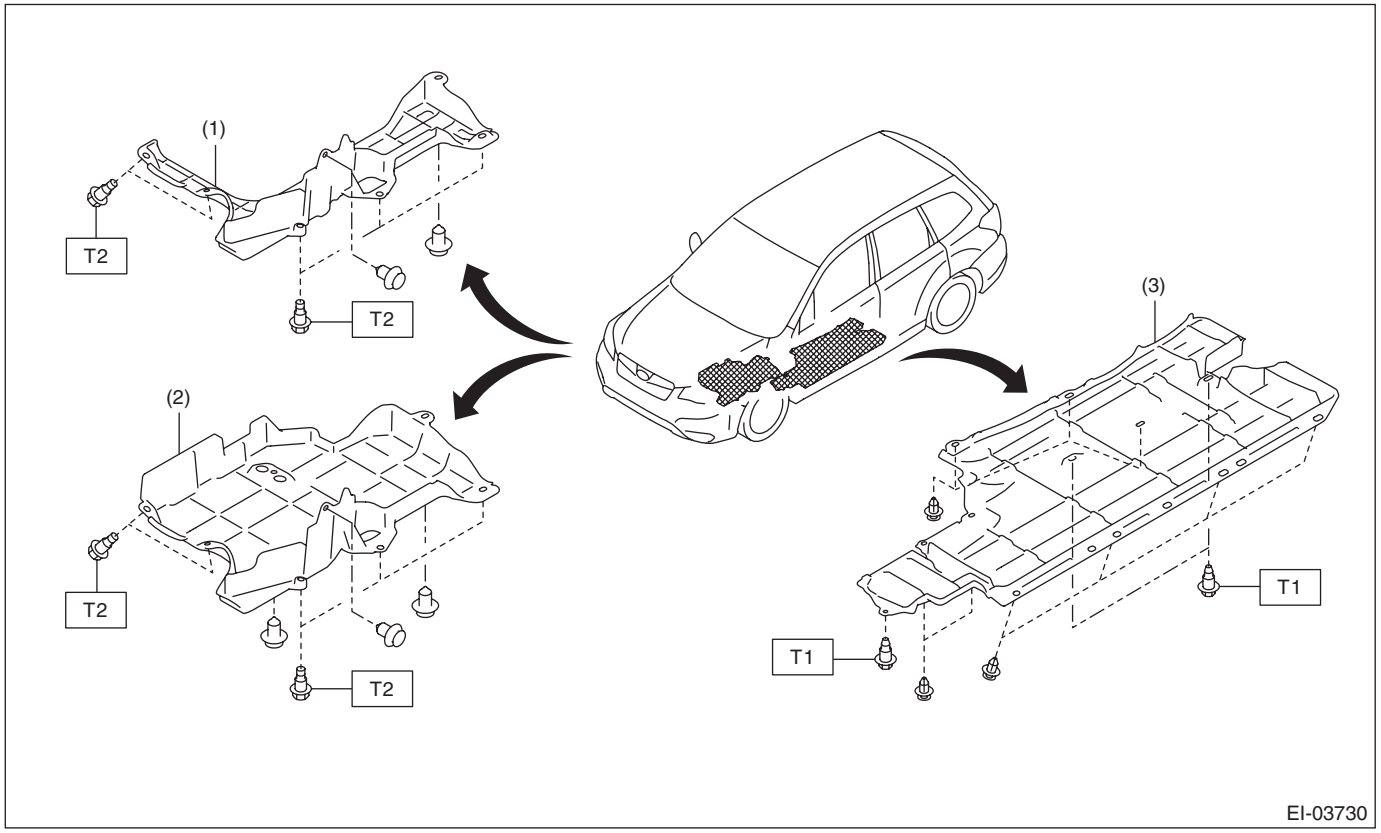
(1)	Under cover COMPL - front RH (turbo model)	(5)	Under cover - front guard LH (turbo model)	***Tightening torque:N·m (kgf-m, ft-lb)***
(2)	Plate CTR - aluminum (turbo model)	(6)	Under cover - front guard RH (turbo model)	***T1: 7.5 (0.76, 5.5)***
(3)	Cover - plate (turbo model)	(7)	Under cover - front (non-turbo model)	***T2: 18 (1.84, 13.3)***
(4)	Under cover COMPL - front LH (turbo model)	(8)	Mud guard - front	***T3: 32 (3.26, 23.6)***

2. MUD GUARD



(1)	Under cover COMPL - front LH (turbo model)	(3)	Under cover - front (non-turbo model)	(5)	Mud guard - rear LH
(2)	Mud guard - front	(4)	Mud guard - rear RH	(6)	Plate - air flap rear

3. FLOOR UNDER PROTECTOR



(1) Under cover front - transmission (CVT non-turbo model)
(2) Under cover front - transmission (MT non-turbo model)
(3) Under cover - rear (turbo model)

Tightening torque: N·m (kgf-m, ft-lb)

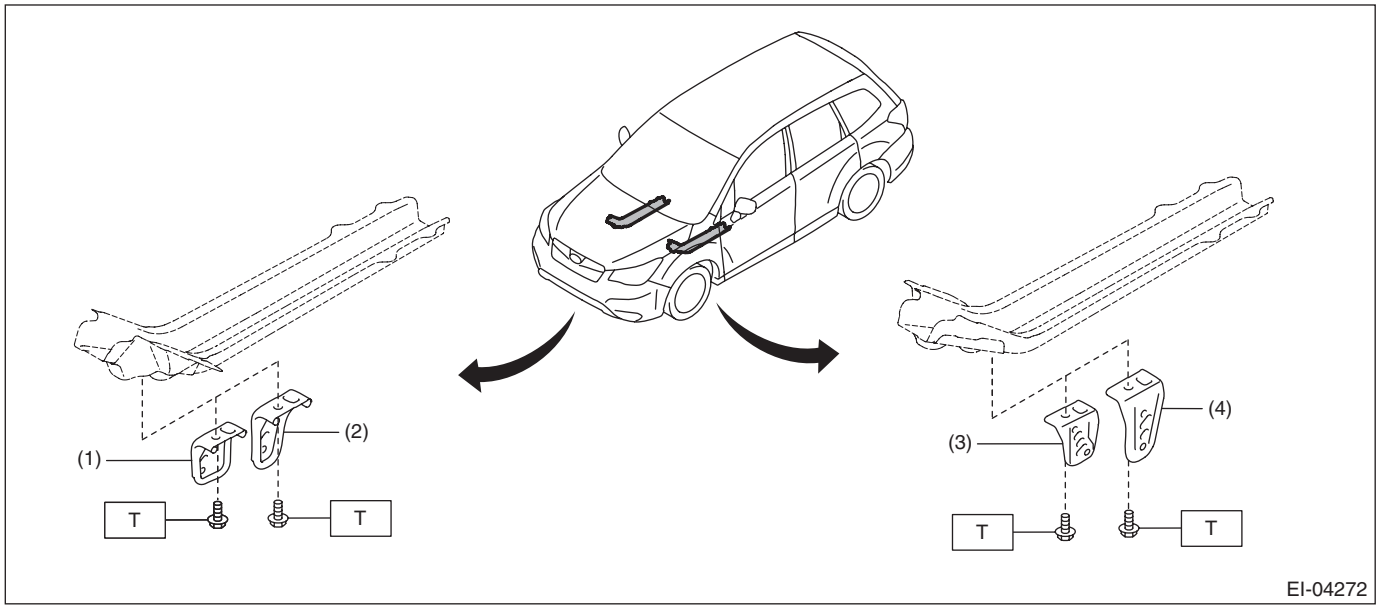
T1: 7.5 (0.76, 5.5)

T2: 18 (1.84, 13.3)

4. FUEL TANK PROTECTOR

For exploded view of the fuel tank protector, refer to “FUEL TANK” of “FUEL INJECTION” section. <Ref. to FU(H4DO)-7, FUEL TANK, COMPONENT, General Description.>

5. PROTECTOR OIL COVER



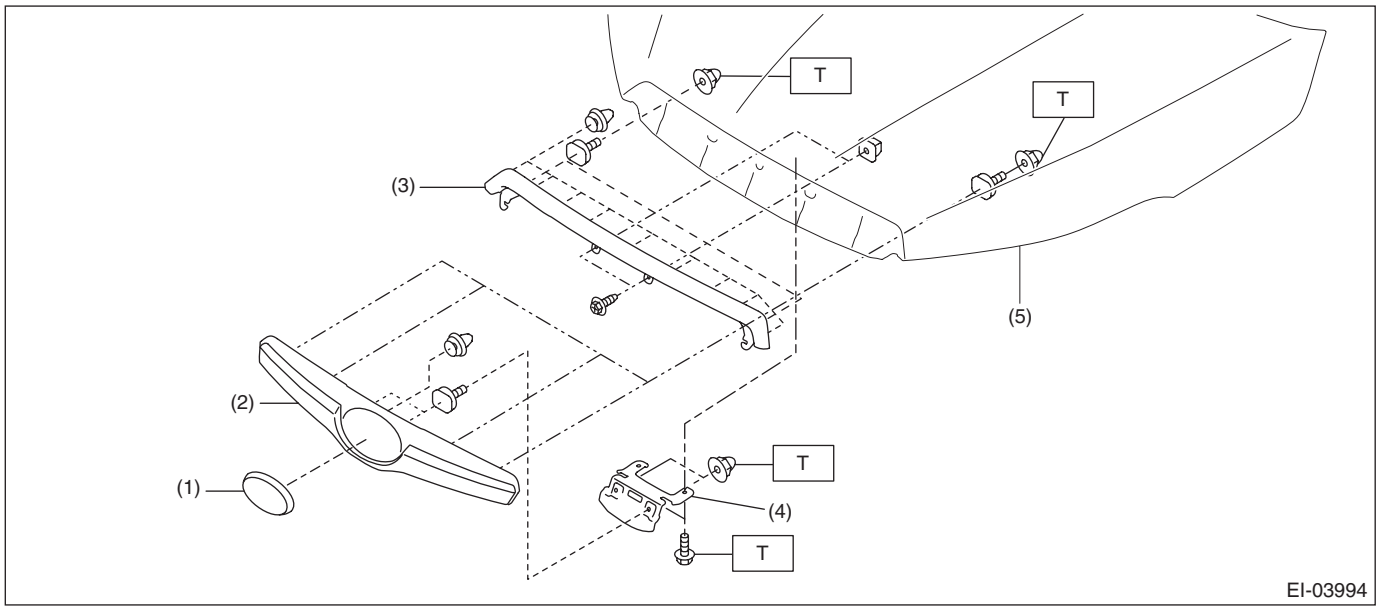
(1) Protector oil cover RH (CVT, turbo model)
(2) Protector oil cover RH (CVT, non-turbo model)
(3) Protector oil cover LH (CVT, turbo model)
(4) Protector oil cover LH (CVT, non-turbo model)

Tightening torque:N·m (kgf-m, ft-lb)
T: 100 (10.2, 73.3)

6. FRONT HOOD GRILLE

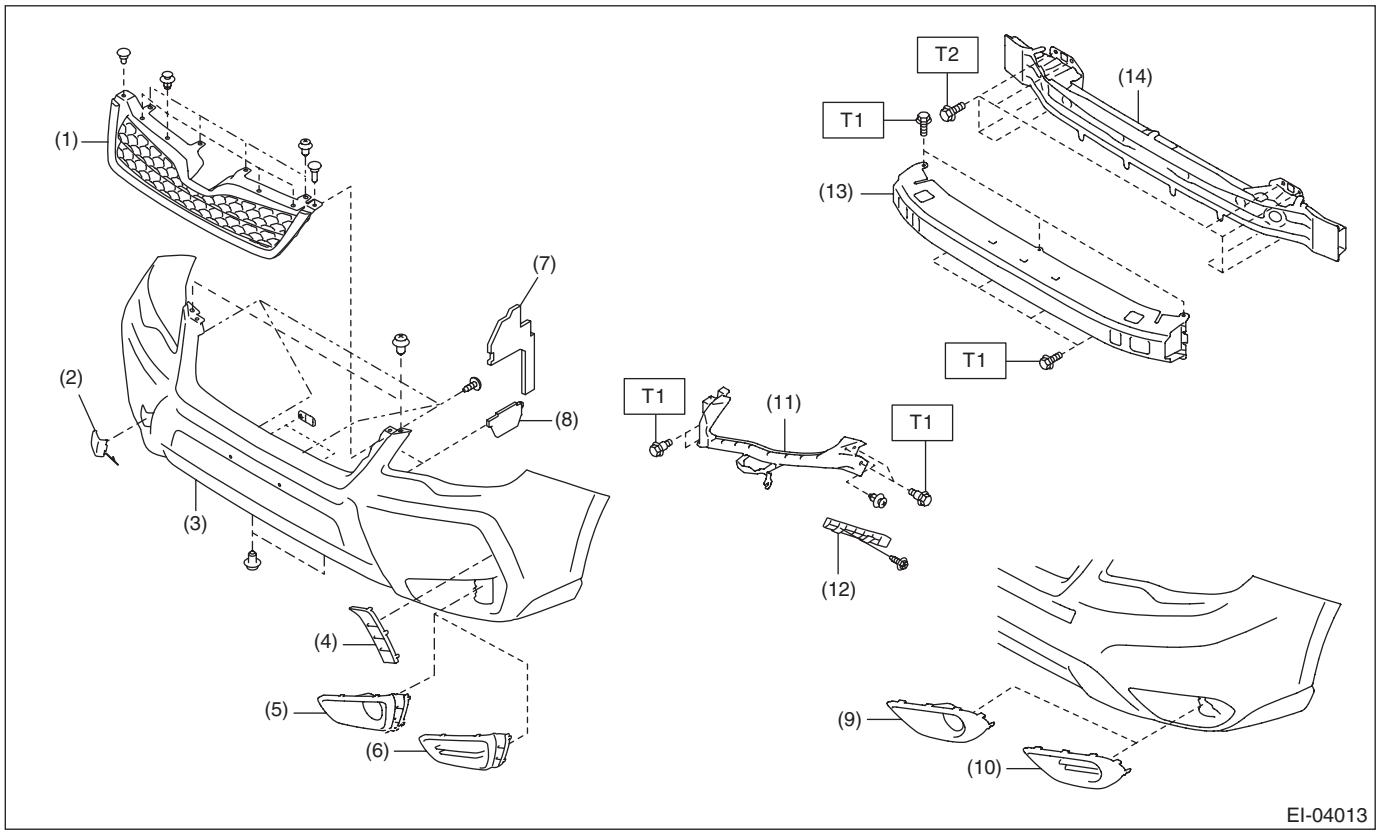
For exploded view of the front hood grille, refer to “Front hood” of “EXTERIOR BODY PANELS” section. <Ref. to EB-3, FRONT HOOD, COMPONENT, General Description.>

7. FRONT BUMPER



(1) Ornament front
(2) Grille ASSY - front CTR
(3) Grille ASSY - front UPR
(4) Bracket - grille UPR
(5) Hood COMPL - front

Tightening torque: N·m (kgf-m, ft-lb)
T: 4.5 (0.46, 3.3)

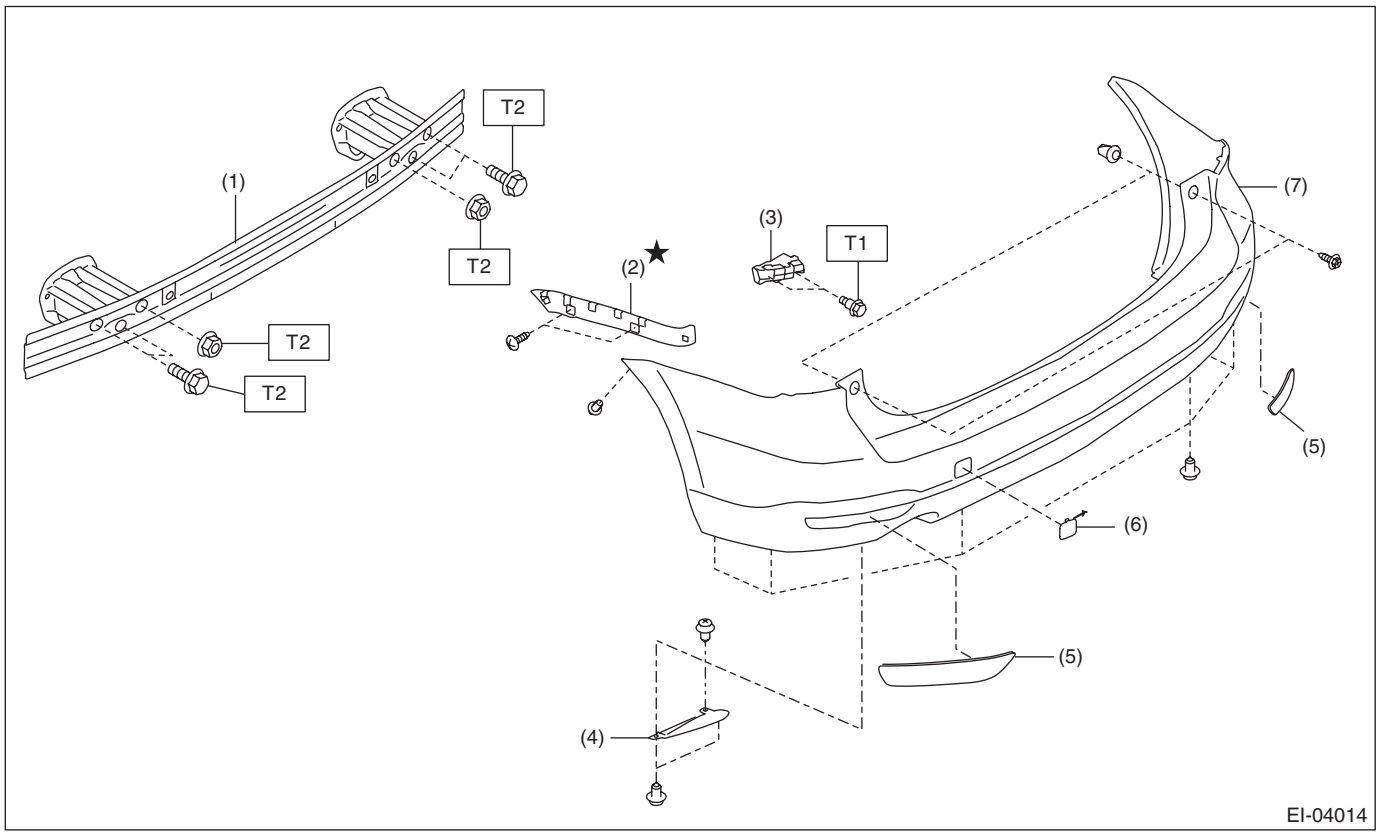


(1) Grille ASSY - front LWR
(2) Cover hook - front
(3) Bumper face - front
(4) Cover side - front
(5) Cover - fog light (turbo model)
(6) Cover bumper - front (turbo model)
(7) Radiator gasket UPR
(8) Radiator gasket LWR
(9) Cover - fog light (non-turbo model)
(10) Cover bumper - front (non-turbo model)
(11) Bracket - front bumper corner
(12) Bracket - front bumper side
(13) Energy absorber - front bumper
(14) Bumper beam COMPL - front

Tightening torque: N·m (kgf-m, ft-lb)

T1: 7.5 (0.76, 5.5)
T2: 32 (3.26, 23.6)

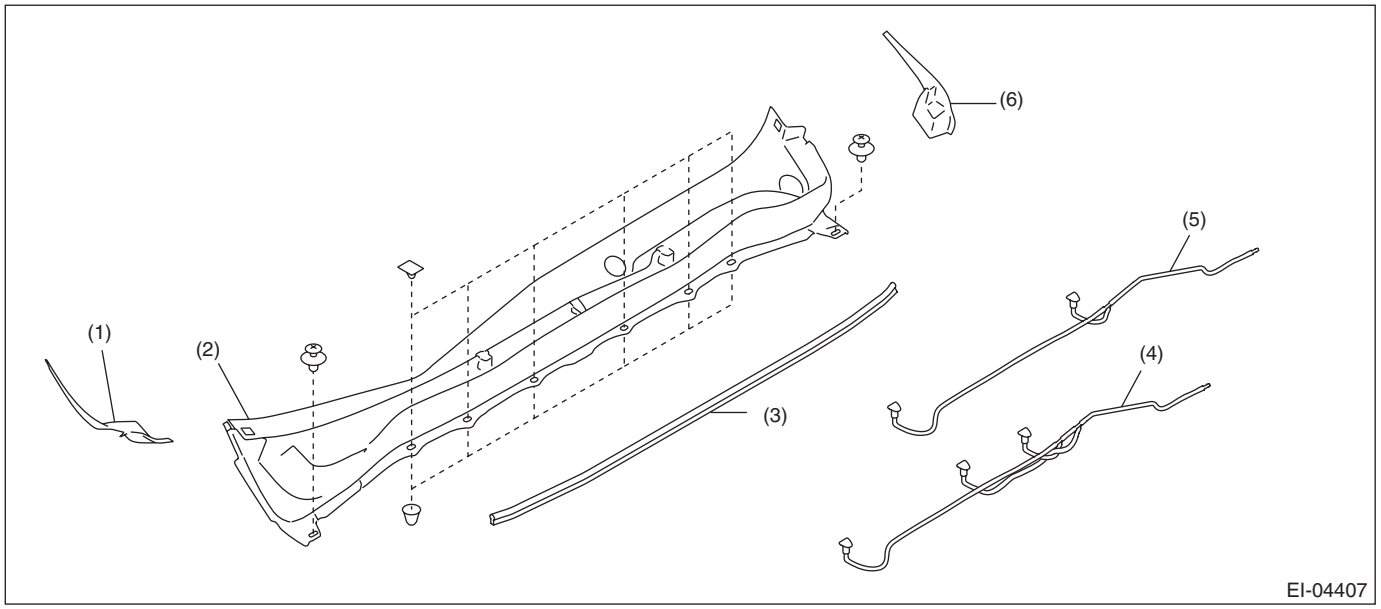
8. REAR BUMPER



(1) Beam COMPL - rear
(2) Bracket - rear bumper side
(3) Bracket - rear bumper corner
(4) Cover - rear bumper
(5) Reflex reflector
(6) Cover - hook rear
(7) Bumper face - rear

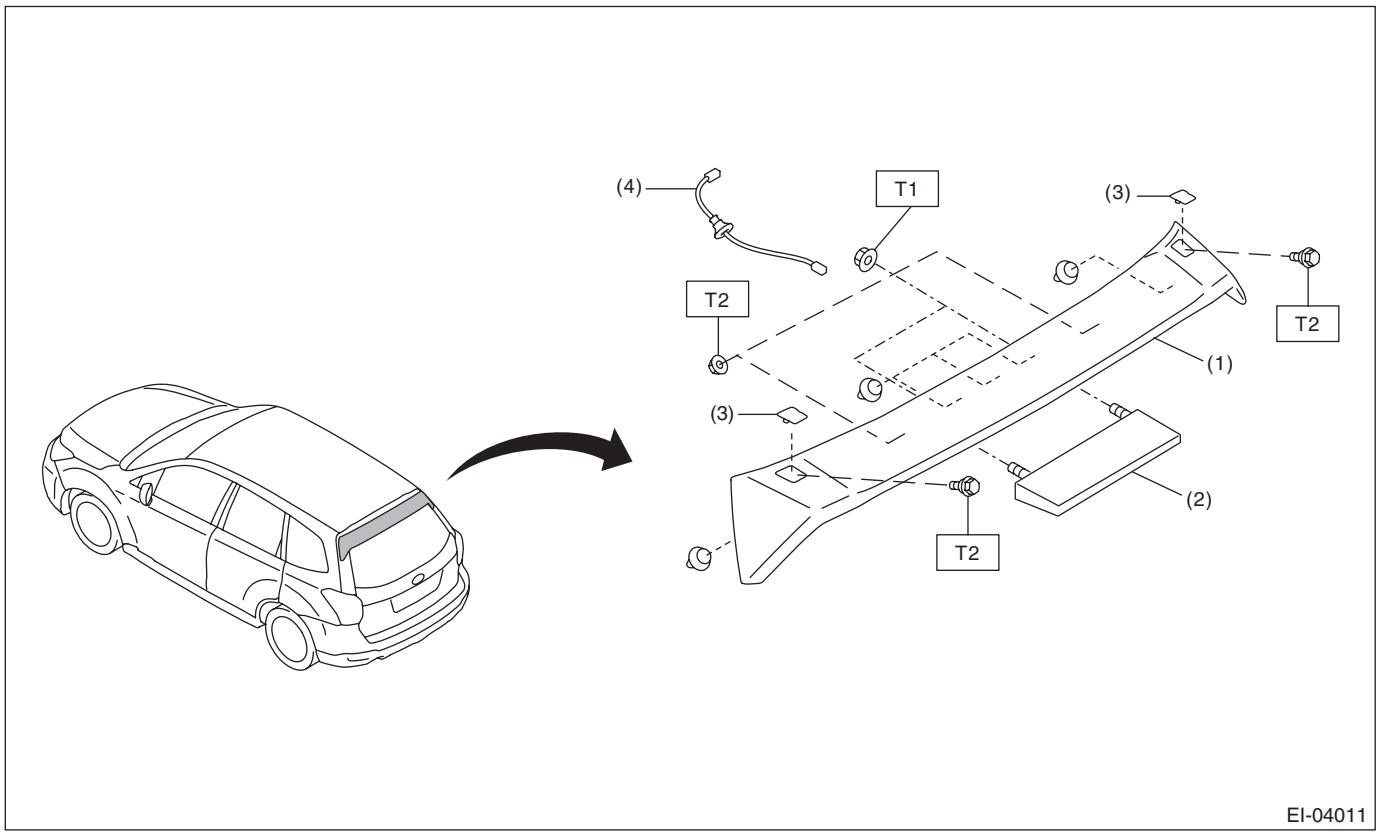
Tightening torque: N·m (kgf-m, ft-lb)
T1: 7.5 (0.76, 5.5)
T2: 70 (7.14, 51.6)

9. COWL PANEL



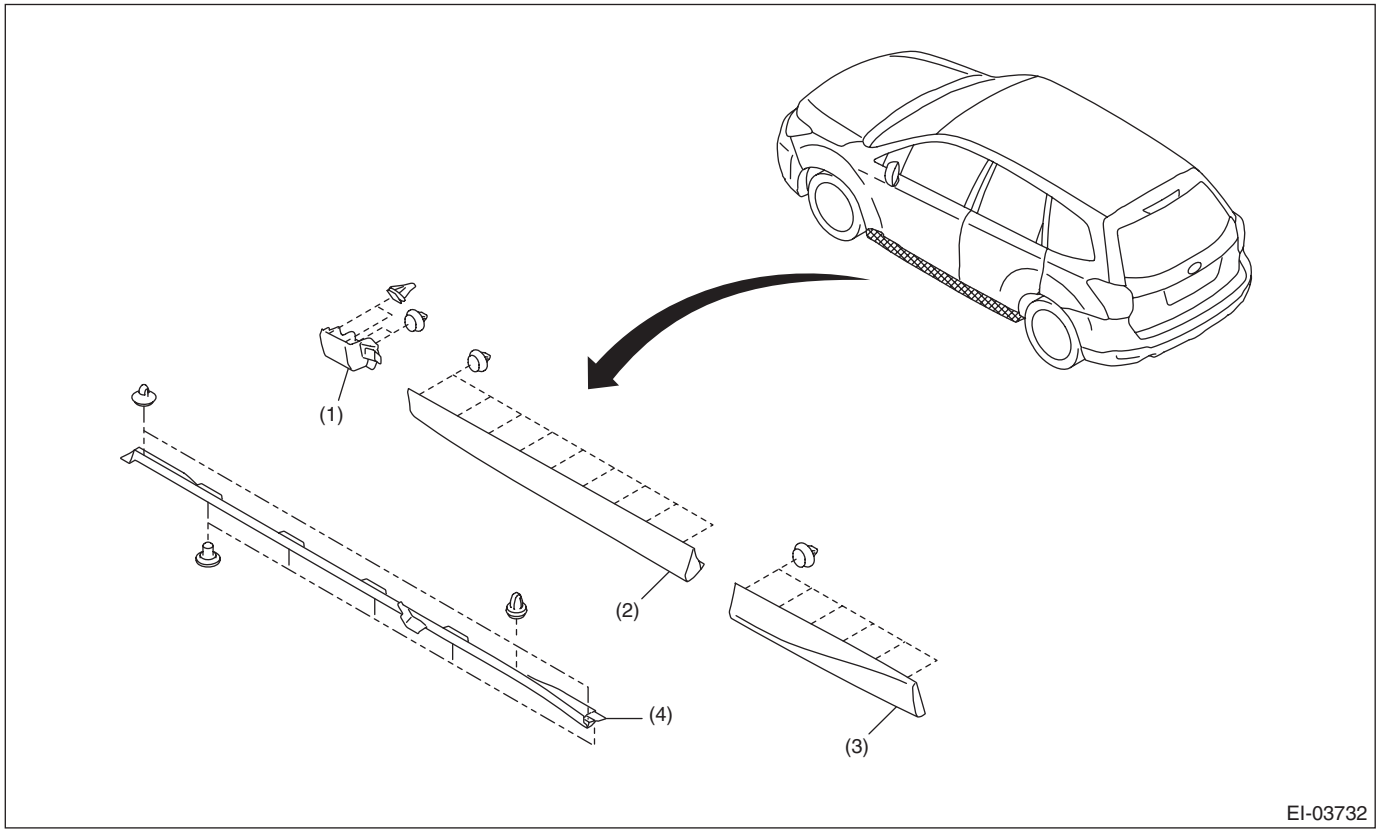
(1) Cowl panel - side RH
(2) Cowl panel ASSY
(3) Seal - front panel
(4) Hose ASSY - washer UPR (model with EyeSight)
(5) Hose ASSY - washer UPR
(6) Cowl panel - side LH

10.ROOF SPOILER



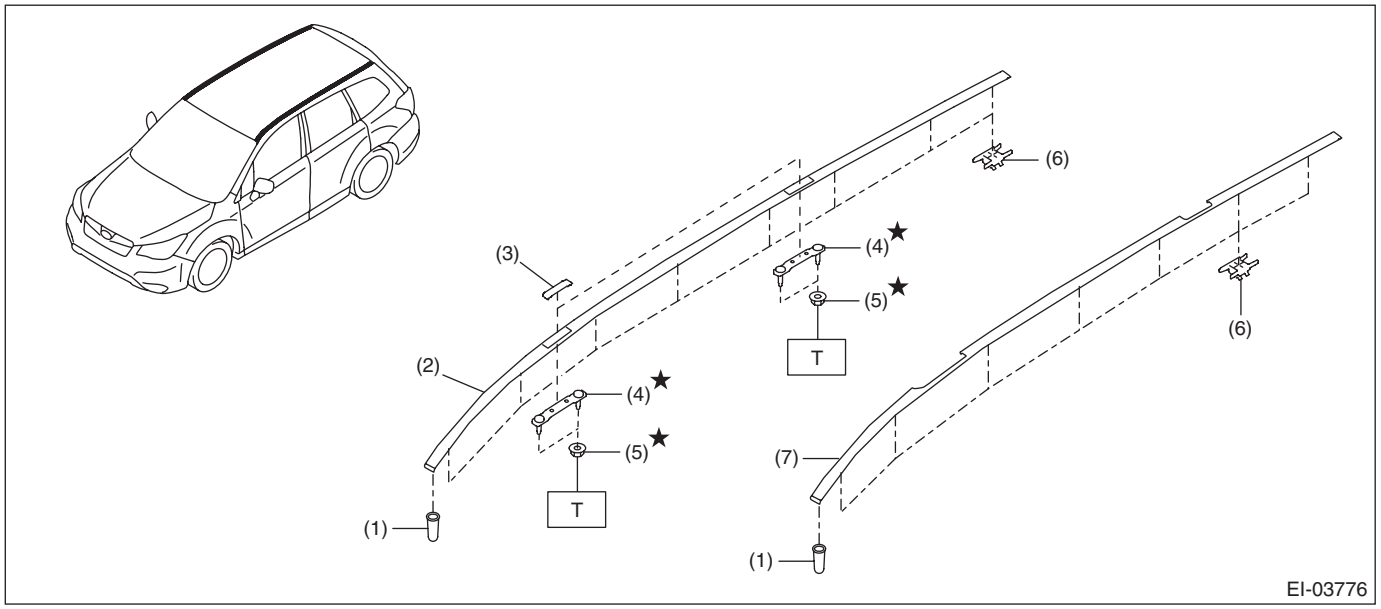
(1)	Roof spoiler	(4)	Harness ASSY - high-mounted stop light	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Light ASSY - high-mounted			***T1: 4.5 (0.46, 3.3)***
(3)	Cap			***T2: 7.5 (0.76, 5.5)***

11.SIDE GARNISH



(1) Garnish ASSY - fender
(2) Garnish ASSY - door front
(3) Garnish ASSY - door rear
(4) Garnish ASSY - side sill

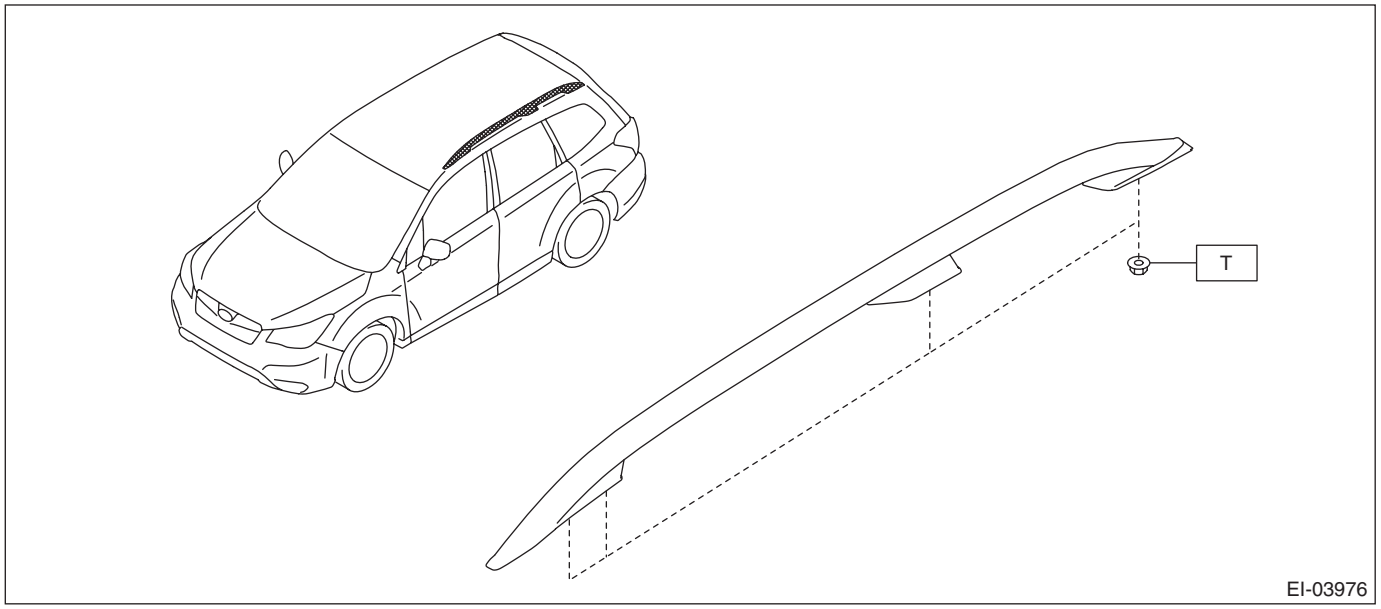
12.ROOF MOLDING



(1) Rivet
(2) Molding - roof
(3) Cap - molding
(4) Bracket - molding roof
(5) Flange nut
(6) Fastener
(7) Molding - roof (model with roof rail)

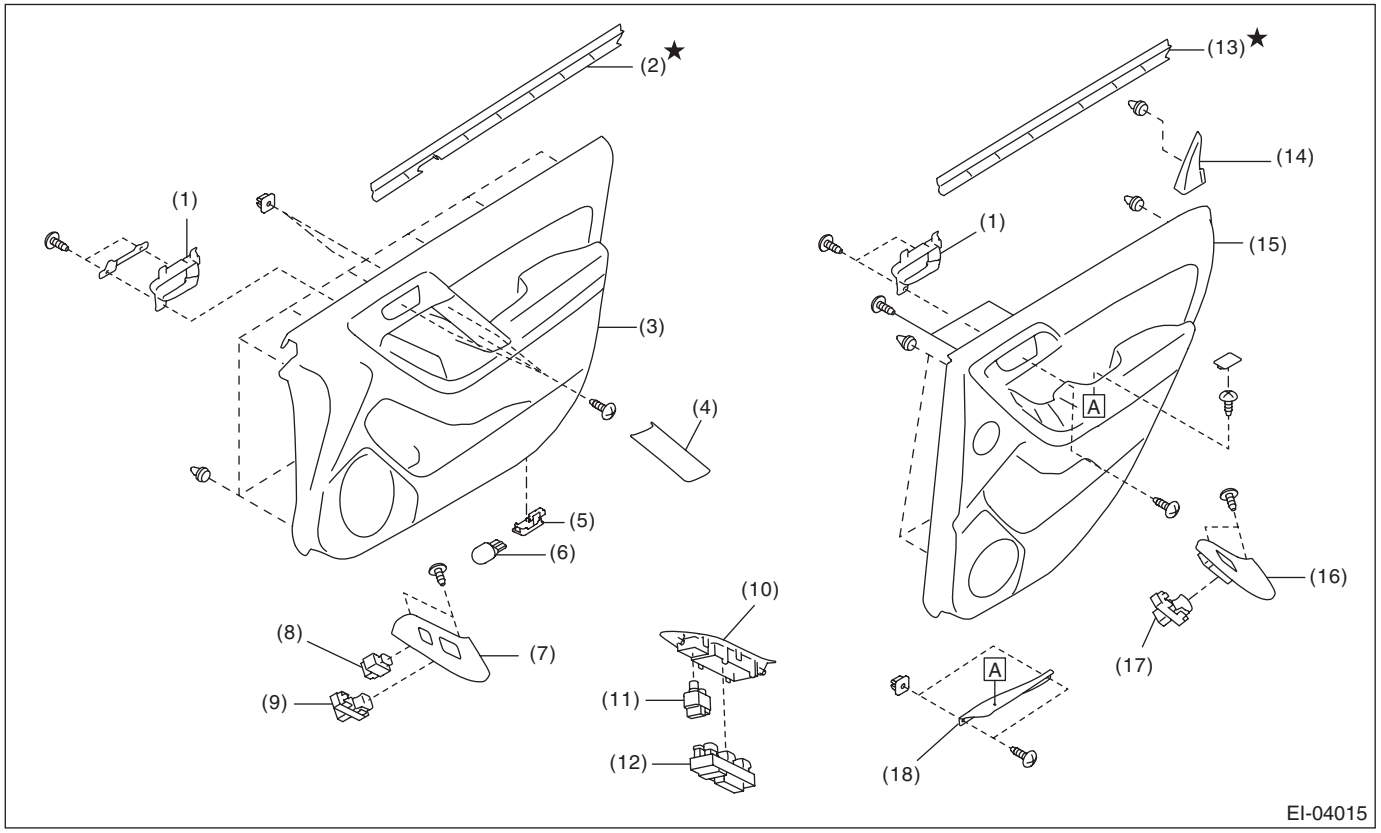
Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

13.ROOF RAIL



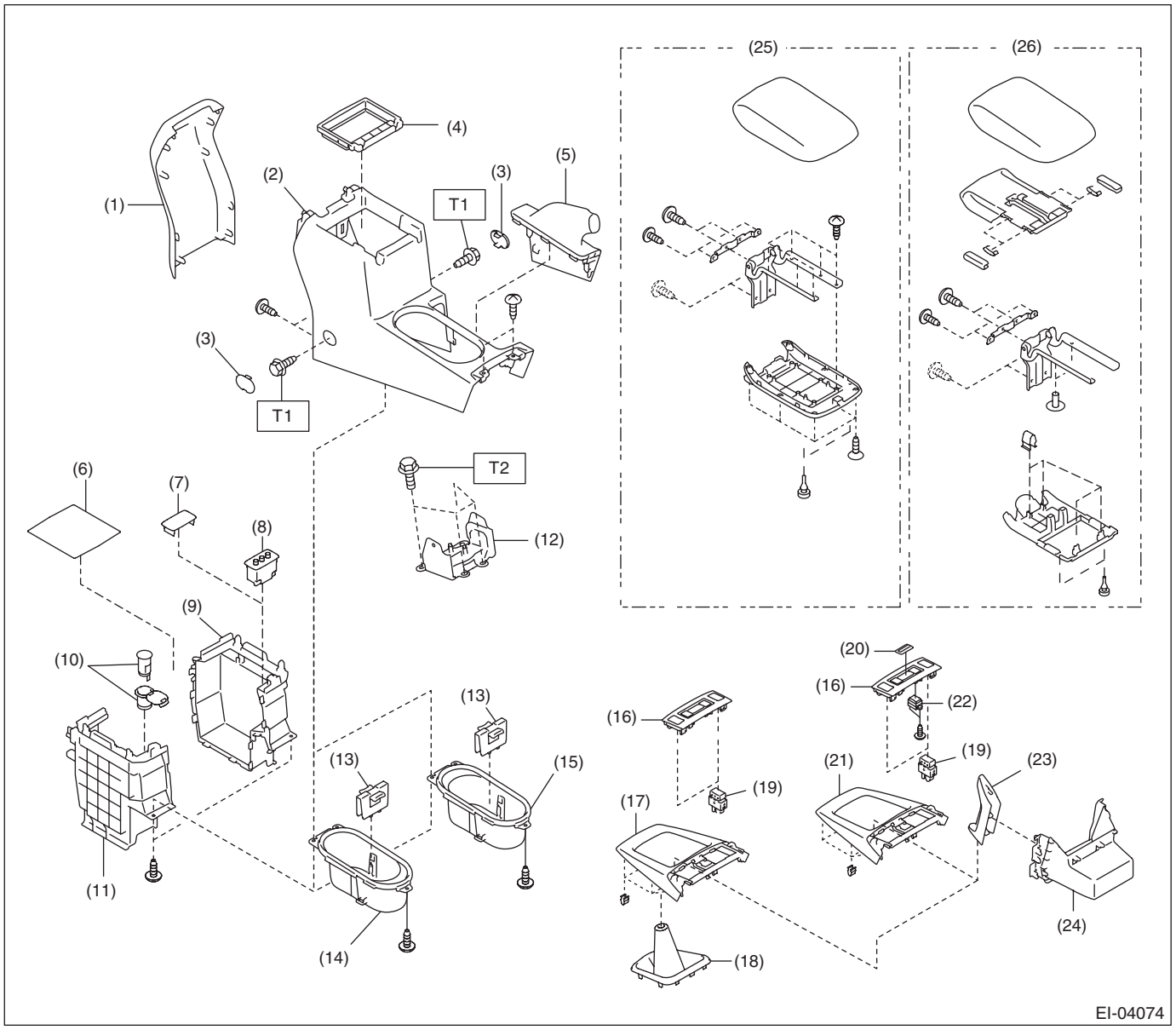
Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

14.DOOR TRIM



(1)	Remote ASSY - door	(7)	Panel - power window sub-switch front	(13)	Weather strip - door rear INN
(2)	Weather strip - door front INN	(8)	Switch - door lock	(14)	Cover - gusset rear
(3)	Trim panel - front door	(9)	Switch - power window sub front	(15)	Trim panel - rear door
(4)	Grip - door front	(10)	Panel - power window main switch	(16)	Panel - power window sub-switch rear
(5)	Holder - door step light	(11)	Switch - door mirror	(17)	Switch - power window sub rear
(6)	Valve	(12)	Switch - power window main	(18)	Bracket - door trim rear

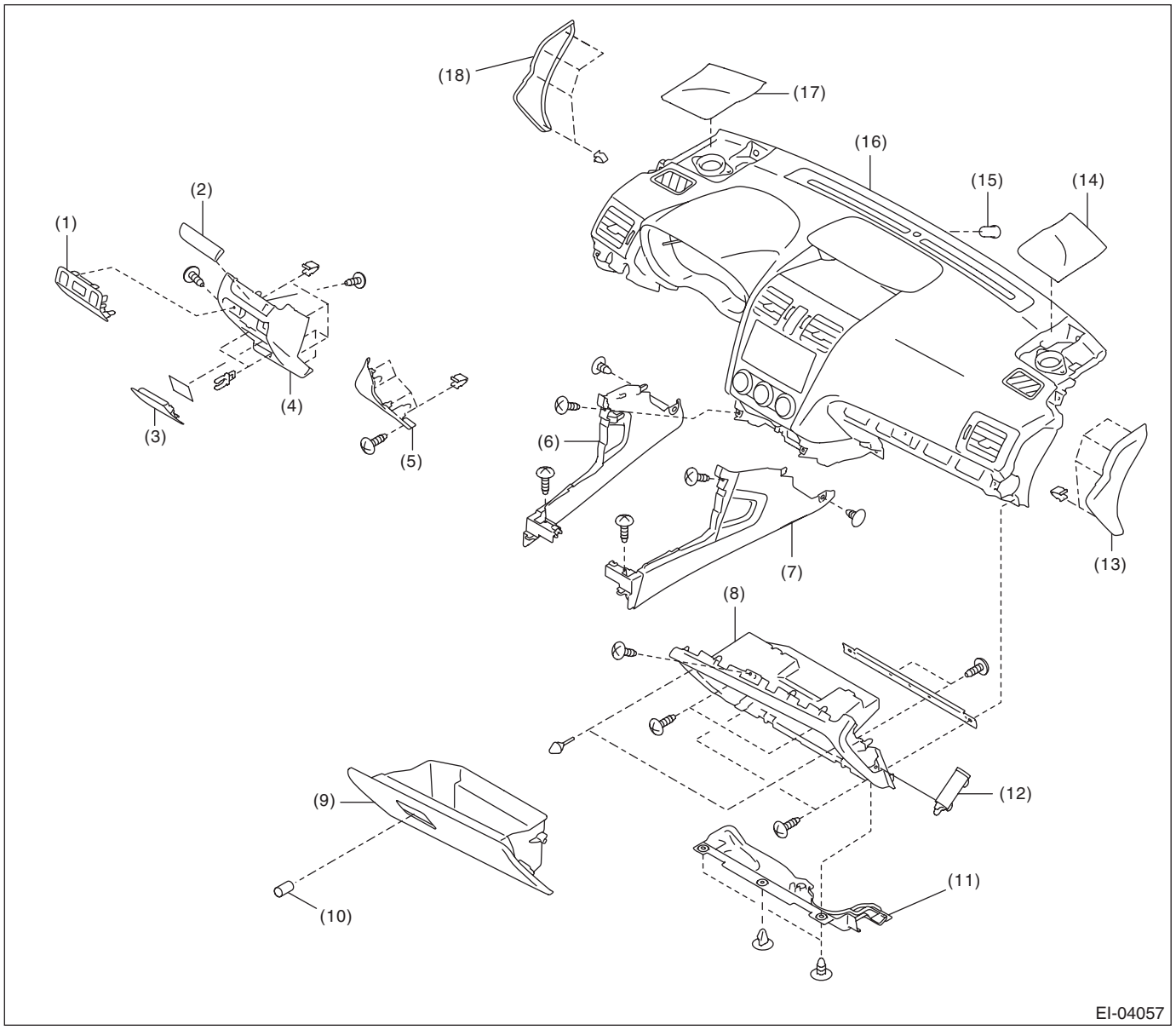
15.CONSOLE BOX



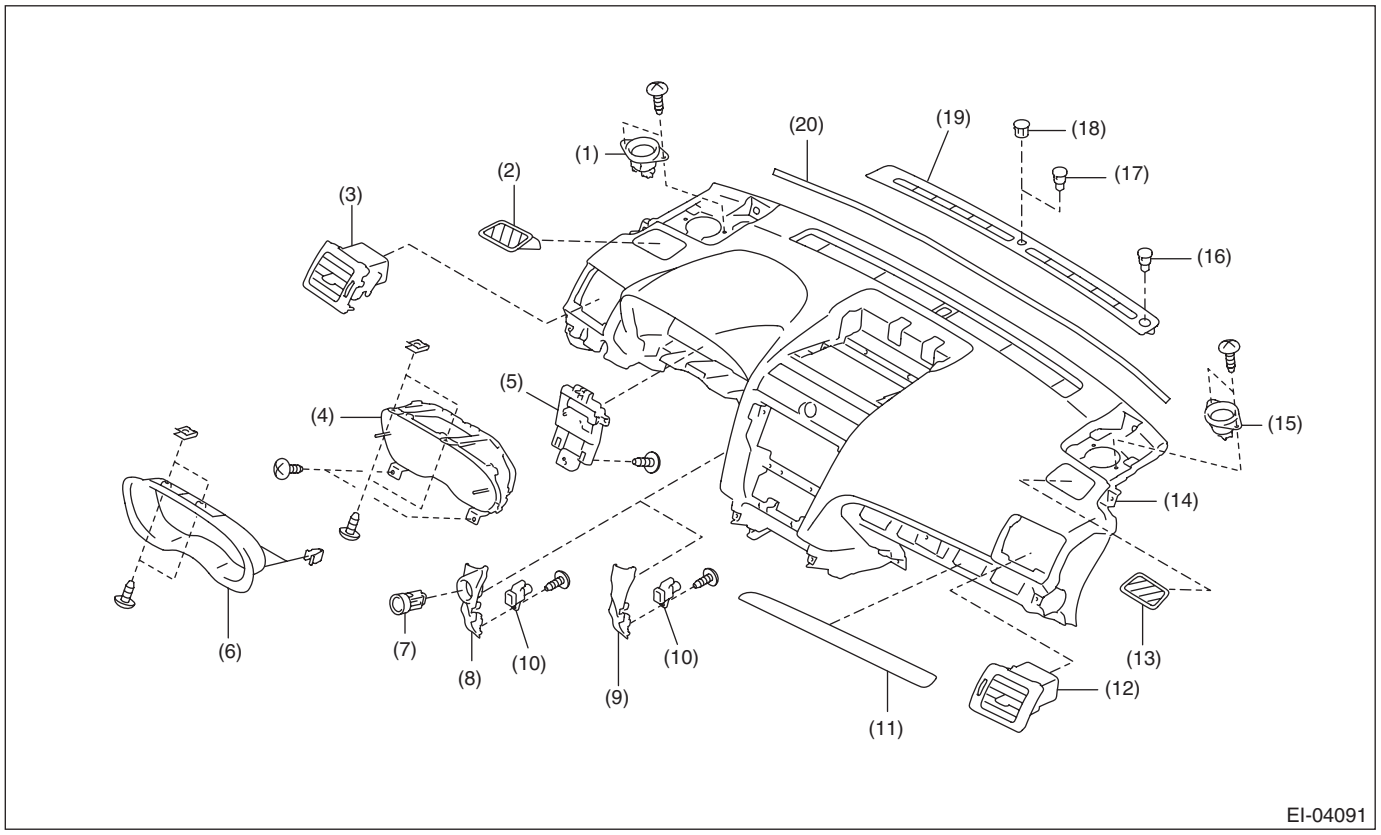
(1) Console box, rear
(2) Console box
(3) Cap
(4) Tray - console box
(5) Boot - parking brake
(6) Mat
(7) Cap - AUX
(8) AUX unit
(9) Pocket console box LH
(10) Accessory socket
(11) Pocket console box RH
(12) Bracket - console box
(13) Partition - cup holder
(14) Cup holder (MT model)
(15) Cup holder (CVT model)
(16) Switch case
(17) Cover - shift lever (MT model)
(18) Boot - shift lever (MT model)
(19) Switch - seat heater
(20) Plate - X MODE
(21) Cover - shift lever (CVT model)
(22) X MODE switch
(23) Ornament panel - console
(24) Tray ASSY - CTR LWR
(25) Lid ASSY - console box (fixed type)
(26) Lid ASSY - console box (sliding type)

Tightening torque: N·m (kgf-m, ft-lb)
T1: 6.5 (0.66, 4.8)
T2: 18 (1.84, 13.3)

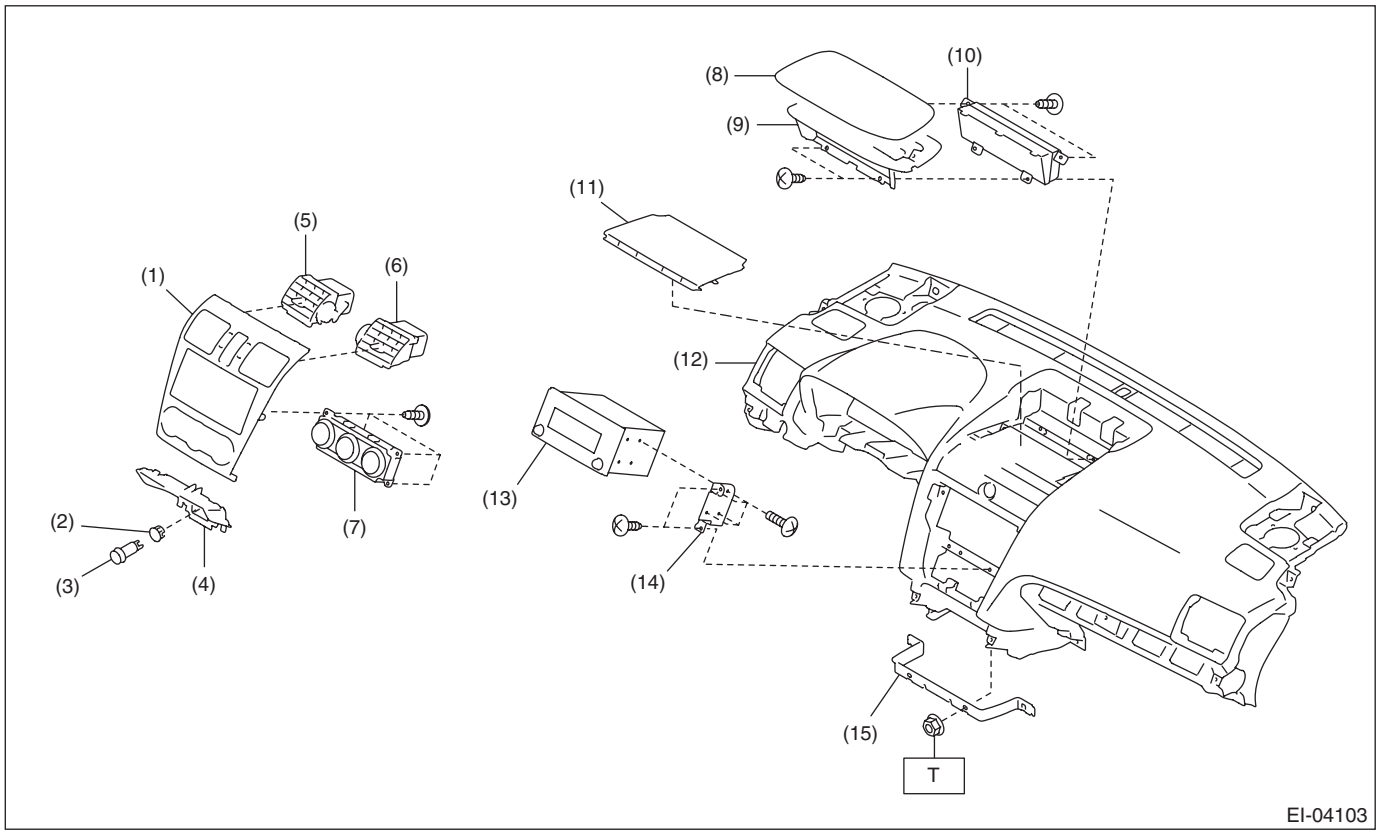
16.INSTRUMENT PANEL



(1)	Panel - switch	(7)	Panel center LWR RH	(13)	Cover - instrument panel side RH
(2)	Ornament panel ASSY driver	(8)	Back panel - pocket	(14)	Grille speaker side RH
(3)	Lid ASSY - fuse box	(9)	Pocket ASSY	(15)	Cap - guide pin
(4)	Cover ASSY - instrument panel LWR driver OUT	(10)	Key cylinder - pocket	(16)	Panel COMPL - instrument
(5)	Cover ASSY - instrument panel LWR driver INN	(11)	Under cover ASSY - passenger	(17)	Grille speaker side LH
(6)	Panel center LWR LH	(12)	Damper COMPL - pocket	(18)	Cover - instrument panel side LH

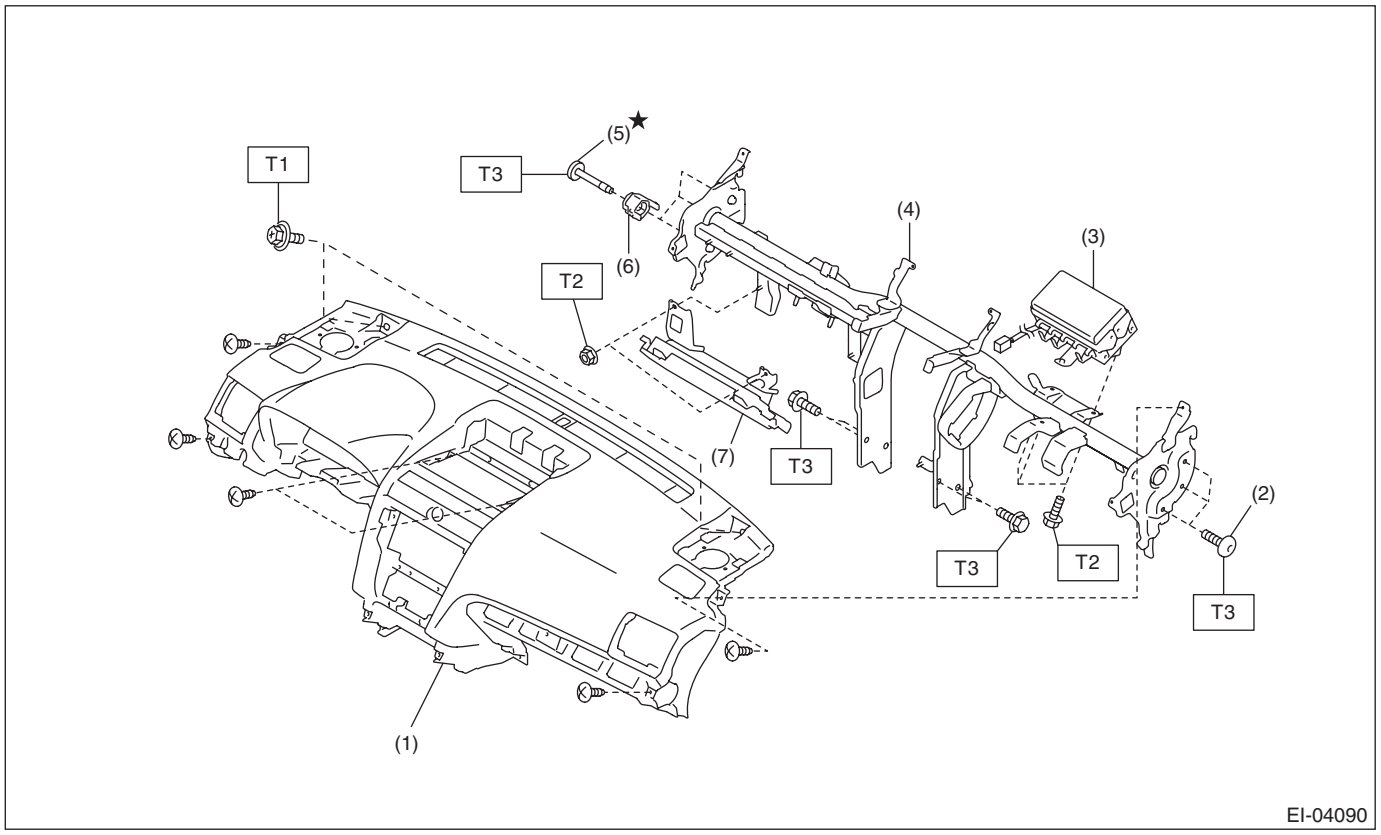


(1) Speaker ASSY - tweeter LH
(2) Grille defroster - front LH
(3) Grille ASSY - ventilation LH
(4) Combination meter ASSY
(5) Reinforcement - combination meter
(6) Visor - combination meter ASSY
(7) Push button ignition switch
(8) Panel - switch
(9) Cover - switch starter
(10) Case - sensor
(11) Ornament panel ASSY passenger
(12) Grille ASSY - ventilation RH
(13) Grille defroster - front RH
(14) Panel COMPL - instrument
(15) Speaker ASSY - tweeter RH
(16) Sensor - automatic light
(17) Sensor - sunload
(18) Cap
(19) Grille - front defroster
(20) Cushion



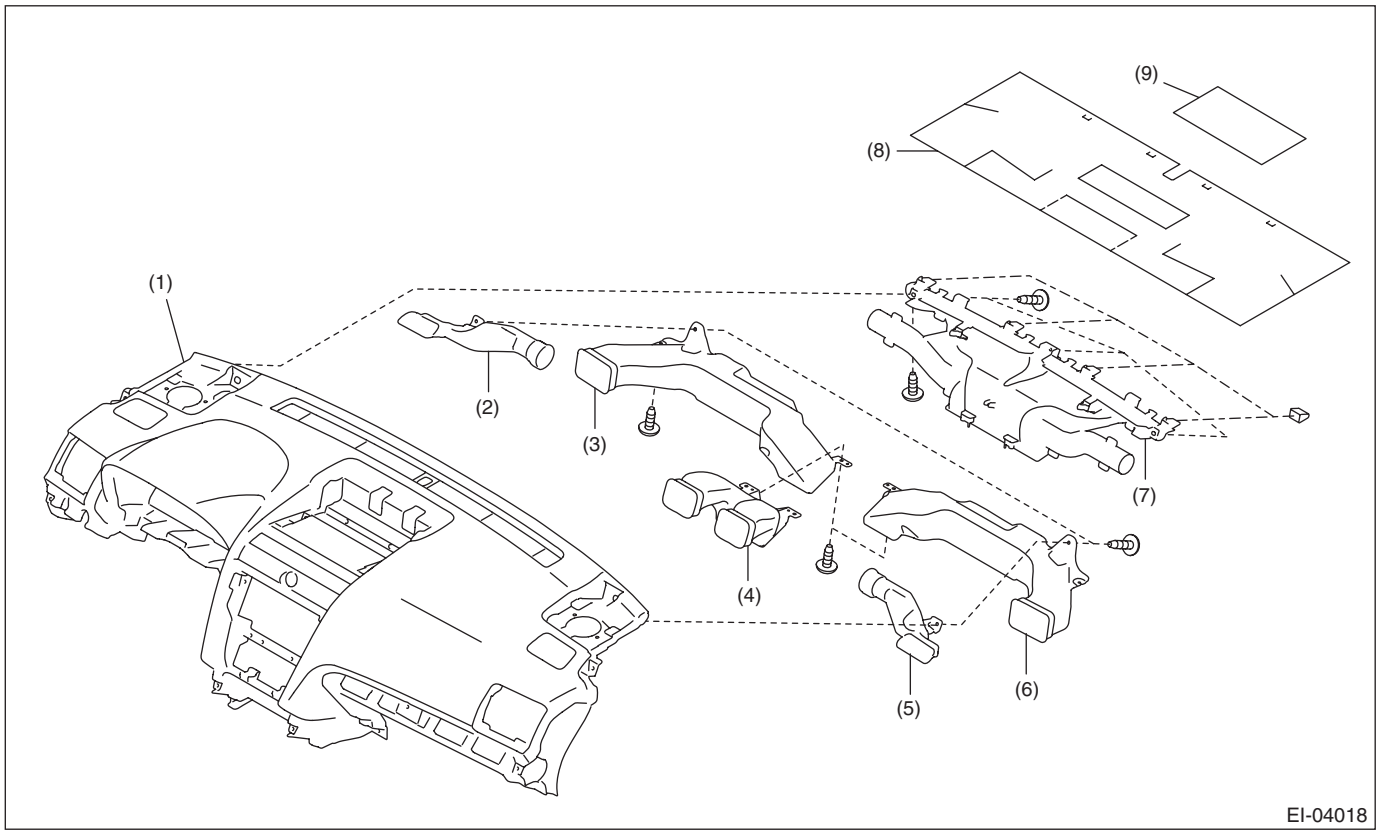
(1) Panel center ASSY
(2) Cap
(3) Socket ASSY
(4) Back panel - center pocket
(5) Grille ASSY - CTR ventilation LH
(6) Grille ASSY - CTR ventilation RH
(7) Heater control ASSY
(8) Panel - display UPR
(9) Panel - display LWR
(10) Multi-function display ASSY
(11) Cover center UPR
(12) Panel COMPL - instrument
(13) Audio ASSY
(14) Bracket - audio
(15) Reinforcement - center lower

Tightening torque:N·m (kgf-m, ft-lb)
T: 7 (0.71, 5.2)



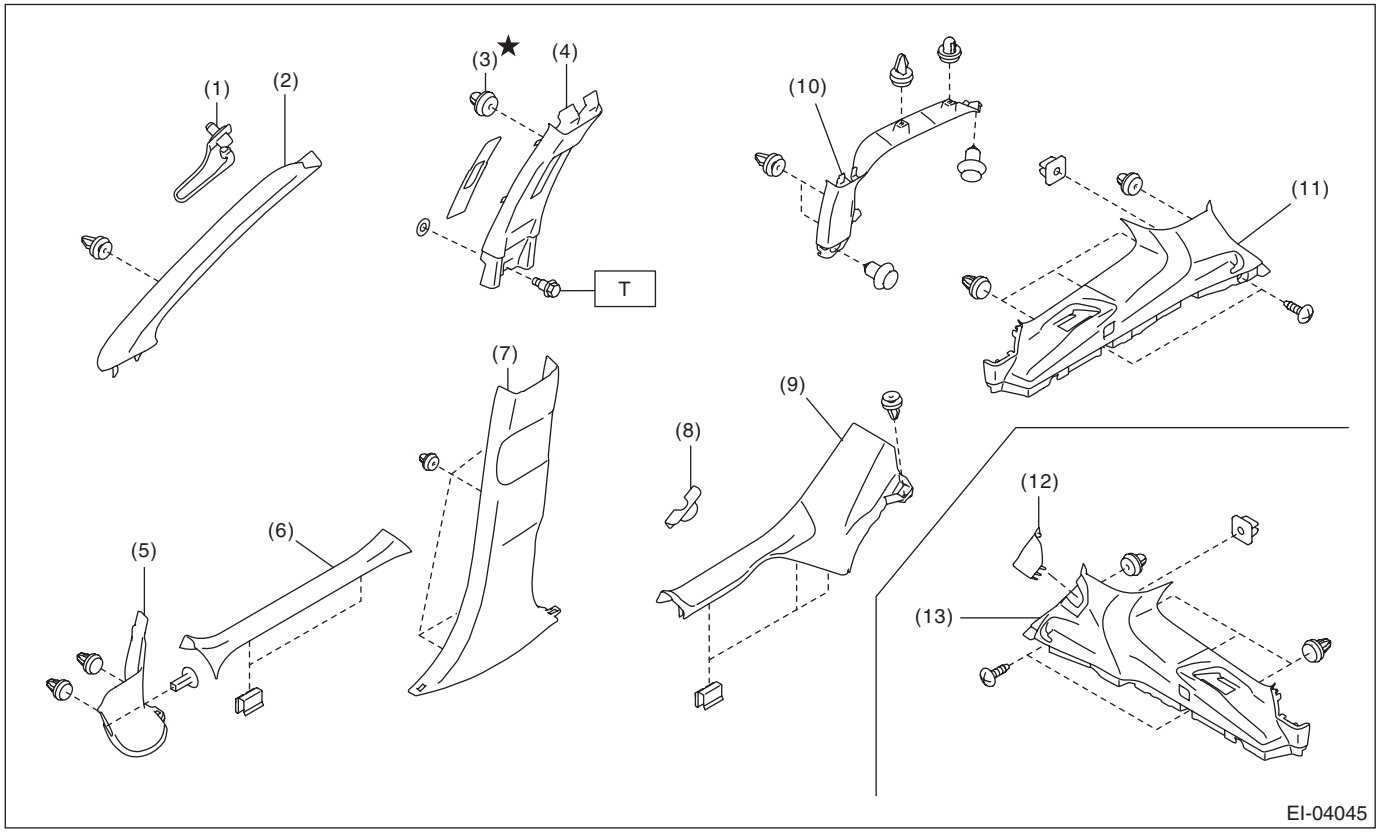
(1) Panel COMPL - instrument
(2) TORX® bolt (M8×37)
(3) Passenger's airbag module ASSY
(4) Beam COMPL - steering
(5) TORX® bolt (M8×57)
(6) Adjuster - clip space
(7) Knee airbag module ASSY

Tightening torque:N·m (kgf-m, ft-lb)
T1: 7 (0.71, 5.2)
T2: 7.5 (0.76, 5.5)
T3: 25 (2.55, 18.4)



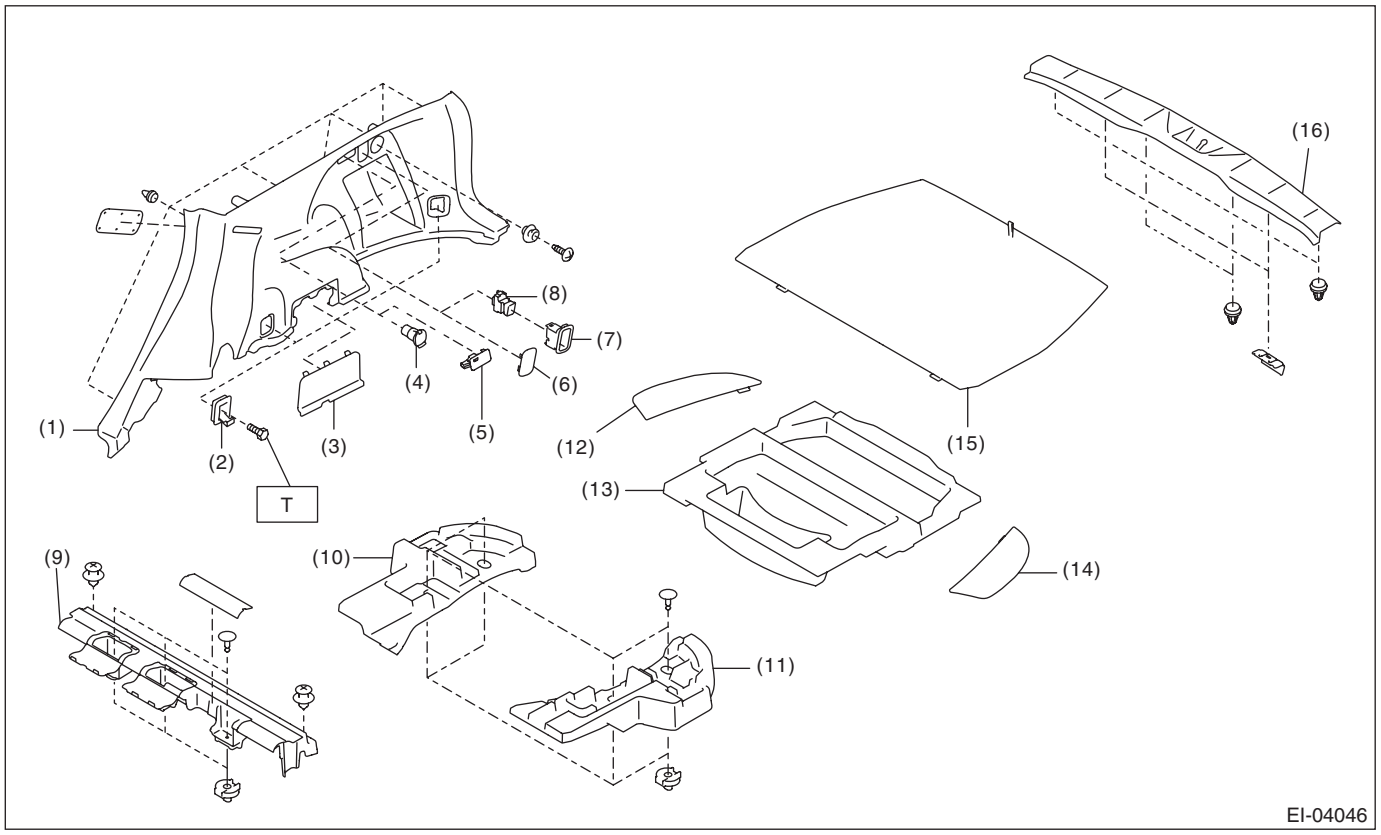
(1) Panel COMPL - instrument
(2) Duct - side defroster LH
(3) Duct - side ventilation LH
(4) Duct - center vent
(5) Duct - side defroster RH
(6) Duct - side ventilation RH
(7) Nozzle - front defroster
(8) Insulator - instrument
(9) Insulator - airbag

17.INNER TRIM



(1) Tether clip
(2) Trim panel - front pillar UPR
(3) Clip
(4) Trim panel - center pillar UPR
(5) Cover side sill - front
(6) Cover side sill - front INN
(7) Trim panel - center pillar LWR
(8) Cover - catcher
(9) Cover side sill - rear INN
(10) Trim panel - rear pillar UPR
(11) Trim panel - rear quarter pillar UPR RH
(12) Cap - rear quarter pillar UPR LH (model with power rear gate)
(13) Trim panel - rear quarter pillar UPR LH

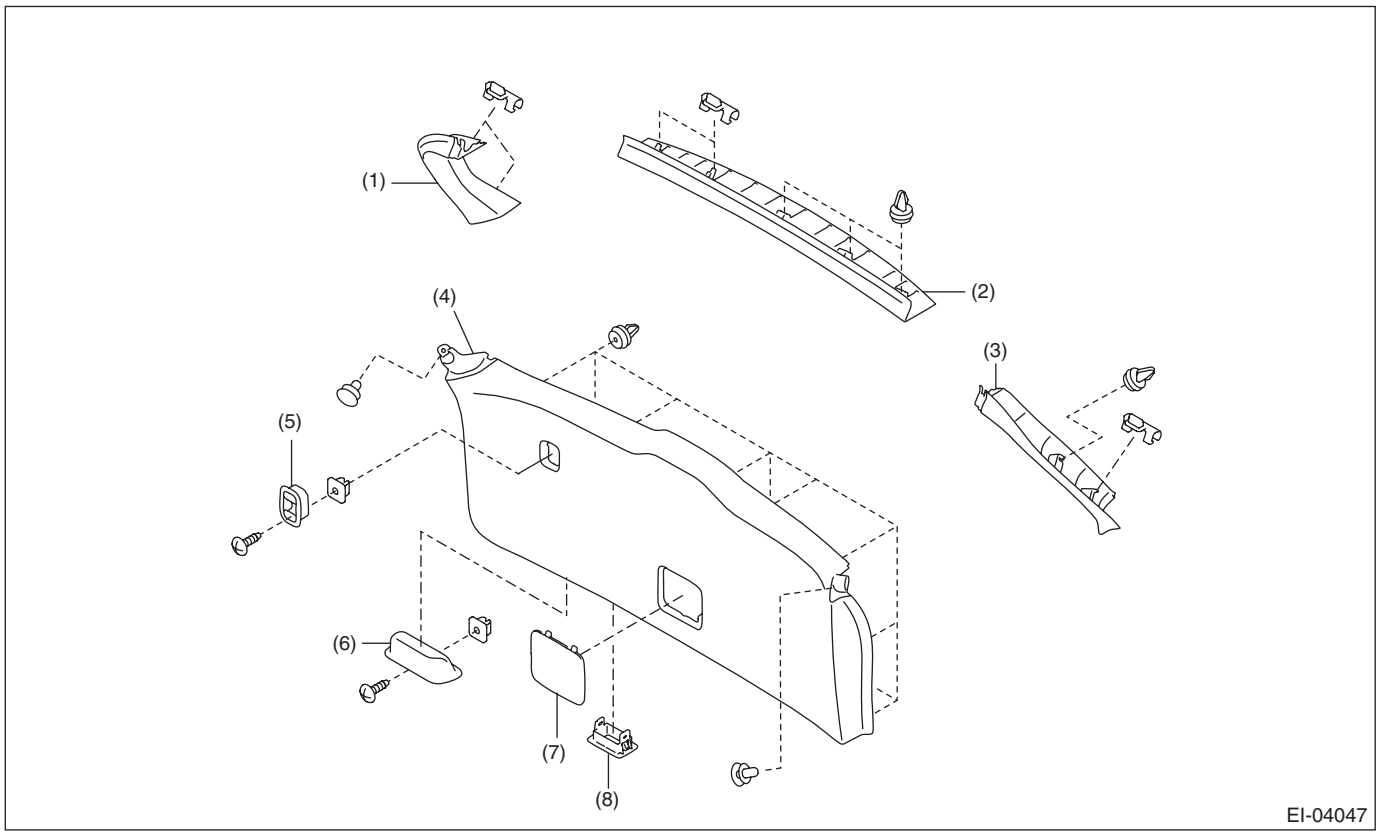
Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)



(1) Trim panel - rear apron
(2) Hook - luggage
(3) Cap - rear strut
(4) Socket ASSY
(5) Light ASSY - luggage
(6) Cap
(7) Switch holder
(8) Switch ASSY - cargo
(9) Spacer - rear floor
(10) Spacer - rear floor side RH
(11) Spacer - rear floor side LH
(12) Mat - rear floor RH
(13) Cover - trunk
(14) Mat - rear floor LH
(15) Mat - rear floor CTR
(16) Trim panel - rear skirt

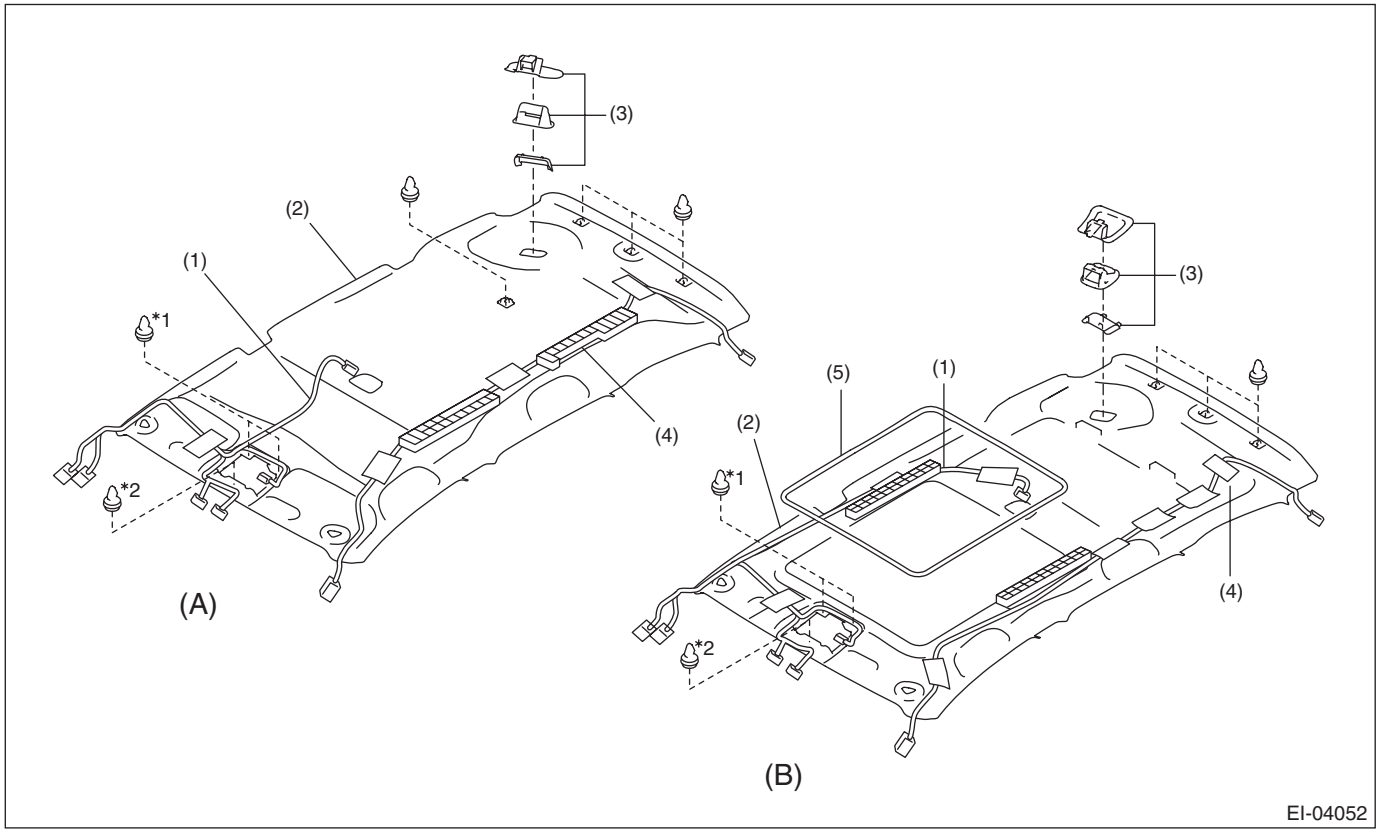
Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

18.REAR GATE TRIM



(1)	Trim panel - rear gate pillar side RH	(4)	Trim panel - rear gate LWR	(7)	Cap
(2)	Trim panel - rear gate UPR	(5)	Hook ASSY	(8)	Power rear gate inner switch
(3)	Trim panel - rear gate pillar side LH	(6)	Rear gate handle		

19.ROOF TRIM

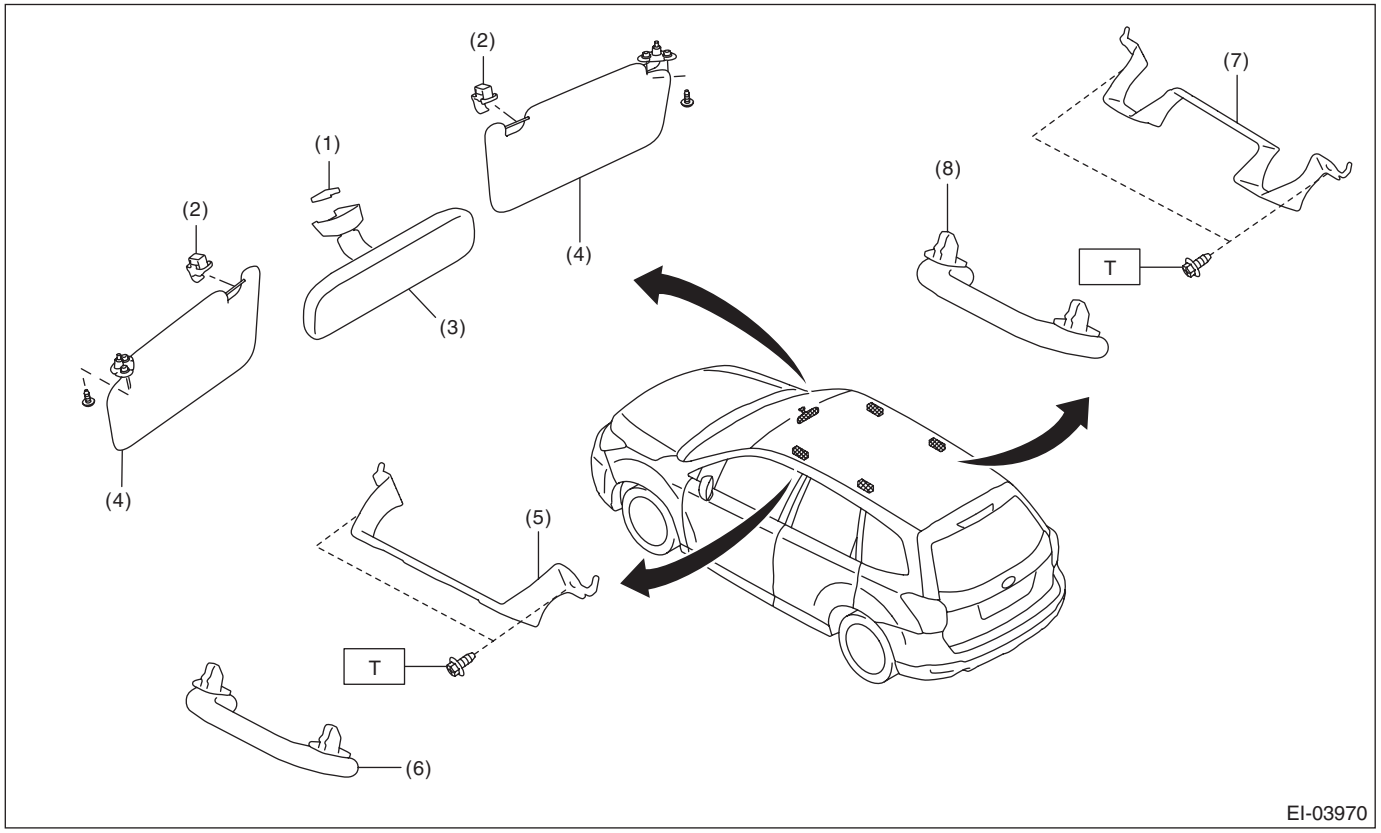


(A) Normal roof type
(B) Sunroof type

(1) Cord - roof
(2) Trim panel - roof ASSY
(3) Holder - seat belt
(4) Cord ASSY - antenna feeder
(5) Garnish - roof

*1 Models with EyeSight
*2 Models without EyeSight

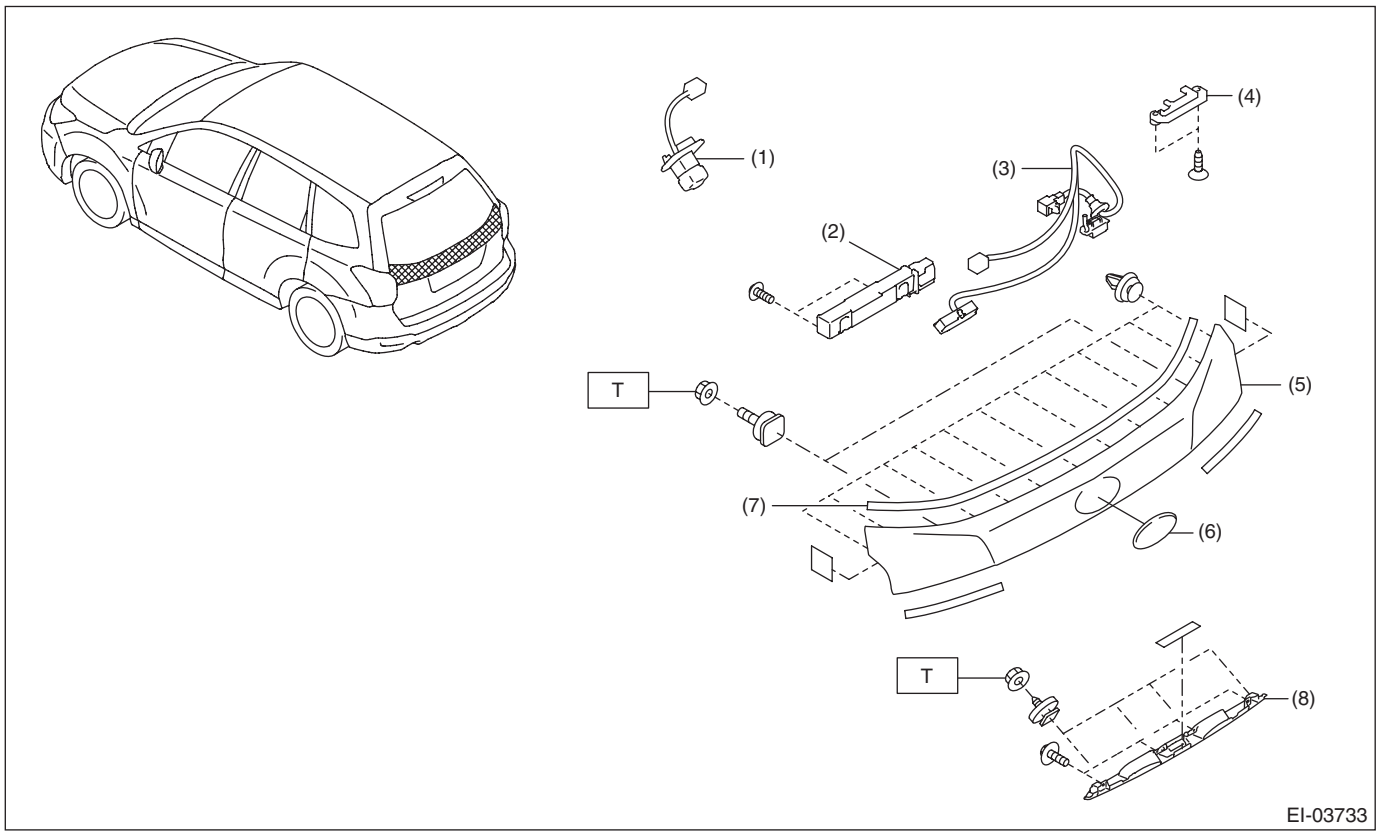
20.ROOM INNER PARTS



(1) Base - inner mirror
(2) Hook - sun visor
(3) Mirror ASSY rearview inner
(4) Sun visor ASSY
(5) Bracket - assist rail front
(6) Assist rail - front
(7) Bracket - assist rail rear
(8) Assist rail - rear

Tightening torque: N·m (kgf-m, ft-lb)
T: 7.5 (0.76, 5.5)

21.REAR GATE GARNISH



(1) Camera ASSY - rearview
(2) Rear exterior antenna
(3) Switch - opener rear gate (model with keyless access)
(4) Bracket - request switch
(5) Garnish ASSY - rear gate
(6) Ornament rear
(7) Packing
(8) Garnish switch bracket

Tightening torque: N·m (kgf-m, ft-lb)
T: 4.5 (0.46, 3.3)

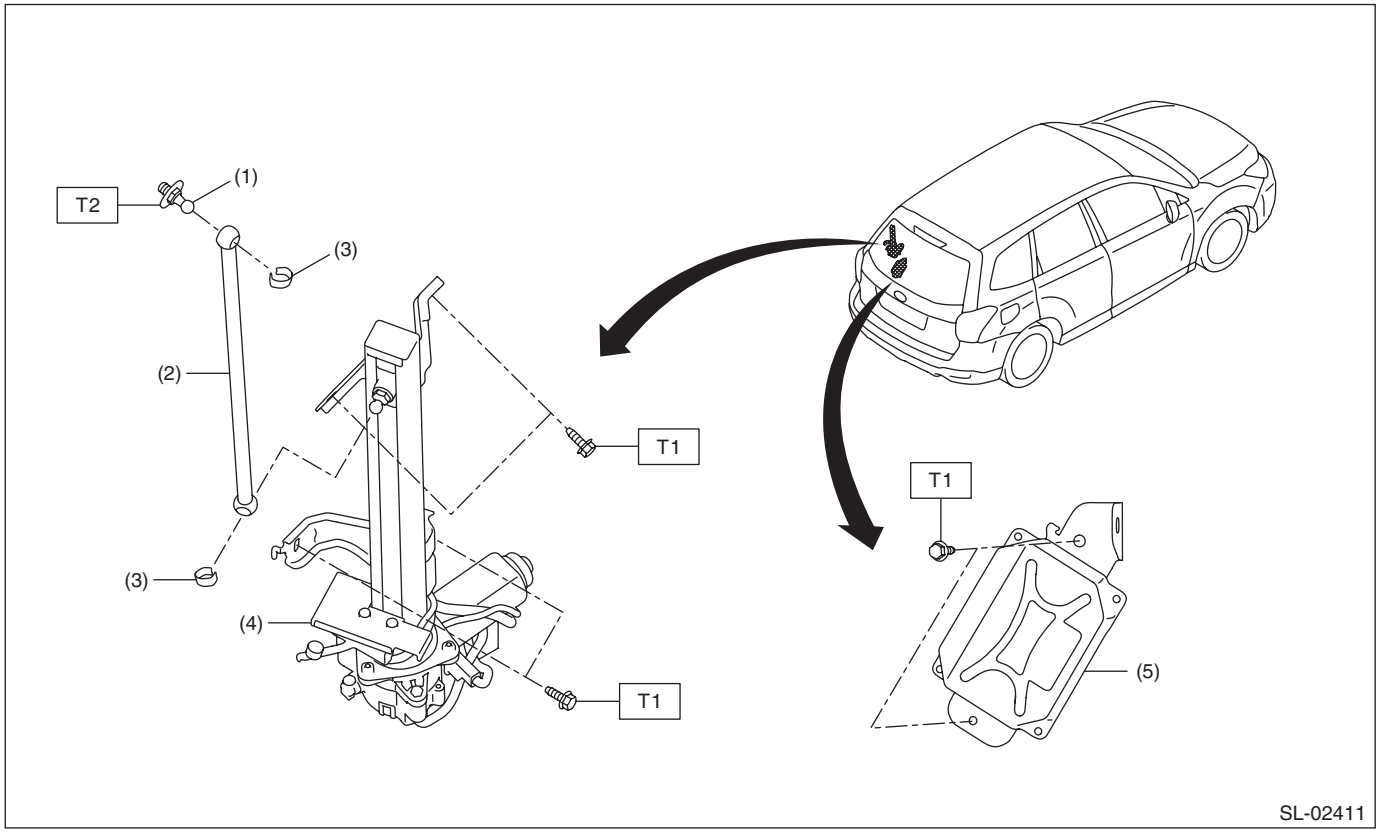
B: PREPARATION TOOL

TOOL NAME	REMARKS
Clip remover	Used for removing trim. • KTC AP201-10A • KTC AP201-N • KTC AP203-10A • KTC AP20L-10B or equivalent
Clip clamp pliers	Used for removal of various clips and clamps. • KTC CCP-190 or equivalent

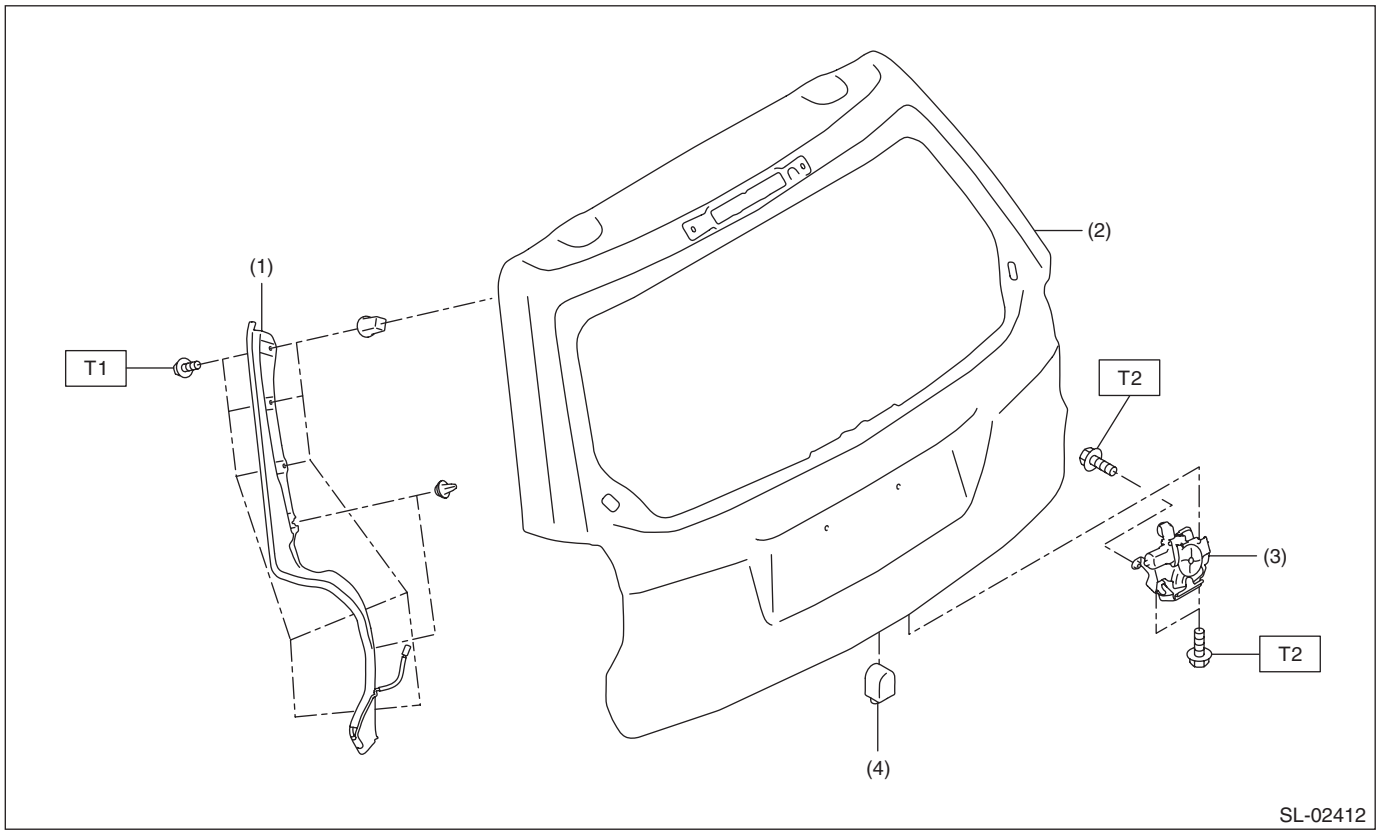
1. General Description

A: COMPONENT

1. UNIT AND REAR GATE



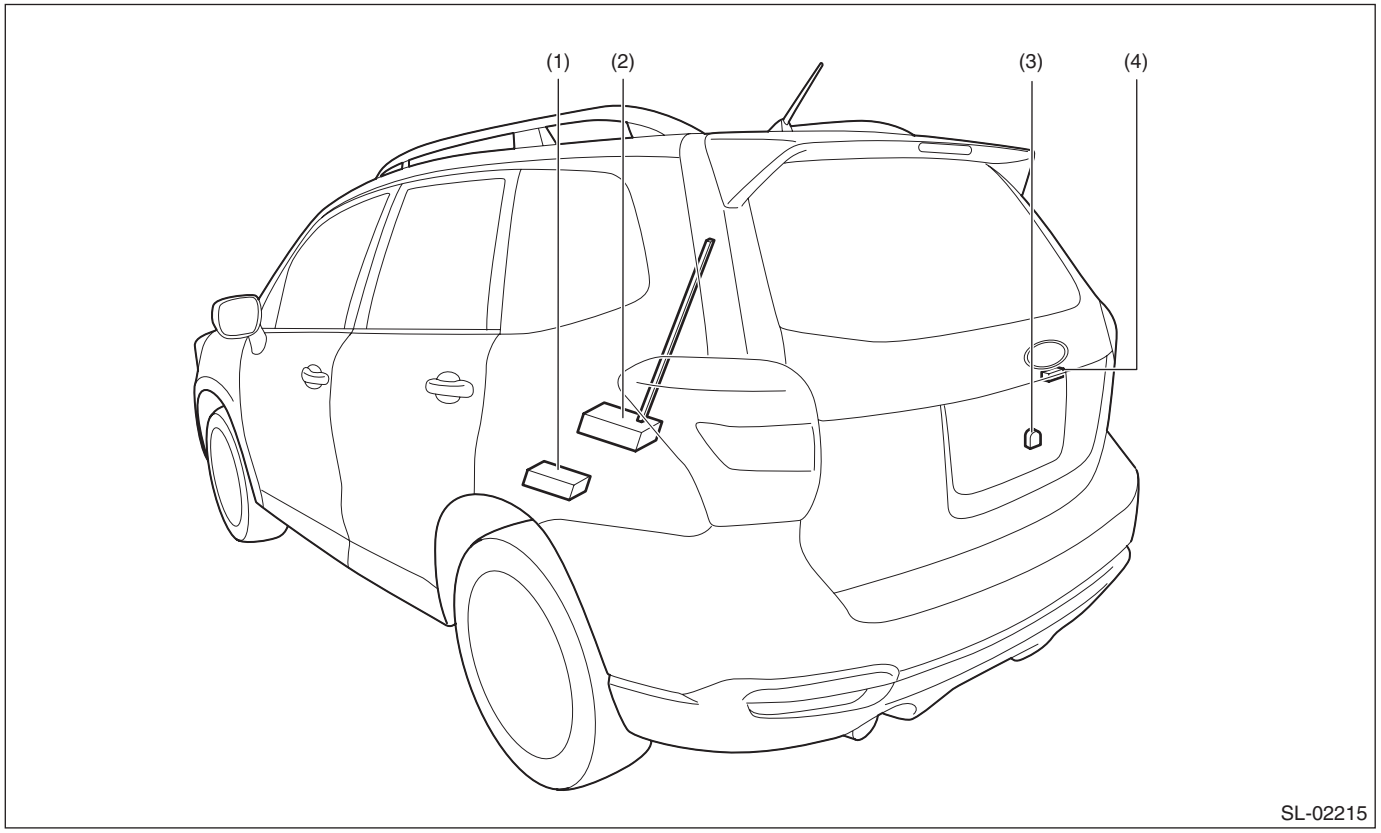
(1)	Ball stud bolt	(4)	Power rear gate drive unit (PRG D/U)	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Rod - power rear gate	(5)	Power rear gate control module (PRG CM)	***T1: 10 (1.02, 7.4)***
(3)	Stop ring			***T2: 20 (2.04, 14.8)***



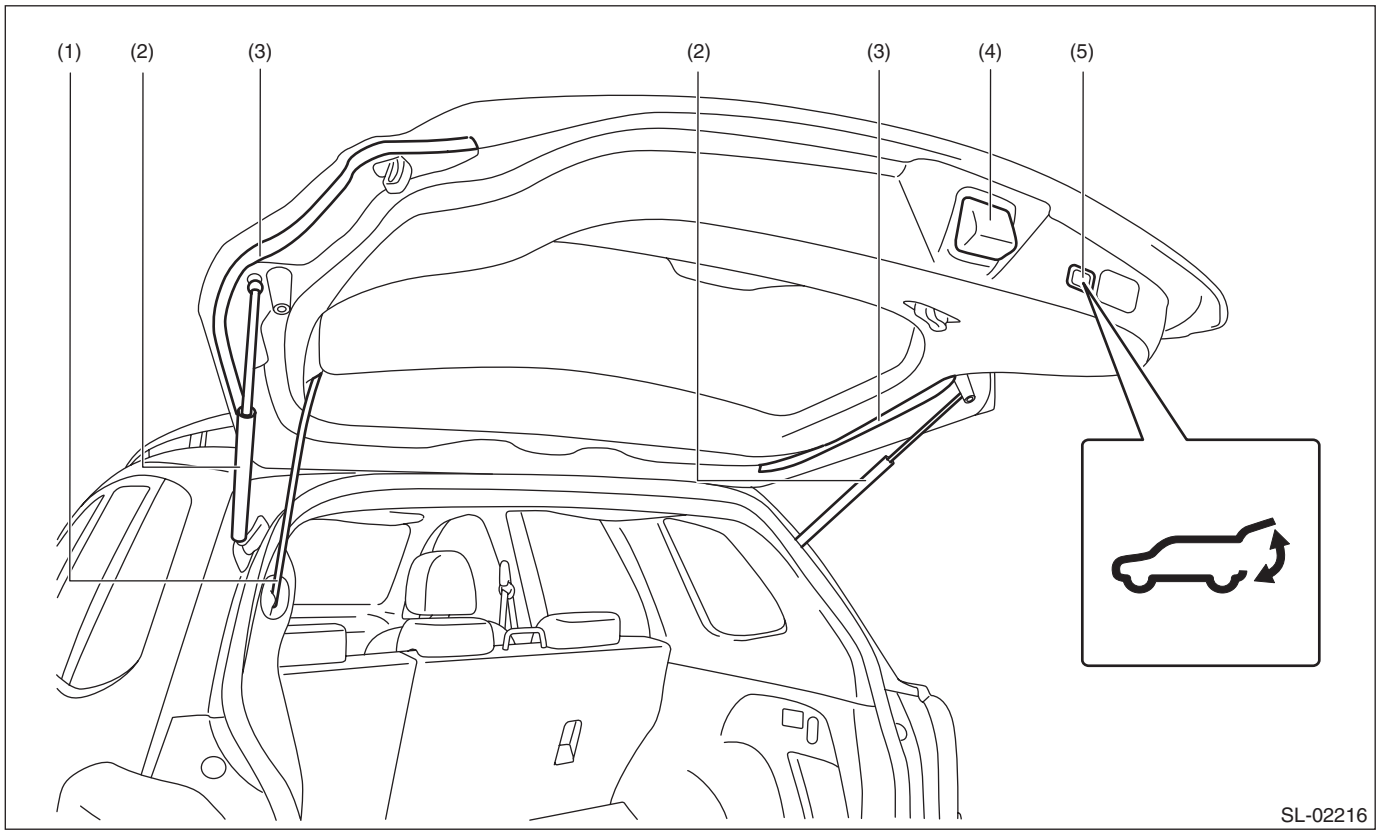
(1) Power rear gate touch sensor
(2) Rear gate
(3) Power rear gate auto closer
(4) Power rear gate buzzer

Tightening torque: N·m (kgf-m, ft-lb)
T1: 1.5 (0.15, 1.1)
T2: 25 (2.55, 18.4)

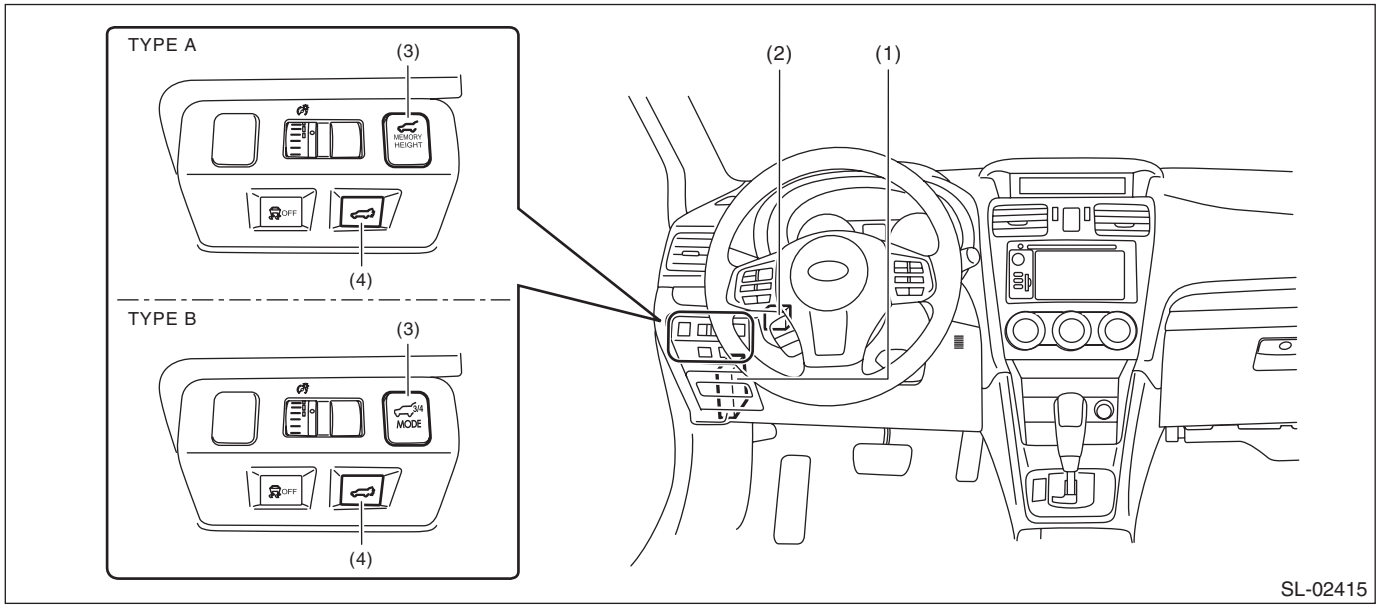
2. POWER REAR GATE SYSTEM



(1) Power rear gate control module (PRG CM)
(2) Power rear gate drive unit (PRG D/U)
(3) Power rear gate buzzer
(4) Rear gate opener button (PRG)



(1) Rod - power rear gate
(2) Gas damper
(3) Power rear gate touch sensor
(4) Power rear gate auto closer
(5) Power rear gate inner switch



(1) Body integrated unit
(2) Turn signal and hazard unit
(3) Memory height switch
(4) Power rear gate driver's switch

B: CAUTION

- Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
- Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
- Adjust parts to the given specifications.
- Connect the connectors securely during reassembly.
- After reassembly, close the rear gate and then connect the battery ground cable. Initialization of the power rear gate auto closer is necessary, when connection is performed with the rear gate open. <Ref. to PRG-8, INITIALIZATION, PROCEDURE, Power Rear Gate System.>
- After reassembly, make sure that the each component operates normally.

C: PREPARATION TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.

1. General Description

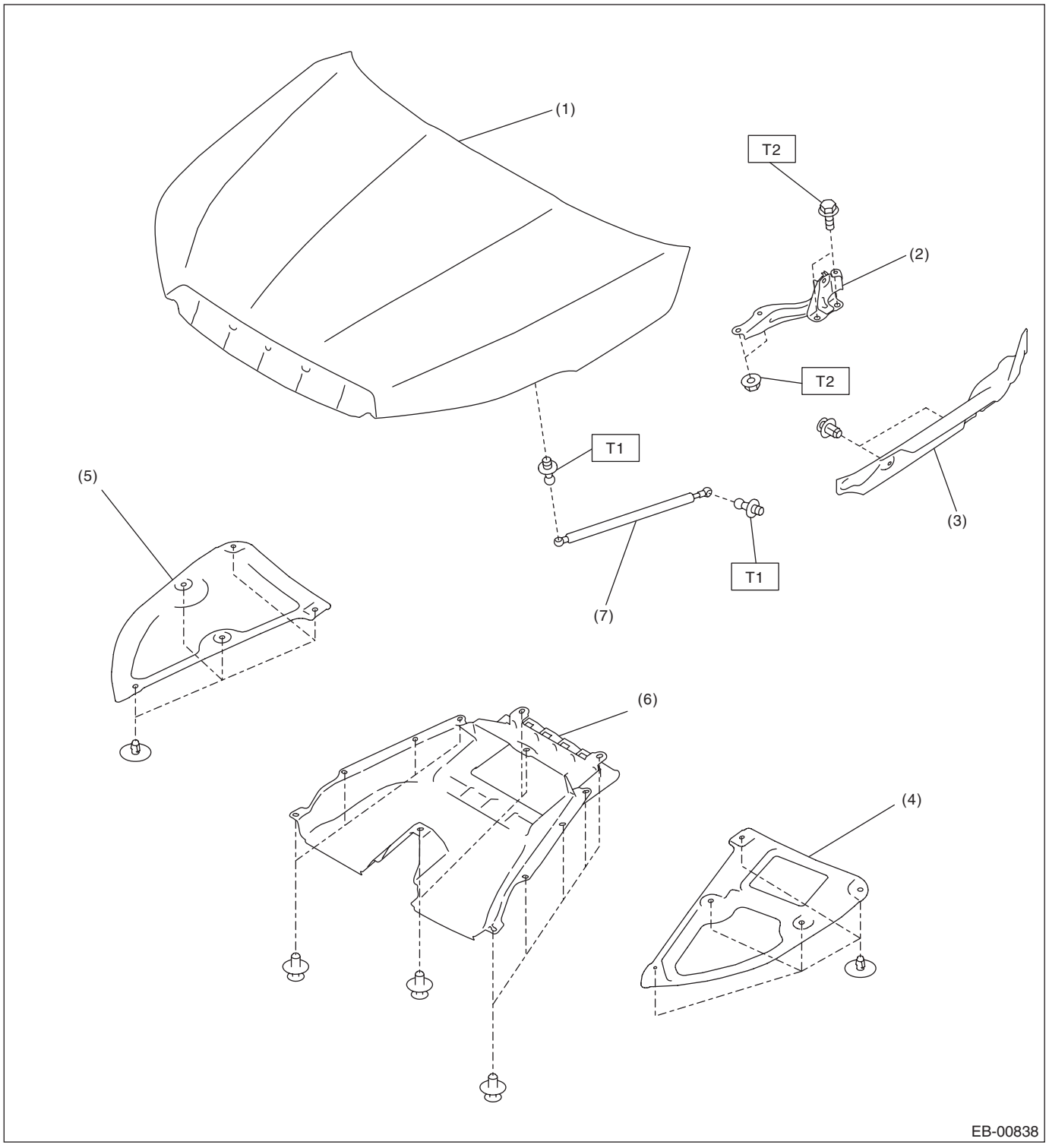
A: SPECIFICATION

Refer to Body Repair Manual for the dimensions of the body.

B: COMPONENT

1. FRONT HOOD

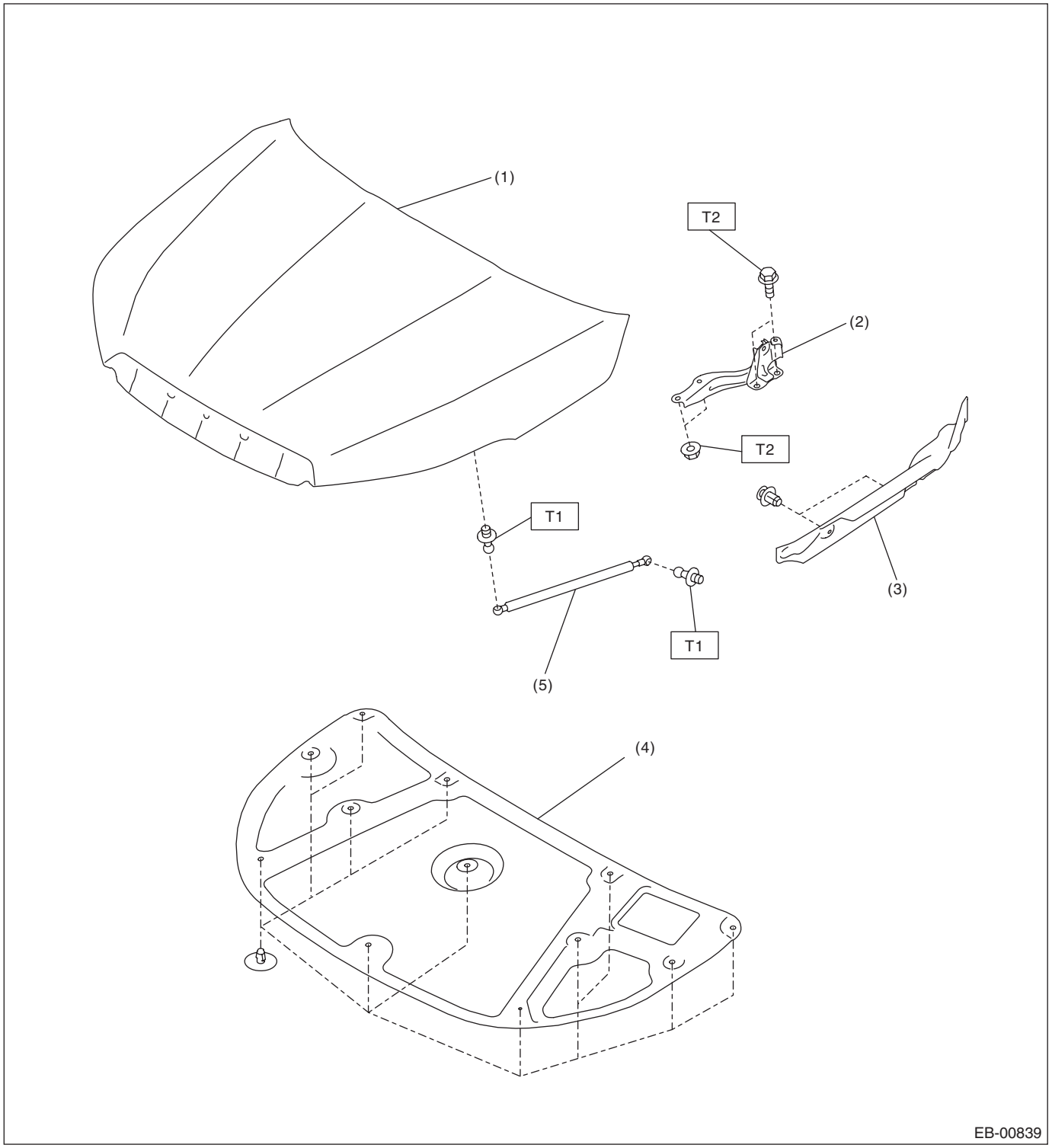
Turbo model



(1) Hood COMPL - front
(2) Hinge COMPL - front hood
(3) Cover - front fender
(4) Insulator - front hood LH
(5) Insulator - front hood RH
(6) Duct - inner front hood
(7) Stay ASSY - front hood

Tightening torque: N·m (kgf-m, ft-lb)
T1: 20 (2.04, 14.8)
T2: 25 (2.55, 18.4)

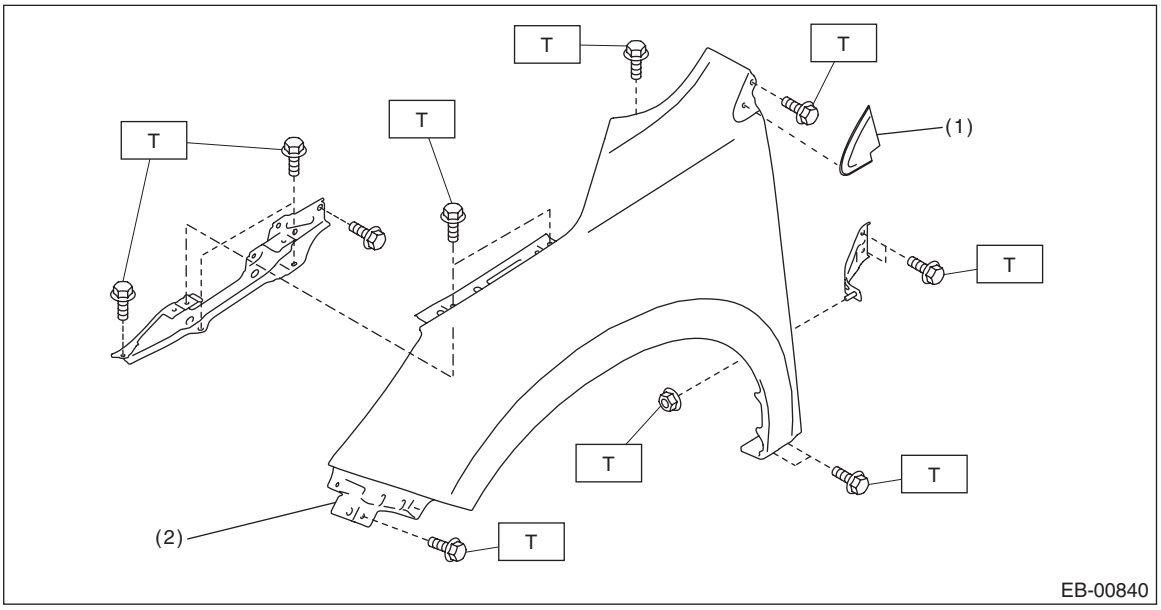
Non-turbo model



(1) Hood COMPL - front
(2) Hinge COMPL - front hood
(3) Cover - front fender
(4) Insulator - front hood
(5) Stay ASSY - front hood

Tightening torque: N·m (kgf-m, ft-lb)
T1: 20 (2.04, 14.8)
T2: 25 (2.55, 18.4)

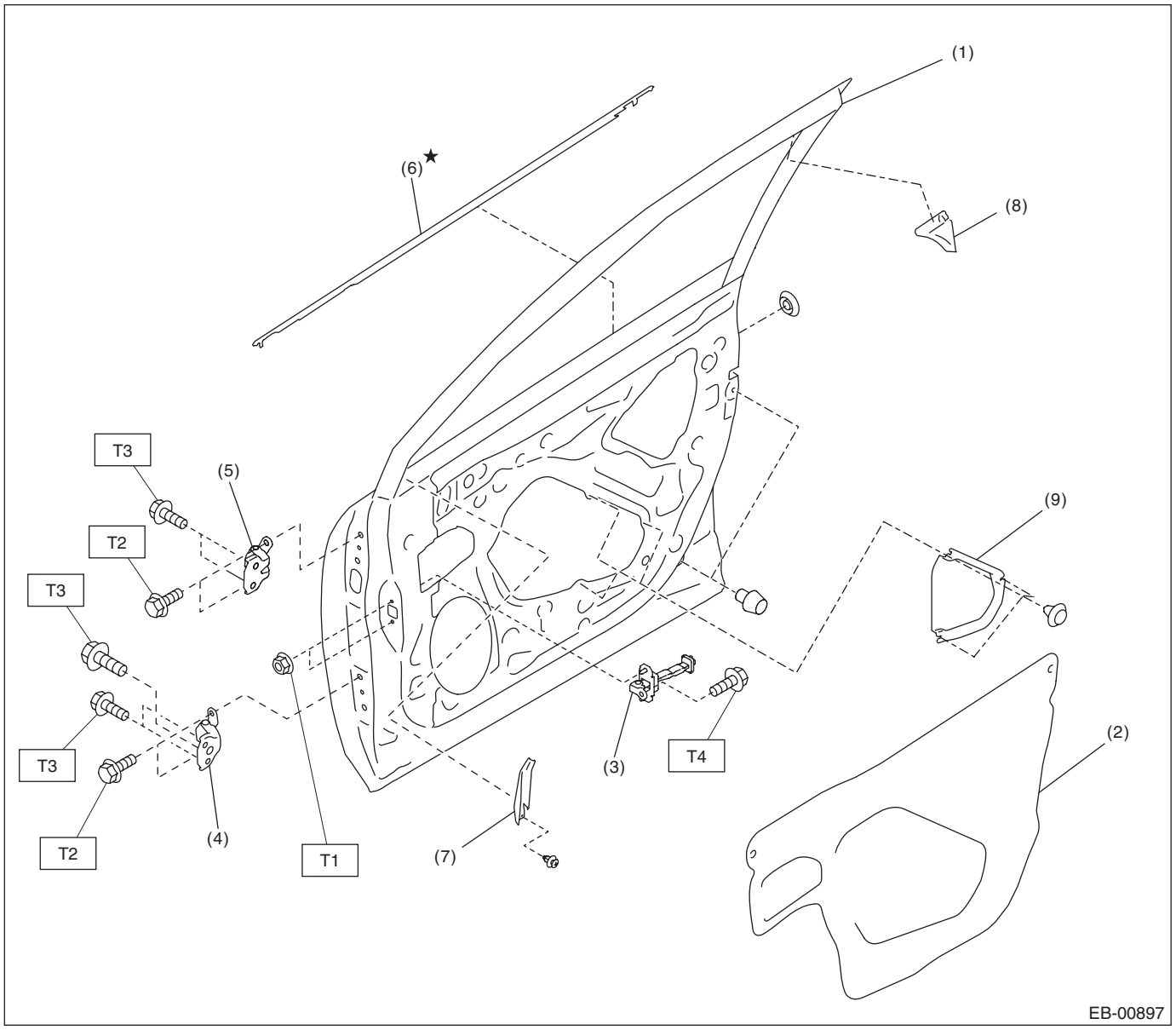
2. FRONT FENDER



(1) Cover - front pillar ASSY
(2) Fender COMPL - front

Tightening torque:N·m (kgf-m, ft-lb)
T: 5.5 (0.56, 4.1)

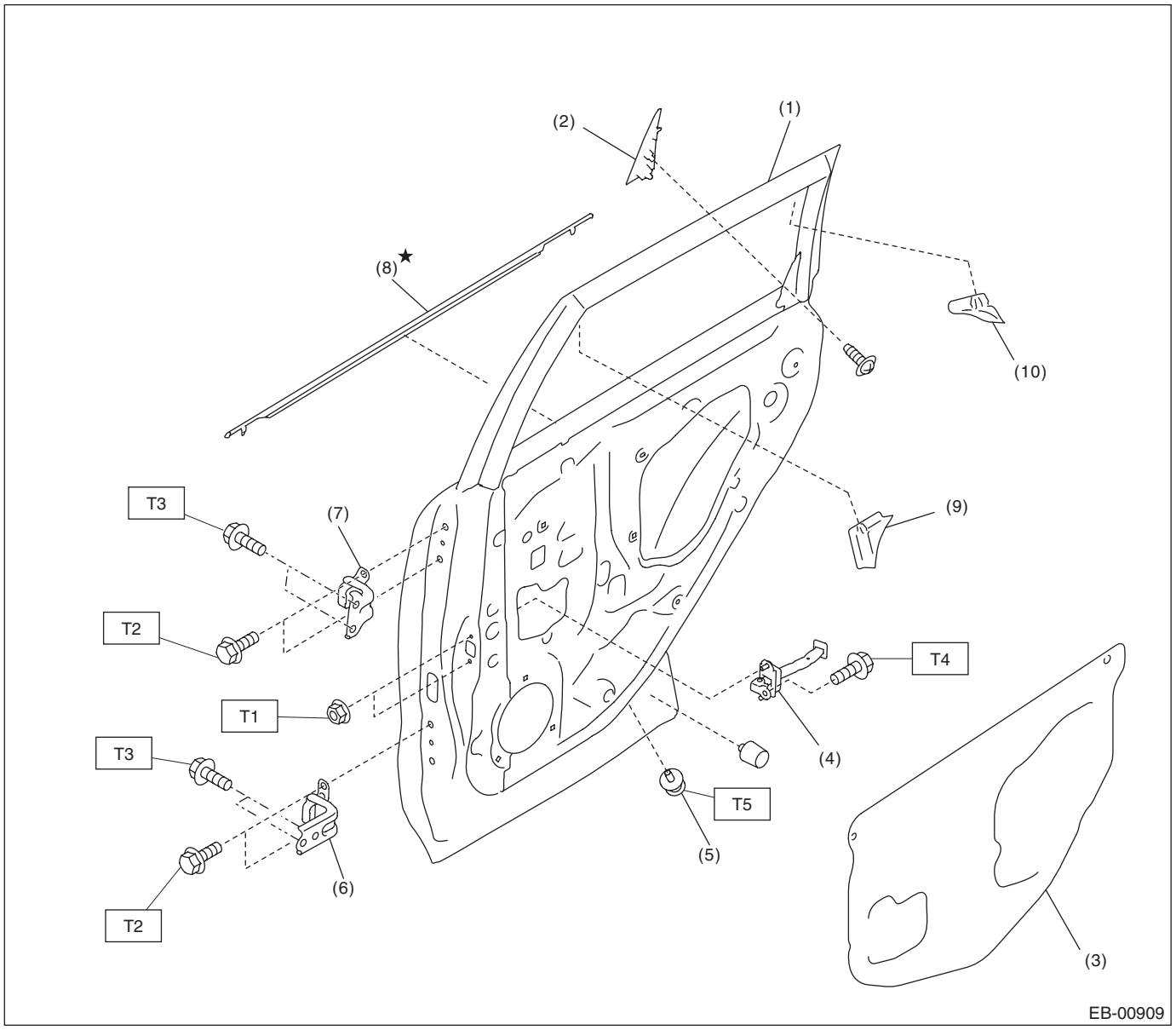
3. FRONT DOOR



(1)	Panel ASSY - front door	(6)	Weather strip outer - front door
(2)	Sealing cover - front door	(7)	Cover sash - inner front
(3)	Checker ASSY - front door	(8)	Cover B pillar - inner front door
(4)	Lower hinge - front door	(9)	Front door inner pad
(5)	Upper hinge - front door		

Tightening torque: N·m (kgf-m, ft-lb)
T1: 7.5 (0.76, 5.5)
T2: 25 (2.55, 18.4)
T3: 30 (3.06, 22.1)
T4: 33 (3.36, 24.3)

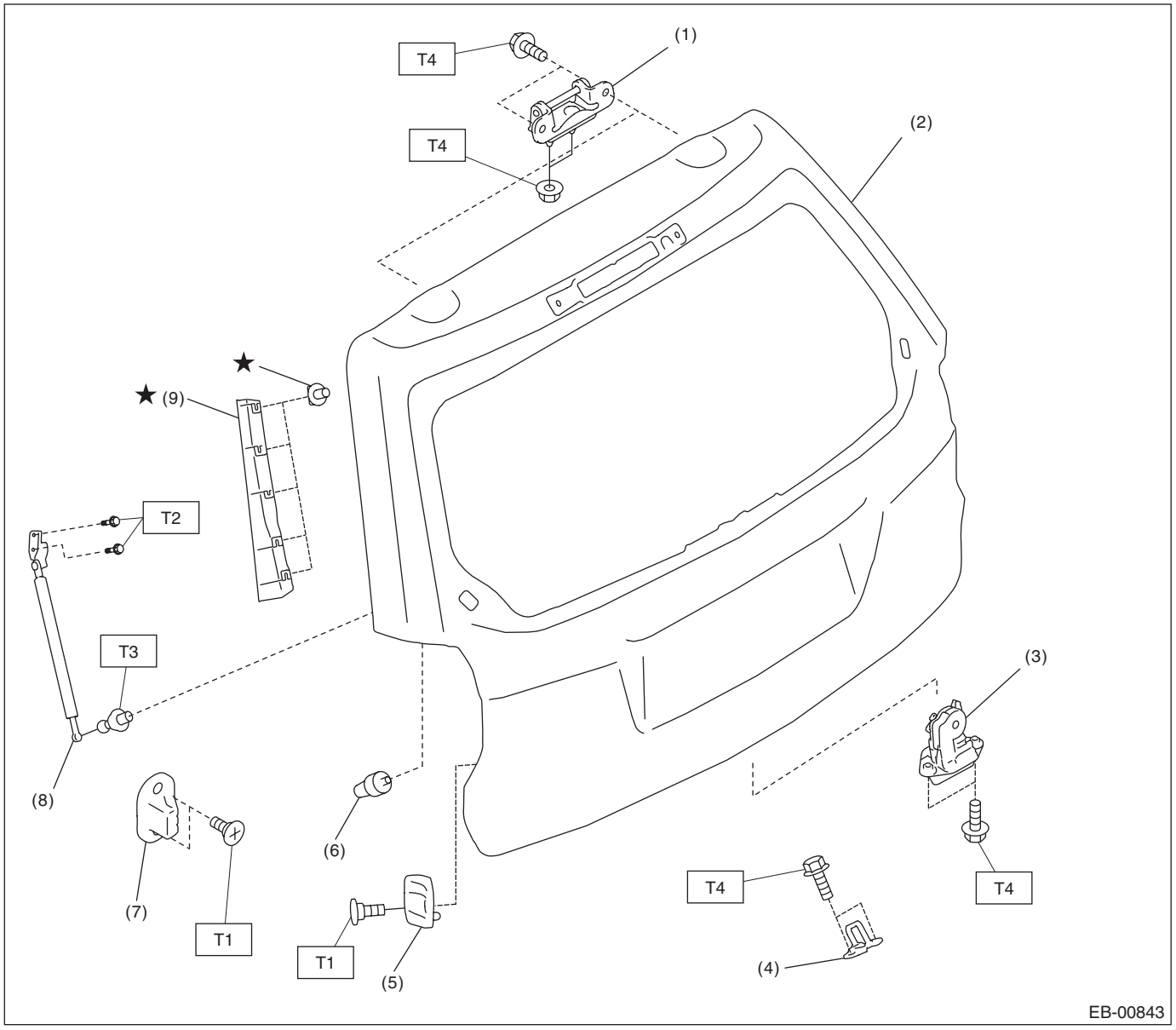
4. REAR DOOR



(1)	Panel ASSY - rear door	(6)	Lower hinge - rear door	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Cover - gusset outer	(7)	Upper hinge - rear door	***T1: 7.5 (0.76, 5.5)***
(3)	Sealing cover - rear door	(8)	Weather strip outer - rear door	***T2: 25 (2.55, 18.4)***
(4)	Checker ASSY - rear door	(9)	Cover B pillar - inner rear	***T3: 30 (3.06, 22.1)***
(5)	Catcher - rear door	(10)	Cover C pillar - inner rear	***T4: 33 (3.36, 24.3)***
				T5: 38 (3.87, 28.0)

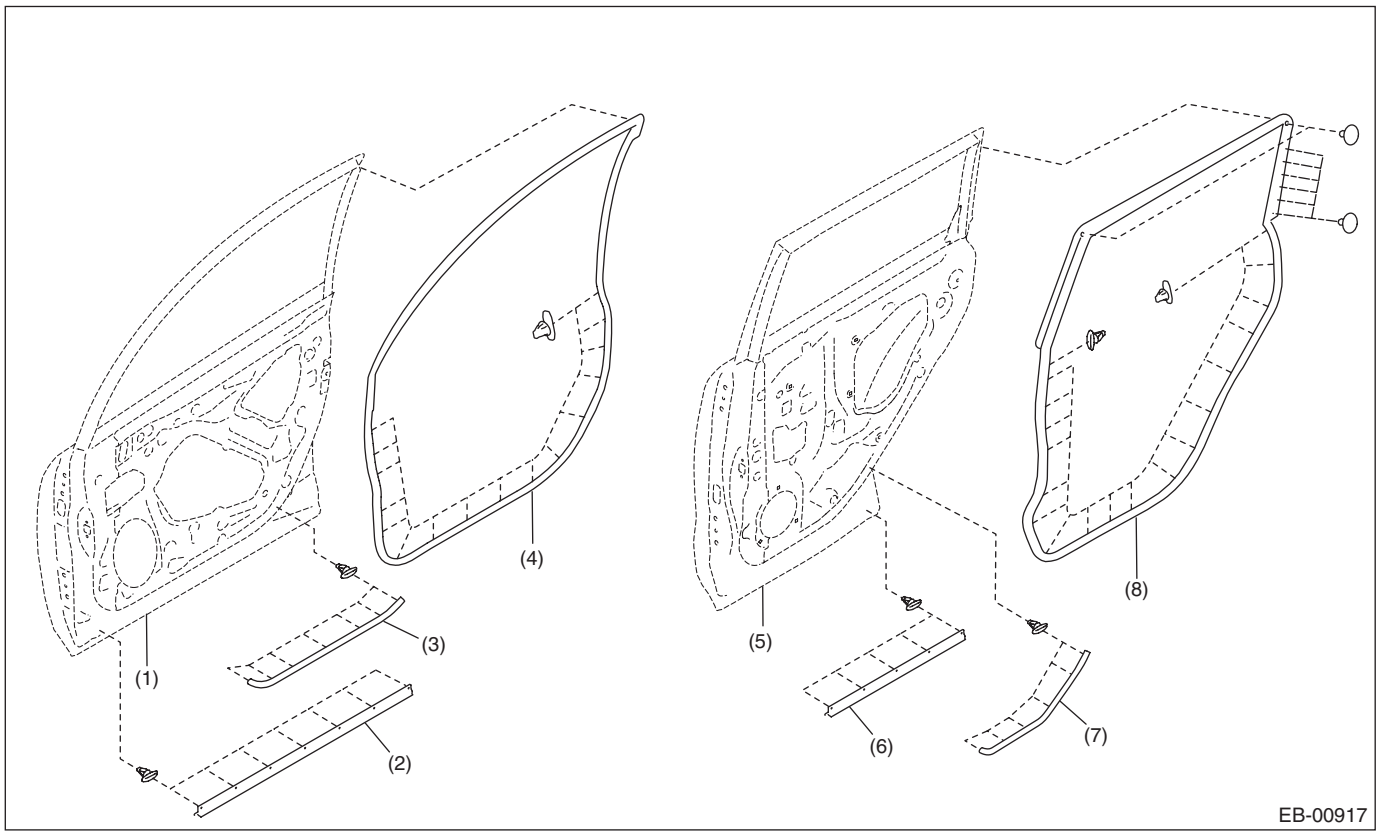
5. REAR GATE

NOTE:
For the components of power rear gate, refer to the power rear gate system. <Ref. to PRG-2, COMPONENT, General Description.>

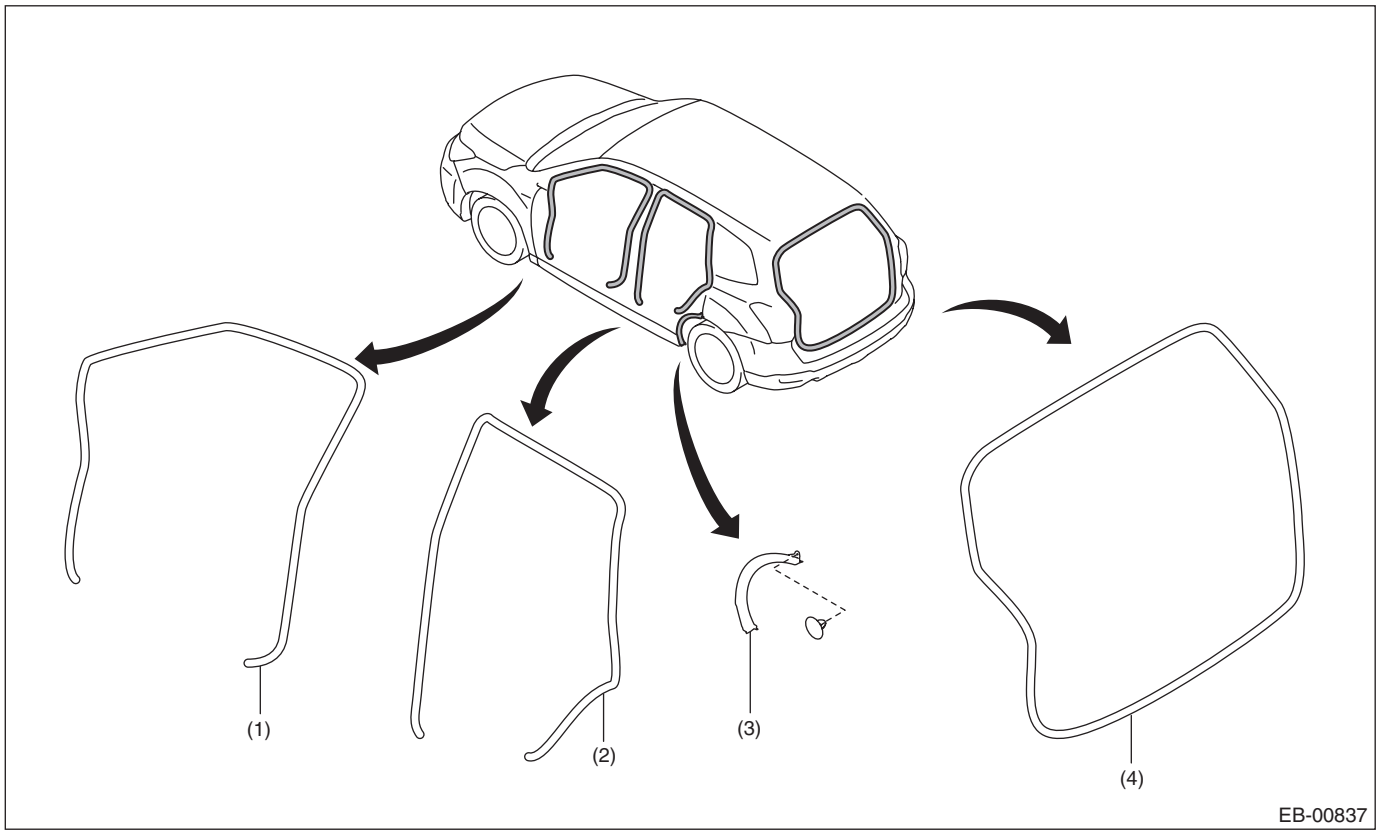


(1)	Hinge - back door	(6)	Stopper - rear gate	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Panel - rear gate	(7)	Buffer - body side	***T1: 7.5 (0.76, 5.5)***
(3)	Latch & actuator - rear gate	(8)	Stay ASSY - rear gate	***T2: 10 (1.02, 7.4)***
(4)	Striker - rear gate	(9)	Molding - side rear gate	***T3: 20 (2.04, 14.8)***
(5)	Buffer - rear gate			***T4: 25 (2.55, 18.4)***

6. WEATHER STRIP



(1) Panel ASSY - front door
(2) Weather strip - front door - side sill
(3) Weather strip - front door - lower
(4) Weather strip - front door
(5) Panel ASSY - rear door
(6) Weather strip - rear door - side sill
(7) Weather strip - rear door - lower
(8) Weather strip - rear door



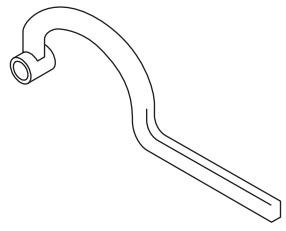
(1) Weather strip - body side flange front
(2) Weather strip - body side flange rear
(3) Weather strip - body arch
(4) Weather strip - rear gate

C: CAUTION

Exterior body panels are heavy. When removing and installing them, do not drop and damage the panels. Also, be careful not to scratch the coated surfaces of the panels.

D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-925610000	925610000	WRENCH	Used for removing and installing door hinge.

2. GENERAL TOOL

TOOL NAME	REMARKS
Clip remover	Used for removing various types of clips.

1. General Description

A: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Adjust parts to the given specifications.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that the each component operates smoothly.
• Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of “AIRBAG SYSTEM” in this case. <Ref. to AB-9, CAUTION, General Description.>
• Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor. <Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDC-CM&H/U).>

B: PREPARATION TOOL

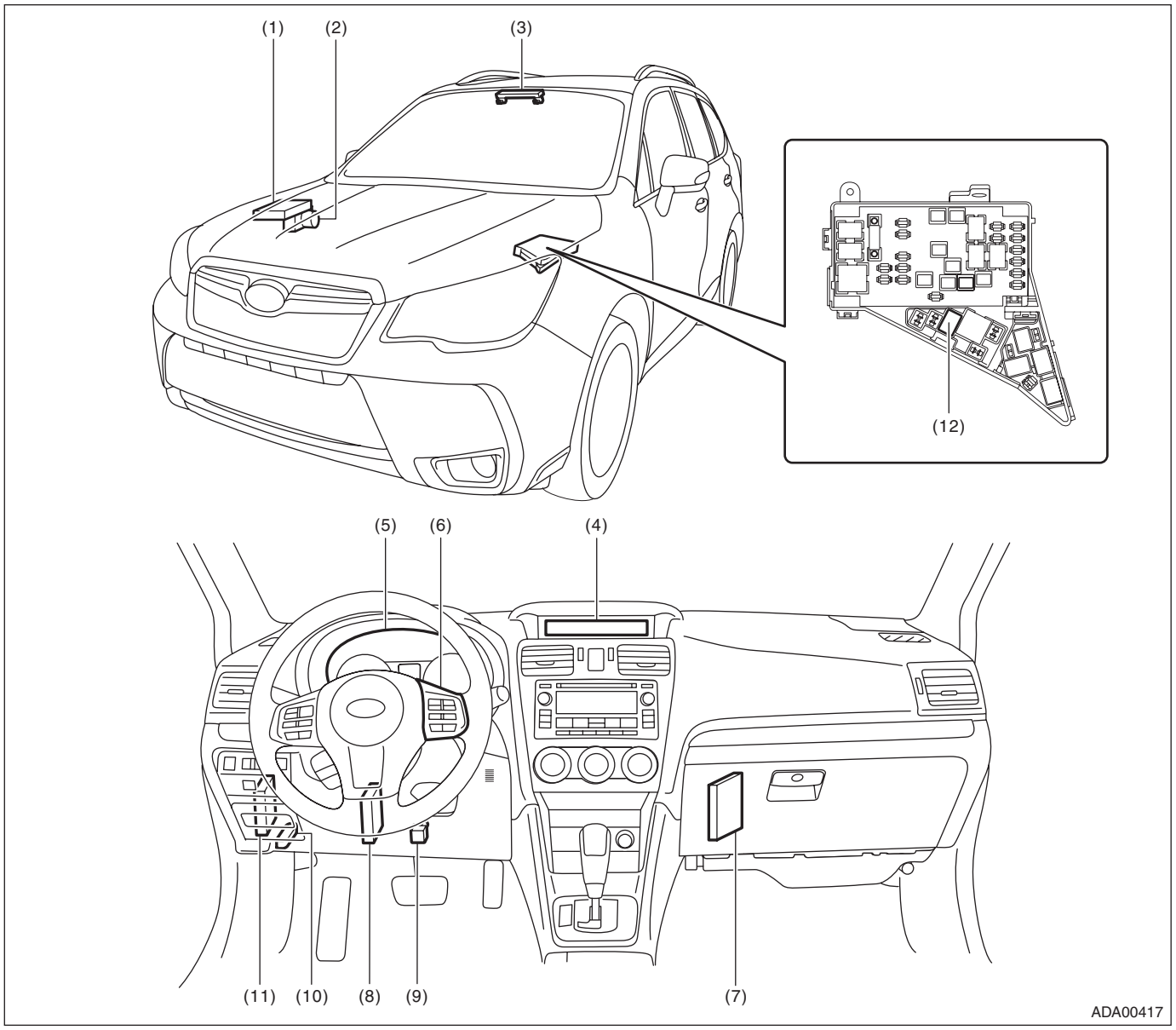
1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Steering wheel puller	Used for removing the steering wheel.

1. General Description

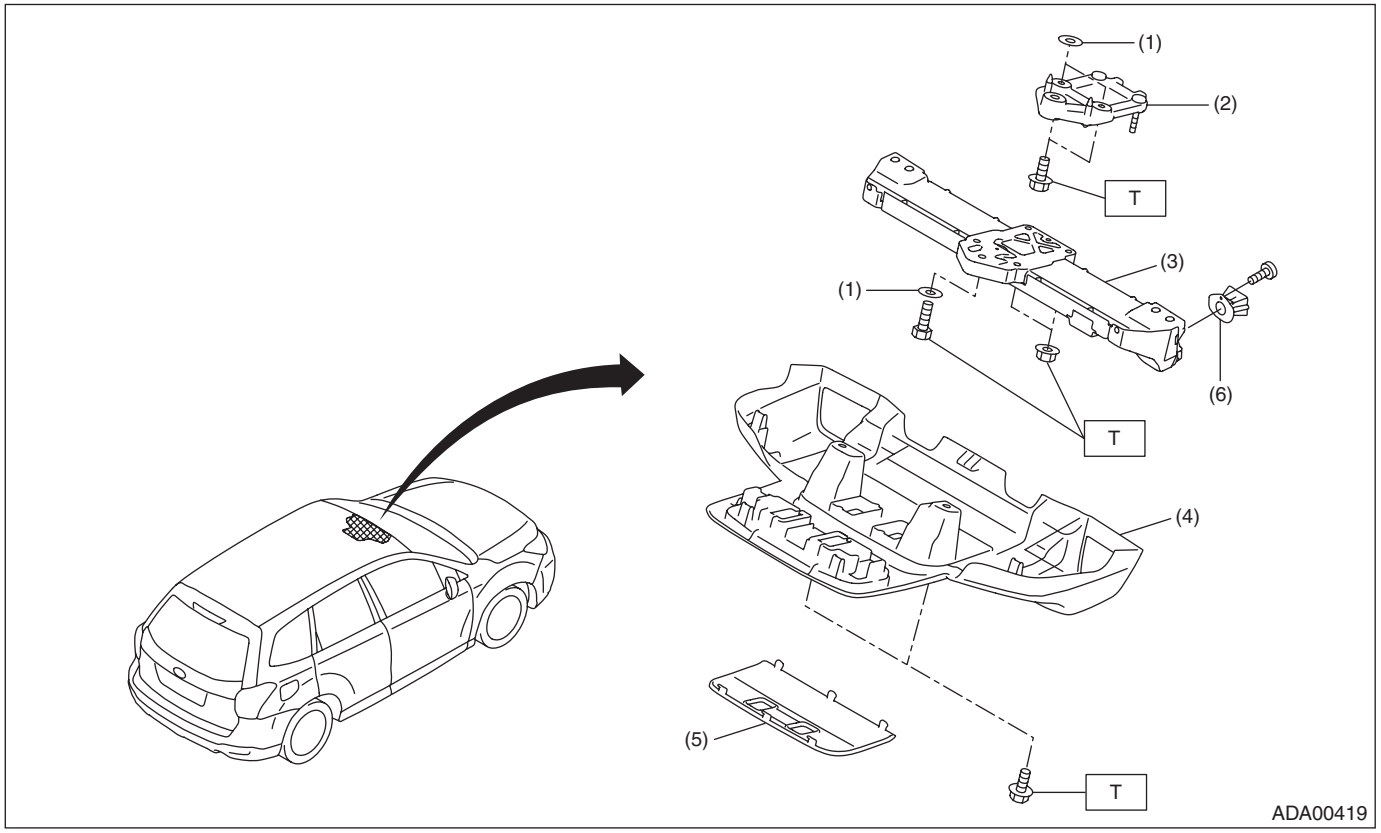
A: COMPONENT

1. EyeSight SYSTEM



(1)	Engine control module (ECM) (turbo model)	(5)	Combination meter	(9)	Stop light and brake switch
(2)	VDC control module (VDCCM)	(6)	Cruise control command switch	(10)	Data link connector
(3)	Stereo camera	(7)	Engine control module (ECM) (non-turbo model)	(11)	Body integrated unit
(4)	MFD (multi-function display)	(8)	Transmission control module (TCM)	(12)	Brake light relay

2. STEREO CAMERA

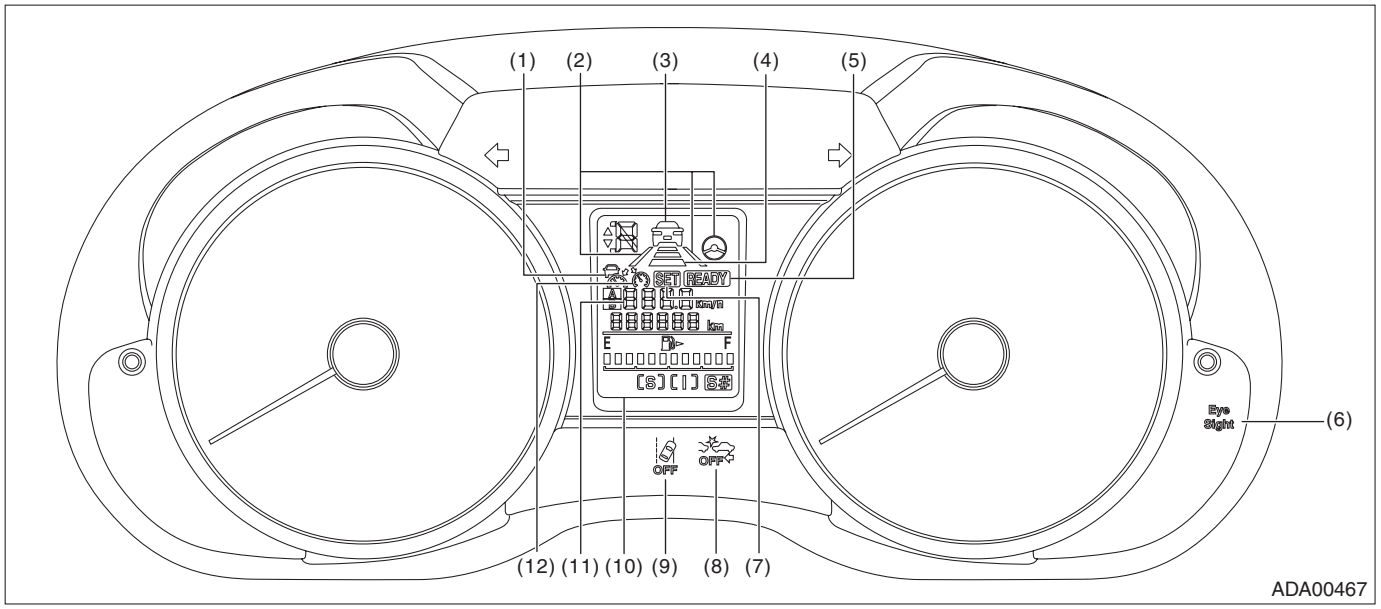


(1) Washer
(2) Camera plate
(3) Stereo camera
(4) Stereo camera cover ASSY
(5) Cap
(6) Lens hood (lens filter)

Tightening torque: N·m (kgf-m, ft-lb)
T: 5.5±1.0 (0.56±0.10, 4.1±0.7)

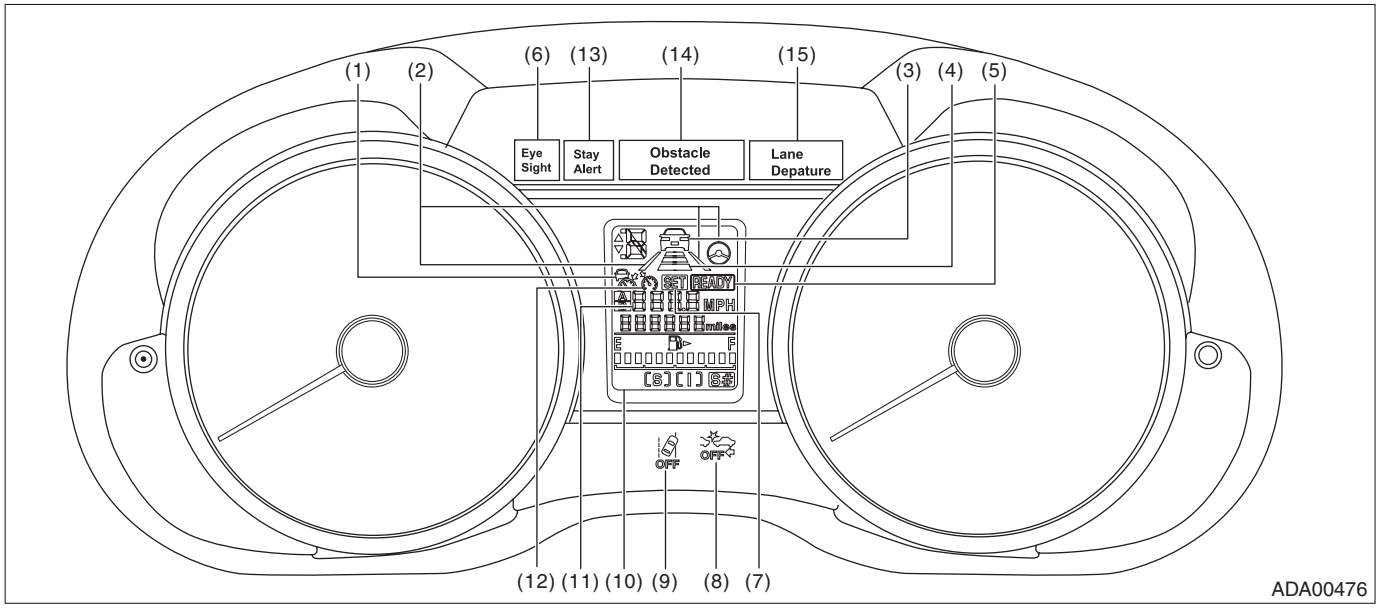
3. COMBINATION METER

- Model for Canada



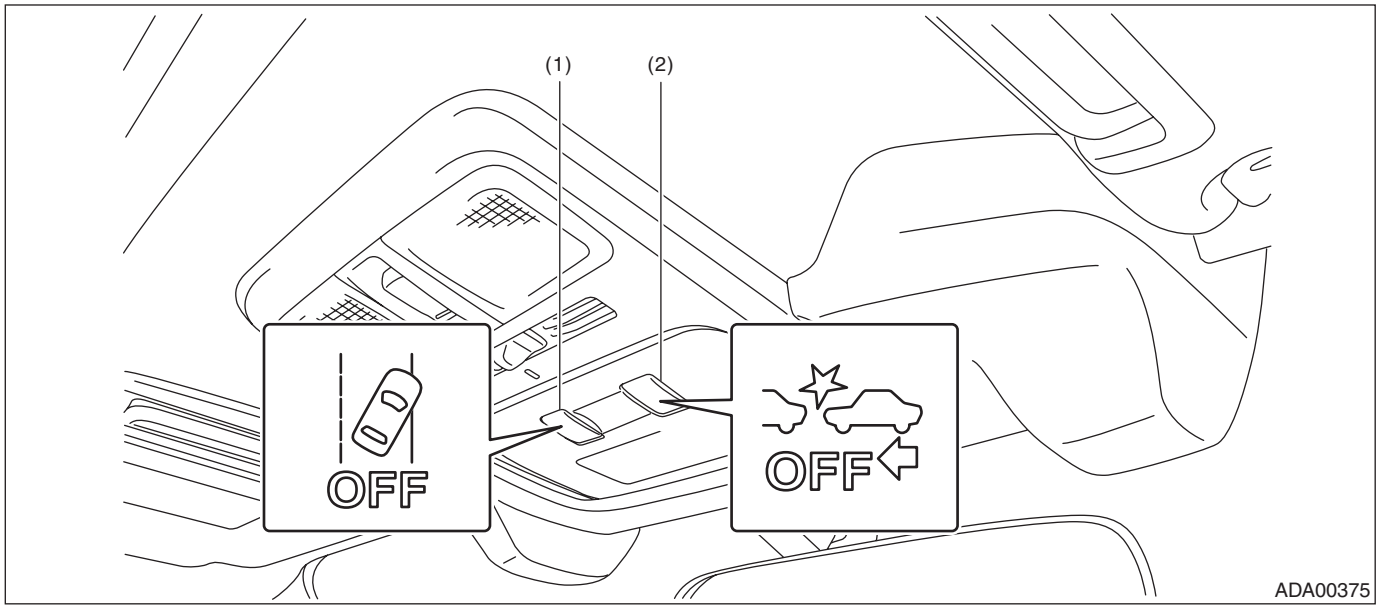
(1)	Adaptive cruise display	(5)	READY indicator	(9)	Lane departure warning OFF indicator light
(2)	Lane indicator/Steering wheel indicator	(6)	EyeSight warning light	(10)	Multi-information display
(3)	Preceding vehicle indicator	(7)	SET indicator	(11)	Set vehicle speed display
(4)	Following distance setting indicator	(8)	Pre-collision brake OFF indicator light	(12)	Conventional cruise display

- Except model for Canada

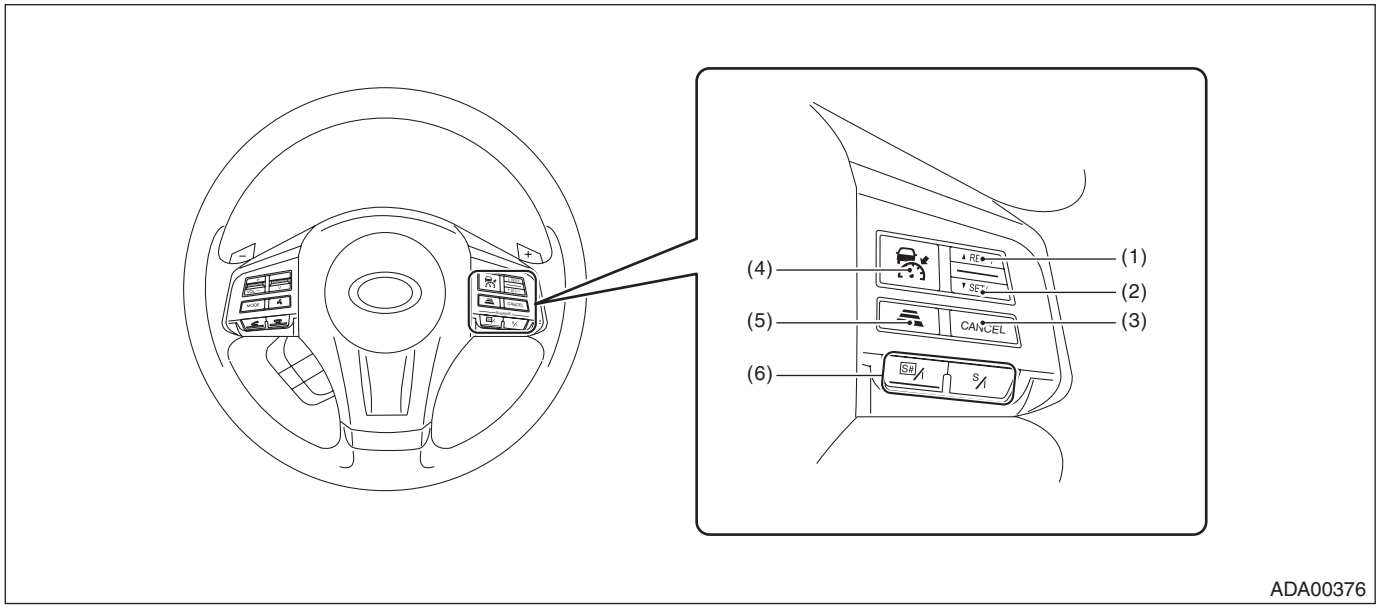


(1)	Adaptive cruise display	(6)	EyeSight warning light	(11)	Set vehicle speed display
(2)	Lane indicator/Steering wheel indicator	(7)	SET indicator	(12)	Conventional cruise display
(3)	Preceding vehicle indicator	(8)	Pre-collision brake OFF indicator light	(13)	“Stay Alert” indicator
(4)	Following distance setting indicator	(9)	Lane departure warning OFF indicator light	(14)	“Obstacle Detected” indicator
(5)	READY indicator	(10)	Multi-information display	(15)	“Lane Departure” indicator

4. SWITCH



(1) Lane departure warning OFF switch
(2) Pre-collision brake OFF switch



(1) RES/+ (Resume/+) switch
(2) SET/– (Set/–) switch
(3) CANCEL switch
(4) CRUISE switch
(5) Following distance setting switch
(6) SI-DRIVE switch

B: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Adjust parts to the given specifications.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that the functional parts operate normally.
• Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions for the airbag system in this case. <Ref. to AB-9, CAUTION, General Description.>
• Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor. <Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDC-CM&H/U).>
• If the glass is damaged inside the glass repair prohibited area, always perform the glass replacement. <Ref. to ES(diag)-8, WINDSHIELD GLASS AND DASHBOARD, INSPECTION, General Description.>
Even if a scratch that occurs inside the prohibited area is repaired, this will affect the recognition of the stereo camera, which may cause the EyeSight function not to operate correctly.

C: PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Steering wheel puller	Used for removing the steering wheel.
Protective tape (masking tape, etc.)	Used for removing and installing stereo camera cover assembly.

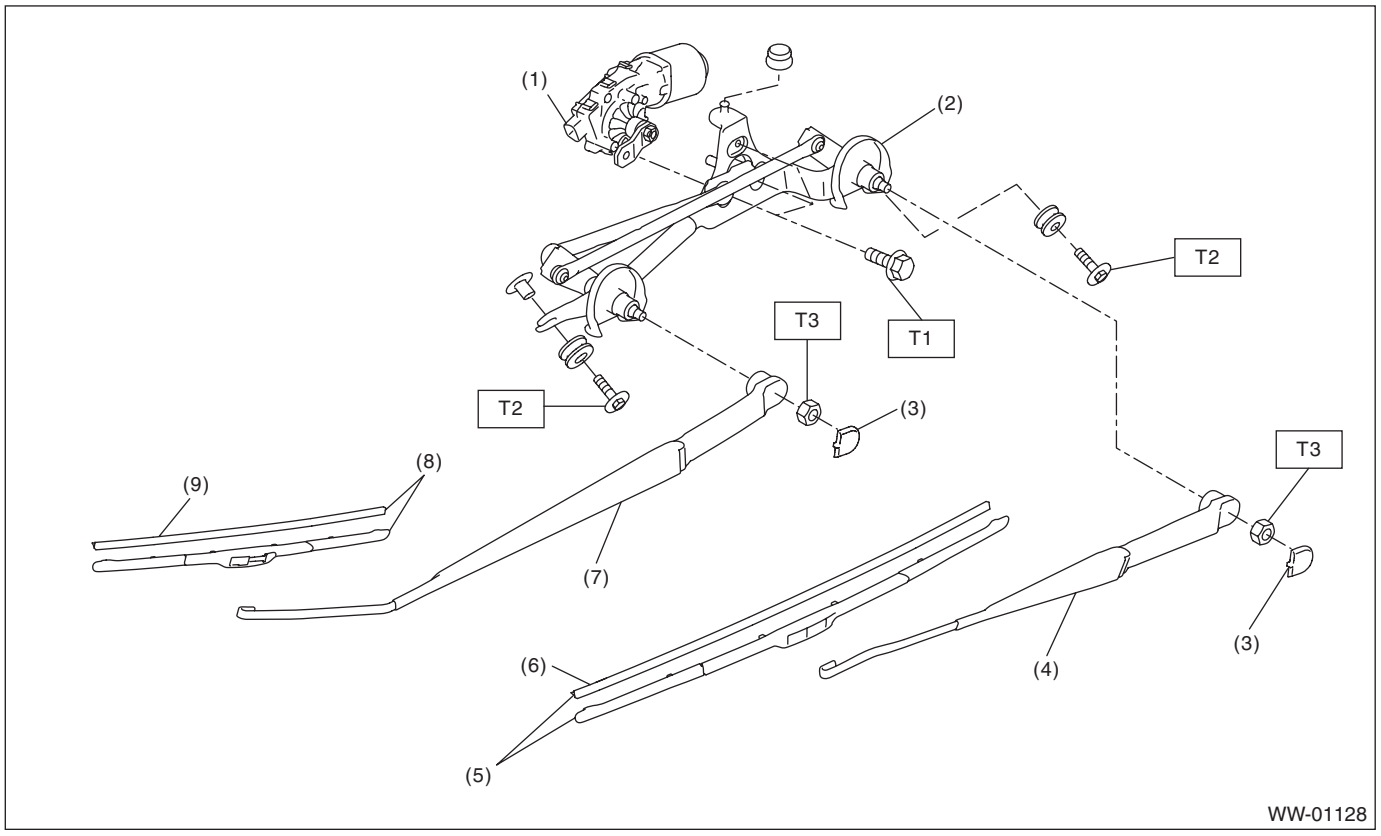
1. General Description

A: SPECIFICATION

Front wiper motor	Input	12 V — 72 W or less
Rear wiper motor	Input	12 V — 42 W or less
Front washer motor	Pump type	Centrifugal
	Input	12 V — 60 W or less
Rear washer motor	Pump type	Centrifugal
	Input	12 V — 60 W or less

B: COMPONENT

1. FRONT WIPER

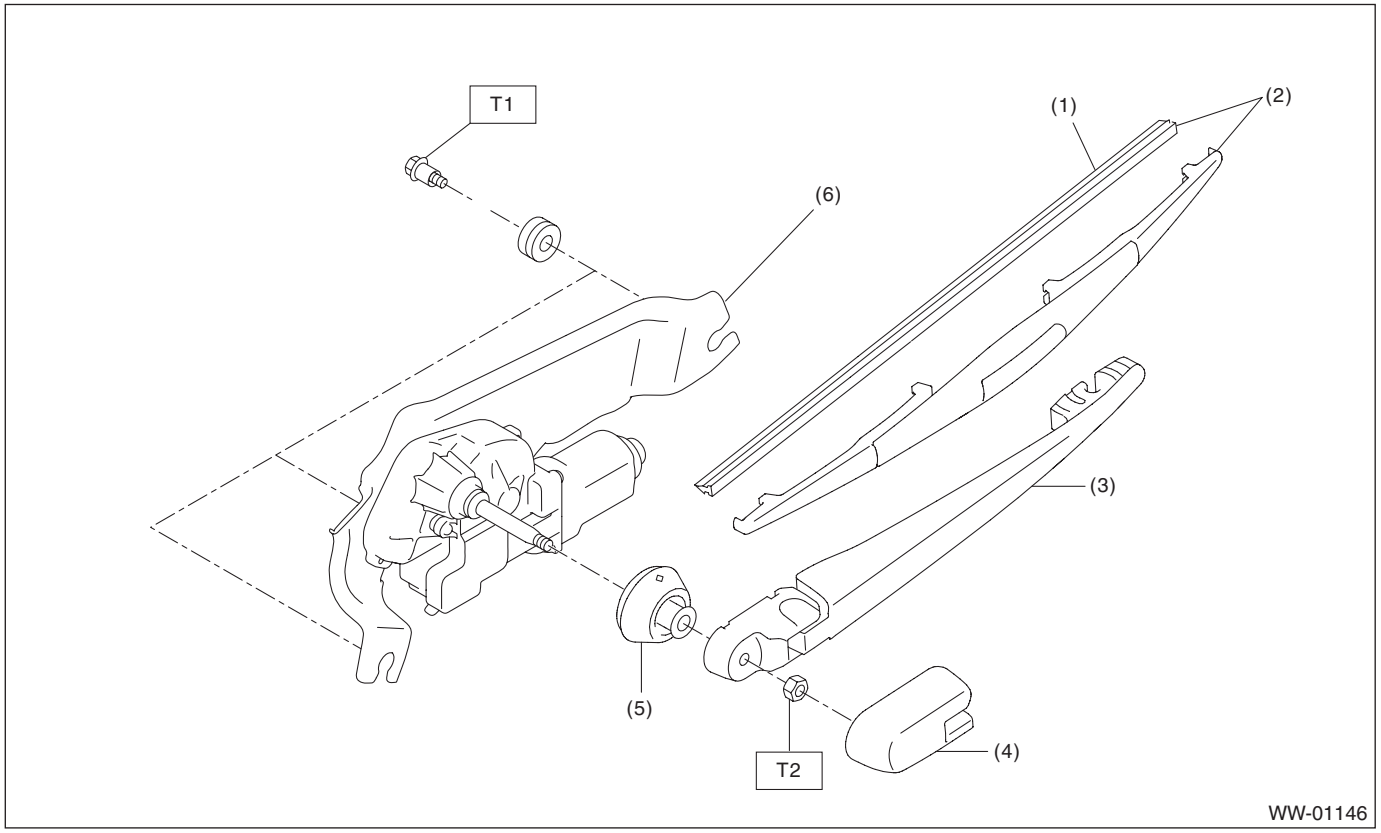


(1) Motor ASSY - windshield wiper
(2) Link ASSY - windshield wiper
(3) Cover - windshield wiper arm
(4) Arm ASSY - windshield wiper driver
(5) Blade ASSY - windshield wiper driver
(6) Rubber ASSY - windshield wiper driver
(7) Arm ASSY - windshield wiper assistor
(8) Blade ASSY - windshield wiper assistor
(9) Rubber ASSY - windshield wiper assistor

Tightening torque:N·m (kgf-m, ft-lb)

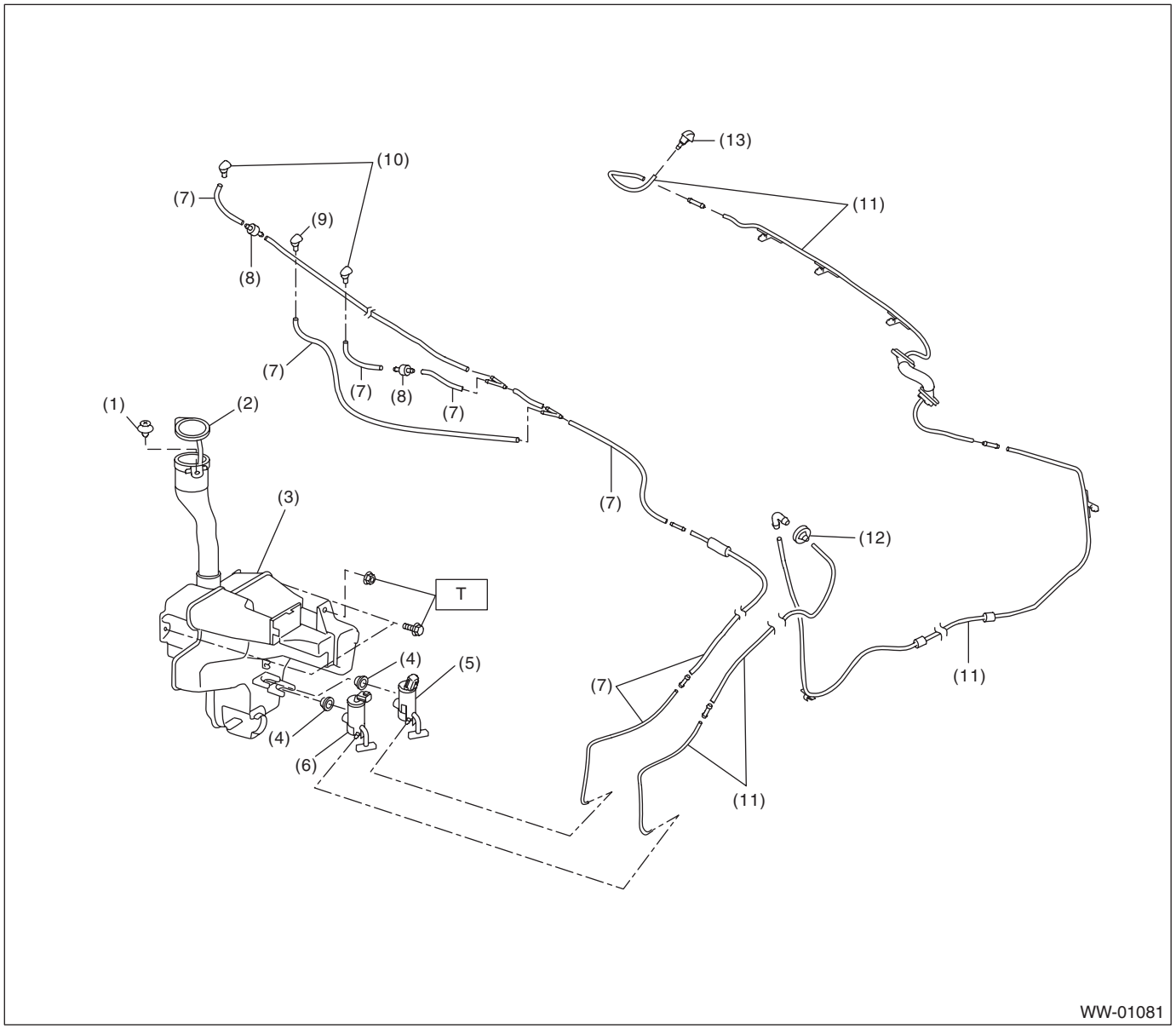
T1: 5.5 (0.56, 4.1)
T2: 6 (0.61, 4.4)
T3: 26 (2.65, 19.2)

2. REAR WIPER



(1)	Rubber ASSY - rear wiper	(4)	Cover - rear wiper arm	***Tightening torque:N·m (kgf-m, ft-lb)***
(2)	Blade ASSY - rear wiper	(5)	Cap - pivot wiper	***T1: 6 (0.61, 4.4)***
(3)	Arm ASSY - rear wiper	(6)	Motor ASSY - rear wiper	***T2: 8 (0.82, 5.9)***

3. WASHER TANK (MODELS WITH EyeSight)

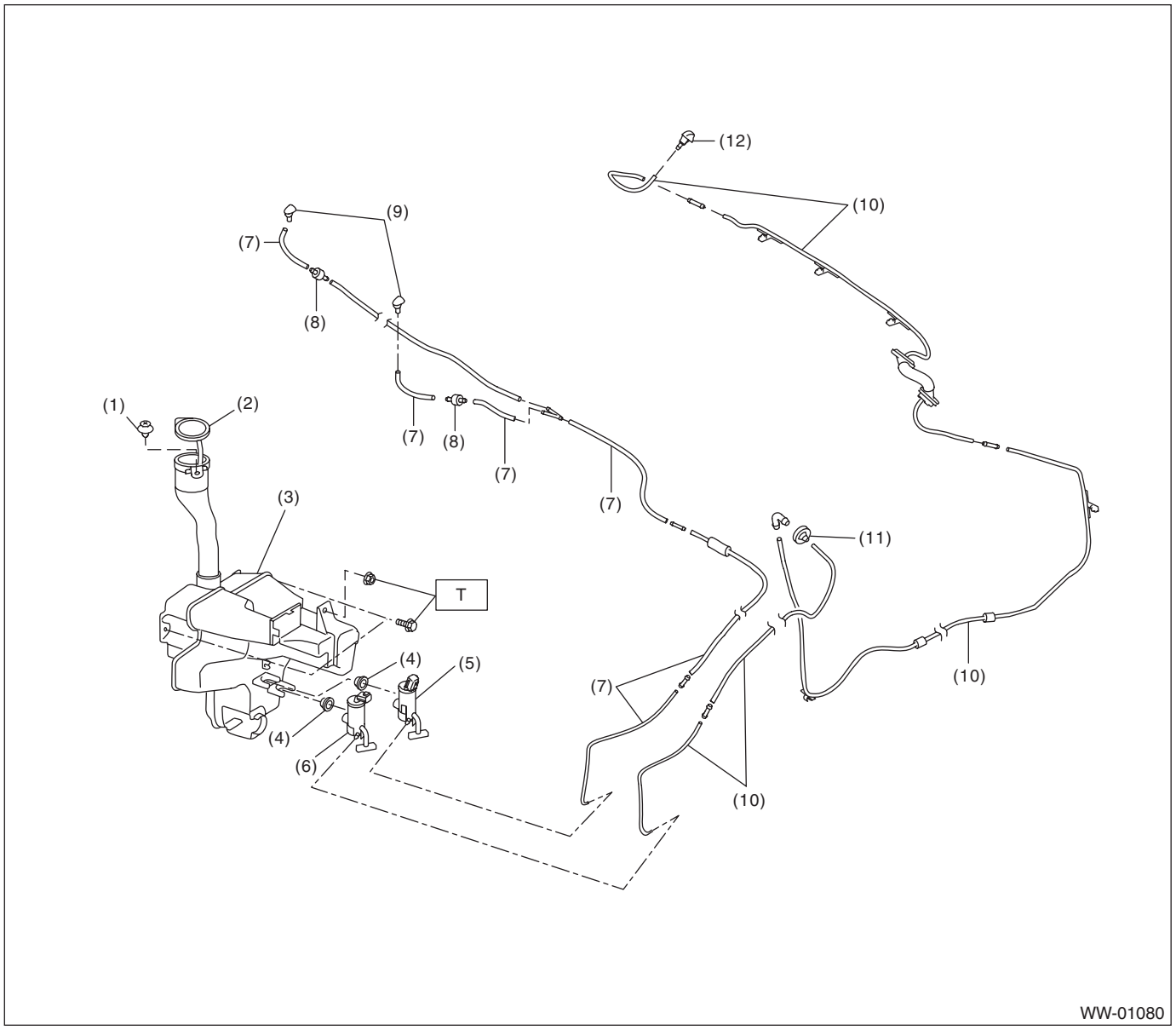


(1) Clip
(2) Cap ASSY - washer tank
(3) Tank - washer front
(4) Packing - washer motor
(5) Motor pump ASSY - washer front
(6) Motor pump ASSY - washer rear
(7) Hose - windshield washer
(8) Valve - windshield washer
(9) Nozzle - windshield washer EyeSight
(10) Nozzle - windshield washer
(11) Hose ASSY - rear washer
(12) Grommet - washer hose
(13) Nozzle - rear washer

Tightening torque: N·m (kgf-m, ft-lb)

T: 6 (0.61, 4.4)

4. WASHER TANK (MODELS WITHOUT EyeSight)



(1) Clip
(2) Cap ASSY - washer tank
(3) Tank - washer front
(4) Packing - washer motor
(5) Motor pump ASSY - washer front
(6) Motor pump ASSY - washer rear
(7) Hose - windshield washer
(8) Valve - windshield washer
(9) Nozzle - windshield washer
(10) Hose ASSY - rear washer
(11) Grommet - washer hose
(12) Nozzle - rear washer

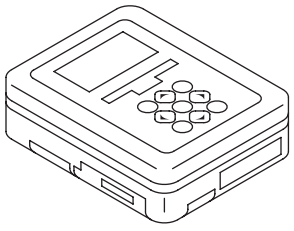
Tightening torque: N·m (kgf-m, ft-lb)
T: 6 (0.61, 4.4)

C: CAUTION

- Connect the connectors and hoses securely during reassembly.
- After reassembly, make sure that the each component or each function operates normally.
- Be careful with the airbag system wiring harness which passes near electrical parts and switches.
- Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of “AIRBAG SYSTEM” in this case. <Ref. to AB-9, CAUTION, General Description.>
- When connecting the pipe hoses, be careful not to cause bend or blockage.
- If even a small amount of silicon oil or grease enters the tank - washer and the washer fluid passages, an oil film will be formed on the glass and will cause the wiper to chatter and judder. Make sure that no oil comes into contact with the system.

D: PREPARATION TOOL

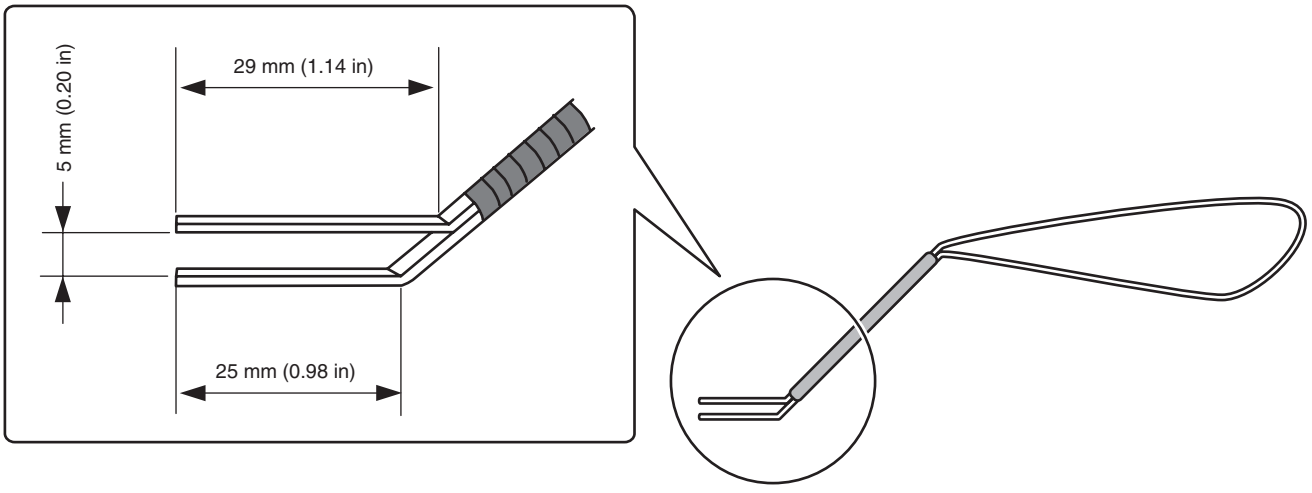
1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for setting of each function and trouble-shooting for electrical system.

2. GENERAL TOOL

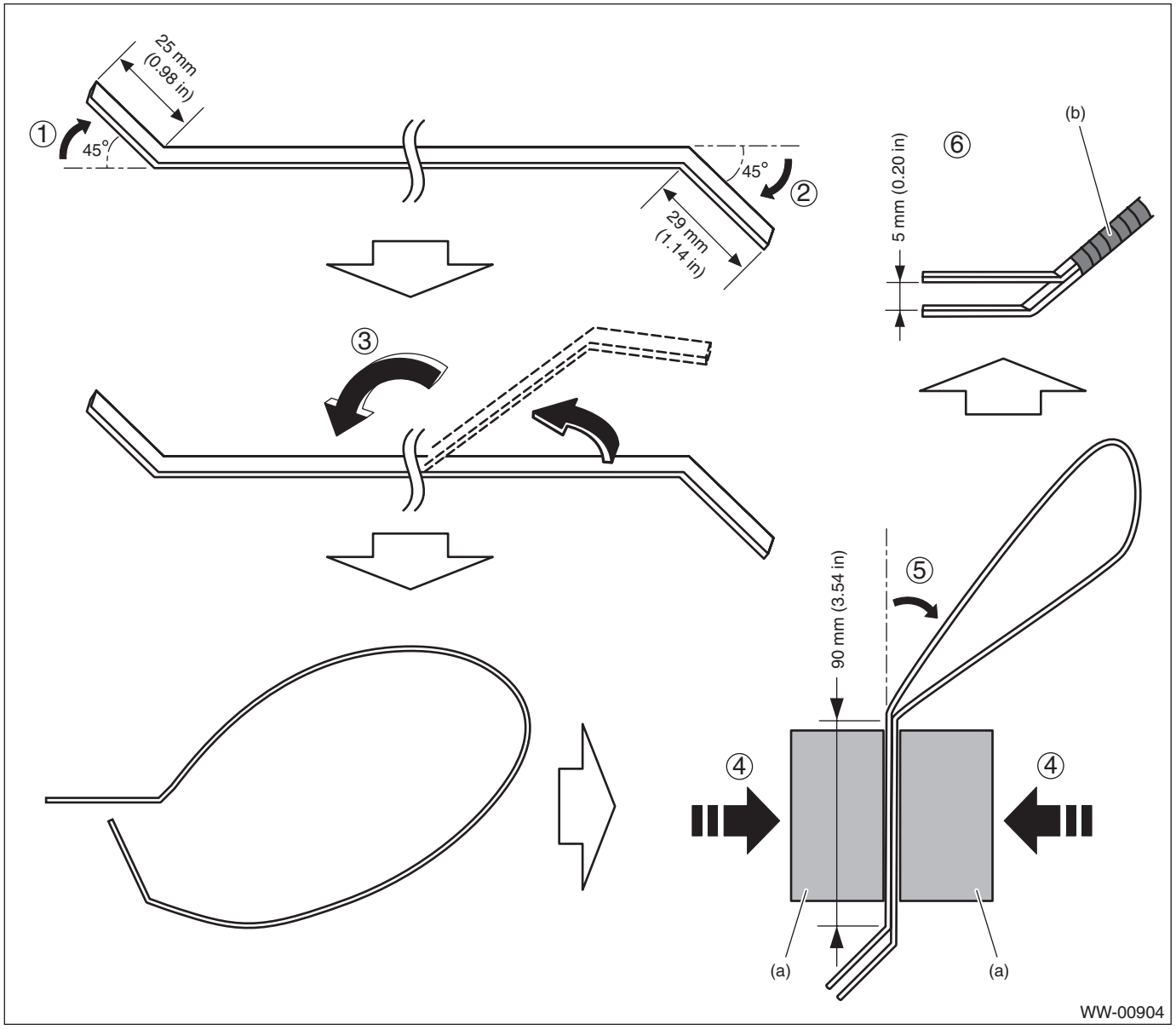
TOOL NAME	REMARKS
Circuit tester	Used for checking voltage and continuity.

NOTE:
Referring to the data described below, prepare the materials to make a nozzle - windshield washer adjustment tool.



Materials
- Vertebra of wiper blade which is to be discarded
- Vinyl tape

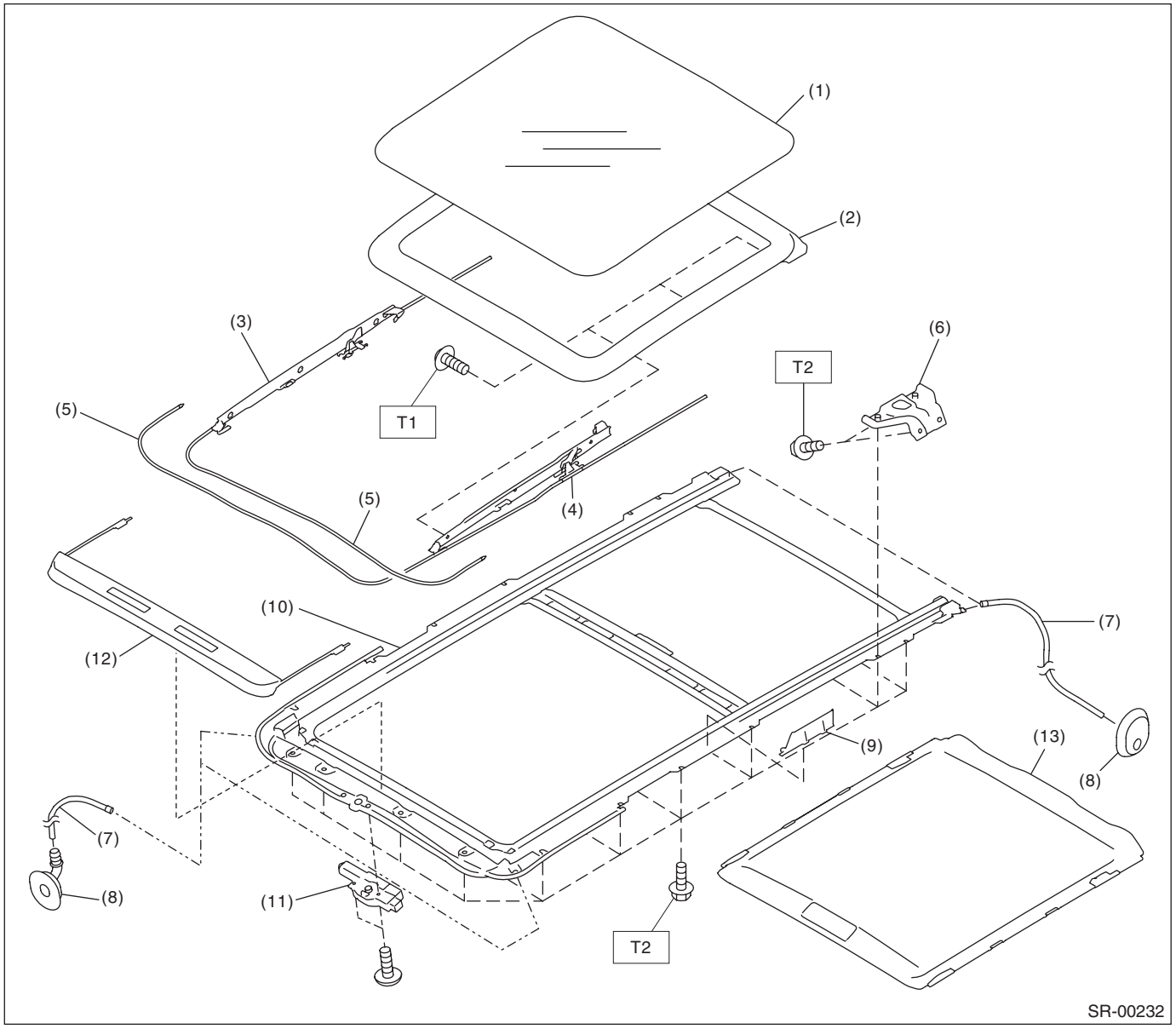
Steps of making a front washer nozzle adjustment tool



1. Bend the vertebra at the position 25 mm (0.98 in) away from its end by 45°.
2. Bend the vertebra at the position 29 mm (1.14 in) away from the other end by 45°.
3. Double up the vertebra so that the longer end (29 mm (1.14 in)) comes upward.
4. Secure the vertebra with a vise (a) so that the tip clearance becomes 5 mm (0.20 in).
5. Bend the vertebra at the position approximately 90 mm (3.54 in) away from the bending point for the longer end.
6. Check that the tip clearance is 5 mm (0.20 in), and secure the vertebra with vinyl tape (b).

1. General Description

A: COMPONENT



(1) Lid ASSY - sunroof
(2) Weather strip
(3) Mechanism ASSY - sunroof RH
(4) Mechanism ASSY - sunroof LH
(5) Cable ASSY
(6) Bracket - sunroof
(7) Drain tube - sunroof
(8) Grommet - drain tube
(9) Cover - sunroof
(10) Rail ASSY - sunroof
(11) Motor ASSY - sunroof
(12) Deflector ASSY - sunroof
(13) Sunshade ASSY

Tightening torque: N·m (kgf-m, ft-lb)
T1: 4.5 (0.46, 3.3)
T2: 6 (0.61, 4.4)

B: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly unless otherwise indicated.
• Adjust parts to the given specifications.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that the each component operates normally.

C: PREPARATION TOOL

1. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Hexagon wrench	Used for forcibly driving the motor assembly - sunroof. Width across flat 4 mm (0.16 in)
TORX® T25	Used for removing and installing the lid assembly - sunroof.

1. General Description

A: SPECIFICATION

1. COMBINATION METER ASSEMBLY

NOTE:
Specifications of the combination meter vary depending on the market and the grade.

Meter, display	Operation method, display method	Drive control	When checking the indicator needle operation/needle reading operation
Speedometer	Stepping motor type	Combination meter	—
Tachometer			
ECO gauge			

Meter, display	Operation method, display method	Drive control	When checking the indicator needle operation/needle reading operation
ABS warning light	LED	Combination meter	On/Off
STEERING warning light			
AT oil temperature warning light			
Driver's seat belt warning light			
Door warning light			
Tire pressure warning light			
Access key warning light (model with keyless access)			
AWD warning light			
Hill start assist warning light			
VDC warning light / VDC operation indicator light			
VDC OFF indicator light			
High beam indicator light			
Front fog light indicator light			
Lighting indicator light			
Fuel level warning light			
Malfunction indicator light			
Airbag warning light			
Engine oil level warning light			
Washer fluid level warning light			
EyeSight warning light			
Lane departure warning OFF indicator light			
Pre-collision brake OFF indicator light			
STAY ALERT indicator light			
OBSTACLE DETECTED indicator light			
LANE DEPARTURE indicator light			
Hill descent indicator light			
Meter illumination back light			Light ON
LCD back light			Light ON
Engine coolant temperature warning light (red)			On (red)/Off
Engine coolant temperature indicator light (blue)			Off/On (blue)
Oil pressure warning light		Oil pressure switch	Turns on or off according to module control
Charge warning light		Generator	
Turn signal indicator light		Turn signal and hazard unit	
Security/immobilizer indicator light		Body integrated unit	
Auto leveler warning light		Auto headlight beam leveler CM	
Parking brake/brake fluid level/brake vacuum pump warning light		Combination meter/ brake fluid level switch/ECM	On/Turns on or off according to module control

Meter, display	Operation method, display method	Drive control	When checking the indicator needle operation/needle reading operation
ODO indicator	LCD	Combination meter	—
Trip indicator			
Shift indicator			
Select lever / shift position indicator			
FUEL meter			
SI-DRIVE mode indicator			
X mode indicator			
Cruise control system indicator • Constant speed cruise • SET			
EyeSight system indicator • Adaptive cruise • Constant speed cruise • SET • READY • Preceding vehicle • Following distance setting • Set speed • Traffic lane • Steering wheel			

2. MULTI-FUNCTION DISPLAY

NOTE:
Specifications of the multi-function display vary depending on the market and the grade.

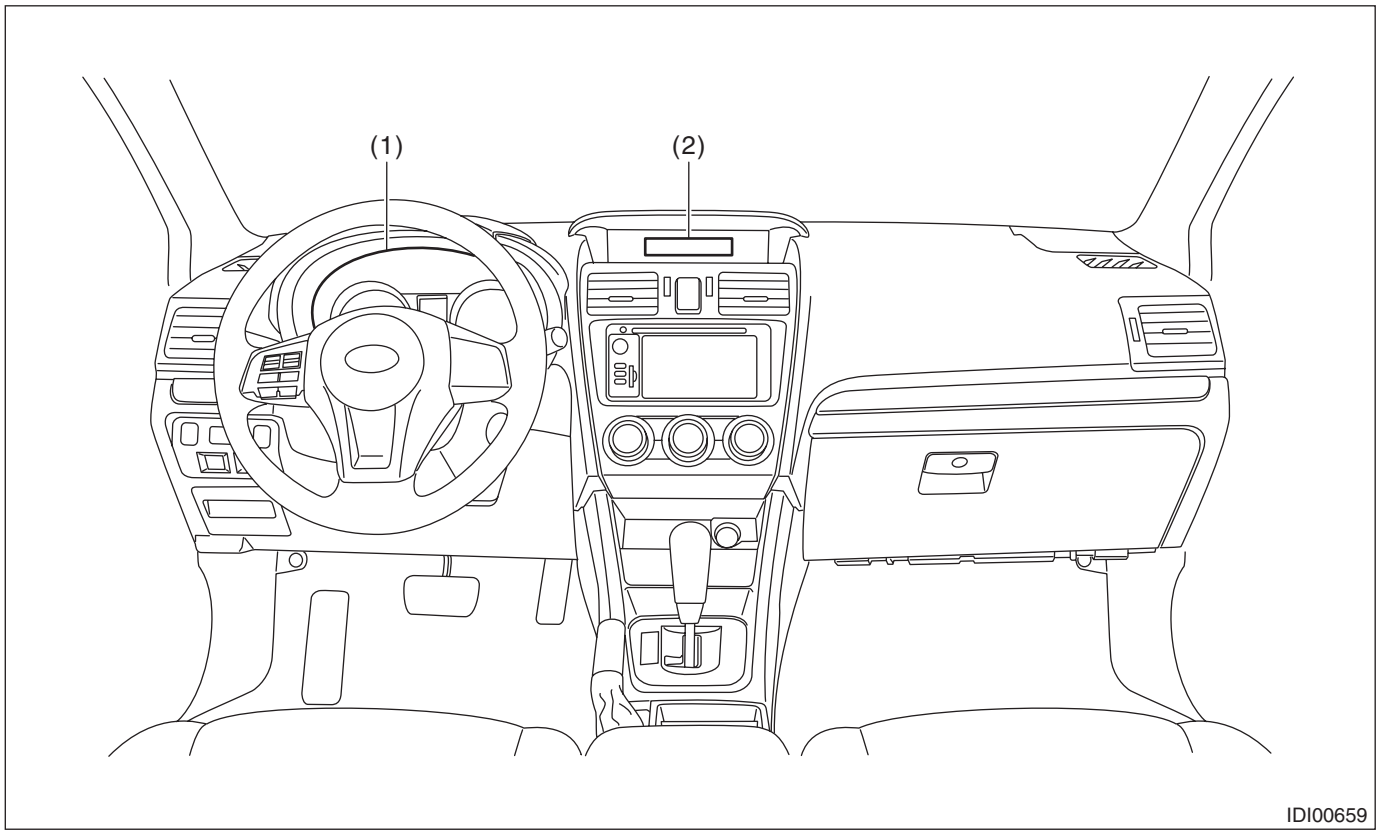
- Standard type

Display	Display method
Average/instantaneous fuel economy, cruising distance, ambient temperature, current time, continuous driving time, average vehicle speed	LCD
Passenger's seat airbag indicator light	LED
Passenger's airbag ON indicator light	
Passenger's airbag OFF indicator light	
Passenger's seat belt warning light	

- High grade type

Display	Display method
Fuel economy screen, economy gauge (instantaneous) screen, economy gauge (history) screen, preventive safety screen, triple meter, clock screen, setting screen, self-check screen, information screen, EyeSight screen, audio screen	TFT
Air conditioner display (auto A/C model)	LCD
Passenger's seat airbag indicator light	LED
Passenger's airbag ON indicator light	
Passenger's airbag OFF indicator light	
Passenger's seat belt warning light	

B: LOCATION



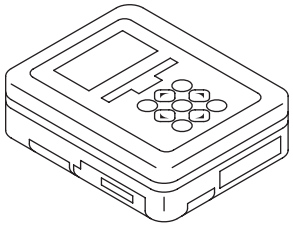
(1) Combination meter ASSY (2) Multi-function display (MFD)

C: CAUTION

• Before disassembling or reassembling parts, always disconnect the battery ground cable from battery. When replacing the audio, control module and other parts provided with memory functions, record the memory contents before disconnecting the battery ground cable. Otherwise, the memory is cleared.
• Reassemble the parts in the reverse order of disassembly procedure unless otherwise indicated.
• Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.
• Do not apply an excessive force on the printed circuit.
• Do not drop or otherwise apply impact.
• Connect the connectors securely during reassembly.
• After reassembly, make sure that each component operates normally.
• When the combination meter assembly has been replaced, be sure to perform the following operations.
  – For models without the keyless access with push button start except for C0 and C5, be sure to perform the registration of immobilizer. For the relevant procedures, refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.
  – Be sure to reset the ODO fuel economy value of the multi-function display (MFD).<Ref. to IDI-15, ODO FUEL ECONOMY VALUE RESET (HIGH GRADE TYPE ONLY), OPERATION, Multi-function Display (MFD) System.>
• Yellow connectors and harnesses with yellow tapes around them are the connectors and harnesses for the airbag system. Using a tester above such circuits may cause malfunction of airbag system. Follow the cautions of “AIRBAG SYSTEM” in this case.<Ref. to AB-9, CAUTION, General Description.>
• Be careful not to damage the airbag system wiring harness when servicing electrical parts and switches.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor.<Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDC-CM&H/U).>

D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for setting of each function and trouble-shooting for electrical system. NOTE: For detailed operation procedures of SUBARU SELECT MONITOR III KIT, refer to “PC application help for Subaru Select Monitor”.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance and voltage.
Steering wheel puller	Used for removing the steering wheel.

2. Air Conditioning System

A: WIRING DIAGRAM

Refer to “Air Conditioning System” in the wiring diagram.
- Manual A/C model: <Ref. to WI-67, MANUAL A/C, WIRING DIAGRAM, Air Conditioning System.>
- Auto A/C model: <Ref. to WI-72, AUTO A/C, WIRING DIAGRAM, Air Conditioning System.>

B: ELECTRICAL SPECIFICATION

Refer to “Auto A/C Control Module I/O Signal” of “HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)” section. <Ref. to AC(diag)-6, ELECTRICAL SPECIFICATION, Auto A/C Control Module I/O Signal.>

C: INSPECTION

Refer to “Basic Diagnostic Procedure” for “HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)” section. <Ref. to AC(diag)-2, Basic Diagnostic Procedure.>

D: NOTE

For procedure of each component in the air conditioning system, refer to the respective section.
- Blower motor unit assembly: <Ref. to AC-37, Blower Motor Unit Assembly.>
- Blower motor: <Ref. to AC-39, Blower Motor.>
- Power transistor (auto A/C model): <Ref. to AC-41, Power Transistor (Auto A/C Model).>
- Blower resistor (manual A/C model): <Ref. to AC-42, Blower Resistor (Manual A/C Model).>
- Control panel: <Ref. to AC-50, Control Panel.>
- Compressor: <Ref. to AC-54, Compressor.>
- Condenser: <Ref. to AC-57, Condenser.>
- Heater and cooling unit: <Ref. to AC-61, Heater and Cooling Unit.>
- Evaporator: <Ref. to AC-65, Evaporator.>
- Expansion valve: <Ref. to AC-72, Expansion Valve.>
- Hose & pipe: <Ref. to AC-74, Hose and Pipe.>
- Ambient sensor: <Ref. to AC-80, Ambient Sensor.>
- Sunload sensor (auto A/C model): <Ref. to AC-82, Sunload Sensor (Auto A/C Model).>
- In-vehicle sensor (auto A/C model): <Ref. to AC-84, In-Vehicle Sensor (Auto A/C Model).>
- Evaporator sensor: <Ref. to AC-88, Evaporator Sensor.>
- Intake door actuator: <Ref. to AC-91, FRESH/RECIRC Door Actuator.>
- Mode door actuator: <Ref. to AC-96, Mode Door Actuator.>
- Air mix door actuator: <Ref. to AC-98, Air Mix Door Actuator.>

2. Airbag Connector

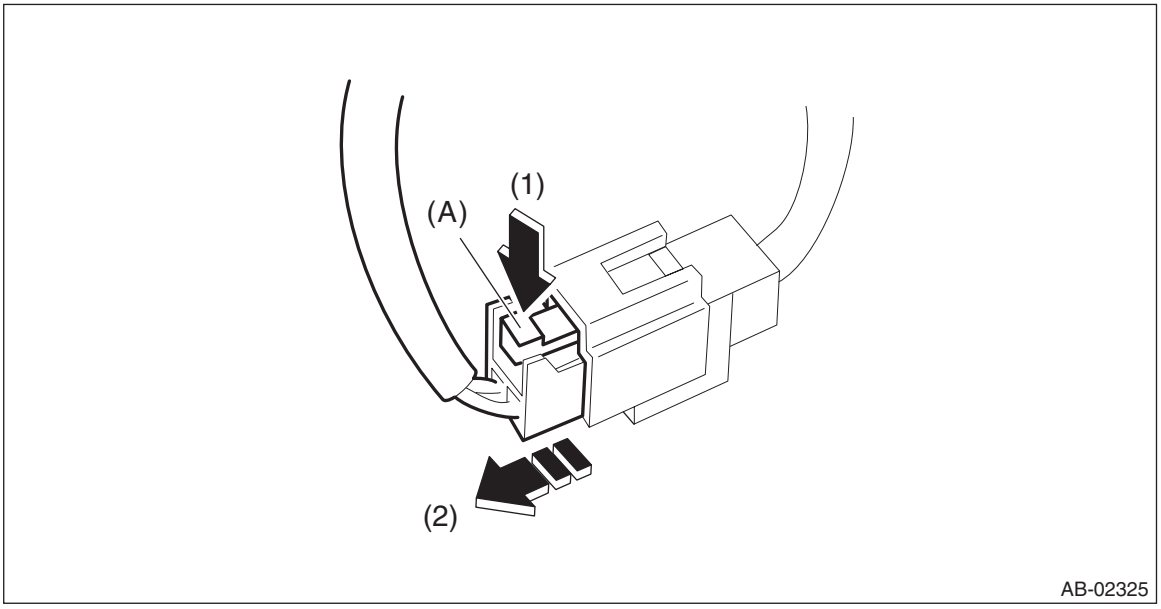
A: PROCEDURE

1. POWER SUPPLY

1) How to disconnect:

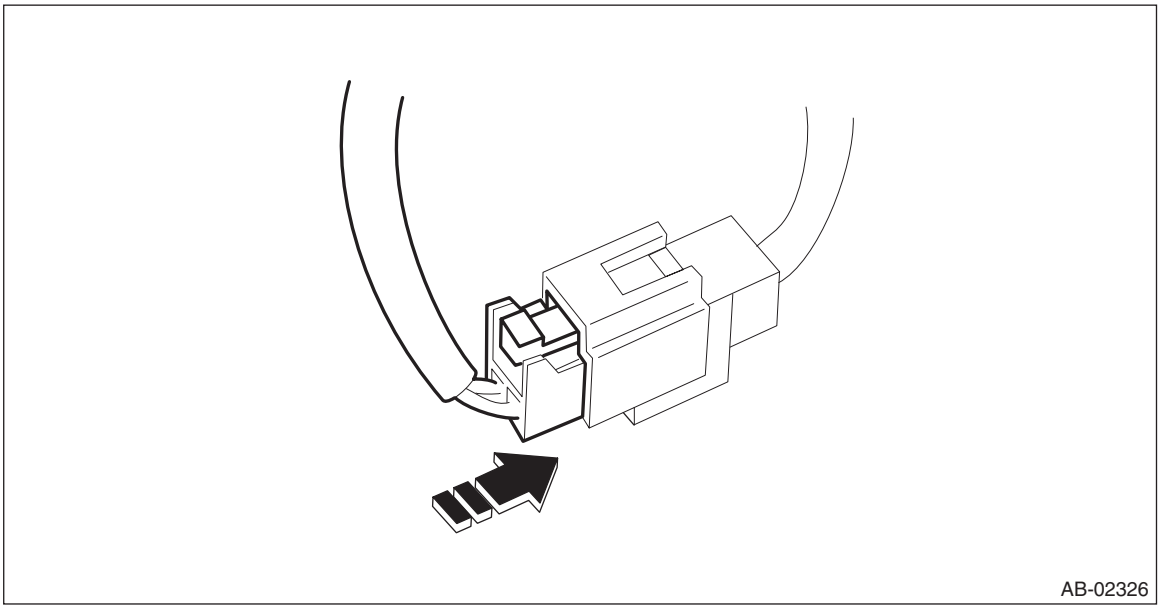
CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.

(1) Push the lock (A).
(2) While holding down the lock (A), disconnect the connector.



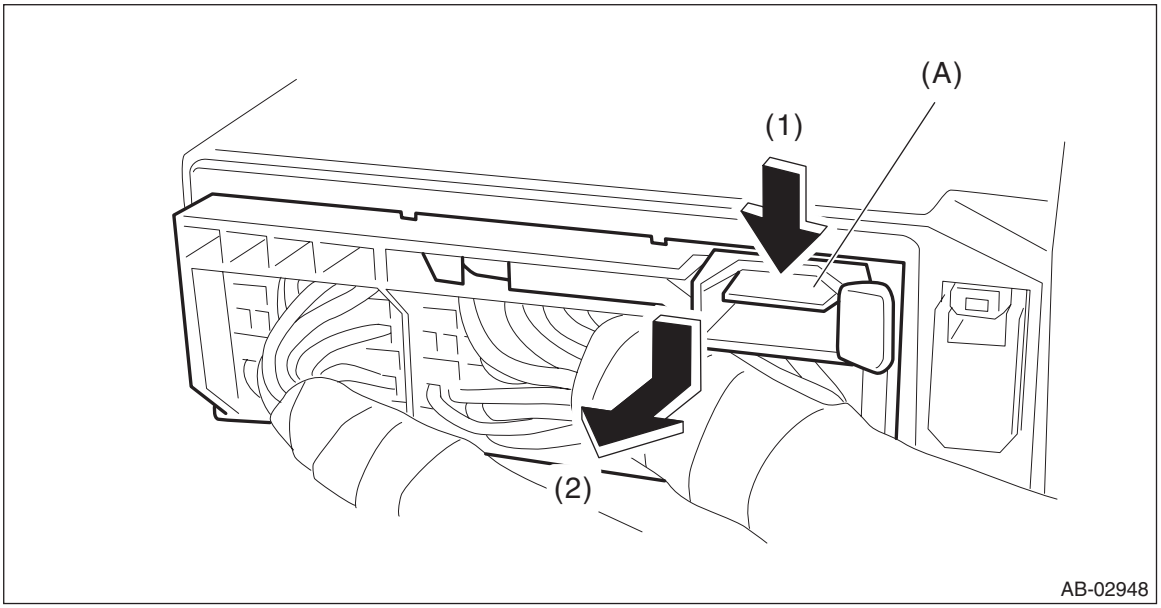
2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.



2. AIRBAG CONTROL MODULE

1) How to disconnect:
   (1) Push the lock lever plate (A).
   (2) While holding down the lock lever plate (A), pull the lever toward you.



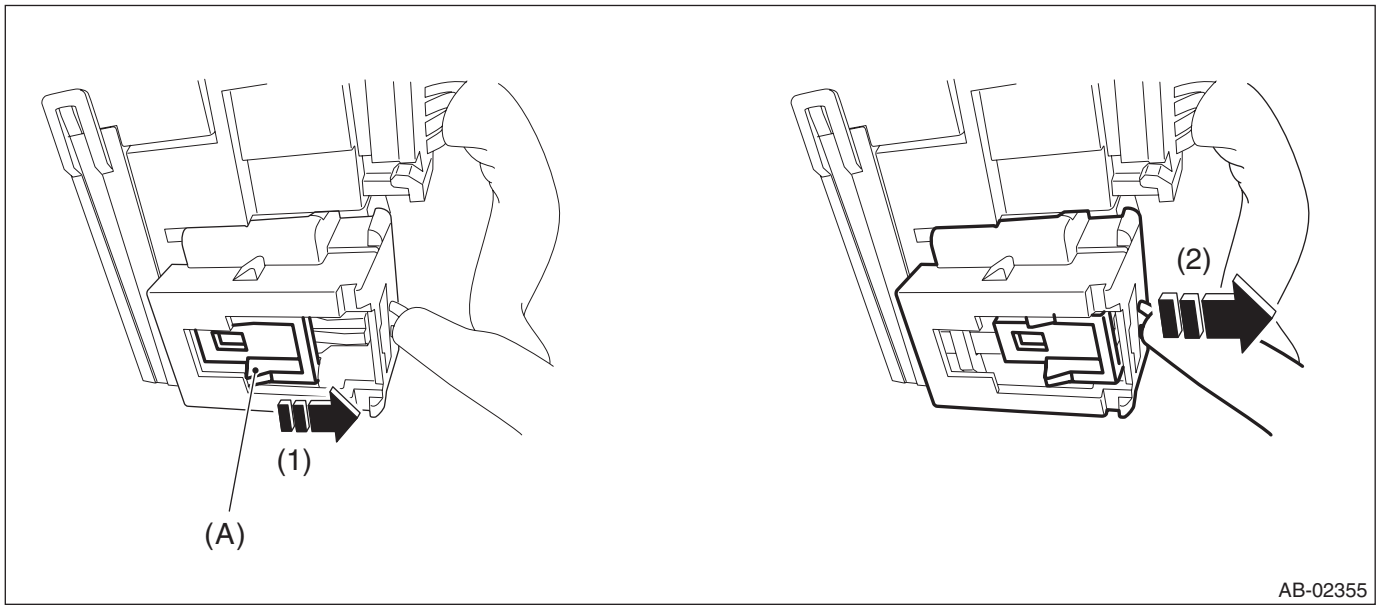
2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Insert the connector and push the lock lever in securely.

3. DRIVER'S AIRBAG MODULE (ROLL CONNECTOR)

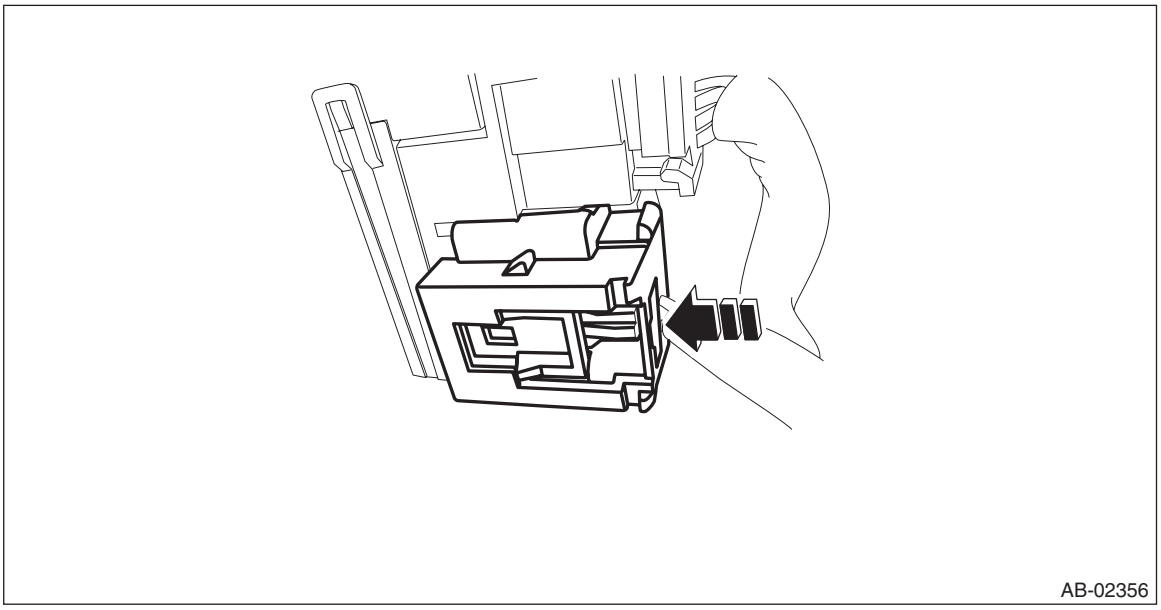
1) How to disconnect:

CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.
   (1) Pull the slide lock (A) in the direction of arrow.
   (2) With the slide lock pulled, disconnect the connector.



2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.

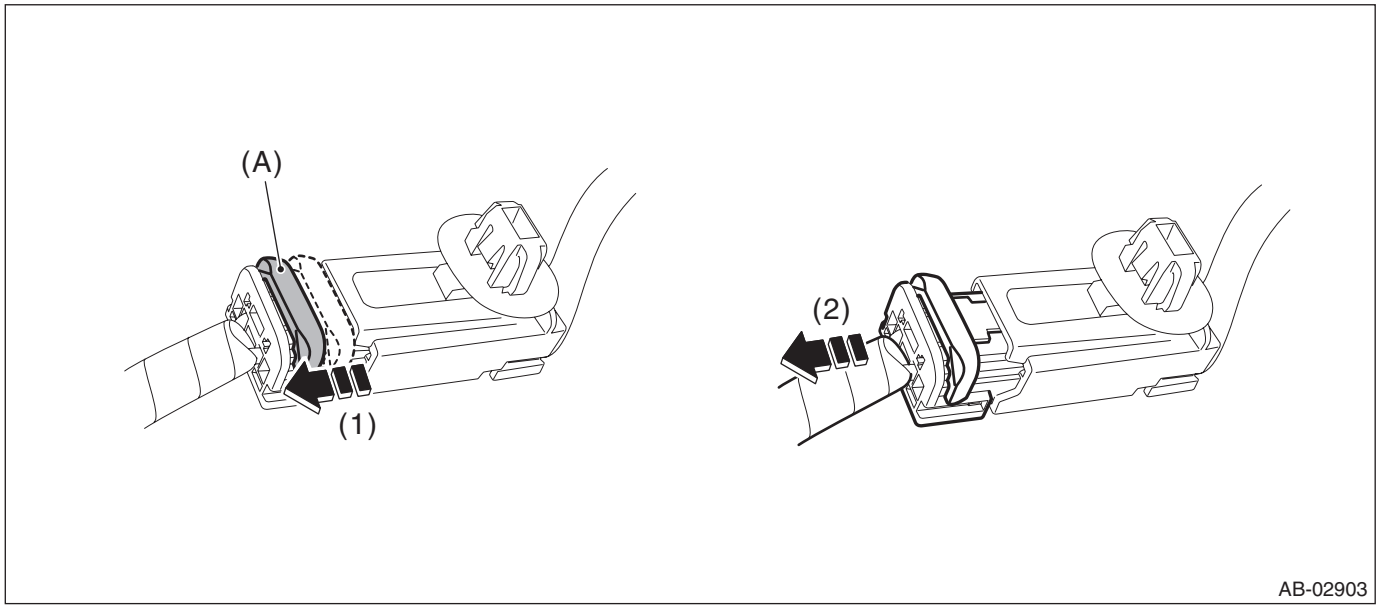


4. PASSENGER'S AIRBAG MODULE

1) How to disconnect:

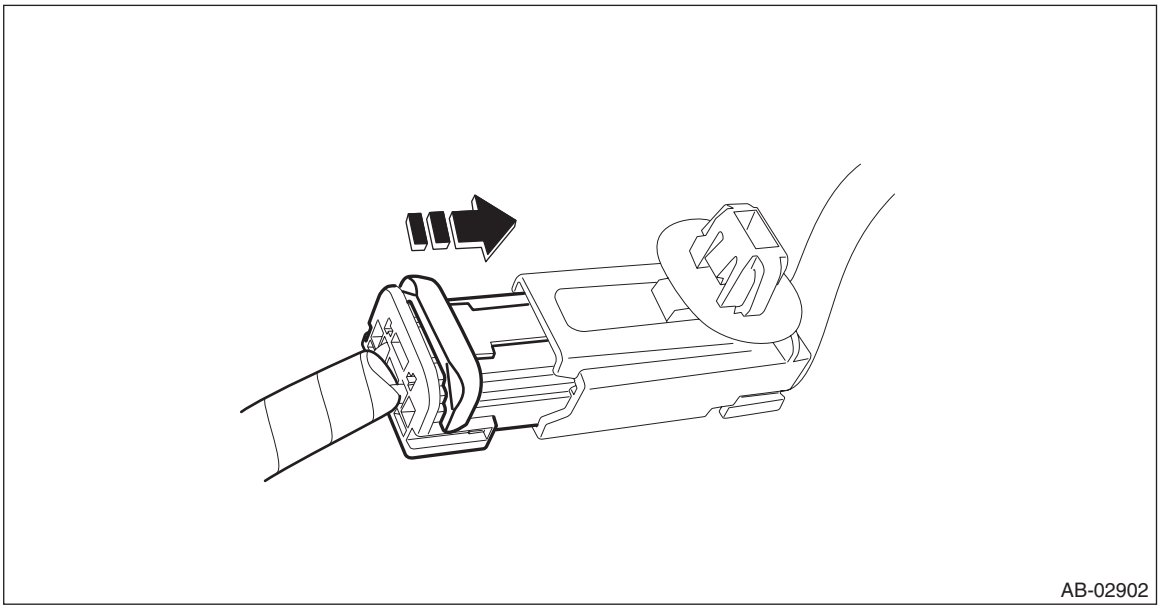
CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.

(1) Pull the slide lock (A) in the direction of arrow.
(2) With the slide lock pulled, disconnect the connector.



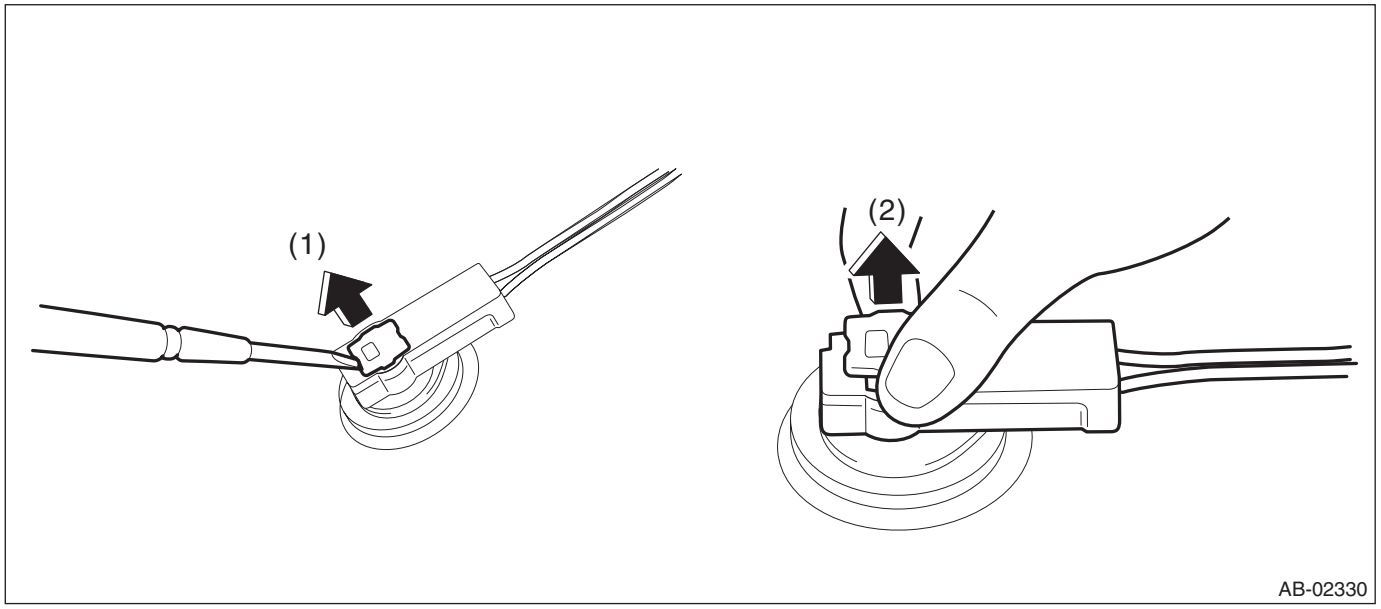
2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.



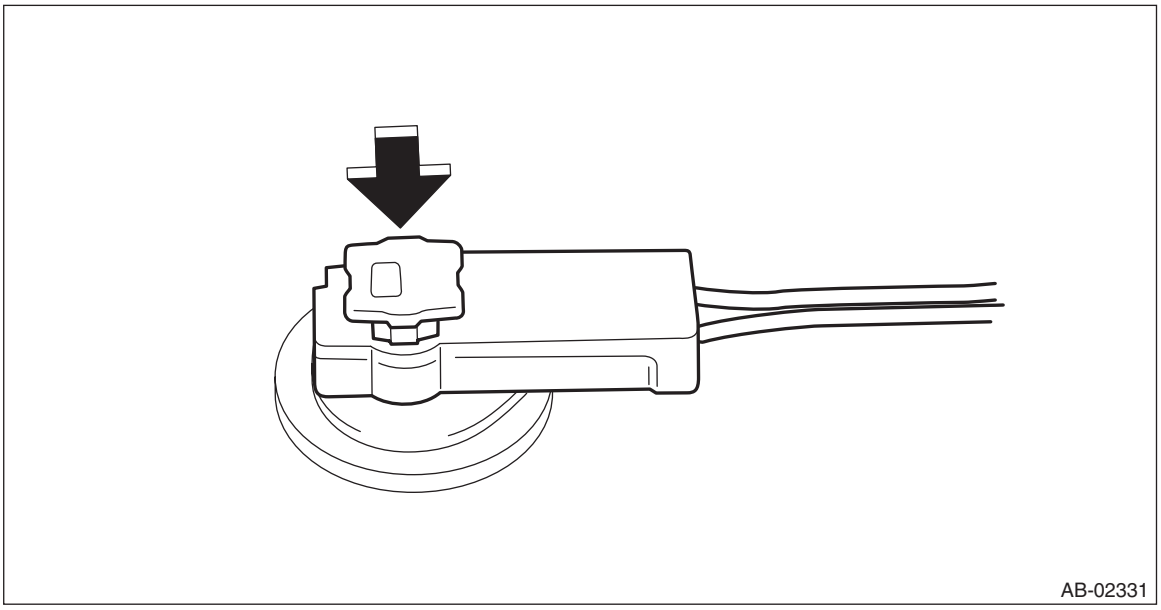
5. DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER

1) How to disconnect:
   (1) Using a flat tip screwdriver, pry the push lock upward to unlock.
   (2) Pull the connector to disconnect from the airbag module assembly or the retractor assembly.



2) How to connect:

CAUTION:
- **Be sure to insert the connector in until it is locked.**
- **Press in the push lock securely. Then pull it gently to make sure that it is locked.**



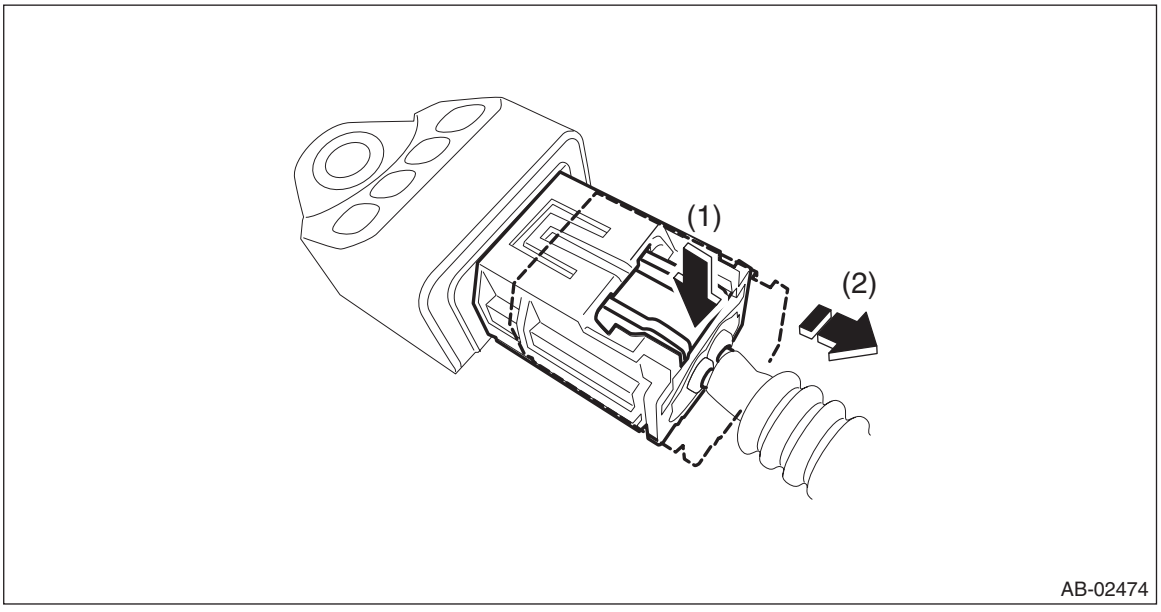
Connect the connector in the reverse order of disconnecting. At this time, be sure to insert until a clicking sound is heard.

6. FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR

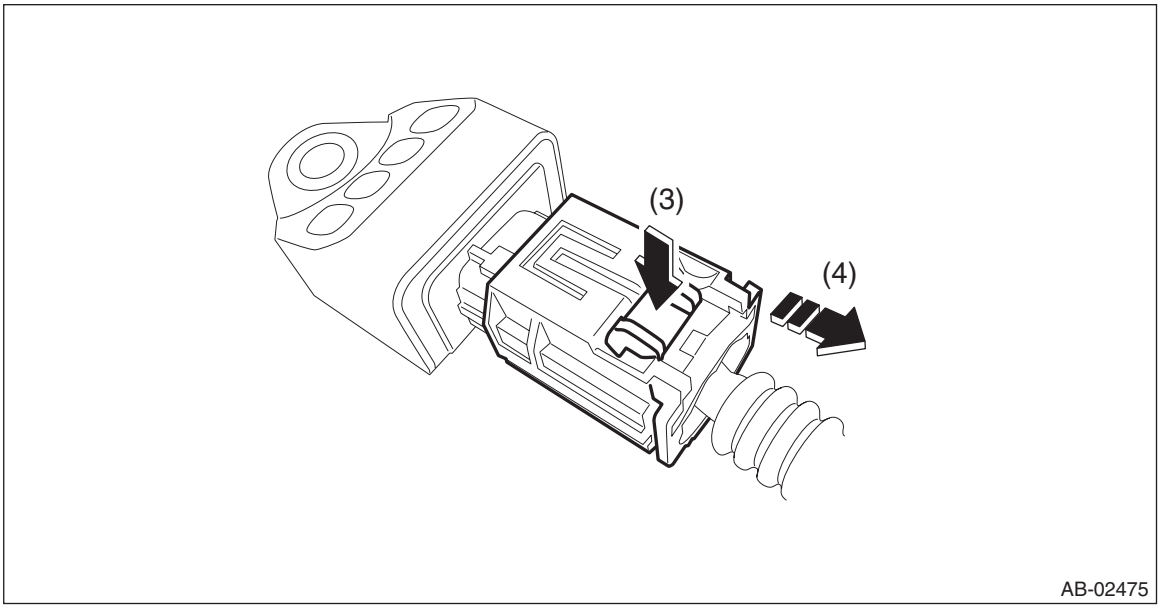
1) How to disconnect:

CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.

(1) Push the lock arm.
(2) Holding outer part, pull it one step in the direction of arrow.

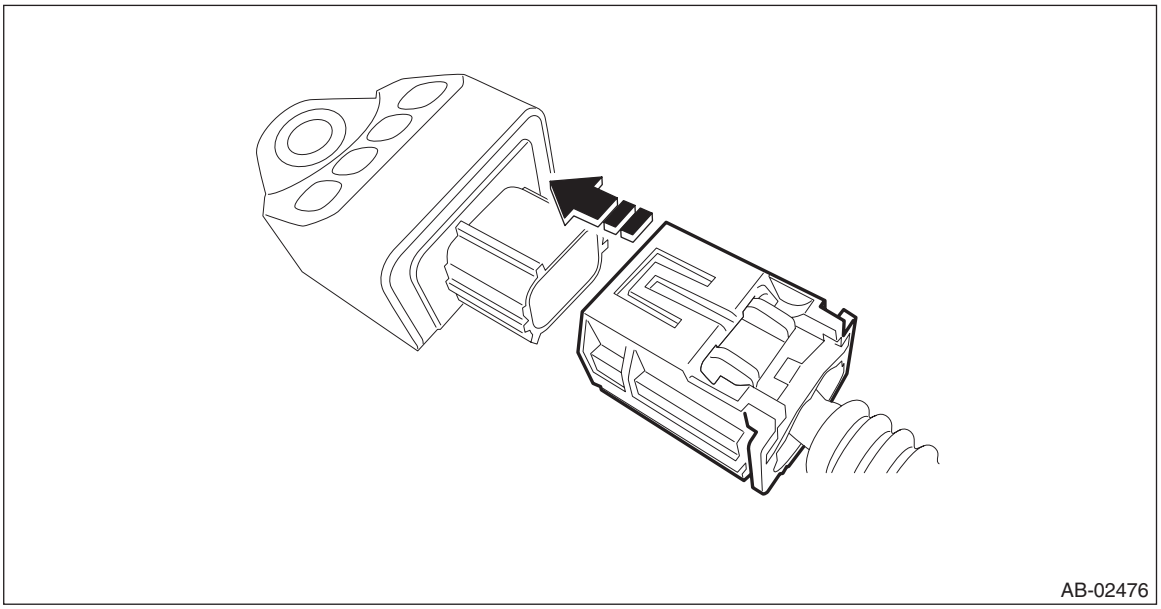


(3) Push the lock arm again.
(4) Holding outer part, pull it in the direction of arrow to disconnect the connector.



2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.

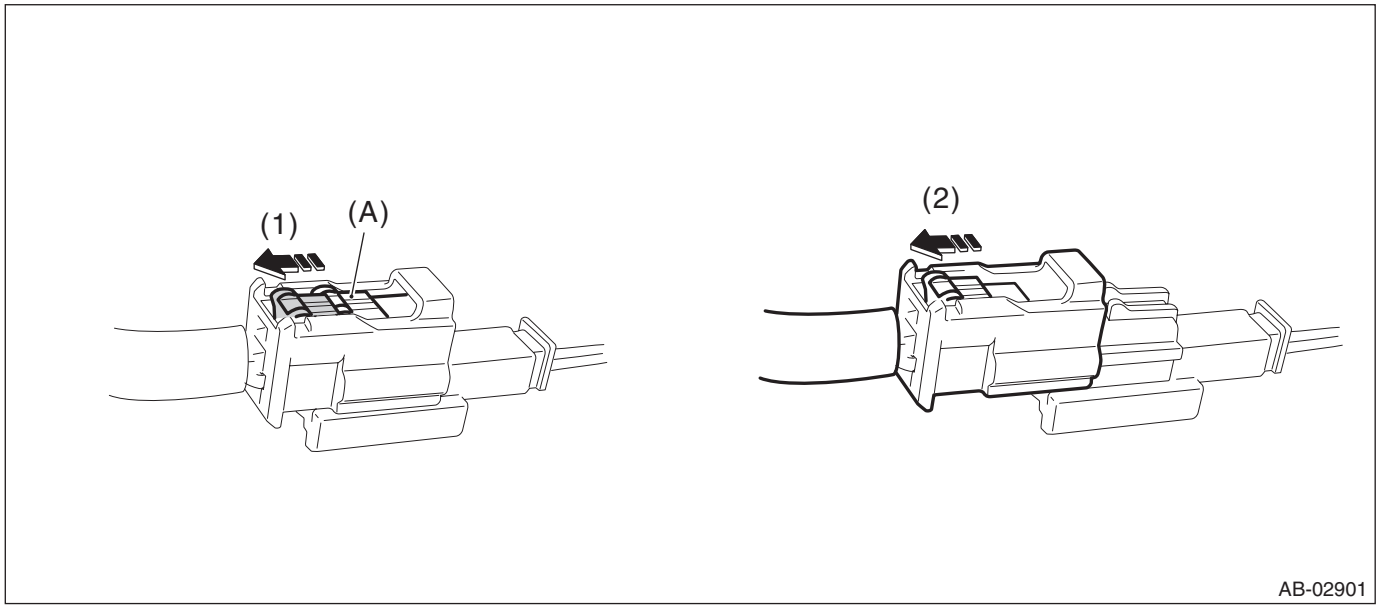


7. FRONT DOOR IMPACT SENSOR (BETWEEN AIRBAG REAR HARNESS AND DOOR HARNESS)

1) How to disconnect:

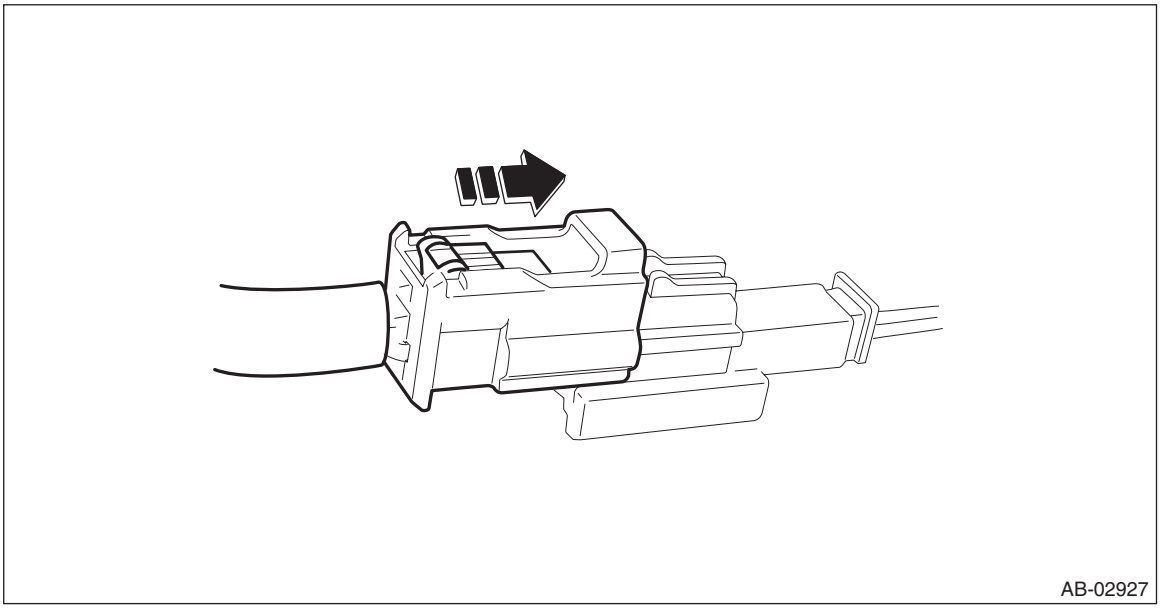
CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.

(1) Pull the slide lock (A) in the direction of arrow.
(2) With the slide lock pulled, disconnect the connector.



2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.

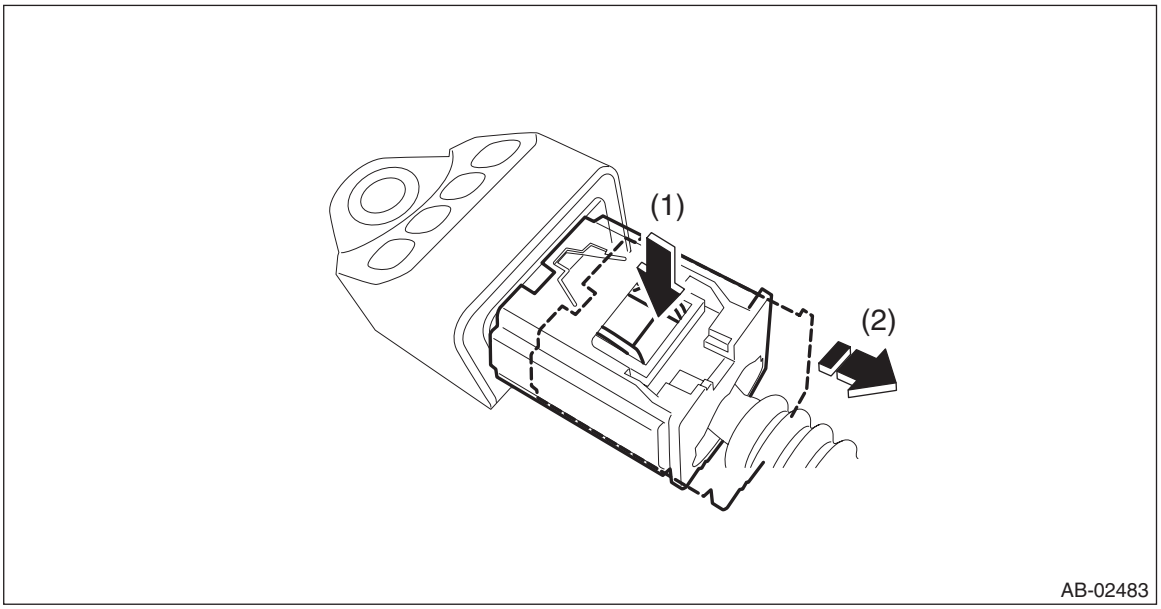


8. SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR

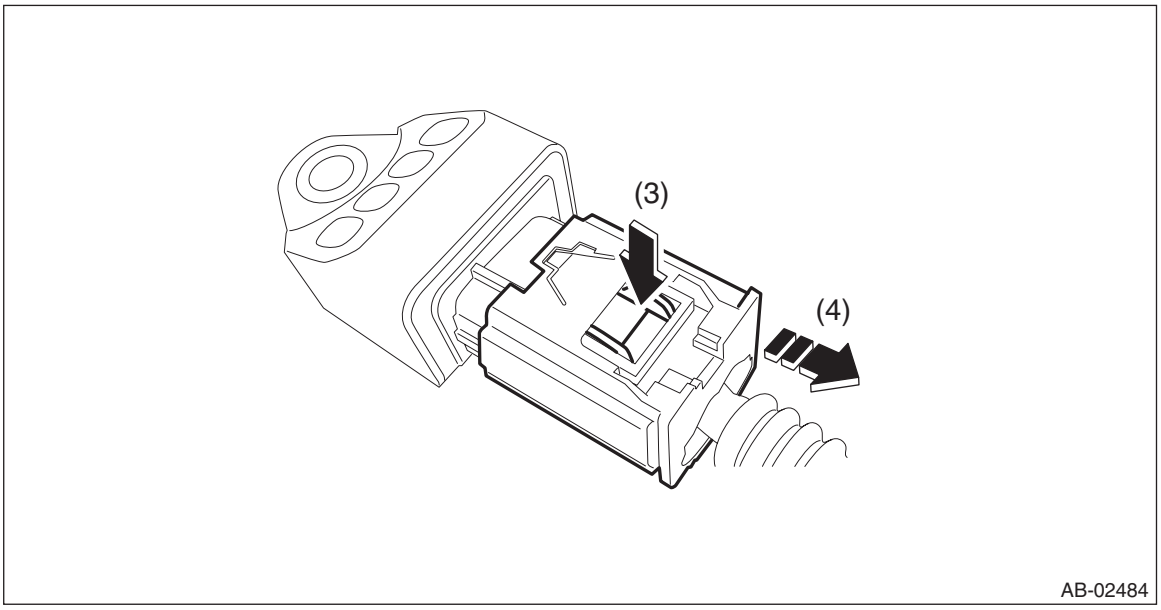
1) How to disconnect:

CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.

(1) Push the lock arm.
(2) Holding outer part, pull it one step in the direction of arrow.

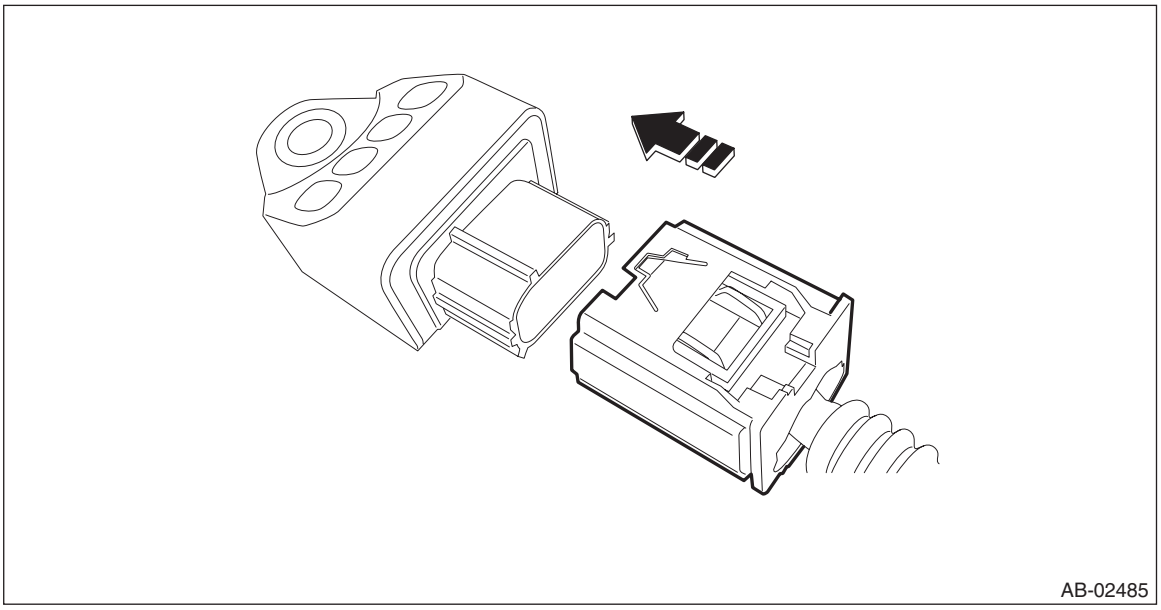


(3) Push the lock arm again.
(4) Holding outer part, pull it in the direction of arrow to disconnect the connector.



2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.

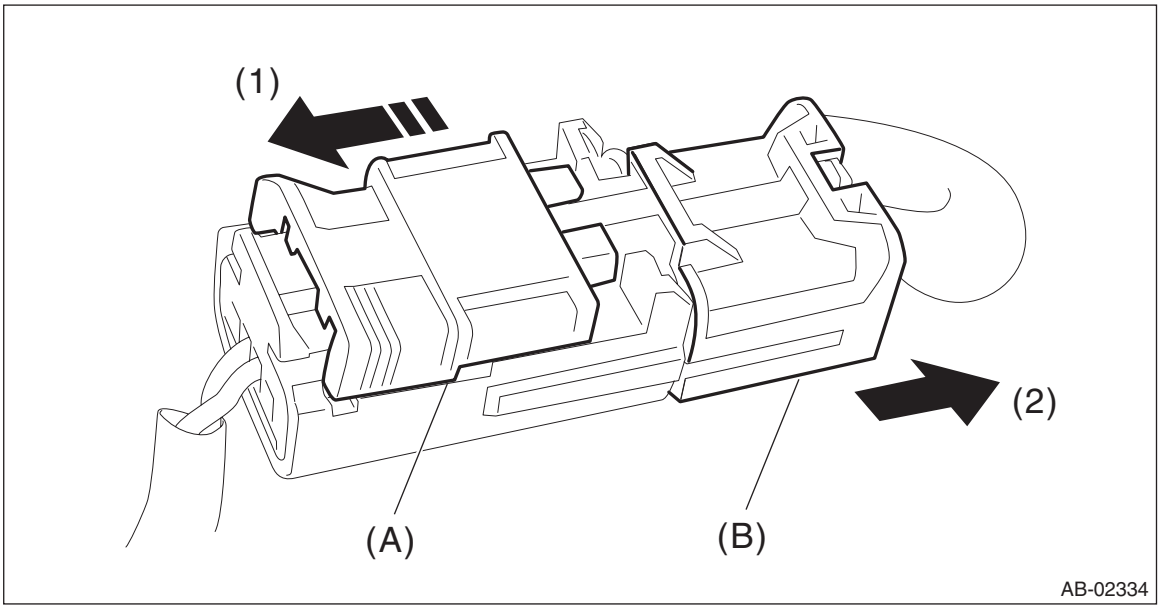

AB-02485

9. SIDE AIRBAG MODULE

1) How to disconnect:

CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.

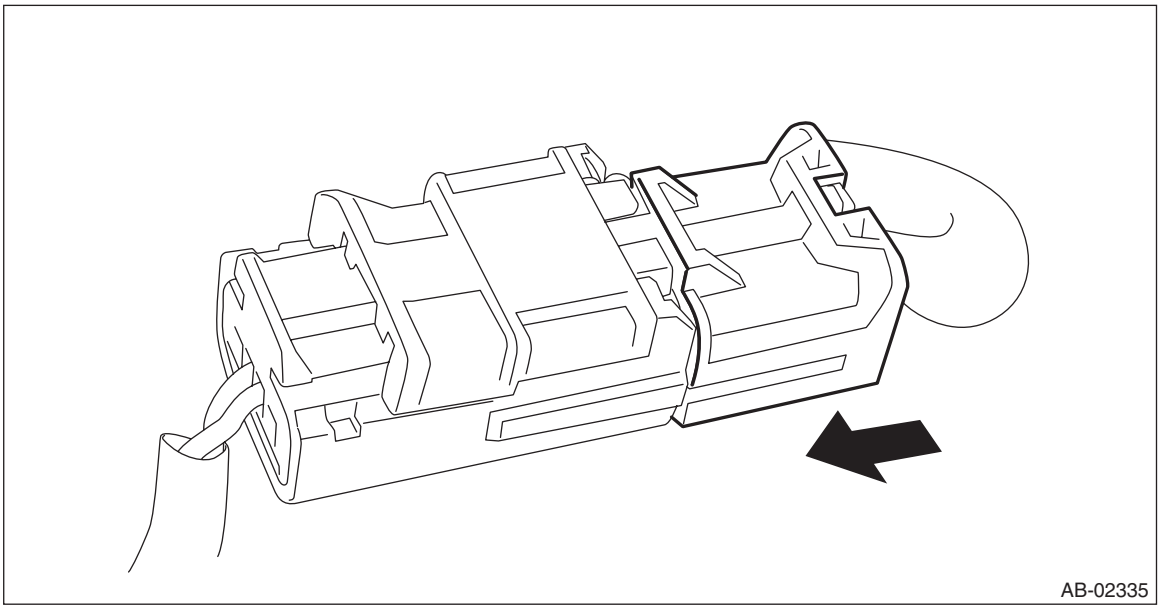
(1) Move the slide lock (A) in the direction of arrow and hold it.
(2) While holding the slide lock (A) in place, pull the connector (B) to the direction of arrow.



AB-02334

2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.

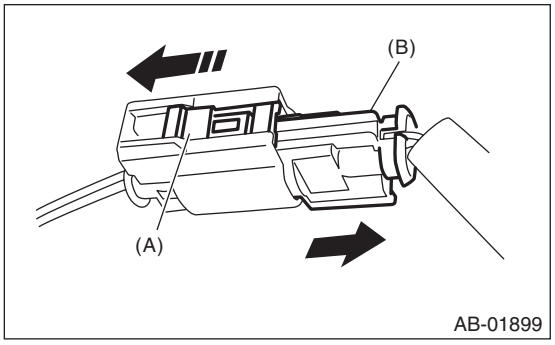


10.BUCKLE SWITCH RH

1) How to disconnect:

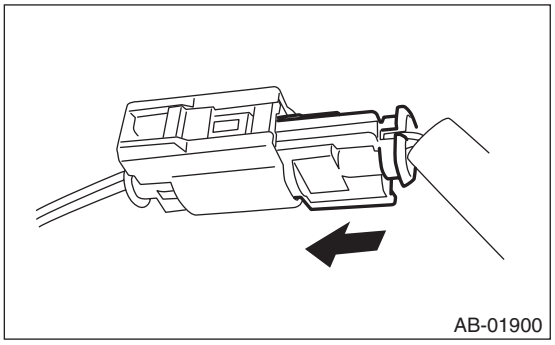
CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.

(1) Move the slide lock (A) in the direction of arrow and hold it.
(2) While holding the slide lock (A), pull the connector (B) in the direction of arrow.



2) How to connect:

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.
Holding the connector, push it in securely until a clicking sound is heard.



11.OCCUPANT DETECTION SYSTEM (BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS)

Refer to “OCCUPANT DETECTION SYSTEM” section. <Ref. to OD(diag)-9, OCCUPANT DETECTION SYSTEM (BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS), PROCEDURE, Airbag Connector.>

2. Check List for Interview

A: CHECK

Customer's Name		Inspector's Name	
Date Vehicle Brought in	/ /	Registration No.	
Odometer Reading	km miles	V.I.N.	
Date Problem Occurred	/ /	Registration Year	/ /
Weather	❑ Fine ❑ Cloudy ❑ Rainy ❑ Snowy ❑ Others:		
Temperature	°C (°F)		
Road Condition	❑ Flat road ❑ Uphill ❑ Downhill ❑ Gravel road ❑ Others:		

Vehicle Operation	❑ Starting
	❑ Idling
	❑ Driving
	  ❑ Constant speed
	  ❑ Accelerating
	  ❑ Decelerating
	  ❑ Turning
	  ❑ Others:		

Details of Problem			
Airbag Warning Light Operation	❑ Normal (After turning the ignition switch to ON, lit for approximately 6 seconds and goes off.) ❑ Remains ON ❑ Remains OFF		
DTC output	❑ OK code ❑ DTC: (Code:)		

2. Check List for Interview

A: CHECK

- Inspect the following items regarding the vehicle's state.
- Print out this page for interviewing customers.

<table>
<tr><td colspan="4">Auto Headlight Beam Leveler System Check List for Interview
Date the Vehicle is Received Year Month Day</td></tr>
<tr><td colspan="2" rowspan="2">Customer's name</td><td>Registration No.</td><td>Initial year of registration
Year Month Date</td></tr>
<tr><td>Vehicle model</td><td>Frame number</td></tr>
<tr><td>Interviewer</td><td>Inspector</td><td>Engine type</td><td>Odometer reading</td></tr>
<tr><td colspan="4">Customer specified content
•
•
•</td></tr>
<tr><td>Date and time when the trouble occurred</td><td></td><td>Frequency of trouble occurrence</td><td>Always occurs
Sometimes occurs
(times per day, times per month)</td></tr>
<tr><td rowspan="2">Condition of trouble occurrence
(How the trouble occurs)</td><td rowspan="2"></td><td>Weather</td><td>Fine • Cloudy • Rainy •
Snowy • Others ( )</td></tr>
<tr><td>Temperature</td><td>°C (°F) — °C (°F)</td></tr>
<tr><td>Road conditions</td><td></td><td>Occurrence location</td><td></td></tr>
<tr><td>Accessory installation condition</td><td colspan="3"></td></tr>
<tr><td>Confirmation of trouble condition</td><td colspan="3"></td></tr>
<tr><td>❑ Diagnostic code</td><td colspan="3"></td></tr>
</table>

2. Check List for Interview

A: CHECK

Inspect the following items regarding the vehicle's state.

<table>
<tr><td colspan="4">Keyless Access with Push Button Start System Trouble Check List for Interview Received Year Month Date</td></tr>
<tr><td colspan="2" rowspan="2">Customer's name</td><td>Registration No.</td><td>Initial year of registration
Year Month Date</td></tr>
<tr><td>Vehicle model</td><td>Frame number</td></tr>
<tr><td>Interviewer</td><td>Inspector</td><td>Engine type</td><td>Odometer reading</td></tr>
<tr><td colspan="4">Customer specified content</td></tr>
<tr><td>Date and time when the trouble occurred</td><td></td><td>Frequency of trouble occurrence</td><td></td></tr>
<tr><td>Condition of trouble occurrence</td><td></td><td>Weather</td><td></td></tr>
<tr><td>Road conditions</td><td></td><td>Occurrence location</td><td></td></tr>
<tr><td>Accessory installation condition</td><td colspan="3"></td></tr>
<tr><td colspan="4">Trouble condition</td></tr>
<tr><td colspan="2">❑ Diagnostic code</td><td colspan="2">❑( )</td></tr>
<tr><td>❑ Immobilizer system</td><td>Engine does not start</td><td colspan="2">❑ Starter does not operate
❑ Starter operates but engine does not start
❑ Engine starts but stops immediately</td></tr>
<tr><td rowspan="2"></td><td colspan="3">Does not start with remote engine starter</td></tr>
<tr><td>❑ Steering lock system</td><td colspan="3">The steering lock is not released</td></tr>
<tr><td rowspan="8"></td><td colspan="3">The steering lock does not lock</td></tr>
<tr><td>❑ Keyless access system</td><td colspan="3">Cannot lock/unlock using the touch sensor (lock), touch sensor (unlock), rear gate opener button and rear lock button</td></tr>
<tr><td>Cannot lock with the touch sensor (lock)
Cannot unlock with the touch sensor (unlock)
Cannot lock nor unlock with the touch sensor (lock), touch sensor (unlock)
Rear gate can not be locked with the rear lock button</td><td colspan="2">❑ Driver's side door
❑ Passenger's side door
❑ Rear gate door</td></tr>
<tr><td colspan="3">Cannot unlock with the rear gate opener button</td></tr>
<tr><td>The access key lockout prevention feature does not function</td><td colspan="2">❑ Passenger room
❑ Luggage room</td></tr>
<tr><td colspan="3">The LED does not illuminate when the access key button is pressed</td></tr>
<tr><td colspan="3">The external buzzer does not beep</td></tr>
<tr><td colspan="3">The passenger room buzzer does not sound</td></tr>
<tr><td>❑ Other</td><td colspan="3">The room light or map light does not illuminate
( )</td></tr>
</table>

NOTE:
- Perform the diagnostics according to the basic diagnostic procedure.
- If the room light or map light does not illuminate and the steering lock does not lock at the same time, the back-up fuse may be loose or blown.

2. Check List for Interview

A: CHECK

- Inspect the following items regarding the vehicle's state.
- Print out this page for interviewing customers.

<table>
<tr><td colspan="4">Power Rear Gate System Check List for Interview
Date the Vehicle is Received Year Month Day</td></tr>
<tr><td colspan="2" rowspan="2">Customer's name</td><td>Registration No.</td><td>Initial year of registration
Year Month Date</td></tr>
<tr><td>Vehicle model</td><td>Frame number</td></tr>
<tr><td>Interviewer</td><td>Inspector</td><td>Engine type</td><td>Odometer reading</td></tr>
<tr><td colspan="4">Customer specified content
•
•
•</td></tr>
<tr><td>Date and time when the trouble occurred</td><td></td><td>Frequency of trouble occurrence</td><td>Always occurs
Sometimes occurs
(times per day, times per month)</td></tr>
<tr><td rowspan="2">Condition of trouble occurrence
(How the trouble occurs)</td><td rowspan="2"></td><td>Weather</td><td>Fine • Cloudy • Rainy • Snowy • Others ( )</td></tr>
<tr><td>Temperature</td><td>°C (°F) — °C (°F)</td></tr>
<tr><td>Road conditions</td><td></td><td>Occurrence location</td><td></td></tr>
<tr><td>Accessory installation condition</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Confirmation of trouble condition</td><td colspan="3">Power rear gate control module system</td></tr>
<tr><td colspan="3">Drive unit system</td></tr>
<tr><td>❑ Diagnostic code</td><td colspan="3"></td></tr>
</table>

2. Check List for Interview

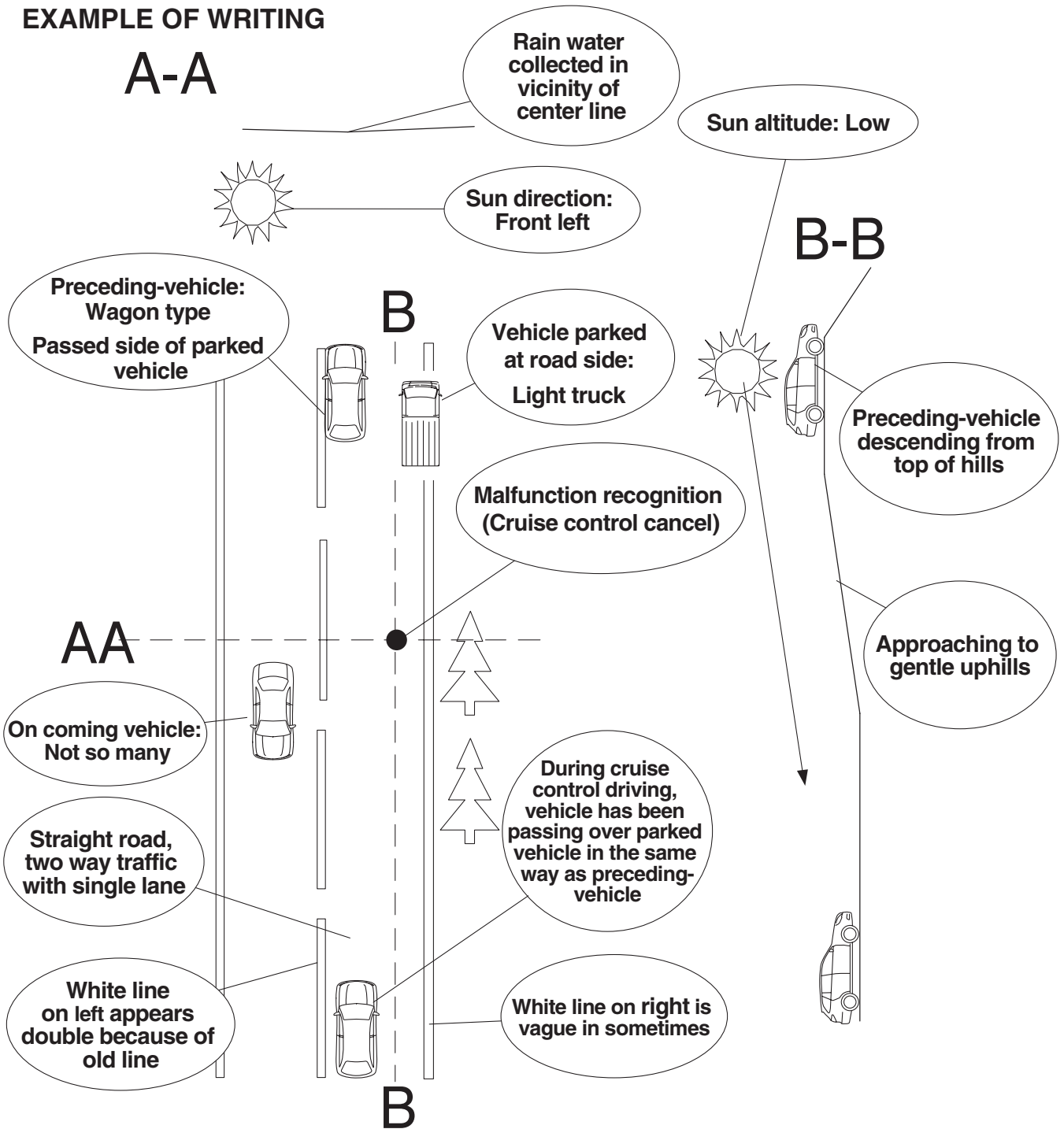
A: CHECK

Inspect the following items regarding the vehicle's state.

Writer/Inspector	Writer's name		
	Inspector's Name		
Vehicle information	Car accessory equipment condition	Car accessory is installed to the windshield glass.	No/Yes (Position:)
		Other	No/Yes (Accessory's name:)
	Is there any modification for the following items?	Suspension?	Not changed/Changed (Specifically:)
		Headlight?	Not changed/Changed (Specifically:)
		Tire size?	Not changed/Changed (Specifically:)
		Front wiper?	Not changed/Changed (Specifically:)
	How is the condition around camera?	Is there any scratch or damage on the windshield glass?	No/Yes (Specifically:)
		Are antennas, etc. attached on the prohibited area?	No/Yes (Specifically:)
		Is wide mirror or accessory attached?	No/Yes (Specifically:)
	How is the surface condition of the windshield glass?	Presence of oil film, fogging, dirt and/or glass coating	No/Yes (Specifically:)
	How is the condition of the dashboard?	Is there anything that can be easily reflected against the windshield glass on the dashboard?	No/Yes (Specifically:)
	How is the deterioration of the wiper?	Does any streak or uneven wiping area remain in front of the camera?	No/Yes (Specifically:)
	How is the condition of the tire?	Is there any wear? Is there any excessive wear difference?	No/Yes (Specifically:)
		Is the air pressure proper?	Proper/Improper (Specifically:)
	How is the condition of the camera lens filter?	Is there finger print adhesion or cracks on the lens filter?	No/Yes (Specifically:)
Description of malfunction	What kind of malfunction has been detected?	Failure/temporary stop/faulty operation of adaptive cruise control/faulty operation of pre-collision brake/other faulty operations	
	What kind of DTC and/or cancel code is displayed?		
	How is the meter display?	EyeSight warning light	Off/On/Blink
		Pre-collision brake OFF indicator light	Off/On
		Lane departure warning OFF indicator light	Off/On
		LCD (E1 — E3)	E1/E2/E3

Check List for Interview

Occurrence conditions	Occurrence date		Occurrence location	
	Vehicle speed at occurrence	Approx. km/h	Occurrence timing	During driving/during stopping/continues after engine has started
	Road type	Express way/limited highway/main highway/general road	Weather	Fine/cloudy/rainy/snowy/other
	Road condition ①	Dry/slippery (Rainy • compacted snow • icy road)	Ambient temperature	Approx. ° C(°F)
	Road condition ②	Asphalt/gravel/earth and sand/other	Position of solar radiation	Described in the detailed chart when the weather is fine.
	Road shape	Uphill/downhill/bank/roll/uneven surface	Time elapsed after engine start	Immediately after engine start/within 5 minutes after engine start/more than 5 minutes after engine start
	Wiper operation status	OFF/INT/LO/HI/AUTO	Light on status	Off/LO On/HI On
	Vehicle weight	Number of passengers: ( ), Did the vehicle carry heavy load? (No/Yes (Approx. kg))		
	Detailed chart (Refer to the example of description.)			
	In case of malfunction caused by temporary stop or faulty operation, draw a chart so that the following conditions can be recognized referring to the example of description. (Images taken by digital camera can be used.) • Road shape (straight, curve, tunnel, number of lane, etc.) • Road grade and it's change • Presence of white line, guardrails and/or side wall (degree of clarity) • Position of the sun • Presence and shape of preceding vehicle, oncoming vehicle, vehicle running on the next lane or pedestrian • Presence and shape of surrounding building or structure • Traveled course of own vehicle and preceding vehicle			


EXAMPLE OF WRITING
A-A
Rain water collected in vicinity of center line
Sun altitude: Low
Sun direction: Front left
B-B
Preceding-vehicle: Wagon type
Passed side of parked vehicle
B
Vehicle parked at road side:
Light truck
Preceding-vehicle descending from top of hills
Malfunction recognition (Cruise control cancel)
AA
Approaching to gentle uphills
On coming vehicle: Not so many
During cruise control driving, vehicle has been passing over parked vehicle in the same way as preceding-vehicle
Straight road, two way traffic with single lane
White line on left appears double because of old line
White line on right is vague in sometimes
B
ADA00311

2. Check List for Interview

A: CHECK

Inspect the following item about the vehicle's state.

1. DISPLAY STATUS IN THE COMBINATION METER

Display status in the combination meter	Engine coolant temperature gauge display	❑ OK / ❑ NG
	Fuel gauge display	❑ OK / ❑ NG
	Tachometer display	❑ OK / ❑ NG (0 rpm at idling etc.)
Display of other indicators	Malfunction indicator light	❑ ON / ❑ Blink / ❑ OFF
	Sport indicator light (AT warning light)	❑ ON / ❑ Blink / ❑ OFF
	ABS warning light	❑ ON / ❑ Blink / ❑ OFF
	VDC warning light	❑ ON / ❑ Blink / ❑ OFF
	Immobilizer indicator light	❑ ON / ❑ Blink / ❑ OFF
	AT OIL TEMP warning light	❑ ON / ❑ Blink / ❑ OFF
	Engine coolant temperature warning light	❑ Blue light ON / ❑ Red light ON / ❑ Red light blinks / ❑ Blue and red lights blink
	CRUISE indicator	❑ ON / ❑ Blink / ❑ OFF
	Shift indicator	❑ OK / ❑ NG
	Fuel level warning light	❑ ON / ❑ Blink / ❑ OFF
	Airbag warning light	❑ ON / ❑ OFF
	VDC OFF indicator	❑ ON / ❑ OFF
	Brake warning light	❑ ON / ❑ OFF
	Auto Start Stop indicator	❑ ON / ❑ Blink / ❑ OFF
	EyeSight warning light	❑ ON / ❑ Blink / ❑ OFF
	Lane departure warning OFF indicator light	❑ ON / ❑ OFF
	Pre-collision brake OFF indicator light	❑ ON / ❑ OFF
	Headlight beam leveler indicator	❑ ON / ❑ OFF

2. CONDITIONS UNDER WHICH TROUBLE OCCURS

Driving condition	❑ At standstill (while idling) ❑ When the vehicle is running Vehicle speed km/h (MPH) ❑ While accelerating Acceleration km/h (MPH) to km/h (MPH) ❑ Decelerating (with braking) Deceleration km/h (MPH) to km/h (MPH) ❑ Decelerating (without braking) Deceleration km/h (MPH) to km/h (MPH)
	❑ Flat road ❑ Uphill ❑ Downhill ❑ Gravel road ❑ Bumpy road ❑ Snowy road
	Does it occur when operating any part? Operated part: **TROUBLE SYMPTOM:**
	Are there any other troubles occurred? From where: **TROUBLE SYMPTOM:**

2. Check List for Interview

A: CHECK

Inspect the following items regarding the vehicle's state.

Body Control System Check List for Interview		Date of Vehicle Bring-in Year Month Day	
Customer's name		Registration No.	Initial year of registration Year Month Date
		Vehicle model	Frame number
Interviewer	Inspector	Engine type	Odometer reading
Customer specified content			
Date and time when the trouble occurred		Frequency of trouble occurrence	
Condition of trouble occurrence		Weather	
Road conditions		Occurrence location	
Accessory installation condition			
Trouble condition			
❑ Diagnostic code			❑ ( )

2. Check List for Interview

A: CHECK

Customer's name		Inspector's name	
Date vehicle brought in	/ /	Registration No.	
Odometer reading	km miles	V.I.N.	
Date problem occurred	/ /	Registration year	/ /
Weather	❑ Fine ❑ Cloudy ❑ Rainy ❑ Snowy ❑ Others :		
Temperature	°C (°F)		
Road condition	❑ Flat road ❑ Uphill ❑ Downhill ❑ Gravel road ❑ Others :		
Vehicle operation	❑ Starting ❑ Idling ❑ Driving ❑ Constant speed ❑ Accelerating ❑ Decelerating ❑ Turning ❑ Others :		
Details of problem			
Airbag warning light operation	❑ Normal (After turning the ignition switch to ON, illuminates for 6 seconds then goes off.) ❑ Remains ON ❑ Remains OFF		
Passenger's airbag ON/OFF indicator does not operate.	❑ Normal (After turning the ignition switch to ON, illuminates for 6 seconds then goes off for 2 seconds; Lights ON (adult) or OFF (children/unoccupied).) ❑ Both remain ON ❑ Both remain OFF		
DTC output	❑ OK code ❑ DTC: (Code:)		

2. Check List for Interview

A: CHECK

- Inspect the following items regarding the vehicle's state.
- Print out this page for interviewing customers.

<table>
<tr><td colspan="4">Combination Meter / MFD Check List for Interview
Date the Vehicle is Received Year Month Day</td></tr>
<tr><td colspan="2" rowspan="2">Customer's name</td><td>Registration No.</td><td>Initial year of registration
Year Month Date</td></tr>
<tr><td>Vehicle model</td><td>Frame number</td></tr>
<tr><td>Interviewer</td><td>Inspector</td><td>Engine type</td><td>Odometer reading</td></tr>
<tr><td colspan="4">Customer specified content
•
•
•</td></tr>
<tr><td>Date and time when the trouble occurred</td><td></td><td>Frequency of trouble occurrence</td><td>Always occurs
Sometimes occurs
(times per day, times per month)</td></tr>
<tr><td rowspan="2">Condition of trouble occurrence
(How the trouble occurs)</td><td rowspan="2"></td><td>Weather</td><td>Fine • Cloudy • Rainy • Snowy • Others ( )</td></tr>
<tr><td>Temperature</td><td>°C (°F) — °C (°F)</td></tr>
<tr><td>Road conditions</td><td></td><td>Occurrence location</td><td></td></tr>
<tr><td>Accessory installation condition</td><td colspan="3"></td></tr>
<tr><td colspan="4">Confirmation of trouble condition</td></tr>
<tr><td rowspan="3">❑ Combination meter</td><td colspan="3"></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="3">❑ MFD</td><td colspan="3"></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>❑ Diagnostic code</td><td colspan="3"></td></tr>
</table>

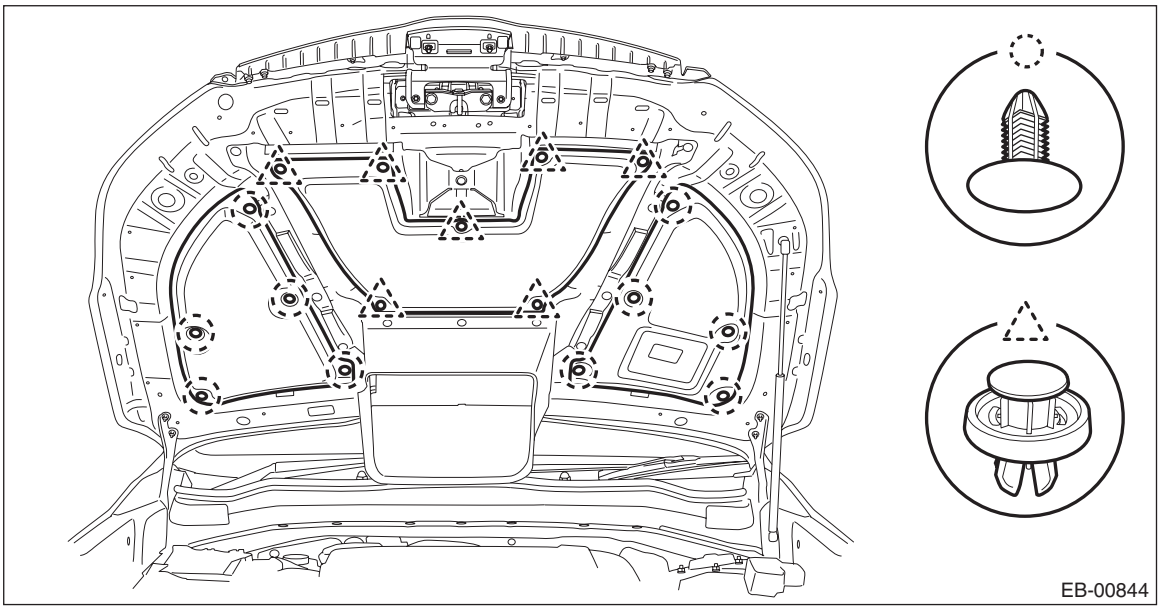
2. Front Hood

A: REMOVAL

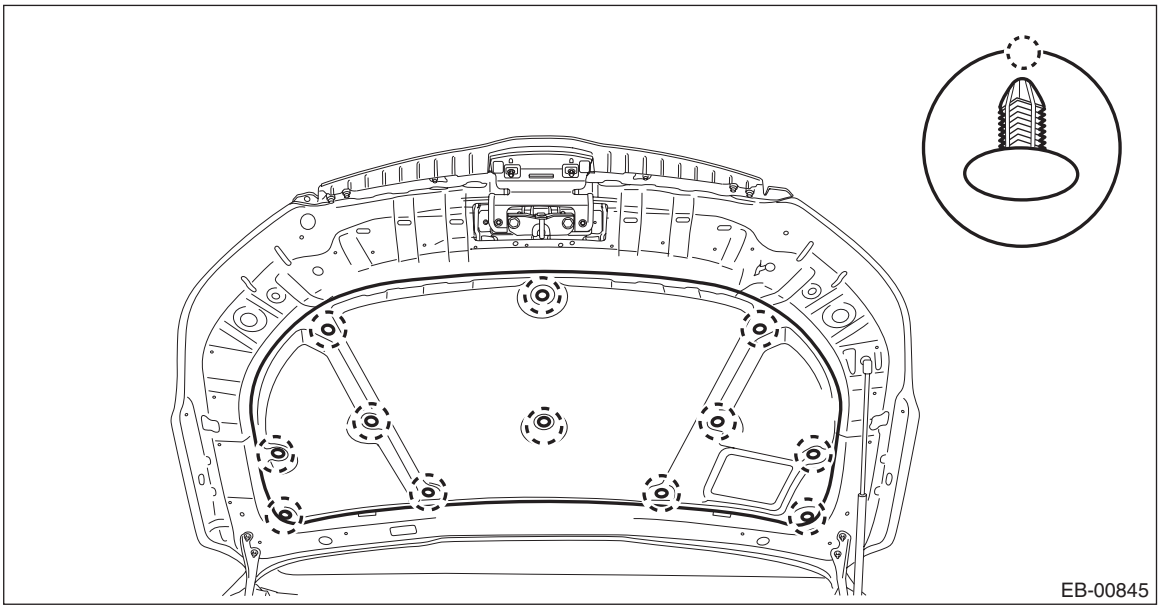
1. FRONT HOOD INSULATOR

1) Open the hood COMPL - front.
2) Remove the clips, and remove the insulator - front hood.

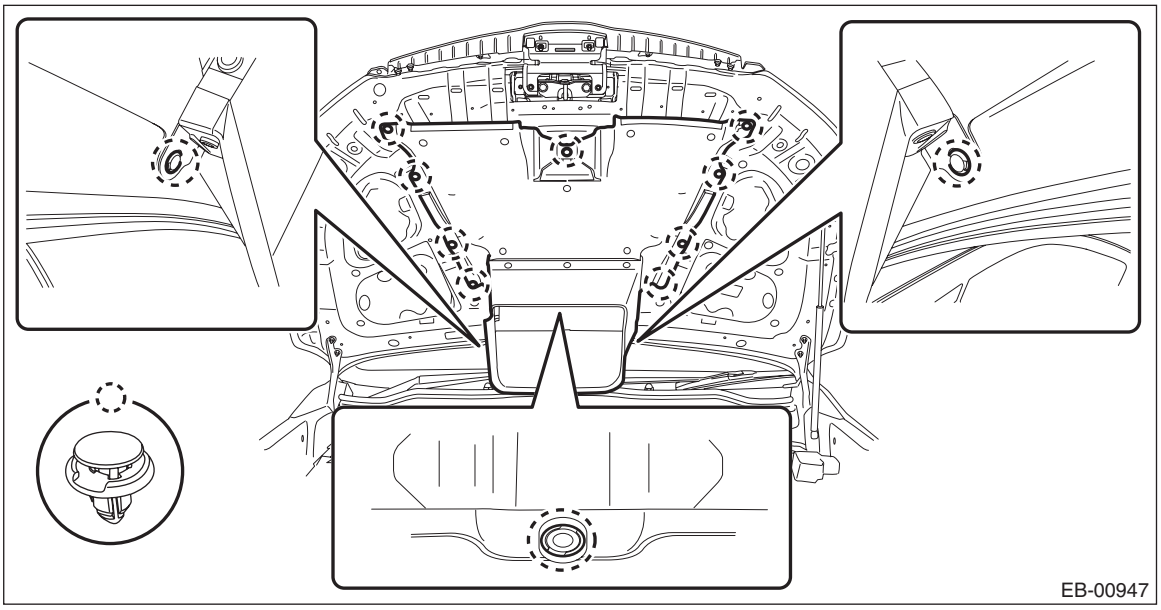
- Turbo model



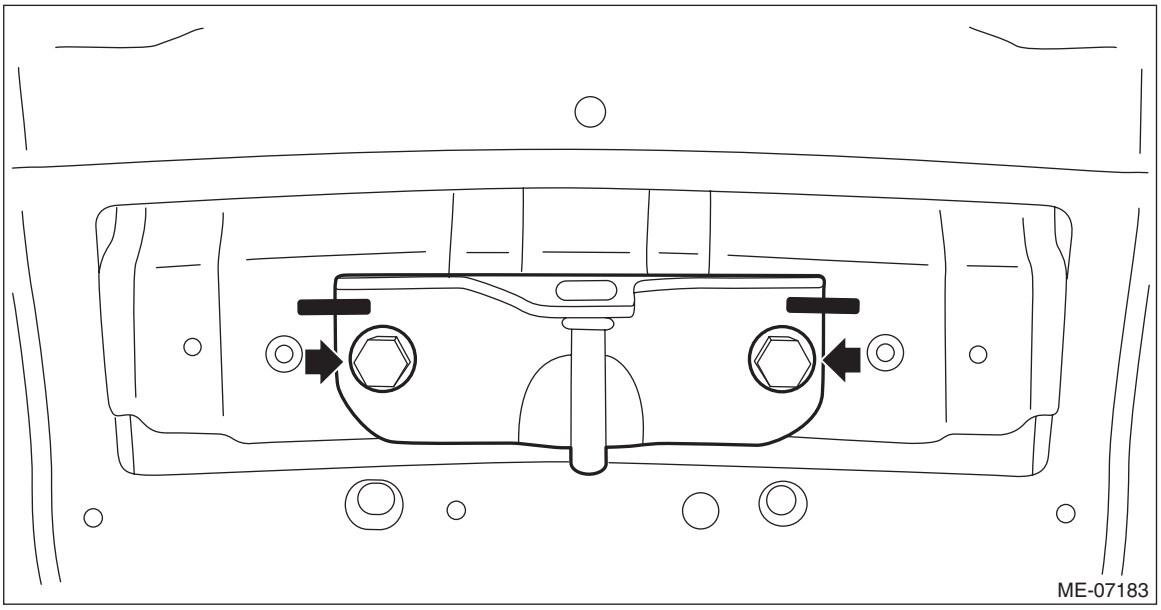
- Non-turbo model



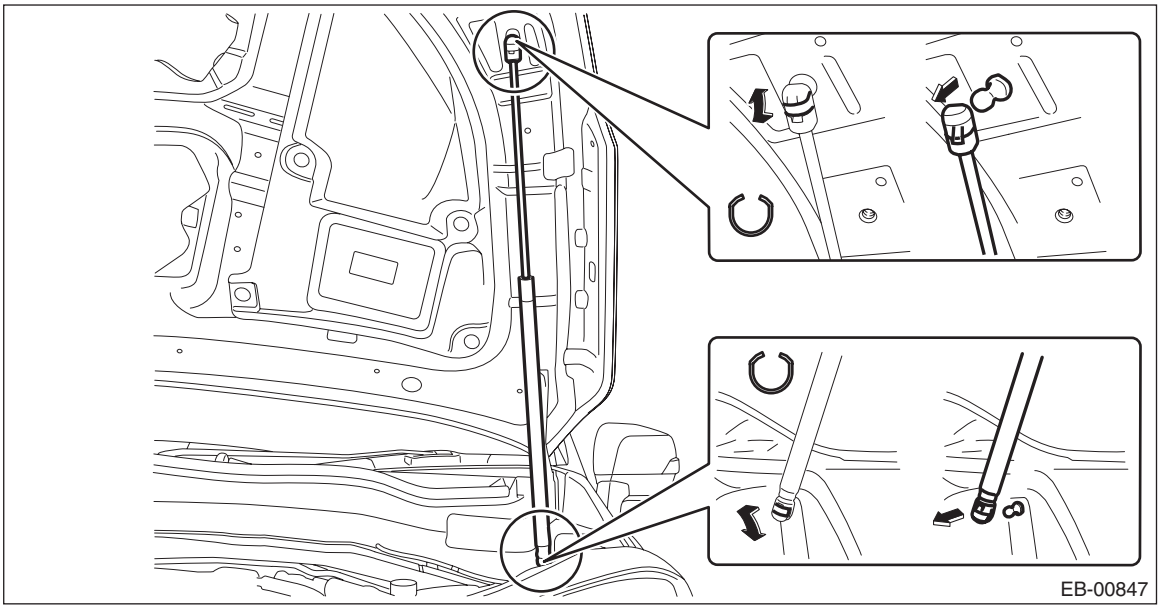
3) Remove the clips, and remove the duct - inner front hood. (Turbo model)



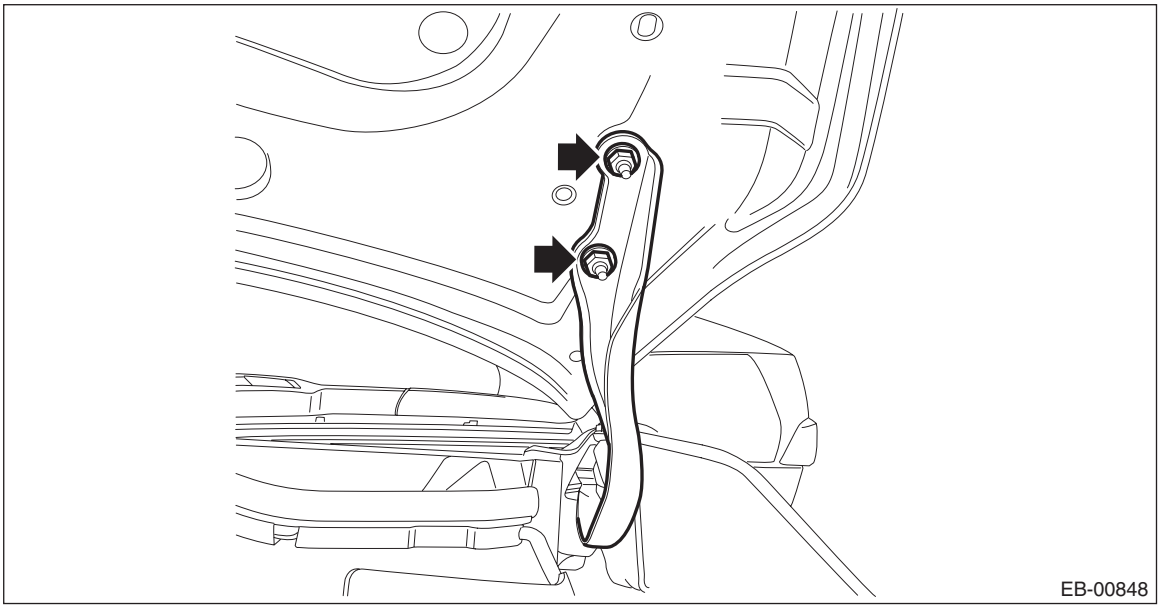
4) Remove the front grille upper.<Ref. to EI-27, FRONT GRILLE UPPER, REMOVAL, Front Grille.>
5) Remove the bolts, and remove the striker - front hood from the hood COMPL - front.



6) Remove the stay assembly - front hood.
   (1) Float the lock pin using a flat tip screwdriver, etc. and slide it.
   (2) Pull the mounting point of the stay assembly - front hood, and remove the stay assembly - front hood.



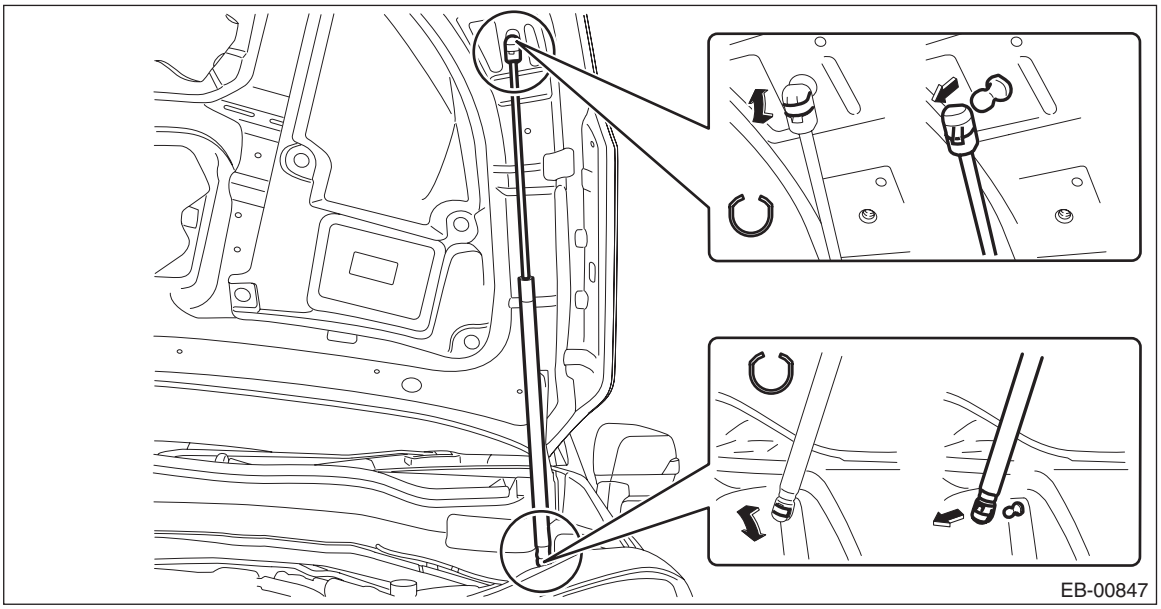
7) Remove the nut on the hood COMPL - front side, and remove the hood COMPL - front.



2. FRONT HOOD DAMPER

CAUTION:
- **Do not damage piston rods and oil seals.**
- **Never disassemble cylinders: They contain gas.**
- **The hood COMPL - front is heavy. When removing or installing the stay assembly - front hood and the hinge COMPL - front hood, be sure to work in a group of two or more.**

1) Remove the stay assembly - front hood.
   (1) Float the lock pin using a flat tip screwdriver, etc. and slide it.
   (2) Pull the mounting point of the stay assembly - front hood, and remove the stay assembly - front hood.

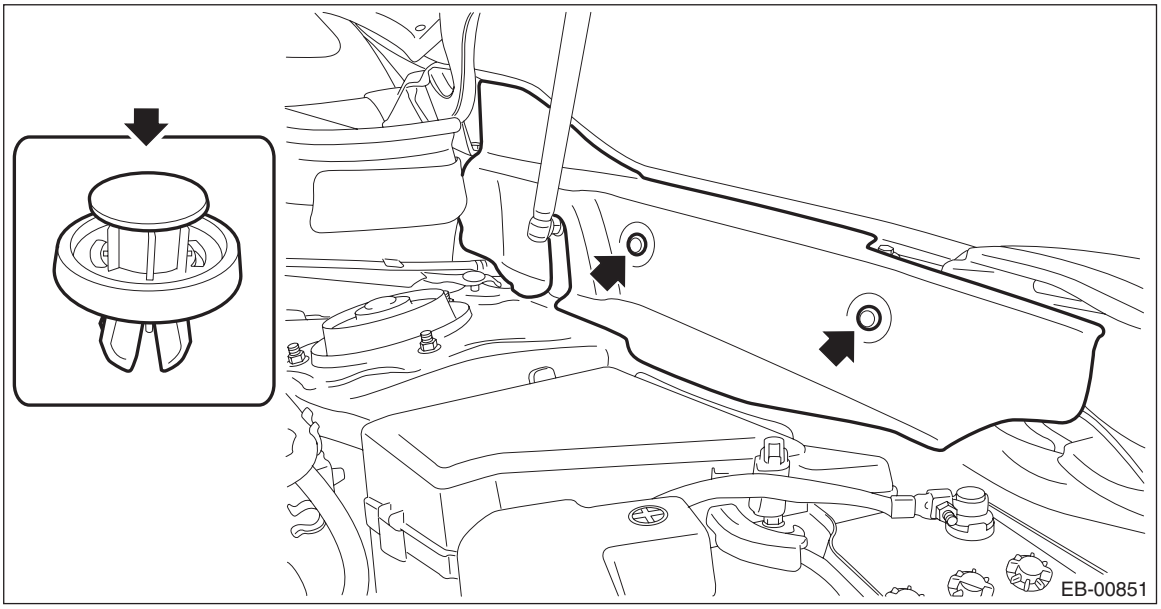


3. FRONT HOOD HINGE

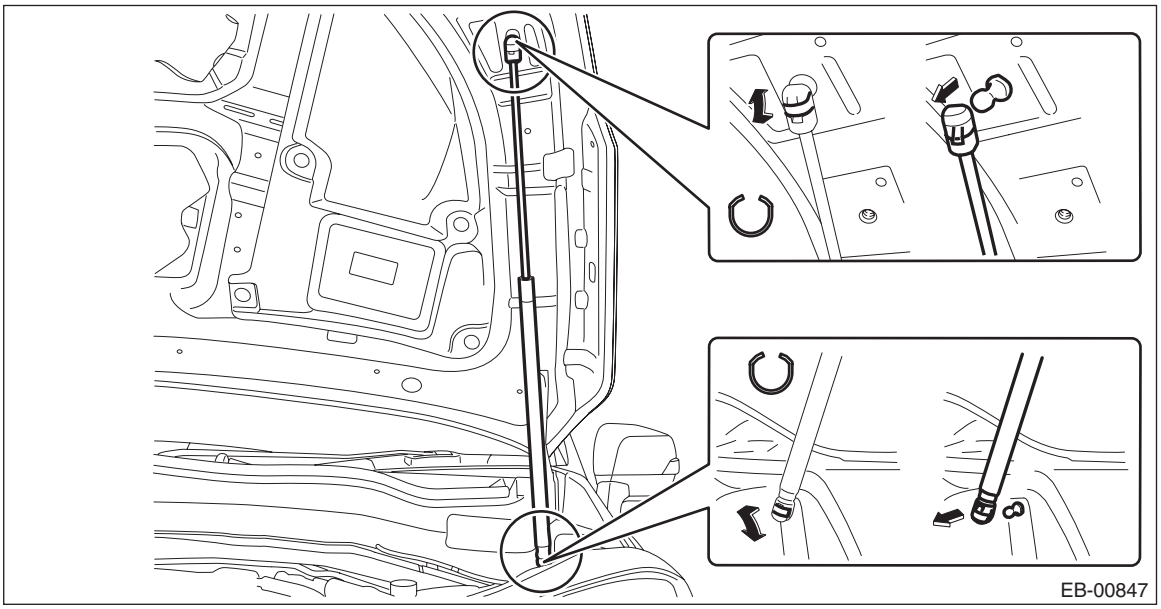
CAUTION:
• The hood COMPL - front is heavy. When removing or installing the hinge COMPL - front hood, be sure to work in a group of two or more.
• Note that the service will be handled as a repair if the fender COMPL - front is removed.

NOTE:
The front hood hinge cannot be removed with the fender COMPL - front attached. Therefore, remove the fender COMPL - front beforehand.

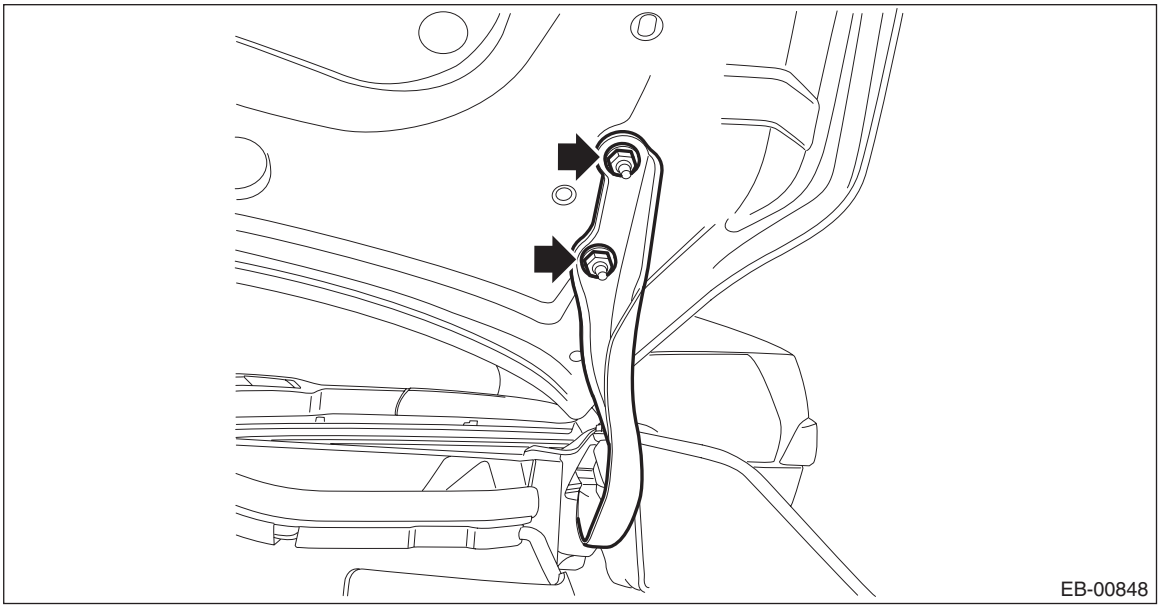
1) Remove the cover - front fender.
   (1) Remove the clip.
   (2) Release the claws by pulling them forward, and remove the cover - front fender.



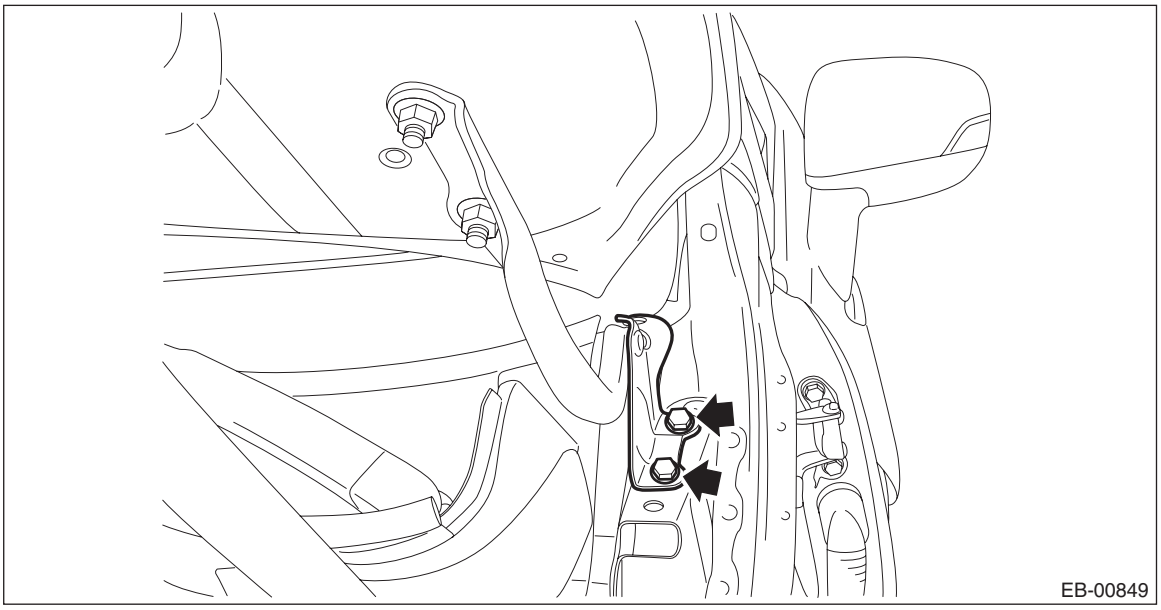
2) Remove the fender COMPL - front. <Ref. to EB-21, REMOVAL, Front Fender.>
3) Remove the stay assembly - front hood.
   (1) Float the lock pin using a flat tip screwdriver, etc. and slide it.
   (2) Pull the mounting point of the stay assembly - front hood, and remove the stay assembly - front hood.



4) Remove the hood COMPL - front.
(1) Remove the nut on the hood COMPL - front side, and remove the hood COMPL - front.



5) Remove the bolts, and remove the hinge COMPL - front hood.



B: INSTALLATION

CAUTION:
The hood COMPL - front is heavy. When removing or installing the hood COMPL - front, the hinge COMPL - front hood and the stay assembly - front hood, be sure to work in a group of two or more.

1. INSTALLATION PROCEDURE WHEN THE HINGE COMPL - FRONT HOOD IS REMOVED

1) Temporarily fit the hinge COMPL - front hood around the original position on the vehicle body.
2) Install the hood COMPL - front to the hinge COMPL - front hood.

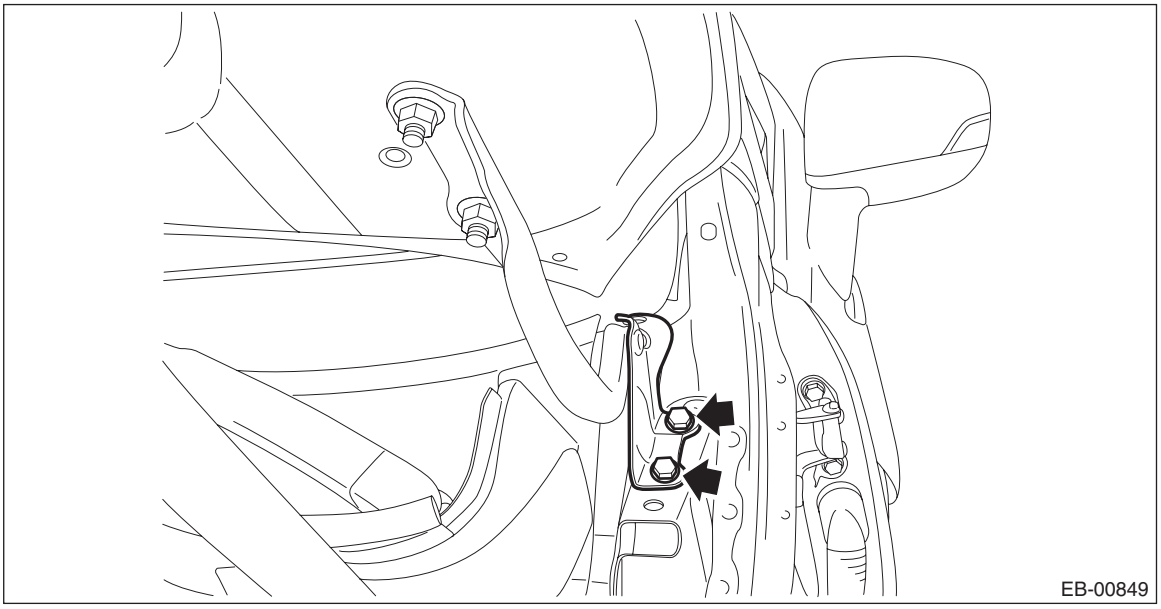
Tightening torque:
25 N·m (2.55 kgf-m, 18.4 ft-lb)
3) Install the striker - front hood.

Tightening torque:
33 N·m (3.36 kgf-m, 24.3 ft-lb)
4) When temporarily fitting the fender COMPL - front and adjusting the clearance, make sure that a uniform clearance is created around the hood COMPL - front.

NOTE:
When installing the fender COMPL - front, make sure that a uniform clearance is created around it.
- Fender COMPL - front to Hood COMPL - front: <Ref. to EB-19, ADJUSTMENT, Front Hood.>
- Fender COMPL - front to Panel assembly - front door: <Ref. to EB-33, ADJUSTMENT, Front Door.>

5) Install the hinge COMPL - front hood.
(1) Tighten the bolts at the front side, and temporarily fit the bolts at the rear side.
(2) Remove the fender COMPL - front, and finally tighten the bolts at the rear side.

Tightening torque:
25 N·m (2.55 kgf-m, 18.4 ft-lb)



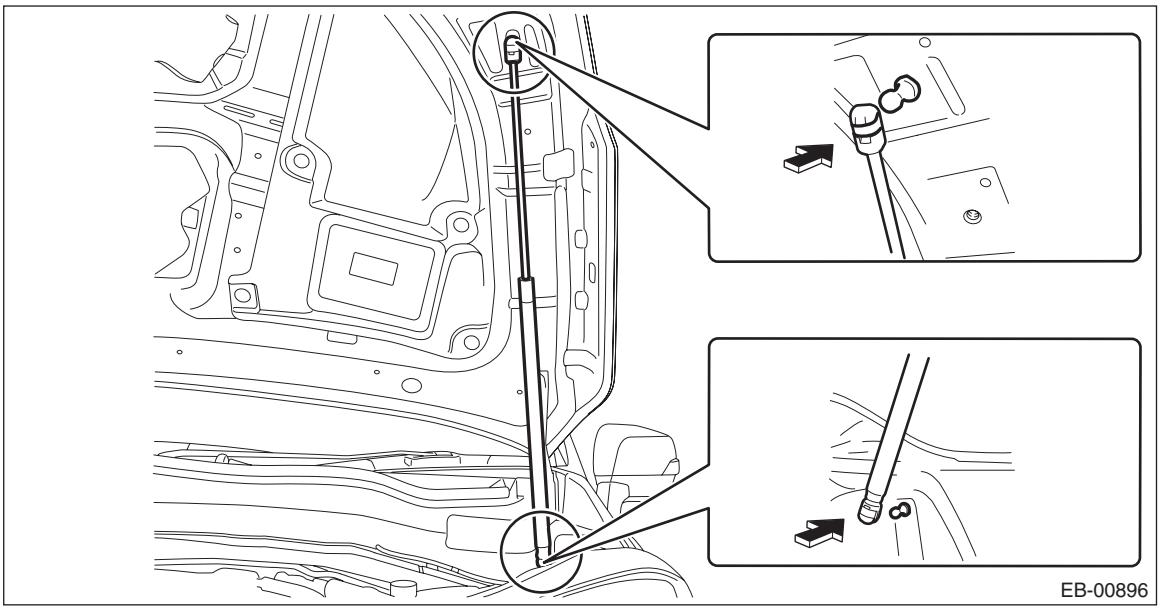
6) Readjust the fender COMPL - front to install.

NOTE:
When installing the fender COMPL - front, make sure that a uniform clearance is created around it.
- Fender COMPL - front to Hood COMPL - front: <Ref. to EB-19, ADJUSTMENT, Front Hood.>
- Fender COMPL - front to Panel assembly - front door: <Ref. to EB-33, ADJUSTMENT, Front Door.>

7) Install each part to the hood COMPL - front in the reverse order of removal.

Tightening torque:
Grille assembly - front CTR: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)
Bracket - grille UPR: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)
Grille assembly - front UPR: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

8) Install the insulator - front hood in the reverse order of removal.
9) Install the duct - inner front hood in the reverse order of removal. (Turbo model)
10) Install the stay assembly - front hood.

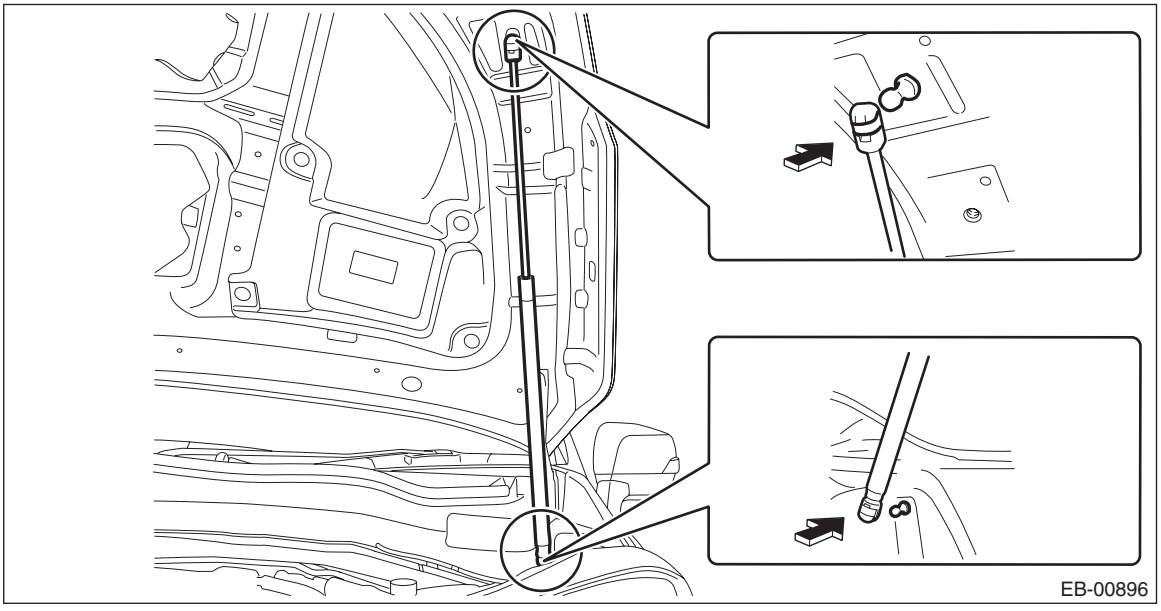


2. INSTALLATION PROCEDURE WHEN ONLY THE HOOD COMPL - FRONT IS REMOVED

1) Install each part in the reverse order of removal.

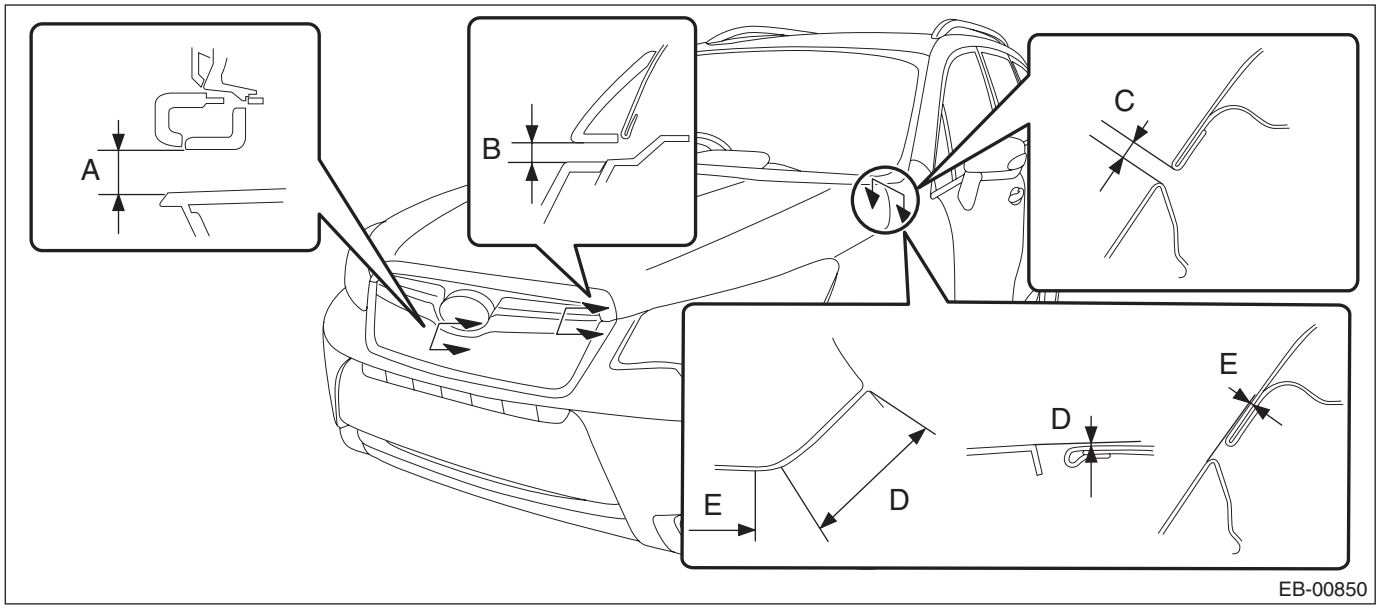
Tightening torque:
Grille assembly - front CTR: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)
Bracket - grille UPR: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)
Grille assembly - front UPR: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)
Striker - front hood: 33 N·m (3.36 kgf-m, 24.3 ft-lb)

NOTE:
It is not necessary to adjust the striker - front hood because there is no span of adjustable range.
2) Install the insulator - front hood in the reverse order of removal.
3) Install the duct - inner front hood in the reverse order of removal. (Turbo model)
4) Install the stay assembly - front hood.



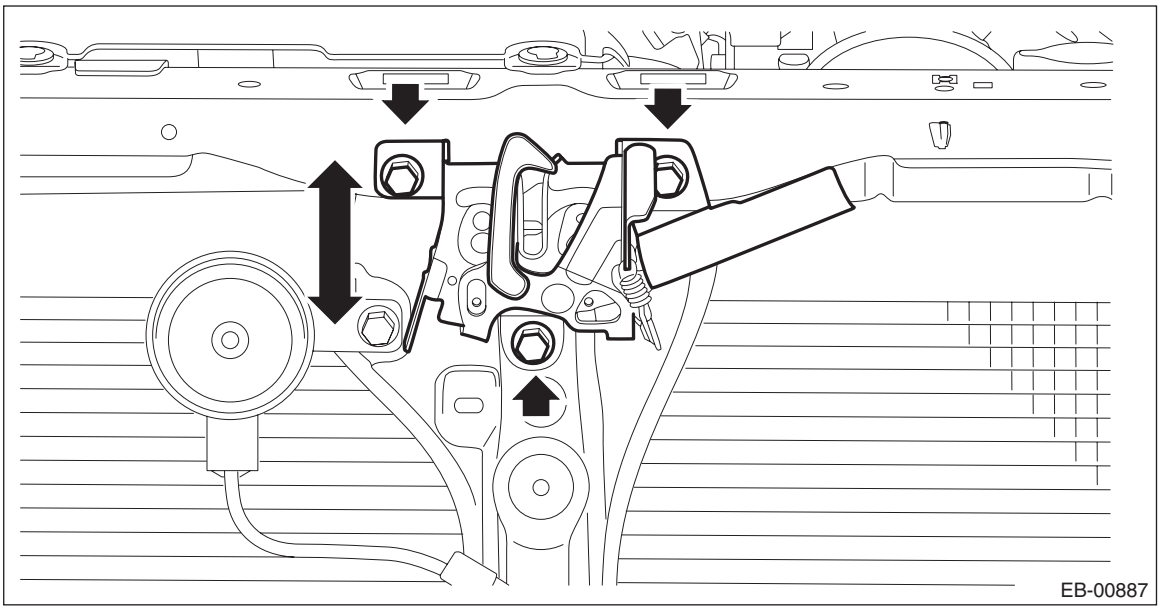
C: ADJUSTMENT

NOTE:
Adjustment should be performed in the fender COMPL - front, lock assembly - front hood and buffer - front hood because adjustment cannot be performed on the hood COMPL - front side of the hinge COMPL - front hood.
Adjust the clearance around the hood COMPL - front as follows.



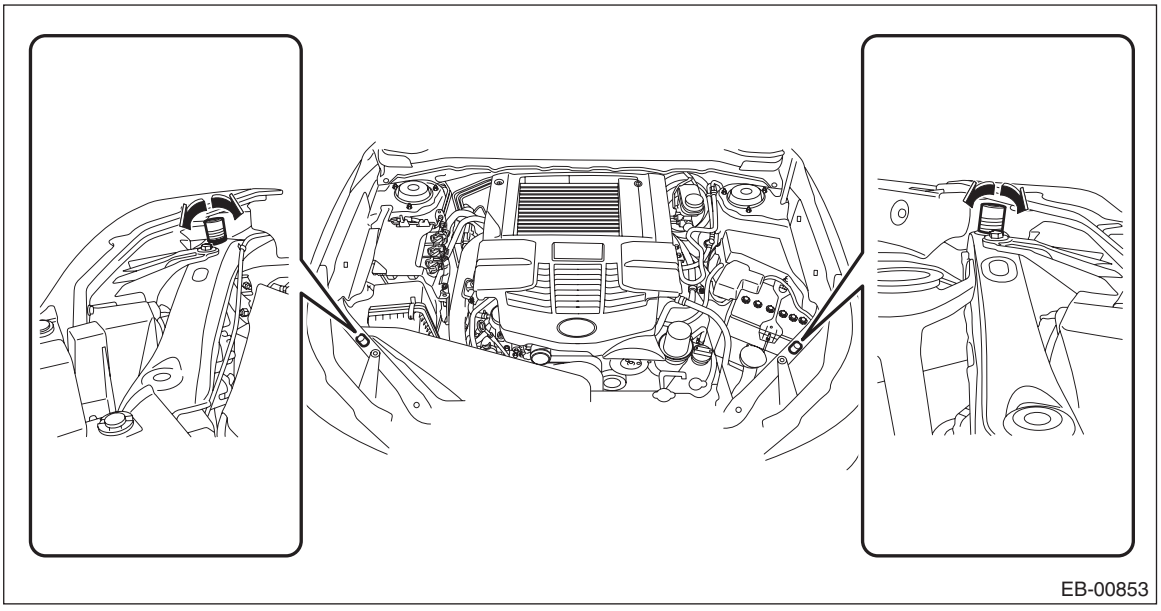
Part		Standard
A	Grille CTR to Grille LWR	STD: 9.7 mm (0.38 in) DIT: 9.4 mm (0.37 in)
B	Grille assembly - front UPR to Molding of grille assembly - front LWR	6.5+1.5, –1.0 mm (0.26+0.06, –0.04 in)
C	Hood COMPL - front to Fender COMPL - front (from front end to just before curved portion)	4.0±1.0 mm (0.16±0.04 in)
D	Hood COMPL - front to Fender COMPL - front (from rear end to just before curved portion)	0.5+0.5, –1.0 mm (0.02+0.02, –0.04 in)
E	Surface level gap: Hood COMPL - front to Fender COMPL - front	0±1.0 mm (0.020±0.04 in)

1) Adjust the front end height of the hood COMPL - front.
   (1) Loosen the bolts on the lock assembly - front hood.
   (2) Adjust the lock assembly - front hood by moving it up and down.



Tightening torque:
33 N·m (3.36 kgf-m, 24.3 ft-lb)

2) Rotate the buffer - front hood of the hood COMPL - front to adjust the height.



2. Front Seat

A: REMOVAL

CAUTION:
The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

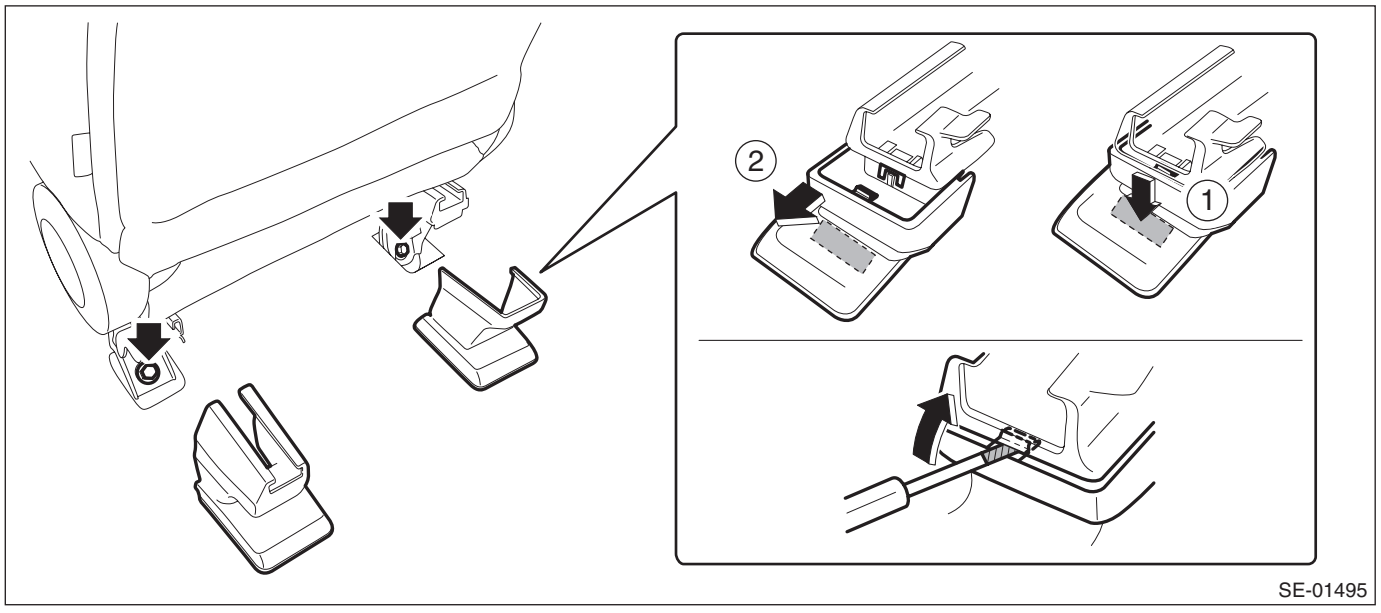
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

NOTE:
- Before removing the seat, raise the seating face.
- For the power seat, remove the slide rail installing bolt before removing the battery ground.

3) Remove the headrest assembly - front.
4) Remove the slide rail assembly installing bolt.
   (1) Tilt the backrest assembly forward and move the front seat to the mid point on the slide rail.
   (2) Remove the bolts on the front side of the front seat.
   (3) Remove the cover - bolt rear.
   1. While spreading the tip of the cover - bolt rear OUT side to side, pull it out toward you to remove.
   2. Remove the cover - bolt rear INN.

NOTE:
- Firmly push in the cover - bolt rear INN at the point shown in the figure until a clicking sound is heard and remove it.
- If it is difficult to remove, release the claw using a flat tip screwdriver wrapped with protection tape while pushing the point shown in the figure to remove.

   (4) Remove the bolts on the rear side of the front seat.



SE-01495

(5) Disconnect the connector under the front seat.

CAUTION:
For the power seat, check that the battery ground cable is disconnected. If not, disconnect the battery ground cable and wait for 60 seconds or more.

- Seat belt warning light connector
- Occupant detection system harness connector (passenger's seat) <Ref. to OD(diag)-9, OCCUPANT DETECTION SYSTEM (BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS), PROCEDURE, Airbag Connector.>
- Side airbag connector <Ref. to AB-27, SIDE AIRBAG MODULE, PROCEDURE, Airbag Connector.>
- Seat heater connector (model with seat heater)
- Power seat connector (model with power seats)

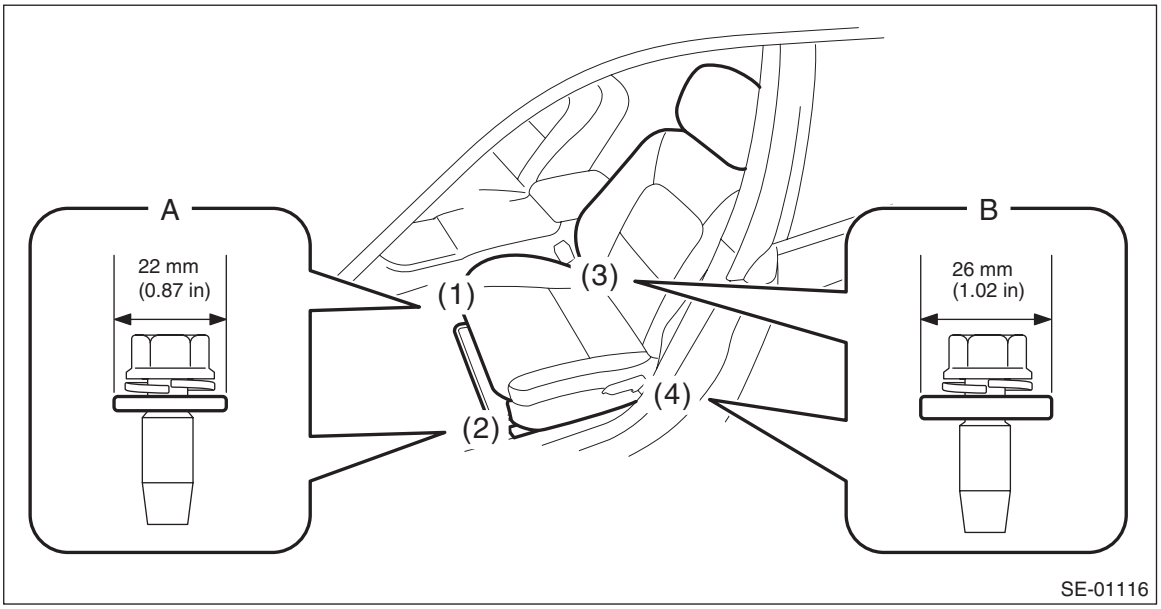
5) Take out the front seat from the vehicle.

CAUTION:
Be careful not to damage the body.

B: INSTALLATION

Install each part in the reverse order of removal.

CAUTION:
• The front seat mounting bolts differ between the front mounting points and the rear mounting points. When installing the front seat, make sure that you are using correct bolts at correct positions.
• Tighten the slide rail assembly installing bolts in the order as shown in the figure, in several steps by gradually increasing the torque until they reach the specified torque.



- **Front (bolt A): Washer diameter 22 mm (0.87 in)**
- **Rear (bolt B): Washer diameter 26 mm (1.02 in)**

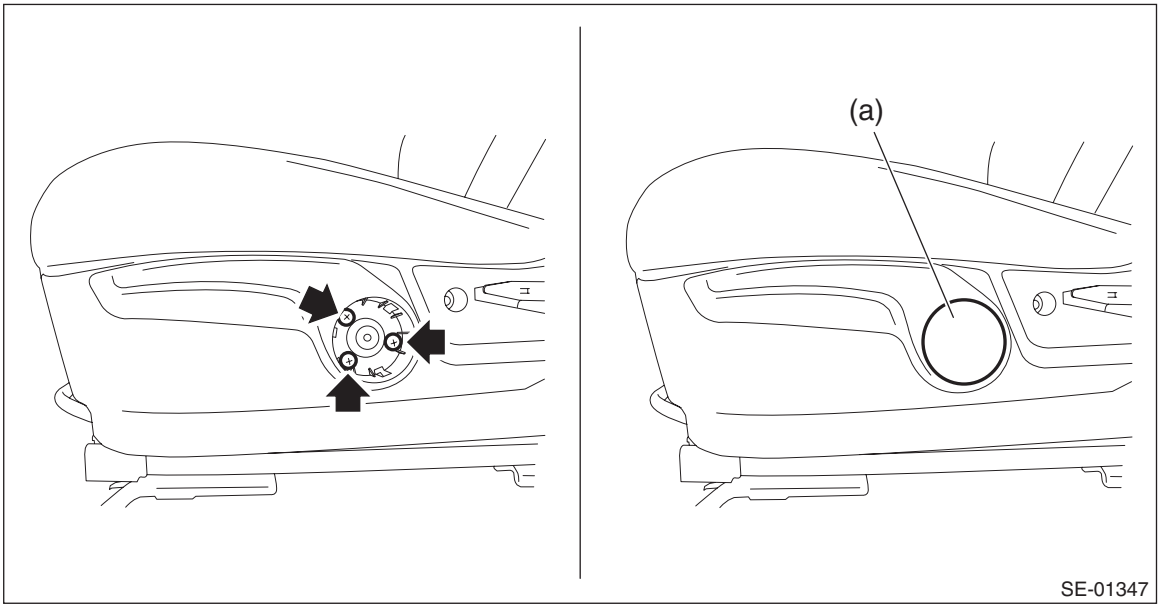
Tightening torque:
Front seat assembly: 53 N·m (5.40 kgf-m, 39.1 ft-lb)

C: DISASSEMBLY

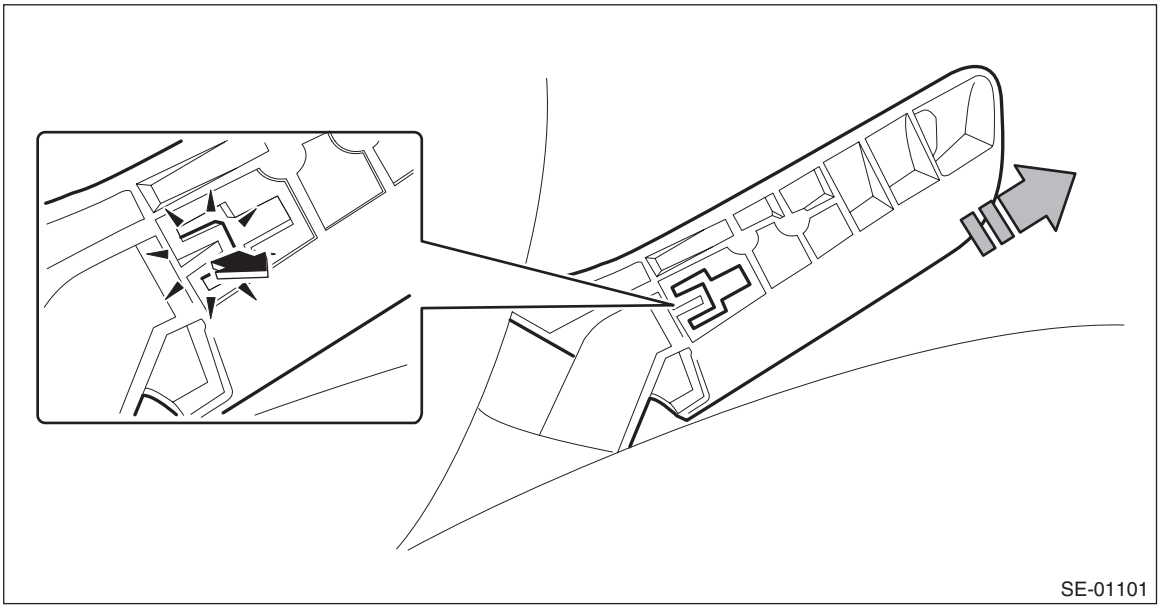
1. DRIVER SEAT (MANUAL SEAT)

CAUTION:
Before assembling, make sure how the harnesses such as the side airbag harness and the seat belt inner - front harness are routed in order to avoid misarranging. Assembling with harnesses improperly routed may cause the harness to get caught and short out.

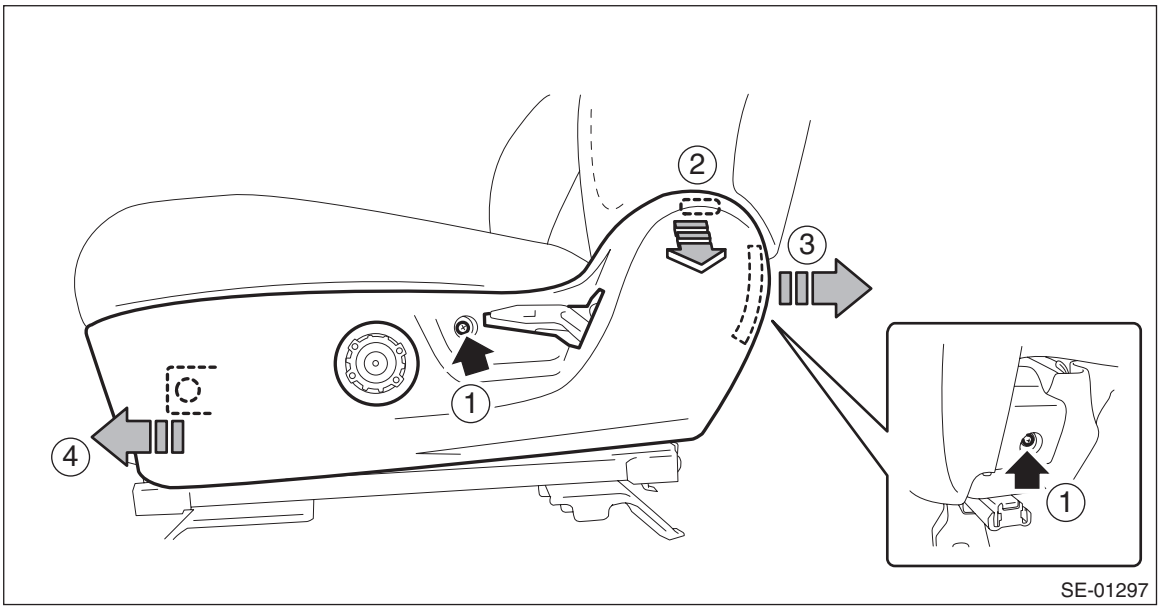
1) Remove the front seat from vehicle. <Ref. to SE-9, REMOVAL, Front Seat.>
2) Remove the knob - lifter.
   (1) Using a flat tip screwdriver, remove the cap - lifter lever (a).
   (2) Remove the screws and remove the knob - lifter.



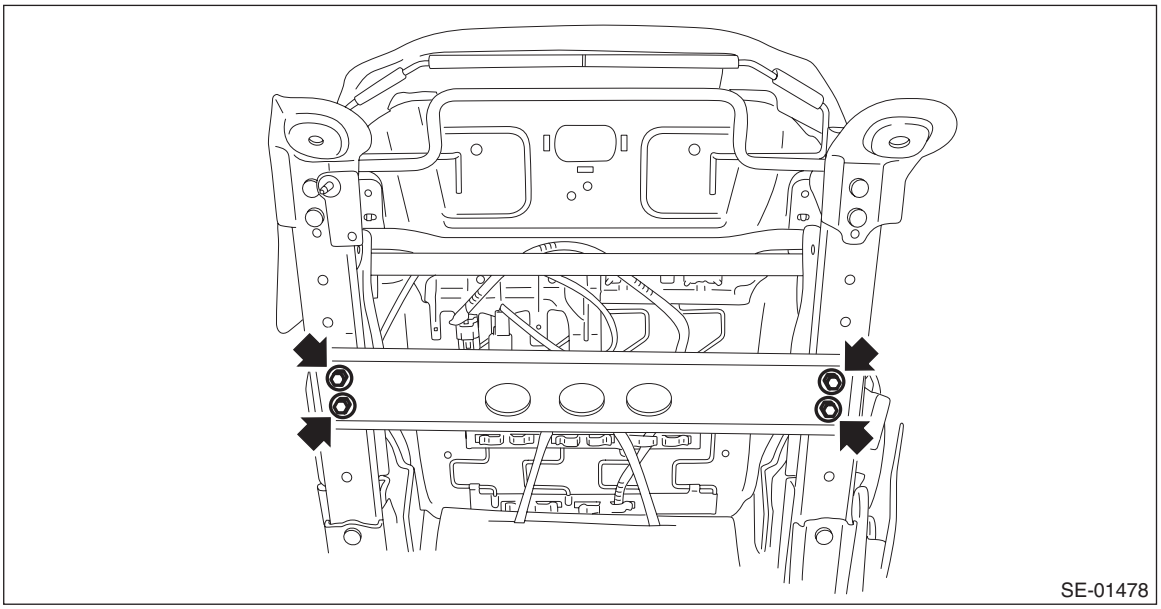
3) Remove the lever - reclining.
   (1) Pull up the lever - reclining and release the claws on the back.
   (2) Pull out the lever - reclining.



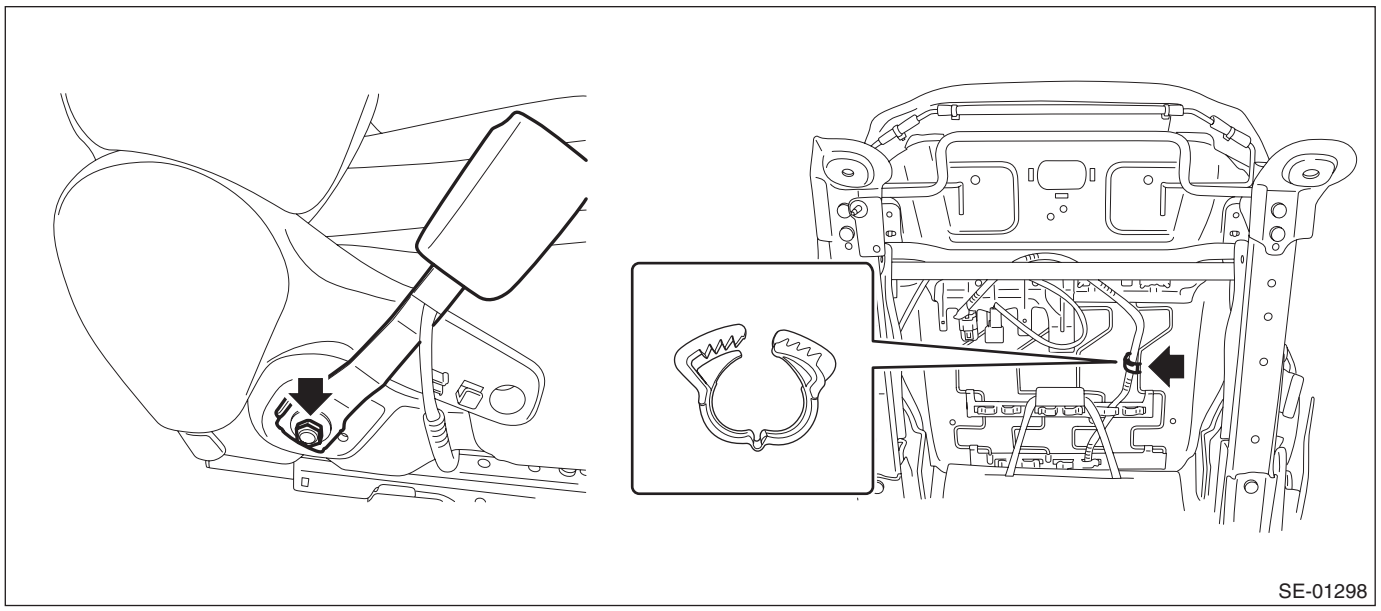
4) Remove the cover - hinge front seat OUT.
(1) Remove the screws.
(2) Release the claw in the upper section of the cover - hinge front seat OUT.
(3) Release the claw in the rear section of the cover - hinge front seat OUT.
(4) Release the claw in the front section of the cover - hinge front seat OUT, then remove the cover - hinge front seat OUT.



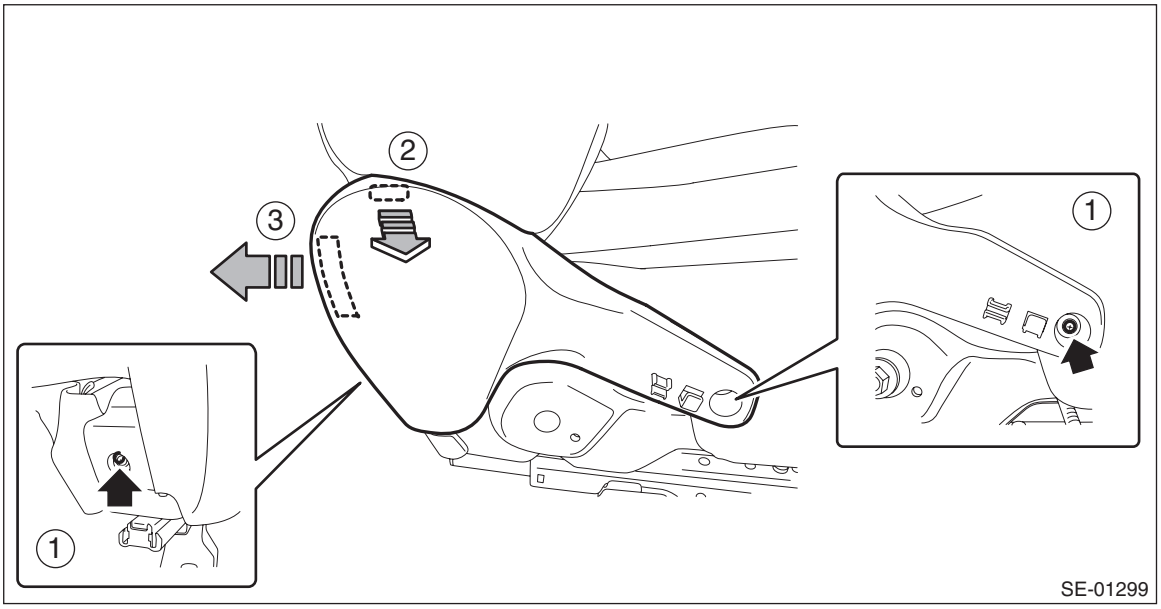
5) Remove the nuts, and remove the member - bracket.



6) Remove the seat belt inner - front.
(1) Remove the nut, and remove the seat belt inner - front.
(2) Remove the clip for the seat belt inner - front located under the seat cushion assembly.

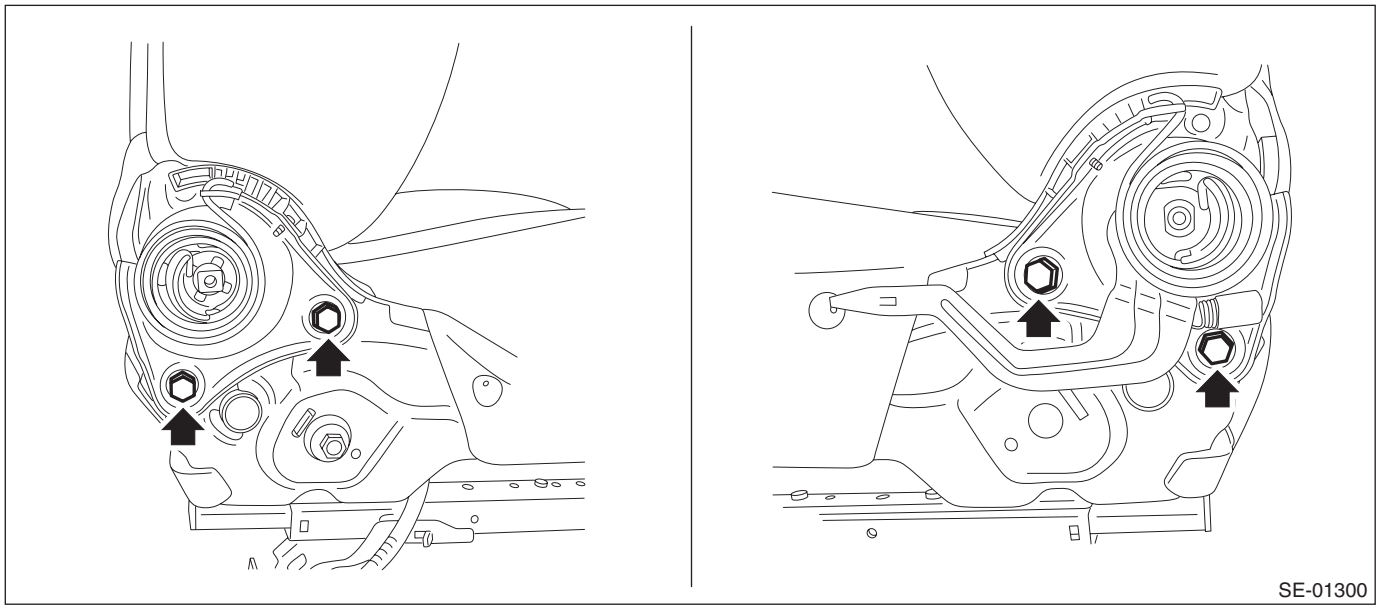

SE-01298

7) Remove the cover - hinge front seat INN.
(1) Remove the screws.
(2) Release the claw in the upper section of the cover - hinge front seat INN.
(3) Release the claw in the rear section of the cover - hinge front seat INN, then remove the cover - hinge front seat INN.

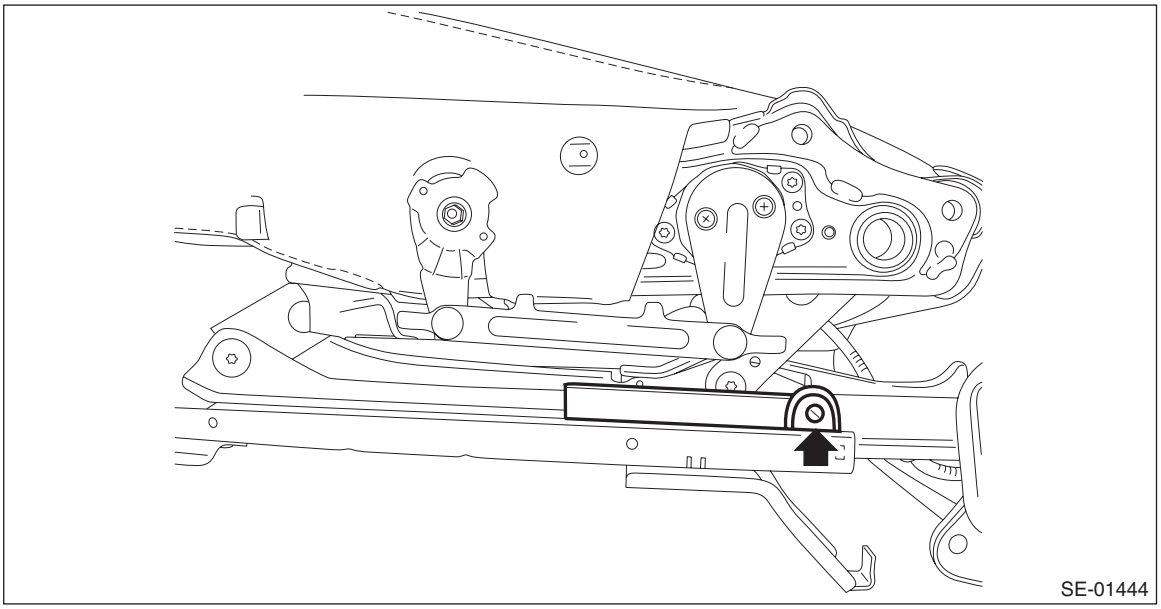


SE-01299

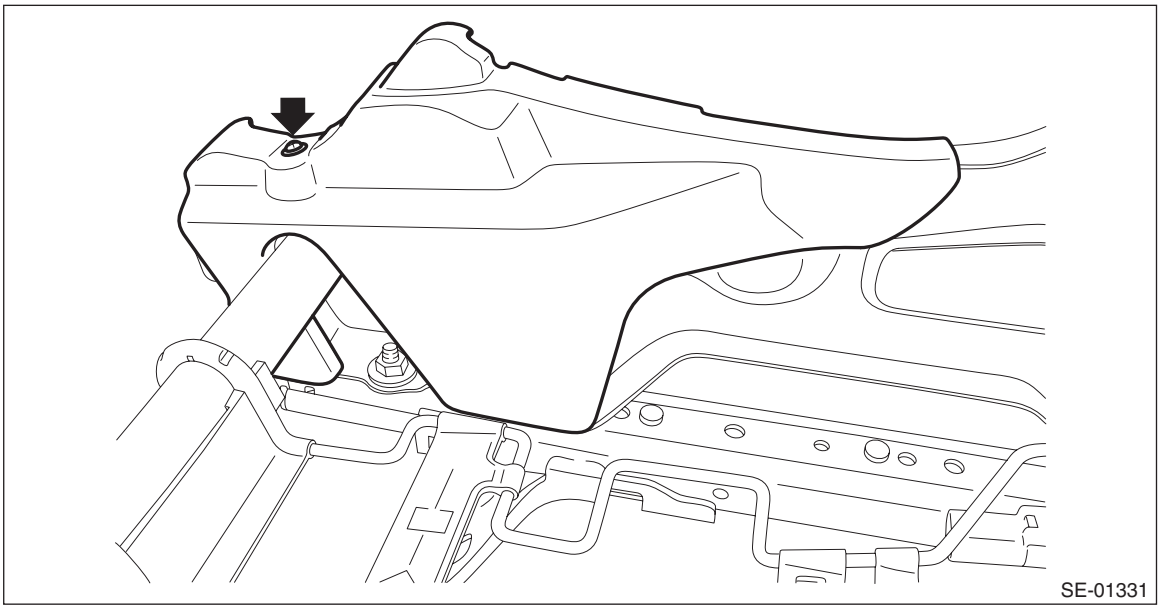
8) Separate the backrest assembly and the seat cushion assembly.
(1) Remove the clip for the side airbag harness located under the seat cushion assembly.
(2) Disconnect the seat heater harness. (Seat with seat heater)
(3) Remove the bolts from reclining hinge of both sides.
(4) While taking care not to damage the harness, separate the backrest assembly and the seat cushion assembly.



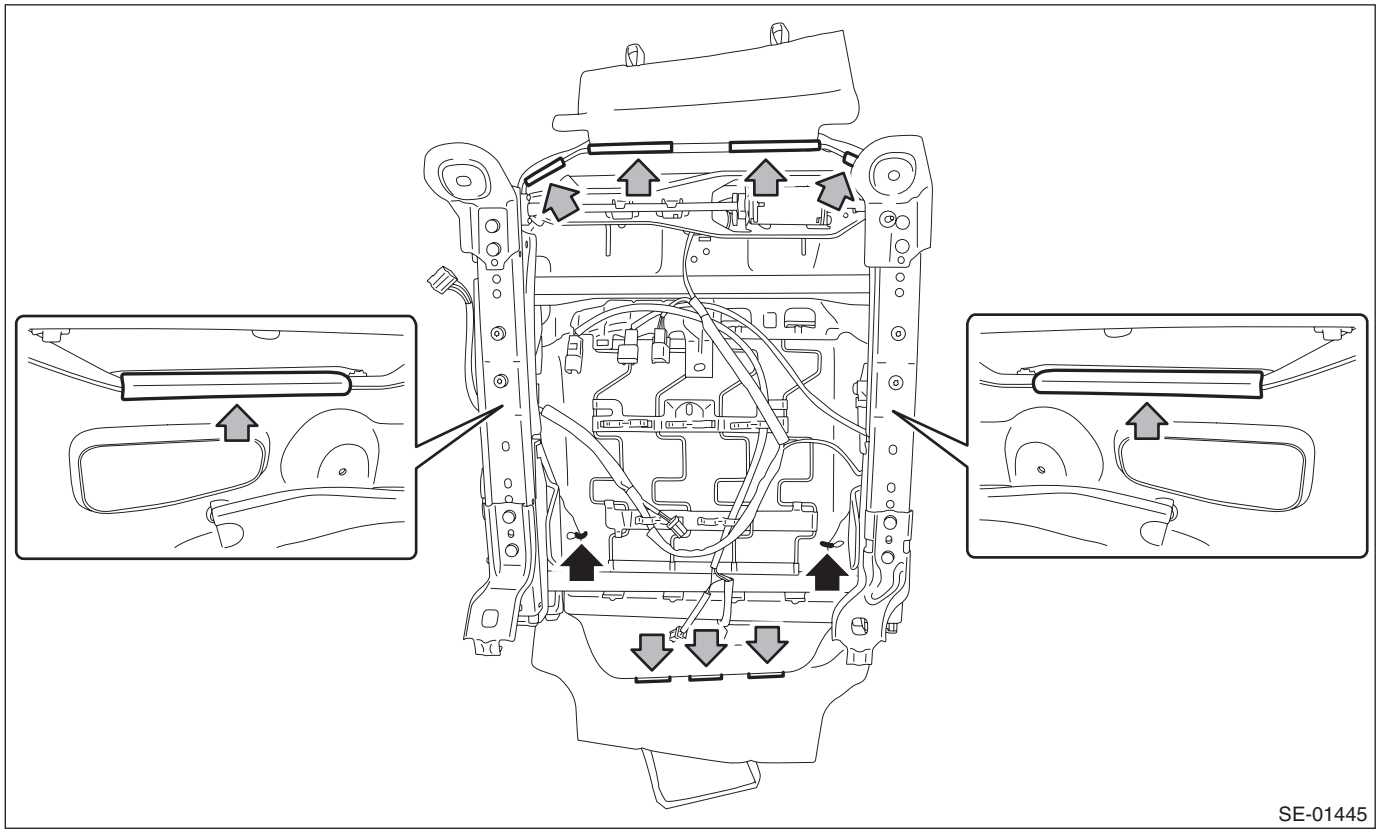
9) Remove the cover - slide rail OUT.
(1) Remove the clip.
(2) Remove the hook, and detach the cover - slide rail OUT.



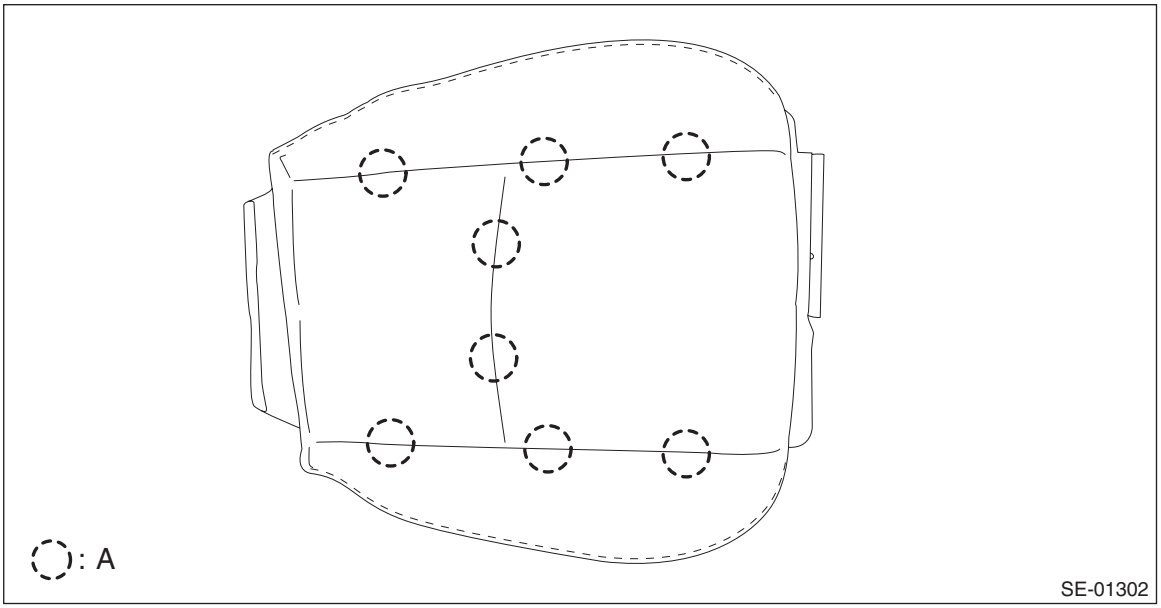
10) Remove the screws and detach the cover - slide rail INN.



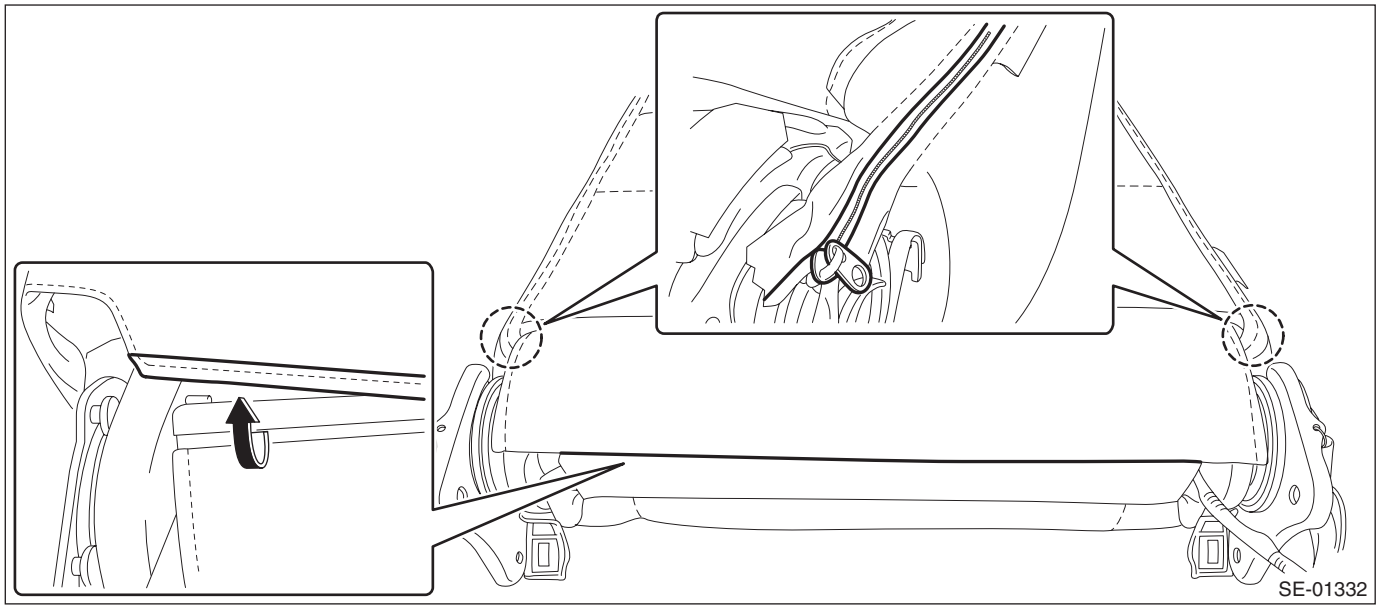
11) Remove the pad assembly - front seat cushion and the cover - front cushion.
(1) Remove the hooks and hog rings.
(2) Remove the pad assembly - front seat cushion and the cover - front cushion from the seat cushion assembly.



12) Remove the cover - front cushion.
(1) Remove the hog ring (A).

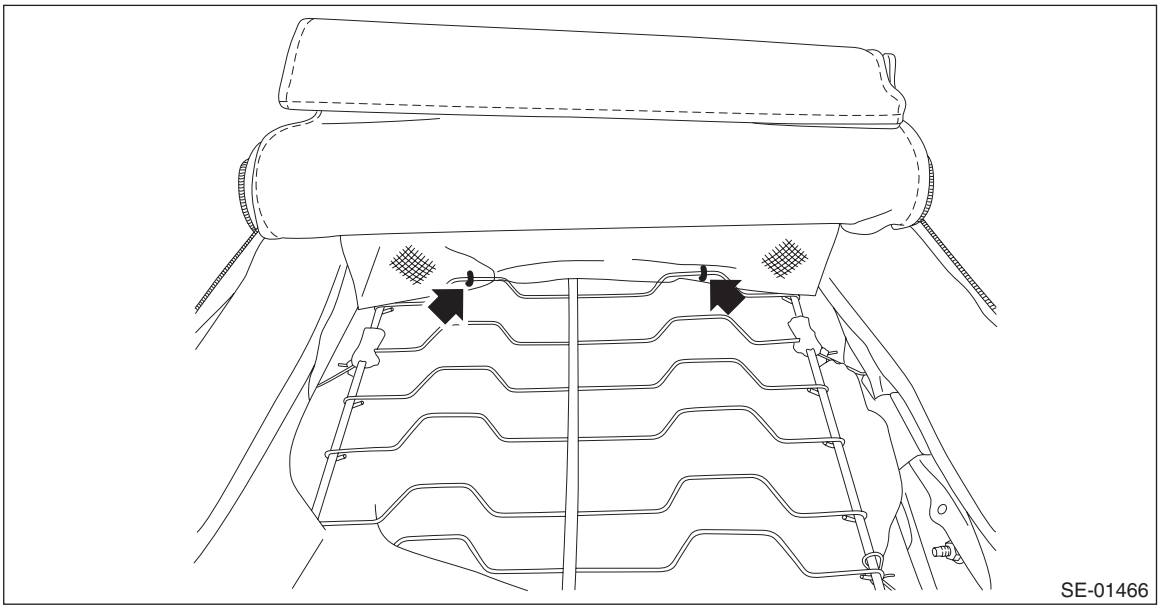


(2) Pull out the pad assembly - front seat cushion from the cover - front cushion.
13) Remove the pad assembly - front seat backrest and the cover COMPL - front backrest.
(1) Remove the plastic fastener at the back side (bottom) of backrest assembly.
(2) Open the fastener at the rear side of backrest assembly.

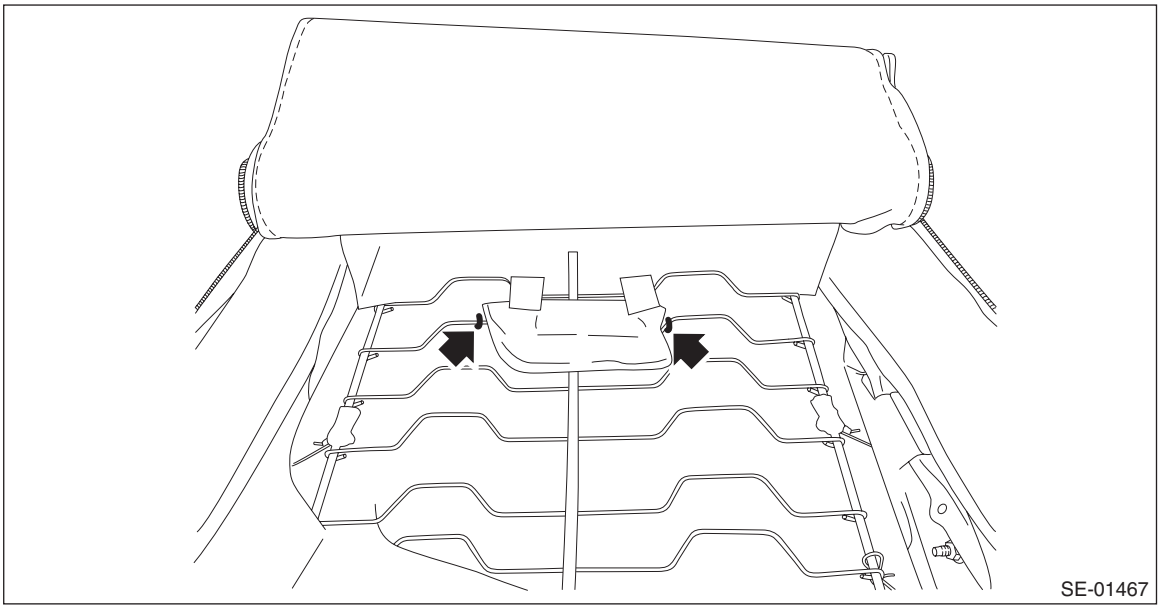


(3) Remove the hog ring.

CAUTION:
Be careful not to tear the vinyl inside the seat when removing the hog rings.
If torn, replace with a new part.



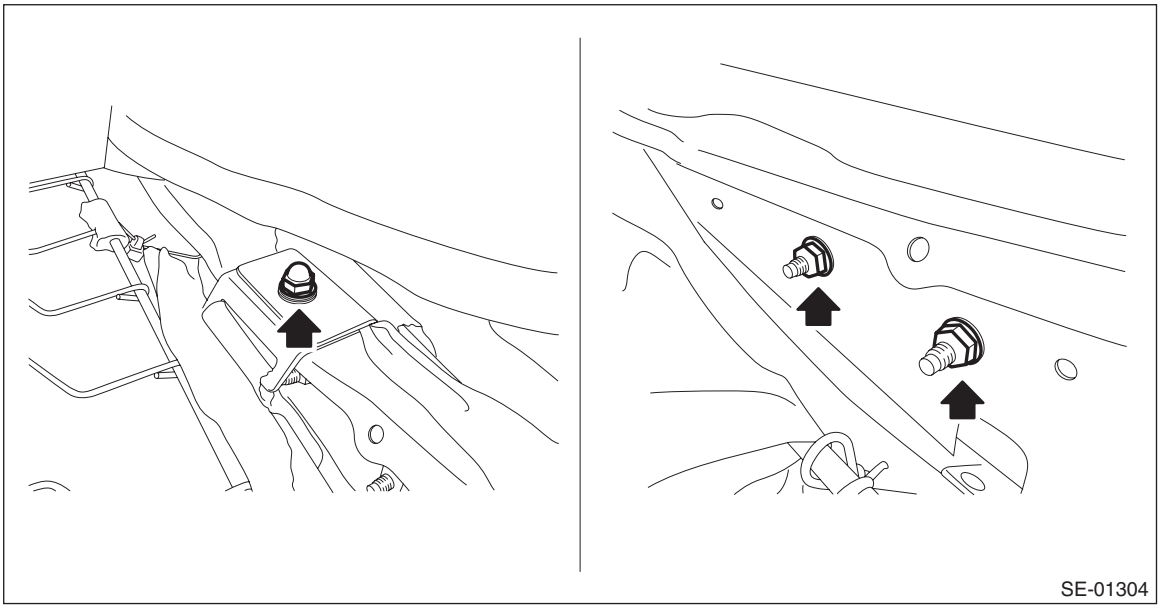
(4) Turn over the backrest pad & cover, and remove the hog rings.



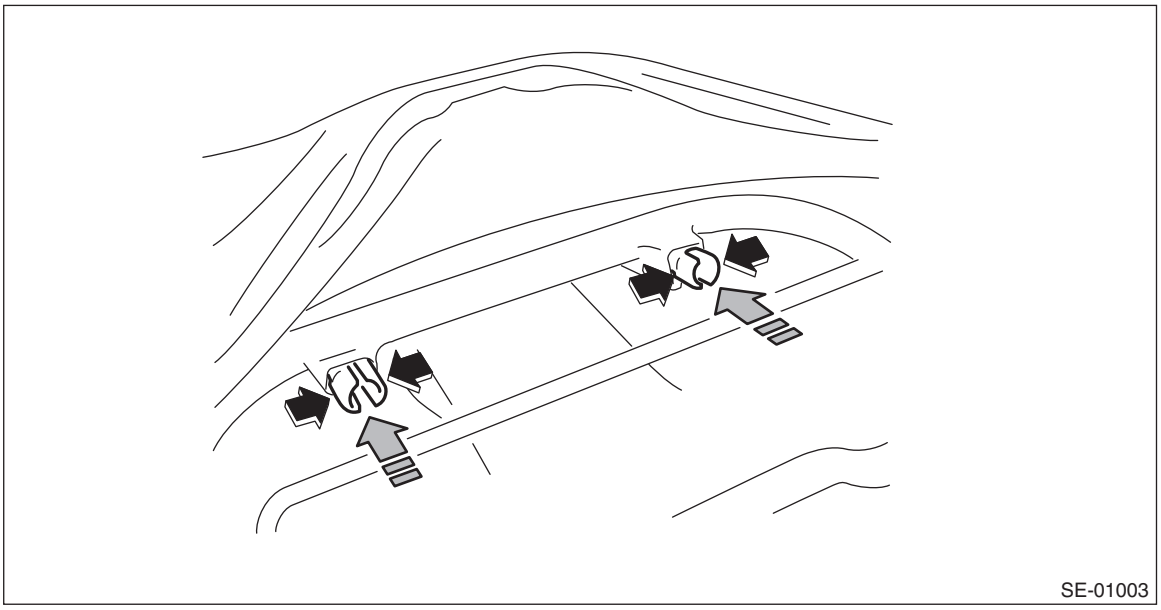
14) Remove the side airbag module.

CAUTION:
Do not open the protective cover of the side airbag. If any damage is present in the protective cover or the cloth of side airbag module comes out from the protective cover slit, replace the side airbag module with a new part.

(1) Remove the hexagon cap nut and nuts.
(2) While taking care not to damage the airbag protective cover, remove the side airbag module.

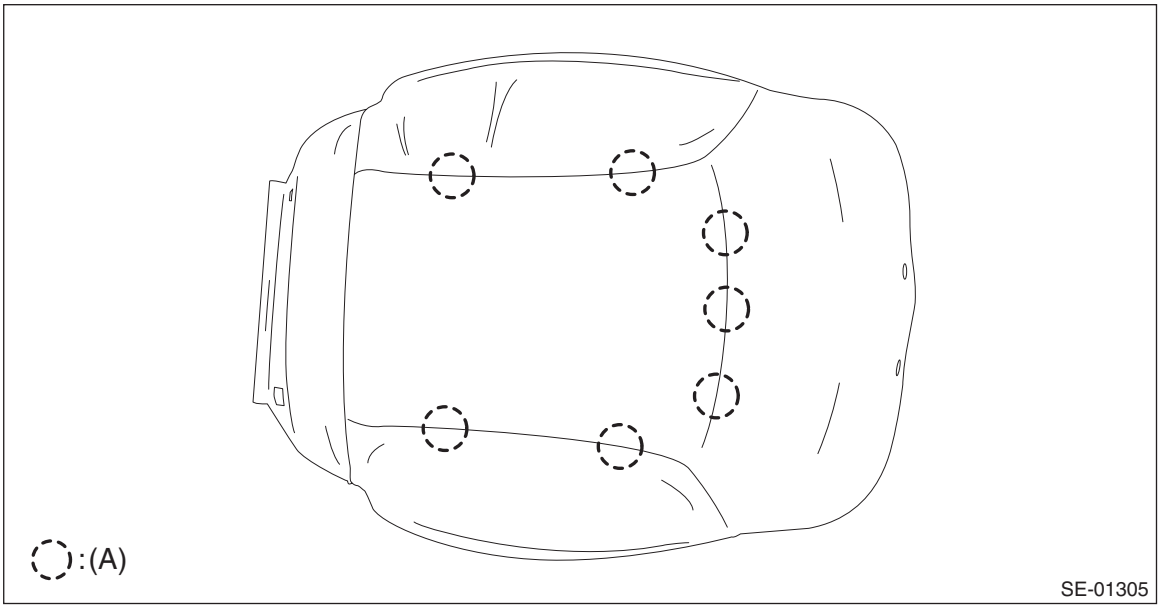

SE-01304

15) Remove the bushing - headrest.


SE-01003

NOTE:
Catch the tip of the bushing - headrest with pliers and push it outward from the inside of seat to remove it.
16) Pull out the frame assembly - front backrest.

17) Remove the cover COMPL - front backrest.
(1) Remove the hog ring (A).

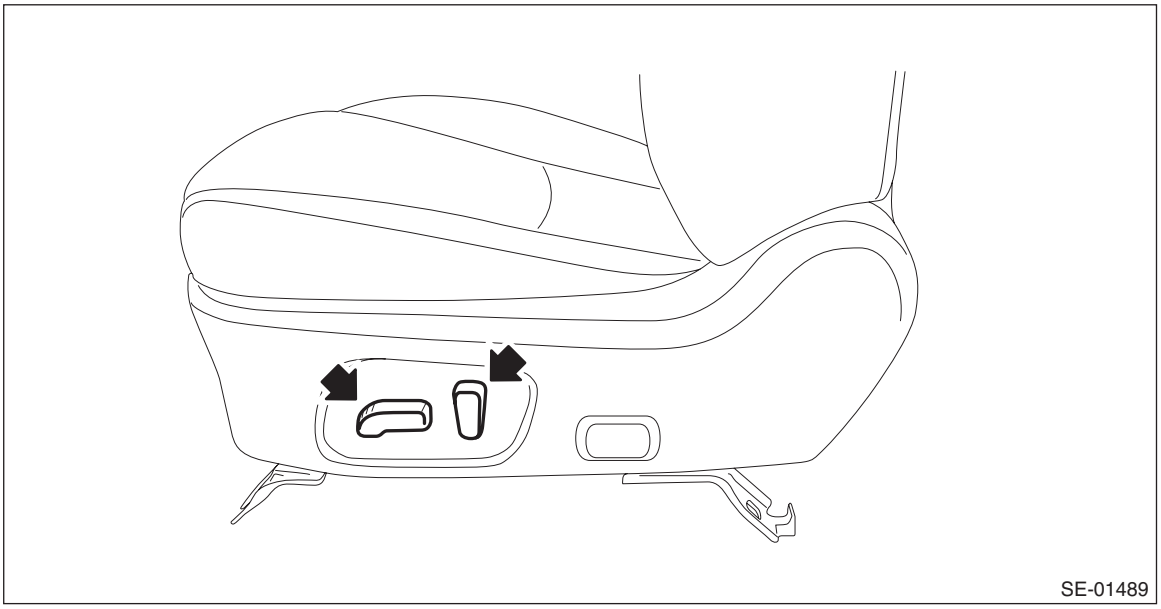


(2) Pull out the pad assembly - front seat backrest from the cover COMPL - front backrest.

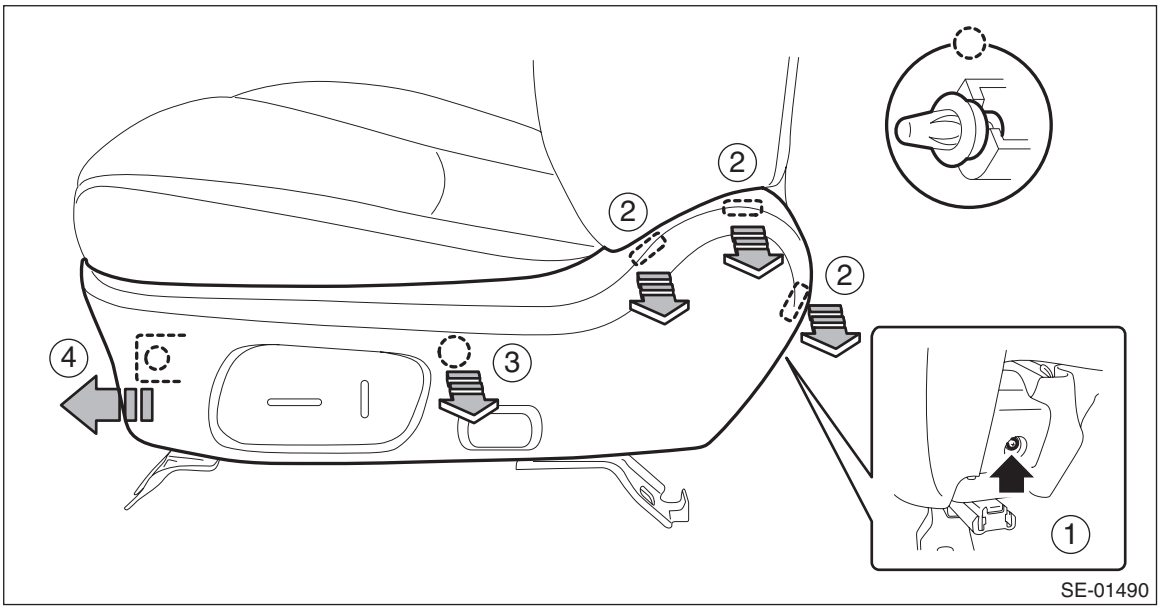
2. DRIVER SEAT (POWER SEAT MODEL)

CAUTION:
• Before assembling, make sure how the harnesses such as the side airbag harness and the seat belt inner - front harness are routed in order to avoid misarranging. Assembling with harnesses improperly routed may cause the harness to get caught and short out.
• Do not disassemble the backrest assembly and seat cushion frame and slide rail assembly.
1) Remove the seat from vehicle.<Ref. to SE-9, REMOVAL, Front Seat.>

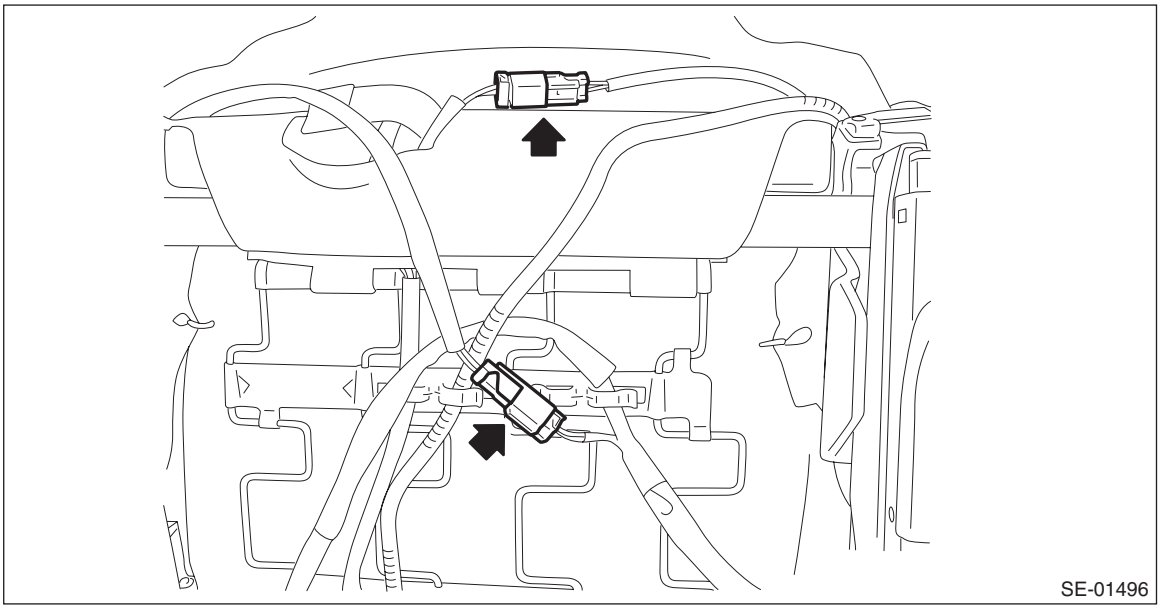
NOTE:
Before removing the seat, raise the seating face.
2) Remove the knob - power seat.



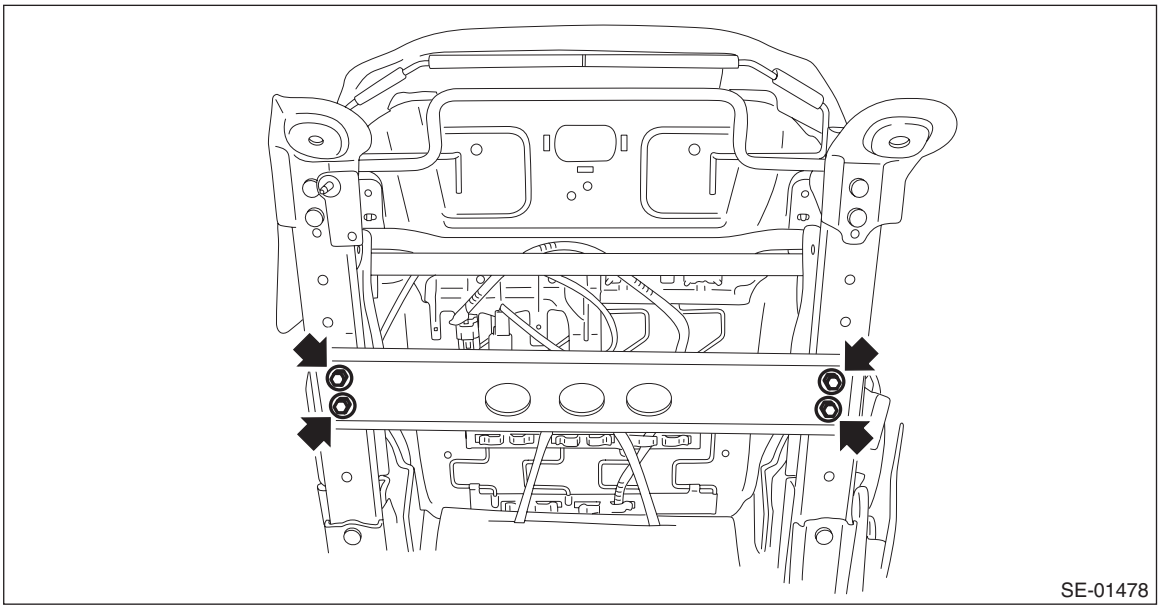
3) Remove the cover - hinge front seat OUT.
(1) Remove the screws in the rear section of the cover - hinge front seat OUT.
(2) Release the claw in the upper section of the cover - hinge front seat OUT.
(3) Remove the clip, and release the claws in the front section of the cover - hinge front seat OUT.
(4) Disconnect the power seat switch and lumber switch connector and remove the cover - hinge front seat OUT.



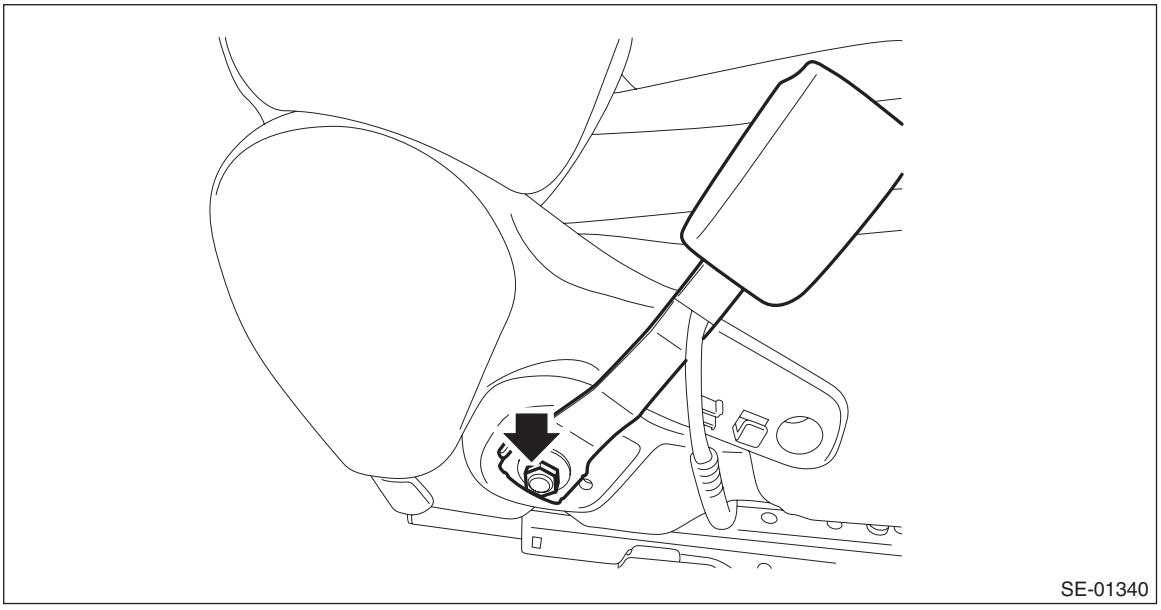
4) Disconnect the connectors from the backside of seat cushion.
(1) Disconnect the connector for reclining motor.
(2) Disconnect the connector of seat heater harness. (Seat with seat heater)



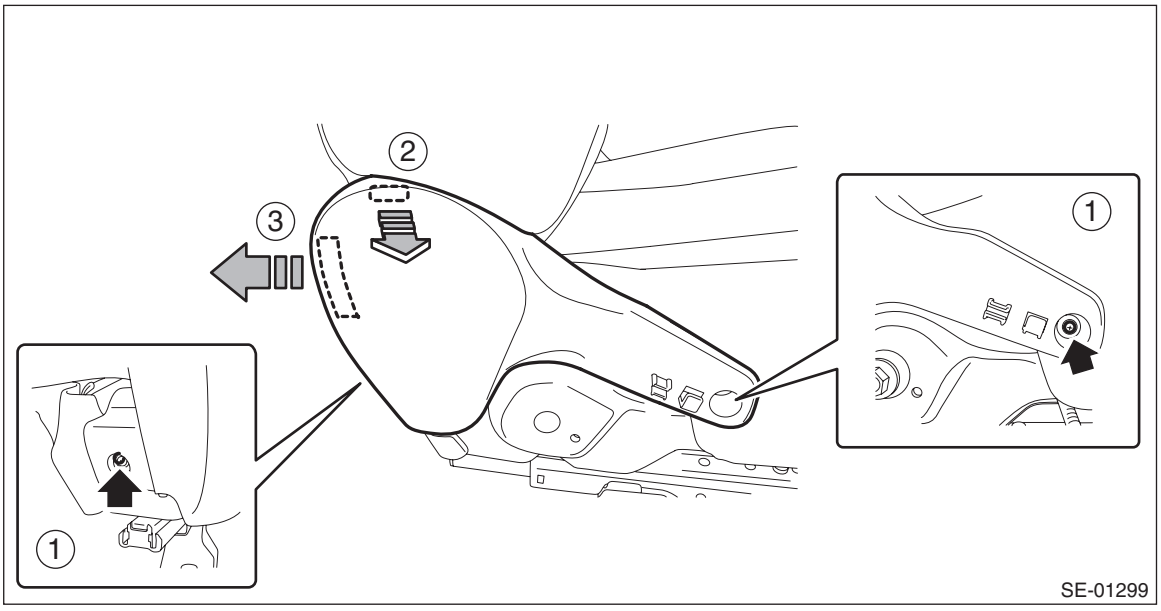
5) Remove the nuts, and remove the member - bracket.



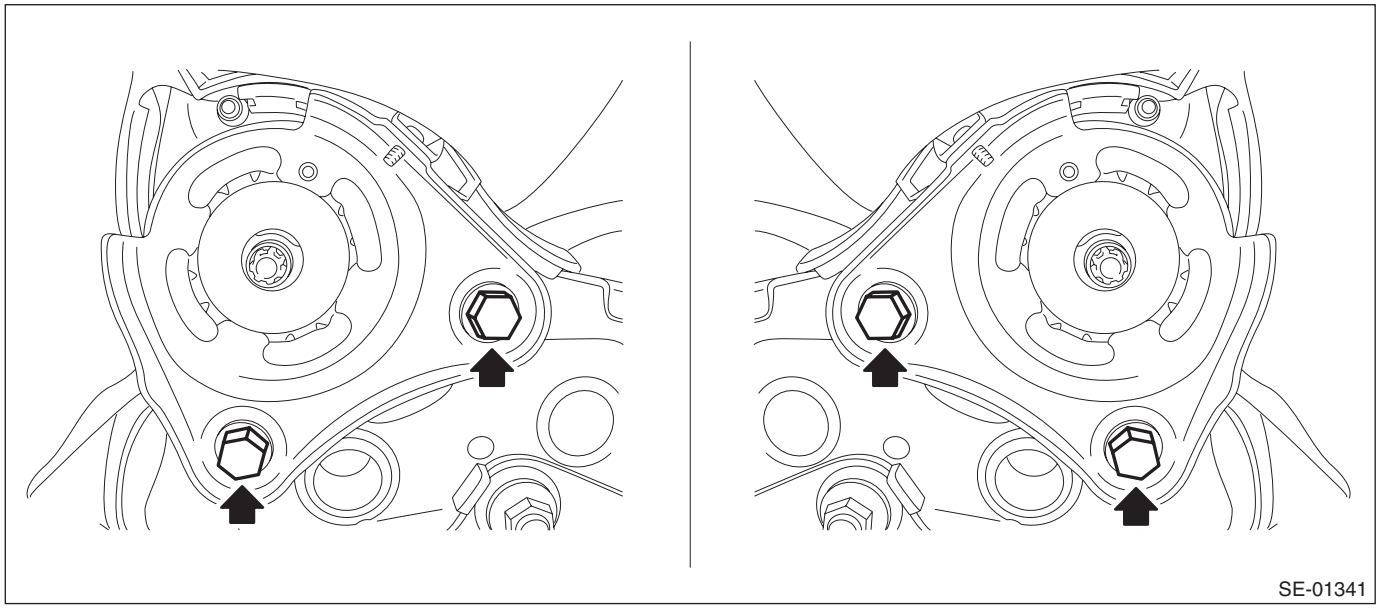
6) Remove the seat belt inner - front.
   (1) Remove the nut, and remove the seat belt inner - front.
   (2) Disconnect the connector for the seat belt inner - front harness located under the seat cushion assembly.



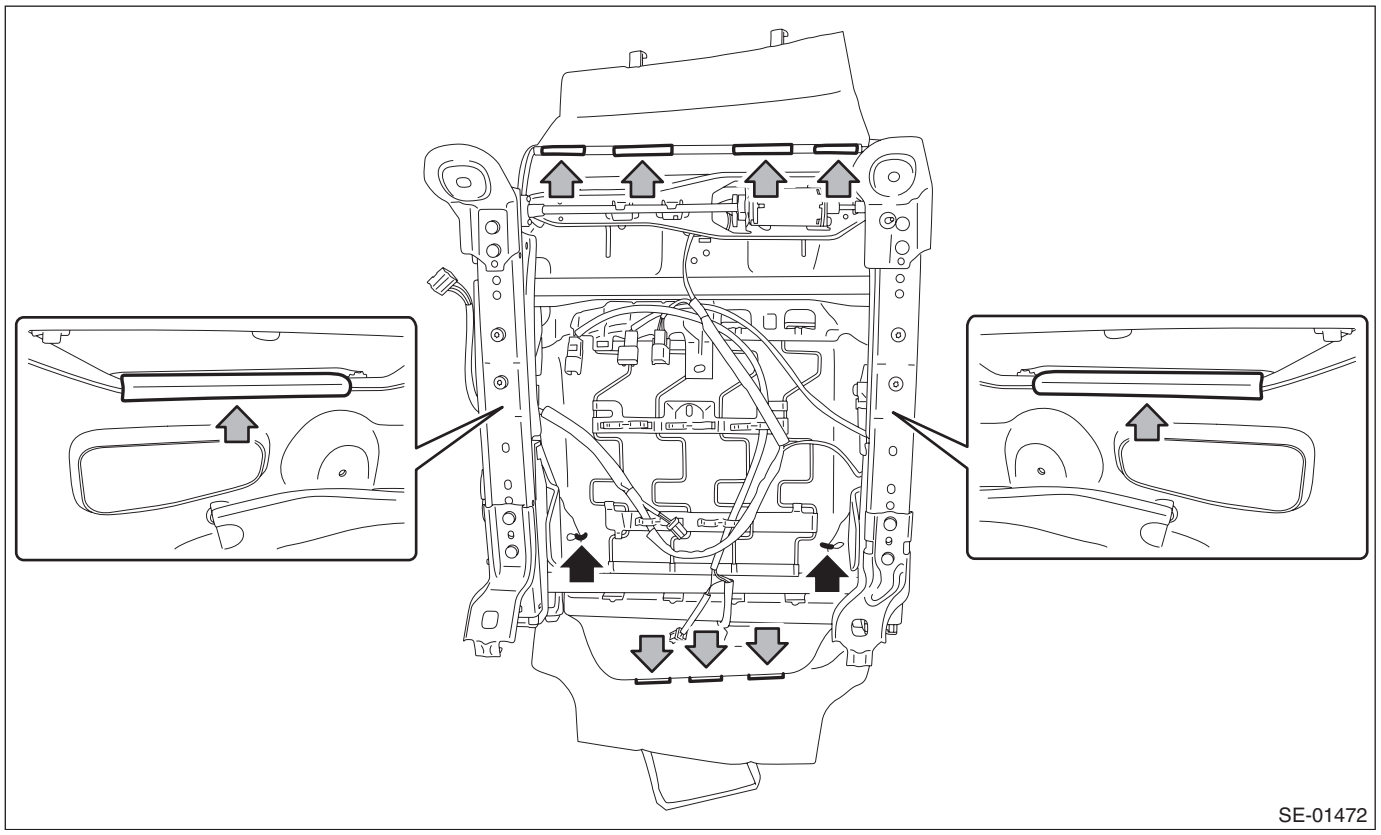
7) Remove the cover - hinge front seat INN.
(1) Remove the screws.
(2) Release the claw in the upper section of the cover - hinge front seat INN.
(3) Release the claw in the rear section of the cover - hinge front seat INN, then remove the cover - hinge front seat INN.



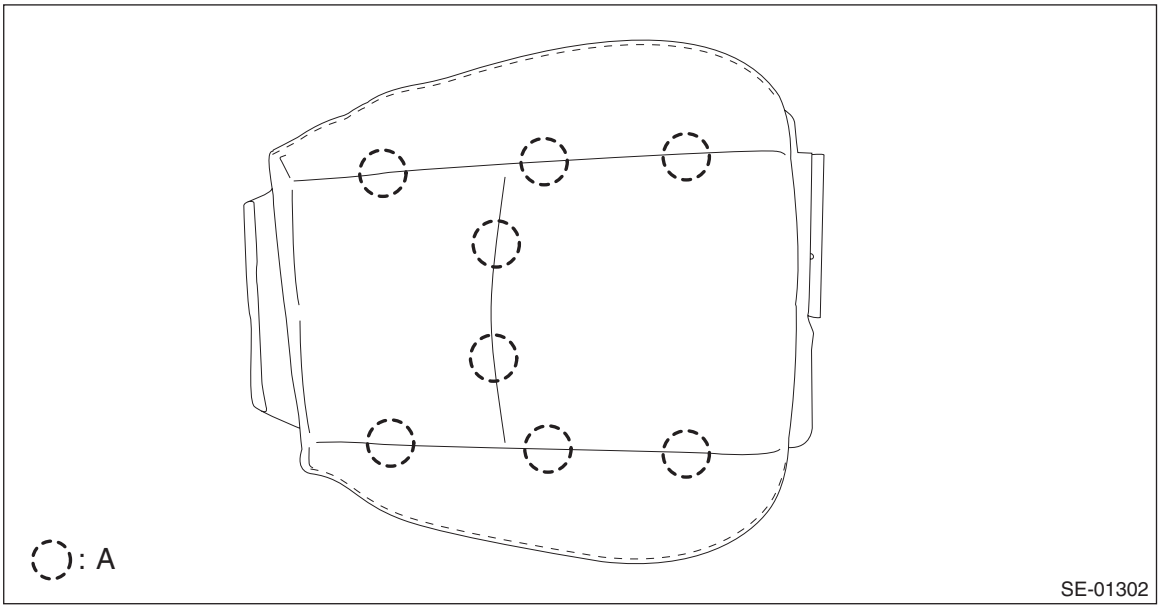
8) Separate the backrest assembly and the seat cushion assembly.
(1) Remove the clip for the side airbag harness located under the seat cushion assembly.
(2) Remove the bolts from reclining hinge of both sides.
(3) While taking care not to damage the harness, separate the backrest assembly and the seat cushion assembly.



9) Remove the pad assembly - front seat cushion and the cover - front cushion.
(1) Remove the hooks and hog rings.
(2) Remove the pad assembly - front seat cushion and the cover - front cushion from the seat cushion assembly.

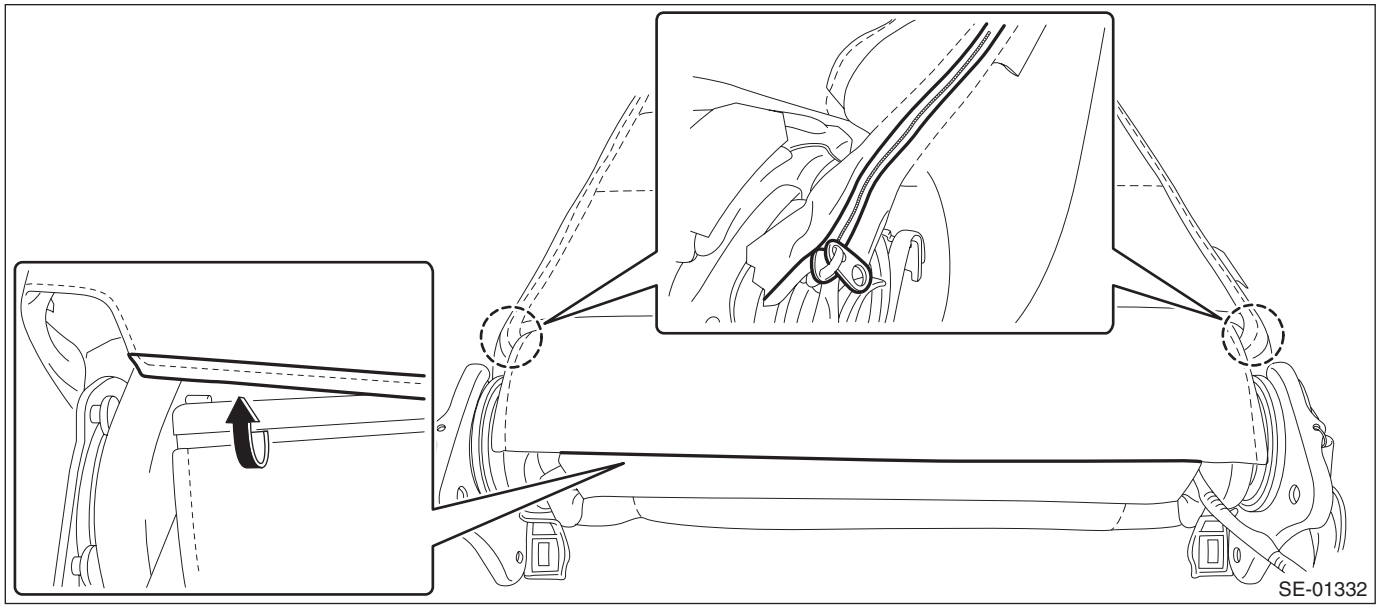


10) Remove the cover - front cushion.
(1) Remove the hog ring (A).



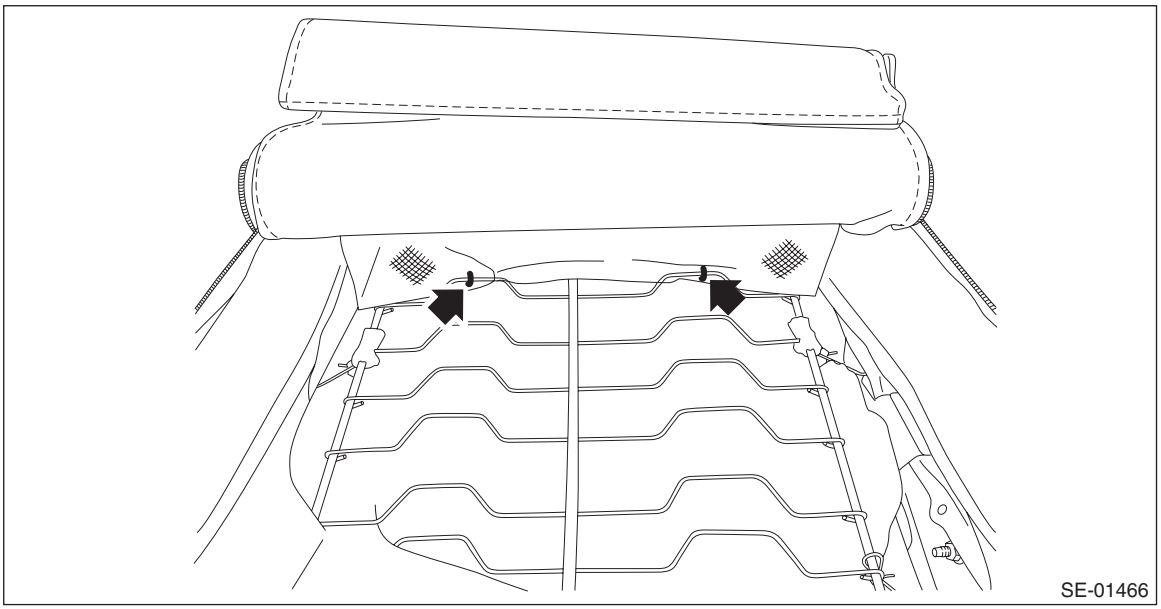
(2) Pull out the pad assembly - front seat cushion from the cover - front cushion.

11) Remove the pad assembly - front seat backrest and the cover COMPL - front backrest.
(1) Remove the plastic fastener at the back side (bottom) of backrest assembly.
(2) Open the fastener at the rear side of backrest assembly.

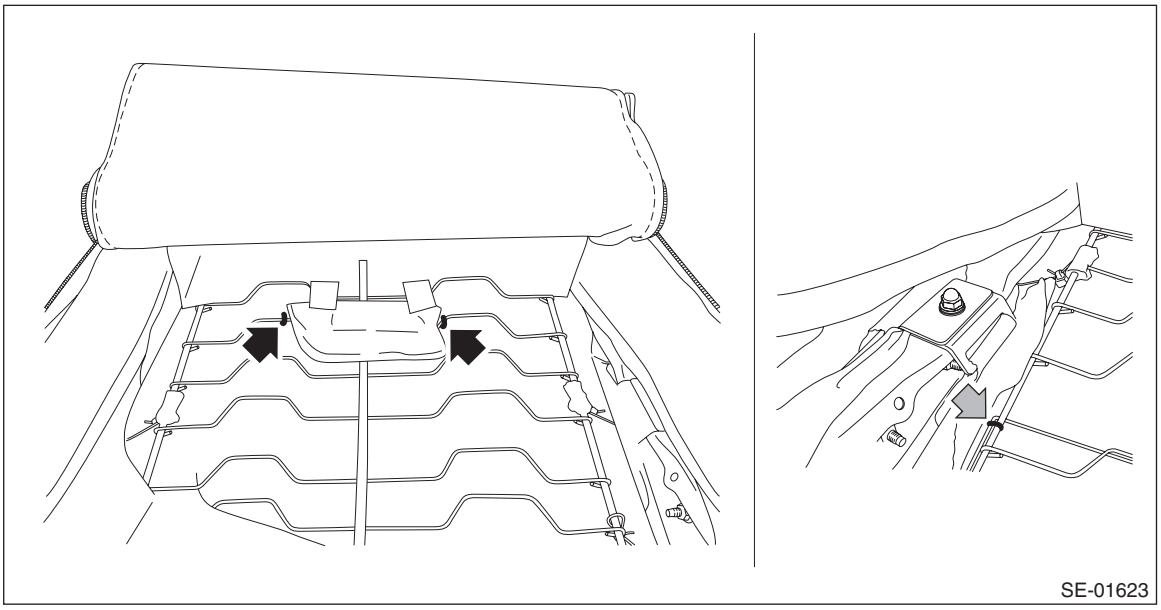


(3) Remove the hog ring.

CAUTION:
Be careful not to tear the vinyl inside the seat when removing the hog rings.
If torn, replace with a new part.



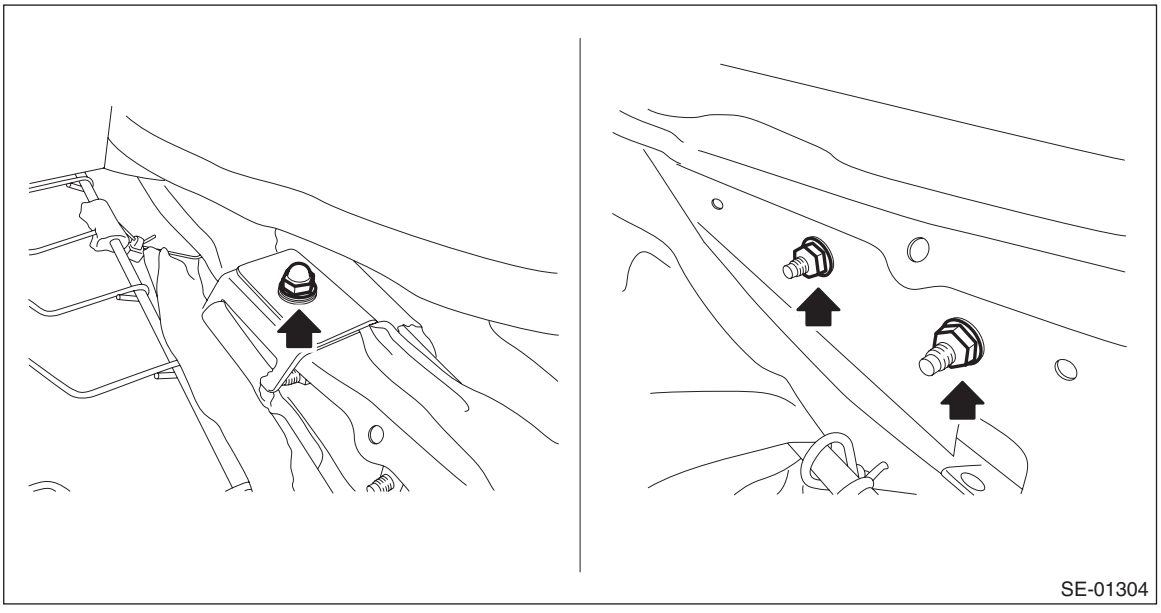
(4) Turn over the backrest pad & cover, and remove the hog rings.



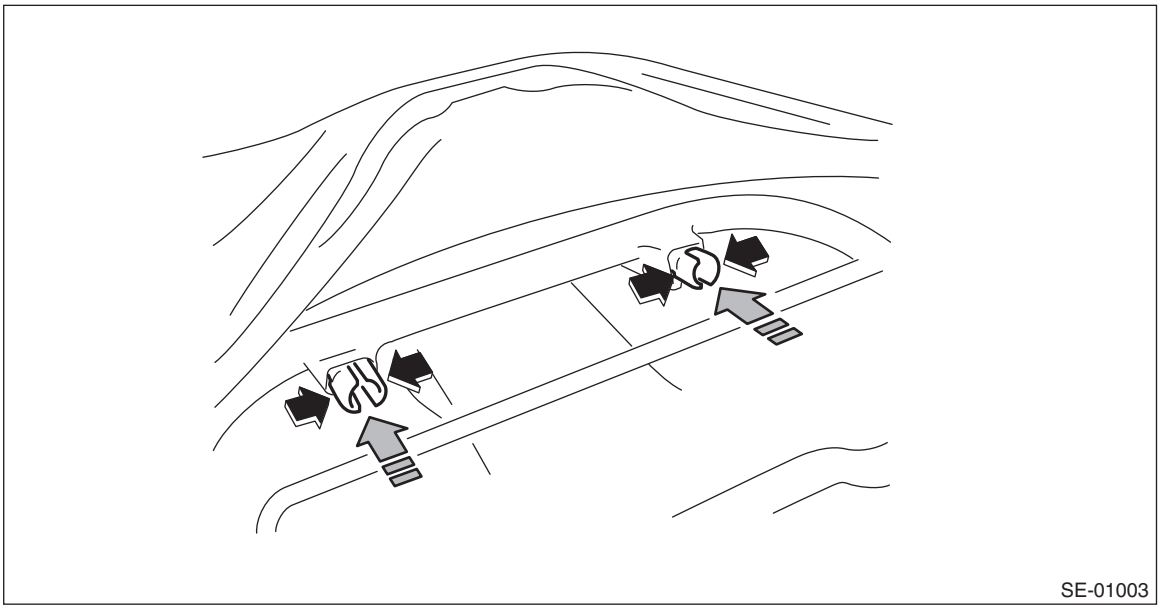
NOTE:
The part with an arrow (gray) is only for 10-WAY model.
12) Remove the side airbag module.

CAUTION:
Do not open the protective cover of the side airbag. If any damage is present in the protective cover or the cloth of side airbag module comes out from the protective cover slit, replace the side airbag module with a new part.

(1) Remove the hexagon cap nut and nuts.
(2) While taking care not to damage the airbag protective cover, remove the side airbag module.



13) Remove the headrest bushing.

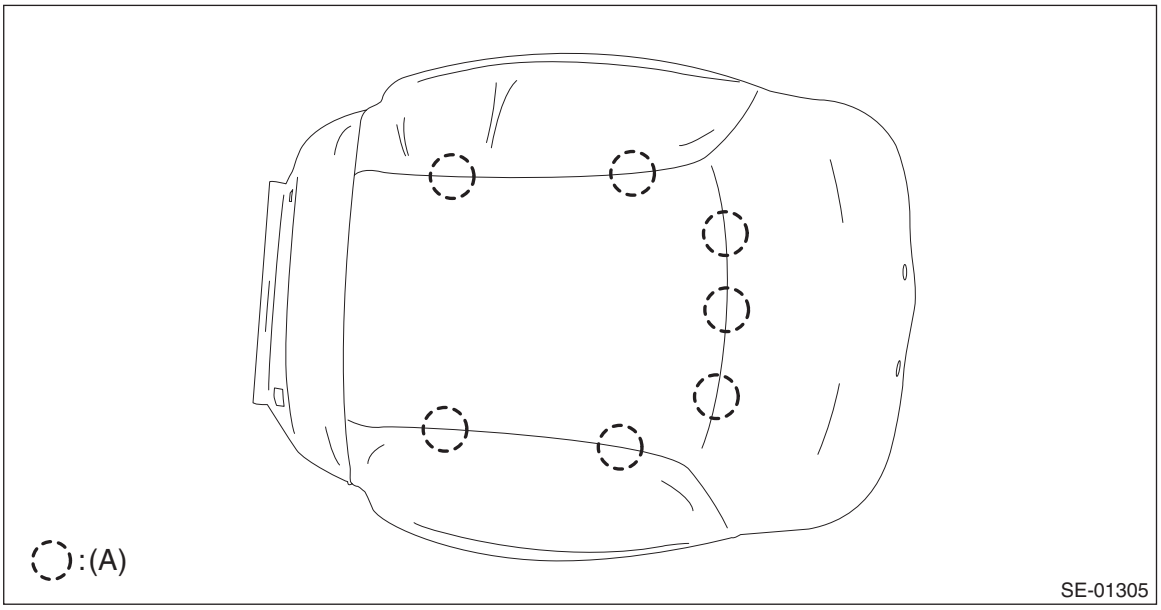


NOTE:
Catch the tip of headrest bushing with pliers and push it from inside seat to outside to remove it.

14) Pull out the frame assembly - front backrest.

15) Remove the cover COMPL - front backrest.

(1) Remove the hog ring (A).



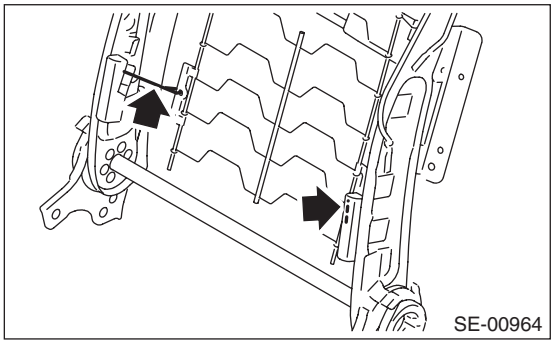
(2) Pull out the pad assembly - front seat backrest from the cover COMPL - front backrest.

3. PASSENGER'S SEAT

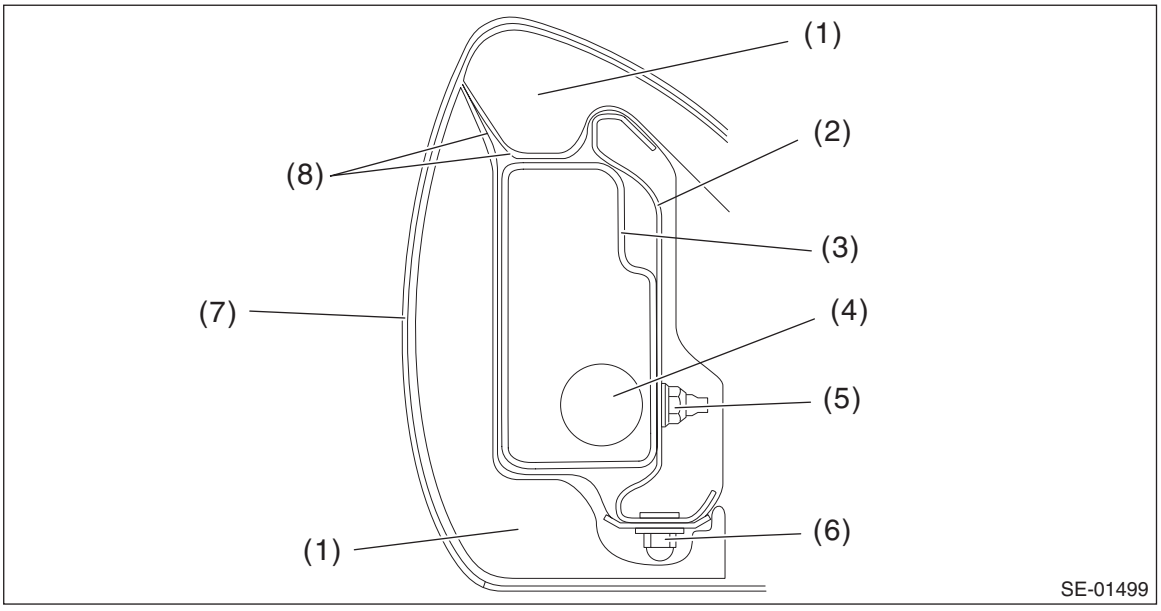
CAUTION:
• The occupant detection system (passenger's seat only) control module, the occupant detection sensor, the pad assembly - front seat cushion, the frame assembly - front cushion and the cover assembly - front cushion are considered as a single seat cushion pad & frame assembly. Never remove the occupant detection control module or the occupant detection sensor from the frame assembly - front cushion.
• Never remove the occupant detection sensor connector from the occupant detection control module.
1) Remove the front seat (passenger's side) from vehicle. <Ref. to SE-9, REMOVAL, Front Seat.>
2) Refer to the disassembly procedures for the driver's seat. <Ref. to SE-11, DRIVER SEAT (MANUAL SEAT), DISASSEMBLY, Front Seat.>

D: ASSEMBLY

CAUTION:
• Do not confuse the harness routing of the side airbag harness and the seat belt inner - front harness, etc. Assembling with harnesses improperly routed may cause the harness to get caught and short out.
• If the flat mat hook of the frame assembly - front backrest is deformed or comes off due to the deformation, replace the hook with a new part.



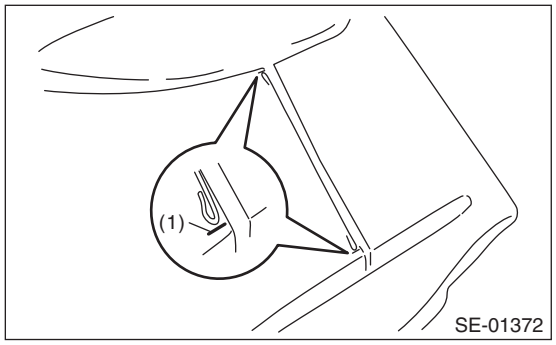
• Make sure that the side airbag module is installed as shown in the figure.



(1) Pad ASSY - front seat backrest
(2) Frame ASSY - front backrest
(3) Side airbag module protective cover
(4) Side airbag module inflator
(5) Nut
(6) Hexagon cap nut
(7) Cover COMPL - front backrest
(8) Side airbag guide cloth

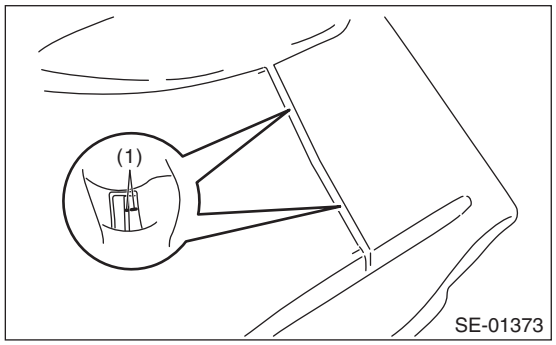
Besides, if the cover COMPL - front backrest is not installed securely, the side airbag may not be activated properly, therefore keep strictly to the following procedures.
- **Be careful not to stain or damage the cover COMPL - front backrest during assembly.**
- **Do not reuse hog rings.**
- **Secure the hog ring using hog ring pliers.**
- **Install the hog rings to the specified points securely and make sure that there is no wrinkle or twisting on the cover COMPL - front backrest.**

1) Make sure that there is no foreign matter on side airbag module.
2) Assemble the seat cover.
   (1) Adjust so that the left and right clearances between wire and seat pad become equal, and mark the seat pad.



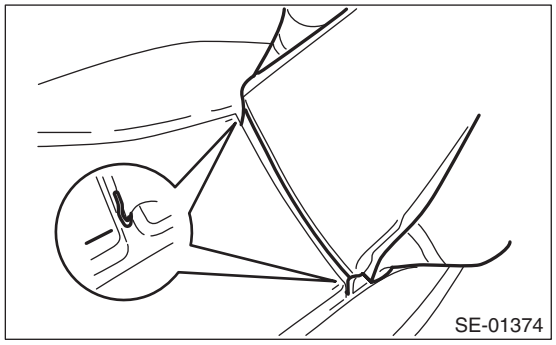
(1) Marking

   (2) Mark the center of the wire on the pad side to which the hog ring is attached.

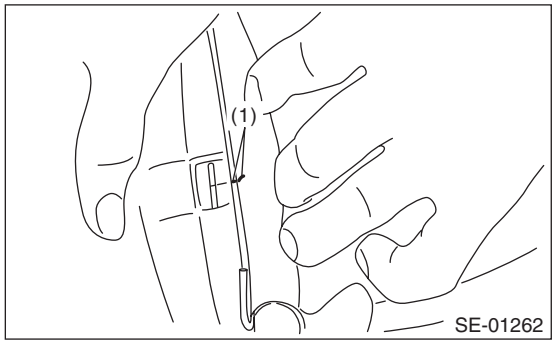


(1) Marking

   (3) Insert the wire into the seat cover, and align the wire with the position marked in step 1).

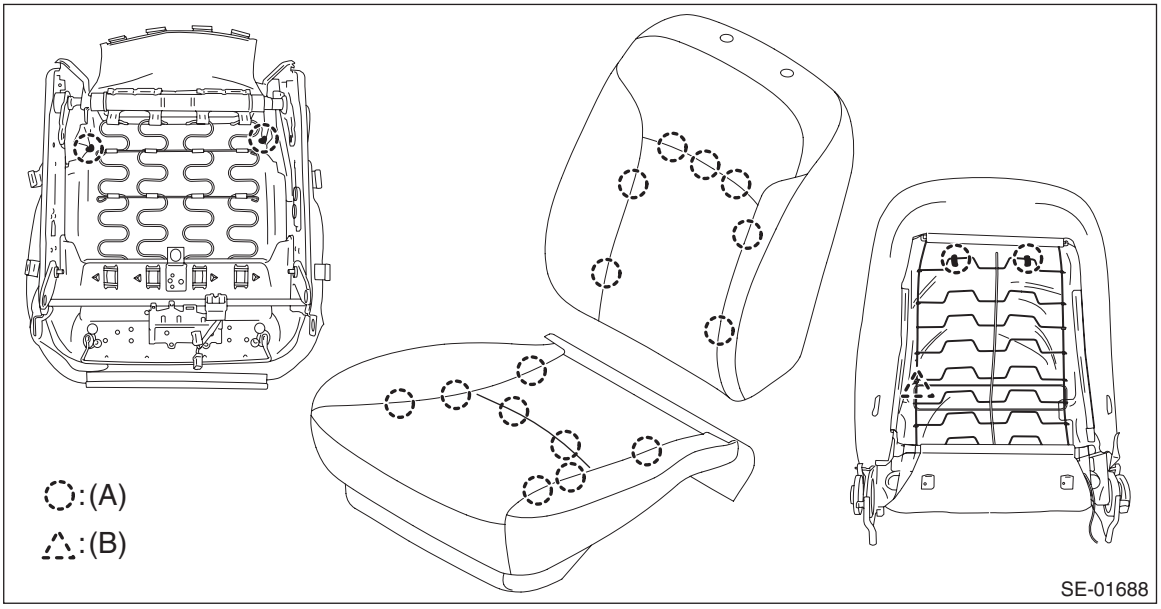


(4) Mark the wire on the seat cover side according to the markings on the seat pad.



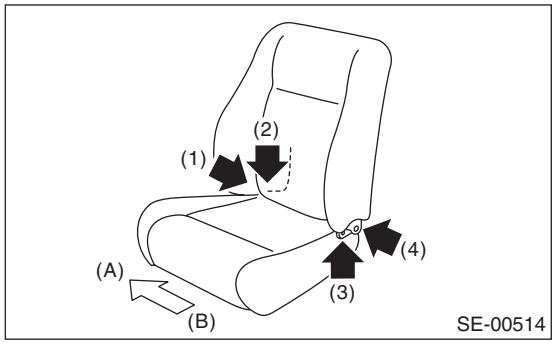
(1) Marking

(5) Perform steps 1) — 4) to all sections to which the hog rings are attached.
(6) Make sure that all hog rings (A) are attached securely.
(7) Make sure that the hog ring (B) (10-WAY model) is attached securely.



3) Assemble remaining parts in the reverse order of disassemble.

NOTE:
• When installing the seat belt inner - front, follow the procedures described in the seat belt section.<Ref. to SB-25, INSTALLATION, Front Seat Belt.>
• Install the backrest assembly and seat cushion assembly in the following procedure.
  1. Temporarily tighten the four reclining hinge bolts.
  2. Place the backrest in the most upright position.
  3. Tighten the reclining hinge bolts in order from (1) to (4) two or three times, until they reach the specified torque.



(A) Vehicle inside
(B) Vehicle outside

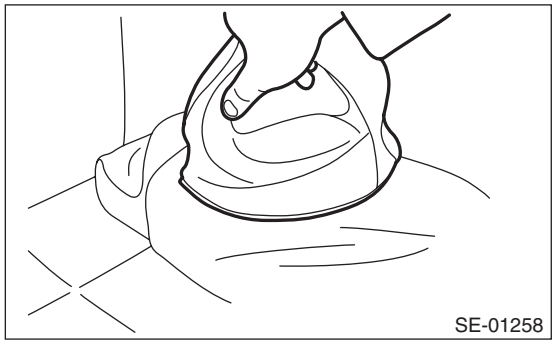
Tightening torque:
Refer to "COMPONENT" of "General Description".<Ref. to SE-2, FRONT SEAT, COMPONENT, General Description.>

4) If any wrinkles are found after the assembly of the seat cover, finish the seat cover with iron.
(1) Place the wet towel on wrinkles.

(2) Touch up with warm iron.

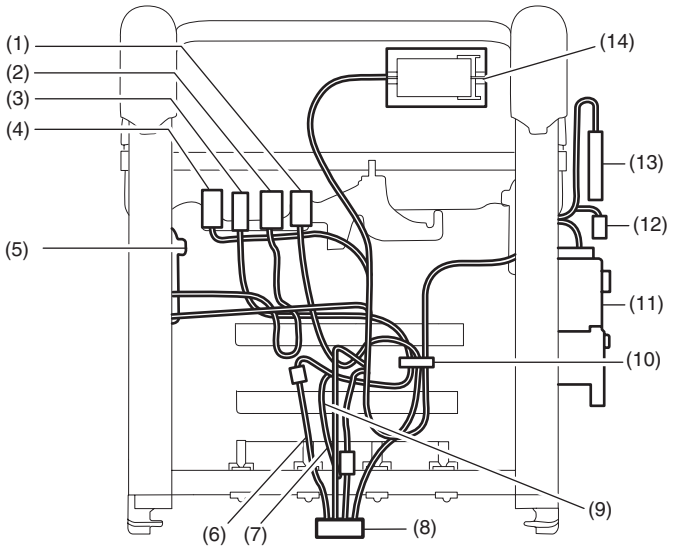
CAUTION:
Keep moving the iron, otherwise the seat cover surface can be damaged.

NOTE:
This method is available for genuine leather, synthetic leather, cloth, etc.



5) Install connectors located under the front seat.

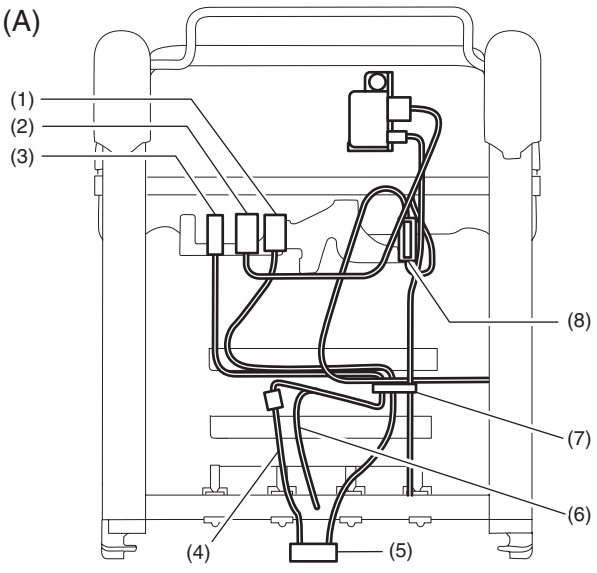
- Power seat

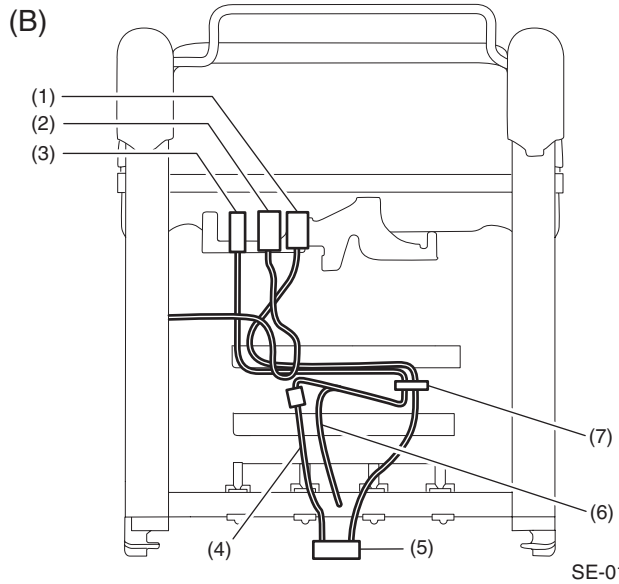


SE-01687

(1)	Side airbag connector	(6)	Backrest heater harness	(11)	Lifter motor
(2)	Seat belt switch connector	(7)	Reclining motor harness	(12)	Lumbar switch
(3)	Seat cushion heater connector	(8)	Velcro	(13)	Power seat switch ASSY
(4)	Power seat connector	(9)	Seat cushion - heater harness	(14)	Slide motor
(5)	Tilt motor	(10)	Band		

- Manual seat





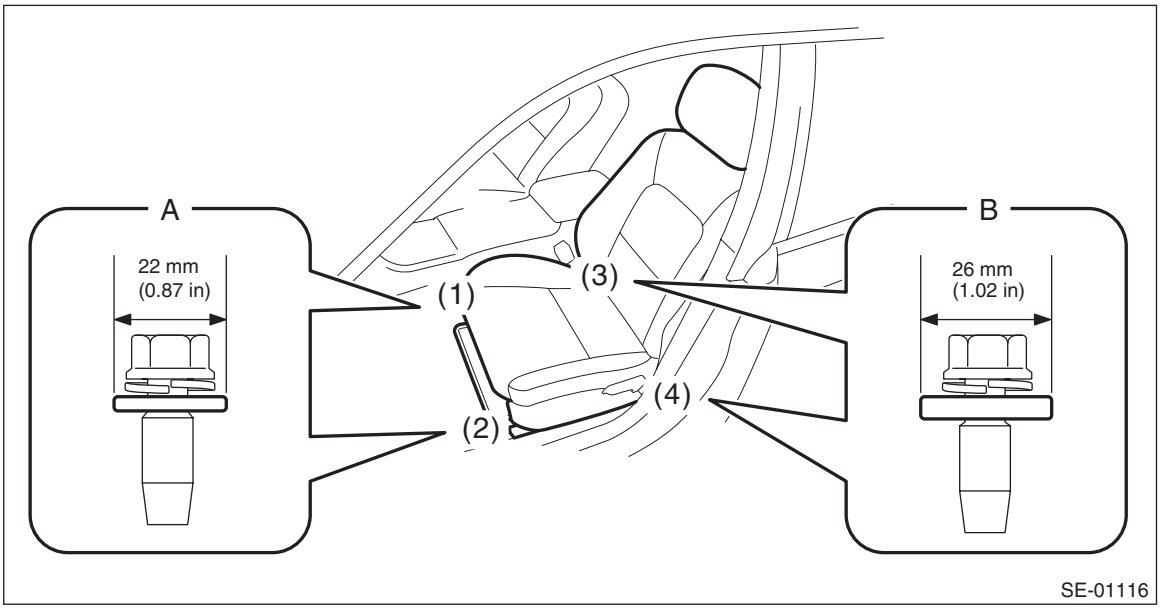
SE-01686

(A)	RH	(B)	LH

(1)	Side airbag connector	(4)	Backrest heater harness	(7)	Band
(2)	Occupant detection control module	(5)	Velcro	(8)	Seat belt switch connector
(3)	Seat cushion heater connector	(6)	Seat cushion - heater harness		

6) Install the seat assembly.

CAUTION:
• The seat mounting bolts differ between the front mounting points and the rear mounting points. Make sure that you are using correct bolts at correct positions.
• Tighten the slide rail installing bolts in the order as shown in the figure, in several steps by gradually increasing the torque until they reach the specified torque.



- **Front (bolt A): Washer diameter 22 mm (0.87 in)**
- **Rear (bolt B): Washer diameter 26 mm (1.02 in)**

Tightening torque: 53 N·m (5.40 kgf-m, 39.1 ft-lb)

E: INSPECTION

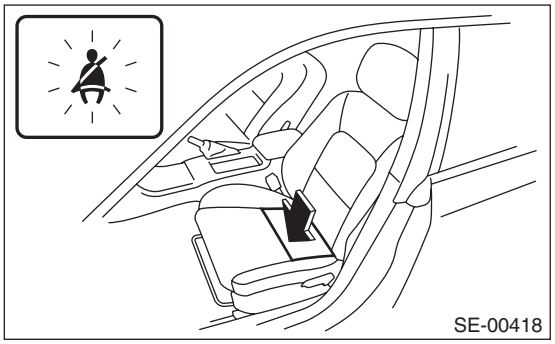
1. SEAT COVER

Check that there is no tear or fray on the cover COMPL - front backrest and the cover - front cushion.

NOTE:
If the door side of the cover COMPL - front backrest is torn or frayed, the side airbag may not be deployed properly. In this case, replace the cover COMPL - front backrest with a new part.

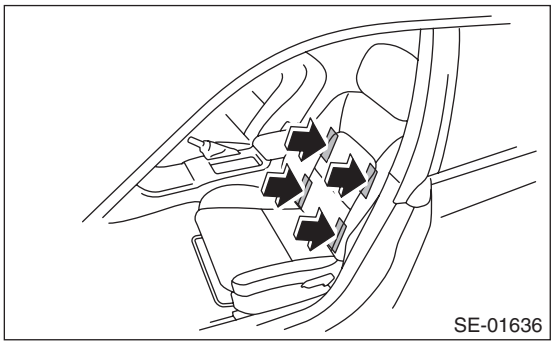
2. SEATING SWITCH (PASSENGER'S SEAT BELT WARNING LIGHT)

Apply weight to rear part of passenger's seat cushion and check if passenger's seat belt warning light illuminates. If it does not, replace the pad assembly - front seat cushion and the frame assembly - front cushion with new parts.

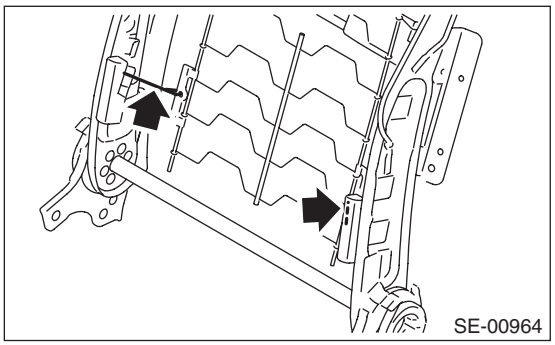


3. FLAT MAT HOOK

Check the flat mat hook by applying weight to the backrest assembly.



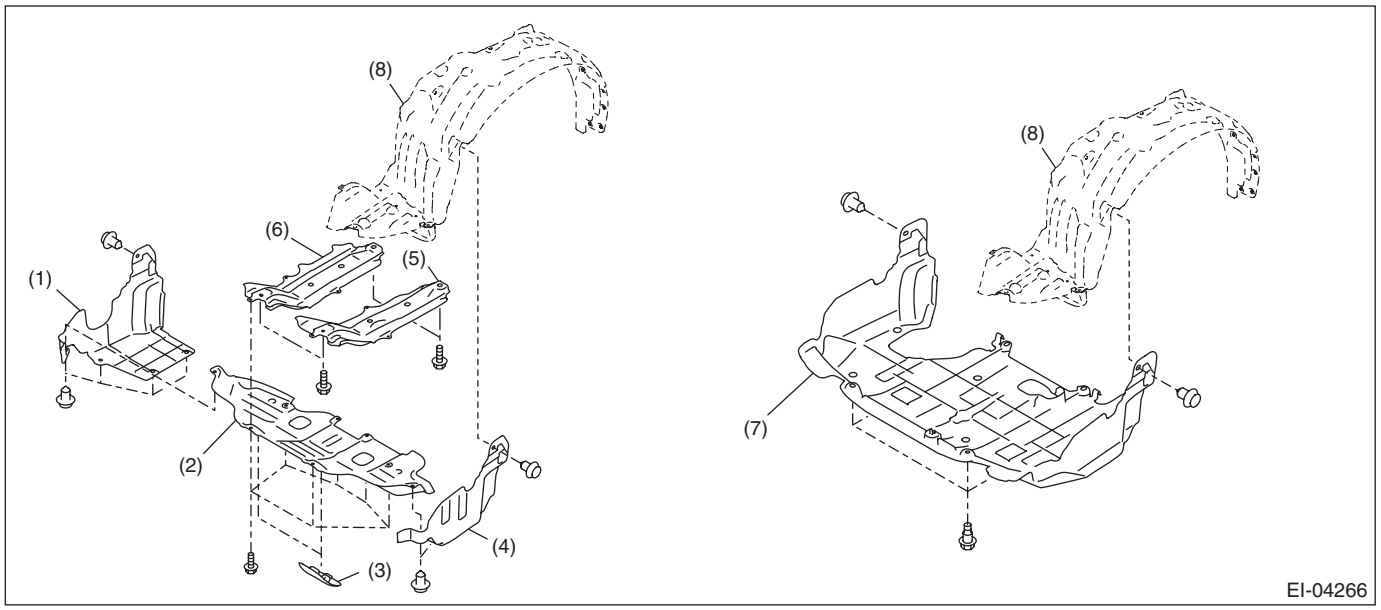
NOTE:
If the appropriate stiffness is not obtained by applying weight to the backrest assembly, the hook may be disengaged.
If it is due to the deformation of the hook, replace the hook with a new part.



2. Front Under Cover

A: REMOVAL

1) Lift up the vehicle.
2) Remove the bolts and clips, and remove the under cover - front.



(1) Under cover COMPL - front RH (turbo model)
(2) Plate CTR - aluminum (turbo model)
(3) Cover - plate (turbo model)
(4) Under cover COMPL - front LH (turbo model)
(5) Under cover - front guard LH (turbo model)
(6) Under cover - front guard RH (turbo model)
(7) Under cover - front (non-turbo model)
(8) Mud guard - front

B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description".<Ref. to EI-2, FRONT UNDER COVER, COMPONENT, General Description.>

2. General Description

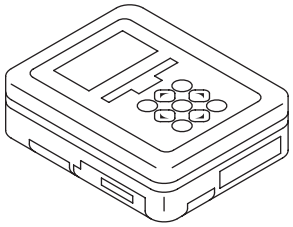
A: CAUTION

Airbag system wiring harness is routed near the cruise control command switch.

CAUTION:
• Do not use the electrical test equipment on the airbag system wiring harnesses and connector circuits.
• Be careful not to damage the airbag system wiring harness when servicing the cruise control command switch. Airbag system wiring harness is routed near the cruise control command switch.

B: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

C: INSPECTION

Measure the battery voltage and specific gravity of electrolyte.

Standard voltage:
12 V or more

Specific gravity:
1.260 or more

2. General Description

A: CAUTION

1) Never connect the battery in reverse polarity.
• Doing so may immediately damage the A/C control panel.
2) Do not disconnect the battery terminals while the engine is running.
• A large counter electromotive force will be generated in the generator, and this voltage may damage electronic parts such as A/C control panel etc.
3) Before disconnecting the connectors of sensors and the A/C control panel, be sure to turn off the ignition switch.
• A/C control panel may be damaged.
4) Every A/C-related part is a precision part. Do not drop them.
5) Airbag system harness is routed near the A/C control panel and junction box.

CAUTION:
• Do not use electrical test equipment on the airbag system harness and connector.
• Be careful not to damage the airbag system harness when servicing the A/C control panel and junction box.

B: INSPECTION

Before performing diagnosis, check the following items which might affect the A/C system problems.

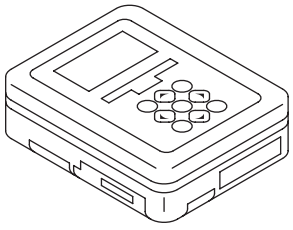
1. BATTERY

Check the battery. <Ref. to SC(H4DO)-63, INSPECTION, Battery.>

NOTE:
If the battery voltage does not reach the specified value, recharge or replace the battery.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

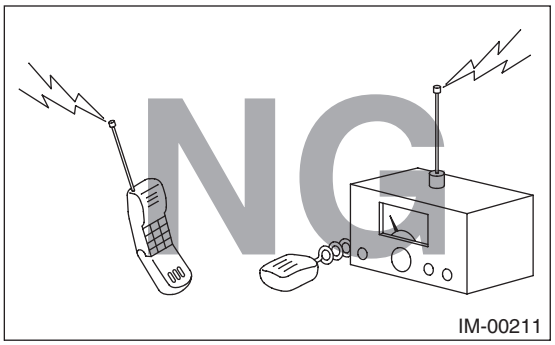
2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

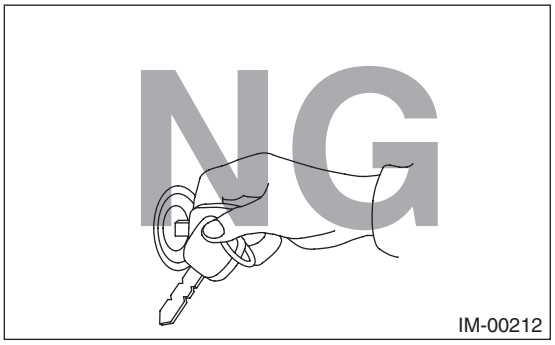
2. General Description

A: CAUTION

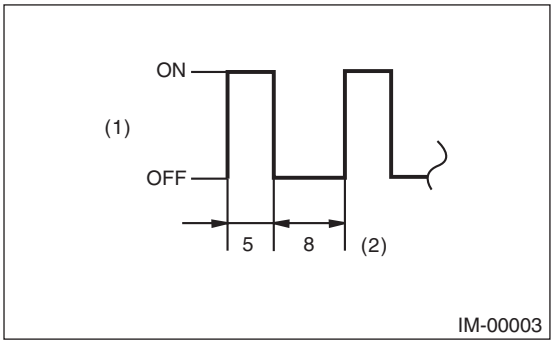
CAUTION:
• Do not use the electrical test equipment on the airbag system wiring harnesses and connector circuits.
• Be careful not to damage the airbag system wiring harness.
• While diagnostic items are being checked, do not operate radios, portable telephones, etc. which emit electromagnetic waves near or inside the vehicle.



• When turning the ignition switch to ON or OFF while diagnostic items are being checked, do not allow keys with different ID codes close to the ignition switch. If the ignition key is on a key holder, remove it from the key holder before performing diagnoses.



• When repeatedly turning the ignition switch to ON or OFF while diagnostic items are being checked, it should be switched in cycles of "ON" for at least 5 seconds → "OFF" for at least 8 seconds.

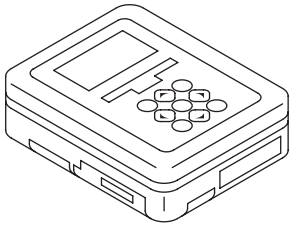


(1) Ignition switch position
(2) Sec.

• If the engine fails to start with a registered ignition key, detach the ignition key from ignition switch and wait for approx. 1 second until security indicator light begins to flash. And then start the engine again.
• Before performing the diagnostics, obtain all keys for the vehicle from the owner.
• Do not register a body integrated unit already registered to another vehicle to diagnose failures or inspect functions.

B: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

2. Pretensioner Connector

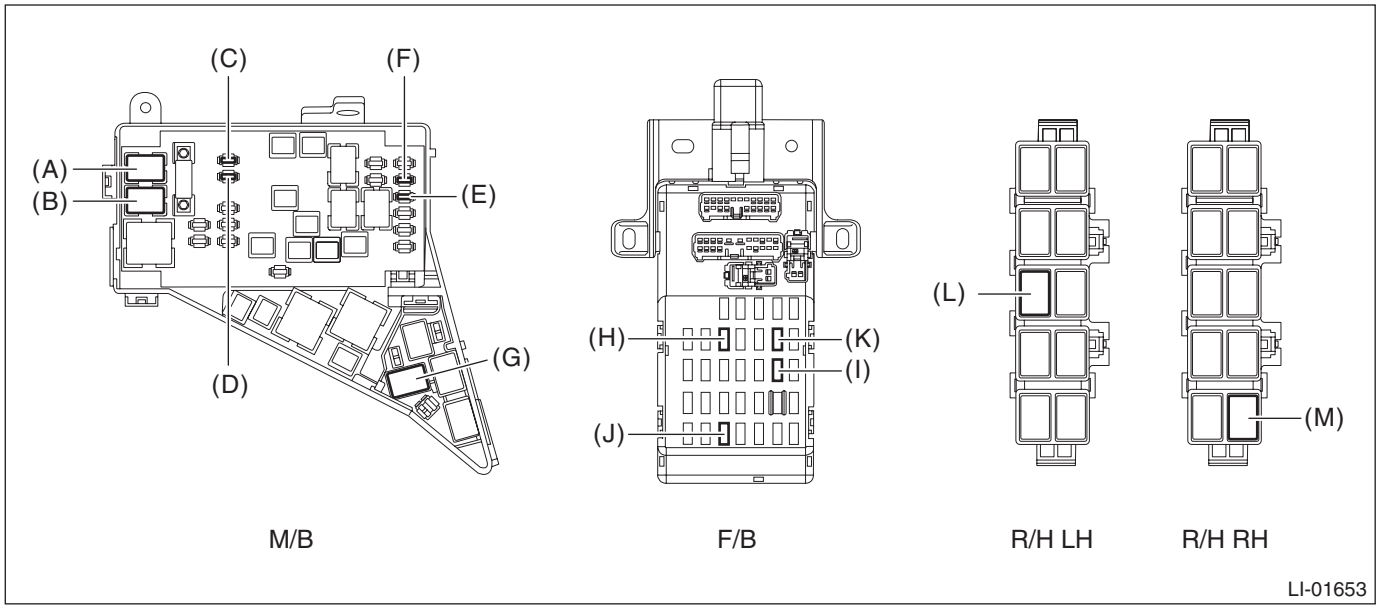
A: PROCEDURE

For connectors of seat belt pretensioner, lap seat belt pretensioner and buckle switch RH, refer to “Airbag Connector” of “AIRBAG SYSTEM” section or “OCCUPANT DETECTION SYSTEM” section.

- Airbag system: <Ref. to AB-19, PROCEDURE, Airbag Connector.>
- Occupant detection system: <Ref. to OD(diag)-9, PROCEDURE, Airbag Connector.>

2. Relay and Fuse

A: LOCATION



Main fuse box	Headlight relay (HI)	(A)
	Headlight relay (LO)	(B)
	Fuse 15 A (high beam LH/RH)	(C)
	Fuse 30 A (combination light LH/RH)	(D)
	Fuse 15A (turn signal & hazard unit, key illumination)	(E)
	Fuse 15A (tail and illumination relay, day-time running light relay)	(F)
	Daytime running light relay	(G)
Relay & fuse box	Fuse 15A (stop light and brake switch)	(H)
	Fuse 10A (inhibitor switch, back-up light switch, auto headlight beam leveler CM)	(I)
	Fuse 15A (front fog light relay)	(J)
	Fuse 7.5A (turn signal & hazard unit)	(K)
Relay holder LH	Tail & illumination relay	(L)
Relay holder RH	Front fog light relay	(M)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

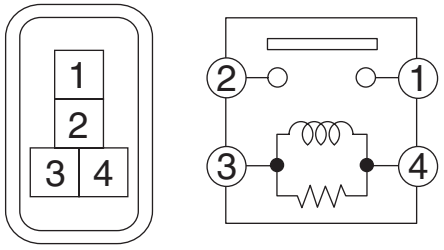
1. CHECK FUSE

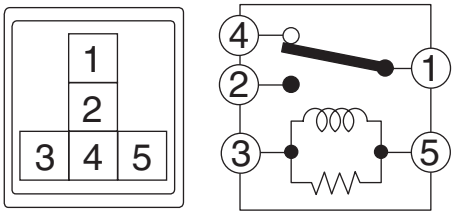
1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

NOTE:
If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1) Check the resistance between relay terminals.

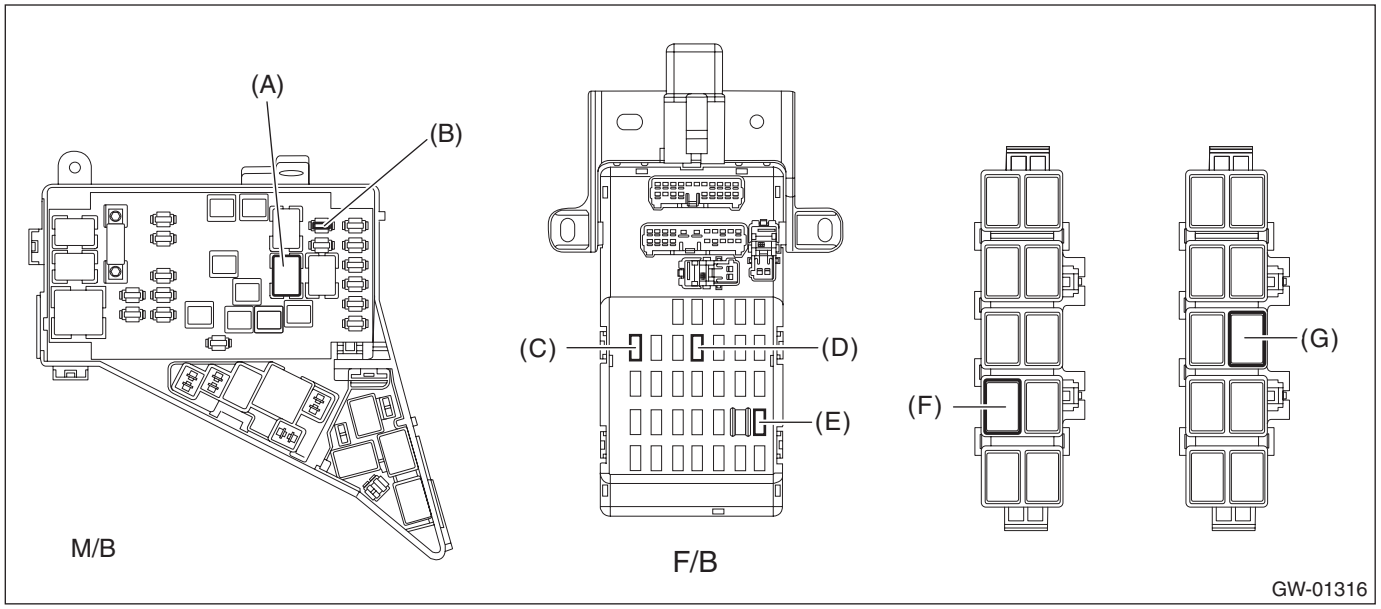
Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 LI-01273
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 LI-01274
1 — 4	Always	Less than 1 Ω	
1 — 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

2) Replace the relay if the inspection result is not within the standard value.

2. Relay and Fuse

A: LOCATION



Main fuse box	Rear defogger relay	(A)
	Fuse 25 A (rear defogger)	(B)
Relay & fuse box	Fuse 7.5 A (remote control mirror)	(C)
	Fuse 15 A (wiper deicer)	(D)
	Fuse 7.5 A (power window)	(E)
Relay holder	Power window relay	(F)
	Wiper deicer relay	(G)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

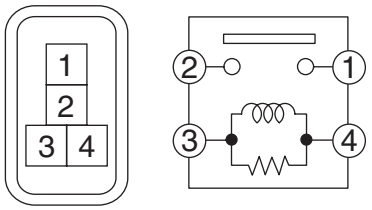
B: INSPECTION

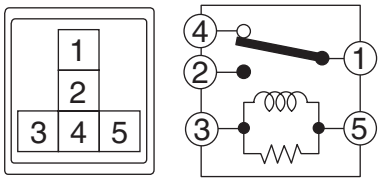
1. CHECK FUSE

1) Remove the fuse and check visually.
2) If the fuse is blown out, replace the fuse.

2. CHECK RELAY

1) Check the resistance between relay terminals.

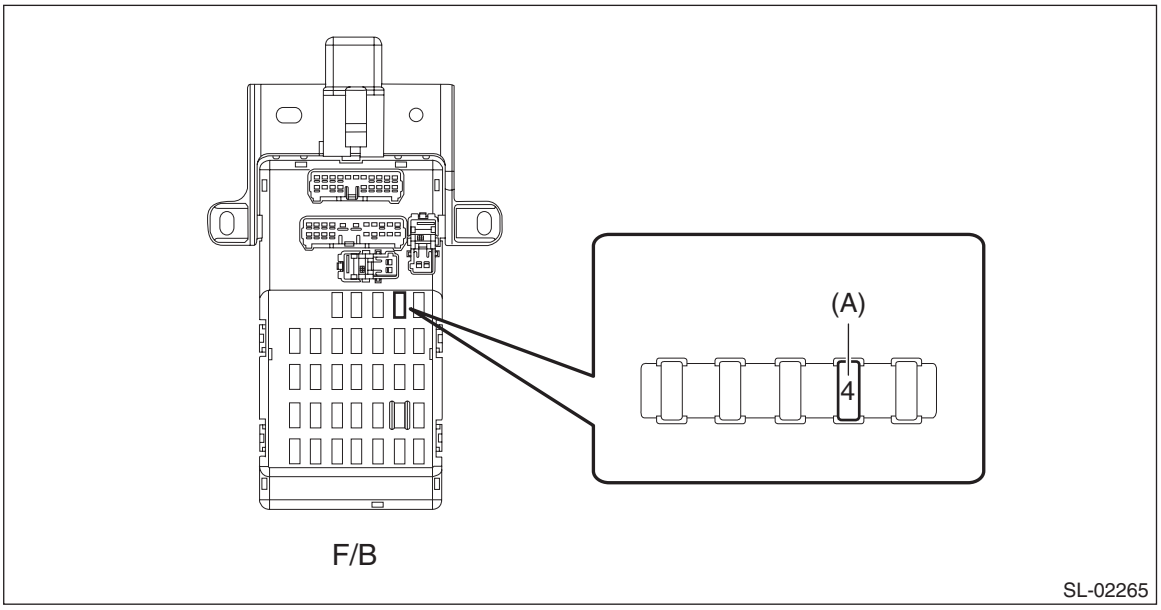
Terminal No.	Inspection conditions	Specification	Circuit
1 — 2	Always	1 MΩ or more	 SR-00180
1 — 2	Apply battery voltage between 4 — 3 terminals.	Less than 1 Ω	

Terminal No.	Inspection conditions	Specification	Circuit
1 — 2	Always	1 MΩ or more	 SL-01085
1 — 4	Always	Less than 1 Ω	
1 — 2	Apply battery voltage between 3 — 5 terminals.	Less than 1 Ω	

2) Replace the relay if the inspection result is not within the standard value.

2. Relay and Fuse

A: LOCATION



Relay & fuse box	Fuse 10 A (power rear gate control module)	(A)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

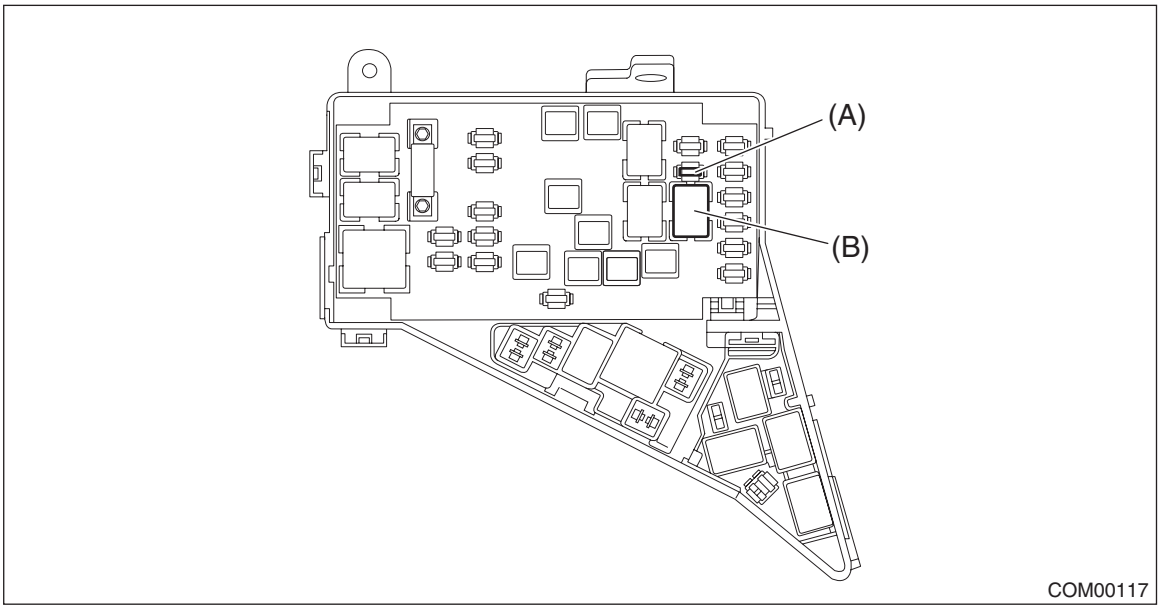
1. CHECK FUSE

1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

NOTE:
If the fuse is blown again, check the system wiring harness.

2. Relay and Fuse

A: LOCATION



Main fuse box	Fuse 15 A (horn assembly - Hi, Lo)	(A)
	Horn relay	(B)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

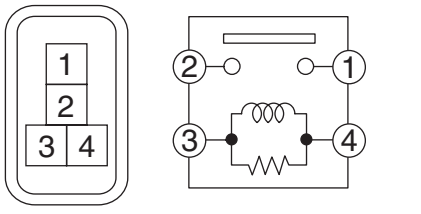
B: INSPECTION

1. CHECK FUSE

1) Remove the fuse and check visually.
2) If the fuse is blown out, replace the fuse.

2. CHECK RELAY

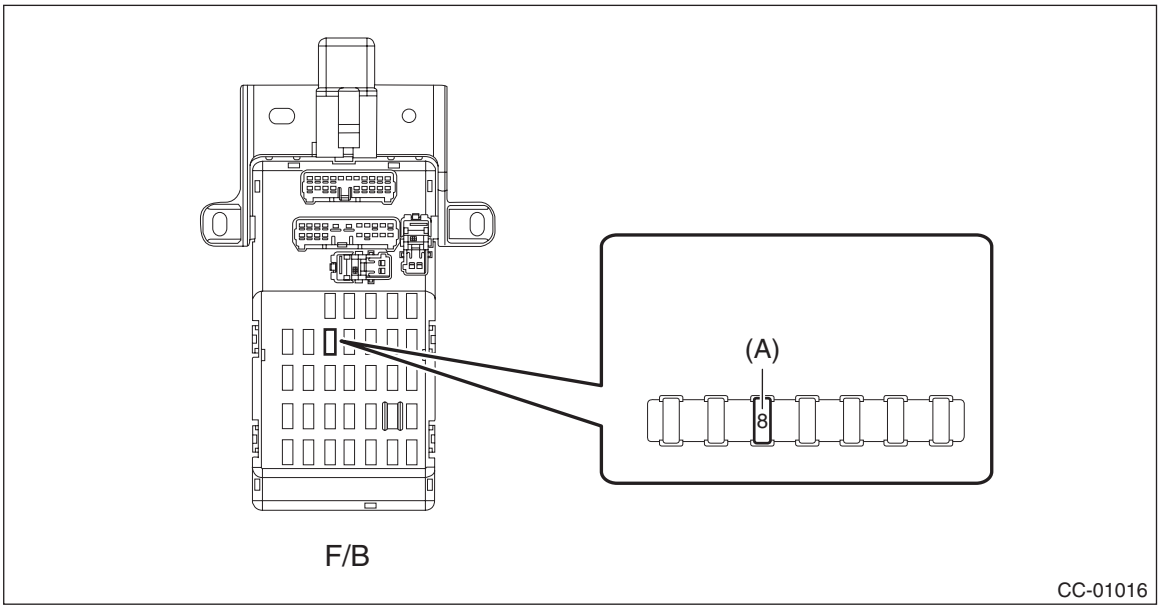
1) Check the resistance between relay terminals.

Terminal No.	Inspection conditions	Specification	Circuit
1 — 2	Always	1 MΩ or more	
1 — 2	Apply battery voltage between 4 — 3 terminals.	Less than 1 Ω	

2) Replace the relay if the inspection result is not within the standard value.

2. Relay and Fuse

A: LOCATION



Relay & fuse box	Fuse 15 A (stop light and brake switch)	(A)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

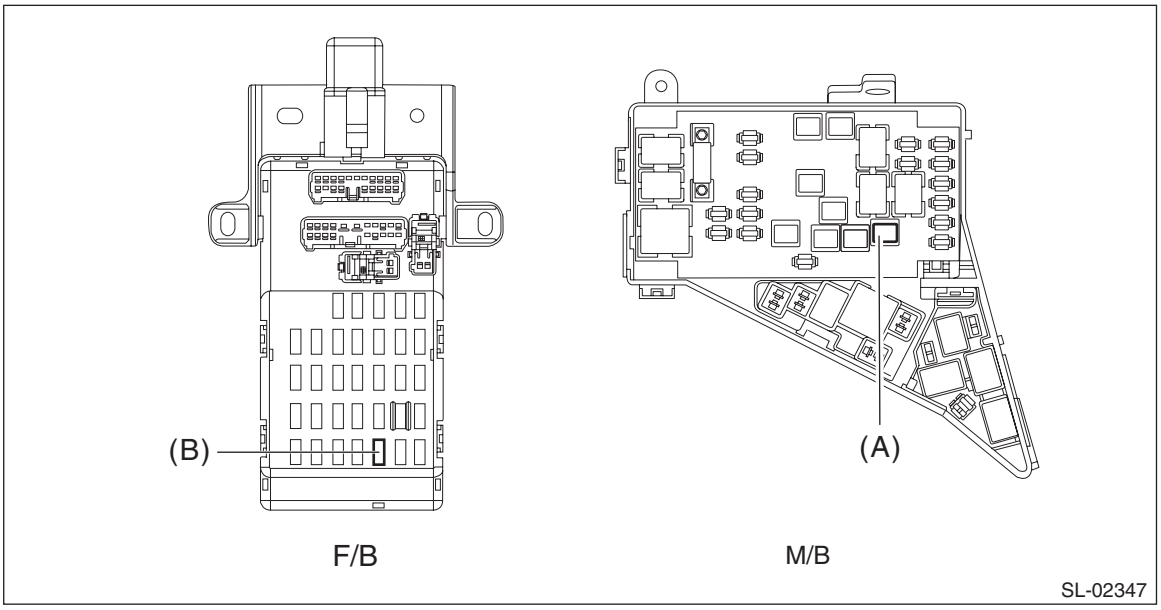
1. CHECK FUSE

1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

NOTE:
If the fuse is blown again, check the system wiring harness.

2. Relay and Fuse

A: LOCATION



Main fuse box	Fuse 50 A (keyless access CM)	(A)
Relay & fuse box	Fuse 7.5 A (body integrated unit)	(B)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

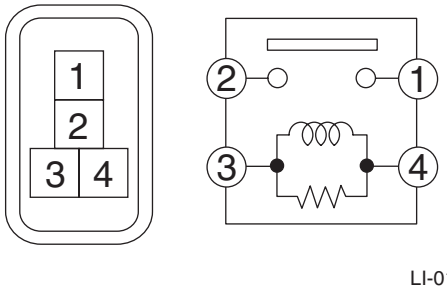
1. CHECK FUSE

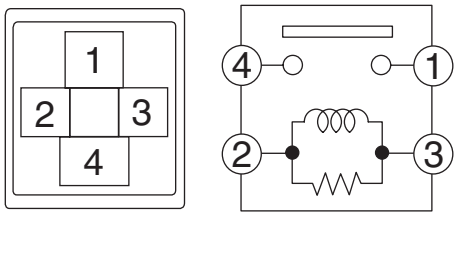
1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

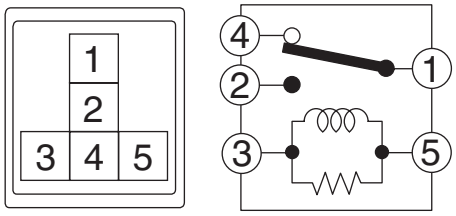
NOTE:
If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1) Check the resistance between relay terminals.

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 LI-01273
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

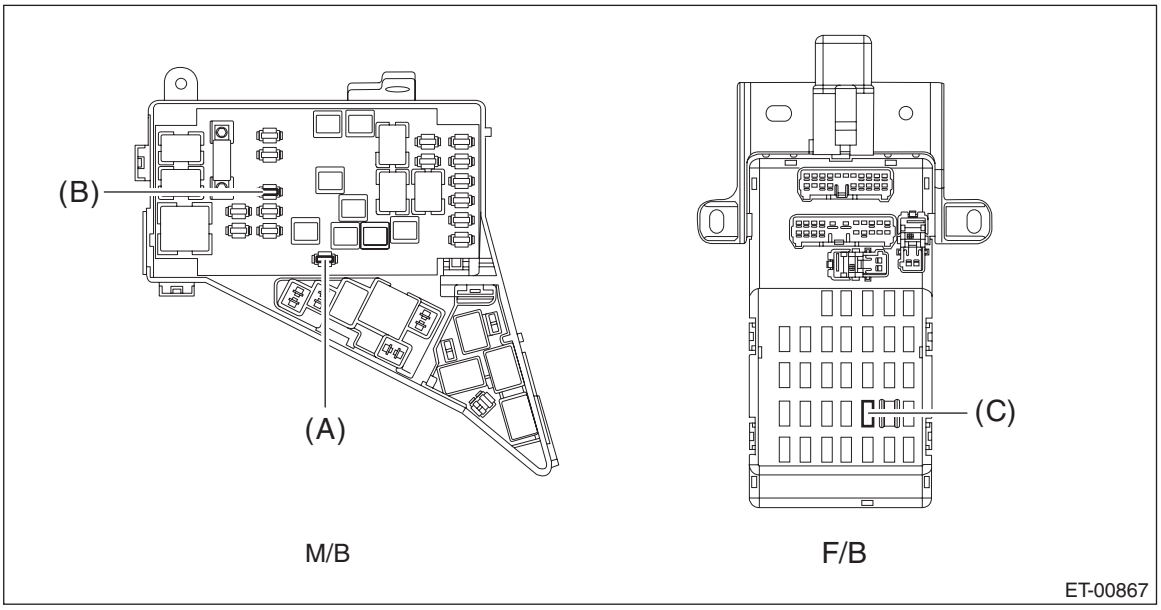
Terminal No.	Inspection conditions	Standard	Circuit
1 — 4	Always	1 MΩ or more	 AC-02796
1 — 4	Apply battery voltage between terminals 2 and 3.	Less than 1 Ω	

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 SL-01566
1 — 4	Always	Less than 1 Ω	
1 — 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

2) Replace the relay if the inspection result is not within the standard value.

2. Relay and Fuse

A: LOCATION



Main fuse box	Fuse 20A (audio connector, navigation unit)	(A)
	Fuse 25A (audio amplifier)	(B)
Relay & fuse box	Fuse 10A (audio connector, navigation unit)	(C)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

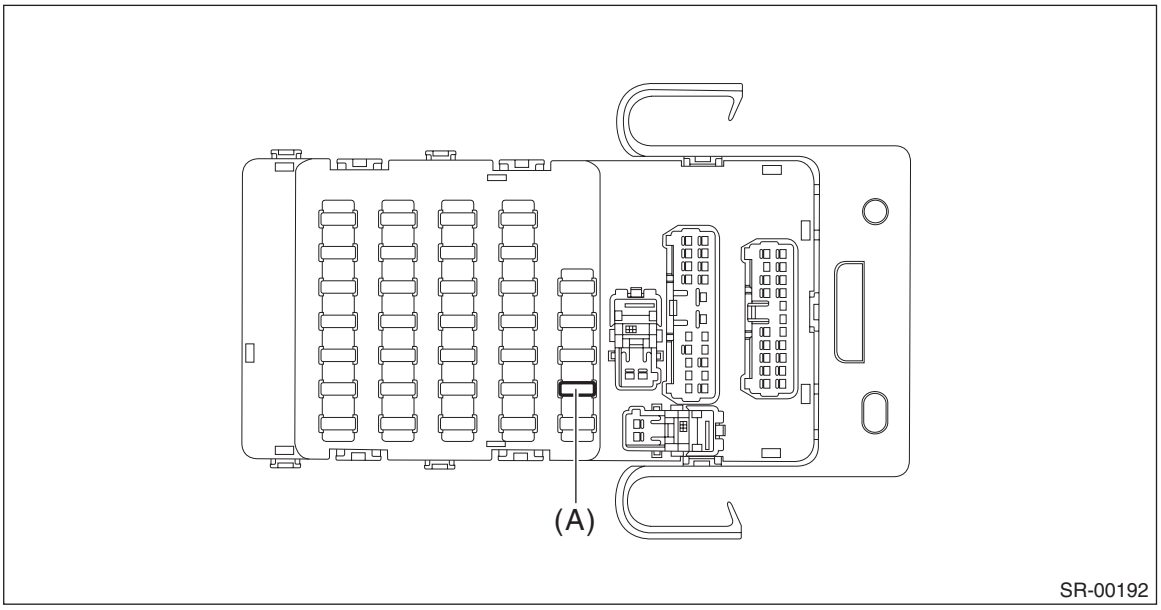
1. CHECK FUSE

1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

NOTE:
If the fuse is blown again, check the system wiring harness.

2. Relay and Fuse

A: LOCATION



Relay & fuse box	Fuse 10A (IG 2)	(A)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

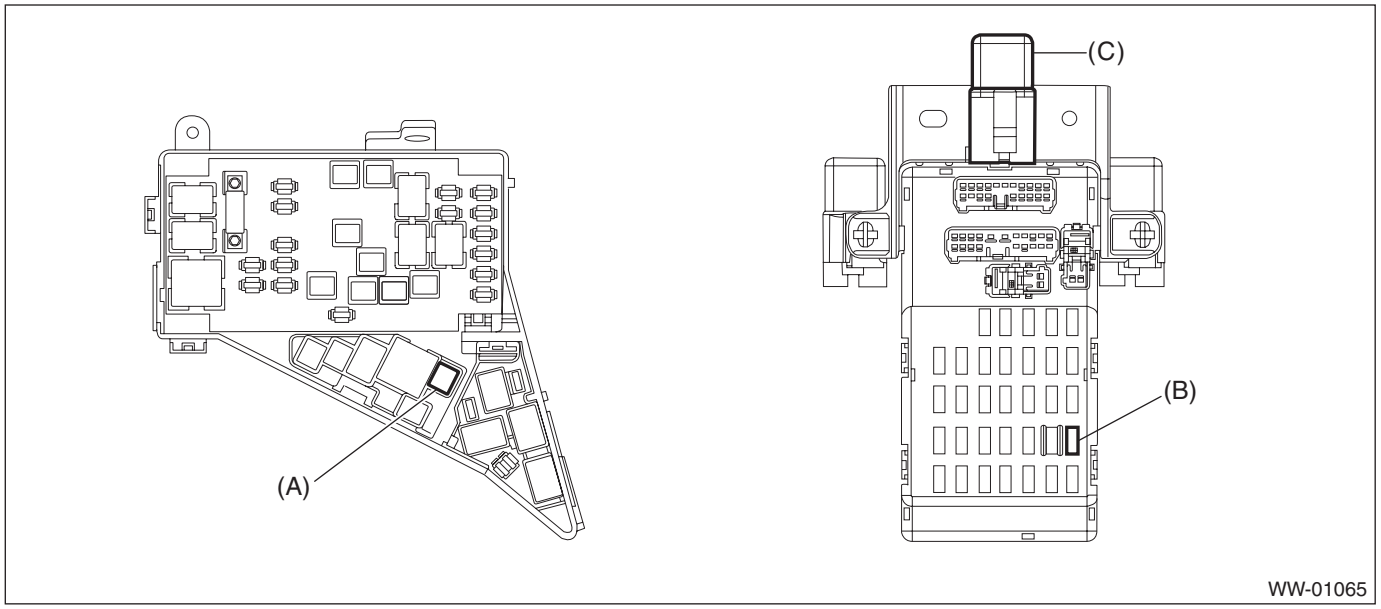
B: INSPECTION

1. CHECK FUSE

1) Remove the fuse and check visually.
2) If the fuse is blown out, replace the fuse.

2. Relay and Fuse

A: LOCATION



Main fuse box	Fuse 30 A (wiper)	(A)
Relay & fuse box	Fuse 7.5 A (wiper)	(B)
Relay holder	Wiper relay	(C)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

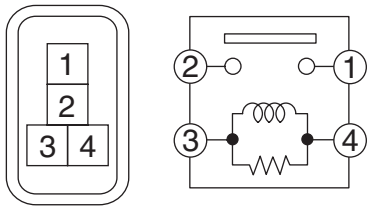
B: INSPECTION

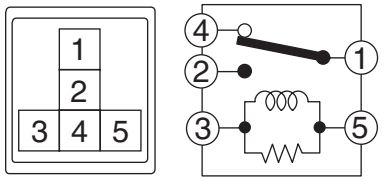
1. CHECK FUSE

1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

2. CHECK RELAY

1) Check the resistance between relay terminals.

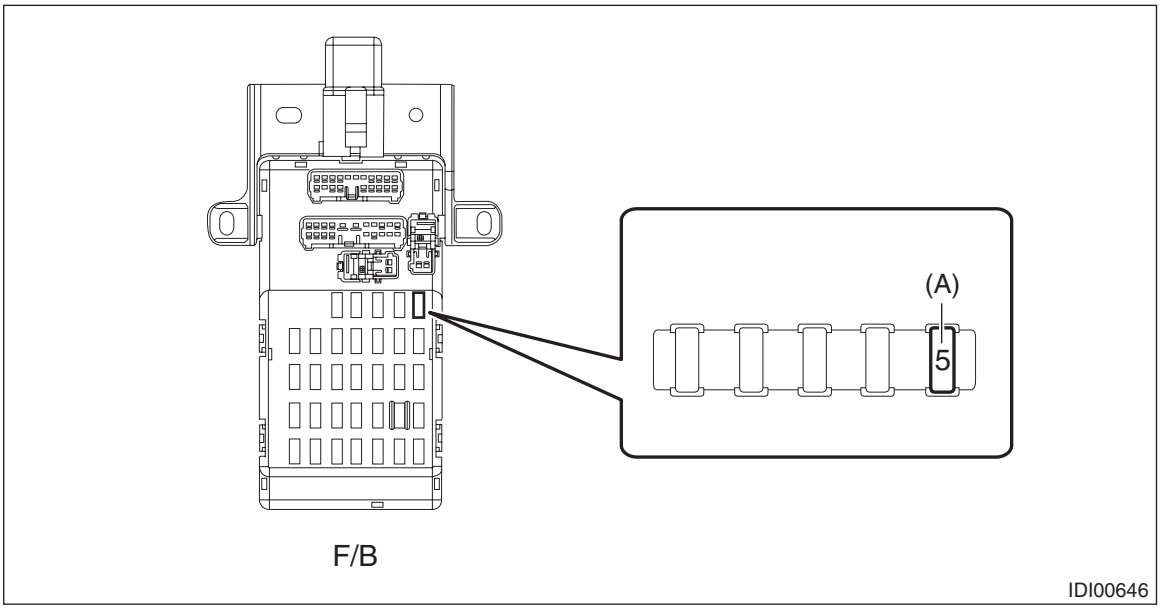
Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 SR-00180
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 SL-01085
1 — 4	Always	Less than 1 Ω	
1 — 2	Apply battery voltage between terminals 3 and 5.	Less than 1 Ω	

2) Replace the relay if the inspection result is not within the standard.

2. Relay and Fuse

A: LOCATION



Relay & fuse box	Fuse 10 A (combination meter, MFD)	(A)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

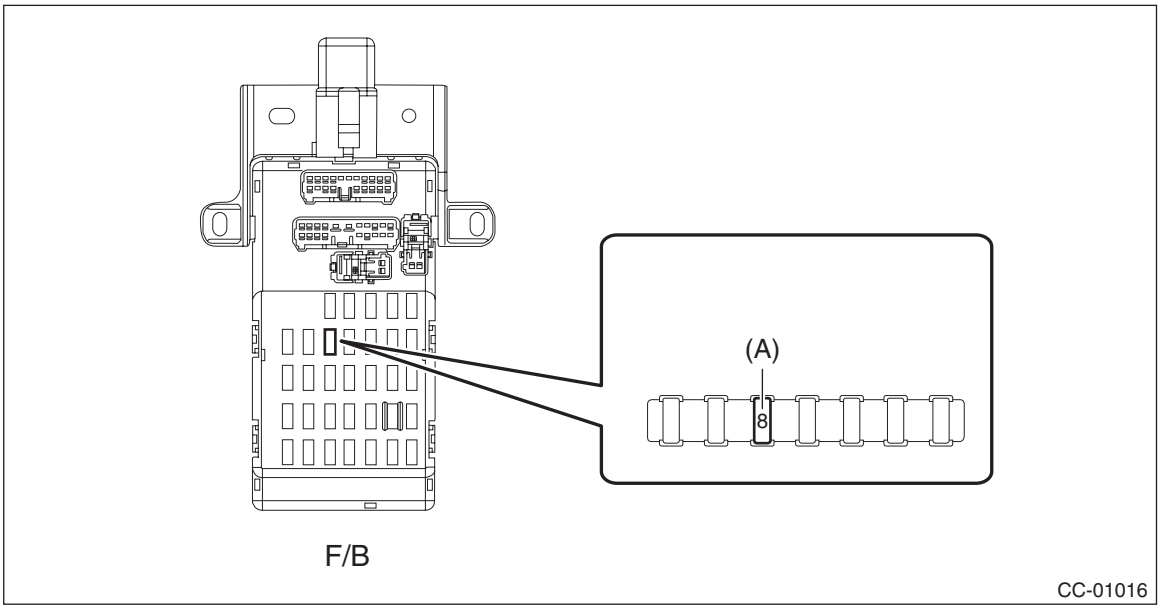
1. CHECK FUSE

1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

NOTE:
If the fuse is blown again, check the system wiring harness.

2. Relay and Fuse

A: LOCATION



Relay & fuse box	Fuse 15A (stop light and brake switch, brake light relay)	(A)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

1. CHECK FUSE

1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

NOTE:
If the fuse is blown again, check the system wiring harness.

3. Audio System

A: WIRING DIAGRAM

1. AUDIO

Refer to “Audio System” in the wiring diagram. <Ref. to WI-77, WIRING DIAGRAM, Audio System.>

B: INSPECTION

Symptoms	Repair order
No power coming in. (No display and no sound from speakers.)	1. Check the fuse and power supply for audio. 2. Check the audio ground. 3. Remove the audio and repair them.
A specific speaker does not operate.	1. Check the speaker. 2. Check the output circuit between audio and speaker. 3. Check the power amplifier. (Model with harman/kardon® audio system)
Audio generates noise with engine running.	1. Check the audio ground. 2. Check the generator. 3. Check the ignition coil. 4. Remove the audio and repair them.
Volume is low in AM and FM modes or interference noise occurs.	1. Check the antenna. 2. Check the rear window defogger. 3. Check the audio ground. 4. Remove the audio and repair them.
Rear window defogger generates noise when it operate.	1. Check the rear window defogger.

C: NOTE

For procedure of each component in the audio system, refer to the respective sections.

- Audio unit: <Ref. to ET-8, Audio.>
- Power amplifier (model with harman/kardon® audio system): <Ref. to ET-14, Power Amplifier.>
- Front tweeter: <Ref. to ET-10, TWEETER, REMOVAL, Front Speaker.>
- Front door speaker: <Ref. to ET-11, DOOR SPEAKER, REMOVAL, Front Speaker.>
- Rear tweeter (model with harman/kardon® audio system): <Ref. to ET-12, TWEETER, REMOVAL, Rear Speaker.>
- Rear door speaker: <Ref. to ET-13, DOOR SPEAKER, REMOVAL, Rear Speaker.>
- Antenna: <Ref. to ET-15, Antenna.>
- Steering satellite switch: <Ref. to ET-17, Steering Satellite Switch.>
- AUX input terminal: <Ref. to ET-34, AUX Input Terminal.>
- Microphone: <Ref. to ET-22, Microphone.>

3. Combination Meter System

A: WIRING DIAGRAM

Refer to “Combination Meter System” in the wiring diagram. <Ref. to WI-110, WIRING DIAGRAM, Combination Meter System.>

B: ELECTRICAL SPECIFICATION

1. COMBINATION METER ASSEMBLY

Refer to “Control Module I/O Signal” of “INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)” section. <Ref. to IDI(diag)-7, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: OPERATION

1. SELF-DIAGNOSIS DISPLAY MODE

The self-diagnosis (checking of each meter, warning light, indicator light, illumination, LCD) of combination meter can be performed in the following procedure.

CAUTION:
Perform the steps described in 1) through 4) within 10 seconds.
1) Unfasten → fasten the driver’s seat belt within 3 seconds after the ignition switch is turned to ON.
2) With the driver’s seat belt fastened, press the trip meter knob three times.
3) Unfasten the driver’s seat belt, and then press the trip meter knob three times.
4) Fasten the driver’s seat belt again, and then press the trip meter knob three times.

NOTE:
• When the self-diagnosis function operates, the warning light, indicator light, and LCD display checks are performed. After this, the buzzer will sound for 0.5 seconds every time the trip meter knob is pressed, and operation checks are performed in the order of meter indicator needle operation, meter indicator needle indication, and LCD. Turn the ignition switch to OFF to cancel the self-diagnosis function.
• When the engine starts during diagnosis, the self-diagnosis function is not cancelled, however, once the vehicle starts driving, the self-diagnosis function is deactivated automatically.
5) Go to “Check meter indicator operation”.
Check meter operation, warning light, indicator light, illumination and LCD.

NOTE:
• After “_S_1” is displayed on the LCD, the meter indicator operation check mode is initiated.
• Each of the meter indicator operation display and LCD display switches every 6 seconds.

Meter indicator	LCD display, illumination	Warning light/ indicator light
MIN indication ↓ MAX indication	ILL1 (Min. brightness) ↓*4 ILL6 (Max. brightness)	*1, *2, *3
MAX indication ↓ MIN indication	ILL6 (Max. brightness) ↓*4 ILL1 (Min. brightness)	

*1: Warning lights and indicator lights controlled by the meter drive circuit are illuminated. <Ref. to IDI-2, SPECIFICATION, General Description.>
*2: Warning lights and indicator lights controlled by other module are turned on/off according to the module control. <Ref. to IDI-2, SPECIFICATION, General Description.>
*3: Engine coolant temperature warning light illuminates in red.
*4: Display for one second for each level.
6) Press the trip meter knob once.

7) Go to “Meter Indicator Needle Indication Check”.
Check meter operation, warning light, indicator light, and LCD.

NOTE:
- Meter indicator switches every 1.5 seconds for each indication.
- ILL indication illuminates at the same brightness as when entering “Meter Indicator Needle Indication Check”.
- During operation, “_S_2” is displayed on the LCD trip display.

Speedometer (km/h)	Tachometer (rpm)	ECO gauge	Warning light/ indicator light
0	0	Lowest point	*1, *2, *3
0	0	–Max	
40	1000	0	
100	4000	+Max	
40	1000	0	
0	0	–Max	

*1: Warning lights and indicator lights controlled by the meter drive circuit go off. <Ref. to IDI-2, SPECIFICATION, General Description.>
*2: Warning lights and indicator lights controlled by other module are turned on/off according to the module control. <Ref. to IDI-2, SPECIFICATION, General Description.>
*3: Engine coolant temperature indicator light illuminates in blue.
8) Press the trip meter knob once.
9) Go to “Check LCD display”.
Check the LCD display.

NOTE:
- After “_S_3” is displayed on the LCD, the LCD display check mode is initiated.
- LCD display switches every 1 second.
- Warning lights and indicator lights controlled by the meter drive circuit go off. <Ref. to IDI-2, SPECIFICATION, General Description.>
- Warning lights and indicator lights controlled by other module are turned on/off according to the module control. <Ref. to IDI-2, SPECIFICATION, General Description.>
- The meter indication remains at the same level as “Meter Indicator Needle Indication Check”.
- ILL indication illuminates at ILL6 level (max. brightness).
- After No. 14 is displayed in the illumination order, display is repeated from No. 1 again.

Models without EyeSight

ORDER	AT/SS	CRUISE/SET	X/S/I/S#	TRIP/ODO	FUEL METER	LFW
1	▲ ▼	SET	[S] [I] S#	A/B 888.8 888888 km	E F	OFF
2		OFF	OFF	111.1 111111	E F	ON
3	▲	OFF	OFF	A 222.2 222222 km	E F	ON
4		OFF		333.3 333333	E F	OFF
5	▼	OFF	OFF	B 444.4 444444 km	E F	OFF
6		OFF	OFF	555.5 555555	E F	OFF
7	▲		[S]	A 666.6 666666 km	E F	OFF
8		OFF	OFF	777.7 777777	E F	OFF
9	▼	SET	OFF	B 888.8 888888 km	E F	OFF
10		OFF	[I]	999.9 999999	E F	OFF
11	▲	OFF	OFF	A 000.0 000000 km	E F	OFF
12		OFF	OFF	888.8 888888	E F	OFF
13	▼	SET	S#	B 888.8 888888 km	E F	ON
14		OFF	OFF	888.8 888888		OFF

IDI00667

Models with EyeSight

ORDER	AT/SS	EyeSight CRUISE/SET/READY	X/S/I/S#	TRIP/ODO	FUEL METER	LFW
1	▲ ▼	SET READY	[S][I]S#	A B 888.8 km/h 888888 km	E F	OFF
2			OFF	111.1 111111	E F	ON
3	▲		OFF	A 222.2 km/h 222222 km	E F	ON
4				333.3 333333	E F	OFF
5	▼	SET	OFF	B 444.4 km/h 444444 km	E F	OFF
6			OFF	555.5 555555	E F	OFF
7	▲	READY	[S]	A 666.6 km/h 666666 km	E F	OFF
8			OFF	777.7 777777	E F	OFF
9	▼		OFF	B 888.8 km/h 888888 km	E F	OFF
10			[I]	999.9 999999	E F	OFF
11	▲	SET	OFF	A 000.0 km/h 000000 km	E F	OFF
12			OFF	888.8 888888	E F	OFF
13	▼	READY	S#	B 888.8 km/h 888888 km	E F	ON
14			OFF	888.8 888888		OFF

IDI00648

D: INSPECTION

Refer to “Basic Diagnostic Procedure” of “INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)” section.
<Ref. to IDI(diag)-2, Basic Diagnostic Procedure.>

E: NOTE

For procedure of each component in the combination meter system, refer to the respective section.

- Combination meter assembly: <Ref. to IDI-18, Combination Meter.>
- Speedometer: <Ref. to IDI-21, Speedometer.>
- Tachometer: <Ref. to IDI-22, Tachometer.>
- FUEL meter: <Ref. to IDI-23, Fuel Gauge.>
- ECO gauge: <Ref. to IDI-24, ECO Gauge.>

3. Cruise Control System

A: WIRING DIAGRAM

Refer to “Cruise Control System” in the wiring diagram.

- Non-turbo model: <Ref. to WI-128, NON-TURBO MODEL, WIRING DIAGRAM, Cruise Control System.>
- Turbo model: <Ref. to WI-133, TURBO MODEL, WIRING DIAGRAM, Cruise Control System.>

B: INSPECTION

Refer to “Basic Diagnostic Procedure” of “CRUISE CONTROL SYSTEM (DIAGNOSTICS)”. <Ref. to CC(diag)-2, Basic Diagnostic Procedure.>

C: NOTE

For operation procedures of each component of the cruise control system, refer to the respective section.

- Cruise control unit: <Ref. to CC-6, Cruise Control Module.>
- Cruise control command switch: <Ref. to CC-7, Cruise Control Command Switch.>
- Combination meter: <Ref. to CC-11, Combination Meter.>
- Stop light & brake switch: <Ref. to CC-12, Stop Light & Brake Switch.>
- Clutch switch: <Ref. to CC-13, Clutch Switch.>
- Inhibitor switch: <Ref. to CC-14, Inhibitor Switch.>
- Transmission control module (TCM): <Ref. to CC-15, Transmission Control Module (TCM).>
- Neutral position switch: <Ref. to CC-16, Neutral Position Switch.>

3. Door Lock Control System

A: WIRING DIAGRAM

Refer to “Keyless Entry System” in the wiring diagram. <Ref. to WI-283, WIRING DIAGRAM, Keyless Entry System.>

B: ELECTRICAL SPECIFICATION

1. BODY INTEGRATED UNIT

Refer to “Control Module I/O Signal” of “BODY CONTROL SYSTEM (DIAGNOSTICS)” section. <Ref. to BC(diag)-6, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: INSPECTION

1. SYMPTOM CHART

Symptoms	Repair order	Reference
The door lock control system does not operate.	1. Remove and visually inspect the following fuses. • No. 3 (in fuse & relay box) • No. 7 (in fuse & relay box) • No. 15 (in fuse & relay box) (K/L)	If the fuse is blown out, replace the fuse with a new part. When there is no defective with the fuse, check the power supply and ground circuit. <Ref. to SL-11, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	2. Check the power supply and ground circuit for body integrated unit.	<Ref. to SL-11, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	3. Check the door lock switch and the circuit.	<Ref. to SL-12, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>
	4. Check the rear gate opener button and the circuit.	<Ref. to SL-13, CHECK REAR GATE OPENER BUTTON CIRCUIT, INSPECTION, Door Lock Control System.>
	5. Check the door lock actuator and the circuit.	<Ref. to SL-14, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>
A specific door lock actuator does not operate.	Check the door lock actuator and circuit.	<Ref. to SL-14, CHECK DOOR LOCK ACTUATOR AND CIRCUIT, INSPECTION, Door Lock Control System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY.** 1) Disconnect the connector of body integrated unit. 2) Measure the voltage between the body integrated unit connector and chassis ground. ***Connector & terminal*** ***(i84) No. 6 (+) — Chassis ground (–):*** ***(i171) No. 1 (+) — Chassis ground (–):*** ***(B281) No. 7 (+) — Chassis ground (–): (K/L)***	Is the voltage 9 V or more?	Go to step **2**.	Check the harness for open or short circuit between body integrated unit and fuse.

	Step	Check	Yes	No
2	**CHECK GROUND CIRCUIT.** Measure the resistance between the body integrated unit connector and chassis ground. ***Connector & terminal*** ***(i84) No. 1 — Chassis ground:*** ***(B280) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	The power supply and ground circuit are OK.	Repair or replace the harness.

3. CHECK DOOR LOCK SWITCH

	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the data of «Manual lock SW input». NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Does the display switch between OFF ←→ ON when each door lock switch is moved to LOCK?	Go to step **2**.	Go to step **3**.
2	**CHECK DOOR LOCK SWITCH.** From the condition in step 1), operate each door lock switch (driver's and passenger's) in the UNLOCK direction.	Does the display switch between OFF ←→ ON?	The door lock switch is OK.	Go to step **4**.
3	**CHECK POWER WINDOW MAIN SWITCH (DOOR LOCK SWITCH).** 1) Disconnect the power window main switch (door lock switch) connector. 2) Measure the continuity between terminals when moving the power window main switch (door lock switch) in LOCK direction. ***Connector & terminal*** ***Driver's seat*** ***(D7) No. 3 — (D7) No. 1:*** ***Passenger's seat*** ***(D125) No. 4 — (D125) No. 5:***	Did the indicator change from "No continuity" (1 MΩ or more) to "Continuity exists" (less than 10 Ω)?	Go to step **4**.	Replace the power window main switch. <Ref. to GW-11, Power Window Control Switch.>
4	**CHECK POWER WINDOW MAIN SWITCH (DOOR LOCK SWITCH).** Measure the continuity between terminals when moving the power window main switch (door lock switch) in UNLOCK direction. ***Connector & terminal*** ***Driver's seat*** ***(D7) No. 9 — (D7) No. 1:*** ***Passenger's seat*** ***(D125) No. 2 — (D125) No. 5:***	Did the indicator change from "No continuity" (1 MΩ or more) to "Continuity exists" (less than 10 Ω)?	Go to step **5**.	Replace the power window main switch. <Ref. to GW-11, Power Window Control Switch.>
5	**CHECK HARNESS.** Measure the resistance between the power window main switch (door lock switch) connector and chassis ground. ***Connector & terminal*** ***Driver's seat*** ***(D7) No. 1 — Chassis ground:*** ***Passenger's seat*** ***(D125) No. 5 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the harness.

Step		Check	Yes	No
6	**CHECK HARNESS.** Check the harness between body integrated unit and power window switch (door lock switch). ***Connector & terminal*** ***Driver's seat*** ***(D7) No. 3 — (i84) No. 9:*** ***(D7) No. 9 — (i84) No. 20:*** ***Passenger's seat*** ***(D125) No. 4 — (i84) No. 9:*** ***(D125) No. 2 — (i84) No. 20:***	Is harness normal?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Repair or replace the harness.

4. CHECK REAR GATE OPENER BUTTON CIRCUIT

Step		Check	Yes	No
1	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the data of «R Gate Release SW input». NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Does the display change to OFF ←→ ON, when the rear gate opener button is operated?	Rear gate opener button is normal.	Go to step **2**.
2	**CHECK HARNESS.** 1) Disconnect the connectors of body integrated unit and rear gate opener button. 2) Check the harness between the body integrated unit and rear gate opener button. ***Connector & terminal*** ***Keyless access model*** ***(i84) No. 10 — (D77) No. 5:*** ***Keyless entry model*** ***(i84) No. 10 — (D47) No. 1:***	Is harness normal?	Go to step **3**.	Repair or replace the harness.
3	**CHECK HARNESS.** Measure the resistance between the rear gate opener button connector and chassis ground. ***Connector & terminal*** ***Keyless access model*** ***(D77) No. 6 — Chassis ground:*** ***Keyless entry model*** ***(D47) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the harness.
4	**CHECK REAR GATE OPENER BUTTON.** Measure the resistance between terminals both when the rear gate opener button is pressed and when not pressed. ***Terminals*** ***Keyless entry model*** ***No. 5 — No. 6:*** ***Keyless entry model*** ***No. 1 — No. 2:***	Is the resistance less than 10 Ω when the switch is pressed and 1 MΩ or more when not pressed?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Replace the rear gate opener button.

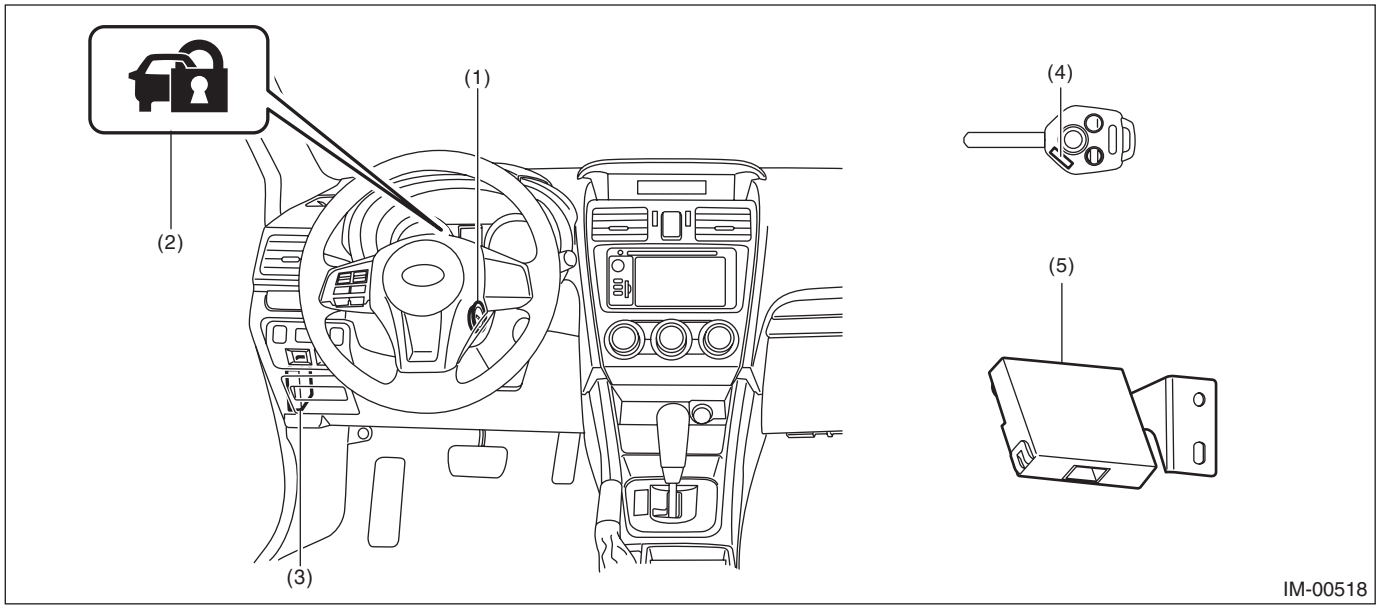
5. CHECK DOOR LOCK ACTUATOR AND CIRCUIT

	Step	Check	Yes	No
1	**CHECK HARNESS (DOOR LOCK).** 1) Disconnect the body integrated unit and each door lock actuator connector. 2) Check the harness between body integrated unit and each door lock actuator. ***Connector & terminal*** ***Front door LH*** ***(i171) No. 2 — (D72) No. 4:*** ***Front door RH*** ***(i171) No. 2 — (D18) No. 4:*** ***Rear door LH*** ***(i171) No. 2 — (D26) No. 4:*** ***Rear door RH*** ***(i171) No. 2 — (D32) No. 4:***	Is harness normal?	Go to step **2**.	Repair or replace the harness.
2	**CHECK HARNESS (DOOR UNLOCK).** Check the harness between body integrated unit and each door lock actuator. ***Connector & terminal*** ***Front door LH*** ***(i171) No. 4 — (D72) No. 1:*** ***Front door RH*** ***(i171) No. 3 — (D18) No. 1:*** ***Rear door LH*** ***(i171) No. 3 — (D26) No. 1:*** ***Rear door RH*** ***(i171) No. 3 — (D32) No. 1:***	Is harness normal?	Go to step **3**.	Repair or replace the harness.
3	**CHECK HARNESS (REAR GATE UNLOCK).** Check the harness between the body integrated unit and rear gate lock actuator. ***Connector & terminal*** ***(i171) No. 7 — (D46) No. 1:***	Is harness normal?	Go to step **4**.	Repair or replace the harness.
4	**CHECK HARNESS (REAR GATE UNLOCK).** Measure the resistance between the rear gate lock actuator connector and chassis ground. ***Connector & terminal*** ***(D46) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the harness.
5	**CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.** 1) Connect the body integrated unit connector. 2) Measure the voltage between terminals of the body integrated unit when operating the door lock switch to LOCK direction. ***Connector & terminal*** ***Except for front door LH*** ***(i171) No. 2 (+) — (i171) No. 3 (–):*** ***Front door LH*** ***(i171) No. 2 (+) — (i171) No. 4 (–):***	Does the voltage change from less than 1 V → 9 V or more? (During lock output)	Go to step **6**.	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>
6	**CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.** Measure the voltage between terminals of the body integrated unit when operating the door lock switch to UNLOCK direction. ***Connector & terminal*** ***Except for front door LH*** ***(i171) No. 3 (+) — (i171) No. 2 (–):*** ***Front door LH*** ***(i171) No. 4 (+) — (i171) No. 2 (–):***	Does the voltage change from less than 1 V → 9 V or more? (During unlock output)	Go to step **7**.	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>

Step		Check	Yes	No
7	**CHECK BODY INTEGRATED UNIT OUTPUT SIGNAL.** Measure the voltage between body integrated unit and chassis ground when operating the rear gate opener button. ***Connector & terminal*** ***(i171) No. 7 (+) — Chassis ground (–):***	Does the voltage change from less than 1 V → 9 V or more? (During unlock output)	Go to step **8**.	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>
8	**CHECK DOOR LOCK ACTUATOR.** Check the door lock actuator. • Front door lock actuator:<Ref. to SL-41, INSPECTION, Front Door Latch and Door Lock Actuator Assembly.> • Rear door lock actuator:<Ref. to SL-48, INSPECTION, Rear Door Latch and Door Lock Actuator Assembly.>	Is the door lock actuator OK?	Go to step **9**.	Replace the door latch and door lock actuator assembly.
9	**CHECK REAR GATE LOCK ACTUATOR.** Check the rear gate lock actuator.<Ref. to SL-51, Rear Gate Latch and Actuator Assembly.>	Is the rear gate lock actuator normal?	Check the connection status of the harness and connector that may have a temporary poor contact.	Replace the rear gate latch and actuator assembly.

3. Electrical Component Location

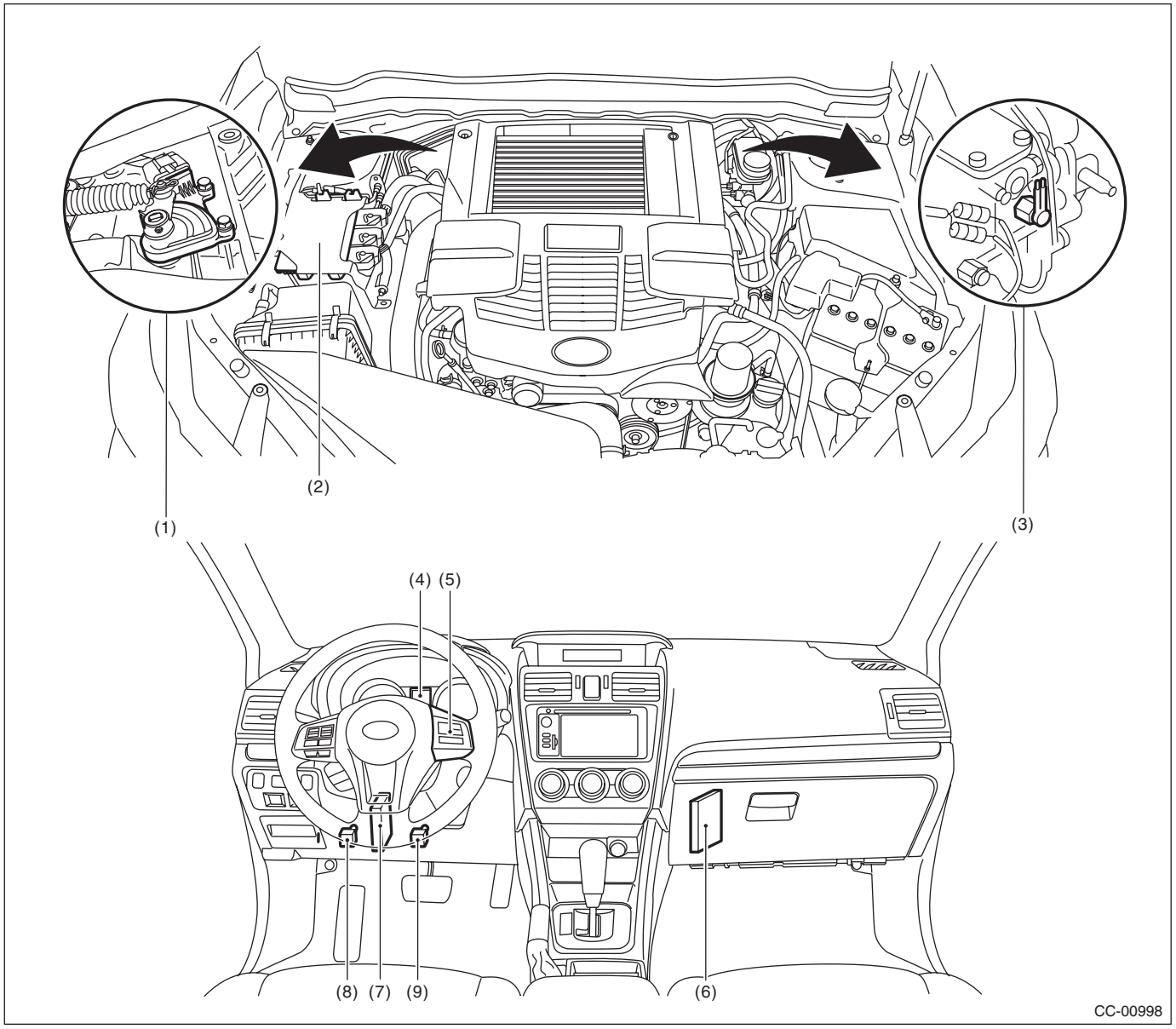
A: LOCATION



(1) Antenna
(2) Security indicator light (LED bulb)
(3) Body integrated unit
(4) Transponder
(5) Security control module (for C0 and C5 models only)

3. Electrical Component Location

A: LOCATION

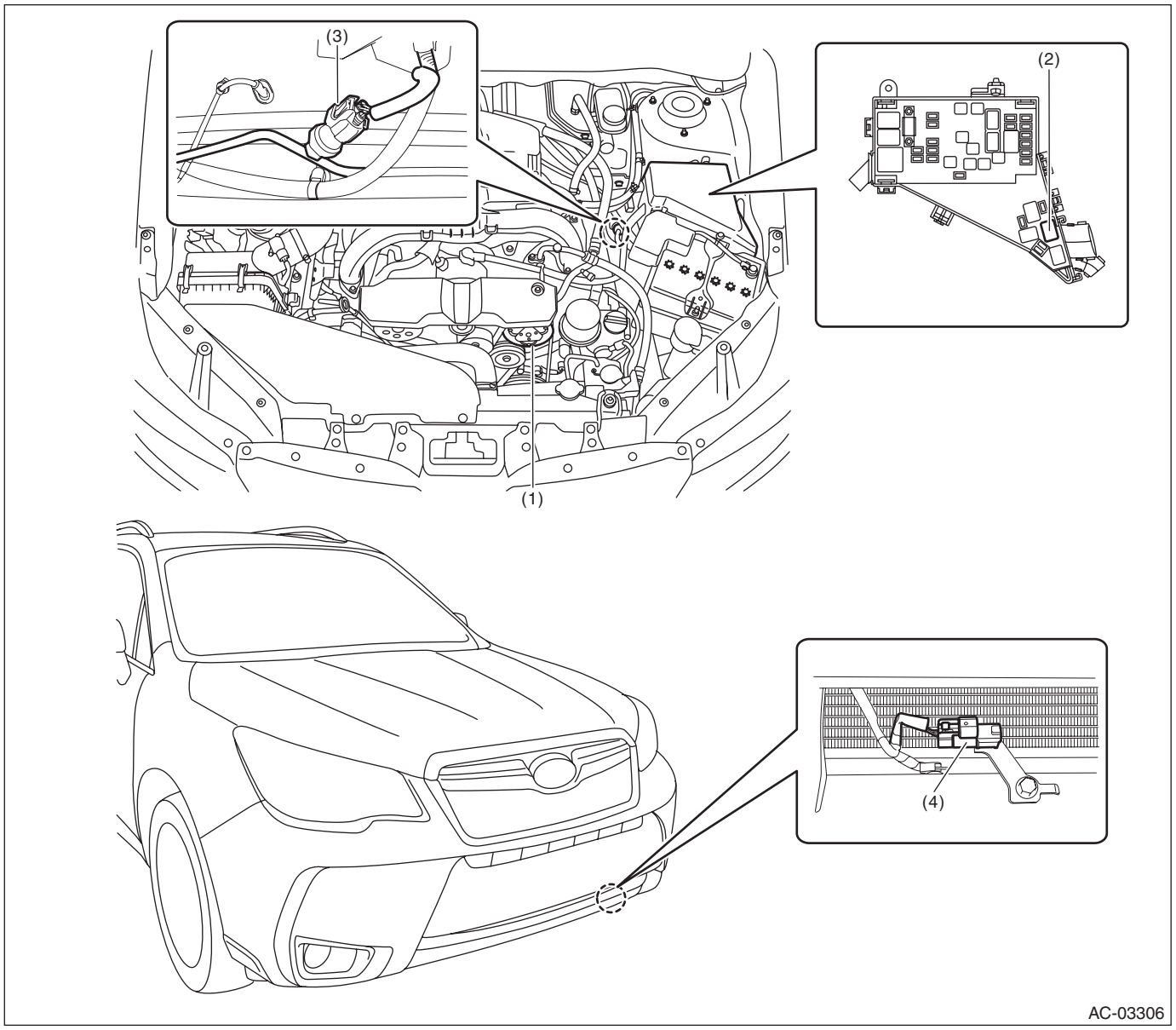


(1)	Inhibitor switch (CVT model)	(4)	Cruise indicator light and cruise set indicator light	(7)	Transmission control module (CVT model)
(2)	Engine control module (turbo model)	(5)	Cruise control command switch	(8)	Clutch switch (MT model)
(3)	Neutral position switch (MT model)	(6)	Engine control module (non-turbo model)	(9)	Stop light & brake switch

3. Electrical Component Location

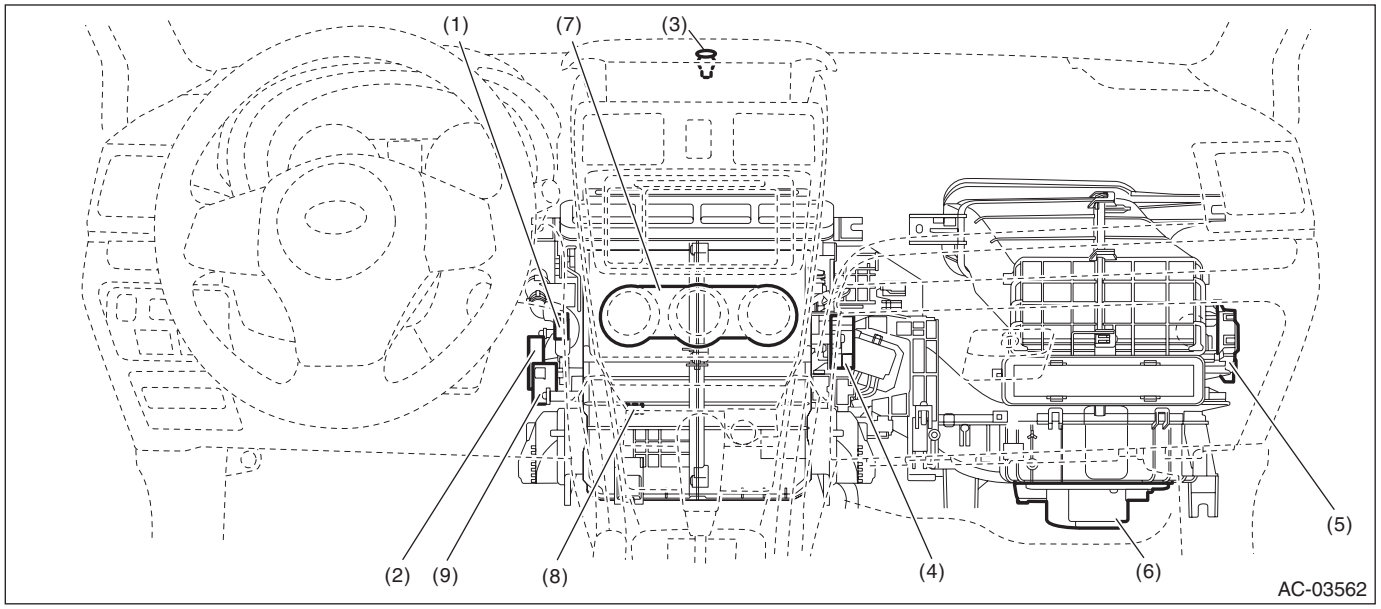
A: LOCATION

1. OUTSIDE VEHICLE



(1) A/C compressor
(2) A/C relay
(3) Pressure switch
(4) Ambient sensor

2. COMPARTMENT



(1)	In-vehicle sensor	(4)	Air mix door actuator*1 or air mix door actuator RH*2	(7)	A/C control panel
(2)	Air mix door actuator LH*2	(5)	Intake door actuator	(8)	Evaporator sensor
(3)	Sunload sensor	(6)	Blower motor	(9)	Mode door actuator

*1: Without left/right independent air conditioning function
*2: With left/right independent air conditioning function

3. EyeSight System

A: WIRING DIAGRAM

Refer to “EyeSight System” in the wiring diagram.
- Non-turbo model: <Ref. to WI-232, NON-TURBO MODEL, WIRING DIAGRAM, EyeSight System.>
- Turbo model: <Ref. to WI-238, TURBO MODEL, WIRING DIAGRAM, EyeSight System.>

B: INSPECTION

Refer to “Basic Diagnostic Procedure” of “EyeSight (DIAGNOSTICS)” section. <Ref. to ES(diag)-2, Basic Diagnostic Procedure.>

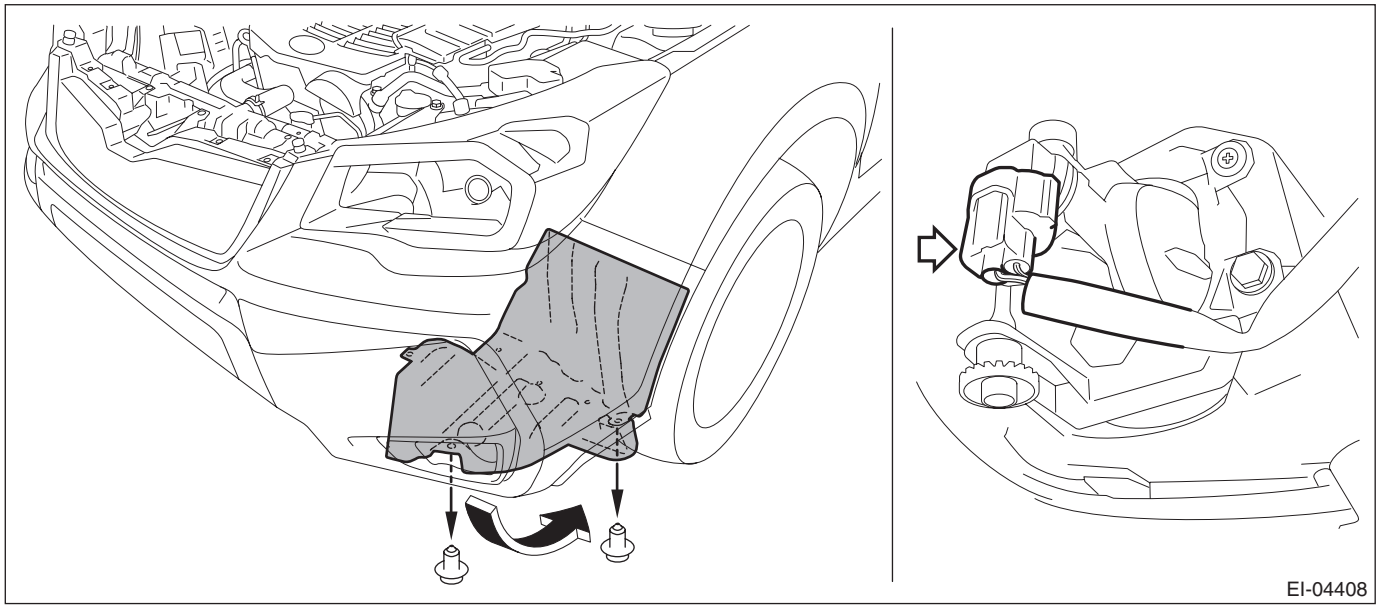
C: NOTE

For procedure of each component in the EyeSight system, refer to the respective section.
- Control module: <Ref. to ES-10, Control Unit.>
- Stereo camera: <Ref. to ES-11, Stereo Camera.>
- Cruise control command switch: <Ref. to ES-19, Cruise Control Command Switch.>
- Combination meter: <Ref. to ES-24, Combination Meter.>
- Transmission control module (TCM): <Ref. to ES-25, Transmission Control Module (TCM).>
- Stop light and brake switch: <Ref. to ES-26, Stop Light & Brake Switch.>
- VDC control module & hydraulic control unit (VDCCM&H/U): <Ref. to ES-27, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
- Multi-function display (MFD): <Ref. to ES-28, Multi-function Display (MFD).>
- Switches and harness: <Ref. to ES-18, Switches and Harness.>

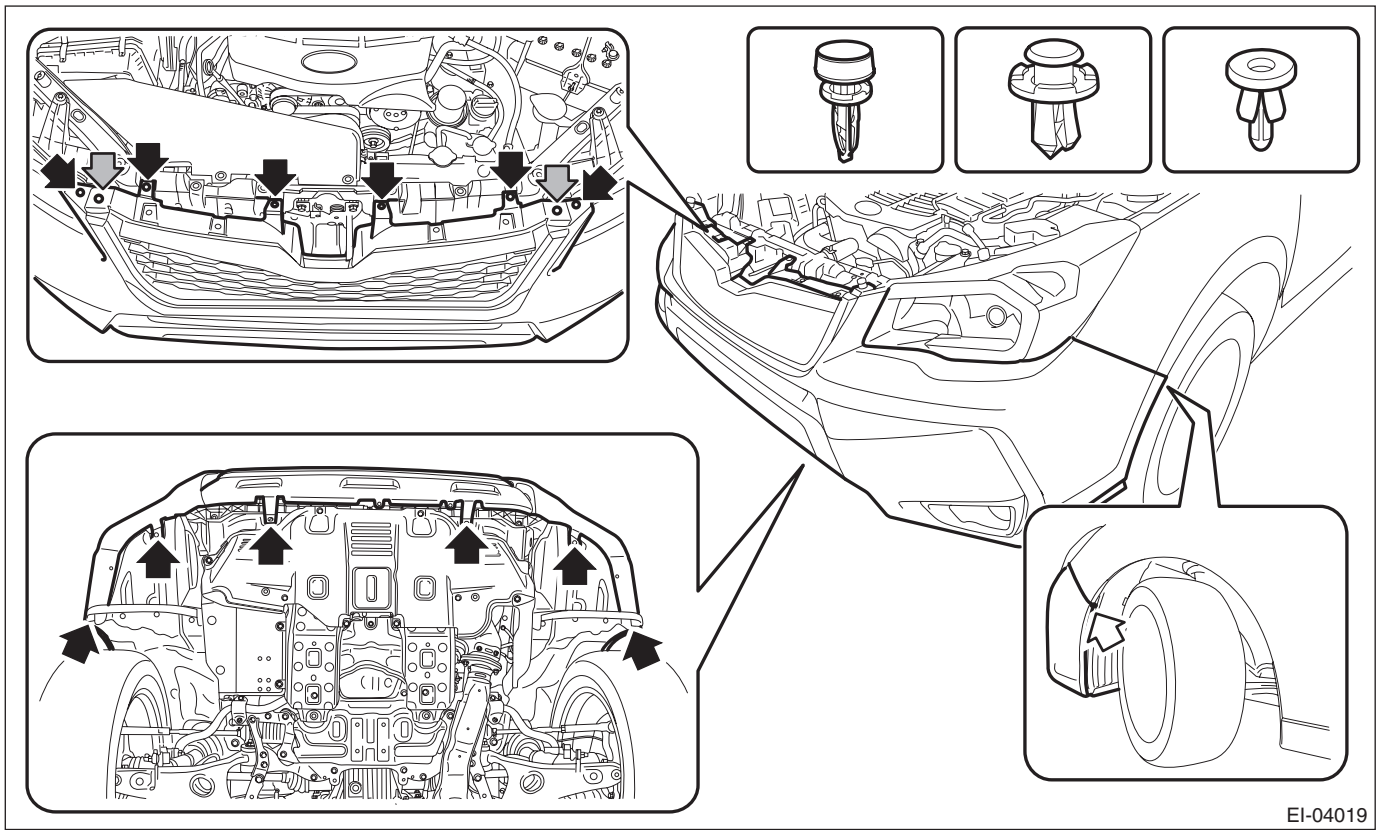
3. Front Fender

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the bumper face - front.
   (1) Remove the clips, and turn over the mud guard - front, and then disconnect the connectors of the fog light assembly - front on the LH and RH sides. (Model with fog light)

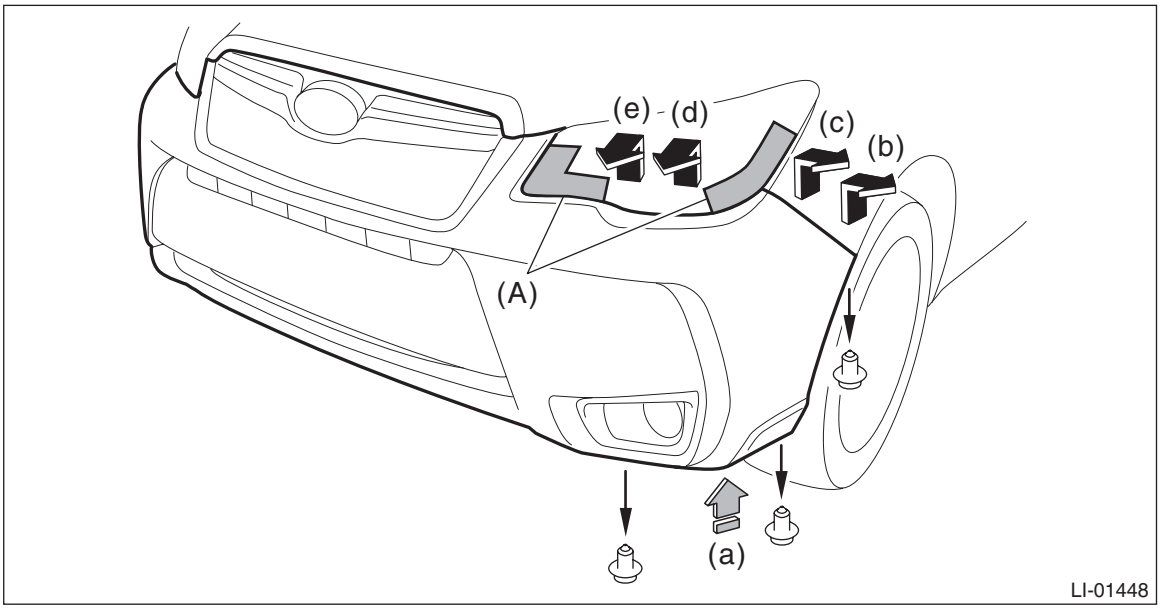


   (2) Remove the clips at the upper side of the bumper face - front.
   (3) Remove the clips from the fender.
   (4) Remove the clips at the lower side of the bumper face - front.

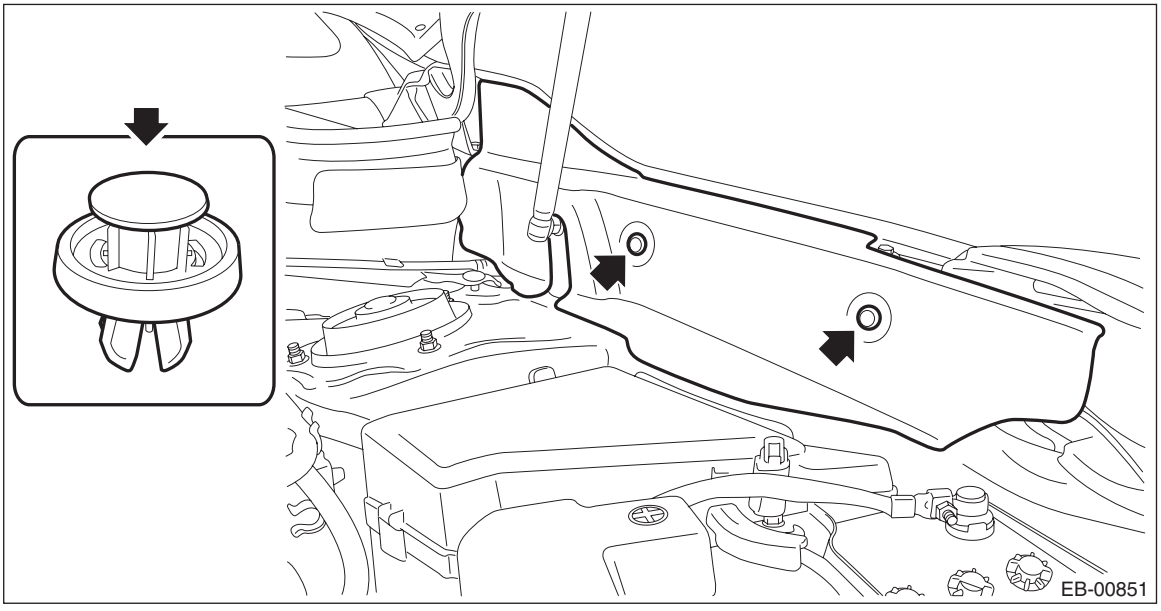


(5) Apply protective tape (A) to the light assembly - head.
(6) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

CAUTION:
Do not pull forcibly. It may damage the flange sections of the bumper face - front.

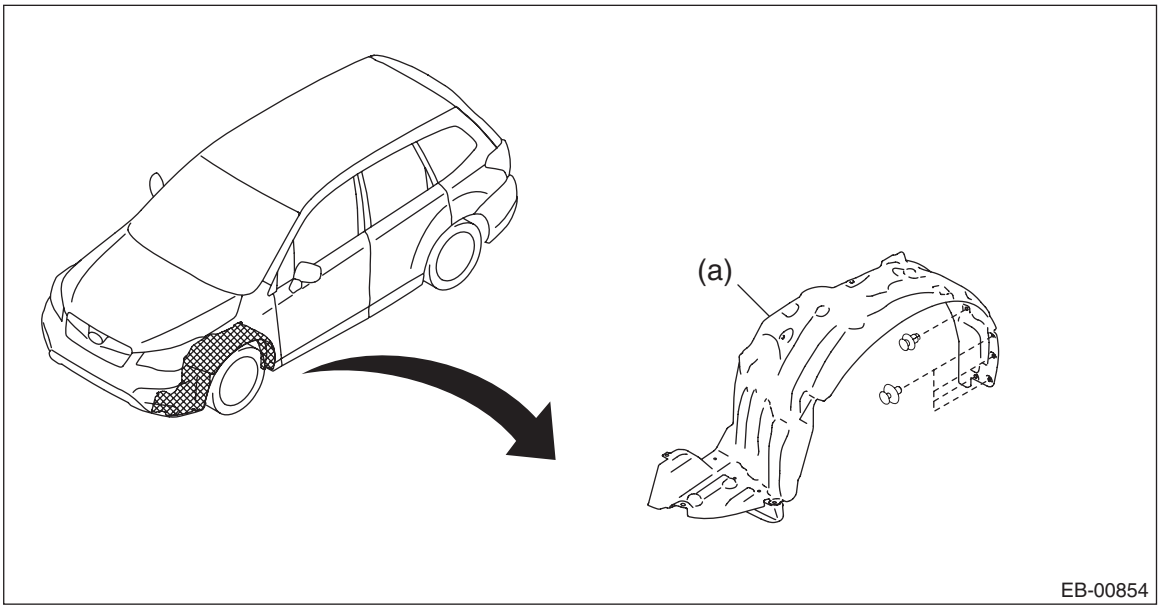


NOTE:
Detach the opposite side in the same manner.
3) Remove the cover - front fender.
(1) Remove the clip.
(2) Release the claws by pulling them forward, and remove the cover - front fender.



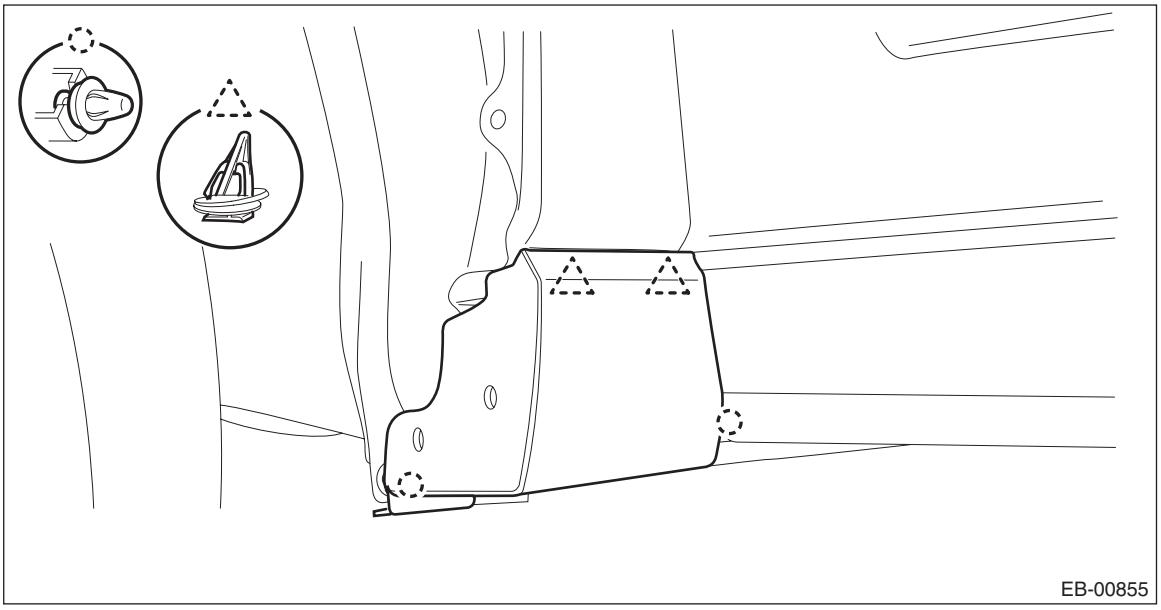
(3) Remove the light assembly - head.<Ref. to LI-27, WHEN REMOVING RH SIDE, REMOVAL, Headlight Assembly.>

4) Remove the clips, and turn over the mud guard - front (a).

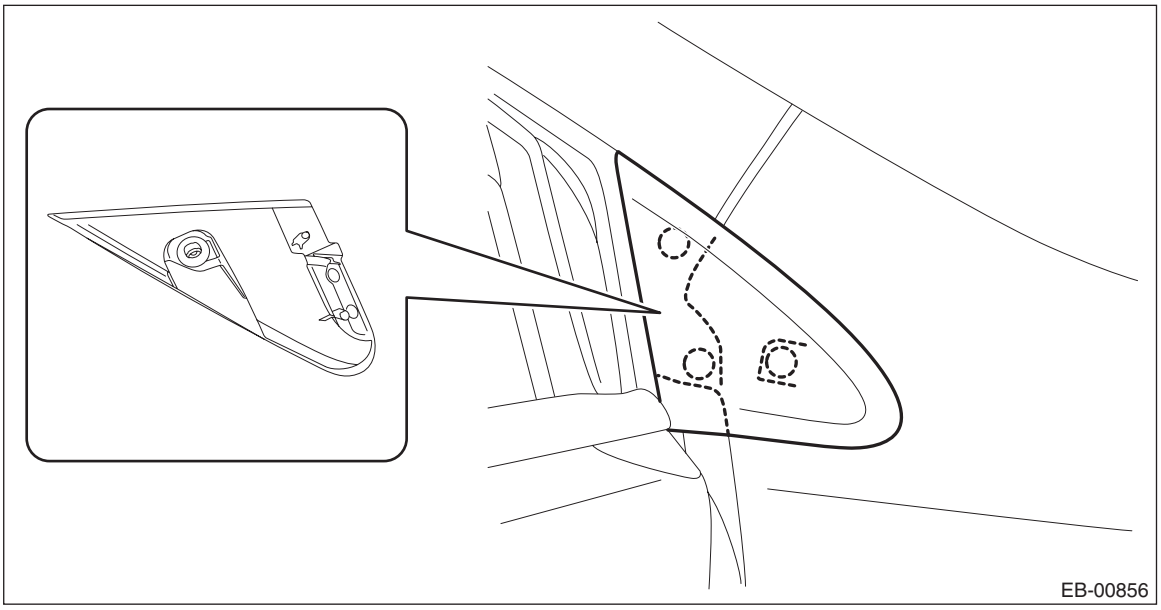


5) Remove the clips and remove the garnish assembly - fender.

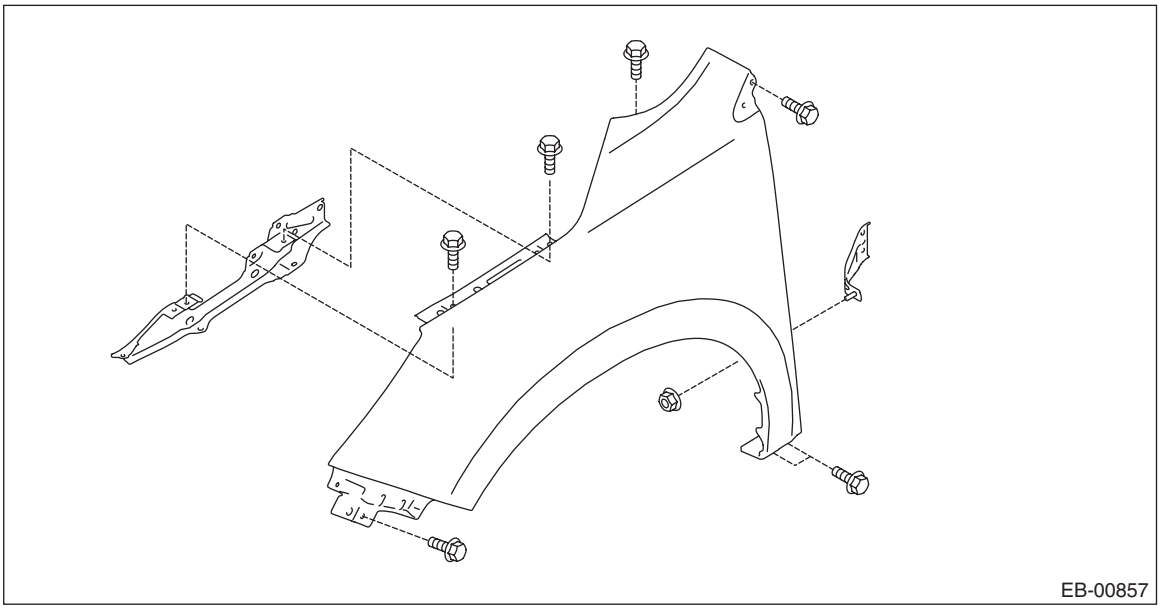
NOTE:
- Forcibly removing the garnish assembly - fender may damage the clips.
- For easy removal of the clips, pinch the claw from the backside of fender COMPL - front with pliers, etc.



6) Remove the clips, and remove the cover - front pillar assembly.



7) Remove the fender COMPL - front.
   (1) Remove the bolts and nuts, and remove the fender COMPL - front.



B: INSTALLATION

1) Install each part in the reverse order of removal.

CAUTION:
After installing the fender COMPL - front, be sure to perform headlight beam adjustment.

Tightening torque:
Fender COMPL - front: 5.5 N·m (0.56 kgf-m, 4.1 ft-lb)
Light assembly - head: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

NOTE:
When installing the fender COMPL - front, make sure that a uniform clearance is created around it.
- Fender COMPL - front to Hood COMPL - front:<Ref. to EB-19, ADJUSTMENT, Front Hood.>
- Fender COMPL - front to Panel assembly - front door:<Ref. to EB-33, ADJUSTMENT, Front Door.>

2) Adjust the headlight beam and fog light beam.
- Adjust the headlight beam.<Ref. to LI-32, HEADLIGHT BEAM ADJUSTMENT, ADJUSTMENT, Headlight Assembly.>
- Adjust the fog light beam. (Model with fog light)<Ref. to LI-47, FOG LIGHT AIMING, ADJUSTMENT, Front Fog Light Assembly.>

3. General Description

A: CAUTION

1. AIRBAG SYSTEM

CAUTION:
• Do not use the electrical test equipment on the airbag system wiring harnesses and connector circuits.
• Be careful not to damage the airbag system wiring harness.

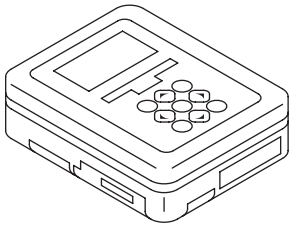
B: INSPECTION

1. BASIC INSPECTION

Before performing diagnosis, check the following items which might affect power rear gate related problems.
1) Check the battery. <Ref. to SC(H4DO)-63, INSPECTION, Battery.>
2) Check the relay and fuse condition. <Ref. to PRG-7, Relay and Fuse.>
3) Check the connecting condition of harness and harness connector.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

3. General Description

A: CAUTION

1. SRS AIRBAG SYSTEM

Airbag system wiring harness is routed near the body integrated unit and body control circuits.

CAUTION:
- **Do not use the electrical test equipment on all airbag system wiring harnesses and connectors.**
- **Be careful not to damage the airbag system wiring harness, when servicing the body control system.**

B: INSPECTION

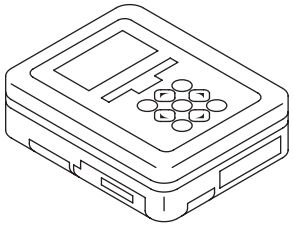
Before performing diagnosis, check the following items which might affect body control system problems.
1) Measure the battery voltage and check electrolyte.

Standard voltage: 12 V or more

Specific gravity: 1.260 or more
2) Check the fuse condition.
Make sure that ampere of the fuse is setting value, and it is not blown out.
3) Check the connecting condition of harness and harness connector.
4) Confirm settings of body integrated unit are corresponded to vehicle equipment.<Ref. to BC(diag)-17, OPERATION, Registration Body Integrated Unit.>
5) Make sure that the User Customizing of the body integrated unit matches the vehicle equipment.<Ref. to BC(diag)-15, OPERATION, User Customizing.>
6) Confirm “Factory initial setting” of body integrated unit registrations is “Market”.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

3. General Description

A: CAUTION

1. AIRBAG SYSTEM

CAUTION:
• Do not use the electrical test equipment on the airbag system wiring harnesses and connector circuits.
• Be careful not to damage the airbag system wiring harness.

B: INSPECTION

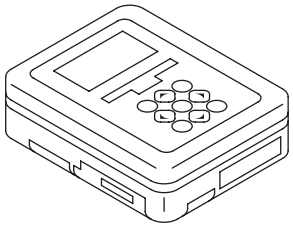
Before performing the diagnosis, check the following items which may cause problems relating the wiper or light.
1) Measure the battery voltage and check electrolyte.

Standard voltage: 12 V or more

Specific gravity: 1.260 or more
2) Check the fuse condition.
3) Check the connecting condition of harness and harness connector.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

3. General Description

A: CAUTION

Refer to “CAUTION” in “General Description” in Airbag System. <Ref. to AB-9, CAUTION, General Description.>

B: INSPECTION

Measure the battery voltage and check electrolyte.

Standard voltage: 12 V

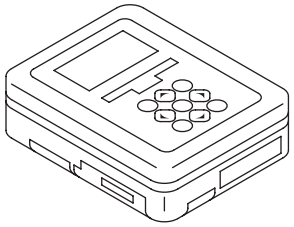
Specific gravity: 1.260 or more

C: PREPARATION TOOL

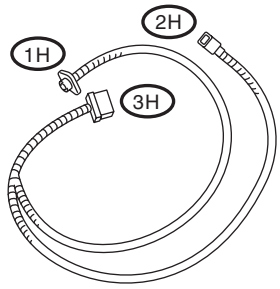
CAUTION:
To measure the voltage and resistance of airbag system component, be sure to use the specified test harness.

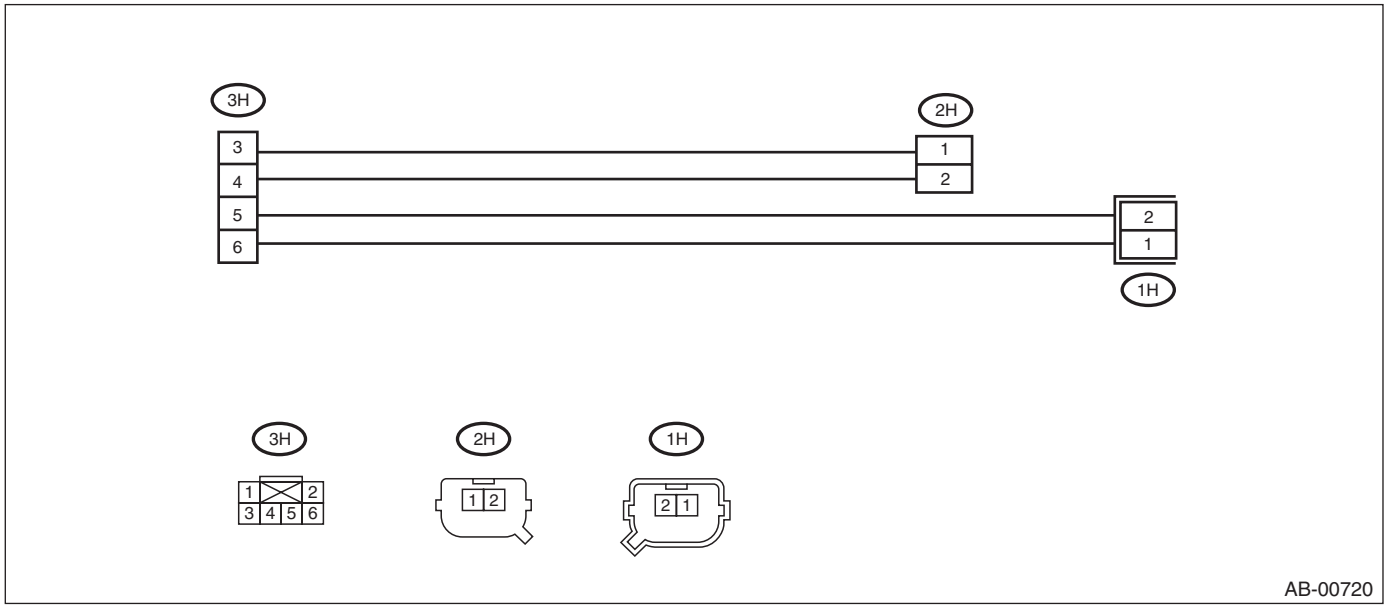
1. SPECIAL TOOL

- Subaru Select Monitor

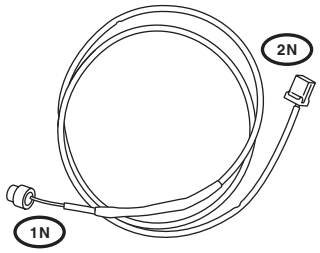
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

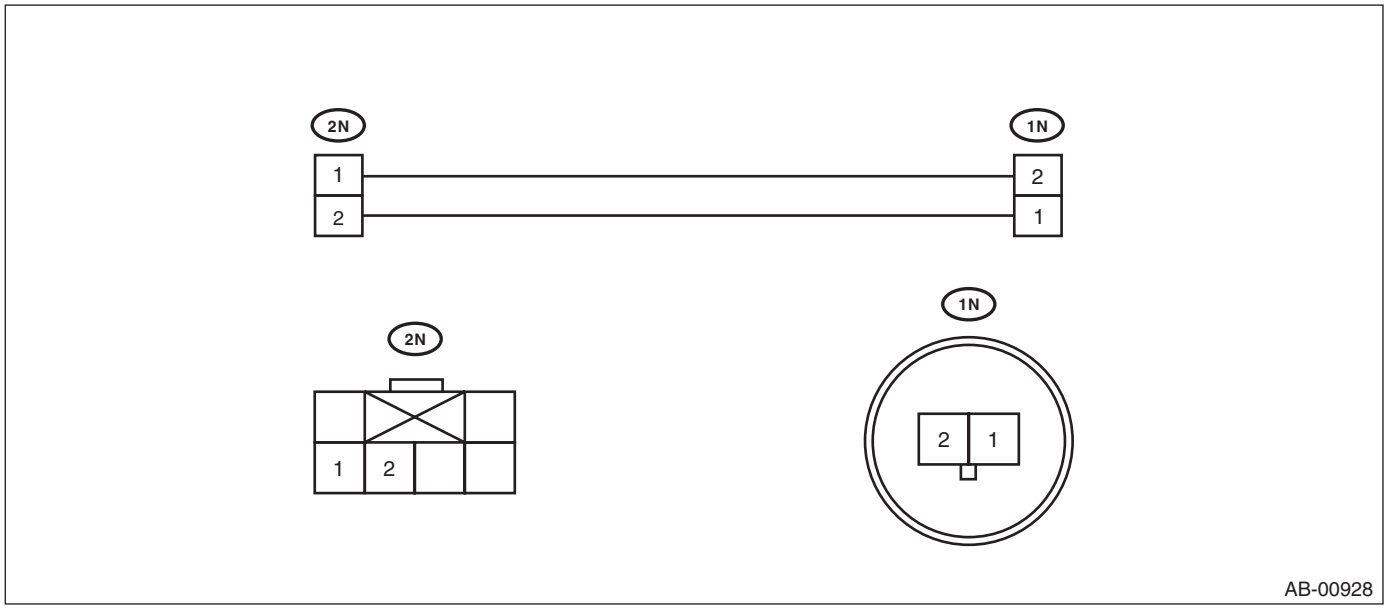
- TEST HARNESS H

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FA030	98299FA030	TEST HARNESS H	Used when measuring voltage and resistance of front sub sensor and front door impact sensor.

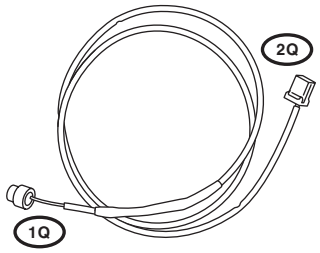


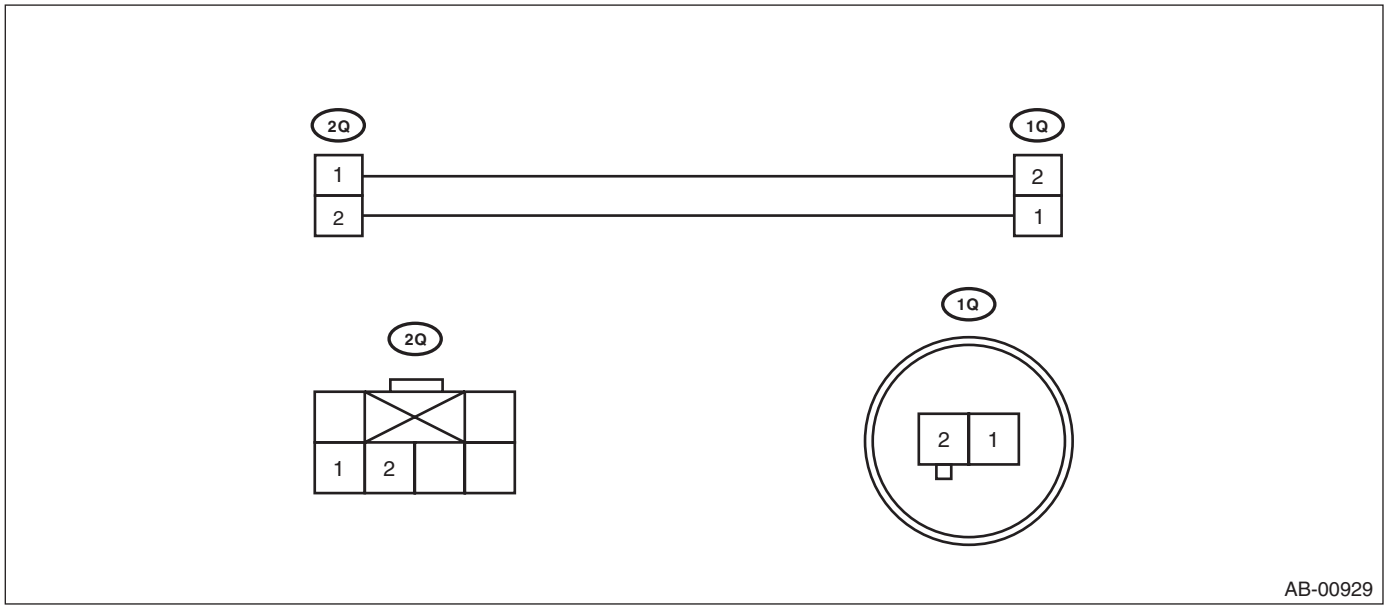
- TEST HARNESS N

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA000	98299SA000	TEST HARNESS N	Used when measuring voltage and resistance of driver's airbag module, driver's knee airbag module, seat belt pretensioner and curtain airbag module.



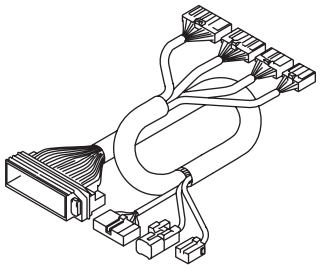
- TEST HARNESS Q

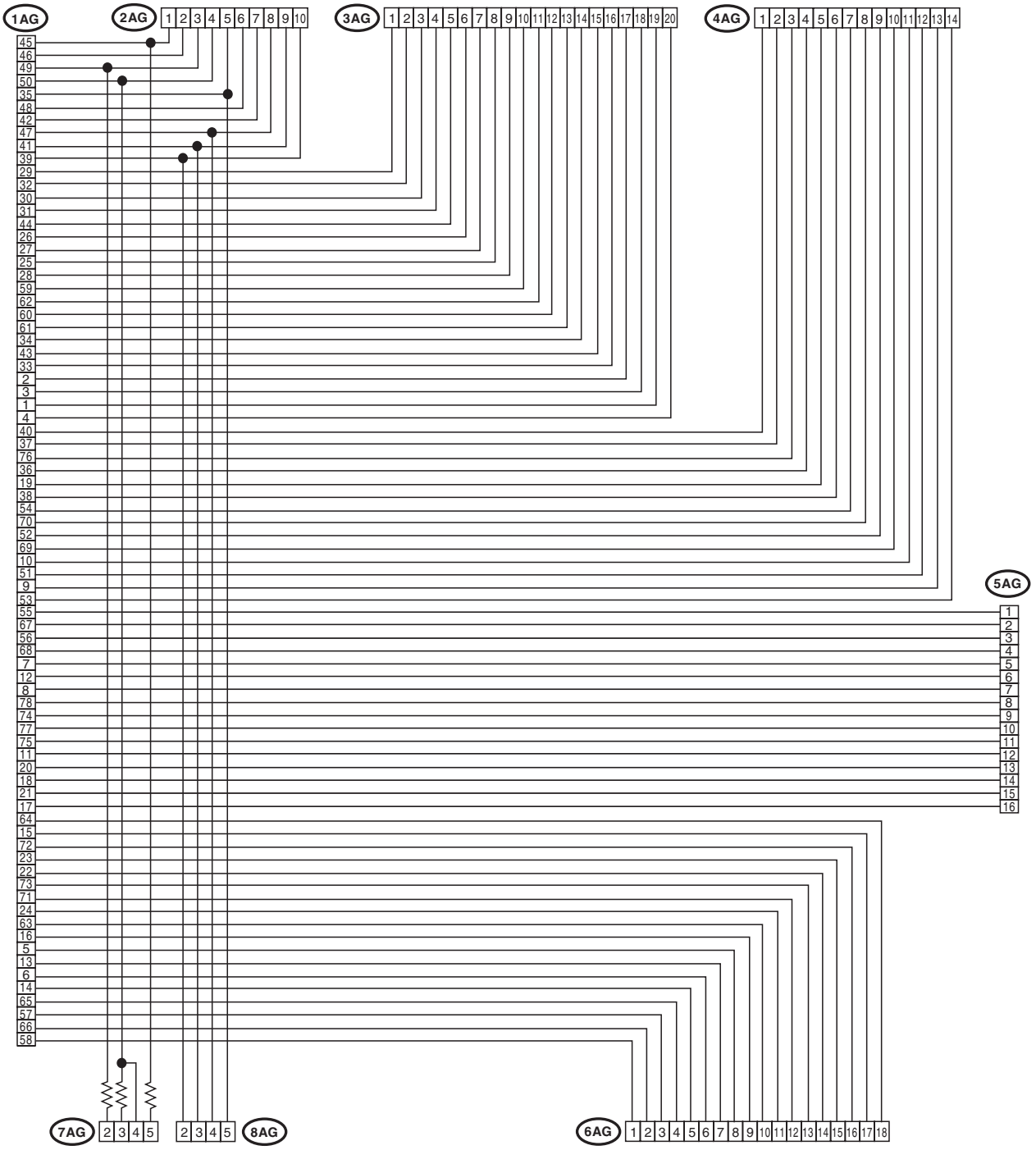
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299SA040	98299SA040	TEST HARNESS Q	Used when measuring voltage and resistance of driver's airbag module.



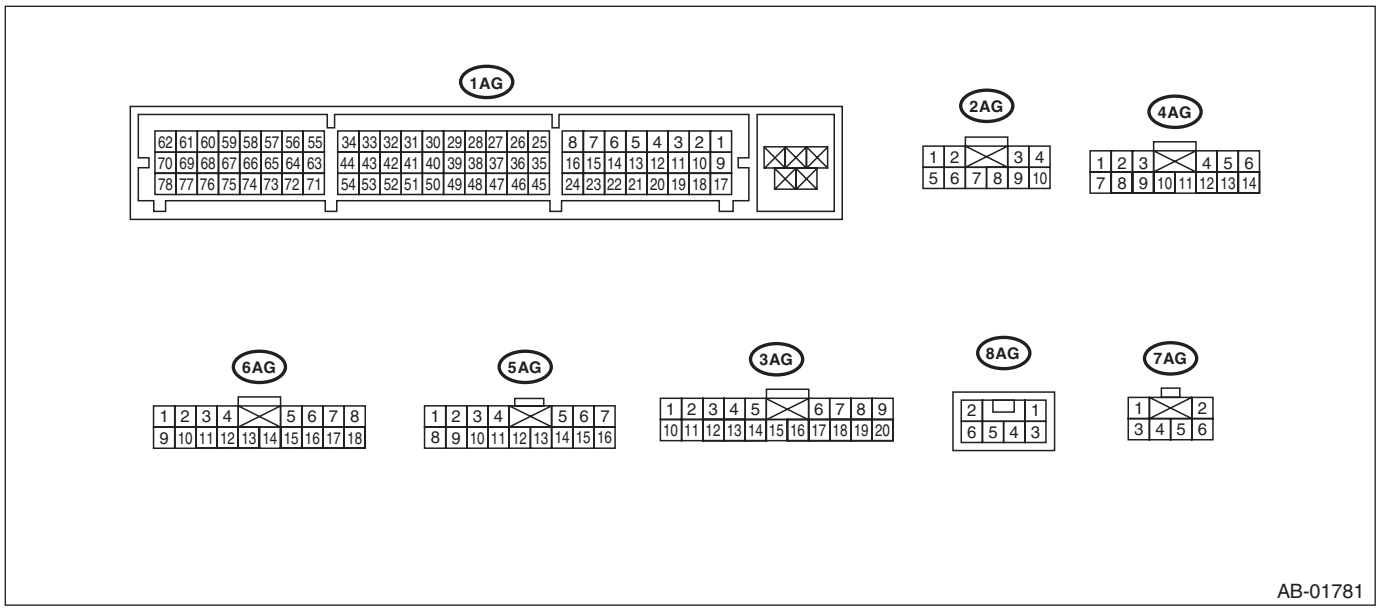
AB-00929

- TEST HARNESS AG

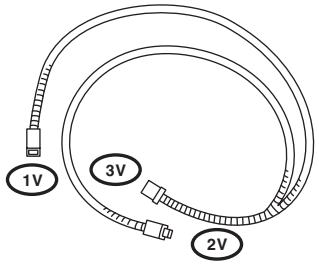
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG070	98299AG070	TEST HARNESS AG	Used when measuring voltage and resistance of airbag control module.

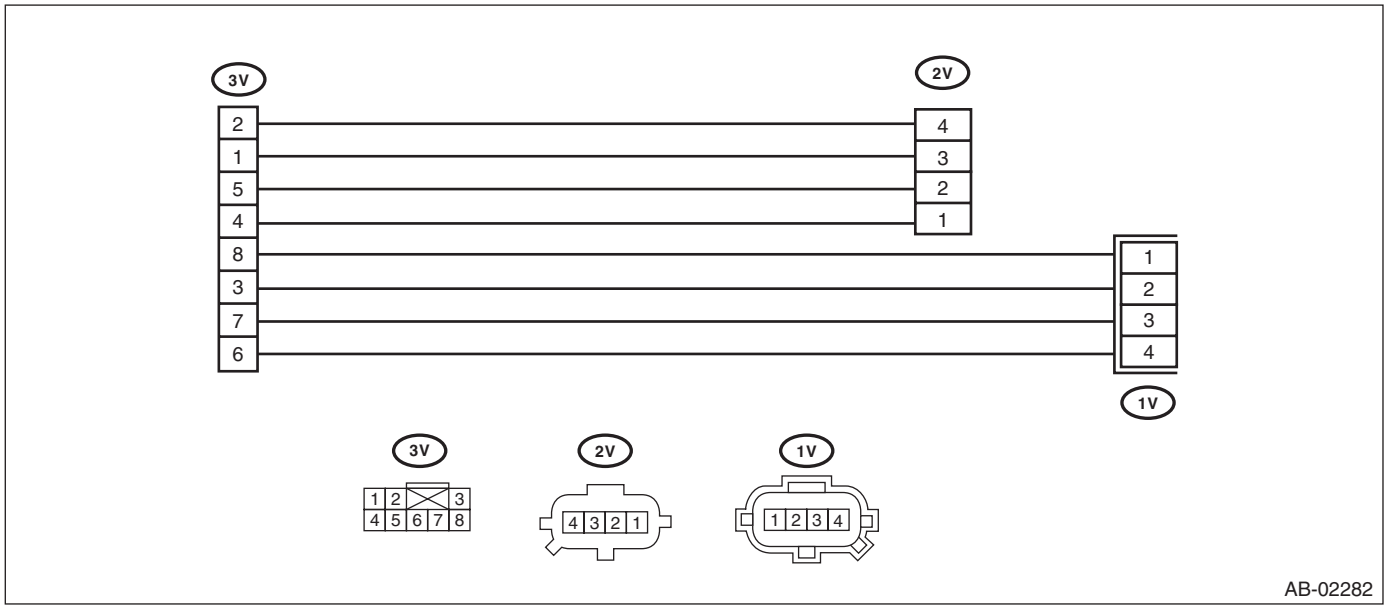

1AG
45 46 49 50 35 48 42 47 41 39 29 32 30 31 44 26 27 25 28 59 62 60 61 34 43 33 2 3 1 4 40 37 76 36 19 38 54 70 52 69 10 51 9 53 55 67 56 68 7 12 8 78 74 77 75 11 20 18 21 17 64 15 72 23 22 73 71 24 63 16 5 13 6 14 65 57 66 58
2AG
1 2 3 4 5 6 7 8 9 10
3AG
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
4AG
1 2 3 4 5 6 7 8 9 10 11 12 13 14
5AG
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
7AG
2 3 4 5
8AG
2 3 4 5
6AG
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

AB-01902

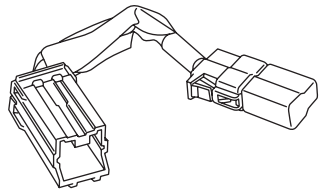


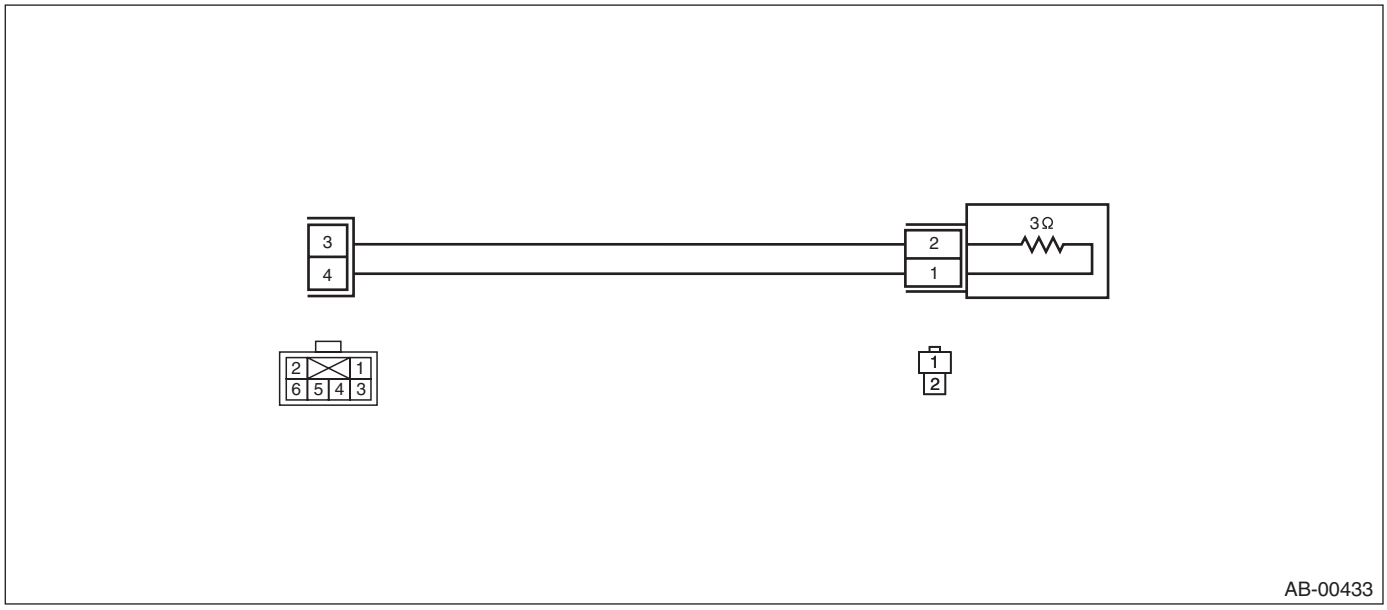
- TEST HARNESS V

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG010	98299AG010	TEST HARNESS V	Used when measuring voltage and resistance of side airbag sensor and curtain airbag sensor.

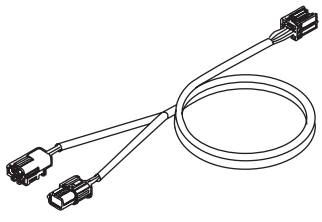


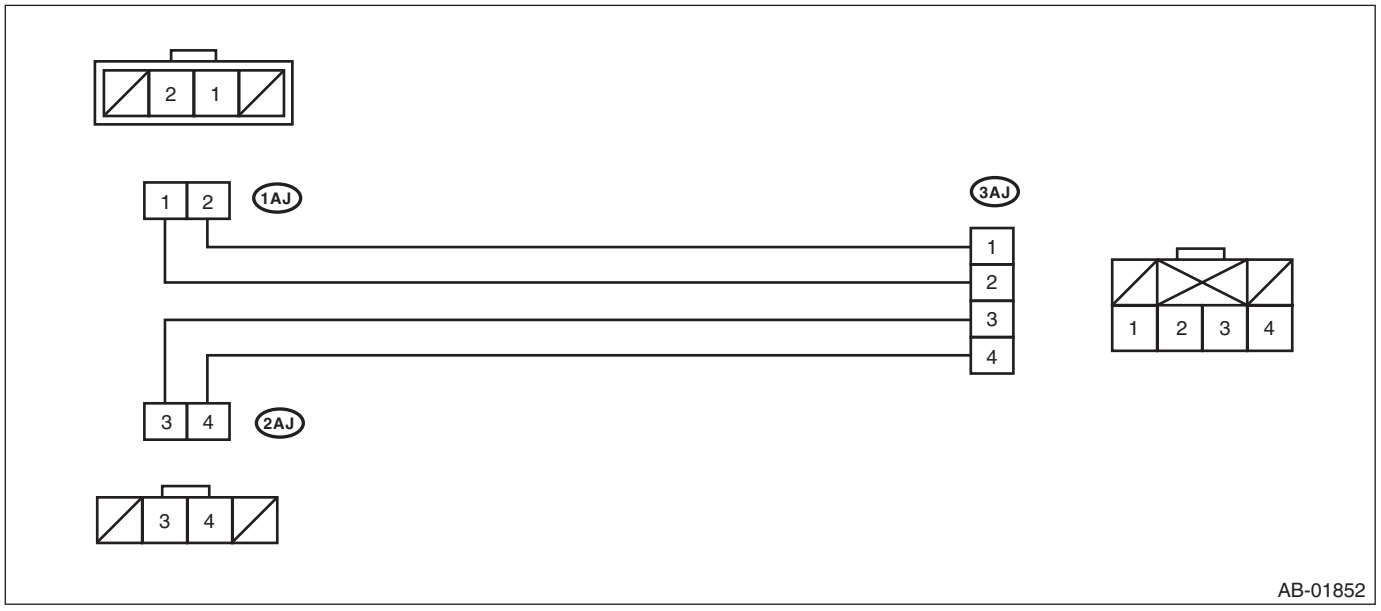
- AIRBAG RESISTOR

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299PA040	98299PA040	AIRBAG RESISTOR	Used in replacement of airbag module for which resistance value is same as airbag module. Two STs are required for diagnosis of two-stage inflator type airbag module.

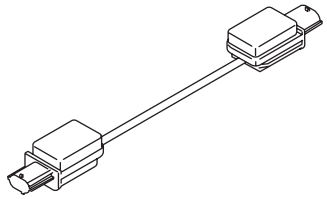


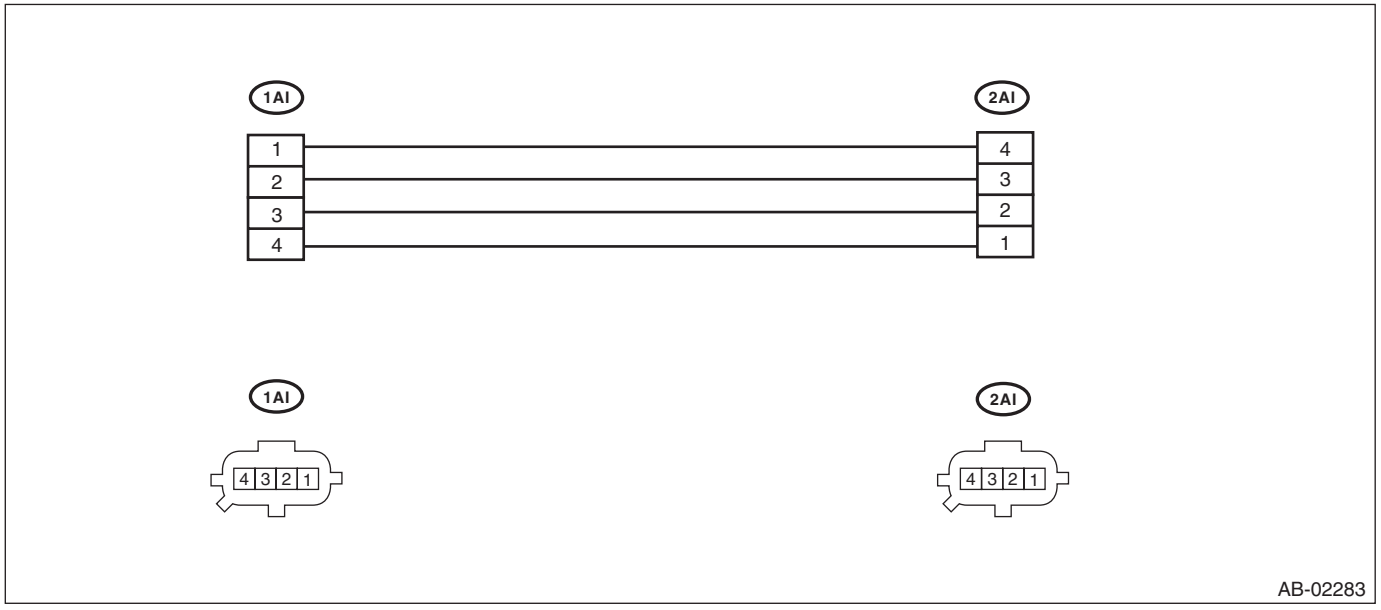
- TEST HARNESS AJ

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FG000	98299FG000	TEST HARNESS AJ	Used when measuring power supply and resistance of side airbag harness.



• TEST HARNESS AI

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG090	98299AG090	TEST HARNESS AI	• Used for diagnoses of side airbag sensor and curtain airbag sensor. • Used together with test harness V.

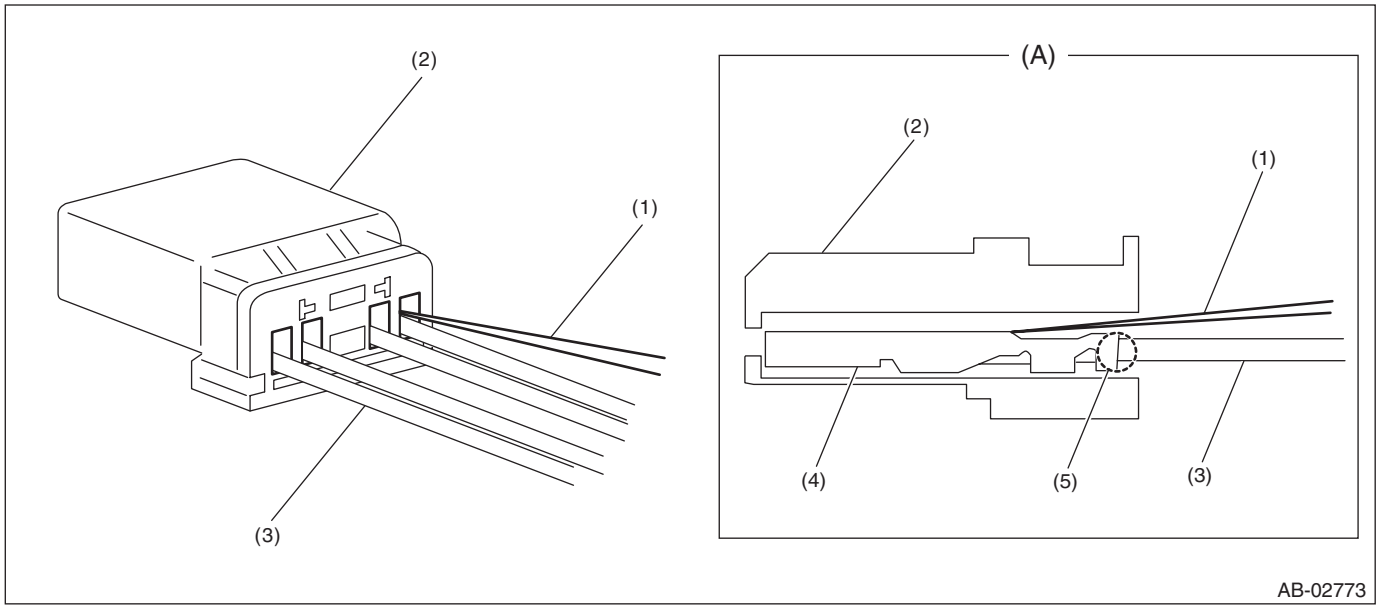


2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
Oscilloscope	Used for measuring the sensor.
Probe	Used when measuring voltage and resistance of passenger's airbag module.

3. HOW TO USE PROBE

Insert the probe into the harness hole, and contact it with the terminal.



(A) Cross section

(1) Probe
(2) Connector (housing)
(3) Harness
(4) Terminal
(5) Connection

CAUTION:
• Do not insert the probe forcibly.
• Be careful not to contact it to the connection (5) between the terminal and harness. (Harness will come off easily from connector if doing so.)

3. General Description

A: CAUTION

1. AIRBAG SYSTEM

CAUTION:
• Do not use the electrical test equipment on the airbag system wiring harnesses and connector circuits.
• Be careful not to damage the airbag system wiring harness.

B: INSPECTION

1. BASIC INSPECTION

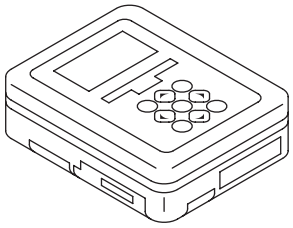
Before performing the diagnosis, check the following items which may cause problems relating the wiper or light.
1) Check the battery.
2) Check the relay and fuse condition. <Ref. to LI-4, Relay and Fuse.>
3) Check the connecting condition of harness and harness connector.

2. FUNCTION CHECK

With the ignition switch ON and the lighting switch set at 2 (HEAD), change the vehicle posture while the vehicle is stopped. Check that the beam moves, when the vehicle condition is kept for three seconds or more.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

3. General Description

A: CAUTION

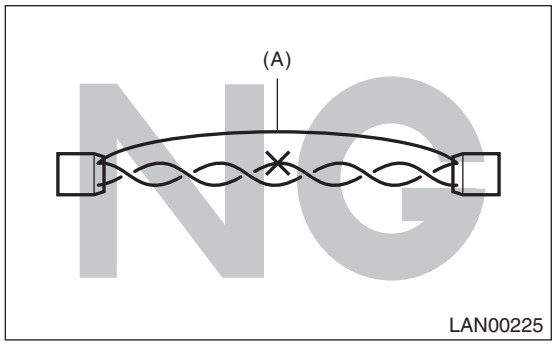
1. SUPPLEMENTAL RESTRAINT SYSTEM "AIRBAG"

Airbag system wiring harness is routed near the body integrated unit and twisted pair line.

CAUTION:
- **Do not use the electrical test equipment on all airbag system wiring harnesses and connectors.**
- **Be careful not to damage the airbag system wiring harness when servicing the body integrated unit and LAN system.**

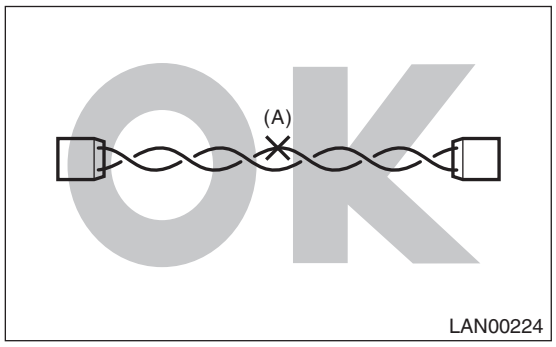
2. LAN SYSTEM

- Bus line of LAN system is twisted pair line. Be careful not to by-pass or partly unbind the twisted pair line.
- Do not make clearance between bus lines (CAN High, CAN Low).
- Difference of bus line length should be within 10 cm (3.94 in).
- Fray near the connector should be within 8 cm (3.14 in).



(A) Bypass wire connection

- If the characteristics of the twisted pair line are changed, it may extremely weaken against noise.
- When repairing the harness, connect the wires using soldering and protect it with insulating tape etc.



(A) Soldering and protection with insulating tape

3. TIME STAMP

There are three types of record data for the information of time stamp, and they are stored together with diagnostic codes.

NOTE:
Depending on DTCs, time stamp may not be stored.

a. **Trip Count**

This indicates the number of times that the ignition has been turned to ON since the vehicle was manufactured. The ignition ON count of when the diagnostic code is stored is displayed on the diagnostic code check screen.

NOTE:
Subaru Select Monitor screen (A/C system diagnostic code and time stamp)

Code	Description & trouble position	Trouble occurrence record	**Trip Count**	Time Count	Count
B14E1	Air mix door actuator stepping motor circuit wire break (driver's seat)	Detected on the first time	**983**	18000	Common
B14E7	Heater core rear sensor circuit wire break	Detected on the 2nd time	**984**	117800	Common

The current Trip Count can be checked at "Current Data Display & Save" in "Integ. unit mode".
By comparing the current Trip Count and the Trip Count of when the diagnostic code was stored, it is possible to determine that it is how many ignition-ON operations ago that DTC was stored.

b. **Time Count**

The elapsed time from when the ignition is turned to ON to when the diagnostic code is stored is displayed on the diagnostic code check screen. It is possible to determine the length of time that passed between when the user started driving and when the diagnostic code was stored. Therefore, if Trip Count until the vehicle-received-date is determined by interviewing the user, it is possible to estimate where the user was driving when the diagnostic code was stored, using the information such as Trip Count and Time Count. This estimate is useful information to perform diagnosis including checking of repeatability.

NOTE:
Subaru Select Monitor screen (A/C system diagnostic code and time stamp)

Code	Description & trouble position	Trouble occurrence record	Trip Count	**Time Count**	Count
B14E1	Air mix door actuator stepping motor circuit wire break (driver's seat)	Detected on the first time	983	**18000**	Common
B14E7	Heater core rear sensor circuit wire break	Detected on the 2nd time	984	**117800**	Common

When multiple diagnostic codes are recorded for one trouble, it is extremely important to determine the diagnostic code that was stored first. (It is important to perform the diagnosis for the first recorded diagnostic code.) In this case, it is also possible to immediately determine which diagnostic code was recorded first, using the information such as Trip Count and Time Count.

c. **Count**
Each unit individually counts the elapsed time since the ignition is turned to ON. However, these time counts may have some errors, and therefore, the control modules need to be adjusted to the time carried by the master-time unit (the body integrated unit). When the count is set as common, it means that each control module is already adjusted to the master time, and the display for the master integrated unit is always indicated as “Common”. When the count is indicated as “Originally”, it means that the time is not synchronized with the master time. In this case, check the communication between the corresponding control module and integrated unit. When all controls other than the body integrated unit is indicated as “Originally”, perform the basic inspection for the body integrated unit. <Ref. to BC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

NOTE:
Subaru Select Monitor screen (A/C system diagnostic code and time stamp)

Code	Description & trouble position	Trouble occurrence record	Trip Count	Time Count	**Count**
B14E1	Air mix door actuator stepping motor circuit wire break (driver’s seat)	Detected on the first time	983	18000	**Common**
B14E7	Heater core rear sensor circuit wire break	Detected on the 2nd time	984	117800	**Common**

Even when multiple diagnostic codes are stored in multiple control modules, it is possible to determine the code stored first through the count function.

NOTE:
Troubleshooting for CAN system U-code occurrence
When the first stored diagnostic code is a U-code for CAN system, perform the troubleshooting as a U code combination, instead of a U code alone. In addition, when CAN open circuit occurs, communication of the diagnostic device itself becomes impossible beyond the particular areas. However, trouble positions can also be determined by the combination of initial communication success/failure. Thus, by performing the basic diagnostic procedure in LAN system, trouble positions can be determined efficiently on the principle above. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

B: INSPECTION

1. INSPECTION WITHOUT USING CAN DIAGNOSTIC

Before performing diagnosis, check the following items that might affect troubles of each module.
1) Measure the battery voltage and check electrolyte.

Standard voltage: 12 V or more

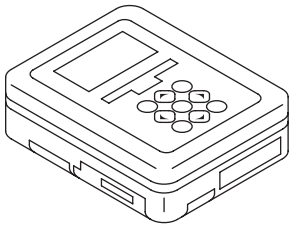
Specific gravity: 1.260 or more
2) Check the fuse condition.
Make sure that ampere of the fuse is setting value, and it is not blown out.
3) Check the connecting condition of harness and harness connector.

2. INSPECTION USING CAN DIAGNOSTIC

Before performing diagnostics, check the following item which might affect body integrated unit malfunctions.
1) Confirm settings of body integrated unit are corresponded to vehicle equipment. <Ref. to BC(diag)-17, OPERATION, Registration Body Integrated Unit.>
2) Make sure that the User Customizing of the body integrated unit matches the vehicle equipment. <Ref. to BC(diag)-15, OPERATION, User Customizing.>
3) Confirm “Factory initial setting” of body integrated unit registrations is set to “Market”.

C: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

3. General Description

A: CAUTION

1. SRS AIRBAG SYSTEM

The airbag system wiring harness is routed near the keyless access with push button start system.

CAUTION:
- **Do not use the electrical test equipment on all airbag system wiring harnesses and connectors.**
- **Be careful not to damage the wiring harness of the airbag system when servicing the keyless access with push button start system.**

2. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

NOTE:
- Using the function setting (ECM customizing), check that the keyless access system is not OFF.<Ref. to SL-112, OPERATION, Function Setting (Customize).>
- The dark current is approx. 400 mA if there is communication between the vehicle and access key.
- The dark current is approx. 40 mA if there is no communication between the vehicle and access key.*

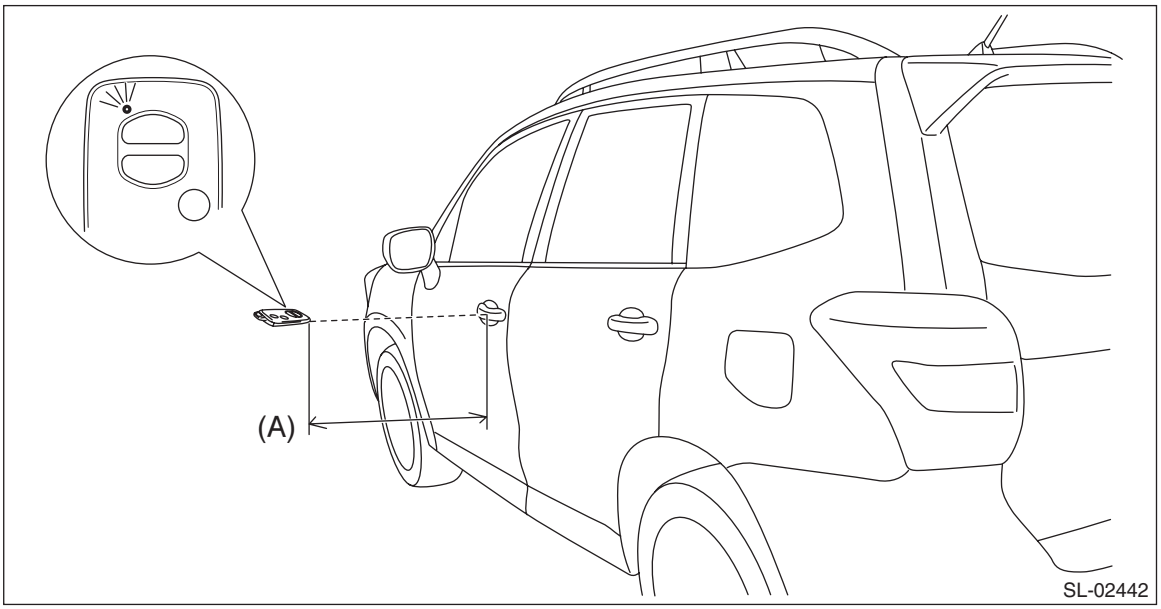
* No communication with the vehicle means that the keyless access function has been cancelled or that the access key has not been near the vehicle for 15 minutes or more after door locking.

1) Keyless access door unlock function check

(1) While carrying the access key with all doors locked by keyless lock operation, check the followings: When you grip the outer handle of the driver's front door, the door unlocks; When you grip the outer handle of the passenger's front door, all doors unlock, and then the answer-back function operates (hazard lights blink twice). (Setting can be changed by customizing of the body integrated unit.)

(2) In the keyless access door unlock detection area, hold the access key at the same height as the outer handle (approx. 80 cm from the ground) and in the direction shown in the figure, and check that the vehicle becomes unlock mode [access key LED (red) blinks] at 40 to 80 cm (A) from the vehicle.

NOTE:
Check the access key battery if the LED (red) does not illuminates when the access key button is pressed.<Ref. to SL-82, INSPECTION, Access Key.>

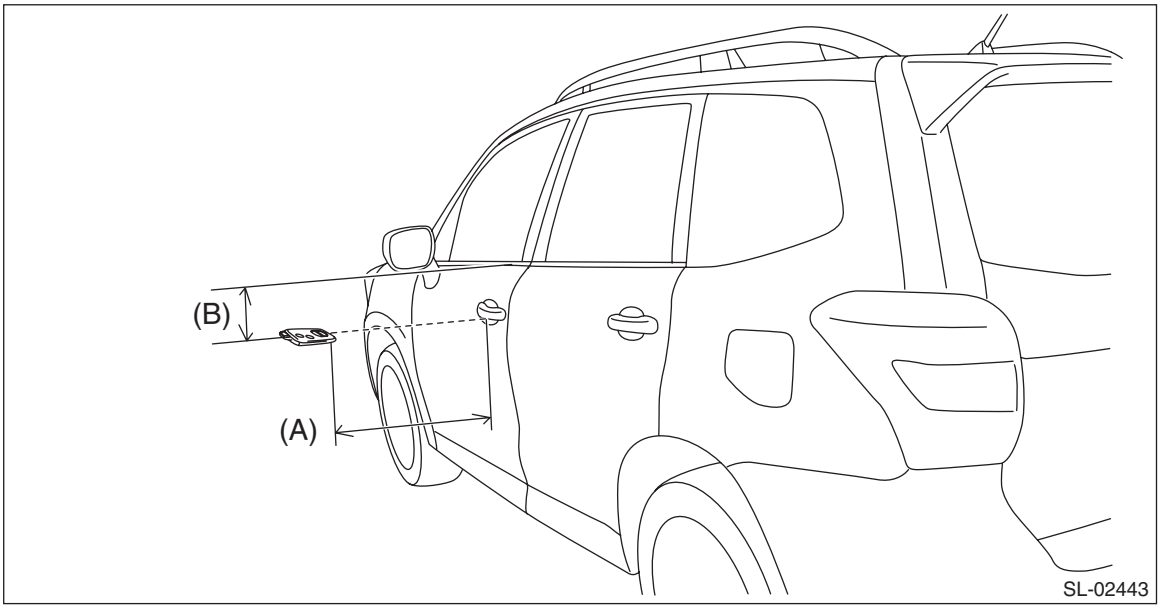


2) Check keyless access door lock function

(1) When carrying the access key outside of the vehicle with all doors closed and unlocked, check that when the touch sensor (lock) on the surface of door outer handle of front door is touched, all doors will lock and the answer-back function operates (hazard light blinks once).

CAUTION:
If the access key is within the vehicle but not within the detection area (in the instrument panel, on the rear tray, in the glove box, on the floor, in the door trim pocket or in the luggage room), then lock-out protection will not function when the doors are locked and the access key will be locked into the vehicle.

(2) To check the keyless access door lock operation range, hold the access key at a height (B) of 10 cm under the bottom edge of the door glass (approx. 80 cm from the ground) in the direction shown in the figure, and check that all doors lock and the answer-back function operates (hazard light blinks once) when you touch the touch sensor (lock) at a distance (A) of approx. 30 cm from the vehicle.



(3) Check the passenger's side door in the same manner.

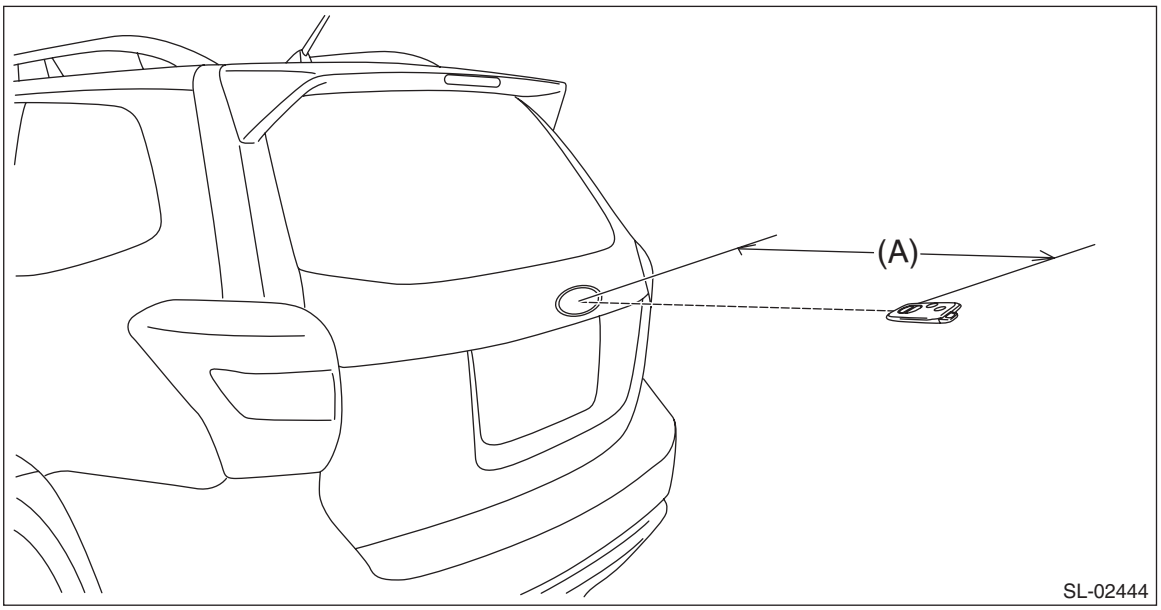
NOTE:
• When the door does not lock even if the touch sensor (lock) is touched, touch the touch sensors (lock) located at the upper and lower part of the door handle by holding with your hand.
• Since communication is not possible within close range (20 cm or less) of the door outer handle, the access key may not operate if you touch the touch sensor (lock) with the same hand you are holding the access key.
• If the lockout prevention buzzer sounds, it is possible that the interior transmitter has radio wave leakage.

3) Check of the keyless access rear gate function

(1) With the rear gate locked, check that the all doors unlock and rear gate opens simultaneously and the answer-back function operates (hazard light blinks twice) when you press the rear gate opener button while carrying the access key.

NOTE:
• For vehicles with power rear gate, the rear gate opens automatically. Holding down the button switches the operation to manual mode.
• The hazard light for the answer-back function blinks twice on vehicles without power rear gate, and four times on vehicles with power rear gate.

(2) To check the range for keyless access rear gate open operation, hold the access key behind and in the center of the vehicle at the same height as the rear gate opener button (90 cm from the ground) in the direction shown in the figure, and check that all doors unlock, the rear gate opens, and the answer-back function operates (hazard light blinks twice) when the rear gate opener button is pressed at a distance of 40 to 80 cm (A) from the vehicle.



(3) With the rear gate unlocked, check that all doors lock and the answer-back function operates (hazard light blinks once) when you press the rear lock button while carrying the access key.

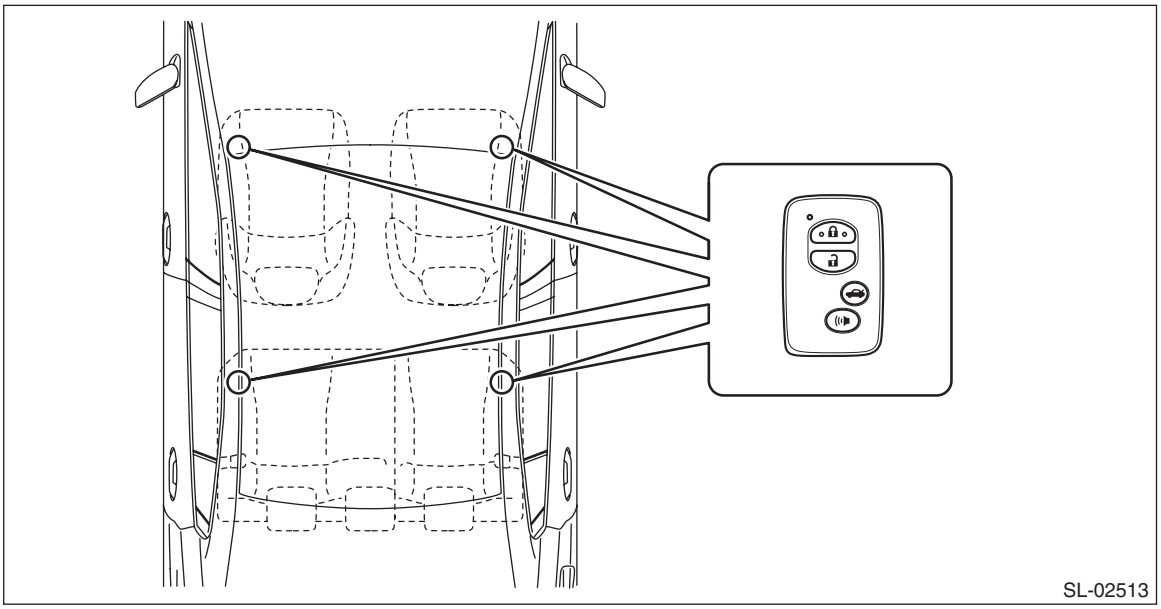
4) Check of the keyless access ignition switching function

(1) With the ignition OFF, enter the vehicle while carrying the access key. With the shift lever in the P range, check that the push button ignition switch indicator is illuminated in green when you depress the brake pedal, and check that the engine starts when you press the push button ignition switch while the indicator illuminated in green.

(2) While carrying the access key, check that when you press the push button ignition switch without depressing the brake pedal, the following occurs: 'Ignition OFF' → 'ACC ON' → 'Ignition ON' → 'Ignition OFF'. However, if the shift lever is any range except for the P range and the push button ignition switch is pressed from ignition ON, then it will change to ACC ON without changing to ignition OFF.

(3) After the vehicle has stopped, press the push button ignition switch and ignition is turned OFF (engine stopped · all power supplies OFF). However, if the shift lever is in any range except for the P range and the push button ignition switch is pressed with the vehicle stopped, then the ignition is not turned OFF and instead the power supplies changes to ACC ON. Check that the steering lock operates if the door is opened in the ignition OFF state (shift P range).

(4) To check the range of the keyless access ignition operation, check that the engine can start when you set the access key at the check position on the seat in the direction indicated in the figure.



CAUTION:
The access key may not be correctly detected even though it is within the detection area within the passenger room, if it is in the instrument panel, on the rear tray, in the glove box, on the floor, in the door trim pocket or in the luggage room.

NOTE:
Perform the check twice, once each with the access key positioned on the driver's, passenger's and rear seats.

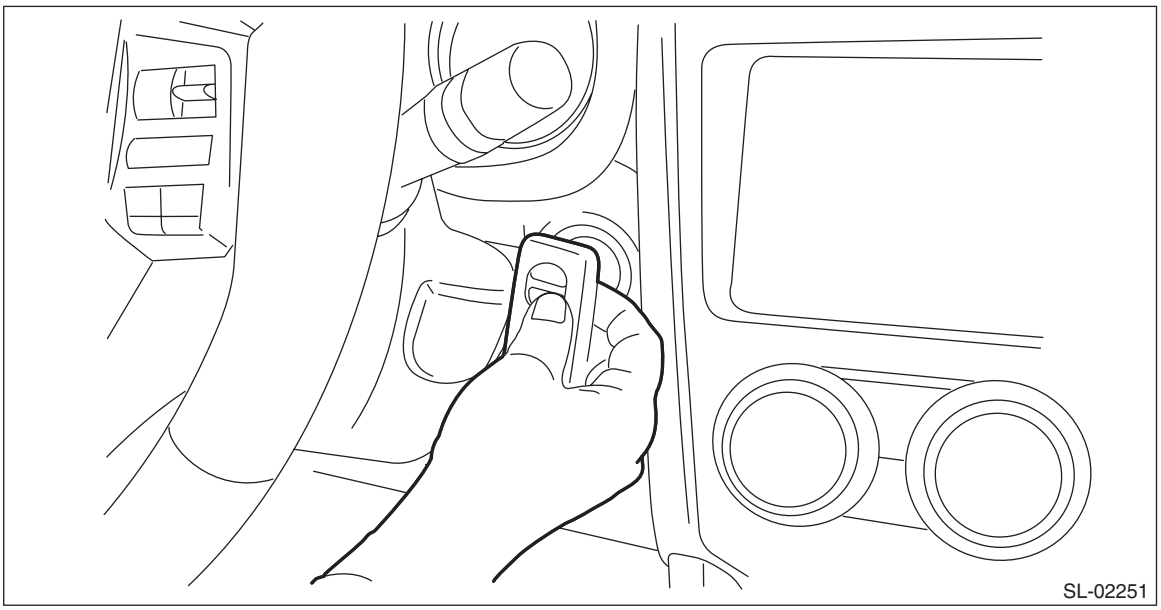
5) Lockout protection function check (in the passenger room)

CAUTION:
Open one of the windows before performing this check in order to prevent the key from being locked inside the vehicle.

(1) Position the access key on the driver's or passenger's seat.
(2) Close all doors. (with all doors unlocked)
(3) Check that the doors do not lock and the lockout protection buzzer (exterior) sounds for 2 seconds when you touch the touch sensor (lock) of either the driver's or passenger's door.

6) Check of the keyless access cancel function
(1) After setting the keyless access cancel function, check that all keyless access and start system (keyless access) functions are inoperable. (For cancel setting, refer to<Ref. to SL-112, OPERATION, Function Setting (Customize).>)

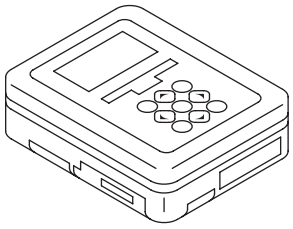
NOTE:
When keyless access is cancelled, door lock and unlock can be operated by access key button operation and the starter system can be operated by passing the access key over the push button ignition switch with the access key button toward you.



7) Access key diagnostic mode
(1) Connect the Subaru Select Monitor, and select «Work Support» of {Keyless access system}.<Ref. to KPS(diag)-33, Keyless Access System Check.>
(2) From {Work Support}, select «Function Check Sequence».
(3) From {Function Check Sequence}, select «Keyless access system check».
(4) Select the transmitter to check from the items.
(5) Check that the door lock buzzer sounds (short blips, a continuous beeping sound for the center room antenna) when the access key is near the selected transmitter or antenna.

B: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

3. General Description

A: CAUTION

1. AIRBAG SYSTEM

Airbag system wiring harness is routed near the cruise control command switch.

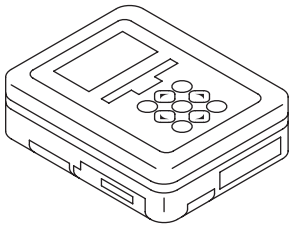
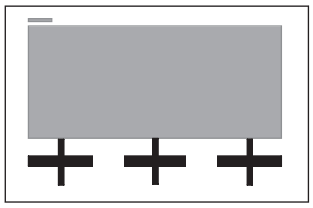
CAUTION:
• Do not use the electrical test equipment on the airbag system wiring harnesses and connector circuits.
• Be careful not to damage the airbag system wiring harness when servicing the cruise control command switch.

2. EyeSight

CAUTION:
• Do not hold the camera unit of the stereo camera.
• Do not touch the lens on the stereo camera.
• Do not clean the lens of the stereo camera.
• When cleaning the windshield glass, use care so that the glass cleaner, etc. does not come in contact with the lens of the stereo camera.
• Do not make an impact or apply excessive force to the stereo camera.
• Do not disassemble the stereo camera.
• Do not change the installation position of the stereo camera or do not modify the surrounding structure.
• If the stereo camera or windshield glass is removed or replaced, always adjust or check the stereo camera.
• When lifting up the vehicle to rotate the tires, turn off the pre-crash function.
• Stereo camera axis may be displaced even in a minor collision. Even if the EyeSight warning light or etc. is not illuminated, or the E3 is not displayed on the multi information display, adjust the stereo camera.
• When removing the stereo camera cover assembly, cover the camera cover opening with the protective tape with a weak adhesive force such as masking tape, etc. <Ref. to ES-11, REMOVAL, Stereo Camera.>

B: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.
 ST87599YC001	87599YC001	RANDOM CHART	Used for adjusting stereo camera.

2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.
Measure (5 m (16 ft) or more)	Used for adjusting stereo camera.
Leveling line	Used for adjusting stereo camera.
Plumb bob	Used for adjusting stereo camera.
Weight	Used for adjusting stereo camera.
Packing tape	Used for adjusting stereo camera.
Masking tape	Used for removing and installing stereo camera cover assembly.

C: INSPECTION

1. BATTERY

Measure the battery voltage and specific gravity of electrolyte.

Standard voltage:
12 V or more

Specific gravity:
1.260 or more

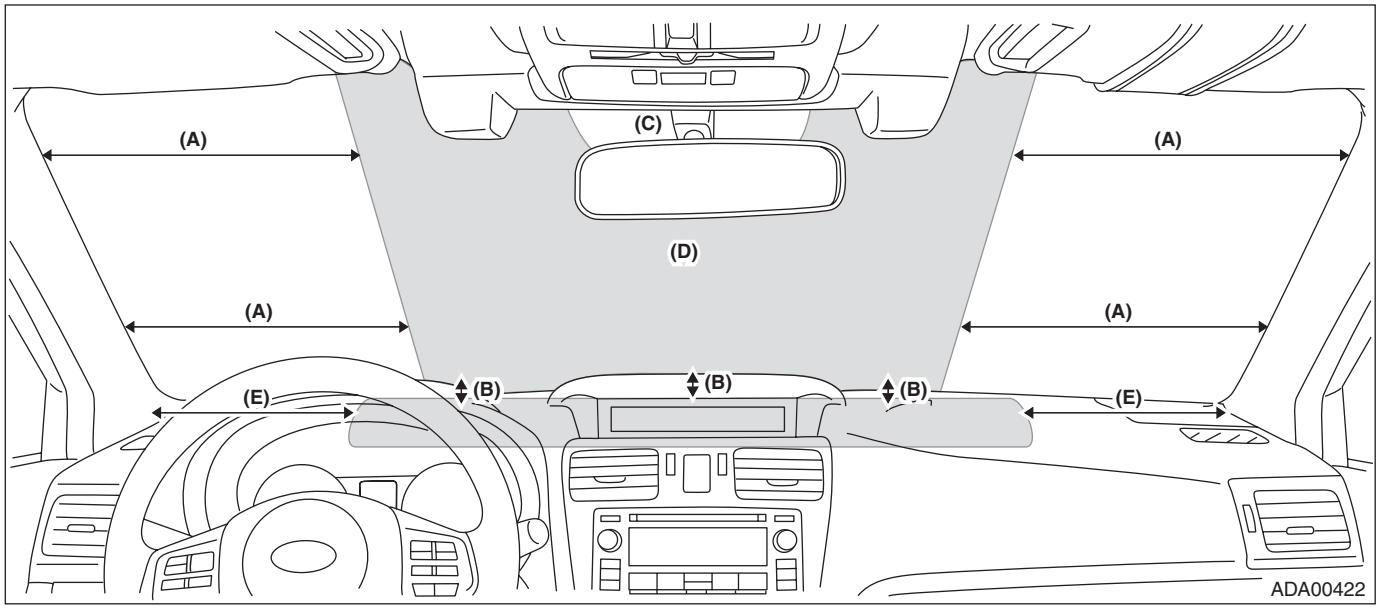
2. WINDSHIELD GLASS AND DASHBOARD

Remove the windshield glass and dashboard in front of the stereo camera.

Standard:
There must be no oil film, dirt, scratch or fogging that obstructs the forward visibility of the stereo camera.
Do not stick or attach the aftermarket parts on the prohibited area (D) shown in the figure below. Even outside the prohibited area, if the abnormal operation occurs due to the reflection of the light or the reflection on the glass, change the adhering position or installation position.

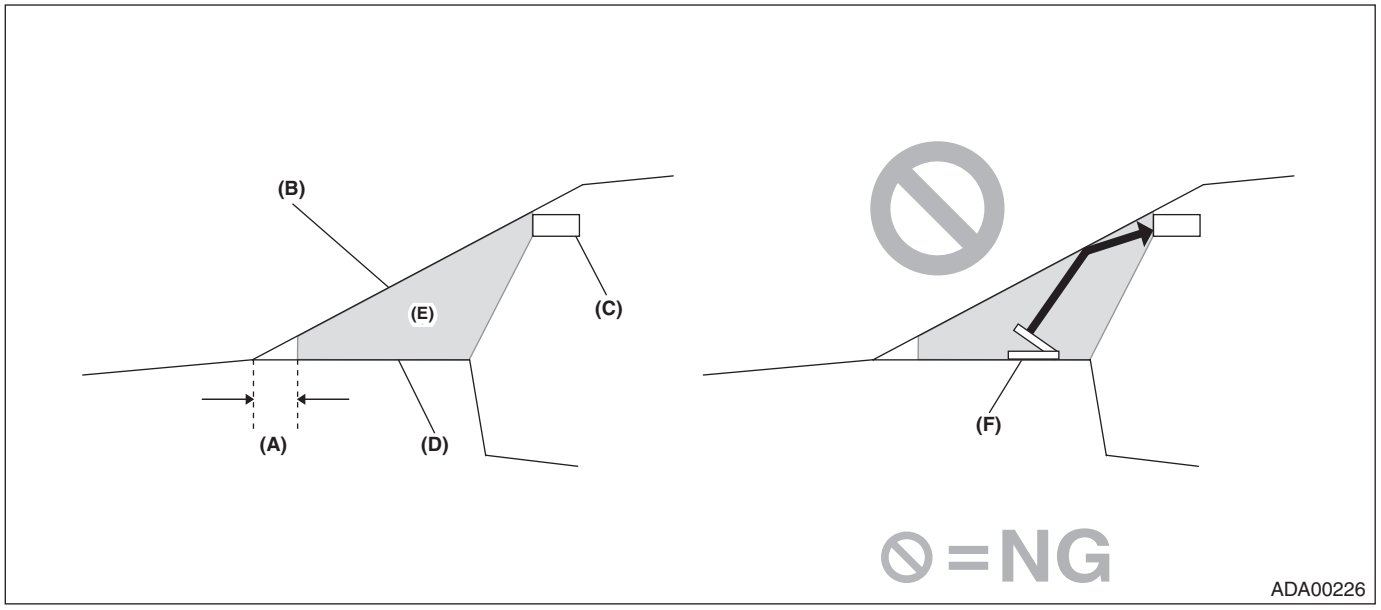
- ***Application of stickers or antennas, installation of wide-type mirror***
  - ***This will affect the visibility of the stereo camera, causing the function not to operate correctly.***
- ***Placement of navigation unit, ETC or other things on the dashboard***
  - ***These things will be reflected on the windshield glass, affecting the recognition of the stereo camera, thus causing the function not to operate correctly.***

- Front view



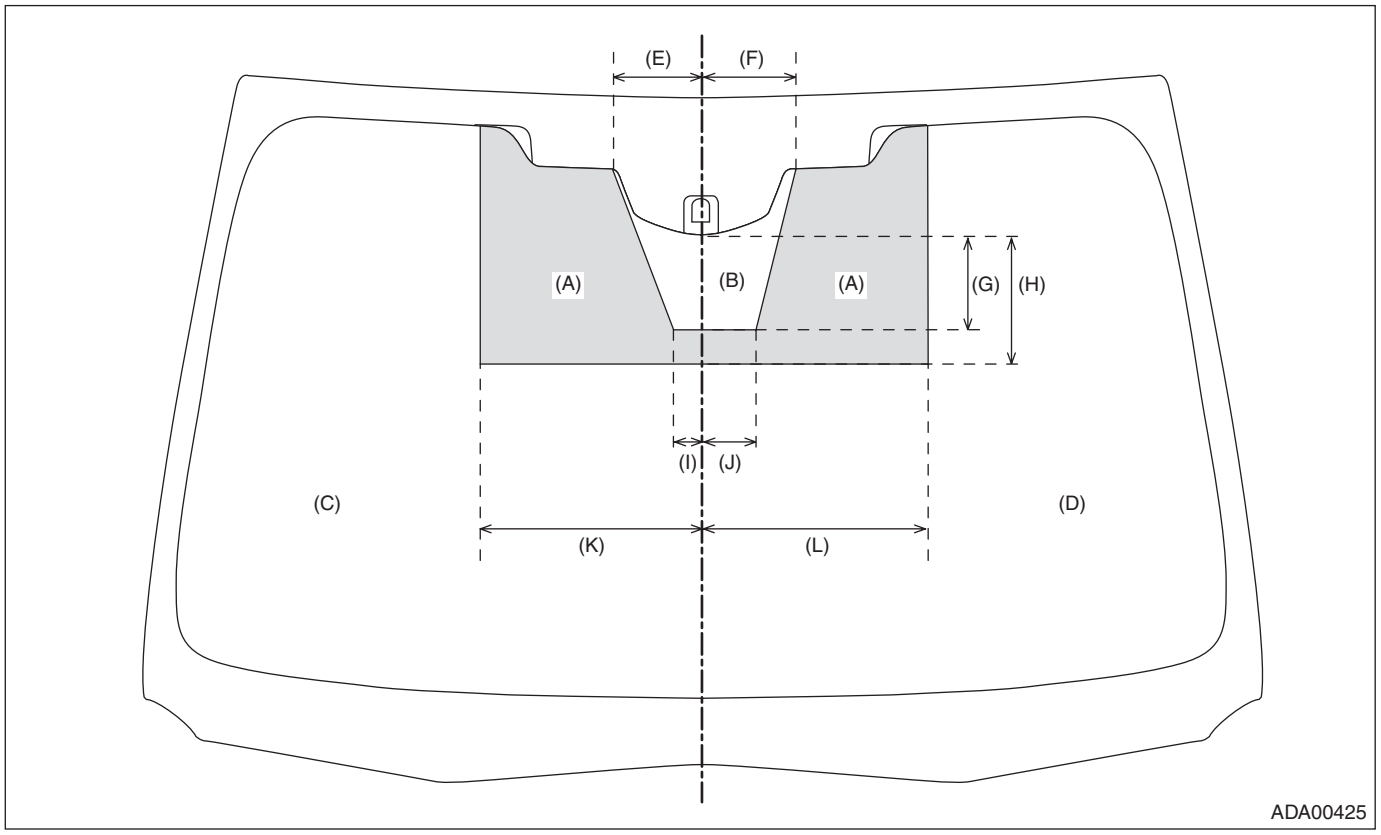
(A) 350 mm (13.8 in)
(B) 120 mm (4.7 in)
(C) Ceramic area
(D) Prohibited area
(E) 120 mm (4.7 in)

- Side view



(A) 120 mm (4.7 in)
(B) Windshield glass
(C) Stereo camera cover
(D) Dashboard
(E) Prohibited area
(F) External monitor etc.

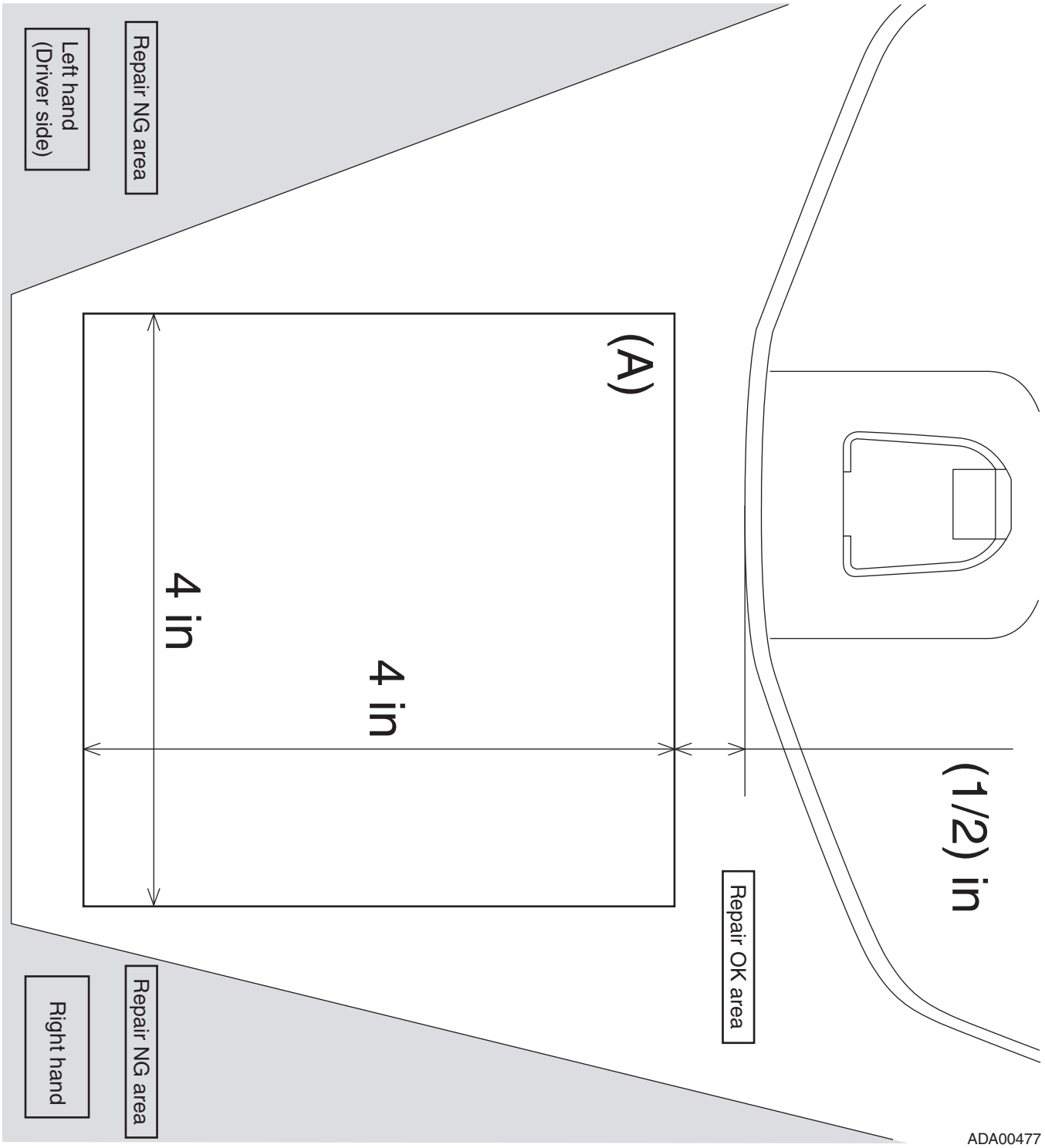
NOTE:
• Clean the windshield glass if dirt or fogging is found on the glass. Repair or replace the glass if damage is found.
– When cleaning the inner side of the windshield glass, be careful not to touch the lens of the stereo camera. Take care so that the glass cleaner is not applied to the lens. (As with the removal of the stereo camera, cover the camera cover opening with the protective tape with a weak adhesive force such as masking tape, etc before operation. After operation, be sure to remove the tape.)<Ref. to ES-11, REMOVAL, Stereo Camera.>
– When replacing the windshield glass, be sure to replace the part for the EyeSight.
– If the glass is removed or replaced, always perform the stereo camera adjustment and inspection.
• If the damage is found in the glass repair prohibited area shown in the figure below, replace the glass.
– Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.



(A)	Glass repair prohibited area	(E)	115 mm (4 1/2 in)	(I)	36 mm (1 1/4 in)
(B)	Glass repairable area	(F)	125 mm (4 3/4 in)	(J)	72 mm (2 3/4 in)
(C)	Glass repairable area (Driver's side)	(G)	127 mm (5 in)	(K)	290 mm (11 1/2 in)
(D)	Glass repairable area (Passenger's side)	(H)	170 mm (6 3/4 in)	(L)	300 mm (11 3/4 in)

– Install the ETC transponder inside the area (A) shown in the figure below.
Before installing, attach a full-scale copy of the following figure onto the windshield glass surface to install the parts to correct positions.
– Align the position with respect to the end of the ceramic area.
– Prepare a full-scale copy in which the reference dimension on the upper part of the figure actually has 4 inches long.

– Only the transponder with a thickness of 1.5 inches or less can be used.



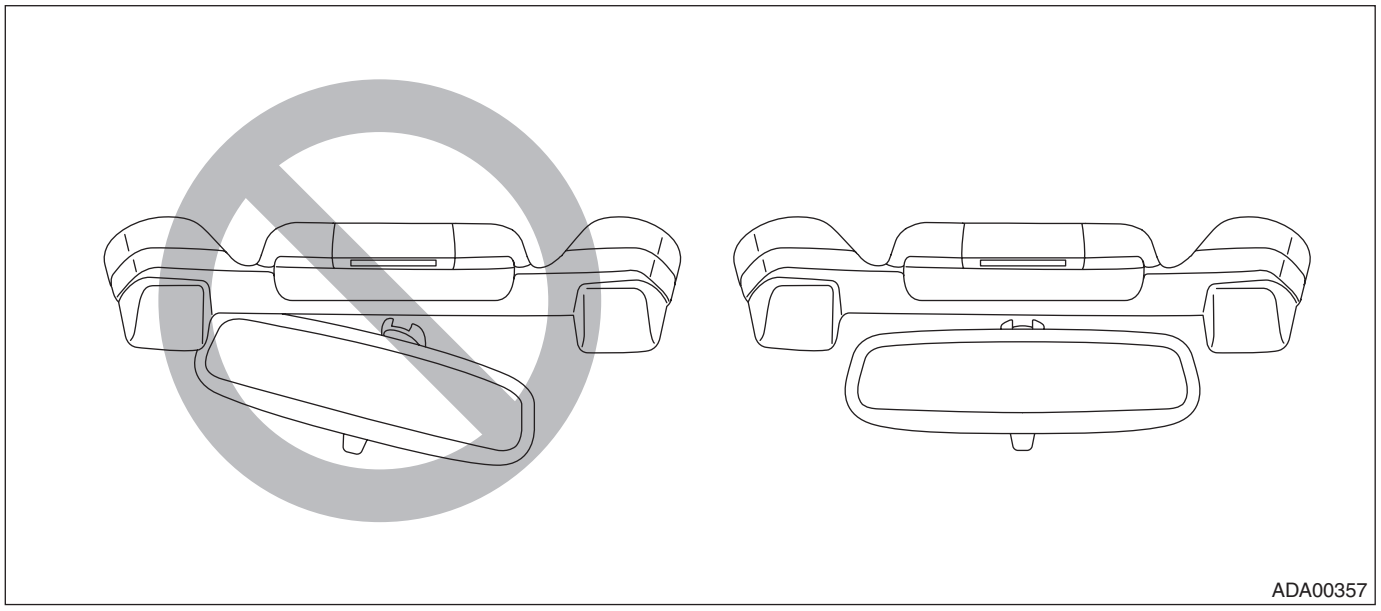
- Relocate any aftermarket parts out of the prohibited area.
- Do not touch the lens on the stereo camera. Do not clean the lens of the stereo camera. (If the lens surface is touched, the lens hood must be replaced as it is impossible to clean the lens surface for ensuring quality.)

3. REAR VIEW MIRROR

Check the rear view mirror condition.

Standard:

The rear view mirror other than genuine parts shall not be used. (Wide mirrors shall not be used)
The visibility of the stereo camera shall not be blocked.
— This will affect the visibility of the stereo camera, causing the system not to operate correctly.



4. FRONT WIPER

Check the wiping condition of windshield glass.

Standard:

Use Subaru genuine part only for wiper blade body and blade rubber.
— Using the part other than genuine part will affect the recognition of the stereo camera, which may cause the function not to operate correctly.
Do not continue using the damaged blade rubber.
— The glass may be damaged. If the wiping performance decreases, or in the distinct streak is found, replace it as soon as possible.

NOTE:
Clean the windshield glass if oil film or dirt is found.

5. TIRE INFLATION PRESSURE

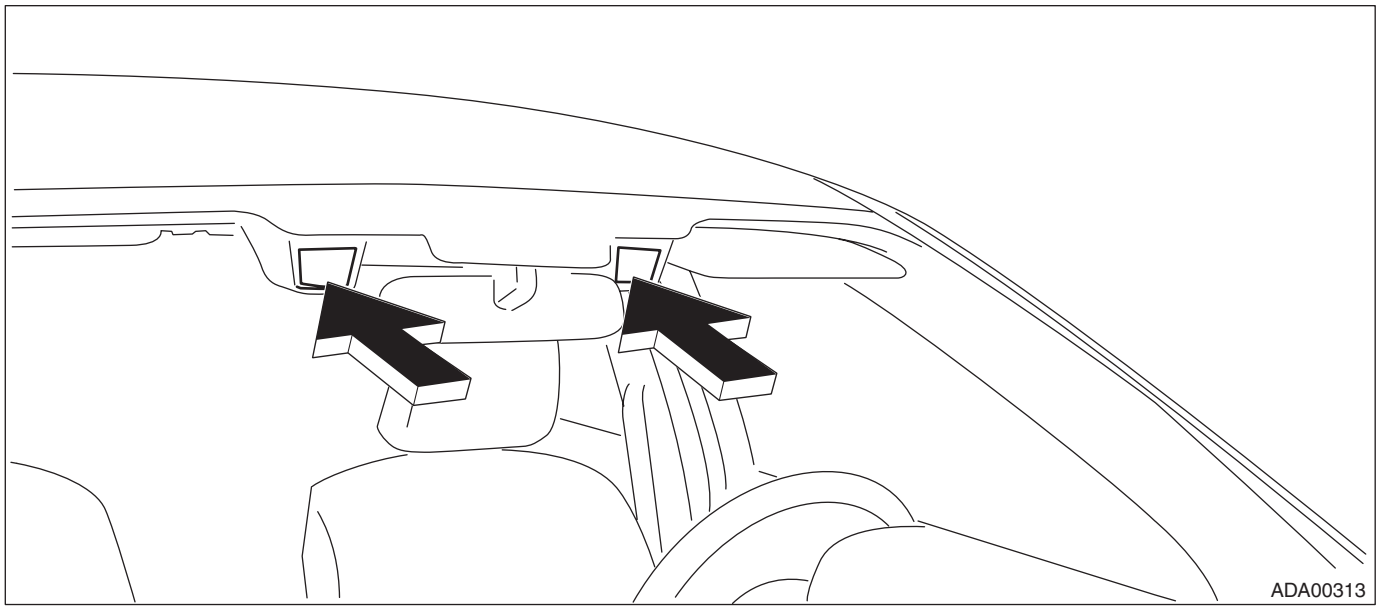
Check the tire air pressure.

Standard:

Adjust to the specified air pressure. <Ref. to WT-2, SPECIFICATION, General Description.>
Do not install worn tire or tires with excessive wear difference.
Install tires with specified size.

6. STEREO CAMERA

Check the lens filter on the left and right camera lenses of the stereo camera for fingerprints or lens filter for cracks or etc. through the windshield glass.



NOTE:

- Do not remove the camera or camera cover to check the lens.
- When spider's web or insects are found in the visibility of the camera or lens hood, remove it using the air blow not to touch the lens surface. Do not cover them with hand or cloth.
- Thin and uniform adhesion of dust, dirt or tobacco stains to the lens filter surface resulting from normal use will not be an obstacle. Do not attempt to clean in such cases.
- If oil from such as a fingerprint adheres or an excessive dirt adheres, or if lens filter cracks, the lens hood must be replaced. <Ref. to ES-16, REPLACEMENT OF LENS HOOD, REPLACEMENT, Stereo Camera.>
- If the fingerprint adhesions or cracks occur on the lens filter, the following failures may arise.
  – The vehicle may not be able to detect the preceding vehicle or obstacle because the defects can induce the irregular reflection of the headlight of oncoming vehicle.
  – The vehicle may not be able to detect the preceding vehicle or obstacle because the defects can induce the irregular reflection of the brake light of the preceding vehicle.
  – All the functions of the EyeSight may be suspended by the self-diagnosis function equipped with the camera.
  – When the lens filter is broken, the vehicle may not be able to detect the preceding vehicle or obstacle all day and all night.
- Even if the lens filter is not touched, applying the force to the black hood securing the lens filter may tension the lens filter to crack it.
- Do not clean the lens filter with any cleaner. It is quite difficult to uniformly clean both of the right and left lenses, and such an attempt just ends up spreading dirt and will cause problems as same as those from oil film.

3. General Description

A: CAUTION

1) The occupant detection system (passenger seat only) control module and the occupant detection sensor are fixed to the seat cushion frame. Never remove the occupant detection control module or the occupant detection sensor from the seat cushion frame.
2) Do not replace the seat cushion pad and seat cushion cover alone. Always replace seat cushion & frame assembly as a set. The seat cushion pad, cushion frame, and seat cushion cover are adjusted as a set at the time of manufacture. If cushion pads and cushion frames are combined from those of other vehicles or other sets, the occupant detection system may not operate properly.
3) Never connect the battery in reverse polarity. Occupant detection system may be destroyed instantly.
4) Do not disconnect the battery terminals while the engine is running. A large counter electromotive force will be generated in the generator, and this voltage may damage electronic parts such as occupant detection control module.
5) Before disconnecting the connectors of each sensor and control module, be sure to turn the ignition switch to OFF and wait for 60 seconds or more. Occupant detection control module may be damaged.
6) Every occupant detection system-related part is a precision part. Do not drop them.

CAUTION:
• Do not use electrical test equipment on wiring harness and connector circuits of the airbag system.
• Be careful not to damage the airbag system wiring harness when servicing the occupant detection system.
• Refer to CAUTION in Airbag System when repairing the occupant detection system. <Ref. to AB-9, CAUTION, General Description.>

B: INSPECTION

Measure the battery voltage and check electrolyte.

Standard voltage:
12 V

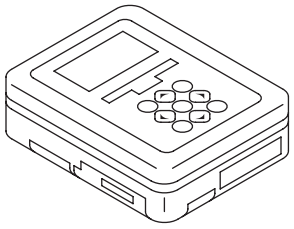
Specific gravity:
1.260 or more

Fluid level:
Between the upper level and lower level

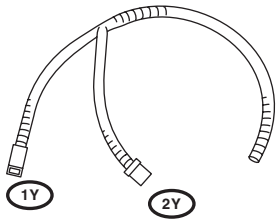
C: PREPARATION TOOL

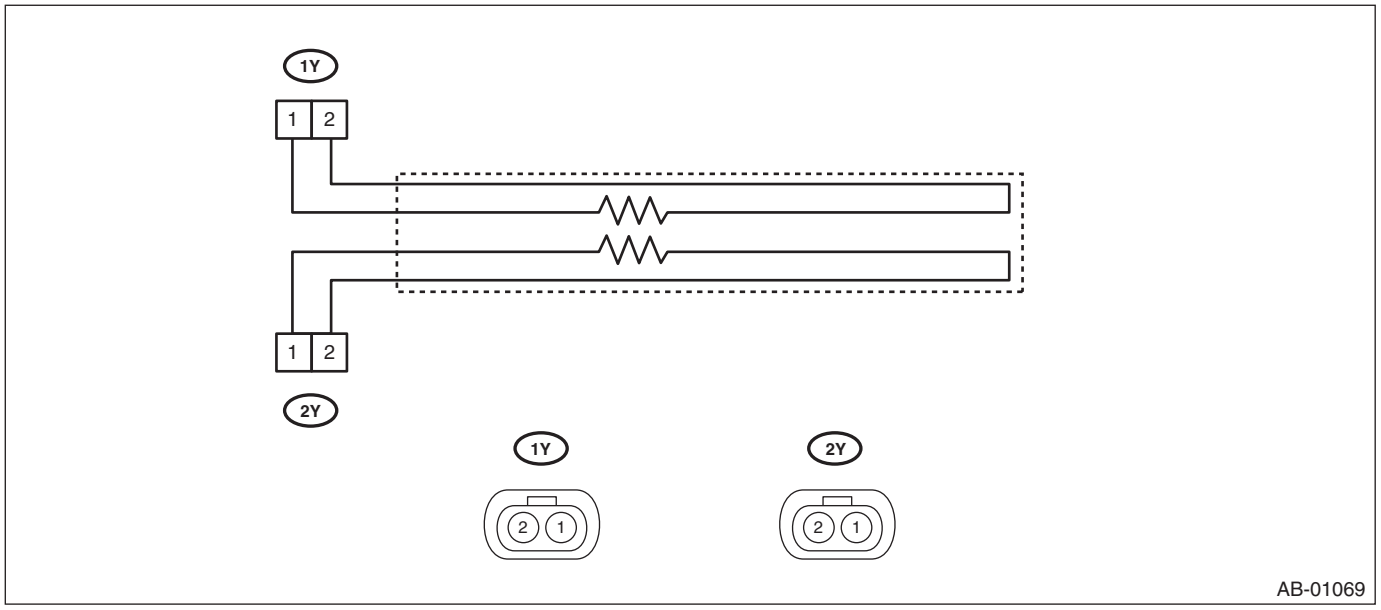
CAUTION:
To measure the voltage and resistance of airbag system and occupant detection system components, be sure to use the specified test harness.

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST1B022XU0	1B022XU0	SUBARU SELECT MONITOR III KIT	Used for troubleshooting the electrical system.

- TEST HARNESS Y

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299AG040	98299AG040	TEST HARNESS Y	Used for troubleshooting seat belt buckle switch.



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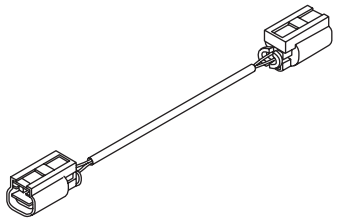
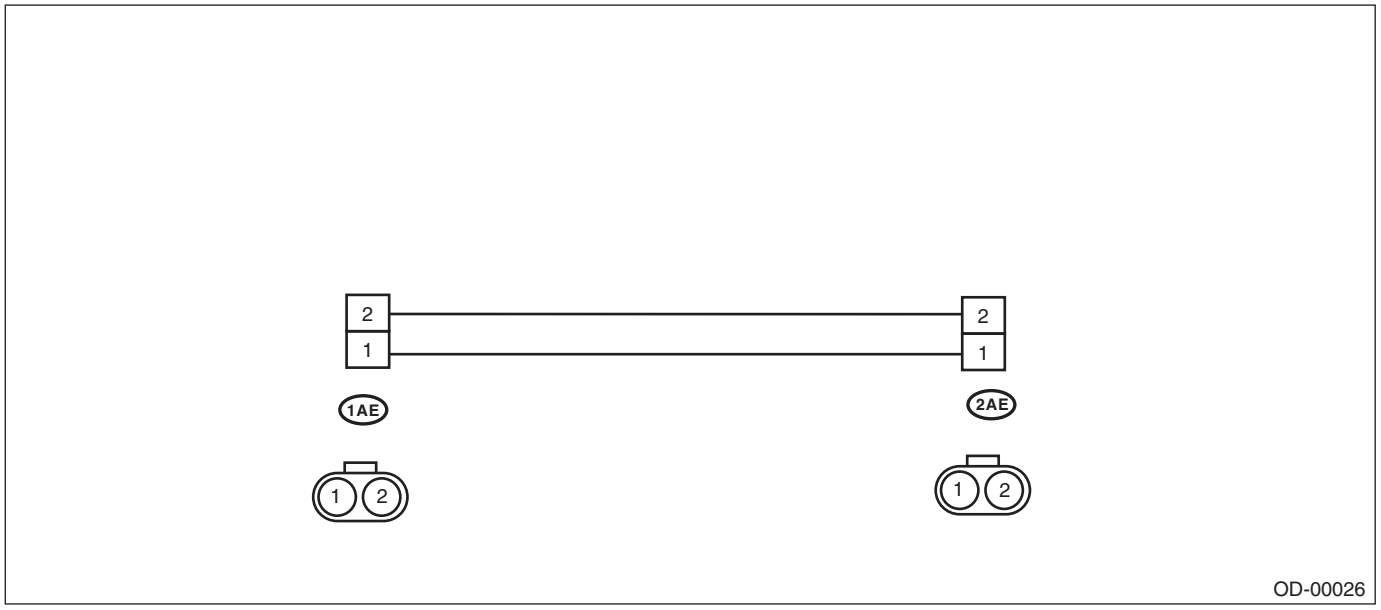
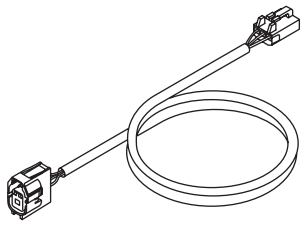
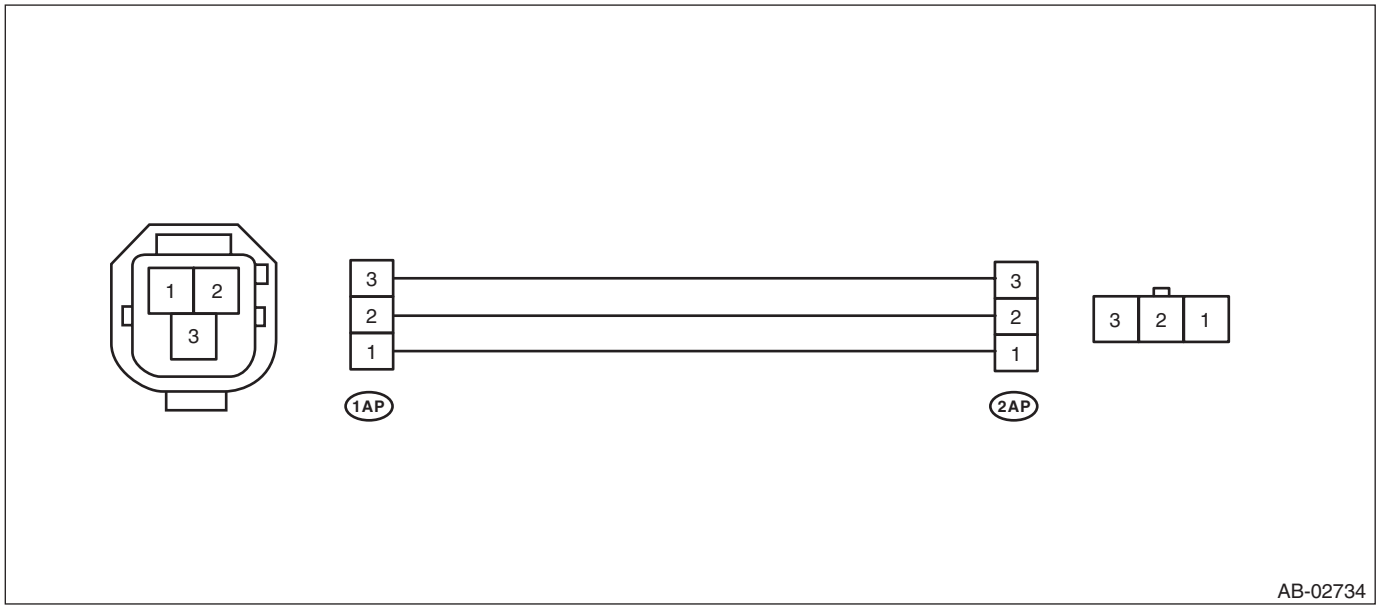
- TEST HARNESS AE

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299XA030	98299XA030	TEST HARNESS AE	TEST HARNESS Y adapter harness Used for troubleshooting seat belt buckle switch.



- TEST HARNESS AP

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST98299FJ030	98299FJ030	TEST HARNESS AP	Used when measuring voltage and resistance of occupant detection system.



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2. GENERAL TOOL

TOOL NAME	REMARKS
Circuit tester	Used for measuring resistance, voltage and current.

3. Headlight System

A: WIRING DIAGRAM

Refer to “Headlight System” in the wiring diagram. <Ref. to WI-257, WIRING DIAGRAM, Headlight System.>

B: INSPECTION

1. AUTO HEADLIGHT SYSTEM CHECK

	Step	Check	Yes	No
1	**CHECK HEADLIGHT ILLUMINATION.** Set the lighting switch to the switch 1 (TAIL) and switch 2 (HEAD).	Do the tail and headlight illuminate?	Go to step **2**.	Check the combination switch (light) and headlight bulb.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the data of «Lighting AUTO input». NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Does the display switch between OFF ←→ ON when the lighting switch is moved to AUTO position?	Go to step **3**.	Go to step **8**.
3	**CHECK CURRENT DATA.** 1) Using the Subaru Select Monitor, display the data of «Illumination Sensor Output». 2) Measure the voltage when the area around the light control sensor, which was dark, becomes bright. ***Illumination sensor output*** ***Dark condition: Approx. 0.6 V or less*** ***Bright condition: Approx. 3.0 V or more***	Is the voltage output according to the brightness?	Check and replace the body integrated unit. • Inspection: <Ref. to BC(diag)-2, Basic Diagnostic Procedure.> • Replacement: <Ref. to SL-75, Body Integrated Unit.>	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connectors from body integrated unit and light control sensor. 2) Check the harness between body integrated unit and light control sensor. ***Connector & terminal*** ***(B280) No. 19 — (i89) No. 2:*** ***(B280) No. 29 — (i89) No. 1:*** ***(B281) No. 1 — (i89) No. 3:***	Is harness normal?	Go to step **5**.	Repair or replace the harness.
5	**CHECK HARNESS.** 1) Connect the connector of body integrated unit. 2) Turn the ignition switch to ON. 3) Measure the voltage between light control sensor connector and chassis ground. ***Connector & terminal*** ***(i89) No. 3 (+) — Chassis ground (–):***	Is the voltage 4.5 — 5.5 V?	Go to step **6**.	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>
6	**CHECK BODY INTEGRATED UNIT.** Measure the resistance between the body integrated unit and chassis ground. ***Connector & terminal*** ***(B280) No. 29 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **7**.	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>
7	**CHECK LIGHT CONTROL SENSOR.** 1) Connect the light control sensor connector. 2) Check the light control sensor. <Ref. to LI-26, INSPECTION, Light Control Sensor.>	Is the light control sensor normal?	Go to step **8**.	Replace the light control sensor.
8	**CHECK COMBINATION SWITCH (LIGHT).** Check the combination switch (light). <Ref. to LI-22, INSPECTION, Combination Switch (Light).>	Is the combination switch (light) normal?	Go to step **9**.	Replace the combination switch (light).

Step		Check	Yes	No
9	**CHECK HARNESS.** 1) Disconnect the connectors of body integrated unit and combination switch (light). 2) Check the harness between body integrated unit and combination switch (light). ***Connector & terminal*** ***(B71) No. 19 — (B281) No. 16:***	Is harness normal?	Check and replace the body integrated unit. • Inspection: <Ref. to BC(diag)-2, Basic Diagnostic Procedure.> • Replacement: <Ref. to SL-75, Body Integrated Unit.>	Repair or replace the harness.

2. CHECK LIGHTING SWITCH

Refer to the “INSPECTION” of the “Combination Switch (Light)”. <Ref. to LI-22, INSPECTION, Combination Switch (Light).>

3. CHECK DIMMER & PASSING SWITCH

Refer to the “INSPECTION” of the “Combination Switch (Light)”. <Ref. to LI-22, INSPECTION, Combination Switch (Light).>

C: NOTE

For operation procedures of each component of the headlight system, refer to the respective section.
- Headlight Assembly: <Ref. to LI-27, Headlight Assembly.>
- Headlight bulb: <Ref. to LI-34, Headlight Bulb.>
- Combination switch (light): <Ref. to LI-18, Combination Switch (Light).>
- Light control sensor: <Ref. to LI-25, Light Control Sensor.>

3. Horn System

A: WIRING DIAGRAM

Refer to “Horn System” in the wiring diagram. <Ref. to WI-261, WIRING DIAGRAM, Horn System.>

B: INSPECTION

Symptoms	Inspection steps
Horn does not sound	1. Check the fuse.
	2. Check the horn relay.
	3. Check the role connector.
	4. Check the horn switch.
	5. Check the horn assembly.
	6. Check the harness.

C: NOTE

For operation procedures of each component of the horn system, refer to the respective section.

- Horn ASSY: <Ref. to COM-5, Horn.>
- Horn switch: <Ref. to COM-8, Horn Switch.>

3. Inspection Locations after a Collision

A: REPLACEMENT

Replace the following parts if the airbag system has been activated.

1. FRONT COLLISION

1) Driver's airbag module
2) Knee airbag module
3) Passenger's airbag module
4) Driver's seat belt (pretensioner)
5) Passenger's seat belt (pretensioner)
6) Lap seat belt pretensioner (passenger's side only)
7) Airbag control module
8) Front sub sensor (right and left)
9) Roll connector
10) Passenger's side seat cushion pad and frame assembly
11) Instrument panel (for integrating with passenger's airbag module)
12) Side airbag module (right and left / if deployed)
13) Pad assembly - front seat backrest (if the side airbag is deployed)
14) Cover COMPL - front backrest (if the side airbag is deployed)
15) Curtain airbag module (right and left / if deployed)
16) Trim panel roof assembly (if the curtain airbag is deployed)
17) Trim panel of each pillar (if the curtain airbag is deployed)

2. SIDE COLLISION

1) Airbag control module
2) Satellite safing sensor
3) Cover - satellite safing
4) Side airbag module (operating side)
5) Side airbag sensor (operating side)
6) Front door impact sensor (operating side)
7) Curtain airbag module (operating side)
8) Curtain airbag sensor (operating side)
9) Pad assembly - front seat backrest (operating side)
10) Cover COMPL - front backrest (operating side)
11) Trim panel - roof assembly
12) Trim panel for each pillar (operating side)
13) Seat belt pretensioner (after collision / if deployed)

3. ROLL OVER

1) Airbag control module
2) Curtain airbag module (both sides)
3) Driver's seat belt (pretensioner)
4) Passenger's seat belt (pretensioner)

4. INSPECTION OF OTHER PARTS

Check for the following parts, and replace the damaged parts with new parts.
1) Steering wheel and column assembly - steering
Check the column assembly - steering for mounting conditions and deflection of front and rear, upward and downward directions, and deflection of front and rear direction with tilt lever released. (After a collision, absorbing part of the column assembly - steering may have been operated.)
2) Check the direct type connector of driver's airbag module, knee airbag module, curtain airbag module, and pretensioner for damage, and also check each harness for pinching and connector damage. Replace the main harness as an assembly if damage is found.
3) Check the seat cushion, backrest, slide rail and headrest for installation condition, looseness, deformation and crack.
4) If any break or fray is found in the cover COMPL - front backrest of the driver's seat or passenger's seat, the side airbag system may not operate normally. In this case, replace the cover COMPL - front backrest with a new part.
5) For the passenger's seat, replace the passenger's seat cushion and frame assembly with a new part if the frame assembly - front cushion is deformed or cracked.
6) If there are tears or loosening in the seat cover - front cushion on the passenger's side, it may interfere with the proper operation of the occupant detection system. Replace the passenger's seat cushion and frame assembly with a new part.
7) Use the Subaru Select Monitor to check whether the passenger's seat belt buckle switch is operating normally.

B: INSPECTION

If the vehicle is involved in a collision, even if it is a slight collision, be sure to check the following systems.

1. DRIVER'S AIRBAG MODULE ASSEMBLY

1) Frontal collision (driver's airbag module assembly activated)
1. Replace the following parts with new ones.
   - Airbag control module
   - Driver's airbag module
   - Knee airbag module
   - Passenger's airbag module
   - Seat belt pretensioner (right and left)
   - Lap seat belt pretensioner (passenger's side only)
   - Side airbag module (right and left / if deployed)
   - Curtain airbag module (right and left / if deployed)
   - Front sub sensor (right and left)
   - Column assembly - steering
   - Pad assembly - front seat backrest (if the side airbag is deployed)
   - Cover COMPL - front backrest (if the side airbag is deployed)
   - Trim panel roof assembly (if the curtain airbag is deployed)
   - Trim panel of each pillar (if the curtain airbag is deployed)
2. Visually inspect the following items and replace any damaged part with a new one.
   - Steering wheel
   - Beam COMPL - steering
   - Instrument panel harness and connector on body side

2) Frontal collision (driver's airbag module not activated)
Visually inspect the following items and replace any damaged or cracked part with a new one.
Specially inspect the damage of airbag module body, mounting bracket and harness connector.
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

3) No frontal collision
Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

2. KNEE AIRBAG MODULE

1) Frontal collision (knee airbag module activated)
1. Replace the following parts with new ones.
   - Airbag control module
   - Driver's airbag module
   - Knee airbag module
   - Passenger's airbag module
   - Seat belt pretensioner (right and left)
   - Lap seat belt pretensioner (passenger's side only)
   - Side airbag module (right and left / if deployed)
   - Curtain airbag module (right and left / if deployed)
   - Front sub sensor (right and left)
   - Column assembly - steering
   - Pad assembly - front seat backrest (if the side airbag is deployed)
   - Cover COMPL - front backrest (if the side airbag is deployed)
   - Trim panel roof assembly (if the curtain airbag is deployed)
   - Trim panel of each pillar (if the curtain airbag is deployed)
2. Visually inspect the following items and replace any damaged part with a new one.
   - Steering wheel
   - Beam COMPL - steering
   - Instrument panel harness and connector on body side

2) Frontal collision (knee airbag module not activated)
Visually inspect the following items and replace any damaged or cracked part with a new one.
Specially inspect the damage of airbag module body, mounting bracket and harness connector.
- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

3) No frontal collision
Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

3. PASSENGER'S AIRBAG MODULE

1) Frontal collision (passenger's airbag module activated)

1. Replace the following parts with new ones.
   - Airbag control module
   - Driver's airbag module
   - Knee airbag module
   - Passenger's airbag module
   - Seat belt pretensioner (right and left)
   - Lap seat belt pretensioner (passenger's side only)
   - Side airbag module (right and left / if deployed)
   - Curtain airbag module (right and left / if deployed)
   - Front sub sensor (right and left)
   - Instrument panel assembly (because it is integrated with passenger's airbag module)
   - Pad assembly - front seat backrest (if the side airbag is deployed)
   - Cover COMPL - front backrest (if the side airbag is deployed)
   - Trim panel roof assembly (if the curtain airbag is deployed)
   - Trim panel of each pillar (if the curtain airbag is deployed)
2. Visually inspect the following items and replace any damaged part with a new one.
   - Beam COMPL - steering
   - Instrument panel harness and connector on body side

2) Frontal collision (passenger's airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one.
Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Driver's airbag module
- Knee airbag module
- Passenger's airbag module
- Seat belt pretensioner (right and left)
- Lap seat belt pretensioner (passenger's side only)
- Front sub sensor (right and left)
- Instrument panel assembly (because it is integrated with passenger's airbag module)

3) No frontal collision

Visually inspect the airbag modules for damage or contamination and replace any faulty part with a new one.

4. SIDE AIRBAG MODULE

1) Side impact (side airbag module activated)

1. Replace the following parts with new ones.
   - Airbag control module
   - Satellite safing sensor
   - Cover - satellite safing
   - Front door impact sensor (operating side)
   - Side airbag module (operating side)
   - Side airbag sensor (operating side)
   - Curtain airbag module (operating side)
   - Curtain airbag sensor (operating side)
   - Pad assembly - front seat backrest
   - Frame assembly - front backrest
   - Cover COMPL - front backrest
   - Trim panel - roof assembly
   - Trim panel for each pillar

2. Visually inspect the following items and replace any damaged part with a new one.
   - Headrest assembly
   - Bushing - lock headrest
   - Slide rail assembly - OUT
   - Slide rail assembly - INN
   - Cover - hinge front seat
   - Knob - lifter
   - Lever - reclining
   - Side airbag harness and connector on body side

2) Side impact (side airbag module not activated)

Visually inspect the following items and replace any damaged or cracked part with a new one.
Specially inspect the damage of airbag module body, mounting bracket and harness connector.

- Pad assembly - front seat backrest
- Frame assembly - front backrest
- Cover COMPL - front backrest
- Sensor assembly - satellite safing
- Cover - satellite safing
- Front door impact sensor
- Side airbag module
- Side airbag sensor
- Curtain airbag module
- Curtain airbag sensor

3) No side impact

Visually inspect the airbag modules for contamination and replace any faulty part with a new one.

5. CURTAIN AIRBAG MODULE

1) Side impact or roll over (curtain airbag module activated)

1. Replace the following parts with new ones.
   - Airbag control module
   - Satellite safing sensor
   - Cover - satellite safing
   - Curtain airbag module
   - Seat belt pretensioner (operating side)
   - Front door impact sensor (operating side on collision)
   - Side airbag sensor (operating side on collision)
   - Curtain airbag sensor (operating side on collision)
   - Pad assembly - front seat backrest (operating side)
   - Frame assembly - front backrest (operating side)
   - Cover COMPL - front backrest (operating side)
   - Trim panel - roof assembly
   - Trim panel for each pillar
   - Airbag bracket (model with sunroof)
2. Visually inspect the following items and replace any damaged part with a new one.
   - Assist rail - front and rear
   - Bracket - assist rail front and rear
   - Curtain airbag harness and connector on body side

2) Side impact (curtain airbag module not activated)
Visually inspect the following items and replace any damaged or cracked part with a new one.
Specially inspect the damage of airbag module body, mounting bracket and harness connector.
- Trim panel - roof assembly
- Trim panel for each pillar
- Curtain airbag module
- Satellite safing sensor
- Cover - satellite safing
- Front door impact sensor
- Side airbag sensor
- Curtain airbag sensor

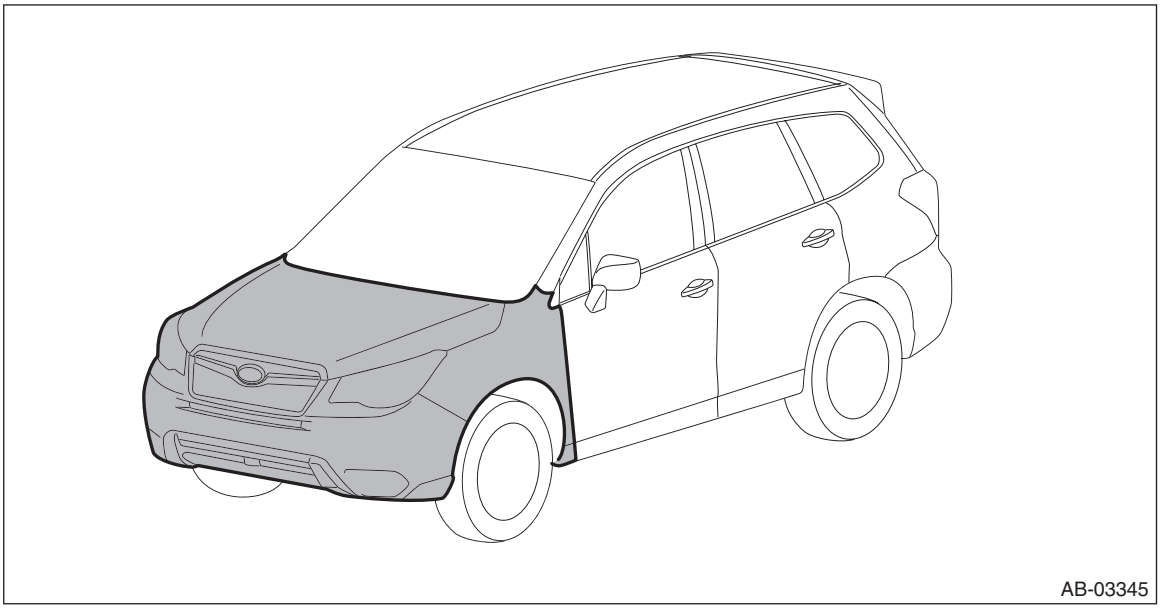
3) No side impact or roll over
Visually inspect the airbag covers for damage or contamination and replace any faulty part with a new one.

6. AIRBAG CONTROL MODULE

Check for the following, and replace the damaged parts with new parts.
- Control module is cracked or deformed.
- Mounting bracket is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Driver's airbag module has been activated.
- Knee airbag module has been activated.
- Passenger's airbag module has been activated.
- Side airbag module has been activated.
- Curtain airbag module has been activated.
- Seat belt pretensioner has been activated.
- Lap seat belt pretensioner has been activated.

7. FRONT SUB SENSOR

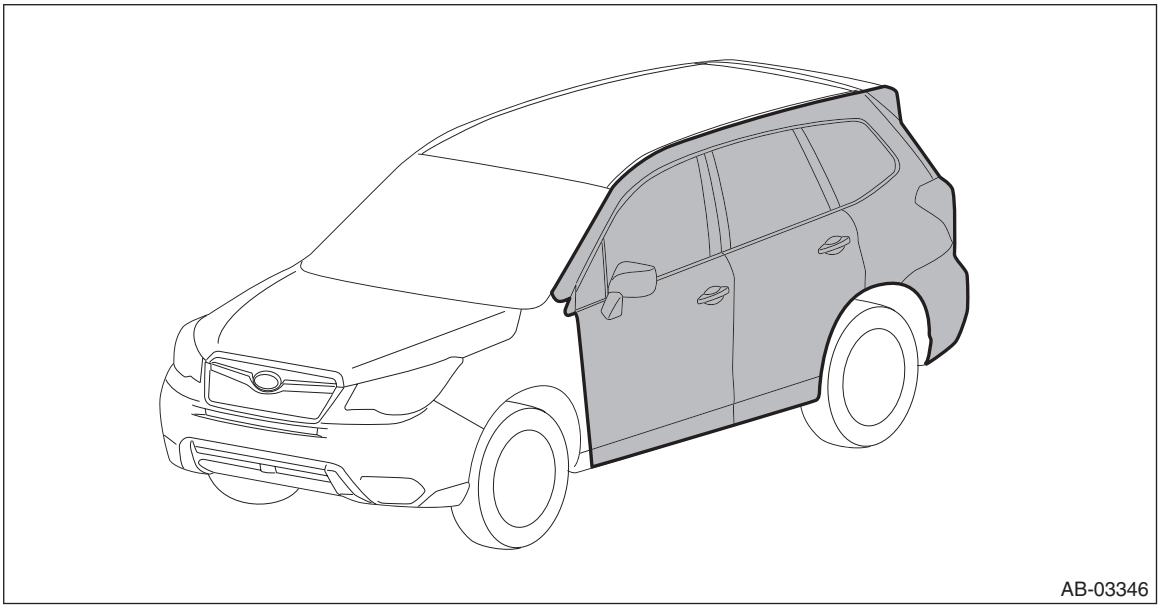
If the section of vehicle as shown in the figure is damaged, check the following items and replace the damaged parts with new parts.



- Front sub sensor is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Driver's airbag module, knee airbag module or passenger's airbag module has been activated.

8. FRONT DOOR IMPACT SENSOR, SATELLITE SAFING SENSOR, SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR

If the section of vehicle as shown in the figure is damaged, check the following items and replace the damaged parts with new parts.



- Front door impact sensor, satellite safing sensor, side airbag sensor and curtain airbag sensor are cracked or deformed.
- Mounting bracket is cracked or deformed.
- Connector is scratched, cracked or deformed.
- Side airbag module or curtain airbag module has been activated. (Operating side)

9. ROLL CONNECTOR

Check the following items and replace any damaged, cracked, or deformed parts with new parts.

- Combination switch
- Steering roll connector

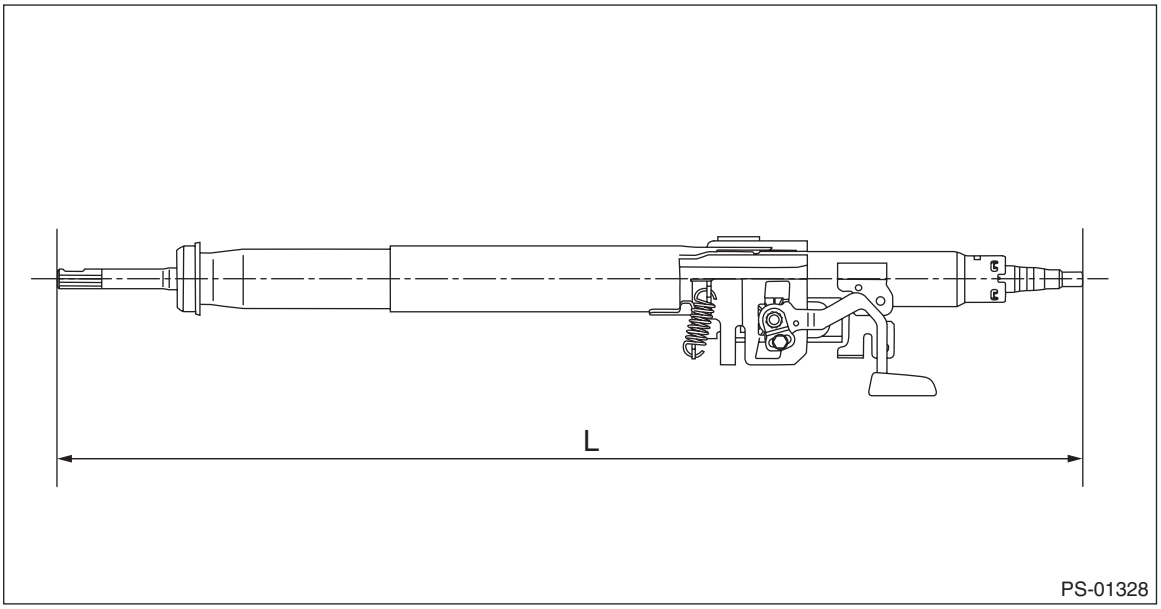
10.COLUMN ASSEMBLY - STEERING & STEERING WHEEL

Check the following items, and if there is anything out of standard, it is considered to be damaged. If so, replace it with a new part.

- Measure the whole length of the column assembly - steering.

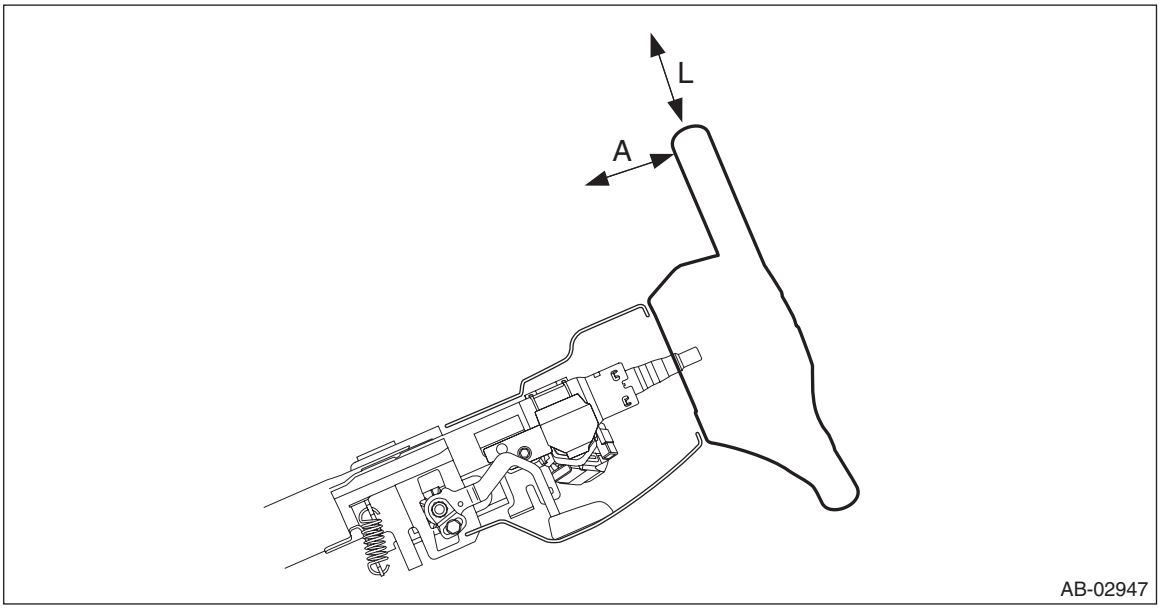
Standard: Overall length L

Tilt and telescopic column (measure while minimized)
$819.7^{+1.5}_{-1.5}$ mm ($32.27^{+0.059}_{-0.059}$ in)



- Check the steering wheel deflection in axial and vertical directions.

Specification:
Axial deflection A (deflection of steering wheel)
Less than 6 mm (0.24 in)
Vertical deflection L (runout of steering wheel)
Less than 17 mm (0.68 in)



11.PASSENGER'S SEAT

Check for the following, and replace the damaged parts with new parts.

- Body or bracket of the seat belt inner - front is scratched, cracked or deformed.
- Frame assembly - front backrest is cracked or deformed.
- Headrest assembly for deformation or play
- If the cover - front cushion and the cover COMPL - front backrest is damaged or frayed, replace the cover with a new part.

CAUTION:

If any of the following applies, replace the pad assembly - front seat cushion & frame assembly - front cushion as a unit. Do not disassemble.

- **The frame assembly - front cushion or the pad assembly - front seat cushion is cracked or deformed.**
- **Scratches, cracks, or deformation found on the occupant detection system sensor mat or occupant detection control module, or attachment brackets of the control module.**
- **Harness and/or connector is cracked, deformed or open. Harness wire is exposed.**

3. Inspection Locations after a Collision

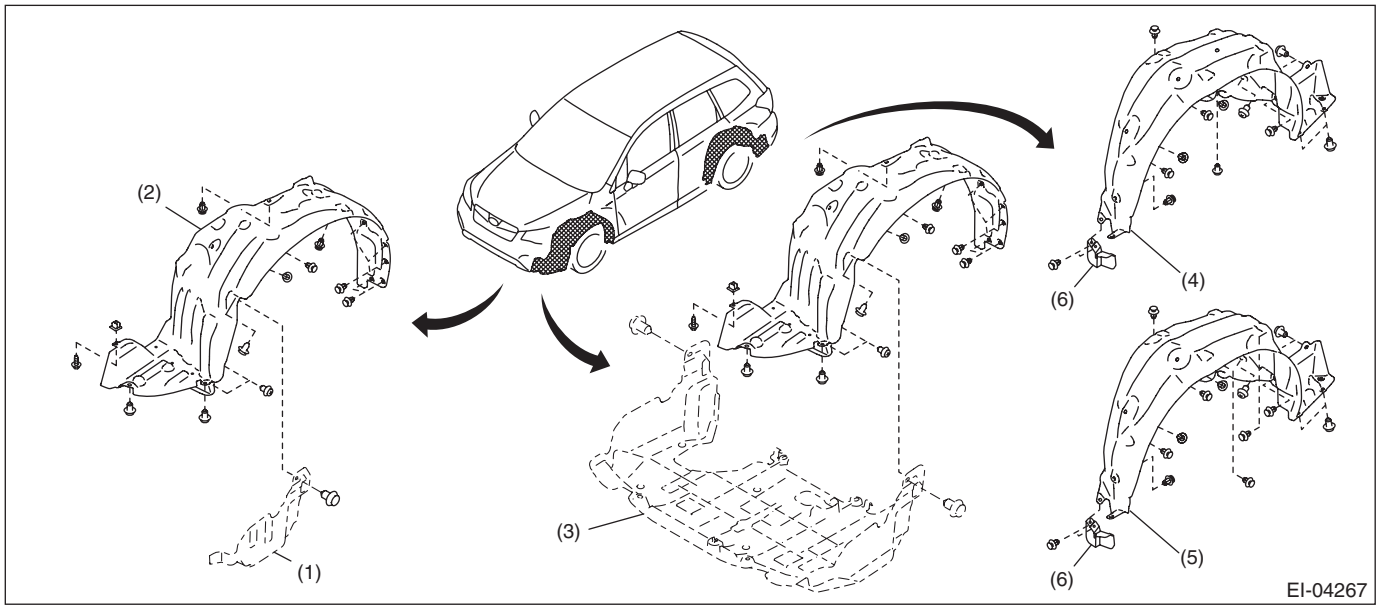
A: INSPECTION

Refer to “Inspection Locations after a Collision” of “AIRBAG SYSTEM” section. <Ref. to AB-30, Inspection Locations after a Collision.>

3. Mud Guard

A: REMOVAL

1) Lift up the vehicle.
2) Remove the wheels.
3) Remove the screws and clips to remove the mud guard.



(1)	Under cover COMPL - front LH (turbo model)	(3)	Under cover - front (non-turbo model)	(5)	Mud guard - rear LH
(2)	Mud guard - front	(4)	Mud guard - rear RH	(6)	Plate - air flap rear

B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Wheel nut: 120 N·m (12.24 kgf-m, 88.5 ft-lb)

3. Power Rear Gate System

A: WIRING DIAGRAM

Refer to “Power Rear Gate System” in the wiring diagram. <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

B: INSPECTION

Refer to “Basic Diagnostic Procedure” of “POWER REAR GATE SYSTEM (DIAGNOSTICS)”. <Ref. to PRG(diag)-2, Basic Diagnostic Procedure.>

C: PROCEDURE

1. INITIALIZATION

NOTE:
Perform the initialization of the power rear gate auto closer, if the battery ground cable is connected with the rear gate open. The initialization is not necessary if the rear gate is closed when connecting the battery source cable.
1) With the ignition “OFF”, open the power rear gate manually.
2) Carefully (slowly) close the rear gate until it is partially latched, the first audible “click” of the rear gate latch mechanism is heard then let go of the rear gate.
3) The auto closer function will then operate to complete the rear gate closing/latching function.
4) After the power rear gate is fully closed, operate any of the operation switches to verify the automatic opening and closing operation of the power rear gate. If the power rear gate still does not operate properly, perform the rest of the diagnostic procedures. <Ref. to PRG(diag)-2, Basic Diagnostic Procedure.>

D: NOTE

For procedure of each component in the power rear gate system, refer to the respective section.
- Power rear gate control module (PRG CM): <Ref. to PRG-9, Power Rear Gate Control Module.>
- Power rear gate drive unit (PRG D/U): <Ref. to PRG-10, Power Rear Gate Drive Unit.>
- Rod - power rear gate: <Ref. to PRG-15, Power Rear Gate Rod.>
- Power rear gate auto closer: <Ref. to PRG-17, Power Rear Gate Auto Closer.>
- Power rear gate touch sensor: <Ref. to PRG-21, Power Rear Gate Touch Sensor.>
- Power rear gate buzzer: <Ref. to PRG-22, Power Rear Gate Buzzer.>
- Power rear gate inner switch: <Ref. to PRG-23, Power Rear Gate Inner Switch.>
- Power rear gate driver’s switch: <Ref. to PRG-24, Power Rear Gate Driver’s Switch.>
- Memory height switch: <Ref. to PRG-25, Memory Height Switch.>
- Power rear gate opener button (PRG): <Ref. to PRG-27, Rear Gate Opener Button.>

3. Power Window System

A: WIRING DIAGRAM

Refer to “Power Window System” in the wiring diagram. <Ref. to WI-315, WIRING DIAGRAM, Power Window System.>

B: INSPECTION

Symptoms	Inspection order
All power windows do not operate.	1. Check the fuse. 2. Check the power window relay. 3. Check the wiring harness.
Particular window does not operate.	1. Check the fuse. 2. Check the switch - power window main. 3. Check the switch - power window sub. 4. Check the power window motor. 5. Check the wiring harness.
“Window Lock” does not operate.	Check the switch - power window main.
Driver’s side window moves slightly (approx. 20 mm (0.79 in)).	1. Check the motor - front. 2. Check the switch - power window main. 3. Check the wiring harness.
Driver’s side window moves slightly (approx. 50 mm (1.97 in)). (This status is not a failure.)	Perform reset operation A. <Ref. to GW-9, RESET OPERATION A, OPERATION, Power Window System.>
Driver’s side window does not close completely. (Using AUTO UP allows the window to fully close first and then move in reverse resulting in slightly opening.)	Perform reset operation B. <Ref. to GW-9, RESET OPERATION B, OPERATION, Power Window System.>

C: OPERATION

1. RESET OPERATION A

1) Sit in the driver’s seat and close the door.
2) Turn the ignition switch to ON.
3) Operate the switch - power window main to open the glass assembly - front door halfway.
4) Operate the switch - power window main in “UP” direction to fully close the glass assembly - front door on the driver’s side.
5) While the glass assembly - front door is fully closed, hold down the switch - power window main in “UP” direction for one second.
6) Operate the switch - power window main in “AUTO DOWN” direction to check whether the window fully opens properly.

NOTE:
If the window does not fully open properly, repeat steps 1) to 6).

2. RESET OPERATION B

1) Sit in the driver’s seat and close the door.
2) Turn the ignition switch to ON.
3) On the glass assembly - front door of the driver’s side, operate the “AUTO UP” function (fully pull up the switch) using the switch - power window main, and perform auto-reverse operations 10 times in a row (after the window fully closes, it slightly opens).
4) Check that the “AUTO UP” function no longer operates.
5) Perform reset operation A.
6) Check that the window operates properly by operating the “AUTO UP” and “AUTO DOWN” switch.

NOTE:
If the window does not fully open/close properly, repeat steps 1) to 6).

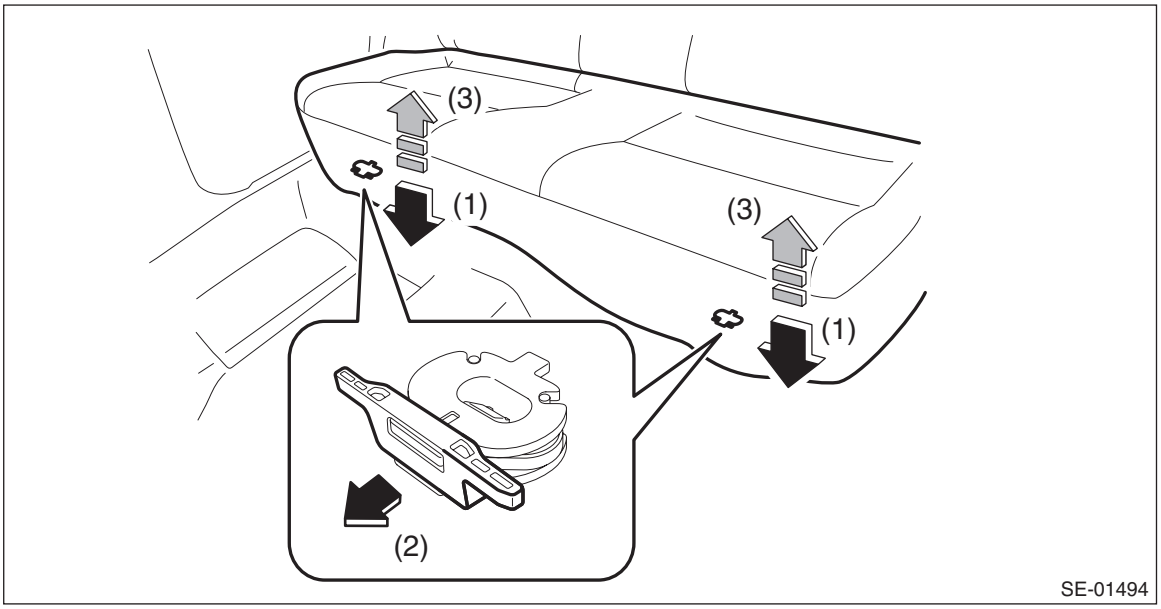
D: NOTE

For operation procedures of each component of the power window system, refer to the respective sections.
- Power window control switch: <Ref. to GW-11, Power Window Control Switch.>
- Front door glass: <Ref. to GW-17, Front Door Glass.>
- Front regulator and motor assembly: <Ref. to GW-20, Front Regulator and Motor Assembly.>
- Rear door glass: <Ref. to GW-32, Rear Door Glass.>
- Rear regulator and motor assembly: <Ref. to GW-34, Rear Regulator and Motor Assembly.>

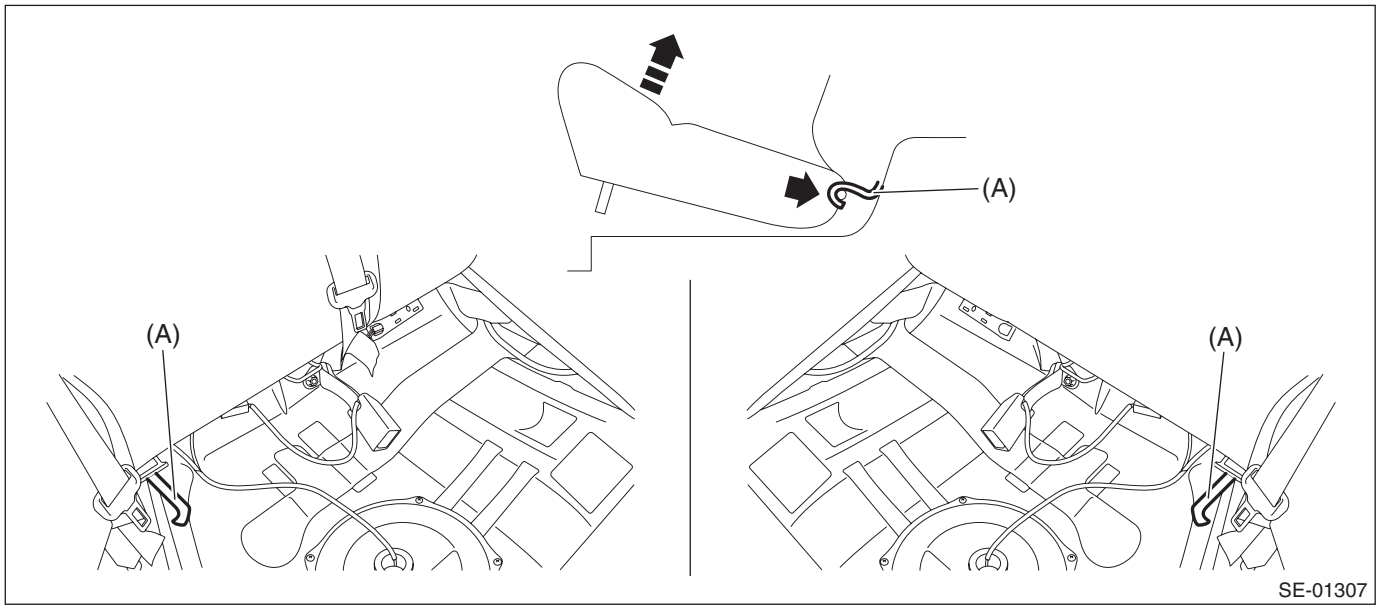
3. Rear Seat

A: REMOVAL

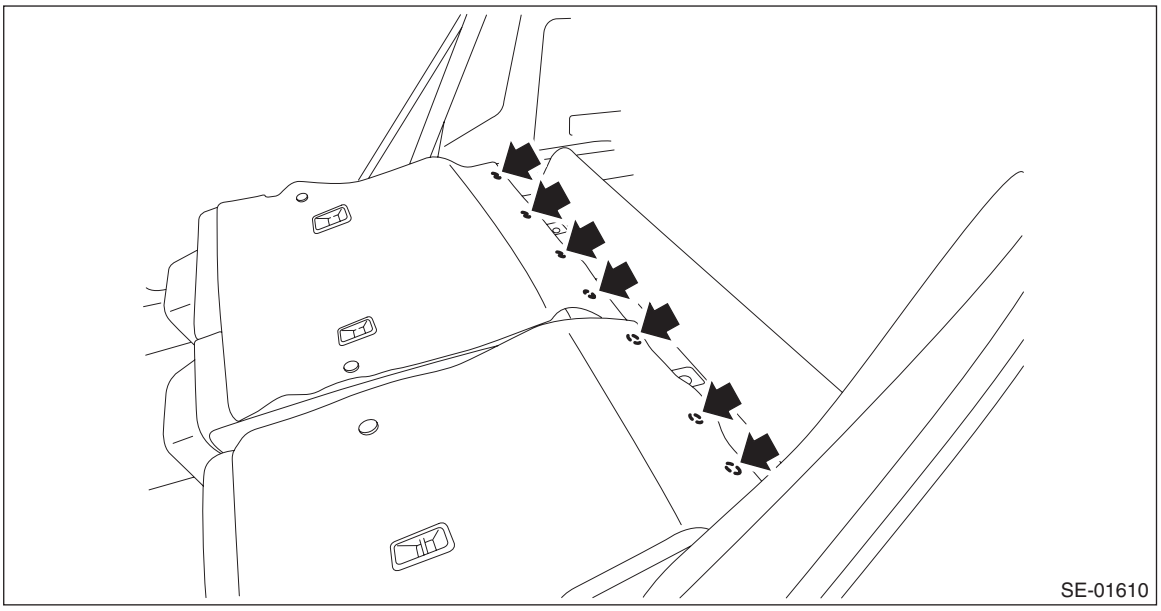
1) Remove the rear seat cushion assembly.
   (1) Push the corners of the rear seat cushion from above.
   (2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
   (3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.



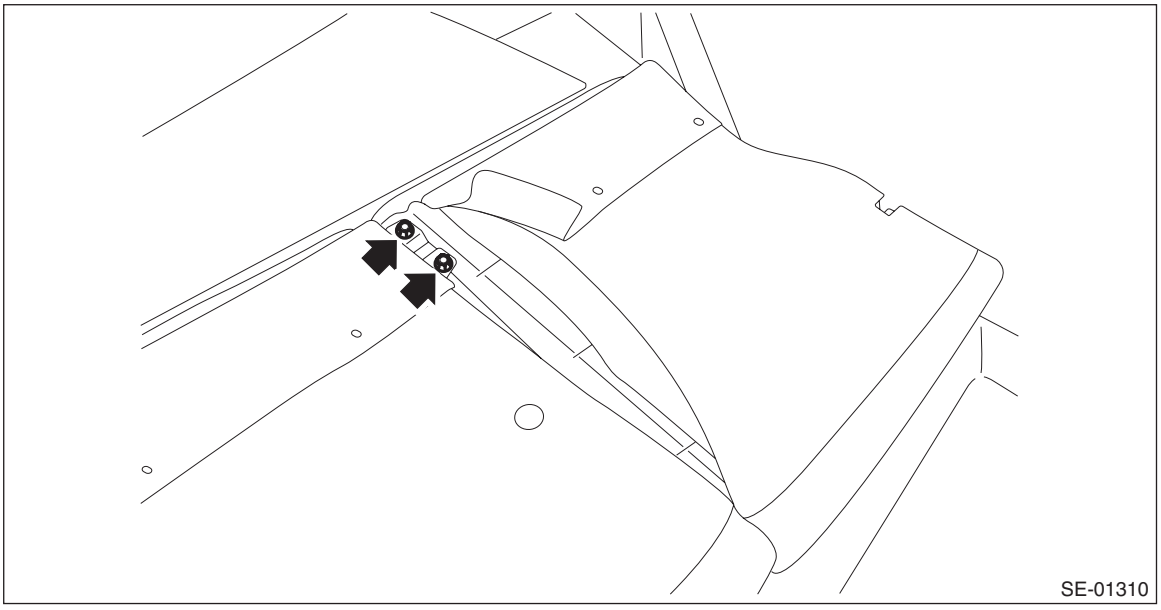
   (4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



2) Remove the backrest assembly LH.
(1) Tilt the backrest assembly LH forward.
(2) Remove the clips located at the bottom of the cover COMPL - rear backrest LH and RH of the rear seat back.

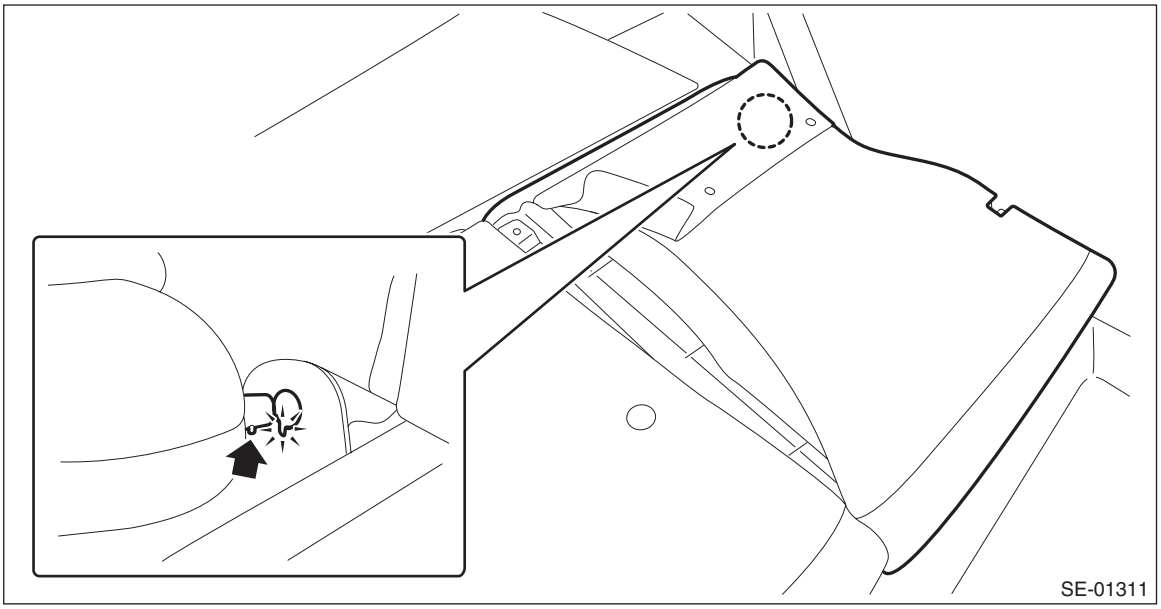


(3) Turn over the cover COMPL - rear backrest LH to remove the bolts.

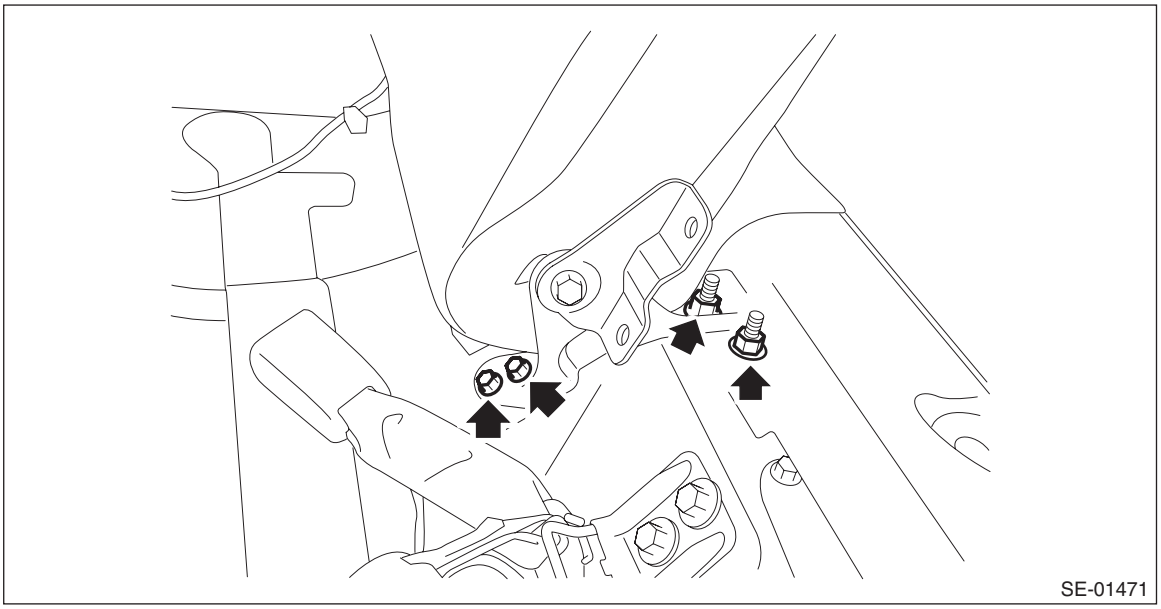


(4) Remove the backrest assembly LH from the hinge assembly.

NOTE:
The backrest assembly cannot be removed unless pin positions on the hinge assembly side and backrest assembly side are aligned.

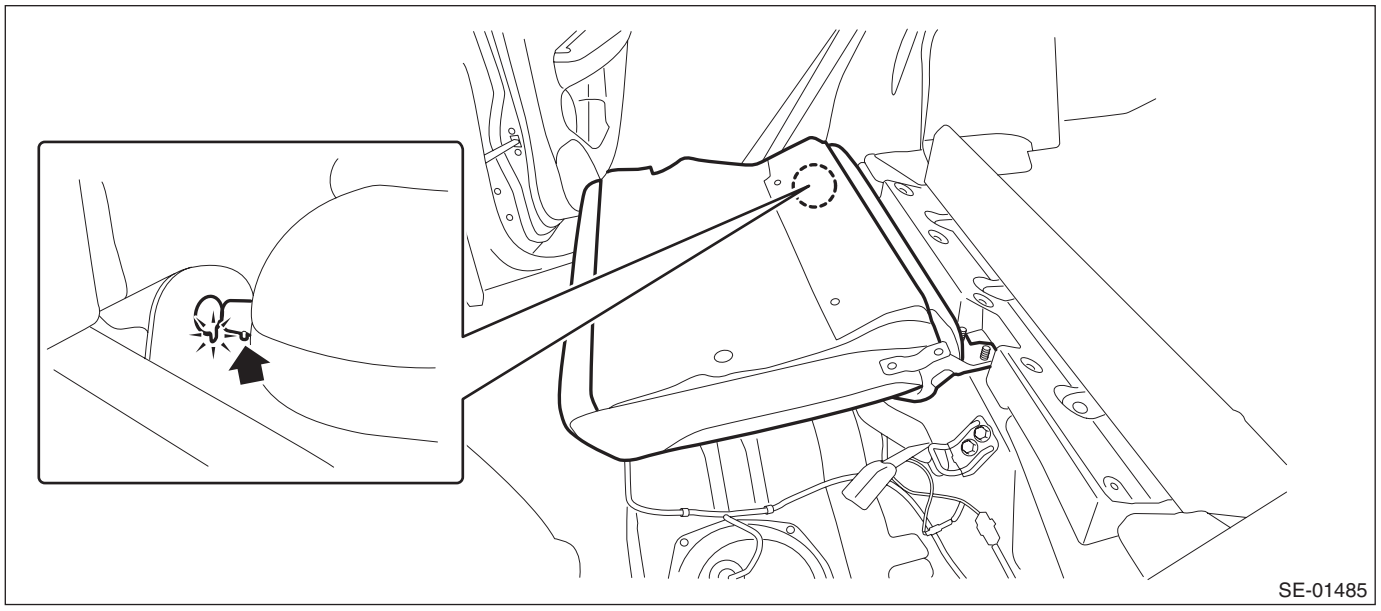


3) Remove the backrest assembly RH.
(1) Remove the bolts and nuts.



(2) Remove the backrest assembly RH from the hinge assembly.

NOTE:
The backrest assembly cannot be removed unless pin positions on the hinge assembly side and backrest assembly side are aligned.



B: INSTALLATION

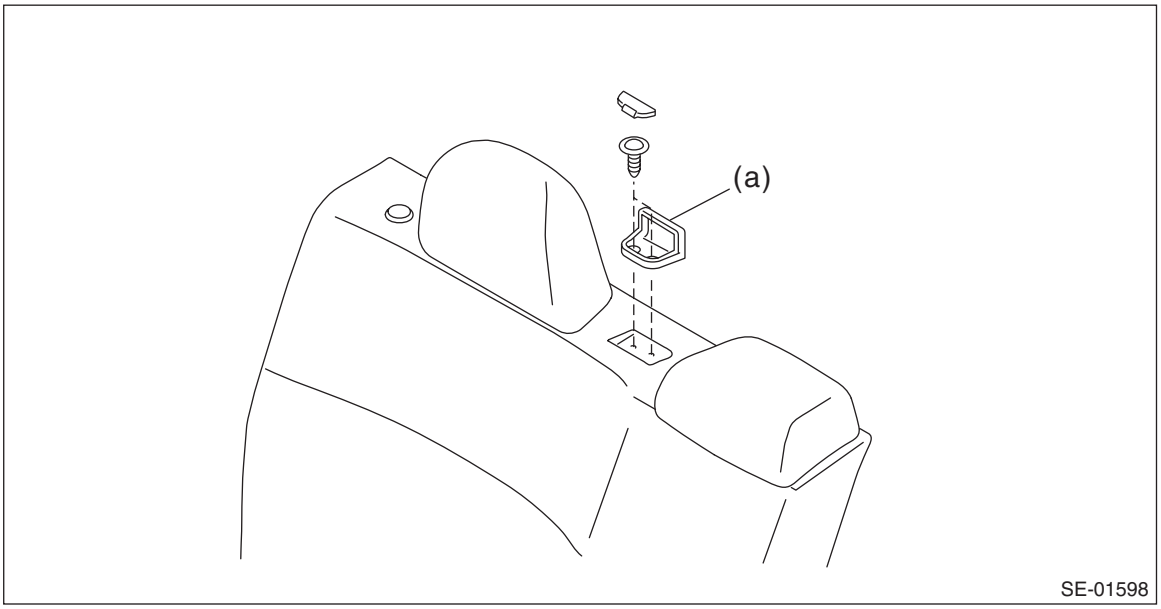
Install each part in the reverse order of removal.

NOTE:
- After installing the backrest assembly, make sure that each seat belt operates normally.
- Make sure that they are properly secured on each hook on the vehicle side.

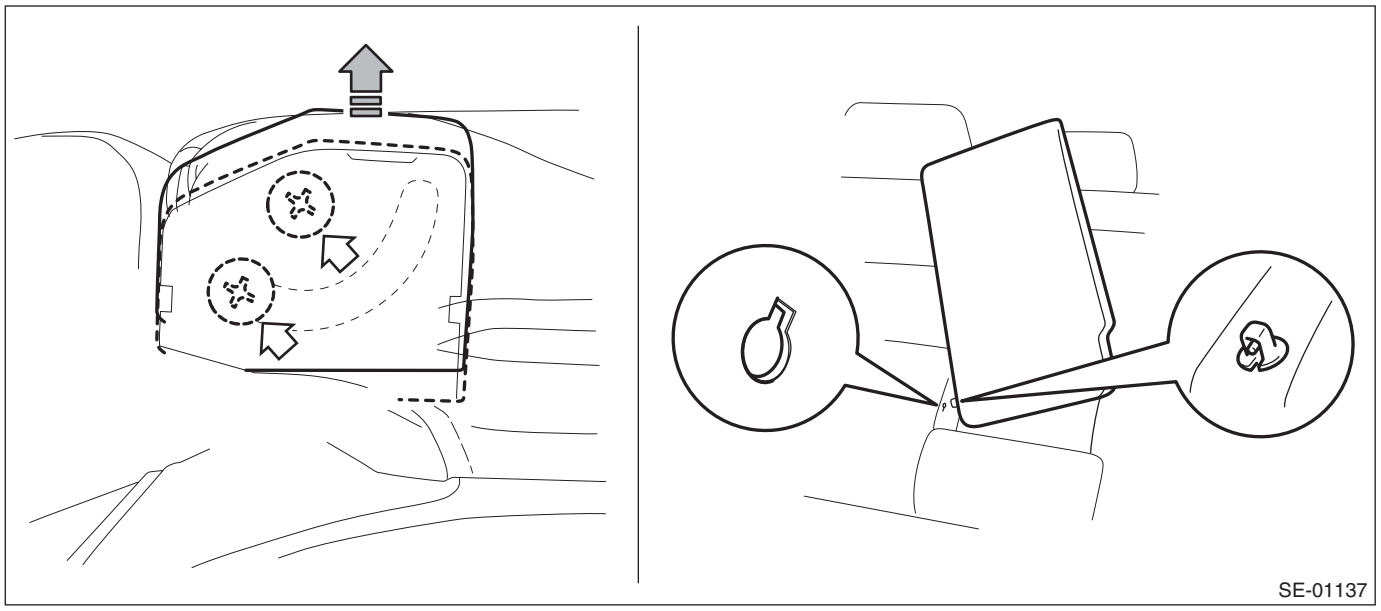
Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SE-6, REAR SEAT, COMPONENT, General Description.>

C: DISASSEMBLY

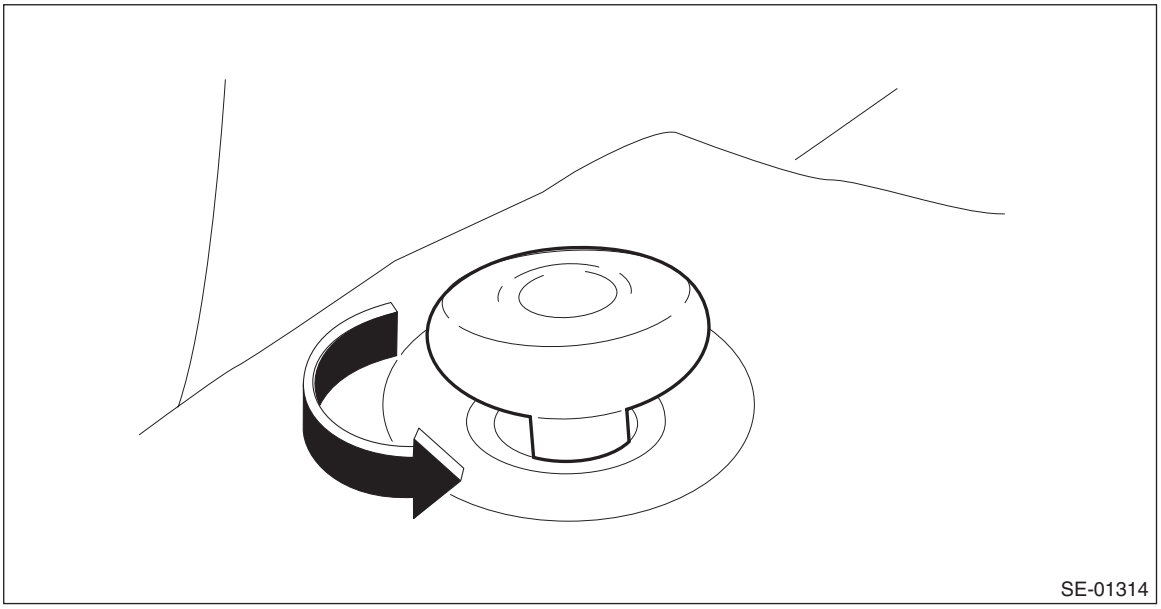
1) Remove the rear seat.<Ref. to SE-34, REMOVAL, Rear Seat.>
2) Remove the pillow assembly - rear center.
3) Remove the caps and screws, then remove the belt guide - rear seat (a).



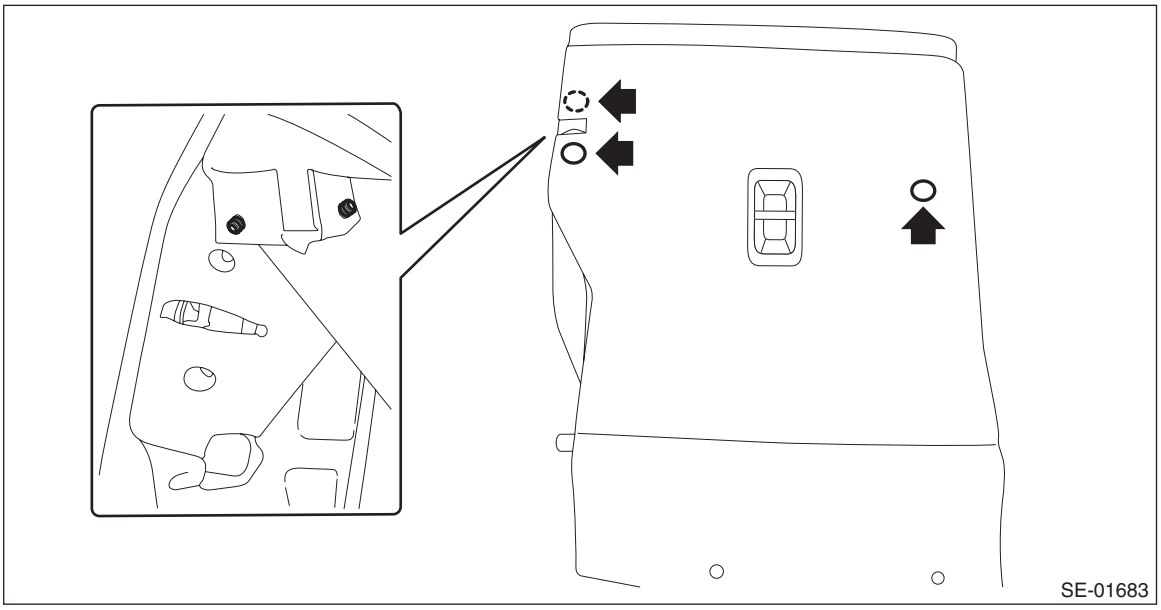
4) Remove the pillow assembly - rear backrest.
5) Remove the armrest assembly - rear center. (Models with armrest)
   (1) Remove the cover - armrest by pulling it in the direction of the arrow (black).
   (2) Remove the screws and remove the armrest assembly - rear center.



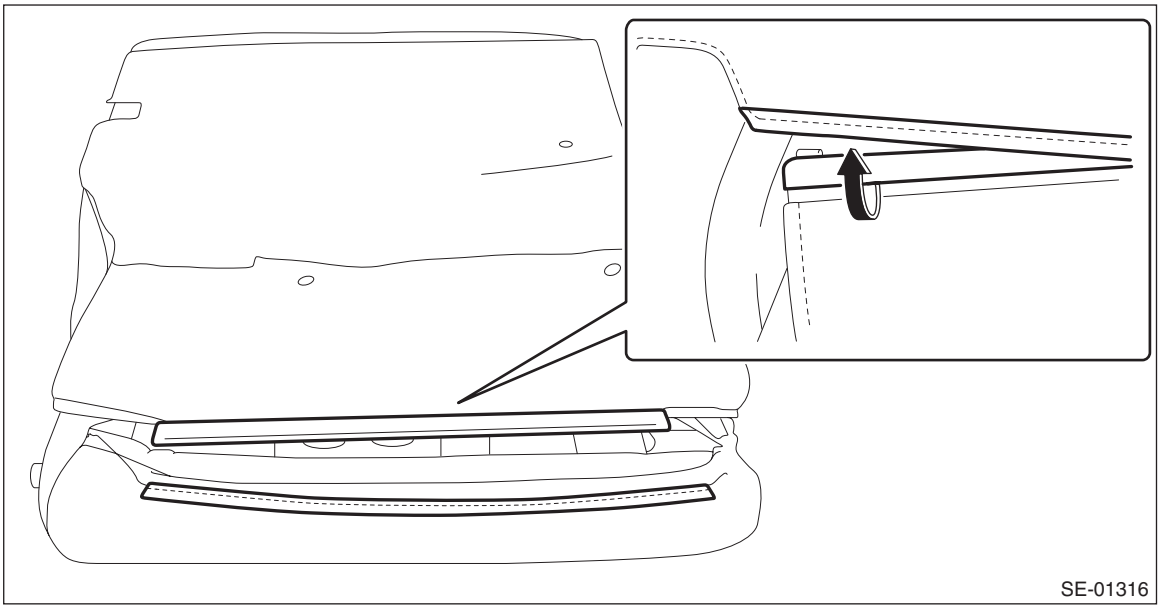
NOTE:
The armrest assembly - rear center cannot be detached unless pin positions on the RH side of the backrest assembly and on the center side of the armrest assembly - rear are aligned.
6) Remove the knob - backrest. (Screw-in type)



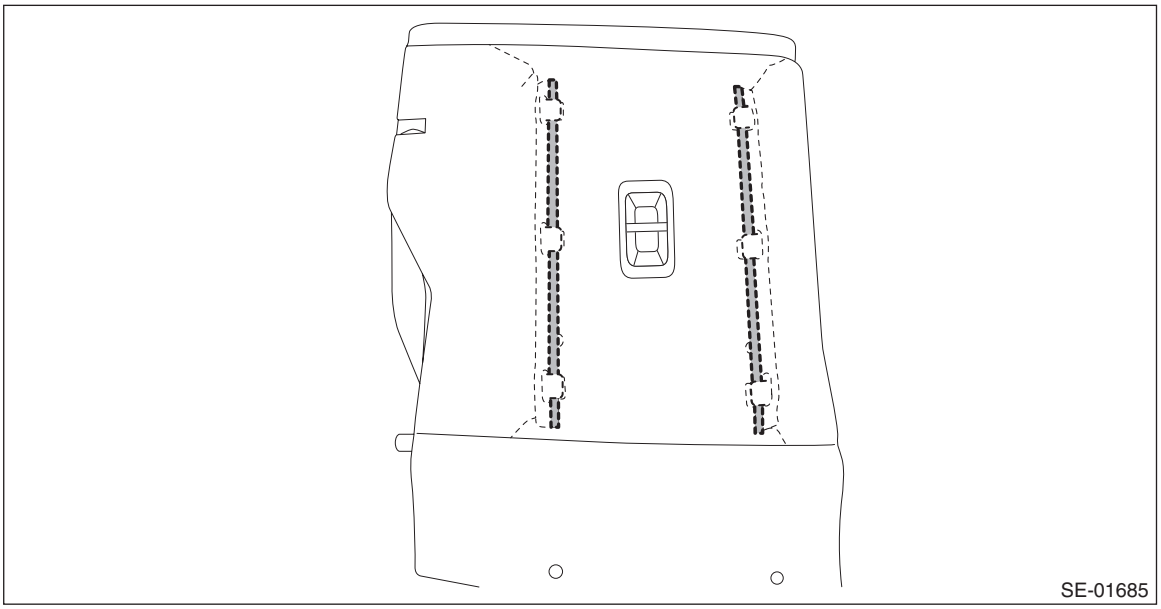
7) Remove the clips on the backside of the cover COMPL - rear backrest LH.



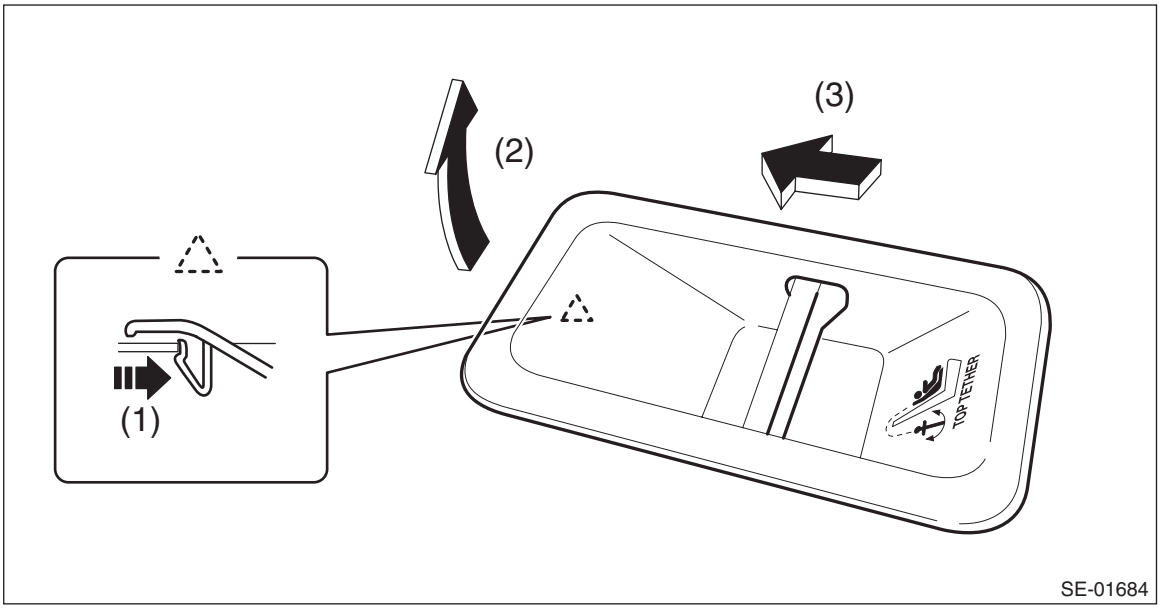
8) Detach the plastic fastener at the bottom of backrest assembly LH and turn over the cover COMPL - rear backrest LH.



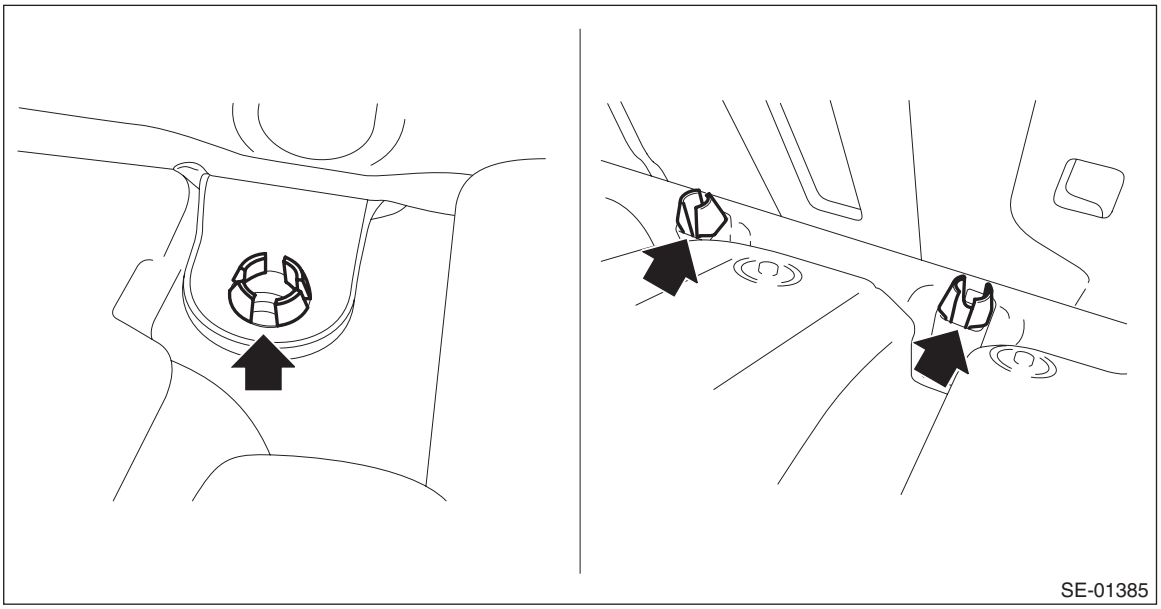
9) Remove the plastic hooks on the back side of the backrest assembly LH, and turn over the backrest assembly.



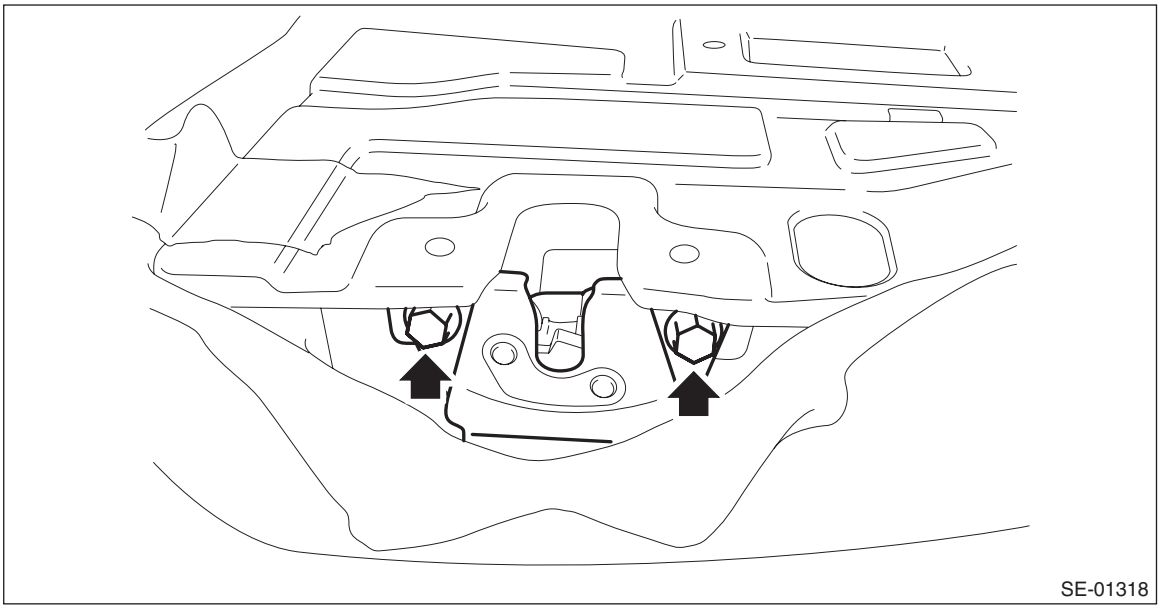
10) Pull up the pad and cover, and remove the tether anchor cover from the inside of back board.



11) Detach the bushing - headrest and the bushing - lock assembly, and remove the frame assembly - rear backrest LH from the pad assembly - main LH.

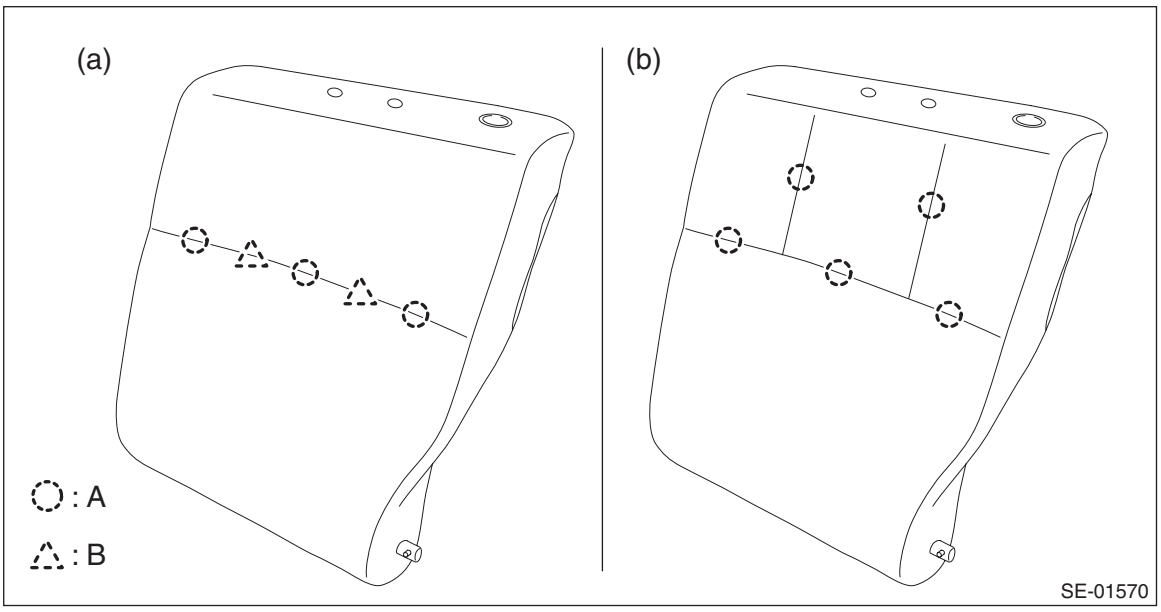


12) Remove the lock assembly - rear backrest rear LH.



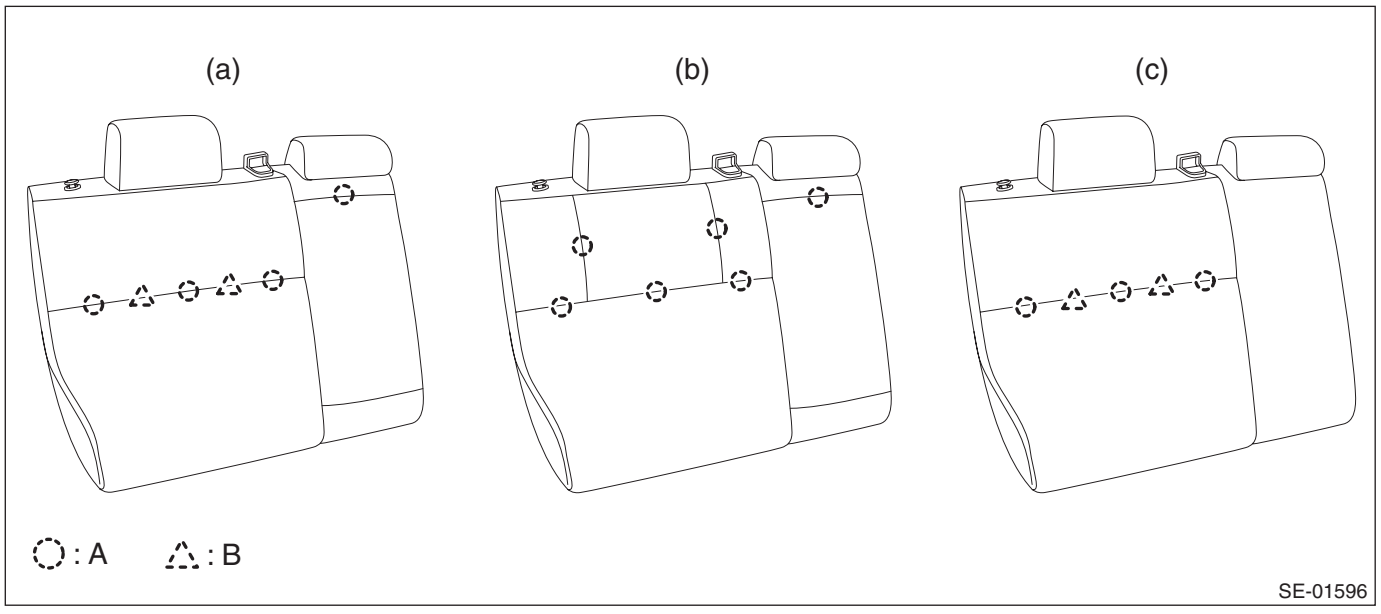
13) Remove the hog rings (A) and wire clip (B), then remove the cover COMPL - rear backrest.

- LH side



(a) Normal seat type (b) Leather seat type

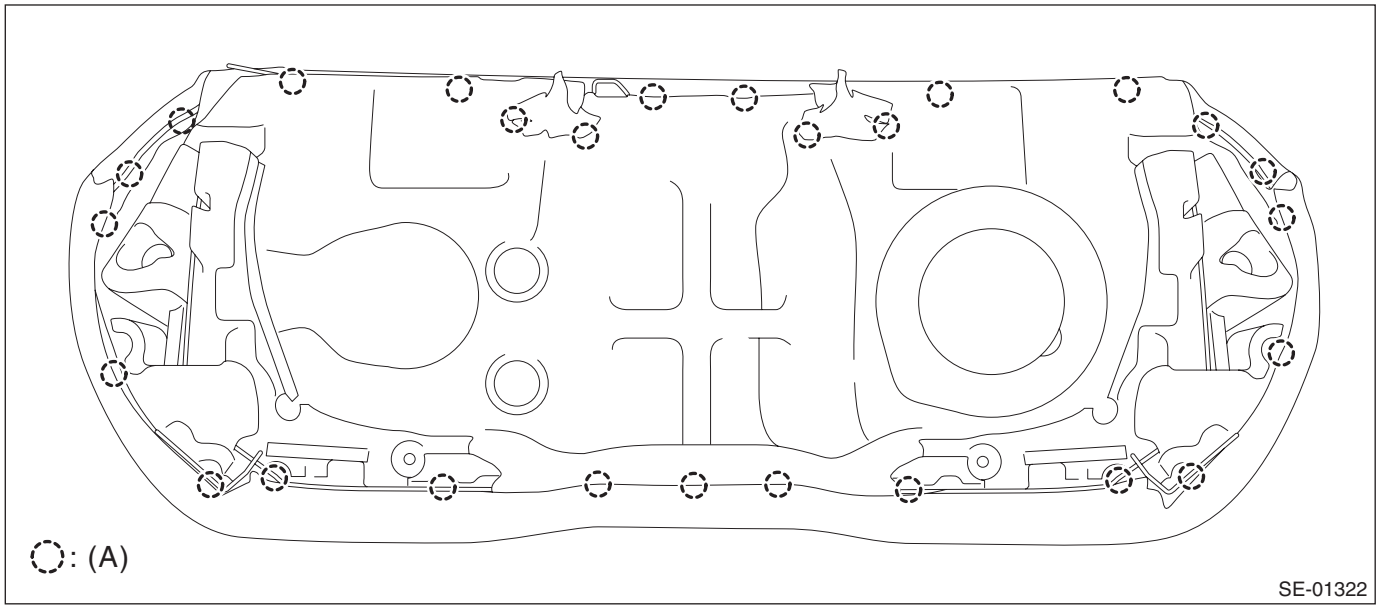
- RH side



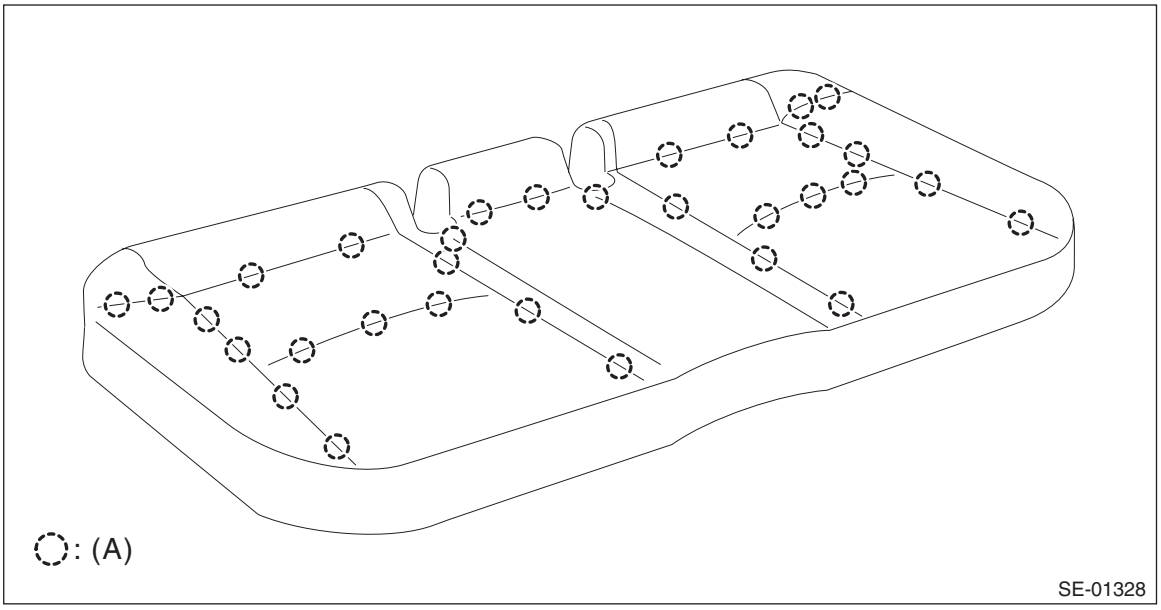
(a) Model with armrest ASSY - rear center (normal seat type) (b) Model with armrest ASSY - rear center (leather seat type) (c) Model without armrest ASSY - rear center

14) Referring to the procedures after step 2), disassemble the backrest assembly RH.

15) Remove the hog rings (A) on the back side of the seat cushion assembly.



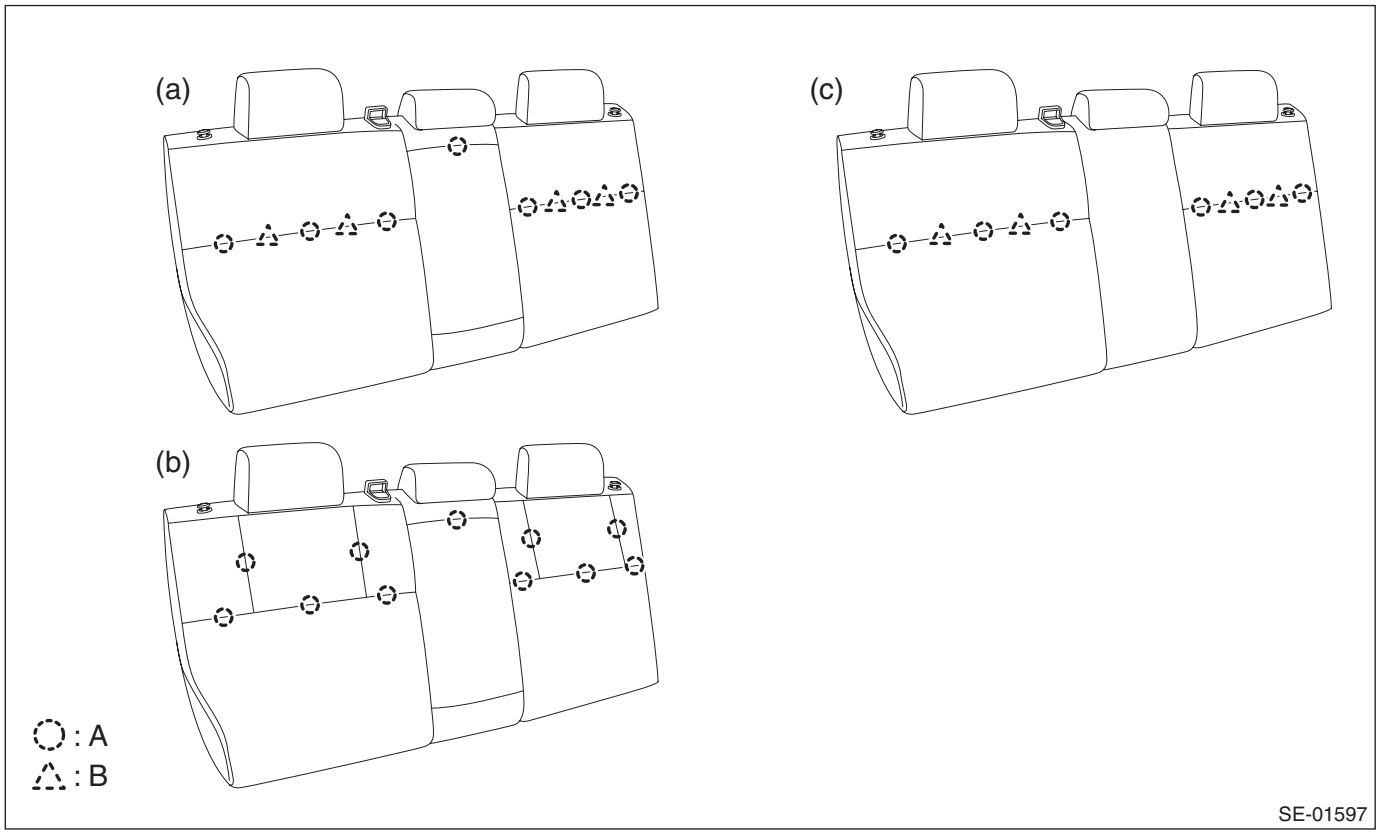
16) Remove the hog rings (A), then remove the cover - rear cushion.



D: ASSEMBLY

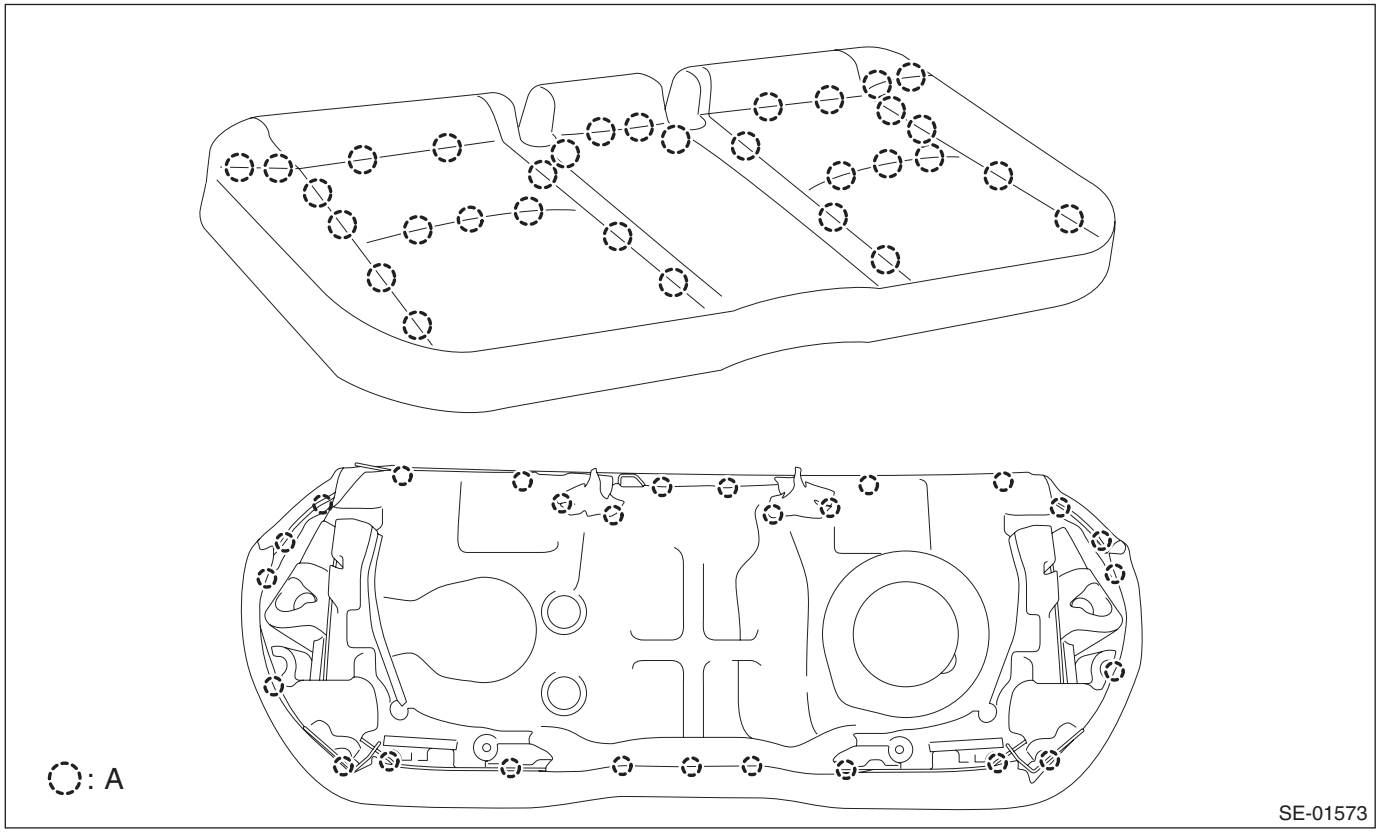
CAUTION:
- **Do not reuse hog rings.**
- **Secure the hog ring using hog ring pliers.**
- **Install the hog rings to the specified points securely and make sure that there is no wrinkle or twisting on the cover COMPL - rear backrest.**

1) Assemble the cover COMPL - rear backrest and the cover - rear cushion in the same manner as for the front seat. <Ref. to SE-27, ASSEMBLY, Front Seat.>
2) Make sure that all hog rings (A) and wire clips (B) are attached securely.



(a) Model with armrest ASSY - rear center (normal seat type)
(b) Model with armrest ASSY - rear center (leather seat type)
(c) Model without armrest ASSY - rear center

3) Make sure that all hog rings (A) are attached securely.



4) Before installation, check the following items.
- No tear and fray on the cover COMPL - rear backrest and the cover - rear cushion.
- No fray or deformation on each wire cable.

5) Install each part in the reverse order of removal.

3. Refrigerant Pressure with Manifold Gauge Set

A: PROCEDURE

1. REFRIGERANT GAS PRESSURE INSPECTION

Preparation tool:
Manifold gauge set
Thermometer and hygrometer

1) Prepare the vehicle.

NOTE:
Check that the ambient temperature is 25 — 40°C (77 — 104°F) and that the humidity is 30% — 80%.

- Place the vehicle in the shade and windless condition, and open the front hood.
- Open the front windows and close all doors.

2) Connect the manifold gauge set, and then check the refrigerant pressure.
   (1) Connect the manifold gauge set, and start the engine.
   (2) Set the vehicle to the following conditions.

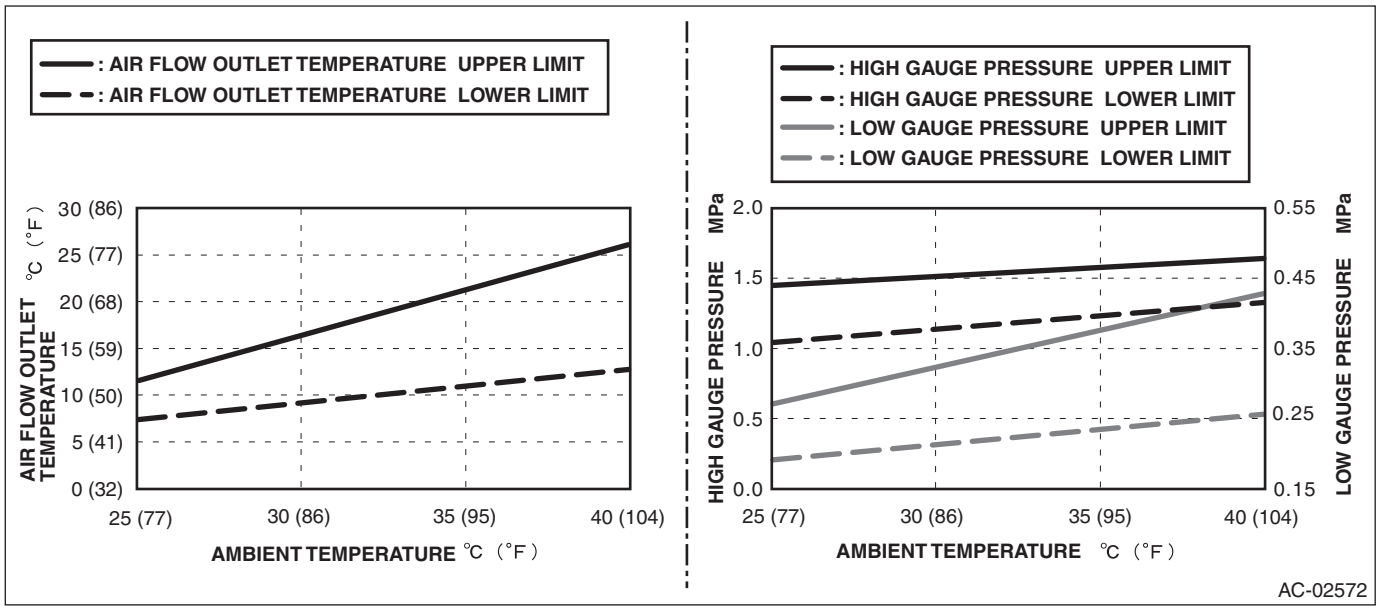
Item	Condition
Engine	Warmed up (Engine coolant temperature indicator light: OFF)
Air vent grille	Shutter is fully open.
A/C switch	ON
Temperature adjustment dial	LO (MAX COOL)
FRESH/RECIRC switch	RECIRC
Air flow control dial or switch	VENT
Fan dial	Auto A/C model: 5/7 level
	Manual A/C model: 3/4 level

   (3) In the condition of step (2), idle the engine for 30 minutes.
   (4) Read the gauge values on both high pressure side and low pressure side for manifold gauge.

3) Measure the air vent grille outlet opening temperature, ambient temperature and humidity.

NOTE:
For outlet opening temperature, measure the average temperature of center grille assembly and side grille assembly.

4) Check that the high and low pressures and outlet opening temperature for ambient temperature and humidity is within the standard value described in the chart below.



5) Refer to “DIAGNOSIS WITH SYMPTOM” if the inspection result is not within the standard value. <Ref. to AC-24, INSPECTION WITH PRESSURE SYMPTOMS, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>

B: INSPECTION

1. INSPECTION WITH PRESSURE SYMPTOMS

Symptoms	Reference
Both high and low pressure sides are low.	<Ref. to AC-25, BOTH HIGH AND LOW PRESSURE SIDES ARE LOW, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>
Both high and low pressure sides are high.	<Ref. to AC-25, BOTH HIGH AND LOW PRESSURE SIDES ARE HIGH, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>
Both high and low pressure sides are equal, or high-pressure side is low.	<Ref. to AC-25, BOTH HIGH AND LOW PRESSURE SIDES ARE EQUAL, OR HIGH-PRESSURE SIDE IS LOW, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>
High-pressure side is high.	<Ref. to AC-26, HIGH-PRESSURE SIDE IS HIGH, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>
Low-pressure side is low.	<Ref. to AC-26, LOW-PRESSURE SIDE IS LOW, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>
Low-pressure side is high.	<Ref. to AC-27, LOW-PRESSURE SIDE IS HIGH, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>

2. BOTH HIGH AND LOW PRESSURE SIDES ARE LOW

	Step	Check	Yes	No
1	**CHECK REFRIGERANT LEAKAGE.** Check the refrigerant for leakage. <Ref. to AC-32, INSPECTION, Refrigerant Leak Check.> NOTE: When the pressure on the high-pressure side is less than 0.69 Mpa: Go to Step 2.	Are there any refrigerant leakage?	Repair the refrigerant leakage.	Go to step **2**.
2	**FILL PROPER AMOUNT OF REFRIGERANT.** Drain the refrigerant completely, and then refill the proper amount of refrigerant. • Recovery: <Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.> • Refill: <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Perform appropriate inspection with pressure symptoms.

3. BOTH HIGH AND LOW PRESSURE SIDES ARE HIGH

	Step	Check	Yes	No
1	**FILL PROPER AMOUNT OF REFRIGERANT.** Drain the refrigerant completely, and then refill the proper amount of refrigerant. • Recovery: <Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.> • Refill: <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Perform appropriate inspection with pressure symptoms.

4. BOTH HIGH AND LOW PRESSURE SIDES ARE EQUAL, OR HIGH-PRESSURE SIDE IS LOW

	Step	Check	Yes	No
1	**CHECK REFRIGERANT LEAKAGE.** Check the refrigerant for leakage. <Ref. to AC-32, INSPECTION, Refrigerant Leak Check.> NOTE: When the pressure on the high-pressure side is less than 0.69 Mpa: Go to Step 2.	Are there any refrigerant leakage?	Repair the refrigerant leakage.	Go to step **2**.
2	**FILL PROPER AMOUNT OF REFRIGERANT.** Drain the refrigerant completely, and then refill the proper amount of refrigerant. • Recovery: <Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.> • Refill: <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Inspect the compressor. <Ref. to AC(diag)-35, COOL AIR DOES NOT COME OUT WHEN PRESSING THE A/C SWITCH. FOG CANNOT BE CLEARED. (COMPRESSOR DOES NOT OPERATE.), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

5. HIGH-PRESSURE SIDE IS HIGH

	Step	Check	Yes	No
1	**CHECK CONDENSER.** Check the condenser. <Ref. to AC-60, INSPECTION, Condenser.>	Is condenser normal?	Go to step **2**.	Clean or replace the condenser.
2	**CHECK RADIATOR FAN.** Check the radiator fan system. <Ref. to CO(H4DO)-8, Radiator Fan System.>	Is radiator fan system normal?	Go to step **3**.	Repair or replace the faulty parts of the radiator fan system.
3	**FILL PROPER AMOUNT OF REFRIGERANT.** Drain the refrigerant completely, and then refill the proper amount of refrigerant. • Recovery: <Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.> • Refill: <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Check the high-pressure hose and condenser for deformation or clogging, and replace if defective.

6. LOW-PRESSURE SIDE IS LOW

	Step	Check	Yes	No
1	**CHECK REFRIGERANT LEAKAGE.** Check the refrigerant for leakage. <Ref. to AC-32, INSPECTION, Refrigerant Leak Check.> NOTE: When the pressure on the high-pressure side is less than 0.69 Mpa: Go to Step 2.	Are there any refrigerant leakage?	Repair the refrigerant leakage.	Go to step **2**.
2	**FILL PROPER AMOUNT OF REFRIGERANT.** Drain the refrigerant completely, and then refill the proper amount of refrigerant. • Recovery: <Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.> • Refill: <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Go to step **3**.
3	**REPLACE EXPANSION VALVE.** Replace the expansion valve. <Ref. to AC-72, REMOVAL, Expansion Valve.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Inspect the compressor. <Ref. to AC(diag)-35, COOL AIR DOES NOT COME OUT WHEN PRESSING THE A/C SWITCH. FOG CANNOT BE CLEARED. (COMPRESSOR DOES NOT OPERATE.), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

7. LOW-PRESSURE SIDE IS HIGH

	Step	Check	Yes	No
1	**FILL PROPER AMOUNT OF REFRIGERANT.** Drain the refrigerant completely, and then refill the proper amount of refrigerant. • Recovery: <Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.> • Refill: <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Go to step **2**.
2	**REPLACE EXPANSION VALVE.** Replace the expansion valve. <Ref. to AC-72, REMOVAL, Expansion Valve.>	Is the refrigerant pressure within the specified range?	Refrigerant pressure is normal.	Replace the evaporator. <Ref. to AC-65, REMOVAL, Evaporator.>

3. Sunroof Control System

A: WIRING DIAGRAM

Refer to “Sunroof Control System” in the wiring diagram. <Ref. to WI-400, WIRING DIAGRAM, Sunroof Control System.>

B: INSPECTION

Symptoms	Inspection steps
Water leakage	1. Check the roof panel and the lid assembly - sunroof for improper or poor sealing. 2. Check the drain tube - sunroof for clogging. 3. Check the joints of the rail assembly - sunroof for improper sealing and for proper installation to the body.
Booming noise, wind noise and other noise	1. Check the lid assembly - sunroof and the roof panel for improper clearance. 2. Check the sunshade assembly and the trim panel - roof assembly for improper clearance.
Abnormal motor noise	1. Check installing part of motor for looseness. 2. Check gears and bearings for wear. 3. Check cable assembly for wear. 4. Check cable pipe for deformities.
Failure of sunroof (Motor operates properly.)	1. Check guide rail for foreign particles. 2. Check guide rail for improper installation. 3. Check parts for mutual interference. 4. Check cable slider for improper clinching. 5. Check cable assembly for improper installation.
Motor does not rotate or rotate improperly.	1. Check fuse for blown out. 2. Check switch for improper function. 3. Check motor assembly for incorrect terminal voltage. 4. Check the relay for improper operation. 5. Check harness for open or short and terminals for poor connections.
Incorrect reverse operation of the lid assembly - sunroof	Check guide rail for foreign particles.

- Incorrect reverse operation of the lid assembly - sunroof while driving on rough road

The lid assembly - sunroof has auto-reverse function. When the lid assembly - sunroof is pushed in the opening direction with a force of 110±10 N (11.2 kgf, 24.7 lbf±1.0 kgf, 2.2 lbf), the glass lid moves in reverse and stops.
Therefore, if you operate (open or close) the lid assembly - sunroof while driving on rough road, the vibration may be judged as a force and the lid may incorrectly move in the reverse direction.
When the incorrect reverse operation is occurred repeatedly, perform inspection around the sunroof frame. If there are no problems, perform the initialization operation with following procedure.

C: OPERATION

1. INITIALIZE OPERATION

CAUTION:
During initialization, perform the position learning and the sliding learning. Sliding learning mode can not be initiated unless the position learning is performed.

NOTE:
When initialize operation is performed, it is necessary to press the switch repeatedly as it operates for only at the moment when the switch is pressed, even when the switch is held down.

- Position learning

1) Position the lid assembly - sunroof at the full close position, and press and hold the close switch for ten seconds.
2) The motion shifts to the inching operation when the close switch is pressed continuously to the full close position. After the lid fully opens, it returns to the full close position and then stops.
3) Release the close switch to finish the position learning.

- Sliding learning

4) Within four seconds after the position learning is finished, press and hold the close switch again.
5) The lid assembly - sunroof moves to the full close position, full open position, and the full close position successively, and stops at the full close position.
6) Release the close switch and turn the IG to OFF to finish the initializing.

D: NOTE

For operation procedures of each component of the sunroof control system, refer to the respective section.

- Glass lid: <Ref. to SR-7, Glass Lid.>
- Sunroof assembly: <Ref. to SR-11, Sunroof Assembly.>
- Sunroof motor: <Ref. to SR-16, Sunroof Motor.>
- Sunroof switch: <Ref. to SR-18, Sunroof Switch.>
- Sunshade: <Ref. to SR-21, Sunshade.>

3. Wiper and Washer System

A: WIRING DIAGRAM

1. WIPER AND WASHER (FRONT)

Refer to “Front Wiper and Washer System” in the wiring diagram. <Ref. to WI-249, WIRING DIAGRAM, Front Wiper and Washer System.>

2. WIPER AND WASHER (REAR)

Refer to “Rear Wiper and Washer System” in the wiring diagram. <Ref. to WI-352, WIRING DIAGRAM, Rear Wiper and Washer System.>

B: INSPECTION

Symptoms	Repair order
Wiper and washers do not operate.	1. Wiper fuse (F/B No. 14, 15) 2. Combination switch 3. Motor assembly - wiper 4. Wiring harness
Wipers do not operate in LO or HI.	1. Combination switch 2. Motor assembly - wiper 3. Wiring harness
Wipers do not operate in INT.	1. Combination switch 2. Motor assembly - wiper 3. Wiring harness
Washer motor does not operate.	1. Combination switch 2. Motor pump assembly - washer 3. Wiring harness
Wipers do not operate when washer switch is ON.	1. Motor assembly - wiper 2. Wiring harness
Washer fluid spray does not operate properly.	1. Motor pump assembly - washer 2. Hose assembly - washer 3. Nozzle - washer

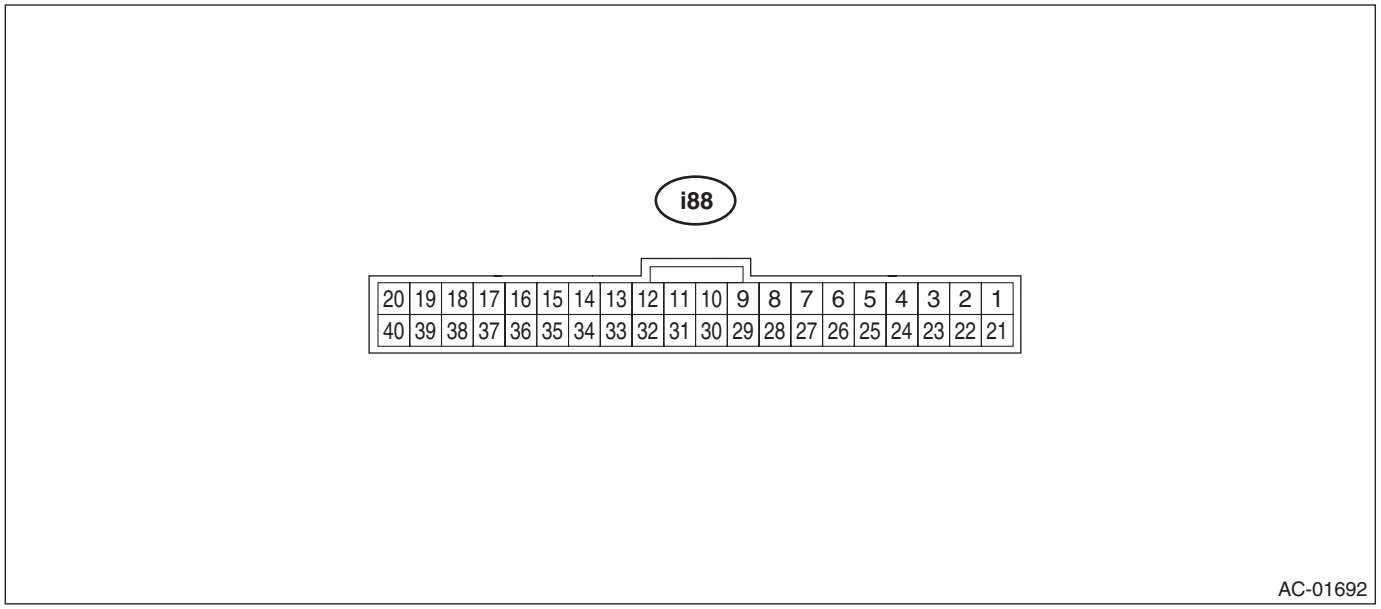
C: NOTE

For operation procedures of each component of the wiper and washer system, refer to the respective sections.

- Combination switch (Wiper): <Ref. to WW-11, Combination Switch (Wiper).>
- Wiper blade: <Ref. to WW-17, Wiper Blade.>
- Front wiper arm: <Ref. to WW-27, Front Wiper Arm.>
- Front wiper motor and link: <Ref. to WW-29, Front Wiper Motor and Link.>
- Rear wiper arm: <Ref. to WW-39, Rear Wiper Arm.>
- Rear wiper motor: <Ref. to WW-41, Rear Wiper Motor.>
- Washer tank and motor: <Ref. to WW-21, Washer Tank and Motor.>
- Front washer nozzle: <Ref. to WW-33, Front Washer Nozzle.>
- Rear washer nozzle: <Ref. to WW-45, Rear Washer.>

4. Auto A/C Control Module I/O Signal

A: ELECTRICAL SPECIFICATION



Terminal No.	Description	Measuring condition	Standard
1	Mode door actuator #4	Digital signal; can not be measured	—
2	Mode door actuator #3	Digital signal; can not be measured	—
3	Mode door actuator #2	Digital signal; can not be measured	—
4	Mode door actuator #1	Digital signal; can not be measured	—
6	Intake door actuator (FRESH)	FRESH mode	8 V or more
8	Intake door actuator (RECIRC)	RECIRC mode	8 V or more
9	Blower fan ON signal	Blower fan is ON	1 V or less
10	Intake door potentiometer power supply	Ignition switch ON	5 V
11	A/C cut-off signal	A/C is cut off	1 V or less
12	Intake door potentiometer signal	Ignition switch ON	0 — 5 V
14	GND for sensors	Always	1 V or less
15	ACC power supply	ACC ON	Battery voltage
16	Sunload sensor	Sunlight is contacting sensor	1 — 4 V
17	RECIRC sensor	Ignition switch ON	25°C: 2.5 V
18	Post evaporator sensor	Depends on temperature after the evaporator.	1 — 4.5 V
19	CAN Lo	Digital signal; can not be measured	—
20	CAN Hi	Digital signal; can not be measured	—
21	Air mix door actuator LH #4*2	Digital signal; can not be measured	—
22	Air mix door actuator LH #3*2	Digital signal; can not be measured	—
23	Air mix door actuator LH #2*2	Digital signal; can not be measured	—
24	Air mix door actuator LH #1*2	Digital signal; can not be measured	—
25	Air mix door actuator #4 *1 or air mix door actuator RH #4 *2	Digital signal; can not be measured	—
26	Air mix door actuator #3 *1 or air mix door actuator RH #3 *2	Digital signal; can not be measured	—
27	Air mix door actuator #2 *1 or air mix door actuator RH #2 *2	Digital signal; can not be measured	—
28	Air mix door actuator #1 *1 or air mix door actuator RH #1 *2	Digital signal; can not be measured	—

Terminal No.	Description	Measuring condition		Standard
31	BATT	Always		Battery voltage
32	IGN	Ignition ON		Battery voltage
34	GND	Always		1 V or less
35	ILL–	Illumination ON (measure between 37 — 35)		Battery voltage
37	ILL+			
40	Fan control signal	Ignition switch: ON, Blower switch: ON	1st	Approx. 9 V
			2nd	Approx. 8 V
			3rd	Approx. 7 V
			4th	Approx. 6 V
			5th	Approx. 5 V
			6th	Approx. 3.5 V
			7th	Approx. 0.5 V

*1: Without left/right independent air conditioning function
*2: With left/right independent air conditioning function

B: WIRING DIAGRAM

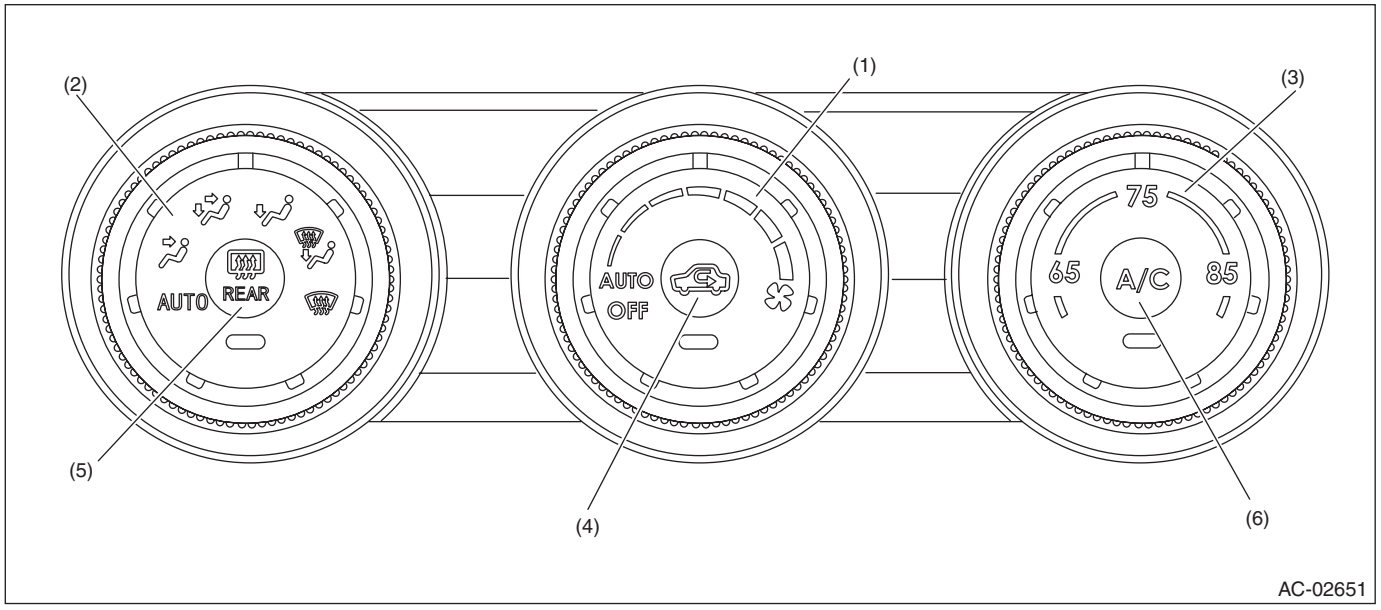
1. AIR CONDITIONER AUTO A/C MODEL

Refer to “Air Conditioning System” in the wiring diagram.<Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

5. Diagnostic Chart for Self-Diagnosis

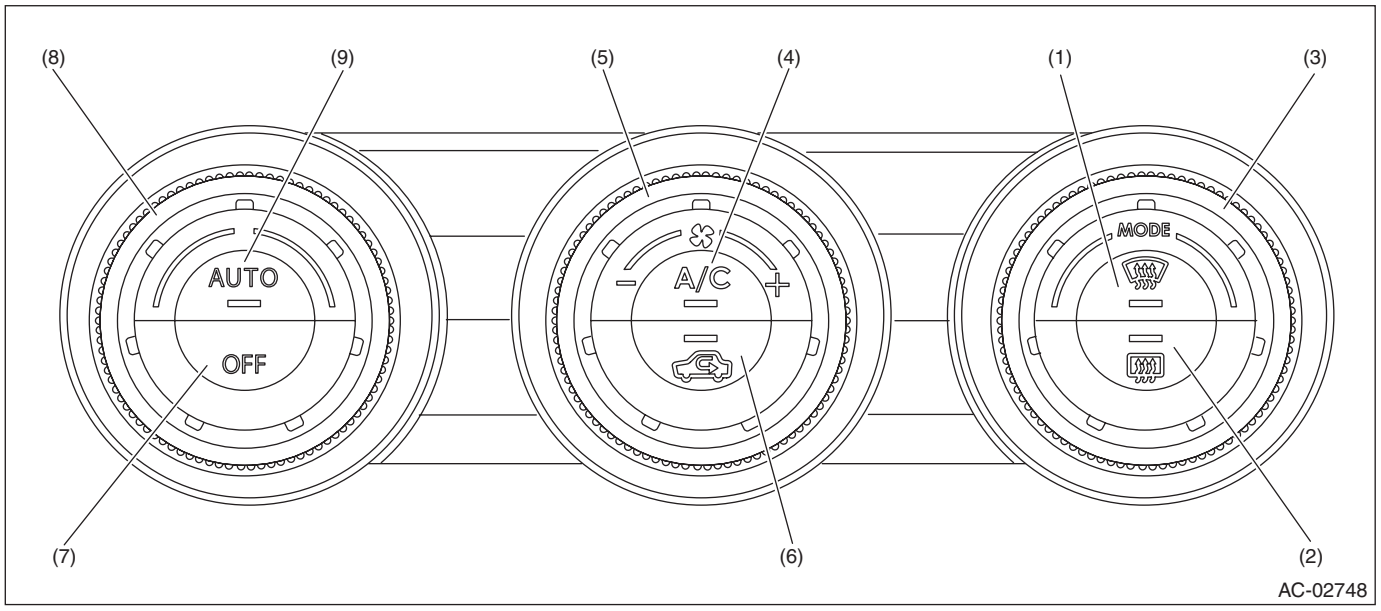
A: OPERATION

- Without left/right independent air conditioning function (without high grade MFD)



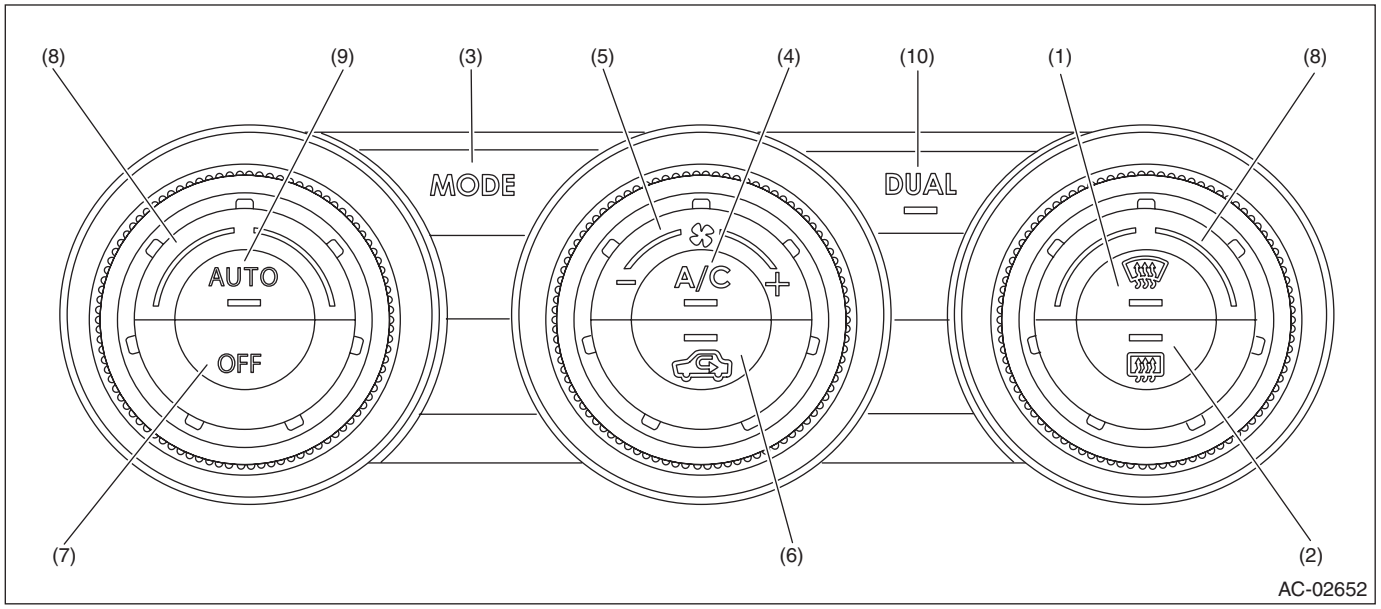
(1) Fan dial
(2) Air flow control dial
(3) Temperature adjustment dial
(4) FRESH/RECIRC switch
(5) Rear window defogger switch
(6) A/C switch

- Without left/right independent air conditioning function (with high grade MFD)



(1) Defroster switch
(2) Rear window defogger switch
(3) Air flow control dial
(4) A/C switch
(5) Fan dial
(6) FRESH/RECIRC switch
(7) OFF switch
(8) Temperature adjustment dial
(9) AUTO switch

- With left/right independent air conditioning function

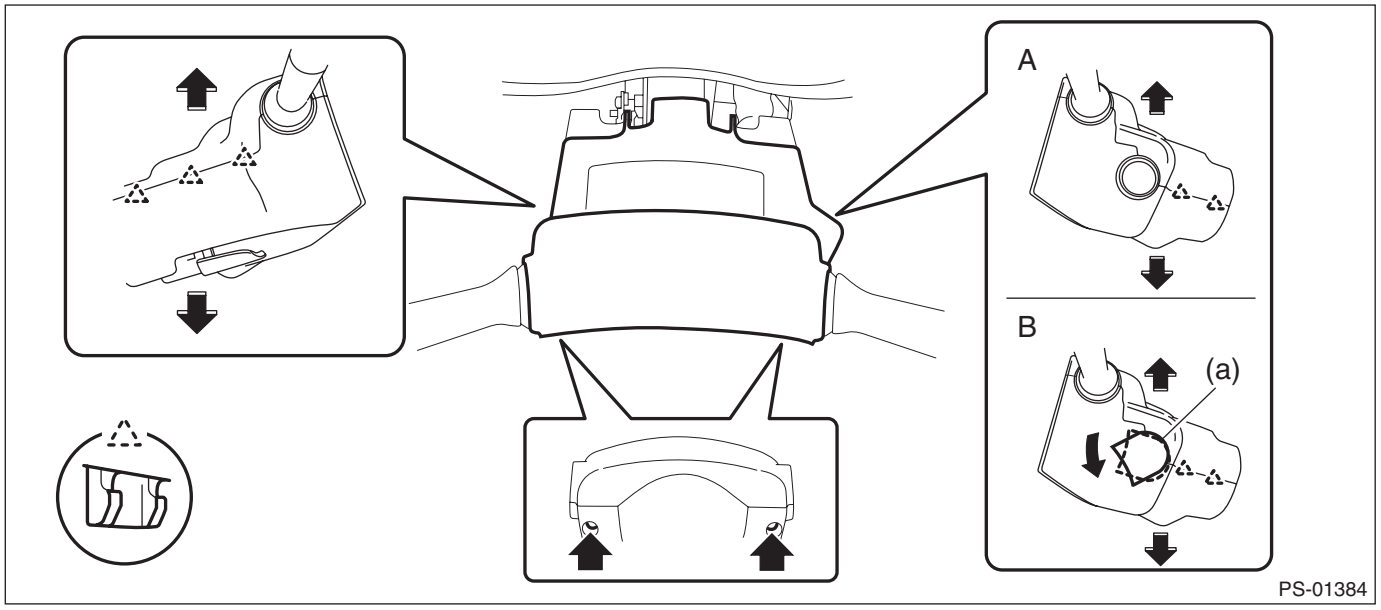


(1) Defroster switch
(2) Rear window defogger switch
(3) Air flow control switch
(4) A/C switch
(5) Fan dial
(6) FRESH/RECIRC switch
(7) OFF switch
(8) Temperature adjustment dial
(9) AUTO switch
(10) Dual switch

4. Combination Switch (Wiper)

A: REMOVAL

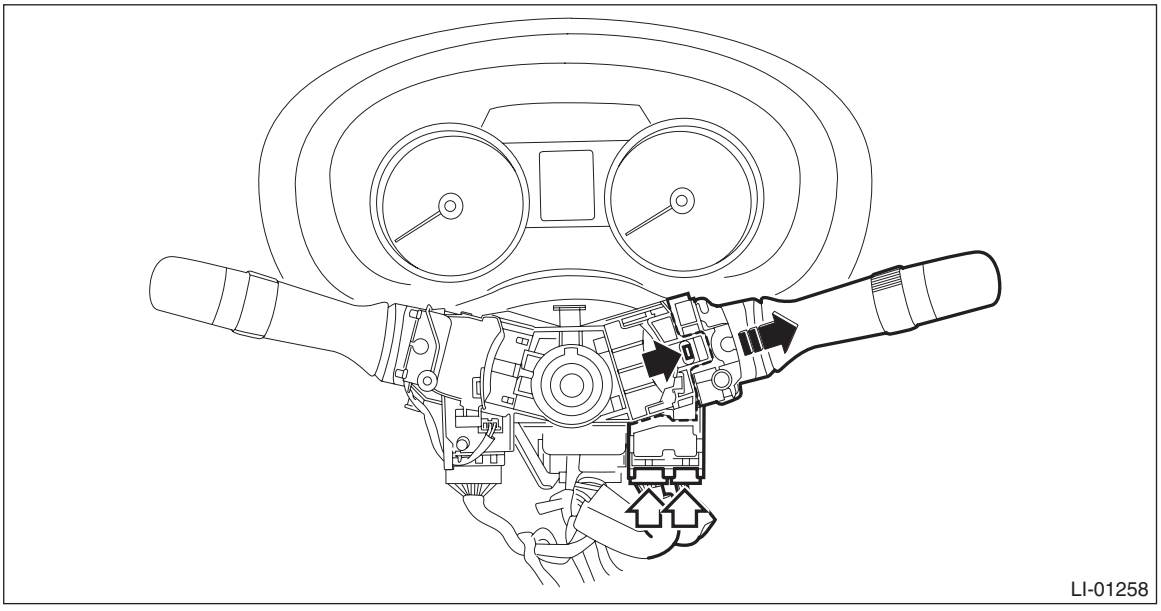
1) Disconnect the ground cable from battery.
2) Remove the cover assembly - column.
   (1) Release the screws and claws.
   (2) Remove the cap - key cylinder (a). (Model with keyless access)
   (3) Remove the cover assembly - column UPR and the cover assembly - column LWR.



A Models without keyless access B Models with keyless access

3) Remove the switch assembly - combination wiper select.
   (1) Disconnect the connector.
   (2) Release the claws, and pull out the switch assembly - combination wiper select.

CAUTION:
Do not press the claws with excessive force. They may be damaged.



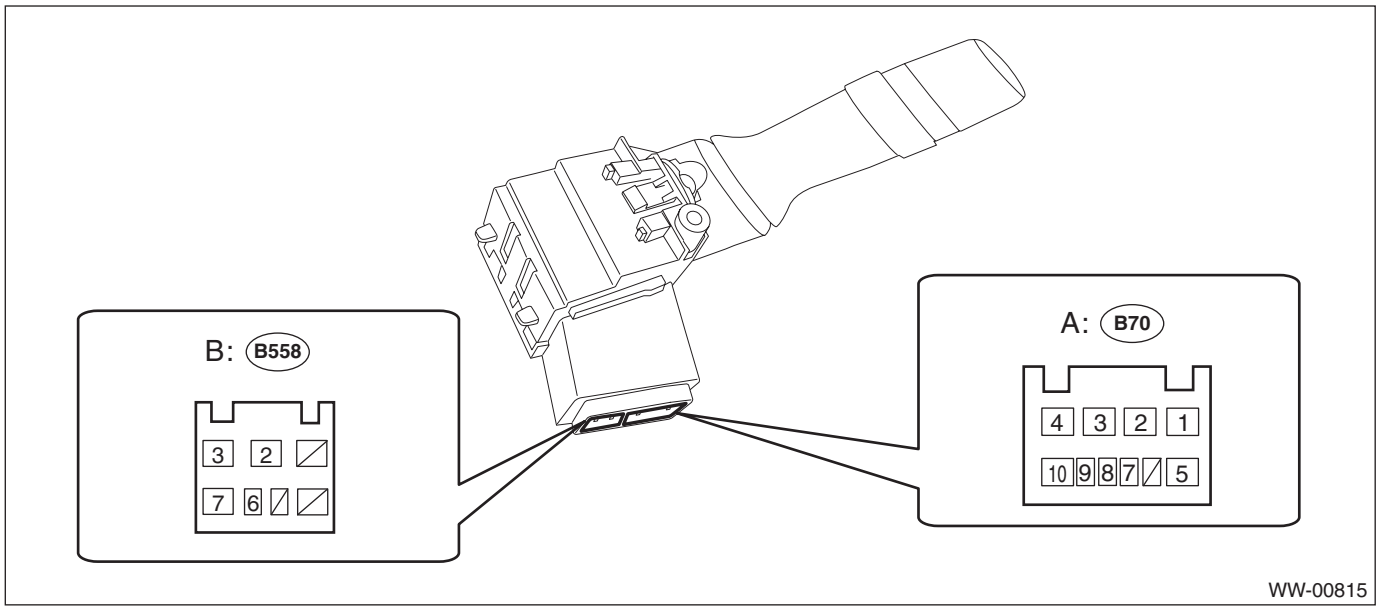
B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. INSPECTION OF SWITCH UNIT

1) Operate the switches to check the continuity between terminals.



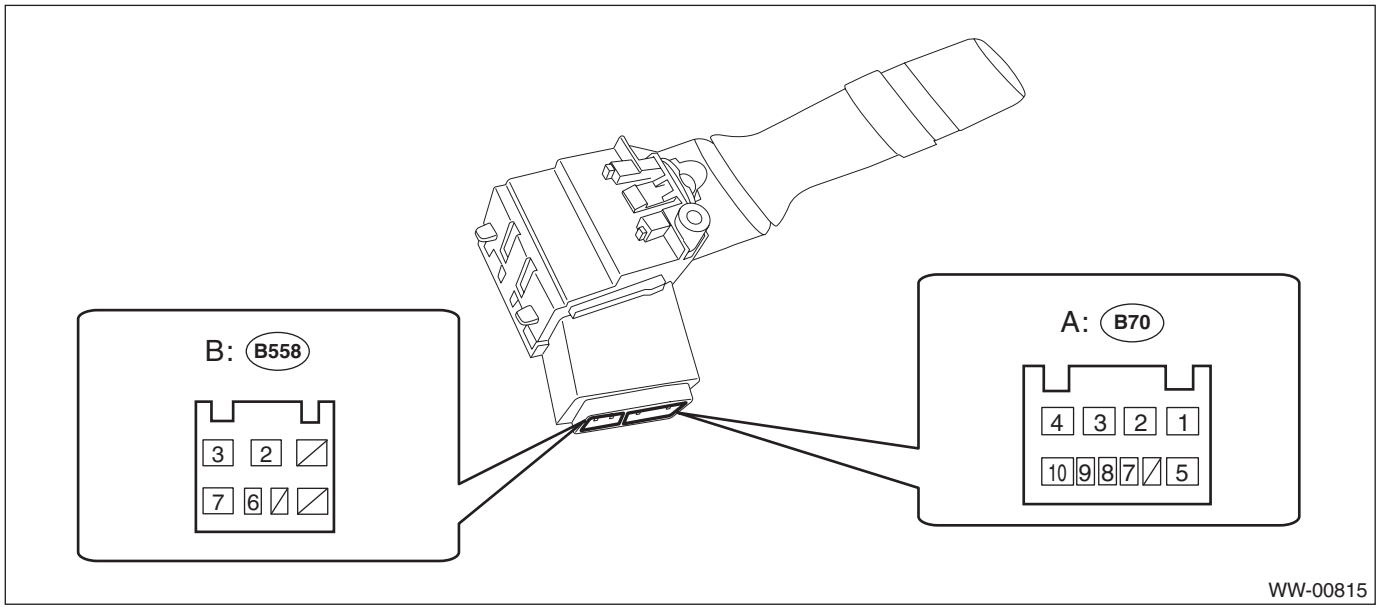
	Switch position	Terminal No.	Standard
Front	OFF	A1 and A3	Less than 1 Ω
	INT	A1 and A3	Less than 1 Ω
	LO	A2 and A3	Less than 1 Ω
	HI	A2 and A4	Less than 1 Ω
	Washer ON	B2 and B3	Less than 1 Ω
Rear	OFF	A5 and B2 B6 and B2 B7 and B2	1 MΩ or more
	LO	B6 and B2	Less than 1 Ω
	HI	B7 and B2	Less than 1 Ω
	Washer ON	A5 and B2	Less than 1 Ω

2) Replace the switch if the inspection result is not within the standard.

2. FRONT WIPER

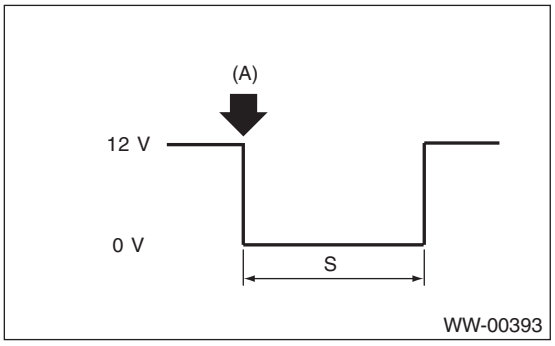
1) Check with Subaru Select Monitor
   (1) Check the input signal when the switch assembly - combination wiper select is turned to LO or HI, using the current data display.
   (2) Does the input signal change corresponding to the switch operation?
   - **Yes** → Finish the diagnosis.
   - **No** → Check the harness.

2) Check the intermittent operation (inspection of the wiper switch alone).



   (1) Set the voltmeter between terminals No. A2 (+) and No. B2 (–).
   (2) Connect the battery to connector. (Terminal No. A2 (+), terminal No. B2 & A3 (–))
   (3) Turn the switch assembly - combination wiper select to INT.
   (4) Connect the battery (+) to the terminal No. A2 for 5 seconds.
   (5) Connect the battery (–) to the terminal No. B2, and check the voltage between terminals No. A2 and No. A3 during intermittent operation.
   (6) Perform step (1) to (5) above when intermittent control switch is in MIN or MAX, and replace the switch if the operation is not as specified.

Intermittent stationary time
MIN: Approx. 2 seconds
MAX: Approx. 16 seconds

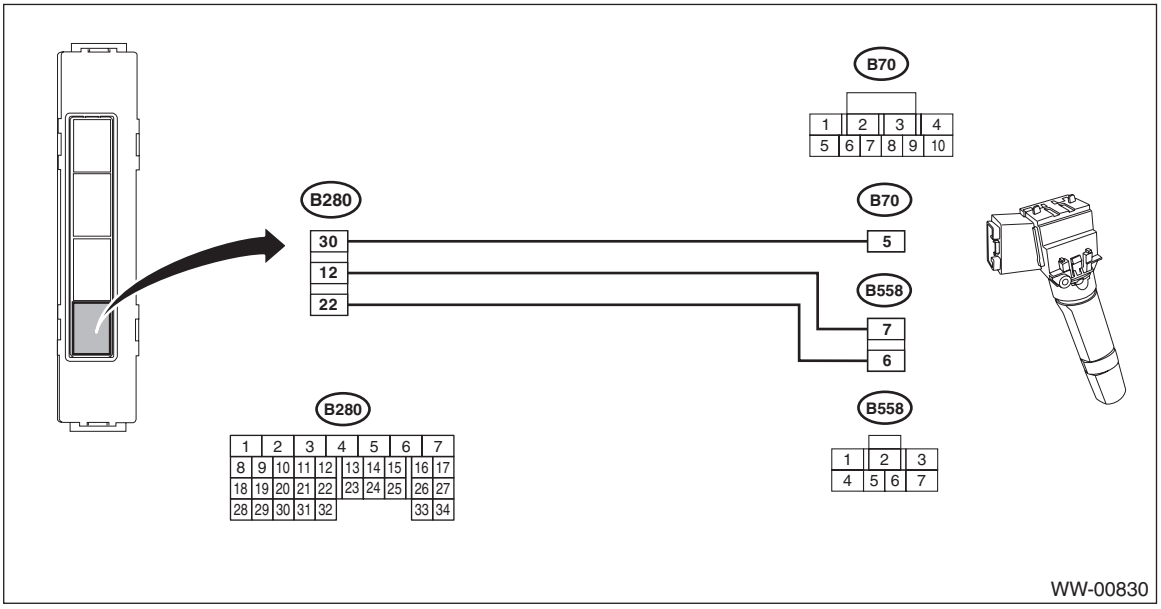


(A): Connect the battery (–) to the terminal No. B2.
S: Intermittent downtime (sec.)

3. REAR WIPER

1) Check input of body integrated unit
Check the input signal when the rear wiper switch is operated using Subaru Select Monitor.
(1) Turn the ignition switch to ON.
(2) Operate the rear wiper switch to each position of ON, INT and Washer ON.
(3) Does the input signal change corresponding to the switch operation?
- **Yes** → Go to step 4.
- **No** → Go to step 2.

2) Check harness
(1) Turn the ignition switch to OFF, disconnect the ground cable from battery.
(2) Disconnect the connector of body integrated unit and wiper switch.
(3) Measure the resistance between body integrated unit and wiper switch.



Connector & terminal
(B280) No. 30 — (B70) No. 5:
(B280) No. 22 — (B558) No. 6:
(B280) No. 12 — (B558) No. 7:
(4) Is the resistance less than 10 Ω?
- **Yes** → Go to step 3.
- **No** → Repair the harness between the body integrated unit and wiper switch.

3) Check input voltage of body integrated unit
(1) Connect the ground cable to battery.
(2) Turn the ignition switch to ON and check the input voltage of body integrated unit.

Connector & terminal
(i84) No. 6 (+) — Chassis ground (–):
(B281) No. 3 (+) — Chassis ground (–):
(3) Is the voltage 10 V or more?
- **Yes** → Go to step 4.
- **No** → Check the harness and fuse.

4) Check output of body integrated unit
Check the output signal when the rear wiper switch is operated using Subaru Select Monitor.
(1) Turn the ignition switch to ON.
(2) Operate the rear wiper switch to ON and Washer ON.
(3) When the operation in step (2) is performed, check the output signal of body integrated unit to rear wiper motor.
(4) When the rear wiper switch is set to ON, is ON output continuous? Also, when the washer is set to ON, is ON output?
- **Yes** → Go to step 5.
- **No** → Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>

5) Check output of body integrated unit
Check the output signal when the rear wiper switch is operated using Subaru Select Monitor.
(1) Turn the ignition switch to ON.
(2) Set the rear wiper switch to INT.
(3) When the operation in step (2) is performed, check the output signal of body integrated unit.
(4) When the rear wiper switch is set to INT, is ON/OFF output repeated? (INT OFF time (when vehicle parked): 12 seconds)
- **Yes** → Go to step 8.
- **No** → Go to step 6.

6) Check harness between body integrated unit and rear wiper motor
(1) Turn the ignition switch to OFF, disconnect the ground cable from battery.
(2) Disconnect the connector of body integrated unit and wiper switch.
(3) Measure the resistance between the harness connector terminals of the body integrated unit and rear wiper motor.

Connector & terminal
(B280) No. 6 — (B97) No. 11:
(4) Is the resistance less than 10 Ω?
- **Yes** → Go to step 7.
- **No** → Repair the open circuit of the harness between body integrated unit and rear wiper motor.

7) Check stop position circuit of the rear wiper motor
(1) Disconnect the harness connector of the motor assembly - rear wiper.
(2) Check the continuity of the circuit of rear wiper motor stop position.

Connector & terminal
(D43) No. 1 (+) — (D43) No. 4 (–):
(3) Is there continuity between terminals?
- **Yes** → Go to step 8.
- **No** → Replace the motor assembly - rear wiper.

8) Check power supply circuit of the rear wiper motor
(1) Disconnect the harness connector of the motor assembly - rear wiper.
(2) Turn the ignition switch to ON.
(3) Measure the voltage between the rear wiper motor harness connector terminal and chassis ground.

Connector & terminal
(D43) No. 3 (+) — Chassis ground (–):
(4) Is the voltage 10 V or more?
- **Yes** → Go to step 9.
- **No** → Check the fuse (No. 27 in main fuse box).

9) Check ground circuit of rear wiper motor
(1) Turn the ignition switch to OFF.
(2) Measure the resistance between the rear wiper motor harness connector terminal and chassis ground.

Connector & terminal
(D43) No. 4 — Chassis ground:
(3) Is the resistance less than 10 Ω?
- **Yes** → Go to step 10.
- **No** → Repair the open circuit of the rear wiper motor ground circuit.

10) Check harness between body integrated unit and rear wiper motor
(1) Turn the ignition switch to OFF.
(2) Disconnect the harness connector of body integrated unit.
(3) Disconnect the harness connector of the motor assembly - rear wiper.
(4) Measure the resistance between the harness connector terminals of the body integrated unit and rear wiper motor.

Connector & terminal
(B280) No. 7 — (D43) No. 2:
(5) Is the resistance less than 10 Ω?
- **Yes** → Go to step 11.
- **No** → Repair the open circuit of the harness between body integrated unit and rear wiper motor.

11) Check output of body integrated unit
(1) Connect the harness connector of body integrated unit.
(2) Disconnect the connector of the motor assembly - rear wiper.
(3) Turn the ignition switch to ON.
(4) Measure the voltage between rear wiper motor connector and chassis ground.

Connector & terminal
(D43) No. 2 (+) — Chassis ground (–):
(5) Is the voltage less than 1.5 V when the rear wiper switch is OFF, and is the voltage 10 V or more when the rear wiper switch is ON?
- **Yes** → Go to step 12.
- **No** → Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>

12) Check operation of rear wiper motor
(1) Remove the motor assembly - rear wiper.
(2) Check the rear wiper motor.<Ref. to WW-44, INSPECTION, Rear Wiper Motor.>
(3) Does the rear wiper motor rotate normally?
- **Yes** → Finished.
- **No** → Replace the motor assembly - rear wiper.

NOTE:
Rear wiper intermittent time

Select lever position	Vehicle speed (km/h (MPH))	Intermittent stopping time (sec.)
Rev.	—	Continuous operation
Except for reverse mode	80 — (50 —)	3
	50 — 80 (31 — 50)	6
	20 — 50 (12 — 31)	9
	0 — 20 (0 — 12)	12

4. Control Unit

A: NOTE

System control of the EyeSight is performed by the following modules.
- Engine control module (ECM)
- Transmission control module (TCM)
- VDC control module (VDCCM)
- Stereo camera

B: REMOVAL

For removal, refer to the removal procedure of each module.
- Engine control module (ECM)

Non-turbo model: <Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).>
Turbo model: <Ref. to FU(H4DOTC)-135, REMOVAL, Engine Control Module (ECM).>
- Transmission control module (TCM)

Non-turbo model: <Ref. to CVT(TR580)-143, REMOVAL, Transmission Control Module (TCM).>
Turbo model: <Ref. to CVT(TR690)-125, REMOVAL, Transmission Control Module (TCM).>
- VDC control module (VDCCM): <Ref. to VDC-10, REMOVAL, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
- Stereo camera: <Ref. to ES-11, REMOVAL, Stereo Camera.>

C: INSTALLATION

For installation, refer to the installation procedure of each module.
- Engine control module (ECM)

Non-turbo model: <Ref. to FU(H4DO)-92, INSTALLATION, Engine Control Module (ECM).>
Turbo model: <Ref. to FU(H4DOTC)-137, INSTALLATION, Engine Control Module (ECM).>
- Transmission control module (TCM)

Non-turbo model: <Ref. to CVT(TR580)-144, INSTALLATION, Transmission Control Module (TCM).>
Turbo model: <Ref. to CVT(TR690)-125, INSTALLATION, Transmission Control Module (TCM).>
- VDC control module (VDCCM): <Ref. to VDC-14, INSTALLATION, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
- Stereo camera: <Ref. to ES-15, INSTALLATION, Stereo Camera.>

4. Cruise Control Module

A: NOTE

The control of cruise control system is carried out in engine control module (ECM).

B: REMOVAL

For removal procedures of the control module, refer to “FUEL INJECTION (FUEL SYSTEMS)”.
- Non-turbo model: <Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).>
- Turbo model: <Ref. to FU(H4DOTC)-135, REMOVAL, Engine Control Module (ECM).>

C: INSTALLATION

For installation procedures of the control module, refer to “FUEL INJECTION (FUEL SYSTEMS)”.
- Non-turbo model: <Ref. to FU(H4DO)-92, INSTALLATION, Engine Control Module (ECM).>
- Turbo model: <Ref. to FU(H4DOTC)-137, INSTALLATION, Engine Control Module (ECM).>

4. Day Time Running Light System

A: WIRING DIAGRAM

Refer to “Headlight System” in the wiring diagram. <Ref. to WI-257, WIRING DIAGRAM, Headlight System.>

B: INSPECTION

1. DAYTIME RUNNING LIGHT SYSTEM CHECK

	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT.** Read the DTC using Subaru Select Monitor. NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK CURRENT DATA.** Display the following items using Subaru Select Monitor. • «Parking Brake Switch Input» • «Shift position» • «Lighting II Switch Input»	Is the input signal normal?	Go to step **3**.	Check the defective part.
3	**CHECK RELAY.** Check the daytime running light relay. <Ref. to LI-5, CHECK RELAY, INSPECTION, Relay and Fuse.>	Is the relay OK?	Go to step **4**.	Replace the relay.
4	**CHECK HARNESS.** Check each harness.	Is harness normal?	Replace the body integrated unit. <Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Repair or replace the harness.

C: NOTE

For operation procedures of each component of the daytime running light system, refer to the respective section.

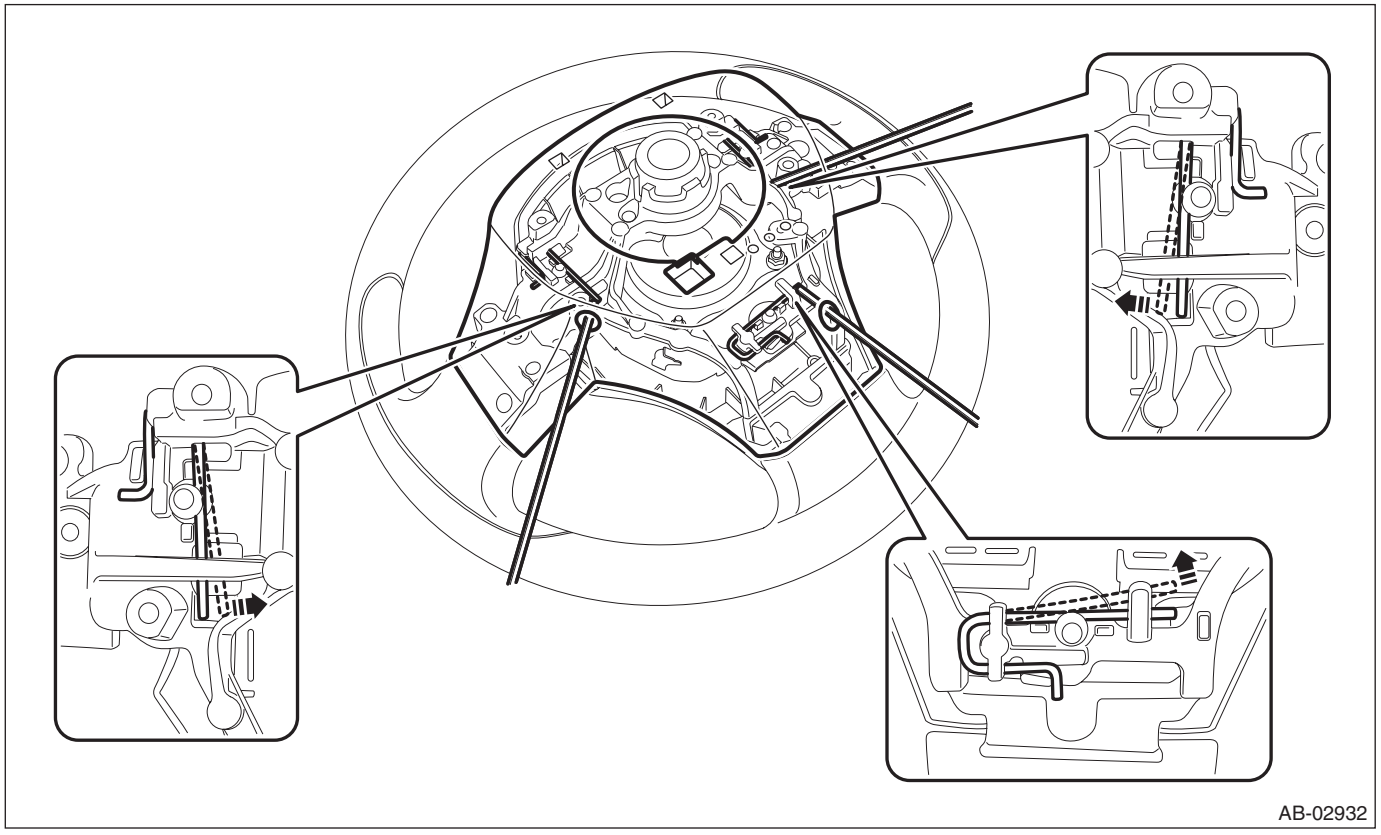
- Headlight Assembly: <Ref. to LI-27, Headlight Assembly.>
- Headlight bulb: <Ref. to LI-34, Headlight Bulb.>
- Combination switch (light): <Ref. to LI-18, Combination Switch (Light).>
- Daytime running resistor: <Ref. to LI-76, Day Time Running Resistor.>

4. Driver's Airbag Module

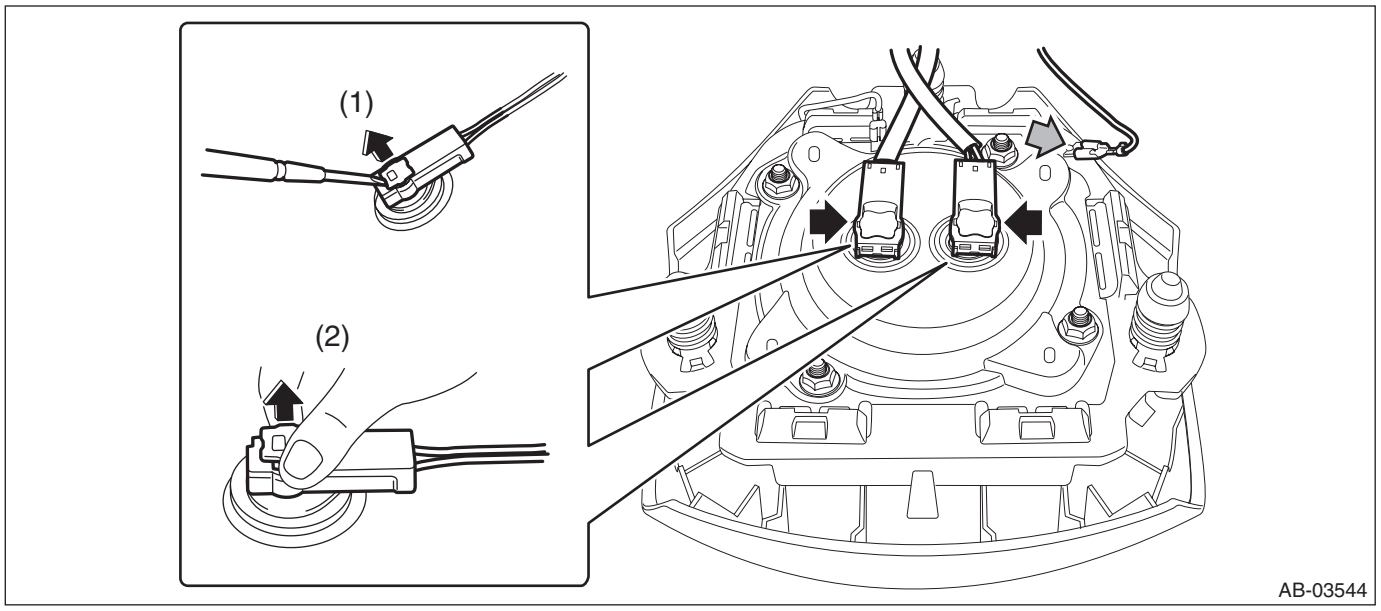
A: REMOVAL

CAUTION:
Refer to "CAUTION" of "General Description" before handling the airbag module.<Ref. to AB-9, CAUTION, General Description.>

1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.
   (1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).



(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



B: INSTALLATION

CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.

1) Before installation, inspect the following items and replace any faulty part with a new one.
- Airbag module is cracked or deformed.
- Harness and/or connector is cracked, deformed or open.
- Harness wire is exposed.
- The steering wheel is in the way, making it difficult to install the airbag module.
- The clearance between the driver's airbag module and steering wheel is not constant.

2) Install the driver's airbag module.
(1) Connect the airbag connector to the airbag module securely.

CAUTION:
- **Be sure to insert the connector in until it is locked.**
- **Press in the push lock securely. Then pull it gently to make sure that it is locked.**

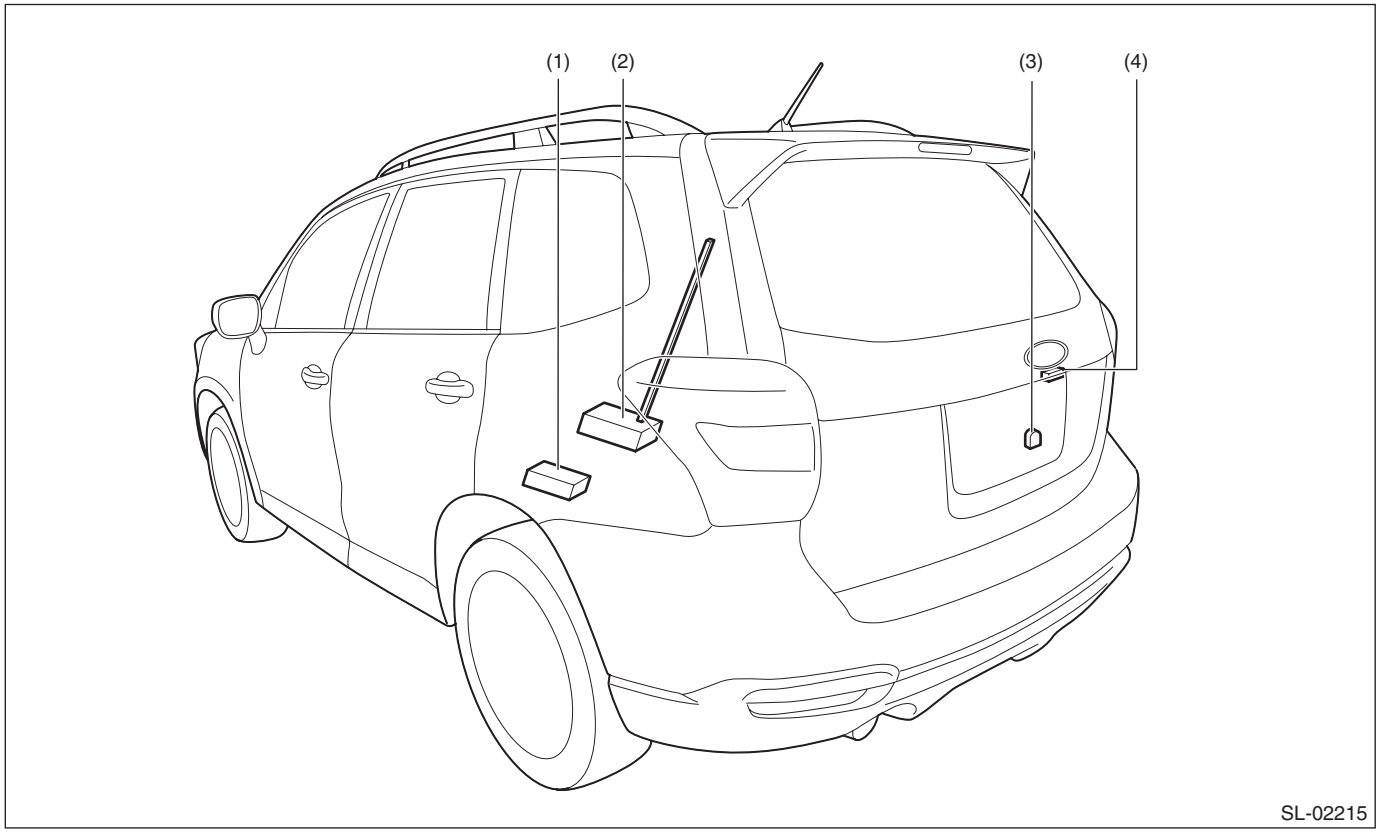
(2) Connect the horn harness.
(3) Press in the locks (three positions) to install the airbag module.

CAUTION:
Make sure that the airbag module locks (three positions) are securely locked.

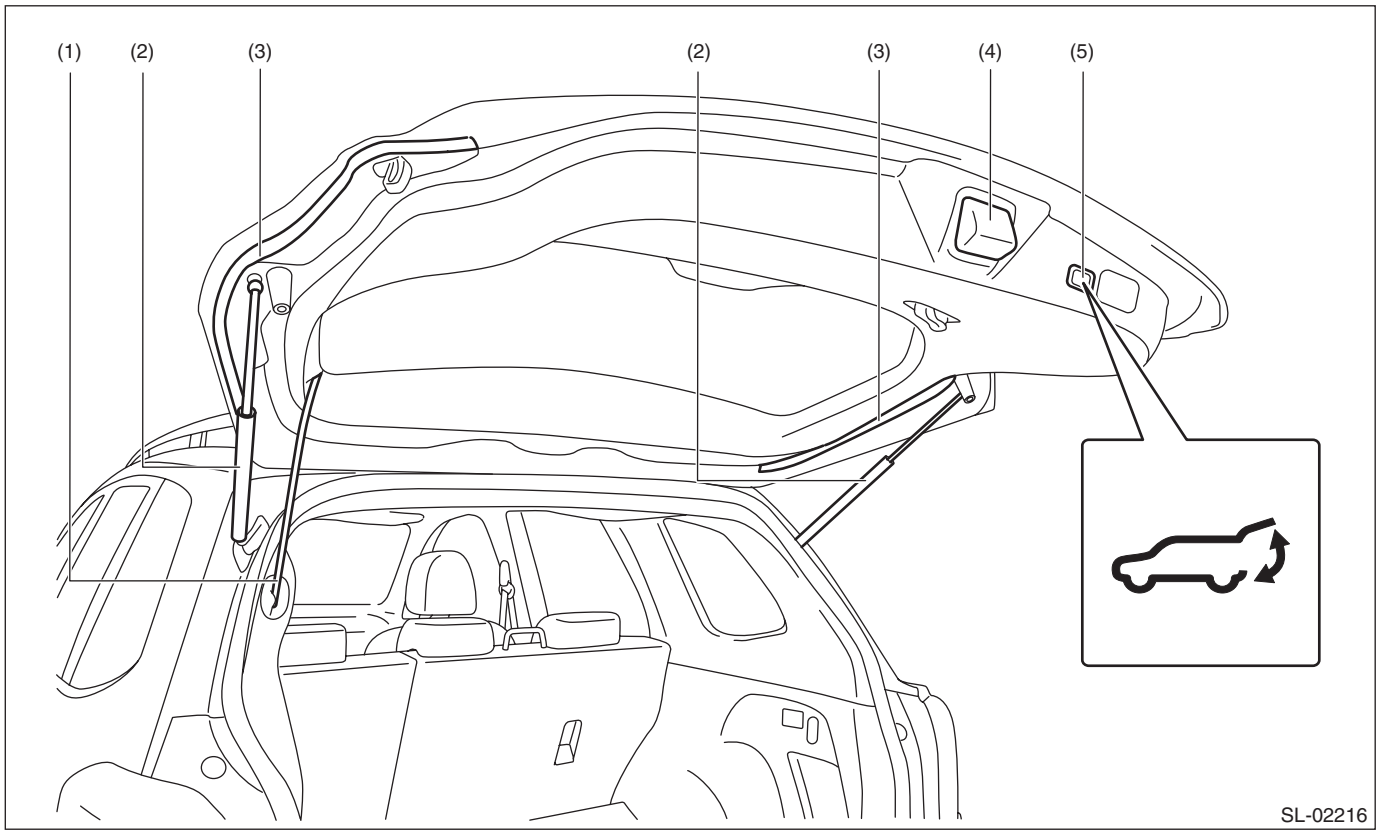
3) Install each part in the reverse order of removal.

4. Electrical Component Location

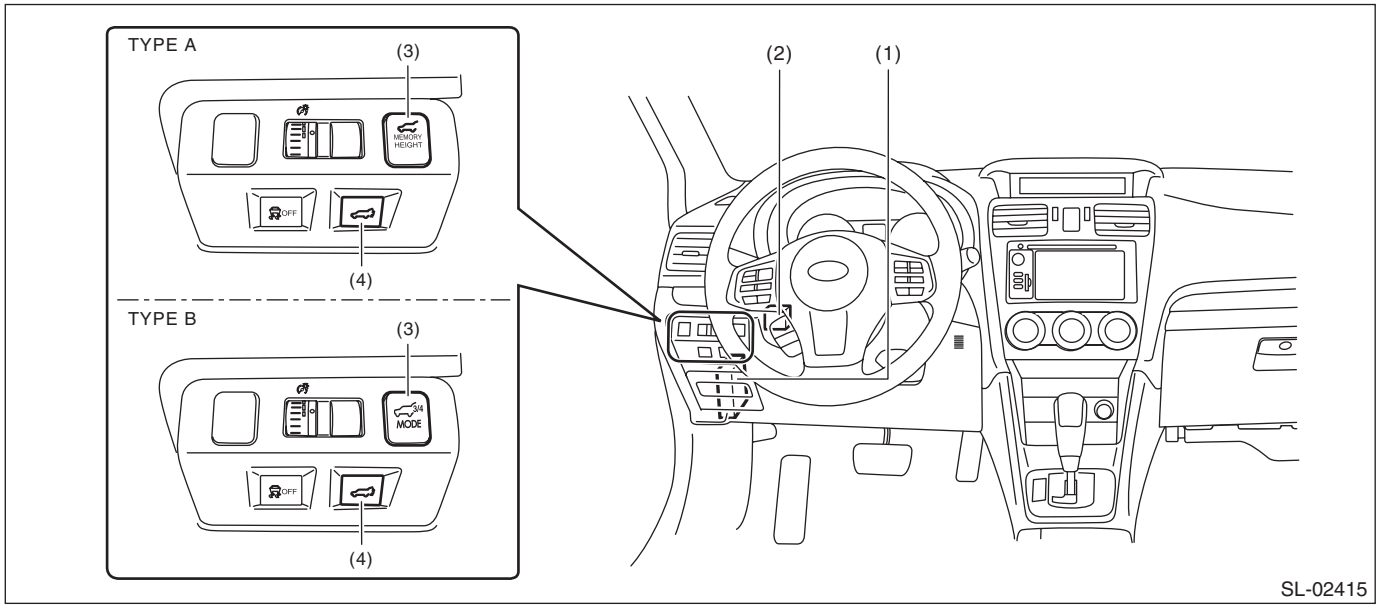
A: LOCATION



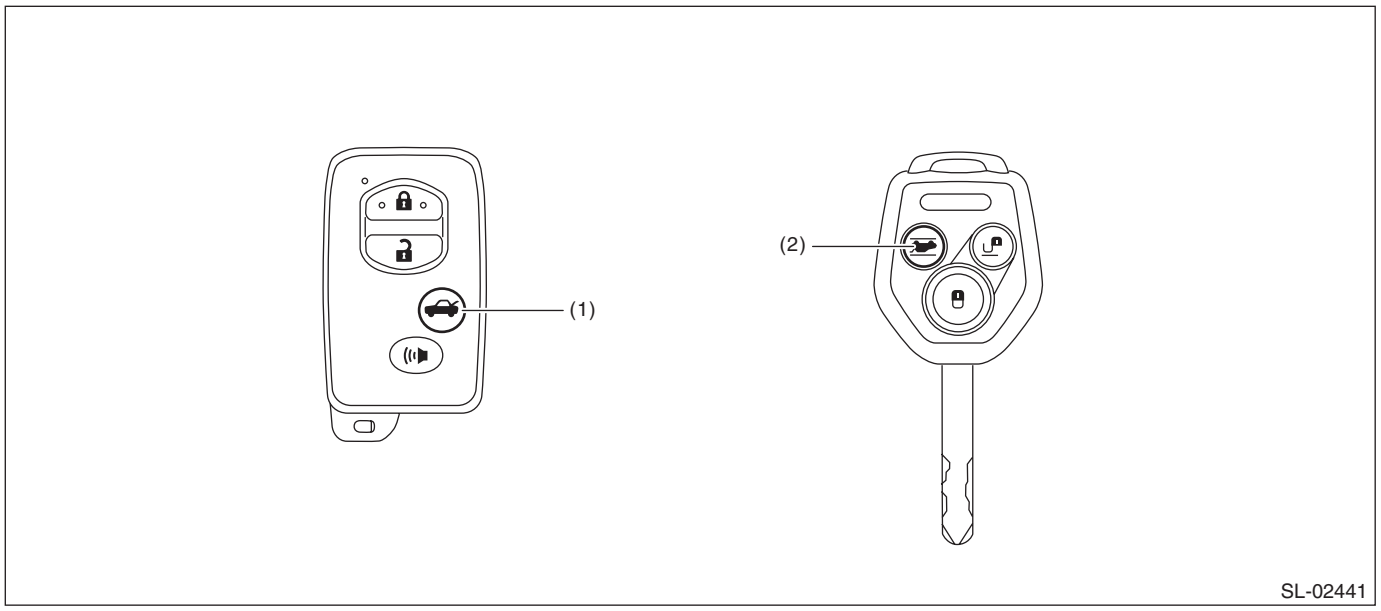
(1) Power rear gate control module (PRG CM)
(2) Power rear gate drive unit (PRG DU)
(3) Power rear gate buzzer
(4) Rear gate opener button (PRG)



(1) Rod - power rear gate
(2) Gas damper
(3) Power rear gate touch sensor
(4) Power rear gate auto closer
(5) Power rear gate inner switch



(1) Body integrated unit
(2) Turn hazard control module
(3) Memory height switch
(4) Power rear gate driver's switch

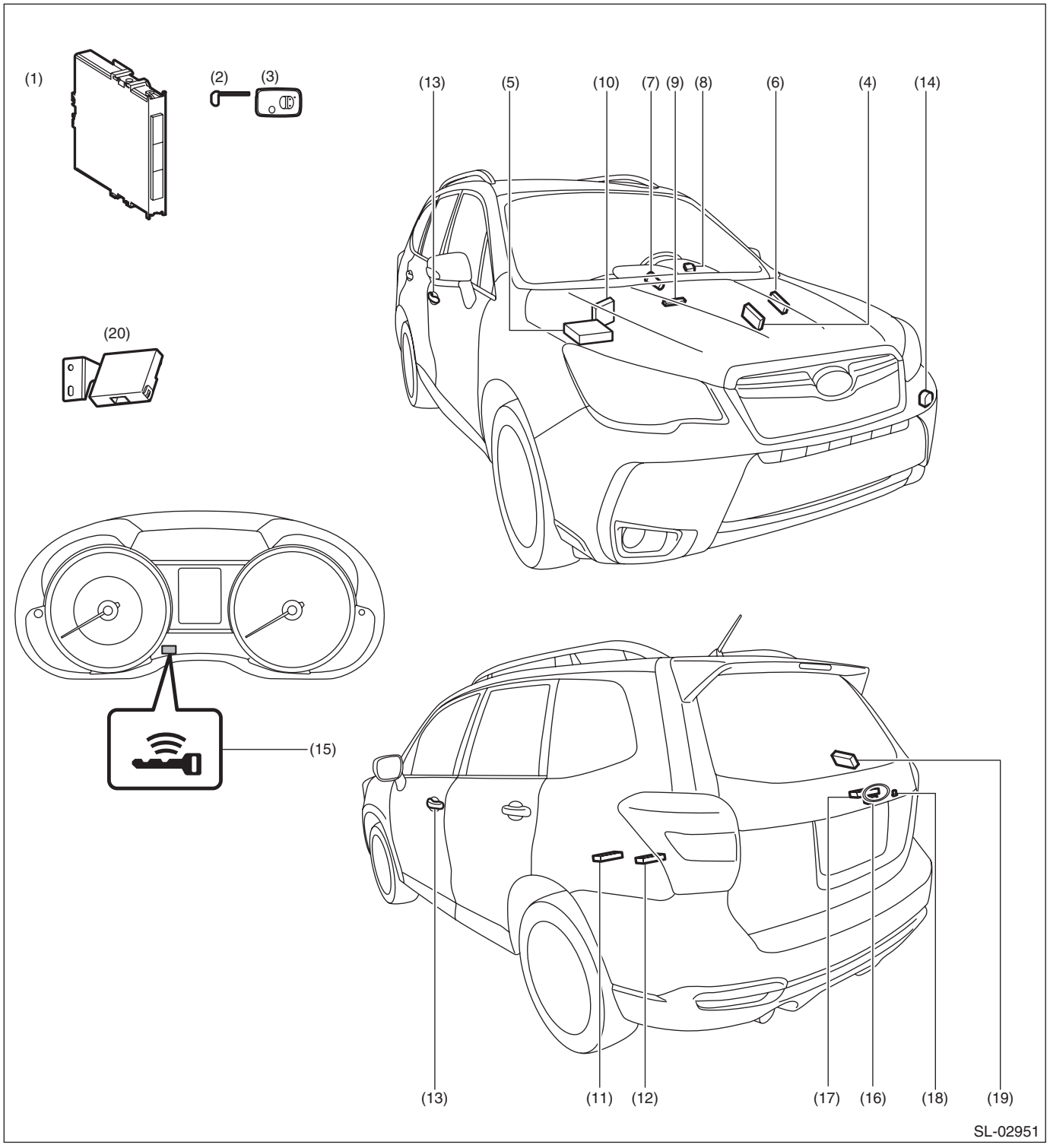


(1) Rear gate/trunk SW (access key) (with keyless access)

(2) Rear gate/trunk SW (keyless transmitter) (without keyless access)

4. Electrical Component Location

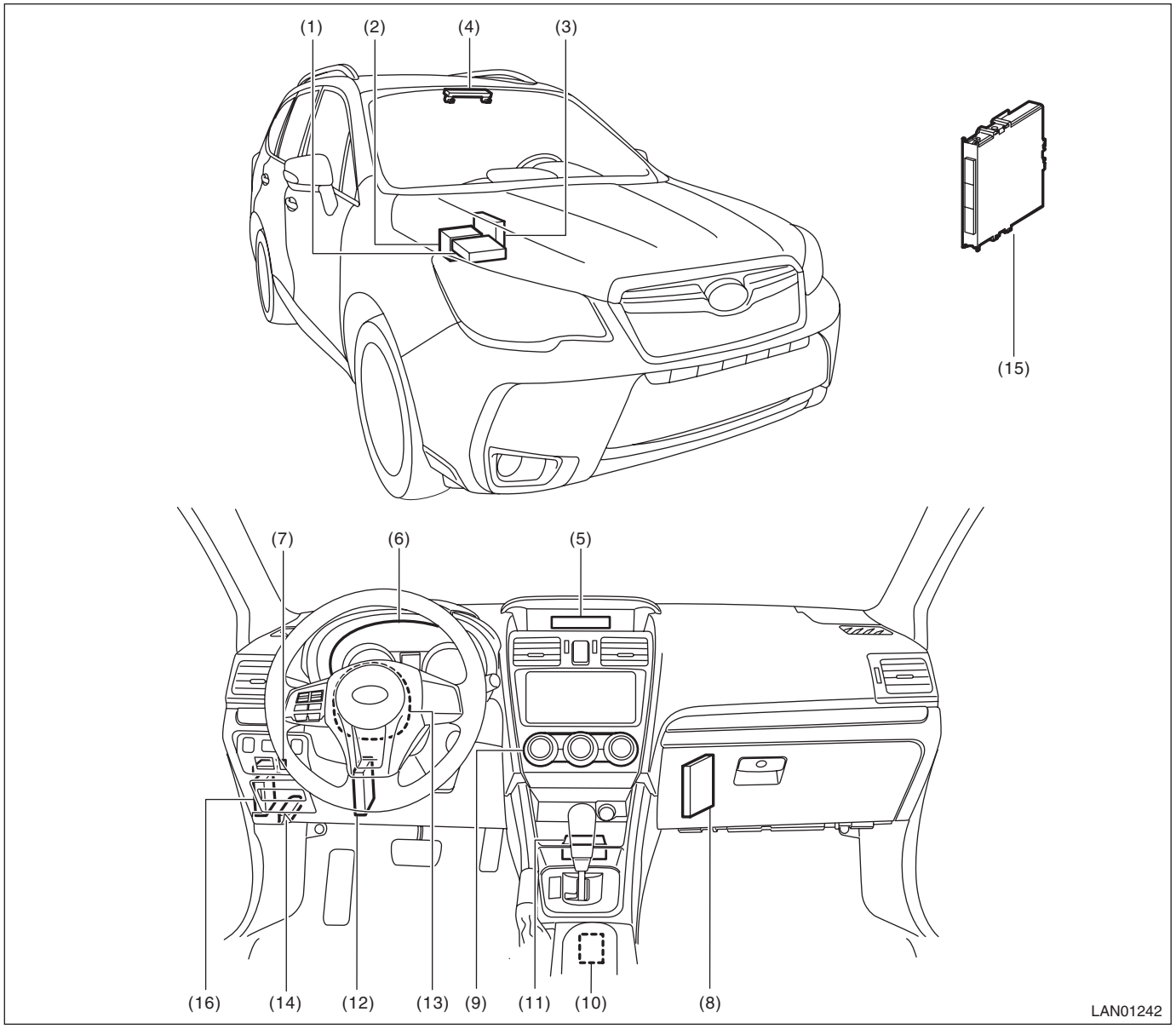
A: LOCATION



(1) Keyless access CM
(2) Mechanical key
(3) Access key
(4) TCM
(5) ECM (turbo model)
(6) Body integrated unit
(7) Push button ignition switch
(8) Steering lock CM
(9) Front interior antenna
(10) ECM (non-turbo model)
(11) Center interior antenna
(12) Rear interior antenna
(13) Front outer handle (front exterior antenna)
– Touch sensor (lock)
– Touch sensor (unlock)
(14) Access buzzer
(15) Access key warning light
(16) Rear gate opener button
(17) Rear exterior antenna
(18) Rear lock button
(19) Receiver
(20) ID code box (for C0 and C5 only)

4. Electrical Component Location

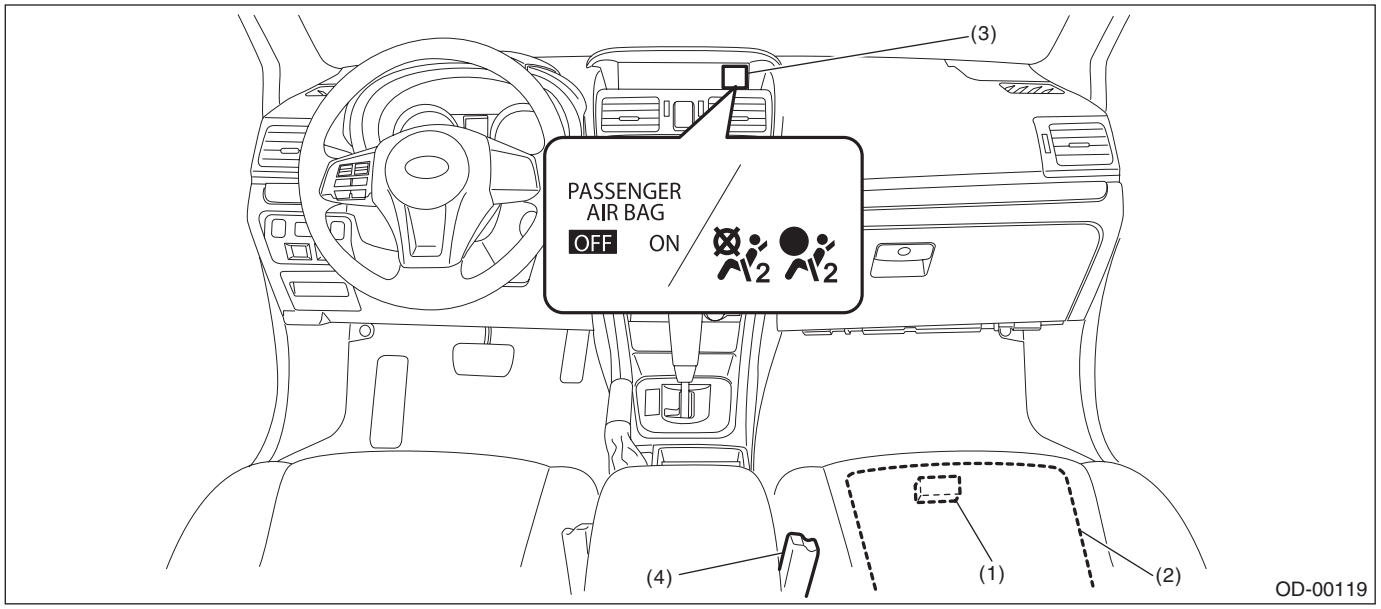
A: LOCATION



(1) ECM (turbo model)
(2) VDC CM
(3) Power steering CM
(4) Stereo camera
(5) MFD
(6) Combination meter
(7) Auto headlight beam leveler CM
(8) ECM (non-turbo model)
(9) A/C control panel
(10) Yaw rate & G sensor
(11) Airbag CM
(12) TCM
(13) Steering angle sensor
(14) Data link connector
(15) Keyless access CM
(16) Body integrated unit

4. Electrical Component Location

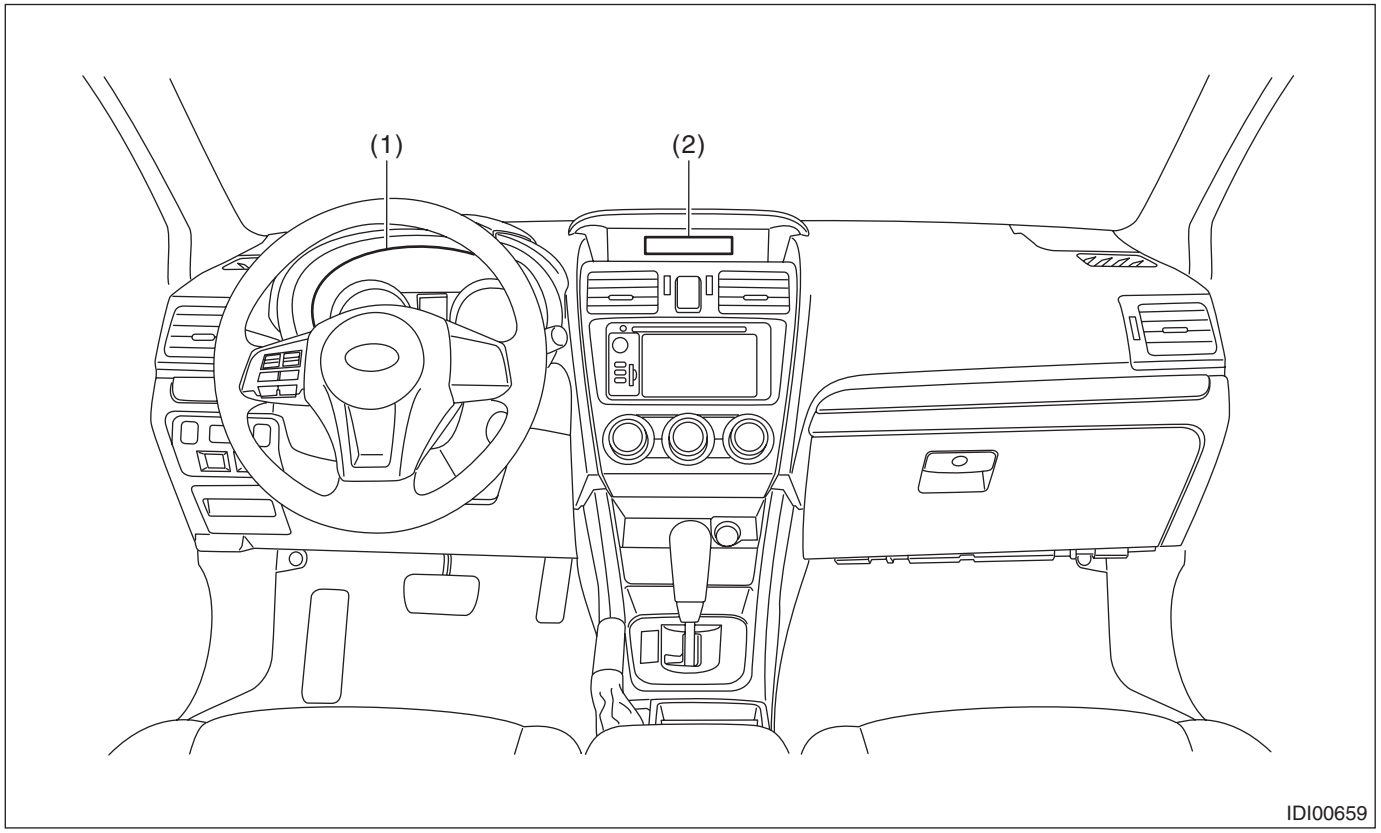
A: LOCATION



(1) Occupant detection control module
(2) Occupant detection sensor
(3) Airbag ON/OFF indicator light
(4) Buckle switch (passenger's seat)

4. Electrical Component Location

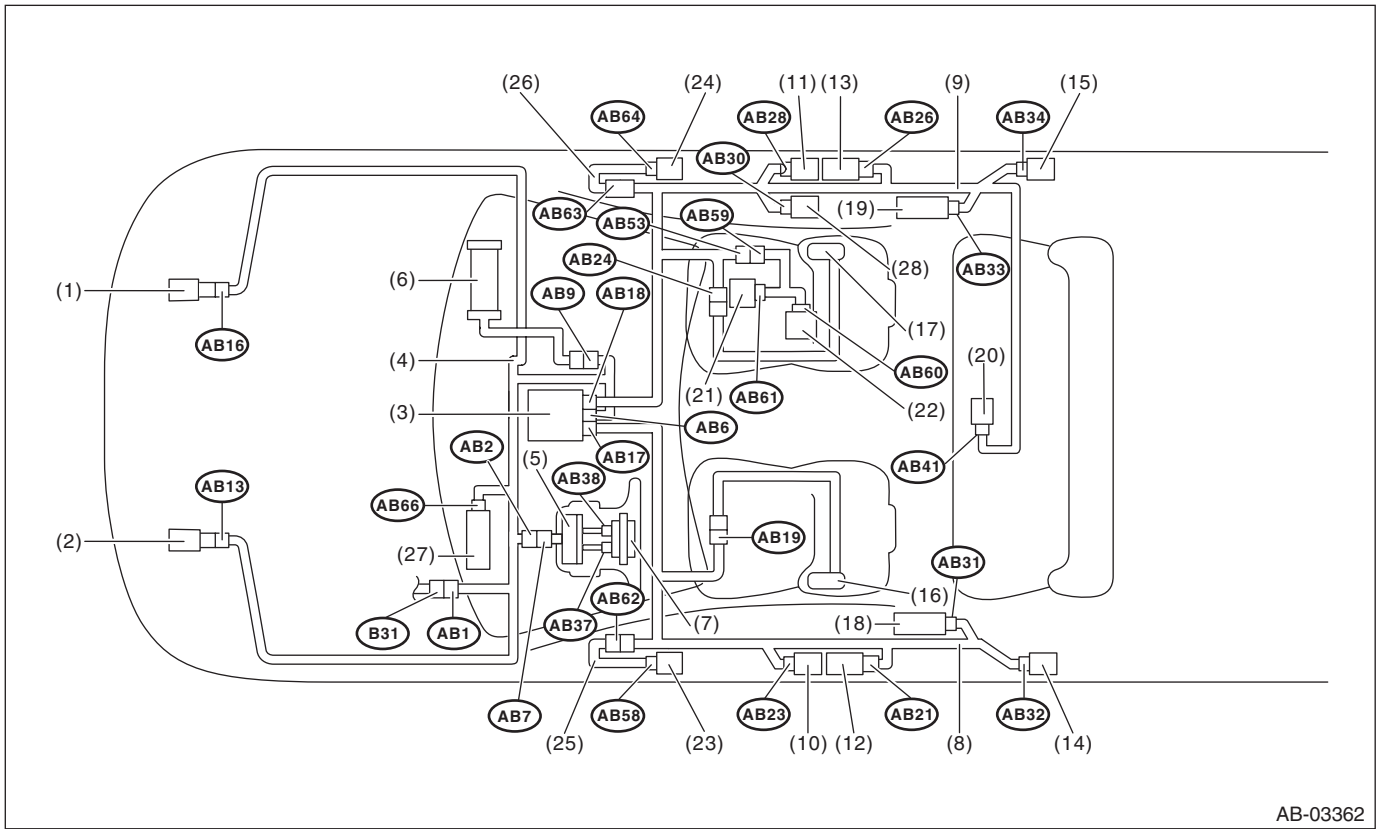
A: LOCATION



(1) Combination meter
(2) MFD

4. Electrical Component Location

A: LOCATION

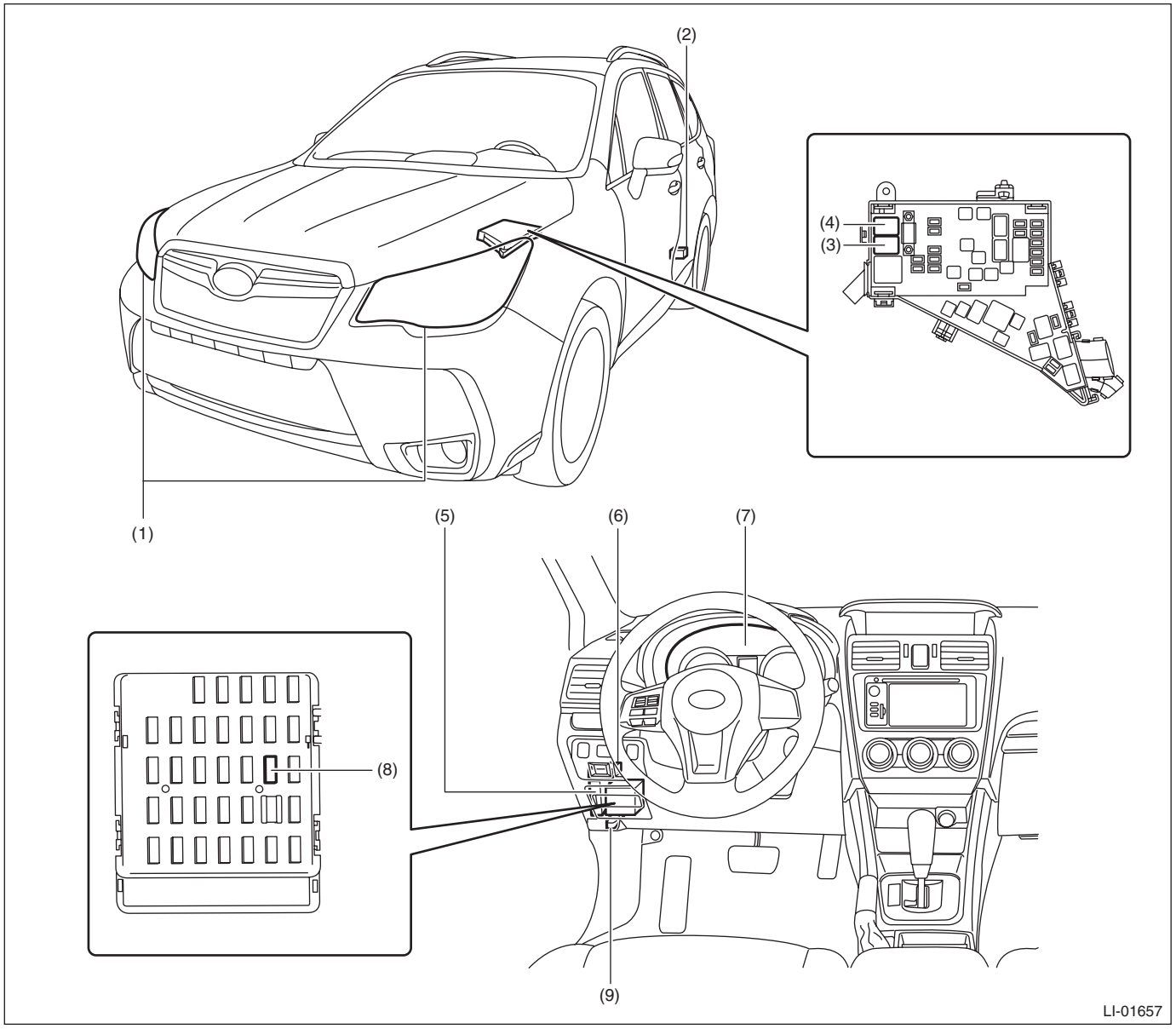


(1) Front sub sensor RH
(2) Front sub sensor LH
(3) Airbag control module
(4) Airbag main harness
(5) Roll connector
(6) Passenger's airbag inflator
(7) Driver's airbag inflator
(8) Airbag rear harness LH
(9) Airbag rear harness RH
(10) Side airbag sensor LH
(11) Side airbag sensor RH
(12) Seat belt pretensioner LH
(13) Seat belt pretensioner RH
(14) Curtain airbag sensor LH
(15) Curtain airbag sensor RH
(16) Side airbag inflator LH
(17) Side airbag inflator RH
(18) Curtain airbag inflator LH
(19) Curtain airbag inflator RH
(20) Satellite safing sensor
(21) Occupant detection control module
(22) Buckle switch RH
(23) Front door impact sensor LH
(24) Front door impact sensor RH
(25) Door harness LH
(26) Door harness RH
(27) Knee airbag inflator
(28) Lap seat belt pretensioner RH

Connector No.	(AB1)	(AB2)	(AB6)	(AB7)	(AB9)	(AB13)	(AB16)	(AB17)	(AB18)	(AB19)	(AB21)	(AB23)
Pin	2	4	30	4	4	2	2	24	24	4	2	4
Color	Gray	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Black	Yellow
Male/Female	Male	Female	Female	Male	Female	Female	Female	Female	Female	Female	Female	Female
Connector No.	(AB24)	(AB26)	(AB28)	(AB30)	(AB31)	(AB32)	(AB33)	(AB34)	(AB37)	(AB38)	(AB41)	(AB53)
Pin	4	2	4	2	2	4	2	4	2	2	2	3
Color	Yellow	Black	Yellow	Orange	Black	Yellow	Black	Yellow	Orange	Black	Yellow	Dark gray
Male/Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Female	Male
Connector No.	(AB58)	(AB59)	(AB60)	(AB61)	(AB62)	(AB63)	(AB64)	(AB66)				
Pin	2	3	2	6	2	2	2	2				
Color	Yellow	Dark gray	Yellow	Black	Yellow	Yellow	Yellow	Black				
Male/Female	Female	Female	Male	Female	Female	Female	Female	Female				

4. Electrical Component Location

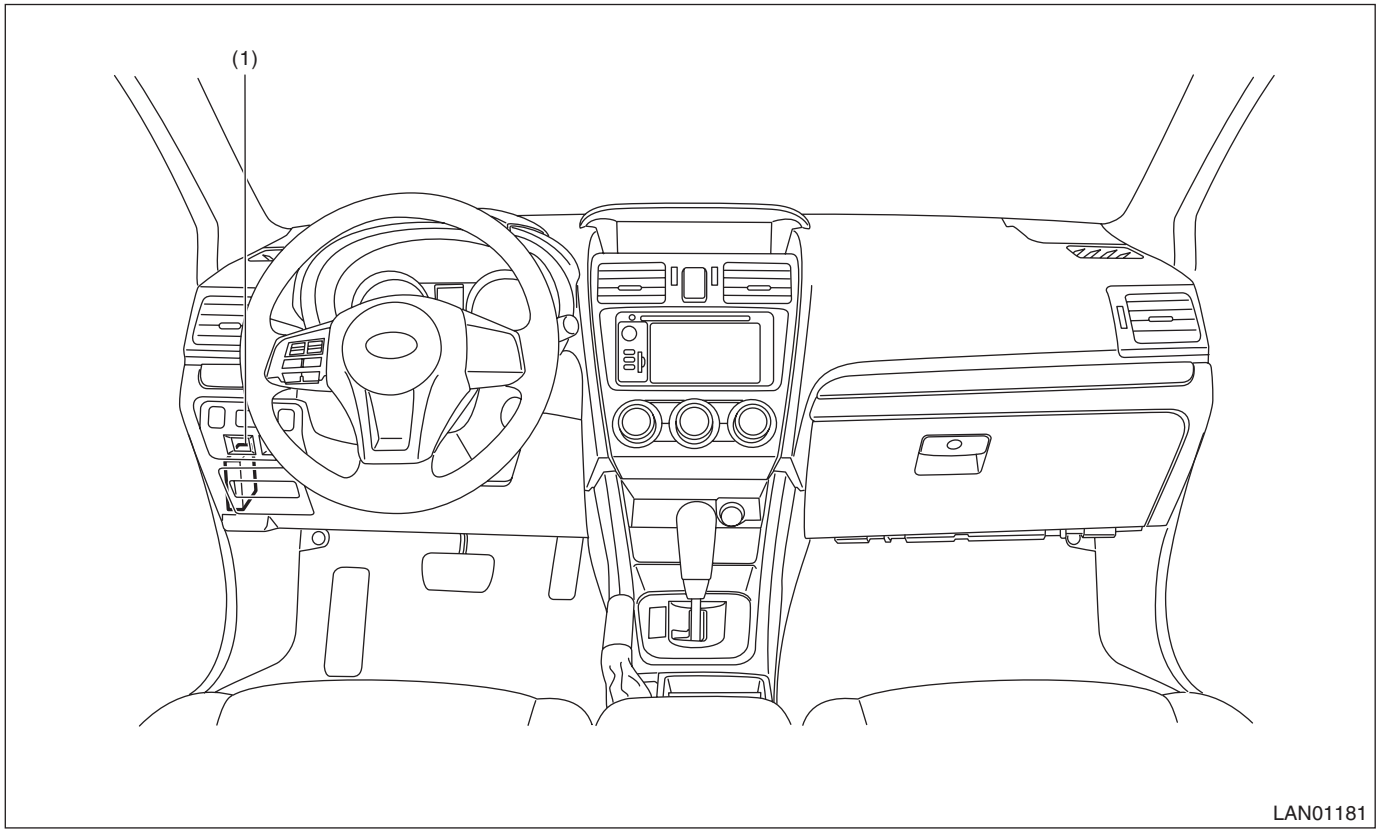
A: LOCATION



(1)	Headlight ASSY – Headlight beam leveler actuator	(4)	Headlight relay (Hi)	(7)	Combination meter
(2)	Rear vehicle height sensor	(5)	Body integrated unit	(8)	Fuse 10 A (auto headlight beam leveler CM)
(3)	Headlight relay (Lo)	(6)	Auto headlight beam leveler CM	(9)	Data link connector

4. Electrical Component Location

A: LOCATION

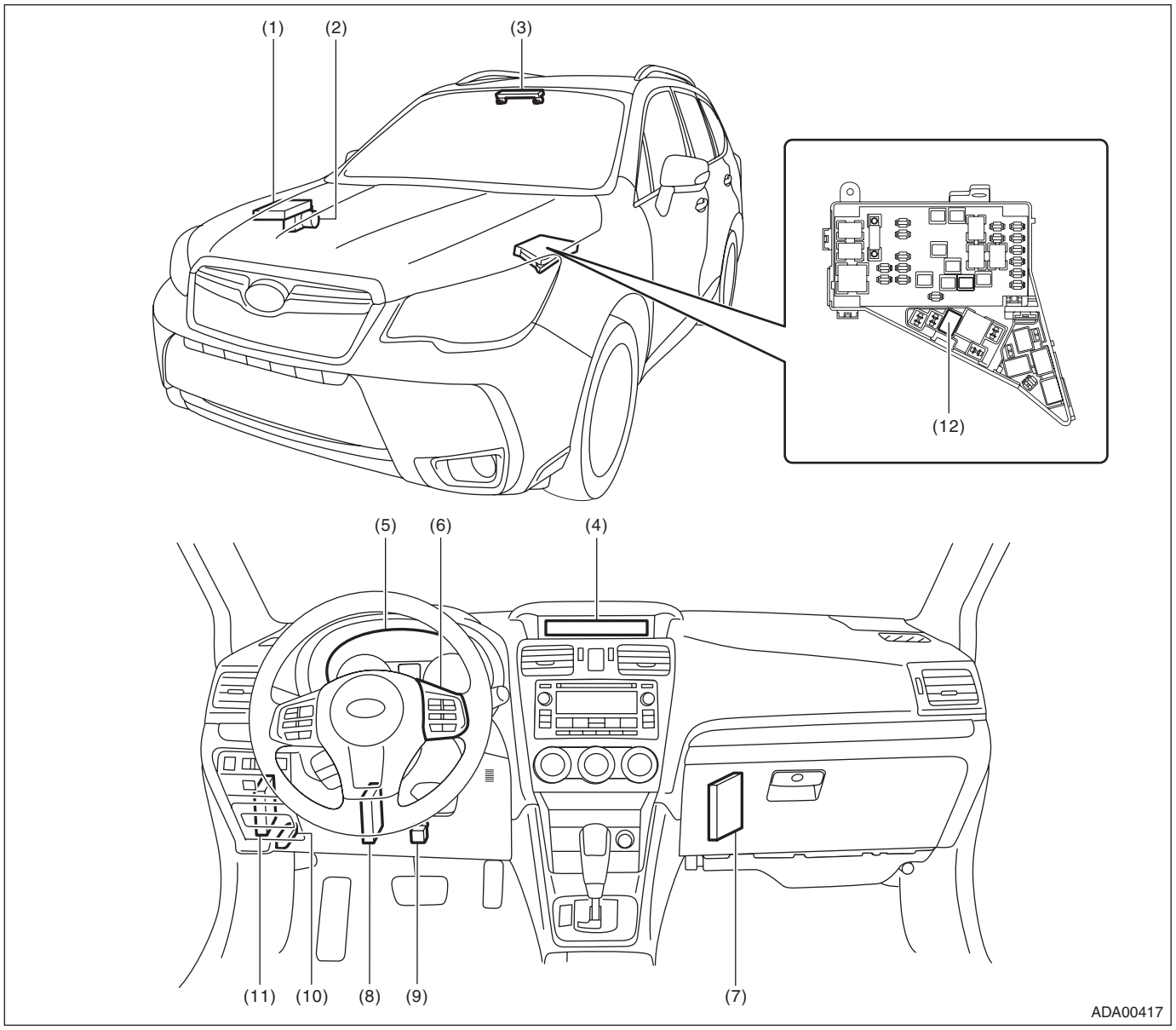


(1) Body integrated unit

4. Electrical Component Location

A: LOCATION

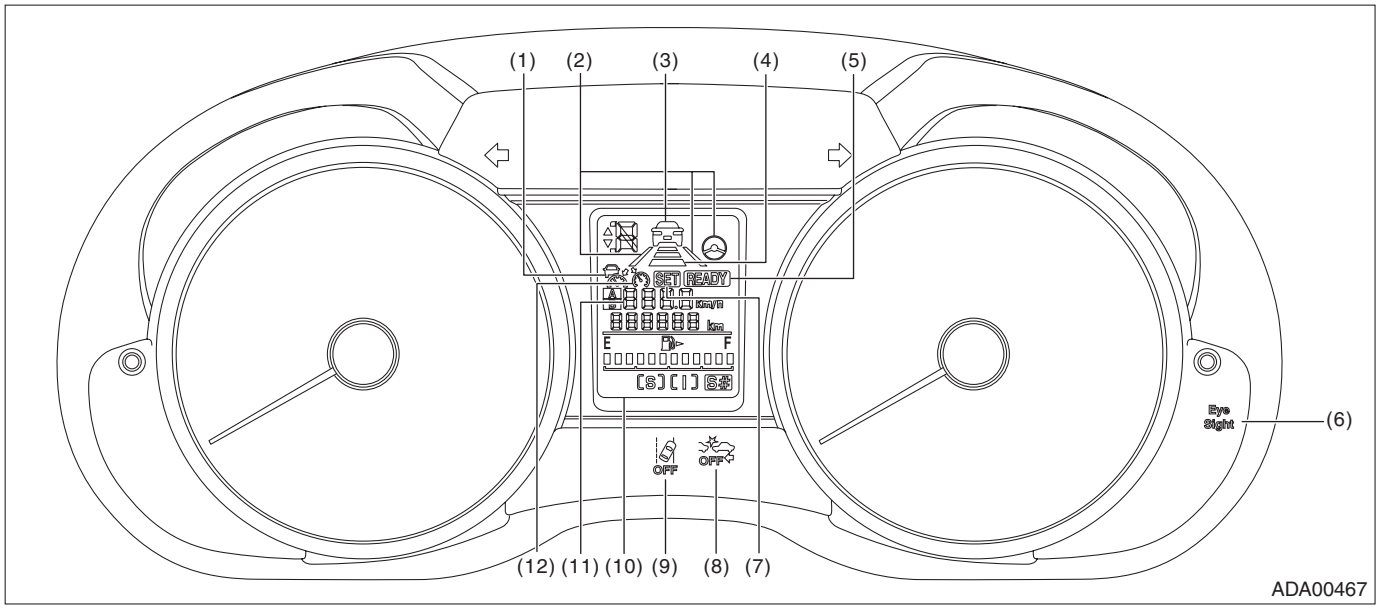
1. EyeSight SYSTEM



(1)	Engine control module (ECM) (turbo model)	(5)	Combination meter	(9)	Stop light and brake switch
(2)	VDC control module (VDCCM)	(6)	Cruise control command switch	(10)	Data link connector
(3)	Stereo camera	(7)	Engine control module (ECM) (non-turbo model)	(11)	Body integrated unit
(4)	MFD (Multi-function display)	(8)	Transmission control module (TCM)	(12)	Brake light relay

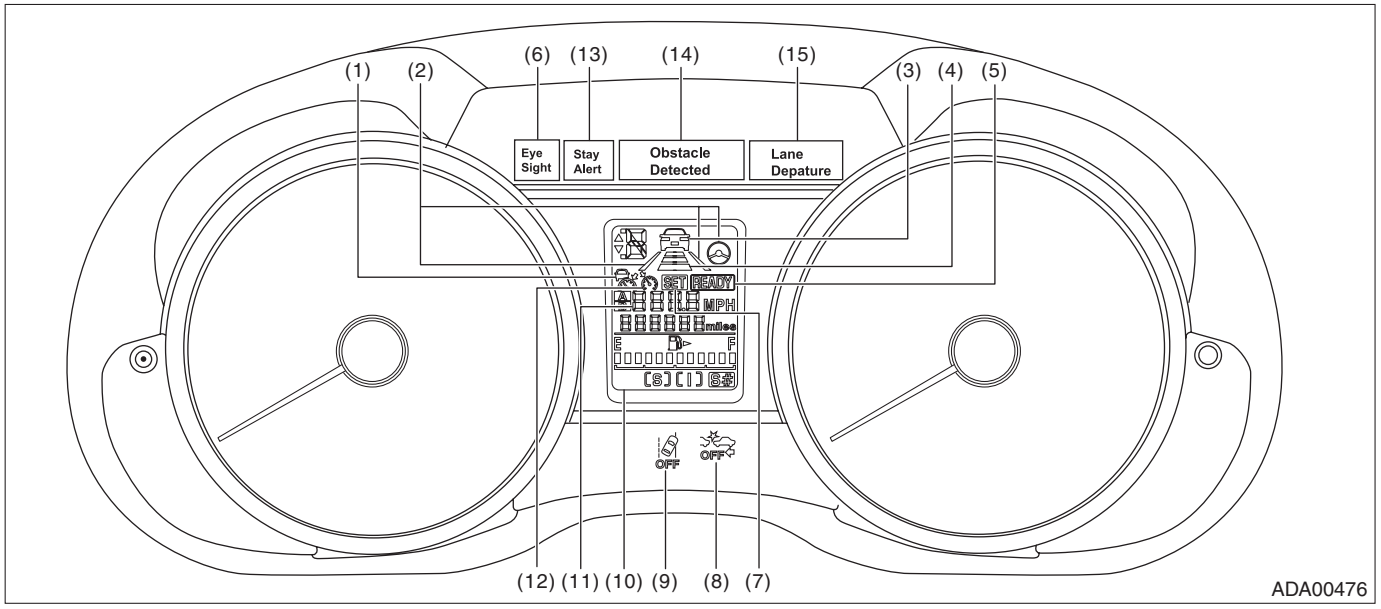
2. COMBINATION METER

- Model for Canada



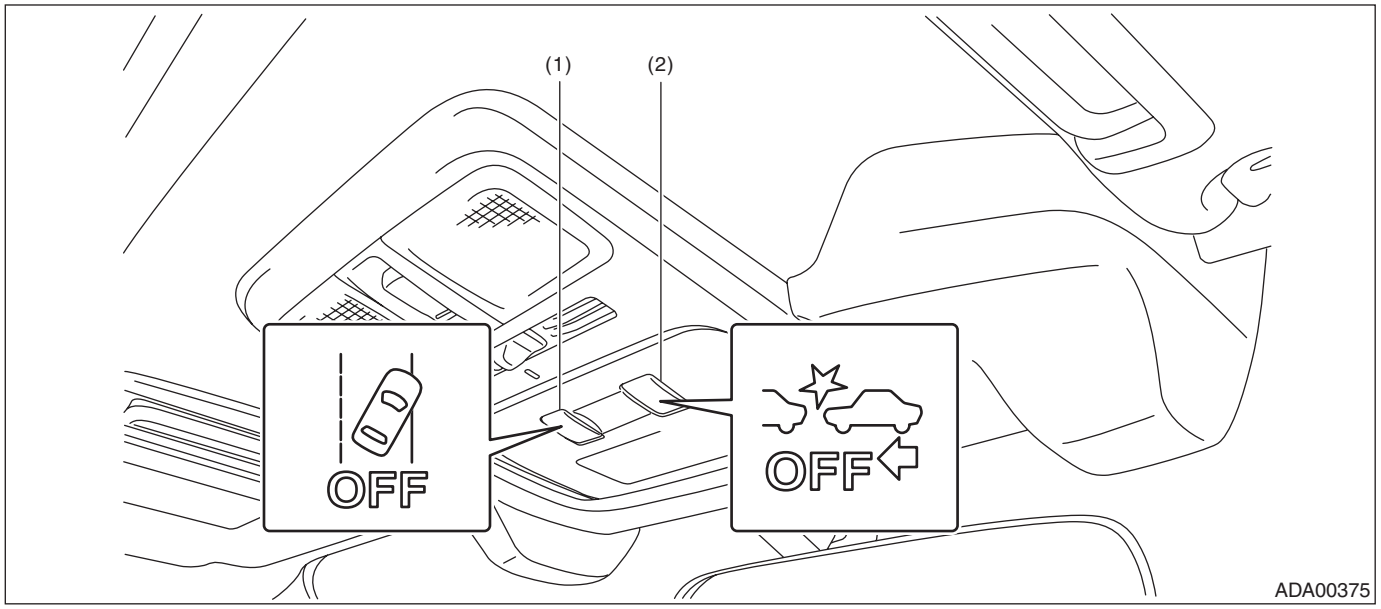
(1)	Adaptive cruise display	(5)	READY indicator	(9)	Lane departure warning OFF indicator light
(2)	Lane indicator/Steering wheel indicator	(6)	EyeSight warning light	(10)	Multi-information display
(3)	Preceding vehicle indicator	(7)	SET indicator	(11)	Set vehicle speed display
(4)	Following distance setting indicator	(8)	Pre-collision brake OFF indicator light	(12)	Conventional cruise display

- Except model for Canada

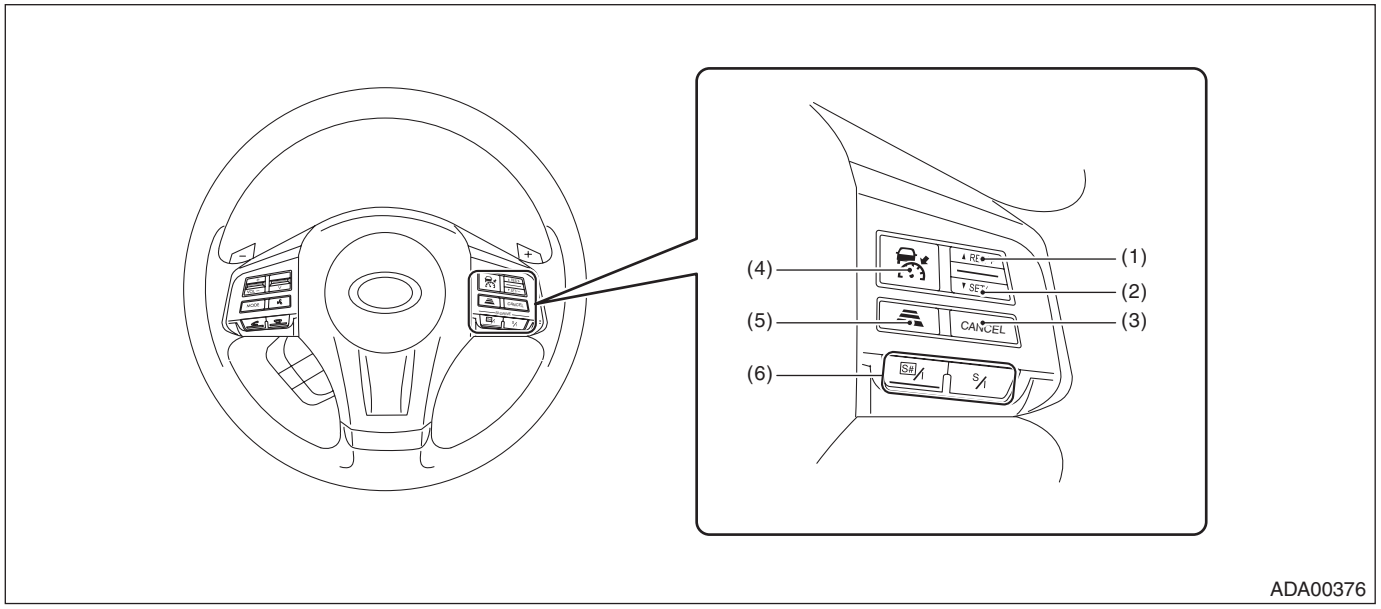


(1)	Adaptive cruise display	(6)	EyeSight warning light	(11)	Set vehicle speed display
(2)	Lane indicator/Steering wheel indicator	(7)	SET indicator	(12)	Conventional cruise display
(3)	Preceding vehicle indicator	(8)	Pre-collision brake OFF indicator light	(13)	“Stay Alert” indicator
(4)	Following distance setting indicator	(9)	Lane departure warning OFF indicator light	(14)	“Obstacle Detected” indicator
(5)	READY indicator	(10)	Multi-information display	(15)	“Lane Departure” indicator

3. SWITCH



(1) Lane departure warning OFF switch
(2) Pre-collision brake OFF switch



(1) RES/+ (Resume/+) switch
(2) SET/– (Set/–) switch
(3) CANCEL switch
(4) CRUISE switch
(5) Following distance setting switch
(6) SI-DRIVE switch

4. Engine Control Module (ECM) I/O Signal

A: ELECTRICAL SPECIFICATION

For details on the input/output signals for the engine control module, refer to ENGINE (DIAGNOSTICS). <Ref. to EN(H4DO)(diag)-19, ELECTRICAL SPECIFICATION, Engine Control Module (ECM) I/O Signal.>

B: WIRING DIAGRAM

Refer to “Cruise Control System” in the wiring diagram.<Ref. to WI-128, WIRING DIAGRAM, Cruise Control System.>

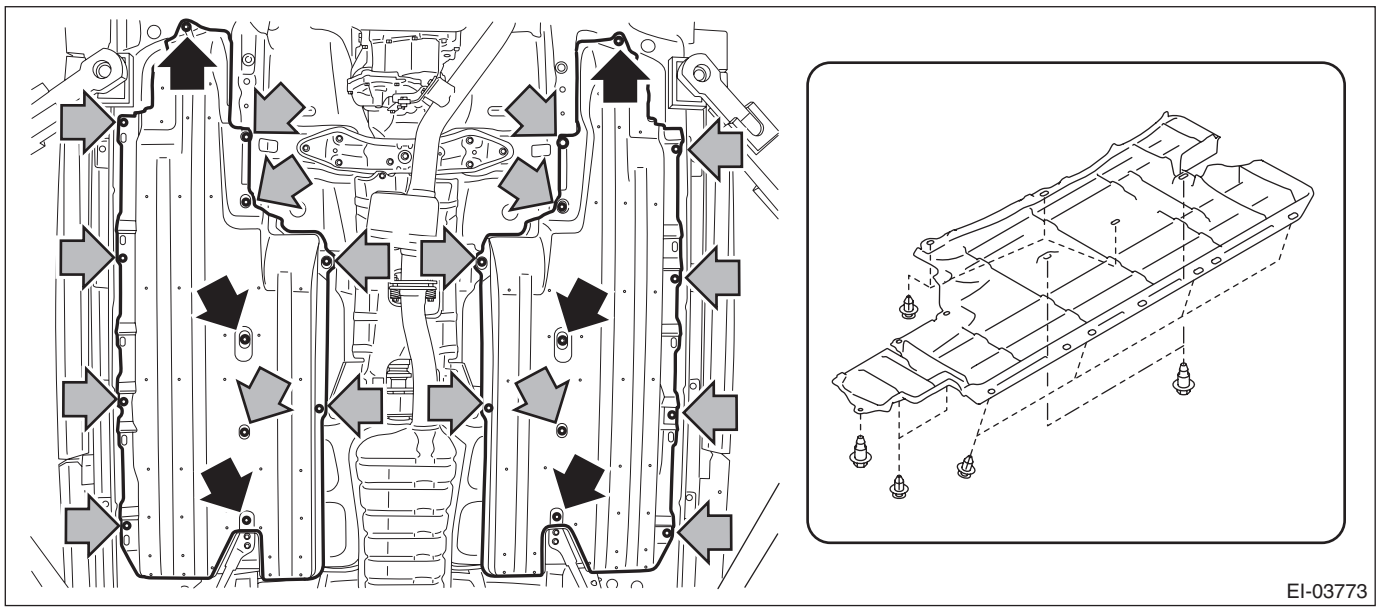
4. Floor Under Protector

A: REMOVAL

1) Lift up the vehicle.

NOTE:
A plate type lift cannot be used.

2) Remove the bolts and clips, and remove the front under protector.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

4. Front Door

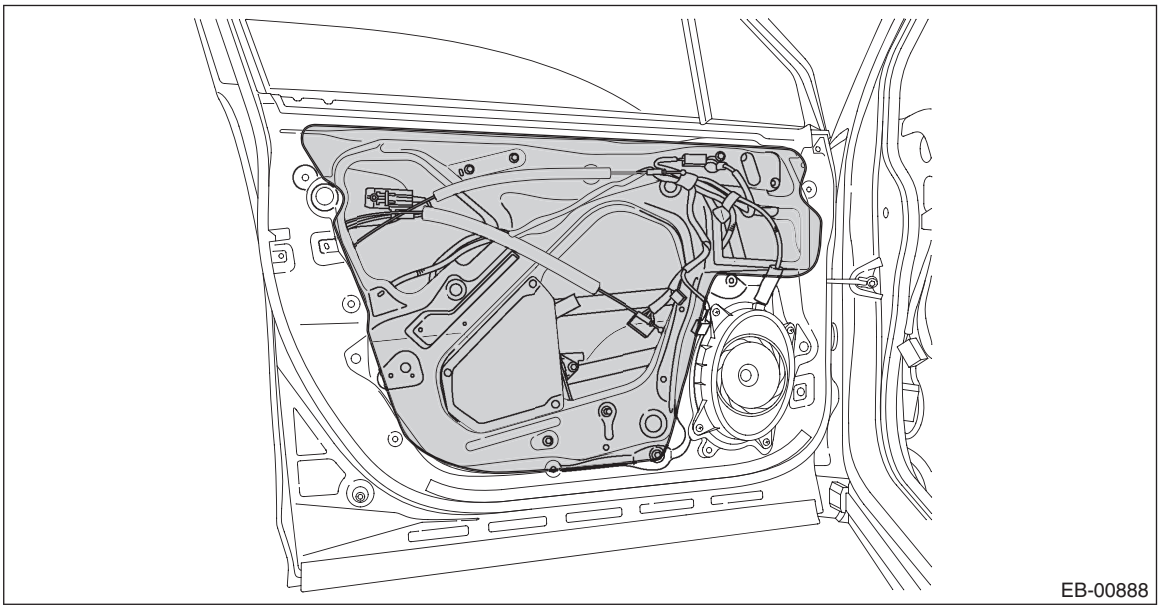
A: REMOVAL

1. FRONT DOOR PANEL

1) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
2) Remove the trim panel - front door.<Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
3) Remove the sealing cover - front door.

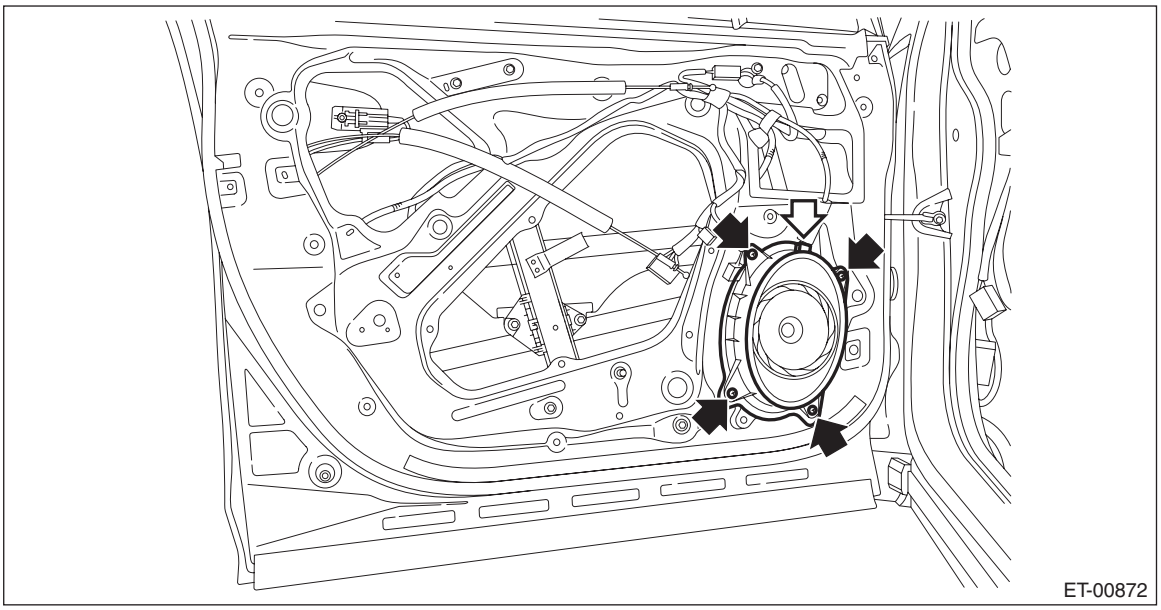
CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Disconnect each connector, and carefully remove the butyl tape to remove the sealing cover - front door.



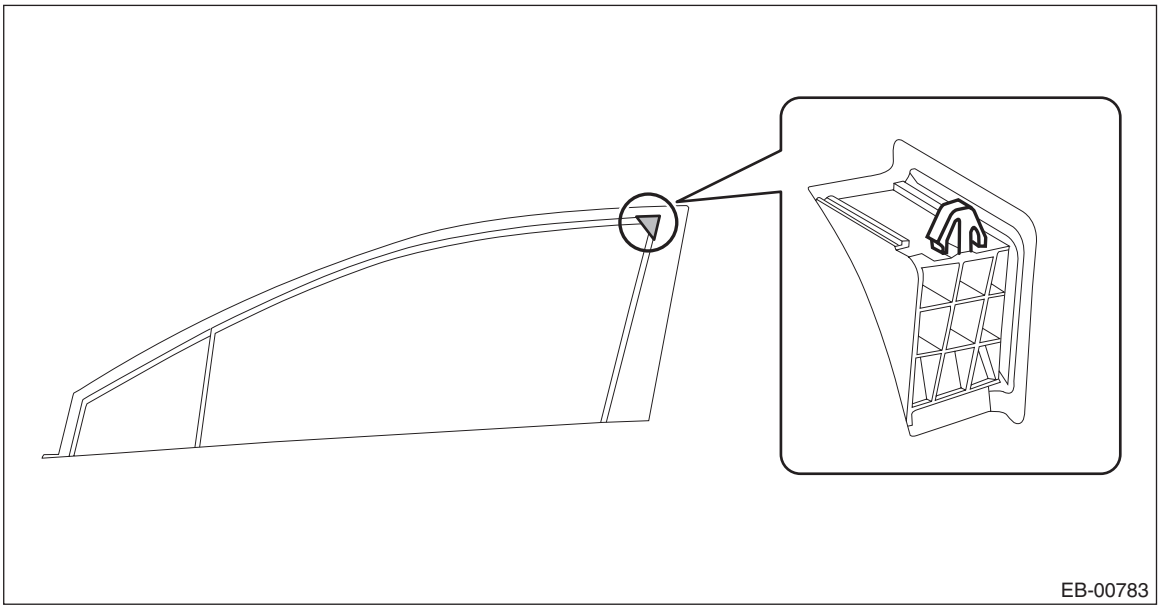
4) Remove the outer mirror assembly.<Ref. to GW-23, REMOVAL, Outer Mirror Assembly.>

5) Remove the front door speaker assembly.
(1) Remove the screws.
(2) Disconnect the connector and remove the front speaker assembly.

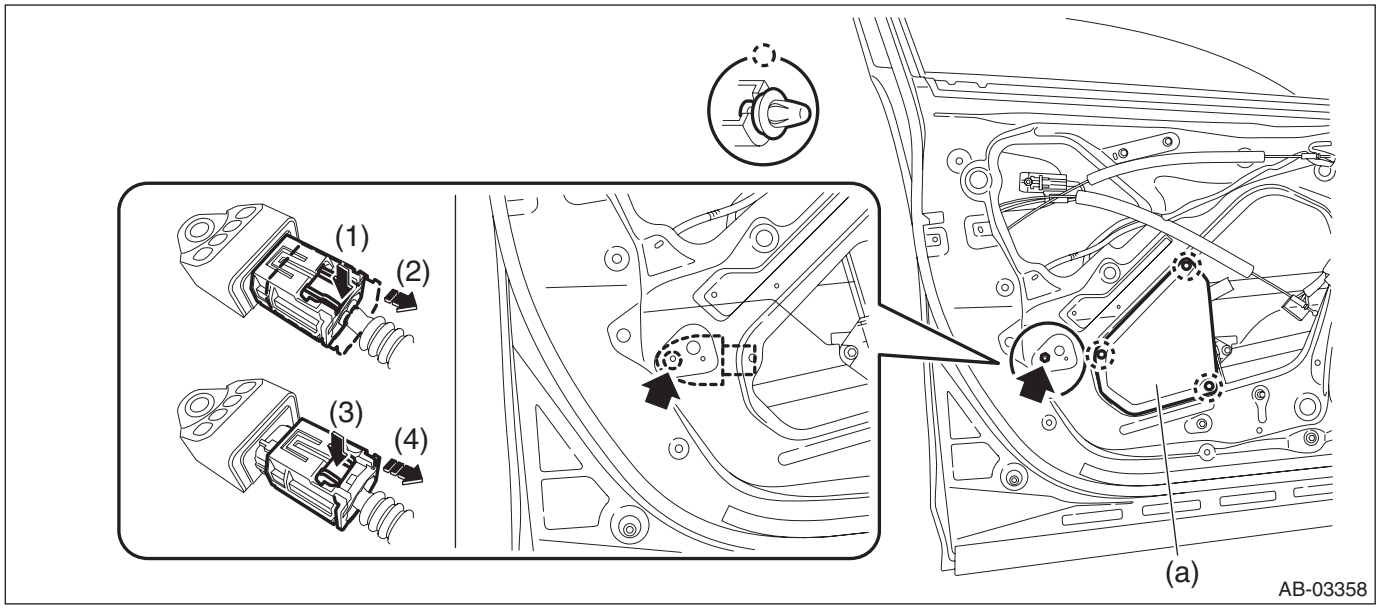


6) Remove the B pillar upper clip.

CAUTION:
The clip cannot be reused, therefore, always replace with a new part.

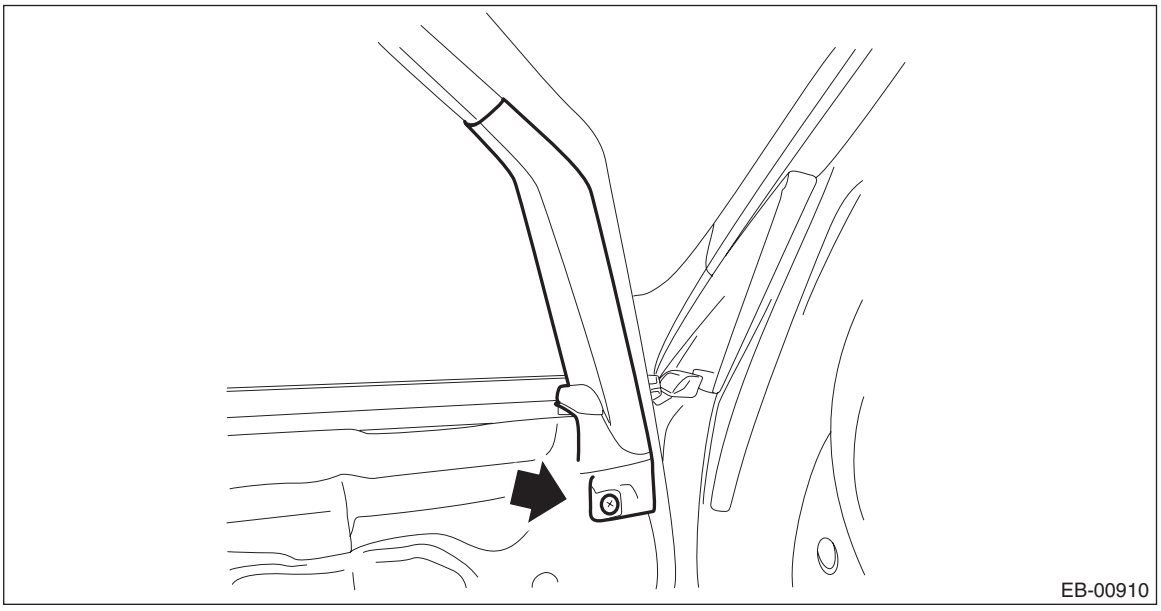


7) Remove the front door impact sensor assembly.
(1) Remove the front door inner pad (a).
(2) Remove the nuts and then remove the front door impact sensor assembly.
(3) Disconnect the airbag connector and remove the airbag door sensor assembly.<Ref. to AB-23, FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR, PROCEDURE, Airbag Connector.>

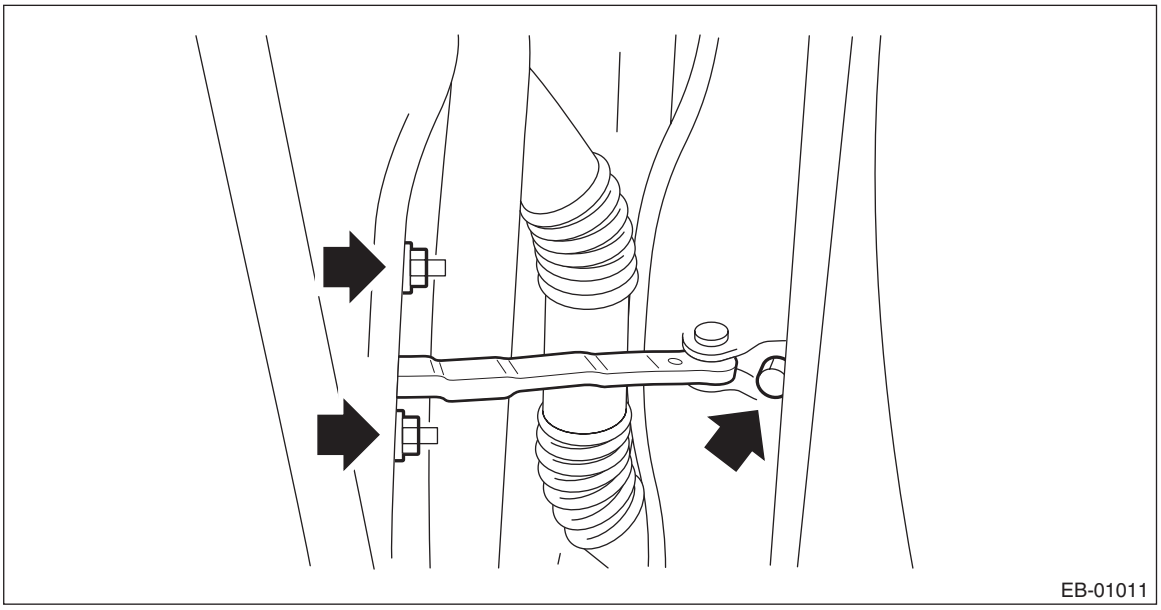


8) Remove the glass assembly - front door and the glass - front door partition.<Ref. to GW-17, REMOVAL, Front Door Glass.>
9) Remove the regulator & motor assembly - front of the front door.<Ref. to GW-20, REMOVAL, Front Regulator and Motor Assembly.>
10) Remove the latch and actuator assembly - front.<Ref. to SL-39, REMOVAL, Front Door Latch and Door Lock Actuator Assembly.>
11) Remove the handle - door outer.<Ref. to SL-35, REMOVAL, Front Outer Handle.>
12) Remove the weather strip - front door.<Ref. to EB-66, DOOR, REPLACEMENT, Weather Strip.>
13) Remove the clips and the upper hooks, and remove the cover sash - inner front.

CAUTION:
Do not forcibly pull the cover sash - inner front. Otherwise, the hook section of the cover sash - inner front may be damaged.

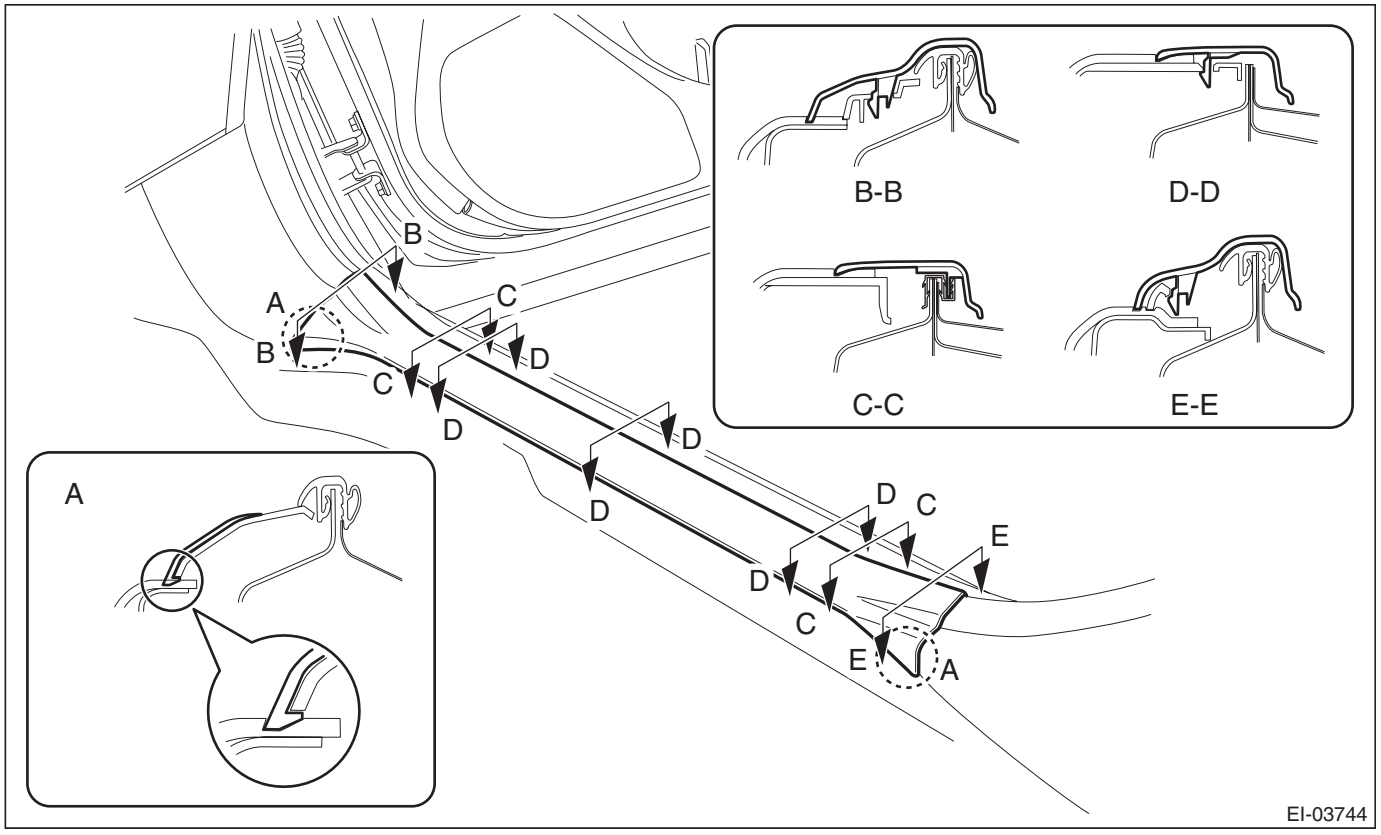


14) Remove the bolts and nuts, and then detach the checker assembly - front door.

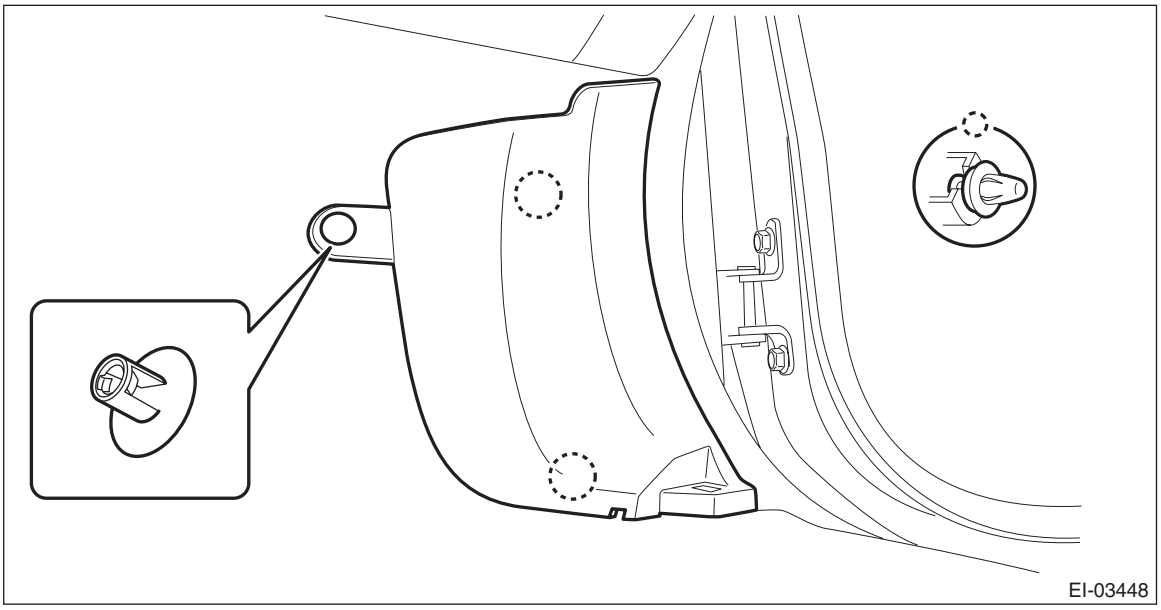


15) Release the claws, and then remove the cover side sill - front INN.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



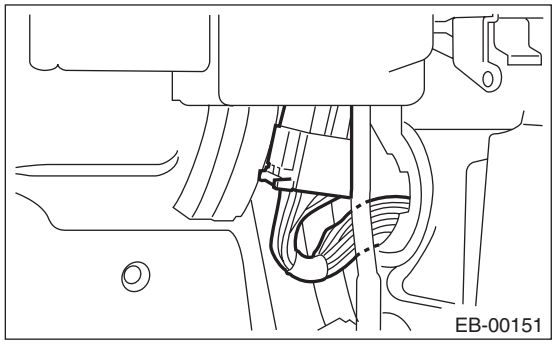
16) Remove the clips, and remove the cover side sill - front.



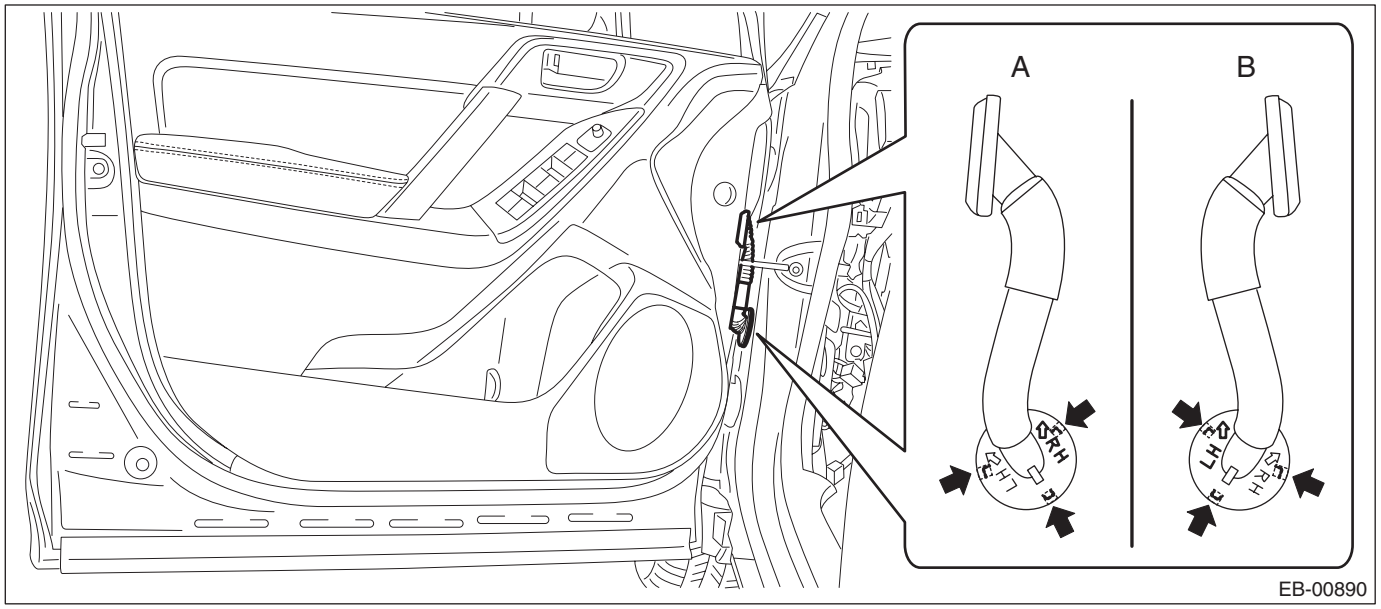
17) Disconnect the front door impact sensor harness connector.<Ref. to AB-25, FRONT DOOR IMPACT SENSOR (BETWEEN AIRBAG REAR HARNESS AND DOOR HARNESS), PROCEDURE, Airbag Connector.>

CAUTION:
Always refer to "CAUTION" of "General Description" in the "AIRBAG SYSTEM" before performing any service that handles the airbag connectors.<Ref. to AB-9, CAUTION, General Description.>

18) Disconnect the front door harness connectors.
(1) Disconnect the connector of door harness from body harness.



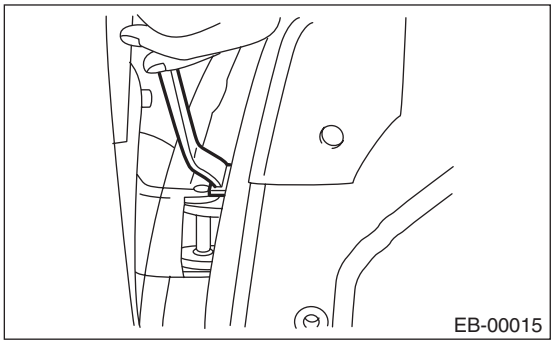
(2) Push in the claws to remove the grommet, and pull out the door harness connector.



A	Left door
B	Right door

19) Remove the door-side bolts for the upper hinge - front door and the lower hinge - front door to remove the panel assembly - front door.

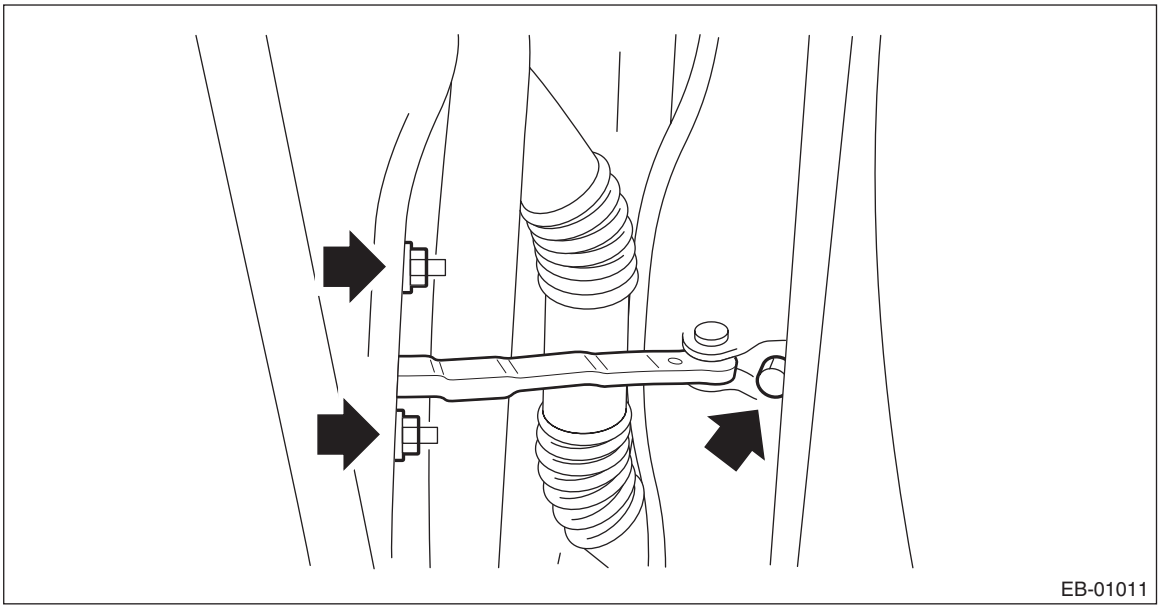
CAUTION:
- **The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**



20) Remove the door hinge from vehicle.

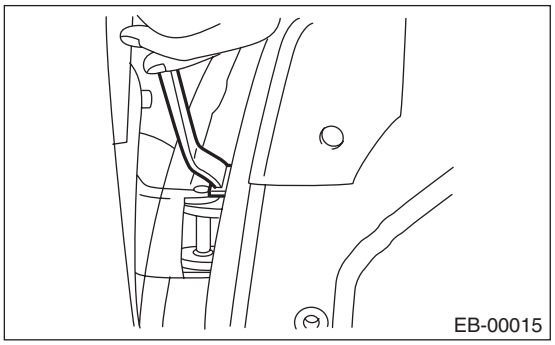
2. FRONT DOOR HINGE

1) Remove the bolts from the vehicle side to disconnect the checker assembly - front door.



2) Remove the bolts of the upper hinge - front door or the lower hinge - front door.

CAUTION:
- **The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**
- **Do not remove the upper hinge - front door and the lower hinge - front door at the same time.**



3) Remove the hinge - front door from the vehicle.

B: INSTALLATION

1. FRONT DOOR PANEL

CAUTION:
- **The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.**
- **While removing or installing, do not use a jack, etc. on the garnish section.**

1) Apply grease to the sliding area of door hinges, and install the door hinge to vehicle.
2) Have the door supporting staff adjust the height, and temporarily install the panel assembly - front door to the upper hinge - front door and the lower hinge - front door.

NOTE:
- When installing the panel assembly - front door, make sure that a uniform clearance is created around the panel.
- Perform installation while paying attention to the assembly direction of the grommet.

3) Adjust the clearance around the panel assembly - front door. <Ref. to EB-33, ADJUSTMENT, Front Door.>

4) Tighten the bolts and nuts of the door hinge and the checker assembly - front door.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to EB-6, FRONT DOOR, COMPONENT, General Description.>

5) Install door internal parts in the reverse order of removal.

NOTE:
For installation of the door sash tape, refer to the door sash tape. <Ref. to EB-49, INSTALLATION, Door Sash Tape.>

6) Connect door harness connector, and install the cover side sill - front.

2. FRONT DOOR HINGE

1) Apply grease to the sliding area of door hinges, and install the door hinge to vehicle.
2) Have the door supporting staff adjust the height, and temporarily install the panel assembly - front door to the upper hinge - front door and the lower hinge - front door.

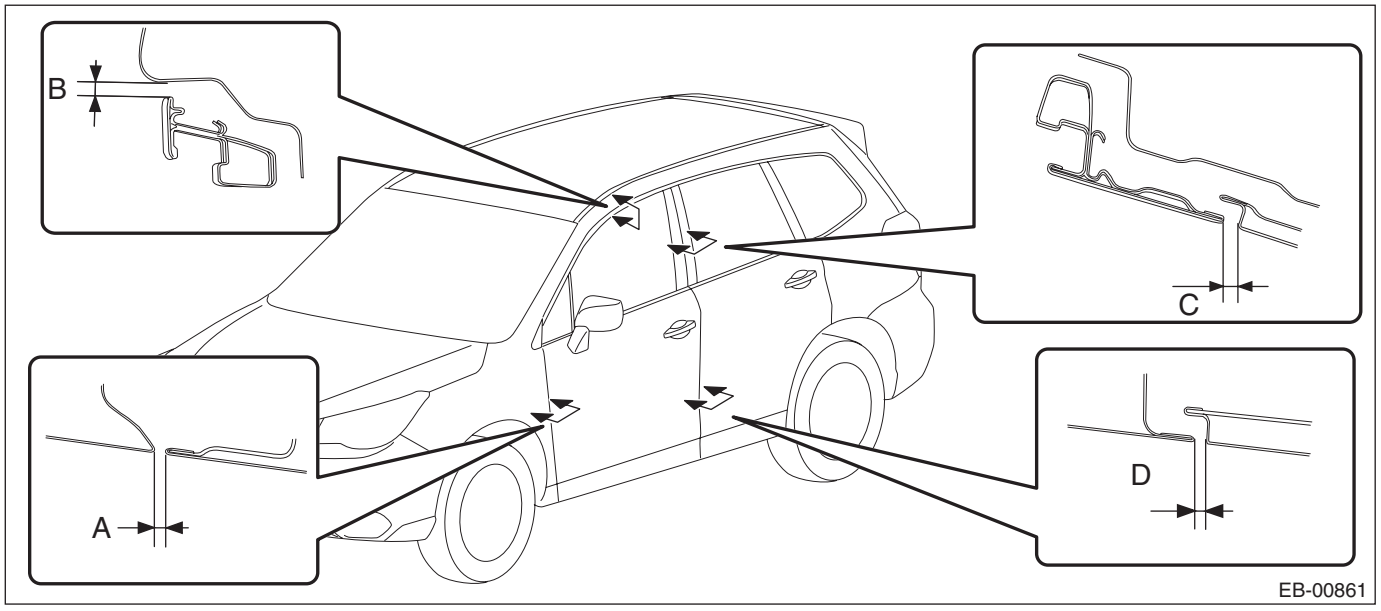
NOTE:
When installing the panel assembly - front door, make sure that a uniform clearance is created around the panel.

3) Adjust the clearance around the panel assembly - front door. <Ref. to EB-33, ADJUSTMENT, Front Door.>
4) Tighten the bolts and nuts of the door hinge and the checker assembly - front door.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to EB-6, FRONT DOOR, COMPONENT, General Description.>

C: ADJUSTMENT

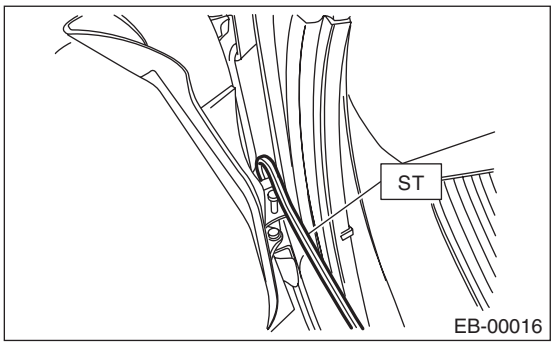
Adjust the clearance around the panel assembly - front door as follows.



Part		Standard
A	Fender COMPL - front to Panel assembly - front door	4.5±1.0 mm (0.18±0.04 in)
B	Panel side outer to Front door sash	5.7+1.5, –1.0 mm (0.22+0.06, –0.04 in)
C	Front door sash to Rear door sash	5.5+1.5, –1.0 mm (0.22+0.06, –0.04 in)
D	Panel assembly - front door to Panel assembly - rear door	4.5±1.0 mm (0.18±0.04 in)

1) Adjust the vertical and horizontal positions of the panel assembly - front door.

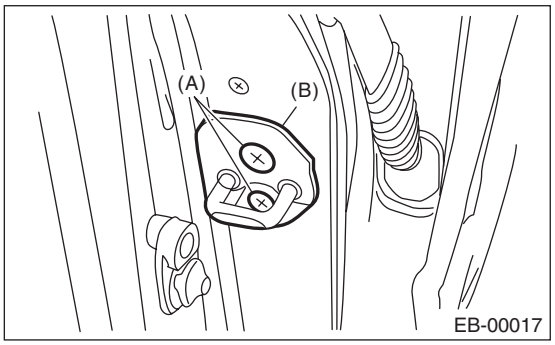
Preparation tool:
ST: WRENCH (925610000)



(1) Using ST, loosen the body side bolts of the upper hinge - front door and the lower hinge - front door.
(2) Adjust the vertical and horizontal clearance of the panel assembly - front door.

2) Adjust the surface level gap between the panel assembly - front door and the panel assembly - rear door.

CAUTION:
Do not use an impact wrench. Welding area on the striker nut plate is easily broken.



(1) Loosen the screws (A).
(2) Tap the striker - front door (B) using a plastic hammer to adjust the surface level gap between the rear end of the panel assembly - front door and the front end of the panel assembly - rear door.

4. Glass Lid

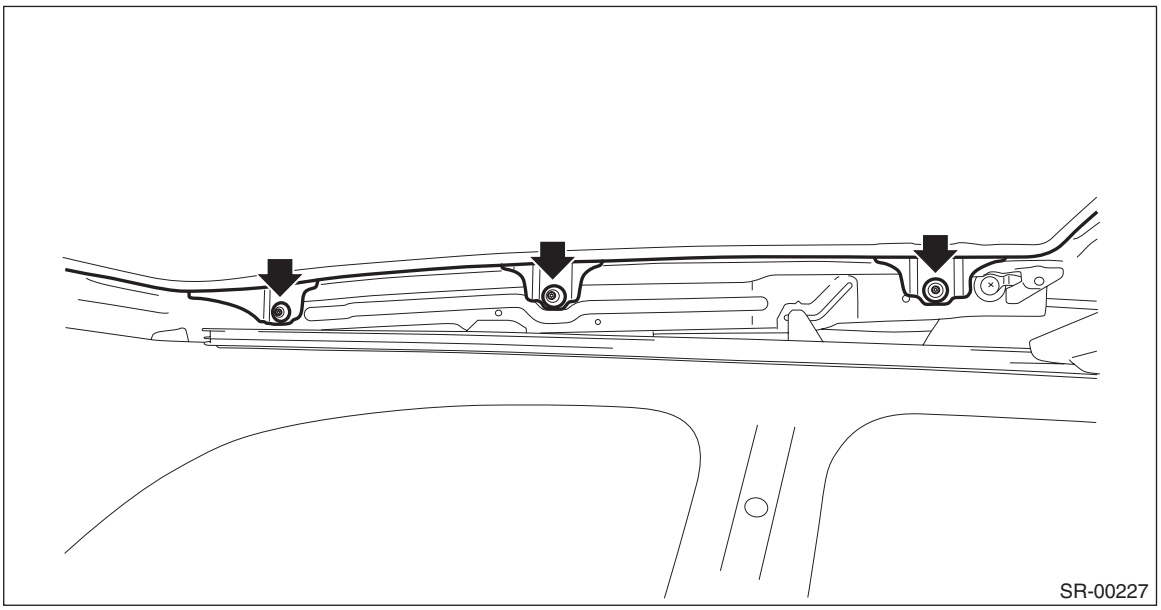
A: REMOVAL

1. GLASS LID

1) Completely close the lid assembly - sunroof, and open the sunshade assembly.
2) Remove the TORX® bolt, and then remove the lid assembly - sunroof.

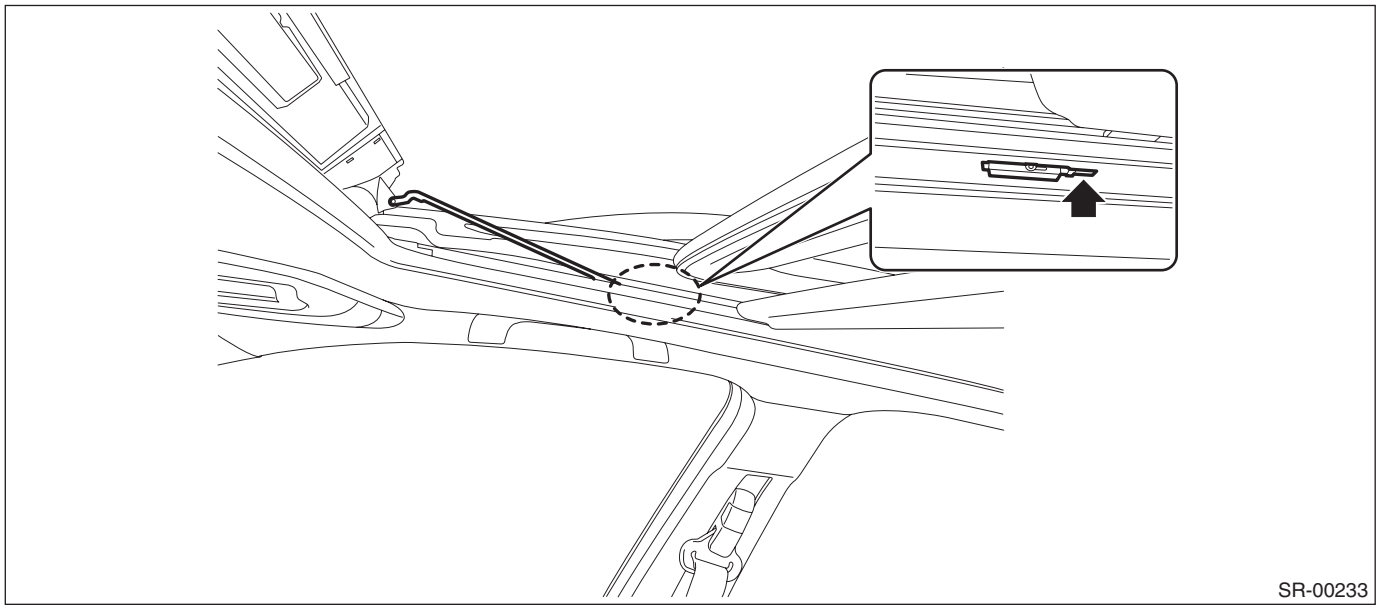
CAUTION:
Be careful not to damage the lid assembly - sunroof.

Preparation tool:
TORX® T25

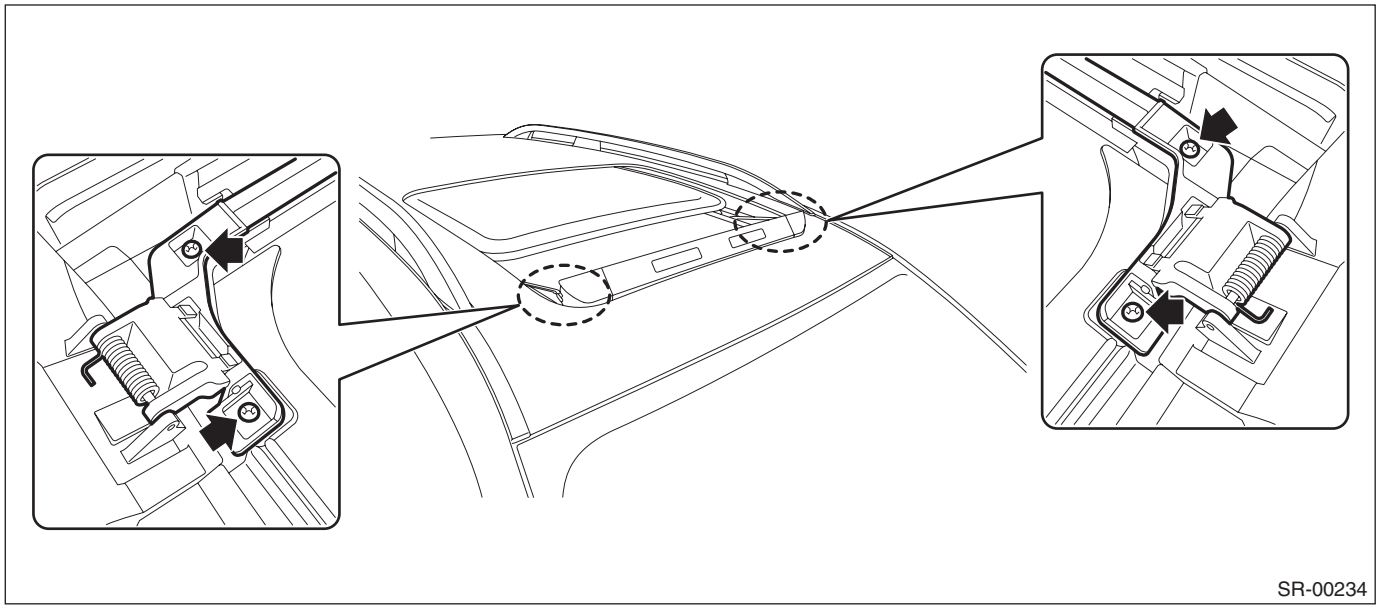


2. DEFLECTOR ASSEMBLY

1) Completely open the lid assembly - sunroof.
2) Remove the lid molding - sunroof.
3) Remove the deflector assembly - sunroof.
   (1) Remove the clip from the rail assembly - sunroof.



(2) Remove the screw from the rail assembly - sunroof and then remove the deflector assembly - sunroof.



B: INSTALLATION

1. GLASS LID

Install each part in the reverse order of removal.

CAUTION:
- **Tighten the lid assembly - sunroof after the surface level gap is adjusted.**
- **If an excessive force is applied on the glass retainer, the glass may be broken. Evenly tighten the lid assembly - sunroof mounting bolt.**

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SR-2, COMPONENT, General Description.>

2. DEFLECTOR

1) Install each part in the reverse order of removal.

C: ADJUSTMENT

Adjust the height of the lid assembly - sunroof and the roof panel.

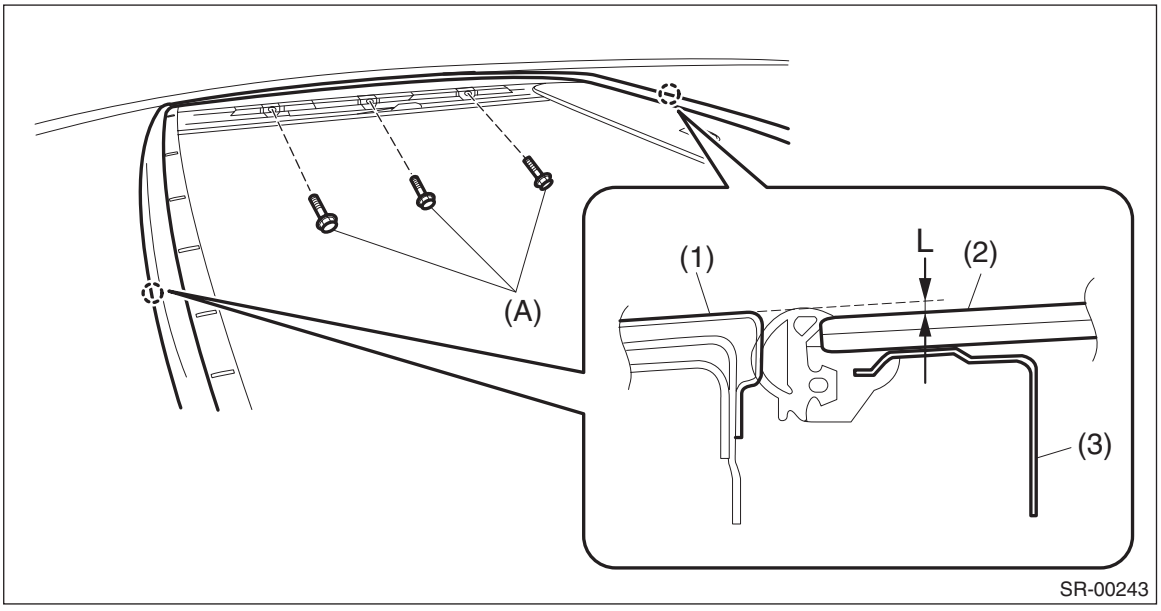
- Loosen the lid assembly - sunroof mounting bolts (A), and then adjust the height by moving the lid assembly - sunroof side.

CAUTION:

- **Tighten the lid assembly - sunroof after the surface level gap is adjusted.**
- **If an excessive force is applied on the glass retainer, the glass may be broken. Evenly tighten the lid assembly - sunroof mounting bolt.**

Lid assembly - sunroof height difference L:

Lid assembly - sunroof to Roof panel: 0±1.0 mm (0±0.04 in)



(1) Roof panel (2) Lid ASSY - sunroof (3) Glass retainer

D: FORCED DRIVE

If the lid assembly - sunroof does not operate or the motor assembly is not supplied with power, move the lid assembly - sunroof using the hexagon wrench.

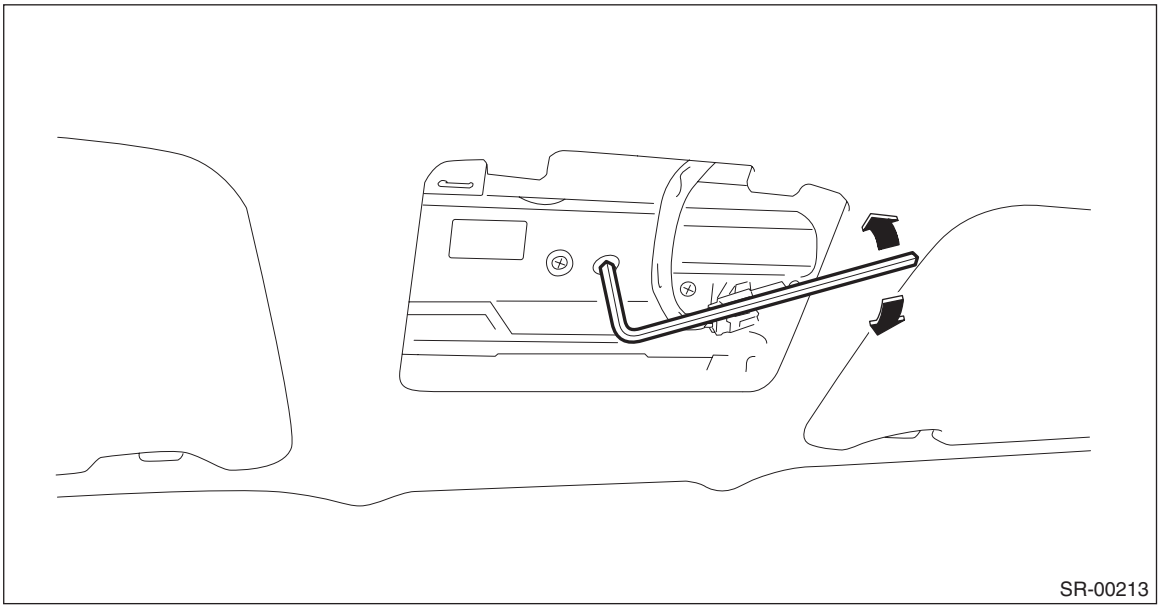
Preparation tool:
Hexagon wrench: width across flat 4 mm (0.16 in)

CAUTION:
After a forced operation, make sure to perform an initialize operation. <Ref. to SR-6, INITIALIZE OPERATION, OPERATION, Sunroof Control System.>

1) Remove the light assembly - map. <Ref. to LI-62, REMOVAL, Spot Map Light.>
2) Insert the hexagon wrench securely until it touches the motor shaft end.
3) Turn the hexagon wrench, and move the lid assembly - sunroof.

- Turning right, the lid assembly - sunroof opens.
- Turning left, the lid assembly - sunroof closes.

CAUTION:
Be careful not to damage the adjacent parts with the rod end when moving the lid assembly - sunroof with the hexagon wrench.

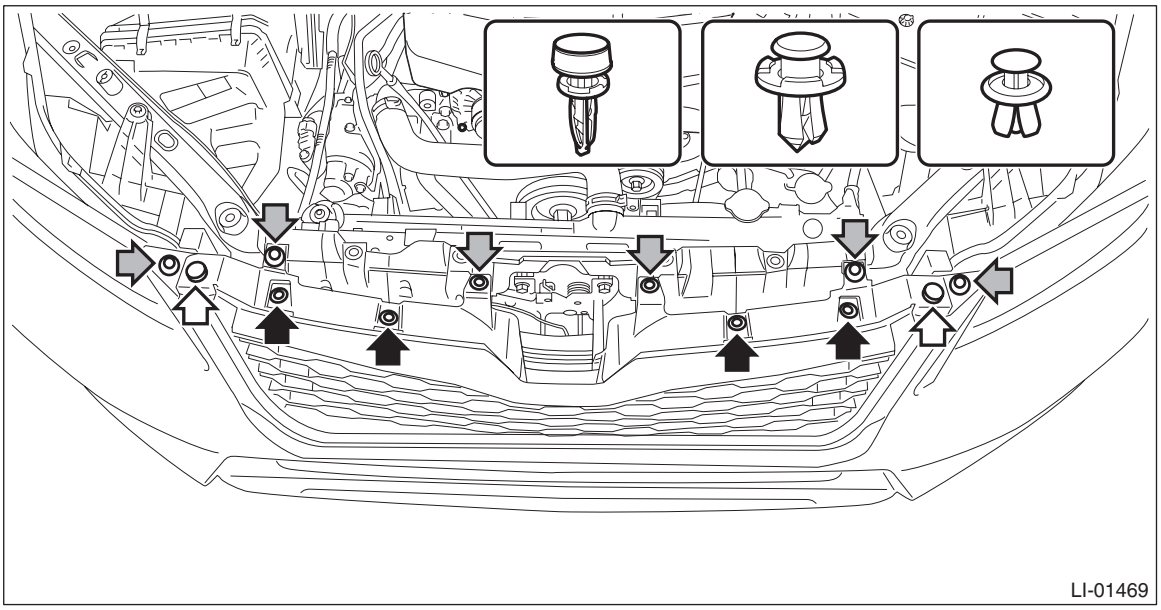


4. Horn

A: REMOVAL

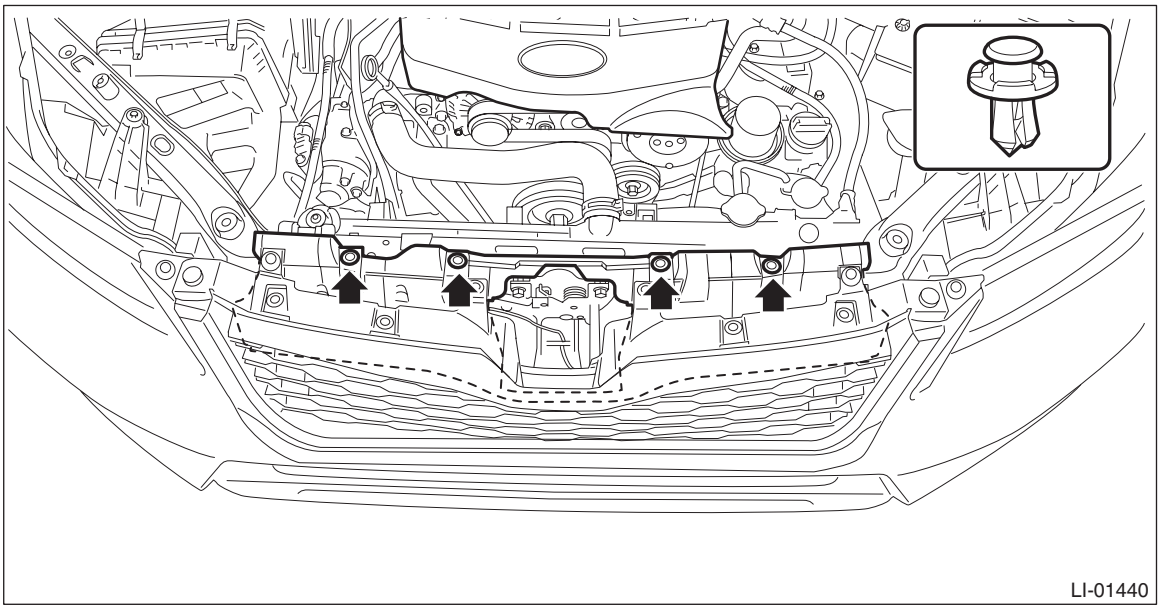
CAUTION:
Do not remove the bumper face - front when removing the horn, in order to prevent damaging the claws of the bracket - front bumper corner and the bracket - front bumper side.

1) Disconnect the ground cable from battery.
2) Remove the bracket - grille.
   (1) Remove each bumper clip.

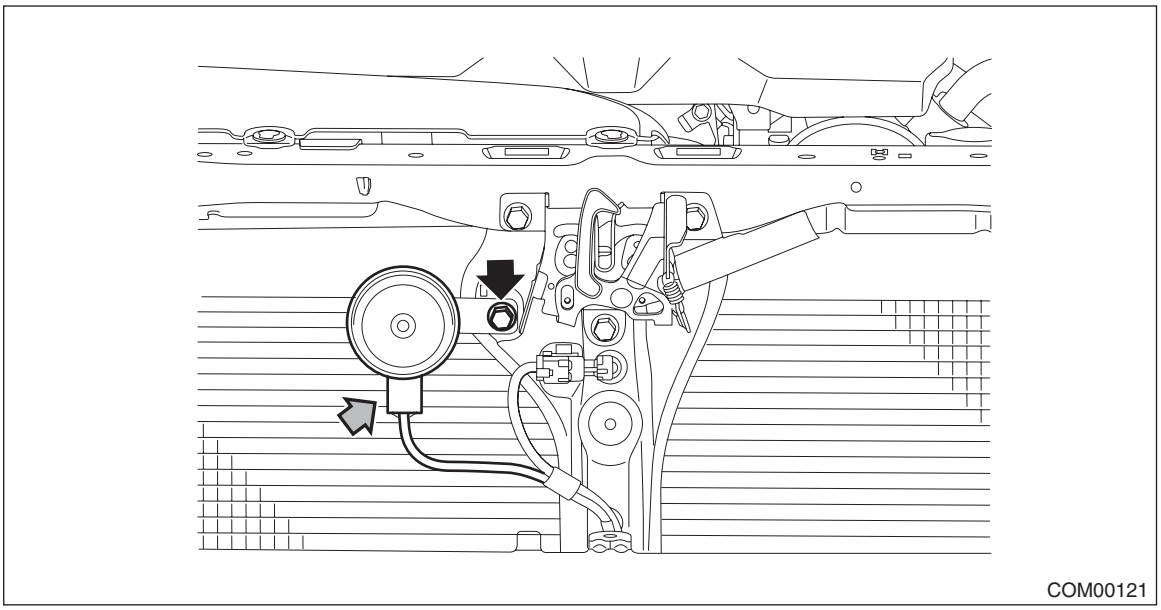


   (2) Remove the clip, and remove the bracket - grille.

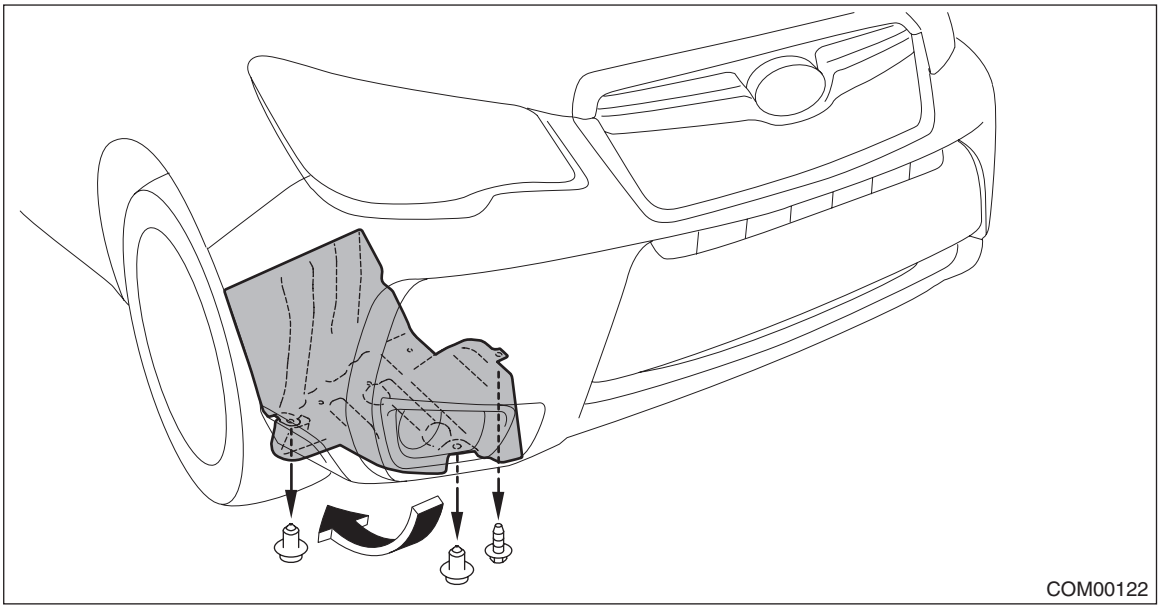
CAUTION:
- **To prevent damage to the bracket - grille, make sure to remove all clips.**
- **Be careful not to damage the front grille assembly, etc.**



3) Inserting your hand into the gap through the bumper face - front, remove the horn assembly - Lo.
   (1) Disconnect the connector.
   (2) Remove the horn bracket mounting bolt, and remove the horn assembly - Lo.


COM00121

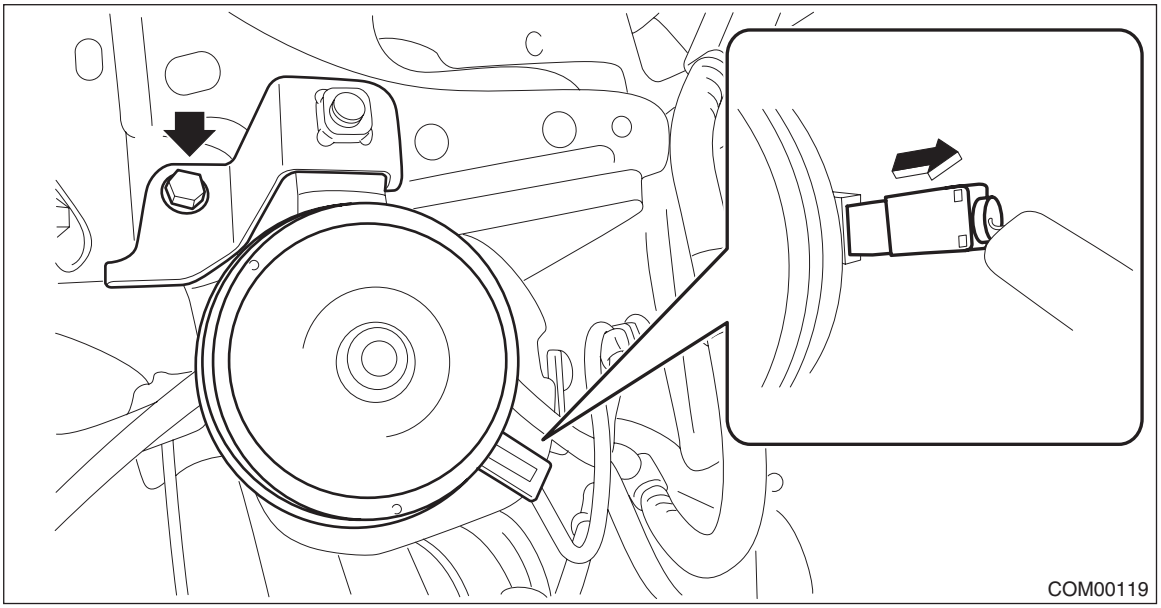
4) Remove the horn assembly - Hi.
   (1) Remove the bolts and clips, and turn over the mud guard - front RH.


COM00122

   (2) Disconnect the horn connector.

(3) Remove the horn bracket mounting bolt, and remove the horn assembly - Hi.

CAUTION:
The resistor may become hot. Be careful not to burn yourself.



B: INSTALLATION

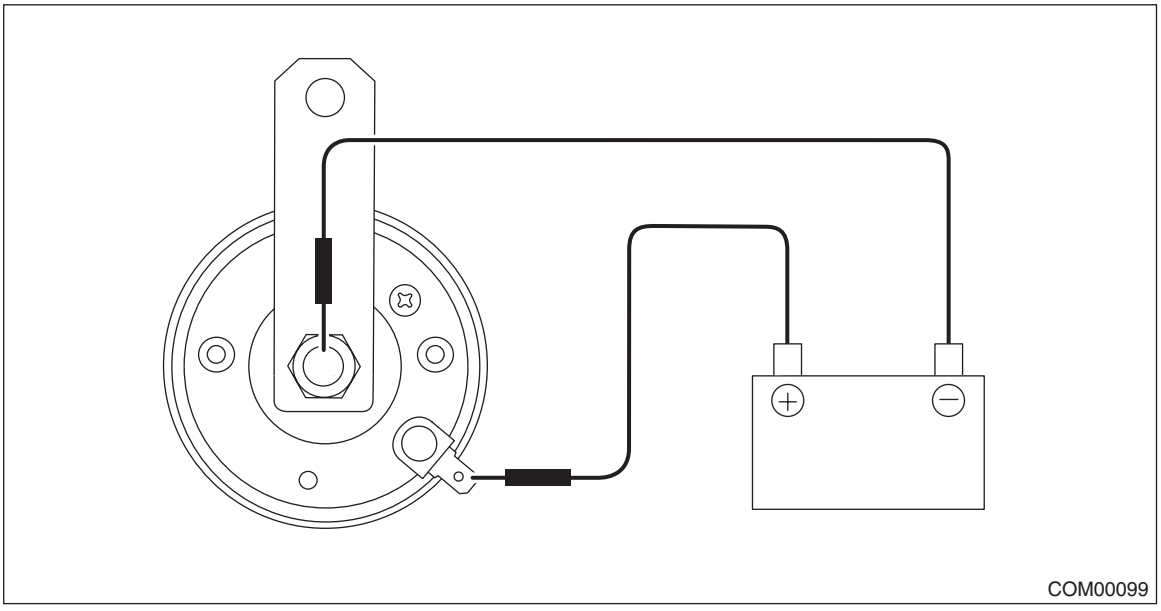
Install each part in the reverse order of removal.

Tightening torque:
Horn assembly - Hi: 13 N·m (1.33 kgf-m, 9.6 ft-lb)
Horn assembly - Lo: 18 N·m (1.84 kgf-m, 13.3 ft-lb)

C: INSPECTION

1. CHECK HORN ASSEMBLY

1) Remove the horn assembly (Hi & Lo). <Ref. to COM-5, REMOVAL, Horn.>
2) Check the horn sounds when applying the battery voltage to the horn assembly.



Terminal No.	Inspection conditions	Specification
Horn terminal (+) — Horn case (–)	Connect battery to the terminals	Sounds

3) If it does not operate normally, replace the horn assembly.

4. Immobilizer Control Module I/O Signal

A: WIRING DIAGRAM

1. IMMOBILIZER

Refer to “Immobilizer System” in the wiring diagram.<Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>

4. Keyless Entry System

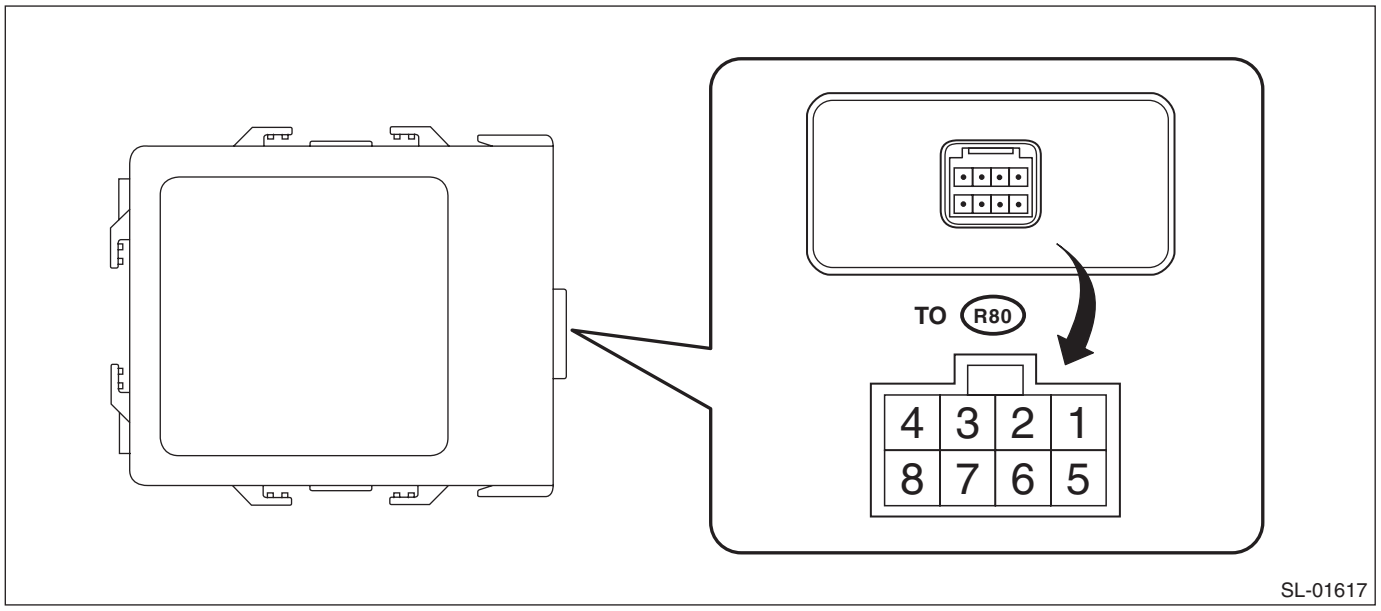
A: WIRING DIAGRAM

Refer to “Keyless Entry System” in the wiring diagram. <Ref. to WI-283, WIRING DIAGRAM, Keyless Entry System.>

B: ELECTRICAL SPECIFICATION

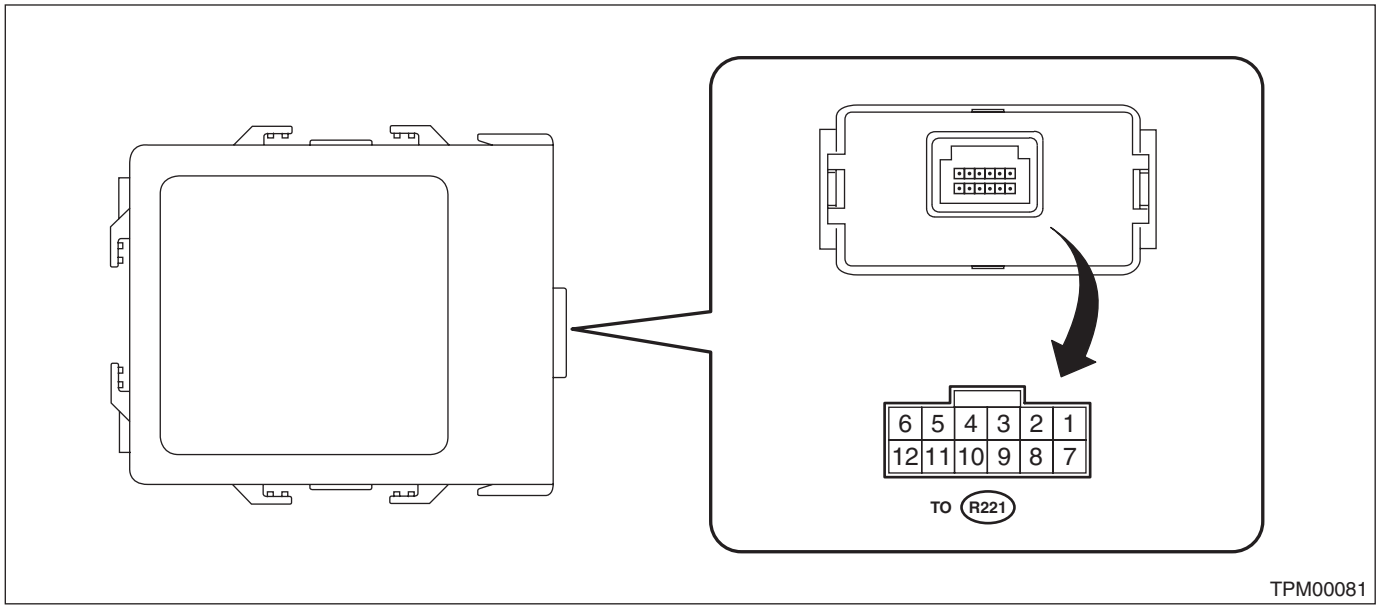
1. KEYLESS ENTRY CONTROL MODULE

- Model without tire pressure monitoring system



Terminal No.	Item	Measuring condition	Standard
3 (U-ART com.)	—	Cannot be measured	—
4 (+B) ←→ Chassis ground	Voltage	Always	10 — 14 V
7 (GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω

- Model with tire pressure monitoring system



Terminal No.	Item	Measuring condition	Standard
4 (IG) ←→ Chassis ground	Resistance	IG OFF → ON	0 V → 10 — 14 V
5 (GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
6 (+B) ←→ Chassis ground	Voltage	Always	10 — 14 V
11 (U-ART com.)	—	Cannot be measured	—

2. BODY INTEGRATED UNIT

Refer to “Control Module I/O Signal” of “BODY CONTROL SYSTEM (DIAGNOSTICS)” section. <Ref. to BC(diag)-6, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: INSPECTION

1. SYMPTOM CHART

Symptoms	Repair order	Reference
None of the functions of the keyless entry system operate.	1. Check the keyless transmitter battery.	<Ref. to SL-19, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Remove and visually inspect the following fuses. • No. 3 (in fuse & relay box) • No. 7 (in fuse & relay box) • No. 15 (in fuse & relay box)	If the fuse is blown out, replace the fuse with a new part. When there is no defective with the fuse, check the power supply and ground circuit. <Ref. to SL-11, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>
	3. Check the keyless entry control module.	<Ref. to SL-20, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	4. Check the power supply and ground circuit for body integrated unit.	<Ref. to SL-20, CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Keyless Entry System.>
	5. Check the key warning switch.	<Ref. to SL-22, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	6. Check the door switch signal.	<Ref. to SL-21, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>
	7. Check the body integrated unit.	<Ref. to BC(diag)-2, Basic Diagnostic Procedure.>
The keyless transmitter cannot be registered.	1. Check the keyless transmitter battery.	<Ref. to SL-19, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the key warning switch.	<Ref. to SL-22, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	3. Check the keyless entry control module.	<Ref. to SL-20, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	4. Check the body integrated unit.	<Ref. to BC(diag)-2, Basic Diagnostic Procedure.>
Door lock or unlock does not operate. NOTE: If the door lock control system does not operate when using the door lock switch, check the door lock control system. <Ref. to SL-11, INSPECTION, Door Lock Control System.>	1. Check the keyless transmitter battery.	<Ref. to SL-19, CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION, INSPECTION, Keyless Entry System.>
	2. Check the key warning switch.	<Ref. to SL-22, CHECK KEY WARNING SWITCH, INSPECTION, Keyless Entry System.>
	3. Check the keyless entry control module.	<Ref. to SL-20, CHECK KEYLESS ENTRY CONTROL MODULE, INSPECTION, Keyless Entry System.>
	4. Check the body integrated unit.	<Ref. to BC(diag)-2, Basic Diagnostic Procedure.>

Symptoms	Repair order	Reference
The keyless buzzer and hazard light do not operate.	1. Check the keyless buzzer operation.	<Ref. to SL-24, CHECK KEYLESS BUZZER, INSPECTION, Keyless Entry System.>
	2. Check the hazard light operation.	<Ref. to SL-23, CHECK HAZARD LIGHT OPERATION, INSPECTION, Keyless Entry System.>
	3. Check the body integrated unit.	<Ref. to BC(diag)-2, Basic Diagnostic Procedure.>
Room light does not operate.	1. Check the room light operation.	<Ref. to SL-22, CHECK ROOM LIGHT OPERATION, INSPECTION, Keyless Entry System.>
	2. Check the body integrated unit.	<Ref. to BC(diag)-2, Basic Diagnostic Procedure.>
Ignition switch illumination does not operate.	1. Check the ignition switch illumination.	<Ref. to SL-25, CHECK IGNITION SWITCH ILLUMINATION, INSPECTION, Keyless Entry System.>
	2. Check the body integrated unit.	<Ref. to BC(diag)-2, Basic Diagnostic Procedure.>

2. CHECK KEYLESS TRANSMITTER BATTERY AND FUNCTION

CAUTION:
Be sure to reset keyless transmitter of other vehicles registered to the inspection target vehicle, and vehicles to which keyless transmitters were registered for inspection, to the condition before performing the inspection. (Re-register the keyless transmitters.)

	Step	Check	Yes	No
1	**CHECK KEYLESS TRANSMITTER BATTERY.** 1) Remove the battery from the keyless transmitter. <Ref. to SL-78, REMOVAL, Keyless Transmitter.> 2) Check the battery voltage. <Ref. to SL-79, INSPECTION, Keyless Transmitter.>	Is the voltage 2.5 V or more?	Go to step **2**.	Replace the keyless transmitter battery.
2	**CHECK KEYLESS TRANSMITTER.** Register the keyless transmitter which operates normally on other vehicles to the inspection target vehicle. <Ref. to SL-79, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Keyless Transmitter.> 1) Close all the doors and rear gate of inspection target vehicle. 2) Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.	Can the check vehicle be locked and unlocked properly?	Go to step **3**.	Due to vehicle malfunction, continue the keyless entry system diagnosis.
3	**CHECK KEYLESS TRANSMITTER.** Register the keyless transmitter of the inspected vehicle to another vehicle whose keyless system operates normally. <Ref. to SL-79, REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR, REPLACEMENT, Keyless Transmitter.>	Is the keyless transmitter registered correctly?	Go to step **4**.	Replace the keyless transmitter and perform registration.
4	**CHECK KEYLESS TRANSMITTER.** Check the registered keyless transmitter. 1) Close all the doors and rear gate of the vehicle which keyless system operates normally. 2) Using the keyless transmitter, lock and unlock the doors and rear gate of vehicle.	Does the vehicle operate lock and unlock normally?	Keyless transmitter is OK.	Replace the keyless transmitter and perform registration.

3. CHECK KEYLESS ENTRY CONTROL MODULE

	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT.** Read the DTC using Subaru Select Monitor. NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Is DTC B1500 "Keyless UART com. Malfunction" displayed?	Go to step **2**.	Keyless entry control module is normal.
2	**CHECK POWER SUPPLY.** 1) Disconnect the keyless entry control module connector. 2) Measure the voltage between keyless entry control module connector and chassis ground. ***Connector & terminal*** ***Model without tire pressure monitoring system*** ***(R80) No. 4 (+) — Chassis ground (–):*** ***Model with tire pressure monitoring system*** ***(R221) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	Check the harness for open or short circuits between the keyless entry control module and the fuse.
3	**CHECK POWER SUPPLY (MODEL WITH TPMS ONLY).** Measure the voltage between connector and chassis ground. ***Connector & terminal*** ***(R221) No. 4 (+) — Chassis ground (–):***	IGN OFF: 0 V IGN ON: 10 V or more?	Go to step **4**.	Check the harness for open or short circuits between the keyless entry control module and the fuse.
4	**CHECK GROUND CIRCUIT.** Measure the resistance between keyless entry control module connector and chassis ground. ***Connector & terminal*** ***Model without tire pressure monitoring system*** ***(R80) No. 7 — Chassis ground:*** ***Model with tire pressure monitoring system*** ***(R221) No. 5 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the harness.
5	**CHECK KEYLESS ENTRY CONTROL MODULE CIRCUIT.** 1) Disconnect the body integrated unit connector. 2) Check the harness between keyless entry control module and body integrated unit. ***Connector & terminal*** ***Model without tire pressure monitoring system*** ***(i171) No. 11 — (R80) No. 3:*** ***Model with tire pressure monitoring system*** ***(i171) No. 11 — (R221) No. 11:***	Is harness normal?	Replace the keyless entry control module.	Repair or replace the harness.

4. CHECK BODY INTEGRATED UNIT POWER SUPPLY AND GROUND CIRCUIT

Refer to the "INSPECTION of POWER SUPPLY AND GROUND CIRCUIT" of "Door Lock Control System" for detailed procedures. <Ref. to SL-11, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Door Lock Control System.>

5. CHECK DOOR SWITCH

	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** Display the following items using Subaru Select Monitor. • «Driver's door SW input» • «P-door SW input» • «Rear right door SW input» • «Rear left door SW input» • «R Gate SW input» NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Does the display switch between OFF ←→ ON when each door or rear gate is opened/closed?	The door switch or the rear gate latch switch is normal.	Go to step **2**.
2	**CHECK HARNESS.** 1) Disconnect the connector of body integrated unit. 2) Disconnect the connector of the door switch or the rear gate latch switch that the display does not change. 3) Check the harness between body integrated unit and defective switch. ***Connector & terminal*** ***Front door LH*** ***(i84) No. 14 — (R9) No. 1:*** ***Front door RH*** ***(i84) No. 13 — (R12) No. 1:*** ***Rear door LH*** ***(i84) No. 24 — (R22) No. 1:*** ***Rear door RH*** ***(i84) No. 25 — (R16) No. 1:*** ***Rear gate*** ***(i84) No. 33 — (D46) No. 3:***	Is harness normal?	Go to step **3**.	Repair or replace the harness.
3	**CHECK HARNESS.** Measure the resistance between the faulty switch connector and chassis ground. ***Connector & terminal*** ***Front door LH*** ***(R9) No. 3 — Chassis ground:*** ***Front door RH*** ***(R12) No. 3 — Chassis ground:*** ***Rear door LH*** ***(R22) No. 3 — Chassis ground:*** ***Rear door RH*** ***(R16) No. 3 — Chassis ground:*** ***Rear gate*** ***(D46) No. 4 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the harness.
4	**CHECK DOOR SWITCH.** Measure the resistance between faulty switch terminals. ***Terminals*** ***Front LH door switch*** ***No. 1 — No. 3:*** ***Front RH door switch*** ***No. 1 — No. 3:*** ***Rear LH door switch*** ***No. 1 — No. 3:*** ***Rear RH door switch*** ***No. 1 — No. 3:*** ***Rear gate latch switch*** ***No. 3 — No. 4:***	Is the resistance 1 MΩ or more when the door switch is pushed and the rear gate is closed?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Replace the faulty parts. • Door switches • Rear gate latch and actuator assembly

6. CHECK KEY WARNING SWITCH

	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the data of «key-lock warning SW». NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Is the normal input signal displayed when the key is inserted in/removed from the ignition switch?	The key warning switch is OK.	Go to step **2**.
2	**CHECK FUSE.** Remove and visually check fuse No. 14 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new part.	Go to step **3**.
3	**CHECK KEY WARNING SWITCH CIRCUIT.** 1) Disconnect the connector of body integrated unit. 2) Insert the key into ignition switch. (LOCK position) 3) Measure the voltage between the body integrated unit connector and chassis ground. ***Connector & terminal*** ***(B280) No. 4 (+) — Chassis ground (–):***	Is the voltage 9 V or more?	Go to step **4**.	Go to step **5**.
4	**CHECK KEY WARNING SWITCH CIRCUIT.** 1) Remove the key from ignition switch. 2) Measure the voltage between the body integrated unit connector and chassis ground. ***Connector & terminal*** ***(B280) No. 4 (+) — Chassis ground (–):***	Is the voltage less than 1.5 V?	The key warning switch is OK.	Go to step **5**.
5	**CHECK KEY WARNING SWITCH.** 1) Disconnect the connector of key warning switch. 2) Insert the key into ignition switch. (LOCK position) 3) Measure the resistance between key warning switch terminals. ***Terminals*** ***No. 1 — No. 2:***	Is the resistance less than 1 Ω?	Go to step **6**.	Replace the key warning switch.
6	**CHECK KEY WARNING SWITCH.** 1) Remove the key from ignition switch. 2) Measure the resistance between key warning switch terminals. ***Terminals*** ***No. 1 — No. 2:***	Is the resistance 1 MΩ or more?	Check the following: • Harness for open circuits and shorts between the key warning switch and fuse. • Harness for open or short between the body integrated unit and key warning switch	Replace the key warning switch.

7. CHECK ROOM LIGHT OPERATION

	Step	Check	Yes	No
1	**CHECK ROOM LIGHT OPERATION.** Make sure the room light illuminates when the room light switch is ON, and goes off when the switch is OFF.	Does the room light illuminate or go off?	Go to step **2**.	Check the room light circuit. <Ref. to LI-66, INSPECTION, Room Light.>

	Step	Check	Yes	No
2	**CHECK ROOM LIGHT OPERATION.** 1) Turn the room light switch to the “DOOR” position. 2) Open and close any door.	Does the room light illuminate ←→ go off (including off delay) when the door is opened and closed?	Go to step **3**.	Go to step **4**.
3	**CHECK KEYLESS ENTRY OPERATION.** Press the LOCK/UNLOCK button of the keyless transmitter.	Does it operate properly?	Room light is normal.	Check keyless entry system. <Ref. to SL-18, SYMPTOM CHART, INSPECTION, Keyless Entry System.>
4	**CHECK ROOM LIGHT.** Check the room light. <Ref. to LI-66, INSPECTION, Room Light.>	Is room light normal?	Go to step **5**.	Replace the bulb or room light assembly.
5	**CHECK HARNESS.** 1) Disconnect the connectors of body integrated unit and room light. 2) Check the harness between body integrated unit and room light. ***Connector & terminal*** ***(i84) No. 4 — (R52) No. 2:***	Is harness normal?	Go to step **6**.	Repair or replace the harness.
6	**CHECK HARNESS.** Measure the voltage between the room light connector and chassis ground. ***Connector & terminal*** ***(R52) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Repair or replace the harness.

8. CHECK HAZARD LIGHT OPERATION

	Step	Check	Yes	No
1	**CHECK HAZARD LIGHT OPERATION.** Make sure the hazard light blinks when hazard switch is turned to ON.	Does the hazard light blink?	Go to step **2**.	Check the hazard light circuit.
2	**CHECK BODY INTEGRATED UNIT SETTING.** Display the data of «Abnormal warning lamp flashing setting» using Subaru Select Monitor. NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Is the setting ON?	Go to step **3**.	Turn the setting to ON.
3	**CHECK CURRENT DATA.** Display the data of «Hazard Output» using Subaru Select Monitor.	Is output signal present when operating the transmitter LOCK/UNLOCK button?	Go to step **4**.	Go to step **5**.
4	**CHECK KEYLESS ENTRY OPERATION.** Press the LOCK/UNLOCK button of the keyless transmitter.	Does it operate properly?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Check keyless entry system. <Ref. to SL-18, SYMPTOM CHART, INSPECTION, Keyless Entry System.>
5	**CHECK HAZARD LIGHT CIRCUIT.** 1) Disconnect the connectors of the body integrated unit and turn signal & hazard unit. 2) Check the harness between body integrated unit and turn signal & hazard unit. ***Connector & terminal*** ***(i171) No. 18 — (B32) No. 8:***	Is harness normal?	Check body integrated unit. <Ref. to BC(diag)-2, Basic Diagnostic Procedure.>	Repair or replace the harness.

9. CHECK KEYLESS BUZZER

	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT SETTING.** Display the data of «Answer-back buzzer setup» using Subaru Select Monitor. NOTE: For detailed procedures, refer to "PC application help for Subaru Select Monitor".	Is the setting ON?	Go to step **2**.	Turn the setting to ON.
2	**CHECK BODY INTEGRATED UNIT.** Select and perform the «Keyless Buzzer Output» using Subaru Select Monitor.	Does the keyless buzzer sound?	Check the keyless control module.	Go to step **3**.
3	**CHECK KEYLESS BUZZER CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors of the body integrated unit and keyless buzzer. 3) Check the harness between body integrated unit and keyless buzzer. ***Connector & terminal*** ***(B280) No. 20 — (B164) No. 1:***	Is harness normal?	Go to step **4**.	Repair or replace the harness.
4	**CHECK KEYLESS BUZZER CIRCUIT.** Measure the resistance between the keyless buzzer connector and chassis ground. ***Connector & terminal*** ***(B164) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the harness.
5	**CHECK BODY INTEGRATED UNIT.** 1) Select and perform the «Keyless Buzzer Output» using Subaru Select Monitor. 2) Measure the voltage between the body integrated unit connector and chassis ground. ***Connector & terminal*** ***(B280) No. 20 (+) — Chassis ground (–):***	Is the waveform with frequency 2 kHz and voltage 9 V or more being output?	Replace the keyless buzzer.	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>

10.CHECK DOOR LOCK SWITCH

For operation procedures, refer to the “INSPECTION OF DOOR LOCK SWITCH” of the “Door Lock Control System”. <Ref. to SL-12, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>

11.CHECK IGNITION SWITCH ILLUMINATION

	Step	Check	Yes	No
1	**CHECK IGNITION CIRCUIT.** Check the ignition circuit. <Ref. to SL-33, CHECK IGNITION SWITCH CIRCUIT, INSPECTION, Security System.>	Is the switch circuit normal?	Go to step **2**.	Repair or replace.
2	**CHECK DOOR SWITCH CIRCUIT.** Inspect door switch circuit. <Ref. to SL-21, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>	Is the switch circuit normal?	Go to step **3**.	Repair or replace.
3	**CHECK FUSE.** Remove and visually check fuse No. 14 (in the main fuse box).	Is the fuse blown out?	Replace the fuse with a new part.	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the ignition switch illumination connector. NOTE: The ignition switch illumination is integrated into the immobilizer antenna. 2) Measure the voltage between ignition switch illumination connector and chassis ground. ***Connector & terminal*** ***(B415) No. 2 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Check the harness for open or short circuits between the ignition switch illumination and fuse.
5	**CHECK IGNITION SWITCH ILLUMINATION CIRCUIT.** 1) Disconnect the connector of body integrated unit. 2) Check the harness between body integrated unit and ignition switch illumination. ***Connector & terminal*** ***(B280) No. 25 — (B415) No. 6:***	Is harness normal?	Go to step **6**.	Check the harness for open circuits and shorts between the body integrated unit and ignition switch illumination.
6	**CHECK IGNITION SWITCH ILLUMINATION BULB.** Apply battery voltage between terminals of the bulb. ***Terminals*** ***No. 2 (+) — No. 6 (–):***	Does the bulb illuminate?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	• Model with immobilizer Replace the immobilizer antenna. <Ref. to SL-84, REMOVAL, Immobilizer Antenna.> • Model without immobilizer Replace the ignition switch illumination. <Ref. to LI-70, REMOVAL, Ignition Switch Illumination.>

4. Multi-function Display (MFD) System

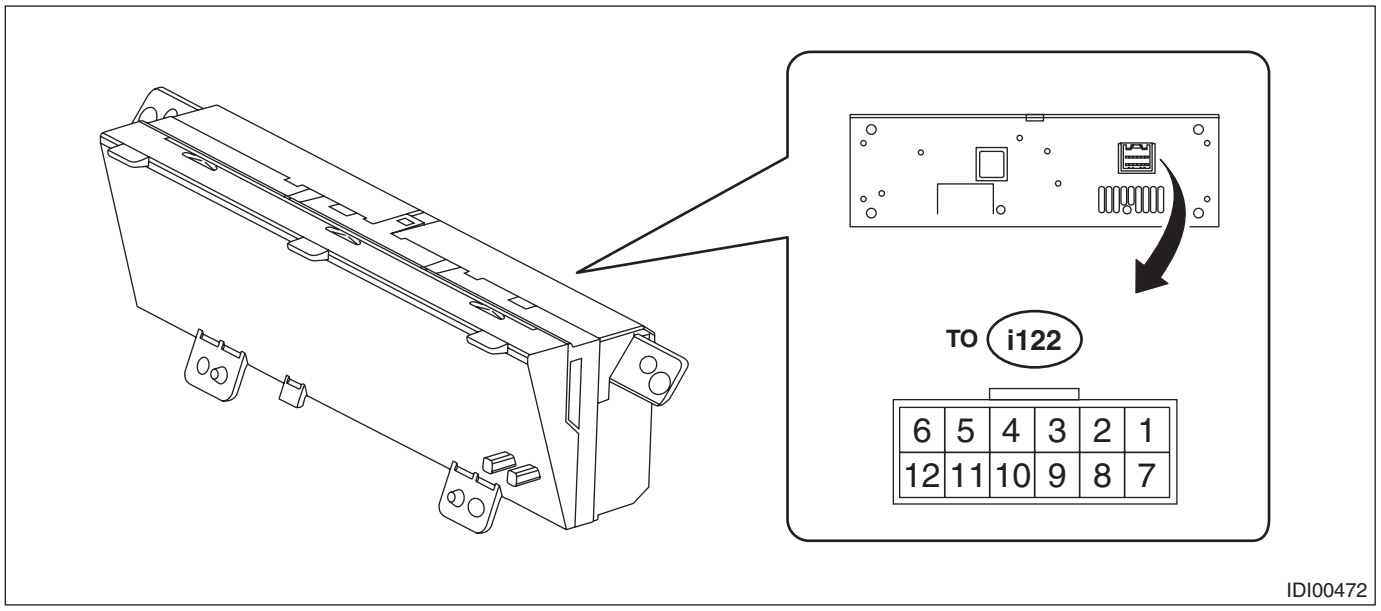
A: WIRING DIAGRAM

Refer to “Multi-function Display (MFD) System” in WI section. <Ref. to WI-288, WIRING DIAGRAM, Multi-function Display (MFD) System.>

B: ELECTRICAL SPECIFICATION

1. MULTI FUNCTION DISPLAY

- Standard type



Terminal No.	Item	Measuring condition	Standard
1 (+B) ←→ Chassis ground	Voltage	Always	10 — 14 V
2 (GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
3 (IG) ←→ Chassis ground	Voltage	IG OFF → ON	0 V → 10 — 14 V
9 (U-ART com.)	—	Cannot be measured	—
10 ←→ Chassis ground	Voltage	Passenger’s airbag ON indicator light OFF → ON	0 V → 1.5 V
11 ←→ Chassis ground	Voltage	Passenger’s airbag OFF indicator light OFF → ON	0 V → 1.5 V

- High grade type

Refer to “Control Module I/O Signal” of “INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)” section. <Ref. to IDI(diag)-7, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: OPERATION

1. DIAGNOSTIC MODE (HIGH GRADE TYPE ONLY)

The settings of the multi-function display can be changed by performing the following procedures to display the diagnostic mode.

CAUTION:
- **Perform the work with IG-ON while charging the battery.**
- **While performing the work, close the front hood and all doors, and do not operate any electrical parts.**
- **Display can not be switched to diagnostic mode if the illumination control dial is set to the position for the dimming cancel function (maximum brightness).**

1) Procedure

CAUTION:
Perform the steps described in (2) through (4) within 10 seconds.

(1) Within 3 seconds after turning the IG-ON, turn the lighting switch to Switch 1 (TAIL) or Switch 2 (HEAD).
(2) While keeping the lighting switch to Switch 1 (TAIL) or Switch 2 (HEAD) position, press the i/SET switch three times.
(3) Turn the lighting switch to OFF, and press the i/SET switch three times.
(4) Turn the lighting switch to Switch 1 (TAIL) or Switch 2 (HEAD) position again, press the i/SET switch three times.

NOTE:
- Except for the demonstration display setting of the diagnostic mode, the display will terminate with IG-OFF or by selecting “Back” from the menu screen.
- The demonstration display setting of the diagnostic mode will terminate by starting the engine or removing the battery. Even if it becomes IG-OFF then IG-ON again, the diagnostic mode will not terminate.
- To select other menus from the demonstration display setting, terminate the diagnostic mode by starting the engine or removing the battery, then access to the diagnostic mode again.

2) Display menu
Change the display and settings from each menu.

Menu	Item	Content
Demonstration display setting	—	Shows demonstration display.
Vehicle status confirmation	• CAN communication	Displays the connection status of input signals.
	• U-ART communication	
	• Camera connection	
Rear camera settings	• Guide line adjustment	Adjust the guide line in the order of up/down, left/right and rotate, then select “Set” to determine.
	• Guide line display	Select “ON” or “OFF”, then select “Set” to determine.
	• Guide line reset	Select “Yes” or “No” to determine whether to restore to the default settings.
Customize	• Key operation sound	Select “ON” or “OFF”, then select “Set” to determine.
	• Correction of lifetime fuel economy value*	Adjust the fuel economy value within the range of -10 — +10 km/l, then determine the value with i/SET switch.
Back	—	Finish the diagnostic mode.

*: Correction of lifetime fuel economy value is used only when the multi-function display has been replaced. This function is provided as a compensation feature to bring the current lifetime fuel economy value to the one before the replacement of multi-function display.

2. ODO FUEL ECONOMY VALUE RESET (HIGH GRADE TYPE ONLY)

Follow the procedure below to initialize the ODO setting value.

1) Procedure
   (1) After IG-ON, pull the i/SET switch toward you for two seconds to display the setting screen.
   (2) Select “Factory delivery setting” from “Setting screen”.
   (3) Select “ODO setting reset” and determine with “Yes”.
   (4) The screen that indicates the completion of the setting is displayed for three seconds. This is the end of operation.

NOTE:
- The resetting operation is confirmed twice. Select confirmation according to the screen.
- The display will terminate with IG-OFF or by selecting “Back” from the menu screen.

D: INSPECTION

- Standard type

Refer to the following inspection steps. <Ref. to IDI-15, SYMPTOM CHART, INSPECTION, Multi-function Display (MFD) System.>

- High grade type

Refer to “Basic Diagnostic Procedure” of “INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)” section. <Ref. to IDI(diag)-2, Basic Diagnostic Procedure.>

1. SYMPTOM CHART

Symptoms	Repair order	Note
No display is shown.	1. Power supply 2. Ground circuit 3. Communication circuit harness 4. MFD	<Ref. to IDI-16, CHECK POWER SUPPLY AND GROUND CIRCUIT AND COMMUNICATION CIRCUIT, INSPECTION, Multi-function Display (MFD) System.>
Ambient air temperature/fuel economy displays do not appear.	1. Power supply 2. Ground circuit 3. MFD	<Ref. to IDI-16, CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT, INSPECTION, Multi-function Display (MFD) System.>
Only ambient air temperature display is not displayed.	1. Power supply 2. Harness 3. Ambient sensor 4. Communication circuit 5. MFD	<Ref. to IDI-16, CHECK AMBIENT TEMPERATURE METER SYSTEM COMMUNICATION CIRCUIT, INSPECTION, Multi-function Display (MFD) System.>
Only fuel economy display is not displayed.	1. Setting 2. MFD	<Ref. to IDI-17, CHECK COMMUNICATION CIRCUIT OF FUEL ECONOMY SYSTEM, INSPECTION, Multi-function Display (MFD) System.>

2. CHECK POWER SUPPLY AND GROUND CIRCUIT AND COMMUNICATION CIRCUIT

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY.** 1) Disconnect the MFD connector. 2) Measure the voltage between MFD connector and chassis ground. ***Connector & terminal*** ***(i122) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Check the harness for open or short between the fuse and MFD.
2	**CHECK GROUND CIRCUIT.** Measure the resistance between MFD connector and chassis ground. ***Connector & terminal*** ***(i122) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair or replace the harness.
3	**CHECK HARNESS BETWEEN MFD AND COMBINATION METER ASSEMBLY.** 1) Disconnect the connector of combination meter assembly. 2) Check the harness between MFD and combination meter assembly. ***Connector & terminal*** ***(i122) No. 9 — (i10) No. 28:***	Is harness normal?	Go to step **4**.	Repair or replace the harness.
4	**CHECK MFD.** 1) Remove the MFD. 2) Attach the clock to another vehicle on which the clock display operates normally, and check its operation.	Is MFD normal?	Replace the meter - main assembly.<Ref. to IDI-18, Combination Meter.>	Replace the MFD.

3. CHECK CLOCK SYSTEM COMMUNICATION CIRCUIT

	Step	Check	Yes	No
1	**CHECK POWER SUPPLY.** 1) Disconnect the MFD connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between MFD connector and chassis ground. ***Connector & terminal*** ***(i122) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Repair or replace the harness.
2	**CHECK GROUND CIRCUIT.** Measure the resistance between MFD connector and chassis ground. ***Connector & terminal*** ***(i122) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair or replace the harness.
3	**CHECK MFD.** 1) Remove the MFD. 2) Attach the clock to another vehicle on which the clock display operates normally, and check its operation.	Is MFD normal?	Repair the poor contact of connector.	Replace the MFD.

4. CHECK AMBIENT TEMPERATURE METER SYSTEM COMMUNICATION CIRCUIT

	Step	Check	Yes	No
1	**CHECK AMBIENT SENSOR POWER SUPPLY.** 1) Disconnect the ambient sensor connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the ambient sensor connector and chassis ground. ***Connector & terminal*** ***(F78) No. 2 (+) — Chassis ground (–):***	Is the voltage 4 V or more?	Go to step **2**.	Check the harness for open or short between the fuse and MFD.

	Step	Check	Yes	No
2	**CHECK HARNESS BETWEEN AMBIENT SENSOR AND COMBINATION METER ASSEMBLY.** 1) Disconnect the connector of combination meter assembly. 2) Check harness between ambient sensor and combination meter assembly. ***Connector & terminal*** ***(F78) No. 1 — (i10) No. 36:*** ***(F78) No. 2 — (i10) No. 27:***	Is harness normal?	Go to step **3**.	Repair or replace the harness.
3	**CHECK AMBIENT SENSOR.** Check the ambient sensor. <Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the ambient sensor operating properly?	Go to step **4**.	Replace the ambient sensor.
4	**CHECK AMBIENT TEMPERATURE DISPLAY.** 1) Connect the combination meter assembly connector. 2) Install the 3 kΩ resistance between connector terminals of the ambient sensor. 3) Turn the ignition switch to ON. ***Connector & terminal*** ***(F78) No. 1 — No. 2:***	Does the ambient temperature display 25°C (77°F)?	Repair the poor contact between the ambient sensor and harness connector.	Go to step **5**.
5	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the data of «Ambient Air Temperature». NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Is the ambient temperature of 25°C (77°F) output?	Go to step **6**.	Replace the meter - main assembly. <Ref. to IDI-18, Combination Meter.>
6	**CHECK MFD.** 1) Remove the MFD. 2) Attach the ambient temperature display to another vehicle on which the ambient temperature display operates normally to check its operation.	Does the ambient temperature display 25°C (77°F)?	Replace the MFD.	Replace the meter - main assembly. <Ref. to IDI-18, Combination Meter.>

5. CHECK COMMUNICATION CIRCUIT OF FUEL ECONOMY SYSTEM

	Step	Check	Yes	No
1	**CHECK FUEL ECONOMY DISPLAY OFF MODE.** Check that the mode display changes when the MFD changeover knob is operated. (Display changes in the following order: cruising distance → average fuel economy → instantaneous fuel economy → continuous driving time → average vehicle speed → blank display)	Is fuel economy displayed?	MFD is normal.	Go to step **2**.
2	**CHECK MFD.** 1) Remove the MFD. 2) Attach the fuel economy display to another vehicle on which the fuel economy display operates normally to check its operation.	Is the fuel economy display correct?	Replace the meter - main assembly.<Ref. to IDI-18, Combination Meter.>	Replace the MFD.

E: NOTE

For procedure of each component in the Multi-Function Display (MFD), refer to the respective section.

- Multi-function display: <Ref. to IDI-25, Multi-function Display (MFD).>

4. Navigation System

A: WIRING DIAGRAM

Refer to “Navigation System” in the wiring diagram. <Ref. to WI-291, WIRING DIAGRAM, Navigation System.>

B: INSPECTION

NOTE:
If no problems are found in “CHECK NAVIGATION OPERATION”, “CHECK EACH CONNECTION” and “CHECK EACH VEHICLE SIGNAL” as described below, check the navigation system circuit. <Ref. to WI-291, WIRING DIAGRAM, Navigation System.>

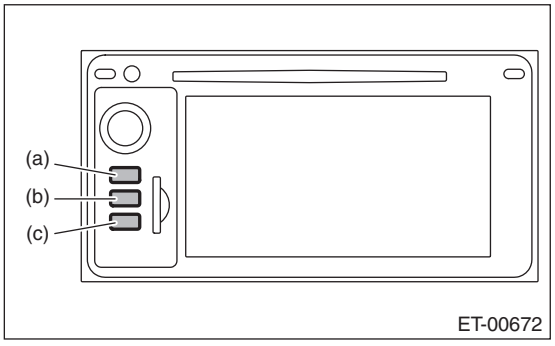
1. CHECK NAVIGATION OPERATION

Start the engine and check that the opening screen is displayed.
Standard: Opening screen is displayed.
OK: Normal.
NG: If the screen is not displayed, check the following items.
- The map disk (SD CARD) is set in the navigation system unit.
- Check the connection of the power supply connector at the backside of the navigation unit. If wire connection is correct or has got repaired, check again that the opening screen is displayed.

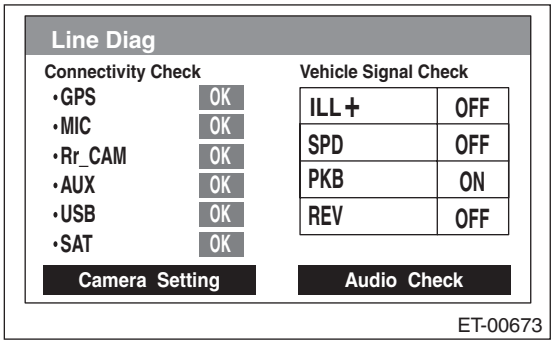
If it is not displayed at this time, it indicates the navigation unit trouble.

2. CHECK EACH CONNECTION

1) With the main power OFF, press and hold the button (c) for 3 seconds or more while pressing the buttons (a) and (b) simultaneously.



NOTE:
Pressing the button (a) for 3 seconds or more, or turning the ignition switch from ACC OFF to ON position can exit the diagnostic mode.
2) Line Diag screen is displayed.
3) Check the connection status for each item listed in “Connectivity Check” displayed on the left of the screen.

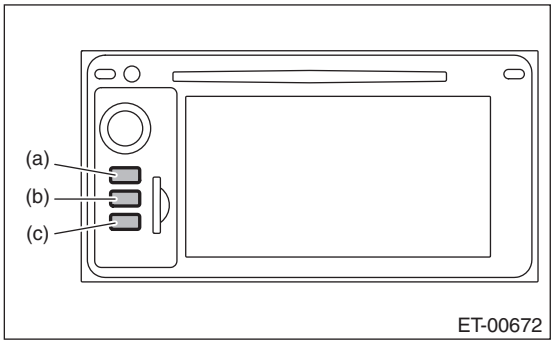


OK: Each connection device is connected properly.
NG: No connection or abnormal connection is detected.

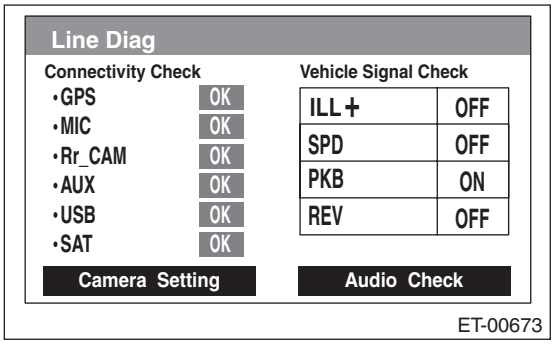
4) Check the connection status of the connector. If there are no problems, the connection device or unit could be faulty.

3. CHECK EACH VEHICLE SIGNAL

1) With the main power OFF, press and hold the button (c) for 3 seconds or more while pressing the buttons (a) and (b) simultaneously.



NOTE:
Pressing the button (a) for 3 seconds or more, or turning the ignition switch from ACC OFF to ON position can exit the diagnostic mode.
2) Line Diag screen is displayed.
3) Check the connection status for each item listed in “Vehicle Signal Check” displayed on the right of the screen.



- **Check illumination**

1) Set the lighting switch to TAIL (small) position.
Make sure that the bright switch is not turned ON at this time.
2) Make sure that “ON” lights in ILL+ and then the screen becomes dim.
ON: Normal.
OFF: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

- **Check speed sensor**

NOTE:
- Before starting inspections, check the safety around the vehicle.
- Lift up the vehicle as necessary.
- When the diagnostic trouble code is input in the VDC CM, perform the Clear Memory operation.

1) Drive the vehicle at 9 km/h (6 MPH) or more.
2) Check that “ON” is displayed in SPD.
ON: Normal.
OFF: Vehicle speed is less than 7 km/h (4 MPH), or malfunction is detected in the signal line. Check the signal line connector. If there are no problems, the unit could be faulty.

- **Check parking brake signal**

1) Pull parking brake lever.
2) Check that “ON” is displayed in PKB.
ON: Normal.
OFF: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

- **Check back sensor**

NOTE:
Before starting inspections, check the safety around the rear end of the vehicle and then turn the ignition switch to ON.
1) Pull the parking brake and depress the brake, then put the gear in reverse.
2) Make sure that “ON” is displayed in REV.
ON: Normal.
OFF: Abnormal. Check the signal line connector. If there are no problems, the unit could be faulty.

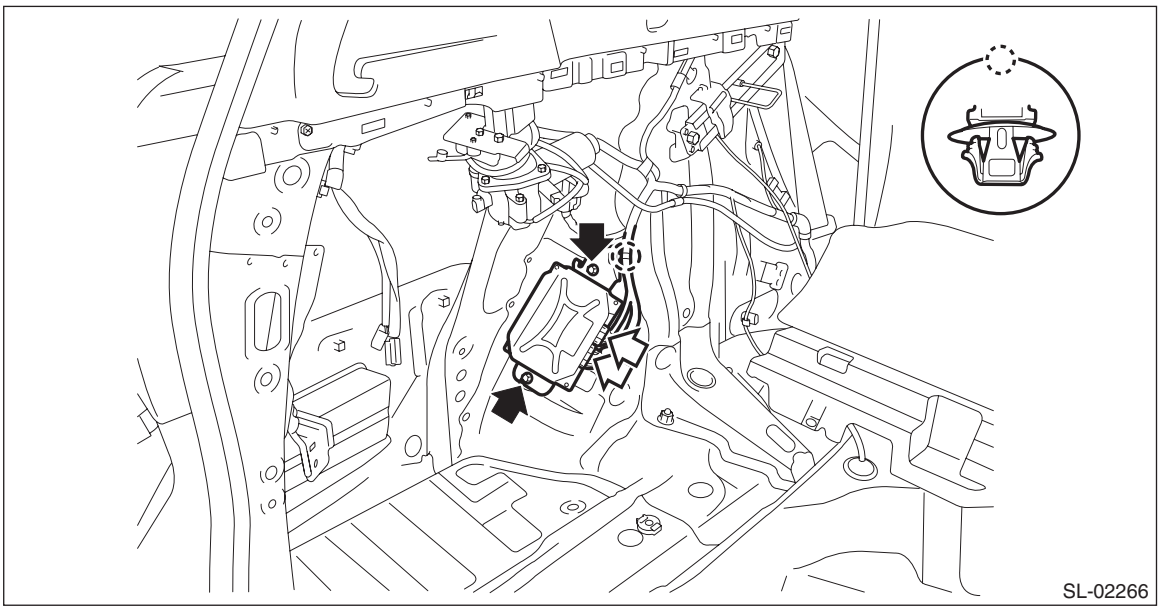
C: NOTE

For procedure of each component in the navigation system, refer to the respective section.
- Navigation unit:<Ref. to ET-23, Navigation Body.>
- GPS antenna:<Ref. to ET-25, GPS Antenna.>
- Rearview camera:<Ref. to ET-28, Rearview Camera System.>

4. Power Rear Gate Control Module

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear apron. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>
3) Remove the power rear gate control module (PRG CM).
   (1) Disconnect the connector.
   (2) Remove the bolts and harness clips and remove the power rear gate control module (PRG CM).



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Power rear gate control module (PRG CM): 10 N·m (1.02 kgf-m, 7.4 ft-lb)

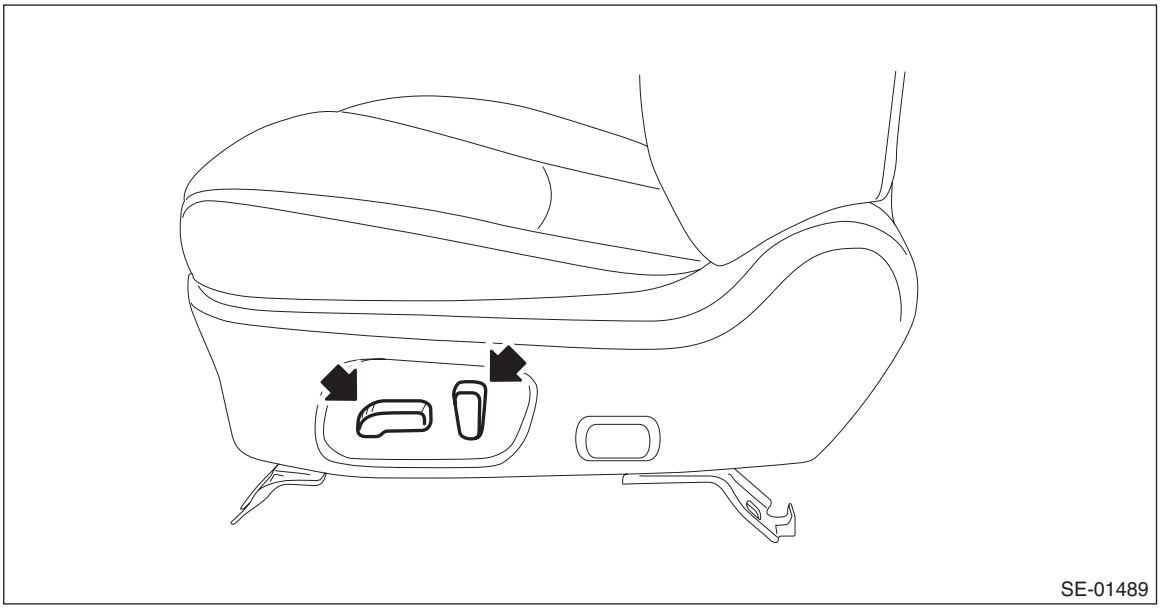
4. Power Seat System

A: REMOVAL

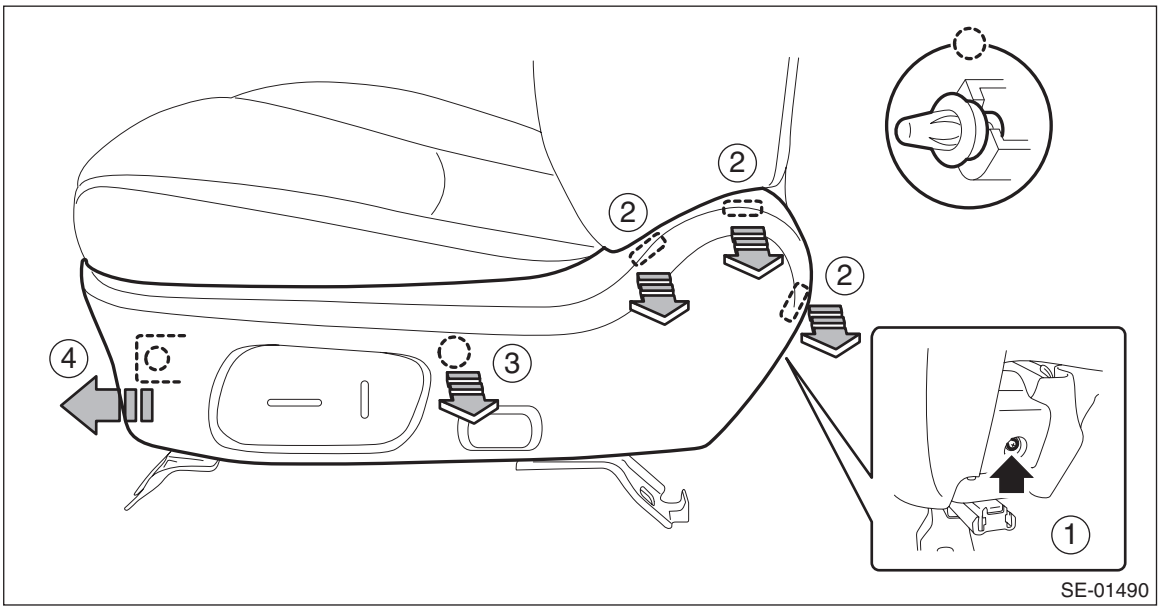
CAUTION:
When removing the front seat, disconnect the ground cable from the battery before disconnecting the side airbag module harness connector, and wait for 60 seconds before starting the operation.

1. POWER SEAT SWITCH

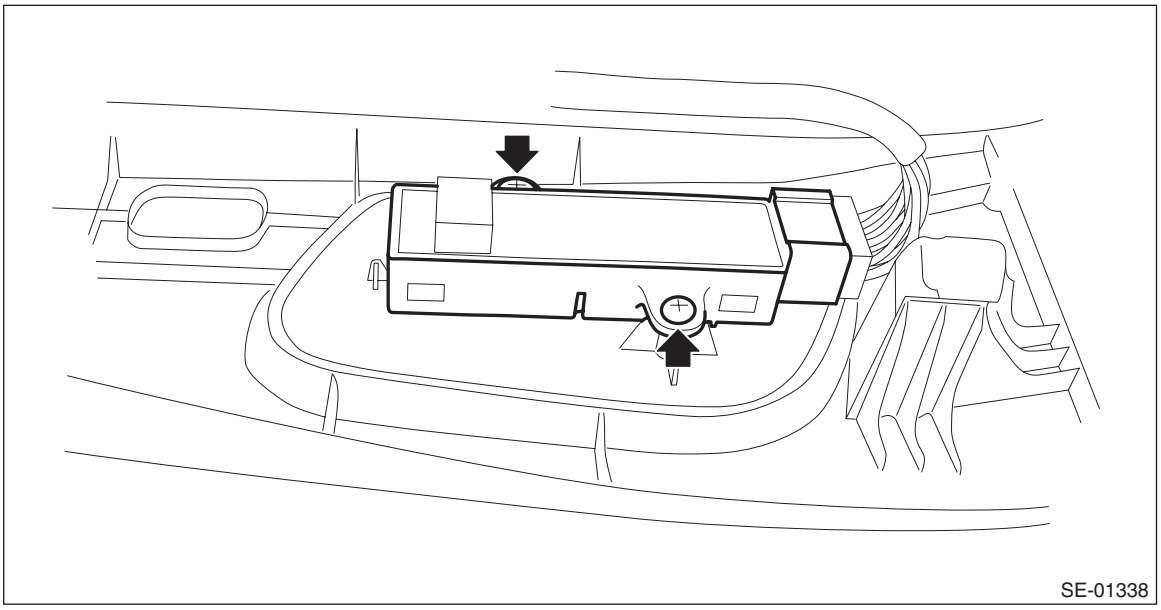
1) Remove the seat from vehicle. <Ref. to SE-9, REMOVAL, Front Seat.>
2) Remove the knob - power seat.



3) Remove the cover - hinge front seat OUT.
   (1) Remove the screws in the rear section of the cover - hinge front seat OUT.
   (2) Release the claw in the upper section of the cover - hinge front seat OUT.
   (3) Remove the clip, and release the claws in the front section of the cover - hinge front seat OUT.
   (4) Disconnect the power seat switch and lumber switch connector and remove the cover - hinge front seat OUT.

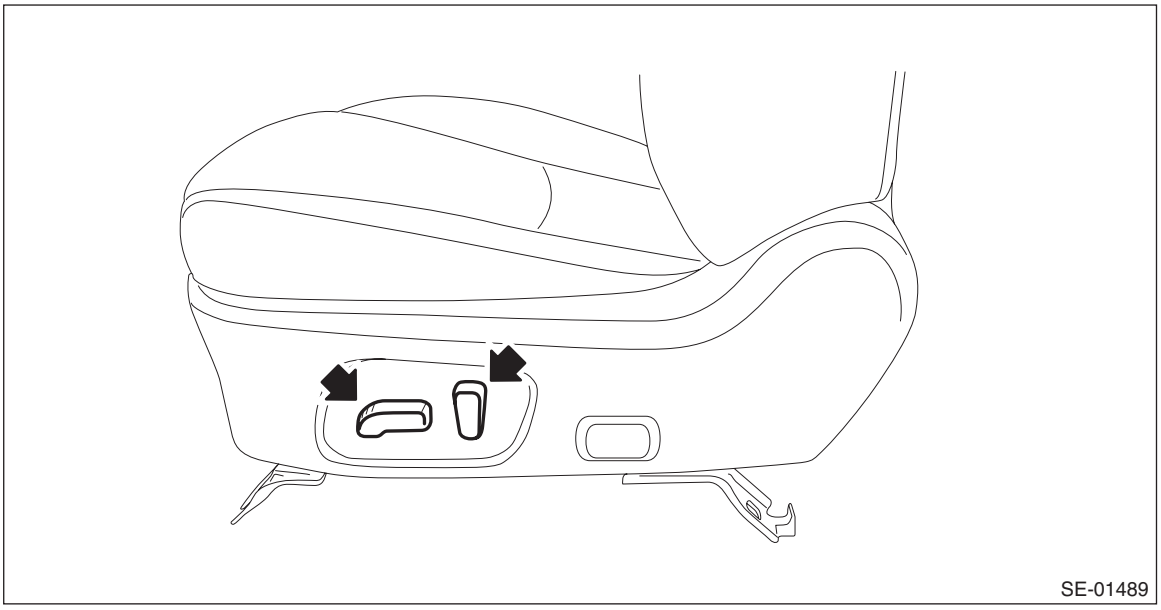


4) Remove the screws to remove the power seat switch assembly.

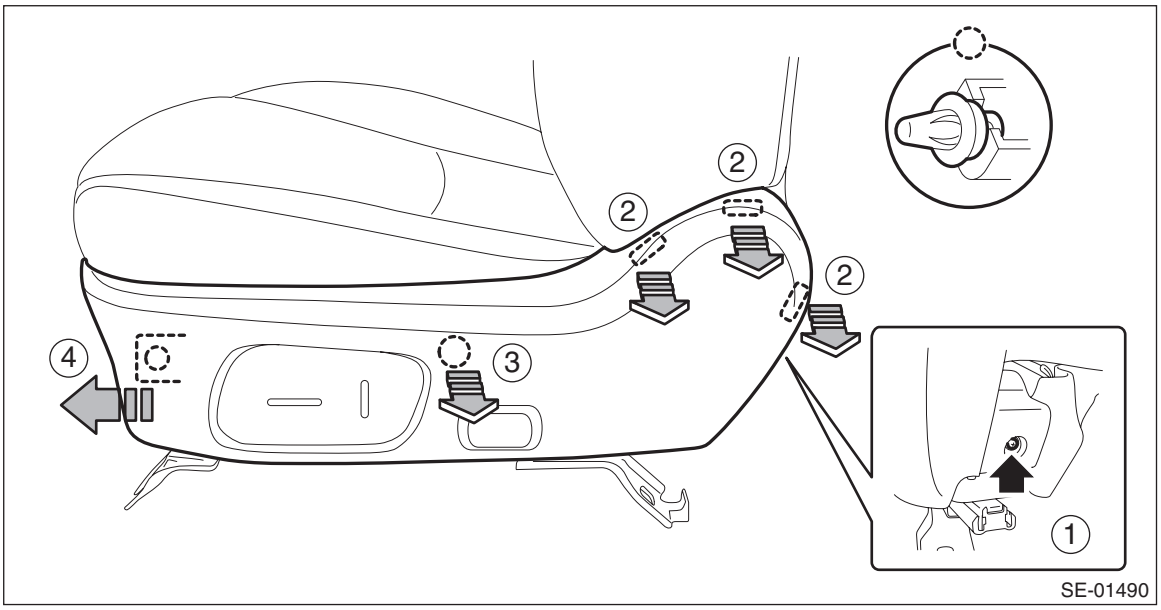


2. LUMBAR SWITCH

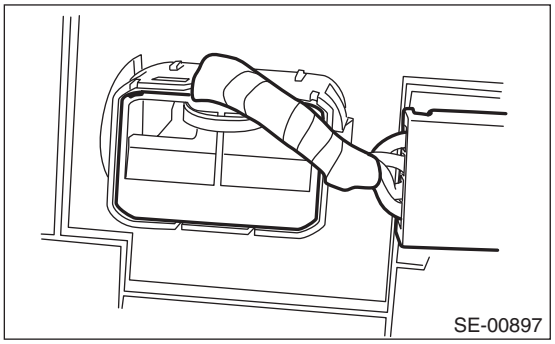
1) Remove the seat from vehicle. <Ref. to SE-9, REMOVAL, Front Seat.>
2) Remove the knob - power seat.



3) Remove the cover - hinge front seat OUT.
(1) Remove the screws in the rear section of the cover - hinge front seat OUT.
(2) Release the claw in the upper section of the cover - hinge front seat OUT.
(3) Remove the clip, and release the claws in the front section of the cover - hinge front seat OUT.
(4) Disconnect the power seat switch and lumber switch connector and remove the cover - hinge front seat OUT.



4) Disconnect the connector and remove the lumbar switch assembly.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. WIRING DIAGRAM

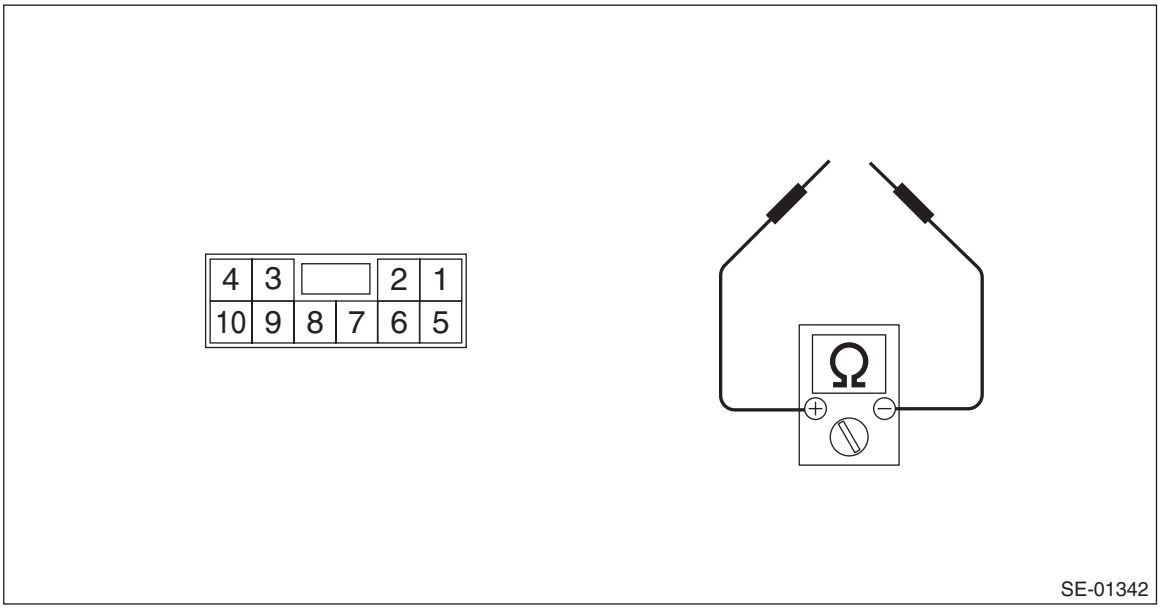
Refer to “Power Seat” in WI section. <Ref. to WI-313, WIRING DIAGRAM, Power Seat System.>

2. TROUBLE SYMPTOM

Symptoms	Criteria
All functions do not operate. <Ref. to SE-50, ALL FUNCTIONS DO NOT OPERATE, INSPECTION, Power Seat System.>	• Power seat switch • Power seat harness • Body harness
A part of function does not operate. <Ref. to SE-50, SOME MOTORS DO NOT OPERATE, INSPECTION, Power Seat System.>	• Power seat switch • Power seat harness • Relevant motor

3. CHECK POWER SEAT SWITCH

Measure resistance between terminals while operating each switch.



Switch position	Terminal No.	Standard
Slide forward	1 and 8 4 and 7	Less than 10 Ω
Slide rearward	1 and 7 4 and 8	Less than 10 Ω
Tilt up	1 and 3 2 and 4	Less than 10 Ω
Tilt down	1 and 2 3 and 4	Less than 10 Ω
Lifter up	1 and 6 4 and 9	Less than 10 Ω
Lifter down	1 and 9 4 and 6	Less than 10 Ω
Reclining forward	1 and 10 4 and 5	Less than 10 Ω
Reclining rearward	1 and 5 4 and 10	Less than 10 Ω

Replace the power seat switch if the inspection result is not within the standard value.

4. ALL FUNCTIONS DO NOT OPERATE

	Step	Check	Yes	No
1	**CHECK SEAT FUNCTIONS.** Operate each power seat switch and check that each power seat function operates normally.	Does all function fail to operate?	Go to step **2**.	Check the motor which does not operate. <Ref. to SE-50, SOME MOTORS DO NOT OPERATE, INSPECTION, Power Seat System.>
2	**CHECK FUSE.** Check the power seat fuse inside the fuse box.	Is the fuse blown out?	Replace the appropriate fuse.	Go to step **3**.
3	**CHECK POWER SUPPLY CIRCUIT.** 1) Disconnect the connector of power seat switch assembly. 2) Measure the voltage between harness connector and chassis ground. ***Connector & terminal*** ***(R200) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **4**.	Check body harness.
4	**CHECK POWER SUPPLY CIRCUIT.** Measure the resistance between power seat switch harness connector and chassis ground. ***Connector & terminal*** ***(R200) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Replace the power seat switch assembly.	Check body harness.

5. SOME MOTORS DO NOT OPERATE

- **Slide operation failure**

	Step	Check	Yes	No
1	**CHECK SWITCH.** 1) Disconnect the connector of power seat switch assembly. 2) Measure the resistance between connector terminals when moving the switch to slide forward and slide backward. <Ref. to SE-49, CHECK POWER SEAT SWITCH, INSPECTION, Power Seat System.>	Is the inspection result normal?	Go to step **2**.	Replace the power seat switch assembly.
2	**CHECK HARNESS.** 1) Disconnect the power seat switch connector and slide motor connector. 2) Measure the resistance between power seat switch connector and slide motor connector. ***Connector & terminal*** ***(R200) No. 8 — (R202) No. 5:*** ***(R200) No. 7 — (R202) No. 1:***	Is the resistance less than 10 Ω?	Go to step **3**.	Check power seat harness.
3	**CHECK SLIDE MOTOR.** 1) Connect the power seat switch connector and slide motor connector. 2) Apply 12 V to the slide motor and check the motor rotation. ***Connector & terminal*** ***(R202) No. 5 (+) — (R202) No. 1 (–):*** ***(R202) No. 1 (+) — (R202) No. 5 (–):***	Does the motor rotate normally?	Check for temporary poor contact or mechanical trouble in slide rail.	Slide motor problem. Replace the seat cushion frame assembly.

- **Malfunction of tilt operation**

	Step	Check	Yes	No
1	**CHECK SWITCH.** 1) Disconnect the connector of power seat switch assembly. 2) Measure the resistance between connector terminals when moving the switch to tilt up and tilt down. <Ref. to SE-49, CHECK POWER SEAT SWITCH, INSPECTION, Power Seat System.>	Is the inspection result normal?	Go to step **2**.	Replace the power seat switch assembly.
2	**CHECK HARNESS.** 1) Disconnect the power seat switch connector and tilt motor connector. 2) Measure the resistance between power seat switch connector and tilt motor connector. ***Connector & terminal*** ***(R200) No. 3 — (R203) No. 4:*** ***(R200) No. 2 — (R203) No. 6:***	Is the resistance less than 10 Ω?	Go to step **3**.	Check power seat harness.
3	**CHECK TILT MOTOR.** 1) Connect the power seat switch connector and tilt motor connector. 2) Apply 12 V to the tilt motor and check the motor rotation. ***Connector & terminal*** ***(R203) No. 4 (+) — (R203) No. 6 (–):*** ***(R203) No. 6 (+) — (R203) No. 4 (–):***	Does the motor rotate normally?	Check for temporary poor contact or mechanical trouble in tilt mechanism.	Tilt motor problem. Replace the seat cushion frame assembly.

• Malfunction of lifter operation

	Step	Check	Yes	No
1	**CHECK SWITCH.** 1) Disconnect the connector of power seat switch assembly. 2) Measure the resistance between connector terminals when moving the switch to lifter up and lifter down. <Ref. to SE-49, CHECK POWER SEAT SWITCH, INSPECTION, Power Seat System.>	Is the inspection result normal?	Go to step **2**.	Replace the power seat switch assembly.
2	**CHECK HARNESS.** 1) Disconnect the power seat switch connector and lifter motor connector. 2) Measure the resistance between power seat switch connector and lifter motor connector. ***Connector & terminal*** ***(R200) No. 6 — (R204) No. 6:*** ***(R200) No. 9 — (R204) No. 4:***	Is the resistance less than 10 Ω?	Go to step **3**.	Check power seat harness.
3	**CHECK LIFTER MOTOR.** 1) Connect the power seat switch connector and lifter motor connector. 2) Apply 12 V voltage to the lifter motor and check the motor rotation. ***Connector & terminal*** ***(R204) No. 2 (+) — (R204) No. 1 (–):*** ***(R204) No. 1 (+) — (R204) No. 2 (–):***	Does the motor rotate normally?	Check for temporary poor contact or mechanical trouble in lifter mechanism.	Lifter motor problem. Replace the seat cushion frame assembly.

• Malfunction of reclining operation

	Step	Check	Yes	No
1	**CHECK SWITCH.** 1) Disconnect the connector of power seat switch assembly. 2) Measure the resistance between connector terminals when moving the switch to reclining forward and reclining backward. <Ref. to SE-49, CHECK POWER SEAT SWITCH, INSPECTION, Power Seat System.>	Is the inspection result normal?	Go to step **2**.	Replace the power seat switch assembly.
2	**CHECK HARNESS.** 1) Disconnect the power seat switch connector and reclining motor connector. 2) Measure the resistance between power seat switch connector and reclining motor connector. ***Connector & terminal*** ***(R200) No. 10 — (R201) No. 6:*** ***(R200) No. 5 — (R201) No. 4:***	Is the resistance less than 10 Ω?	Go to step **3**.	Check power seat harness.
3	**CHECK RECLINING MOTOR.** 1) Connect the power seat switch connector and reclining motor connector. 2) Apply 12 V voltage to the reclining motor and check the motor rotation. ***Connector & terminal*** ***(R201) No. 6 (+) — (R201) No. 4 (–):*** ***(R201) No. 4 (+) — (R201) No. 6 (–):***	Does the motor rotate normally?	Check for temporary poor contact or mechanical trouble in reclining hinge.	Reclining motor problem. Replace the backrest frame assembly.

4. Power Window Control Switch

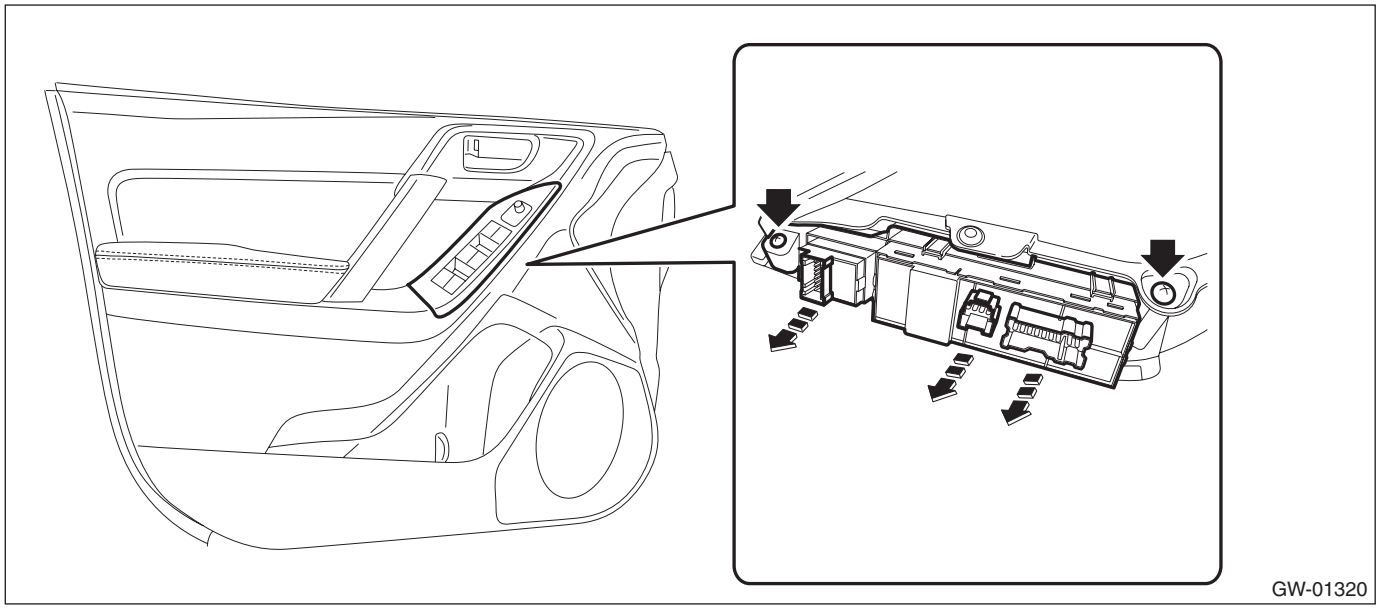
A: REMOVAL

1. MAIN SWITCH

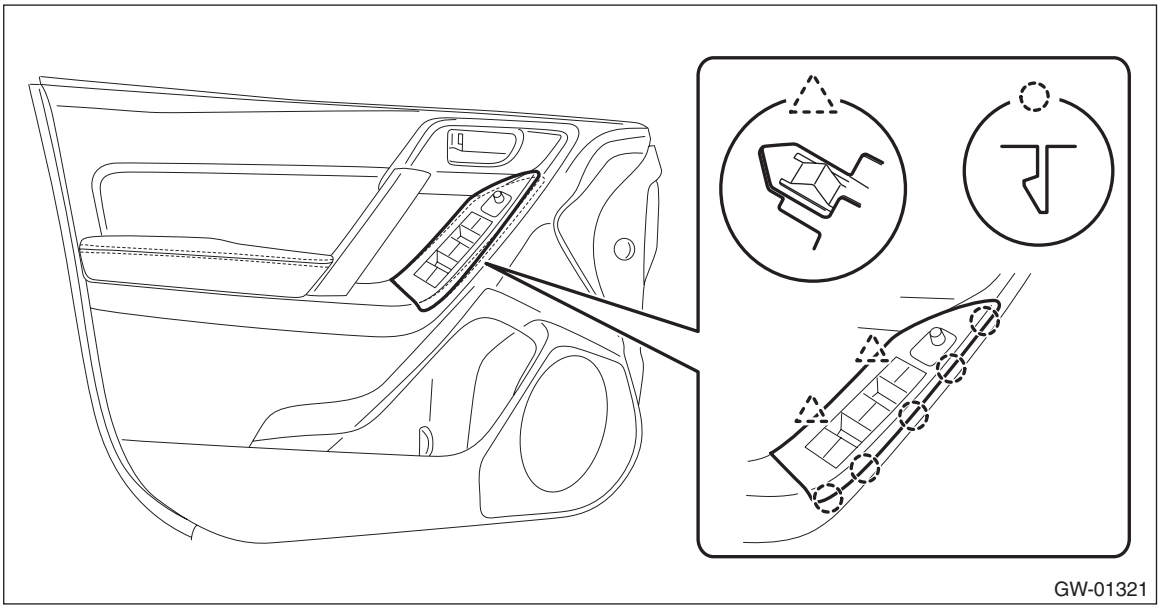
1) Remove the trim panel - front door. <Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
2) Remove the panel - power window main switch.

CAUTION:
Be careful not to damage the trim panel - front door with the panel - power window main switch.

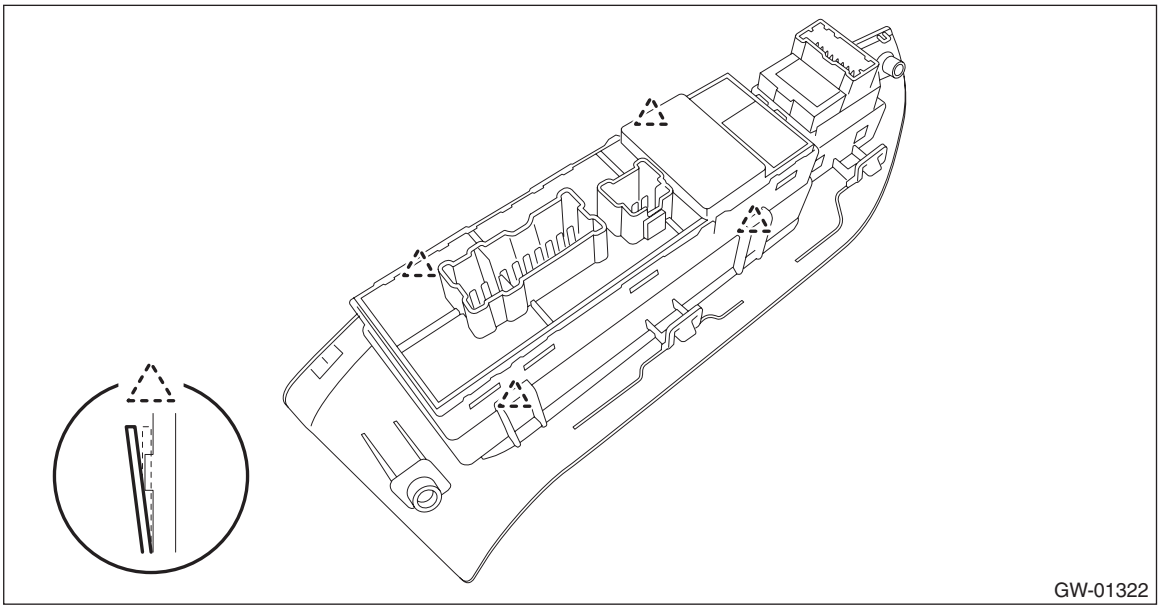
(1) Remove the screws and disconnect the connector.



(2) Release the claws, and then remove the panel - power window main switch.



(3) Release the claws, and then remove the switch - power window main.



2. SUB-SWITCH

Switch - power window sub front

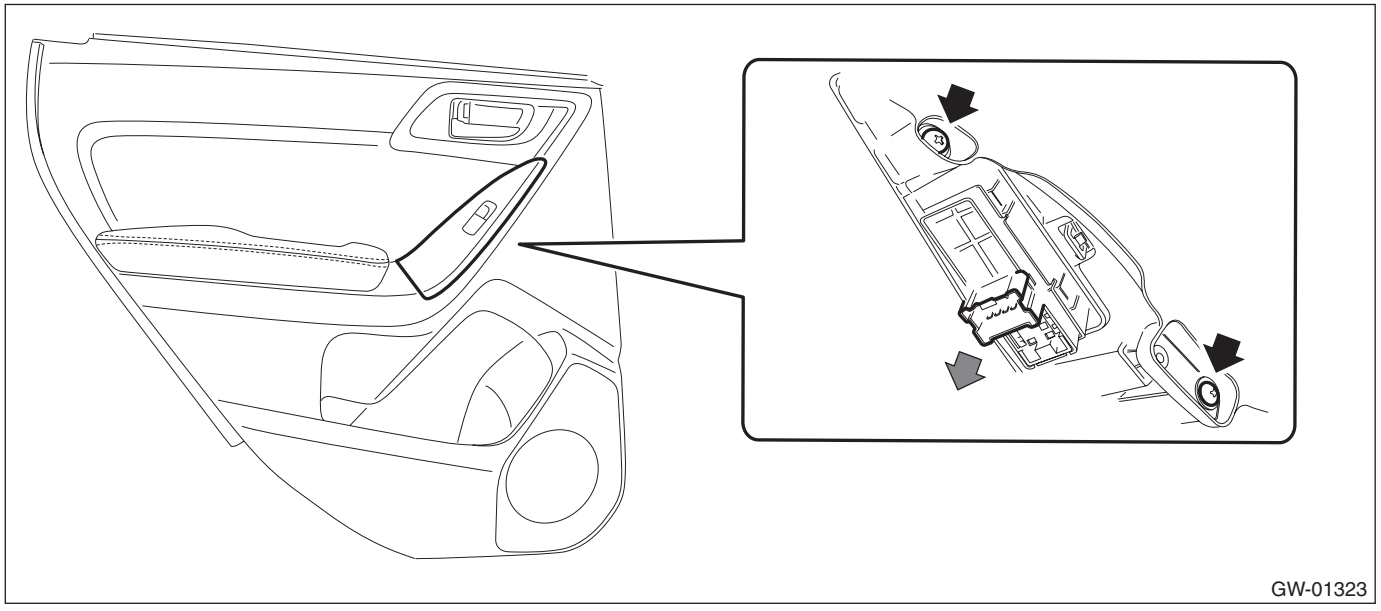
For removal of the switch - power window sub front on the passenger's seat, refer to the removal procedure of the switch - power window main. <Ref. to GW-11, MAIN SWITCH, REMOVAL, Power Window Control Switch.>

Switch - power window sub rear

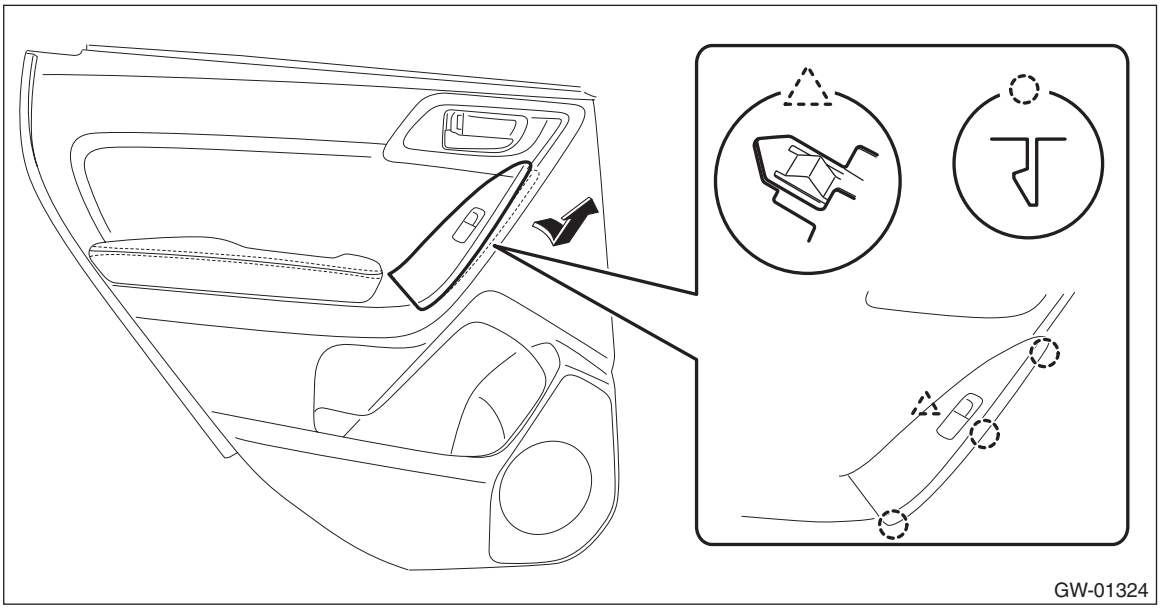
1) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
2) Remove the panel - power window sub switch rear.

CAUTION:
Be careful not to damage the trim panel - rear door with the panel - power window sub switch rear.

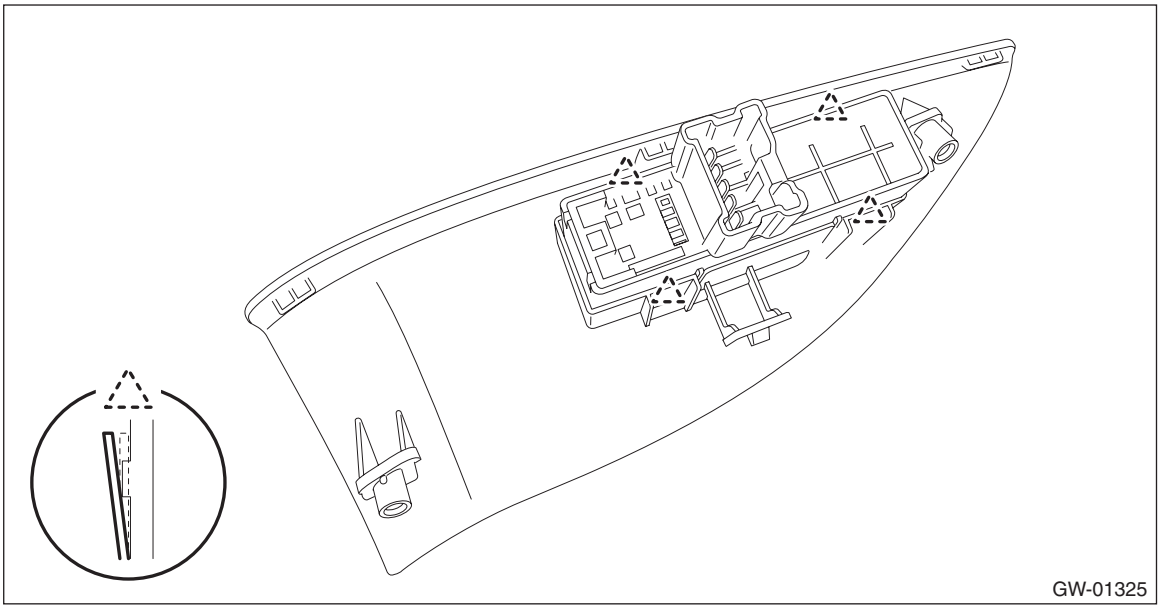
(1) Insert a sheet of protective paper (a) between panel - power window sub switch rear and trim panel - rear door.
(2) Remove the screws and disconnect the connector.



(3) Release the claws, and then remove the panel - power window sub switch rear.



3) Release the claws, and then remove the switch - power window sub rear.



B: INSTALLATION

CAUTION:

- **After installing the switch - power window main, always perform the initial setting.**

Failure to do so may cause the improper activation of auto-reverse operation for pinching hazard prevention.

- **Use protective paper to avoid damage to the trim panel.**

1) Install each part in the reverse order of removal.

2) Perform initial setting operation (reset operation A). <Ref. to GW-9, RESET OPERATION A, OPERATION, Power Window System.>

C: INSPECTION

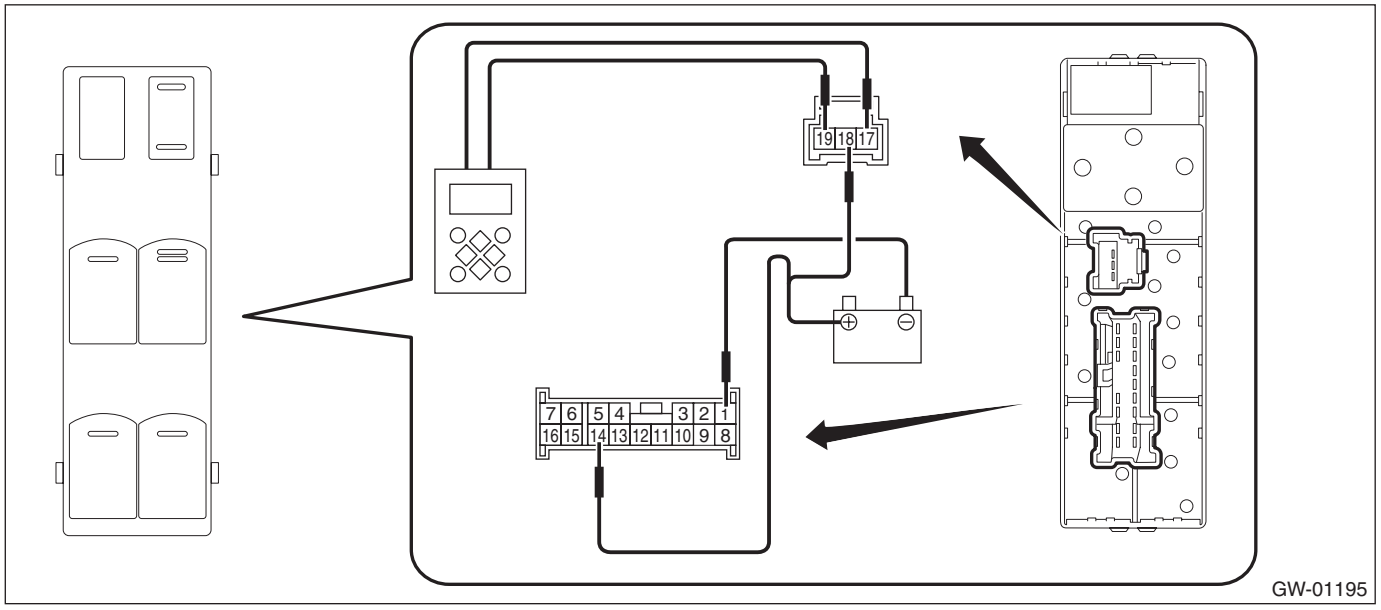
1. MAIN SWITCH

• Driver's seat

CAUTION:
Since the switch - power window main is controlled by CPU, do not check continuity for switch alone with the circuit tester. Performing continuity check with circuit tester can damage the switch - power window main circuit.
Check output from the switch - power window main to the driver's side motor using the oscilloscope function in the Subaru Select Monitor.
1) Remove the switch - power window main.
2) Connect the battery and the Subaru Select Monitor to the switch - power window main terminal.

CAUTION:
Never mix up the terminals when connecting the harness connector of the switch - power window main and the battery. If the connection is wrong, the switch - power window main may be damaged.

NOTE:
• When the battery is connected to the switch - power window main terminal, the letters "AUTO" on the driver's side knob illuminates.
• For detailed procedures, refer to "Subaru Select Monitor Operation Manual".



3) Operate the switch - power window main and check the output.

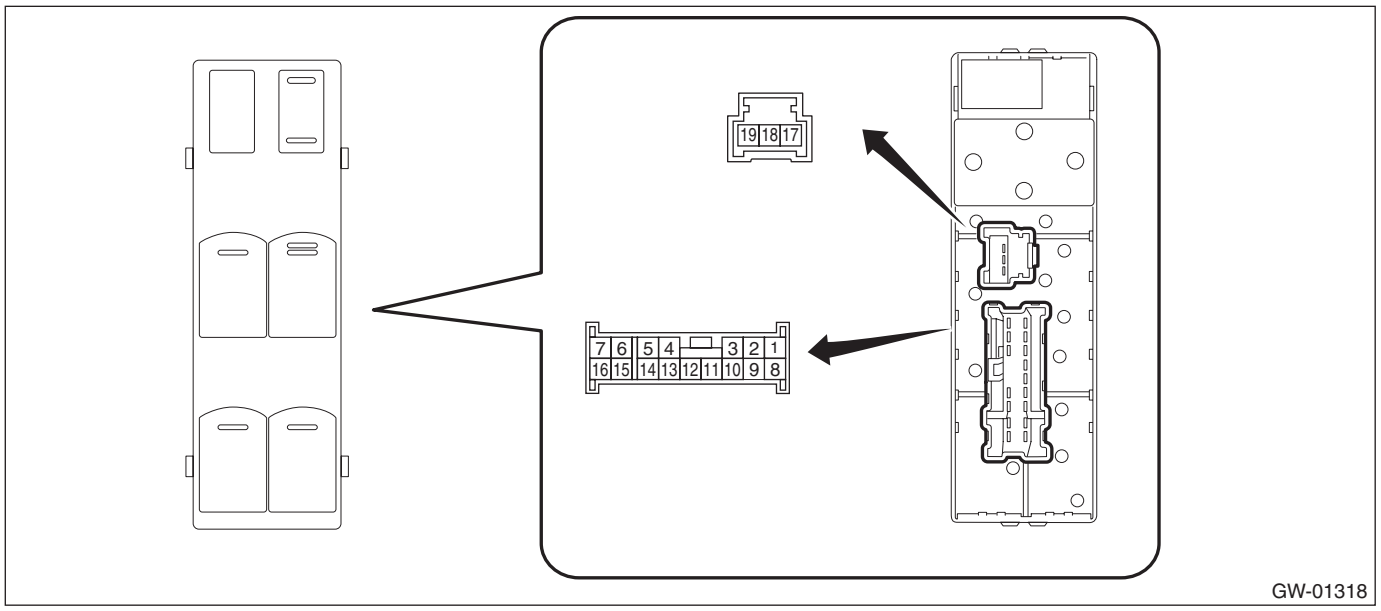
NOTE:
Since output time during window UP operation is extremely short, it cannot be checked without using a measuring instrument such as oscilloscope. Output is constantly produced while the switch is operated for window DOWN operation.

Inspection conditions	Output time	Standard
AUTO UP	Approx. 130 ms	Battery voltage
UP		
OFF	—	0 V
DOWN	During switch operation	Battery voltage
AUTO DOWN	Approx. 300 ms	

4) If the inspection result is not within the standard, replace the switch - power window main.

• **Except for driver's seat**

1) Check the resistance between terminals of the switch - power window main.

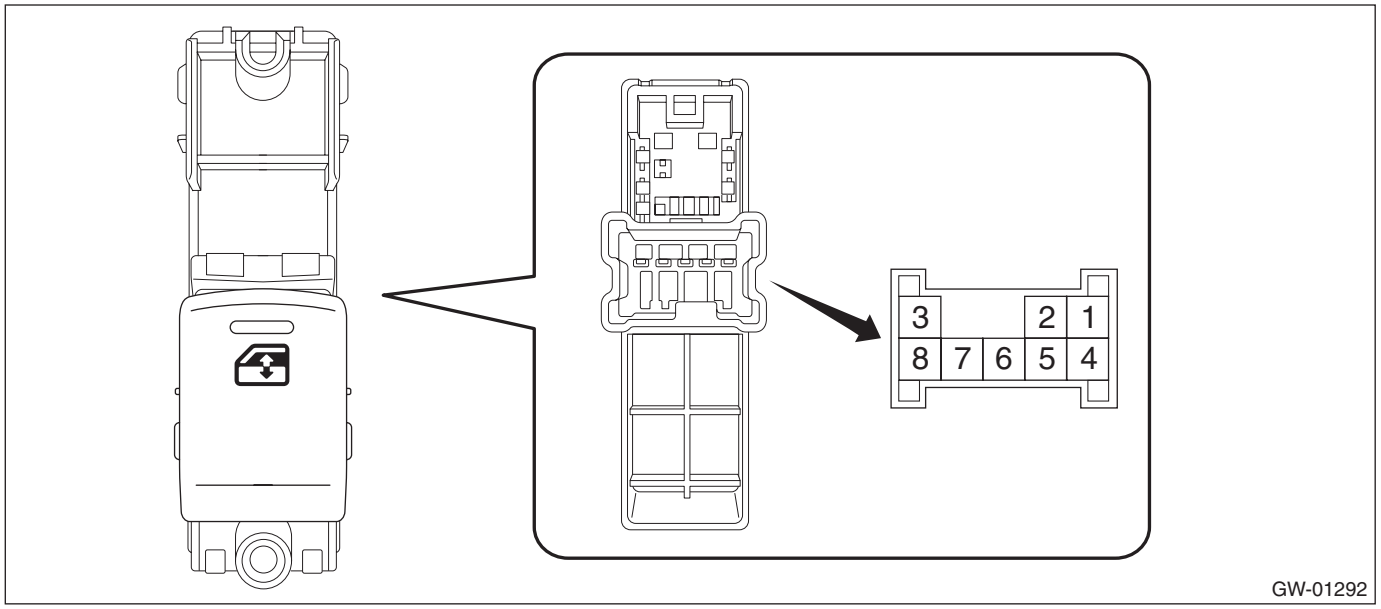


	Terminal No.	Inspection conditions	Standard
Passenger's seat	14 — 8 1 — 2	UP	Less than 1 Ω
	14 — 2 14 — 8	OFF	1 MΩ or more
	1 — 8 1 — 2 8 — 2		Less than 1 Ω
	14 — 2 1 — 8	DOWN	Less than 1 Ω
Rear LH	14 — 15 1 — 16	UP	Less than 1 Ω
	14 — 15 14 — 16	OFF	1 MΩ or more
	1 — 15 1 — 16 15 — 16		Less than 1 Ω
	14 — 16 1 — 15	DOWN	Less than 1 Ω
Rear RH	14 — 7 1 — 6	UP	Less than 1 Ω
	14 — 7 14 — 6	OFF	1 MΩ or more
	1 — 6 1 — 7 6 — 7		Less than 1 Ω
	14 — 6 1 — 7	DOWN	Less than 1 Ω

2) If the inspection result is not within the standard, replace the switch - power window main.

2. SUB-SWITCH

1) Remove the switch - power window sub.
2) Check the resistance between terminals of the switch - power window sub.



	Terminal No.	Inspection conditions	Standard
Passenger seat, rear	6 — 5 8 — 7	UP	Less than 1 Ω
	7 — 6 4 — 6	OFF	1 MΩ or more
	5 — 4 8 — 7		Less than 1 Ω
	6 — 8 5 — 4	DOWN	Less than 1 Ω

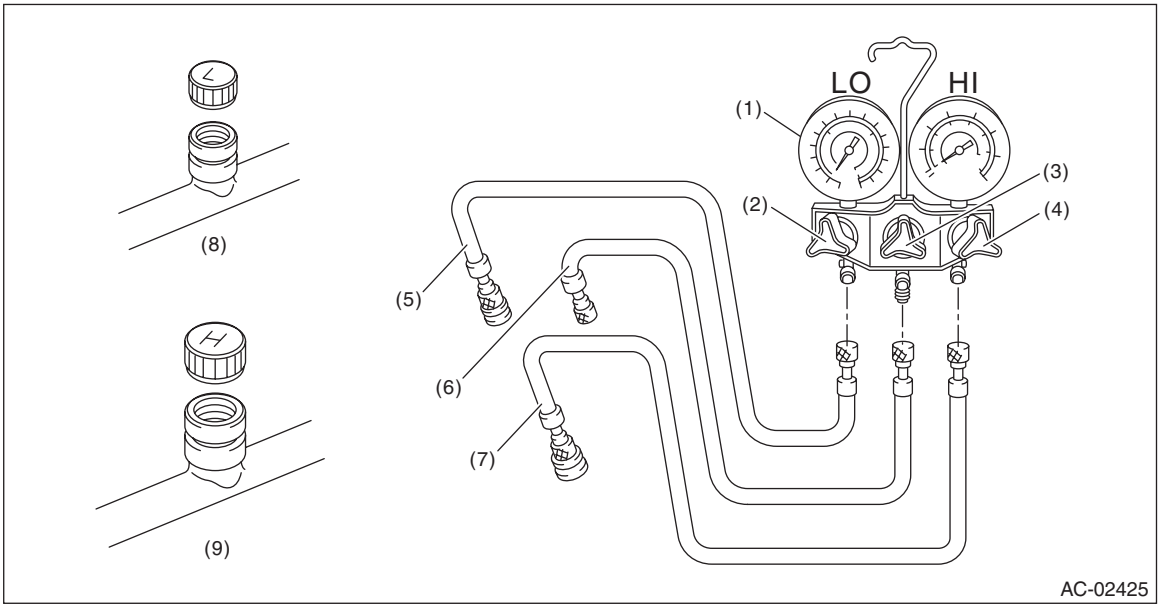
3) If the inspection result is not within the standard, replace the switch - power window sub.

4. Refrigerant Recovery Procedure

A: PROCEDURE

Preparation tool:
Manifold gauge set
Refrigerant recovery system

CAUTION:
• During operation, be sure to wear protective goggles and protective gloves.
• Connect the refrigerant recovery system with the manifold gauge set to discharge the refrigerant from the A/C system and recycle the gas.
• When recycling the discharged refrigerant, keep service cans on hand. Because the recovery rate with the recovery system is approx. 90%, service cans are necessary to charge the refrigerant.
• Follow the detailed operation procedure described in the operation manual attached to the refrigerant recovery system.



(1)	Manifold gauge	(4)	High pressure valve	(7)	High-pressure hose (high-pressure)
(2)	Low pressure valve	(5)	Low-pressure hose (low-pressure)	(8)	Low-pressure side service port
(3)	Center valve	(6)	Center manifold hose (vacuum pump and charge)	(9)	High-pressure side service port

1) Perform compressor oil return operation. <Ref. to AC-36, PROCEDURE, Compressor Oil.>
2) Stop the engine.
3) Attach the manifold gauge set.
   (1) Confirm that all valves are fully closed.
   (2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

CAUTION:
Confirm that the connections are secure.
   (3) Connect the center hose to the refrigerant recovery system.
4) Follow the operation manual attached to the refrigerant recovery system to recover the refrigerant.

4. Seat Belt Warning System

A: WIRING DIAGRAM

Refer to “Seat Belt Warning System” in the wiring diagram. <Ref. to WI-367, WIRING DIAGRAM, Seat Belt Warning System.>

B: INSPECTION

CAUTION:
• Before diagnosing the seat belt warning system and airbag system, always turn the ignition switch to OFF, disconnect the battery ground cable, and then wait for 60 seconds or more.
• When inspecting the airbag main harness, disconnect the connectors of the driver’s airbag module, passenger’s airbag module and knee airbag module for safety reasons.
• When inspecting the airbag rear harness, disconnect the side airbag module connector, curtain airbag module connector and seat belt pretensioner connector for safety reasons.

	Step	Check	Yes	No
1	**CHECK FUNCTION.** 1) Sit on the driver’s seat and passenger’s seat and disconnect the seat belts of the both. 2) Turn the ignition switch to ON (engine OFF). 3) Check if the driver’s seat belt warning light in the combination meter and the passenger’s seat belt warning light in the MFD blink, and if the buzzer sounds.	Do the driver’s and passenger’s warning lights blink? Does the buzzer sound?	Go to step **2**.	• For malfunction of the driver’s seat belt warning light, go to the next step.Go to step **4**. • For malfunction of the passenger’s seat belt warning light, go to the next step.Go to step **10**. • If no buzzer sounds, go to the next step.Go to step **7**.
2	**CHECK FUNCTION.** 1) Wait until the buzzer sound in step 1 stops. 2) Start the engine, and set the vehicle speed at 20 km/h (12 MPH) or more. 3) Check if the driver’s seat belt warning light in the combination meter and the passenger’s seat belt warning light in the MFD blink, and if the buzzer sounds.	Do the driver’s and passenger’s warning lights blink? Does the buzzer sound?	Seat belt warning system is normal.	Go to step **3**.
3	**CHECK COMBINATION METER VEHICLE SPEED INPUT.** 1) Select the current data display and display the data of “Vehicle speed data”. 2) Start the engine and set the vehicle speed at 20 km/h (12 MPH) as in driving condition referring to the speedometer display. 3) Read the reading of the recognized vehicle speed in meter.<Ref. to IDI(diag)-16, LIST, Read Current Data.>	Is the recognized vehicle speed less than 15 km/h?	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>	Perform the diagnosis for LAN system.
4	**CHECK DRIVER’S SIDE HARNESS.** 1) Disconnect the negative terminal from the battery, and wait for 60 seconds or more. 2) Disconnect the connectors of the combination meter and the seat belt buckle switch LH. 3) Check for short circuit to battery, open circuit and short circuit to ground between the combination meter and the seat belt buckle switch LH. ***Connector & terminal*** ***(i10) No. 15 — (R108) No. 1:***	Is the harness normal?	Go to step **5**.	Repair or replace the harness.

	Step	Check	Yes	No
5	**CHECK DRIVER'S SIDE HARNESS.** Measure the resistance between the seat belt buckle switch LH and chassis ground. ***Connector & terminal*** ***(R108) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the harness.
6	**CHECK SEAT BELT BUCKLE SWITCH LH.** Measure the resistance between the connector terminals of the driver's seat belt switch when the driver's seat belt is fastened and detached. ***Connector & terminal*** ***(R108) No. 1 — (R108) No. 2:***	Is the resistance when the belt is fastened 1 MΩ or more, and less than 10Ω when the belt is detached?	Go to step **7**.	Replace the seat belt inner - front LH.<Ref. to SB-16, SEAT BELT OUTER - FRONT, REMOVAL, Front Seat Belt.>
7	**CHECK POWER SUPPLY OF COMBINATION METER.** 1) Disconnect the connector of combination meter. 2) Turn the ignition switch to ON. 3) Measure the voltage between the ignition power supply and the combination meter. ***Connector & terminal*** ***(i10) No. 20 — Chassis ground:***	Is the voltage 10 V or more?	Go to step **8**.	Check the harness for open or short between the power supply and the meter.
8	**CHECK GROUND CIRCUIT OF COMBINATION METER.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the combination meter and the chassis ground. ***Connector & terminal*** ***(i10) No. 38 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **9**.	Repair or replace the harness.
9	**CHECK COMBINATION METER.** Check if the seat belt warning light illuminates and if the buzzer sounds using the system operation check mode or the self-diagnosis display mode for the combination meter. • System operation check mode<Ref. to IDI(diag)-19, System Operation Check Mode.> • Self-diagnosis Display Mode<Ref. to IDI-8, SELF-DIAGNOSIS DISPLAY MODE, OPERATION, Combination Meter System.>	Does the driver's seat belt warning light illuminate and the buzzer sound?	Function is normal. Temporary poor contact.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>
10	**CHECK CURRENT DATA.** 1) Sit in the passenger's seat. 2) Select the current data display and display the data of "Passenger seat seat-belt wearing state". 3) Fasten and detach the passenger's side seat belt buckle, and read the data of the seat belt switch.<Ref. to IDI(diag)-16, LIST, Read Current Data.>	Does the seat belt switch display turn ON ←→ OFF according to the operation of the seat belt buckle?	Go to step **11**.	Read the diagnostic trouble code (DTC) and perform the diagnosis according to DTC B1650, B1655 or B16F1.
11	**CHECK MFD POWER SUPPLY VOLTAGE.** 1) Disconnect the MFD connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the ignition power supply and the MFD. ***Connector & terminal*** ***(i122) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **12**.	Check the harness for open or short between the fuse and MFD.
12	**CHECK MFD GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between MFD and chassis ground. ***Connector & terminal*** ***(i122) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **13**.	Repair or replace the harness.

	Step	Check	Yes	No
13	**CHECK HARNESS BETWEEN MFD AND COMBINATION METER.** 1) Disconnect the harness of the MFD and the combination meter. 2) Measure the resistance between MFD and combination meter. ***Connector & terminal*** ***(i122) No. 9 — (i10) No. 28:***	Is the resistance less than 10 Ω?	Go to step **14**.	Repair or replace the harness.
14	**CHECK COMMUNICATION STATUS BETWEEN MFD AND COMBINATION METER.** 1) Remove the MFD, and install a properly operating MFD (new MFD). 2) Connect the connector and then turn the ignition switch to ON.	Is the MFD properly displayed?	Replace the MFD.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>

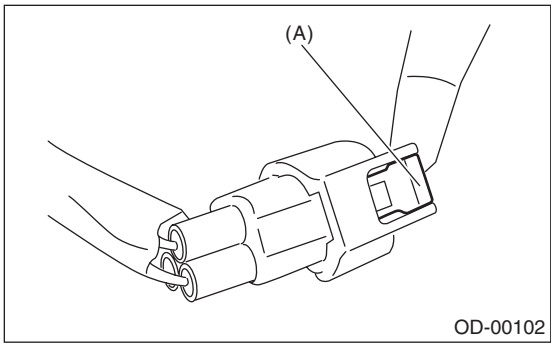
5. Airbag Connector

A: PROCEDURE

1. OCCUPANT DETECTION SYSTEM (BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS)

1) How to disconnect:
Press the lock arm (A) and disconnect the connector.

CAUTION:
When pulling the slide lock or disconnecting connector, be sure to hold the connector, not the harness.



2) How to connect:
Holding the connector, push it in securely until a clicking sound is heard.

CAUTION:
Be sure to insert the connector in until it is locked. Then pull it gently to make sure that it is locked.

2. AIRBAG CONTROL MODULE

Refer to Airbag System section. <Ref. to AB-20, AIRBAG CONTROL MODULE, PROCEDURE, Airbag Connector.>

3. BUCKLE SWITCH (PASSENGER'S SEAT)

Refer to Airbag System section. <Ref. to AB-28, BUCKLE SWITCH RH, PROCEDURE, Airbag Connector.>

5. Airbag Connector

A: PROCEDURE

For operation procedures, refer to “Airbag Connector” of Airbag System. <Ref. to AB-19, Airbag Connector.>

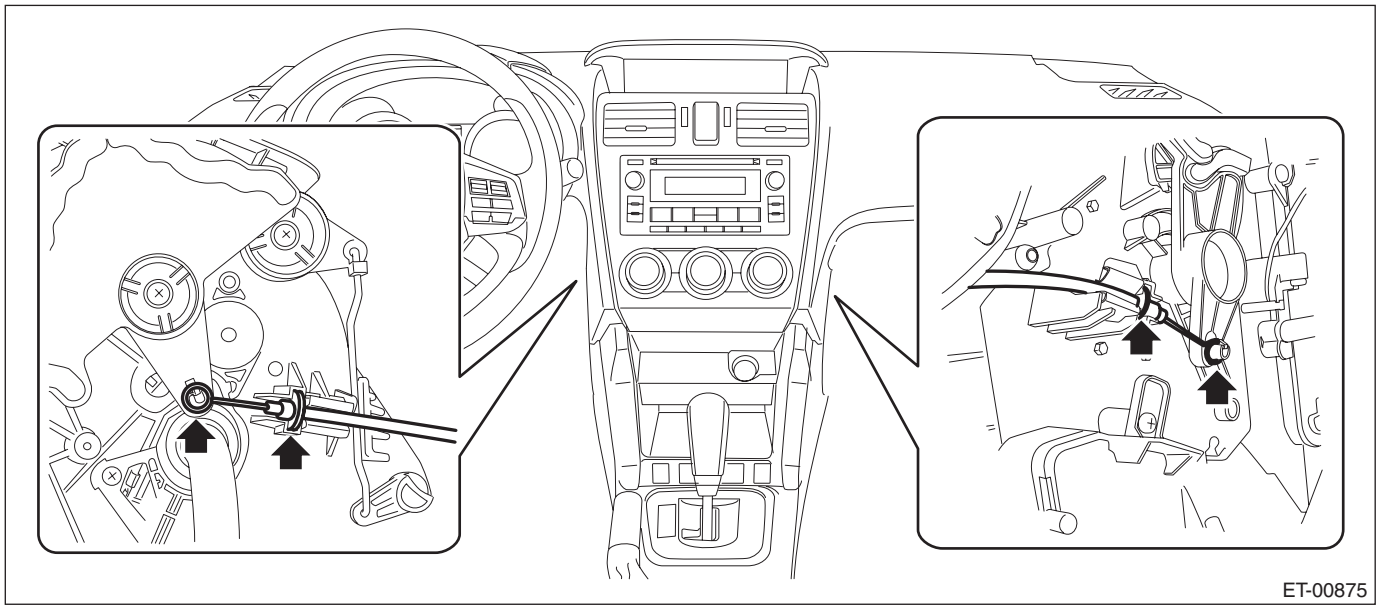
5. Audio

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the panel center assembly.

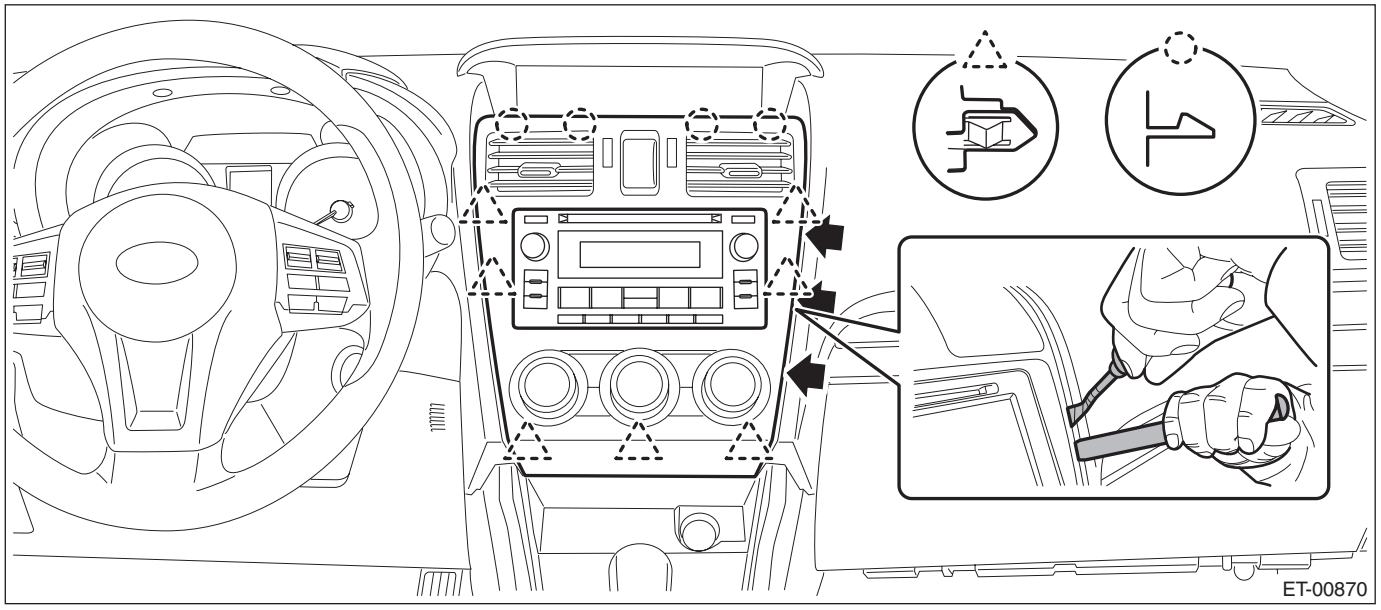
CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

(1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.

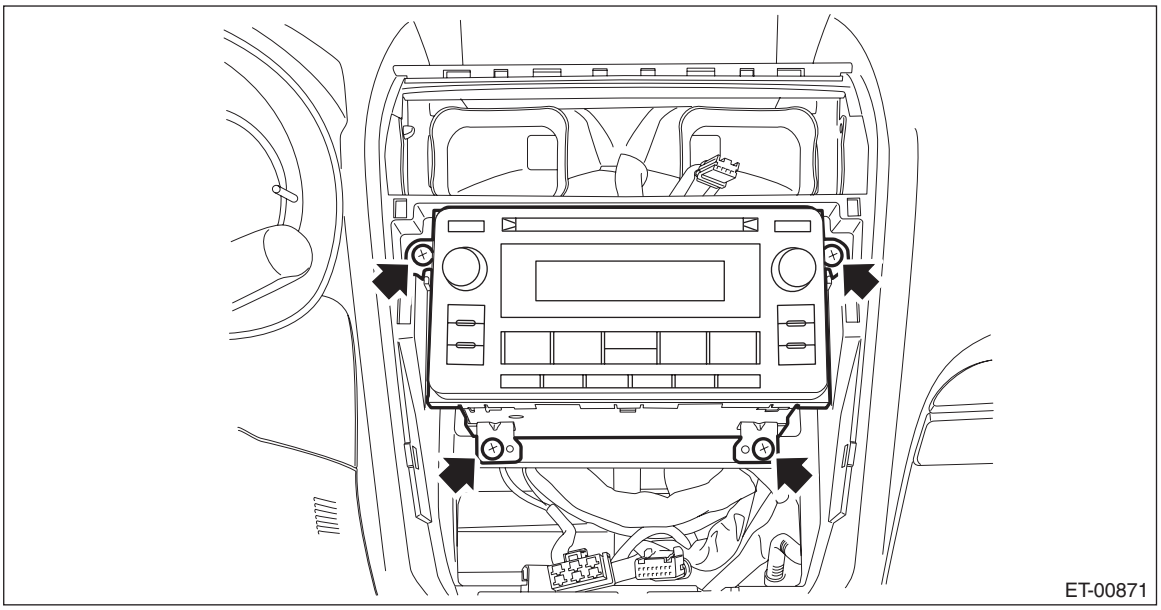


NOTE:
Remove the glove box pocket assembly on the passenger's side.

(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.
(5) Disconnect the connectors, and remove the panel center assembly.



3) Remove the audio assembly.
(1) Remove the left and right screws, and partially pull out the audio assembly.
(2) Disconnect the connectors, and remove the audio assembly.



B: INSTALLATION

CAUTION:
After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

5. Clearance Light and Illumination Light System

A: WIRING DIAGRAM

Refer to “Clearance Light and Illumination Light System” in the wiring diagram. <Ref. to WI-103, WIRING DIAGRAM, Clearance Light and Illumination Light System.>

B: INSPECTION

1. CHECK LIGHTING SWITCH

Refer to the “INSPECTION” of the “Combination Switch (Light)”. <Ref. to LI-22, INSPECTION, Combination Switch (Light).>

C: NOTE

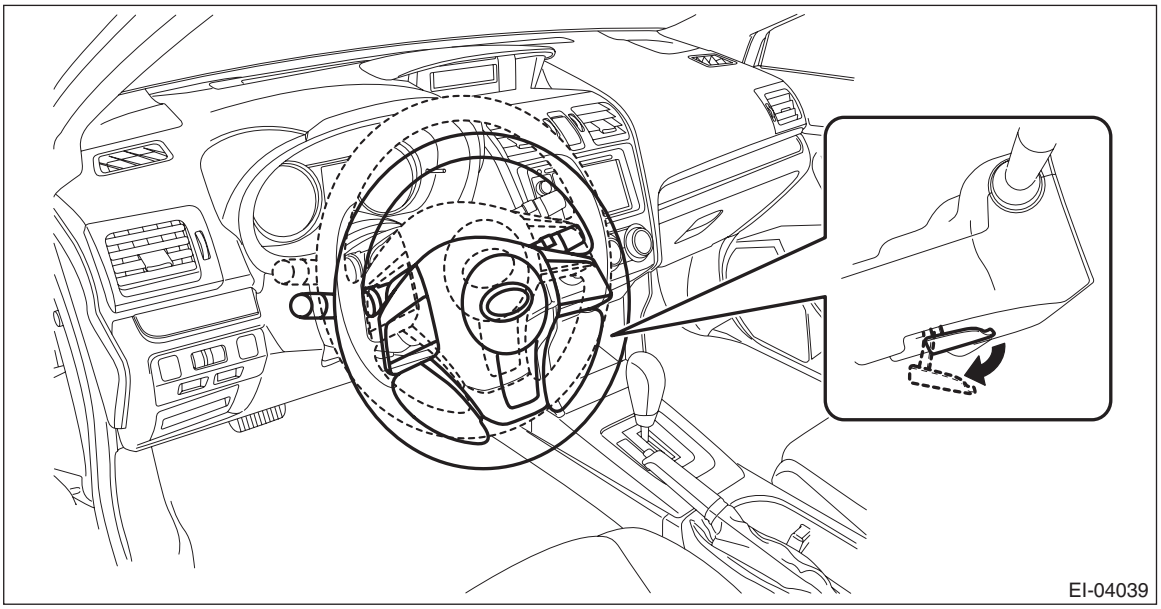
For operation procedures of each component of the clearance light & illumination light system, refer to the respective sections.

- Combination switch (light): <Ref. to LI-18, Combination Switch (Light).>
- Parking light bulb: <Ref. to LI-44, Clearance/Parking Light Bulb.>
- Front side marker light bulb: <Ref. to LI-45, Front Side Marker Light Bulb.>
- Rear combination light assembly: <Ref. to LI-51, Rear Combination Light Assembly.>
- Tail light/stop light bulb: <Ref. to LI-52, Tail/Stop Light Bulb.>
- Rear side marker light bulb: <Ref. to LI-56, Rear Side Marker Light Bulb.>
- License plate light: <Ref. to LI-59, License Plate Light.>
- Ignition switch illumination: <Ref. to LI-70, Ignition Switch Illumination.>

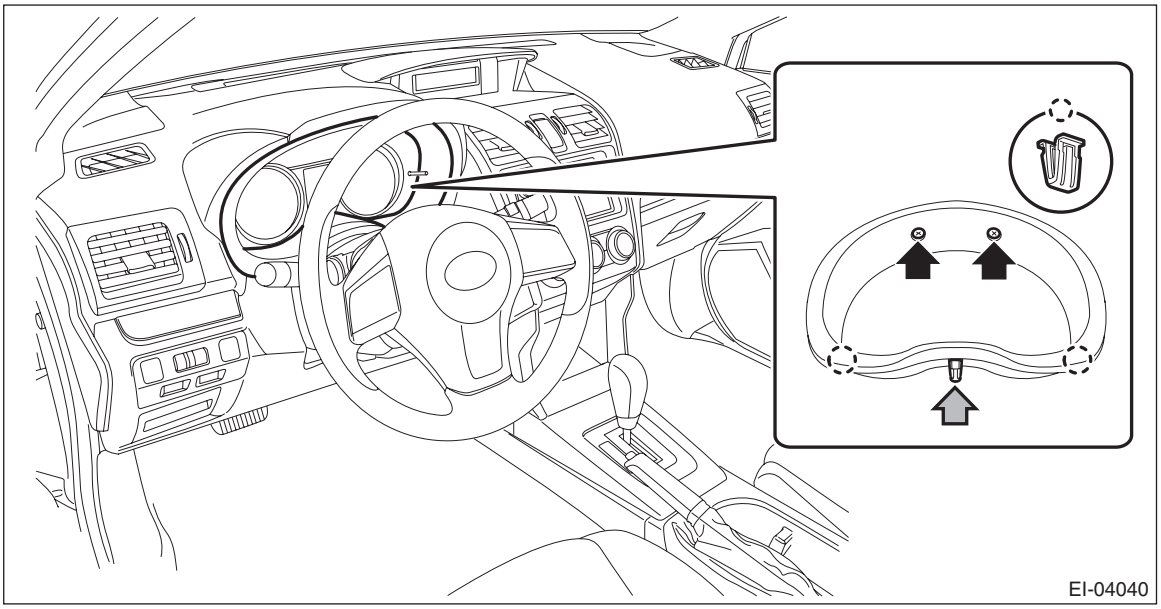
5. Combination Meter

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Release the lock, tilt the steering column to the lowest end and fully extend the column by the telescopic system.



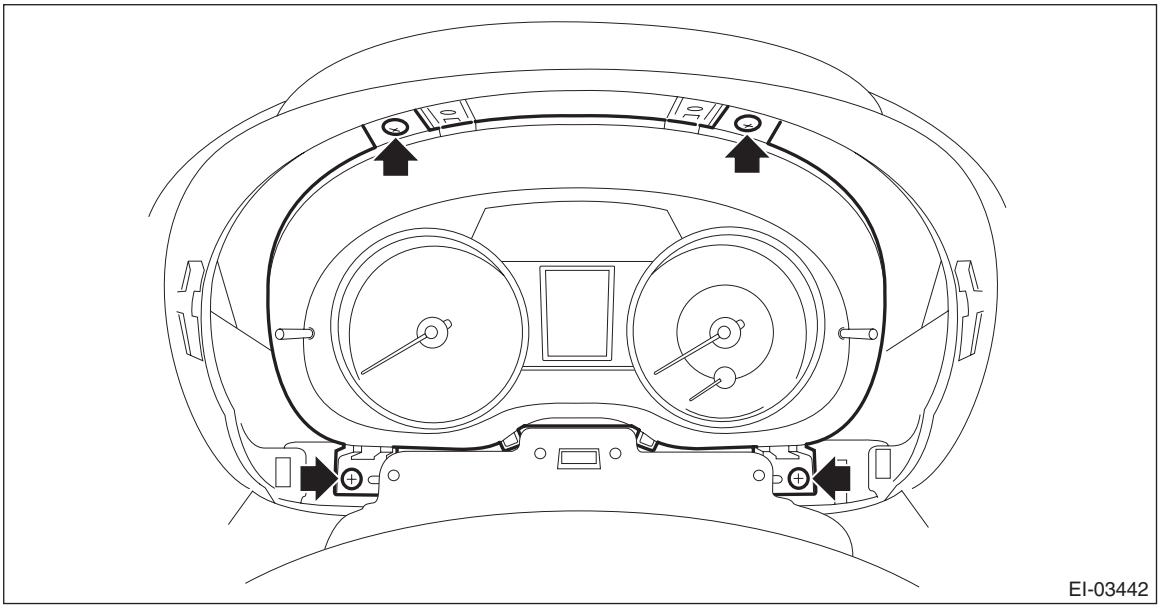
3) Release the screws, clips and claws, and remove the visor - combination meter.



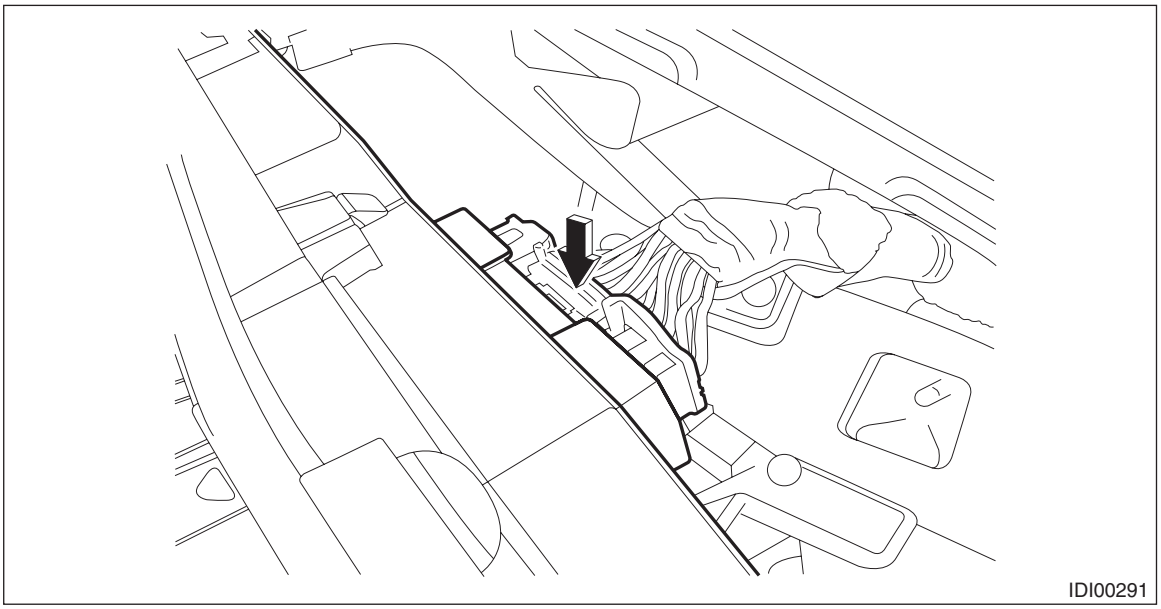
4) Remove the combination meter assembly.

CAUTION:
- **Be careful not to damage the meter or instrument panel.**
- **Pay particular attention to avoid damaging the meter glass.**

(1) Remove the screws.



(2) Pull the combination meter assembly toward you and disconnect the connector.



B: INSTALLATION

CAUTION:
- **Make sure the electrical connector is connected securely.**
- **Make sure that each meter operates normally.**
- **When the combination meter assembly has been replaced, be sure to perform the following operations.**
  - **For models without the keyless access with push button start except for C0 and C5, be sure to perform the registration of immobilizer. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".**
  - **Be sure to reset the ODO fuel economy value of the multi-function display (MFD).<Ref. to IDI-15, ODO FUEL ECONOMY VALUE RESET (HIGH GRADE TYPE ONLY), OPERATION, Multi-function Display (MFD) System.>**

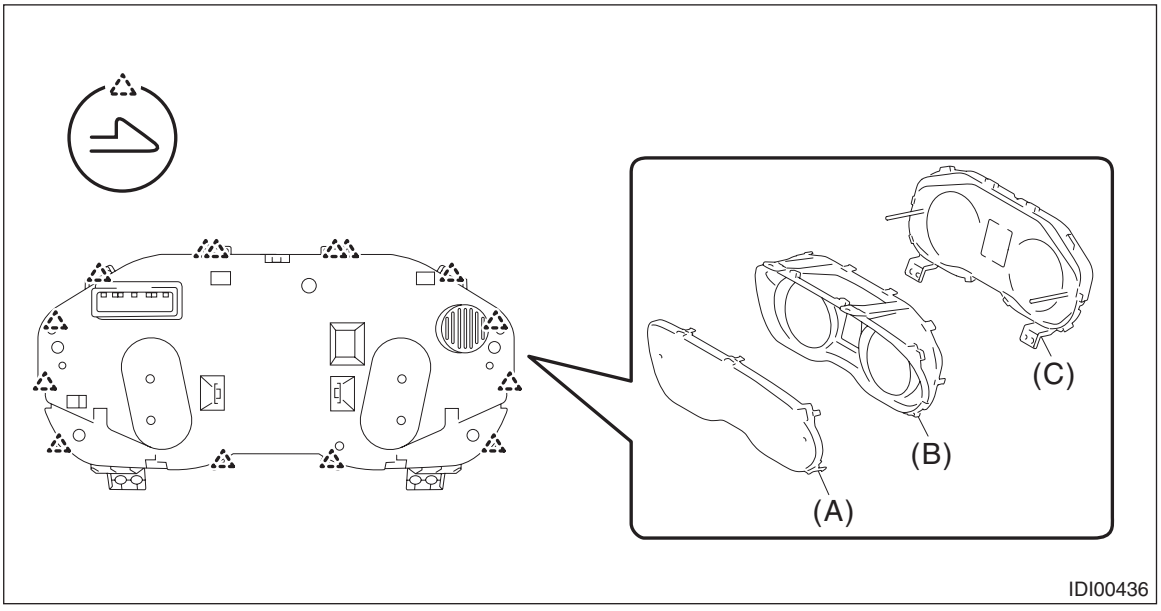
Install each part in the reverse order of removal.

C: DISASSEMBLY

1. DISASSEMBLY OF COMBINATION METER ASSEMBLY

CAUTION:
- **Use gloves to avoid damage and getting fingerprints on the glass surface and meter surfaces.**
- **Be careful not to apply excessive force to the trip knob.**
- **Be sure not to touch the meter indicator needle.**

Release the claw, and remove the glass - combination meter (A) and visor - combination meter (B) from the meter - main assembly (C).



2. BULB REPLACEMENT

Because LEDs are used for all of warning lights and indicator lights of combination meters, replace the meter - main assembly if faulty.

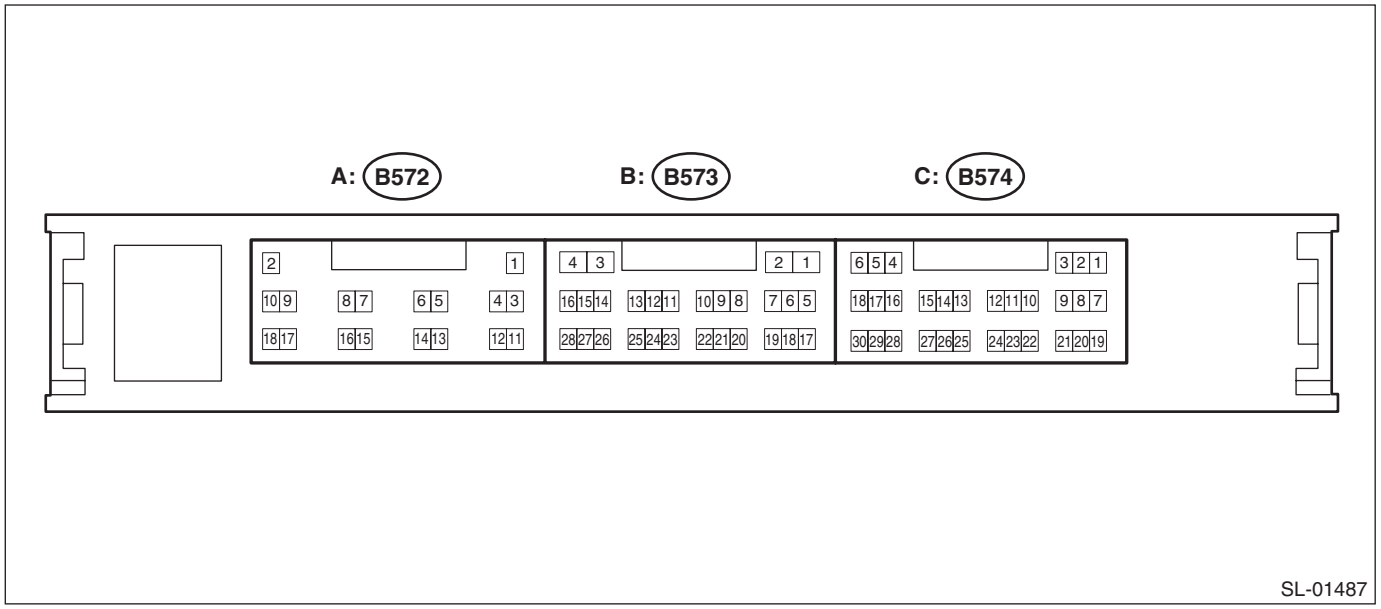
D: ASSEMBLY

Assemble each part in the reverse order of disassembly.

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION

1. KEYLESS ACCESS CM



Terminal No.	Terminal symbol	Description
(B572) No. 2	+B	+B
(B572) No. 3	INDS	Start switch indicator (green) output
(B572) No. 5	N-SW	Neutral switch input
(B572) No. 7	STSW	STSW output
(B572) No. 9	IG2D	IG2 relay drive output
(B572) No. 10	CLUT	Clutch switch input
(B572) No. 11	GND	GND
(B572) No. 13	EGIO	Immobilizer communication 1
(B572) No. 14	EGII	Immobilizer communication 2
(B572) No. 17	TACH	Engine speed input
(B572) No. 18	STP1	Stop light switch input
(B573) No. 1	CG8B	Outside rear antenna output –
(B573) No. 2	CLG8	Outside rear antenna output +
(B573) No. 5	RCO	Tuner power supply
(B573) No. 8	CG7B	Inside rear antenna output –
(B573) No. 9	CLG7	Inside rear antenna output +
(B573) No. 10	CG6B	Inside center antenna output –
(B573) No. 11	CLG6	Inside center antenna output +
(B573) No. 15	IDW	ID code box presence judgment terminal
(B573) No. 17	RDA	Tuner reception data input
(B573) No. 19	RSSI	Tuner reception start signal input
(B573) No. 27	TSW5	Rear gate lock request switch input
(B573) No. 28	ACCR	ACC cutoff input
(B574) No. 1	VC5	Immobilizer amplifier power supply (start switch)
(B574) No. 2	CG5B	Inside front antenna output –
(B574) No. 3	CLG5	Inside front antenna output +
(B574) No. 4	ACCD	ACC relay drive output
(B574) No. 5	IG	IGN power supply

Terminal No.	Terminal symbol	Description
(B574) No. 6	IG1D	IG1 relay drive output
(B574) No. 7	CODE	Immobilizer signal reception (start switch)
(B574) No. 8	TSW2	Passenger's lock sensor signal input
(B574) No. 9	TXCT	Immobilizer signal transmission (start switch)
(B574) No. 10	CG2B	Passenger's antenna output –
(B574) No. 11	CLG2	Passenger's antenna output +
(B574) No. 12	CLG1	Driver's antenna output +
(B574) No. 13	CG1B	Driver's antenna output –
(B574) No. 14	CANH	HS-CAN H
(B574) No. 15	CANL	HS-CAN L
(B574) No. 16	SWIL	Start switch character illumination output
(B574) No. 17	LIN	LIN communication
(B574) No. 18	INDW	Start switch indicator (orange) output
(B574) No. 19	POS1	Driver's sensor drive power supply
(B574) No. 20	TSW1	Driver's lock sensor signal input
(B574) No. 21	POS2	Passenger's sensor drive power supply
(B574) No. 22	SEN1	Driver's unlock sensor signal input
(B574) No. 23	SEN2	Passenger's unlock sensor signal input
(B574) No. 24	AGND	Immobilizer amplifier GND (start switch)
(B574) No. 25	P	Parking position switch input
(B574) No. 26	SLP	Steering lock position input
(B574) No. 27	SPD	Vehicle speed signal input
(B574) No. 28	SSW1	Start switch input 1
(B574) No. 29	SLR+	Steering motor power supply signal output
(B574) No. 30	SSW2	Start switch input 2

Disconnect the control module connector (B572) before checking the following items.

NOTE:
If the measured value is out of standard, it is possible that the vehicle has a fault.

Terminal No.	Item	Measuring condition	Standard
(B572) No. 2 (+B) ←→ (B572) No. 11 (GND)	Voltage	Always	9.5 — 16 V
(B572) No. 11 (GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω

Disconnect the control module connector (B573) before checking the following items.

NOTE:
If the measured value is out of standard, it is possible that the vehicle has a fault.

Terminal No.	Item	Measuring condition	Standard
(B573) No. 15 (IDW) ←→ Chassis ground (For C0 and C5 model only)	Continuity	Always	Continuity exists

Disconnect the control module connectors (B574) and (B572) before checking the following items.

NOTE:
If the measured value is out of standard, it is possible that the vehicle has a fault.

Terminal No.	Item	Measuring condition	Standard
(B574) No. 4 (ACCD) ←→ Chassis ground	Resistance	Always (20°C)	152.61 — 216.5 Ω
(B572) No. 9 (IG2D) ←→ Chassis ground	Resistance	Always (20°C)	74.15 — 460.88 Ω
(B574) No. 6 (IG1D) ←→ Chassis ground	Resistance	Always (20°C)	50.87 — 72.17 Ω
(B572) No. 18 (STP1) ←→ Chassis ground (AT model only)	Voltage	Brake pedal depressed → released	11 — 14 V → 1 V or less
(B574) No. 25 (P) ←→ Chassis ground (AT model only)	Resistance	Except for shift positions P → Shift position P	40 kΩ or more → 200 Ω or less
(B574) No. 27 (SPD) ←→ Chassis ground	Resistance	Always	30 kΩ or more
(B574) No. 28 (SSW1) ←→ Chassis ground	Resistance	Push button ignition switch pressed → released	Less than 1 Ω → 10 kΩ or more
(B574) No. 29 (SLR+) ←→ Chassis ground	Resistance	Always	10 kΩ or more
(B574) No. 30 (SSW2) ←→ Chassis ground	Resistance	Push button ignition switch pressed → released	Less than 1 Ω → 10 kΩ or more
(B574) No. 17 (LIN) ←→ Chassis ground	Continuity	Always	Continuity does not exist
(B574) No. 14 (CANH) ←→ Chassis ground	Pulse	Power OFF, and open/close the door	Pulse generation
(B574) No. 15 (CANL) ←→ Chassis ground	Pulse	Power OFF, and open/close the door	Pulse generation

Connect the control module connector before checking the following items.

NOTE:
If the measured value is out of standard, it is possible that the keyless access CM has a fault.

Terminal No.	Item	Measuring condition	Standard
(B574) No. 1 (VC5) ←→ (B574) No. 24 (AGND)	Voltage	30 seconds or more have passed after the door was opened or closed with IG OFF and the brake pedal (AT model) or clutch pedal (MT model) released.	1 V or less
	Waveform	Within 30 seconds after the push button ignition switch is pressed with IG OFF and access key not in the passenger room	Waveform 1
(B574) No. 2 (CG5B) ←→ (B572) No. 11 (GND)	Pulse	All doors closed, ACC and IG OFF, access key not in passenger room, touch sensor (lock) OFF → ON	No pulse output → Pulse output detected
(B574) No. 3 (CLG5) ←→ (B572) No. 11 (GND)	Pulse	All doors closed, ACC and IG OFF, access key not in passenger room, touch sensor (lock) OFF → ON	No pulse output → Pulse output detected
(B574) No. 4 (ACCD) ←→ (B572) No. 11 (GND)	Voltage	IG OFF → ACC ON	1 V or less → 9 — 14 V
(B574) No. 6 (IG1D) ←→ (B572) No. 11 (GND)	Voltage	ACC ON → IG ON	1 V or less → 9 — 14 V
(B574) No. 7 (CODE) ←→ (B574) No. 24 (AGND)	Voltage	30 seconds or more have passed after the door was opened or closed with IG OFF and the brake pedal (AT model) or clutch pedal (MT model) released.	1 V or less
	Waveform	Turn the ignition switch to OFF and with the access key near the push button ignition switch, press the push button ignition switch*1	Waveform 2

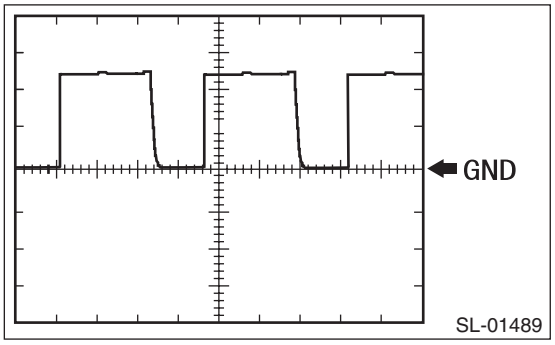
Terminal No.	Item	Measuring condition	Standard
(B574) No. 9 (TXCT) ←→ (B574) No. 24 (AGND)	Voltage	30 seconds or more have passed after the door was opened or closed with IG OFF and the brake pedal (AT model) or clutch pedal (MT model) released.	1 V or less
	Waveform	Turn the ignition switch to OFF and with the access key near the push button ignition switch, press the push button ignition switch*1	Waveform 3
(B574) No. 10 (CG2B) ←→ (B572) No. 11 (GND)	Pulse	ACC and IG OFF, all doors closed, all doors locked by lock operation with wireless remote control, access key not in passenger room	No pulse output → Pulse output detected
(B574) No. 11 (CLG2) ←→ (B572) No. 11 (GND)	Pulse	ACC and IG OFF, all doors closed, all doors locked by lock operation with wireless remote control, access key not in passenger room	No pulse output → Pulse output detected
(B574) No. 12 (CLG1) ←→ (B572) No. 11 (GND)	Pulse	ACC and IG OFF, all doors closed, all doors locked by lock operation with wireless remote control, access key not in passenger room	No pulse output → Pulse output detected
(B574) No. 13 (CG1B) ←→ (B572) No. 11 (GND)	Pulse	ACC and IG OFF, all doors closed, all doors locked by lock operation with wireless remote control, access key not in passenger room	No pulse output → Pulse output detected
(B574) No. 19 (POS1) ←→ (B572) No. 11 (GND)	Voltage	ACC and IG OFF → ACC or IG ON	9 — 14 V → less than 2 V
(B574) No. 21 (POS2) ←→ (B572) No. 11 (GND)	Voltage	ACC and IG OFF → ACC or IG ON	9 — 14 V → less than 2 V
(B574) No. 24 (AGND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
(B574) No. 25 (P) ←→ (B572) No. 11 (GND) (AT model only)	Voltage	Except for shift positions P → Shift position P	9 — 14 V or more → 1.5 V or less
(B574) No. 26 (SLP) ←→ (B572) No. 11 (GND)	Voltage	With ignition switch OFF and shift position P, Steering lock → Steering unlock	11 — 14 V → 1.2 V or less
(B574) No. 27 (SPD) ←→ Chassis ground	Pulse	Driving at approx. 5 km/h	Pulse generation according to vehicle speed (approx. 5 km/h: 3.54 Hz)
(B574) No. 28 (SSW1) ←→ (B572) No. 11 (GND)	Voltage	Push button ignition switch released → pressed	11 — 14 V → 1 V or less
(B574) No. 29 (SLR+) ←→ (B572) No. 11 (GND)	Voltage	When the following conditions are met, the doors are closed → opened, and steering lock motor is driven • Steering lock is unlocked • IG OFF • Shift position P	11 — 14 V (Steering lock motor is stopped) → 1 V or less (Steering lock motor is driven)
(B574) No. 30 (SSW2) ←→ (B572) No. 11 (GND)	Voltage	Push button ignition switch released → pressed	11 — 14 V → 1 V or less
(B573) No. 1 (CG8B) ←→ (B572) No. 11 (GND)	Pulse	ACC and IG OFF, all doors closed, all doors locked, trunk or rear gate opener button OFF → ON	No pulse output → Pulse output detected
(B573) No. 2 (CLG8) ←→ (B572) No. 11 (GND)	Pulse	ACC and IG OFF, all doors closed, all doors locked, trunk or rear gate opener button OFF → ON	No pulse output → Pulse output detected
(B573) No. 5 (RCO) ←→ (B572) No. 11 (GND)	Voltage	ACC and IG OFF, access key is locked or unlock switch OFF → ON	1 V or less → 4.5 — 5.5 V
(B573) No. 8 (CG7B) ←→ (B572) No. 11 (GND)	Pulse	All doors closed, ACC and IG OFF, access key not in passenger room, touch sensor (lock) OFF → ON	No pulse output → Pulse output detected
(B573) No. 9 (CLG7) ←→ (B572) No. 11 (GND)	Pulse	All doors closed, ACC and IG OFF, access key not in passenger room, touch sensor (lock) OFF → ON	No pulse output → Pulse output detected

Terminal No.	Item	Measuring condition	Standard
(B573) No. 19 (RSSI) ←→ (B572) No. 11 (GND)	Voltage	All doors closed, all doors locked, access key is locked or unlock switch OFF → ON	11 — 14 V → 2 V or less
(B573) No. 27 (TSW5) ←→ (B572) No. 11 (GND)	Pulse/voltage	ACC and IG OFF, all doors locked, trunk or rear gate lock button OFF → ON	9 V or more → less than 2 V
(B572) No. 9 (IG2D) ←→ (B572) No. 11 (GND)	Voltage	ACC ON → IG ON	1 V or less → 9 — 14 V
(B572) No. 13 (EGIO) ←→ (B572) No. 11 (GND)	Voltage/pulse	IG ON	11 — 14 V → pulse generates temporarily (waveform 4)
(B574) No. 8 (TSW2) ←→ (B572) No. 11 (GND)	Voltage	ACC and IG OFF, all doors closed, all doors locked, access key carried, passenger's seat touch sensor (lock) OFF → ON	9 V or more → less than 2 V (→ 9 V or more)
(B574) No. 18 (TSW1) ←→ (B572) No. 11 (GND)	Voltage	ACC and IG OFF, all doors closed, all doors locked, access key carried, driver's seat touch sensor (lock) OFF → ON	9 V or more → less than 2 V (→ 9 V or more)
(B574) No. 23 (SEN2) ←→ (B572) No. 11 (GND)	Voltage	ACC and IG OFF, all doors closed, all doors locked, access key carried, passenger's seat touch sensor (unlock) OFF → ON	9 V or more → less than 2 V (→ 9 V or more)
(B574) No. 22 (SEN1) ←→ (B572) No. 11 (GND)	Voltage	ACC and IG OFF, all doors closed, all doors locked, access key carried, driver's seat touch sensor (unlock) OFF → ON	9 V or more → less than 2 V (→ 9 V or more)
(B574) No. 16 (SWIL) ←→ (B572) No. 11 (GND)	Voltage	When illumination of start switch goes off, the headlight is OFF → ON, after setting the illumination control to MAX	Less than 2 V → 9 V or more
(B574) No. 17 (TACH) ←→ Chassis ground	Waveform	While engine idling	Pulse generation (waveform 5)
(B573) No. 28 (ACCR) ←→ (B572) No. 11 (GND)	Voltage	When brake pedal (AT model) or clutch pedal (MT model) depressed, push button ignition switch pressed (while cranking) → Except when cranking	Less than 2 V → 9 V or more
(B572) No. 5 (N-SW) ←→ (B572) No. 11 (GND) (AT model only)	Voltage	Shift position N → other than P or N	Less than 2 V → 9 V or more
(B573) No. 10 (CG6B) ←→ (B572) No. 11 (GND)	Pulse	All doors closed, ACC and IG OFF, access key not in passenger room, touch sensor (lock) OFF → ON	No pulse output → Pulse output detected
(B573) No. 11 (CLG6) ←→ (B572) No. 11 (GND)	Pulse	All doors closed, ACC and IG OFF, access key not in passenger room, touch sensor (lock) OFF → ON	No pulse output → Pulse output detected
(B572) No. 17 (RDA) ←→ (B572) No. 11 (GND)	Pulse	All doors closed, all doors locked, access key is locked or unlock switch OFF → ON	2 V or less → 11 — 14 V → 2 V or less
(B572) No. 7 (STSW) ←→ (B572) No. 11 (GND)	Voltage	Shift lever is in position P or position N and access key is in passenger room. While depressing the brake pedal (AT model) or clutch pedal (MT model), press the push button ignition switch. (Engine start)	Less than 2 V → 9 V or more
(B572) No. 3 (INDS) ←→ (B572) No. 11 (GND)	Voltage	Depress the brake pedal (AT model) or clutch pedal (MT model).	9 V or more
(B574) No. 18 (INDW) ←→ (B572) No. 11 (GND)	Voltage	With ACC ON or IG ON, brake pedal (AT model) or clutch pedal (MT model) not depressed	9 V or more

NOTE:

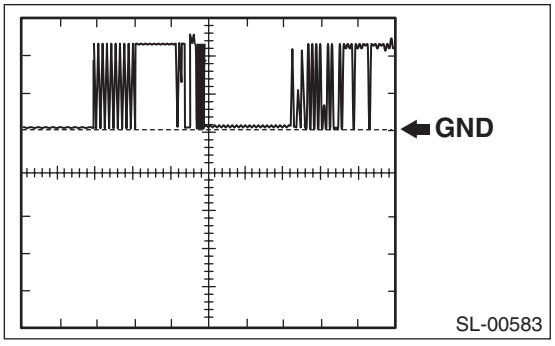
*1: Remove the access key battery before checking.

1. Waveform 1



Item	Content
Measured terminal	(B574) No. 1 (VC5) ←→ (B574) No. 24 (AGND)
Equipment setting	2 V/DIV, 200 ms/DIV
Measuring condition	Within 30 seconds after the push button ignition switch is pressed with IG OFF and access key not in the passenger room

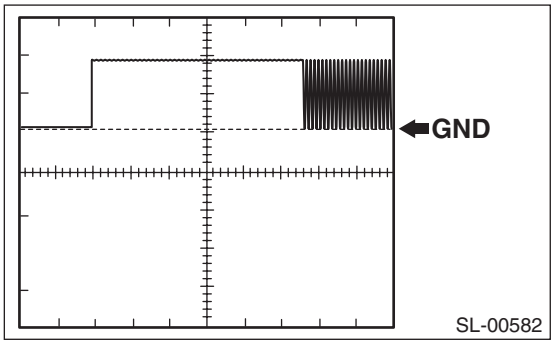
2. Waveform 2



Item	Content
Measured terminal	(B574) No. 7 (CODE) ←→ (B574) No. 24 (AGND)
Equipment setting	2 V/DIV, 20 ms/DIV
Measuring condition	Turn the ignition switch to OFF and with the access key near the push button ignition switch, press the push button ignition switch. *1

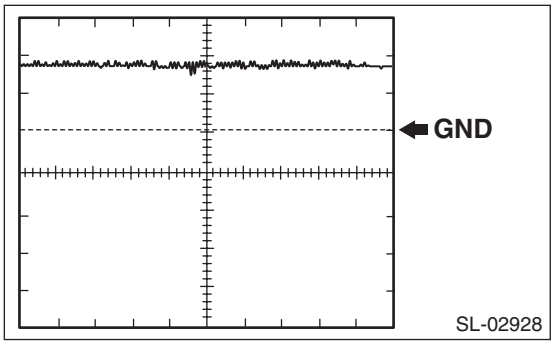
NOTE:
*1: Remove the access key battery before checking.

3. Waveform 3



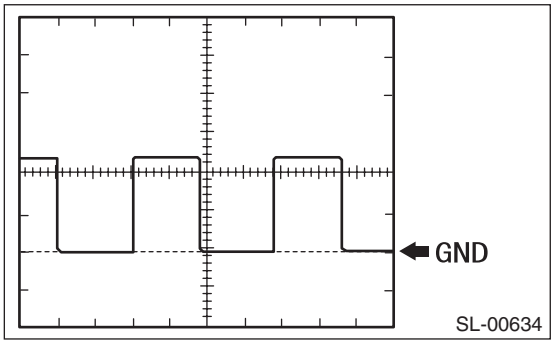
Item	Content
Measured terminal	(B574) No. 9 (TXCT) ←→ (B574) No. 24 (AGND)
Equipment setting	2 V/DIV, 20 ms/DIV
Measuring condition	Within 30 seconds after the push button ignition switch is pressed with IG OFF and access key not in the passenger room

4. Waveform 4



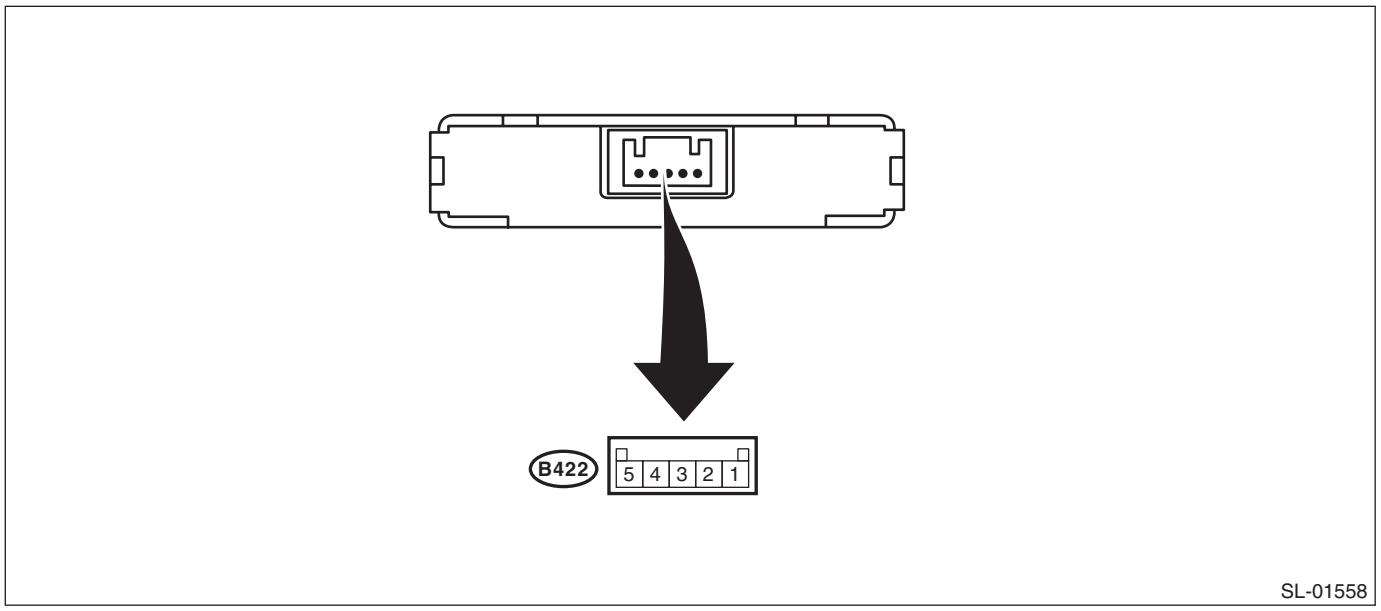
Item	Content
Measured terminal	(B572) No. 13 (EGIO) ⟷ (B572) No. 11 (GND)
Equipment setting	5 V/DIV, 100 ms/DIV
Measuring condition	IG ON

5. Waveform 5



Item	Content
Equipment setting	5 V/DIV, 100 ms/DIV

2. ID CODE BOX



Terminal No.	Terminal symbol	Description
(B422) No. 1	+B	+B
(B422) No. 2	LIN	LIN communication
(B422) No. 3	IMO2	Immobilizer communication 2
(B422) No. 4	IMO1	Immobilizer communication 1
(B422) No. 5	GND	GND

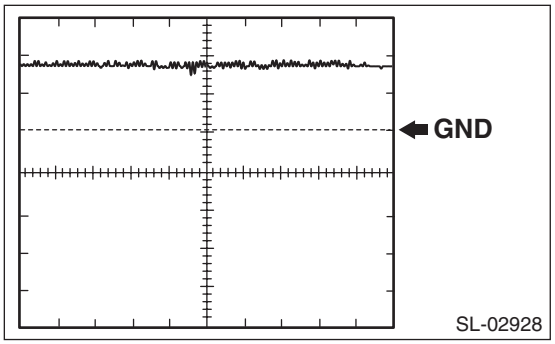
NOTE:
Disconnect the control module connector before checking the following items.

Terminal No.	Standard	Measuring condition	Item
1 (+B) ←→ 5 (GND)	10 — 14 V	Always	Voltage
4 (IMO1) ←→ 5 (GND)	0 V	Ignition OFF	Voltage
5 (GND) ←→ Chassis ground	Continuity exists	Always	Continuity

NOTE:
Connect the control module connector before checking the following items.

Terminal No.	Standard	Measuring condition	Item
4 (IMO1) ←→ 5 (GND)	0 V	Ignition OFF	Voltage
4 (IMO1) ←→ 5 (GND)	Waveform 1	Ignition ON	Voltage

Waveform 1

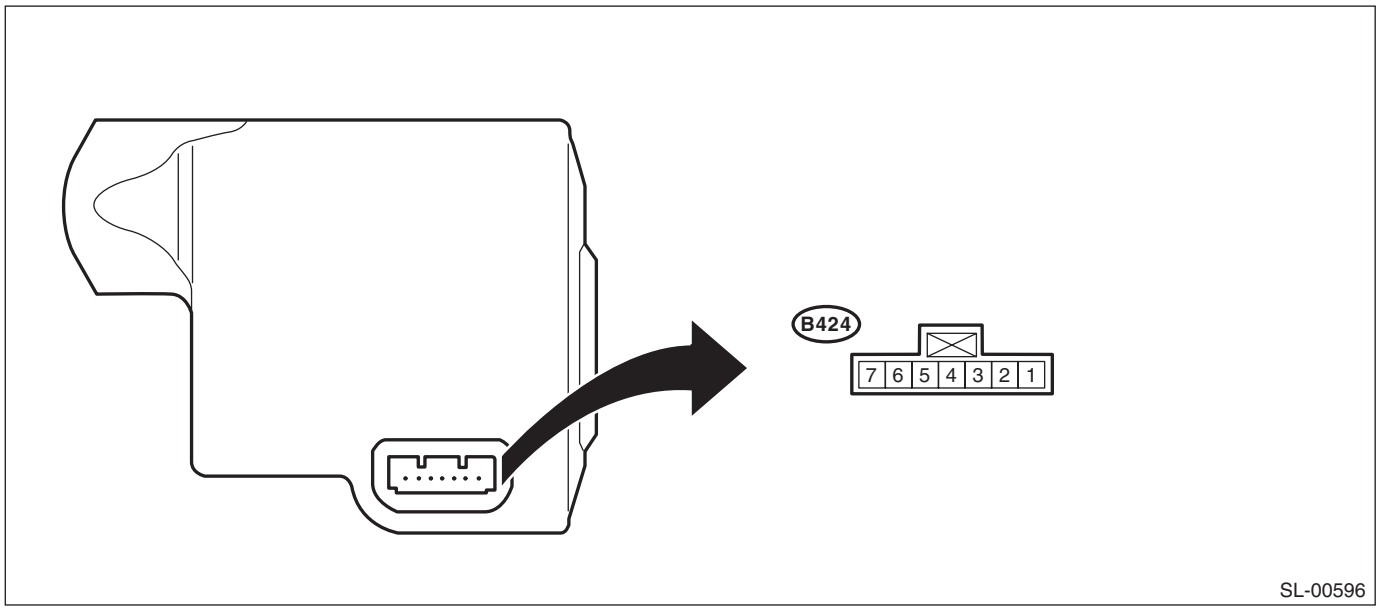


Item	Content
Measured terminal	4 (IMO1) ⟷ 5 (GND)
Equipment setting	5 V/DIV, 100 ms/DIV
Measuring condition	Ignition ON

3. BODY INTEGRATED UNIT

Refer to the BODY CONTROL SYSTEM (DIAGNOSTICS) for the I/O Signal of the body integrated unit. <Ref. to BC(diag)-6, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

4. STEERING LOCK CM



Terminal No.	Terminal symbol	Description
(B424) No. 1	GND	GND
(B424) No. 3	SLR+	Steering lock motor drive power supply
(B424) No. 4	SLP	Unlock position output
(B424) No. 5	LIN	LIN communication
(B424) No. 6	IG2	IGN power supply
(B424) No. 7	B	+B

NOTE:
Perform the following check from the back side of the connector, with the connector of the control module connected.

If the measured value is out of standard, it is possible that the vehicle has a fault.

Terminal No.	Standard	Measuring condition	Item
1 (GND) ←→ Chassis ground	Continuity exists	Always	Continuity
—	—	—	—
3 (SLR+) ←→ Chassis ground	10 — 14 V → 1 V or less	Motor not operating → Motor operating	Voltage
4 (SLP) ←→ Chassis ground	10 — 14 V → 1 V or less	Lock → Unlock	Voltage
5 (LIN)	Input/output signal	—	—
6 (IG2) ←→ Chassis ground	10 — 14 V	Ignition ON	Voltage
7 (B) ←→ Chassis ground	10 — 14 V	Always	Voltage

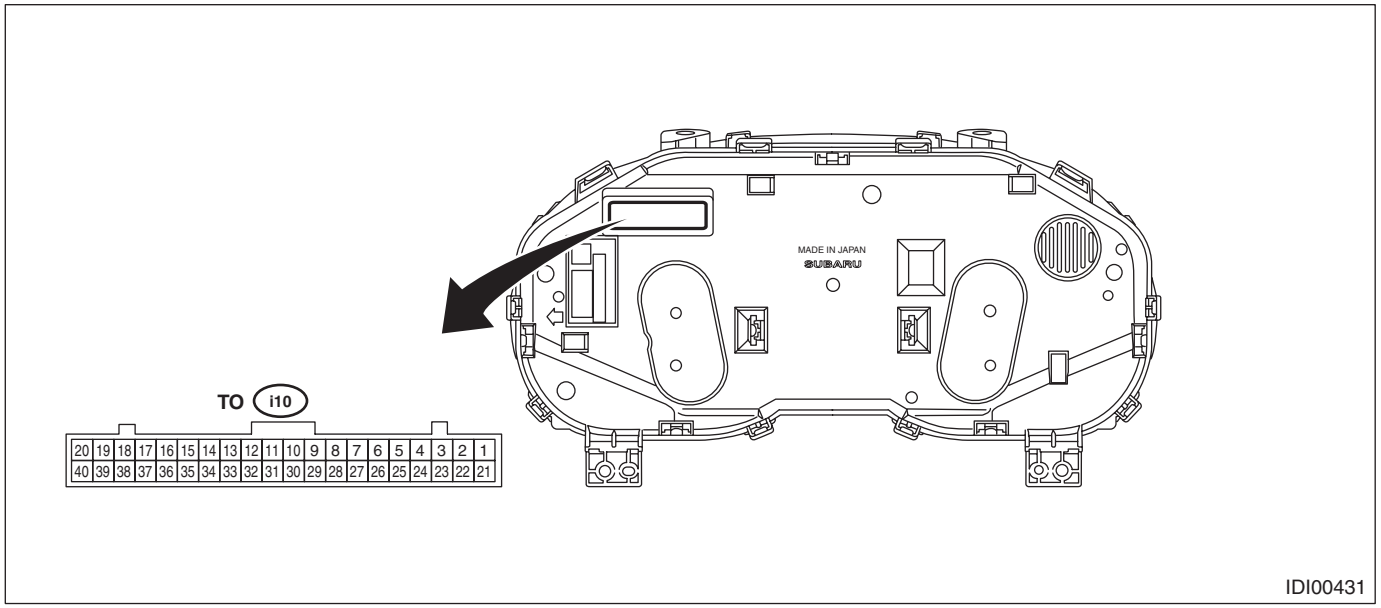
B: WIRING DIAGRAM

Refer to “Keyless Access System” in the wiring diagram.<Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION

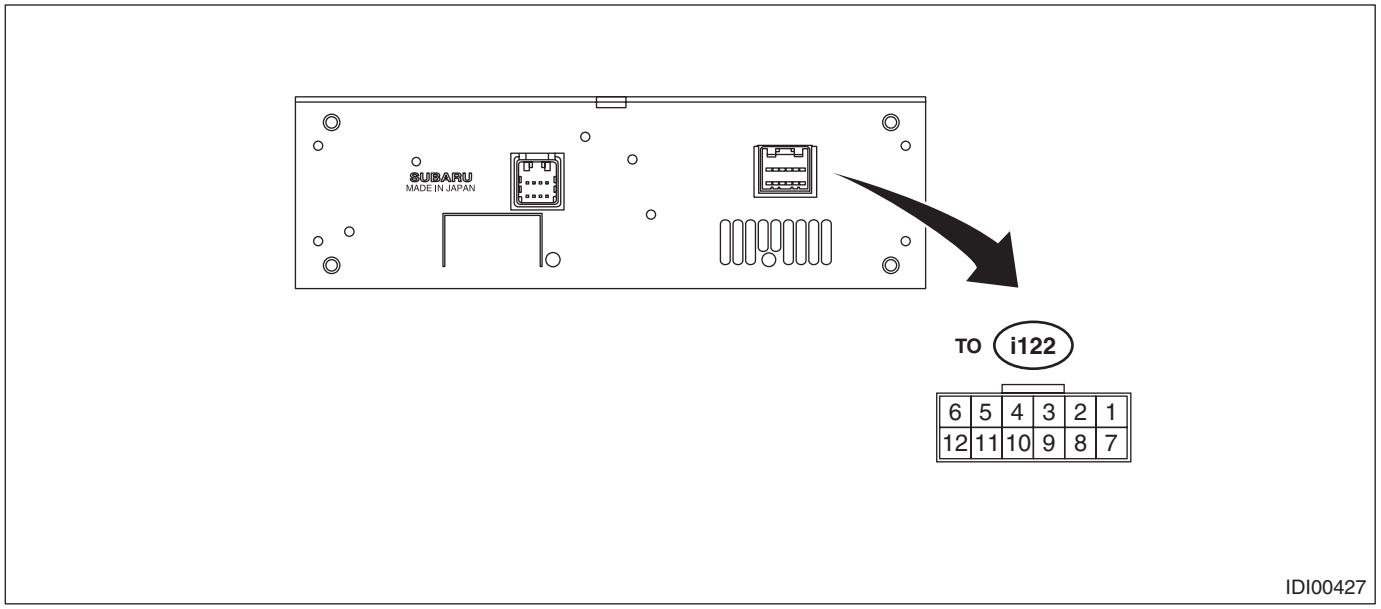
- Combination meter



Terminal No.	Content	Terminal No.	Content
1	Immobilizer/security indicator light	23	Brake fluid level switch
2	Charge warning light	25	Fuel level sensor
3	Oil pressure warning light	27	Ambient sensor
4	RH turn indicator	28	UART (MFD)
6	LH turn indicator	31	SI-DRIVE
8	Auto headlight beam leveler warning light	32	CAN communication line (–)
15	Driver's seat belt switch	33	CAN communication line (+)
16	Passenger's seat belt switch	36	Ambient sensor GND
17	Rear seat belt (left)	37	Fuel level sensor GND
18	Rear seat belt (center)	38	GND
19	Rear seat belt (right)	39	Backup ignition power supply
20	Ignition power supply	40	Battery power supply

Terminal No.	Item	Measuring condition	Standard
1 ←→ Chassis ground	Voltage	Security/immobilizer indicator light off → on	0 V → 10 — 14 V
2 ←→ Chassis ground	Voltage	Charge warning light off → on	0 V → 10 — 14 V
3 ←→ Chassis ground	Voltage	Oil pressure warning light off → on	0 V → 10 — 14 V
4 ←→ Chassis ground	Voltage	RH turn indicator off → on	0 V → 10 — 14 V
6 ←→ Chassis ground	Voltage	LH turn indicator off → on	0 V → 10 — 14 V
8 ←→ Chassis ground	Voltage	Auto headlight beam leveler warning light off → on	0 V → 10 — 14 V
15 ←→ Chassis ground	Resistance	Driver's seat belt switch ON	Less than 1 Ω
16	—	Airbag CM	—
20 ←→ Chassis ground	Voltage	IG OFF → ON	0 V → 10 — 14 V
21 ←→ Chassis ground	—	Washer fluid level sensor	—
23 ←→ Chassis ground	—	Brake fluid level switch	—
25 ←→ 37	Resistance	Fuel level sensor	10 — 600 Ω
27 ←→ 36	Resistance	Ambient sensor	1 — 35 kΩ
28 (UART) ←→ Chassis ground	—	Cannot be measured	—
32 (CAN–) ←→ Chassis ground	—	Cannot be measured	—
33 (CAN+) ←→ Chassis ground	—	Cannot be measured	—
34 ←→ Chassis ground	Resistance	Always	Less than 1 Ω
35 ←→ Chassis ground	Resistance	Always	Less than 1 Ω
36 ←→ Chassis ground	Resistance	Always	Less than 1 Ω
37 ←→ Chassis ground	Resistance	Always	Less than 1 Ω
38 ←→ Chassis ground	Resistance	Always	Less than 1 Ω
39 ←→ Chassis ground	Resistance	Always	Less than 1 Ω
40 ←→ Chassis ground	Voltage	Always	10 — 14 V

- MFD



Terminal No.	Content	Terminal No.	Content
1	Battery power supply	5	CAN communication line (–)
2	GND	6	CAN communication line (+)
3	Ignition power supply	9	UART (meter)
4	Steering switch communication line (–)	12	Steering switch communication line (+)

Terminal No.	Item	Measuring condition	Standard
1 (+B) ←→ Chassis ground	Voltage	Always	10 — 14 V
2 (GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
3 (IGN) ←→ Chassis ground	Voltage	IG OFF → ON	0 V → 10 — 14 V
4 (STR-) ←→ Chassis ground	—	Cannot be measured (steering switch communication line)	—
5 (CAN-) ←→ Chassis ground	—	Cannot be measured (CAN communication line)	—
6 (CAN+) ←→ Chassis ground	—	Cannot be measured (CAN communication line)	—
9 (UART) ←→ Chassis ground	—	Cannot be measured (meter communication line)	—
10 ←→ Chassis ground	Voltage	Passenger's airbag ON indicator (when illuminating)	Less than 1 V
11 ←→ Chassis ground	Voltage	Passenger's airbag OFF indicator (when illuminating)	Less than 1 V
12 (STR+) ←→ Chassis ground	—	Cannot be measured (steering switch communication line)	—

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION

- Body integrated unit

For I/O signals of the body integrated unit, refer to BODY CONTROL SYSTEM (DIAGNOSTICS). <Ref. to BC(diag)-6, Control Module I/O Signal.>

- Engine control module

For I/O signals of ECM, refer to ENGINE (DIAGNOSTICS). <Ref. to EN(H4DO)(diag)-19, ELECTRICAL SPECIFICATION, Engine Control Module (ECM) I/O Signal.>

- Transmission control module

For I/O signals of TCM, refer to AUTOMATIC TRANSMISSION (DIAGNOSTICS). <Ref. to CVT(diag)-12, Transmission Control Module (TCM) I/O Signal.>

- VDC control module, steering angle sensor, yaw rate & G sensor

For the module I/O signals of VDC CM, steering angle sensor, and yaw rate & G sensor, refer to VEHICLE DYNAMICS CONTROL (VDC) (DIAGNOSTICS). <Ref. to VDC(diag)-12, Control Module I/O Signal.>

- Power steering CM

For unit I/O signals of power steering CM, refer to POWER ASSISTED SYSTEM (POWER STEERING) (DIAGNOSTICS). <Ref. to PS(diag)-9, Control Module I/O Signal.>

- A/C control panel

For unit I/O signals of A/C control panel, refer to HVAC SYSTEM (DIAGNOSTICS). <Ref. to AC(diag)-6, Auto A/C Control Module I/O Signal.>

- Combination meter

For I/O signals of combination meter, refer to INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS). <Ref. to IDI(diag)-7, Control Module I/O Signal.>

- Airbag control module

For I/O signals of the airbag control module, refer to AIRBAG SYSTEM (DIAGNOSTICS). <Ref. to AB(diag)-18, Airbag Control Module I/O Signal.>

- High grade MFD

For I/O signals of high grade MFD, refer to INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS). <Ref. to IDI(diag)-7, Control Module I/O Signal.>

- Keyless access CM

For I/O signals of keyless access CM, refer to KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS). <Ref. to KPS(diag)-12, Control Module I/O Signal.>

- Stereo camera

For I/O signals of stereo camera, refer to EyeSight (Diagnostics). <Ref. to ES(diag)-18, STEREO CAMERA, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

- Auto headlight beam leveler CM

For I/O signals of auto headlight beam leveler CM, refer to AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS). <Ref. to AL(diag)-6, AUTO HEADLIGHT BEAM LEVELER CM, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

- Data link connector

For I/O signals of data link connector, refer to ENGINE (DIAGNOSTICS). <Ref. to EN(H4DO)(diag)-30, Data Link Connector.>

* CAN sleep state:

Hold on for approx. one minute with ignition OFF and the doors, trunk, rear gate all closed.

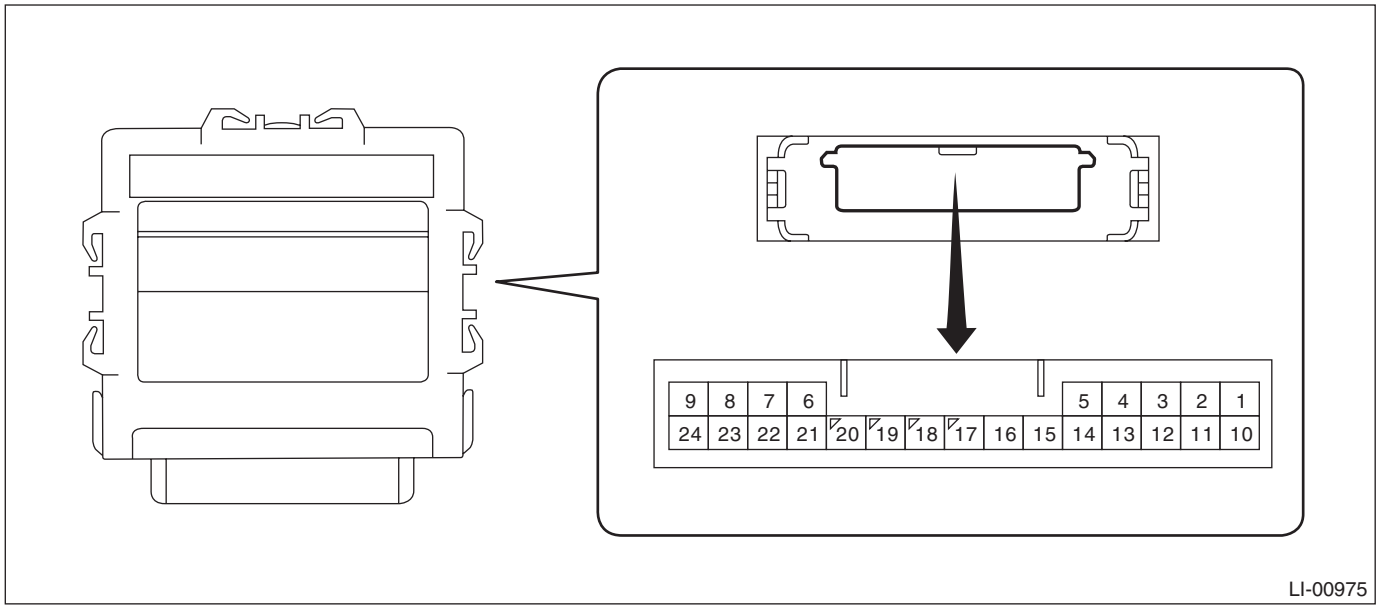
B: WIRING DIAGRAM

Refer to “CAN Communication System” in the wiring diagram.<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION

1. AUTO HEADLIGHT BEAM LEVELER CM



Description	Terminal No.	Measuring condition	Standard
IG power supply	1 ←→ Chassis ground	Ignition switch ON	8 — 16 V
GND	2 ←→ Chassis ground	Always	Less than 1 Ω
Rr vehicle height sensor GND	3 ←→ Chassis ground	Always	Less than 1 Ω
Indicator output	6 ←→ Chassis ground	After turning the ignition switch to ON, for 3 seconds (warning light on) → after 3 seconds (warning light off)	Less than 1.35 V → 8 — 16 V
Leveling actuator power supply	10 ←→ Chassis ground	Ignition switch ON	10 — 16 V
Leveling actuator GND	11 ←→ Chassis ground	Always	Less than 1 Ω
Rr vehicle height sensor power supply	12 ←→ 3	Ignition switch ON	4.75 — 5.25 V
Leveling actuator signal	17 ←→ Chassis ground	Headlight off → on	Less than 1 V → 1.0 — 14.4 V (for 17 seconds)
		Headlight on, no vehicle height change → change and hold vehicle height for 3 seconds or more	
Rr sensor signal	19 ←→ Chassis ground	IG ON (with no passenger, no load and vehicle stopped)	Approx. 2.5 V (changes according to vehicle condition)
CAN-H	23	Cannot be measured (CAN communication line)	—
CAN-L	24	Cannot be measured (CAN communication line)	—

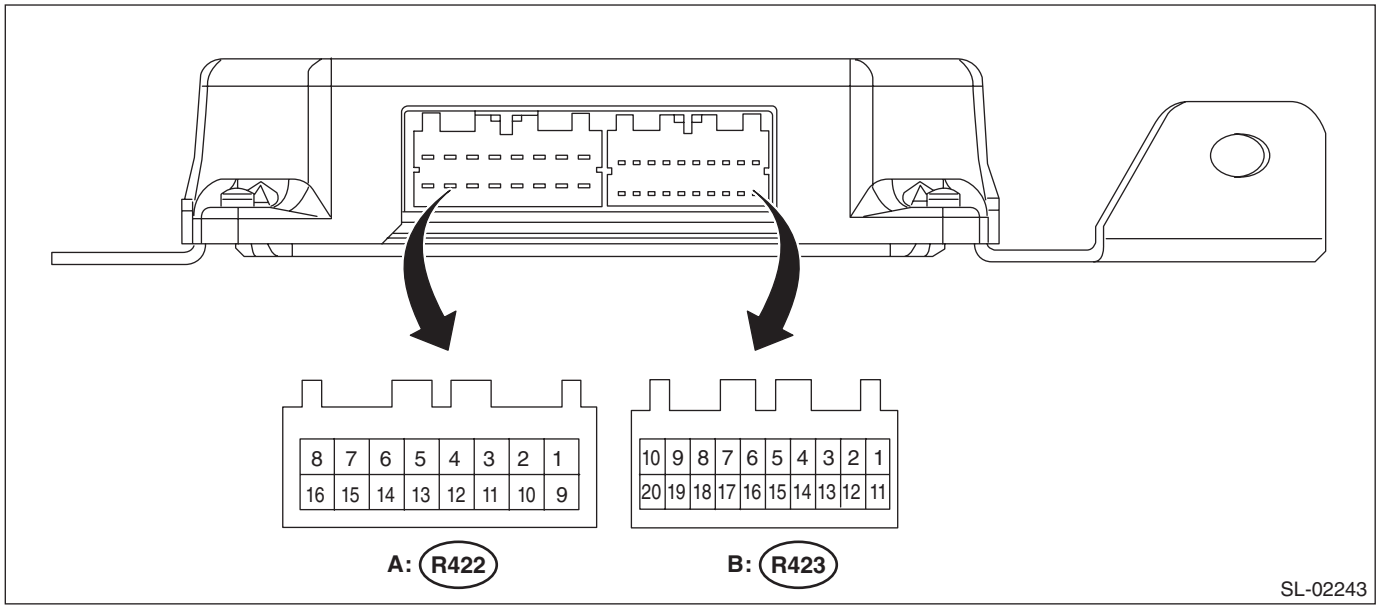
B: WIRING DIAGRAM

Refer to “Headlight Beam Leveler System” in the wiring diagram. <Ref. to WI-254, WIRING DIAGRAM, Headlight Beam Leveler System.>

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION

1. POWER REAR GATE CONTROL MODULE



Terminal No. (terminal symbol)	Item	Measuring condition	Standard
(R422) No. 1 (+B) ←→ Chassis ground	Voltage	Always	10.5 — 16 V
(R422) No. 2 (SW-V) ←→ Chassis ground	Voltage	Always	10.5 — 16 V
(R422) No. 3 (CLUTCH (GND)) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
(R422) No. 4 (SOL (–)) ←→ Chassis ground	Voltage	During solenoid cancellation output	Less than 1 V
(R422) No. 5 (CLOSER (OPEN)) ←→ Chassis ground	Voltage	When power rear gate auto closer cancellation is in operation	10.5 — 16 V
(R422) No. 6 (SOL (COMMON)) ←→ Chassis ground	Voltage	Always	10.5 — 16 V
(R422) No. 7 (MOTOR (CLOSE)) ←→ Chassis ground	Voltage	When auto-close is in operation	10.5 — 16 V
(R422) No. 8 (+POWER B) ←→ Chassis ground	Voltage	Always	10.5 — 16 V
(R422) No. 9 (SEN-V) ←→ Chassis ground	Voltage	Always	4 — 6 V
(R422) No. 10 (IGN) ←→ Chassis ground	Voltage	When ignition switch is ON	10.5 — 16 V
(R422) No. 11 (CLUTCH (+)) ←→ Chassis ground	Voltage	When auto-close is in operation	10.5 — 16 V
(R422) No. 12 (SOL (BUZZER)) ←→ Chassis ground	Resistance	When buzzer is OFF	Less than 1 Ω
(R422) No. 13 (CLOSER (CLOSE)) ←→ Chassis ground	Voltage	When power rear gate auto closer is in pull-in operation	10.5 — 16 V
(R422) No. 14 (P-GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
(R422) No. 15 (MOTOR (OPEN)) ←→ Chassis ground	Voltage	When auto-open is in operation	10.5 — 16 V
(R422) No. 16 (SOL (+)) ←→ Chassis ground	Voltage	When solenoid lock is output	Less than 1 V
(R423) No. 1 (LIN) ←→ Chassis ground	—	Cannot be measured (LIN communication line)	—
(R423) No. 2 (HALF STOP SW) ←→ Chassis ground	Voltage	When memory height switch is ON	10.5 — 16 V
(R423) No. 3 (SOL POS SW) ←→ Chassis ground	Voltage	Except for PRG at half-stop state	4 — 6 V
(R423) No. 4 (SECTOR SW) ←→ Chassis ground	Voltage	When PRG is fully closed	Less than 1 V
(R423) No. 5 (–) ←→ Chassis ground	—	—	—
(R423) No. 6 (GATE SW) ←→ Chassis ground	Voltage	When PRG inner SW is ON	10.5 — 16 V
(R423) No. 7 (–) ←→ Chassis ground	—	—	—
(R423) No. 8 (S-GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
(R423) No. 9 (–) ←→ Chassis ground	—	—	—
(R423) No. 10 (SEN-A) ←→ Chassis ground	Voltage	When PRG is stopped	4 — 6 V

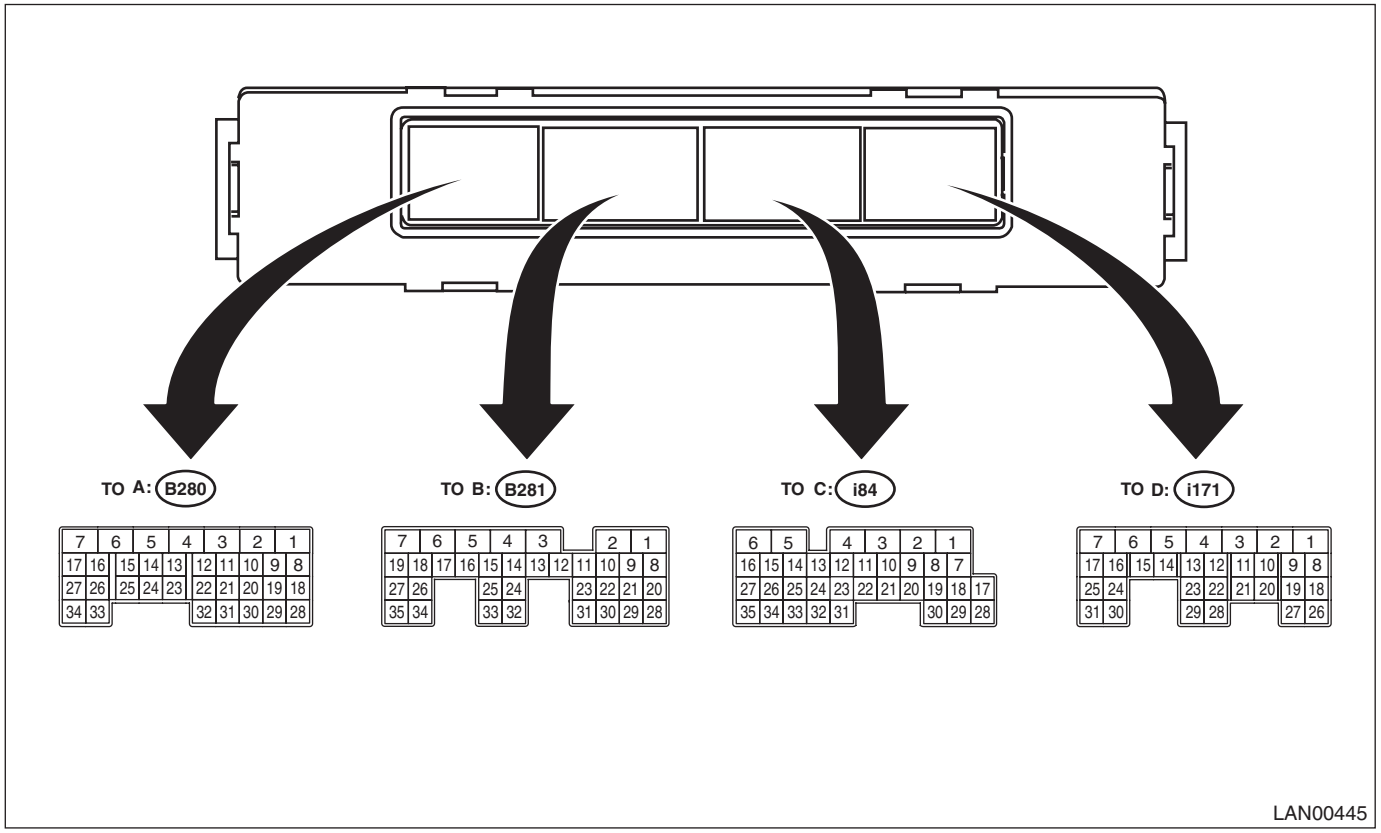
Terminal No. (terminal symbol)	Item	Measuring condition	Standard
(R423) No. 11 (T-SEN R) ←→ Chassis ground	Voltage	When sensor is ON	Less than 1 V
(R423) No. 12 (T SEN L) ←→ Chassis ground	Voltage	When sensor is ON	Less than 1 V
(R423) No. 13 (LATCH SW) ←→ Chassis ground	Voltage	When PRG is fully closed	4 — 6 V
(R423) No. 14 (COURTESY SW) ←→ Chassis ground	Voltage	When PRG is fully closed	4 — 6 V
(R423) No. 15 (HAZARD) ←→ Chassis ground	Voltage	When hazard switch is OFF	Less than 1 V
(R423) No. 16 (D SW) ←→ Chassis ground	Voltage	When driver's switch is ON	10.5 — 16 V
(R423) No. 17 (–) ←→ Chassis ground	—	—	—
(R423) No. 18 (T-SEN GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
(R423) No. 19 (SEN-GND) ←→ Chassis ground	Resistance	Always	Less than 1 Ω
(R423) No. 20 (SEN-B) ←→ Chassis ground	Voltage	When PRG is stopped	4 — 6 V

B: WIRING DIAGRAM

Refer to "Power Rear Gate System" in the wiring diagram. <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION



Description	Terminal No.	Signal (V or Ω)	Note
		Ignition switch ON (engine OFF)	
Ignition power supply (rear wiper)	A5 ←→ Chassis ground	Less than 1.5 V → 10 — 13 V	Ignition switch OFF → ON
Battery power supply (shift lock/ key lock)	B6 ←→ Chassis ground	10 — 13 V	Always
Battery power supply (door lock)	D1 ←→ Chassis ground	10 — 13 V	Always
Battery power supply (control)	C6 ←→ Chassis ground	10 — 13 V	Always
Ground	A1 ←→ Chassis ground	Less than 1.5 V	Always
	C1 ←→ Chassis ground		
Battery power supply (back-up)	B7 ←→ Chassis ground	10 — 13 V	Always
Ignition power supply	B3 ←→ Chassis ground	Less than 1.5 V → 10 — 13 V	Ignition switch OFF → ON
ACC power supply	A32 ←→ Chassis ground	Less than 1.5 V → 10 — 13 V	Ignition switch OFF → Accessory ON
Key-in switch	A4 ←→ Chassis ground	Less than 1.5 V → 10 — 13 V	Key inserted
P range SW	B18 ←→ Chassis ground	8 V or more → less than 1.5 V	P range to other than P range
Stop light SW	A10 ←→ Chassis ground	Less than 1.5 V → 8 V	Stop light switch OFF → ON
Door SW (driver's)	C14 ←→ Chassis ground	8 V or more → less than 1.5 V	Front right door closed → open
Door SW (passenger's)	C13 ←→ Chassis ground	8 V or more → less than 1.5 V	Front left door closed → open
Door SW (rear right)	C25 ←→ Chassis ground	8 V or more → less than 1.5 V	Rear right door closed → open
Door SW (rear left)	C24 ←→ Chassis ground	8 V or more → less than 1.5 V	Rear left door closed → open
Rear gate SW/trunk SW	C33 ←→ Chassis ground	8 V or more → less than 1.5 V	Rear gate/trunk closed → open
Opener SW (trunk/rear gate)	C10 ←→ Chassis ground	8 V or more → less than 1.5 V	Rear gate/trunk opener switch ON

Description	Terminal No.	Signal (V or Ω)	Note
		Ignition switch ON (engine OFF)	
Manual switch (LOCK)	C9 ←→ Chassis ground	8 V or more → less than 1.5 V	Door lock switch ON
Manual switch (UNLOCK)	C20 ←→ Chassis ground	8 V or more → less than 1.5 V	Door unlock switch ON
Door lock status switch (driver's)	C12 ←→ Chassis ground	8 V or more → less than 1.5 V	Door in UNLOCK status
Door lock status switch (passenger's)	C23 ←→ Chassis ground	8 V or more → less than 1.5 V	Door in UNLOCK status
Lighting AUTO	B16 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at AUTO position
Lighting II	A34 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at II position
	B34 ←→ Chassis ground		
Lighting I	B17 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at I position
Dimmer passing	B25 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at passing position
Dimmer Hi beam	B15 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at Hi beam position
Front fog light SW	B26 ←→ Chassis ground	8 V or more → less than 1.5 V	Front fog light switch ON
Illumination sensor power supply	B1 ←→ A29	Less than 1.5 V → 4.5 V or more	Ignition switch OFF → ON
Illumination sensor signal	A19	0.2 — 4.5 V	Ignition switch OFF → ON
Ground (illumination sensor)	A29 ←→ Chassis ground	Less than 1.5 V	Always
Rear wiper SW ON	A12 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at ON position
Rear wiper SW INT	A22 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at INT position
Rear washer SW	A30 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at ON position
Illumination SW (Vi1)	D12 ←→ Chassis ground	Approx. 5 V	While clearance light illuminates
Illumination SW (Vi2)	D22 ←→ Chassis ground	0.5 — 4.8 V	
Illumination SW (Vi3)	D28 ←→ Chassis ground	Less than 1.5 V	Always
Bright SW	C21 ←→ Chassis ground	8 V or more → less than 1.5 V	Switch at ON position
Reverse SW (MT)	B12 ←→ Chassis ground	Less than 1.5 V → 8 V or more	Reverse SW ON
Impact sensor	A11 ←→ Chassis ground	8 V or more	Apply an impact
Hi-speed CAN communication circuit 1 (Hi)	B20	Serial communication	Except for sleep status*1
Hi-speed CAN communication circuit 1 (Lo)	B28		
Hi-speed CAN communication circuit 2 (Hi)	C27	Serial communication	Except for sleep status*1
Hi-speed CAN communication circuit 2 (Lo)	C35		
X mode switch	B14 ←→ Chassis ground	8 V or more → less than 1.5 V	X mode switch ON
Immobilizer antenna (B)	B22	Serial communication	Communication with ignition key in progress
Immobilizer antenna (A)	B10		
Immobilizer antenna amplifier GND	B30 ←→ Chassis ground	Less than 1.5 V	Always
Immobilizer antenna amplifier power supply	B2 ←→ B30	4.5 — 5.5 V	Communication with ignition key in progress
Security UART	A21	Serial communication	Always
Front wiper return	A2 ←→ Chassis ground	8 V	When front wiper is operated
Rear washer switch	A30 ←→ Chassis ground	8 V or more → less than 1.5 V	When rear washer switch is ON
Door UNLOCK (driver's seat) output	D4 ←→ Chassis ground	Less than 0.5 V → 8 V or more	When driver's side door unlock is output
Keyless entry communication line	D11	Serial communication	When door lock/unlock is operated with the keyless transmitter, or when TPMS is operated

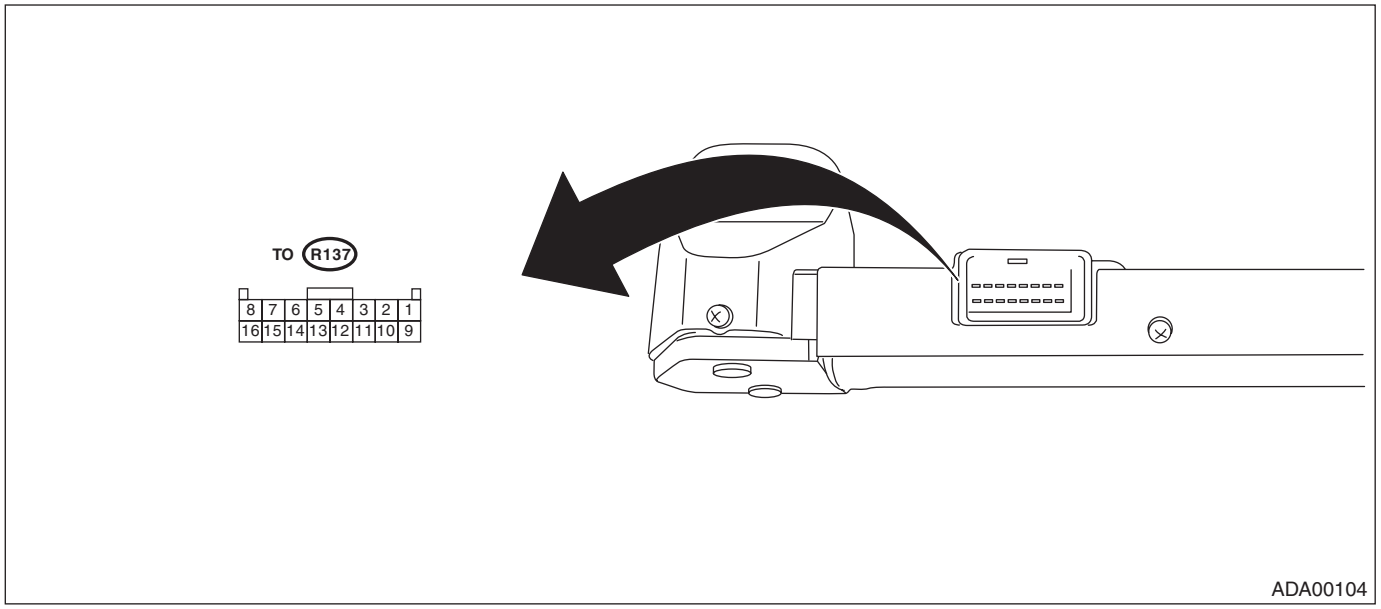
Description	Terminal No.	Signal (V or Ω)	Note
		Ignition switch ON (engine OFF)	
Rear defogger switch	C18 ←→ Chassis ground	Less than 1.5 V → 8 V or more	When the rear defogger switch is ON
Parking brake switch	C32 ←→ Chassis ground	8 V or more → less than 1.5 V	When parking brake is ON
Shift lock solenoid	B5 ←→ Chassis ground	Less than 1.5 V → 8 V or more	When shift lock is operating (AT models)
Key actuator	B4 ←→ Chassis ground	Less than 1.5 V → 8 V or more	LOCK status ON (AT models)
Rear wiper ON output	A7 ←→ Chassis ground	Less than 0.5 V → 8 V or more	Rear wiper operation in progress
Rear wiper return	A6 ←→ Chassis ground	Less than 0.5 V → 8 V or more	Rear wiper operation in progress
Door LOCK output	D2 ←→ Chassis ground	Less than 0.5 V → 8 V or more	When LOCK signal is output
Door UNLOCK output	D3 ←→ Chassis ground	Less than 0.5 V → 8 V or more	When UNLOCK signal is output
Rear gate/trunk UNLOCK output	D7 ←→ Chassis ground	Less than 0.5 V → 8 V or more	When UNLOCK signal is output
Lighting relay power supply	A3 ←→ Chassis ground	10 — 13 V	ACC or key-in SW ON
	B19 ←→ Chassis ground	10 — 13 V	ACC or key-in SW ON
Lighting relay Hi output	A17 ←→ Chassis ground	8 V or more → less than 1.0 V	Dimmer SW at Hi position
Lighting relay Lo output	B35 ←→ Chassis ground	8 V or more → less than 1.0 V	Lighting II SW at ON position
Lighting Lo relay output 2	A27 ←→ Chassis ground	8 V or more → less than 1.0 V	Lighting II SW at ON position
Lighting relay I output	A16 ←→ Chassis ground	8 V or more → less than 1.0 V	Lighting I SW at ON position
Front fog light output	A15 ←→ Chassis ground	8 V or more → less than 1.0 V	Front fog light SW at ON position
DRL cancel output	D10 ←→ Chassis ground	8 V or more → less than 1.0 V	Headlight switch ON or Hi beam ON, passing switch ON
Illumination output	B8	Pulse output	Illumination ON
	C16	Pulse output	Illumination ON
Key ring illumination	A25	Pulse output	Illumination ON
Room light output	C4	Pulse output	Room light ON (doors interlocked)
Map light output	D8	Pulse output	Map light ON (keyless answer-back, etc.)
Luggage/trunk light output	C3	Pulse output	Luggage/trunk at open state
Rear defogger relay output	A26 ←→ Chassis ground	8 V or more → less than 1.0 V	Rear defogger SW ON
Wiper deicer relay output	D9 ←→ Chassis ground	8 V or more → less than 1.0 V	Wiper deicer SW ON
Turn/hazard output	D18 ←→ Chassis ground	8 V or more → less than 1.0 V	When answer-back is output
Security horn output	A24 ←→ Chassis ground	8 V or more → less than 1.0 V	When security is operating
Security light	D26	Pulse control	When security light is illuminating
Answer-back buzzer output	A20 ←→ Chassis ground	8 V or more → less than 1.0 V	When answer-back operates
Immobilizer communication	A31	Serial communication	

*1: For CAN sleep state, hold on for approx. one minute with ignition OFF and the doors, trunk, and rear gate all closed.

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION

1. STEREO CAMERA



Signal name and contents	Terminal No.	Measuring conditions and status		Standard
		Key switch	Operation or condition	
Battery power supply	16	OFF	Always	Power supply voltage
Ignition power supply	6	ON	—	Power supply voltage (DC/DC converter output voltage)
Pre-collision brake OFF switch	12 — chassis ground	ON	Switch pressed.	Approx. 0 V
			—	Approx. 12 V
Lane departure warning OFF switch	13 — chassis ground	ON	Switch pressed.	Approx. 0 V
			—	Approx. 12 V
CAN-H	10	—	—	—
CAN-L	9	—	—	—
GND	7 15	ON	—	Approx. 0 V

2. ENGINE CONTROL MODULE (ECM)

For details on the input/output signals for the engine control module, refer to ENGINE (DIAGNOSTICS). <Ref. to EN(H4DO)(diag)-19, ELECTRICAL SPECIFICATION, Engine Control Module (ECM) I/O Signal.>

3. VDC CONTROL MODULE (VDCCM)

For details on the input/output signals for VDC control module, refer to VDC (DIAGNOSTICS). <Ref. to VDC(diag)-12, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

4. TRANSMISSION CONTROL MODULE (TCM)

For details on the input/output signals for the transmission control module, refer to AUTOMATIC TRANSMISSION (DIAGNOSTICS). <Ref. to CVT(diag)-12, Transmission Control Module (TCM) I/O Signal.>

5. BODY INTEGRATED UNIT

Refer to the BODY CONTROL SYSTEM (DIAGNOSTICS) for the I/O Signal of the body integrated unit. <Ref. to BC(diag)-6, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

6. COMBINATION METER

For details on the input/output signals for the combination meter, refer to INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS). <Ref. to IDI(diag)-7, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

7. MFD

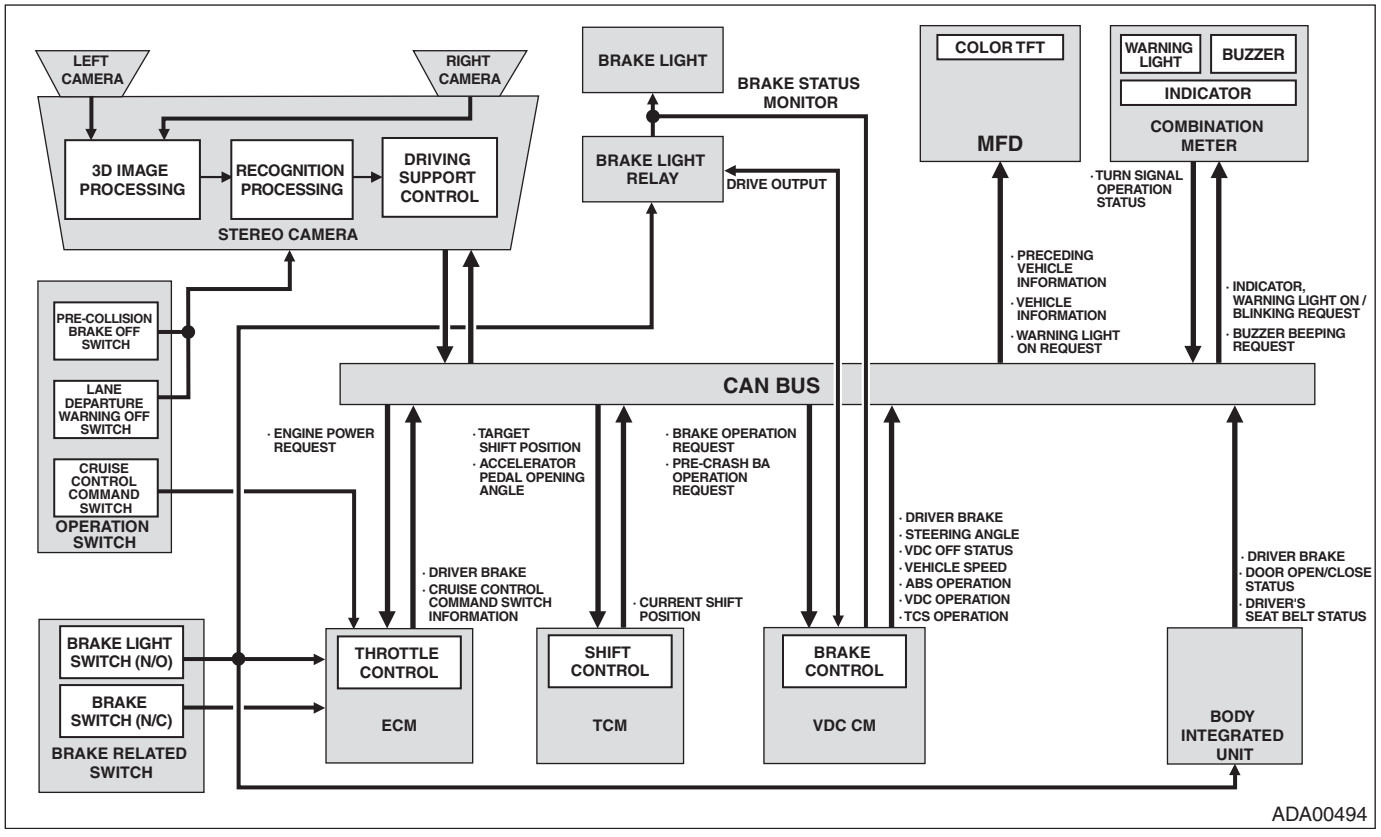
For details on the input/output signals for MFD, refer to INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS). <Ref. to IDI(diag)-7, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

B: WIRING DIAGRAM

Refer to “EyeSight System” in the wiring diagram.<Ref. to WI-232, EyeSight System.>

C: SYSTEM BLOCK DIAGRAM

Main signals used between stereo camera and relevant CM



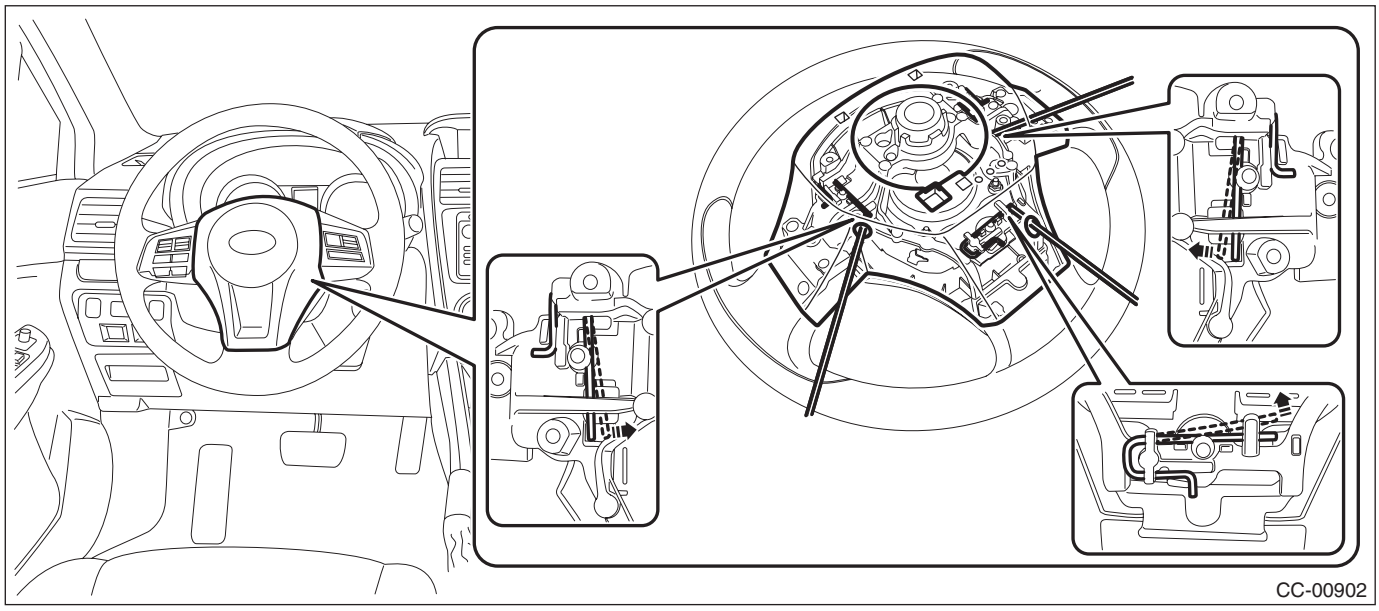
5. Cruise Control Command Switch

A: REMOVAL

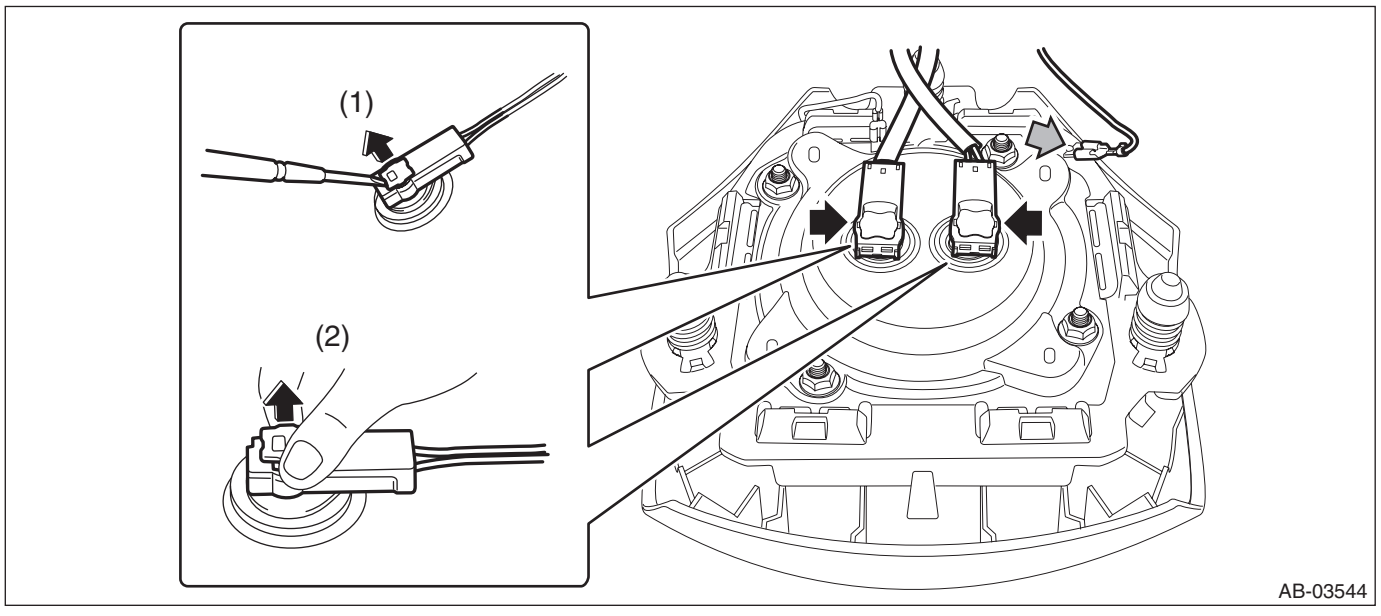
1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.

CAUTION:
Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>

(1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).


CC-00902

(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



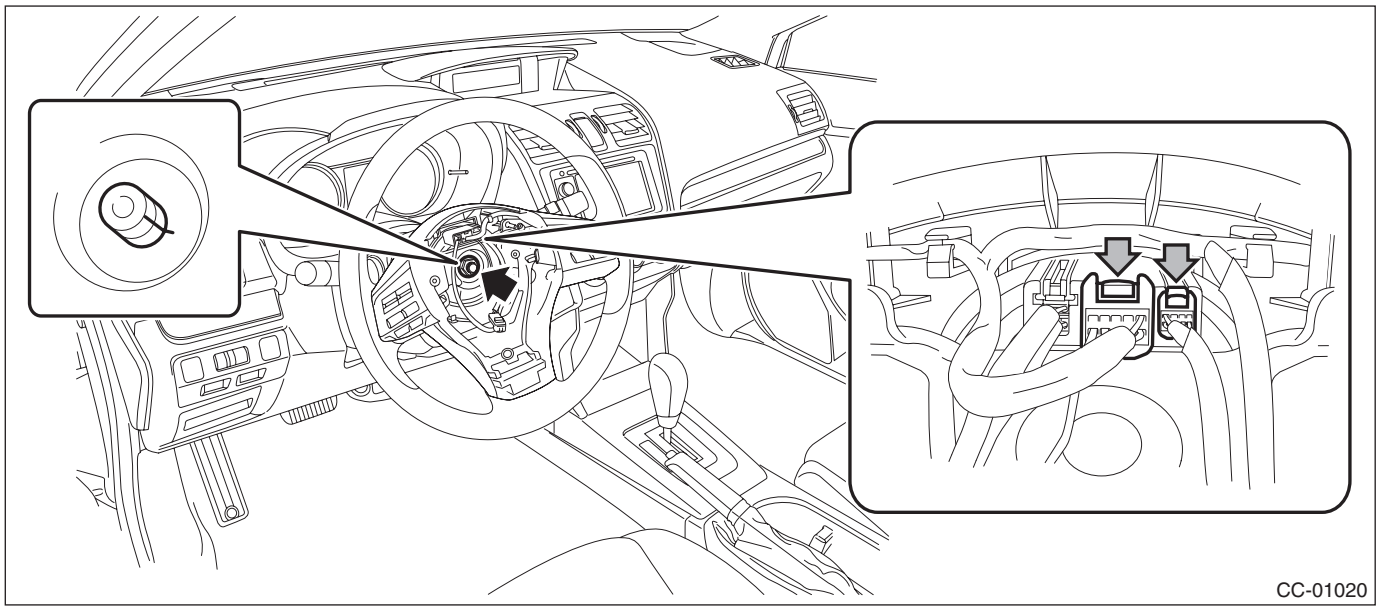
AB-03544

5) Remove the steering wheel.

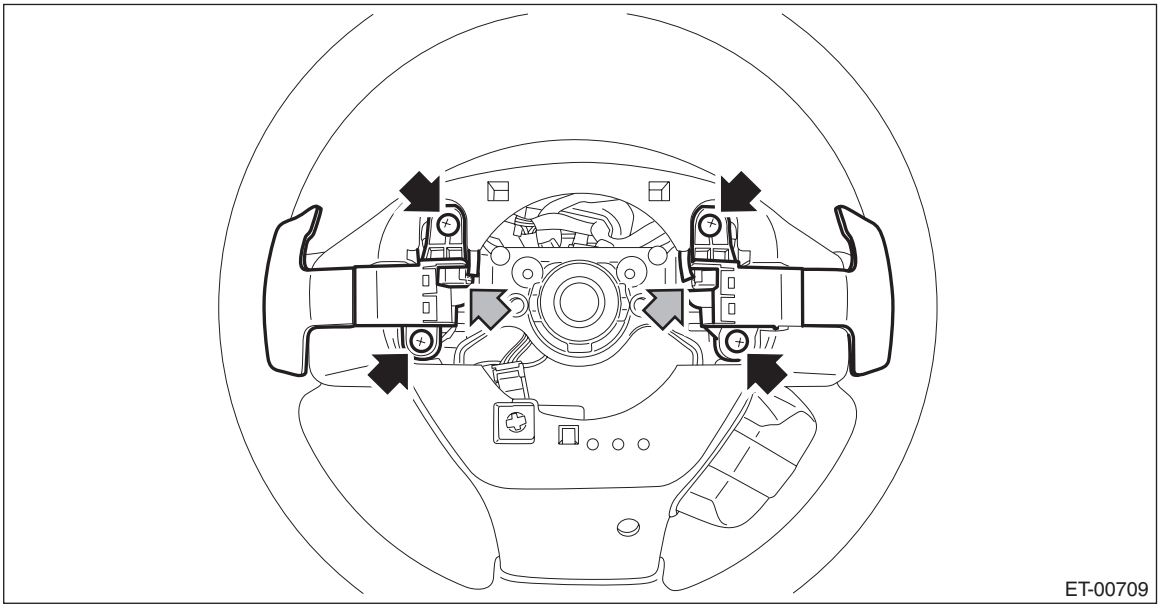
CAUTION:
- **Always use the steering wheel puller for removal to avoid deforming the steering wheel.**
- **If the steering wheel has been removed, make sure that the roll connector is not turned from the original position.**

(1) Disconnect the connector and remove the nut.
(2) Put alignment marks and remove the steering wheel using a steering wheel puller.

Preparation tool:
Steering wheel puller

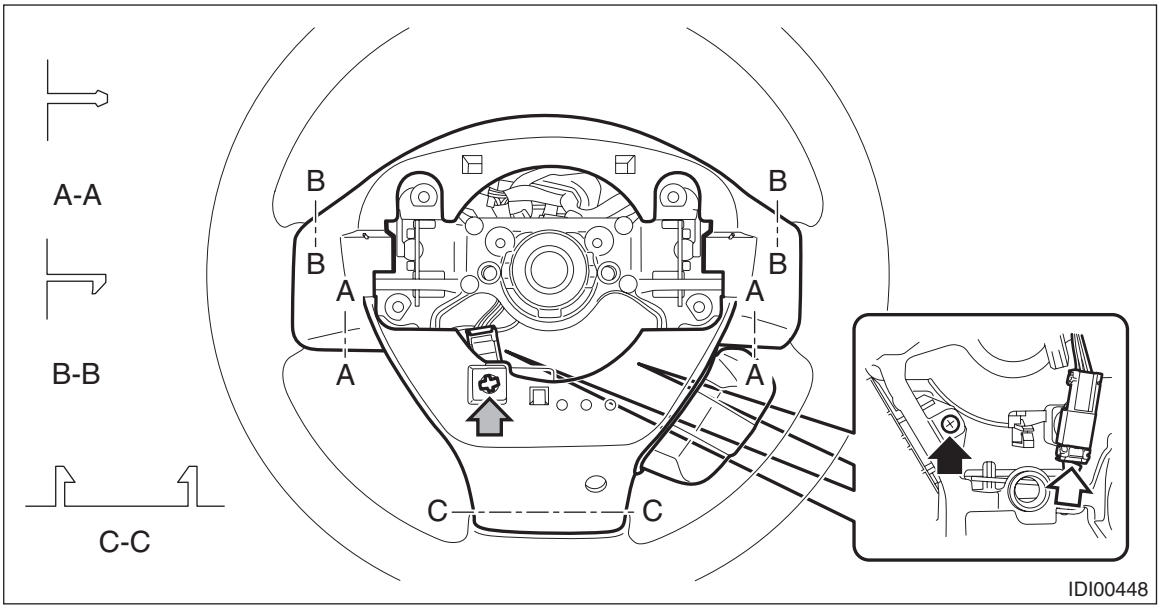


6) Remove the cruise control command switch assembly.
(1) Remove the screw, disconnect the connector and remove the paddle shift switch. (Model with paddle shift)

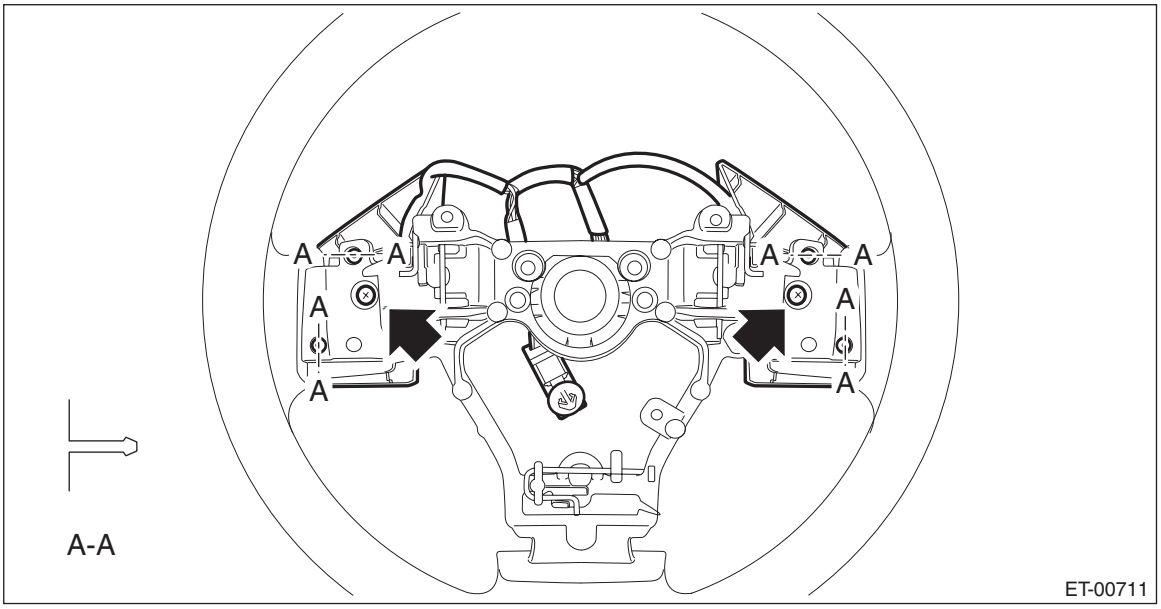


(2) Release the claws and clips, and remove the lower cover - steering wheel LWR.

NOTE:
For model with steering switch, remove the connector and screw.



(3) Remove the screw to remove the cruise control command switch assembly.



B: INSTALLATION

CAUTION:
• Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor.<Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
• Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.

1) Before installing steering wheel, be sure to adjust the direction of steering roll connector with steering wheel.<Ref. to AB-107, ADJUSTMENT, Roll Connector.>
2) Install each part in the reverse order of removal.

NOTE:
Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:
Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

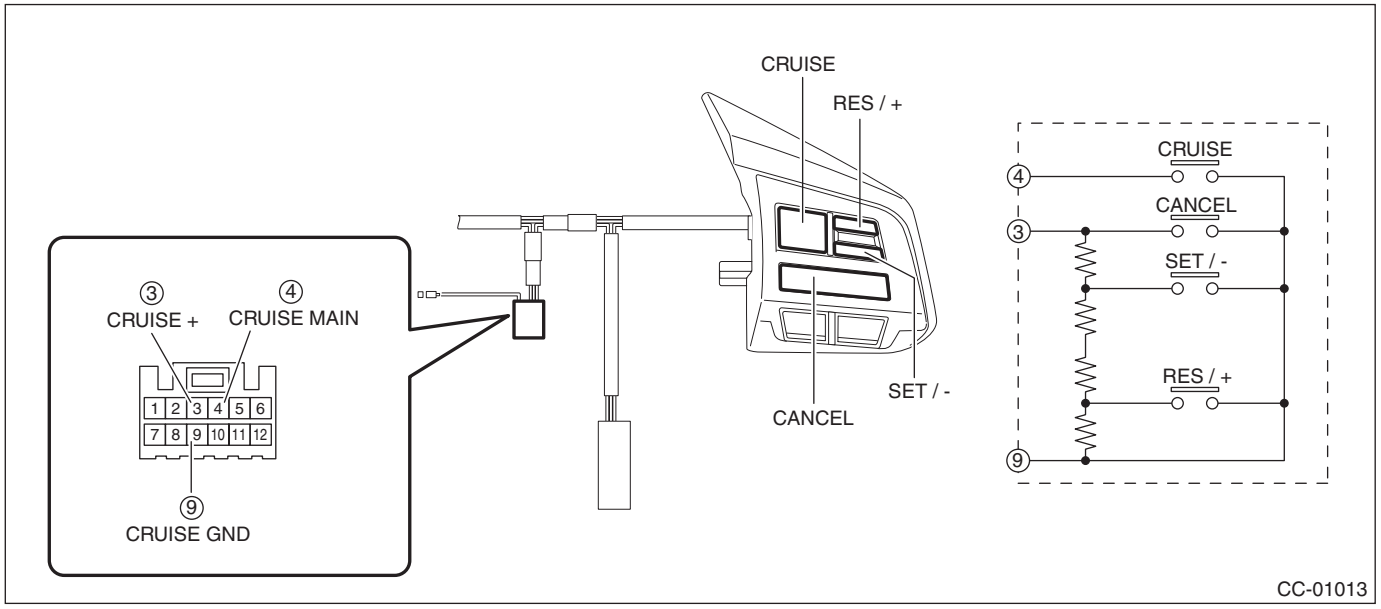
Clearance:
Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.



Terminal No.	Inspection conditions		Standard
3 — 9	CANCEL SET/– RES/+	All OFF	Approx. 4,020 Ω
3 — 9	CANCEL	ON	Less than 1 Ω
3 — 9	SET/–	ON	Approx. 250 Ω
3 — 9	RES/+	ON	Approx. 1,470 Ω
4 — 9	CRUISE (MAIN)	OFF	1 MΩ or more
4 — 9		ON	Less than 1 Ω

2) Replace the cruise control command switch assembly if the inspection result is not within the standard.

1. A/C CONTROL PANEL SELF-DIAGNOSIS

- Without left/right independent air conditioning function (without high grade MFD)

	Step	Check	Yes	No
1	**SELECT SELF-DIAGNOSIS MODE IN THE CONTROL MODULE.** 1) Set the air flow control dial and fan dial to the AUTO position. 2) Start the engine with the A/C switch and the FRESH/RECIRC switch pressed.	Does the self-diagnosis mode operate?	Go to step **2**.	<Ref. to AC(diag)-19, NOTHING IS DISPLAYED ON THE SCREEN. NO ILLUMINATION APPEARS ON THE INDICATOR, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
2	**CHECK THE LIGHTING OF THE LED.** Make sure that all switch LEDs on the control panel illuminate.	Do all LEDs blink eight times?	Go to step **3**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
3	**CHECK SENSOR MALFUNCTION.** 1) Set the air flow control dial and fan dial to the AUTO position. 2) If the system has trouble for each sensor, the FRESH/RECIRC switch LED blinks or is turned off. 3) If the system has no malfunctions, the FRESH/RECIRC switch LED is illuminated.	Does the FRESH/RECIRC switch LED illuminate?	Go to step **5**.	Go to step **4**.
4	**CONFIRM MALFUNCTIONING SENSOR.** 1) Set the air flow control dial to AUTO. 2) Turn the fan dial to each mode position, and check each switch LED illumination according to sensor check table. <Ref. to AC(diag)-13, SENSOR CHECK TABLE, OPERATION, Diagnostic Chart for Self-Diagnosis.>	When turning the fan dial to each mode position, does the FRESH/RECIRC switch LED go off?	Go to step **5**.	Repair the defective sensor.
5	**CHECK AIR MIX DOOR AND MODE DOOR POSITION OPERATION SIGNALS.** 1) Set the air flow control dial to FACE. 2) Turn the fan dial to AUTO. 3) If there is a system malfunction in the air mix door signal or the mode door position signal, the FRESH/RECIRC switch LED goes off or blinks. 4) If the system has no malfunctions, the FRESH/RECIRC switch LED is illuminated.	Does the FRESH/RECIRC switch LED illuminate?	Go to step **8**.	Go to step **6**.
6	**CHECK AIR MIX DOOR POSITION DRIVE SIGNALS.** 1) Set the air flow control dial to FACE. 2) Place the fan dial in each position and then check each LED illumination conditions. <Ref. to AC(diag)-16, DRIVE SIGNAL CHECK TABLE, OPERATION, Diagnostic Chart for Self-Diagnosis.>	Do the LEDs illuminate in accordance with operation signal table?	Go to step **7**.	Check the air mix door actuator circuit.

	Step	Check	Yes	No
7	**CHECK MODE DOOR POSITION DRIVE SIGNAL.** 1) Press the A/C switch. 2) Place the fan dial in each position and then check each LED illumination conditions. <Ref. to AC(diag)-16, DRIVE SIGNAL CHECK TABLE, OPERATION, Diagnostic Chart for Self-Diagnosis.>	Do the LEDs illuminate in accordance with operation signal table?	Go to step **8**.	Check the mode door actuator circuit.
8	**CHECK OPERATION OF EACH ACTUATOR, BLOWER FAN AND COMPRESSOR CLUTCH.** 1) Set the air flow control dial to B/L. 2) Turn the fan dial from AUTO to 7th, and select operating modes. 3) Check the operation of each mode according to operating mode table. <Ref. to AC(diag)-15, OPERATING MODE TABLE, OPERATION, Diagnostic Chart for Self-Diagnosis.>	Does the operation of each mode match to operating mode table?	Turn the fan dial to OFF or the ignition switch to OFF in order to complete self-diagnosis.	Repair the malfunctioning part in accordance with each diagnostic chart.

• Without left/right independent air conditioning function (with high grade MFD), with left/right independent air conditioning function

	Step	Check	Yes	No
1	**SELECT SELF-DIAGNOSIS MODE IN THE CONTROL MODULE.** Start the engine with the A/C switch and the FRESH/RECIRC switch pressed.	Does the self-diagnosis mode operate?	Go to step **2**.	<Ref. to AC(diag)-19, NOTHING IS DISPLAYED ON THE SCREEN. NO ILLUMINATION APPEARS ON THE INDICATOR, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
2	**CHECK INDICATOR BLINKS.** Make sure that all switch indicators on the control panel blink.	Do all indicators blink eight times?	Go to step **3**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
3	**CHECK SENSOR MALFUNCTION.** 1) The inspection mode for sensor is initiated by turning the fan dial one click to the right. (The auto switch indicator blinks two times.) 2) If all sensors have no malfunctions, the A/C switch indicator illuminates. If any sensor has a malfunction, the A/C switch indicator blinks. 3) Identify defective sensors according to the sensor check table. <Ref. to AC(diag)-13, SENSOR CHECK TABLE, OPERATION, Diagnostic Chart for Self-Diagnosis.>	Does the A/C switch indicator illuminate?	Go to step **4**.	Repair the defective sensor.
4	**CHECK ACTUATOR DRIVE SIGNAL.** 1) The inspection mode for actuator is initiated by turning the fan dial one click to the right. (The AUTO switch indicator blinks three times.) 2) If all actuators have no malfunctions, the defroster indicator illuminates. If any actuator has a malfunction, the defroster indicator blinks. 3) Identify defective actuator circuit according to the drive signal check table. <Ref. to AC(diag)-16, DRIVE SIGNAL CHECK TABLE, OPERATION, Diagnostic Chart for Self-Diagnosis.>	Does the defroster switch indicator illuminate?	Go to step **5**.	Repair the defective actuator circuit.
5	**CHECK OPERATION OF EACH ACTUATOR, BLOWER FAN AND COMPRESSOR CLUTCH.** 1) The inspection mode for blower fan, actuator and compressor is initiated by turning the fan dial one click to the right. (The AUTO switch indicator blinks four times.) 2) The number of blinking of A/C switch indicator changes and the operation mode changes each time the A/C switch is pressed. 3) Check each operation according to the operating mode table. <Ref. to AC(diag)-15, OPERATING MODE TABLE, OPERATION, Diagnostic Chart for Self-Diagnosis.>	Does each operation match to operating mode table?	System is normal. Press the OFF switch or turn the ignition switch to OFF in order to complete self-diagnosis.	Repair the defective part in accordance with each diagnostic chart.

2. SENSOR CHECK TABLE

- Without left/right independent air conditioning function (without high grade MFD)

NOTE:

- When the sunload sensor check is performed indoors or in the shade, it could be diagnosed as having an open circuit. Always check the sunload sensor at a location exposed to direct sunlight.
- Past malfunction will illuminate if four malfunctions or more were detected previously.
- To cancel the past malfunction, perform either of the following procedure: Disconnect the negative battery terminal or press and hold the FRESH/RECIRC switch for 5 seconds or more while performing self-diagnosis step 3 — 7.

Air flow control dial position	Fan dial position	Sensor to be checked	No trouble	Short circuit	Open circuit	When currently malfunctioning	When having malfunctioned in the past
AUTO	AUTO	In-vehicle sensor	FRESH/ RECIRC switch LED is turned off	FRESH/ RECIRC switch LED blinks (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)	FRESH/ RECIRC switch LED blinks (Illuminates for 1 sec. ←→ turns off for 1 sec.)	Rear window defogger switch LED is turned off	Rear window defogger switch LED illuminates
	1st	Ambient sensor		FRESH/ RECIRC switch LED blinks (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)			
	2nd	Evaporator sensor		FRESH/ RECIRC switch LED blinks (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)			
	3rd	Engine coolant temperature sensor		—			
	4th	Sunload sensor		FRESH/ RECIRC switch LED blinks (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)			
	5th	CAN communication		—			
	6th	FRESH/ RECIRC potentiometer		FRESH/ RECIRC switch LED blinks (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)			

• Without left/right independent air conditioning function (with high grade MFD), with left/right independent air conditioning function

NOTE:
- When the sunload sensor check is performed indoors or in the shade, it could be diagnosed as having an open circuit. Always check the sunload sensor at a location exposed to direct sunlight.
- If there are multiple defective sensors, a malfunction is displayed in the sequence of priority (1, 2, 3, etc.). The display changes in the sequence of priority (1, 2, 3, etc.) each time the A/C switch is pressed.
- Past malfunction will illuminate if four malfunctions or more were detected previously.
- To cancel the past malfunction, perform either of the following procedure: Disconnect the negative battery terminal or press and hold the FRESH/RECIRC switch for 5 seconds or more while performing self-diagnosis step 3 — 4.

Sensor	A/C switch indicator	FRESH/RECIRC switch indicator				Rear defroster switch indicator *2	
		Open	Sequence of priority	Short	Sequence of priority	Current malfunction	Past malfunction
In-vehicle sensor	Once	Light OFF	1	Light ON	2	Light OFF	Light ON
Ambient sensor	Twice	Light OFF	3	Light ON	4	Light OFF	Light ON
Evaporator sensor	3 times	Light OFF	5	Light ON	6	Light OFF	Light ON
Engine coolant temperature sensor	4 times	Light OFF			7	Light OFF	Light ON
Sunload sensor	5 times	Light OFF*1	8	Light ON	9	Light OFF	Light ON
CAN communication	6 times	Light OFF	10	—		Light OFF	Light ON
FRESH/RECIRC potentiometer	7 times	Light OFF	11	Light ON	12	Light OFF	Light ON

*1: Displays current malfunction only
*2: If the same diagnostic object contains a current malfunction and a past malfunction, the current malfunctions is displayed.

3. OPERATING MODE TABLE

• Without left/right independent air conditioning function (without high grade MFD)

Operation	Fan dial position							
	AUTO	1st	2nd	3rd	4th	5th	6th	7th
Blower fan	4 V	4 V	4.9 V	5.9 V	7.0 V	8.3 V	9.8 V	14 V
FRESH/RECIRC door	RECIRC	RECIRC	MIX	FRESH	FRESH	FRESH	FRESH	FRESH
Air flow control door	FACE	FACE	FACE	B/L	HEAT	HEAT	D/H	DEF
Air mix door	0%	0%	0%	50%	50%	100%	100%	100%
A/C compressor	OFF	ON	ON	ON	ON	ON	ON	ON

• Without left/right independent air conditioning function (with high grade MFD), with left/right independent air conditioning function

Operation	Number of blinking of A/C switch indicator							
	Once	Twice	3 times	4 times	5 times	6 times	7 times	8 times
Blower fan	4 V	4 V	4.9 V	5.9 V	7.0 V	8.3 V	9.8 V	14 V
FRESH/RECIRC door	RECIRC	RECIRC	MIX	FRESH	FRESH	FRESH	FRESH	FRESH
Air flow control door	FACE	FACE	FACE	B/L	HEAT	HEAT	D/H	DEF
Air mix door *1 or air mix door RH *2	0%	0%	0%	50%	50%	100%	100%	100%
Air mix door LH *2	0%	0%	0%	50%	50%	100%	100%	100%
A/C compressor	OFF	ON	ON	ON	ON	ON	ON	ON

*1: Without left/right independent air conditioning function
*2: With left/right independent air conditioning function

4. DRIVE SIGNAL CHECK TABLE

- Without left/right independent air conditioning function (without high grade MFD)

NOTE:

- Past malfunction will illuminate if four malfunctions or more were detected previously.
- To cancel the past malfunction, perform either of the following procedure: Disconnect the negative battery terminal or press and hold the FRESH/RECIRC switch for 5 seconds or more while performing self-diagnosis step 3 — 7.

<table>
<tr><th>Air flow control dial position</th><th>Fan dial position</th><th>Drive signal to check</th><th>A/C switch LED</th><th>No trouble</th><th>Short circuit</th><th>Open circuit</th><th>When currently malfunctioning</th><th>When having malfunctioned in the past</th></tr>
<tr><td rowspan="10">FACE</td><td>AUTO</td><td>MIX #1</td><td rowspan="5">Blinking (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)</td><td rowspan="10">FRESH/ RECIRC switch LED is turned off</td><td rowspan="2">FRESH/ RECIRC switch LED blinks (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)</td><td rowspan="2">FRESH/ RECIRC switch LED blinks (Illuminates for 1 sec. ←→ turns off for 1 sec.)</td><td rowspan="2">Rear window defogger switch LED is turned off</td><td rowspan="10">Rear window defogger switch LED illuminates</td></tr>
<tr><td>1st</td><td>MIX #2</td></tr>
<tr><td>2nd</td><td>MIX #3</td><td rowspan="2">FRESH/RECIRC switch LED blinks (Illuminates for 1 sec. ←→ turns off for 1 sec.)</td><td rowspan="2">—</td></tr>
<tr><td>3rd</td><td>MIX #4</td></tr>
<tr><td>4th to 7th</td><td>Intake door actuator lock</td></tr>
<tr><td>AUTO</td><td>MODE #1</td><td rowspan="5">Blinking (Illuminates for 1 sec. ←→ turns off for 1 sec.)</td><td rowspan="2">FRESH/ RECIRC switch LED blinks (Illuminates for 0.2 sec. ←→ turns off for 0.2 sec.)</td><td rowspan="2">FRESH/ RECIRC switch LED blinks (Illuminates for 1 sec. ←→ turns off for 1 sec.)</td><td rowspan="2">Rear window defogger switch LED is turned off</td></tr>
<tr><td>1st</td><td>MODE #2</td></tr>
<tr><td>2nd</td><td>MODE #3</td><td rowspan="2">FRESH/RECIRC switch LED blinks (Illuminates for 1 sec. ←→ turns off for 1 sec.)</td><td rowspan="2">—</td></tr>
<tr><td>3rd</td><td>MODE #4</td></tr>
<tr><td>4th to 7th</td><td>Intake door actuator lock</td></tr>
</table>

• Without left/right independent air conditioning function (with high grade MFD), with left/right independent air conditioning function

NOTE:
• If there are multiple defective sensors, a malfunction is displayed in the sequence of priority (1, 2, 3, etc.). The display changes in the sequence of priority (1, 2, 3, etc.) each time the A/C switch is pressed.
• Past malfunction will illuminate if four malfunctions or more were detected previously.
• To cancel the past malfunction, perform either of the following procedure: Disconnect the negative battery terminal or press and hold the FRESH/RECIRC switch for 5 seconds or more while performing self-diagnosis step 3 — 4.

Drive signal		Defroster indicator	A/C switch indicator	FRESH/RECIRC switch indicator				Rear defogger switch indicator *3	
				Open	Sequence of priority	Short	Sequence of priority	Current malfunction	Past malfunction
Air mix door actuator *1 or air mix door actuator RH *2	#1	Once	Once	Light OFF	1	Light ON	2	Light OFF	Light ON
	#2		Twice	Light OFF	3	Light ON	4	Light OFF	Light ON
	#3		3 times	Light OFF	5	Light ON	6	Light OFF	Light ON
	#4		4 times	Light OFF	7	Light ON	8	Light OFF	Light ON
Air mix door actuator LH *2	#1	Twice	Once	Light OFF	9	Light ON	10	Light OFF	Light ON
	#2		Twice	Light OFF	11	Light ON	12	Light OFF	Light ON
	#3		3 times	Light OFF	13	Light ON	14	Light OFF	Light ON
	#4		4 times	Light OFF	15	Light ON	16	Light OFF	Light ON
Air flow control door actuator	#1	3 times	Once	Light OFF	17	Light ON	18	Light OFF	Light ON
	#2		Twice	Light OFF	19	Light ON	20	Light OFF	Light ON
	#3		3 times	Light OFF	21	Light ON	22	Light OFF	Light ON
	#4		4 times	Light OFF	23	Light ON	24	Light OFF	Light ON
Intake door actuator		4 times	Light ON	Light ON				—	Light ON

*1: Without left/right independent air conditioning function
*2: With left/right independent air conditioning function
*3: If the same diagnostic object contains a current malfunction and a past malfunction, the current malfunctions is displayed.

5. DIAGNOSTIC PROCEDURE IF A/C CONTROL PANEL SELF DIAGNOSIS FAILS TO OPERATE

NOTE:
For the diagnostic procedures, refer to Diagnostics with Phenomenon “Nothing is displayed on the screen. No illumination appears on the indicator.” <Ref. to AC(diag)-19, NOTHING IS DISPLAYED ON THE SCREEN. NO ILLUMINATION APPEARS ON THE INDICATOR, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

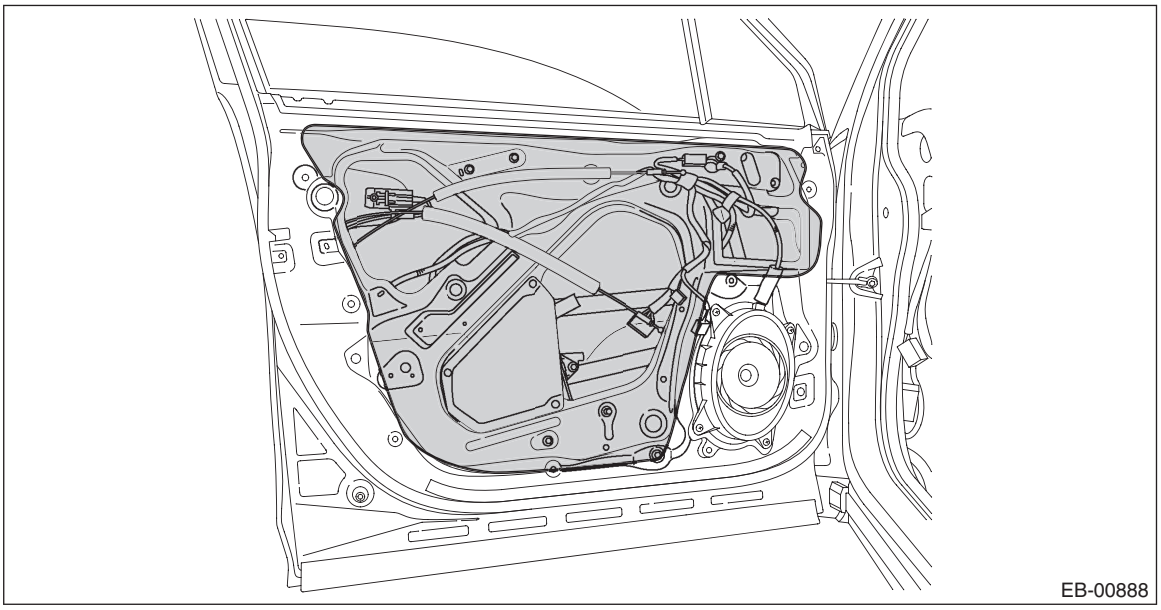
5. Front Door Glass

A: REMOVAL

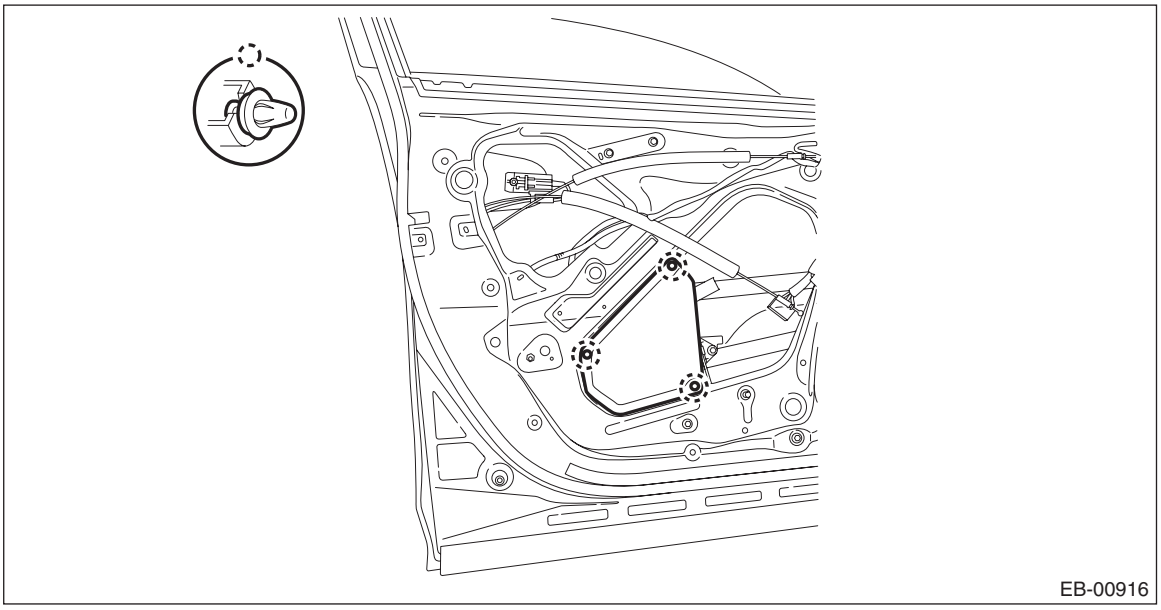
1) Remove the trim panel - front door.<Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
2) Remove the sealing cover - front door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Disconnect connectors.
(2) Carefully remove the butyl tape to remove the sealing cover - front door.

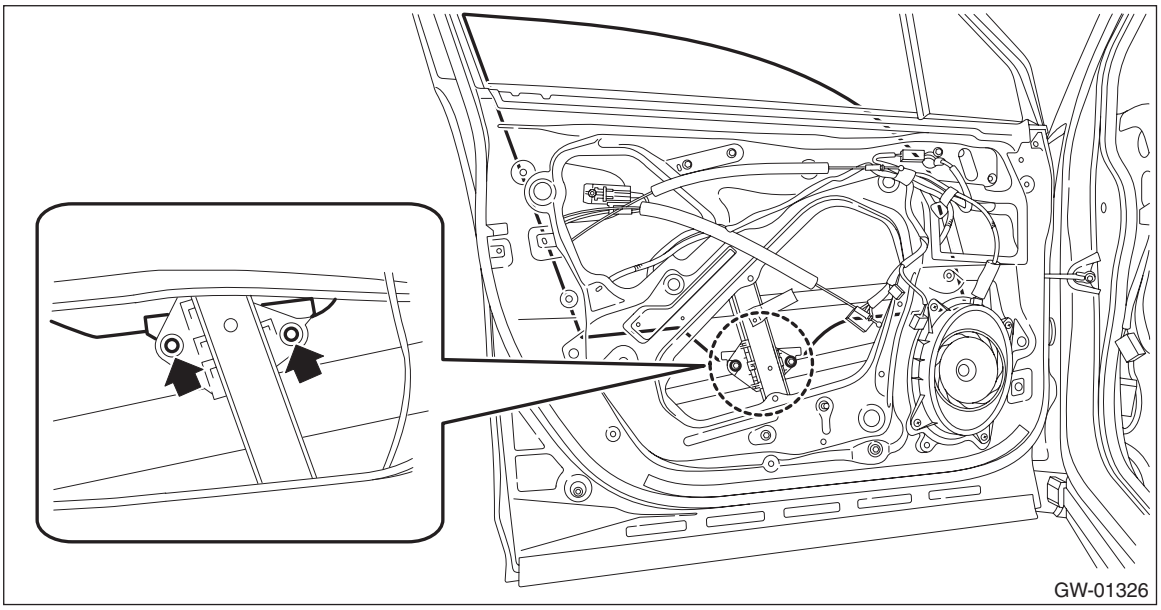

EB-00888

3) Remove the front door inner pad.


EB-00916

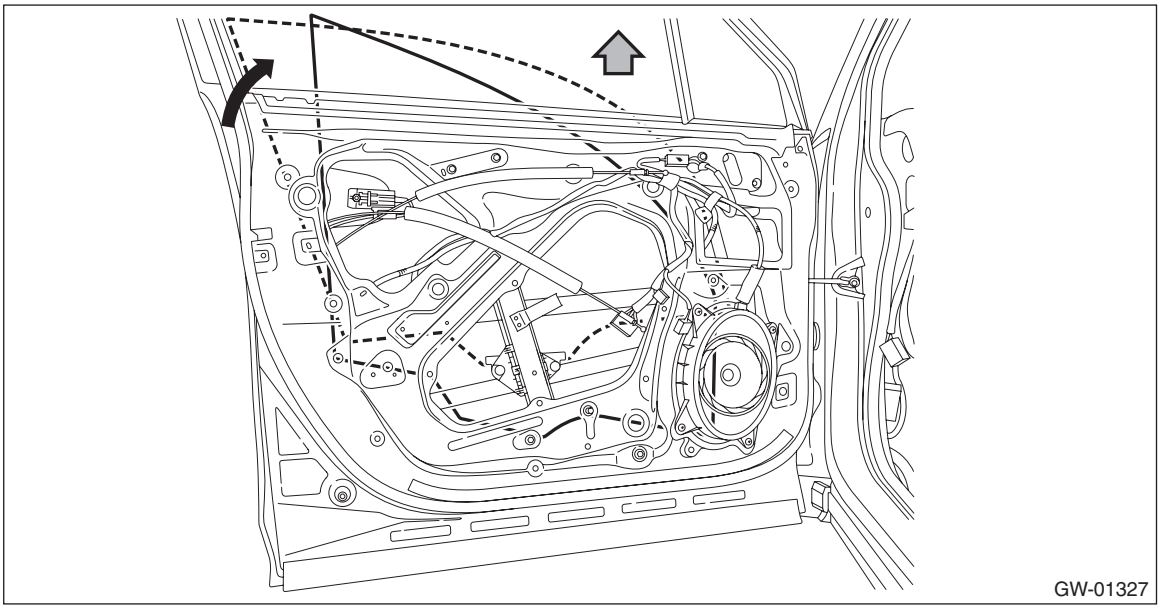
CAUTION:
If the clip is damaged, replace it with a new part because the panel assembly - front door may be deformed.

4) Attach the battery ground cable and the switch - power window, and turn the ignition to ON.
5) Remove the glass assembly - front door.
   (1) Operate the switch - power window to move the glass assembly - front door to the position where the mounting bolts can be seen.
   (2) Remove the running channel - front door.
   (3) Remove the mounting bolts from the glass assembly - front door.

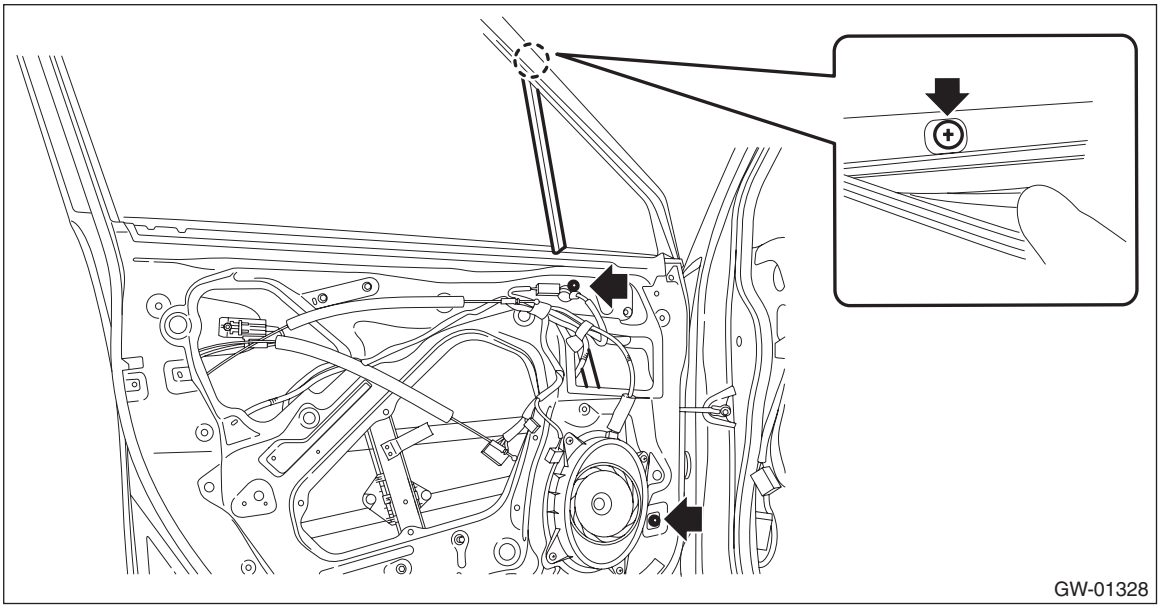

GW-01326

   (4) While tilting the glass, remove the glass assembly - front door.

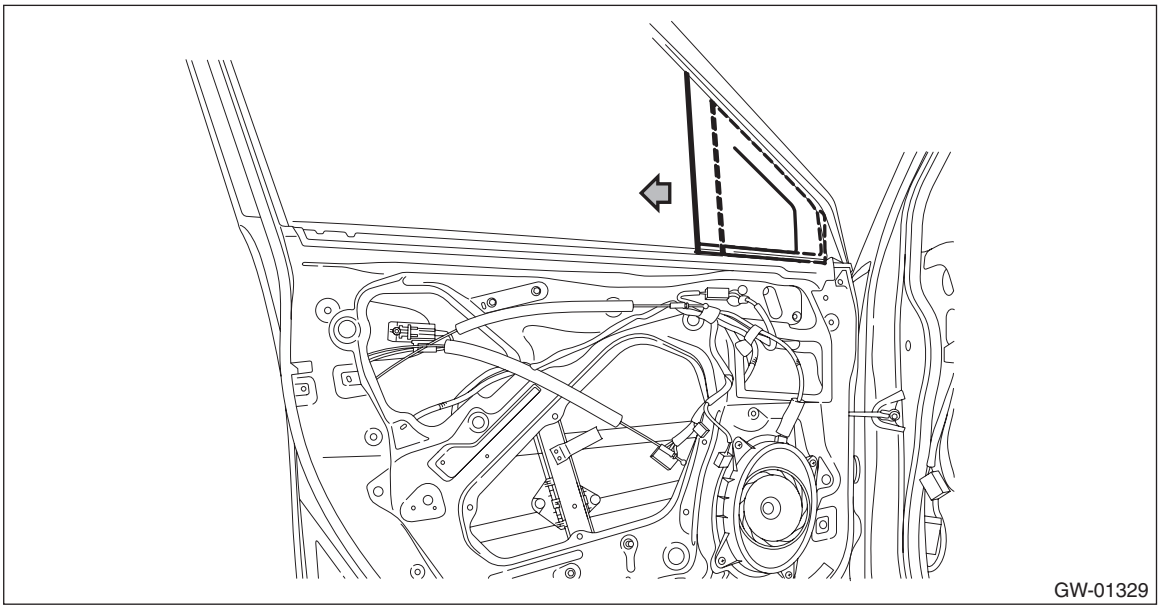
CAUTION:
Avoid impact and damage to the glass assembly - front door.


GW-01327

6) Remove the glass - front door partition.
(1) Remove the bolts and screws, and then remove the sash COMPL - partition.


GW-01328

(2) Remove the glass - front door partition.


GW-01329

B: INSTALLATION

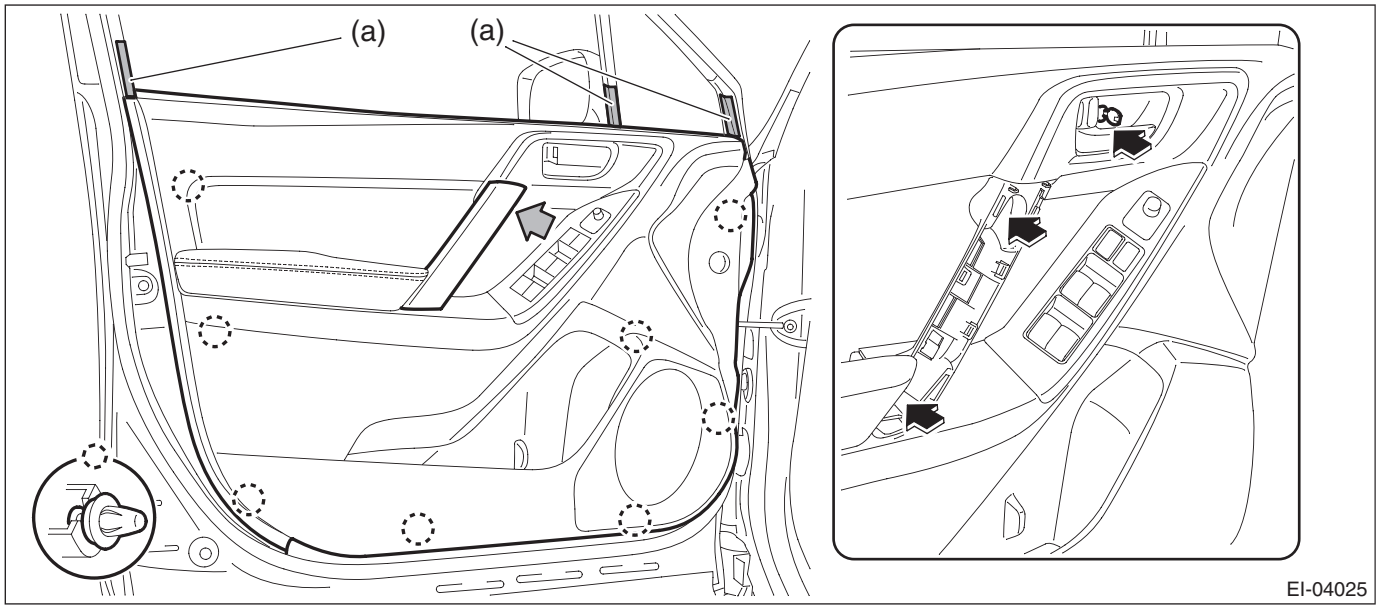
CAUTION:
Check that the running channel - front door is securely fixed to the panel assembly - front door and to the sash COMPL - partition.
Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to GW-3, FRONT DOOR GLASS, COMPONENT, General Description.>

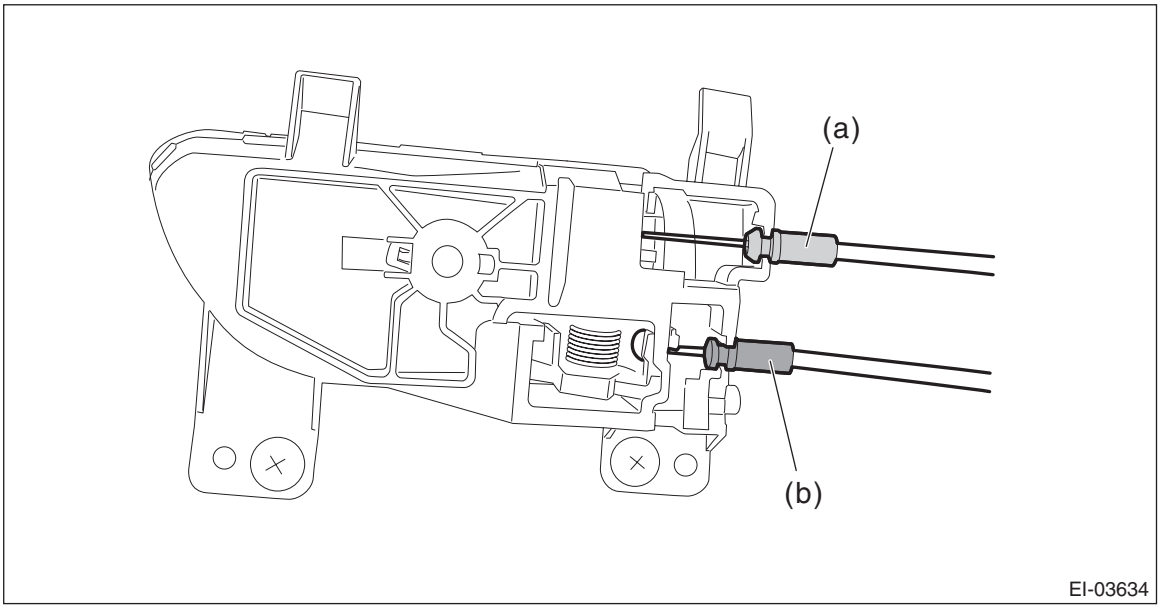
5. Front Sealing Cover

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - front door.
   (1) Attach the protective tape (a).
   (2) Remove the cover - door handle by using a plastic remover.
   (3) Remove the screws and clips, and remove the trim panel - front door from the panel assembly - front door.



NOTE:
It is easier to remove the cover - door handle if the removal is performed from the gray arrow section.
   (4) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.



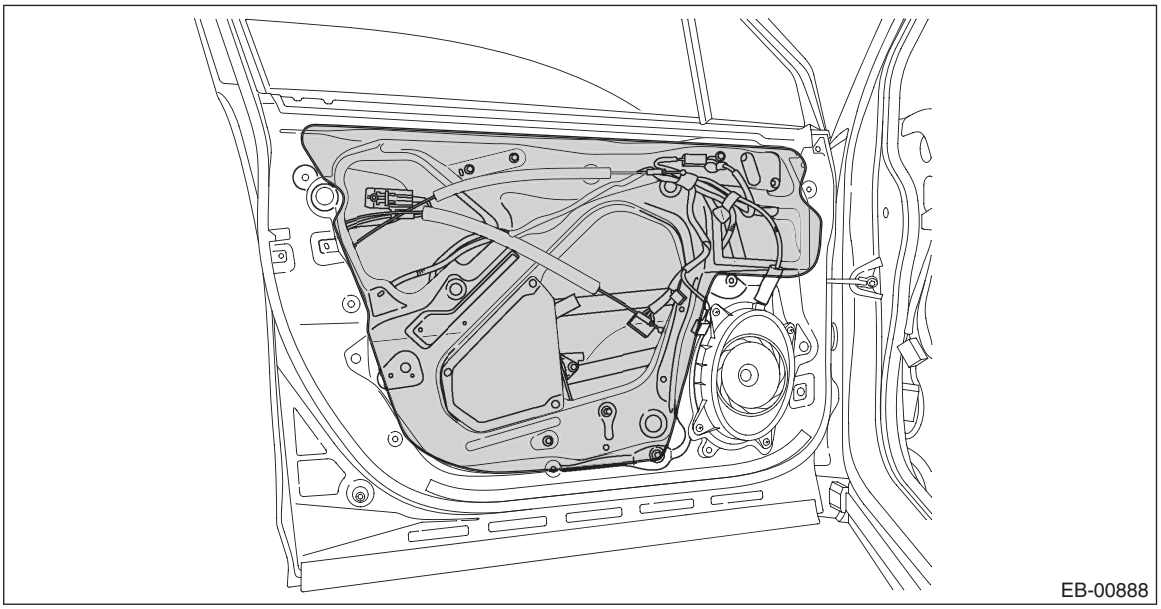
   (5) Disconnect the harness connector and remove the trim panel - front door.

CAUTION:
Pulling the door trim excessively may damage the harness.

3) Remove the sealing cover - front door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Disconnect connectors.
(2) Carefully remove the butyl tape to remove the sealing cover - front door.



B: INSTALLATION

CAUTION:
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Apply a uniform bead of butyl tape.**
- **Attach the sealing cover - front door, keeping it from becoming wrinkled.**
- **Breaks in the bead will allow water leakage and contamination.**

1) Install each part in the reverse order of removal.
2) When replacing the sealing cover - front door, use the butyl tape.
3) Press the butyl tape-applied area firmly to prevent any floating on surface.

Butyl tape:
3M 8626 or equivalent

C: INSPECTION

If the sealing cover - front door is broken, replace it with a new part.

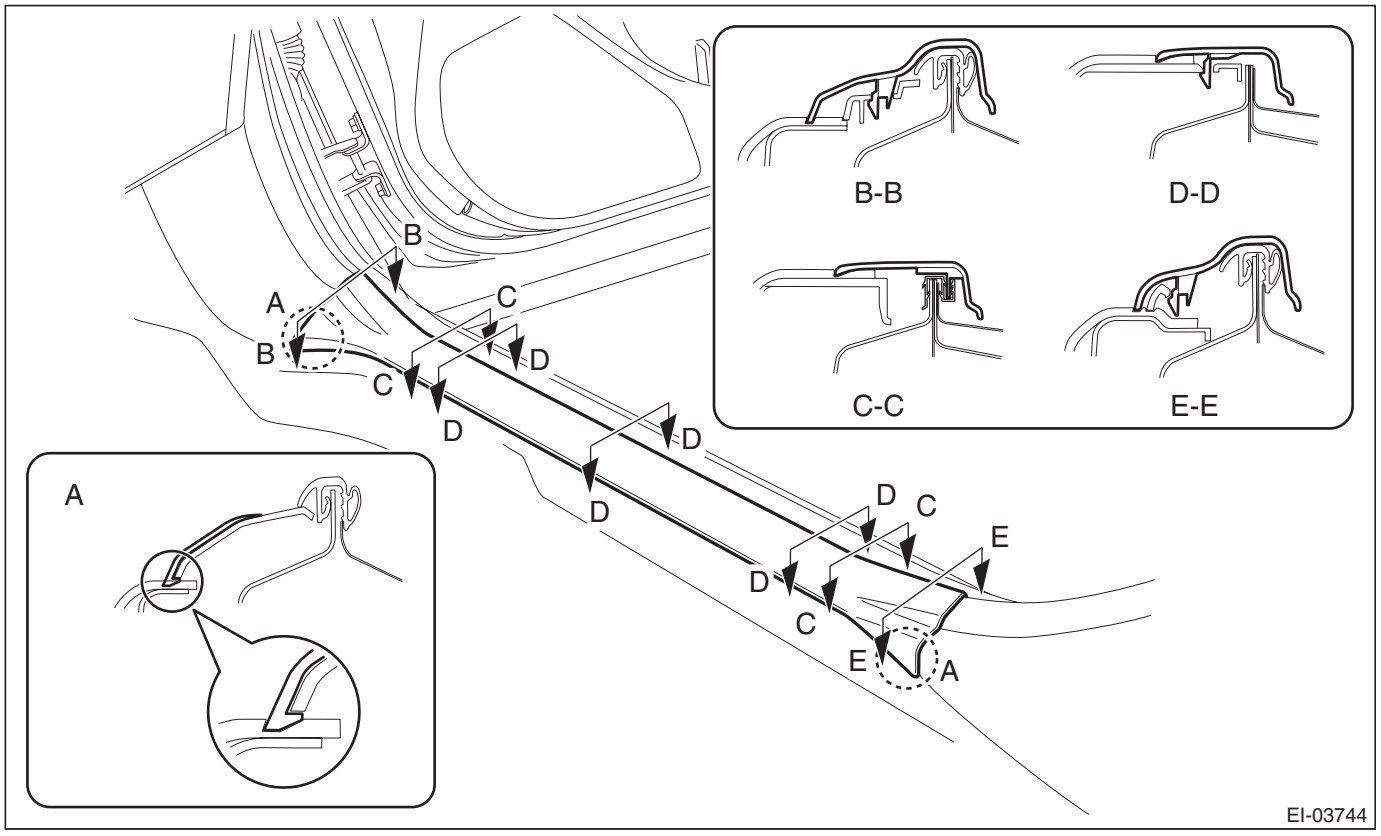
5. Front Seat Belt

A: REMOVAL

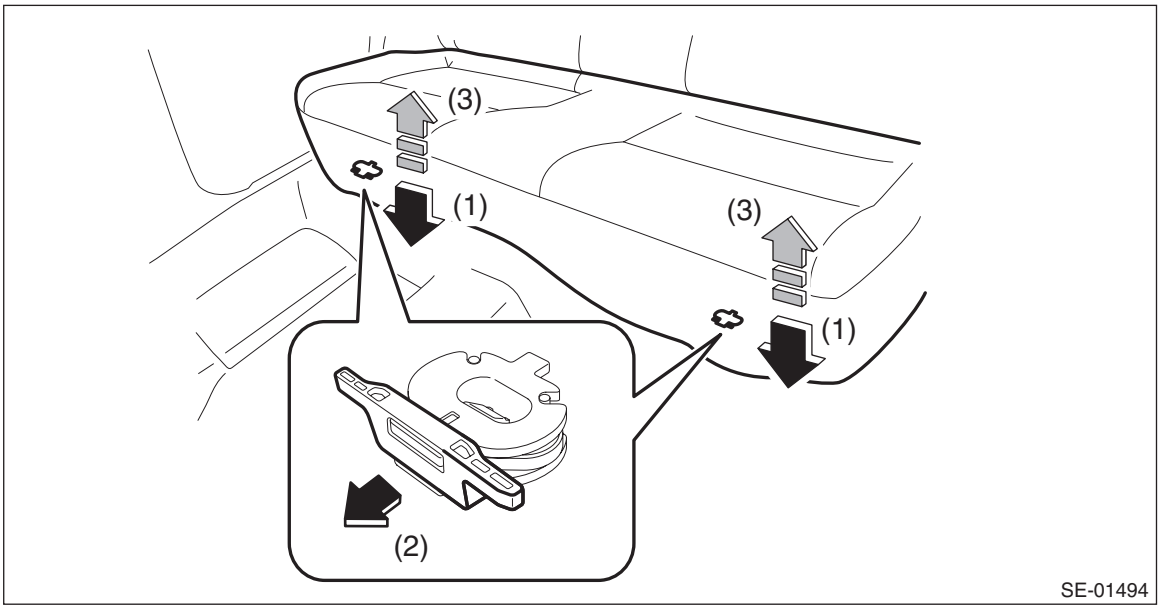
1. SEAT BELT OUTER - FRONT

CAUTION:
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• Do not drop or subject the pretensioner to any impact.
• Since the pretensioner and bracket are integrated as a unit, do not disassemble them.
1) Before working, turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more.
2) Tilt the front seat backrest assembly forward, and move the front seat all the way forward.
3) Release the claws, and then remove the cover side sill - front INN. (On the side where seat belt assembly is removed)

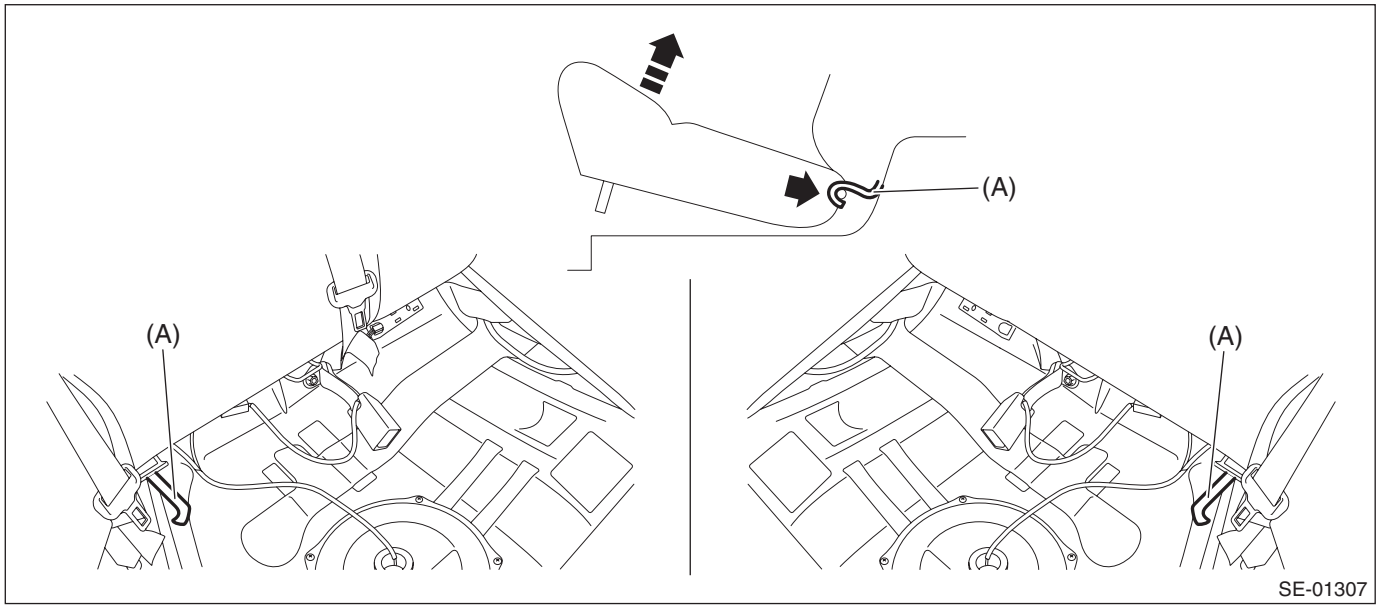
CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



4) Remove the rear seat cushion assembly.
(1) Push the corners of the seat cushion from above.
(2) While pushing the corners of the seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
(3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

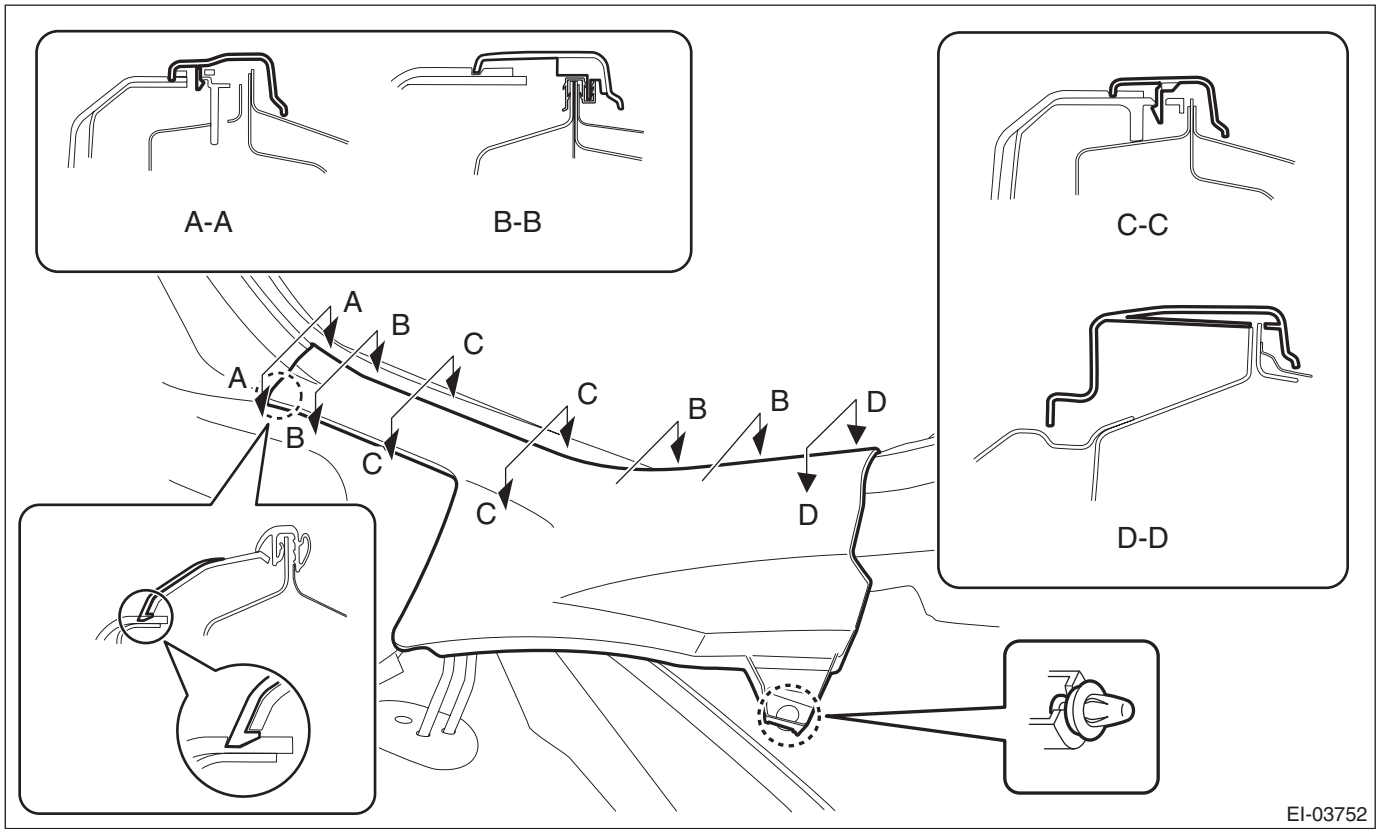


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



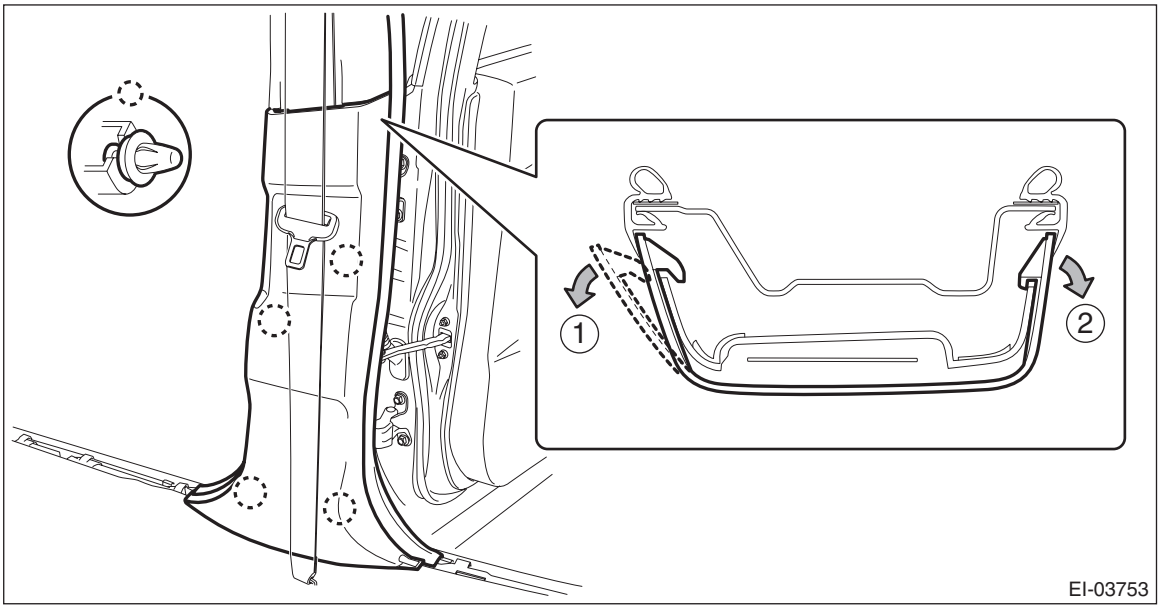
5) Release the clips and claws, and then remove the cover side sill - rear INN. (On the side where seat belt assembly is removed)

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



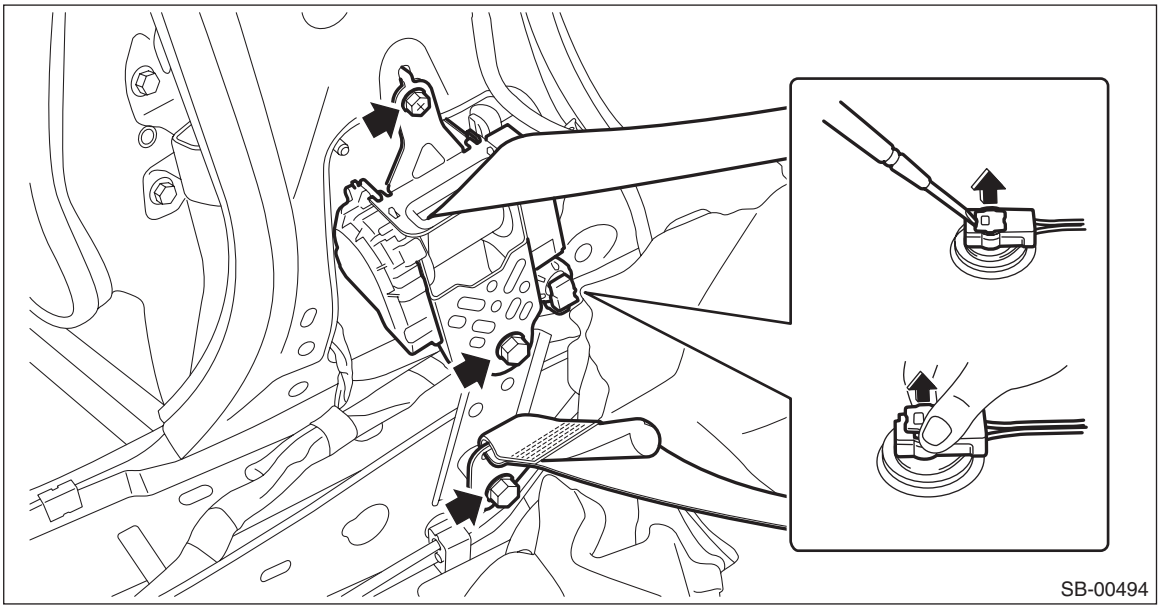
6) Remove the trim panel - center pillar LWR. (On the side where seat belt assembly is removed)
(1) Release the clip by pulling the trim panel - center pillar LWR toward you.
(2) Expand the claws of the trim panel - center pillar LWR outward, and remove it from the trim panel - center pillar UPR.

CAUTION:
Do not expand the trim panel - center pillar LWR excessively. Doing so may damage the trim.



NOTE:
First release the claw located to the front of the vehicle.
7) Remove the adjuster anchor cover and bolts of the trim panel - center pillar UPR, and remove the shoulder anchor. (On the side where seat belt assembly is removed)
8) Remove the seat belt outer - front.
(1) Turn over the floor mat to disconnect the belt tension sensor connector.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>

NOTE:
Also disconnect the connector of the passenger's lap seat belt pretensioner.
(2) Remove the bolt to remove the seat belt retractor.
(3) Remove the lower anchor bolt, and remove the seat belt outer - front.



2. SEAT BELT INNER - FRONT

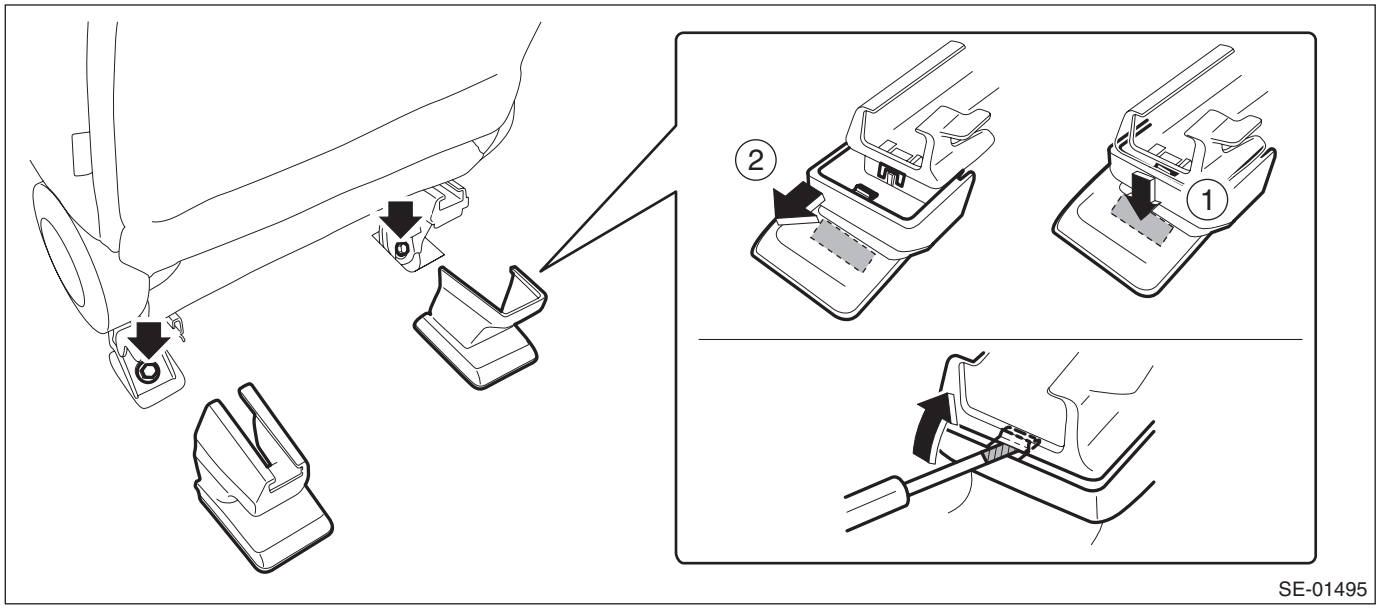
CAUTION:
The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

NOTE:
- For the seat with lifter, set the height to the middle position.
- For the power seat, remove the slide rail installing bolt before removing the battery ground.

3) Remove the front seats.
(1) Tilt the backrest assembly forward and move the front seat to the mid point on the slide rail.
(2) Remove the bolts on the front side of the front seat.
(3) Remove the cover - bolt rear.
1. While spreading the tip of the cover - bolt rear OUT side to side, pull it out toward you to remove.
2. Remove the cover - bolt rear INN.

NOTE:
- Firmly push in the cover - bolt rear INN at the point shown in the figure until a clicking sound is heard and remove it.
- If it is difficult to remove, release the claw using a flat tip screwdriver wrapped with protection tape while pushing the point shown in the figure to remove.

(4) Remove the bolts on the rear side of the front seat.



(5) Disconnect the connector under the front seat.

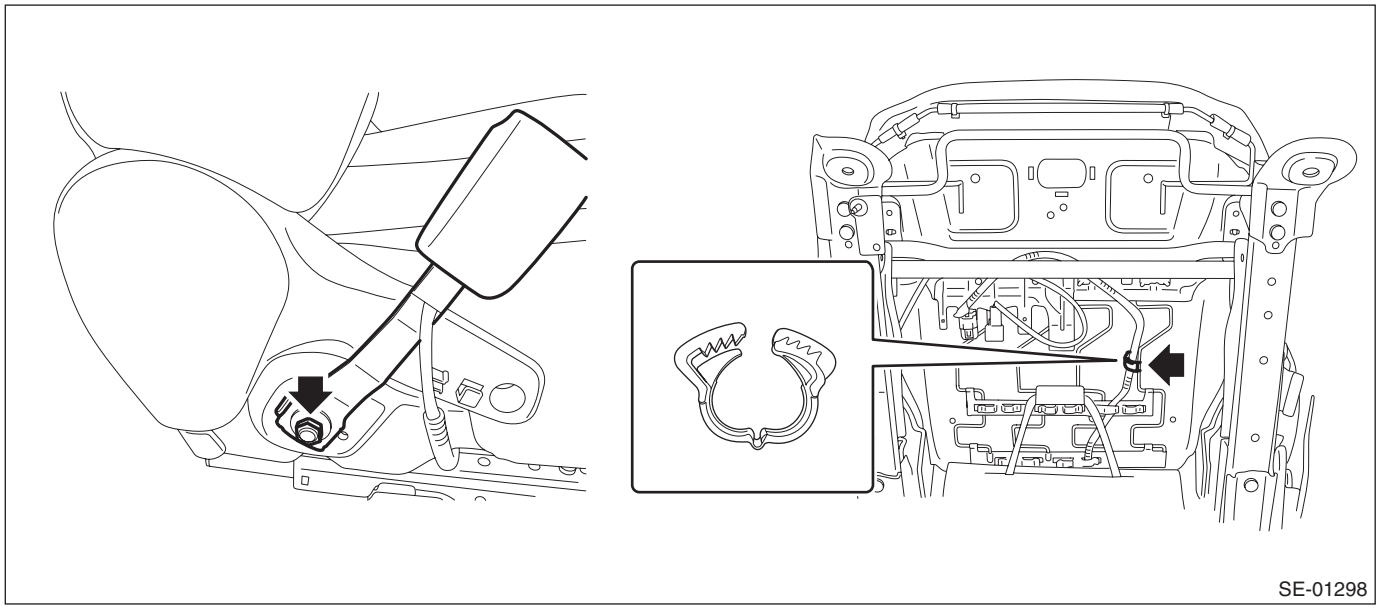
CAUTION:
For the power seat, check that the battery ground cable is disconnected. If not, disconnect the battery ground cable and wait for 60 seconds or more.

- Seat belt warning light connector
- Occupant detection system harness connector (passenger's seat) <Ref. to OD(diag)-9, OCCUPANT DETECTION SYSTEM (BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS), PROCEDURE, Airbag Connector.>
- Side airbag connector <Ref. to AB-27, SIDE AIRBAG MODULE, PROCEDURE, Airbag Connector.>
- Seat heater connector (model with seat heater)
- Power seat connector (model with power seats)

4) Remove the seat belt inner - front.

(1) Remove the nut, and remove the seat belt inner - front.

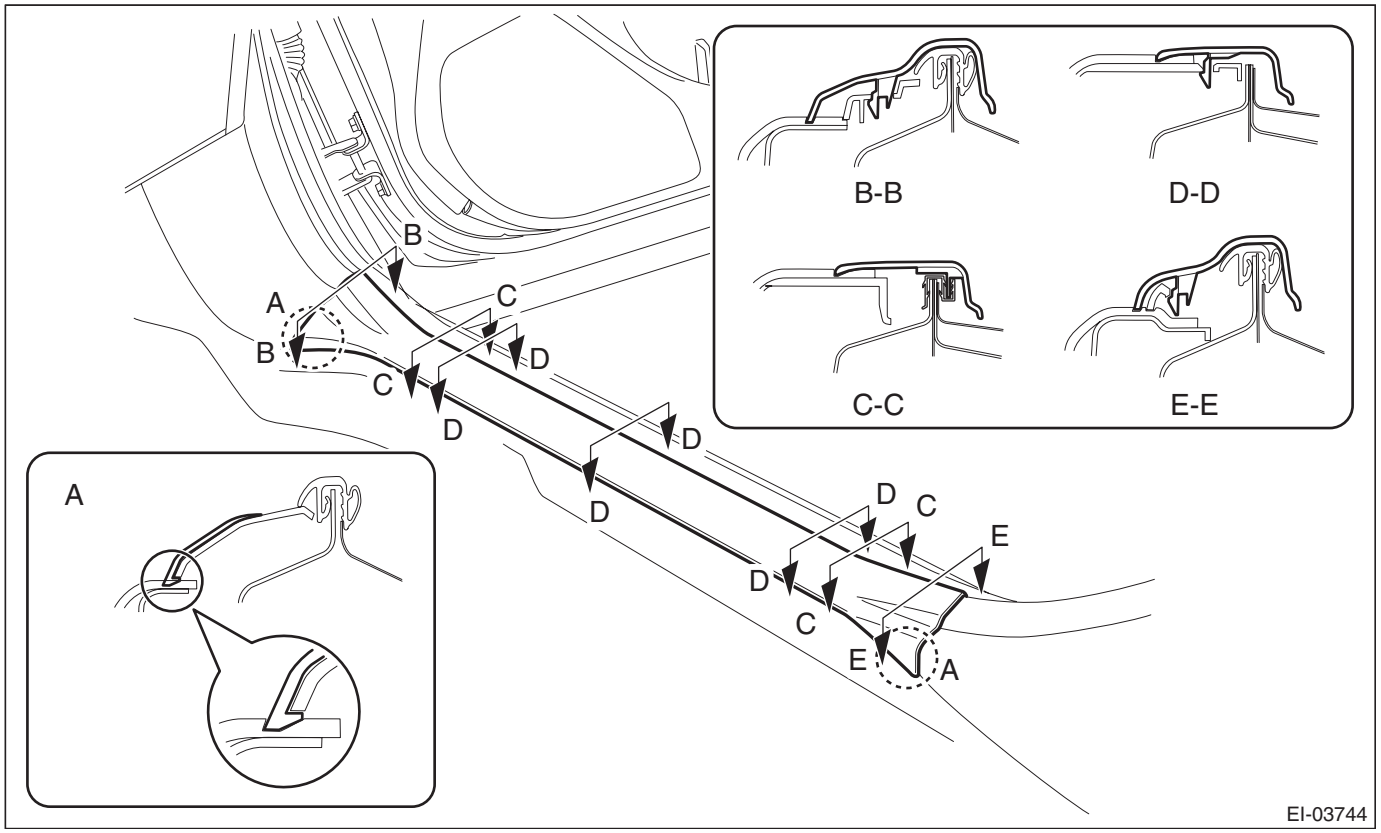
(2) Remove the clip for the inner seat belt harness located under the seat cushion.



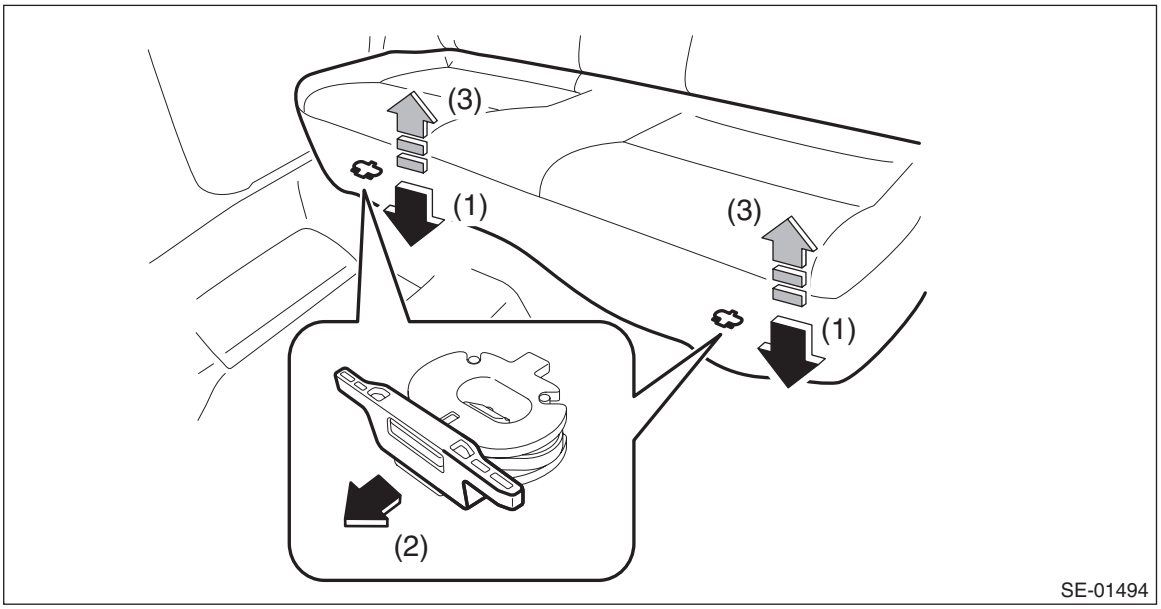
3. ADJUSTER ASSEMBLY - SEAT BELT

CAUTION:
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.
• Do not drop or subject the pretensioner to any impact.
• Since the pretensioner and bracket are integrated as a unit, do not disassemble them.
1) Before working, turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more.
2) Tilt the backrest assembly forward and move the front seat to the front most position.
3) Release the claws, and then remove the cover side sill - front INN.

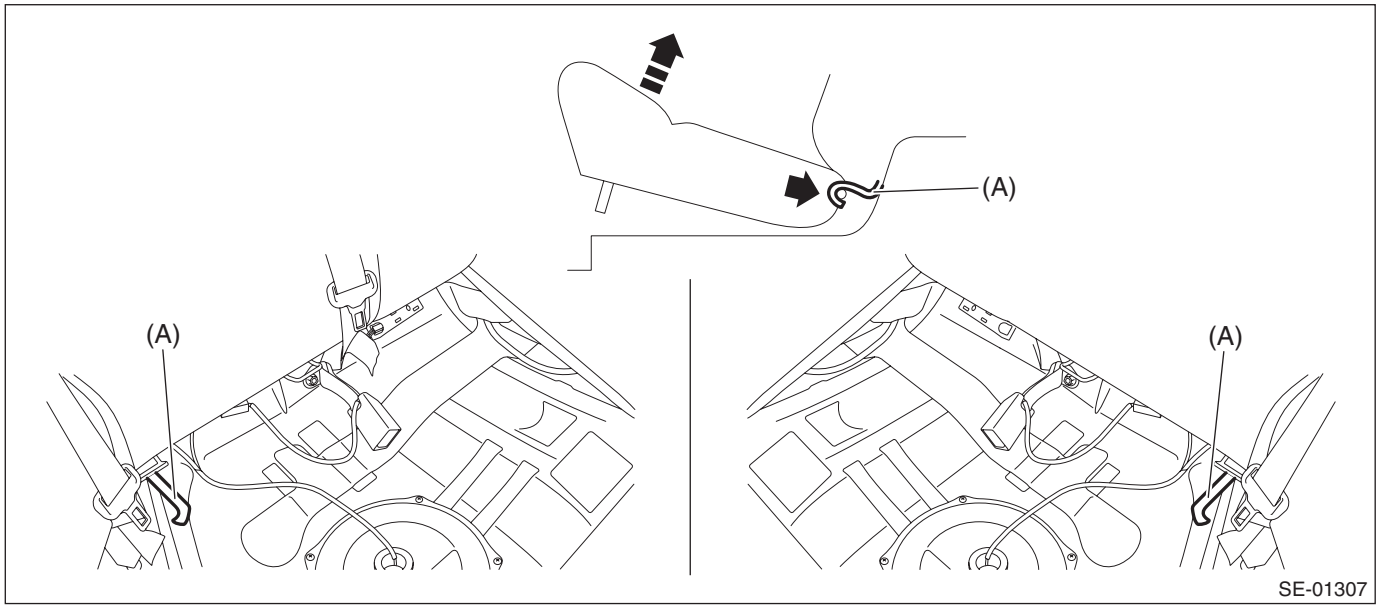
CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



4) Remove the rear seat cushion assembly.
(1) Push the corners of the rear seat cushion from above.
(2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
(3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

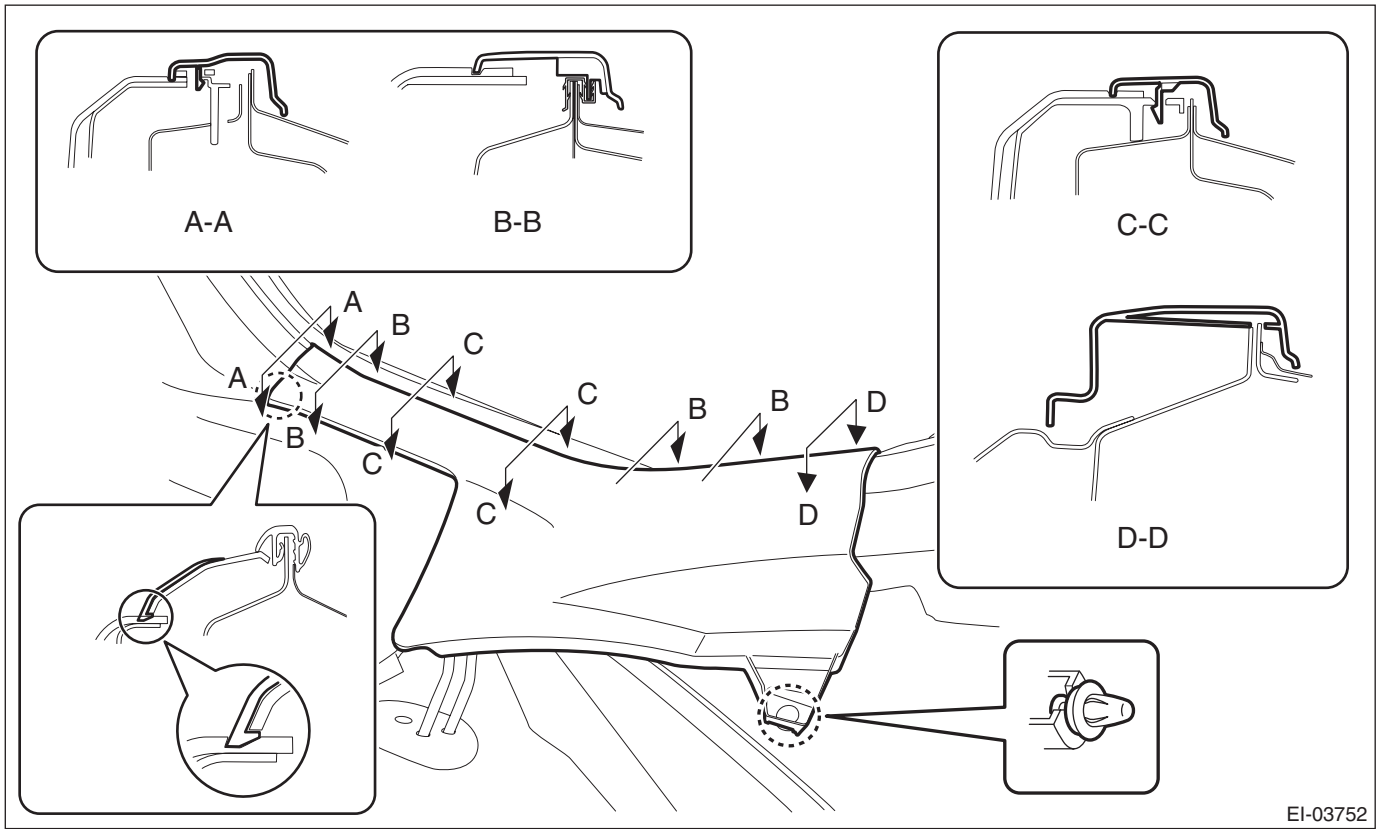


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



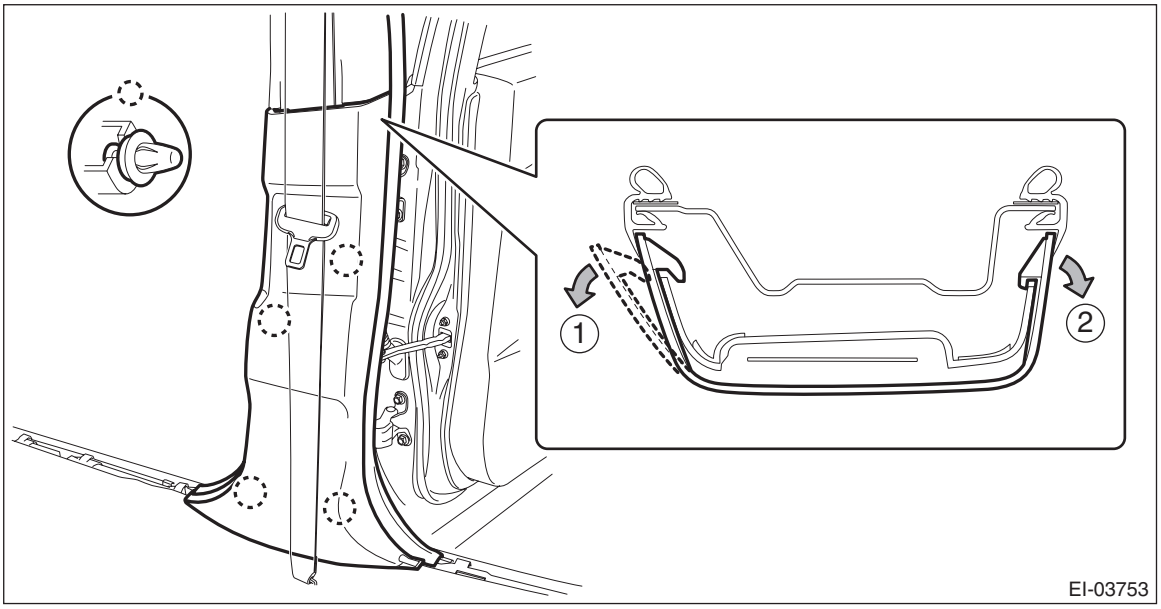
5) Release the clips and claws, and then remove the cover side sill - rear INN.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



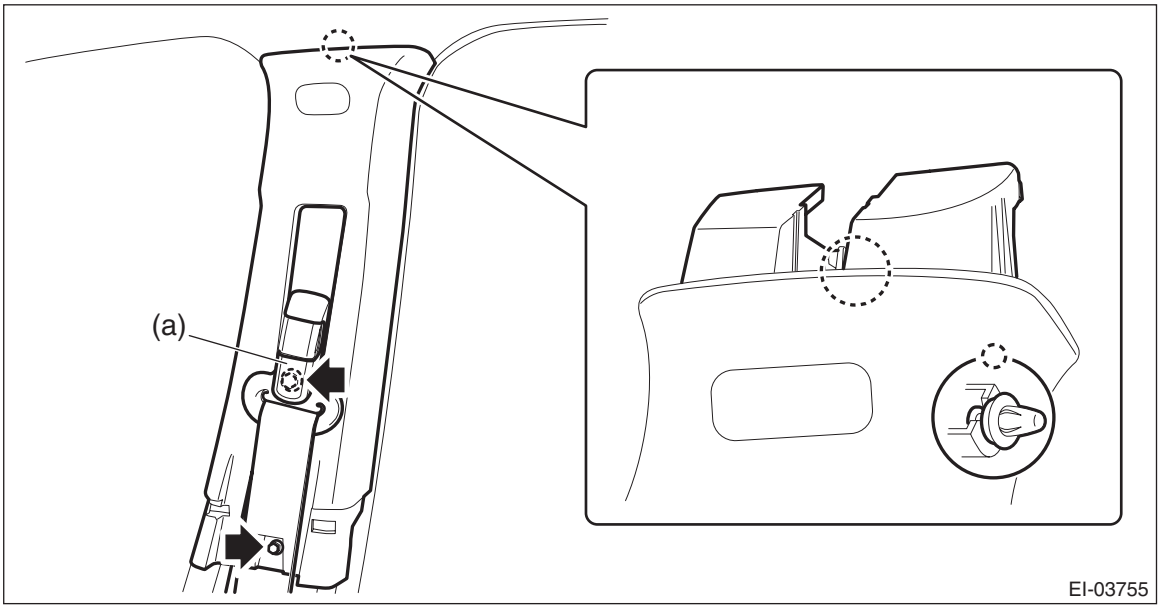
6) Remove the trim panel - center pillar LWR.
(1) Release the clip by pulling the trim panel - center pillar LWR toward you.
(2) Expand the claws of the trim panel - center pillar LWR outward, and remove it from the trim panel - center pillar UPR.

CAUTION:
Do not expand the trim panel - center pillar LWR excessively. Doing so may damage the trim.

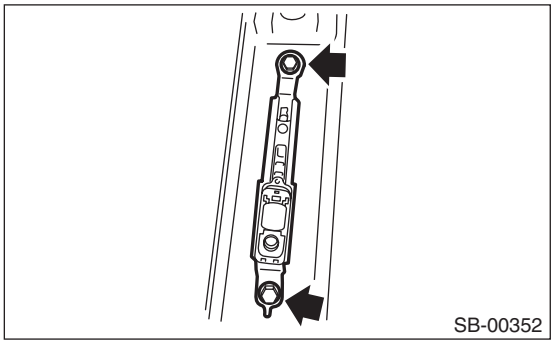


NOTE:
First release the claw located to the front of the vehicle.
7) Remove the trim panel - center pillar UPR.
(1) Remove the cover through (a), and remove the seat belt anchor bolt.
(2) Remove the bolt on the lower side of the trim panel - center pillar UPR.
(3) Remove the clip by pulling the upper part of the trim toward you, and while lowering the entire trim, remove the trim panel - center pillar UPR.

CAUTION:
Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.



8) Remove the bolts, and then remove the adjuster assembly - seat belt.



B: INSTALLATION

1. SEAT BELT OUTER - FRONT

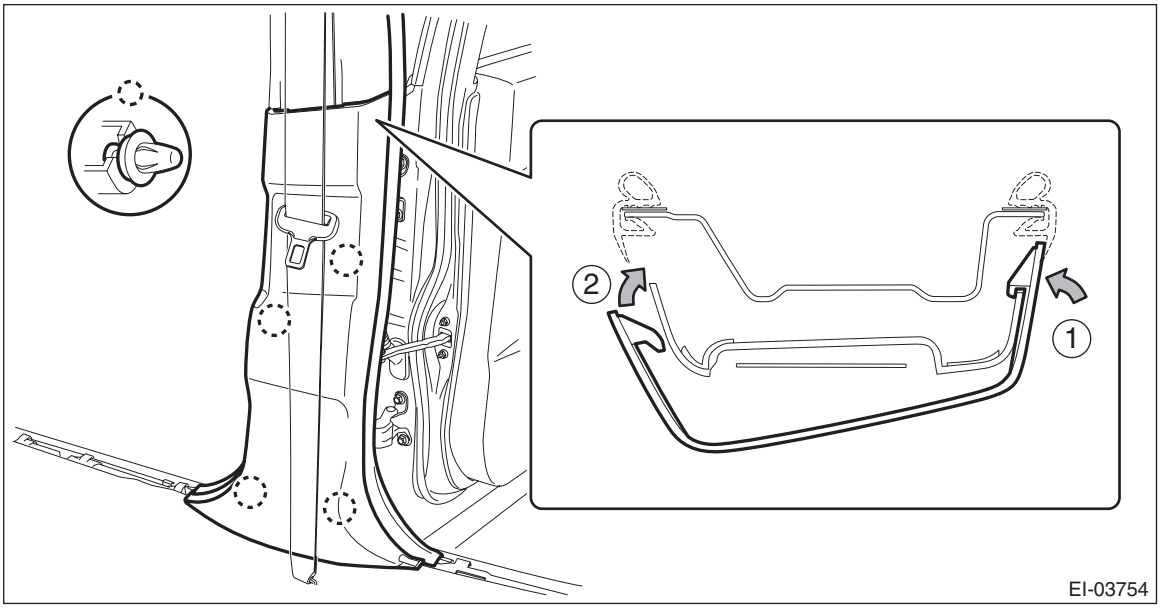
CAUTION:
• The parts of the driver and passenger sides are not the same. Before installation, make sure that the correct part is used.
• During installation, make sure that the seat belts are not twisted.
• After installation, make sure that the seat belt can be pulled out and retracted smoothly.
• Make sure that the seat belt harness is not caught anywhere. Wrong harness rooting may cause the harness short from pinch.
• Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.

1) Before installation, perform a unit inspection of retractor. <Ref. to SB-28, INSPECTION, Front Seat Belt.>
2) Install the seat belt outer - front.

Tightening torque:
Front seat belt: <Ref. to SB-2, FRONT SEAT BELT, COMPONENT, General Description.>

3) Install the remaining parts in the reverse order of removal.

NOTE:
Assemble the trim panel - center pillar LWR to the trim panel - center pillar UPR securely.



4) After installation, check the following points.
- The seat belt is not twisted.
- The seat belt can be pulled out and retracted smoothly.
- The adjuster assembly - seat belt can be moved smoothly.
- Check that the airbag warning light lights up for approximately 6 seconds and then turns off when connecting the battery ground cable and turning the ignition switch to ON.

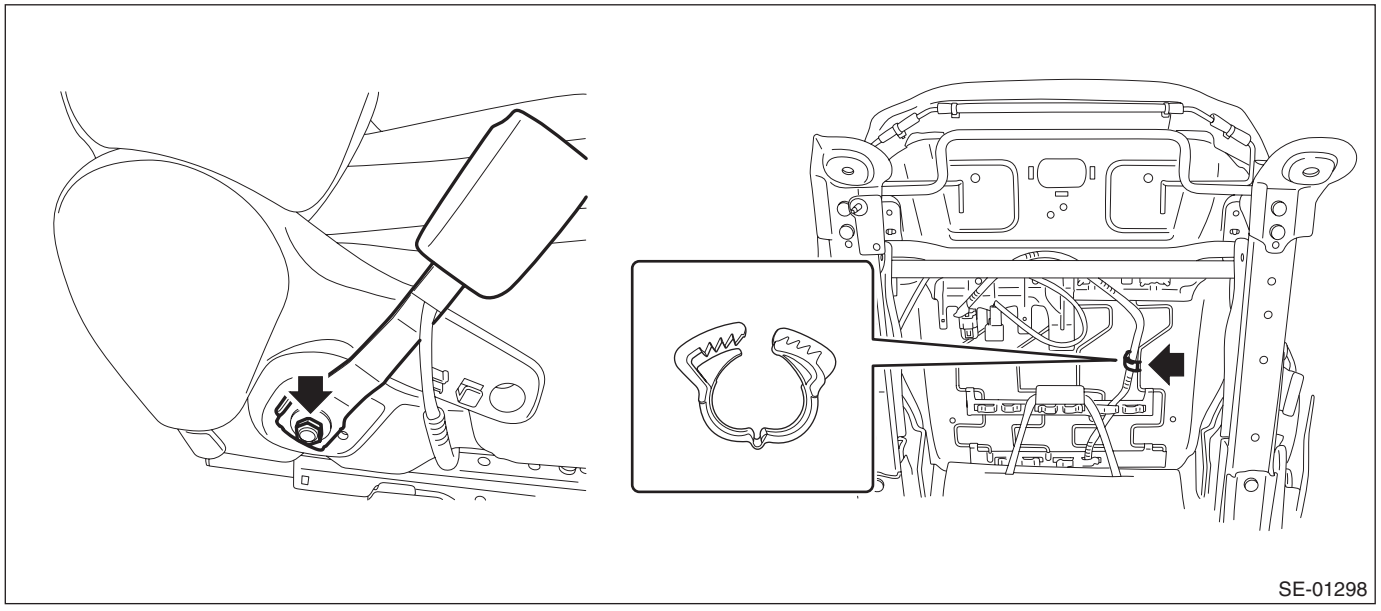
2. SEAT BELT INNER - FRONT

CAUTION:
- **Before installation, make sure that the correct part is used.**
- **During installation, make sure that the seat belts are not twisted.**
- **Check that there is no pinching of the seat belt harness. Wrong harness rooting may cause the harness short from pinch.**

1) Install the seat belt inner - front.

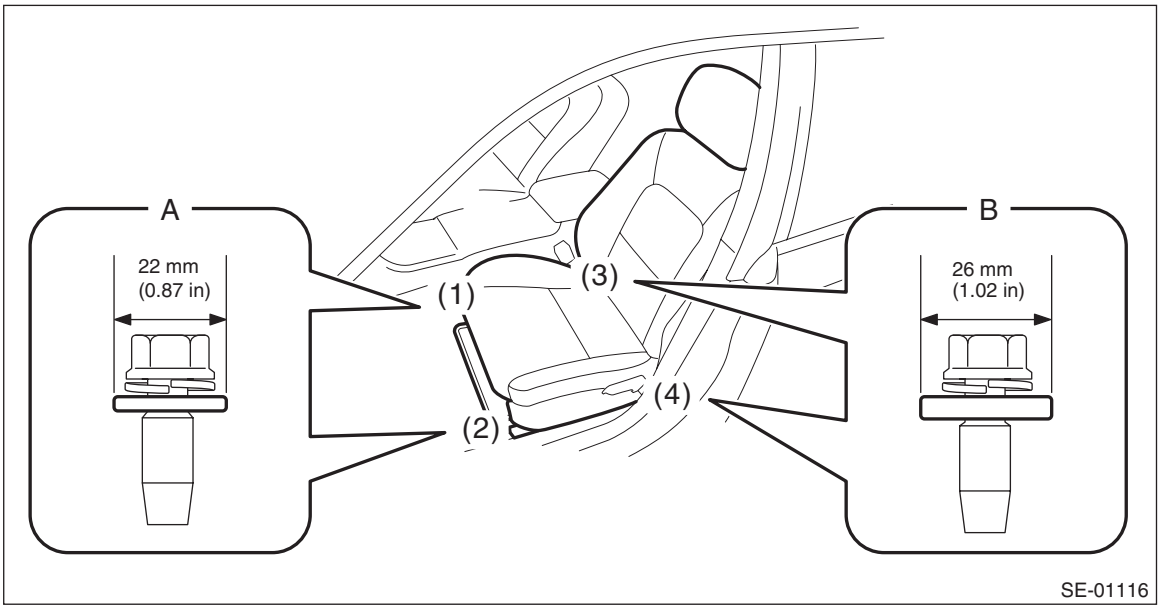
Tightening torque:
Front seat belt: <Ref. to SB-2, FRONT SEAT BELT, COMPONENT, General Description.>

2) Locate the seat belt harness and retain it with a harness clip.



3) Install the seat assembly to the body.

CAUTION:
• The seat mounting bolts differ between the front mounting points and the rear mounting points. Make sure that you are using correct bolts at correct positions.
• Tighten the slide rail installing bolts in the order as shown in the figure, in several steps by gradually increasing the torque until they reach the specified torque.



- **Front (bolt A): Washer diameter 22 mm (0.87 in)**
- **Rear (bolt B): Washer diameter 26 mm (1.02 in)**

Tightening torque:
Front seat assembly: 53 N·m (5.40 kgf-m, 39.1 ft-lb)

4) Check that no harness is caught by sliding the seat back and forth.

3. ADJUSTABLE ANCHOR ASSY

Referring to the installation procedure for seat belt outer - front, install the parts in the reverse order of removal.

Tightening torque:
Front seat belt: <Ref. to SB-2, FRONT SEAT BELT, COMPONENT, General Description.>

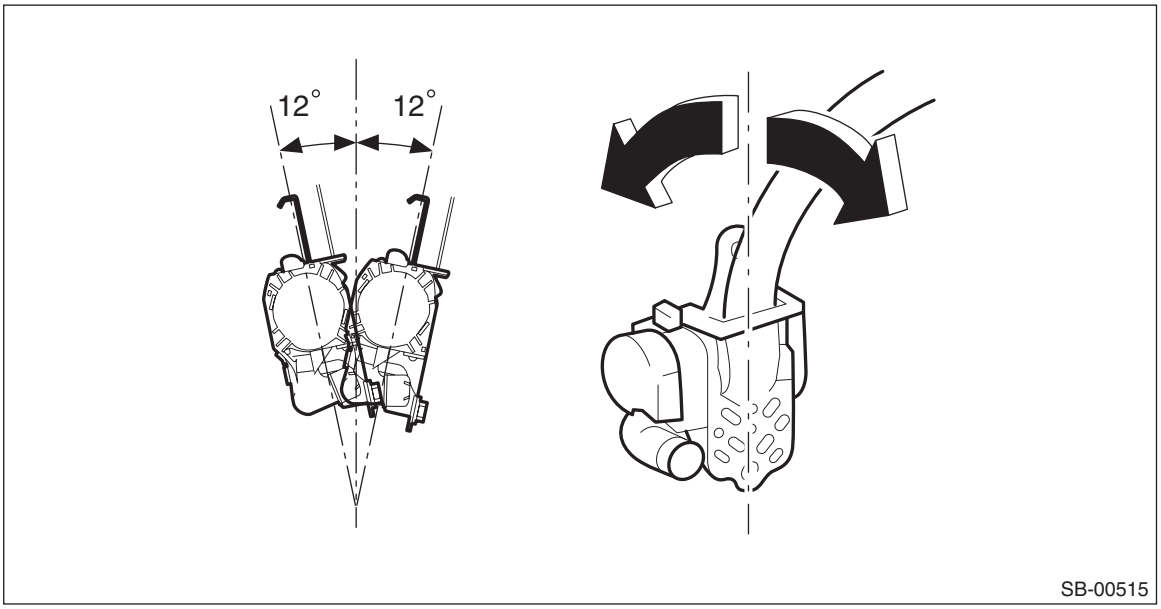
C: INSPECTION

1. VISUAL INSPECTION

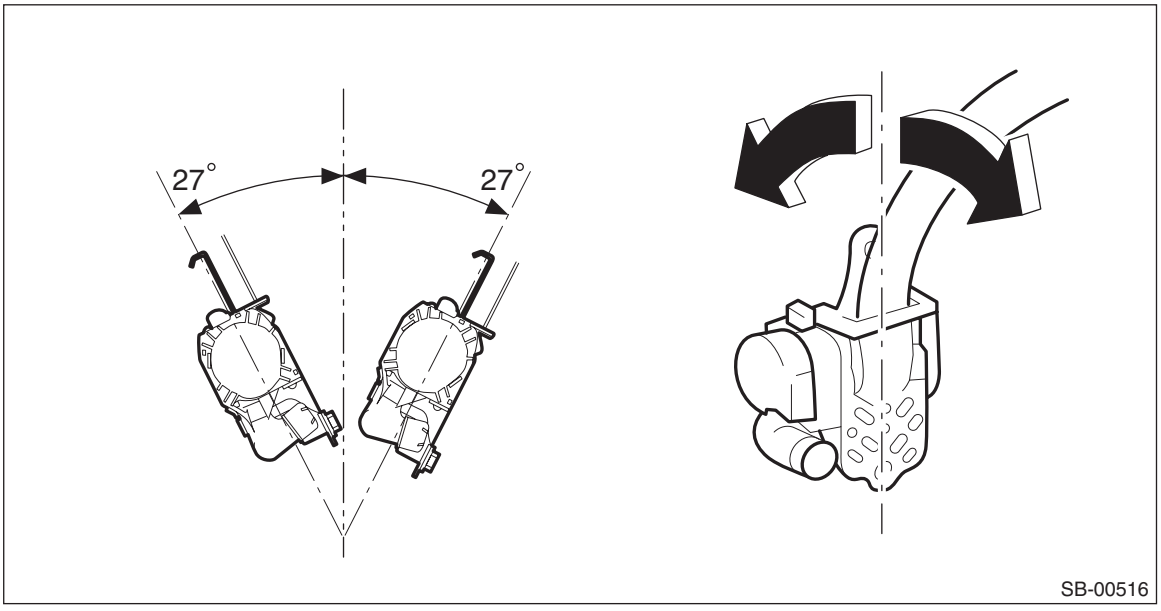
Check for the following, and replace with new parts if necessary.
- Pretensioner is cracked or deformed.
- Adjuster assembly - seat belt is cracked or deformed.
- Seat belt is slackened, bent or worn.
- Seat belt is abnormally wound or extended.
- Seat belt inner - front is deformed or damaged.
- Seat belt buckle cannot be engaged properly.

2. ELR LOCK MECHANISM INSPECTION

1) Hold the retractor upright (as installed in the vehicle) and check the ELR lock mechanism.
2) Tilt the retractor from the upright posture and check the following points.
- It does not lock if the inclination angle is 12° or less.



- It remains locked if the inclination angle is 27° or more.



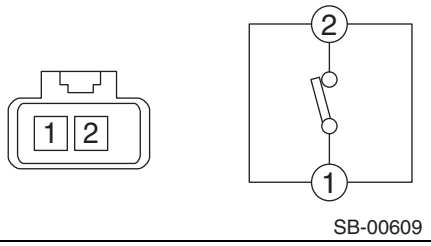
3) If the ELR lock mechanism does not operate properly, replace the seat belt outer - front with a new part.

3. SEAT BELT SWITCH INSPECTION

Preparation tool:
Circuit tester

- Driver's seat

Check the resistance between the terminals when the seat belt inner - front is in each of the following operation conditions.

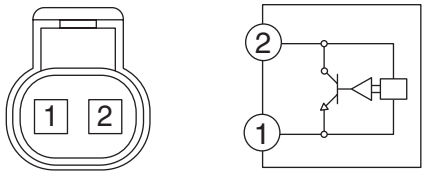
Terminal No.	Inspection conditions	Standard	Circuit
2 — 1	Tongue plate inserted	Less than 1 Ω	
2 — 1	Tongue plate detached	10 kΩ or more	

SB-00609

Replace the seat belt inner - front if the inspection result is not within the standard.

- Passenger's seat

Check the current between the terminals when the seat belt inner - front is in each of the following operation conditions.

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Tongue plate inserted	12 — 18 mA	
1 — 2	Tongue plate detached	4 — 7 mA	

SB-00608

Replace the seat belt inner - front if the inspection result is not within the standard.

5. Fuel Tank Protector

A: NOTE

Refer to “FUEL INJECTION” section for removal and installation procedure of the fuel tank protector. <Ref. to FU(H4DO)-108, Fuel Tank Protector.>

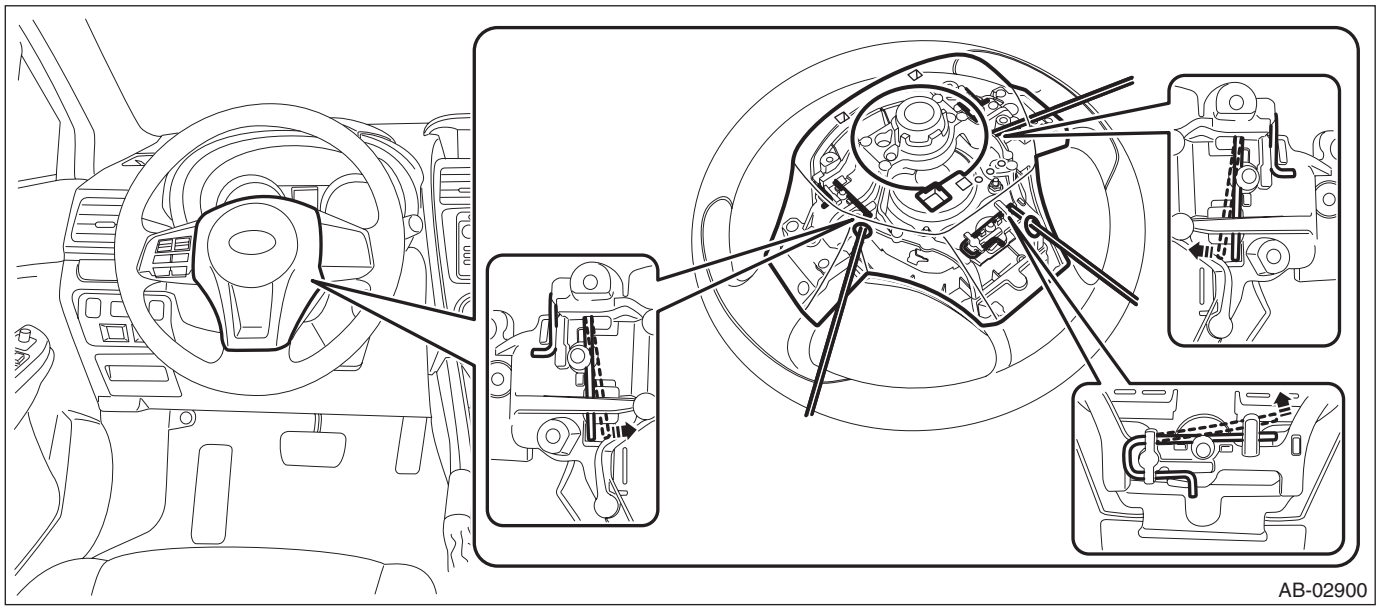
5. Horn Switch

A: REMOVAL

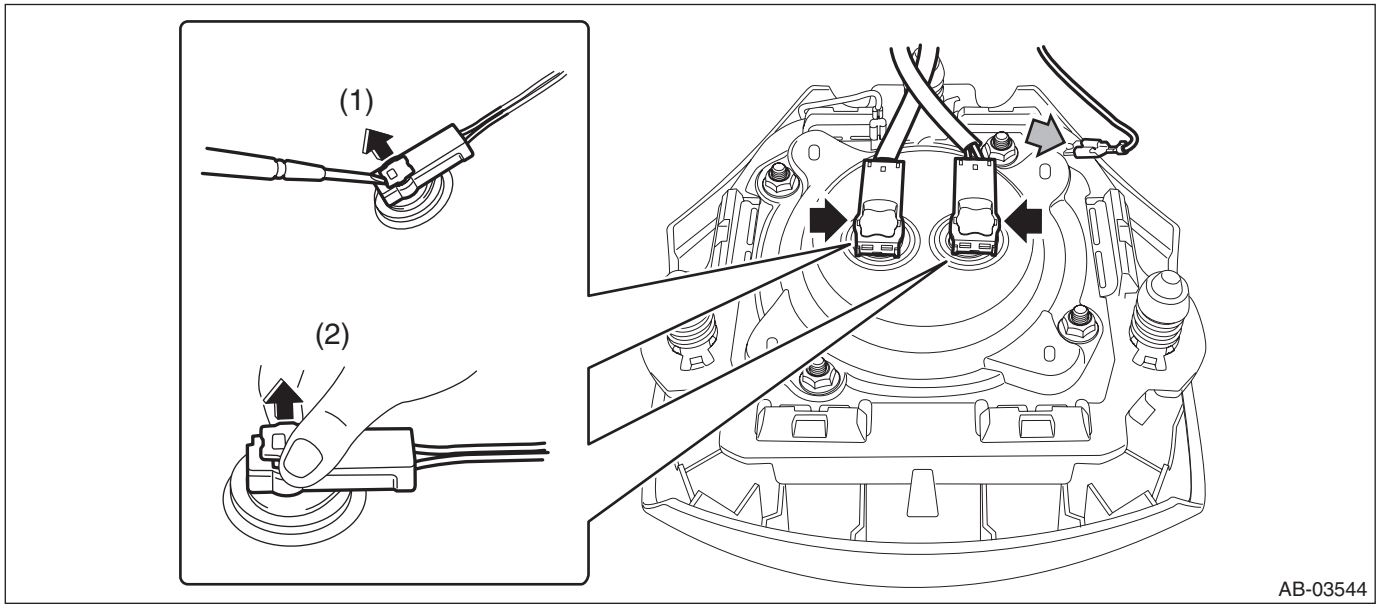
NOTE:
Horn switch is a unit with the driver's airbag module.
1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.

CAUTION:
Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>

(1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).



(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



B: INSTALLATION

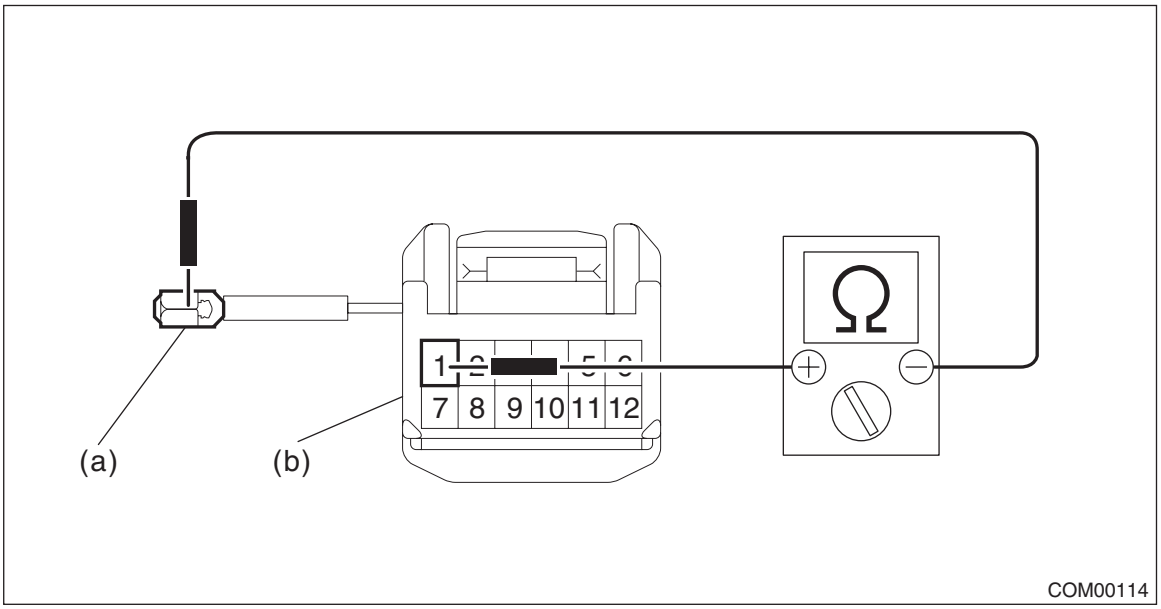
CAUTION:
• Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". <Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
1) Install the driver's airbag module. <Ref. to AB-40, INSTALLATION, Driver's Airbag Module.>
2) Install each part in the reverse order of removal.

C: INSPECTION

1. CHECK HORN SWITCH

1) Remove the horn switch. <Ref. to COM-8, REMOVAL, Horn Switch.>
2) Check that the connection of the horn switch harness connector is correct.
3) Disconnect the horn switch harness connector and check the resistance between the harness connectors.

Preparation tool:
Circuit tester



(a) Ground terminal (b) Horn switch terminal

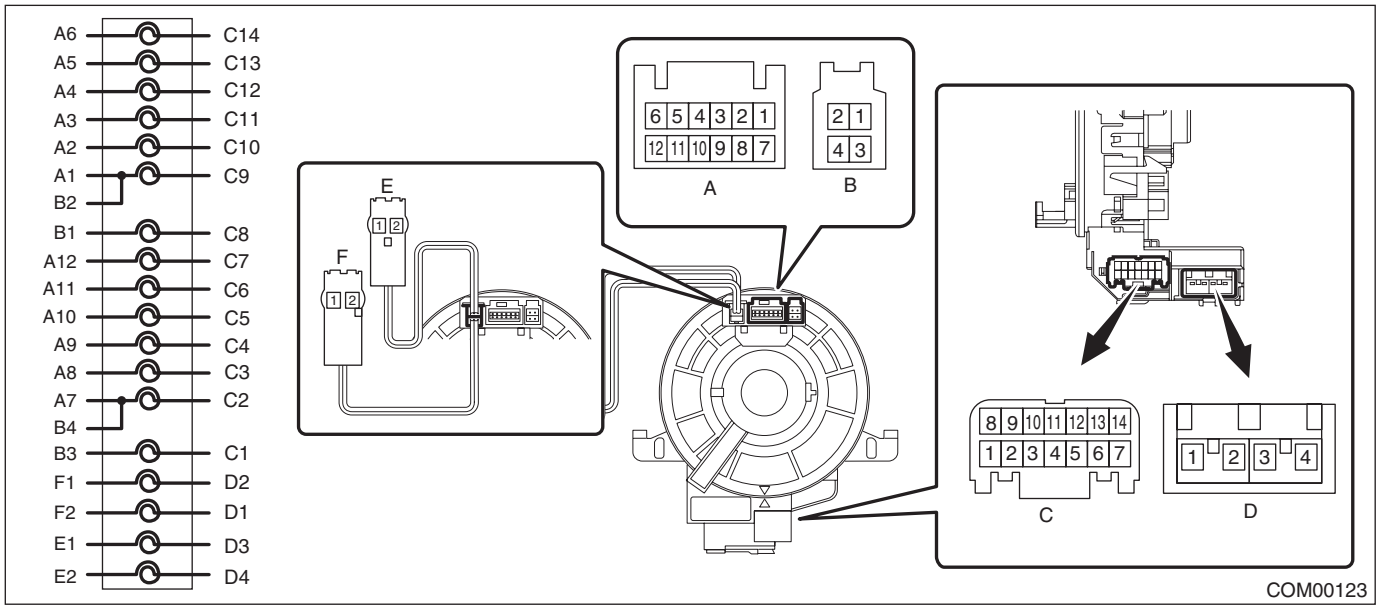
Terminal No.	Standard
Horn switch terminal — ground terminal	Less than 1 Ω

4) Replace the driver's airbag module if the inspection result is not within the standard value.

2. CHECK ROLL CONNECTOR

1) Remove the roll connector.<Ref. to AB-102, REMOVAL, Roll Connector.>
2) Check the resistance between roll connector terminals.

Preparation tool:
Circuit tester



Terminal No.	Inspection conditions	Standard
A1 — C9	Always	Less than 1 Ω

3) Replace the roll connector if the inspection result is not within the standard value.

GLASS/WINDOWS/MIRRORS

GW

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5. Keyless Access System

A: WIRING DIAGRAM

For wiring diagrams related to the keyless access system, refer to the following items.

- Keyless access system: <Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>
- Push button start system
  - Non-turbo model: <Ref. to WI-325, NON-TURBO MODEL, WIRING DIAGRAM, Push Button Start System.>
  - Turbo model: <Ref. to WI-332, TURBO MODEL, WIRING DIAGRAM, Push Button Start System.>

B: ELECTRICAL SPECIFICATION

Refer to “Control Module I/O Signal” of “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-12, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: INSPECTION

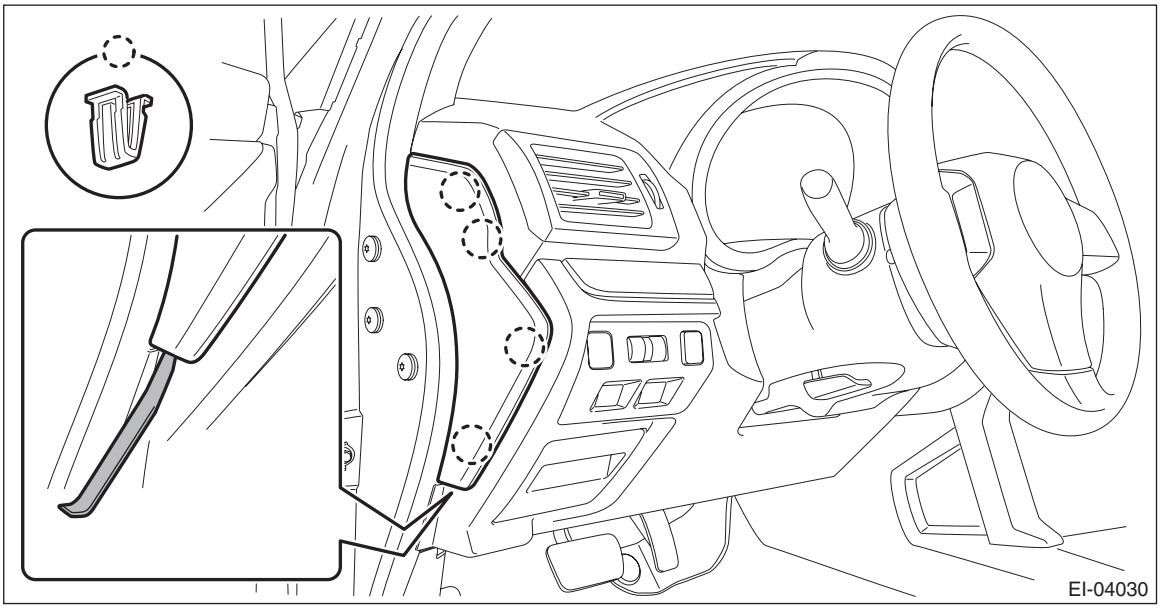
1. KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM

Refer to “Basic Diagnostic Procedure” of “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-2, Basic Diagnostic Procedure.>

5. Knee Airbag Module

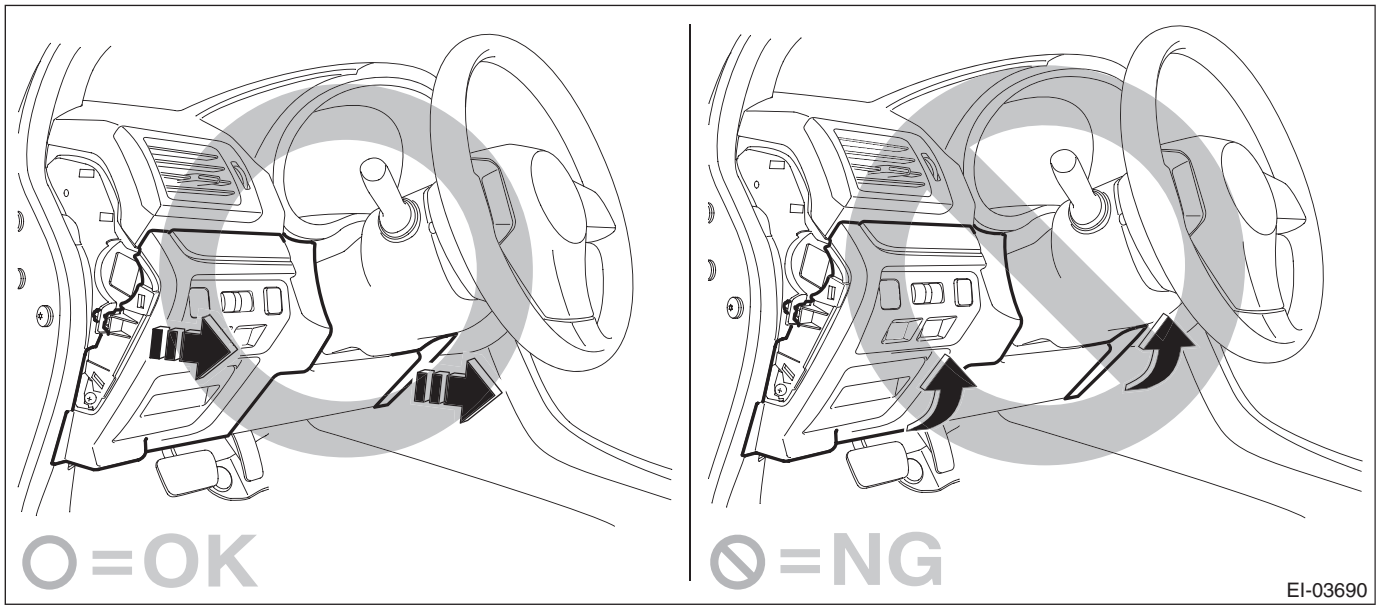
A: REMOVAL

1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the clips, and remove the cover - instrument panel side LH.

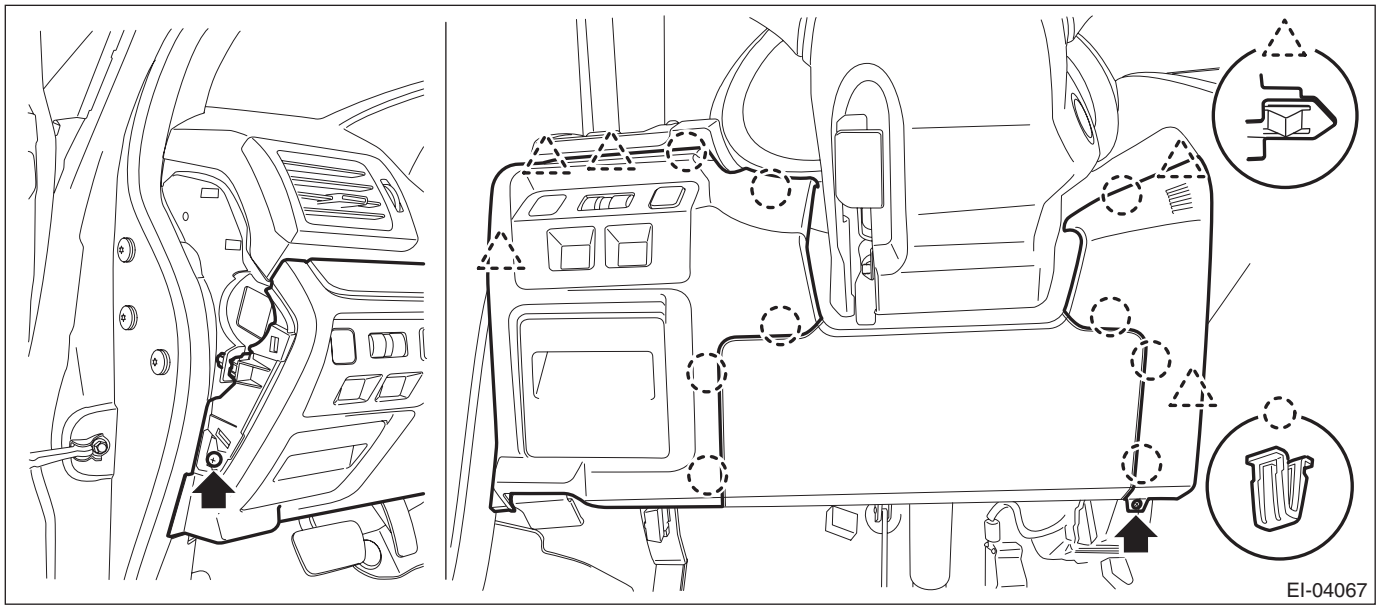


NOTE:
Using a plastic remover, open the cover - instrument panel side LH.
4) Remove the cover assembly - instrument panel LWR driver.

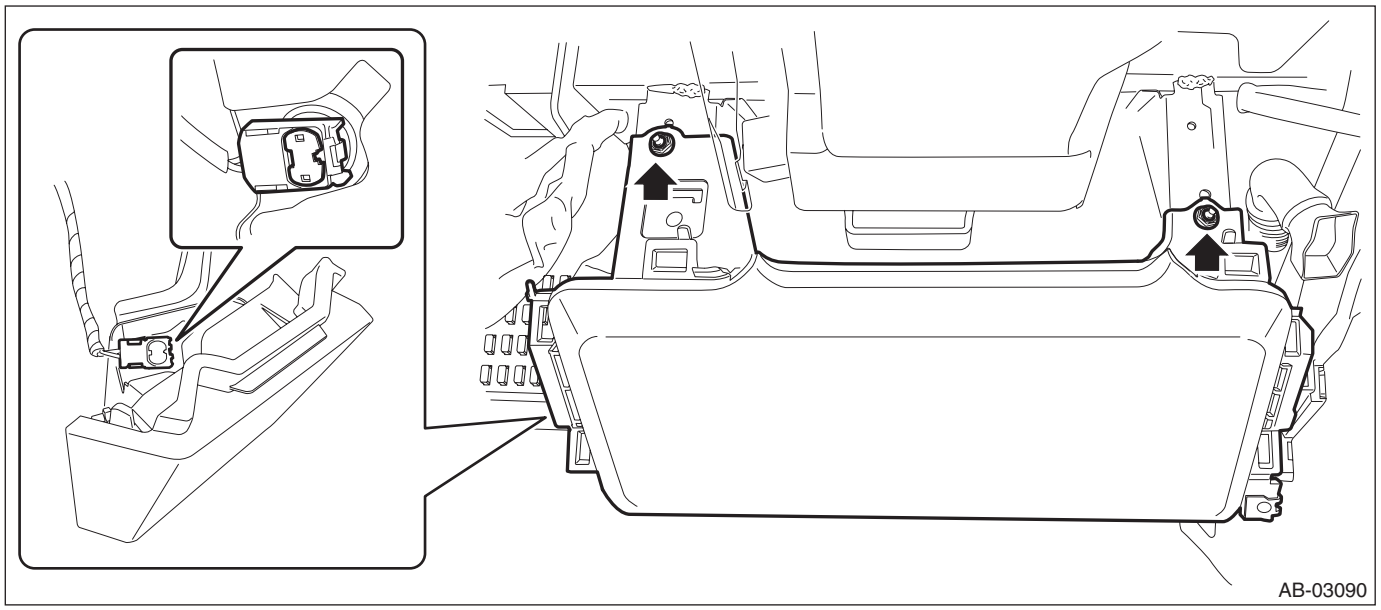
CAUTION:
When removing the cover assembly - instrument panel LWR driver, be sure to pull it toward you. If attempting to remove by turning it upward, the claws may be damaged.



(1) Remove the screws and release the clips and claws.
(2) Disconnect the harness connectors, and remove the cover assembly - instrument panel LWR driver INN and the cover assembly - instrument panel LWR driver OUT.



5) Remove the nuts to remove the knee airbag module and disconnect the harness connector. <Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



B: INSTALLATION

CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
1) Before installation, inspect the following items and replace any faulty part with a new one.
• Airbag module is cracked or deformed.
• Knee airbag module bracket is cracked or deformed.
• Harness and/or connector is cracked, deformed or open.
• Harness wire is exposed.
• Depending on the condition of the beam COMPL - steering, installation of the knee airbag module is difficult.
2) Install each part in the reverse order of removal.

Tightening torque:
Knee airbag module: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

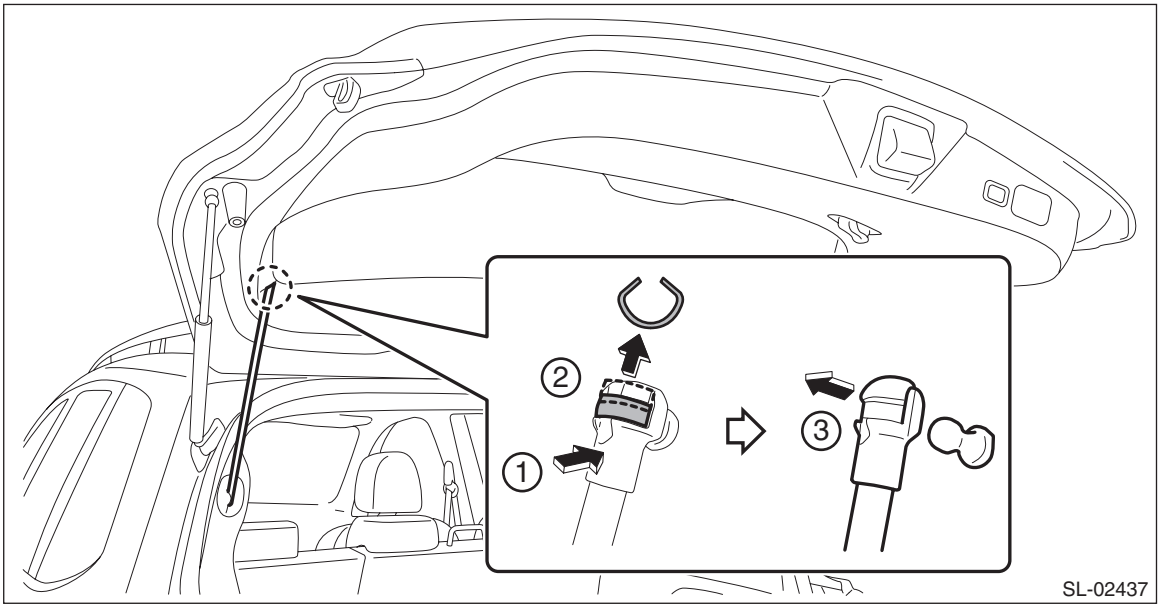
5. Power Rear Gate Drive Unit

A: REMOVAL

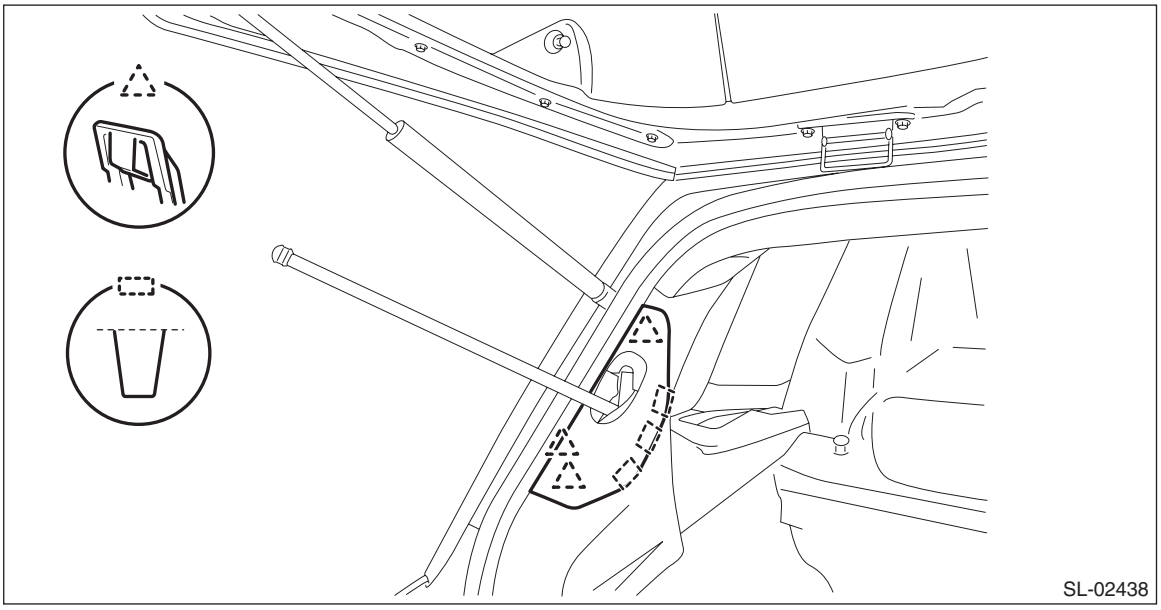
1) Disconnect the ground cable from battery.
2) Remove the rod - power rear gate.
   (1) Disconnect the upper part of the rod - power rear gate from the rear gate.

CAUTION:
Using a small flat tip screwdriver wrapped with protective tape, remove the part by gradually applying force. Forcibly removing the part may deform the stop ring.

1. Press the rod against the ball stud bolt.
2. With the rod pressed, remove the stop ring while sliding along the ball housing groove.
3. Disconnect the rod from ball stud bolt.



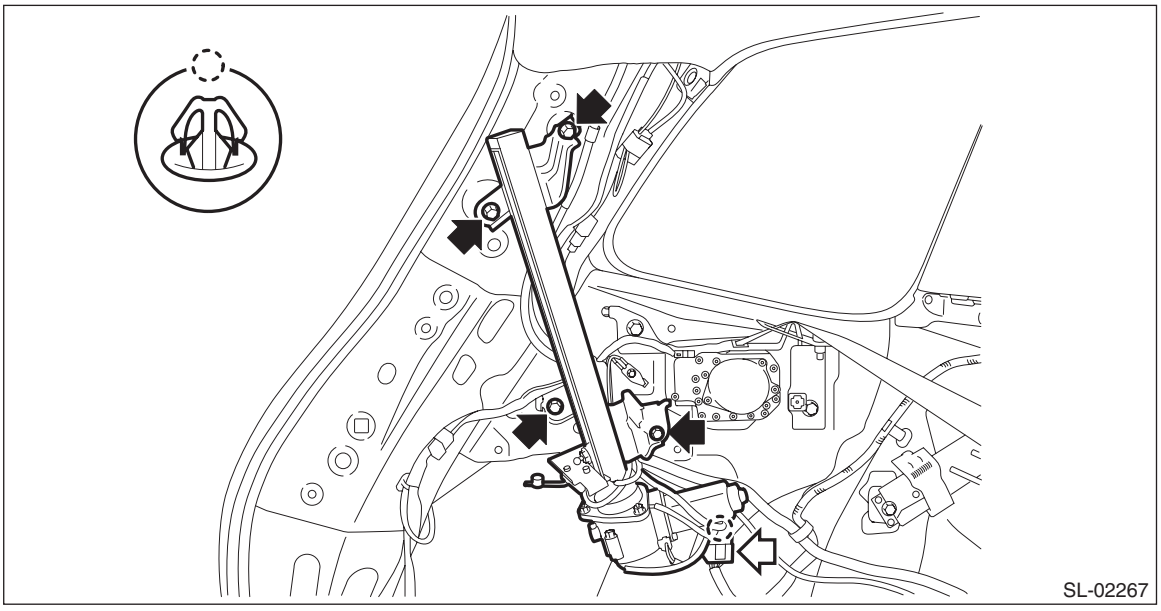
   (2) Release the claws and then remove the cap - rear quarter pillar UPR.



   (3) Disconnect the lower part of the rod - power rear gate from the power rear gate drive unit (PRG D/U), and then remove the rod - power rear gate.

NOTE:
Perform the same procedures as for the upper part of rod - power rear gate.

3) Remove the trim panel - rear apron and the trim panel - rear quarter pillar UPR. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>
4) Remove the power rear gate drive unit (PRG D/U).
(1) Release the claws, and disconnect the connector.
(2) Remove the bolts, release the claw, and then remove the power rear gate drive unit (PRG D/U).

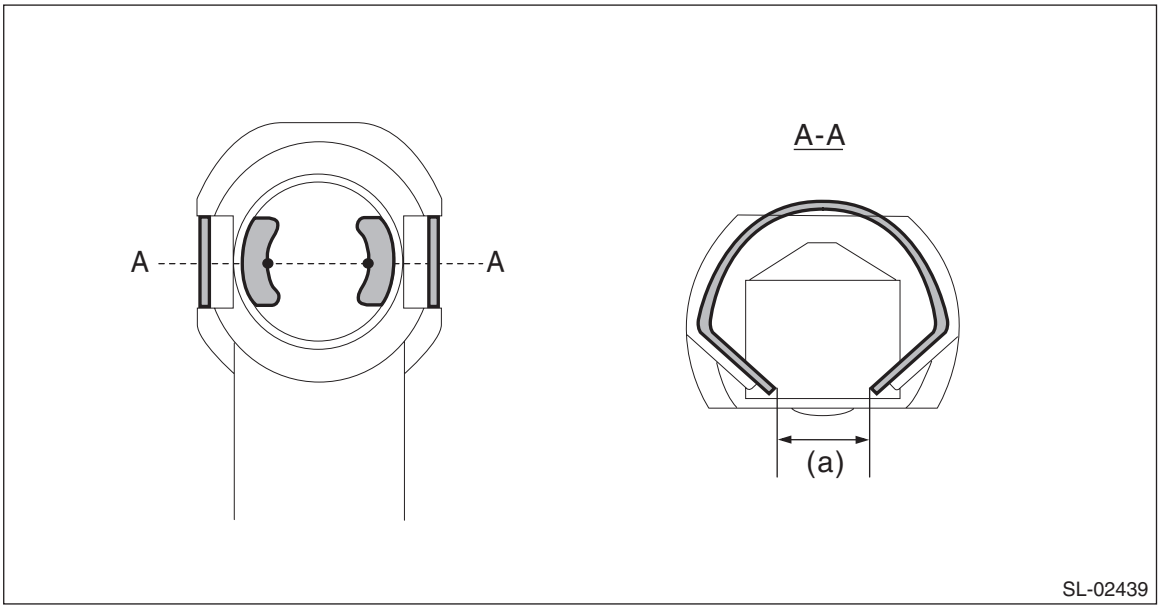


B: INSTALLATION

1) Install the stop ring to the rod - power rear gate.

CAUTION:
Align the stop ring to the ball housing groove, and attach the ring by gradually applying force, while paying attention not to deform it.

2) With the stop ring installed, check the clearance (a) of the stop ring.



Specification:
6.4 — 7.2 mm (0.25 — 0.28 in)
Replace the stop ring if the inspection result is not within the standard value.

3) Install each part in the reverse order of removal.

CAUTION:
• After installing the power rear gate drive unit (PRG D/U), check that the temporary stop lock mechanism is unlocked, and then move the ball stud bolt to the top position.
• When installing the rod, check that the stop ring and ball stud bolt are vertically placed, and then slowly press in the rod.

Tightening torque:
Power rear gate drive unit (PRG D/U): 10 N·m (1.02 kgf-m, 7.4 ft-lb)

C: INSPECTION

1. RAIL AND SLIDER

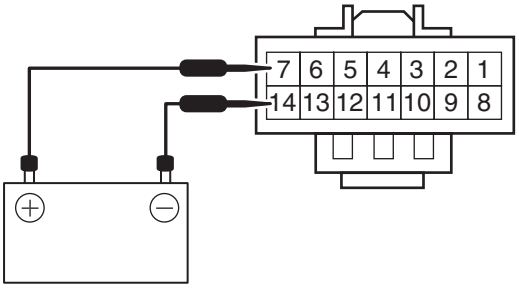
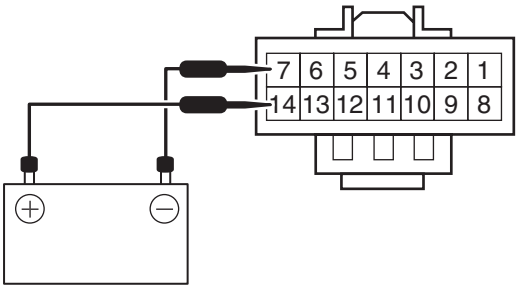
Pull the emergency lever to check that the temporary stop lock mechanism operates properly.
Move the ball stud bolt along the rail to check for play or stuck.
Replace the power rear gate drive unit (PRG D/U), if it is found defective.

2. ACTUATOR

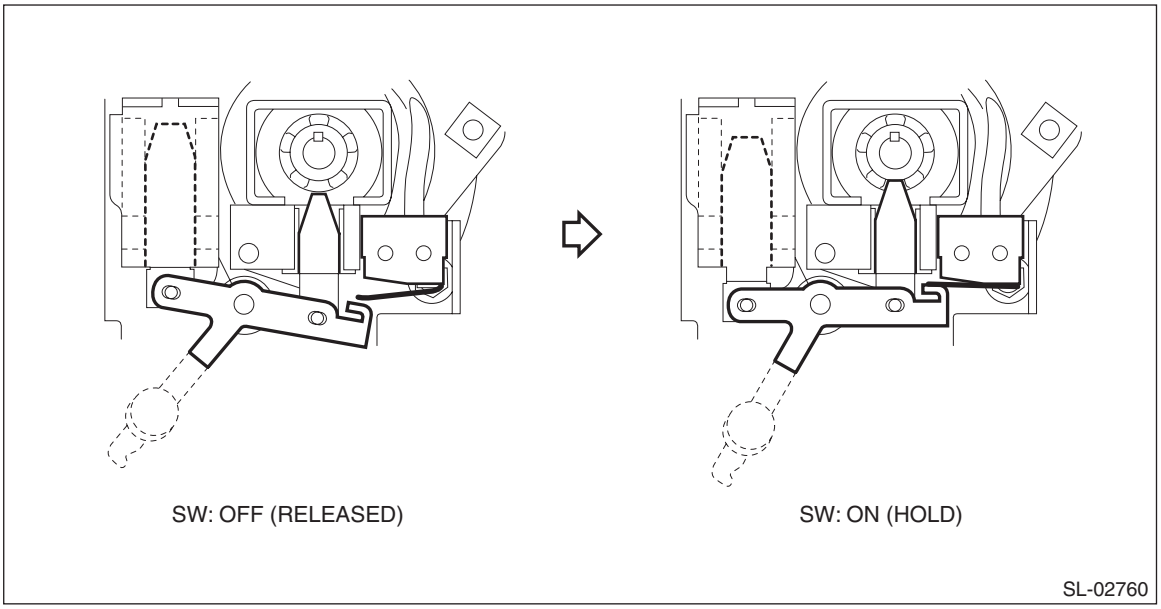
Unit inspection

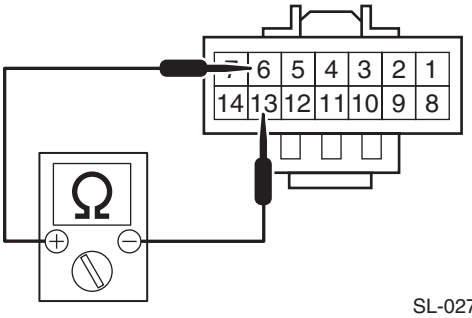
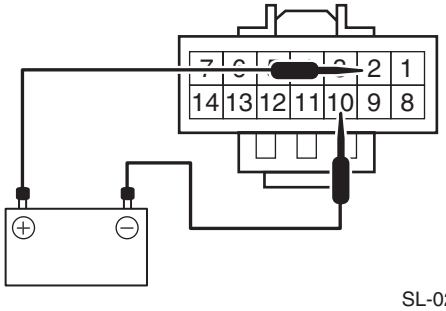
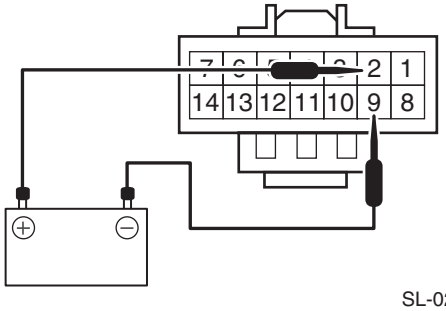
Preparation tool:
Circuit tester

1) Check motor operation
(1) Move the slider to the center of rail manually.
(2) Check the motor operation when battery voltage is applied between the terminals of motor.

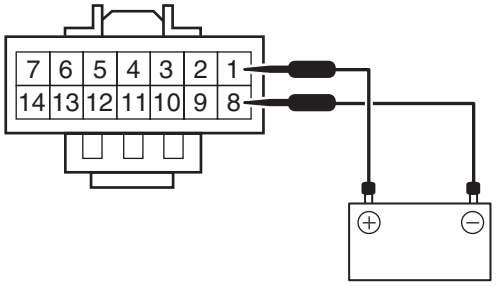
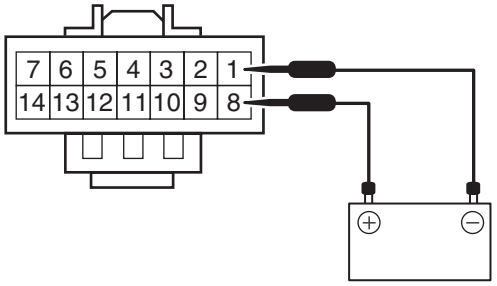
<table>
<tr><th>Terminal No.</th><th>Inspection conditions</th><th>Specification</th><th>Connection diagram</th></tr>
<tr><td>7 (+) — 14 (–)</td><td rowspan="2">Connect battery to the terminals</td><td>OPEN rotation</td><td> 
</td></tr>
<tr><td>14 (+) — 7 (–)</td><td>CLOSE rotation</td><td> 
</td></tr>
</table>

2) Check solenoid
(1) Measure the resistance between solenoid position switch terminals.
(2) Check the solenoid operation when battery voltage is applied between the terminals of solenoid.



Terminal No.	Inspection conditions	Specification	Connection diagram
6 — 13	Switch OFF	1 MΩ or more	 SL-02761
	Switch ON	Less than 1 Ω	
2 (+) — 10 (–)	Connect battery to the terminals	Released	 SL-02762
2 (+) — 9 (–)		Hold	 SL-02763

3) Check clutch
Check the clutch operation when battery voltage is applied between the terminals of clutch.

Terminal No.	Inspection conditions	Specification	Connection diagram
1 (+) — 8 (–)	Connect battery to the terminals	Check the operating sound when it is ON.	 SL-02764
8 (+) — 1 (–)			 SL-02765

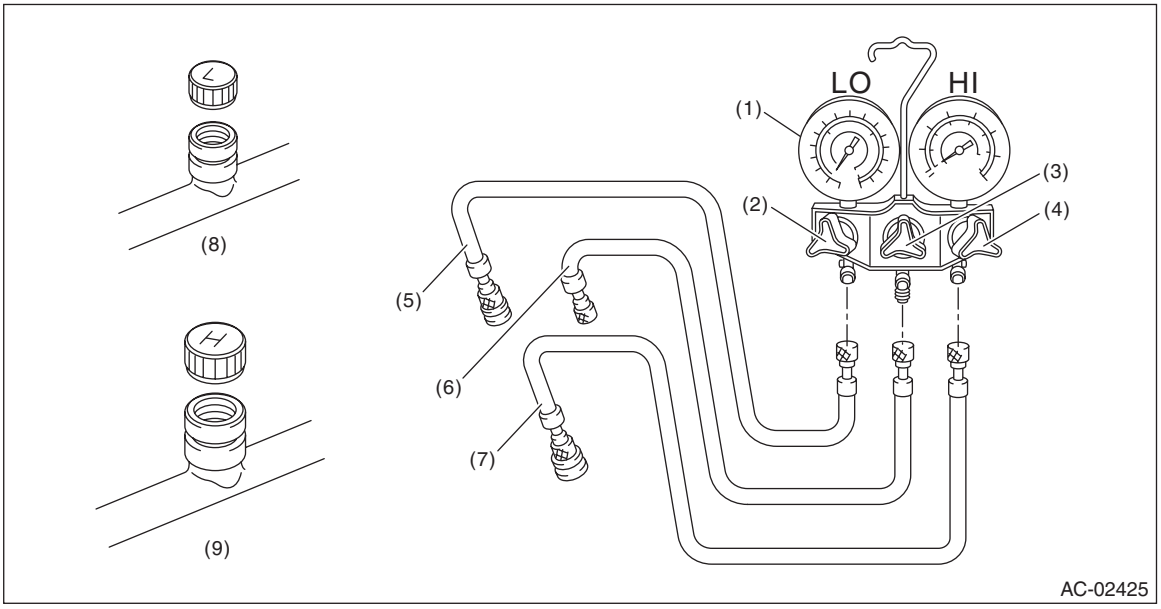
4) Replace the power rear gate drive unit (PRG DU), if it is found defective.

5. Refrigerant Charging Procedure

A: PROCEDURE

Preparation tool:
Manifold gauge set
Vacuum pump
Can tap
Weight scale

CAUTION:
• While working, be sure to wear protective goggles and protective gloves.
• Air in the cycle can cause insufficient air conditioning, and water in the cycle can cause clogging in the cycle (icing) and rust. To remove this air and water content, use a vacuum pump to perform evacuation before filling with refrigerant. By making the inside of the cycle a vacuum, the water content will evaporate even at normal temperatures, and can be removed.



(1)	Manifold gauge	(4)	High pressure valve	(7)	High-pressure hose
(2)	Low pressure valve	(5)	Low-pressure hose	(8)	Low-pressure side service port
(3)	Center valve	(6)	Center manifold hose (vacuum pump and charge)	(9)	High-pressure side service port

1) Attach the manifold gauge set.
(1) Check that all valves are fully closed.
(2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

CAUTION:
Confirm that the connections are secure.
(3) Connect the center manifold hose of the manifold gauge to the vacuum pump.

2) Perform evacuation.

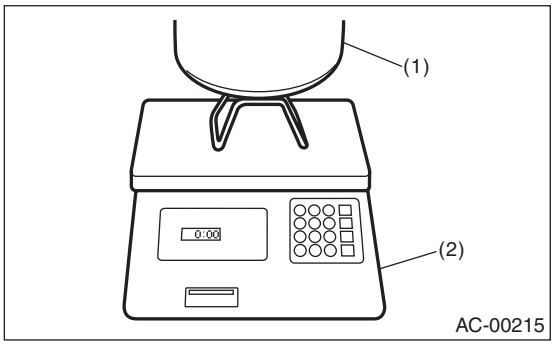
CAUTION:
Make sure to perform evacuation using a vacuum pump.

(1) Open the low-pressure valve, high-pressure valve and center valve.
(2) Operate the vacuum pump.
(3) Perform evacuation for 5 minutes or more, and when the low pressure gauge needle reaches -0.1 MPa (-1.0 kgf/cm^2, -14 psi), close the center manifold hose valve, and stop the vacuum pump.
(4) Leave alone for 5 to 10 minutes after closing the low pressure side and high pressure side valves, and check whether there is any change in the low pressure gauge needle indication.
If the needle position changes, this indicates a leak. Check the pipe and hose connections, and repair the location with the problem.
After repair, retry charging the refrigerant from the step 1).
(5) If there is no leakage, continue evacuation for additional 20 — 30 minutes, close all valves and then stop the vacuum pump.

3) Charge refrigerant.

(1) Follow the can tap operation manual to attach it to the refrigerant can.
(2) Disconnect the center manifold hose from the vacuum pump, and connect the hose to the tap valve.

NOTE:
When 13.6 kg (30 lb) refrigerant container (1) is used, measure the amount of refrigerant with a refrigerant charging scale (2), and connect with the center manifold hose.



(3) Open the tap valve of HFC-134a supply container (refrigerant can or refrigerant container).
(4) Loosen the center manifold hose connection on the manifold gauge for a few seconds (if there is a purge valve on the manifold gauge, push this instead) to allow the air in the center manifold hose to be bled by the refrigerant pressure.
(5) Open the low-pressure side and high-pressure side valves of the manifold gauge to fill with refrigerant.

NOTE:
If the HFC-134a supply container is empty, close all manifold gauge valves and the tap valve of HFC-134a supply container, and replace the empty supply container with a new one. After replacing with a new HFC-134a supply container, perform air purge, and resume the filling operation.

(6) If the low pressure gauge indicates approximately 0.2 MPa (2.0 kgf/cm^2, 29 psi) or refrigerant filling efficiency drops, close the low-pressure side valve and high-pressure side valve.
(7) Check that the low-pressure side valve and high-pressure side valve are closed, turn off the A/C switch and start the engine.

CAUTION:
When filling with the engine running, do not open the high pressure side valve. Always fill from the low pressure side.

(8) To prevent damage to the compressor, push the A/C switch ON-OFF quickly a few times.
(9) Set the vehicle to the following conditions.

Item	Condition
Engine speed	1,500 rpm
A/C switch	ON
Temperature adjustment dial	LO (MAX COOL)
Fan dial	HI (MAX)
FRESH/RECIRC switch	RECIRC
Air flow control dial or switch	VENT
WINDOW	OPEN

(10) Open the low-pressure side valve, check the refrigerant pressure with a manifold gauge and fill with refrigerant up to the specified amount. <Ref. to AC-24, INSPECTION WITH PRESSURE SYMPTOMS, INSPECTION, Refrigerant Pressure with Manifold Gauge Set.>

4) Using an electronic leak detector (leak tester), check for refrigerant leaks in the system. <Ref. to AC-32, INSPECTION, Refrigerant Leak Check.>
5) After filling with refrigerant, close all valves and remove the manifold gauge set.
6) Attach cap to the service port of the low-pressure side and high-pressure side.

5. Seat Heater System

A: REMOVAL

1. SEAT HEATER UNIT

1) Remove the front seats. <Ref. to SE-9, REMOVAL, Front Seat.>
2) Remove the backrest cover of front seat and seat cushion cover. <Ref. to SE-11, DISASSEMBLY, Front Seat.>
3) Remove the seat heater unit.

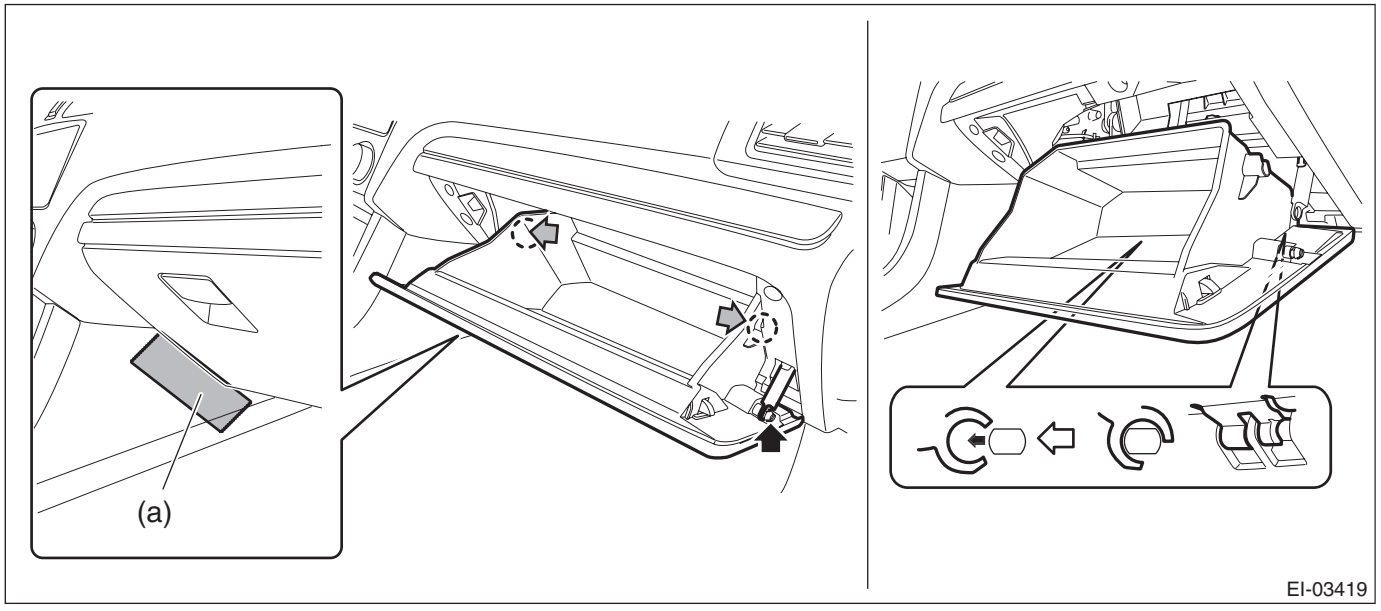
2. SEAT HEATER SWITCH

1) Disconnect the ground cable from battery.

NOTE:
On CVT models, shift the select lever into D before disconnecting the battery ground cable.
Remove the console box assembly. <Ref. to EI-65, REMOVAL, Console Box.>
2) Remove the screws and remove the seat heater switch from the backside of the console box assembly.

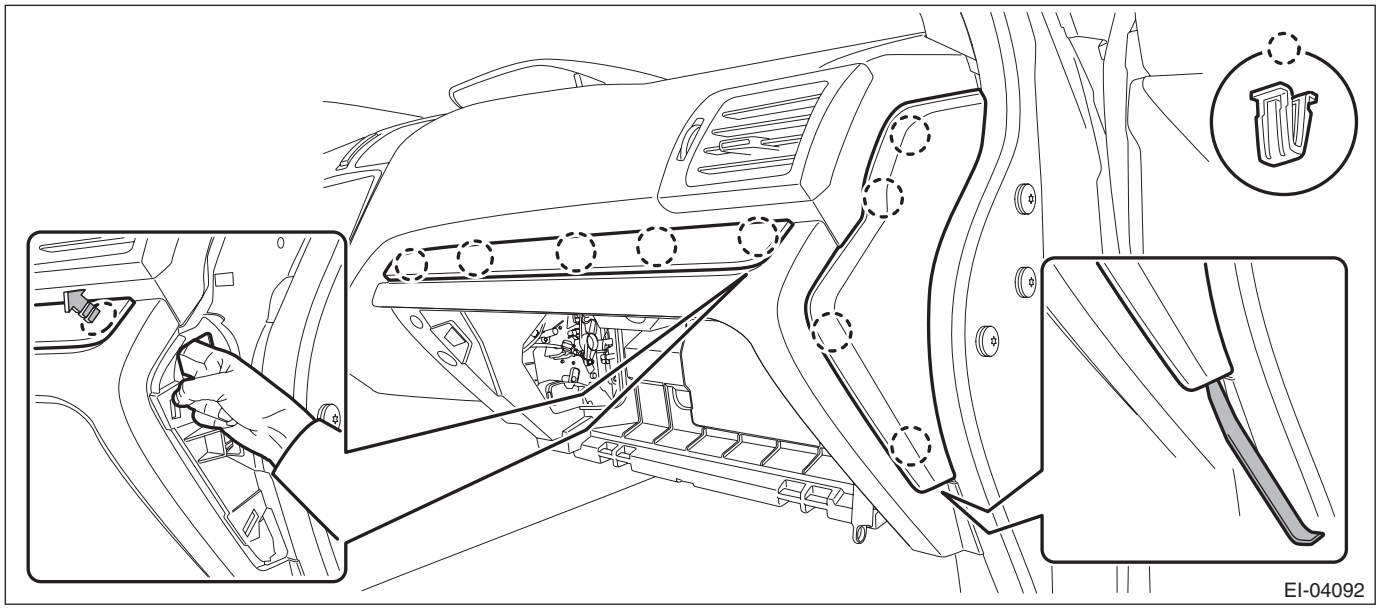
3. SEAT HEATER RELAY AND FUSE

1) Disconnect the ground cable from battery.
2) Remove the cover assembly - instrument panel LWR driver.<Ref. to EI-59, REMOVAL, Instrument Panel Lower Cover.>
3) Remove the pocket assembly.
   (1) Attach the protective tape (a) to the panel center LWR.
   (2) Remove the damper COMPL - pocket.
   (3) Release the stoppers and remove the pocket assembly by pulling it toward you.

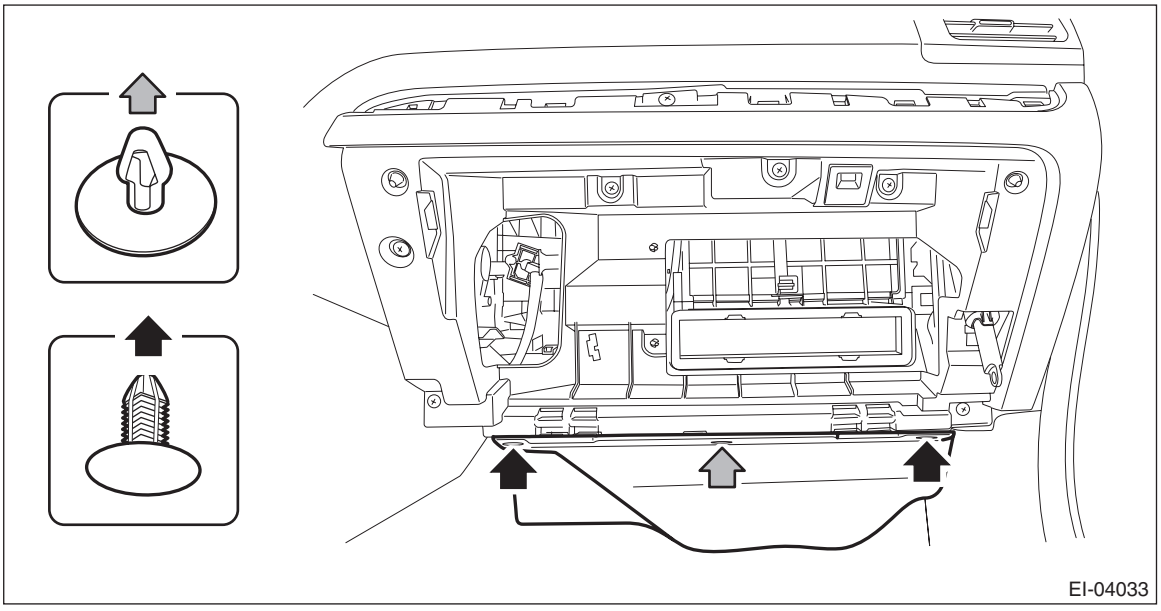


4) Remove the back panel - pocket.
(1) Remove the clips, and remove the cover - instrument panel side RH.

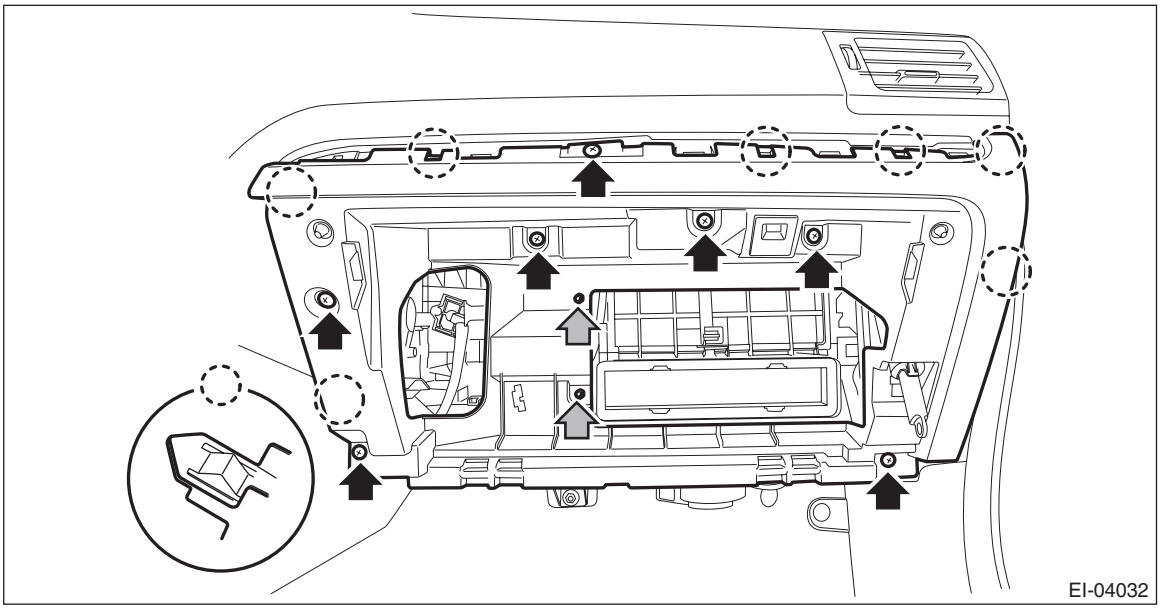
NOTE:
Remove the cover - instrument panel side RH by using a plastic remover.
(2) Release the clips, and remove the ornament - panel assembly passenger.



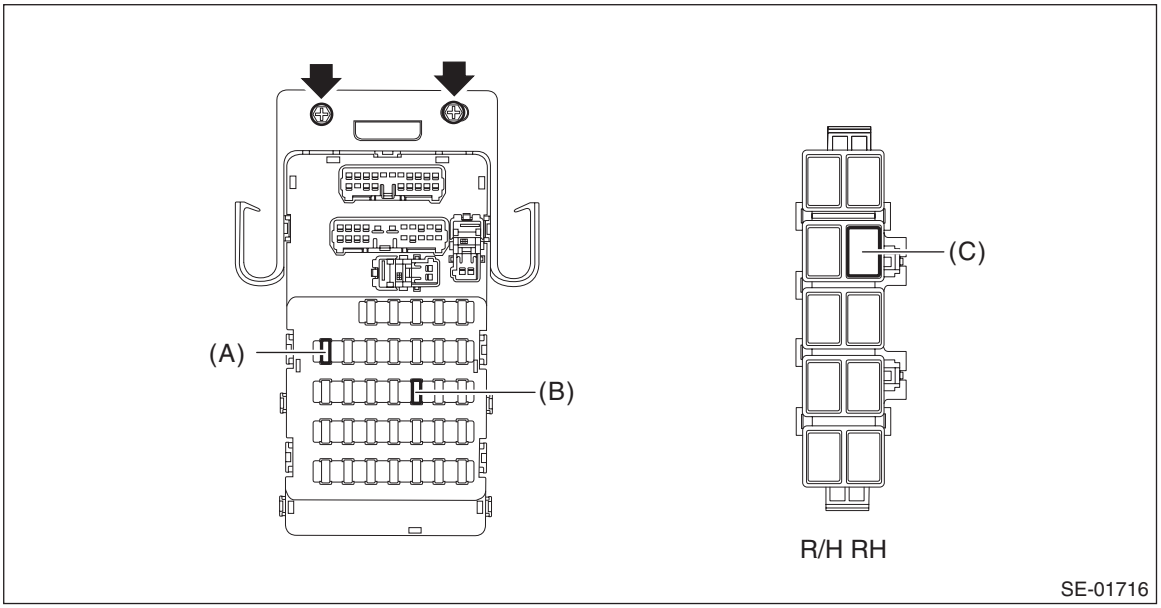
NOTE:
To facilitate the removal, push the clip of the ornament - panel assembly passenger from the backside.
(3) Release the clips, and remove the glove box under cover.



(4) Remove the screws, claws and harness clamp, then remove the back panel - pocket.



5) Remove the seat heater relay and fuse.
(1) Remove the relay & fuse box bolts.
(2) Remove the seat heater relay from the relay holder.



Relay & fuse box	Fuse 7.5 A (remote control mirror)	(A)
	Fuse 15 A (seat heater)	(B)
Relay holder RH	Seat heater relay	(C)

B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. WIRING DIAGRAM

Refer to “Seat Heater System” in the wiring diagram. <Ref. to WI-370, WIRING DIAGRAM, Seat Heater System.>

2. DIAGNOSTIC CHART

Symptoms	Repair order
Seat heater does not operate.	1. Check the fuse. <Ref. to SE-56, CHECK SEAT HEATER FUSE, INSPECTION, Seat Heater System.>
	2. Check the seat heater relay. <Ref. to SE-56, CHECK SEAT HEATER RELAY, INSPECTION, Seat Heater System.>
	3. Check the seat heater system power supply and ground circuit. <Ref. to SE-57, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Seat Heater System.>
	4. Check the seat heater module. <Ref. to SE-57, SEAT HEATER UNIT, INSPECTION, Seat Heater System.>
	5. Check the seat heater switch circuit. <Ref. to SE-58, SEAT HEATER SWITCH, INSPECTION, Seat Heater System.>

3. CHECK SEAT HEATER FUSE

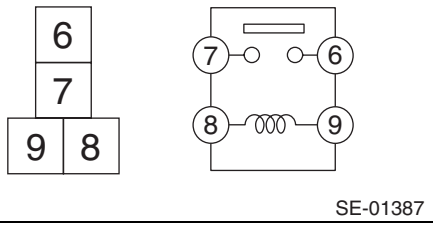
Remove the seat heater fuse and inspect visually.
Is the fuse blown out?

- **Yes** → Replace the fuse.
- **No** → Check the power supply and ground circuits.

4. CHECK SEAT HEATER RELAY

1) Remove the seat heater relay from the relay holder.
2) Measure the resistance between seat heater relay terminals.

Preparation tool: Circuit tester

Terminal No.	Inspection conditions	Standard	Circuit
6 — 7	Always	1 MΩ or more	
6 — 7	Apply battery voltage between terminals 8 and 9.	Less than 1 Ω	

SE-01387

3) Replace the seat heater relay if the inspection result is not within the standard value.

5. CHECK POWER SUPPLY AND GROUND CIRCUIT

1) Check power supply circuit
(1) Disconnect the harness connector of seat heater switch.
(2) Turn the ignition switch to ON.
(3) Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal
(R43) No. 7 (+) — Chassis ground (–):
Is the voltage 12 V or more?
- **Yes** → Go to step 2.
- **No** → Check the harness between the seat heater switch and fuse.

2) Check ground circuit
Measure the resistance between harness connector terminal and chassis ground.

Connector & terminal
(R43) No. 2 — Chassis ground:
Is the resistance less than 10 Ω?
- **Yes** → Go to step 3.
- **No** → Repair the harness.

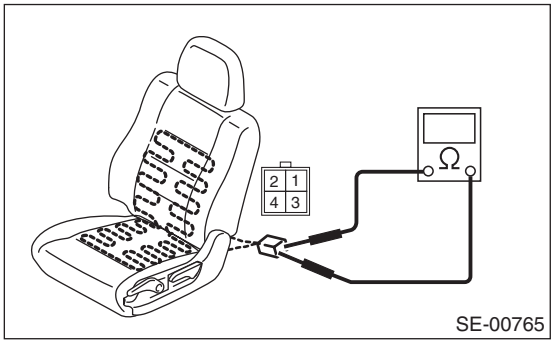
3) Check ground circuit
Measure the resistance between seat heater switch terminals.

Connector & terminal
(R43) No. 7 — (R43) No. 2:
Is the resistance less than 10 Ω?
- **Yes** → The power supply and ground circuits are normal.
- **No** → Replace the seat heater switch.

6. SEAT HEATER UNIT

1) Disconnect the seat heater unit connector, and check the continuity between terminals of connector.

Connector & terminal
HI
No. 1 — No. 3:
No. 3 — No. 4:
LOW
No. 1 — No. 4:



2) If no continuity exists, replace the seat heater module with a new part.

7. SEAT HEATER SWITCH

1) Inspect the continuity between the seat heater switch terminals.

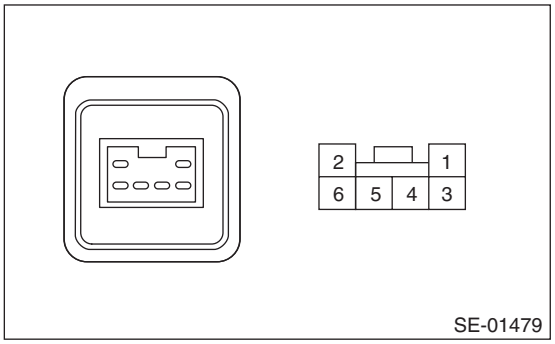
Connector & terminal

HI

No. 4 — No. 5:
No. 4 — No. 3:
No. 4 — No. 6:

LOW

No. 4 — No. 5:
No. 4 — No. 6:

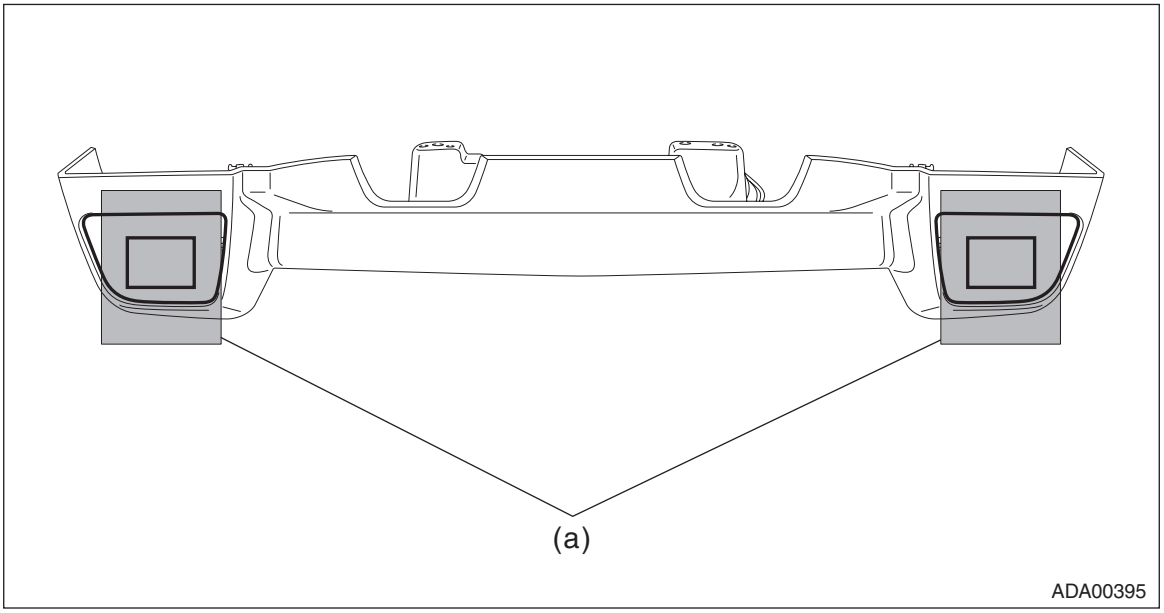


2) If no continuity exists, replace the seat heater switch with a new part.

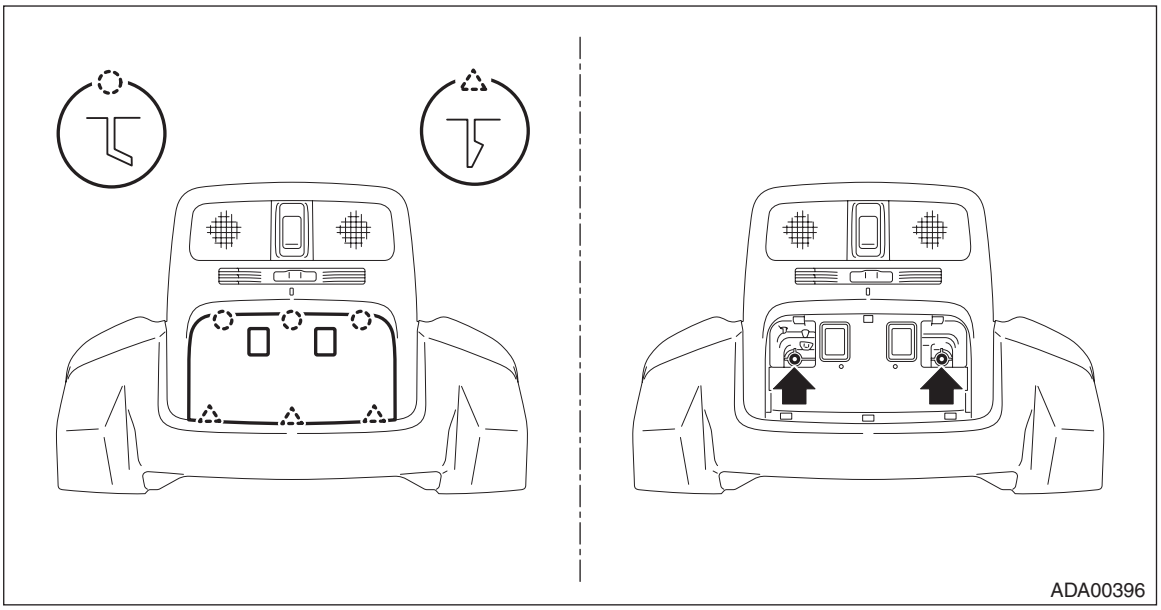
5. Stereo Camera

A: REMOVAL

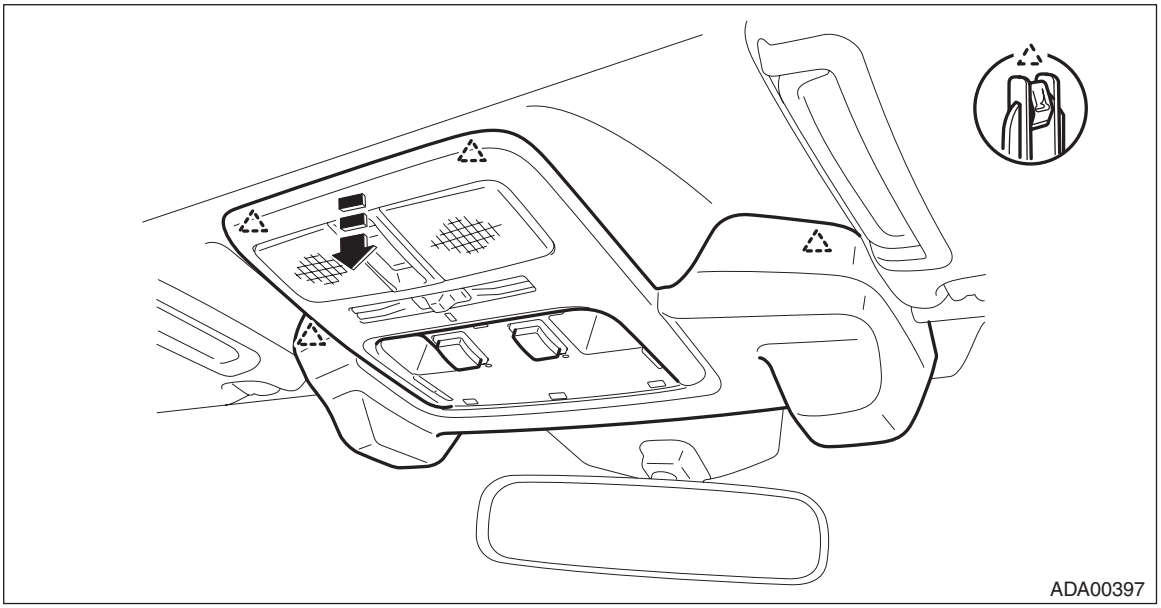
CAUTION:
• When the stereo camera or windshield glass has been replaced, removed or installed, always perform the adjustment and inspection of the camera. (When the stereo camera has been replaced with a new part, the camera remains in a failed state until adjustment and inspection are performed.)
• Since the stereo camera is a precision equipment, install the protective cover before handling it. (New stereo camera is equipped with a protective cover as a service part.)
• During removal, do not hold at the left and right cameras.
• Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
• Do not disassemble the stereo camera.
• Attach the protective cover to the replacement part, put it into the box in the same way as the other parts and return it.
• Do not touch the lens filter on the stereo camera. If touched, replace the lens hood.
• When removing the stereo camera cover assembly, attach protective tape with a weak adhesive force such as masking tape to avoid interference with the camera lens before performing operation.
1) Disconnect the ground cable from battery.
2) Attach the protective tape (a) to the stereo camera cover assembly.



3) Remove the stereo camera cover.
(1) Release the claws and then remove the cap.
(2) Remove the mounting bolt of stereo camera cover.



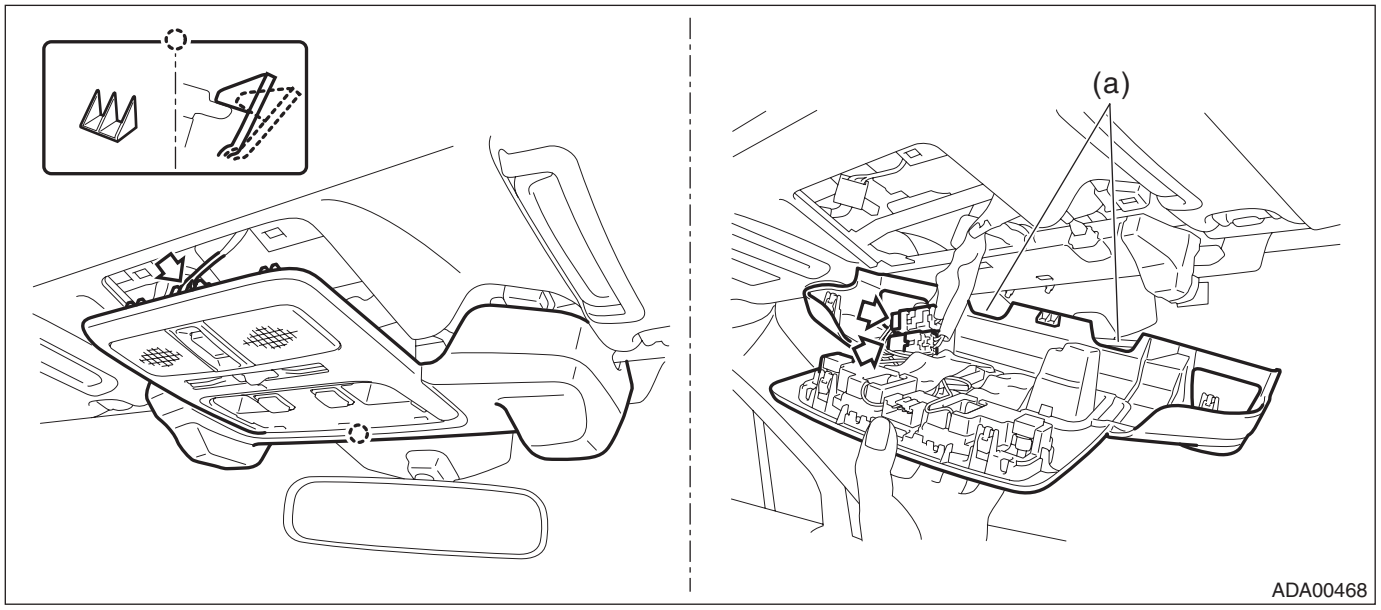
(3) Pull down the rear of the stereo camera cover, and then release the clips.



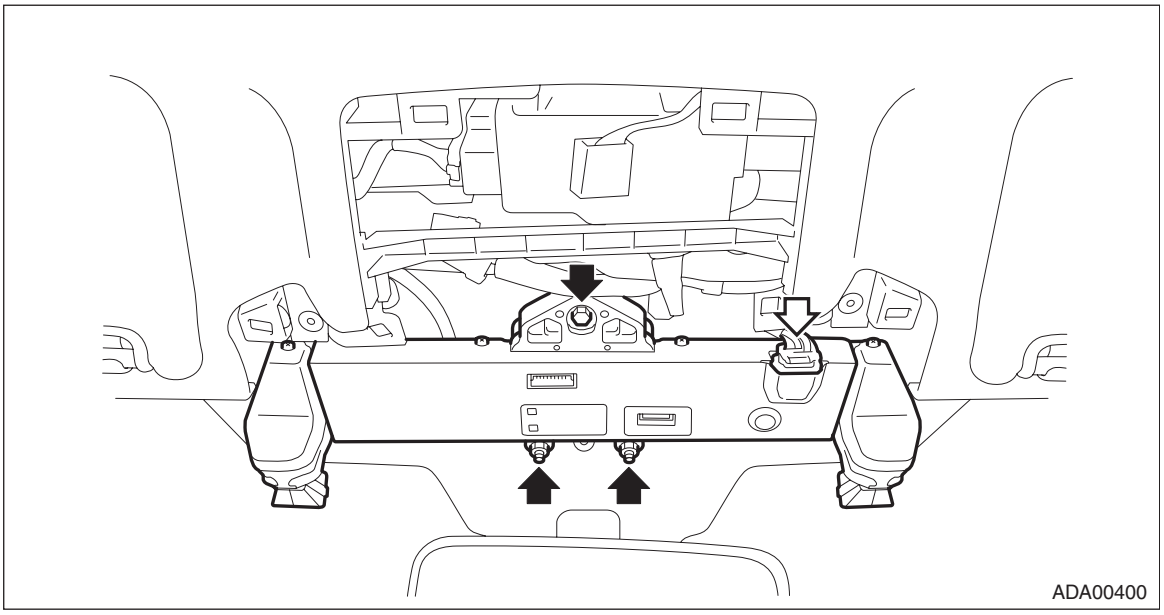
(4) Disconnect the sunroof switch connector from the gap through the rear of the stereo camera cover.
(5) Release the hook on the front side of stereo camera cover.

NOTE:
If it is hard to release, insert a finger from the portion (a) and then release the hook.

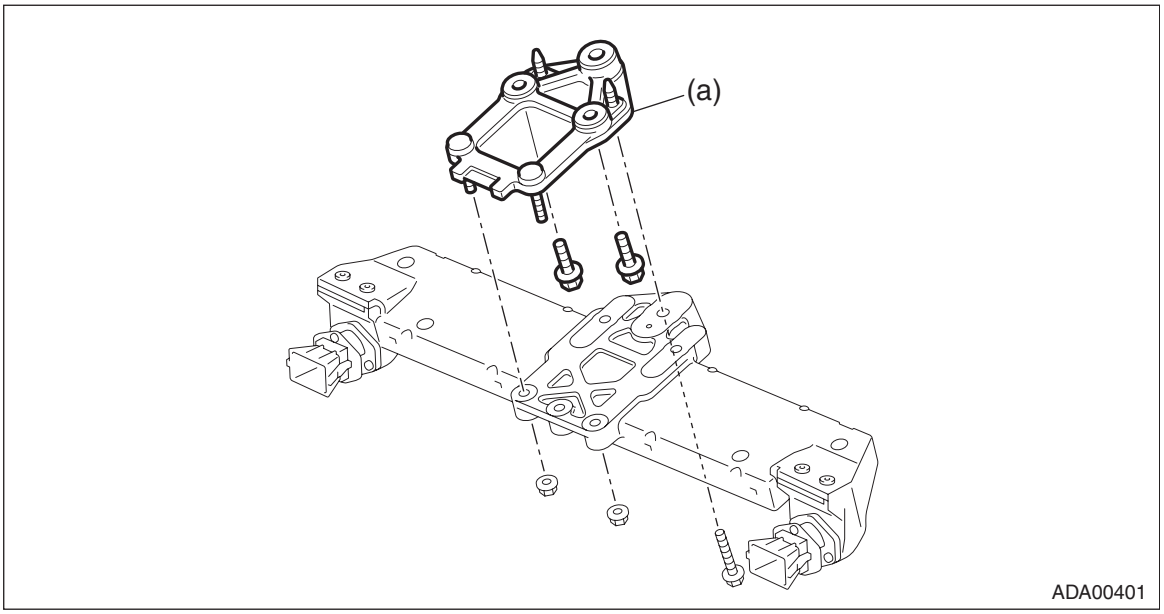
(6) Disconnect the connectors, and remove the stereo camera cover assembly.



4) Remove the stereo camera.
(1) Disconnect the stereo camera connector.
(2) Remove the bolts and nuts and remove the stereo camera.



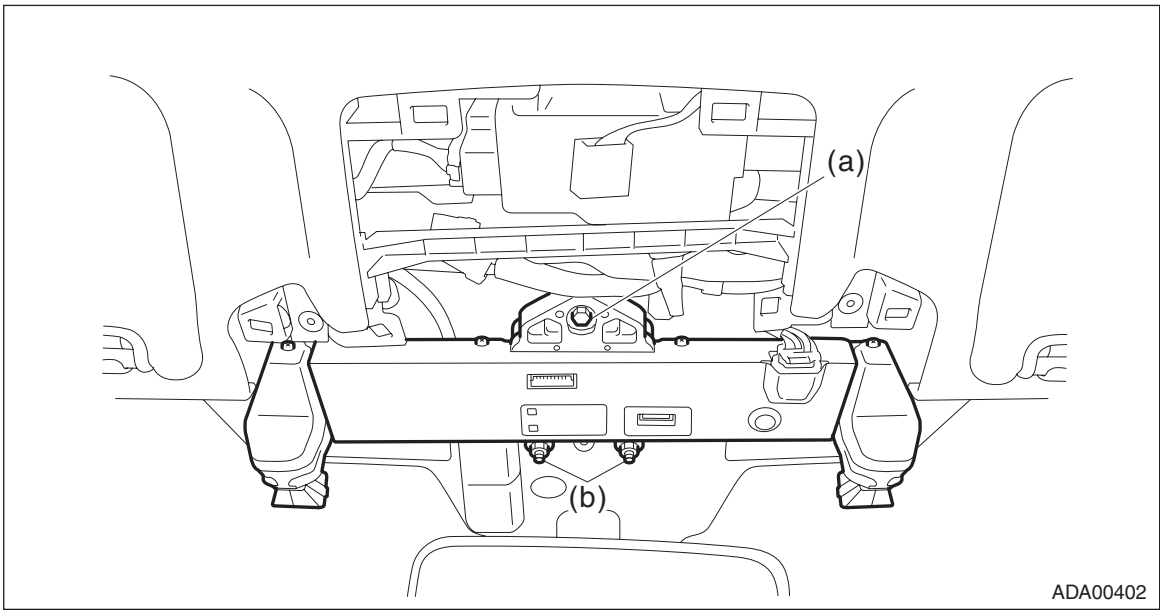
NOTE:
Remove the camera plate (a) as required.



B: INSTALLATION

CAUTION:
• Do not remove the protective cover until just before installing the stereo camera cover assembly. Using the bolt and nut, install the stereo camera with the protective cover attached, connect the connectors, and then remove the protective cover.
• Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
• During installation, do not hold at the left and right cameras.
• Do not change the installation position of the stereo camera or do not modify the surrounding structure.
• Remove the protective cover, install the stereo camera cover assembly, and then perform adjustment and inspection of the stereo camera.<Ref. to ES(diag)-43, Camera Adjustment, Inspection.>
• Do not touch the lens filter on the stereo camera. If touched, replace the lens hood.
• When installing the stereo camera cover assembly, attach protective tape with a weak adhesive force such as masking tape to avoid interference with the lens filter before performing operation.
• When installing the stereo camera cover assembly, take care so that the harness does not interfere with the stereo camera.
• Do not allow the stereo camera cover assembly to come in contact with the stereo camera. Install the stereo camera cover assembly precisely so that it will not block the visibility of the camera.
• Because the stereo camera is incompatible, be sure to check the part number before installation.
Install each part in the reverse order of removal.

NOTE:
When installing the stereo camera to the vehicle, install the bolt (a) first, and then the nut (b).

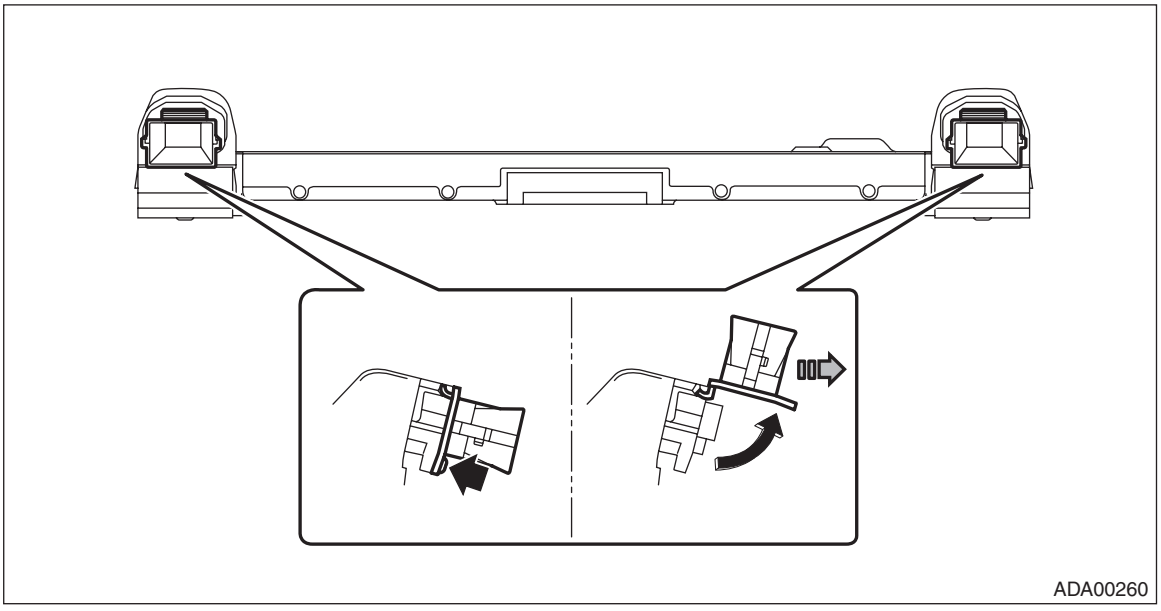


Tightening torque:
Camera plate: 5.5±1.0 N·m (0.56±0.10 kgf-m, 4.1±0.7 ft-lb)
Stereo camera: 5.5±1.0 N·m (0.56±0.10 kgf-m, 4.1±0.7 ft-lb)
Stereo camera cover: 5.5±1.0 N·m (0.56±0.10 kgf-m, 4.1±0.7 ft-lb)

C: REPLACEMENT

1. REPLACEMENT OF LENS HOOD

CAUTION:
• Perform the operation in the room where there are less dust.
• During replacement, do not hold at the left and right cameras.
• During replacement, do not touch the terminals and circuit board.
• Do not apply any impact to the stereo camera. (Even the slightest shock will deviate the optical axis of the camera, resulting in the loss of normal operation of the camera.)
• Do not allow any tools to come in contact with the lens of the stereo camera and the lens filter on the lens hood.
• Do not clean the lens of the stereo camera and the lens filter on the lens hood.
• Replace the left and right lens hoods as a pair because the optical characteristics for both lens hoods must match.
• Wear clean nylon and vinyl glove. Do not wear cotton work glove to prevent dust or fiber from adhering to the lens hood.
• Before starting operation, discharge static electricity carried on body or clothes.
• Do not touch the lens of the stereo camera and the lens filter on the lens hood. If touched, replace the stereo camera and lens hood.
• After replacing the lens hood, perform adjustment and inspection of the stereo camera.
1) Remove the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>
2) Remove the lens hood.
   (1) Remove the screws.
   (2) Rotate the lens hood by 90 degrees and pull it out.



3) Install lens hood in the reverse order of removal.

CAUTION:
Do not apply excessive force to the lens hood. The lens filter inside the hood may be tensioned, causing the lens filter to be broken.

NOTE:
If the fingerprint adhesion or damage to the lens filter occurs, the following failures may arise.
- The vehicle may not be able to detect the preceding vehicle or obstacle due to the effects of the headlight of the oncoming vehicle.
- The vehicle may not be able to detect the preceding vehicle or obstacle due to the effects of the brake light operation of the preceding vehicle.
- All the functions of the EyeSight may be suspended by the self-diagnosis function equipped with the camera.
- When the lens filter is broken, the vehicle may not be able to detect the preceding vehicle or obstacle all day and all night.

D: ADJUSTMENT

For adjustment and inspection of the stereo camera, refer to “Camera Adjustment and Inspection” of “EyeSight (DIAGNOSTICS)” section. <Ref. to ES(diag)-43, Camera Adjustment, Inspection.>

5. Subaru Select Monitor

A: OPERATION

1. GENERAL DESCRIPTION

The on-board diagnosis function of the cruise control system uses Subaru Select Monitor.
The on-board diagnosis function operates in two categories, which are used depending on the type of problems;
1) Cruise Control Cancel Conditions Diagnosis:
(1) This category of diagnosis requires actual vehicle driving in order to determine the cause, as when cruise speed is cancelled during driving although cruise cancel condition is not entered.
(2) Cruise control memory in ECM stores the cancel code which occurred during driving. When there are multiple cancel code, they are shown on the Subaru Select Monitor.

CAUTION:
• The cruise control memory stores not only the cruise "cancel" which occurred (although "cancel" operation is not entered by the driver), but also the "cancel" condition input by the driver.
• The latest memory content (latest code) is cleared when ignition switch is turned to OFF. However, memory contents set by the diagnosis of faulty switches related to the system and cruise control will remain as trouble history (memory code) after the ignition switch is turned to OFF.
2) Real-time Diagnosis:
Real-time diagnosis function is used to determine whether or not the input signal system is in good order, according to signal emitted from switches, sensors, etc.
(1) Vehicle cannot be driven at cruise speed when the problem occurs in the cruise control system or relevant circuits.
(2) Monitor the signal conditions from switches and sensors.

2. BASIC OPERATION

For operation procedures, refer to the "PC application help for Subaru Select Monitor".

5. Subaru Select Monitor

A: OPERATION

1. HOW TO USE THE SUBARU SELECT MONITOR

For the operation procedure, refer to the “PC application help for Subaru Select Monitor”.

2. READ DIAGNOSTIC TROUBLE CODE (DTC) FOR ENGINE AND BODY INTEGRATED UNIT

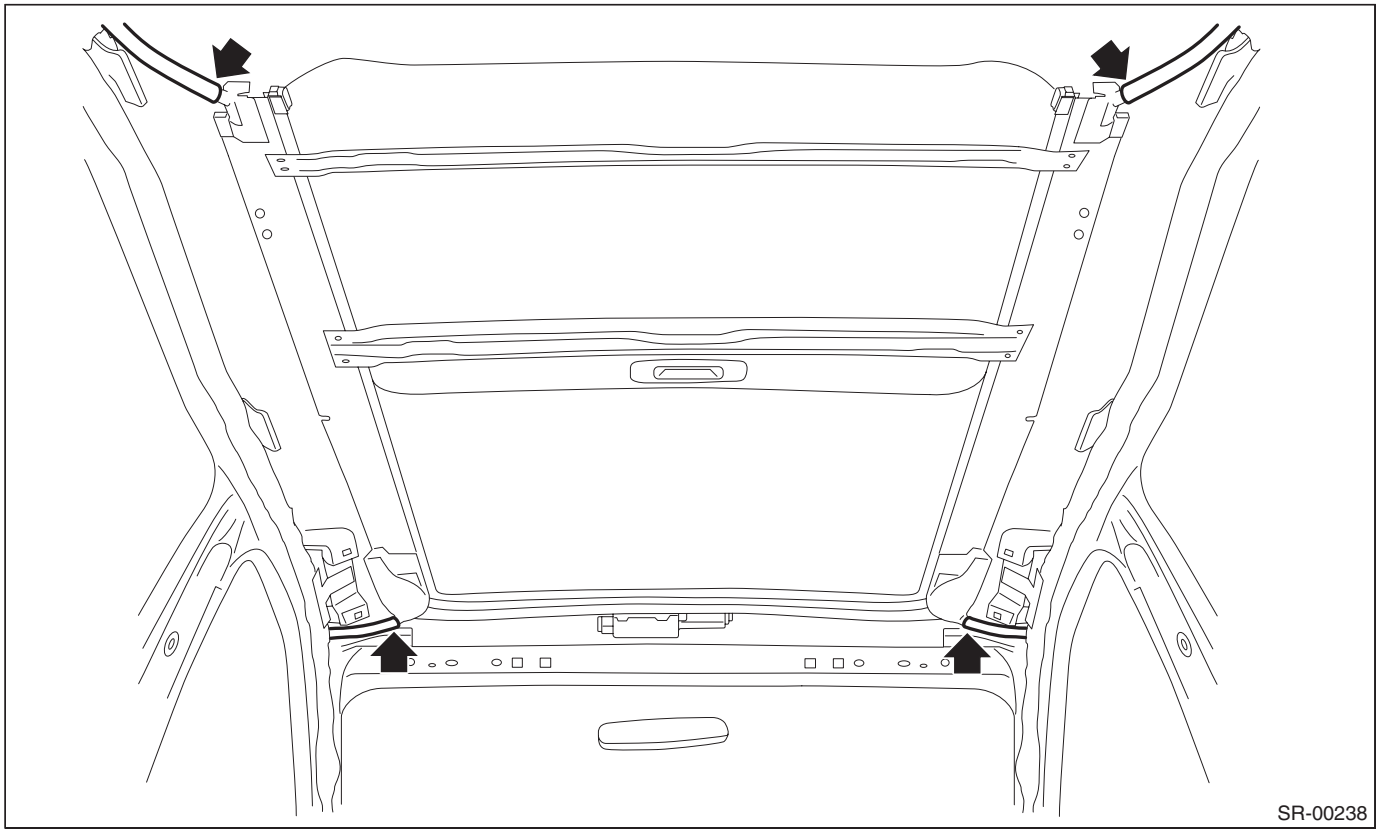
Refer to “Read Diagnostic Trouble Code (DTC)” for information about how to indicate DTC. <Ref. to IM(diag)-9, Read Diagnostic Trouble Code (DTC).>

NOTE:
If a problem is detected, repair the trouble cause. <Ref. to IM(diag)-20, DTC B1572 IMM CIRCUIT FAILURE (EXCEPT ANTENNA CIRCUIT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

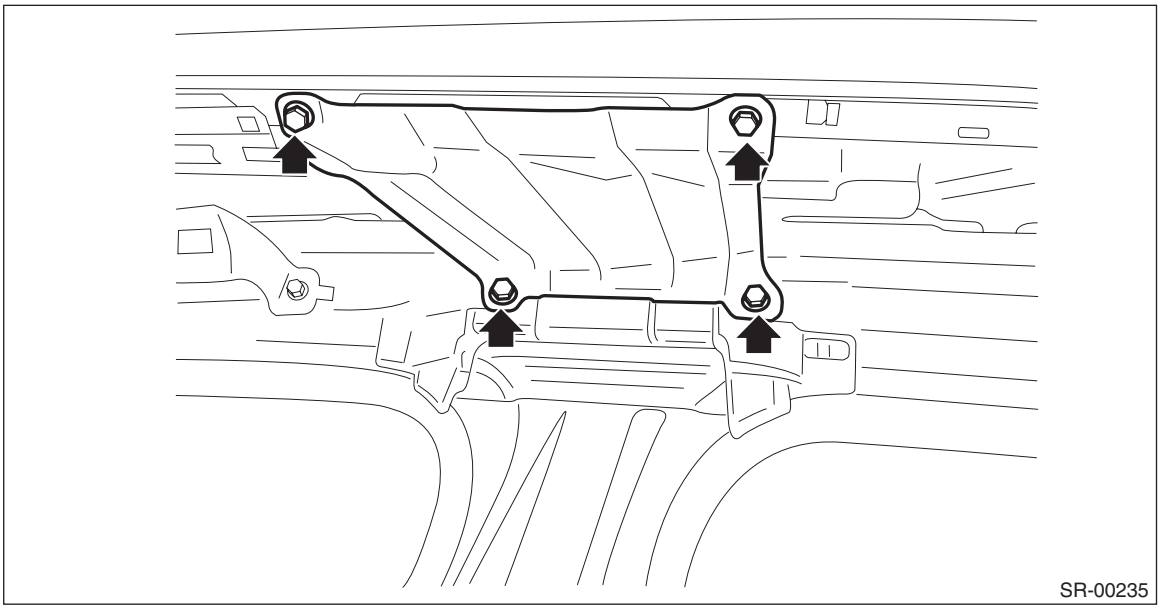
5. Sunroof Assembly

A: REMOVAL

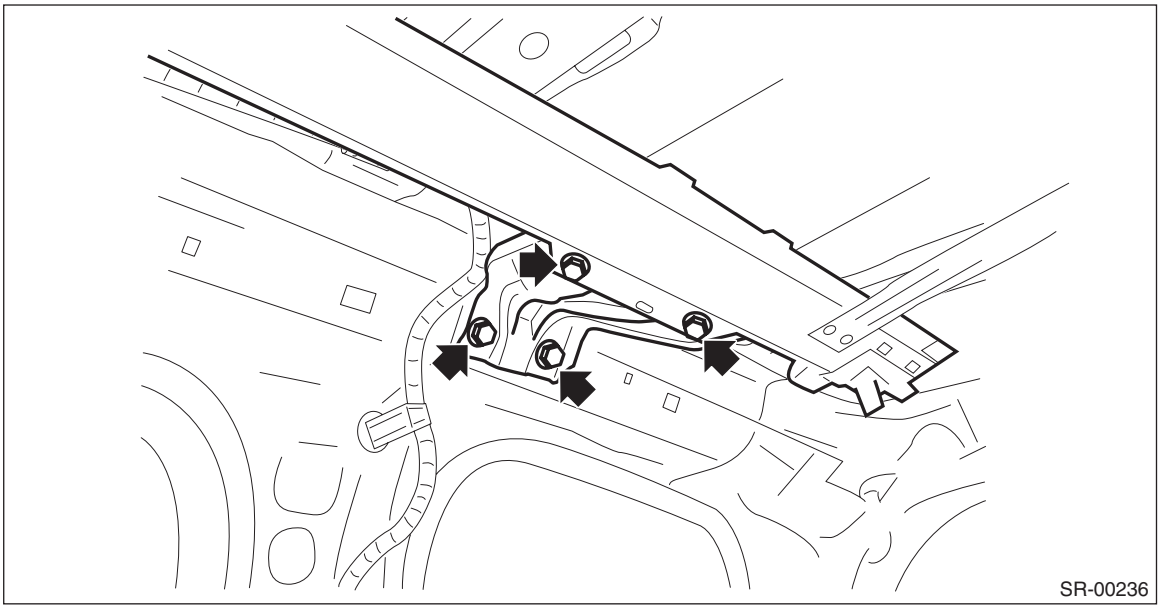
CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>
• When removing the clip, use great care not to damage the trim panel - roof assembly.
1) Completely close the lid assembly - sunroof, and open the sunshade assembly.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the trim panel - roof assembly. <Ref. to EI-109, REMOVAL, Roof Trim.>
4) Disconnect the harness connector of the motor assembly.
5) Remove the curtain airbag. <Ref. to AB-76, REMOVAL, Curtain Airbag Module.>
6) Remove the rail assembly.
   (1) Remove the drain tube - sunroof.



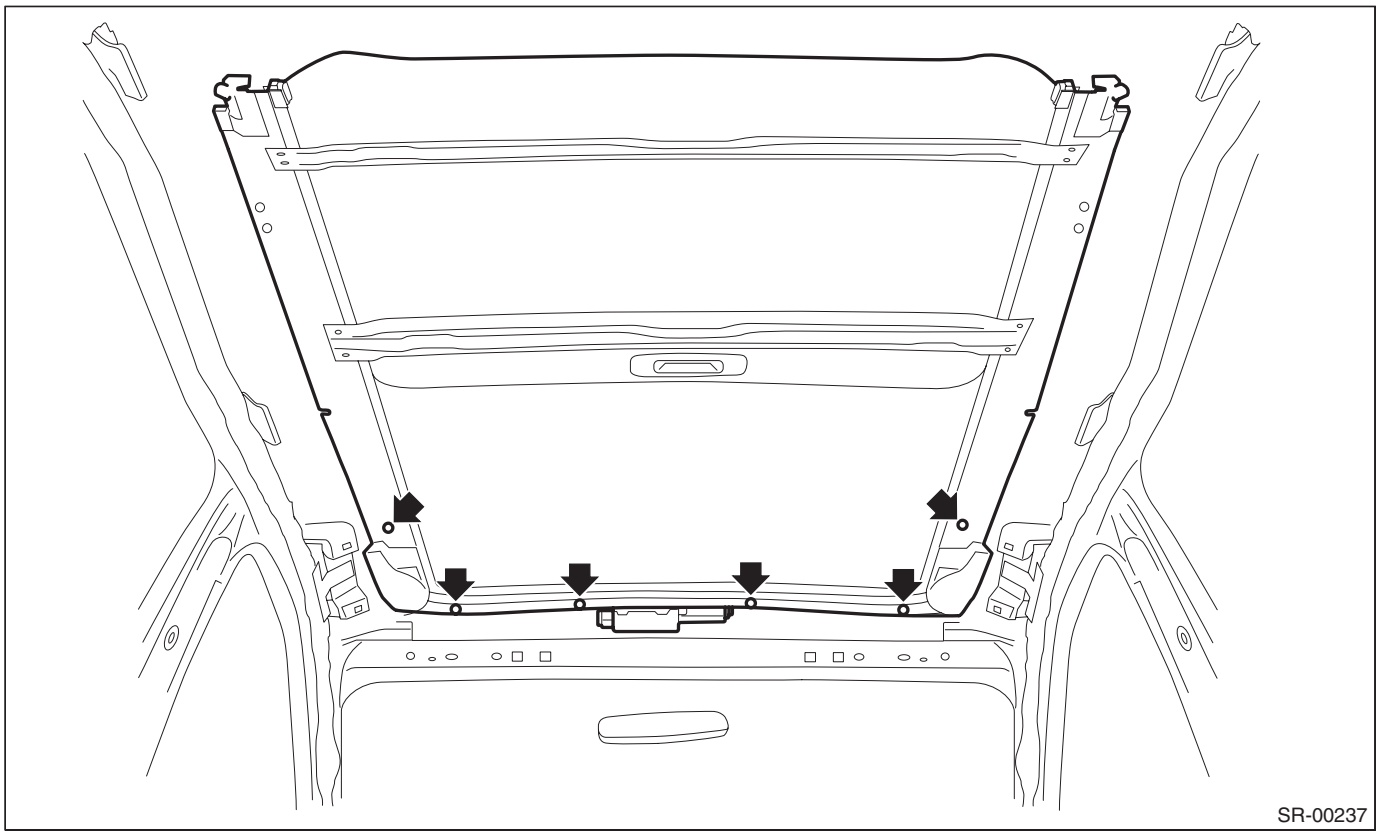
(2) Remove the bolts, and then remove the cover - sunroof.



(3) Remove the bolts, and then remove the bracket - sunroof.



(4) Remove the bolts, then remove the rail assembly.



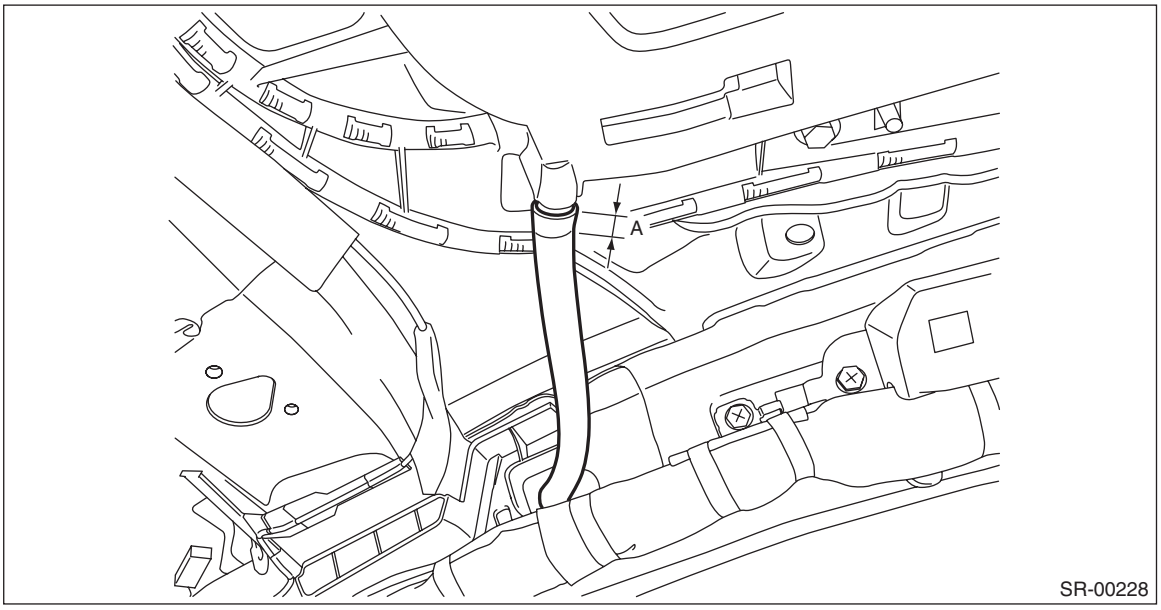
B: INSTALLATION

CAUTION:
Be careful not to snag the harness.
Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SR-2, COMPONENT, General Description.>

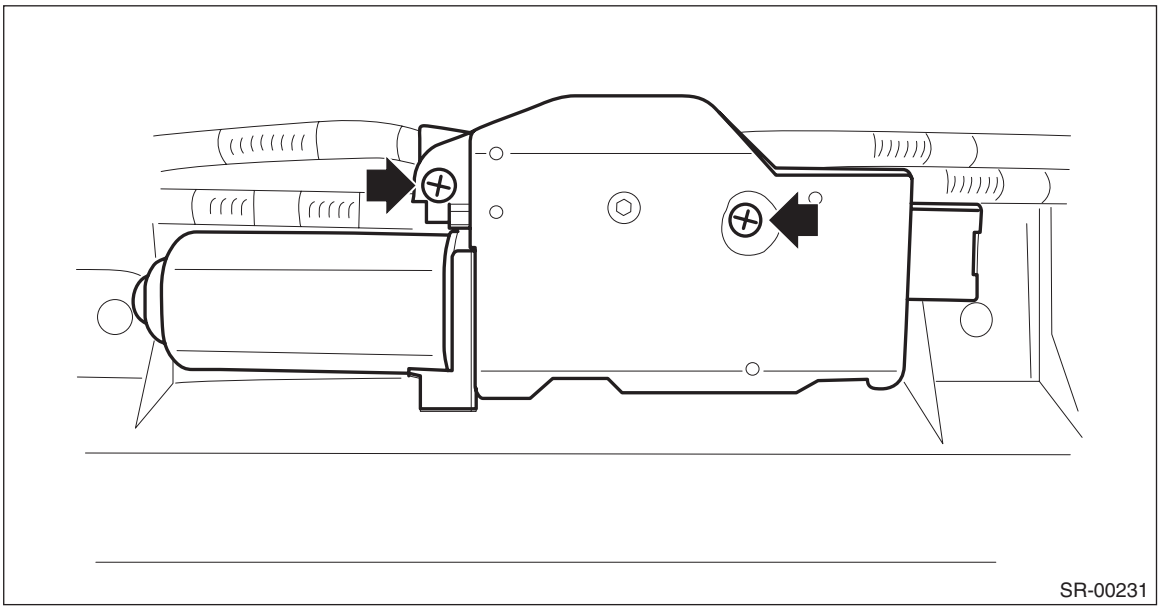
NOTE:
- Be sure to connect the harness connector.
- When installing the drain tube - sunroof, insert it securely into drain pipe.

Length A:
15 mm (0.59 in) or more

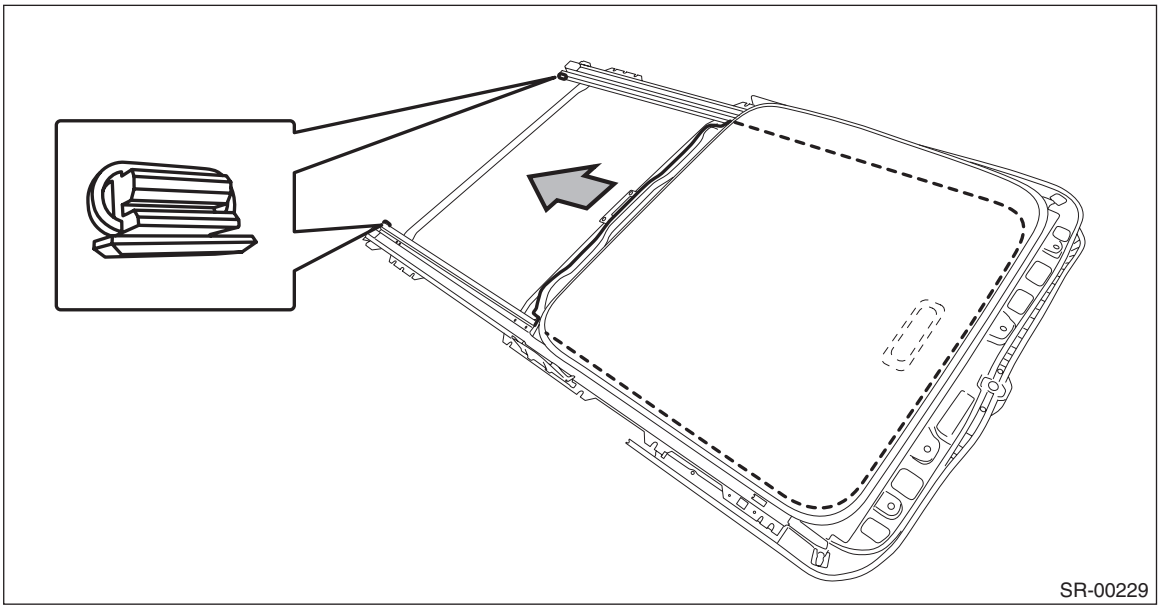


C: DISASSEMBLY

1) Remove the screw and remove the sunroof motor.



2) Remove the stopper rubber and pull out the sunshade assembly from the rail assembly - sunroof.



D: ASSEMBLY

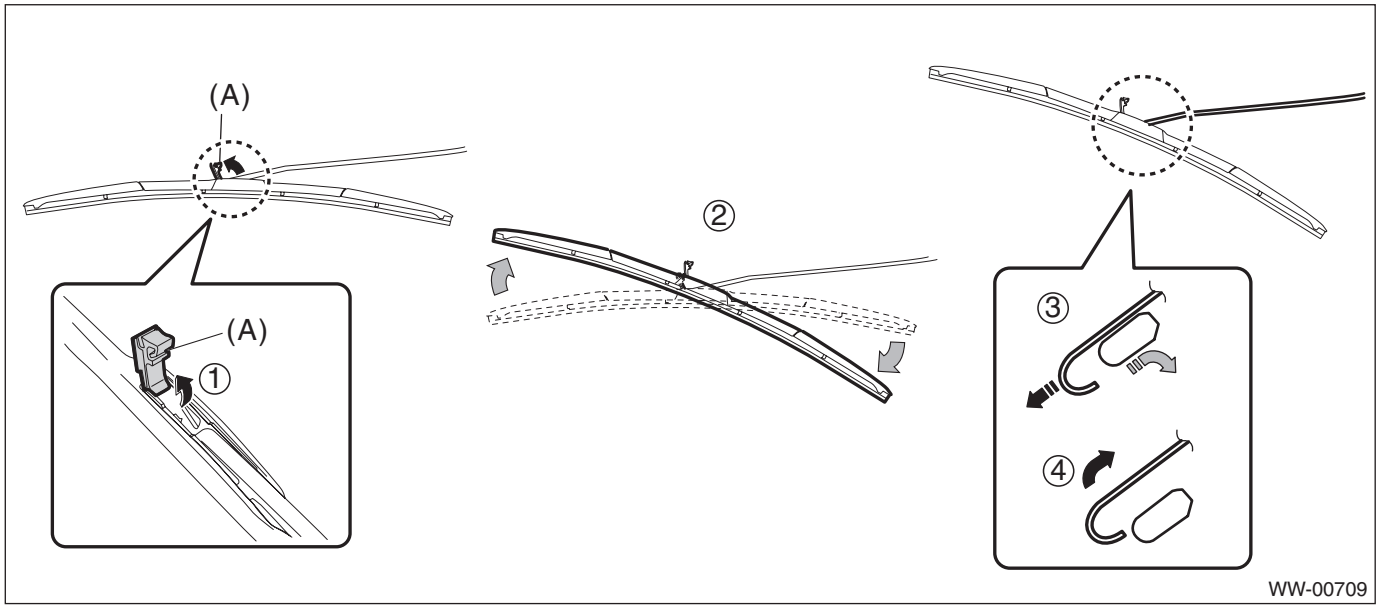
Install each part in the reverse order of removal.

5. Wiper Blade

A: REMOVAL

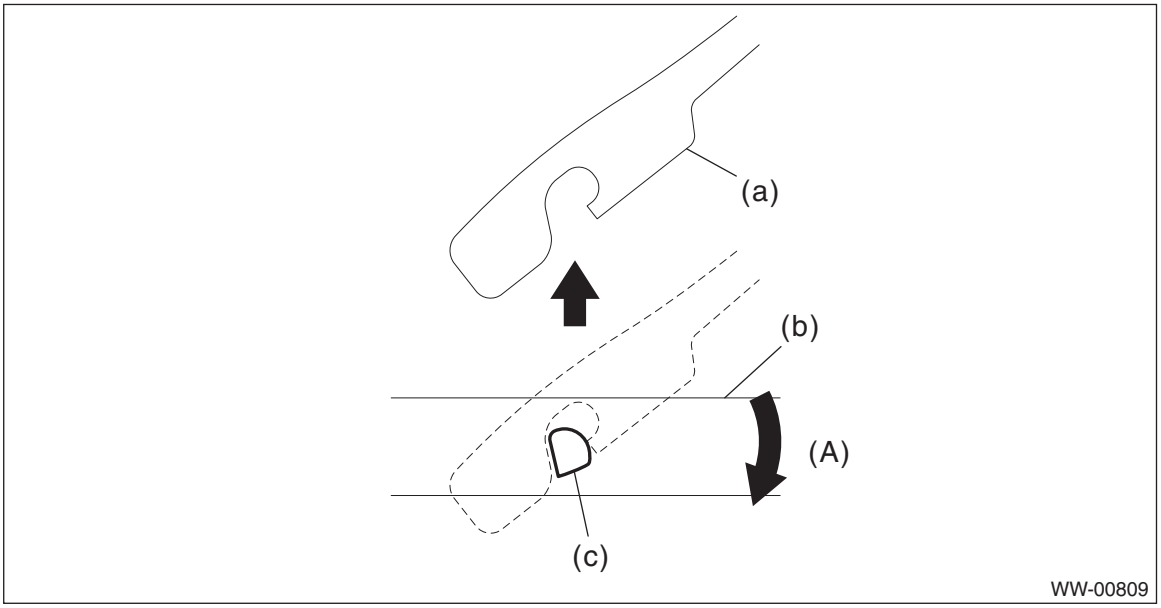
1. FRONT

1) Lift up the locking clip (A).
2) Turn the blade assembly - windshield wiper in the arrow direction.
3) Push in the arm assembly - windshield wiper.
4) Pull out the arm assembly - windshield wiper while pulling it up, and remove the blade assembly - windshield wiper from the arm assembly - windshield wiper.



2. REAR

Turn the blade assembly - rear wiper in the direction of arrow (A) and remove it from the arm assembly - rear wiper.



(A) Turn the wiper blade.

(a) Arm ASSY - rear wiper
(b) Blade ASSY - rear wiper
(c) Wiper blade attachment section

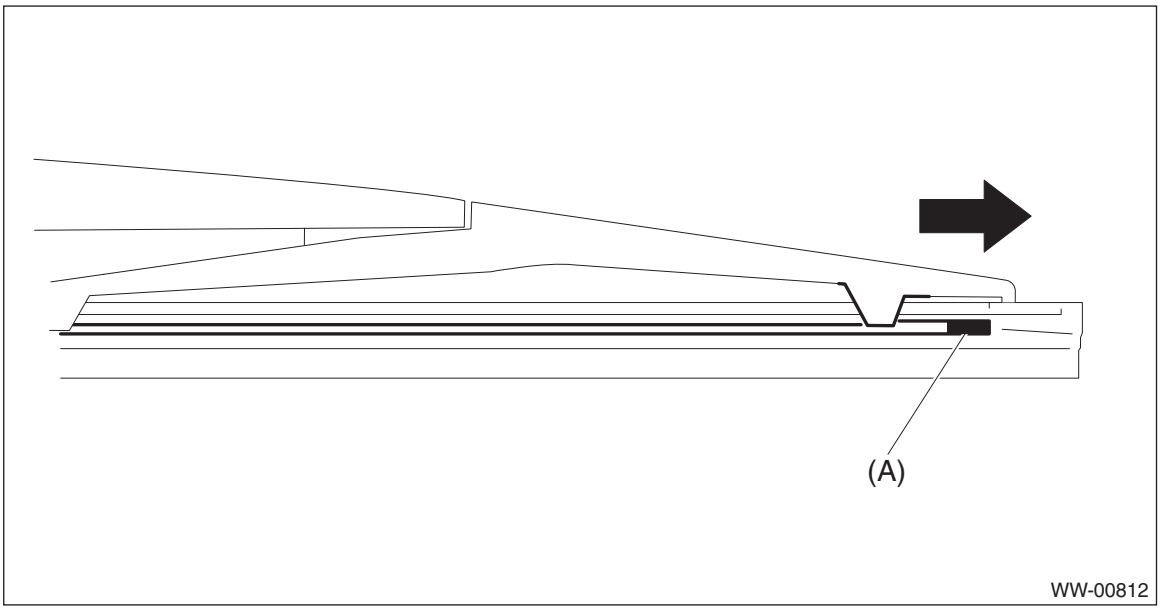
B: INSTALLATION

1) Install each part in the reverse order of removal.
2) Confirm that the clip is locked securely.

C: DISASSEMBLY

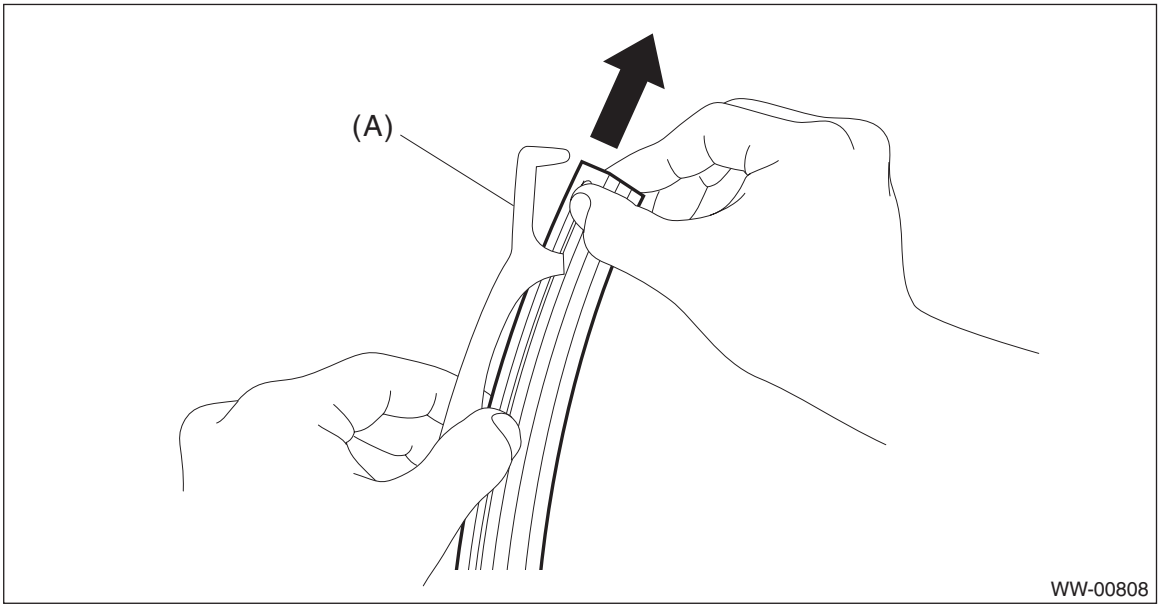
1. FRONT

Pull side (A) of the wiper rubber stopper, and remove the rubber assembly - windshield wiper from the blade assembly - windshield wiper.



2. REAR

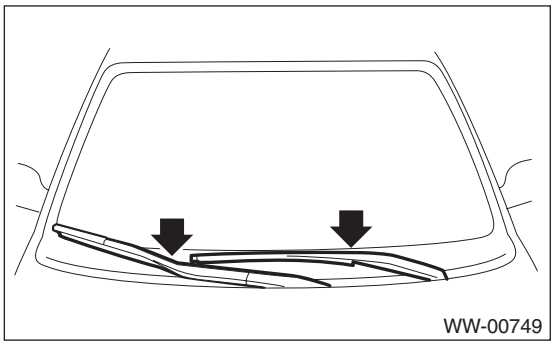
Slightly pull the top of the rubber assembly - rear wiper from the stopper (A), and pull out completely.



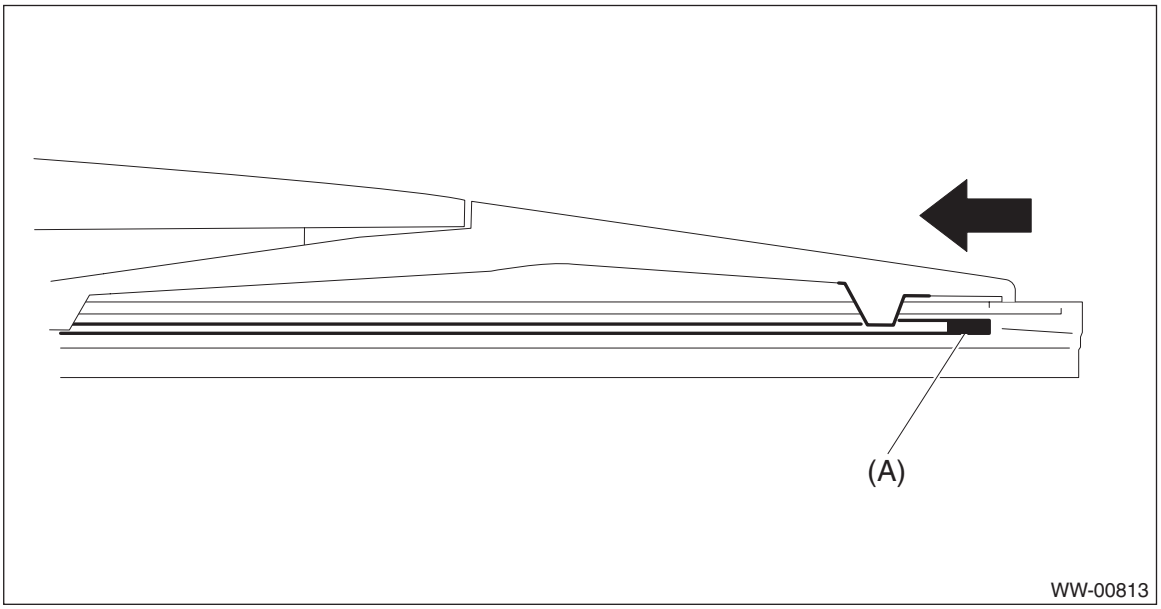
D: ASSEMBLY

1. FRONT

1) Insert the rubber assembly - windshield wiper onto the blade - windshield wiper so that the stopper is in the position shown in the figure.

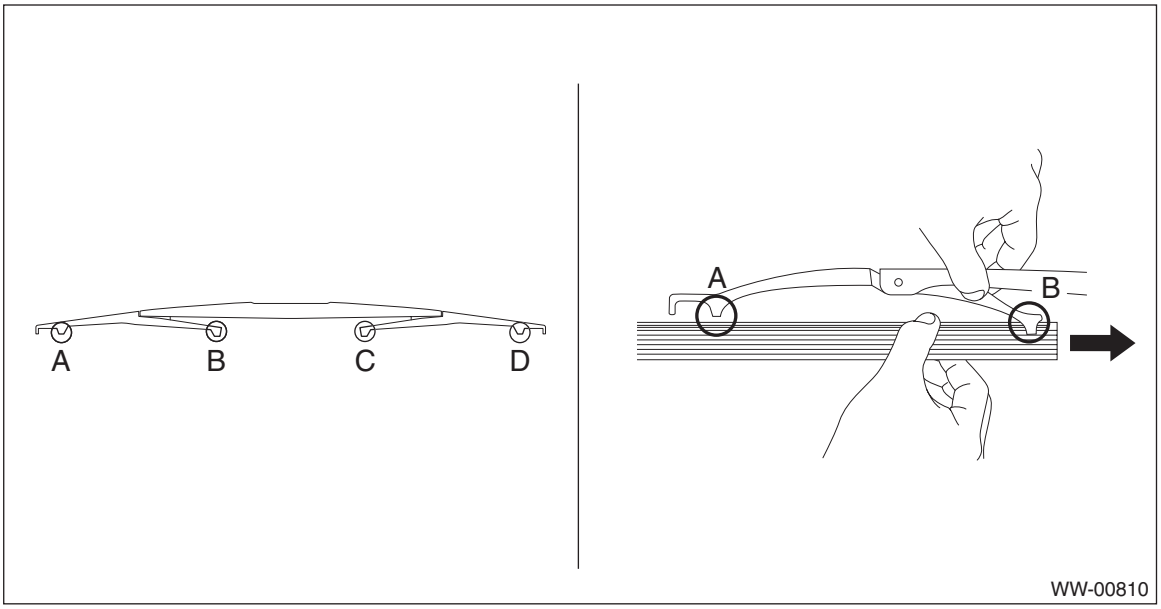


2) Make sure the rubber assembly - windshield wiper is securely fastened to the pull stopper (A).

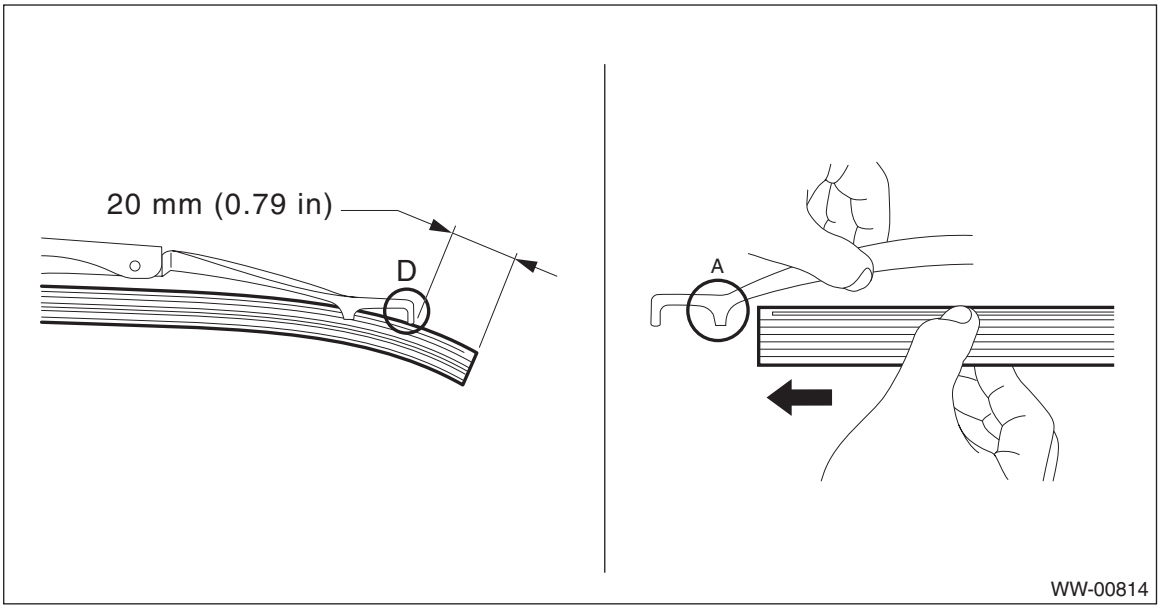


2. REAR

1) Insert the rubber assembly - rear wiper into claw (B).



2) Insert the rubber assembly - rear wiper until its top end protrudes approx. 20 mm (0.79 in) from stopper (D).
3) Insert the rubber assembly - rear wiper into claw (A).



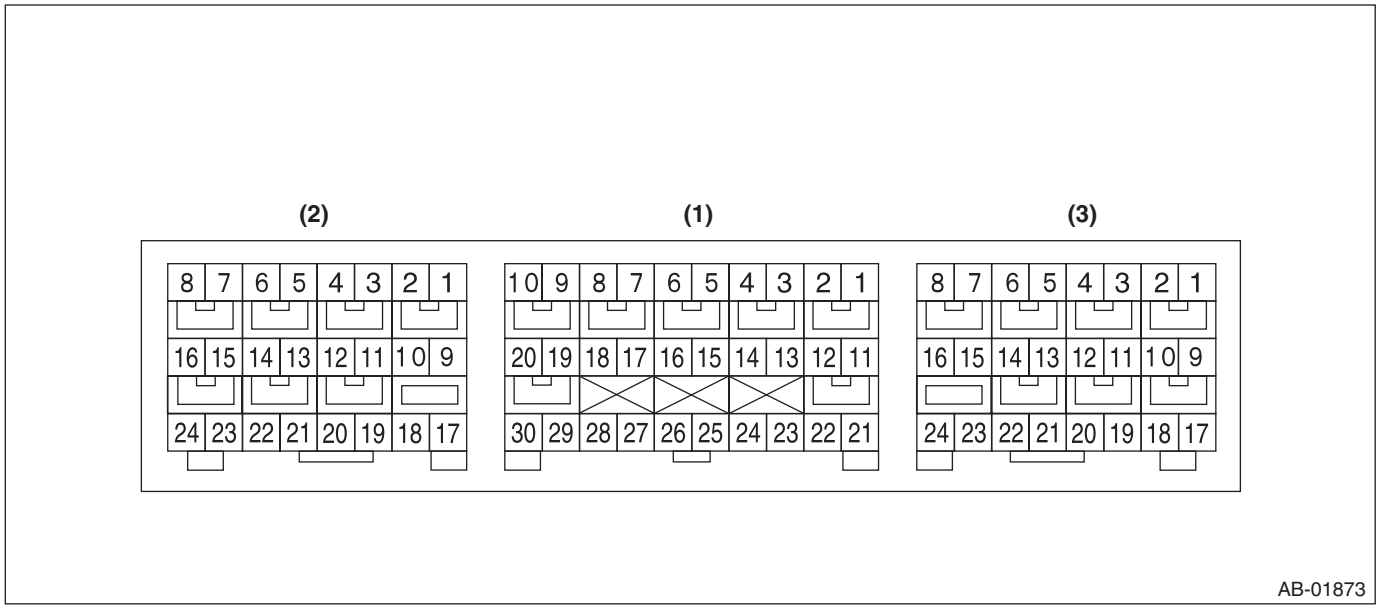
E: INSPECTION

1) When the wiper does not operate properly, inspect the following item.
- Make sure the movable part of the blade assembly - rear wiper moves smoothly.
- Check that the rubber assembly - rear wiper rubber is not deformed or damaged.

2) Replace with a new part if damage is found.

6. Airbag Control Module I/O Signal

A: ELECTRICAL SPECIFICATION



- Terminal numbers in airbag control module connector are shown in the figure.
- The airbag warning light illuminates when the connector is removed from the airbag control module.

Item		Control module terminal No.
Ignition power supply	Dedicated fuse	(1) — 21
Passenger's airbag module level one	+	(1) — 4
	–	(1) — 3
Passenger's airbag module level two	+	(1) — 1
	–	(1) — 2
Driver's airbag module level one	+	(1) — 5
	–	(1) — 6
Driver's airbag module level two	+	(1) — 8
	–	(1) — 7
Driver's knee airbag module	+	(1) — 9
	–	(1) — 10
CAN-H		(1) — 13
CAN-L		(1) — 22
Front sub sensor LH	+	(1) — 30
	–	(1) — 28
Front sub sensor RH	+	(1) — 29
	–	(1) — 27
Ground line (GND)		(1) — 25
		(1) — 26
Passenger's airbag ON indicator		(1) — 23
Passenger's airbag OFF indicator		(1) — 17
Passenger's seat belt warning		(1) — 15
Side airbag sensor LH Curtain airbag sensor LH Front door impact sensor LH	+	(2) — 24
	–	(2) — 23
Seat belt pretensioner LH	+	(2) — 5
	–	(2) — 6

Item		Control module terminal No.
Side airbag module LH	+	(2) — 1
	–	(2) — 2
Curtain airbag module LH	+	(2) — 4
	–	(2) — 3
Occupant detection control module	+	(3) — 16
	–	(3) — 24
Side airbag sensor RH Curtain airbag sensor RH Front door impact sensor RH	+	(3) — 17
	–	(3) — 18
Side airbag module RH	+	(3) — 8
	–	(3) — 7
Curtain airbag module RH	+	(3) — 5
	–	(3) — 6
Seat belt pretensioner RH	+	(3) — 4
	–	(3) — 3
Lap seat belt pretensioner RH	+	(3) — 1
	–	(3) — 2
Satellite safing sensor	+	(3) — 21
	–	(3) — 22

B: WIRING DIAGRAM

Refer to “Airbag System” in WI section.<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>

6. Combination Meter

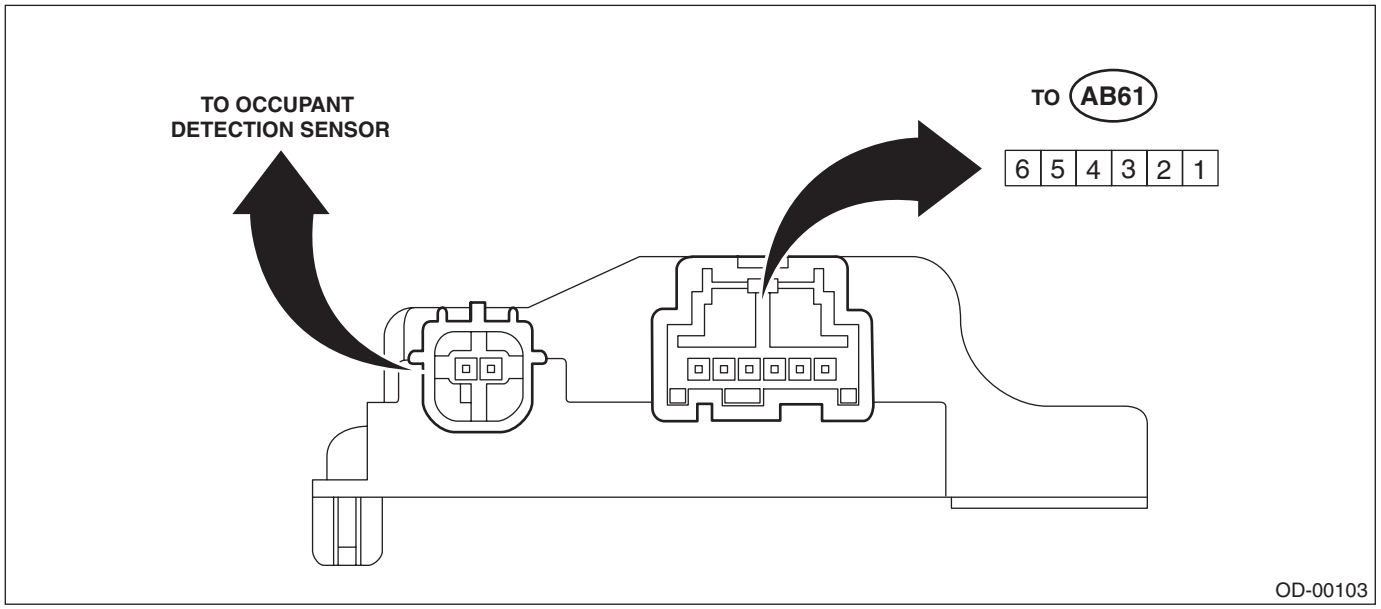
A: NOTE

For the combination meter, refer to “INSTRUMENTATION/DRIVER INFO” section. <Ref. to IDI-18, Combination Meter.>

6. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION

CAUTION:
Never remove the occupant detection control module, occupant detection sensor or seat frame because they are integrated into one unit.



Terminal No.	Terminal name	Input/Output value	Note
1	Buckle switch (+)	0 — IG voltage	When buckle switch is ON
2	Buckle switch (–)	0 V	Switch ground
3	Not used	—	—
4	Airbag CM communication (–)	—	—
5	Airbag CM communication (+)	—	—
6	IG power supply	8 — 16 V	When IG switch is ON

NOTE:
Occupant detection sensor signal is unmeasurable.

B: WIRING DIAGRAM

Refer to “Occupant Detection System” in the wiring diagram.<Ref. to WI-301, WIRING DIAGRAM, Occupant Detection System.>

6. Diagnostics with Phenomenon

A: INSPECTION

1. Perform the diagnosis according to the diagnostic procedure of the corresponding symptom that is shown in the symptom list.
2. If there are multiple symptoms, perform the diagnosis in the symptom sequence (1 → 2 → ... → 13).

1. SYMPTOM LIST

Symptoms		Diagnostic procedure
1	Nothing is displayed on the screen. No illumination appears on the indicator.	<Ref. to AC(diag)-19, NOTHING IS DISPLAYED ON THE SCREEN. NO ILLUMINATION APPEARS ON THE INDICATOR, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
2	Air conditioner does not stop when pressing the OFF switch.	<Ref. to AC(diag)-20, AIR CONDITIONER DOES NOT STOP WHEN PRESSING THE OFF SWITCH, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
3	Windshield glass does not clear when pressing the DEF switch.	<Ref. to AC(diag)-21, WINDSHIELD GLASS DOES NOT CLEAR WHEN PRESSING THE DEF SWITCH, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
4	Cold air not emitted.	<Ref. to AC(diag)-22, COLD AIR NOT EMITTED, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
5	Warm air not emitted.	<Ref. to AC(diag)-24, WARM AIR NOT EMITTED, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
6	Compartment temperature is lower than setting temperature.	<Ref. to AC(diag)-26, COMPARTMENT TEMPERATURE IS LOWER THAN SETTING TEMPERATURE, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
7	Compartment temperature is higher than setting temperature.	<Ref. to AC(diag)-28, COMPARTMENT TEMPERATURE IS HIGHER THAN SETTING TEMPERATURE, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
8	Air does not come out. Airflow is low. (Blower motor does not rotate.)	<Ref. to AC(diag)-30, AIR DOES NOT COME OUT. AIRFLOW IS LOW, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
9	Airflow cannot be adjusted. (Blower motor turns at a high speed.)	<Ref. to AC(diag)-33, AIR CANNOT BE CONTROLLED, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
10	Cool air does not come out when pressing the A/C switch. Fog cannot be cleared. (Compressor does not operate.)	<Ref. to AC(diag)-35, COOL AIR DOES NOT COME OUT WHEN PRESSING THE A/C SWITCH. FOG CANNOT BE CLEARED. (COMPRESSOR DOES NOT OPERATE.), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
11	Unable to switch suction vents.	<Ref. to AC(diag)-38, UNABLE TO SWITCH SUCTION VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
12	Unable to switch blow vents.	<Ref. to AC(diag)-38, UNABLE TO SWITCH VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
13	Illumination does not illuminate or cannot be dimmed.	<Ref. to AC(diag)-39, ILLUMINATION DOES NOT ILLUMINATE OR CANNOT BE DIMMED, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

B: DIAGNOSTIC PROCEDURE WITH PHENOMENON

1. NOTHING IS DISPLAYED ON THE SCREEN. NO ILLUMINATION APPEARS ON THE INDICATOR

TROUBLE SYMPTOM:

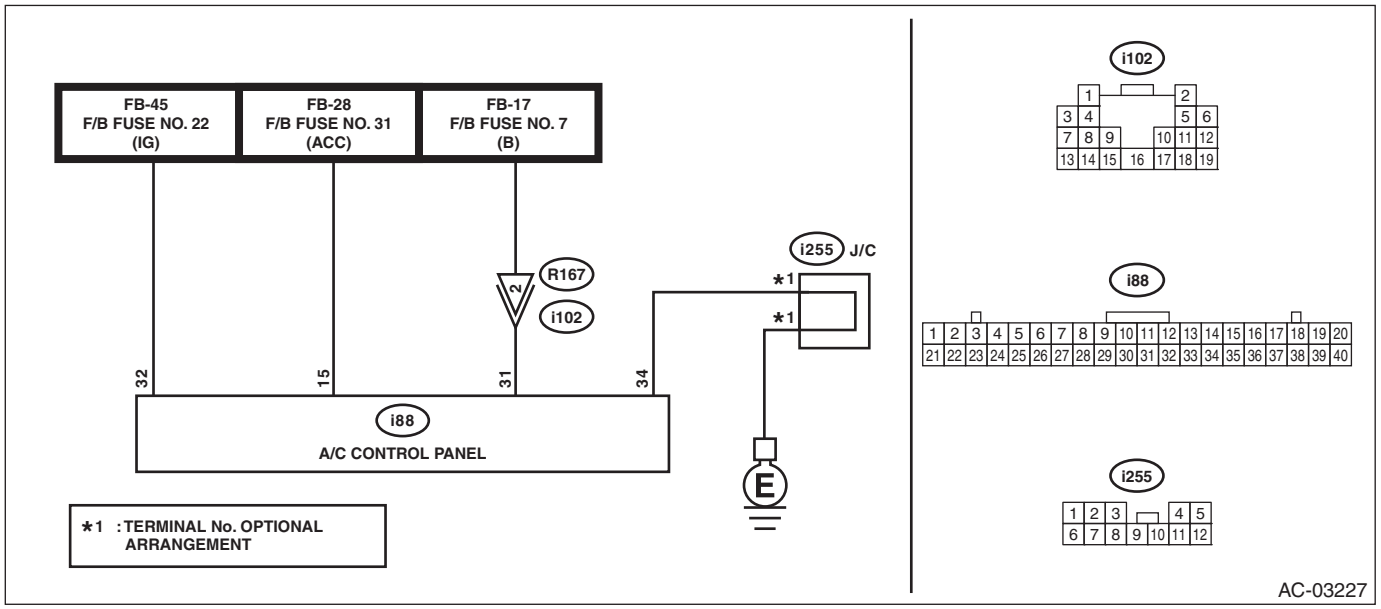
- When the AUTO button is pressed with IGN ON, nothing is displayed on the screen or indicators do not illuminate.
- Self diagnosis using A/C control panel does not operate.

TROUBLE CAUSES:

- A/C control panel power supply circuit failure
- CAN communication failure

WIRING DIAGRAM:

Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Remove a fuse from fuse & relay box. 3) Check the condition of fuse.	Is the fuse blown out?	Replace the fuse.	Go to step **2**.
2	**CHECK CONNECTOR.** Check for poor contact of connector.	Is there poor contact of connector?	Repair the connector.	Go to step **3**.
3	**CHECK A/C CONTROL PANEL POWER CIRCUIT.** 1) Remove the A/C control panel. 2) Disconnect the A/C control panel connector. 3) Measure the voltage between A/C control panel connector terminal and chassis ground after turning the ignition switch to ON. ***Connector & terminal*** ***(i88) No. 15 (+) — Chassis ground (–):*** ***(i88) No. 31 (+) — Chassis ground (–):*** ***(i88) No. 32 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **4**.	Check for open or short circuit in the harness between A/C control panel and fuse.
4	**CHECK A/C CONTROL PANEL GROUND CIRCUIT.** Measure the resistance of harness between A/C control panel and chassis ground after turning the ignition switch to OFF. ***Connector & terminal*** ***(i88) No. 34 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair the harness for ground line.

	Step	Check	Yes	No
5	**CHECK FOR POOR CONTACT.** Check poor contact of A/C control panel connector.	Is there poor contact of connector?	Repair the connector.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

2. AIR CONDITIONER DOES NOT STOP WHEN PRESSING THE OFF SWITCH

TROUBLE SYMPTOM:

Blower fan does not switch to OFF, inlet opening does not switch to FRESH, and compressor does not switch to OFF, when pressing the OFF switch.

TROUBLE CAUSE:

- CAN communication failure
- A/C control panel failure
- Blower motor failure
- Intake actuator failure
- Compressor failure

	Step	Check	Yes	No
1	**CHECK A/C CONTROL PANEL.** 1) Turn the ignition switch to ON. 2) Press the OFF switch located on the A/C panel. 3) Check the following data in “Read Current Data” using the Subaru Select Monitor. • Blower Fan Level • Fresh/Recircle Air Door Actuator Position Target	Does “Blower Fan Level” indicate 0 and “Fresh/Recircle Air Door Actuator Position Target” indicate 100%?	Go to step **2**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
2	**CHECK BLOWER MOTOR.** Check the blower motor operation with the OFF switch pressed.	Does the blower motor stop?	Go to step **3**.	<Ref. to AC(diag)-33, AIR CANNOT BE CONTROLLED, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
3	**CHECK INTAKE ACTUATOR.** Check the intake door operation with the OFF switch pressed.	Is the intake door FRESH?	Go to step **4**.	<Ref. to AC(diag)-38, UNABLE TO SWITCH SUCTION VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

	Step	Check	Yes	No
4	**CHECK COMPRESSOR.** Check the compressor operation with the OFF switch pressed.	Does the compressor stop?	System is normal.	<Ref. to AC(diag)-35, COOL AIR DOES NOT COME OUT WHEN PRESSING THE A/C SWITCH. FOG CANNOT BE CLEARED. (COMPRESSOR DOES NOT OPERATE.), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

3. WINDSHIELD GLASS DOES NOT CLEAR WHEN PRESSING THE DEF SWITCH

TROUBLE SYMPTOM:

Defroster indicator does not illuminate, outlet opening does not switch to DEF, compressor does not switch to ON, and inlet opening does not switch to FRESH, when pressing the DEF switch.

TROUBLE CAUSE:

- CAN communication failure
- A/C control panel failure
- Mode door actuator failure
- Compressor failure
- Intake actuator failure

	Step	Check	Yes	No
1	**CHECK A/C CONTROL PANEL.** 1) Turn the ignition switch to ON. 2) Press the DEF switch located on the A/C panel. 3) Check the following data in “Read Current Data” using the Subaru Select Monitor. • Mode Door Actuator Position Target • Fresh/Recircle Air Door Actuator Position Target	Does “Mode Door Actuator Position Target” indicate 100% and “Fresh/Recircle Air Door Actuator Position Target” indicate 100%?	Go to step **2**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
2	**CHECK MODE DOOR ACTUATOR.** Check the mode door operation with the DEF switch in ON.	Does air come out from the DEF outlet opening?	Go to step **3**.	<Ref. to AC(diag)-38, UNABLE TO SWITCH VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
3	**CHECK INTAKE ACTUATOR.** Check the intake door operation with the DEF switch in ON.	Does the intake door operate normally?	Go to step **4**.	<Ref. to AC(diag)-38, UNABLE TO SWITCH SUCTION VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

	Step	Check	Yes	No
4	**CHECK COMPRESSOR.** Check the compressor operation with the DEF switch in ON.	Does the compressor operate?	System is normal.	<Ref. to AC(diag)-35, COOL AIR DOES NOT COME OUT WHEN PRESSING THE A/C SWITCH. FOG CANNOT BE CLEARED. (COMPRESSOR DOES NOT OPERATE.), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>

4. COLD AIR NOT EMITTED

TROUBLE SYMPTOM:
Cold air not emitted.
TROUBLE CAUSES:
- Airflow capacity failure
- Refrigerant pressure failure
- CAN communication failure
- A/C control panel failure
- Air mix actuator RH failure
- Air mix actuator LH failure (only with left/right independent air conditioning function)
- Intake door actuator failure
- Evaporator sensor failure
- In-vehicle sensor failure
- Ambient sensor failure
- Sunload sensor failure

	Step	Check	Yes	No
1	**CHECK MAX COOL.** Set the A/C control panel dials as follows. Temperature control dial: MAX COOL FRESH/RECIRC switch: RECIRC Mode switch or mode dial: VENT A/C switch: ON	Does no cold air come out?	Go to step **2**.	Go to step **4**.
2	**CHECK AIRFLOW CAPACITY.** Check the airflow capacity. <Ref. to AC(diag)-30, AIR DOES NOT COME OUT. AIRFLOW IS LOW, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>	Is the airflow capacity normal?	Go to step **3**.	Perform repair according to inspection procedure.
3	**CHECK AMOUNT OF REFRIGERANT PRESSURE.** Check the refrigerant pressure. <Ref. to AC-23, REFRIGERANT GAS PRESSURE INSPECTION, PROCEDURE, Refrigerant Pressure with Manifold Gauge Set.>	Is the refrigerant pressure normal?	Go to step **4**.	Perform repair according to refrigerant pressure inspection.

	Step	Check	Yes	No
4	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX COOL. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "60"*1?	Go to step **5**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
5	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX HOT. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "90"*2?	Go to step **6**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
6	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX COOL and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **7**.
7	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX HOT and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **8**.
8	**CHECK INTAKE DOOR ACTUATOR.** Visually check the intake door actuator operation.	Is the intake door actuator normal?	Go to step **9**.	Check the intake door actuator. <Ref. to AC(diag)-38, UNABLE TO SWITCH SUCTION VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
9	**CHECK EVAPORATOR SENSOR UNIT.** Perform the inspection of evaporator sensor unit. <Ref. to AC-89, INSPECTION, Evaporator Sensor.>	Is the evaporator sensor normal?	Go to step **10**.	Replace the evaporator sensor. <Ref. to AC-88, REMOVAL, Evaporator Sensor.>
10	**CHECK IN-VEHICLE SENSOR UNIT.** Check in-vehicle sensor. <Ref. to AC-85, INSPECTION, In-Vehicle Sensor (Auto A/C Model).>	Is the in-vehicle sensor normal?	Go to step **11**.	Replace the in-vehicle sensor. <Ref. to AC-84, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>
11	**CHECK AMBIENT SENSOR UNIT.** Check the ambient sensor. <Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the ambient sensor normal?	Go to step **12**.	Replace the ambient sensor. <Ref. to AC-80, REMOVAL, Ambient Sensor.>

	Step	Check	Yes	No
12	**CHECK SUNLOAD SENSOR UNIT.** Check the sunload sensor unit. <Ref. to AC-83, INSPECTION, Sunload Sensor (Auto A/C Model).>	Is the sunload sensor normal?	System is normal.	Replace the sunload sensor. <Ref. to AC-82, REMOVAL, Sunload Sensor (Auto A/C Model).>

*1: For the 75°F center specification. Note that 18 for 25°C center specification and 15 for 22°C center specification.
*2: For the 75°F center specification. Note that 32 for 25°C center specification and 29 for 22°C center specification.

5. WARM AIR NOT EMITTED

TROUBLE SYMPTOM:
Warm air not emitted.
TROUBLE CAUSES:
- Airflow capacity failure
- Coolant level failure
- CAN communication failure
- A/C control panel failure
- Air mix actuator RH failure
- Air mix actuator LH failure (only with left/right independent air conditioning function)
- Intake door actuator failure
- Evaporator sensor failure
- In-vehicle sensor failure
- Ambient sensor failure
- Sunload sensor failure

	Step	Check	Yes	No
1	**CHECK MAX HOT.** Set the A/C control panel dials as follows. Temperature control dial: MAX HOT FRESH/RECIRC switch: FRESH Mode switch or mode dial: HEAT A/C switch: OFF	Does no warm air come out?	Go to step **2**.	Go to step **4**.
2	**CHECK AIRFLOW CAPACITY.** Check the airflow capacity. <Ref. to AC(diag)-30, AIR DOES NOT COME OUT. AIRFLOW IS LOW, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>	Is the airflow capacity normal?	Go to step **3**.	Perform repair according to inspection procedure.
3	**CHECK ENGINE COOLANT.** Check engine coolant amount.	Is the engine coolant level within the specification?	Go to step **4**.	Fill engine coolant. If there is coolant leakage, repair the leaks according to Engine Cooling System Trouble in General. <Ref. to CO(H4DO)-71, Engine Cooling System Trouble in General.>

	Step	Check	Yes	No
4	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX COOL. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "60"*1?	Go to step **5**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
5	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX HOT. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "90"*2?	Go to step **6**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
6	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX COOL and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **7**.
7	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX HOT and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **8**.
8	**CHECK INTAKE DOOR ACTUATOR.** Visually check the intake door actuator operation.	Is the intake door actuator normal?	Go to step **9**.	Check the intake door actuator. <Ref. to AC(diag)-38, UNABLE TO SWITCH SUCTION VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
9	**CHECK EVAPORATOR SENSOR UNIT.** Perform the inspection of evaporator sensor unit. <Ref. to AC-89, INSPECTION, Evaporator Sensor.>	Is the evaporator sensor normal?	Go to step **10**.	Replace the evaporator sensor. <Ref. to AC-88, REMOVAL, Evaporator Sensor.>
10	**CHECK IN-VEHICLE SENSOR UNIT.** Check in-vehicle sensor circuit. <Ref. to AC-85, INSPECTION, In-Vehicle Sensor (Auto A/C Model).>	Is the in-vehicle sensor circuit normal?	Go to step **11**.	Replace the in-vehicle sensor. <Ref. to AC-84, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>
11	**CHECK AMBIENT SENSOR UNIT.** Check the ambient sensor. <Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the ambient sensor normal?	Go to step **12**.	Replace the ambient sensor. <Ref. to AC-80, REMOVAL, Ambient Sensor.>

	Step	Check	Yes	No
12	**CHECK SUNLOAD SENSOR UNIT.** Check the sunload sensor unit. <Ref. to AC-83, INSPECTION, Sunload Sensor (Auto A/C Model).>	Is the sunload sensor normal?	System is normal.	Replace the sunload sensor. <Ref. to AC-82, REMOVAL, Sunload Sensor (Auto A/C Model).>

*1: For the 75°F center specification. Note that 18 for 25°C center specification and 15 for 22°C center specification.
*2: For the 75°F center specification. Note that 32 for 25°C center specification and 29 for 22°C center specification.

6. COMPARTMENT TEMPERATURE IS LOWER THAN SETTING TEMPERATURE

TROUBLE SYMPTOM:
Compartment temperature is excessively lower than setting temperature.
TROUBLE CAUSES:
- Large airflow capacity
- Refrigerant pressure failure
- CAN communication failure
- A/C control panel failure
- Air mix actuator RH failure
- Air mix actuator LH failure (only with left/right independent air conditioning function)
- Evaporator sensor failure
- In-vehicle sensor failure
- Ambient sensor failure
- Sunload sensor failure

	Step	Check	Yes	No
1	**CHECK AIRFLOW CAPACITY.** Check the airflow capacity. <Ref. to AC(diag)-33, AIR CANNOT BE CONTROLLED, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>	Is the airflow capacity normal?	Go to step **2**.	Perform repair according to inspection procedure.
2	**CHECK AMOUNT OF REFRIGERANT PRESSURE.** Check the refrigerant pressure. <Ref. to AC-23, REFRIGERANT GAS PRESSURE INSPECTION, PROCEDURE, Refrigerant Pressure with Manifold Gauge Set.>	Is the refrigerant pressure normal?	Go to step **3**.	Perform repair according to refrigerant pressure inspection.
3	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX COOL. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "60"*1?	Go to step **4**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
4	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX HOT. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "90"*2?	Go to step **5**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

Step		Check	Yes	No
5	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX COOL and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **6**.
6	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX HOT and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **7**.
7	**CHECK EVAPORATOR SENSOR UNIT.** Perform the inspection of evaporator sensor unit. <Ref. to AC-89, INSPECTION, Evaporator Sensor.>	Is the evaporator sensor normal?	Go to step **8**.	Replace the evaporator sensor. <Ref. to AC-88, REMOVAL, Evaporator Sensor.>
8	**CHECK IN-VEHICLE SENSOR UNIT.** Check in-vehicle sensor circuit. <Ref. to AC-85, INSPECTION, In-Vehicle Sensor (Auto A/C Model).>	Is the in-vehicle sensor circuit normal?	Go to step **9**.	Replace the in-vehicle sensor. <Ref. to AC-84, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>
9	**CHECK AMBIENT SENSOR UNIT.** Check the ambient sensor. <Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the ambient sensor normal?	Go to step **10**.	Replace the ambient sensor. <Ref. to AC-80, REMOVAL, Ambient Sensor.>
10	**CHECK SUNLOAD SENSOR UNIT.** Check the sunload sensor unit. <Ref. to AC-83, INSPECTION, Sunload Sensor (Auto A/C Model).>	Is the sunload sensor normal?	System is normal.	Replace the sunload sensor. <Ref. to AC-82, REMOVAL, Sunload Sensor (Auto A/C Model).>

*1: For the 75°F center specification. Note that 18 for 25°C center specification and 15 for 22°C center specification.
*2: For the 75°F center specification. Note that 32 for 25°C center specification and 29 for 22°C center specification.

7. COMPARTMENT TEMPERATURE IS HIGHER THAN SETTING TEMPERATURE

TROUBLE SYMPTOM:
Compartment temperature is excessively higher than setting temperature.
TROUBLE CAUSES:
- Large airflow capacity
- CAN communication failure
- A/C control panel failure
- Air mix actuator RH failure
- Air mix actuator LH failure (only with left/right independent air conditioning function)
- Intake door actuator failure
- Evaporator sensor failure
- In-vehicle sensor failure
- Ambient sensor failure
- Sunload sensor failure

	Step	Check	Yes	No
1	**CHECK AIRFLOW CAPACITY.** Check the airflow capacity. <Ref. to AC(diag)-33, AIR CANNOT BE CONTROLLED, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>	Is the airflow capacity normal?	Go to step **2**.	Perform repair according to inspection procedure.
2	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX COOL. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "60"*1?	Go to step **3**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
3	**CHECK A/C CONTROL PANEL.** 1) Turn the temperature control dials (driver's side) and (passenger's side) to MAX HOT. 2) Using Subaru Select Monitor, display the following data in "Read Current Data". • Heater Control Panel Setting Value (Driver's) • Heater Control Panel Setting Value (Passenger's)	Do "Heater Control Panel Setting Value (Driver's)" and "Heater Control Panel Setting Value (Passenger's)" indicate "90"*2?	Go to step **4**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
4	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX COOL and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **5**.
5	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Turn the temperature control dial at MAX HOT and leave for 16 seconds or more. (For vehicles with left/right independent air conditioner, perform setting on both sides.) 3) Read the DTC using Subaru Select Monitor.	Is DTC B14E1, B14E2, B14E3 or B14E4 displayed?	Perform the diagnosis according to DTC.	Go to step **6**.

	Step	Check	Yes	No
6	**CHECK INTAKE DOOR ACTUATOR.** Visually check the intake door actuator operation.	Is the intake door actuator normal?	Go to step **7**.	Check the intake door actuator. <Ref. to AC(diag)-38, UNABLE TO SWITCH SUCTION VENTS, DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.>
7	**CHECK EVAPORATOR SENSOR UNIT.** Perform the inspection of evaporator sensor unit. <Ref. to AC-89, INSPECTION, Evaporator Sensor.>	Is the evaporator sensor normal?	Go to step **8**.	Replace the evaporator sensor. <Ref. to AC-88, REMOVAL, Evaporator Sensor.>
8	**CHECK IN-VEHICLE SENSOR UNIT.** Check in-vehicle sensor circuit. <Ref. to AC-85, INSPECTION, In-Vehicle Sensor (Auto A/C Model).>	Is the in-vehicle sensor circuit normal?	Go to step **9**.	Replace the in-vehicle sensor. <Ref. to AC-84, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>
9	**CHECK AMBIENT SENSOR UNIT.** Check the ambient sensor. <Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the ambient sensor normal?	Go to step **10**.	Replace the ambient sensor. <Ref. to AC-80, REMOVAL, Ambient Sensor.>
10	**CHECK SUNLOAD SENSOR UNIT.** Check the sunload sensor unit. <Ref. to AC-83, INSPECTION, Sunload Sensor (Auto A/C Model).>	Is the sunload sensor normal?	System is normal.	Replace the sunload sensor. <Ref. to AC-82, REMOVAL, Sunload Sensor (Auto A/C Model).>

*1: For the 75°F center specification. Note that 18 for 25°C center specification and 15 for 22°C center specification.
*2: For the 75°F center specification. Note that 32 for 25°C center specification and 29 for 22°C center specification.

8. AIR DOES NOT COME OUT. AIRFLOW IS LOW

TROUBLE SYMPTOM:

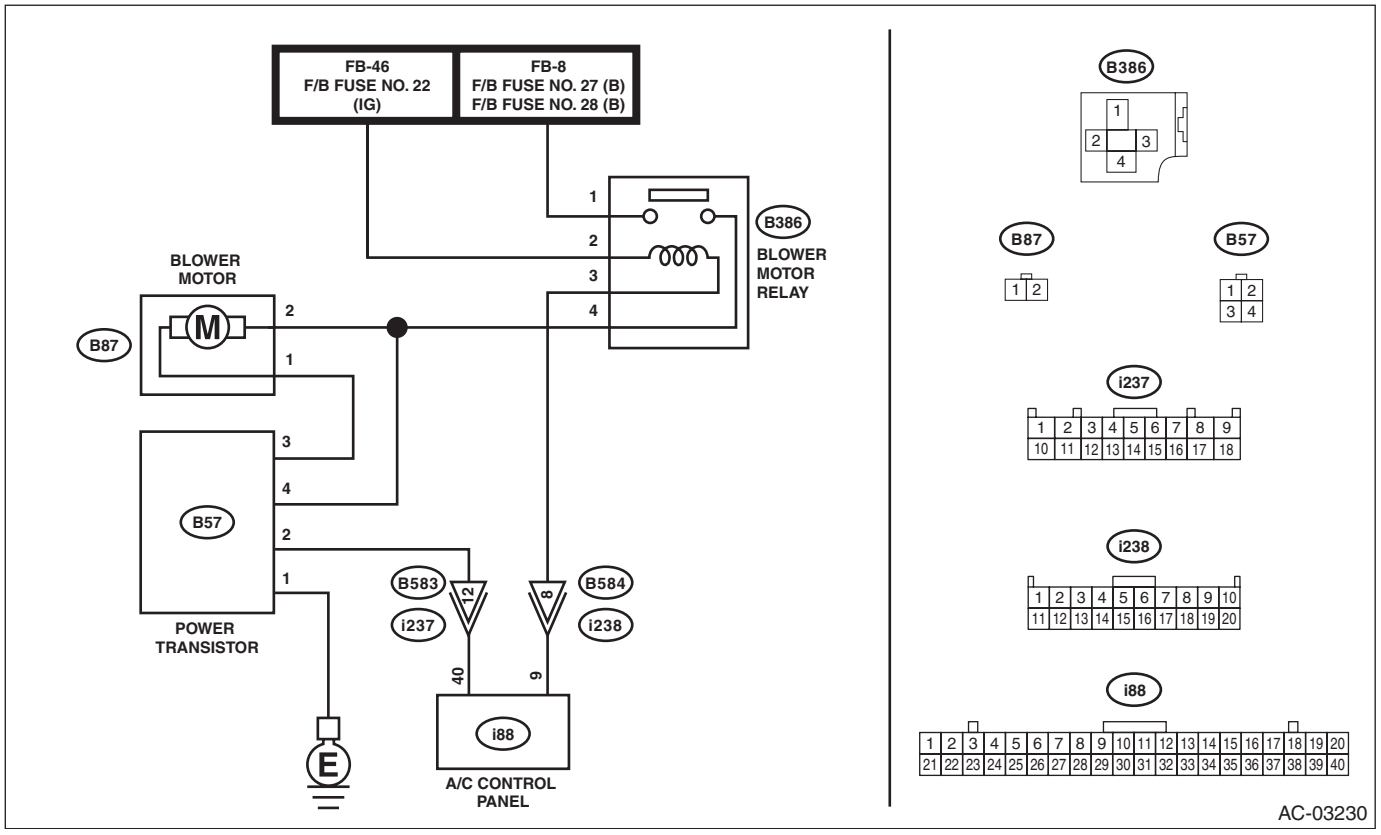
- Airflow capacity is insufficient.
- Air does not come out when operating the fan dial.

TROUBLE CAUSES:

- Airflow capacity failure
- CAN communication failure
- A/C control panel failure
- Blower motor failure

WIRING DIAGRAM:

Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK A/C CONTROL PANEL.** 1) Using Subaru Select Monitor, display the following data in "Read Current Data". • Air mix door actuator position (driver's side) • Air mix door actuator position (passenger's) • Blower fan level 2) Turn the temperature control dial at MAX COOL and increase and decrease the A/C control panel fan dial. (For vehicles with left/right independent air conditioner, perform setting on both sides.)	Do "Air mix door actuator position (driver's side)" and "Air mix door actuator position (passenger's side)" indicate "0%"? Also, does the value of "Blower Fan Level" increase or decrease in conjunction with the fan dial operation?	Go to step **2**.	Go to step **5**.
2	**CHECK AIRFLOW CAPACITY.** Turn the temperature control dial to LO (both dials for the models equipped with left/right independent air conditioning function), A/C control panel fan dial to MAX and FRESH/RECIRC switch to RECIRC.	Is the airflow capacity insufficient for the same model?	Go to step **3**.	System is normal.
3	**CHECK A/C FILTER.** Check the A/C filter.	Is the A/C filter normal?	Go to step **4**.	Clean or replace the A/C filter.

	Step	Check	Yes	No
4	**CHECK EACH DUCT.** Check each duct joint for disconnection or clogging.	Is each duct normal?	Go to step **5**.	Repair the faulty duct.
5	**CHECK A/C CONTROL PANEL.** 1) Turn the ignition switch to ON. 2) Turn the fan dial to the maximum position. 3) Using the Subaru Select Monitor, check "Blower Fan Level" of the current data from the A/C diagnosis.	Does "Blower Fan Level" indicate "7"?	Go to step **6**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
6	**CHECK A/C CONTROL PANEL.** 1) Turn the fan dial to the minimum position. 2) Using the Subaru Select Monitor, check "Blower Fan Level" of the current data from the A/C diagnosis.	Does "Blower Fan Level" indicate "1"?	Go to step **7**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
7	**CHECK CONNECTOR.** Check for poor contact of connector.	Is there poor contact of connector?	Repair the connector.	Go to step **8**.
8	**CHECK FUSE.** 1) Remove a fuse in the fuse & relay box. 2) Check the condition of fuse.	Is the fuse blown out?	Replace the fuse.	Go to step **9**.
9	**CHECK BLOWER MOTOR RELAY ON SIGNAL.** 1) Stop the engine. 2) Turn the fan dial OFF. 3) Turn the ignition switch to ON. 4) Using a tester, measure the voltage between the A/C control panel connector (i88) and chassis ground. ***Connector & terminal*** ***(i88) No. 9 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **10**.	• Check for open or short circuit in the harness between fuse and ECM. • Check the blower relay connector and relay unit. <Ref. to AC-35, CHECK RELAY, INSPECTION, Relay and Fuse.>
10	**CHECK BLOWER MOTOR RELAY ON SIGNAL.** 1) Start the engine. 2) Turn the fan dial to ON. 3) Using a tester, measure the voltage between the A/C control panel connector (i88) and chassis ground. ***Connector & terminal*** ***(i88) No. 9 (+) — Chassis ground (–):***	Is the voltage 0 V?	Go to step **11**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
11	**CHECK BLOWER MOTOR POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to ON. 2) Turn the fan dial to ON. 3) Use a tester to measure the voltage between the blower motor connector (B87) and chassis ground. ***Connector & terminal*** ***(B87) No. 2 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **12**.	• Check the blower motor power supply line harness for open circuit or connector disconnection. • Check the blower relay connector and relay unit. <Ref. to AC-35, CHECK RELAY, INSPECTION, Relay and Fuse.>
12	**CHECK BLOWER MOTOR UNIT.** Check the blower motor. <Ref. to AC-40, INSPECTION, Blower Motor.>	Is the blower motor OK?	Go to step **13**.	Replace the blower motor. <Ref. to AC-39, REMOVAL, Blower Motor.>

	Step	Check	Yes	No
13	**CHECK HARNESS.** 1) Disconnect the power transistor and A/C control panel connector. 2) Using a tester, measure the resistance between harness terminals. ***Connector & terminal*** ***(B386) No. 4 — (B57) No. 4:*** ***(B87) No. 1 — (B57) No. 3:*** ***(B57) No. 2 — (i88) No. 40:*** ***(B57) No. 1 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **14**.	Repair or replace the open circuit of harness.
14	**CHECK HARNESS.** Use a tester to measure the harness resistance between the power transistor connector and chassis ground. ***Connector & terminal*** ***(B57) No. 2 — Chassis ground:***	Is the resistance less than 1 Ω?	Repair or replace the short circuit of the harness.	Go to step **15**.
15	**CHECK POWER TRANSISTOR.** Replace the power transistor with a properly functioning part.	Does the blower motor rotate?	Replace the power transistor. <Ref. to AC-41, REMOVAL, Power Transistor (Auto A/C Model).>	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

9. AIR CANNOT BE CONTROLLED

TROUBLE SYMPTOM:

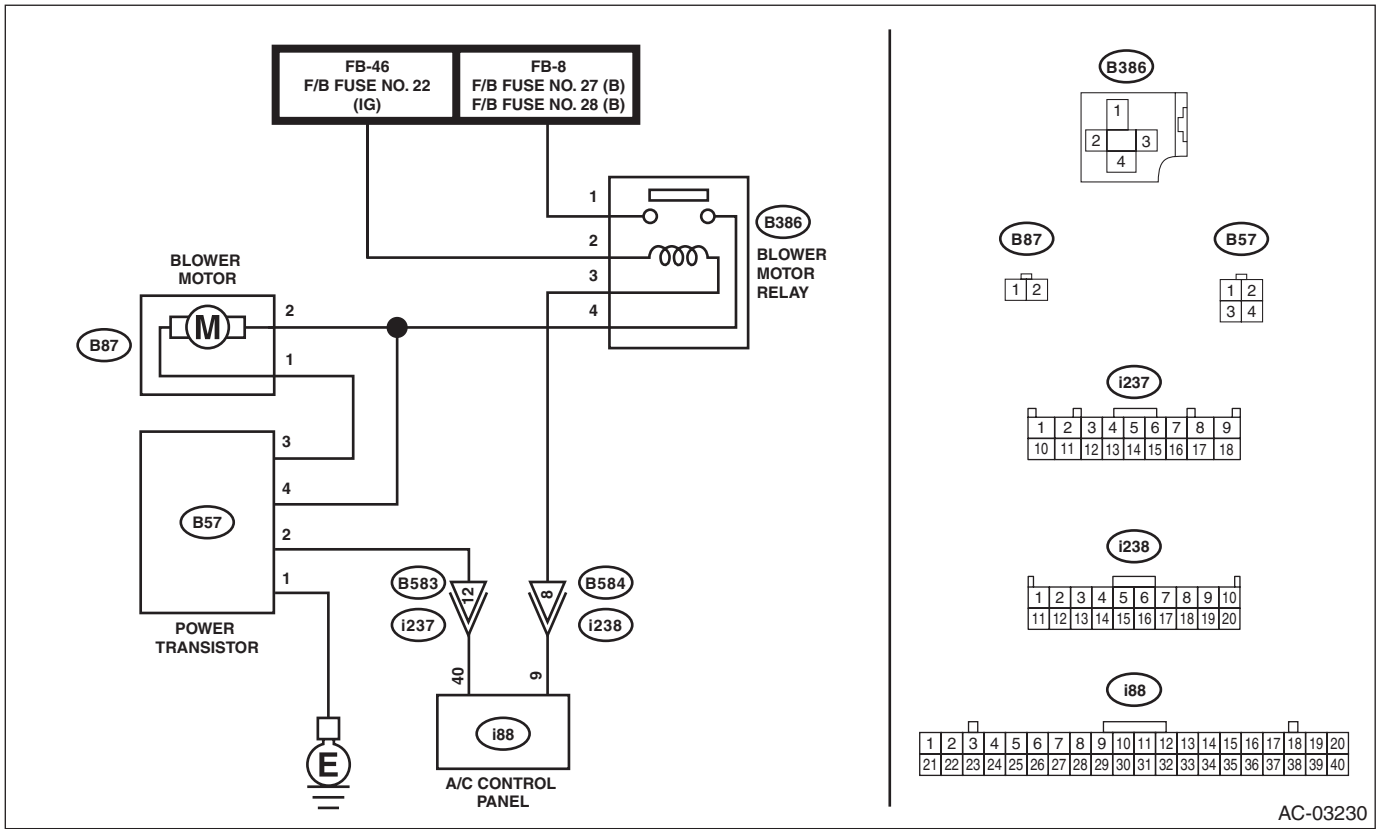
- The blower rotates even though the blower switch is not turned on.
- The blower motor continues to rotate at high speed. (Not adjustable.)

TROUBLE CAUSES:

- Airflow capacity failure
- CAN communication failure
- A/C control panel failure
- Blower motor failure

WIRING DIAGRAM:

Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK A/C CONTROL PANEL.** 1) Turn the ignition switch to ON. 2) Turn the fan dial to the maximum position. 3) Using the Subaru Select Monitor, check "Blower Fan Level" of the current data from the A/C diagnosis.	Does "Blower Fan Level" indicate "7"?	Go to step **2**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
2	**CHECK A/C CONTROL PANEL.** 1) Turn the fan dial to the minimum position. 2) Using the Subaru Select Monitor, check "Blower Fan Level" of the current data from the A/C diagnosis.	Does "Blower Fan Level" indicate "1"?	Go to step **3**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the power transistor connector. 3) Use a tester to measure the resistance between the power transistor connector and chassis ground. ***Connector & terminal*** ***(B57) No. 4 — Chassis ground:***	Is the resistance less than 1 Ω?	Repair or replace the short circuit of the harness between blower motor and power transistor.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Remove the A/C control panel. 2) Turn the ignition switch to ON. 3) Use a tester to measure the resistance between the power transistor connector and chassis ground. ***Connector & terminal*** ***(B57) No. 2 — Chassis ground:***	Is the resistance less than 1 Ω?	Repair or replace the short circuit of the harness between A/C control panel and power transistor.	Go to step **5**.
5	**CHECK HARNESS.** 1) Connect the disconnected connectors. 2) Turn the ignition switch to ON. 3) Use a tester to measure the voltage between the power transistor connector and chassis ground. ***Connector & terminal*** ***(B57) No. 2 (+) — Chassis ground (–):***	Is the voltage approx. 9 V when fan dial in 1st, and approx. 3.5 V when fan dial in 6th?	Replace the power transistor. <Ref. to AC-41, REMOVAL, Power Transistor (Auto A/C Model).>	Go to step **6**.
6	**CHECK A/C CONTROL PANEL.** 1) Turn the fan dial OFF. 2) Disconnect the power transistor connector. 3) Use a tester to measure the resistance between the power transistor connector and chassis ground. ***Connector & terminal*** ***(B57) No. 2 — Chassis ground:***	When the fan dial is OFF and other than OFF, does the resistance change?	Replace the power transistor. <Ref. to AC-41, REMOVAL, Power Transistor (Auto A/C Model).>	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

10.COOL AIR DOES NOT COME OUT WHEN PRESSING THE A/C SWITCH. FOG CANNOT BE CLEARED. (COMPRESSOR DOES NOT OPERATE.)

TROUBLE SYMPTOM:

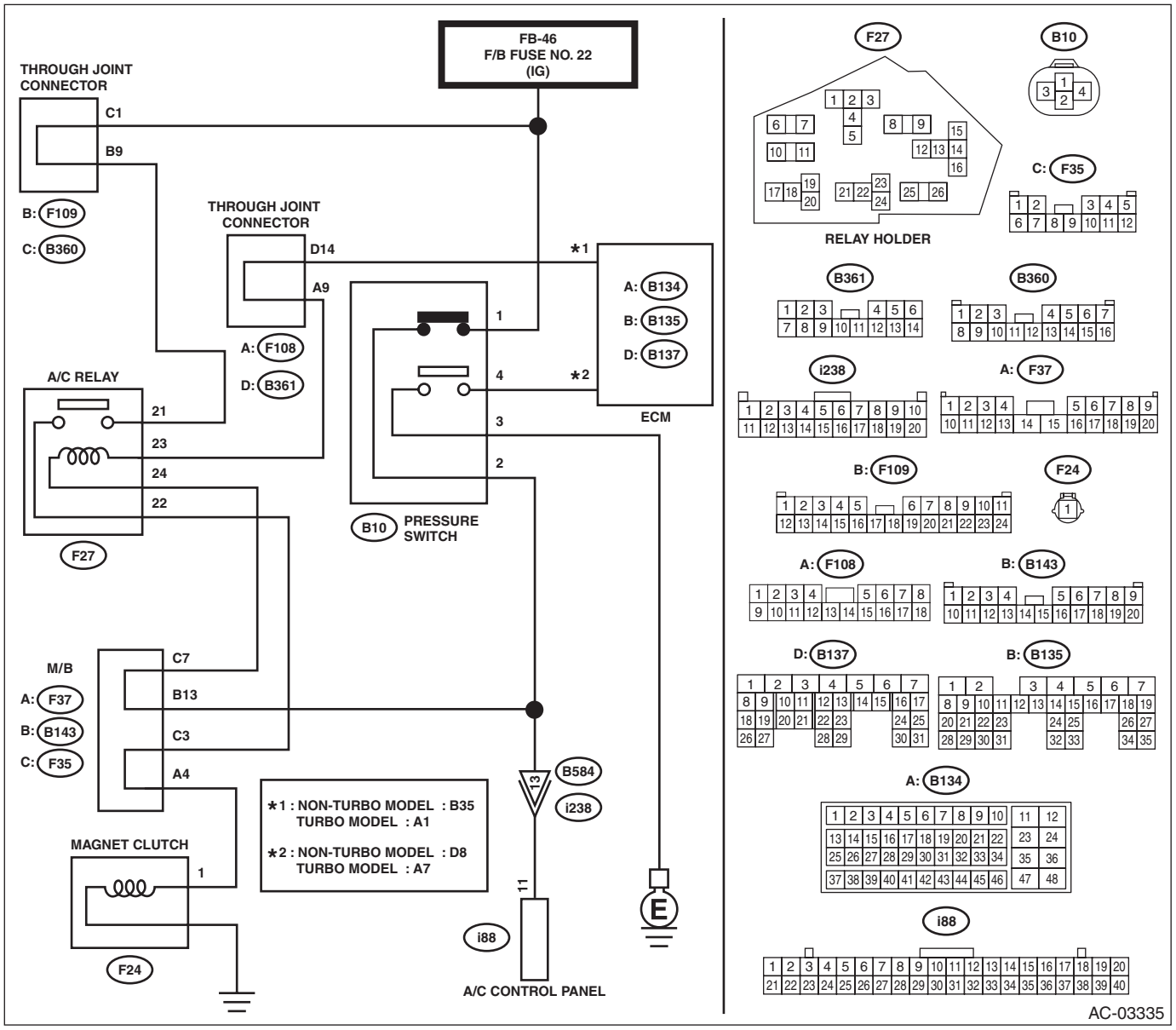
Compressor does not operate after turning the A/C switch to ON and fan dial between LO and HI.

TROUBLE CAUSES:

Compressor failure

WIRING DIAGRAM:

Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



	Step	Check	Yes	No
1	**CHECK A/C CONTROL PANEL.** 1) Leave the vehicle under the condition at ambient temperature of 15°C (59°F) or more. 2) Turn the ignition switch to ON. 3) Turn the fan dial to the maximum position. 4) Press the A/C switch.	Is "A/C" displayed on the A/C control panel?	Go to step **2**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
2	**CHECK EVAPORATOR SENSOR.** Using the Subaru Select Monitor, check "Evaporator Temp." of the current data from the A/C diagnosis.	Does the data indicate -0.5 degree or more?	Go to step **4**.	Go to step **3**.
3	**CHECK EVAPORATOR SENSOR.** Check the evaporator sensor. <Ref. to AC-89, INSPECTION, Evaporator Sensor.>	Is the sensor normal?	Go to step **4**.	Replace the evaporator sensor. <Ref. to AC-88, REMOVAL, Evaporator Sensor.>
4	**CHECK PRESSURE SWITCH.** Check the pressure switch connection.	Is the connector normal?	Go to step **5**.	Repair the connector.
5	**CHECK PRESSURE SWITCH.** Using the Subaru Select Monitor, check "Pressure Switch" of the current data from Air Conditioning Diagnosis.	Does the data indicate normal?	Go to step **10**.	Go to step **6**.
6	**CHECK AMOUNT OF REFRIGERANT PRESSURE.** Check the refrigerant pressure. <Ref. to AC-23, REFRIGERANT GAS PRESSURE INSPECTION, PROCEDURE, Refrigerant Pressure with Manifold Gauge Set.>	Is the refrigerant pressure normal?	Go to step **7**.	Perform repair according to refrigerant pressure inspection.
7	**CHECK CONNECTOR.** Check poor contact of A/C control panel connector.	Is the connector normal?	Go to step **8**.	Repair the connector.
8	**CHECK FUSE.** 1) Turn the ignition switch to ON. 2) Remove a fuse in the fuse & relay box. 3) Check the fuse.	Is the fuse normal?	Go to step **9**.	Replace the fuse.
9	**CHECK PRESSURE SWITCH SIGNAL.** 1) Turn the ignition switch to OFF. 2) Disconnect the A/C control panel connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between A/C control panel connector terminal and chassis ground. ***Connector & terminal*** ***(i88) No. 11 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	• Check for open or short circuit in the harness between fuse and A/C control panel. • Check for poor contact of pressure switch connector.
10	**CHECK CAN COMMUNICATION CIRCUIT.** Using the Subaru Select Monitor, check "A/C Switch Signal" of the current data from Engine Diagnosis.	Does the data indicate ON?	Go to step **12**.	Go to step **11**.
11	**CHECK CAN COMMUNICATION CIRCUIT.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is the system normal?	Repair it according to DTC of LAN system.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

	Step	Check	Yes	No
12	**CHECK A/C RELAY ON SIGNAL.** 1) Disconnect the ECM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between ECM connector terminal and chassis ground. ***Connector & terminal*** ***Non-turbo model*** ***(B135) No. 35 (+) — Chassis ground (–):*** ***Turbo model*** ***(B134) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **13**.	• Check for open or short in the harness between pressure switch and ECM. • Check poor contact of A/C relay connector. • Check the A/C relay. <Ref. to AC-35, INSPECTION, Relay and Fuse.>
13	**CHECK A/C RELAY ON SIGNAL.** 1) Start the engine. 2) Turn the A/C switch to ON. 3) Turn the temperature control dial at maximum cool position. 4) Measure the voltage between ECM connector terminal and chassis ground. ***Connector & terminal*** ***Non-turbo model*** ***(B135) No. 35 (+) — Chassis ground (–):*** ***Turbo model*** ***(B134) No. 1 (+) — Chassis ground (–):***	Is the voltage 0 V?	Go to step **14**.	Replace the ECM.
14	**CHECK MAGNET CLUTCH POWER SUPPLY CIRCUIT.** 1) Stop the engine. 2) Disconnect the magnet clutch connector. 3) Start the engine. 4) Turn the A/C switch to ON. 5) Turn the temperature control dial at maximum cool position. 6) Measure the voltage between magnet clutch connector terminal and chassis ground. ***Connector & terminal*** ***(F24) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Check the magnet clutch.	• Check for open or short circuit in the harness between fuse and magnet clutch. • Check poor contact of A/C relay connector. • Check the A/C relay. <Ref. to AC-35, INSPECTION, Relay and Fuse.>

11.UNABLE TO SWITCH SUCTION VENTS

TROUBLE SYMPTOM:
Inlet opening does not switch RECIRC → FRESH or FRESH → RECIRC each time pressing the FRESH/RECIRC switch.
TROUBLE CAUSE:
Intake actuator failure.

	Step	Check	Yes	No
1	**VISUALLY CHECK INTAKE DOOR OPERATION.** 1) Remove the glove box. <Ref. to EI-61, REMOVAL, Glove Box.> 2) Visually check the intake door operation by operating the FRESH/RECIRC switch.	Does the intake door operate normally? Is the portion between intake door and intake door case sealed completely?	System is normal.	Go to step **2**.
2	**CHECK A/C CONTROL PANEL.** 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, check "Fresh/Recircle Air Door Actuator Position Target" of the current data from Air Conditioning Diagnosis. 3) Operate the FRESH/RECIRC switch.	Does "Fresh/Recircle Air Door Actuator Position Target" indicate 0 ←→ 100?	Go to step **3**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
3	**CHECK DTC.** 1) Turn the FRESH/RECIRC switch to RECIRC, and leave for 16 seconds or more. 2) Read the DTC using Subaru Select Monitor.	Is DTC B14E9, B14EA and B14EB displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** 1) Turn the FRESH/RECIRC switch to FRESH, and leave for 16 seconds or more. 2) Read the DTC using Subaru Select Monitor.	Is DTC B14E9, B14EA and B14EB displayed?	Perform the diagnosis according to DTC.	System is normal.

12.UNABLE TO SWITCH VENTS

TROUBLE SYMPTOM:
- Unable to switch blow vents.
- Outlet opening does not switch in the sequence of FACE → B/L → FOOT → F/D after operating the mode switch or mode dial.

TROUBLE CAUSE:
Mode actuator failure.

	Step	Check	Yes	No
1	**CHECK A/C CONTROL PANEL.** 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, check "Mode Door Actuator Position Target" of the current data from Air Conditioning Diagnosis. 3) Operate the air flow control switch.	Does the value of "Mode Door Actuator Position Target" change?	Go to step **2**.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>
2	**CHECK DTC.** 1) Turn the air flow control switch to DEF, and leave for 16 seconds or more. 2) Read the DTC using Subaru Select Monitor.	Is DTC B14E5 and B14E6 displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** 1) Turn the air flow control switch to VENT, and leave for 16 seconds or more. 2) Using the Subaru Select Monitor, read DTC of A/C control panel.	Is DTC B14E5 and B14E6 displayed?	Perform the diagnosis according to DTC.	System is normal.

13.ILLUMINATION DOES NOT ILLUMINATE OR CANNOT BE DIMMED

TROUBLE SYMPTOM:

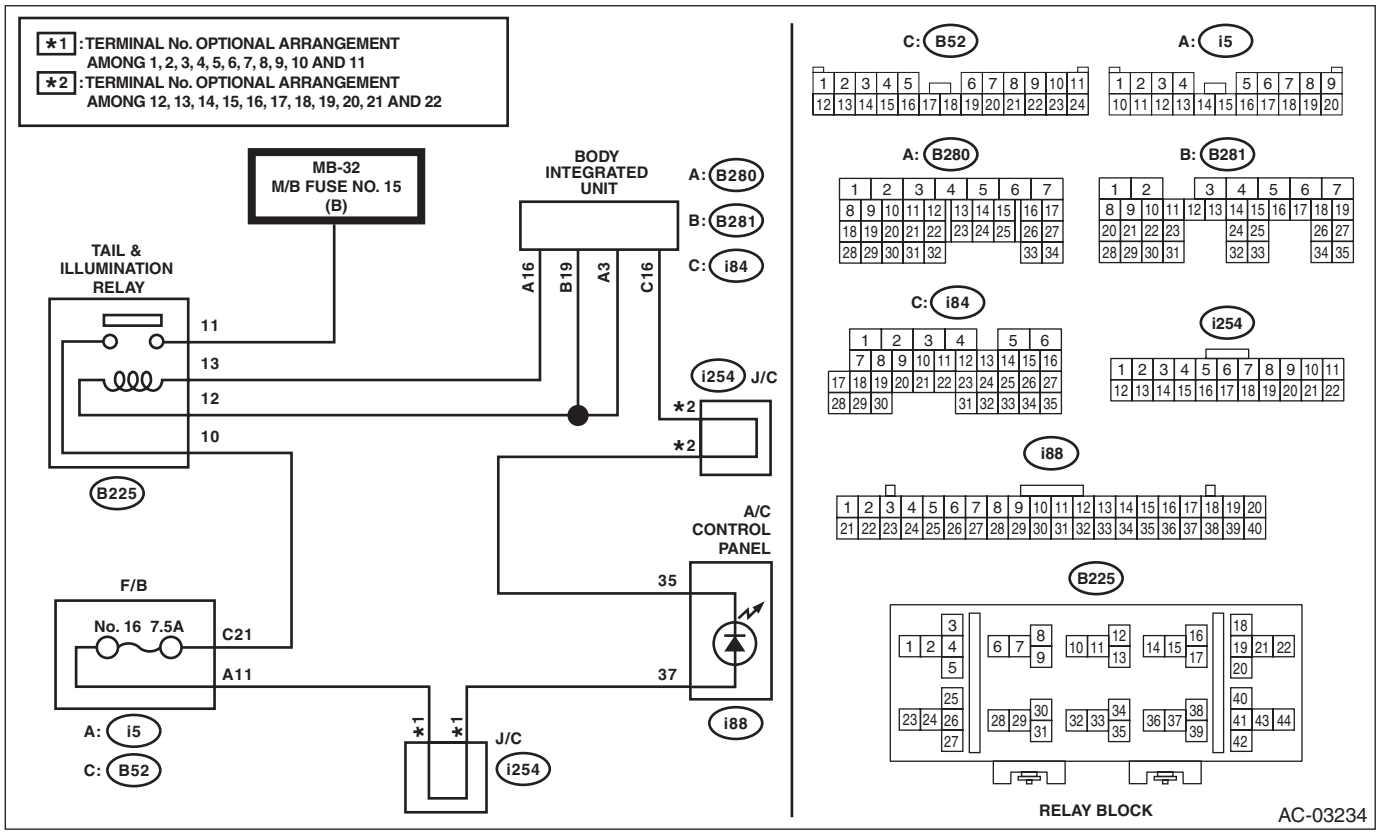
Even when the lighting switch is operated, the illumination does not come on. Even when the illumination control is operated, the illumination does not dim.

TROUBLE SYMPTOM:

Open circuit in illumination circuit

WIRING DIAGRAM:

Clearance Light and Illumination Light System <Ref. to WI-103, WIRING DIAGRAM, Clearance Light and Illumination Light System.>



Step		Check	Yes	No
1	**CHECK ILLUMINATION.** Make sure that all illuminations except A/C come on.	Do other illuminations come on.	Go to step **2**.	<Ref. to LI-9, INSPECTION, Clearance Light and Illumination Light System.>
2	**CHECK CONNECTOR.** Check for poor contact of connector.	Is there poor contact?	Repair the connector.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the lighting switch to ON. 2) Using a tester, measure the voltage between the A/C control panel connector and chassis ground. ***Connector & terminal*** ***(i88) No. 37 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** 1) Turn the lighting switch to OFF. 2) Measure the resistance between A/C control panel connector and body integrated unit connector. ***Connector & terminal*** ***(i88) No. 35 — (i84) No. 16:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
5	**CHECK A/C CONTROL PANEL UNIT.** Check the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Is A/C control panel OK?	A/C control panel illumination circuit is normal.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

6. Front Fog Light System

A: WIRING DIAGRAM

Refer to “Front Fog Light System” in the wiring diagram. <Ref. to WI-246, WIRING DIAGRAM, Front Fog Light System.>

B: INSPECTION

1. CHECK FRONT FOG LIGHT SWITCH

Refer to the “INSPECTION” of the “Combination Switch (Light)”. <Ref. to LI-22, INSPECTION, Combination Switch (Light).>

C: NOTE

For operation procedures of each component of the front fog light system, refer to the respective section.

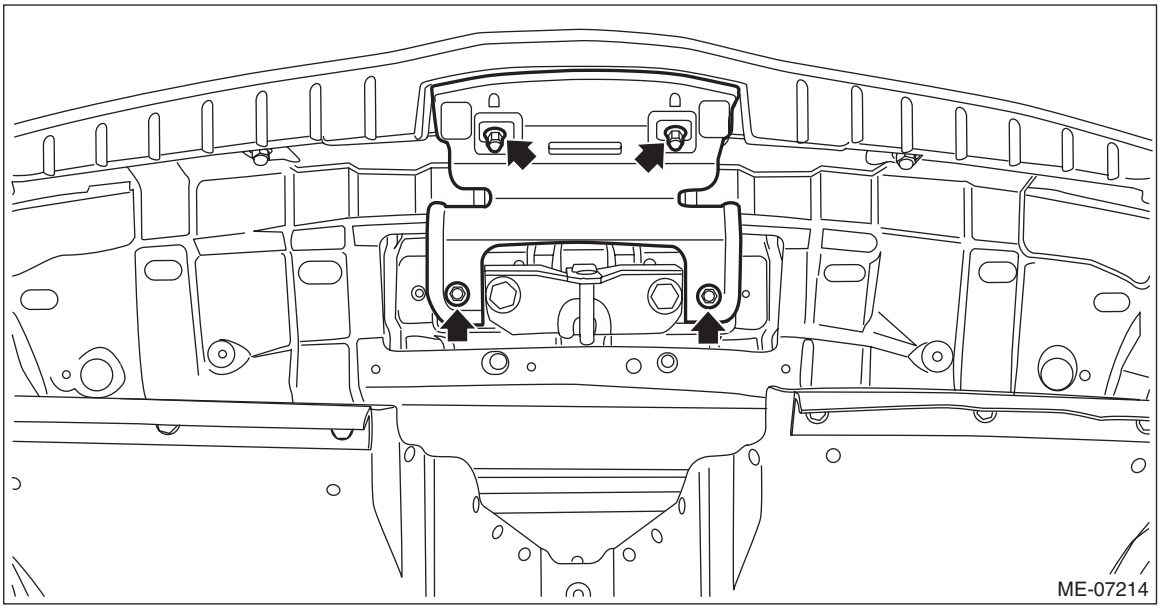
- Combination switch (light): <Ref. to LI-18, Combination Switch (Light).>
- Front fog light assembly: <Ref. to LI-46, Front Fog Light Assembly.>
- Front fog light bulb: <Ref. to LI-49, Front Fog Light Bulb.>

6. Front Grille

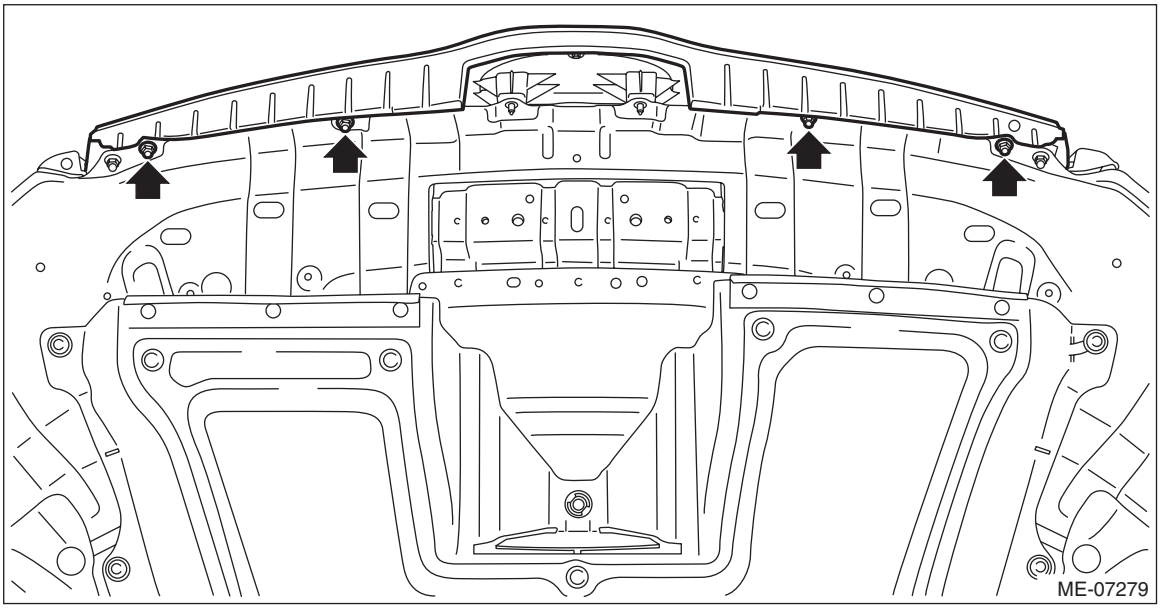
A: REMOVAL

1. FRONT GRILLE UPPER

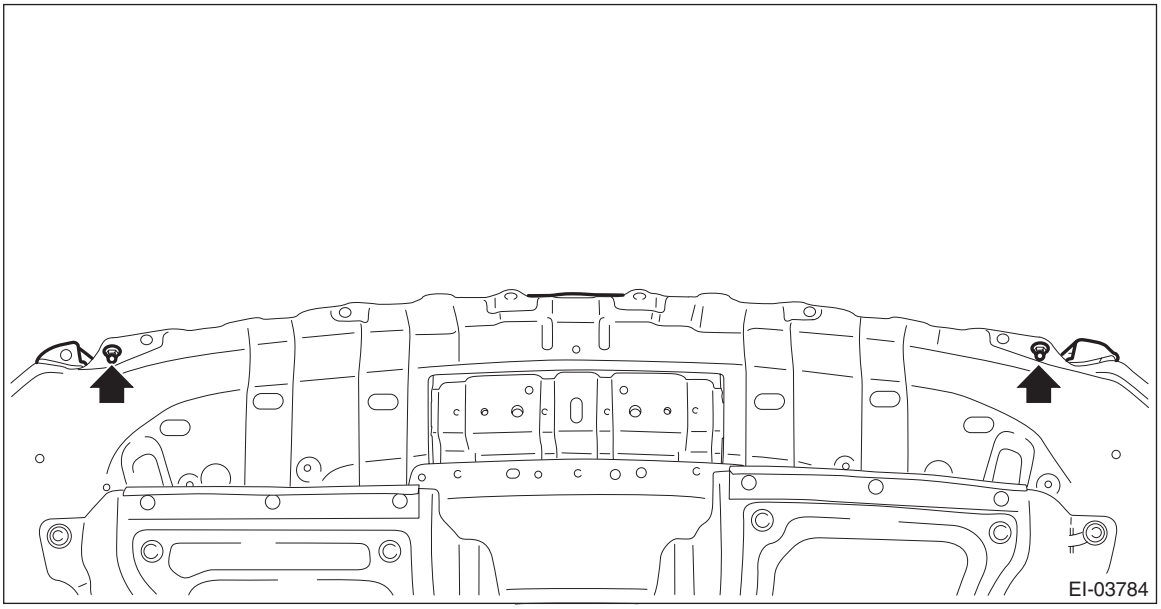
1) Remove the nuts, and remove the bracket - grille UPR.



2) Remove the nuts, and remove the grille assembly - front CTR.

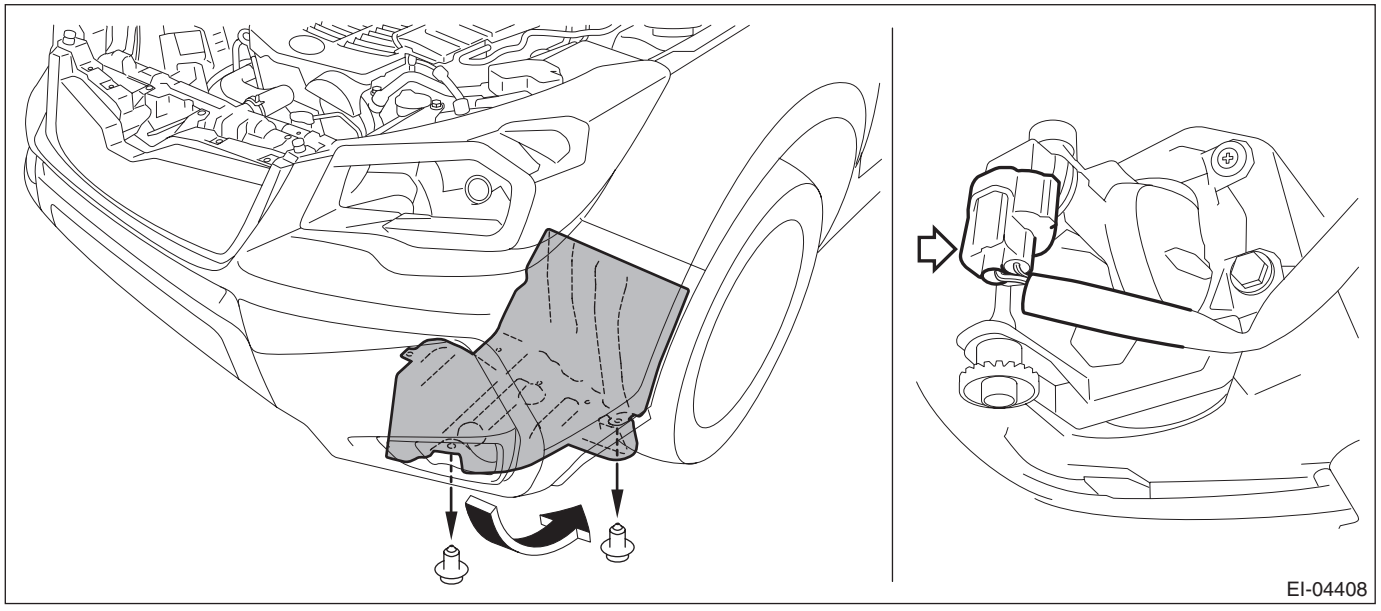


3) Remove the nuts, and remove the grille assembly - front UPR.



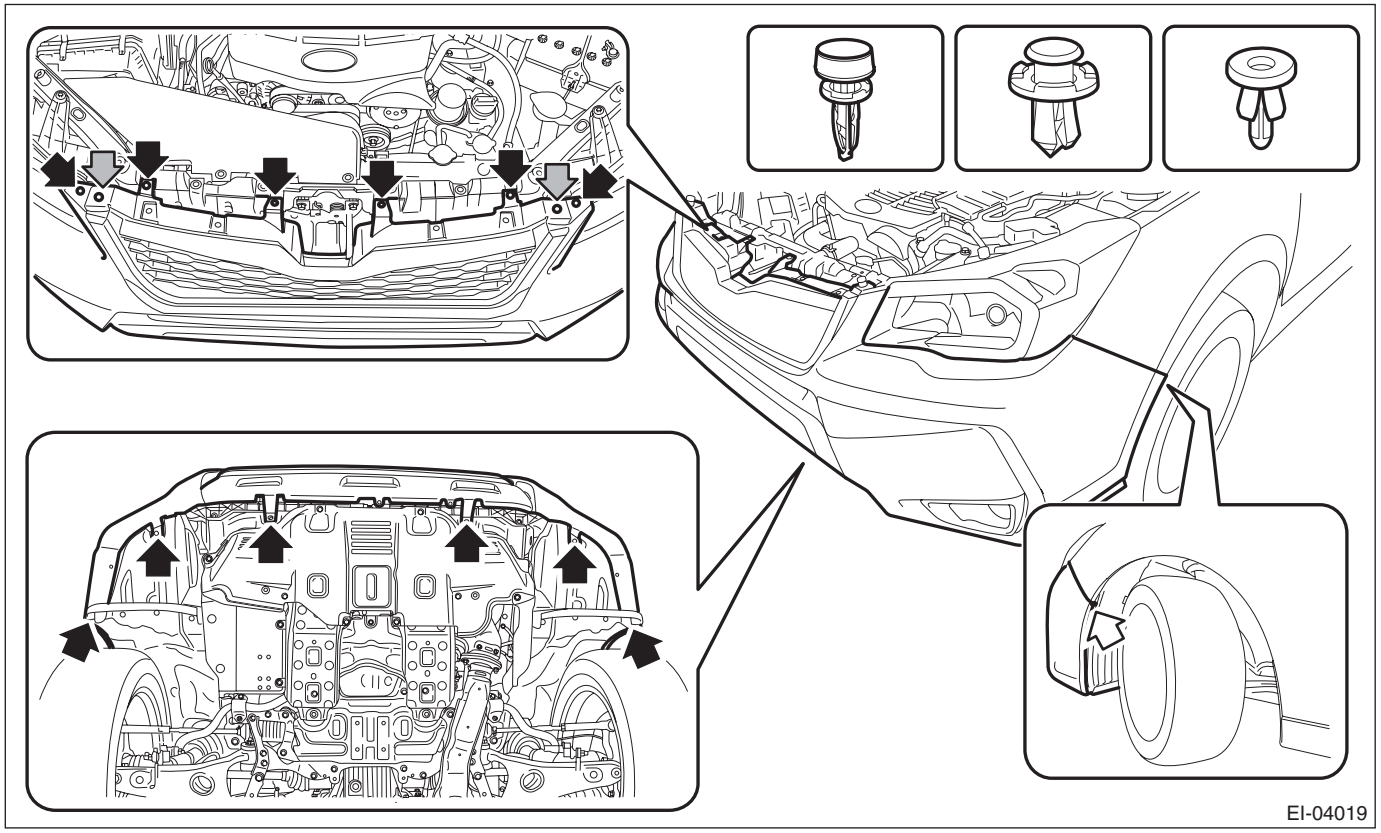
2. FRONT GRILLE LOWER

1) Remove the bumper face - front.
   (1) Remove the clips, and turn over the mud guard - front, and then disconnect the connectors of the fog light assembly - front on the LH and RH sides. (Model with fog light)



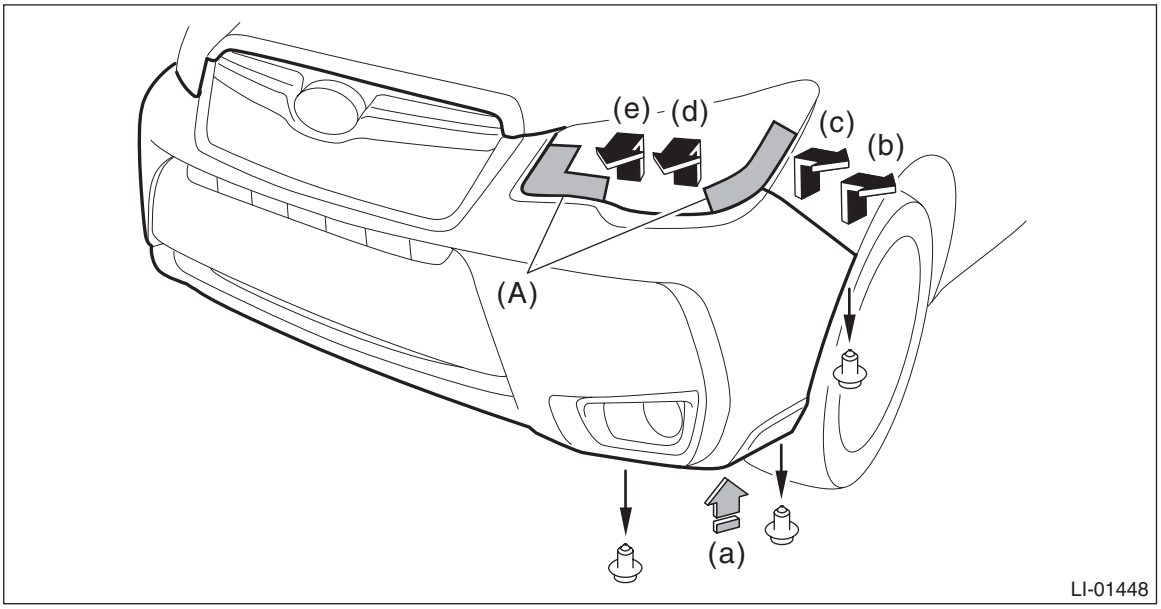
   (2) Remove the clips at the upper side of the bumper face - front.
   (3) Remove the clips from the fender.

(4) Remove the clips at the lower side of the bumper face - front.



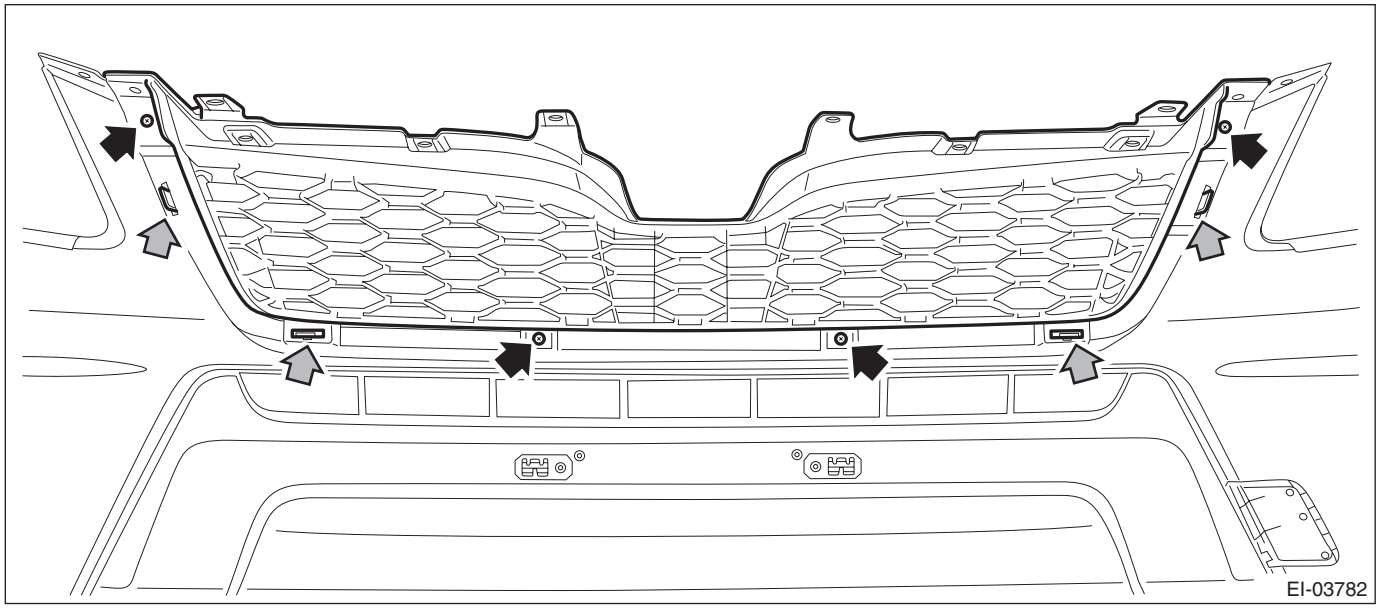
(5) Apply protective tape (A) to the light assembly - head.
(6) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

CAUTION:
Do not pull forcibly. It may damage the flange sections of the bumper face - front.



NOTE:
Detach the opposite side in the same manner.

2) Remove the front grille assembly.
   (1) Remove the screws from the back side of the bumper face - front.
   (2) Release the claws, and remove the grille assembly - front LWR.



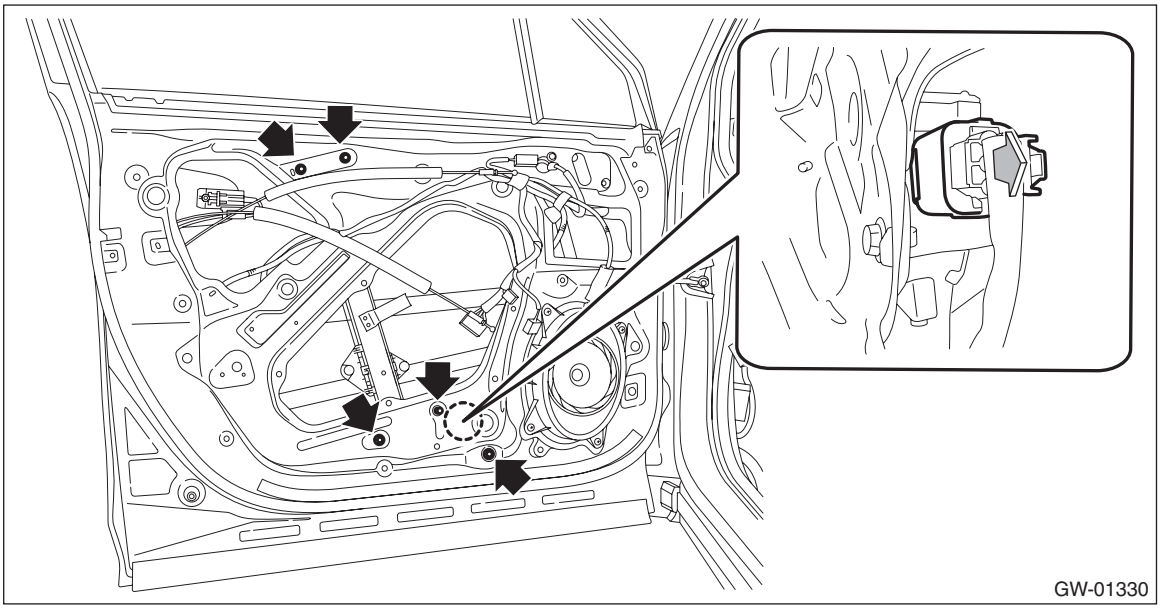
B: INSTALLATION

1) Install each part in the reverse order of removal.
2) Adjust the fog light beam. (Model with fog light) <Ref. to LI-47, FOG LIGHT AIMING, ADJUSTMENT, Front Fog Light Assembly.>

6. Front Regulator and Motor Assembly

A: REMOVAL

1) Remove the glass assembly - front door. <Ref. to GW-17, REMOVAL, Front Door Glass.>
2) Remove the regulator and motor assembly - front.
   (1) Disconnect the motor - front connector.
   (2) Remove the bolts, and then remove the regulator and motor assembly - front.



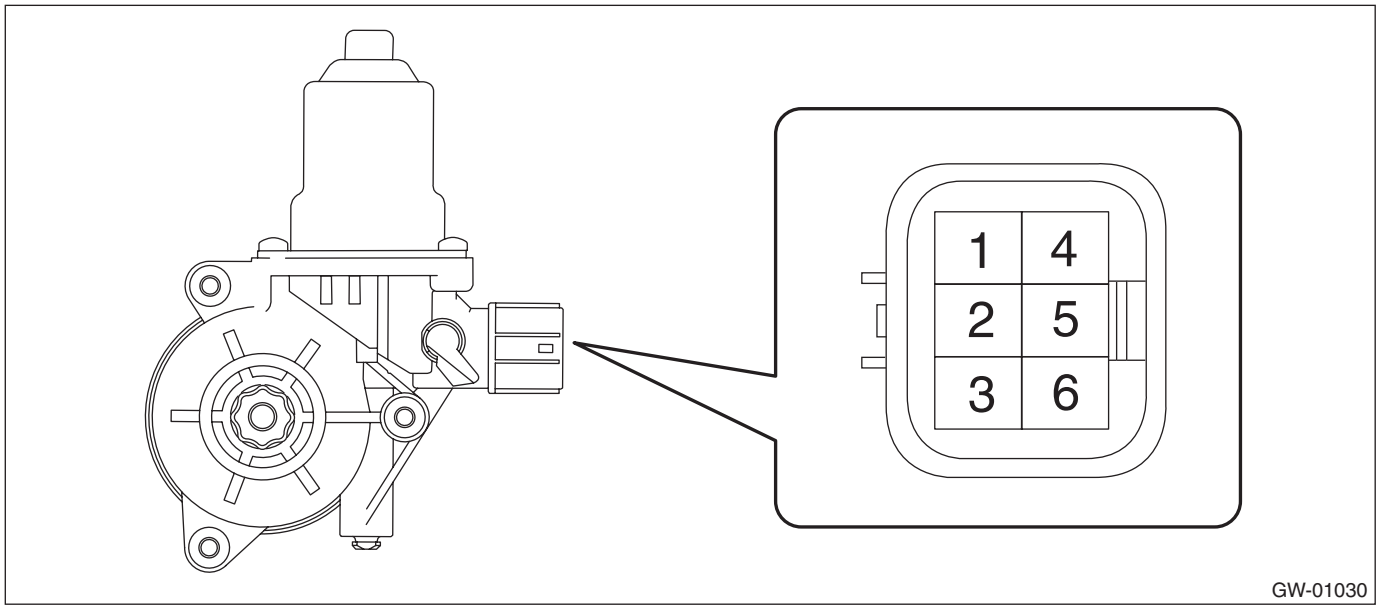
B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to GW-3, FRONT DOOR GLASS, COMPONENT, General Description.>

C: INSPECTION

1) Disconnect the connector of the motor - front.
2) Check the motor operation when battery voltage is applied between terminals of the motor - front connector.



- LH side

Terminal No.	Inspection conditions	Standard
4 (+) — 1 (–)	Apply battery voltage between terminals.	Increase
1 (+) — 4 (–)	Apply battery voltage between terminals.	Decrease

- RH side

Terminal No.	Inspection conditions	Standard
3 (+) — 6 (–)	Apply battery voltage between terminals.	Increase
6 (+) — 3 (–)	Apply battery voltage between terminals.	Decrease

3) If it does not operate properly as a result of inspection, replace the regulator and motor assembly - front.

6. Front Speaker

A: REMOVAL

1. TWEETER

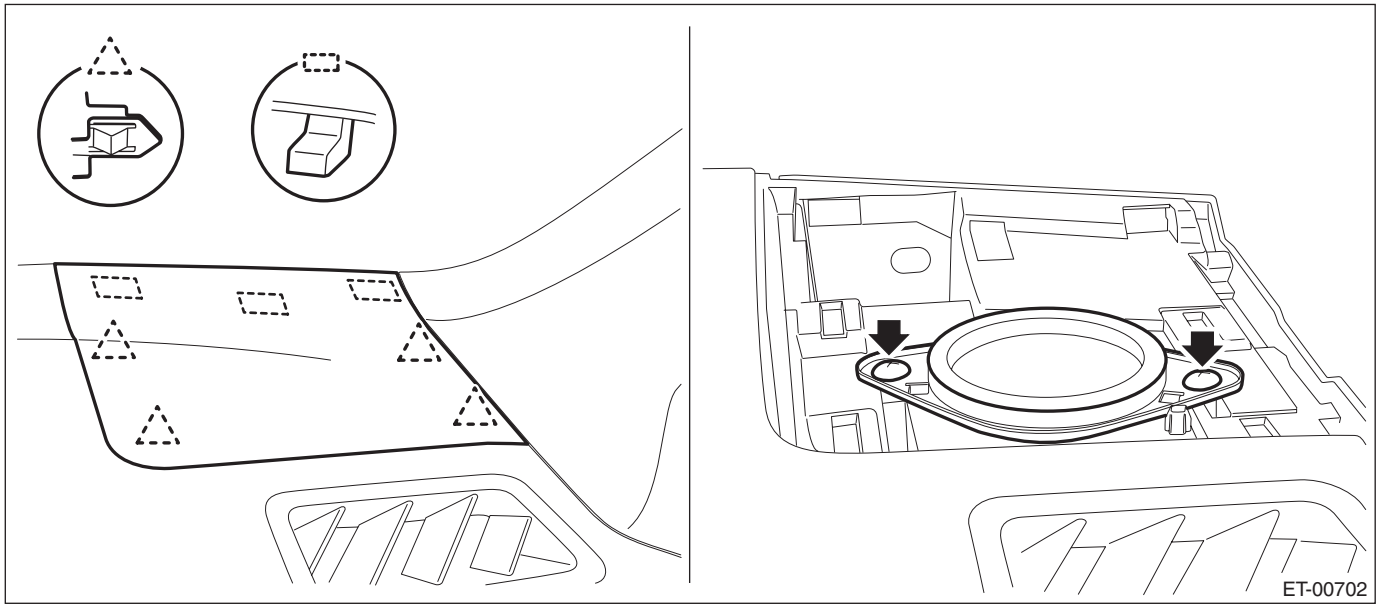
1) Disconnect the ground cable from battery.
2) Remove the speaker assembly - tweeter.
   (1) Release the clips and claws, then detach the grille speaker side.

NOTE:
Remove the grille speaker side by using a plastic remover.

   (2) Remove the screws.

Preparation tool:
Stubby screwdriver

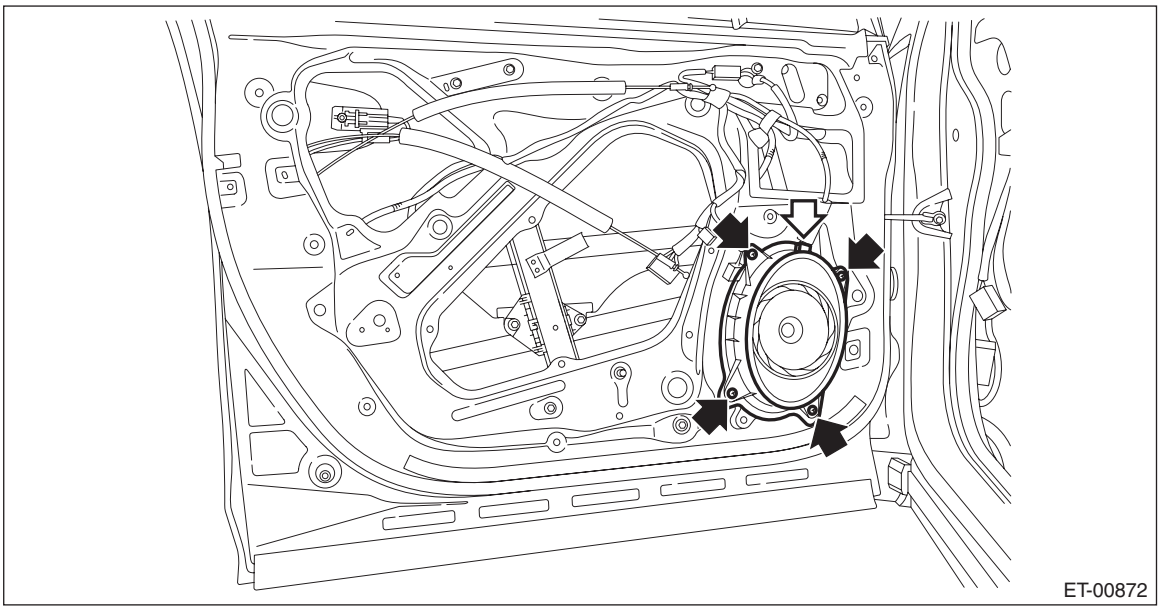
   (3) Disconnect the connector and remove the speaker assembly - tweeter.



2. DOOR SPEAKER

1) Disconnect the ground cable from battery.
2) Remove the trim panel - front door. <Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
3) Remove the front door speaker assembly.
   (1) Disconnect the connector.
   (2) Remove the screws to remove the front door speaker assembly.

CAUTION:
Be careful not to damage the claw for temporary retention.



B: INSTALLATION

Install each part in the reverse order of removal.

6. Passenger's Airbag Module

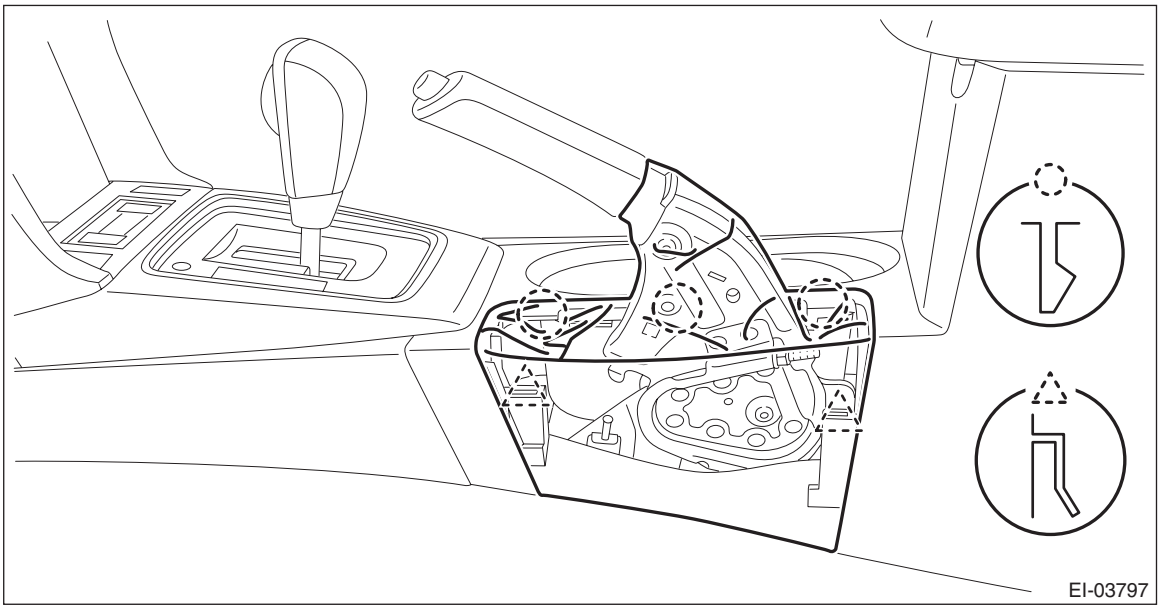
A: REMOVAL

CAUTION:
Refer to "CAUTION" of "General Description" before handling the airbag module.<Ref. to AB-9, CAUTION, General Description.>

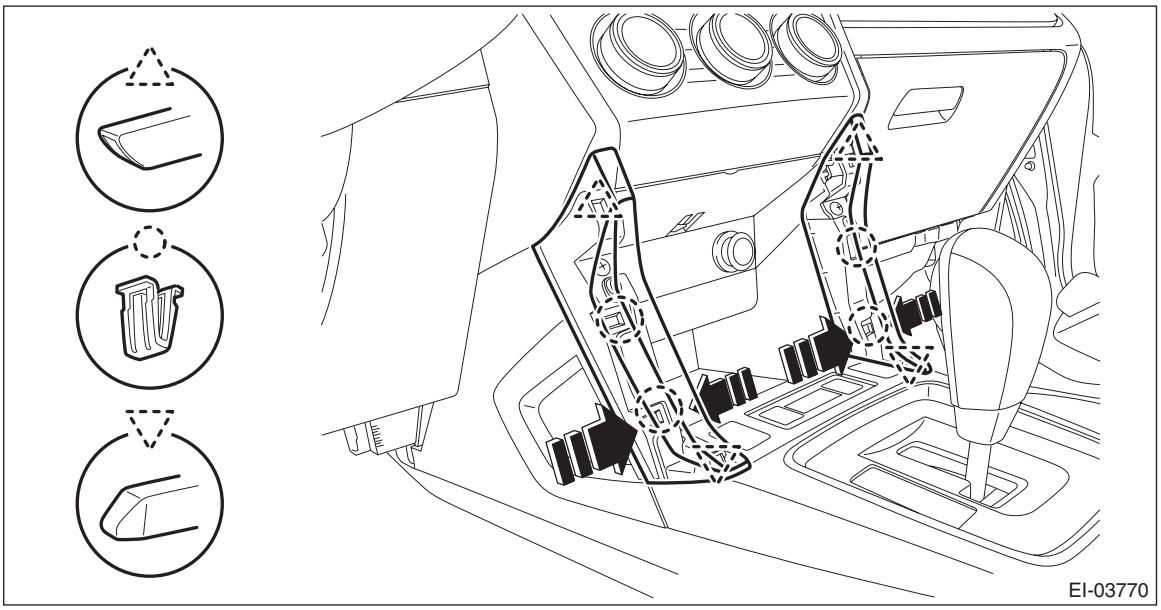
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

NOTE:
On CVT models, shift the select lever into "N" before disconnecting the battery ground cable.

3) Release the claws, and then remove the boot - hand brake.

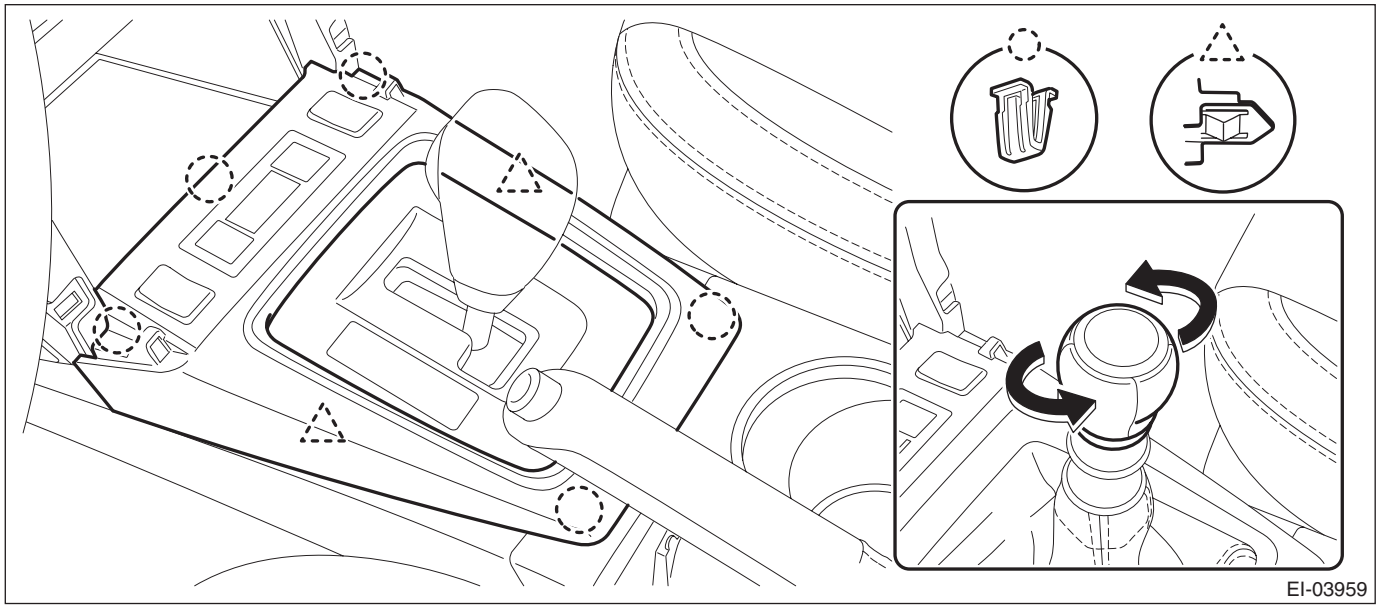


4) Release the clips, and remove the ornament panel - console.

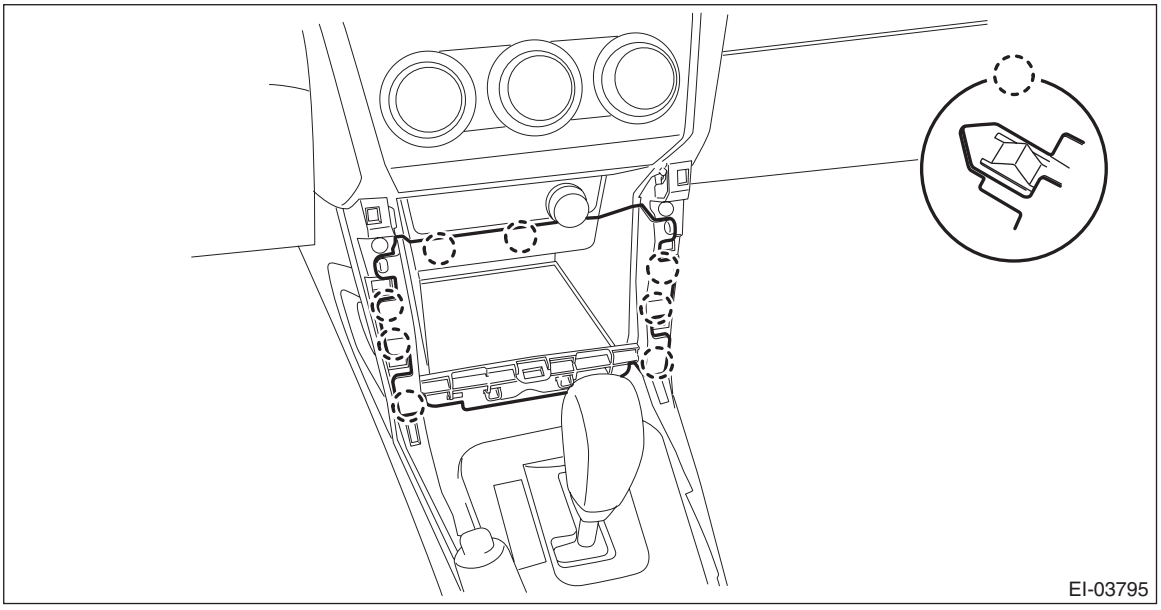


NOTE:
Removal is easier if you grab the arrow sections from right and left and pull them at the same time.

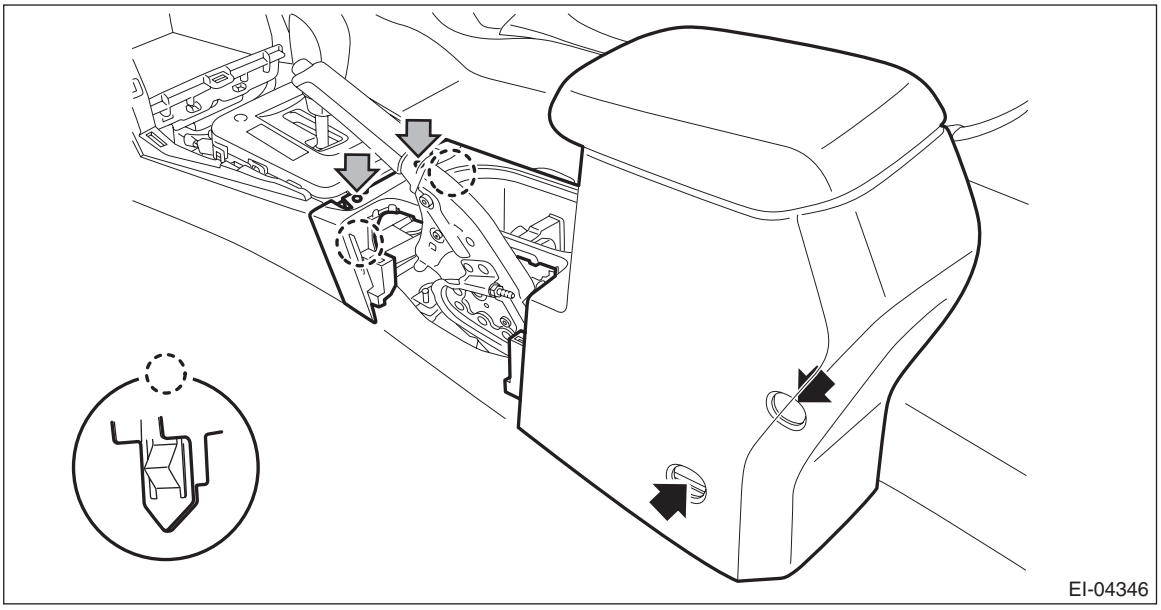
5) Remove the cover - shift lever.
   (1) Remove the shift knob. (MT model)
   (2) Release the clips and claws, then pull up the cover - shift lever.


EI-03959

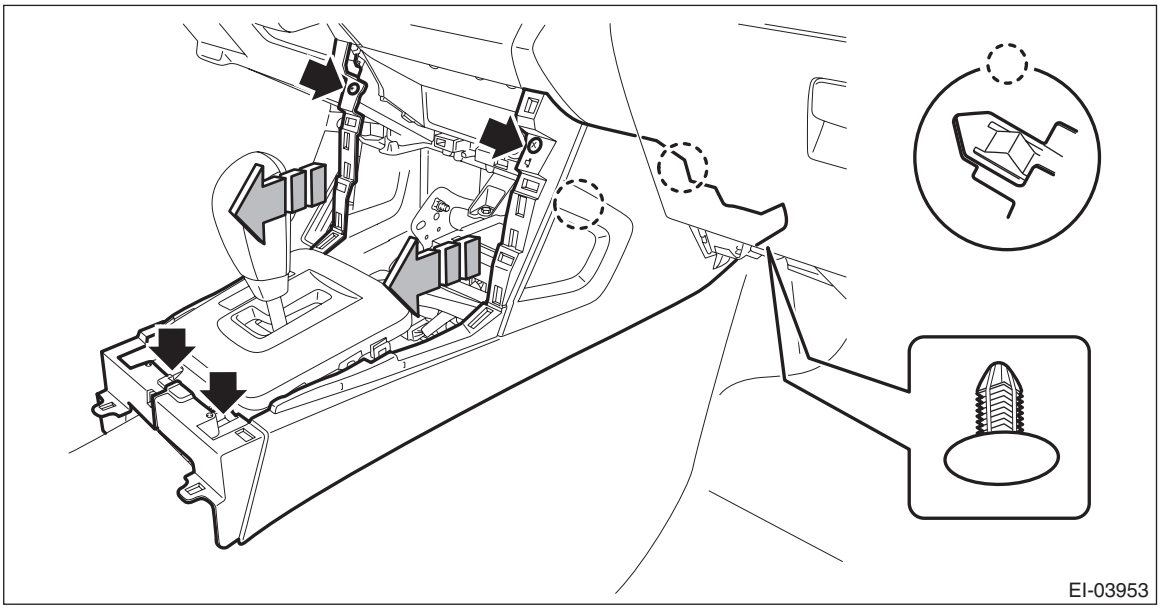
6) Release the claws, and remove the tray assembly - CTR LWR.


EI-03795

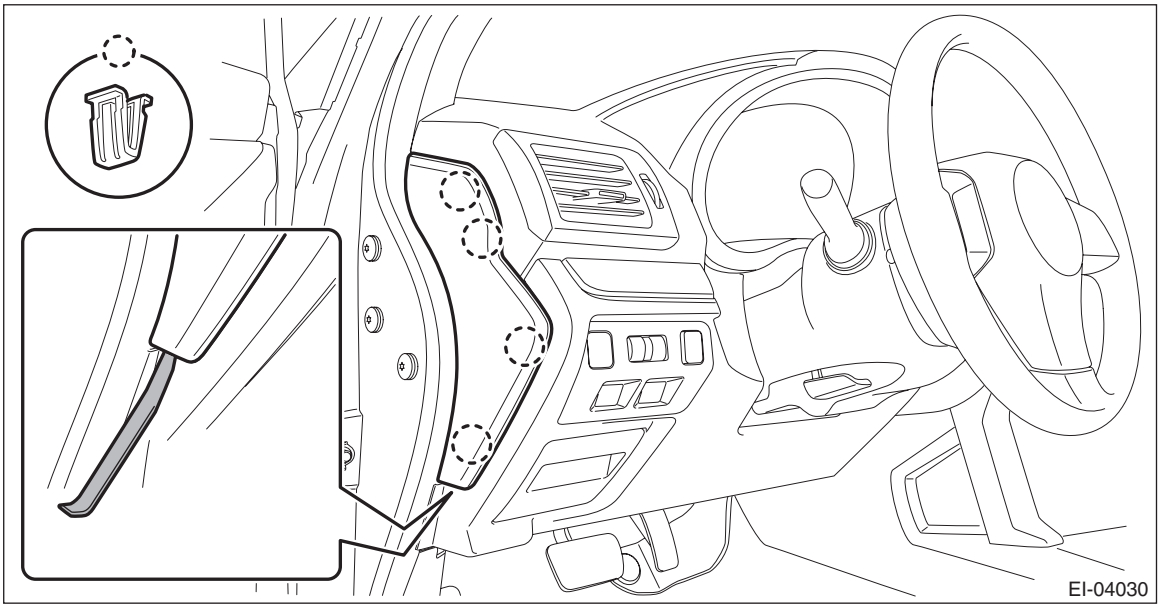
7) Remove the console box assembly.
(1) Move the seat forward, and remove the bolts after detaching the left and right caps.
(2) Remove the screws and release the claws, then disconnect the harness connector and remove the console box assembly.



8) Remove the left and right panel center LWR.
(1) Remove the screws and clips.
(2) Release the claws, and then pull the panel center LWR to remove.

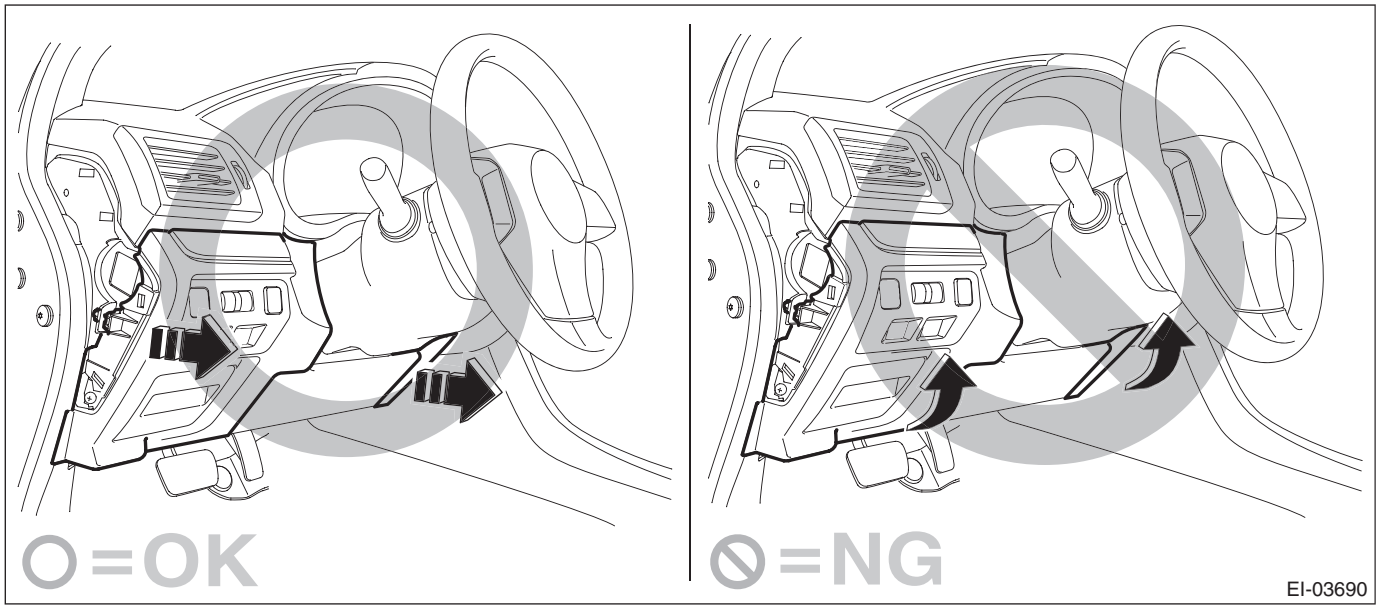


9) Remove the clips, and remove the cover - instrument panel side LH.

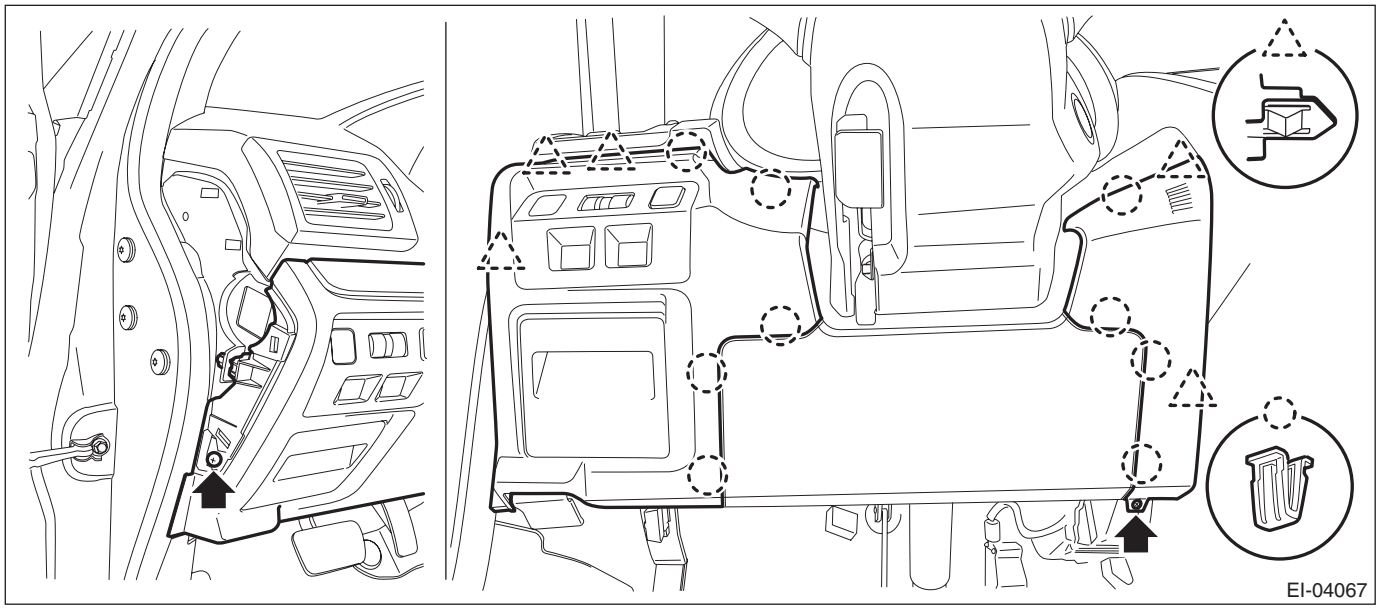


NOTE:
Using a plastic remover, open the cover - instrument panel side LH.
10) Remove the cover assembly - instrument panel LWR driver.

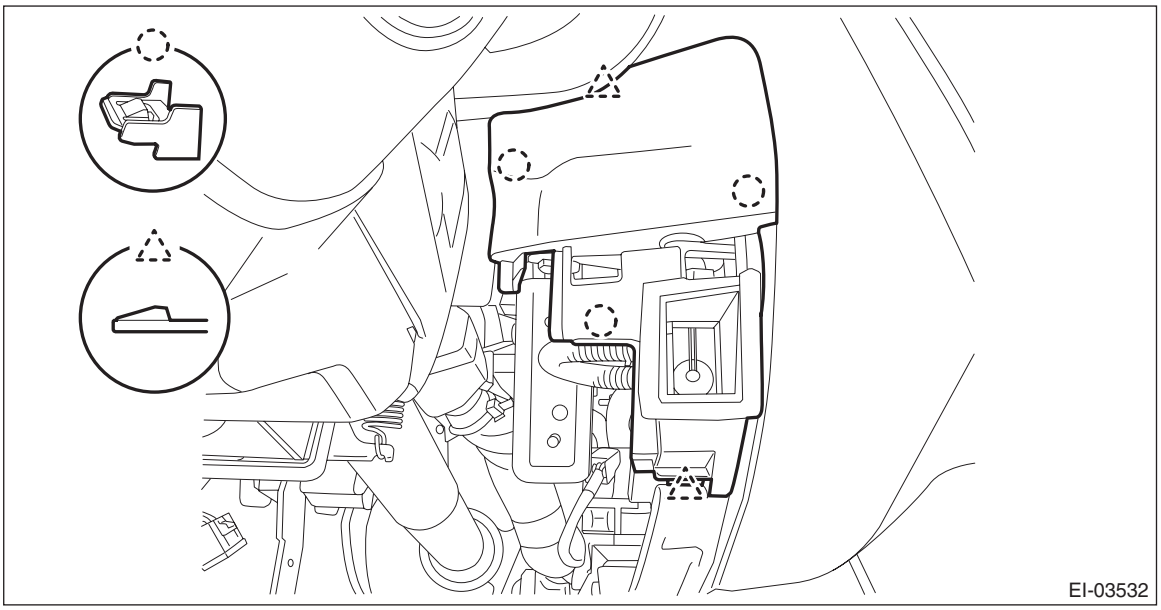
CAUTION:
When removing the cover assembly - instrument panel LWR driver, be sure to pull it toward you. If attempting to remove by turning it upward, the claws may be damaged.



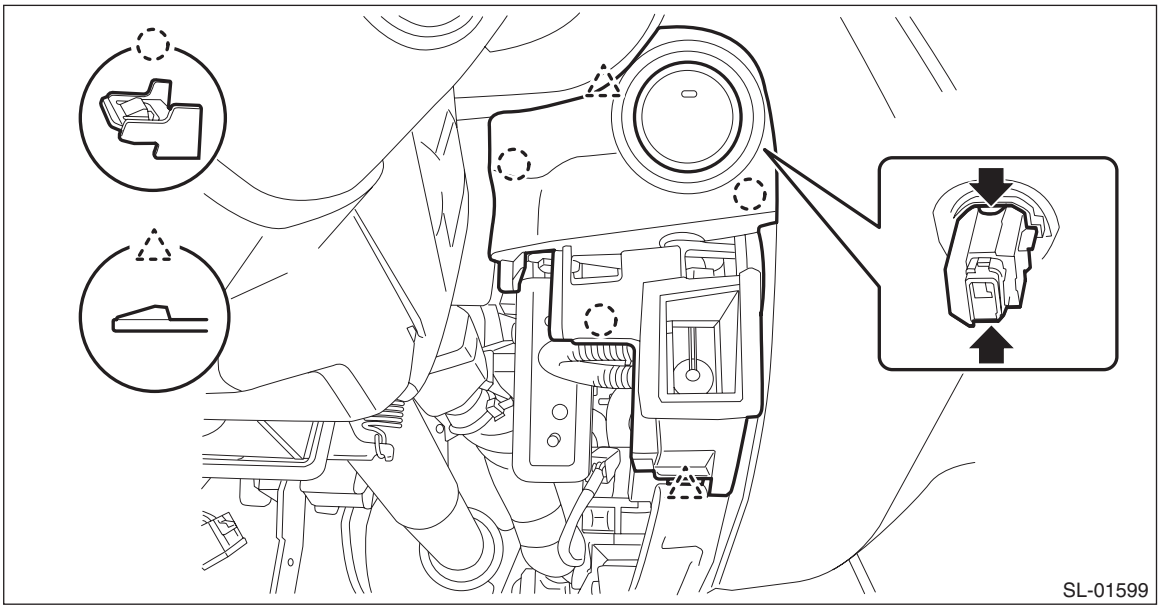
(1) Remove the screws and release the clips and claws.
(2) Disconnect the harness connectors, and remove the cover assembly - instrument panel LWR driver INN and OUT.



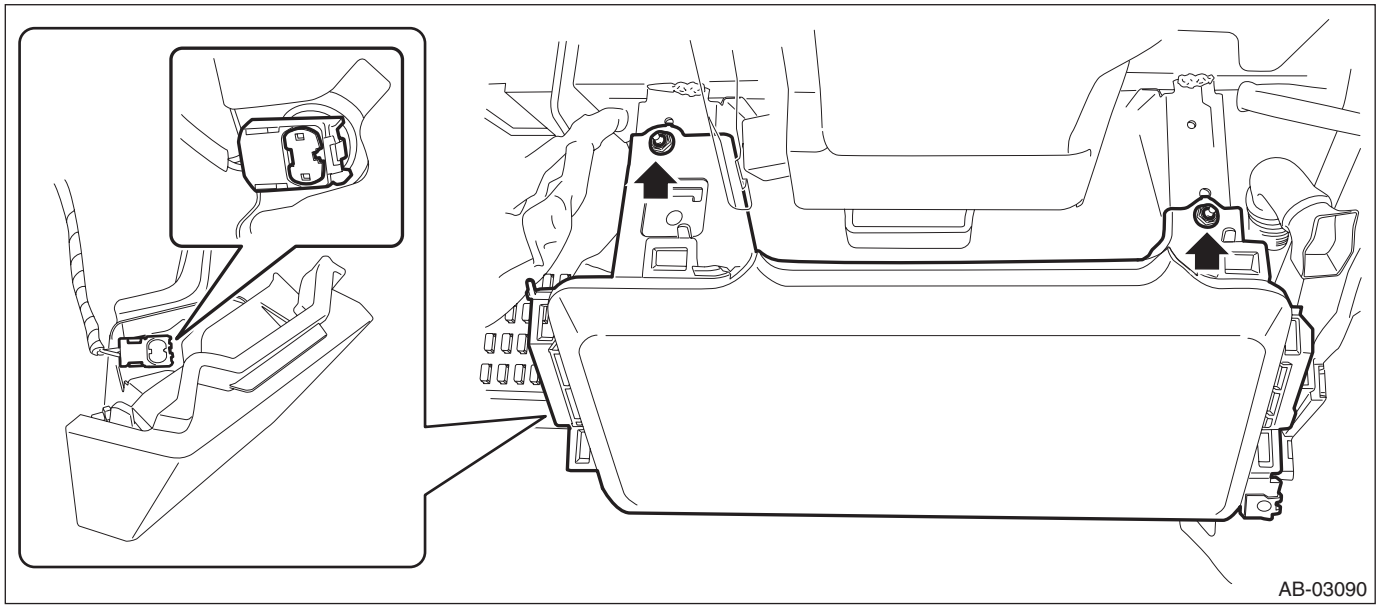
11) Remove the cover switch - starter.
(1) Release the claws and remove the cover switch - starter.
(2) Disconnect the connector and aspirator hose.



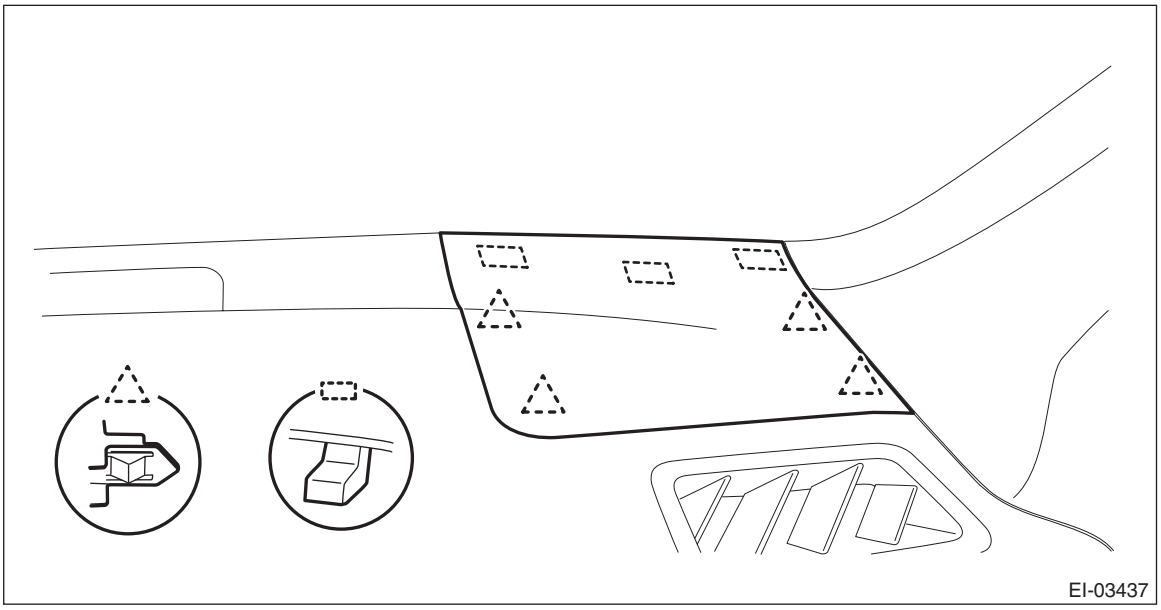
12) Remove the panel - switch. (Model with keyless access)
(1) Release the claws of the push button ignition switch, and disconnect the connector.
(2) Release the claws, and then remove the panel - switch.
(3) Disconnect the connector and aspirator hose.



13) Remove the nuts to remove the knee airbag module and disconnect the harness connector.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



14) Release the clips and claws, then detach the left and right grille speaker side.

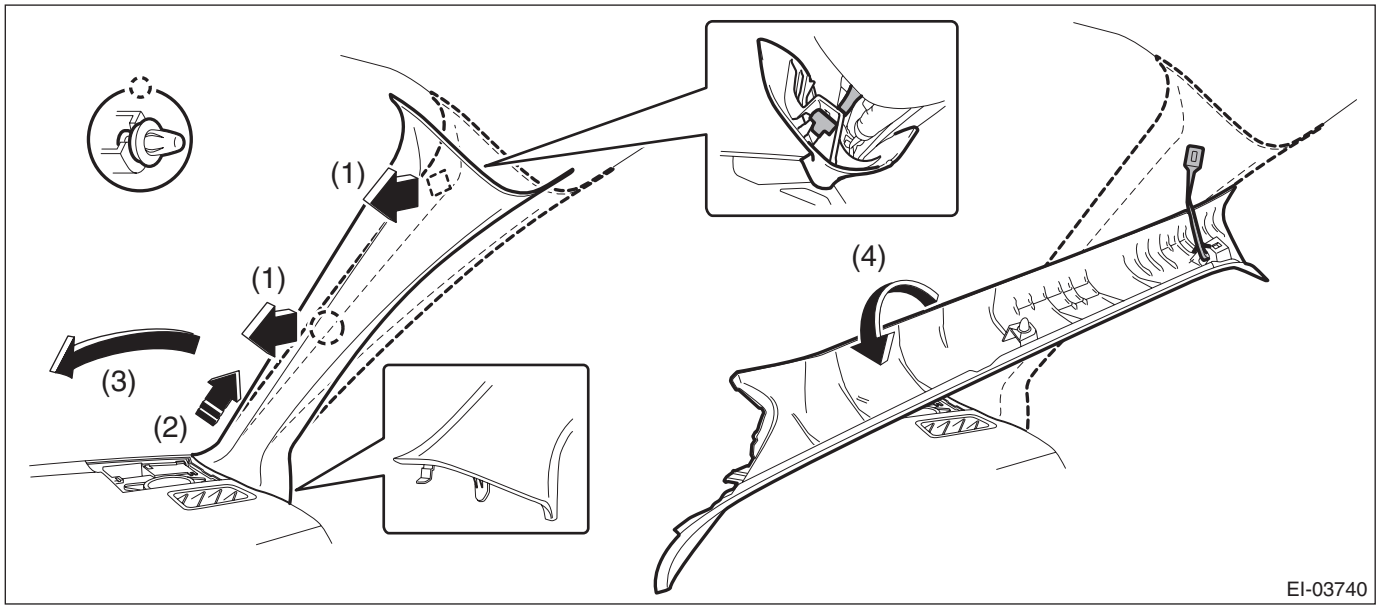


NOTE:
Remove the grille speaker side by using a plastic remover.
15) Remove the trim panel - front pillar UPR on the left and right sides.

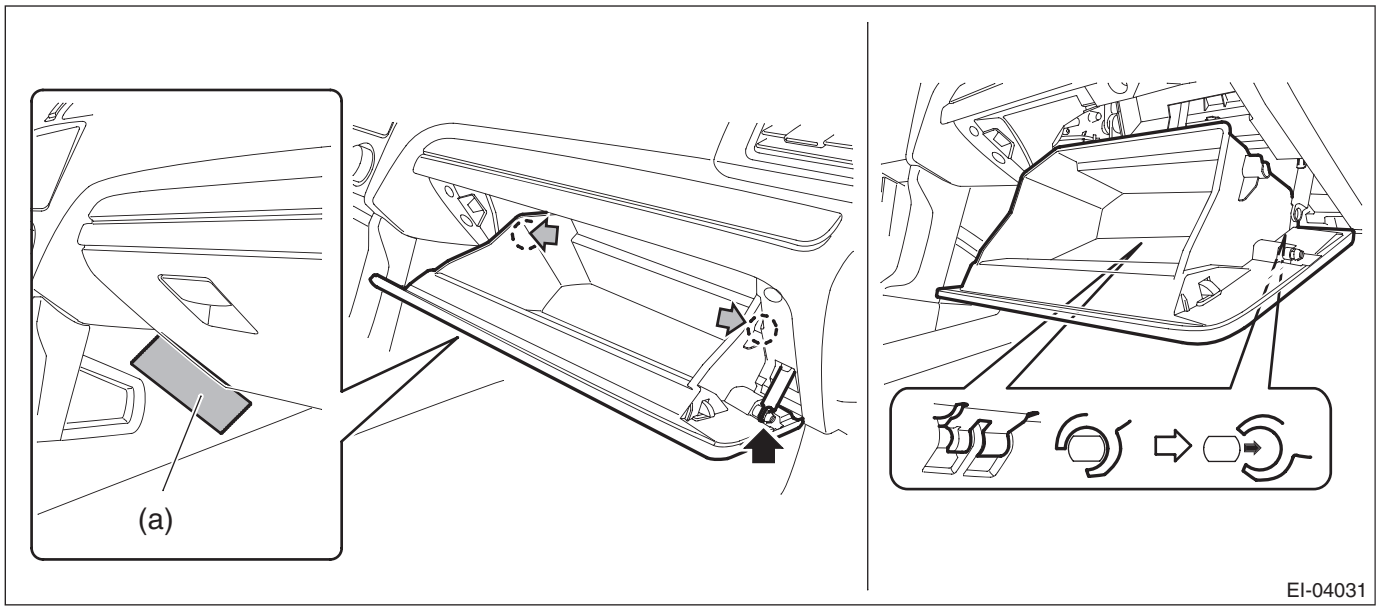
CAUTION:
Be careful not to damage the trim panel surface and curtain airbag module.

(1) Pull the trim panel - front pillar UPR towards the center of the vehicle to release the clips.
(2) Pull out the end portion of the trim panel - front pillar UPR.
(3) Pull out the trim panel - front pillar UPR towards the center of the vehicle.
(4) Rotate the trim panel - front pillar UPR, release the tether clips, and remove the trim panel - front pillar UPR.

CAUTION:
Do not use tools when releasing the tether clip. If the tether clip is damaged, replace it with a new tether clip.

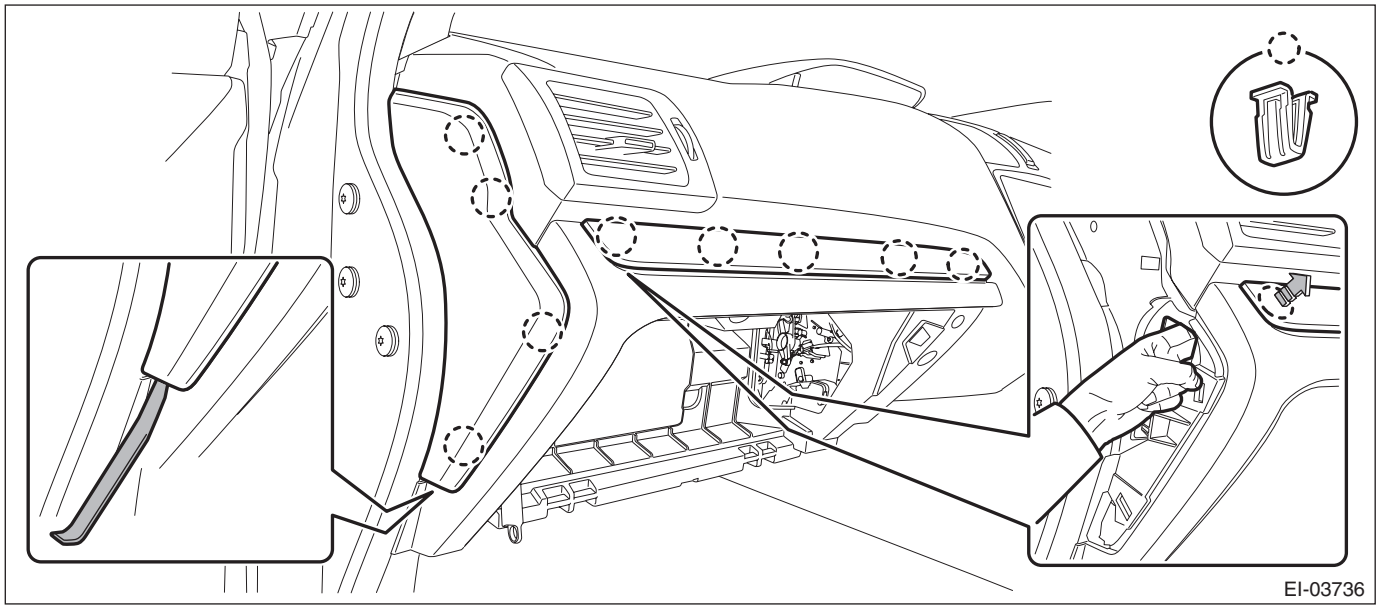


16) Remove the pocket assembly.
(1) Attach the protective tape (a) to the panel center LWR.
(2) Remove the damper COMPL - pocket.
(3) Release the stoppers and remove the pocket assembly by pulling it toward you.



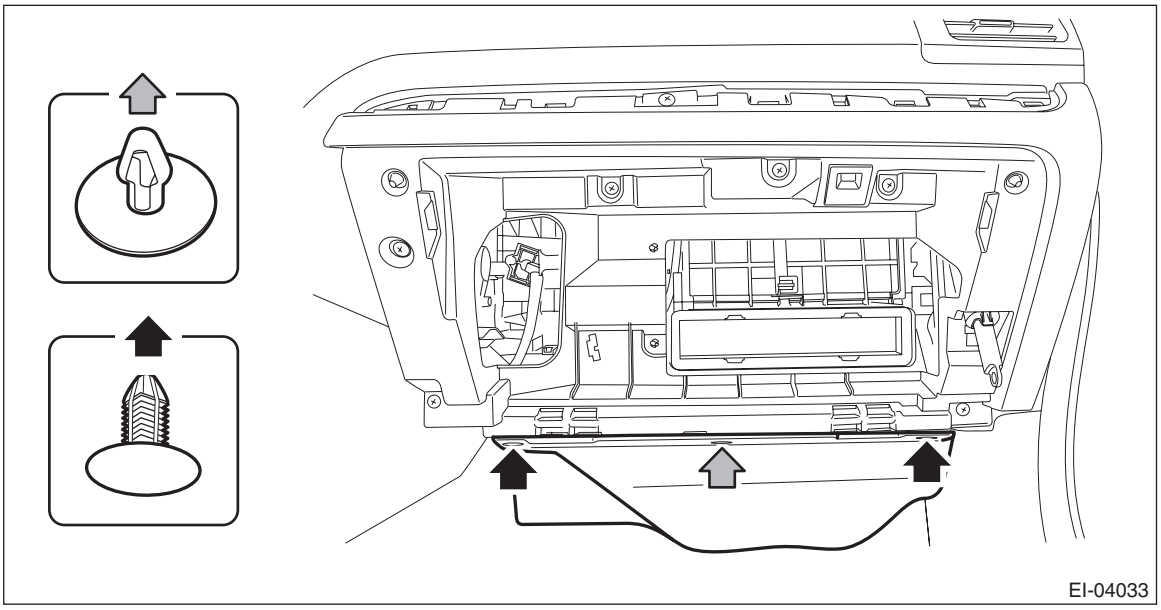
17) Remove the back panel - pocket.
(1) Remove the clips, and remove the cover - instrument panel side RH.

NOTE:
Remove the cover - instrument panel side RH by using a plastic remover.
(2) Release the clips, and remove the ornament - panel assembly passenger.

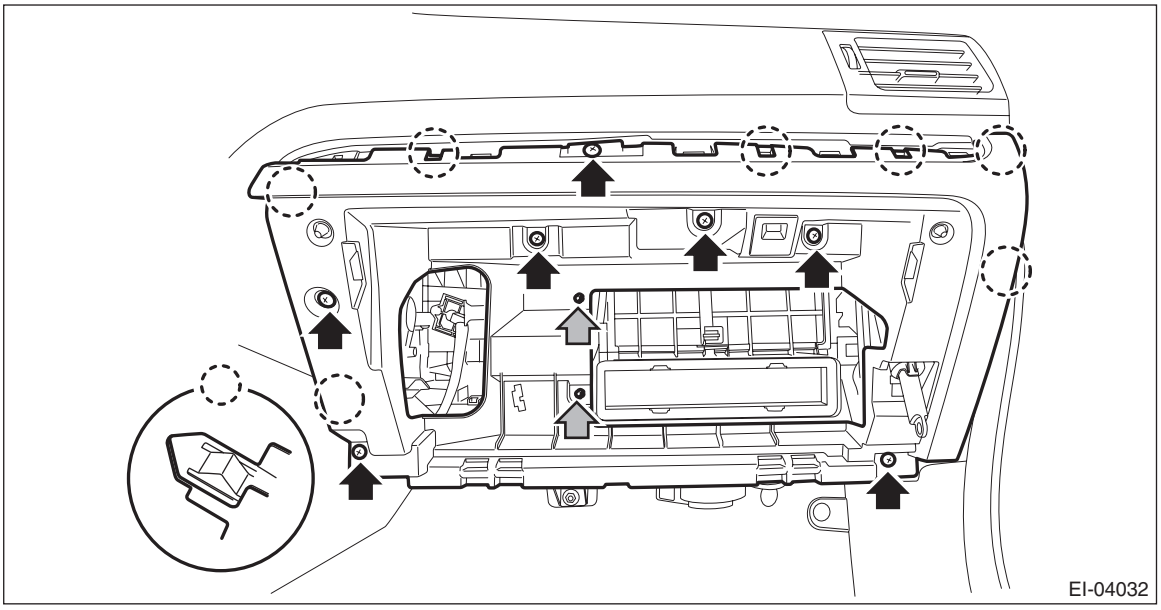


NOTE:
To facilitate the removal, push the clip of the ornament - panel assembly passenger from the backside.

(3) Release the clips, and remove the glove box under cover.

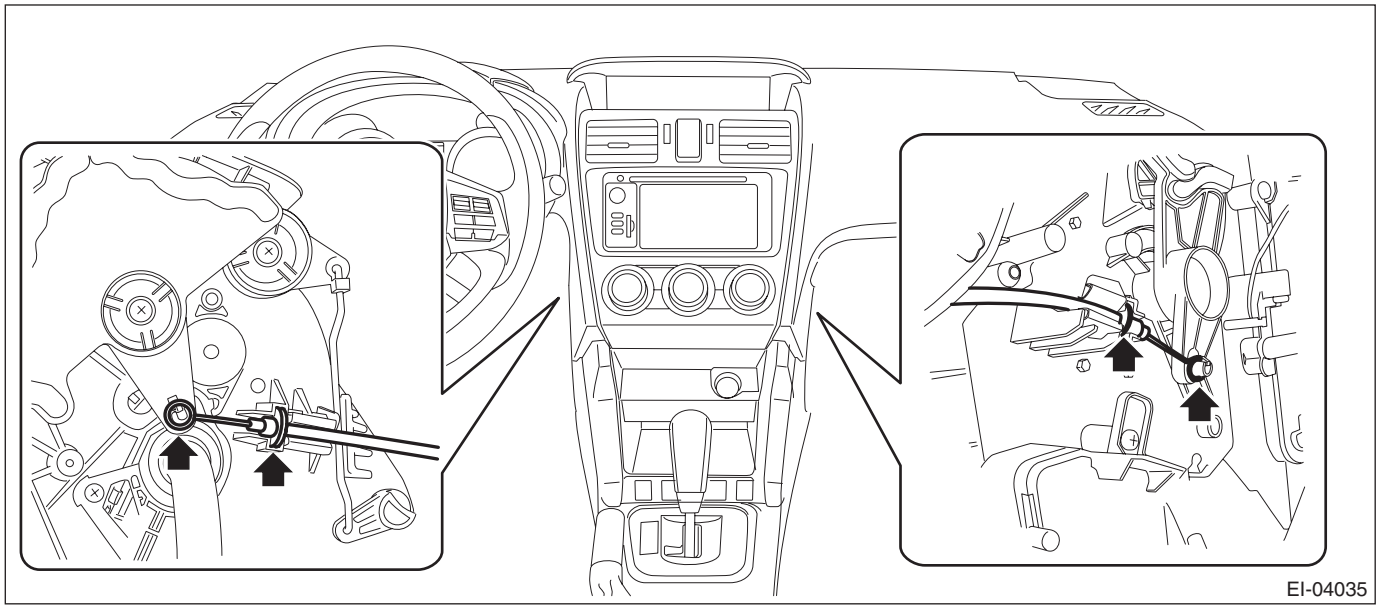


(4) Release the claws and remove the screws, then remove the back panel - pocket.



(5) Disconnect the glove box light LED connector.

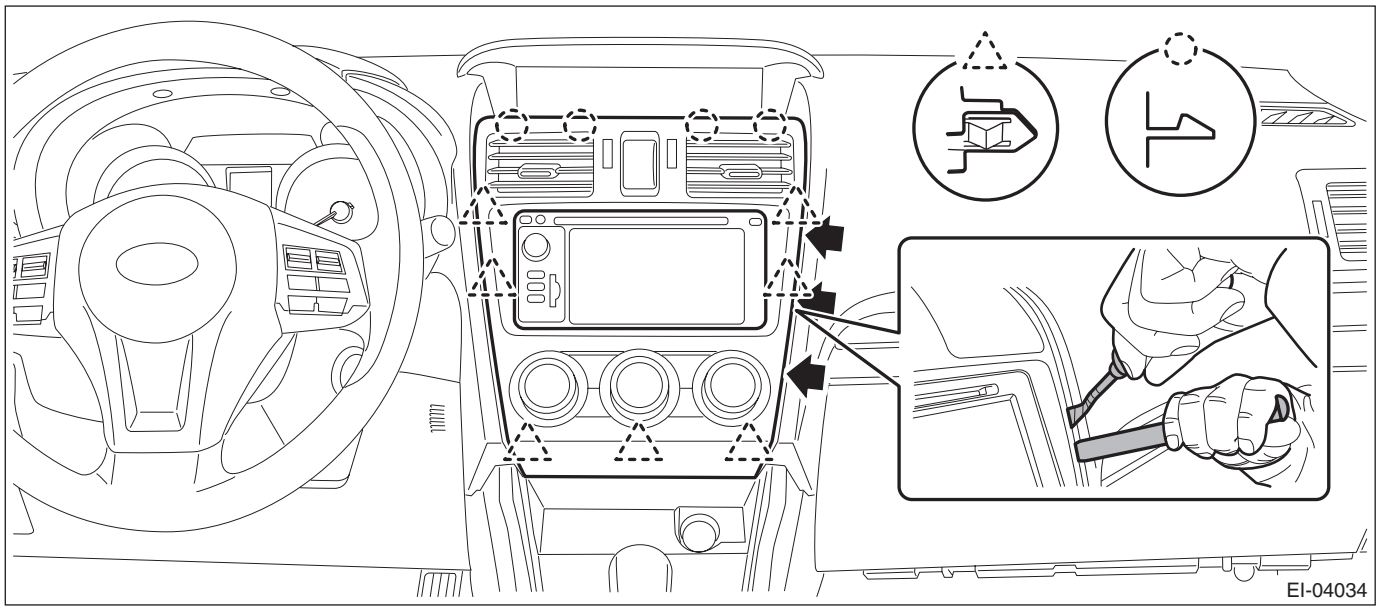
18) On manual A/C models, disconnect the control cables from both sides of the heater & cooling unit.



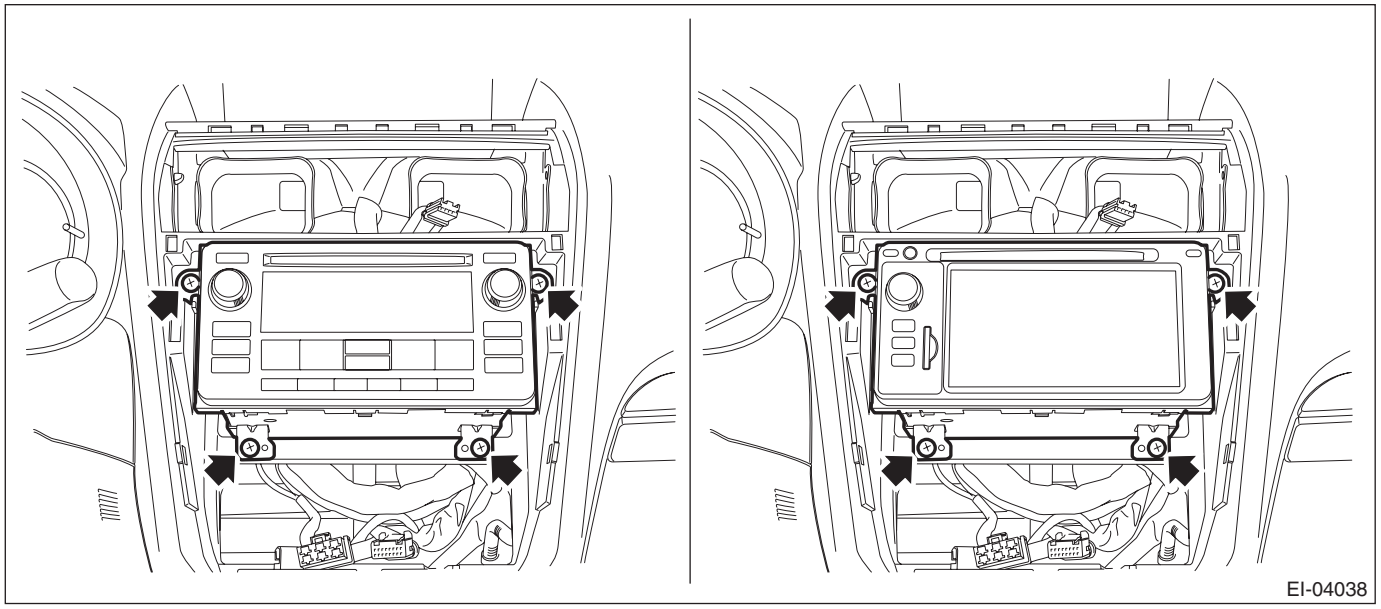
19) Remove the panel center assembly.

CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

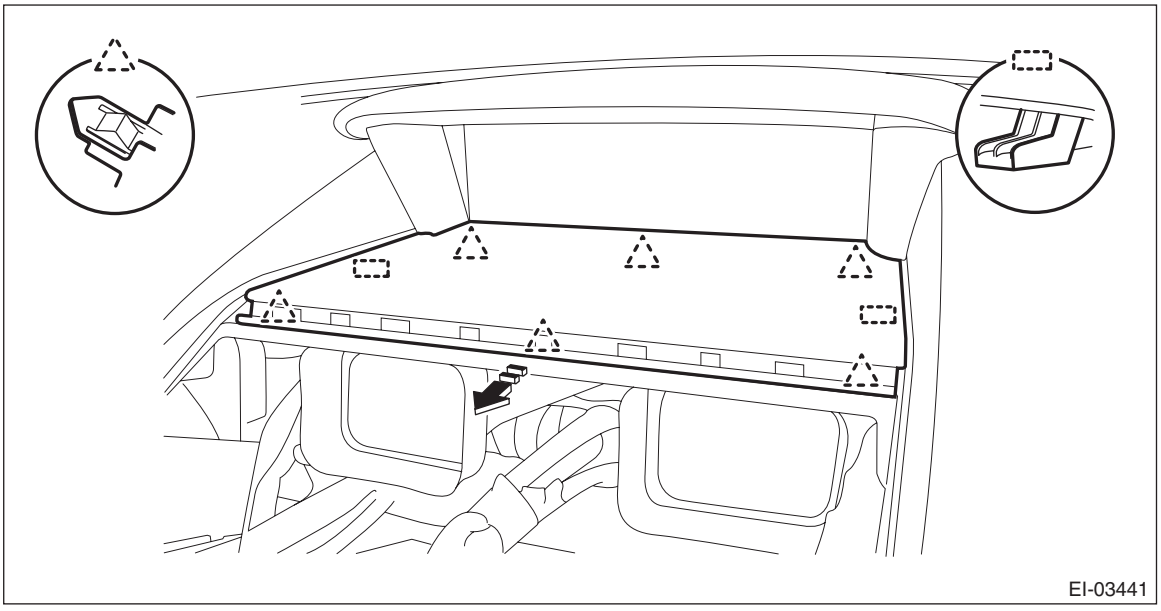
(1) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(2) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(3) Release the rest of the claws, and pull out the panel center assembly.
(4) Disconnect the connectors, and remove the panel center assembly.



20) Remove the audio assembly or navigation assembly.
(1) Remove the screws, and partially pull out the audio assembly or navigation assembly.
(2) Disconnect the connectors, and remove the audio assembly or navigation assembly.



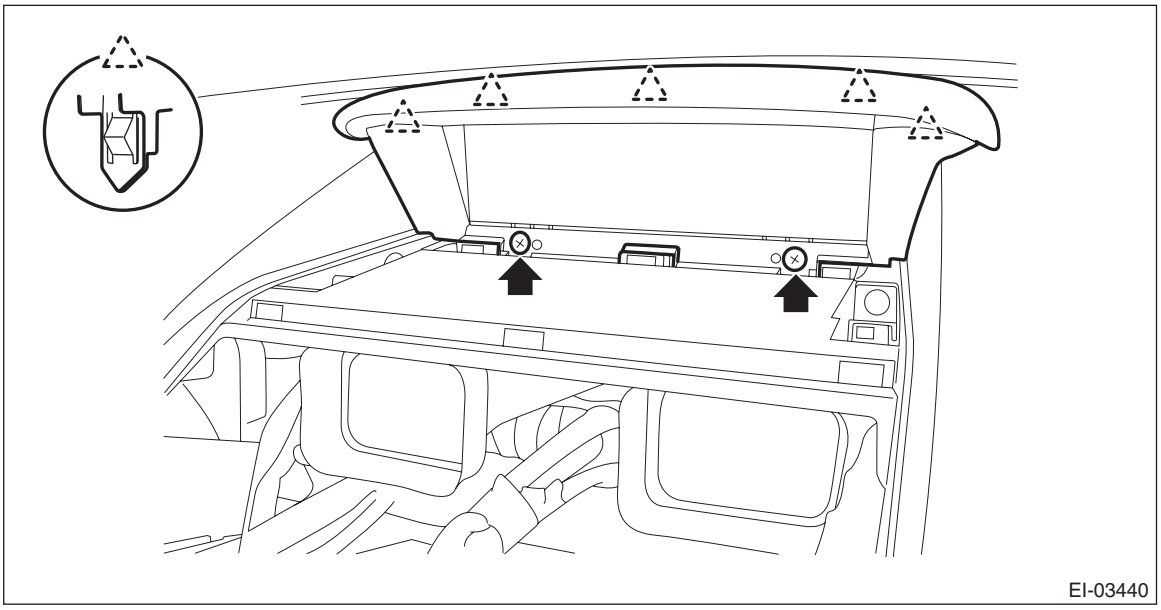
21) Remove the multi-function display assembly.
(1) Disconnect the claws and then remove the cover center UPR.



NOTE:
Lightly push up the back of the cover center UPR, hook the finger to the end portion and pull it toward you to remove it.
(2) Release the screws and claws, and then remove the panel - display UPR and the panel - display LWR.

NOTE:
Remove the panel - display UPR & panel - display LWR and the multi-function display assembly as a unit.

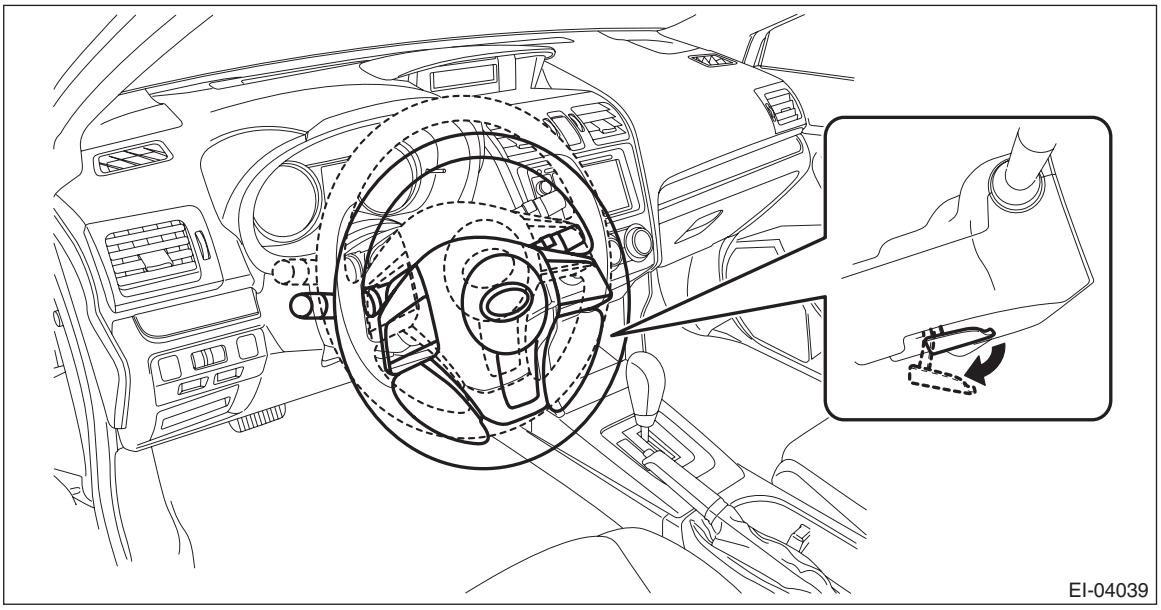
(3) Disconnect the connector and remove the multi-function display assembly.



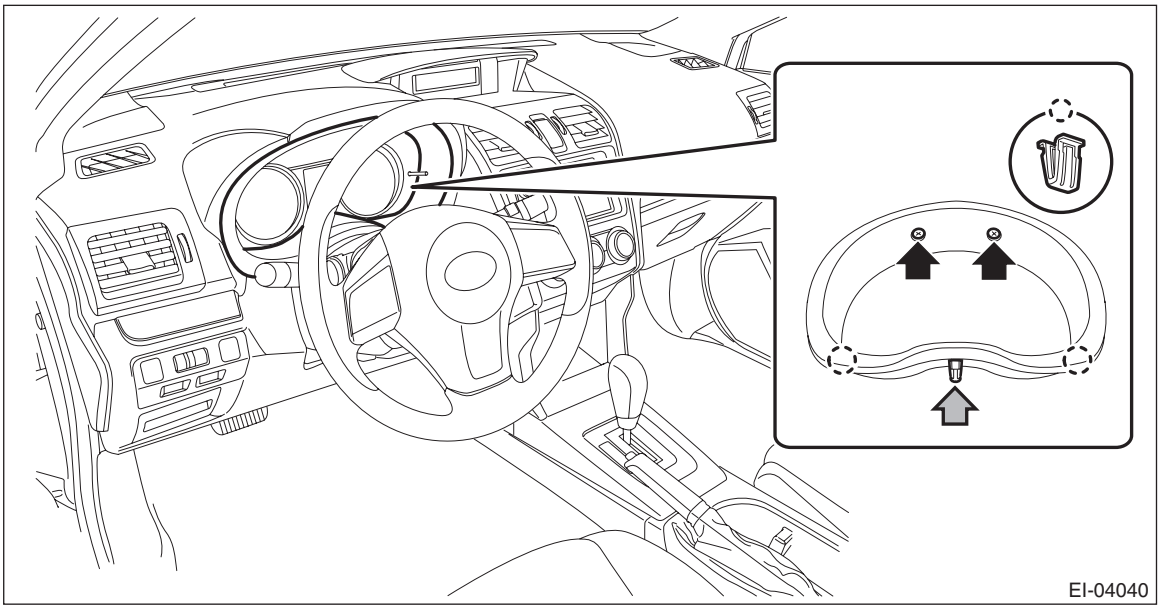
22) Remove the combination meter assembly.

CAUTION:
- **Be careful not to damage the meter or instrument panel.**
- **Pay particular attention to avoid damaging the meter glass.**

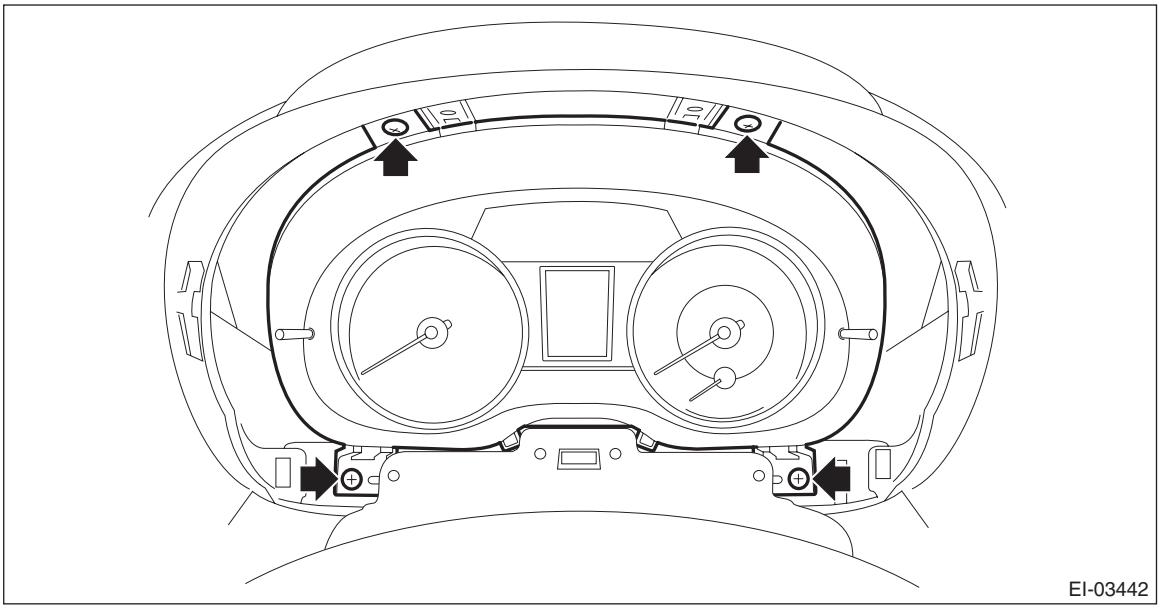
(1) Release the lock, tilt the steering column to the lowest end and fully extend the column by the telescopic system.



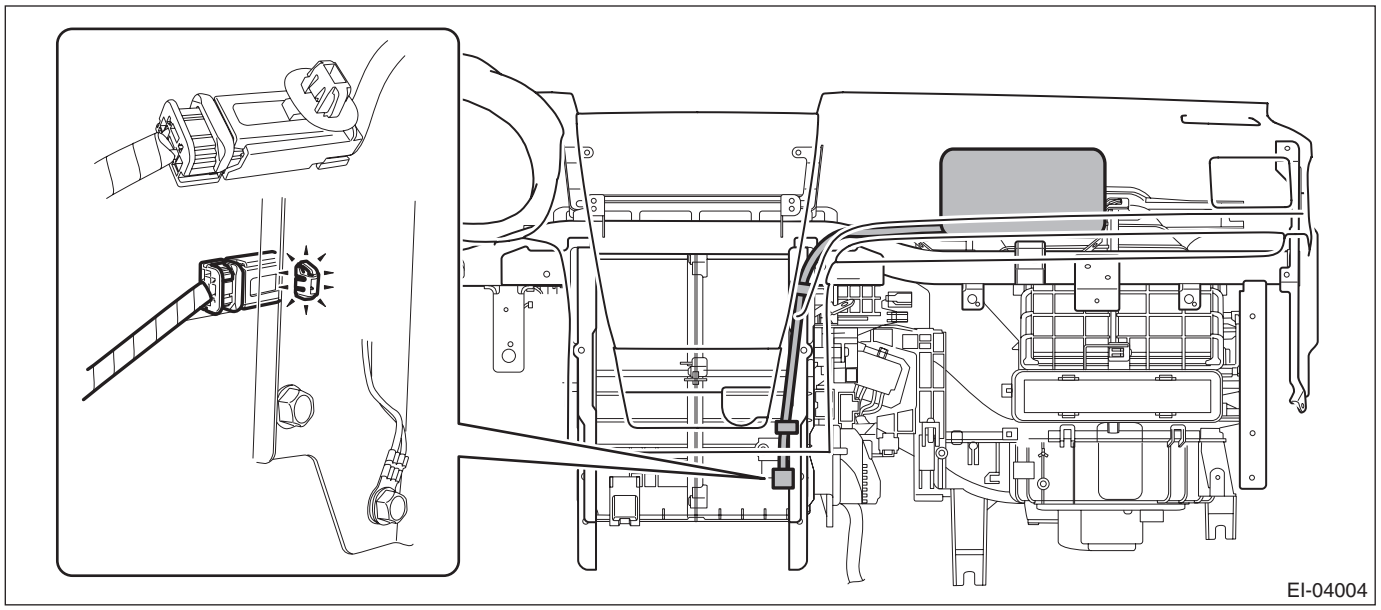
(2) Release the screws and clips, then detach the visor - combination meter.



(3) Remove the screws, disconnect the connector and remove the combination meter assembly.

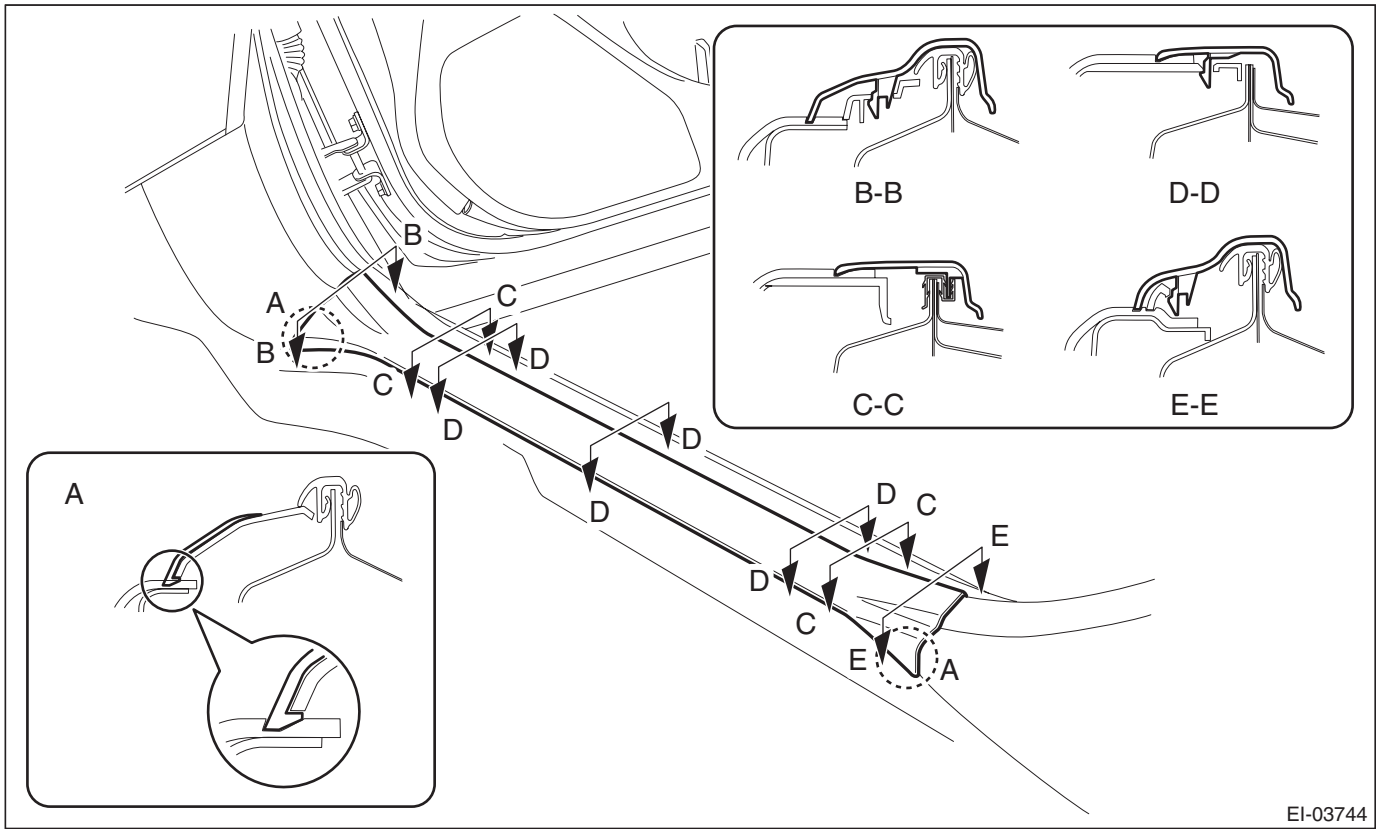


23) Disconnect the passenger's airbag module connector.<Ref. to AB-21, PASSENGER'S AIRBAG MODULE, PROCEDURE, Airbag Connector.>

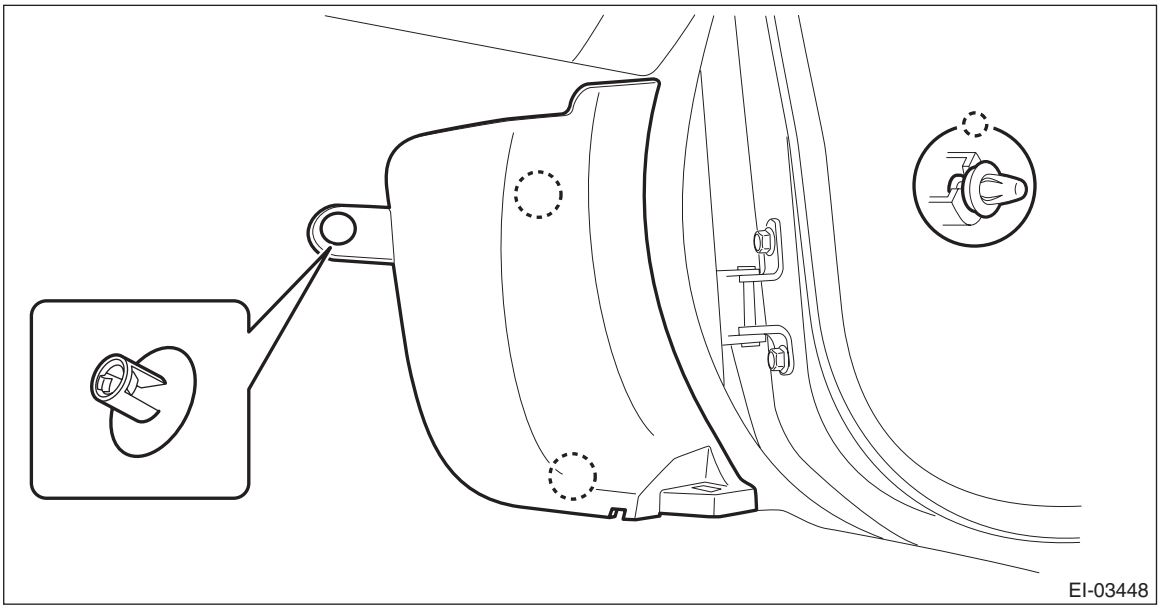


24) Remove the column assembly - steering.<Ref. to PS-18, REMOVAL, Steering Column.>
25) Release the claws, and then remove the cover side sill - front INN on LH and RH sides.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



26) Remove the clip, and remove the cover side sill - front on LH and RH sides.



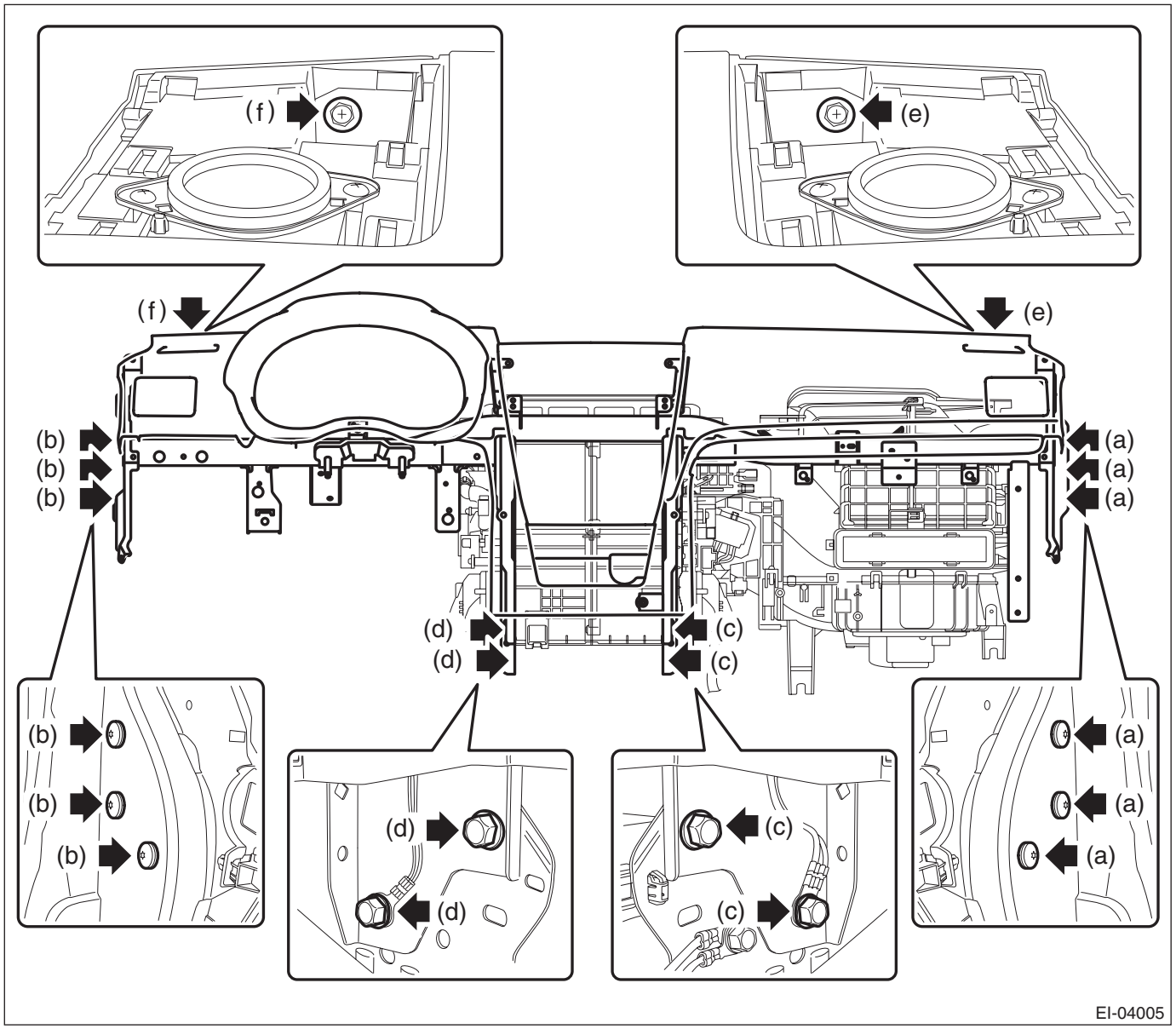
27) Remove the instrument panel assembly and the beam COMPL - steering as a unit.

CAUTION:
The instrument panel assembly and the beam COMPL - steering are heavy. Always work in a team of two persons when removing them from the vehicle, so as not to damage the vehicle interior.

(1) Remove the fuse box and relay box.
(2) Disconnect all harness clamps and connectors of the instrument panel harness.
(3) Remove the TORX® bolt. (a), (b)

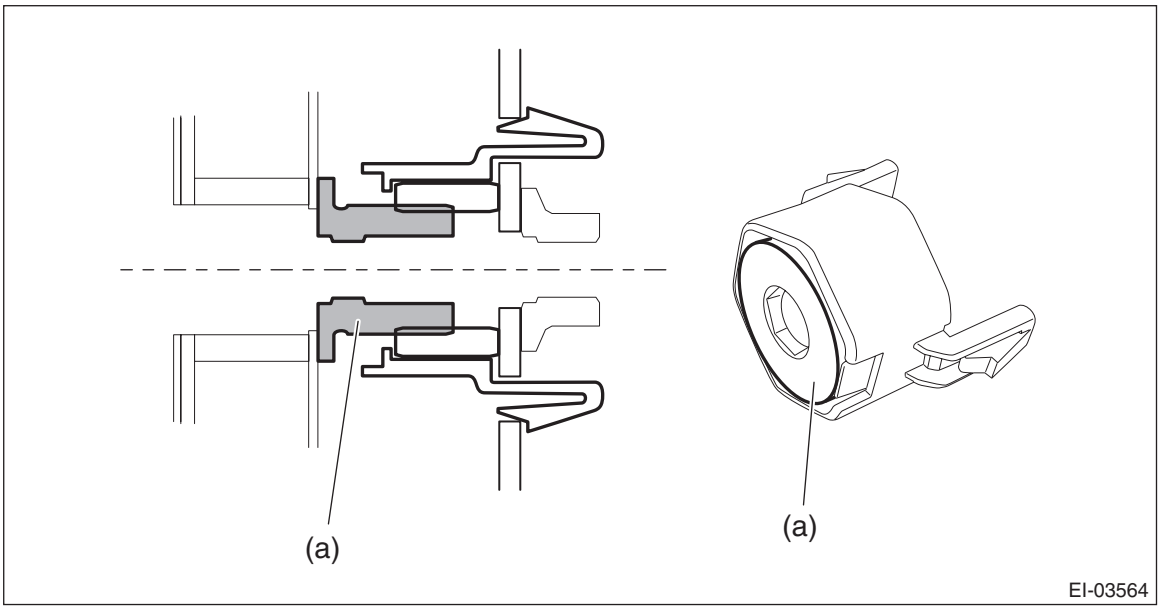
Preparation tool:
TORX® T40

(4) Remove the bolts at the floor center. (c), (d)
(5) Remove the bolt. (e), (f)



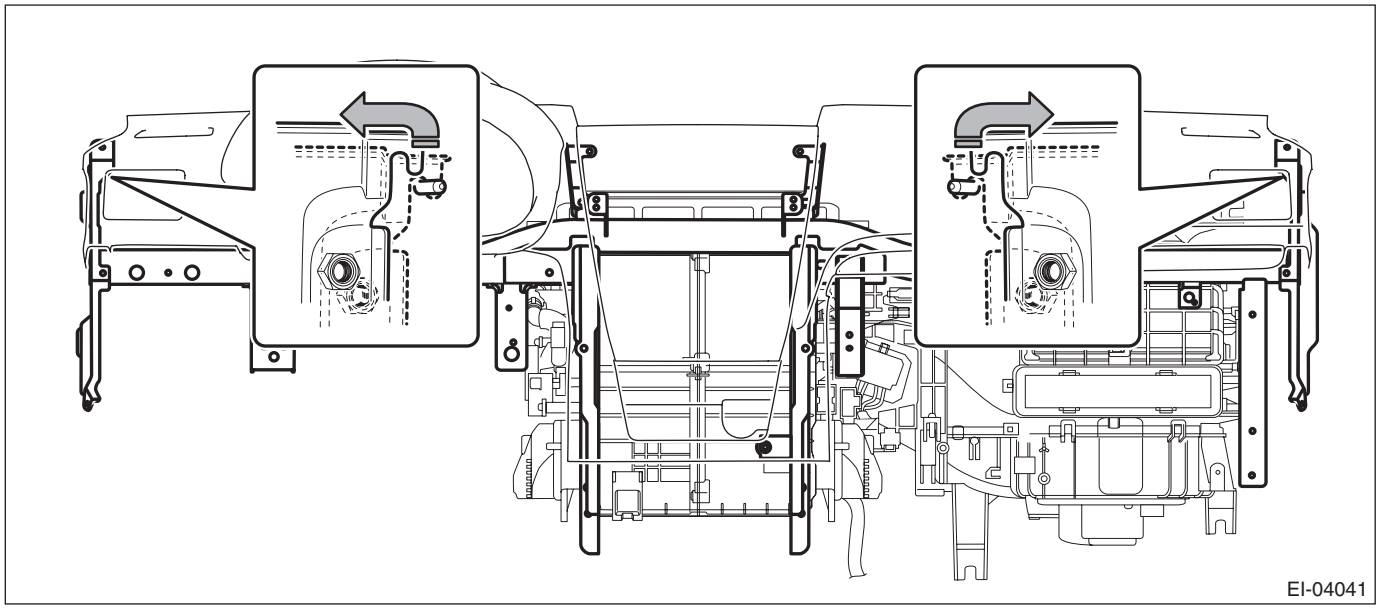
(6) Loosen the adjuster portion (a) of the adjuster - clip space. (only passenger's side of beam COMPL - steering)

Preparation tool:
Hexagon wrench: 8 mm (0.31 in)

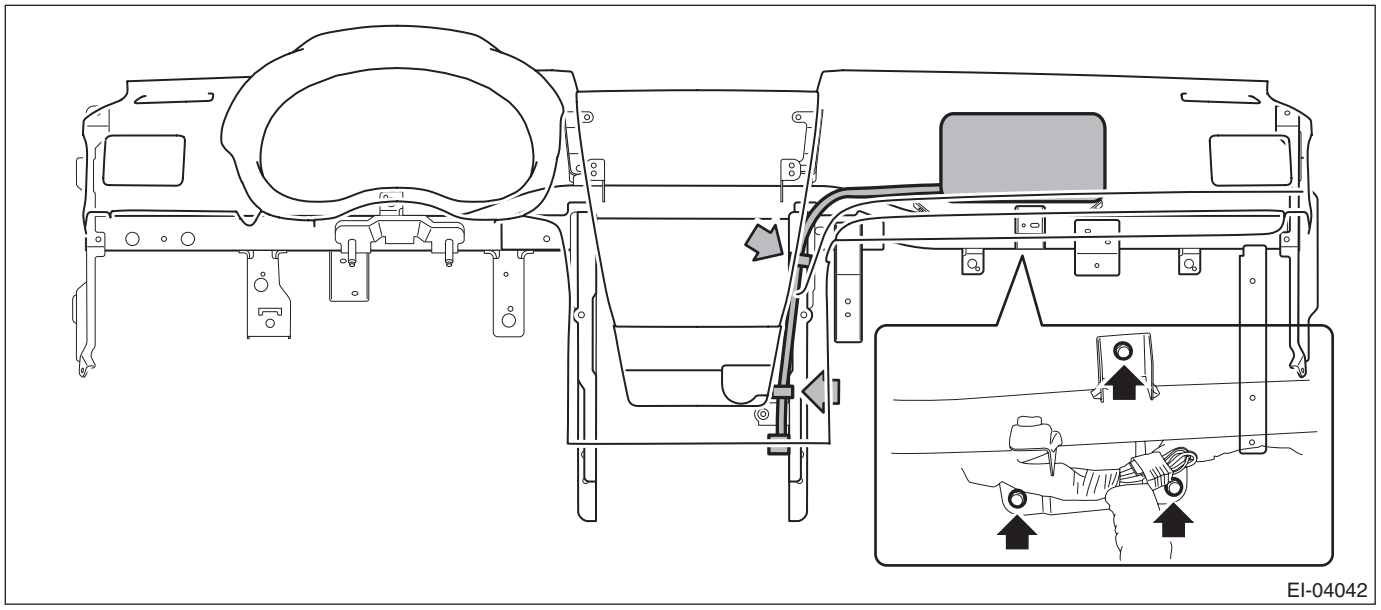


(7) Slightly lift the instrument panel assembly together with the beam COMPL - steering to detach the left and right pins. Then pull it toward you to remove the assembly.

CAUTION:
• Check that all harness clamps and connectors are detached.
• The instrument panel assembly and the beam COMPL - steering are heavy. Always work in a team of two persons when removing them from the vehicle, so as not to damage the vehicle interior.



28) Separate the panel COMPL - instrument and the beam COMPL - steering.
(1) Remove the clamps and bolts of the passenger's airbag module harness.

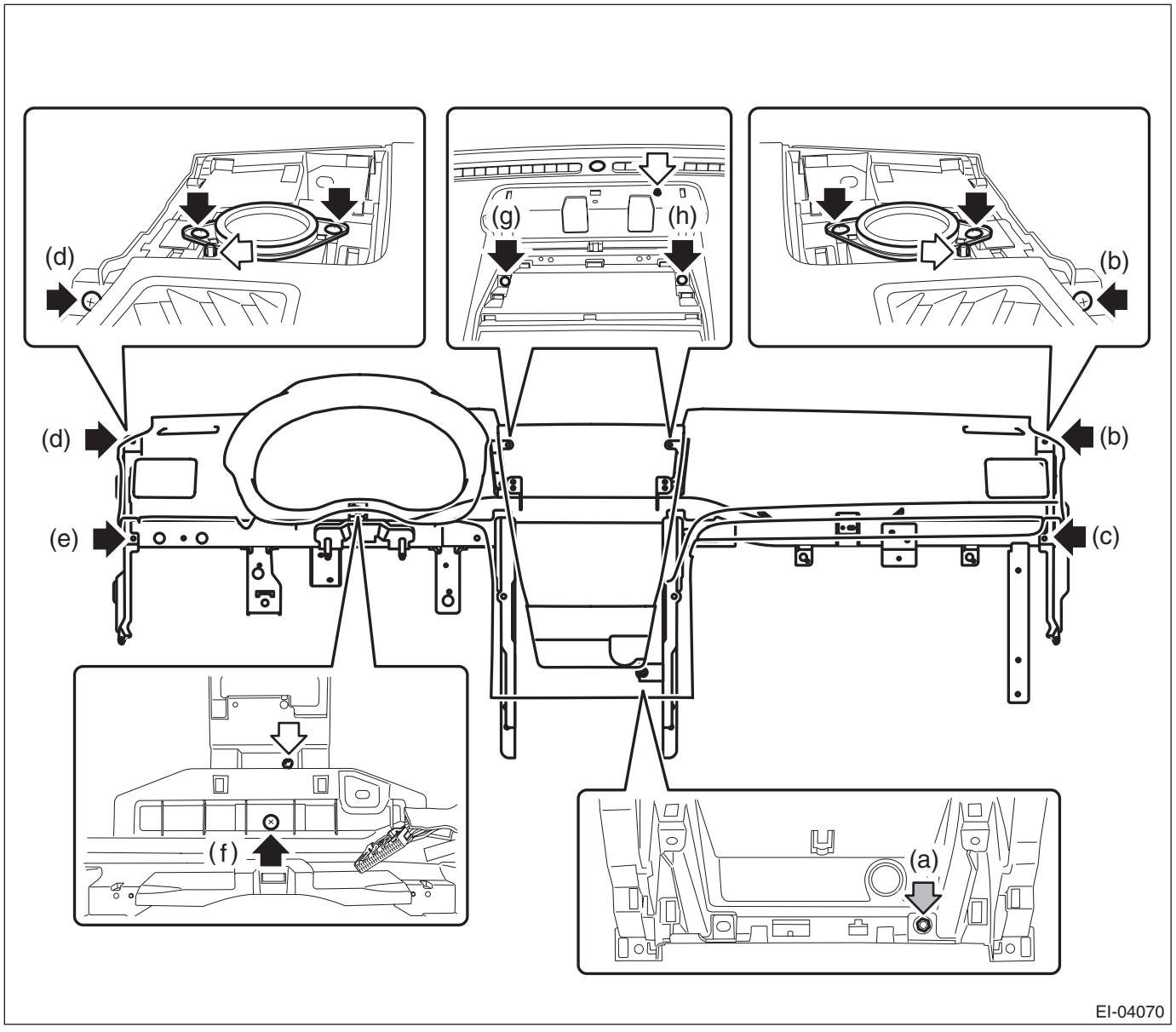


(2) Remove the left and right speakers and the sensor - sunload.

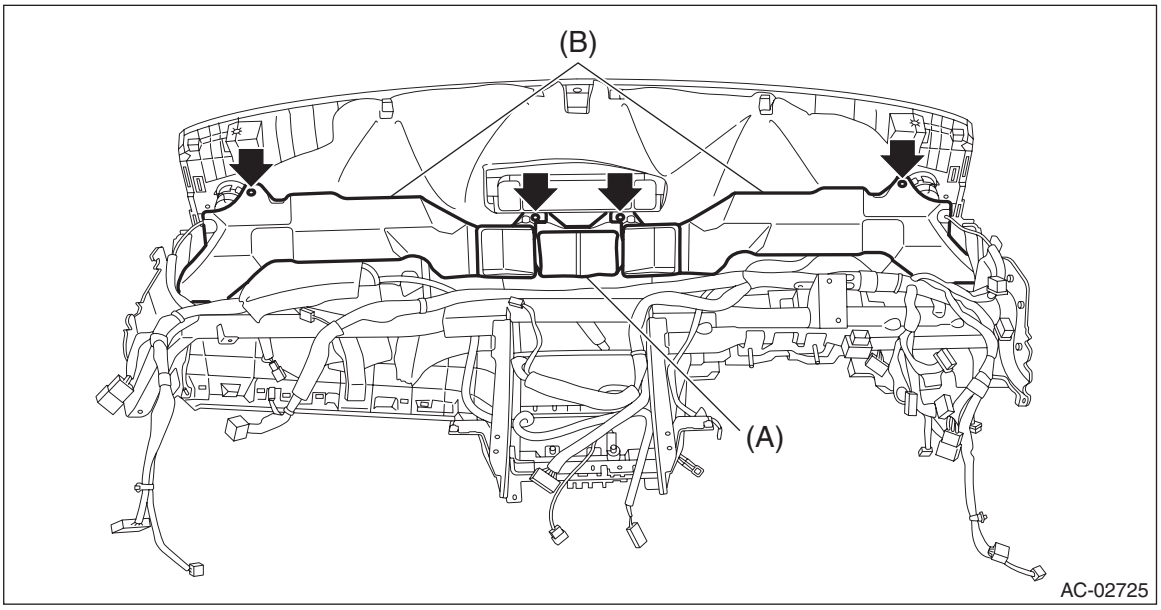
NOTE:
Detach the harness clamp together.

(3) Disconnect the front accessory socket connector.
(4) Remove the nut (a) and screws (b), (c), (d), (e), (f), (g) and (h).

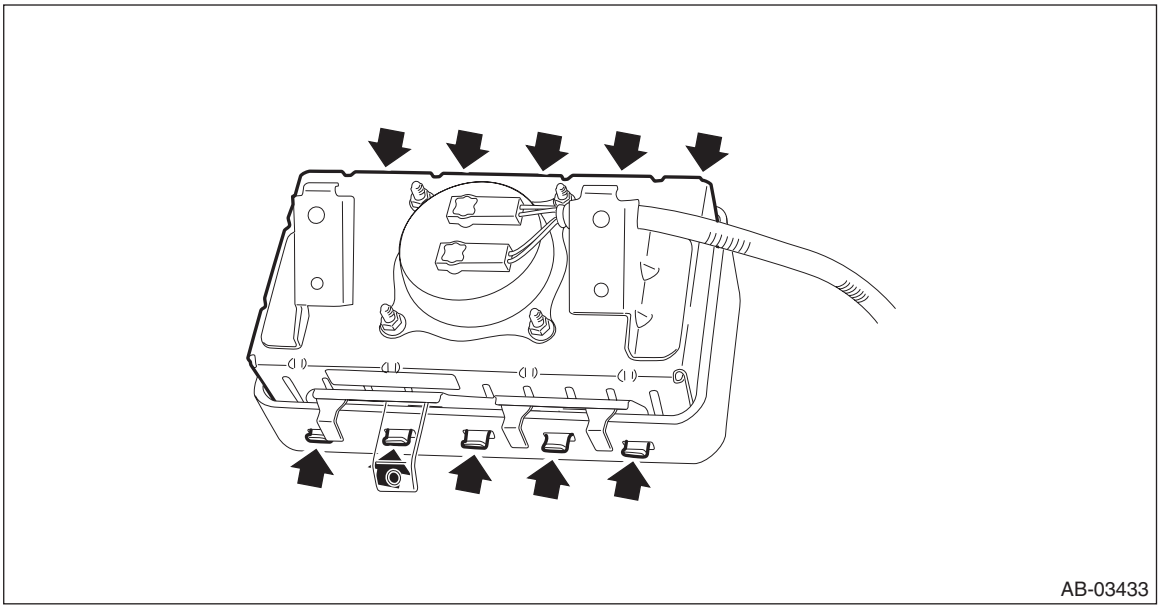
(5) While being careful with the harness, separate the panel COMPL - instrument and the beam COMPL - steering.



29) Remove the screws and remove the front (A) and side vent duct LH/RH (B).



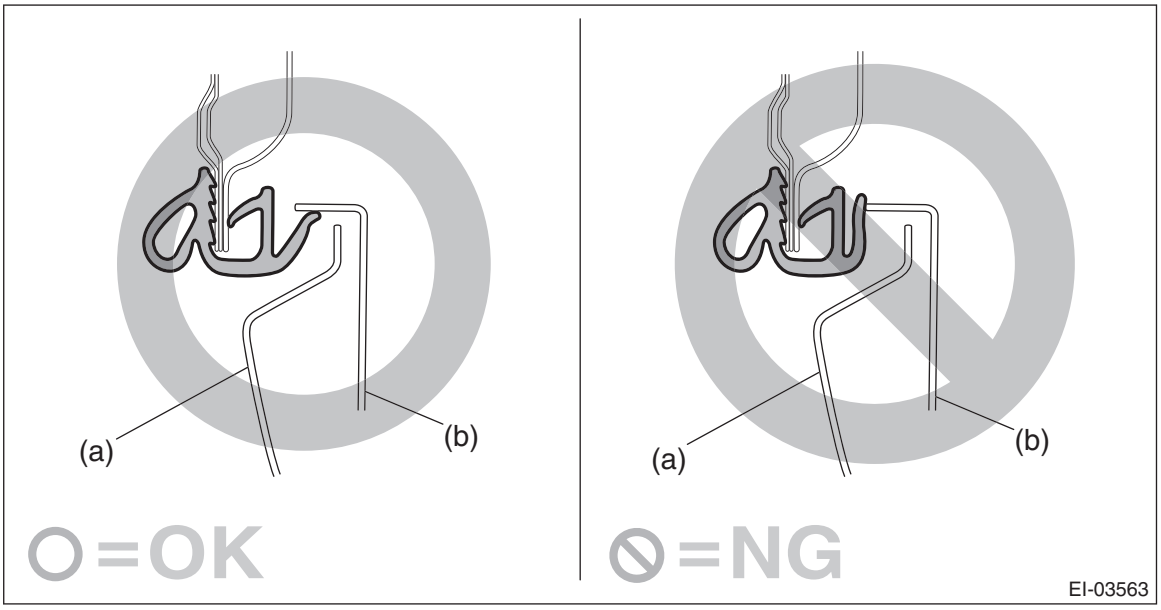
30) Remove the claws, and remove the passenger's airbag module.



31) For handling of the removed airbag module, refer to "CAUTION".<Ref. to AB-9, CAUTION, General Description.>

B: INSTALLATION

CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
• After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
• When installing the cover - instrument panel side (a), make sure that the body side weather strip - flange front does not come inside the panel COMPL instrument (b).



• Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
• Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
• Do not reuse the clips in the upper section of the trim panel - center pillar UPR. Always replace with a new part.
1) Before installation, inspect the following items and replace any faulty part with a new one.
- Passenger's airbag lid (instrument panel surface) is cracked or deformed.
- Airbag module is cracked or deformed.
- Harness and/or connector is cracked, deformed or open.
- Harness wire is exposed.
- Mounting bracket is cracked or deformed.

2) Install each part in the reverse order of removal.

NOTE:
Refer to the installation procedure of the "Instrument Panel Assembly". <Ref. to EI-89, INSTALLATION, Instrument Panel Assembly.>

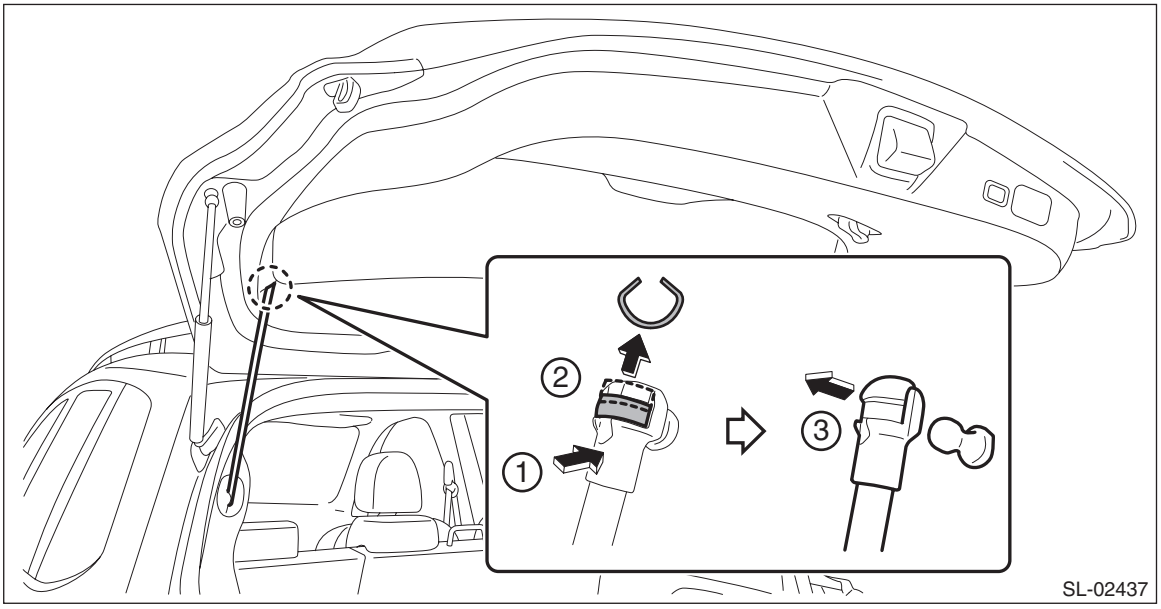
6. Power Rear Gate Rod

A: REMOVAL

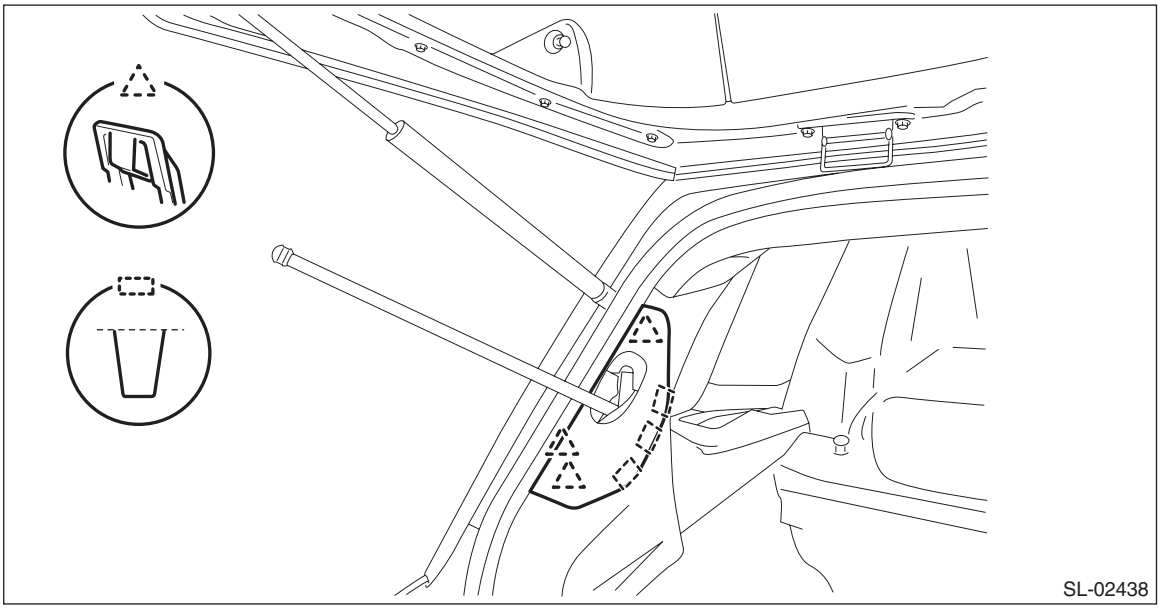
1) Disconnect the ground cable from battery.
2) Remove the rod - power rear gate.
   (1) Disconnect the upper part of the rod - power rear gate from the rear gate.

CAUTION:
Using a small flat tip screwdriver wrapped with protective tape, remove the part by gradually applying force. Forcibly removing the part may deform the stop ring.

1. Press the rod against the ball stud bolt.
2. With the rod pressed, remove the stop ring while sliding along the ball housing groove.
3. Disconnect the rod from ball stud bolt.



(2) Release the claws and then remove the cap - rear quarter pillar UPR.



(3) Disconnect the lower part of the rod - power rear gate from the power rear gate drive unit (PRG D/U), and then remove the rod - power rear gate.

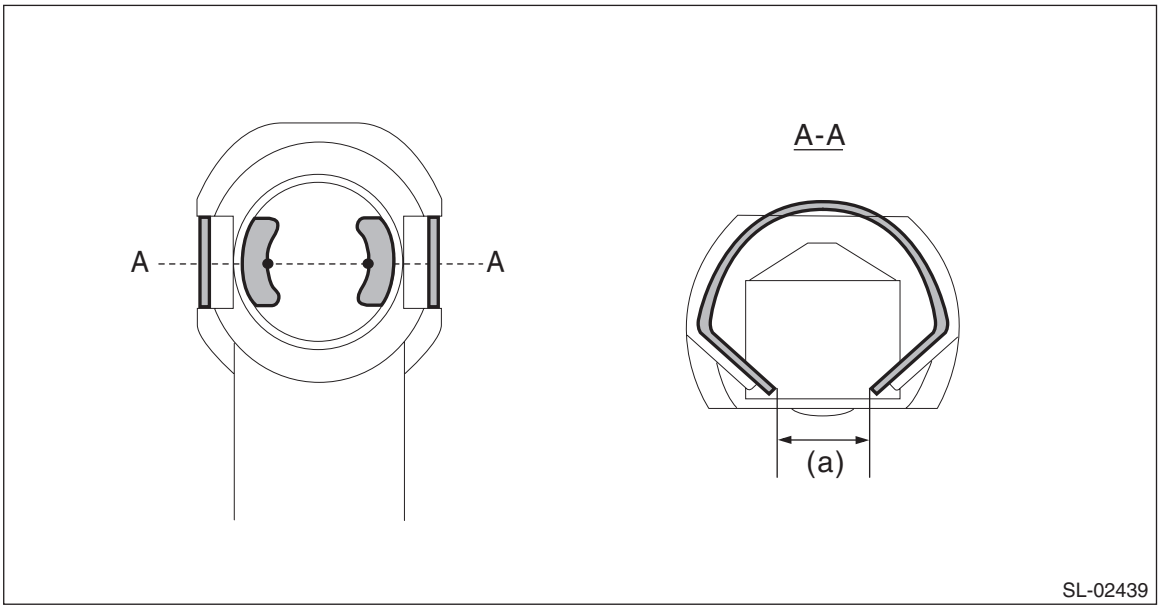
NOTE:
Perform the same procedures as for the upper part of rod - power rear gate.

B: INSTALLATION

1) Install the stop ring to the rod - power rear gate.

CAUTION:
Align the stop ring to the ball housing groove, and attach the ring by gradually applying force, while paying attention not to deform it.

2) With the stop ring installed, check the clearance (a) of the stop ring.



Specification:
6.4 — 7.2 mm (0.25 — 0.28 in)

Replace the stop ring if the inspection result is not within the standard value.

3) Install each part in the reverse order of removal.

CAUTION:
When installing the rod, check that the stop ring and ball stud bolt are vertically placed, and then slowly press in the rod.

C: INSPECTION

1) Check the ball housing and ball stud bolt of the rod - power rear gate for abnormal play, wear or bent.
2) Replace the rod - power rear gate if defective.

6. Push Button Start System

A: WIRING DIAGRAM

For wiring diagrams related to the push button start system (ignition change), refer to the following items.
- Keyless access system: <Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>
- Push button start system
  - Non-turbo model: <Ref. to WI-325, NON-TURBO MODEL, WIRING DIAGRAM, Push Button Start System.>
  - Turbo model: <Ref. to WI-332, TURBO MODEL, WIRING DIAGRAM, Push Button Start System.>

B: ELECTRICAL SPECIFICATION

Refer to “Control Module I/O Signal” of “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-12, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: INSPECTION

1. IGNITION/ACC CHANGE FUNCTION CHECK

1) Check push button ignition switch function

(1) Check the power supply change control through push button ignition switch, brake pedal, clutch pedal operation, and shift position.
- CVT model

Shift lever position	Brake pedal operation	Push button ignition switch operation
P	Released	Repeat Ignition OFF → ACC ON → Ignition ON → Ignition OFF
P	Released	Engine running → Ignition OFF
P	Depressed	Ignition OFF → Engine started
P	Depressed	ACC ON → Engine started
P	Depressed	Ignition ON → Engine started
P	Depressed	Engine running → Ignition OFF
N	Released	Repeat Ignition OFF → ACC ON → Ignition ON → ACC ON
N	Released	Engine running → ACC ON
N	Depressed	Ignition OFF → Engine started
N	Depressed	ACC ON → Engine started
N	Depressed	Ignition ON → Engine started
N	Depressed	Engine running → ACC ON
Other than P or N	Released	Repeat Ignition OFF → ACC ON → Ignition ON → ACC ON
Other than P or N	Released	Engine running → ACC ON
Other than P or N	Depressed	Ignition OFF → Ignition ON
Other than P or N	Depressed	ACC ON → Ignition ON
Other than P or N	Depressed	Engine running → ACC ON

2) Check power status display
(1) Check the power indicator display of the push button ignition switch.

NOTE:
*1: Key collation is normal, and the stop light switch (CVT) or clutch switch (MT) is ON.
*2: For CVT models, while the select lever button is being pressed, the indicator does not illuminate in green even if the select lever is in P range.

Indicator display

Push button ignition switch status	Indicator lighting status
Ignition OFF (except for condition *1)	Light OFF
ACC ON (except for condition *1)	Orange light
Ignition ON (except for condition *1)	Orange light
Engine start standby (*1)	Green light (*2)
After engine is started	Light OFF

NOTE:
The indicator blinks if any of the following malfunctions are detected.

Detected malfunction	Indicator lighting status
Steering lock stuck	Green blinking
Clutch switch failure	Orange blinking
Steering lock CM internal malfunction	Orange blinking
Keyless access CM internal malfunction	Orange blinking
Vehicle speed signal malfunction	Orange blinking

6. Read Cancel Code

A: OPERATION

1) On «Main Menu» display, select {Each System Check}.
On «System Selection Menu» display, select {Engine Control System} and select the [OK]. Select [OK] after the engine type information is displayed.
2) Drive vehicle at 40 km/h (25 MPH) or more and set the cruise control.

NOTE:
When performing the entire diagnosis or cruise control diagnosis, first start the engine and wait until initial illumination of the ABS/VDC warning light completes. (If you start the diagnostics before performing the above procedures, the cancel code “43” is recorded and CRUISE indicator does not illuminate even though the CRUISE switch is pressed.)

CAUTION:
• When performing diagnosis, observe the legal speed limit on the road.
• The cancel code will also appear when the cruise control is cancelled by the driver’s operation. Do not confuse them.
• Be sure to get an assistant to support the diagnosis while driving, and have him/her operate the select monitor.
3) When the set speed is cancelled by itself (without any cancel operations such as applying brake) or when the cruise control could not be set by performing the setting operation, selecting the {Cancel Code(s) Display} on the engine malfunction diagnosis screen will display the cancel code on the select monitor display.

NOTE:
The {Latest Diagnostic Code(s)} and {Memorized Diagnostic Code(s)} are contained in the cancel code. The latest code recognized during current test drive is displayed in {Latest Diagnostic Code(s)}. Cancel codes resulting from fault diagnosis of switches relating to the system and cruise control are also displayed in {Memorized Diagnostic Code(s)}.
4) Perform Engine DTC Clear Memory operation.<Ref. to EN(H4DO)(diag)-58, OPERATION, Clear Memory Mode.>
Cancel codes for switches relating to the system and cruise control are deleted by clearing memory on the engine side.

NOTE:
• The latest code will be cleared by turning ignition switch to OFF.
• For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.
• For details on cancel codes, refer to List of Cancel Code.<Ref. to CC(diag)-13, List of Cancel Code.>

6. Read Diagnostic Trouble Code (DTC)

A: OPERATION

For details concerning the work procedure, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
For details concerning DTC, refer to List of Diagnostic Trouble Code (DTC). <Ref. to BC(diag)-22, List of Diagnostic Trouble Code (DTC).>

6. Read Diagnostic Trouble Code (DTC)

A: OPERATION

1. ECM

For the operation procedure, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
For detailed concerning DTC, refer to the List of Diagnostic Trouble Codes (DTC). <Ref. to IM(diag)-14, LIST, List of Diagnostic Trouble Code (DTC).>

2. BODY INTEGRATED UNIT

For the operation procedure, refer to the “PC application help for Subaru Select Monitor”.

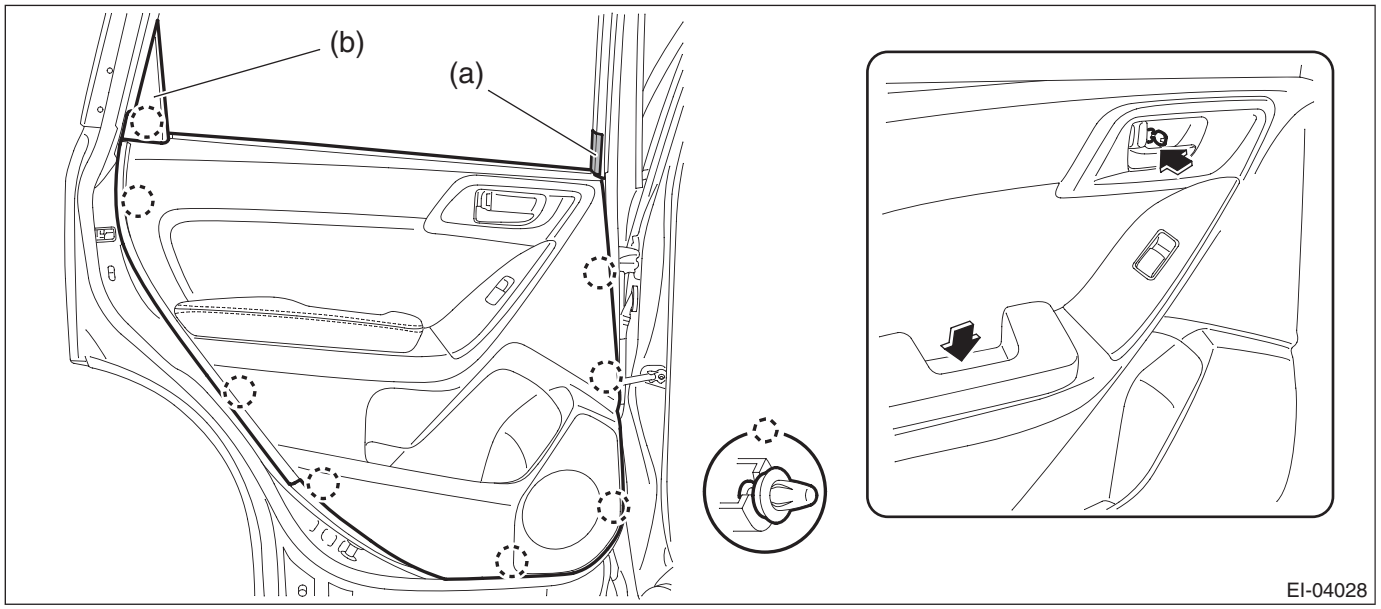
NOTE:
For detailed concerning DTC, refer to the List of Diagnostic Trouble Codes (DTC). <Ref. to IM(diag)-14, LIST, List of Diagnostic Trouble Code (DTC).>

6. Rear Door

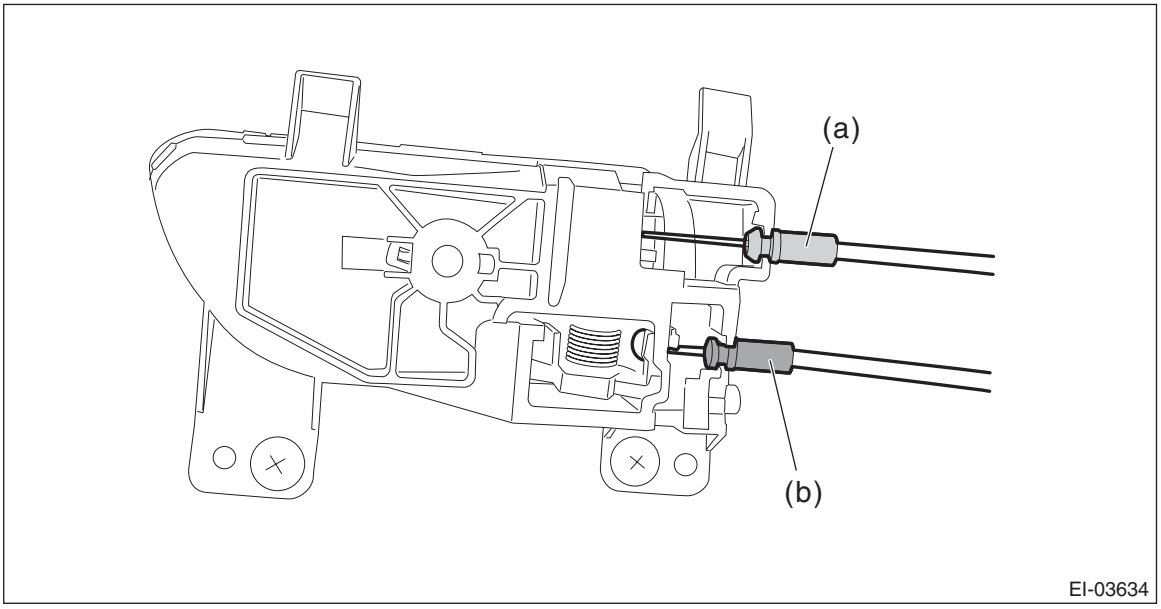
A: REMOVAL

1. REAR DOOR PANEL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear door.
   (1) Attach the protective tape (a) to the door sash.
   (2) Remove the clip, and remove the cover - gusset door (b).
   (3) Open the cover and remove the screw.
   (4) Remove the clips, and remove the trim panel - rear door from the panel assembly - rear door.



   (5) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.



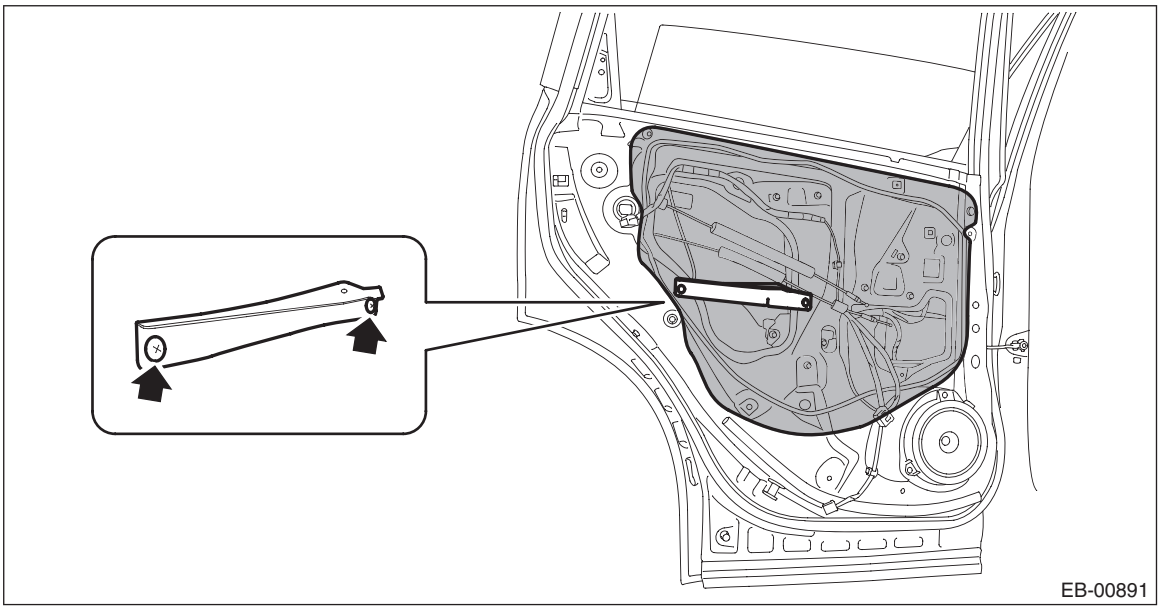
   (6) Disconnect the harness connector and remove the trim panel - rear door.

CAUTION:
Pulling the door trim excessively may damage the harness.

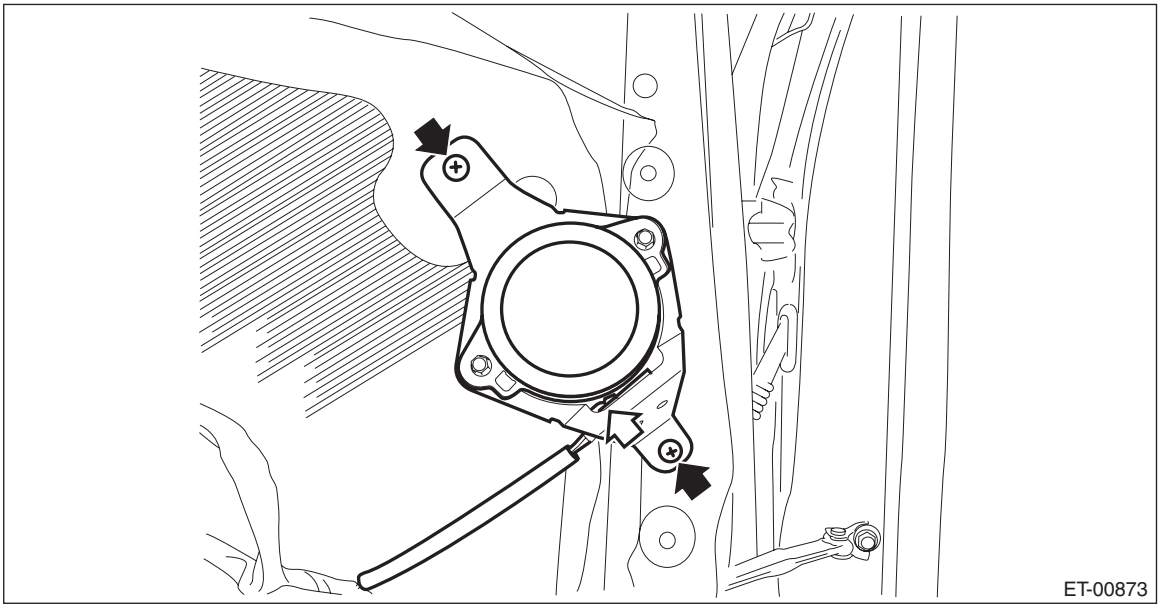
3) Remove the sealing cover - rear door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

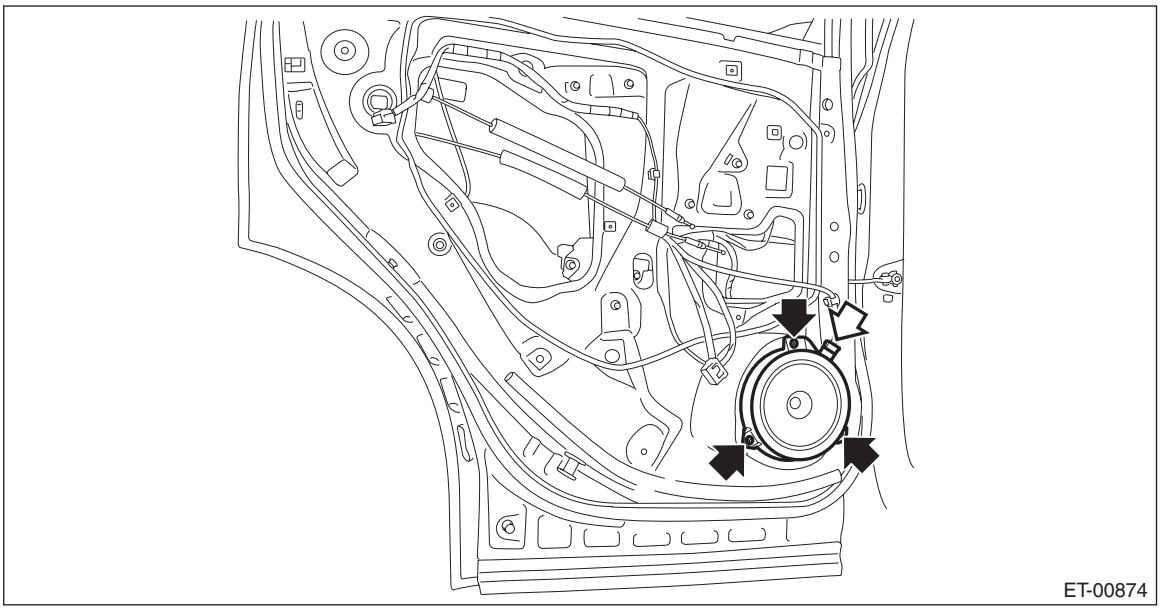
(1) Remove the screw to remove the bracket - door trim rear.
(2) Disconnect connectors.
(3) Carefully remove the butyl tape to remove the sealing cover - rear door.



4) Remove the bolts and remove the speaker assembly - tweeter. (Model with harman/kardon® audio system)

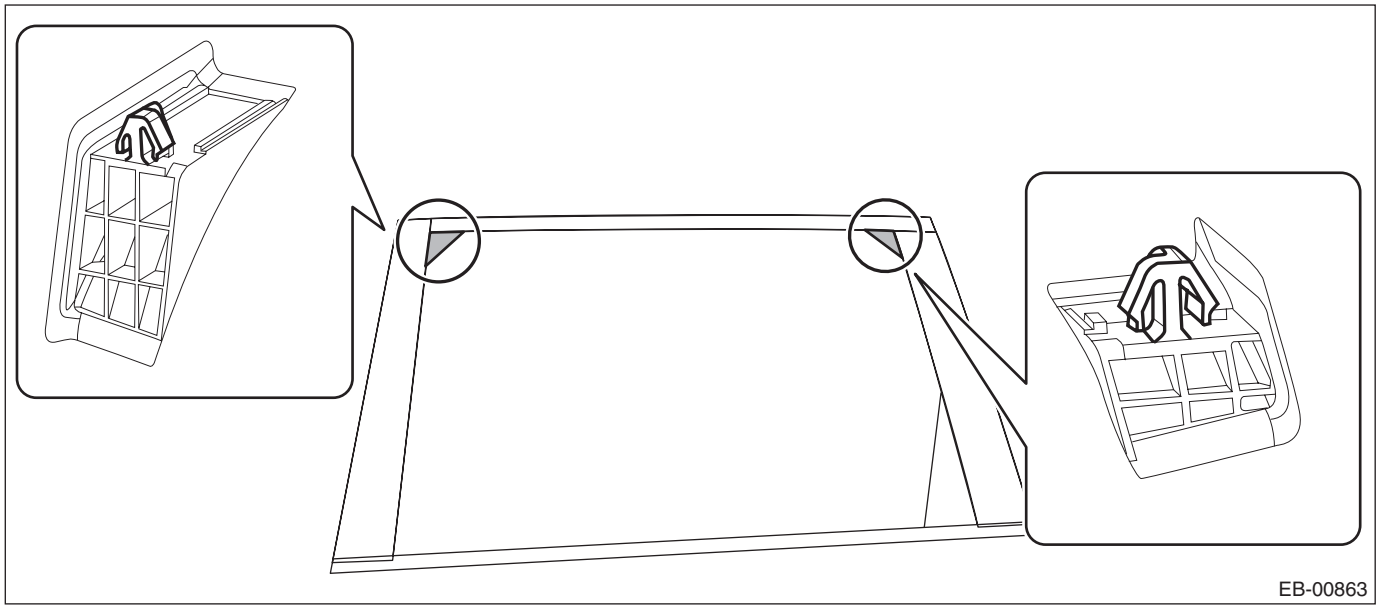


5) Remove the rear door speaker assembly.
(1) Remove the screws.
(2) Disconnect the connector behind the speaker and remove the rear speaker assembly.



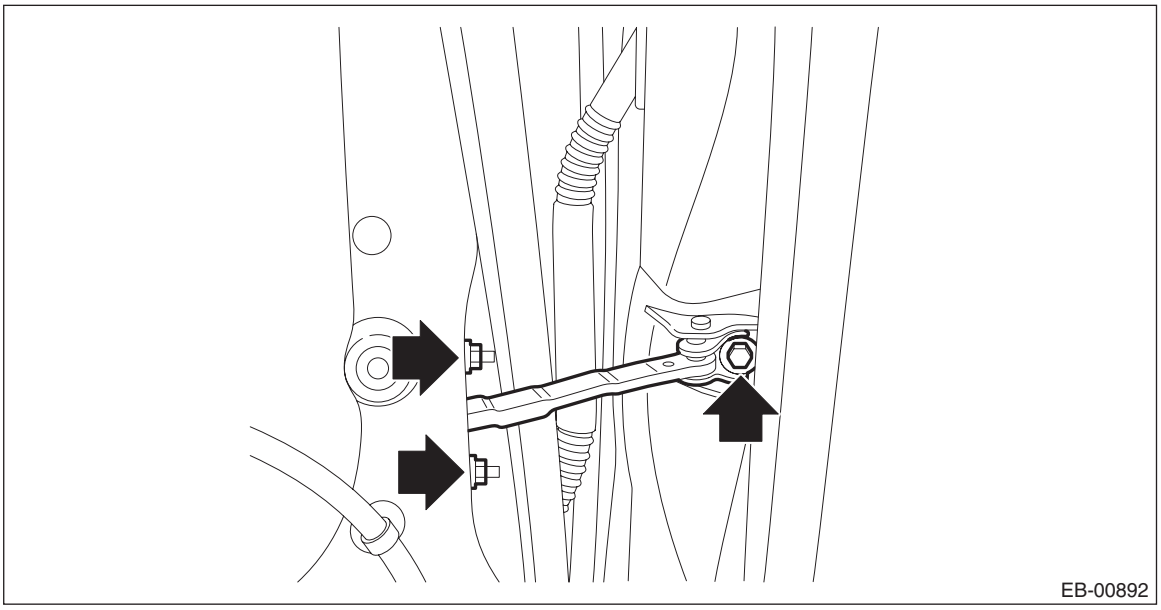
6) Remove the B pillar upper clip.

CAUTION:
The clip cannot be reused, therefore, always replace with a new part.

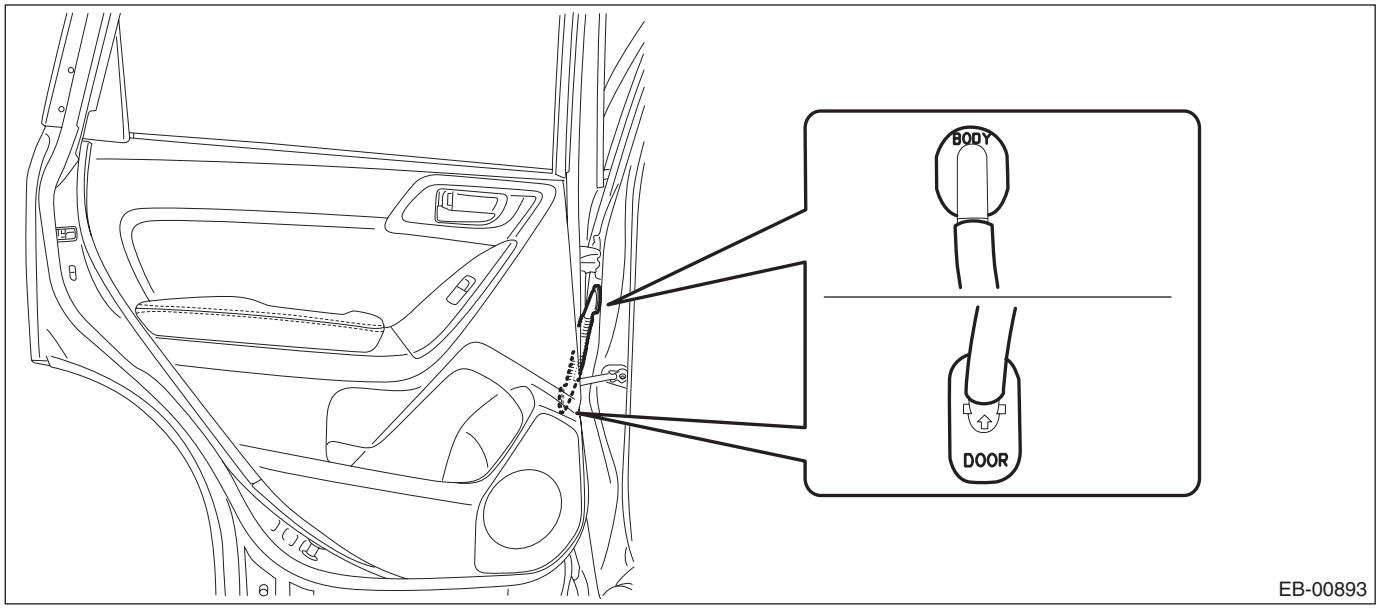


7) Remove the sash COMPL - rear partition and the glass assembly - rear door.<Ref. to GW-32, REMOVAL, Rear Door Glass.>
8) Remove the regulator - rear.<Ref. to GW-34, REMOVAL, Rear Regulator and Motor Assembly.>
9) Remove the latch and actuator assembly - rear.<Ref. to SL-47, REMOVAL, Rear Door Latch and Door Lock Actuator Assembly.>
10) Remove the cover - handle rear outer.<Ref. to SL-43, REMOVAL, Rear Outer Handle.>
11) Remove the rear door weather strip.<Ref. to EB-64, FLANGE, REPLACEMENT, Weather Strip.>

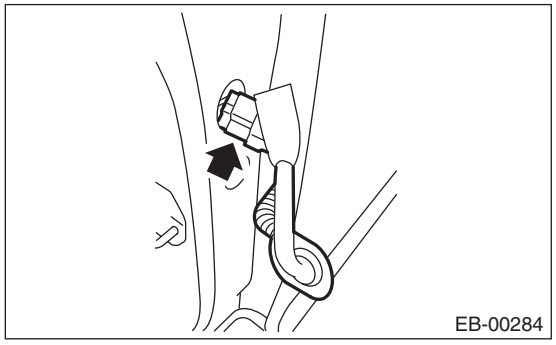
12) Remove the bolts and nuts, and then detach the checker assembly - rear door.



13) Disconnect the rear door harness connectors.
(1) Remove the grommet and pull out the rear door harness connector from inside the center pillar.

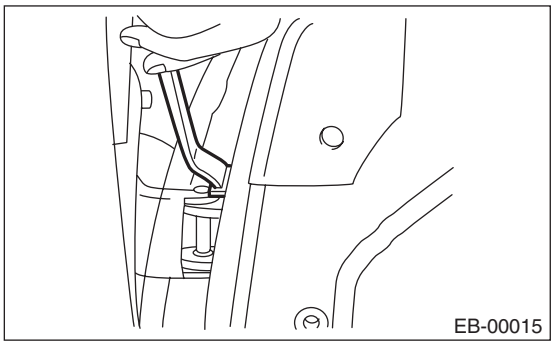


(2) Disconnect the rear door harness connectors.



14) Remove the door-side bolts for the upper hinge - rear door and the lower hinge - rear door to remove the panel assembly - rear door.

CAUTION:
• The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.
• While removing or installing, do not use a jack, etc. on the garnish section.



15) Remove the door hinge from vehicle.<Ref. to EB-41, REAR DOOR HINGE, REMOVAL, Rear Door.>

2. REAR DOOR HINGE

1) Open the panel assembly - front door, and remove the bolts of the upper hinge - rear door or the lower hinge - rear door.

CAUTION:
• The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.
• While removing or installing, do not use a jack, etc. on the garnish section.
• Do not remove the upper hinge - front door and the lower hinge - front door at the same time.
2) Remove the rear door hinge from vehicle.

B: INSTALLATION

1. REAR DOOR PANEL

CAUTION:
• The panel assembly - front door is heavy. When removing and installing it, always work in a team of two or more persons.
• While removing or installing, do not use a jack, etc. on the garnish section.
1) Apply grease to the moving part of door hinges.
2) Have the door supporting staff adjust the height, and temporarily install the panel assembly - rear door to the upper hinge - rear door and the lower hinge - rear door.

NOTE:
• When installing the panel assembly - rear door, make sure that a uniform clearance is created around the panel.
• Perform installation while paying attention to the assembly direction of the grommet.
3) Adjust the clearance around the panel assembly - rear door. <Ref. to EB-42, ADJUSTMENT, Rear Door.>
4) Tighten the bolts and nuts of the door hinge and the checker assembly - rear door.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to EB-7, REAR DOOR, COMPONENT, General Description.>
5) Install door internal parts in the reverse order of removal.

NOTE:
For installation of the door sash tape, refer to the door sash tape. <Ref. to EB-49, INSTALLATION, Door Sash Tape.>
6) Connect the door harness connector, and install the trim panel - center pillar LWR.

2. REAR DOOR HINGE

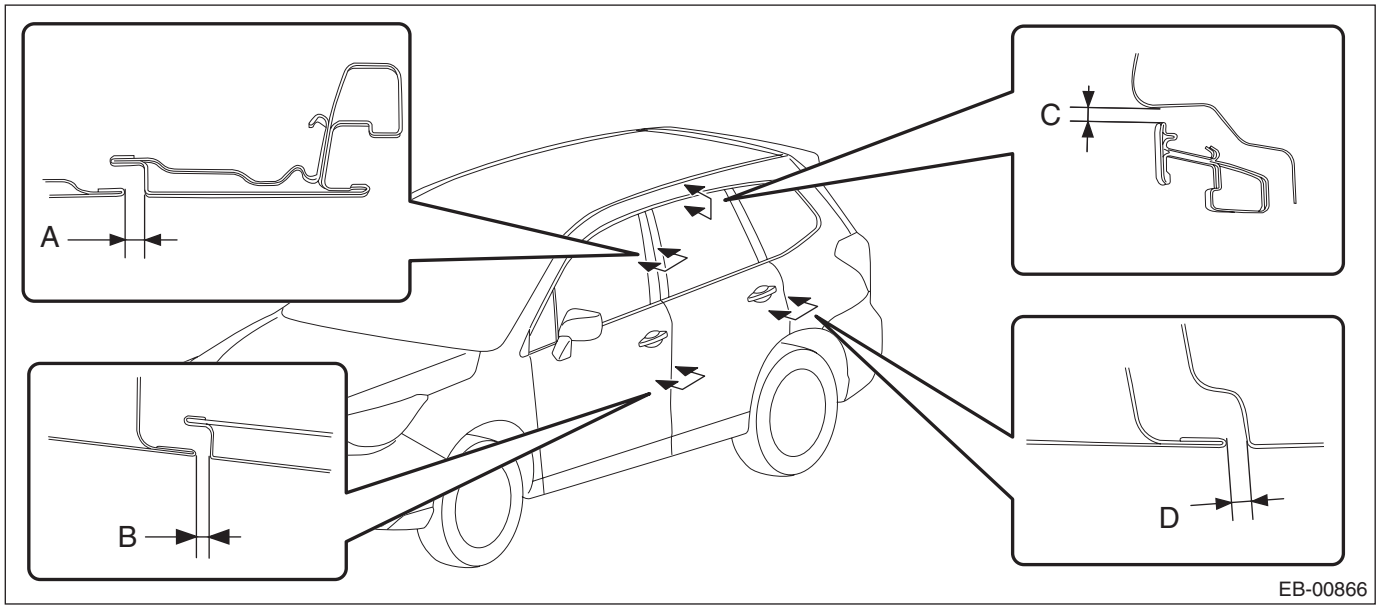
1) Apply grease to the moving part of door hinges.
2) Have the door supporting staff adjust the height, and temporarily install the panel assembly - rear door to the upper hinge - front door and the lower hinge - front door.

NOTE:
When installing the panel assembly - rear door, make sure that a uniform clearance is created around the panel.
3) Adjust the clearance around the panel assembly - rear door. <Ref. to EB-42, ADJUSTMENT, Rear Door.>
4) Tighten the bolts and nuts of the door hinge and the checker assembly - front door.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to EB-7, REAR DOOR, COMPONENT, General Description.>

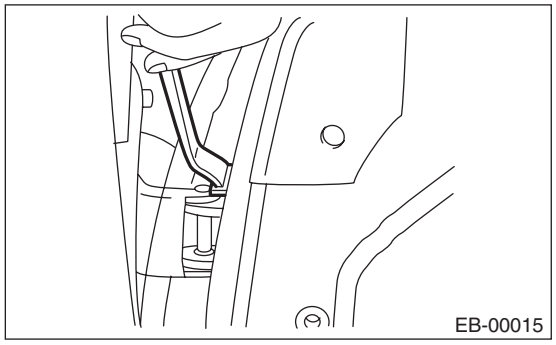
C: ADJUSTMENT

Adjust the clearance around the panel assembly - rear door as follows.



Part		Standard
A	Front door sash to Rear door sash	5.5+1.5, –1.0 mm (0.22+0.06, –0.04 in)
B	Panel assembly - front door to Panel assembly - rear door	4.5±1.0 mm (0.18±0.04 in)
C	Panel side outer to Rear door sash	5.7+1.5, –1.0 mm (0.22+0.06, –0.04 in)
D	Panel assembly - rear door to Panel side outer	4.5+1.5, –1.0 mm (0.18+0.06, –0.04 in)

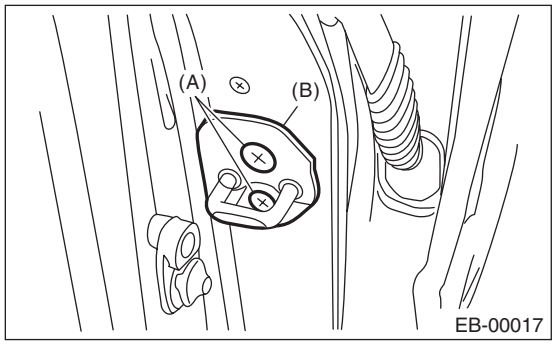
1) Adjust the vertical and horizontal positions of the panel assembly - rear door.



(1) Loosen the body side bolts of the upper hinge - rear door and the lower hinge - rear door.
(2) Adjust the vertical and horizontal clearance of the panel assembly - rear door.

2) Adjust the surface level gap between the panel assembly - rear door and the body.

CAUTION:
Do not use an impact wrench. Welding area on the striker nut plate is easily broken.



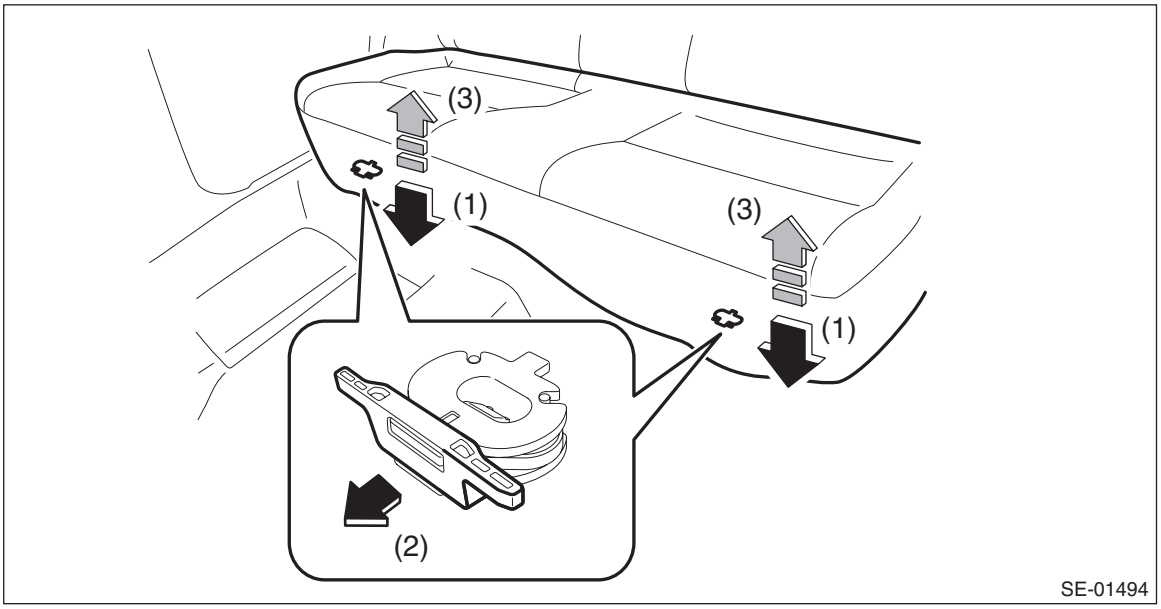
(1) Loosen the screws (A).
(2) Tap the striker - rear door (B) using a plastic hammer to adjust the surface level gap between the rear end of the panel assembly - rear door and the rear quarter.

6. Rear Seat Belt

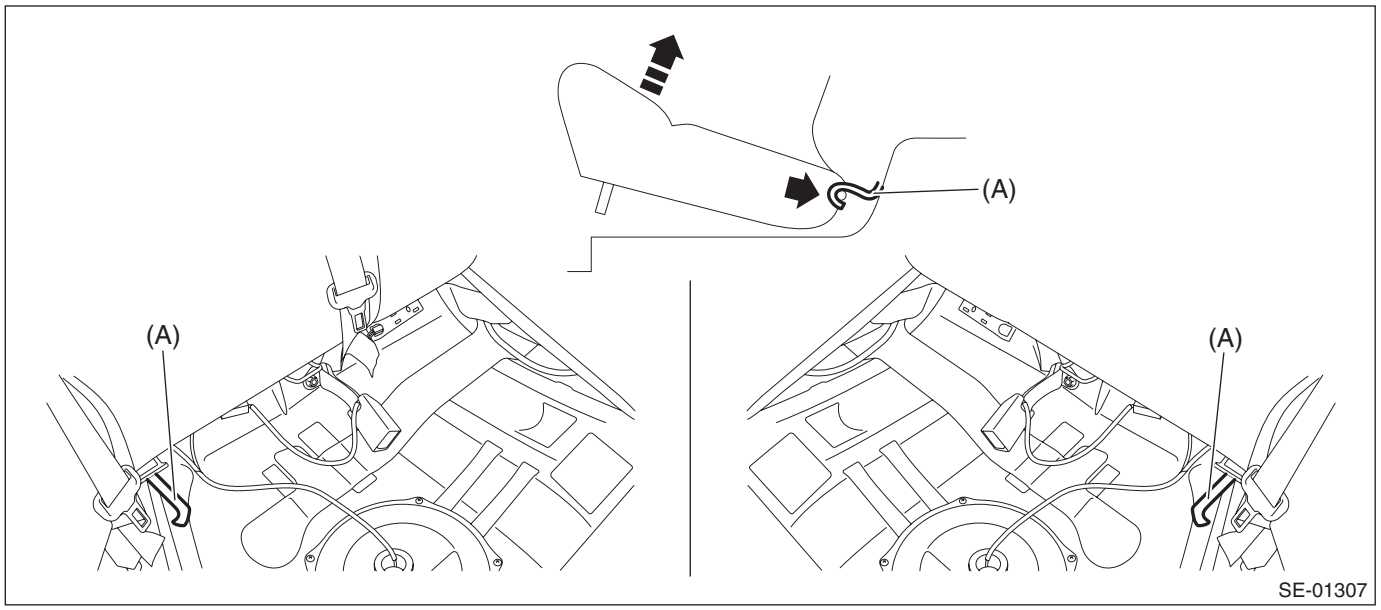
A: REMOVAL

1. SEAT BELT OUTER - REAR RH & LH

CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.
• Do not drop or subject the pretensioner to any impact.
• Since the pretensioner and bracket are integrated as a unit, do not disassemble them.
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the rear seat cushion assembly.
   (1) Push the corners of the rear seat cushion from above.
   (2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
   (3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

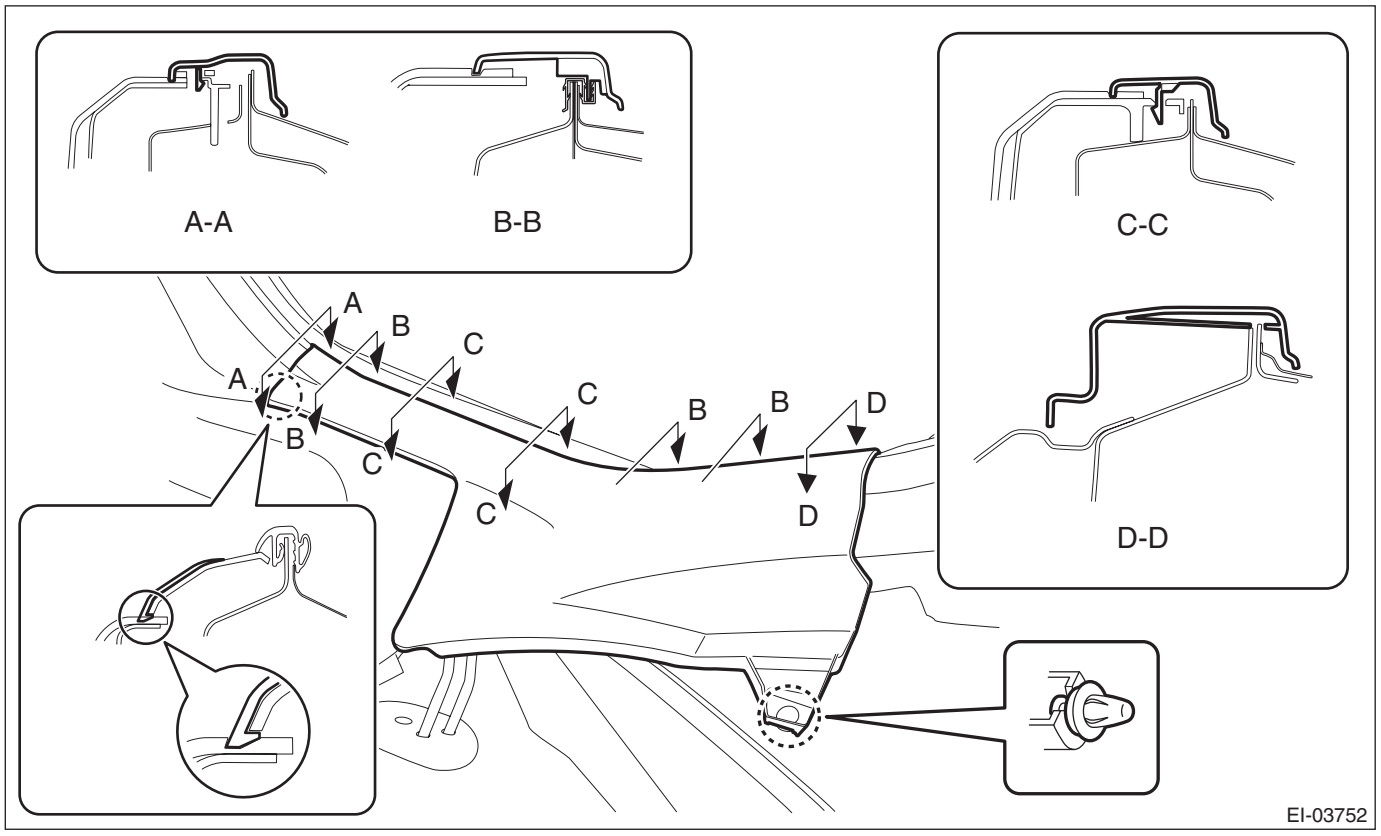


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.

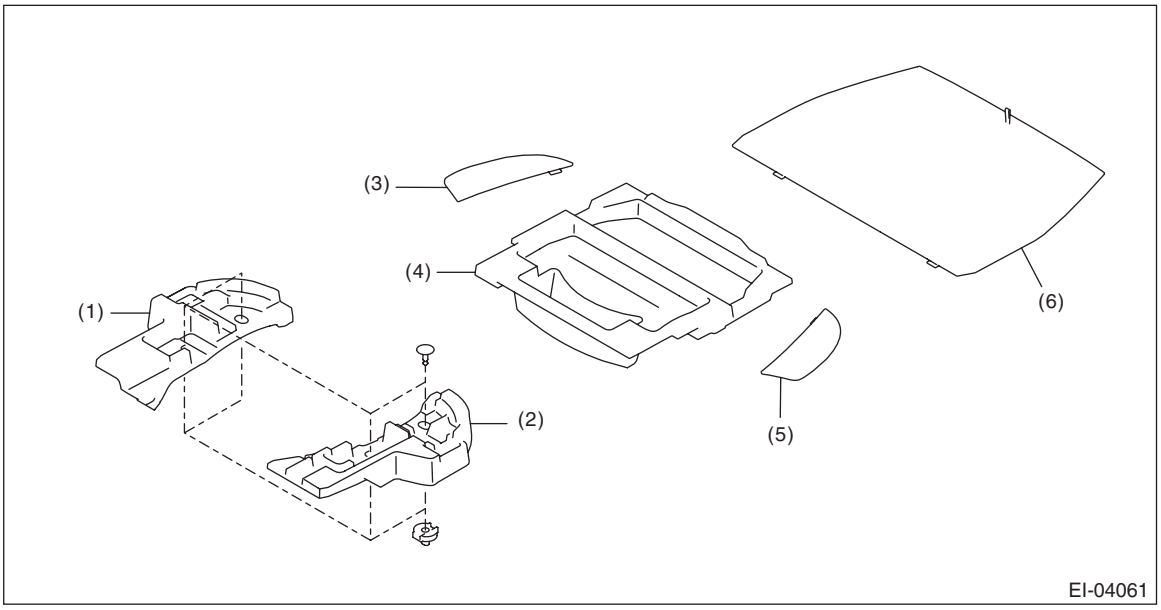


4) Release the clips and claws, and then remove the cover side sill - rear INN.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



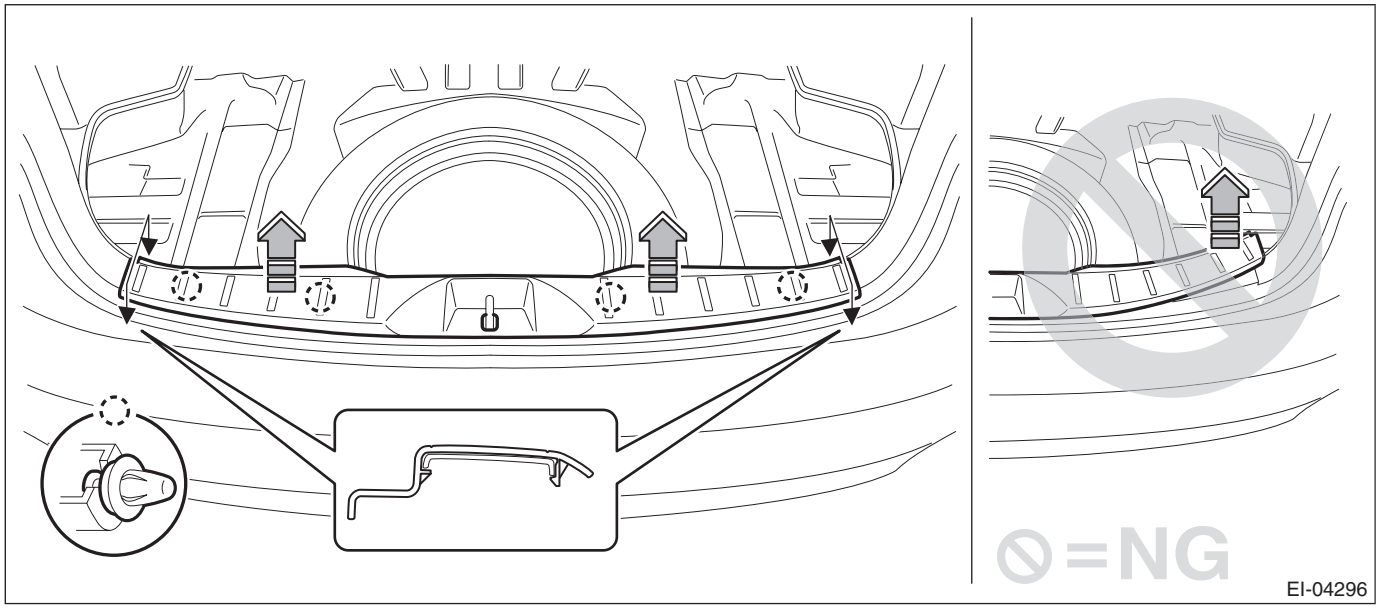
5) Remove the mat - rear floor, spacer - rear floor, and cover - trunk.



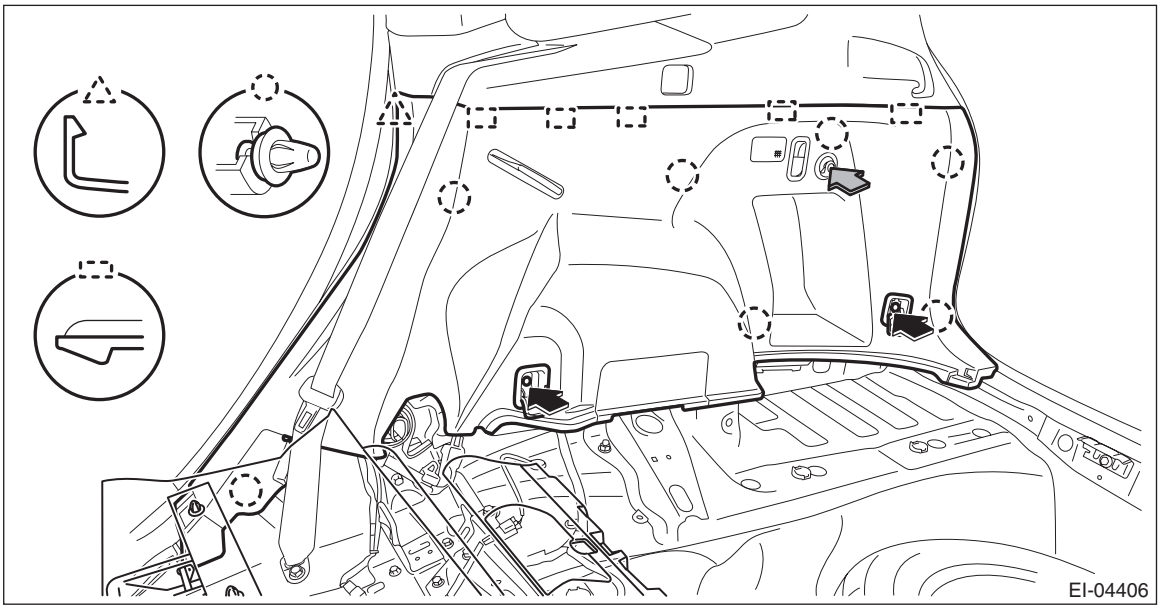
(1) Spacer - rear floor side RH
(2) Spacer - rear floor side LH
(3) Mat - rear floor RH
(4) Cover - trunk
(5) Mat - rear floor LH
(6) Mat - rear floor CTR

6) Remove the clips, and remove the trim panel - rear skirt.

CAUTION:
Do not lift the trim panel - rear skirt from the edge. Doing so may damage the part.

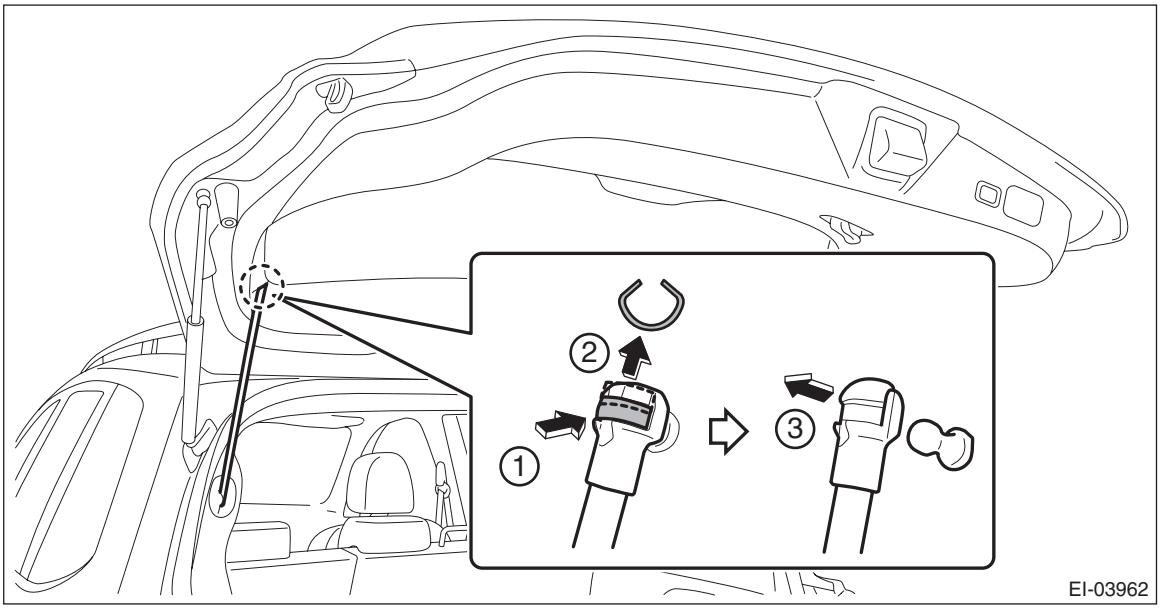


7) Remove the trim panel - rear apron.
   (1) Open the cover, remove the bolts, and remove the hook - luggage. (2 places)
   (2) Remove the screws, and release the clips.
   (3) Disconnect the connectors and remove the trim panel - rear apron.

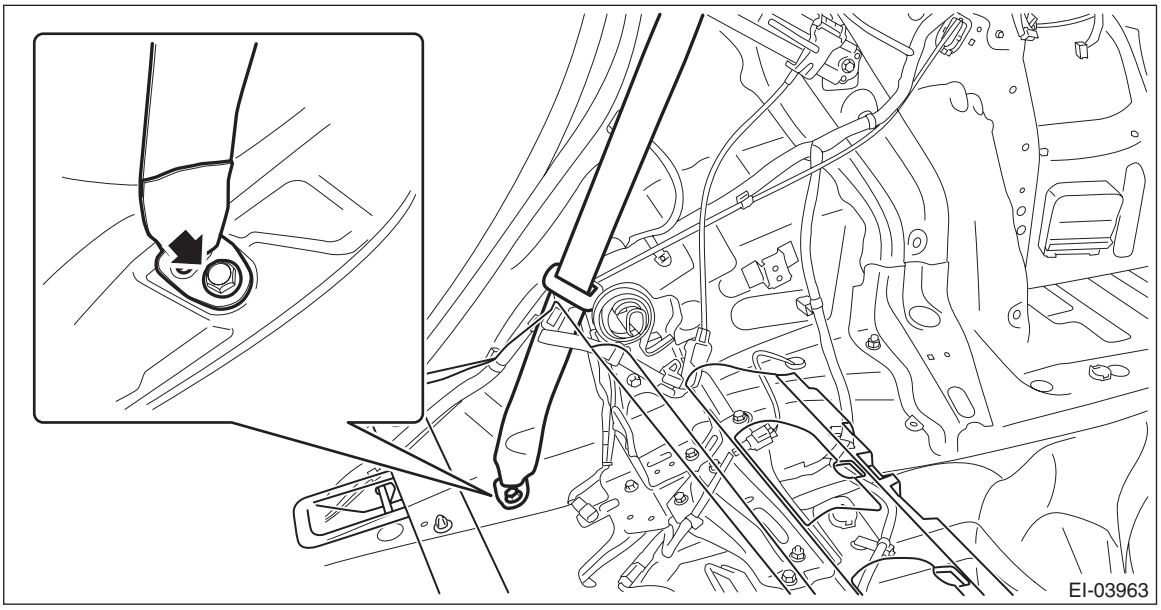


8) Remove the trim panel - rear quarter pillar UPR.
   (1) Disconnect the rod - power rear gate before removing the trim panel - rear quarter pillar UPR LH. (Only for models with power rear gate)

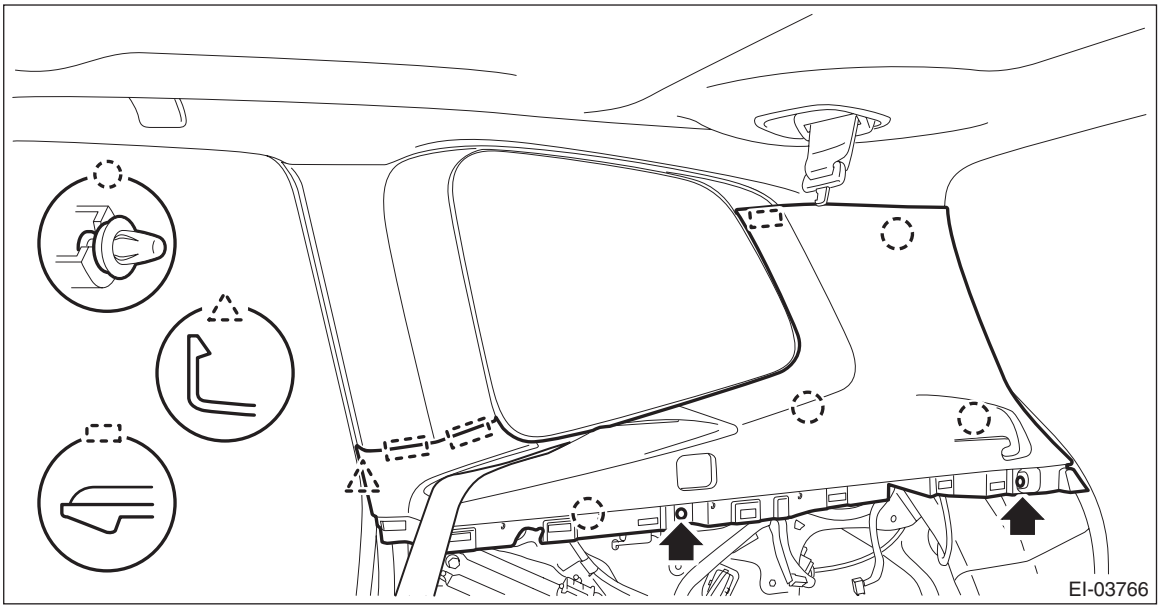
CAUTION:
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.<Ref. to PRG-15, REMOVAL, Power Rear Gate Rod.>



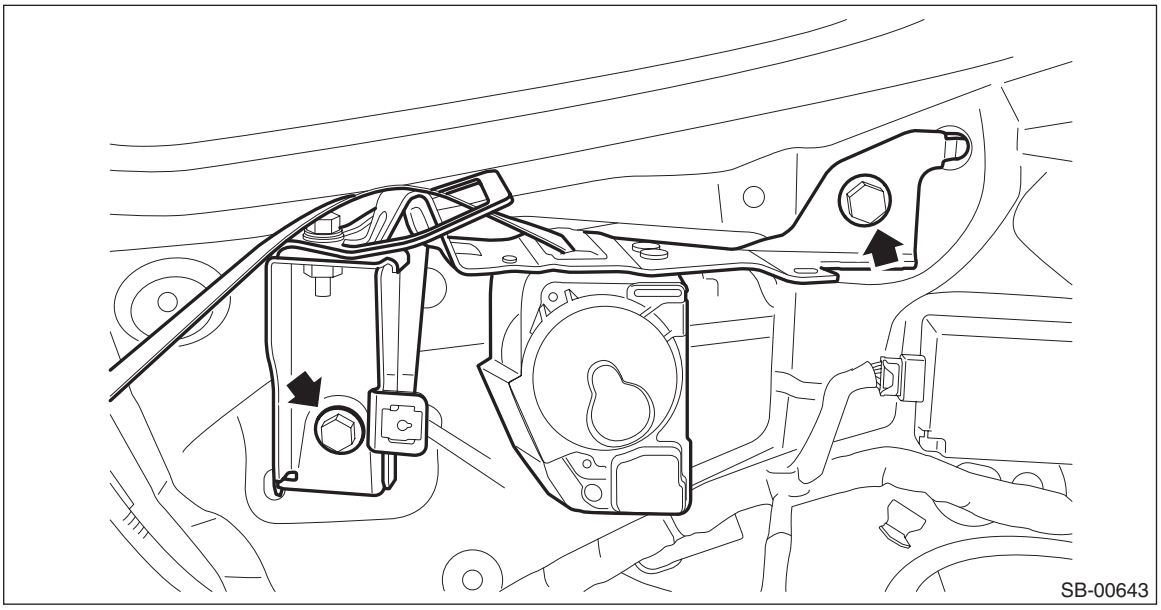
(2) Remove the lower anchor bolts of rear seat belts.



(3) Remove the screws and clips, and remove the trim panel - rear quarter pillar UPR.



9) Remove the bolts, and remove the seat belt outer - rear.



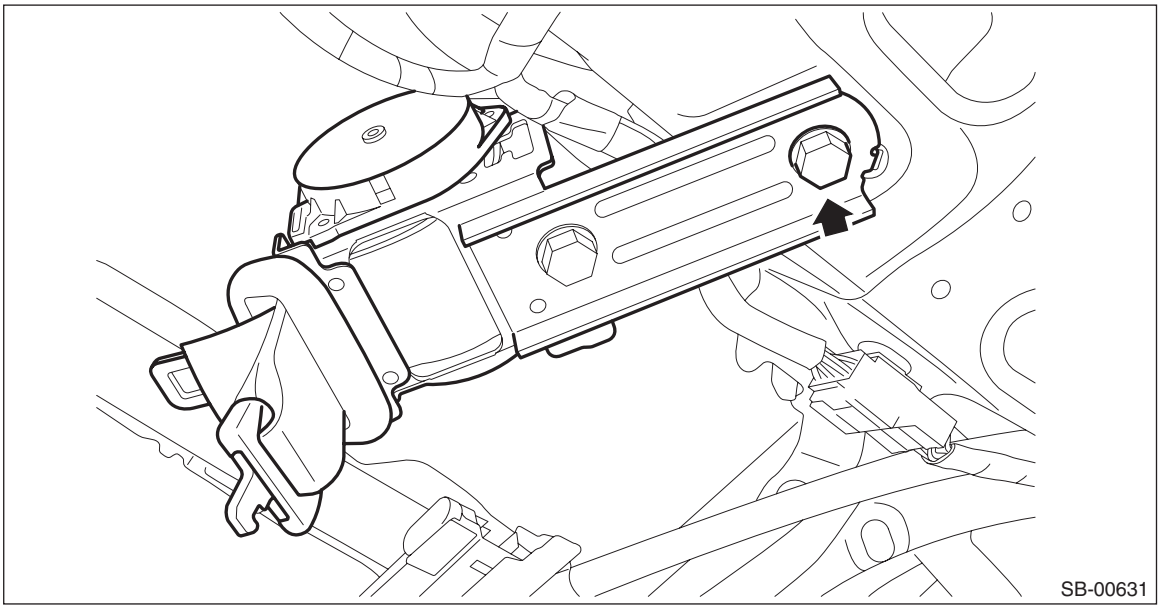
2. SEAT BELT - REAR SHOULDER CTR

CAUTION:

• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>

• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

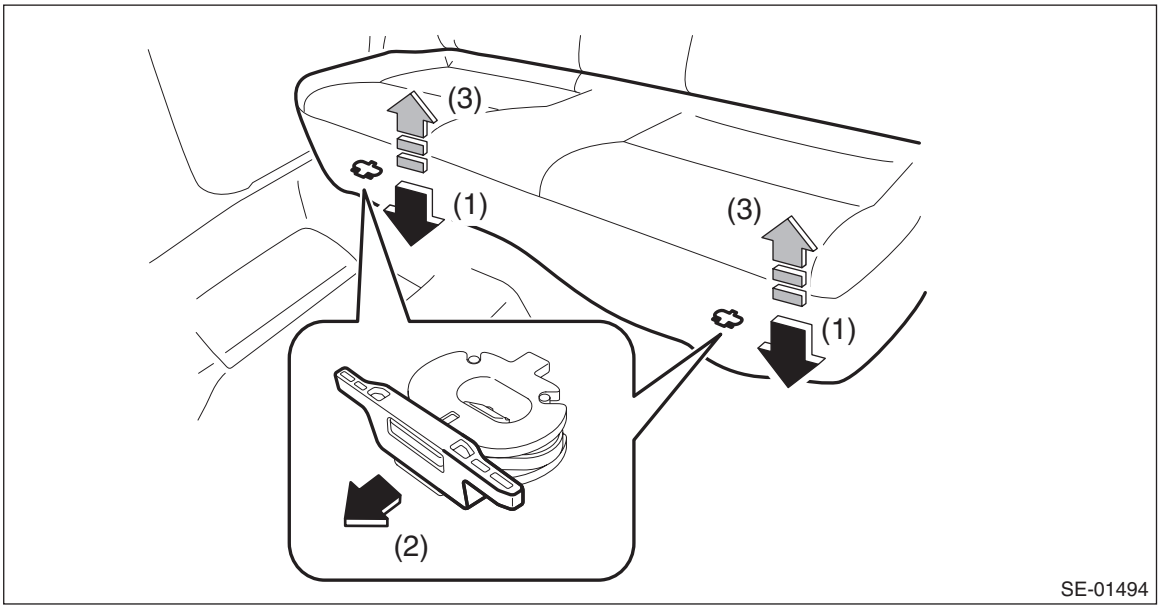
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the trim panel - roof assembly.<Ref. to EI-109, REMOVAL, Roof Trim.>
4) Remove the bolts, and remove the seat belt - rear shoulder CTR.



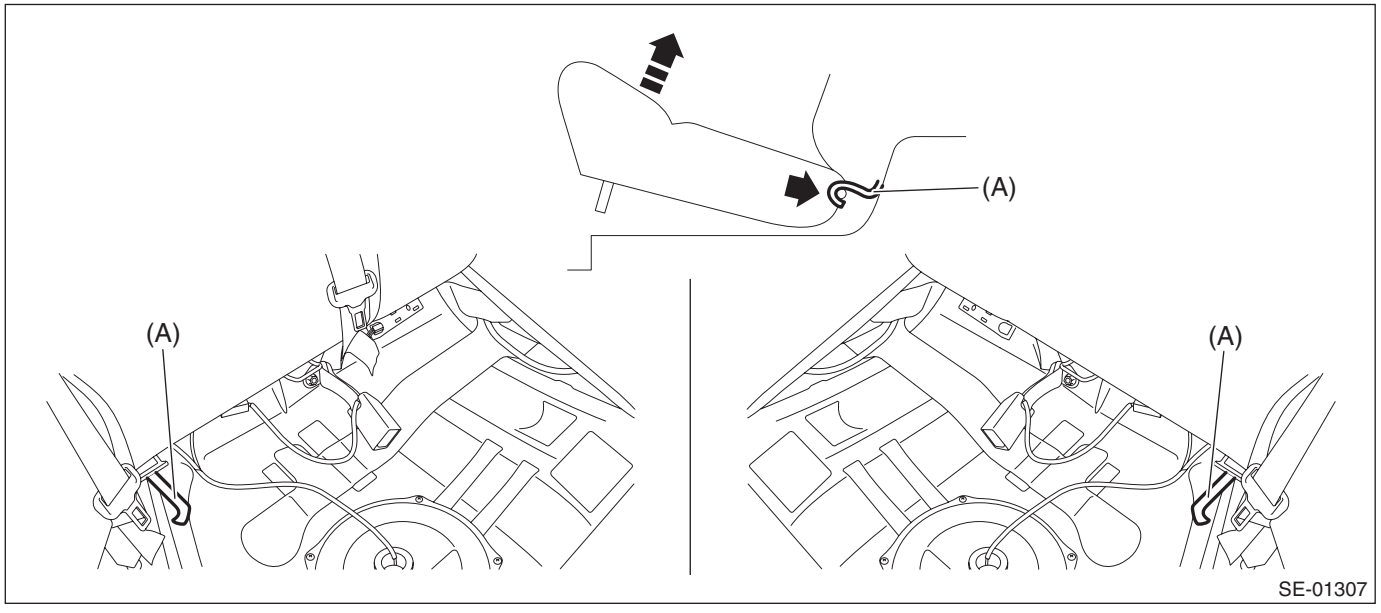
3. SEAT BELT - CTR RH AND LH

CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

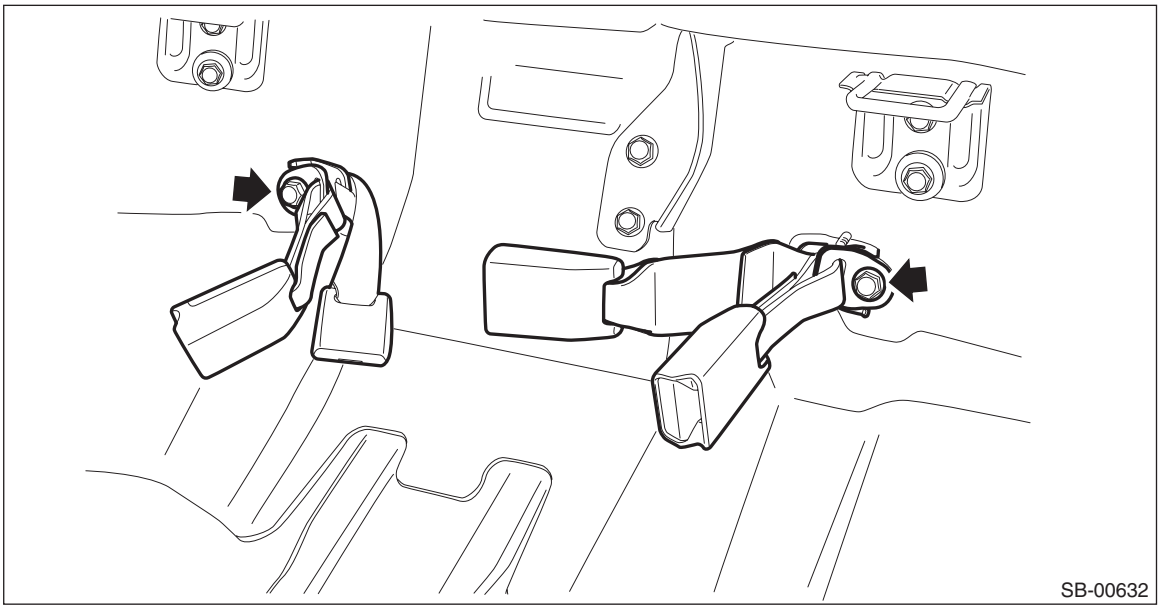
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the rear seat cushion assembly.
   (1) Push the corners of the rear seat cushion from above.
   (2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
   (3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.



   (4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



4) Remove the bolts, and remove the seat belt - CTR RH and LH.



B: INSTALLATION

1. SEAT BELT OUTER - REAR RH & LH

1) Before installation, perform a unit inspection of retractor. <Ref. to SB-39, INSPECTION, Rear Seat Belt.>
2) Install the seat belt outer - rear.

CAUTION:
- **During installation, make sure that the seat belts are not twisted.**
- **After installation, make sure that the seat belts are smoothly extended and wound.**

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SB-3, REAR SEAT BELT, COMPONENT, General Description.>

3) Install the trim panel - rear quarter trim UPR.
4) Install the remaining parts in the reverse order of removal.
5) After installation, check the following points.
- The seat belt is not twisted.
- The seat belt can be pulled out and retracted smoothly.

2. SEAT BELT - REAR SHOULDER CTR

1) Install the seat belt - rear shoulder CTR.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SB-3, REAR SEAT BELT, COMPONENT, General Description.>

2) Install the remaining parts in the reverse order of removal.

CAUTION:
• For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation. <Ref. to ES-15, INSTALLATION, Stereo Camera.>
• For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation. <Ref. to PRG-16, INSTALLATION, Power Rear Gate Rod.>
• Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
• Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
• Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.
• Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

NOTE:
For installation of the trim panel - front pillar UPR, refer to "Upper Inner Trim". <Ref. to EI-101, INSTALLATION, Upper Inner Trim.>

3) After installation, check the following points.
- The seat belt is not twisted.
- The seat belt can be pulled out and retracted smoothly.

3. SEAT BELT - CTR RH AND LH

1) Install the seat belt - CTR RH/LH.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SB-3, REAR SEAT BELT, COMPONENT, General Description.>

2) Install the rear seat cushion.
3) Install the remaining parts in the reverse order of removal.
4) After installation, check the following points.
- The seat belt is not twisted.
- Check that the airbag warning light lights up for approximately 6 seconds and then turns off when connecting the battery ground cable and turning the ignition switch to ON.

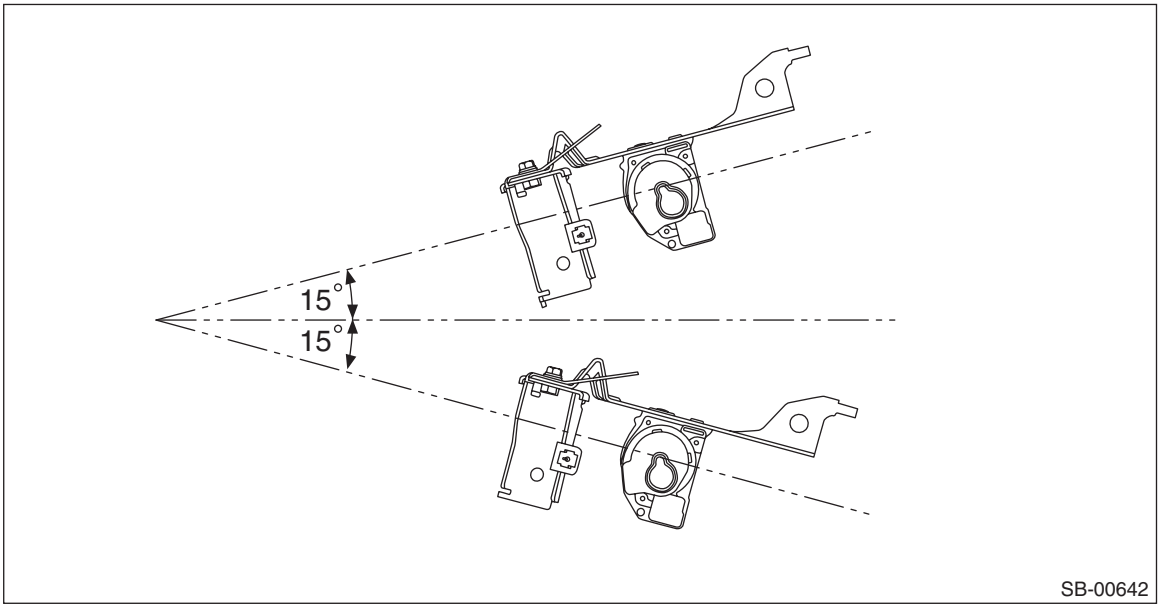
C: INSPECTION

1. VISUAL INSPECTION

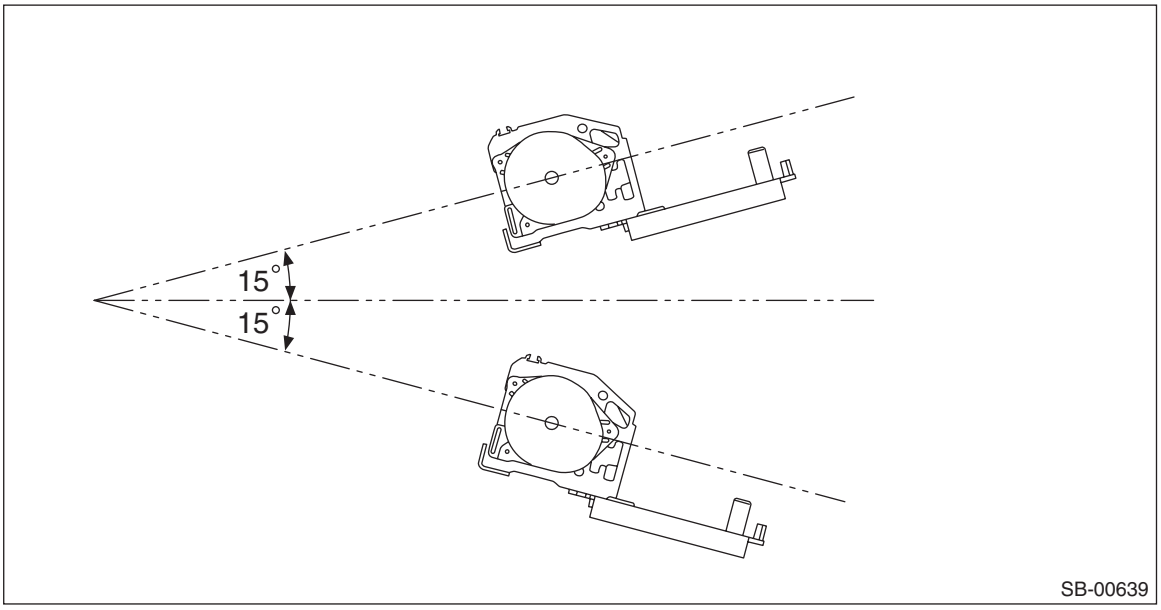
Check for the following, and replace with new parts if necessary.
- Seat belt is slackened, bent or worn.
- Seat belt is abnormally wound or extended.
- Seat belt inner - rear is deformed or damaged.
- Seat belt buckle cannot be engaged properly.

2. ELR LOCK MECHANISM INSPECTION

1) Hold the retractor in horizontal position (as installed in the vehicle) and check the ELR lock mechanism.
2) Tilt the retractor from the horizontal position and make sure it does not lock within the tilting angle of 15° or less.
- Seat belt outer - rear RH & LH



- Seat belt - rear shoulder CTR

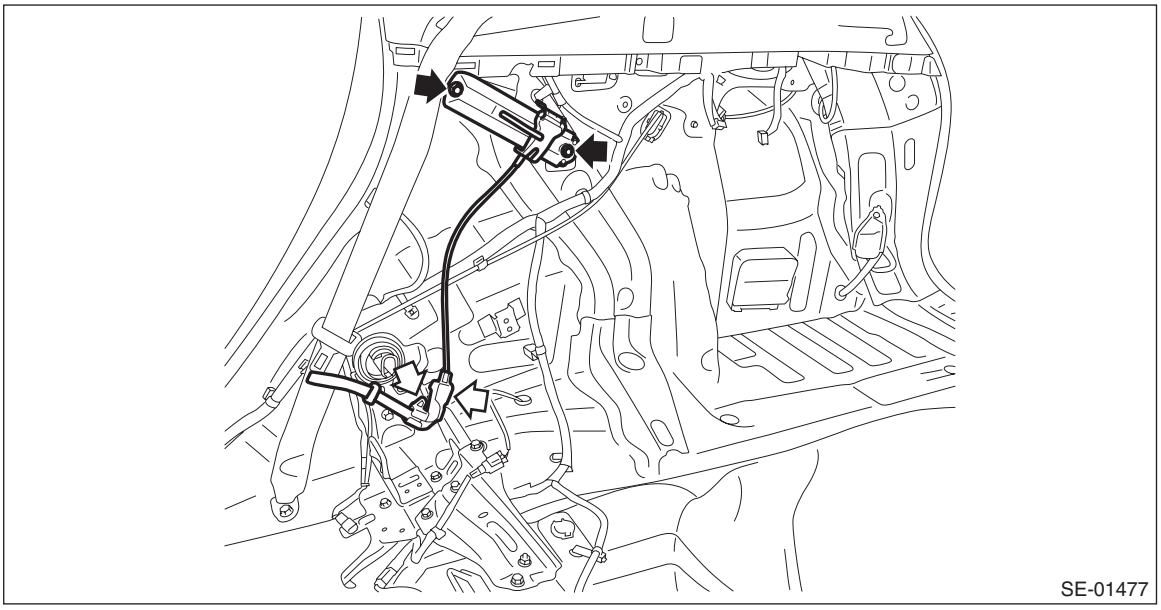


3) If the ELR lock mechanism does not operate properly, replace the seat belt outer - rear with a new part.

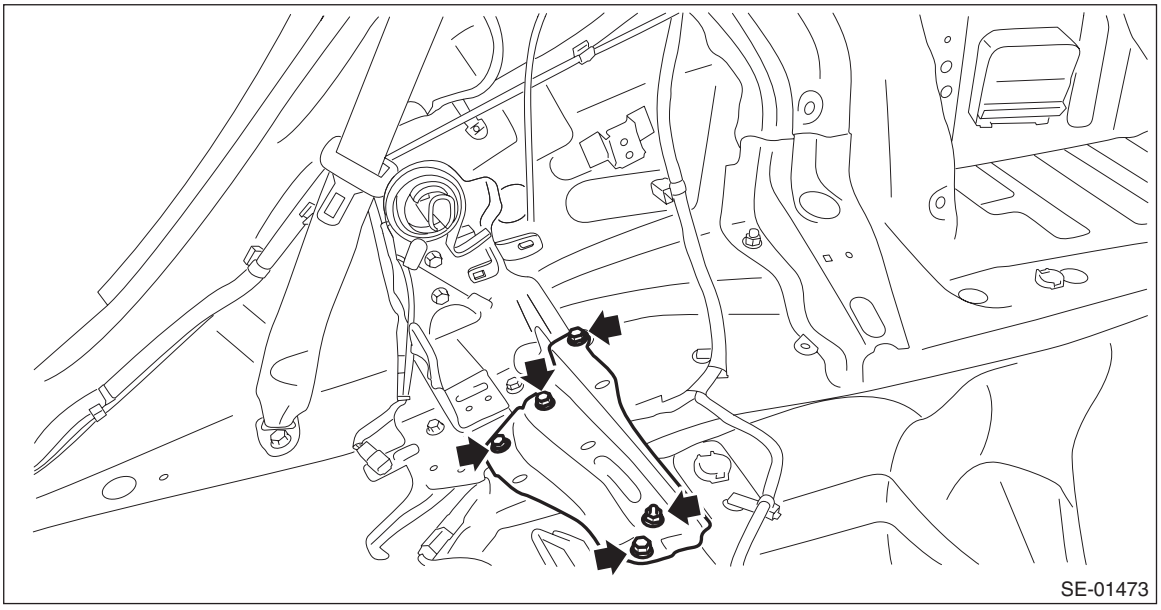
6. Rear Seat Reclining System

A: REMOVAL

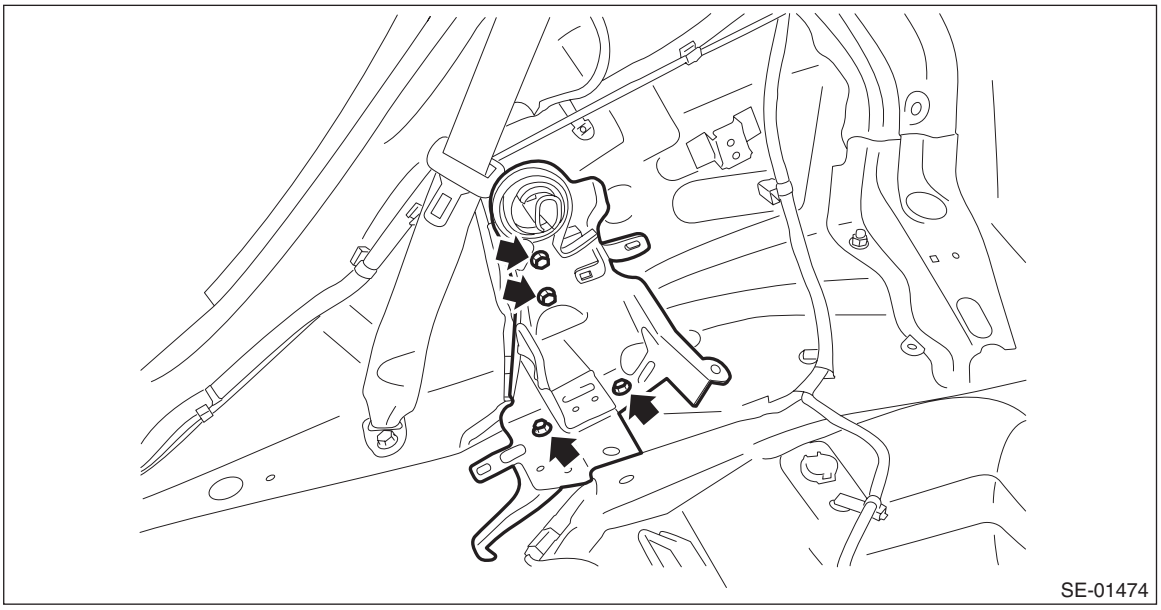
1) Disconnect the ground cable from battery.
2) Remove the rear seat. <Ref. to SE-34, REMOVAL, Rear Seat.>
3) Remove the trim panel - rear apron. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>
4) Remove the clips and bolts, then remove the striker - backrest rear.



5) Remove the bolts and nuts, and remove the hinge assembly - rear backrest stay.



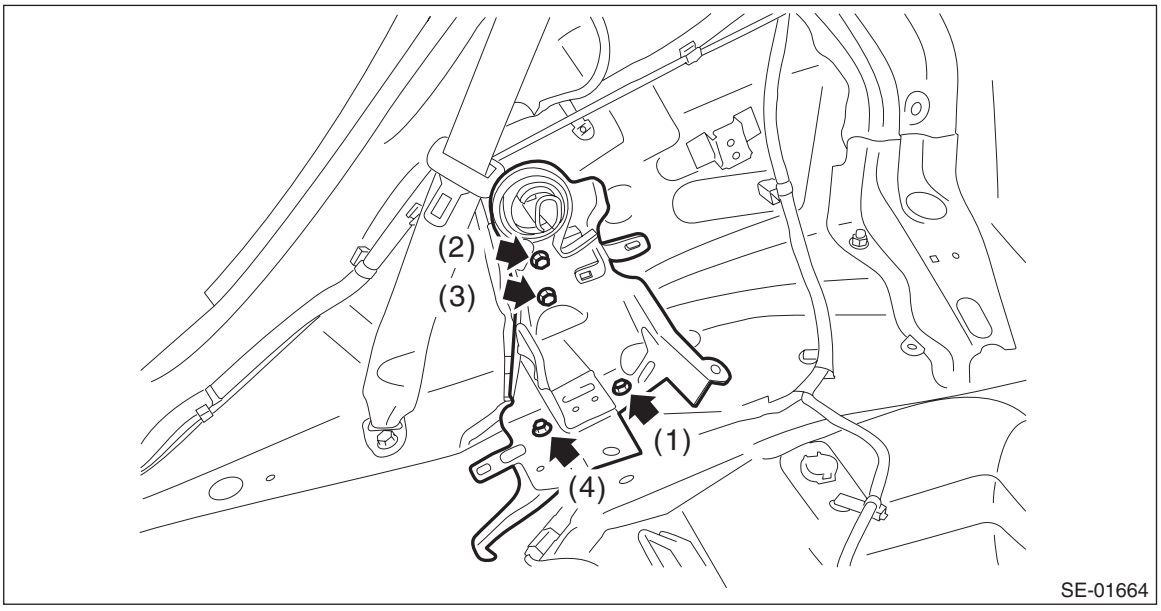
6) Remove the bolts, and remove the hinge assembly - rear backrest.



B: INSTALLATION

Install each part in the reverse order of removal.

NOTE:
To install the hinge assembly - rear backrest, follow the procedure below.
1. Temporarily tighten the bolt (1).
2. Tighten in the order of (2) → (3) → (4) → (1).



CAUTION:
When tightening the bolt (2), do not hold the hinge by hand. Doing so results in misalignment of the hinge installation position and may cause heavy lock force of rear seat back.

Tightening torque:
33 N·m (3.36 kgf-m, 24.3 ft-lb)

6. Refrigerant Leak Check

A: INSPECTION

Preparation tool:
Manifold gauge set
Electronic leak detector (leak tester)

1) Attach the manifold gauge set.
   (1) Check that all valves are fully closed.
   (2) Install the low/high pressure hoses to the service ports on the low/high pressure sides of the vehicle respectively.

CAUTION:
Confirm that the connections are secure.

   (3) Start the engine, operate the A/C system for approx. 10 minutes, and check that the high-pressure side indicates 0.69 MPa (7.0 kgf/cm^2, 100 psi) or more.

2) Stop the engine to start the leak test.

Items	Condition	Corrective action
Pipe	Check the connections of pipe and expansion valve.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the connection between pressure switch or pressure sensor and high-pressure pipe.	Replace the pressure switch or pressure sensor.
	Check the connection between pipe and condenser.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
Condenser	Check the welded part of condenser and core.	Replace the condenser.
Hose (high-pressure)	Check the connection between hose (high-pressure) and compressor.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the connection between hose (high-pressure) and condenser.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the rubber part of the flexible hose and pipe seam. **CAUTION:** **Carefully check the external surface of flexible hoses and pipes at approx. 25 mm (0.98 in) per second.**	Replace the hose (high pressure).
	Check the valve and cap in the service port.	Check the rubber seal of the valve and cap. If necessary, replace valve or cap.
Compressor	Check the compressor pulley and vicinity of shaft seal. **CAUTION:** **Some shaft seals will show a slight amount of leakage, about 3 g (0.1 oz) per year. This is not a problem.**	Replace the compressor.
Hose (low-pressure)	Check the connection between hose (low pressure) and expansion valve.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the connection between hose (low pressure) and compressor.	Check the O-ring at connection and tightening torque. If necessary, replace each part.
	Check the rubber part of the flexible hose and pipe seam. **CAUTION:** **Carefully check the external surface of flexible hoses and pipes at approx. 25 mm (0.98 in) per second.**	Replace the hose (low pressure).
	Check the valve and cap in the service port.	Check the rubber seal of the valve and cap. If necessary, replace valve or cap.

Items	Condition	Corrective action
Evaporator	Remove the drain hose from the heater case, and check the end part for 10 seconds or more.	Replace the evaporator.
	Check the air vent grille. NOTE: Turn the ignition switch to ON, and run the blower at high speed for approx. 1 minute. Stop the blower to check the air vent grille on the instrument panel. While moving the tester closer to the grille, run the blower for 1 or 2 seconds, then stop it. Check the grille at that position for at least 10 seconds.	Replace the evaporator.

6. Speedometer

A: SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the speedometer alone. (Do not remove the cover on the back surface.)

6. Subaru Select Monitor

A: OPERATION

- For operation procedures, refer to the “PC application help for Subaru Select Monitor”.
- When the power rear gate control module cannot communicate with Subaru Select Monitor, perform “COMMUNICATION FOR INITIALIZING IMPOSSIBLE”. <Ref. to PRG(diag)-10, INSPECTION, Subaru Select Monitor.>

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE

When communication with power rear gate control module is impossible

DETECTING CONDITION:

- Defective harness connector
- Power supply circuit malfunction
- Defective power rear gate control module
- Defective LIN communication circuit
- Defective Subaru Select Monitor

TROUBLE SYMPTOM:

Communication is impossible between the power rear gate control module and Subaru Select Monitor.

	Step	Check	Yes	No
1	**CHECK OTHER COMMUNICATION.** Perform communication with the system other than the power rear gate control module using the Subaru Select Monitor.	Is the communication to other control module possible?	Go to step **2**.	Perform the “Communication for Initializing Impossible” of LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>
2	**CHECK LAN SYSTEM.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is DTC U1602 detected?	Perform the inspection according to the diagnosis for LAN system.	It is possible that temporary poor communication occurs.

6. Subaru Select Monitor

A: OPERATION

1. GENERAL DESCRIPTION

For on-board diagnosis function of the EyeSight, use the Subaru Select Monitor.
The on-board diagnosis function operates in three categories, which are used depending on the type of problems;
1) Diagnosis with diagnostic trouble code (DTC):
When the electrical failure occurs in the EyeSight, DTC is detected from the stereo camera. If the DTC is detected, the relevant DTC is displayed by illuminating or blinking the EyeSight warning light. To check the details concerning the DTC, use the Subaru Select Monitor.
2) Diagnosis with cancel code:
(1) This category of diagnosis requires actual vehicle driving in order to determine the cause, as when cruise speed is cancelled during driving although cruise cancel condition is not entered.
(2) Cruise control memory in ECM and stereo camera stores the cancel condition (Code No.) which occurred during driving. When there are multiple cancel conditions (Code No.), they are shown on the Subaru Select Monitor.

CAUTION:
• In the cruise control memory, not only the cruise control "cancel" occurred (although the "cancel" operation is not entered by the driver), but also the "cancel" condition input by the driver is stored.
• The latest memory content (latest code) is cleared when ignition switch is turned to OFF. However, memory contents set by the diagnosis of faulty switches related to the system and cruise control will remain as trouble history (memory code) after the ignition switch is turned to OFF.
3) Real-time Diagnosis:
Real-time diagnosis function is used to determine whether or not the input signal system is in good order, according to signal emitted from switches, sensors, etc.
(1) Vehicle cannot be driven at cruise speed when the problem occurs in the cruise control system or relevant circuits.
(2) Monitor the signal conditions from switches and sensors.

2. BASIC OPERATION

For operation procedures, refer to the "PC application help for Subaru Select Monitor".

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE

- Communication error with stereo camera

DETECTING CONDITION:

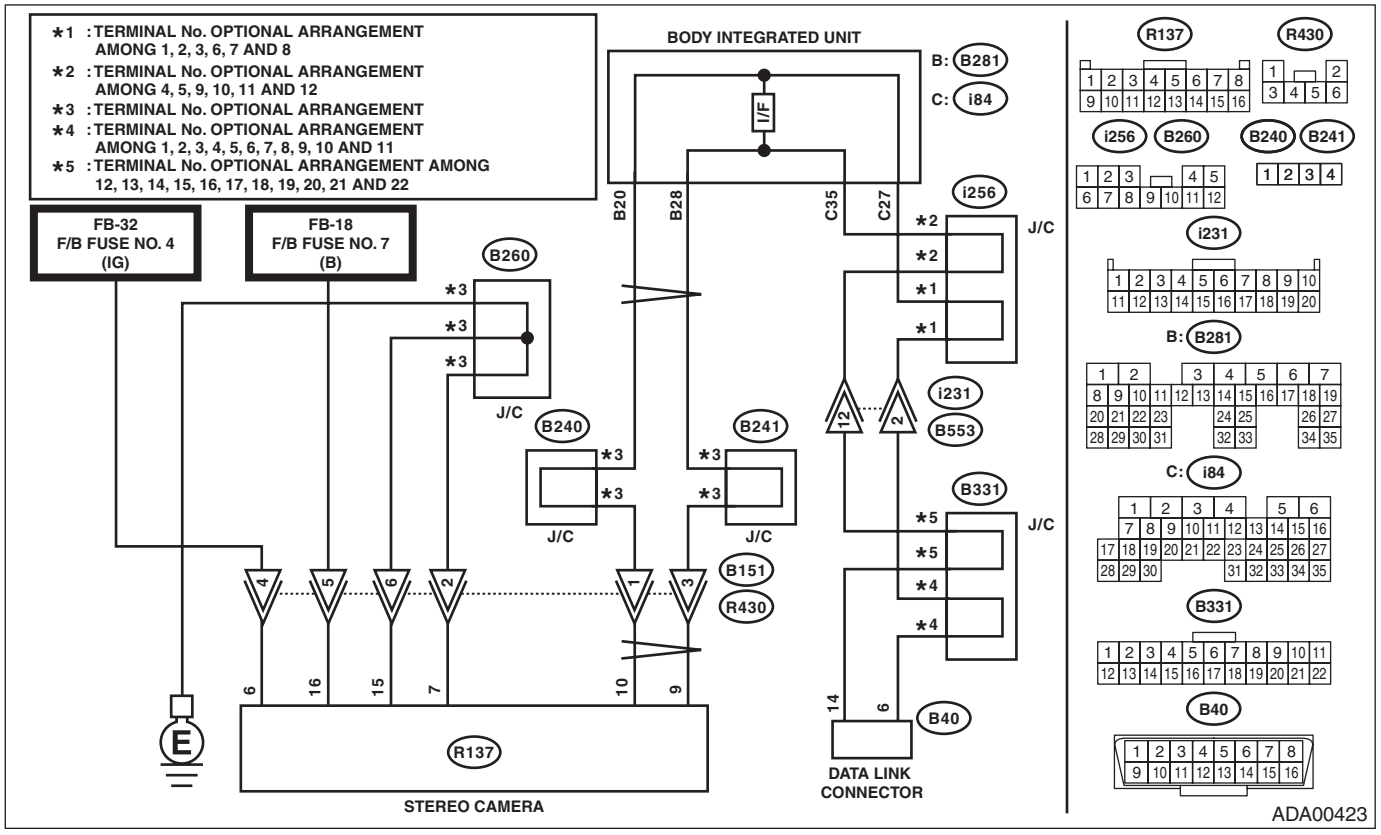
- Defective harness connector
- Power supply circuit malfunction
- Defective stereo camera
- Defective CAN system
- Defective Subaru Select Monitor

TROUBLE SYMPTOM:

- EyeSight warning light blinks.

WIRING DIAGRAM:

EyeSight System <Ref. to WI-232, WIRING DIAGRAM, EyeSight System.>



Step		Check	Yes	No
1	**CHECK IGNITION SWITCH.**	Is the ignition switch ON?	Go to step **2**.	Turn the ignition switch to ON, and select {ADA adaptive cruise control system} using the Subaru Select Monitor.
2	**CHECK BATTERY.** 1) Turn the ignition switch to OFF. 2) Measure the battery voltage.	Is the voltage 10 V or more?	Go to step **3**.	Charge or replace the battery.
3	**CHECK BATTERY TERMINAL.**	Is the battery terminal contact proper?	Go to step **4**.	Connect the battery terminal securely or replace it.

	Step	Check	Yes	No
4	**CHECK SUBARU SELECT MONITOR COMMUNICATION.** 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, check whether the communication can be executed normally.	Is the communication between Subaru Select Monitor and body integrated unit normal?	Go to step **5**.	Check the connection of the Subaru Select Monitor, and perform communication with the body integrated unit again.
5	**READ DTC OF BODY INTEGRATED UNIT.** Select {Integ. unit mode}, and check DTC.	Is any DTC other than "Lost Communication With EyeSight" detected?	Perform the diagnosis according to DTC.	Go to step **6**.
6	**CHECK HARNESS CONNECTOR BETWEEN STEREO CAMERA AND DATA LINK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the stereo camera connector. 3) Measure the resistance between the stereo camera and the data link connector. ***Connector & terminal*** ***(R137) No. 10 — (B40) No. 6:*** ***(R137) No. 9 — (B40) No. 14:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair or replace the harness and connectors between the stereo camera and data link connector.
7	**CHECK POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to ON. 2) Measure the voltage between stereo camera and chassis ground. ***Connector & terminal*** ***(R137) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **8**.	Check the power supply circuit.
8	**CHECK GROUND CIRCUIT.** 1) Turn the ignition switch to OFF, then disconnect the ground cable from battery. 2) Measure the resistance between harness connector of stereo camera and chassis ground. ***Connector & terminal*** ***(R137) No. 7 — Chassis ground:*** ***(R137) No. 15 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **9**.	Check the harness from stereo camera to chassis ground.
9	**CHECK CONNECTOR.**	Is there poor contact of stereo camera connector?	Repair the connector, or replace harness.	Replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>

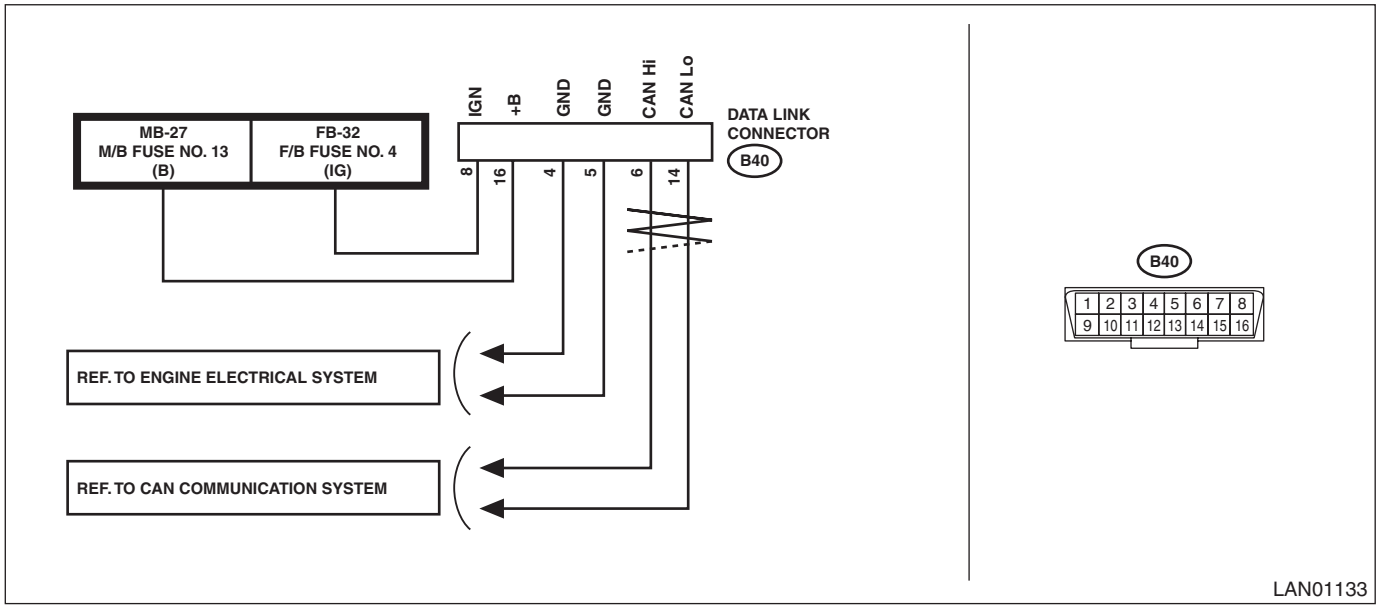
6. Subaru Select Monitor

A: OPERATION

For details of basic operations, refer to “PC application help for Subaru Select Monitor”.

B: COMMUNICATION FOR INITIALIZING IMPOSSIBLE

DIAGNOSIS:
Subaru Select Monitor communication line is open or shorted.
TROUBLE SYMPTOM:
Not communicable with Subaru Select Monitor.
WIRING DIAGRAM:
CAN communication system <Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>



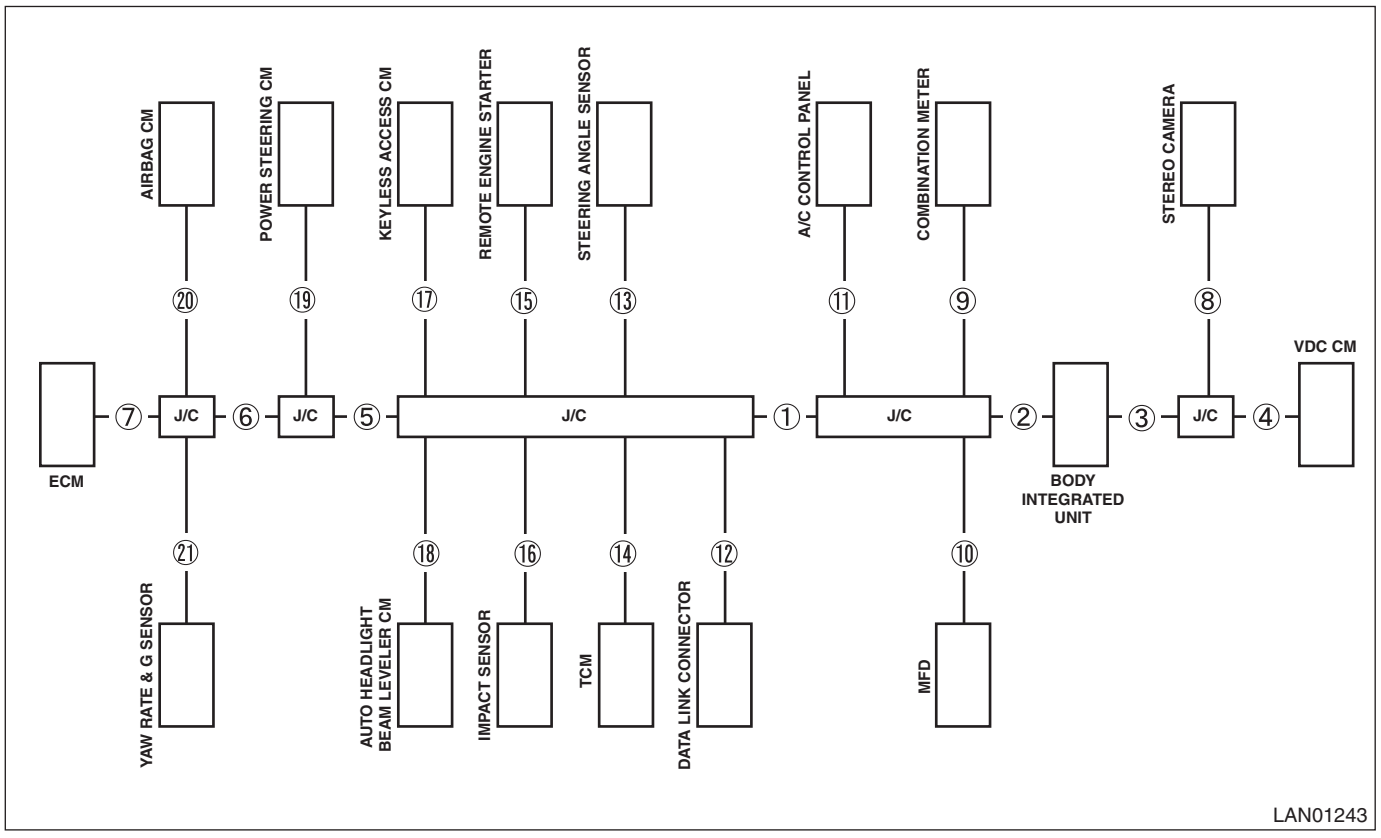
Step		Check	Yes	No
1	**CHECK SUBARU SELECT MONITOR.** 1) Connect the Subaru Select Monitor to another vehicle. 2) Check communication condition between Subaru Select Monitor and vehicle.	Is communication performed normally?	Go to step **2**.	Subaru Select Monitor unit or diagnosis cable is faulty. Or check the fuse on the vehicle side.
2	**CHECK COMMUNICATION FOR INITIALIZING ERROR.** Perform the communication for initializing with each module by connecting the Subaru Select Monitor. (only for installed modules)	Is the communication possible with all modules?	Go to step **3**.	Perform the inspection using the check sheet of communication for initializing. <Ref. to LAN(diag)-12, CHECK USING THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>

Step		Check	Yes	No
3	**CHECK DATA LINK CONNECTOR.** Use a tester to check for continuity in the ground circuit. ***Connector & terminal*** ***(B40) No. 4 — Chassis ground:*** ***(B40) No. 5 — Chassis ground:***	Is there continuity?	Go to step **4**.	Repair or replace the open circuit.
4	**CHECK DATA LINK CONNECTOR.** 1) Turn the ignition switch to ON. 2) Using a tester, check the power supply of data link connector. ***Connector & terminal*** ***(B40) No. 8 (+) — Chassis ground (–):*** ***(B40) No. 16 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Check the power supply circuit of each module.	Check the power supply circuits to the data link connector.

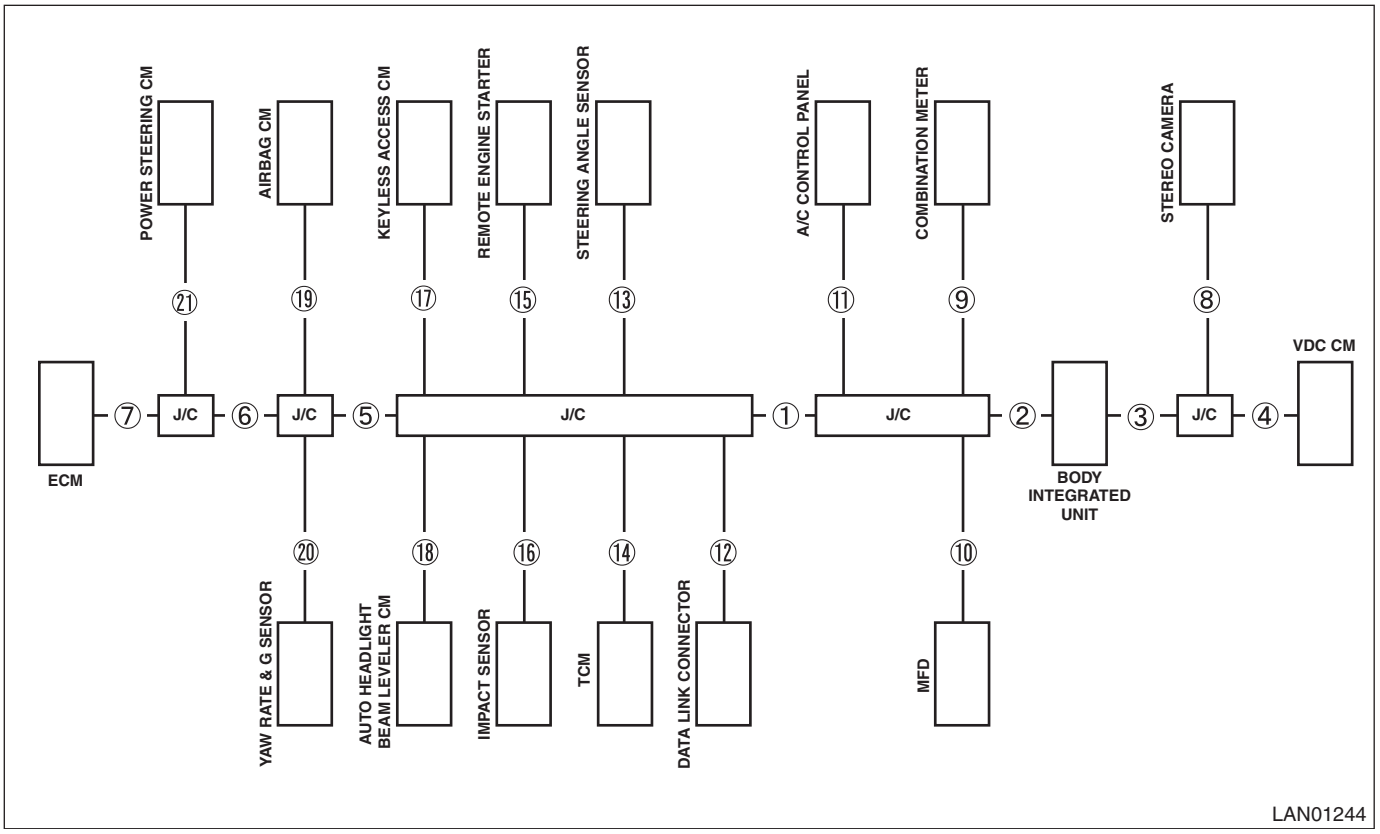
1. CHECK USING THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING

- **Network diagram**

Non-turbo model



Turbo model



- **Check sheet of communication for initializing**

Non-turbo model

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
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CAM						—	—	—	—		—	—	—		—	—	—	—	—	—	—	—	—
BIU					—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
MET				—	—	—	—	—	—	—		—	—		—	—	—	—	—	—	—	—	—
MFD				—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—	—	—
A/C				—	—	—	—	—	—	—	—	—			—	—	—	—	—	—	—	—	—
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM			—	—	—	—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP			—	—	—	—	—	—	—	—	—	—	—		—	—	—		—	—	—	—	—
KPS			—	—	—	—	—	—	—	—	—	—	—		—	—	—	—		—	—	—	—
HL			—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—		—	—	—
EPS			—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—		—	—
A/B			—	—	—	—			—	—	—	—	—		—	—	—	—	—	—	—		—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM			—	—	—	—				—	—	—	—		—	—	—	—	—	—	—	—	—

LAN01245

Turbo model

	(A)	(B)	(C)																				
			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
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BIU					—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
MET				—	—	—	—	—	—	—		—	—		—	—	—	—	—	—	—	—	—
MFD				—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—	—	—
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STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM			—	—	—	—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP			—	—	—	—	—	—	—	—	—	—	—		—	—	—		—	—	—	—	—
KPS			—	—	—	—	—	—	—	—	—	—	—		—	—	—	—		—	—	—	—
HL			—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—		—	—	—
A/B			—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—		—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS			—	—	—	—			—	—	—	—	—		—	—	—	—	—	—	—	—	
ECM			—	—	—	—				—	—	—	—		—	—	—	—	—	—	—	—	—

LAN01246

(A) Installation check
(B) Communication initialization
(C) Wiring location

VDC: VDC CM
KPS: Keyless access CM
BIU: Body integrated unit
MFD: High grade MFD
A/C: A/C control panel
MET: Combination meter
RST: Remote engine starter CM
HL: Auto headlight beam leveler CM

STR: Steering angle sensor
TCM: TCM
A/B: AB CM
EPS: Power steering CM
ECM: ECM
CAM: Stereo camera
IMP: Impact sensor
Y&G: Yaw rate & G sensor

1) Module installation check
(1) Write "-" marks in the field for installation check if the vehicle to be inspected does not have relevant module.
(2) Write "-" marks in all blank fields on the same row that the "-" mark has filled in.

NOTE:
Example of writing<Ref. to LAN(diag)-16, EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>

2) SSM communication initialization check
(1) Write "○" marks in the field for communication initialization if the module succeeded in the communication for initializing with Select Monitor.
If the communication with all modules is not possible, go to 3).
(2) Write "○" marks in all blank fields on the same row that the "○" mark has filled in.
(3) When at least one field in a column of wiring location is filled with the "○" mark, then the wiring for that location is normal. Write "○" marks in all blank fields on the same column that the "○" mark has filled in under the circled number.
(4) Check the open circuit of the modules which have no "○" mark in their columns of the wiring location in ascending order (closest to the data link connector first). (only for installed modules)
(5) If the communication is not possible after checking all harnesses, check the module power supply line.
(6) Perform the basic diagnostic procedure of the system if the power supply line is normal.
(7) Replace the module if the communication is not possible even after performing the basic diagnostic procedure.

NOTE:
• Example of writing<Ref. to LAN(diag)-16, EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>
• Inspection using the communication for initializing of Subaru Select Monitor cannot be used to diagnose the wiring location marked with "-". Example of DTC data not received<Ref. to LAN(diag)-106, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).>and DTC matrix<Ref. to LAN(diag)-114, DTC MATRIX, LIST, List of Diagnostic Trouble Code (DTC).>should be used to identify the faulty portion.

3) SSM communication initialization check (impossible to communicate with all modules)

NOTE:
Perform inspection regarding the trouble mode indicating that all CAN modules do not communicate. If at least one module becomes possible to communicate, return to 2).
(1) Check for the short circuit to ground.<Ref. to LAN(diag)-46, GROUND SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.>If it is normal, go to the next.
(2) Check for the short circuit to battery.<Ref. to LAN(diag)-49, BATTERY SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.>If it is normal, go to the next.
(3) Perform the inspection for the resistance of 52 Ω or less (short between wires).<Ref. to LAN(diag)-55, 52 Ω OR LESS, INSPECTION, CAN Communication Circuit Check.>If it is normal, go to the next.
(4) Check for the open circuit of data link connector (No. 12) in network diagram.

2. EXAMPLE OF WRITING FOR THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING

Non-turbo model

When ① is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
							○	○	○					○	—	○	—	○	○	○	○	○	—
VDC	○	×					—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×				—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	×			—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	×		—	—	—	—	—	—	—		—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	×		—	—	—	—	—	—	—	—		—	○	—	—	—	—	—	—	—	—	—
A/C	○	×		—	—	—	—	—	—	—	—	—		○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01247

When ② is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
			○				○	○	○		○	○	○	○	—	○	—	○	○	○	○	○	—
VDC	○	×	○				—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×	○			—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	×	○		—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01248

When ③ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○			○	○	○		○	○	○	○	—	○	—	○	○	○	○	○	—
VDC	○	×	○	○			—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×	○	○		—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01249

When ④ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○		○	○	○	○	○	○	○	○	—	○	—	○	○	○	○	○	—
VDC	○	×	○	○	○		—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01250

When ⑤ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○				○	○	○	○	○	—	○	—	○	○	○			—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	×	—	—	—	—		—	—	—	—	—	—	○	—	—	—	—	—	—		—	—
A/B	○	×	—	—	—	—			—	—	—	—	—	○	—	—	—	—	—	—	—		—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	×	—	—	—	—				—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01251

When ⑥ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○			○	○	○	○	○	—	○	—	○	○	○	○		—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	×	—	—	—	—	○		—	—	—	—	—	○	—	—	—	—	—	—	—		—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	×	—	—	—	—	○			—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01252

When ⑦ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○		○	○	○	○	○	—	○	—	○	○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	×	—	—	—	—	○	○		—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01253

When ⑧ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○		○	○	○	○	—	○	—	○	○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×	○	○	○	—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01254

When ⑨ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○		○	○	○	—	○	—	○	○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	×	○	—	—	—	—	—	—	—		—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01255

When ⑩ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○		○	○	—	○	—	○	○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	×	○	—	—	—	—	—	—	—	—		—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01256

When ⑪ is open

	(A)	(B)	(C)																				
			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○		○	—	○	—	○	○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	×	○	—	—	—	—	—	—	—	—	—		○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01257

When ⑫ is open

NOTE:
Perform inspection by referring to the SSM communication initialization check (impossible to communicate with all modules).

	(A)	(B)	(C)																				
			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
															—		—						—
VDC	○	×					—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
CAM	○	×				—	—	—	—		—	—	—		—	—	—	—	—	—	—	—	—
BIU	○	×			—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
MET	○	×		—	—	—	—	—	—	—		—	—		—	—	—	—	—	—	—	—	—
MFD	○	×		—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—	—	—
A/C	○	×		—	—	—	—	—	—	—	—	—			—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	×	—	—	—	—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	×	—	—	—	—	—	—	—	—	—	—	—		—	—	—		—	—	—	—	—
KPS	○	×	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—		—	—	—	—
HL	○	×	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—		—	—	—
EPS	○	×	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—		—	—
A/B	○	×	—	—	—	—			—	—	—	—	—		—	—	—	—	—	—	—		—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	×	—	—	—	—				—	—	—	—		—	—	—	—	—	—	—	—	—

LAN01258

When ⑬, ⑮ and ㉑ are open

NOTE:

- It is the same as in the case of open circuit of ⑬, ⑮ and ㉑. However, determination is possible through the difference in the data no-receive detection condition of each module.<Ref. to LAN(diag)-106, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).>
- If the remote engine starter does not operate even though no DTC has been detected, check the lines of the remote engine starter.

	(A)	(B)	(C)																			
			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01259

When ⑭ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—		—	○	○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—		—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01260

When ⑯ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—		○	○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—		—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01261

When ⑰ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○		○	○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—		—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01262

When ⑱ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○		○	○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—		—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01263

When ⑲ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○	○		○	—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	×	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—		—	—
A/B	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	○	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01264

When ⑳ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○	○	○		—
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
EPS	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
A/B	○	×	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—		—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01265

Turbo model

When ① is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
							○	○	○					○	—	○	—	○	○	○	○	—	○
VDC	○	×					—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×				—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	×			—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	×		—	—	—	—	—	—	—		—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	×		—	—	—	—	—	—	—	—		—	○	—	—	—	—	—	—	—	—	—
A/C	○	×		—	—	—	—	—	—	—	—	—		○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01266

When ② is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
			○				○	○	○		○	○	○	○	—	○	—	○	○	○	○	—	○
VDC	○	×	○				—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×	○			—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	×	○		—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01267

When ③ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○			○	○	○		○	○	○	○	—	○	—	○	○	○	○	—	○
VDC	○	×	○	○			—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×	○	○		—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01268

When ④ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○		○	○	○	○	○	○	○	○	—	○	—	○	○	○	○	—	○
VDC	○	×	○	○	○		—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01269

When ⑤ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○				○	○	○	○	○	—	○	—	○	○	○		—	
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	×	—	—	—	—		—	—	—	—	—	—	○	—	—	—	—	—	—		—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	×	—	—	—	—			—	—	—	—	—	○	—	—	—	—	—	—	—	—	
ECM	○	×	—	—	—	—				—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01270

When ⑥ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○			○	○	○	○	○	—	○	—	○	○	○	○	—	
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	×	—	—	—	—	○		—	—	—	—	—	○	—	—	—	—	—	—	—	—	
ECM	○	×	—	—	—	—	○			—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01271

When ⑦ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○		○	○	○	○	○	—	○	—	○	○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	×	—	—	—	—	○	○		—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01272

When ⑧ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○		○	○	○	○	—	○	—	○	○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	×	○	○	○	—	—	—	—		—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01273

When ⑨ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○		○	○	○	—	○	—	○	○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	×	○	—	—	—	—	—	—	—		—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01274

When ⑩ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○		○	○	—	○	—	○	○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	×	○	—	—	—	—	—	—	—	—		—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01275

When ⑪ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○		○	—	○	—	○	○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	×	○	—	—	—	—	—	—	—	—	—		○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01276

When ⑫ is open

NOTE:
Perform inspection by referring to the SSM communication initialization check (impossible to communicate with all modules).

	(A)	(B)	(C)																				
			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
															—		—					—	
VDC	○	×					—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
CAM	○	×				—	—	—	—		—	—	—		—	—	—	—	—	—	—	—	—
BIU	○	×			—	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—
MET	○	×		—	—	—	—	—	—	—		—	—		—	—	—	—	—	—	—	—	—
MFD	○	×		—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—	—	—
A/C	○	×		—	—	—	—	—	—	—	—	—			—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	×	—	—	—	—	—	—	—	—	—	—	—		—		—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	×	—	—	—	—	—	—	—	—	—	—	—		—	—	—		—	—	—	—	—
KPS	○	×	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—		—	—	—	—
HL	○	×	—	—	—	—	—	—	—	—	—	—	—		—	—	—	—	—		—	—	—
A/B	○	×	—	—	—	—		—	—	—	—	—	—		—	—	—	—	—	—		—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	×	—	—	—	—			—	—	—	—	—		—	—	—	—	—	—	—	—	
ECM	○	×	—	—	—	—				—	—	—	—		—	—	—	—	—	—	—	—	—

LAN01277

When ⑬, ⑮ and ⑳ are open

NOTE:

- It is the same as in the case of open circuit of ⑬, ⑮ and ⑳. However, determination is possible through the difference in the data no-receive detection condition of each module.<Ref. to LAN(diag)-106, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).>
- If the remote engine starter does not operate even though no DTC has been detected, check the lines of the remote engine starter.

	(A)	(B)	(C)																				
			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01278

When ⑭ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—		—	○	○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—		—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01279

When ⑯ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—		○	○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—		—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01280

When ⑰ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○		○	○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—		—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01281

When ⑱ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○		○	—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	×	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—		—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01282

When ⑲ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○	○		—	○
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	×	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—		—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	○	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	○
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01283

When ㉑ is open

	(A)	(B)	(C) ①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑
	○	○	○	○	○	○	○	○	○	○	○	○	○	○	—	○	—	○	○	○	○	—	
VDC	○	○	○	○	○	○	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
CAM	○	○	○	○	○	—	—	—	—	○	—	—	—	○	—	—	—	—	—	—	—	—	—
BIU	○	○	○	○	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—
MET	○	○	○	—	—	—	—	—	—	—	○	—	—	○	—	—	—	—	—	—	—	—	—
MFD	○	○	○	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—	—	—
A/C	○	○	○	—	—	—	—	—	—	—	—	—	○	○	—	—	—	—	—	—	—	—	—
STR	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	—
RST	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	○	—	—	—	—	—
KPS	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	○	—	—	—	—
HL	○	○	—	—	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	○	—	—	—
A/B	○	○	—	—	—	—	○	—	—	—	—	—	—	○	—	—	—	—	—	—	○	—	—
Y&G	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS	○	×	—	—	—	—	○	○	—	—	—	—	—	○	—	—	—	—	—	—	—	—	
ECM	○	○	—	—	—	—	○	○	○	—	—	—	—	○	—	—	—	—	—	—	—	—	—

LAN01284

6. Subaru Select Monitor

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

B: COMMUNICATION FOR INITIALIZING IMPOSSIBLE

NOTE:
Confirm that the LAN system is working properly before the diagnosis.
Subaru Select Monitor communication line is open or shorted.

DETECTING CONDITION:

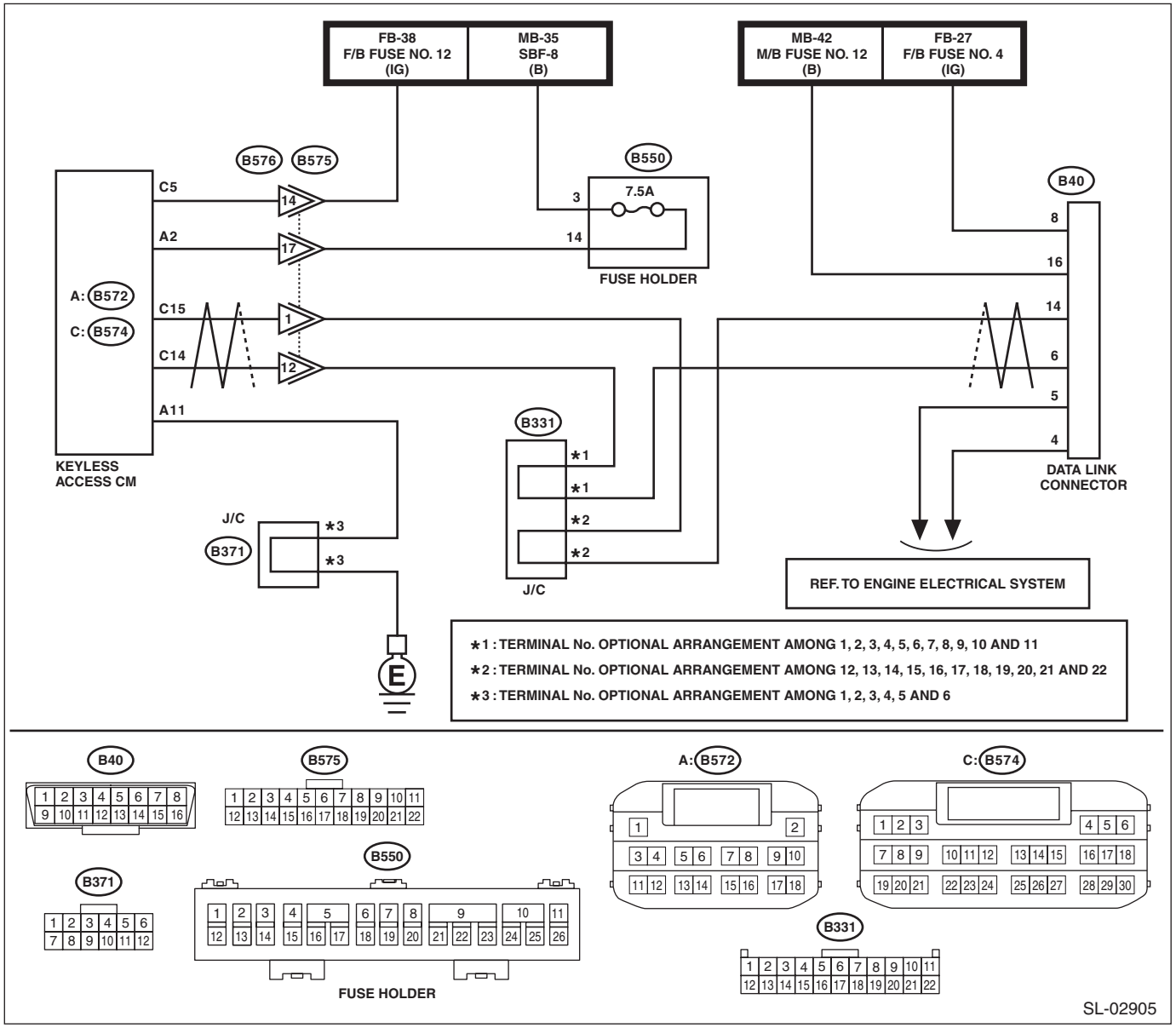
- Defective harness
- Power supply circuit malfunction
- Defective keyless access CM
- Defective CAN communication circuit
- Defective Subaru Select Monitor

TROUBLE SYMPTOM:

Not communicable with Subaru Select Monitor.

WIRING DIAGRAM:

– Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>
– CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>



	Step	Check	Yes	No
1	**CHECK OTHER COMMUNICATION.** Communicate with the system other than the keyless access system using the Subaru Select Monitor.	Is the communication to other control module possible?	Go to step **2**.	Perform the "Communication for Initializing Impossible" of LAN system.<Ref. to LAN(diag)-11, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>
2	**CHECK DTC.** Read the DTC of the LAN system using the Subaru Select Monitor.<Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK KEYLESS ACCESS CM.** 1) Turn the ignition switch to OFF. 2) Disconnect the keyless access CM connector. 3) Connect the disconnected connectors. 4) Perform communication with the keyless access system using the Subaru Select Monitor.	Is communication possible?	It is possible that temporary poor communication occurs.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

6. Subaru Select Monitor

A: OPERATION

- For operation procedures, refer to the “PC application help for Subaru Select Monitor”.
- If the combination meter or MFD can not communicate with Subaru Select Monitor, perform the “Communication for Initializing Impossible”. <Ref. to IDI(diag)-11, INSPECTION, Subaru Select Monitor.>

If the DTCs related to the LAN system are not displayed, perform the inspection by connecting the Subaru Select Monitor to another vehicle which is operating properly and by establishing the communication.

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE (COMBINATION METER)

DETECTING CONDITION:

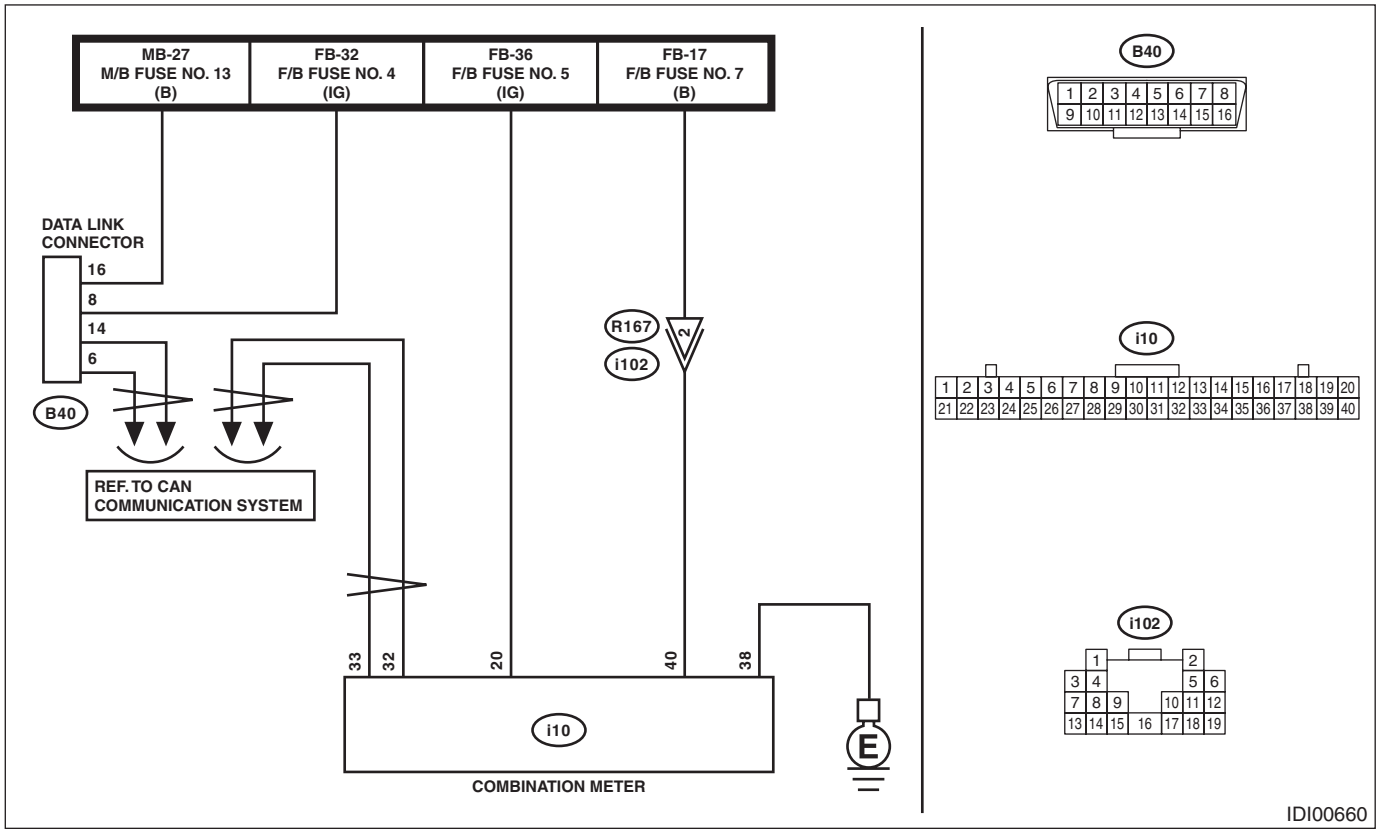
- Defective harness connector
- Power supply circuit malfunction
- Defective combination meter
- Defective CAN communication circuit
- Defective Subaru Select Monitor

TROUBLE SYMPTOM:

Communication is impossible between combination meter and Subaru Select Monitor.

WIRING DIAGRAM:

- Combination meter system <Ref. to WI-110, WIRING DIAGRAM, Combination Meter System.>
- CAN communication system <Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>



Step		Check	Yes	No
1	**CHECK OTHER COMMUNICATION.** Communicate with the system other than the combination meter using the Subaru Select Monitor.	Is the communication to other control module possible?	Go to step **2**.	Perform the "Communication for Initializing Impossible" of LAN system. <Ref. to LAN(diag)-11, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>

Step		Check	Yes	No
2	**CHECK DTC.** Read the DTC of the LAN system using the Subaru Select Monitor. <Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK COMBINATION METER.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector of combination meter. 3) Connect the disconnected connectors. 4) Communicate with the combination meter using the Subaru Select Monitor.	Is communication possible?	It is possible that temporary poor communication occurs.	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>

2. COMMUNICATION FOR INITIALIZING IMPOSSIBLE (MFD)

DETECTING CONDITION:

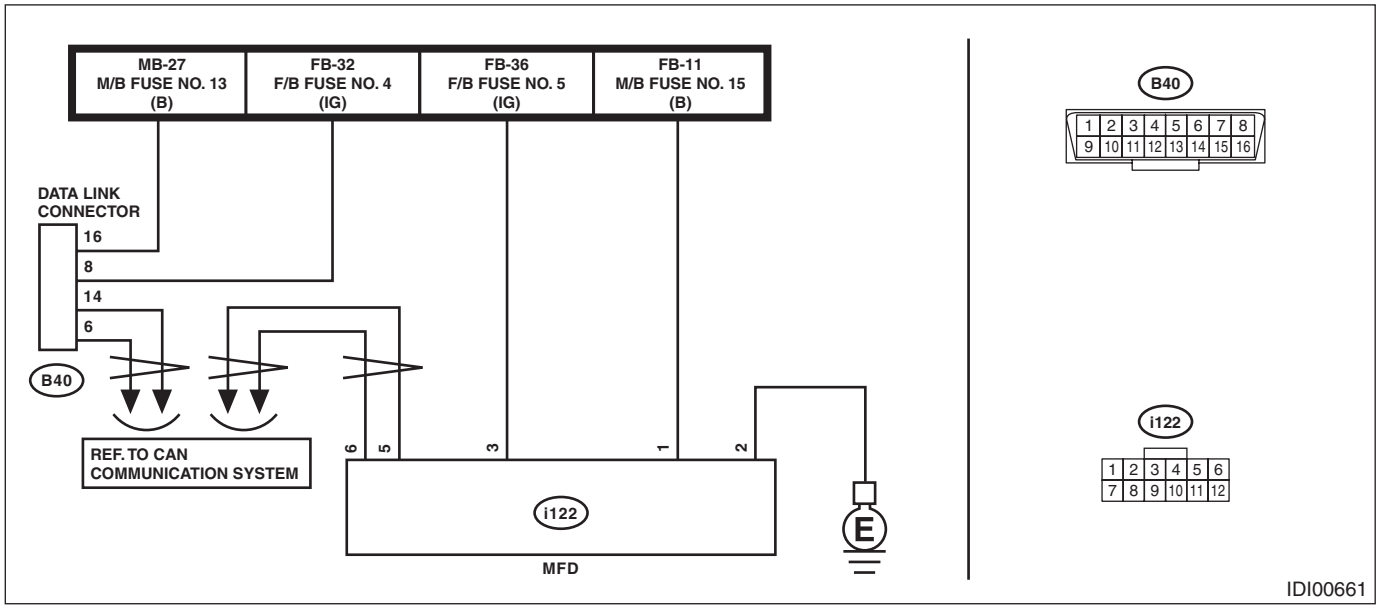
- Defective harness connector
- Power supply circuit malfunction
- Defective MFD
- Defective CAN communication circuit
- Defective Subaru Select Monitor

TROUBLE SYMPTOM:

Communication is impossible between MFD and Subaru Select Monitor.

WIRING DIAGRAM:

- Multi-function display (MFD) system <Ref. to WI-288, WIRING DIAGRAM, Multi-function Display (MFD) System.>
- CAN communication system <Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>



	Step	Check	Yes	No
1	**CHECK OTHER COMMUNICATION.** Communicate with the system other than the MFD using the Subaru Select Monitor.	Is the communication to other control module possible?	Go to step **2**.	Perform the “Communication for Initializing Impossible” of LAN system. <Ref. to LAN(diag)-11, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>
2	**CHECK DTC.** Read the DTC of the LAN system using the Subaru Select Monitor. <Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC detected?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK MFD.** 1) Turn the ignition switch to OFF. 2) Disconnect the MFD connector. 3) Connect the disconnected connectors. 4) Communicate with the MFD using the Subaru Select Monitor.	Is communication possible?	It is possible that temporary poor communication occurs.	Replace the MFD. <Ref. to IDI-25, Multi-function Display (MFD).>

6. Subaru Select Monitor

A: OPERATION

- For operation procedures, refer to the “PC application help for Subaru Select Monitor”.
- If the auto headlight beam leveler CM can not communicate with Subaru Select Monitor, perform “COMMUNICATION FOR INITIALIZING IMPOSSIBLE”. <Ref. to AL(diag)-7, INSPECTION, Subaru Select Monitor.>

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE

Communication error with auto headlight beam leveler CM

DETECTING CONDITION:

- Defective harness connector
- Power supply circuit malfunction
- Defective auto headlight beam leveler CM
- Defective CAN communication circuit
- Defective Subaru Select Monitor

TROUBLE SYMPTOM:

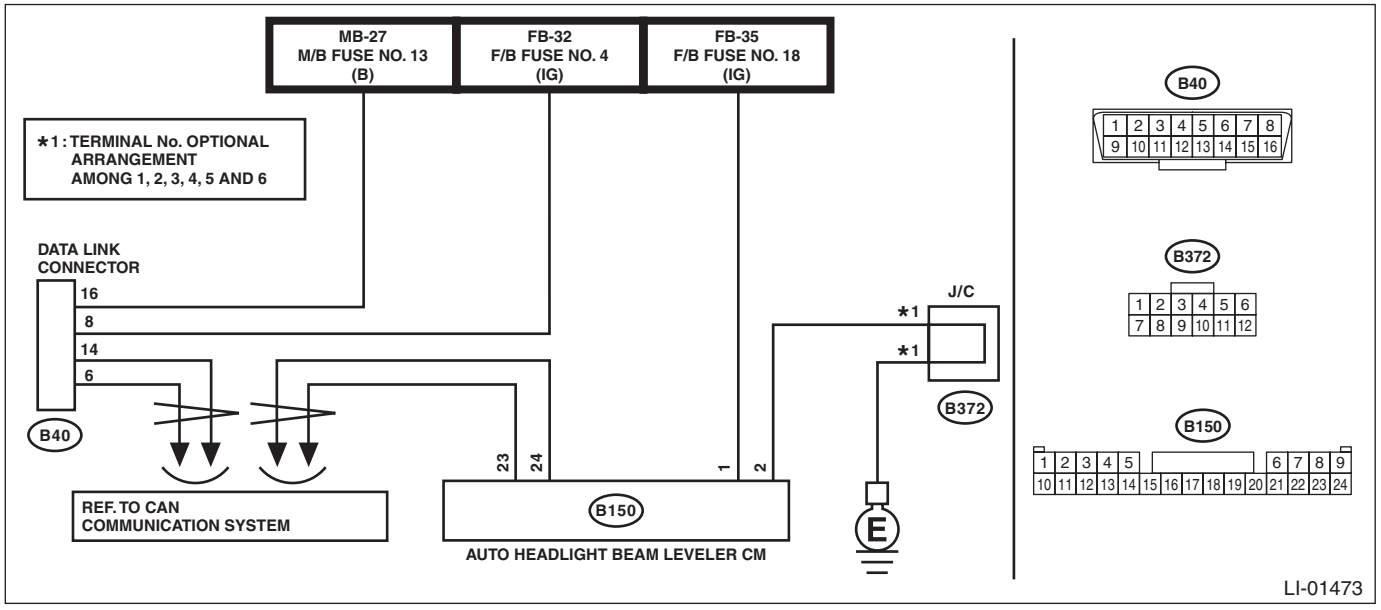
Communication is impossible between auto headlight beam leveler CM and Subaru Select Monitor.

CAUTION:

Initialization is required after replacing the auto headlight beam leveler CM.

WIRING DIAGRAM:

Headlight beam leveler system <Ref. to WI-254, WIRING DIAGRAM, Headlight Beam Leveler System.>



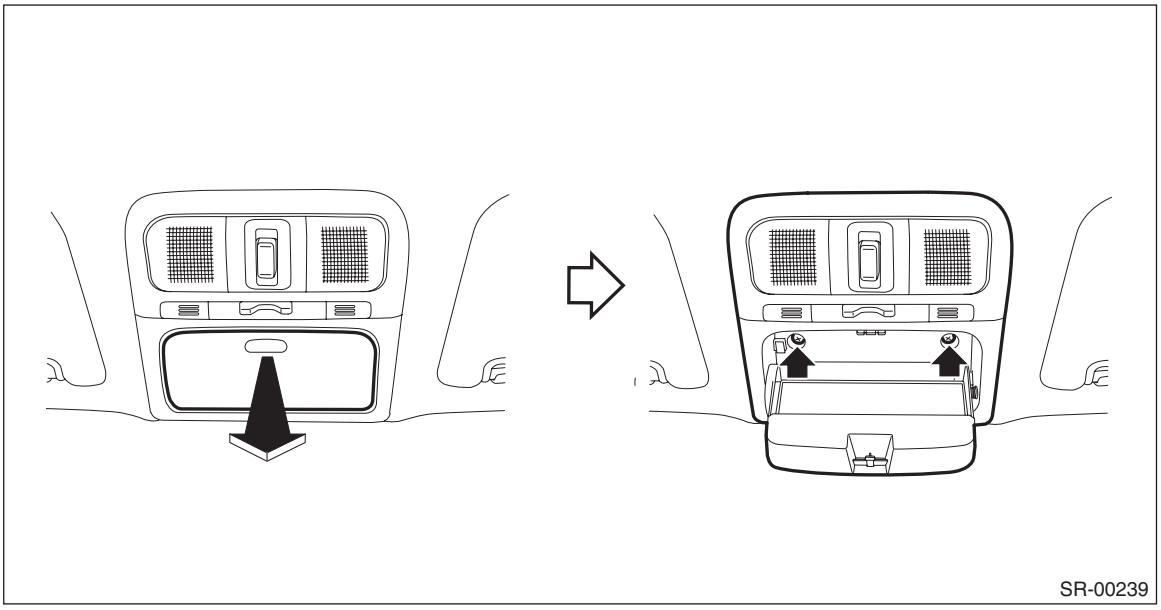
Step		Check	Yes	No
1	**CHECK OTHER COMMUNICATION.** Communicate with the system other than the auto headlight beam leveler CM using the Subaru Select Monitor.	Is the communication to other control module possible?	Go to step **2**.	Perform the “Communication for Initializing Impossible” of LAN system. <Ref. to LAN(diag)-11, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>

	Step	Check	Yes	No
2	**CHECK LAN SYSTEM.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Perform the inspection according to the diagnosis for LAN system.	Go to step **3**.
3	**CHECK FOR POOR CONTACT.** 1) Turn the ignition switch to OFF. 2) Disconnect the auto headlight beam leveler CM connector. 3) Connect the disconnected connectors. 4) Communicate with the auto headlight beam leveler CM using the Subaru Select Monitor.	Is communication possible?	It is possible that temporary poor communication occurs.	Replace the auto headlight beam leveler CM. <Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>

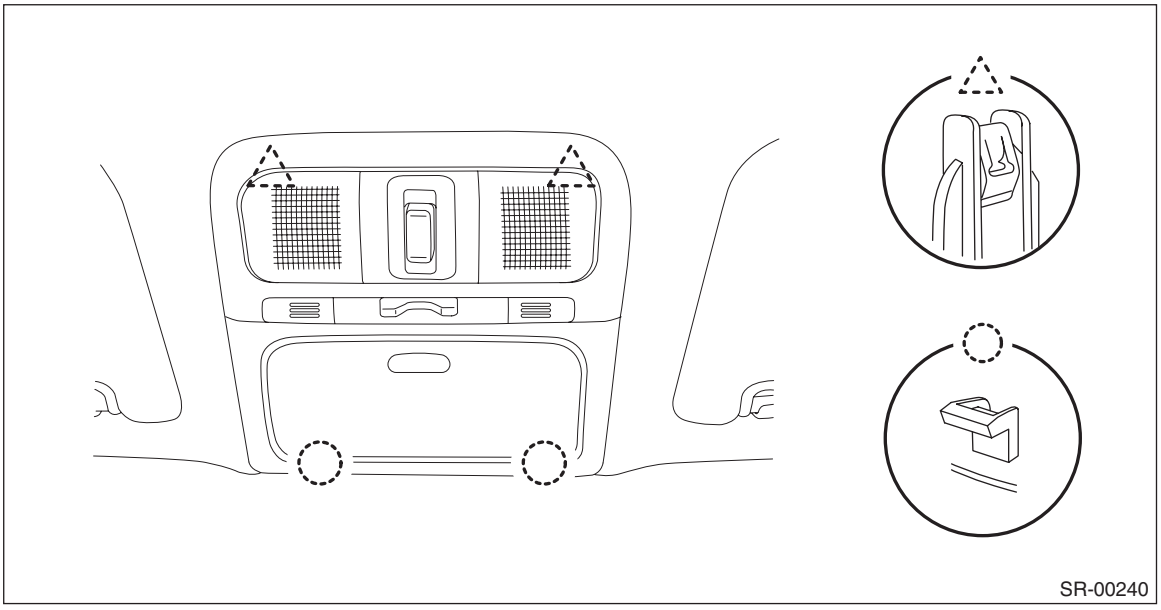
6. Sunroof Motor

A: REMOVAL

1) Completely close the lid assembly - sunroof.
2) Disconnect the ground cable from battery.
3) Remove the light assembly - map. (Models without EyeSight)
   (1) Remove the screws.



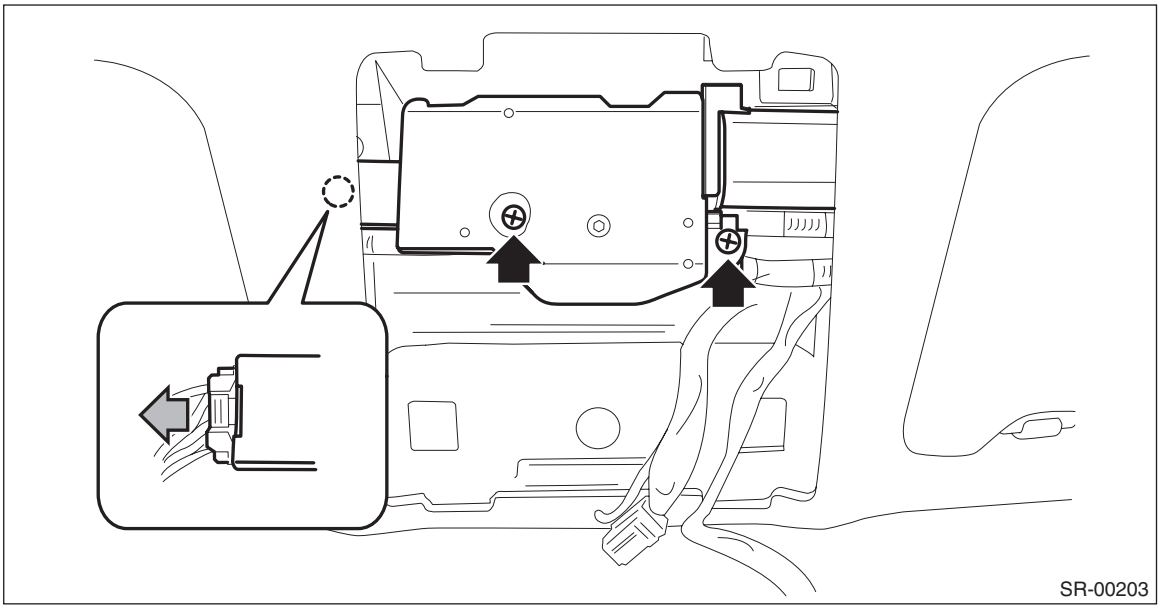
   (2) Release the clips and pull out the light assembly - map to disconnect the connectors.



4) Remove the stereo camera cover. (Models with EyeSight) <Ref. to ES-11, REMOVAL, Stereo Camera.>
5) Remove the motor assembly - sunroof.
   (1) Disconnect the harness connector.

(2) Remove the screws and remove the motor assembly - sunroof.

CAUTION:
When removing the motor assembly - sunroof, secure the cable assembly so that it does not move.



B: INSTALLATION

CAUTION:
- **When installing the motor assembly - sunroof, be careful not to move the cable assembly.**
- **For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation. <Ref. to ES-15, INSTALLATION, Stereo Camera.>**

1) Install the motor assembly - sunroof.
2) Install the light assembly - map. (Models without EyeSight)
3) Install the stereo camera cover. (Models with EyeSight) <Ref. to ES-15, INSTALLATION, Stereo Camera.>
4) Connect the battery ground terminal.
5) Perform the initialize operation. <Ref. to SR-6, INITIALIZE OPERATION, OPERATION, Sunroof Control System.>
6) Check the operation of sunroof by following the table below.

Operation	Switch position
(1) Lid assembly - sunroof closes completely.	Close
(2) Lid assembly - sunroof opens 507 mm (19.96 in) away from completely closed position.	Open
(3) Lid assembly - sunroof opens completely.	Open
(4) Lid assembly - sunroof closes completely.	Close

C: INSPECTION

Check the auto-reverse mechanism.

CAUTION:
Do not place objects in the way to check the auto-reverse mechanism.
1) Open the lid assembly - sunroof.
2) Push the lid assembly - sunroof in the opening direction with a force of 110±10 N (11.2 kgf, 24.7 lbf±1.0 kgf, 2.2 lbf) during the auto-closing operation, and check whether the window auto-reverse mechanism functions.

NOTE:
If the auto function is cancelled, perform the initialize operation.<Ref. to SR-6, INITIALIZE OPERATION, OPERATION, Sunroof Control System.>

6. Switches and Harness

A: NOTE

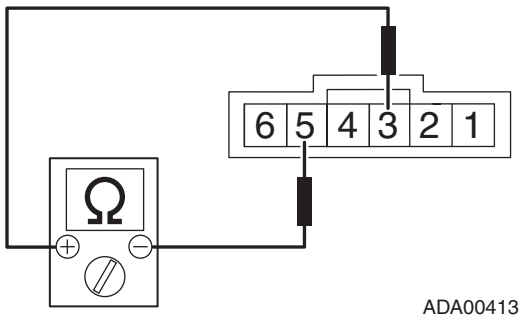
1. P-CR OFF & LANE OFF SWITCH

The pre-collision brake OFF & lane departure warning OFF switch is integrated in the stereo camera cover assembly.
If the pre-collision brake OFF & lane departure warning OFF switch is faulty, replace the stereo camera cover assembly.<Ref. to ES-11, Stereo Camera.>

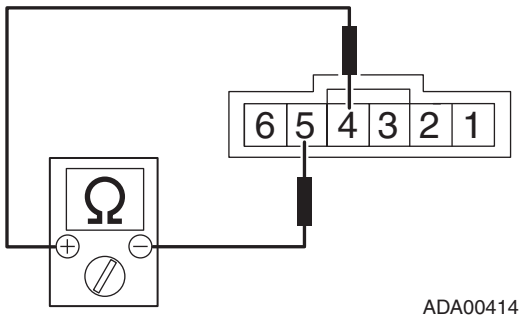
B: INSPECTION

1) Remove the stereo camera cover assembly.
2) Check the resistance between the terminals of the pre-collision brake OFF switch or the lane departure warning OFF switch.

- Pre-collision brake OFF switch

Terminal No.	Inspection conditions	Standard	Connector Sketch
3 — 5	OFF	1 MΩ or more	 ADA00413
	ON	Less than 1 Ω	

- Lane departure warning OFF switch

Terminal No.	Inspection conditions	Standard	Connector Sketch
4 — 5	OFF	1 MΩ or more	 ADA00414
	ON	Less than 1 Ω	

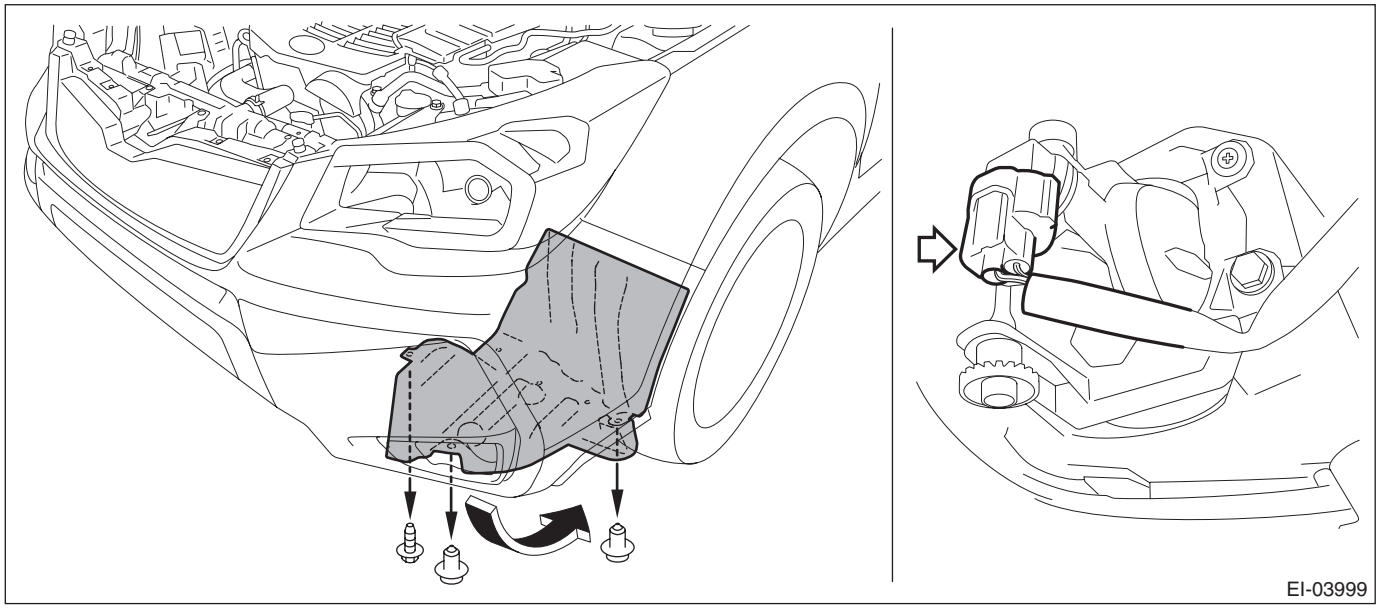
3) If the result of the inspection is not within the standard value, replace the stereo camera cover assembly.

6. Washer Tank and Motor

A: REMOVAL

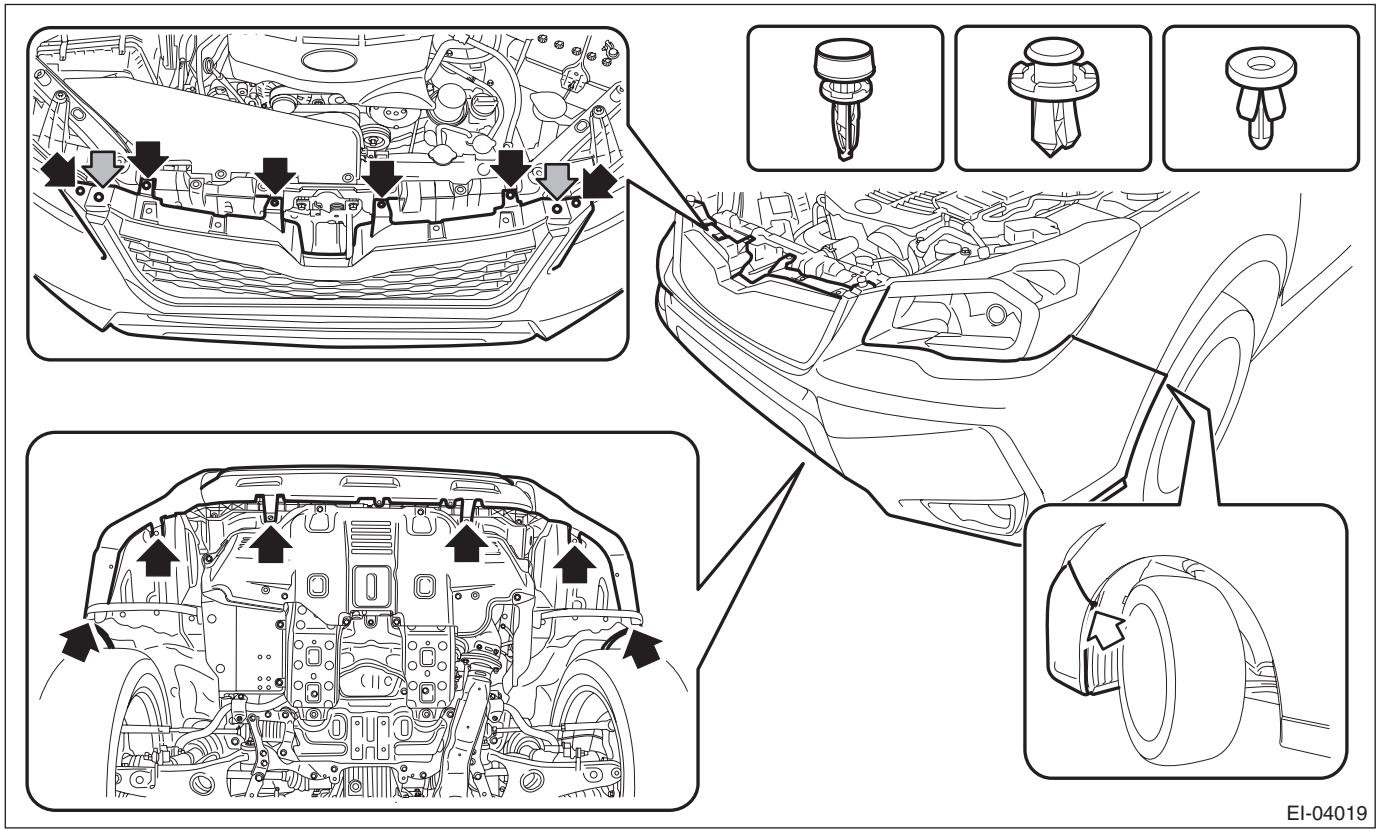
1. WASHER TANK

1) Open the hood COMPL - front.
2) Disconnect the ground cable from battery.
3) Remove the bumper face - front.
   (1) Remove the screws and clips, and turn over the mud guard - front, and then disconnect the connectors of the fog light assembly - front on the LH and RH sides. (Model with fog light)



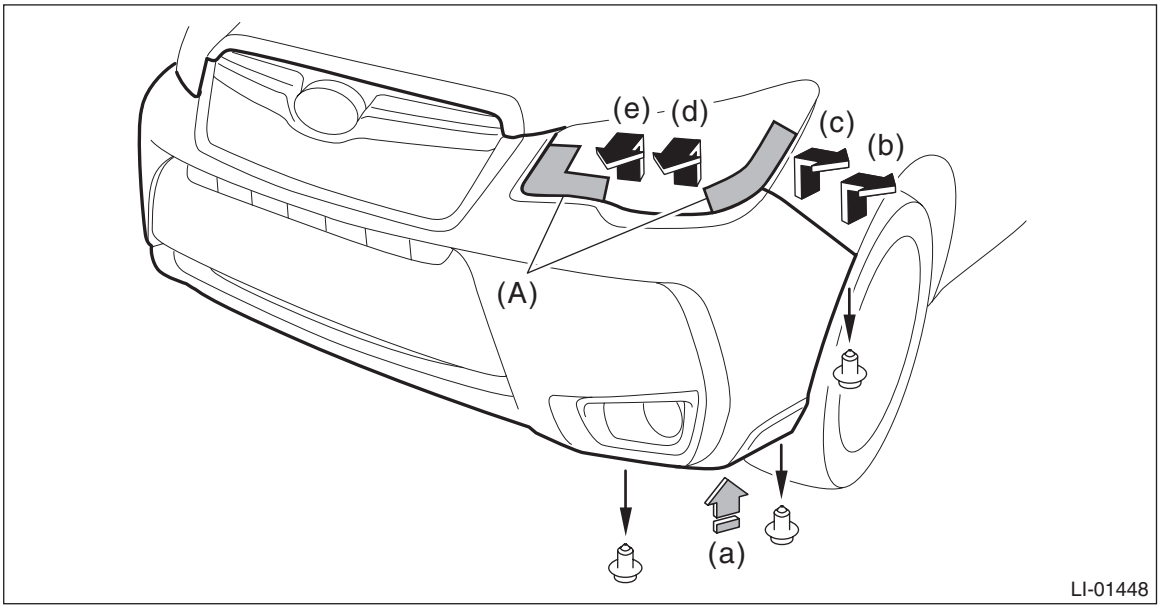
   (2) Remove the clips at the upper side of the bumper face - front.
   (3) Remove the clips from the fender.

(4) Remove the clips at the lower side of the bumper face - front.



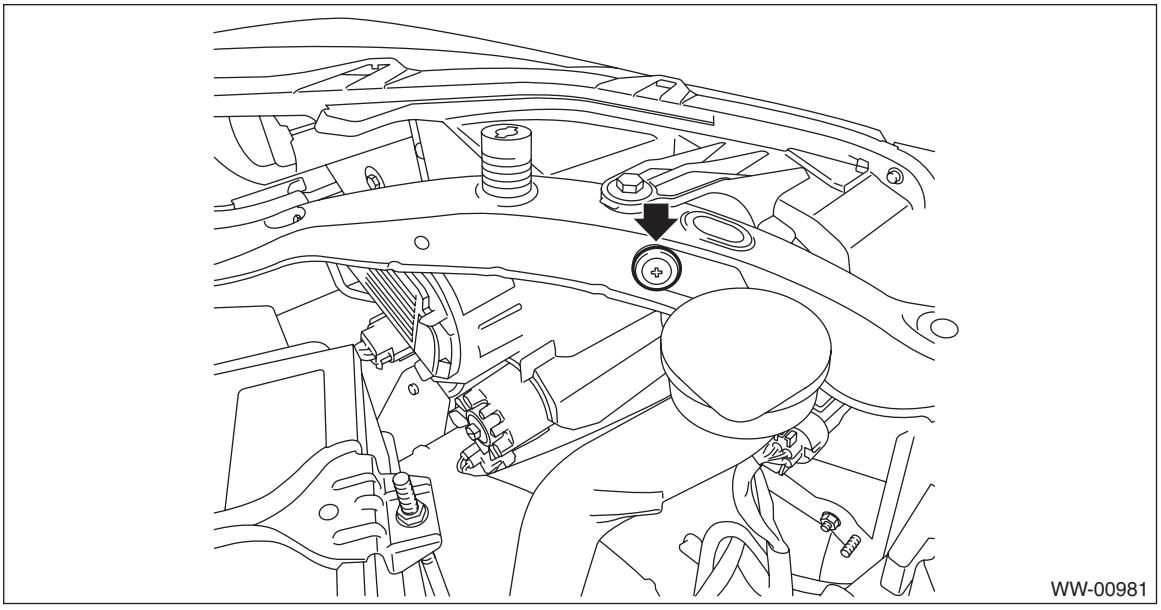
(5) Apply protective tape (A) to the light assembly - head.
(6) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

CAUTION:
Do not pull forcibly. It may damage the flange sections of the bumper face - front.

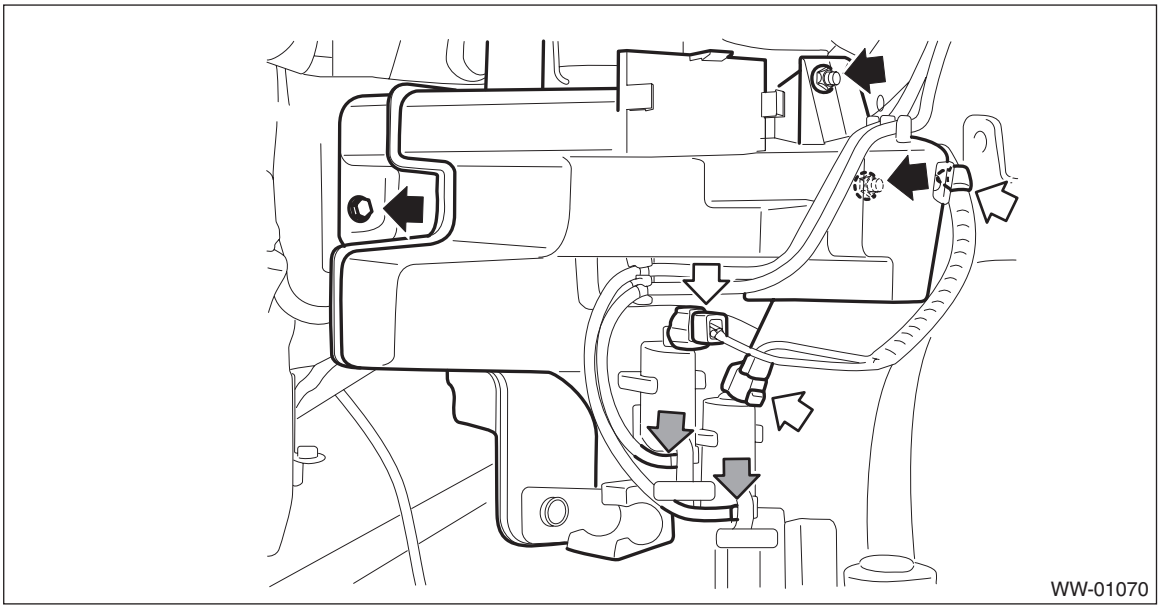


NOTE:
Detach the opposite side in the same manner.

4) Remove the tank - washer assembly.
(1) Remove the clip of the holder - windshield washer tank.

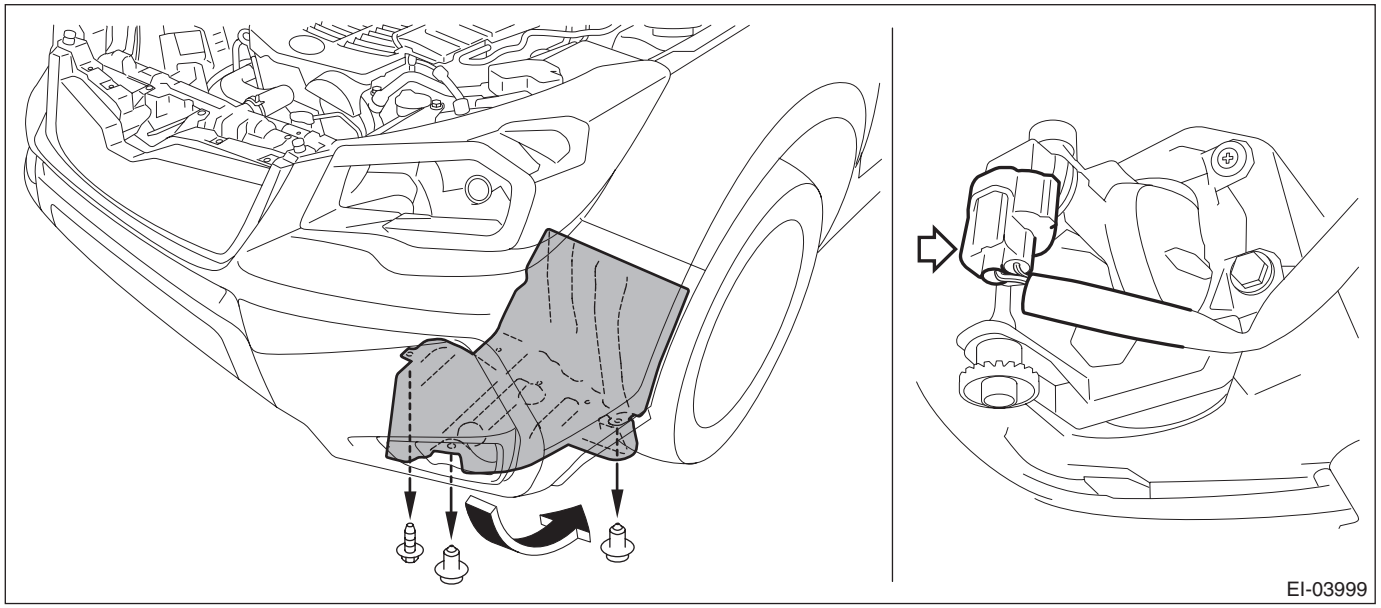


(2) Disconnect the connector from the motor pump assembly - washer and the sensor - washer tank, and then remove the harness clip.
(3) Prepare a container before disconnecting the hose - washer, and drain all washer fluid in the tank - washer.
(4) Remove the bolt and nuts and remove the tank - washer assembly.

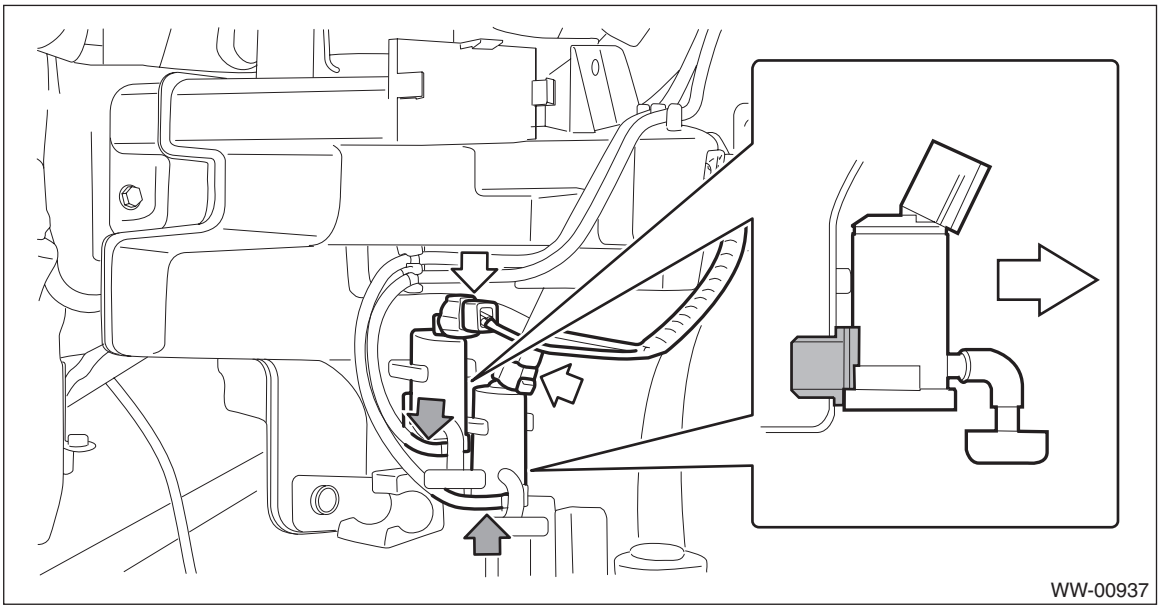


2. WASHER MOTOR

1) Open the hood COMPL - front.
2) Disconnect the ground cable from battery.
3) Remove the screw and clips, and turn over the mud guard - front LH.
4) Disconnect the connector of the fog light assembly - front LH. (Model with fog light)



5) Disconnect the connector from the motor pump assembly - washer and remove the harness clip.
6) Prepare a container before disconnecting the hose - washer, and drain all washer fluid in the tank - washer.
7) Remove the motor pump assembly - washer from the tank - washer.



B: INSTALLATION

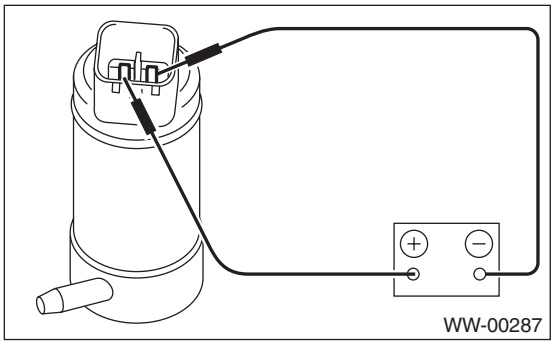
1) Install each part in the reverse order of removal.

Tightening torque:
6 N·m (0.61 kgf-m, 4.4 ft-lb)
2) Add new washer fluid.
3) Adjust the fog light beam. (Model with fog light) <Ref. to LI-47, FOG LIGHT AIMING, ADJUSTMENT, Front Fog Light Assembly.>

C: INSPECTION

1. WASHER PUMP

Apply battery voltage to the connector terminal of the motor pump assembly - washer, and make sure that the motor operates.



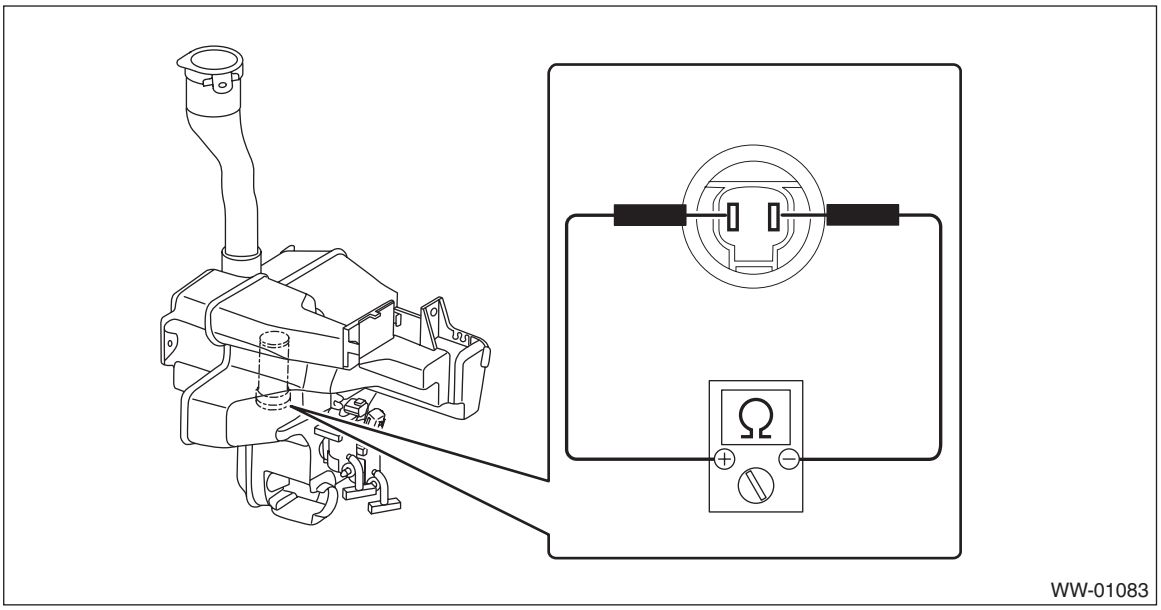
2. WASHER FLUID LEVEL SENSOR

1) Check the connection status of washer fluid level sensor connector.
2) Does the low washer fluid warning light illuminate after draining the washer fluid? And does the low washer fluid warning light go off after refilling the washer fluid?
- **Yes → Normal operation.**
- **No → Perform step 3.**

3) Using a tester, measure the voltage of the washer fluid level sensor connector.
   (1) Is the voltage approx. 8.5 V or more?
   - **Yes → Perform step 4.**
   - **No → Check harness, meter and integrated unit, and replace if necessary.**

4) Does the meter indicator illuminate if you short the washer fluid level sensor connector?
- **Yes → Perform step 5.**
- **No → Check meter and integrated unit, and replace if necessary.**

5) Using a tester, measure the resistance of the washer fluid level sensor.
(1) Turn over the mud guard.
(2) Measure the resistance of the washer fluid level sensor.



Amount of washer fluid in the tank	Standard
No remaining quantity (ON)	Less than 10 Ω
There is remaining quantity (OFF)	1 MΩ or more

(3) Is the resistance within the standard?
- **Yes → Normal operation.**
- **No → Replace the washer fluid level sensor along with the washer tank.**

7. Clear Memory Mode

A: OPERATION

For details concerning the work procedure, refer to the “PC application help for Subaru Select Monitor”.

7. Clear Memory Mode

A: OPERATION

1. ECM

For the operation procedure, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
Initial diagnosis of electronic throttle control is performed after memory clearance. Wait for 10 seconds or more after turning the ignition switch to ON, and then start the engine.

2. BODY INTEGRATED UNIT

For the operation procedure, refer to the “PC application help for Subaru Select Monitor”.

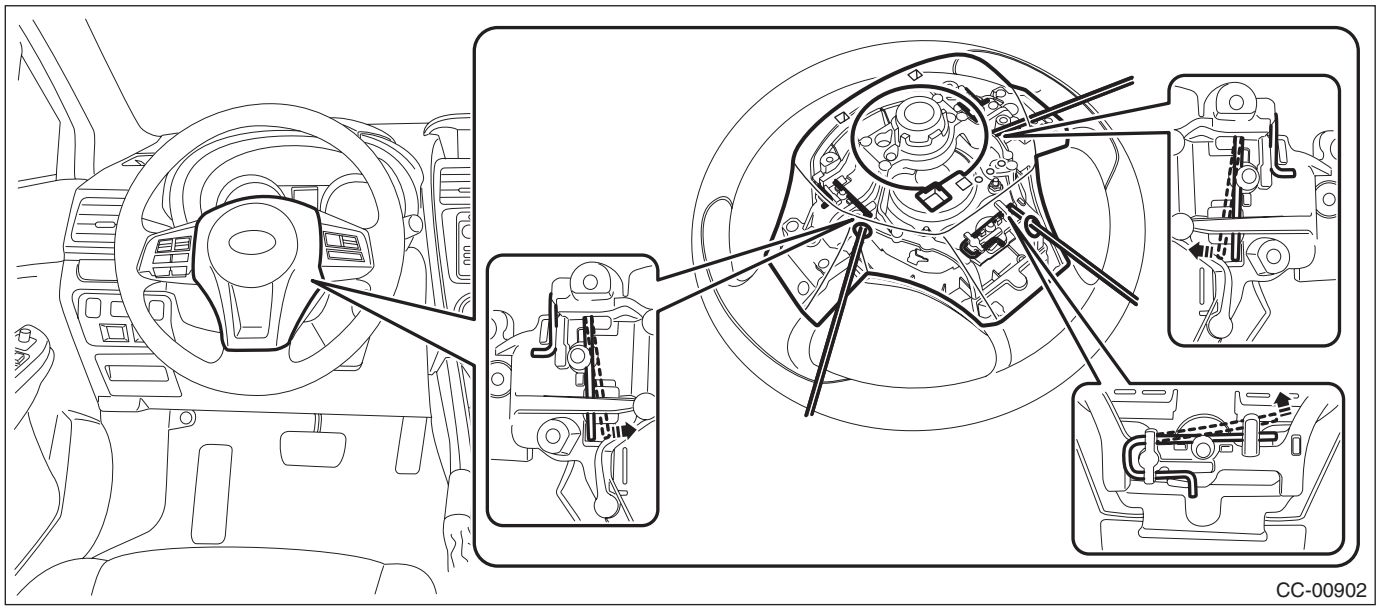
7. Cruise Control Command Switch

A: REMOVAL

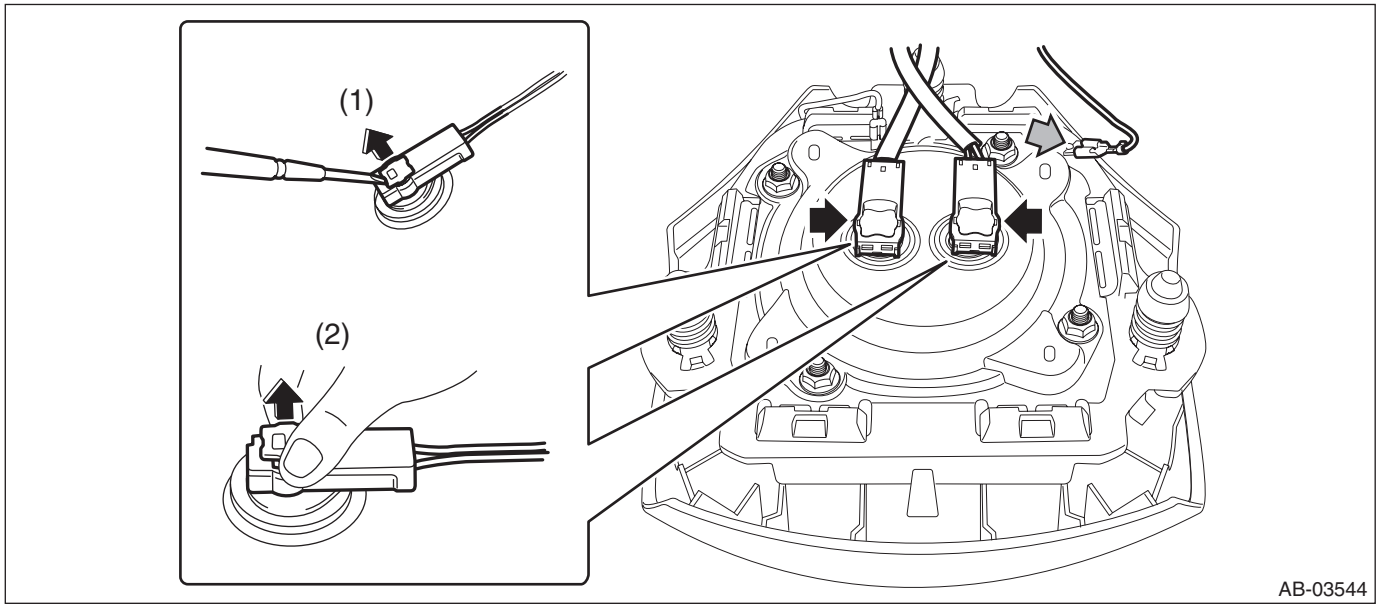
1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.

CAUTION:
Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>

(1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).



(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>

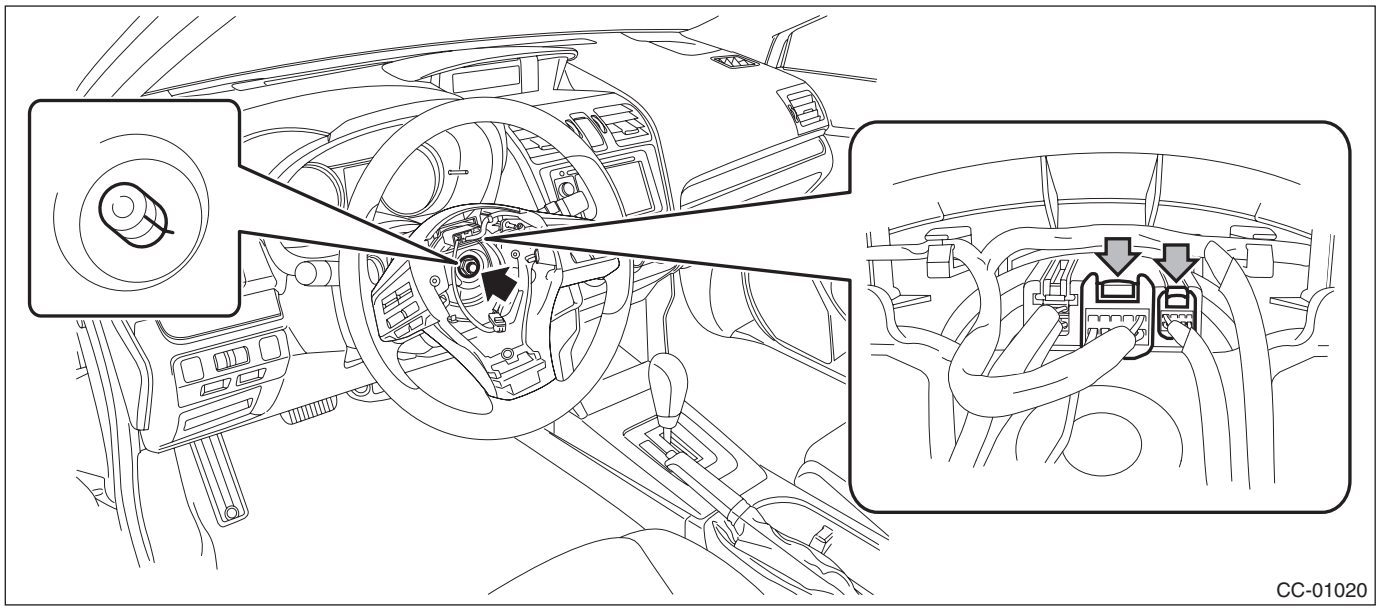


5) Remove the steering wheel.

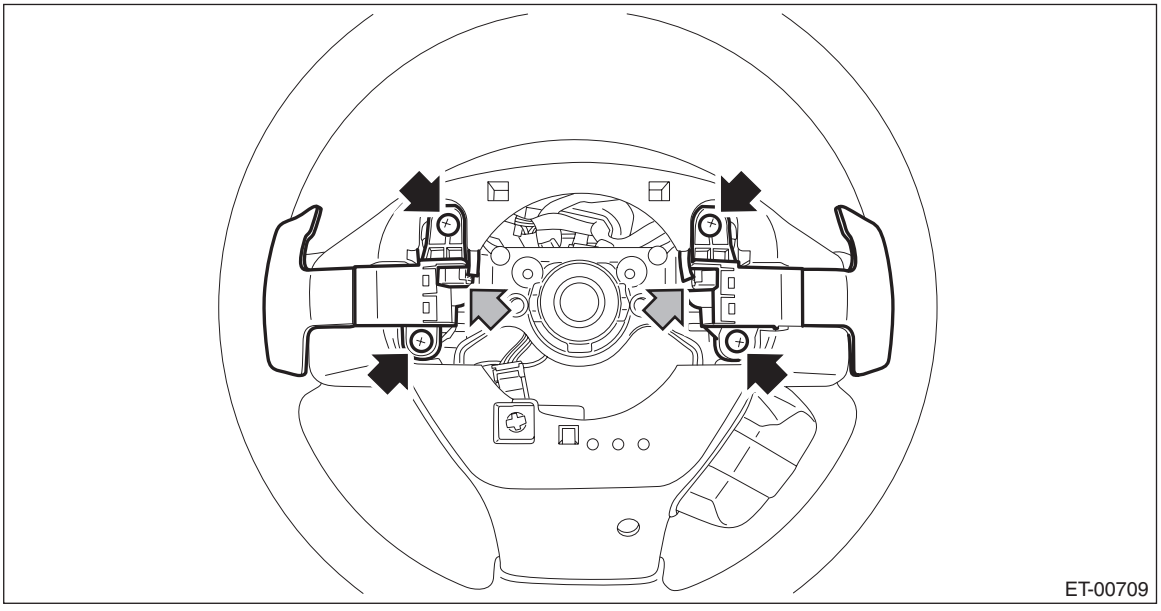
CAUTION:
- **Always use the steering wheel puller for removal to avoid deforming the steering wheel.**
- **If the steering wheel has been removed, make sure that the roll connector is not turned from the original position.**

(1) Disconnect the connector and remove the nut.
(2) Put alignment marks and remove the steering wheel using a steering puller.

Preparation tool:
Steering wheel puller

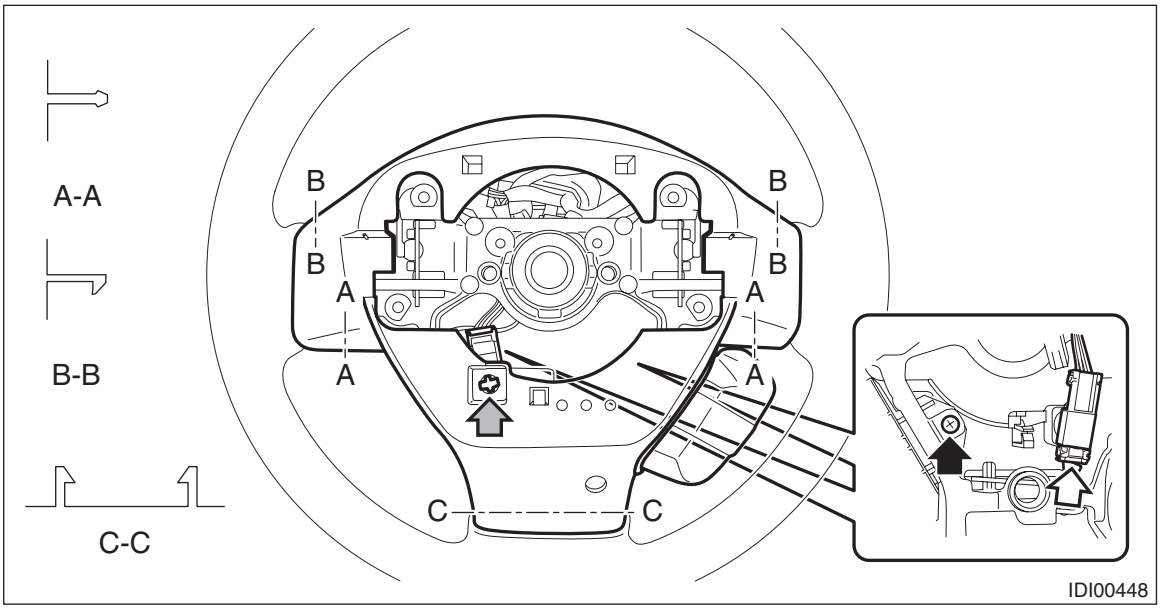


6) Remove the cruise control command switch assembly.
(1) Remove the screw, disconnect the connector and remove the paddle shift switch. (Model with paddle shift)

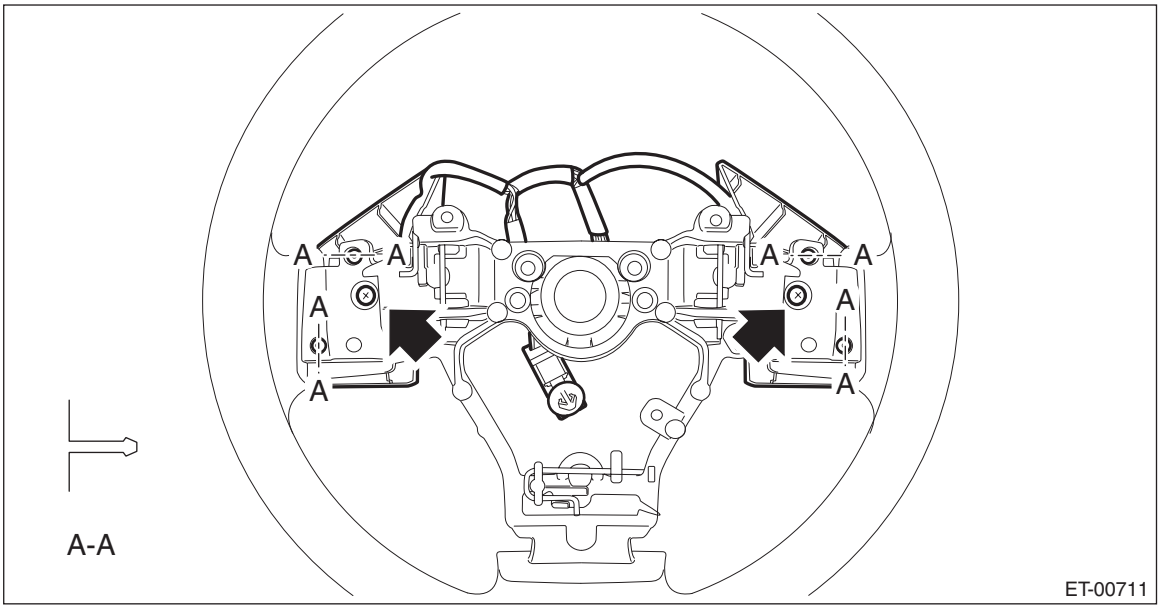


(2) Remove the steering switch connector and screw.

(3) Release the claws and clips, and remove the lower cover - steering wheel LWR.



(4) Remove the screw to remove the cruise control command switch assembly.



B: INSTALLATION

CAUTION:
• Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor.<Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
• Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.
1) Before installing steering wheel, be sure to adjust the direction of steering roll connector with steering wheel.<Ref. to AB-107, ADJUSTMENT, Roll Connector.>
2) Install each part in the reverse order of removal.

NOTE:
Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:
Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

Clearance:
Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)

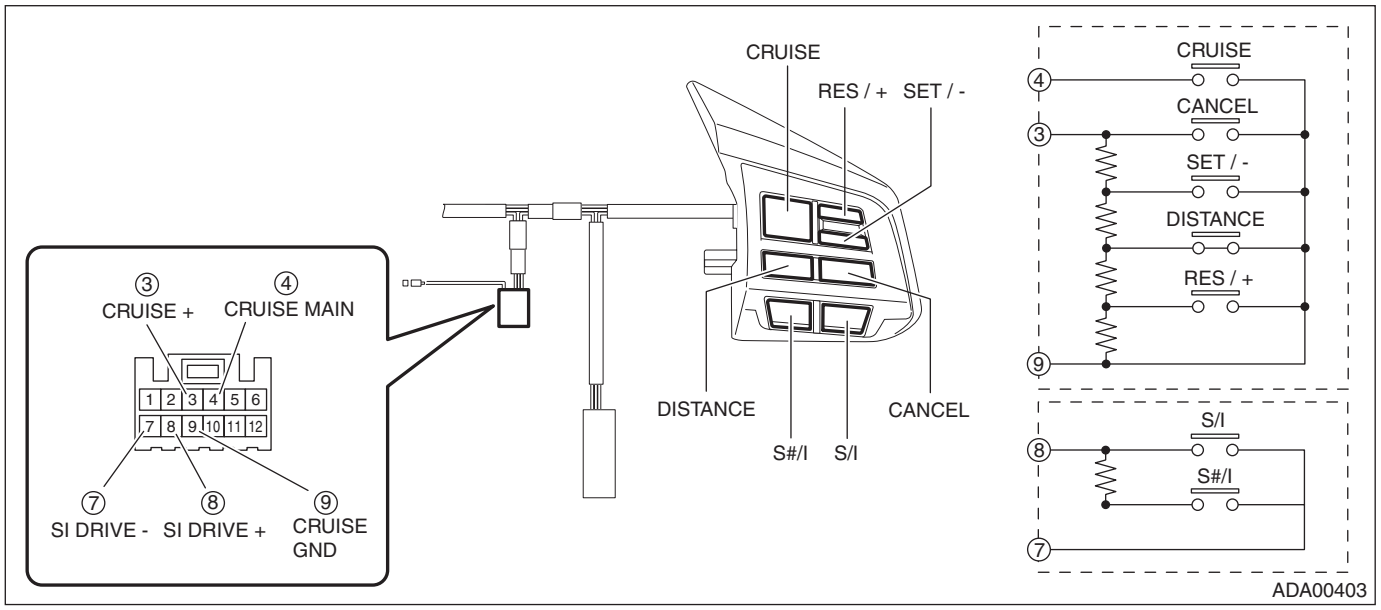
C: INSPECTION

UNIT INSPECTION

Preparation tool:

Circuit tester

1) Check the resistance between switch terminals.



Terminal No.	Inspection conditions		Standard
3 — 9	CANCEL SET/– DISTANCE RES/+	All OFF	Approx. 4,020 Ω
3 — 9	CANCEL	ON	Less than 1 Ω
3 — 9	SET/–	ON	Approx. 250 Ω
3 — 9	DISTANCE	ON	Approx. 680 Ω
3 — 9	RES/+	ON	Approx. 1,470 Ω
4 — 9	CRUISE (MAIN)	OFF	1 MΩ or more
4 — 9		ON	Less than 1 Ω
8 — 7	S/I S#/I	OFF	1 MΩ or more
8 — 7	S/I	ON	Less than 1 Ω
8 — 7	S#/I	ON	Approx. 1,800 Ω

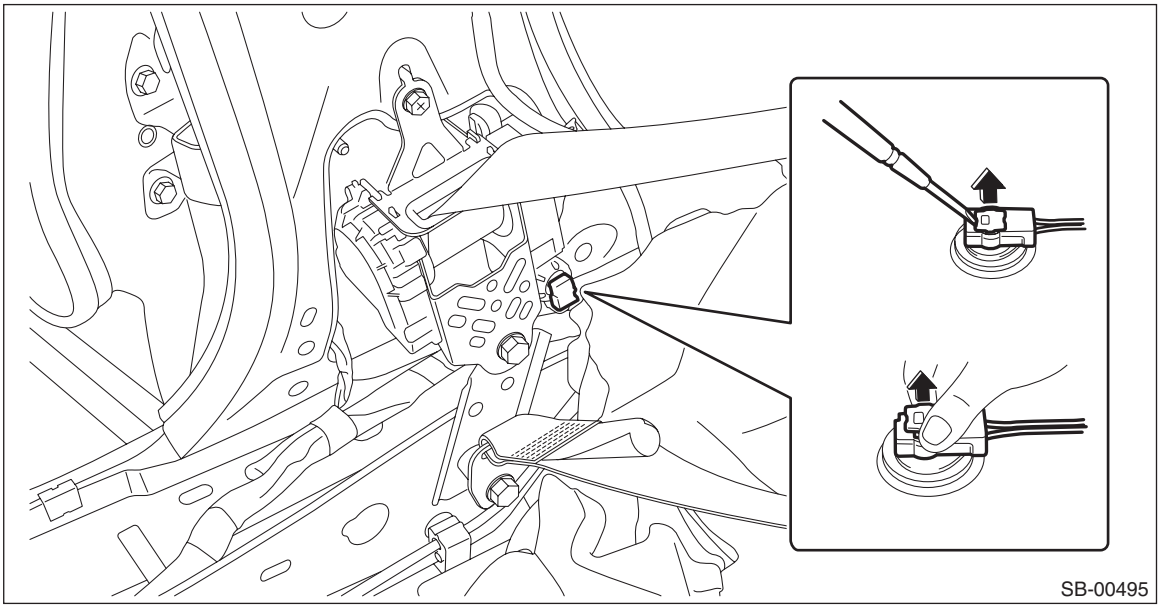
2) Replace the cruise control command switch assembly if the inspection result is not within the standard.

7. Disposal of Pretensioner

A: PROCEDURE

WARNING:
Make sure to follow the instructions below. Otherwise, personal injuries may occur.
• Before discarding a pretensioner, always perform an activation process to prevent any false activation.
• Wear protective gloves, safety goggles and earplugs during this operation. Wash your hands afterwards.
• Do not touch the pretensioner just after activation because it is very hot. Before handling it for disposal, wait for 40 minutes.

CAUTION:
• Perform a pretensioner operation process in a safe, level place. Do not perform the process outdoors when there is a strong rain or wind.
• Do not drop or damage the pretensioner.
• A large explosive noise will occur when the pretensioner is deployed. Warn persons in the area, and do not allow anyone to approach a radius of 5 m (16 ft) from the discard location.
• After activating the pretensioner, smoke may arise. Therefore, always perform an operation process in a well-ventilated place without any smoke sensor.
• Do not expose the activated pretensioner to water.
• Wrap the activated pretensioner in a sealed vinyl bag when discarding.
• If it is impossible to perform a pretensioner activation process due to some situational reasons, consult SUBARU dealership or one of the authorized workshops.
1) Fold the backrest all the way forward, and move the front seat all the way forward.
2) Before starting the work, turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more.
3) Disconnect connector of the pretensioner.



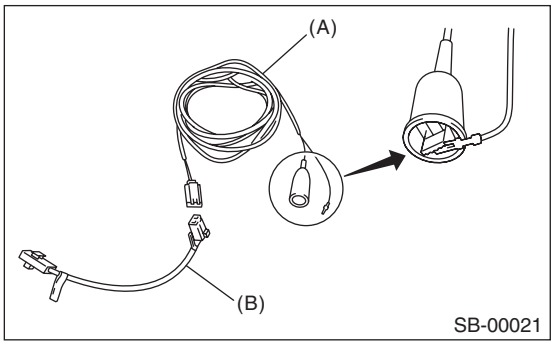
4) Short the alligator clip and terminal of the airbag deployment tool together.

CAUTION:
Short the airbag deployment tool terminals until just before the pretensioner operation process.

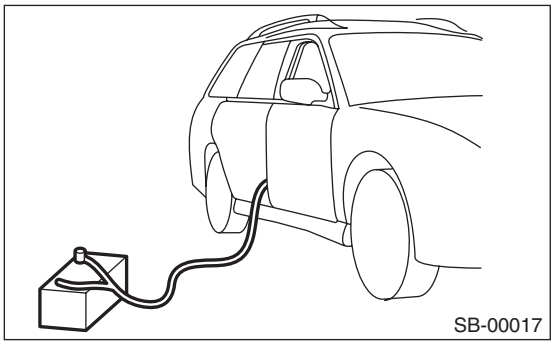
Preparation tool:
ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

5) Connect the airbag deployment tool (A) and test harness adapter D (B).

Preparation tool:
ST: TEST HARNESS ADAPTER D (98299SA010)

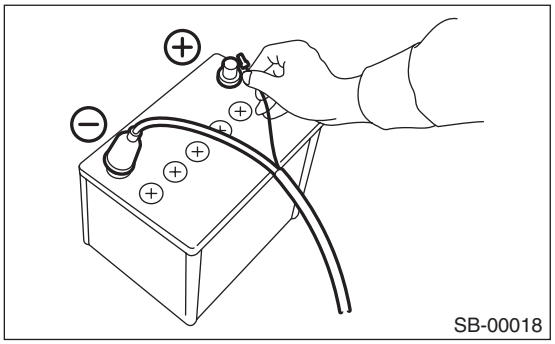


6) Connect the test harness adapter D connector to the pretensioner.
7) Make sure there is no one inside the vehicle.
8) Extend the wiring of the airbag deployment tool to its limit, and completely close all windows and rear gate.



9) Move the battery 5 m (16 ft) or more from the vehicle, and affix nearby.
10) Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
11) Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the pretensioner.

CAUTION:
• After activation, the pretensioner will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
• Do not expose the activated pretensioner to water.

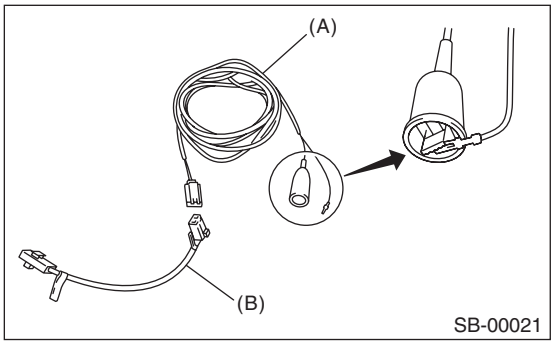


12) Perform operation process of lap seat belt pretensioner from steps 13) to 21) for the passenger's side.
13) Disconnect the connector from the lap seat belt pretensioner.
14) Short the alligator clip and terminal of the airbag deployment tool together.

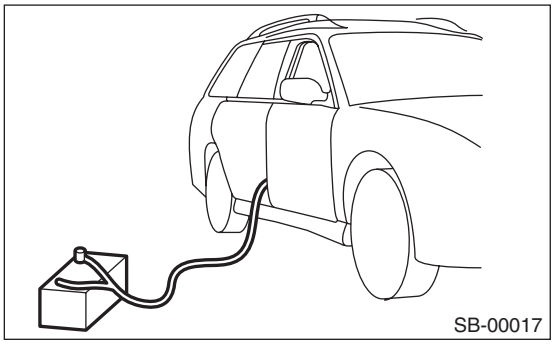
CAUTION:
Short the airbag deployment tool terminals until just before the pretensioner operation process.

Preparation tool:
ST: AIRBAG DEPLOYMENT TOOL (98299PA030)
15) Connect the airbag deployment tool (A) and test harness adapter D (B).

Preparation tool:
ST: TEST HARNESS ADAPTER D (98299SA010)

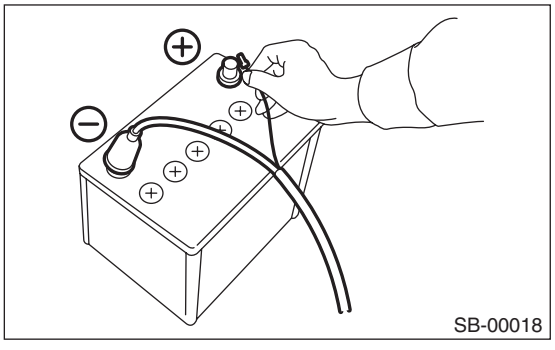


16) Connect the test harness adapter D connector to the lap seat belt pretensioner.
17) Make sure there is no one inside the vehicle.
18) Extend the wiring of airbag deployment tool to the limit, and close all the windows and rear gate completely.

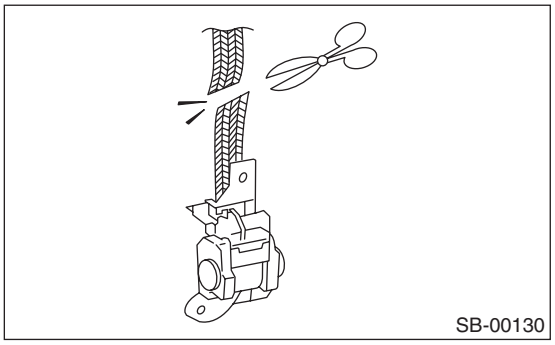


19) Move the battery 5 m (16 ft) or more from the vehicle, and affix nearby.
20) Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
21) Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the pretensioner.

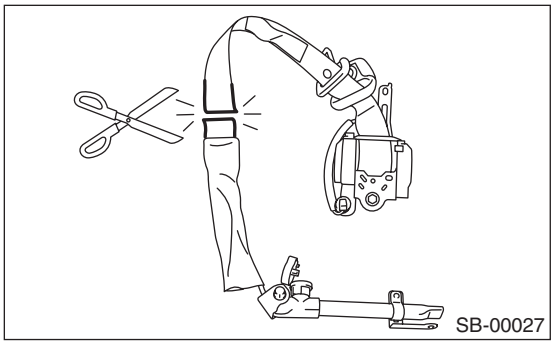
CAUTION:
• After activation, the pretensioner will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
• Do not expose the activated pretensioner to water.



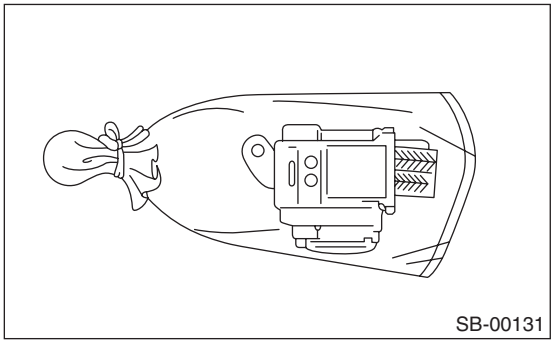
22) Remove the seat belt outer - front.<Ref. to SB-16, REMOVAL, Front Seat Belt.>
23) Cut the seat belt at a position as close as possible to the seat belt retractor.

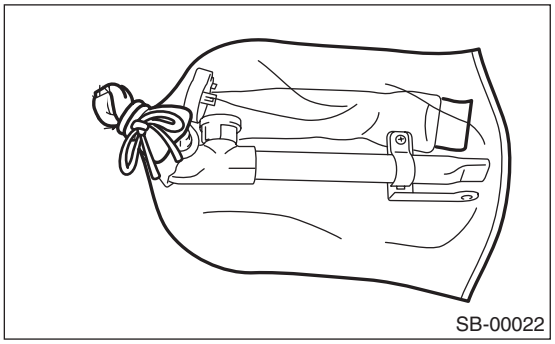

SB-00130

24) Cut the seat belt at a position as close as possible to the lap seat belt pretensioner.


SB-00027

25) Place the activated pretensioner in a sealed vinyl bag, then discard.


SB-00131


SB-00022

LIGHTING SYSTEM

LI

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7. Front Hood Duct

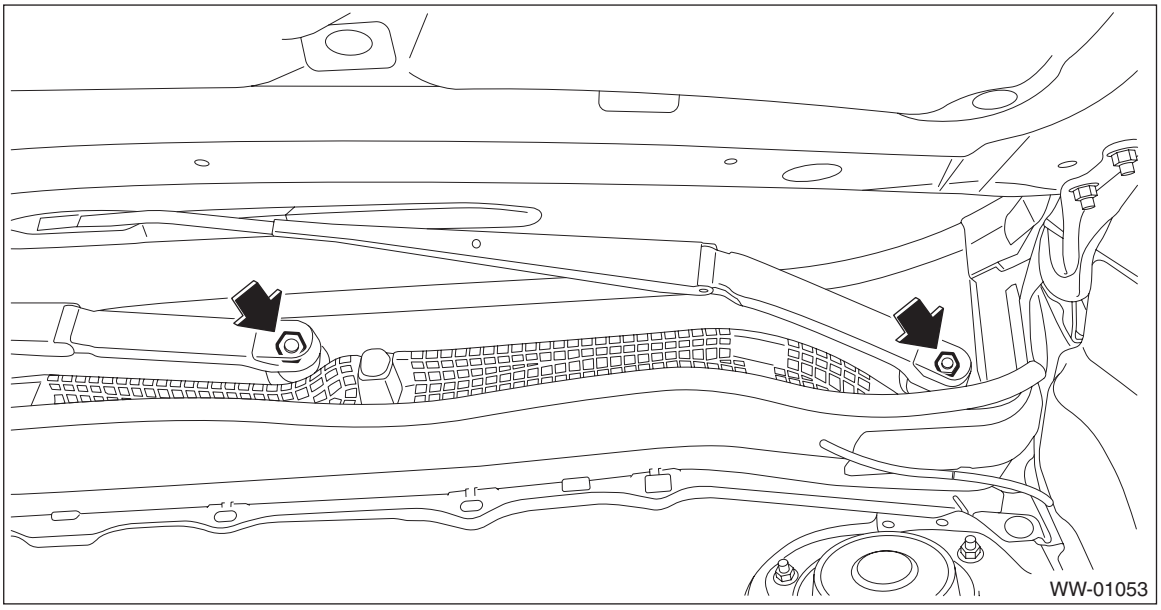
A: NOTE

Refer to the “Front hood” section of “EXTERIOR BODY PANELS” for removal and installation procedure of the front hood duct. <Ref. to EB-11, FRONT HOOD INSULATOR, REMOVAL, Front Hood.>

7. Front Wiper Arm

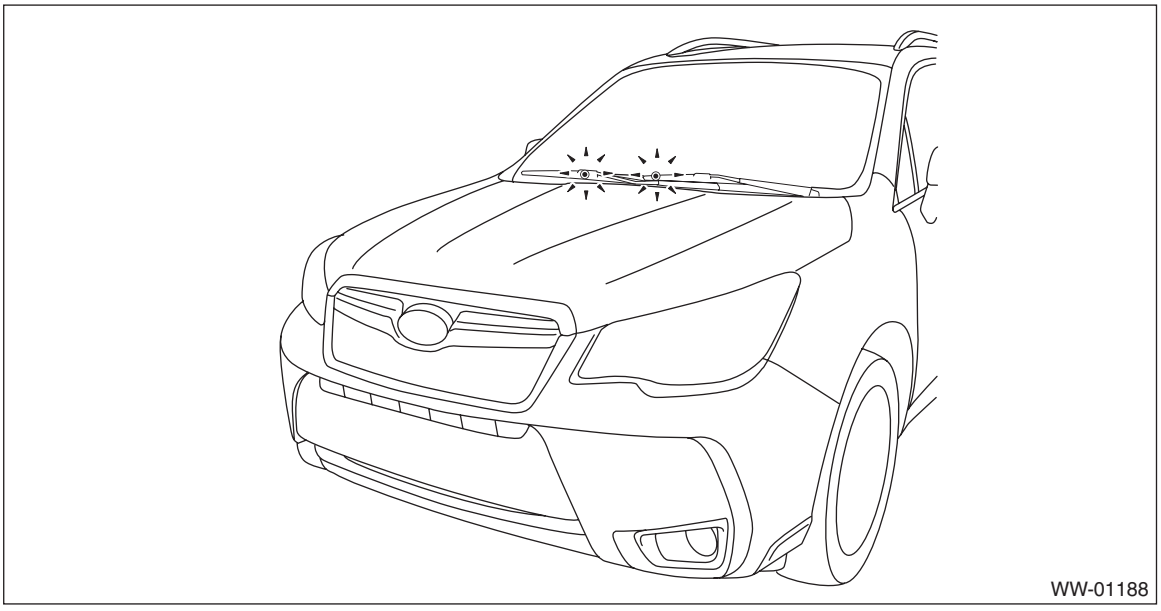
A: REMOVAL

1) Open the hood COMPL - front.
2) Remove the arm assembly - windshield wiper.
   (1) Remove the cover - windshield wiper arm.
   (2) Remove the nuts, and remove the arm assembly - windshield wiper.



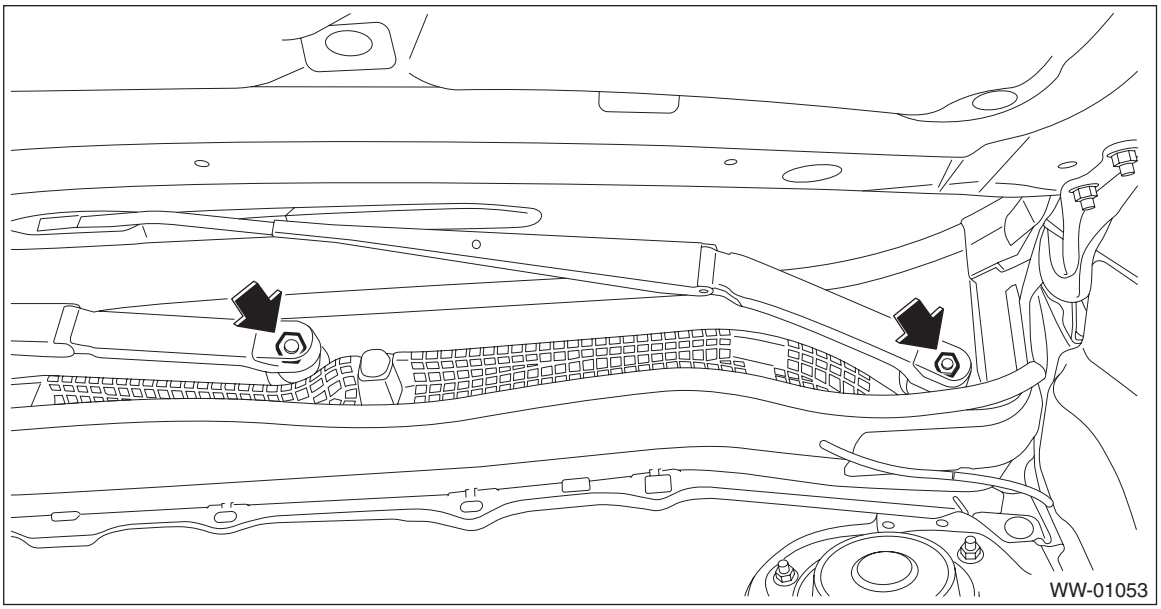
B: INSTALLATION

1) Install the arm assembly - windshield wiper.
   (1) Assemble the arm assembly - windshield wiper so that the blade assembly - windshield wiper is aligned to the ceramic print point mark of the windshield glass.



(2) Tighten the arm assembly - windshield wiper to specified torque and install the cap.

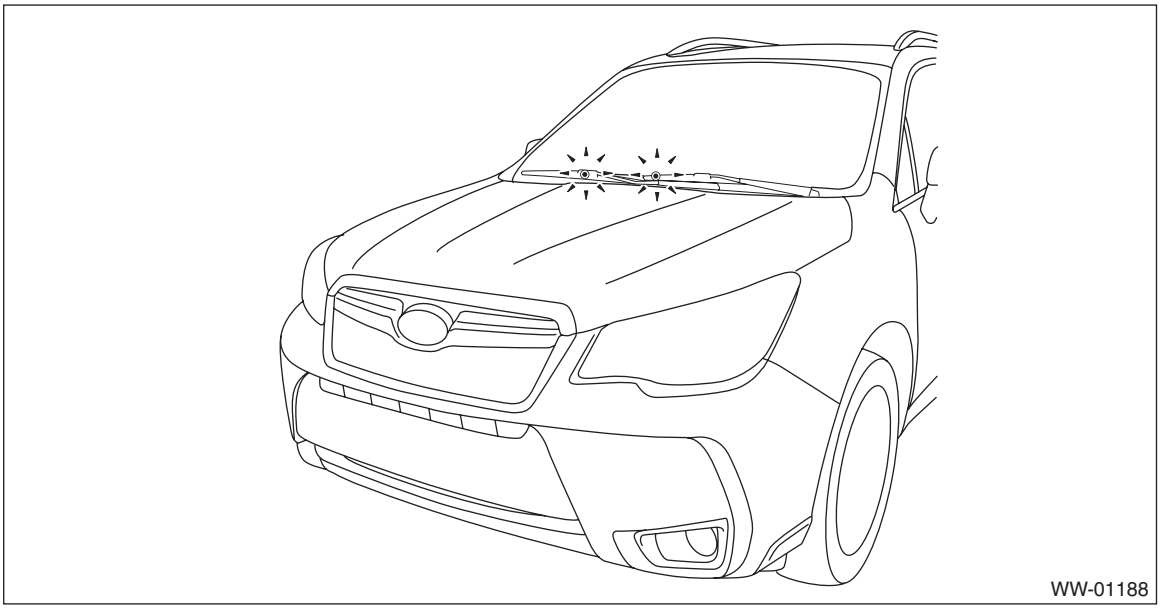
Tightening torque:
26 N·m (2.65 kgf-m, 19.2 ft-lb)



2) Check the position of windshield wiper.<Ref. to WW-28, ADJUSTMENT, Front Wiper Arm.>

C: ADJUSTMENT

1) Operate the windshield wiper once.
2) Check that the wiper blade is aligned with the point mark.

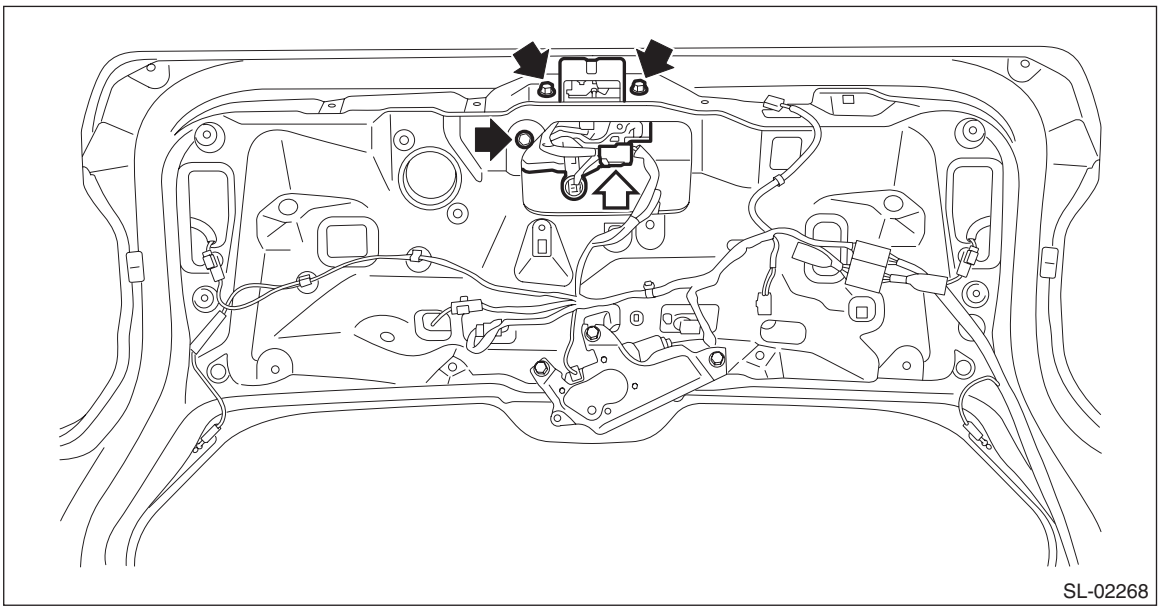


3) If the wiper blade is not aligned with the point mark, perform the removal and installation of the windshield wiper.<Ref. to WW-27, REMOVAL, Front Wiper Arm.>

7. Power Rear Gate Auto Closer

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate LWR. <Ref. to EI-122, REMOVAL, Rear Gate Trim.>
3) Remove the power rear gate auto closer.
   (1) Disconnect the connector.
   (2) Remove the bolts, and then remove the power rear gate auto closer.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Power rear gate auto closer: 25 N·m (2.55 kgf-m, 18.4 ft-lb)

C: INSPECTION

1. LATCH

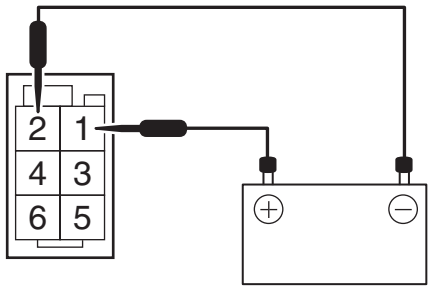
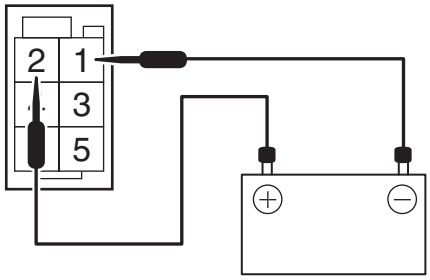
Pull the emergency lever to check that the latch operates properly.
If latch deformation, abnormal wear, or unsmooth lock operation is observed, replace the power rear gate auto closer.

2. ACTUATOR

Unit inspection

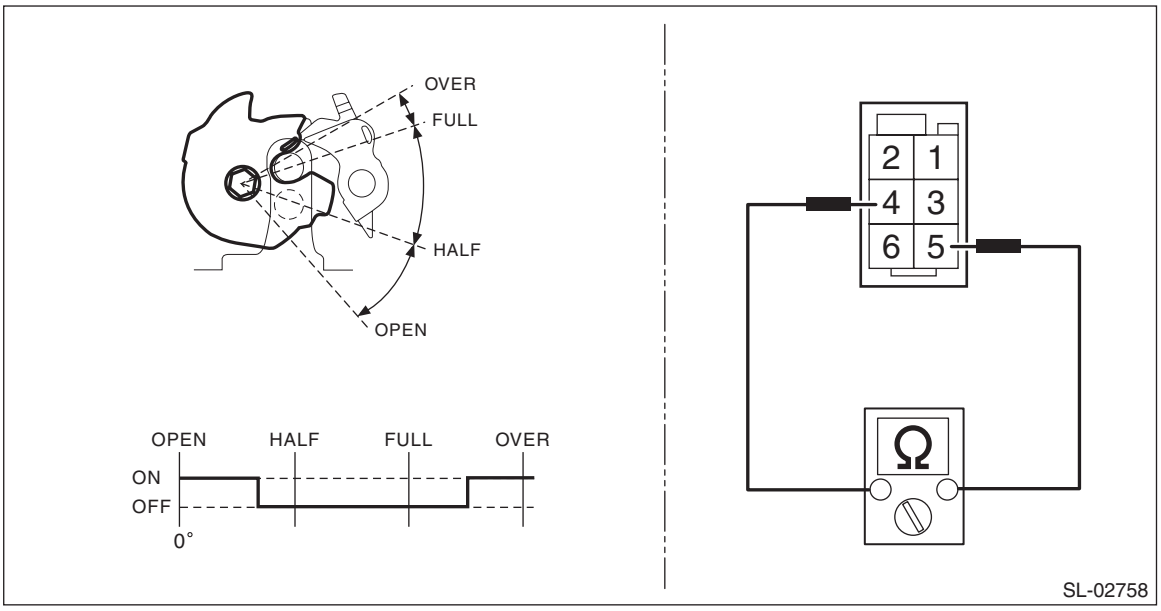
Preparation tool:
Circuit tester

1) Check motor operation
(1) Check the motor operation when battery voltage is applied between the terminals of motor.

Terminal No.	Inspection conditions	Specification	Connection diagram
1 (+) — 2 (–)	Connect battery to the terminals	CLOSE rotation	 SL-02432
2 (+) — 1 (–)		OPEN rotation	 SL-02431

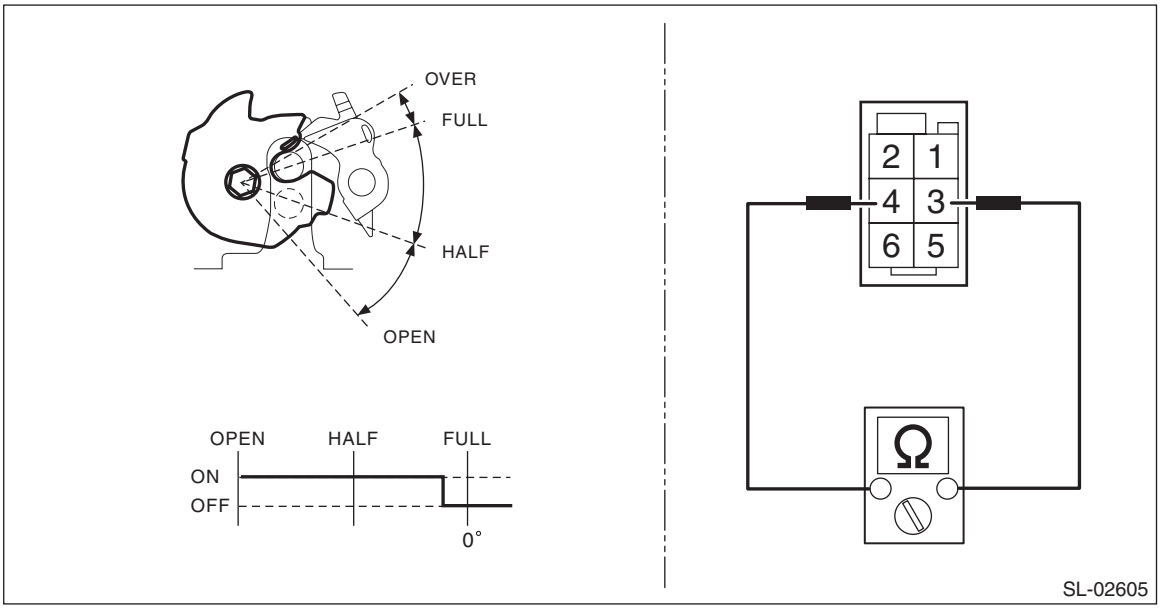
(2) After the motor operation check is completed, perform initialization of the sector switch in the following procedures.
1. Operate the motor in the OPEN direction for approximately 2 seconds.
2. Connect the connector of power rear gate auto closer.
3. Connect the battery ground cable with the rear gate fully open.

2) Check switch
(1) Check the resistance between switch terminals.
• Latch switch



Terminal No.	Inspection conditions	Standard
5 — 4	OPEN	Less than 1 Ω
	HALF	10 kΩ or more
	FULL	10 kΩ or more
	OVER	Less than 1 Ω

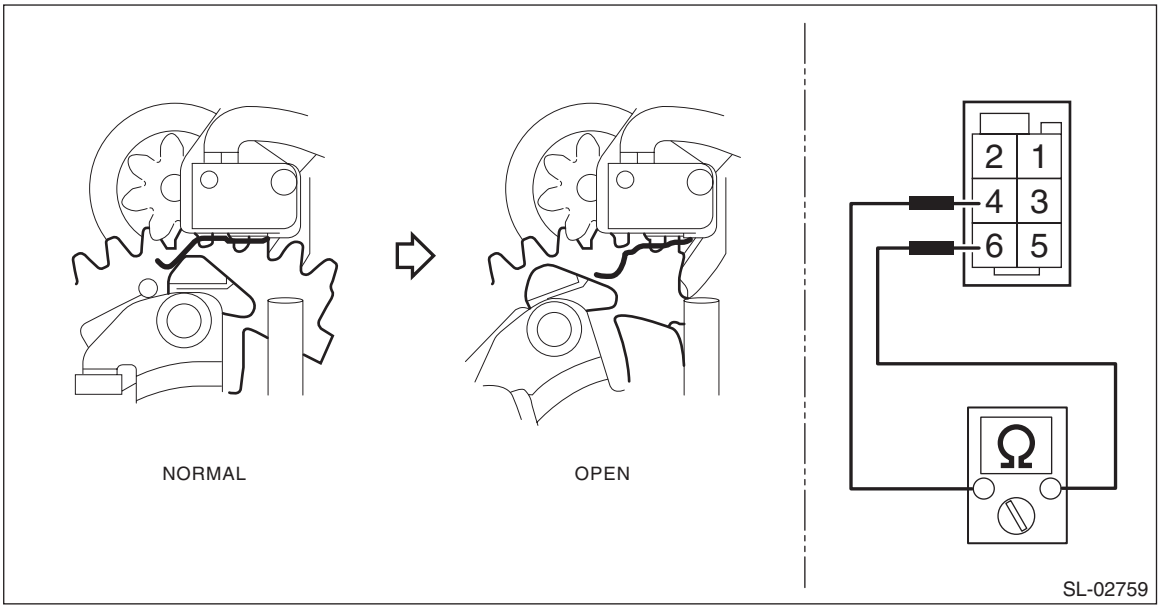
• Courtesy switch



Terminal No.	Inspection conditions	Standard
3 — 4	OPEN	Less than 1 Ω
	HALF	Less than 1 Ω
	FULL	10 kΩ or more

- Sector switch

CAUTION:
Perform the check while operating the motor in the OPEN direction with the battery voltage applied between the terminals of motor. For detailed procedures, refer to 1) Check motor operation.



Terminal No.	Inspection conditions	Standard
4 — 6	Switch ON (NORMAL)	Less than 1 Ω
	Switch OFF (OPEN)	10 kΩ or more

(2) After the switch check is completed, perform initialization of the sector switch in the following procedures.
1. Operate the motor in the OPEN direction for approximately 2 seconds.
2. Connect the connector of power rear gate auto closer.
3. Connect the battery ground cable with the rear gate fully open.

3) Replace the power rear gate auto closer if it is found defective.

7. Read Current Data

A: OPERATION

1. STEREO CAMERA

1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {ADA adaptive cruise control system}.
3) On «ADA adaptive cruise control system» display, select {EyeSight (from 2009MY)}.
4) Click the [OK] button after the information of stereo camera has been displayed.
5) On «EyeSight (from 2009MY)» display, select {Current Data Display & Save}.
6) Using the scroll key, scroll the display screen up or down until the following data is shown.

Display	Content	Unit of measure	Reference
Camera ID	Display of serial No. inside the stereo camera	—	Displayed by 12 digits.
Camera battery voltage	Display of input voltage of stereo camera	V	Battery voltage
Camera temperature sensor (present)	Display of present temperature for internal circuit of stereo camera	°C	—
Camera temperature sensor (past MAX value)	Display of stereo camera internal circuit temperature (past MAX value)	°C	—
Camera temperature sensor (past MIN value)	Display of stereo camera internal circuit temperature (past MIN value)	°C	—
Image ON/OFF status	ON/OFF status of present image sensor	—	ON (If the acceptable temperature range of the camera is exceeded or internal camera failure (partial) occurs, the image sensor turns off.)
Initial inspection distance accuracy rate	Factory settings information	%	—
Initial inspection distance	Factory settings information	—	—
Initial optical axis direction (X-axis)	Factory settings information	pix	—
Initial optical axis direction (Y-axis)	Factory settings information	pix	—
Initial optical axis correction value (X-axis)	Factory settings information	pix	—
Initial optical axis correction value 2 (X-axis)	Factory settings information	pix	—
Initial optical axis correction value (Y-axis)	Factory settings information	pix	—
Initial shim type	Factory settings information	—	One of the followings is displayed. • Upward correction • Standard • Downward correction
Initial left image, rotation deviation correction value	Factory settings information	—	—
Initial left image, vertical deviation correction value	Factory settings information	—	—
Initial distance correction value	Factory settings information	—	—
Initial error code	Factory settings information	—	—

Display	Content	Unit of measure	Reference
Initial aiming completion flag	Factory settings information	—	Aiming completed (After factory shipping, when stereo camera is replaced or adjusted, “Aiming not completed” is displayed.)
D C-Ratio	Dealer adjustment/inspection information	%	—
Distance	Dealer adjustment/inspection information	—	—
Optical axis correction value (X-axis)	Dealer adjustment/inspection information	pix	—
Optical axis correction value 2 (X-axis)	Dealer adjustment/inspection information	pix	—
Optical axis correction value (Y-axis)	Dealer adjustment/inspection information	pix	—
Left image, rotation deviation correction value	Dealer adjustment/inspection information	—	—
Left image, vertical deviation correction value	Dealer adjustment/inspection information	—	—
Distance correction value	Dealer adjustment/inspection information	—	—
Error code	Dealer adjustment/inspection information	—	—
Aiming execution history	Dealer adjustment/inspection information	—	—
Aiming completion flag	Dealer adjustment/inspection information	—	Aiming not completed (After factory shipping, when stereo camera is replaced or adjusted, “Aiming completed” is displayed.)
Automatic adjustment status	Index for automatic adjustment operation performed by the driving test after the completion of the optical axis adjustment	—	“1F” is displayed when completed.
Camera adjustment value (pitching)	Present adjustment status	pix	—
Camera adjustment value (yaw)	Present adjustment status	pix	—
Camera adjustment value (yaw 2)	Present adjustment status	pix	—
Pre-crash brake function	ON/OFF status by pre-collision brake OFF switch	—	Switch status is displayed. • ON • OFF
Lane deviation warning function	ON/OFF status by lane departure warning OFF switch	—	Switch status is displayed. • ON • OFF
Headlight SW (LO)	Operation status of headlight LO switch	—	Switch status is displayed. • ON • OFF
Turn SW (Left)	Operation status of left turn switch	—	Switch status is displayed. • ON • OFF
Turn SW (Right)	Operation status of right turn switch	—	Switch status is displayed. • ON • OFF
Wiper SW (Front)	Operation status of front wiper switch	—	Switch status is displayed. • ON • OFF
Distance from leading vehicle	Display of distance from preceding vehicle	m	—

Display	Content	Unit of measure	Reference
Lane recognition status	Display of lane recognition status	—	Displayed when 20 m or more of the vehicle lane is recognized. • Right lane recognition: “01” • Left lane recognition: “10” • Lane not recognized: “00”
Model registration information	Display of displacement and vehicle model	—	Vehicle information is displayed.
Ineffective distance data count	Number of data for invalid distance during aiming	—	—
Camera status1	Information of stereo camera	—	—
Camera status2	Information of stereo camera	—	—
Camera status3	Information of stereo camera	—	—
Camera status4	Information of stereo camera	—	—
Camera status5	Information of stereo camera	—	—
Camera status6	Information of stereo camera	—	—
Camera status7	Information of stereo camera	—	—
System software version (4BYTE)	Information of stereo camera	—	—
Recognition software version (4BYTE)	Information of stereo camera	—	—
Camera failure real-time information	Current camera failure information	—	—
Camera failure details, cumulative flag 1	Failure experience cumulative information since the last memory clear	—	—
Camera failure details, cumulative flag 2		—	—
Camera failure details, cumulative flag 3		—	—
Camera failure details, cumulative flag 4		—	—
Camera failure details, cumulative flag 5		—	—
Camera failure details, cumulative flag 6		—	—
Camera failure details, cumulative flag 7		—	—
Camera failure details, cumulative flag 8		—	—
Camera failure details, cumulative flag 9		—	—
Camera failure details, cumulative flag 10		—	—
Camera temporary stop, detail flag 1	Current camera temporary stop information <Ref. to ES(diag)-38, CAMERA TEMPORARY STOP INFORMATION, OPERATION, Read Current Data.>	—	—
Camera temporary stop, detail flag 2		—	—
Camera temporary stop, detail flag 3		—	—
Camera temperature, operation status	Current camera temperature/operation status	—	Temperature and operation status of camera are displayed. • Normal • High temperature • Low temperature
Ignition start number	Total IGN start number	Time	—

Display	Content	Unit of measure	Reference
Camera temperature abnormality IGON count 1	IGN time information when camera temperature becomes 85°C or more, or -40°C or less.	Time	When no abnormality in temperature is experienced, “0” is displayed.
Camera temperature abnormality IGON count 2	IGN time information when camera temperature becomes 85°C or more, or -40°C or less.	Time	
Camera temperature abnormality IGON count 3	IGN time information when camera temperature becomes 85°C or more, or -40°C or less.	Time	
Camera temperature abnormality IGON count 4	IGN time information when camera temperature becomes 85°C or more, or -40°C or less.	Time	
Camera temperature abnormality IGON count 5	IGN time information when camera temperature becomes 85°C or more, or -40°C or less.	Time	
Vehicle model registration information (camera inside)	—	—	—
Camera temporary stop details 1	The latest information of the camera temporary stop (Camera temporary stop: 0 count — 23 counts) <Ref. to ES(diag)-38, CAMERA TEMPORARY STOP INFORMATION, OPERATION, Read Current Data.>	—	—
Camera temporary stop details 2		—	—
Camera temporary stop details 3		—	—
Ignition start number when camera temporary stop	Total IGN start number since the latest camera temporary stop NOTE: If the IGN start number is “91” and the IGN start number during camera temporary stop is “85”, this indicates that the latest occurrence of camera temporary stop was during the IGN starting of 6 times ago (this number can be obtained by the expression 91 – 85 = 6).	Time	—
Camera status8	Stereo camera temporary stop information	—	—
Camera status9	Stereo camera temporary stop information	—	—

Display	Content	Unit of measure	Reference
Camera temporary stop 0 count	Cumulative number of stereo camera temporary stop occurrence since the last memory clear For occurrence condition of each count, refer to “LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS”. <Ref. to ES(diag)-84, LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS, LIST, List of Cancel Code.> The number of occurrence is stored in each field, depending on conditions under which the temporary stop was made at “Temporary stop occurrence of camera recognition system”. For details of the camera temporary stop information of current and past latest, check “Camera temporary stop, detail flag” and “Camera temporary stop details”. Temporary stop related to other than camera recognition system, such as “temporary stop due to VDC OFF switch”, is recorded in the cancel code.	Time	—
Camera temporary stop 1 count			
Camera temporary stop 2 count			
Camera temporary stop 3 count			
Camera temporary stop 4 count			
Camera temporary stop 5 count			
Camera temporary stop 6 count			
Camera temporary stop 7 count			
Camera temporary stop 8 count			
Camera temporary stop 9 count			
Camera temporary stop 10 count			
Camera temporary stop 11 count			
Camera temporary stop 12 count			
Camera temporary stop 13 count			
Camera temporary stop 14 count			
Camera temporary stop 15 count			
Camera temporary stop 16 count			
Camera temporary stop 17 count			
Camera temporary stop 18 count			
Camera temporary stop 19 count			
Camera temporary stop 20 count			
Camera temporary stop 21 count			
Camera temporary stop 22 count			
Camera temporary stop 23 count			

Display	Content	Unit of measure	Reference
ACC forced cancellation code 1(latest)	ACC forced cancellation occurrence information since the last memory clear For example of codes, refer to “LIST OF ACC FORCED CANCELLATION CODE”. <Ref. to ES(diag)-88, LIST OF ACC FORCED CANCELLATION CODE, LIST, List of Cancel Code.> “When the cruise control set is released and the set operation is not accepted”, the system records under which condition the ACC forced cancellation code is canceled and records the number of times since the latest occurrence of IGN start. If the cancellation is performed under the same condition, the code is not recorded as a new code, but recorded as the latest code, and the IGN number will be updated.	—	—
IGN-ON count when ACC forced cancellation code 1 recorded		times past	—
ACC forced cancellation code 2		—	—
IGN-ON count when ACC forced cancellation code 2 recorded		times past	—
ACC forced cancellation code 3		—	—
IGN-ON count when ACC forced cancellation code 3 recorded		times past	—
ACC forced cancellation code 4		—	—
IGN-ON count when ACC forced cancellation code 4 recorded		times past	—
ACC forced cancellation code 5		—	—
IGN-ON count when ACC forced cancellation code 5 recorded		times past	—
ACC forced cancellation code 6		—	—
IGN-ON count when ACC forced cancellation code 6 recorded		times past	—
ACC forced cancellation code 7		—	—
IGN-ON count when ACC forced cancellation code 7 recorded		times past	—
ACC forced cancellation code 8		—	—
IGN-ON count when ACC forced cancellation code 8 recorded		times past	—
Message counter (BIU)	Message counter signal for body integrated unit	—	—
Parking Brake Switch Input	Parking brake switch signal status	—	Operation status of parking brake is displayed. • ON • OFF
Brake lamp SW signal	Brake light switch signal status	—	Operation status of the brake pedal is displayed. • ON • OFF
Head lamp : small	Head lamp: small signal status	—	Light status is displayed. • ON • OFF
Head lamp : Low Beam	Head lamp: Low Beam signal status	—	Light status is displayed. • ON • OFF

Display	Content	Unit of measure	Reference
Head lamp : High Beam	Head lamp: High Beam signal status	—	Light status is displayed. • ON • OFF
Front wiper ON-OFF status	Front wiper signal status	—	Wiper status is displayed. • Wiper stop position • Other than wiper stop position
WGN/SDN flag	Vehicle type signal	—	• Sedan • Wagon
Door SW : D seat	Door switch signal status	—	Door status is displayed. • Close • Open
Door SW : P seat	Door switch signal status	—	Door status is displayed. • Close • Open
Door SW : rear right	Door switch signal status	—	Door status is displayed. • Close • Open
Door SW : rear left	Door switch signal status	—	Door status is displayed. • Close • Open
Accel opening angle	Acceleration opening angle signal	%	—
Message counter(ECM)	ECM message counter signal	—	—
Engine malfunction information	Engine malfunction signal	—	• Normal • Abnormal
ETC malfunction information	Electronic throttle control malfunction signal	—	• Normal • Abnormal
Engine Speed	Engine speed signal	rpm	—
CAN diagnosis, message transmission stop demand	Transmission stop signal for CAN diagnosis and CAN data	—	• Normal • Stop
Torque reverse pull accelerator degree for Cruise control	Torque reverse pull accelerator degree for Cruise control	%	—
ETC Throttle angle signal	Electronic throttle control opening angle signal	%	—
Idle Switch	Idle switch signal	—	• ON • OFF
Driver's request torque	Torque signal requested by driver	N·m	—
Actual engine torque	Actual engine torque signal	N·m	—
Fuel cut flag	Fuel cut signal	—	• Normal • Cut
X mode display information	X mode signal	—	• ON • OFF
Cruise main switch status	Status of the cruise control main switch (cruise switch)	—	Switch status is displayed. • Other than ON • ON
Cruise command switch status	Status of the cruise control command switch	—	Switch status is displayed. • Cruise switch OFF • CANCEL switch ON • RES/+ switch ON • SET/– switch ON • Vehicle distance SW ON Other statuses are not displayed.

Display	Content	Unit of measure	Reference
Target vehicle distance setting status	Setting status of target vehicle distance	—	Settings are displayed. • Distance setting: Long • Distance setting: Medium • Distance setting: Short • Constant speed
Accelerator permission state	Acceleration permission signal	—	• ON • OFF
Resume hold permission state	Resume hold permission signal	—	• ON • OFF
Coast status	Coast status signal of engine	—	• Other than coast • Coast
Resume slowdown side hold permission state	Resume slowdown side hold permission signal	—	• ON • OFF
Fuel type	Fuel type	—	Information of engine equipped is displayed.
Engine displacement	Engine displacement	—	Information of engine equipped is displayed.
Camshaft type	Engine type	—	Information of engine equipped is displayed.
Number of cylinder	Number of cylinder for engine	—	Information of engine equipped is displayed.
Turbo	Presence or absence of turbo	—	Information of engine equipped is displayed.
Cruise main status	Status of the cruise control main switch	—	Switch status is displayed. • ON • OFF
Cruise control SET status	Status of the cruise control set	—	Switch status is displayed. • Not set • Set
Accelerator wide opening judgment status	Signal that judges the accelerator opening angle to be “wide”.	—	• Not established • Established
Brake status	Brake switch signal status	—	Brake switch status is displayed. • BRAKE OFF • BRAKE ON
Adaptive cruise control data NG flag	NG signal of stereo camera data	—	• OK • NG
Adaptive cruise control torque down prohibition flag	Torque down prohibition signal of stereo camera	—	• ON • OFF
Fuel cut control permission state	Fuel cut control permission signal	—	• ON • OFF
Transmission Information	Transmission equipped signal	—	Transmission equipped is displayed. • AT or CVT • MT
SI Drive mode (Display)	SI Drive mode (Display)	—	• S# • I • S
CRUISE Indicator ON request	CRUISE indicator ON request signal	—	Indicator illumination status is displayed. • OFF • ON
SET Indicator ON request	Request signal for SET indicator illumination	—	Indicator illumination status is displayed. • OFF • ON

Display	Content	Unit of measure	Reference
Cruise Control Set Speed	Set vehicle speed value for cruise control	km/h	SET value is displayed.
demand torque after filter	Demand torque after filter	Nm	—
EEPROM failure	Failure signal of combination meter	—	• Normal • Abnormal
Message counter(Meter)	Message counter signal of combination meter	—	—
External air temperature indication value	Ambient air temperature signal	°C	—
Driver's seat belt status	Status of driver's seat belt	—	Seat belt status is displayed. • Seat belt released • Seat belt fastened
Turn signal, Left output	Output signal for left turn signal	—	Operation status is displayed. • OFF • Turn signal, Left output
Turn signal, Right output	Output signal for right turn signal	—	Operation status is displayed. • OFF • Turn signal, Right output
Vehicle type information	Vehicle type information signal	—	Vehicle type is displayed. • Impreza series • Forester series • Exiga series
Destination Code	Destination code signal	—	Destination is displayed.
Adaptive cruise control specification flag	Adaptive cruise distinction signal	—	• ACC specification • Otherwise
Eye Sight specification flag	EyeSight distinction signal	—	• Eye Sight specification • Otherwise
Adaptive CC ECM, CAN information no-receive flag	No-receive signal of stereo camera CAN data	—	• Normal • Data no-receive
Auto Start Stop Flag	Auto Start Stop distinction signal	—	Vehicle information is displayed. • Without Auto Start Stop • With Auto Start Stop
Tire diameter information	Tire diameter distinction signal	—	• Standard • Special
Fluid pressure target	Target value of brake fluid pressure	MPa	—
Preview VDC command flag	Preview VDC command signal	—	• Normal VDC • Preview VDC status
Pre-crash BA command flag	Pre-crash brake assist command signal	—	• Not commanded • Commanding
Pre-crash action flag	Pre-crash command signal	—	• Not commanded • Commanding
Brake Lamp light up command flag	Brake lamp light up command signal	—	• Brake Lamp light off • Brake Lamp light up
Adaptive CC ECM malfunction flag for VDC	Failure signal of stereo camera to VDC control module	—	• Normal (ACC/pre-crash control OK) • Malfunction (ACC/Pre-crash control NG)
Brake control actuation permission flag	Brake operation permission signal	—	• Brake control non-actuate • Brake control actuate
Pre-crash BA threshold	Pre-crash brake assist threshold	—	• Normal • Pre-crash BA threshold 1 • Pre-crash BA threshold 2 • Without Request
Preview VDC properties flag	Preview VDC properties signal	—	• Invalidity (no characteristic change) • Parameter 1 • Parameter 2

Display	Content	Unit of measure	Reference
Message counter (Adaptive CC ECM)1	Message counter signal of stereo camera	—	—
Target torque	Target torque command signal	N·m	—
Leading vehicle follow flag	Preceding vehicle follow signal	—	• Not following • Following
LSF Flag	Low speed following mode signal	—	• Other than LSF • LSF
ACC forced cancellation flag	ACC forced cancellation signal	—	• ACC non-forced cancel • ACC forced cancelling
Brake system distinction flag	Brake system distinction signal	—	Vehicle brake system is displayed. • VDC control • Booster control
Brakes control flag (during ACC brakes)	Actuation signal of brake control	—	• Not performed • ACC brake
AT rapid start prevention control flag	AT rapid start prevention control	—	• With AT rapid start prevention control • Without AT rapid start prevention control
Stop hold, before reserve flag	Stop hold, before reserve signal	—	• OFF • ON (stop holding and before reserve)
Target torque command flag	Target torque command signal	—	• Target vehicle speed command • Target torque command
AT rapid start prevention, engine torque down command value	AT rapid start prevention control, engine torque down command value	N·m	—
Pre-crash ON flag	Pre-crash ON signal	—	• ON • OFF
Adaptive Cruise control ECU abnormality flag for CVT,EGI	Failure signal of stereo camera for AT CM and ECM	—	• Normal • Abnormal
Road surface incline estimation value (level ground G deviation)	Road surface incline estimation value (level ground G deviation) signal	G	—
Check sum	Error detection signal of adaptive cruise control	—	—
ACC braking (driver or control) flag (for CVT)	ACC braking (driver or control) signal (for CVT)	—	• OFF • ACC braking
Message counter (Adaptive CC ECM)2	Message counter signal of stereo camera	—	—
Customized flag 2	Setting status of detection beep for preceding vehicle	—	• OFF • ON
Customize flag 3	Setting status of forward vehicle start monitoring function	—	• OFF • ON
P-CR OFF indicator on flag	Pre-collision brake OFF indicator light illumination command signal	—	Operation status of indicator is displayed. • Light off command (Pre-crash ON) • Light on command (Pre-crash OFF)

Display	Content	Unit of measure	Reference
LANE OFF indicator on flag	Lane departure warning OFF indicator light illumination command signal	—	Operation status of indicator is displayed. • Light off command (Lane deviation, stagger ON) • Light on command (Lane deviation, stagger OFF)
Buzzer volume	Buzzer volume setting status	—	Volume setting is displayed. • Small • Middle • Loud • No setting
HALT code	HALT code signal	—	• No HALT • HALT(E1 camera view defectiveness) • HALT(E2 camera temperature range outside) • HALT(E3 and others)
ACC cancellation reason indication or customization	ACC cancellation reason indication or customization signal	—	<When customize request flag is OFF (ACC cancellation reason indication)> • Manual mode, other than D position • Door open (D side, front P side, rear left, rear right) • D seat seat-belt loser • Parking brake operation • VDC SW OFF • X mode • Low vehicle speed • Steering operation • High vehicle speed • ABS operation • VDC operation • Steeply sloping road • Other <When customize request flag is ON> • Departure monitor setting • Preceding vehicle capture / lost sound • Buzzer volume setting
Cruise indicator flag for meter display	CRUISE indicator ON signal	—	Operation status of indicator is displayed. • OFF • ON
Cruise control SET ON flag	SET indicator illumination signal	—	Operation status of indicator is displayed. • CC not set • CC SET
MFD display specification sortation flag	MFD display specification sortation signal	—	• Basic screen, an interrupt screen (other than the United States) • Basic screen, No interrupt screen (United States)
Stop holding flag	Stop judgment status	—	• OFF • Stop holding

Display	Content	Unit of measure	Reference
READY flag	READY indicator illumination signal	—	Operation status of indicator is displayed. • CC not READY • CC READY
Vehicle distance setting	Vehicle distance setting indicator signal	—	Settings are displayed. • Distance setting: Short • Distance setting: Medium • Distance setting: Long • CC constant speed mode
Customize request flag	Customize request signal	—	• Customize non request • Customize requesting
Vehicle speed set for meter display	Setting value for cruise set speed	km/h	—
Warning code	Warning code signal	—	• No alarm • HALT • Increase Brake Pedal Load/ Vehicle distance alarm/Pre-crash brake • ACC automatic cancel • Pre-crash brakes 2 • Lane deviation warning • Stagger warning • Preceding vehicle capture / lost sound • Front vehicle acceleration • AT false start restraint
Adaptive Cruise control ECU abnormality flag for meters	Failure signal of stereo camera for meter	—	• Normal • Abnormal
Message counter (Adaptive Cruise control ECU)3	Message counter signal of stereo camera	—	—
Brake-lamp lighting indication flag	Brake-lamp lighting indication signal	—	Illumination status of the brake light is displayed. • OFF • ON
Lane (solid line) blinking	Lane (solid line) blinking signal	—	Operation status of indicator is displayed. • OFF • Both lanes (solid line) blinking • Both lanes (solid line) alternation blinking
Steering wheel indication	Lane deviation warning light (handle mark) illumination signal	—	Operation status of indicator is displayed. • OFF • ON • Blinking 1 • Blinking 2
Preceding vehicle indication	Preceding vehicle indicator signal	—	Operation status of indicator is displayed. • OFF • ON • Blink
Distance from leading vehicle	Preceding vehicle distance signal	—	Preceding vehicle distance is displayed.
Message counter(TCM)	Message counter signal of TCM	—	—

Display	Content	Unit of measure	Reference
TCM shift control mode	TCM shift control mode signal	—	AT shift mode is displayed. • Range fixation mode • Gear fixation mode (manual) • Range fixation automatic return mode (temporary range fixation) • Gear fixation automatic return mode (temporary manual) • M range automatic shift mode (Sport mode) • D range automatic shift mode • Other than above
Hill down mode flag	Hill down mode signal	—	Hill down mode is displayed. • Hill down cancelling • Hill down
AT turbine speed	AT turbine speed signal	rpm	—
Target gear position	Target gear position signal	—	Target gear position is displayed. • N • 1 • 2 • 3 • 4 • 5 • 6 • Automatic neutral • R • P No items other than above are displayed.
Current gear position	Current gear position signal	—	Current gear position is displayed. • N • 1 • 2 • 3 • 4 • 5 • 6 • Automatic neutral • R • P No items other than above are displayed.
TCM malfunction information	Failure signal of TCM	—	• Abnormal • Normal
CAN diagnosis, message transmission stop demand	Transmission stop judgment for CAN diagnosis and CAN data by TCM	—	• Normal • Stop
Auto Start Stop : Brake Flag	Auto Start Stop brake cooperation signal	—	• Open • Conclusion
Total reduction ratio (current)	Current total reduction ratio signal	—	—
Lock up status	Lock up status	—	Current status is displayed. • Open • Slip • Lock-up
AWD type	Driving method of AWD	—	Vehicle information is displayed.
AT Type	AT type	—	Transmission equipped information is displayed.

Display	Content	Unit of measure	Reference
Steering angle sensor value (Right: +, Left: -)	Steering angle sensor value signal	deg	• Right turn: + • Left turn: -
Yaw Rate value (Right: –, Left: +)	Yaw rate value signal	deg/s	• Right turn: - • Left turn: +
Lateral acceleration (Right: –, Left: +)	Lateral acceleration signal	m/s^2	• Right turn: - • Left turn: +
Longitudinal G sensor value	Longitudinal acceleration	m/s^2	Deceleration: + Acceleration: –
Wheel speed average speed	Wheel speed average speed signal	km/h	—
M/C actual fluid pressure	Brake fluid pressure in master cylinder	MPa	—
Brake lamp state flag	Brake lamp state signal	—	• Lights off state • Lights on state
Wheel speed pulse counter	Wheel speed pulse counter signal	—	—
Right front wheel W/C actual fluid pressure	Right front wheel cylinder fluid pressure	MPa	—
Left front wheel W/C actual fluid pressure	Left front wheel cylinder fluid pressure	MPa	—
Vehicle height information	Vehicle height information	—	Vehicle information is displayed. • Standard • OBK
VDC-OFF Indicator status	VDC-OFF indicator status	—	Operation status of indicator is displayed. • Lamp off • Lamp on
ABS operation flag	Operating status signal of ABS	—	Operation status is displayed. • Not operating • Operating
TCS operation flag	Operating status signal of TCS	—	Operation status is displayed. • Not operating • Operating
VDC oversteer control flag	Operating status signal of VDC	—	Control status is displayed. • Not during control • During control
VDC understeer control flag	Operating status signal of VDC	—	Control status is displayed. • Not during control • During control
Preview VDC standby flag	Preview VDC standby status	—	• Normal VDC • Preview VDC status
BLS Signal status	Brake light illumination status	—	Illumination status is displayed. • OFF • BRAKE ON
BLS failure signal	Brake light switch failure signal	—	• Trouble • Normal
VDC-OFF Flag	VDC OFF signal	—	Switch status is displayed. • System OFF • System ON
VDC sensor abnormal flag	VDC sensor failure signal	—	• Sensor abnormal • Sensor normal
Vehicle speed sensor abnormal flag	Vehicle speed sensor failure signal	—	• Sensor abnormal • Sensor normal
VDC system abnormal flag	VDC system failure signal	—	• Abnormal • Normal
CAN diagnosis, transmissions stop	Transmission stop judgment for CAN diagnosis and CAN data	—	• ON • Diagnosis, send message stop request

Display	Content	Unit of measure	Reference
TSM operation flag	TSM operation signal	—	• Not during control • During control
RMI operation flag	RMI operation signal	—	• Not during control • During control
Adaptive CC ECM malfunction reception status	Failure signal of stereo camera	—	• Malfunction reception • Malfunction no-receive
Adaptive CC ECM communication error	Communication failure signal of stereo camera	—	• Abnormal • Normal
Adaptive CC ECM deceleration request reception status	Deceleration request reception status signal from stereo camera	—	• Without Request • Request
Pre-crash BA request reception status	Pre-crash brake assist request reception status	—	• Without Request • Request
Pre-crash request reception status	Pre-collision brake request reception status signal	—	• Without Request • Request
Brake control permission flag	Brake control permission signal	—	• No permission • ON
Driver brake detection flag	Driver brake detection signal	—	• OFF • ON
Message counter (VDC)	Message counter signal of VDC	—	—
Front left wheel speed	Front left wheel speed signal	km/h	—
Front right wheel speed	Front right wheel speed signal	km/h	—
Message counter (Auto Start Stop)	Message counter of Auto Start Stop CM	—	—
Restart cranking demand	Restart cranking demand signal	—	• No request • With Request
Under Auto Start Stop control	Under Auto Start Stop control signal	—	• Outside Auto Start Stop control • Under Auto Start Stop control
Main power supply voltage drop state	Main power supply voltage drop state	—	• Other than power supply voltage drop • Power supply voltage drop
idling stop demand	Idling stop demand signal	—	• No request • With Request
During idling stop	During idling stop signal	—	• Other than during idling stop signal • During idling stop
Auto Start Stop operation permission	Auto Start Stop operation permission signal	—	• Operation prohibit • Operating Permission
Auto Start Stop system failure	Auto Start Stop system failure signal	—	• Normal • Abnormal

NOTE:
- For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.
- For details on camera temporary stop count, refer to “LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS”. <Ref. to ES(diag)-84, LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS, LIST, List of Cancel Code.>
- For details on ACC forced cancellation code, refer to “LIST OF ACC FORCED CANCELLATION CODE”. <Ref. to ES(diag)-88, LIST OF ACC FORCED CANCELLATION CODE, LIST, List of Cancel Code.>

2. CAMERA TEMPORARY STOP INFORMATION

Display	Measurement value	Remarks
Camera temporary stop, detail flag 1 and Camera temporary stop details 1	00	Not applicable to conditions of camera temporary stop count 0 — 7.
	01	Temporary stop has been made under the condition of camera temporary stop count 0.
	02	Temporary stop has been made under the condition of camera temporary stop count 1.
	04	Temporary stop has been made under the condition of camera temporary stop count 2.
	08	Temporary stop has been made under the condition of camera temporary stop count 3.
	10	Temporary stop has been made under the condition of camera temporary stop count 4.
	20	Temporary stop has been made under the condition of camera temporary stop count 5.
	40	Temporary stop has been made under the condition of camera temporary stop count 6.
	80	Temporary stop has been made under the condition of camera temporary stop count 7.
Camera temporary stop, detail flag 2 and Camera temporary stop details 2	00	Not applicable to conditions of camera temporary stop count 8 — 15.
	01	Temporary stop has been made under the condition of camera temporary stop count 8.
	02	Temporary stop has been made under the condition of camera temporary stop count 9.
	04	Temporary stop has been made under the condition of camera temporary stop count 10.
	08	Temporary stop has been made under the condition of camera temporary stop count 11.
	10	Temporary stop has been made under the condition of camera temporary stop count 12.
	20	Temporary stop has been made under the condition of camera temporary stop count 13.
	40	Temporary stop has been made under the condition of camera temporary stop count 14.
	80	Temporary stop has been made under the condition of camera temporary stop count 15.
Camera temporary stop, detail flag 3 and Camera temporary stop details 3	00	Not applicable to conditions of camera temporary stop count 16 — 23.
	01	Temporary stop has been made under the condition of camera temporary stop count 16.
	02	Temporary stop has been made under the condition of camera temporary stop count 17.
	04	Temporary stop has been made under the condition of camera temporary stop count 18.
	08	Temporary stop has been made under the condition of camera temporary stop count 19.
	10	Temporary stop has been made under the condition of camera temporary stop count 20.
	20	Temporary stop has been made under the condition of camera temporary stop count 21.
	40	Temporary stop has been made under the condition of camera temporary stop count 22.
	80	Temporary stop has been made under the condition of camera temporary stop count 23.

NOTE:
For details on camera temporary stop count, refer to “LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS”. <Ref. to ES(diag)-84, LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS, LIST, List of Cancel Code.>

3. ENGINE CONTROL MODULE (ECM)

For current data of engine control module, refer to ENGINE (DIAGNOSTICS). <Ref. to EN(H4DO)(diag)-41, DISPLAY OF ENGINE FREEZE FRAME DATA, OPERATION, Subaru Select Monitor.>

4. VDC CONTROL MODULE (VDCCM)

For current data of VDC control module, refer to VDC (DIAGNOSTICS). <Ref. to VDC(diag)-16, READ CURRENT DATA, OPERATION, Subaru Select Monitor.>

5. TRANSMISSION CONTROL MODULE (TCM)

For current data of transmission control module, refer to CVT (DIAGNOSTICS). <Ref. to CVT(diag)-19, READ CURRENT DATA, OPERATION, Subaru Select Monitor.>

6. BODY INTEGRATED UNIT

For current data of body integrated unit, refer to BODY CONTROL (DIAGNOSTICS). <Ref. to BC(diag)-11, LIST, Read Current Data.>

7. Read Diagnostic Trouble Code (DTC)

A: OPERATION

- For operation procedures, refer to the “PC application help for Subaru Select Monitor”.
- For details concerning DTC, refer to the List of Diagnostic Trouble Codes (DTC). <Ref. to PRG(diag)-15, LIST, List of Diagnostic Trouble Code (DTC).>

7. Read Diagnostic Trouble Code (DTC)

A: OPERATION

- For operation procedures, refer to the “PC application help for Subaru Select Monitor”.
- For details concerning DTC, refer to the List of Diagnostic Trouble Codes (DTC). <Ref. to AL(diag)-12, LIST, List of Diagnostic Trouble Code (DTC).>

7. Read Diagnostic Trouble Code (DTC)

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

7. Read Diagnostic Trouble Code (DTC)

A: OPERATION

- For operation procedures, refer to the “PC application help for Subaru Select Monitor”.
- For detailed concerning DTC, refer to the List of Diagnostic Trouble Codes (DTC). <Ref. to IDI(diag)-23, LIST, List of Diagnostic Trouble Code (DTC).>

7. Read Diagnostic Trouble Code (DTC)

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

7. Real-time Diagnosis

A: OPERATION

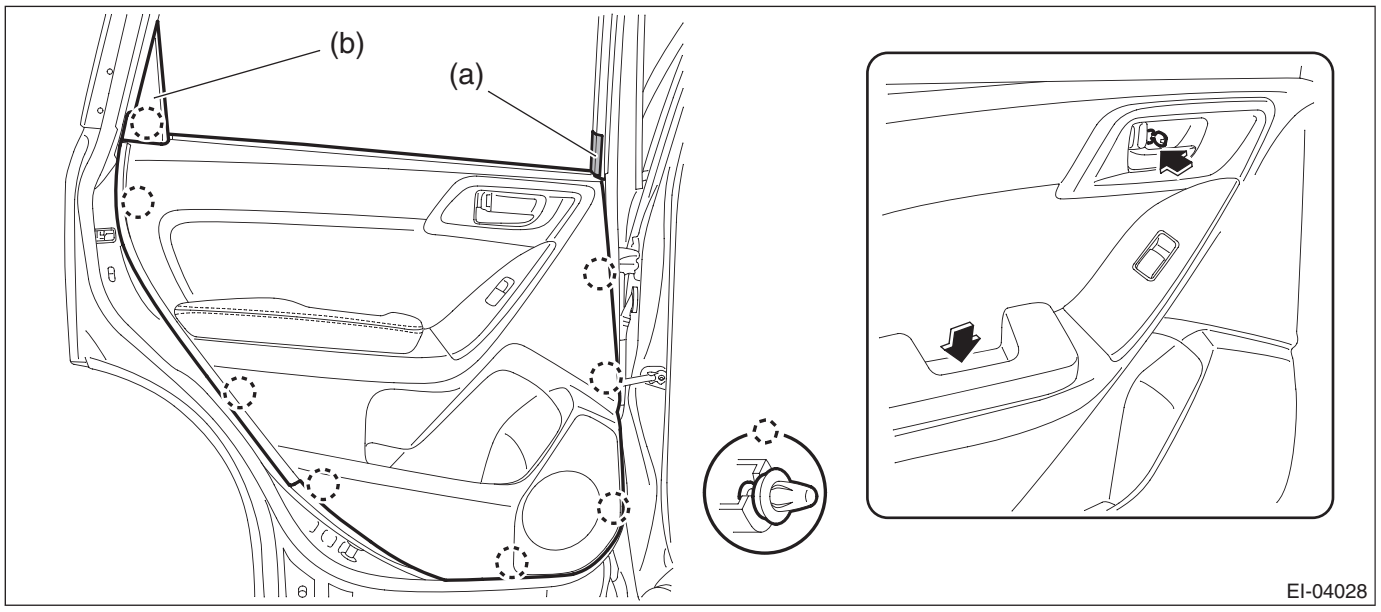
1) Select {Current Data Display & Save} in «Engine Diagnosis» display screen.
2) Make sure that normal display is shown when operated as follows:
- Depress and release the brake pedal. (Stop light switch and brake switch turn ON.)
- Turn the “CRUISE” switch to ON.
- Turn the “CANCEL” switch to ON.
- Turn the “SET/–” switch to ON.
- Turn the “RES/+” switch to ON.
- Depress or release the clutch switch.
- Place the shift lever in any position other than neutral.

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

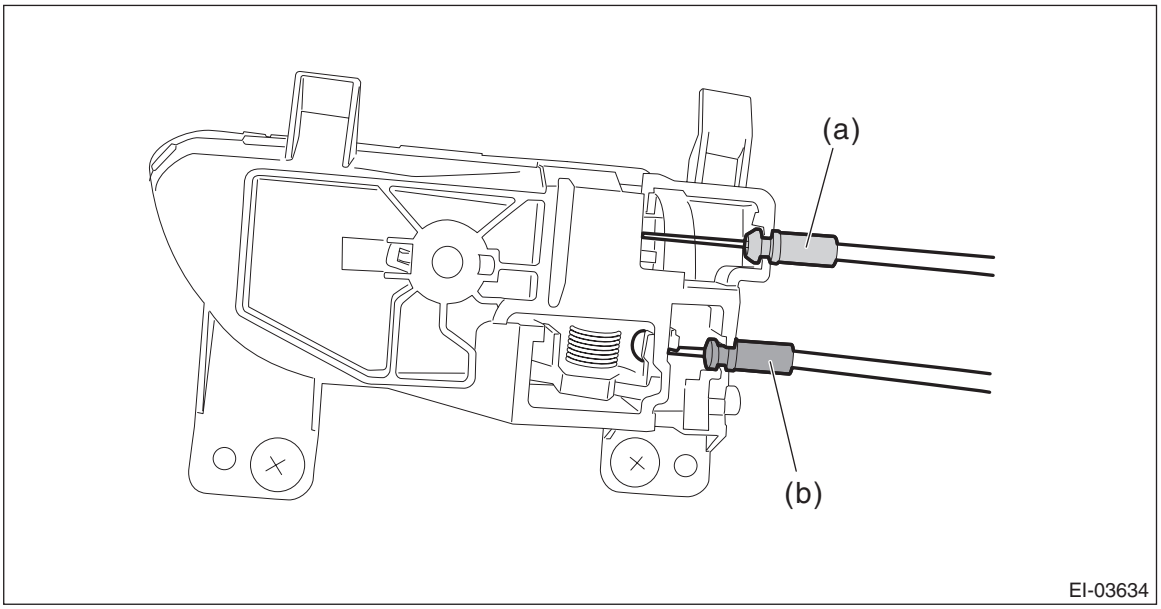
7. Rear Sealing Cover

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear door.
   (1) Attach the protective tape (a) to the door sash.
   (2) Remove the clip, and remove the cover - gusset door (b).
   (3) Open the cover and remove the screw.
   (4) Remove the clips, and remove the trim panel - rear door from the panel assembly - rear door.



   (5) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.

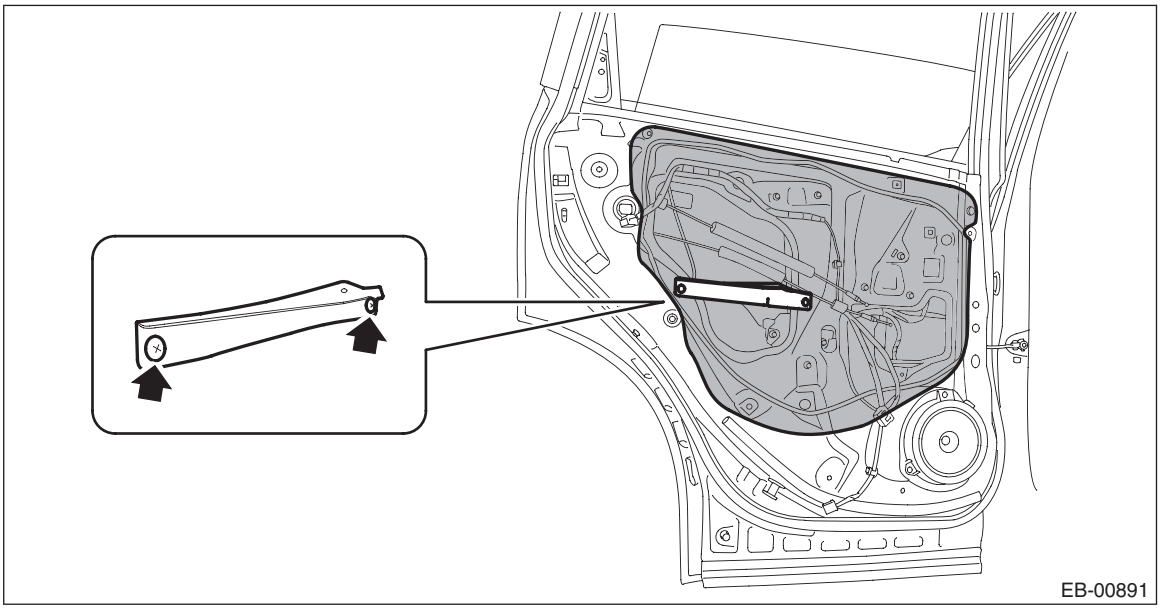


   (6) Disconnect the harness connector and remove the trim panel - rear door.

3) Remove the sealing cover - rear door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Remove the screw to remove the bracket - door trim rear.
(2) Carefully remove the butyl tape to remove the sealing cover - rear door.



B: INSTALLATION

CAUTION:
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Apply a butyl tape evenly.**
- **Attach the sealing cover - rear door, keeping it from becoming wrinkled.**
- **If the butyl tape is applied unevenly, it will cause water leakage and soiling.**

1) Install each part in the reverse order of removal.
2) When replacing the sealing cover - rear door, use the butyl tape.
3) Press the butyl tape-applied area firmly to prevent any floating on surface.

Butyl tape:
3M 8626 or equivalent

C: INSPECTION

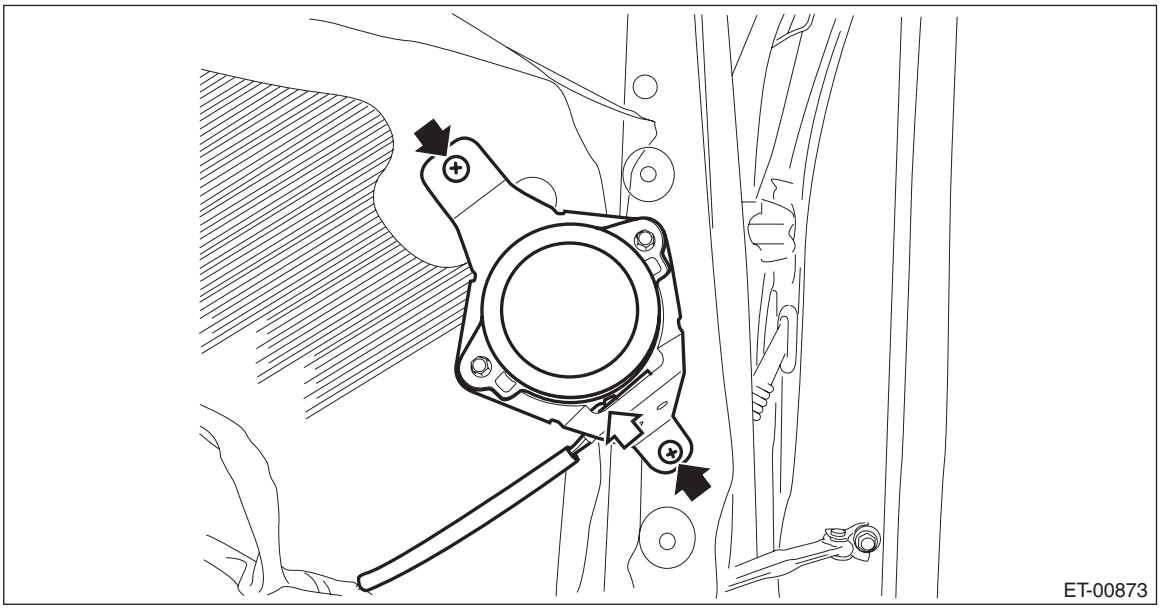
If the sealing cover - rear door is broken, replace it with a new part.

7. Rear Speaker

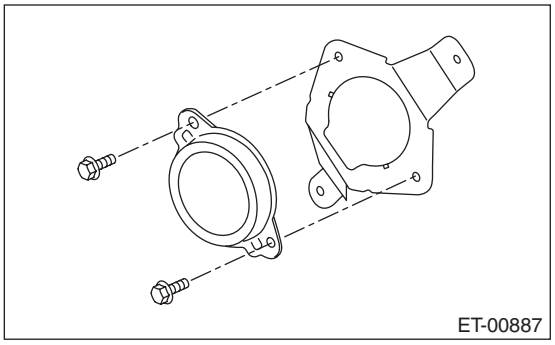
A: REMOVAL

1. TWEETER

NOTE:
harman/kardon® audio system only.
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
3) Remove the speaker assembly - tweeter.
   (1) Disconnect the connector.
   (2) Remove the screws and remove the speaker assembly - tweeter.



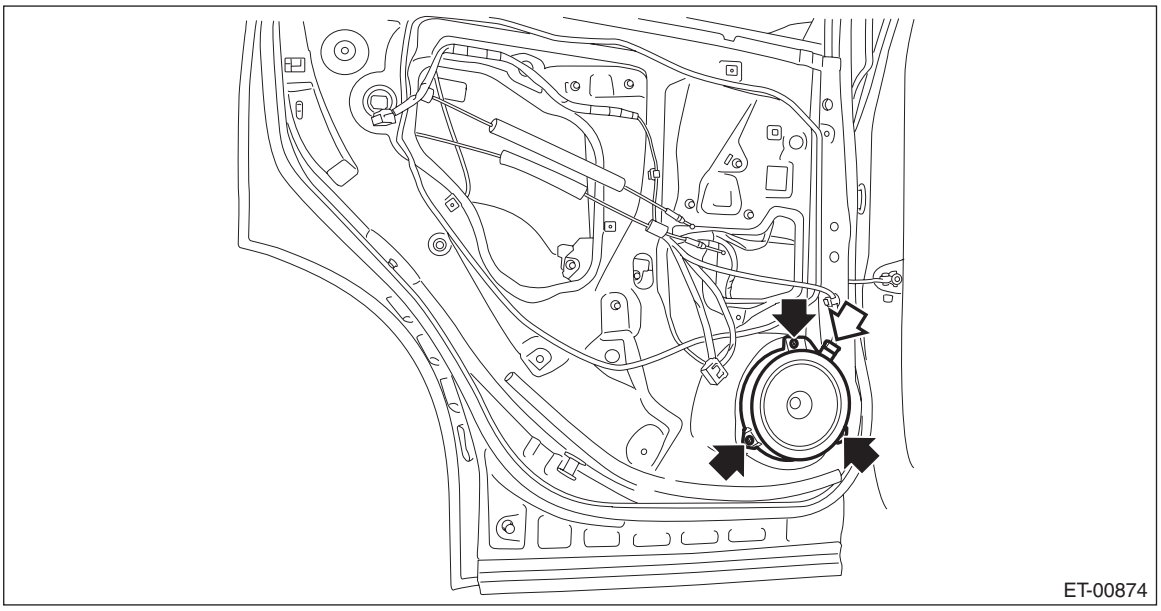
NOTE:
As necessary, remove the bracket from the speaker assembly - tweeter.



2. DOOR SPEAKER

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
3) Remove the rear speaker assembly.
   (1) Disconnect the connector.
   (2) Remove the screws to remove the rear speaker assembly.

CAUTION:
Be careful not to damage the claw for temporary retention. (Model without harman/kardon® audio system)



B: INSTALLATION

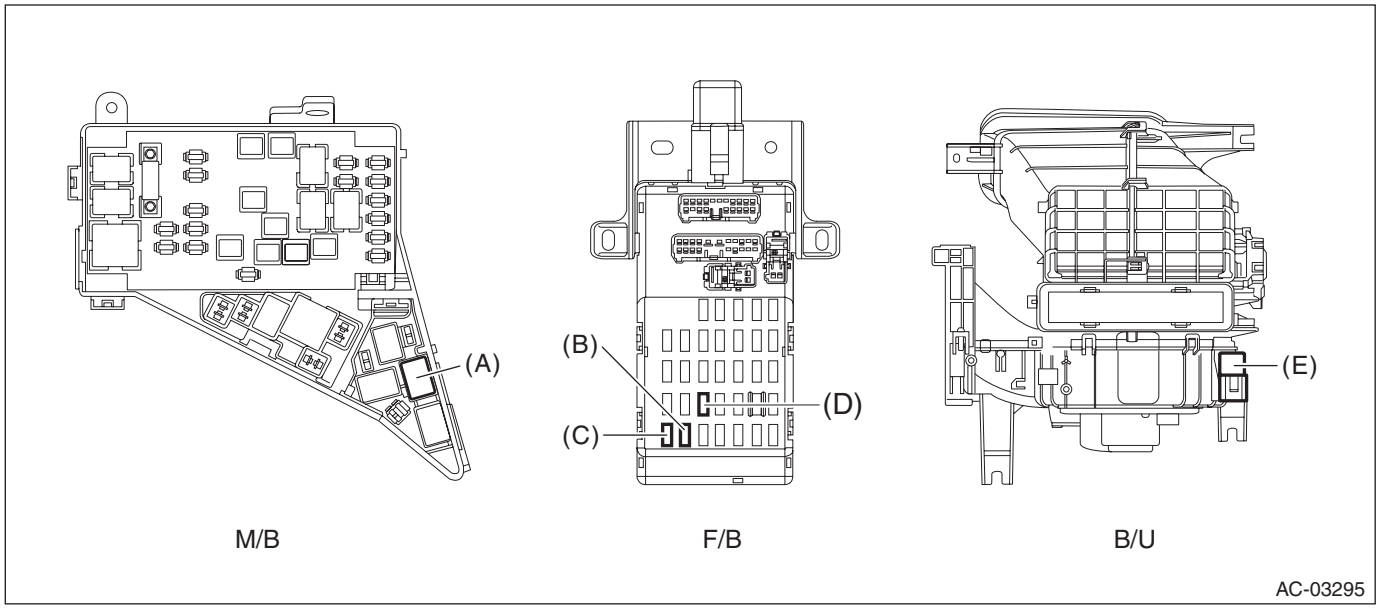
Install each part in the reverse order of removal.

NOTE:
If the bracket is removed from the speaker assembly - tweeter, tighten it with the following torque.

Tightening torque:
4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

7. Relay and Fuse

A: LOCATION



Main fuse box	A/C relay	(A)
Relay & fuse box	Fuse 15 A (blower motor relay)	(B)
	Fuse 15 A (blower motor relay)	(C)
	Fuse 10 A (A/C control panel)	(D)
Blower motor unit	Blower motor relay	(E)

NOTE:
For other related fuses, refer to the wiring diagram. <Ref. to WI-24, Power Supply Circuit.>

B: INSPECTION

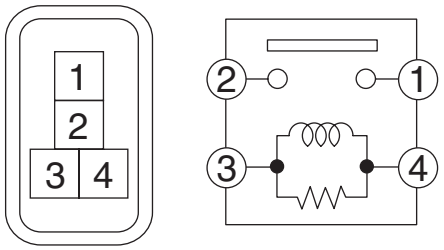
1. CHECK FUSE

1) Remove the fuse and inspect visually.
2) If the fuse is blown out, replace the fuse.

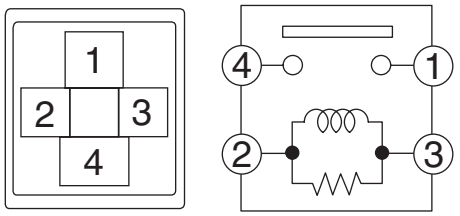
NOTE:
If the fuse is blown again, check the system wiring harness.

2. CHECK RELAY

1) Check the resistance between relay terminals.
- A/C relay

Terminal No.	Inspection conditions	Standard	Circuit
1 — 2	Always	1 MΩ or more	 LI-01273
1 — 2	Apply battery voltage between terminals 4 and 3.	Less than 1 Ω	

- Blower motor relay

Terminal No.	Inspection conditions	Standard	Circuit
1 — 4	Always	1 MΩ or more	 AC-02796
1 — 4	Apply battery voltage between terminals 2 and 3.	Less than 1 Ω	

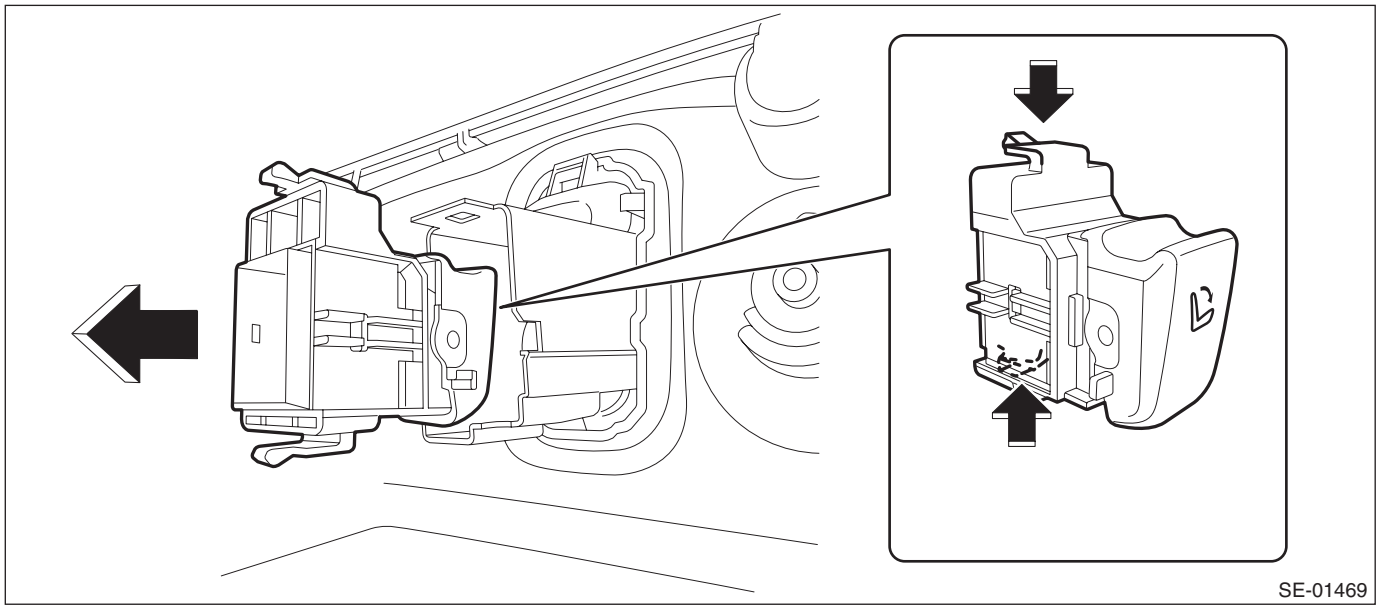
2) Replace the relay if the inspection result is not within the standard.

7. Remote Control Back Rest System

A: REMOVAL

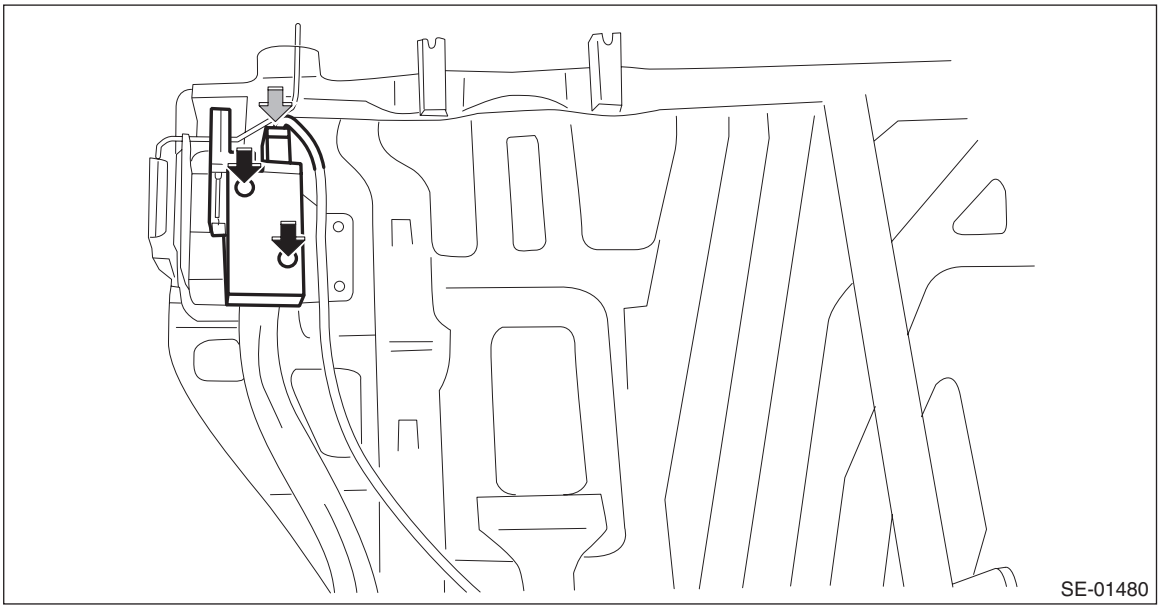
1. REMOTE CONTROL BACK REST SWITCH

1) Disconnect the ground cable from battery.
2) Remove the rear quarter lower trim. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>
3) Remove the remote control back rest switch from the rear quarter lower trim.



2. REMOTE CONTROL BACK REST ACTUATOR

1) Remove the rear seat backrest. <Ref. to SE-34, REMOVAL, Rear Seat.>
2) Remove the remote control back rest actuator from the rear seat backrest.
   (1) Disconnect the connector.
   (2) Remove the screws to remove the remote control back rest actuator.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. WIRING DIAGRAM

Refer to “Remote Control Back Rest System” in the wiring diagram. <Ref. to WI-355, Remote Control Back Rest System.>

2. DIAGNOSTIC CHART

Symptoms	Repair order
Remote control back rest system does not operate.	1. Check the fuse. <Ref. to SE-62, CHECK REMOTE CONTROL BACK REST SYSTEM FUSE, INSPECTION, Remote Control Back Rest System.>
	2. Check the power supply and ground circuit for the remote control back rest system. <Ref. to SE-62, CHECK POWER SUPPLY AND GROUND CIRCUIT, INSPECTION, Remote Control Back Rest System.>
	3. Perform the inspection of switch unit. <Ref. to SE-63, INSPECTION OF SWITCH UNIT, INSPECTION, Remote Control Back Rest System.>
	4. Perform the inspection of actuator unit. <Ref. to SE-63, INSPECTION OF ACTUATOR UNIT, INSPECTION, Remote Control Back Rest System.>

3. CHECK REMOTE CONTROL BACK REST SYSTEM FUSE

Remove the fuse (FB-6) of remote control back rest system, and visually check.
Is the fuse blown out?

- **Yes** → Replace the fuse.
- **No** → Check the power supply and ground circuits.

4. CHECK POWER SUPPLY AND GROUND CIRCUIT

1) Check power supply circuit
   (1) Disconnect the remote control back rest switch.
   (2) Turn the ignition switch to ON.
   (3) Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal
RH side:
(R172) No. 5 (+) — Chassis ground (–):
LH side:
(R173) No. 5 (+) — Chassis ground (–):
Is the voltage 12 V or more?

- **Yes** → Go to step 2.
- **No** → Check the harness between the remote control back rest switch and fuse.

2) Check ground circuit
Measure the resistance between harness connector terminal and chassis ground.

Connector & terminal
RH side:
(R172) No. 1 — Chassis ground:
LH side:
(R173) No. 1 — Chassis ground:
Is the resistance less than 10 Ω when the switch is ON?

- **Yes** → Go to step 3.
- **No** → Check the switch.

3) Check power supply circuit
(1) Connect the remote control back rest switch.
(2) Disconnect the remote control back rest actuator.
(3) Turn the ignition switch to ON.
(4) Measure the voltage between harness connector terminal and chassis ground.

Connector & terminal
RH side:
(R170) No. 1 (+) — Chassis ground (–):
LH side:
(R171) No. 1 (+) — Chassis ground (–):
Is the voltage 12 V or more when the switch is ON?
- **Yes** → Go to step 4.
- **No** → Check the harness between the remote control back rest switch and actuator.

4) Check ground circuit
Measure the resistance between harness connector terminal and chassis ground.

Connector & terminal
RH side:
(R170) No. 2 — Chassis ground:
LH side:
(R171) No. 2 — Chassis ground:
Is the resistance 1 MΩ or more when the switch is ON?
- **Yes** → Perform the inspection of actuator unit.
- **No** → Repair the harness of ground circuit.

5. INSPECTION OF SWITCH UNIT

1) Disconnect the remote control back rest switch connector.
2) Measure the resistance between terminals of remote control back rest switch connector.

Connector & terminal
RH side:
(R172) No. 5 — (R172) No. 1:
LH side:
(R173) No. 5 — (R173) No. 1:
Is the resistance less than 10 Ω when the switch is ON?
- **Yes** → Normal operation.
- **No** → Replace the switch.

6. INSPECTION OF ACTUATOR UNIT

1) Disconnect the connector of actuator.
2) Connect the battery to the actuator connector.

Connector & terminal
RH side:
(R170) No. 1 (+) — (R170) No. 2 (–):
LH side:
(R171) No. 1 (+) — (R171) No. 2 (–):
Does the actuator operate?
- **Yes** → Normal operation.
- **No** → Replace the actuator.

SECURITY AND LOCKS

SL

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7. Remote Control Mirror System

A: WIRING DIAGRAM

Refer to “Remote Control Mirror System” in the wiring diagram. <Ref. to WI-357, WIRING DIAGRAM, Remote Control Mirror System.>

B: INSPECTION

1. SYMPTOM CHART

Symptoms	Inspection order
All function does not operate.	1. Check the fuse. 2. Check the remote control mirror switch. 3. Check the wiring harness.
One side of the mirror motor does not operate.	1. Check the remote control mirror switch. 2. Check the mirror motor. 3. Check the wiring harness.
Mirror heater does not operate.	1. Check the rear defogger switch. 2. Check the rear defogger relay. 3. Check the mirror heater. 4. Check the wiring harness. 5. Check body integrated unit.

NOTE:
The mirror heater operates with the rear window defogger at the same time. Refer to “INSPECTION” of “Rear Window Defogger System” for details. <Ref. to GW-48, INSPECTION, Rear Window Defogger System.>

C: NOTE

For procedure of each component in the remote control mirror system, refer to the respective section.

- Outer mirror assembly: <Ref. to GW-23, Outer Mirror Assembly.>
- Remote control mirror switch: <Ref. to GW-29, Remote Control Mirror Switch.>

7. Security System

A: WIRING DIAGRAM

Refer to “Security System” in the wiring diagram.

- Without push button start: <Ref. to WI-372, WITHOUT PUSH BUTTON START, WIRING DIAGRAM, Security System.>
- With push button start: <Ref. to WI-377, WITH PUSH BUTTON START, WIRING DIAGRAM, Security System.>

B: ELECTRICAL SPECIFICATION

Refer to “Control Module I/O Signal” of “BODY CONTROL SYSTEM (DIAGNOSTICS)” section. <Ref. to BC(diag)-6, ELECTRICAL SPECIFICATION, Control Module I/O Signal.>

C: INSPECTION

1. BASIC DIAGNOSTIC PROCEDURE

	Step	Check	Yes	No
1	**INITIAL CHECK.** Check the keyless entry system or keyless access system operation.	Does the keyless entry system or keyless access system operate normally?	Go to step **2**.	Check the keyless entry system or keyless access system. • Keyless entry system:<Ref. to SL-18, INSPECTION, Keyless Entry System.> • Keyless access system:<Ref. to KPS(diag)-4, KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM, CAUTION, General Description.>
2	**CHECK SECURITY ON/OFF SETTING.** 1) Remove the key from ignition switch, and then close all doors. 2) Check the status of security indicator light. 3) Press the LOCK button of the keyless transmitter or access key. 4) Check the security indicator light blinking patterns.	Is the security indicator light blinking patterns as follows? • Before pressing the LOCK button: Blinks once within 3 seconds • After pressing the LOCK button: When monitoring lag is set to 0 second, flashes twice within 0.5 seconds in 2 second intervals / When monitoring lag is set to 30 seconds, flashes once within 0.4 seconds in 30 seconds.	Go to step **4**.	Go to step **3**.
3	**CHANGE SETTING OF SECURITY SYSTEM.** Change the setting of security system to ON using Subaru Select Monitor.<Ref. to SL-32, SECURITY SYSTEM ON/OFF SETTING, INSPECTION, Security System.>	Is setting change completed correctly?	Go to step **4**.	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>

	Step	Check	Yes	No
4	**CHECK SECURITY SYSTEM OPERATION.** 1) Remove the key from ignition switch, and then close all doors. 2) Press the LOCK button on the keyless transmitter or access key, then wait for 30 seconds. 3) Check the security indicator light blinking patterns.	Does the security indicator light blink twice within 0.5 seconds in 2 second intervals?	Go to step **5**.	Check the security indicator light.<Ref. to SL-32, CHECK SECURITY INDICATOR LIGHT CIRCUIT, INSPECTION, Security System.>
5	**CHECK SECURITY ALARM OPERATION.** 1) Operate the driver's door lock switch to the UNLOCK side. 2) Open any door or rear gate.	Does the security alarm operate when opening any door or rear gate?	Go to step **6**.	Check the following parts.<Ref. to SL-21, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.> • Door switches • Rear gate latch switch
6	**CHECK SECURITY ALARM OPERATION.** Check the security alarm operation status.	During the operation, does the horn keep sounding and the hazard light blink?	Go to step **7**.	Check the following parts.<Ref. to SL-21, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.> • Horn:<Ref. to SL-32, CHECK HORN, INSPECTION, Security System.> • Hazard light:<Ref. to SL-32, CHECK HAZARD LIGHT OPERATION, INSPECTION, Security System.>
7	**CHECK SECURITY ALARM CANCEL OPERATION.** Press any button of the transmitter or access key while the security alarm is operating.	Do the horn sound and the blinking of the hazard light stop?	Go to step **8**.	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>
8	**CHECK IMPACT SENSOR (DEALER OPTION).** Check the sensibility of impact sensor.<Ref. to SL-72, CHECK IMPACT SENSOR, ADJUSTMENT, Impact Sensor.>	Is the sensibility set properly?	Go to step **9**.	Adjust the sensitivity.<Ref. to SL-72, IMPACT SENSITIVITY ADJUSTMENT, ADJUSTMENT, Impact Sensor.>

	Step	Check	Yes	No
9	**CHECK SECURITY SYSTEM CONDITION MEMORY.** 1) Remove the key from ignition switch, and then close all doors. 2) Open the front hood. 3) Press the LOCK button on the keyless transmitter or access key, then wait for 30 seconds. 4) Disconnect the ground cable from battery. 5) Connect the ground cable to battery. 6) Check the status of security indicator light.	Does the security indicator light blinks twice within 0.5 seconds at 2 second intervals?	Go to step **10**.	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>
10	**CHECK SECURITY SYSTEM MANUAL ON/OFF SETTING.** 1) Press the UNLOCK button of the keyless transmitter or access key. 2) Change the setting of security system.<Ref. to SL-32, SECURITY SYSTEM ON/OFF SETTING, INSPECTION, Security System.>	Is setting change completed correctly?	Restore the security system settings to those before the diagnosis and finish the diagnosis.	Check the following parts. • Ignition switch circuit:<Ref. to SL-63, INSPECTION, Ignition Key Lock.> • Door lock switch circuit:<Ref. to SL-12, CHECK DOOR LOCK SWITCH, INSPECTION, Door Lock Control System.>

NOTE:
If the horn sounds when the security is turned on (monitor condition) using the keyless transmitter, check the function setting of the body integrated unit. As a cause, it is possible that the impact sensor present (ON) / not present (OFF) setting is set to ON in the customization function though there is no impact sensor.<Ref. to BC(diag)-15, User Customizing.>

2. CHECK SECURITY SYSTEM CONDITION MEMORY

1) Pull out the key from the ignition switch, or turn the ignition to OFF.
2) Close all the doors and rear gate.
3) Open the front hood.
4) Press the LOCK button of the keyless transmitter.

NOTE:
Wait until the security indicator light blinks twice within 0.5 seconds at 2 second intervals.
If the 30 second monitoring lag has been set, wait for 30 seconds.
5) Disconnect the ground cable from battery.
6) Connect the battery ground terminal.
7) Check that the security indicator light blinks twice within 0.5 seconds at 2 second intervals. When it does not blink, replace the body integrated unit.

3. SECURITY SYSTEM ON/OFF SETTING

NOTE:
It can be set by «Security Alarm Setup» in unit customizing using Subaru Select Monitor.
For detailed procedures, refer to “PC application help for Subaru Select Monitor”.
1) Close all doors and rear gate, and sit in the driver’s seat. Press the UNLOCK button of the keyless transmitter or access key.
2) Turn the ignition to ON.
3) Press the central door unlock switch and open the driver’s door simultaneously. (Keep the central door unlock switch pressed down.)
4) When the condition in step 3) continues for 10 seconds, the system switches to a mode reverse to the current mode.

Setting	Horn activation	Meter display
ON → OFF	Twice	[AL_OF]
OFF → ON	Once	[AL_ON]

4. CHECK DOOR SWITCH

For operation procedure, refer to “CHECK DOOR SWITCH” of “Keyless Entry System”. <Ref. to SL-21, CHECK DOOR SWITCH, INSPECTION, Keyless Entry System.>

5. CHECK SECURITY INDICATOR LIGHT CIRCUIT

For operation procedures, refer to “CHECK SECURITY INDICATOR LIGHT CIRCUIT” of “IMMOBILIZER (DIAGNOSTICS)” section. <Ref. to IM(diag)-11, CHECK SECURITY INDICATOR LIGHT CIRCUIT, INSPECTION, Diagnostics Chart for Security Indicator Light.>

6. CHECK HORN

	Step	Check	Yes	No
1	**CHECK HORN OPERATION.** Check the horn sounds when the horn switch is pushed.	Does the horn sound?	Go to step **2**.	Check the horn circuit.
2	**CHECK BODY INTEGRATED UNIT.** Select and perform the «Horn Output» using Subaru Select Monitor. NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Does the horn sound?	Horn circuit is OK.	Go to step **3**.
3	**CHECK HORN RELAY CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector of body integrated unit. 3) Remove the horn relay. 4) Check the harness between body integrated unit and horn relay. ***Connector & terminal*** ***(B280) No. 24 — Horn relay No. 4:***	Is harness normal?	Check body integrated unit. <Ref. to BC(diag)-2, Basic Diagnostic Procedure.>	Repair or replace the harness.

7. CHECK HAZARD LIGHT OPERATION

For operation procedure, refer to “CHECK HAZARD LIGHT OPERATION” of “Keyless Entry System” <Ref. to SL-23, CHECK HAZARD LIGHT OPERATION, INSPECTION, Keyless Entry System.>

8. CHECK IGNITION SWITCH CIRCUIT

	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** Display the data of «BATT voltage» and «IG power supply voltage» using the Subaru Select Monitor. NOTE: For detailed procedures, refer to “PC application help for Subaru Select Monitor”.	Does the «IG power supply voltage» indicate 0 V when the ignition is OFF, and fall within a range of ±1 V from the «BATT voltage» when the ignition is ON?	The ignition switch input circuit is OK.	Go to step **2**.
2	**CHECK IGNITION SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector of body integrated unit. 3) Turn the ignition switch to ON. 4) Measure the voltage between the body integrated unit connector and chassis ground. ***Connector & terminal*** ***(B281) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Check body integrated unit. <Ref. to BC(diag)-2, Basic Diagnostic Procedure.>	Check the harness for open or short circuit between body integrated unit and fuse.

7. Side Airbag Module

A: REMOVAL

CAUTION:
Refer to "CAUTION" of "General Description" before handling the airbag module.<Ref. to AB-9, CAUTION, General Description.>

NOTE:
Remove the passenger's side by referring to driver's side.
1) Remove the headrest assembly.
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

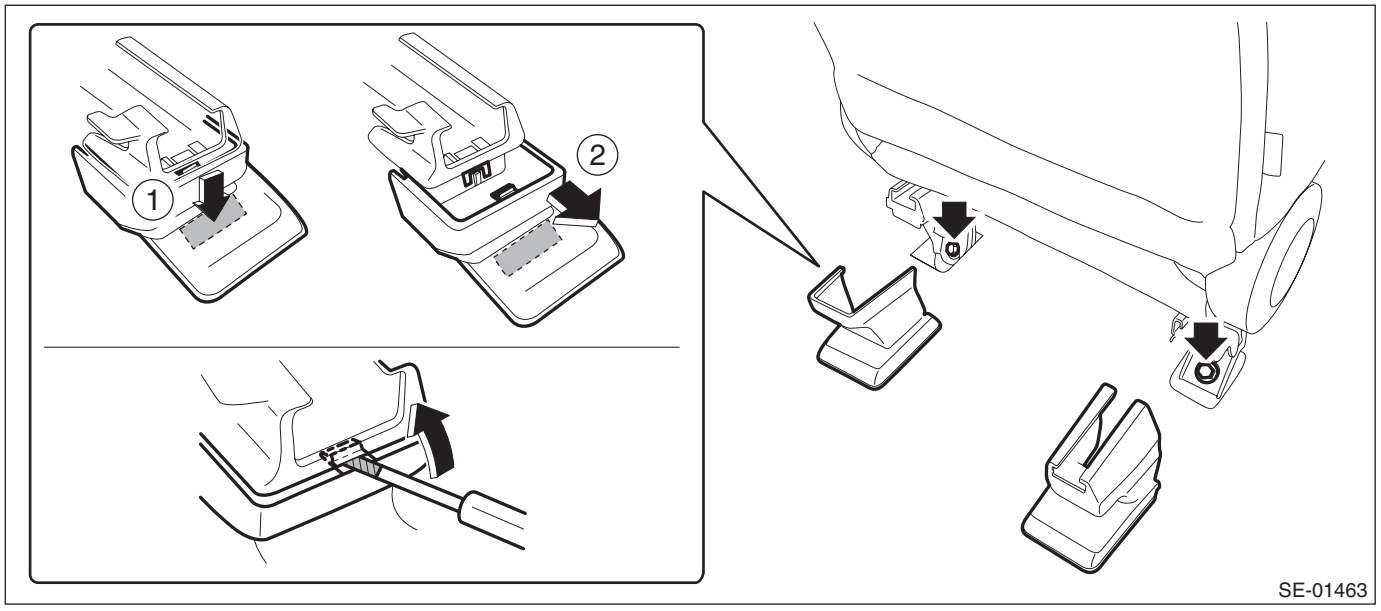
NOTE:
- For the seat with lifter, set the height to the middle position.
- For the power seat, remove the slide rail installing bolt before removing the battery ground.

4) Remove the front seats.

CAUTION:
Be careful not to damage the body when taking out the seat from the vehicle.

(1) Tilt the backrest assembly forward and move the front seat to the front most position.
(2) While spreading the tip of the cover - bolt rear OUT side to side, pull it out toward you to remove.
(3) Remove the cover - bolt rear INN.

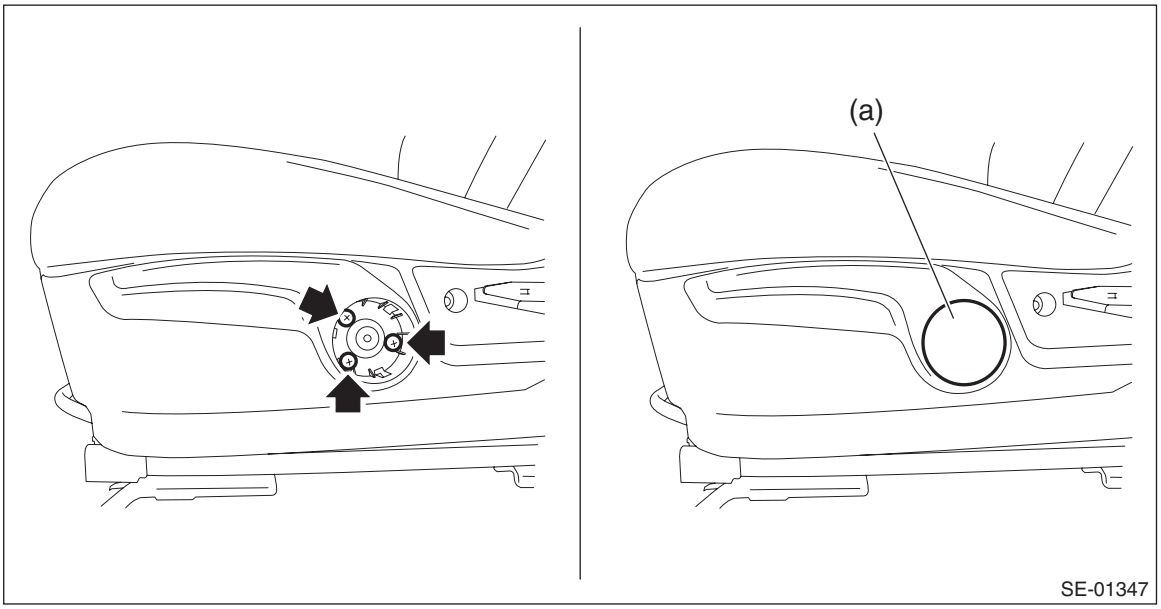
NOTE:
- Firmly push in the cover - bolt rear INN at the point shown in the figure until a clicking sound is heard and remove it.
- If it is difficult to remove, release the claw using a flat tip screwdriver wrapped with protection tape while pushing the point shown in the figure to remove.



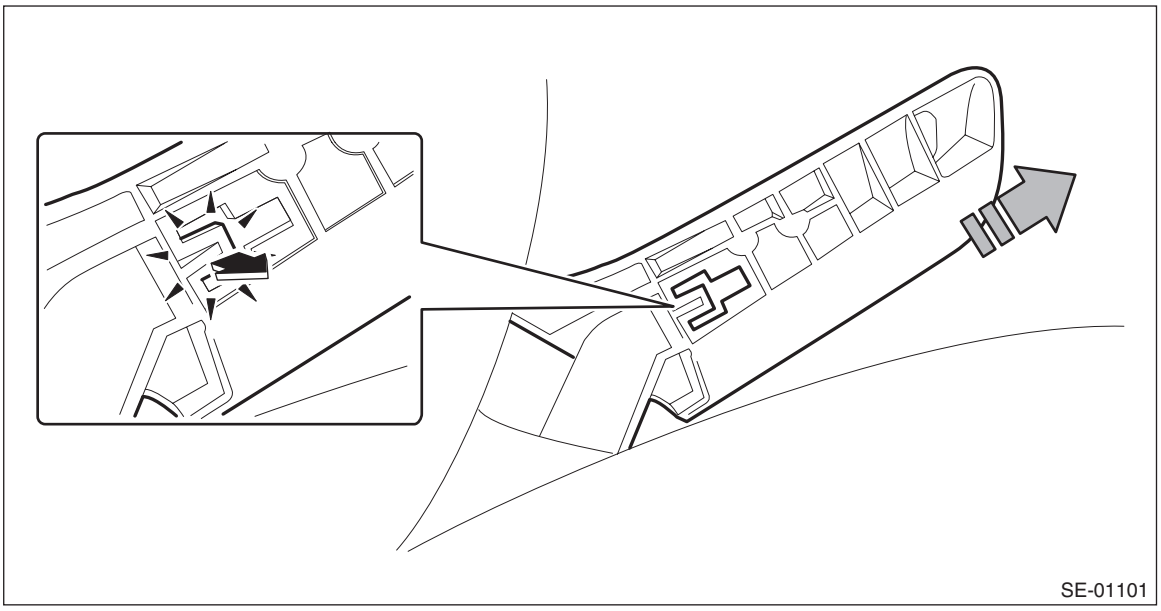
(4) Move the front seat to the rearmost position, and remove the bolts.
(5) Disconnect the connector under the front seat.
- Seat belt warning light connector (driver's seat)
- Occupant detection system harness connector (passenger's seat)<Ref. to OD(diag)-9, OCCUPANT DETECTION SYSTEM (BETWEEN AIRBAG REAR HARNESS AND SEAT HARNESS), PROCEDURE, Airbag Connector.>
- Side airbag module connector<Ref. to AB-27, SIDE AIRBAG MODULE, PROCEDURE, Airbag Connector.>
- Seat heater connector (model with seat heater)
- Power seat connector (model with power seats)
- Buckle switch RH connector (passenger's seat)<Ref. to AB-28, BUCKLE SWITCH RH, PROCEDURE, Airbag Connector.>

(6) Take out the front seat assembly from the vehicle.

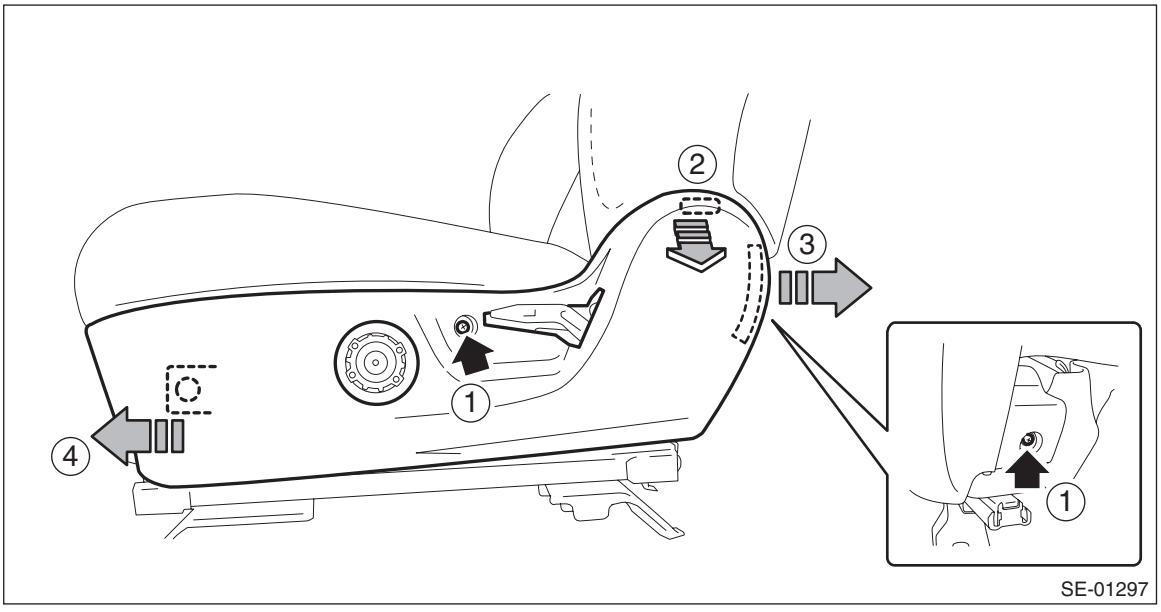
5) Remove the knob - lifter. (Seat with manual lifter)
(1) Using a flat tip screwdriver, remove the cap - lifter lever (a).
(2) Remove the screws and remove the knob - lifter.



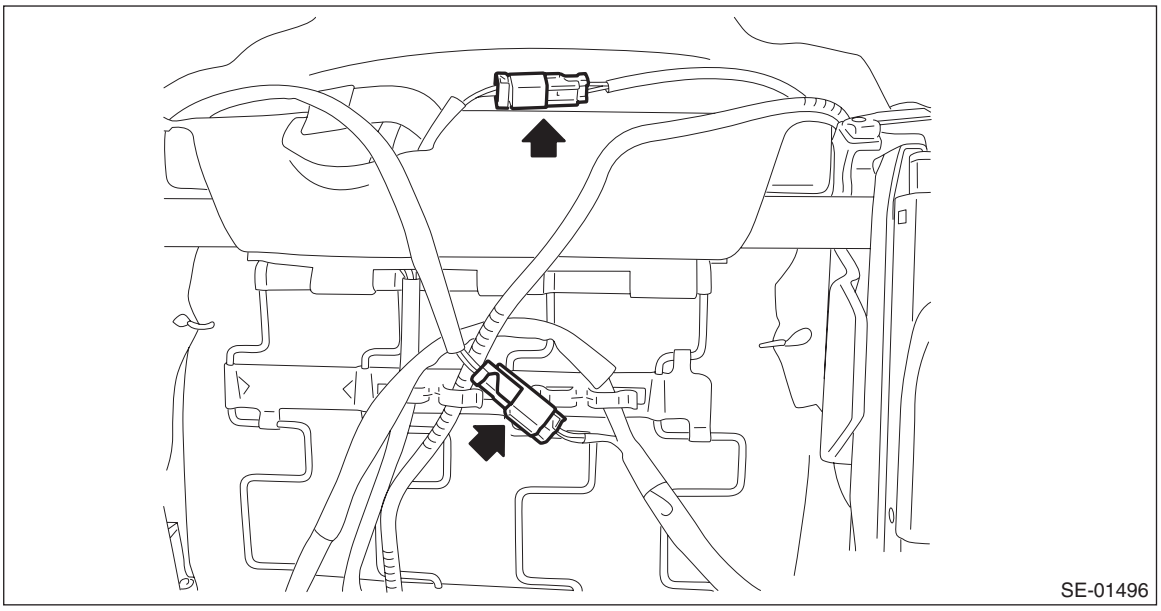
6) Remove the lever - reclining. (Manual seat)
(1) Pull up the lever - reclining and release the claws on the back.
(2) Pull out the lever - reclining.



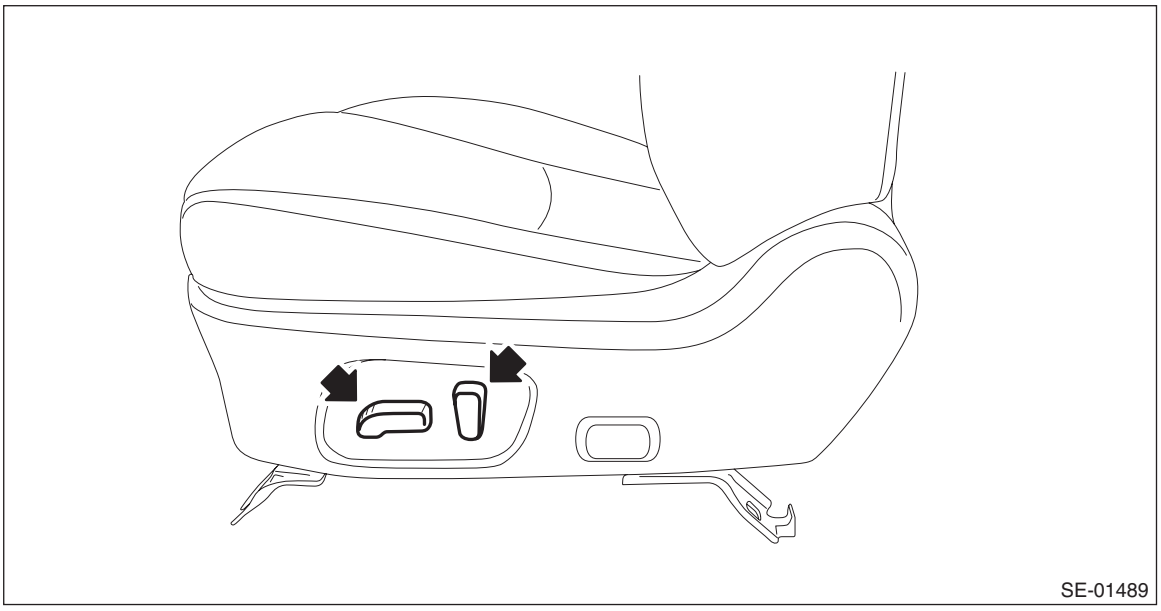
7) Remove the cover - hinge front seat outer. (Manual seat)
(1) Remove the screws.
(2) Release the claw in the upper section of the cover - hinge front seat outer.
(3) Release the claw in the rear section of the cover - hinge front seat outer.
(4) Release the claw in the front section of the cover - hinge front seat outer, then remove the cover - hinge front seat outer.



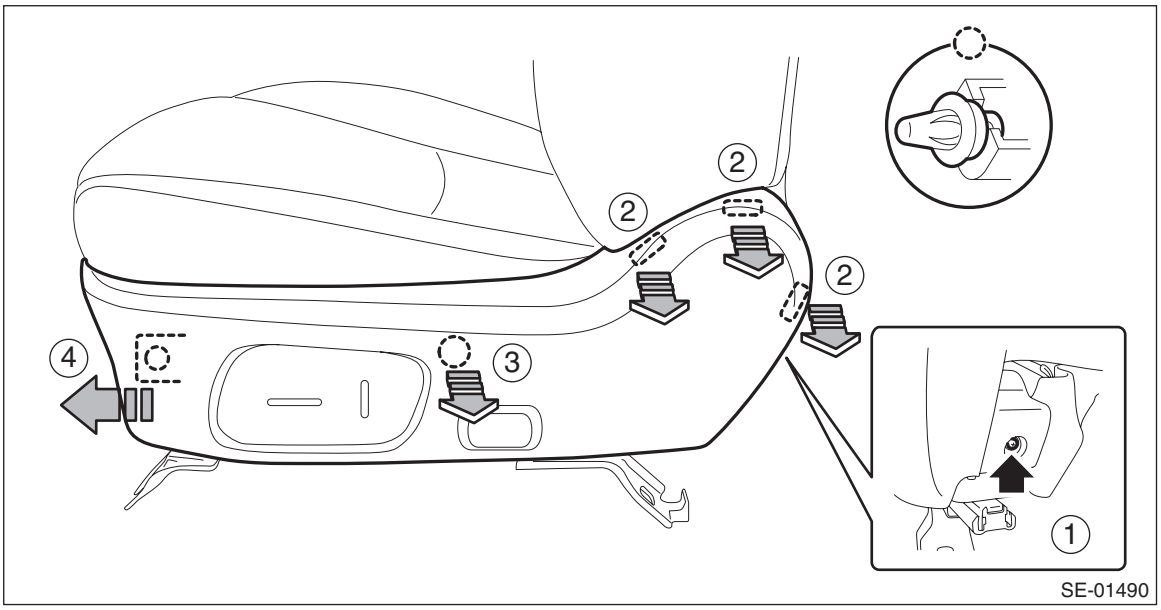
8) Disconnect the connectors from the backside of seat cushion.
- Disconnect the connector for reclining motor. (Power seat)
- Disconnect the connector of seat heater harness. (With seat heater)


SE-01496

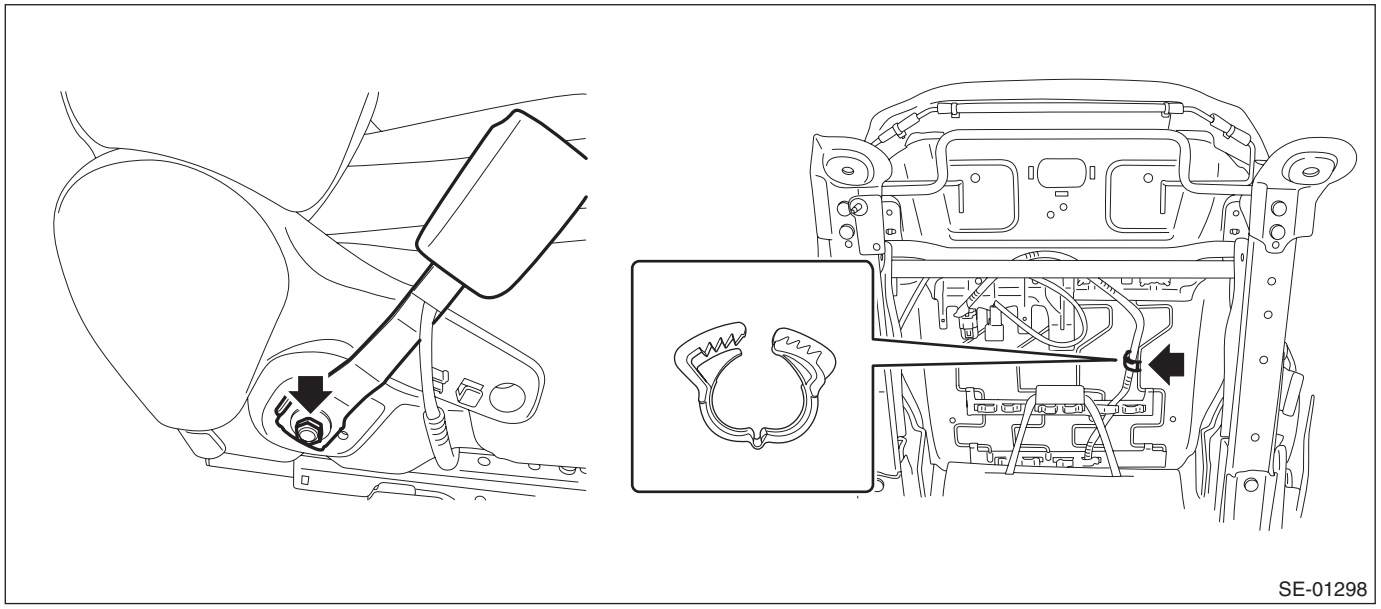
9) Remove the knob - power seat. (Power seat)


SE-01489

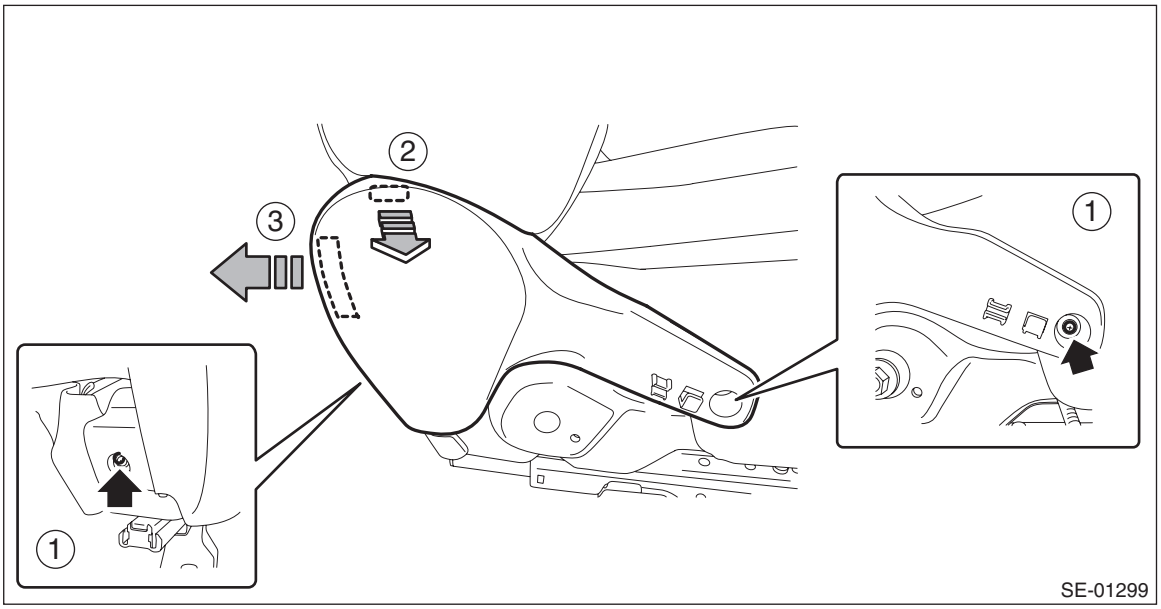
10) Remove the cover - hinge front seat OUT. (Power seat)
(1) Remove the screws in the rear section of the cover - hinge front seat OUT.
(2) Release the claw in the upper section of the cover - hinge front seat OUT.
(3) Remove the clip, and release the claws in the front section of the cover - hinge front seat OUT.
(4) Disconnect the power seat switch and lumber switch connector and remove the cover - hinge front seat OUT.



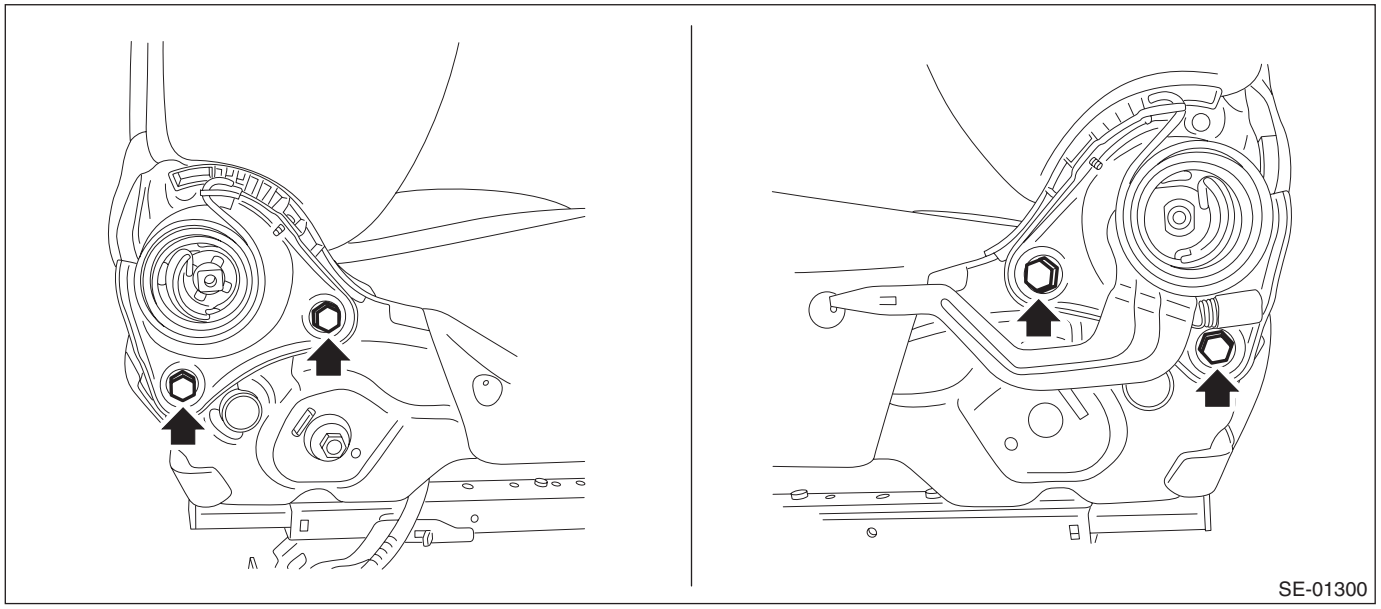
11) Remove the seat belt inner - front.
(1) Remove the nut, and remove the seat belt inner - front.
(2) Remove the clip for the seat belt inner - front located under the seat cushion assembly.



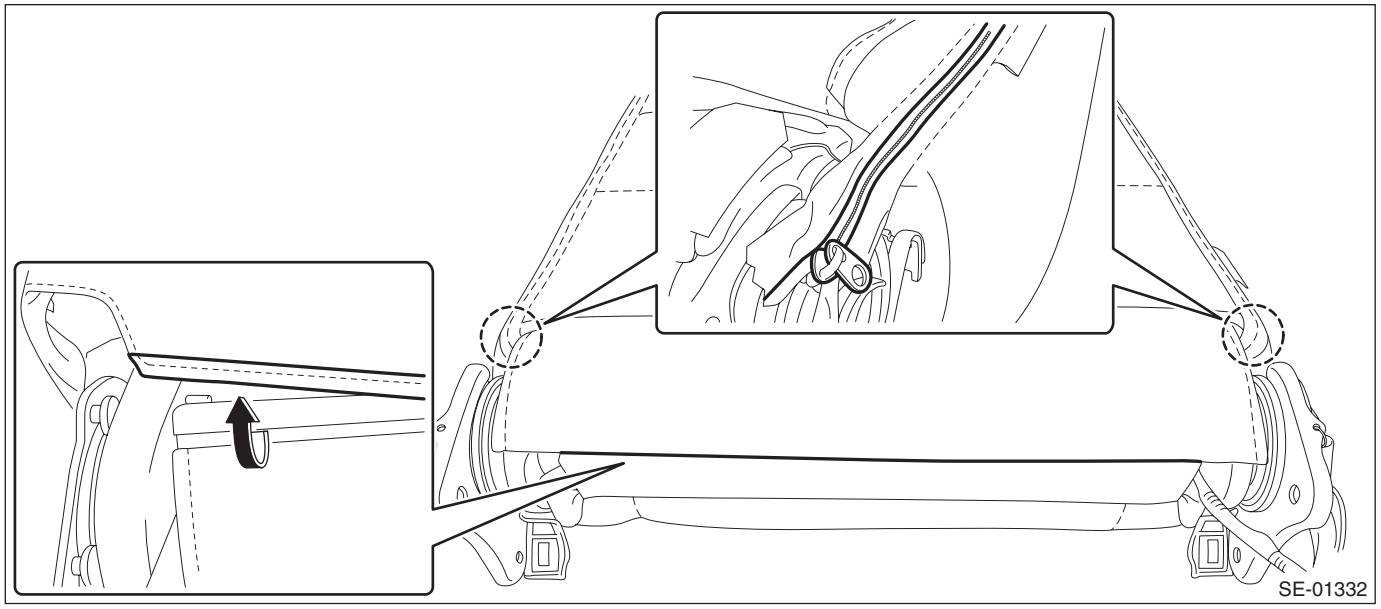
12) Remove the cover - hinge front seat inner.
(1) Remove the screws.
(2) Release the claw in the upper section of the cover - hinge front seat inner.
(3) Release the claw in the rear section of the cover - hinge front seat inner, then remove the cover - hinge front seat inner.



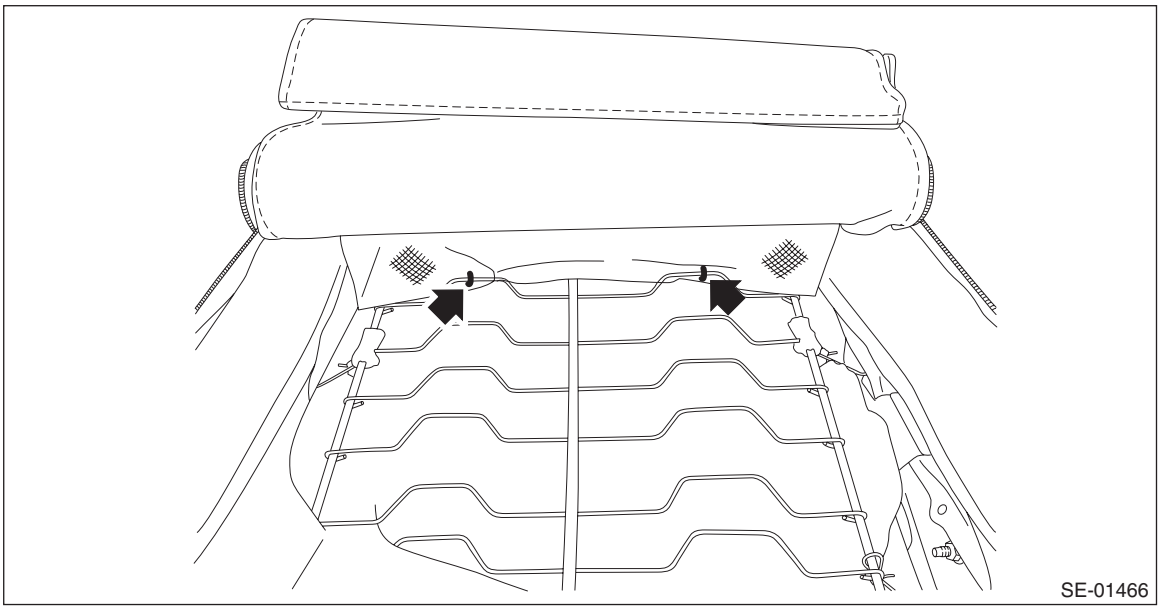
13) Separate the backrest assembly and the seat cushion assembly.
(1) Remove the clip for the side airbag harness located under the seat cushion assembly.
(2) Remove the bolts from reclining hinge of both sides.
(3) While taking care not to damage each harness, separate the backrest assembly and the seat cushion assembly.



14) Remove the pad assembly - front seat backrest and the cover COMPL - front backrest.
(1) Remove the plastic fastener at the back side (bottom) of backrest assembly.
(2) Open the fastener at the rear side of backrest assembly.



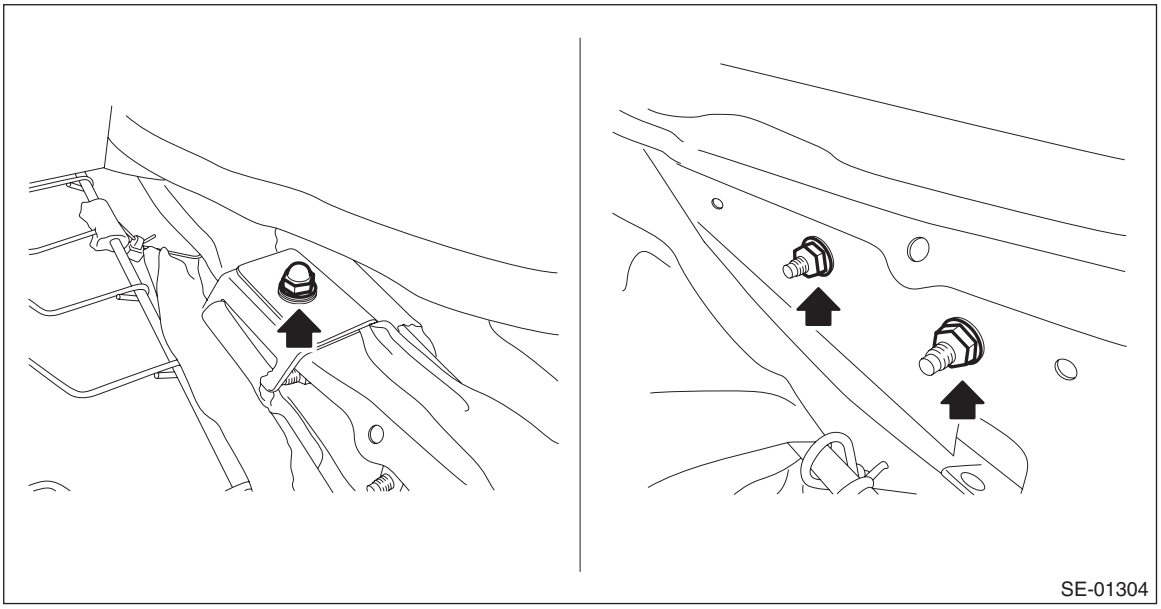
(3) Remove the hog ring.



15) Remove the side airbag module.

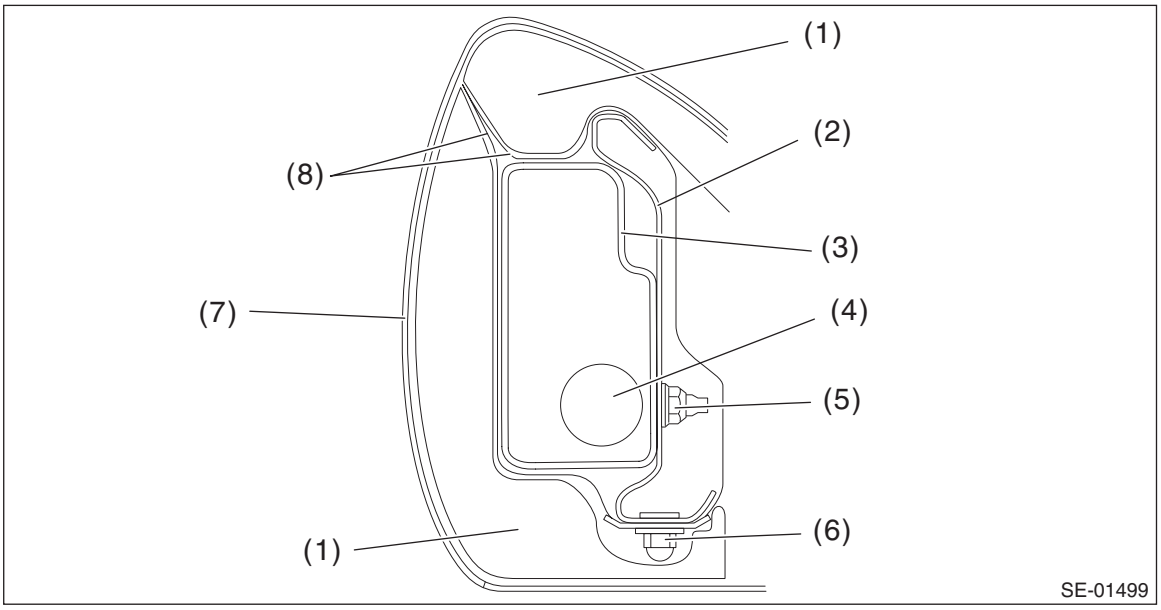
CAUTION:
Do not open the protective cover of the side airbag module. If any damage is present in the protective cover or the cloth of side airbag module comes out from the protective cover slit, replace the side airbag module with a new part.

(1) Remove the hexagon cap nut and nuts.
(2) While taking care not to damage the airbag protective cover, remove the side airbag module.



B: INSTALLATION

CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module.<Ref. to AB-9, CAUTION, General Description.>
• Make sure that the side airbag module is installed as shown in the figure.



(1)	Pad ASSY - front seat backrest	(4)	Side airbag module inflator	(7)	Cover COMPL - front backrest
(2)	Frame ASSY - front backrest	(5)	Nut	(8)	Side airbag guide cloth
(3)	Side airbag module protective cover	(6)	Hexagon cap nut		

• Be careful not to stain or damage the cover COMPL - front backrest during assembly.
• Do not reuse hog rings.
• Secure the hog ring using hog ring pliers.
• Install the hog rings to the specified points securely and make sure that there is no wrinkle or twisting on the cover COMPL - front backrest.

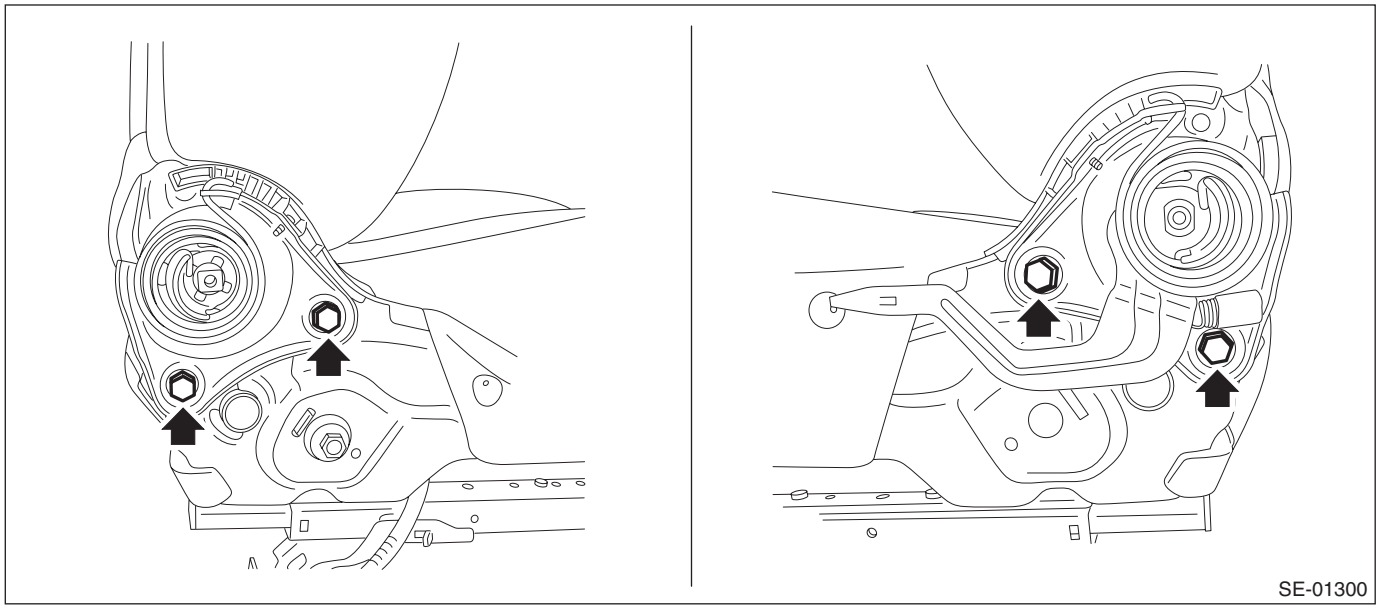
1) Before installation, inspect the following items and replace any faulty part with a new one.
- Make sure that there is no foreign matter on side airbag module.
- Front seat, airbag module and mounting bracket are damaged or deformed.
- Harness and/or connector is cracked, deformed or open.
- Harness wire is exposed.

2) Install the side airbag module to the frame assembly - front backrest.

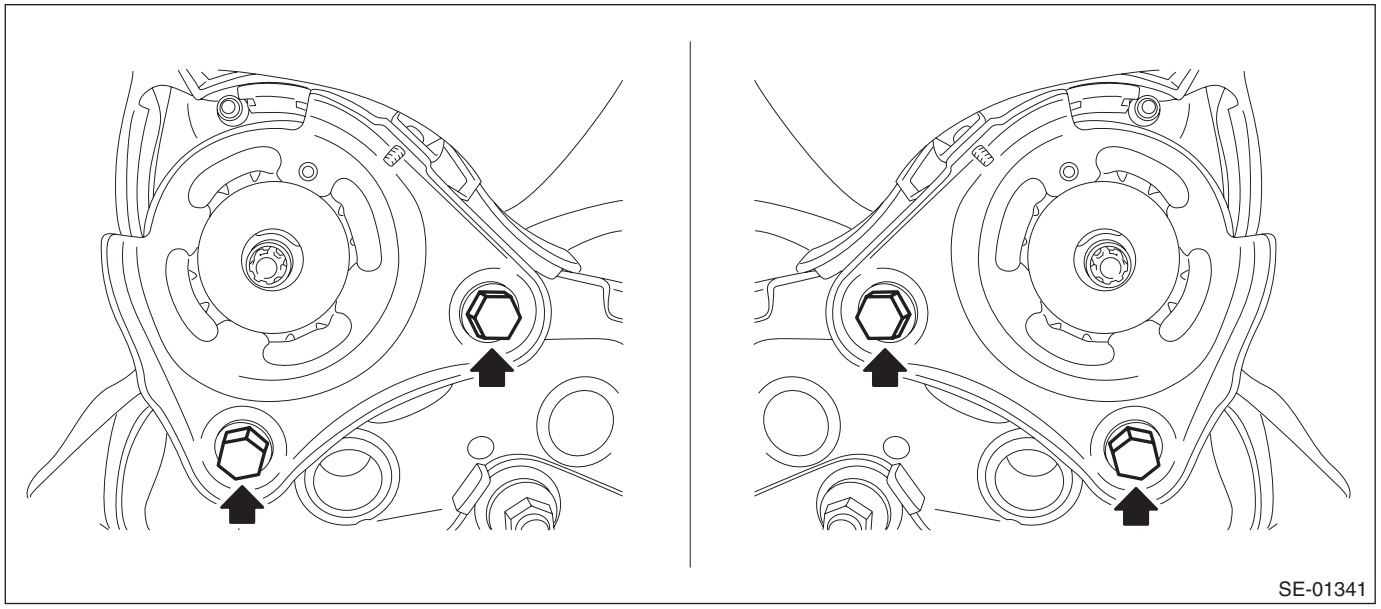
Tightening torque:
Side airbag module: 6 N·m (0.61 kgf-m, 4.4 ft-lb)

3) Install the side airbag harness to the frame assembly - front backrest.
4) Install the cover COMPL - front backrest.
5) Secure the backrest hinge.

- Manual seat



- Power seat



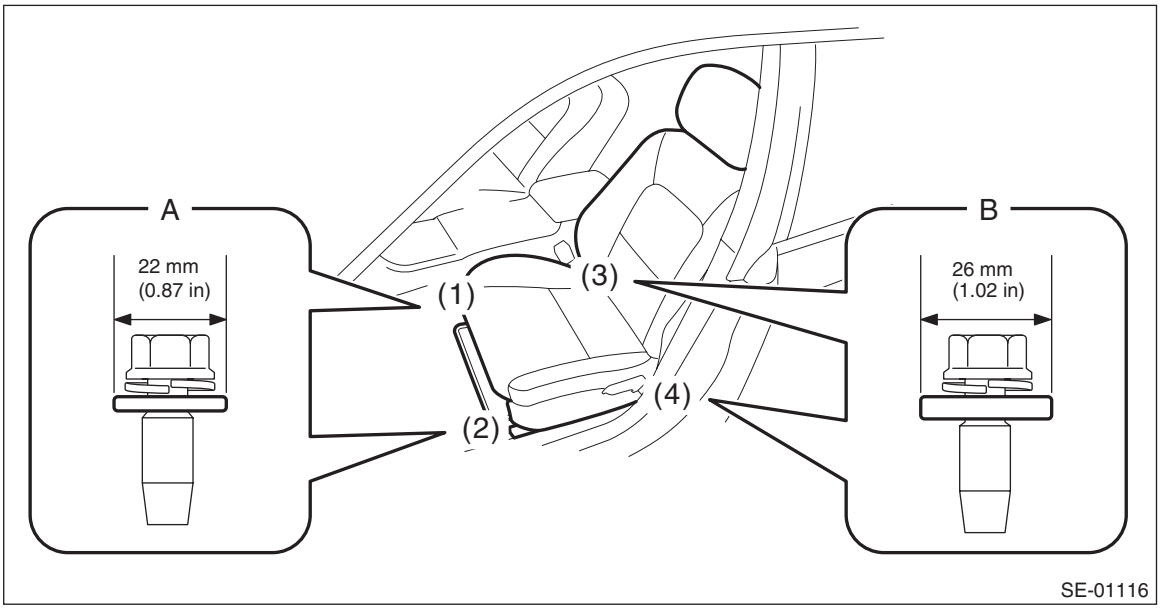
Tightening torque:
Refer to "COMPONENT" of "General Description".<Ref. to SE-2, FRONT SEAT, COMPONENT, General Description.>

6) Connect each harness and mount on the back of the seat cushion assembly using a cable clip.

CAUTION:
After restoring the seat, operate the reclining and sliding mechanisms to check that the harness is not caught.

7) Install the front seat assembly to the body.

CAUTION:
• The front seat mounting bolts differ between the front mounting points and the rear mounting points. When installing the front seat, make sure that you are using correct bolts at correct positions.
• Tighten the slide rail assembly installing bolts in the order as shown in the figure, in several steps by gradually increasing the torque until they reach the specified torque.



- **Front (bolt A): Washer diameter 22 mm (0.87 in)**
- **Rear (bolt B): Washer diameter 26 mm (1.02 in)**

Tightening torque:
Front seat assembly: 53 N·m (5.40 kgf-m, 39.1 ft-lb)

7. Stop Light & Brake Switch

A: NOTE

For stop light and brake switch, refer to “BRAKE” section.<Ref. to BR-69, Stop Light Switch.>

7. Subaru Select Monitor

A: OPERATION

For detailed operation procedures, refer to the “PC application help for Subaru Select Monitor”.

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING THE AIRBAG SYSTEM IS IMPOSSIBLE

DETECTING CONDITION:
Defective harness connector
TROUBLE SYMPTOM:
Communication is impossible between the airbag control module and the Subaru Select Monitor.

NOTE:
Refer to “COMMUNICATION FOR INITIALIZING IMPOSSIBLE” in AIRBAG SYSTEM (DIAGNOSTICS). <Ref. to AB(diag)-20, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, INSPECTION, Subaru Select Monitor.>

2. COMMUNICATION FOR INITIALIZING ONLY THE OCCUPANT DETECTION SYSTEM IS IMPOSSIBLE

NOTE:
The occupant detection system communicates with the Subaru Select Monitor via the airbag control module.
DETECTING CONDITION:
Defective harness connector between airbag control module and occupant detection control module
TROUBLE SYMPTOM:
Communication is impossible between the airbag control module and the occupant detection control module.
Perform the diagnosis from Step 2 in “DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION”. <Ref. to OD(diag)-19, DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

7. Subaru Select Monitor

A: OPERATION

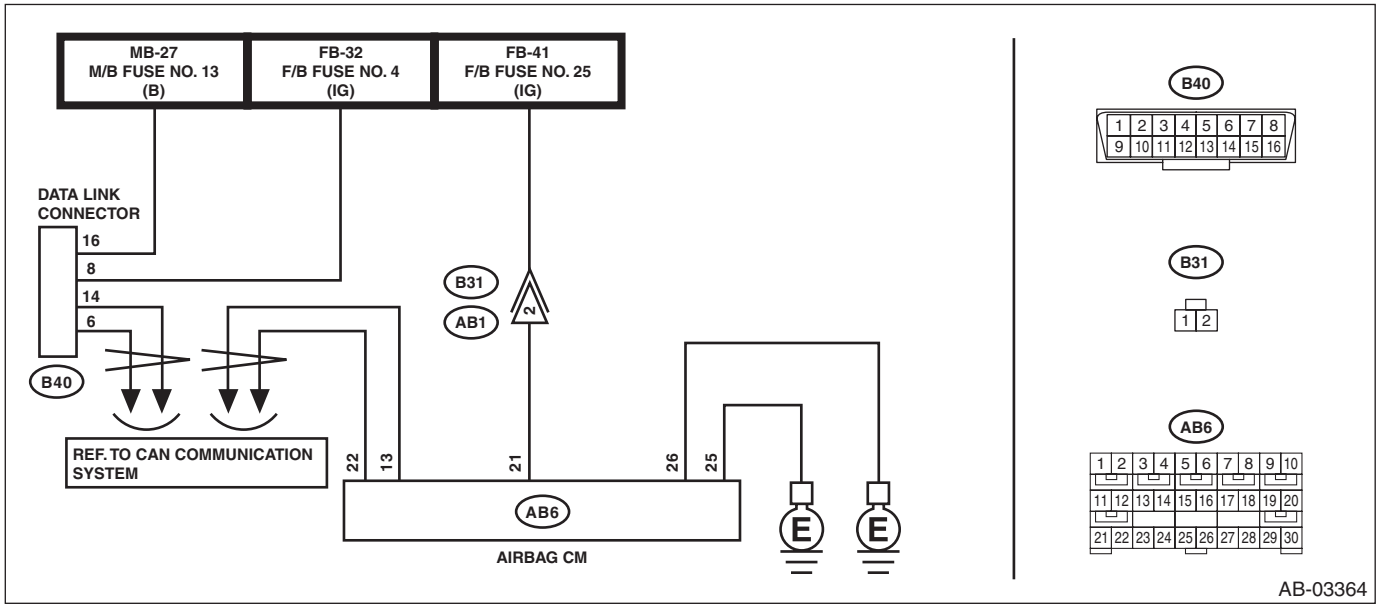
For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

B: INSPECTION

1. COMMUNICATION FOR INITIALIZING IMPOSSIBLE

DTC DETECTING CONDITION:
Defective harness connector
TROUBLE SYMPTOM:
Communication is impossible between the airbag control module and the Subaru Select Monitor.

CAUTION:
Before performing diagnosis, refer to “CAUTION” in “General Description”. <Ref. to AB(diag)-4, CAUTION, General Description.>
WIRING DIAGRAM:
Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK IGNITION SWITCH.**	Is the ignition switch ON?	Go to step **2**.	Turn the ignition switch to ON, and select the airbag mode using the Subaru Select Monitor.
2	**CHECK BATTERY.** 1) Turn the ignition switch to OFF. 2) Measure the battery voltage.	Is the voltage 11 V or more?	Go to step **3**.	Charge or replace the battery.
3	**CHECK BATTERY TERMINAL.**	Is there poor contact at battery terminal?	Repair or tighten the battery terminal.	Go to step **4**.
4	**CHECK SUBARU SELECT MONITOR COMMUNICATION.** 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, check whether communication to other systems can be executed normally.	Is the system name displayed on Subaru Select Monitor?	Go to step **9**.	Go to step **5**.
5	**CHECK SUBARU SELECT MONITOR.**	Is Subaru Select Monitor powered on?	Go to step **7**.	Go to step **6**.

	Step	Check	Yes	No
6	**CHECK FUSE.** Remove a fuse in the data link connector and visually check the fuse.	Is the fuse OK?	Repair the harness between the battery and the data link connector.	Replace the fuse. If the fuse is blown out again, check the power supply circuit.
7	**CHECK AIRBAG CONTROL MODULE CONNECTOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Confirm that the connectors of airbag control module (AB6, AB17, AB18) are securely connected.	Is the connector of the airbag control module securely connected?	Go to step **8**.	Connect the connector of the airbag control module.
8	**CHECK SUBARU SELECT MONITOR COMMUNICATION.** 1) Disconnect the airbag control module connector. 2) Connect the battery ground terminal. 3) Turn the ignition switch to ON. 4) Check whether communication to other systems can be executed normally.	Is the system name displayed on Subaru Select Monitor?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **9**.
9	**CHECK FUSE.** Remove fuse No. 25 from the fuse & relay box, and perform visual inspection.	Is the fuse OK?	Go to step **10**.	Replace the fuse. If the fuse is blown out again, check the power supply circuit.
10	**CHECK AIRBAG CONTROL MODULE CONNECTOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Confirm that the connectors of airbag control module (AB6, AB17, AB18) are securely connected.	Is the connector of the airbag control module securely connected?	Go to step **11**.	Connect the connector of the airbag control module.
11	**CHECK CAN COMMUNICATION.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Repair it according to the diagnosis for LAN system.	Go to step **12**.
12	**CHECK POWER SUPPLY CIRCUIT.** 1) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 2) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 3) Turn the ignition switch to ON. 4) Measure the voltage between connector (2AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(2AG) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **13**.	Repair the harness between the airbag control module and the battery. Or replace the airbag main harness along with the bulkhead harness.
13	**CHECK BETWEEN AIRBAG CONTROL MODULE AND CHASSIS GROUND.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between connector (2AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(2AG) No. 4 — Chassis ground:*** ***(2AG) No. 3 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **14**.	Repair the harness between the airbag control module and the chassis ground. Or replace the airbag main harness along with the bulkhead harness.

Step		Check	Yes	No
14	CHECK POOR CONTACT OF CONNECTOR.	Is there poor contact of the control module power supply, ground circuit and data link connector?	Repair the connector. (Replace the harness without repairing the airbag system connector.)	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

7. Subaru Select Monitor

A: OPERATION

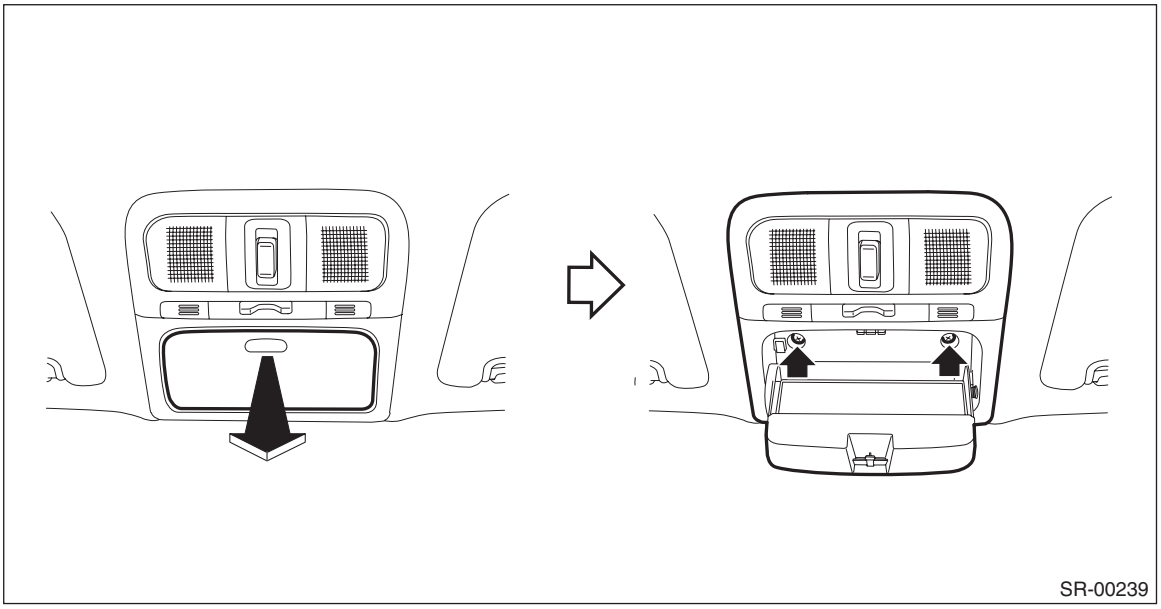
For details of basic operations, refer to “PC application help for Subaru Select Monitor”.

NOTE:
If the communication for initializing of Subaru Select Monitor is impossible, perform the diagnosis using “Diagnostic Procedure for Subaru Select Monitor Communication Error”.

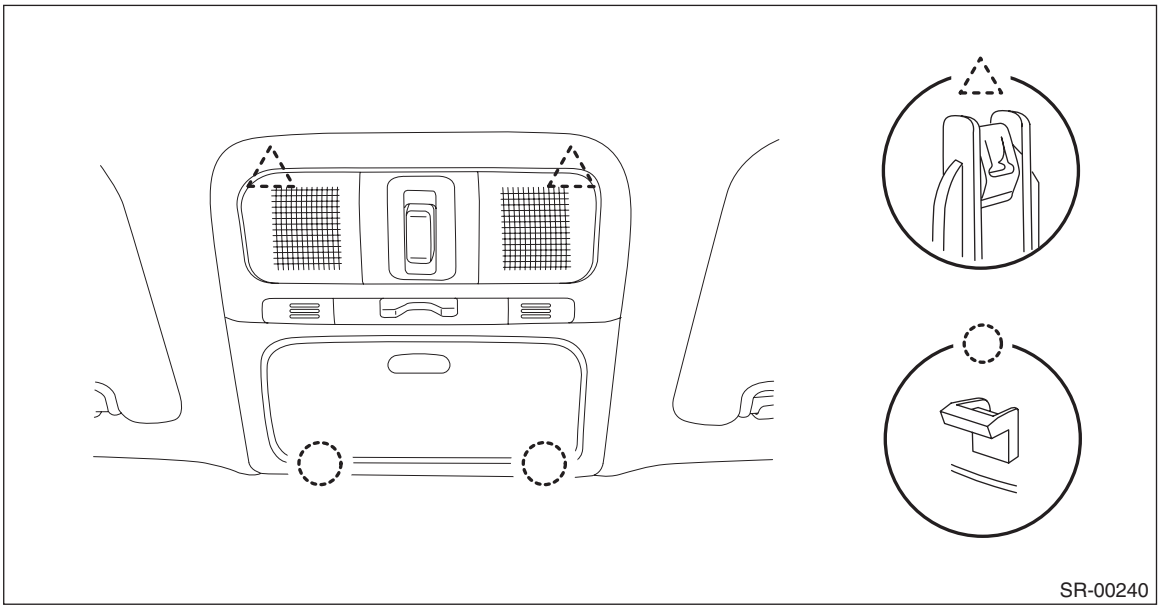
7. Sunroof Switch

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the light assembly - map. (Models without EyeSight)
   (1) Remove the screws.

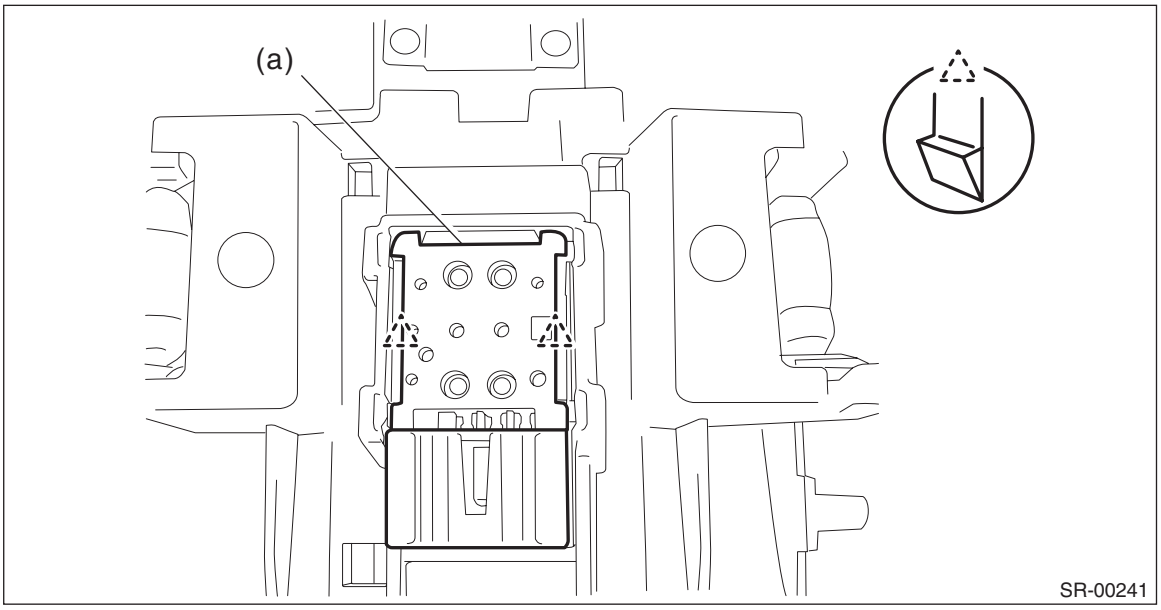


   (2) Release the clips and pull out the light assembly - map to disconnect the connectors.



3) Remove the stereo camera cover. (Models with EyeSight) <Ref. to ES-11, REMOVAL, Stereo Camera.>

4) Release the claws and remove the sunroof switch (a) from the light assembly - map.



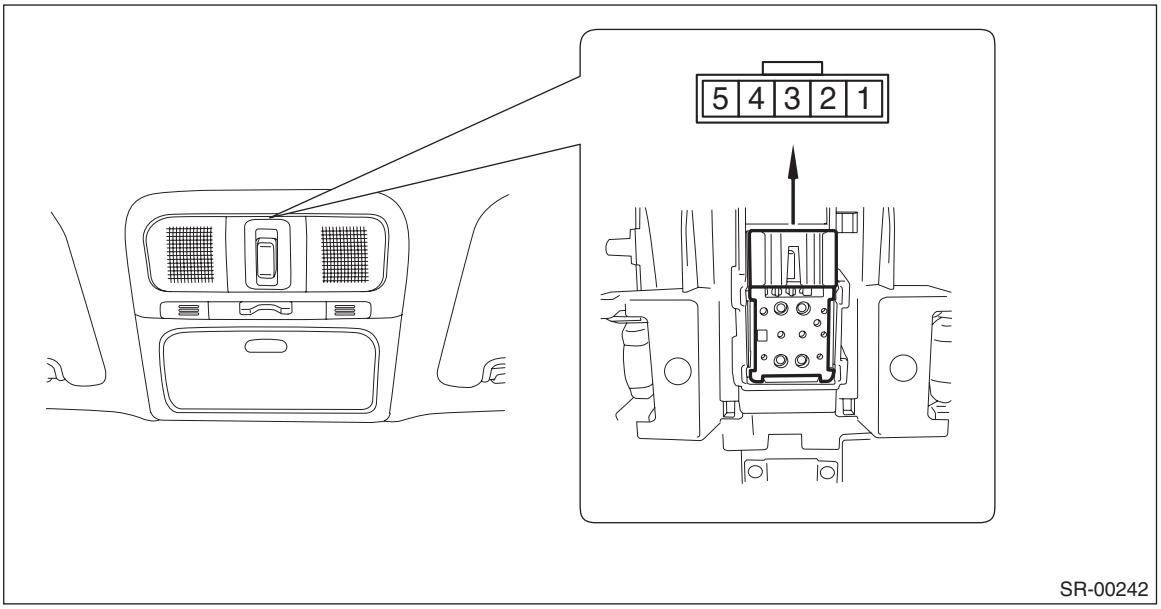
B: INSTALLATION

CAUTION:
For installation of the stereo camera cover, refer to “INSTALLATION”, “Stereo Camera Cover” in the “EyeSight” section and observe the precautions for installation. <Ref. to ES-15, INSTALLATION, Stereo Camera.>
Install each part in the reverse order of removal.

C: INSPECTION

1) Remove the sunroof switch. <Ref. to SR-20, INSPECTION, Sunroof Switch.>
2) Check the resistance between sunroof switch terminals.

Preparation tool:
Circuit tester



Terminal No.	Inspection conditions	Standard	Connector No.
1 — 3	Open	Less than 1 Ω	R128
4 — 3	Close	Less than 1 Ω	

3) Replace the sunroof switch if the inspection result is not within the standard value.

7. Tachometer

A: SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the tachometer alone. (Do not remove the cover on the back surface.)

7. Turn Signal Light and Hazard Light System

A: WIRING DIAGRAM

Refer to “Turn Signal Light and Hazard Light System” in the wiring diagram. <Ref. to WI-405, WIRING DIAGRAM, Turn Signal Light and Hazard Light System.>

B: INSPECTION

1. CHECK TURN SIGNAL SWITCH

Refer to the “INSPECTION” of the “Combination Switch (Light)”. <Ref. to LI-22, INSPECTION, Combination Switch (Light).>

2. CHECK HAZARD SWITCH

Refer to the “INSPECTION” of the “Hazard Switch”. <Ref. to LI-40, INSPECTION, Hazard Switch.>

3. CHECK TURN SIGNAL & HAZARD UNIT

Refer to “INSPECTION” of the “Turn Signal Light & Hazard Light Unit”. <Ref. to LI-41, INSPECTION, Turn Signal Light & Hazard Light Unit.>

C: NOTE

For operation procedures of each component of the turn signal and hazard light system, refer to the respective sections.

- Combination switch (light): <Ref. to LI-18, Combination Switch (Light).>
- Front turn signal light bulb: <Ref. to LI-43, Front Turn Signal Light Bulb.>
- Side turn signal light assembly: <Ref. to LI-50, Side Turn Signal Light Assembly.>
- Rear combination light assembly: <Ref. to LI-51, Rear Combination Light Assembly.>
- Rear turn signal light bulb: <Ref. to LI-54, Rear Turn Signal Light Bulb.>
- Hazard switch: <Ref. to LI-39, Hazard Switch.>
- Turn signal & hazard unit: <Ref. to LI-41, Turn Signal Light & Hazard Light Unit.>

8. Back-up Light System

A: WIRING DIAGRAM

Refer to “Back-up Light System” in the wiring diagram.
- Non-turbo model: <Ref. to WI-87, NON-TURBO MODEL, WIRING DIAGRAM, Back-up Light System.>
- Turbo model: <Ref. to WI-89, TURBO MODEL, WIRING DIAGRAM, Back-up Light System.>

B: INSPECTION

1. CHECK BACK-UP LIGHT SWITCH (MT MODEL)

Refer to “INSPECTION” of the “Switches and Harness” in “MANUAL TRANSMISSION AND DIFFERENTIAL” section. <Ref. to 6MT-41, BACK-UP LIGHT SWITCH, INSPECTION, Switches and Harness.>

2. CHECK INHIBITOR SWITCH (CVT MODEL)

Refer to “INSPECTION” of the “Inhibitor Switch” in “CONTINUOUSLY VARIABLE TRANSMISSION” section.
- Non-turbo model: <Ref. to CVT(TR580)-90, INSPECTION, Inhibitor Switch.>
- Turbo model: <Ref. to CVT(TR690)-92, INSPECTION, Inhibitor Switch.>

C: NOTE

For operation procedures of each component of the back-up light system, refer to the respective section.
- Rear combination light assembly: <Ref. to LI-51, Rear Combination Light Assembly.>
- Back-up light bulb: <Ref. to LI-57, Back-up Light Bulb.>

8. Clear Memory Mode

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

8. Clear Memory Mode

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

8. Clear Memory Mode

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

8. Clear Memory Mode

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

8. Clutch Switch

A: NOTE

For clutch switch, refer to “CLUTCH SYSTEM” section. <Ref. to CL-30, Clutch Switch.>

8. Combination Meter

A: NOTE

For the combination meter, refer to “INSTRUMENTATION/DRIVER INFO” section. <Ref. to IDI-18, Combination Meter.>

8. Compressor Oil

A: PROCEDURE

NOTE:
Before making repairs, perform the oil return operation to return the compressor oil in circulation with the refrigerant to the compressor assembly.
1) Increase the engine to 1,500 rpm.
2) Turn the A/C switch to ON.
3) Turn the temperature control dial to LO (MAX COOL).
4) Turn the FRESH/RECIRC switch to RECIRC position.
5) Turn the fan dial to HI (MAX).
6) Leave in this condition for 10 minutes.

B: ADJUSTMENT

• If a component has been replaced, add an appropriate amount of compressor oil (same as the amount of remaining oil in removed component).
• When replacing the compressor assembly, the new compressor assembly will already have the specified amount of oil in it. Adjust the oil amount (so that the amount remains the same as that of the removed compressor assembly) and install the new compressor assembly.

NOTE:
Since the hygroscopicity of compressor oil is high, perform this series of works quickly.

8. Curtain Airbag Module

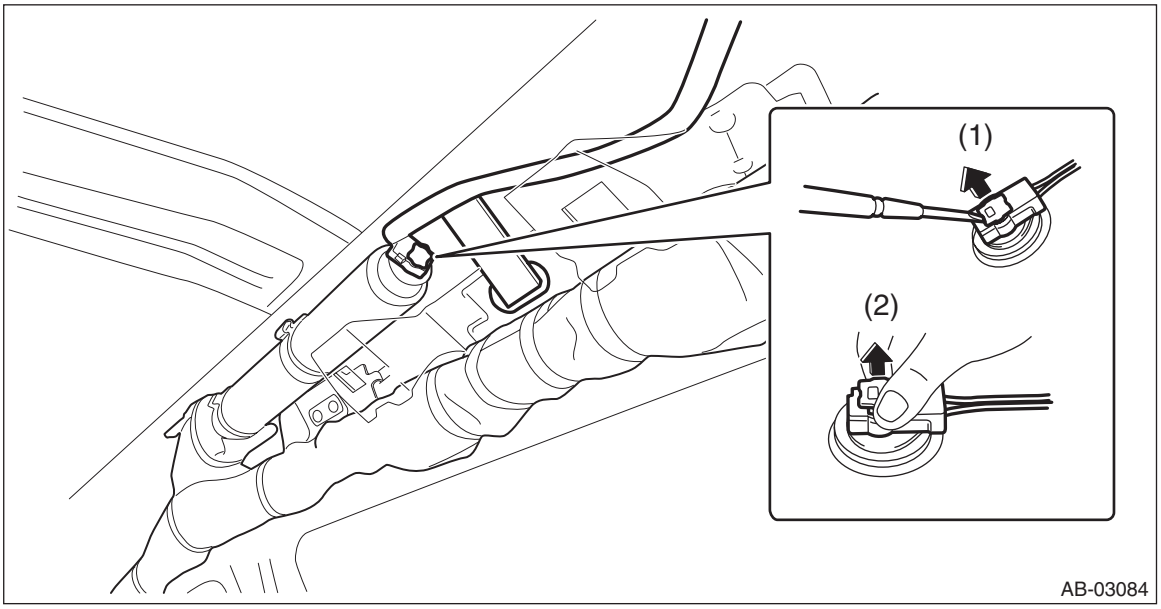
A: REMOVAL

CAUTION:
Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>

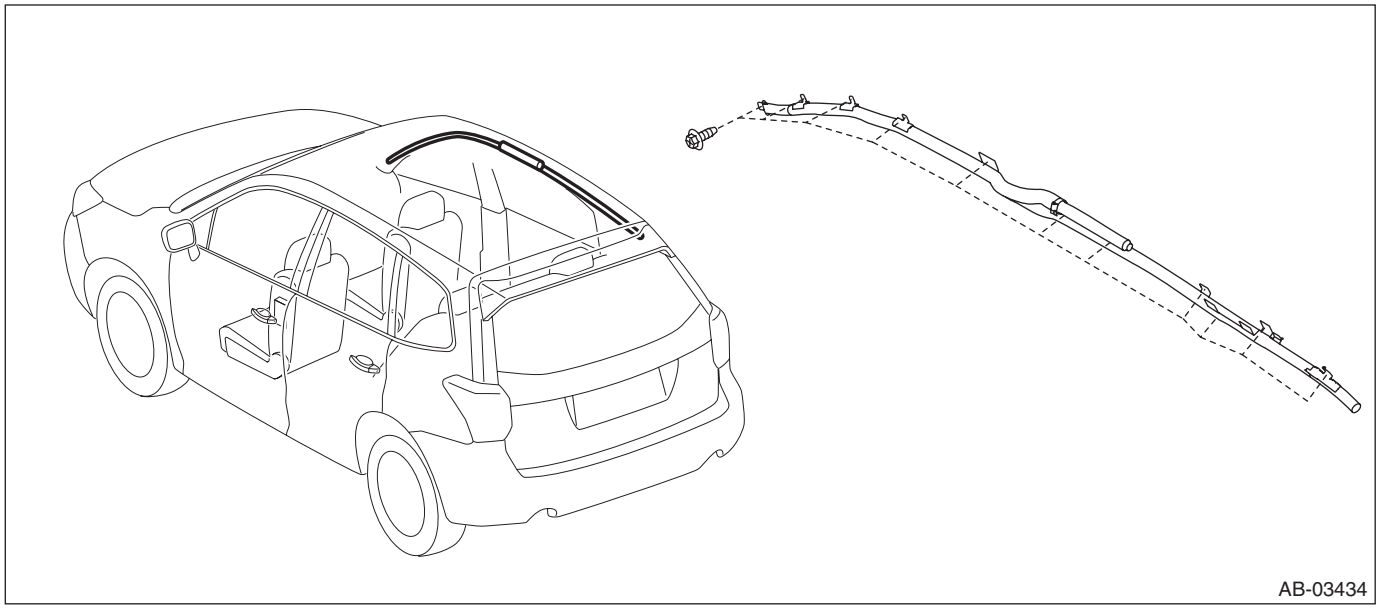
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the trim panel - roof assembly. <Ref. to EI-109, REMOVAL, Roof Trim.>
4) Remove the curtain airbag module.

CAUTION:
- **Be careful not to damage the curtain airbag module during removal.**
- **Never open the curtain airbag module before activation. Never reuse the deployed curtain airbag module.**
- **Remove the modules in order starting from the vehicle front.**

  (1) Disconnect the curtain airbag module connector. <Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



(2) Remove the bolt, and remove the curtain airbag module.



B: INSTALLATION

CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>
• When installing the curtain airbag module, install a specified part at specified place.
• Be careful not to damage the curtain airbag module during installation.
• Never open the curtain airbag module before activation. Never reuse the deployed curtain airbag module.
• Make sure that there are no foreign matter on airbag module.

1) Before installation, inspect the following items and replace any faulty part with a new one.
- Airbag cover is scratched or torn.
- Harness and/or connector is cracked, deformed or open.
- Harness wire is exposed.
- Mounting bracket and securing clip are cracked or deformed.

2) Install each part in the reverse order of removal.

CAUTION:
• For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation. <Ref. to ES-15, INSTALLATION, Stereo Camera.>
• Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
• Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
• Do not reuse the clips in the upper section of the trim panel - center pillar UPR. Always replace with a new part.
• Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

NOTE:
For installation of the trim panel - front pillar UPR, refer to "Upper Inner Trim". <Ref. to EI-101, INSTALLATION, Upper Inner Trim.>

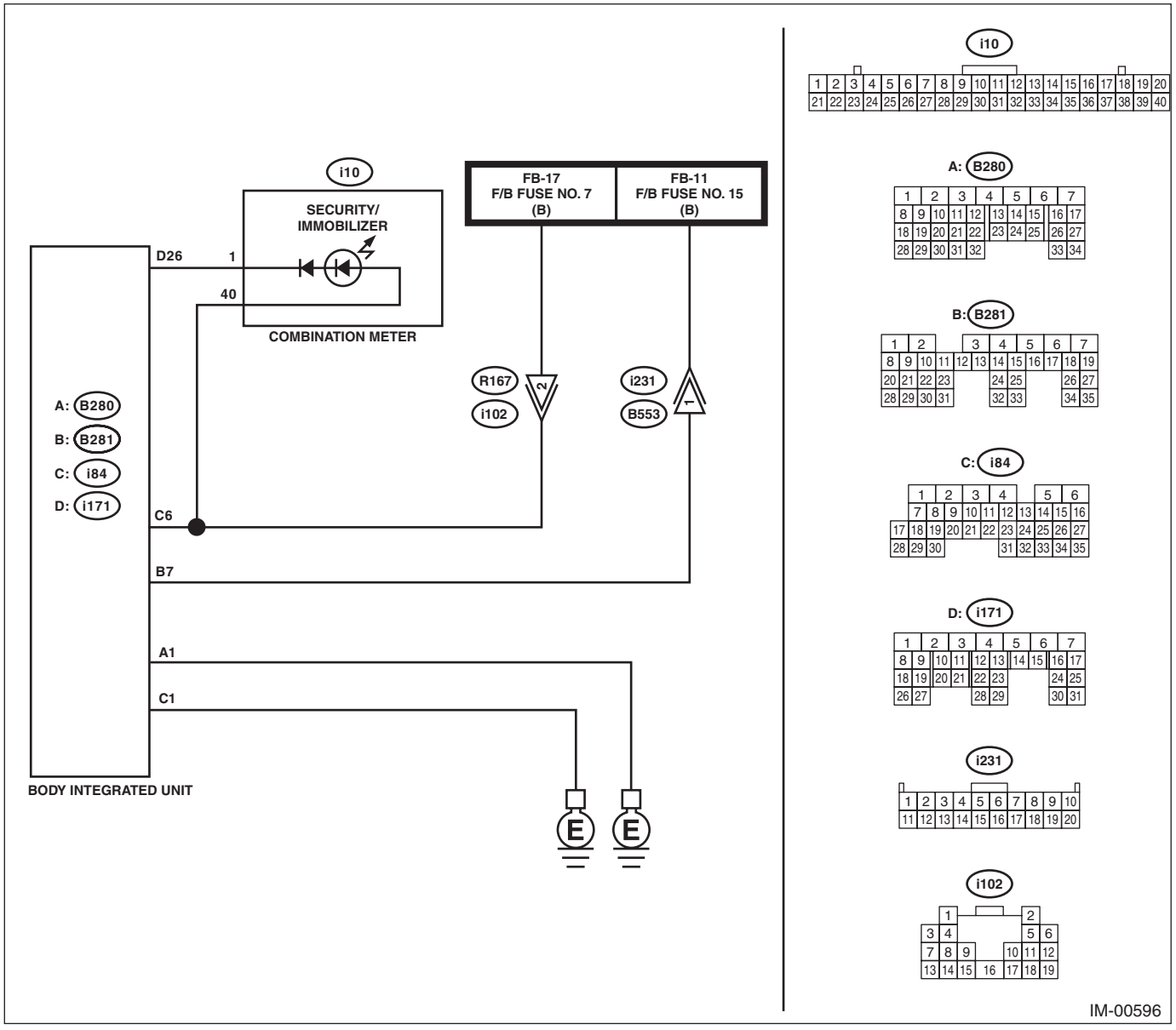
Tightening torque:
Curtain airbag module: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

8. Diagnostics Chart for Security Indicator Light

A: INSPECTION

1. CHECK SECURITY INDICATOR LIGHT CIRCUIT

CAUTION:
When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Immobilizer system<Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



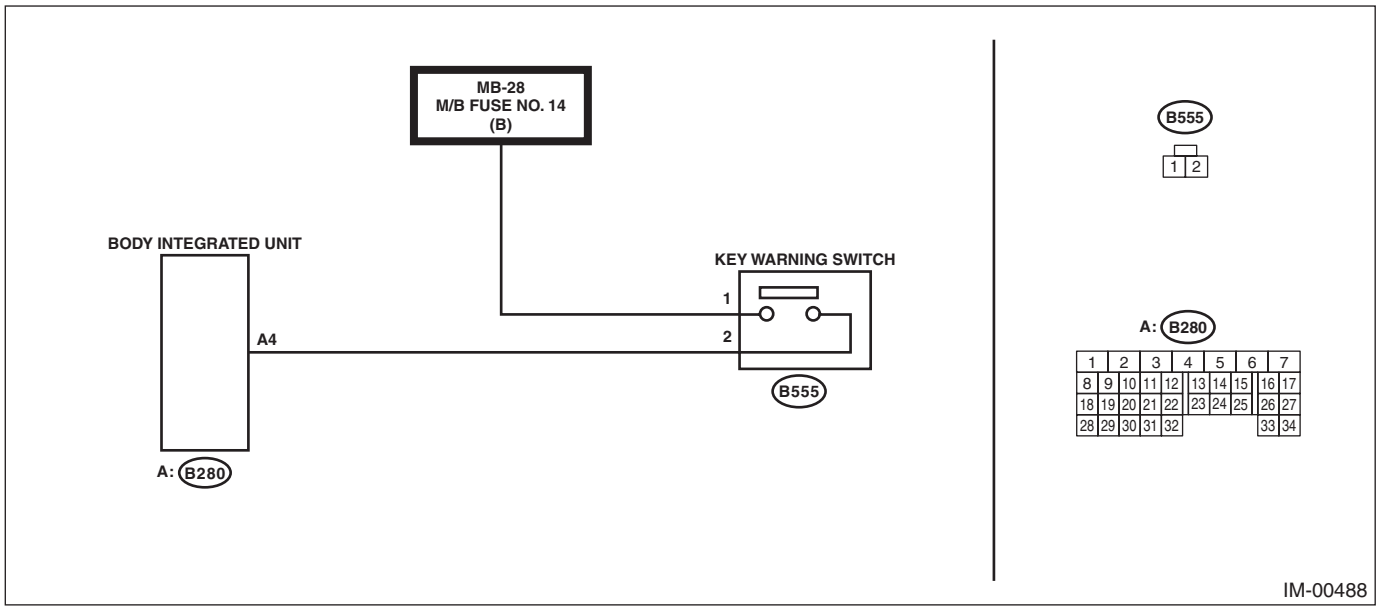
Step		Check	Yes	No
1	**CHECK FUSE.** 1) Remove the ignition key from ignition switch. Or, turn off the power. 2) Check the fuse (M/B No. 8).	Is the fuse OK?	Go to step **2**.	Replace the fuse. If the replaced fuse blows out easily, repair the short circuit in the harness between the fuse and body integrated unit.

Diagnostics Chart for Security Indicator Light

	Step	Check	Yes	No
2	**CHECK SECURITY INDICATOR LIGHT.** 1) Disconnect the connector from body integrated unit. 2) Connect the resistor (100 Ω) between the body integrated unit connector terminal (i171) No. 26 and chassis ground.	Does the security indicator light illuminate?	Go to step **3**.	Go to step **5**.
3	**CHECK BODY INTEGRATED UNIT GROUND CIRCUIT.** Measure the resistance between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 1 — Chassis ground:*** ***(i84) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair the open circuit of the body integrated unit ground circuit.
4	**CHECK BODY INTEGRATED UNIT POWER SUPPLY CIRCUIT.** Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B281) No. 7 (+) — Chassis ground (–):*** ***(i84) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>	Check the harness for open or short circuit between body integrated unit and fuse.
5	**CHECK COMBINATION METER CIRCUIT.** 1) Remove the combination meter.<Ref. to IDI-18, Combination Meter.> 2) Measure the voltage between combination meter connector terminal and chassis ground. ***Connector & terminal*** ***(i10) No. 40 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **6**.	Check for an open or short circuit in the harness between the combination meter and fuse.
6	**CHECK COMBINATION METER CIRCUIT.** Measure the resistance between the body integrated unit connector terminal and combination meter connector terminal. ***Connector & terminal*** ***(i171) No. 26 — (i10) No. 1:***	Is the resistance less than 10 Ω?	LED bulb is defective. Replace the combination meter case assembly.<Ref. to IDI-20, DISASSEMBLY, Combination Meter.>	Repair the harness or connector.

2. CHECK KEY SWITCH CIRCUIT

CAUTION:
When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Immobilizer system <Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



	Step	Check	Yes	No
1	**CHECK POWER SUPPLY CIRCUIT.** 1) Disconnect the connector from key warning switch. 2) Measure the voltage between key warning switch connector terminal and chassis ground. ***Connector & terminal*** ***(B555) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Check the harness for an open or short between the key warning switch and fuse.
2	**CHECK KEY WARNING SWITCH.** 1) Insert the ignition key in the ignition switch. (OFF or ACC) 2) Measure the resistance between key warning switch connector terminals. ***Connector & terminal*** ***No. 1 — No. 2:***	Is the resistance less than 1 Ω?	Go to step **3**.	Replace the key warning switch.
3	**CHECK KEY WARNING SWITCH.** 1) Remove the ignition key from ignition switch. 2) Measure the resistance between key warning switch connector terminals. ***Connector & terminal*** ***No. 1 — No. 2:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the key warning switch.
4	**CHECK HARNESS BETWEEN KEY WARNING SWITCH AND BODY INTEGRATED UNIT.** 1) Disconnect the connector from body integrated unit. 2) Measure the resistance between key warning switch connector terminal and body integrated unit connector terminal. ***Connector & terminal*** ***(B555) No. 2 — (B280) No. 4:***	Is the resistance less than 10 Ω?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Repair the harness between key warning switch and body integrated unit.

8. Diagnostics with Phenomenon

A: DIAGNOSTIC PROCEDURE WITH PHENOMENON

Phenomenon		Check Item	Note
1	CRUISE switch is not turned ON. (CRUISE indicator does not illuminate.) Or the cruise control is cancelled without CRUISE switch operation.	(1) Perform cruise cancel conditions diagnosis.	Perform the diagnosis according to displayed cancel code.
		(2) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(3) Check the cruise control command switch.	<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>
		(4) Check the CRUISE indicator.	<Ref. to CC(diag)-12, CHECK CRUISE INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT, Diagnostics with Phenomenon.>
2	Cruise control cannot be set. Or cruise control is cancelled without releasing operation.	(1) Perform cruise cancel conditions diagnosis.	Perform the diagnosis according to displayed cancel code.
		(2) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(3) Check the cruise control command switch.	<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>
		(4) Check stop light switch and brake switch.	<Ref. to BR-69, Stop Light Switch.> <Ref. to CC(diag)-17, 12, Diagnostic Procedure with Cancel Code.>
		(5) Check clutch switch.	<Ref. to CL-30, Clutch Switch.> <Ref. to CC(diag)-20, 13, Diagnostic Procedure with Cancel Code.>
		(6) Check the neutral position switch.	<Ref. to CC(diag)-21, 14, Diagnostic Procedure with Cancel Code.> <Ref. to CC(diag)-26, 62, Diagnostic Procedure with Cancel Code.>
		(7) Check vehicle speed sensor.	<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>
3	SET indicator does not illuminate.	Check the SET indicator.	<Ref. to CC(diag)-12, CHECK CRUISE INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT, Diagnostics with Phenomenon.>
4	Vehicle speed is not held within set speed ±3 km/h (±2 MPH).	Check the vehicle speed sensor.	<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>
5	Vehicle speed does not increase or does not return to set speed after RES/+ switch has been pressed.	(1) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(2) Check the RES/+ switch.	<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>
6	Vehicle speed does not decrease after SET/– switch has been pressed.	(1) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(2) Check the SET/– switch.	<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>
7	Cruise control is not released after CANCEL switch has been pressed.	(1) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(2) Check the CANCEL switch.	<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>
8	Cruise control is not released after brake pedal has been depressed.	(1) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(2) Check stop light switch and brake switch.	<Ref. to CC(diag)-17, 12, Diagnostic Procedure with Cancel Code.> <Ref. to BR-71, INSTALLATION, Stop Light Switch.>
9	Cruise control is not released after shifting to the neutral position.	(1) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(2) Check the neutral position switch.	<Ref. to CC(diag)-21, 14, Diagnostic Procedure with Cancel Code.> <Ref. to CC-16, Neutral Position Switch.>
10	Cruise control is not released after clutch pedal has been depressed.	(1) Perform the real-time diagnosis.	Check the input signal of cruise control system.
		(2) Check clutch switch.	<Ref. to CC(diag)-20, 13, Diagnostic Procedure with Cancel Code.> <Ref. to CL-30, CLUTCH SWITCH, INSTALLATION, Clutch Switch.>

B: CHECK CRUISE INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT

TROUBLE SYMPTOM:

Cruise control can be set, but the CRUISE indicator and SET indicator do not illuminate.

	Step	Check	Yes	No
1	**CHECK CRUISE INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT.** Check the combination meter. <Ref. to IDI-8, OPERATION, Combination Meter System.>	Do the CRUISE & SET indicators illuminate?	Go to step **2**.	Replace the meter case assembly. <Ref. to IDI-18, Combination Meter.>
2	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Is a DTC of the LAN system detected?	Perform the diagnosis according to DTC for LAN system.	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>

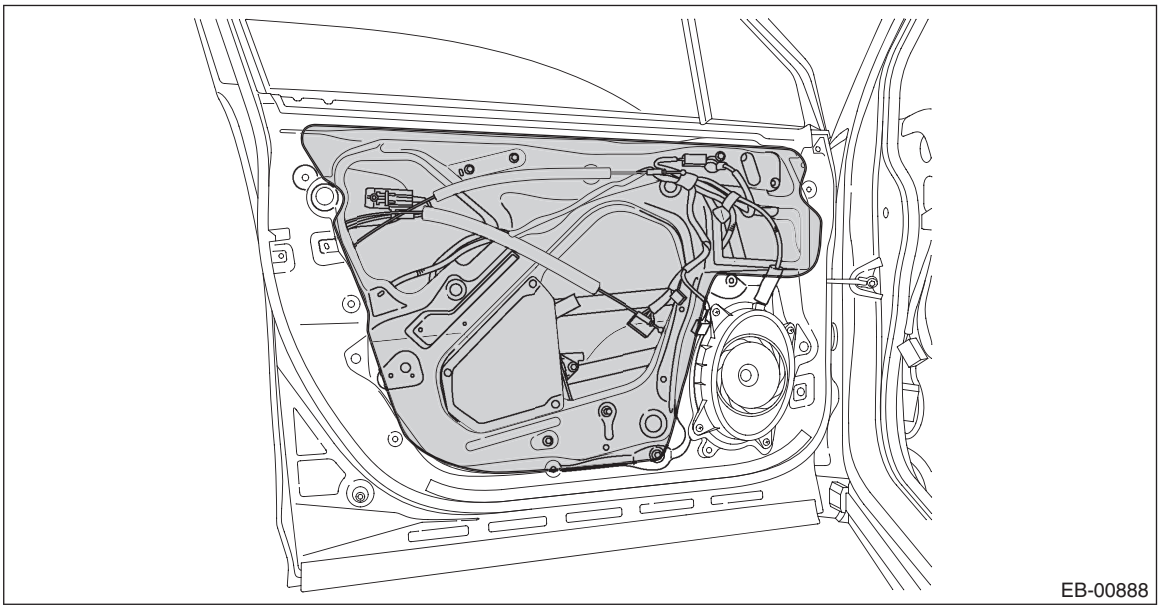
8. Door Sash Tape

A: REMOVAL

1. FRONT DOOR

1) Disconnect the ground cable from battery.
2) Remove the trim panel - front door. <Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
3) Remove the outer mirror assembly. <Ref. to GW-23, REMOVAL, Outer Mirror Assembly.>
4) Remove the sealing cover - front door.

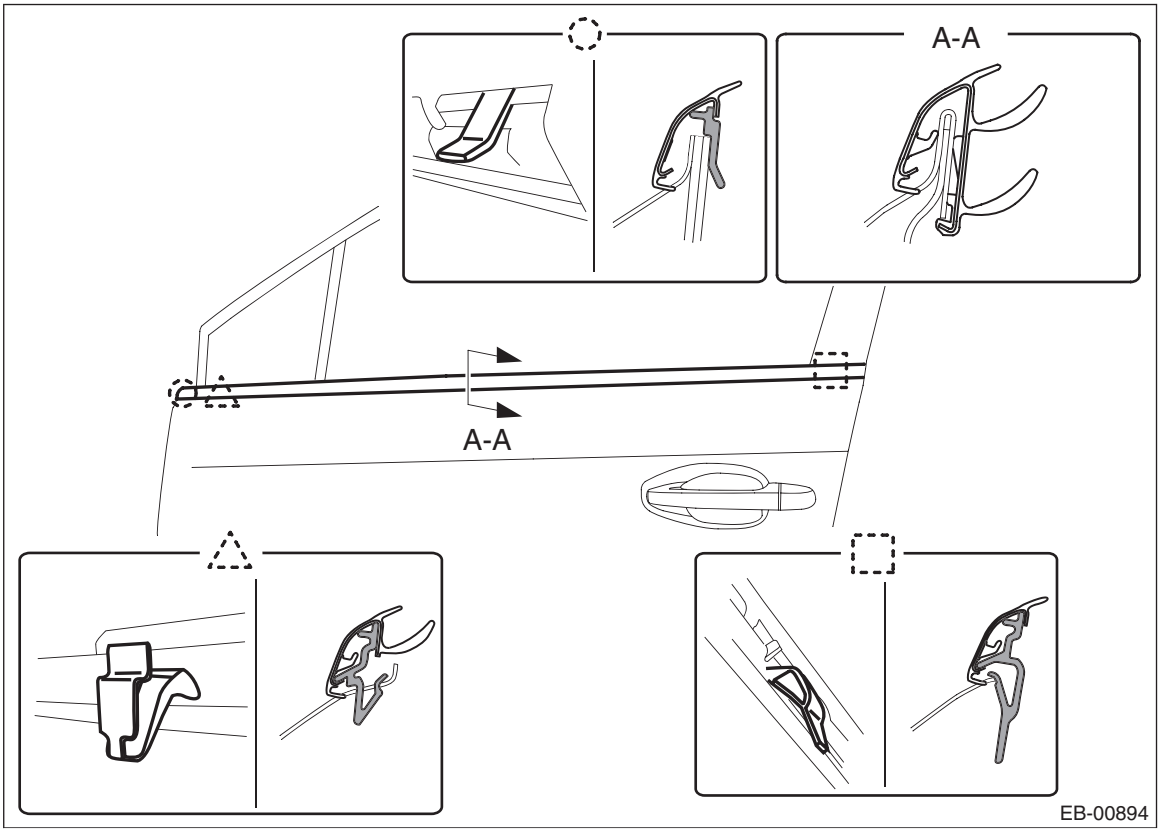
CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**



5) Remove the glass assembly - front door. <Ref. to GW-17, REMOVAL, Front Door Glass.>
6) Remove the running channel - front door.

7) Remove the weather strip outer - front door.

CAUTION:
- **When removing the weather strip outer, be careful not to damage the vehicle.**
- **Do not reuse the weather strip outer. Always replace with a new part.**



8) Peel the door sash tape from the door sash.

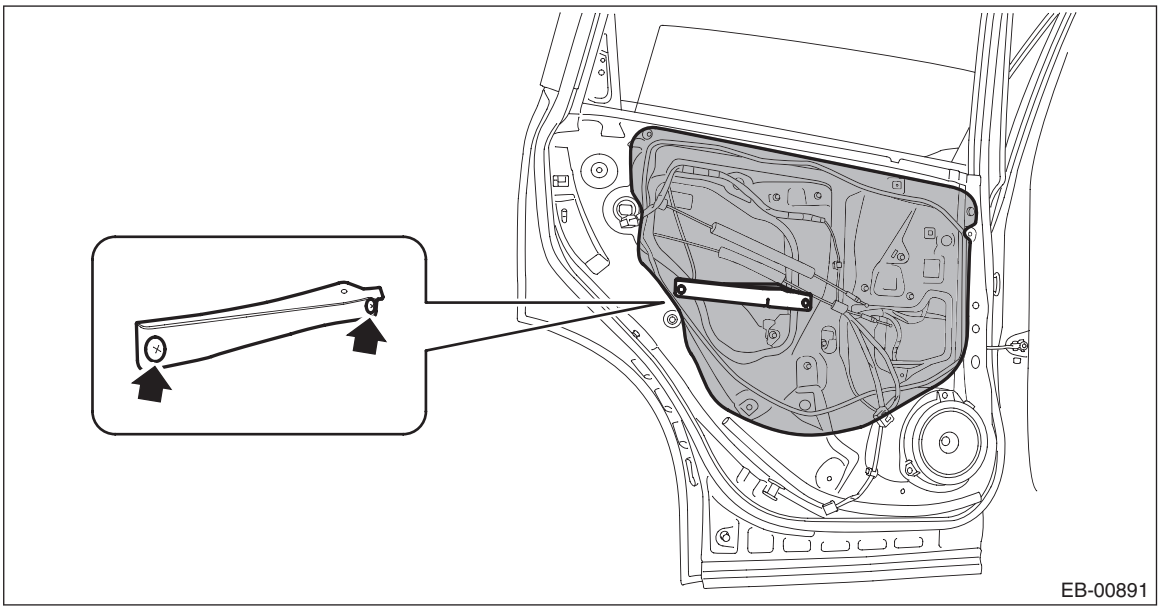
NOTE:
- If the tape is difficult to detach, warm it by a hot air drier.

Use a household hairdryer. Do not use industrial dryers.
- If tape residue is remaining on the door sash, wipe clean.

2. REAR DOOR

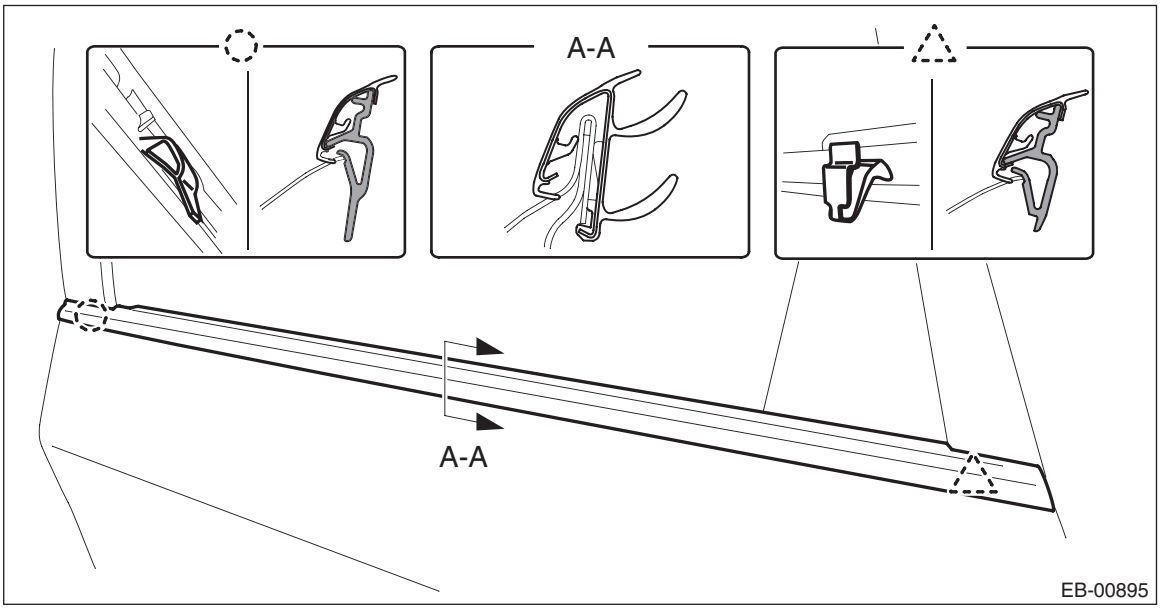
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
3) Remove the sealing cover - rear door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**


EB-00891

4) Remove the glass assembly - rear door. <Ref. to GW-32, REMOVAL, Rear Door Glass.>
5) Remove the running channel - rear door.
6) Remove the weather strip outer - rear door.

CAUTION:
- **When removing the weather strip outer, be careful not to damage the vehicle.**
- **Do not reuse the weather strip outer. Always replace with a new part.**



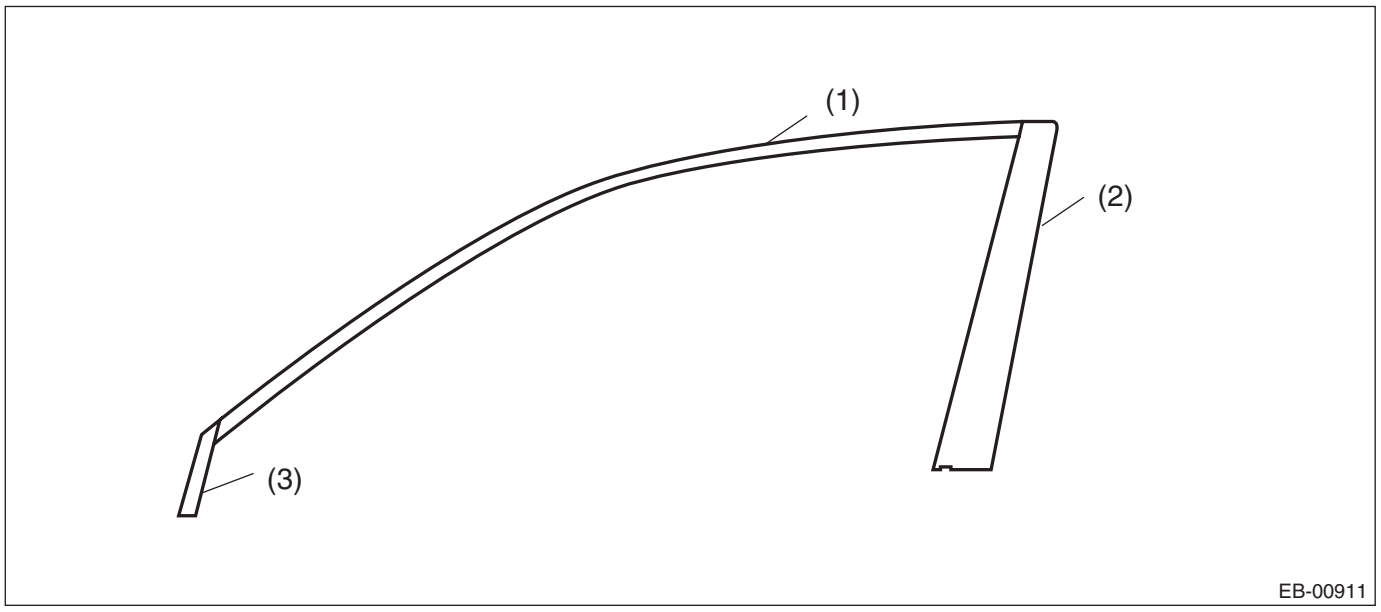
EB-00895

7) Peel the door sash tape from the door sash.

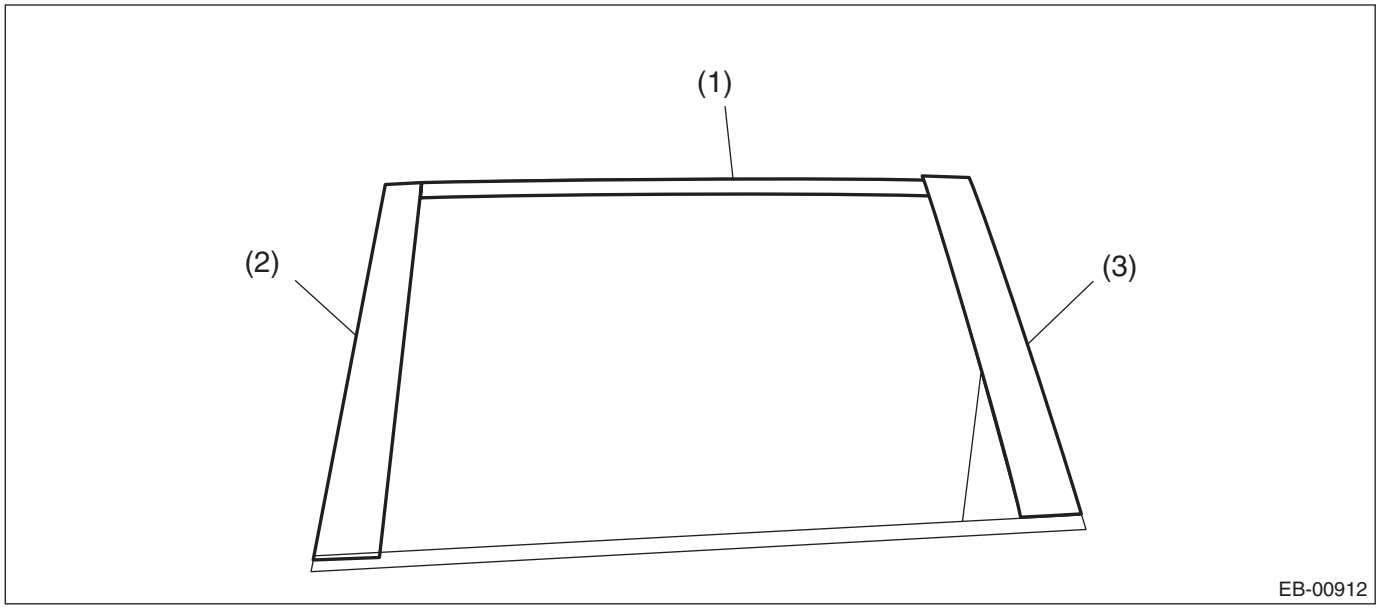
NOTE:
• If the tape is difficult to detach, warm it by a hot air drier.
Use a household hairdryer. Do not use industrial dryers.
• If tape residue is remaining on the door sash, wipe clean.

B: INSTALLATION

CAUTION:
• Do not reuse the removed door sash tape. Replace it with a new tape.
• Press evenly along the sash when applying the tape using a spatula or similar object to make sure no bubbles are formed.
If air bubbles are formed, reapply the tape.
• If the tape is wrinkled, etc. during application, replace the tape.
• Be sure to press the ends of the tape firmly to adhere securely. If the tape comes off at the ends or where folded, the adhesive strength is weakened and the tape may peel off.
• There are locations where the tape ends will overlap each other. When applying the tape, be careful of the order of their application.
• Front



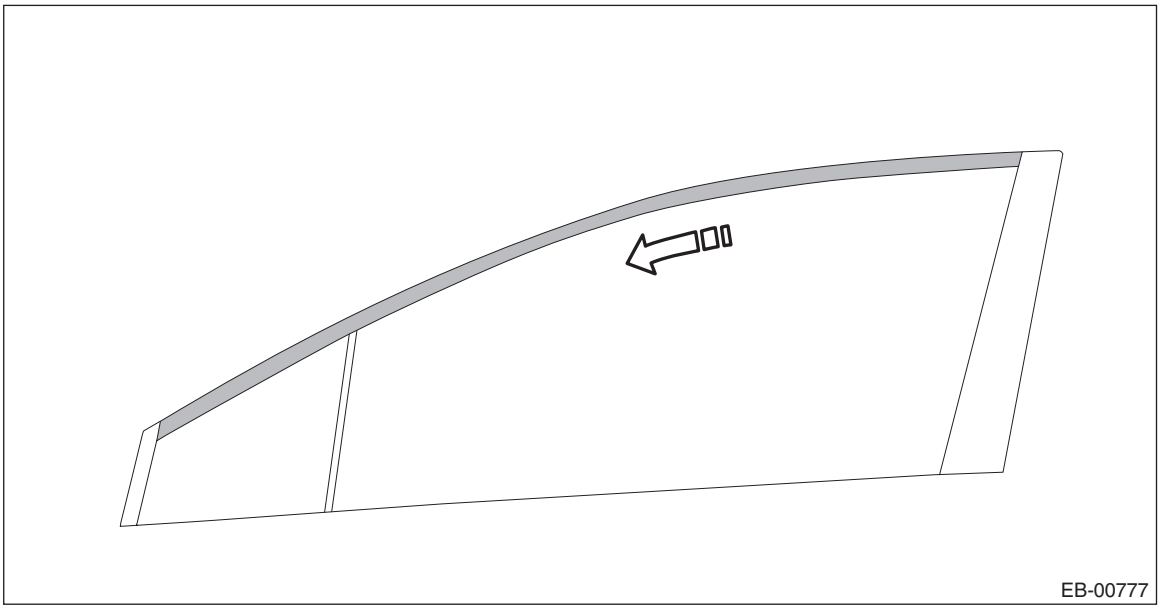
- **Rear**



1. FRONT DOOR

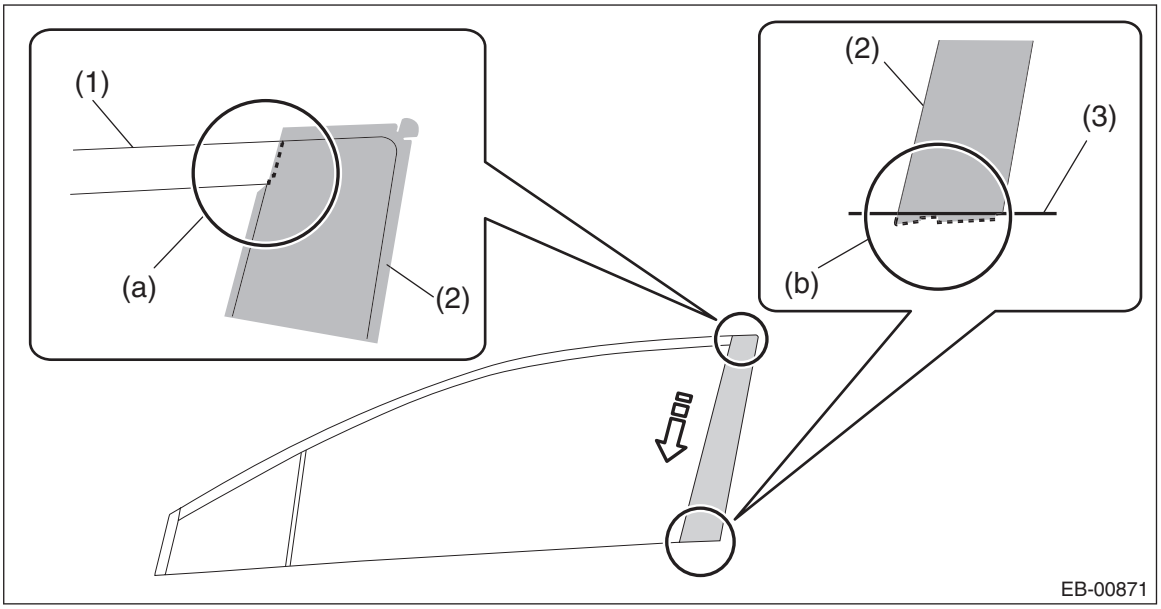
1) Apply the front door sash tape - medium from the rear of the vehicle towards the front.

NOTE:
Apply the end of the tape to the position shown in the figure.



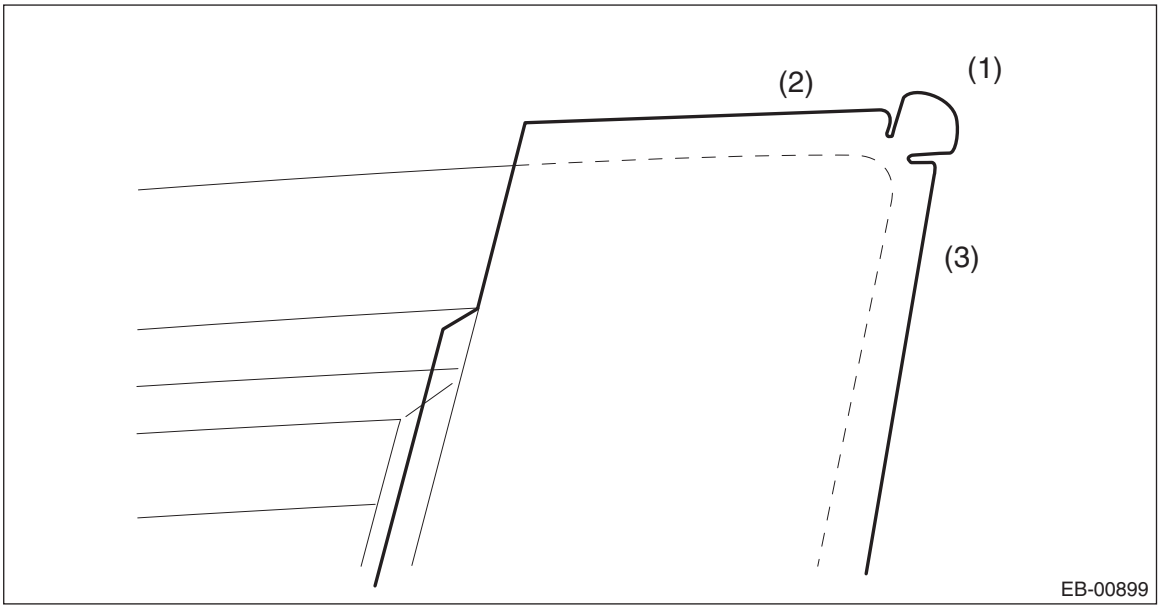
2) When applying the front door sash tape - rear, align the tape on the position (a) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (b) shown in the figure.

NOTE:
Apply the end of the tape to the position shown in the figure.



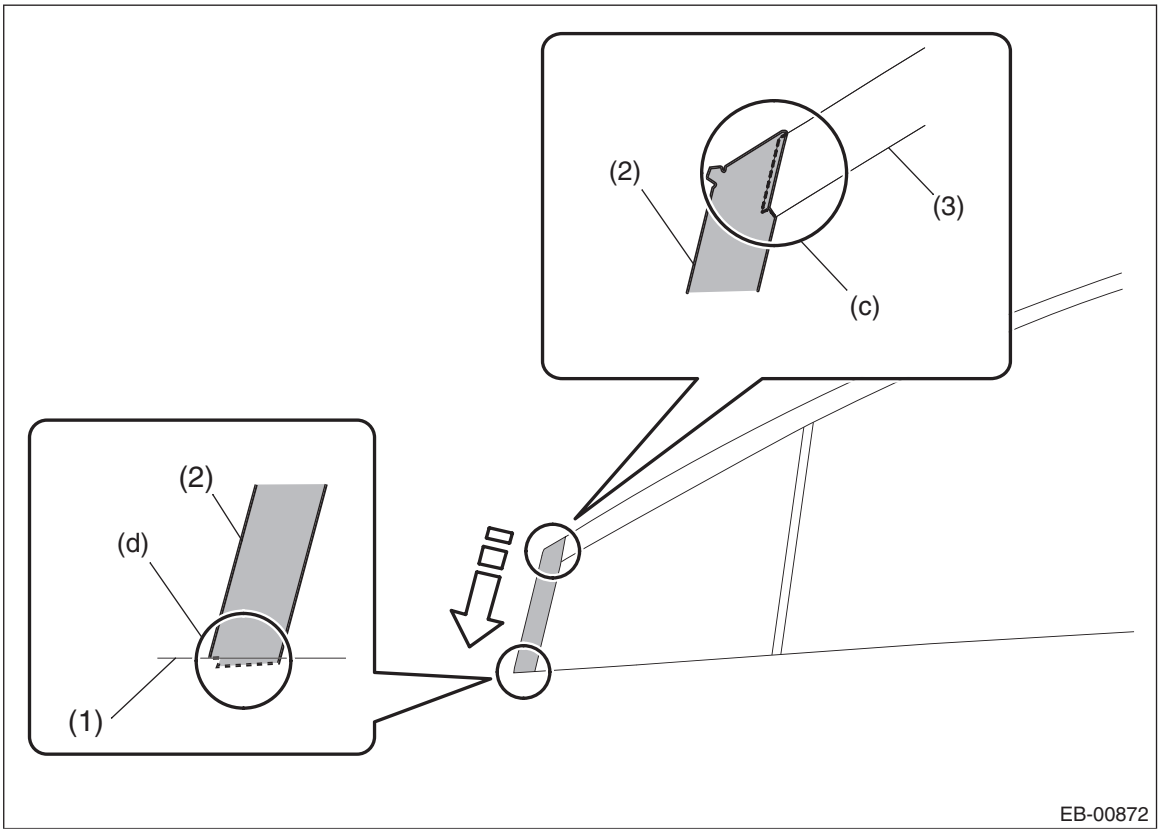
(1) Front door sash tape - medium (2) Front door sash tape - rear (3) End of panel outer

3) Fold the corners at the door upper end area in the order of (1) — (3).



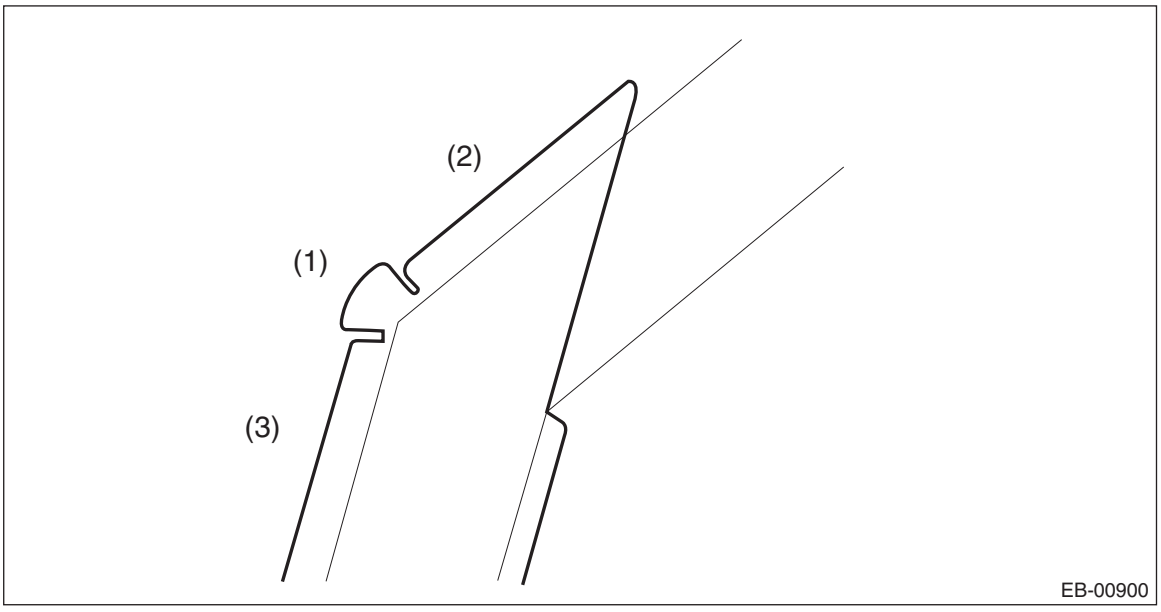
4) When applying the front door sash tape - front, align the tape on the position (c) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (d) shown in the figure.

NOTE:
Apply the end of the tape to the position shown in the figure.



(1) Upper end of weather strip (2) Front door sash tape - front (3) Front door sash tape - medium

5) Fold the corners at the door upper end area in the order of (1) — (3).

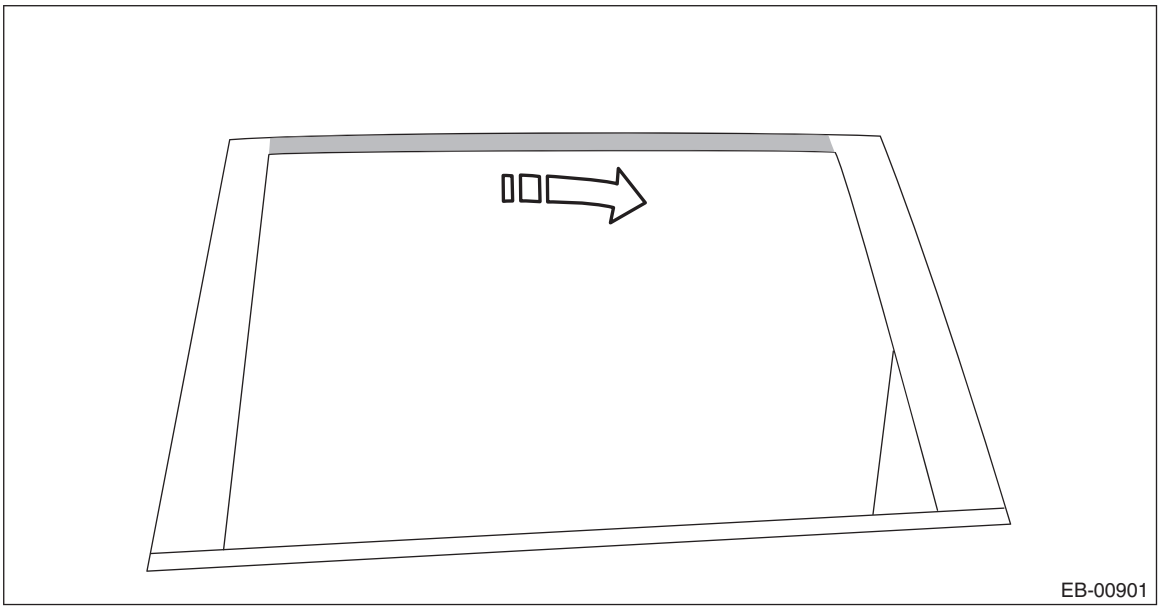


6) Thereafter, install door parts in the reverse order of removal.
7) When installing the panel assembly - front door, make sure that a uniform clearance is created around the panel. For the dimension of clearance, refer to “SPECIFICATION” in “General Description”.<Ref. to EB-2, SPECIFICATION, General Description.>

2. REAR DOOR

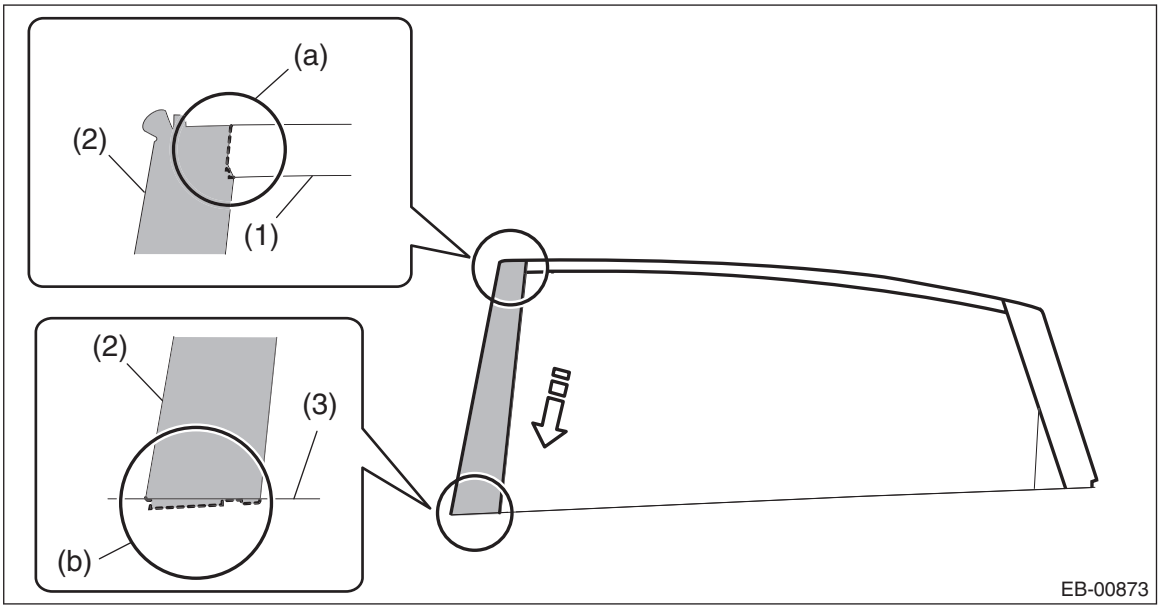
1) Apply the rear door sash tape - medium from the front of the vehicle towards the rear.

NOTE:
Apply the end of the tape to the position shown in the figure.



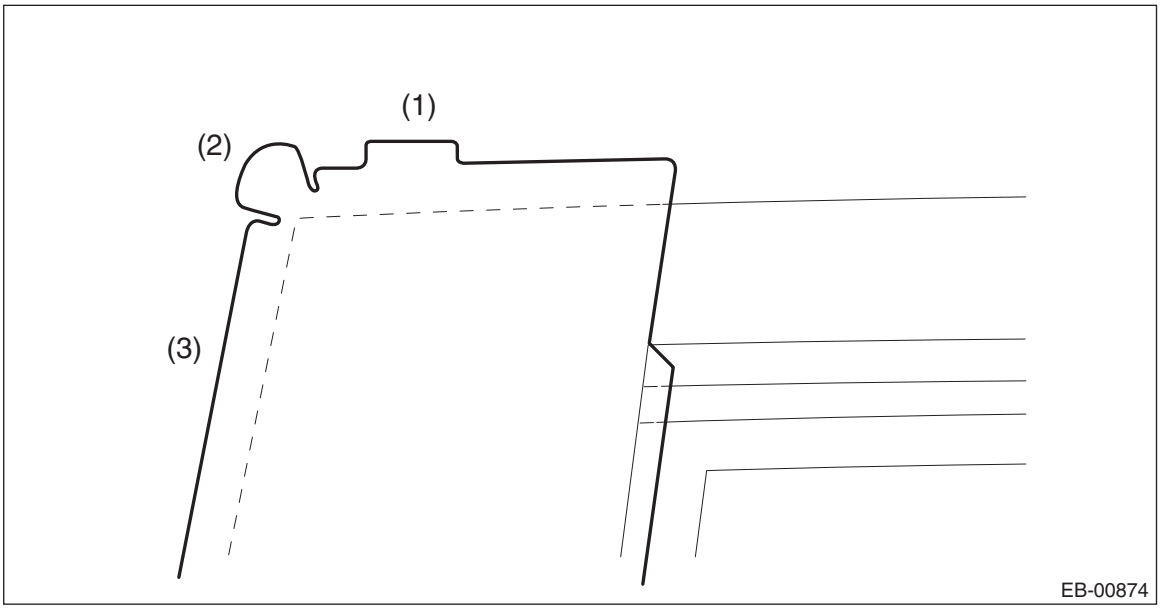
2) When applying the rear door sash tape - front, align the tape on the position (a) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (b) shown in the figure.

NOTE:
Apply the end of the tape to the position shown in the figure.



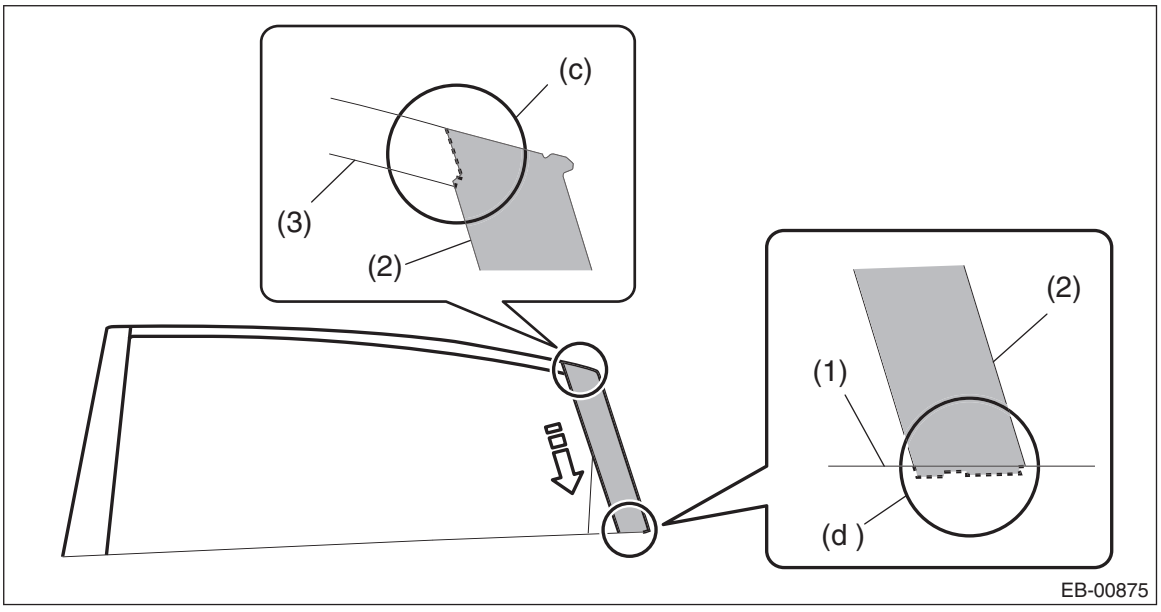
(1) Rear door sash tape - medium (2) Rear door sash tape - front (3) Upper end of weather strip

3) Fold the corners at the door upper end area in the order of (1) — (3).



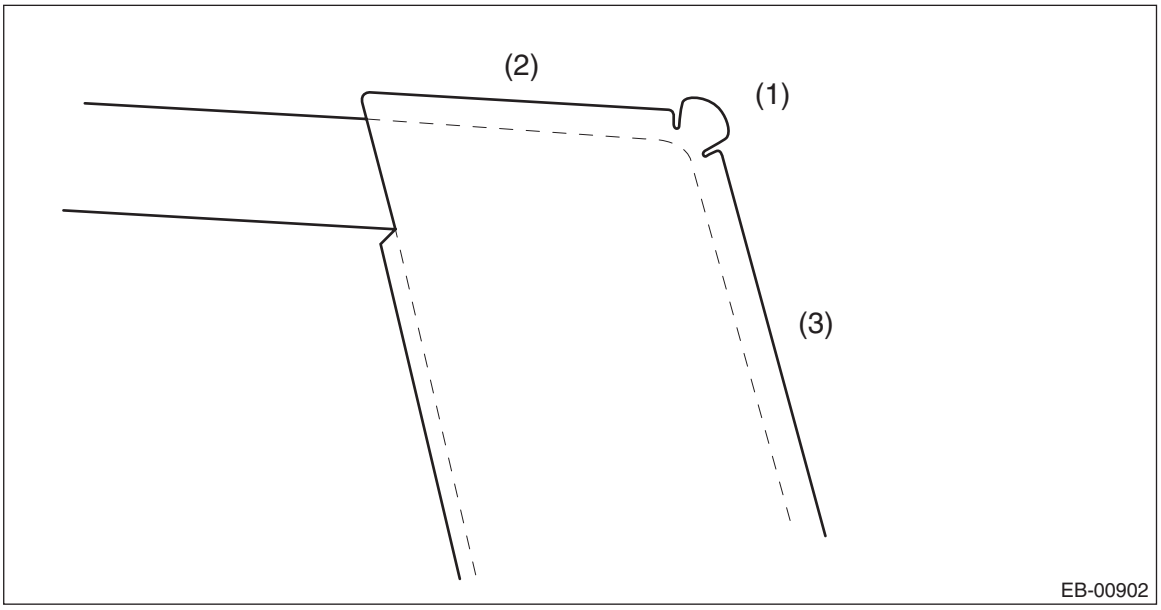
4) When applying the rear door sash tape - rear, align the tape on the position (c) shown in the figure, from the upper to the lower side of the vehicle, align it on the position (d) shown in the figure.

NOTE:
Apply the end of the tape to the position shown in the figure.



(1) Upper end of weather strip (2) Rear door sash tape - rear (3) Rear door sash tape - medium

5) Fold the corners at the door upper end area in the order of (1) — (3).

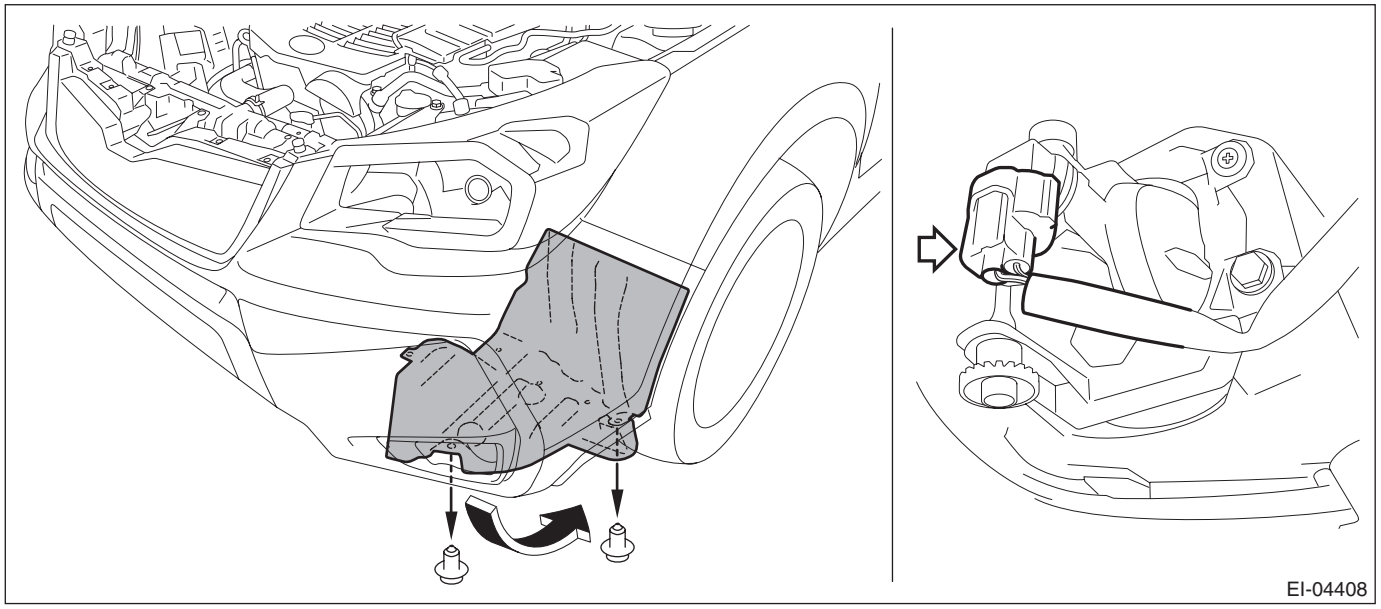


6) Thereafter, install door parts in the reverse order of removal.
7) When installing the panel assembly - front door, make sure that a uniform clearance is created around the panel. For the dimension of clearance, refer to “SPECIFICATION” in “General Description”. <Ref. to EB-2, SPECIFICATION, General Description.>

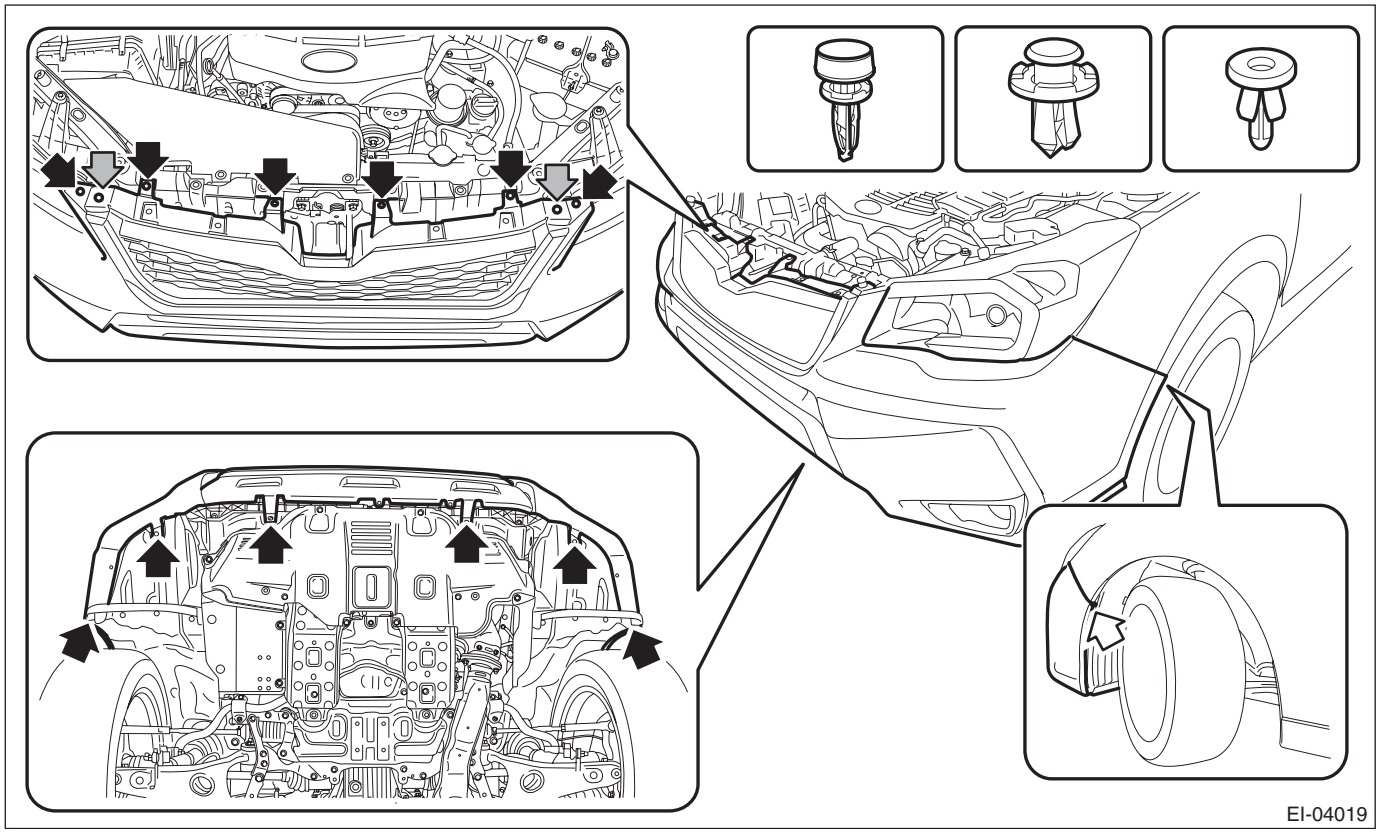
8. Front Bumper

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the bumper face - front.
   (1) Remove the clips, and turn over the mud guard - front, and then disconnect the connectors of the fog light assembly - front on the LH and RH sides. (Model with fog light)

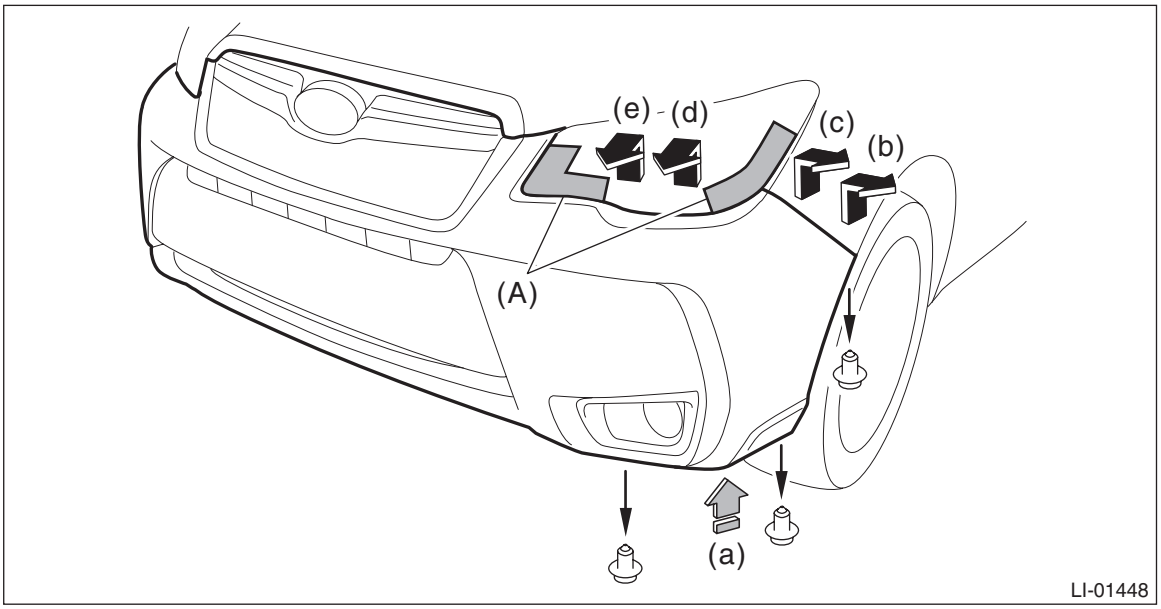


   (2) Remove the clips at the upper side of the bumper face - front.
   (3) Remove the clips from the fender.
   (4) Remove the clips at the lower side of the bumper face - front.

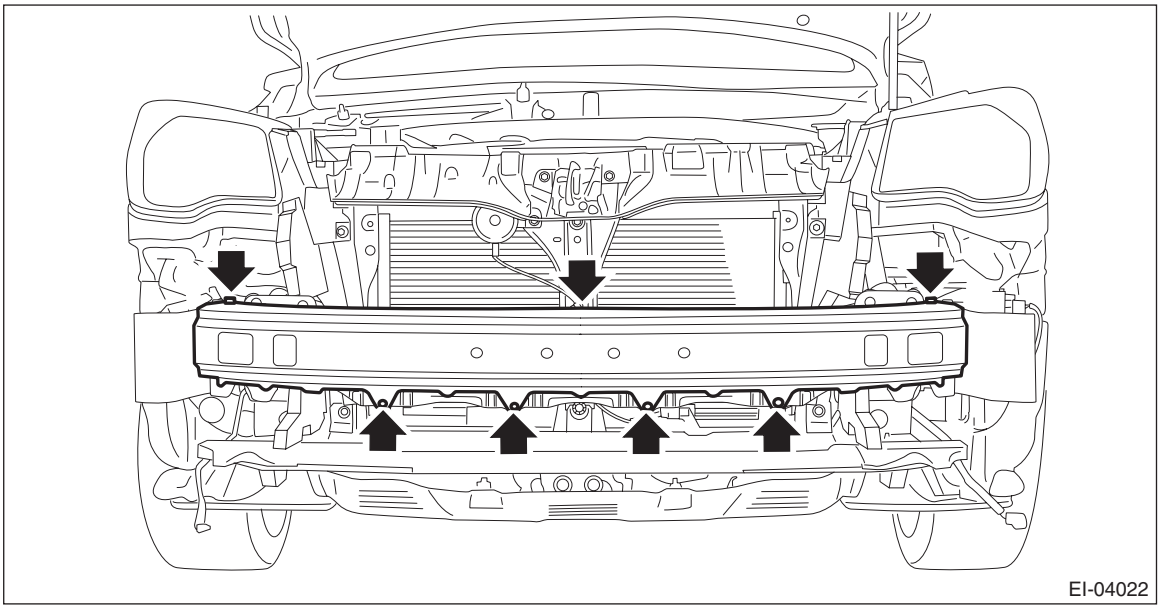


(5) Apply protective tape (A) to the light assembly - head.
(6) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

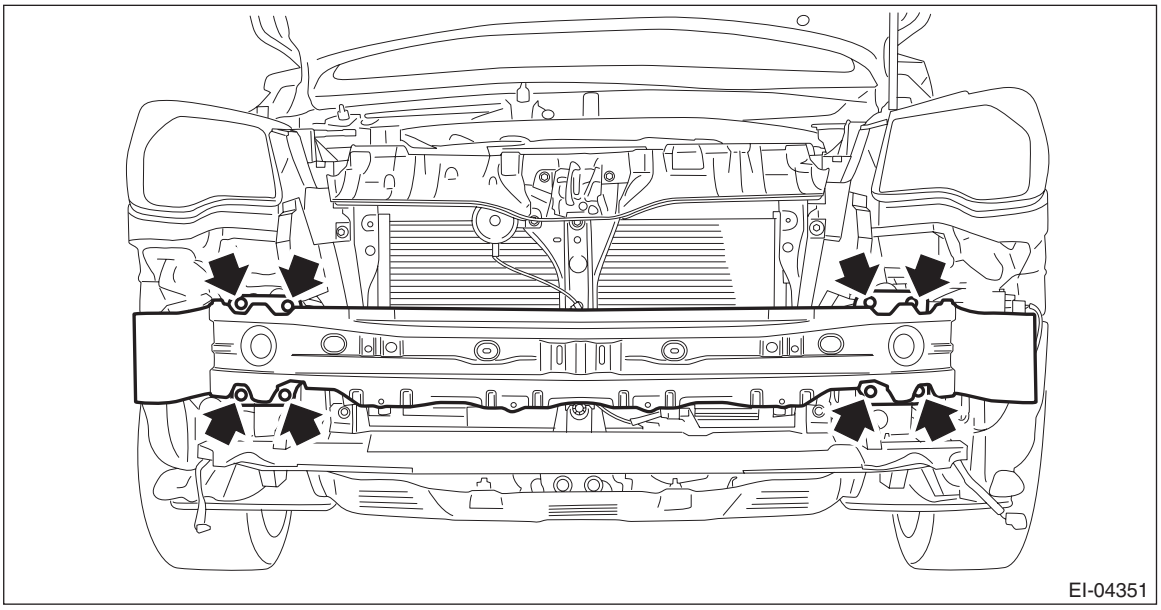
CAUTION:
Do not pull forcibly. It may damage the flange sections of the bumper face - front.



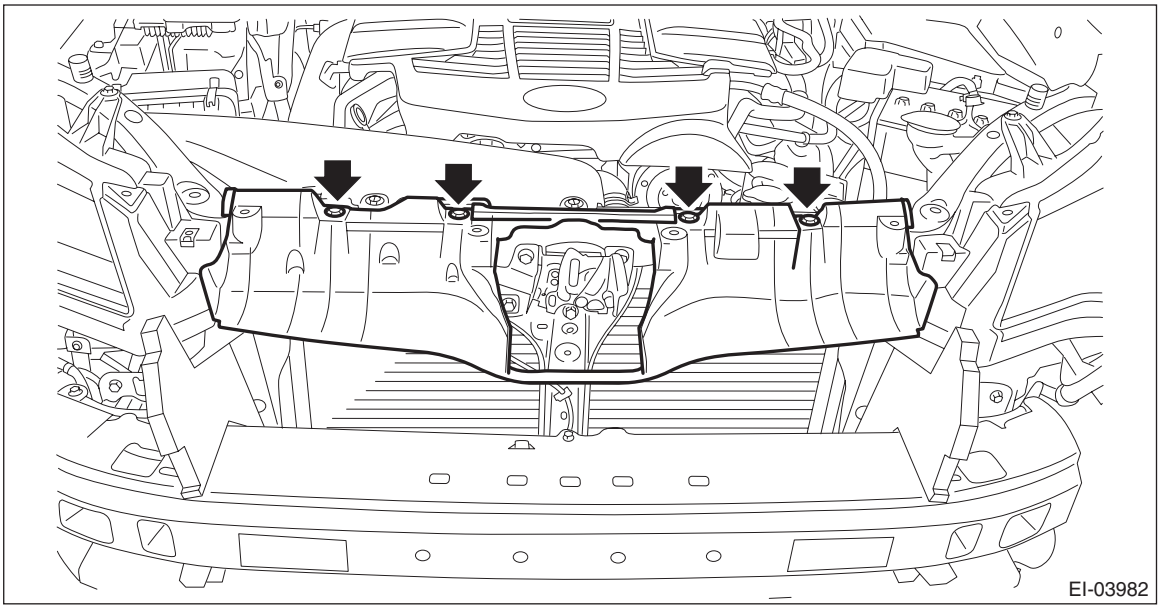
NOTE:
Detach the opposite side in the same manner.
3) Remove the bumper beam COMPL - front.
(1) Remove the energy absorber - front bumper.



(2) Remove the bolts, and remove the bumper beam COMPL - front.



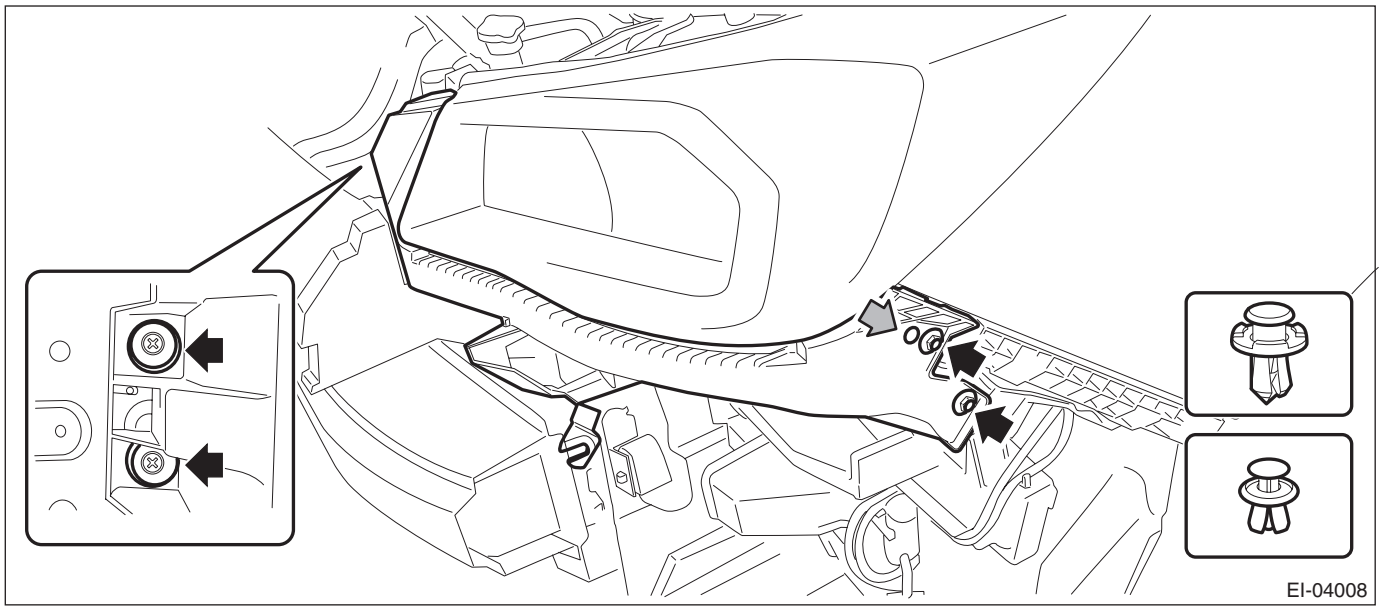
4) Remove the clip, and remove the bracket - grille.



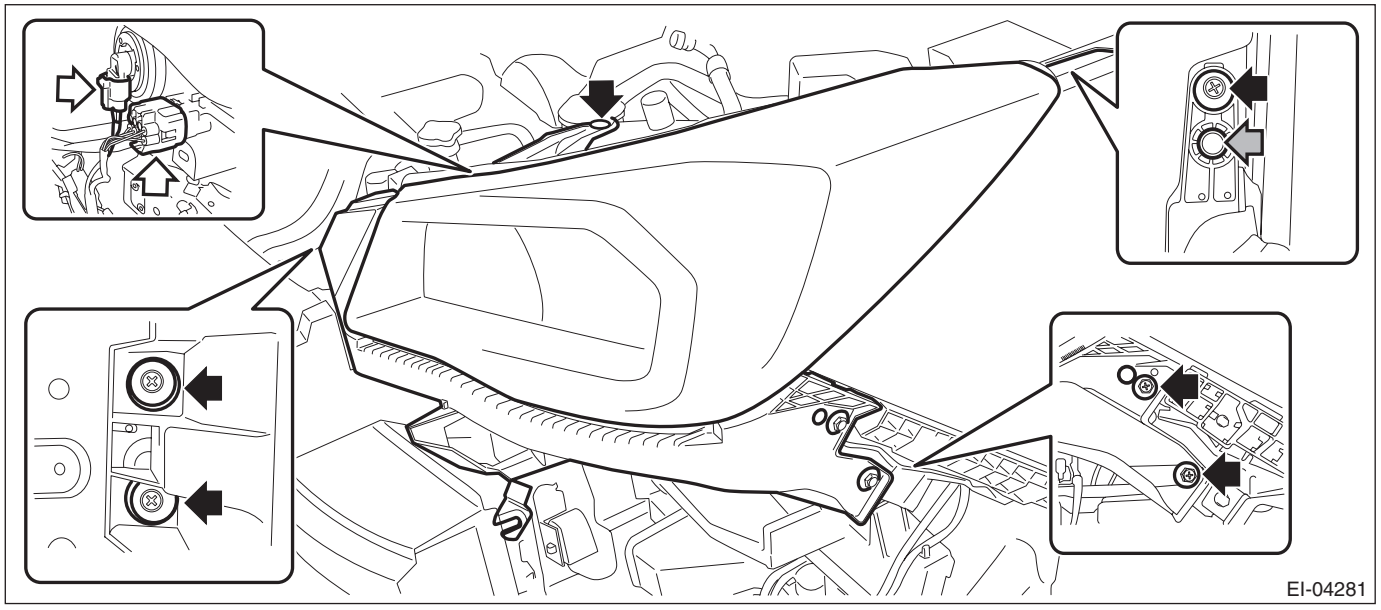
NOTE:
The bracket - grille can be removed without removing the bumper face - front by referring to the removal procedure in “Condenser” of “HVAC SYSTEM”.<Ref. to AC-57, REMOVAL, Condenser.>

5) Remove the bracket - front bumper.

- Removal of the bracket - front bumper corner
  1. Remove the bolts and clips, and remove the bracket - front bumper corner.

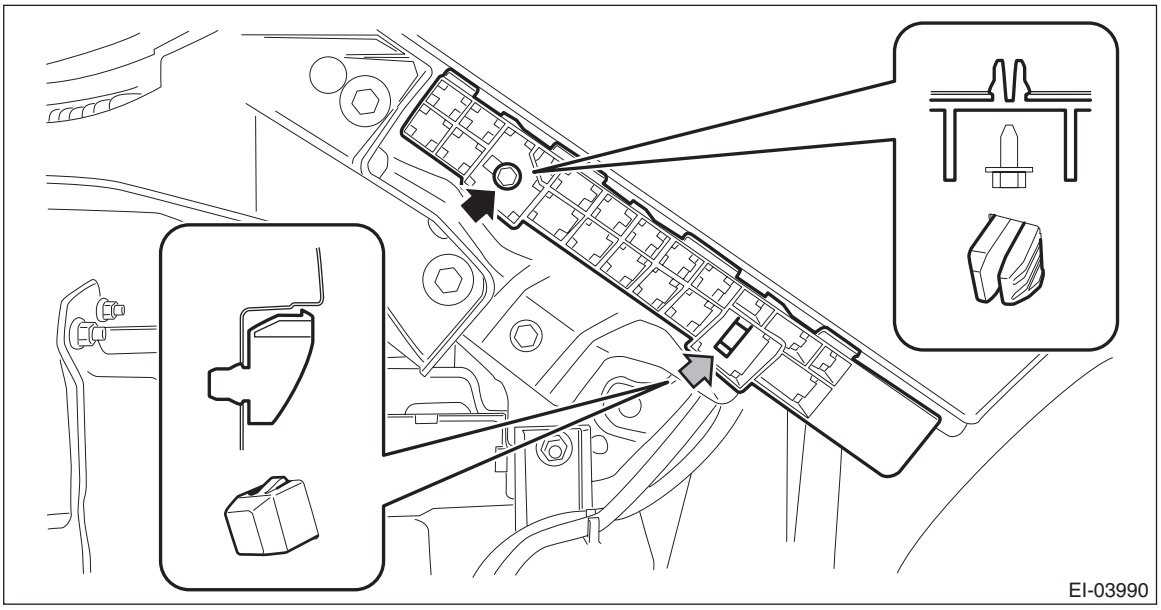


- Removal of the bracket - front bumper side
  1. Remove the bolts, clips and connectors, and remove the headlight assembly and the bracket - front bumper corner.

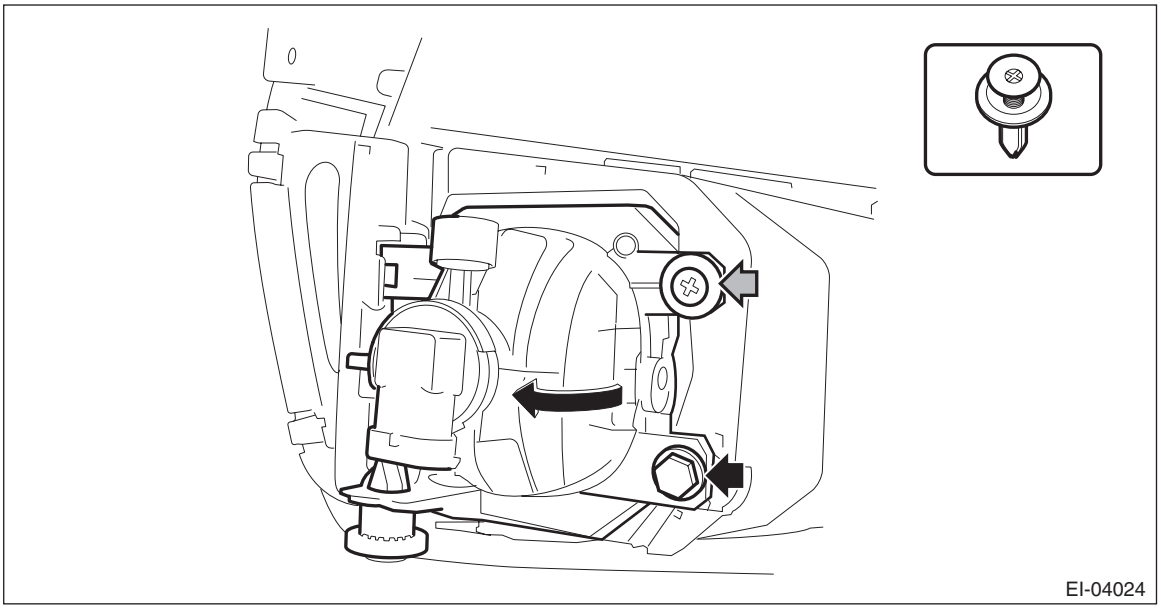


  2. Remove the screws.

3. Remove the claws from behind the fender COMPL - front, and remove the bracket - front bumper side.



6) Remove the bolt and pin, and remove the fog light assembly - front.



B: INSTALLATION

1) Install each part in the reverse order of removal.

Tightening torque:
Fog light assembly - front: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
Headlight assembly: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

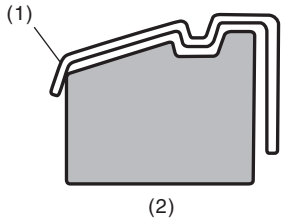
2) Secure the flange section of the bumper face - front to the bracket - front bumper side.

Tightening torque:
Refer to "COMPONENT" of "General Description".<Ref. to EI-4, FRONT BUMPER, COMPONENT, General Description.>

3) Install each part in the reverse order of removal.
4) Adjust the headlight beam and fog light beam.
• Adjust the headlight beam.<Ref. to LI-32, HEADLIGHT BEAM ADJUSTMENT, ADJUSTMENT, Headlight Assembly.>
• Adjust the fog light beam. (Model with fog light)<Ref. to LI-47, FOG LIGHT AIMING, ADJUSTMENT, Front Fog Light Assembly.>

C: REPAIR

1. COATING METHOD FOR PP BUMPER

Process No.	Process name	Job contents	
1	Bumper installation	Place the bumper on a paint worktable as required. Use the paint worktable conforming to inner shape of bumper if possible.	 EI-00234 (1) Bumper (2) Set bumper section
2	Masking	Mask specified part (black base) with masking tape. Use masking tape for PP.	
3	Degreasing/cleaning	Clean all parts to be painted with appropriate cleaning solvent, normal alcohol, etc. to remove dirt, oil, grease, etc.	
4	Primer paint	Apply primer to all parts to be painted, using spray gun. Use primer (clear).	
5	Drying	Dry at normal temperature. [10 — 15 min. at 20°C (68°F)] In half-dried condition, PP primer paint is dissolved by solvent, e.g. thinner, etc. Therefore, if dust or dirt must be removed, use ordinary alcohol etc.	
6	Top coat paint (I)	Non-colored	Metallic paint
		Use section (block) paint for top coat. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 10 — 13 sec./20°C (68°F) • Film thickness: 35 — 45 μ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)	Use section (block) paint for top coat. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 10 — 13 sec./20°C (68°F) • Film thickness: 15 — 20 μ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)
7	Drying	Not required.	Dry at normal temperature [at least 10 min. at 20°C (68°F)]. In half-dried condition, avoid dust, dirt.
8	Top coat paint (II)	Not required.	Apply a clear coat to parts with top coat paint (I), three times at 5 — 7 minute intervals. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 14 — 16 sec./20°C (68°F) • Film thickness: 25 — 30 μ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)
9	Drying	60°C (140°F), 60 min. or 80°C (176°F), 30 min. If the temperature is higher than 80°C (176°F), PP may be deformed. Keep maximum temperature at 80°C (176°F) or less.	
10	Inspection	Check paint.	
11	Removal of masking	Remove the masking tape applied in procedure 2.	

2. REPAIR INSTRUCTIONS FOR COLORED PP BUMPER

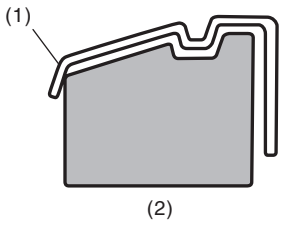
NOTE:
All PP bumpers are provided with a grained surface, and if the surface is damaged, it cannot normally be restored to its former condition. Damages limited to the shallow scratches that cause only a change in the luster of the base material or coating, can be almost fully restored. Before repairing a damaged area, explain this point to the customer and obtain an understanding about the matter.
Repair methods are outlined below, based on a classification of the extent of damage.
1) Minor damage causing only a change in the luster of the bumper due to a light touch
Almost restorable.

<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td>1</td><td>Cleaning</td><td colspan="2">Clean the area to be repaired using water.</td></tr>
<tr><td>2</td><td>Sanding</td><td colspan="2">Grind the repairing area with #500 sand paper in a “feathering” motion.</td></tr>
<tr><td rowspan="3">3</td><td rowspan="3">Finish</td><td>Resin section</td><td>Coated section</td></tr>
<tr><td>Repeatedly apply wax to the affected area using soft cloth (such as flannel).
Recommended wax: Tire wax or equivalent</td><td rowspan="2">Perform either the same procedures as for the resin section or process No. 18 and subsequent in section 3), depending on the degree and nature of damage.</td></tr>
<tr><td>Polish the waxed area with clean cloth after 5 — 10 minutes.</td></tr>
</table>

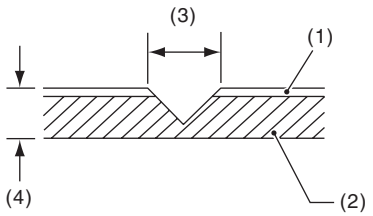
2) Deep damage caused by scratching with fences etc.
A dent cannot be repaired but a whitened or swelled part can be removed.

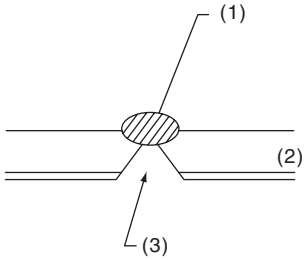
<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td>1</td><td>Cleaning</td><td colspan="2">Clean the damaged area with water.</td></tr>
<tr><td>2</td><td>Removal of damaged area</td><td colspan="2">Cut off protruding area, if any, due to collision, using a putty knife.</td></tr>
<tr><td>3</td><td>Sanding</td><td colspan="2">Grind the affected area with #100 — #500 sand paper.</td></tr>
<tr><td rowspan="2">4</td><td rowspan="2">Finish</td><td>Resin section</td><td>Coated section</td></tr>
<tr><td>Same as process No. 3 in section “1)”.</td><td>Perform process No. 12 and subsequent operations in section “3)”.</td></tr>
</table>

3) Deep damage such as a break or hole that requires filling
Much of the peripheral grained surface must be sacrificed for repair. The degree of restoration is not really worth the expense. (The surface, however, will become almost flush with adjacent areas.)

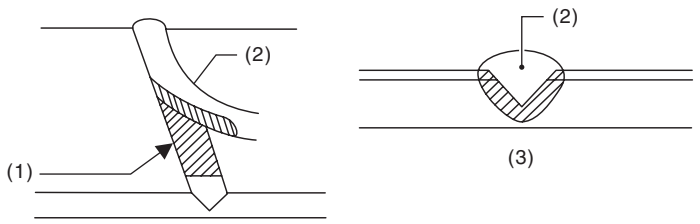
<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td>1</td><td>Bumper removal</td><td colspan="2">Remove the bumper as required.</td></tr>
<tr><td>2</td><td>Removal of parts</td><td colspan="2">Remove the parts built into bumper as required.</td></tr>
<tr><td>3</td><td>Bumper placement</td><td>Place the bumper on a paint worktable as required.
It is recommended to use the paint worktable conforming to internal shape of bumper.</td><td> 

EI-00234
(1) Bumper
(2) Set bumper section</td></tr>
</table>

<table>
<tr><th>Process No.</th><th>Process name</th><th colspan="2">Job contents</th></tr>
<tr><td>4</td><td>Surface preparation</td><td colspan="2">Remove dust, oil, etc. from areas to be repaired and surrounding areas, using an appropriate solvent (appropriate cleaning solvent or alcohol, etc.).</td></tr>
<tr><td>5</td><td>Cutting</td><td>If the damage is a crack or a hole, cut a guide slit of 20 to 30 mm (0.79 to 1.18 in) in length along the crack or hole up to the bumper base surface. Next, use a knife or grinder to carve a V-shaped groove in the area for repair.</td><td> 

EI-00235
(1) Paint surface
(2) PP base surface
(3) 20 — 30 mm (0.79 — 1.18 in)
(4) 3 mm (0.12 in)</td></tr>
<tr><td>6</td><td>Sanding (I)</td><td colspan="2">Grind beveled surface with sand paper (#40 — #60) to smooth finish.</td></tr>
<tr><td>7</td><td>Cleaning</td><td colspan="2">Clean the sanded surface with the same solvent as used in process No. 4.</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">Temporary welding</td><td colspan="2">Grind the side just opposite the beveled area with sand paper (#40 — #60) and clean using a solvent.
Temporarily spot-weld the side, using PP welding rod and heater gun.</td></tr>
<tr><td colspan="2"> 

EI-00236
(1) Welded point (Use heater gun and PP welding rod)
(2) PP base surface
(3) Beveled section
NOTE:
• Do not melt welding rod until it flows out. This results in reduced strength.
• Leave the welded spot unattended until it cools completely.</td></tr>
</table>

Process No.	Process name	Job contents
9	Welding	Using a heater gun and PP welding rod, weld the beveled spot while melting both the rod and damaged area.
		 EI-00237 (1) Welding rod (2) Melt hatched area (3) Section NOTE: • Melt the sections indicated by hatched area. • Do not melt the welding rod until it flows out, in order to provide strength. • Always keep the heater gun 1 to 2 cm (0.4 to 0.8 in) away from the welding spot. • Leave the welded spot unattended until it cools completely.
10	Sanding (II)	Remove excess part of weld with a putty knife. If a drill or disc wheel is used instead of the knife, operate it at a rate less than 1,500 rpm and grind the excess part little by little. A higher rpm will cause the PP substrate to melt from the heat.
		 EI-00042
		Sand the welded spot smooth with #240 sand paper.
11	Masking	Mask the black substrate section using masking tape.
12	Cleaning/degreasing	Completely clean the entire coated area, using solvent similar to that used in process No. 4.
13	Primer coating	Apply a coat of primer for bumpers to the repaired surface and its surrounding areas. Mask these areas, if necessary. NOTE: Be sure to apply a coat of primer using a spray gun at a pressure of 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi).
14	Leave unattended	Leave the repaired area unattended at 20°C (68°F) for 10 to 15 minutes until primer is half-dry. NOTE: If dirt or dust comes in contact with the coated area, wipe it off with a cloth dampened with alcohol. (Do not use thinner since the coated area tends to melt.)
15	Surfacer coating	Apply a coat of surfacer for PP bumpers to the repaired area two or three times at an interval of 3 — 5 minutes. For surfacer/hardener mixture, viscosity and paint thickness, observe the specifications of the surfacers to be used.
16	Drying	Allow the coated surface to dry for 20 minutes at 20°C (68°F) [or 30 minutes at 60°C (140°F)].
17	Sanding (III)	Sand the coated surface and its surrounding areas using #400 sand paper and water.
18	Cleaning/degreasing	Same as process No. 12.

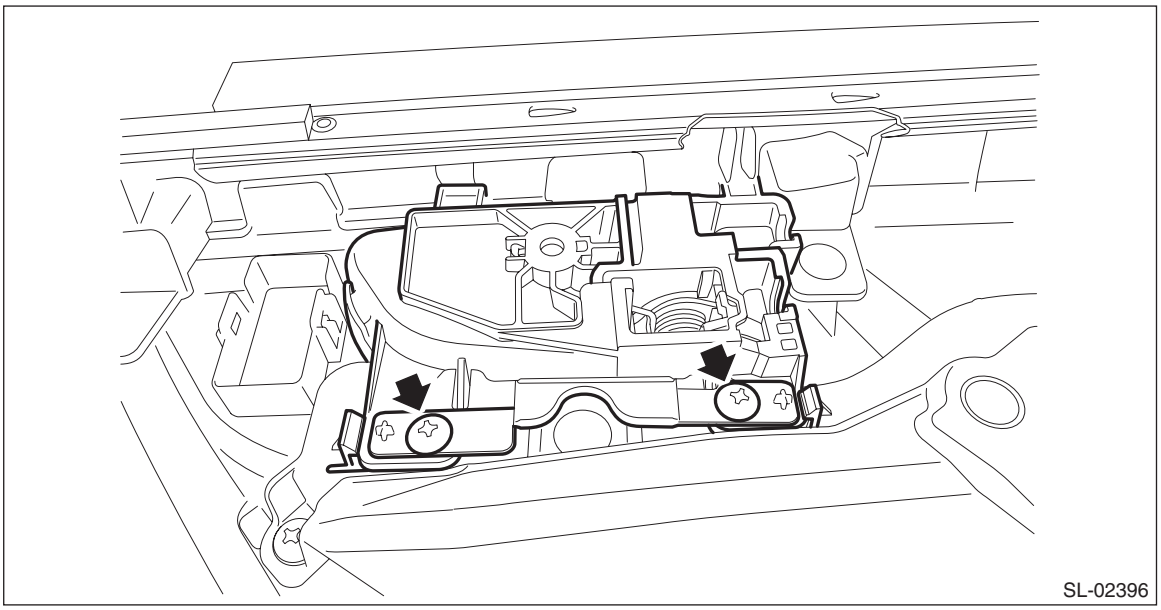
Process No.	Process name	Job contents	
		Non-colored	Metallic paint
19	Top coat (I)	Use a “block” coating method. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 11 — 13 sec./20°C (68°F) • Coating film thickness: 40 — 50 µ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)	Use a “block” coating method. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 11 — 13 sec./20°C (68°F) • Coating film thickness: 20 — 30 µ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)
20	Leave unattended	Not required.	Leave unattended at 20°C (68°F) for at least 10 minutes until the topcoated area is half-dry. NOTE: Be careful to keep dust or dirt from coming in contact with the affected area.
21	Top coat (II)	Not required.	Apply a clear coat three times at an interval of 3 to 5 minutes. For paint/hardener mixture, observe the specifications recommended by the manufacturers. • Viscosity: 10 — 13 sec./20°C (68°F) • Coating film thickness: 20 — 30 µ • Spraying pressure: 245 — 343 kPa (2.5 — 3.5 kgf/cm^2, 36 — 50 psi)
22	Drying	Allow the coated surface to dry for two hours at 20°C (68°F) or 30 minutes at 60°C (140°F). NOTE: Do not allow the temperature to exceed 80°C (176°F) since this will deform the PP substrate.	
23	Inspection	Carefully check the condition of the repaired area.	
24	Removal of masking	Remove the masking tape applied in process No. 11 and 13.	
25	Parts installation	Install parts on the bumper in reverse order of removal.	
26	Bumper installation	Install the bumper.	

8. Front Inner Remote

A: REMOVAL

1) Remove the trim panel - front door. <Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
2) Remove the screw, and remove the remote assembly - door.

CAUTION:
The remote assembly - door is tightened with the plate. Be careful not to drop or damage the part.



B: INSTALLATION

1) Before installation, check the following items.
- Cable is free from deformation such as fray.
- Grease is applied sufficiently to cable joints.
- If grease is insufficient, add it as necessary before assembling the cable.

2) Install each part in the reverse order of removal.

CAUTION:
Securely install the plate.

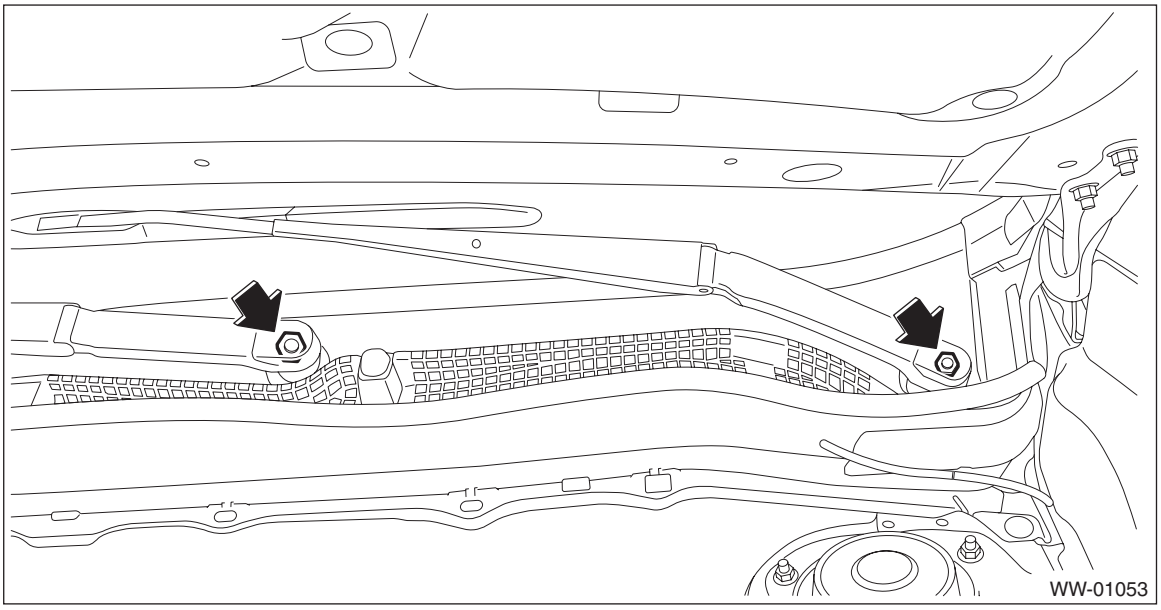
C: INSPECTION

Check if the remote handle operates normally.
- If the lever is faulty, replace the remote handle.
- If the cable is deformed, replace the latch & actuator assembly - front.

8. Front Wiper Motor and Link

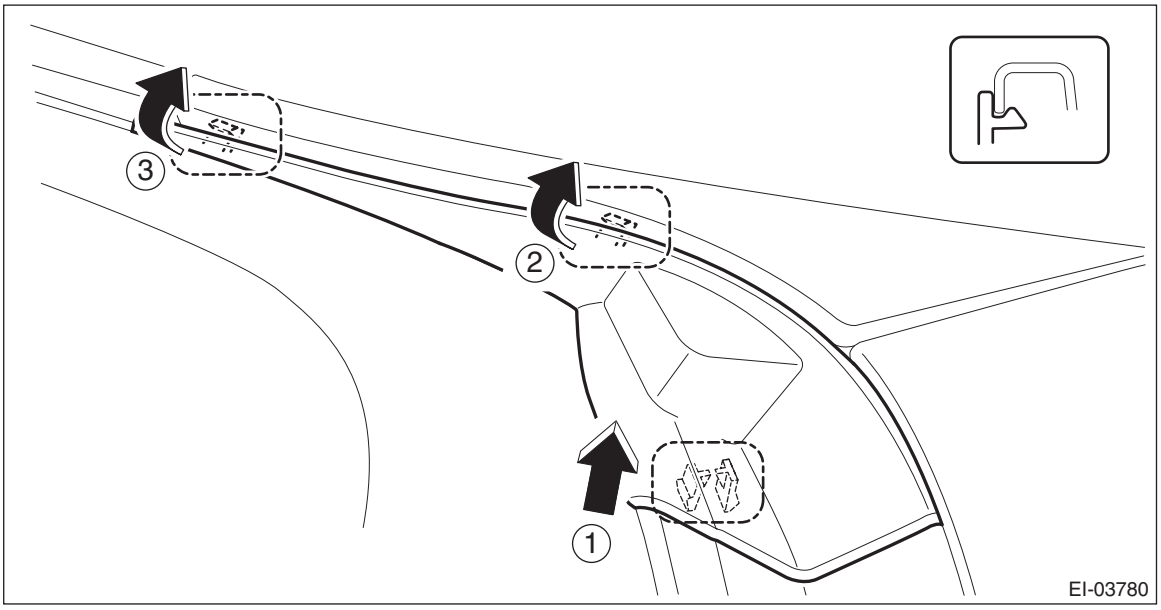
A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the arm assembly - windshield wiper.
   (1) Remove the cover - windshield wiper arm.
   (2) Remove the nuts, and remove the arm assembly - windshield wiper.



3) Remove the cowl panel - side.
   (1) Remove the clips.
   (2) Release the claws from (1) to (3) in sequence, and then remove the cowl panel - side.

CAUTION:
Pulling with excessive force may damage the cowl panel - side. If it is difficult to remove, use a plastic remover or equivalent tool.



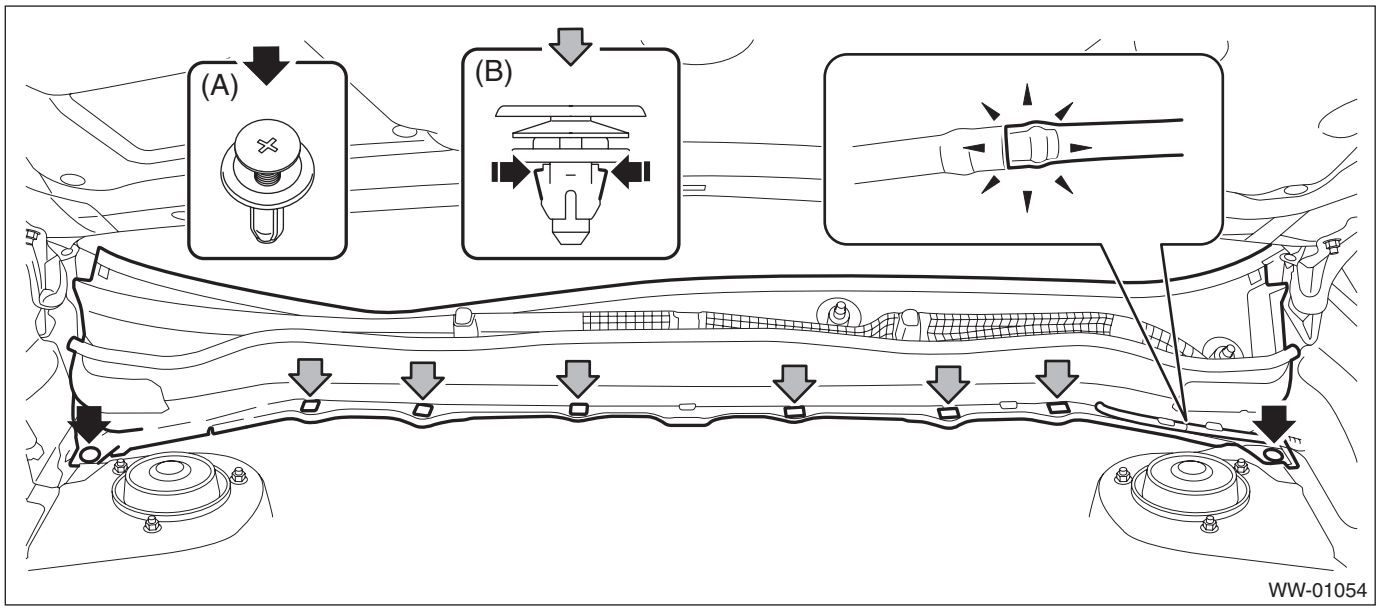
4) Remove the cowl panel assembly.

CAUTION:
Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.

(1) Disconnect the hose - windshield washer.
(2) Remove clips (A).
(3) Check the direction of the clip (B), and push the claws from both sides to remove it.

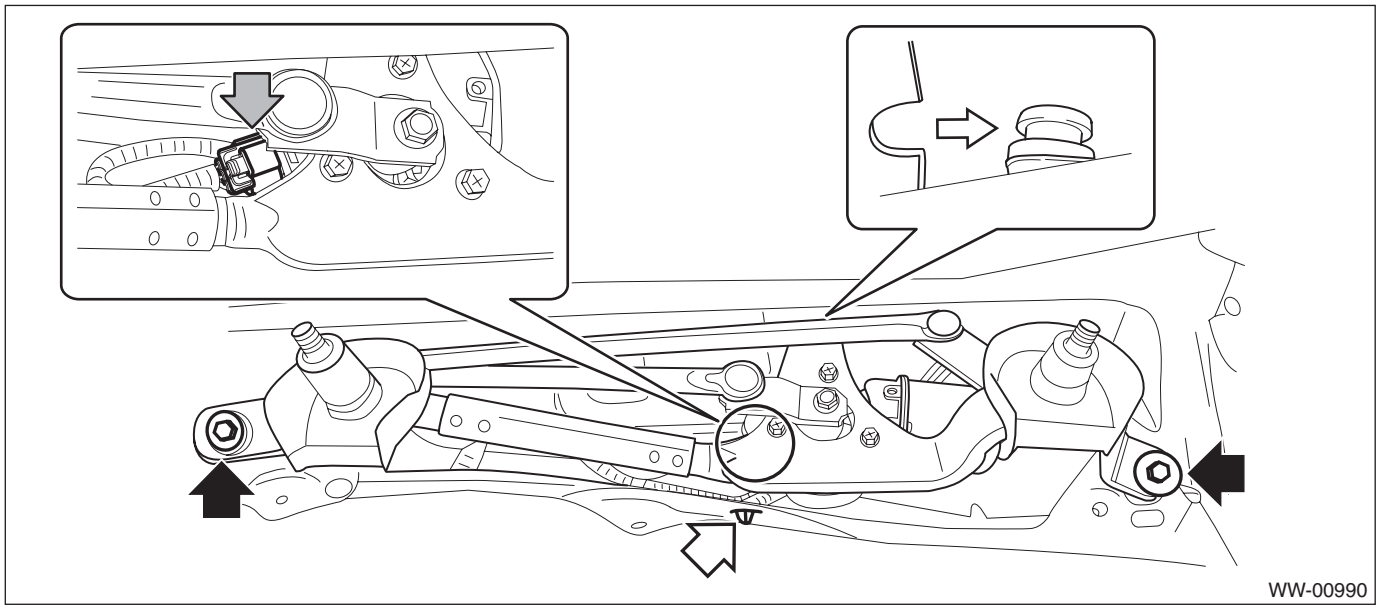
CAUTION:
When removing the clip (B), push the claw of the clip from both sides.
Be careful because the clips (B) can be damaged if you pull unnecessarily hard on them.

(4) Remove the cowl panel assembly by pulling it out towards the front of the vehicle.

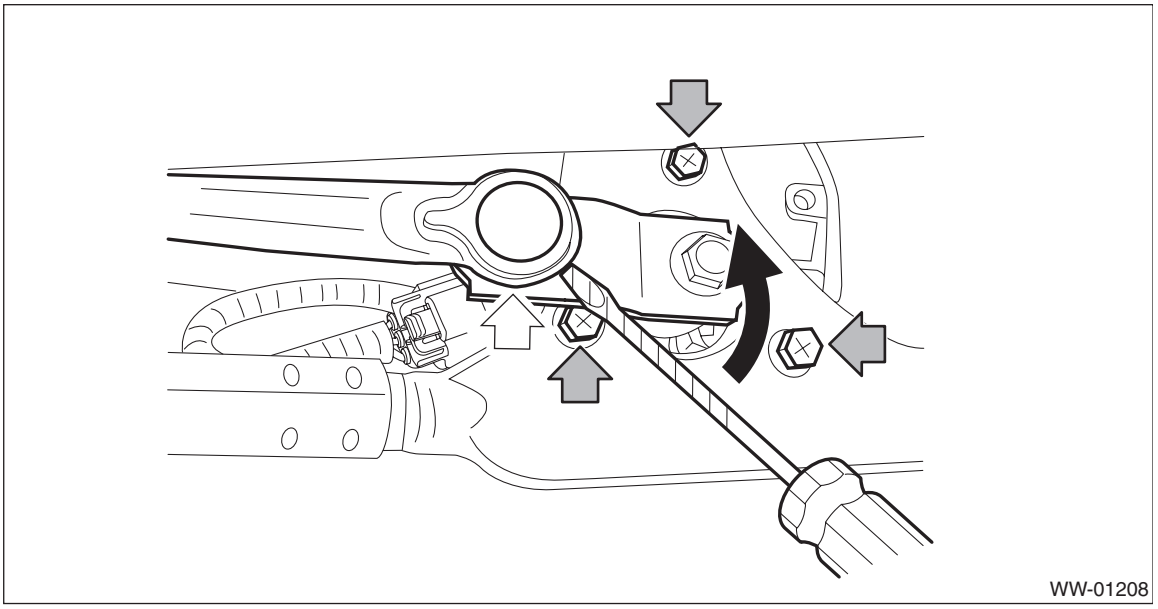


5) Remove the link assembly - windshield wiper.

(1) Disconnect the connector of the motor assembly - windshield wiper.
(2) Remove the bolts and harness clips, and remove the link assembly - windshield wiper.



6) Remove the motor assembly - windshield wiper.
(1) Using a flat tip screwdriver wrapped with protective tape, disconnect the link assembly - windshield wiper from the link plate.
(2) Remove the bolts, and remove the motor assembly - windshield wiper.

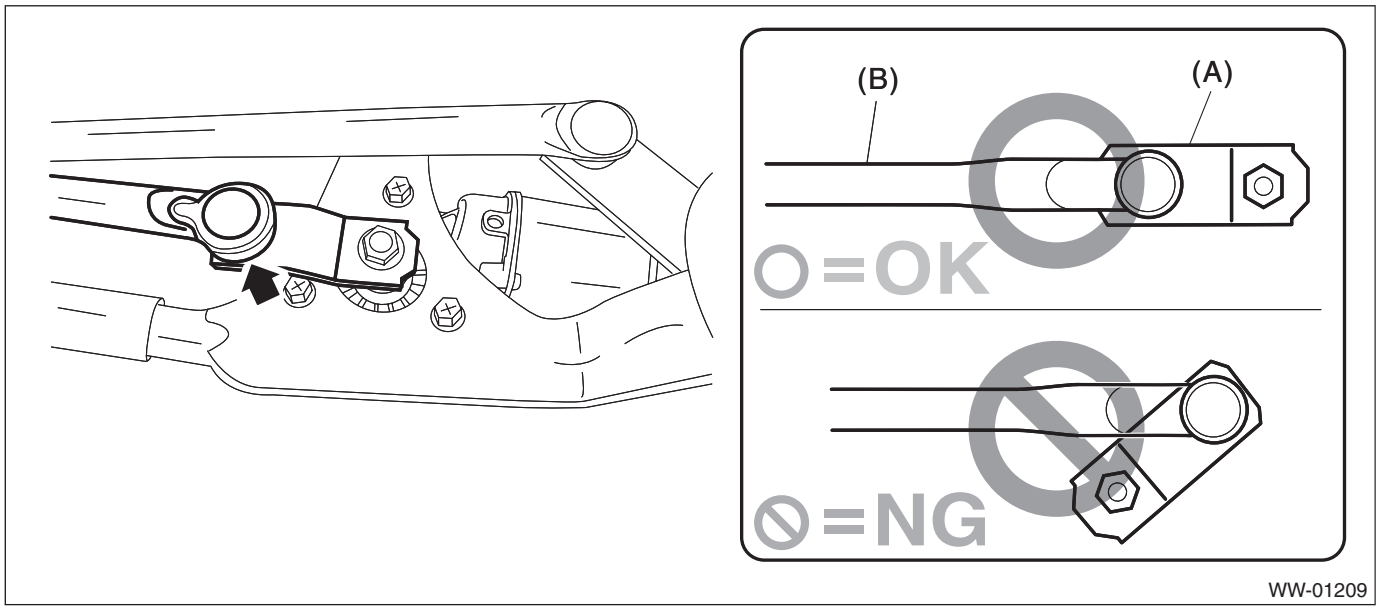


B: INSTALLATION

1) Connect the battery ground terminal.
2) To confirm that the motor assembly - windshield wiper is at the auto stop position, connect the harness to the motor and turn the wiper switch to ON/OFF once.

CAUTION:
During motor operation, do not touch the movable part.
3) Disconnect the ground cable from battery.
4) Install the motor assembly - windshield wiper.

CAUTION:
Set the component where the rod (B) and link plate (A) is aligned in a straight line.



5) Install the link assembly - windshield wiper and cowl panel in the reverse order of removal.

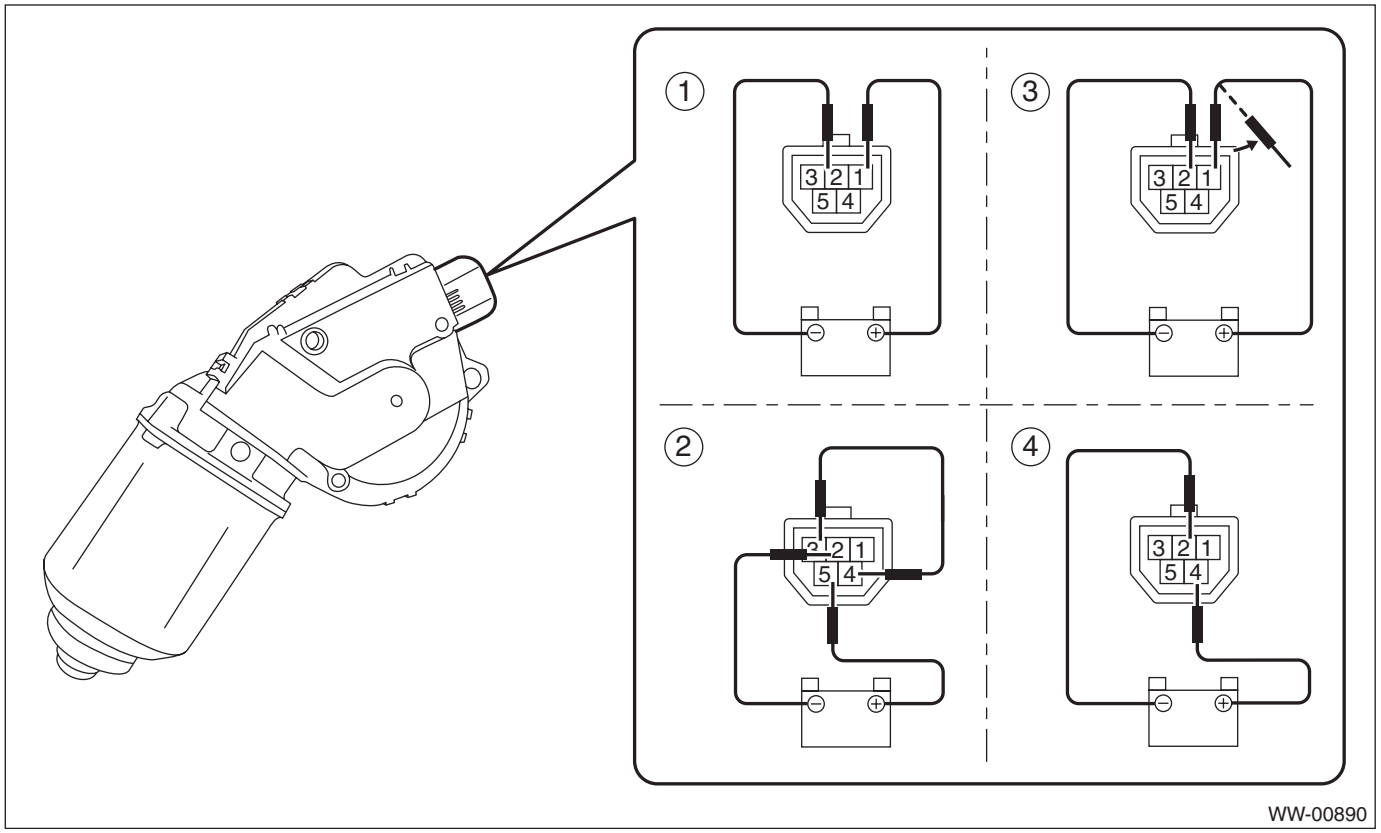
CAUTION:
• If the cowl panel assembly cannot be installed properly, do not hit or set it forcibly. The claws of the cowl panel or the windshield glass may be damaged.
• Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.

Tightening torque:
Refer to "COMPONENT" of "General Description".<Ref. to WW-2, FRONT WIPER, COMPONENT, General Description.>

C: INSPECTION

1) When the battery is connected to the terminal of connectors, confirm that the motor operates at low speed.
2) When the battery is connected to the terminal of connectors, confirm that the motor operates at high speed.
3) Connect the battery to terminals of the connector, and remove the terminal connection with motor rotating at low speed, and stop the motor assembly - windshield wiper in mid-operation.
4) Connect the battery and check that the motor stops at the automatic stop position after the motor operates at low speed again.

CAUTION:
Fix the motor to prevent the motor from being shorted by moving during operation.



8. Fuel Gauge

A: SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the fuel gauge alone. (Do not remove the cover on the back surface.)

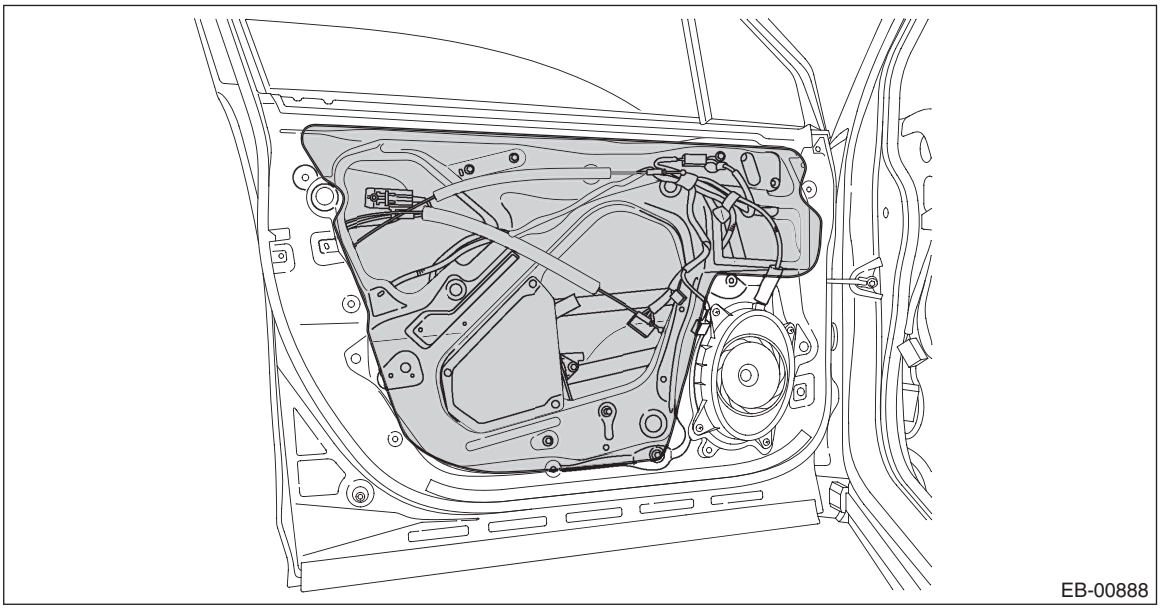
8. Outer Mirror Assembly

A: REMOVAL

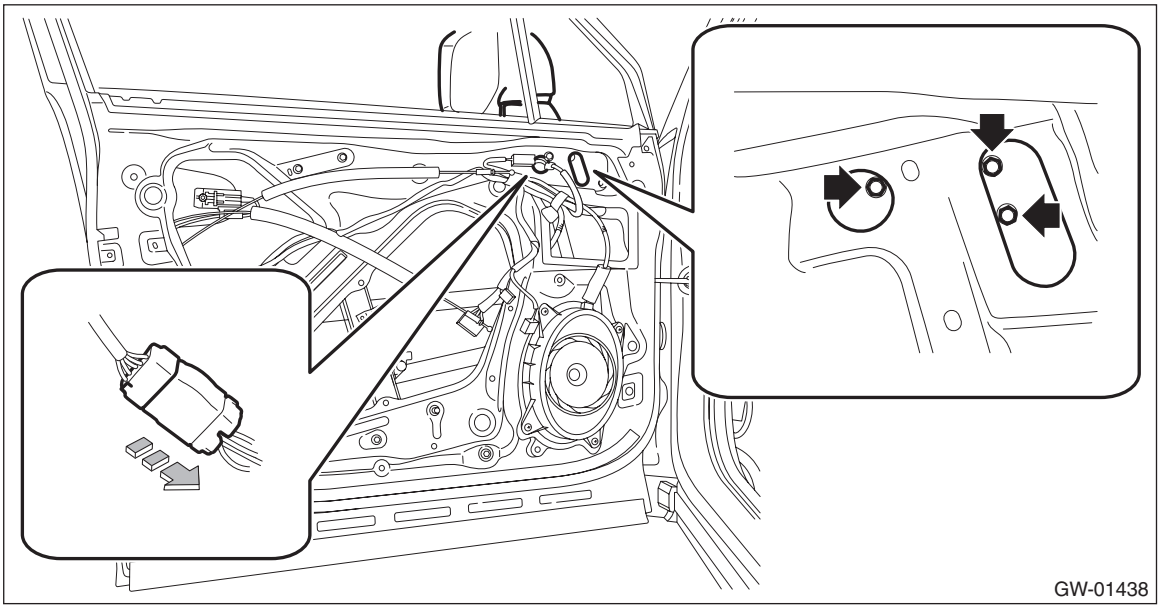
1) Remove the trim panel - front door.<Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
2) Turn over the sealing cover - front door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Disconnect each connector.
(2) Carefully remove the butyl tape and turn over the sealing cover - front door within the area where the operation can be performed.


EB-00888

3) Remove the outer mirror assembly.
(1) Disconnect the connector.
(2) Remove the bolts to remove outer mirror assembly.


GW-01438

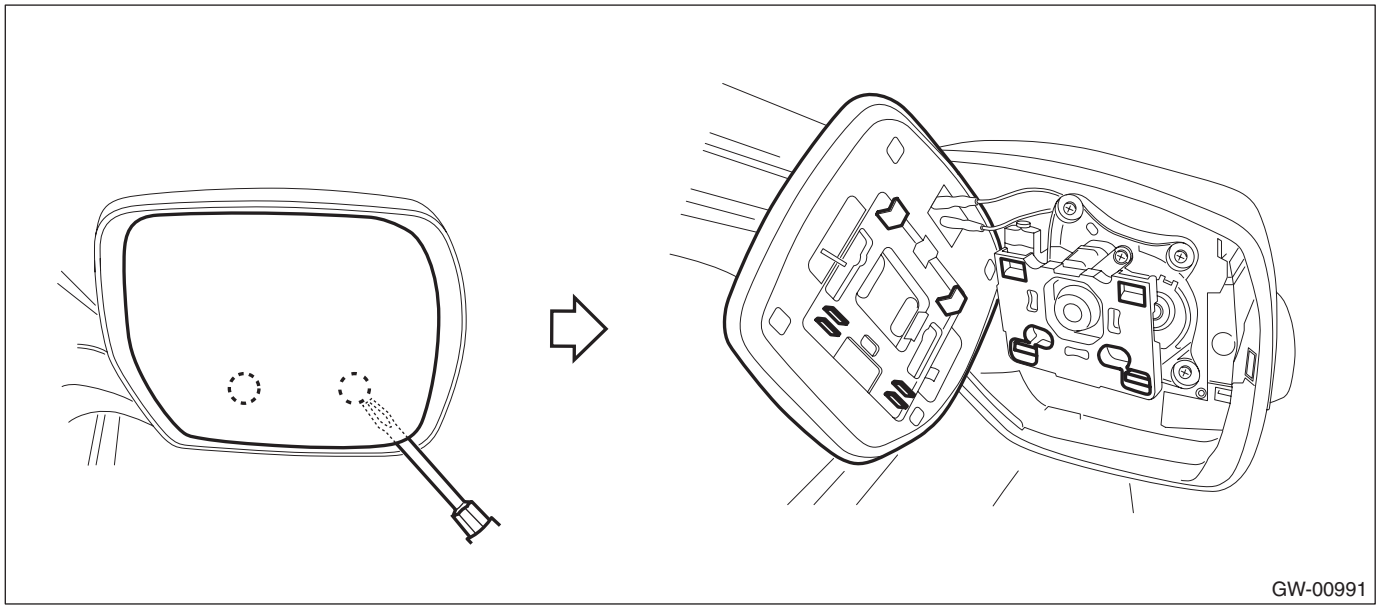
B: INSTALLATION

Install each part in the reverse order of removal.

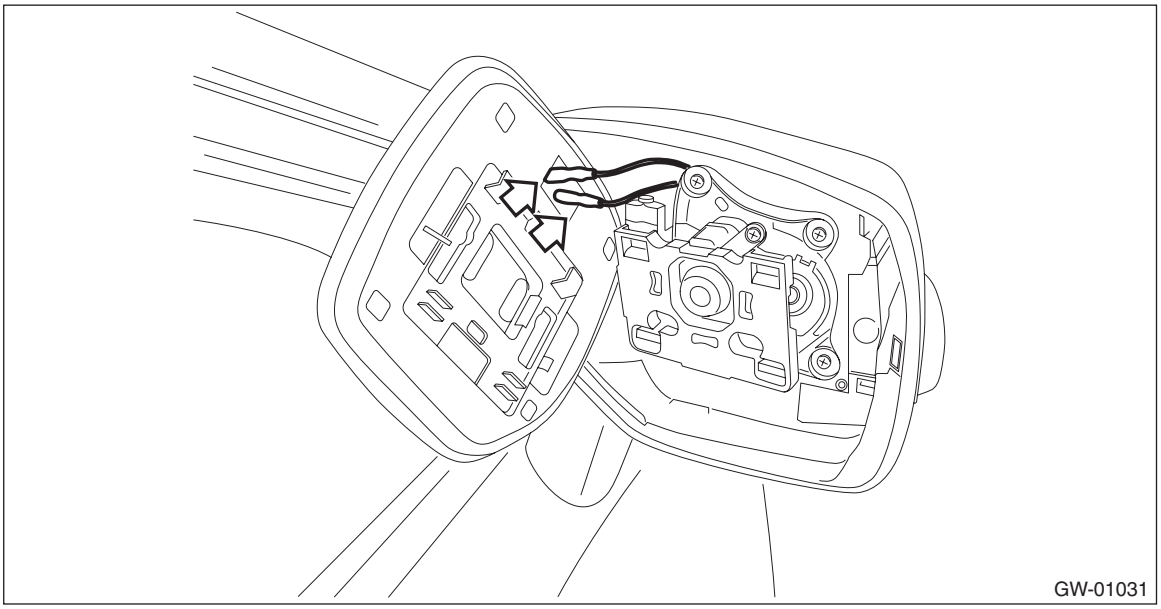
Tightening torque:
Outer mirror assembly: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: DISASSEMBLY

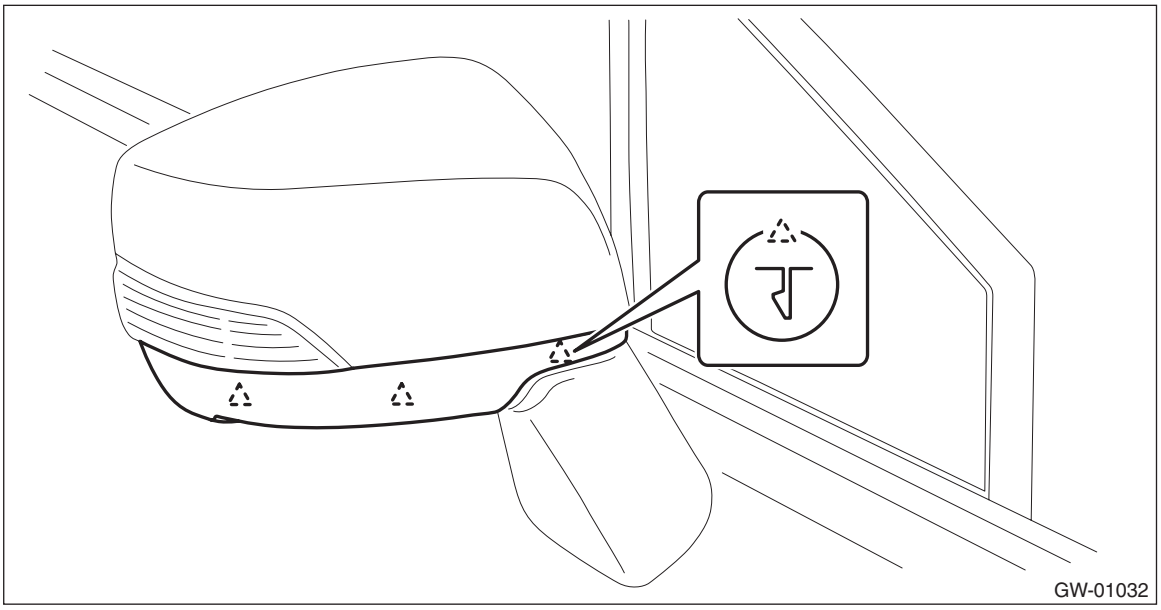
CAUTION:
• When removing the mirror - repair, be careful not to damage the back surface of mirror - repair with a flat tip screwdriver.
• When installing the mirror - repair, insert the connector and clip securely.
1) Operate the remote control mirror switch to face the mirror - repair upward.
2) Disconnect the ground cable from battery.
3) Remove the mirror - repair.
(1) Using a flat tip screwdriver, release the clip, and slide the mirror - repair downward to remove.



(2) Disconnect the mirror heater connector. (Model with mirror heater)

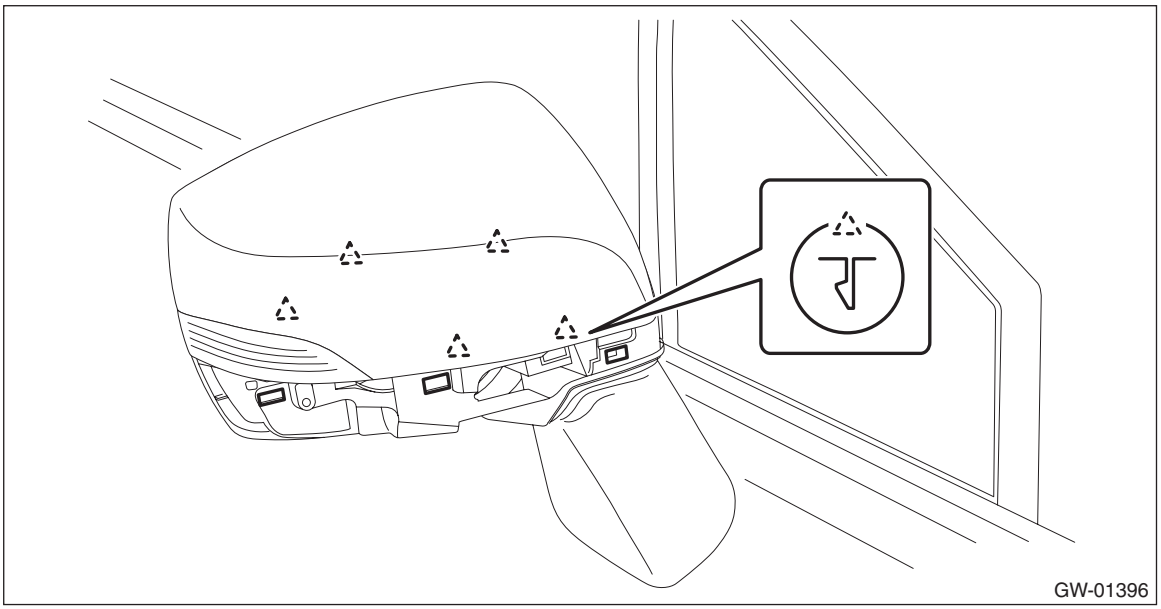


4) Release the claws, and then remove the cover - cap outer mirror lower.

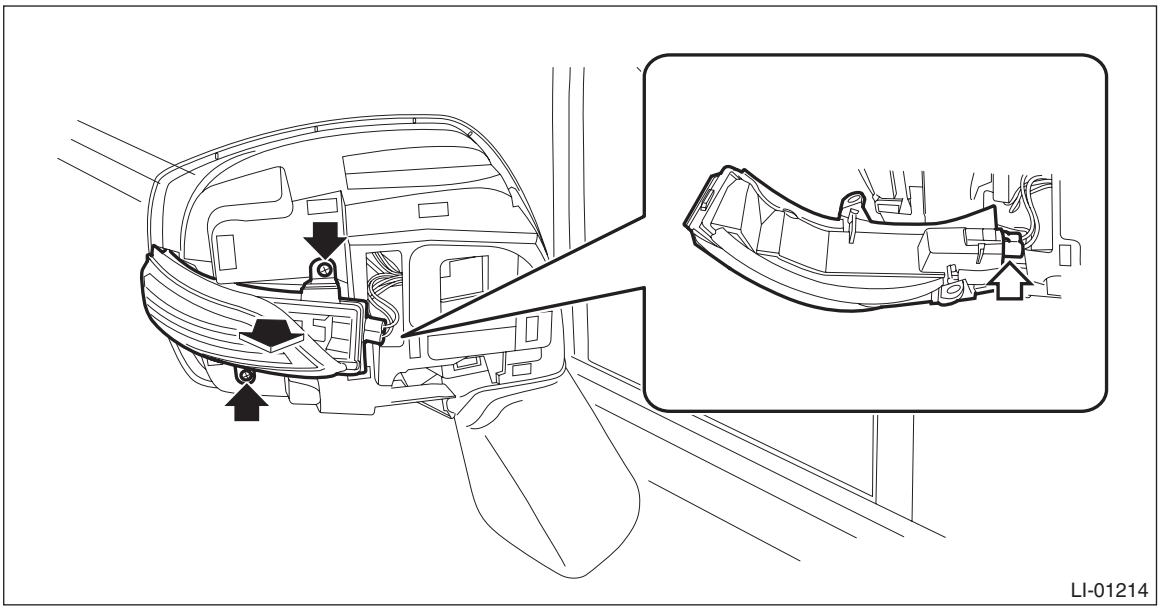


5) Release the claws, and then remove the cover - cap outer mirror.

CAUTION:
Be careful not to apply excessive force when removing the cover - cap outer mirror, as the lower hooks may become damaged.

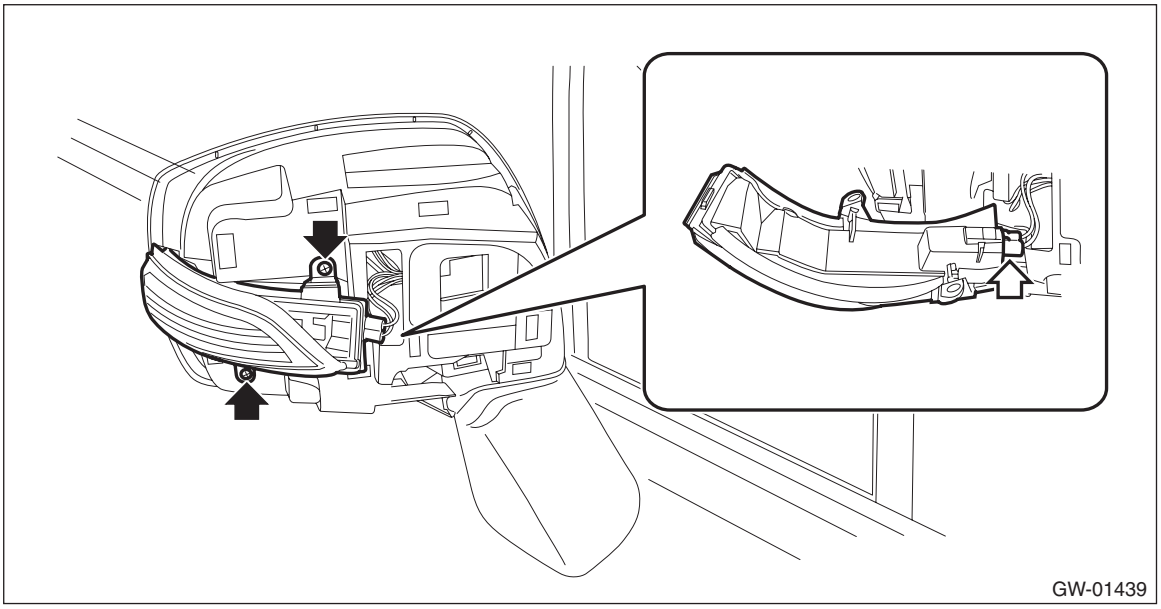


6) Remove the light assembly - side turn mirror.
   (1) Remove the screws and pull out the light assembly - side turn mirror to the front of the vehicle.
   (2) Disconnect the connector and remove the light assembly - side turn mirror.

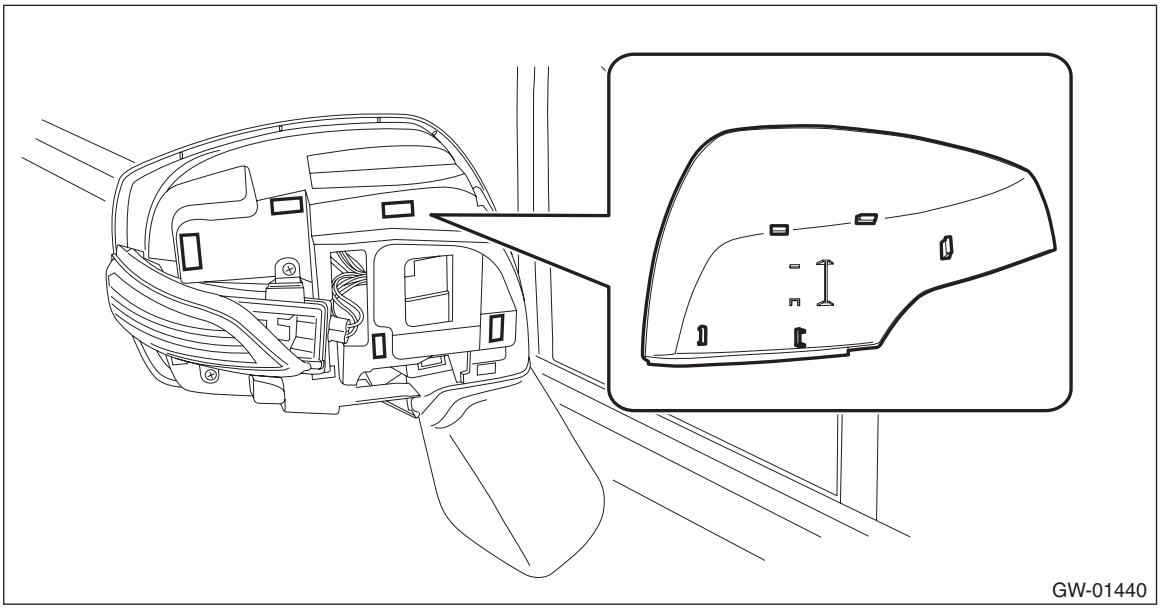


D: ASSEMBLY

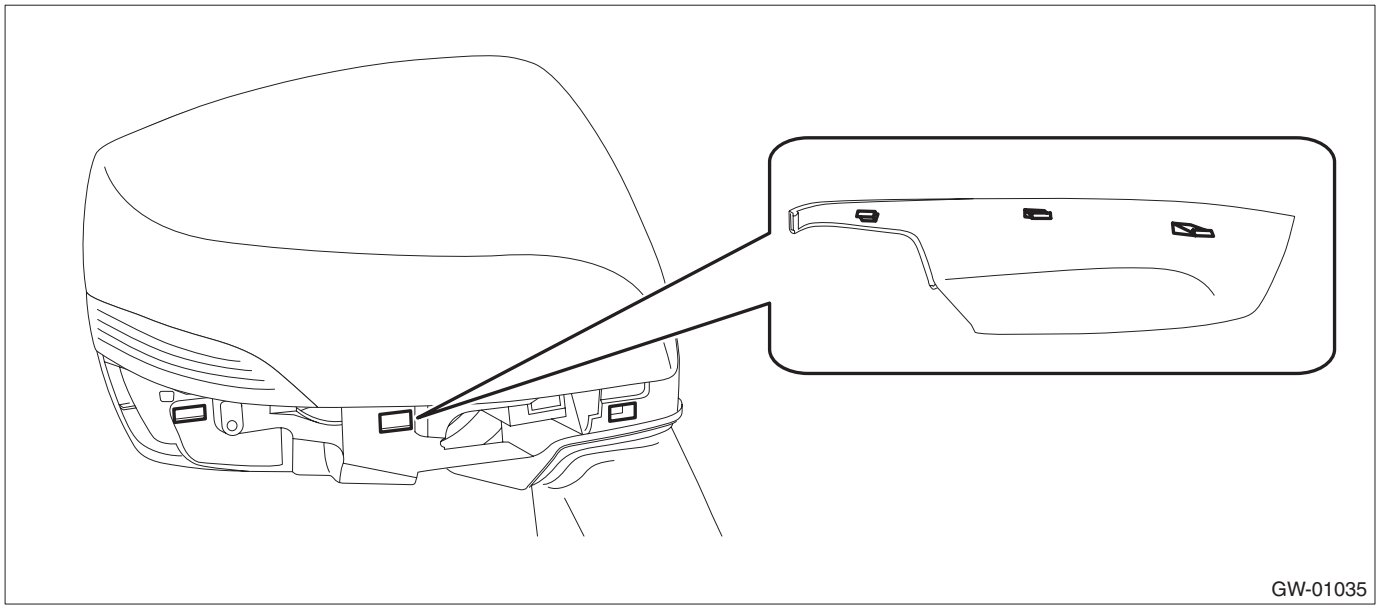
1) Install the light assembly - side turn mirror.



2) Engage the claws into the hole and install the cover - cap outer mirror.



3) Engage the claws into the hole and install the cover - cap outer mirror lower.

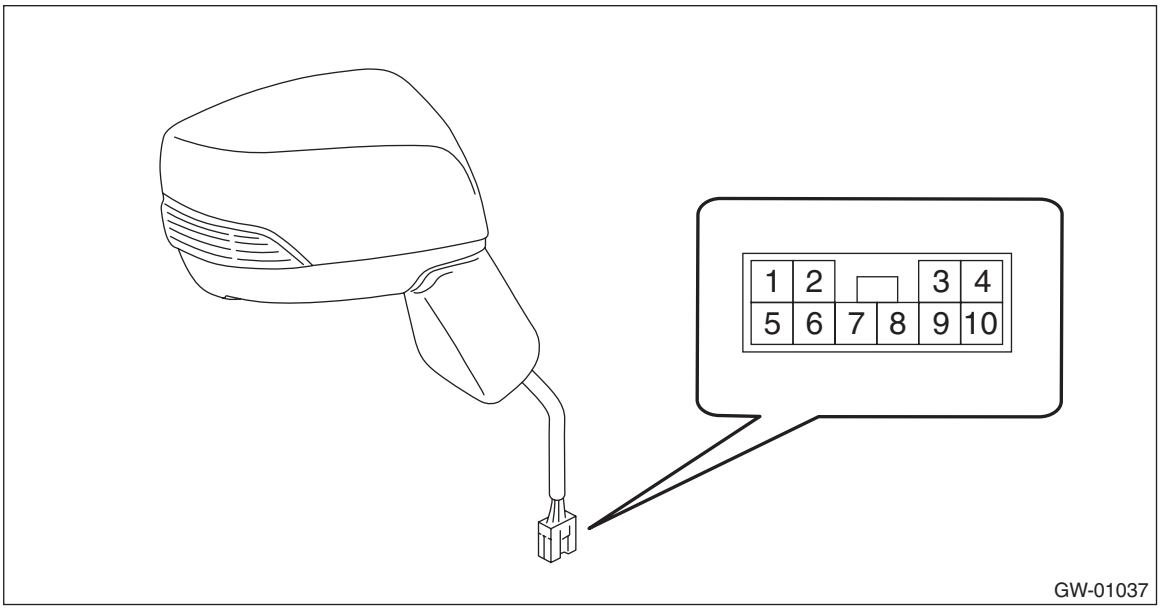


4) Check that all the claws are securely engaged.
5) Install the mirror - repair in the reverse order of removal.

CAUTION:
Be sure to insert the connector and clips securely.

E: INSPECTION

1) Disconnect the outer mirror connector.
2) Apply battery voltage between the outer mirror connector terminals and check the mirror operation.



Terminal No.	Inspection conditions	Switch position
—	—	OFF
3 (+) — 8 (–)	Apply battery voltage between terminals.	UP
8 (+) — 3 (–)	Apply battery voltage between terminals.	DOWN
7 (+) — 3 (–)	Apply battery voltage between terminals.	LEFT
3 (+) — 7 (–)	Apply battery voltage between terminals.	RIGHT

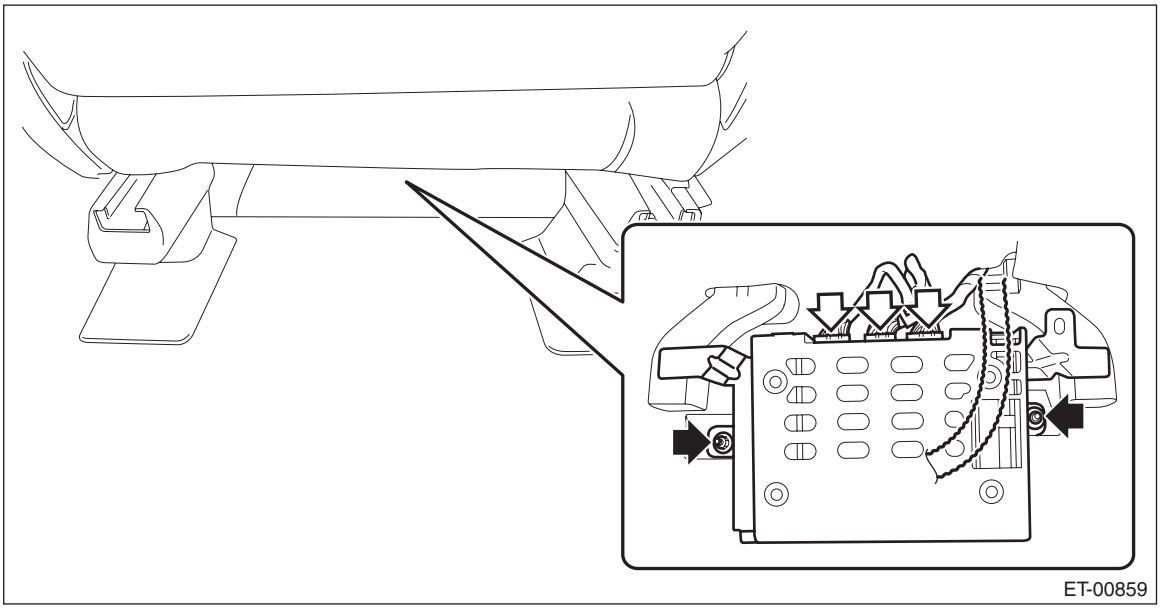
3) If it does not operate normally, replace the outer mirror assembly.

8. Power Amplifier

A: REMOVAL

NOTE:
harman/kardon® audio system only.
1) Disconnect the ground cable from battery.

NOTE:
For the power seat, move the seat before removing the battery ground terminal.
2) Move the seat on the LH side to the front-most position.
3) Remove the power amplifier assembly.
   (1) Disconnect the connector.
   (2) Remove the nut and remove the power amplifier assembly.



B: INSTALLATION

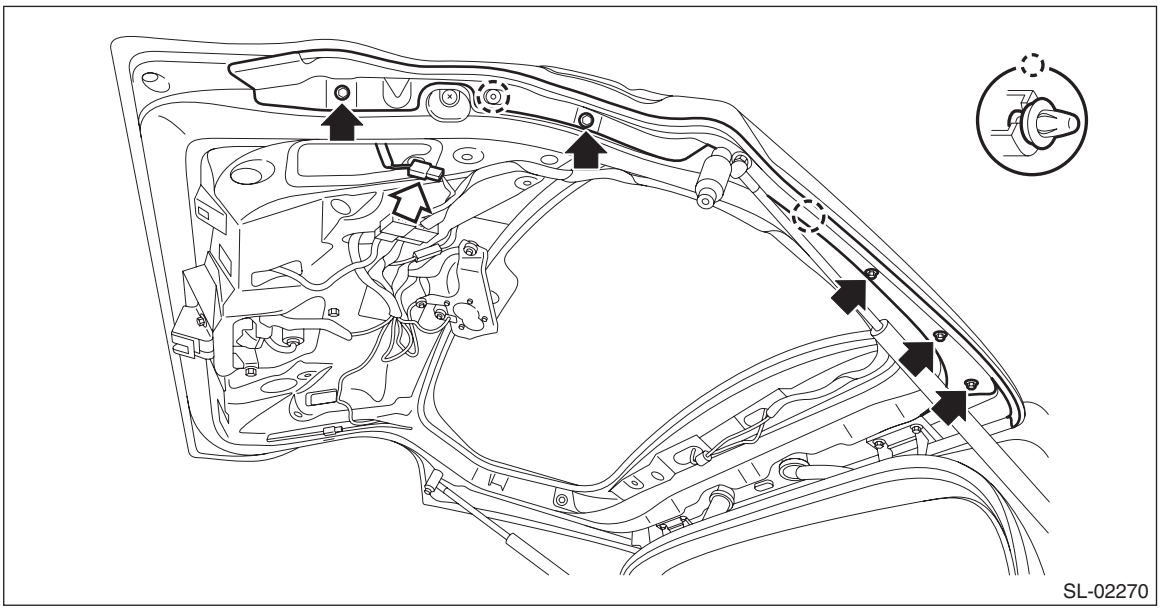
Install each part in the reverse order of removal.

Tightening torque:
Power amplifier: 4.5 N·m (0.46 kgf-m, 3.32 ft-lb)

8. Power Rear Gate Touch Sensor

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate LWR. <Ref. to EI-122, REMOVAL, Rear Gate Trim.>
3) Remove the power rear gate touch sensor.
   (1) Disconnect the connector.
   (2) Remove the bolts, release the clips, and then remove the power rear gate touch sensor.



B: INSTALLATION

Install each part in the reverse order of removal.

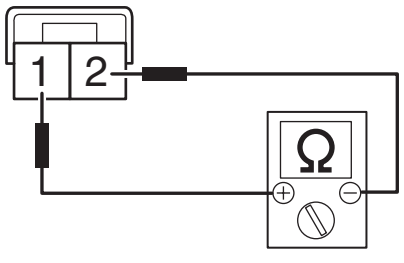
Tightening torque:
Power rear gate touch sensor: 1.5 N·m (0.15 kgf-m, 1.1 ft-lb)

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Visually check the touch sensor for cracks or damages, and replace as necessary.
2) Check the resistance between touch sensor terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
1 — 2	ON (with the switch pressed)	Less than 100 Ω	
	OFF (always)	1 kΩ	

3) Replace the power rear gate touch sensor if the inspection result is not within the standard value.

8. Read Current Data

A: OPERATION

For details concerning the work procedure, refer to the “PC application help for Subaru Select Monitor”.

B: LIST

Items to be displayed	Unit of measure	Content	Note
BATT voltage (control)	10 — 15 V	Body integrated unit input value	Always
BATT voltage (BACKUP)	10 — 15 V	Body integrated unit input value	Always
ABS_CM Power Voltage	10 — 15 V	Body integrated unit input value	Ignition switch ON
ACC voltage	10 — 15 V	Body integrated unit input value	Ignition switch ACC
Illumination VR Voltage	0 — 5 V	Body integrated unit input value	Input value from illumination volume
Illumi. output d-ratio	0 — 100%	Body integrated unit output value	Small light ON Illumination volume is other than bright.
number of regist.	0 — 4	Number of keyless key registered	
Front Wheel Speed	km/h	CAN data input value	Reception from VDC module
Fuel consumption	cc/s	CAN data input value	Reception from ECM
Coolant Temp.	–40 — 215°C	CAN data input value	Reception from ECM
Shift Position	1 — 3, D — S, D, N, R, P	CAN data input value	Reception from TCM
Buzzer beeping request	Status for ‘beeping deactivated’ Reverse warning Key warning buzzer Light Remained Buzzer Customize 1 Customize 2 Registration completed 1 Registration completed 2 Registered Registration NG	CAN data output value	Reception from body integrated unit
Destination	JPN U4, U5, U6 C0 EC, EA, E2, EL K4, C4, C6 KS EK ER, EN KA, KC EH C6	CAN data input value	—
Illumination Sensor Output	0 — 5 V	CAN data input value	—
Off delay time	OFF 10 Sec 20 Sec 30s	Body integrated unit setting value	Customize setting
Auto Light Sensitivity Adjustment	Dull Normal Sensitive Very sensitive	Body integrated unit setting value	Customize setting
key-lock warning SW	ON/OFF	Body integrated unit input value	ON when ignition key inserted
Stop light SW	ON/OFF	Body integrated unit input value	ON when brake pedal is depressed
Front fog lamp SW input	ON/OFF	Body integrated unit input value	When front fog light switch is ON
Driver’s door SW input	ON/OFF	Body integrated unit input value	ON when driver’s door is open
P-door SW input	ON/OFF	Body integrated unit input value	ON when passenger’s door is open

Items to be displayed	Unit of measure	Content	Note
Rear right door SW input	ON/OFF	Body integrated unit input value	ON when rear right door is open
Rear left door SW input	ON/OFF	Body integrated unit input value	ON when rear left door is open
R Gate SW input	ON/OFF	Body integrated unit input value	ON when rear gate/trunk open
Manual lock SW input	ON/OFF	Body integrated unit input value	Manual lock switch ON
Manual unlock SW input	ON/OFF	Body integrated unit input value	Manual unlock switch ON
Bright SW input	ON/OFF	Body integrated unit input value	Bright switch ON
P SW	ON/OFF	Body integrated unit input value	ON when shift range is in parking Shift lever P switch signal
MT Reverse Switch	ON/OFF	Body integrated unit input value	Reverse switch ON (for MT vehicle only)
R wiper ON SW input	ON/OFF	Body integrated unit input value	Rear wiper switch ON
R wiper INT SW input	ON/OFF	Body integrated unit input value	Rear wiper switch (INT ON)
R washer SW input	ON/OFF	Body integrated unit input value	Rear washer switch ON
Rr Defogger SW	ON/OFF	Body integrated unit input value	Rear defogger switch ON
Fr wiper input	ON/OFF	Body integrated unit input value	ON when front wiper is operating
Parking Brake SW	ON/OFF	Body integrated unit input value	Parking brake ON
Driver's seat lock status SW input	ON/OFF	Body integrated unit input value	Displays latch state, ON when locked
Passenger's seat lock status SW input	ON/OFF	Body integrated unit input value	Displays latch state, ON when locked
R gate lock status SW input	ON/OFF	Body integrated unit input value	Displays latch state, ON when locked
R Gate Release SW input	ON/OFF	Body integrated unit input value	Rear gate release switch ON
Rr Defogger output	ON/OFF	Body integrated unit output value	ON when rear defogger relay is operating
lock actuat. LOCK output	ON/OFF	Body integrated unit output value	ON when LOCK signal is output
All seat UNLOCK output	ON/OFF	Body integrated unit output value	ON when unlock signal is output
D-seat UNLOCK output	ON/OFF	Body integrated unit output value	ON when unlock signal is output
R gate/trunk UNLK output	ON/OFF	Body integrated unit output value	ON when rear gate/trunk unlock signal is output
R wiper output	ON/OFF	Body integrated unit output value	ON when rear wiper motor is operating
Shift Lock Solenoid	ON/OFF	Body integrated unit output value	ON when shift lock solenoid is operating (only AT)
Key lock solenoid output	Lock/Unlock	Body integrated unit output value	LOCK when the key is locked
wiper deicer output	ON/OFF	Body integrated unit output value	ON when wiper deicer relay is operating
Hazard Output	ON/OFF	Body integrated unit output value	ON when answer-back signal is received or when hazard is operating
Keyless Buzzer Output	ON/OFF	Body integrated unit output value	ON when lock/unlock signal is received
Horn Output	ON/OFF	Body integrated unit output value	ON when security warning is operating
Illumination lamp O/P	ON/OFF	Body integrated unit output value	ON when illumination is illuminated
Room lamp output	ON/OFF	Body integrated unit output value	ON when keyless lock/unlock signal is received, or when opening or closing the door
key illumi. lamp o/p	ON/OFF	Body integrated unit output value	ON when key illumination light is illuminated
Immobilizer lamp output	ON/OFF	Body integrated unit output value	ON when immobilizer pilot light blinks
Keyless operation 1	Regist./Normal	Body integrated unit input value	When keyless registration connector connected
Keyless operation 2	Deletion/Normal	Body integrated unit input value	When keyless registration is deleted
Small Lamp SW	ON/OFF	Body integrated unit input value	ON when small light is illuminated
Headlamp	ON/OFF	Body integrated unit input value	ON when headlight Lo is illuminated
High Beam	ON/OFF	Body integrated unit input value	ON when headlight Hi is illuminated
Blower fan information	ON/OFF	CAN data input value	Reception from ECM

Items to be displayed	Unit of measure	Content	Note
Power rear gate setting	ON/OFF	Body integrated unit setting value	
Back auto rear wiper setting	ON/OFF	Body integrated unit setting value	
XmodeSW setting	ON/OFF	Body integrated unit setting value	
XmodeSW input	ON/OFF	Body integrated unit input value	
XmodeSW output	ON/OFF	Body integrated unit output value	
TPMS Setting	TPMS/No TPMS	Body integrated unit setting value	Customize item
Driver's door select unlock	Selection/ALL	Body integrated unit setting value	Customize item
R gate select unlock	Selection/ALL	Body integrated unit setting value	Customize item
Lighting I Switch Input	ON/OFF	Body integrated unit input value	Small light switch ON
Lighting II Switch Input	ON/OFF	Body integrated unit input value	Headlight switch ON
Lighting AUTO input	ON/OFF	Body integrated unit input value	Headlight AUTO switch ON
Dimmer Hi Switch Input	ON/OFF	Body integrated unit input value	Dimmer Hi switch ON
Dimmer Pass Switch Input	ON/OFF	Body integrated unit input value	Dimmer Pass switch ON
Illumination sensor flag	ON/OFF	Body integrated unit setting value	Shows the existence of illumination sensor
Lighting I Lamp Output	ON/OFF	Relay drive	ON when small light is illuminated
Lighting II Lamp Output	ON/OFF	Relay drive	ON when headlight is illuminated
Lighting Hi Lamp Output	ON/OFF	Relay drive	ON when headlight Hi is illuminated
Front Fog Lamp Output	ON/OFF	Relay drive	When front fog light relay ON output
DRL Cancel Output	ON/OFF	Relay drive	When DRL cancel relay ON output
Power Supply Tr	ON/OFF	Inner Tr drive	Headlight auxiliary power supply ON
Map lamp output	ON/OFF	Body integrated unit output value	ON when map light is illuminated
Luggage/Trunk lamp output	ON/OFF	Body integrated unit output value	ON when luggage/trunk light is illuminated
Rr defogger op. mode	Continuous/Normal	Body integrated unit setting value	Customize setting
Security Alarm Setup	ON/OFF	Body integrated unit setting value	Customize setting
Impact Sensor Setup	ON/OFF	Body integrated unit setting value	Customize setting
Alarm delay setup	ON/OFF	Body integrated unit setting value	Customize setting
Lockout prevention	ON/OFF	Body integrated unit setting value	Customize setting
Impact sensor	ON/OFF	Body integrated unit setting value	Customize setting
Buzzer sounding setting	ON/OFF	Body integrated unit setting value	Customize setting
Abnormal warning lamp flashing setting	ON/OFF	Body integrated unit setting value	Customize setting
Ans.-back Buzzer	ON/OFF	Body integrated unit setting value	Customize setting
Passive Alarm	ON/OFF	Body integrated unit setting value	Customize setting
Door open warning	ON/OFF	Body integrated unit setting value	Customize setting
Dome Light Alarm Setting	ON/OFF	Body integrated unit setting value	Customize setting
Auto A/C Setting	ON/OFF	Body integrated unit setting value	Customize setting
wiperdeicer	ON/OFF	Body integrated unit setting value	Customize setting
Illumination Control On/Off	ON/OFF	Body integrated unit setting value	Customize setting
Sedan/Wagon Setting	Sedan/Wagon	Body integrated unit setting value	Customize setting
MT/AT Setting	MT/AT	Body integrated unit setting value	Customize setting
6MT Setting	6MT/Other than 6MT	Body integrated unit setting value	Customize setting

Items to be displayed	Unit of measure	Content	Note
Destination Setting	JPN KA, KC KS For Europe LHD other than KS C0, C5 U4, U5, U6, C6 EK, ER	Body integrated unit setting value	Displays body integrated unit customizing
Illumination Sensor Setting	ON/OFF	Body integrated unit setting value	Customize setting
Factory initial setting	Market/Factory	Body integrated unit setting value	Displays body integrated unit customizing

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

8. Read Current Data

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

B: LIST

1. Keyless access system

Items to be displayed	Unit of measure	Content	Note
Driver’s unlock touch sensor switch	ON/OFF	Keyless access CM input value	ON when the touch sensor (unlock) built on the back surface of the driver’s door outer handle is touched
Passenger’s unlock touch sensor switch	ON/OFF	Keyless access CM input value	ON when the touch sensor (unlock) built on the back surface of the passenger’s door outer handle is touched
Driver’s lock touch sensor SW	ON/OFF	Keyless access CM input value	ON when the touch sensor (lock) built on the surface of the driver’s door outer handle is touched
Passenger’s lock touch sensor SW	ON/OFF	Keyless access CM input value	ON when the touch sensor (lock) built on the surface of the passenger’s door outer handle is touched
Rear Gate Request SW	ON/OFF	Keyless access CM input value	ON when rear lock button is pressed
IGN SW	ON/OFF	Keyless access CM input value	ON when ignition is ON
B/up fuse	Connecting/Not connected	Keyless access CM internal value	When backup fuse is connected/connecting
ACC SW	ON/OFF	Keyless access CM input value	ON when accessory or ignition is ON
Incorrect vehicle ID	Yes/No	Keyless access CM internal value	Yes when the access key is different when keyless access is performed
No response	Yes/No	Keyless access CM internal value	Yes when there is no response from the access key when keyless access is performed
Incorrect response code, format	Yes/No	Keyless access CM internal value	Yes if the response from the access key differs when keyless access is performed
Exhausted battery	Yes/No	Keyless access CM internal value	Yes if the access key battery is depleted
Incorrect response code, ID code	Yes/No	Keyless access CM internal value	Yes if the response from the access key differs when keyless access is performed
Incorrect response code, collation result	Yes/No	Keyless access CM internal value	Yes if the response from the access key differs when keyless access is performed
Incorrect ID code	Yes/No	Keyless access CM internal value	Yes if the response from the access key differs when keyless access is performed
Incorrect rolling code	Yes/No	Keyless access CM internal value	Yes if the response from the access key differs when keyless access is performed
Smart Cancel	Cancel/Normal	Keyless access CM internal value	Cancel in the keyless access function stopped condition
ID Code Box W/H Connection State	Connecting/Not connected	Keyless access CM internal value	Set as “Connecting” while (B573) No. 15 (IDW) terminal is connected to chassis ground.
ID Code Box Existence Judging	ON/OFF/Existence Judging	Keyless access CM internal value	

Items to be displayed	Unit of measure	Content	Note
Immobilizer	Set/Unset	Keyless access CM internal value	
Remote engine starter communication ID confirmation	Collation NG/Collation OK	Keyless access CM internal value	OK when ID collation with remote control engine starter succeeds
Remote engine starter code registration confirmation	Collation NG / Collation OK	Keyless access CM internal value	OK when remote control engine starter is already registered
STLC sleep possible status	Possible/Impossible	Steering lock CM internal value	
STLC wake-up transmission status	Transmission/No transmission	Steering lock CM internal value	
Lock side sensor status	ON/OFF	Steering lock CM internal value	ON when steering lock is locked
Unlock side sensor status	ON/OFF	Steering lock CM internal value	ON when steering lock is unlocked
Lock confirmation	Confirmed/Unconfirmed	Steering lock CM internal value	Confirmed when steering lock is locked
Unlock confirmation	Confirmed/Unconfirmed	Steering lock CM internal value	Confirmed when steering lock is unlocked
Sensor initialization	Completed/Not Completed	Steering lock CM internal value	
Motor protection control status	Rejected range/Permitted range	Steering lock CM internal value	
Motor operation prohibition voltage evaluation	ON/OFF	Steering lock CM internal value	
Diagnosis response	Normal/Response	Steering lock CM internal value	
Sensor abnormal	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
Motor power supply short-circuit abnormal	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
Motor driver short-circuit abnormal	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
Lock bar engagement abnormal	Normal/Abnormal	Steering lock CM internal value	ON when the steering lock bar has experienced interference
Push start abnormal	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
Lock side relay operation	Stopped/Activating	Steering lock CM internal value	
Unlock side relay operation	Stopped/Activating	Steering lock CM internal value	
Motor drive FET drive	Stopped/Activating	Steering lock CM internal value	
Motor reversal protection control	Stopped/Activating	Steering lock CM internal value	
Engine start	Engine start permission/Engine start prohibition	Steering lock CM internal value	Permission when ignition ON
Sensor abnormal (past)	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
Motor power supply short-circuit abnormal (past)	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
Motor driver short-circuit abnormal (past)	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
Steering lock lock/unlock command reception history	ON/OFF	Steering lock CM internal value	ON when steering lock is locked → unlocked, unlocked → locked
Lock bar engagement abnormal (past)	ON/OFF	Steering lock CM internal value	ON when the steering lock bar has experienced interference in the past
Push start abnormal (past)	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM
STLC Abnormal EEPROM access	Normal/Abnormal	Steering lock CM internal value	Abnormal when a trouble occurs in steering lock CM

Items to be displayed	Unit of measure	Content	Note
ID code BOX sleep possible status	Impossible/Possible	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	
ID code BOX wake-up transmission status	No transmission/ Transmission	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	
ID code BOX Abnormal EEPROM access (now)	Normal/Abnormal	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	
EGI code reception status	Reception/Not yet received	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	Reception at engine start operation
Engine start permission request reception status	Reception/Not yet received	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	Reception at ignition ON
Provisional injection request reception status	Reception/Not yet received	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	Reception at ignition ON
Code collation result between smart ECM and ID code box	Normal/Abnormal	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	Normal when engine start is allowed
Code collation result between steering locked ECM and ID code box	Normal/Abnormal	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	Normal when steering lock operation allowed
Steering lock unlock request reception status	Reception (keep 10 sec)/Not yet received	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	Reception when steering lock is performing unlock
Steering lock lock request reception status	Reception (keep 10 sec)/Not yet received	Keyless access CM internal value (models without ID code box) or ID code box internal value (models with ID code box)	Reception when steering lock is performing lock
Driver's external transmitter output circuit abnormal	Normal/Abnormal	Keyless access CM internal value	Abnormal when a trouble occurs in transmitter output circuit
Passenger's external transmitter output circuit abnormal	Normal/Abnormal	Keyless access CM internal value	Abnormal when a trouble occurs in transmitter output circuit
Driver's external transmitter output circuit abnormal (past)	Normal/Abnormal	Keyless access CM internal value	Abnormal when a trouble occurs in transmitter output circuit in the past
Passenger's external transmitter output circuit abnormal (past)	Normal/Abnormal	Keyless access CM internal value	Abnormal when a trouble occurs in transmitter output circuit in the past

Items to be displayed	Unit of measure	Content	Note
ID code registration mode status	Normal/Regist./Deletion	—	For immobilizer registration
Smart related ECM code registration mode status	On mode/Normal		
ID code collation completion confirmation	Completed/Normal		
ID code registration completion confirmation	Completed/Normal		
Smart related ECM code registration completion confirmation	Completed/Normal		
Registered smart key confirmation status	Confirming/Normal		
Smart related ECM code confirmation status	Confirming/Normal		
ID code registration status	Registering/Normal		
ID code collation status	Normal/Collating the immobilizer/Collating the smart		
All registered keys confirmation status	Confirming/Normal		
Confirmed number of all registered keys	0 — 7		
Number of required registrations (smart)	0 — 7		
Number of collation completed (smart)	0 — 7		
Number of registration completed (smart)	0 — 7	Keyless access CM internal value	Number of recognized keyless access CM
ID Code Box	Connecting/Not connected	Keyless access CM internal value	Connecting with ID code box normal connection
Steering Lock ECM	Connecting/Not connected	Keyless access CM internal value	Connecting with steering lock CM normal connection

Items to be displayed	Unit of measure	Content	Note
Driver's lock request SW/touch sensor switch ON edge record	ON/OFF	Keyless access CM internal value	The display is continued when the collation is once established by the combination indicated on the left. NOTE: When confirming the data on the left, confirm after performing Keyless access system check.<Ref. to KPS(diag)-33, Keyless Access System Check.>
Passenger's unlock request SW/ touch sensor switch ON edge record	ON/OFF	Keyless access CM internal value	
Rear gate lock request SW ON edge history	ON/OFF	Keyless access CM internal value	
Driver's unlock touch sensor switch ON edge record	ON/OFF	Keyless access CM internal value	
Passenger's unlock touch sensor switch ON edge record	ON/OFF	Keyless access CM internal value	
Collation OK result history (driver's external transmitter + interior tuner)	ON/OFF	Keyless access CM internal value	
Collation OK result history (passenger's external transmitter + interior tuner)	ON/OFF	Keyless access CM internal value	
Collation OK result history (front interior transmitter + interior tuner)	ON/OFF	Keyless access CM internal value	
Collation OK result history (rear interior transmitter + interior tuner)	ON/OFF	Keyless access CM internal value	
Collation OK result history (rear gate internal transmitter + interior tuner)	ON/OFF	Keyless access CM internal value	
Collation OK result history (rear gate external transmitter + interior tuner)	ON/OFF	Keyless access CM internal value	
Collation OK result history (immobilizer amplifier + immobilizer amplifier)	ON/OFF	Keyless access CM internal value	
Push start SW 1	ON/OFF	Keyless access CM input value	ON when push button start is pressed
Push start SW 2	ON/OFF	Keyless access CM input value	ON when push button start is pressed
Stop light SW	ON/OFF	Keyless access CM input value	ON when brake pedal is depressed
Steering Unlock Switch	ON/OFF	Keyless access CM input value	OFF when steering locked
Shift P signal(AT only)	ON/OFF	Keyless access CM input value	ON when the shift position is "P"
Neutral SW/Clutch SW	ON/OFF	Keyless access CM output value	ON when the shift position is at "P" or "N"
Shift N signal(AT only)	ON/OFF	Keyless access CM input value	ON when the shift position is "N"
Delivery mode signal(AT only)	ON/OFF	Keyless access CM input value	
IGN2 relay monitor (drive output)	ON/OFF	Keyless access CM output value	ON during IG relay 2 (push button start) drive output
IGN1 relay monitor (drive output)	ON/OFF	Keyless access CM output value	ON during IG relay 1 (push button start) drive output
ACC relay monitor	ON/OFF	Keyless access CM output value	ON during accessory relay (push button start) drive output
IGN2 relay monitor (coil voltage)	ON/OFF	Keyless access CM output value	ON during IG relay 2 (push button start) drive output
IGN1 relay monitor (coil voltage)	ON/OFF	ON during IG relay 1 (push button start) drive output	ON during IG relay 1 (push button start) drive output
IGN latch monitor	ON/OFF	Keyless access CM output value	ON during IG relay 2 (push button start) drive output

Items to be displayed	Unit of measure	Content	Note
STSW signal monitor	ON/OFF	Keyless access CM output value	ON when brake pedal (except MT model) or clutch pedal (MT model) is depressed, and push button ignition switch is pressed
ACCR signal	ON/OFF	Keyless access CM input value	ON during starter relay drive output
Vehicle speed signal	Drive status/Stop status	Keyless access CM input value	Set as “Drive status” when vehicle speed is input
Engine Speed	Rotating/Stopped	Keyless access CM input value	Set as “Rotating” while the engine is running
Power supply status	All OFF status	Keyless access CM output value	Displayed when IG relay 1 (push button start), IG relay 2 (push button start), and accessory relay (push button start) are all OFF
	ACC relay ON status	Keyless access CM output value	Displayed when accessory ON
	IGN1 relay ON status	Keyless access CM output value	Displayed when ignition ON
	IGN2 relay ON status	Keyless access CM output value	Displayed when ignition ON
	STSW Condition	Keyless access CM output value	Displayed when brake pedal (except MT model) or clutch pedal (MT model) is depressed, and push button ignition switch is pressed
Vehicle identification	GAS MT/GAS AT/ HEV AT/Auto Start Stop MT/Auto Start Stop AT	Keyless access CM output value	Equipped vehicle is displayed.
IGN1 external circuit abnormal	No/Yes	Keyless access CM output value	
IGN2 external circuit abnormal	No/Yes	Keyless access CM output value	
Start SW trouble	No/Yes	Keyless access CM output value	
P signal mismatch	No/Yes	Keyless access CM output value	Detected when P signals are inconsistent between CAN line and direct line.
Steering lock unlock waiting time out	No/Yes	Keyless access CM output value	
Key collation waiting time out	No/Yes	Keyless access CM output value	

2. Body integrated unit

Refer to the BODY CONTROL SYSTEM (DIAGNOSTICS) for the current data of the body integrated unit.<Ref. to BC(diag)-11, LIST, Read Current Data.>

8. Read Diagnostic Trouble Code (DTC)

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

8. Read Diagnostic Trouble Code (DTC)

A: OPERATION

Read out DTCs stored in the airbag control module and the occupant detection control module. For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
For details concerning DTCs, refer to the List of Diagnostic Trouble Code (Airbag system, Occupant detection system). <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).> <Ref. to OD(diag)-18, List of Diagnostic Trouble Code (DTC).>

8. Read Diagnostic Trouble Code (DTC)

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
For details concerning DTCs, refer to List of Diagnostic Trouble Codes (DTC). <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>

8. Read Diagnostic Trouble Code (DTC)

A: OPERATION

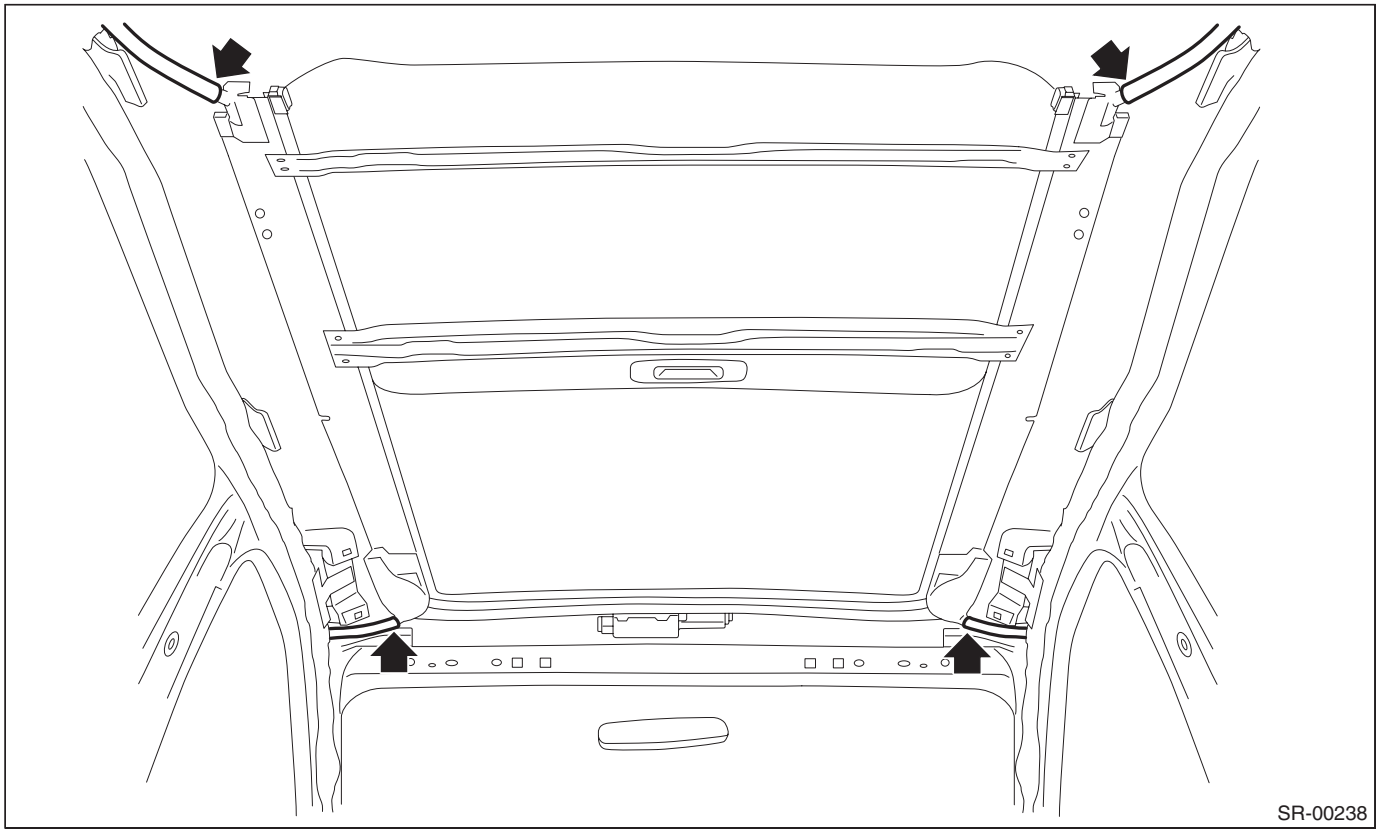
For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
For details concerning DTC, refer to “List of Diagnostic Trouble Code (DTC)”. <Ref. to ES(diag)-78, List of Diagnostic Trouble Code (DTC).>

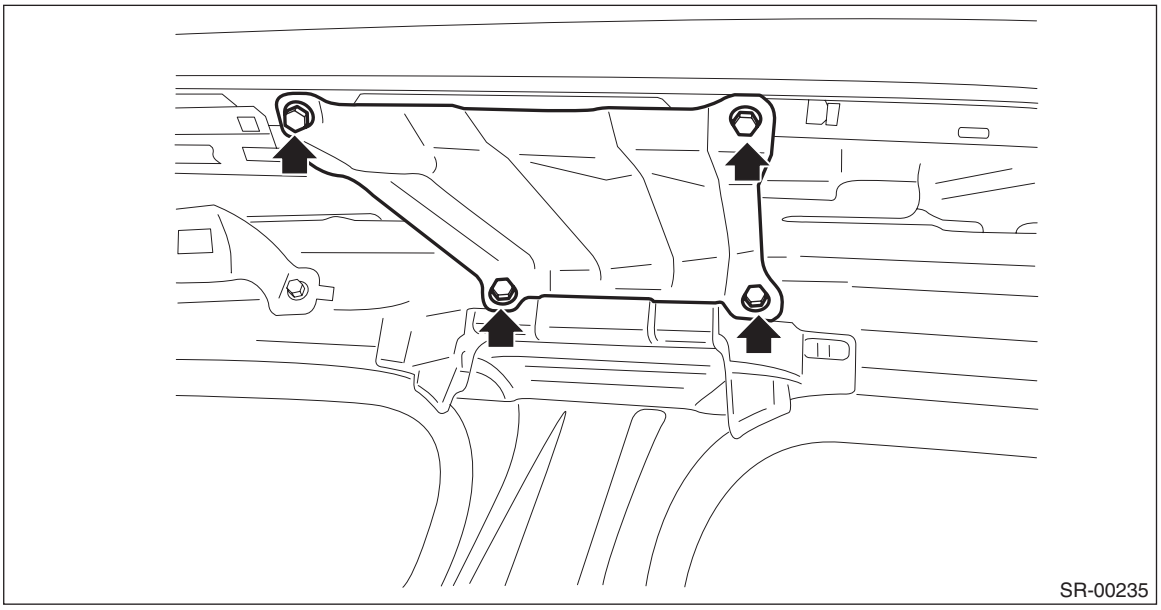
8. Sunshade

A: REMOVAL

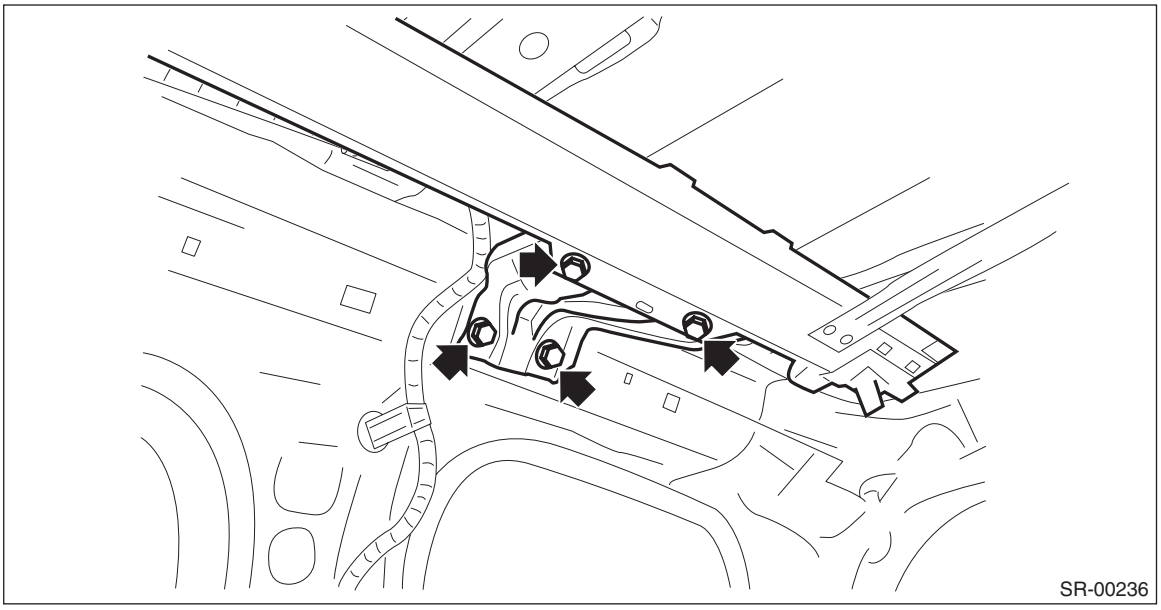
CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>
• When removing the clip, use great care not to damage the trim panel - roof assembly.
1) Completely close the lid assembly - sunroof, and open the sunshade assembly.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the trim panel - roof assembly. <Ref. to EI-109, REMOVAL, Roof Trim.>
4) Disconnect the harness connector of the motor assembly - sun roof.
5) Remove the curtain airbag. <Ref. to EI-109, REMOVAL, Roof Trim.>
6) Remove the rail assembly - sunroof.
   (1) Remove the drain tube - sunroof.



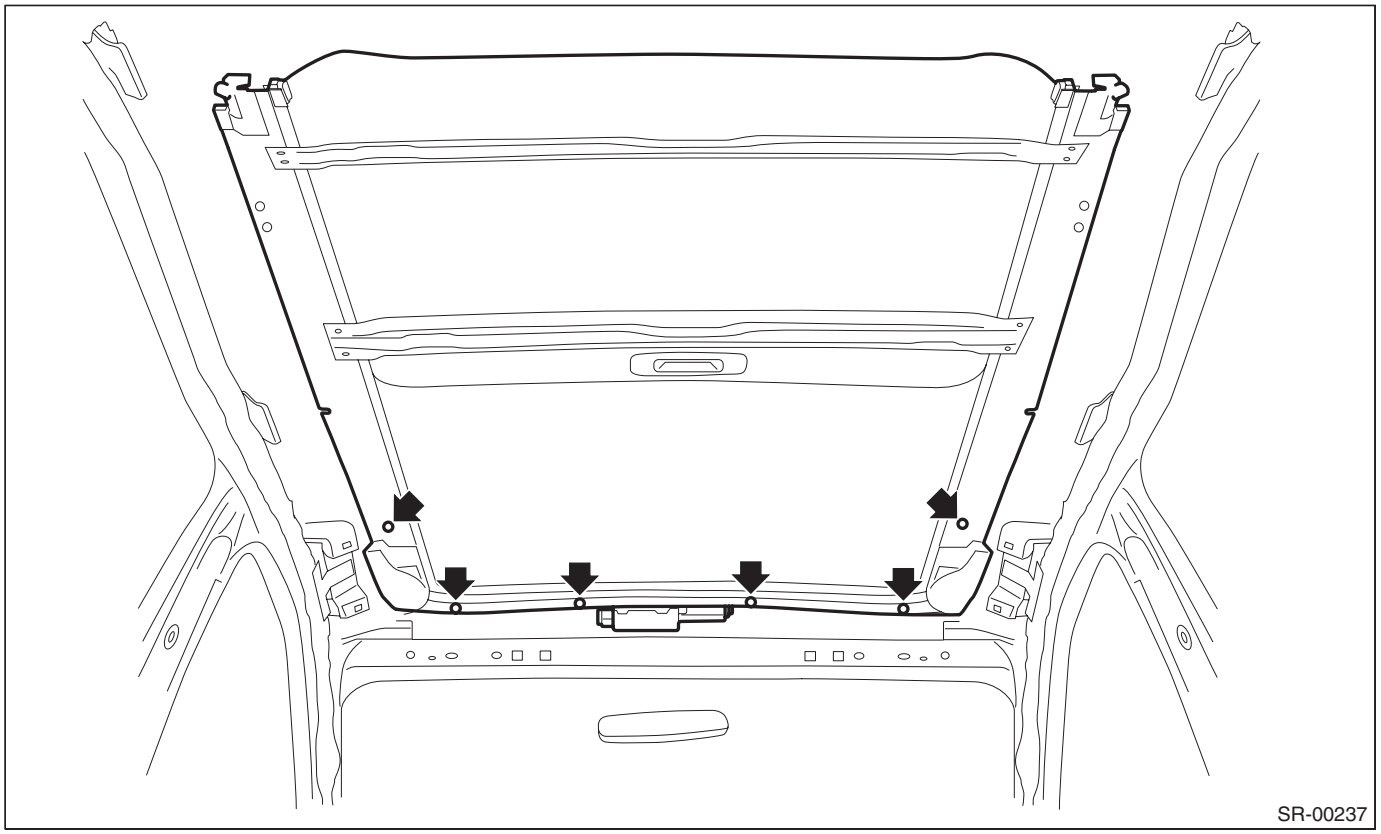
(2) Remove the bolts, and then remove the cover - sunroof.



(3) Remove the bolts, and then remove the bracket - sunroof.

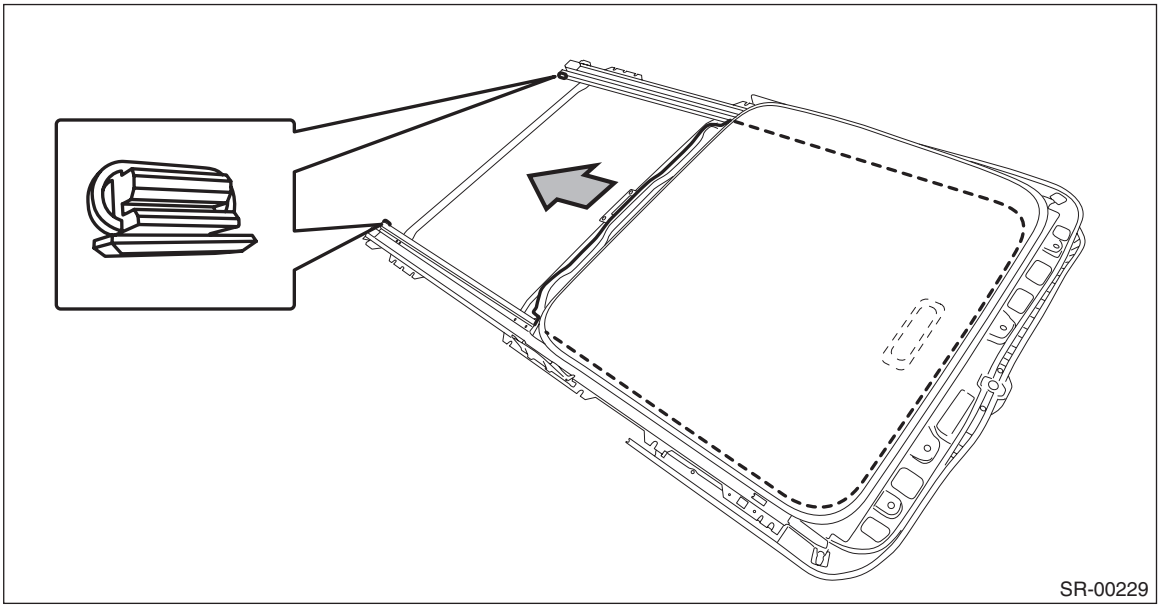


(4) Remove the bolt, and then remove the rail assembly - sunroof.



CAUTION:
Be careful not to damage the sunshade assembly.

7) Remove the stopper rubber and pull out the sunshade assembly from the rail assembly - sunroof.



B: INSTALLATION

Install each part in the reverse order of removal.

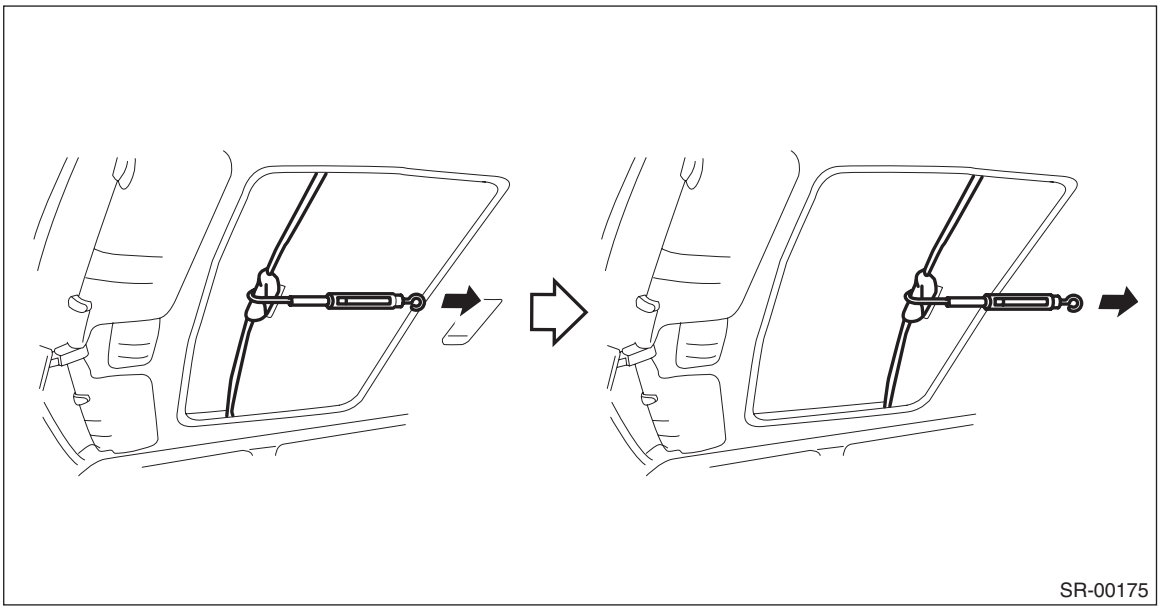
Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SR-2, COMPONENT, General Description.>

C: INSPECTION

1. MOVING LOAD OF SUNSHADE ASSEMBLY

1) Attach a spring scale together with a cloth to the edge of sunshade assembly.
2) Pull the spring scale to check the moving load of the sunshade assembly.

Moving load of sunshade assembly:
9.8 — 25 N (1.00 — 2.55 kgf, 2.2 — 5.6 lbf)



NOTE:
Moving load is larger at the beginning of pulling a spring scale, so take a spring scale reading while the sunshade assembly is sliding smoothly.
3) If the inspection result exceeds the standard, check the sunshade assembly or the rail assembly - sunroof for improper installation, and replace if necessary.

EXTERIOR/INTERIOR TRIM

EI

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9. Airbag Control Module

A: REMOVAL

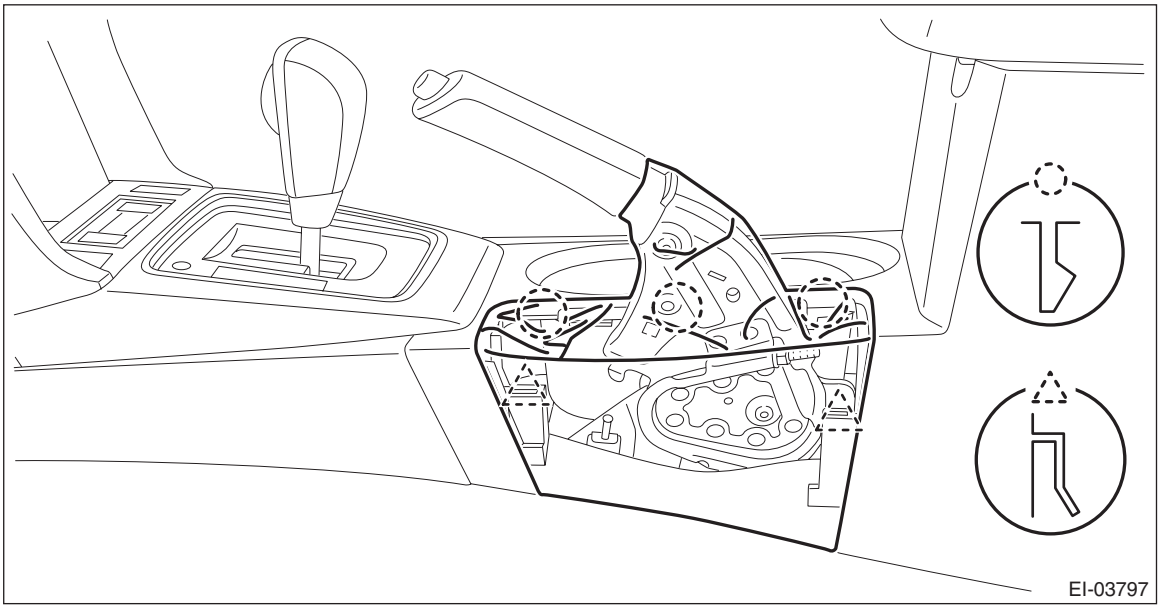
CAUTION:
- **Do not disassemble the airbag control module.**
- **If the airbag control module is deformed or if there is any trace of water on the module, replace the airbag control module with a new one.**
- **Do not drop the airbag control module.**
- **After removal, keep the airbag control module on a dry, clean surface away from moisture, heat and dust.**

1) Turn the ignition switch to OFF.

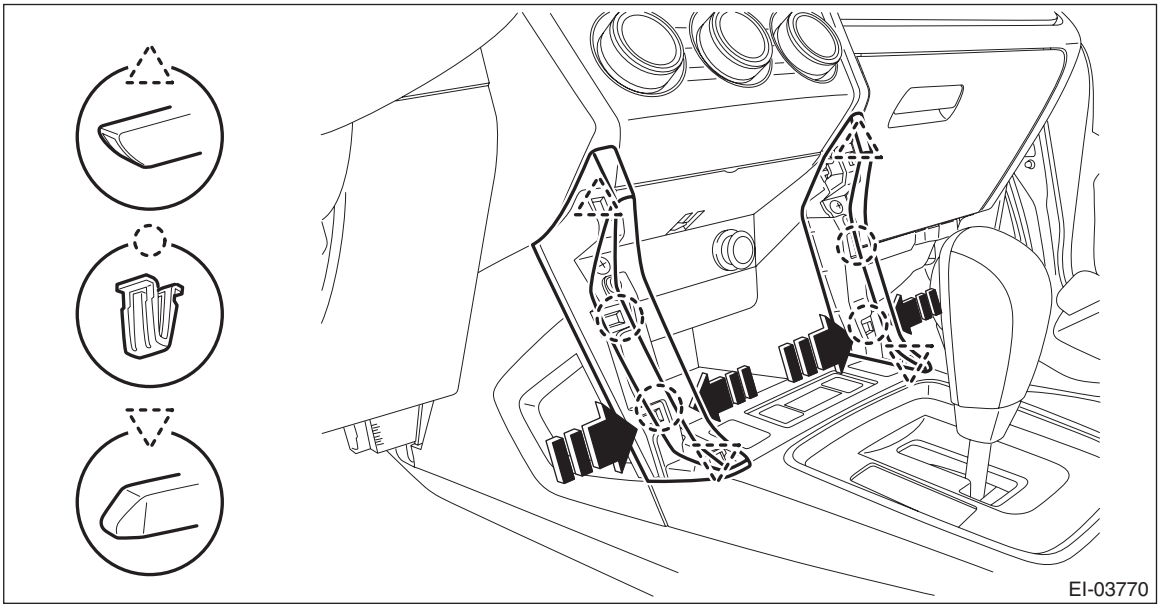
CAUTION:
Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

NOTE:
On CVT models, shift the select lever into “N” before disconnecting the battery ground cable.

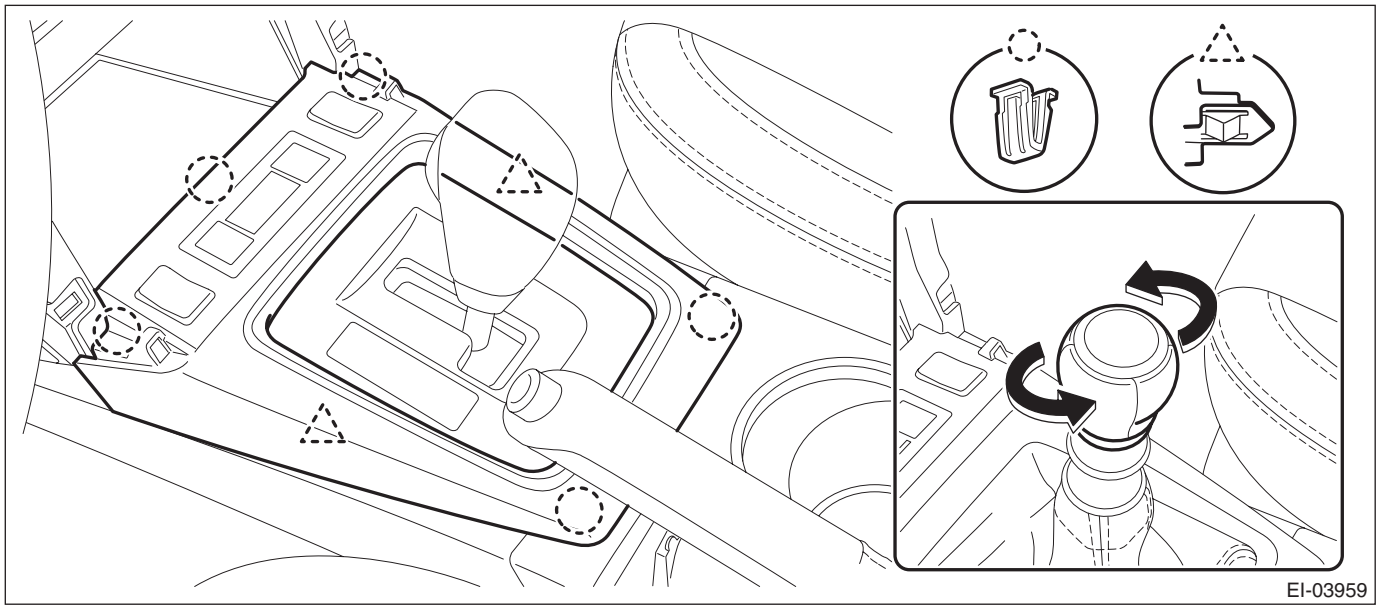
2) Release the claws, and then remove the boot - hand brake.



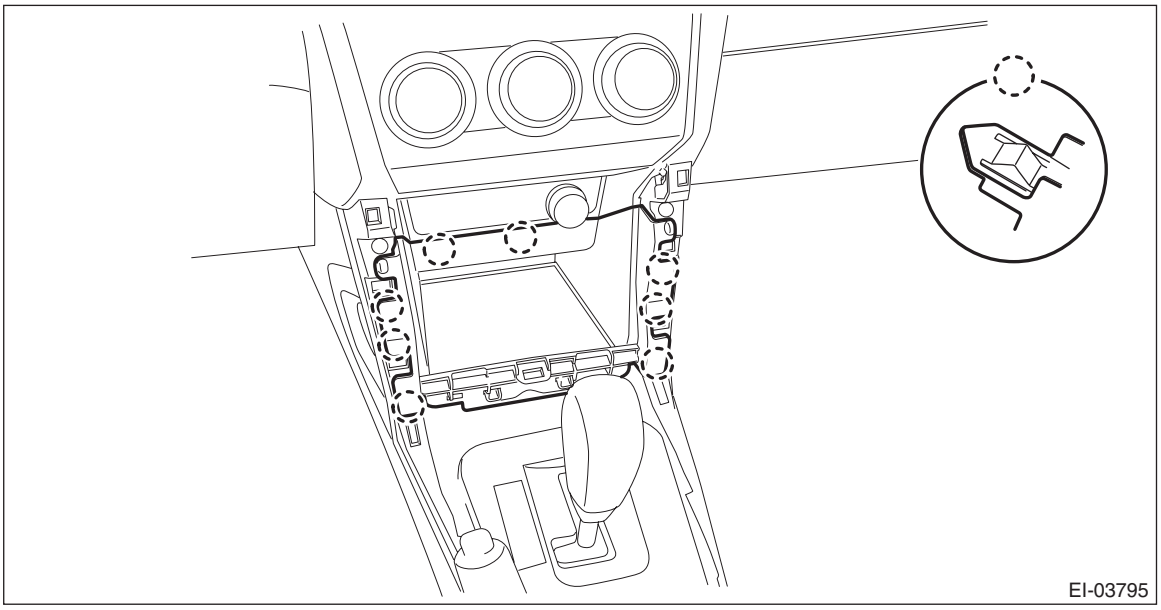
3) Release the clips, and remove the ornament panel - console.



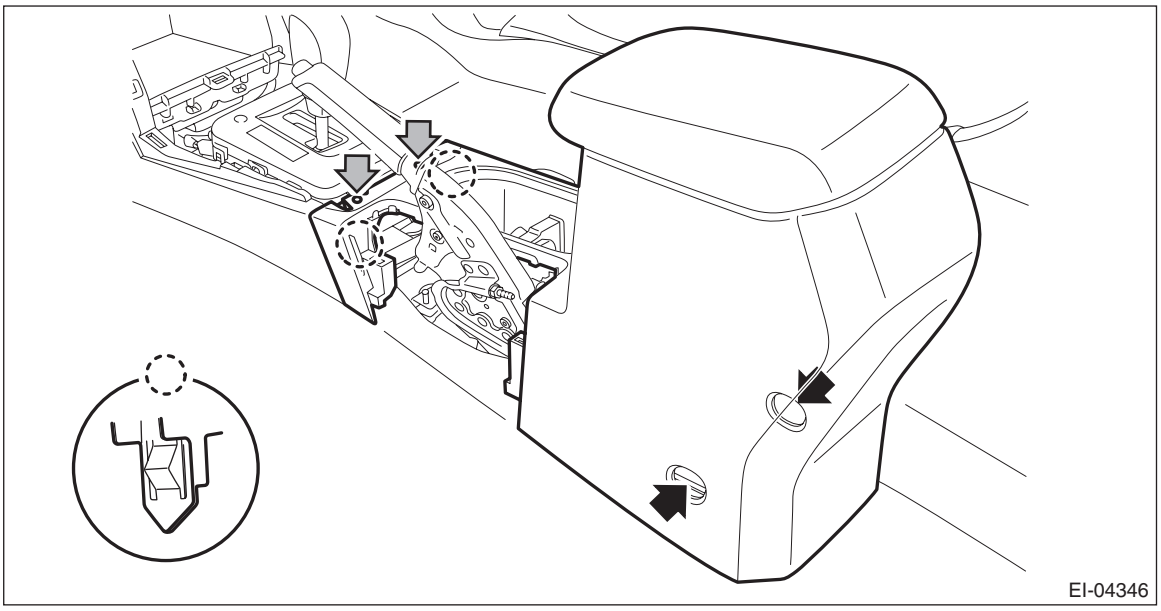
NOTE:
Removal is easier if you grab the arrow sections from right and left and pull them at the same time.
4) Remove the cover - shift lever.
(1) Remove the shift knob. (MT model)
(2) Release the clips and claws, then pull up the cover - shift lever.



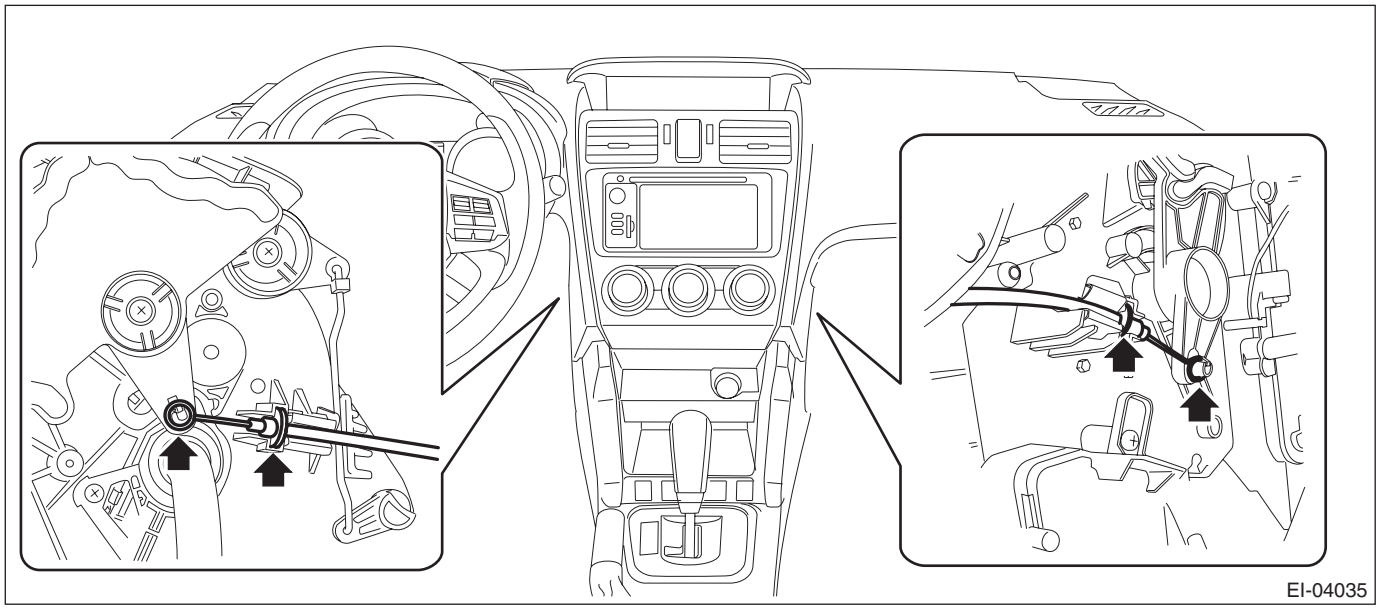
5) Release the claws, and remove the tray assembly - CTR LWR.



6) Remove the console box assembly.
(1) Move the seat forward, and remove the bolts after detaching the left and right caps.
(2) Remove the screws and release the claws, then disconnect the harness connector and remove the console box assembly.



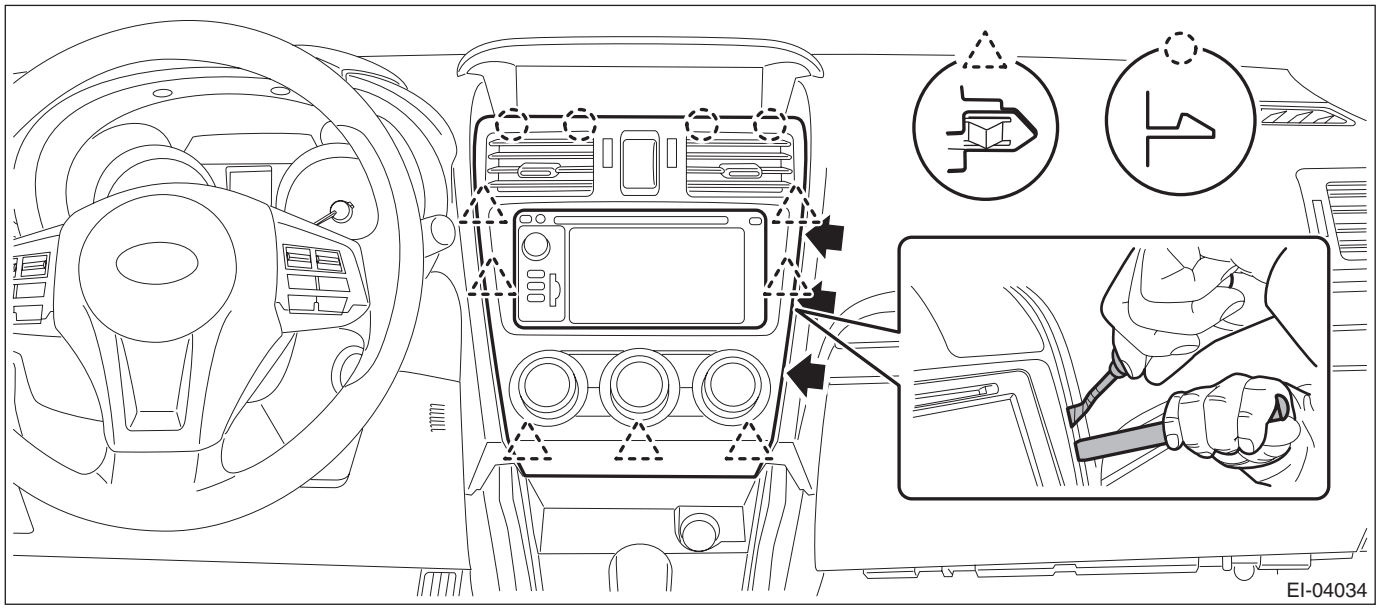
7) On manual A/C models, disconnect the control cables from both sides of the heater & cooling unit.



8) Remove the panel center assembly.

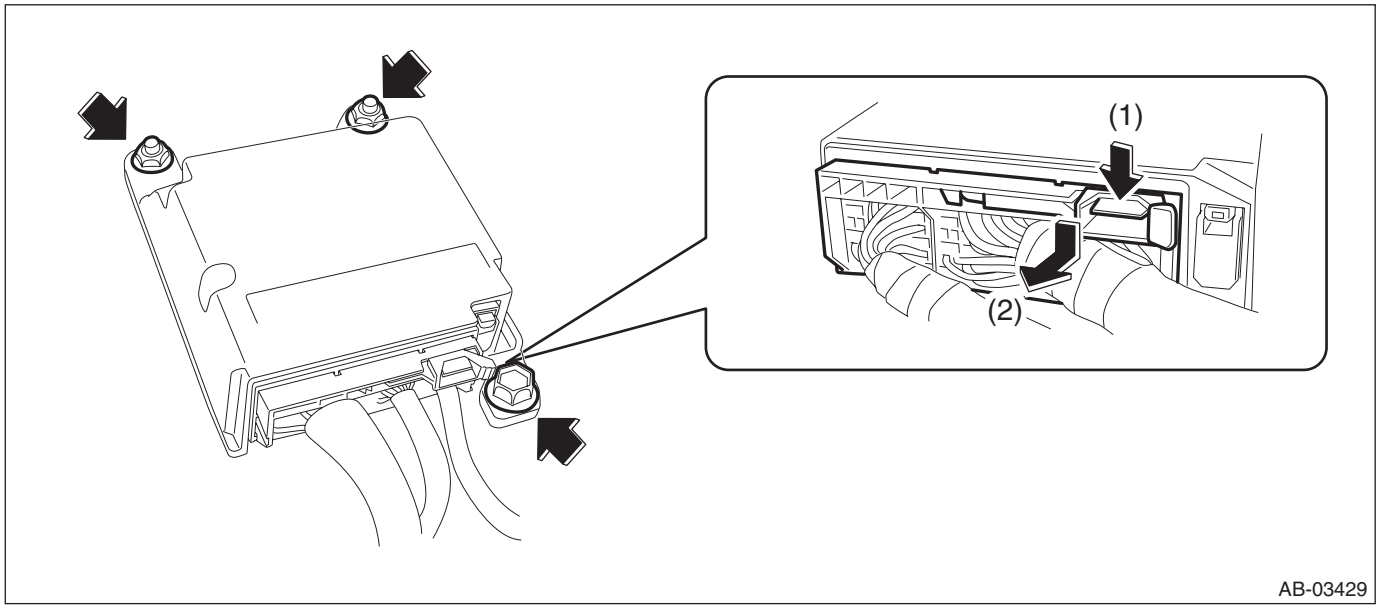
CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

(1) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(2) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(3) Release the rest of the claws, and pull out the panel center assembly.
(4) Disconnect the connectors, and remove the panel center assembly.



9) Remove the airbag control module.

(1) Disconnect the connector from airbag control module.<Ref. to AB-20, AIRBAG CONTROL MODULE, PROCEDURE, Airbag Connector.>
(2) Remove the bolt and nuts and remove the airbag control module.



B: INSTALLATION

CAUTION:
Do not reuse the bolt and nut.
Always use new bolts and nuts for them.

1) Before installation, inspect the following items and replace any faulty part with a new one.
- Control module is deformed.
- Control module connector is damaged.
- Control module mounting bracket is damaged.

2) Install each part in the reverse order of removal.

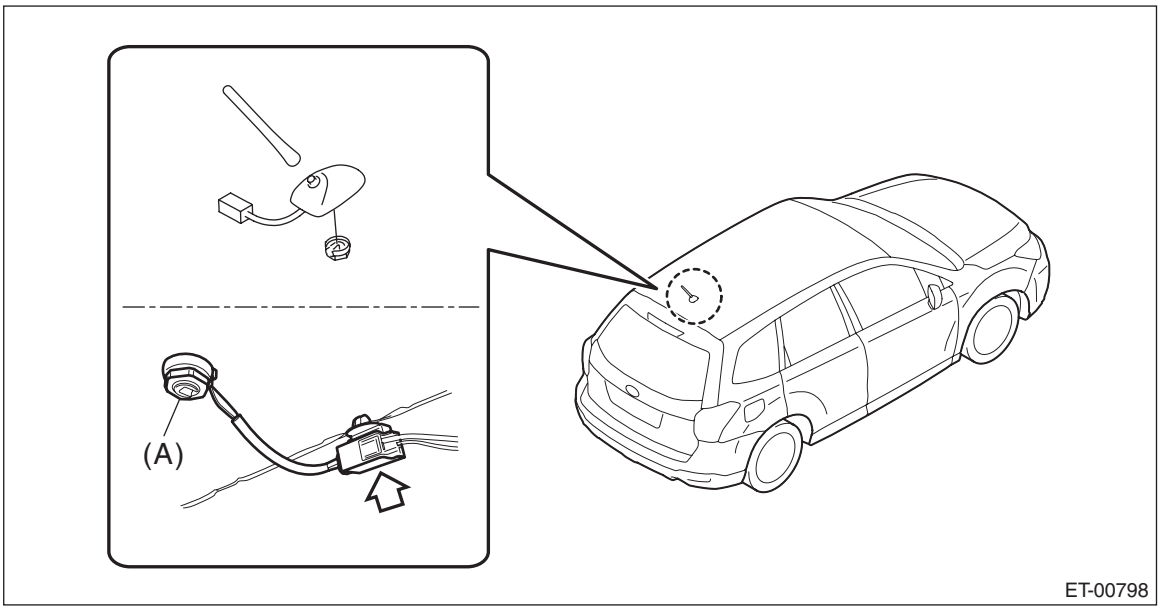
Tightening torque:
Airbag control module: 25 N·m (2.55 kgf-m, 18.4 ft-lb)
Console box assembly: 6.5 N·m (0.66 kgf-m, 4.8 ft-lb)

9. Antenna

A: REMOVAL

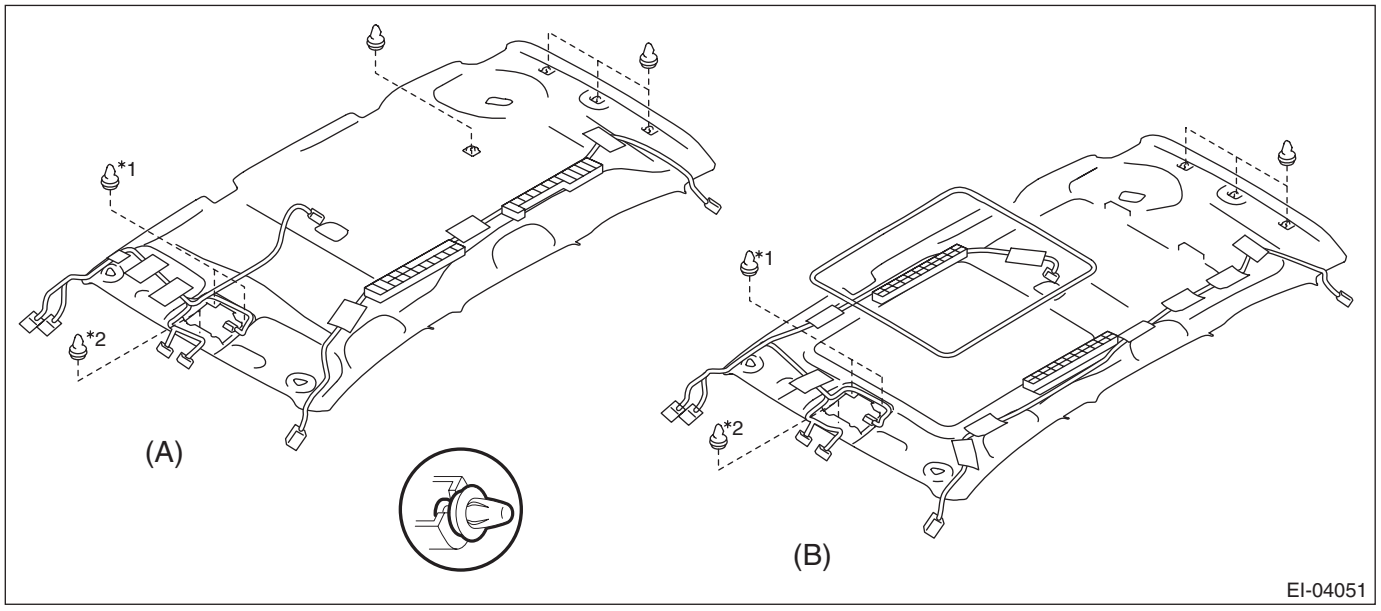
1. ANTENNA

1) Remove the trim panel - roof assembly. <Ref. to EI-109, REMOVAL, Roof Trim.>
2) Remove the antenna assembly - radio.
   (1) Disconnect the connector and remove the mounting nut (A).
   (2) Pull out the antenna assembly - radio from the roof panel top.



2. ANTENNA FEEDER CORD

1) Remove the trim panel - roof assembly. <Ref. to EI-109, REMOVAL, Roof Trim.>
2) Remove the cord assembly - antenna feeder from the trim panel - roof assembly.



(A) Normal roof type
(B) Sunroof type
*1 Models with EyeSight
*2 Models without EyeSight

B: INSTALLATION

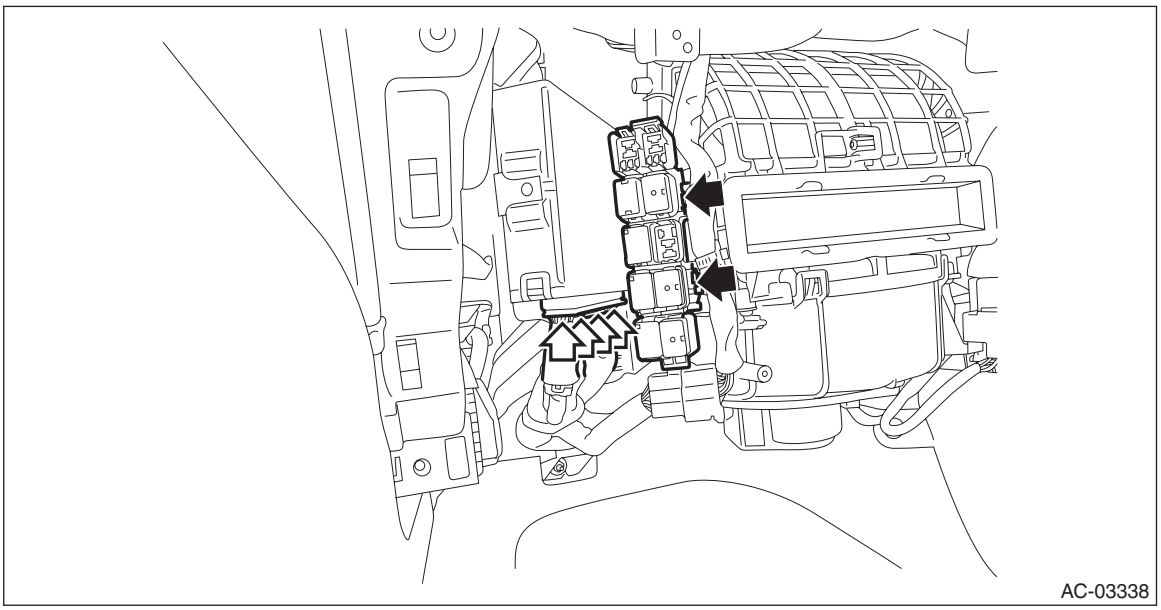
Install each part in the reverse order of removal.

Tightening torque:
Antenna assembly - radio: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

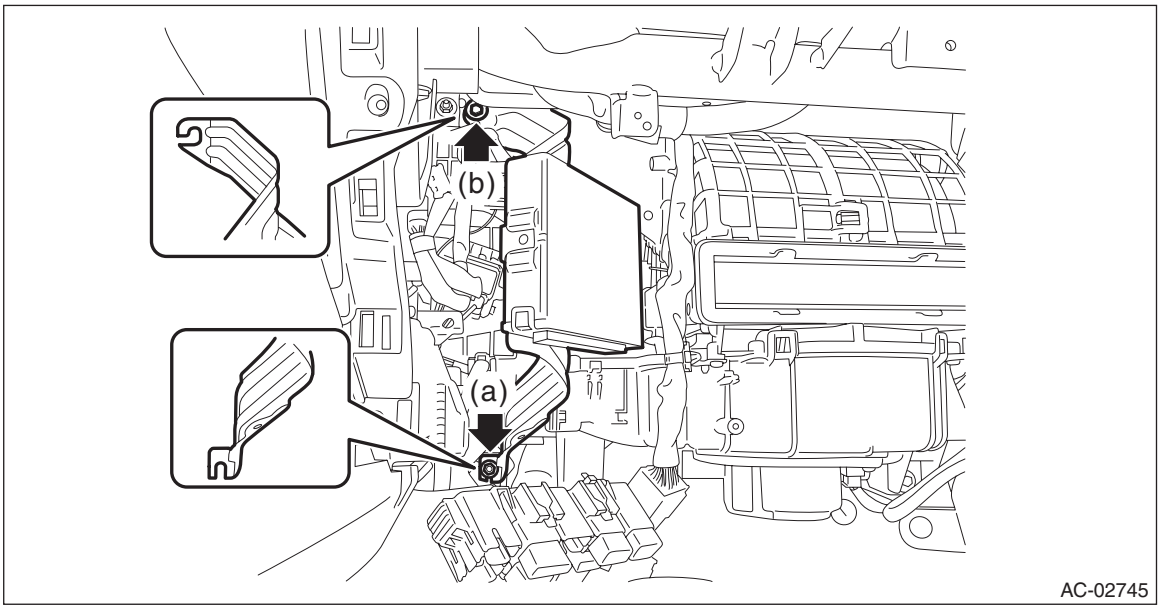
9. Blower Motor Unit Assembly

A: REMOVAL

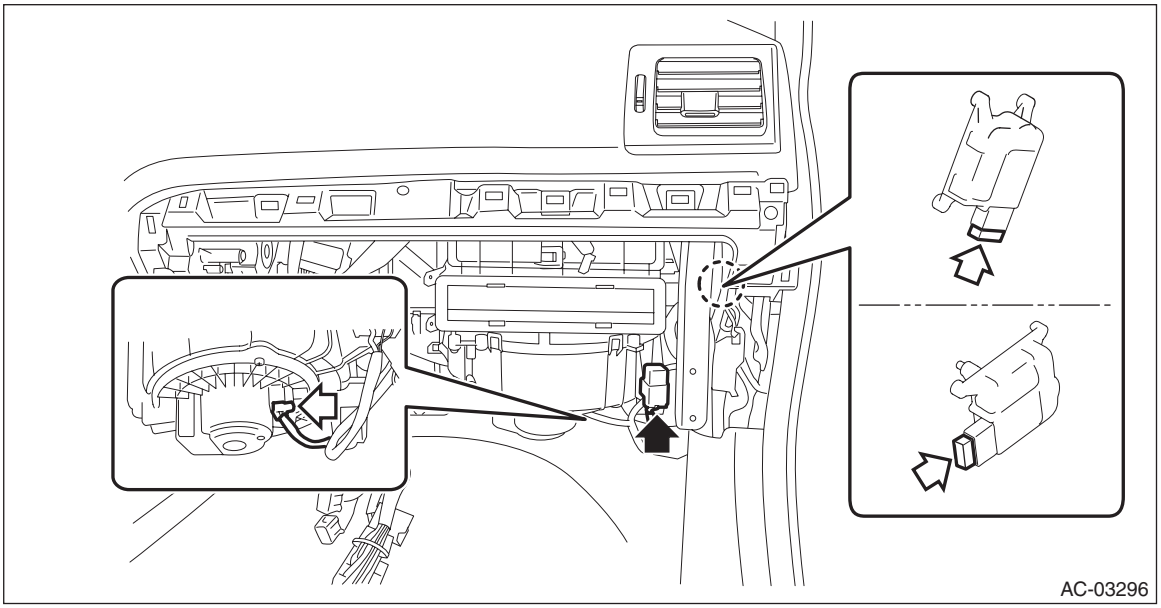
1) Disconnect the ground cable from battery.
2) Remove the glove box. <Ref. to EI-61, REMOVAL, Glove Box.>
3) Remove the engine control module (ECM). (Non-turbo model)
   (1) Release the lock and remove the relay holder.
   (2) Disconnect the connector.



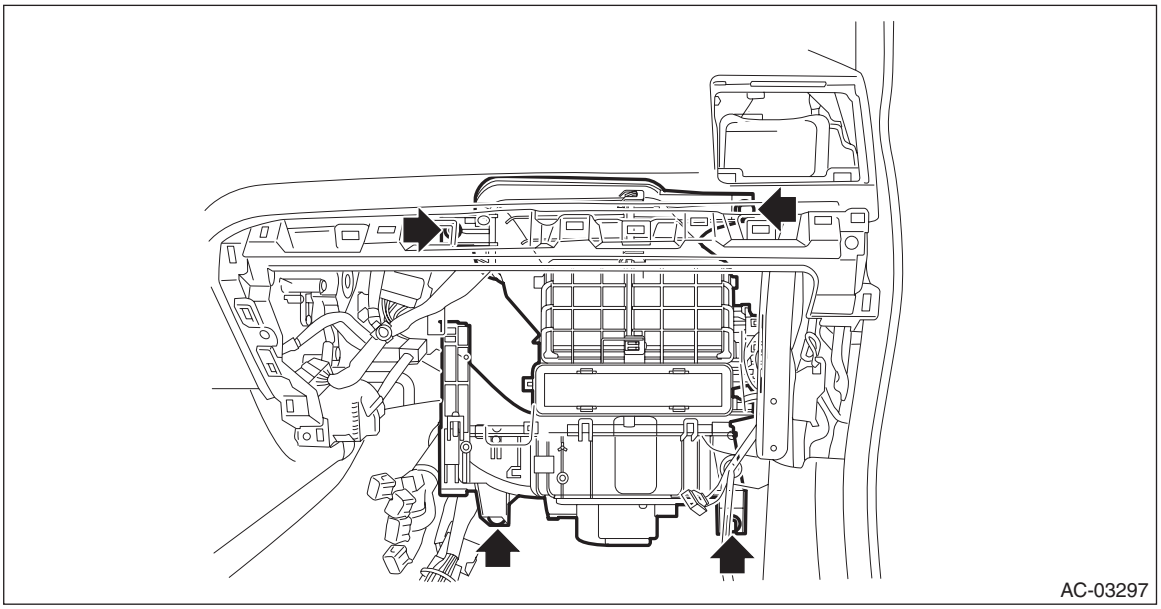
   (3) Remove the nuts (a).
   (4) Loosen the bolt (b), and remove the engine control module (ECM).



4) Remove the blower motor unit assembly.
(1) Disconnect the blower motor relay and each connector.



(2) Remove the bolts and nuts to remove blower motor unit assembly.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Blower motor unit: <Ref. to AC-10, BLOWER MOTOR UNIT, COMPONENT, General Description.>
Engine control module (ECM): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

9. CAN Communication Circuit Check

A: PROCEDURE

NOTE:
- When measuring the resistance of CAN communication circuit, measure it in sleep status.

To enter sleep status
  – With ignition switch OFF and key or switch operation stopped, keep the doors, trunk, and rear gate all closed for one minute or more.
  – On models with keyless access function, keep the access key 2 m or more away from the vehicle.

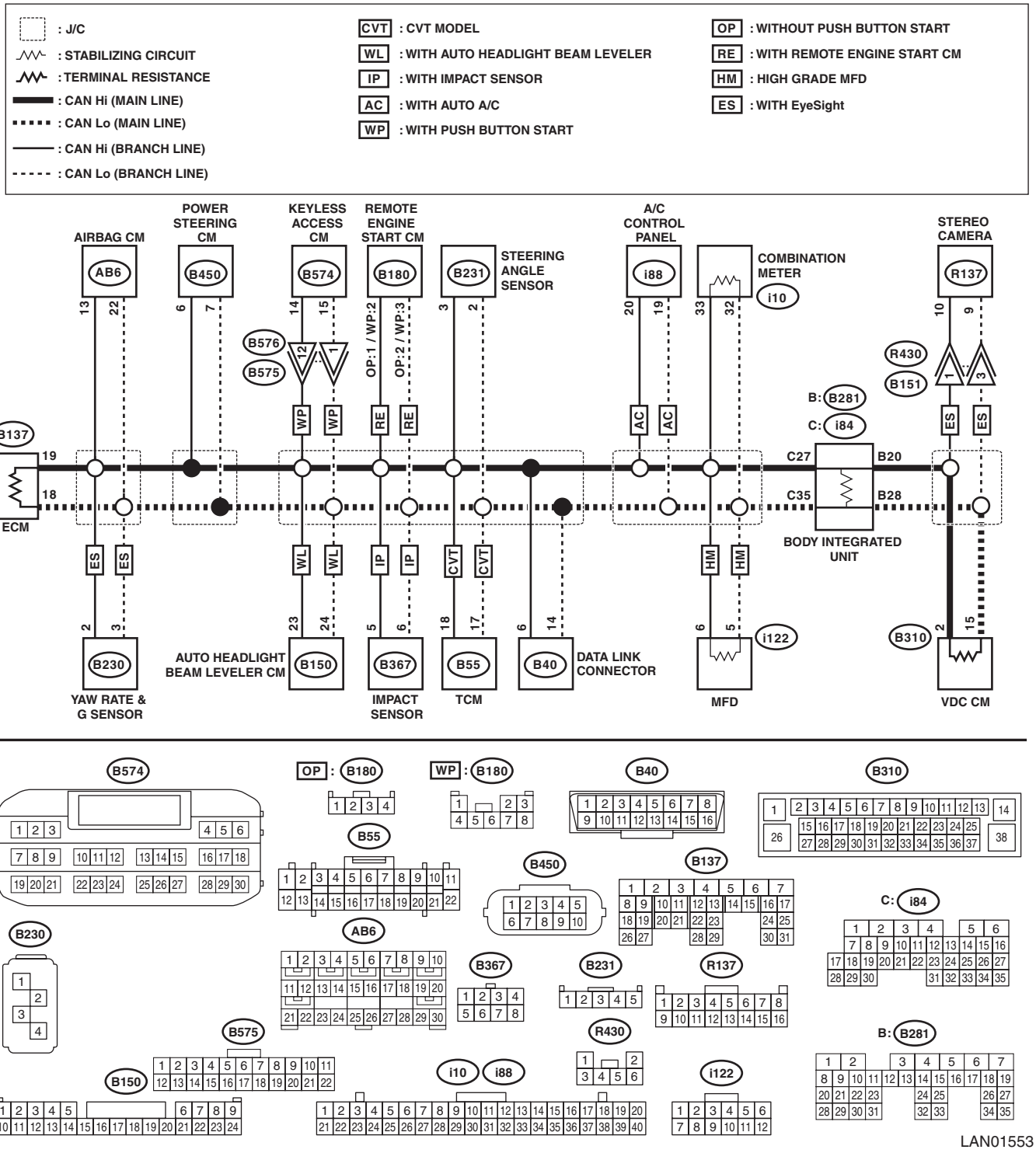
- When the bus line is measured, combined resistance of the end resistance (120 Ω) in ECM and the end resistance (120 Ω) in VDC CM can be measured. The combined resistance is supposed to be approximately 53 — 61 Ω with the stabilizing circuit included. If the measured resistance value becomes 52 Ω or less, main wiring harness or related lines may be shorted. Or, the combined resistance may have changed because of a resistance other than the end resistance created on the circuit. If the measured value is 62 Ω or more, there may be a malfunction such as open circuit in one of the end resistances, in the stabilizing circuit, or in the main wiring harness.

Also, even when the resistance value falls within approx. 53 — 61 Ω, related lines may be open if an error of communication for initializing or a CAN system U-code has occurred. (The resistance cannot be between approx. 53 — 61 Ω if the main wiring harness is open.)

WIRING DIAGRAM:

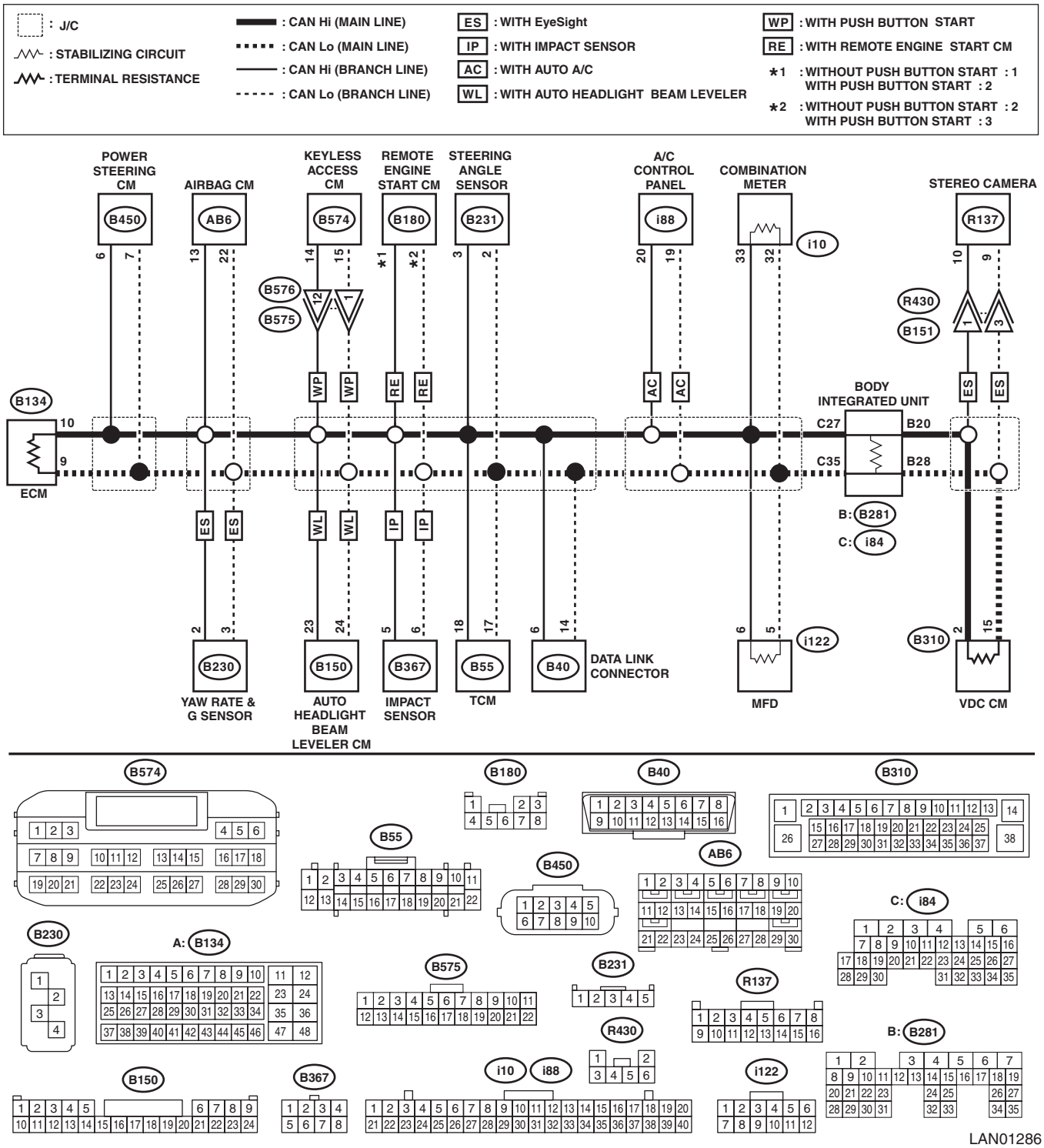
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model



LAN01553

- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
B450
AIRBAG CM
AB6
KEYLESS ACCESS CM
B574
REMOTE ENGINE START CM
B180
STEERING ANGLE SENSOR
B231
A/C CONTROL PANEL
i88
COMBINATION METER
i10
STEREO CAMERA
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
DATA LINK CONNECTOR
B40
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
i122
MFD
B310
VDC CM
B574
B180
B40
B310
B55
B450
AB6
C: i84
B230
A: B134
B575
B231
R137
R430
B: B281
B150
B367
i10
i88
i122
LAN01286

	Step	Check	Yes	No
1	**CHECK BASIC DIAGNOSTIC PROCEDURE.** Check that the basic diagnosis has been performed up to STEP 3. NOTE: Possible defective parts can be narrowed easily by inspection using Subaru Select Monitor before performing "CHECK CAN COMMUNICATION CIRCUIT" using a tester.	Was the basic diagnostic procedure performed?	Go to step **2**.	Perform the basic diagnostic procedure.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>
2	**CHECK FROM DATA LINK CONNECTOR.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Is the resistance 10 Ω or less?	Check for ground short.<Ref. to LAN(diag)-46, GROUND SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.>	Go to step **3**.
3	**CHECK FROM DATA LINK CONNECTOR.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Is the voltage 5 V or less?	Go to step **4**.	Check for battery short.<Ref. to LAN(diag)-49, BATTERY SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.>
4	**CHECK FROM DATA LINK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B40) No. 6 — No. 14:***	Is the resistance 52 Ω or less?	Perform the inspection for resistance of 52 Ω or less.<Ref. to LAN(diag)-55, 52 Ω OR LESS, INSPECTION, CAN Communication Circuit Check.>	Go to step **5**.
5	**CHECK FROM DATA LINK CONNECTOR.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B40) No. 6 — No. 14:***	Is the resistance 62 Ω or more?	Perform the inspection for resistance of 62 Ω or more.<Ref. to LAN(diag)-59, 62 Ω OR MORE, INSPECTION, CAN Communication Circuit Check.>	If the display of CAN system U-code disappears from the current malfunction, the CAN network is currently normal. If the U-code has detected as current malfunction, related lines may be open. Perform the inspection for the related line corresponding to the detected DTC.<Ref. to LAN(diag)-44, LIST, CAN Communication Circuit Check.>

B: LIST

Resistance value between CAN Hi and Lo	Contents of inspection	Remarks
Ground short inspection	<Ref. to LAN(diag)-46, GROUND SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.>	Shorted to ground in the communication circuit or control module.
Battery short inspection	<Ref. to LAN(diag)-49, BATTERY SHORT INSPECTION, INSPECTION, CAN Communication Circuit Check.>	Shorted to battery power supply in the communication circuit or control module.
53 — 61 Ω	<Ref. to LAN(diag)-52, 53 — 61 Ω, INSPECTION, CAN Communication Circuit Check.>	Combined resistance of end resistance does not have malfunction; short to ground or +B short of the CAN communication circuit is possible, however.
52 Ω or less	<Ref. to LAN(diag)-55, 52 Ω OR LESS, INSPECTION, CAN Communication Circuit Check.>	Resistance is lower than combined resistance of end resistance. Short to CAN Hi and CAN Lo on the CAN communication circuit is possible.
62 Ω or more	<Ref. to LAN(diag)-59, 62 Ω OR MORE, INSPECTION, CAN Communication Circuit Check.>	Resistance is higher than combined resistance of end resistance. Open circuit of CAN communication circuit is possible.
Related lines 53 — 61 Ω (TCM)	<Ref. to LAN(diag)-62, RELATED LINES 53 — 61 Ω (TCM), INSPECTION, CAN Communication Circuit Check.>	No TCM data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (steering angle sensor)	<Ref. to LAN(diag)-65, RELATED LINES 53 — 61 Ω (STEERING ANGLE SENSOR), INSPECTION, CAN Communication Circuit Check.>	No steering angle sensor data is received. Perform inspection when faulty is detected.
Related line 53 — 61 Ω (A/C control panel)	<Ref. to LAN(diag)-68, RELATED LINE 53 — 61 Ω (A/C CONTROL PANEL), INSPECTION, CAN Communication Circuit Check.>	No A/C data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (electric power steering CM)	<Ref. to LAN(diag)-71, RELATED LINES 53 — 61 Ω (ELECTRIC POWER STEERING CM), INSPECTION, CAN Communication Circuit Check.>	No electric power steering data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (combination meter)	<Ref. to LAN(diag)-74, RELATED LINES 53 — 61 Ω (COMBINATION METER), INSPECTION, CAN Communication Circuit Check.>	No meter data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (MFD)	<Ref. to LAN(diag)-77, RELATED LINES 53 — 61 Ω (MFD), INSPECTION, CAN Communication Circuit Check.>	No MFD data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (A/B CM)	<Ref. to LAN(diag)-80, RELATED LINES 53 — 61 Ω (A/B CM), INSPECTION, CAN Communication Circuit Check.>	No airbag data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (keyless access system)	<Ref. to LAN(diag)-83, RELATED LINES 53 — 61 Ω (KEYLESS ACCESS SYSTEM), INSPECTION, CAN Communication Circuit Check.>	No keyless access CM data is received. Perform inspection when faulty is detected.
Related line 53 — 61 Ω (stereo camera)	<Ref. to LAN(diag)-86, RELATED LINE 53 — 61 Ω (STEREO CAMERA), INSPECTION, CAN Communication Circuit Check.>	No stereo camera data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (remote engine starter)	<Ref. to LAN(diag)-89, RELATED LINES 53 — 61 Ω (REMOTE ENGINE STARTER), INSPECTION, CAN Communication Circuit Check.>	Perform inspection when the remote engine starter does not operate, while the mobile key side operates normally.
Related line 53 — 61 Ω (headlight beam leveler)	<Ref. to LAN(diag)-92, RELATED LINES 53 — 61 Ω (HEADLIGHT BEAM LEVELER), INSPECTION, CAN Communication Circuit Check.>	No headlight beam leveler data is received. Perform inspection when faulty is detected.
Related lines 53 — 61 Ω (impact sensor system)	<Ref. to LAN(diag)-95, RELATED LINES 53 — 61 Ω (IMPACT SENSOR SYSTEM), INSPECTION, CAN Communication Circuit Check.>	No impact sensor data is received. Perform inspection when faulty is detected.

Resistance value between CAN Hi and Lo	Contents of inspection	Remarks
Related line 53 — 61 Ω (yaw rate & G sensor)	<Ref. to LAN(diag)-98, RELATED LINE 53 — 61 Ω (YAW RATE & G SENSOR), INSPECTION, CAN Communication Circuit Check.>	No yaw rate & G sensor data is received. Perform inspection when faulty is detected.

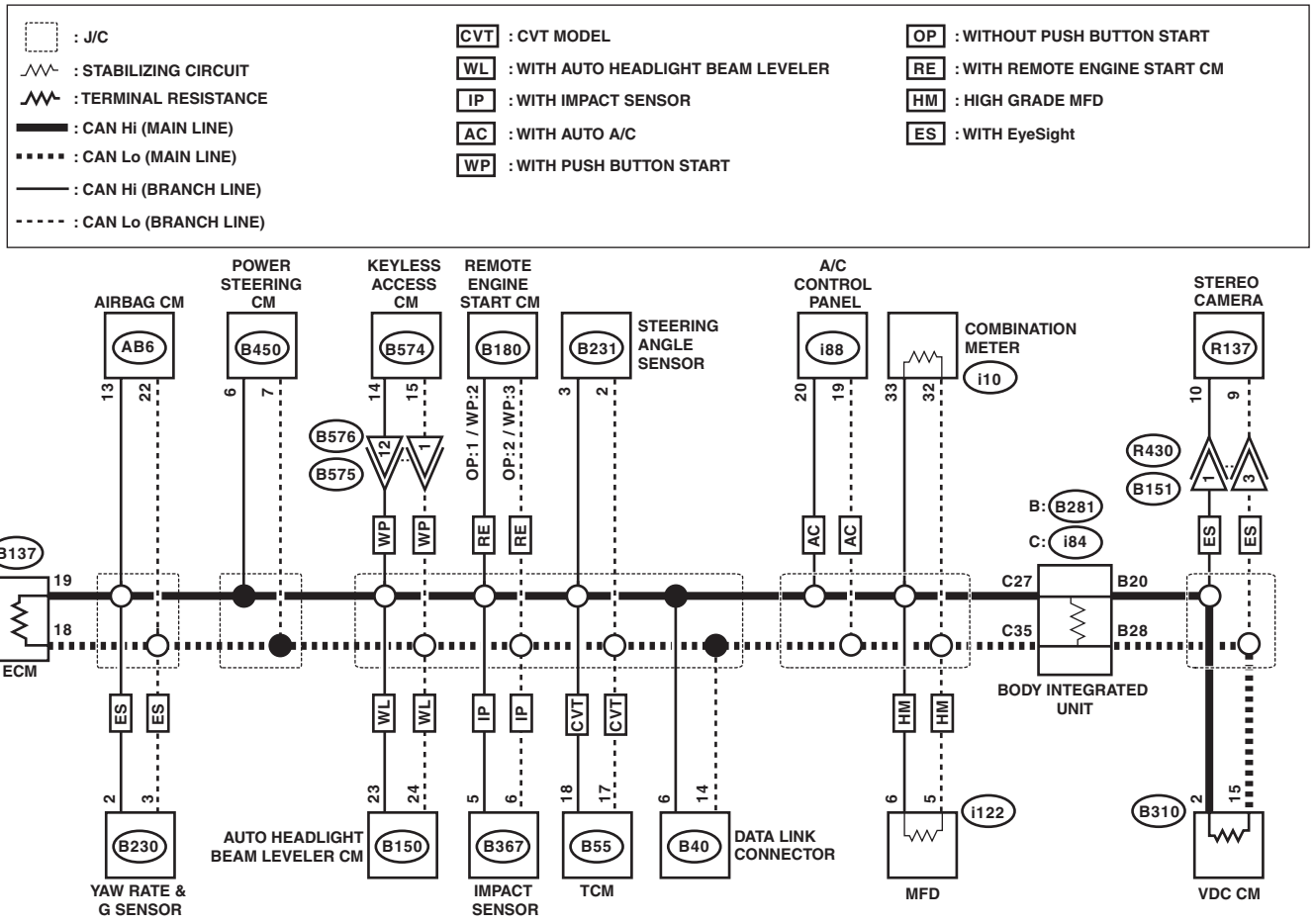
C: INSPECTION

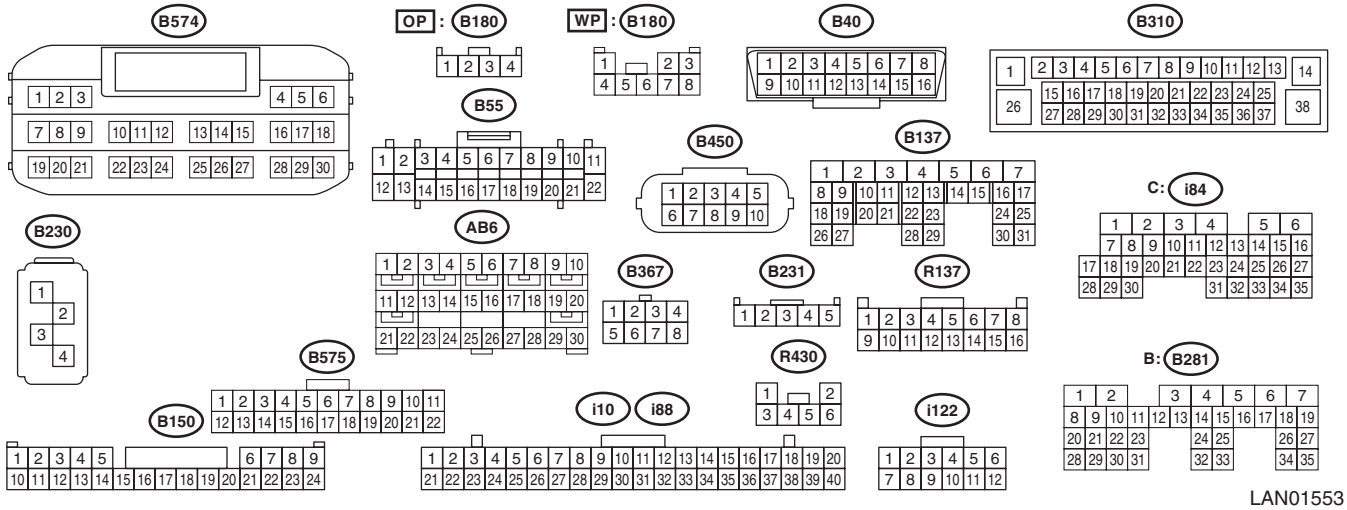
1. GROUND SHORT INSPECTION

WIRING DIAGRAM:

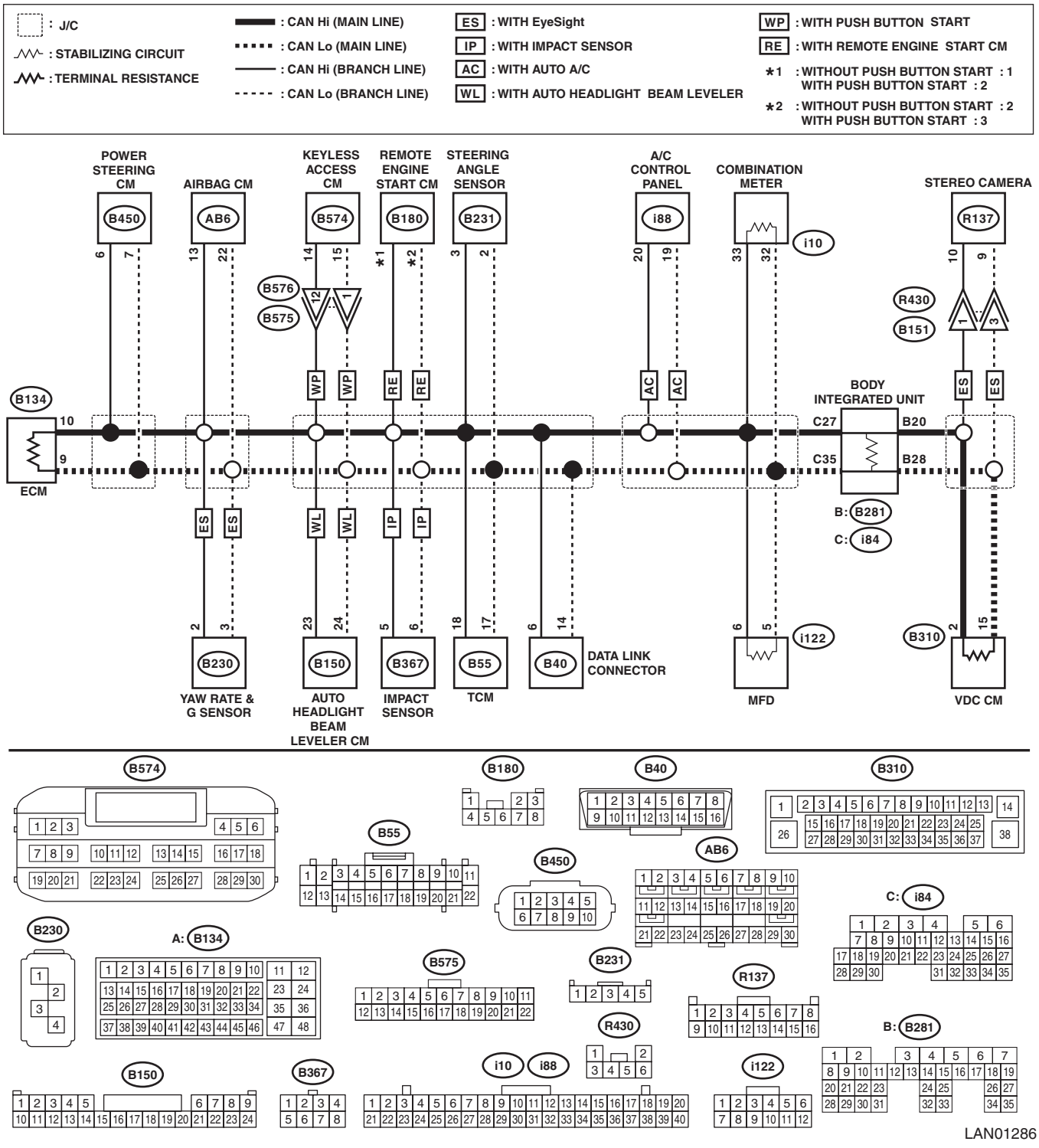
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model



NOTE:
Main wiring harness or related lines may be shorted to ground, or shorted to ground in one of the control modules.

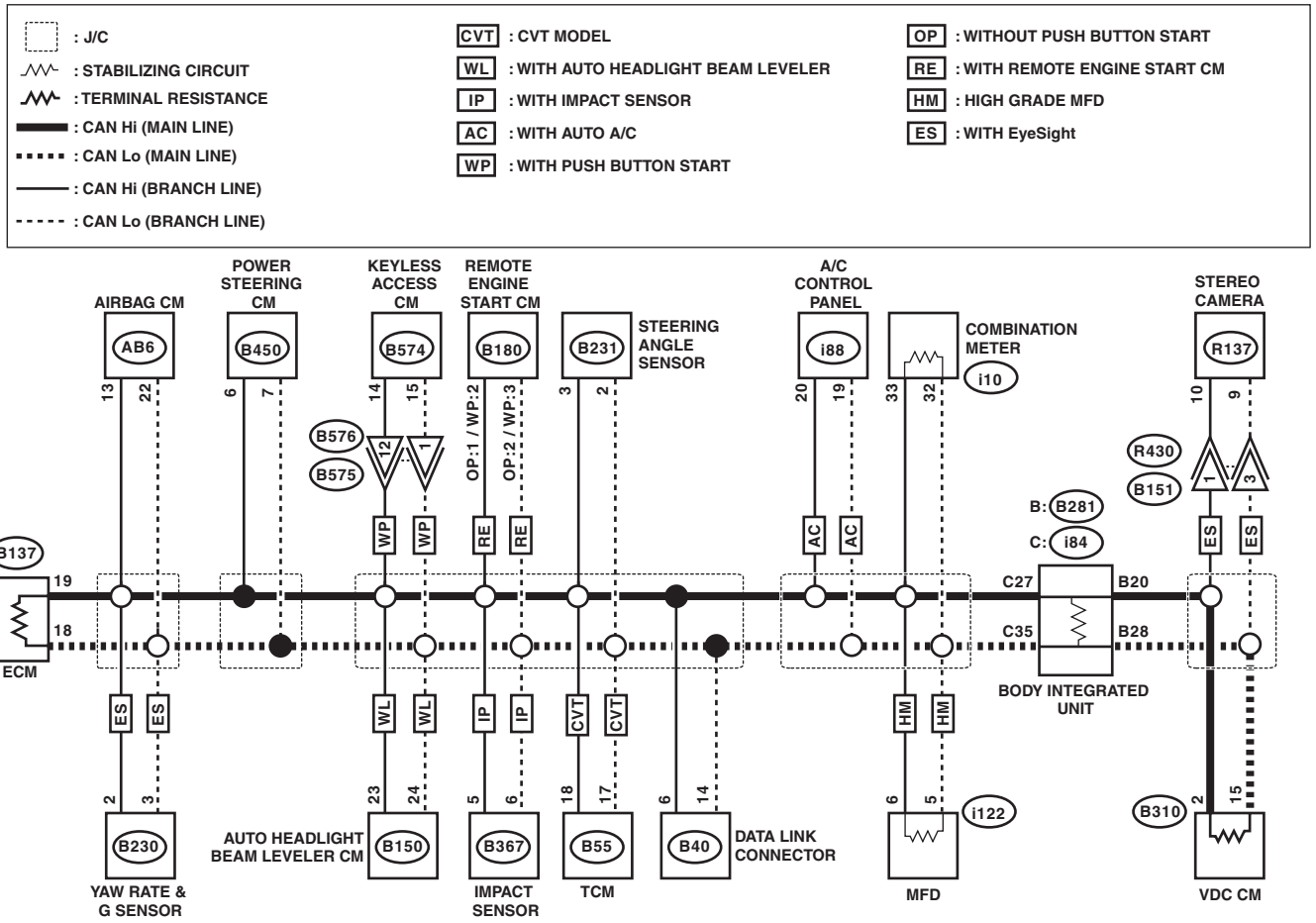
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Is the resistance 10 Ω or less?	Go to step **2**.	Currently, it is normal.
2	**CHECK CONTROL MODULE.** With the tester connected, disconnect control module. NOTE: Disconnect the body integrated unit at the end. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Did the resistance change to 10 Ω or more?	Replace the control module whose resistance has changed. When the value changed at disconnecting the body integrated unit, Go to step **3**.	Repair or replace the short circuit of the main wiring harness and related lines between body integrated unit and ECM.
3	**CHECK BETWEEN MAIN WIRING HARNESSES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B281) No. 20 — Chassis ground:*** ***(B281) No. 28 — Chassis ground:***	Is the resistance 10 Ω or less?	Repair or replace the short circuit of the main wiring harness and related lines between VDC CM and body integrated unit.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>

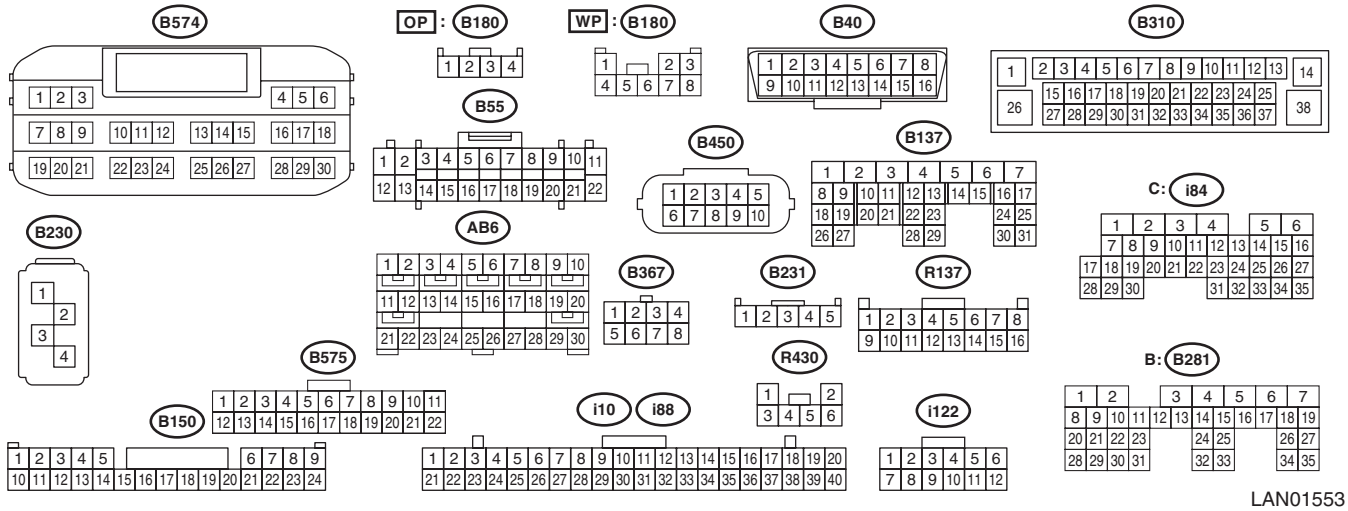
2. BATTERY SHORT INSPECTION

WIRING DIAGRAM:

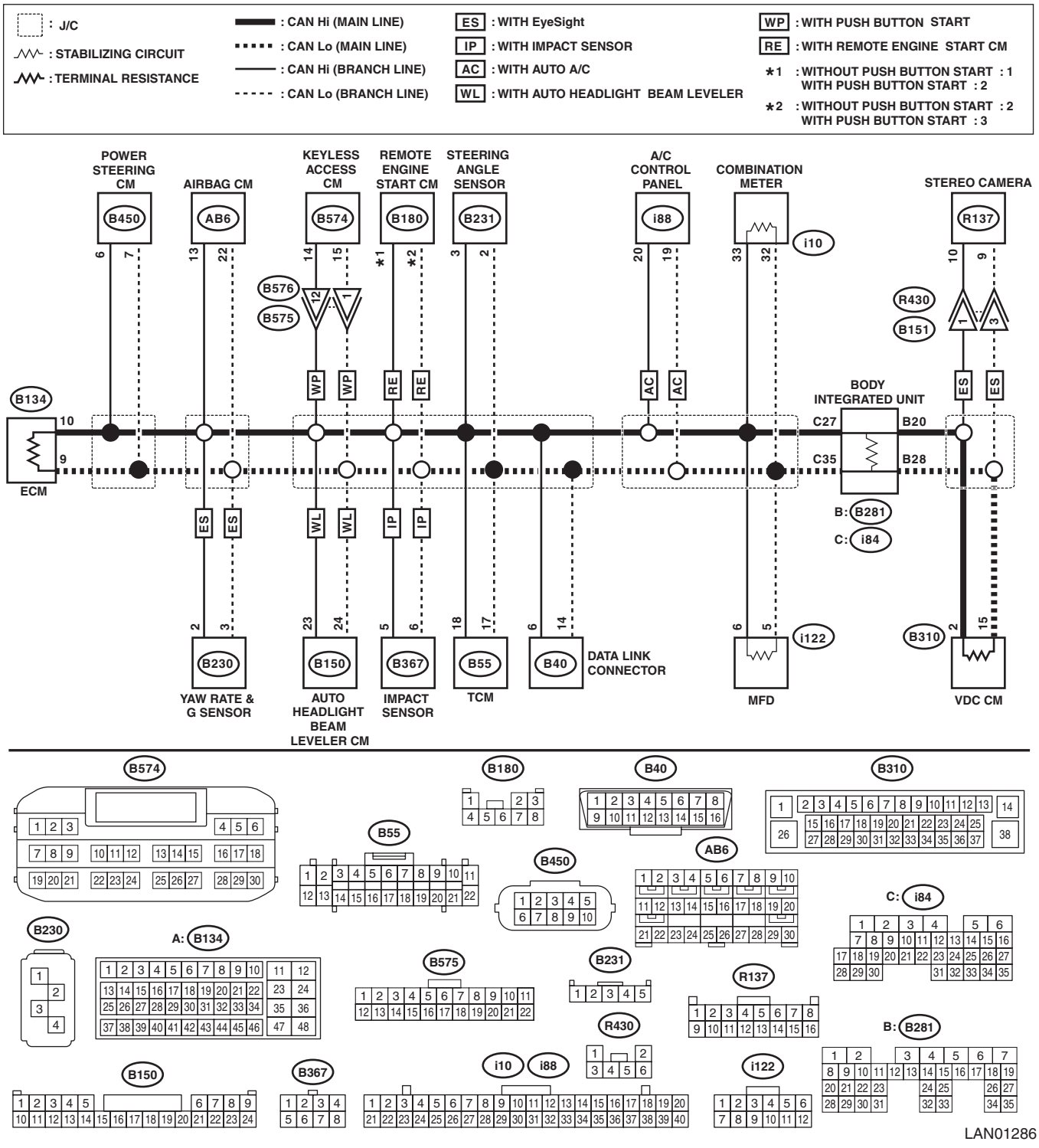
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model



NOTE:
Main wiring harness or related lines may be shorted to battery circuit, or shorted to battery circuit in one of the control modules.

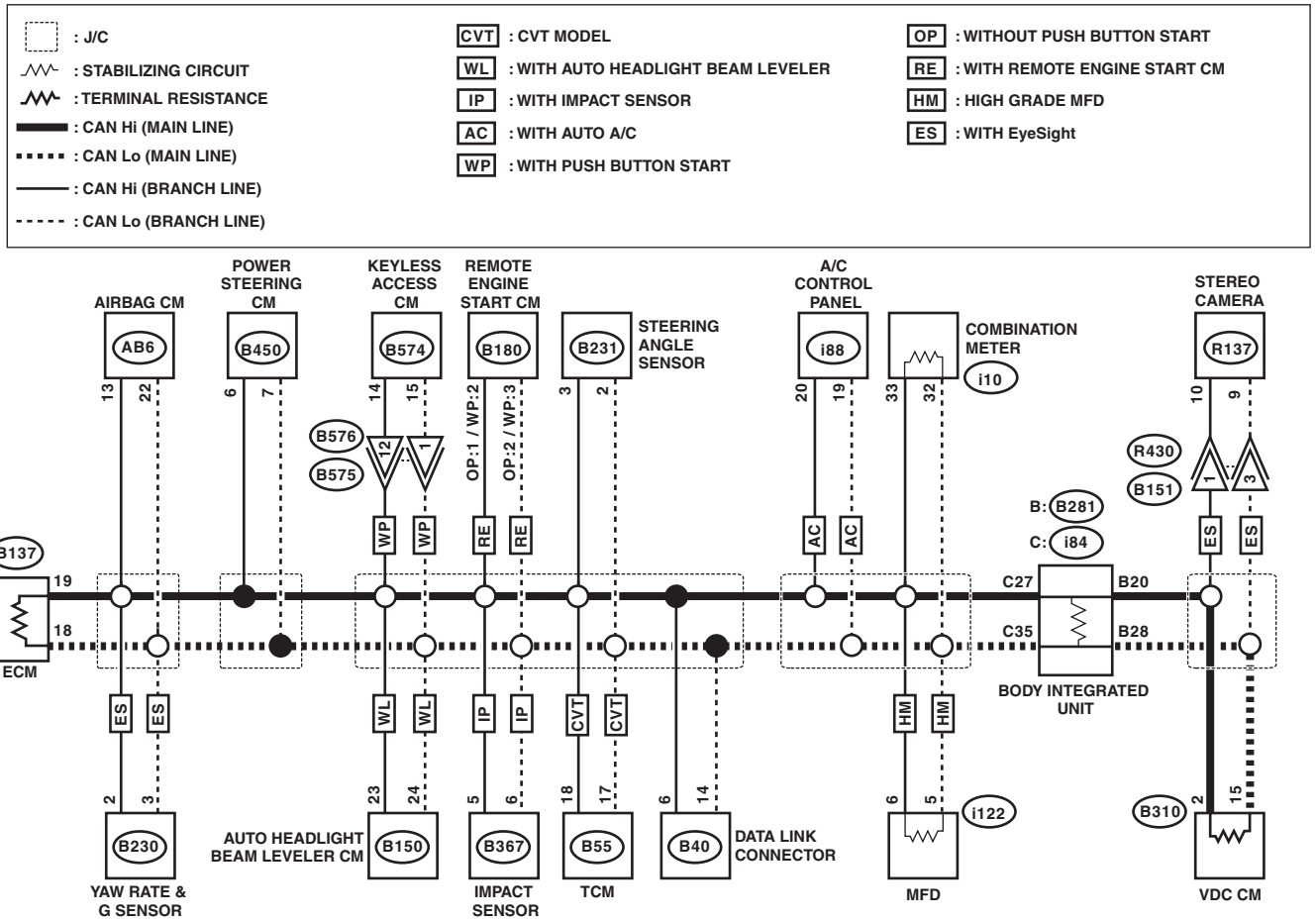
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Is the voltage 5 V or less?	Currently, it is normal.	Go to step **2**.
2	**CHECK CONTROL MODULE.** With the tester connected, disconnect control module. NOTE: Disconnect the body integrated unit at the end. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Did the voltage change to 5 V or less?	Replace the control module whose voltage has changed. When the value changed at disconnecting the body integrated unit, Go to step **3**.	Repair or replace the short circuit of the harness between body integrated unit and ECM.
3	**CHECK BETWEEN MAIN WIRING HARNESSES.** Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B281) No. 20 — Chassis ground:*** ***(B281) No. 28 — Chassis ground:***	Is the voltage 5 V or less?	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Repair or replace the short circuit of the harness between VDC CM and body integrated unit.

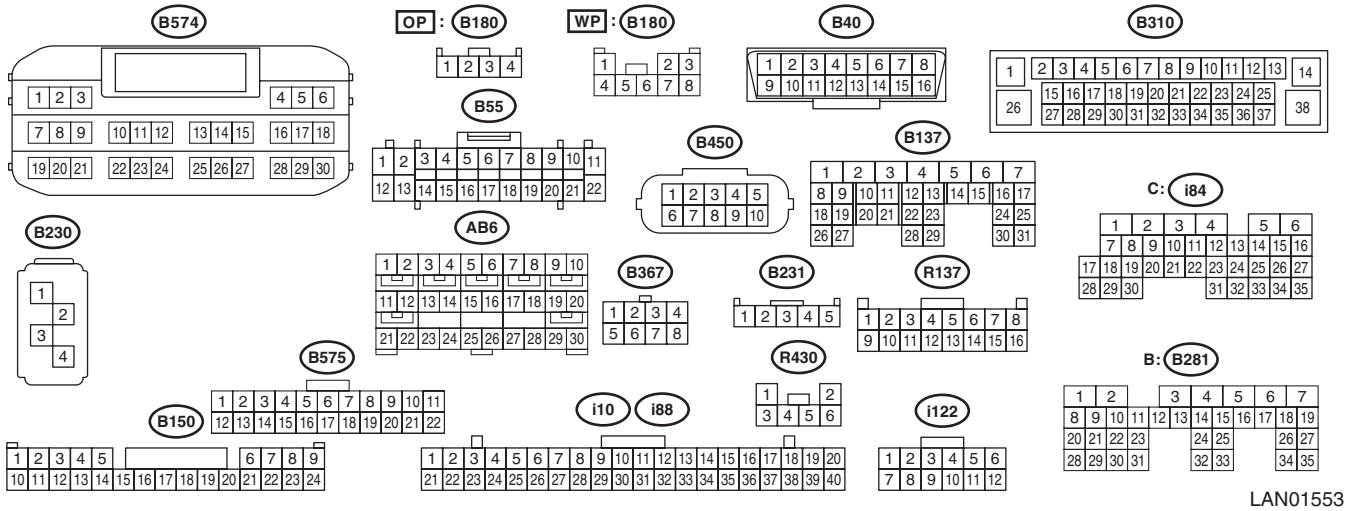
3. 53 — 61 Ω

WIRING DIAGRAM:

CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

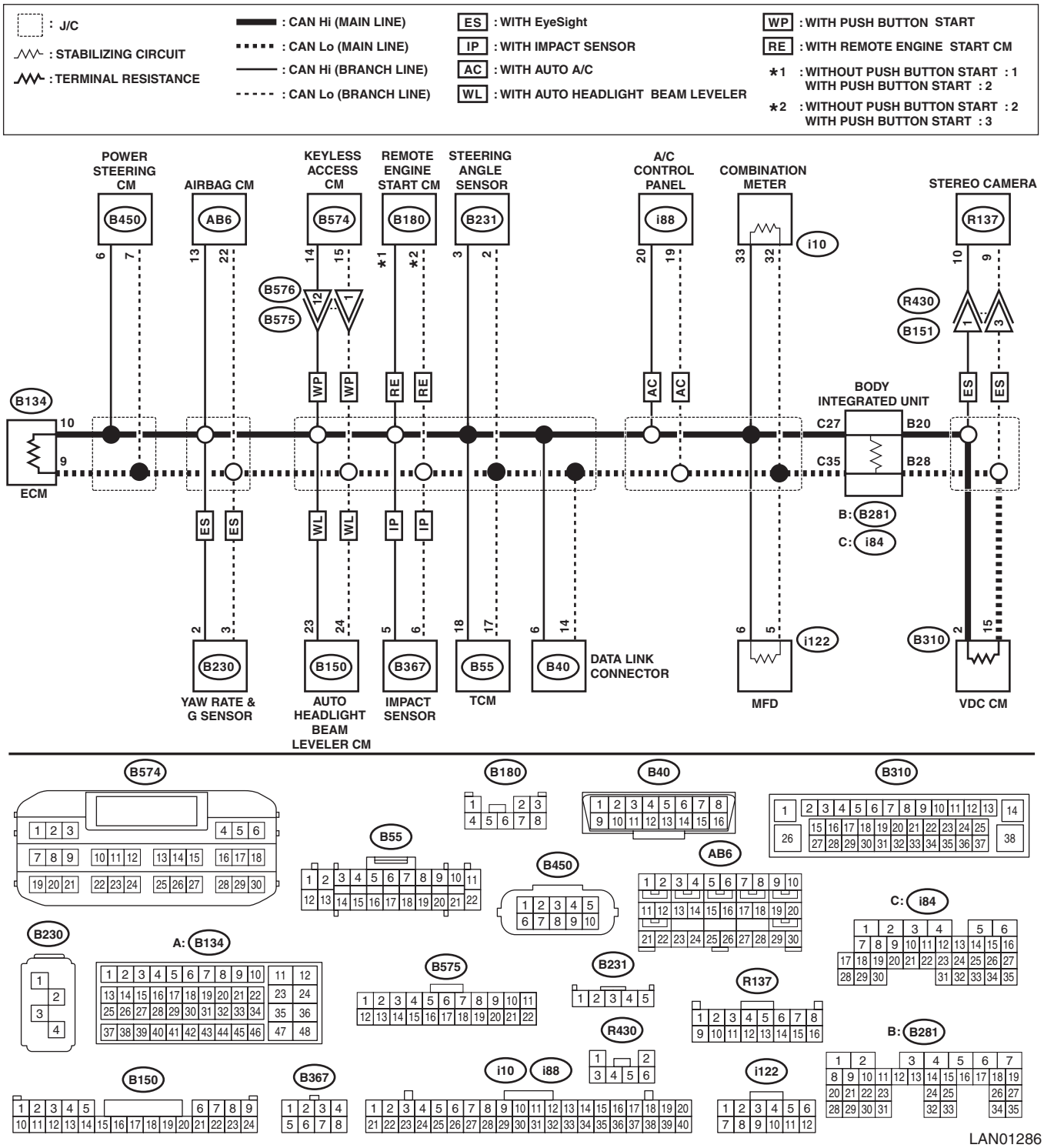
- Non-turbo model





LAN01553

- Turbo model



LAN01286

NOTE:
When the measured resistance value is 53 — 61 Ω, main wiring harness or related lines may be shorted to ground, or shorted to power supply line, or related line may be open.

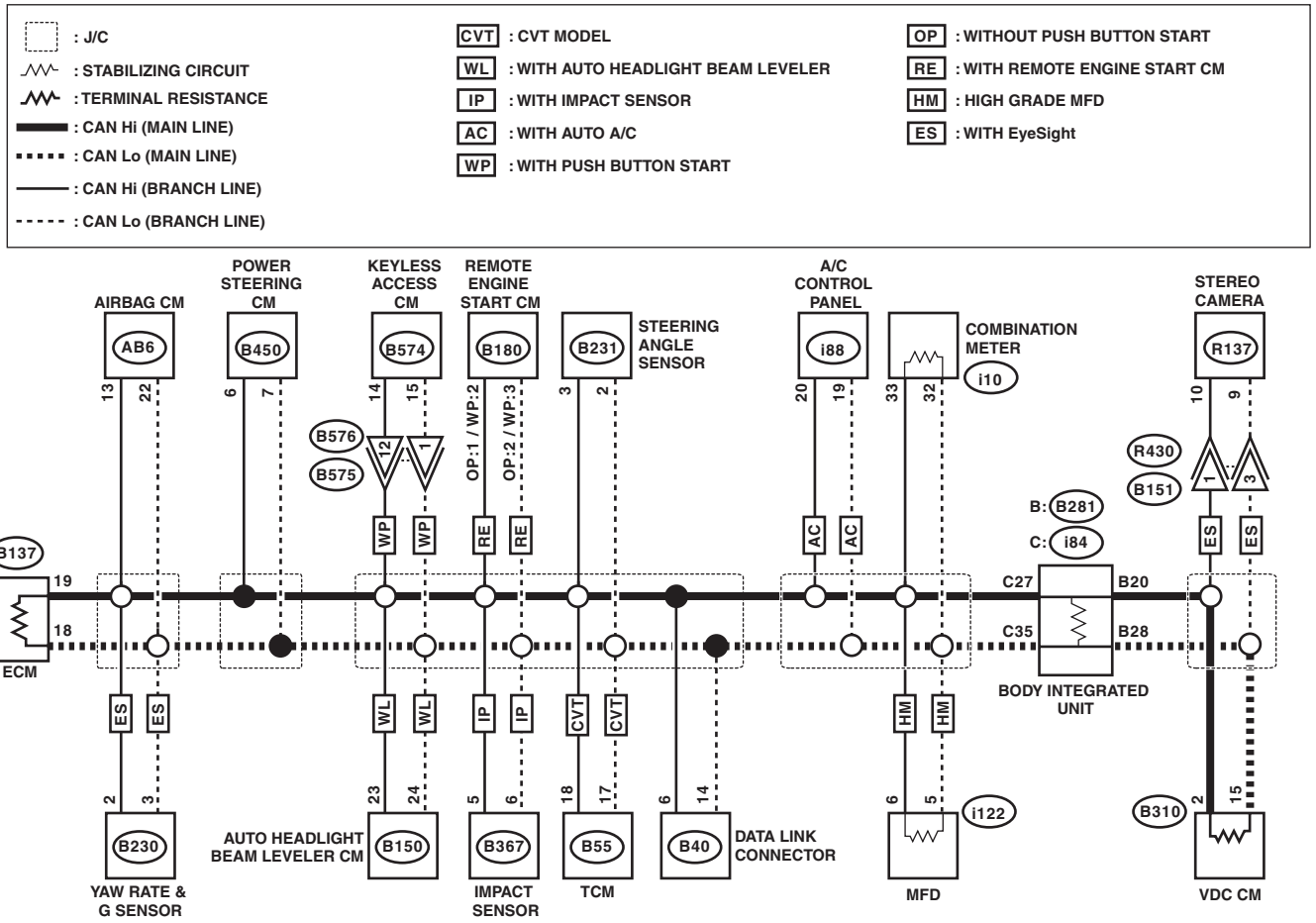
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Is the resistance 10 Ω or less?	Go to step **2**.	Go to step **4**.
2	**CHECK CONTROL MODULE.** With the tester connected, disconnect control module. NOTE: Disconnect the body integrated unit at the end. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Did the resistance change to 10 Ω or more?	Replace the control module whose resistance has changed. When the value changed at disconnecting the body integrated unit, Go to step **3**.	Repair or replace the short circuit of the harness between body integrated unit and ECM.
3	**CHECK MAIN WIRING HARNESS AND RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B281) No. 20 — Chassis ground:*** ***(B281) No. 28 — Chassis ground:***	Is the resistance 10 Ω or less?	Repair or replace the short circuit of the harness between VDC CM and body integrated unit.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>
4	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Is the voltage 5 V or less?	CAN communication circuit is normal.	Go to step **5**.
5	**CHECK CONTROL MODULE.** With the tester connected, disconnect control module. NOTE: Disconnect the body integrated unit at the end. ***Connector & terminal*** ***(B40) No. 6 — Chassis ground:*** ***(B40) No. 14 — Chassis ground:***	Did the voltage change to 5 V or less?	Replace the control module whose voltage has changed. When the value changed at disconnecting the body integrated unit, Go to step **6**.	Repair or replace the short circuit of the harness between body integrated unit and ECM.
6	**CHECK HARNESS.** Using a tester, measure the voltage between terminals and chassis ground. ***Connector & terminal*** ***(B281) No. 20 — Chassis ground:*** ***(B281) No. 28 — Chassis ground:***	Is the voltage 5 V or less?	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Repair or replace the short circuit of the harness between VDC CM and body integrated unit.

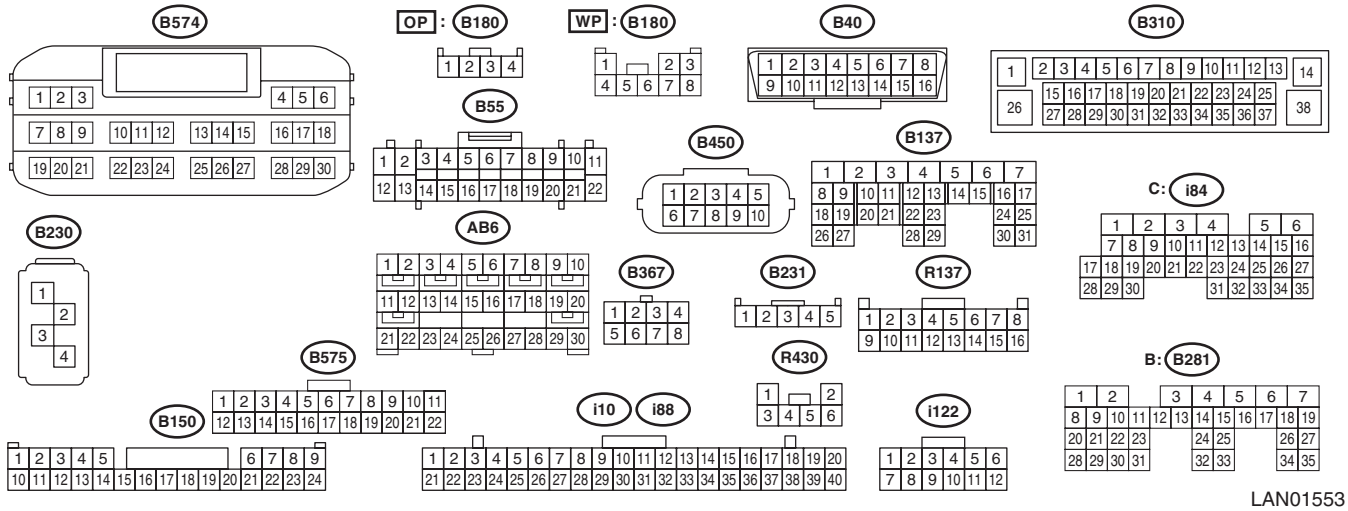
4. 52 Ω OR LESS

WIRING DIAGRAM:

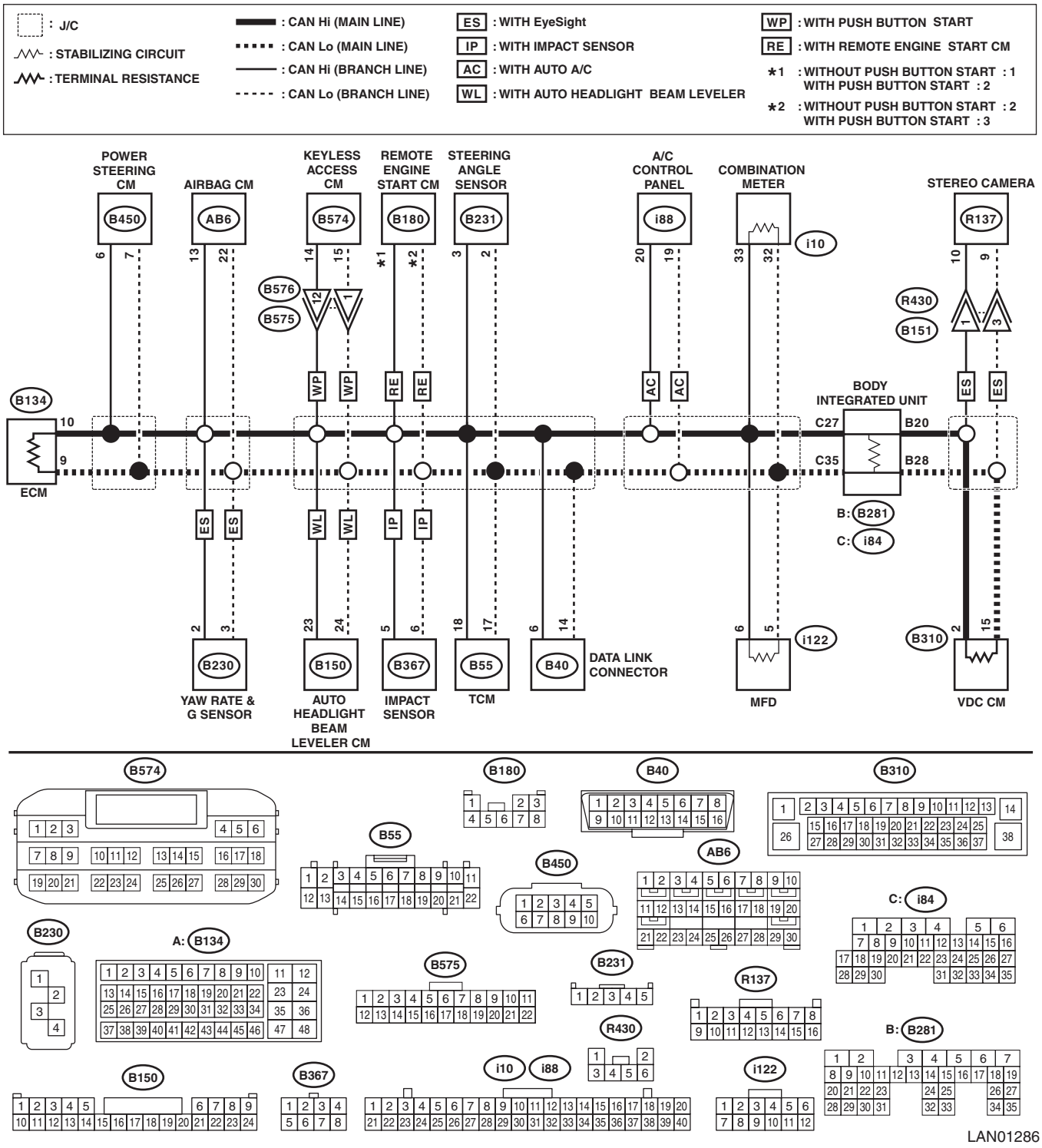
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model



NOTE:
When the bus line is measured, combined resistance of end resistance (120 Ω) in ECM and end resistance (120 Ω) in VDC CM can be measured. The combined resistance is approximately 53 — 61 Ω with the stabilizing circuit included. When the measured resistance value is 52 Ω or less, main wiring harness or related lines may be shorted, or combined resistance may have changed because resistance other than end resistance is created on the circuit.

	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B40) No. 6 — No. 14:***	Is the resistance 10 Ω or less?	Go to step **2**.	Go to step **4**.
2	**CHECK MAIN WIRING HARNESS AND RELATED LINES.** With a tester connected, disconnect control module connectors in order. NOTE: Disconnect the body integrated unit at the end. ***Connector & terminal*** ***(B40) No. 6 — No. 14:***	Is there any control module whose condition has changed from short state?	Replace the control module whose resistance has changed. When the value changed at disconnecting the body integrated unit, Go to step **3**.	Repair or replace the short circuit of the harness between body integrated unit and ECM.
3	**CHECK BETWEEN MAIN WIRING HARNESSES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B281) No. 20 — No. 28:***	Is the resistance 10 Ω or less?	Repair or replace the short circuit of the harness between VDC CM and body integrated unit.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>
4	**CHECK CONTROL MODULE.** 1) Disconnect ECM and VDC CM connectors. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(B137) No. 19 — No. 18 (non-turbo model):*** ***(B134) No. 9 — No. 10 (turbo model):*** ***(B310) No. 2 — No. 15:***	Is the resistance 114 — 126 Ω?	Go to step **5**.	Replace the control module whose end resistance value is out of the specified range.
5	**CHECK CONTROL MODULE.** 1) Disconnect the connector of body integrated unit. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(B281) No. 28 — (i84) No. 27:*** ***(B281) No. 20 — (i84) No. 35:***	Is the resistance 2,850 — 3,150 Ω?	Go to step **6**.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>
6	**CHECK CONTROL MODULE.** Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(B281) No. 28 — (i84) No. 35:*** ***(B281) No. 20 — (i84) No. 27:***	Is the resistance less than 1 Ω?	Go to step **7**.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>
7	**CHECK CONTROL MODULE.** 1) Disconnect the combination meter connector. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(i10) No. 32 — No. 33:***	Is the resistance 2,850 — 3,150 Ω?	Go to step **8**.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>
8	**CHECK CONTROL MODULE (ONLY FOR MODELS WITH HIGH GRADE MFD).** 1) Disconnect the MFD connector. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(i122) No. 5 — No. 6:***	Is the resistance 2,850 — 3,150 Ω?	Go to step **9**.	Replace the MFD.<Ref. to IDI-25, REMOVAL, Multi-function Display (MFD).>

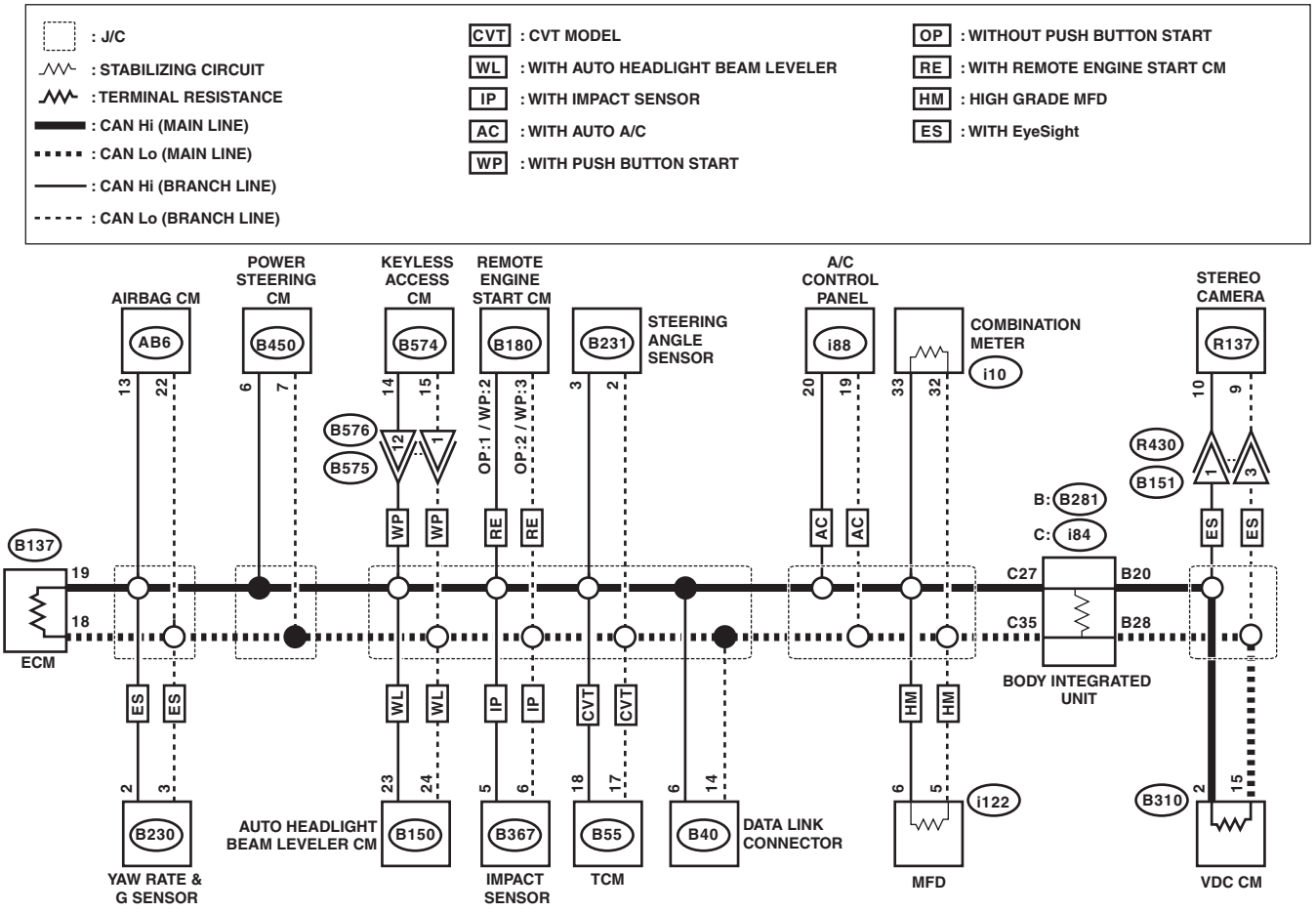
Step		Check	Yes	No
9	**CHECK HARNESS.** Using the tester, check the short circuit portion of each harness. ***Connector & terminal*** ***(B281) No. 28 — No. 20:***	Is the resistance 1 MΩ or more?	Go to step **11**.	Go to step **10**.
10	**CHECK CONTROL MODULE.** With a tester connected, disconnect control modules in order. ***Connector & terminal*** ***(B281) No. 28 — No. 20:***	Are there any control modules whose resistance changed to 1 MΩ or more?	Replace the control module that has changed.	Repair or replace the harness part which has resistance component.
11	**CHECK CONTROL MODULE.** With a tester connected, disconnect control modules in order. ***Connector & terminal*** ***(i84) No. 27 — No. 35:***	Are there any control modules whose resistance changed to 1 MΩ or more?	Replace the control module that has changed.	Repair or replace the harness part which has resistance component.

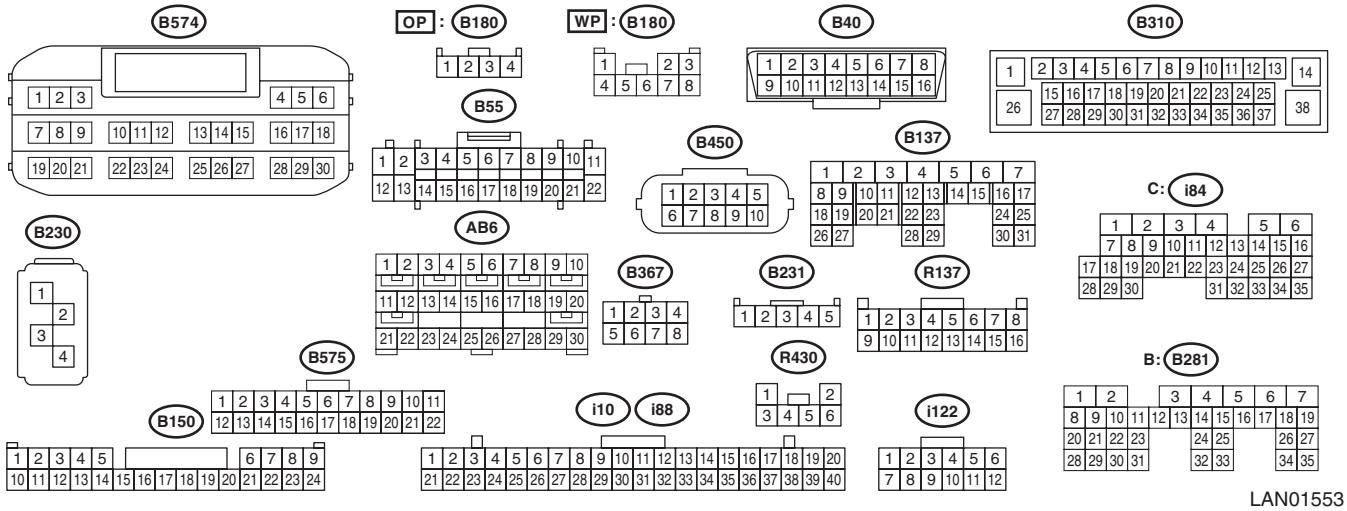
5. 62 Ω OR MORE

WIRING DIAGRAM:

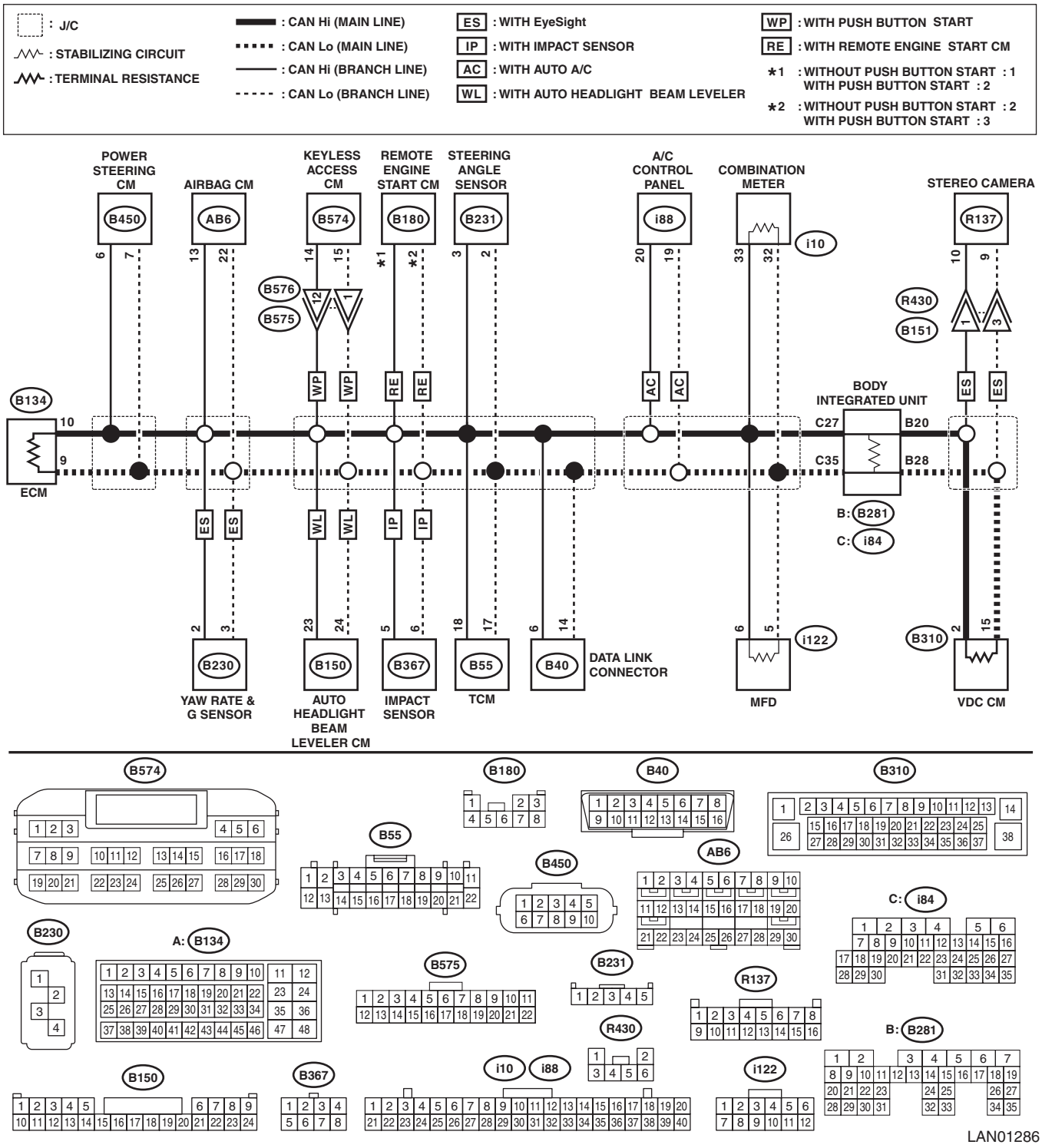
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model



NOTE:
When CAN communication circuit is measured, combined resistance of end resistance (120 Ω) in ECM and end resistance (120 Ω) in VDC CM can be measured. The combined resistance is approximately 53 — 61 Ω with the stabilizing circuit included. When the measured resistance value is 62 Ω or more, either one of the end resistances, or stabilizing circuit, or main wiring harness may have malfunction such as open circuit.

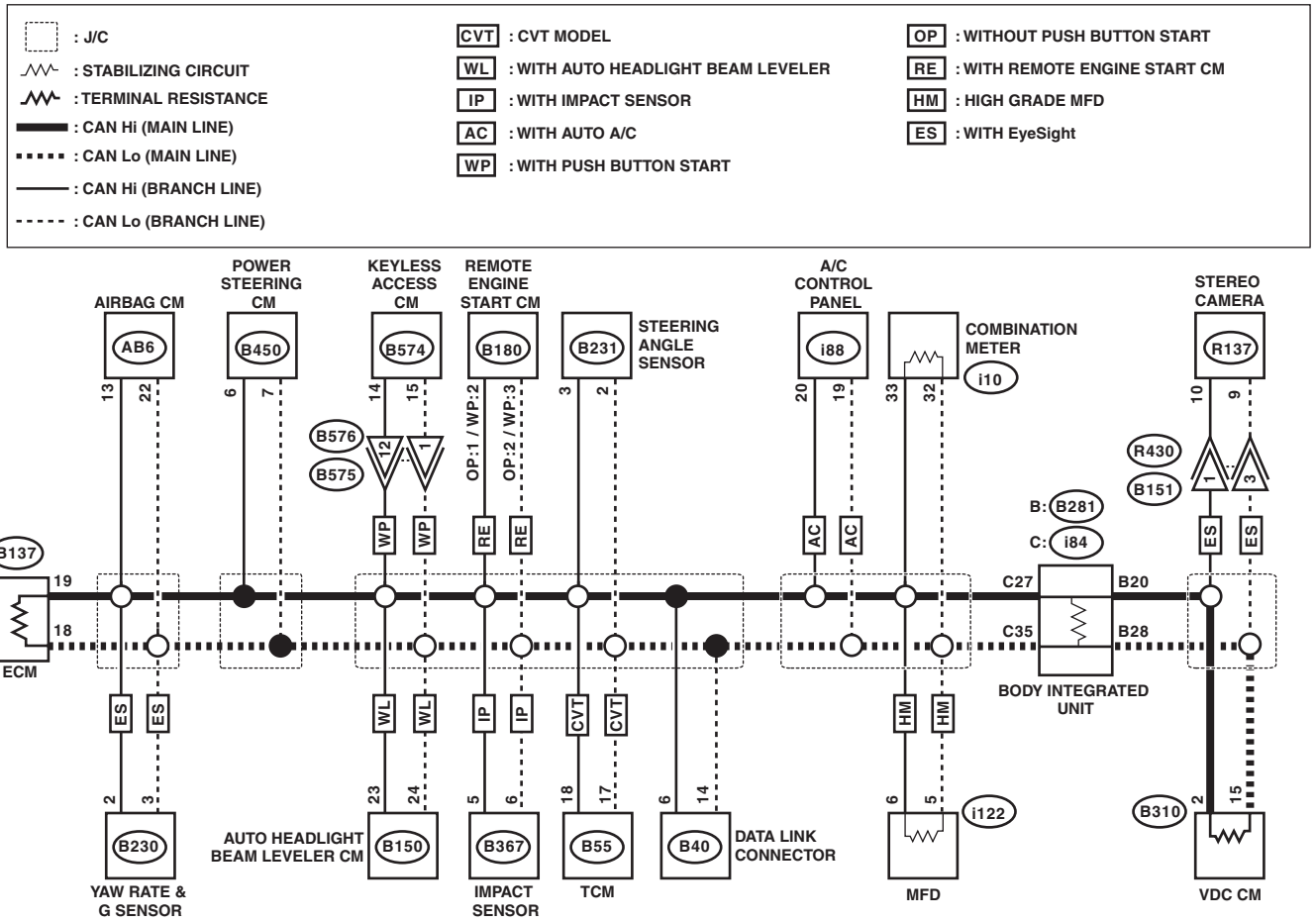
	Step	Check	Yes	No
1	**CHECK CONTROL MODULE.** 1) Disconnect ECM and VDC CM connectors. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(B137) No. 19 — No. 18 (non-turbo model):*** ***(B134) No. 9 — No. 10 (turbo model):*** ***(B310) No. 2 — No. 15:***	Is the resistance 114 — 126 Ω?	Go to step **2**.	Replace the control module whose value is out of the specification.
2	**CHECK CONTROL MODULE.** 1) Disconnect the connector of body control module. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(B281) No. 28 — (i84) No. 27:*** ***(B281) No. 20 — (i84) No. 35:***	Is the resistance 2,850 — 3,150 Ω?	Go to step **3**.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>
3	**CHECK CONTROL MODULE.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B281) No. 28 — (i84) No. 35:*** ***(B281) No. 20 — (i84) No. 27:***	Is the resistance less than 1 Ω?	Go to step **4**.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>
4	**CHECK CONTROL MODULE.** 1) Disconnect the combination meter connector. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(i10) No. 32 — No. 33:***	Is the resistance 2,850 — 3,150 Ω?	Go to step **5**.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>
5	**CHECK CONTROL MODULE (ONLY FOR MODELS WITH HIGH GRADE MFD).** 1) Disconnect the MFD connector. 2) Using a tester, measure the resistance between control module terminals. ***Connector & terminal*** ***(i122) No. 5 — No. 6:***	Is the resistance 2,850 — 3,150 Ω?	Go to step **6**.	Replace the MFD.<Ref. to IDI-25, REMOVAL, Multi-function Display (MFD).>
6	**CHECK HARNESS.** Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B40) No. 6 — (B137) No. 19 (non-turbo model):*** ***(B40) No. 14 — (B137) No. 18 (non-turbo model):*** ***(B40) No. 6 — (B134) No. 10 (turbo model):*** ***(B40) No. 14 — (B134) No. 9 (turbo model):*** ***(B40) No. 6 — (i84) No. 27:*** ***(B40) No. 14 — (i84) No. 35:***	Is there continuity?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B281) No. 20 — (B310) No. 2:*** ***(B281) No. 28 — (B310) No. 15:***	Is there continuity?	It is possible that temporary poor communication occurs.	Repair or replace the open circuit of harness.

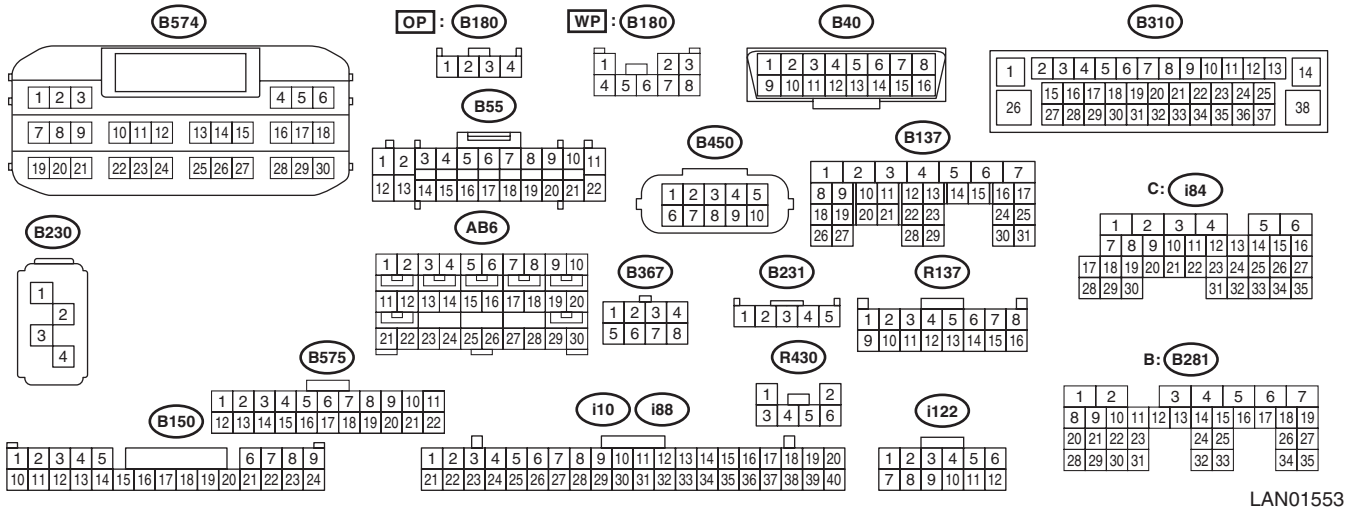
6. RELATED LINES 53 — 61 Ω (TCM)

WIRING DIAGRAM:

CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

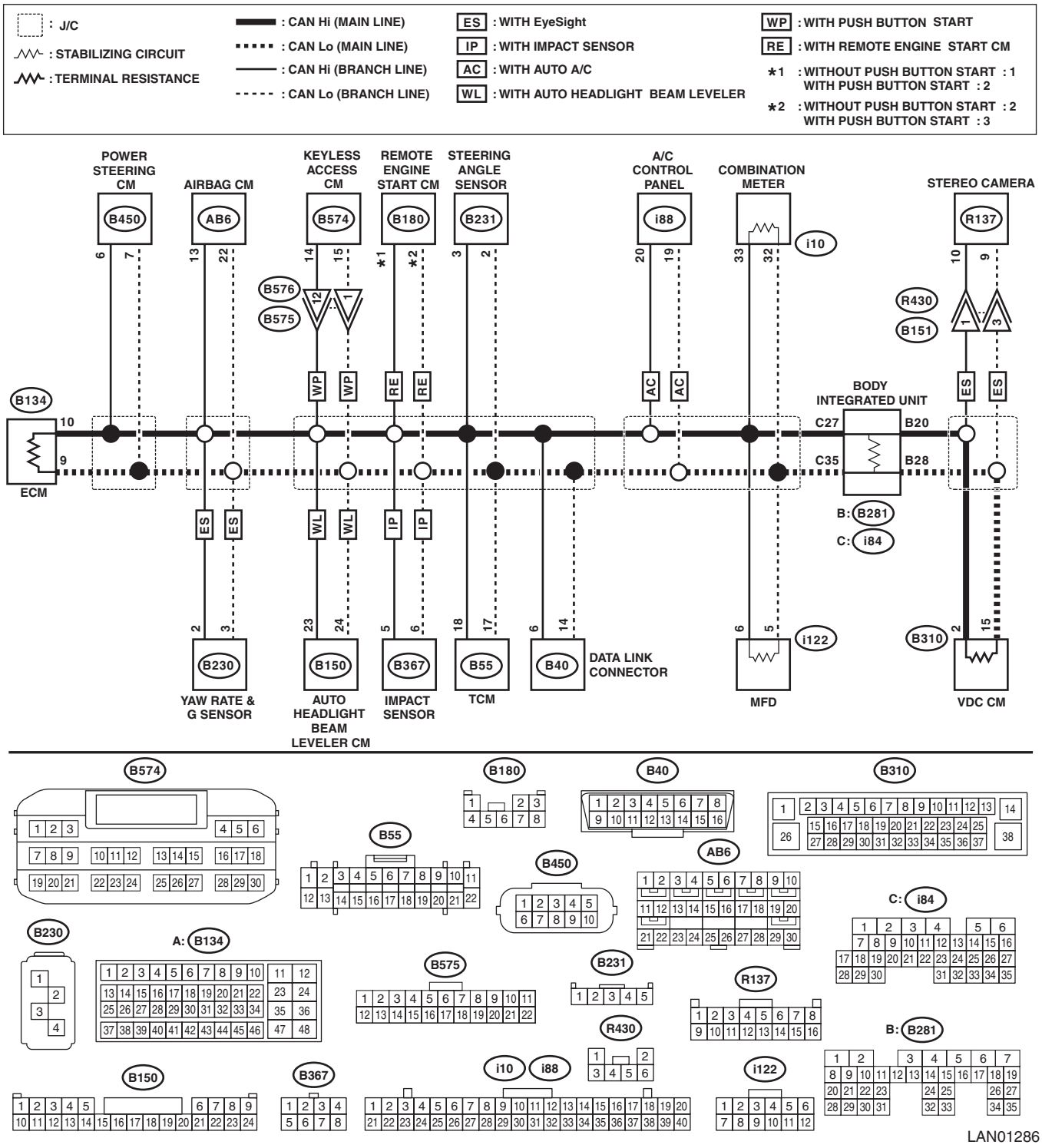
- Non-turbo model





LAN01553

- Turbo model



NOTE:
Perform inspection when no data is received, or faulty is detected. This is different from power supply shorted or ground shorted.

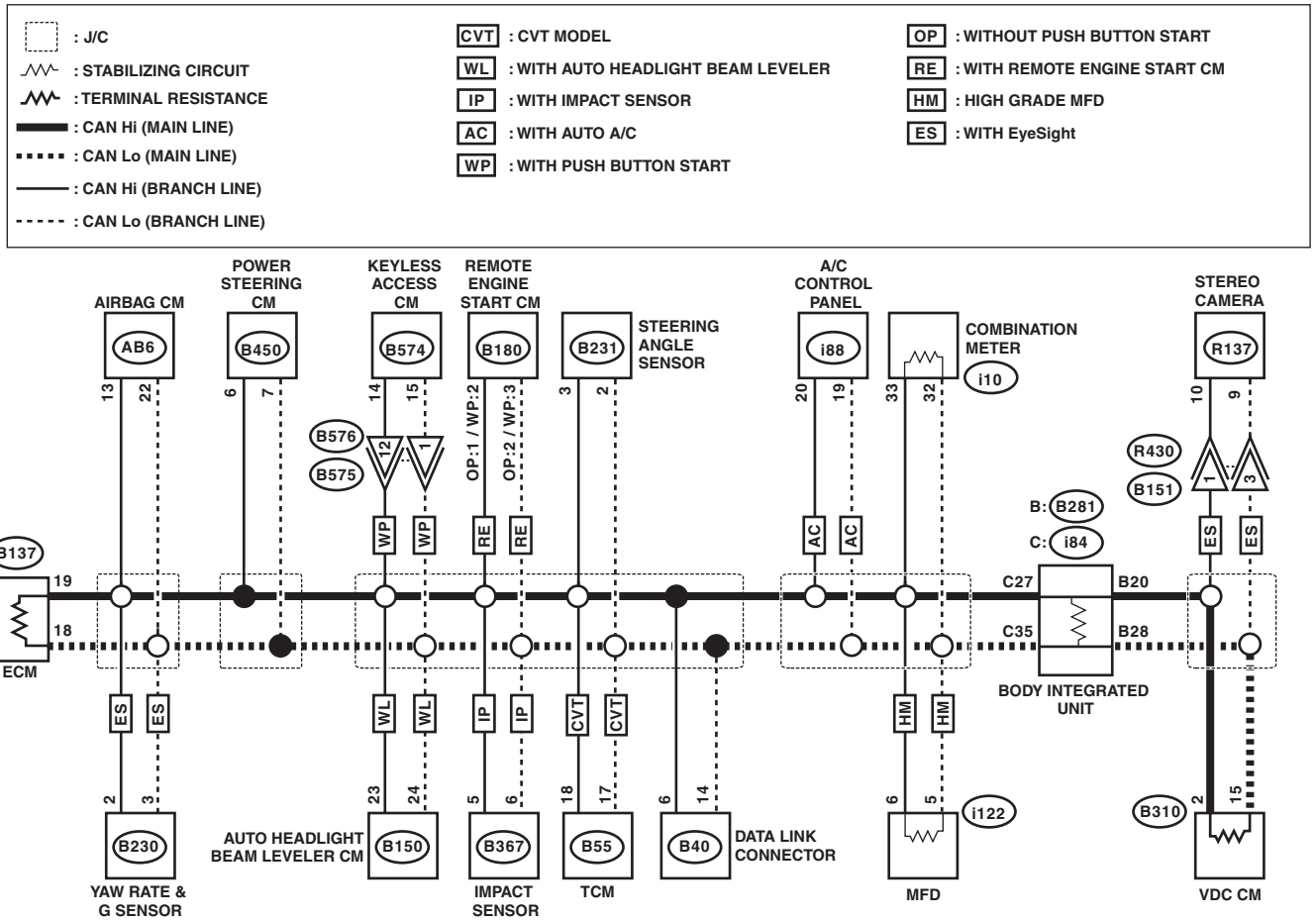
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the TCM connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B55) No. 17 — No. 18:***	Is the resistance 400 Ω or more?	Related lines between TCM and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B55) No. 17 — (B40) No. 14:*** ***(B55) No. 18 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of TCM related lines.	Check DTC of TCM.<Ref. to CVT(diag)-23, OPERATION, Read Diagnostic Trouble Code (DTC).>

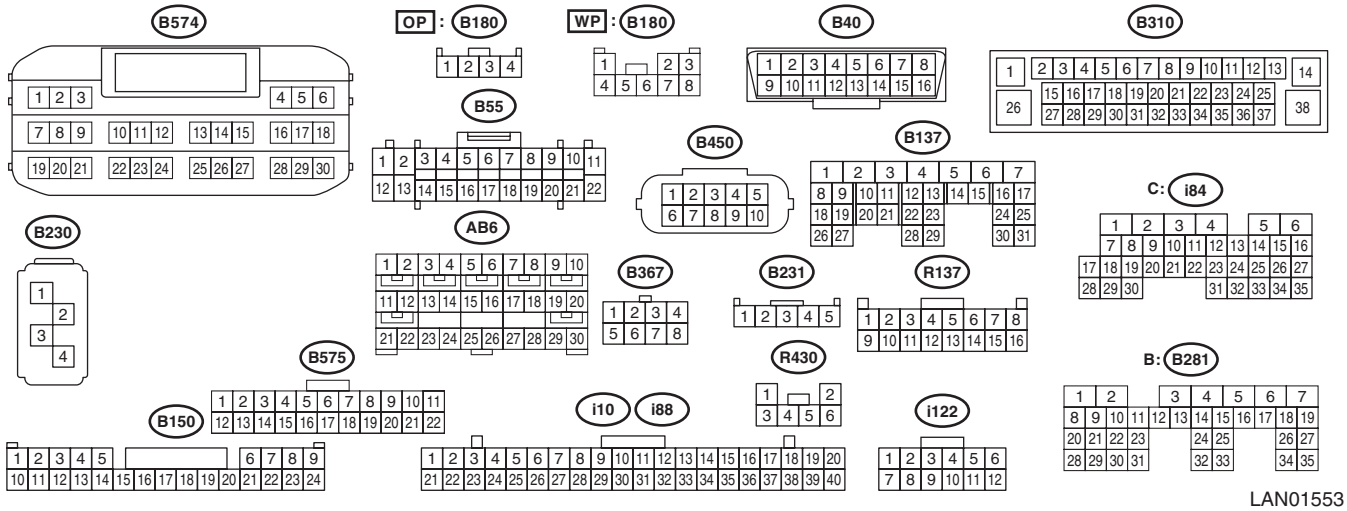
7. RELATED LINES 53 — 61 Ω (STEERING ANGLE SENSOR)

WIRING DIAGRAM:

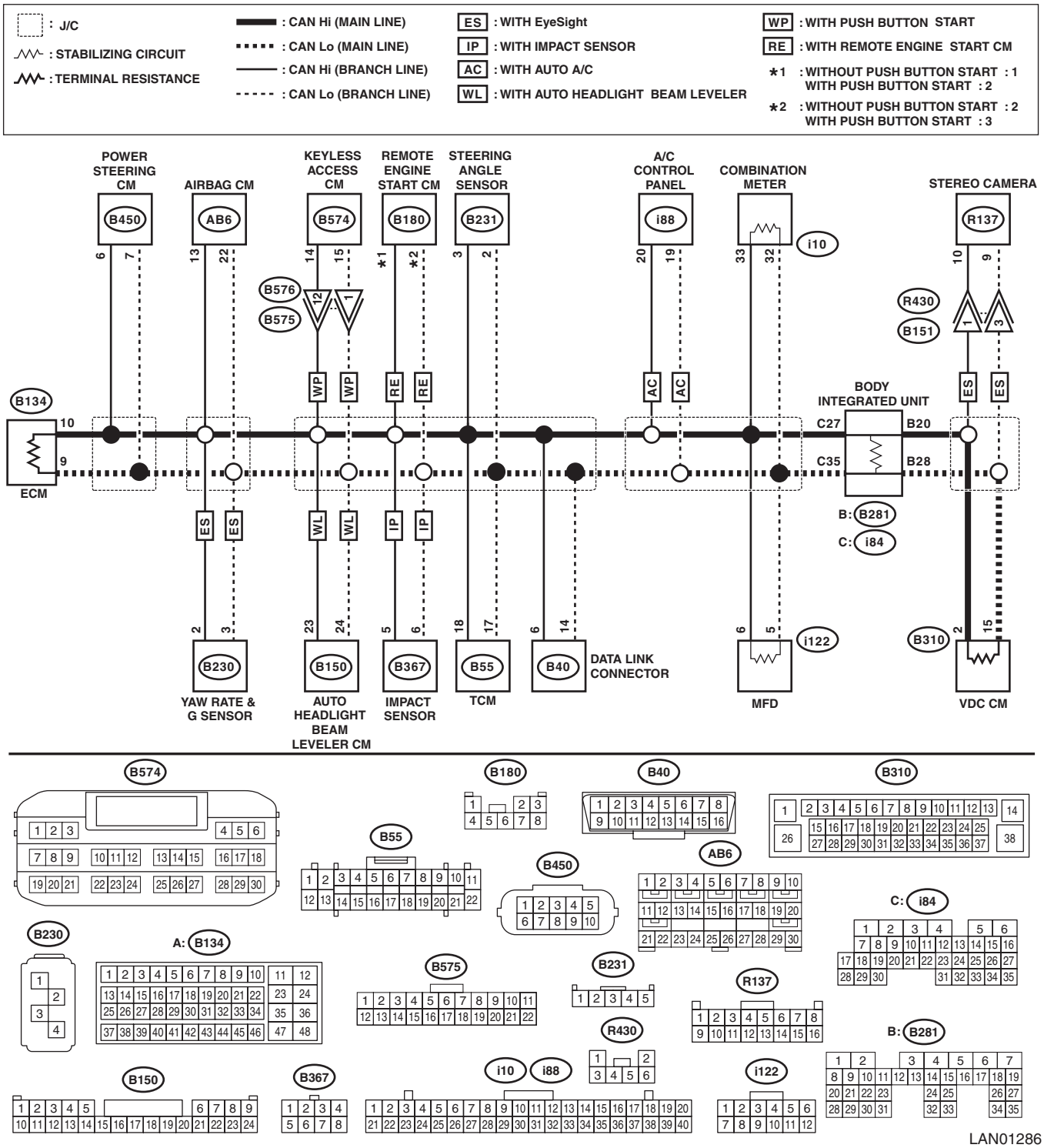
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
B450
AIRBAG CM
AB6
KEYLESS ACCESS CM
B574
REMOTE ENGINE START CM
B180
STEERING ANGLE SENSOR
B231
A/C CONTROL PANEL
i88
COMBINATION METER
i10
STEREO CAMERA
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
B40
DATA LINK CONNECTOR
i122
MFD
B310
VDC CM
LAN01286

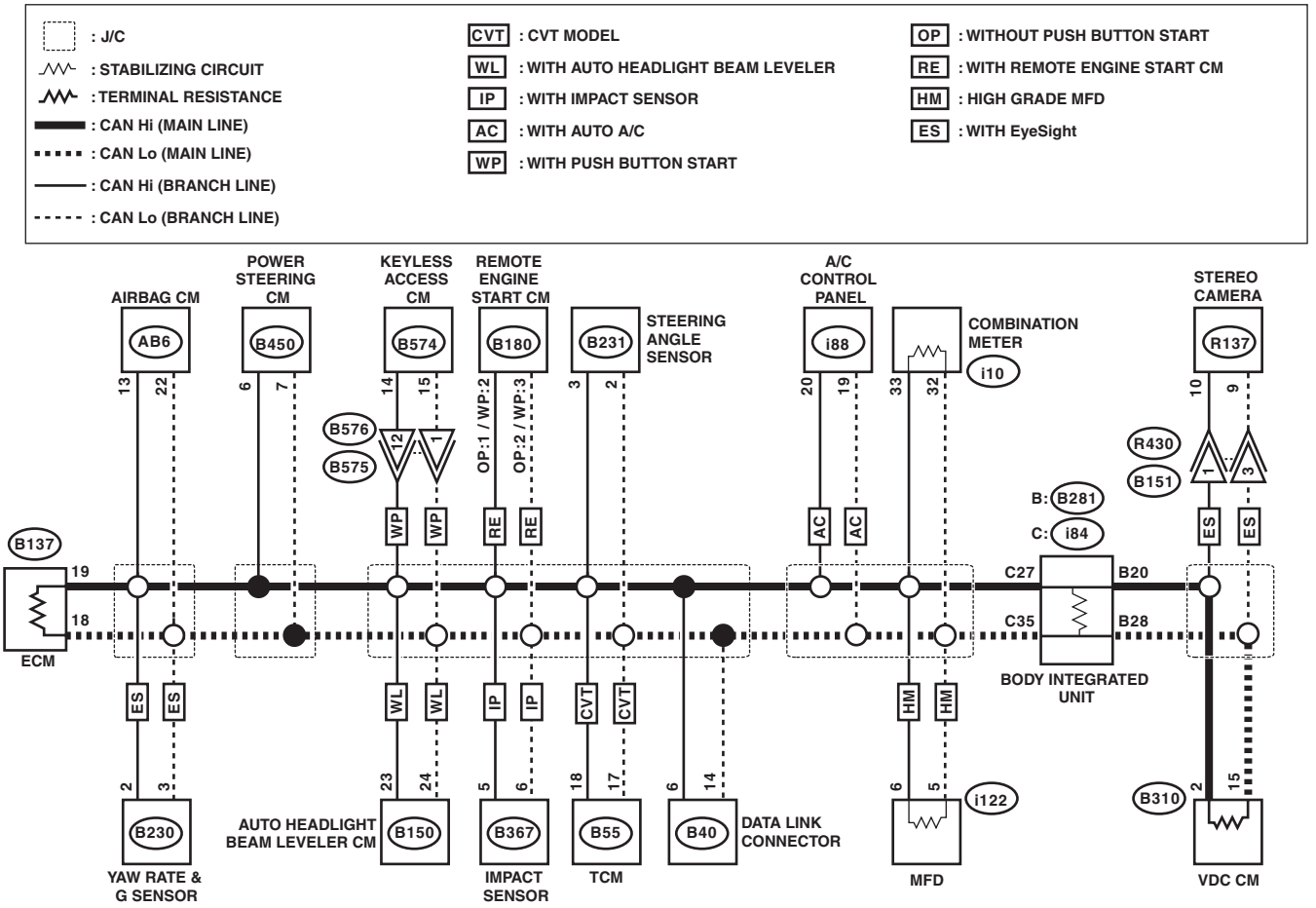
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the steering angle sensor connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B231) No. 2 — No. 3:***	Is the resistance 400 Ω or more?	Related lines between steering angle sensor and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B231) No. 2 — (B40) No. 14:*** ***(B231) No. 3 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of steering angle sensor related lines.	Check DTC of VDC CM.<Ref. to VDC(diag)-21, OPERATION, Read Diagnostic Trouble Code (DTC).>

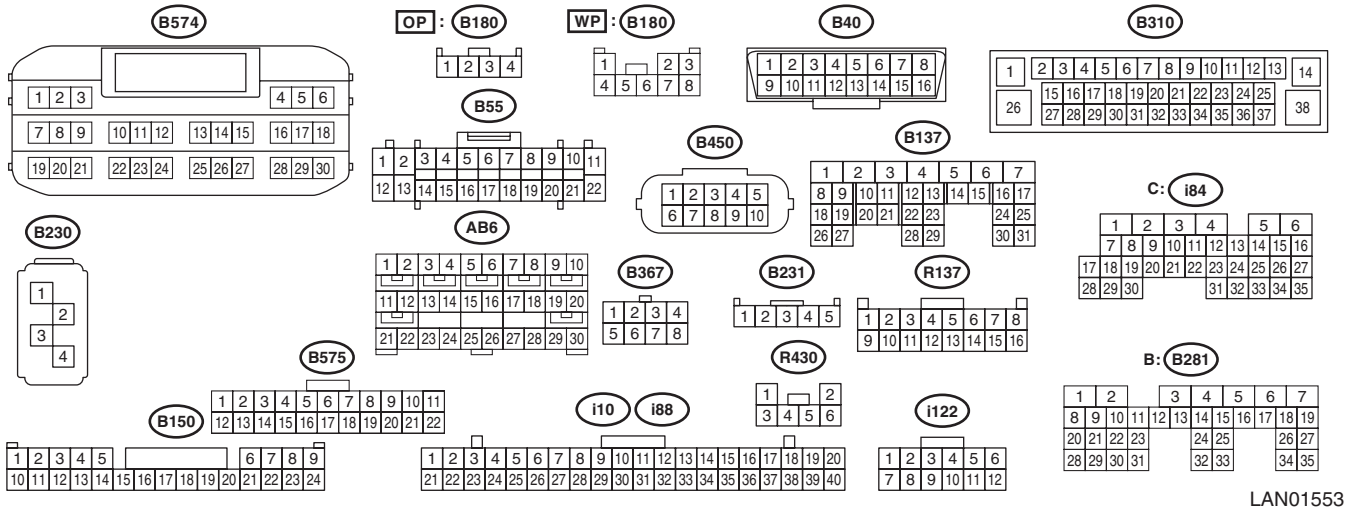
8. RELATED LINE 53 — 61 Ω (A/C CONTROL PANEL)

WIRING DIAGRAM:

CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

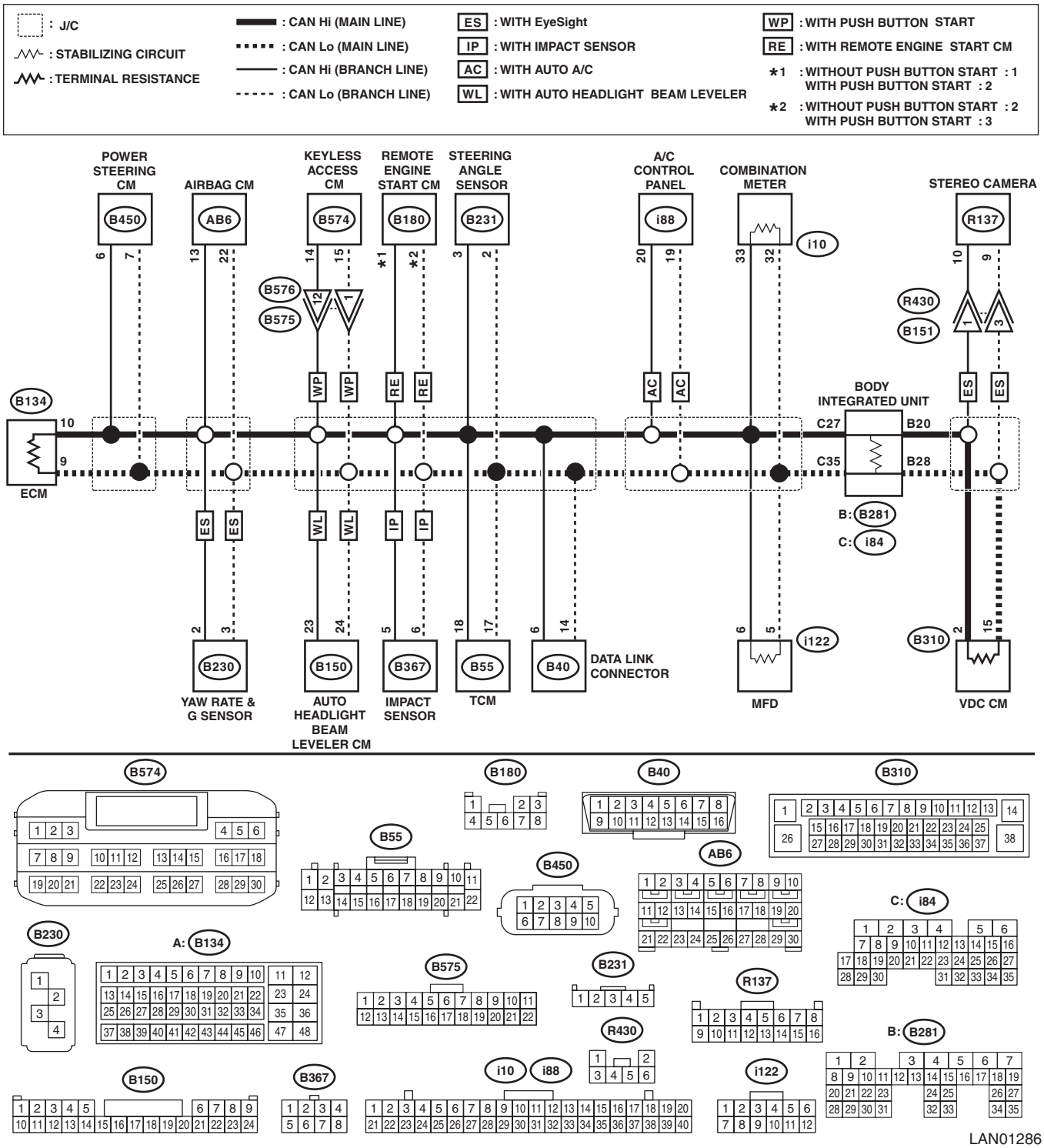
- Non-turbo model





LAN01553

- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
B450
AIRBAG CM
AB6
KEYLESS ACCESS CM
B574
REMOTE ENGINE START CM
B180
STEERING ANGLE SENSOR
B231
A/C CONTROL PANEL
i88
COMBINATION METER
i10
STEREO CAMERA
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
DATA LINK CONNECTOR
B40
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
i122
MFD
B310
VDC CM
A: B134
B574
B180
B40
B310
B55
B450
AB6
C: i84
B230
B575
B231
R137
R430
B: B281
B150
B367
i10
i88
i122
LAN01286

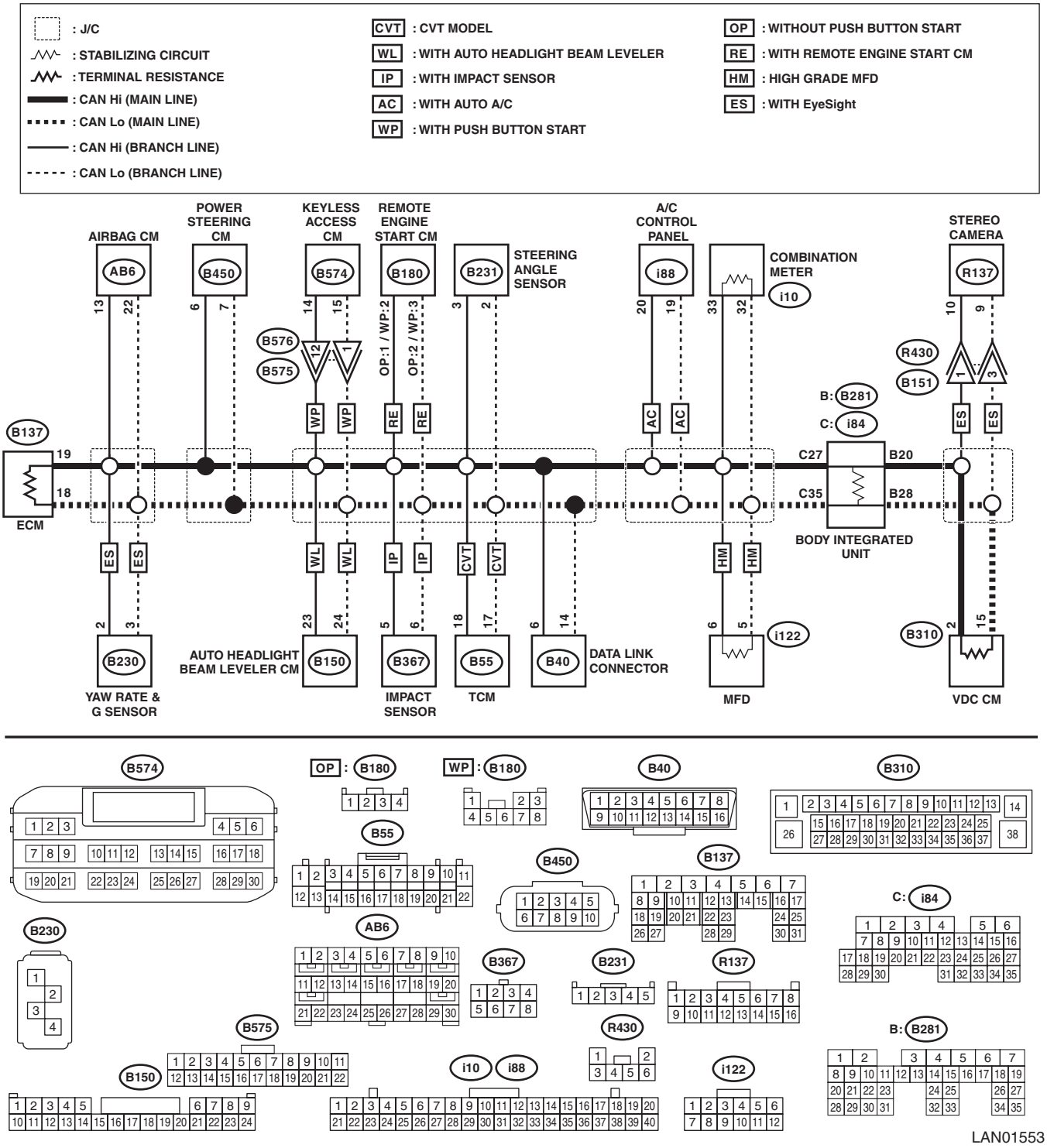
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the A/C control panel connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i88) No. 19 — No. 20:***	Is the resistance 400 Ω or more?	Related lines between A/C control panel and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i88) No. 19 — (B40) No. 14:*** ***(i88) No. 20 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit of A/C control panel related lines.	Check the DTC of A/C control panel.<Ref. to AC(diag)-42, Read Diagnostic Trouble Code (DTC).>

9. RELATED LINES 53 — 61 Ω (ELECTRIC POWER STEERING CM)

WIRING DIAGRAM:

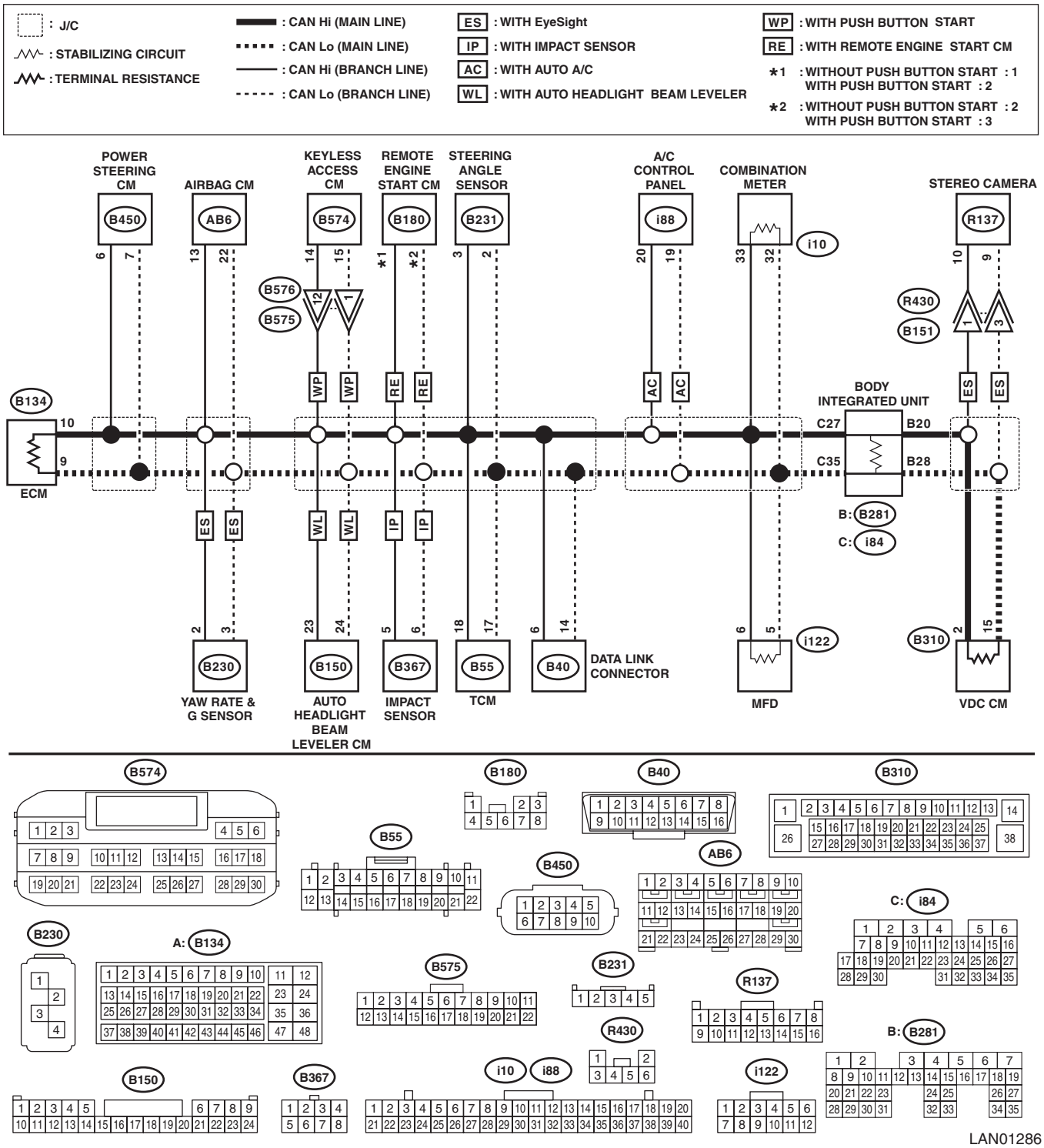
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model



LAN01553

- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
B450
AIRBAG CM
AB6
KEYLESS ACCESS CM
B574
REMOTE ENGINE START CM
B180
STEERING ANGLE SENSOR
B231
A/C CONTROL PANEL
i88
COMBINATION METER
i10
STEREO CAMERA
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
B40
DATA LINK CONNECTOR
i122
MFD
B310
VDC CM
LAN01286

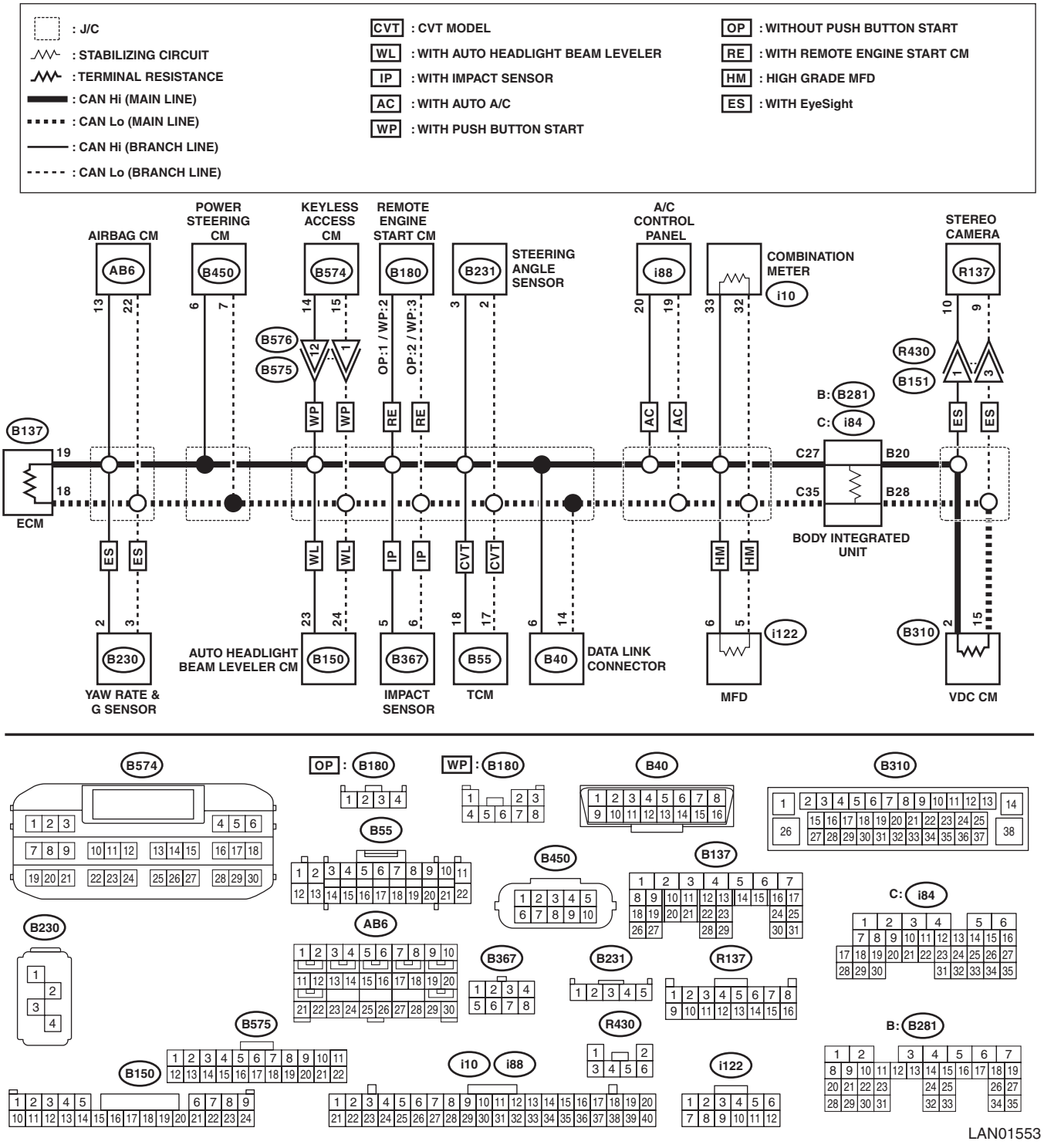
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the electric power steering CM connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B450) No. 6 — No. 7:***	Is the resistance 400 Ω or more?	Related lines between electric power steering CM and main wiring harness, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B450) No. 6 — (B40) No. 6:*** ***(B450) No. 7 — (B40) No. 14:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of electric power steering CM related lines.	Check DTC of electric power steering CM.<Ref. to PS(diag)-15, OPERATION, Read Diagnostic Trouble Code (DTC).>

10.RELATED LINES 53 — 61 Ω (COMBINATION METER)

WIRING DIAGRAM:

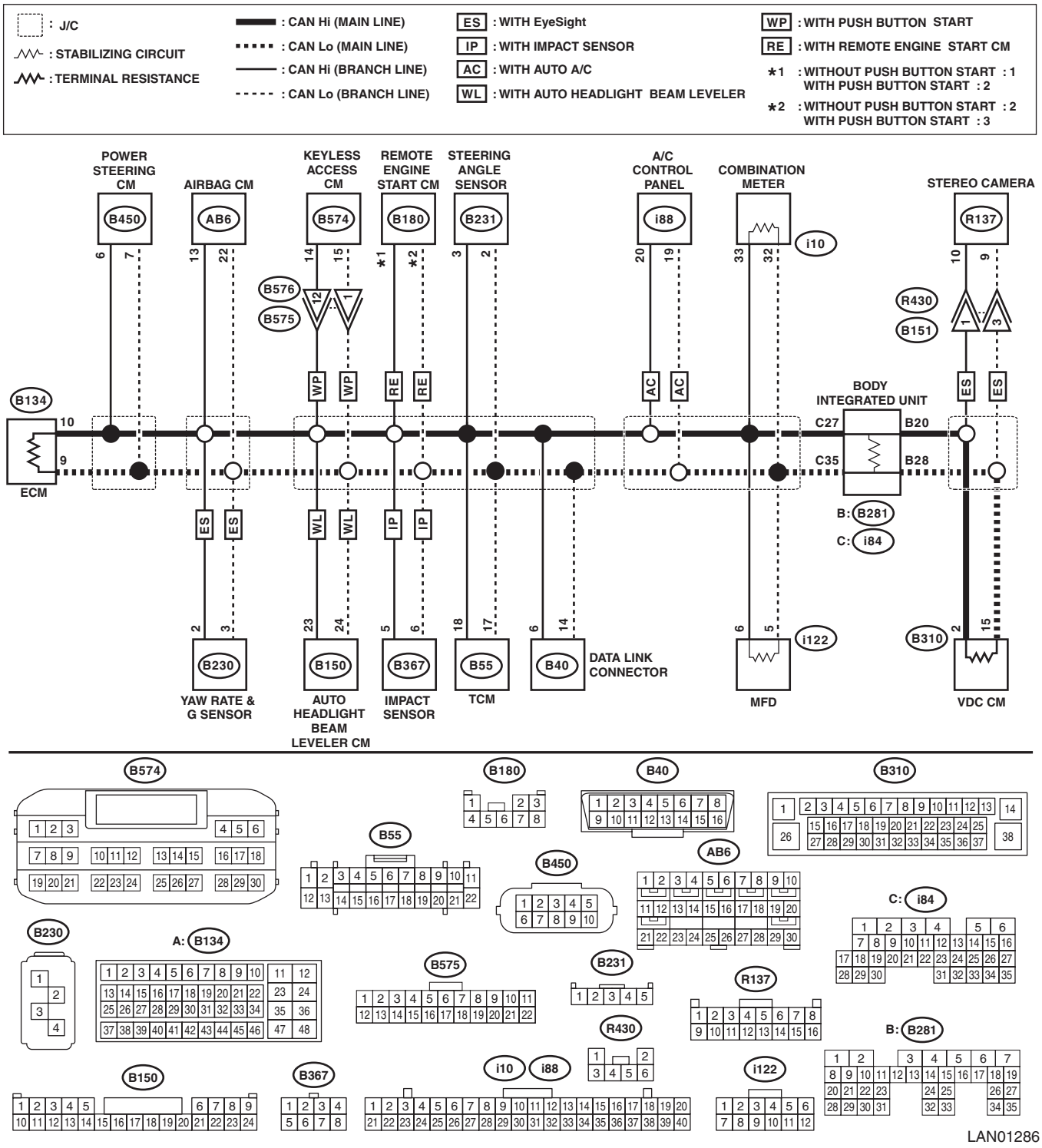
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model



LAN01553

- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
AIRBAG CM
KEYLESS ACCESS CM
REMOTE ENGINE START CM
STEERING ANGLE SENSOR
A/C CONTROL PANEL
COMBINATION METER
STEREO CAMERA
B450
AB6
B574
B180
B231
i88
i10
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
B40
DATA LINK CONNECTOR
i122
MFD
B310
VDC CM
LAN01286

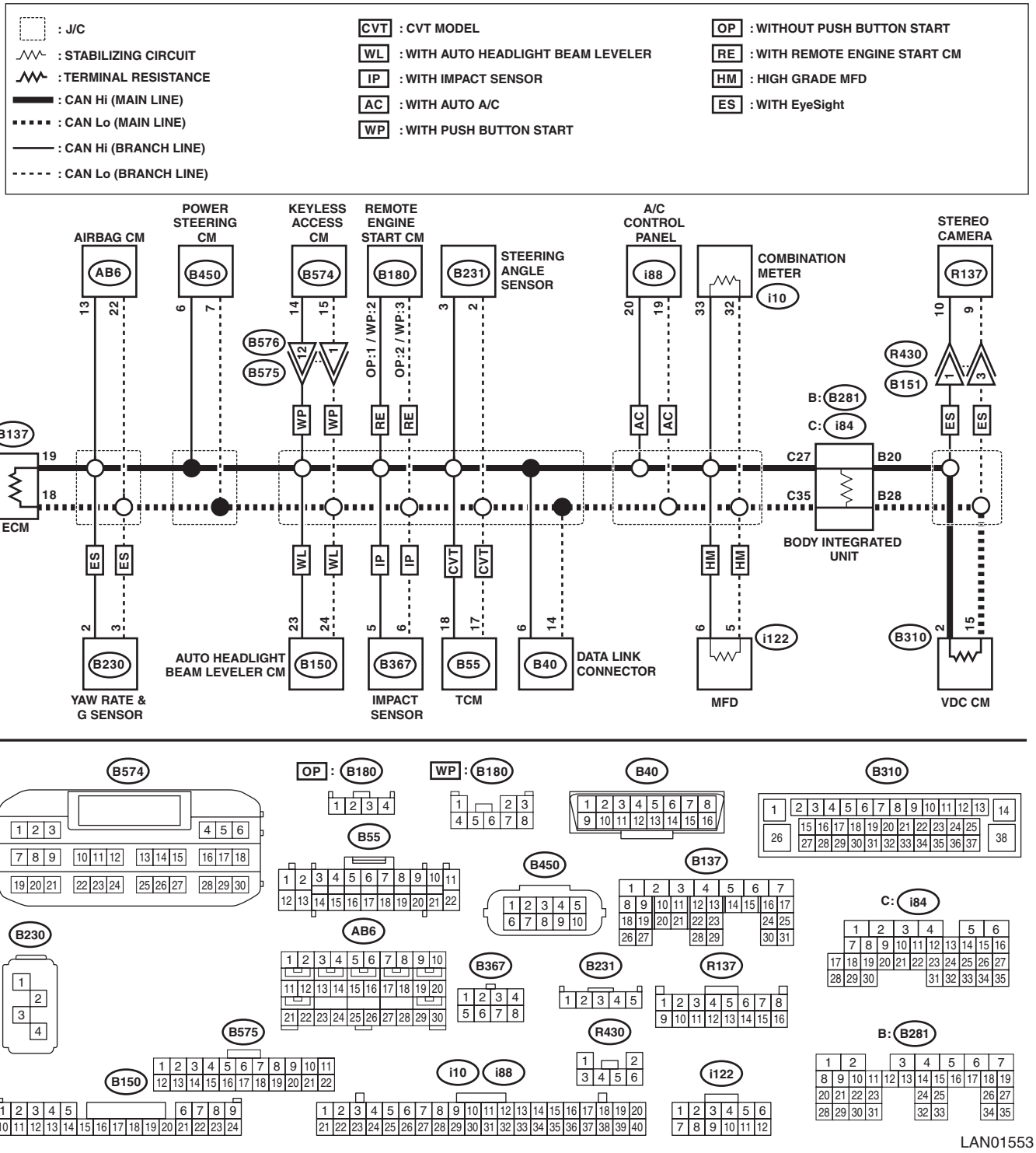
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the combination meter connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i10) No. 32 — No. 33:***	Is the resistance 400 Ω or more?	Related lines between combination meter and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i10) No. 32 — (B40) No. 14:*** ***(i10) No. 33 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of combination meter related lines.	Check DTC of combination meter.<Ref. to IDI(diag)-14, OPERATION, Read Diagnostic Trouble Code (DTC).>

11.RELATED LINES 53 — 61 Ω (MFD)

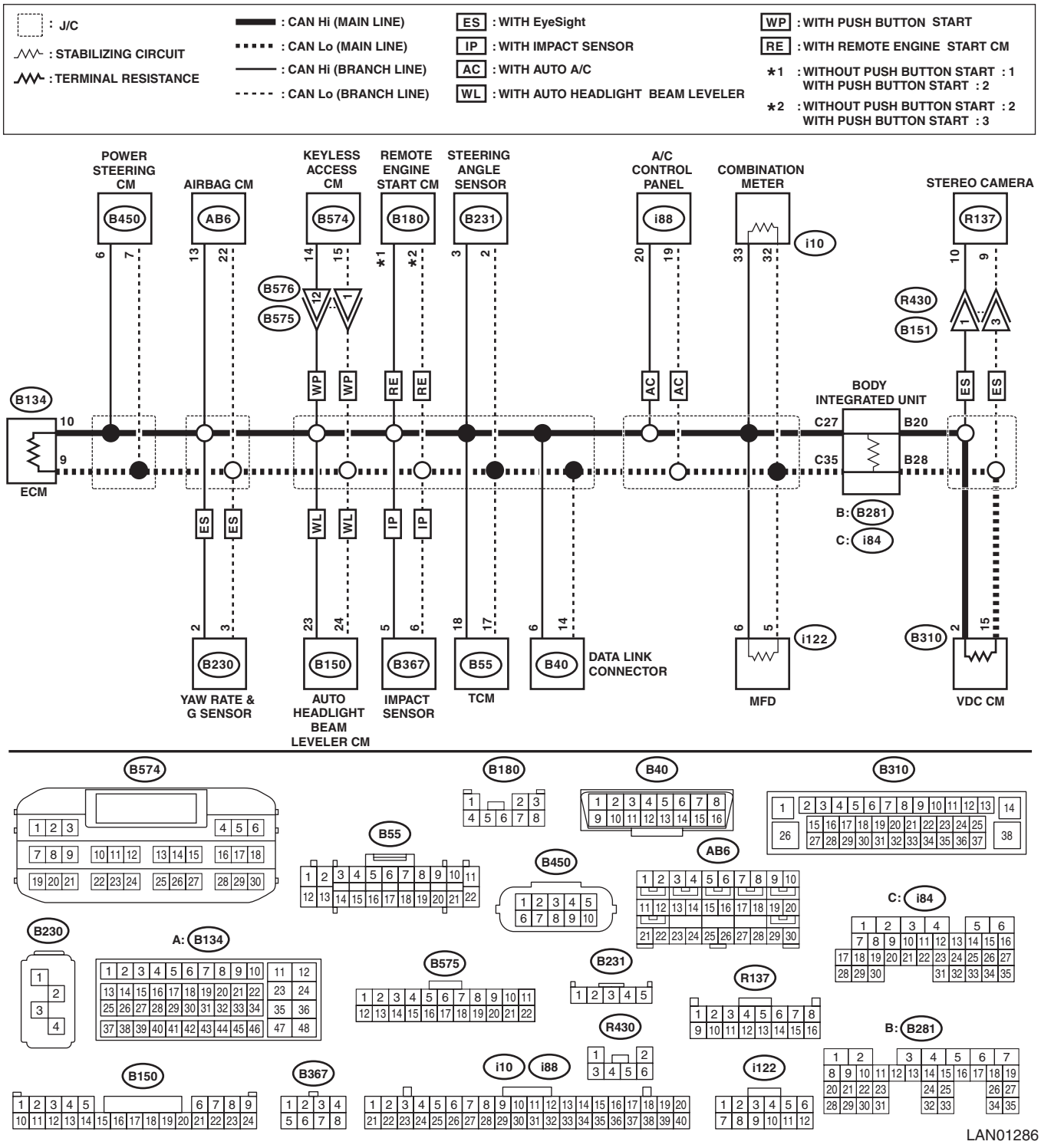
WIRING DIAGRAM:

CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model



- Turbo model



LAN01286

Step		Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the MFD connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal (i122) No. 5 — No. 6:***	Is the resistance 400 Ω or more?	Related lines between MFD and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.

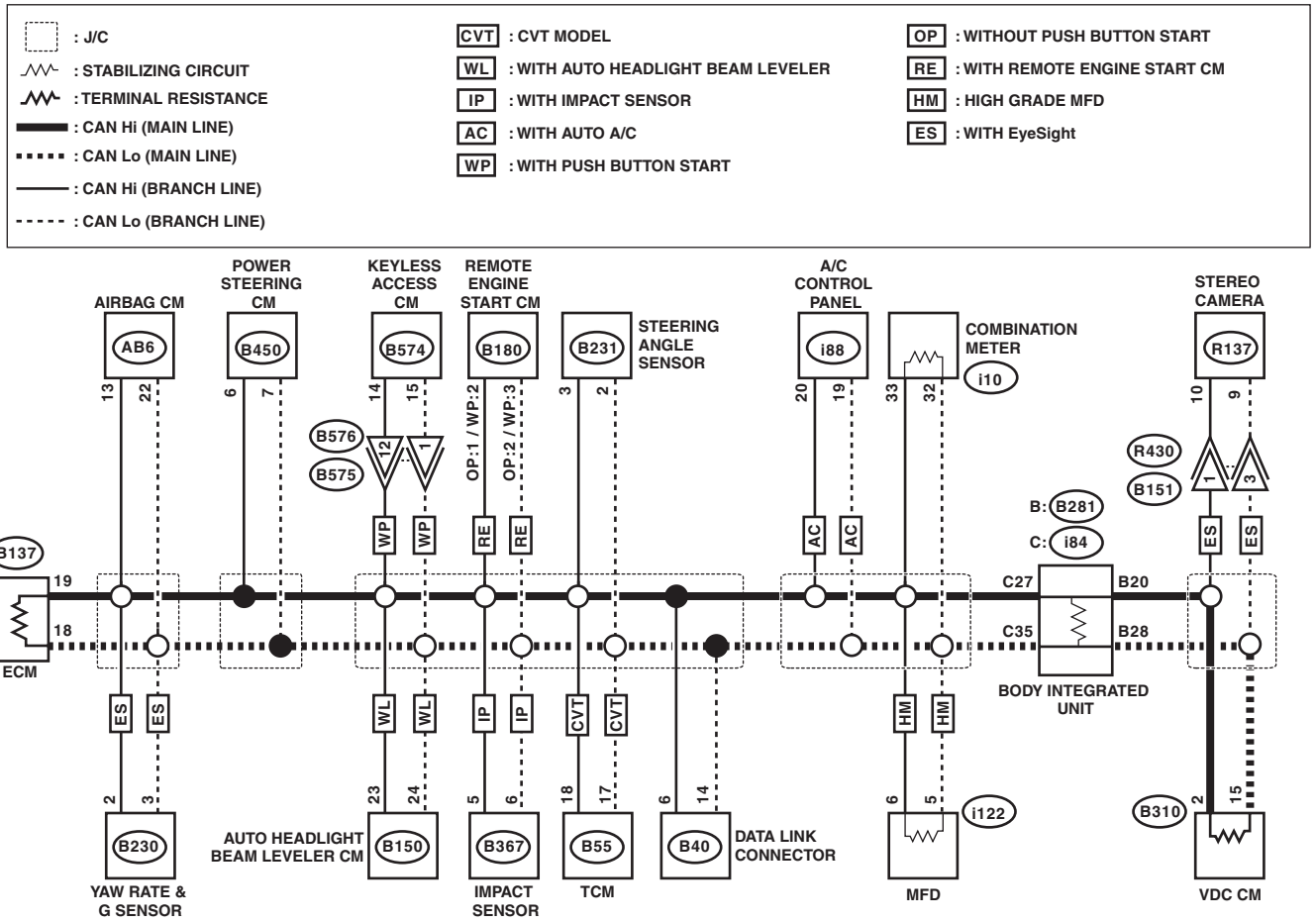
Step		Check	Yes	No
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i122) No. 5 — (B40) No. 14:*** ***(i122) No. 6 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit of MFD related lines.	Check DTC of MFD.<Ref. to IDI(diag)-14, OPERATION, Read Diagnostic Trouble Code (DTC).>

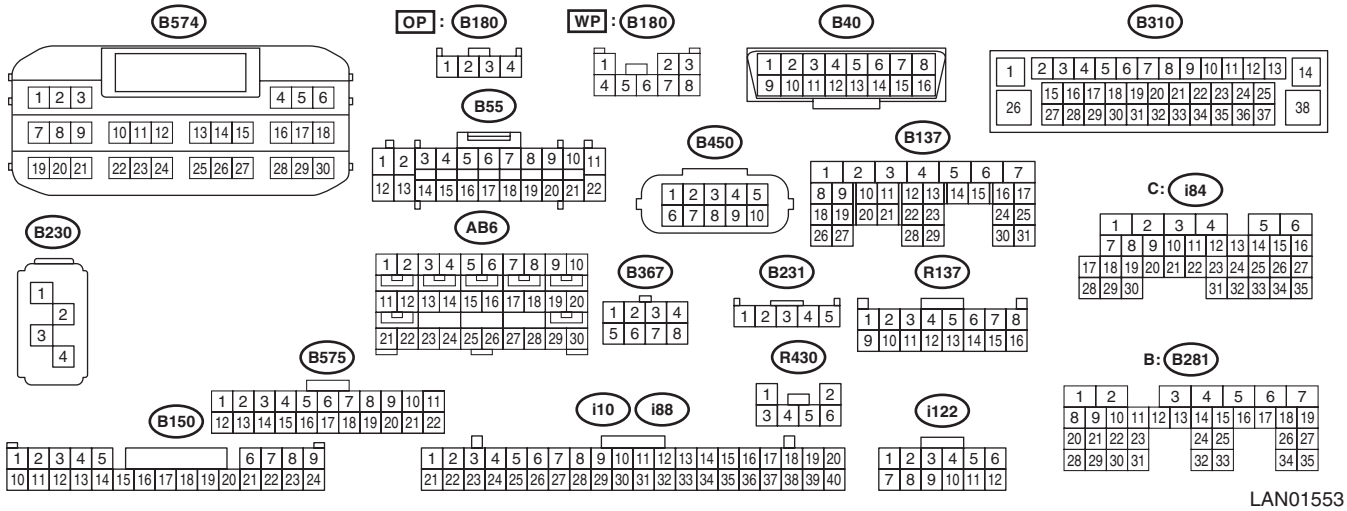
12.RELATED LINES 53 — 61 Ω (A/B CM)

WIRING DIAGRAM:

CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

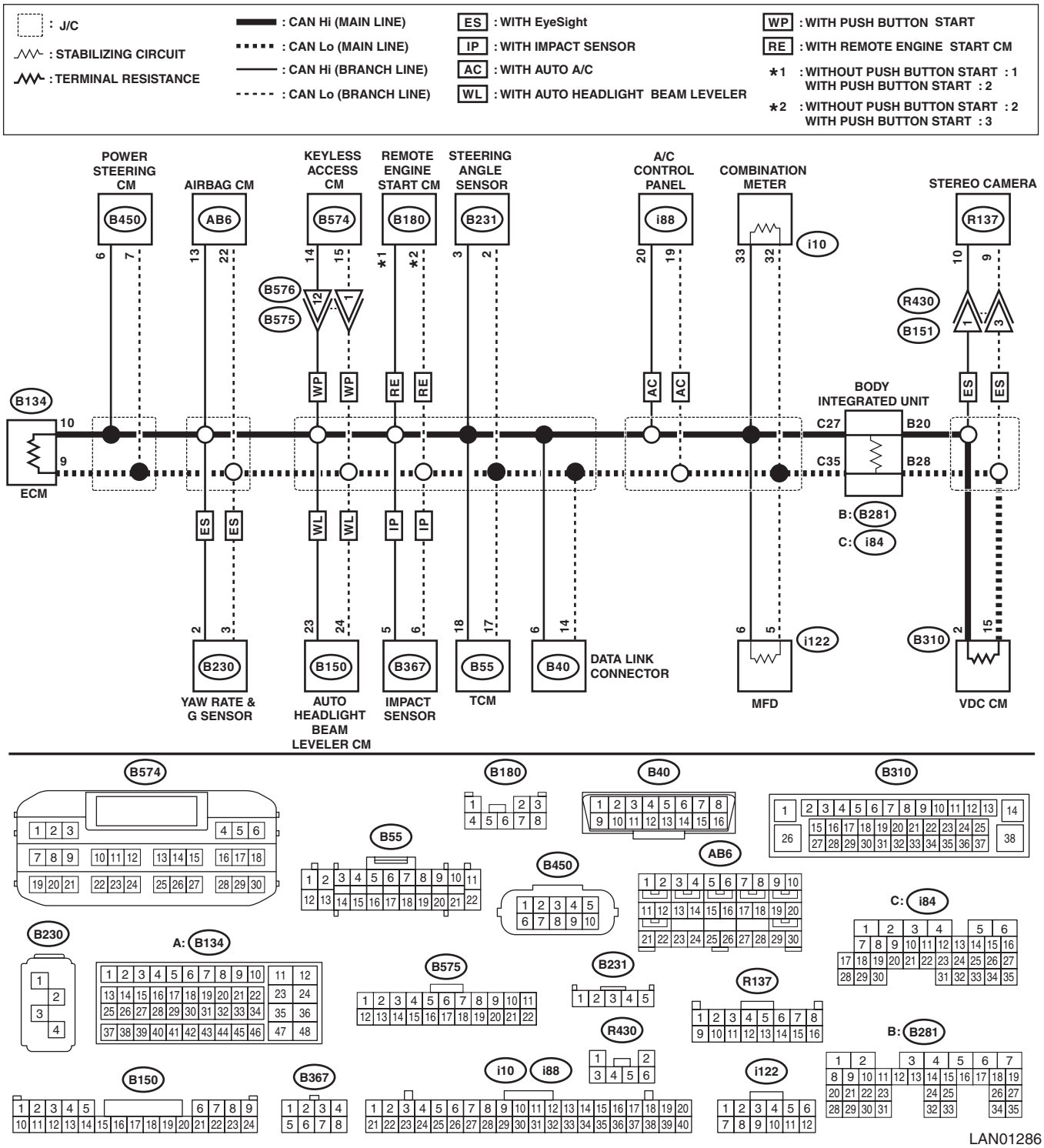
- Non-turbo model





LAN01553

- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
B450
AIRBAG CM
AB6
KEYLESS ACCESS CM
B574
REMOTE ENGINE START CM
B180
STEERING ANGLE SENSOR
B231
A/C CONTROL PANEL
i88
COMBINATION METER
i10
STEREO CAMERA
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
DATA LINK CONNECTOR
B40
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
i122
MFD
B310
VDC CM
A: B134
B574
B180
B40
B310
B55
B450
AB6
C: i84
B230
B575
B231
R137
R430
B: B281
B150
B367
i10
i88
i122
LAN01286

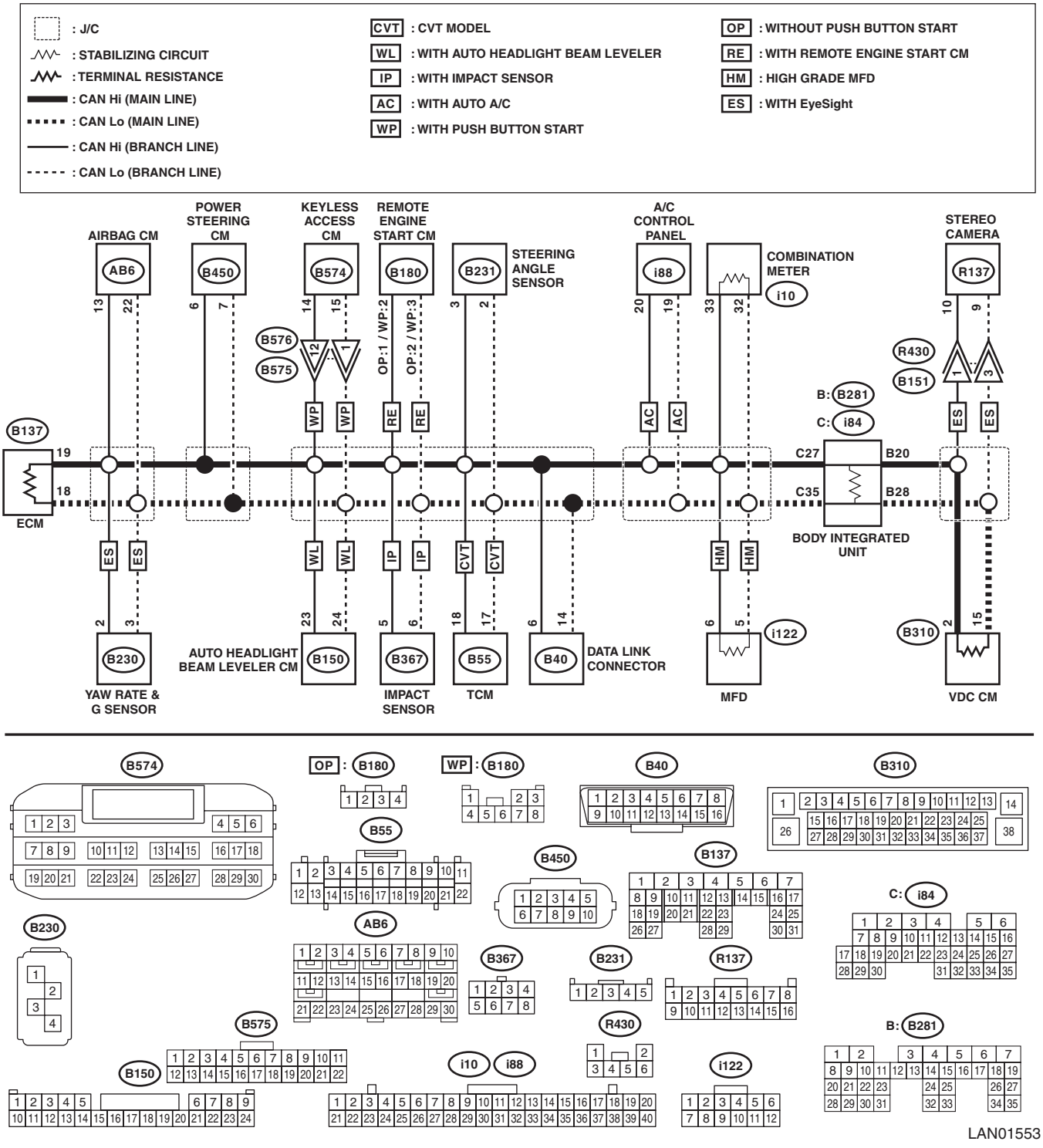
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** NOTE: For test harness, refer to AIRBAG SYSTEM (DIAGNOSTICS).<Ref. to AB(diag)-5, PREPARATION TOOL, General Description.> 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connectors (AB7) and (AB2). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 5) Connect the connector (1AH) in the test harness AH to the connectors (AB6, AB17, AB18). 6) Connect the connector (2AH) in the test harness AH and the connector (1AG) in the test harness AG. 7) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(2AG) No. 2 — (4AG) No. 2:***	Is the resistance 400 Ω or more?	Related lines between A/B CM and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(2AG) No. 2 — (B40) No. 14:*** ***(4AG) No. 2 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit of A/B CM related lines.	Check DTC of A/B CM.<Ref. to AB(diag)-23, OPERATION, Read Diagnostic Trouble Code (DTC).>

13.RELATED LINES 53 — 61 Ω (KEYLESS ACCESS SYSTEM)

WIRING DIAGRAM:

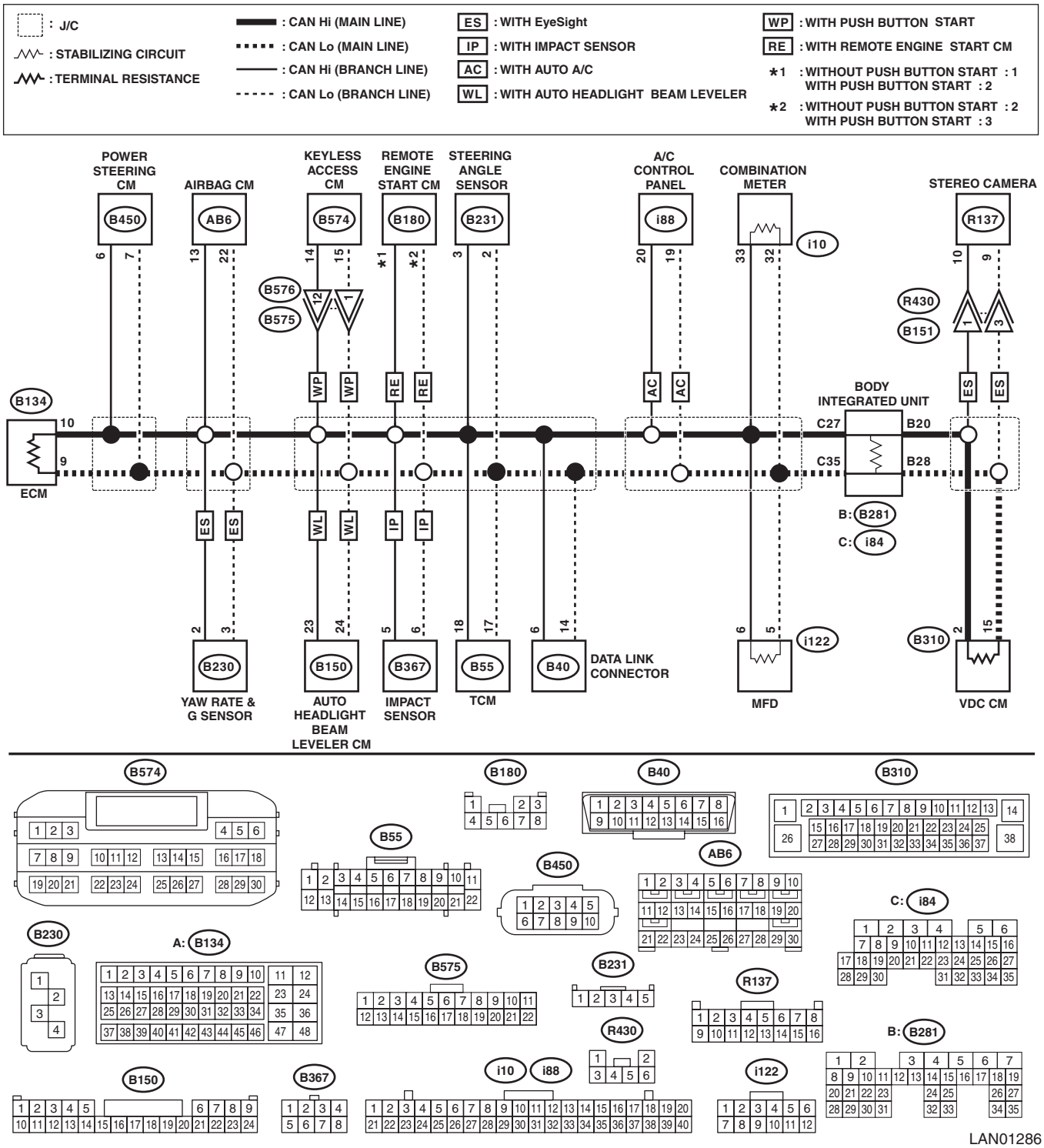
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model



LAN01553

- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
B450
AIRBAG CM
AB6
KEYLESS ACCESS CM
B574
REMOTE ENGINE START CM
B180
STEERING ANGLE SENSOR
B231
A/C CONTROL PANEL
i88
COMBINATION METER
i10
STEREO CAMERA
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
DATA LINK CONNECTOR
B40
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
i122
MFD
B310
VDC CM
A: B134
B: B281
C: i84
LAN01286

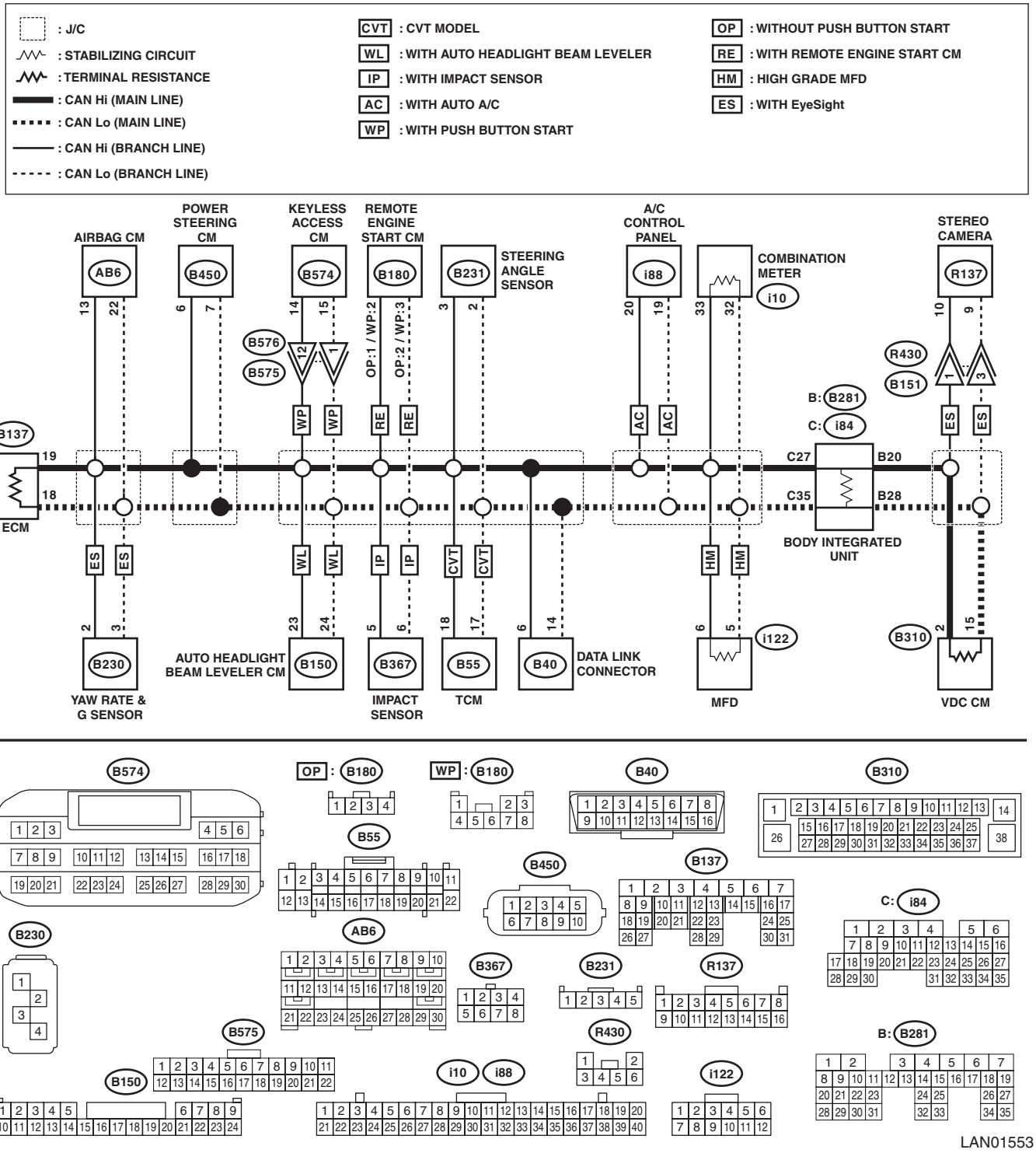
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B574) No. 14 — No. 15:***	Is the resistance 400 Ω or more?	Related lines between keyless access CM and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B574) No. 15 — (B40) No. 14:*** ***(B574) No. 14 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of keyless access CM related lines.	Check DTC of keyless access CM.<Ref. to KPS(diag)-25, OPERATION, Read Diagnostic Trouble Code (DTC).>

14.RELATED LINE 53 — 61 Ω (STEREO CAMERA)

WIRING DIAGRAM:

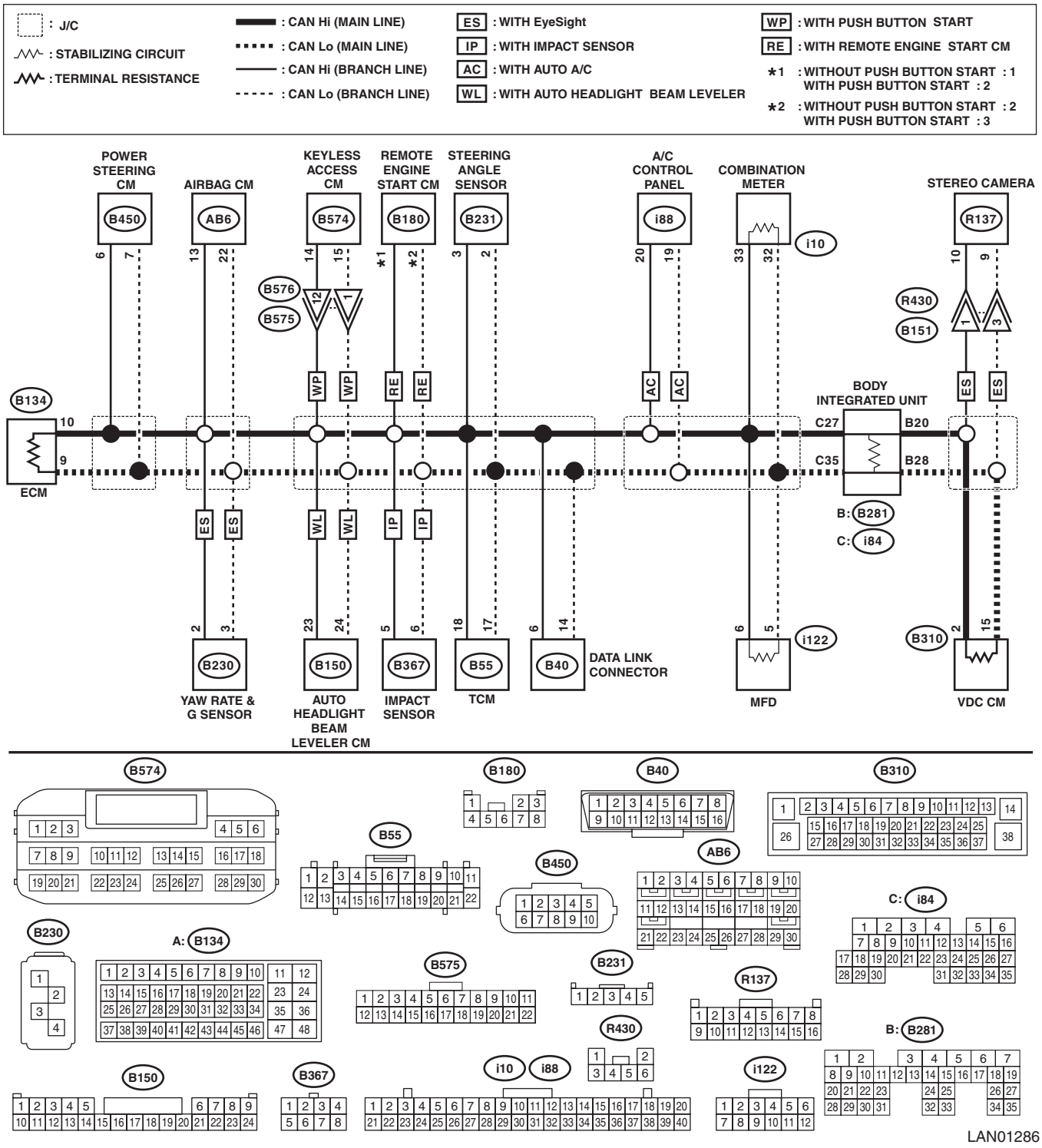
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model



LAN01553

- Turbo model



LAN01286

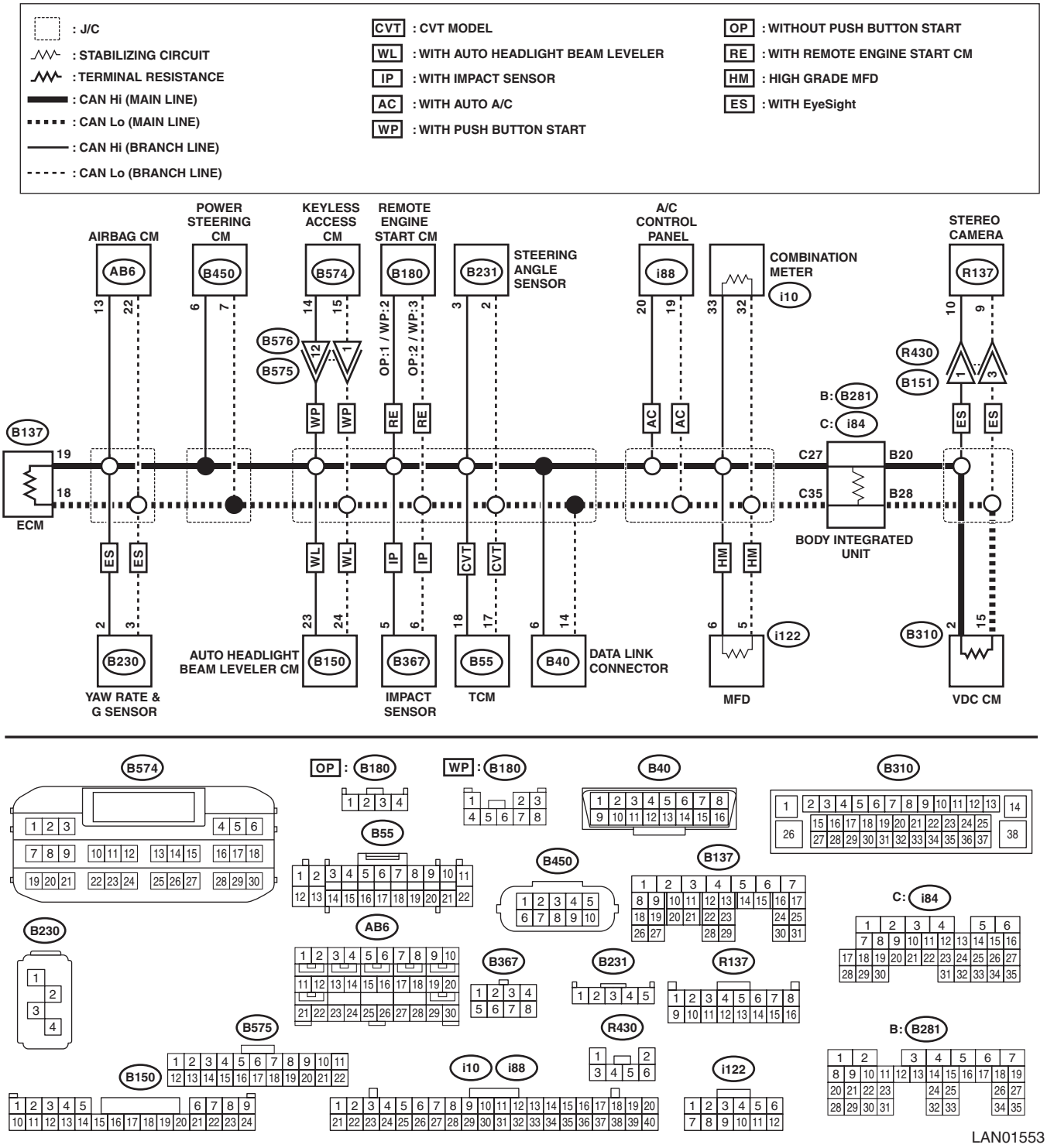
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the stereo camera connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(R137) No. 10 — No. 9:***	Is the resistance 400 Ω or more?	Related lines between stereo camera and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(R137) No. 9 — (B40) No. 14:*** ***(R137) No. 10 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of stereo camera related lines.	Check DTC of stereo camera.<Ref. to ES(diag)-39, OPERATION, Read Diagnostic Trouble Code (DTC).>

15.RELATED LINES 53 — 61 Ω (REMOTE ENGINE STARTER)

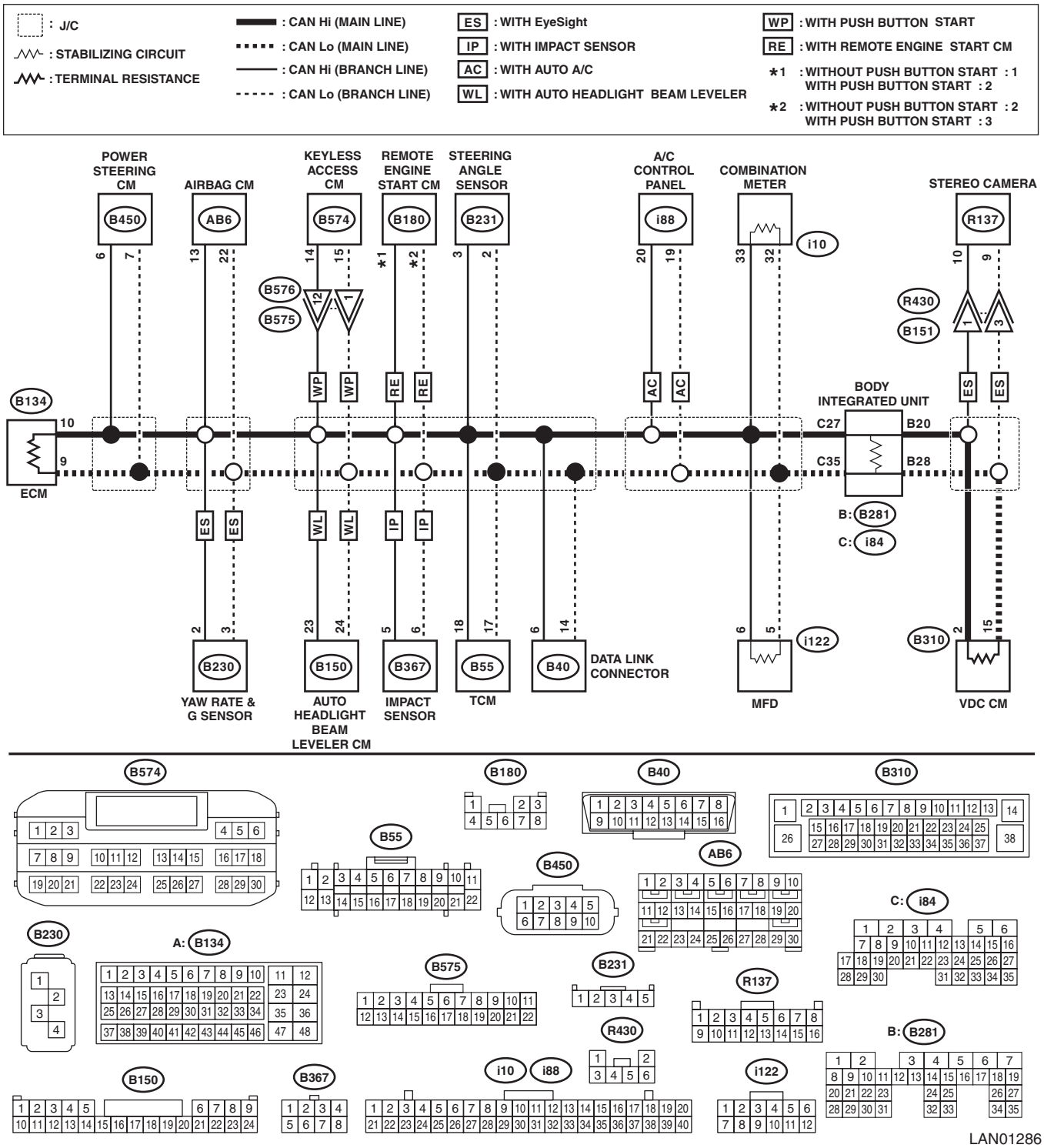
WIRING DIAGRAM:

CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model



- Turbo model



LAN01286

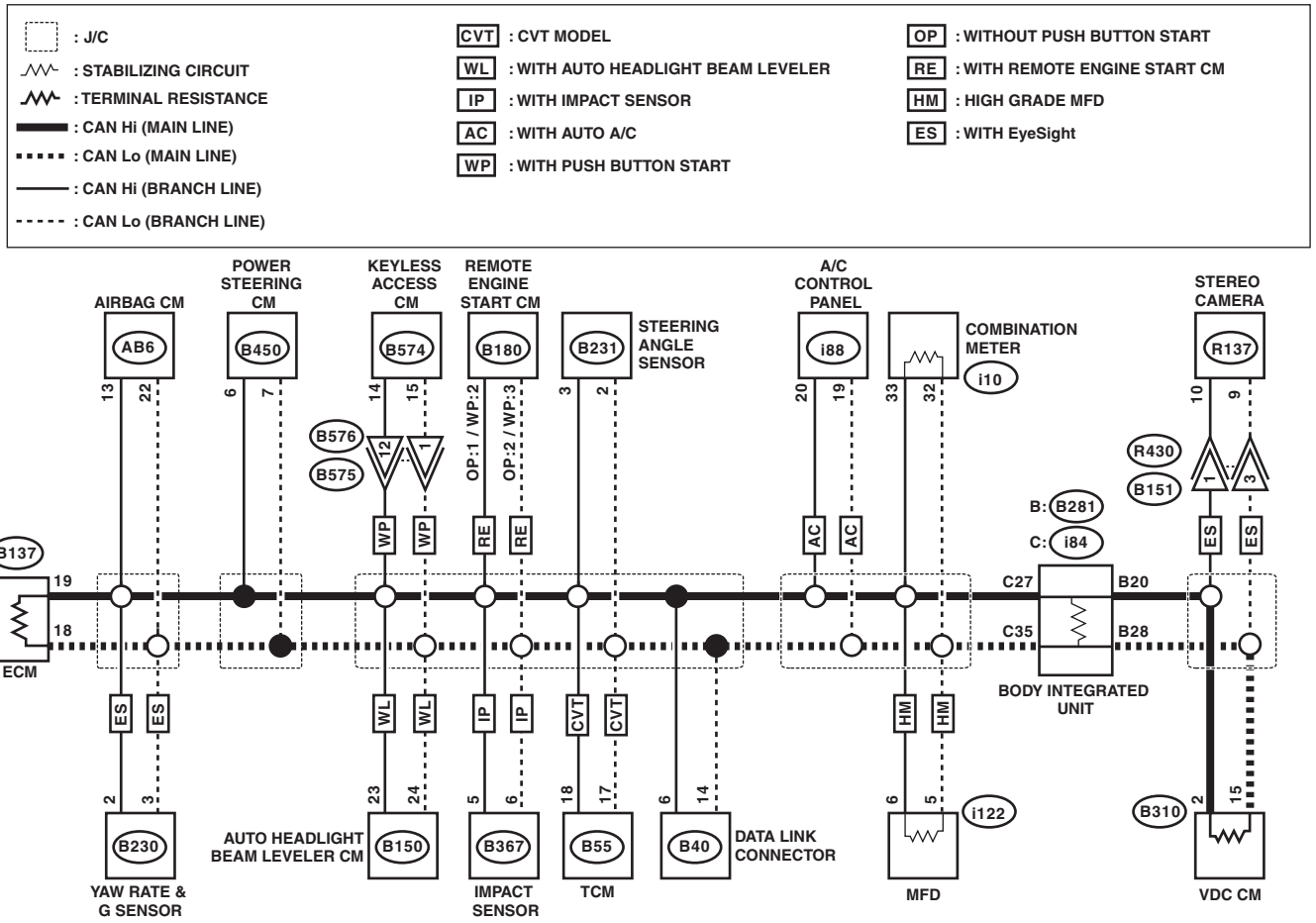
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the remote engine start CM connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***Without push button start*** ***(B180) No. 1 — (B180) No. 2:*** ***With push button start*** ***(B180) No. 2 — (B180) No. 3:***	Is the resistance 400 Ω or more?	Related lines between remote engine start CM and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***Without push button start*** ***(B180) No. 1 — (B40) No. 6:*** ***(B180) No. 2 — (B40) No. 14:*** ***With push button start*** ***(B180) No. 2 — (B40) No. 6:*** ***(B180) No. 3 — (B40) No. 14:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of remote engine start CM related lines.	The communication harness is normal. Check the remote engine starter CM or the mobile key.

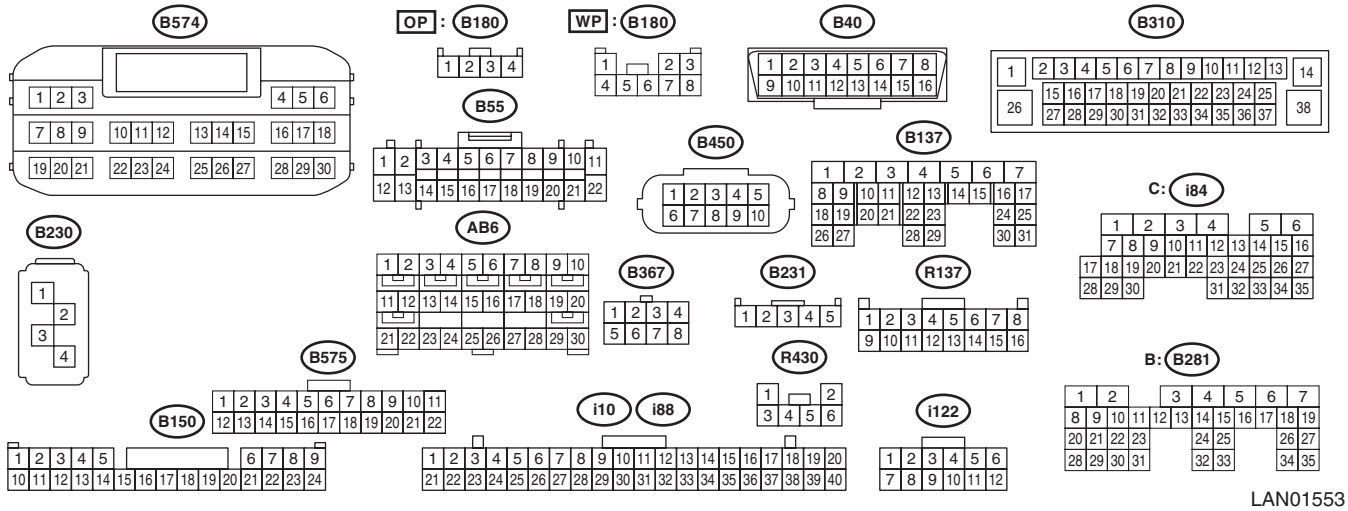
16.RELATED LINES 53 — 61 Ω (HEADLIGHT BEAM LEVELER)

WIRING DIAGRAM:

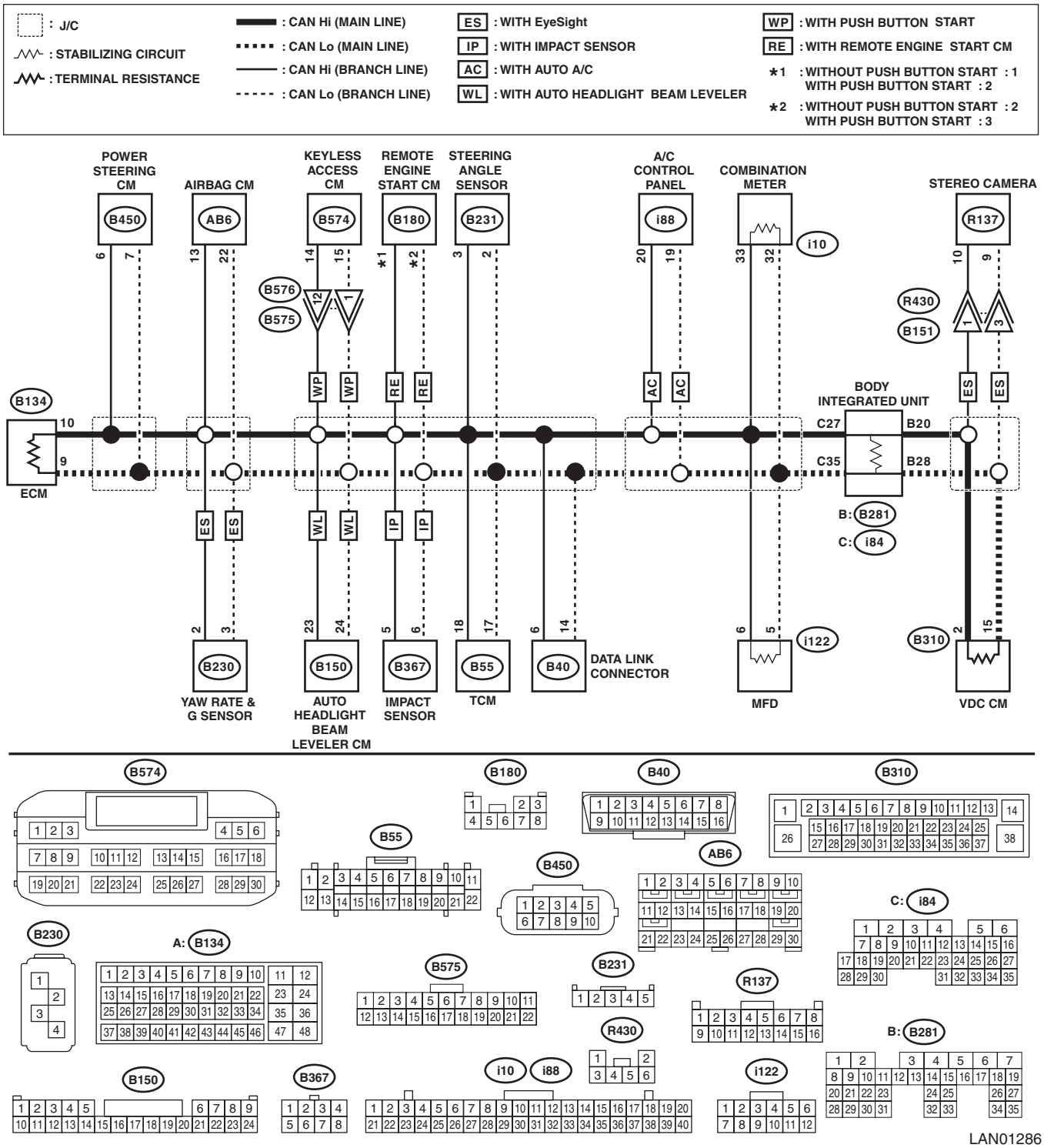
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
AIRBAG CM
KEYLESS ACCESS CM
REMOTE ENGINE START CM
STEERING ANGLE SENSOR
A/C CONTROL PANEL
COMBINATION METER
STEREO CAMERA
B450
AB6
B574
B180
B231
i88
i10
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
B40
DATA LINK CONNECTOR
i122
MFD
B310
VDC CM
LAN01286

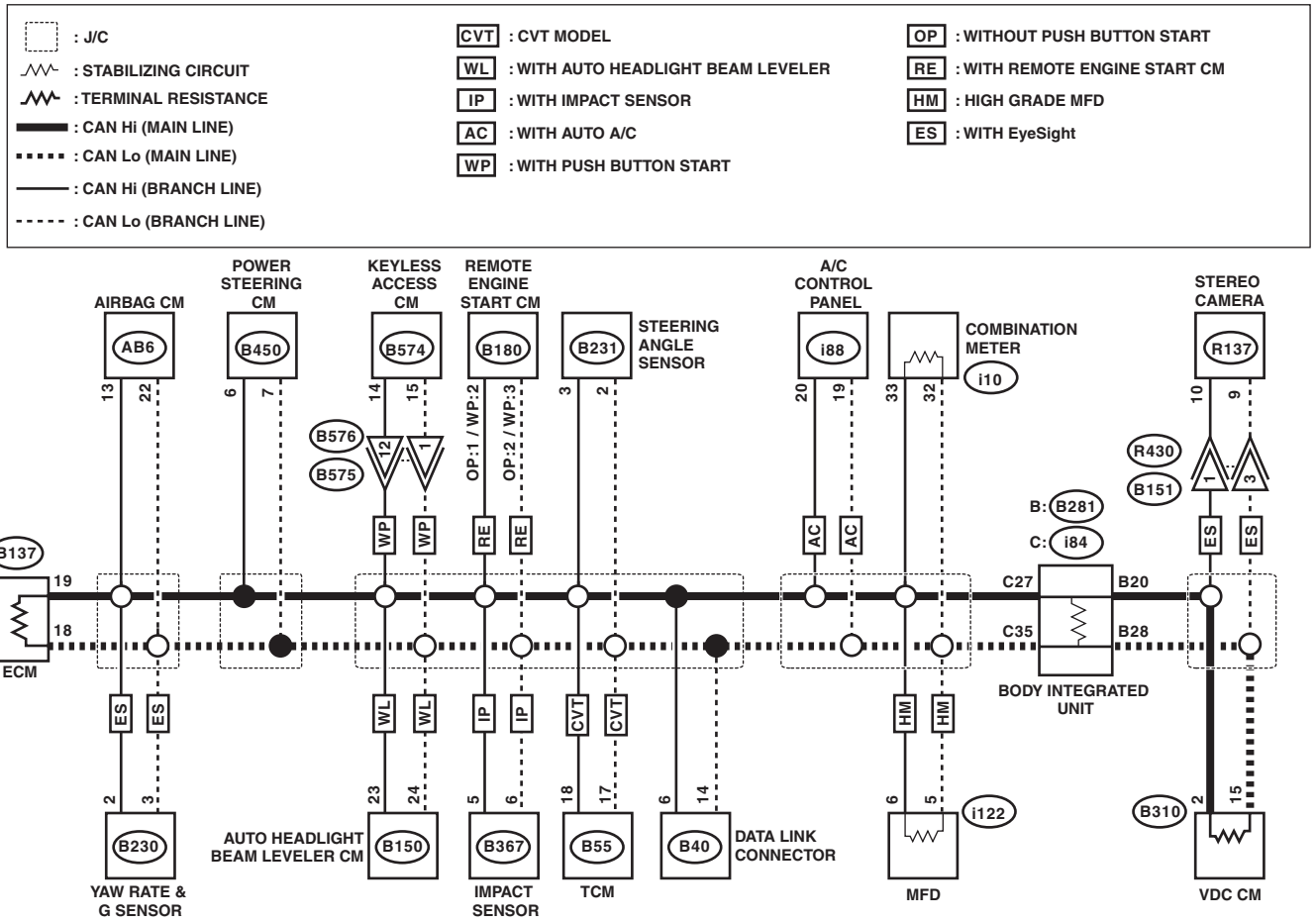
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the headlight beam leveler CM connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B150) No. 23 — No. 24:***	Is the resistance 400 Ω or more?	Related lines between headlight beam leveler CM and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B150) No. 24 — (B40) No. 14:*** ***(B150) No. 23 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of headlight beam leveler CM related lines.	Check DTC of headlight beam leveler system.

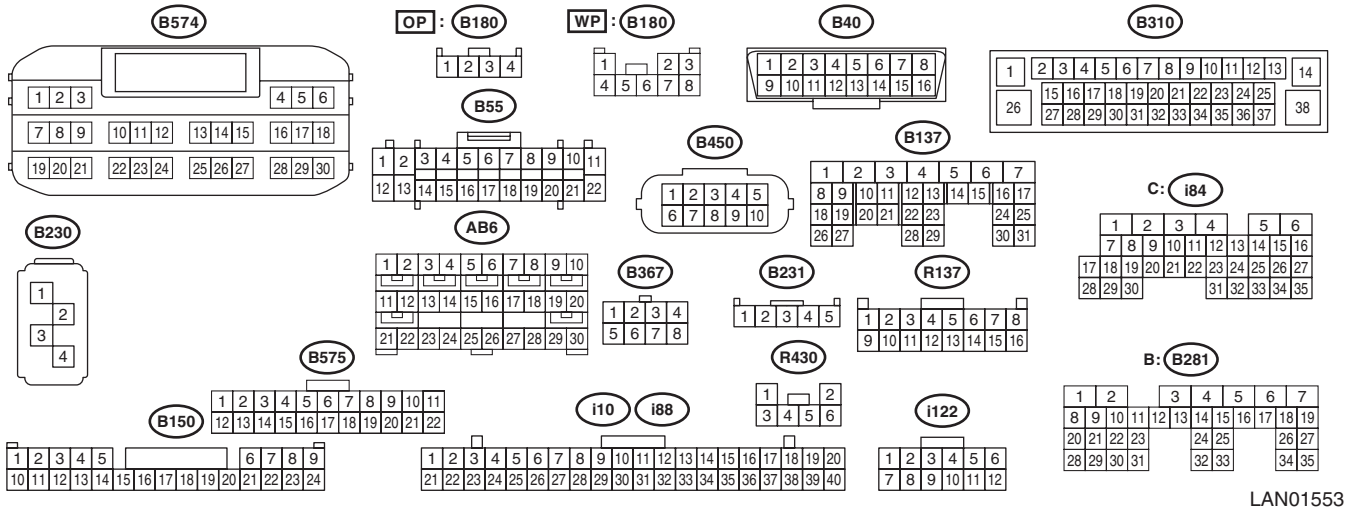
17.RELATED LINES 53 — 61 Ω (IMPACT SENSOR SYSTEM)

WIRING DIAGRAM:

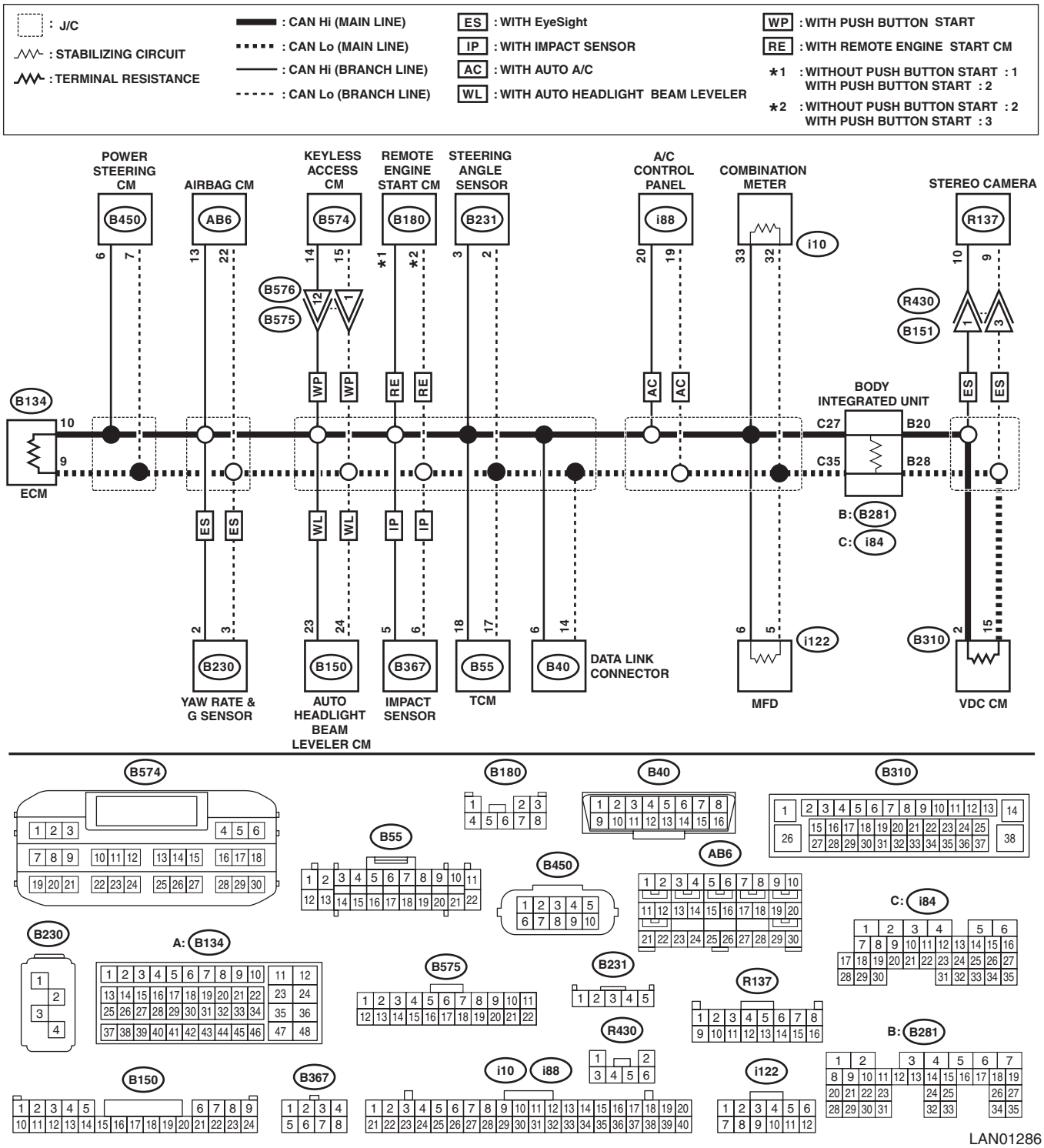
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
B450
AIRBAG CM
AB6
KEYLESS ACCESS CM
B574
REMOTE ENGINE START CM
B180
STEERING ANGLE SENSOR
B231
A/C CONTROL PANEL
i88
COMBINATION METER
i10
STEREO CAMERA
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
B40
DATA LINK CONNECTOR
i122
MFD
B310
VDC CM
A: B134
LAN01286

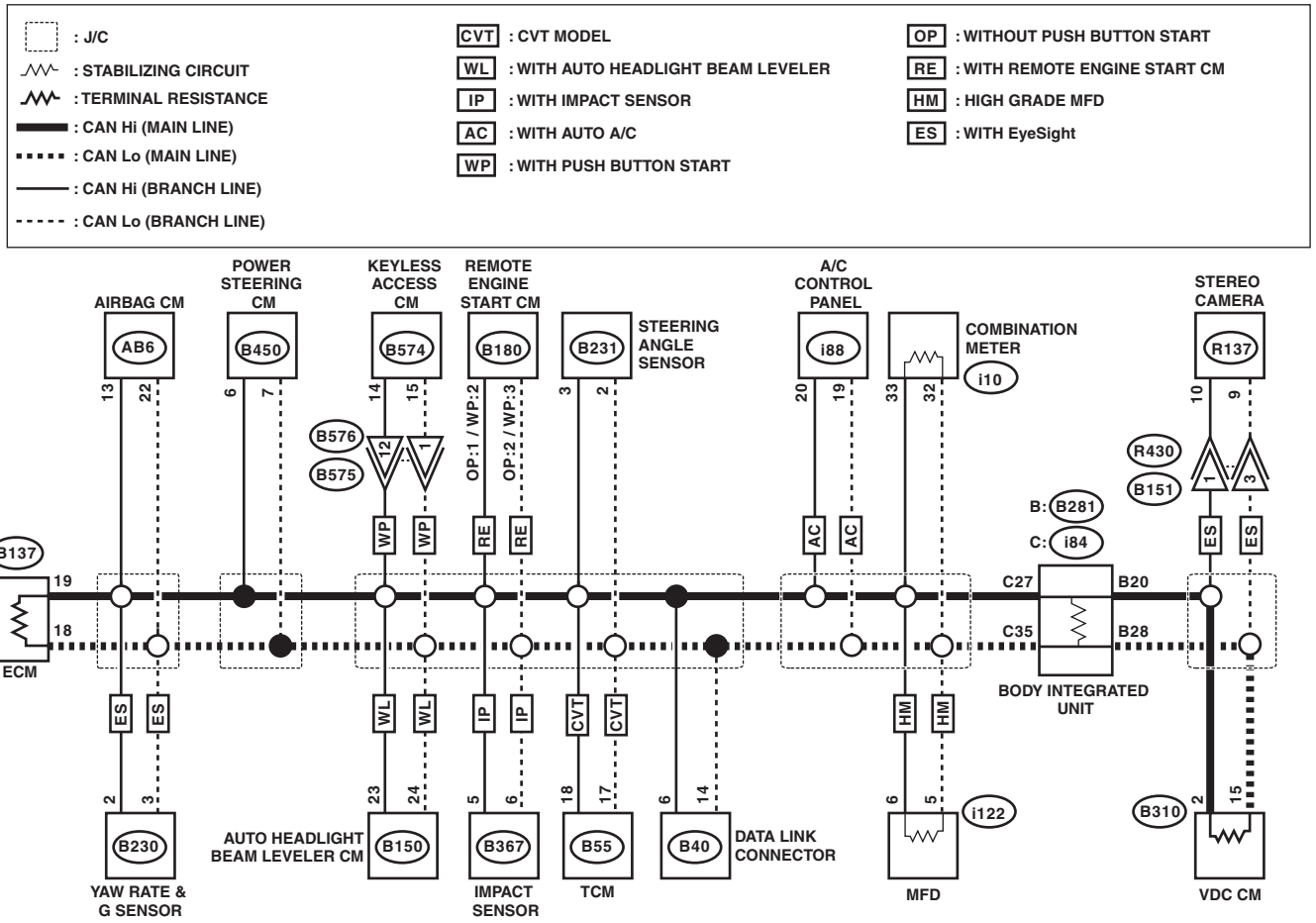
	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the impact sensor connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B367) No. 5 — No. 6:***	Is the resistance 400 Ω or more?	Related lines between the impact sensor and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B367) No. 6 — (B40) No. 14:*** ***(B367) No. 5 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit of the impact sensor system related lines.	The communication harness is normal. Check the impact sensor.

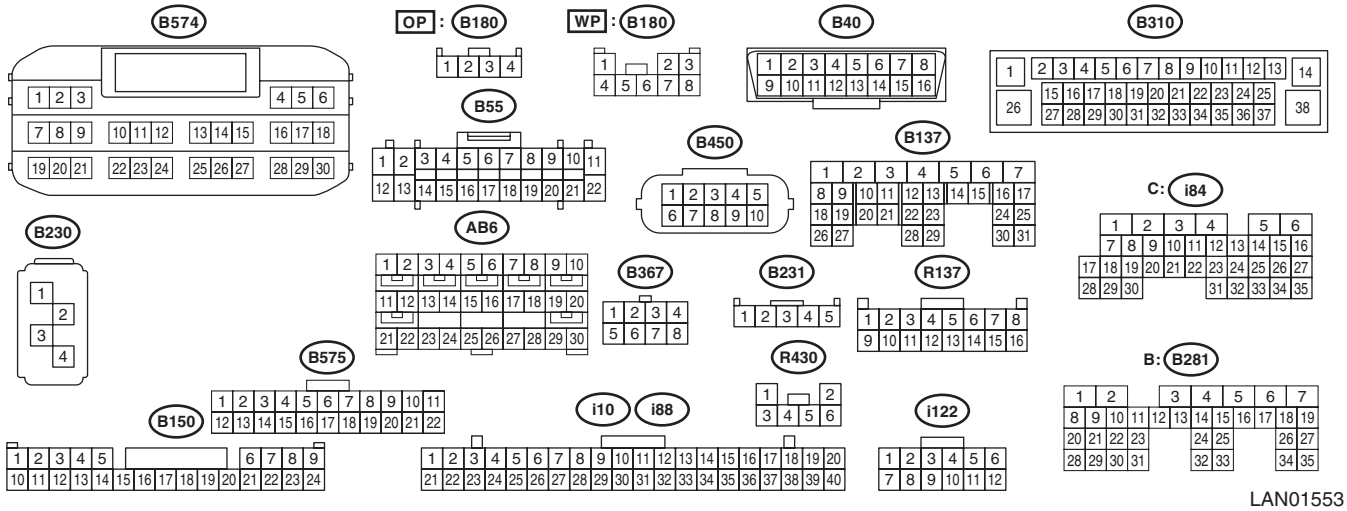
18.RELATED LINE 53 — 61 Ω (YAW RATE & G SENSOR)

WIRING DIAGRAM:

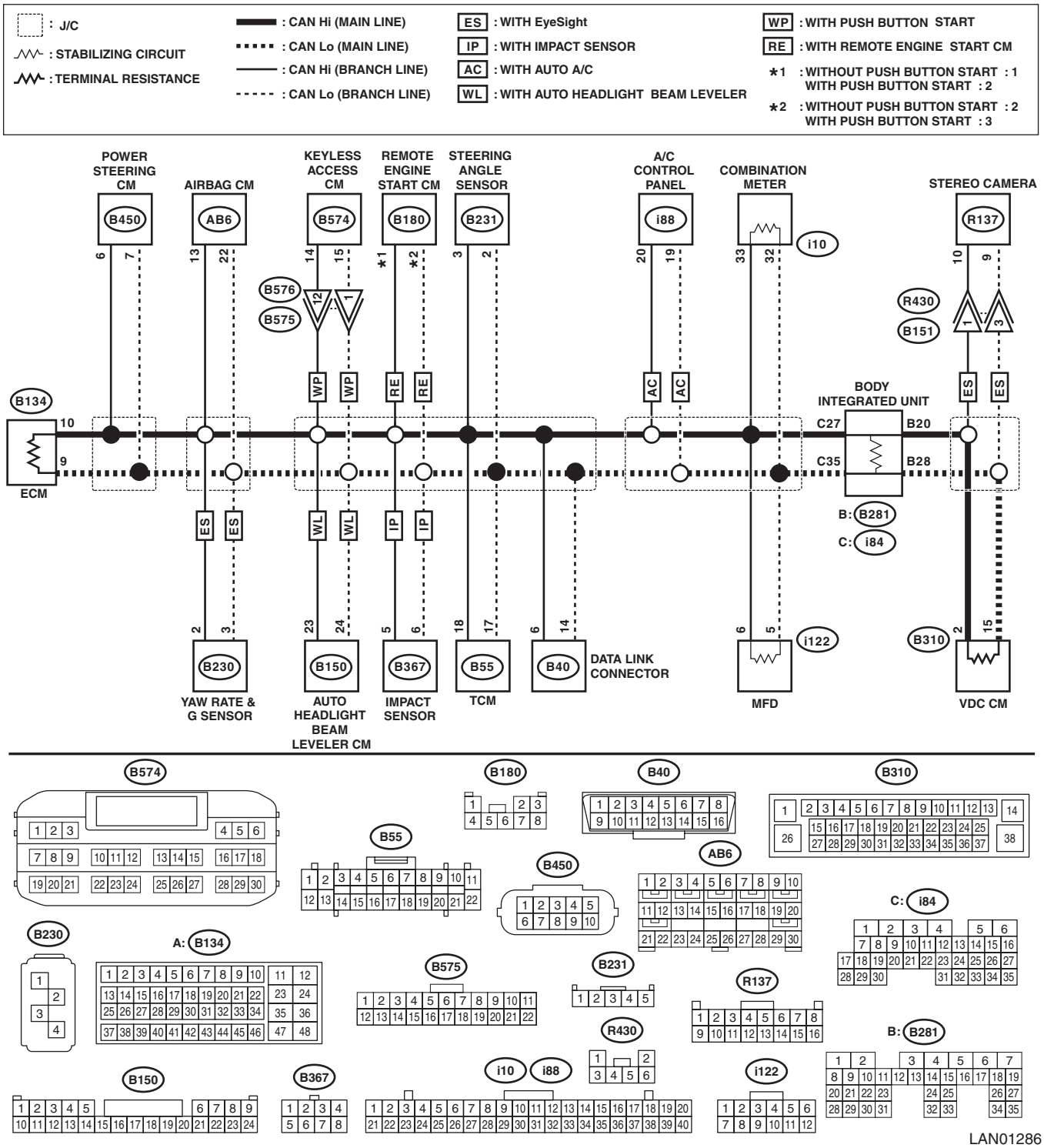
CAN communication system<Ref. to WI-91, WIRING DIAGRAM, CAN Communication System.>

- Non-turbo model





- Turbo model


: J/C
: STABILIZING CIRCUIT
: TERMINAL RESISTANCE
: CAN Hi (MAIN LINE)
: CAN Lo (MAIN LINE)
: CAN Hi (BRANCH LINE)
: CAN Lo (BRANCH LINE)
ES : WITH EyeSight
IP : WITH IMPACT SENSOR
AC : WITH AUTO A/C
WL : WITH AUTO HEADLIGHT BEAM LEVELER
WP : WITH PUSH BUTTON START
RE : WITH REMOTE ENGINE START CM
*1 : WITHOUT PUSH BUTTON START : 1
WITH PUSH BUTTON START : 2
*2 : WITHOUT PUSH BUTTON START : 2
WITH PUSH BUTTON START : 3
POWER STEERING CM
AIRBAG CM
KEYLESS ACCESS CM
REMOTE ENGINE START CM
STEERING ANGLE SENSOR
A/C CONTROL PANEL
COMBINATION METER
STEREO CAMERA
B450
AB6
B574
B180
B231
i88
i10
R137
B576
B575
R430
B151
B134
ECM
BODY INTEGRATED UNIT
C27
B20
C35
B28
B: B281
C: i84
B230
YAW RATE & G SENSOR
B150
AUTO HEADLIGHT BEAM LEVELER CM
B367
IMPACT SENSOR
B55
TCM
B40
DATA LINK CONNECTOR
i122
MFD
B310
VDC CM
LAN01286

	Step	Check	Yes	No
1	**CHECK BETWEEN RELATED LINES AND MAIN WIRING HARNESS.** 1) Disconnect the yaw rate & G sensor connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B230) No. 2 — No. 3:***	Is the resistance 400 Ω or more?	Related lines between yaw rate & G sensor and main wiring harness is open, or main wiring harness is open at two places or more.	Go to step **2**.
2	**CHECK RELATED LINES.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B230) No. 3 — (B40) No. 14:*** ***(B230) No. 2 — (B40) No. 6:***	Is the resistance 10 Ω or more?	Repair or replace the open circuit portion of yaw rate & G sensor related lines.	Check DTC of VDC system.

10.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Content of diagnosis	Note
U1201	CAN-HS Counter Abnormal	High speed CAN communication error	<Ref. to LAN(diag)-160, DTC U1201 CAN-HS COUNTER ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0073	Control Module Communication Bus Off	Communication of some module is shut down.	<Ref. to LAN(diag)-161, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0401	Invalid Data Received From ECM/PCM “A”	Error data is received from ECM.	<Ref. to LAN(diag)-162, DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0402	Invalid Data Received From TCM	Error data is received from TCM.	<Ref. to LAN(diag)-163, DTC U0402 INVALID DATA RECEIVED FROM TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0416	Invalid Data Received From Vehicle Dynamics Control Module	Error data is received from VDC module.	<Ref. to LAN(diag)-164, DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0420	Invalid Data Received From Power Steering Control Module	Error data is received from EPS module.	<Ref. to LAN(diag)-165, DTC U0420 INVALID DATA RECEIVED FROM POWER STEERING CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0422	Invalid Data Received From Body Control Module	Error data is received from body integrated unit.	<Ref. to LAN(diag)-166, DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0423	Invalid Data Received From Instrument Panel Cluster Control Module	Error data is received from meter.	<Ref. to LAN(diag)-167, DTC U0423 INVALID DATA RECEIVED FROM INSTRUMENT PANEL CLUSTER CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0424	Invalid Data Received From HVAC Control Module	Error data is received from A/C control panel.	<Ref. to LAN(diag)-168, DTC U0424 INVALID DATA RECEIVED FROM HVAC CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0427	Invalid Data Received From Vehicle Security Control Module	Error data is received from keyless access CM.	<Ref. to LAN(diag)-169, DTC U0427 INVALID DATA RECEIVED FROM VEHICLE SECURITY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0428	Invalid Data Received From Steering Angle Sensor Module	Error data is received from steering angle sensor.	<Ref. to LAN(diag)-170, DTC U0428 INVALID DATA RECEIVED FROM STEERING ANGLE SENSOR MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0452	Invalid Data Received From Restraints Control Module	Error data is received from airbag module.	<Ref. to LAN(diag)-171, DTC U0452 INVALID DATA RECEIVED FROM RESTRAINTS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0513	Invalid Data Received From Yaw Rate Sensor Module	Error data is received from yaw rate & G sensor.	<Ref. to LAN(diag)-172, DTC U0513 INVALID DATA RECEIVED FROM YAW RATE SENSOR MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Item	Content of diagnosis	Note
U0100	Lost Communication With ECM/PCM “A”	Data does not arrive from ECM.	<Ref. to LAN(diag)-174, DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0101	Lost Communication With TCM	Data does not arrive from TCM.	<Ref. to LAN(diag)-175, DTC U0101 LOST COMMUNICATION WITH TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0122	Lost Communication With Vehicle Dynamics Control Module	Data does not arrive from VDC module.	<Ref. to LAN(diag)-176, DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0123	Lost Communication With Yaw Rate Sensor Module	Data does not arrive from yaw rate & G sensor.	<Ref. to LAN(diag)-177, DTC U0123 LOST COMMUNICATION WITH YAW RATE SENSOR MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0126	Lost Communication With Steering Angle Sensor Module	Data does not arrive from steering angle sensor.	<Ref. to LAN(diag)-178, DTC U0126 LOST COMMUNICATION WITH STEERING ANGLE SENSOR MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0131	Lost Communication With Power Steering Control Module	Data does not arrive from EPS module.	<Ref. to LAN(diag)-179, DTC U0131 LOST COMMUNICATION WITH POWER STEERING CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0140	Lost Communication With Body Control Module	Data does not arrive from body integrated unit.	<Ref. to LAN(diag)-180, DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0151	Lost Communication With Restraints Control Module	Data does not arrive from airbag module.	<Ref. to LAN(diag)-181, DTC U0151 LOST COMMUNICATION WITH RESTRAINTS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0155	Lost Communication With Instrument Panel Cluster (IPC) Control Module	Data does not arrive from meter.	<Ref. to LAN(diag)-182, DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0164	Lost Communication With HVAC Control Module	Data does not arrive from A/C control panel.	<Ref. to LAN(diag)-183, DTC U0164 LOST COMMUNICATION WITH HVAC CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0327	Software Incompatibility With Vehicle Security Control Module	Data does not arrive from keyless access CM.	<Ref. to LAN(diag)-184, DTC U0327 SOFTWARE INCOMPATIBILITY WITH VEHICLE SECURITY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1235	Lost Communication With EyeSight	Data does not arrive from stereo camera.	<Ref. to LAN(diag)-185, DTC U1235 LOST COMMUNICATION WITH EyeSight, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1433	Invalid Data Received From EyeSight	Error data is received from stereo camera.	<Ref. to LAN(diag)-173, DTC U1433 INVALID DATA RECEIVED FROM EyeSight, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1602	Lost Communication With Power Rear Gate Control Module	Communication error occurred with power rear gate.	<Ref. to LAN(diag)-186, DTC U1602 LOST COMMUNICATION WITH POWER REAR GATE CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

9. Clear Memory Mode

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

9. Clear Memory Mode

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
Initial diagnosis of electronic throttle control is performed after memory clearance. Wait for 10 seconds or more after turning the ignition switch to ON, and then start the engine.

9. ECO Gauge

A: SPECIFICATION

Since the meter - main assembly cannot be disassembled, do not remove or inspect the ECO gauge alone. (Do not remove the cover on the back surface.)

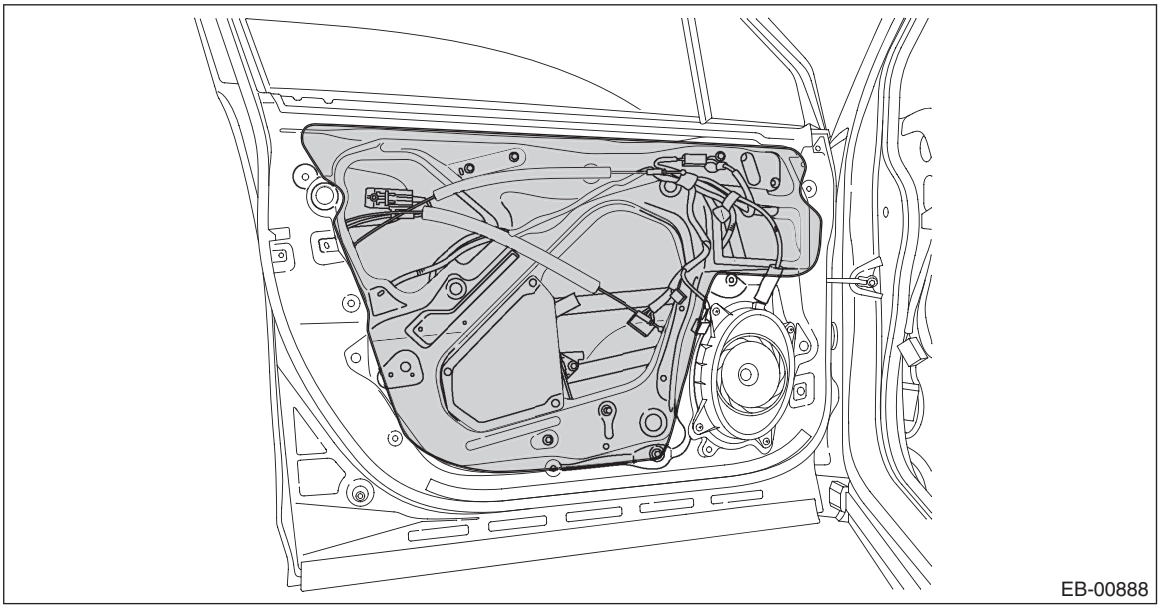
9. Front Outer Handle

A: REMOVAL

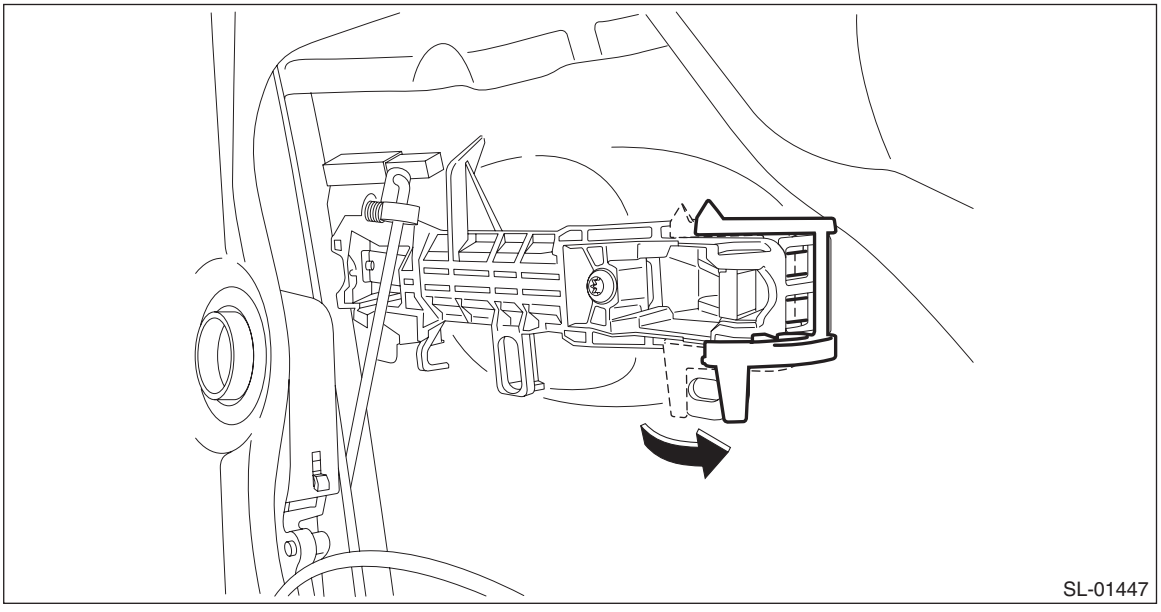
1) Raise the glass assembly - front door to the top position.
2) Remove the trim panel - front door. <Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
3) Turn over the sealing cover - front door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

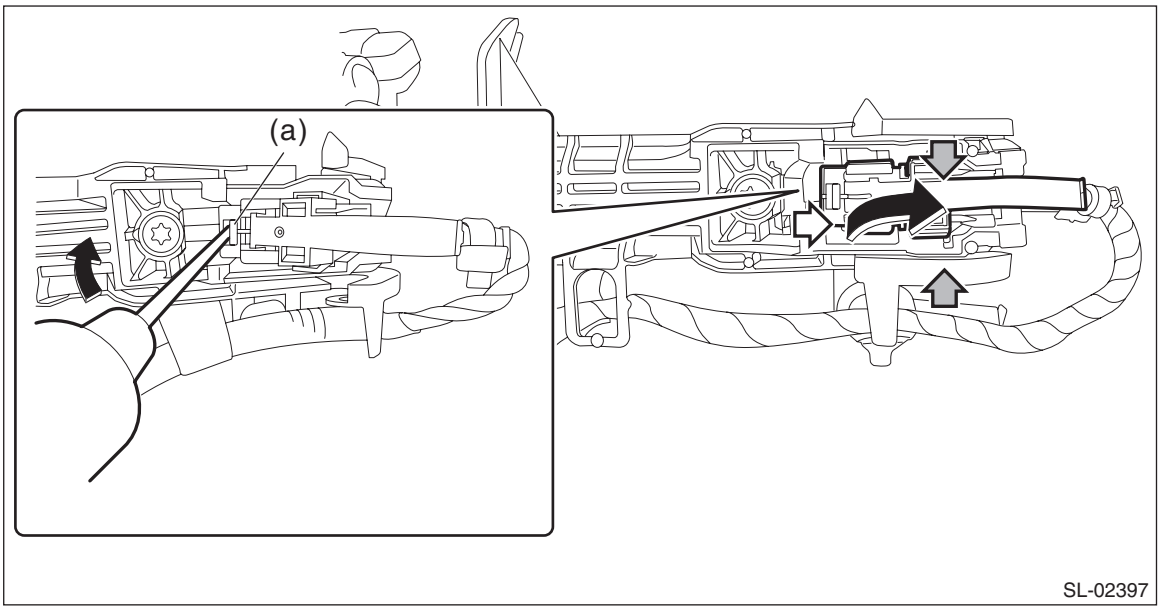
(1) Disconnect connectors.
(2) Carefully remove the butyl tape and turn over the sealing cover - front door within the area where the operation can be performed.


EB-00888

4) Remove the holder of the frame assembly - front door outer.


SL-01447

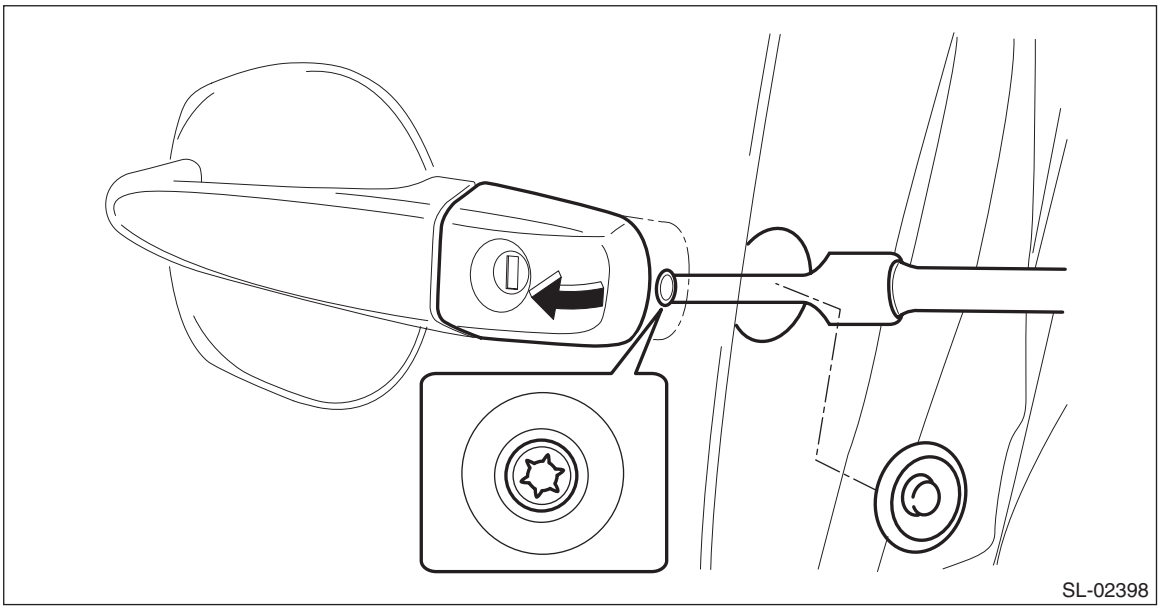
NOTE:
• For model with keyless access, disconnect the harness clip and exterior antenna (touch sensor) connector.
• Using (a) shown in the figure as a supporting point, pry it with a flat tip screwdriver to remove.



5) Remove the cover - handle front outer.

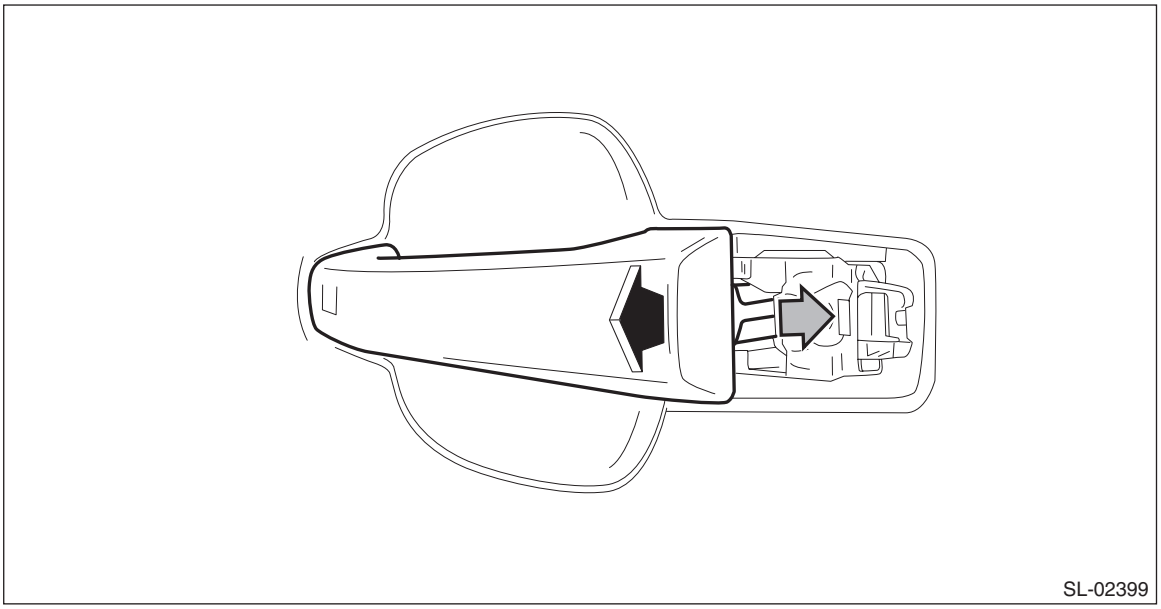
Preparation tool:
TORX® T30

(1) Remove the plug at the rear end of the panel assembly - front door.
(2) Loosen the TORX® bolt and remove the cover - handle front outer.



6) Remove the handle - door outer by moving it rearward.

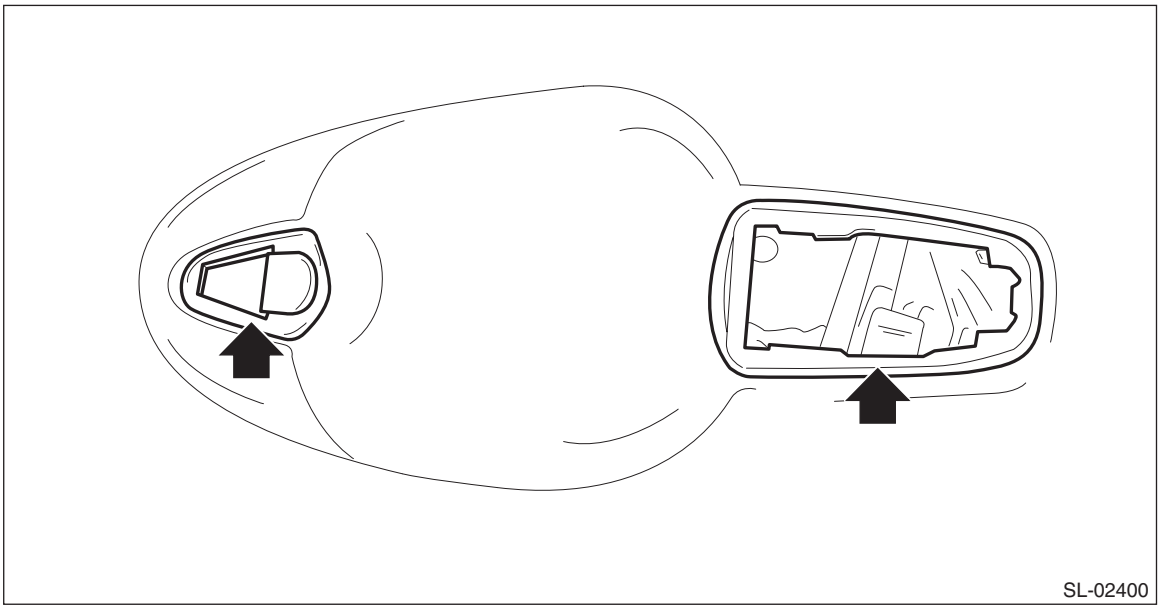
CAUTION:
Do not apply excessive force to remove the handle - door outer from the panel assembly - front door. The panel assembly - front door may be deformed.



7) Remove the frame assembly - front door outer.

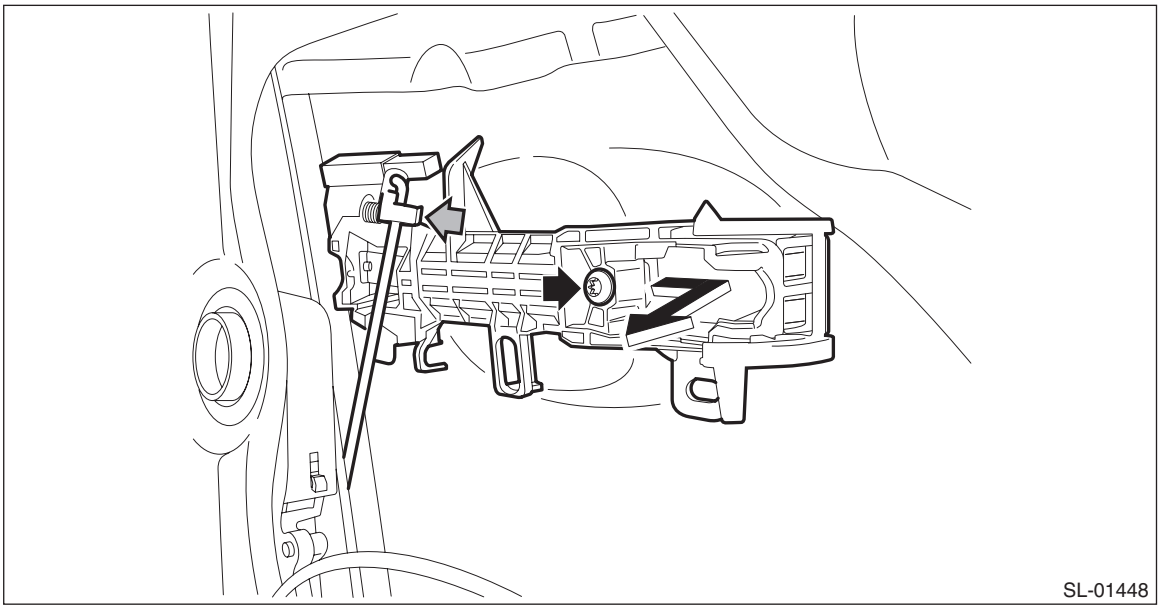
Preparation tool:
TORX® T30

(1) Remove the spacer - door handle outer.



(2) Remove the rod from the rod clamp of the frame assembly - front door outer.

(3) Loosen the TORX® bolt and remove the frame assembly - front door outer from inside the panel assembly - front door.



B: INSTALLATION

1) Before installation, check the following items.
- Rod is free from deformation.
- Grease is applied sufficiently to rod joints.
- If grease is insufficient, add it as necessary before assembling the rod.

2) Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

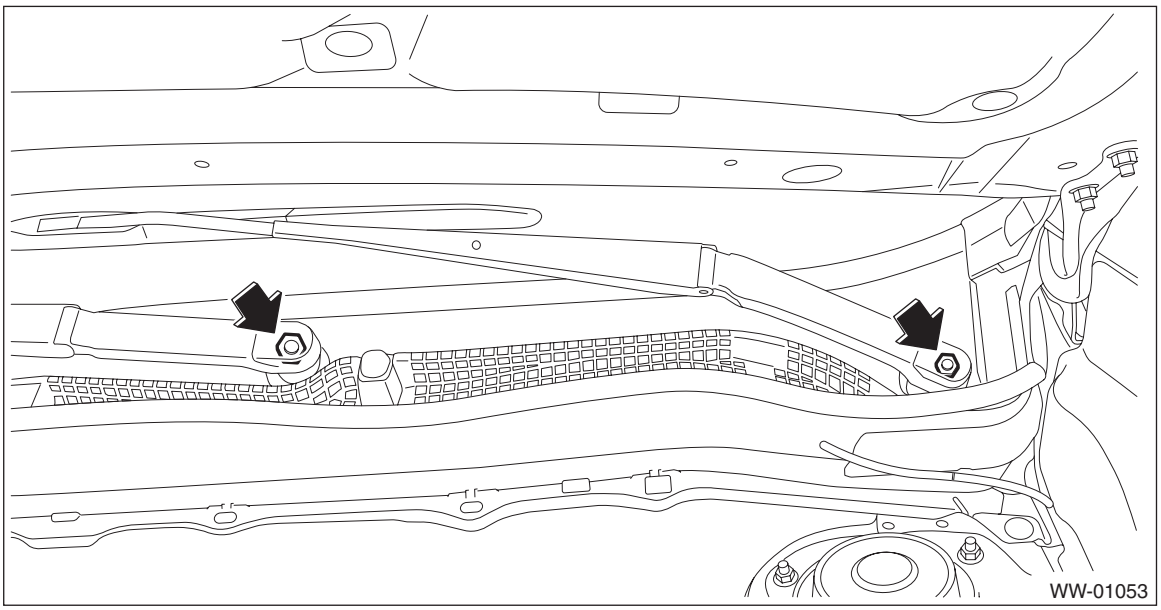
C: INSPECTION

Check if the outer handle operates normally.
- If the lever is faulty, replace the handle - door outer.
- If the rod is deformed, replace the latch & actuator assembly - front.

9. Front Washer Nozzle

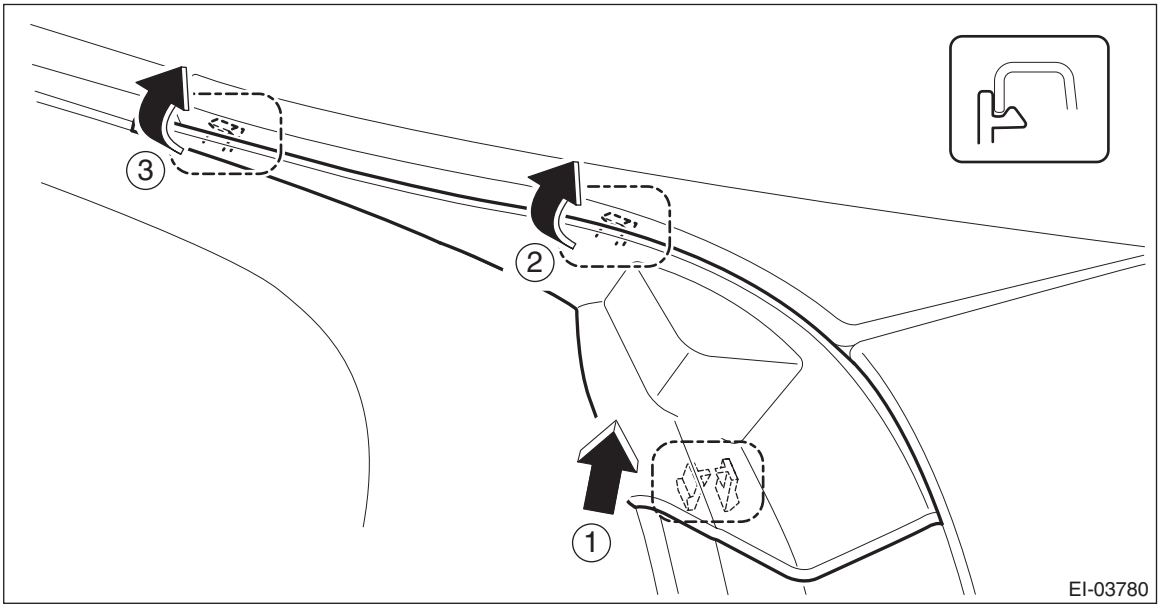
A: REMOVAL

1) Open the hood COMPL - front.
2) Disconnect the ground cable from battery.
3) Remove the arm assembly - windshield wiper.
   (1) Remove the cover - windshield wiper arm.
   (2) Remove the nuts, and remove the arm assembly - windshield wiper.



4) Remove the cowl panel - side.
   (1) Remove the clips.
   (2) Release the claws from (1) to (3) in sequence, and then remove the cowl panel - side.

CAUTION:
Pulling with excessive force may damage the cowl panel - side. If it is difficult to remove, use a plastic remover or equivalent tool.



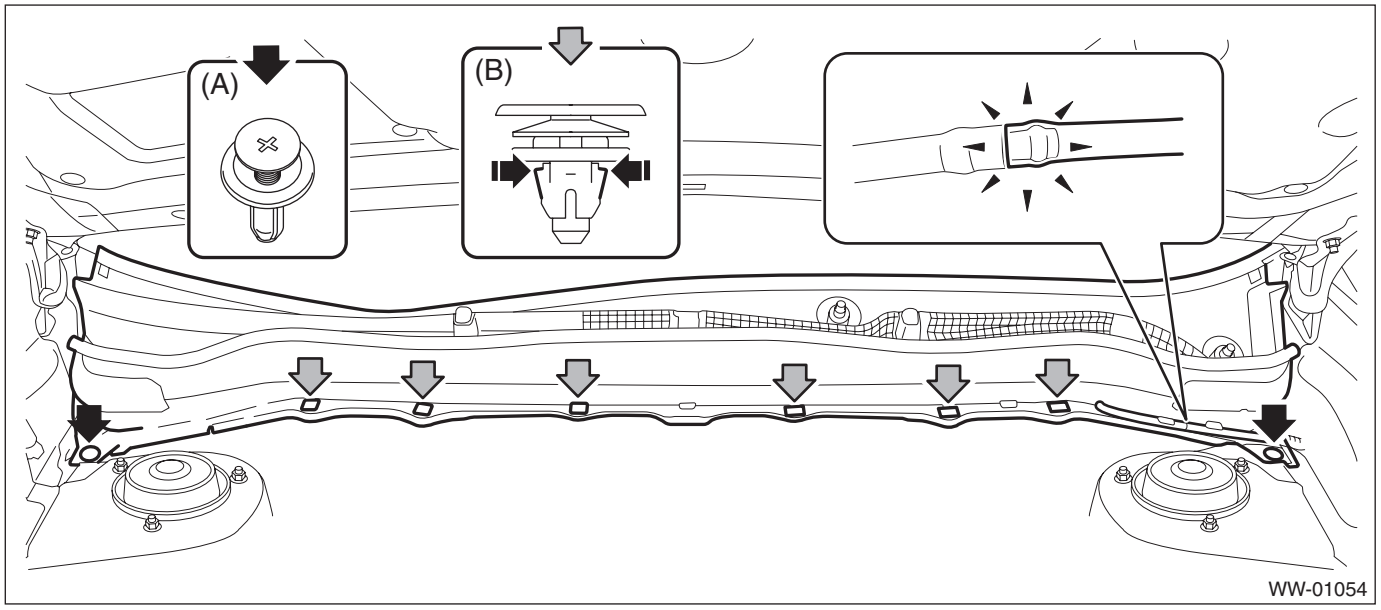
5) Remove the cowl panel assembly.

CAUTION:
Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.

(1) Disconnect the hose - windshield washer.
(2) Remove clips (A).
(3) Check the direction of the clip (B), and push the claws from both sides to remove it.

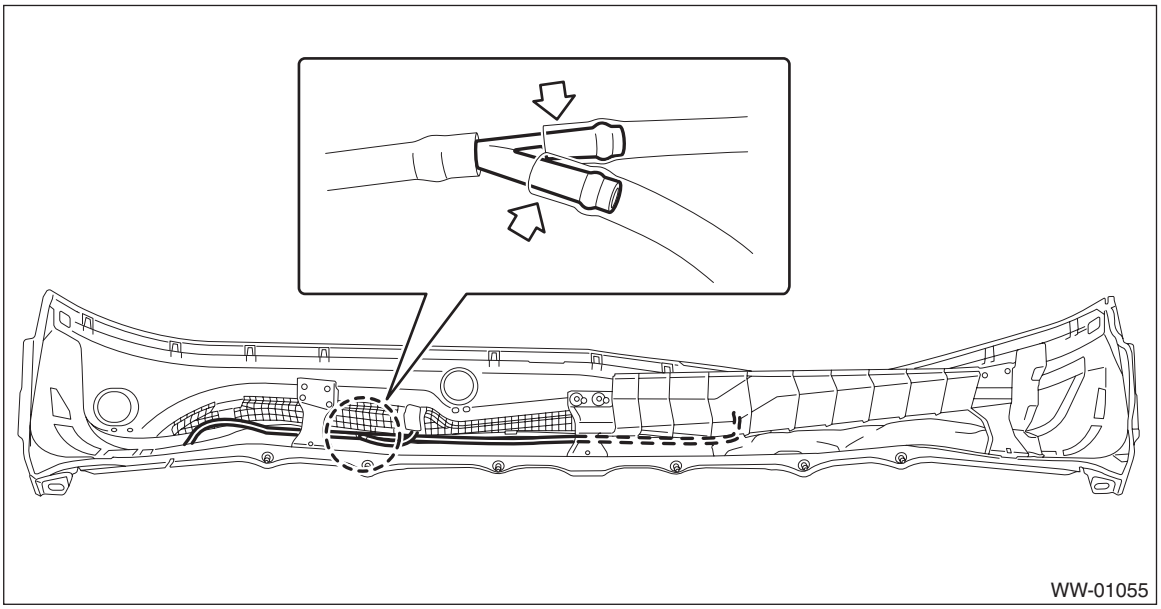
CAUTION:
When removing the clip (B), push the claw of the clip from both sides.
Be careful because the clips (B) can be damaged if you pull unnecessarily hard on them.

(4) Remove the cowl panel assembly by pulling it out towards the front of the vehicle.

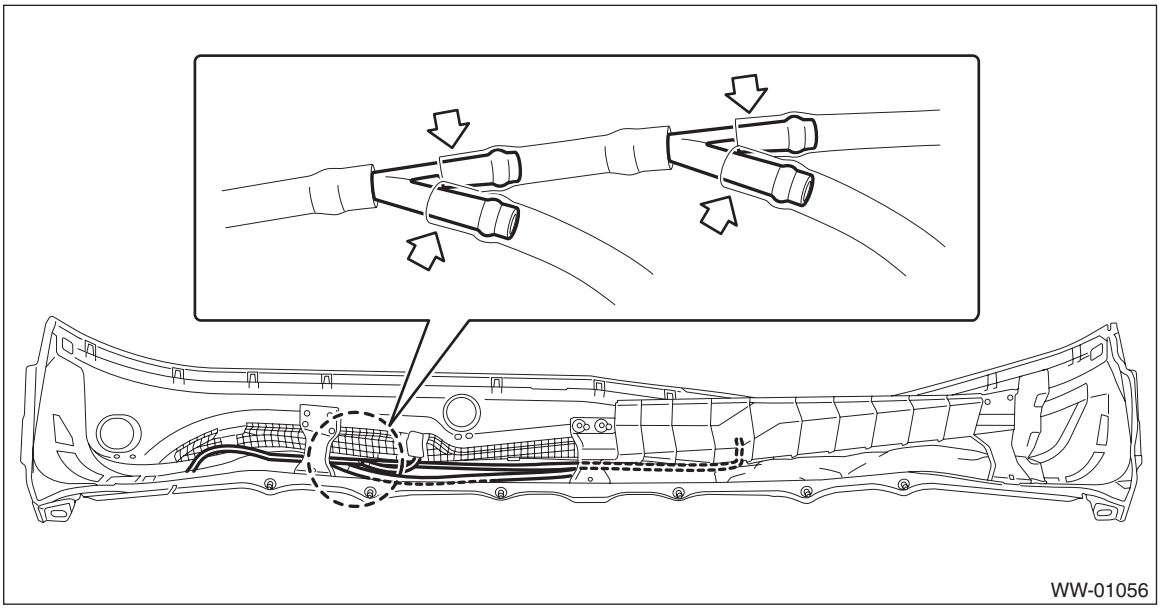


6) Disconnect the hose - windshield washer.

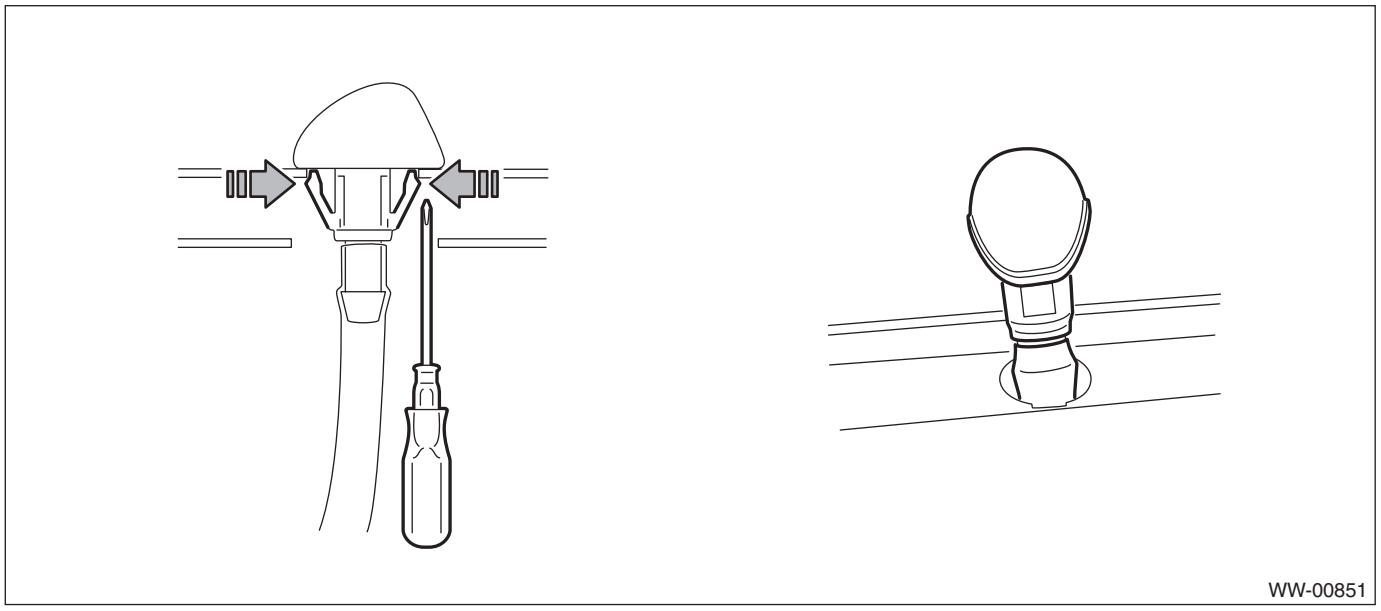
- Models without EyeSight



- Models with EyeSight



7) Remove the nozzle - windshield washer.
   (1) Push the claw using a flat tip screwdriver, etc.
   (2) When the nozzle - windshield washer lifts up, pull out the nozzle - windshield washer using a clip remover, etc.
   (3) Disconnect the hose - windshield washer, and remove the nozzle - windshield washer.



B: INSTALLATION

1) Install each part in the reverse order of removal.

CAUTION:
• If the cowl panel assembly cannot be installed properly, do not hit or set it forcibly. The claws of the cowl panel or the windshield glass may be damaged.
• Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to WW-2, FRONT WIPER, COMPONENT, General Description.>

2) Adjust the position of the nozzle - windshield washer. <Ref. to WW-36, ADJUSTMENT, Front Washer Nozzle.>

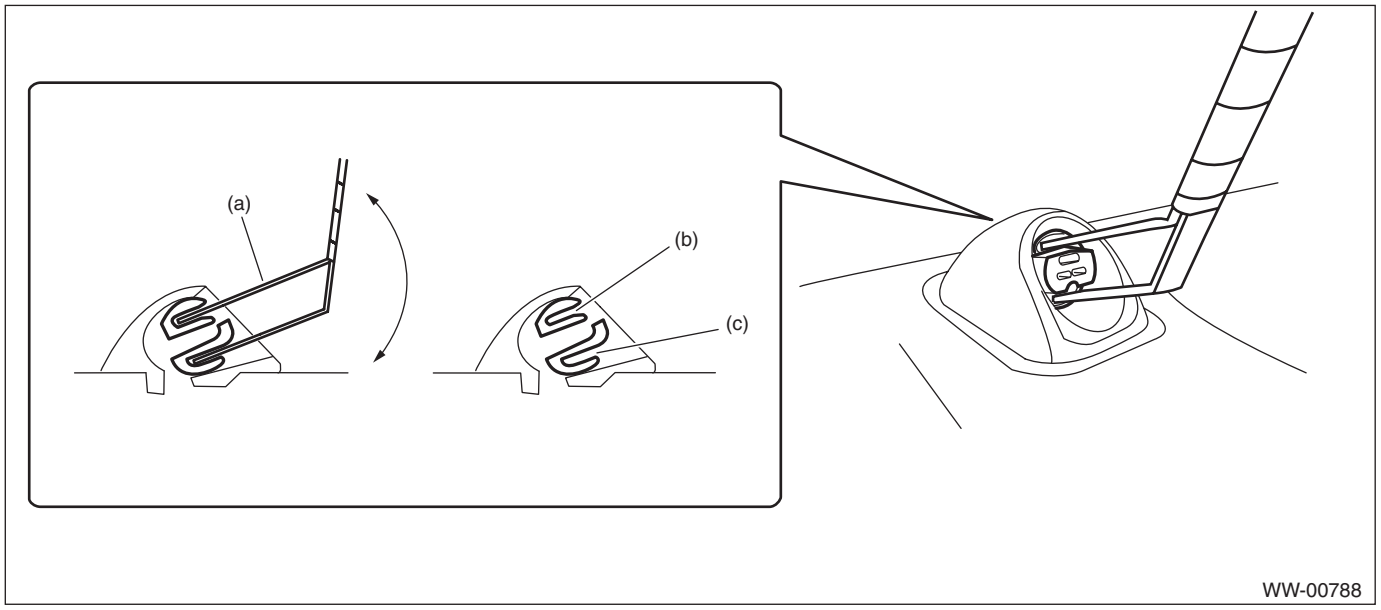
C: INSPECTION

- Make sure the nozzle - windshield washer and the hose - windshield washer are not clogged.
- Make sure the hose - windshield washer is not bent.

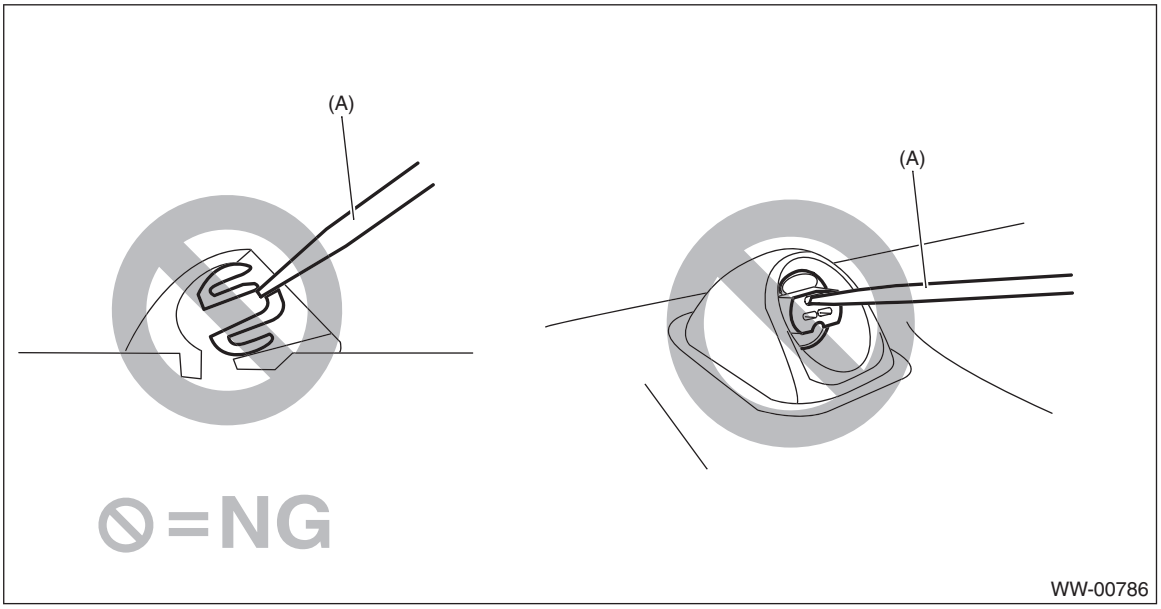
D: ADJUSTMENT

1. NOZZLE - WINDSHIELD WASHER

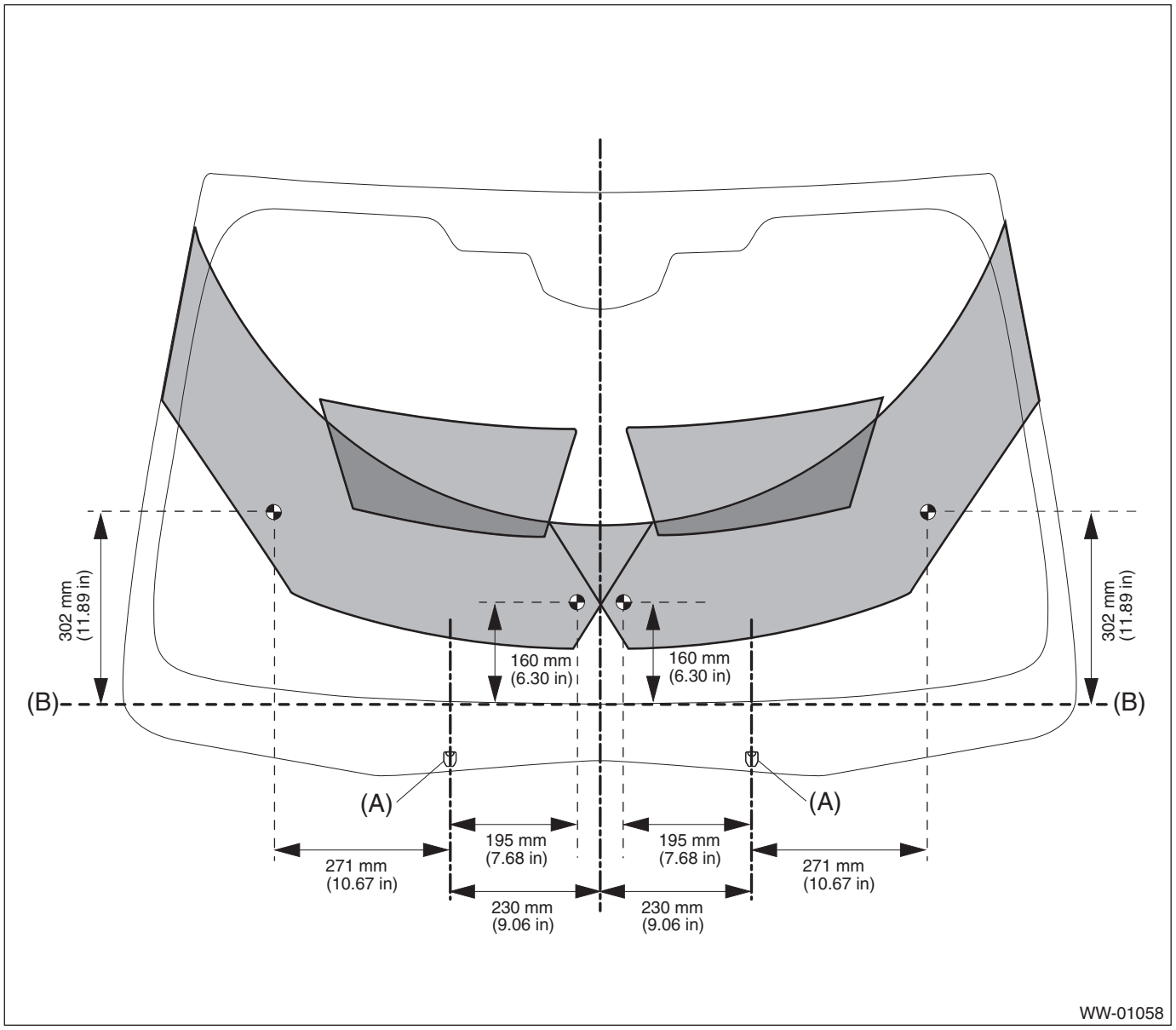
1) Turn the wiper switch to OFF position.
2) While the vehicle is at a standstill, insert the washer nozzle adjustment tool (a) into upper side (b) and lower side (c) of the nozzle - windshield washer to perform necessary adjustment.



CAUTION:
Washer nozzle is made of resin. If precision screwdriver (A) or equivalent is inserted into discharge port for adjustment, the discharge port can be deformed, and washer fluid cannot be sprayed.



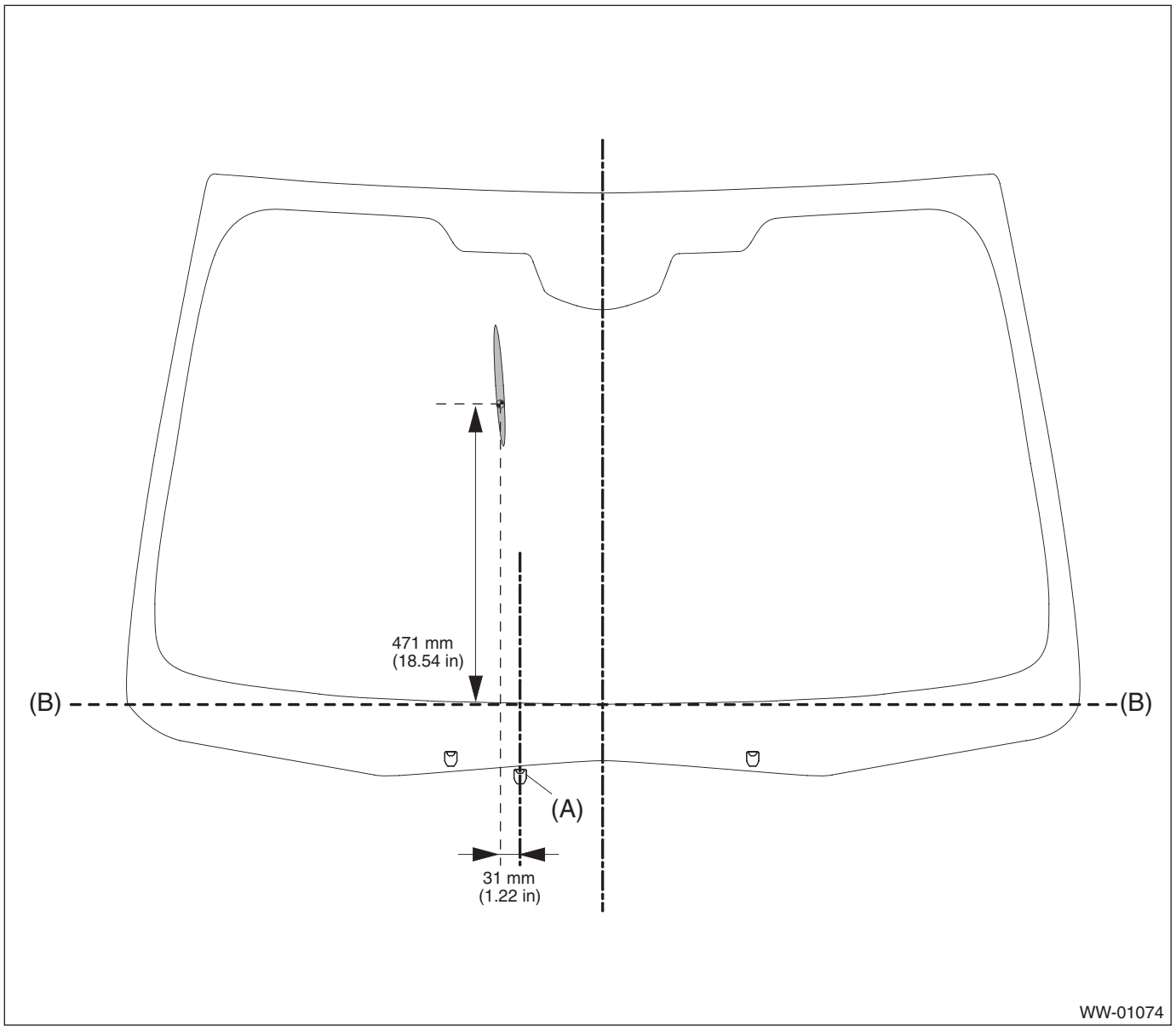
3) Adjust the washer injection position as shown in the figure.



(A) Nozzle - windshield washer (B) Ceramic line

2. NOZZLE - WINDSHIELD WASHER EyeSight (MODEL WITH EyeSight ONLY)

1) Turn the wiper switch to OFF position.
2) Adjust the washer injection position as shown in the figure.



(A) Nozzle - windshield washer EyeSight
(B) Ceramic line

9. Inhibitor Switch

A: NOTE

For inhibitor switch, refer to “CONTINUOUSLY VARIABLE TRANSMISSION” section.

- Non-turbo model: <Ref. to CVT(TR580)-90, Inhibitor Switch.>
- Turbo model: <Ref. to CVT(TR690)-92, Inhibitor Switch.>

9. Inspection Mode

A: PROCEDURE

Recreate the circumstance by referring to the conditions described in the checklist.

9. Inspection Mode

A: PROCEDURE

Recreate the circumstance by referring to the conditions described in the checklist.

9. List of Cancel Code

A: LIST

NOTE:
- The cancel code is registered even when cancel is performed intentionally by the driver.
- Cancel codes are cleared if the ignition switch is turned to OFF.
- If a different cancel code is input after a cancel code (latest code) has been input, the latest code is overwritten.
- If the cruise indicator light is flashing, a malfunction is occurring in the system or cruise control related switch. The cancel code at this time is saved even after ignition switch is OFF as a memory code of a past malfunction.
- To display a cancel code, use the Subaru Select Monitor to read the code after the cruise control is deactivated during a driving test.

Cancel code	Item	Contents of diagnosis	Note
11	Main switch	CRUISE switch of cruise control command switch is turned to OFF, and then the cruise control is released.	This code is displayed without operating the CRUISE switch. <Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>
12	Stop & brake switch	Stop light switch or brake switch is turned to ON, and then the cruise control is released.	This code is displayed without depressing the brake pedal. <Ref. to CC(diag)-17, 12, Diagnostic Procedure with Cancel Code.>
13	Clutch switch	Clutch switch is turned to ON, and then the cruise control is released.	This code is displayed without depressing the clutch pedal. <Ref. to CC(diag)-20, 13, Diagnostic Procedure with Cancel Code.>
14	Neutral switch	Neutral position switch is turned to ON, and then the cruise control is released.	This code is displayed without shifting to neutral position. <Ref. to CC(diag)-21, 14, Diagnostic Procedure with Cancel Code.>
15	Cancel switch	Cancel switch is turned to ON, and then the cruise control is released.	This code is displayed without operating the cancel switch. <Ref. to CC(diag)-22, 15, Diagnostic Procedure with Cancel Code.>
16	Ignition switch	Ignition switch is turned to OFF, and then the cruise control is released.	This code is displayed without operating the ignition switch. <Ref. to CC(diag)-23, 16, Diagnostic Procedure with Cancel Code.>
21	Cruise control switch malfunction when the ignition switch is ON	When the ignition switch is turned to ON, each switch of cruise control command switch is already turned to ON.	This code is displayed when the ignition switch is turned to ON without operating the cruise control command switch. <Ref. to CC(diag)-24, 21, Diagnostic Procedure with Cancel Code.>
22	Abnormality of change in vehicle speed	Malfunction of vehicle speed signal variation is detected.	<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>
24	Abnormality of switches related to cruise control	Open circuit of the cruise control switch is detected during cruise driving. (The system is judged as model without cruise control.)	This code is displayed with normal operation. <Ref. to CC(diag)-25, 24, Diagnostic Procedure with Cancel Code.>
31	Abnormal engine speed Signal	• Abnormal increase of engine speed is detected. • Gear is placed in Neutral, 1st or Reverse position. • When in X MODE.	Cruise in 2nd shift position or more. <Ref. to CC(diag)-25, 31, Diagnostic Procedure with Cancel Code.>

List of Cancel Code

Cancel code	Item	Contents of diagnosis	Note
32	Cruse Control out of Range	• Controlled vehicle speed decreased under the limit during cruising. • Set operation was performed at vehicle speed unavailable for setting. • RESUME operation was performed without memorized vehicle speed.	This code is displayed, though the vehicle speed is increased to the speed available for cruise set and set operation was performed again. <Ref. to CC(diag)-25, 32, Diagnostic Procedure with Cancel Code.>
34	Prohibition of cruise control at continuing big Accel. angle	The vehicle has been driven at higher speed than set vehicle speed for an abnormally long time (approximately 10 minutes) during cruise driving.	This code is displayed when driving for a long period of time at higher speed than appropriate cruise set vehicle speed by operating accelerator pedal. In this case, the cruise setting is deactivated. <Ref. to CC(diag)-25, 34, Diagnostic Procedure with Cancel Code.>
35	Prohibition of cruise control at vehicle speed F/B malfunction	Set vehicle speed cannot be kept because of some reasons (steep uphill, parking brake, abnormal decrease of engine output, etc.) during cruise driving.	This code is displayed when driving condition is not suitable for cruise control. Perform cruise set operation again after clearing the possible cause. <Ref. to CC(diag)-26, 35, Diagnostic Procedure with Cancel Code.>
41	VDC/TCS/EPB Operating	Vehicle dynamics control (VDC), TCS or EPB is operated during cruise driving or cruise setting.	This code is displayed when driving condition is not suitable for cruise control. Perform cruise set operation again after clearing the possible cause. <Ref. to CC(diag)-26, 41, Diagnostic Procedure with Cancel Code.>
43	ABS/VDC Failure	• Detected the situation that some or all functions of ABS or VDC can not be activated during cruise driving or cruise setting. • The CRUISE switch was pressed before starting the engine, but the CRUISE indicator did not illuminate.	<Ref. to CC(diag)-26, 43, Diagnostic Procedure with Cancel Code.>
44	Body Integrated unit Failure	Body integrated unit system malfunction is detected during cruise driving or cruise setting.	<Ref. to CC(diag)-26, 44, Diagnostic Procedure with Cancel Code.>
45	Meter Failure	Combination meter malfunction is detected during cruise driving or cruise setting.	<Ref. to CC(diag)-26, 45, Diagnostic Procedure with Cancel Code.>
49	TCM Failure	Transmission control module (TCM) malfunction is detected during cruise driving or cruise setting.	<Ref. to CC(diag)-26, 49, Diagnostic Procedure with Cancel Code.>
61	Brake switch abnormal	Malfunction in the stop light & brake switch is detected.	<Ref. to CC(diag)-26, 61, Diagnostic Procedure with Cancel Code.>
62	Neutral switch abnormal	Neutral position switch malfunction is detected.	<Ref. to CC(diag)-26, 62, Diagnostic Procedure with Cancel Code.>
63	Abnormality 1 of change in vehicle speed	Malfunction of vehicle speed signal variation is detected.	<Ref. to CC(diag)-27, 63, Diagnostic Procedure with Cancel Code.>
64	Engine Sensor Failure 1	Malfunction related to engine is detected.	<Ref. to CC(diag)-27, 64, Diagnostic Procedure with Cancel Code.>
65	Abnormality of switches related to cruise control 1	Cruise control command switch malfunction is detected. (When the switch is pressed ON for a long time (approximately two minutes), stuck ON condition is detected.)	<Ref. to CC(diag)-27, 65, Diagnostic Procedure with Cancel Code.>
66	Cruise Control Calculation Error	Cruise control calculation (microcomputer) malfunction is detected.	<Ref. to CC(diag)-27, 66, Diagnostic Procedure with Cancel Code.>

9. List of Diagnostic Trouble Code (DTC)

A: LIST

1. ECM

DTC	Item	Contents of diagnosis	Index No.
B1570	Antenna	Faulty antenna	<Ref. to IM(diag)-16, DTC B1570 ANTENNA, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1571	Reference Code Incompatibility	Reference code incompatibility between body integrated unit and ECM	<Ref. to IM(diag)-19, DTC B1571 REFERENCE CODE INCOMPATIBILITY, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1572	IMM Circuit Failure (Except Antenna Circuit)	Communication failure between body integrated unit and ECM	<Ref. to IM(diag)-20, DTC B1572 IMM CIRCUIT FAILURE (EXCEPT ANTENNA CIRCUIT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1574	Key Communication Failure	Communication failure between key and body integrated unit	<Ref. to IM(diag)-23, DTC B1574 KEY COMMUNICATION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1575	Incorrect Immobilizer Key	Incorrect immobilizer key (Use of unregistered key in body integrated unit)	<Ref. to IM(diag)-23, DTC B1575 INCORRECT IMMOBILIZER KEY, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1576	EGI Control Module EEPROM	ECM malfunctioning	<Ref. to IM(diag)-24, DTC B1576 EGI CONTROL MODULE EEPROM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1577	IMM Control Module EEPROM	Body integrated unit malfunctioning	<Ref. to IM(diag)-24, DTC B1577 IMM CONTROL MODULE EEPROM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1578	Meter Failure (Except for model for C0 or C5)	• Reference code incompatibility between combination meter and body integrated unit • Communication failure between body integrated unit and ECM	<Ref. to IM(diag)-25, DTC B1578 METER FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
	Meter Failure (Model for C0 or C5)	• Reference code incompatibility between body integrated unit and security control module • Communication failure between body integrated unit and ECM	

NOTE:
Perform diagnosis of engine DTC when a DTC other than an immobilizer DTC is detected. <Ref. to EN(H4DO)(diag)-82, List of Diagnostic Trouble Code (DTC).>

2. BODY INTEGRATED UNIT

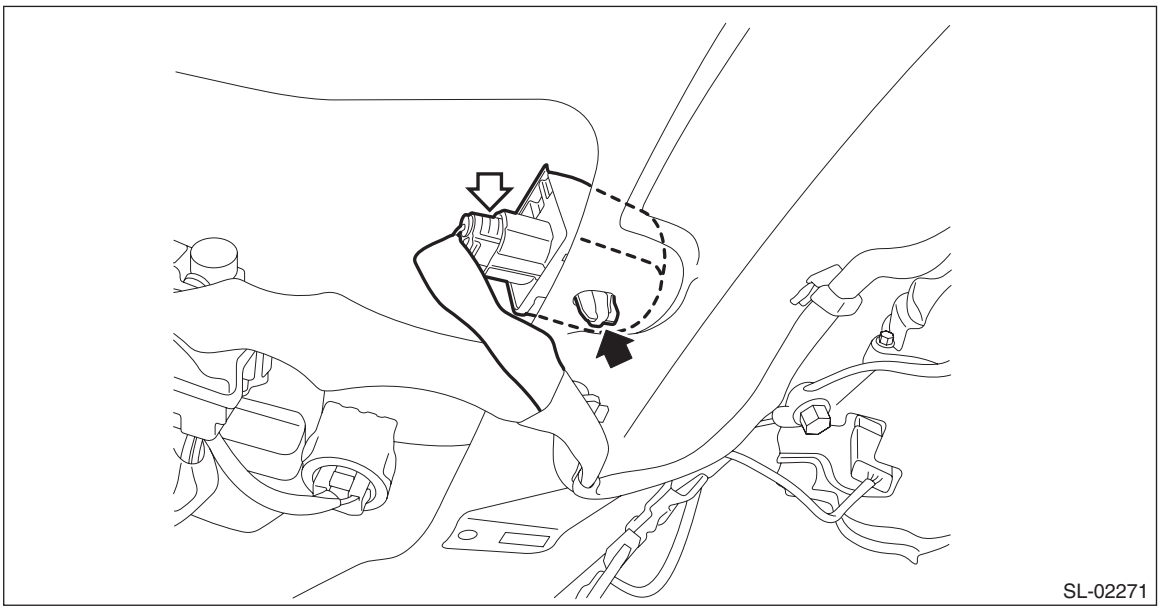
DTC	Item	Contents of diagnosis	Index No.	Relation between ECM and DTC
B1401	M Collation NG	Reference code incompatibility between combination meter and body integrated unit	<Ref. to IM(diag)-25, DTC B1401 M COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1578
B1402	Immobilizer Key Collation NG	• Incorrect immobilizer key (Use of unregistered key in body integrated unit) • Faulty antenna • Communication failure between key and body integrated unit	<Ref. to IM(diag)-26, DTC B1402 IMMOBILIZER KEY COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	• B1575 • B1570 • B1574
B1405	SCU Collation NG	Reference code incompatibility between body integrated unit and security control module	<Ref. to IM(diag)-26, DTC B1405 SCU COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1578
B1406	SCU_EEPROM_NG	Malfunction of security control module	<Ref. to IM(diag)-26, DTC B1406 SCU_EEPROM_NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1578
B1407	M Communication Abnormal	Communication failure between body integrated unit and combination meter	<Ref. to IM(diag)-27, DTC B1407 M COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1578
B1408	Meter EEPROM Abnormal	Combination meter malfunction	<Ref. to IM(diag)-27, DTC B1408 METER EEPROM ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1578
B1409	SCU Communication Abnormal	Communication failure between body integrated unit and security control module	<Ref. to IM(diag)-28, DTC B1409 SCU COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1578
B1410	Transponder Communication Abnormal	Communication failure between key and body integrated unit	<Ref. to IM(diag)-30, DTC B1410 TRANSPONDER COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1574
B1411	Immobilizer Antenna Abnormal	Faulty antenna	<Ref. to IM(diag)-30, DTC B1411 IMMOBILIZER ANTENNA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	B1570

NOTE:
The starter relay control is performed in immobilizer system. When the body integrated unit detects a nonconformity of reference code, it immediately outputs a starter relay cut signal to ECM, and then ECM stops the starter relay operation. In this case, engine does not start, and DTC is not recorded in ECM. Check that the engine does not start on the DTC of body integrated unit.

9. Power Rear Gate Buzzer

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate LWR. <Ref. to EI-122, REMOVAL, Rear Gate Trim.>
3) Remove the power rear gate buzzer.
   (1) Disconnect the connector.
   (2) Release the claws, and then remove the power rear gate buzzer.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

Connect the battery between the power rear gate buzzer terminals, and check whether the buzzer sounds. If the buzzer does not sound, replace the power rear gate buzzer.

9. Read Cancel Code

A: OPERATION

1. STEREO CAMERA

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
For details on cancel codes, refer to List of Cancel Code. <Ref. to ES(diag)-82, STEREO CAMERA, LIST, List of Cancel Code.>

2. ENGINE CONTROL MODULE (ECM)

1) On «Main Menu» display, select {Each System Check}.
On «System Selection Menu» display, select {Engine Control System}. Click the [OK] button after the information of engine type has been displayed.
2) Drive vehicle at 40 km/h (25 MPH) or more and set the cruise control.

CAUTION:
• When performing diagnosis, observe the legal speed limit on the road.
• The cancel code will also appear when the cruise control is cancelled by the driver’s operation. Do not confuse them.
• Be sure to get an assistant to support the diagnosis while driving, and have him/her operate the select monitor.
3) When the set speed is cancelled by itself (without any cancel operations such as applying brake) or when the cruise control could not be set by performing the setting operation, select the {Cancel Code(s) Display} on the engine malfunction diagnosis screen.

NOTE:
The cancel code has a {Latest Cancel Code(s)} and {Memorized Cancel Code(s)}. {Latest Cancel Code(s)} displays the latest code that occurred in this check drive. Cancel codes by the diagnosis of faulty switches relating to the system and cruise control are also displayed in the {Memorized Cancel Code(s)}.
4) Perform Engine DTC Clear Memory operation.<Ref. to EN(H4DO)(diag)-58, OPERATION, Clear Memory Mode.>
Cancel codes for switches relating to the system and cruise control are deleted by clearing memory on the engine side.

NOTE:
• The latest code will be cleared by turning ignition switch to OFF.
• For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.
• For details on cancel codes, refer to List of Cancel Code.<Ref. to ES(diag)-87, ECM, LIST, List of Cancel Code.>

9. Read Current Data

A: OPERATION

- For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.
- Communication with PRG CM and Subaru Select Monitor takes time. It takes time to show all the items, and the status cannot be reflected on the display. Therefore, select items only that need to be checked or up to two to three items, when checking the status. (When displaying selected items only, place a check mark for the item to be displayed and press the “Select” button.)

B: LIST

Item Name	Content	Standard	Note
+POWER B	Power supply voltage value Display range: 0.00 — 21.5 V	10.5 — 16 V	—
+ B	PRG CM power supply voltage value Display range: 0.00 — 21.5 V	10.5 — 16 V	—
IGN SW	Ignition switch status Display range: ON/OFF	ON: IGN ON OFF: IGN OFF	—
Memory stop SW	Memorized height switch status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
D SW	Driver’s seat switch status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
R/G inner SW	PRG inner switch status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
COURTESY SW	Courtesy switch status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
LATCH SW	Latch switch status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
SECTOR SW	Sector switch status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
TOUCH SENSOR R	Right side touch sensor status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
TOUCH SENSOR L	Left side touch sensor status Display range: ON/OFF	ON: switch ON OFF switch OFF	—
PRG MOTOR (OPEN)	Output status of rear gate motor open signal Display range: OPEN/OFF	OPEN: when operating rear gate open OFF: OFF	—
PRG MOTOR (CLOSE)	Output status of rear gate motor close signal Display range: CLOSE/OFF	CLOSE: when operating rear gate close OFF: OFF	—
CLUTCH(-)	Output status of drive unit clutch Display range: ON/OFF	ON: when clutch OFF output OFF: OFF	—
CLUTCH(+)	Output status of drive unit clutch Display range: ON/OFF	ON: when clutch ON output OFF: OFF	—
CLOSER (OPEN)	Output status of auto power rear gate closer motor open signal Display range: OPEN/OFF	OPEN: when open output OFF: OFF	—
CLOSER (CLOSE)	Output status of auto power rear gate closer motor close signal Display range: CLOSE/OFF	CLOSE: when close output OFF: OFF	—
BUZZER	Buzzer output status Display range: ON/OFF	ON: when buzzer sounding OFF: when buzzer stopping	—
HAZARD	Hazard output status Display range: ON/OFF	ON: when hazard ON OFF: when hazard OFF	—
Pulse-count	Drive unit count information Display range: 0 — 765	—	—

Item Name	Content	Standard	Note
Connection Continuing Flag	Display range: Flag / not Flag	Flag: not Flag:	—
PRG State	Rear gate status Display range: Fully open / Door free / Operating / Totally-enclosed	Fully open: fully open status Door free: door free status Suspend: suspend status Operating: operating status Totally-enclosed: totally-enclosed status	—
Idle Stop Cancel Flag	Status of Auto Start Stop cancel request Display range: Flag / not Flag	Flag: when Auto Start Stop cancellation not Flag: when Auto Start Stop	—
HALF STOP SOL (Lock)	Output status of stop holding solenoid lock signal Display range: ON/OFF	ON: when solenoid lock output OFF: when not operating solenoid	—
HALF STOP SOL (Cancel)	Output status of stop holding solenoid cancel signal Display range: ON/OFF	ON: when solenoid cancel output OFF: when operating solenoid	—
HALF STOP SOL POS SW	Display range: ON/OFF	ON: when stop holding OFF: when not stop holding	—
IGN	Ignition switch status (body integrated unit) Display range: ON/OFF	ON: IGN ON OFF: IGN OFF	—
R/G Open SW	PRG opener switch status Display range: OFF / Short Push / Long Push	OFF: when OFF Short Push: when operating Short Push Long Push: when operating Long Push	—
Front Wheel Speed	Vehicle speed condition Display range: 0 — 229.5 km/h (0 — 142.6 MPH)	Show vehicle speed	—
Normal Keyless R/G SW	Status of normal keyless R/G switch Display range: OFF / Short Push / Long Push	OFF: when OFF Short Push: when operating Short Push Long Push: when operating Long Push	—
Smart Keyless R/G SW	Status of keyless access key R/G switch Display range: OFF / Short Push / Long Push	OFF: when OFF Short Push: when operating Short Push Long Push: when operating Long Push	—
Idle Stop Control	Status of Auto Start Stop control Display range: Idle Stop Control / Idle Stop Uncontrol	Idle Stop Control: when Idle Stop Control Idle Stop Uncontrol: other than Idle Stop Control	—
P range SW	Status of shift lever P Display range: ON/OFF	ON: when in P range OFF: when other than in P range	—
Parking Brake Switch Input	Status of parking brake switch Display range: ON/OFF	ON: when parking brake is ON OFF: when parking brake is OFF	—
MT/AT	Vehicle information (body integrated unit) Display range: MT/AT	MT: MT model AT: AT model	—
R/G Open Authorized State	Status of PRG permission Display range: Authorized State / Unauthorized State	Authorized State: PRG Open Authorized State Unauthorized State: PRG Open Unauthorized State	—
Answer-Back Buzzer Information	Body integrated unit customizing information Display range: ON/OFF	ON: when buzzer sounding ON OFF: when buzzer sounding OFF	—

9. Read Current Data

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

B: LIST

Item Name	Content	Standard	Note
Trip Count	Information of timestamp, trip counter	—	—
Count	Information of timestamp, original counter identification information	—	—
Time Count	Information of timestamp, time counter	—	—
F Sensor Signal	Output voltage value from front vehicle height sensor Display range: 0.00 — 5.00 V	5V	Fixed at 5 V because front vehicle height sensor is not equipped.
R Sensor Signal	Output voltage value from rear vehicle height sensor Display range: 0.00 — 5.00 V	Approx. 2.5 V	Changes according to vehicle condition.
Actuator Signal	Power supply voltage value to headlight beam leveler actuator Display range: 0% — 100%	Not in operation: 0% In operation: 10 — 90% (17 seconds)	Changes according to vehicle condition.
ECU ACC	IG voltage condition of auto headlight beam leveler CM Display range: 0.00 — 25.76 V	8 — 16 V	—
Indicator Signal	Meter indicator condition Display range: Light off/Light up/Flashing	Light off: Normal Light up: Abnormal Blink: Not initialized	—
Vehicle speed signal	Vehicle speed condition Display range: 0.00 — 3686.34 km/h	Show vehicle speed	—
H/L Lo Signal	Headlight lighting condition Display range: Light off/Light up	Light off: light switch OFF Light up: light switch HEAD or light switch AUTO with light sensor operated	—

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

9. Read Current Data

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

B: LIST

- Combination meter

Items to be displayed	Unit of measure	Content	Note
Power on trip number	times	Information of timestamp	—
Power on supply system	—	Information of timestamp	—
Past time after power on	ms	Information of timestamp	—
Fuel sensing value	Ω	Fuel sensor value display	—
External air temperature sensing value	°C	External temperature sensor value display	—
External air temperature indication value	°C	Calculated value of external temperature for indication	—
Vehicle speed data	km/h (MPH)	Vehicle speed value detected by meter	—
Engine revolution data	rpm	Engine speed value detected by meter	—
Drivers seat seat-belt wearing state	—	Displays ON/OFF	—
Passenger seat seat-belt wearing state	—	Displays ON/OFF	—
Rear seat right seat-belt wearing state	—	Displays ON/OFF	—
Rear seat center seat-belt wearing state	—	Displays ON/OFF	—
Rear seat left seat-belt wearing state	—	Displays ON/OFF	—

- MFD

Items to be displayed	Unit of measure	Content	Note
MFD hardware fail flag	Normal/MFD Fail	MFD abnormal status	—
MFD U-ART communication error flag	Normal/MFD U-ART Fail		—
MFD CAN communication error flag	Normal/MFD CAN Fail		—
MFD destination abnormal flag	Normal/MFD destination error		—
MFD failure information	No error High-speed CAN error counter abnormal High-speed CAN bus OFF detection High-speed CAN data abnormal High-speed CAN data not received UART data abnormal UART data not received IGN line wire break System Microcomputer fail GERDA fail		—
Birthday1 setting M	—	Birthday setting value	—
Birthday1 setting D	—		—
Birthday2 setting M	—	Birthday setting value	—
Birthday2 setting D	—		—
Anniversary1 setting M	—	Anniversary setting value	—
Anniversary1 setting D	—		—

Items to be displayed	Unit of measure	Content	Note
Anniversary2 setting M	—	Anniversary setting value	—
Anniversary2setting D	—		—
Driving record1 setting Yard	—	Driving record 1 setting value	—
Driving record1 setting Time	—		—
Driving record1setting fuel cons. Ave.	—		—
Driving record1 setting M	—		—
Driving record1 setting D	—		—
Driving record2 setting DIS	—	Driving record 2 setting value	—
Driving record2 setting Time	—		—
Driving record2setting fuel cons. Ave.	—		—
Driving record2 setting M	—		—
Driving record2 setting D	—		—
Clock/OFF setting	OFF External air temperature + analog clock External air temperature + digital clock	Clock display setting	—
Engine oil maintenance setting Y	—	Oil maintenance setting value	—
Engine oil maintenance setting M	—		—
Engine oil maintenance setting D	—		—
Engine oil maintenance setting meter	—		—
Oil filter maintenance setting Y	—	Oil filter maintenance setting value	—
Oil filter maintenance setting M	—		—
Oil filter maintenance setting D	—		—
Oil filter maintenance setting meter	—		—
Tire maintenance setting Y	—	Tire maintenance setting value	—
Tire maintenance setting M	—		—
Tire maintenance setting D	—		—
Tire maintenance setting meter	—		—
Engine oil maintenance setting Y	—	Periodic inspection setting value	—
Engine oil maintenance setting M	—		—
Engine oil maintenance setting D	—		—
Engine oil maintenance setting meter	—		—
Sub-meter(left) setting NO1	Indication OFF AVG speed ODO fuel efficiency ECVT Fluid Temp. Accel opening angle Section time Section distance Section fuel efficiency	Meter display setting	—
Sub-meter(left) setting NO2	Analog display Digital display	Meter display setting	—
Sub-meter(center) setting NO1	Indication OFF AVG speed ODO fuel efficiency ECVT Fluid Temp. Accel opening angle Section time Section distance Section fuel efficiency	Meter display setting	—
Sub-meter(center) setting NO2	Analog display Digital display	Meter display setting	—

Items to be displayed	Unit of measure	Content	Note
Sub-meter(right) setting NO1	Indication OFF AVG speed ODO fuel efficiency ECVT Fluid Temp. Accel opening angle Section time Section distance Section fuel efficiency	Meter display setting	—
Sub-meter(right) setting NO2	Analog display Digital display	Meter display setting	—
MFD brightness setting NO1	-5 — +5	MFD setting	—
MFD brightness setting NO2	-5 — +5	MFD setting	—
MFD contrast setting NO1	-5 — +5	MFD setting	—
MFD contrast setting NO2	-5 — +5	MFD setting	—
ECO evaluation ON-OFF setting	OFF/ON	MFD setting	—
Info area setting	OFF Avg.F/E FUEL CONS Range	MFD setting	—
Menu language setting	(Corresponding languages)	MFD setting	—
Buzzer volume setting	OFF Small Loud	MFD setting	—
Fuel cons. Setting	00/OFF	MFD setting	—
Auto Start Stop interrupt display setting	OFF/ON	MFD setting	Not applicable
Welcome display ON-OFF setting	OFF/ON	MFD setting	—
Self check ON-OFF setting	OFF/ON	MFD setting	—

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

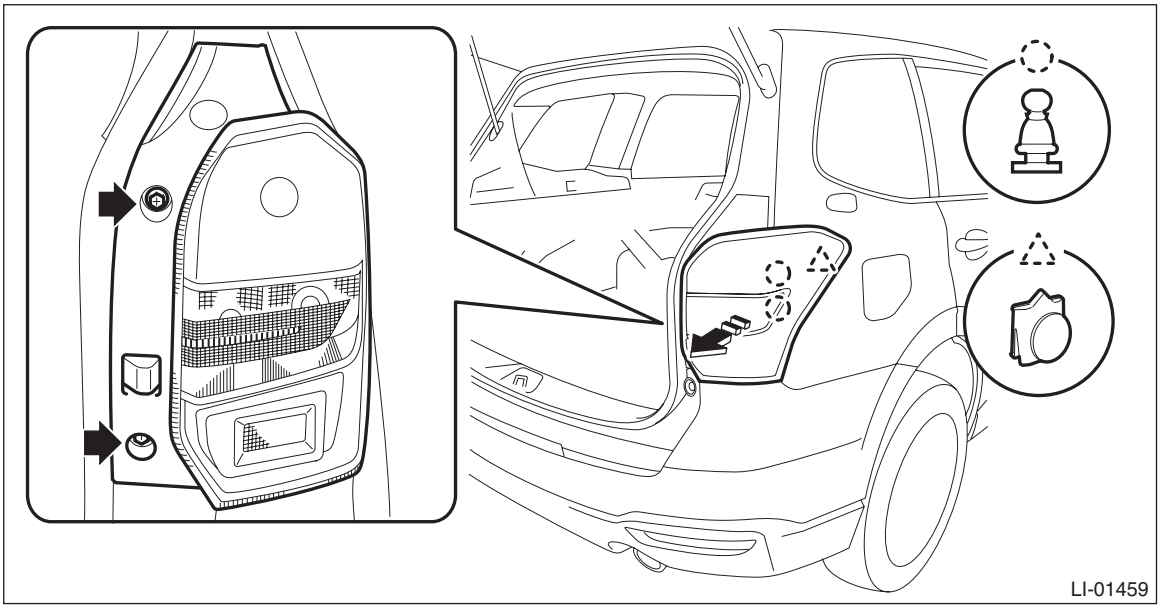
9. Rear Bumper

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the light assembly - rear combination.

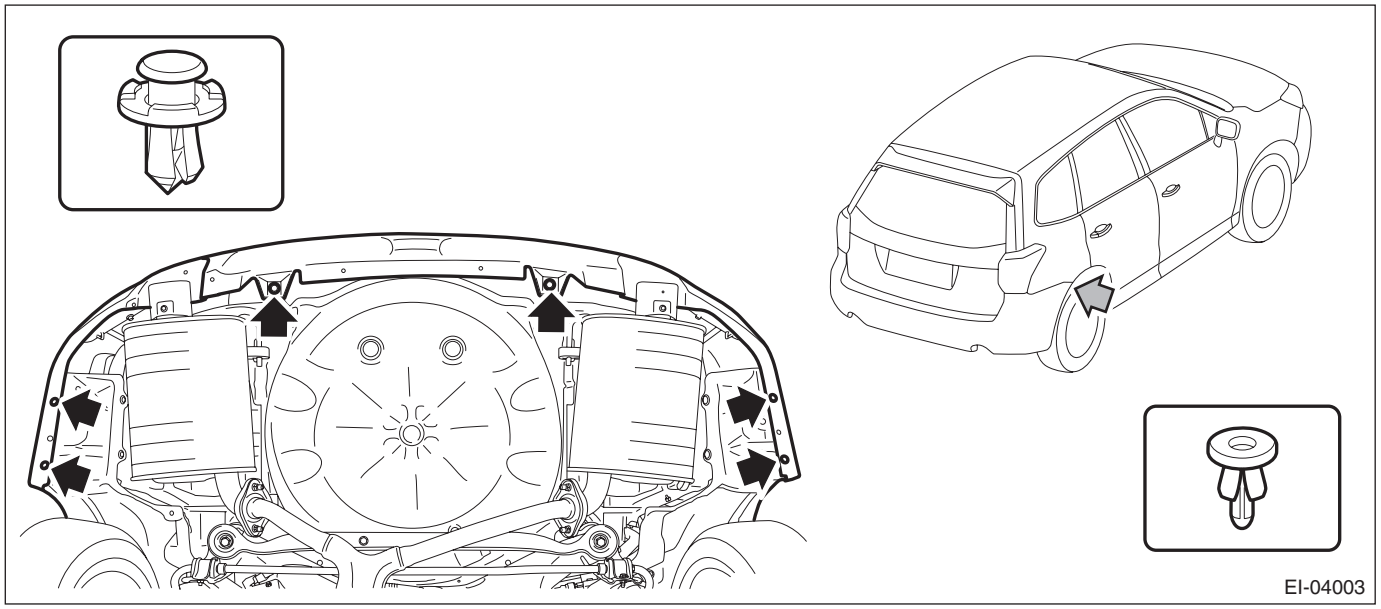
CAUTION:
Be careful not to damage the clips.

(1) Release the bolts and clips, then pull out the light assembly - rear combination to the vehicle rear.
(2) Disconnect the connector and remove the light assembly - rear combination.



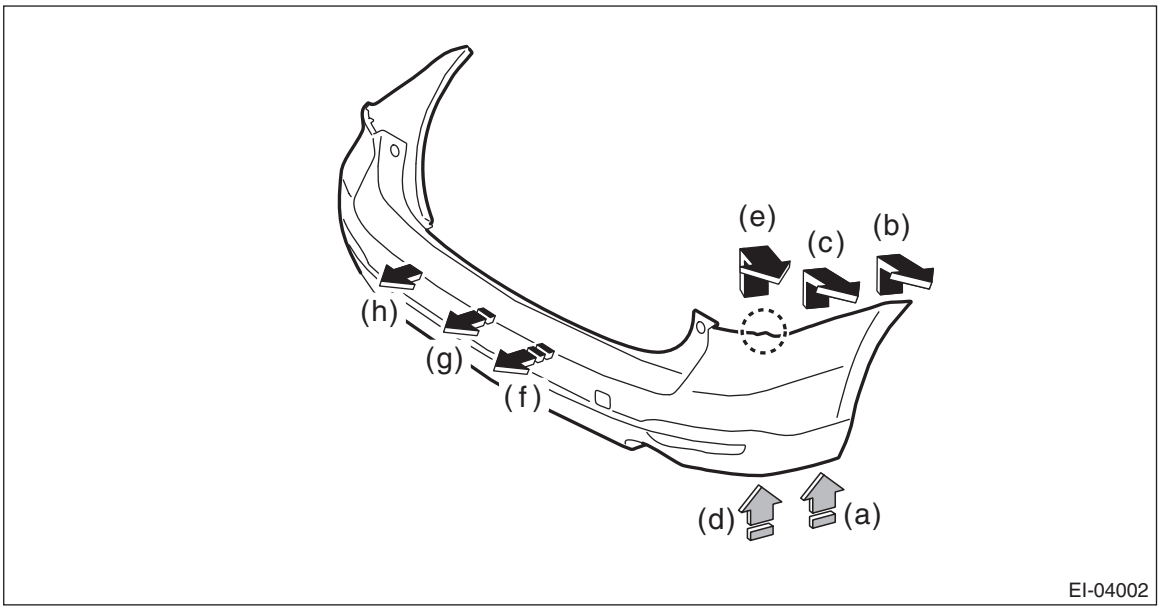
3) Remove the bumper face - rear.

(1) Remove the clips inside the wheel housing.
(2) Remove the clips at the lower side of the bumper face - rear.

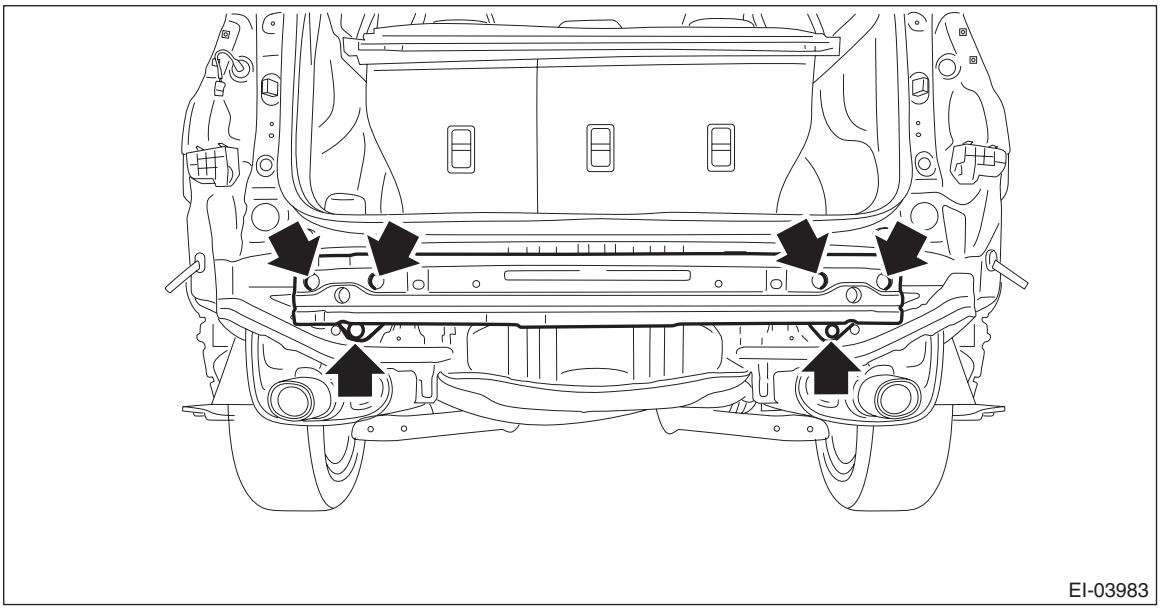


(3) Detach (b) and (c) while pulling up (a) of the bumper face - rear.
(4) Detach (e) while pulling up (d) of the bumper face - rear.
(5) Detach the opposite side in the same manner.
(6) Detach in order from (f) to (h) while pulling up the center part of the bumper face - rear.

CAUTION:
Pulling with excessive force may damage the bracket.



4) Remove the bolts and nuts, and remove the bumper beam COMPL - rear.

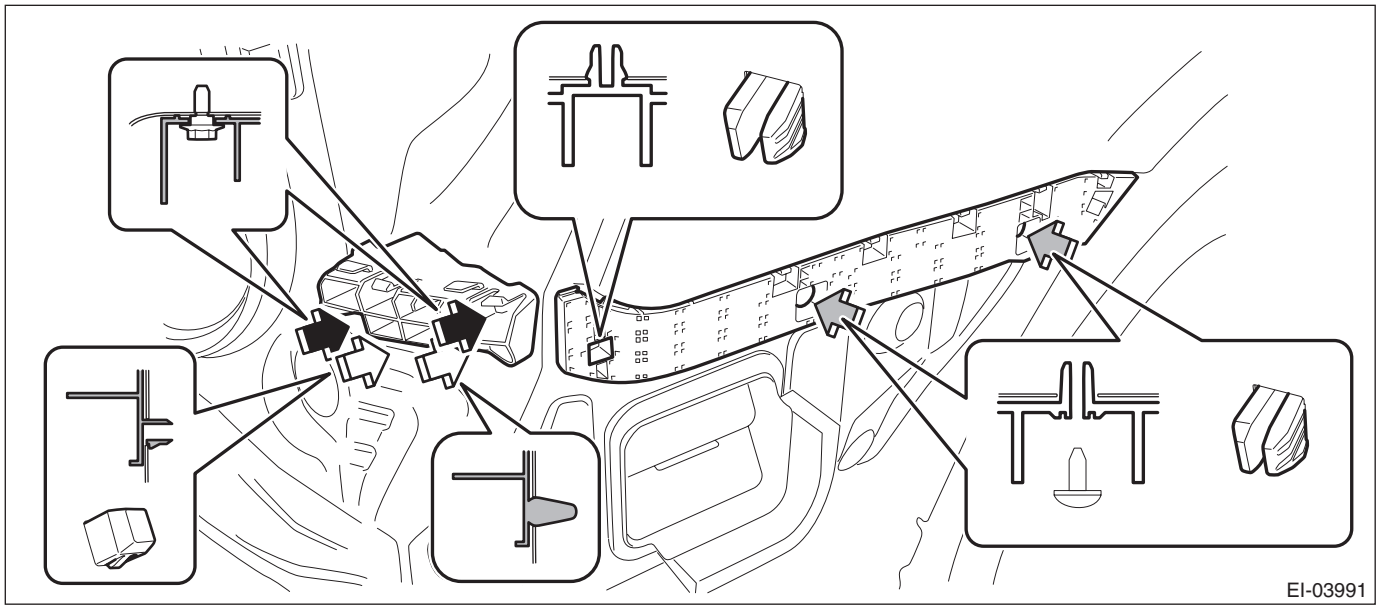


NOTE:
After all nuts are removed, raise the bumper beam COMPL - rear a little to remove it from vehicle body.
5) Remove bumper brackets.

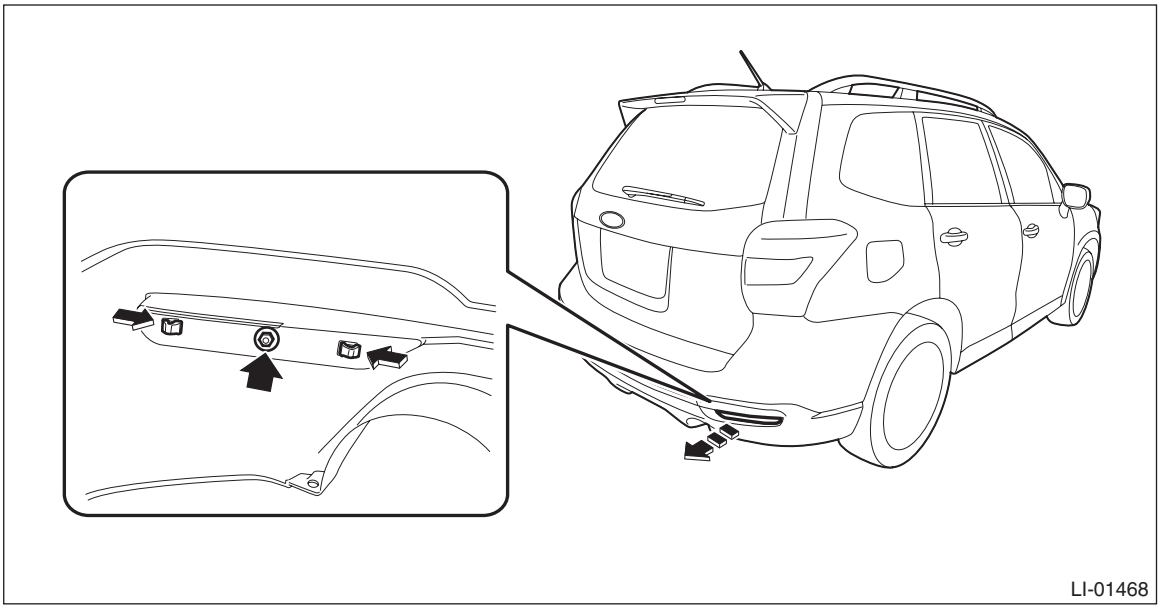
CAUTION:
Do not reuse the removed bracket - rear bumper side. This may cause water leakage on the body panel.

(1) Remove the screws.

(2) Turn over the trim panel - rear apron, and detach the claw of the clip from the back side.



6) From behind the bumper face - rear, release the nuts and claws and remove the reflex reflector assembly.



B: INSTALLATION

Install each part in the reverse order of removal.

CAUTION:
Do not reuse the removed bracket - rear bumper side. This may cause water leakage on the body panel.

NOTE:
If the bumper face - rear comes off too easily, adjust the hook of the bracket side.

Tightening torque:
Refer to "COMPONENT" of "General Description".<Ref. to EI-6, REAR BUMPER, COMPONENT, General Description.>
Light assembly - rear combination: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: REPAIR

Refer to the description for front bumper repair. <Ref. to EI-37, REPAIR, Front Bumper.>

9. Rear Gate

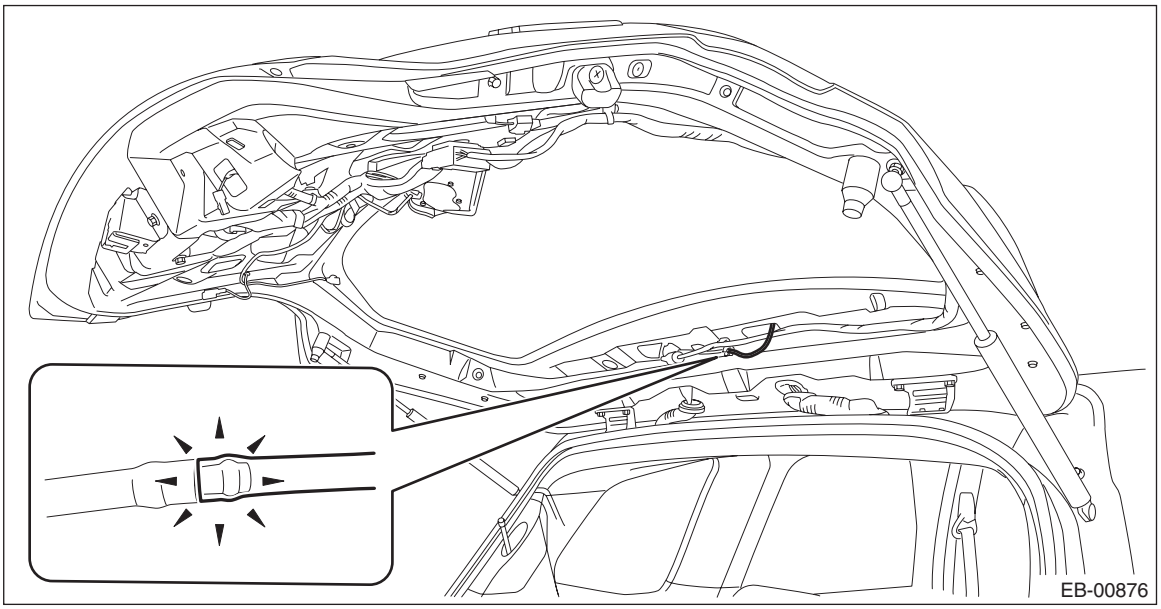
A: REMOVAL

CAUTION:
The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.

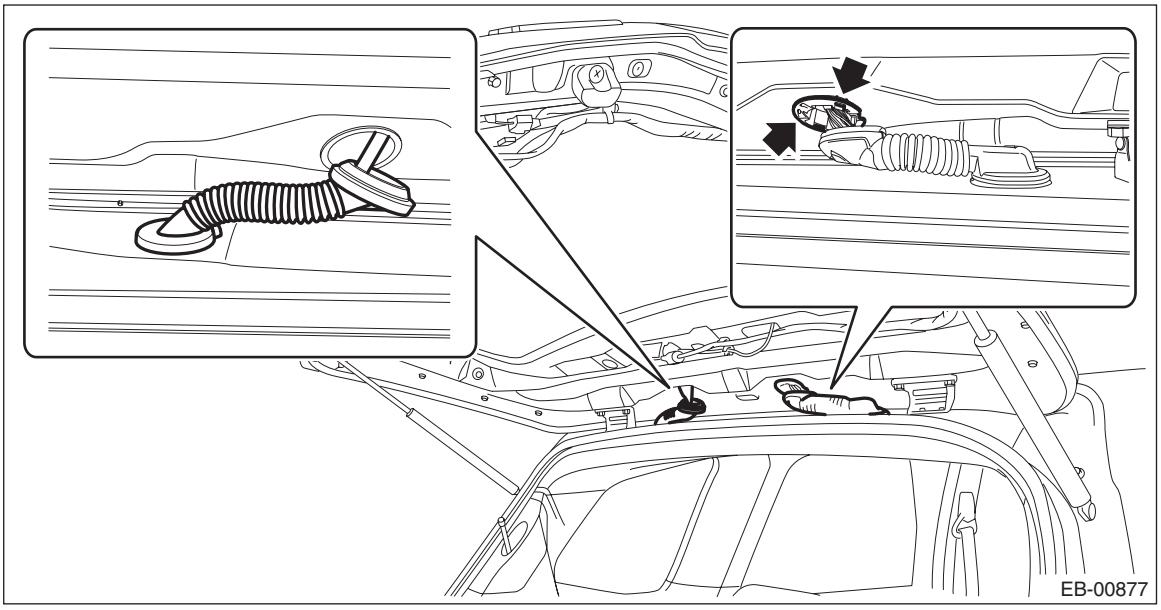
1. REAR GATE PANEL

1) Disconnect the ground cable from battery.
2) Trim panel - rear gate and garnish assembly - rear gate <Ref. to EI-126, REMOVAL, Rear Gate Garnish.>
3) For the model with power rear gate, remove the following parts.
- Power rear gate auto closer: <Ref. to PRG-17, REMOVAL, Power Rear Gate Auto Closer.>
- Power rear gate touch sensor: <Ref. to PRG-21, REMOVAL, Power Rear Gate Touch Sensor.>
- Power rear gate buzzer: <Ref. to PRG-22, REMOVAL, Power Rear Gate Buzzer.>

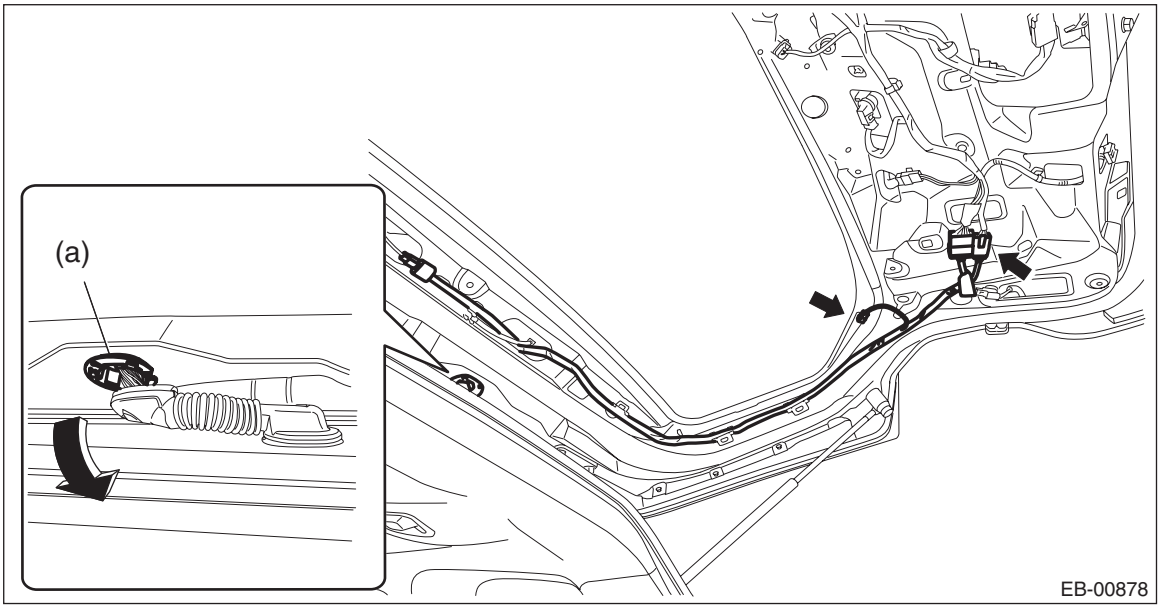
4) Arm assembly - rear wiper and motor assembly - rear wiper <Ref. to WW-41, REMOVAL, Rear Wiper Motor.>
5) Remove the light assembly - high-mounted and the nozzle - rear washer. <Ref. to WW-45, REMOVAL, Rear Washer.>
6) Remove the rear gate latch and actuator - rear gate. <Ref. to SL-51, REMOVAL, Rear Gate Latch and Actuator Assembly.>
7) Disconnect the hose assembly - rear washer.
   (1) Disconnect the joint portion of the hose assembly - rear washer.
   (2) Remove the clip.



8) Remove the rubber duct on the side of the panel - rear gate.
   (1) Pull out the claw while pushing it using a flat tip screwdriver or similar tools.
   (2) Remove the connection of the rubber duct on the side of the panel - rear gate.



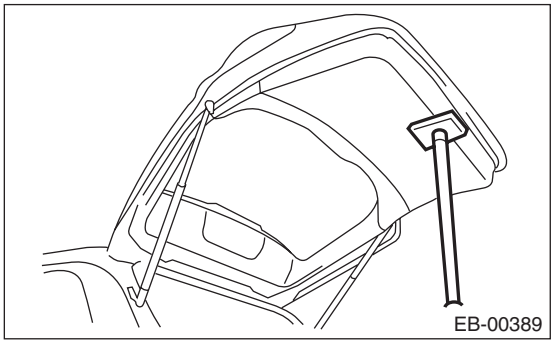
9) Disconnect the connector, and then pull out the harness from the panel - rear gate shown in the figure (a).



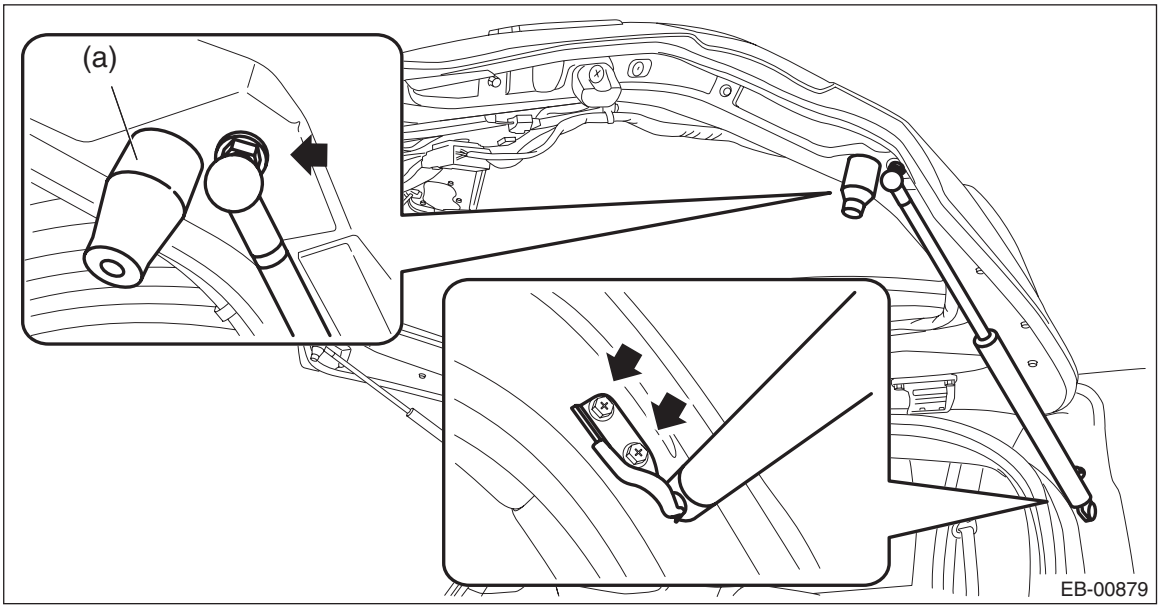
10) Remove harness clip of each harness from the panel - rear gate.

11) Before removing the stay assembly - rear gate, prevent the panel - rear gate from closing by using a prop or the like.

CAUTION:
If the prop comes off, operators may get injured and vehicle may get damaged. Make sure to support the panel - rear gate with secure material to prevent injury or damage.

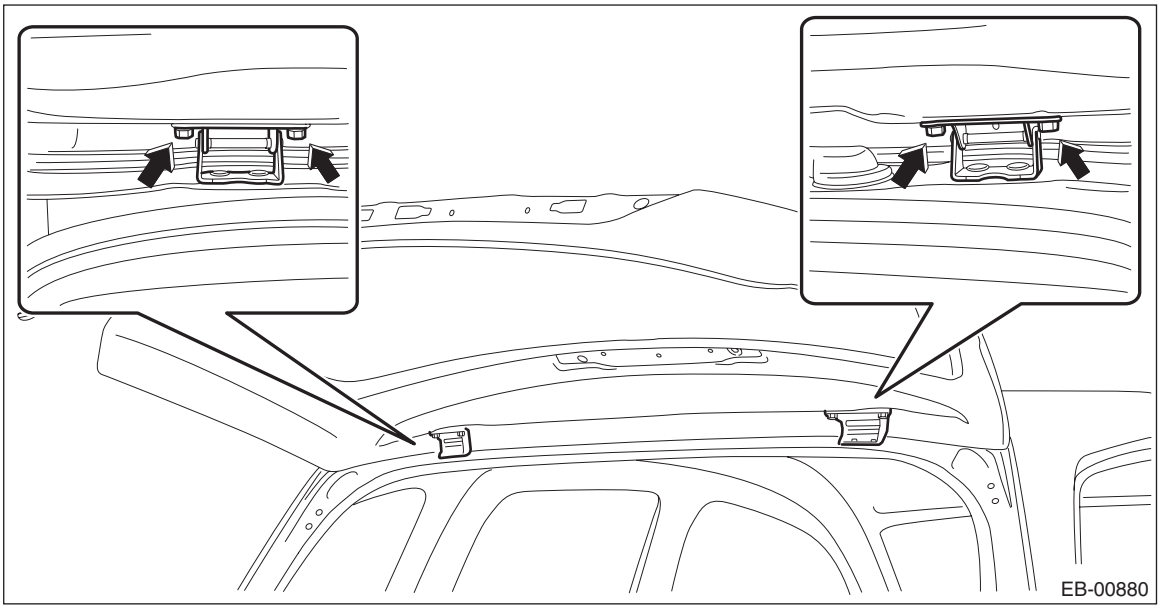


12) Remove the stay assembly - rear gate.
(1) Remove the stopper - rear gate (a) and remove the attachment section on the side of the stay assembly - rear gate.
(2) Remove the mounting bolts on the body side.



13) Remove the bolts of the hinge - rear gate, and remove the panel - rear gate.

CAUTION:
The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.



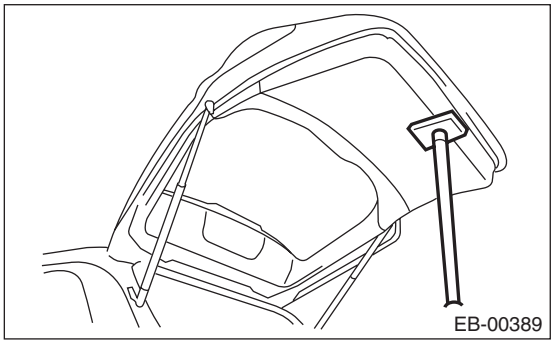
14) Remove the hinge - rear gate from the vehicle.

2. REAR GATE DAMPER STAY

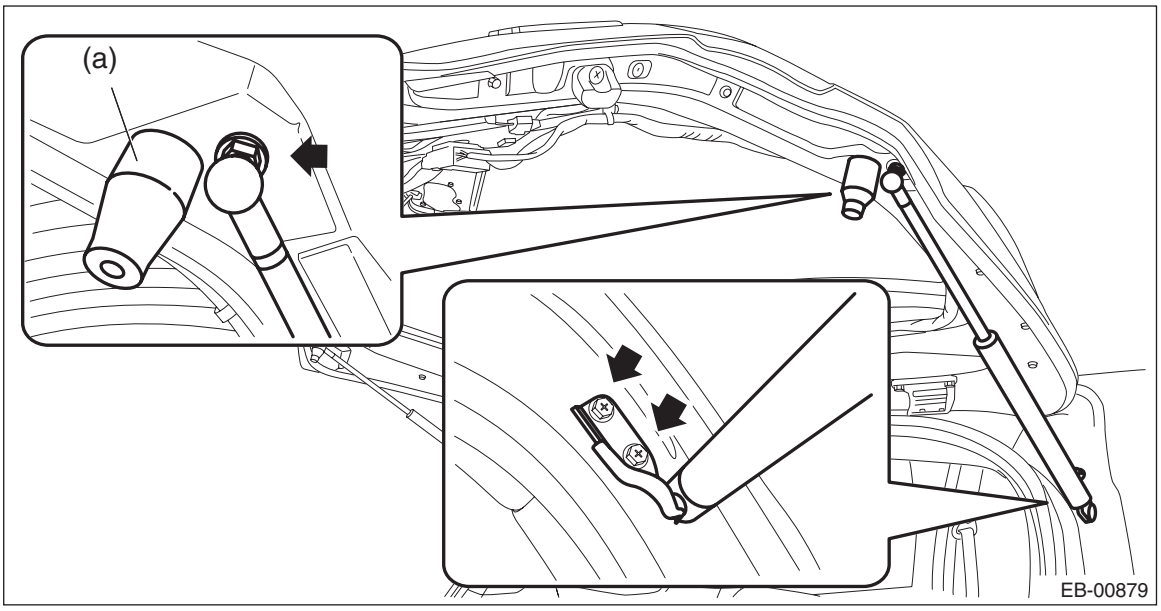
CAUTION:
- **Do not damage piston rods and oil seals.**
- **Never disassemble cylinders: They contain gas.**
- **The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.**

1) Before removing the stay assembly - rear gate, prevent the panel - rear gate from closing by using a prop or the like.

CAUTION:
If the prop comes off, operators may get injured and vehicle may get damaged. Make sure to support the panel - rear gate with secure material to prevent injury or damage.



2) Remove the stay assembly - rear gate.
   (1) Remove the stopper - rear gate (a) and remove the attachment section on the side of the stay assembly - rear gate.
   (2) Remove the mounting bolts on the body side.



B: INSTALLATION

1. REAR GATE PANEL

CAUTION:
The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.

1) Install the hinge - rear gate to the vehicle body.
2) Temporarily install the panel - rear gate to the hinge - rear gate.

NOTE:
When installing, make sure that a uniform clearance is created around the panel - rear gate.

3) Adjust the clearance around the panel - rear gate. <Ref. to EB-61, ADJUSTMENT, Rear Gate.>
4) Tighten the bolts of the hinge - rear gate.

Tightening torque:
25 N·m (2.55 kgf-m, 18.4 ft-lb)

5) Install each part in the reverse order of removal.

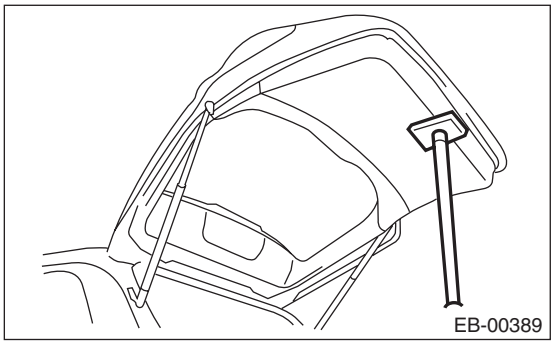
Tightening torque:
Rear gate parts: <Ref. to EB-8, REAR GATE, COMPONENT, General Description.>
Garnish assembly - rear gate: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)
Arm assembly - rear wiper and motor assembly - rear wiper: <Ref. to WW-3, REAR WIPER, COMPONENT, General Description.>

2. REAR GATE DAMPER STAY

CAUTION:
The panel - rear gate is heavy. When removing and installing it, always work in a team of two or more persons.

1) Prevent the panel - rear gate from closing using prop or the like.

CAUTION:
If the prop comes off, operators may get injured and vehicle may get damaged. Make sure to support the panel - rear gate with secure material to prevent injury or damage.

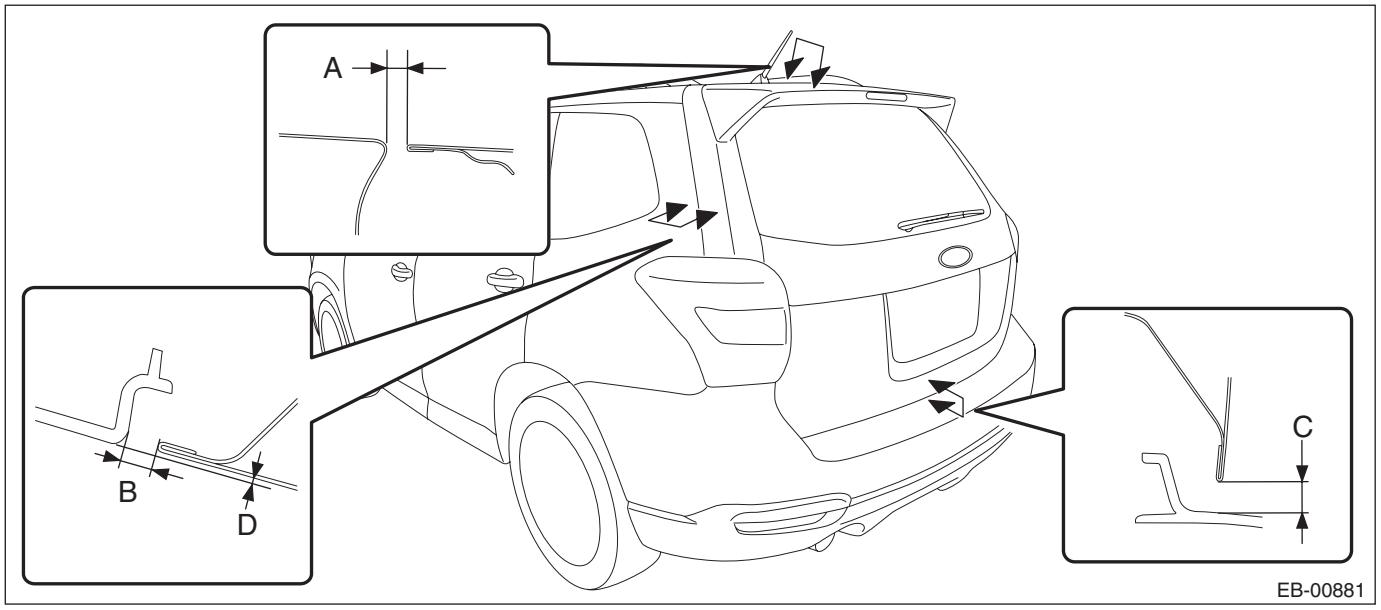


2) Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to EB-8, REAR GATE, COMPONENT, General Description.>

C: ADJUSTMENT

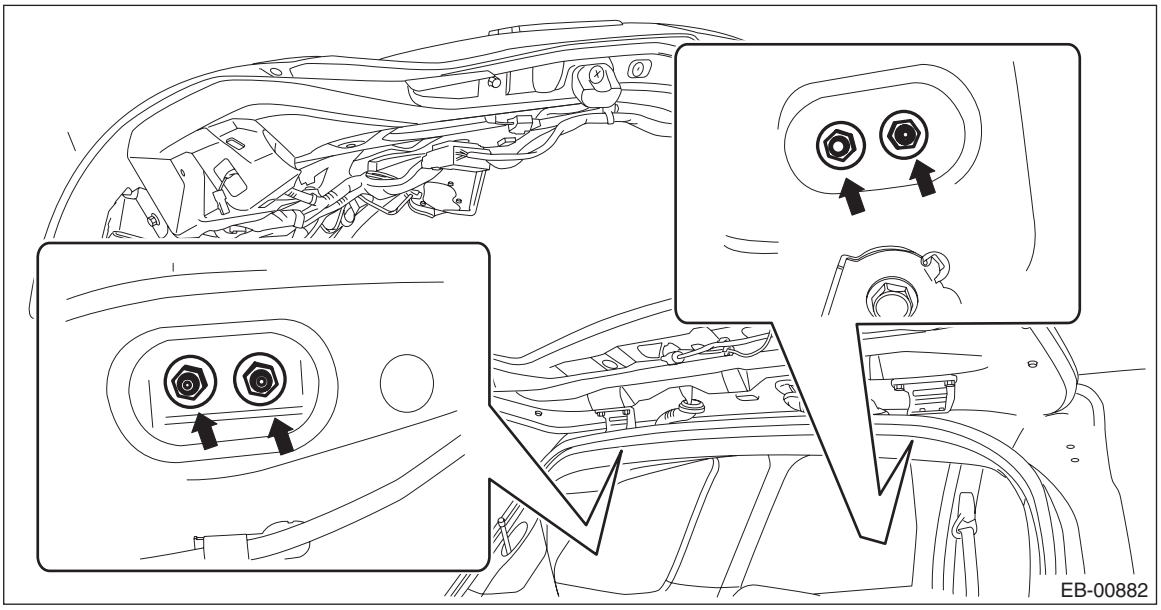
Adjust the clearance around the panel - rear gate as follows.



	Part	Standard
A	Panel - rear gate to Roof panel	6.5+1.0, –0.5 mm (0.26+0.04, –0.02 in)
B	Panel - rear gate to Panel side outer	6.5±1.0 mm (0.26±0.04 in)
C	Panel - rear gate to Bumper face - rear	7.0±1.0 mm (0.28±0.04 in)
D	Surface level gap: Panel - rear gate to Panel side outer	0+0, –1.5 mm (0+0, –0.06 in)

1) Remove the trim panel - roof assembly.<Ref. to EI-109, REMOVAL, Roof Trim.>
2) Adjust the vertical and horizontal positions of the panel - rear gate.

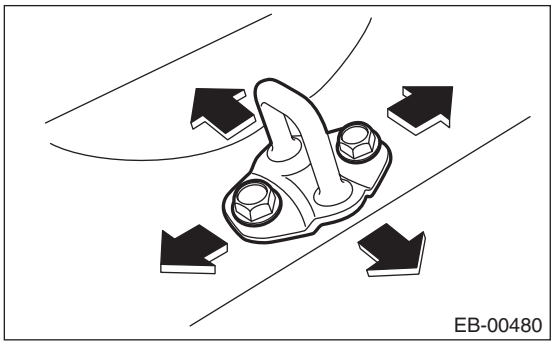
NOTE:
Adjust the panel - rear gate after removing the stay assembly - rear gate.



(1) Loosen the mounting nuts on the body side of the hinge - rear gate.
(2) Adjust the vertical and horizontal clearance of the panel - rear gate.

Tightening torque:
25 N·m (2.55 kgf-m, 18.4 ft-lb)

3) Adjust the surface level gap between the panel - rear gate and the body.



(1) Remove the trim panel - rear skirt.
(2) Loosen the bolt.
(3) Tap the striker - rear gate using a plastic hammer to adjust the surface level gap between the panel - rear gate and the body.

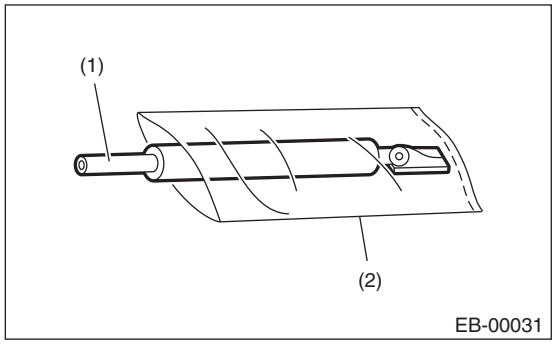
Tightening torque:
25 N·m (2.55 kgf-m, 18.4 ft-lb)

D: DISPOSAL

1. REAR GATE DAMPER STAY

CAUTION:
Gas is colorless, odorless, and harmless. However, gas pressure may spray cutting powder or oil. Be sure to wear dust-resistant goggles.

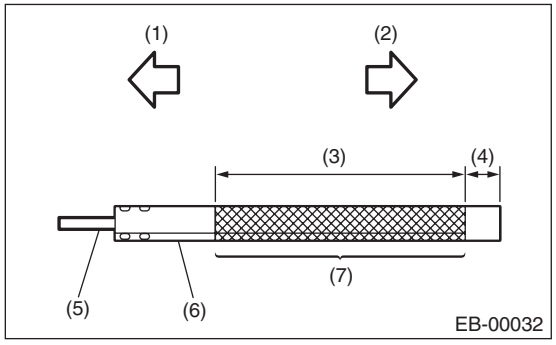
1) Cover with a vinyl sack as shown in the figure.



(1) Stay ASSY - rear gate
(2) Vinyl sack

NOTE:
Prevent the vinyl sack from being caught by drill cutting edge.

2) Lift the body side slightly with piston rods fully extended, and secure the body side with vise.
Drill a hole of 2 to 3 mm (0.08 to 0.12 in) diameter at a point 6 to 196 mm (0.24 to 7.72 in) from the body side, and bleed the gas in the stay assembly - rear gate completely.

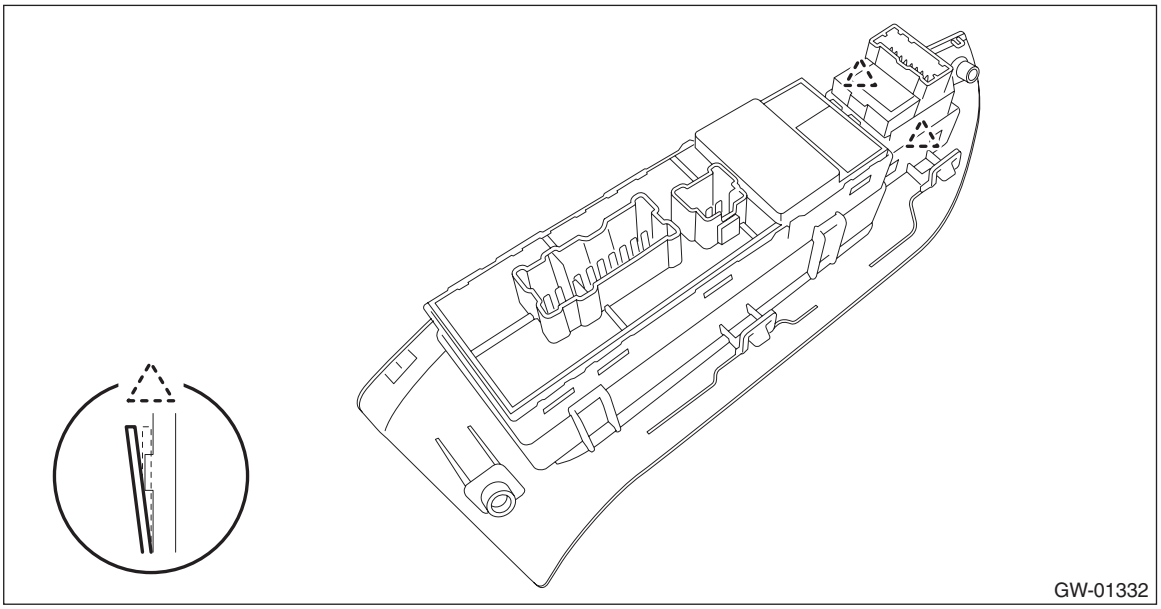


(1) Door side
(2) Body side
(3) 196 mm (7.72 in)
(4) 6 mm (0.24 in)
(5) Piston rod
(6) Cylinder
(7) Portion to be drilled

9. Remote Control Mirror Switch

A: REMOVAL

1) Remove the panel - power window main switch. <Ref. to GW-11, MAIN SWITCH, REMOVAL, Power Window Control Switch.>
2) Release the claws, and then remove the switch - door mirror.



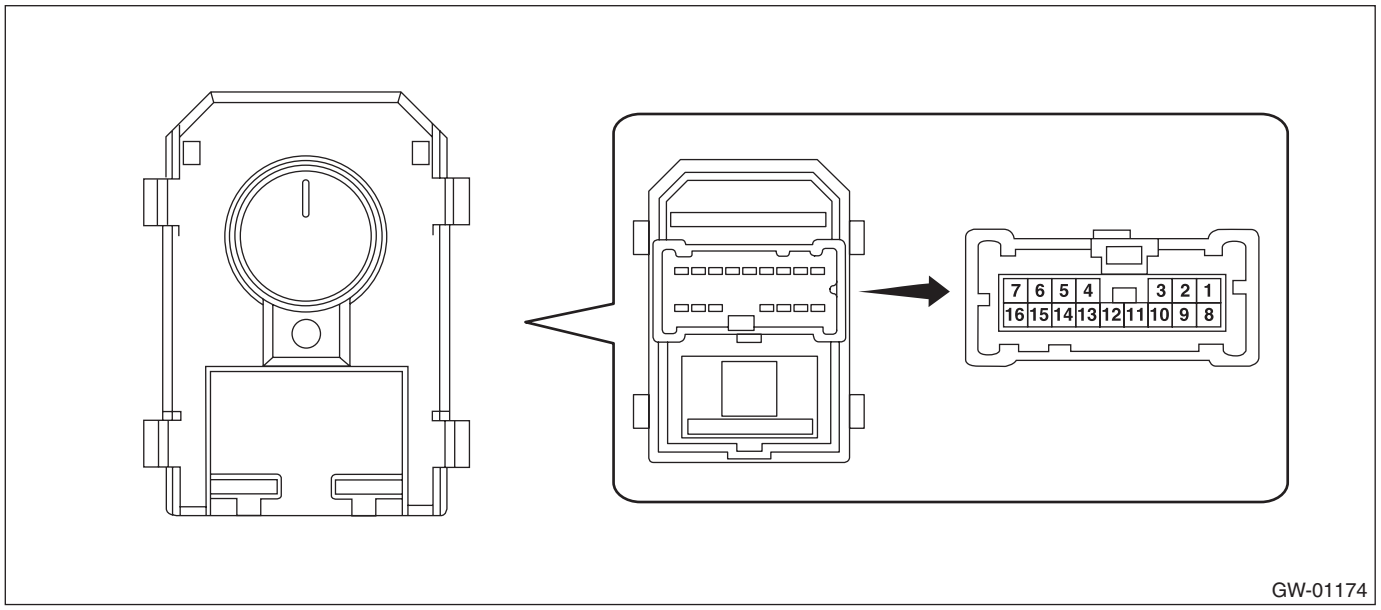
B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1) Disconnect the connector of the switch - door mirror.
2) Check the resistance between switch - door mirror terminals.

Preparation tool:
Circuit tester



- Changeover switch RH

Terminal No.	Inspection conditions	Standard
—	OFF	1 MΩ or more
1 — 12 9 — 7	UP	Less than 1 Ω
1 — 9 12 — 7	DOWN	Less than 1 Ω
1 — 11 12 — 7	LEFT	Less than 1 Ω
1 — 12 11 — 7	RIGHT	Less than 1 Ω

- Changeover switch LH

Terminal No.	Inspection conditions	Standard
—	OFF	1 MΩ or more
1 — 14 8 — 7	UP	Less than 1 Ω
1 — 8 14 — 7	DOWN	Less than 1 Ω
1 — 10 14 — 7	LEFT	Less than 1 Ω
1 — 14 10 — 7	RIGHT	Less than 1 Ω

3) If the inspection result is not within the standard, replace the switch - door mirror.

9. Stop Light System

A: WIRING DIAGRAM

Refer to “Stop Light System” in the wiring diagram.

- Non-turbo model without EyeSight: <Ref. to WI-395, WITHOUT EyeSight AND X MODE, WIRING DIAGRAM, Stop Light System.>
- Except for non-turbo model without EyeSight: <Ref. to WI-397, EXCEPT FOR MODEL WITHOUT EyeSight AND X MODE, WIRING DIAGRAM, Stop Light System.>

B: INSPECTION

1. CHECK STOP LIGHT SWITCH

Refer to “INSPECTION” of the “Stop Light Switch” in “BRAKE” section. <Ref. to BR-72, INSPECTION, Stop Light Switch.>

C: NOTE

For operation procedures of each component of the stop light system, refer to the respective section.

- Rear combination light assembly: <Ref. to LI-51, Rear Combination Light Assembly.>
- Tail light/stop light bulb: <Ref. to LI-52, Tail/Stop Light Bulb.>
- High-mounted stop light: <Ref. to LI-60, High-mounted Stop Light.>

9. Transmission Control Module (TCM)

A: NOTE

For transmission control module (TCM), refer to “CONTINUOUSLY VARIABLE TRANSMISSION” section.

- Non-turbo model: <Ref. to CVT(TR580)-143, Transmission Control Module (TCM).>
- Turbo model: <Ref. to CVT(TR690)-125, Transmission Control Module (TCM).>

9. User Customizing

A: OPERATION

1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Integ. unit mode}.
3) On «Integ. unit mode failure diag.» display, select {Work Support}.
4) On «Work Support» display, select {Unit customizing}.
5) Change the setting with UP/DOWN key and set with the [OK] key.

List of User Customizing item

Data	Initial setting value	Customize setting	Remarks
Off delay time	30s	OFF	Room light off delay time can be selected.
		10 Sec	
		20 Sec	
		30s	
Auto Light Sensitivity Adjustment	Normal	Dull	Slow response
		Normal	Standard
		Sensitive	Quick response
		Very sensitive	Fairly quick response
Back auto rear wiper setting	(*1)	ON	Existence of rear wiper linked with reverse operation can be set. *1: Set to “OFF” for U4 and U5. Set to “ON” for C0, C4, and C5.
		OFF	
Driver’s Door Unlock Setting	Select	ALL	The door to be unlocked when you touch the driver’s door can be set.
		Select	
Rear Gate Unlock Setting	Select	ALL	The door to be unlocked when you touch the rear gate switch can be set.
		Select	
Rear defogger operation mode	Normal	Normal	Automatically stops in 15 minutes after switch is turned to ON.
		Continuous	Repeats active condition for 15 minutes and inactive condition for 2 minutes until switch is turned to OFF.
Security Alarm Setup	ON	ON	Security alarm (hazard, horn or siren) in active condition
		OFF	Security alarm in inactive condition
Impact Sensor Setup	OFF	ON	Workable when Impact Sensor Setup is set to “ON”. Impact sensor function becomes activated.
		OFF	Impact sensor in inactive condition (Set to “OFF” in models without sensors.)
Alarm delay setup	ON		After the keyless lock operation, the alarm monitor starts after the following delay time has passed.
		ON	Delay time is 30 seconds.
		OFF	Delay time is 0 seconds.
Lockout prevention	ON	ON	key lockout prevention function is activated. (The function does not operate if safety knob is locked by hand.)
		OFF	Key lockout prevention function is deactivated.
Impact sensor (OP)	OFF	ON	Vehicle is controlled in impact sensor equipped mode. (Make sure to set to “OFF” for models without the impact sensor. When “ON”, hazard, horn or siren become activated by keyless lock (alarm monitor start).)
		OFF	Vehicle is controlled in no impact sensor mode.
Buzzer sounding setting	ON	ON	When lock/unlock is selected by keyless entry system operation, buzzer operates.
		OFF	When lock/unlock is selected by keyless entry system operation, buzzer does not operate.

Data	Initial setting value	Customize setting	Remarks
Abnormal warning lamp flashing setting	ON	ON	When lock/unlock is selected by keyless entry system operation, hazard blinks.
		OFF	When lock/unlock is selected by keyless entry system operation, hazard does not interlock.
Passive Alarm	OFF	ON	
		OFF	
Door open warning	ON	ON	
		OFF	
Dome Light Alarm Setting	OFF	ON	Room light illuminates interlocking with alarm.
		OFF	Room light does not illuminate interlocking with alarm.
Auto A/C ECU Setting	—	ON	Diagnoses with auto A/C CM.
		OFF	Diagnoses without auto A/C CM.
Wiper Deicer setting	—	ON	Wiper deicer control is performed.
		OFF	Wiper deicer control is not performed.
Illumination Control On/Off	ON	ON	
		OFF	
Sedan/Wagon Setting	—	Sedan	Body control is performed by Sedan.
		Wagon	Body control is performed by Wagon.
MT/AT Setting	—	MT	Body control is performed by MT.
		AT	Body control is performed by AT.
6MT Setting	—	6MT	Body control is performed by 6MT.
		Other than 6MT	Body control is performed by other than 6MT.
Factory initial setting	Market	Market	Customize setting is reset when mode is switched from Market to Factory.
		Factory	

6) After setting, make sure that the setting changed in the {Current Data Display & Save} is same as vehicle equipment.

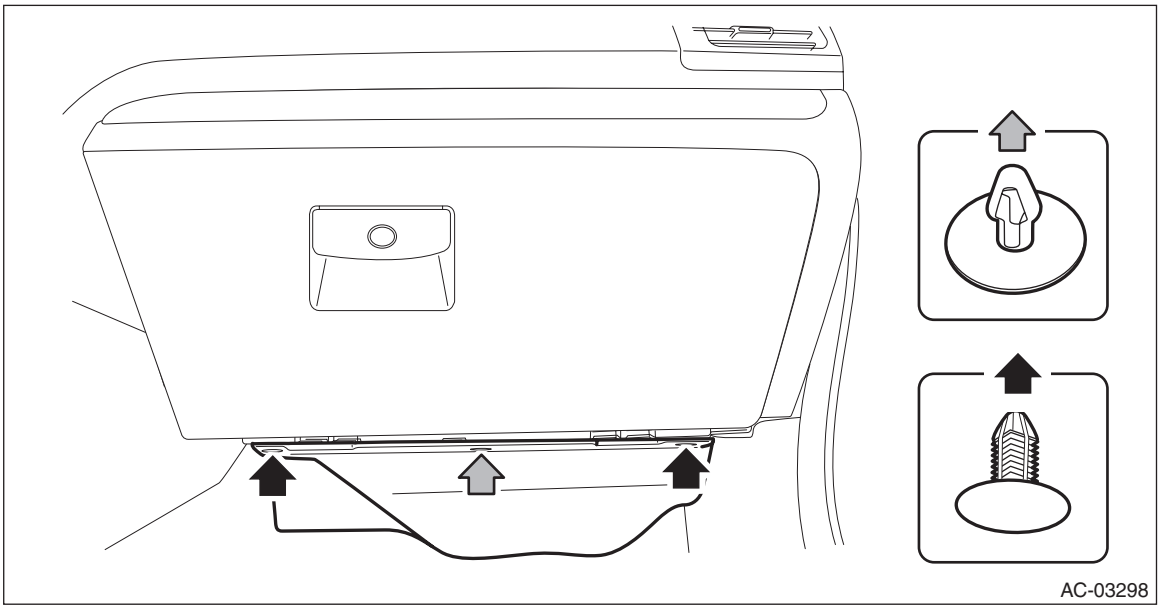
CAUTION:
- **The above settings must match the actual vehicle equipment.**
- **Do not change settings except for setting above while setting the functions.**
- **Be sure not to change Factory initial setting except when installing a new body integrated unit.**

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

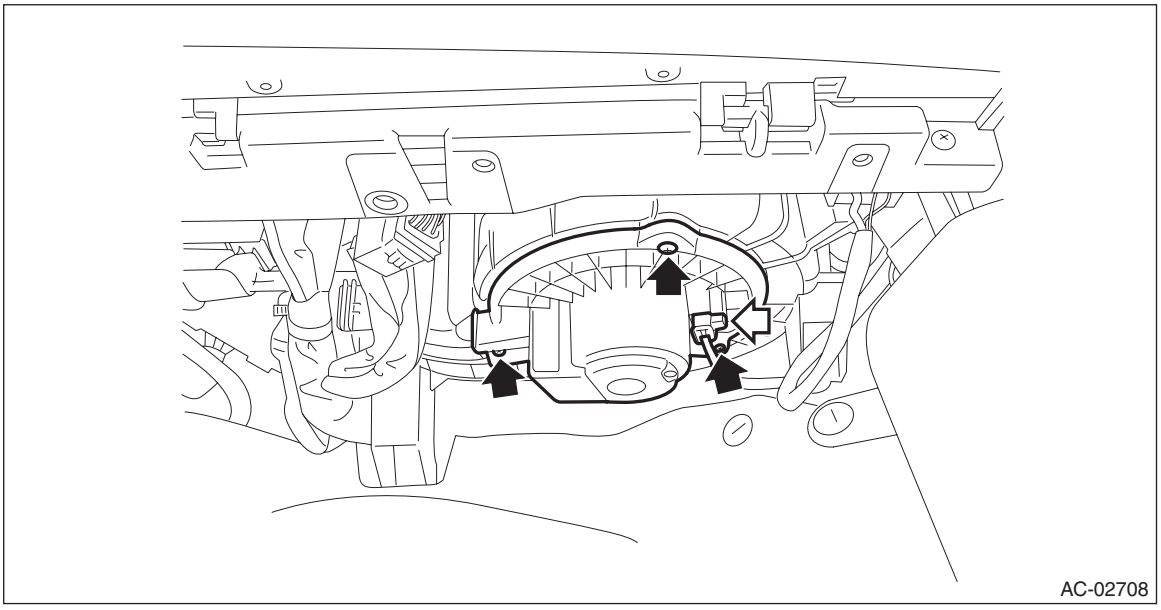
10.Blower Motor

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Release the clips, and remove the back panel - under cover.



3) Remove the blower - motor.
   (1) Disconnect the connector.
   (2) Remove the screws and detach the blower - motor.



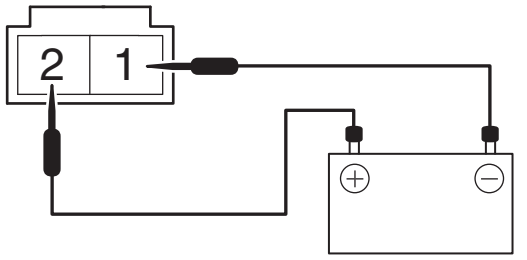
B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

UNIT INSPECTION

1) Check the motor operation when battery voltage is applied between the terminals of motor.

Terminal No.	Inspection conditions	Specification	Connection diagram
2 (+) — 1 (–)	Connect battery to the terminals	Speed	 AC-02797

2) If it does not operate normally, replace the blower - motor.

10.Clear Memory Mode

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
After repairing the occupant detection system, clear the DTCs stored in the airbag control module and the occupant detection control module.

10.Clear Memory Mode

A: OPERATION

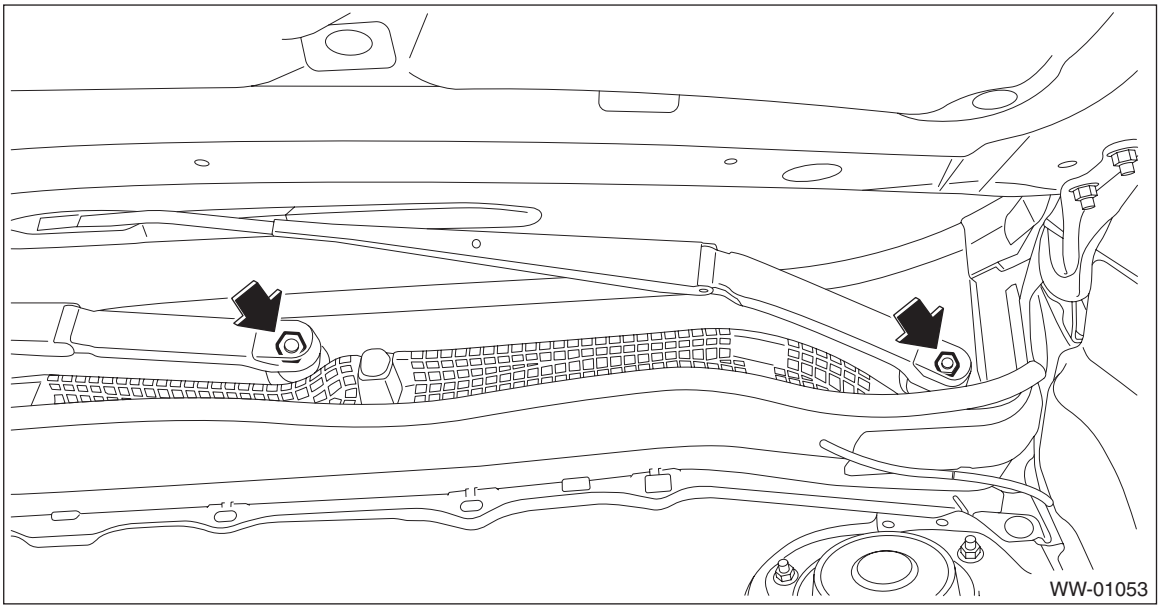
For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

NOTE:
Clear the DTC stored in the airbag control module after repairing the airbag system.

10.Cowl Panel

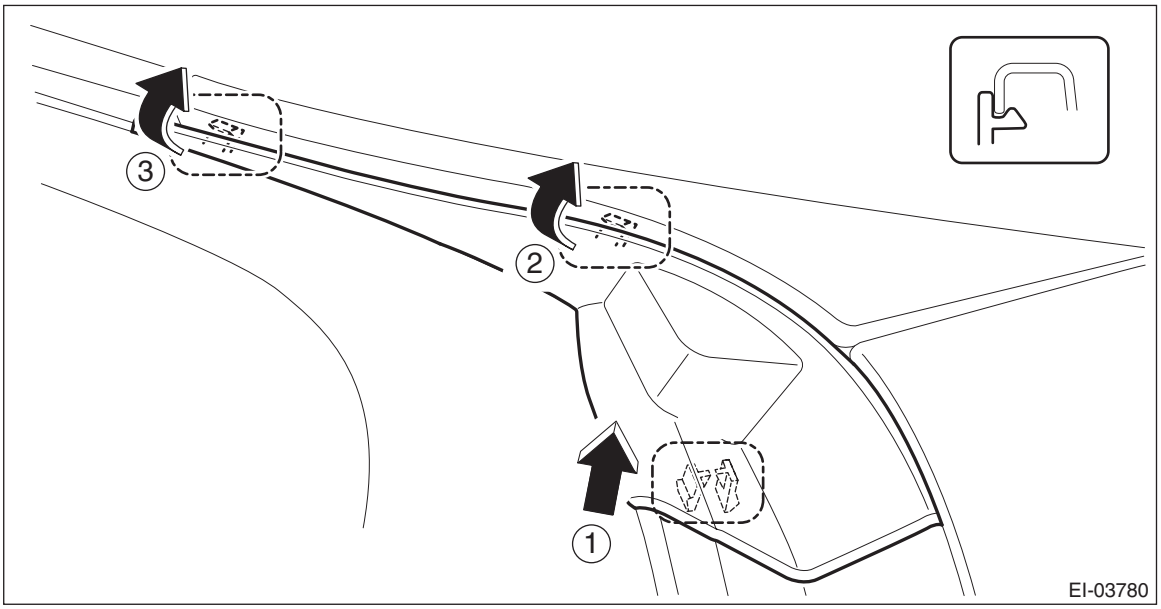
A: REMOVAL

1) Open the front hood.
2) Remove the arm assembly - windshield wiper.
   (1) Remove the cover - windshield wiper arm.
   (2) Remove the nuts, and remove the arm assembly - windshield wiper.



3) Release the claws from (1) to (3) in sequence, and then remove the cowl panel - side.

CAUTION:
Pulling with excessive force may damage the cowl panel - side. If it is difficult to remove, use a plastic remover or equivalent tool.



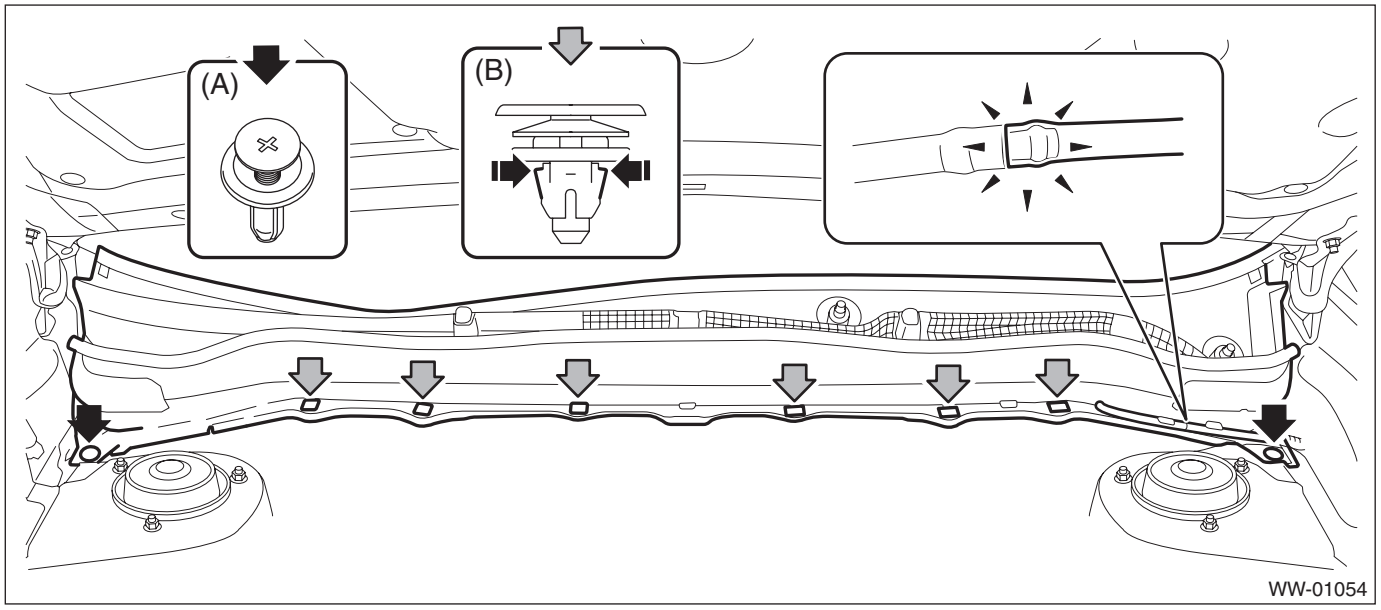
4) Remove the cowl panel assembly.

CAUTION:
Before removing the cowl panel, use an air blower and nylon brush to sweep gravel from the lower area of the front side of the glass.

(1) Disconnect the washer hose.
(2) Remove clips (A).
(3) Check the direction of the clip (B), and push the claws from both sides to remove it.

CAUTION:
When removing the clip (B), push the claw of the clip from both sides.
Be careful not to apply excessive force when pulling the clip (B), as the clip may become damaged.

(4) Remove the cowl panel assembly by pulling it out towards the front of the vehicle.

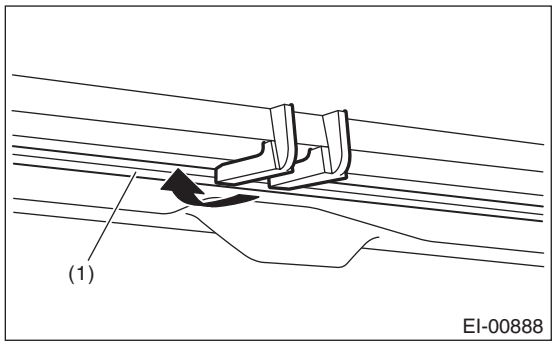


B: INSTALLATION

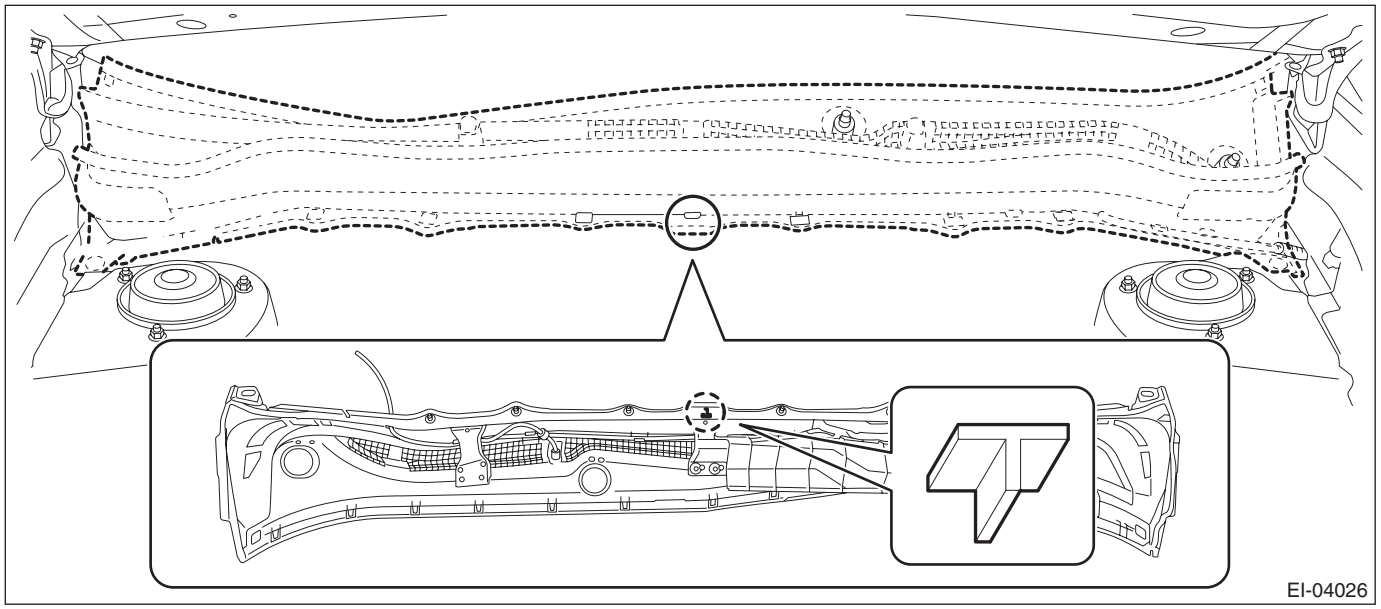
1) Install the cowl panel assembly.

CAUTION:
• If the cowl panel assembly cannot be installed properly, do not hit or set it forcibly. The claws of the cowl panel or the windshield glass may be damaged.
• Before installing the windshield glass and cowl panel, make sure there are no gravel in the installing area.

(1) Hook the claw of the cowl panel on the lower end (1) of the windshield.



(2) Align the center claw of the cowl panel assembly to the cutout portion of the vehicle side, then install the cowl panel assembly.



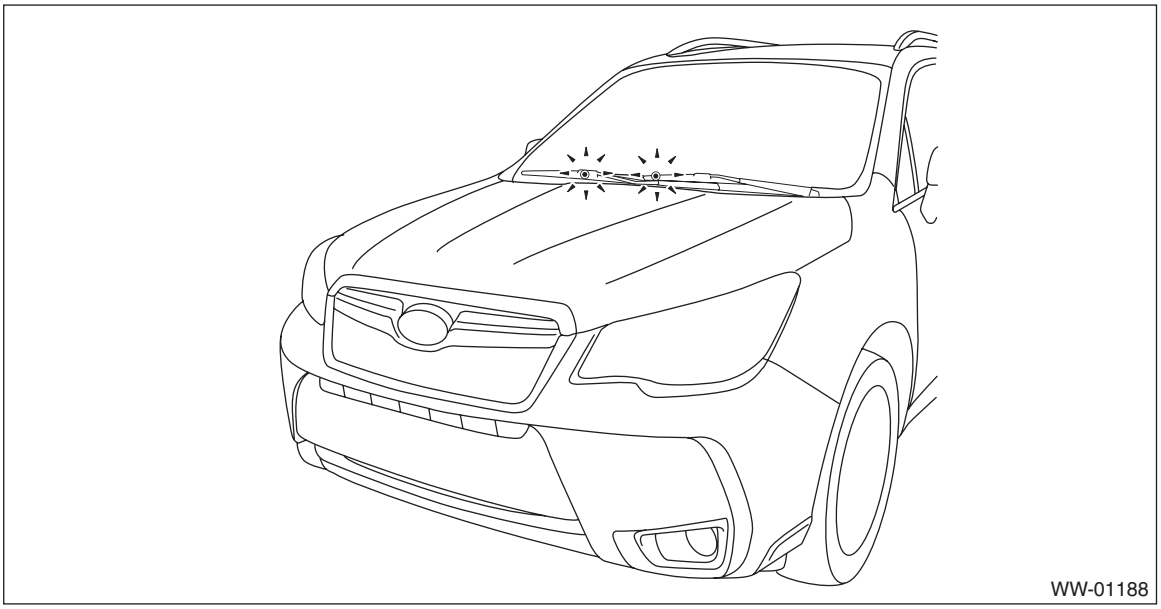
2) Install the arm assembly - windshield wiper.

(1) Assemble the arm assembly - windshield wiper so that the blade assembly - windshield wiper is aligned to the ceramic print point mark of the windshield glass.

(2) Tighten the arm assembly - windshield wiper to specified torque and install the cap.

Tightening torque:

26 N·m (2.65 kgf-m, 19.2 ft-lb)



3) Install the remaining parts in the reverse order of removal.

Tightening torque:

Arm assembly - windshield wiper:<Ref. to WW-2, FRONT WIPER, COMPONENT, General Description.>

4) If the washer nozzles have been removed from the cowl panel assembly, adjust the washer spray positions.<Ref. to WW-36, ADJUSTMENT, Front Washer Nozzle.>

10.Diagnostic Procedure with Cancel Code

A: 11

When CRUISE switch is pressed, or a malfunction related to CRUISE switch occurs, this is detected.

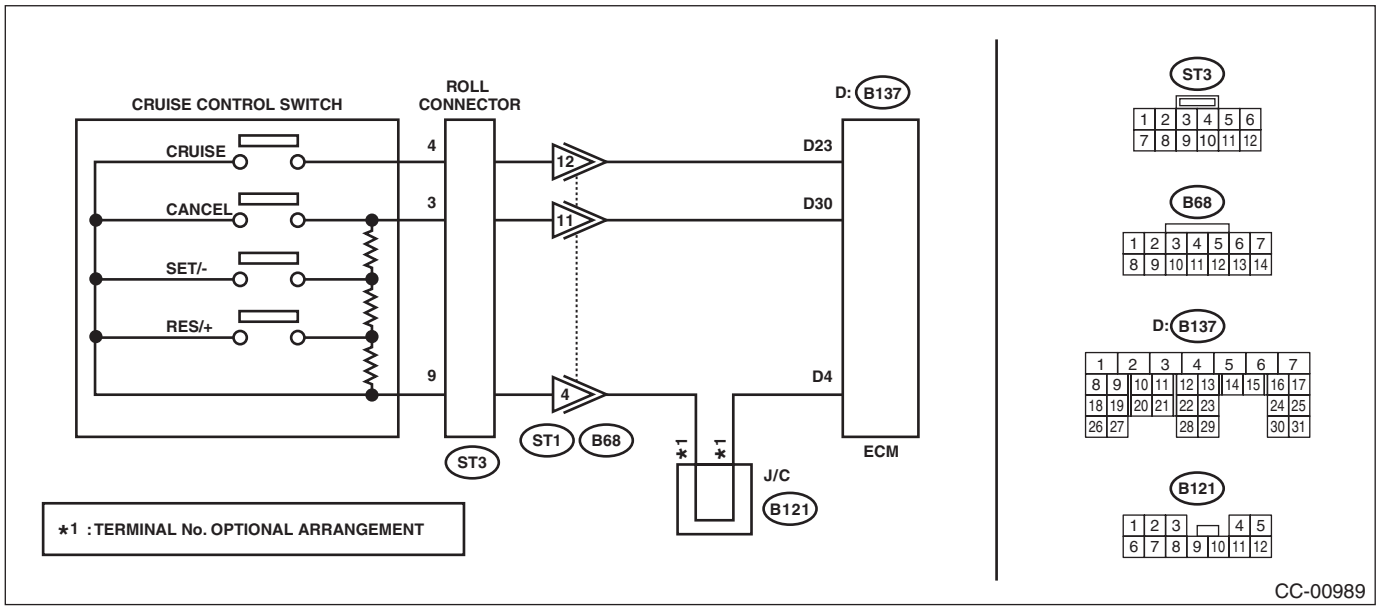
TROUBLE SYMPTOM:

- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

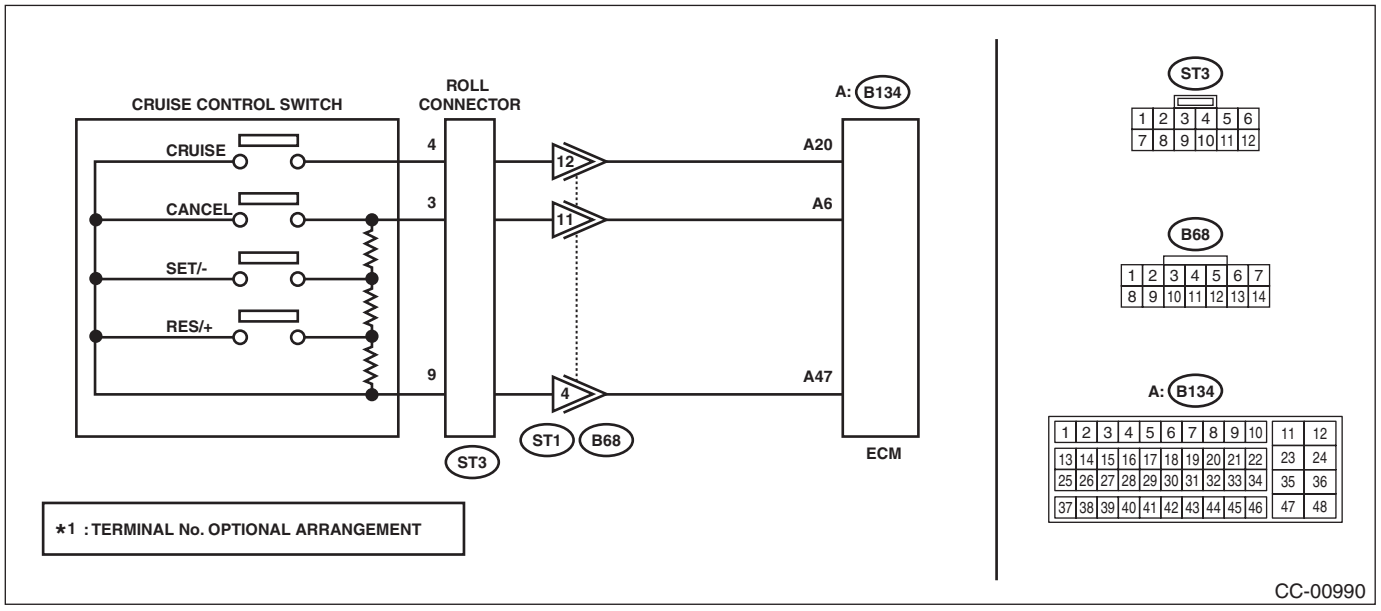
WIRING DIAGRAM:

Cruise control system <Ref. to WI-128, WIRING DIAGRAM, Cruise Control System.>

- Non-turbo model



- Turbo model



Diagnostic Procedure with Cancel Code

	Step	Check	Yes	No
1	**CHECK CRUISE CONTROL COMMAND SWITCH CIRCUIT.** 1) Remove the driver's airbag module. <Ref. to AB-39, REMOVAL, Driver's Airbag Module.> 2) Disconnect the harness connector of cruise control command switch. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(ST3) No. 4 (+) — Chassis ground (–):*** ***(ST3) No. 3 (+) — Chassis ground (–):***	Is the voltage 5 V or more?	Go to step **2**.	Check the harness between cruise control command switch and ECM, and the steering roll connector for open or short circuit, or for poor contact.
2	**CHECK CRUISE CONTROL COMMAND SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Remove the cruise control command switch. <Ref. to CC-7, REMOVAL, Cruise Control Command Switch.> 3) Measure the resistance between harness connector terminal and chassis ground. ***Connector & terminal*** ***(ST3) No. 9 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Check for open circuit between cruise control command switch, ECM, and chassis ground and check the ECM.
3	**CHECK CRUISE CONTROL COMMAND SWITCH.** Measure the resistance between switch terminals when the cruise control command switch is not depressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. 4 kΩ?	Go to step **4**.	Replace the cruise control command switch. <Ref. to CC-7, Cruise Control Command Switch.>
4	**CHECK CANCEL SWITCH.** 1) Turn the ignition switch to OFF. 2) Remove the cruise control command switch. <Ref. to CC-7, REMOVAL, Cruise Control Command Switch.> 3) Measure the resistance between switch terminals with the CANCEL switch pressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. less than 1 Ω when the CANCEL switch is pressed?	Go to step **5**.	Replace the cruise control command switch. <Ref. to CC-7, Cruise Control Command Switch.>
5	**CHECK SET/– SWITCH.** Measure the resistance between the switch terminals with the SET/– switch pressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. 250 Ω when the SET/– switch is pressed?	Go to step **6**.	Replace the cruise control command switch. <Ref. to CC-7, Cruise Control Command Switch.>
6	**CHECK RES/+ SWITCH.** Measure the resistance between the switch terminals with the RES/+ switch pressed. ***Terminals*** ***No. 3 — No. 9:***	Is the resistance approx. 1,500 Ω when the RES/+ switch is pressed?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	Replace the cruise control command switch. <Ref. to CC-7, Cruise Control Command Switch.>

B: 12

Detected when brake pedal is depressed or malfunction related to stop light & brake switch occurs.

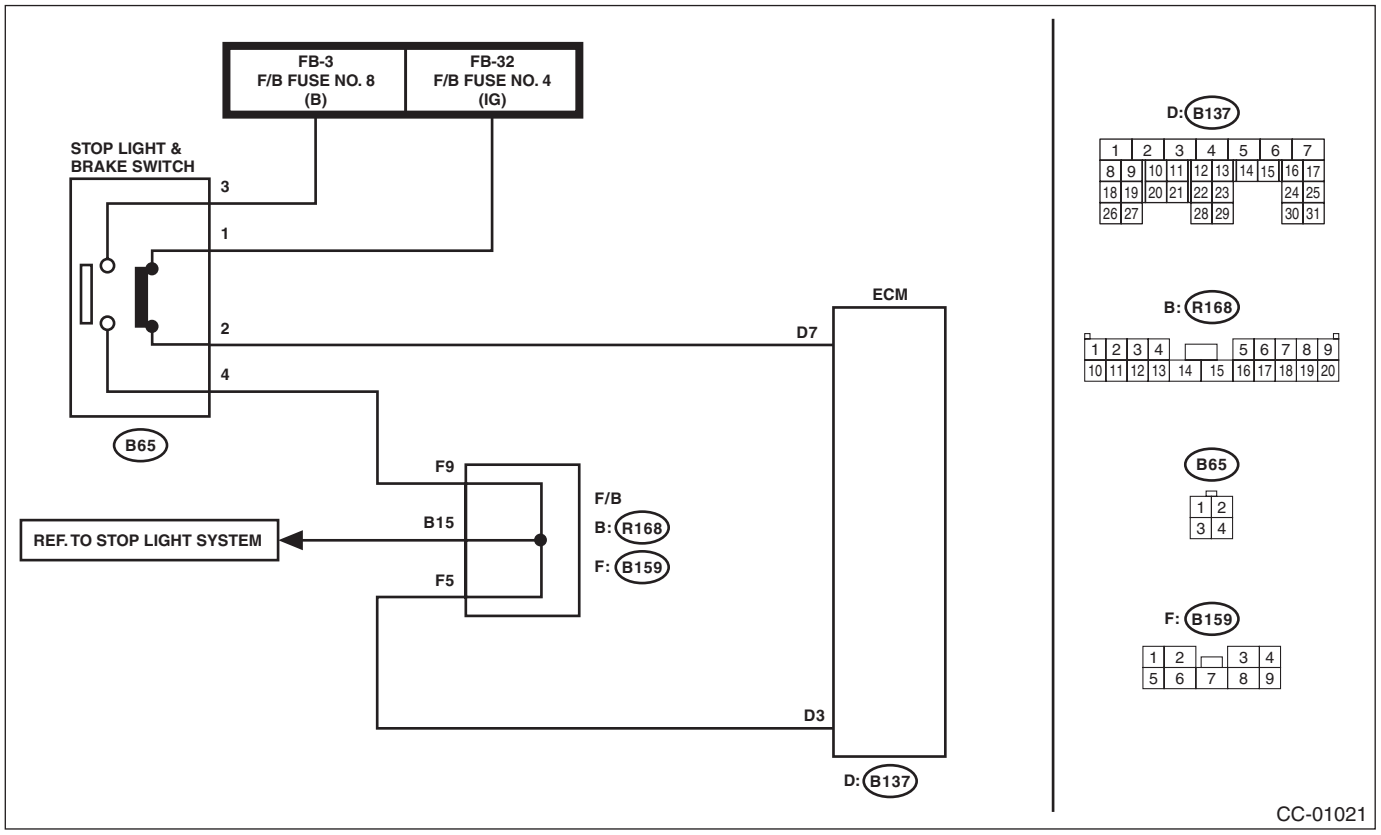
TROUBLE SYMPTOM:

- Cruise control cannot be set.
- Cruise control cannot be released.

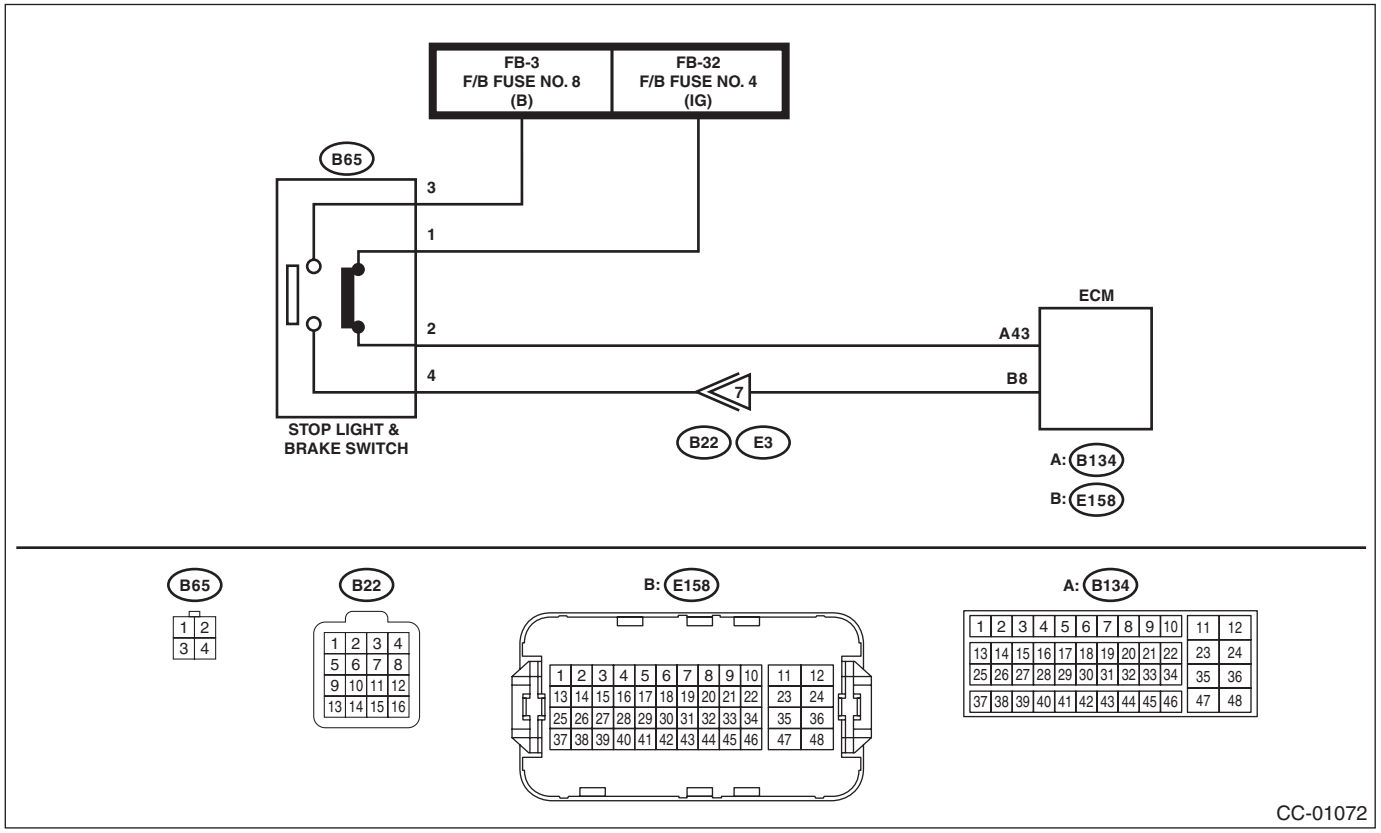
WIRING DIAGRAM:

Cruise control system<Ref. to WI-128, WIRING DIAGRAM, Cruise Control System.>

- Non-turbo model



- Turbo model



Step		Check	Yes	No
1	**CHECK STOP LIGHT & BRAKE SWITCH.** Check the stop light & brake switch.<Ref. to CC-12, Stop Light & Brake Switch.>	Is the stop light & brake switch and installation position OK?	Go to step **2**.	Replace the stop light & brake switch. Or adjust the installation position.
2	**CHECK STOP LIGHT & BRAKE SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the stop light & brake switch harness connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(B65) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	• Check fuse No. 8 (in fuse & relay box). • Check for open or short in the harness between stop light & brake switch and fuse & relay box.
3	**CHECK STOP LIGHT & BRAKE SWITCH CIRCUIT.** Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(B65) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **4**.	• Check fuse No. 4 (in fuse & relay box). • Check for open or short in the harness between stop light & brake switch and fuse & relay box.

	Step	Check	Yes	No
4	**CHECK STOP LIGHT & BRAKE SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of ECM. 3) Measure the resistance between ECM harness connector terminal and stop light & brake switch harness connector terminal. ***Connector & terminal*** ***Non-turbo model*** ***(B137) No. 3 — (B65) No. 4:*** ***(B137) No. 7 — (B65) No. 2:*** ***Turbo model*** ***(E158) No. 8 — (B65) No. 4:*** ***(B134) No. 43 — (B65) No. 2:***	Is the resistance less than 10 Ω?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	Repair the harness.

C: 13

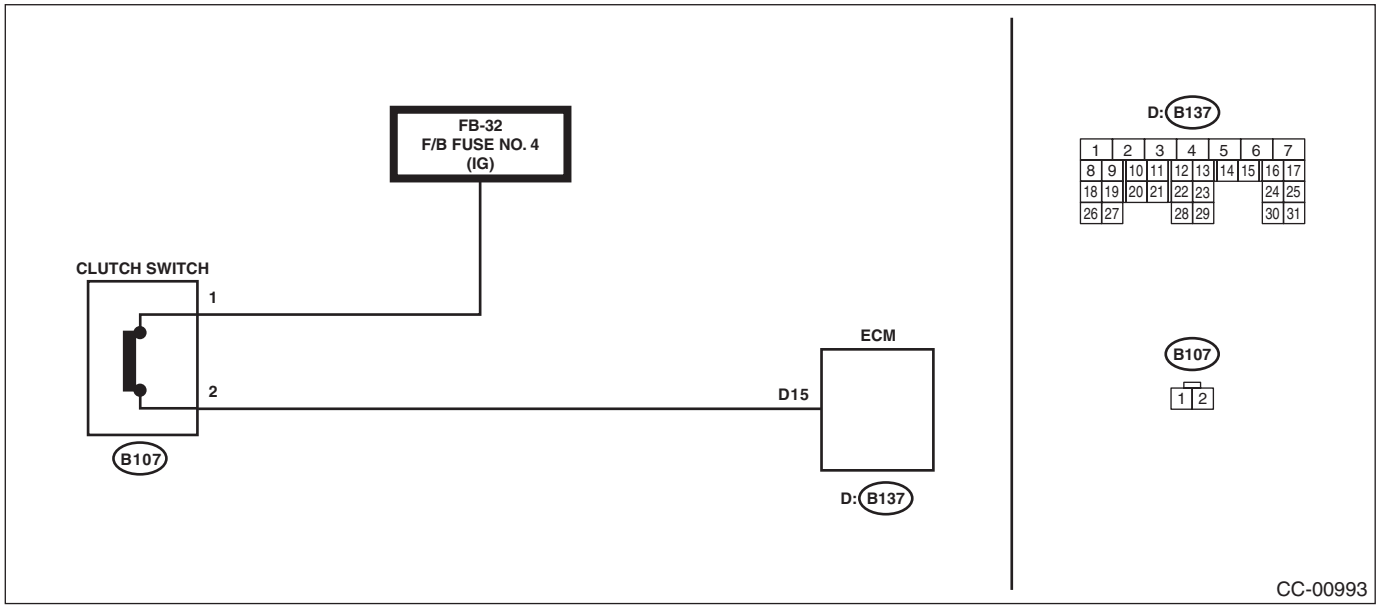
Detected when clutch pedal is depressed or malfunction related to clutch switch occurs.

TROUBLE SYMPTOM:

- Cruise control cannot be set.
- Cruise control cannot be released.

WIRING DIAGRAM:

Cruise control system <Ref. to WI-128, WIRING DIAGRAM, Cruise Control System.>



Step		Check	Yes	No
1	**CHECK CLUTCH SWITCH.** Check the clutch switch. <Ref. to CC-13, Clutch Switch.>	Is the clutch switch and installation position OK?	Go to step **2**.	Replace the clutch switch. Or adjust the installation position.
2	**CHECK CLUTCH SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the clutch switch harness connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(B107) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	• Check fuse No. 4 (in fuse & relay box). • Check open or shorted circuit of harness between clutch switch and fuse & relay box.
3	**CHECK CLUTCH SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector of ECM. 3) Measure the resistance between clutch switch harness connector terminal and ECM harness connector terminal. ***Connector & terminal*** ***(B107) No. 2 — (B137) No. 15:***	Is the resistance less than 10 Ω?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	Repair the harness.

D: 14

Detected when select lever is set in the neutral position, or when malfunction related to neutral position switch occurs.

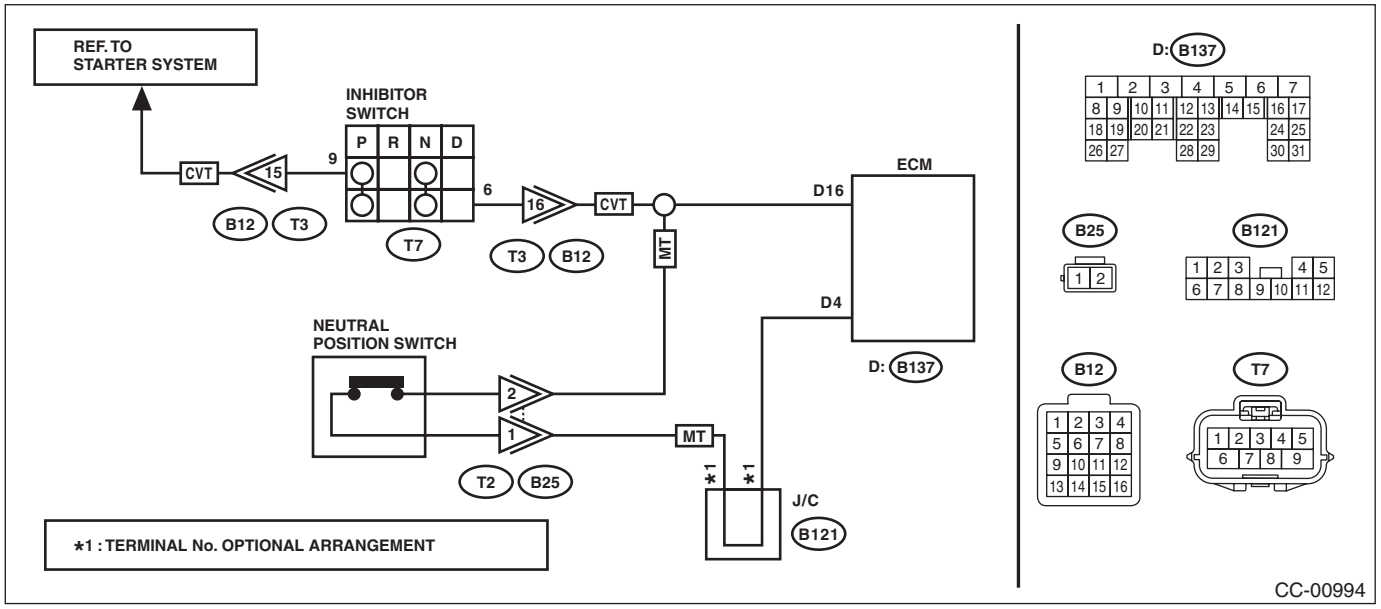
TROUBLE SYMPTOM:

Cruise control cannot be set.

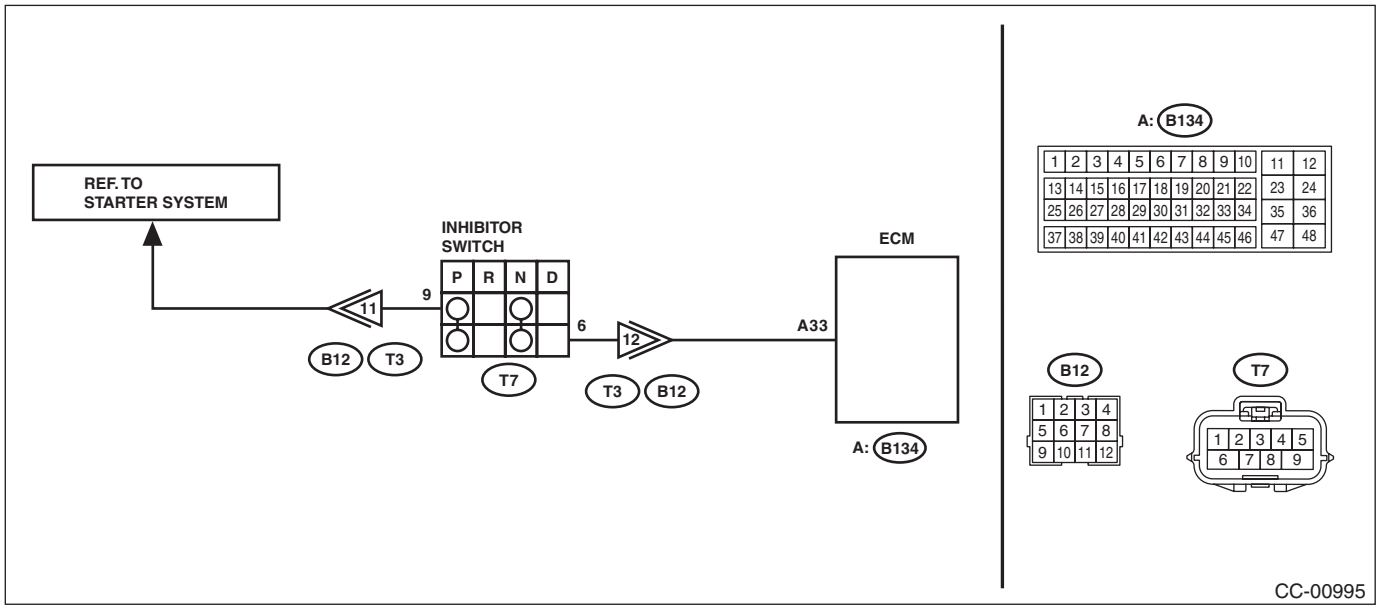
WIRING DIAGRAM:

Cruise control system <Ref. to WI-128, WIRING DIAGRAM, Cruise Control System.>

- Non-turbo model



- Turbo model



Step		Check	Yes	No
1	**CHECK TRANSMISSION TYPE.**	Is the transmission type CVT?	Go to step **2**.	Go to step **5**. (MT model)

	Step	Check	Yes	No
2	**CHECK INHIBITOR SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the inhibitor switch harness connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(T7) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	Check for open or short in the harness between inhibitor switch and ECM.
3	**CHECK INHIBITOR SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the starter motor harness connector. 3) Measure the resistance between inhibitor switch harness connector terminal and starter motor. ***Connector & terminal*** ***(T7) No. 9 — Starter motor:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair the harness.
4	**CHECK INHIBITOR SWITCH.** Remove and check the inhibitor switch. <Ref. to CC-14, Inhibitor Switch.>	Is the inhibitor switch working normal?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	Replace the inhibitor switch.
5	**CHECK NEUTRAL POSITION SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the neutral position switch harness connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(B25) No. 2 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **6**.	Check for open or short in the harness between neutral position switch and ECM.
6	**CHECK NEUTRAL POSITION SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure resistance between harness connector terminal of neutral position switch and chassis ground. ***Connector & terminal*** ***(B25) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair the harness.
7	**CHECK NEUTRAL POSITION SWITCH.** Remove and check the neutral position switch. <Ref. to CC-16, Neutral Position Switch.>	Is the neutral position switch OK?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	Replace the neutral position switch.

E: 15

Detected when CANCEL switch is pressed or malfunction related to CRUISE switch occurs.

TROUBLE SYMPTOM:

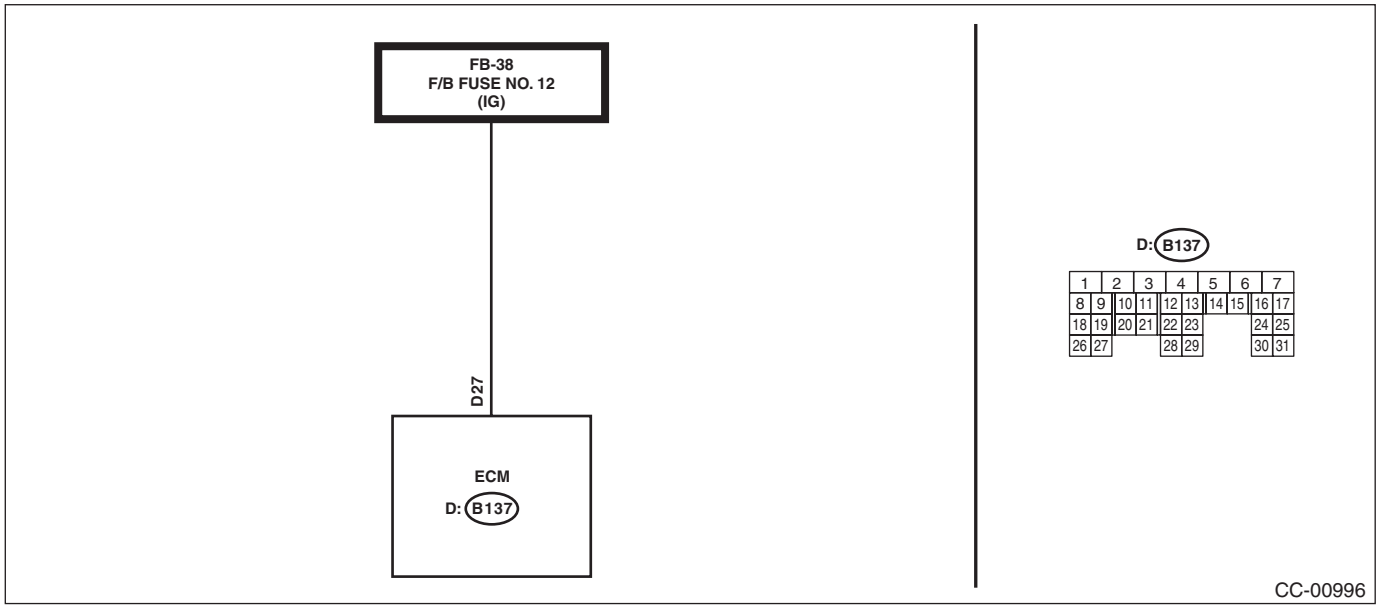
- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

Refer to DTC 11 for diagnostic procedure.
<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>

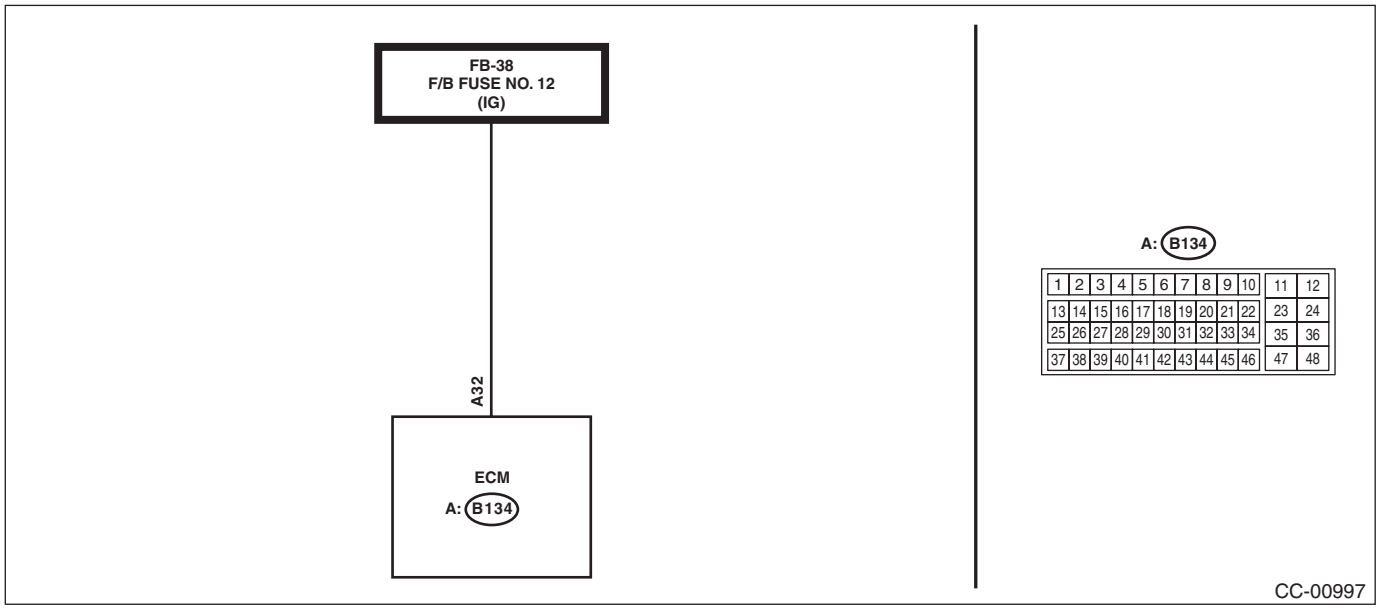
F: 16

Detected when ignition switch is turned to OFF or malfunction related to the ignition switch occurs.
TROUBLE SYMPTOM:
Cruise control cannot be set.
WIRING DIAGRAM:
Cruise control system <Ref. to WI-128, WIRING DIAGRAM, Cruise Control System.>

- Non-turbo model



- Turbo model



Step		Check	Yes	No
1	**CHECK IGNITION SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the ECM harness connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***Non-turbo model*** ***(B137) No. 27 (+) — Chassis ground (–):*** ***Turbo model*** ***(B134) No. 32 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Check for poor contact of ECM connector.	• Check fuse No. 12 (in fuse & relay box). • Check the harness for open or short circuit between ignition switch and ECM.

G: 21

Cruise control command switch malfunction is detected.
TROUBLE SYMPTOM:
- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

Refer to DTC 11 for diagnostic procedure.
<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>

H: 22

Malfunction related to vehicle speed sensor is detected.
DIAGNOSIS:
Open or shorted circuit in vehicle speed sensor system.
TROUBLE SYMPTOM:
Cruise control cannot be set. (Cancelled immediately.)

	Step	Check	Yes	No
1	**CHECK ABS OR VDC WARNING LIGHT.** 1) Turn the ignition switch to ON. 2) After the initial operation of combination meter is completed, check if ABS or VDC warning light continues to illuminate.	Does the warning light continue to illuminate?	Check the VDCCM. <Ref. to VDC(diag)-2, Basic Diagnostic Procedure.>	Go to step **2**.
2	**CHECK DTC OF LAN COMMUNICATION CIRCUIT.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC displayed?	Perform inspection according to DTC.	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>

I: 24

Malfunction in cruise control-related switch is detected.
TROUBLE SYMPTOM:
- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

Refer to DTC 11 for diagnostic procedure.
<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>

J: 31

Engine speed signal malfunction is detected.
Abnormal increase of engine speed is detected.
Gear is placed in 1st or Reverse position.
System entered X MODE.
After canceling X MODE, drive the vehicle at the 2nd gear position or higher and perform the cruise setting again. If a cancel code is not detected, it is normal.

K: 32

Detected when the vehicle speed is out of the system controllable range.
Increase vehicle speed high enough to allow the cruise control to function, and then perform setting operation again.
If cancel code is still detected after setting cruise again, perform the diagnosis for DTC 22.
Refer to DTC 22 for diagnostic procedure.
<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>

L: 34

The vehicle has been driven at a speed higher than set speed for a long time (approximately 10 minutes) during cruise driving.
This cancel code is detected when driving for a long period of time at a speed higher than appropriate for cruise control setting by operating the accelerator pedal.
Perform the cruise control setting operation again. If the cancel code is not detected, it is normal.

M: 35

Detected when it is impossible to perform the vehicle speed feedback.
Set vehicle speed cannot be kept for some reasons (steep uphill, unreleased parking brake, etc.) during cruise driving.
Cancel code is detected when driving condition is not suitable for cruise control.
Perform cruise set operation again after clearing the possible cause.

N: 41

VDC/TCS/EPB is operated.
Vehicle dynamics control (VDC) or TCS/EPB is operated during cruise driving or cruise setting.
<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

O: 43

- The situation that some or all functions for ABS/VDC can not work is detected.

During cruise driving or cruise setting, the situation that some or all functions for ABS/VDC can not work is detected.
<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

- CRUISE indicator does not illuminate even though you pressed the CRUISE switch before starting the engine.

Detected when the CRUISE switch is pressed during the initial diagnosis of ABS/VDC. It is normal if the CRUISE indicator illuminates when you press the CRUISE switch again after starting the engine and confirming that the initial illumination of the ABS/VDC warning light has been ended.

P: 44

Body integrated unit malfunction is detected.
Body integrated unit system malfunction is detected during cruise driving or cruise setting.
<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

Q: 45

Combination meter malfunction is detected.
Combination meter malfunction is detected during cruise driving or cruise setting.
<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

R: 49

Automatic transmission malfunction is detected.
Automatic transmission malfunction is detected during cruise driving or cruise control setting.
<Ref. to CVT(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

S: 61

Malfunction in the stop light & brake switch is detected.
TROUBLE SYMPTOM:

- Cruise control cannot be set.
- Cruise control cannot be released.

Refer to DTC 12 for diagnostic procedure.
<Ref. to CC(diag)-17, 12, Diagnostic Procedure with Cancel Code.>

T: 62

Neutral position switch malfunction is detected.
TROUBLE SYMPTOM:
Cruise control cannot be set.
Refer to DTC 14 for diagnostic procedure.
<Ref. to CC(diag)-21, 14, Diagnostic Procedure with Cancel Code.>

U: 63

Malfunction of vehicle speed signal variation is detected.
TROUBLE SYMPTOM:
Cruise control cannot be set. (Cancelled immediately.)
Refer to DTC 22 for diagnostic procedure.
<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>

V: 64

Malfunction related to engine is detected.
Refer to the Engine Diagnostic Procedure for diagnostic procedure.
<Ref. to EN(H4DO)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

W: 65

Cruise control command switch malfunction is detected.
While the command switch is pressed ON for a long time (approximately two minutes), stuck ON condition is detected.
TROUBLE SYMPTOM:
- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

Refer to DTC 11 for diagnostic procedure.
<Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>

X: 66

Cruise control calculation malfunction is detected.
Refer to the Engine Diagnostic Procedure for diagnostic procedure.
<Ref. to EN(H4DO)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

IMMOBILIZER (DIAGNOSTICS)

IM(diag)

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10.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC B1570 ANTENNA

DTC DETECTING CONDITION:

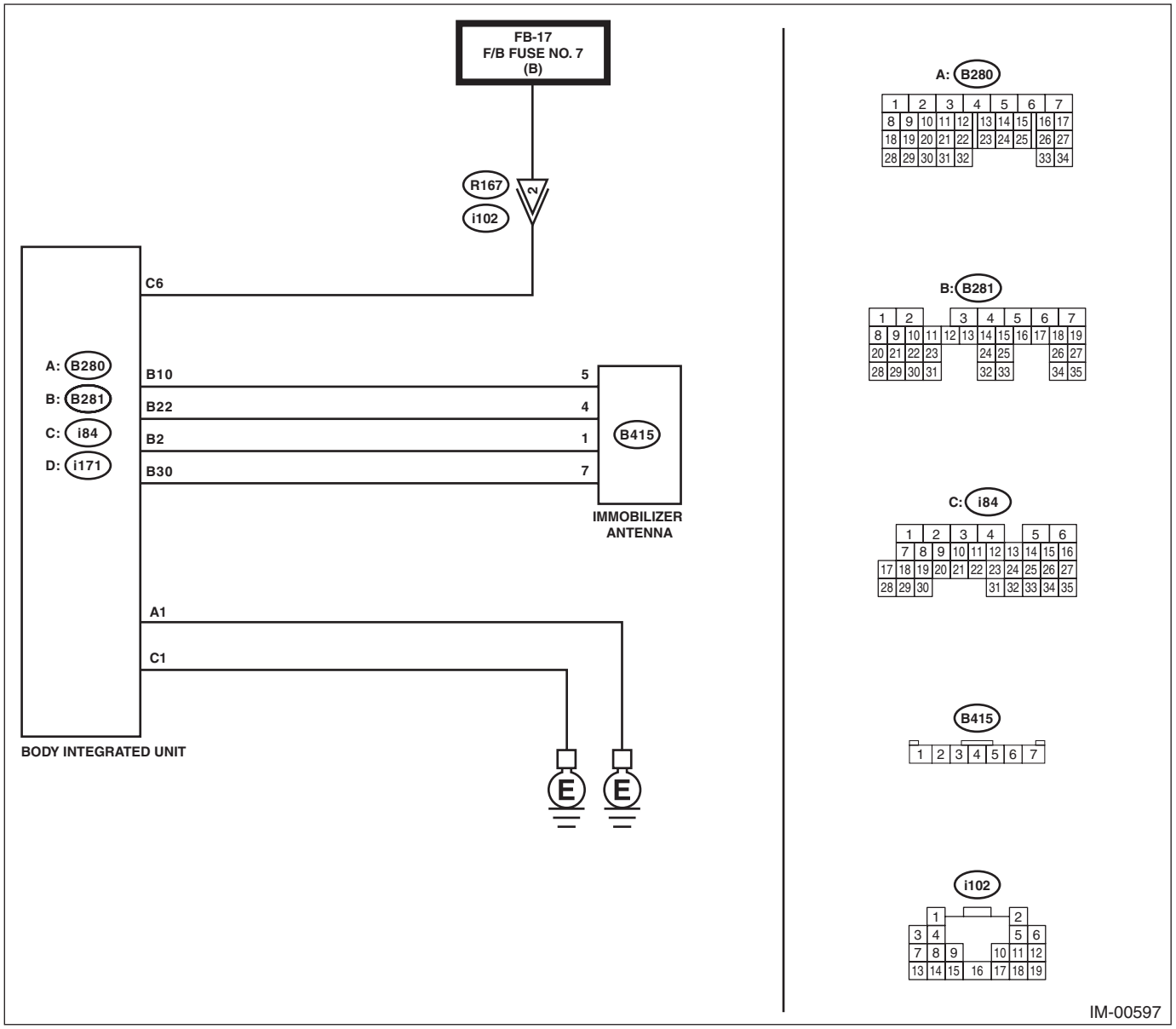
Faulty antenna

CAUTION:

When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Immobilizer system<Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit. 3) Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(i84) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Check the harness for open or short circuit between body integrated unit and fuse.
2	**CHECK BODY INTEGRATED UNIT GROUND CIRCUIT.** Measure the resistance between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 1 — Chassis ground:*** ***(i84) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair the open circuit of the body integrated unit ground circuit.
3	**CHECK ANTENNA POWER SUPPLY CIRCUIT.** 1) Connect the connector to body integrated unit. 2) Disconnect the connector from the antenna. 3) Insert the ignition key into the key cylinder, then measure the voltage between the antenna connector terminal and the chassis ground. ***Connector & terminal*** ***(B415) No. 1 (+) — Chassis ground (–):***	Is the voltage 5±0.5 V approx. 200 ms after inserting the ignition key into the key cylinder? And then, does the voltage return to 0 V within 2 s?	Go to step **5**.	Go to step **4**.
4	**CHECK ANTENNA POWER SUPPLY CIRCUIT.** 1) Disconnect the connector from body integrated unit. 2) Measure the resistance of body integrated unit connector terminal and antenna connector terminal. ***Connector & terminal*** ***(B281) No. 2 — (B415) No. 1:***	Is the resistance less than 10 Ω?	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>	Repair the harness or connector between body integrated unit and antenna.
5	**CHECK ANTENNA GROUND CIRCUIT.** Measure the resistance between antenna connector terminal and chassis ground. ***Connector & terminal*** ***(B415) No. 7 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **7**.	Go to step **6**.
6	**CHECK ANTENNA GROUND CIRCUIT.** 1) Disconnect the connector from body integrated unit. 2) Measure the resistance between antenna connector terminal and chassis ground. ***Connector & terminal*** ***(B281) No. 30 — (B415) No. 7:***	Is the resistance less than 10 Ω?	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>	Repair the harness or connector between body integrated unit and antenna.
7	**CHECK ANTENNA COMMUNICATION CIRCUIT.** Measure the resistance of body integrated unit connector terminal and antenna connector terminal. ***Connector & terminal*** ***(B281) No. 10 — (B415) No. 5:*** ***(B281) No. 22 — (B415) No. 4:***	Is the resistance less than 10 Ω?	Go to step **8**.	Repair the harness or connector between body integrated unit and antenna.

Step		Check	Yes	No
8	**CHECK ANTENNA.** 1) Replace the immobilizer antenna. 2) Insert the ignition key in the ignition switch. (OFF or ACC) 3) Check DTC of body integrated unit.	Is DTC B1411 detected?	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>	Antenna has a failure.

B: DTC B1571 REFERENCE CODE INCOMPATIBILITY

DTC DETECTING CONDITION:
Reference code incompatibility between body integrated unit and ECM

CAUTION:
When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CONFIRM NUMBER OF REGISTERED IMMOBILIZER KEY.** Confirm the number of registered immobilizer key. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is the number of registration 0?	Go to step **2**.	Go to step **3**.
2	**PERFORM IMMOBILIZER SYSTEM REGISTRATION.** Register the immobilizer system. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **4**.
3	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **4**.
4	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Go to step **5**.
5	**PERFORM ECM REGISTRATION.** 1) Replace the ECM. 2) Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>

C: DTC B1572 IMM CIRCUIT FAILURE (EXCEPT ANTENNA CIRCUIT)

DTC DETECTING CONDITION:

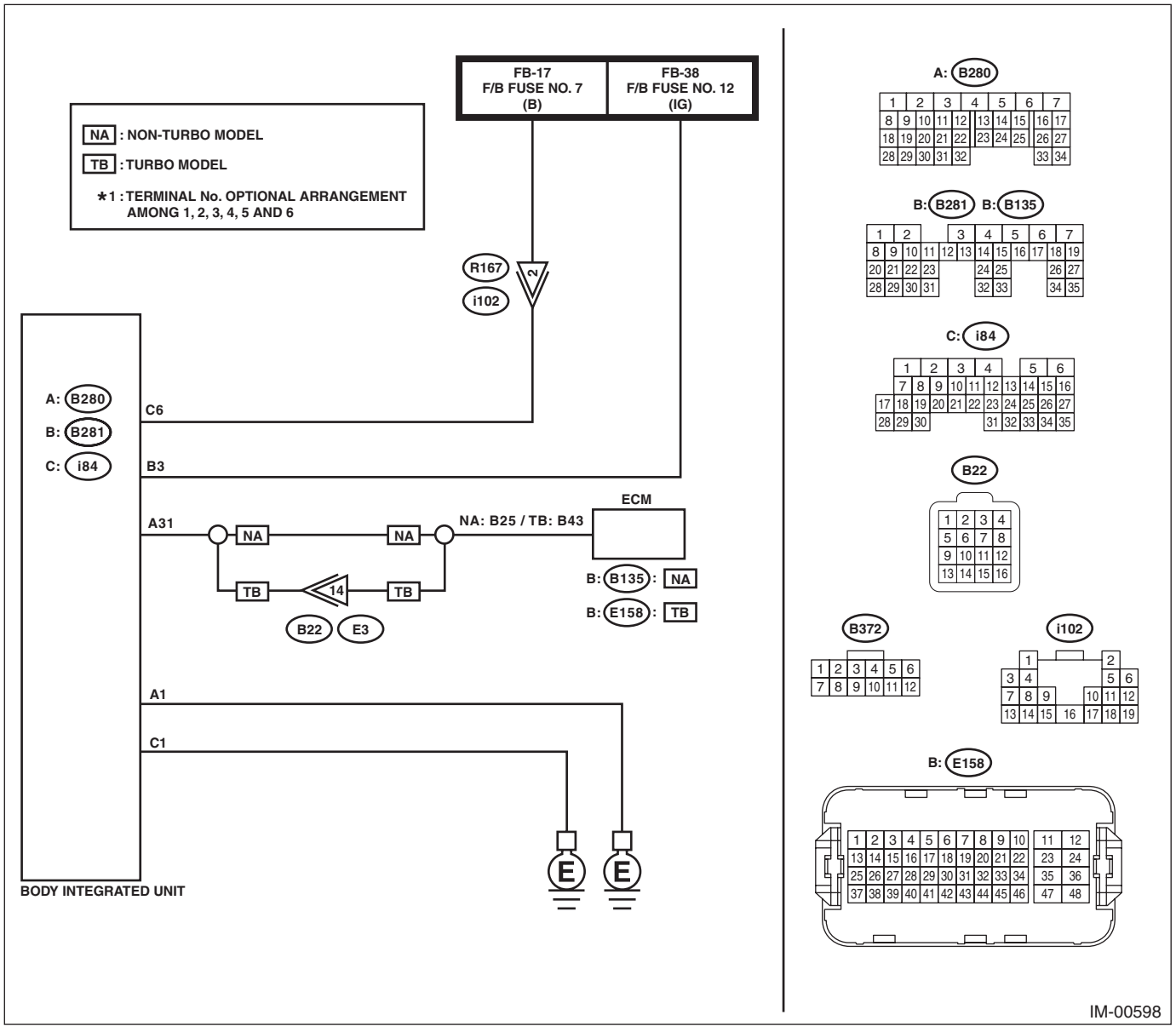
Communication failure between body integrated unit and ECM

CAUTION:

When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Immobilizer system<Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit. 3) Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(i84) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Check the harness for open or short circuit between body integrated unit and fuse.
2	**CHECK BODY INTEGRATED UNIT POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to ON. 2) Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B281) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	Check the harness for open or short circuit between the body integrated unit and ignition switch.
3	**CHECK BODY INTEGRATED UNIT GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 1 — Chassis ground:*** ***(i84) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair the open circuit of the body integrated unit ground circuit.
4	**CHECK GROUND CIRCUIT FOR ECM.** Measure the resistance between the ECM ground terminal and engine ground.	Is the resistance less than 10 Ω?	Go to step **5**.	Repair the ECM ground circuit.
5	**CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND ECM.** 1) Disconnect the connector from ECM. 2) Measure the resistance between body integrated unit connector terminal and ECM connector terminal. ***Connector & terminal*** ***Non-turbo model*** ***(B280) No. 31 — (B135) No. 25:*** ***Turbo model*** ***(B280) No. 31 — (E158) No. 43:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair the open circuit of the harness between the body integrated unit and ECM.
6	**CHECK COMMUNICATION CIRCUIT HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 31 (+) — Chassis ground (–):***	Is the voltage 6 V or more?	Repair the harness between body integrated unit and ECM.	Go to step **7**.
7	**CHECK COMMUNICATION CIRCUIT HARNESS.** Measure the voltage between ECM connector terminal and engine ground. ***Connector & terminal*** ***Non-turbo model*** ***(B135) No. 25 (+) — Engine ground (–):*** ***Turbo model*** ***(E158) No. 43 (+) — Engine ground (–):***	Is the voltage 6 V or more?	Repair the harness between body integrated unit and ECM.	Go to step **8**.

	Step	Check	Yes	No
8	**CHECK COMMUNICATION CIRCUIT HARNESS.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 31 — Chassis ground:***	Is the resistance less than 10 Ω?	Repair the harness between body integrated unit and ECM.	Go to step **9**.
9	**CHECK COMMUNICATION CIRCUIT HARNESS.** Measure the resistance between ECM connector terminal and engine ground. ***Connector & terminal*** ***Non-turbo model*** ***(B135) No. 25 — Engine ground:*** ***Turbo model*** ***(E158) No. 43 — Engine ground:***	Is the resistance less than 10 Ω?	Repair the harness between body integrated unit and ECM.	Go to step **10**.
10	**CHECK ECM.** 1) Replace the ECM. (Do not perform ECM registration.) 2) Turn the ignition switch to ON. 3) Wait for 5 seconds. 4) Read the DTC relating the ECM using the Subaru Select Monitor.	Is DTC B1572 detected?	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>	ECM has a failure. Perform ECM registration. Refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.

D: DTC B1574 KEY COMMUNICATION FAILURE

DTC DETECTING CONDITION:
Communication failure between key and body integrated unit

CAUTION:
When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK IGNITION KEY.** 1) Remove the ignition key from the ignition switch. 2) Insert the ignition key into the ignition switch, and then turn the ignition switch to ON. 3) Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC B1410 detected?	Go to step **2**.	Finish the diagnosis.
2	**CHECK IGNITION KEY.** 1) Prepare another ignition key. 2) Insert the ignition key into the ignition switch, and then turn the ignition switch to ON. 3) Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC B1410 detected?	Go to step **3**.	Ignition key unit was defective.
3	**CHECK IMMOBILIZER ANTENNA.** 1) Replace the immobilizer antenna. 2) Insert the ignition key into the ignition switch, and then turn the ignition switch to ON. 3) Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC B1410 detected?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Immobilizer antenna was defective.

E: DTC B1575 INCORRECT IMMOBILIZER KEY

DTC DETECTING CONDITION:
Incorrect immobilizer key (use of unregistered key in body integrated unit)

CAUTION:
When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**PERFORM IGNITION KEY REGISTRATION.** Perform key registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is key registration complete?	Finish the diagnosis.	Replace ignition keys (including transponder) which cannot be registered. Go to step **2**.
2	**PERFORM IGNITION KEY REGISTRATION.** Perform key registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is key registration complete?	Finish the diagnosis.	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>

F: DTC B1576 EGI CONTROL MODULE EEPROM

DTC DETECTING CONDITION:

- ECM malfunctioning
- Inaccessible ROM in ECM during key registration.

CAUTION:
When the ECM is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **2**.
2	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **3**.
3	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>

G: DTC B1577 IMM CONTROL MODULE EEPROM

DTC DETECTING CONDITION:

- Body integrated unit malfunctioning
- Failed to access ROM inside the body integrated unit.

CAUTION:
When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **2**.
2	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **3**.
3	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>

H: DTC B1578 METER FAILURE

DTC DETECTING CONDITION:

- Except for C0 and C5 models

Reference code incompatibility between combination meter and body integrated unit or communication failure between body integrated unit and ECM

- For C0 and C5 models

Reference code incompatibility between security control module and body integrated unit or communication failure between body integrated unit and ECM

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is any of DTC B1401, B1405, B1406, B1407, B1408 or B1409 detected?	Perform the diagnosis according to the DTC.	<Ref. to IM(diag)-20, DTC B1572 IMM CIRCUIT FAILURE (EXCEPT ANTENNA CIRCUIT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

I: DTC B1401 M COLLATION NG

DTC DETECTING CONDITION:

Reference code incompatibility between combination meter and body integrated unit

CAUTION:

When the combination meter is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is any of DTC B1407 or B1408 detected?	Perform the diagnosis according to the DTC.	Go to step **2**.
2	**CHECK COMBINATION METER REGISTRATION.** Perform registration of combination meter. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **3**.
3	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is any of DTC B1407 or B1408 detected?	Perform the diagnosis according to the DTC.	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>

J: DTC B1402 IMMOBILIZER KEY COLLATION NG

DTC DETECTING CONDITION:

- Incorrect immobilizer key (use of unregistered key in body integrated unit)
- Faulty antenna
- Communication failure between key and body integrated unit

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is any of DTC B1410 or B1411 detected?	Perform the diagnosis according to the DTC.	<Ref. to IM(diag)-23, DTC B1575 INCORRECT IMMOBILIZER KEY, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

K: DTC B1405 SCU COLLATION NG

DTC DETECTING CONDITION:

Reference code incompatibility between security control module and body integrated unit

CAUTION:

When the security control module is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is any of DTC B1406 or B1409 detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**PERFORM SECURITY CONTROL MODULE REGISTRATION.** Perform security control module registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is registration complete?	Finish the diagnosis.	Go to step **3**.
3	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is any of DTC B1406 or B1409 detected?	Perform the diagnosis according to DTC.	Replace the security control module. <Ref. to SL-70, Security Control Module.>

L: DTC B1406 SCU_EEPROM_NG

DTC DETECTING CONDITION:

- Defective security control module
- ROM of security control module cannot be accessed

CAUTION:

When the security control module is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**PERFORM SECURITY CONTROL MODULE REGISTRATION.** 1) Perform security control module registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER". 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC B1406 detected?	Replace the security control module. <Ref. to SL-70, Security Control Module.>	Finish the diagnosis.

M: DTC B1407 M COMMUNICATION ABNORMAL

DTC DETECTING CONDITION:
Communication failure between body integrated unit and combination meter

CAUTION:
When the combination meter is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC of the body integrated unit except for DTC B1407 displayed?	Perform the diagnosis according to the DTC.	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>

N: DTC B1408 METER EEPROM ABNORMAL

DTC DETECTING CONDITION:
Defective combination meter

CAUTION:
When the combination meter is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK COMBINATION METER REGISTRATION.** 1) Perform registration of combination meter. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER". 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC B1408 detected?	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>	Finish the diagnosis.

O: DTC B1409 SCU COMMUNICATION ABNORMAL

DTC DETECTING CONDITION:

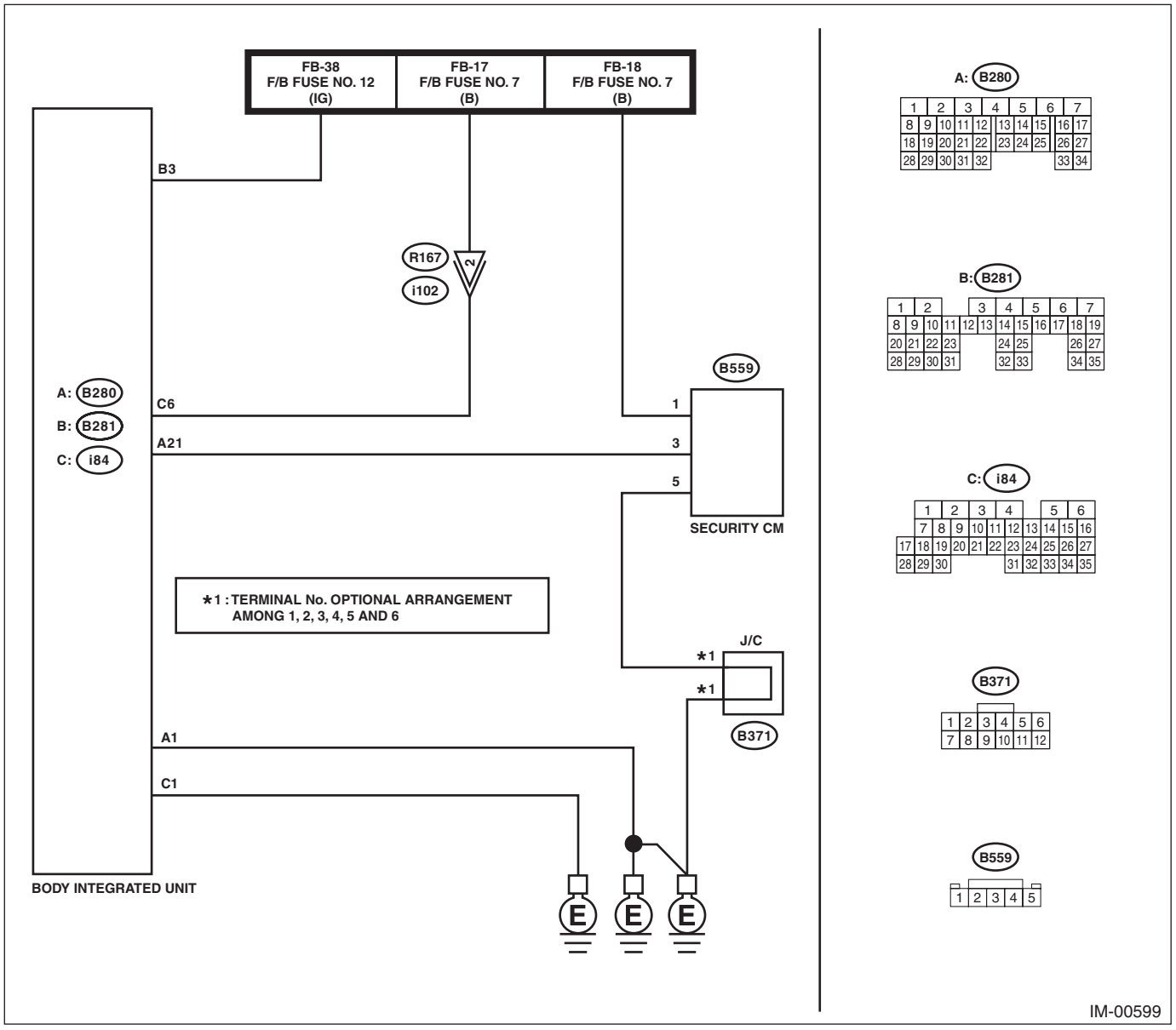
Communication failure between body integrated unit and security control module

CAUTION:

When the body integrated unit is replaced, registration of the immobilizer system is required. For details, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Immobilizer system<Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the connector from body integrated unit. 3) Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(i84) No. 6 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Check the harness for open or short circuit between body integrated unit and fuse.
2	**CHECK BODY INTEGRATED UNIT POWER SUPPLY CIRCUIT.** 1) Turn the ignition switch to ON. 2) Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B281) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	Check the harness for open or short circuit between the body integrated unit and ignition switch.
3	**CHECK BODY INTEGRATED UNIT GROUND CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 1 — Chassis ground:*** ***(i84) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair the open circuit of the body integrated unit ground circuit.
4	**CHECK SECURITY CONTROL MODULE POWER SUPPLY CIRCUIT.** 1) Disconnect the connector from the security control module. 2) Measure the power supply between security control module connector terminal and chassis ground. ***Connector & terminal*** ***(B559) No. 1 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Check for an open or short circuit in the harness between security control module and fuse.
5	**CHECK SECURITY CONTROL MODULE GROUND CIRCUIT.** Measure the resistance between security control module connector terminal and chassis ground. ***Connector & terminal*** ***(B559) No. 5 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair the open circuit of the security control module ground circuit.
6	**CHECK HARNESS BETWEEN BODY INTEGRATED UNIT AND SECURITY CONTROL MODULE.** Measure the resistance between the body integrated unit connector terminal and security control module connector terminal. ***Connector & terminal*** ***(B280) No. 21 — (B559) No. 3:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair the harness between body integrated unit and security control module.
7	**CHECK COMMUNICATION CIRCUIT HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between security control module connector terminal and chassis ground. ***Connector & terminal*** ***(B559) No. 3 (+) — Chassis ground (–):***	Is the voltage 6 V or more?	Repair the harness between body integrated unit and security control module.	Go to step **8**.

	Step	Check	Yes	No
8	**CHECK COMMUNICATION CIRCUIT HARNESS.** Measure the voltage between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 21 (+) — Chassis ground (–):***	Is the voltage 6 V or more?	Repair the harness between body integrated unit and security control module.	Go to step **9**.
9	**CHECK COMMUNICATION CIRCUIT HARNESS.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between security control module connector terminal and chassis ground. ***Connector & terminal*** ***(B559) No. 3 — Chassis ground:***	Is the resistance less than 10 Ω?	Repair the harness between body integrated unit and ECM.	Go to step **10**.
10	**CHECK COMMUNICATION CIRCUIT HARNESS.** Measure the resistance between the body integrated unit connector terminal and chassis ground. ***Connector & terminal*** ***(B280) No. 21 — Chassis ground:***	Is the resistance less than 10 Ω?	Repair the harness between body integrated unit and security control module.	Go to step **11**.
11	**CHECK SECURITY CONTROL MODULE.** 1) Replace the security control module. (Do not perform security control module registration.) 2) Turn the ignition switch to ON. 3) Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC B1409 detected?	Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.>	Security control module was defective. Perform security control module registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

P: DTC B1410 TRANSPONDER COMMUNICATION ABNORMAL

NOTE:
Refer to DTC B1574 for diagnostic procedure. <Ref. to IM(diag)-23, DTC B1574 KEY COMMUNICATION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Q: DTC B1411 IMMOBILIZER ANTENNA ABNORMAL

NOTE:
Refer to DTC B1570 for diagnostic procedure. <Ref. to IM(diag)-16, DTC B1570 ANTENNA, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

LAN SYSTEM (DIAGNOSTICS)

LAN(diag)

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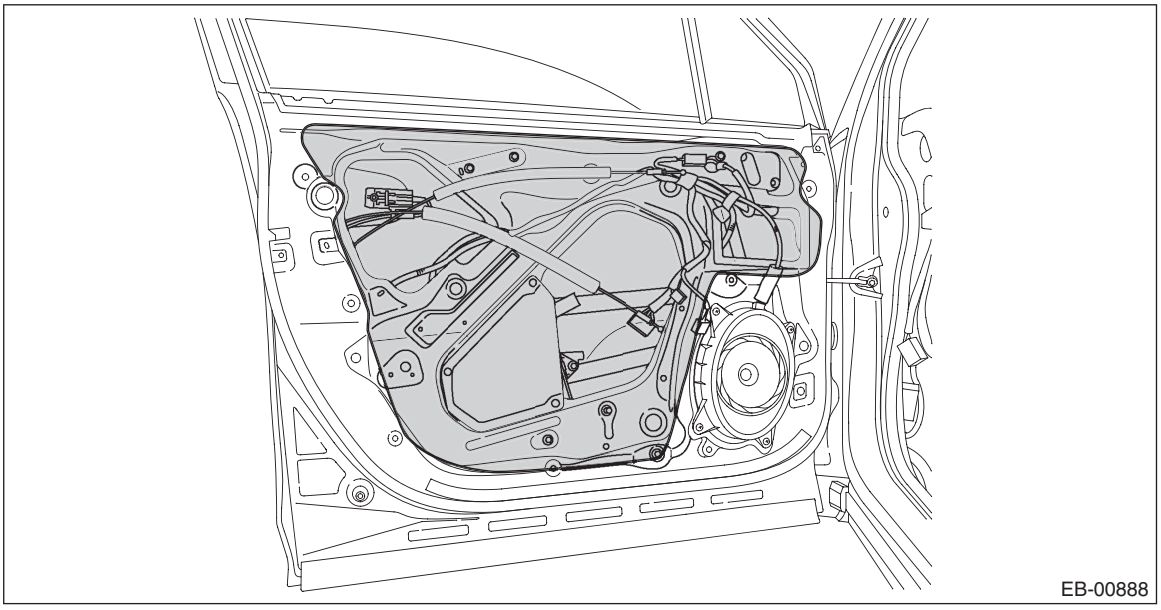
10.Front Door Latch and Door Lock Actuator Assembly

A: REMOVAL

1) Raise the glass assembly - front door to the top position.
2) Remove the trim panel - front door. <Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
3) Turn over the sealing cover - front door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Disconnect connectors.
(2) Carefully remove the butyl tape and turn over the sealing cover - front door within the area where the operation can be performed.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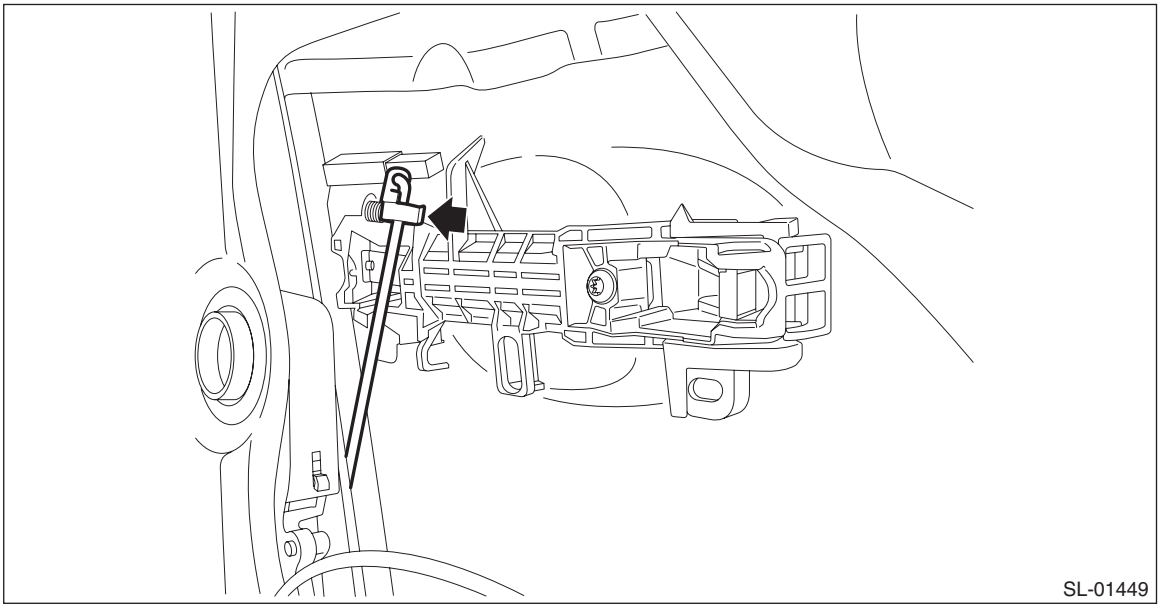
4) Remove the rod from the rod clamp of the frame assembly - front door outer.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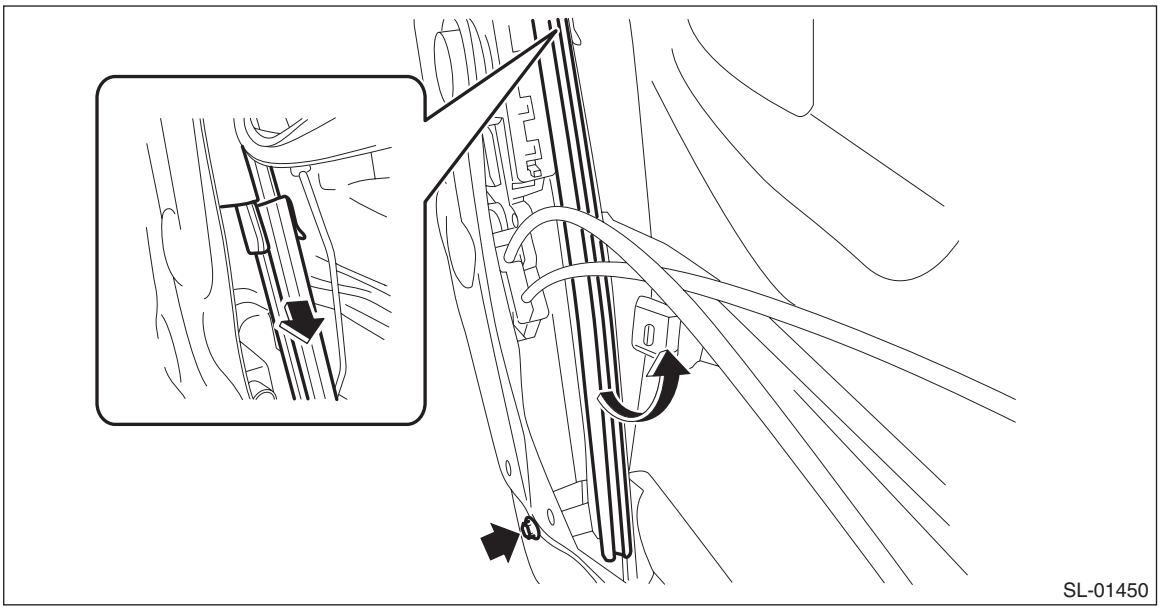
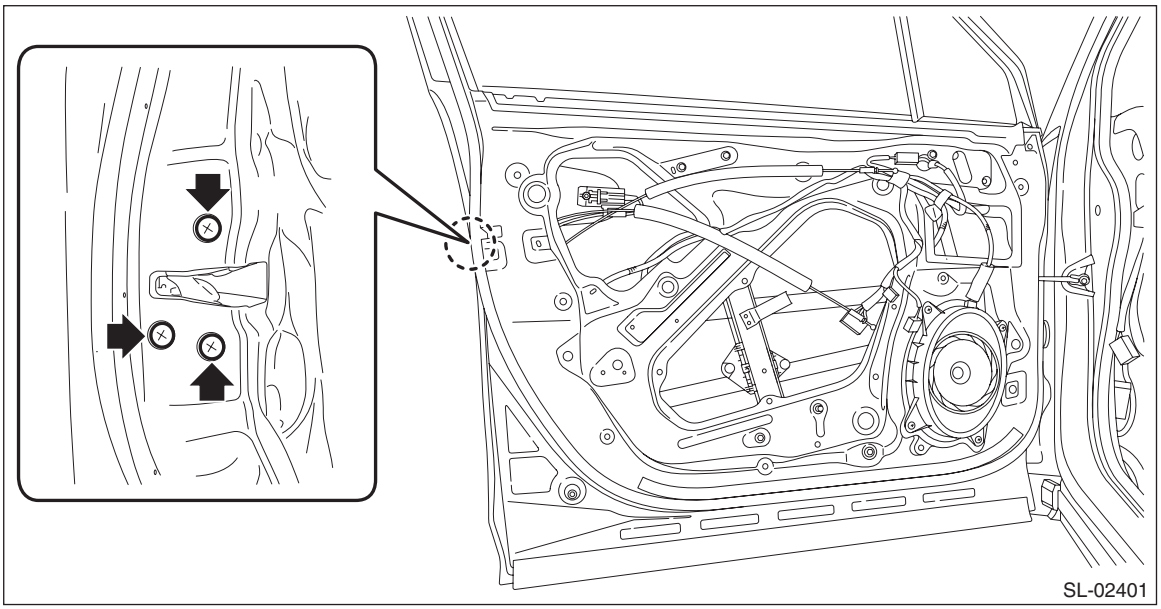
5) Remove the sash COMPL - lower.
(1) Remove the lower side of the running channel - front door.
(2) Remove the bolts, and remove the sash COMPL - lower.



6) Remove the screws to remove the latch & actuator assembly - front.



B: INSTALLATION

1) Before installation, check the following items.
- Cable and rod are free from deformation.
- Grease is applied sufficiently to rod joints.
- If grease is insufficient, add it as necessary before assembling the rod.

2) Install each part in the reverse order of removal.

Tightening torque:
Door lock assembly: <Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>
Sash COMPL - D3: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: INSPECTION

1. LATCH

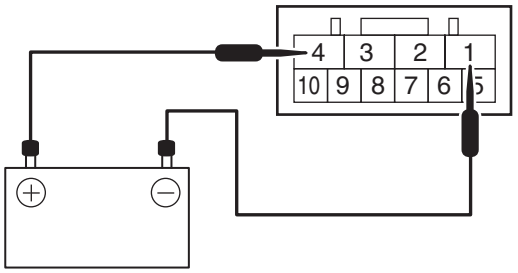
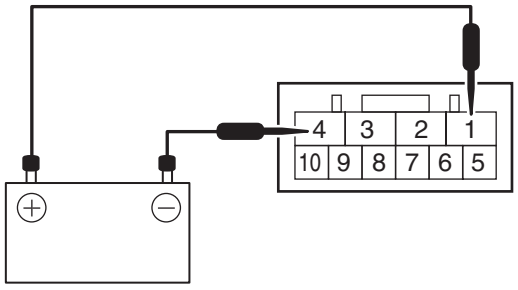
Check if the latch operates normally.
If the cable or rod is faulty, replace the latch & actuator assembly - front.

2. LOCK ACTUATOR

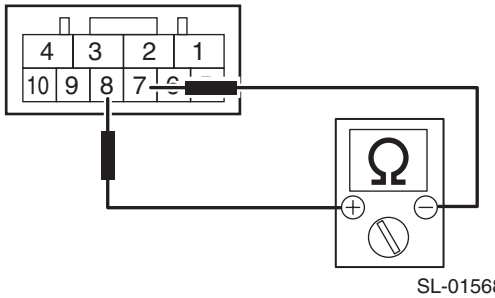
UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check door lock operation
Check the door lock operation when battery voltage is applied between the terminals of actuator.

Terminal No.	Inspection conditions	Specification	Connection diagram
4 (+) — 1 (–)	Apply battery voltage.	LOCK	 SL-01474
1 (+) — 4 (–)		UNLOCK	 SL-01473

2) Check position switch
Check the resistance between actuator terminals.

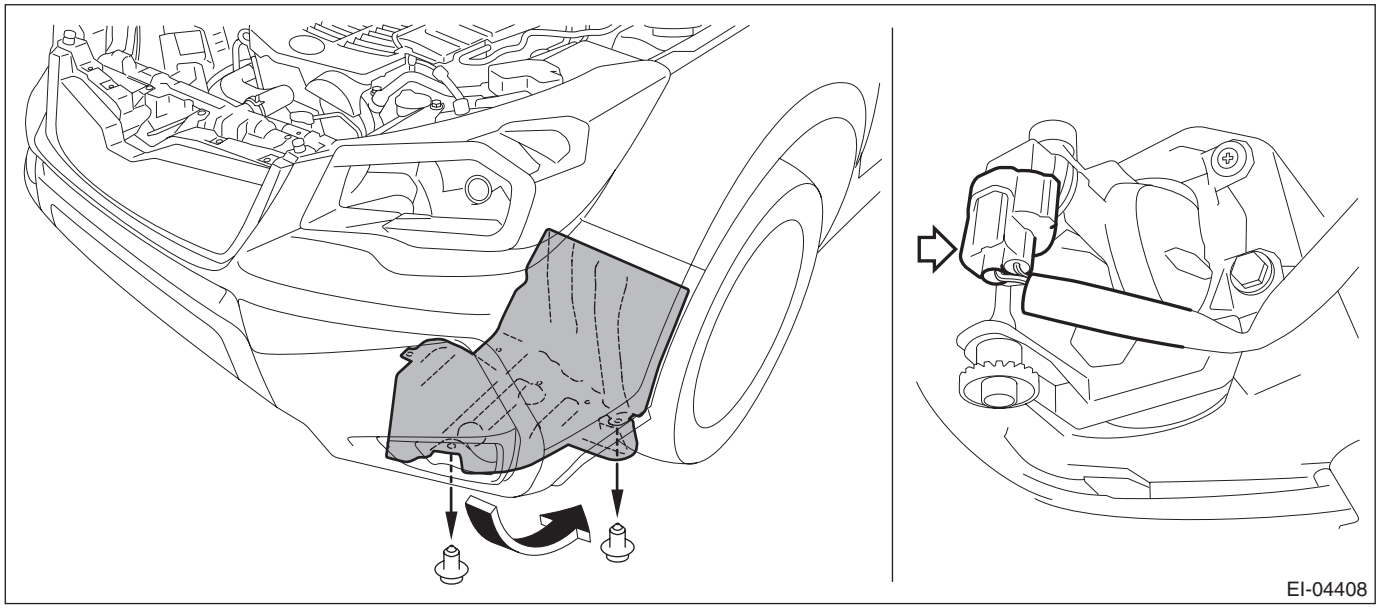
Terminal No.	Inspection conditions	Standard	Connection diagram
8 — 7	LOCK	1 MΩ or more	 SL-01568
	UNLOCK	Less than 1 Ω	

3) Replace the latch & actuator assembly - front if it is found defective.

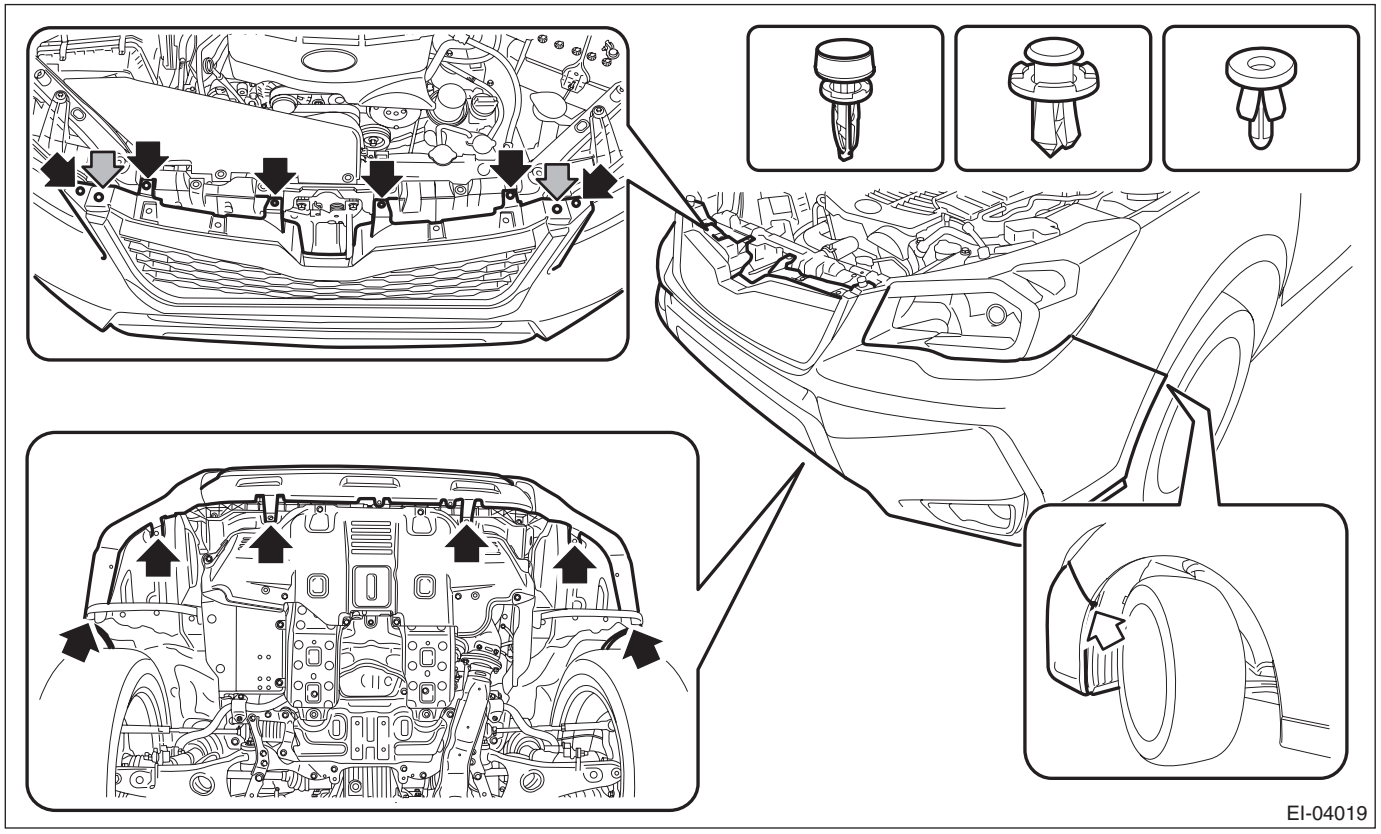
10.Front Sub Sensor

A: REMOVAL

1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the bumper face - front.
   (1) Remove the clips, and turn over the mud guard - front, and then disconnect the connectors of the fog light assembly - front on the LH and RH sides. (Model with fog light)

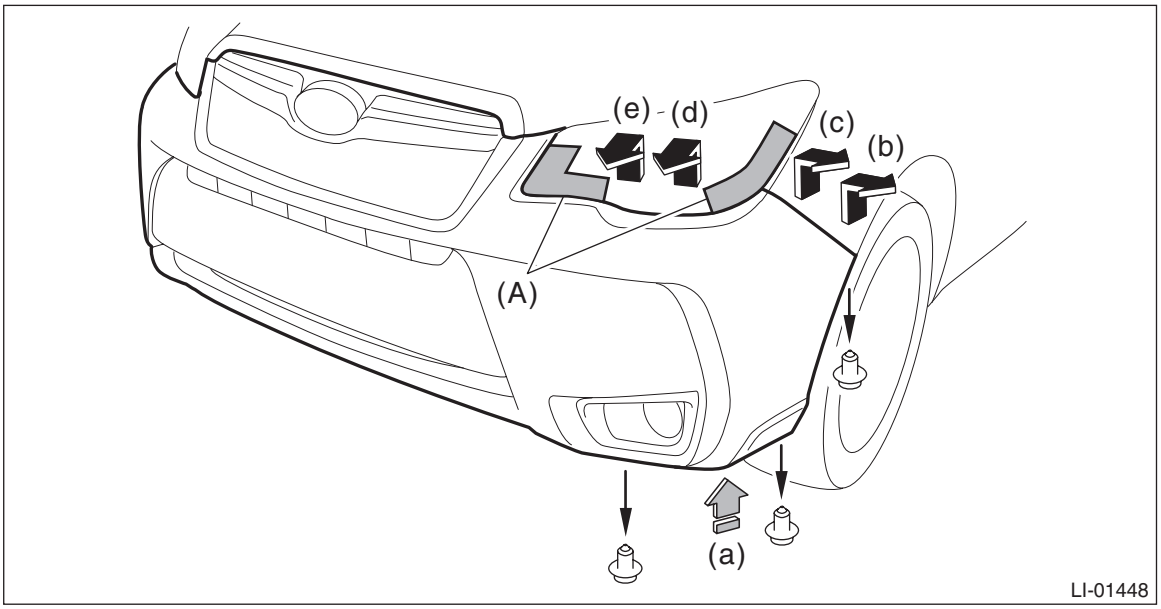


   (2) Remove the clips at the upper side of the bumper face - front.
   (3) Remove the clips from the fender.
   (4) Remove the clips at the lower side of the bumper face - front.

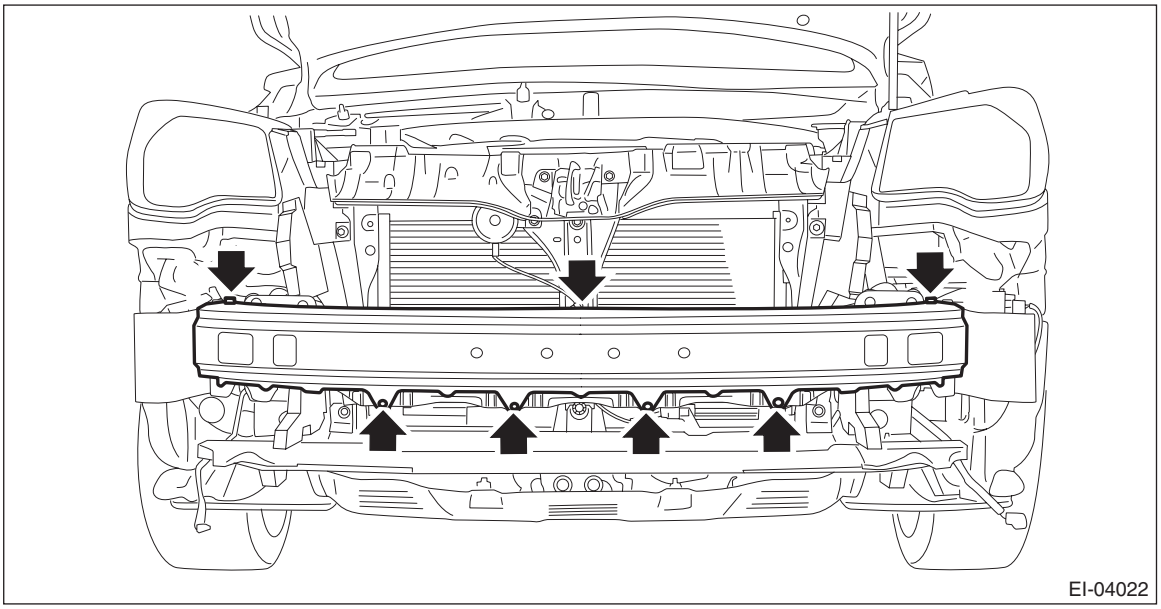


(5) Apply protective tape (A) to the light assembly - head.
(6) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

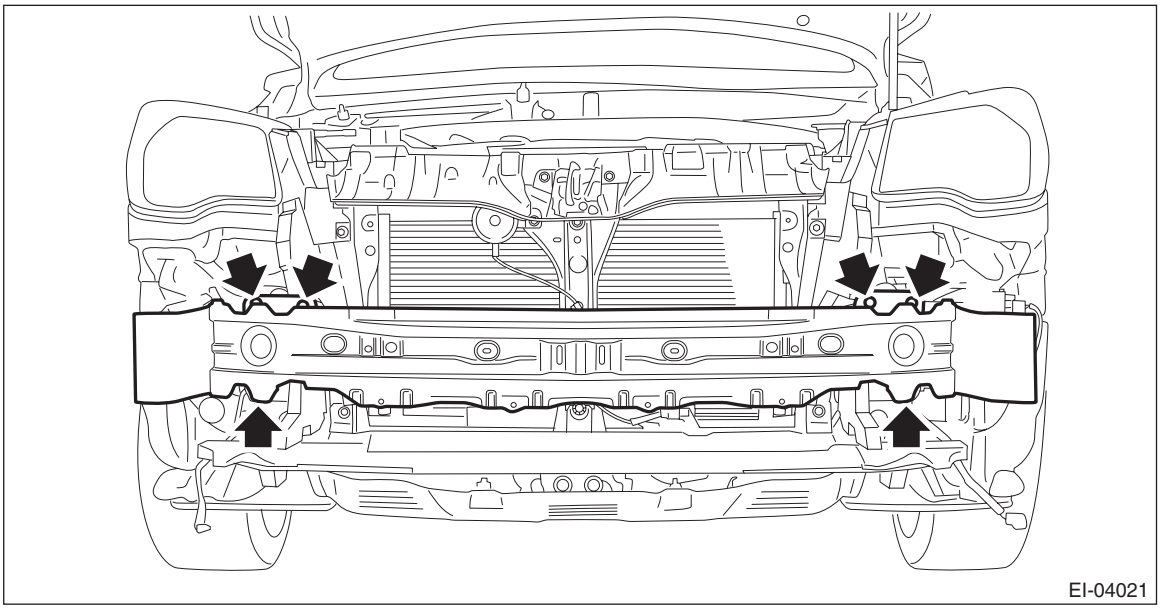
CAUTION:
Do not pull forcibly. It may damage the flange sections of the bumper face - front.



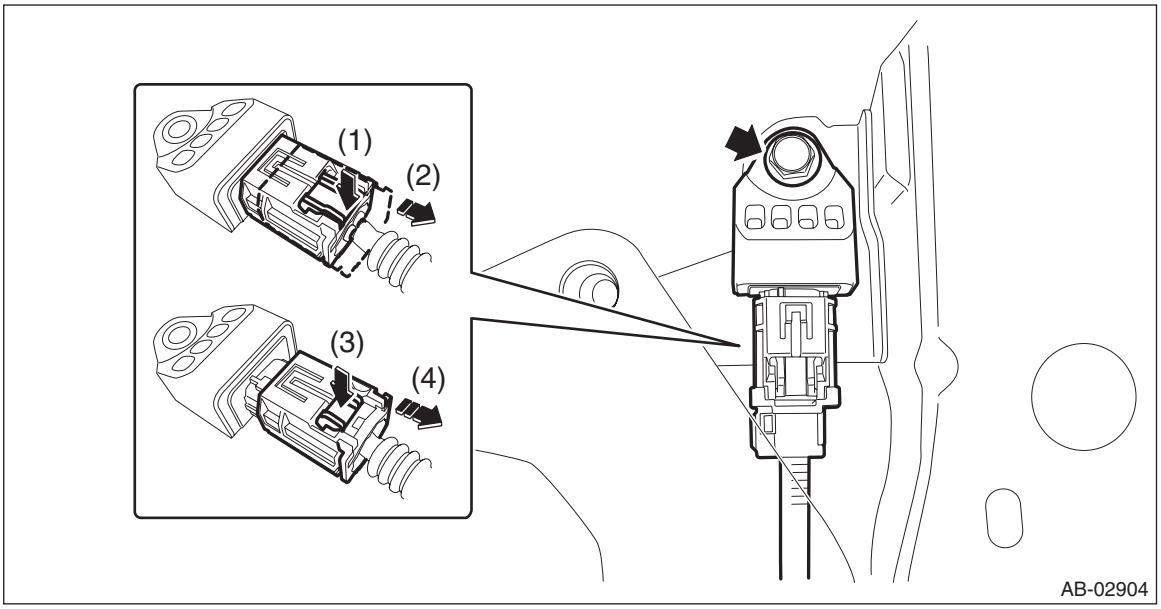
NOTE:
Detach the opposite side in the same manner.
4) Remove the bumper beam COMPL - front.
(1) Remove the energy absorber - front bumper.



(2) Remove the bolts, and remove the bumper beam COMPL - front.



5) Remove the bolt, and then detach the front sub sensor.<Ref. to AB-23, FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR, PROCEDURE, Airbag Connector.>



B: INSTALLATION

CAUTION:
- **If the airbag has been activated, replace the front sub sensor with a new part.**
- **Do not reuse the bolt and nut.**

Always replace with the specified new bolts and nuts.
- **When installing the sensor, insert the set pin on the backside of the sensor into the hole on the body side securely.**

1) Before installation, inspect the following items and replace any faulty part with a new part.
- Front sub sensor damage
- Connector damage

2) Install each part in the reverse order of removal.

Tightening torque:
Front sub sensor: 13 N·m (1.33 kgf-m, 9.6 ft-lb)
Bumper beam COMPL - front: 32 N·m (3.36 kgf-m, 24.3 ft-lb)

10.Interior Light System

A: WIRING DIAGRAM

Refer to “Interior Light System” in the wiring diagram. <Ref. to WI-269, WIRING DIAGRAM, Interior Light System.>

B: INSPECTION

1. CHECK DOOR SWITCH

Refer to the “INSPECTION” of the “Door Switch”. <Ref. to LI-78, INSPECTION, Door Switch.>

2. CHECK REAR GATE LATCH SWITCH

- Except for model with power rear gate: refer to “INSPECTION” of the “Rear Gate Latch and Actuator Assembly” in “SECURITY AND LOCKS” section. <Ref. to SL-52, ACTUATOR, INSPECTION, Rear Gate Latch and Actuator Assembly.>
- Model with power rear gate: Refer to “INSPECTION” of the “Power Rear Gate Auto Closer” in “POWER REAR GATE SYSTEM” section. <Ref. to PRG-18, INSPECTION, Power Rear Gate Auto Closer.>

C: NOTE

For operation procedures of each component of the interior light system, refer to the respective section.

- Spot map light: <Ref. to LI-62, Spot Map Light.>
- Room light: <Ref. to LI-65, Room Light.>
- Luggage room light: <Ref. to LI-67, Luggage Room Light.>
- Door step light: <Ref. to LI-69, Door Step Light.>
- Door switch: <Ref. to LI-78, Door Switch.>

10.Keyless Access System Check

A: OPERATION

1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Keyless access system}.
3) On «Keyless access system» display, select {Work Support}.
4) Select {Function Check Sequence}.
5) Select {Keyless access system check}.
6) Select the transmitter to be checked and click [OK].
7) Select [Exit] to exit the system check. The screen will return to the «Keyless access system check» screen.

Data	Customize setting	Remarks
Keyless access system check	Driver side external transmitter — internal tuner	When the setting content on the left is selected, the access key is neared to the selected transmitter (access antenna) and collation matches, the buzzer will sound.
	Passenger side external transmitter — internal tuner	
	Fr internal transmitter — internal tuner	
	Rr internal transmitter — internal tuner	
	R gate internal transmitter — internal tuner	
	R gate external transmitter — internal tuner	
	Immobilizer amplifier transmission	
Collation result history Clear	Execution	
	—	

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

10.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Content of diagnosis	Reference
B2500	Power Supply Volt Error	Abnormality of PRG CM power supply voltage is detected.	<Ref. to PRG(diag)-17, DTC B2500 BATT P/SUPPLY FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2501	PRG ECU Malfunction	Malfunction of motor operation is detected.	<Ref. to PRG(diag)-19, DTC B2501 PRG ECU MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2502	Touch Sensors (L) Failure	Malfunction of touch sensor L is detected.	<Ref. to PRG(diag)-22, DTC B2502 TOUCH SENSORS (L) FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2503	Touch Sensors (R) Failure	Malfunction of touch sensor R is detected.	<Ref. to PRG(diag)-24, DTC B2503 TOUCH SENSORS (R) FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2504	Touch Sensors (L) ON Fixation	Seizure of touch sensor L is detected.	<Ref. to PRG(diag)-25, DTC B2504 TOUCH SENSORS (L) ON FIXATION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2505	Touch Sensors (R) ON Fixation	Seizure of touch sensor R is detected.	<Ref. to PRG(diag)-25, DTC B2505 TOUCH SENSORS (R) ON FIXATION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2506	PRG Motor Current Surge	Overcurrent in motor circuit is detected.	<Ref. to PRG(diag)-26, DTC B2506 PRG MOTOR CURRENT SURGE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2507	PRG Motor Open	Open circuit in motor is detected.	<Ref. to PRG(diag)-27, DTC B2507 PRG MOTOR OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2508	PRG Motor GND Short Out	Ground fault in motor circuit is detected.	<Ref. to PRG(diag)-29, DTC B2508 PRG MOTOR GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2509	Clutch Open	Open or short circuit in clutch is detected.	<Ref. to PRG(diag)-31, DTC B2509 CLUTCH OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B250A	Touch Sensors Batt. GND Short Out	Malfunction of touch sensor is detected.	<Ref. to PRG(diag)-33, DTC B250A TOUCH SENSORS BATT. GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B250B	Rotation Sensor Failure (A Output Fixation)	Malfunction of rotation sensor is detected.	<Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B250D	Rotation Sensor Failure (B Output Fixation)	Malfunction of rotation sensor is detected.	<Ref. to PRG(diag)-37, DTC B250D ROTATION SENSOR FAILURE (B OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B250F	Rotation Sensor Failure (Pulse-Count Failure)	Malfunction of rotation sensor is detected.	<Ref. to PRG(diag)-37, DTC B250F ROTATION SENSOR FAILURE (PULSE-COUNT FAILURE), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2511	Rotation Sensor Failure (Reverse Direction Pulse Failure)	Malfunction of rotation sensor is detected.	<Ref. to PRG(diag)-37, DTC B2511 ROTATION SENSOR FAILURE (REVERSE DIRECTION PULSE FAILURE), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2512	Damper Breakage Failure	Malfunction of gas damper is detected.	<Ref. to PRG(diag)-38, DTC B2512 DAMPER BREAKAGE FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Item	Content of diagnosis	Reference
B2513	Latch Condition Failure	Malfunction of switch inside auto power rear gate closer is detected.	<Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2514	IG Failure	Inconsistency of signals between LIN communication line and direct line.	<Ref. to PRG(diag)-42, DTC B2514 IG FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2515	Latch SW Failure	Malfunction of switch inside auto power rear gate closer is detected.	<Ref. to PRG(diag)-43, DTC B2515 LATCH SW FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2516	Sector SW Failure	Malfunction of switch inside auto power rear gate closer is detected.	<Ref. to PRG(diag)-43, DTC B2516 SECTOR SW FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2517	Courtesy SW Failure	Malfunction of switch inside auto power rear gate closer is detected.	<Ref. to PRG(diag)-43, DTC B2517 COURTESY SW FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2518	PRG Continuously-Working Failure	When the motor is operated continuously for 30 minutes or more.	<Ref. to PRG(diag)-44, DTC B2518 PRG CONTINUOUSLY-WORKING FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2519	POWER +B Open	Malfunction of PRG CM power supply system is detected.	<Ref. to PRG(diag)-47, DTC B2519 POWER +B OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B251A	LIN Connection Failure (No-Receive Data Failure)	Malfunction of LIN communication system is detected.	<Ref. to PRG(diag)-49, DTC B251A LIN CONNECTION FAILURE (NO-RECEIVE DATA FAILURE), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B251B	LIN Connection Failure (BUS Physical Failure)	Malfunction of LIN communication system is detected.	<Ref. to PRG(diag)-50, DTC B251B LIN CONNECTION FAILURE (BUS PHYSICAL FAILURE), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B251D	AT/MT Judgment Failure	Malfunction of LIN communication system is detected.	<Ref. to PRG(diag)-50, DTC B251D AT/MT JUDGMENT FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2522	EEPROM Failure	Malfunction is detected inside PRG CM.	<Ref. to PRG(diag)-51, DTC B2522 EEPROM FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2523	Half Stop Solenoid Failure	Malfunction of keep solenoid is detected.	<Ref. to PRG(diag)-52, DTC B2523 HALF STOP SOLENOID FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

1. CHECK USING THE DTC CHECK SHEET

DTC check sheet

- For “BUS OFF” or “NO-RECEIVE DATA” entry

	(A)	(B)	(C)															
			VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0073	U0122	U1235	U0140	U0155	U0156	U0164	U0126	U0101	—	—	U0327	—	U0131	U0151	U0123	U0100
VDC			—			—	—	—			—	—	—	—	—	—		
CAM				—			—	—	—		—	—	—	—	—	—	—	
BIU				—	—		—		—		—	—		—	—	—	—	
MET						—	—		—		—	—		—			—	
MFD			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C				—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM							—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS				—			—	—	—		—	—	—	—	—	—	—	
HL				—		—	—	—	—	—	—	—	—	—	—	—	—	—
EPS				—	—		—	—	—	—	—	—	—	—	—	—	—	
A/B			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM				—	—		—	—	—		—	—	—	—	—	—	—	—

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List of Diagnostic Trouble Code (DTC)

- For data error entry

	(A)	(D)															
		VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0416	U1433	U0422	U0423	U0457	U0424	U0428	U0402	—	—	U0427	—	U0420	U0452	U0513	U0401
VDC		—			—	—	—			—	—	—	—	—	—		
CAM			—			—	—	—		—	—	—	—	—	—	—	
BIU			—	—		—		—		—	—		—	—	—	—	
MET		—		—	—	—	—	—	—	—	—	—	—	—	—	—	—
MFD		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C			—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM						—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS		—	—		—	—	—	—	—	—	—	—	—	—	—	—	
HL		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPS			—	—	—	—	—	—	—	—	—	—	—	—	—	—	
A/B		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM			—	—		—	—	—		—	—	—	—	—	—	—	—

LAN01288

(A) Installation check
(B) Bus off detection
(C) Data no-receive detection
(D) Data abnormal detection

VDC: VDC CM
KPS: Keyless access CM
BIU: Body integrated unit
MFD: High grade MFD
A/C: A/C control panel
MET: Combination meter
RST: Remote engine starter CM
HL: Auto headlight beam leveler CM
STR: Steering angle sensor
TCM: TCM
A/B: AB CM
EPS: Power steering CM
ECM: ECM
CAM: Stereo camera
IMP: Impact sensor
Y&G: Yaw rate & G sensor

1) Module installation check
   (1) Write “-” marks in the field for installation check if the vehicle to be inspected does not have relevant module.
   (2) Write “-” marks in all blank fields on the same row that the “-” mark has filled in.
2) Bus off detection / data not received

NOTE:
It becomes impossible for CAN diagnostic module to read DTC, if there is a current malfunction of open harness (data not received). If this occurs, perform the “Check using the check sheet of communication for initializing”<Ref. to LAN(diag)-12, CHECK USING THE CHECK SHEET OF COMMUNICATION FOR INITIALIZING, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>, and use this sheet to confirm that the corresponding part becomes the past malfunction.

(1) Mark “X” in the field corresponding to the DTCs that has been detected by each module in the check sheet.

(2) Identify and repair the faulty part by referring to the example of DTC data not received and the DTC matrix.<Ref. to LAN(diag)-106, EXAMPLE OF DTC DATA NOT RECEIVED, LIST, List of Diagnostic Trouble Code (DTC).> <Ref. to LAN(diag)-114, DTC MATRIX, LIST, List of Diagnostic Trouble Code (DTC).>

3) Data abnormal detection

NOTE:
If any DTC code that starts with P, B or C is detected after restarting the engine, perform the diagnosis for that code first. If any “BUS OFF” or “NO-RECEIVE DATA” condition is detected, perform the diagnosis for these problems first.

(1) If several modules detect the DTC for the same module, replace the detected module.

(2) If one module detects the DTC, replace the module of the detected side.

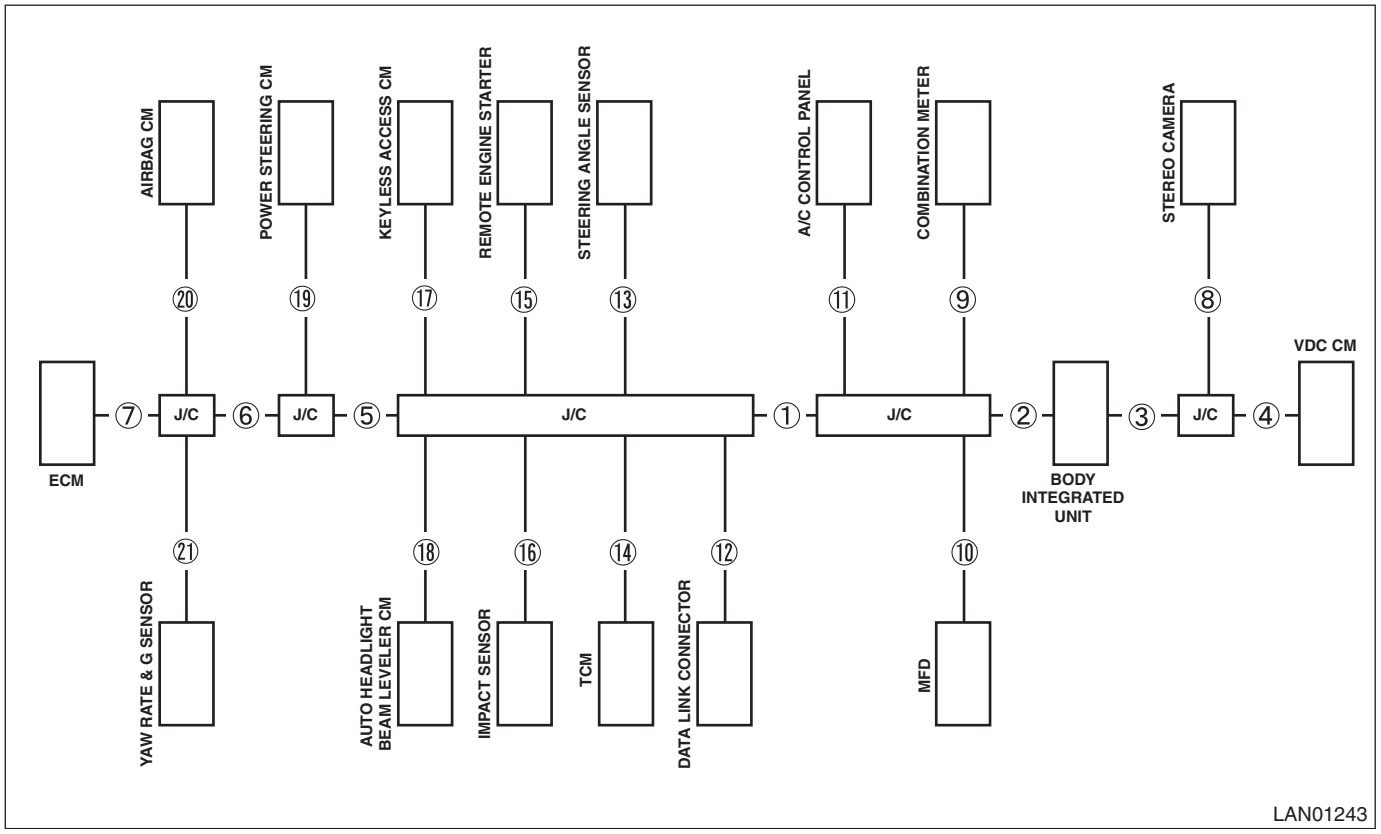
(3) If it does not return to the normal operation, re-install the module which has been replaced, and replace the module of the detected side.

(4) If it does not return to the normal operation, replace both modules.

2. EXAMPLE OF DTC DATA NOT RECEIVED

NOTE:
Only the sheet for bus off, data no-receive entry is shown.
(This is because, when data error occurs at the bus off, data no-receive condition, the diagnosis for these problems is performed first.)

Non-turbo model



When ⑬ (steering angle sensor vicinity) is open

NOTE:
DTC is not detected except in VDC.

	(A)	(B)	(C)															
			VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0073	U0122	U1235	U0140	U0155	U0156	U0164	U0126	U0101	—	—	U0327	—	U0131	U0151	U0123	U0100
VDC			—			—	—	—	X		—	—	—	—	—	—		
CAM				—			—	—	—		—	—	—	—	—	—	—	
BIU				—	—		—		—		—	—		—	—	—	—	
MET						—	—		—		—	—		—			—	
MFD			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C				—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM							—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS				—			—	—	—		—	—	—	—	—	—	—	
HL				—		—	—	—	—	—	—	—	—	—	—	—	—	—
EPS				—	—		—	—	—	—	—	—	—	—	—	—	—	
A/B			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM				—	—		—	—	—		—	—	—	—	—	—	—	—

LAN01289

When ⑮ (remote engine start CM vicinity) is open

NOTE:
The remote engine starter does not operate while no DTC is detected.

	(A)	(B)	(C)															
			VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0073	U0122	U1235	U0140	U0155	U0156	U0164	U0126	U0101	—	—	U0327	—	U0131	U0151	U0123	U0100
VDC			—			—	—	—			—	—	—	—	—	—		
CAM				—			—	—	—		—	—	—	—	—	—	—	
BIU				—	—		—		—		—	—		—	—	—	—	
MET						—	—		—		—	—		—			—	
MFD			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C				—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM							—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS				—			—	—	—		—	—	—	—	—	—	—	
HL				—		—	—	—	—	—	—	—	—	—	—	—	—	—
EPS				—	—		—	—	—	—	—	—	—	—	—	—	—	
A/B			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM				—	—		—	—	—		—	—	—	—	—	—	—	—

LAN01287

List of Diagnostic Trouble Code (DTC)

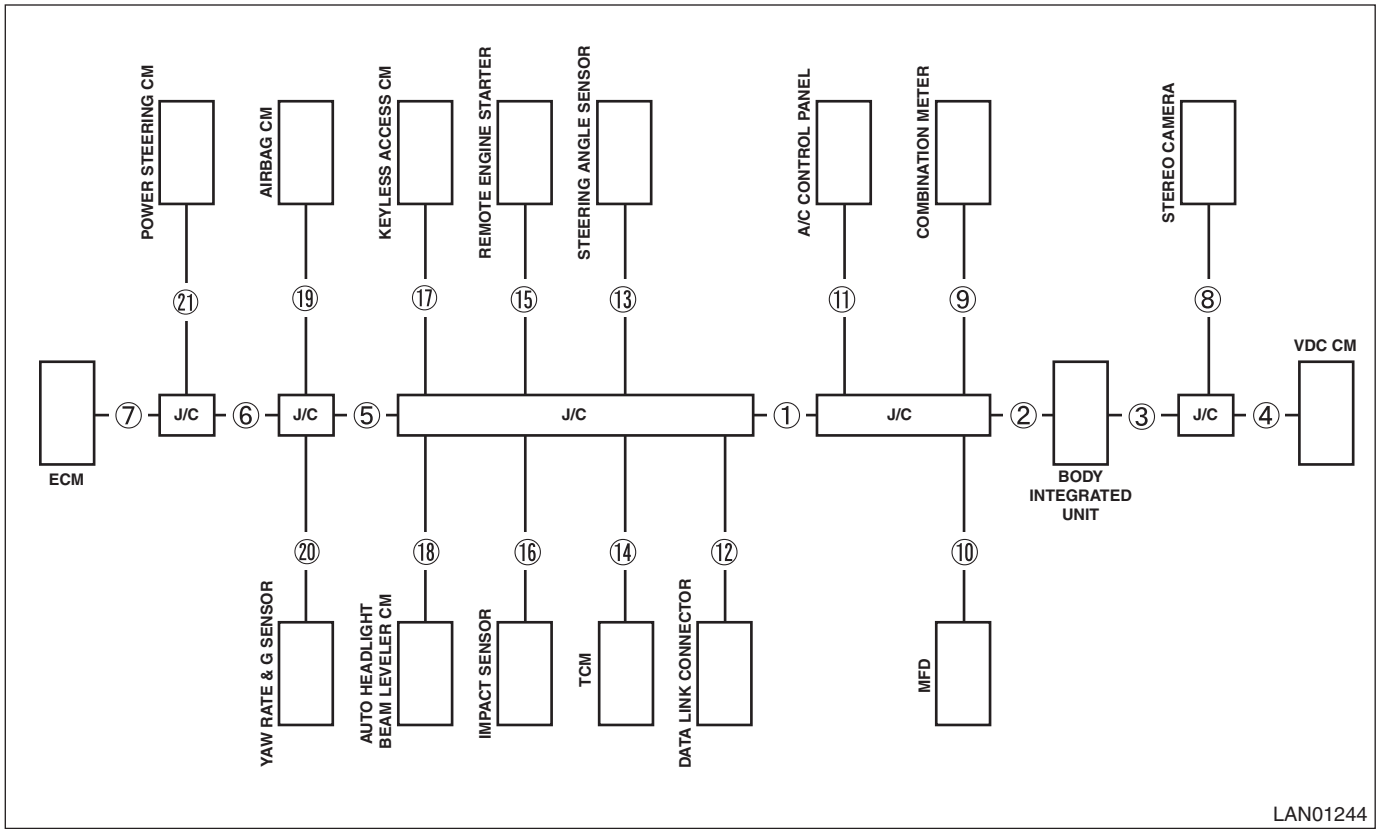
When ㉑ (yaw rate & G sensor vicinity) is open

NOTE:
DTC is not detected except in VDC.

	(A)	(B)	(C)															
			VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0073	U0122	U1235	U0140	U0155	U0156	U0164	U0126	U0101	—	—	U0327	—	U0131	U0151	U0123	U0100
VDC			—			—	—	—			—	—	—	—	—	—	X	
CAM				—			—	—	—		—	—	—	—	—	—	—	
BIU				—	—		—		—		—	—		—	—	—	—	
MET						—	—		—		—	—		—			—	
MFD			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C				—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM							—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS				—			—	—	—		—	—	—	—	—	—	—	
HL				—		—	—	—	—	—	—	—	—	—	—	—	—	—
EPS				—	—		—	—	—	—	—	—	—	—	—	—	—	
A/B			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM				—	—		—	—	—		—	—	—	—	—	—	—	—

LAN01290

Turbo model


POWER STEERING CM
AIRBAG CM
KEYLESS ACCESS CM
REMOTE ENGINE STARTER
STEERING ANGLE SENSOR
A/C CONTROL PANEL
COMBINATION METER
STEREO CAMERA
VDC CM
ECM
J/C
BODY INTEGRATED UNIT
YAW RATE & G SENSOR
AUTO HEADLIGHT BEAM LEVELER CM
IMPACT SENSOR
TCM
DATA LINK CONNECTOR
MFD
LAN01244

When ⑬ (steering angle sensor vicinity) is open

NOTE:
DTC is not detected except in VDC.

	(A)	(B)	(C)															
			VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0073	U0122	U1235	U0140	U0155	U0156	U0164	U0126	U0101	—	—	U0327	—	U0131	U0151	U0123	U0100
VDC			—			—	—	—	X		—	—	—	—	—	—		
CAM				—			—	—	—		—	—	—	—	—	—	—	
BIU				—	—		—		—		—	—		—	—	—	—	
MET						—	—		—		—	—		—			—	
MFD			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C				—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM							—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS				—			—	—	—		—	—	—	—	—	—	—	
HL				—		—	—	—	—	—	—	—	—	—	—	—	—	—
EPS				—	—		—	—	—	—	—	—	—	—	—	—	—	
A/B			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM				—	—		—	—	—		—	—	—	—	—	—	—	—

LAN01289

When ⑮ (remote engine start CM vicinity) is open

NOTE:
The remote engine starter does not operate while no DTC is detected.

	(A)	(B)	(C)															
			VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0073	U0122	U1235	U0140	U0155	U0156	U0164	U0126	U0101	—	—	U0327	—	U0131	U0151	U0123	U0100
VDC			—			—	—	—			—	—	—	—	—	—		
CAM				—			—	—	—		—	—	—	—	—	—	—	
BIU				—	—		—		—		—	—		—	—	—	—	
MET						—	—		—		—	—		—			—	
MFD			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C				—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM							—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS				—			—	—	—		—	—	—	—	—	—	—	
HL				—		—	—	—	—	—	—	—	—	—	—	—	—	—
EPS				—	—		—	—	—	—	—	—	—	—	—	—	—	
A/B			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM				—	—		—	—	—		—	—	—	—	—	—	—	—

LAN01287

List of Diagnostic Trouble Code (DTC)

When ⑳ (yaw rate & G sensor vicinity) is open

NOTE:
DTC is not detected except in VDC.

	(A)	(B)	(C)															
			VDC	CAM	BIU	MET	MFD	A/C	STR	TCM	RST	IMP	KPS	HL	EPS	A/B	Y&G	ECM
		U0073	U0122	U1235	U0140	U0155	U0156	U0164	U0126	U0101	—	—	U0327	—	U0131	U0151	U0123	U0100
VDC			—			—	—	—			—	—	—	—	—	—	X	
CAM				—			—	—	—		—	—	—	—	—	—	—	
BIU				—	—		—		—		—	—		—	—	—	—	
MET						—	—		—		—	—		—			—	
MFD			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A/C				—			—	—	—		—	—	—	—	—	—	—	
STR		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TCM							—	—	—	—	—	—	—	—	—	—	—	
RST		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
IMP		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
KPS				—			—	—	—		—	—	—	—	—	—	—	
HL				—		—	—	—	—	—	—	—	—	—	—	—	—	—
EPS				—	—		—	—	—	—	—	—	—	—	—	—	—	
A/B			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Y&G		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ECM				—	—		—	—	—		—	—	—	—	—	—	—	—

LAN01290

3. DTC MATRIX

NOTE:
Perform the following procedure when using this chart in which the detailed trouble mode corresponds to the trouble status.
1. Search the trouble mode that corresponds to the vehicle status from the chart.
2. Perform the repair that corresponds to the trouble mode.

Control module (which module vicinity)		Trouble mode 1	Trouble mode 2	Trouble mode 3	Trouble mode 4	Trouble mode 5	...	...	Trouble mode n
Detailed location (which location)									
Detailed trouble mode (what kind)									
Trouble status (trouble exists/trouble existed)									
DTC reading result from each module using Subaru Select Monitor	VDC CM	Vehicle status 1	Vehicle status 2	Vehicle status 3	Vehicle status 4	Vehicle status 5	...	...	Vehicle status n
	Body integrated unit								
	Combination meter								
	MFD								
	A/C control panel								
	TCM								
	...								
	...								
	ECM								
Indicators illuminate/blink.									

1. Hi-side circuit of CAN communication circuit is open.

NOTE:
- If the module has a limit of DTC memory and the number of DTC occurrence exceeds the limit, older DTCs are preferentially stored.
- When there is no description in Current, it is referred to as “None”.
- When DTC is in parentheses, it is referred to as “Not always occur”.
- “Trouble exists” is referred to as the status before performing inspection and repair. “Trouble existed” is referred to as the status before performing DTC clear after repair.

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Communication failure	Latest B2801 U0100 U0101 (Old) U0100 U0101 U0122 U0140 U0155 U1120 Any 3 items from above	Current B2806 B2801 U0122 (Old) U0122	Latest B2807 B2806 B2801 (Old) B2806 B2801 U0122 (Older) U0122	Current None Past None	Current None Past None	Communication failure	(Old) U0100 U0101 U0155
	VDC CM[*1*8]	Current U1235 Past Same as above	Past U1235	Communication failure	Current C1424 C1431 Past C1424 C1431 U0073 U0100 U0101 U0126 U0140 U0123 U1120 U1235	Current None Past None	Current None Past None	Communication failure	Current C1424 C1431 Past C1424 C1431 U0073 U0100 U0101 U0126 U0140 U0123 U1120

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Keyless access CM[*9]	None	None	Current U0122 Past Same as above	Past U0122	Communication failure	Past (U0073) (*) U0100 U0101 U0122 U0140 U0155 U1120 When * occurs, part of no-receive judgment may not be stored.	Current U0122 Past Same as above	Past U0122
	Body integrated unit[*2]	None	None	Current U0122 Past Same as above	Past U0122	Current U0327 Past Same as above	Past U0327	Current U0122 Past Same as above	Past U0122
	Combination meter[*3]	Current U1235 Past Same as above	Past U1235	Current U0122 Past Same as above	Past U0122	Current U0327 Past Same as above	Past U0327	Current U0122 U1235 Past Same as above	Past U0122 U1235
	MFD[*4]	Current U1235 Past Same as above	Past U1235	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122
	TCM[*1]	Current U1235 Past Same as above	Past U1235	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 U1235 Past Same as above	Past U0122 U1235

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122
	Auto Start Stop CM[*10]	Current None Past None	Current None Past None	Current (U0122) Past Same as above	Past (U0122)	Current None Past None	Current None Past None	Current (U0122) Past Same as above	Past (U0122)
	ECM[*1]	Current None Past None	Current None Past None	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only	Current None Past None	Current None Past None	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only
	Auto headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122

Control module	Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	Pre-collision, lane-off illuminate EyeSight, AT OIL TEMP blink	No change	CHECK ENGINE, VDC, VDC off, ABS, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP blink; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate	No change	No change	CHECK ENGINE, VDC, VDC off, ABS, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP blink; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Communication failure	(Old) U0100 U0101 U0155	Latest B2806 U0155 (Old) U0155	Latest B2807 B2806 (Old) B2806 U0155 (Older) U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM[*1*8]	Communication failure	Current C1424 C1431 Past C1424 C1431 U0100 U0101 U0126 U0123 U1120	Current C1424 Past Same as above	Current C1424 Past Same as above	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Keyless access CM[*9]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Communication failure	Past U0100 U0101 U0155 U0164 U0327	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current U0164 Past Same as above	Past U0164

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Combination meter[*3]	Current U0122 U0140 U1235 Past Same as above	Past U0122 U0140 U1235	Communication failure	Past U0073 U0100 U0101 U0122 U0131 U0140 U0151 U0164 U0327 U1120 U1235 Any 5 items from above	Current None Past None	Current None Past None	Current U0164 Past Same as above	Past U0164
	MFD[*4]	Current U1650 Past Same as above	Current None Past U1650	Current (U1650) Past Same as above	Past (U1650)	Communication failure	Past (U0073)	Current None Past None	Current None Past None
	A/C control panel[*5]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Communication failure	Past U0073 U0100 U0155 U0140 U0122 U0101 U1120
	TCM[*1]	Current U0122 U0140 U1235 Past Same as above	Past U0122 U0140 U1235	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current U0122 Past Same as above	Past U0122	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Auto Start Stop CM[*10]	Current (U0122) (U0140) Past Same as above	Past (U0140) (U0122)	Current (U0155) Past Same as above	Past (U0155)	Current None Past None	Current None Past None	Current (U0164) Past Same as above	Past (U0164)
	ECM[*1]	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto headlight beam leveler CM[*6]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None

List of Diagnostic Trouble Code (DTC)

Control module	Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	CHECK ENGINE, VDC, VDC off, ABS, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP blink; hill hold blink; SI-DRIVE (S) blink; CRUISE blink; Auto Start Stop illuminate (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; CHECK ENGINE not illuminate	CHECK ENGINE, EMPTY, VDC, ABS illuminate Airbag, VDC off, BRAKE, EPS intermittently illuminate (EPS may not illuminate) Hill hold, SI-DRIVE (I) blink; engine coolant temperature gauge (red/blue) blink; AT OIL TEMP blink (A cycle of blinking four times and then going off may repeat) Fuel gauge 0, tachometer 0 rpm, shift indicator go off occasionally (CRUISE goes off) (With EyeSight) Pre-collision, lane-off illuminate; EyeSight blink (constant frequency)	CHECK ENGINE illuminate; hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; VDC illuminate	No change Door-open not reflected (not indicated as open) on MFD	No change No change in MFD	No change A/C unit, rear defogger only no response. A/C operation not reflected on MFD.	No change

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Current None Past None	Current None Past None	Latest B2806 B2801 U0101 (Old) U0101	Current B2807 B2806 B2801 (Old) B2806 B2801 U0101 (Older) U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM[*1*8]	Current C1424 C1431 U0126 Past Same as above	Current C1424 C1431 Past C1424 C1431 U0126	Current C1424 U0101 Past Same as above	Current C1424 C1431 Past C1424 C1431 U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Keyless access CM[*9]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Combination meter[*3]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current U0151 Past Same as above	Current None Past U0151	Current U0131 Past Same as above	Past U0131
	MFD[*4]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	TCM[*1]	Current None Past None	Current None Past None	Communication failure	Past U0100 U0122 U0140 U0155 U1120 U1235	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Past U0100 U0122 U0155 U1120
	Auto Start Stop CM[*10]	Current None Past None	Current None Past None	Current (U0101) Past Same as above	Past (U0101)	Current None Past None	Current None Past None	Current (U0131) Past Same as above	Past (U0131)
	ECM[*1]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module	Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	VDC, ABS illuminate; hill hold blink *12	No change When unstable communication condition due to open circuit on one side has occurred, the following may occur. CHECK ENGINE, VDC, ABS illuminate; hill hold blink; SI-DRIVE (S), CC blink	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S) blink; CRUISE blink; shift indicator go off (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; VDC illuminate	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; VDC illuminate	A/B illuminates.	No change	EPS warning light illumination	No change

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.
*12: When unstable communication condition due to open circuit on one side has occurred, CHECK ENGINE illuminate; SI-DRIVE (S), CC blink may occur. When unstable communication condition is in progress, EMPTY illuminates; AT OIL TEMP, engine coolant temperature gauge (red/blue), SI-DRIVE (i), immobilizer light blink; fuel gauge zero; tachometer 0 rpm may occur.

Control module		Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Latest B2801 (Old) B2809 B2801	Latest B2801 (Old) B2801 (Older) B2801 B2809	Latest B2801 U0100 (Old) U0100	Latest B2807 B2806 B2801 (Old) B2801 U0100 (Older) U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM[*1*8]	Current C1431 U1120 Past Same as above	Current C1431 Past C1431 U1120	Current C1431 U0100 Past Same as above	Current C1424 C1431 Past C1424 C1431 U0100	Current None Past None	Current None Past None	Current C1721 U0123 Past Same as above	Past C1721 U0123
	Keyless access CM[*9]	Current U1120 Past None	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Current None Past None	Current None Past None	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Combination meter[*3]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	MFD[*4]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location		Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	TCM[*1]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto Start Stop CM[*10]	Communication failure	Current (P1614) Past Same as above	Current (U0100) Past Same as above	Past (U0100)	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	ECM[*1]	Current None Past (P1531)	Past (P1531)	Communication failure	Past U0073 (*) (U0101) (U0122) (U0155) *Occasionally this may not occur. In such a case, all other data no-receive errors will remain.	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Past U0122 U0140	Current None Past None	Current None Past None

List of Diagnostic Trouble Code (DTC)

Control module	Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side	Hi side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	(Without EyeSight) VDC, ABS illuminate. Auto Start Stop CM OFF, AT OIL TEMP blink (With EyeSight) VDC, EyeSight, pre-collision, lane-off illuminate Auto Start Stop CM OFF, AT OIL TEMP blink	(Without EyeSight) VDC, ABS illuminate. (With EyeSight) VDC, EyeSight, pre-collision, lane-off illuminate Auto Start Stop OFF blink	CHECK ENGINE, VDC, ABS, EMPTY, AWD, AT OIL TEMP, EPS illuminate; engine coolant temperature gauge (red/blue) blink Hill hold, SI-DRIVE (I) blink; fuel gauge go off; tachometer 0 rpm (With EyeSight) EyeSight, pre-collision, lane-off illuminate; ABS not illuminate	CHECK ENGINE, VDC, ABS illuminate Hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; ABS not illuminate	Headlight beam indicator illuminate	No abnormality	VDC, ABS, EyeSight, pre-collision, lane-off illuminate; hill hold blink	No abnormality

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

2. Lo-side circuit of CAN communication circuit is open.

NOTE:
- If the module has a limit of DTC memory and the number of DTC occurrence exceeds the limit, older DTCs are preferentially stored.
- When there is no description in Current, it is referred to as “None”.
- When DTC is in parentheses, it is referred to as “Not always occur”.
- “Trouble exists” is referred to as the status before performing inspection and repair. “Trouble existed” is referred to as the status before performing DTC clear after repair.

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Communication failure	Latest B2801 U0100 U0101 (Old) U0100 U0101 U0122 U0140 U0155 U1120 Any 3 items from above	Current B2806 B2801 U0122 (Old) U0122	Latest B2807 B2806 B2801 (Old) B2806 B2801 U0122 (Older) U0122	Current None Past None	Current None Past None	Communication failure	(Old) U0100 U0101 U0155 (Older) Same as above
	VDC CM[*1*8]	Current U1235 Past Same as above	Past U1235	Communication failure	Current C1424 C1431 Past C1424 C1431 U0073 U0100 U0101 U0126 U0140 U0123 U1120 U1235	Current None Past None	Current None Past None	Communication failure	Current C1424 C1431 Past C1424 C1431 U0073 U0100 U0101 U0126 U0140 U0123 U1120

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Keyless access CM[*9]	None	None	Current U0122 Past Same as above	Past U0122	Communication failure	Past (U0073) (*) U0100 U0101 U0122 U0140 U0155 U1120 When * occurs, part of no-receive judgment may not be stored.	Current U0122 Past Same as above	Past U0122
	Body integrated unit[*2]	None	None	Current U0122 Past Same as above	Past U0122	Current U0327 Past Same as above	Past U0327	Current U0122 Past Same as above	Past U0122
	Combination meter[*3]	Current U1235 Past Same as above	Past U1235	Current U0122 Past Same as above	Past U0122	Current U0327 Past Same as above	Past U0327	Current U0122 U1235 Past Same as above	Past U0122 U1235
	MFD[*4]	Current U1235 Past Same as above	Past U1235	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122
	TCM[*1]	Current U1235 Past Same as above	Past U1235	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 U1235 Past Same as above	Past U0122 U1235

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122
	Auto Start Stop CM[*10]	Current None Past None	Current None Past None	Current (U0122) Past Same as above	Past (U0122)	Current None Past None	Current None Past None	Current (U0122) Past Same as above	Past (U0122)
	ECM[*1]	Current None Past None	Current None Past None	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only	Current None Past None	Current None Past None	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only
	Auto headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122

Control module	Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access vicinity	Keyless access vicinity	Body integrated unit (VDC CM side) vicinity	Body integrated unit (VDC CM side) vicinity
Detailed location	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	Pre-collision, lane-off illuminate EyeSight, AT OIL TEMP blink	No change	CHECK ENGINE, VDC, VDC off, ABS, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP blink; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate	No change	No change	CHECK ENGINE, VDC, VDC off, ABS, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP blink; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Communication failure	(Old) U0100 U0101 U0155	Latest B2806 U0155 (Old) U0155	Latest B2807 B2806 (Old) B2806 U0155 (Older) U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM[*1*8]	Communication failure	Current C1424 C1431 Past C1424 C1431 U0100 U0101 U0126 U0123 U1120	Current C1424 Past Same as above	Current C1424 Past Same as above	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Keyless access CM[*9]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Communication failure	Past U0100 U0101 U0155 U0164 U0327	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current U0164 Past Same as above	Past U0164

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Combination meter[*3]	Current U0122 U0140 U1235 Past Same as above	Past U0122 U0140 U1235	Communication failure	Past U0073 U0100 U0101 U0122 U0131 U0140 U0151 U0164 U0327 U1120 U1235 Any 5 items from above	Current None Past None	Current None Past None	Current U0164 Past Same as above	Past U0164
	MFD[*4]	Current U1650 Past Same as above	Past U1650	Current (U1650) Past Same as above	Past (U1650)	Communication failure	Past (U0073)	Current None Past None	Current None Past None
	A/C control panel[*5]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Communication failure	Past U0073 U0100 U0155 U0140 U0122 U0101 U1120
	TCM[*1]	Current U0122 U0140 U1235 Past Same as above	Past U0122 U0140 U1235	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Electric power steering CM[*7]	Current U0122 Past Same as above	Past U0122	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto Start Stop CM[*10]	Current (U0122) (U0140) Past Same as above	Past (U0140) (U0122)	Current (U0155) Past Same as above	Past (U0155)	Current None Past None	Current None Past None	Current (U0164) Past Same as above	Past (U0164)
	ECM[*1]	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto headlight beam leveler CM[*6]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None

List of Diagnostic Trouble Code (DTC)

Control module	Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	CHECK ENGINE, VDC, VDC off, ABS, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP blink; hill hold blink; SI-DRIVE (S) blink; CRUISE blink; Auto Start Stop illuminate (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; CHECK ENGINE not illuminate	CHECK ENGINE, Airbag illuminate; VDC, VDC off, BRAKE, ABS intermittently illuminate; Hill hold, SI-DRIVE (i) always blink; EMPTY intermittently illuminate; engine coolant temperature gauge (red/blue) blink as a set; fuel gauge 0 when EMPTY illuminate Tachometer 0 rpm ←→ normal Shift indicator go off occasionally CRUISE, EPS illuminate occasionally (AT OIL TEMP go off) (With EyeSight) BRAKE, pre-collision, lane-off illuminate; AT OIL TEMP, EyeSight blink (constant frequency)	CHECK ENGINE illuminate; hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; VDC illuminate	No change Door-open may not be reflected (not indicated as open) on MFD	No change No change in MFD	No change A/C unit Rear defogger only no response A/C operation not reflected on MFD	No change

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Current None Past None	Current None Past None	Latest B2806 B2801 U0101 (Old) U0101	Current B2807 B2806 B2801 (Old) B2806 B2801 U0101 (Older) U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM[*1*8]	Current U0126 Past Same as above	Past U0126	Current C1424 U0101 Past Same as above	Current C1424 C1431 Past C1424 C1431 U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Keyless access CM[*9]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Combination meter[*3]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current U0151 Past Same as above	Past U0151	Current U0131 Past Same as above	Past U0131
	MFD[*4]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	TCM[*1]	Current None Past None	Current None Past None	Communication failure	Past U0100 U0122 U0140 U0155 U1120 U1235	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Past U0100 U0122 U0155 U1120
	Auto Start Stop CM[*10]	Current None Past None	Current None Past None	Current (U0101) Past Same as above	Past (U0101)	Current None Past None	Current None Past None	Current (U0131) Past Same as above	Past (U0131)
	ECM[*1]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module	Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	VDC, ABS illuminate; hill hold blink	No change	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S) blink; CRUISE blink; shift indicator go off (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; VDC illuminate	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; VDC illuminate	A/B illuminates.	No change	EPS warning light illumination	No change

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Latest B2801 (Old) B2809 B2801	Latest B2801 (Old) B2801 (Older) B2801 B2809	Latest B2801 U0100 (Old) U0100	Latest B2807 B2806 B2801 (Old) B2801 U0100 (Older) U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM[*1*8]	Current C1431 U1120 Past Same as above	Current C1431 Past C1431 U1120	Current C1431 U0100 Past Same as above	Current C1424 C1431 Past C1424 C1431 U0100	Current None Past None	Current None Past None	Current C1721 U0123 Past Same as above	Past C1721 U0123
	Keyless access CM[*9]	Current U1120 Past None	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Current None Past None	Current None Past None	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Combination meter[*3]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	MFD[*4]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location		Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	TCM[*1]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto Start Stop CM[*10]	Communication failure	Current (P1614) Past Same as above	Current (U0100) Past Same as above	Past (U0100)	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	ECM[*1]	Current None Past (P1531)	Past (P1531)	Communication failure	Past U0073 (*) (U0101) (U0122) (U0155) *Occasionally this may not occur. In such a case, all other data no-receive errors will remain.	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Past U0122 U0140	Current None Past None	Current None Past None

Control module	Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side	Lo side
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	(Without EyeSight) VDC, ABS illuminate. Auto Start Stop CM OFF, AT OIL TEMP blink (With EyeSight) VDC, EyeSight, pre-collision, lane-off illuminate Auto Start Stop CM OFF, AT OIL TEMP blink	(Without EyeSight) VDC, ABS illuminate. (With EyeSight) VDC, EyeSight, pre-collision, lane-off illuminate Auto Start Stop OFF blink	CHECK ENGINE, VDC, ABS, EMPTY, AWD, AT OIL TEMP, EPS illuminate; engine coolant temperature gauge (red/blue) blink Hill hold, SI-DRIVE (I) blink; fuel gauge go off; tachometer 0 rpm (With EyeSight) EyeSight, pre-collision, lane-off illuminate; ABS not illuminate	CHECK ENGINE, VDC, ABS illuminate Hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; ABS not illuminate	Headlight beam indicator illuminate	No abnormality	VDC, ABS, EyeSight, pre-collision, lane-off illuminate; hill hold blink	No abnormality

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

3. Hi/Lo-side circuit of CAN communication circuit is open.

NOTE:
- If the module has a limit of DTC memory and the number of DTC occurrence exceeds the limit, older DTCs are preferentially stored.
- When there is no description in Current, it is referred to as “None”.
- When DTC is in parentheses, it is referred to as “Not always occur”.
- “Trouble exists” is referred to as the status before performing inspection and repair. “Trouble existed” is referred to as the status before performing DTC clear after repair.

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access CM vicinity	Keyless access CM vicinity	Body integrated unit (VDC side) vicinity	Body integrated unit (VDC side) vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Communication failure	Latest B2801 U0100 U0101 (Old) U0100 U0101 U0122 U0140 U0155 U1120 Any 3 items from above	Current B2806 B2801 U0122 (Old) U0122	Latest B2807 B2806 B2801 (Old) B2806 B2801 U0122 (Older) U0122	Current None Past None	Current None Past None	Communication failure	(Old) U0100 U0101 U0155
	VDCCM[*1*8]	Current U1235 Past Same as above	Current None Past U1235	Communication failure	Current C1424 C1431 Past C1424 C1431 U0100 U0101 U0126 U0140 U0123 U1120 U1235	Current None Past None	Current None Past None	Communication failure	Current C1424 C1431 Past C1424 C1431 U0100 U0101 U0126 U0140 U0123 U1120

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access CM vicinity	Keyless access CM vicinity	Body integrated unit (VDC side) vicinity	Body integrated unit (VDC side) vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Keyless access CM[*9]	None	None	Current U0122 Past Same as above	Past U0122	Communication failure	Past (U0073) (*) U0100 U0101 U0122 U0140 U0155 U1120 *When bus off occurs, part of no-receive judgment may not be stored.	Current U0122 Past Same as above	Past U0122
	Body integrated unit[*2]	None	None	Current U0122 Past Same as above	Past U0122	Current U0327 Past Same as above	Past U0327	Current U0122 Past Same as above	Past U0122
	Combination meter[*3]	Current U1235 Past Same as above	Past U1235	Current U0122 Past Same as above	Past U0122	Current U0327 Past Same as above	Past U0327	Current U0122 U1235 Past Same as above	Past U0122 U1235
	MFD[*4]	Current U1235 Past Same as above	Past U1235	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122
	TCM[*1]	Current U1235 Past Same as above	Past U1235	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 U1235 Past Same as above	Past U0122 U1235

Control module		Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access CM vicinity	Keyless access CM vicinity	Body integrated unit (VDC side) vicinity	Body integrated unit (VDC side) vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122
	Auto Start Stop CM[*10]	Current None Past None	Current None Past None	Current (U0122) Past Same as above	Past (U0122)	Current None Past None	Current None Past None	Current (U0122) Past Same as above	Past (U0122)
	ECM[*1]	Current None Past None	Current None Past None	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only	Current None Past None	Current None Past None	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only
	Auto headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122	Current None Past None	Current None Past None	Current U0122 Past Same as above	Past U0122

Control module	Stereo camera vicinity	Stereo camera vicinity	VDC CM vicinity	VDC CM vicinity	Keyless access CM vicinity	Keyless access CM vicinity	Body integrated unit (VDC side) vicinity	Body integrated unit (VDC side) vicinity
Detailed location	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	Pre-collision, lane-off illuminate EyeSight, AT OIL TEMP blink	No change	CHECK ENGINE, VDC, VDC off, ABS, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP blink; hill hold blink; SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate	No change	No change	CHECK ENGINE, VDC, ABS, VDC off, BRAKE, headlight beam leveler indicator illuminate; AT OIL TEMP, CRUISE blink; hill hold blink; SI-DRIVE (S) blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Communication failure	(Old) U0100 U0101 U0155	Latest B2806 U0155 (Old) U0155	Latest B2807 B2806 (Old) B2806 U0155 (Older) U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDCCM[*1*8]	Communication failure	Current C1424 C1431 Past C1424 C1431 U0100 U0101 U0126 U0123 U1120	Current C1424 Past Same as above	Current C1424 Past Same as above	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Keyless access CM[*9]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Communication failure	Past U0100 U0101 U0155 U0164 U0327	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current U0164 Past Same as above	Past U0164
	Combination meter[*3]	Current U0122 U0140 U1235 Past Same as above	Past U0122 U0140 U1235	Communication failure	Past U0073 U0100 U0101 U0122 U0131 U0140 U0151 U0164 U0327 U1120 U1235 Any 5 items from above	Current None Past None	Current None Past None	Current U0164 Past Same as above	Past U0164

List of Diagnostic Trouble Code (DTC)

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	MFD[*4]	Current U1650 Past Same as above	Latest U1650	Current (U1650) Past Same as above	Past (U1650)	Communication failure	Past (U0073)	Current None Past None	Current None Past None
	A/C control panel[*5]	Current U0122 U0140 U1235 Past Same as above	Past U0122 U0140 U1235	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Communication failure	Past U0100 U0155 U0140 U0122 U0101 U1120
	TCM[*1]	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current U0122 Past Same as above	Past U0122	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto Start Stop CM[*10]	Current (U0122) (U0140) Past Same as above	Past (U0140) (U0122)	Current (U0155) Past Same as above	Past (U0155)	Current None Past None	Current None Past None	Current (U0164) Past Same as above	Past (U0164)
	ECM[*1]	Current U0122 P0700[*] [*]CVT only Past Same as above	Past U0122 P0700[*] [*]CVT only	Current U0155 Past Same as above	Past U0155	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Body integrated unit (ECM side) vicinity	Body integrated unit (ECM side) vicinity	Combination meter vicinity	Combination meter vicinity	MFD vicinity	MFD vicinity	A/C control panel vicinity	A/C control panel vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Auto headlight beam leveler CM*6	Current U0122 U0140 Past Same as above	Past U0122 U0140	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
Indicators illuminate/blink.		CHECK ENGINE, VDC, VDC off, ABS, BRAKE illuminate; headlight beam leveler indicator illuminate AT OIL TEMP, CRUISE, hill hold, SI-DRIVE (S) blink Auto Start Stop illuminate (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; CHECK ENGINE not illuminate	CHECK ENGINE, Airbag, VDC, VDC off, BRAKE, ABS, EMPTY, EPS illuminate Hill hold, SI-DRIVE (I) blink; engine coolant temperature gauge (red/blue) blink Fuel gauge 0; tachometer 0 rpm; shift indicator go off (CRUISE, AT OIL go off) (With EyeSight) Pre-collision, lane-off illuminate; AT OIL TEMP, EyeSight blink	CHECK ENGINE illuminate; hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; VDC illuminate	No change Door-open not reflected (not indicated as open) on MFD	No change No change in MFD	No change A/C unit Rear defogger only no response A/C operation not reflected on MFD	No change

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Current None Past None	Current None Past None	Latest B2806 B2801 U0101 (Old) U0101	Current B2807 B2806 B2801 (Old) B2806 B2801 U0101 (Older) U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM[*1*8]	Current U0126 Past Same as above	Past U0126	Current C1424 U0101 Past Same as above	Current C1424 C1431 Past C1424 C1431 U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Keyless access CM[*9]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Combination meter[*3]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current U0151 Past Same as above	Past U0151	Current U0131 Past Same as above	Past U0131
	MFD[*4]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	TCM[*1]	Current None Past None	Current None Past None	Communication failure	Past U0122 U0140 U0100 U0155 U1120 U1235	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Past U0100 U0122 U0155 U1120
	Auto Start Stop CM[*10]	Current None Past None	Current None Past None	Current (U0101) Past Same as above	Past (U0101)	Current None Past None	Current None Past None	Current (U0131) Past Same as above	Past (U0131)
	ECM[*1]	Current None Past None	Current None Past None	Current U0101 Past Same as above	Past U0101	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module	Steering angle sensor vicinity	Steering angle sensor vicinity	TCM vicinity	TCM vicinity	A/B vicinity	A/B vicinity	Electric power steering CM vicinity	Electric power steering CM vicinity
Detailed location	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	VDC, ABS illuminate; hill hold blink	No change	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S) blink; CRUISE blink; shift indicator go off (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; VDC illuminate	CHECK ENGINE, VDC, ABS illuminate; hill hold, SI-DRIVE (S) blink; CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate; VDC illuminate	A/B illuminates.	No change	EPS warning light illumination	No change

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

Control module		Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*11]	Latest B2801 (Old) B2801 B2809	Latest B2801 (Old) B2801 (Older) B2801 B2809	Latest B2801 U0100 (Old) U0100	Latest B2807 B2806 B2801 (Old) B2801 U0100 (Older) U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	VDC CM (without EyeSight)[*1*8]	Current C1431 U1120 Past Same as above	Current C1431 Past C1431 U1120	Current C1431 U0100 Past Same as above	Current C1424 C1431 Past C1424 C1431 U0100	Current None Past None	Current None Past None	Current C1721 U0123 Past Same as above	Past C1721 U0123
	Keyless access CM[*9]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Body integrated unit[*2]	Current None Past None	Current None Past None	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Combination meter[*3]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	MFD[*4]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/C control panel[*5]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None

Control module		Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location		Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode		Open	Open	Open	Open	Open	Open	Open	Open
Trouble status		Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
DTC reading result from each module using Subaru Select Monitor	TCM[*1]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	A/B CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Electric power steering CM[*7]	Current U1120 Past Same as above	Past U1120	Current U0100 Past Same as above	Past U0100	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Auto Start Stop CM[*10]	Communication failure	Current (P1614) Past Same as above	Current (U0100) Past Same as above	Past (U0100)	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	ECM[*1]	Current None Past (P1531)	Past (P1531)	Communication failure	Past U0073 (*) (U0101) (U0122) (U0155) *Occasionally this may not occur. In such a case, all other data no-receive errors will remain.	Current None Past None	Current None Past None	Current None Past None	Current None Past None
	Headlight beam leveler CM[*6]	Current None Past None	Current None Past None	Current None Past None	Current None Past None	Communication failure	Past U0122 U0140	Current None Past None	Current None Past None

Control module	Auto Start Stop CM vicinity	Auto Start Stop CM vicinity	ECM vicinity	ECM vicinity	Headlight beam leveler CM vicinity	Headlight beam leveler CM vicinity	Yaw rate & G sensor vicinity	Yaw rate & G sensor vicinity
Detailed location	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides	Both sides
Detailed trouble mode	Open	Open	Open	Open	Open	Open	Open	Open
Trouble status	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed	Trouble exists	Trouble existed
Indicators illuminate/blink.	(Without EyeSight) ABS, VDC illuminate. Auto Start Stop OFF, AT OIL TEMP blink (With EyeSight) VDC, EyeSight, pre-collision, lane-off illuminate Auto Start Stop OFF, AT OIL TEMP blink	(Without EyeSight) ABS, VDC illuminate. (With EyeSight) VDC, EyeSight, pre-collision, lane-off illuminate Auto Start Stop OFF blink	CHECK ENGINE, VDC, ABS, EMPTY, AWD, AT OIL TEMP, EPS illuminate; engine coolant temperature gauge (red/blue) blink; hill hold, SI-DRIVE (I) blink Fuel gauge go off; tachometer 0 rpm (With EyeSight) EyeSight, pre-collision, lane-off illuminate; ABS not illuminate	CHECK ENGINE, VDC, ABS illuminate Hill hold, SI-DRIVE (S), CRUISE blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; ABS not illuminate	Headlight beam indicator illuminate	No abnormality	VDC, ABS, EyeSight, pre-collision, lane-off illuminate Hill hold blink	No abnormality

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: All types of DTCs can be simultaneously stored.
*10: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*11: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

4. Power supply-output short, GND-output short and short circuit in CAN communication circuit

NOTE:
- If the module has a limit of DTC memory and the number of DTC occurrence exceeds the limit, older DTCs are preferentially stored.
- When there is no description in Current, it is referred to as “None”.
- When DTC is in parentheses, it is referred to as “Not always occur”.
- “Trouble exists” is referred to as the status before performing inspection and repair. “Trouble existed” is referred to as the status before performing DTC clear after repair.

Control module[*9]		Option	Option	Option	Option	Option	Option	Option	Option	Option
Detailed location		Hi side	Hi side	Lo side	Hi to Low	Hi side	Hi side	Lo side	Hi to Low	Lo side
Detailed trouble mode		GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short
Trouble status		Trouble exists	←	←	←	Trouble existed	←	←	←	Trouble exists Trouble existed
DTC reading result from each module using Subaru Select Monitor	Stereo camera[*12]	Communication failure	←	←	←	Current B2807 B2806 B2801 (Old) B2810 B28A2 B2801 (Older) B2809 For old and older, U0073 may occur instead of DTCs shown above.	←	←	←	Current None Past None
	VDC CM[*1*8]	Communication failure	←	←	←	Current C1431 C1424 Past U0073 C1431 C1424	←	←	←	Current None Past None
	Keyless access CM[*10]	Communication failure	←	←	←	Past U0073	←	←	←	Current None Past None

Control module[*9]		Option	Option	Option	Option	Option	Option	Option	Option	Option
Detailed location		Hi side	Hi side	Lo side	Hi to Low	Hi side	Hi side	Lo side	Hi to Low	Lo side
Detailed trouble mode		GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short
Trouble status		Trouble exists	←	←	←	Trouble existed	←	←	←	Trouble exists Trouble existed
DTC reading result from each module using Subaru Select Monitor	Body integrated unit[*2]	Communication failure	←	←	←	Past U0073 U0100 U0101 U0122 U0155 U0164 U0327 U1201	←	←	←	Current None Past None
	Combination meter[*3]	Communication failure	←	←	←	Past U0073 U0100 U0101 U0122 U0131 U0140 U0151 U0164 U0327 U1120 U1235 Any 5 items from above	←	←	←	Current None Past None
	MFD[*4]	Communication failure	←	←	←	Past U0073 U1201 U1235 U1650 None or any 1 or 2 items from above	←	←	←	Current None Past None
	A/C control panel[*5]	Communication failure	←	←	←	Past U0073	←	←	←	Current None Past None
	TCM[*1]	Communication failure	←	←	←	Past U0073 U0100 U0122 U0140 U0155 U1120 U1235	←	←	←	Current None Past None
	A/B CM[*6]	Communication failure	←	←	←	Past U0073	←	←	←	Current None Past None

Control module[*9]		Option	Option	Option	Option	Option	Option	Option	Option	Option
Detailed location		Hi side	Hi side	Lo side	Hi to Low	Hi side	Hi side	Lo side	Hi to Low	Lo side
Detailed trouble mode		GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short
Trouble status		Trouble exists	←	←	←	Trouble existed	←	←	←	Trouble exists Trouble existed
DTC reading result from each module using Subaru Select Monitor	Electric power steering CM[*7]	Communication failure	←	←	←	Past U0073 U0100 U0122 U0155 U1120 C2543 Any 4 items from above	←	←	←	Current None Past None
	Auto Start Stop CM[*11]	Communication failure	←	←	←	Past U0073 and none or any 1 to 7 items from below U0100 U0101 U0122 U0131 U0140 U0155 U0164	←	←	←	Current None Past None
	ECM[*1]	Communication failure	←	←	←	Past U0073 (*) (U0101) (U0122) (U0155) *Occasionally this may not occur. In such a case, all other data no-receive errors will remain.	←	←	←	Current None Past None
	Auto headlight beam leveler CM[*6]	Communication failure	←	←	←	Past U0122 U0140	←	←	←	Current None Past None

Control module*9	Option	Option	Option	Option	Option	Option	Option	Option	Option
Detailed location	Hi side	Hi side	Lo side	Hi to Low	Hi side	Hi side	Lo side	Hi to Low	Lo side
Detailed trouble mode	GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short	Power supply-output short	Power supply-output short	Short circuit	GND-output short
Trouble status	Trouble exists	←	←	←	Trouble existed	←	←	←	Trouble exists Trouble existed
Indicators illuminate/blink.	CHECK ENGINE, A/B, BRAKE, VDC, EMPTY, VDC off, ABS, headlight beam leveler indicator, EPS illuminate; hill hold, Auto Start Stop, SI-DRIVE (i) blink; engine coolant temperature gauge (blue/red) alternately blink; shift indicator go off; fuel level warning indicator go off; tachometer 0 rpm; door indicator no response (With EyeSight) EyeSight, pre-collision, lane-off illuminate; EyeSight blink	←	←	←	CHECK ENGINE, VDC, ABS illuminate; CRUISE blink; hill hold blink; SI-DRIVE (S) blink (With EyeSight) EyeSight, pre-collision, lane-off illuminate; CRUISE not blink; ABS not illuminate	←	←	←	No change

*1: When U0073 occurs, other U-codes are not stored. (Judge timing affects the storing order.)
*2: The number of DTC memory is limited to 8 items.
*3: The number of DTC memory is limited to 5 items. (Older items are preferentially stored.)
*4: The number of DTC memory is limited to 2 items. (Older items are preferentially stored.)
*5: All types of DTCs can be simultaneously stored. When U0073 occurs, other U-codes are not displayed.
*6: All types of DTCs can be simultaneously stored.
*7: The number of DTC memory is limited to 1 item for Current and 3 items for Latest.
*8: If C1431 contains a current malfunction after repair, perform IGN OFF → ON. (It remains immediately after repair.)
*9: In this trouble mode, a faulty portion can only be identified by inspection using a tester.
*10: All types of DTCs can be simultaneously stored.
*11: All types of DTCs can be simultaneously stored. DTC in parenthesis is not always detected.
*12: Up to three DTCs can be stored for each of current, old, and older trouble occurrence trips. When U0073 occurs, data no-receive is not stored.

NOTE:
- If the module has a limit of DTC memory and the number of DTC occurrence exceeds the limit, older DTCs are preferentially stored.
- When there is no description in Current, it is referred to as “None”.
- When DTC is in parentheses, it is referred to as “Not always occur”.
- “Trouble exists” is referred to as the status before performing inspection and repair. “Trouble existed” is referred to as the status before performing DTC clear after repair.

10.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Content of diagnosis	Reference
U0073	Control Module Communication Bus Off	Detected when CAN line abnormality is detected.	<Ref. to AL(diag)-13, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0122	Lost Communication With Vehicle Dynamics Control Module	Detected when CAN data from VDC (vehicle speed signal) does not arrive.	<Ref. to AL(diag)-13, DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0140	Lost Communication With Body Control Module	Detected when CAN data from body integrated unit (headlight ON signal) does not arrive.	<Ref. to AL(diag)-13, DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2900	AHLCU Error	Detected when an error occurred in auto headlight beam leveler CM.	<Ref. to AL(diag)-14, DTC B2900 AHLCU ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2902	Rear Height Sensor Error	Detected when an error occurred in rear vehicle height sensor.	<Ref. to AL(diag)-15, DTC B2902 REAR HEIGHT SENSOR ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2903	VDC Data Error	Detected when data from VDC (vehicle speed signal) is abnormal.	<Ref. to AL(diag)-16, DTC B2903 VDC DATA ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

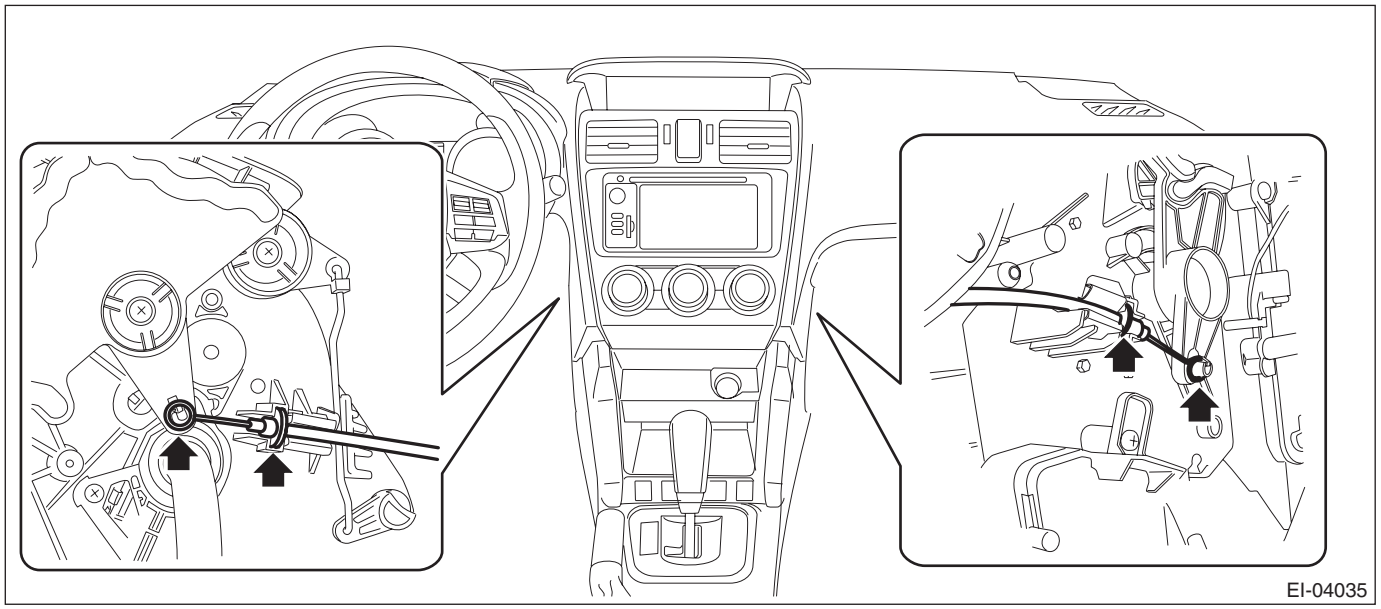
10.Multi-function Display (MFD)

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the panel center assembly.

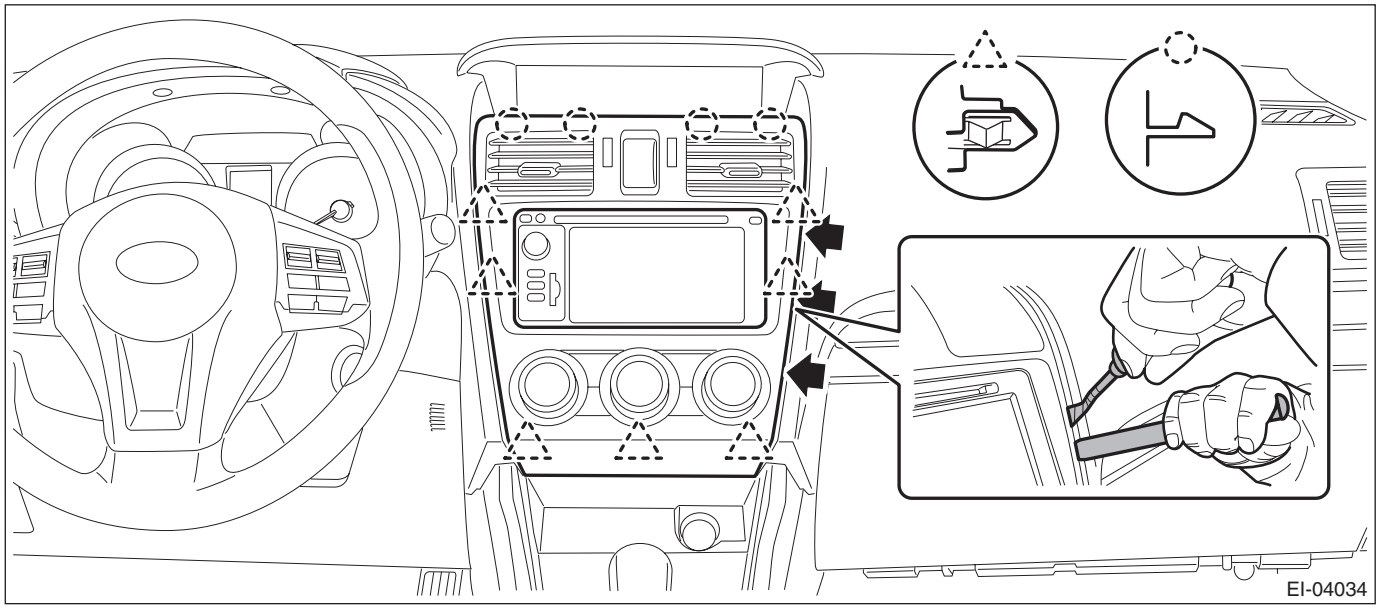
CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

(1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.

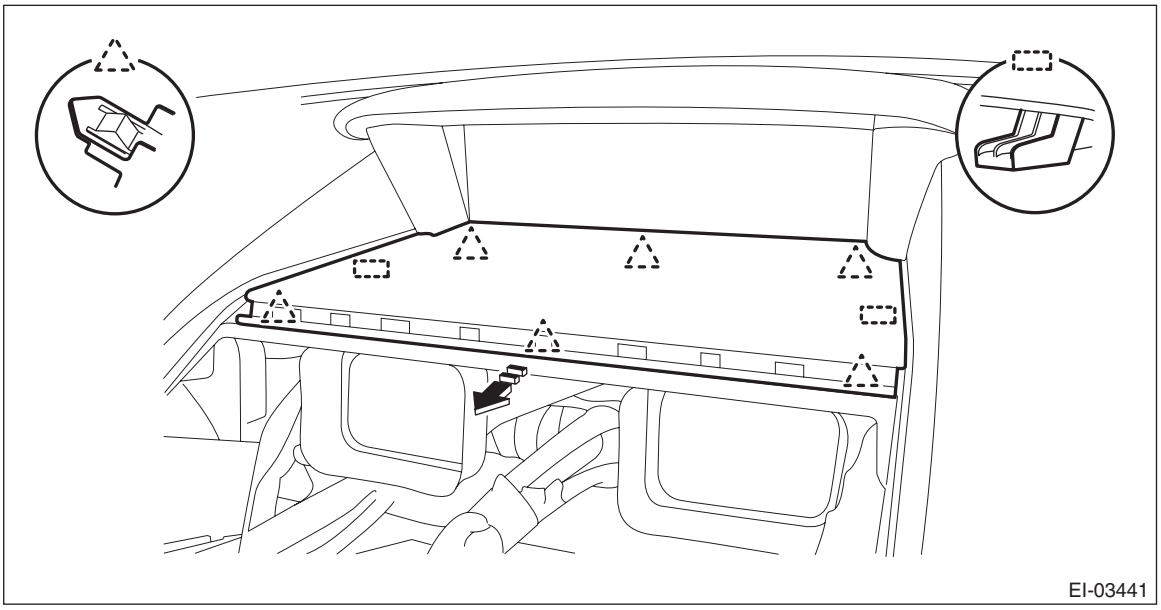

EI-04035

NOTE:
Remove the glove box pocket assembly on the passenger's side.

(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.
(5) Disconnect the connectors, and remove the panel center assembly.


EI-04034

3) Release the claw and hook, and then remove the cover center UPR.

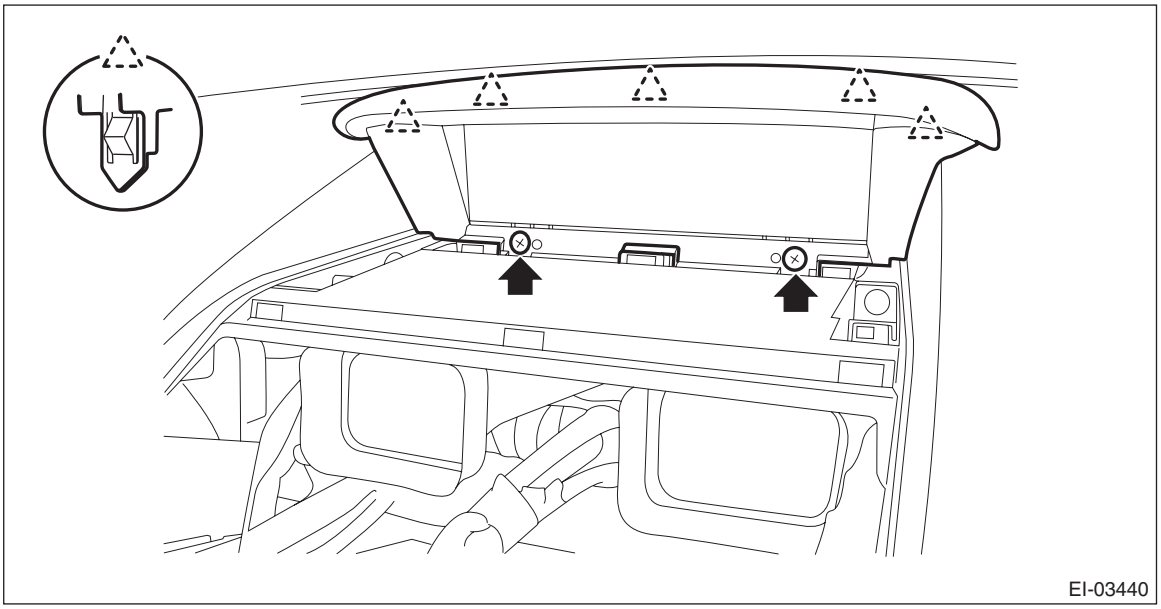


NOTE:
Lightly push up the back of the cover center UPR, hook the finger to the end portion and pull it toward you to remove it.

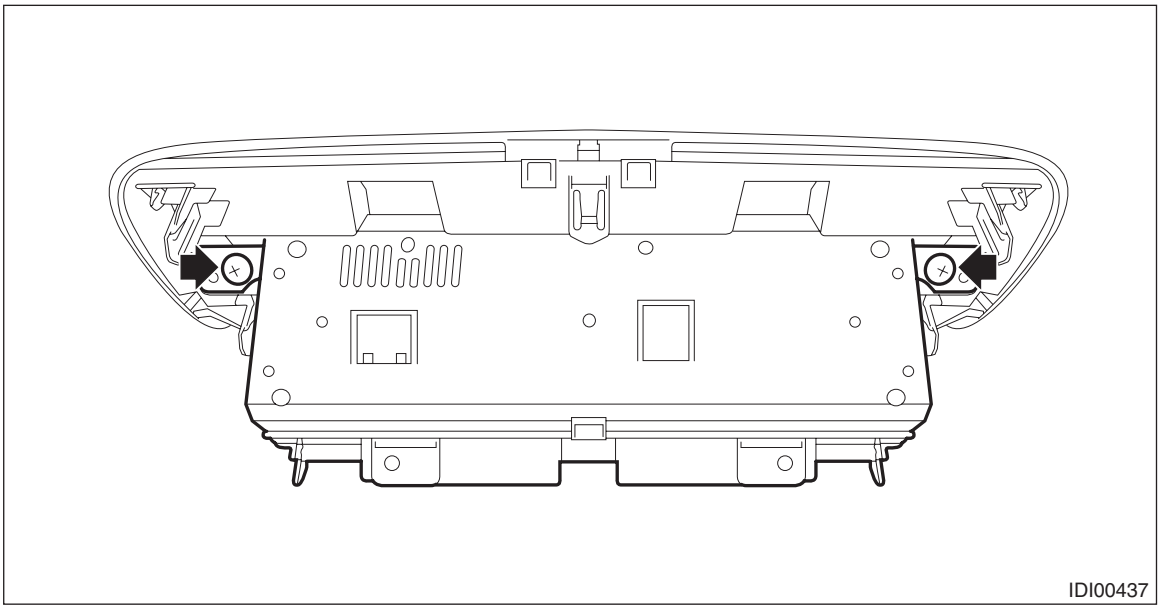
4) Remove the multi-function display.

CAUTION:
Be careful not to damage the multi-function display or instrument panel.

(1) Release the screws and claws.
(2) Pull the multi-function display assembly toward you, and disconnect the connector.



(3) Remove the screw, and remove the multi-function display from the panel - display.



B: INSTALLATION

CAUTION:
- **Make sure the electrical connector is connected securely.**
- **Make sure that the multi-function display operates normally.**
- **After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.**

Install each part in the reverse order of removal.

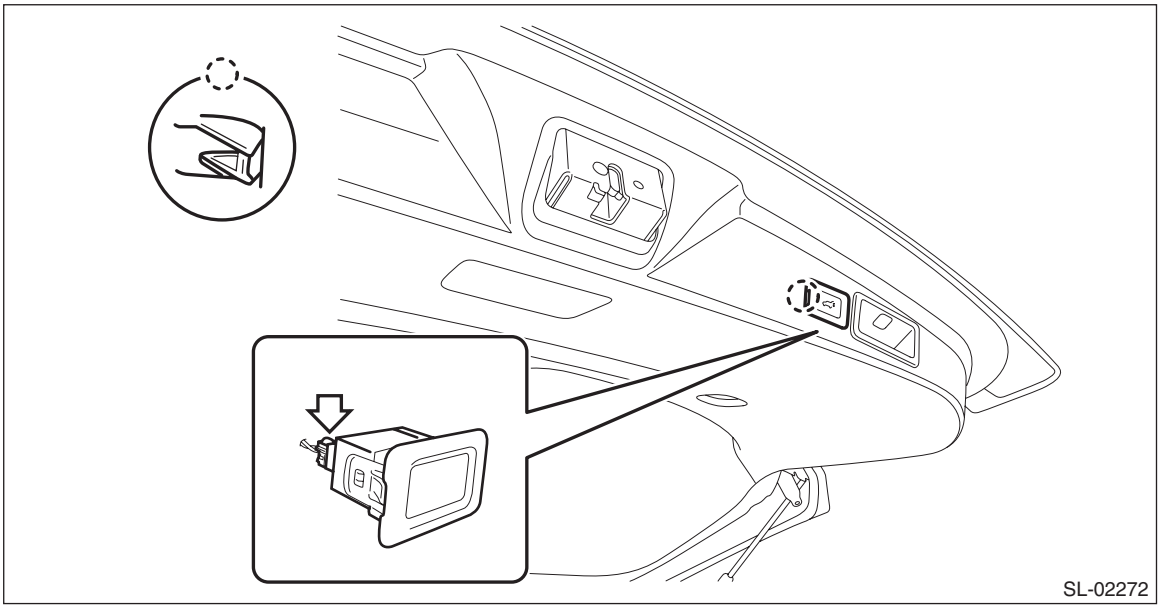
10.Power Rear Gate Inner Switch

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the power rear gate inner switch.
   (1) Release the claws and pull out the power rear gate inner switch rearward.

NOTE:
Insert a flat tip screwdriver wrapped with protective tape into the slit on the left.

   (2) Disconnect the connector and remove the power rear gate inner switch.



B: INSTALLATION

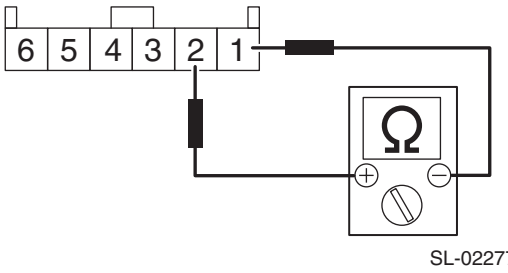
Install each part in the reverse order of removal.

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
1 — 2	Switch OFF	1 MΩ or more	
	Switch ON	Less than 1 Ω	

2) Replace the power rear gate inner switch, if the inspection result is not within the standard value.

10.Read Current Data

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

B: LIST

Items to be displayed	Unit of measure	Content	Note
In-vehicle Sensor Temperature	°C (°F)	A/C control panel input value	—
Quantity of Sunload	W/m^2	A/C control panel input value	—
A/C Pressure Switch	Normal/Abnormal	A/C control panel input value	—
Heater Water Temperature	°C (°F)	Data value received by CAN	—
Heater Control Panel Setting Value (Driver’s)	LO: 18°C (60°F) HI: 32°C (90°F)	Control panel display value	—
Heater Control Panel Setting Value (Passenger’s)	LO: 18°C (60°F) HI: 32°C (90°F)	Control panel display value	For models with left/right independent air conditioning function only
Blower outlet request temperature (Driver’s)	°C (°F)	A/C control panel internal setting value	For models with left/right independent air conditioning function only
Blower outlet request temperature (Passenger’s)	°C (°F)	A/C control panel internal setting value	For models with left/right independent air conditioning function only
Air mix door actuator position (driver’s side)	%	A/C control panel input value	—
Air mix door actuator position (passenger’s side)	%	A/C control panel input value	For models with left/right independent air conditioning function only
Mode Door Actuator Position	%	A/C control panel input value	—
Fresh/Recircle Air Door Actuator Position	%	A/C control panel input value	—
Target air mix door actuator position (driver’s side)	%	A/C control panel input value	—
Target air mix door actuator position (passenger’s side)	%	A/C control panel input value	—
Mode Door Actuator Position Target	%	A/C control panel input value	—
Fresh/Recircle Air Door Actuator Position Target	%	A/C control panel input value	—
Blower Fan Level	Level	A/C control panel internal output value	—
Ambient Air Temperature	°C (°F)	Data value received by CAN	—
Compressor operation status	OFF/AUTO	A/C control panel input value	—
Blower Fan Operating Condition	MANU/AUTO	A/C control panel input value	—
A/C Operating Condition	MANU/AUTO	A/C control panel input value	—
Fresh/Recircle Air Operating Condition	MANU/AUTO	A/C control panel input value	—

Items to be displayed	Unit of measure	Content	Note
Mode Operating Condition	MANU/AUTO	A/C control panel input value	—
Rear Defogger	ON/OFF	A/C control panel input value	—
Engine Speed	rpm	Data value received by CAN	—
Vehicle Speed	km/h	Data value received by CAN	—
Evaporator Temperature	°C (°F)	A/C control panel input value	—
Evaporator Temperature Target	°C (°F)	A/C control panel input value	—
Blower outlet Door Request Temperature	°C (°F)	A/C control panel internal setting value	—
PTC permitted number	0 — 3	A/C control panel input value	Not supported
PTC operation steps	0 — 3	A/C control panel input value	Not supported
PTC Heater 3	Inoperative/Operate	A/C control panel input value	Not supported
PTC Heater 2	Inoperative/Operate	A/C control panel input value	Not supported
PTC Heater 1	Inoperative/Operate	A/C control panel input value	Not supported
Request engine speed	0: Without Request 1: Cooler H 2: Heater H 3: Cooler L 4: Heater L	A/C control panel internal output value	—
Heater core Temp.	°C (°F)	A/C control panel input value	Not supported

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

10.Real-time Diagnosis

A: OPERATION

1) On «EyeSight (from 2009MY)» display, select {Current Data Display & Save}.
2) Check that the display changes and the contents are correct when performing the operations as follows.

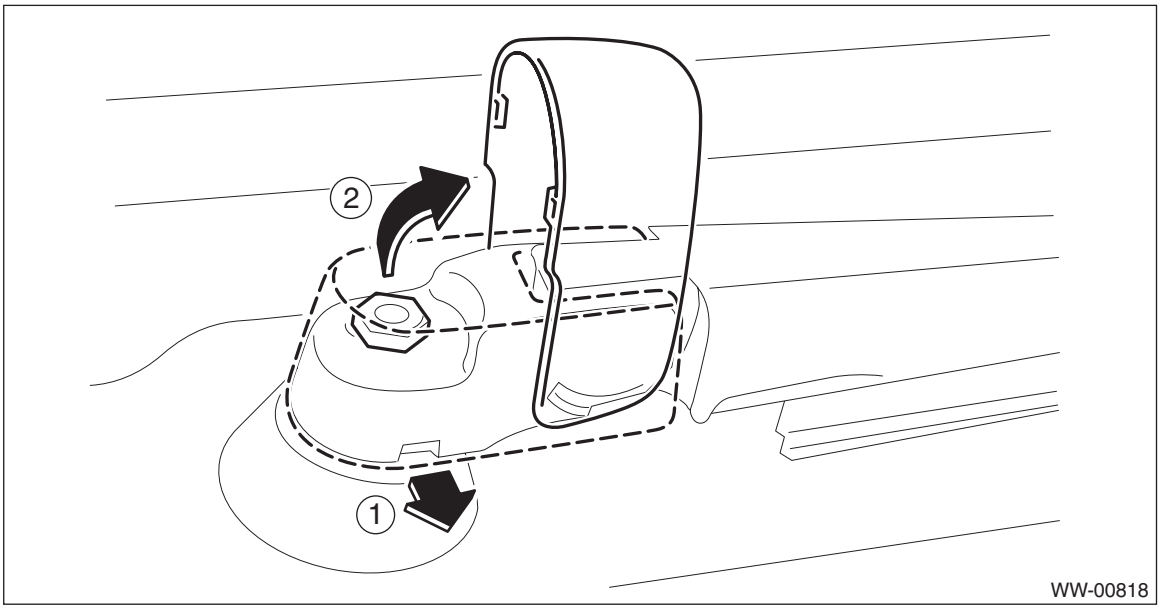
- Depress and release the brake pedal. (Stop light switch and brake switch are turned ON.)
  - Subaru Select Monitor display item “Brake lamp SW signal”, “Brake status”, “BLS Signal status”
- Turn the main switch to ON.
  - Subaru Select Monitor display item “Cruise main switch status”
- Turn the “CANCEL” switch to ON.
  - Subaru Select Monitor display item “Cruise command switch status”
- Turn the “SET/–” switch to ON.
  - Subaru Select Monitor display item “Cruise command switch status”
- Turn the “RES/+” switch to ON.
  - Subaru Select Monitor display item “Cruise command switch status”
- Turn the “Vehicle distance” switch to ON.
  - Subaru Select Monitor display item “Cruise command switch status”
- Operate the shift lever.
  - Subaru Select Monitor display item “Current gear position”
- Press and hold the pre-collision brake OFF switch.
  - Subaru Select Monitor display item “P-CR OFF indicator on flag”
- Press and hold the lane departure warning OFF switch.
  - Subaru Select Monitor display item “LANE OFF indicator on flag”

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

10.Rear Wiper Arm

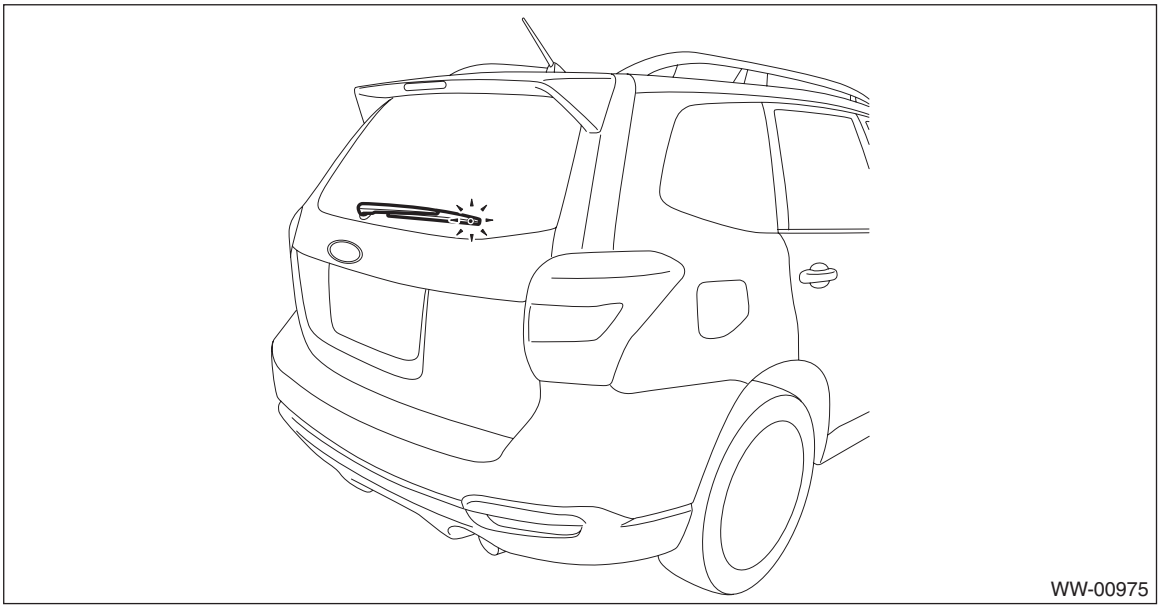
A: REMOVAL

1) Pull up the cover - rear wiper arm.
2) Remove the nut, and remove the arm assembly - rear wiper.



B: INSTALLATION

1) Install in the reverse order of removal.
2) Operate the rear wiper once.
3) Align the blade assembly - rear wiper with the marking on the glass, and then tighten the nut to the specified torque.

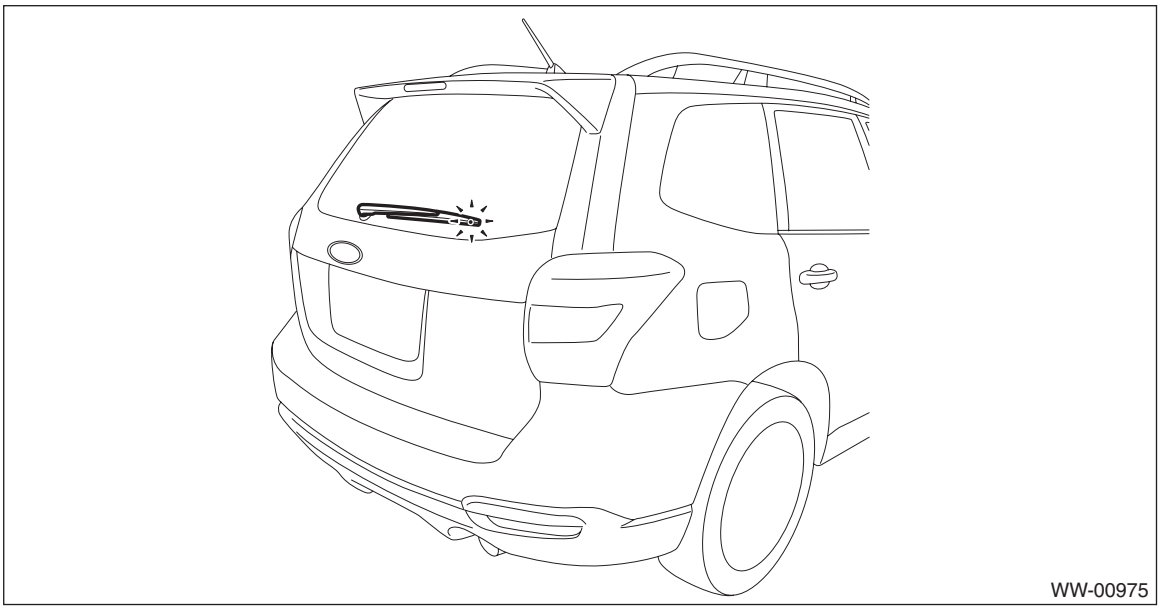


Tightening torque:
8 N·m (0.82 kgf-m, 5.9 ft-lb)

4) Operate the wiper to check whether the wiper blade aligns with the point mark. If not, perform installation over again.

C: ADJUSTMENT

1) Operate the rear wiper once.
2) Align the blade assembly - rear wipe with the marking on the glass.



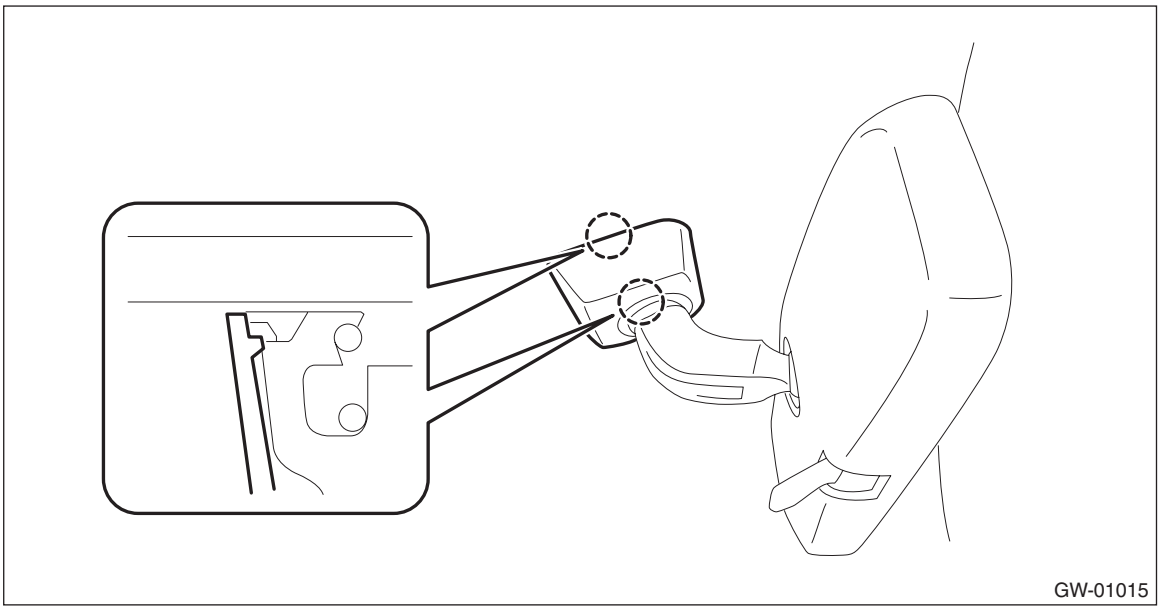
3) If the wiper blade is not aligned with the point mark, perform the removal of the rear wiper to align with the marking. <Ref. to WW-39, REMOVAL, Rear Wiper Arm.>

10.Rearview Mirror

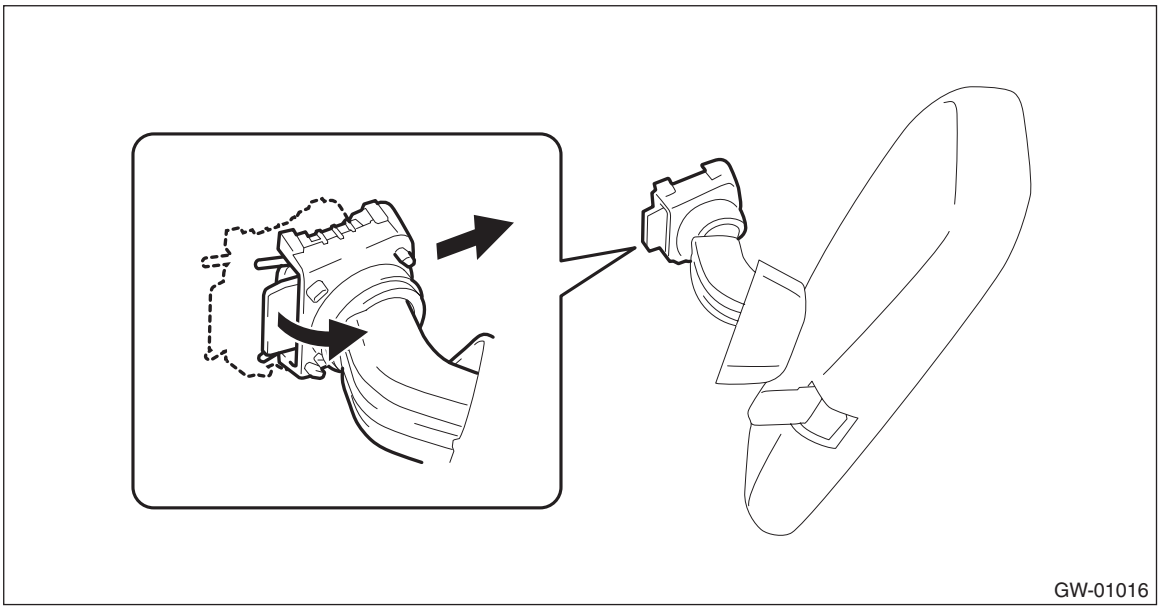
A: REMOVAL

CAUTION:
Be careful not to damage the mirror surface and the glass - front window.

1) Release the claws, and then remove the cover.



2) Release the lock lever, and slide the mirror assembly - inner rearview to remove.



3) When the mirror mount is damaged, use something like piano wire or a spatula to remove.

B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

Check the mirror and mirror mount for damage.

10.Registration Body Integrated Unit

A: OPERATION

1. CONFIRM CURRENT SETTING

1) On «Main Menu» display, select {Others}.
2) On «Others» display, select {Customized Setting}.
3) Save the setting.

Required items for new registration. (Except for system not equipped)

Item	Item to confirm				Remarks
number of regist.	1	2	3	4	Number of registered ID
Off delay time	OFF	10 Sec	20 Sec	30 Sec	Setting for lighting off time
Auto Light Sensitivity Adjustment	Dull	Normal (Standard)	Sensitive	Very sensitive	1st (slow) — 4th (fairly quick)
Power rear gate setting	ON		OFF		
Back auto rear wiper setting	ON		OFF		
TPMS Setting	TPMS		No TPMS		
Driver's door select unlock	ALL		Selection		
R gate select unlock	ALL		Selection		
Rr defogger op. mode	Normal		Continuous		
Security Alarm Setup	ON		OFF		
Impact Sensor Setup	ON		OFF		Option setting
Alarm delay setup	ON		OFF		
Lockout prevention	ON		OFF		
Impact sensor	ON		OFF		Option setting
Buzzer sounding setting	ON		OFF		
Abnormal warning lamp flashing setting	ON		OFF		
Passive Alarm	ON		OFF		
Door open warning	ON		OFF		
Dome Light Alarm Setting	ON		OFF		
Auto A/C Setting	ON		OFF		
wiperdeicer	ON		OFF		Option setting
Illumination Control On/Off	ON		OFF		
Sedan/Wagon Setting	Wagon		Sedan		
MT/AT Setting	MT		AT		
6MT Setting	6MT		Other than 6MT		
Illumination Sensor Setting	ON		OFF		
Factory initial setting	Factory		Market		Do not change to factory mode.

2. REGISTRATION BODY INTEGRATED UNIT (FUNCTION SETTING)

CAUTION:
For the body integrated unit, function selection is available to control the entire vehicle systems. It is possible to control the original functions of vehicle when registrations of body integrated unit and function setting are corresponded to vehicle equipment.
If registrations and function setting are different from vehicle equipment, vehicle system does not operate normally and diagnosis cannot be performed correctly. Pay attention to following item.
- **Be sure to correspond registrations, or User Customizing settings to vehicle equipment.**
- **Do not change the settings of vehicle improperly.**
- **Make sure that the key illumination does not blink with ignition switch ON, or that the body integrated unit registration item "Factory initial setting" is set to "Market". If "Factory initial setting" is set to "Factory", key illumination blinks when the ignition switch is turned ON, to notify that the settings are not confirmed. (Except for model with keyless access)**
- **Key illumination does not blink with ignition switch turned to ON and go off with door closed. (Except for model with keyless access)**
- **Be sure to register immobilizer if body integrated unit is replaced with a new part. (Except for model with keyless access)**
- **Make a registration of immobilizer when the parts related to immobilizer have been replaced. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".**

1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Integ. unit mode}.
3) Click the [OK] button after the control module name (integrated unit) is displayed.
4) On «Integ. unit mode failure diag.» display, select {Work Support}.
5) On «Work Support» display, select {Unit customizing}.

NOTE:
For the vehicle requiring the destination setting, if the destination setting is not finished, display can not be shifted into customizing screen.<Ref. to BC(diag)-19, DESTINATION SETTING, OPERATION, Registration Body Integrated Unit.>
6) Change the setting to the contents saved at confirmation of current setting.

CAUTION:
- **To perform normal operation of vehicle and diagnosis, the above settings must match the actual vehicle equipment.**
- **When the body integrated unit is new or in Factory mode, the key illumination blinks, and user customizing is incomplete. Check the user customizing settings. (If the vehicle is a model with keyless access, check by the current data display function of Subaru Select Monitor because no key illumination is available.)**
- **Be sure not to change Factory initial setting except when installing a new body integrated unit.**

NOTE:
"Factory" mode:
- Body integrated unit has not been set yet. It can be recognized by key illumination blinking with ignition switch turned to ON. (Except for model with keyless access)
- All replacement body integrated units are set to "Factory" mode. When replacing a body integrated unit, be sure to perform the registration operation.

"Market" mode:
- Each settings have been set. It can be recognized by key ring illumination coming on in concocting with room light and going off with ignition switch turned to ON. (Except for model with keyless access)

7) Perform the Factory initial setting. On the «Unit customizing» display screen of Subaru Select Monitor, select the {Factory initial setting}.
8) Change the mode from Factory to Market.
9) Turn the ignition switch to OFF to settle the setting.
10) Change the Subaru Select Monitor system selection to «Immobilizer» to register the immobilizer key. (Except for model with keyless access)
11) Perform the registration according to the procedures of the "REGISTRATION MANUAL FOR IMMOBILIZER". (Except for model with keyless access)

12) When key registration is completed, “Do you want to register remote engine start?” is displayed. Perform registration only for equipped models. (Except for model with keyless access)
13) Perform the User Customizing.<Ref. to BC(diag)-15, OPERATION, User Customizing.>

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

3. DESTINATION SETTING

NOTE:
For the vehicle requiring the destination setting, if the destination setting is not finished, display can not be shifted into customizing screen.

	Step	Check	Yes	No
1	**CONFIRM CURRENT SETTING.** Always perform confirmation of current setting before replacing the module. Record the contents of the “Destination Setting”. NOTE: Refer to the “Read Current Data” and “CONFIRMATION OF CURRENT SETTING” to confirm the current setting. <Ref. to BC(diag)-17, CONFIRM CURRENT SETTING, OPERATION, Registration Body Integrated Unit.> <Ref. to BC(diag)-11, OPERATION, Read Current Data.>	Is the current setting recorded?	Go to step **2**.	Confirm the current setting. Go to step **1**.
2	**CONFIRM DESTINATION SETTING.** 1) Connect the Subaru Select Monitor, and run the application. 2) On «Main Menu» display, select {Each System Check}. 3) On the «System Selection Menu» display, select {Integ. unit mode}. 4) On «Integ. unit mode» display, select {Work Support}. 5) On «Work Support» display, select {Unit customizing}. 6) The vehicle destination screen is displayed.	Is the vehicle destination setting screen displayed?	Go to step **3**.	Go to step **4**.
3	**CONFIRM DESTINATION SETTING.** Confirm the screen displayed on Subaru Select Monitor and the actual vehicle destination.	Is it necessary to change the destination setting?	Select [Yes], Go to step **4**.	Select [No], Go to step **5**.
4	**ENTER DESTINATION CODE.** Enter the appropriate code in the screen. U4, U5, U6, C4: U400 C0, C5: C000	Is the appropriate code entered?	Select [OK]. Go to step **5**.	Enter the destination code. Go to step **4**.
5	**REGISTER VEHICLE EQUIPMENT.** Customizing screen is displayed. NOTE: Match the each item setting of body integrated unit registration item list with the vehicle equipment.	Do all setting contents match with the vehicle equipment specification?	Go to step **6**.	Change the items until each content setting match with the vehicle equipment specification. Go to step **5**.

	Step	Check	Yes	No
6	**CONFIRM MARKET MODE.** 1) Customizing screen, select the {Factory initial setting} to change the setting from "Factory" mode to "Market" mode. 2) Turn the ignition switch to OFF. NOTE: When the setting is changed from "Factory" mode to "Market" mode, turning the ignition switch from ON → OFF confirms the setting. 3) Turn the ignition switch to ON, and check the contents of settings.	Is the mode changed to "Market" mode?	Go to step **7**.	Perform the destination setting from the first step. Go to step **1**.
7	**CONFIRM MARKET MODE.** Check the following. • Destination: When U4, U5, U6, and C4 are set The "Destination Setting" in the current data display is U4, U5, U6, and C4. • Destination: When C0 and C5 are set (models without keyless access) The "Destination Setting" in the current data display is C0 and C5.	Is the display the same as indicated?	Registration of body integrated unit is finished.	It is possible that harness malfunction may occur. Perform the diagnosis.

NOTE:
How to confirm when the destination code is not known.

Option code (destination code + OP code)	Application range	Destination code
U4**	Must be set for all vehicles.	U400
U5**		
U6**		
C4**		
C0**	Must be set only for models without keyless access.	C000
C5**		

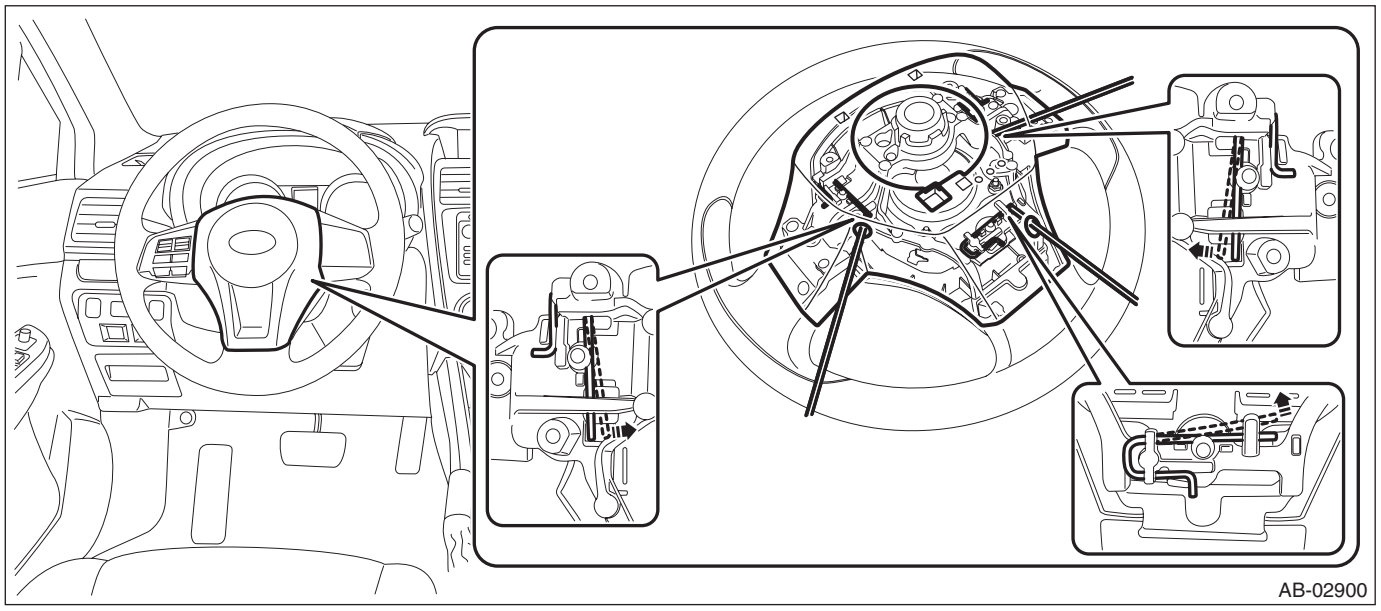
10.Steering Satellite Switch

A: REMOVAL

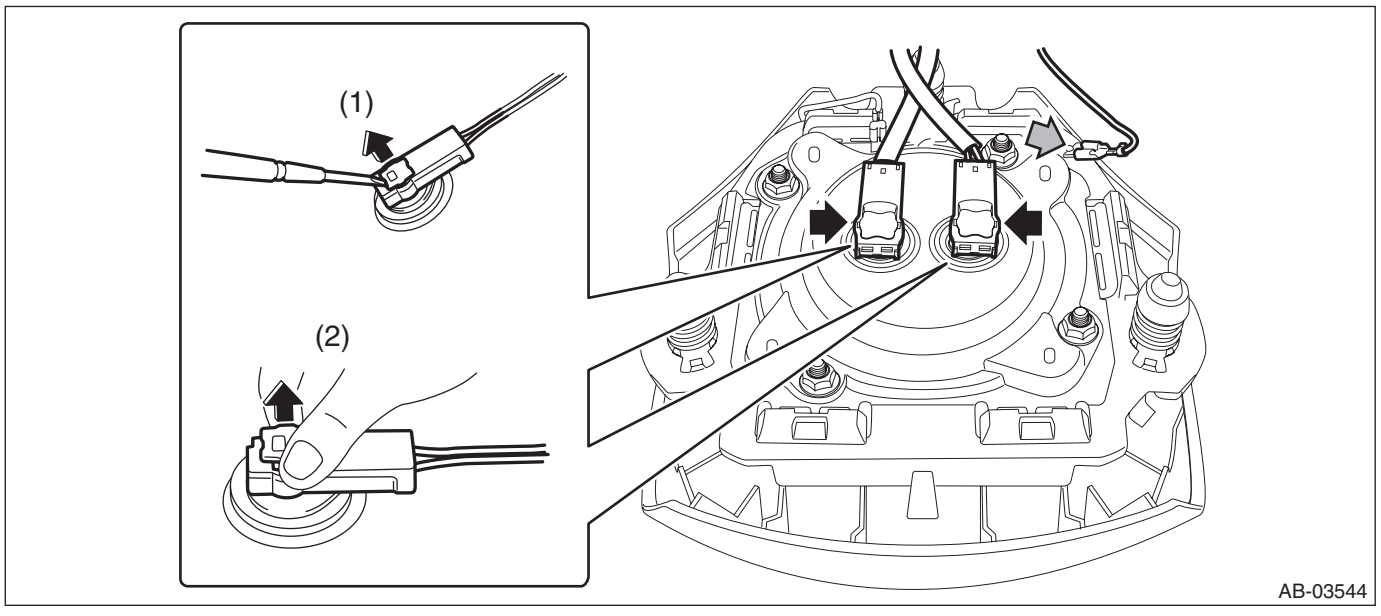
1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.

CAUTION:
Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>

(1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).


AB-02900

(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



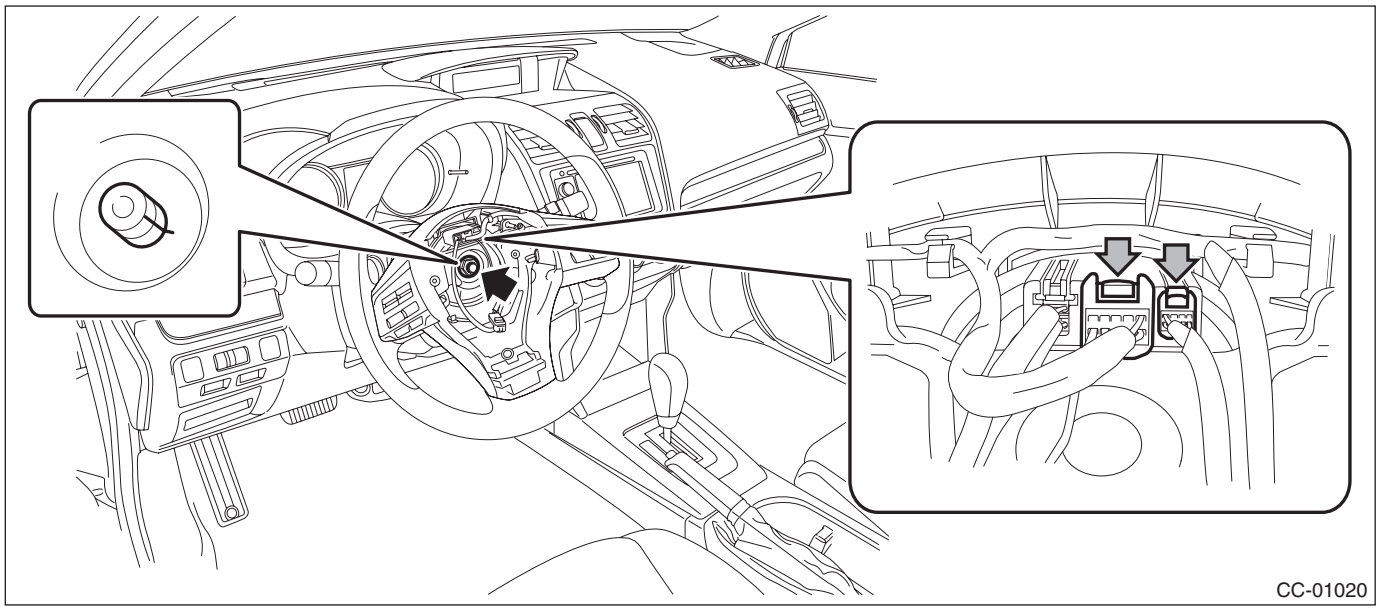
AB-03544

5) Remove the steering wheel.

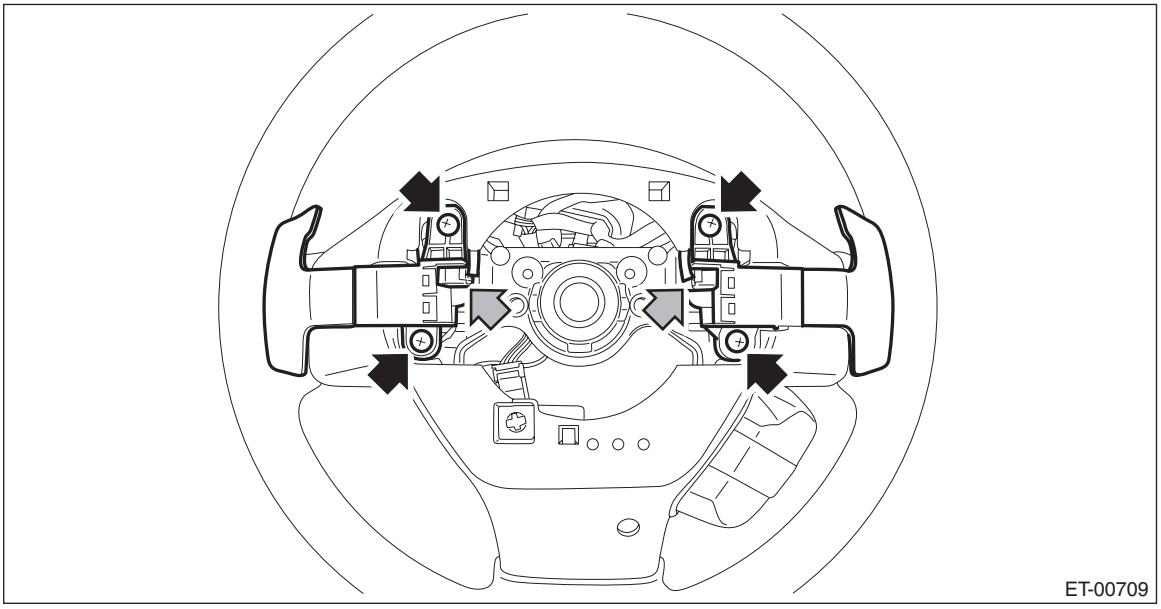
CAUTION:
- **Always use the steering wheel puller for removal to avoid deforming the steering wheel.**
- **If the steering wheel has been removed, make sure that the roll connector is not turned from the original position.**

(1) Disconnect the connector and remove the nut.
(2) Put alignment marks and remove the steering wheel.

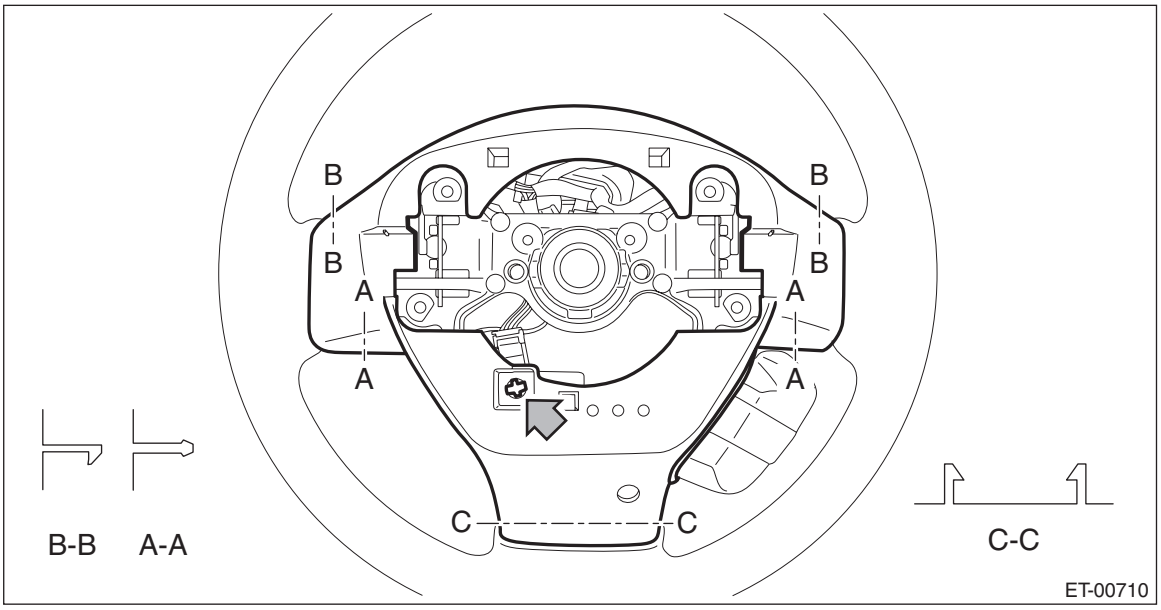
Preparation tool:
Steering wheel puller



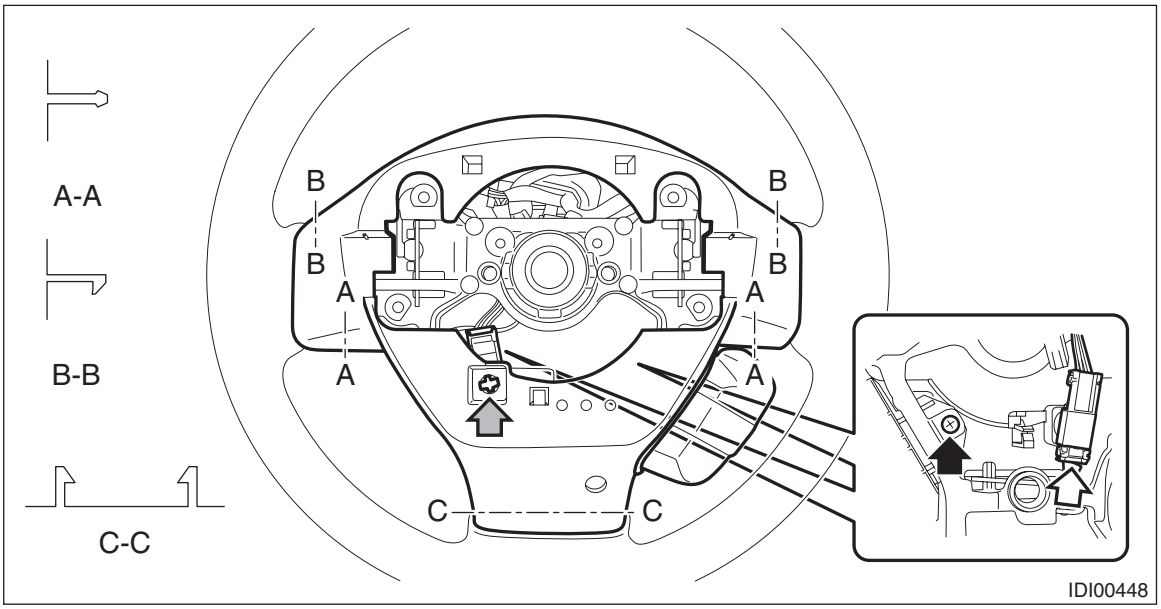
6) Remove the satellite switch assembly.
(1) Remove the screw, disconnect the connector and remove the paddle shift switch. (Model with paddle shift)



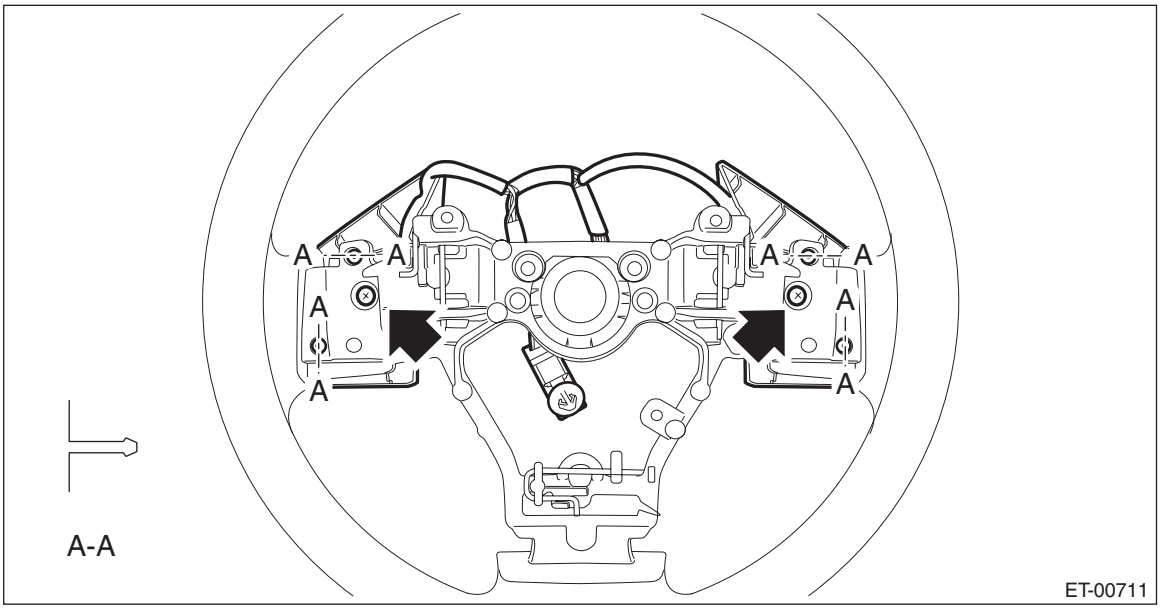
(2) Release the claws and clips, detach the cover - steering wheel LWR.



NOTE:
For model with steering switch, remove the connector and screw.



(3) Remove the screws and then remove the satellite switch assembly.



B: INSTALLATION

CAUTION:
• Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor.<Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
• Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.
1) Before installing steering wheel, be sure to adjust the direction of steering roll connector with steering wheel.<Ref. to AB-107, ADJUSTMENT, Roll Connector.>
2) Install each part in the reverse order of removal.

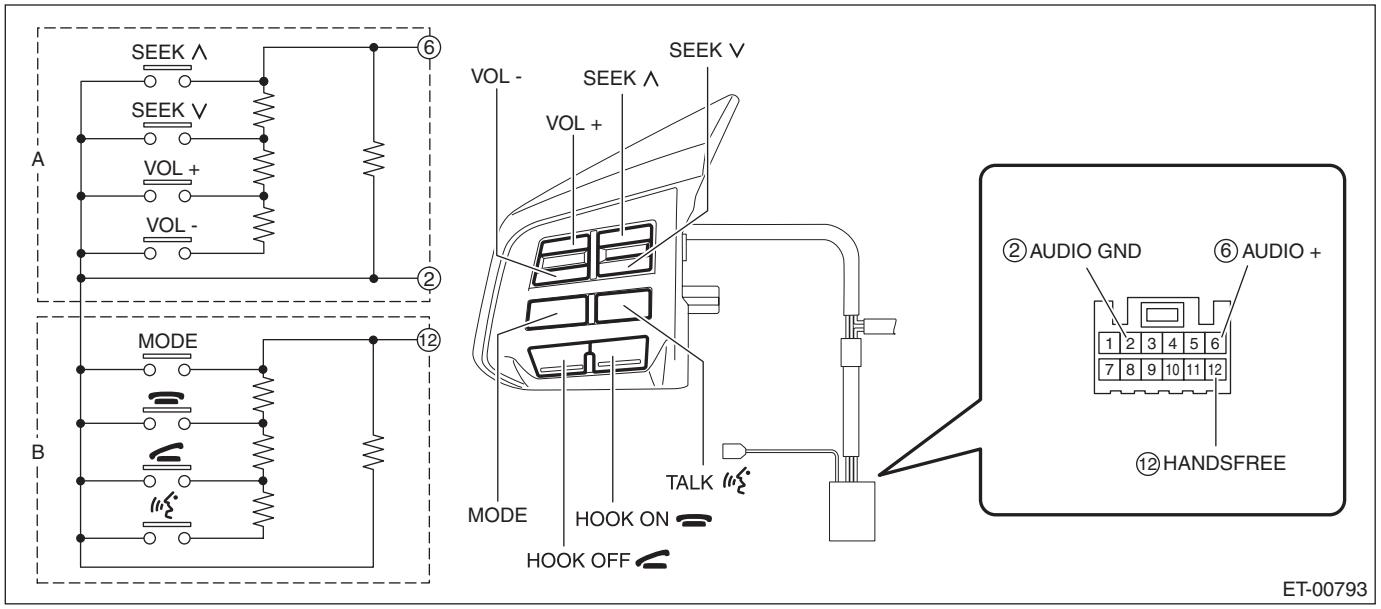
NOTE:
Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:
Steering wheel: 39 N·m (4.0 kgf-m, 28.8 ft-lb)

Clearance:
Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)

C: INSPECTION

1) Check the resistance between switch terminals.



Terminal No.	Inspection conditions		Standard
6 — 2	SEEK (╱╲) SEEK (╲╱) VOL (+) VOL (–)	A circuit is all OFF.	Approx. 100 kΩ
6 — 2	Preset CH UP/SEEK (╱╲)	ON	Less than 1 Ω
6 — 2	Preset CH DOWN/SEEK (╲╱)	ON	Approx. 330 Ω
6 — 2	VOL (+)	ON	Approx. 1,000 Ω
6 — 2	VOL (–)	ON	Approx. 3,110 Ω
12 — 2	MODE HOOK ON HOOK OFF TALK	B circuit is all OFF.	Approx. 100 kΩ
12 — 2	MODE	ON	Less than 1 Ω
12 — 2	HOOK ON	ON	Approx. 330 Ω
12 — 2	HOOK OFF	ON	Approx. 1,000 Ω
12 — 2	TALK	ON	Approx. 3,110 Ω

2) If the result of the inspection is not within the standard value, replace the satellite switch assembly.

10.Stop Light & Brake Switch

A: NOTE

For stop light and brake switch, refer to “BRAKE” section. <Ref. to BR-69, Stop Light Switch.>

10.System Operation Check Mode

A: OPERATION

For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

NOTE:
If not equipped (based on area or condition), process will not go on.

CAUTION:
After executing the system operation check mode, execute the Clear Memory Mode. <Ref. to IDI(diag)-15, OPERATION, Clear Memory Mode.>

B: LIST

Combination meter

Check item	Item 1	Item 2	Note
Pointer operation check	Speedometer	Speedometer 0 km/h (MPH) indication	—
		Speedometer 40 km/h (MPH) indication	—
		Speedometer 80 km/h (MPH) indication	—
		Speedometer 120 km/h (MPH) indication	—
		Speedometer 160 km/h (MPH) indication	—
		Speedometer 200 km/h (MPH) indication	—
		Speedometer 240 km/h (MPH) indication	—
	Tachometer	Tachometer 0 rpm indication	—
		Tachometer 1000 rpm indication	—
		Tachometer 2000 rpm indication	—
		Tachometer 3000 rpm indication	—
		Tachometer 4000 rpm indication	—
		Tachometer 5000 rpm indication	—
		Tachometer 6000 rpm indication	—
		Tachometer 7000 rpm indication	—

Check item	Item 1	Item 2	Note
Segment of liquid crystal display check	LCD display all lighted		—
	AT shift (For CVT only)	P range display	—
		R range display	—
		N range display	—
		L range display	—
		△ display	—
		▽ display	—
		8 range display	—
		7 range display	—
		6 range display	—
		5 range display	—
		4 range display	—
		3 range display	—
		2 range display	—
		1 range display	—
	Odometer	Odometer numerical device display 0	—
		Odometer numerical device display 1	—
		Odometer numerical device display 2	—
		Odometer numerical device display 3	—
		Odometer numerical device display 4	—
		Odometer numerical device display 5	—
		Odometer numerical device display 6	—
		Odometer numerical device display 7	—
		Odometer numerical device display 8	—
		Odometer numerical device display 9	—
	Trip meter	Trip meter numerical device display 0	—
		Trip meter numerical device display 1	—
		Trip meter numerical device display 2	—
		Trip meter numerical device display 3	—
		Trip meter numerical device display 4	—
		Trip meter numerical device display 5	—
		Trip meter numerical device display 6	—
		Trip meter numerical device display 7	—
		Trip meter numerical device display 8	—
		Trip meter numerical device display 9	—
	Fuel gauge bar display	Fuel sender E-point command	—
		Meter E scale command	—
		Fuel warning lit position command (fuel warning also lights)	—
		Meter 1/4 scale command	—
		Meter 1/2 scale command	—
		Meter 3/4 scale command	—
		Meter F-scale command	—
		Fuel sender F-point command	—
	Shift-up indicator (For MT model only)		—
	CRUISE indicator		—
	SET indicator		—

Check item	Item 1	Item 2	Note
Lamp check	All lamps lit		—
	Indicator drive	High-beam indicator	—
		Position light indicator (For high-class meter / high-grade meter)	—
		Front fog light indicator	—
		Water temperature (COOL) indicator	—
		VDC OFF indicator	—
		VDC operation/failure indicator	—
		Hill start assist OFF/failure indicator	—
	Warning drive	Driver side seat belt warning	—
		Airbag warning	—
		All seats door warning	—
		Water temperature (HOT) warning	—
		E/G remaining oil warning	—
		AT (CVT) oil temperature warning (For CVT only)	—
		ABS warning	—
		BRAKE warning	—
		AWD warning (For CVT only)	—
		DPF clogging warning (For diesel only)	—
		Remaining washer fluid washer	—
		Remaining fuel warning	—
		EPS warning	—
		Diesel over-rev indicator (For diesel only)	—
		Check E/G warning	—
MFD output check	Passenger side seat belt warning		—
	Momentary fuel efficiency display value		—
	Mean fuel efficiency A display value		—
	Mean fuel efficiency B display value		—
	Remaining fuel cruising distance display value		—
	External air temperature indication value		—
	Mean vehicle speed display value		—
Buzzer output	Sounding output ON/OFF		—
Illumination check	Brightness check		—

10.Transmission Control Module (TCM)

A: NOTE

For transmission control module (TCM), refer to “CONTINUOUSLY VARIABLE TRANSMISSION” section.

- Non-turbo model: <Ref. to CVT(TR580)-143, Transmission Control Module (TCM).>
- Turbo model: <Ref. to CVT(TR690)-125, Transmission Control Module (TCM).>

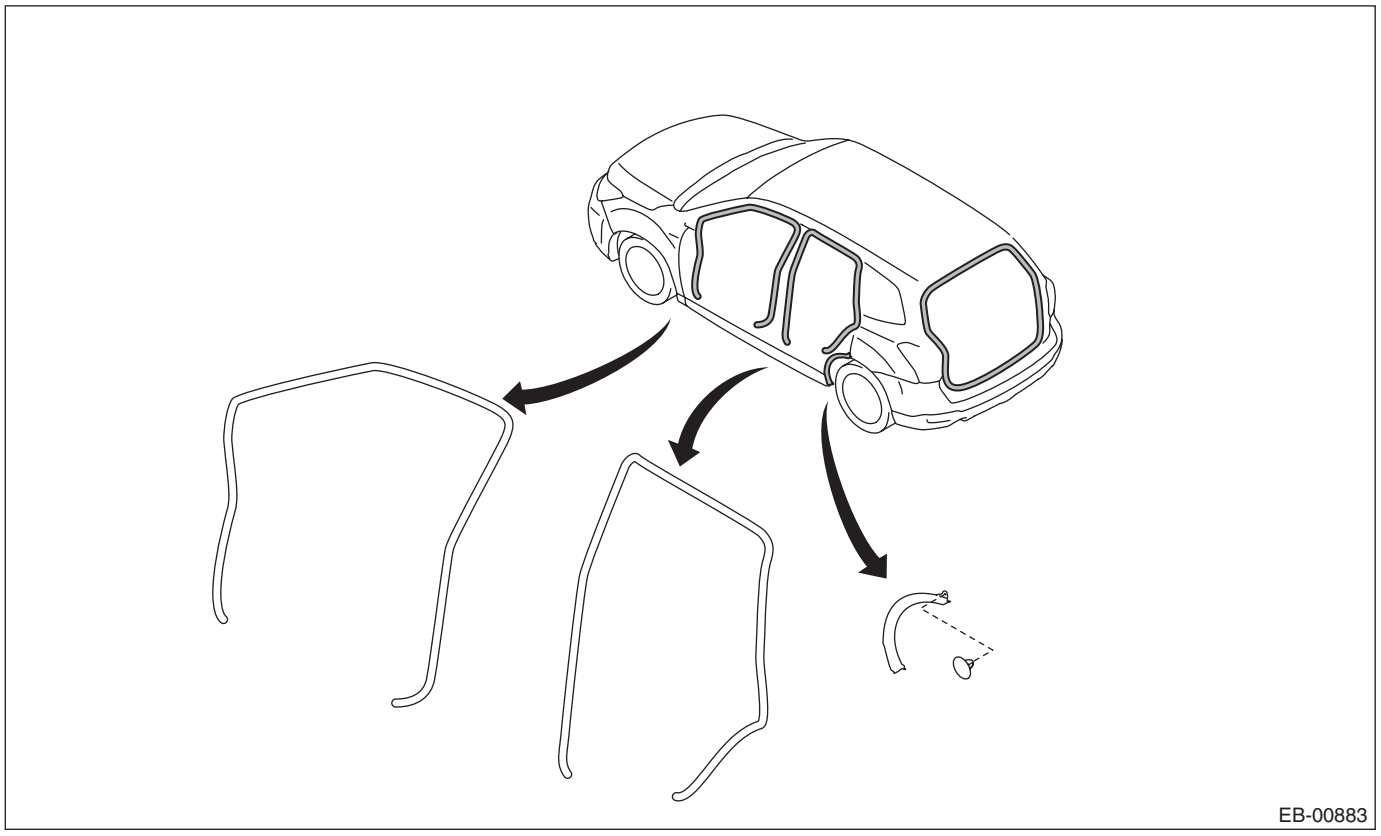
10.Weather Strip

A: REPLACEMENT

1. FLANGE

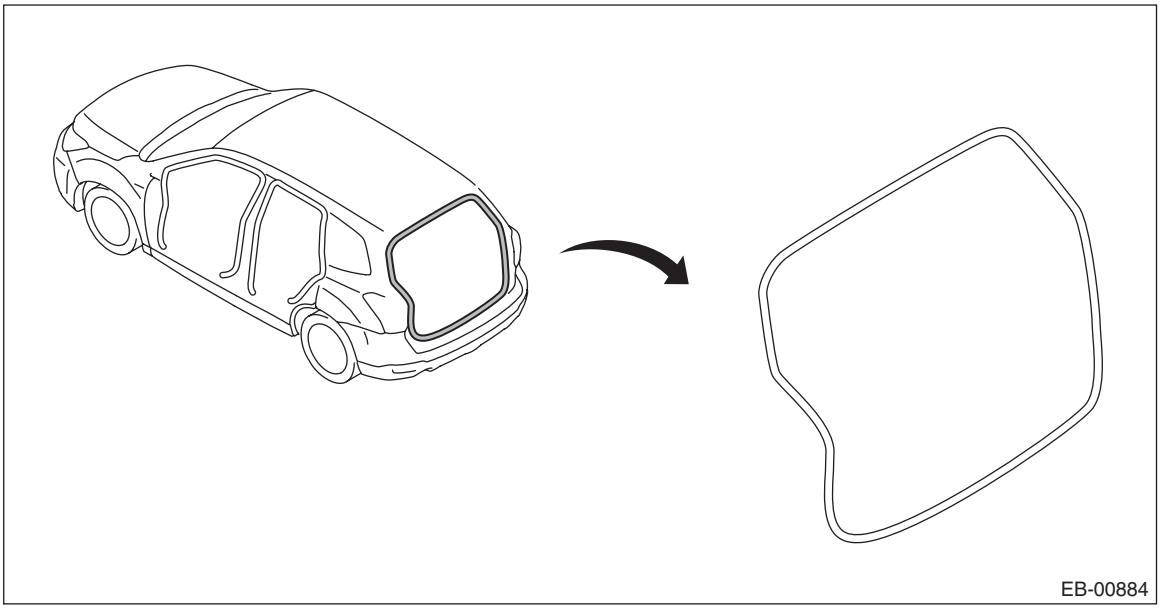
1) Remove the weather strip - body side flange while pulling the rubber. Be careful not to tear the rubber.

NOTE:
While removing, be careful not to damage the clips attached to the weather strip - body arch.



2) Replace the weather strip - rear gate while pulling the rubber. Be careful not to tear the rubber.

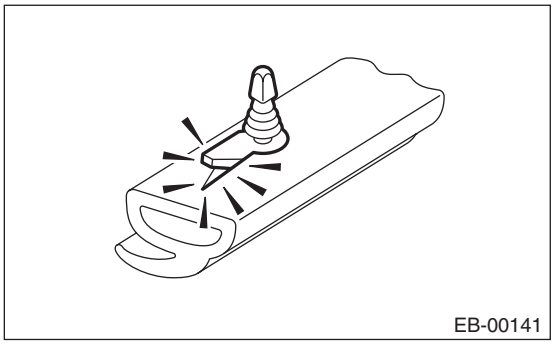
NOTE:
While removing the weather strip - rear gate, be careful not to allow adhesive to contact the trim panel - roof assembly and trim panel - trunk side.

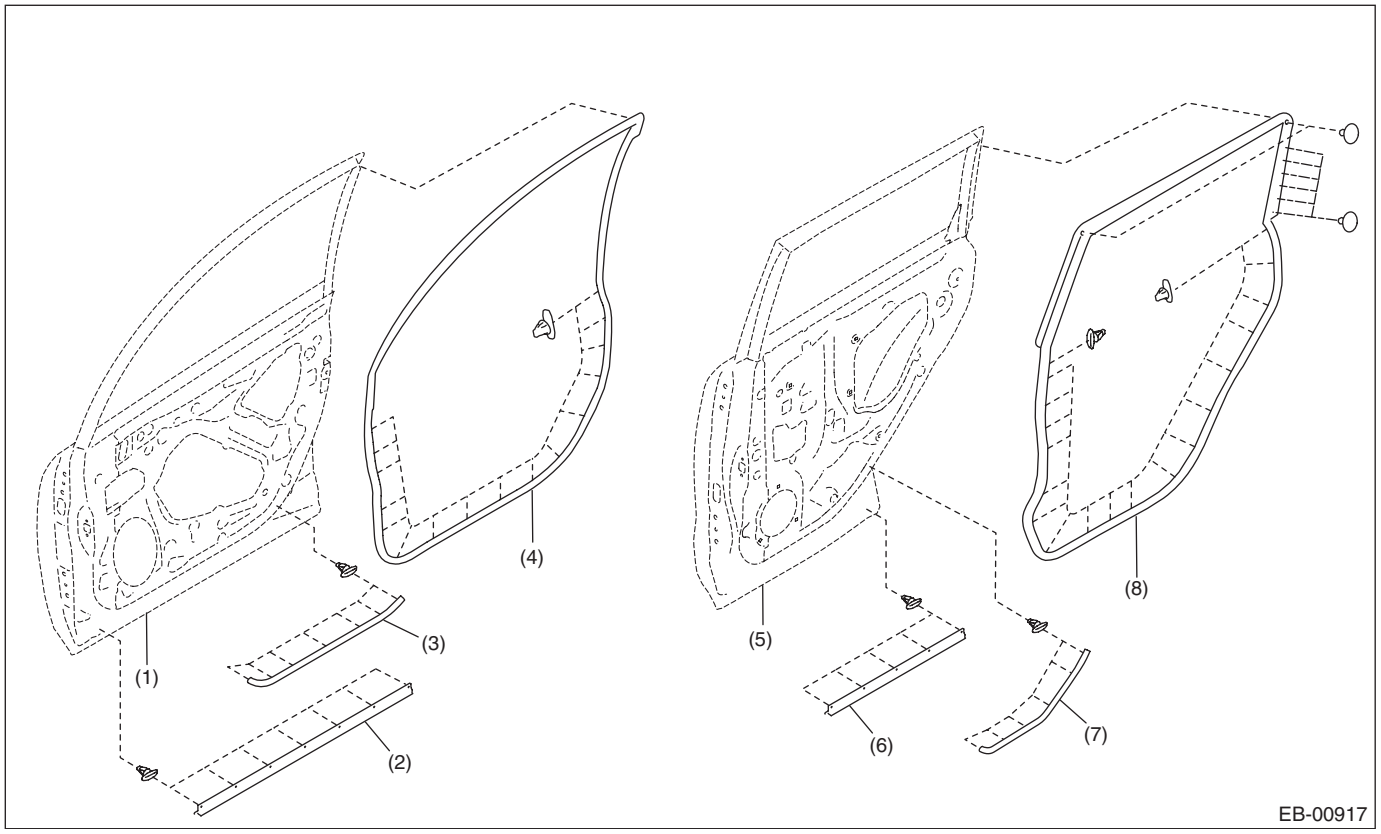


2. DOOR

1) Remove the weather strip after removing the clip. Be careful not to tear the rubber.

CAUTION:
If the weather strip clip is removed with excessive force, the weather strip may be damaged. Be sure to use clip remover to remove.





(1) Panel ASSY - front door
(2) Weather strip - front door - side sill
(3) Weather strip - front door - lower
(4) Weather strip - front door
(5) Panel ASSY - rear door
(6) Weather strip - rear door - side sill
(7) Weather strip - rear door - lower
(8) Weather strip - rear door

POWER REAR GATE SYSTEM

PRG

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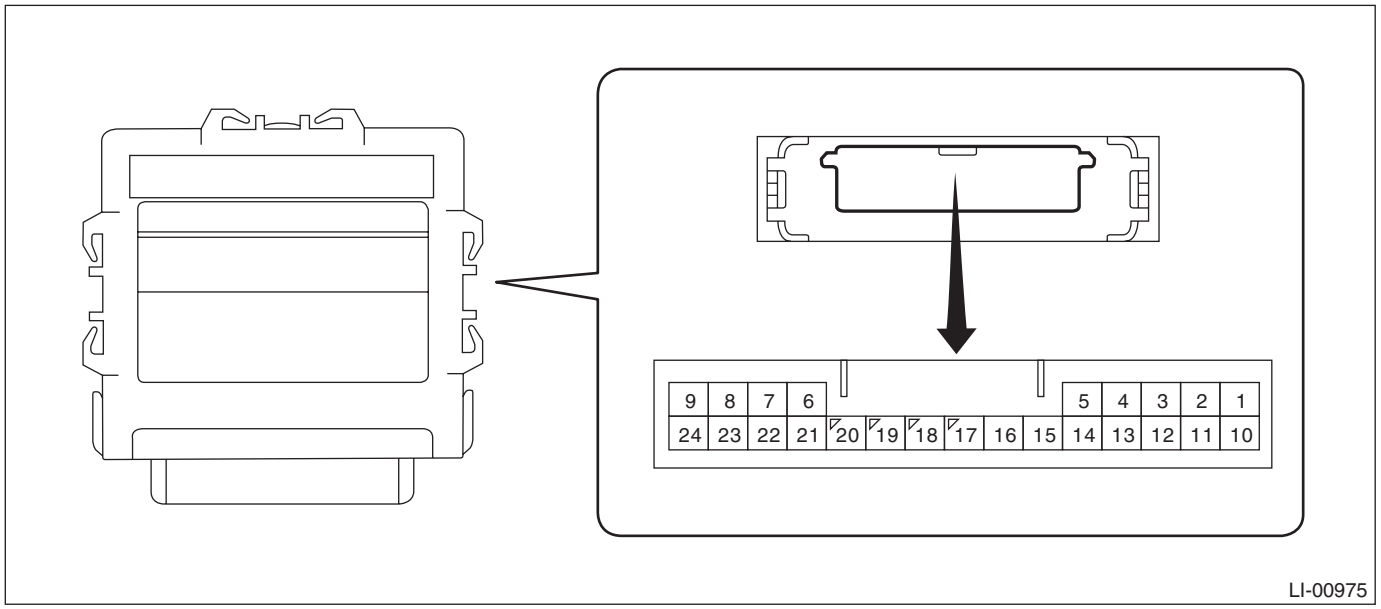
11.Auto Headlight Beam Leveler System

A: WIRING DIAGRAM

Refer to “Headlight Beam Leveler System” in the wiring diagram. <Ref. to WI-254, WIRING DIAGRAM, Headlight Beam Leveler System.>

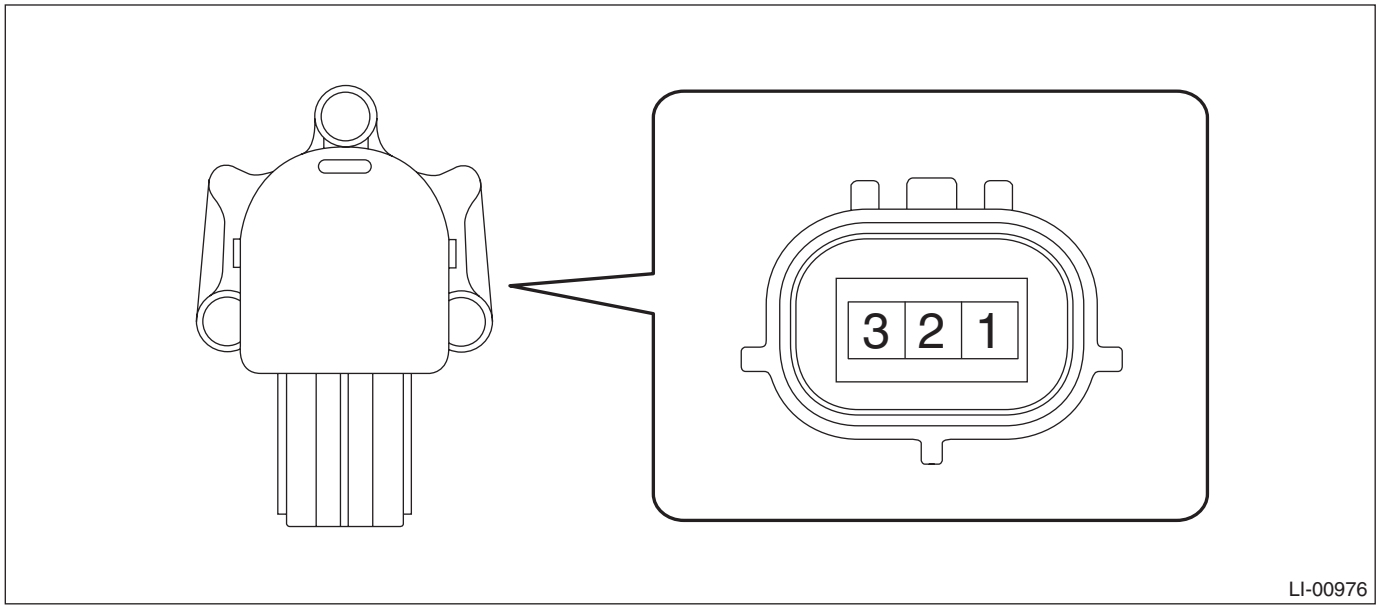
B: SPECIFICATION

1. TERMINAL ARRANGEMENT OF AUTO HEADLIGHT BEAM LEVELER CM



(1) IG power supply
(2) GND
(3) Rear sensor GND
(4) Not used
(5) Not used
(6) Indicator output
(7) Not used
(8) Not used
(9) Not used
(10) Actuator power supply
(11) Actuator GND
(12) Rear sensor power supply
(13) Not used
(14) Not used
(15) Not used
(16) Not used
(17) Actuator control signal output
(18) Not used
(19) Rear sensor input
(20) Not used
(21) Not used
(22) Not used
(23) CAN-HI
(24) CAN-LO

2. TERMINAL LAYOUT OF VEHICLE HEIGHT SENSOR



(1) GND (2) Output (3) Power supply

C: INSPECTION

Refer to “Basic Diagnostic Procedure” of “AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)” section. <Ref. to AL(diag)-2, Basic Diagnostic Procedure.>

D: PROCEDURE

When parts related to the auto headlight beam leveler system are removed or replaced, perform the following procedures to initialize or reinitialize.

NOTE:
Before performing initialization or reinitialization, check the following:
- The vehicle is parked on a level surface.
- The inflation pressure of tires is correct.
- The vehicle does not have load.
- Vehicle's fuel tank is fully filled.
- Refer to the following chart to determine whether to initialize or reinitialize.

Initialization	When the auto headlight beam leveler CM was replaced with a new module.
Reinitialization	• When the auto headlight beam leveler CM was replaced with a part from another vehicle. • When suspension parts have been removed or replaced. (Crossmember, front arm, sub frame, lateral link, housing, strut etc.) • When the vehicle height sensor has been replaced or removed.

CAUTION:
If the indicator does not flash three times or the headlight beam does not operate, it can be assumed that there is an open circuit or faulty wiring in the harness of the auto headlight beam leveler CM, vehicle height sensors or headlight assembly. Perform inspection and repair according to the inspection results, then perform initialization/reinitialization again.
- **Initialization:<Ref. to LI-17, INITIALIZATION, PROCEDURE, Auto Headlight Beam Leveler System.>**
- **Reinitialization:<Ref. to LI-17, REINITIALIZATION, PROCEDURE, Auto Headlight Beam Leveler System.>**

1. INITIALIZATION

1) Check that the indicator in the meter is flashing twice repeatedly.
2) Bounce the vehicle several times to normalize the suspension.
3) Make certain that someone is seated in the driver's seat.
4) Turn the ignition switch to ON, and within 1.5 — 20 seconds, turn the headlight switch OFF → ON for three successive times.
5) Make sure that the indicator in the meter flashes three times and then turns OFF, indicating that initialization has been successfully completed. (At this time, the headlight beam drops once, and then returns to the original position.)
6) Perform beam adjustment for the headlight. <Ref. to LI-32, ADJUSTMENT, Headlight Assembly.>

2. REINITIALIZATION

1) Bounce the vehicle several times to normalize the suspension.
2) Make certain that someone is seated in the driver's seat.
3) Turn the ignition switch to ON, and, within 1.5 — 10 seconds, turn the headlight switch OFF → ON five or more successive times.
4) Check that the headlight beam drops once, then returns to normal.
5) After confirming 4), turn the ignition switch to OFF within 30 seconds.
6) Turn the ignition switch to ON again, and, within 1.5 — 10 seconds, turn the headlight switch OFF → ON five or more successive times.
7) Make sure that the indicator in the meter flashes three times and then turns OFF, indicating that reinitialization has been successfully completed. (At this time, the headlight beam drops once, and then returns to the original position.)
8) Perform beam adjustment for the headlight. <Ref. to LI-32, ADJUSTMENT, Headlight Assembly.>

E: NOTE

For operation procedures of each component of the auto headlight beam leveler system, refer to the respective section.
- Auto headlight beam leveler CM: <Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>
- Vehicle height sensor: <Ref. to LI-74, Rear Height Sensor.>

11.Clear Memory Mode

A: OPERATION

For operation procedures, refer to the “PC application help for Subaru Select Monitor”.

12.Camera Adjustment, Inspection

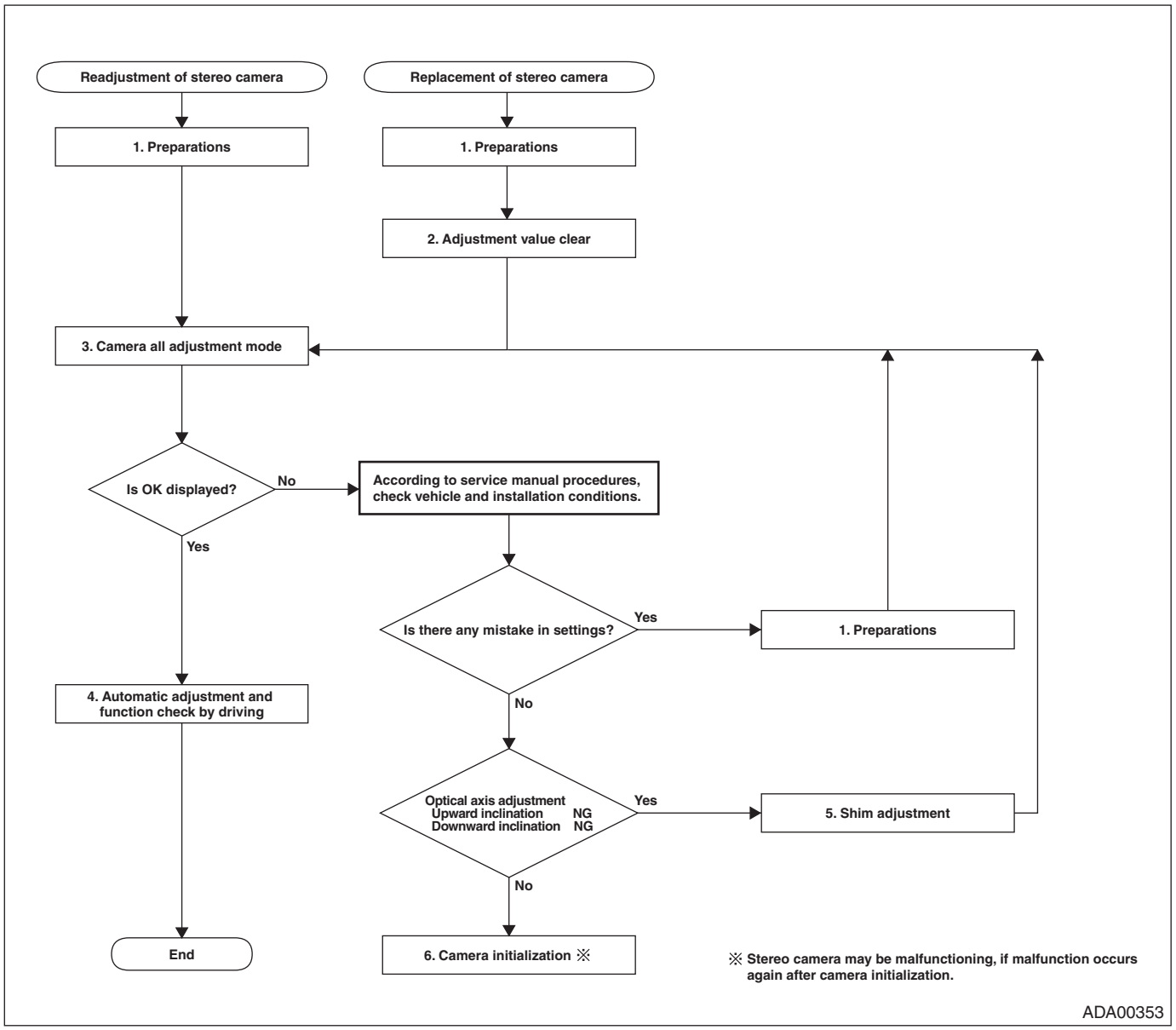
A: PROCEDURE

CAUTION:
- **Perform the camera adjustment and inspection at curb weight without passengers.**
- **Handle RANDOM CHART (ST: 87599YC001) carefully so as not to break it with the adhesive force of the tape.**

Perform inspection or adjustment according to the following procedures.
- Readjustment of stereo camera

Perform the adjustment in the following order: [1. Preparations] → [3. Camera all adjustment mode (replacement/removal)] → [4. Automatic adjustment and function check by driving].
- Replacement of stereo camera

Perform the replacement in the following order: [1. Preparations] → [2. Clear adjustment value] → [3. Camera all adjustment mode (replacement/removal)] → [4. Automatic adjustment and function check by driving].

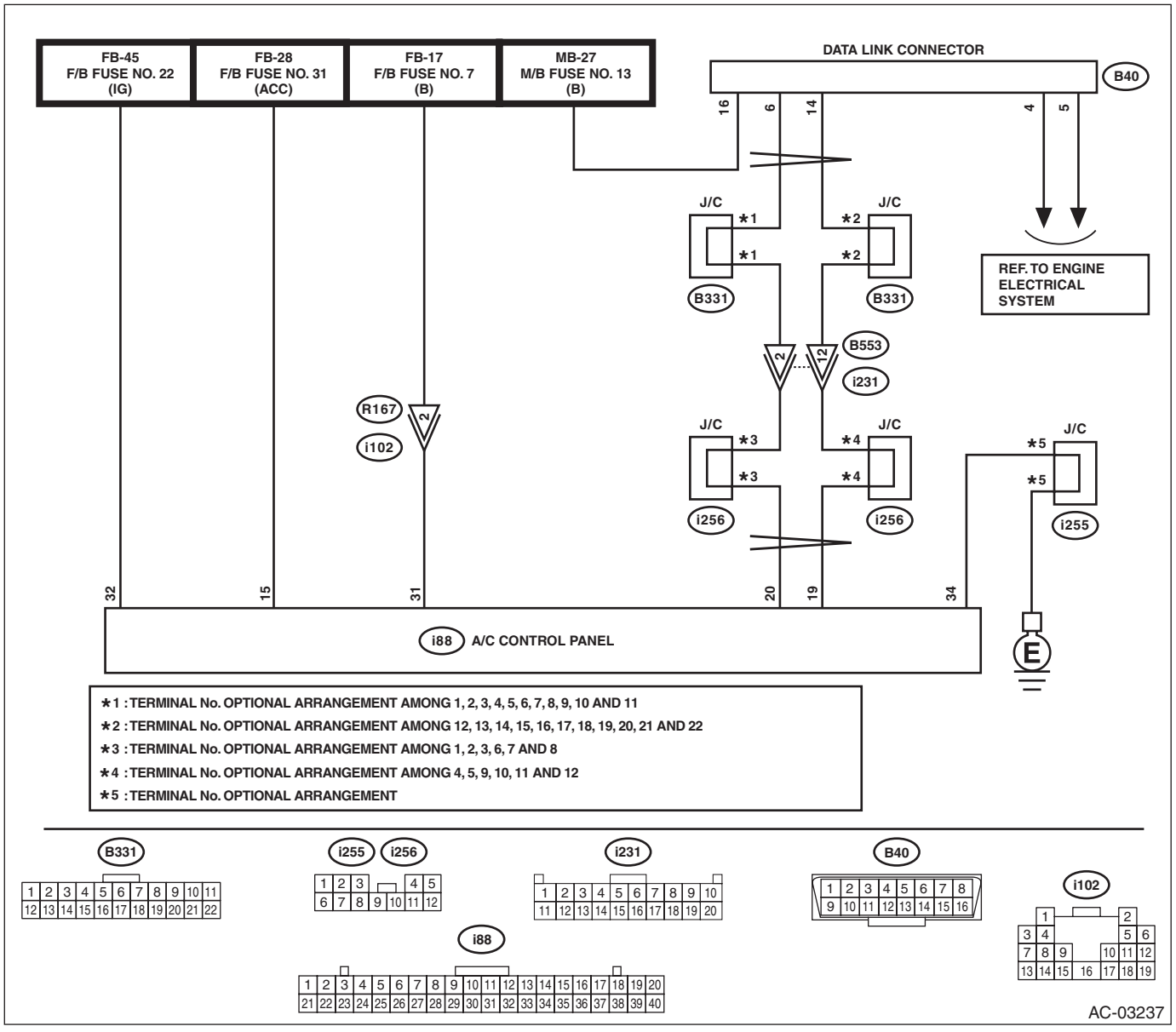


11.Diagnostic Procedure for Subaru Select Monitor Communication

A: COMMUNICATION FOR INITIALIZING IMPOSSIBLE

DIAGNOSIS:
Defective CAN communication circuit
TROUBLE SYMPTOM:
- LAN system is abnormal.
- Communication failure between Subaru Select Monitor and A/C control panel

WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK POWER SUPPLY CIRCUIT.** Connect SDI (Subaru Diagnosis Interface) to the data link connector.	Is SDI powered on?	Go to step **4**.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK POWER SUPPLY CIRCUIT.** Measure the voltage between data link connector and chassis ground. ***Connector & terminal*** ***(B40) No. 16 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **3**.	Repair the power supply circuit. NOTE: In this case, repair the following item: • Open or ground short circuit of harness between battery and data link connector • Blown out of fuse (M/B No. 12)
3	**CHECK HARNESS BETWEEN DATA LINK CONNECTOR AND CHASSIS GROUND.** 1) Turn the ignition switch to OFF. 2) Measure the resistance of harness between data link connector and chassis ground. ***Connector & terminal*** ***(B40) No. 4 — Chassis ground:*** ***(B40) No. 5 — Chassis ground:***	Is the resistance less than 5 Ω?	Repair the poor contact of data link connector.	Repair the harness and connector.
4	**CHECK SUBARU SELECT MONITOR.** 1) Connect the Subaru Select Monitor to a normal vehicle. 2) Start the engine and perform communication between the Subaru Select Monitor and vehicle.	Is communication possible?	Go to step **5**.	Use another Subaru Select Monitor because the CAN communication circuit of the Subaru Select Monitor is faulty.
5	**CHECK LAN SYSTEM.** Check the LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **6**.	Repair it according to the diagnosis for LAN system.
6	**CHECK CONNECTOR.** Check for poor contact of power supply circuit connector.	Is there poor contact of connector?	Repair the connector.	Go to step **7**.
7	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Remove a fuse from the fuse box. 3) Check the fuse.	Is the fuse blown out?	Replace the fuse.	Go to step **8**.
8	**CHECK A/C CONTROL PANEL POWER CIRCUIT.** 1) Disconnect the A/C control panel connector. 2) Measure the voltage between A/C control panel connector terminal and chassis ground after turning the ignition switch to ON. ***Connector & terminal*** ***(i88) No. 15 (+) — Chassis ground (–):*** ***(i88) No. 31 (+) — Chassis ground (–):*** ***(i88) No. 32 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **9**.	Check for open or short circuit in the harness between A/C control panel and fuse.
9	**CHECK A/C CONTROL PANEL GROUND CIRCUIT.** Measure the resistance of harness between A/C control panel and chassis ground. ***Connector & terminal*** ***(i88) No. 34 — Chassis ground:***	Is the resistance less than 5 Ω?	Check the connection between the data link connector and Subaru Select Monitor.	Repair the harness for ground line.

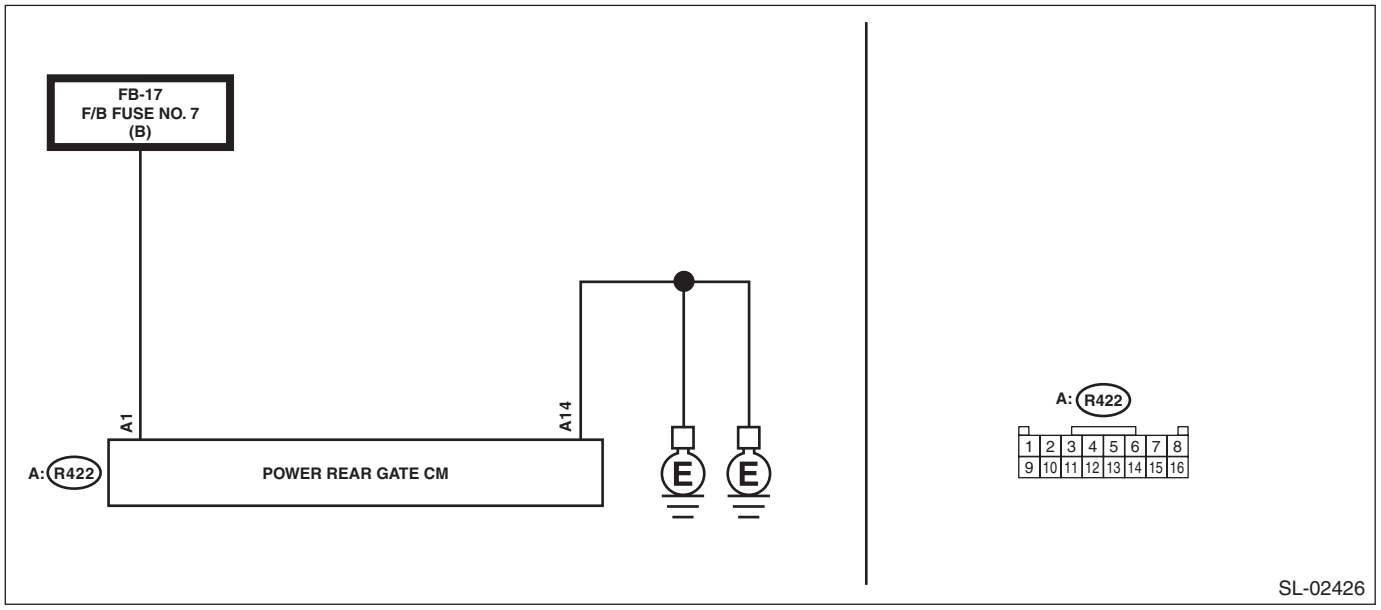
11.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC B2500 BATT P/SUPPLY FAILURE

DTC DETECTING CONDITION:
Detected when the power supply voltage is less than 10.5 V or 16 V or more at starting PRG operation (when SW is operated).

TROUBLE SYMPTOM:
The power rear gate does not operate.

WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

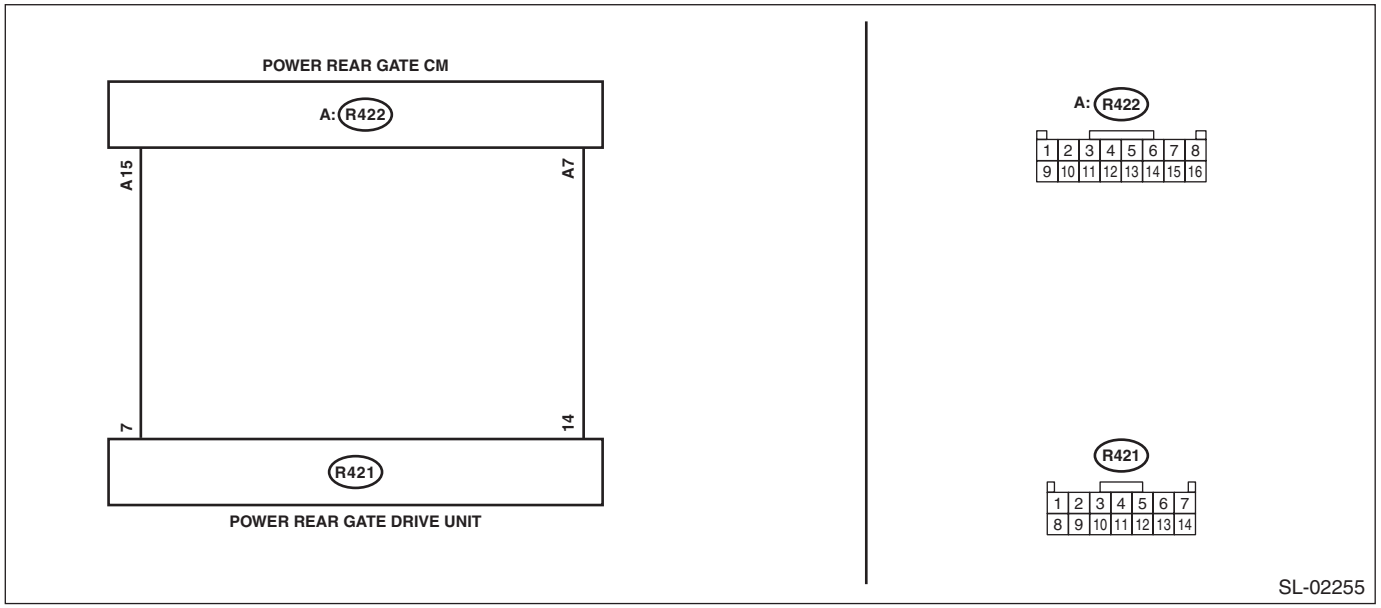


	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2500 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Manually close the rear gate to the partially latched position, and operate the power rear gate auto closer to fully close. (PRG initialization) 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2500 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CURRENT DATA.** Check «+B» using the Subaru Select Monitor.	Is the value less than 10.5 V or 16 V or more?	Go to step **4**.	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.

	Step	Check	Yes	No
4	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **5**.	Replace the defective fuse. When the fuse is blown immediately, repair the short circuit.
5	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Using a tester, measure the voltage between the PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 1 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** Using a tester, measure the resistance between the PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 14 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK CONNECTOR.**	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

B: DTC B2501 PRG ECU MALFUNCTION

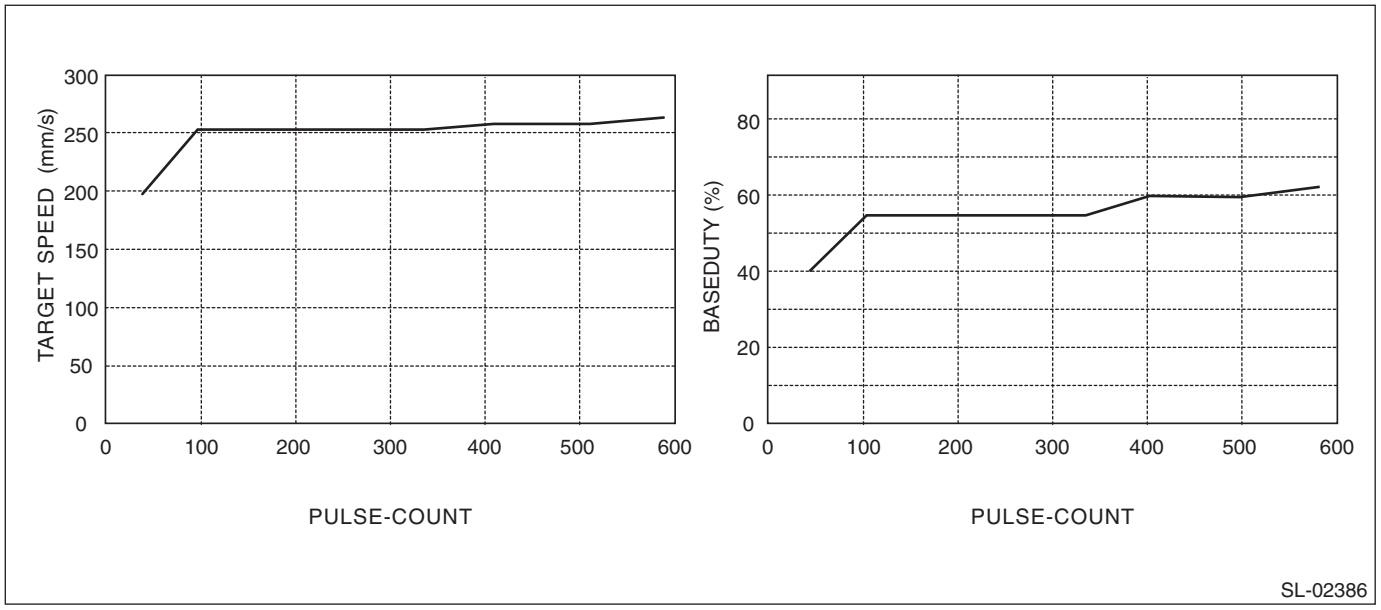
DTC DETECTING CONDITION:
When improper operation of motor is detected.
TROUBLE SYMPTOM:
The open/close speed of power rear gate is too fast.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2501 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Manually close the rear gate to the partially latched position, and operate the power rear gate auto closer to fully close. (PRG initialization) 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2501 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
4	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector. 4) Measure the resistance between ECM connector and PRG DU connector. ***Connector & terminal*** ***(R422) No. 7 — (R421) No. 14:*** ***(R422) No. 15 — (R421) No. 7:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
5	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector. 4) Measure the resistance between ECM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 7 — Chassis ground:*** ***(R422) No. 15 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Repair or replace the short circuit of harness.
6	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector. 4) Measure the voltage between ECM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 7 (+) — Chassis ground (–):*** ***(R422) No. 15 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **7**.	Repair or replace the short circuit of harness.
7	**CHECK PRG DU.** Measure the resistance between PRG DU connectors. ***Connector & terminal*** ***(R421) No. 7 — (R421) No. 14:***	Is the resistance 0.3 Ω?	Go to step **8**.	Replace the PRG DU. <Ref. to PRG-9, Power Rear Gate Control Module.>
8	**CHECK PRG CM.** 1) Perform auto-open/close of the power rear gate. 2) Check the waveform using an oscilloscope. ***Connector & terminal*** ***(R422) No. 7 — (R422) No. 15:***	Is waveform normal? At open: DUTY 40 — 70% At close: DUTY 60 — 80% (However, the value decreases to 30% at the moment of closing) For the waveform, refer to Note in the margin.	A temporary change of voltage occurred.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

NOTE:
• Target speed at PRG open operation (left) DUTY (right)



• This malfunction code may be sensitively detected depending on the way users manually open or close the gate. If this malfunction code is stored in the memory as a past trouble but not as a present trouble, the system is normal. If this malfunction code is stored in the memory as a present trouble, perform the following procedures.

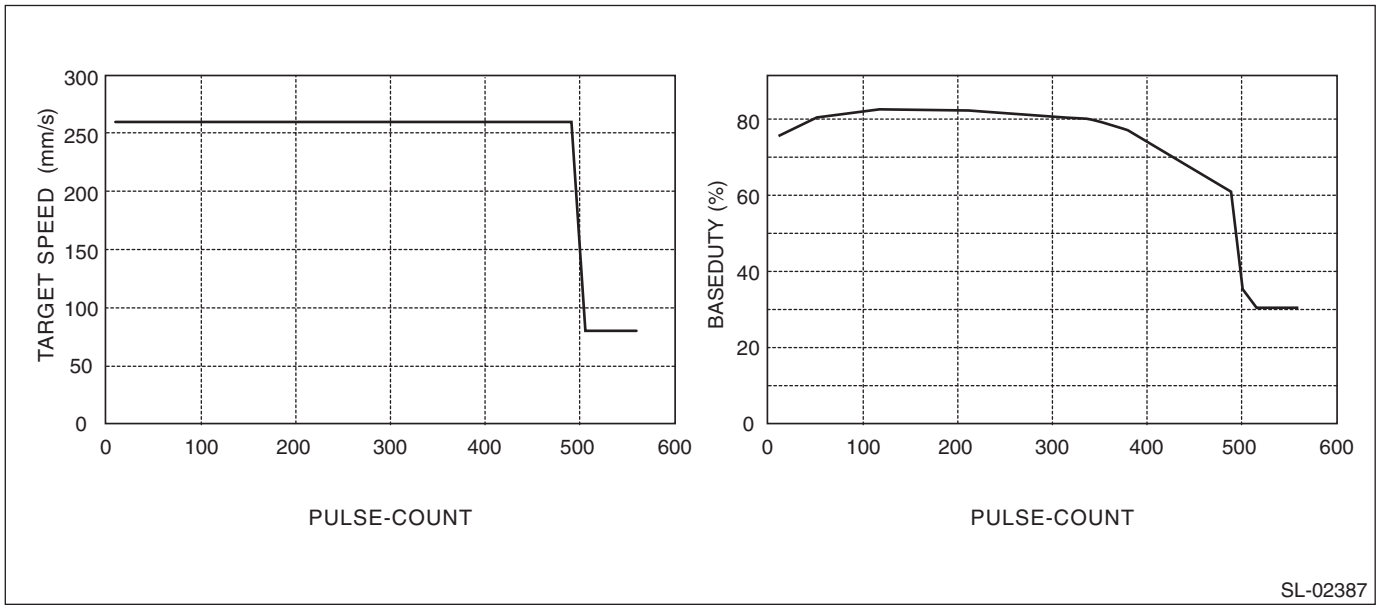
[Procedure]

1. Clear the memory of PRG CM malfunction code using the Subaru Select Monitor.
2. Perform auto-open/close of PRG by using either one of the following operation switches.

	Switch	Operation
Open	Power rear gate driver's switch	Press and hold
	Rear gate/trunk SW	Press and hold
	Power rear gate opener button	Tap
Close	Power rear gate driver's switch	Press and hold
	Rear gate/trunk SW	Press and hold
	Power rear gate inner switch	Tap

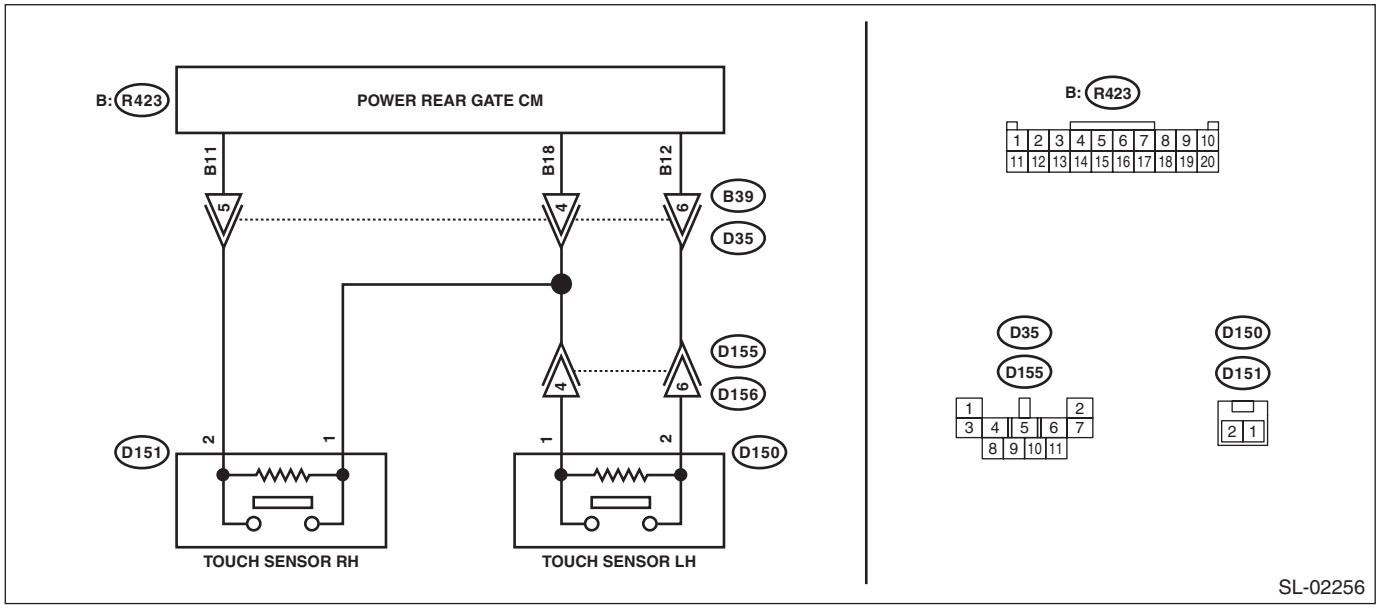
3. Using the Subaru Select Monitor, read DTC of PRG CM.
   If any present trouble is not stored in the memory after performing above procedures, the system is normal.

• Target speed at PRG close operation (left) DUTY (right)



C: DTC B2502 TOUCH SENSORS (L) FAILURE

DTC DETECTING CONDITION:
When malfunction in the touch sensor L is detected.
TROUBLE SYMPTOM:
The touch sensor L does not respond, and auto-operation does not function.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

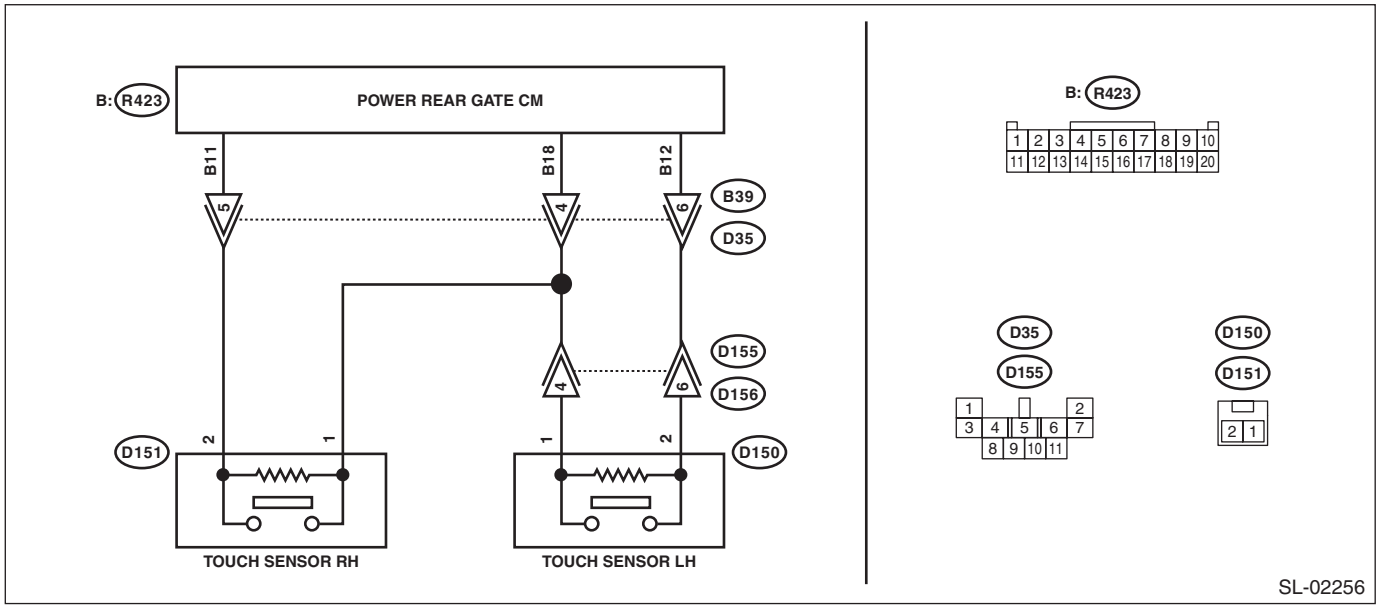


Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2502 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2502 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CURRENT DATA.** Check «TOUCH SENSOR L» using the Subaru Select Monitor.	Does the data change (ON ←→ OFF), when the touch sensor is pressed with fingers?	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.	Go to step **4**.
4	**CHECK SENSORS.** 1) Disconnect the touch sensor connector. 2) Measure the resistance between the touch sensor connectors. ***Connector & terminal*** ***(D150) No. 2 — (D150) No. 1:***	Is the resistance 100 Ω or less when the touch sensor is pressed with fingers, and 1 kΩ or more when not pressed?	Go to step **5**.	Replace the touch sensor. <Ref. to PRG-21, Power Rear Gate Touch Sensor.>

	Step	Check	Yes	No
5	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Measure the resistance between PRG CM connector and touch sensor connector. ***Connector & terminal*** ***(D150) No. 2 — (R423) No. 12:*** ***(D150) No. 1 — (R423) No. 18:***	Is the resistance 10 Ω or less?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** Measure the resistance between the touch sensor connector and chassis ground. ***Connector & terminal*** ***(R150) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Repair or replace the short circuit of the harness.
7	**CHECK HARNESS.** Measure the voltage between the touch sensor connector and chassis ground. ***Connector & terminal*** ***(R150) No. 1 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK CONNECTOR.** Turn the ignition switch to OFF.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

D: DTC B2503 TOUCH SENSORS (R) FAILURE

DTC DETECTING CONDITION:
When malfunction in the touch sensor R is detected.
TROUBLE SYMPTOM:
The touch sensor R does not respond, and auto-operation does not function.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2503 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2503 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CURRENT DATA.** Check «TOUCH SENSOR R» using the Subaru Select Monitor.	Does the data change (ON ←→ OFF), when the touch sensor is pressed with fingers?	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.	Go to step **4**.
4	**CHECK SENSORS.** 1) Disconnect the touch sensor connector. 2) Measure the resistance between the touch sensor connectors. ***Connector & terminal*** ***(D151) No. 2 — (D151) No. 1:***	Is the resistance 100 Ω or less when the touch sensor is pressed with fingers, and 1 kΩ or more when not pressed?	Go to step **5**.	Replace the touch sensor. <Ref. to PRG-21, Power Rear Gate Touch Sensor.>
5	**CHECK HARNESS.** Measure the resistance between PRG CM connector and touch sensor connector. ***Connector & terminal*** ***(D151) No. 2 — (R423) No. 11:*** ***(D151) No. 1 — (R423) No. 18:***	Is the resistance 10 Ω or less?	Go to step **6**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
6	**CHECK HARNESS.** Measure the resistance between the touch sensor connector and chassis ground. ***Connector & terminal*** ***(D151) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Repair or replace the short circuit of the harness.
7	**CHECK HARNESS.** Measure the voltage between the touch sensor connector and chassis ground. ***Connector & terminal*** ***(D151) No. 1 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK CONNECTOR.** Turn the ignition switch to OFF.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

E: DTC B2504 TOUCH SENSORS (L) ON FIXATION

NOTE:
For the diagnostic procedure, refer to DTC B2502. <Ref. to PRG(diag)-22, DTC B2502 TOUCH SENSORS (L) FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

F: DTC B2505 TOUCH SENSORS (R) ON FIXATION

NOTE:
For the diagnostic procedure, refer to DTC B2503. <Ref. to PRG(diag)-24, DTC B2503 TOUCH SENSORS (R) FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

G: DTC B2506 PRG MOTOR CURRENT SURGE

DTC DETECTING CONDITION:
When excessive load is applied to the PRG motor, and overcurrent is detected.
TROUBLE SYMPTOM:
The PRG auto-operation does not function, operation speed is slow, and incorrect reverse operation occurs.

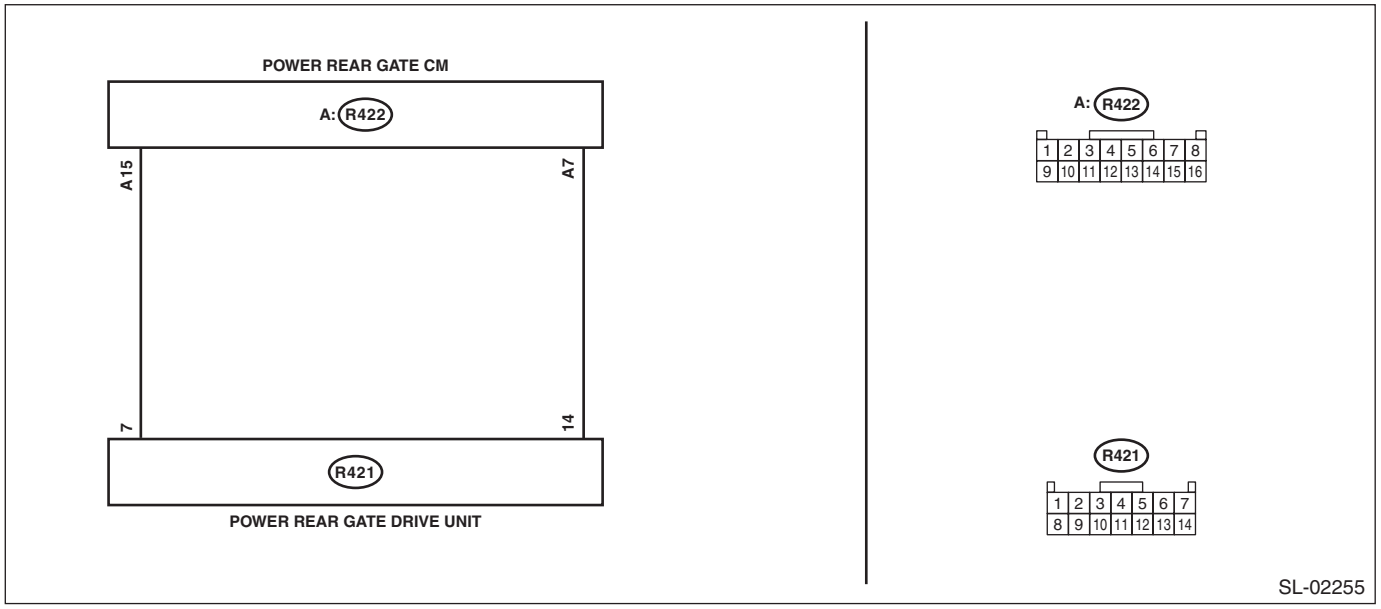
	Step	Check	Yes	No
1	**CHECK FOR OBSTACLES.**	Is the peripheral area of the rear gate free from snow or any object that blocks open/close operation?	Go to step **2**.	Remove the obstacles, and Go to step **2**.
2	**CHECK POWER REAR GATE OPERATION.** 1) Turn the ignition switch to OFF. 2) Fully close the rear gate. 3) Turn the memory height switch to OFF. 4) Press and hold the PRG driver's SW to perform the auto-open operation. 5) With the gate at the full-open position, press and hold the PRG driver's SW to perform the auto-close operation.	Is it operating normally?	Go to step **4**.	Go to step **3**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2506 current malfunction?	Go to step **4**.	Go to step **5**.
4	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Perform auto-operation with the procedure in step 2. 4) Turn the ignition switch to ON. 5) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2506 current malfunction?	Go to step **5**.	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector. Or temporarily excess load was applied.
5	**CHECK PRG DU WITH MANUAL OPERATION.** 1) Turn the ignition switch to OFF. 2) Fully close the rear gate. 3) Press and hold the PRG opener button to perform the manual operation.	Is the operation possible without abnormal weight?	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>	Replace the PRG DU.

H: DTC B2507 PRG MOTOR OPEN

DTC DETECTING CONDITION:
When the open circuit in motor circuit is detected.

TROUBLE SYMPTOM:
During the auto-operation, the operation stop, half-stop state cannot be cancelled, and auto-operation is not possible.

WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

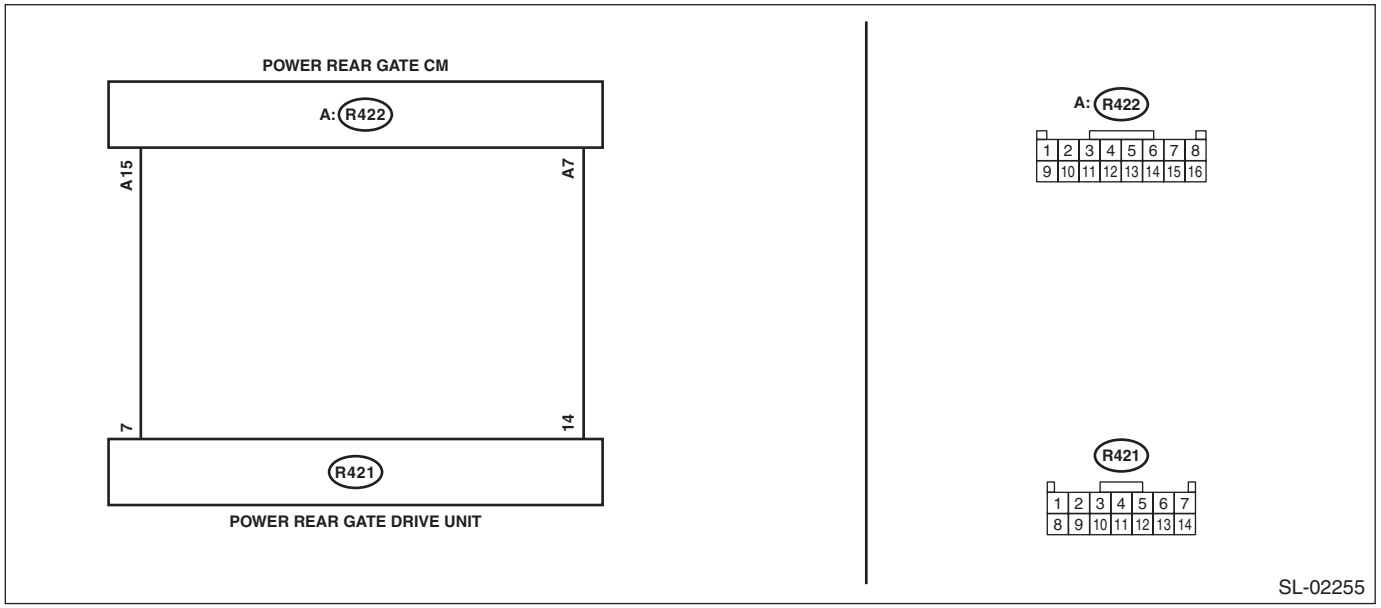


Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2507 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Manually close the rear gate to the partially latched position, and operate the power rear gate auto closer to fully close. (PRG initialization) 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2507 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
4	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and PRG DU connector. ***Connector & terminal*** ***(R422) No. 15 — (R421) No. 7:*** ***(R422) No. 7 — (R421) No. 14:***	Is the resistance 10 Ω or less?	Go to step **5**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
5	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 15 — Chassis ground:*** ***(R422) No. 7 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**CHECK PRG DU.** Measure the resistance between PRG DU connectors. ***Connector & terminal*** ***(R421) No. 7 — (R421) No. 14:***	Is the resistance 0.3 Ω?	Go to step **7**.	Replace the PRG DU. <Ref. to PRG-9, Power Rear Gate Control Module.>
7	**CHECK CONNECTOR.**	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

I: DTC B2508 PRG MOTOR GND SHORT OUT

DTC DETECTING CONDITION:
When the GND-output short in motor circuit is detected.
TROUBLE SYMPTOM:
Auto-operation speed is too fast.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

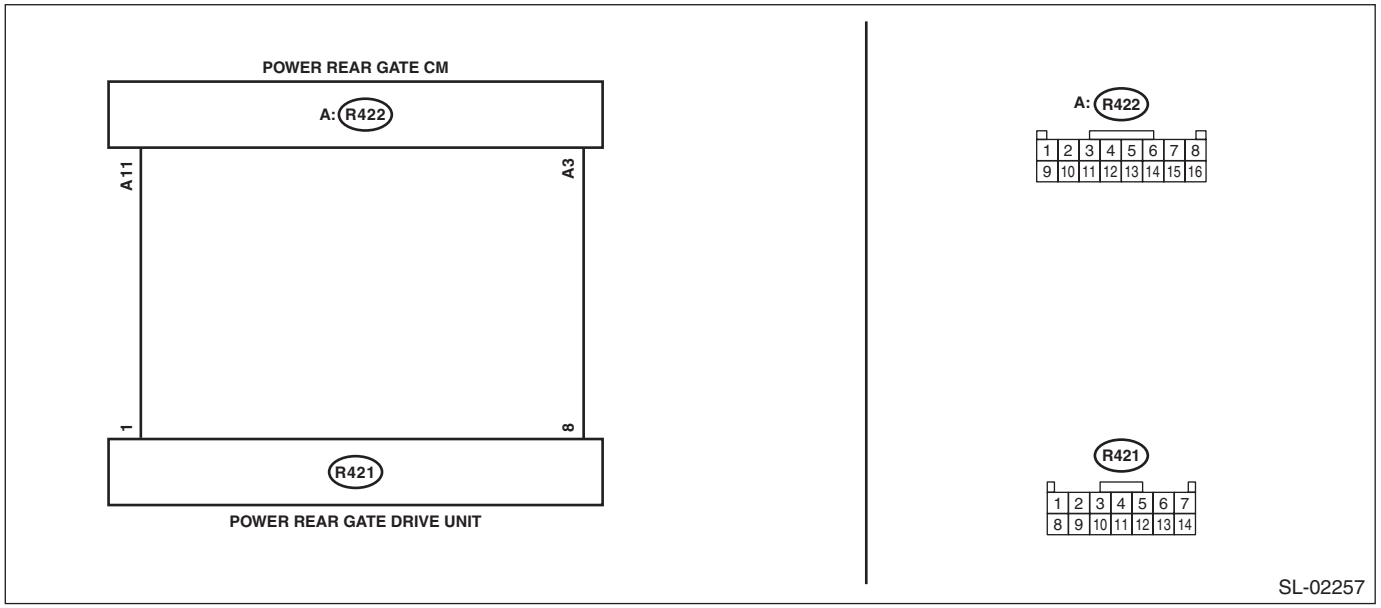


	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2508 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Manually close the rear gate to the partially latched position, and operate the power rear gate auto closer to fully close. (PRG initialization) 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2508 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
4	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 15 — Chassis ground:*** ***(R422) No. 7 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.

Step		Check	Yes	No
5	**CHECK PRG DU.** Measure the resistance between PRG DU connectors. ***Connector & terminal*** ***(R421) No. 7 — (R421) No. 14:***	Is the resistance 0.3 Ω?	Go to step **6**.	Replace the PRG DU. <Ref. to PRG-9, Power Rear Gate Control Module.>
6	**CHECK CONNECTOR.**	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

J: DTC B2509 CLUTCH OPEN

DTC DETECTING CONDITION:
When the open circuit or short circuit in CLUTCH circuit is detected.
TROUBLE SYMPTOM:
During the auto-operation, door free, auto-operation do not function.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

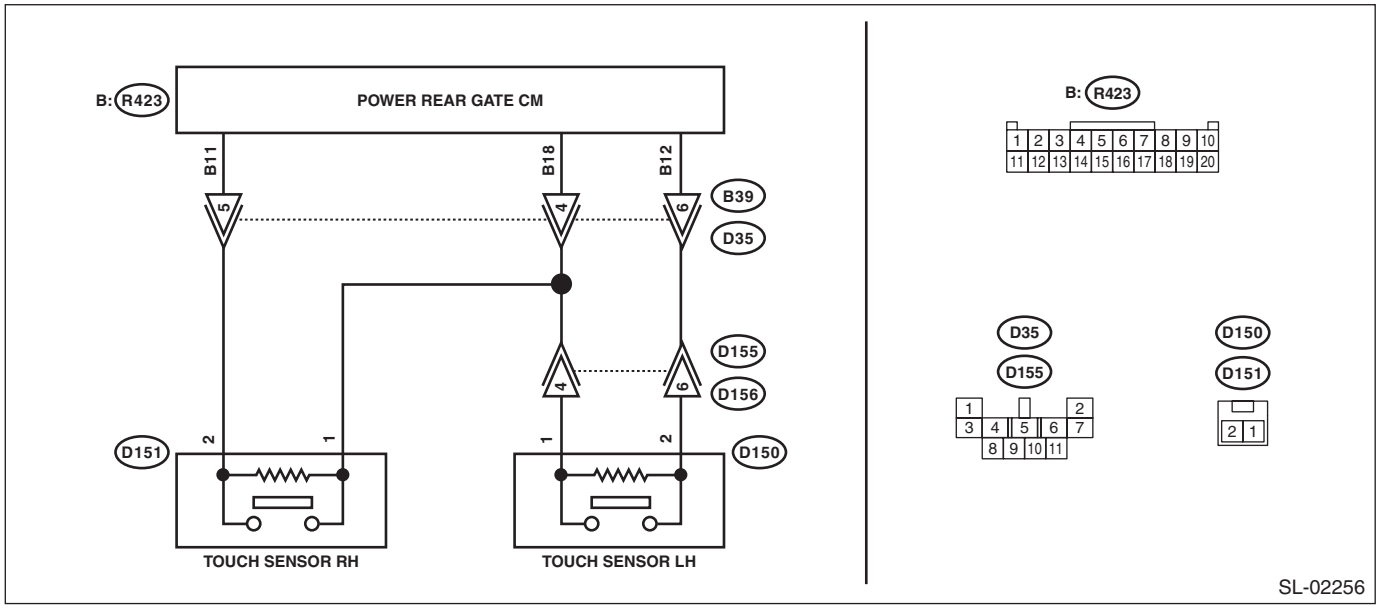


	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2509 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Manually close the rear gate to the partially latched position, and operate the power rear gate auto closer to fully close. (PRG initialization) 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2509 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
4	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and PRG DU connector. ***Connector & terminal*** ***(R422) No. 11 — (R421) No. 1:*** ***(R422) No. 3 — (R421) No. 8:***	Is the resistance 10 Ω or less?	Go to step **5**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
5	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 3 — Chassis ground:*** ***(R422) No. 11 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 3 (+) — Chassis ground (–):*** ***(R422) No. 11 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **7**.	Repair or replace the short circuit of the harness.
7	**CHECK PRG DU.** Measure the resistance between PRG DU connectors. ***Connector & terminal*** ***(R422) No. 1 — (R421) No. 8:***	Is the resistance 9.6 Ω±10%?	Go to step **8**.	Replace the PRG DU. <Ref. to PRG-9, Power Rear Gate Control Module.>
8	**CHECK CONNECTOR.** Turn the ignition switch to OFF.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

K: DTC B250A TOUCH SENSORS BATT. GND SHORT OUT

DTC DETECTING CONDITION:
When malfunction in the touch sensor is detected.
TROUBLE SYMPTOM:
The touch sensor does not respond, and auto-operation does not function.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>

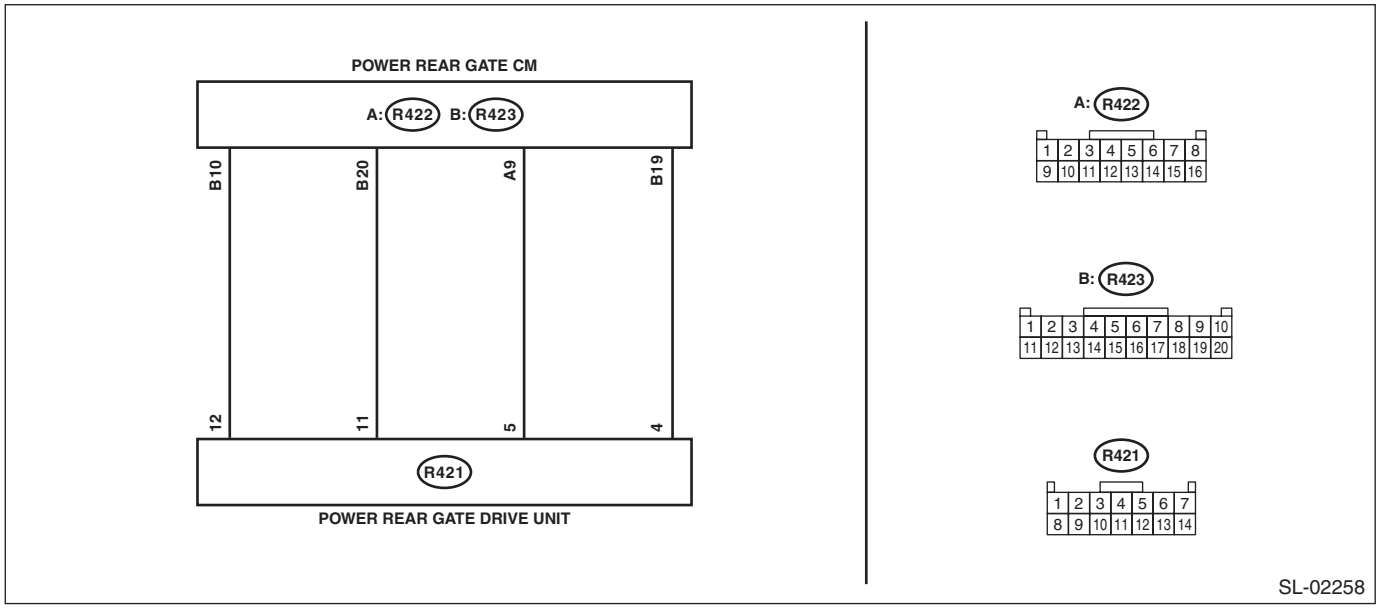


Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B250A current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to ON. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B250A current malfunction?	Go to step **3**.	Go to step **3**.
3	**CHECK CURRENT DATA.** Check «TOUCH SENSOR L» and «TOUCH SENSOR R» using the Subaru Select Monitor.	Does the data change (ON ←→ OFF), when the touch sensor is pressed with fingers?	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.	Go to step **4**.
4	**CHECK HARNESS AND SENSOR.** 1) Disconnect the touch sensor connector. 2) Measure the resistance between the touch sensor connectors. ***Connector & terminal*** ***(D150) No. 1 — (D150) No. 2:*** ***(D151) No. 1 — (D151) No. 2:***	Is the resistance 100 Ω or less when the touch sensor is ON, and 1 kΩ or more when OFF?	Go to step **5**.	Replace the touch sensor. <Ref. to PRG-21, Power Rear Gate Touch Sensor.>

	Step	Check	Yes	No
5	**CHECK HARNESS.** Measure the resistance between PRG CM connector and touch sensor connector. ***Connector & terminal*** ***(R423) No. 12 — (D150) No. 2:*** ***(R423) No. 11 — (D151) No. 2:*** ***(R423) No. 18 — (D150) No. 1:*** ***(R423) No. 18 — (D151) No. 1:***	Is the resistance 10 Ω or less?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 12 — Chassis ground:*** ***(R423) No. 11 — Chassis ground:*** ***(R423) No. 18 — Chassis ground:*** ***(R423) No. 18 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Repair or replace the short circuit of the harness.
7	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 12 (+) — Chassis ground (–):*** ***(R423) No. 11 (+) — Chassis ground (–):*** ***(R423) No. 18 (+) — Chassis ground (–):*** ***(R423) No. 18 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

L: DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION)

DTC DETECTING CONDITION:
When malfunction in the rotation sensor is detected.
TROUBLE SYMPTOM:
The R/G opens or closes by itself, while pausing intermittently in between. (intermittent clutch mode)
WIRING DIAGRAM:
Power rear gate system<Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B250B, B250D, B250F or B2511 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Manually close the rear gate to the partially latched position, and operate the power rear gate auto closer to fully close. (PRG initialization) 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B250B, B250D, B250F or B2511 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
4	**CHECK PRG CM.** 1) Turn the ignition switch to ON. 2) Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 9 (+) — Chassis ground (–):***	Is the voltage 4 — 6 V?	Go to step **5**.	Check the PRG CM power supply circuit.

	Step	Check	Yes	No
5	**CHECK CURRENT DATA.** Check «Pulse-count» using the Subaru Select Monitor.	When the PRG driver's SW is pressed and held to perform the auto-operation, is the value of «Pulse-count» change?	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.	Go to step **6**.
6	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and PRG DU connector. ***Connector & terminal*** ***(R423) No. 10 — (R421) No. 12:*** ***(R423) No. 20 — (R421) No. 11:*** ***(R423) No. 19 — (R421) No. 4:*** ***(R422) No. 9 — (R421) No. 5:***	Is the resistance 10 Ω or less?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 10 — Chassis ground:*** ***(R423) No. 20 — Chassis ground:*** ***(R423) No. 19 — Chassis ground:*** ***(R422) No. 9 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 10 (+) — Chassis ground (–):*** ***(R423) No. 20 (+) — Chassis ground (–):*** ***(R423) No. 19 (+) — Chassis ground (–):*** ***(R422) No. 9 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK ROTATION SENSOR SIGNAL.** 1) Connect the disconnected connectors. 2) Using an oscilloscope, measure the voltage of rotation sensor. ***Connector & terminal*** ***(R423) No. 10 (+) — (R423) No. 19 (–):*** ***(R423) No. 20 (+) — (R423) No. 19 (–):***	Does the voltage change (0 V ←→ 5 V), when PRG is manually opened/closed?	Go to step **10**.	Replace the PRG DU.<Ref. to PRG-9, Power Rear Gate Control Module.>
10	**CHECK CONNECTOR.** Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM.<Ref. to PRG-9, Power Rear Gate Control Module.>

M: DTC B250D ROTATION SENSOR FAILURE (B OUTPUT FIXATION)

NOTE:
For the diagnostic procedure, refer to DTC B250B. <Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

N: DTC B250F ROTATION SENSOR FAILURE (PULSE-COUNT FAILURE)

NOTE:
For the diagnostic procedure, refer to DTC B250B. <Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

O: DTC B2511 ROTATION SENSOR FAILURE (REVERSE DIRECTION PULSE FAILURE)

NOTE:
For the diagnostic procedure, refer to DTC B250B. <Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

P: DTC B2512 DAMPER BREAKAGE FAILURE

DTC DETECTING CONDITION:
When malfunction in the gas damper is detected.
TROUBLE SYMPTOM:
After the auto-open operation, auto-close operation occurs by itself. When PRG is open in manual operation, the gate is not held at the full-open position.

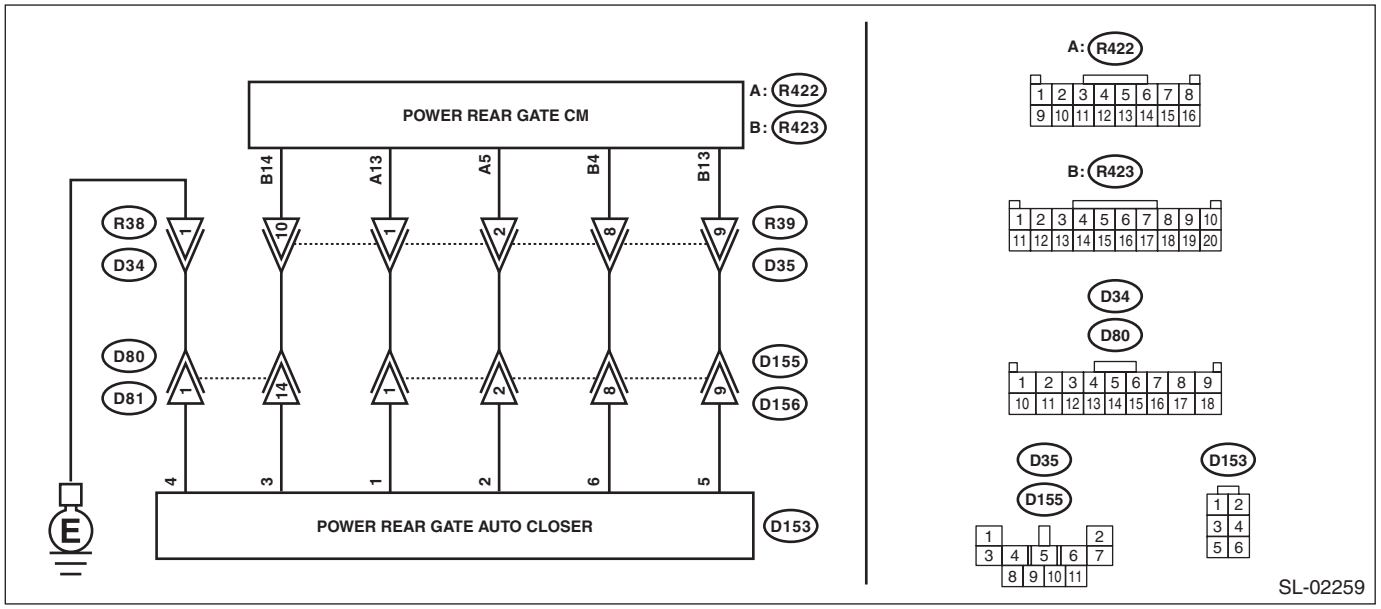
	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2512 current malfunction?	Go to step **2**.	PRG moved to the close-direction immediately after the auto-open operation due to temporary external force.
2	**CHECK DAMPER.** 1) Fully open PRG in manual operation. 2) Check the door behavior at the full-open position.	Is PRG held at the full-open position?	PRG moved to the close-direction immediately after the auto-open operation due to temporary external force.	Replace the damper. <Ref. to EB-59, REAR GATE DAMPER STAY, REMOVAL, Rear Gate.>

Q: DTC B2513 LATCH CONDITION FAILURE

DTC DETECTING CONDITION:
When malfunction in SW within the power rear gate auto closer is detected.

TROUBLE SYMPTOM:
- The PRG opens or closes by itself, while pausing intermittently in between during the auto-operation. (intermittent clutch mode)
- Auto-operation does not function.

WIRING DIAGRAM:
Power rear gate system<Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



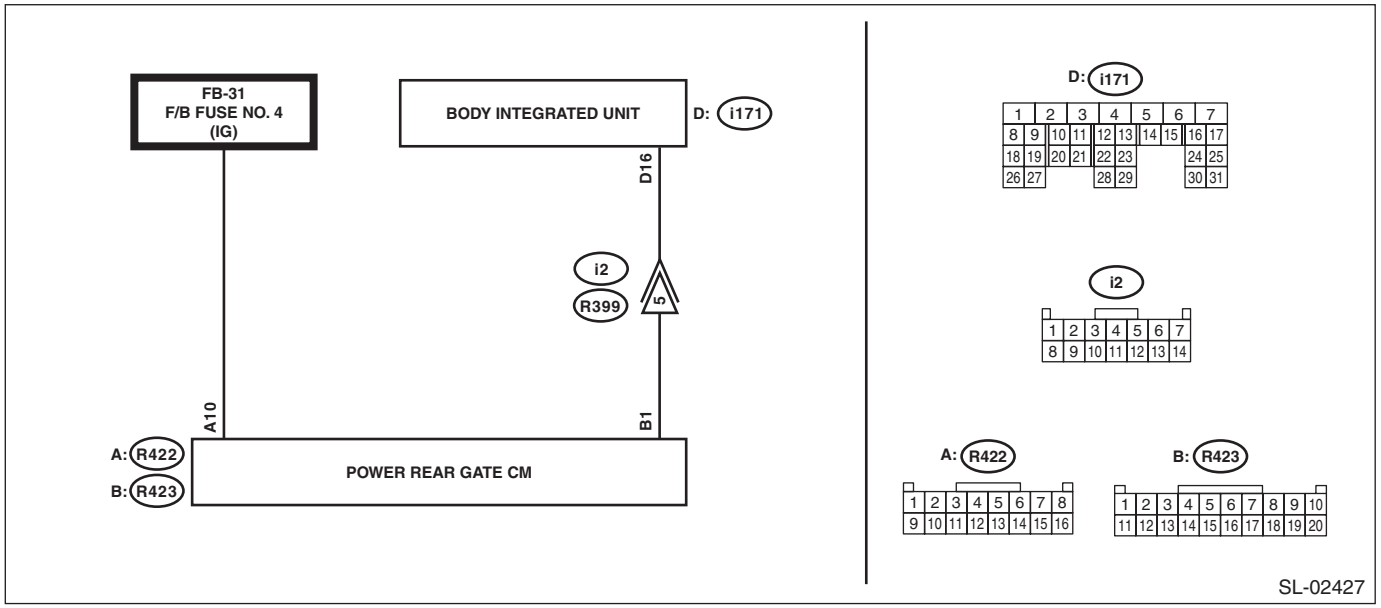
Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2513, B2515, B2516 or B2517 a current malfunction?	Go to step **2**.	Go to step **6**.
2	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Manually close PRG to the partially latched position, and operate the power rear gate auto closer to fully close. (PRG initialization) 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2513, B2515, B2516 or B2517 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK CURRENT DATA.** Check «SECTOR SW», «COURTESY SW», and «LATCH SW», using the Subaru Select Monitor.	Is each data displayed as follows, when PRG is at the full-close position? • LATCH SW: OFF • COURTESY SW: OFF • SECTOR SW: ON	Go to step **4**.	Go to step **5**.
4	**CHECK CURRENT DATA.** Check «CLOSER (OPEN)», «CLOSER (CLOSE)» using the Subaru Select Monitor.	Does each data change (ON ←→ OFF), when the auto-open/close operation is performed?	Go to step **6**.	Go to step **5**.

	Step	Check	Yes	No
5	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the power rear gate auto closer connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Go to step **7**.
6	**CHECK POWER REAR GATE AUTO CLOSER.** 1) Disconnect the PRG CM connector. 2) Manually close the rear gate from the full-open position to the partially latched position. 3) Check the power rear gate auto closer operation.	Does the pull-in operation occur from the partially latched position?	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.	Go to step **7**.
7	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the power rear gate auto closer connector. 3) Measure the resistance between PRG CM connector and power rear gate auto closer connector. ***Connector & terminal*** ***(R422) No. 13 — (R153) No. 1:*** ***(R422) No. 5 — (R153) No. 2:*** ***(R423) No. 4 — (R153) No. 6:*** ***(R423) No. 13 — (R153) No. 5:*** ***(R423) No. 14 — (R153) No. 3:***	Is the resistance 10 Ω or less?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground, and between power rear gate auto closer connector and chassis ground. ***Connector & terminal*** ***(R422) No. 13 — Chassis ground:*** ***(R422) No. 5 — Chassis ground:*** ***(R423) No. 4 — Chassis ground:*** ***(R423) No. 13 — Chassis ground:*** ***(R423) No. 14 — Chassis ground:*** ***(D153) No. 4 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground, and between power rear gate auto closer connector and chassis ground. ***Connector & terminal*** ***(R422) No. 13 (+) — Chassis ground (–):*** ***(R422) No. 5 (+) — Chassis ground (–):*** ***(R423) No. 4 (+) — Chassis ground (–):*** ***(R423) No. 13 (+) — Chassis ground (–):*** ***(R423) No. 14 (+) — Chassis ground (–):*** ***(D153) No. 4 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **10**.	Repair or replace the short circuit of the harness.
10	**CHECK HARNESS.** Measure the resistance between power rear gate auto closer connector and chassis ground. ***Connector & terminal*** ***(D153) No. 4 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **11**.	Repair or replace the short circuit of the harness.

	Step	Check	Yes	No
11	**CHECK POWER REAR GATE AUTO CLOSER.** 1) Connect the PRG CM connector and PRG DU connector. 2) Check «SECTOR SW», «COURTESY SW», and «LATCH SW», using the Subaru Select Monitor. 3) Fully open the rear gate, and operate each switch manually.	Does each data change (ON ⟷ OFF), when the switch is operated?	Go to step **12**.	Replace the power rear gate auto closer.
12	**CHECK POWER REAR GATE AUTO CLOSER.** Check the power rear gate auto closer operation, when battery voltage is applied directly to the power rear gate auto closer connector. ***Terminals*** ***(D422) No. 13 — positive terminal:*** ***(D422) No. 5 — ground terminal:***	Does the power rear gate auto closer operate?	Replace the PRG CM.<Ref. to PRG-9, Power Rear Gate Control Module.>	Replace the power rear gate auto closer.

R: DTC B2514 IG FAILURE

DTC DETECTING CONDITION:
When the LIN communication signal and direct line signal do not match.
TROUBLE SYMPTOM:
PRG does not operate.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2514 current malfunction?	Go to step **2**.	Go to step **4**.
2	**CHECK DTC.** 1) Turn IGN SW to ON. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2514 current malfunction?	Go to step **3**.	Go to step **4**.
3	**CHECK CURRENT DATA.** Check «Ignition Signal», «IGN SW» using the Subaru Select Monitor.	When the ignition switch is turned to ON/OFF, are these two data synchronized?	Go to step **4**.	When «Ignition Signal» is not synchronized: Go to step **5**. When «IGN SW» is not synchronized: Go to step **9**.
4	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
5	**CHECK CURRENT DATA.** Check the current data «Voltage of IGN» of body integrated unit using Subaru Select Monitor.	When the ignition switch is turned to ON/OFF, does the value change? (At ON: 10 — 15 V)	Go to step **6**.	Check the body control system. <Ref. to BC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

	Step	Check	Yes	No
6	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the body integrated unit connector. 3) Measure the resistance between PRG CM connector and body integrated unit. ***Connector & terminal*** ***(R423) No. 1 — (i171) No. 16:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 1 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 1 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 10 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **10**.	Repair or replace the open circuit of harness.
10	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

S: DTC B2515 LATCH SW FAILURE

NOTE:
For the diagnostic procedure, refer to DTC B2513. <Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

T: DTC B2516 SECTOR SW FAILURE

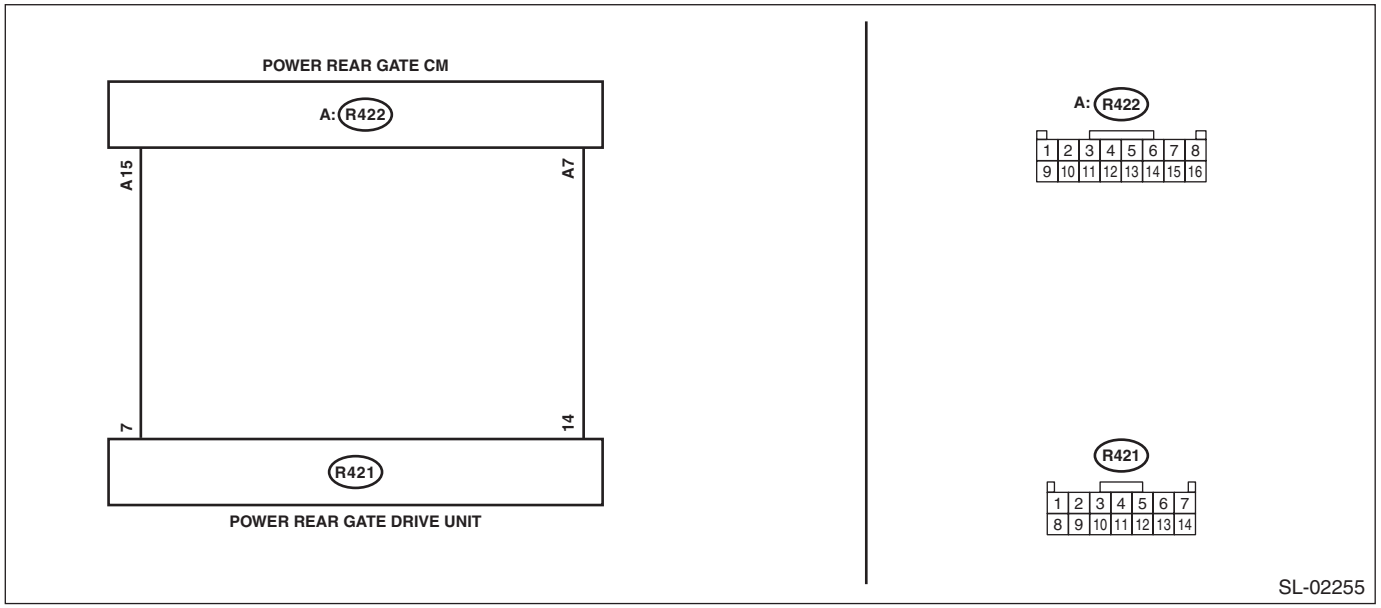
NOTE:
For the diagnostic procedure, refer to DTC B2513. <Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

U: DTC B2517 COURTESY SW FAILURE

NOTE:
For the diagnostic procedure, refer to DTC B2513. <Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

V: DTC B2518 PRG CONTINUOUSLY-WORKING FAILURE

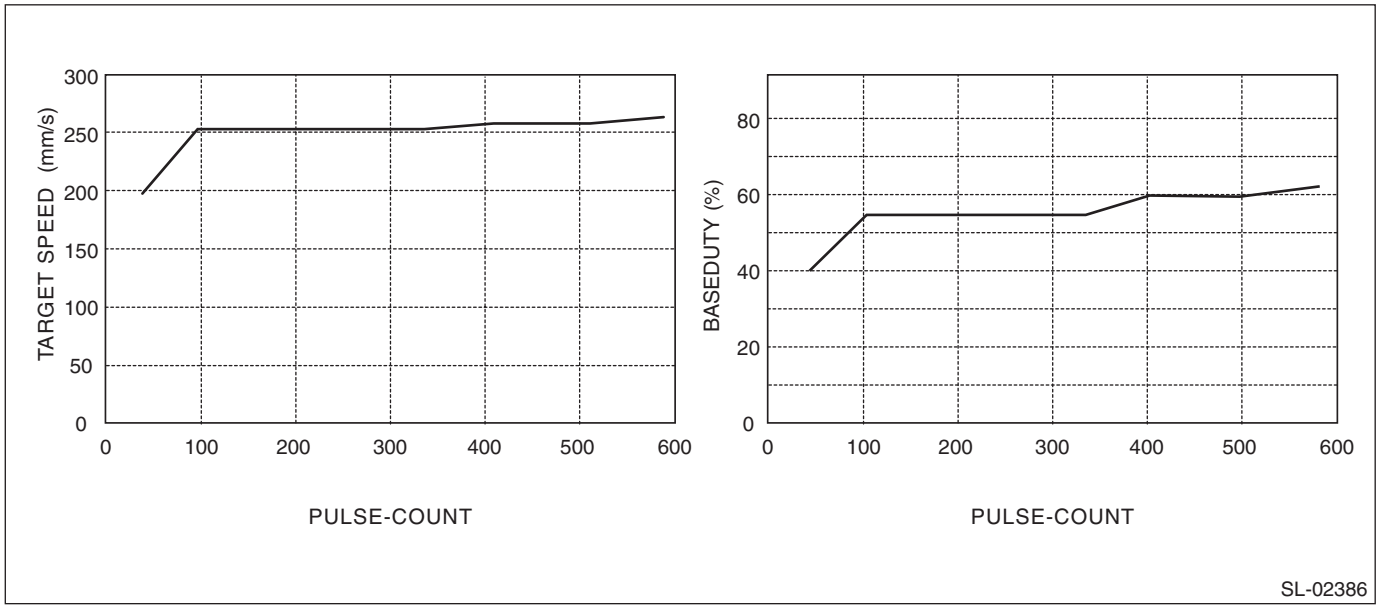
DTC DETECTING CONDITION:
When the motor operation continued for 30 seconds or more.
TROUBLE SYMPTOM:
During the auto-operation, the door free condition occurs.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



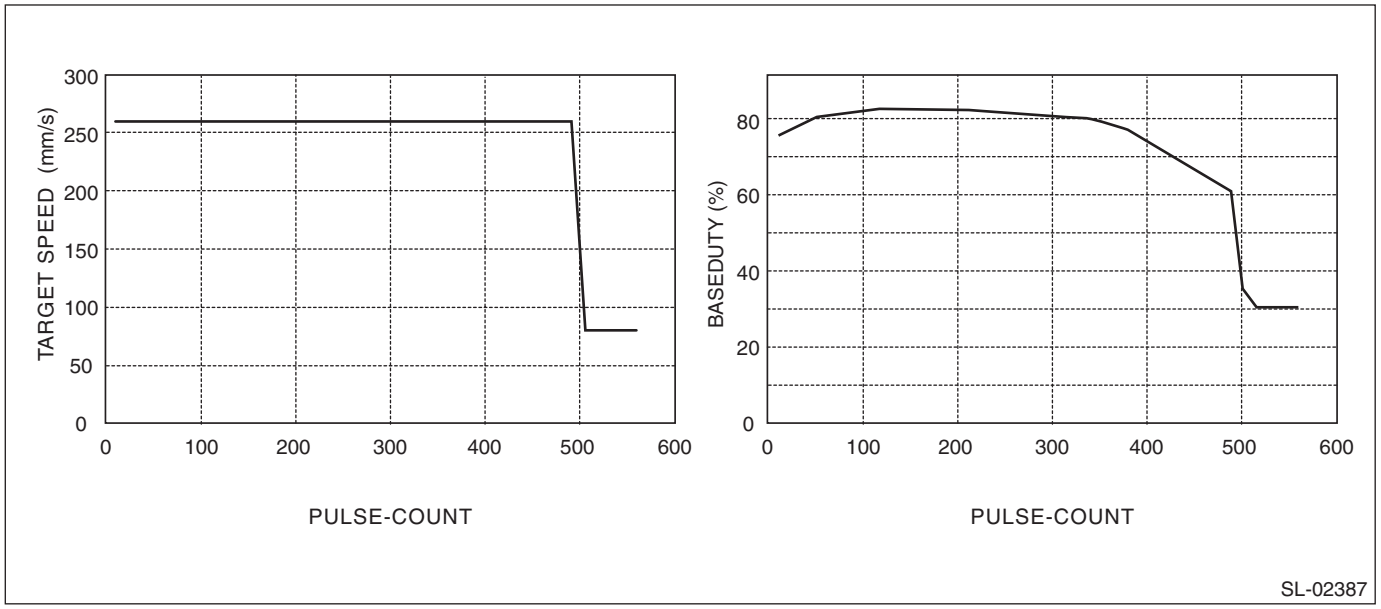
	Step	Check	Yes	No
1	**CHECK REAR GATE.**	Is there any snow, ice or installed parts other than genuine parts on the rear gate?	Remove any snow, ice or installed parts other than genuine parts.	Go to step **2**.
2	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2518 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK DTC.** 1) Turn IGN SW to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Fully close the rear gate. 4) Press the operation SW to perform auto-open/close of PRG, and then return to the full-close position. 5) Turn the ignition switch to ON. 6) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2518 current malfunction?	Go to step **4**.	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.
4	**CHECK REAR GATE.** Press and hold the opener button, and perform open/close operation manually.	Is abnormal weight detected compared to equivalent vehicles?	Go to step **5**.	Go to step **6**.
5	**CHECK REAR GATE.**	Is there distortion or rust on the hinge? (Is there any history of accidents?)	Repair the rear gate hinge.	Replace the damper. <Ref. to EB-59, REAR GATE DAMPER STAY, REMOVAL, Rear Gate.>

	Step	Check	Yes	No
6	**CHECK PRG CM.** 1) Perform auto-open/close of PRG. 2) Check the waveform using an oscilloscope. ***Connector & terminal*** ***(R422) No. 7 — (R422) No. 15:***	Is waveform normal? At open: DUTY 40 — 70% At close: DUTY 60 — 80% (However, the value decreases to 30% at the moment of closing) For the waveform, refer to Note in the margin.	Go to step **7**.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>
7	**CHECK HARNESS.** 1) Disconnect the PRG CM connector and PRG DU connector. 2) Using a tester, measure the resistance between the PRG CM connector and PRG DU connector. ***Connector & terminal*** ***(R422) No. 7 — (R421) No. 14:*** ***(R422) No. 15 — (R421) No. 7:***	Is the resistance less than 10 Ω?	Replace the PRG DU. <Ref. to PRG-9, Power Rear Gate Control Module.>	Repair or replace the open circuit of harness.

NOTE:
• Target speed at PRG open operation (left) DUTY (right)

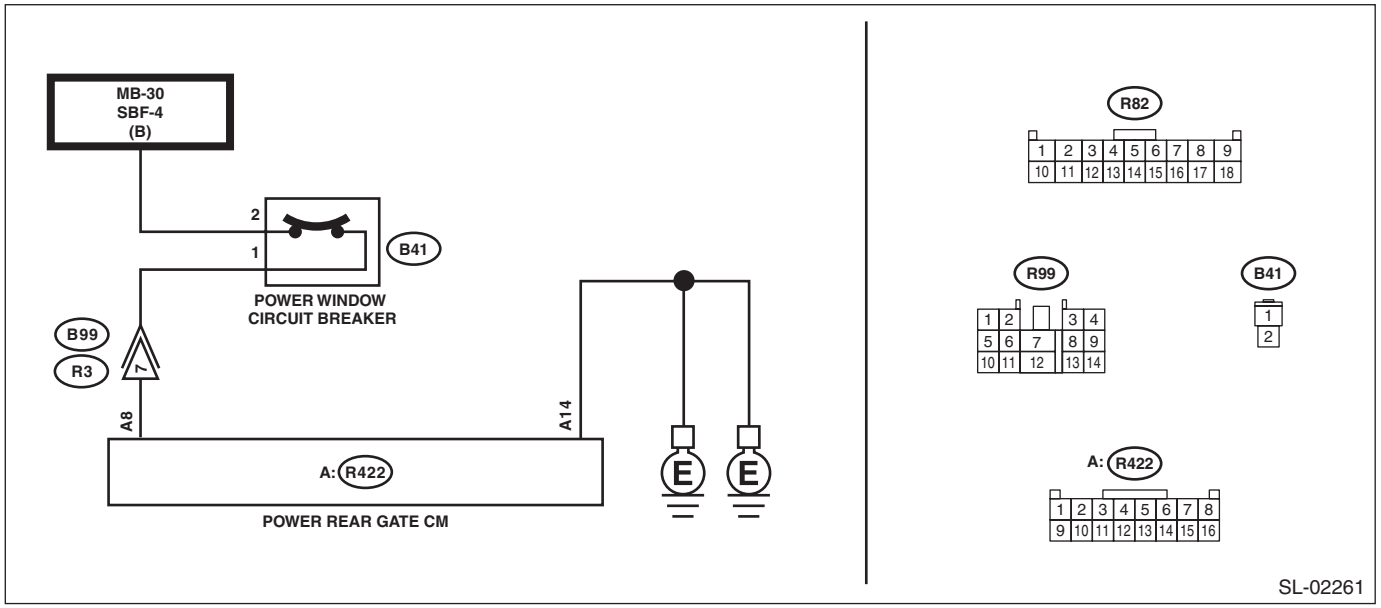


- Target speed at PRG close operation (left) DUTY (right)



W: DTC B2519 POWER +B OPEN

DTC DETECTING CONDITION:
When power supply failure related to PRG CM power is detected.
TROUBLE SYMPTOM:
During the auto-operation, the door free, the auto-operation do not function.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2519 current malfunction?	Go to step **2**.	Go to step **4**.
2	**CHECK DTC.** 1) Turn IGN SW to ON. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2519 current malfunction?	Go to step **3**.	Go to step **4**.
3	**CHECK CURRENT DATA.** Check «+POWER B» using the Subaru Select Monitor.	Is the voltage less than 10.5 V or 16 V or more?	Go to step **5**.	Go to step **4**.
4	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
5	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **6**.	Replace the defective fuse. When the fuse is blown immediately, repair the short circuit.
6	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Using a tester, measure the voltage between the PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 8 (+) — Chassis ground (–):***	Is the voltage less than 10.5 V or 16 V or more?	Go to step **7**.	Repair or replace the open circuit of harness.

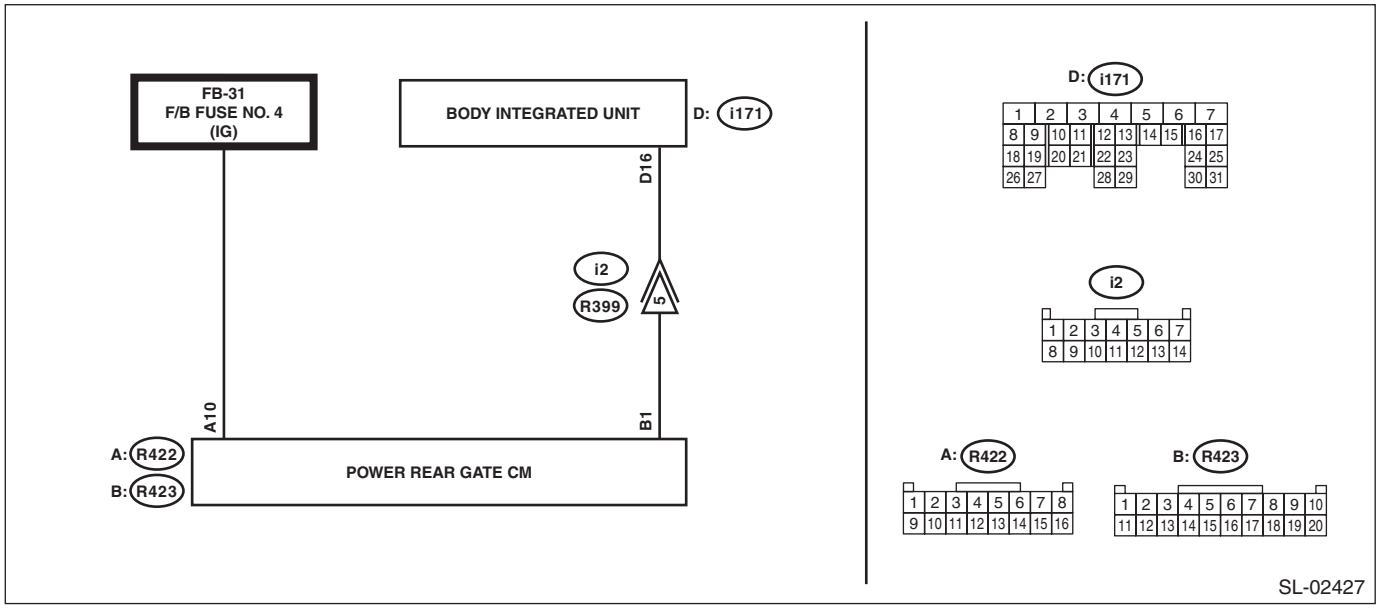
	Step	Check	Yes	No
7	**CHECK HARNESS.** Using a tester, measure the resistance between the PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 14 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK CONNECTOR.** Turn the ignition switch to OFF.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

X: DTC B251A LIN CONNECTION FAILURE (NO-RECEIVE DATA FAILURE)

DTC DETECTING CONDITION:
When LIN communication failure is detected.

TROUBLE SYMPTOM:
The auto-operation does not function, and reverse operation occurs during the auto-open operation.

WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B251A, B251B, B251D current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to ON. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B251A, B251B, B251D current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Temporary communication failure occurred.
4	**CHECK INTEGRATED UNIT.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is DTC detected?	Perform the diagnosis according to DTC for the body integrated unit.	Go to step **5**.
5	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the body integrated unit connector. 3) Measure the resistance between PRG CM connector and body integrated unit. ***Connector & terminal*** ***(R423) No. 1 — (i171) No. 16:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 1 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Repair or replace the short circuit of the harness.

	Step	Check	Yes	No
7	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 1 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 10 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **9**.	Repair or replace the open circuit of harness.
9	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

Y: DTC B251B LIN CONNECTION FAILURE (BUS PHYSICAL FAILURE)

NOTE:
For the diagnostic procedure, refer to DTC B251A. <Ref. to PRG(diag)-49, DTC B251A LIN CONNECTION FAILURE (NO-RECEIVE DATA FAILURE), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Z: DTC B251D AT/MT JUDGMENT FAILURE

NOTE:
For the diagnostic procedure, refer to DTC B251A. <Ref. to PRG(diag)-49, DTC B251A LIN CONNECTION FAILURE (NO-RECEIVE DATA FAILURE), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

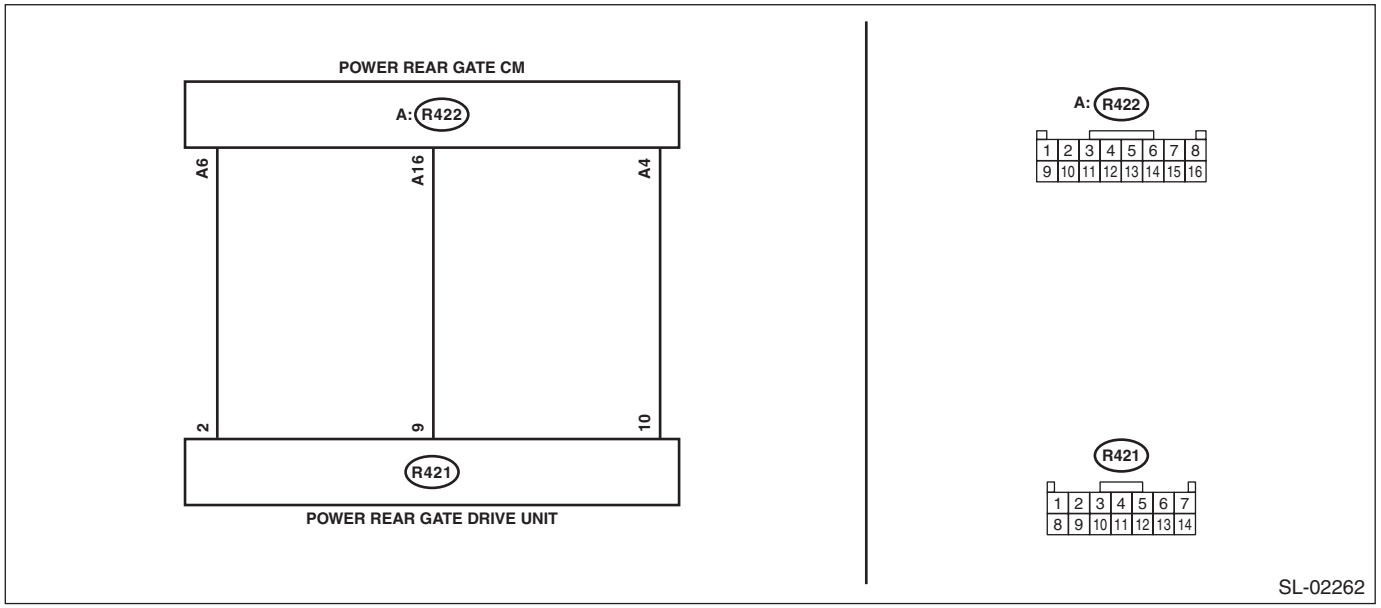
AA:DTC B2522 EEPROM FAILURE

DTC DETECTING CONDITION:
When failure in PRG CM is detected.
TROUBLE SYMPTOM:
The memorized half-stop position is reset, and returned to the default setting.

	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2522 current malfunction?	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>	Go to step **2**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2522 current malfunction?	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.

AB:DTC B2523 HALF STOP SOLENOID FAILURE

DTC DETECTING CONDITION:
When malfunction in the keep solenoid is detected.
TROUBLE SYMPTOM:
Half-stop is not possible.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2523 current malfunction?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** 1) Turn IGN SW to ON. 2) Disconnect the PRG CM connector and reconnect it. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of PRG CM.	Is B2523 current malfunction?	Go to step **4**.	Go to step **3**.
3	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
4	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 6 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **5**.	Refer to step 4 and subsequent procedures for DTC B2500 diagnosis, and check the power supply circuit. <Ref. to PRG(diag)-17, DTC B2500 BATT P/SUPPLY FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Step		Check	Yes	No
5	**CHECK CURRENT DATA.** 1) Check «HALF STOP SOL (Lock)», «HALF STOP SOL (Cancel)», and «HALF STOP SOL POS SW», using the Subaru Select Monitor. 2) During the auto-open operation, tap any of the keyless rear gate SW, PRG driver's SW, PRG opener button, or PRG inner SW to stop the operation in a half-way position. Tap SW again to operate the auto-close, and then check the current data. **CAUTION:** **ON output for lock and cancellation requires extremely short time (approx. 0.4 seconds). To check, limit the number of the display items on the Subaru Select Monitor to three. When the display items are too many, changes in the output signals will not be reflected.**	Are the following changes detected? • At R/G stop HALF STOP SOL (Lock), OFF → ON → OFF HALF STOP SOL POS SW, OFF → ON • At R/G re-operation HALF STOP SOL (Cancel), OFF → ON → OFF HALF STOP SOL POS SW, ON → OFF	Go to step **6**.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>
6	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and PRG DU. ***Connector & terminal*** ***(R422) No. 16 — (R421) No. 9:*** ***(R422) No. 4 — (R421) No. 10:*** ***(R422) No. 6 — (R421) No. 2:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 16 — Chassis ground:*** ***(R422) No. 4 — Chassis ground:*** ***(R422) No. 6 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 16 (+) — Chassis ground (–):*** ***(R422) No. 4 (+) — Chassis ground (–):*** ***(R422) No. 6 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK PRG DU.** 1) Connect the PRG DU connector only. 2) Measure the resistance between PRG CM connectors. ***Connector & terminal*** ***(R422) No. 16 — (R422) No. 6:*** ***(R422) No. 4 — (R422) No. 6:***	Is the resistance less than 10 Ω?	Go to step **10**.	Replace the PRG DU. <Ref. to PRG-9, Power Rear Gate Control Module.>
10	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the PRG CM connector. 3) Disconnect the PRG DU connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

11.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC U1201 CAN-HS COUNTER ABNORMAL

DTC DETECTING CONDITION:
Communication is unstable because of high speed CAN communication error.
TROUBLE SYMPTOM:
- Display of combination meter indicates faulty.
- Control faulty may occur due to CAN communication error.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to STEP 8?	Go to step **2**.	Perform the basic diagnostic procedure.<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** 1) Start the engine. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0073 a current malfunction?	Perform the diagnosis of U0073.<Ref. to LAN(diag)-161, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is U1201 a current malfunction?	Go to step **4**.	It is possible that temporary poor communication occurs. Perform the clear memory.
4	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U1201 a current malfunction?	Go to step **5**.	It is possible that temporary poor communication occurs. Perform the clear memory.
5	**CHECK CONTROL MODULE.** 1) Turn the ignition switch to OFF. 2) Disconnect the control modules other than body integrated unit in order. NOTE: When disconnecting ECM or VDC CM, connect resistance of 120 Ω between CAN Hi and CAN Lo as an alternative of end resistance. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of CAN system.	Is there any control module that U1201 is not detected as current malfunction?	Replace the control module.	Repeat 1) to 4) in step 5 until U1201 is not detected.

B: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

DTC DETECTING CONDITION:
Integrated unit communication is shut down because of high speed CAN error.
TROUBLE SYMPTOM:
CAN communication is not normal.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to STEP 8?	Go to step **2**.	Perform the basic diagnostic procedure.<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** 1) Start the engine. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0073 a current malfunction?	Go to step **3**.	It may be a temporary poor contact. Perform the clear memory.
3	**CHECK CAN COMMUNICATION CIRCUIT.** Check CAN communication circuit.<Ref. to LAN(diag)-40, PROCEDURE, CAN Communication Circuit Check.>	Is CAN communication circuit faulty?	Repair the faulty portion, following the diagnosis procedure.	Go to step **4**.
4	**CHECK DTC.** 1) Perform the inspection using the DTC check sheet.<Ref. to LAN(diag)-103, CHECK USING THE DTC CHECK SHEET, LIST, List of Diagnostic Trouble Code (DTC).> 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0073 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK CONTROL MODULE.** 1) Turn the ignition switch to OFF. 2) Disconnect the control modules other than body integrated unit in order. NOTE: When disconnecting ECM or VDC CM, connect resistance of 120 Ω between CAN Hi and CAN Lo as an alternative of end resistance. 3) Turn the ignition switch to ON. 4) Using the Subaru Select Monitor, read DTC of CAN system.	Is there any control module that U0073 is not detected as current malfunction?	Replace the control module.	Repeat 1) to 4) in step 3 until U0073 is not detected.

C: DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM "A"

DTC DETECTING CONDITION:
Defective data from ECM.
TROUBLE SYMPTOM:
Defective data on CAN communication occurs.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0401 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the ECM connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0401 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the engine data abnormal detected in several modules?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the ECM. 2) Read the DTC using Subaru Select Monitor.	Is U0401 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the ECM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0401 a current malfunction?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0401 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

D: DTC U0402 INVALID DATA RECEIVED FROM TCM

DTC DETECTING CONDITION:
Received error data from TCM.
TROUBLE SYMPTOM:
Sport indicator light blinks.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0402 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the TCM connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0402 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the transmission data abnormal detected in several modules?	Replace the TCM. <Ref. to CVT(TR580)-143, Transmission Control Module (TCM).> <Ref. to CVT(TR690)-125, Transmission Control Module (TCM).>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the TCM. 2) Read the DTC using Subaru Select Monitor.	Is U0402 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the TCM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0402 a current malfunction?	Replace the TCM. <Ref. to CVT(TR580)-143, Transmission Control Module (TCM).> <Ref. to CVT(TR690)-125, Transmission Control Module (TCM).>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0402 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

E: DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE

DTC DETECTING CONDITION:
Data from VDCCM is faulty.
TROUBLE SYMPTOM:
ABS warning light and VDC warning light illuminate.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0416 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the VDC CM connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0416 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the VDC data abnormal detected in several modules?	Replace the VDC CM. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the VDC CM. 2) Read the DTC using Subaru Select Monitor.	Is U0416 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the VDC CM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0416 a current malfunction?	Replace the VDC CM. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0416 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

F: DTC U0420 INVALID DATA RECEIVED FROM POWER STEERING CONTROL MODULE

DTC DETECTING CONDITION:
Defective data was transmitted from EPS CM.
TROUBLE SYMPTOM:
Cooperation control with EPS CM does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0420 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the power steering CM connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0420 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the electric power steering data abnormal detected in several modules?	Replace the power steering CM. <Ref. to PS-41, Power Steering Control Module.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the power steering CM. 2) Read the DTC using Subaru Select Monitor.	Is U0420 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the power steering CM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0420 a current malfunction?	Replace the power steering CM. <Ref. to PS-41, Power Steering Control Module.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0420 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

G: DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE

DTC DETECTING CONDITION:
Defective data was transmitted from body integrated unit.
TROUBLE SYMPTOM:
Cooperation control with body integrated unit does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0422 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0422 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the body integrated data abnormal detected in several modules?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the body integrated unit. 2) Read the DTC using Subaru Select Monitor.	Is U0422 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the body integrated unit. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0422 a current malfunction?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0422 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

H: DTC U0423 INVALID DATA RECEIVED FROM INSTRUMENT PANEL CLUSTER CONTROL MODULE

DTC DETECTING CONDITION:
Defective data was transmitted from combination meter.
TROUBLE SYMPTOM:
Display of combination meter does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0423 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the combination meter connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0423 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the meter data abnormal detected in several modules?	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the combination meter. 2) Read the DTC using Subaru Select Monitor.	Is U0423 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Replace the current combination meter with the original combination meter. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0423 a current malfunction?	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0423 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

I: DTC U0424 INVALID DATA RECEIVED FROM HVAC CONTROL MODULE

DTC DETECTING CONDITION:
Defective data was transmitted from A/C control panel.
TROUBLE SYMPTOM:
Cooperation control of air conditioner does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0424 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the A/C control panel connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0424 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the air conditioner data abnormal detected in several modules?	Replace the A/C control panel. <Ref. to AC-50, Control Panel.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the A/C control panel. 2) Read the DTC using Subaru Select Monitor.	Is U0424 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Restore the A/C control panel. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0424 a current malfunction?	Replace the A/C control panel. <Ref. to AC-50, Control Panel.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0424 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

J: DTC U0427 INVALID DATA RECEIVED FROM VEHICLE SECURITY CONTROL MODULE

DTC DETECTING CONDITION:
Defective data was transmitted from keyless access CM.
TROUBLE SYMPTOM:
Cooperation control of keyless access does not operate properly.

CAUTION:
When the keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to STEP 8?	Go to step **2**.	Perform the basic diagnostic procedure.<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0427 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the keyless access CM connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0427 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the smart data abnormal detected in several modules?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the keyless access CM. **CAUTION:** **Do not register the keyless access CM.** 2) Read the DTC using Subaru Select Monitor.	Is U0427 a current malfunction?	Go to step **8**.	System is normal. NOTE: Register the keyless access CM.
8	**CHECK MODULE.** 1) Reinstall the keyless access CM. 2) Replace the body integrated unit.<Ref. to SL-75, Body Integrated Unit.> 3) Read the DTC using Subaru Select Monitor.	Is U0427 a current malfunction?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0427 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

K: DTC U0428 INVALID DATA RECEIVED FROM STEERING ANGLE SENSOR MODULE

DTC DETECTING CONDITION:
Defective data was transmitted from steering angle sensor.
TROUBLE SYMPTOM:
VDC CM does not operate normally.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0428 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the steering angle sensor connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0428 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the steering angle sensor data abnormal detected in several modules?	Replace the steering angle sensor. <Ref. to VDC-33, Steering Angle Sensor.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the steering angle sensor. 2) Read the DTC using Subaru Select Monitor.	Is U0428 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the steering angle sensor. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0428 a current malfunction?	Replace the steering angle sensor. <Ref. to VDC-33, Steering Angle Sensor.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0428 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

L: DTC U0452 INVALID DATA RECEIVED FROM RESTRAINTS CONTROL MODULE

DTC DETECTING CONDITION:
Defective data was transmitted from A/B CM.
TROUBLE SYMPTOM:
Cooperation control with airbag does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0452 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the A/B CM connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0452 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the airbag data abnormal detected in several modules?	Replace the A/B CM. <Ref. to AB-78, Airbag Control Module.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the A/B CM. 2) Read the DTC using Subaru Select Monitor.	Is U0452 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the A/B CM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0452 a current malfunction?	Replace the A/B CM. <Ref. to AB-78, Airbag Control Module.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0452 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

M: DTC U0513 INVALID DATA RECEIVED FROM YAW RATE SENSOR MODULE

DTC DETECTING CONDITION:
Invalid data was transmitted from yaw rate & G sensor.
TROUBLE SYMPTOM:
VDC control does not operate normally.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U0513 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the yaw rate & G sensor connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U0513 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the yaw rate sensor invalid data detected in several modules?	Replace the yaw rate & G sensor.	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the yaw rate & G sensor. 2) Read the DTC using Subaru Select Monitor.	Is U0513 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Return the yaw rate & G sensor. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0513 a current malfunction?	Replace the yaw rate & G sensor.	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U0513 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

N: DTC U1433 INVALID DATA RECEIVED FROM EyeSight

DTC DETECTING CONDITION:
Defective data was transmitted from stereo camera.
TROUBLE SYMPTOM:
Cooperation control of EyeSight does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Are DTCs other than U*** displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Check the displayed DTC.	Is DTC for the bus off or the data no-receive displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK DTC.** Check the displayed DTC.	Is U1433 a current malfunction?	Go to step **5**.	Go to step **9**.
5	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the stereo camera connector. 3) Connect the disconnected connectors. 4) Read the DTC using Subaru Select Monitor.	Is U1433 a current malfunction?	Go to step **6**.	Go to step **9**.
6	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the EyeSight data abnormal detected in several modules?	Replace the stereo camera. <Ref. to ES-11, Stereo Camera.>	Go to step **7**.
7	**REPLACE MODULE.** 1) Replace the stereo camera. 2) Read the DTC using Subaru Select Monitor.	Is U1433 a current malfunction?	Go to step **8**.	System is normal.
8	**CHECK MODULE.** 1) Reinstall the stereo camera. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U1433 a current malfunction?	Replace the stereo camera. <Ref. to ES-11, Stereo Camera.>	System is normal.
9	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Using the Subaru Select Monitor, read DTC of CAN system.	Is U1433 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **10**.
10	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

O: DTC U0100 LOST COMMUNICATION WITH ECM/PCM "A"

DTC DETECTING CONDITION:
Not received data from ECM.
TROUBLE SYMPTOM:
Cooperation control of transmission may not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0100 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the engine data no-receive detected in several modules?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the ECM. 2) Read the DTC using Subaru Select Monitor.	Is U0100 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the ECM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0100 a current malfunction?	Replace the ECM. <Ref. to FU(H4DO)-91, Engine Control Module (ECM).>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0100 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

P: DTC U0101 LOST COMMUNICATION WITH TCM

DTC DETECTING CONDITION:
Not received data from TCM.
TROUBLE SYMPTOM:
Cooperation control with transmission is not performed.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0101 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the transmission data no-receive detected in several modules?	Replace the TCM. <Ref. to CVT(TR580)-143, Transmission Control Module (TCM).> <Ref. to CVT(TR690)-125, Transmission Control Module (TCM).>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the TCM. 2) Read the DTC using Subaru Select Monitor.	Is U0101 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the TCM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0101 a current malfunction?	Replace the TCM. <Ref. to CVT(TR580)-143, Transmission Control Module (TCM).> <Ref. to CVT(TR690)-125, Transmission Control Module (TCM).>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0101 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

Q: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

DTC DETECTING CONDITION:
No data from VDCCM is received.
TROUBLE SYMPTOM:
ABS warning light and VDC warning light illuminate.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0122 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the VDC data no-receive detected in several modules?	Replace the VDC CM. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the VDC CM. 2) Read the DTC using Subaru Select Monitor.	Is U0122 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the VDC CM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0122 a current malfunction?	Replace the VDC CM. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0122 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

R: DTC U0123 LOST COMMUNICATION WITH YAW RATE SENSOR MODULE

DTC DETECTING CONDITION:
No data from the yaw rate & G sensor is received.
TROUBLE SYMPTOM:
ABS warning light and VDC warning light illuminate.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0123 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the yaw rate sensor data no-receive detected in several modules?	Replace the yaw rate & G sensor.	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the yaw rate & G sensor. 2) Read the DTC using Subaru Select Monitor.	Is U0123 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Return the yaw rate & G sensor. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0123 a current malfunction?	Replace the yaw rate & G sensor.	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0123 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

S: DTC U0126 LOST COMMUNICATION WITH STEERING ANGLE SENSOR MODULE

DTC DETECTING CONDITION:
No data is received from steering angle sensor.
TROUBLE SYMPTOM:
VDC CM does not operate normally.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0126 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the steering angle sensor data no-receive detected in several modules?	Replace the steering angle sensor. <Ref. to VDC-33, Steering Angle Sensor.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the steering angle sensor. 2) Read the DTC using Subaru Select Monitor.	Is U0126 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the steering angle sensor. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0126 a current malfunction?	Replace the steering angle sensor. <Ref. to VDC-33, Steering Angle Sensor.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0126 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

T: DTC U0131 LOST COMMUNICATION WITH POWER STEERING CONTROL MODULE

DTC DETECTING CONDITION:
No data is received from power steering CM.
TROUBLE SYMPTOM:
Cooperation control with power steering CM does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0131 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the electric power steering data no-receive detected in several modules?	Replace the power steering CM. <Ref. to PS-41, Power Steering Control Module.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the power steering CM. 2) Read the DTC using Subaru Select Monitor.	Is U0131 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the power steering CM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0131 a current malfunction?	Replace the power steering CM. <Ref. to PS-41, Power Steering Control Module.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0131 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

U: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

DTC DETECTING CONDITION:
No data is received from body integrated unit.
TROUBLE SYMPTOM:
Cooperation control with body integrated unit does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0140 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the body integrated data no-receive detected in several modules?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the body integrated unit. 2) Read the DTC using Subaru Select Monitor.	Is U0140 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the body integrated unit. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0140 a current malfunction?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0140 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

V: DTC U0151 LOST COMMUNICATION WITH RESTRAINTS CONTROL MODULE

DTC DETECTING CONDITION:
No data is received from A/B CM.
TROUBLE SYMPTOM:
Cooperation control with A/B CM does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0151 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the airbag data no-receive detected in several modules?	Replace the A/B CM. <Ref. to AB-78, Airbag Control Module.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the A/B CM. 2) Read the DTC using Subaru Select Monitor.	Is U0151 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the A/B CM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0151 a current malfunction?	Replace the A/B CM. <Ref. to AB-78, Airbag Control Module.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0151 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

W: DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE

DTC DETECTING CONDITION:
No data received from combination meter.
TROUBLE SYMPTOM:
Display of combination meter does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0155 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the meter data no-receive detected in several modules?	Replace the meter. <Ref. to IDI-18, Combination Meter.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the combination meter. 2) Read the DTC using Subaru Select Monitor.	Is U0155 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Replace the current combination meter with the original combination meter. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0155 a current malfunction?	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0155 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

X: DTC U0164 LOST COMMUNICATION WITH HVAC CONTROL MODULE

DTC DETECTING CONDITION:
No data is received from A/C control panel.
TROUBLE SYMPTOM:
Cooperation control of air conditioner does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0164 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the air conditioner data no-receive detected in several modules?	Replace the A/C control panel. <Ref. to AC-50, Control Panel.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the A/C control panel. 2) Read the DTC using Subaru Select Monitor.	Is U0164 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Restore the A/C control panel. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0164 a current malfunction?	Replace the A/C control panel. <Ref. to AC-50, Control Panel.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0164 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

Y: DTC U0327 SOFTWARE INCOMPATIBILITY WITH VEHICLE SECURITY CONTROL MODULE

DTC DETECTING CONDITION:
No data is received from keyless access CM.
TROUBLE SYMPTOM:
Cooperation control of keyless access does not operate properly.

CAUTION:
When the keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to STEP 8?	Go to step **2**.	Perform the basic diagnostic procedure.<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U0327 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the smart data no-receive detected in several modules?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the keyless access CM. **CAUTION:** **Do not register the keyless access CM.** 2) Read the DTC using Subaru Select Monitor.	Is U0327 a current malfunction?	Go to step **5**.	System is normal. NOTE: Register the keyless access CM.
5	**CHECK MODULE.** 1) Reinstall the keyless access CM. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U0327 a current malfunction?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U0327 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

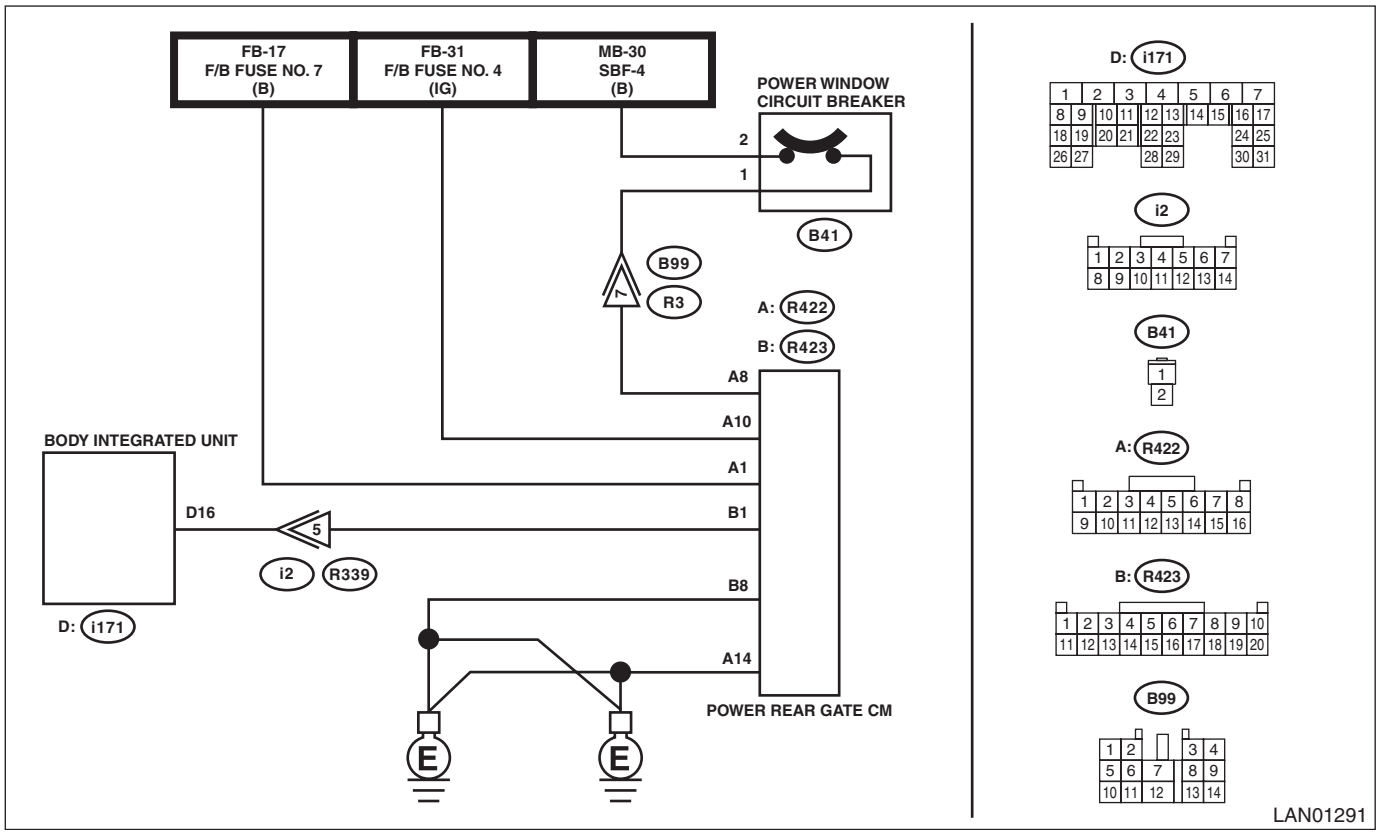
Z: DTC U1235 LOST COMMUNICATION WITH EyeSight

DTC DETECTING CONDITION:
No data from stereo camera is received.
TROUBLE SYMPTOM:
Cooperation control of EyeSight does not operate properly.

	Step	Check	Yes	No
1	**CHECK PERFORMING OF BASIC DIAGNOSTIC PROCEDURE.**	Was the basic diagnostic procedure performed up to step 8?	Go to step **2**.	Perform the basic diagnostic procedure. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>
2	**CHECK DTC.** Check the displayed DTC.	Is U1235 a current malfunction?	Go to step **3**.	Go to step **6**.
3	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of all the systems.	Is the EyeSight data no-receive detected in several modules?	Replace the stereo camera. <Ref. to ES-11, Stereo Camera.>	Go to step **4**.
4	**REPLACE MODULE.** 1) Replace the stereo camera. 2) Read the DTC using Subaru Select Monitor.	Is U1235 a current malfunction?	Go to step **5**.	System is normal.
5	**CHECK MODULE.** 1) Reinstall the stereo camera. 2) Replace the module that the DTC has been detected. 3) Read the DTC using Subaru Select Monitor.	Is U1235 a current malfunction?	Replace the stereo camera. <Ref. to ES-11, Stereo Camera.>	System is normal.
6	**CHECK HARNESS.** 1) Shake the harness, and check for poor contact. 2) Read the DTC using Subaru Select Monitor.	Is U1235 a current malfunction?	Repair the poor contact of harness, or replace the harness.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connector used for high speed CAN for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

AA:DTC U1602 LOST COMMUNICATION WITH POWER REAR GATE CONTROL MODULE

DTC DETECTING CONDITION:
No data is received from the power rear gate CM.
TROUBLE SYMPTOM:
The power rear gate does not operate normally.
WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is U1602 a current malfunction?	Go to step **2**.	It is possible that temporary poor contact occurs. Perform the clear memory.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the power rear gate CM and body integrated unit connectors. 3) Connect the disconnected connectors. 4) Using the Subaru Select Monitor, read DTC of CAN system.	Is U1602 a current malfunction?	Go to step **3**.	It is possible that temporary poor contact occurs. Perform the clear memory.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the power rear gate CM and body integrated unit connectors. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i171) No. 16 — (R423) No. 1:*** ***(R422) No. 14 — Chassis ground:*** ***(R423) No. 8 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(R423) No. 1 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair the shorted portion of harness.
5	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(R423) No. 1 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **6**.	Repair the shorted portion of harness.
6	**CHECK HARNESS.** Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(R422) No. 1 (+) — Chassis ground (–):*** ***(R422) No. 10 (+) — Chassis ground (–):*** ***(R422) No. 8 (+) — Chassis ground (–):***	Is the voltage 9 V or more when the IG switch is ON?	Go to step **7**.	Repair the open circuit of harness.
7	**CHECK POWER REAR GATE SYSTEM.** Perform the inspection of the power rear gate system. <Ref. to PRG(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Perform the inspection according to the inspection of the power rear gate system.	Go to step **8**.
8	**CHECK CONTROL MODULE.** 1) Turn the ignition switch to OFF. 2) Replace the power rear gate CM with a properly functioning part. 3) Using the Subaru Select Monitor, read DTC of CAN system.	Is U1602 a current malfunction?	Perform the basic diagnostic procedure of the body control system <Ref. to BC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>, and if there is no problem, replace the body integrated unit. <Ref. to SL-75, REMOVAL, Body Integrated Unit.>	System is normal.

11.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

Detected when CAN line abnormality is detected.

NOTE:
Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

B: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

Detected when CAN data (vehicle speed signal) is not received from VDC.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

C: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

Detected when CAN data (headlights ON signal) is not received from the body integrated unit.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

D: DTC B2900 AHLCU ERROR

DTC DETECTING CONDITION:
Detected when internal malfunction occurs in the auto headlight beam leveler CM.
TROUBLE SYMPTOM:
The auto headlight beam leveler does not operate.

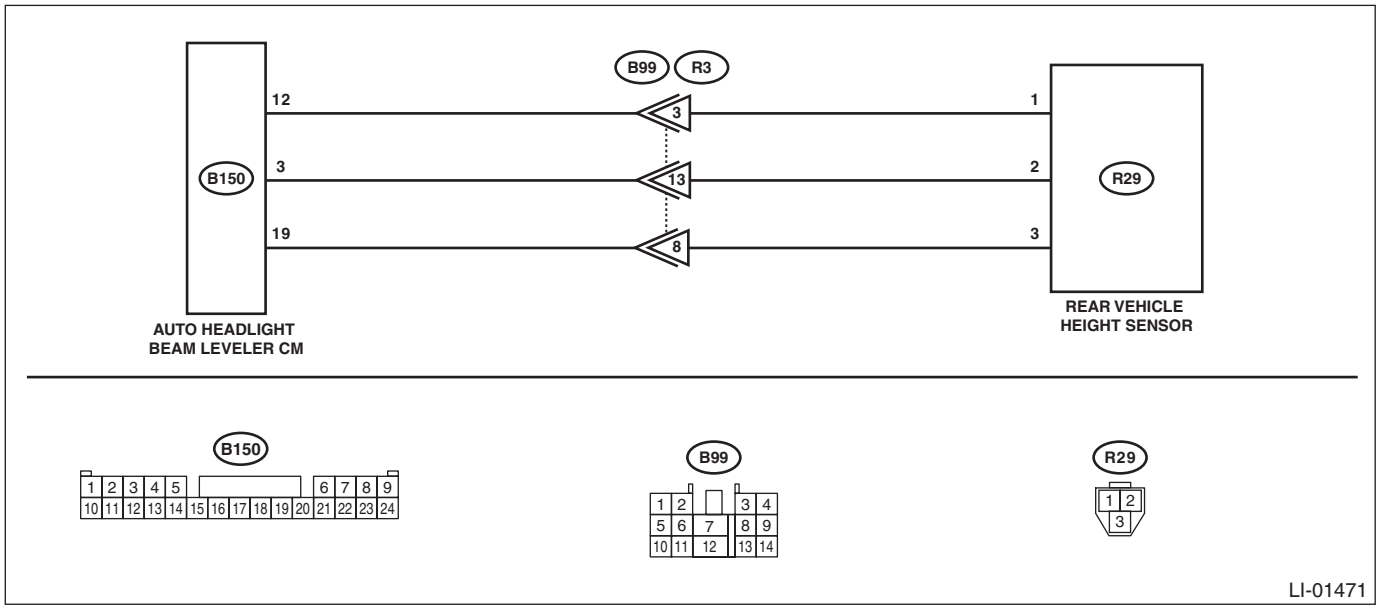
CAUTION:
Initialization is required after replacing the auto headlight beam leveler CM.

Step		Check	Yes	No
1	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Using the Subaru Select Monitor, clear the auto headlight beam leveler system memory. 3) Turn the ignition switch to OFF → ON. 4) Use the Subaru Select Monitor and read DTCs.	Is DTC B2900 displayed? (current malfunction)	Replace the auto headlight beam leveler CM. <Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	System is normal. It is possible that temporary poor contact occurs.

E: DTC B2902 REAR HEIGHT SENSOR ERROR

DTC DETECTING CONDITION:
Detected when error occurs in the rear height sensor.
TROUBLE SYMPTOM:
The auto headlight beam leveler does not operate.

CAUTION:
Initialization is required after replacing the auto headlight beam leveler CM.
WIRING DIAGRAM:
Headlight beam leveler system<Ref. to WI-254, WIRING DIAGRAM, Headlight Beam Leveler System.>



Step		Check	Yes	No
1	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Using the Subaru Select Monitor, clear the auto headlight beam leveler system memory. 3) Turn the ignition switch to OFF → ON. 4) Use the Subaru Select Monitor and read DTCs.	Is DTC B2902 displayed? (current malfunction)	Go to step **2**.	System is normal. It is possible that temporary poor contact occurs.
2	**CHECK CURRENT DATA.** Display {R Sensor Signal} using Subaru Select Monitor.	Does the data indicate the standard value?	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	Go to step **3**.
3	**CHECK CURRENT DATA.** 1) Display {R Sensor Signal} using Subaru Select Monitor. 2) Change the vehicle posture.	Does the data change?	Go to step **6**.	Go to step **4**.
4	**CHECK OUTPUT VOLTAGE BETWEEN AUTO HEADLIGHT BEAM LEVELER CM AND VEHICLE HEIGHT SENSOR.** 1) Disconnect the vehicle height sensor connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the vehicle height sensor connector and chassis ground. ***Connector & terminal*** ***(R29) No. 1 (+) — Chassis ground (–):***	Is the voltage 5±0.25 V?	Go to step **5**.	Go to step **6**.

	Step	Check	Yes	No
5	**CHECK REAR HEIGHT SENSOR.** 1) Remove the rear vehicle height sensor. 2) Perform the inspection of rear height sensor unit.<Ref. to LI-75, INSPECTION, Rear Height Sensor.>	Is the rear height sensor normal?	Go to step **6**.	Replace the rear height sensor.<Ref. to LI-74, Rear Height Sensor.>
6	**CHECK HARNESS.** 1) Disconnect the auto headlight beam leveler CM connector. 2) Using a tester, measure the resistance between the auto headlight beam leveler CM connector and rear height sensor connector. ***Connector & terminal*** ***(B150) No. 12 — (R29) No. 1:*** ***(B150) No. 3 — (R29) No. 2:*** ***(B150) No. 19 — (R29) No. 3:***	Is there continuity?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** Using a tester, measure the resistance between the auto headlight beam leveler CM connector and chassis ground. ***Connector & terminal*** ***(B150) No. 3 — Chassis ground:*** ***(B150) No. 19 — Chassis ground:*** ***(B150) No. 12 — Chassis ground:***	Is the resistance 10 kΩ or more?	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	Repair or replace the short circuit of the harness.

F: DTC B2903 VDC DATA ERROR

DTC DETECTING CONDITION:

Detected when data (vehicle speed signal) from VDC CM is abnormal.

TROUBLE SYMPTOM:

The auto headlight beam leveler does not operate.

NOTE:

Perform the diagnosis for VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

11.Display of Status Information

A: OPERATION

Check the operating condition of each sensor in the event of malfunction in the seat belt buckle switch, or when the seat belt buckle switch has been replaced.
1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Airbag System}.
3) On «Airbag System» display, select {Current Data Display & Save}.
The following table is for support data.

Item	Display	Note
Trip Count	—	—
Count	—	—
Time Count	—	—
Belt Buckle Switch RH	Unbelted/Belted	“Belted” when passenger’s seat belt is fastened “Unbelted” when passenger’s seat belt is not fastened
Passenger Occupant Status	Occupied/Empty or CRS	“Occupied” when the occupant is present “Empty or CRS” when the seat is unoccupied or when child restraint seat is installed **CAUTION:** **When checking the operating status, be careful of the followings.** **• When the seat is unoccupied: Do not place anything on the seat.** **• Child restraint seat: Install the seat according to its instruction manual.** **• When the seat is occupied: Someone who weighs at least approx. 70 kg (155 lb) must be seated during the check.**
Passenger Airbag Status	ON/OFF	“ON” when the passenger occupant status is “Occupied” “OFF” when the status is “Empty or CRS”

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

11.Display of Status Information

A: OPERATION

Check the operating condition of each sensor in the event of malfunction in the seat belt buckle switch, or when the seat belt buckle switch has been replaced.
1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Airbag System}.
3) On «Airbag System» display, select {Current Data Display & Save}.
The following table is for support data.

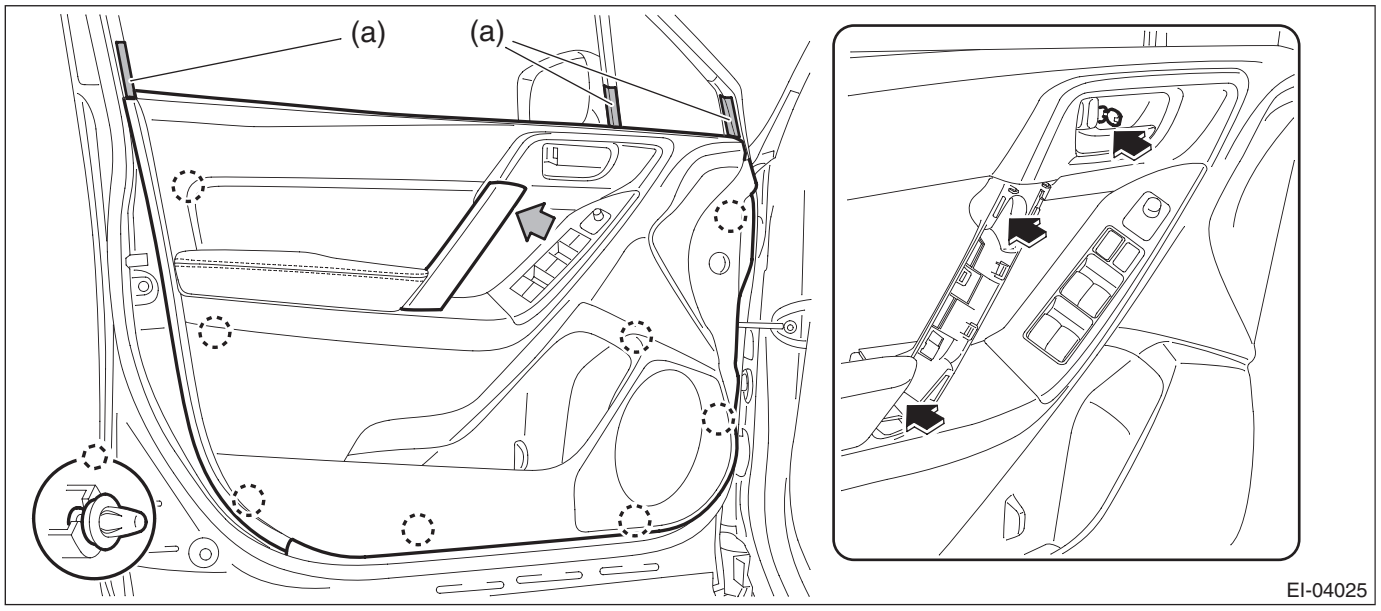
Item	Display	Note
Trip Count	—	—
Count	—	—
Time Count	—	—
Belt Buckle Switch RH	Unbelted/Belted	“Belted” when passenger’s seat belt is fastened “Unbelted” when passenger’s seat belt is not fastened
Passenger Occupant Status	Occupied/Empty or CRS	“Occupied” when the occupant is present “Empty or CRS” when the seat is unoccupied or when child restraint seat is installed **CAUTION:** **When checking the operating status, be careful of the followings.** **• When the seat is unoccupied: Do not place anything on the seat.** **• Child restraint seat: Install the seat according to its instruction manual.** **• When the seat is occupied: Someone who weighs at least approx. 70 kg (155 lb) must be seated during the check.**
Passenger Airbag Status	ON/OFF	“ON” when the passenger occupant status is “Occupied” “OFF” when the status is “Empty or CRS”

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

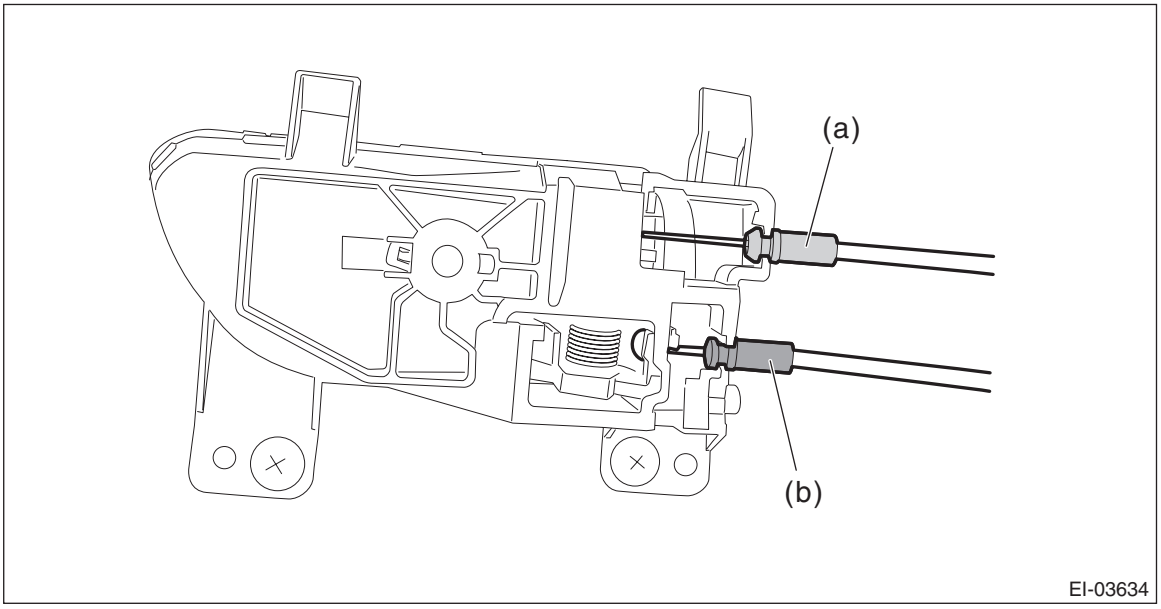
11.Front Door Impact Sensor

A: REMOVAL

1) Operate the power window switch to close the front door glass.
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the trim panel - front door.
   (1) Attach the protective tape (a).
   (2) Remove the cover - door handle by using a plastic remover.
   (3) Remove the screws and clips, and remove the trim panel - front door from the panel assembly - front door.



NOTE:
It is easier to remove the cover - door handle if the removal is performed from the gray arrow section.
   (4) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.



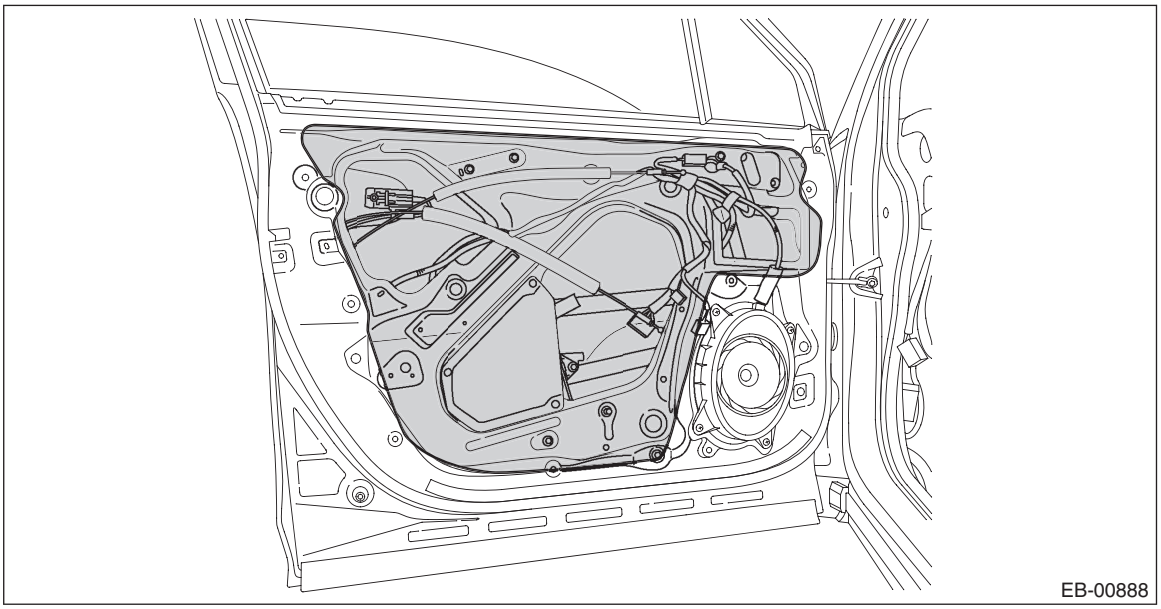
   (5) Disconnect the harness connector and remove the trim panel - front door.

CAUTION:
Pulling the door trim excessively may damage the harness.

5) Remove the sealing cover - front door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the cover.**
- **If the sealing cover - front door gets broken, replace it with a new part.**

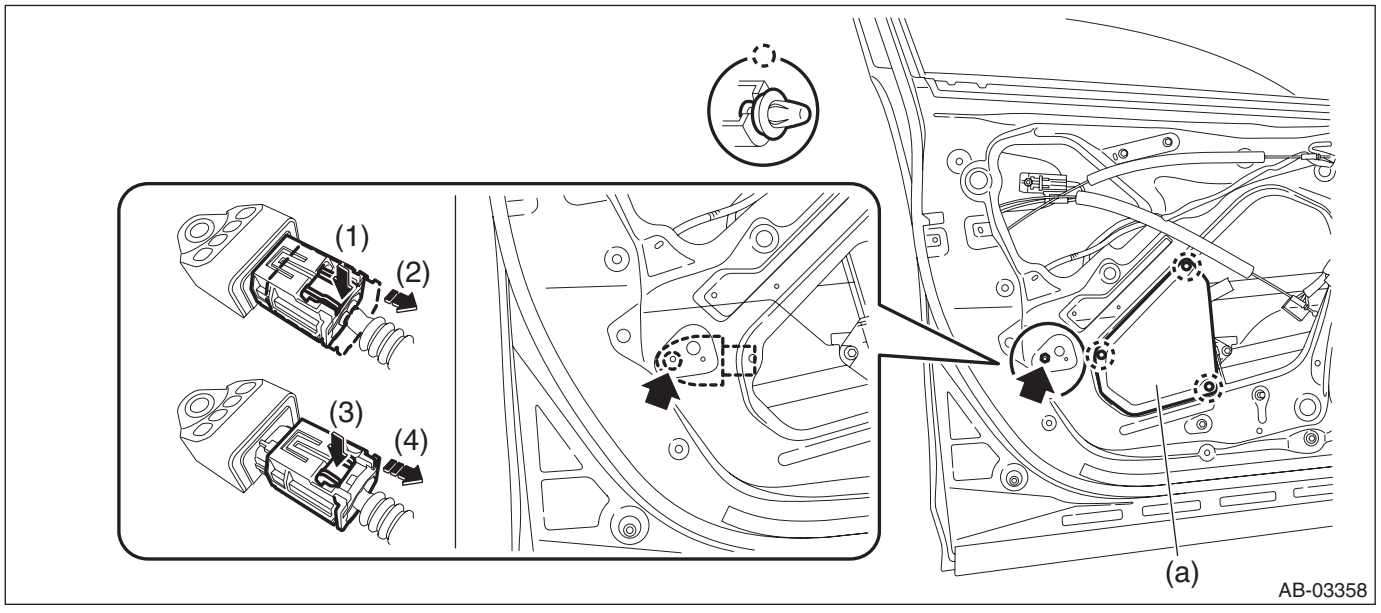
(1) Remove the screw to remove the bracket - door trim front.
(2) Disconnect connectors.
(3) Carefully remove the butyl tape to remove the sealing cover - front door.



6) Remove the front door impact sensor.
(1) Remove the front door inner pad (a).

CAUTION:
If the clip is damaged, replace it with a new part because the panel assembly - front door may be deformed.

(2) Remove the nuts and then remove the front door impact sensor.
(3) Disconnect the airbag connector and remove the front door impact sensor. <Ref. to AB-23, FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR, PROCEDURE, Airbag Connector.>



B: INSTALLATION

CAUTION:
Do not reuse the bolt and nut.
Always replace with the specified new bolts and nuts.

1) Before installation, inspect the following items and replace any faulty part with a new part.
- The front door impact sensor or connector is damaged.
- Inner panel area of the panel assembly - front door is deformed.
- Side airbag module has been activated.

Tightening torque:
Front door impact sensor: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2) Install each part in the reverse order of removal.

11.Function Check

A: OPERATION

NOTE:
In order to check the body integrated unit function, inspect the body integrated unit and actuator using Subaru Select Monitor without operating switches.
1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Integ. unit mode}.
3) On «Integ. unit mode failure diag.» display, select {Work Support}.
4) On «Work Support» display, select {Active Test}.
5) Select an item to be operated on «Active Test» display, and press the [OK] button.
6) Pressing [Next] starts, [End] cancels the operation and [OK] returns to the System Operation Check Mode display screen.

NOTE:
• If not equipped (based on area or condition), process will not go on.
• Because the model with keyless access is not equipped with key lock solenoid, the operation is disabled.
• For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

11.Microphone

A: NOTE

The microphone is a single unit with the spot map light.
For operation procedures, refer to “LIGHTING SYSTEM” section. <Ref. to LI-62, Spot Map Light.>

11.Neutral Position Switch

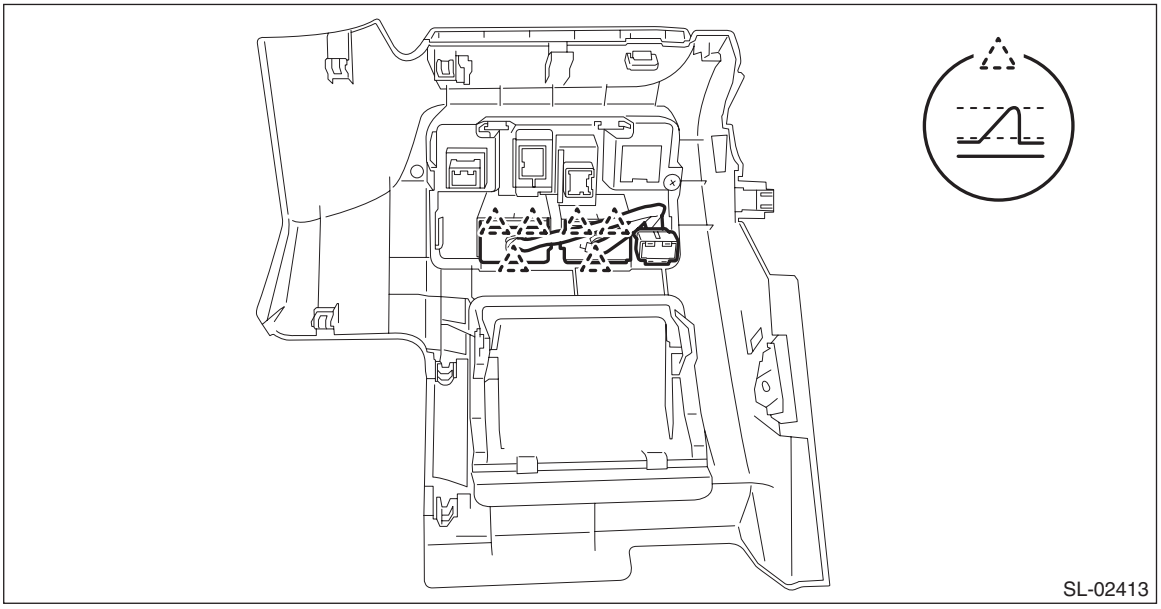
A: NOTE

For neutral position switch, refer to “MANUAL TRANSMISSION AND DIFFERENTIAL” section. <Ref. to 6MT-40, Switches and Harness.>

11.Power Rear Gate Driver's Switch

A: REMOVAL

NOTE:
The power rear gate driver's switch is integrated with the VDC OFF switch.
1) Disconnect the ground cable from battery.
2) Remove the cover assembly - instrument panel LWR driver. <Ref. to EI-59, REMOVAL, Instrument Panel Lower Cover.>
3) Remove the VDC OFF & power rear gate driver's switch.
   (1) Release the claws and pull out each switch.
   (2) Remove the connector from the panel - switch, and then remove the VDC OFF & power rear gate driver's switch.



B: INSTALLATION

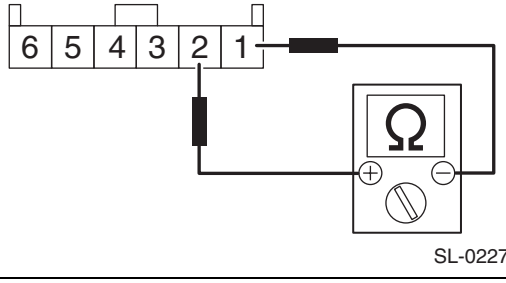
Install each part in the reverse order of removal.

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
1 — 2	Switch OFF	1 MΩ or more	
	Switch ON	Less than 1 Ω	

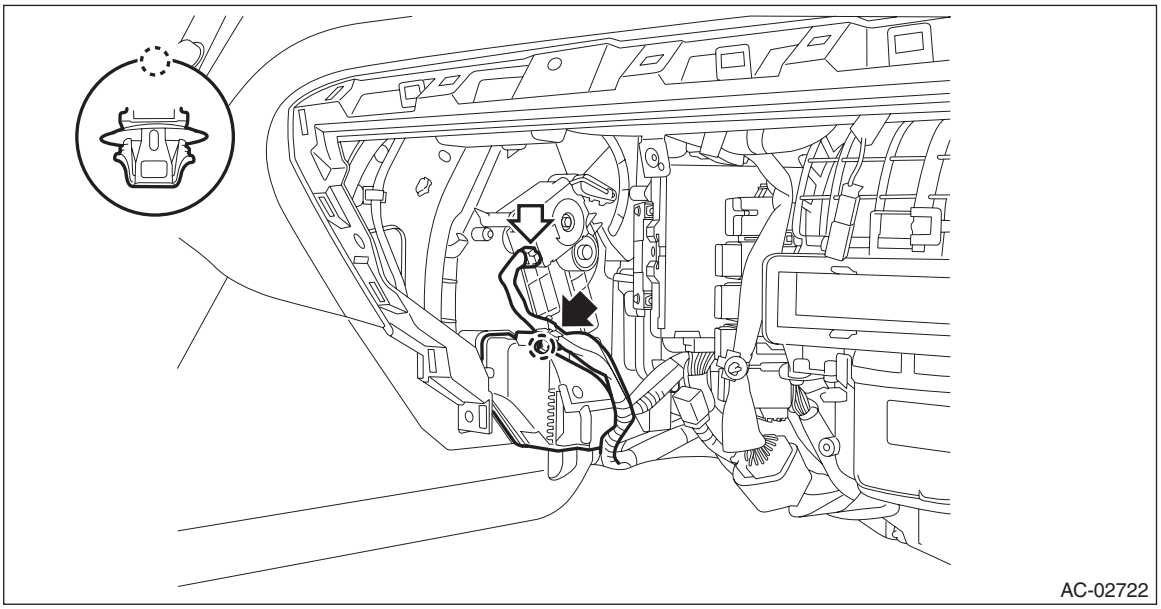
2) Replace the VDC OFF & power rear gate driver's switch, if the inspection result is not within the standard value.

11.Power Transistor (Auto A/C Model)

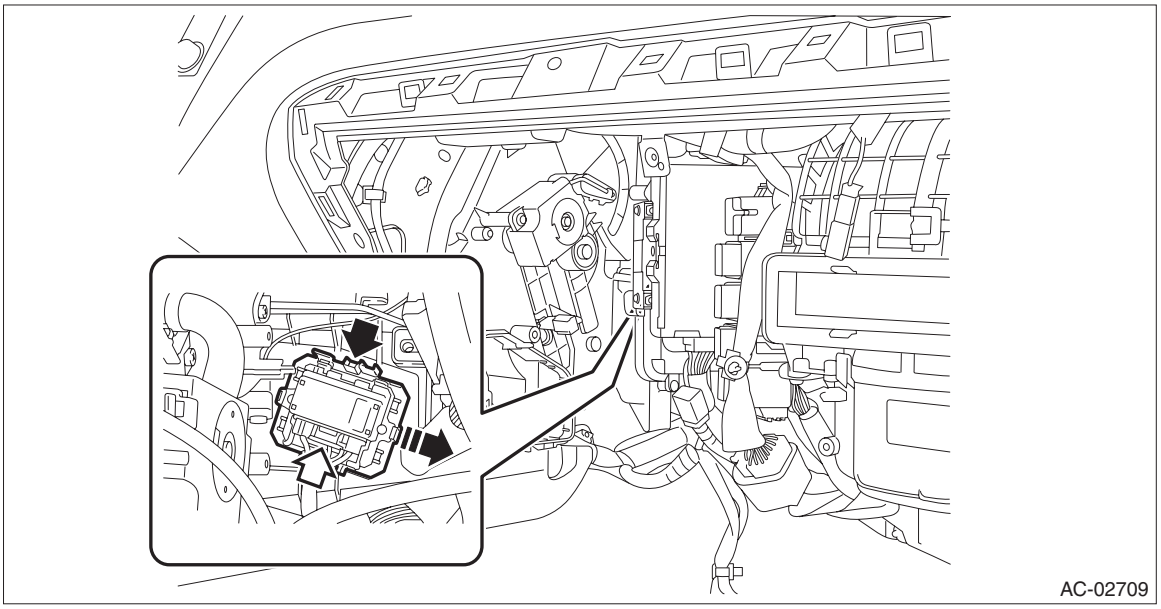
A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the glove box. <Ref. to EI-61, REMOVAL, Glove Box.>
3) Remove the screws and remove the duct - foot RH.

NOTE:
Remove the connector and clip of the motor - actuator mix RH, and move the harness aside.



4) Remove the power transistor.
   (1) Disconnect the connector.
   (2) Remove the power transistor while pressing the power transistor body claw part and sliding it.



B: INSTALLATION

Install each part in the reverse order of removal.

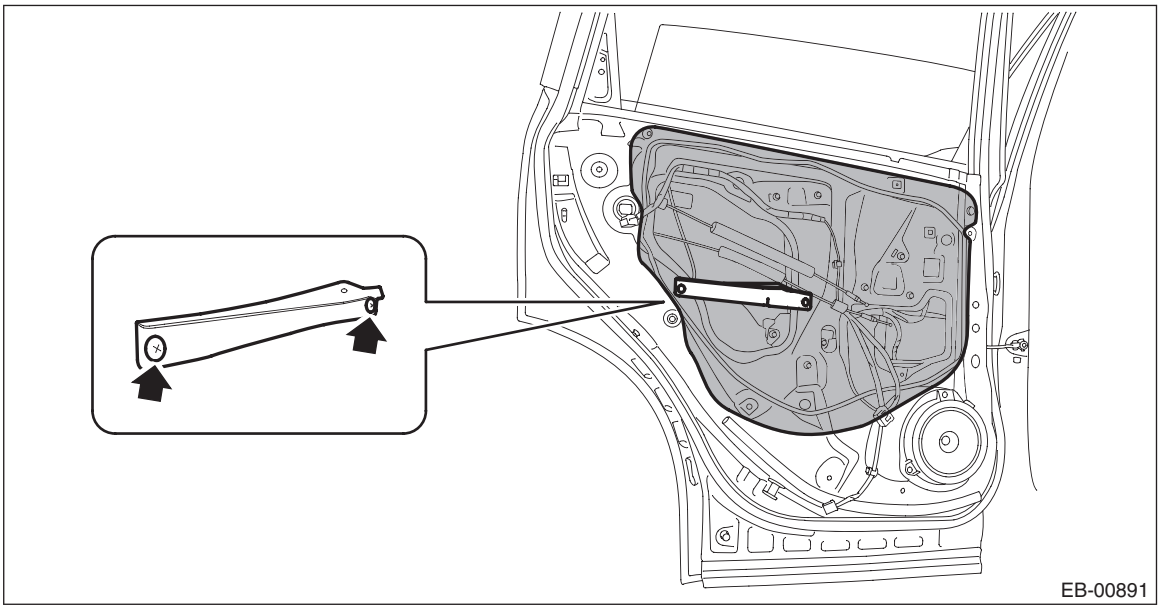
11.Rear Door Glass

A: REMOVAL

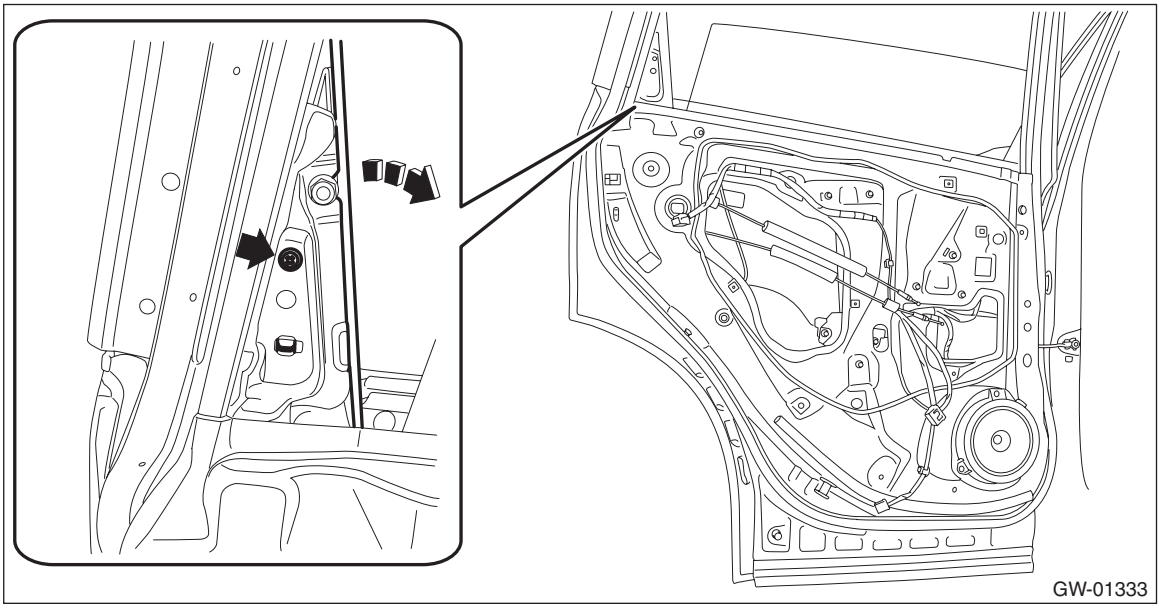
1) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
2) Remove the sealing cover - rear door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - rear door.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

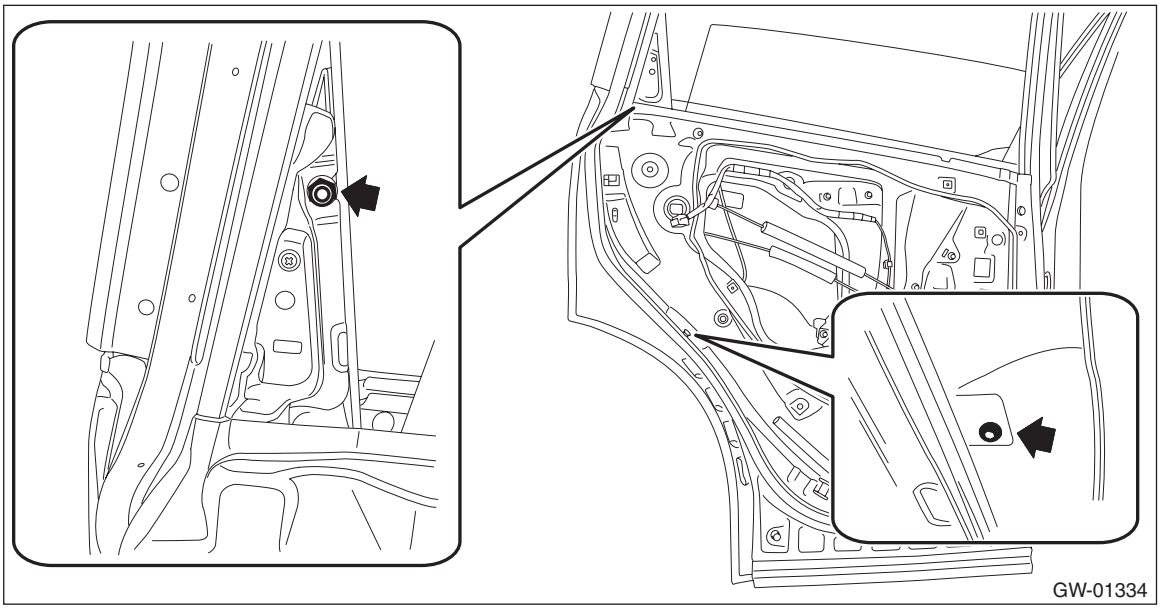
(1) Remove the screw to remove the bracket - door trim rear.
(2) Carefully remove the butyl tape to remove the sealing cover - rear door.



3) Attach the battery ground cable and the switch - power window, and turn the ignition to ON.
4) Remove the glass assembly - rear door.
(1) Operate the switch - power window sub rear to move the glass assembly - rear door to the position where the mounting bolts can be seen.
(2) Pull out the running channel - rear door.
(3) Remove the screws and remove the rear outer gusset cover.

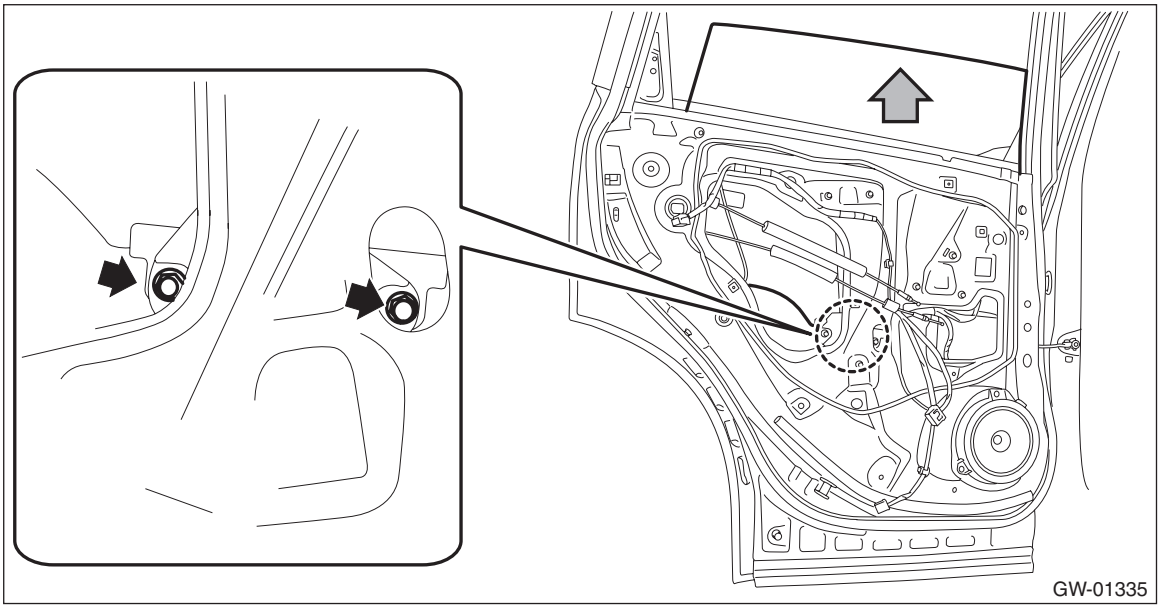


(4) Remove the bolts and nuts, and remove the sash COMPL - lower.



(5) Remove the bolts, and remove the glass assembly - rear door.

CAUTION:
Avoid impact and damage to the glass assembly - rear door.



B: INSTALLATION

CAUTION:
Check that the running channel - rear door is securely fixed to the panel assembly - rear door and to the sash COMPL - lower.

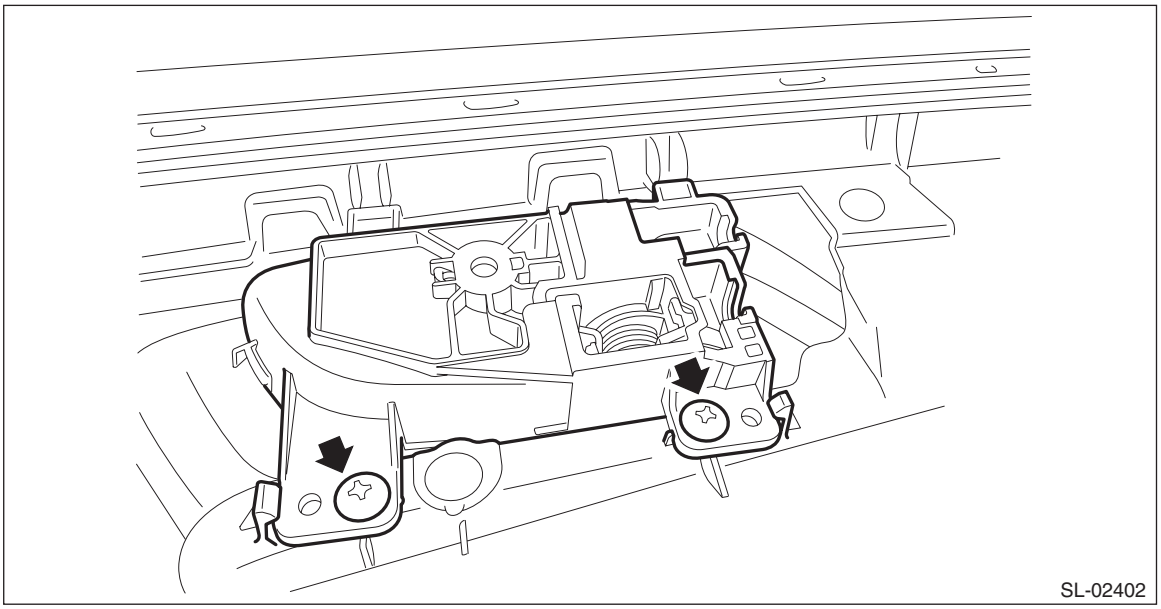
NOTE:
Applying parts cleaner, etc. to the sash section will contribute to smooth movement and help install the running channel - rear door.
Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to GW-4, REAR DOOR GLASS, COMPONENT, General Description.>

11.Rear Inner Remote

A: REMOVAL

1) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
2) Remove the screw, and remove the remote assembly - door.



B: INSTALLATION

1) Before installation, check the following items.
- Cable is free from deformation such as fray.
- Grease is applied sufficiently to cable joints.
- If grease is insufficient, add it as necessary before assembling the cable.

2) Install each part in the reverse order of removal.

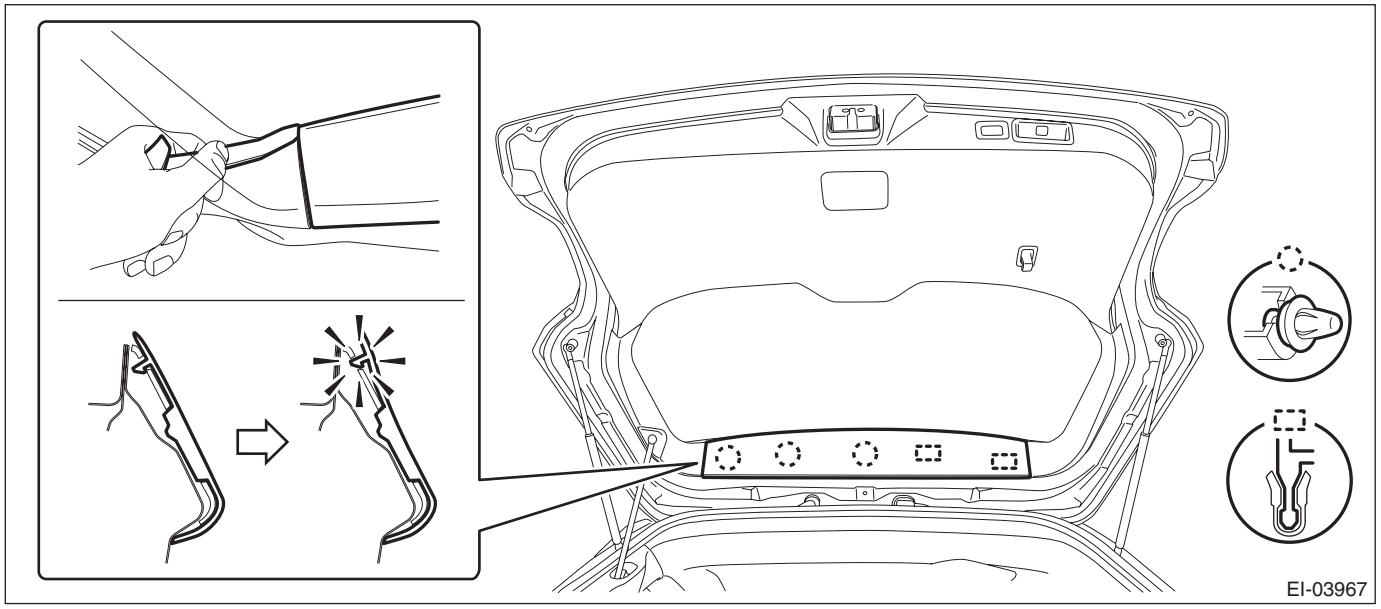
C: INSPECTION

Check if the remote handle operates normally.
- If the lever is faulty, replace the remote handle.
- If the cable is deformed, replace the latch & actuator assembly - rear.

11.Rear Wiper Motor

A: REMOVAL

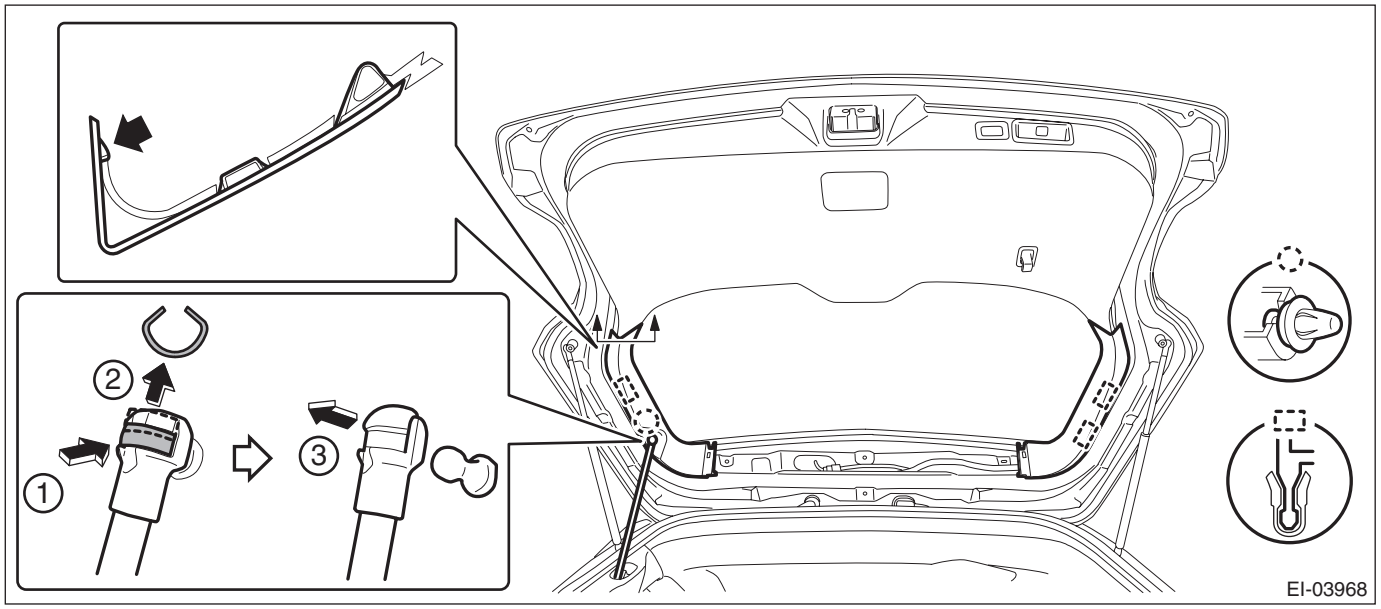
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate UPR.
   (1) Remove the claws on the trim edge.
   (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



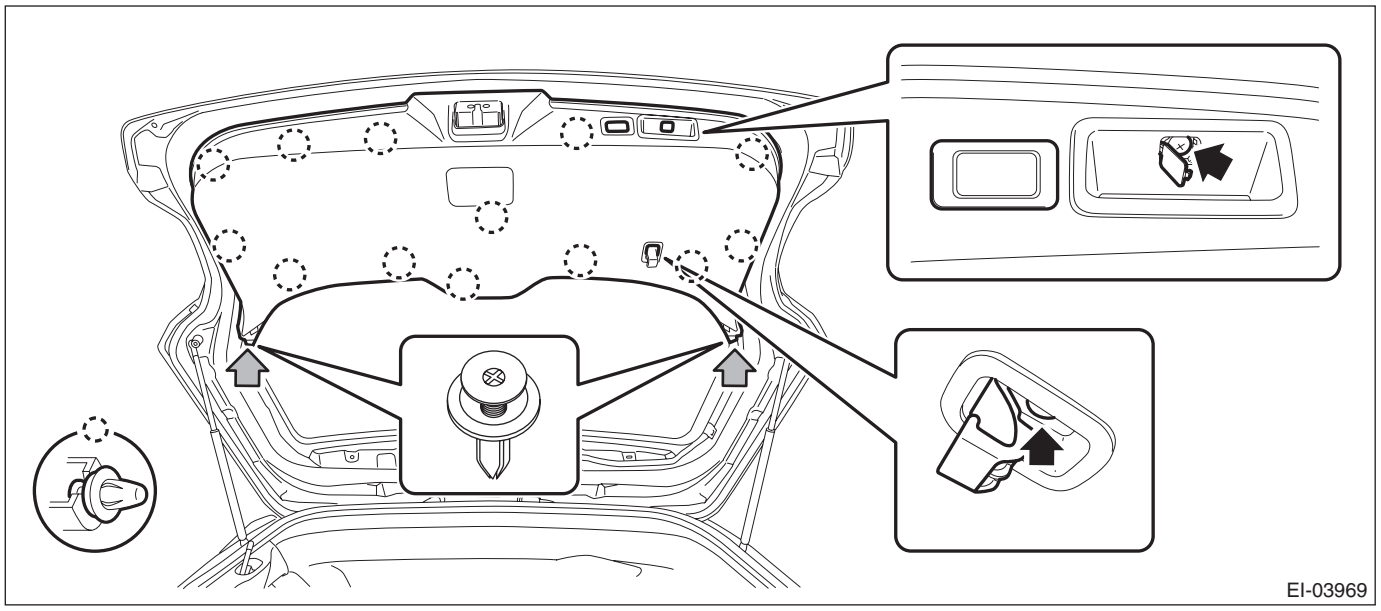
3) Remove the trim panel - rear gate pillar side.
   (1) Disconnect the rod - power rear gate before removing the trim panel - rear gate pillar side LH. (Only for models with power rear gate)

CAUTION:
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal. <Ref. to PRG-15, REMOVAL, Power Rear Gate Rod.>

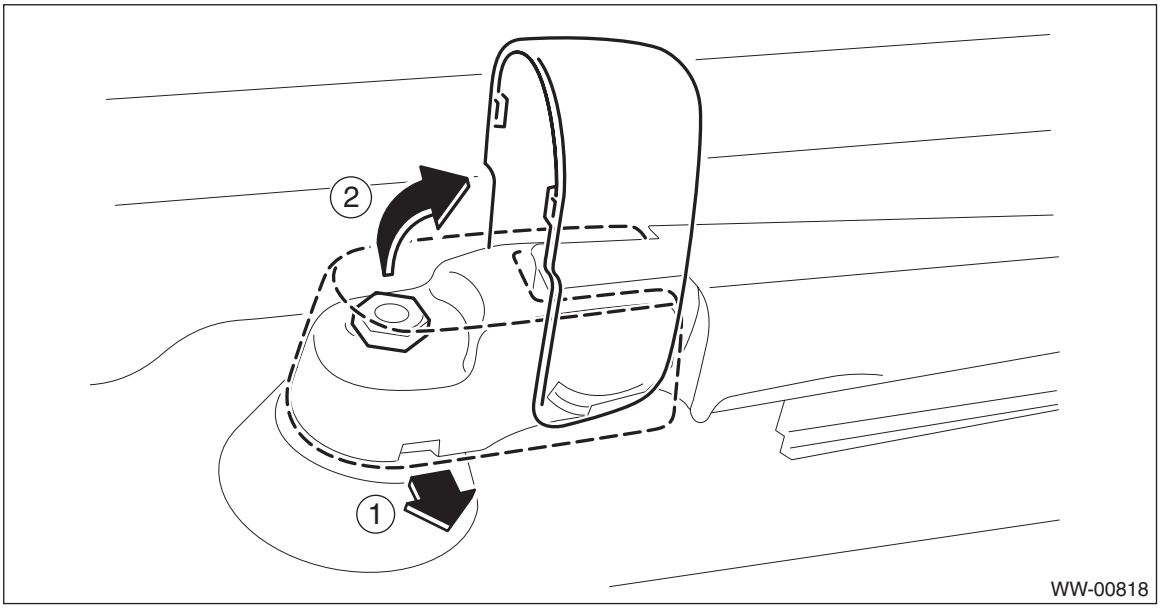
   (2) Release the claws.
   (3) Remove the claws on the bottom of trim, and remove the trim panel - rear gate pillar side.



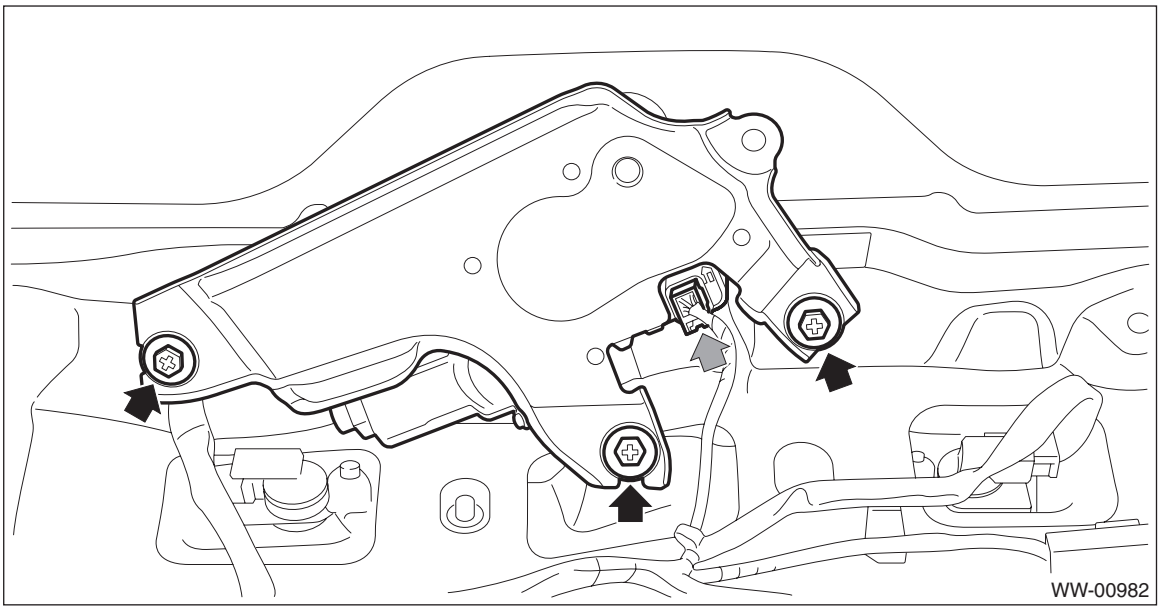
4) Remove the trim panel - rear gate LWR.
(1) Remove the power rear gate inner switch and disconnect the connector. (Only for models with power rear gate)
(2) Remove the screw and clips on both ends.
(3) Release the clips, and remove the trim panel - rear gate LWR.



5) Remove the arm assembly - rear wiper.
(1) Remove the cover - rear wiper arm.
(2) Remove the nut, and remove the arm assembly - rear wiper.



6) Remove the motor assembly - rear wiper.
   (1) Disconnect the harness connector of the motor assembly - rear wiper.
   (2) Remove the bolts, and remove the motor assembly - rear wiper.

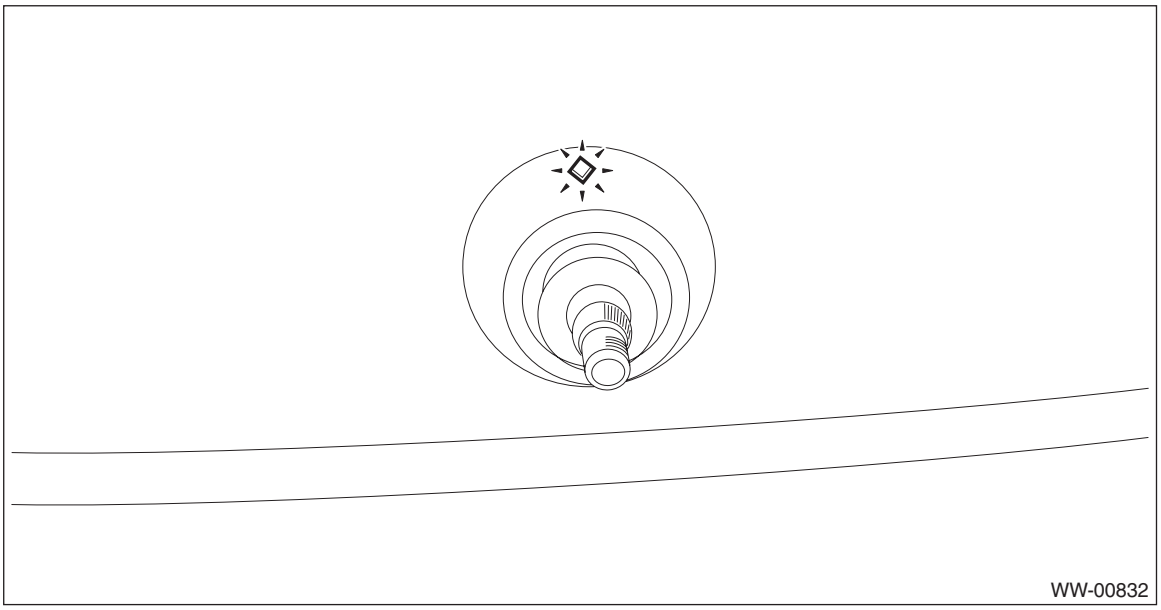


B: INSTALLATION

1) Install each part in the reverse order of removal.

CAUTION:
For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation. <Ref. to PRG-16, INSTALLATION, Power Rear Gate Rod.>

2) Check that the mark on the cap - pivot wiper faces up, as shown in the figure.

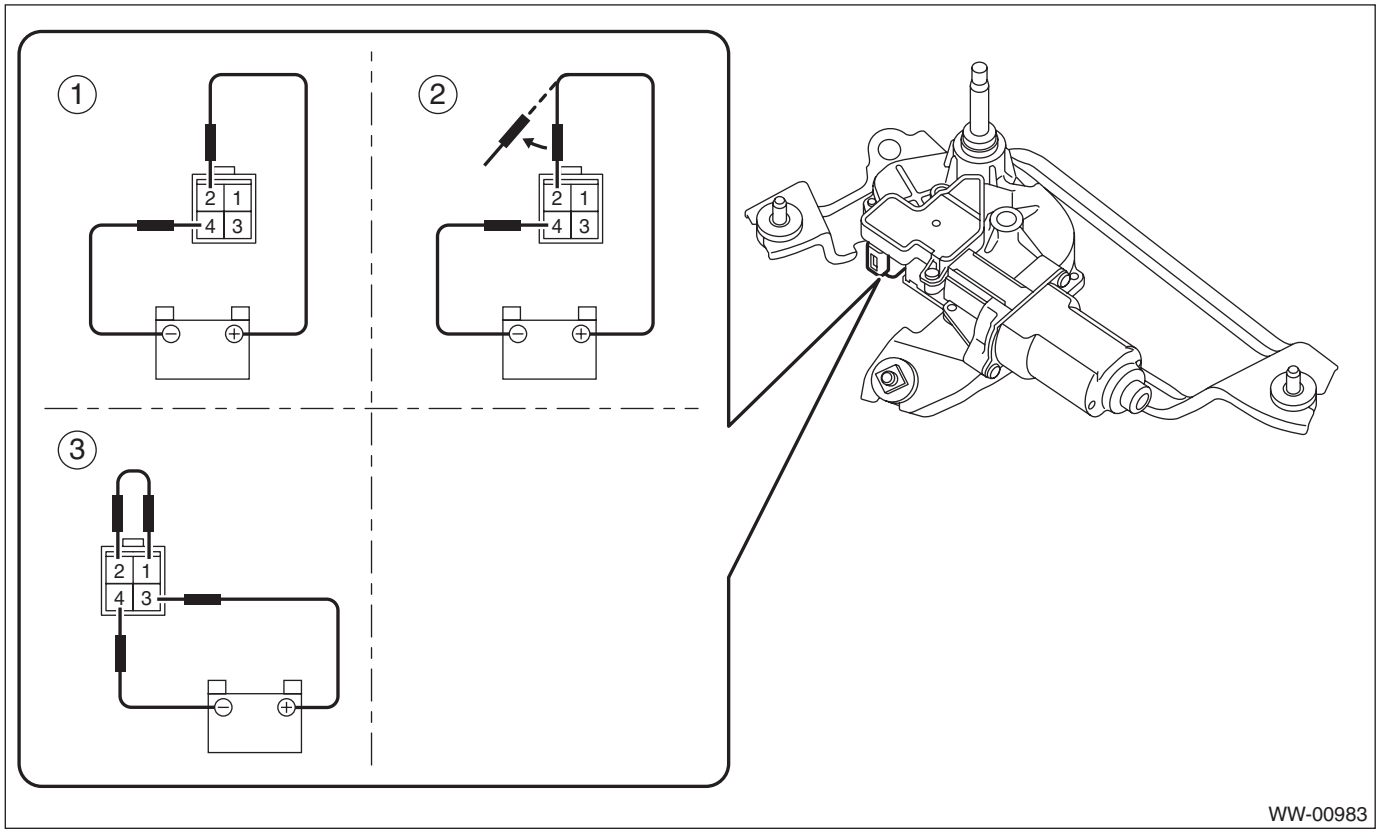


Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to WW-3, REAR WIPER, COMPONENT, General Description.>

C: INSPECTION

1) Connect the battery to the rear wiper motor connector, and check that the motor assembly - rear wiper operates.
2) Connect the battery to terminals of the connector, and remove the terminal connection with motor rotating, and stop the motor assembly - rear wiper in mid-operation.
3) Connect the battery and check that the motor stops at the automatic stop position after the motor operates at low speed again.

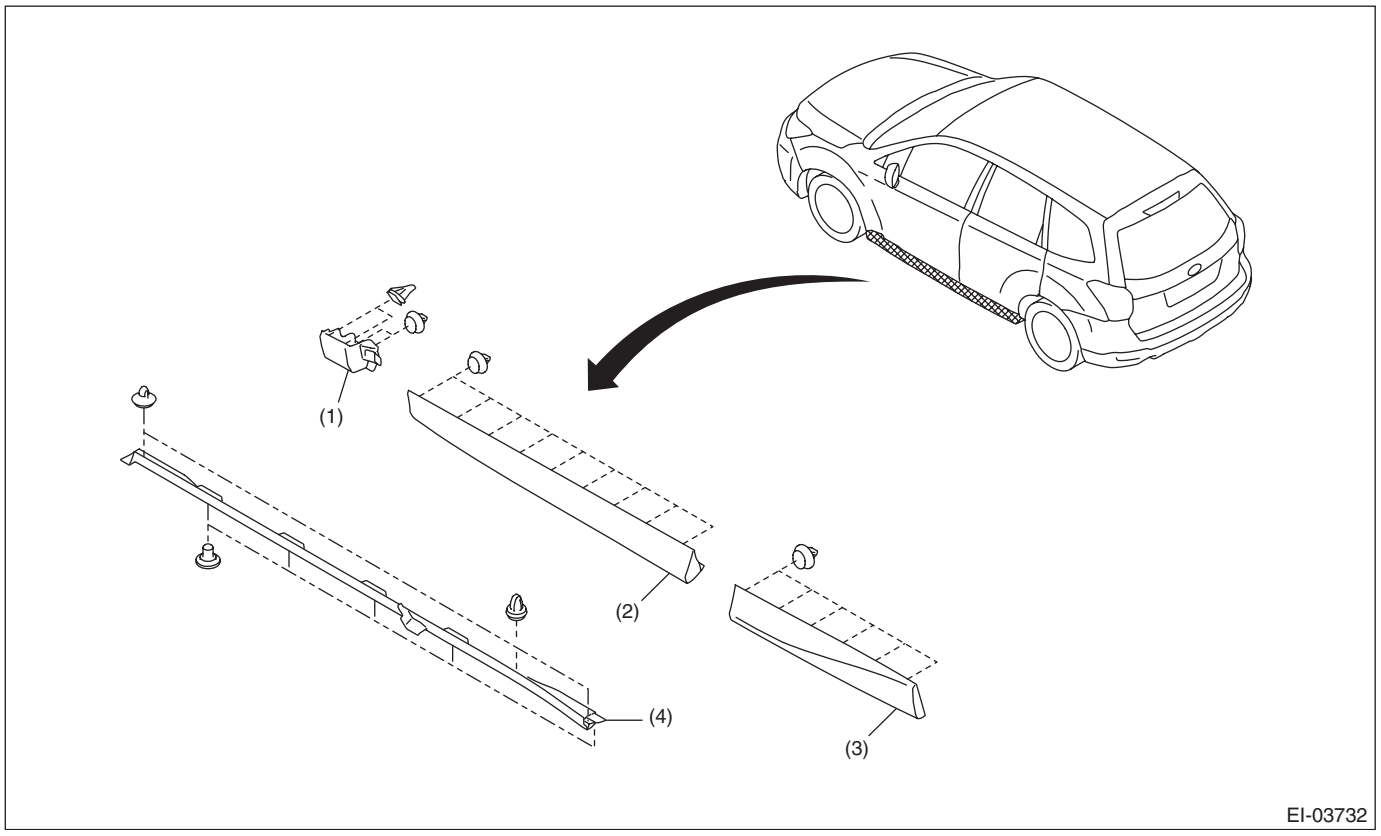
CAUTION:
Fix the motor to prevent the motor from being shorted by moving during operation.



11.Side Garnish

A: REMOVAL

Remove the clips, and remove the garnish.



(1) Garnish ASSY - fender
(2) Garnish ASSY - door front
(3) Garnish ASSY - door rear
(4) Garnish ASSY - side sill

B: INSTALLATION

Install each part in the reverse order of removal.

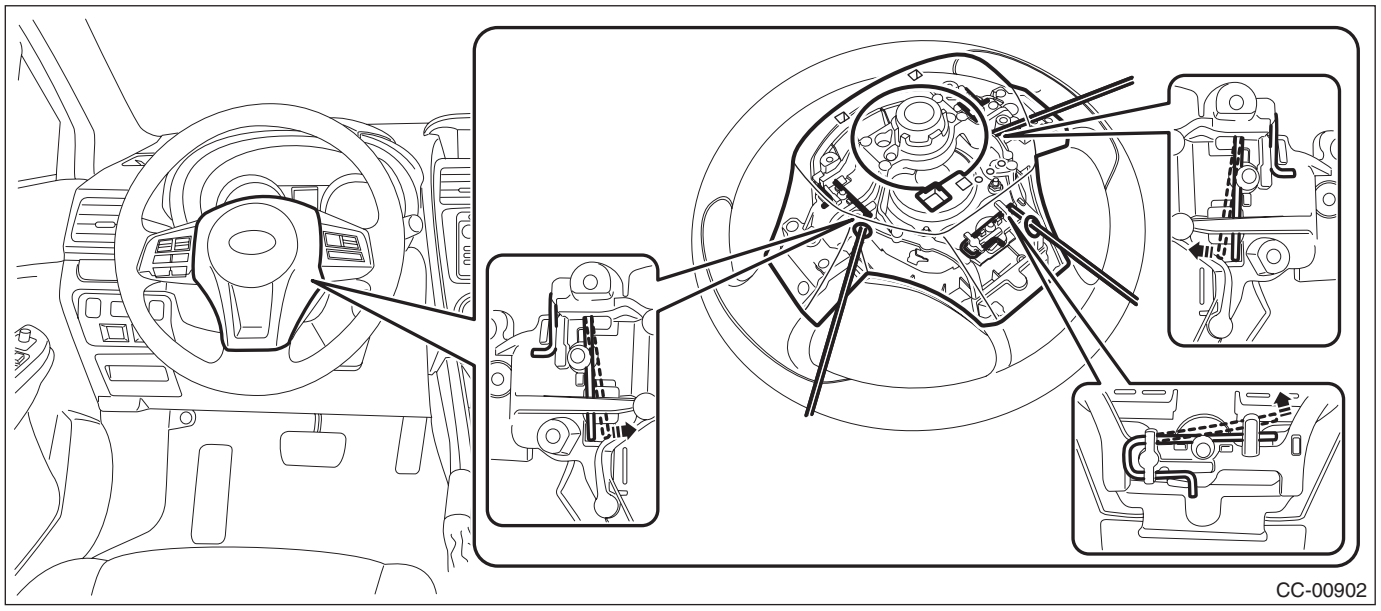
11.Steering Switch

A: REMOVAL

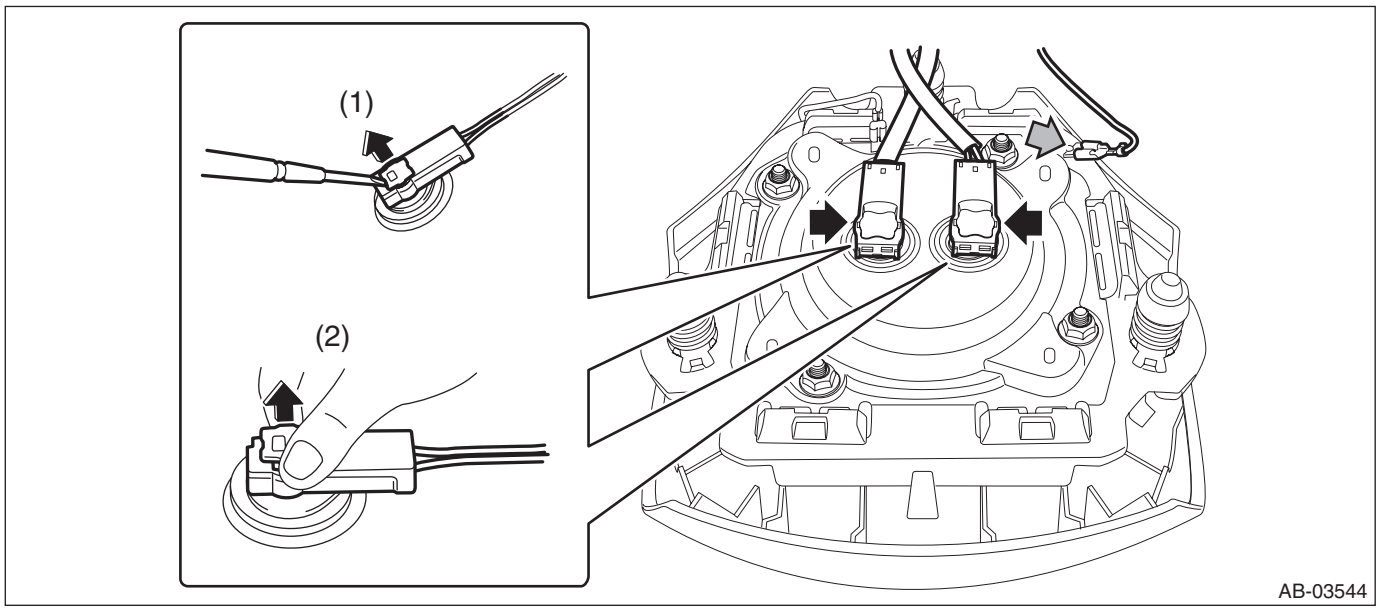
1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.

CAUTION:
Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>

(1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).



(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-19, PROCEDURE, Airbag Connector.>

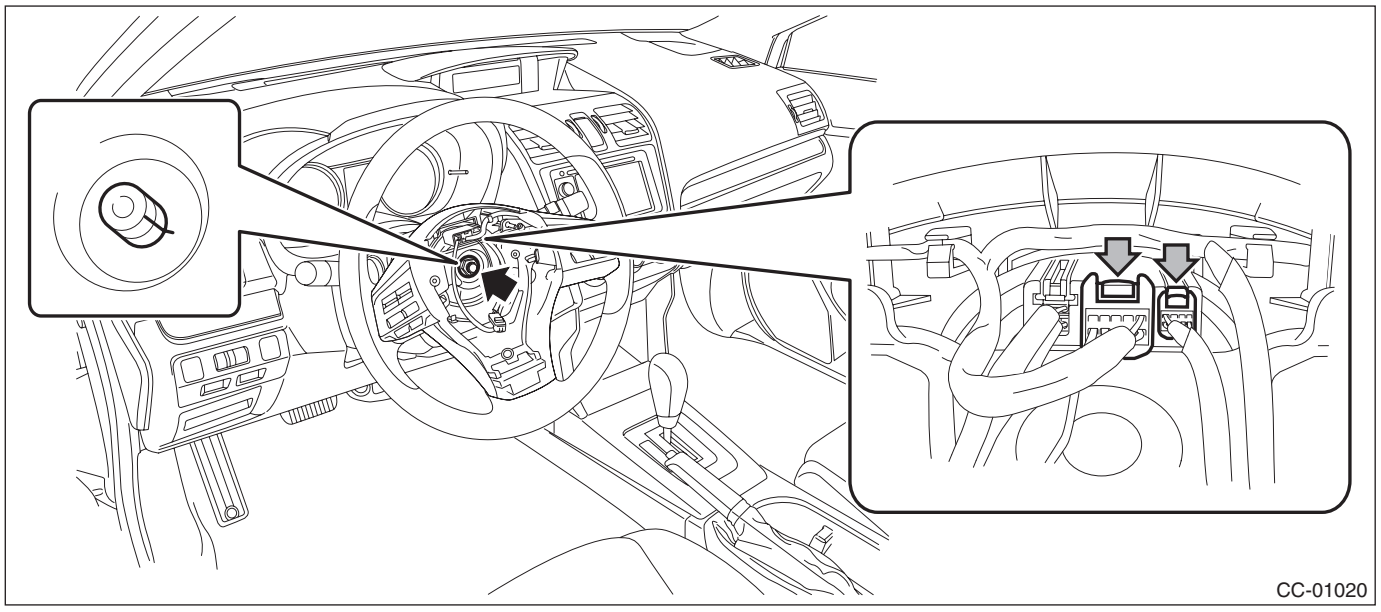


5) Remove the steering wheel.

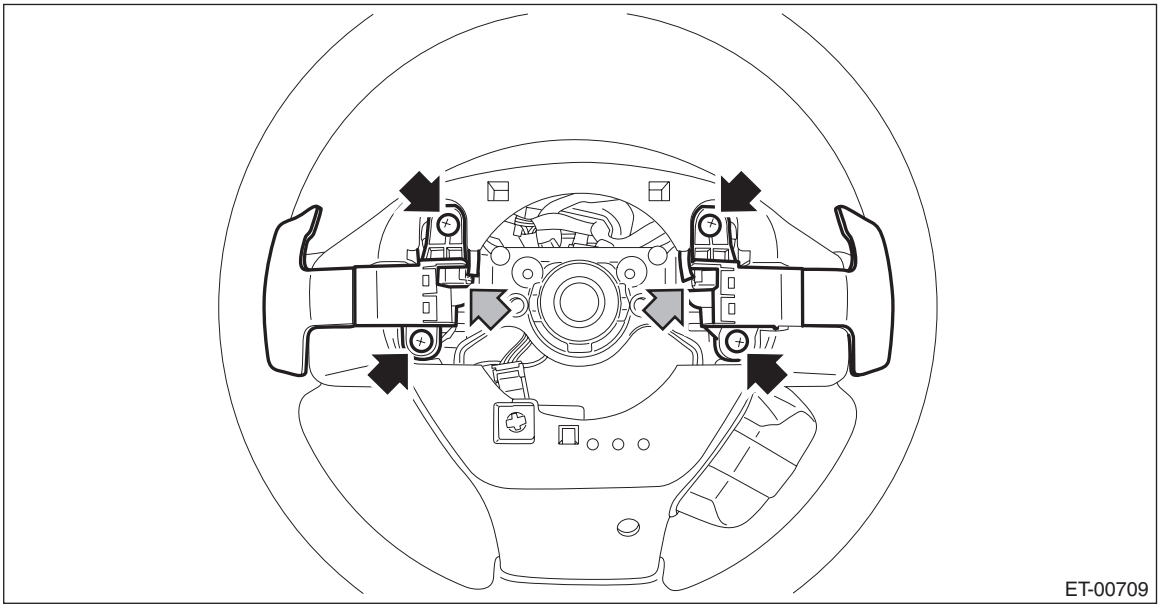
CAUTION:
- **Always use the steering wheel puller for removal to avoid deforming the steering wheel.**
- **If the steering wheel has been removed, make sure that the roll connector is not turned from the original position.**

(1) Disconnect the connector and remove the nut.
(2) Put alignment marks and remove the steering wheel using a steering wheel puller.

Preparation tool:
Steering wheel puller

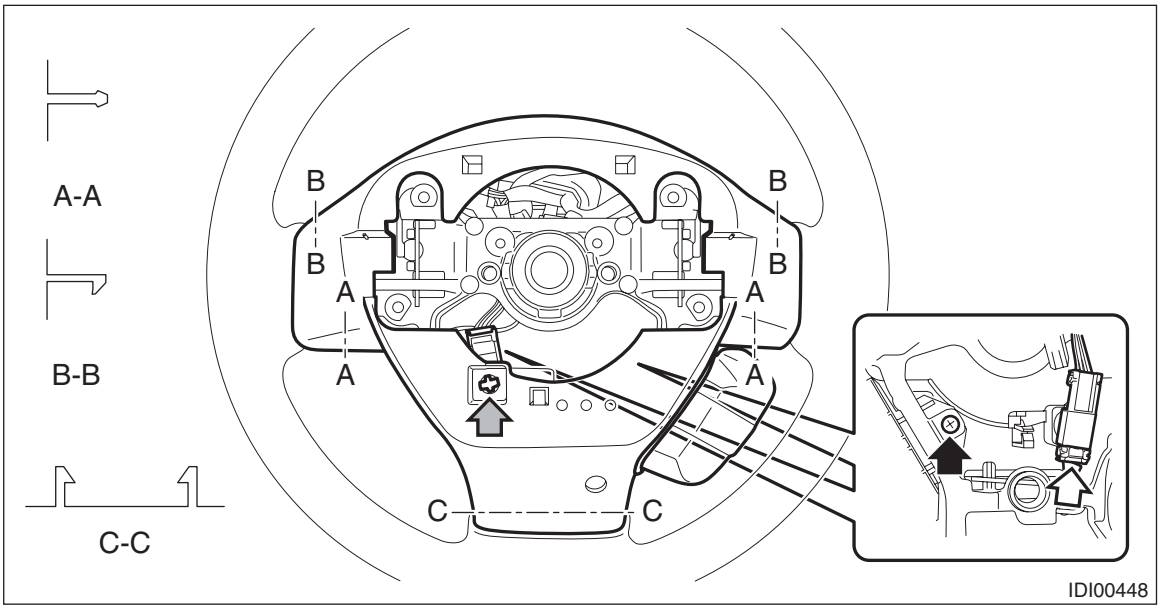


6) Remove the switch assembly - steering.
(1) Remove the screw, disconnect the connector and remove the paddle shift switch. (Model with paddle shift)

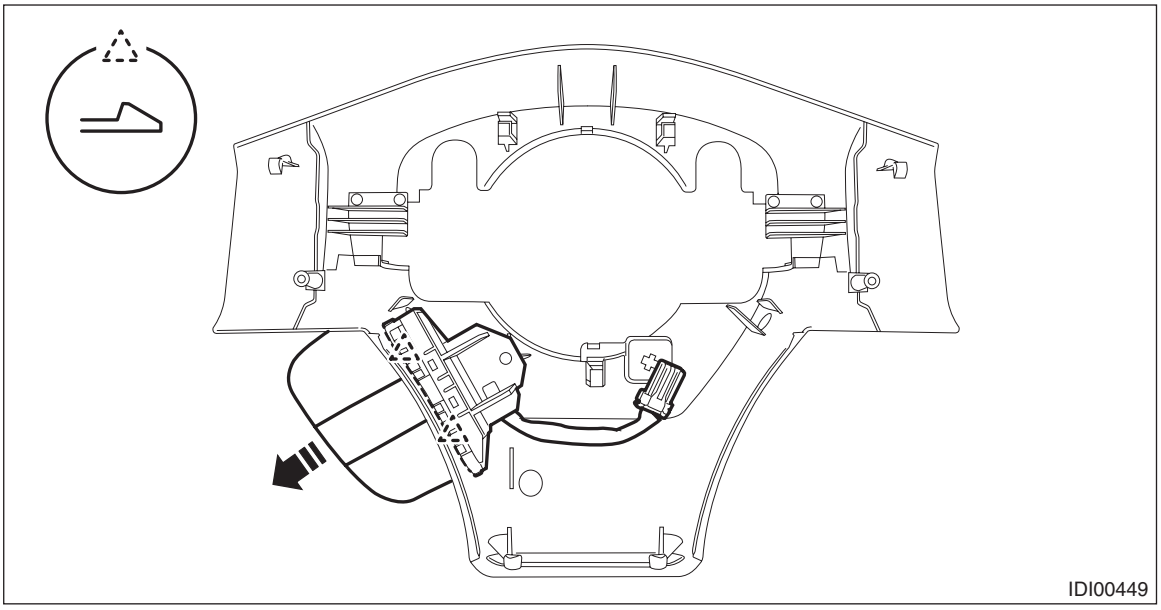


(2) Remove the connector and screw.

(3) Release the claws and clips, detach the cover - steering wheel LWR.



(4) Remove the switch assembly - steering from the cover - steering wheel LWR.



B: INSTALLATION

CAUTION:
• Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor.<Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
• Securely install the switch. Improper insertion of the pin or claw of the switch may cause improper installation.
1) Before installing steering wheel, be sure to adjust the direction of steering roll connector with steering wheel.<Ref. to AB-107, ADJUSTMENT, Roll Connector.>
2) Install each part in the reverse order of removal.

NOTE:
Align the alignment marks on the steering wheel and the column assembly - steering.

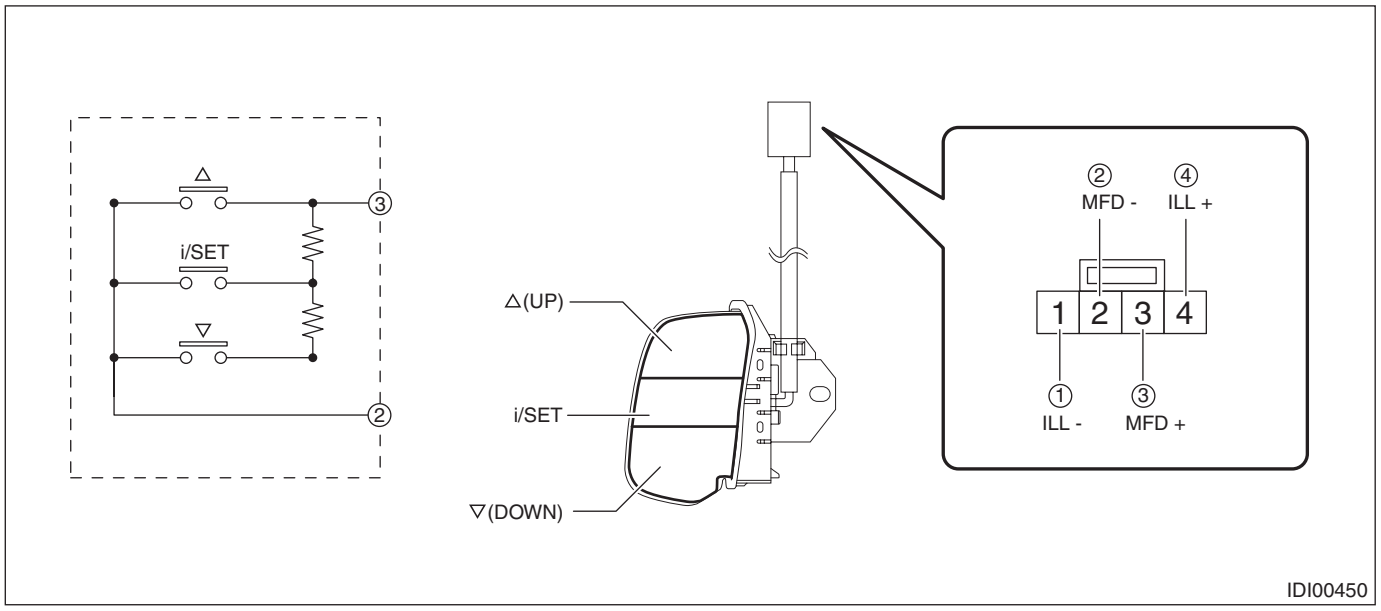
Tightening torque:
Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

Clearance:
Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester
1) Check the resistance between switch terminals.



Terminal No.	Inspection conditions		Standard
3 — 2	△ (UP) i/SET ▽ (DOWN)	All OFF	1 MΩ or more
3 — 2	△ (UP)	ON	Less than 1 Ω
3 — 2	i/SET	ON	Approx. 1,000 Ω
3 — 2	▽ (DOWN)	ON	Approx. 3,670 Ω

2) Replace the switch assembly - steering if the inspection result is not within the standard.

INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS)

IDI(diag)

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2.	Check List for Interview	4
3.	General Description	5
4.	Electrical Component Location	6
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11.System Operation Check Mode

A: OPERATION

1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Keyless access system}.
3) On «Keyless access system» display, select {Work Support}.
4) Select {System Operation Check Mode}.
5) Select the check point and click [OK].
6) Select [Exit] to exit the drive item mode. The screen will return to the «Drive item» screen.

NOTE:
Each output check continues to run for five seconds before stopping automatically.

Data	Keyless access CM output check	Remarks
Tuner power supply ON (indoor tuner)	Output	Perform the power supply check for the receiver.
	Stop	
Driver seat sensor power supply	Output	Perform check of the power supply for the driver's seat sensor.
	Stop	
Passenger seat sensor power supply	Output	Perform check of the power supply for the passenger's seat sensor.
	Stop	
STSW	Output	Turn on the STSW. *2
	Stop	
IGN2	Output	Turn on the IGN2.
	Stop	
IGN1	Output	Turn on the IGN1.
	Stop	
ACC	Output	Turn on the ACC.
	Stop	
Start SW character illumination lighted	Output	Perform ON output of the push button ignition switch back-up light. *1
	Stop	
Start SW indicator lighted (green)	Output	Perform ON output of the push button ignition switch back-up light. *1
	Stop	
Start SW indicator lighted (orange)	Output	Perform ON output of the push button ignition switch back-up light. *1
	Stop	
Steering lock power supply	Output	Output power supply signal from power supply CM to steering lock CM.
	Stop	

*1: When lit by a condition other than for a system operation check mode, it will not become unlit even when set to OFF or no output.
*2: When performed with IGN ON, engine will start. Therefore, great care must be exercised.

NOTE:
For detailed operation procedures, refer to “PC application help for Subaru Select Monitor”.

11.User Customizing

A: OPERATION

For operation procedures, refer to “PC application help for Subaru Select Monitor”.

B: LIST

Combination meter

Items to be displayed	Initial setting value	Customize setting	Note
Air temperature correction	±0°C	-5°C — +5°C	Temperature compensation can only be performed by 1°C (1°C change = 1.8°F) interval.
Mean fuel efficiency correction	±0%	-10% — +10%	—

11.VDC Control Module and Hydraulic Control Unit (VDCCM&H/U)

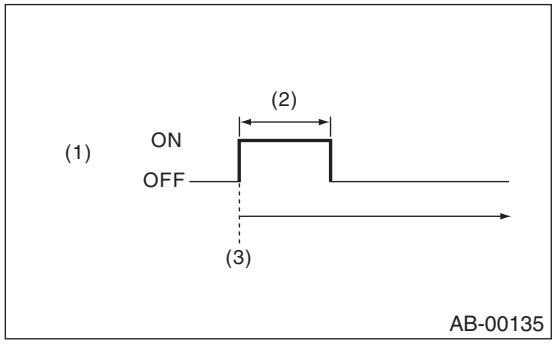
A: NOTE

For VDC control module & hydraulic control module (VDCCM&H/U), refer to “VEHICLE DYNAMICS CONTROL (VDC)” section. <Ref. to VDC-10, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

12.Airbag Warning Light Illumination Pattern

A: INSPECTION

Turn the ignition switch to ON, and confirm that the airbag warning light remains on for approx. 6 seconds and then goes off afterwards.

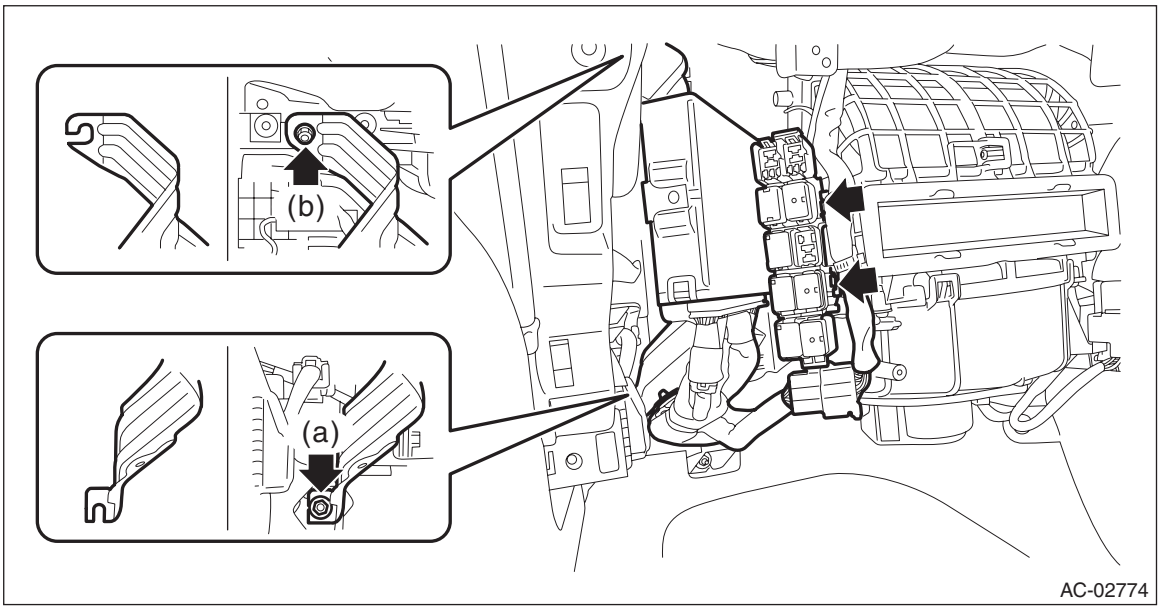


(1) Airbag warning light
(2) Approx. 6 sec.
(3) Ignition switch ON

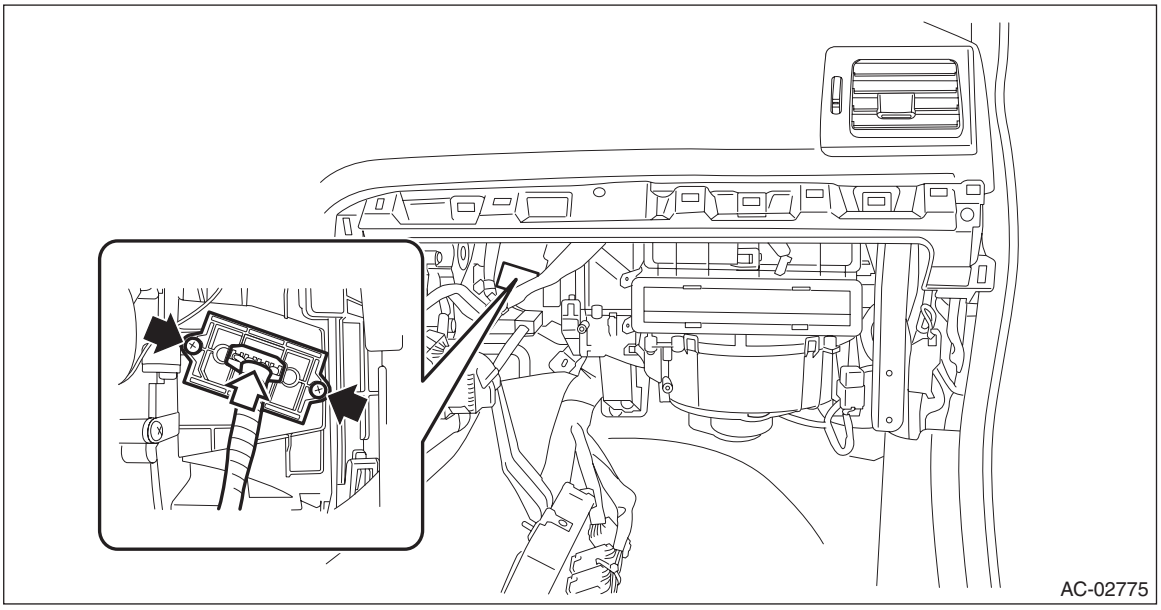
12.Blower Resistor (Manual A/C Model)

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the glove box. <Ref. to EI-61, REMOVAL, Glove Box.>
3) Remove the engine control module (ECM). (Non-turbo model)
   (1) Release the lock and remove the relay holder.
   (2) Remove the nuts (a).
   (3) Loosen the bolt (b), and remove the engine control module (ECM).



4) Remove the resistor.
   (1) Disconnect the connector.
   (2) Remove the screw and remove the resistor.



B: INSTALLATION

Install each part in the reverse order of removal.

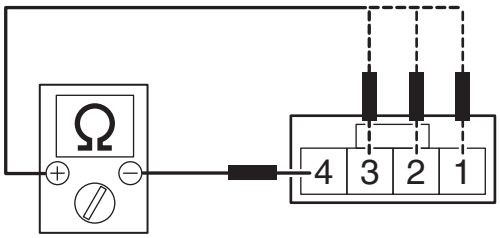
Tightening torque:
Engine control module (ECM): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between resistor terminals.

Terminal No.	Standard	Connection diagram
4 — 3	Approx. 0.43 Ω	 AC-02897
4 — 2	Approx. 1.03 Ω	
4 — 1	Approx. 3 Ω	

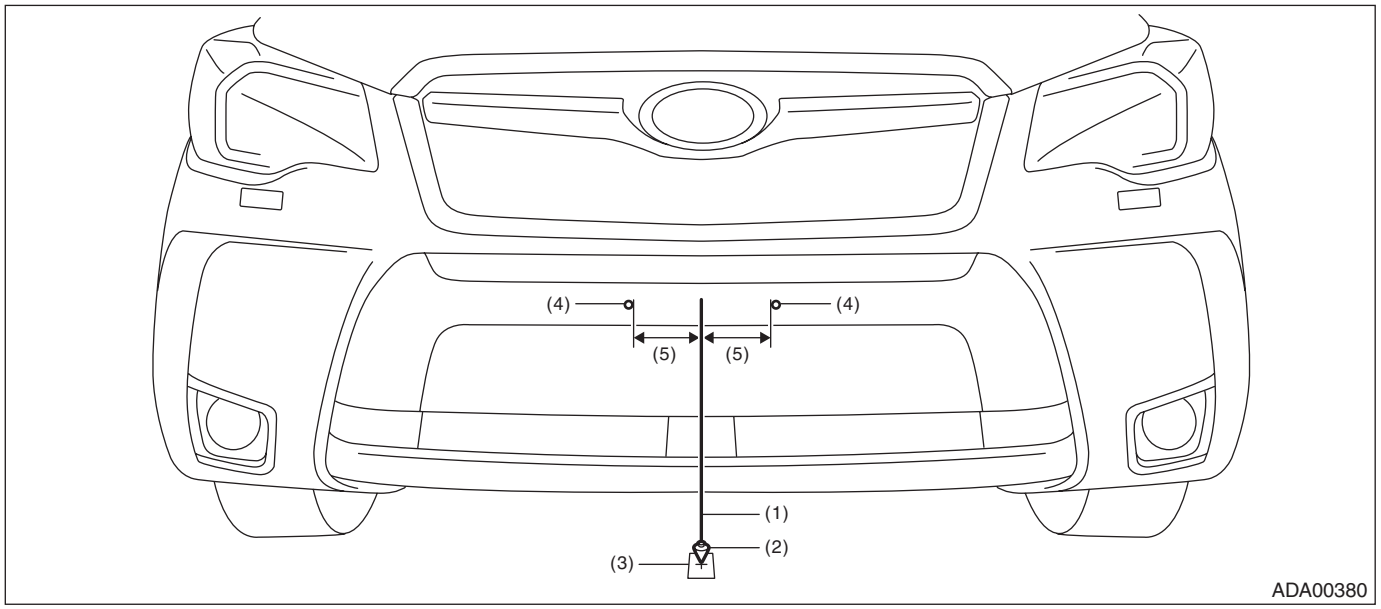
2) Replace the resistor if the inspection result is not within the standard.

1. PREPARATIONS

Perform the preparation of the adjustment and inspection for the stereo camera.

- **When performing adjustment or inspection by affixing RANDOM CHART onto partition**

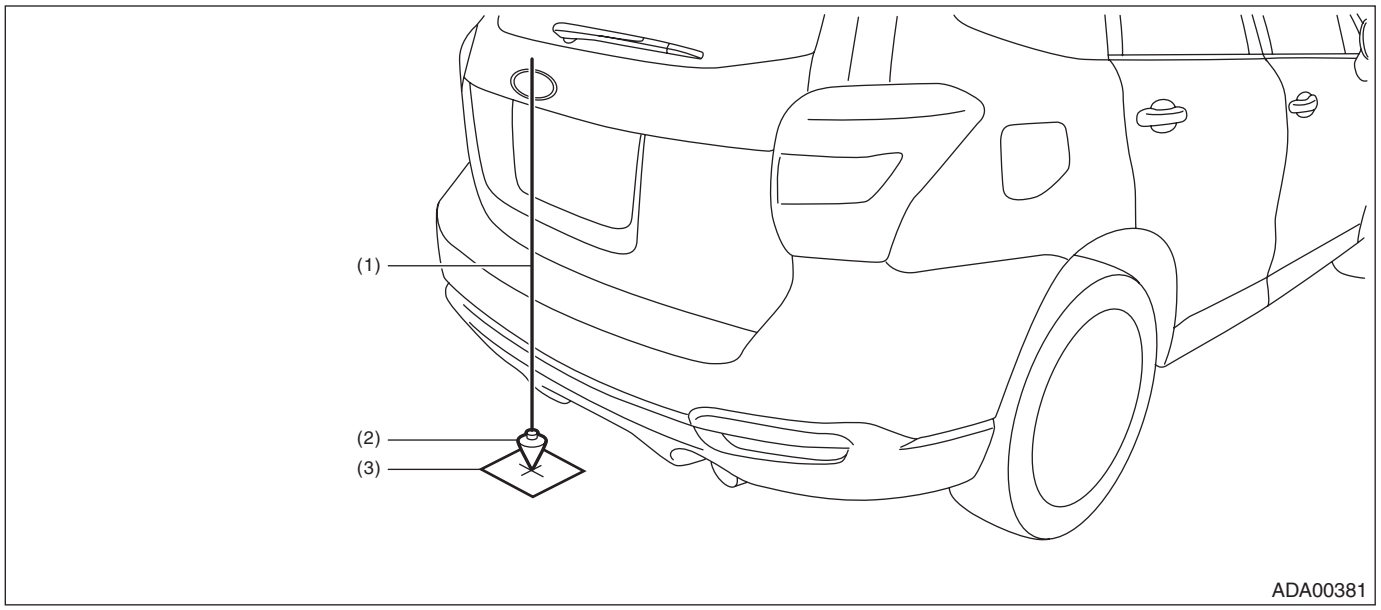
1) Adjust the tire pressure.
2) Prepare the Subaru Select Monitor, measure, plumb bob, weight, leveling line and RANDOM CHART (ST: 87599YC001).
3) Place the vehicle on a level surface where approximately 5 m (≈16 ft) space can be secured in front of the vehicle.
4) Suspend the plumb bob with leveling line from front center position of vehicle (center of license plate base), and mark the position where the plumb bob touches the ground. (Point A)



(1) Leveling line
(2) Plumb bob
(3) Point A
(4) License plate base
(5) Same distance

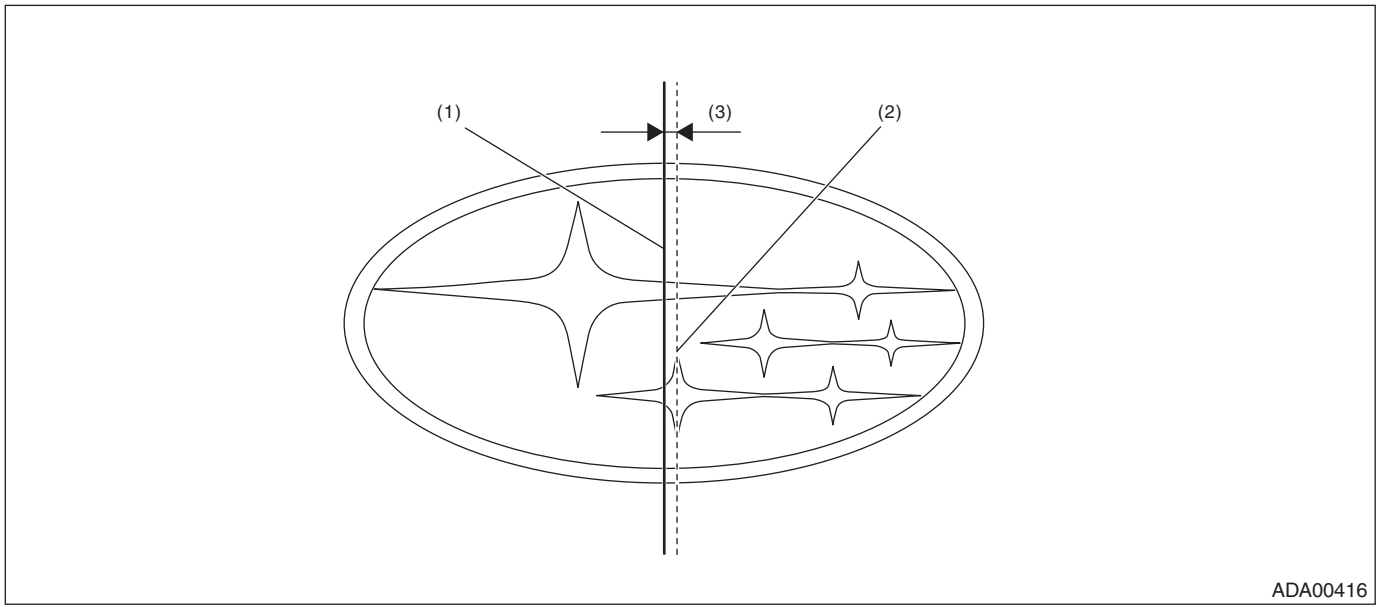
NOTE:
Stick the packing tape etc. on the floor, then make a marking on it.

5) Suspend the plumb bob with leveling line from rear center position of vehicle (center of rear ornament), and mark the position where the plumb bob touches the ground. (Point B)



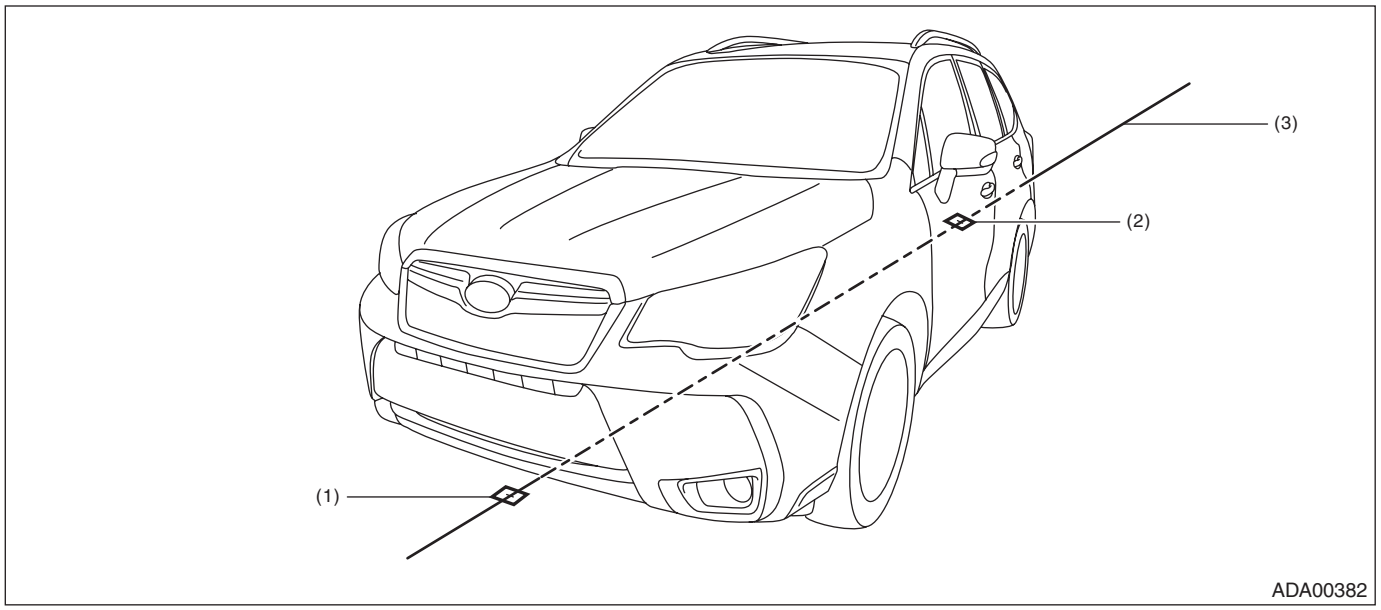
(1) Leveling line (2) Plumb bob (3) Point B

NOTE:
The center of the ornament is located 2 mm (0.08 in) to the left from the top of the second left star.



(1) Center of ornament (2) Top of star (3) 2.0 mm (0.08 in)

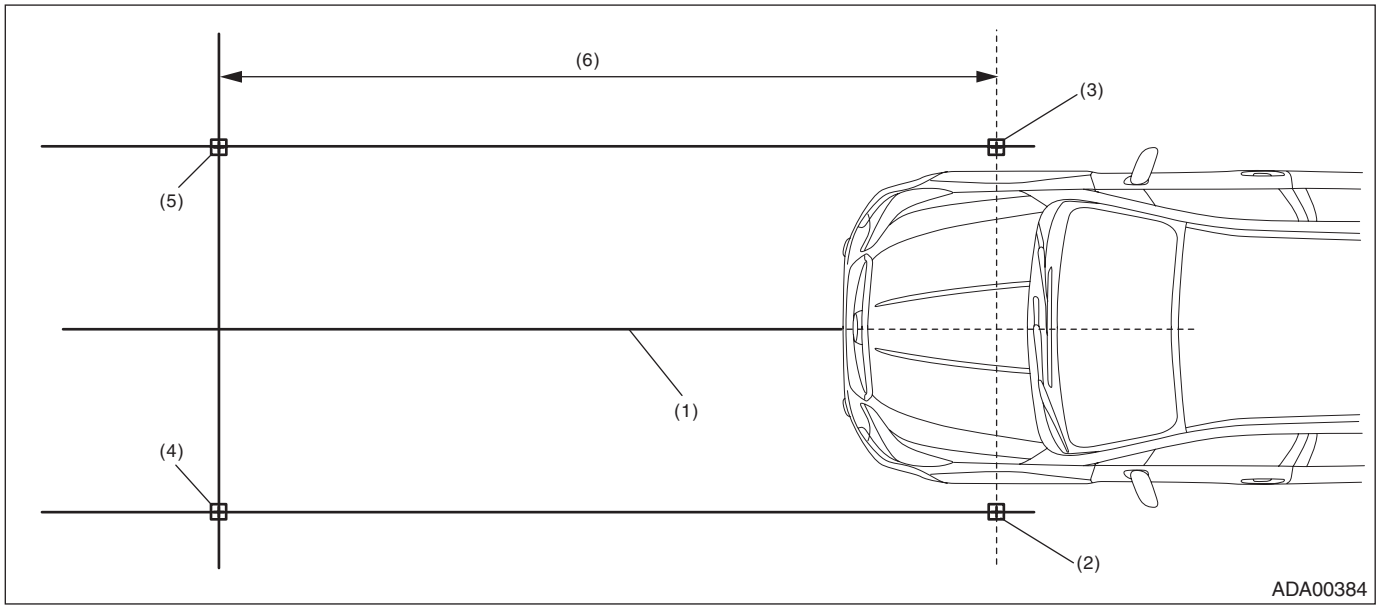
6) Stretch a leveling string (approx. 5 m (≈16 ft)) from the marking point B through the marking point A toward ahead of the vehicle, and fix it with packing tape. (A-B line)



(1) Point A (2) Point B (3) Leveling line

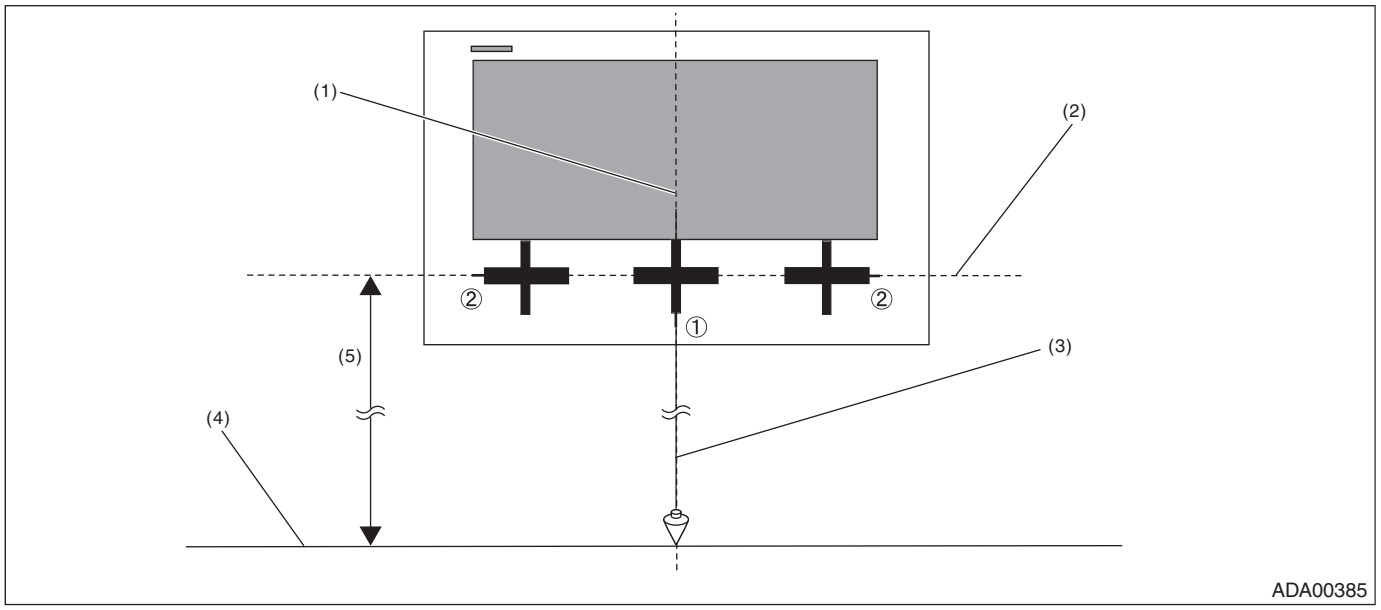
NOTE:
Confirm that there is no wet condition or unevenness on the floor, to strain the leveling line correctly.

7) Mark the installation position of the partition.
(1) Suspend the plumb bob from the center of the front tire, and mark the point C and point D.
(2) Strain the leveling line from the point C and point D toward the front of vehicle parallel to the vehicle body center line (A-B line), and fix the leveling line with packing tape.
(3) Make a marking on the point 4,070 mm (13.4 ft) ahead of the vehicle from the point C and point D. (Point E and point F)
(4) Strain the leveling line so that it passes through the point E and point F. (E-F line)



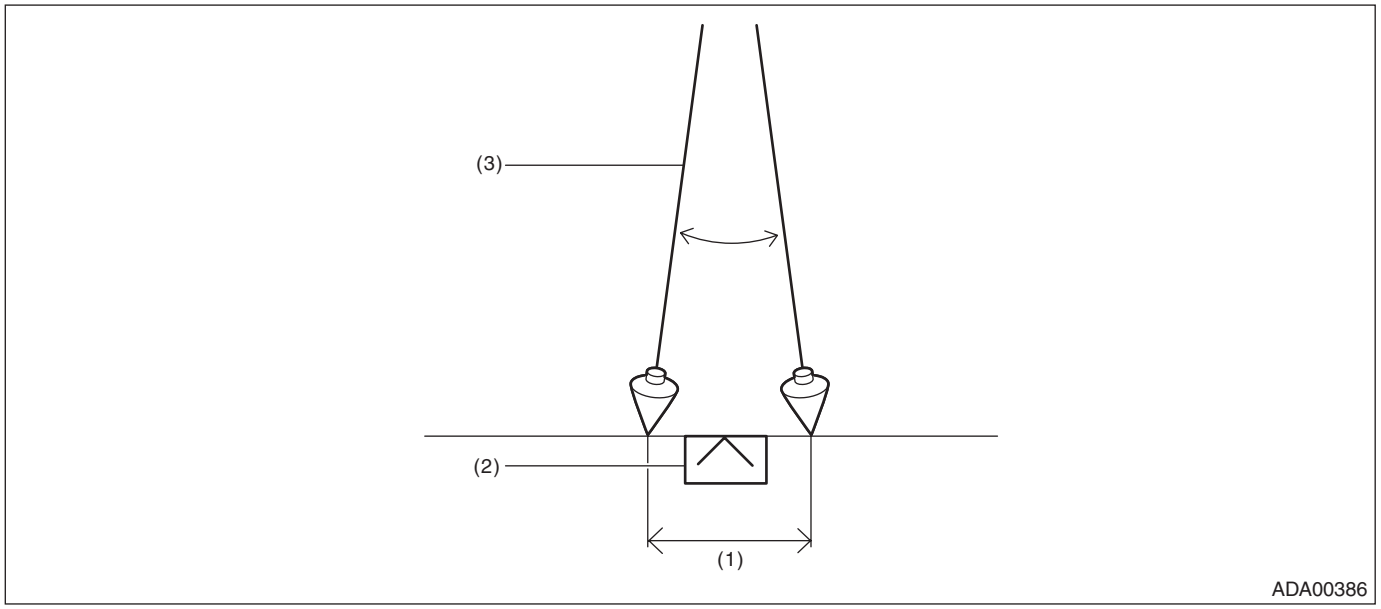
(1) Vehicle body center line (A-B line) (3) Point D (5) Point F
(2) Point C (4) Point E (6) 4070 mm (13.4 ft)

8) Place the partition and RANDOM CHART.
(1) Using the plumb bob, attach the RANDOM CHART on the wall (or partition), so that the height from the floor to the cross mark (left and right) setting reference (horizontal line) is 1,004 mm (3.3 ft) while aligning the RANDOM CHART cross mark (center) setting reference (vertical line) to the vehicle body center line (leveling line).
(2) Adjust the partition so that it is parallel to E-F line.



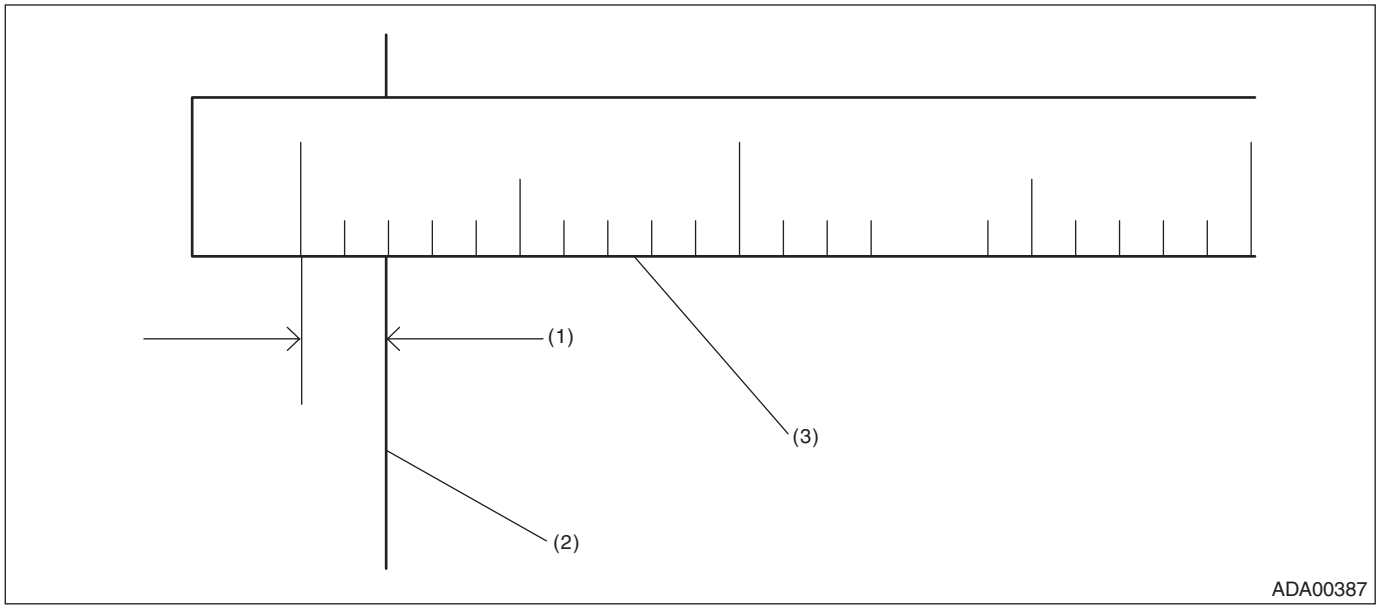
(1) ① = Setting reference (vertical line) and vehicle body center line (A-B line)
(2) ② = Setting reference (horizontal line)
(3) Plumb bob
(4) E-F line
(5) 1,004 mm (3.3 ft)

CAUTION:
- **Centering accuracy of the plumb bob shall be ±4.0 mm (±0.16 in) or less.**



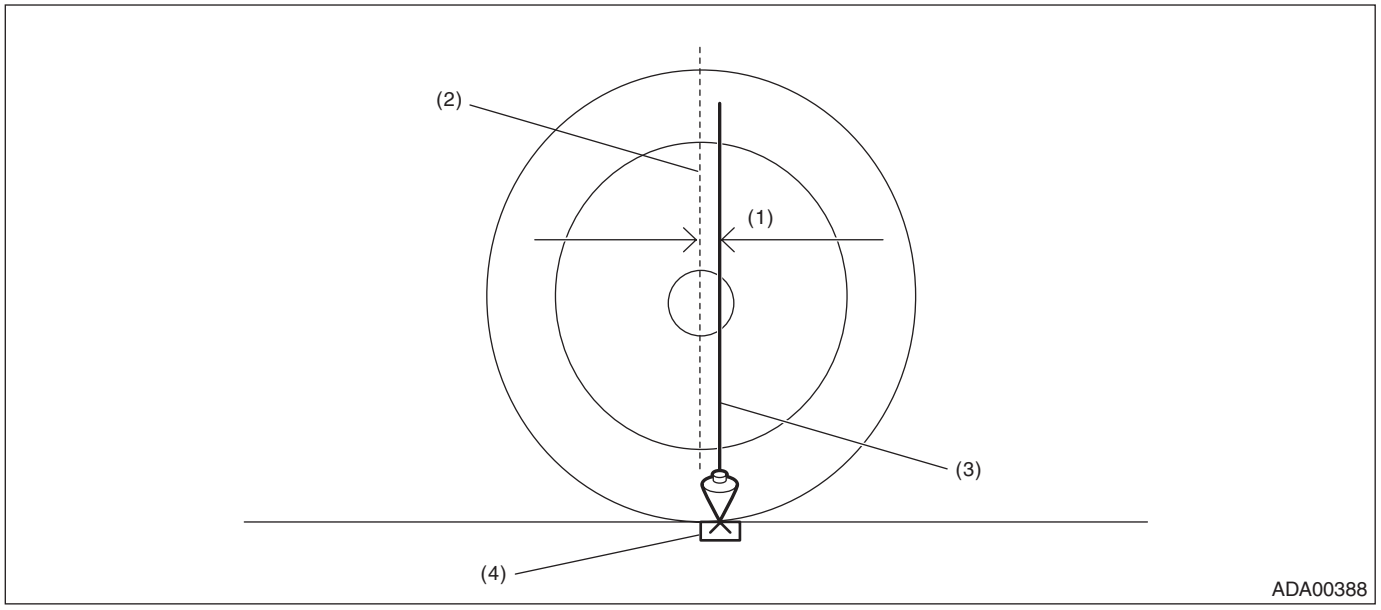
(1) ±4.0 mm (±0.16 in)
(2) Marking
(3) Plumb bob

- **Positioning accuracy of the measure shall be ±2.0 mm (±0.08 in) or less.**



(1) ±2.0 mm (±0.08 in) (2) Marking (3) Measure

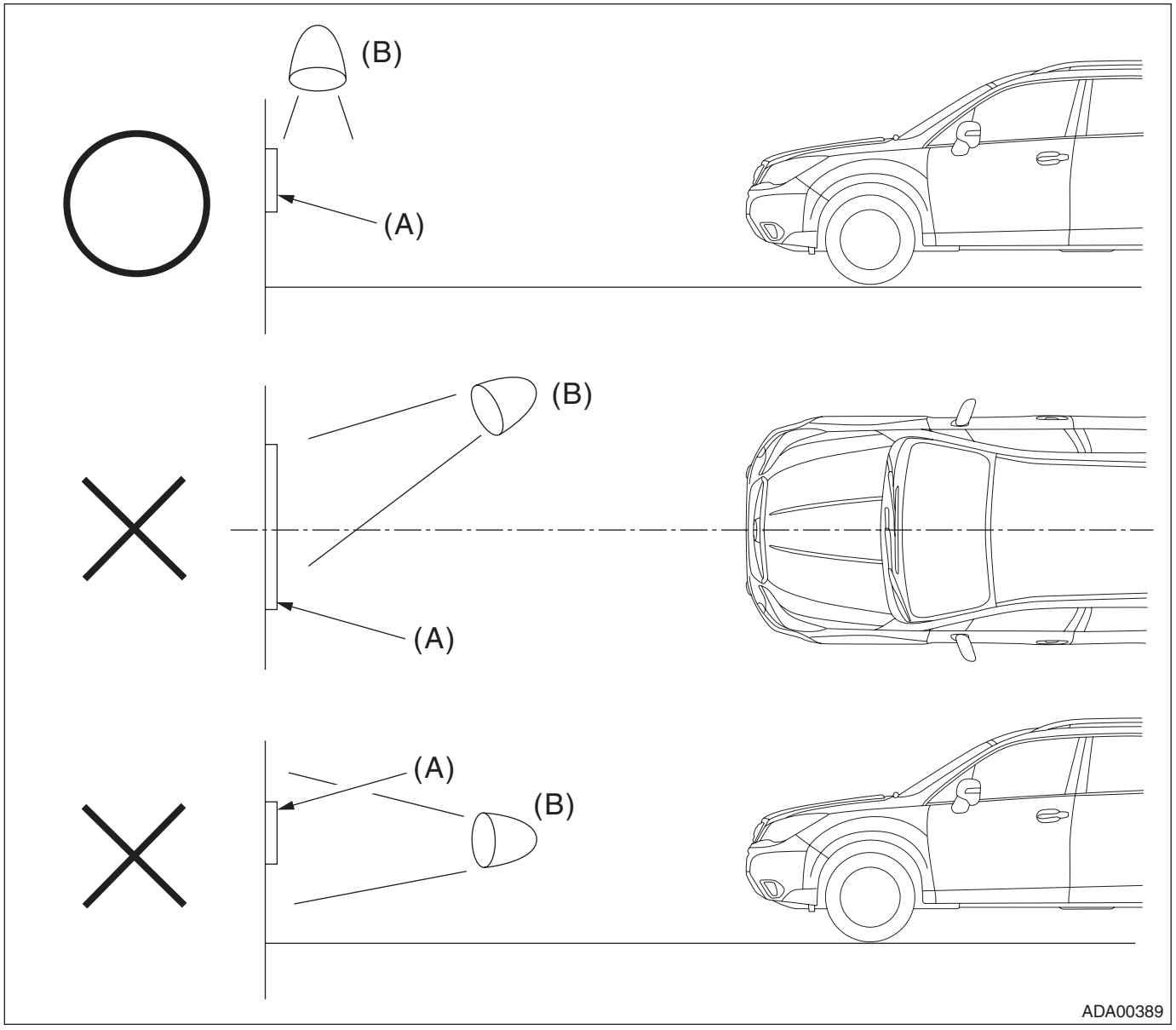
- **Centering accuracy of the tire shall be ±4.0 mm (±0.16 in) or less.**



(1) ±4.0 mm (±0.16 in) (3) Plumb bob
(2) Tire center line (4) Marking

- **Affix the RANDOM CHART onto the vertical partition with flat surface.**
- **Turn off the headlight.**
- **Remove the luggage from the vehicle.**
- **Perform the adjustment work at the level floor.**
- **Perform the adjustment work at lighted places. If the lighting is not enough, adjustment can not be done, and accuracy rate may not be acquired.**

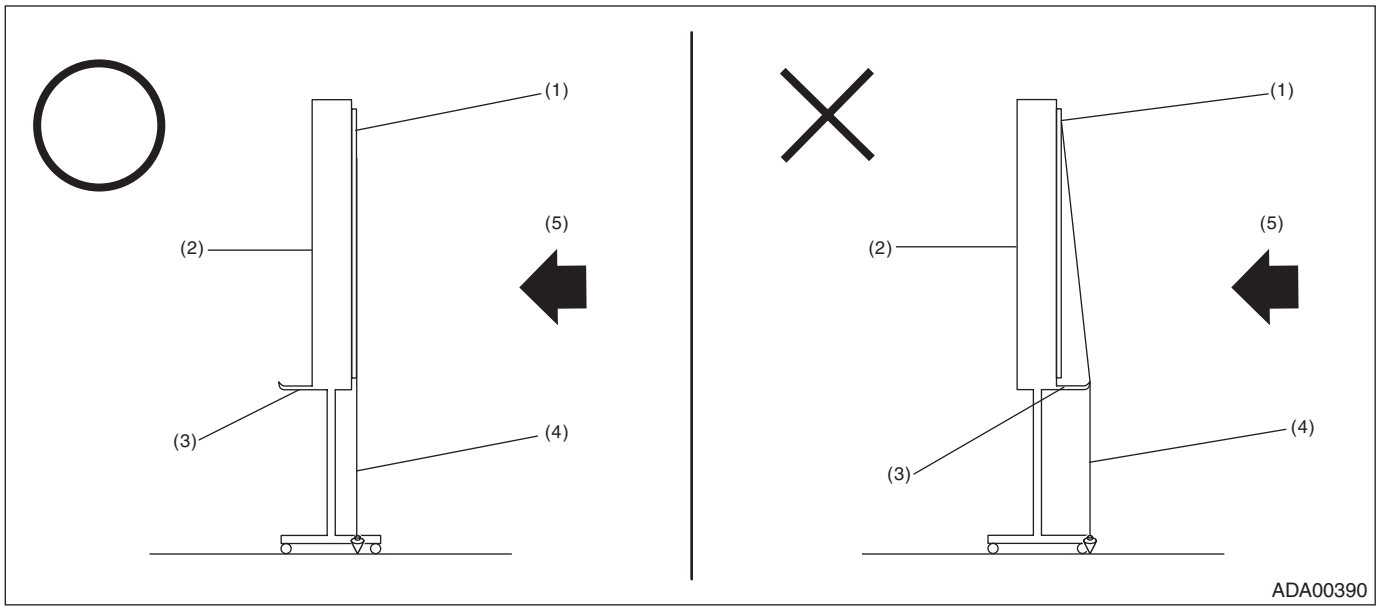
• Apply the lighting from the upper side of RANDOM CHART. (If the lighting is applied from the position where light reflects at RANDOM CHART, the adjustment can not be done, because the reflected light enters the camera.)



(A) RANDOM CHART (B) Lighting

• The adjustment in the outdoors cannot be recommended. Note the sun position, when adjusting it in outdoor by necessity. (It is not acceptable when the sunlight comes from front or rear of the vehicle)
• Do not affix RANDOM CHART with lustrous tapes which may reflect the light.
• When the front tires are not directed to the straight ahead position even if the steering wheel is set to the center position, adjust the alignment.

• When using the white board as a partition, affix the RANDOM CHART on the flat surface without protrusion such as penholder. When suspending the plumb bob, suspend it vertically from the RANDOM CHART by avoiding protrusion.



(1) RANDOM CHART
(2) White board
(3) Protrusion (penholder, etc.)
(4) Plumb bob
(5) Vehicle travel direction

9) Turn the ignition switch to OFF.
10) Check the windshield glass and the dashboard.<Ref. to ES(diag)-8, WINDSHIELD GLASS AND DASHBOARD, INSPECTION, General Description.>

CAUTION:
If there are any dirt, object or reflection from dashboard within the visibility of stereo camera, the correct adjustment and inspection can not be performed. Especially, do not put paper etc. on the dashboard.
11) Connect the Subaru Select Monitor.

NOTE:
Use the Subaru Select Monitor equipped with the latest version of the software.
12) Turn the ignition switch to ON.
13) Wait for 10 seconds.
14) On «Main Menu» display, select {Each System Check}.
15) On «System Selection Menu» display, select {ADA adaptive cruise control system}.
16) Select {EyeSight (from 2009MY)} while pressing the camera cover mounted pre-collision brake OFF switch and lane departure warning OFF switch at the same time.

NOTE:
If {EyeSight (from 2009MY)} is selected without pressing two switches at the same time, {Camera adjustment, inspection} is not displayed. (for preventing misoperation)
Also, the message is not displayed, when the camera does not finish the start-up (approx. 10 seconds after ignition switch ON). In that case, repeat from the selection of {EyeSight (from 2009MY)}.

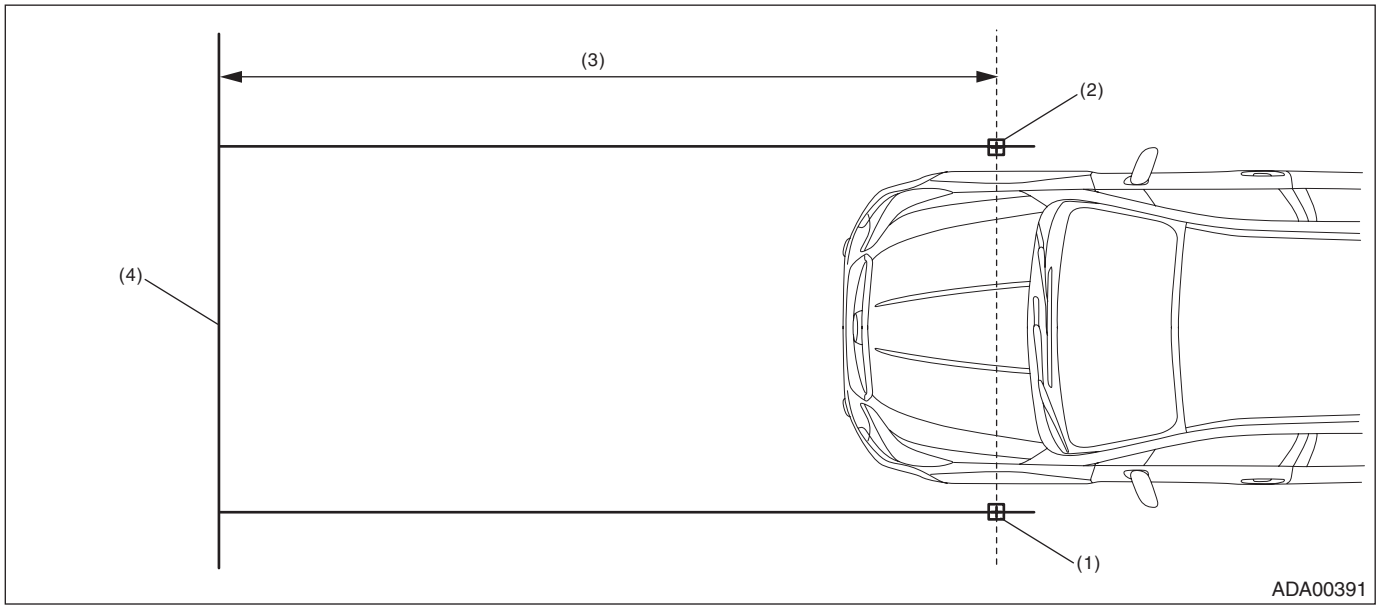
17) On «EyeSight (from 2009MY)» display, select {Camera adjustment, inspection}, to perform the camera adjustment or inspection.

NOTE:
• When performing {Camera adjustment, inspection}, pre-collision brake OFF indicator light, lane departure warning OFF indicator light in the meter will illuminate, and the normal function will be disabled.
• After camera adjustment, the function will be enabled, when the ignition switch is turned to OFF and system is restarted.

• When performing adjustment or inspection by affixing RANDOM CHART onto wall

1) Adjust the tire pressure.
2) Prepare the Subaru Select Monitor, measure, plumb bob, weight, leveling line and RANDOM CHART (ST: 87599YC001).
3) Mark the setting position of the vehicle.
(1) Strain the leveling line so that it is at right angles to wall on which the RANDOM CHART is affixed, and fix the leveling line with packing tape.
(2) Make a marking 4,070 mm (13.4 ft) away from the wall where the leveling line is fixed. (Point A and point B)

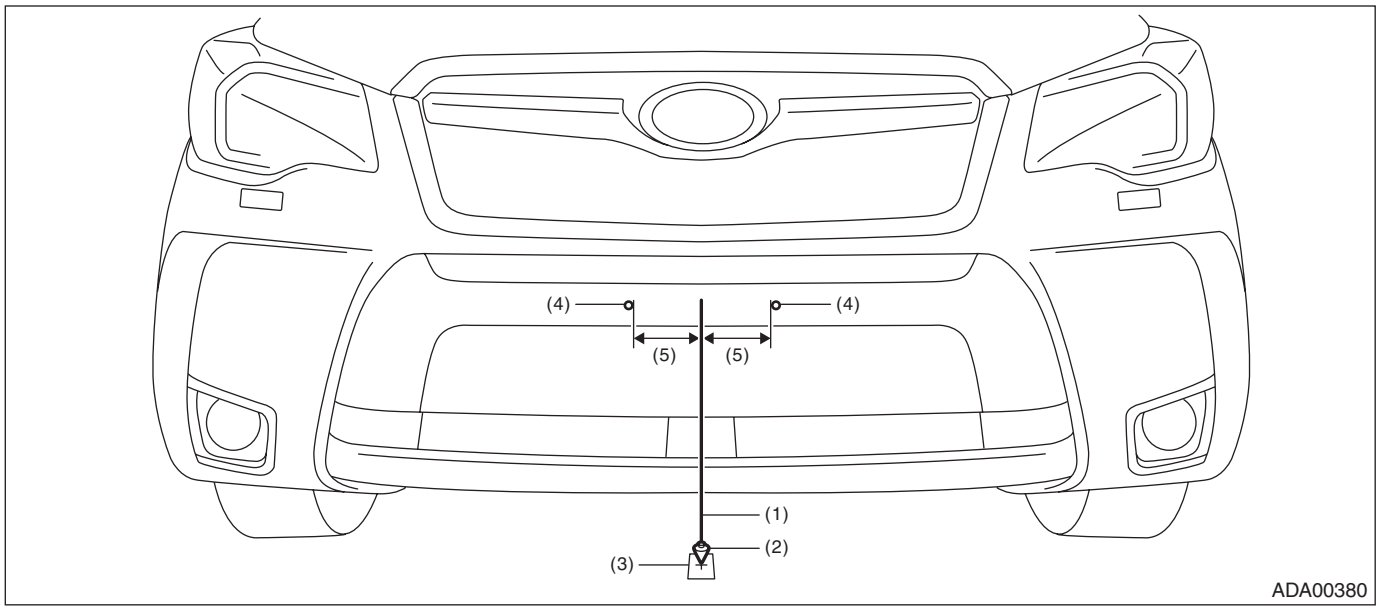
NOTE:
Stick the packing tape etc. on the floor, then make a marking on it.
(3) Strain the leveling line so that it passes through the point A and point B. (A-B line)



(1) Point A
(2) Point B
(3) 4070 mm (13.4 ft)
(4) Wall

4) Suspend the plumb bob from the center of the front tire of the vehicle, and place the vehicle so that it is aligned with the leveling line (A-B line).

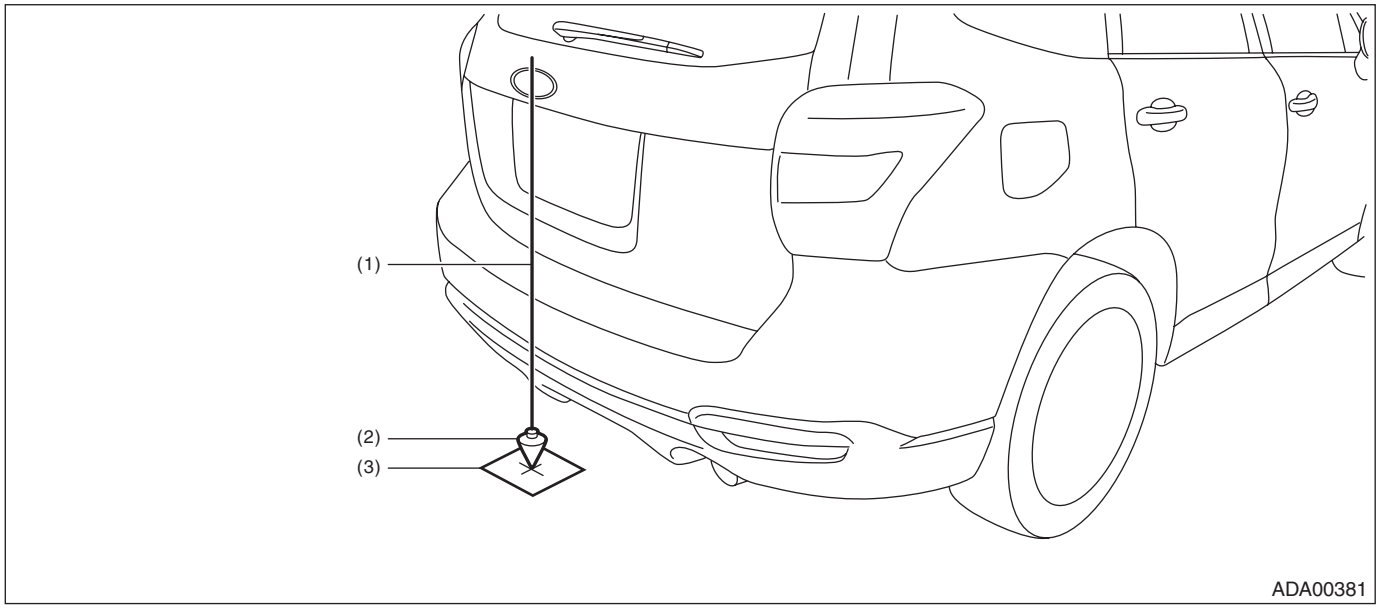
5) Suspend the plumb bob with leveling line from front center position of vehicle (center of license plate base), and mark the position where the plumb bob touches the ground. (Point C)



(1) Leveling line
(2) Plumb bob
(3) Point C
(4) License plate base
(5) Same distance

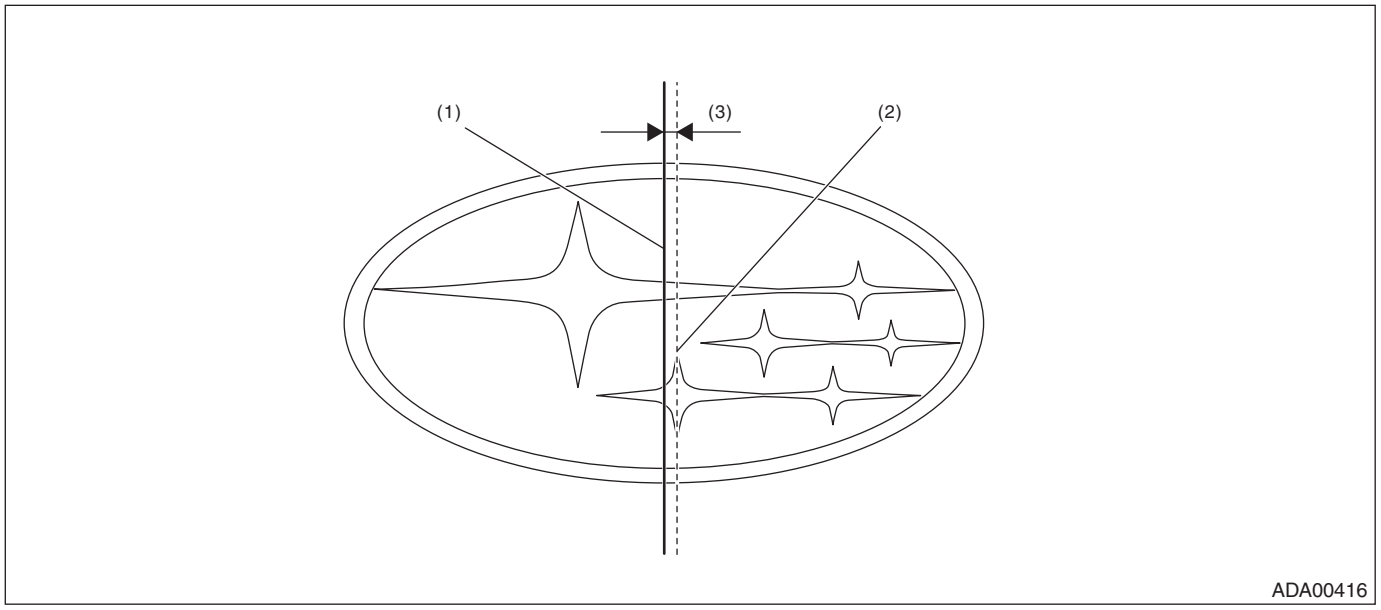
NOTE:
Stick the packing tape etc. on the floor, then make a marking on it.

6) Suspend the plumb bob with leveling line from rear center position of vehicle (center of rear ornament), and mark the position where the plumb bob touches the ground. (Point D)



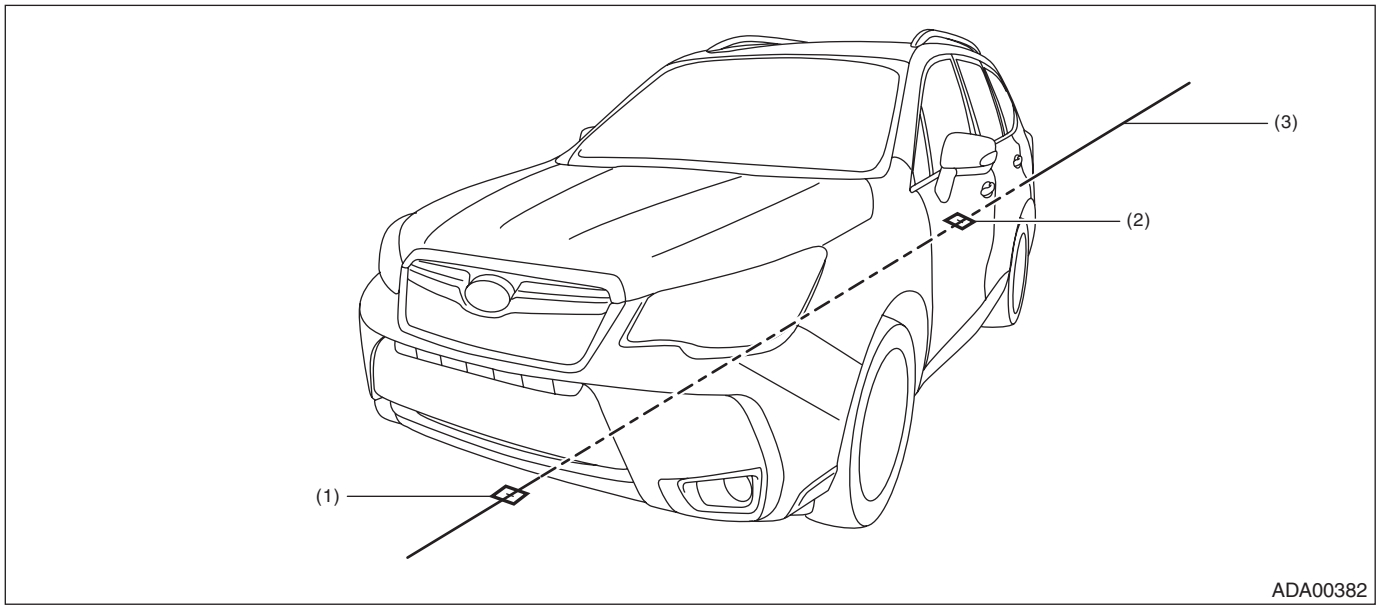
(1) Leveling line
(2) Plumb bob
(3) Point D

NOTE:
The center of the ornament is located 2 mm (0.08 in) to the left from the top of the second left star.



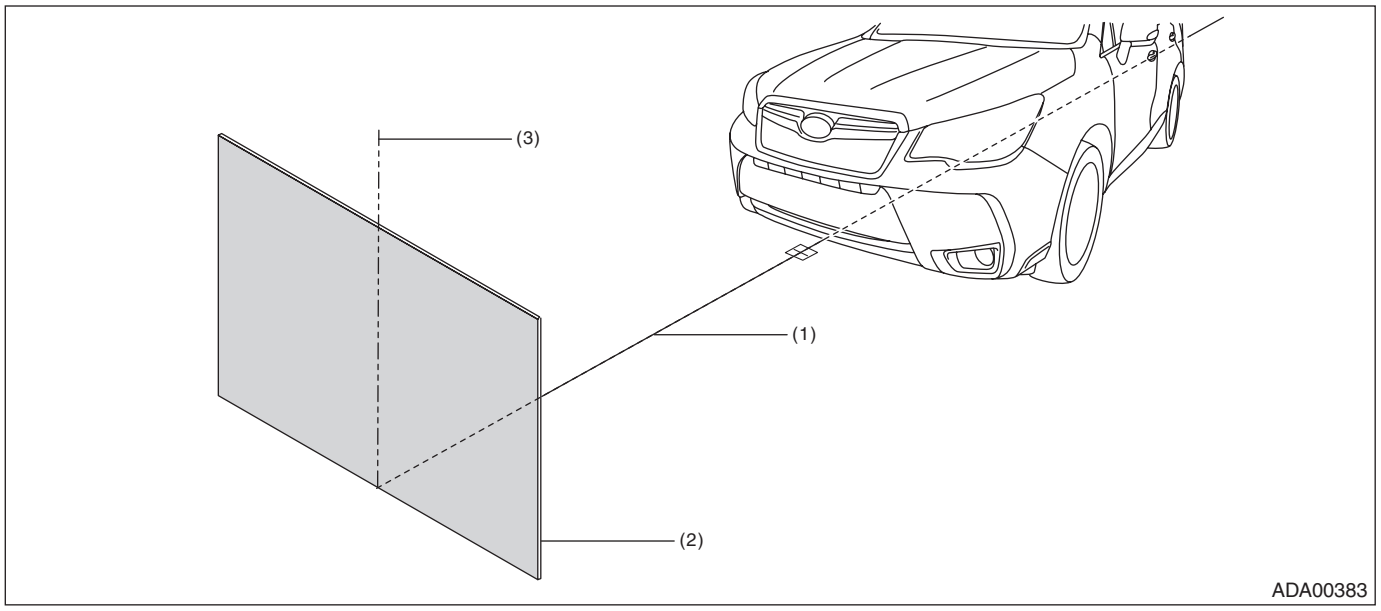
(1) Center of ornament (2) Top of star (3) 2.0 mm (0.08 in)

7) Strain the leveling line from the making point D through the marking point C to the wall, and fix it with packing tape. (C-D line)

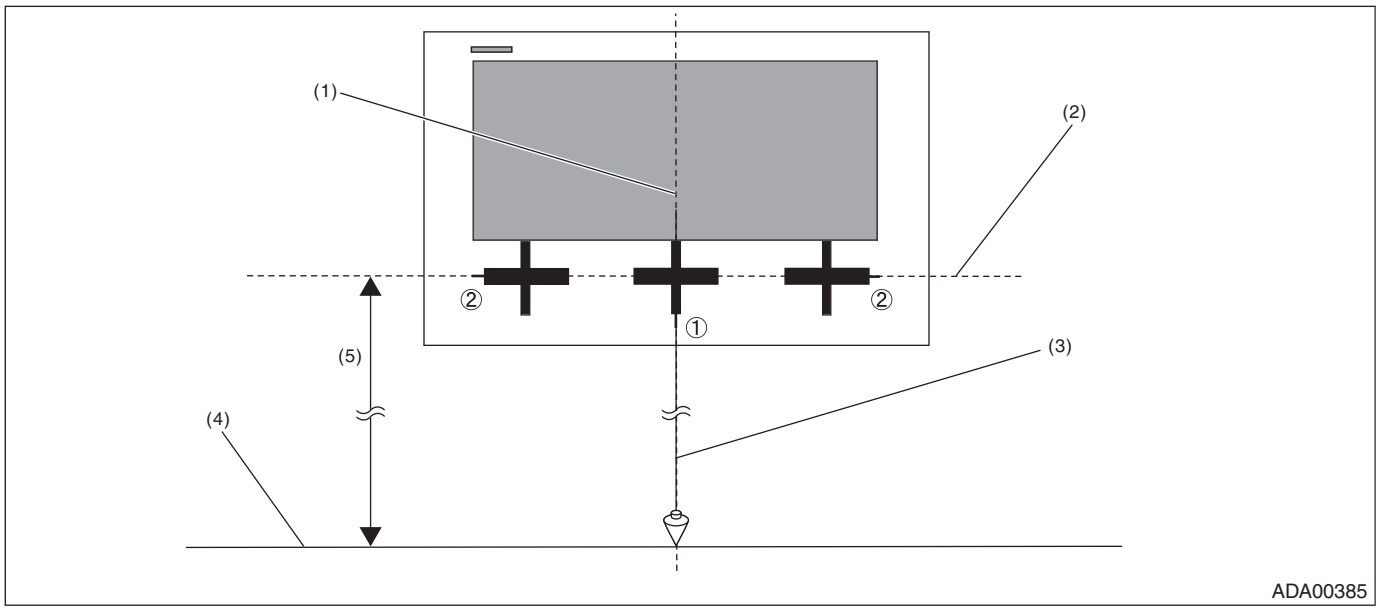


(1) Point C (2) Point D (3) Leveling line

8) Using the plumb bob, attach the RANDOM CHART on the wall, so that the height from the floor to the cross mark (left and right) setting reference (horizontal line) is 1,004 mm (3.3 ft) while aligning the RANDOM CHART cross mark (center) setting reference (vertical line) to the vehicle body center line (leveling line).



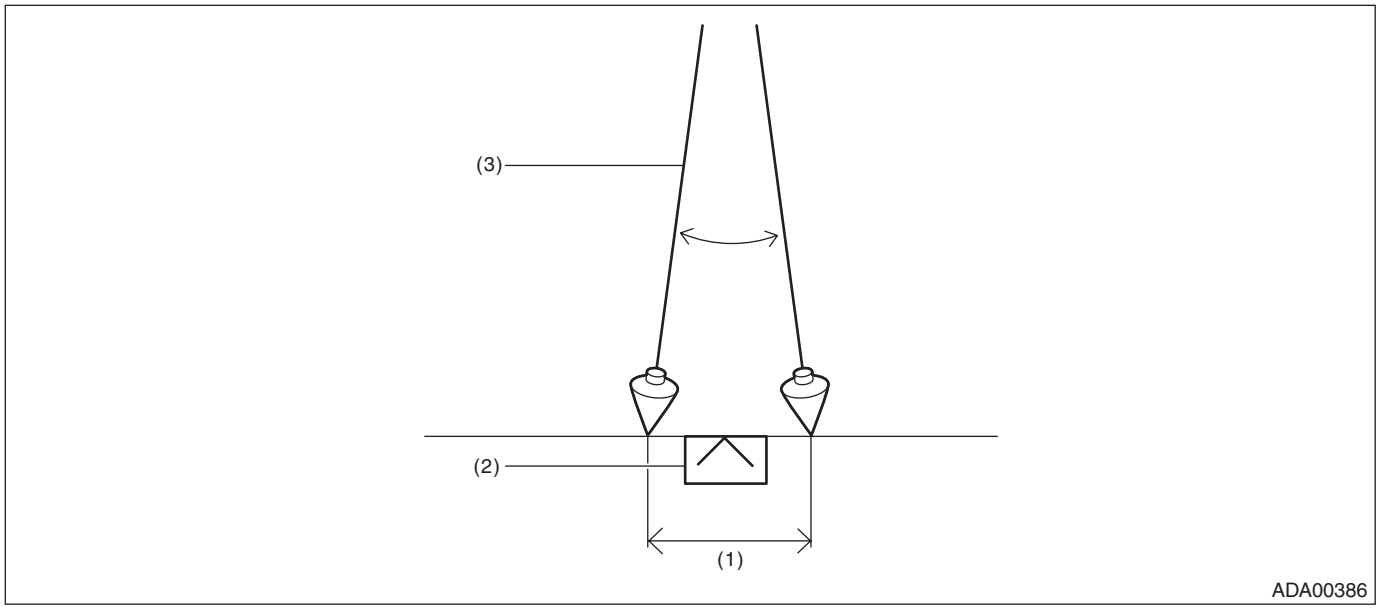
(1) Vehicle body center line (C-D line) (2) Wall (3) Setting reference (vertical line)



(1) ① = Setting reference (vertical line) and vehicle body center line (C-D line)
(2) ② = Setting reference (horizontal line)
(3) Plumb bob
(4) Floor
(5) 1,004 mm (3.3 ft)

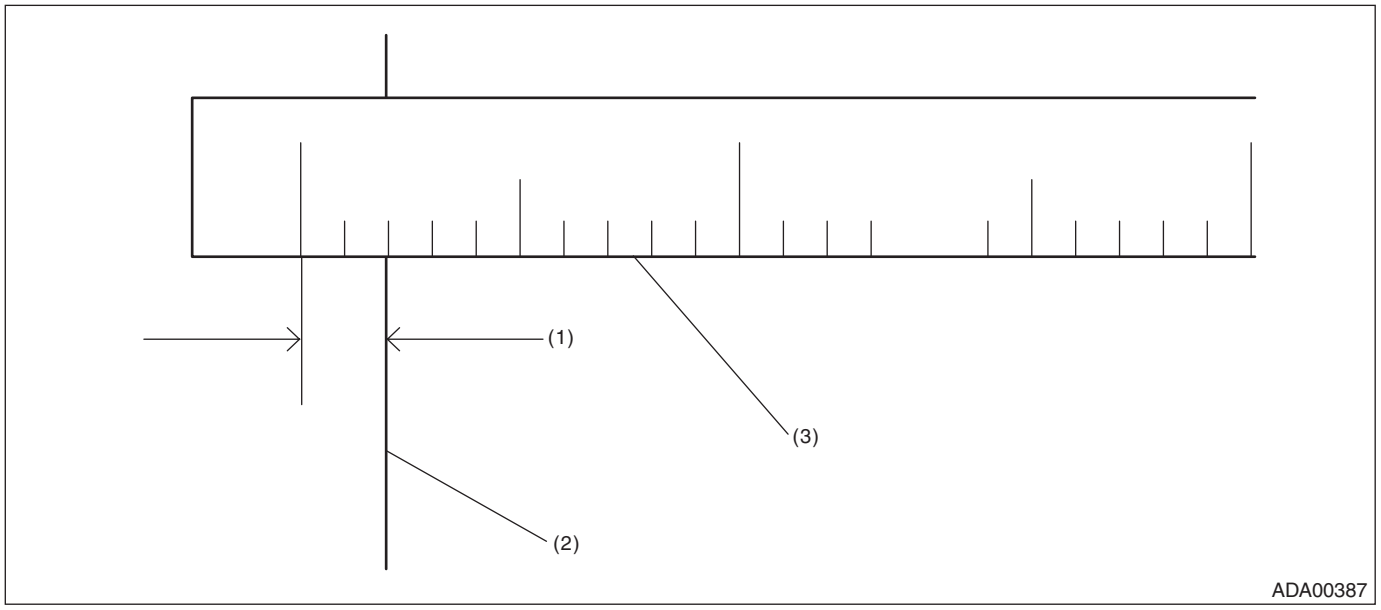
CAUTION:

- **Centering accuracy of the plumb bob shall be ±4.0 mm (±0.16 in) or less.**



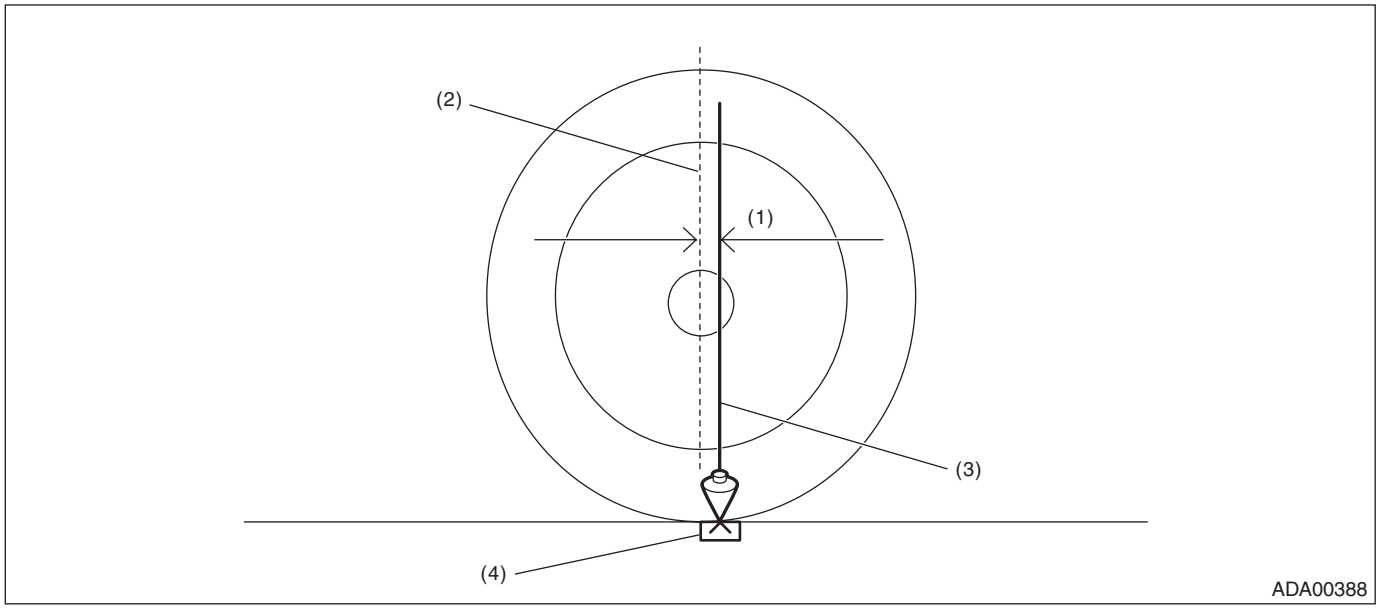
(1) ±4.0 mm (±0.16 in) (2) Marking (3) Plumb bob

- **Positioning accuracy of the measure shall be ±2.0 mm (±0.08 in) or less.**



(1) ±2.0 mm (±0.08 in) (2) Marking (3) Measure

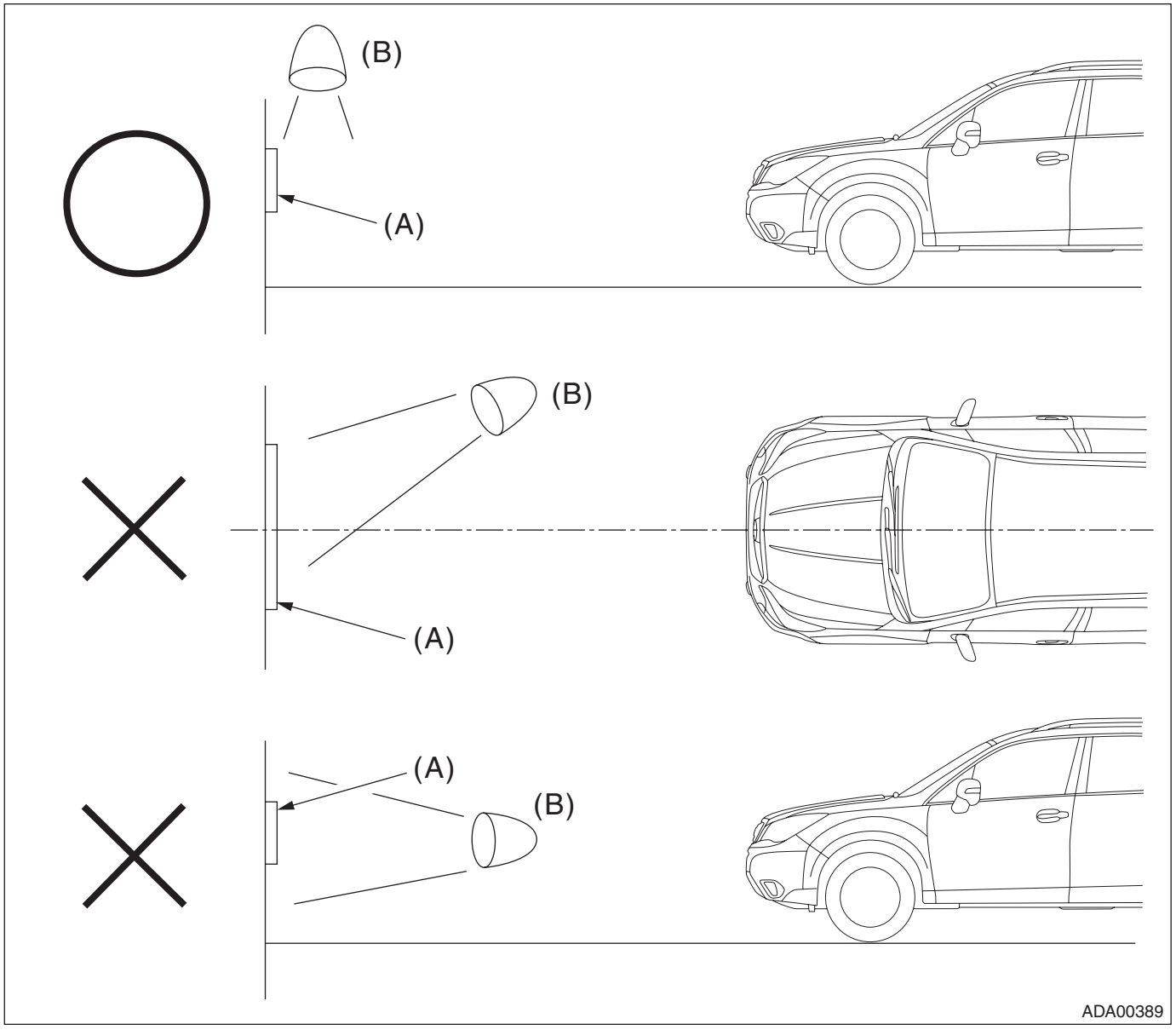
- **Centering accuracy of the tire shall be ±4.0 mm (±0.16 in) or less.**



(1) ±4.0 mm (±0.16 in)
(2) Tire center line
(3) Plumb bob
(4) Marking

- **Affix the RANDOM CHART onto the vertical wall with flat surface.**
- **Turn off the headlight.**
- **Remove the luggage from the vehicle.**
- **Perform the adjustment work at the level floor.**
- **Perform the adjustment work at lighted places. If the lighting is not enough, adjustment can not be done, and accuracy rate may not be acquired.**

• Apply the lighting from the upper side of RANDOM CHART. (If the lighting is applied from the position where light reflects at RANDOM CHART, the adjustment can not be done, because the reflected light enters the camera.)



(A) RANDOM CHART (B) Lighting

• The adjustment in the outdoors cannot be recommended. Note the sun position, when adjusting it in outdoor by necessity. (It is not acceptable when the sunlight comes from front or rear of the vehicle)
• Do not affix RANDOM CHART with lustrous tapes which may reflect the light.
• When the front tires are not directed to the straight ahead position even if the steering wheel is set to the center position, adjust the alignment.
9) Turn the ignition switch to OFF.
10) Check the windshield glass and the dashboard.<Ref. to ES(diag)-8, WINDSHIELD GLASS AND DASHBOARD, INSPECTION, General Description.>

CAUTION:
If there are any dirt, object or reflection from dashboard within the visibility of stereo camera, or if the inner mirror is excessively moved and the object enters the visibility of the camera, the correct adjustment and inspection can not be performed. Especially, do not put paper etc. on the dashboard.

11) Connect the Subaru Select Monitor.

NOTE:
Use the Subaru Select Monitor equipped with the latest version of the software.
12) Turn the ignition switch to ON.
13) Wait for 10 seconds.
14) On «Main Menu» display, select {Each System Check}.
15) On «System Selection Menu» display, select {ADA adaptive cruise control system}.
16) Select {EyeSight (from 2009MY)} while pressing the camera cover mounted pre-collision brake OFF switch and lane departure warning OFF switch at the same time.

NOTE:
If {EyeSight (from 2009MY)} is selected without pressing two switches at the same time, {Camera adjustment, inspection} is not displayed. (for preventing misoperation)
Also, the message is not displayed, when the camera does not finish the start-up (approx. 10 seconds after ignition switch ON). In that case, repeat from the selection of {EyeSight (from 2009MY)}.
17) On «EyeSight (from 2009MY)» display, select {Camera adjustment, inspection}, to perform the camera adjustment or inspection.

NOTE:
• When performing {Camera adjustment, inspection}, pre-collision brake OFF indicator light, lane departure warning OFF indicator light in the meter will illuminate, and the normal function will be disabled.
• After camera adjustment, the function will be enabled, when the ignition switch is turned to OFF and system is restarted.

2. ADJUSTMENT VALUE CLEAR

Perform when replacing stereo camera. (Do not perform when performing stereo camera re-adjustment and inspection)
1) On «Camera adjustment, inspection» display, select {Camera individual adjustment mode}.
2) On «Camera individual adjustment mode» display, select {Clear adjustment value}.
3) When «Perform camera adjustment/inspection. Press OK when the preparations have been made.» is displayed, if preparation is ready, select {OK}.
4) When «Clear the adjustment value.» is displayed, select {OK}.
5) When «Clearing adjustment value...» is displayed, wait until process finishes.
6) When the adjustment value clear is finished correctly, and «Adjustment value cleared OK!» is displayed, select {OK} to finish.
7) Turn the ignition switch to OFF and wait for approx. 5 seconds or more.

CAUTION:
If the ignition switch OFF period is short, the adjustment value clear can not be performed correctly.
8) Next, perform the camera all adjustment mode (replacement/removal). <Ref. to ES(diag)-59, CAMERA ALL ADJUSTMENT MODE (REPLACEMENT/REMOVAL), PROCEDURE, Camera Adjustment, Inspection.>

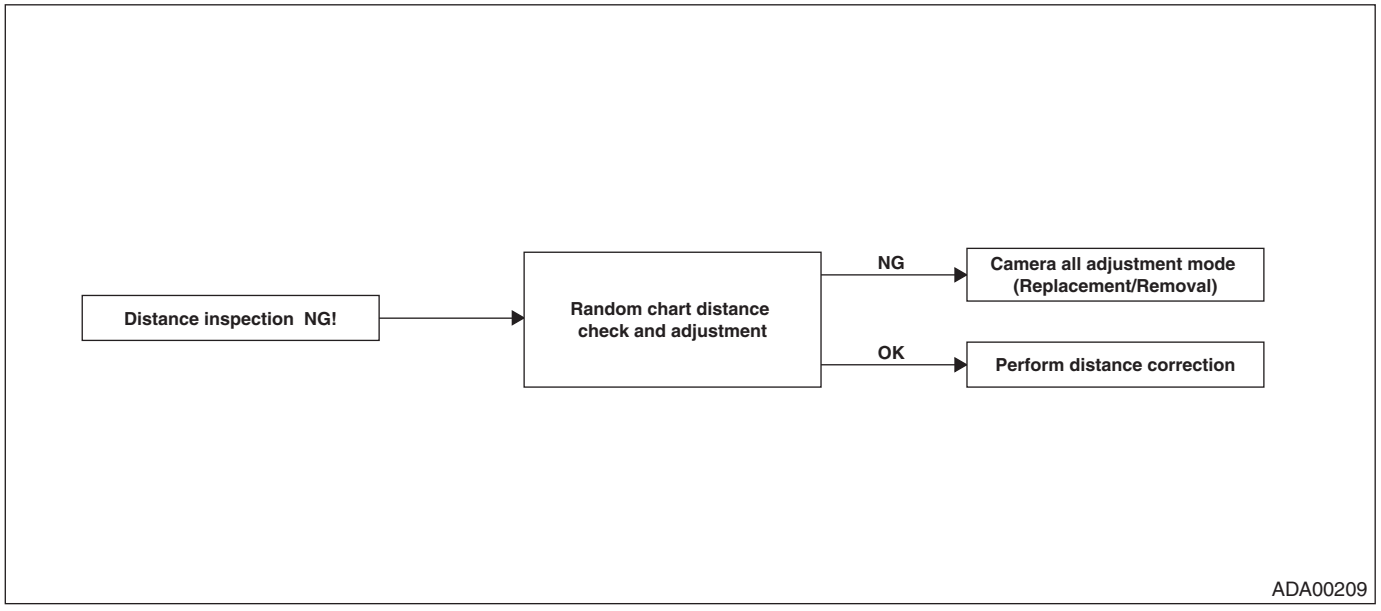
3. CAMERA ALL ADJUSTMENT MODE (REPLACEMENT/REMOVAL)

Perform this procedure when the stereo camera is replaced or re-adjustment is necessary (when stereo camera malfunctioning, when stereo camera reinstalled, when windshield glass replaced).

CAUTION:

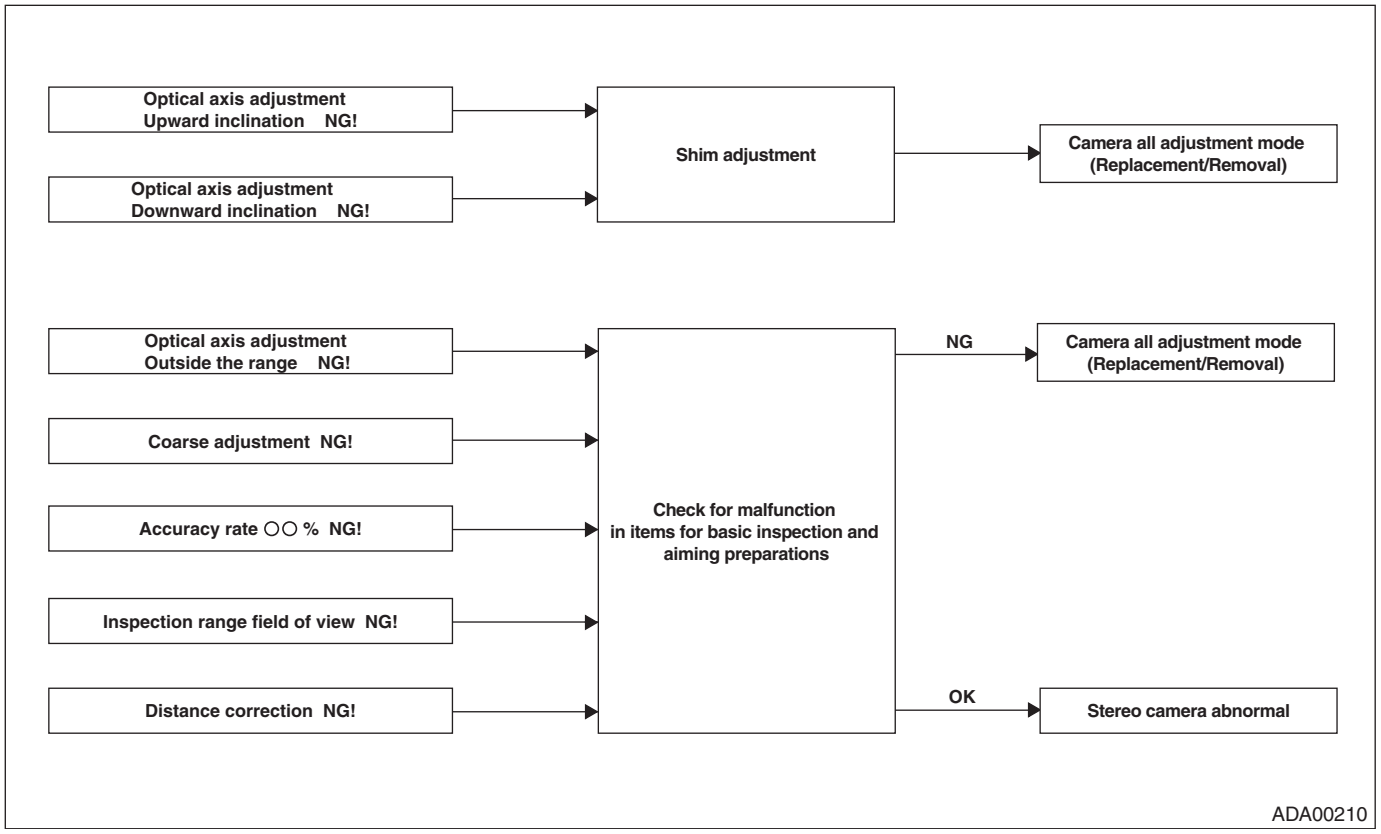
- **When the stereo camera is replaced, be sure to perform the {Clear adjustment value} first. When {Clear adjustment value} was skipped, restart the procedure from {Clear adjustment value} again. <Ref. to ES(diag)-58, ADJUSTMENT VALUE CLEAR, PROCEDURE, Camera Adjustment, Inspection.>**
- **Perform the camera adjustment and inspection at curb weight without passengers.**
- **When the camera all adjustment mode is performed, if the procedures are not completed correctly to the end, the warning light may illuminate, when the vehicle moves.**

1) On «Camera adjustment, inspection» display, select {Camera all adjustment mode (replacement/removal)}.
2) «Perform camera adjustment/inspection. Press OK when the preparations have been made.» will be displayed, if preparation is ready, select {OK}.
3) When «In process...» is displayed, wait until inspection finishes.
4) When the accuracy rate inspection is finished correctly, and «Accuracy rate ○○% OK!» is displayed, select {OK} to go to step 9).
5) When «Distance inspection NG!» is displayed, refer to the NOTE below.



NOTE:
Distance check and adjustment of RANDOM CHART <Ref. to ES(diag)-44, PREPARATIONS, PROCEDURE, Camera Adjustment, Inspection.>
6) When «Perform distance correction.» is displayed, select {OK}. When the distance correction is finished correctly, and «Distance correction OK!» is displayed, select {OK} and go to the accuracy rate inspection.
7) When «Perform accuracy rate inspection.» is displayed, select {OK}. When the accuracy rate inspection is finished correctly, and «Accuracy rate ○○% OK!» is displayed, select {OK} to go to the next step.

8) When «○○ NG!» is displayed during adjustment, refer to the NOTE below.



NOTE:
• Shim adjustment <Ref. to ES(diag)-61, SHIM ADJUSTMENT, PROCEDURE, Camera Adjustment, Inspection.>
• Basic inspection items <Ref. to ES(diag)-8, INSPECTION, General Description.>
• Aiming preparation items <Ref. to ES(diag)-44, PREPARATIONS, PROCEDURE, Camera Adjustment, Inspection.>

9) Turn the ignition switch to OFF and wait for 5 seconds. (time necessary to save adjustment and inspection result)

CAUTION:
If the ignition switch OFF period after adjustment and inspection finished is short, the adjustment and inspection result can not be saved correctly. The warning light may illuminate, when the vehicle moves.

10) Turn the ignition switch to ON, and confirm that [Aiming completion flag] of “Current Data Display & Save” is [Aiming completed] using the Subaru Select Monitor. (Note that it is different from [Initial aiming completion flag]) Or confirm that the [Model registration information] corresponds to the vehicle.
11) Perform the {Clear Memory}, and turn the ignition switch to OFF.

NOTE:
Even if [Aiming completion flag] is [Aiming completed], when no record is registered in [Model registration information], turn the ignition switch to off again, and wait for five seconds.

12) Next, perform the automatic adjustment and function check by driving. <Ref. to ES(diag)-61, AUTOMATIC ADJUSTMENT AND FUNCTION CHECK BY DRIVING, PROCEDURE, Camera Adjustment, Inspection.>

4. AUTOMATIC ADJUSTMENT AND FUNCTION CHECK BY DRIVING

NOTE:
• Perform the automatic adjustment and function check by driving to improve the recognition accuracy of stereo camera, when the stereo camera is replaced or re-adjusted, or the EyeSight function does not operate correctly.
• The automatic adjustment and function check by driving adjust the stereo camera more in detail, based on the stereo camera adjustment using RANDOM CHART.
1) Perform this procedure after finishing stereo camera adjustment and inspection.
2) On «ADA adaptive cruise control system» display, select {EyeSight (from 2009MY)}.
3) On «EyeSight (from 2009MY)» display, select {Current Data Display & Save}.
4) On «Current Data Display & Save» display, display the {Automatic adjustment status}. <Ref. to ES(diag)-23, OPERATION, Read Current Data.>
5) Drive the vehicle until [Automatic adjustment status] displays {1F}.
Drive the vehicle so that the distance from the preceding vehicle is 40 m or more.

Display	Content	Unit of measure	Note (at idling)
Automatic adjustment status	Index for automatic adjustment operation performed by the driving test after the completion of the optical axis adjustment	—	{1F} is displayed when completed.

NOTE:
• The time required until {1F} is displayed may be longer depending on the road condition etc.
• For new vehicles, {00} may be displayed. It is not necessary to drive the vehicle before delivery because high-accuracy aiming has been performed at vehicle shipment.
6) On {Current Data Display & Save} display, display [Lane recognition status] to check if any of the following appears.
• Right lane is recognized: 01
• Left lane is recognized: 10
• Right and left lane are recognized: 11

Display	Content	Unit of measure	Note (at idling)
Lane recognition status	Display of lane recognition status	—	Recognized when vehicle lane can be seen by 20 m or more.

7) On {Current Data Display & Save} display, display [Distance from leading vehicle] to check if the distance from the preceding vehicle is approximately the same.

5. SHIM ADJUSTMENT

1) Turn the ignition switch to OFF.
2) Detach the stereo camera cover, and remove the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>
3) Remove the stereo camera plate, and insert the shim between the vehicle body and camera plate.

NOTE:
• Inserting the shim (031105000) into the vehicle front side makes camera downward.
• Inserting the shim (031105000) into the vehicle rear side makes camera upward.
• There is a case that the shim may be inserted at the production line, but it is not abnormal.
4) Install the stereo camera spacer.

Tightening torque:
5.5±1.0 N·m (0.56±0.10 kgf-m, 4.1±0.7 ft-lb)
5) Install the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>
6) Perform the camera all adjustment mode (replacement/removal).<Ref. to ES(diag)-59, CAMERA ALL ADJUSTMENT MODE (REPLACEMENT/REMOVAL), PROCEDURE, Camera Adjustment, Inspection.>

6. CAMERA INITIALIZATION

This is a recovery measures prepared for the data failure caused by the low battery voltage during data storage to inside the stereo camera.

CAUTION:
Do not usually perform camera initialization because it will clear the aiming data and/or DTCs.
Perform the camera initialization only when the aiming result is NG even if the vehicle is placed correctly in the flowchart described in “A: Procedure”.
1) Turn the ignition switch to ON.
2) Wait for 10 seconds.
3) On Main Menu display, select {Each System Check}.
4) On «System Selection Menu», select {ADA adaptive cruise control system}.
5) Select «EyeSight (from 2009MY)».
6) Select {Clear Memory} while pressing the camera cover mounted pre-collision brake OFF switch and lane departure warning OFF switch at the same time.
7) Turn the ignition switch to OFF.
8) Wait for 5 seconds.
9) Next, perform the clear adjustment value. <Ref. to ES(diag)-58, ADJUSTMENT VALUE CLEAR, PROCEDURE, Camera Adjustment, Inspection.>

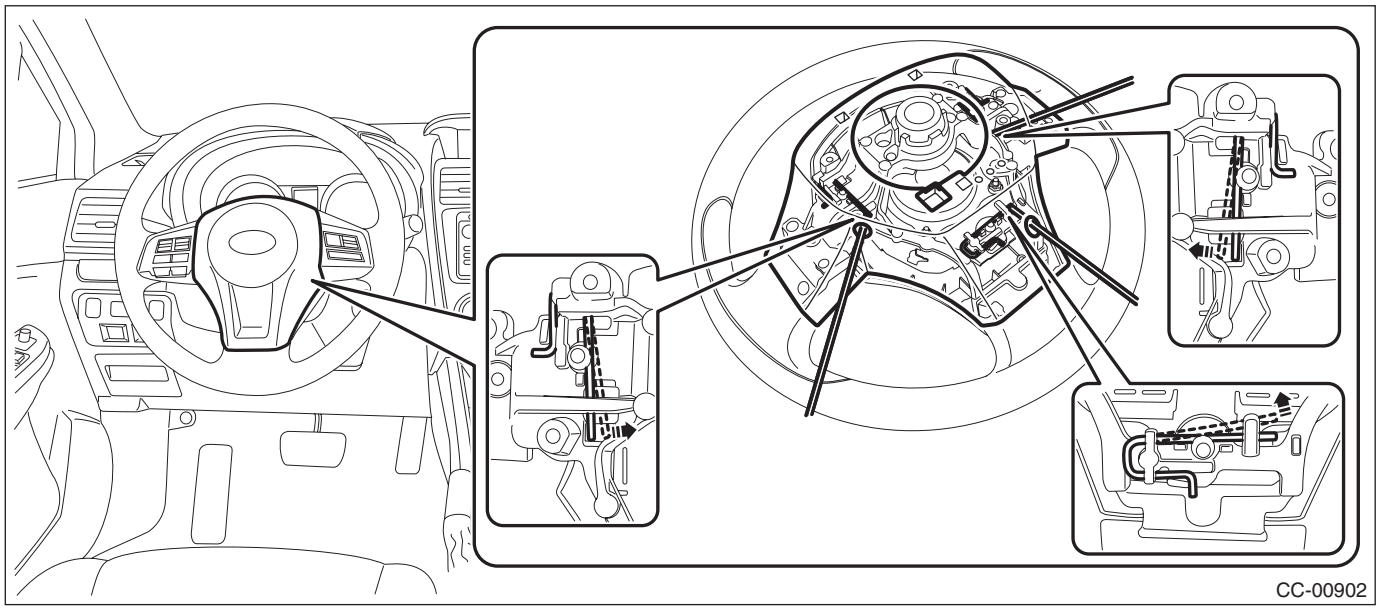
12.Combination Switch (Light)

A: REMOVAL

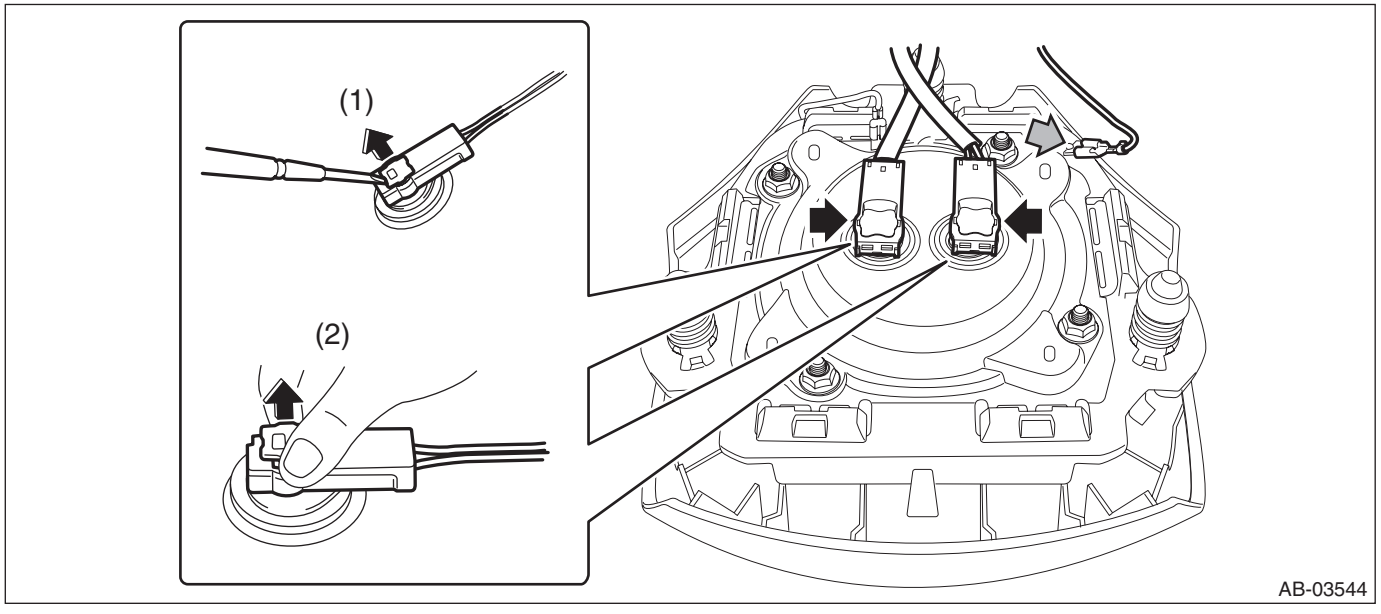
1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.

CAUTION:
Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>

(1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).


CC-00902

(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



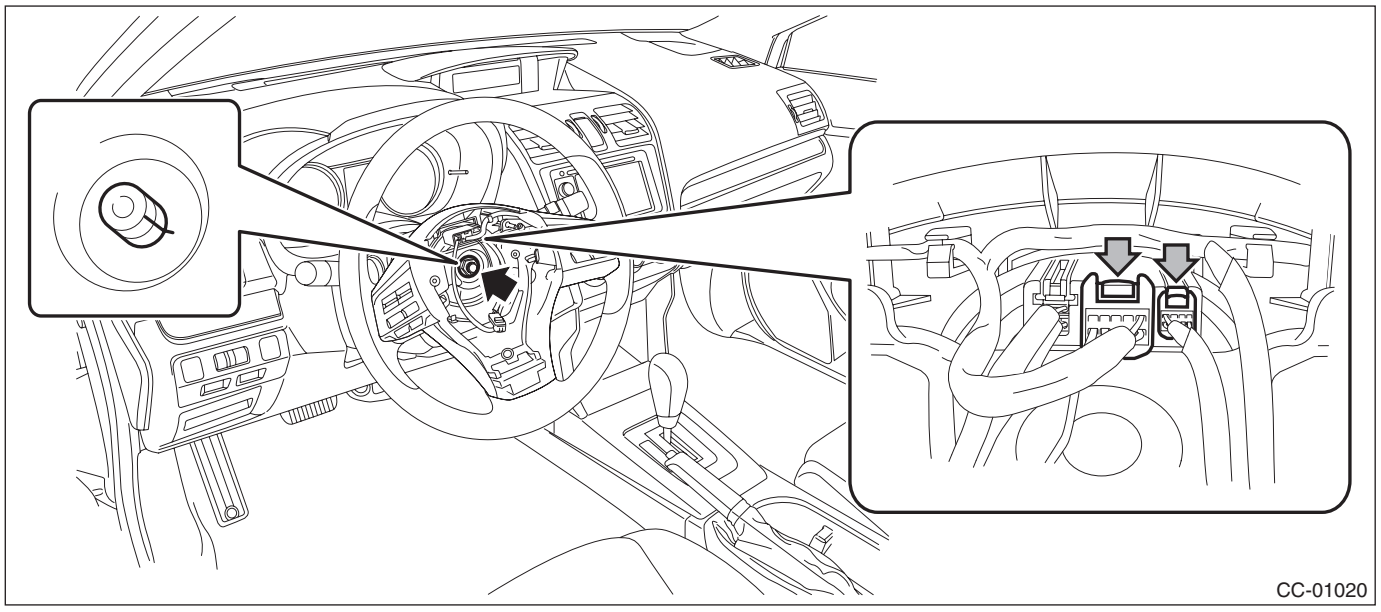
AB-03544

5) Remove the steering wheel.

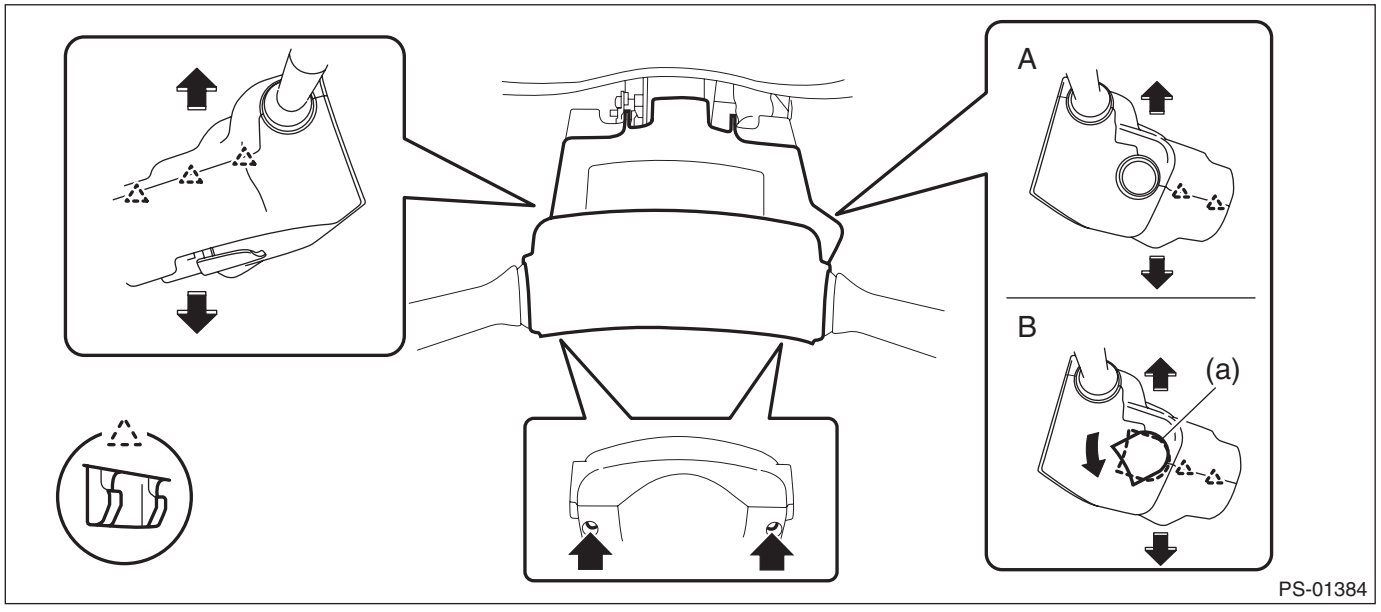
CAUTION:
- **Always use the steering wheel puller for removal to avoid deforming the steering wheel.**
- **If the steering wheel has been removed, make sure that the steering roll connector is not turned from the original position.**

(1) Disconnect the connector and remove the nut.
(2) Put alignment marks and remove the steering wheel using a steering wheel puller.

Preparation tool:
Steering wheel puller



6) Remove the cover assembly - column.
(1) Release the screws and claws.
(2) Remove the cap - key cylinder (a). (Model with keyless access)
(3) Remove the cover assembly - column UPR and the cover assembly - column LWR.

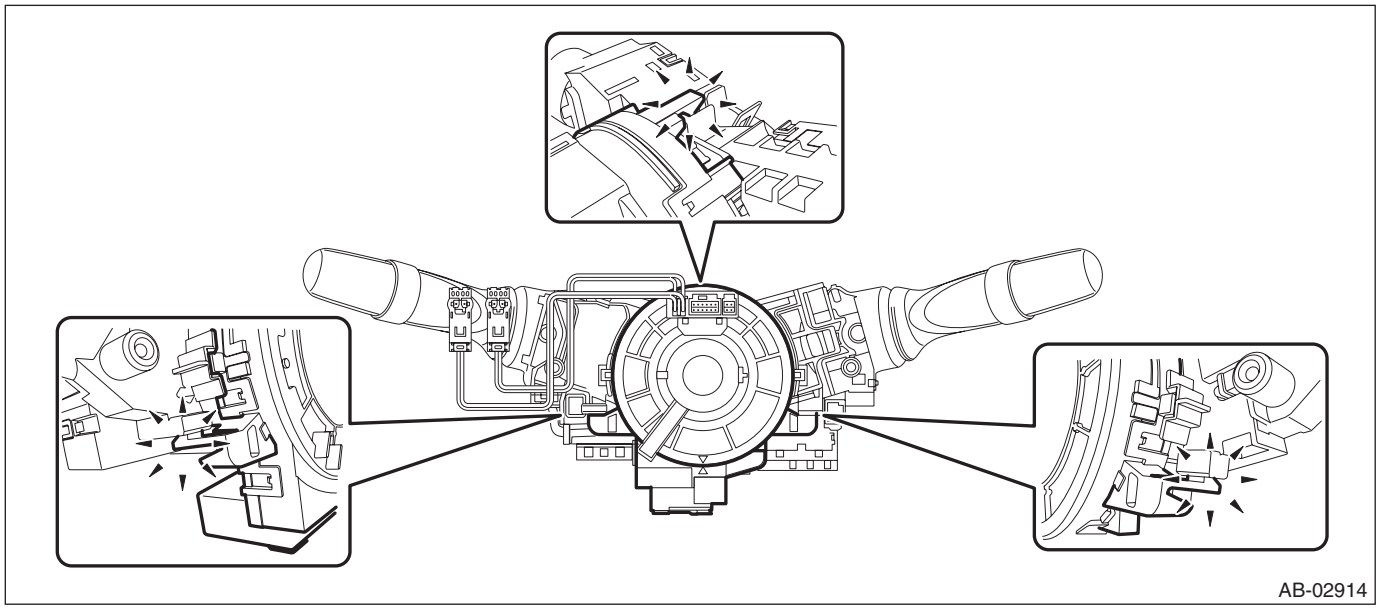


A Model without keyless access B Model with keyless access

7) Remove the steering roll connector.

CAUTION:
Make sure that the steering roll connector is not turned from the original position.

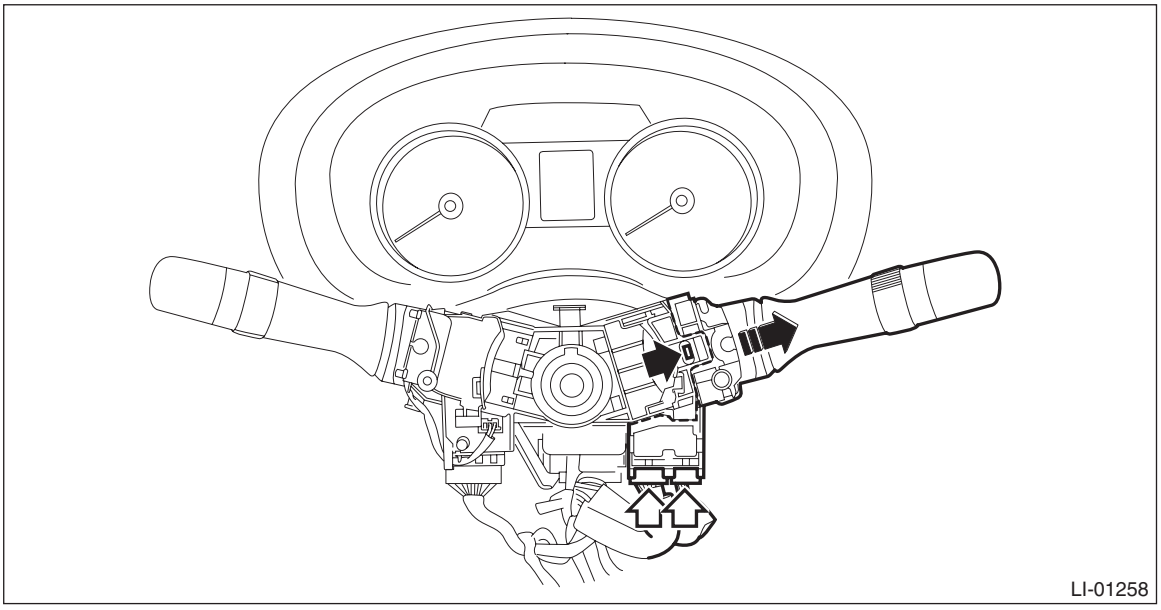
(1) Disconnect the connector under the steering roll connector.
(2) Release the claws and remove the steering roll connector.



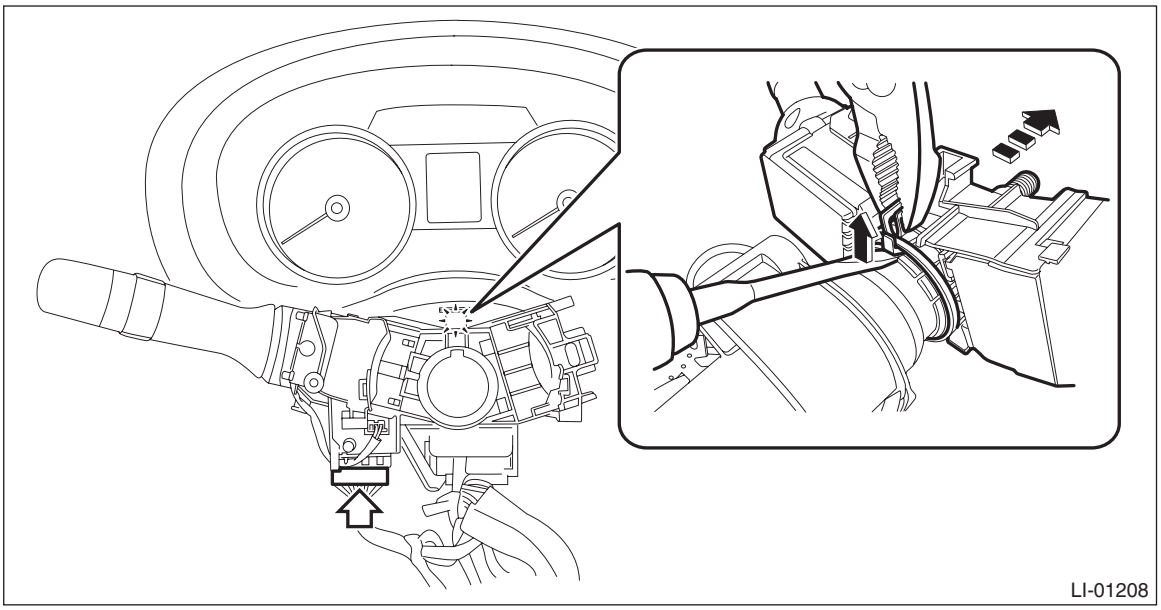
8) Remove the switch assembly - combination wiper select.

(1) Disconnect the connector.
(2) Release the claws, and pull out the switch assembly - combination wiper select.

CAUTION:
Do not press the claws with excessive force. They may be damaged.



9) Remove the switch assembly - combination turn dimmer.
(1) Disconnect the connector, and loosen the clamp to release the claws.
(2) Pull out the switch assembly - combination turn dimmer from the column assembly - steering.



B: INSTALLATION

CAUTION:
• Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". <Ref. to AB-9, CAUTION, General Description.>
• Do not allow harness and connectors to interfere or get tangled up with other parts.
• If the steering wheel and steering angle sensor (steering roll connector) are removed, adjust the steering angle sensor. <Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

1) Before installing steering wheel, be sure to adjust the direction of steering roll connector with steering wheel. <Ref. to AB-107, ADJUSTMENT, Roll Connector.>
2) Install each part in the reverse order of removal.

NOTE:
Align the alignment marks on the steering wheel and the column assembly - steering.

Tightening torque:
Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

Clearance:
Between cover assembly - column and steering wheel: 4 — 6 mm (0.16 — 0.24 in)

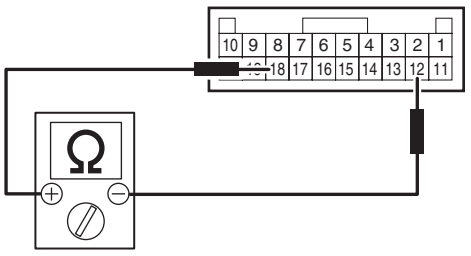
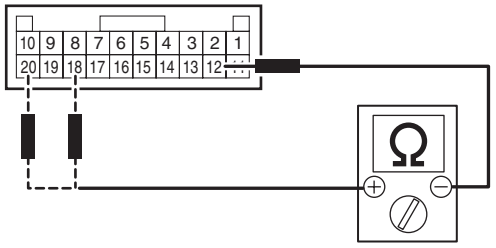
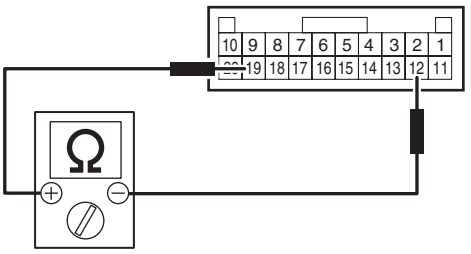
C: INSPECTION

Unit inspection

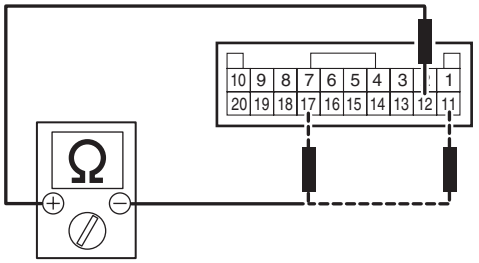
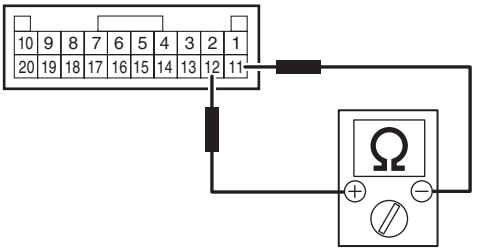
Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

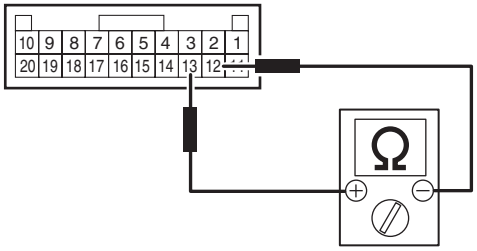
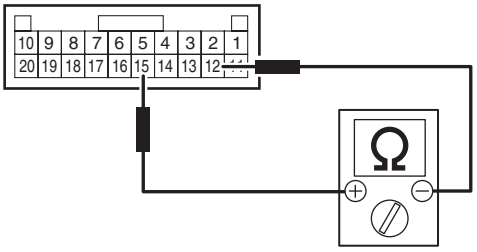
- Lighting switch

Terminal No.	Inspection conditions	Standard	Connection diagram
—	Switch OFF	1 MΩ or more	—
18 — 12	Switch 1 (TAIL)	Less than 1 Ω	 LI-01244
20, 18 — 12	Switch 2 (HEAD)	Less than 1 Ω	 LI-01245
19 — 12	Switch AUTO	Less than 1 Ω	 LI-01246

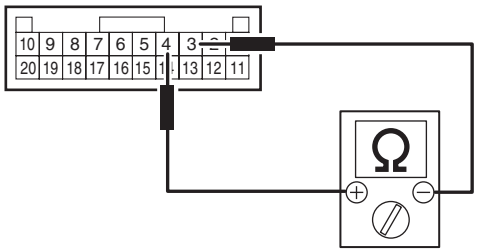
- Dimmer & passing switch

Terminal No.	Inspection conditions	Standard	Connection diagram
11, 17 — 12	Switch PASS	Less than 1 Ω	 LI-01247
11 — 12	Switch UP	Less than 1 Ω	 LI-01248

- Turn signal switch

Terminal No.	Inspection conditions	Standard	Connection diagram
13 — 12	Switch TURN (RH)	Less than 1 Ω	 LI-01249
15 — 12	Switch TURN (LH)	Less than 1 Ω	 LI-01250

- Front fog light switch

Terminal No.	Inspection conditions	Standard	Connection diagram
4 — 3	Switch OFF	1 MΩ or more	 LI-01251
	Switch ON	Less than 1 Ω	

2) Replace the switch assembly - combination turn dimmer if the inspection result is not within the standard value.

12.Diagnostics with Phenomenon

A: INSPECTION

Refer to “Diagnostics with Phenomenon” of “CRUISE CONTROL SYSTEM (DIAGNOSTICS)” section. <Ref. to CC(diag)-11, Diagnostics with Phenomenon.>

CRUISE CONTROL SYSTEM (DIAGNOSTICS)

CC(diag)

		Page
1.	Basic Diagnostic Procedure	2
2.	General Description	5
3.	Electrical Component Location	6
4.	Engine Control Module (ECM) I/O Signal	7
5.	Subaru Select Monitor	8
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7.	Real-time Diagnosis	10
8.	Diagnostics with Phenomenon	11
9.	List of Cancel Code	13
10.	Diagnostic Procedure with Cancel Code	15

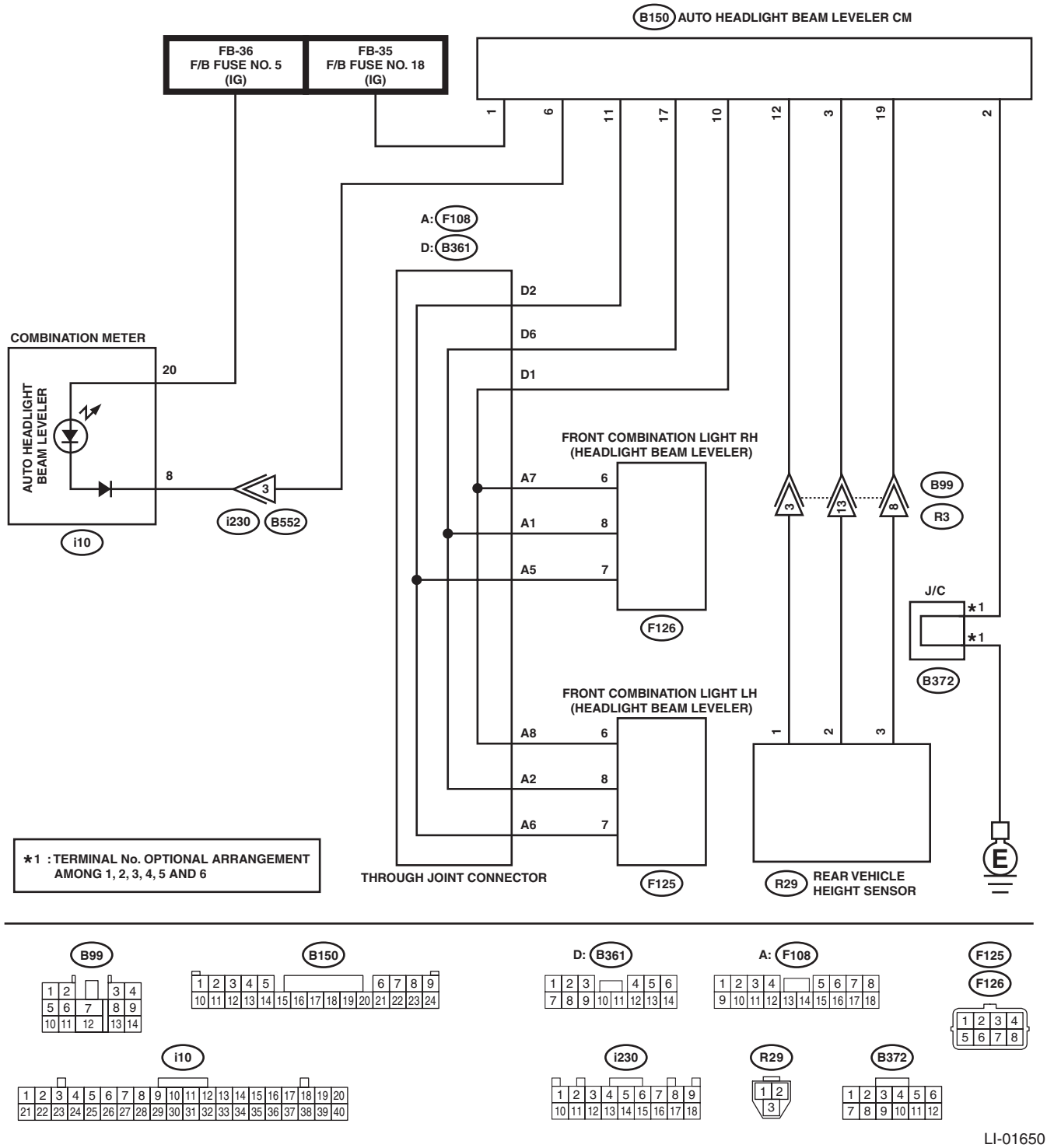
12.Diagnostics with Phenomenon

A: INSPECTION

1. BEAM LEVEL CONTROL DOES NOT FUNCTION

CAUTION:
- **Before performing diagnosis, check the fuse in this circuit.**
- **Initialization is required after replacing the auto headlight beam leveler CM.**

WIRING DIAGRAM:
Headlight beam leveler system<Ref. to WI-254, WIRING DIAGRAM, Headlight Beam Leveler System.>



Step		Check	Yes	No
1	**CHECK CURRENT DATA.** Display {ECU ACC} using Subaru Select Monitor.	Does the current data indicate the standard value?	Go to step **3**.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK HARNESS BETWEEN POWER SUPPLY — AUTO HEADLIGHT BEAM LEVELER CM.** 1) Disconnect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the auto headlight beam leveler CM connector and chassis ground. ***Connector & terminal*** ***(B150) No. 1 (+) — Chassis ground (–):***	Is the voltage 8 — 16 V?	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	Repair or replace the harness.
3	**CHECK INDICATOR OUTPUT.** Turn the ignition switch to ON.	Does the warning indicator turn on for three seconds?	Go to step **5**.	Go to step **4**.
4	**CHECK CURRENT DATA.** 1) Display {Indicator Signal} using Subaru Select Monitor. 2) Turn the ignition switch to ON.	Is it set as ON for 3 seconds?	Go to step **6**.	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>
5	**CHECK INDICATOR OUTPUT.** Leave the ignition switch to ON for 10 seconds.	Does the warning indicator light go off?	Go to step **9**.	Go to step **13**.
6	**CHECK HARNESS BETWEEN BATTERY — INDICATOR BULB — AUTO HEADLIGHT BEAM LEVELER CM.** 1) Disconnect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the auto headlight beam leveler CM (indicator bulb) connector and chassis ground. ***Connector & terminal*** ***(B150) No. 6 (+) — Chassis ground (–):***	Is the voltage 8 — 16 V?	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	Go to step **7**.
7	**CHECK INDICATOR BULB.** 1) Disconnect the combination meter connector. 2) Measure the continuity between combination meter terminals. ***Connector & terminal*** ***(i10) No. 20 — (i10) No. 8:***	Is there continuity?	Go to step **8**.	Replace the meter case assembly.<Ref. to IDI-18, Combination Meter.>
8	**CHECK HARNESS BETWEEN AUTO HEADLIGHT BEAM LEVELER CM AND INDICATOR BULB.** 1) Turn the ignition switch to OFF. 2) Measure the continuity between the auto headlight beam leveler CM and the combination meter. ***Connector & terminal*** ***(B150) No. 6 — (i10) No. 8:***	Is there continuity?	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	Repair the open circuit and poor contact of the connector in the harness between the auto headlight beam leveler CM and indicator.
9	**CHECK HEADLIGHT ASSEMBLY (ACTUATOR) DRIVE.** 1) Connect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON, and within 10 seconds, repeat the OFF → 2 (HEAD) operation of headlight switch 5 times. 3) Check that the headlight beam drops once, then returns to normal. 4) Then, after waiting for 30 seconds or more with the ignition ON, turn the ignition switch to OFF.	Does the headlight beam drop down once, and then return?	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	Go to step **10**.

Step		Check	Yes	No
10	**CHECK HEADLIGHT ASSEMBLY (ACTUATOR) OUTPUT.** 1) Display {Actuator Signal} using Subaru Select Monitor. 2) Turn the ignition switch to ON, and within 10 seconds, repeat the OFF → 2 (HEAD) operation of headlight switch 5 times. 3) Check that the headlight beam drops once, then returns to normal. 4) Then, after waiting for 30 seconds or more with the ignition ON, turn the ignition switch to OFF.	Does the current data indicate the standard value? (Does the value change at 10 — 90%?)	Go to step **11**.	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>
11	**CHECK OUTPUT VOLTAGE BETWEEN HEADLIGHT ASSEMBLY (ACTUATOR).** 1) Disconnect the auto headlight beam leveler CM connector. 2) Turn the ignition switch to ON. 3) Measure the voltage between the auto headlight beam leveler CM connector and chassis ground. ***Connector & terminal*** ***(B150) No. 10 (+) — Chassis ground (–):***	Is the voltage 8 — 16 V?	Replace the headlight assembly.<Ref. to LI-27, Headlight Assembly.>	Go to step **12**.
12	**CHECK HARNESS BETWEEN AUTO HEADLIGHT BEAM LEVELER CM AND HEADLIGHT ASSEMBLY (ACTUATOR).** 1) Disconnect the connector of headlight assembly. 2) Measure the continuity between the auto headlight beam leveler CM connector and headlight assembly (actuator) connector. ***Connector & terminal*** ***• Headlight beam leveler RH*** ***(B150) No. 10 — (F126) No. 6:*** ***(B150) No. 17 — (F126) No. 8:*** ***(B150) No. 11 — (F126) No. 7:*** ***• Headlight beam leveler LH*** ***(B150) No. 10 — (F125) No. 6:*** ***(B150) No. 17 — (F125) No. 8:*** ***(B150) No. 11 — (F125) No. 7:***	Is there continuity?	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>	Repair the open circuit or poor contact of the connector in the harness between headlight assembly and auto headlight beam leveler CM.
13	**CHECK DTC.** Display DTC using the Subaru Select Monitor.	Is DTC displayed?	Perform the diagnosis according to DTC.<Ref. to AL(diag)-12, LIST, List of Diagnostic Trouble Code (DTC).>	Replace the auto headlight beam leveler CM.<Ref. to LI-72, Auto Headlight Beam Leveler Control Module.>

WIPER AND WASHER SYSTEMS

WW

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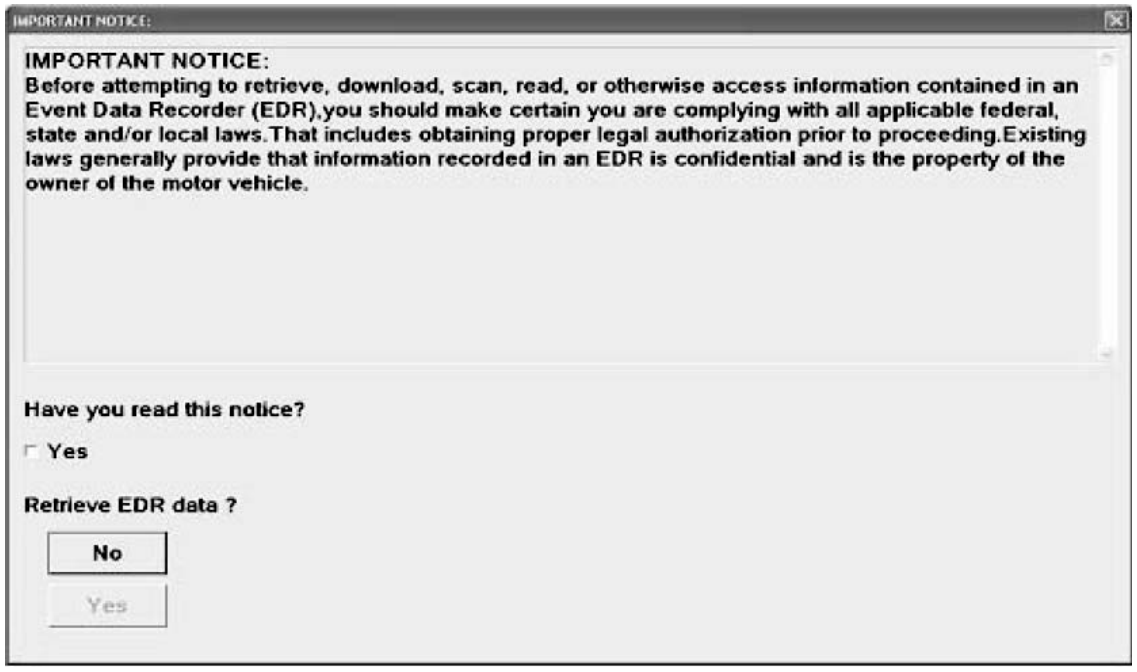
12.Event Record Data

A: OPERATION

1) On «Main Menu» display, select {Each System Check}.
2) On «System Selection Menu» display, select {Airbag System}.
3) On «Airbag System» display, select {Event Record Data}. After it is selected, {IMPORTANT NOTICE} screen is displayed.
4) Once you have read the contents of the «IMPORTANT NOTICE», click the Yes checkbox.
5) If doing so will not violate any laws, click the {Yes} button to retrieve the EDR data.



AB-02847

6) Select the items to be checked from each event record data.
7) Select the record data to be checked from each record data.
8) The selected record data is displayed. If there is no data recorded, «No Event Record Data Recorded» is displayed.
9) Select [Exit] to return to each event record data screen.

12.General Diagnostic Table

A: INSPECTION

Symptoms	Note
Turn hazard lights do not illuminate	<Ref. to PRG(diag)-55, TURN HAZARD LIGHTS DO NOT ILLUMINATE, INSPECTION, Diagnostics with Phenomenon.>
The buzzer does not sound	<Ref. to PRG(diag)-56, THE BUZZER DOES NOT SOUND, INSPECTION, Diagnostics with Phenomenon.>
Half-stop cannot be cancelled	<Ref. to PRG(diag)-58, HALF-STOP CANNOT BE CANCELLED, INSPECTION, Diagnostics with Phenomenon.>
Operation by the PRG driver's SW is not possible	<Ref. to PRG(diag)-60, OPERATION BY THE PRG DRIVER'S SW IS NOT POSSIBLE, INSPECTION, Diagnostics with Phenomenon.>
Memory height SW does not function.	<Ref. to PRG(diag)-62, CHECK MEMORY HEIGHT SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.>
PRG inner SW does not function	<Ref. to PRG(diag)-64, PRG INNER SW DOES NOT FUNCTION, INSPECTION, Diagnostics with Phenomenon.>
PRG position cannot be memorized.	<Ref. to PRG(diag)-65, PRG POSITION CANNOT BE MEMORIZED, INSPECTION, Diagnostics with Phenomenon.>
PRG opener button does not function	<Ref. to PRG(diag)-66, PRG OPENER BUTTON DOES NOT FUNCTION, INSPECTION, Diagnostics with Phenomenon.>
Operation from keyless/keyless access mobile key is not possible.	<Ref. to PRG(diag)-68, OPERATION FROM KEYLESS/KEYLESS ACCESS MOBILE KEY IS NOT POSSIBLE, INSPECTION, Diagnostics with Phenomenon.>
Check PRG driver's SW input circuit	<Ref. to PRG(diag)-70, CHECK PRG DRIVER'S SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.>
Check PRG inner SW input circuit	<Ref. to PRG(diag)-72, CHECK PRG INNER SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.>

12.General Diagnostic Table

A: INSPECTION

Item	Operation	Specifications		Note
		YES	NO	
Diagnostic trouble code	DTC is displayed when inspecting all DTCs.	Perform the diagnosis according to DTC.	System is normal.	—
Speedometer	Faster vehicle speed than the actual speed is displayed.	VDC CM data may not be received.	System is normal.	Also, check vehicle speed pulse circuit.
Fuel gauge	Fuel is present, but displayed less than actual amount.	Communication error may be present.	System is normal.	Also, check the fuel gauge.
Fuel level warning light	Fuel is present, but the light illuminates.	Communication error may be present.	System is normal.	Also, check the fuel gauge.
Engine coolant temperature light	Engine coolant temperature light blinks in red and blue alternately.	Communication error may be present.	System is normal.	Check the engine coolant light related items.
[S], [I] or [S#] indicator	Blinking.	Communication error may be present.	System is normal.	Check the intelligent switch.
VDC indicator	Illuminating.	Communication error may be present.	System is normal.	Check that VDC is not operating.
VDC OFF indicator	Illuminating.	Communication error may be present.	System is normal.	Check that VDC is not OFF.
Brake warning, etc.	Illuminating.	Brake fluid may be low in amount, or communication error may be present.	System is normal.	Check brake related items.
Shift position	Not displayed.	Communication error may be present.	System is normal.	Also, check CVT system.
AT temperature light	Blinking.	Communication error may be present.	System is normal.	Also, check CVT system.
Door indicator	Not displayed when the door is opened. Otherwise, not turn off when the door is closed.	Communication error may be present.	System is normal.	Check the door switch.
Clearance indicator	Not illuminating.	Communication error may be present.	System is normal.	Check the combination switch.
Hi beam indicator	Not illuminating.	Communication error may be present.	System is normal.	Check the combination switch.
Front fog indicator	Not illuminating.	Communication error may be present.	System is normal.	Check the combination switch.
Illumination	Illuminating at the maximum brightness.	Communication error may be present.	System is normal.	Also, check the illumination switch.
Cruise control indicator	Not illuminating.	Communication error may be present.	System is normal.	Check the cruise control system.
AWD indicator	Not illuminating.	Communication error may be present.	System is normal.	Check CVT.
Hill hold indicator	Not illuminating.	Communication error may be present.	System is normal.	Also, check VDC CM.

EyeSight

ES

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12.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Content	Reference
U0073	Control Module Communication Bus Off	Detected when CAN line abnormality is detected.	<Ref. to IDI(diag)-25, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0100	Lost Communication With ECM/PCM “A”	Detected when CAN data from the engine control module (ECM) does not arrive.	<Ref. to IDI(diag)-25, DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0101	Lost Communication With TCM	Detected when CAN data from TCM does not arrive.	<Ref. to IDI(diag)-25, DTC U0101 LOST COMMUNICATION WITH TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0122	Lost Communication With Vehicle Dynamics Control Module	Detected when CAN data from VDC does not arrive.	<Ref. to IDI(diag)-25, DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0131	Lost Communication With Power Steering Control Module	Detected when CAN data from electric power steering CM does not arrive.	<Ref. to IDI(diag)-25, DTC U0131 LOST COMMUNICATION WITH POWER STEERING CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0140	Lost Communication With Body Control Module	Detected when CAN data from body integrated unit does not arrive.	<Ref. to IDI(diag)-25, DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0151	Lost Communication With Restraints Control Module	Detected when CAN data from airbag CM does not arrive.	<Ref. to IDI(diag)-25, DTC U0151 LOST COMMUNICATION WITH RESTRAINTS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0164	Lost Communication With HVAC Control Module	Detected when CAN data from A/C CM does not arrive.	<Ref. to IDI(diag)-25, DTC U0164 LOST COMMUNICATION WITH HVAC CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0327	Software Incompatibility With Vehicle Security Control Module	Detected when CAN data from keyless access CM does not arrive.	<Ref. to IDI(diag)-25, DTC U0327 SOFTWARE INCOMPATIBILITY WITH VEHICLE SECURITY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1201	CAN-HS Counter Abnormal	Detected when CAN data is abnormal.	<Ref. to IDI(diag)-26, DTC U1201 CAN-HS COUNTER ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1235	Lost Communication With EyeSight	Detected when CAN data from stereo camera does not arrive.	<Ref. to IDI(diag)-26, DTC U1235 LOST COMMUNICATION WITH EyeSight, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1433	Invalid Data Received From EyeSight	Detected when microcomputer in the stereo camera froze.	<Ref. to IDI(diag)-26, DTC U1433 INVALID DATA RECEIVED FROM EyeSight, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1650	Invalid Data Received From Meter (UART)	UART data from the combination meter is abnormal.	<Ref. to IDI(diag)-27, DTC U1650 INVALID DATA RECEIVED FROM METER (UART), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1651	Lost Communication With Meter (UART)	UART data from the combination meter has not arrived.	<Ref. to IDI(diag)-28, DTC U1651 LOST COMMUNICATION WITH METER (UART), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2220	Break The Wire of IGN	Voltage malfunction caused by poor contact of IGN power supply circuits.	<Ref. to IDI(diag)-30, DTC B2220 BREAK THE WIRE OF IGN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2222	System Microcomputer Fail	When microcomputer froze.	<Ref. to IDI(diag)-31, DTC B2222 SYSTEM MICROCOMPUTER FAIL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Item	Content	Reference
B2223	GERDA Fail	When transmitting and receiving of data cannot be done normally between system microcomputer and image microcomputer.	<Ref. to IDI(diag)-31, DTC B2223 GERDA FAIL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1500	Fuel Sender Open/ Short-Circuit Detection	Fuel gauge circuit is open or shorted.	<Ref. to IDI(diag)-32, DTC B1500 FUEL SENDER OPEN/SHORT-CIRCUIT DETECTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1501	Power Supply System Error Detection	Combination meter power supply circuit is open or shorted.	<Ref. to IDI(diag)-34, DTC B1501 POWER SUPPLY SYSTEM ERROR DETECTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1507	External Air Temperature Open/Short-Circuit Detection	External air temperature sensor circuit is open or shorted.	<Ref. to IDI(diag)-35, DTC B1507 EXTERNAL AIR TEMPERATURE OPEN/SHORT-CIRCUIT DETECTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

12.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Content of diagnosis	Note
None	Communication for Initializing Impossible	Subaru Select Monitor communication is open or shorted.	<Ref. to LAN(diag)-11, COMMUNICATION FOR INITIALIZING IMPOSSIBLE, Subaru Select Monitor.>
B1100	Integ. Unit System Error	Body integrated unit internal error	<Ref. to BC(diag)-23, DTC B1100 INTEG. UNIT SYSTEM ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1101	BATT P/Supply Malfunction Cont	Voltage malfunction caused by poor contact of battery power supply control circuits	<Ref. to BC(diag)-24, DTC B1101 BATT P/SUPPLY MALFUNCTION CONT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1102	BATT P/Supply Malfunction Backup	Voltage malfunction caused by poor contact of battery power supply backup circuits	<Ref. to BC(diag)-26, DTC B1102 BATT P/SUPPLY MALFUNCTION BACKUP, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1103	Ignition Power Failure	Voltage malfunction caused by poor contact of IGN power supply circuits	<Ref. to BC(diag)-28, DTC B1103 IGNITION POWER FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1104	ACC Power Failure	Voltage malfunction caused by poor contact of ACC power supply circuits	<Ref. to BC(diag)-30, DTC B1104 ACC POWER FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1105	Key Interlock Circuit Abnormal	GND-output short of key interlock circuit	<Ref. to BC(diag)-32, DTC B1105 KEY INTERLOCK CIRCUIT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1106	Shift Lock Circuit Failure	Voltage malfunction caused by poor contact of shift lock circuits	<Ref. to BC(diag)-34, DTC B1106 SHIFT LOCK CIRCUIT FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1401	M Collation NG	Malfunction related immobilizer	<Ref. to BC(diag)-36, DTC B1401 M COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1402	Immobilizer Key Collation NG	Malfunction related immobilizer	<Ref. to BC(diag)-36, DTC B1402 IMMOBILIZER KEY COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1405	SCU Collation NG	Malfunction related immobilizer	<Ref. to BC(diag)-36, DTC B1405 SCU COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1406	SCU_EEPROM_NG	Malfunction of security control module	<Ref. to BC(diag)-36, DTC B1406 SCU_EEPROM_NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1407	M Communication Abnormal	Communication failure between body integrated unit and combination meter	<Ref. to BC(diag)-36, DTC B1407 M COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1408	Meter EEPROM Abnormal	Combination meter malfunction	<Ref. to BC(diag)-36, DTC B1408 METER EEPROM ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1409	SCU Communication Abnormal	Communication failure between body integrated unit and security control module	<Ref. to BC(diag)-36, DTC B1409 SCU COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1410	Transponder Communication Abnormal	Communication failure between key and body integrated unit	<Ref. to BC(diag)-36, DTC B1410 TRANSPONDER COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1411	Immobilizer Antenna Abnormal	Faulty antenna	<Ref. to BC(diag)-36, DTC B1411 IMMOBILIZER ANTENNA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1500	Keyless UART Com. Malfunction	Open or short circuit in keyless UART circuit	<Ref. to BC(diag)-37, DTC B1500 KEYLESS UART COM. MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

12.List of Diagnostic Trouble Code (DTC)

A: LIST

1. Keyless access system

DTC	Item	Content of diagnosis	Note
U0073	Control Module Communication Bus Off	Detected when CAN line abnormality is detected.	<Ref. to KPS(diag)-39, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0100	Lost Communication With ECM/PCM “A”	Detected when CAN data from the engine control module (ECM) does not arrive.	<Ref. to KPS(diag)-39, DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0101	Lost Communication With TCM	Detected when CAN data from TCM does not arrive.	<Ref. to KPS(diag)-39, DTC U0101 LOST COMMUNICATION WITH TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0122	Lost Communication With Vehicle Dynamics Control Module	Detected when CAN data from VDC does not arrive.	<Ref. to KPS(diag)-39, DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0140	Lost Communication With Body Control Module	Detected when CAN data from BIU does not arrive.	<Ref. to KPS(diag)-39, DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0155	Lost Communication With Instrument Panel Cluster (IPC) Control Module	Detected when CAN data from meter does not arrive.	<Ref. to KPS(diag)-39, DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0401	Invalid Data Received From ECM/PCM “A”	Detected when there is malfunction in CAN data from the engine control module (ECM).	<Ref. to KPS(diag)-39, DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0422	Invalid Data Received From Body Control Module	Detected when CAN data from BIU is abnormal.	<Ref. to KPS(diag)-39, DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1242	Wireless Tuner Abnormal	When short circuit occurs in harness between keyless access CM and receiver.	<Ref. to KPS(diag)-40, DTC B1242 WIRELESS TUNER ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2271	IGN Fuse Blown or IGN Circuit Abnormal	• When malfunction is detected in IG1 and IG2 drive circuits in the keyless access CM. • When malfunction is detected in IG hold circuit in the keyless access CM.	<Ref. to KPS(diag)-42, DTC B2271 IGN FUSE BLOWN OR IGN CIRCUIT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2274	ACC Monitor	When malfunction is detected in ACC relay drive circuit in the keyless access CM or external circuit.	<Ref. to KPS(diag)-44, DTC B2274 ACC MONITOR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2275	STSW Circuit Abnormal	• When malfunction is detected in engine start permission signal output circuit in the keyless access CM. • When malfunction is detected in external engine start permission signal circuit.	<Ref. to KPS(diag)-46, DTC B2275 STSW CIRCUIT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Item	Content of diagnosis	Note
B2276	ACCR Signal Abnormal	When input error occurs in accessory relay cut input signal of keyless access CM.	<Ref. to KPS(diag)-48, DTC B2276 ACCR SIGNAL ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2277	Submerging Circuit Abnormal	When the water-submersion detection circuit integrated into the keyless access CM detects the water submersion.	<Ref. to KPS(diag)-50, DTC B2277 SUBMERGING CIRCUIT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2282	Vehicle Speed Signal Abnormal	When the vehicle speed signal transmitted from the combination meter via solid line and the vehicle speed signal transmitted via CAN communication line do not match.)	<Ref. to KPS(diag)-51, DTC B2282 VEHICLE SPEED SIGNAL ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2283	Vehicle Speed Sensor Fault Detection	Either of the following malfunctions is detected. (Vehicle speed sensor failure is detected.) • Vehicle speed signal failure detection 1: Excessive deceleration detection • Vehicle speed signal failure detection 2: Engine speed interlock detection	<Ref. to KPS(diag)-53, DTC B2283 VEHICLE SPEED SENSOR FAULT DETECTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2284	Brake Signal (Cable-Information Does Not Match to Bean-Information)	When the brake signal transmitted via solid line and the brake signal transmitted via CAN communication line do not match. (only for AT models)	<Ref. to KPS(diag)-55, DTC B2284 BRAKE SIGNAL (CABLE-INFORMATION DOES NOT MATCH TO BEAN-INFORMATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2285	Steering Lock Position Signal Abnormal	When the steering lock position signal transmitted from the steering lock CM via solid line and the steering lock position signal transmitted via LIN communication system do not match.	<Ref. to KPS(diag)-57, DTC B2285 STEERING LOCK POSITION SIGNAL ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2286	Driving Possible Signal Abnormal	When the engine speed signal transmitted from the ECM via solid line and the engine speed signal transmitted via CAN communication line do not match. (Without Auto Start Stop)	<Ref. to KPS(diag)-60, DTC B2286 DRIVING POSSIBLE SIGNAL ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2779	Remote Control Engine Starter Communication Collation NG	When the keyless access CM does not respond to engine start even when the remote control engine starter is ON, or when there is a code mismatch.	<Ref. to KPS(diag)-63, DTC B2779 REMOTE CONTROL ENGINE STARTER COMMUNICATION COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2781	Steering Lock ECU Open/Short	• When malfunction is detected in lock/unlock position detection sensor. • When the open or short circuit in the steering lock motor drive circuit is detected.	<Ref. to KPS(diag)-63, DTC B2781 STEERING LOCK ECU OPEN/SHORT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2782	Steering Lock Power Supply Circuit Abnormal (Smart ECU-Side Abnormal)	When the open or short circuit in the steering lock motor power supply circuit is detected.	<Ref. to KPS(diag)-64, DTC B2782 STEERING LOCK POWER SUPPLY CIRCUIT ABNORMAL (SMART ECU-SIDE ABNORMAL), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2784	Antenna Coil Fault	When open or short circuit occurs in the antenna coil.	<Ref. to KPS(diag)-66, DTC B2784 ANTENNA COIL FAULT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Item	Content of diagnosis	Note
B2785	LIN Communication Error	When the keyless access CM detects the collation system LIN bus communication error three times in a row.	<Ref. to KPS(diag)-67, DTC B2785 LIN COMMUNICATION ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2786	No Response From Steering Lock ECU	When communication between keyless access CM and steering lock CM is interrupted for a set amount of time.	<Ref. to KPS(diag)-69, DTC B2786 NO RESPONSE FROM STEERING LOCK ECU, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2788	IGN1 Input Abnormal	When mismatch occurs in the IG1 input of the steering lock CM between LIN communication line input and solid line input.	<Ref. to KPS(diag)-71, DTC B2788 IGN1 INPUT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2789	ID Code Box No Response	• When communication between keyless access CM and ID code box is interrupted for a set amount of time. • Open or short circuit in the wiring harness between keyless access CM and ID code box	<Ref. to KPS(diag)-73, DTC B2789 ID CODE BOX NO RESPONSE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B278A	Abnormal Immobilizer Power Supply	When the power supply circuit of the push button ignition switch is shorted to ground.	<Ref. to KPS(diag)-75, DTC B278A ABNORMAL IMMOBILIZER POWER SUPPLY, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B278D	ID Code Box Recognition Judgment Abnormal	• When ID code box ON input is detected while the ID code box setting is set to OFF. • When ID code box LIN signal is received while the ID code box setting is set to OFF.	<Ref. to KPS(diag)-77, DTC B278D ID CODE BOX RECOGNITION JUDGMENT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2790	ID Code Box Abnormal (EEPROM Abnormal)	An error has occurred inside the ID code box.	<Ref. to KPS(diag)-78, DTC B2790 ID CODE BOX ABNORMAL (EEPROM ABNORMAL), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B27A1	Driver Side External Antenna Output Stage Open	When open circuit occurs in the harness between keyless access CM and driver's side front door outer handle.	<Ref. to KPS(diag)-79, DTC B27A1 DRIVER SIDE EXTERNAL ANTENNA OUTPUT STAGE OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B27A2	Passenger Side External Antenna Output Stage Open	When open circuit occurs in the harness between keyless access CM and passenger's side front door outer handle.	<Ref. to KPS(diag)-81, DTC B27A2 PASSENGER SIDE EXTERNAL ANTENNA OUTPUT STAGE OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B27A5	Front Internal Antenna Output Stage Open	When open circuit occurs in the harness between keyless access CM and front interior antenna.	<Ref. to KPS(diag)-83, DTC B27A5 FRONT INTERNAL ANTENNA OUTPUT STAGE OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B27A6	Rear Internal Antenna Output Stage Open	When open circuit occurs in the harness between keyless access CM and rear interior antenna.	<Ref. to KPS(diag)-85, DTC B27A6 REAR INTERNAL ANTENNA OUTPUT STAGE OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B27A7	Trunk/Rear Gate Internal Antenna Output Stage Open	When open circuit occurs in the harness between keyless access CM and rear interior antenna.	<Ref. to KPS(diag)-87, DTC B27A7 TRUNK/REAR GATE INTERNAL ANTENNA OUTPUT STAGE OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B27A8	Trunk/Rear Gate External Antenna Output Stage Open	When open circuit occurs in the harness between keyless access CM and rear exterior antenna.	<Ref. to KPS(diag)-89, DTC B27A8 TRUNK/REAR GATE EXTERNAL ANTENNA OUTPUT STAGE OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

2. Immobilizer (ECM)

DTC	Item	Content of diagnosis	Note
B1571	Reference Code Incompatibility	Reference code mismatch occurs between keyless access CM (model without ID code box) or ID code box (model with ID code box) and ECM.	<Ref. to KPS(diag)-91, DTC B1571 REFERENCE CODE INCOMPATIBILITY, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1572	IMM Circuit Failure (Except Antenna Circuit)	Communication error occurs between keyless access CM (model without ID code box) or ID code box (model with ID code box) and ECM.	<Ref. to KPS(diag)-92, DTC B1572 IMM CIRCUIT FAILURE (EXCEPT ANTENNA CIRCUIT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1576	EGI Control Module EEPROM	ECM malfunctioning	<Ref. to KPS(diag)-96, DTC B1576 EGI CONTROL MODULE EEPROM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1577	IMM Control Module EEPROM	Malfunction occurs between keyless access CM (model without ID code box) or ID code box (model with ID code box) and ECM.	<Ref. to KPS(diag)-96, DTC B1577 IMM CONTROL MODULE EEPROM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

12.List of Diagnostic Trouble Code (DTC)

A: LIST

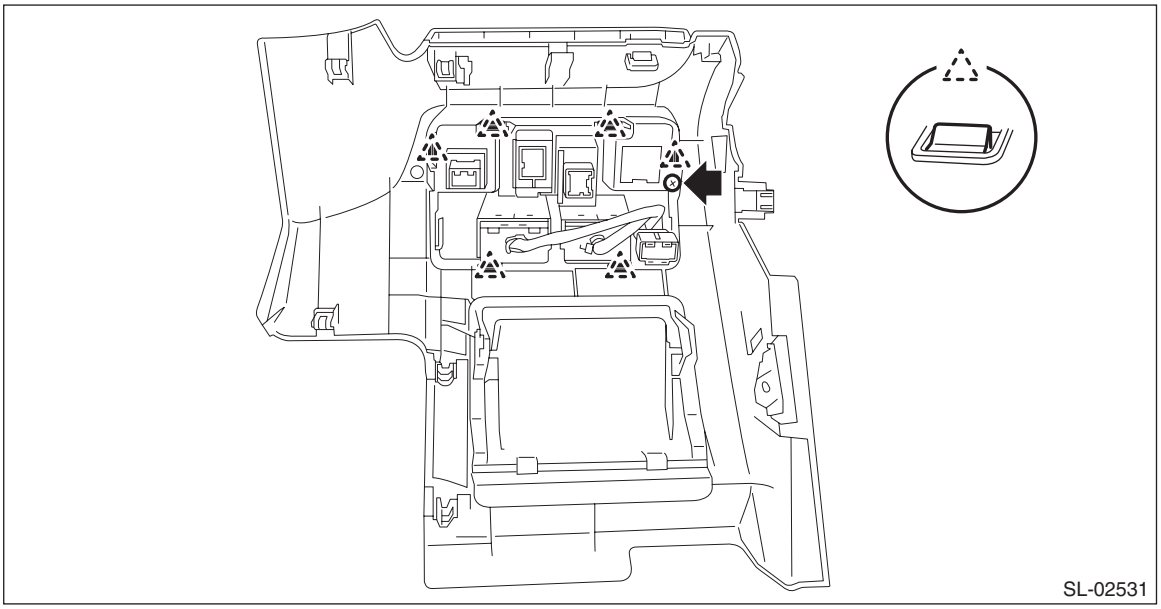
DTC	Item	Content of diagnosis	Note
B1430	Room Temperature Sensor Circuit Wire Break	In-vehicle air temperature sensor circuit is open.	<Ref. to AC(diag)-50, DTC B1430 ROOM TEMPERATURE SENSOR CIRCUIT WIRE BREAK, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1431	Room Temperature Sensor Circuit Short-Circuit	In-vehicle air temperature sensor circuit is shorted.	<Ref. to AC(diag)-51, DTC B1431 ROOM TEMPERATURE SENSOR CIRCUIT SHORT-CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1432	Outside Air Sensor Circuit Wire Break (Air-Conditioning)	Ambient air temperature sensor circuit is open.	<Ref. to AC(diag)-52, DTC B1432 OUTSIDE AIR SENSOR CIRCUIT WIRE BREAK (AIR-CONDITIONING), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1433	Outside Air Sensor Circuit Short-Circuit (Air-Conditioning)	Ambient air temperature sensor circuit is shorted.	<Ref. to AC(diag)-54, DTC B1433 OUTSIDE AIR SENSOR CIRCUIT SHORT-CIRCUIT (AIR-CONDITIONING), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1434	Ambient Temperature Sensor Circuit Wire Break	Post evaporator sensor circuit is open.	<Ref. to AC(diag)-56, DTC B1434 AMBIENT TEMPERATURE SENSOR CIRCUIT WIRE BREAK, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1435	Evaporator Sensor Circuit Short-Circuit	Post evaporator sensor circuit is shorted.	<Ref. to AC(diag)-57, DTC B1435 EVAPORATOR SENSOR CIRCUIT SHORT-CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14A1	Sunload Sensor Circuit Open	Sunload sensor circuit is open.	<Ref. to AC(diag)-58, DTC B14A1 SUNLOAD SENSOR CIRCUIT OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14A2	Sunload Sensor Circuit Short	Sunload sensor circuit is shorted.	<Ref. to AC(diag)-59, DTC B14A2 SUNLOAD SENSOR CIRCUIT SHORT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14E1	Air Mix Door Actuator Stepping Motor Circuit Wire Break (Driver's Seat)	Air mix door actuator stepping motor circuit is open.	<Ref. to AC(diag)-60, DTC B14E1 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT WIRE BREAK (DRIVER'S SEAT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14E2	Air Mix Door Actuator Stepping Motor Circuit Short-Circuit (Driver's Seat)	Air mix door actuator stepping motor circuit is shorted.	<Ref. to AC(diag)-62, DTC B14E2 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT SHORT-CIRCUIT (DRIVER'S SEAT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14E3	Air Mix Door Actuator Stepping Motor Circuit Wire Break (Passenger's Seat)	Air mix door actuator stepping motor circuit is open.	<Ref. to AC(diag)-64, DTC B14E3 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT WIRE BREAK (PASSENGER'S SEAT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14E4	Air Mix Door Actuator Stepping Motor Circuit Short-Circuit (Passenger's Seat)	Air mix door actuator stepping motor circuit is shorted.	<Ref. to AC(diag)-66, DTC B14E4 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT SHORT-CIRCUIT (PASSENGER'S SEAT), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14E5	Mode Door Actuator Stepping Motor Circuit Wire Break	Mode door actuator stepping motor circuit is open.	<Ref. to AC(diag)-68, DTC B14E5 MODE DOOR ACTUATOR STEPPING MOTOR CIRCUIT WIRE BREAK, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14E6	Mode Door Actuator Stepping Motor Circuit Short-Circuit	Mode door actuator stepping motor circuit is shorted.	<Ref. to AC(diag)-70, DTC B14E6 MODE DOOR ACTUATOR STEPPING MOTOR CIRCUIT SHORT-CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14E9	Intake Door Actuator Potentiometer Circuit Wire Break	Intake door actuator potentiometer circuit is open.	<Ref. to AC(diag)-72, DTC B14E9 INTAKE DOOR ACTUATOR POTENTIOMETER CIRCUIT WIRE BREAK, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B14EA	Intake Door Actuator Potentiometer Circuit Short-Circuit	Intake door actuator potentiometer circuit is shorted.	<Ref. to AC(diag)-74, DTC B14EA INTAKE DOOR ACTUATOR POTENTIOMETER CIRCUIT SHORT-CIRCUIT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Item	Content of diagnosis	Note
B14EB	Intake Door Actuator Lock	Intake door actuator is locked.	<Ref. to AC(diag)-76, DTC B14EB INTAKE DOOR ACTUATOR LOCK, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0073	Control Module Communication Bus Off	CAN communication error occurred.	<Ref. to AC(diag)-77, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0100	Lost Communication With ECM/PCM “A”	ECM data receive error occurred.	<Ref. to AC(diag)-77, DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0101	Lost Communication With TCM	TCM data receive error occurred.	<Ref. to AC(diag)-77, DTC U0101 LOST COMMUNICATION WITH TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0122	Lost Communication With Vehicle Dynamics Control Module	VDC data receive error occurred.	<Ref. to AC(diag)-77, DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0140	Lost Communication With Body Control Module	BIU data receive error occurred.	<Ref. to AC(diag)-77, DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0155	Lost Communication With Instrument Panel Cluster (IPC) Control Module	METER data receive error occurred.	<Ref. to AC(diag)-77, DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0401	Invalid Data Received From ECM/PCM “A”	An error occurred in ECM data.	<Ref. to AC(diag)-77, DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0402	Invalid Data Received From TCM	An error occurred in TCM data.	<Ref. to AC(diag)-78, DTC U0402 INVALID DATA RECEIVED FROM TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0416	Invalid Data Received From Vehicle Dynamics Control Module	An error occurred in VDC data.	<Ref. to AC(diag)-78, DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0422	Invalid Data Received From Body Control Module	An error occurred in BIU data.	<Ref. to AC(diag)-78, DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0423	Invalid Data Received From Instrument Panel Cluster Control Module	An error occurred in METER data.	<Ref. to AC(diag)-78, DTC U0423 INVALID DATA RECEIVED FROM INSTRUMENT PANEL CLUSTER CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

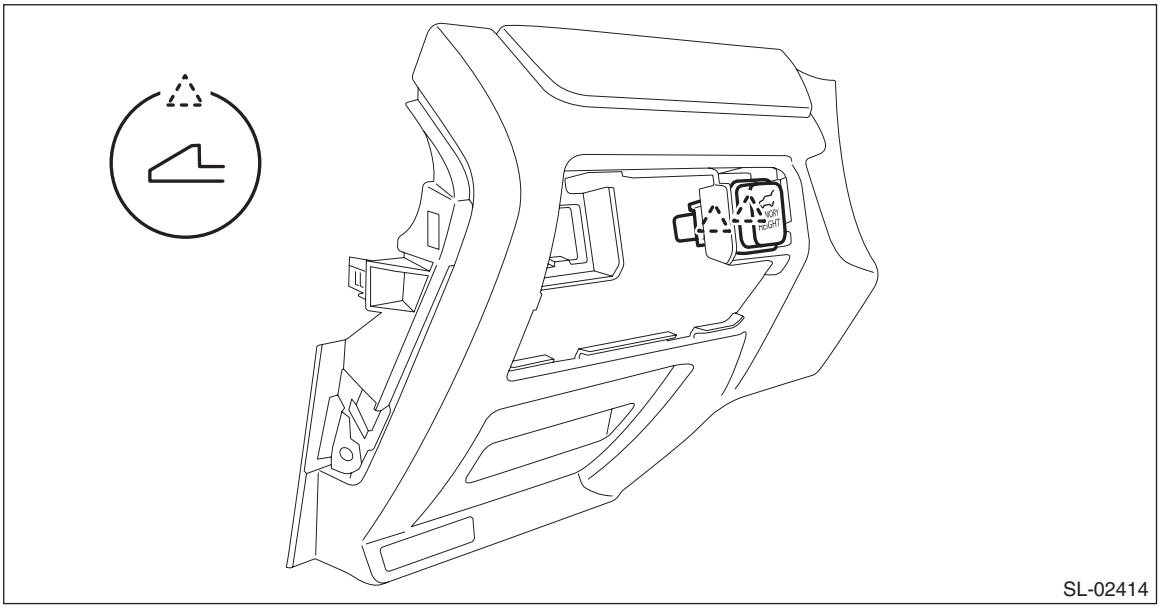
12.Memory Height Switch

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the cover assembly - instrument panel LWR driver. <Ref. to EI-59, REMOVAL, Instrument Panel Lower Cover.>
3) Remove the memory height switch.
   (1) Remove the screw, release the claws, and then remove the panel - switch.



   (2) Release the claws and remove the memory height switch.



B: INSTALLATION

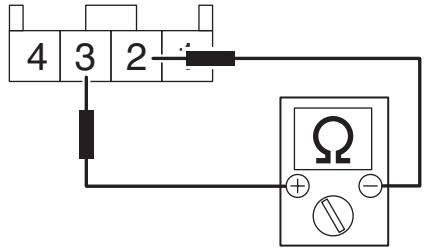
Install each part in the reverse order of removal.

C: INSPECTION

Unit inspection

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
2 — 3	Switch OFF	1 MΩ or more	 SL-02278
	Switch ON	Less than 1 Ω	

2) Replace the memory height switch, if the inspection result is not within the standard value.

12.Multi-function Display (MFD)

A: NOTE

For the multi-function display (MFD), refer to “INSTRUMENTATION/DRIVER INFO” section. <Ref. to IDI-25, Multi-function Display (MFD).>

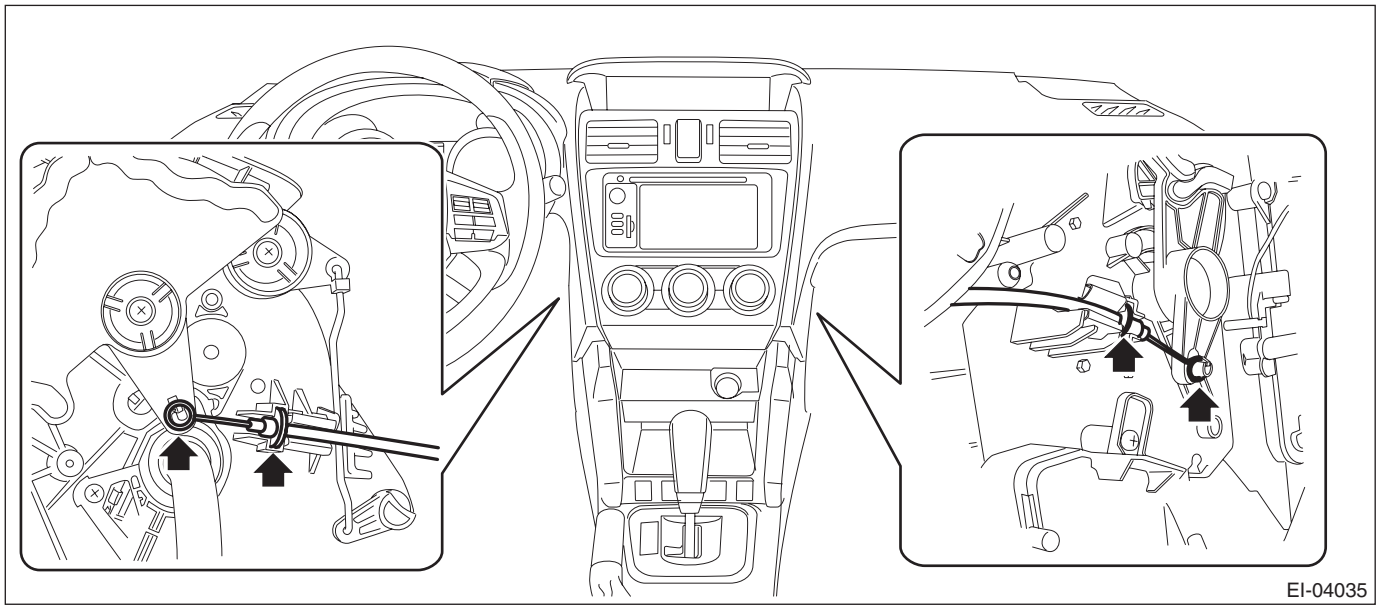
12.Navigation Body

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the panel center assembly.

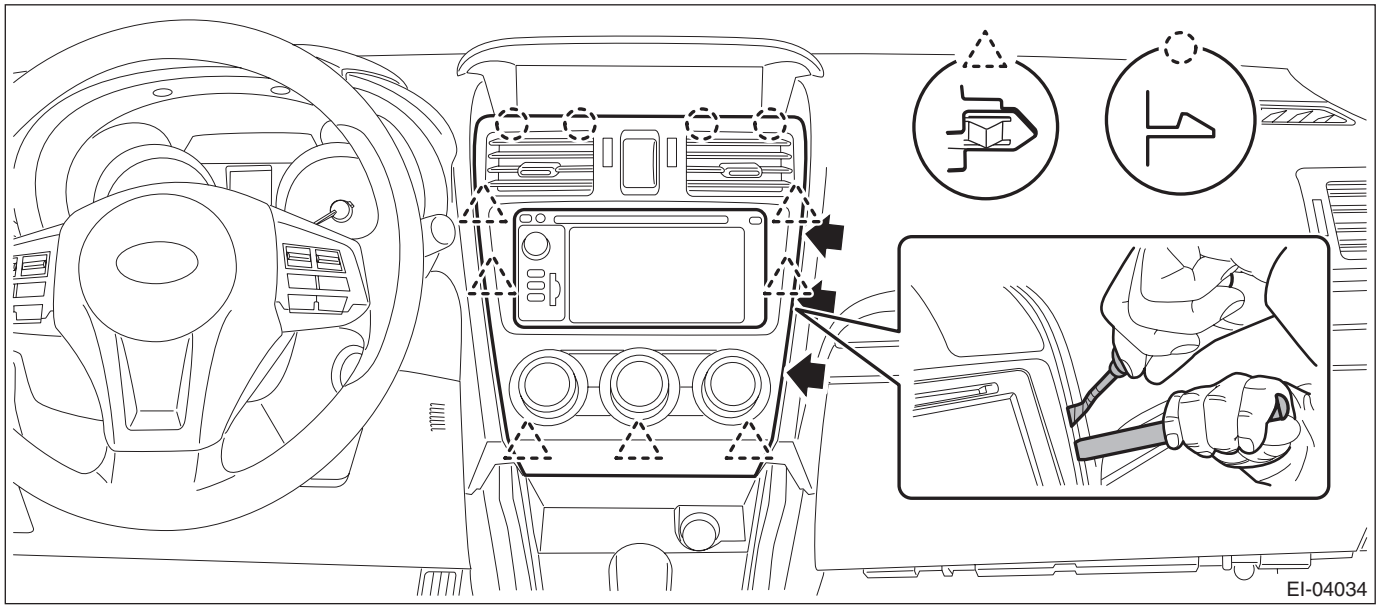
CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

(1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.

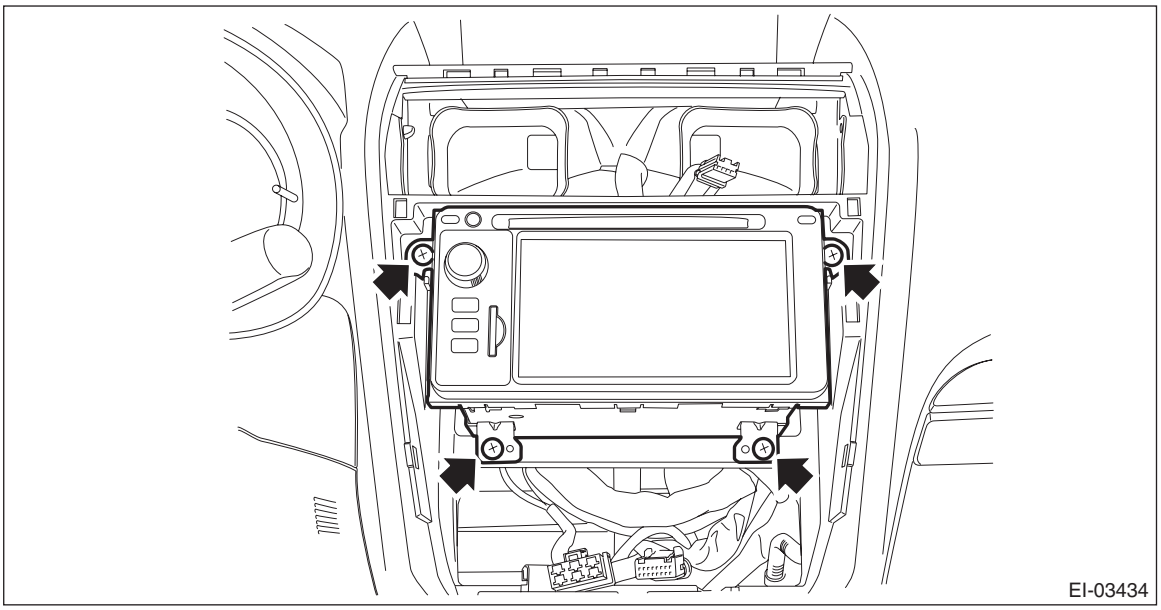


NOTE:
Remove the glove box pocket assembly on the passenger's side.

(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.
(5) Disconnect the connectors, and remove the panel center assembly.



3) Remove the navigation assembly.
   (1) Remove the left and right screws, and partially pull out the navigation assembly.
   (2) Disconnect the connector and remove the navigation assembly.



B: INSTALLATION

CAUTION:
After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

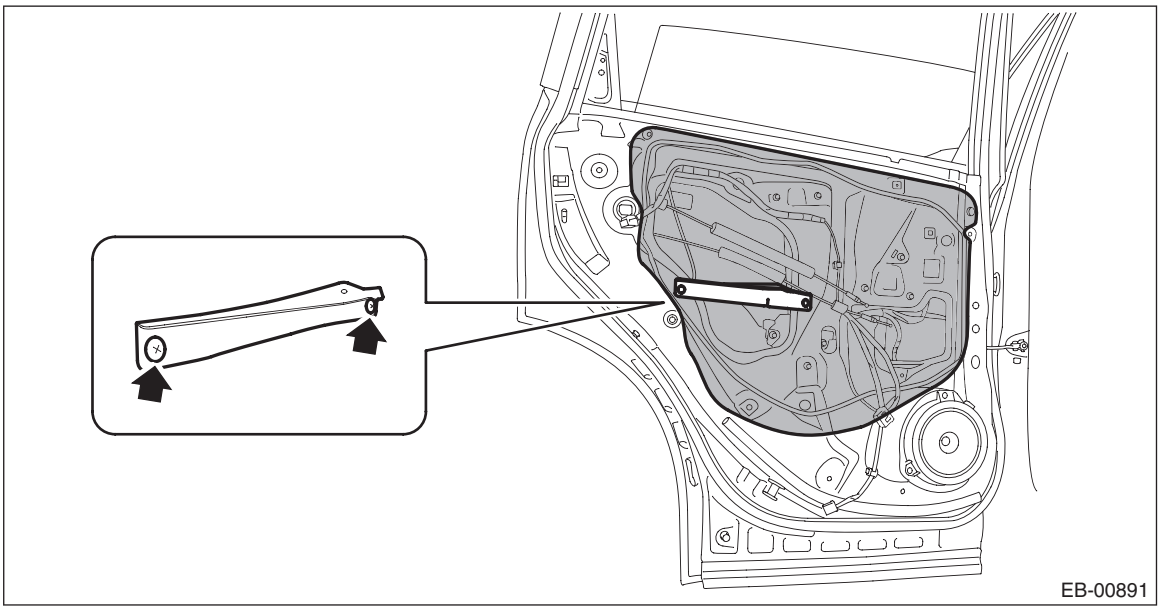
12.Rear Outer Handle

A: REMOVAL

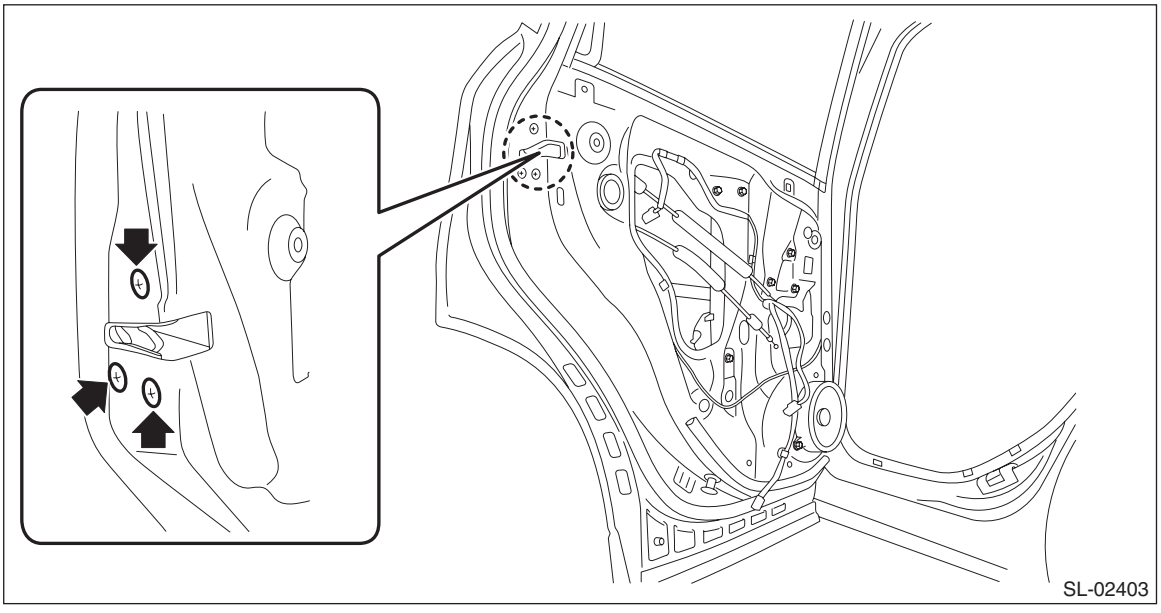
1) Raise the glass assembly - rear door to the top position.
2) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
3) Turn over the sealing cover - rear door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - rear door.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

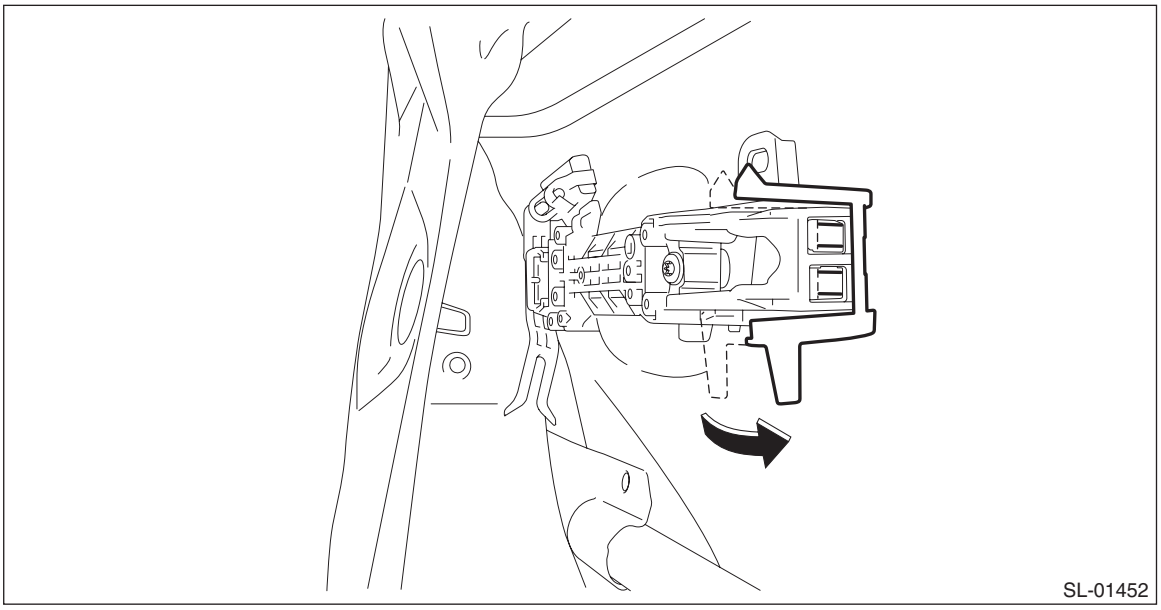
(1) Remove the screw to remove the bracket - door trim rear.
(2) Disconnect connectors.
(3) Carefully remove the butyl tape and turn over the sealing cover - rear door within the area where the operation can be performed.


EB-00891

4) Remove the screws and move downward the latch & actuator assembly - rear.


SL-02403

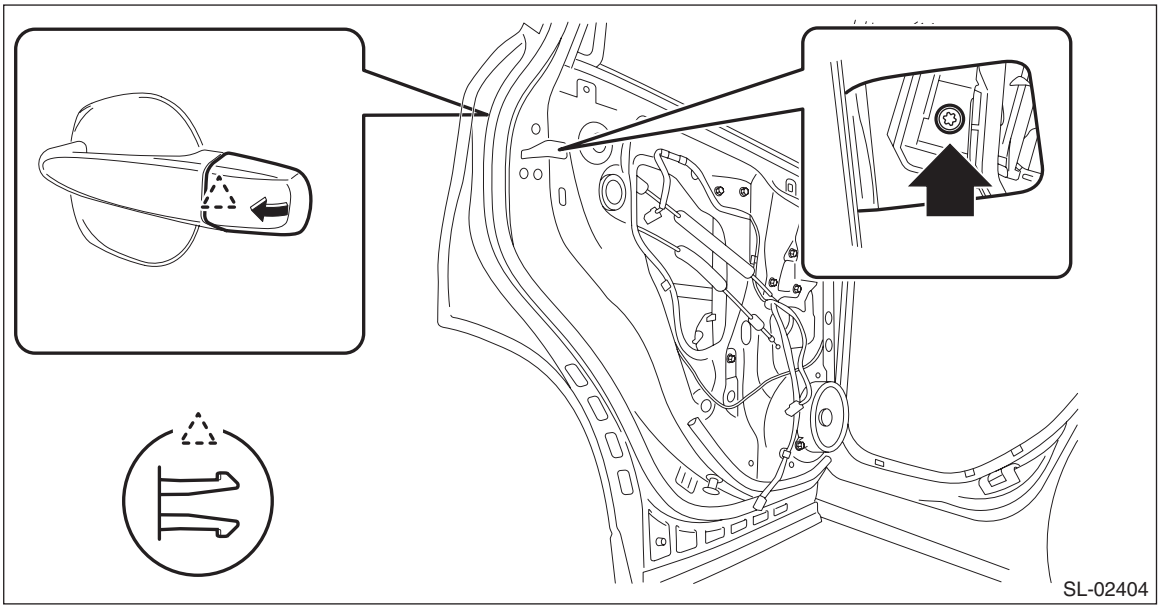
5) Remove the holder of the frame assembly - rear door outer.



6) Remove the cover - handle rear outer.

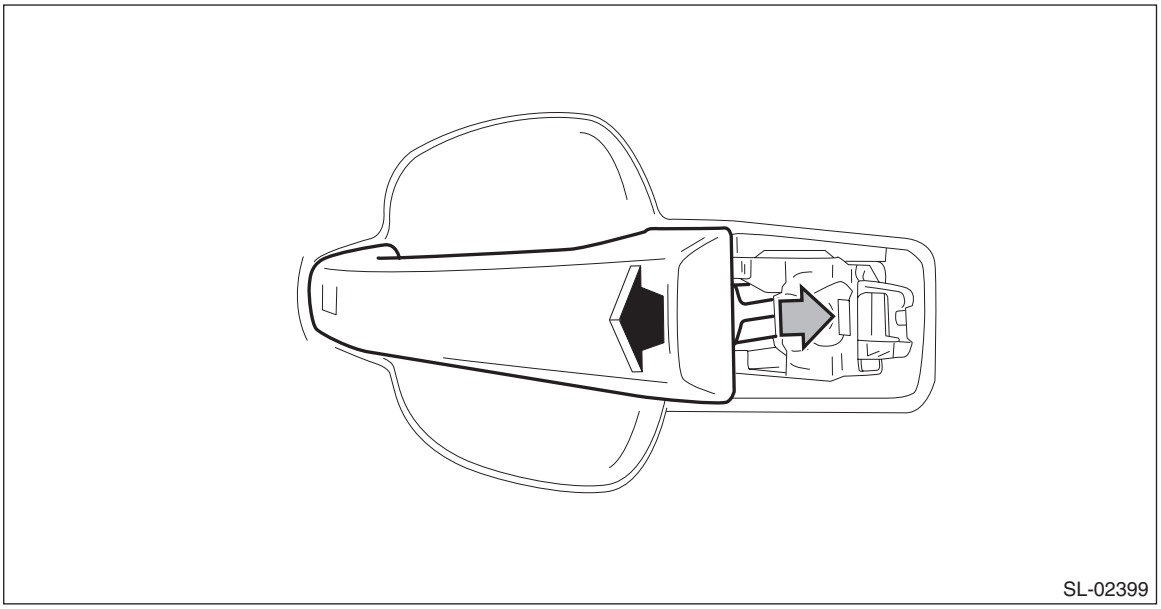
Preparation tool:
TORX® T30

(1) Loosen the TORX® bolt.
(2) Release the claws, and then remove the cover - handle rear outer.



7) Remove the handle - door outer by moving it rearward.

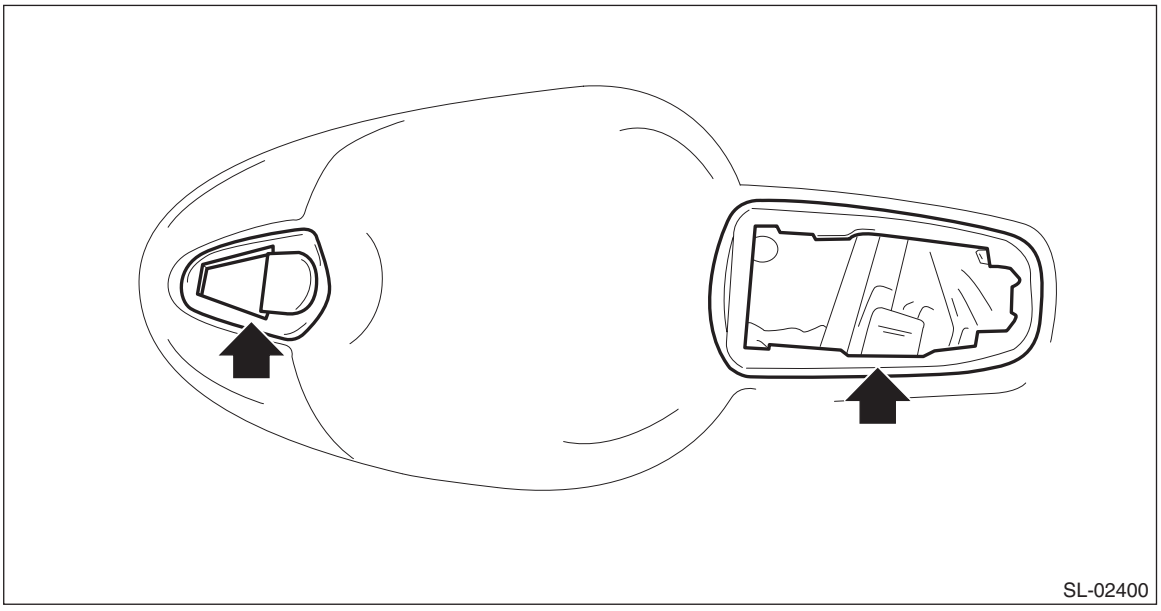
CAUTION:
Do not apply excessive force to remove the handle - door outer from the panel assembly - rear door. The panel assembly - rear door may be deformed.



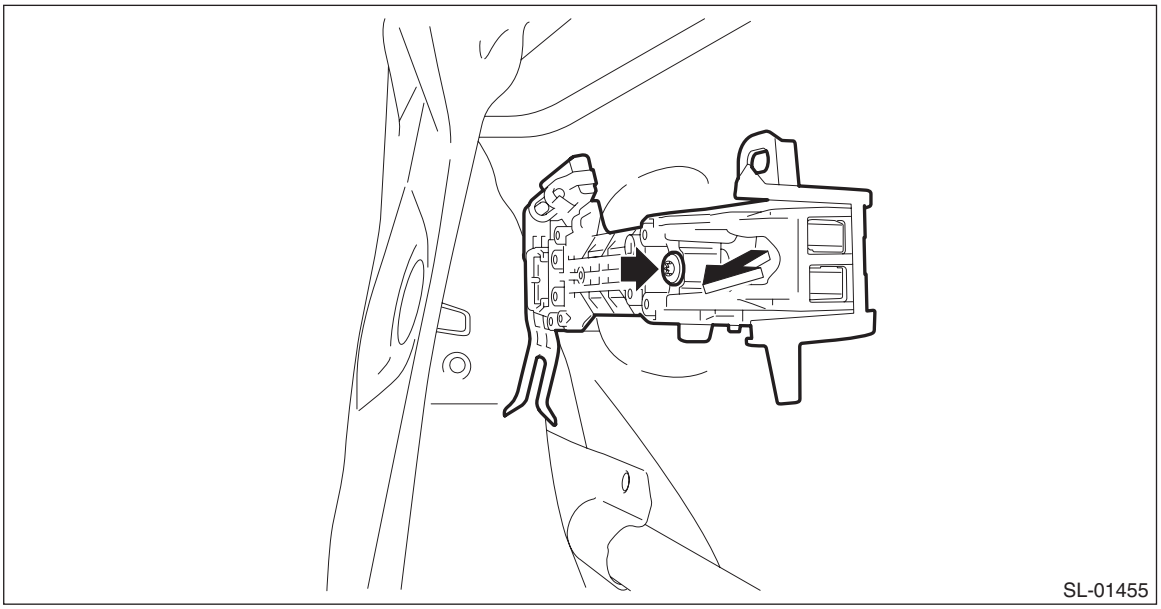
8) Remove the frame assembly - rear door outer.

Preparation tool:
TORX® T30

(1) Remove the spacer - door handle outer.



(2) Loosen the TORX® bolt and remove the frame assembly - rear door outer from inside the panel assembly - rear door.



B: INSTALLATION

1) Before installation, check the following items.
- Lever is free from deformation.
- Grease is applied sufficiently to lever joints.
- If grease is insufficient, add it as necessary before assembling.

2) Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

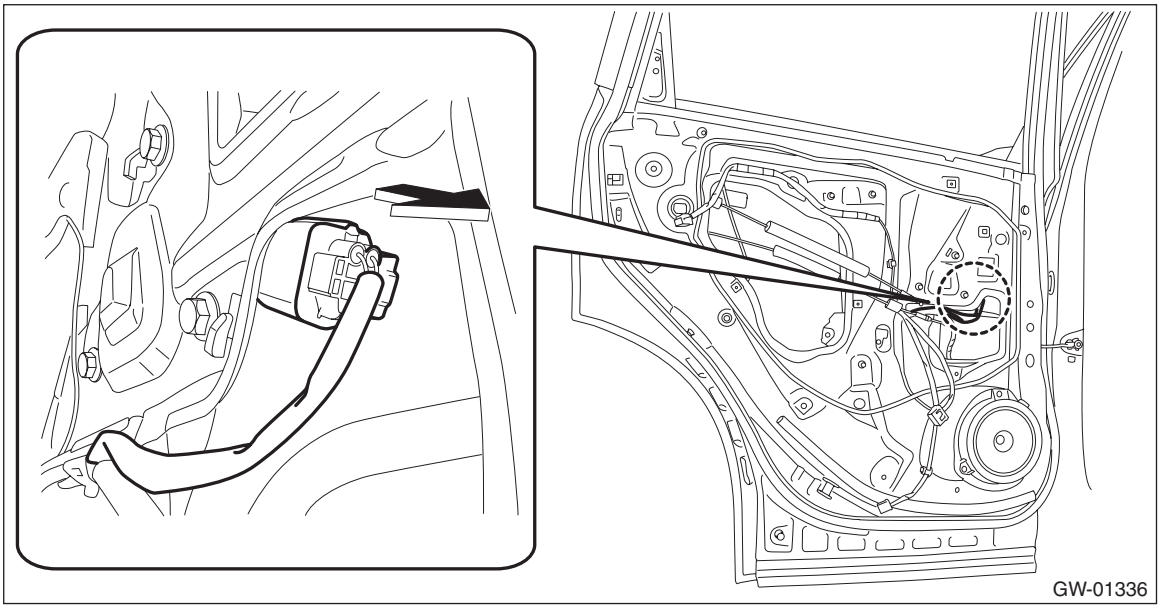
C: INSPECTION

Check if the outer handle operates normally.
If the lever is faulty, replace the handle - door outer.

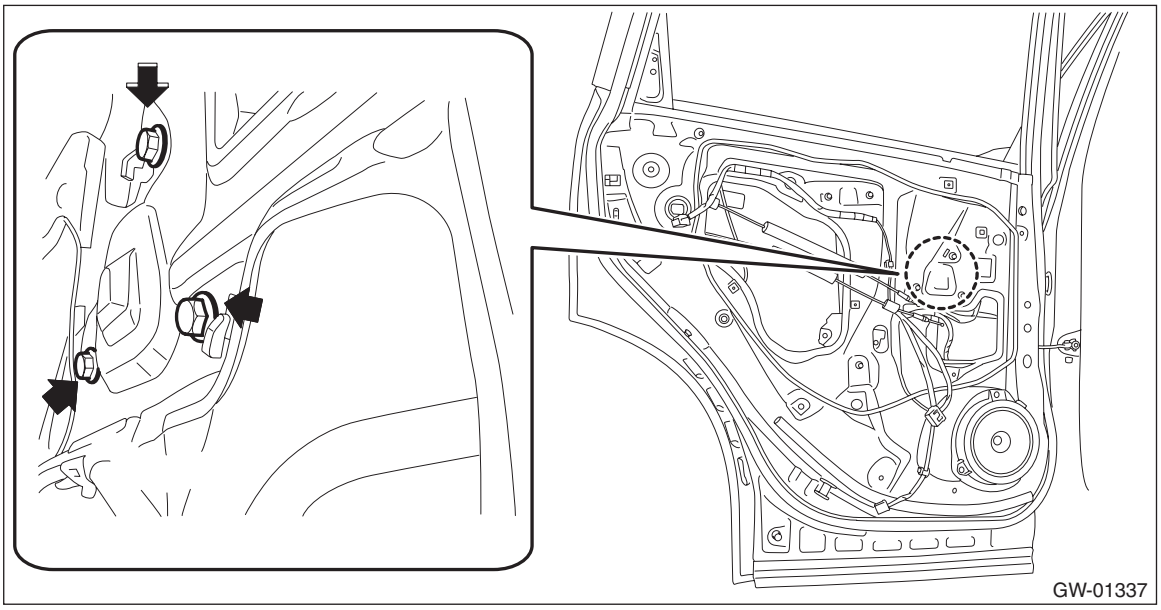
12.Rear Regulator and Motor Assembly

A: REMOVAL

1) Remove the glass assembly - rear door.<Ref. to GW-32, REMOVAL, Rear Door Glass.>
2) Remove the regulator and motor assembly - rear.
   (1) Disconnect the motor - rear connector.



   (2) Remove the bolts, and then remove the regulator and motor assembly - rear.



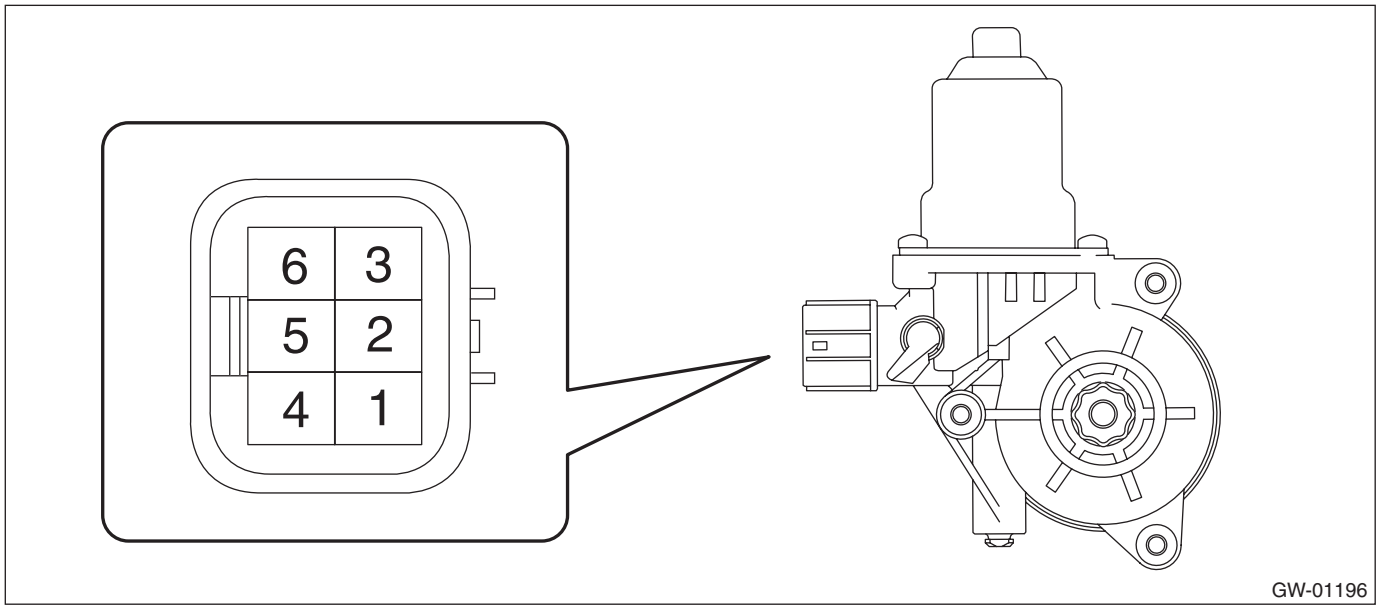
B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to GW-4, REAR DOOR GLASS, COMPONENT, General Description.>

C: INSPECTION

1) Disconnect the connector of the motor - rear.
2) Check the motor operation when battery voltage is applied between terminals of the motor - rear connector.



- LH side

Terminal No.	Inspection conditions	Standard
3 (+) — 6(–)	Apply battery voltage between terminals.	Increase
6 (+) — 3(–)	Apply battery voltage between terminals.	Decrease

- RH side

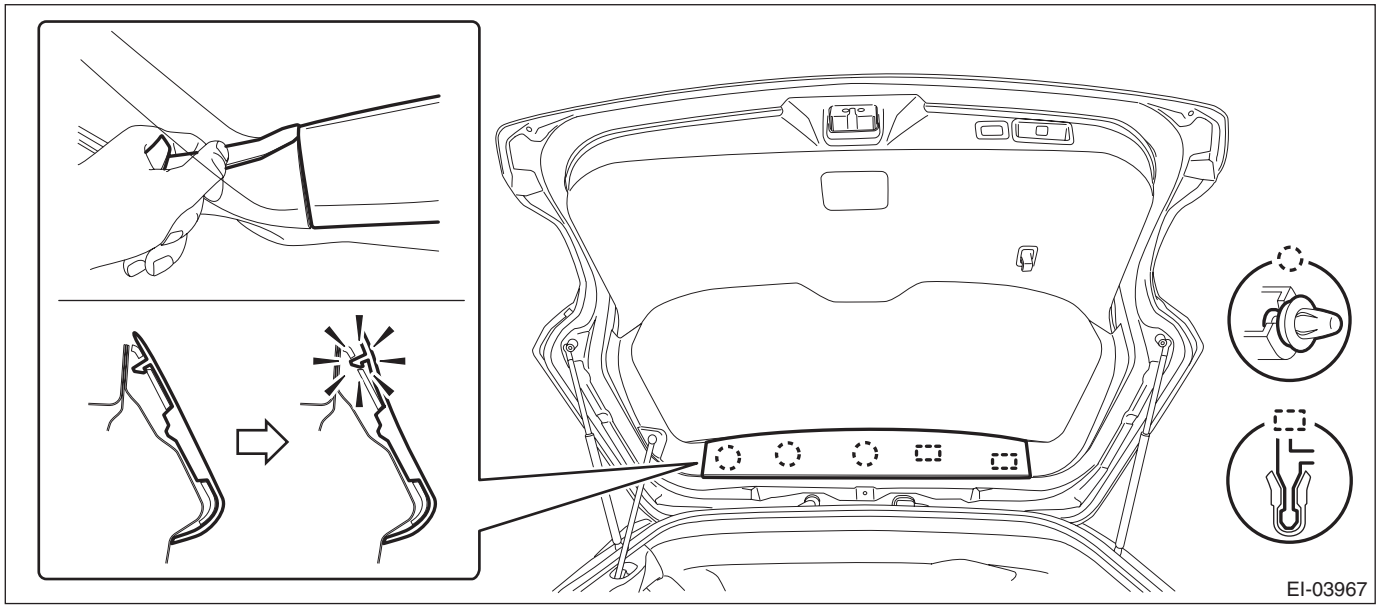
Terminal No.	Inspection conditions	Standard
1 (+) — 4(–)	Apply battery voltage between terminals.	Increase
4 (+) — 1(–)	Apply battery voltage between terminals.	Decrease

3) If it does not operate properly as a result of inspection, replace the regulator and motor assembly - rear.

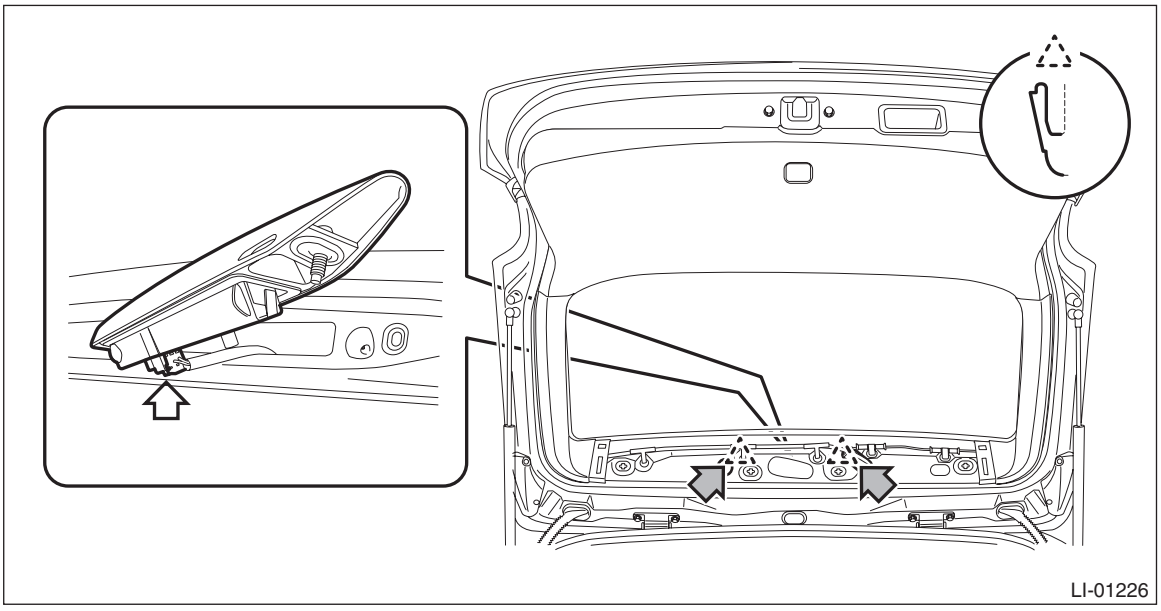
12.Rear Washer

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate UPR.
   (1) Remove the claws on the trim edge.
   (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



3) Remove the light assembly - high-mounted. (Model without roof spoiler)
   (1) Remove the nut.
   (2) Disconnect the connector and remove the light assembly - high-mounted.

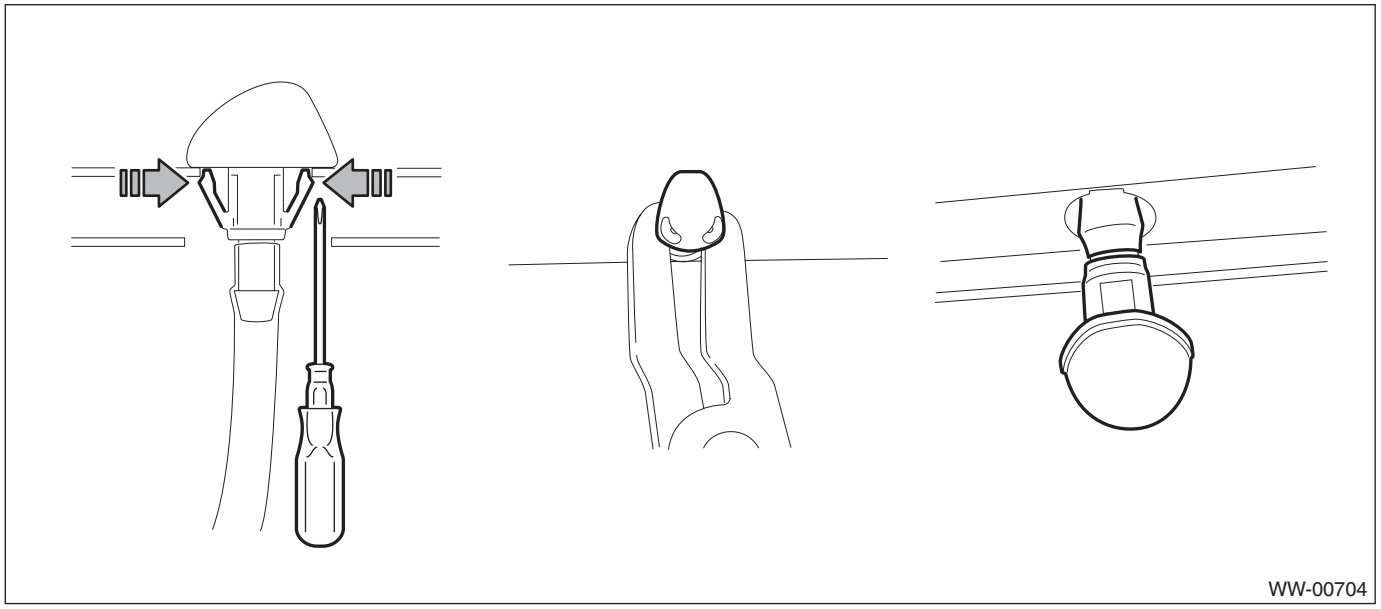


4) Remove the roof spoiler. (Model with roof spoiler) <Ref. to EI-49, REMOVAL, Roof Spoiler.>

5) Remove the nozzle - rear washer.

CAUTION:
Before removing, apply protective tape to the body panel and used tools not to damage the panel - rear gate.

(1) Push the claw using a flat tip screwdriver, etc.
(2) When the nozzle - rear washer lifts up, pull out the nozzle - rear washer using a clip remover, etc.
(3) Disconnect the hose assembly - rear washer, and remove the nozzle - rear washer.



B: INSTALLATION

1) Install each part in the reverse order of removal.

Tightening torque:
Light assembly - high-mounted (model without roof spoiler): 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)
Spoiler assembly - roof (model with roof spoiler): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2) Check the nozzle - rear washer position. <Ref. to WW-47, VISUAL INSPECTION, INSPECTION, Rear Washer.>

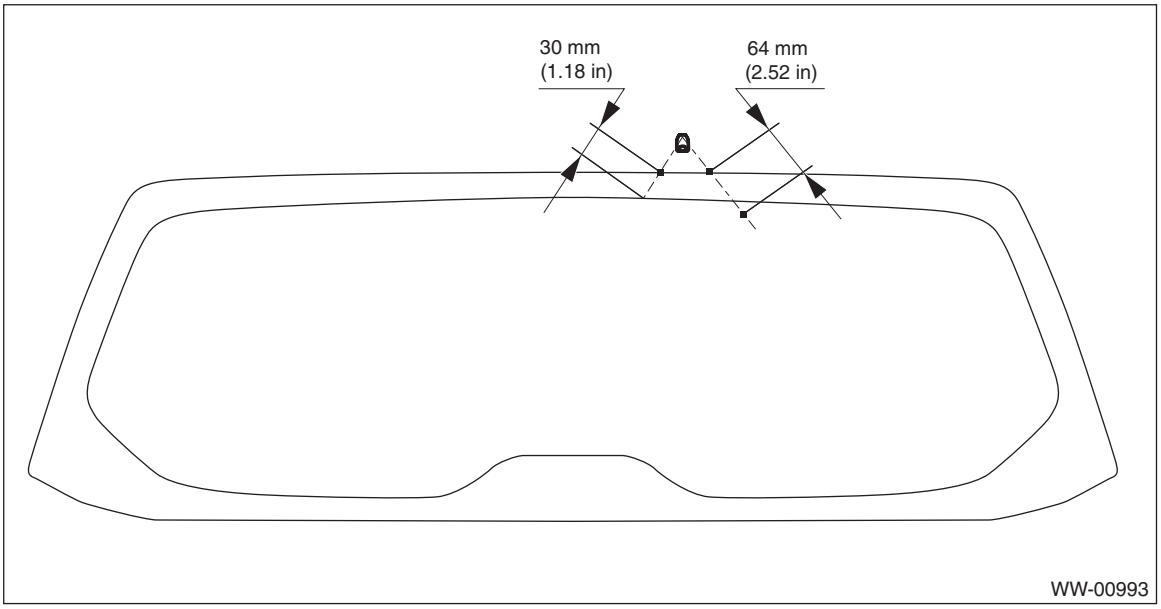
C: INSPECTION

1. VISUAL INSPECTION

Check for the following items, and if any malfunction is found, replace the corresponding part.
- Make sure the nozzle - rear washer and the hose - rear washer are not clogged.
- Make sure the hose - rear washer is not bent.

2. INSPECTING THE SPRAY POSITION

1) Turn the wiper switch to OFF position.
2) While the vehicle is stopped, check that the washer spray position is as shown in the figure.
3) After inspection, if the spray position is significantly out of the specified range, replace the nozzle - rear washer with a new part.



ENTERTAINMENT

ET

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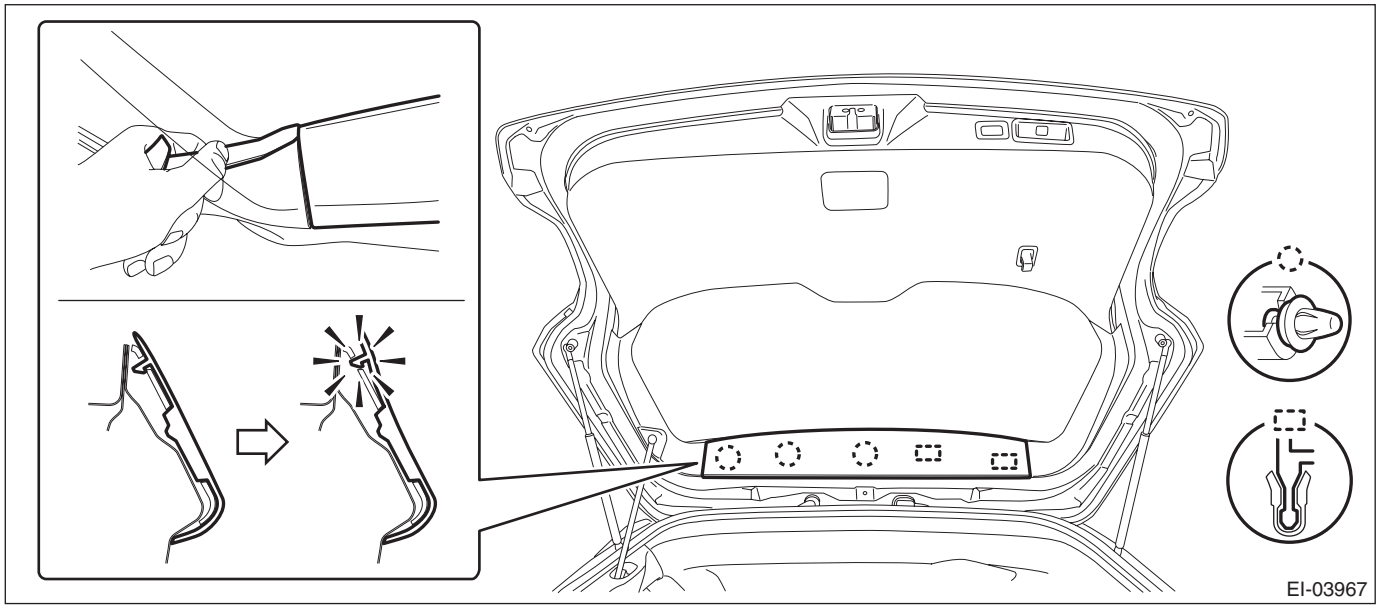
12.Roof Spoiler

A: REMOVAL

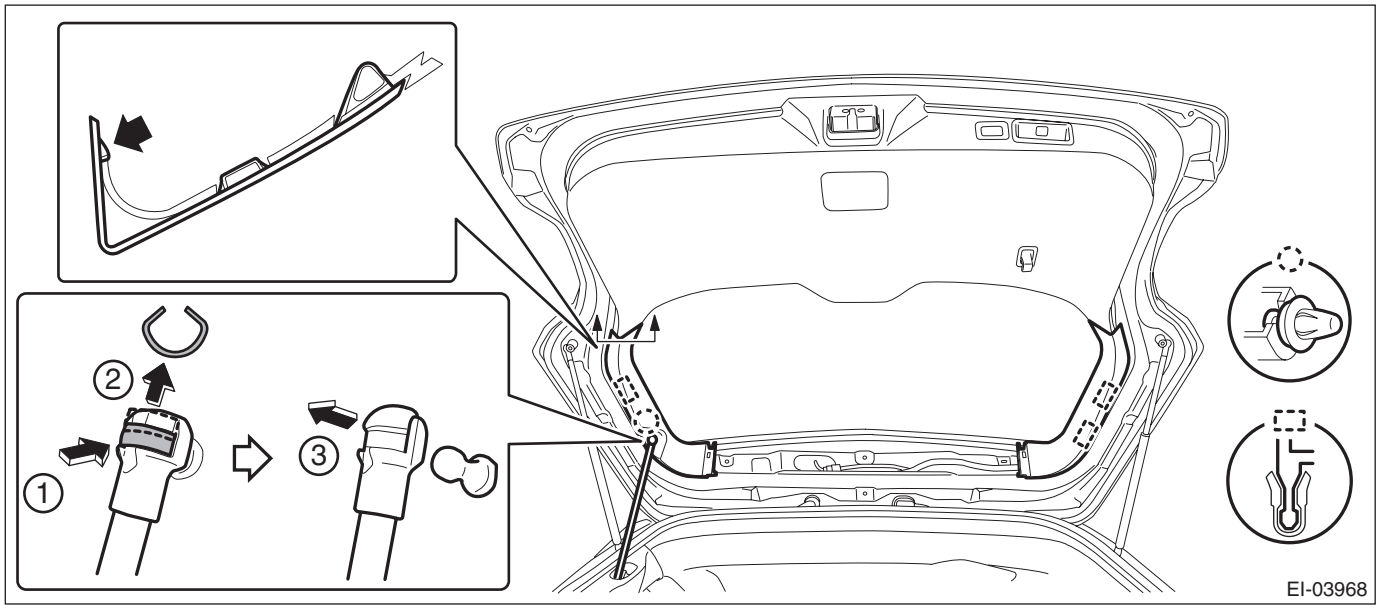
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate UPR.
   (1) Remove the claws on the trim edge.
   (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



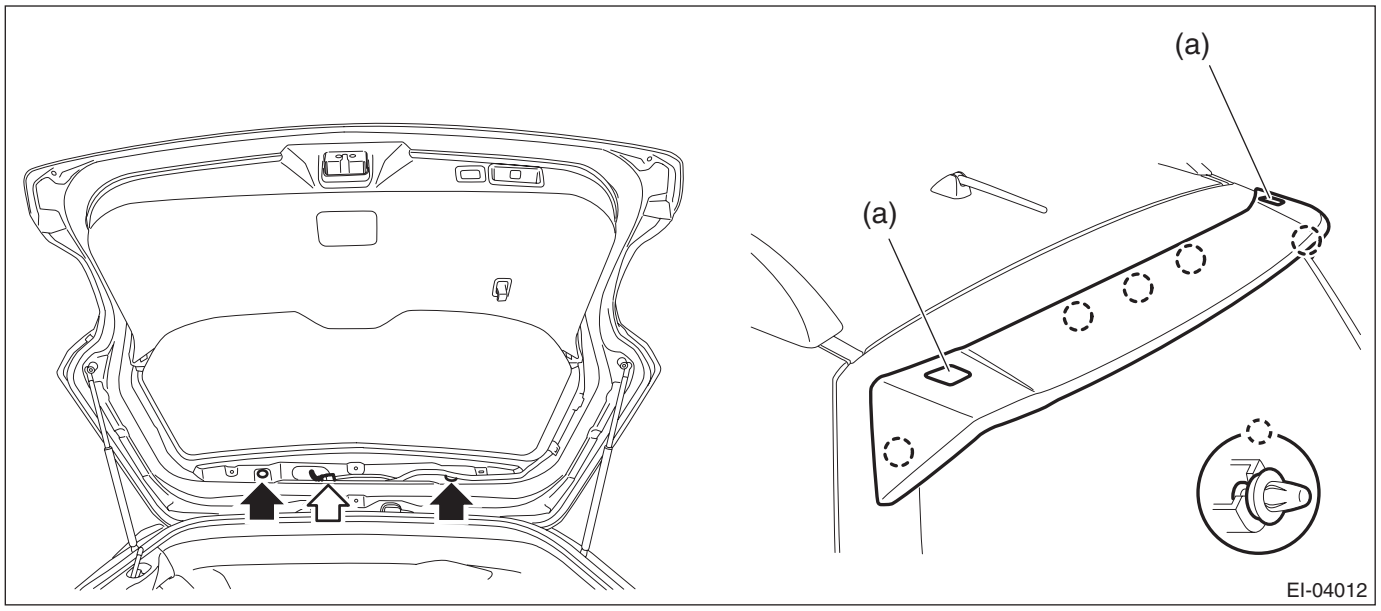
3) Remove the trim panel - rear gate pillar side.
   (1) Disconnect the rod - power rear gate before removing the trim panel - rear gate pillar side LH. (Only for models with power rear gate)

CAUTION:
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal. <Ref. to PRG-15, REMOVAL, Power Rear Gate Rod.>

   (2) Release the claws.
   (3) Remove the claws on the bottom of trim, and remove the trim panel - rear gate pillar side.



4) Remove the spoiler assembly - roof.
(1) Disconnect the connector and remove the nut.
(2) Open the caps (a), and remove the bolt inside.
(3) Remove the clips and remove the spoiler assembly - roof.



5) Remove the high-mounted stop light. <Ref. to LI-60, REMOVAL, High-mounted Stop Light.>

B: INSTALLATION

CAUTION:
• Make sure the bolt is tightened securely because improper installation may cause the water leakage.
• For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation. <Ref. to PRG-16, INSTALLATION, Power Rear Gate Rod.>
Install each part in the reverse order of removal.

Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

12.Side Airbag Sensor

A: REMOVAL

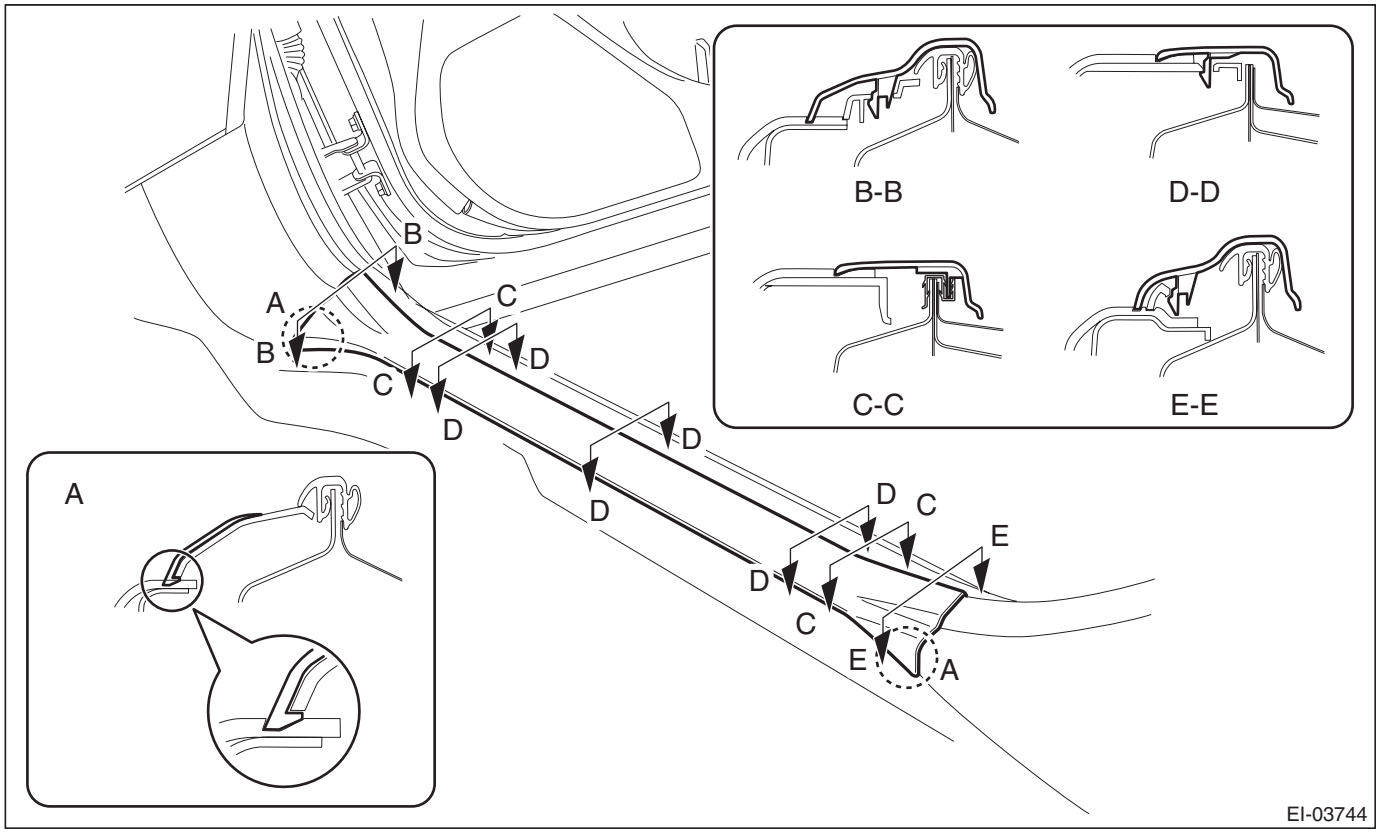
CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section. <Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

1) Move the seat all the way forward, from which the side airbag sensor is to be removed.

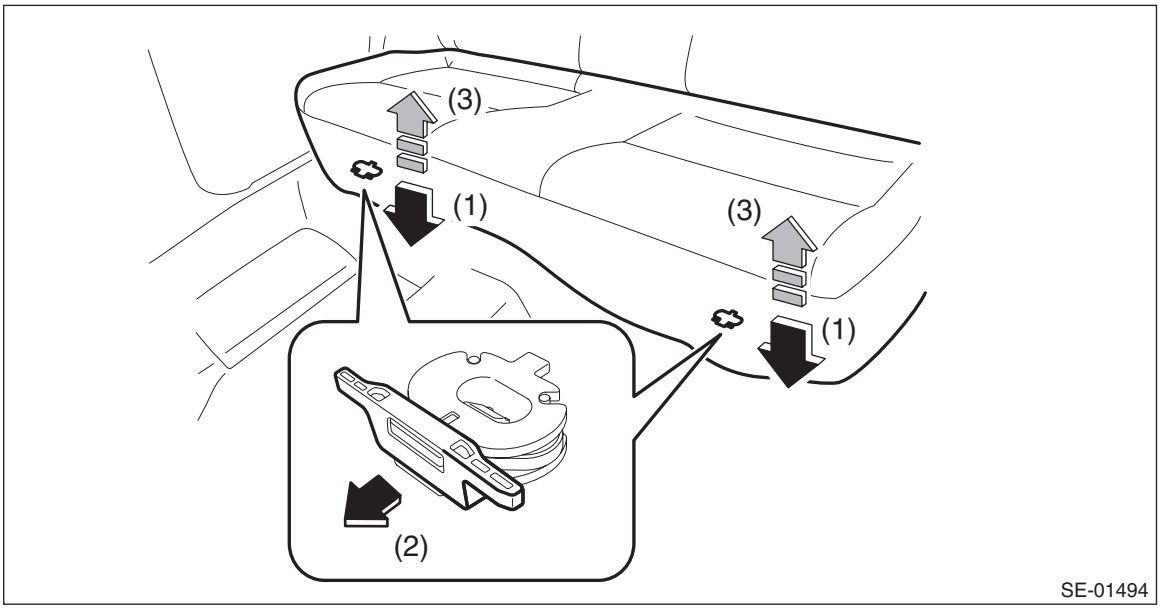
NOTE:
This is to remove the seat belt retractor assembly.

2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Release the claws, and then remove the cover side sill - front INN. (On the side where the side airbag sensor is removed)

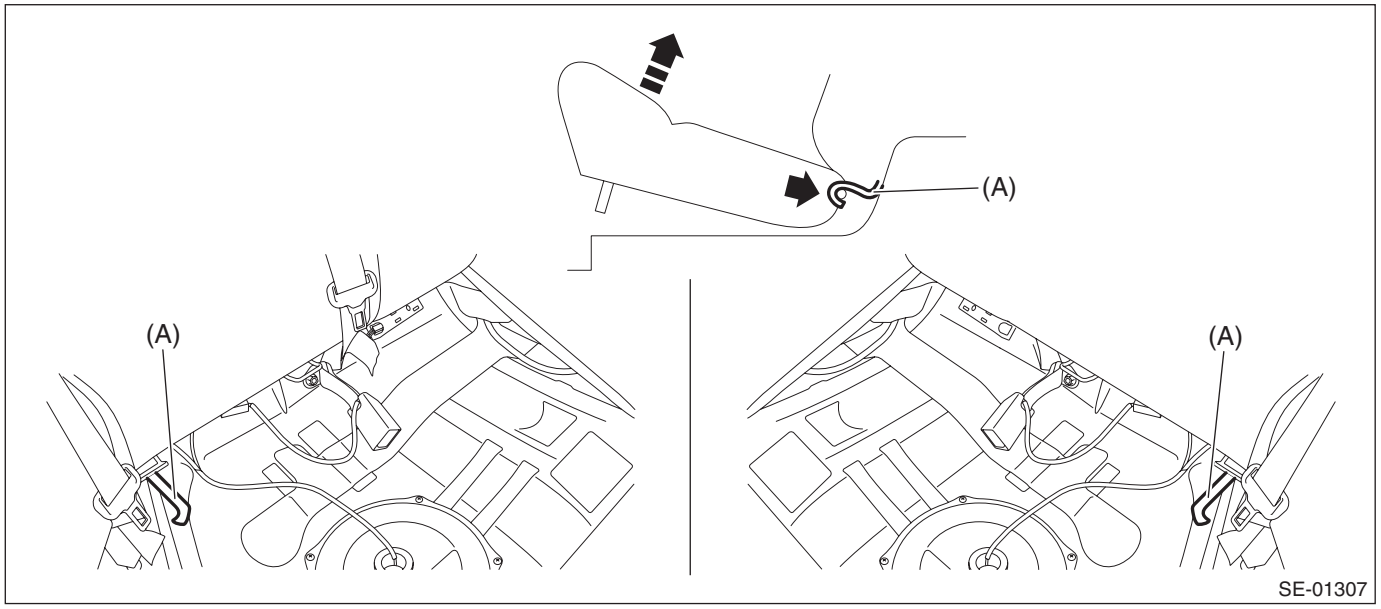
CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



5) Remove the rear seat cushion assembly.
(1) Push the corners of the rear seat cushion from above.
(2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
(3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

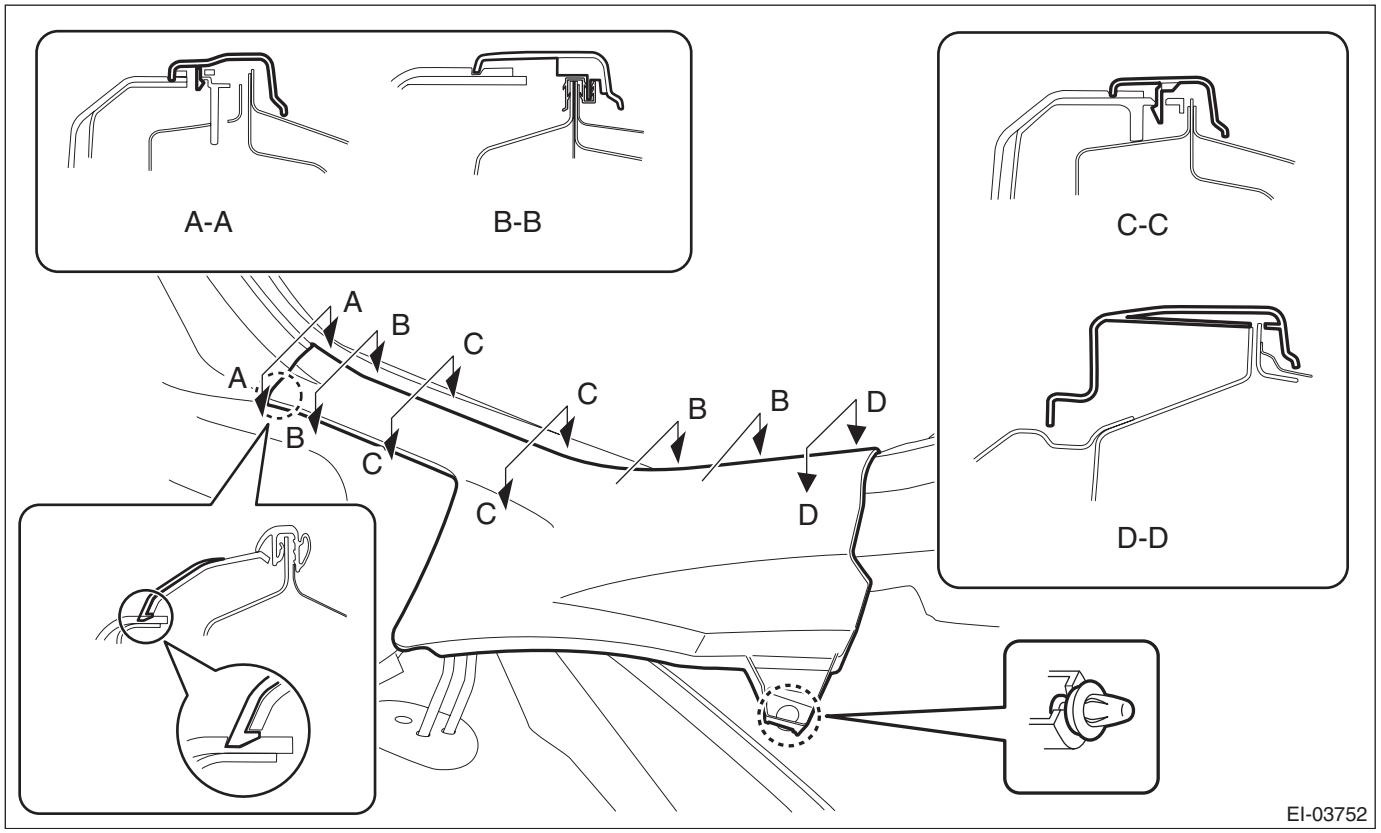


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



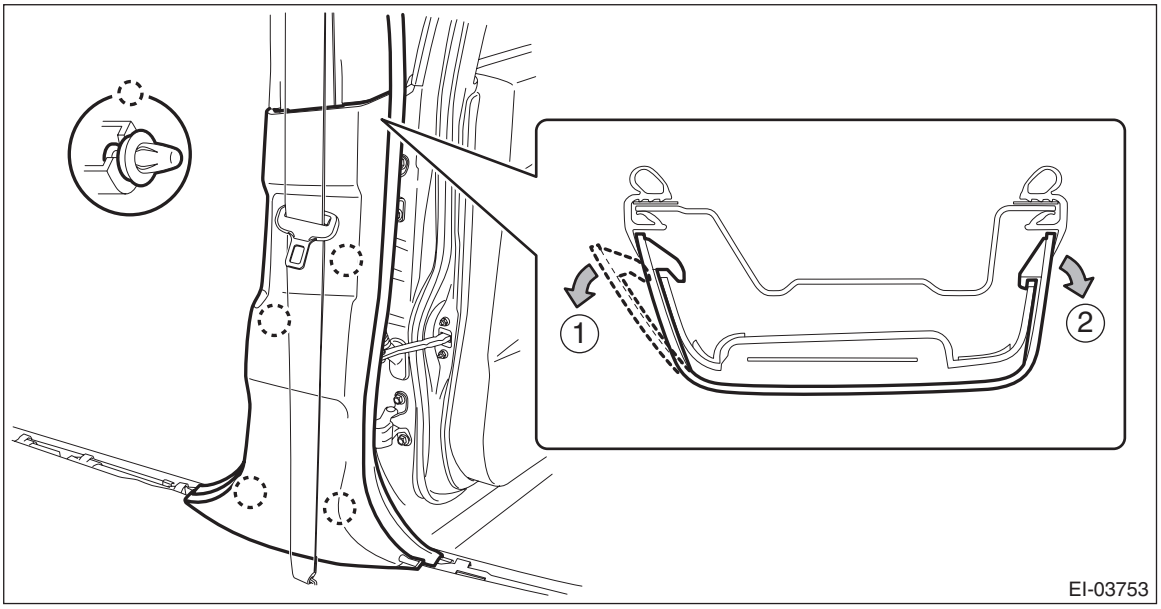
6) Release the clips and claws, and then remove the cover side sill - rear INN. (On the side where the side airbag sensor is removed)

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



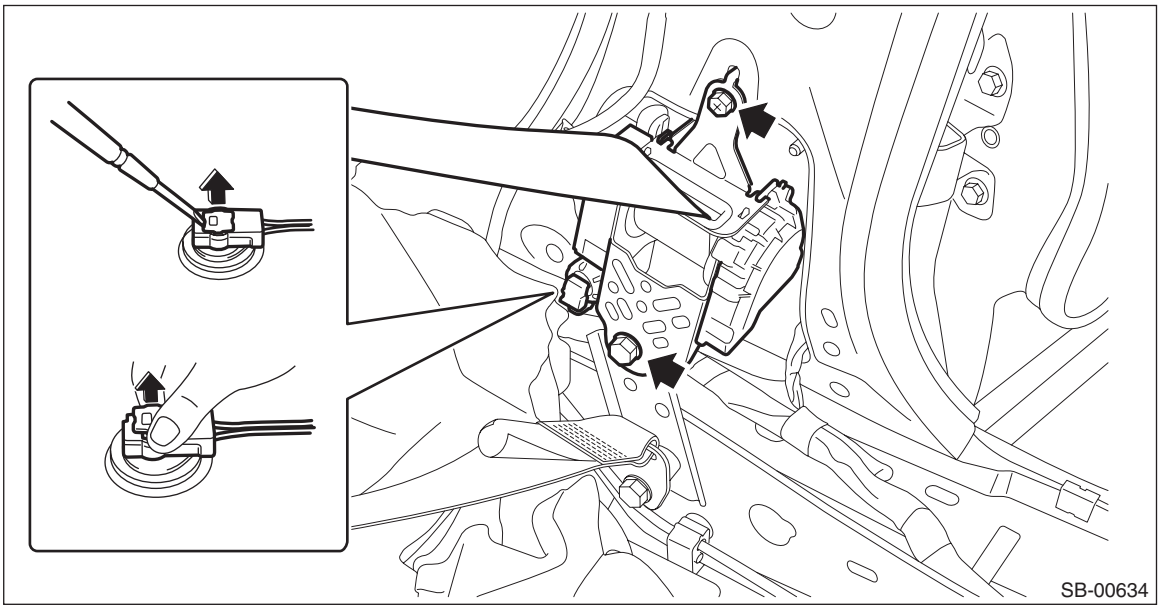
7) Remove the trim panel - center pillar LWR. (On the side where the side airbag sensor is removed)
(1) Release the clip by pulling the trim panel - center pillar LWR toward you.
(2) Expand the claws of the trim panel - center pillar LWR outward, and remove it from the trim panel - center pillar UPR.

CAUTION:
Do not expand the trim panel - center pillar LWR excessively. Doing so may damage the trim.



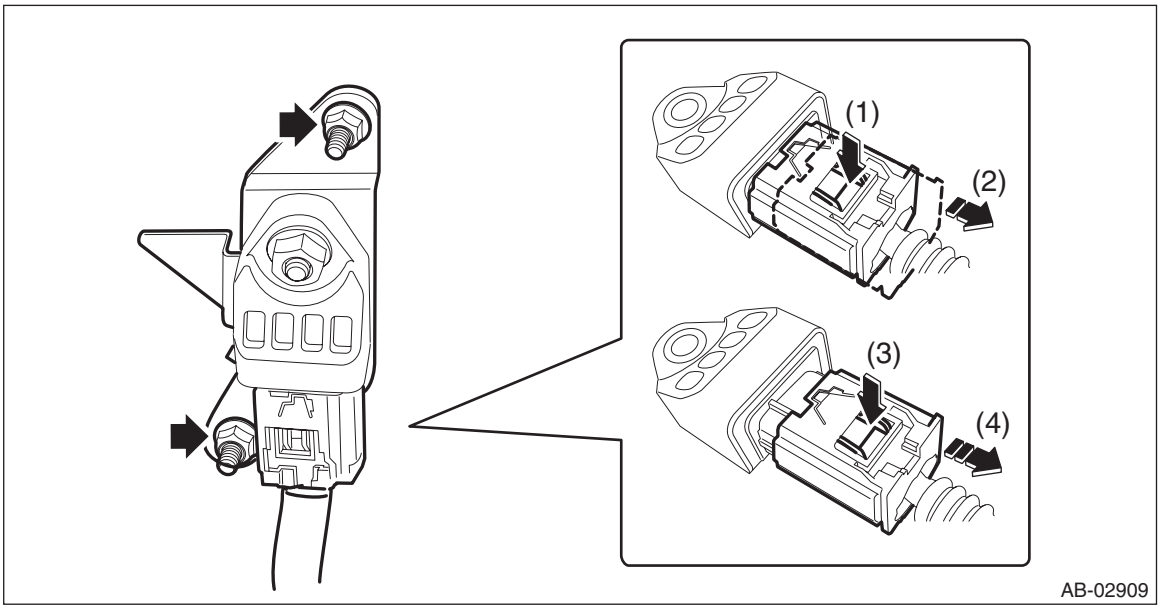
NOTE:
First release the claw located to the front of the vehicle.
8) Remove the seat belt retractor. (On the side where the side airbag sensor is removed)
(1) Turn over the floor mat to disconnect the belt tension sensor connector. <Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>

NOTE:
Also disconnect the connector of the passenger's lap seat belt pretensioner.
(2) Remove the bolt to remove the seat belt retractor.



9) Remove the nuts and then remove the side airbag sensor. <Ref. to AB-26, SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR, PROCEDURE, Airbag Connector.>

CAUTION:
- **Do not separate the side airbag sensor and bracket. It causes the airbag system malfunction.**
- **If the sensor is removed from the bracket, be sure to replace with a new part.**



B: INSTALLATION

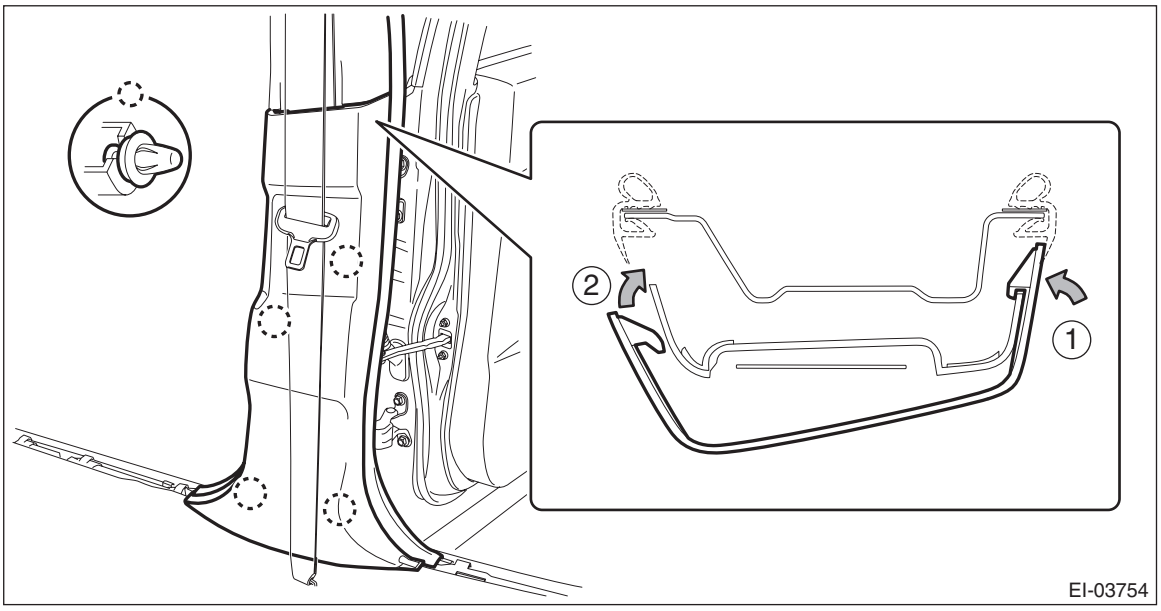
CAUTION:
Do not reuse the bolt and nut.
Always replace with the specified new bolts and nuts.

1) Before installation, inspect the following items and replace any faulty part with a new part.
- The side airbag sensor, sensor bracket, or connector are damaged.
- Side airbag module has been activated.

Tightening torque:
Side airbag sensor: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2) Install each part in the reverse order of removal.

NOTE:
Assemble the trim panel - center pillar LWR to the trim panel - center pillar UPR securely.

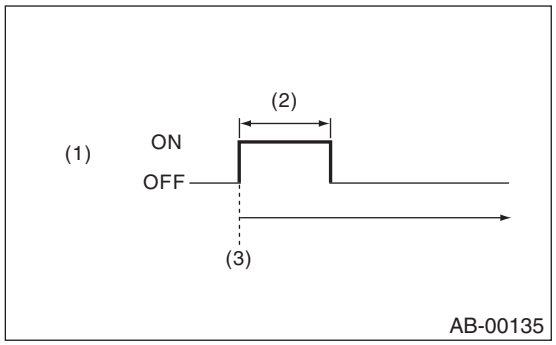


Tightening torque:
Front seat belt: <Ref. to SB-2, FRONT SEAT BELT, COMPONENT, General Description.>

13.Airbag Warning Light Illumination Pattern

A: INSPECTION

Turn the ignition switch to ON, and confirm that the airbag warning light remains on for approx. 6 seconds then turns off afterwards.



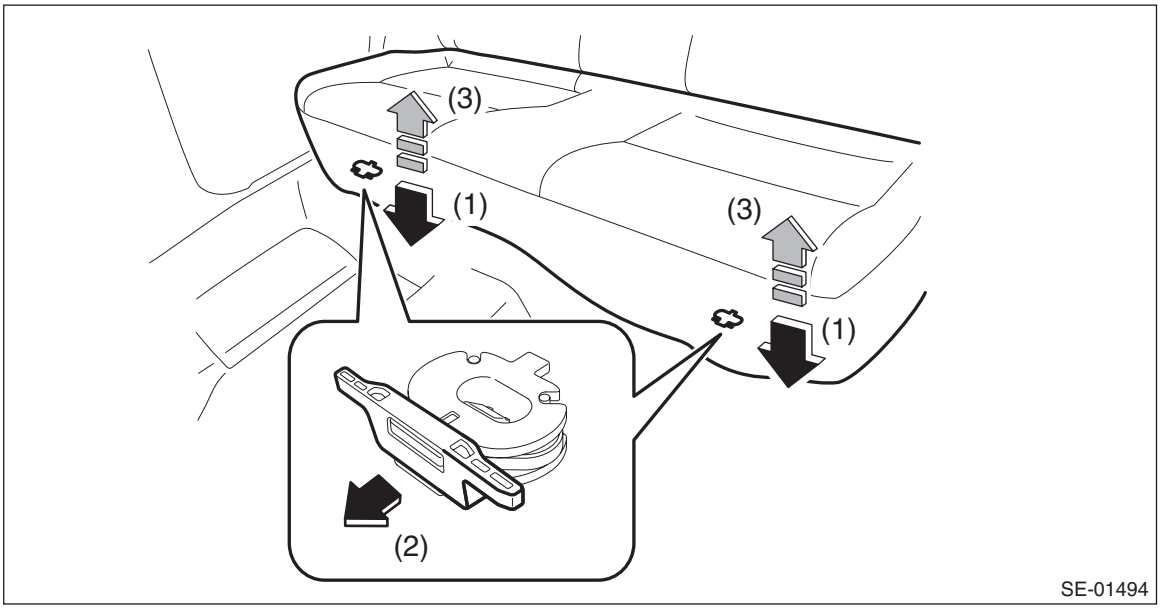
(1) Airbag warning light
(2) Approx. 6 sec.
(3) Ignition switch ON

13.Curtain Airbag Sensor

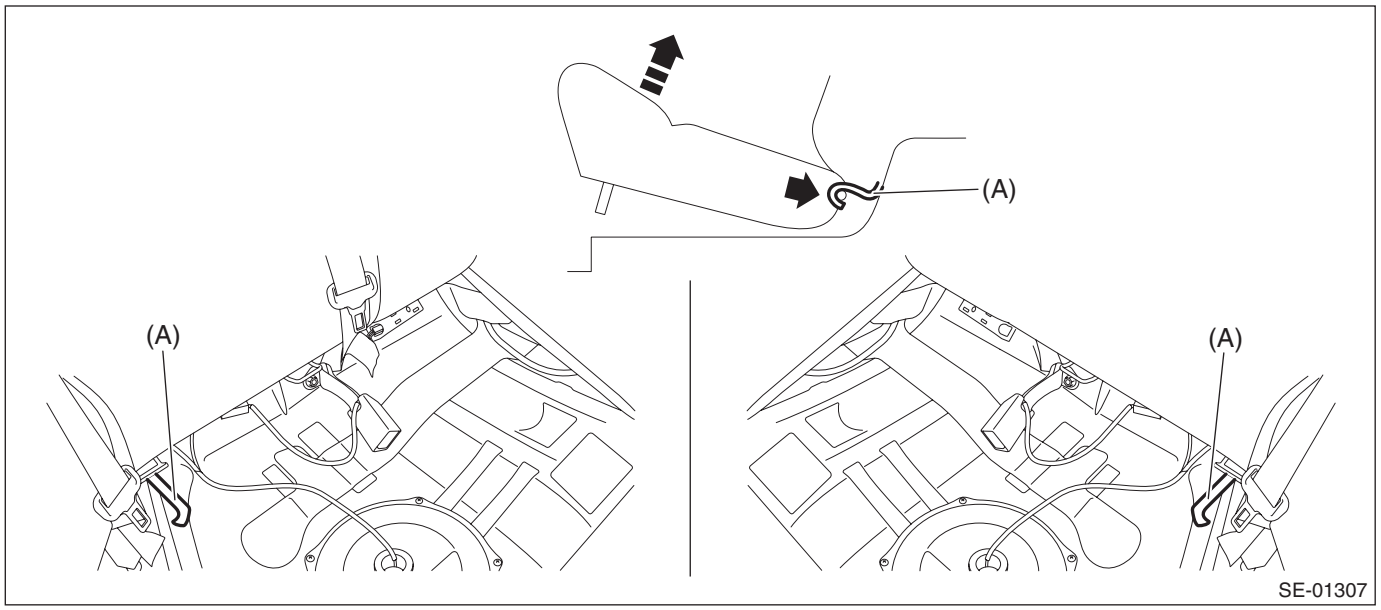
A: REMOVAL

CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the rear seat cushion assembly.
   (1) Push the corners of the rear seat cushion from above.
   (2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
   (3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

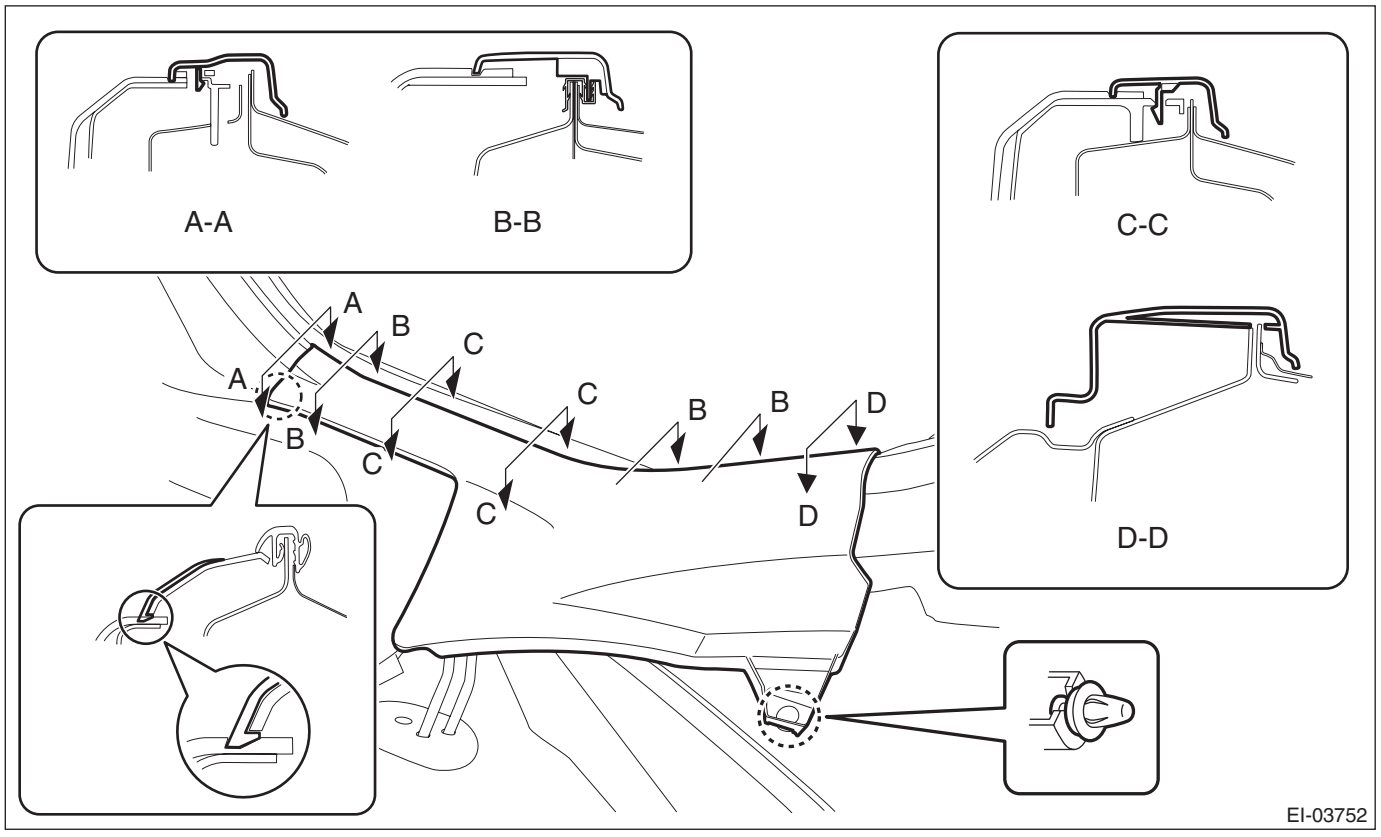


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.

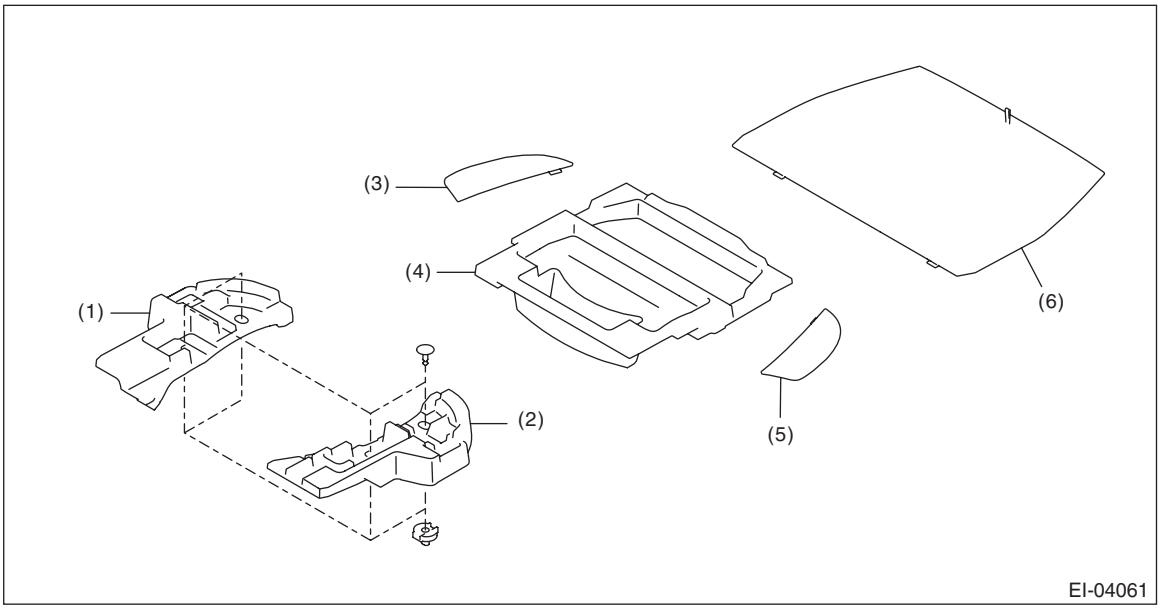


4) Release the clips and claws, and remove the side sill covers - rear INN on the left and right sides. (On the side where the curtain airbag sensor is removed)

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the side sill cover - rear INN.



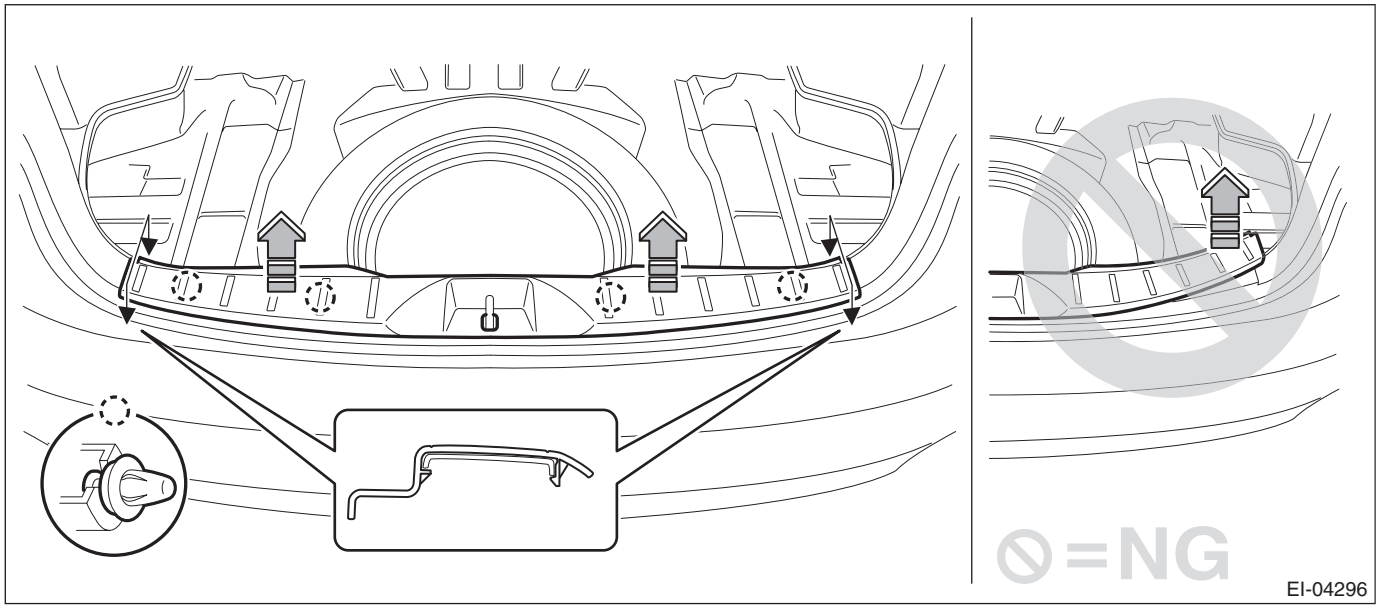
5) Remove the mat - rear floor, spacer - rear floor, and cover - trunk.



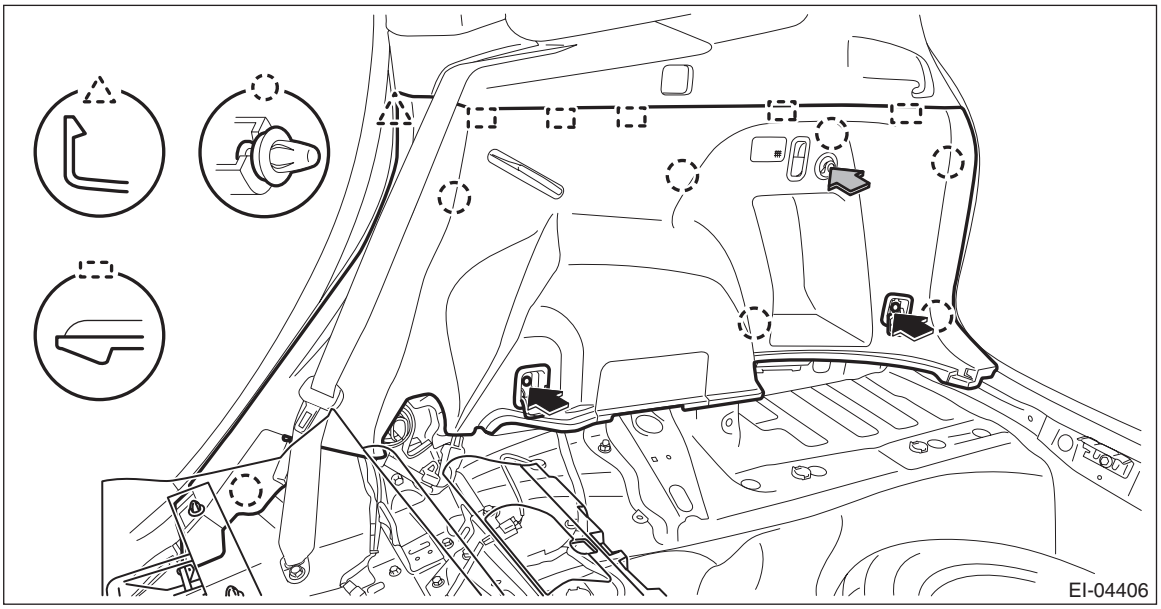
(1) Spacer - rear floor side RH
(2) Spacer - rear floor side LH
(3) Mat - rear floor RH
(4) Cover - trunk
(5) Mat - rear floor LH
(6) Mat - rear floor CTR

6) Remove the clips, and remove the trim panel - rear skirt.

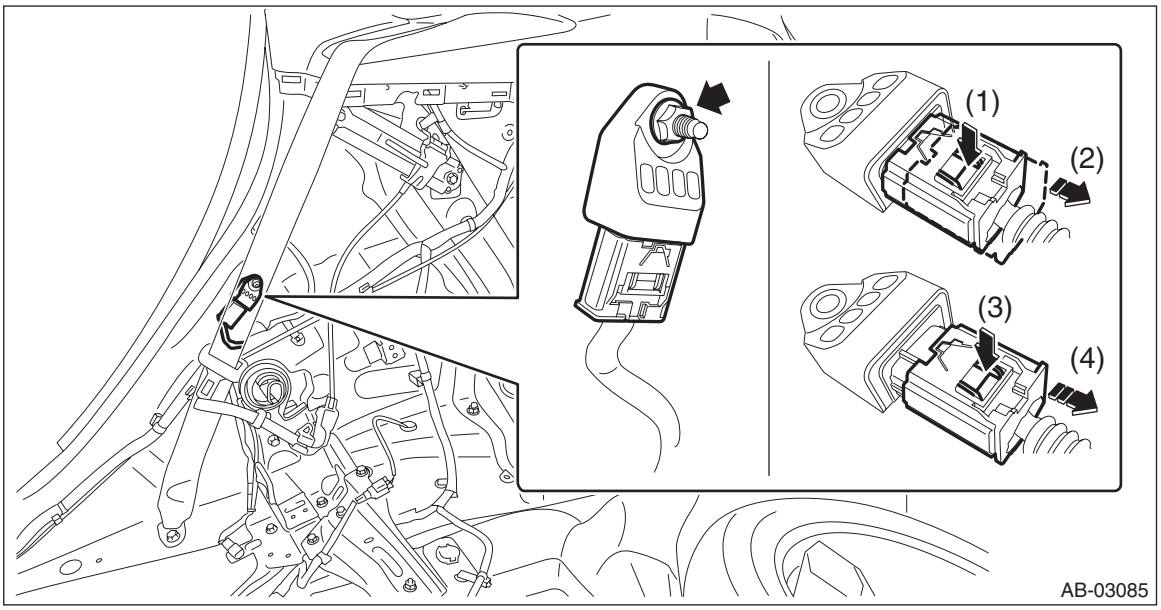
CAUTION:
Do not lift the trim panel - rear skirt from the edge. Doing so may damage the part.



7) Remove the trim panel - rear apron. (On the side where the curtain airbag sensor is removed)
(1) Open the cover, remove the bolts, and remove the hook - luggage. (2 places)
(2) Remove the screws, and release the clips.
(3) Disconnect the connectors and remove the trim panel - rear apron.



8) Remove the nuts and then remove the curtain airbag sensor.<Ref. to AB-26, SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR, PROCEDURE, Airbag Connector.>



B: INSTALLATION

CAUTION:
• Do not reuse the bolt and nut.
Always replace with the specified new bolts and nuts.
• When installing the sensor, insert the set pin on the backside of the sensor into the hole on the body side securely.
1) Before installation, inspect the following items and replace any faulty part with a new one.
• Curtain airbag sensor or connector is damaged.
• Curtain airbag module has been activated.
2) Install each part in the reverse order of removal.

Tightening torque:
Curtain airbag sensor: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
Rear seat backrest assembly: <Ref. to SE-6, REAR SEAT, COMPONENT, General Description.>

13.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

Detected when CAN line abnormality is detected.

NOTE:
Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

B: DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”

Detected when CAN data from the engine control module (ECM) does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

C: DTC U0101 LOST COMMUNICATION WITH TCM

Detected when CAN data from TCM does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

D: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

Detected when CAN data from VDC does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

E: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

Detected when CAN data from BIU does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

F: DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE

Detected when CAN data from meter does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

G: DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”

Detected when there is malfunction in CAN data from the engine control module (ECM).

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

H: DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE

Detected when CAN data from BIU is abnormal.

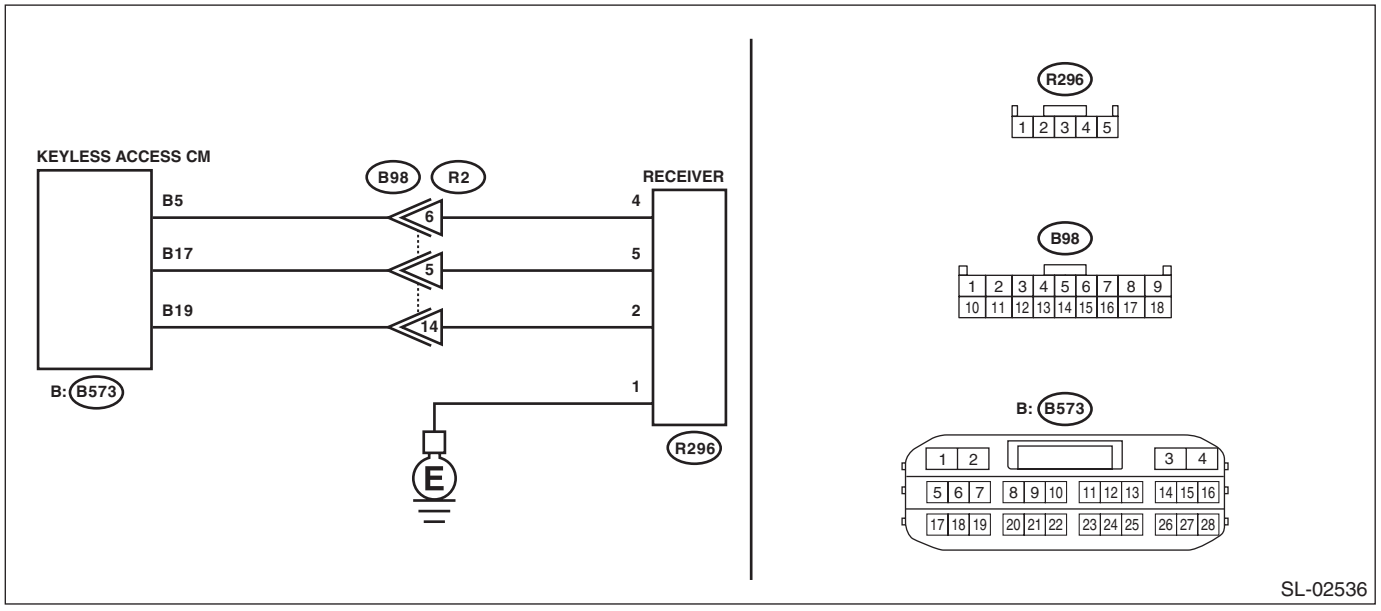
NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

I: DTC B1242 WIRELESS TUNER ABNORMAL

DTC DETECTING CONDITION:
When short circuit occurs in harness between keyless access CM and receiver.
TROUBLE SYMPTOM:
- The keyless access with push button start function (except for emergency function) does not operate properly.
- Operation by the access key button does not function.

CAUTION:
- **For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".**
- **When the harness comes close to the receiver, the performance of keyless access system operation and wireless operation may reduce. So, when replacing or inspecting the receiver and harness, do not change the route and length of the surrounding harnesses.**

WIRING DIAGRAM:
Push button start system <Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the receiver connector. 3) Using the tester, measure the resistance between terminals of keyless access CM connector and receiver connector, and keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B573) No. 19 — (R296) No. 2:*** ***(B573) No. 17 — (R296) No. 5:*** ***(B573) No. 5 — (R296) No. 4:*** ***(R296) No. 1 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B573) No. 19 — Chassis ground:*** ***(B573) No. 17 — Chassis ground:*** ***(B573) No. 5 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **4**.	Repair or replace the short circuit of the harness.
4	**CHECK RECEIVER.** 1) Replace the receiver, and then connect it. 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs.	Is B1242 displayed?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Receiver has a malfunction.

J: DTC B2271 IGN FUSE BLOWN OR IGN CIRCUIT ABNORMAL

DTC DETECTING CONDITION:

- When malfunction is detected in IG1 and IG2 drive circuits in the keyless access CM.
- When malfunction is detected in IG hold circuit in the keyless access CM.

TROUBLE SYMPTOM:

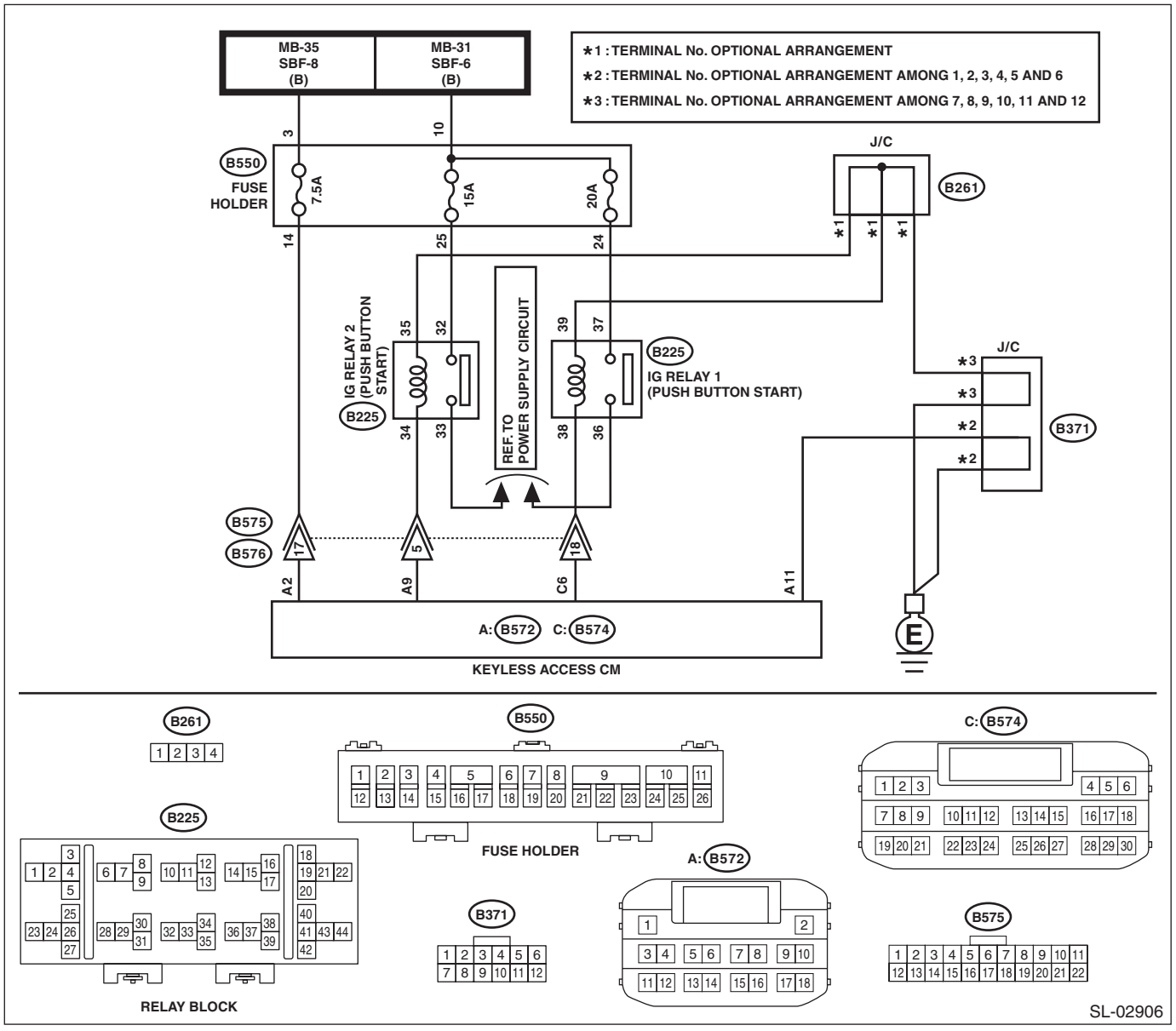
Not all functions operate at IGN ON.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



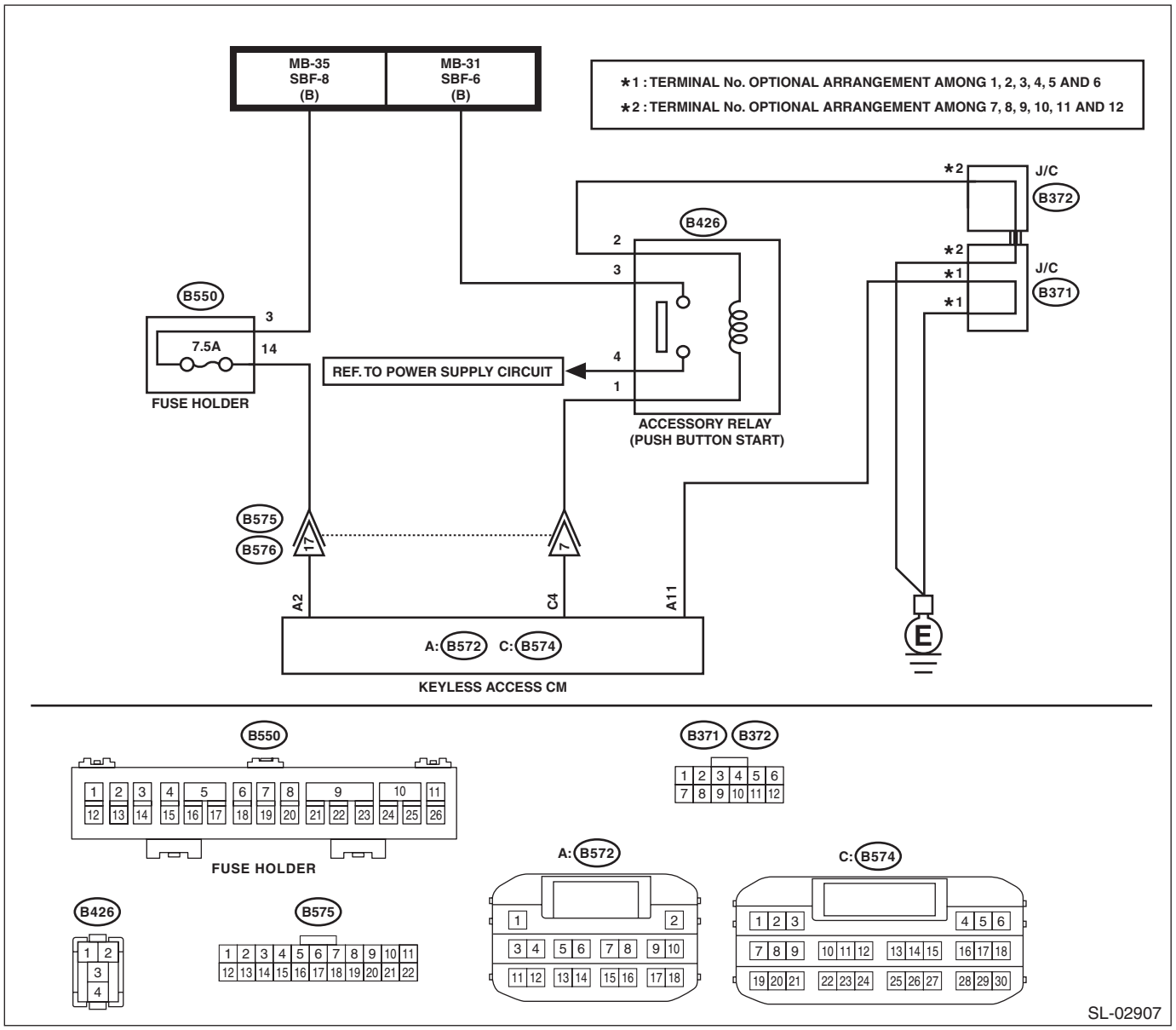
Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.

	Step	Check	Yes	No
2	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **3**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
3	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 9.5 — 16 V?	Go to step **4**.	Check the power supply circuit.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 9 — Chassis ground:***	Is resistance 128 — 157 Ω? (20°C)	Go to step **6**.	Check IG relay 2.Go to step **7**.
6	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B574) No. 6 — Chassis ground:***	Is resistance 128 — 157 Ω? (20°C)	Go to step **8**.	Check IG relay 1.Go to step **7**.
7	**CHECK RELAY.** Perform unit inspection of IG relay 1 and IG relay 2.<Ref. to SL-10, CHECK RELAY, INSPECTION, Relay and Fuse.>	Is the relay OK?	Go to step **8**.	Replace the relay.<Ref. to SL-103, REMOVAL, IG Relay1 (Push Button Start).> <Ref. to SL-105, REMOVAL, IG Relay2 (Push Button Start).>
8	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Using a tester, measure the voltage between the terminals of keyless access CM connector. ***Connector & terminal*** ***(B574) No. 6 (+) — Chassis ground (–):*** ***(B572) No. 9 (+) — Chassis ground (–):***	Is the voltage 1 V or less → 9.5 — 16 V when ACC → IGN ON?	System is normal. It is possible that temporary poor contact occurs.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>

K: DTC B2274 ACC MONITOR

DTC DETECTING CONDITION:
When malfunction is detected in ACC relay drive circuit in the keyless access CM or external circuit.
TROUBLE SYMPTOM:
Each function does not operate at the ACC position.

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.

	Step	Check	Yes	No
2	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **3**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
3	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 9.5 — 16 V?	Go to step **4**.	Check the power supply circuit.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B574) No. 4 — Chassis ground:***	Is resistance 128 — 157 Ω? (20°C)	Go to step **7**.	Go to step **6**.
6	**CHECK RELAY.** Perform inspection of ACC relay unit.<Ref. to SL-10, CHECK RELAY, INSPECTION, Relay and Fuse.>	Is the relay OK?	Go to step **7**.	Replace the relay.<Ref. to SL-107, REMOVAL, Accessory Relay (Push Button Start).>
7	**CHECK HARNESS.** Using a tester, measure the resistance between keyless access CM connectors. ***Connector & terminal*** ***(B574) No. 4 — (B426) No. 1:*** ***(B426) No. 2 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. ***Connector & terminal*** ***(B574) No. 4 (+) — Chassis ground (–):***	Is the voltage 1 V or less → 9.5 — 16 V when OFF → ACC ON?	System is normal. It is possible that temporary poor contact occurs.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>

L: DTC B2275 STSW CIRCUIT ABNORMAL

DTC DETECTING CONDITION:

- When malfunction is detected in engine start permission signal output circuit in the keyless access CM.
- When malfunction is detected in external engine start permission signal circuit.

TROUBLE SYMPTOM:

Engine will not start.

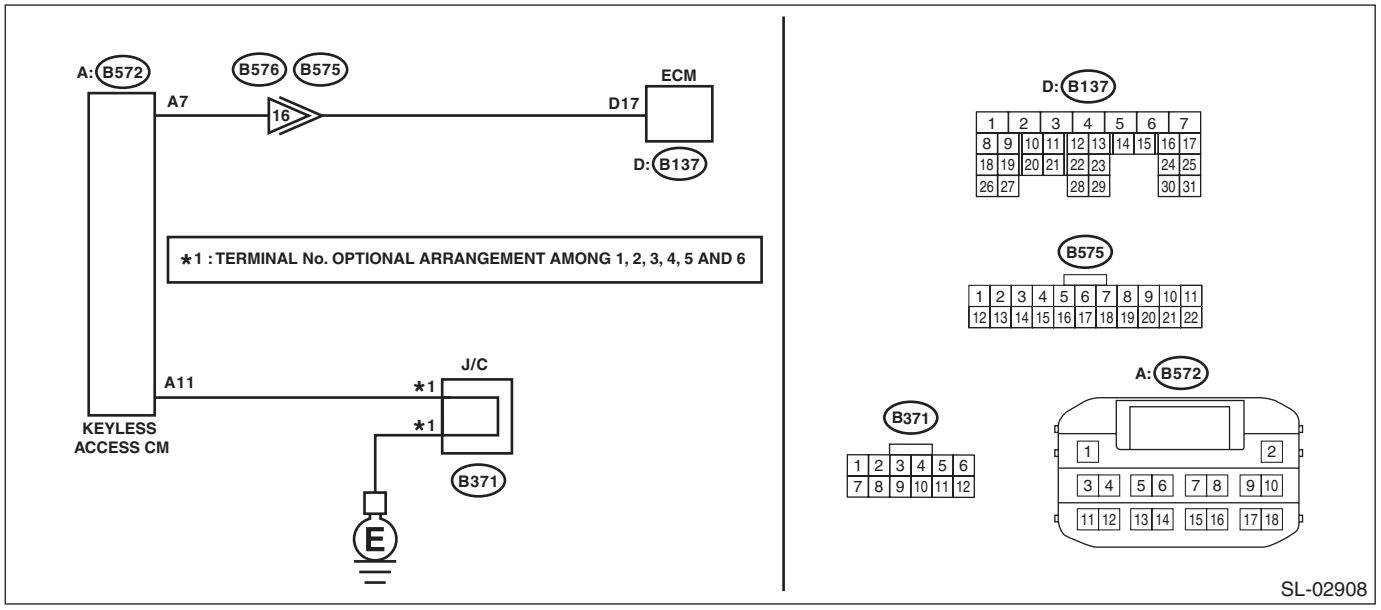
CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

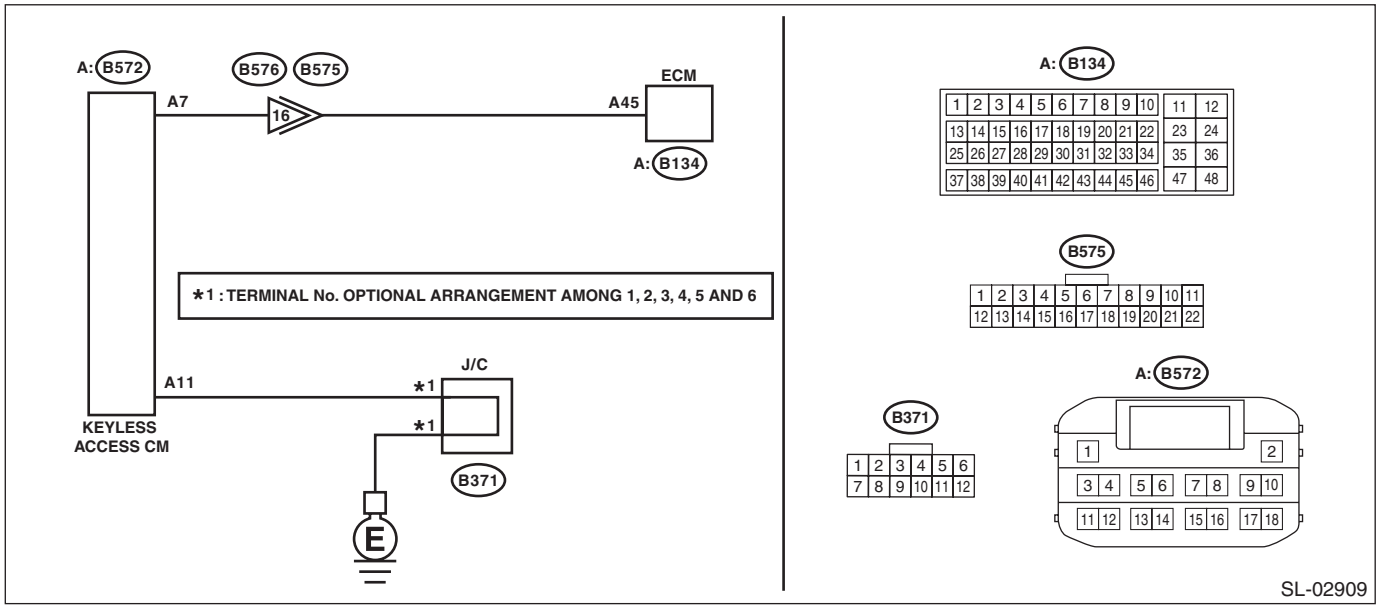
WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>

- Non-turbo model



- Turbo model



	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **3**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
3	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector and ECM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and ECM. ***Connector & terminal*** ***Non-turbo model*** ***(B572) No. 7 — (B137) No. 17:*** ***Turbo model*** ***(B572) No. 7 — (B134) No. 45:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 7 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector and ECM connector. 2) Using a tester, measure the voltage between the terminals of keyless access CM connector. ***Connector & terminal*** ***(B572) No. 7 (+) — (B572) No. 11 (–):***	Is the voltage 2 V or less → 9 V or more, when the push button ignition switch is turned on while depressing the brake pedal (AT model) or clutch pedal (MT model) with the shift position in P or N and the key placed in the passenger room?	Perform inspection according to the diagnosis of engine.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>

M: DTC B2276 ACCR SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When input error occurs in accessory relay cut input signal of keyless access CM.

TROUBLE SYMPTOM:

- The accessory power supply is not cut during engine start.
- Starter rotation is slow.

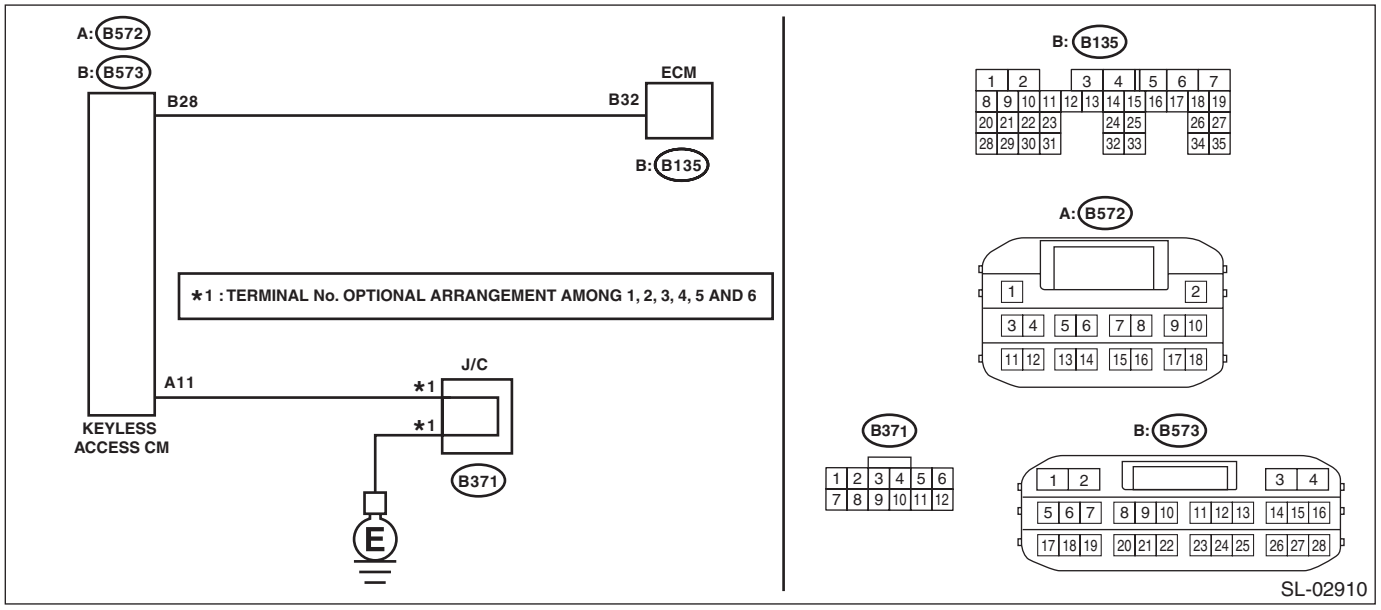
CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

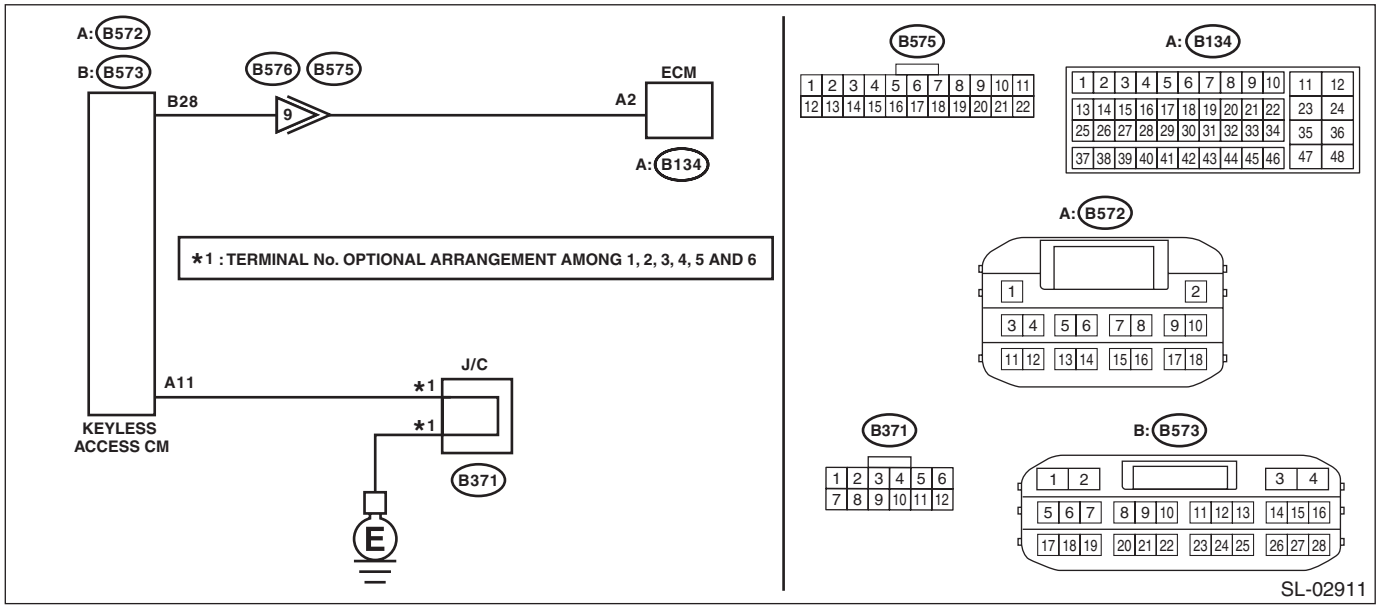
WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>

- Non-turbo model



- Turbo model



	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector and ECM connector. 2) Using a tester, measure the resistance between the keyless access CM connector and ECM. ***Connector & terminal*** ***Non-turbo model*** ***(B573) No. 28 — (B135) No. 32:*** ***Turbo model*** ***(B573) No. 28 — (B134) No. 2:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B573) No. 28 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **4**.	Repair or replace the short circuit of the harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector and ECM connector. 2) Using a tester, measure the voltage between terminals of the keyless access CM connector when the push button ignition switch is pressed while depressing the brake pedal, with the shift lever in the P range for model except for MT or while depressing the clutch pedal for MT model. ***Connector & terminal*** ***(B573) No. 28 (+) — (B572) No. 11 (–):***	Is the voltage 9.5 — 16 V → 1 V or less?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Replace the ECM.<Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).>

N: DTC B2277 SUBMERGING CIRCUIT ABNORMAL

DTC DETECTING CONDITION:

When the water-submersion detection circuit integrated into the keyless access CM detects the water submersion.

TROUBLE SYMPTOM:

- The ignition can be turned ON, but cannot be turned OFF.
- Engine will not start.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK SUBMERSION CONDITION.** Check the keyless access CM and environment of equipment, and check the harness for any trace of water submersion.	Is there any trace of water submersion?	Take necessary measures against water submersion and replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

O: DTC B2282 VEHICLE SPEED SIGNAL ABNORMAL

DTC DETECTING CONDITION:

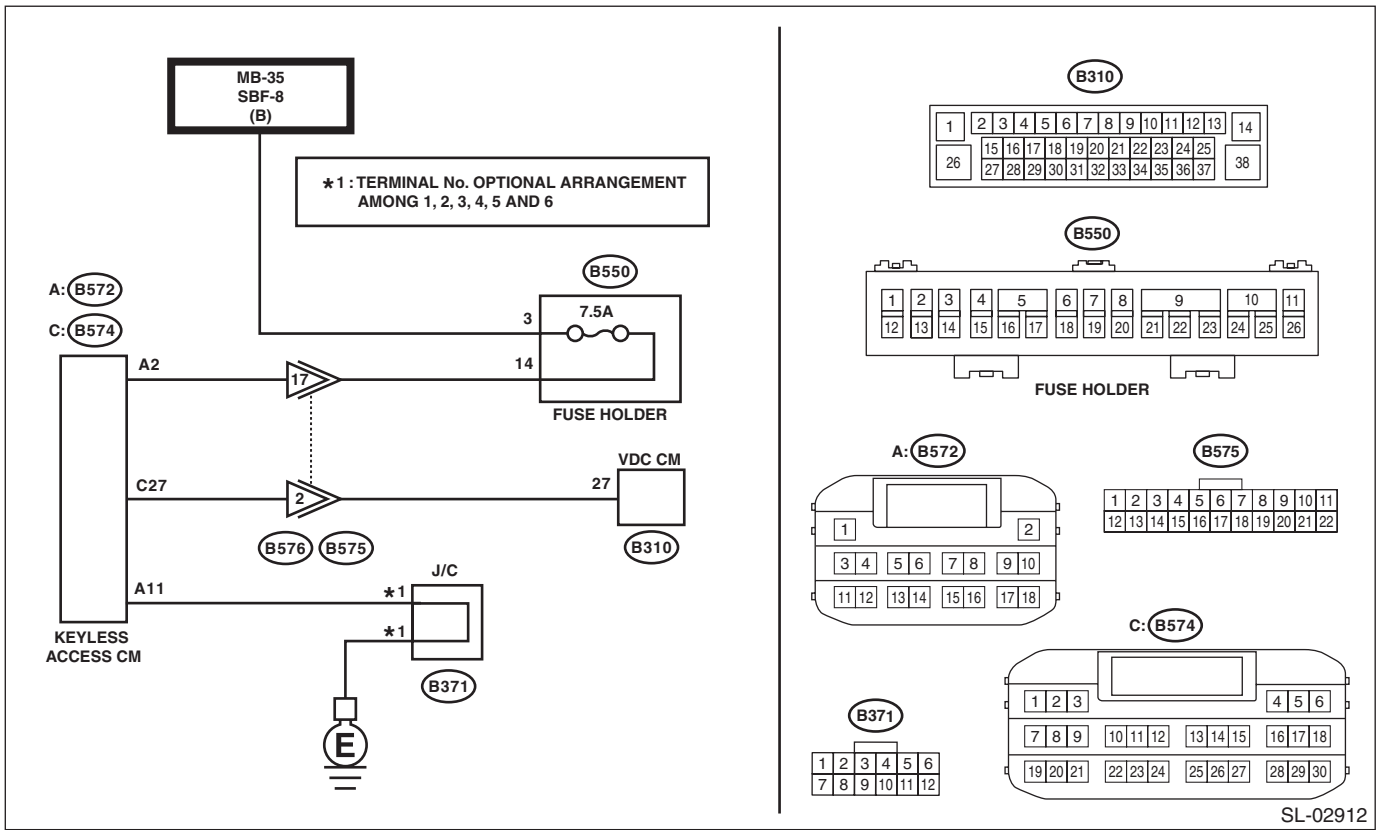
When the vehicle speed signal transmitted from VDC via solid line and the vehicle speed signal transmitted via CAN communication line do not match.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK COMBINATION METER.** Check that the speedometer is displayed normally.	Is the meter display normal?	Go to step **3**.	Check the VDC.<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>
3	**CHECK CURRENT DATA.** Confirm the current data display of keyless access system using Subaru Select Monitor. • Vehicle speed signal	Is the parked state or driving state displayed normally?	Go to step **4**.	Check the VDC.<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

	Step	Check	Yes	No
4	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **5**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
5	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 9.5 — 16 V?	Go to step **6**.	Check the power supply circuit.
6	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the combination meter connector. 3) Using a tester, measure the resistance between the keyless access CM connector and VDC CM connector. ***Connector & terminal*** ***(B572) No. 27 — (B310) No. 27:***	Is the resistance less than 1 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 27 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK KEYLESS ACCESS CM.** 1) Connect each connector. 2) Using the Subaru Select Monitor, measure the waveform between the terminals of keyless access CM. ***Connector & terminal*** ***(B572) No. 27 — Chassis ground:***	Is 3.54 Hz displayed when the vehicle is driven approx. at 5 km/h?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Check the VDC.<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

P: DTC B2283 VEHICLE SPEED SENSOR FAULT DETECTION

DTC DETECTING CONDITION:

Either of the following malfunctions is detected (Vehicle speed sensor failure is detected.).

- Vehicle speed signal failure detection 1: Excessive deceleration detection
- Vehicle speed signal failure detection 2: Engine speed interlock detection

TROUBLE SYMPTOM:

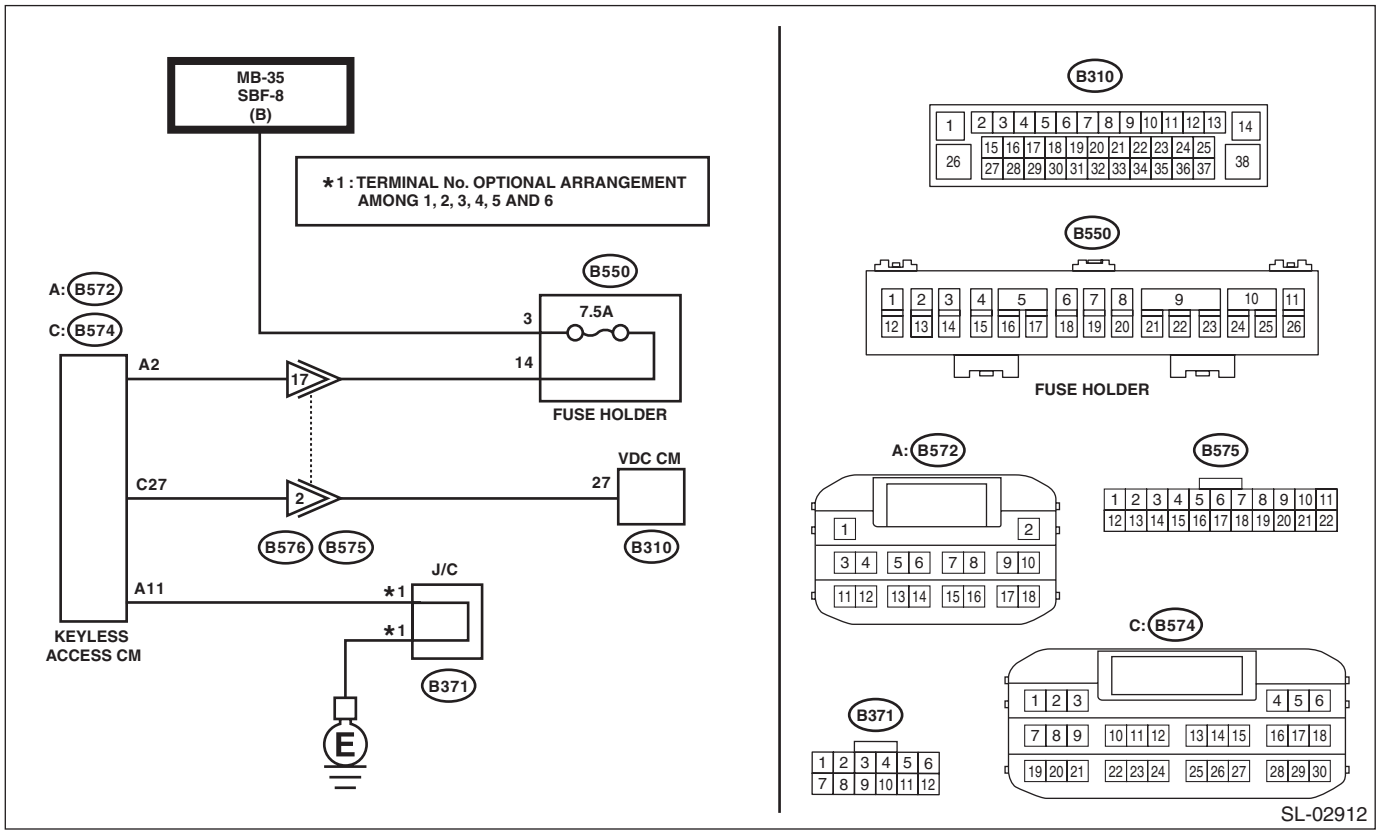
The steering lock does not operate.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK COMBINATION METER.** Check that the speedometer is displayed normally. • Vehicle speed signal	Is the meter display normal?	Go to step **3**.	Check the VDC.<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>
3	**CHECK CURRENT DATA.** Confirm the current data display of keyless access system using Subaru Select Monitor. • Vehicle speed signal	Is the parked state or driving state displayed normally?	Go to step **4**.	Check the VDC.<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

	Step	Check	Yes	No
4	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **5**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
5	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 9.5 — 16 V?	Go to step **6**.	Check the power supply circuit.
6	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the combination meter connector. 3) Using a tester, measure the resistance between the keyless access CM connector and VDC CM connector. ***Connector & terminal*** ***(B572) No. 27 — (B310) No. 27:***	Is the resistance less than 1 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 27 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK KEYLESS ACCESS CM.** 1) Connect each connector. 2) Using the Subaru Select Monitor, measure the waveform between the terminals of keyless access CM. ***Connector & terminal*** ***(B572) No. 27 — Chassis ground:***	Is 3.54 Hz displayed when the vehicle is driven approx. at 5 km/h?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Check the VDC.<Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

Q: DTC B2284 BRAKE SIGNAL (CABLE-INFORMATION DOES NOT MATCH TO BEAN-INFORMATION)

DTC DETECTING CONDITION:

When the brake signal transmitted via solid line and the brake signal transmitted via CAN communication line do not match.

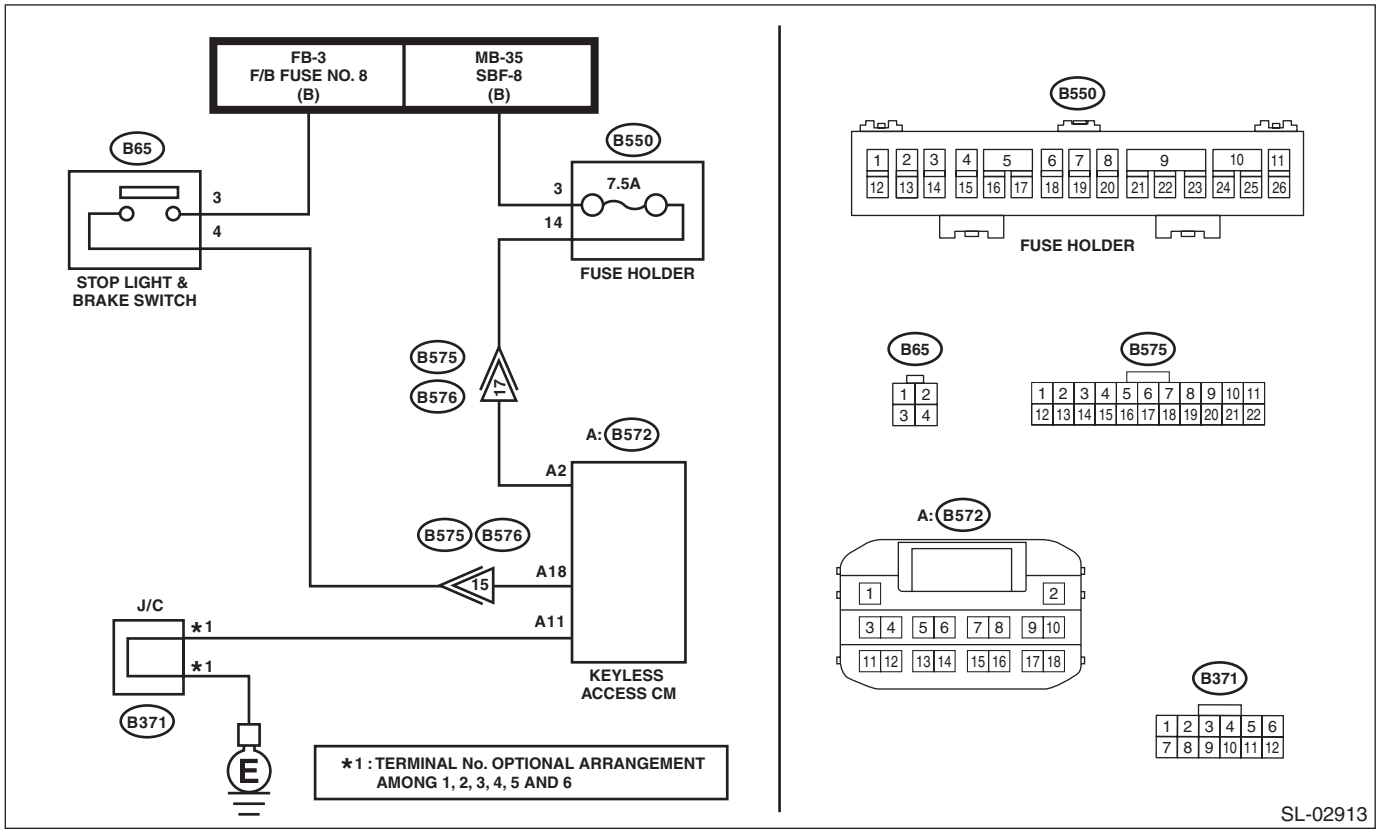
TROUBLE SYMPTOM:

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

– Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>
– Stop light system<Ref. to WI-395, WIRING DIAGRAM, Stop Light System.>



	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CURRENT DATA.** Confirm the current data display of keyless access system using Subaru Select Monitor. • Stop light SW	Is DTC displayed normally according to the brake pedal operation?	Go to step **3**.	Check the stop light system.
3	**CHECK CURRENT DATA.** Check the current data display of body integrated unit using Subaru Select Monitor. • Stop light SW	Is DTC displayed normally according to the brake pedal operation?	Go to step **4**.	Check body integrated unit<Ref. to BC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>and the stop light switch circuit.

	Step	Check	Yes	No
4	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **5**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
5	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 9.5 — 16 V?	Go to step **6**.	Check the power supply circuit.
6	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** 1) Disconnect the stop light switch connector. 2) Using a tester, measure the resistance between the keyless access CM connector and stop light switch connector. ***Connector & terminal*** ***(B572) No. 18 — (B65) No. 4:***	Is the resistance less than 1 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 18 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK HARNESS.** Using a tester, measure the voltage between the keyless access CM connector and chassis ground when the brake pedal is depressed. ***Connector & terminal*** ***(B572) No. 18 (+) — Chassis ground (–):***	Does the voltage change as follows? Brake pedal not depressed: 1 V or less → Brake pedal depressed: 11 — 14 V	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Check the power supply circuit of stop light switch.

R: DTC B2285 STEERING LOCK POSITION SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When the steering lock position signal transmitted from the steering lock CM via solid line and the steering lock position signal transmitted via LIN communication system do not match.

TROUBLE SYMPTOM:

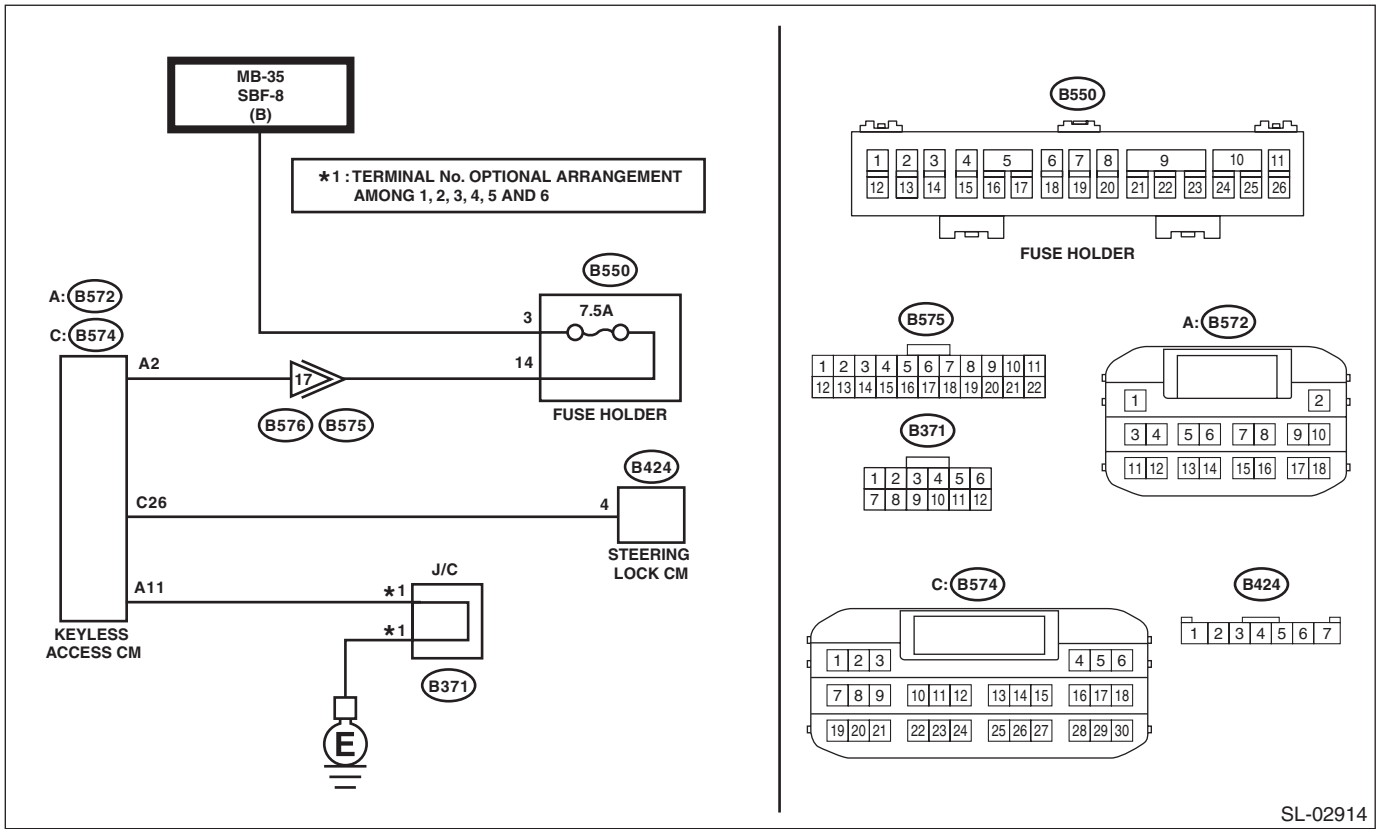
- There are conditions when the steering lock is not released.
- Engine will not start.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK DTC.** Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Perform the inspection according to B2785.<Ref. to KPS(diag)-67, DTC B2785 LIN COMMUNICATION ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK CURRENT DATA.** Confirm the current data display of keyless access system using Subaru Select Monitor. When locked: • Lock side sensor status: ON • Unlock side sensor status: OFF • Lock confirmation: Confirmed • Unlock confirmation: Not confirmed When unlocked: • Lock side sensor status: OFF • Unlock side sensor status: ON • Lock confirmation: Not confirmed • Unlock confirmation: Confirmed NOTE: To lock the steering lock, turn off the power, and open → close, or close → open the driver's door. To unlock the steering lock, turn the ignition switch to ACC ON or IGN ON.	Are the readings as shown on the left according to the steering lock status?	Go to step **4**.	Replace the steering lock CM.<Ref. to SL-97, REMOVAL, Steering Lock CM.>
4	**CHECK CURRENT DATA.** Confirm the current data display of keyless access system using Subaru Select Monitor. When locked: • Steering unlock switch: OFF When unlocked: • Steering unlock switch: ON NOTE: To lock the steering lock, turn off the power, and open → close, or close → open the driver's door. To unlock the steering lock, turn the ignition switch to ACC ON or IGN ON.	Are the readings as shown on the left according to the steering lock status?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Go to step **5**.
5	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **6**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
6	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 9.5 — 16 V?	Go to step **7**.	Check the power supply circuit.
7	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK HARNESS.** Using a tester, measure the resistance between the steering lock CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 4 — Chassis ground:***	Does the following occur? Steering lock: 10 kΩ or more → Steering unlock: less than 1 Ω	Go to step **9**.	Replace the steering lock CM.<Ref. to SL-97, REMOVAL, Steering Lock CM.>

	Step	Check	Yes	No
9	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the steering lock CM connector. 3) Using a tester, measure the resistance between the keyless access CM connector and steering lock CM. ***Connector & terminal*** ***(B574) No. 26 — (B424) No. 4:***	Is the resistance less than 1 Ω?	Go to step **10**.	Repair or replace the open circuit of harness.
10	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B574) No. 26 — Chassis ground:***	Is the resistance 10 kΩ or more?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the short circuit of the harness.

S: DTC B2286 DRIVING POSSIBLE SIGNAL ABNORMAL

DTC DETECTING CONDITION:

When the engine speed signal transmitted from the ECM via solid line and the engine speed signal transmitted via CAN communication line do not match.

TROUBLE SYMPTOM:

Engine will not start.

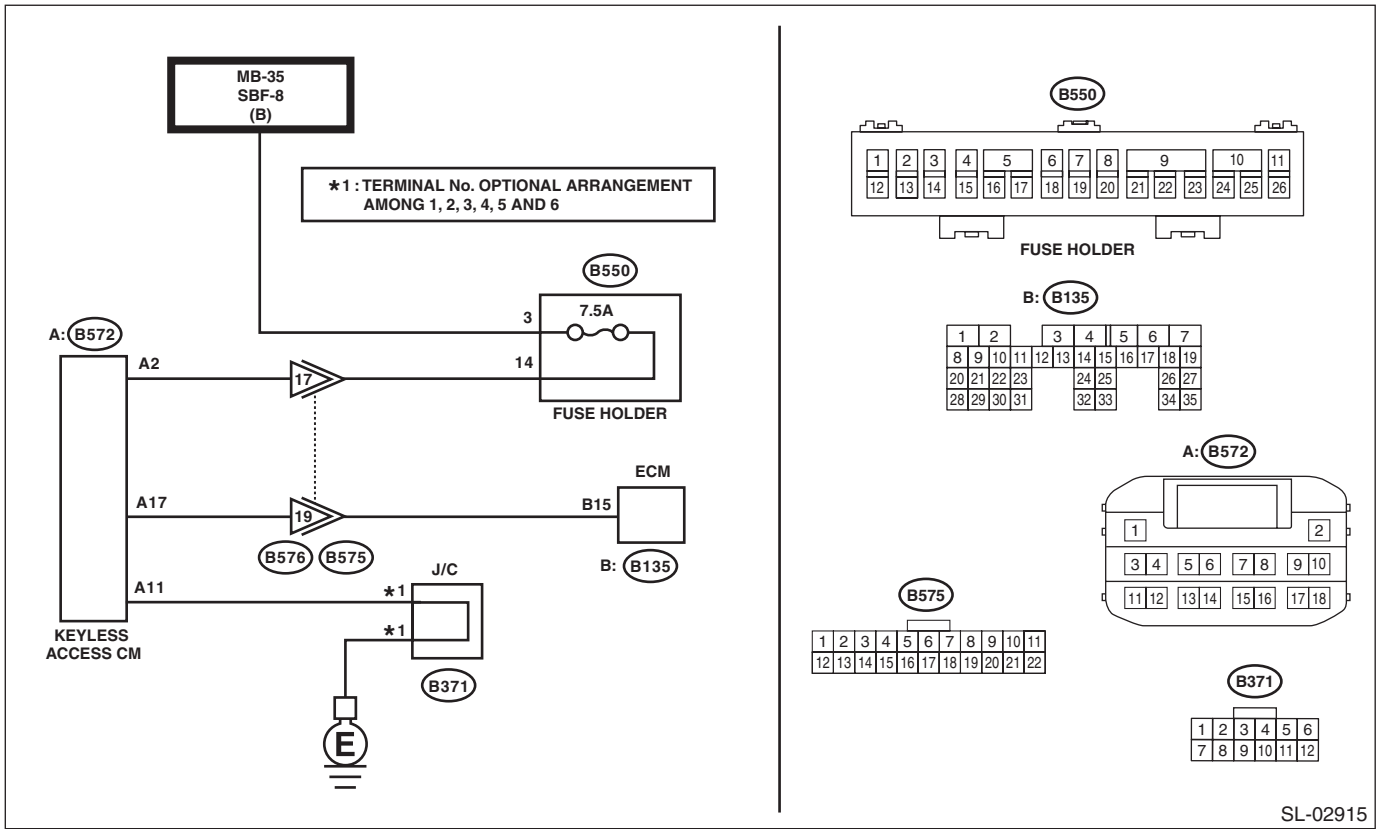
CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

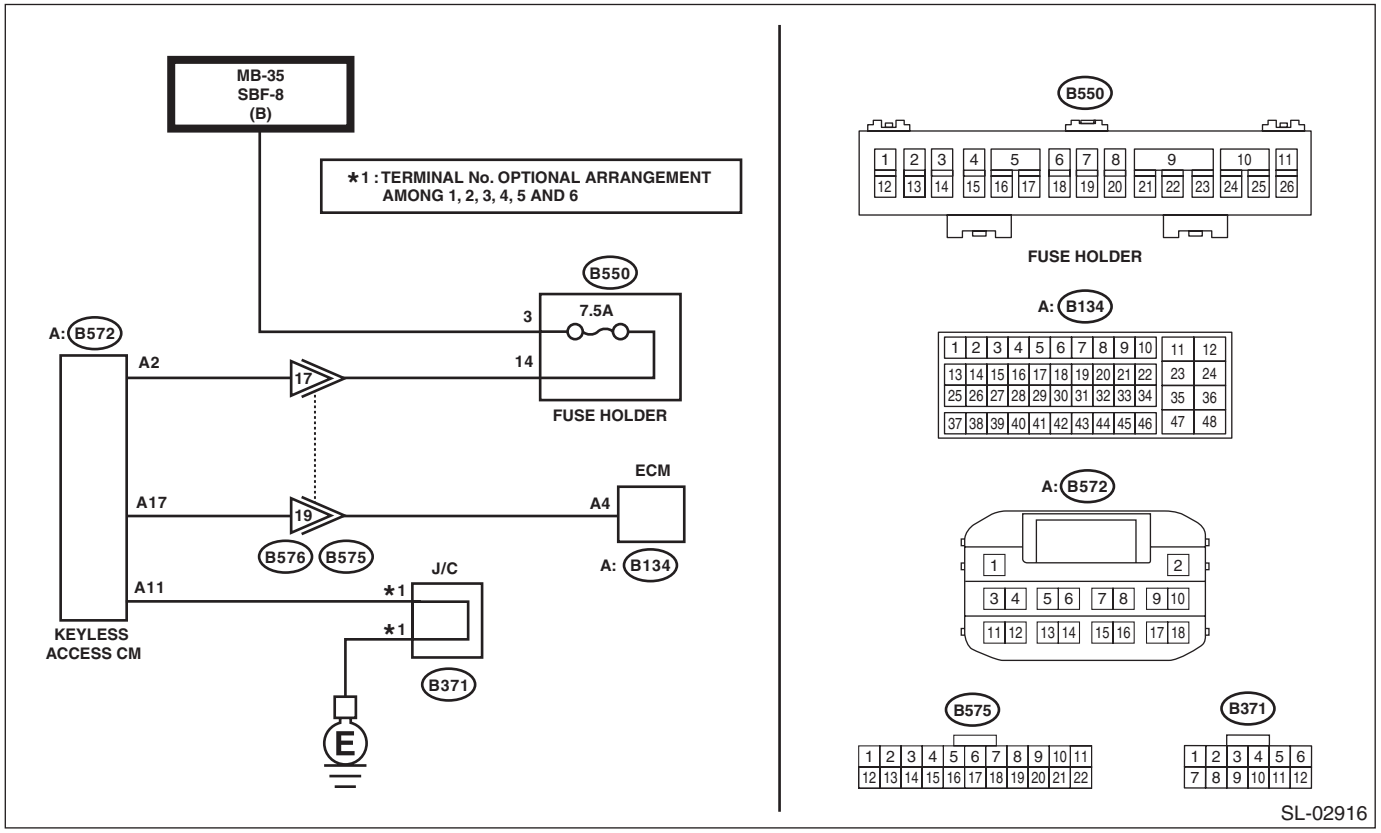
WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>

- Non-turbo model



- Turbo model



Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CURRENT DATA.** Confirm the current data display of keyless access system using Subaru Select Monitor. • Engine speed	Can the data be read normally?	Perform the diagnosis for the engine.<Ref. to EN(H4DO)(diag)-2, ENGINE, PROCEDURE, Basic Diagnostic Procedure.>	Go to step **3**.
3	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
4	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between keyless access CM connectors. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 9.5 — 16 V?	Go to step **5**.	Check the power supply circuit.

	Step	Check	Yes	No
5	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the ECM connector. 3) Using a tester, measure the resistance between the keyless access CM connector and ECM connector. ***Connector & terminal*** ***Non-turbo model*** ***(B572) No. 17 — (B135) No. 15:*** ***Turbo model*** ***(B572) No. 17 — (B134) No. 4:***	Is the resistance less than 1 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 17 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK HARNESS.** 1) Connect the keyless access CM connector and ECM connector. 2) Using the Subaru Select Monitor, measure the waveform between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 17 — Chassis ground:***	Does the pulse stop when the engine is stopped, and does the pulse generate when the engine is started?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Perform the diagnosis for the engine.<Ref. to EN(H4DO)(diag)-2, ENGINE, PROCEDURE, Basic Diagnostic Procedure.>

T: DTC B2779 REMOTE CONTROL ENGINE STARTER COMMUNICATION COLLATION NG

DTC DETECTING CONDITION:
When the keyless access CM does not respond to engine start even when the remote control engine starter is ON, or when there is a code mismatch.
TROUBLE SYMPTOM:
Remote engine starter does not function.

	Step	Check	Yes	No
1	**REGISTER THE REMOTE ENGINE STARTER.** 1) Clear the DTC. 2) Register the remote engine starter using the Subaru Select Monitor. (Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".) 3) Start the engine using the remote engine starter. 4) Read the DTC again.	Is DTC B2779 detected?	Replace the remote engine starter.	System is normal. It is possible that temporary poor contact occurs.

U: DTC B2781 STEERING LOCK ECU OPEN/SHORT

DTC DETECTING CONDITION:
- When malfunction is detected in lock/unlock position detection sensor.
- When the open or short circuit in the steering lock motor drive circuit is detected.

TROUBLE SYMPTOM:
- The steering lock cannot be released.
- Engine will not start.

CAUTION:
For replacement procedure of steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

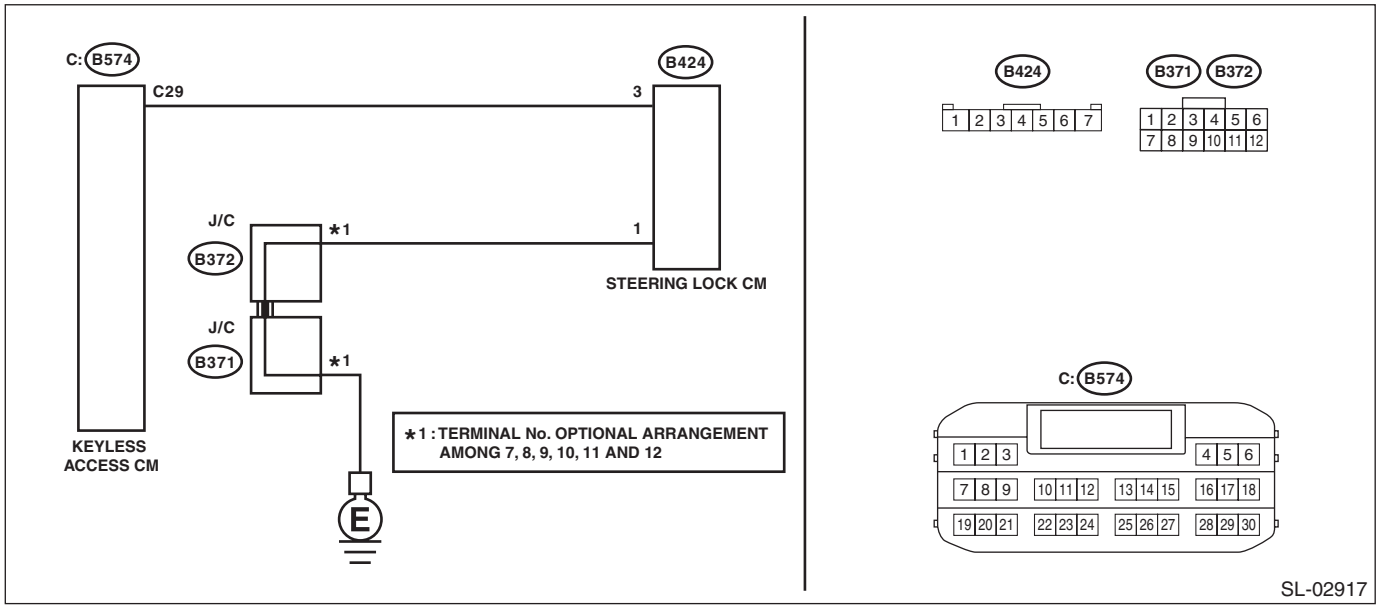
NOTE:
When all ECMs connected to collation system LIN bus cannot communicate with the keyless access CM, DTC B2785 is output.

	Step	Check	Yes	No
1	**CHECK DTC.** Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Perform the diagnosis according to DTC.	Replace the steering lock CM. <Ref. to SL-97, REMOVAL, Steering Lock CM.>

V: DTC B2782 STEERING LOCK POWER SUPPLY CIRCUIT ABNORMAL (SMART ECU-SIDE ABNORMAL)

DTC DETECTING CONDITION:
When the open or short circuit in the steering lock motor power supply circuit is detected.
TROUBLE SYMPTOM:
- The steering lock cannot be released.
- Engine will not start.

CAUTION:
For replacement procedure of keyless access CM and steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



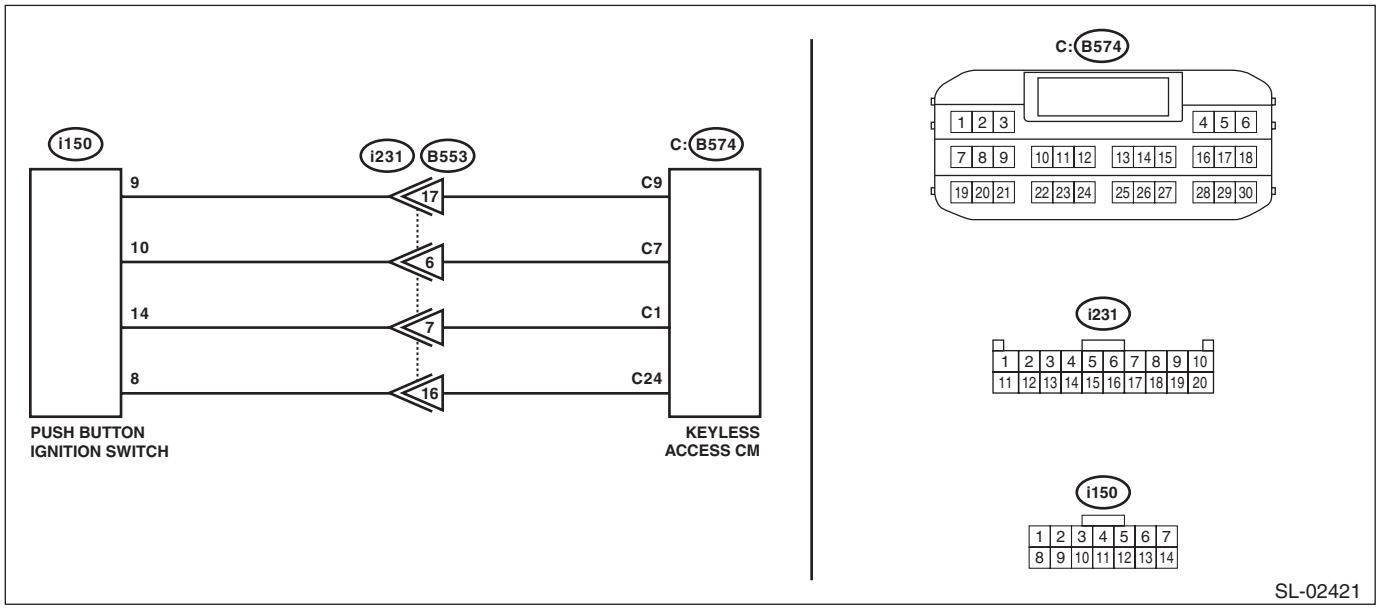
	Step	Check	Yes	No
1	**CHECK STEERING LOCK CM.** 1) Disconnect the steering lock CM connector. 2) Using a tester, measure the resistance between the steering lock CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 1 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair or replace the open circuit of harness.
2	**CHECK STEERING LOCK CM.** 1) Connect the steering lock CM connector. 2) ACC OFF, IGN OFF, shift position in P 3) Using a tester, open the door, and measure the voltage between terminals of steering CM connector when the steering lock motor is driven. ***Connector & terminal*** ***(B424) No. 3 (+) — (B424) No. 1 (–):***	Does the voltage change as follows? Steering lock motor in operation: 1 V or less → Steering lock motor is stopped: 11 — 14 V	Go to step **3**.	Go to step **4**.

	Step	Check	Yes	No
3	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Using the Subaru Select Monitor, clear the memory. 3) Turn the ignition switch to OFF. 4) Disconnect the battery ground cable and reconnect it, and then clear the abnormal information displayed on the data monitor. 5) Turn the ignition switch to ON. 6) Use the Subaru Select Monitor and read DTCs.	Is B2782 displayed?	Replace the steering lock CM.<Ref. to SL-97, REMOVAL, Steering Lock CM.>	System is normal. It is possible that temporary poor contact occurs.
4	**CHECK CONNECTOR.** 1) Disconnect the steering lock CM connector. 2) Disconnect the keyless access CM connector.	Are connectors normal?	Go to step **5**.	Repair or replace the connector.
5	**CHECK HARNESS.** Using a tester, measure the resistance between steering lock CM connector and keyless access CM connector. ***Connector & terminal*** ***(B574) No. 29 — (B424) No. 3:***	Is the resistance less than 1 Ω?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** Using a tester, measure the resistance between steering lock CM connector and chassis ground, and between keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 3 — Chassis ground:*** ***(B574) No. 29 — Chassis ground:***	Is the resistance 10 kΩ or more?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the short circuit of the harness.

W: DTC B2784 ANTENNA COIL FAULT

DTC DETECTING CONDITION:
When open or short circuit occurs in the antenna coil.
TROUBLE SYMPTOM:
The keyless access function may not be operable.

CAUTION:
For replacement procedure of keyless access CM and steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Immobilizer system <Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



Step		Check	Yes	No
1	**CHECK HARNESS.** 1) Disconnect the push button ignition switch connector. 2) Disconnect the keyless access CM connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i150) No. 14 — (B574) No. 1:*** ***(i150) No. 9 — (B574) No. 9:*** ***(i150) No. 10 — (B574) No. 7:*** ***(i150) No. 8 — (B574) No. 24:***	Is the resistance less than 1 Ω?	Go to step **2**.	Repair or replace the open circuit of harness.
2	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i150) No. 14 — Chassis ground:*** ***(i150) No. 9 — Chassis ground:*** ***(i150) No. 10 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **3**.	Repair or replace the short circuit of the harness.
3	**CHECK PUSH BUTTON IGNITION SWITCH.** 1) Replace the push button ignition switch. <Ref. to SL-98, REMOVAL, Push Button Ignition Switch.> 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs.	Is B2784 displayed?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Malfunction occurred in the push button ignition switch.

X: DTC B2785 LIN COMMUNICATION ERROR

DTC DETECTING CONDITION:

When the keyless access CM detected the collation system LIN bus communication error three times in a row.

TROUBLE SYMPTOM:

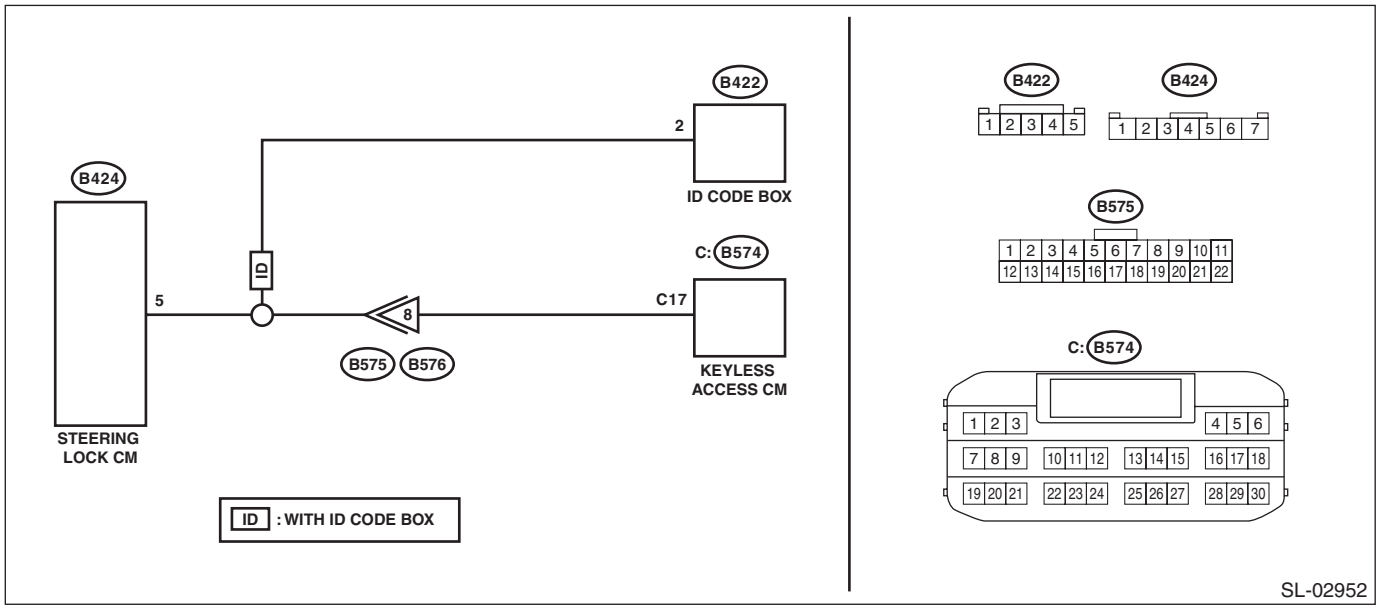
The keyless access function may not be operable.

CAUTION:

For replacement procedure of keyless access CM, steering lock CM, and ID code box, refer to "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK DTC.** Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Go to step **2**.	Check the connector.
2	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the steering lock CM connector. 3) Disconnect the ID code box connector. (with ID code box) 4) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B574) No. 17 — (B424) No. 5:*** ***(B574) No. 17 — (B422) No. 2: (With ID code box)***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B424) No. 5 — Chassis ground:*** ***(B574) No. 17 — Chassis ground:*** ***(B422) No. 2 — Chassis ground: (with ID code box)***	Is the resistance 10 kΩ or more?	Go to step **4**.	Repair or replace the short circuit of the harness.

	Step	Check	Yes	No
4	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector only. 2) Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	With ID code box:Go to step **5**. Without ID code box:Go to step **6**.
5	**CHECK ID CODE BOX.** 1) Connect the ID code box. 2) Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Replace the ID code box.	Go to step **6**.
6	**CHECK STEERING LOCK CM.** 1) Replace the steering lock CM, and then connect it.<Ref. to SL-97, Steering Lock CM.> 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs.	Is B2785 displayed?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	Malfunction occurred in the steering lock CM.

Y: DTC B2786 NO RESPONSE FROM STEERING LOCK ECU

DTC DETECTING CONDITION:

When communication between keyless access CM and steering lock CM is interrupted for a set amount of time.

TROUBLE SYMPTOM:

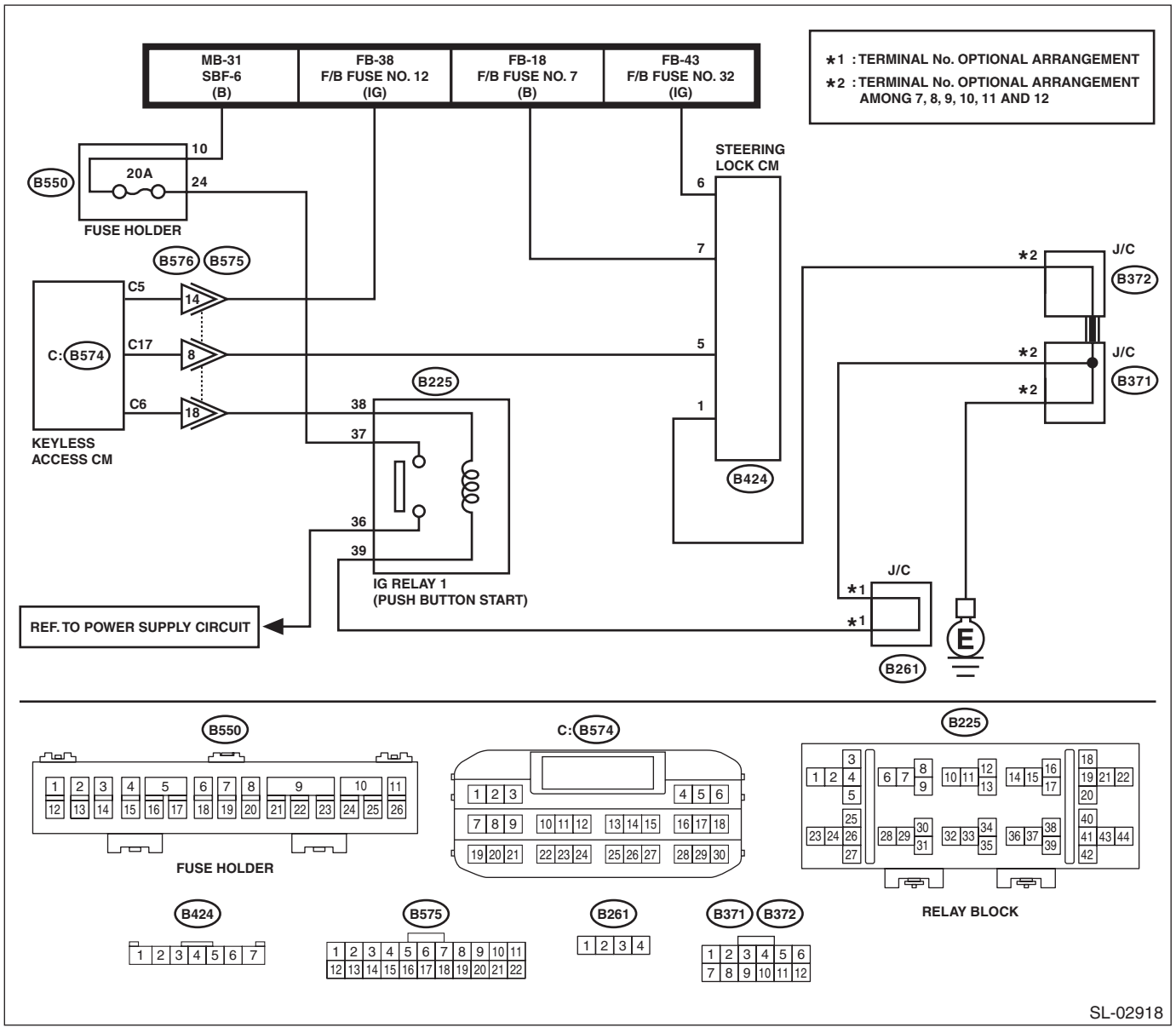
The steering lock cannot be released.

CAUTION:

For replacement procedure of keyless access CM and steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK DTC.** Use the Subaru Select Monitor and read DTCs.	Is a DTC other than B2786 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the steering lock CM connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B574) No. 17 — (B424) No. 5:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B424) No. 5 — Chassis ground:*** ***(B574) No. 17 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **4**.	Repair or replace the short circuit of the harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the steering lock CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 1 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using a tester, measure the voltage between the steering lock CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 6 (+) — Chassis ground (–):*** ***(B424) No. 7 (+) — Chassis ground (–):***	Is the voltage 11 — 14 V?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK STEERING LOCK CM.** 1) Turn the ignition switch to ON. 2) Replace the steering lock CM.<Ref. to SL-97, REMOVAL, Steering Lock CM.> 3) Using the Subaru Select Monitor, clear the memory. 4) Use the Subaru Select Monitor and read DTCs.	Is B2786 displayed?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Malfunction occurred in the steering lock CM.

Z: DTC B2788 IGN1 INPUT ABNORMAL

DTC DETECTING CONDITION:

When mismatch occurs in the IG1 input of the steering lock CM for both LIN communication line input (IG1 input value of keyless access CM) and solid line input.

TROUBLE SYMPTOM:

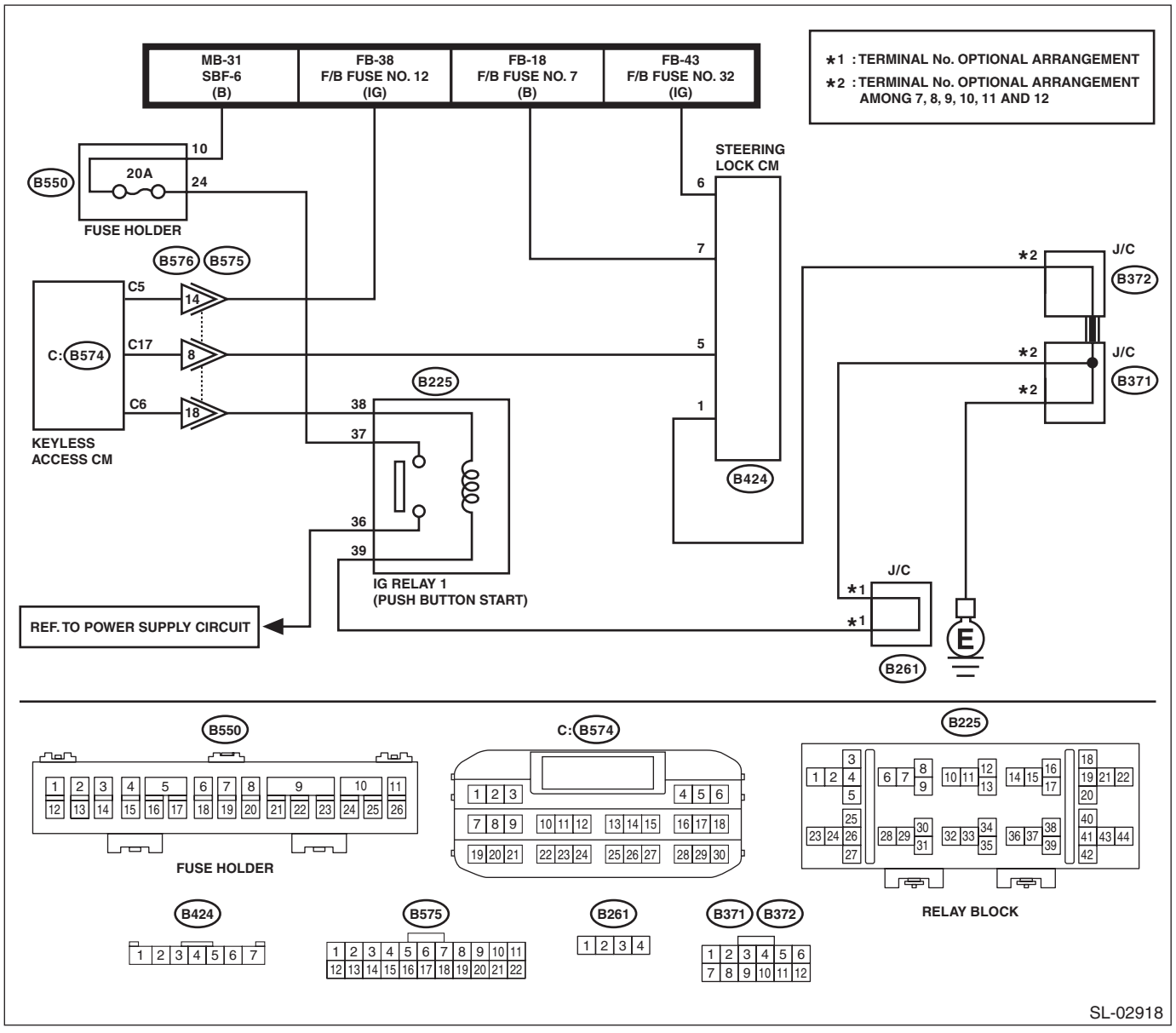
The steering lock cannot be released.

CAUTION:

For replacement procedure of steering lock CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



	Step	Check	Yes	No
1	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **2**.	Replace the fuse. When the replaced fuse is blown immediately, check the power supply circuit for short-circuited.
2	**CHECK CURRENT DATA.** Check the current data display of keyless access CM using the Subaru Select Monitor. • IGN SW	Is the display normal according to the ignition switch operation?	Go to step **3**.	Go to step **5**.
3	**CHECK HARNESS.** 1) Disconnect the steering lock CM connector. 2) Using a tester, measure the resistance between the steering lock CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 1 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** 1) Connect the steering lock CM connector. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B424) No. 6 (+) — (B424) No. 1 (–):***	Is the voltage 11 — 14 V with IG ON? Is the voltage less than 1 V with IG OFF?	Replace the steering lock CM.<Ref. to SL-97, REMOVAL, Steering Lock CM.>	Check the DC power supply circuit.
5	**CHECK HARNESS.** Using a tester, measure the voltage between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B574) No. 5 (+) — Chassis ground (–):***	Is the voltage 11 — 14 V with IG ON? Is the voltage less than 1 V with IG OFF?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Check the DC power supply circuit.

AA:DTC B2789 ID CODE BOX NO RESPONSE

DTC DETECTING CONDITION:

- When communication between keyless access CM and ID code box is interrupted for a set amount of time.
- Open or short circuit in the wiring harness between keyless access CM and ID code box

TROUBLE SYMPTOM:

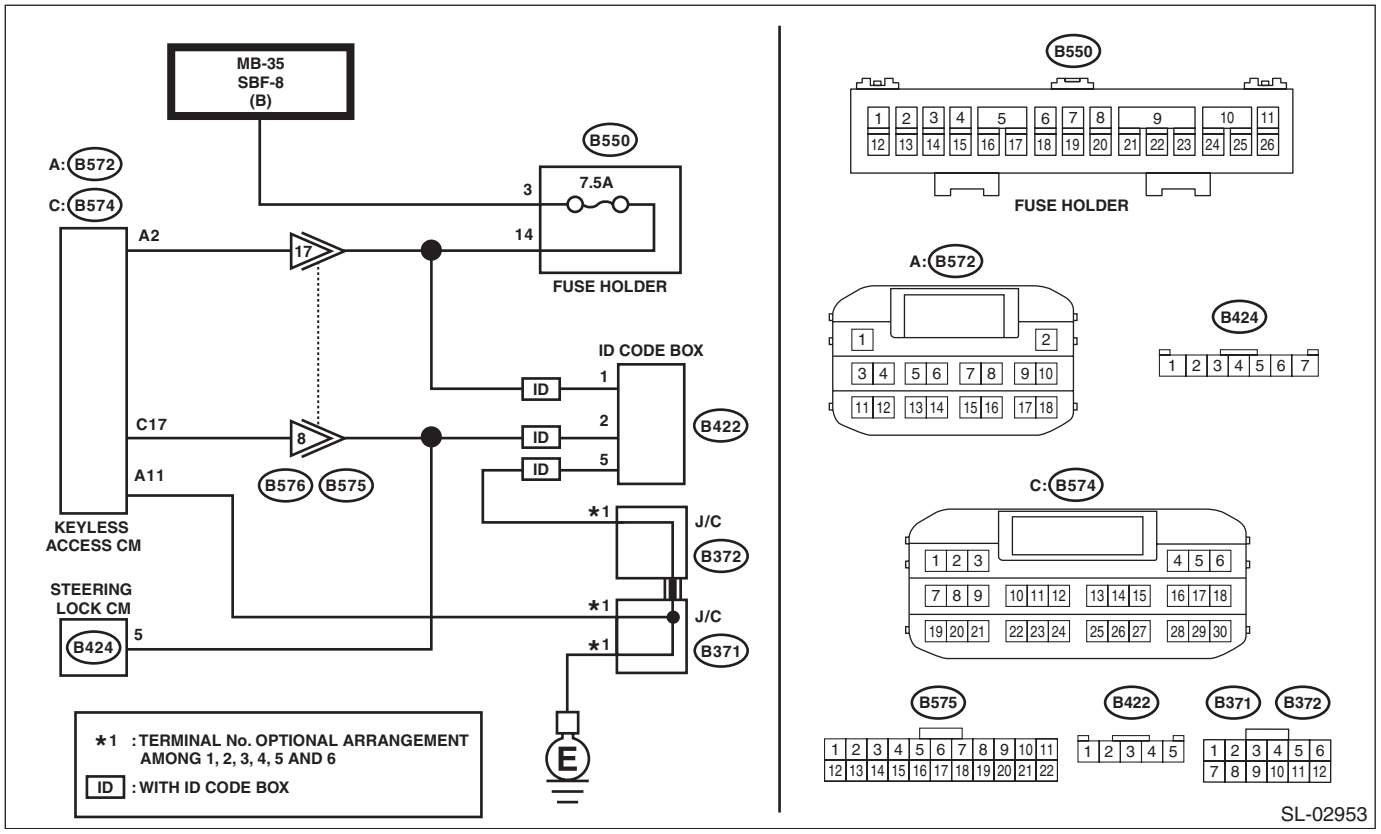
Engine will not start.

CAUTION:

For replacement procedure of keyless access CM and ID code box, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



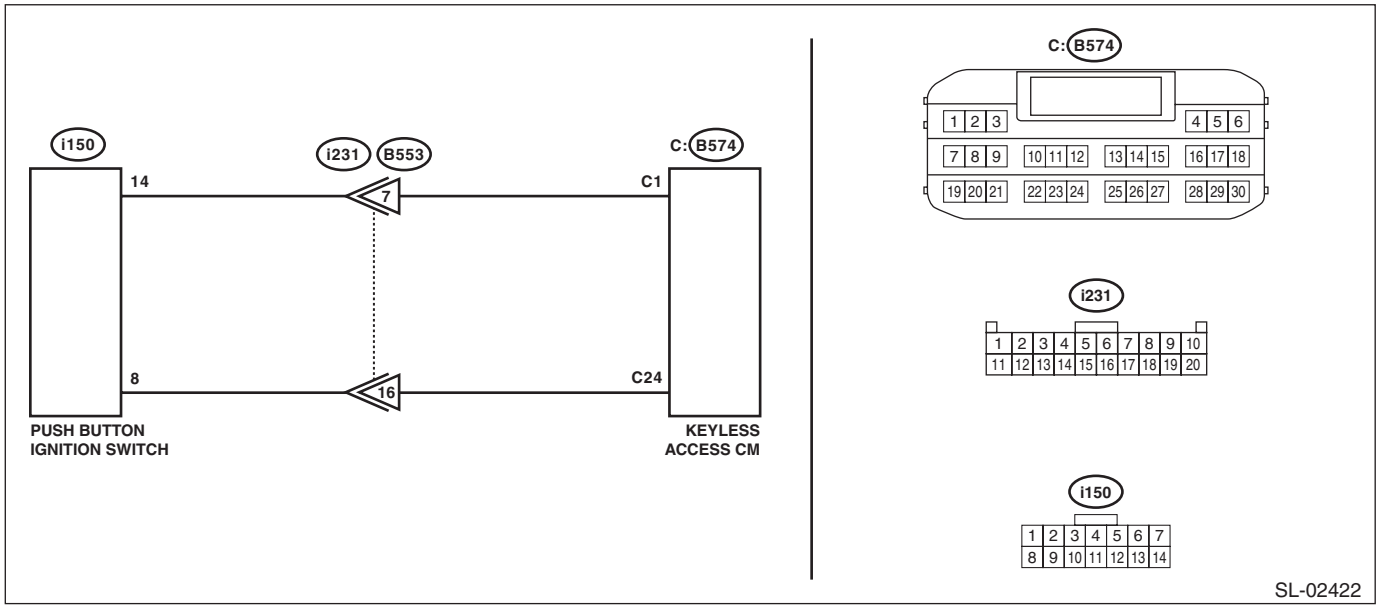
Step		Check	Yes	No
1	**CHECK DTC.** Use the Subaru Select Monitor and read DTCs.	Is B2789 displayed?	Go to step **2**.	Check the connector.
2	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the steering lock CM connector. 3) Disconnect the ID code box connector. 4) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B574) No. 17 — (B422) No. 2:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair or replace the open circuit of harness.

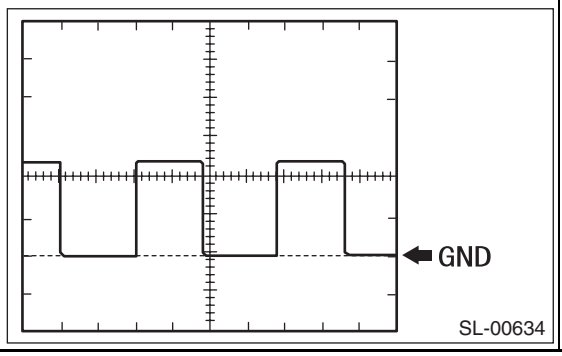
	Step	Check	Yes	No
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between ID code box connector and chassis ground. ***Connector & terminal*** ***(B574) No. 17 — Chassis ground:*** ***(B422) No. 2 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **4**.	Repair or replace the short circuit of the harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between ID code box connector and chassis ground. ***Connector & terminal*** ***(B422) No. 5 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** Using a tester, measure the voltage between ID code box connector and chassis ground. ***Connector & terminal*** ***(B422) No. 1 (+) — Chassis ground (–):***	Is the voltage 11 — 14 V?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK ID CODE BOX.** 1) Replace the ID code box.<Ref. to SL-96, ID Code Box.> 2) Using the Subaru Select Monitor, clear the memory. 3) Use the Subaru Select Monitor and read DTCs.	Is B2789 displayed?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	ID code box has an error.

AB:DTC B278A ABNORMAL IMMOBILIZER POWER SUPPLY

DTC DETECTING CONDITION:
When the power supply circuit of the push button ignition switch is shorted to ground.
TROUBLE SYMPTOM:
- Engine does not start even the key is held above it.
- The keyless access system function does not operate. (The key cannot be registered even the key is held above it.)

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Immobilizer system <Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



Step		Check	Yes	No
1	**CHECK KEYLESS ACCESS CM.** 1) Turn the ignition switch to OFF. 2) Take the access key out of the passenger room. 3) Push the push button ignition switch. Within 30 seconds, use oscilloscope to measure the waveform between connectors. ***Connector & terminal*** ***(i150) No. 14 — (i150) No. 8:*** 	Is the waveform shown in the left column displayed?	Go to step **2**.	Replace the push button ignition switch. <Ref. to SL-98, REMOVAL, Push Button Ignition Switch.>

	Step	Check	Yes	No
2	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the push button ignition switch connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i150) No. 14 — (B574) No. 1:*** ***(i150) No. 8 — (B574) No. 24:***	Is the resistance less than 1 Ω?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B574) No. 1 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **4**.	Repair or replace the short circuit of the harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B574) No. 24 — Chassis ground:***	Is the resistance less than 1 Ω?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the harness.

AC:DTC B278D ID CODE BOX RECOGNITION JUDGMENT ABNORMAL

DTC DETECTING CONDITION:

- When ID code box setting is set to OFF, ID code box ON input is detected.
- When ID code box setting is set to OFF, ID code box LIN signal is received.

TROUBLE SYMPTOM:

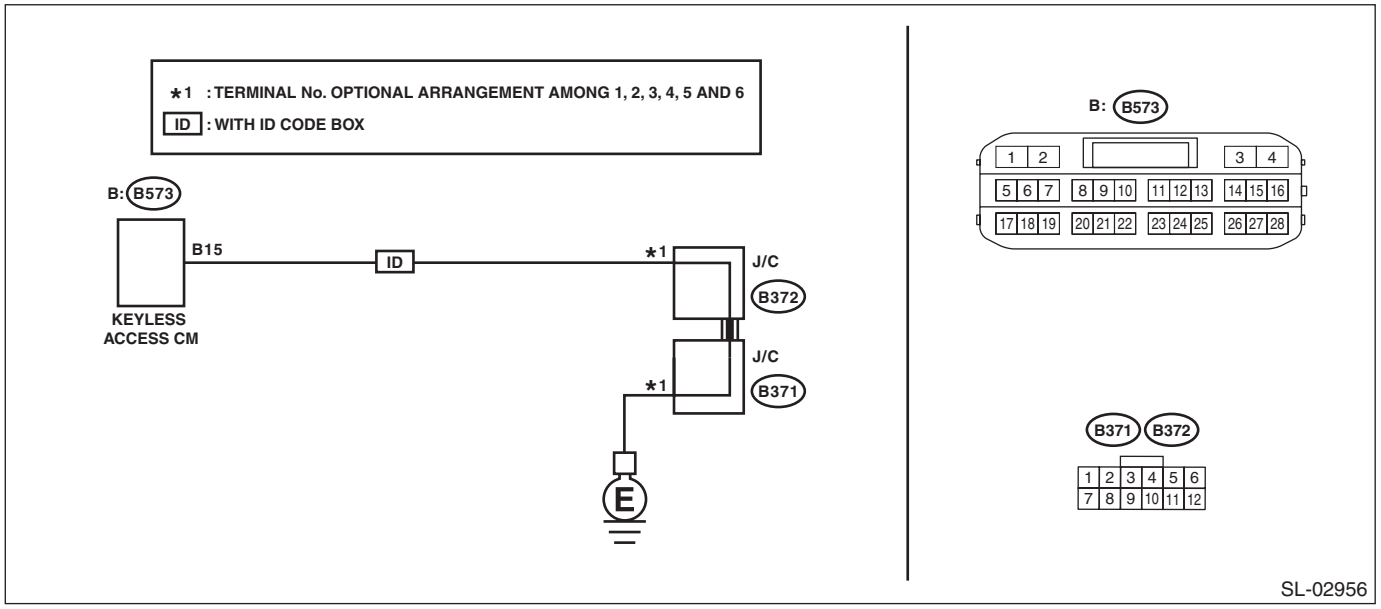
Engine will not start.

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Using the Subaru Select Monitor, clear the keyless access system memory. 3) Turn the ignition switch to OFF → ON. 4) Use the Subaru Select Monitor and read DTCs.	Is B278D displayed?	Go to step **2**.	System is normal. It is possible that temporary poor contact occurs.
2	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Measure the resistance between keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B573) No. 15 — Chassis ground:***	Without ID code box: Is the resistance 10 kΩ or more? Or is the terminal (B573) No. 15 disconnected? With ID code box: Is the resistance 1 Ω or less?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	Repair or replace the short circuit of the harness.

AD:DTC B2790 ID CODE BOX ABNORMAL (EEPROM ABNORMAL)

DTC DETECTING CONDITION:
An error has occurred inside the ID code box.
TROUBLE SYMPTOM:
Engine will not start.

CAUTION:
For replacement procedure of ID code box, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Using the Subaru Select Monitor, clear the keyless access system memory. 3) Turn the ignition switch to OFF → ON. 4) Register the ID code box. 5) Use the Subaru Select Monitor and read DTCs.	Is B2790 displayed?	Replace the ID code box.<Ref. to SL-96, ID Code Box.>	System is normal. It is possible that temporary poor contact occurs.

AE:DTC B27A1 DRIVER SIDE EXTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:

When open circuit occurs in the harness between keyless access CM and driver's side front door outer handle.

TROUBLE SYMPTOM:

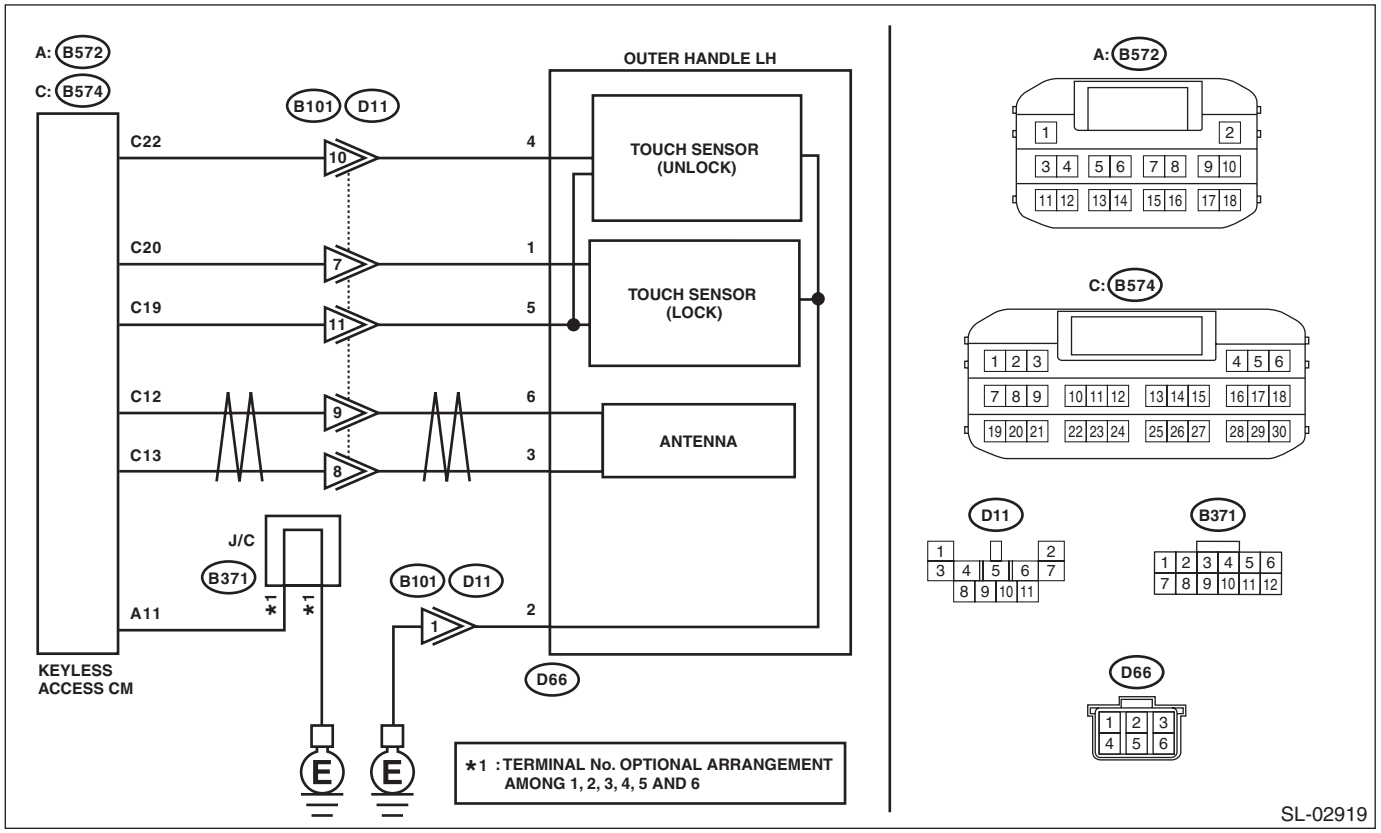
Keyless access system does not function. (When the driver's front door is operated)

CAUTION:

For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:

Keyless access system<Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>



Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CONNECTOR.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front door outer handle connector.	Is the connector OK?	Go to step **3**.	Repair or replace the connector.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and front door outer handle connector, and between front door outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 12 — (D66) No. 6:*** ***(B574) No. 13 — (D66) No. 3:*** ***(D66) No. 2 — Chassis ground:*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front door outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 12 — Chassis ground:*** ***(B574) No. 13 — Chassis ground:*** ***(D66) No. 6 — Chassis ground:*** ***(D66) No. 3 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. ***Connector & terminal*** ***(B574) No. 12 — (B572) No. 11:*** ***(B574) No. 13 — (B572) No. 11:***	Does pulse output change from pulse output OFF → pulse output ON by the lock operation using access key?	Go to step **6**.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>
6	**CHECK FRONT DOOR OUTER HANDLE.** 1) Replace the driver's front door outer handle with the passenger's front door outer handle.<Ref. to SL-35, REMOVAL, Front Outer Handle.> 2) Read DTC using the Subaru Select Monitor.	Is B27A1 displayed?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Replace the driver's front door outer handle.

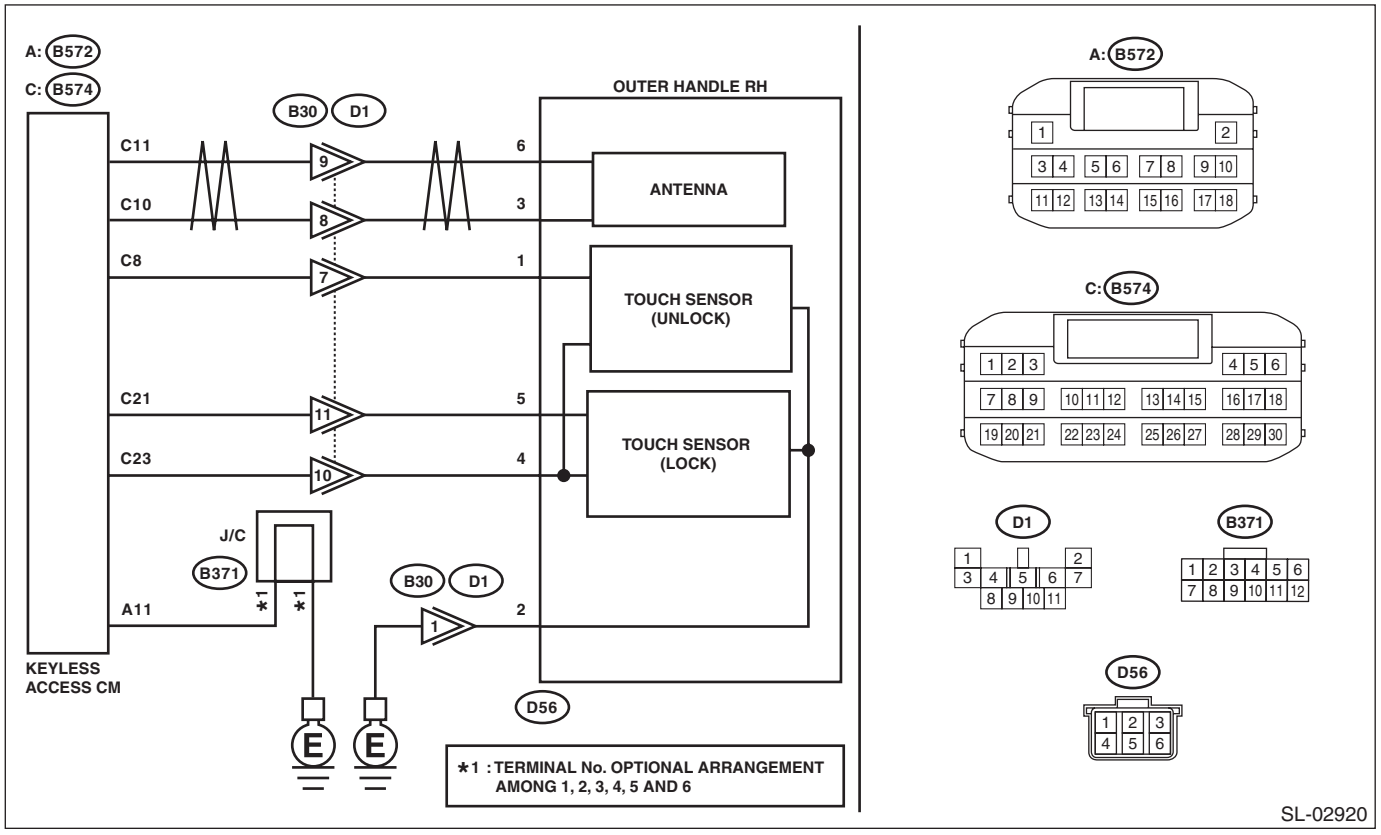
AF:DTC B27A2 PASSENGER SIDE EXTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:
When open circuit occurs in the harness between keyless access CM and passenger's side front door outer handle.

TROUBLE SYMPTOM:
Keyless access system does not function. (When the passenger's front door is operated)

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

WIRING DIAGRAM:
Keyless access system<Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>



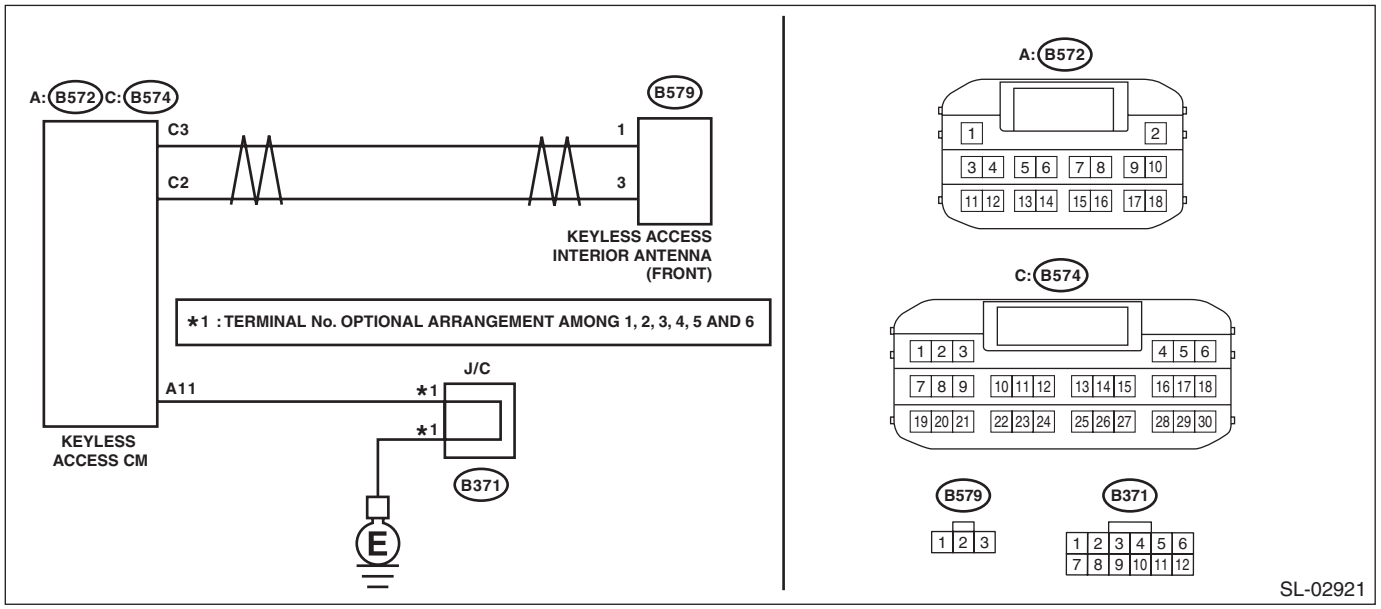
Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CONNECTOR.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front door outer handle connector.	Is the connector OK?	Go to step **3**.	Repair or replace the connector.

	Step	Check	Yes	No
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and front door outer handle connector, and between front door outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 11 — (D56) No. 6:*** ***(B574) No. 10 — (D56) No. 3:*** ***(D56) No. 2 — Chassis ground:*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front door outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 11 — Chassis ground:*** ***(B574) No. 10 — Chassis ground:*** ***(D56) No. 6 — Chassis ground:*** ***(D56) No. 3 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. ***Connector & terminal*** ***(B574) No. 12 — (B572) No. 11:*** ***(B574) No. 13 — (B572) No. 11:***	Does pulse output change from pulse output OFF → pulse output ON by the lock operation using access key?	Go to step **6**.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>
6	**CHECK FRONT DOOR OUTER HANDLE.** 1) Replace the passenger's front door outer handle with the driver's front door outer handle.<Ref. to SL-35, REMOVAL, Front Outer Handle.> 2) Read DTC using the Subaru Select Monitor.	Is B27A2 displayed?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Replace the passenger's front door outer handle.

AG:DTC B27A5 FRONT INTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:
When open circuit occurs in the harness between keyless access CM and front interior antenna.
TROUBLE SYMPTOM:
Keyless access system does not function. (When the access key is in the front area of the passenger room)

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Keyless access system<Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>



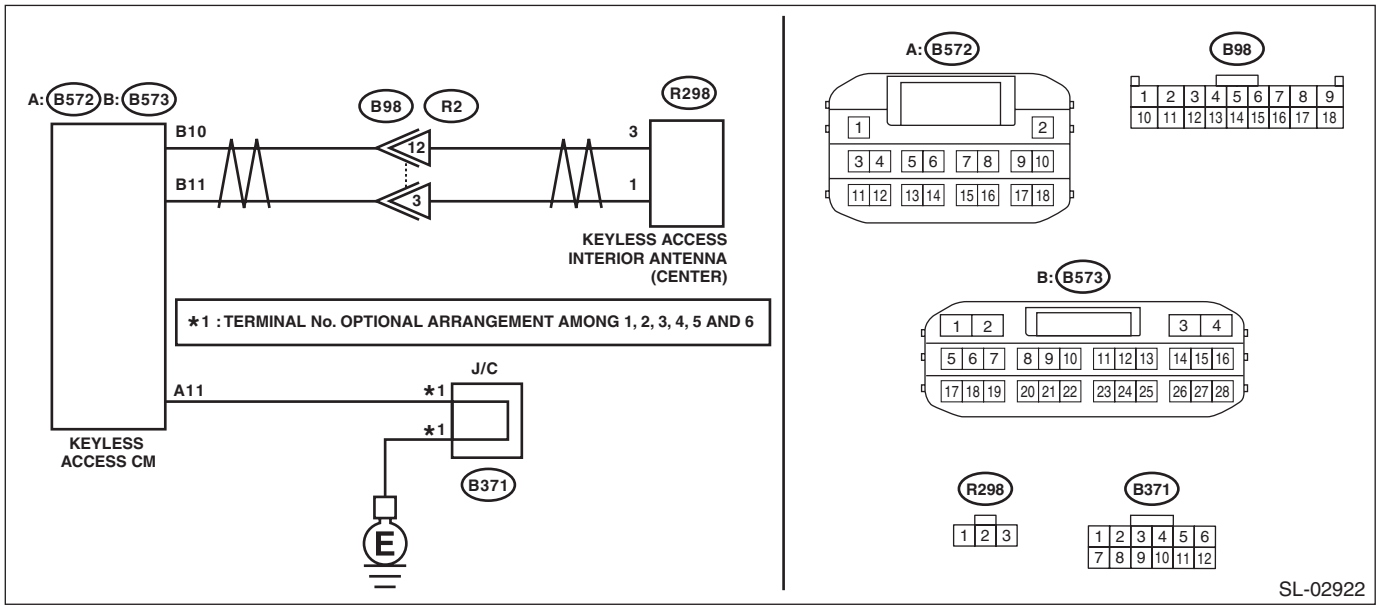
Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CONNECTOR.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front interior antenna connector.	Is the connector OK?	Go to step **3**.	Repair or replace the connector.
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and front interior antenna connector, and between front interior antenna connector and chassis ground. ***Connector & terminal*** ***(B574) No. 3 — (B579) No. 1:*** ***(B574) No. 2 — (B579) No. 3:*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front interior antenna connector and chassis ground. ***Connector & terminal*** ***(B574) No. 3 — Chassis ground:*** ***(B579) No. 1 — Chassis ground:*** ***(B574) No. 2 — Chassis ground:*** ***(B579) No. 3 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. ***Connector & terminal*** ***(B574) No. 3 — (B572) No. 11:*** ***(B574) No. 2 — (B572) No. 11:***	Does pulse output change from pulse output OFF → pulse output ON by operating the touch sensor (lock)?	Go to step **6**.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>
6	**CHECK FRONT INTERIOR ANTENNA.** 1) Replace the front interior antenna.<Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.> 2) Read DTC using the Subaru Select Monitor.	Is B27A5 displayed?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Malfunction occurred in the front interior antenna.

AH:DTC B27A6 REAR INTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:
When open circuit occurs in the harness between keyless access CM and center interior antenna.
TROUBLE SYMPTOM:
Keyless access system does not function. (When the access key is in the vicinity of rear seat area of the passenger room)

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Keyless access system<Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>



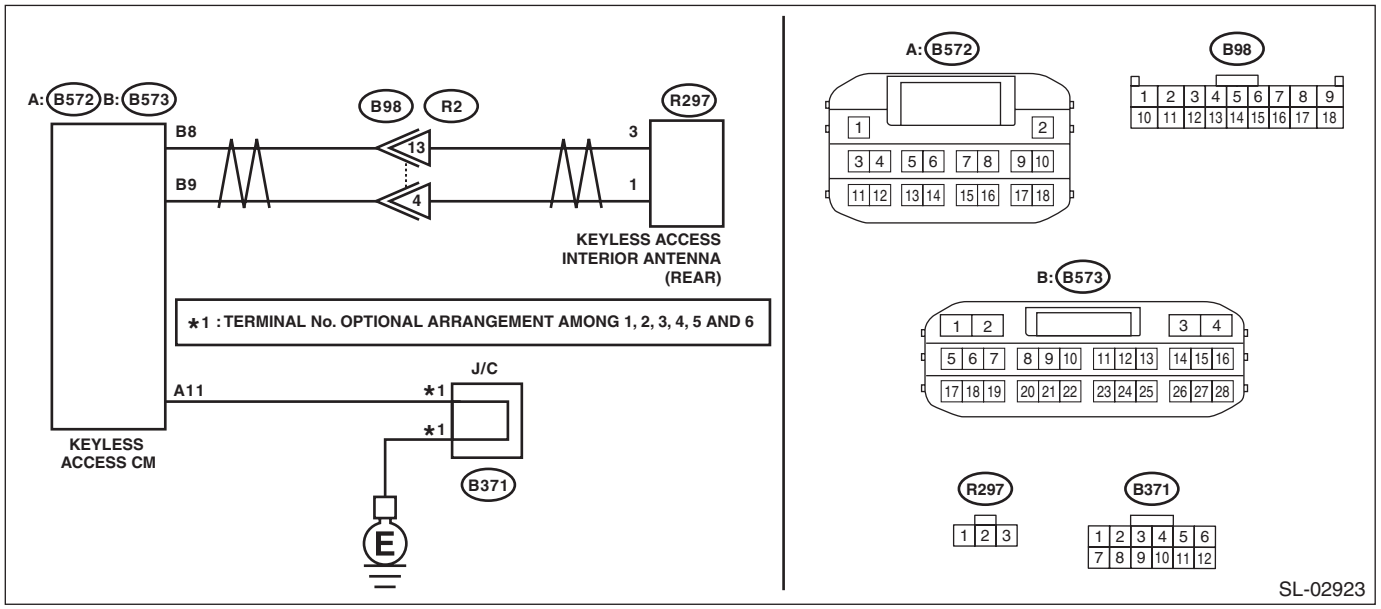
	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CONNECTOR.** 1) Disconnect the keyless access CM connector. 2) Disconnect the center interior antenna connector.	Is the connector OK?	Go to step **3**.	Repair or replace the connector.
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and center interior antenna connector, and between center interior antenna connector and chassis ground. ***Connector & terminal*** ***(B573) No. 11 — (R298) No. 1:*** ***(B573) No. 10 — (R298) No. 3:*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between center interior antenna connector and chassis ground. ***Connector & terminal*** ***(B573) No. 11 — Chassis ground:*** ***(B573) No. 10 — Chassis ground:*** ***(R298) No. 1 — Chassis ground:*** ***(R298) No. 3 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. ***Connector & terminal*** ***(B573) No. 10 — (B572) No. 11:*** ***(B573) No. 11 — (B572) No. 11:***	Does pulse output change from pulse output OFF → pulse output ON by operating the touch sensor (lock)?	Go to step **6**.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>
6	**CHECK CENTER INTERIOR ANTENNA.** 1) Replace the center interior antenna.<Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.> 2) Read DTC using the Subaru Select Monitor.	Is B27A6 displayed?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Malfunction occurred in the center interior antenna.

AI: DTC B27A7 TRUNK/REAR GATE INTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:
When open circuit occurs in the harness between keyless access CM and rear interior antenna.
TROUBLE SYMPTOM:
Keyless access system does not function. (When the access key is in the luggage room)

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Keyless access system<Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>



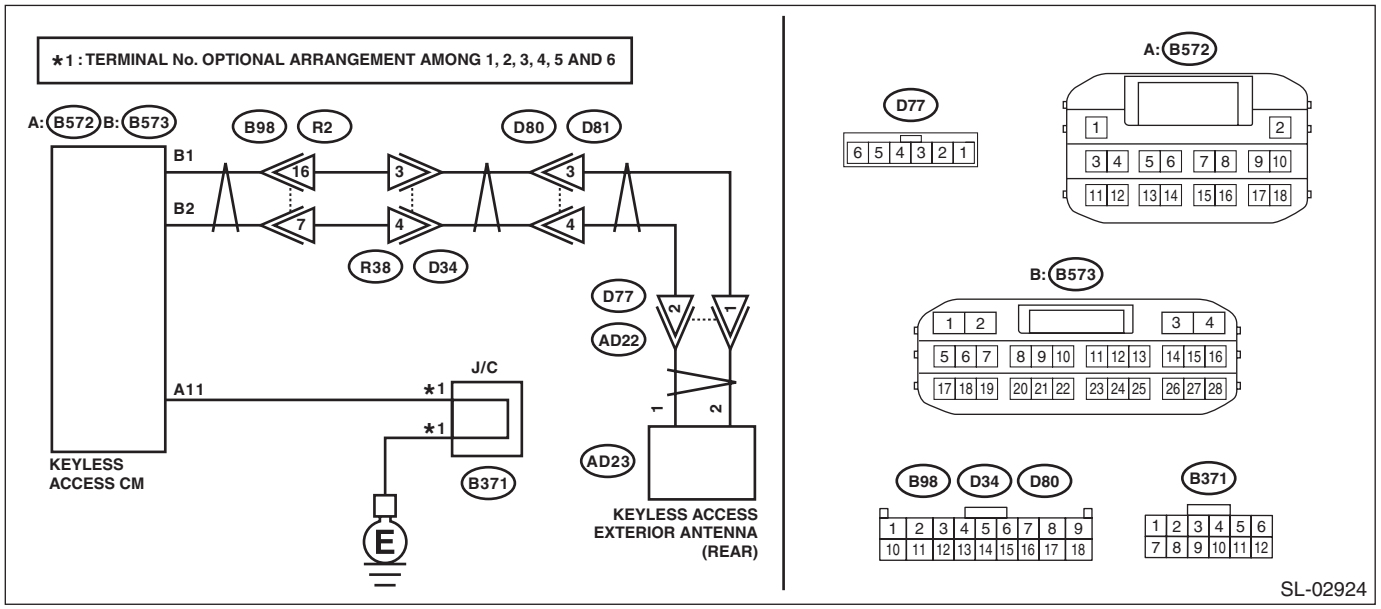
Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CONNECTOR.** 1) Disconnect the keyless access CM connector. 2) Disconnect the rear interior antenna connector.	Is the connector OK?	Go to step **3**.	Repair or replace the connector.
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and rear interior antenna connector, and between rear interior antenna connector and chassis ground. ***Connector & terminal*** ***(B573) No. 8 — (R297) No. 3:*** ***(B573) No. 9 — (R297) No. 1:*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between rear interior antenna connector and chassis ground. ***Connector & terminal*** ***(B573) No. 8 — Chassis ground:*** ***(B573) No. 9 — Chassis ground:*** ***(R297) No. 1 — Chassis ground:*** ***(R297) No. 3 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Use an oscilloscope, measure the waveform between terminals with ignition switch OFF, all doors closed and access key not in passenger room. ***Connector & terminal*** ***(B573) No. 8 — (B572) No. 11:*** ***(B573) No. 9 — (B572) No. 11:***	Does pulse output change from pulse output OFF → pulse output ON by operating the touch sensor (lock)?	Go to step **6**.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>
6	**CHECK REAR INTERIOR ANTENNA.** 1) Replace the rear interior antenna.<Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.> 2) Read DTC using the Subaru Select Monitor.	Is B27A7 displayed?	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>	Malfunction occurred in the rear interior antenna.

AJ:DTC B27A8 TRUNK/REAR GATE EXTERNAL ANTENNA OUTPUT STAGE OPEN

DTC DETECTING CONDITION:
When open circuit occurs in the harness between keyless access CM and rear exterior antenna.
TROUBLE SYMPTOM:
Keyless access system does not function. (When the rear gate is operated)

CAUTION:
For replacement procedure of keyless access CM, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
WIRING DIAGRAM:
Keyless access system<Ref. to WI-273, WIRING DIAGRAM, Keyless Access System.>



Step		Check	Yes	No
1	**CHECK LAN SYSTEM.** Inspect LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is LAN system normal?	Go to step **2**.	Perform the inspection according to the diagnosis for LAN system.
2	**CHECK CONNECTOR.** 1) Disconnect the keyless access CM connector. 2) Disconnect the rear exterior antenna connector.	Is the connector OK?	Go to step **3**.	Repair or replace the connector.
3	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and rear exterior antenna connector, and between rear exterior antenna connector and chassis ground. ***Connector & terminal*** ***(B573) No. 2 — (AD23) No. 1:*** ***(B573) No. 1 — (AD23) No. 2:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between rear exterior antenna connector and chassis ground. ***Connector & terminal*** ***(B573) No. 2 — Chassis ground:*** ***(B573) No. 1 — Chassis ground:*** ***(AD23) No. 2 — Chassis ground:*** ***(AD23) No. 1 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK REAR EXTERIOR ANTENNA.** 1) Remove the rear exterior antenna.<Ref. to SL-89, REMOVAL, Keyless Access Outdoor Antenna.> 2) Using a tester, measure the resistance between rear exterior antenna connectors. ***Connector & terminal*** ***(AD23) No. 1 — (AD23) No. 2:***	Is the resistance less than 1 Ω?	Go to step **6**.	Replace the rear exterior antenna.<Ref. to SL-89, REMOVAL, Keyless Access Outdoor Antenna.>
6	**CHECK KEYLESS ACCESS CM.** 1) Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.> 2) Read DTC using the Subaru Select Monitor.	Is B27A8 displayed?	Replace the rear exterior antenna.<Ref. to SL-89, REMOVAL, Keyless Access Outdoor Antenna.>	Malfunction occurred in the keyless access CM.

AK:DTC B1571 REFERENCE CODE INCOMPATIBILITY

DTC DETECTING CONDITION:

Incompatibility of reference code between keyless access CM (model without ID code box) or ID code box (model with ID code box) and ECM occurs.

TROUBLE SYMPTOM:

Engine will not start.

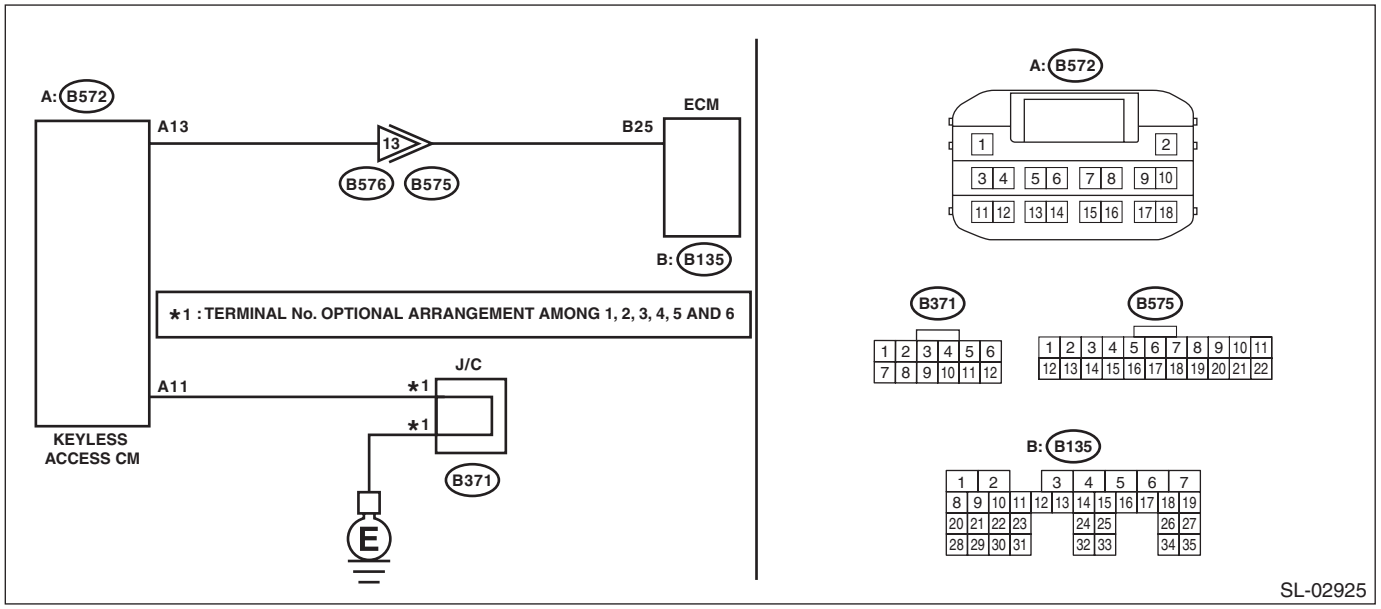
	Step	Check	Yes	No
1	**CHECK ECM.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is ECM registration finished? And does the engine start?	System is normal.	Go to step **2**.
2	**REPLACE ECM.** 1) Install the ECM from other normal operating vehicle (with push button start) which use same ECM to the vehicle to be diagnosed. 2) Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is ECM registration finished? And does the engine start?	Replace the ECM.<Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).> <Ref. to FU(H4DOTC)-135, REMOVAL, Engine Control Module (ECM).> Install the ECM from other vehicle to the original vehicle.	Replace Keyless access CM (model without ID code box),<Ref. to SL-94, Keyless Access CM.>or replace ID code box (model with ID code box).<Ref. to SL-96, REMOVAL, ID Code Box.>

AL:DTC B1572 IMM CIRCUIT FAILURE (EXCEPT ANTENNA CIRCUIT)

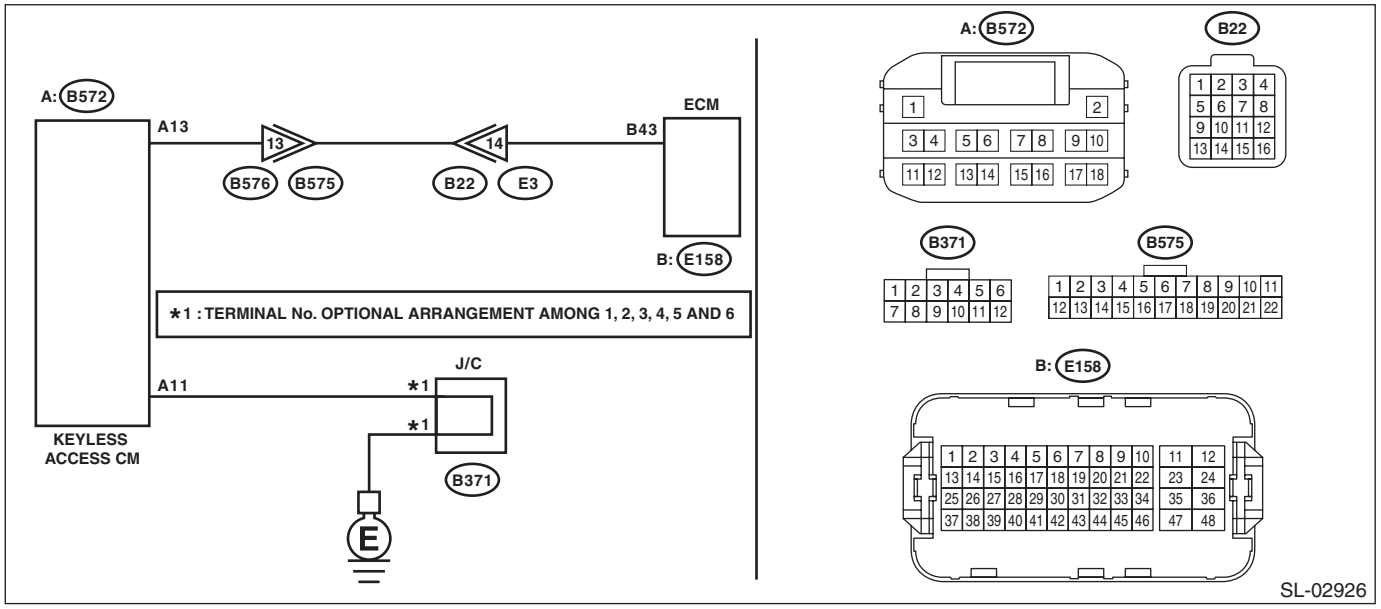
1. EXCEPT FOR C0 AND C5

DTC DETECTING CONDITION:
Communication error between keyless access CM and ECM
TROUBLE SYMPTOM:
Engine will not start.
WIRING DIAGRAM:
Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>

- Non-turbo engine model



- Turbo engine model



	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** 1) Turn the ignition switch to ON. 2) Check the keyless access CM data using the Subaru Select Monitor. 3) Display the next data. “Immobilizer” “Engine start” “Unlock confirmation” ***Data*** ***Immobilizer = Unset:*** ***Engine start = Engine start permission:*** ***Unlock confirmation = Confirmed:***	Is the data displayed as described above?	Go to step **2**.	Perform diagnostics with phenomenon.<Ref. to KPS(diag)-124, ENGINE DOES NOT START, INSPECTION, Diagnostics with Phenomenon.>
2	**CHECK CURRENT DATA.** Use the Subaru Select Monitor to check the keyless access CM data when holding down the push button ignition switch while depressing on the brake pedal (AT model) or clutch pedal (MT model). ***Data*** ***EGI code reception status = Reception:*** NOTE: If “Reception” is displayed, the status changes to “Not yet received” in 10 seconds. When performing the check again, perform the check after turning the ignition to OFF.	Is the data displayed as described above?	Go to step **3**.	Repair or replace the harness between keyless access CM and ECM.
3	**CHECK WIRING HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the keyless access CM connector and ECM connector. 3) Using a tester, measure the resistance between the keyless access CM connector and ECM. ***Connector & terminal*** ***Non-turbo engine model*** ***(B572) No. 13 — (B135) No. 25:*** ***Turbo engine model*** ***(B572) No. 13 — (E158) No. 43:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK WIRING HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK ECM.** 1) Install the ECM from other normal operating vehicle (with push button start) which use same ECM to the vehicle to be diagnosed. 2) Perform ECM registration. Refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.	Is ECM registration finished? And does the engine start?	Replace the ECM.<Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).> <Ref. to FU(H4DOTC)-135, REMOVAL, Engine Control Module (ECM).> Install the ECM from other vehicle to the original vehicle.	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>

2. FOR C0 AND C5 ONLY

DTC DETECTING CONDITION:

Communication error between ID code box and ECM

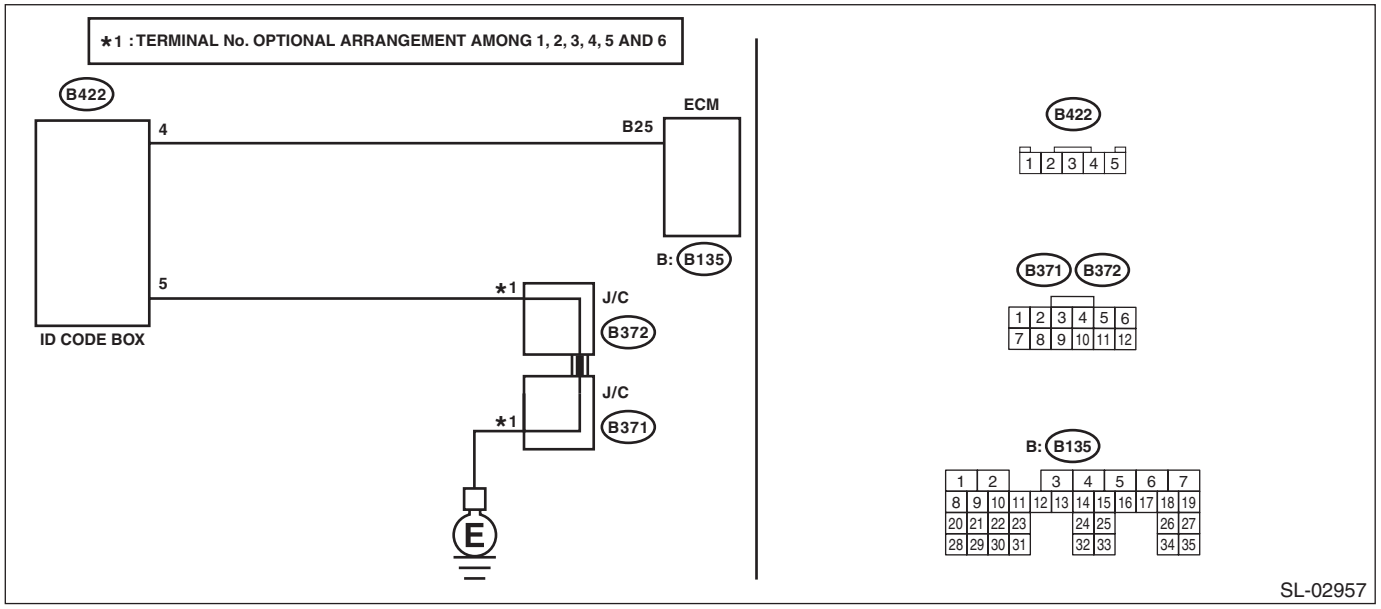
TROUBLE SYMPTOM:

Engine will not start.

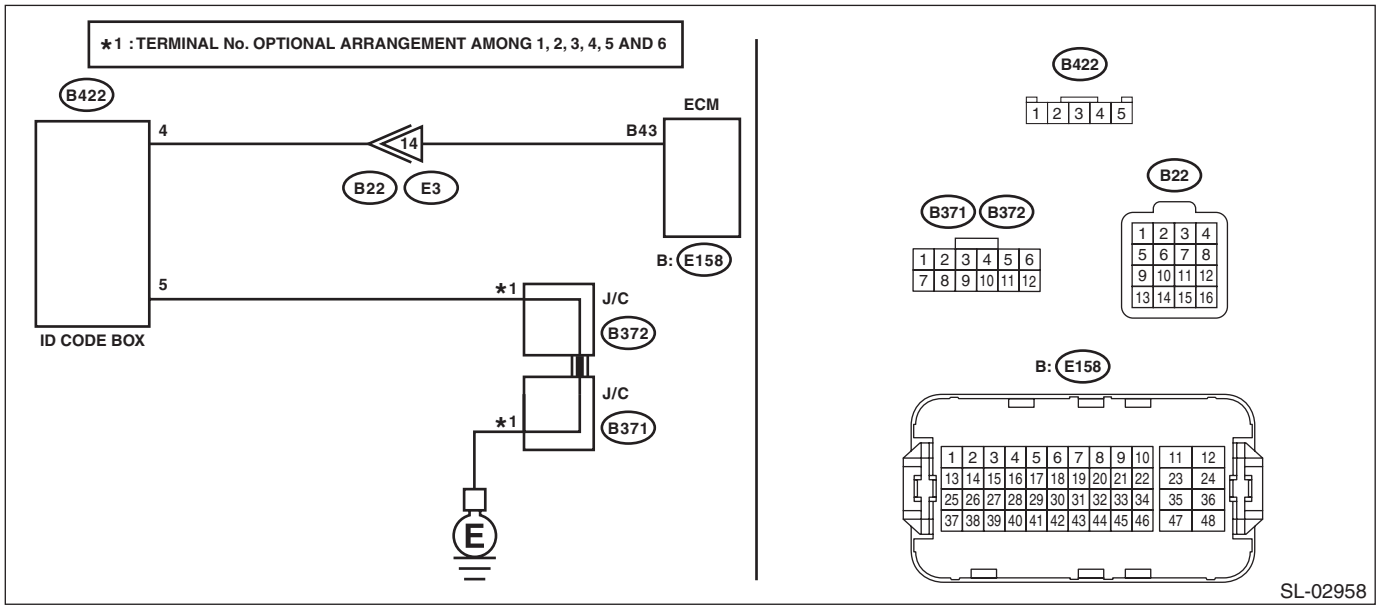
WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>

- Non-turbo engine model



- Turbo engine model



	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** 1) Turn the ignition switch to ON. 2) Check the keyless access CM data using the Subaru Select Monitor. 3) Display the next data. “Immobilizer” “Engine start” “Unlock confirmation” ***Data*** ***Immobilizer = Unset:*** ***Engine start = Engine start permission:*** ***Unlock confirmation = Confirmed:***	Is the data displayed as described above?	Go to step **2**.	Perform diagnostics with phenomenon.<Ref. to KPS(diag)-124, ENGINE DOES NOT START, INSPECTION, Diagnostics with Phenomenon.>
2	**CHECK CURRENT DATA.** Use the Subaru Select Monitor to check the keyless access CM data when holding down the push button ignition switch while depressing on the brake pedal (AT model) or clutch pedal (MT model). ***Data*** ***EGI code reception status = Reception:*** NOTE: If “Reception” is displayed, the status changes to “Not yet received” in 10 seconds. When performing the check again, perform the check after turning the ignition to OFF.	Is the data displayed as described above?	Go to step **3**.	Repair or replace the harness between ID code box and ECM.
3	**CHECK WIRING HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the ID code box connector and the ECM connector. 3) Using a tester, measure the resistance between ID code box connector and ECM. ***Connector & terminal*** ***Non-turbo engine model*** ***(B422) No. 4 — (B135) No. 25:*** ***Turbo engine model*** ***(B422) No. 4 — (E158) No. 43:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK WIRING HARNESS.** Using a tester, measure the resistance between ID code box connector and chassis ground. ***Connector & terminal*** ***(B422) No. 5 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK ECM.** 1) Install the ECM from other normal operating vehicle (with push button start) which use same ECM to the vehicle to be diagnosed. 2) Perform ECM registration. Refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.	Is ECM registration finished? And does the engine start?	Replace the ECM.<Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).> <Ref. to FU(H4DOTC)-135, REMOVAL, Engine Control Module (ECM).> Install the ECM from other vehicle to the original vehicle.	Replace the ID code box.<Ref. to SL-96, REMOVAL, ID Code Box.>

AM:DTC B1576 EGI CONTROL MODULE EEPROM

DTC DETECTING CONDITION:

- ECM malfunctioning
- When the ROM in ECM was inaccessible during registration.

	Step	Check	Yes	No
1	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is ECM registration complete?	Make sure that the engine can start. This completes the work.	Go to step **2**.
2	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is ECM registration complete?	Make sure that the engine can start. This completes the work.	Go to step **3**.
3	**PERFORM ECM REGISTRATION.** Perform ECM registration. Refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".	Is ECM registration complete?	Make sure that the engine can start. This completes the work.	Replace the ECM.<Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).> <Ref. to FU(H4DOTC)-135, REMOVAL, Engine Control Module (ECM).>

AN:DTC B1577 IMM CONTROL MODULE EEPROM

1. EXCEPT FOR C0 AND C5

DTC DETECTING CONDITION:

- Defective keyless access CM
- When inaccessible to ROM in keyless access CM.

	Step	Check	Yes	No
1	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Perform the clear memory operation of ECM. 3) Turn the ignition switch to OFF. 4) Remove and install the battery. 5) Turn the ignition switch to ON. 6) After 5 seconds or more, read DTC.	Is B1577 displayed?	Replace the keyless access CM.<Ref. to SL-94, Keyless Access CM.>	System is normal.

2. FOR C0 AND C5 ONLY

DTC DETECTING CONDITION:

- ID code box malfunction
- When inaccessible to ROM in ID code box.

	Step	Check	Yes	No
1	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Perform the clear memory operation of ECM. 3) Turn the ignition switch to OFF. 4) Register the ID code box. 5) Read the DTC again.	Is B1577 displayed?	Replace the ID code box.<Ref. to SL-96, ID Code Box.>	System is normal.

13.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC B1100 INTEG. UNIT SYSTEM ERROR

DTC DETECTING CONDITION:
System error in body integrated unit
TROUBLE SYMPTOM:
LAN communication immobilizer function may not be executed normally.

	Step	Check	Yes	No
1	**CHECK DTC.** Check DTC indicated by body integrated unit.	Is B1100 current malfunction?	Go to step **2**.	Temporary EEPROM access error occurred.
2	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector. 3) Connect the disconnected connectors. 4) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1100 current malfunction?	Replace the body integrated unit. <Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Temporary EEPROM access error occurred.

B: DTC B1101 BATT P/SUPPLY MALFUNCTION CONT

DTC DETECTING CONDITION:

- Voltage failure caused by poor contact of battery power supply control circuit
- Battery voltage of body integrated unit is not within the 8.5 — 16.5 V range.

TROUBLE SYMPTOM:

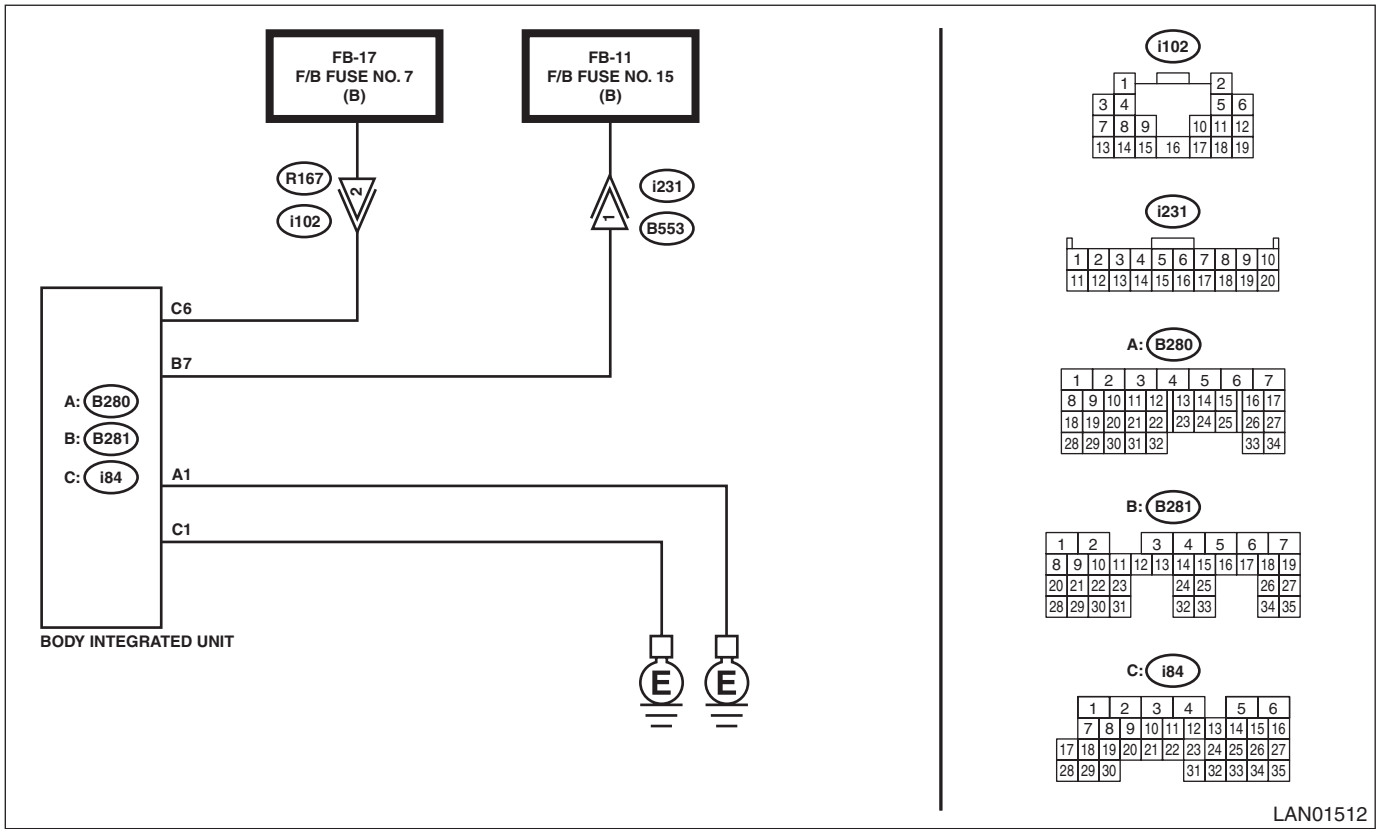
Functions of body integrated unit stop.

NOTE:

When B1102 BATT P/SUPPLY MALFUNCTION BACKUP is output at the same time, all the function of body integrated unit may not operate.

WIRING DIAGRAM:

Immobilizer system<Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1101 current malfunction?	Go to step **2**.	Go to step **5**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect and then connect the body integrated unit connector. 3) Wait approx. 2 minutes. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1101 current malfunction?	Go to step **3**.	Go to step **5**.
3	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the defective fuse.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i84) No. 6 (+) — Chassis ground (–):***	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Repair the harness between body integrated unit and fuse.
5	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

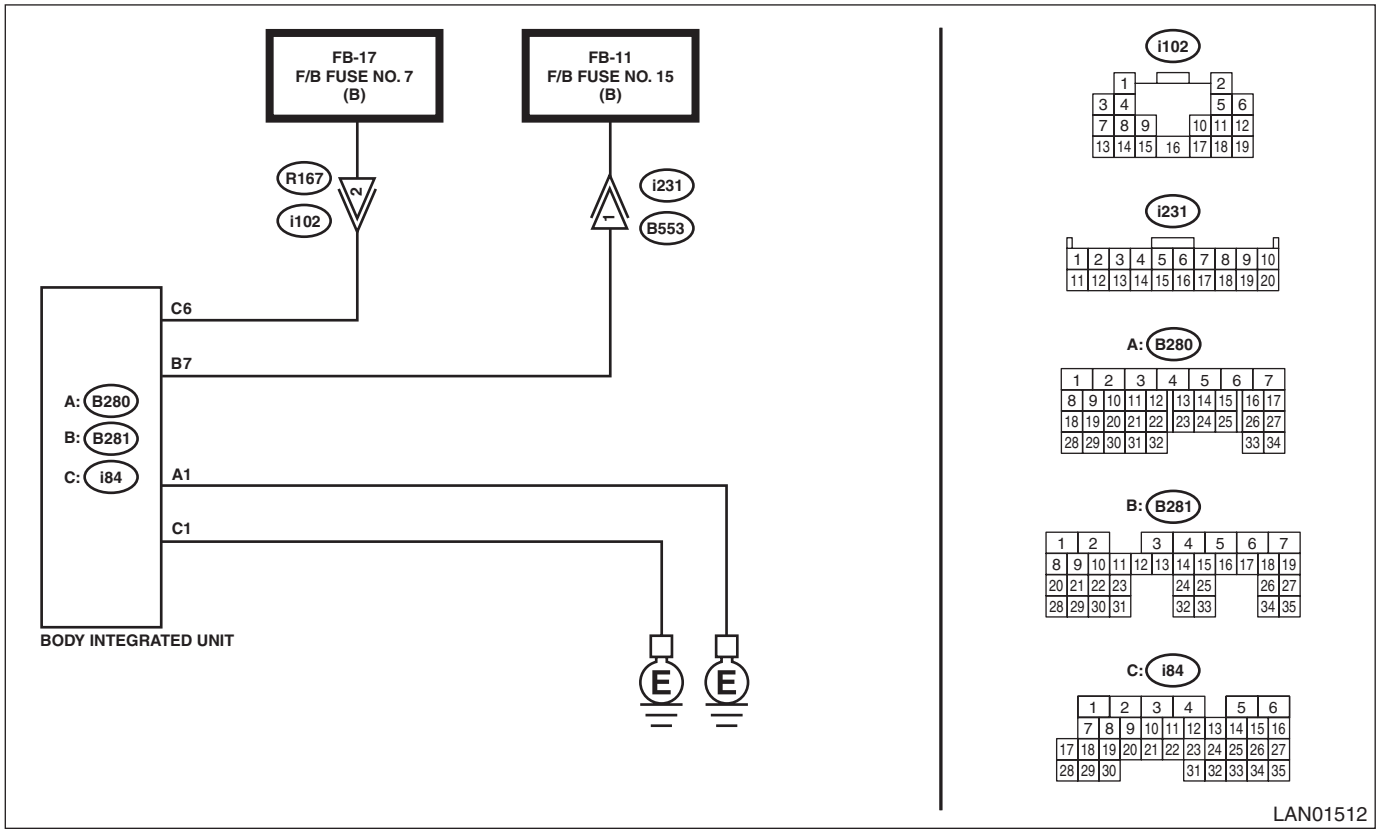
C: DTC B1102 BATT P/SUPPLY MALFUNCTION BACKUP

DTC DETECTING CONDITION:
Voltage failure caused by poor contact of battery power supply backup circuits

TROUBLE SYMPTOM:
Illuminations for the keyless entry, map light, luggage light, trunk light, room light, and ignition switch do not turn on.

NOTE:
When B1101 BATT P/SUPPLY MALFUNCTION CONT. is output at the same time, all function of body integrated unit may not operate.

WIRING DIAGRAM:
Immobilizer system<Ref. to WI-263, WIRING DIAGRAM, Immobilizer System.>

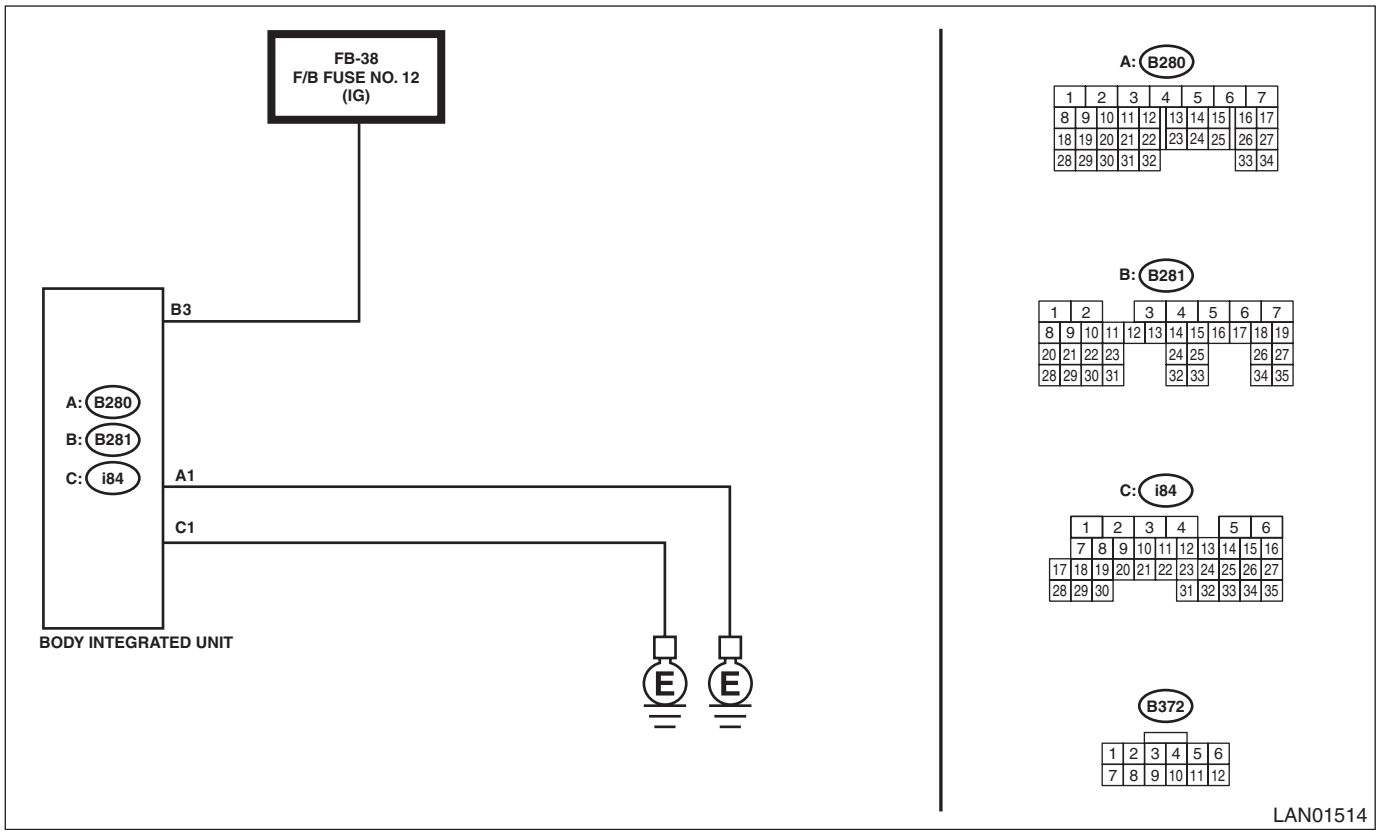


Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1102 current malfunction?	Go to step **2**.	Go to step **5**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect and then connect the body integrated unit connector. 3) Wait approx. 2 minutes. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1102 current malfunction?	Go to step **3**.	Go to step **5**.
3	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the defective fuse.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B281) No. 7 (+) — Chassis ground (–):***	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Repair the harness between body integrated unit and fuse.
5	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

D: DTC B1103 IGNITION POWER FAILURE

DTC DETECTING CONDITION:
Voltage failure caused by poor contact of IGN power supply circuits
TROUBLE SYMPTOM:
Symptoms such as shift lock or wiper not operating may occur.
WIRING DIAGRAM:
Shift lock control system<Ref. to WI-382, WIRING DIAGRAM, Shift Lock Control System.>

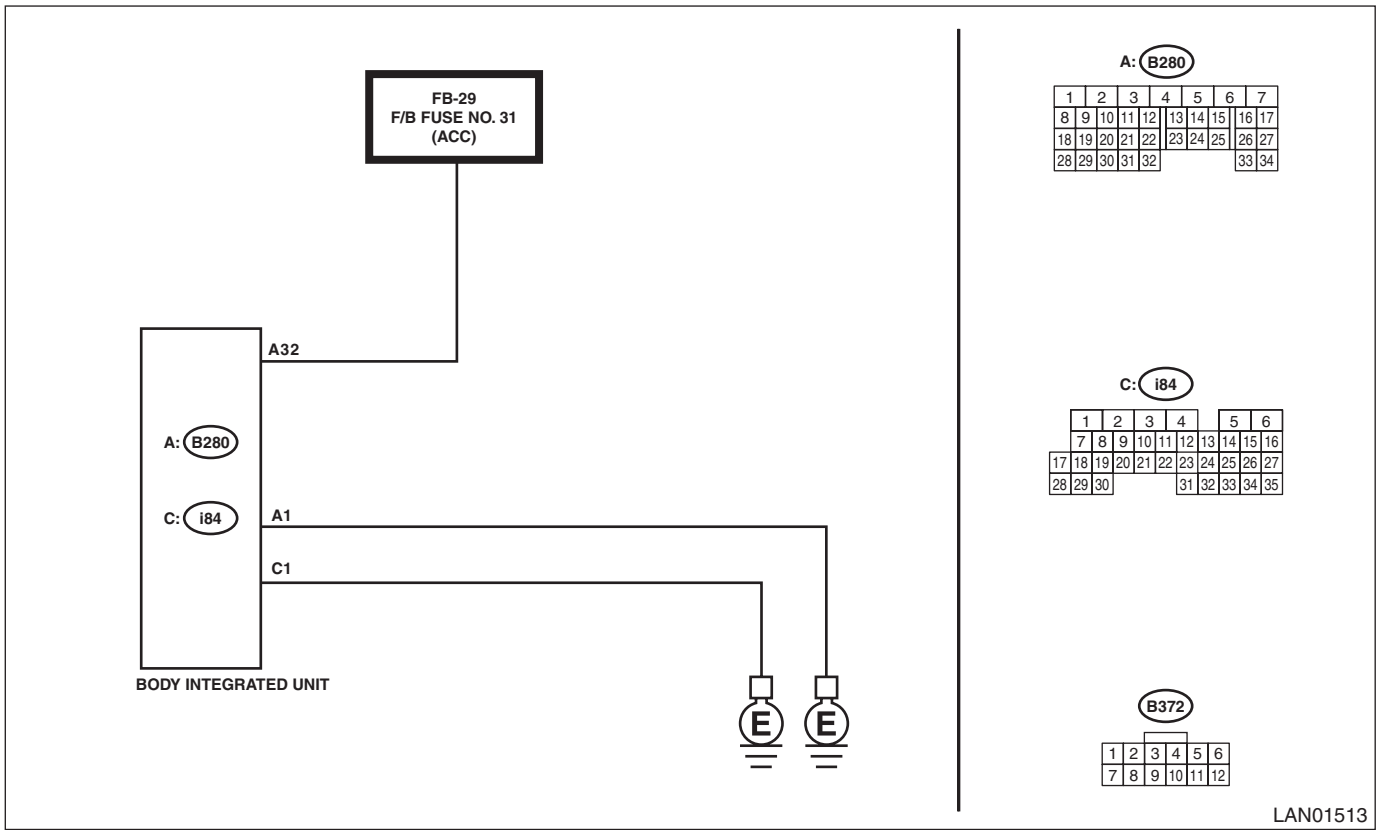


Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1103 current malfunction?	Go to step **2**.	Go to step **5**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect and then connect the body integrated unit connector. 3) Wait approx. 2 minutes. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1103 current malfunction?	Go to step **3**.	Go to step **5**.
3	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the defective fuse.
4	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B281) No. 3 (+) — Chassis ground (–):***	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Repair the harness between body integrated unit and fuse.

	Step	Check	Yes	No
5	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

E: DTC B1104 ACC POWER FAILURE

DTC DETECTING CONDITION:
Voltage failure caused by poor contact of ACC power supply circuit
TROUBLE SYMPTOM:
DRL may not illuminate.
WIRING DIAGRAM:
Shift lock control system<Ref. to WI-382, WIRING DIAGRAM, Shift Lock Control System.>

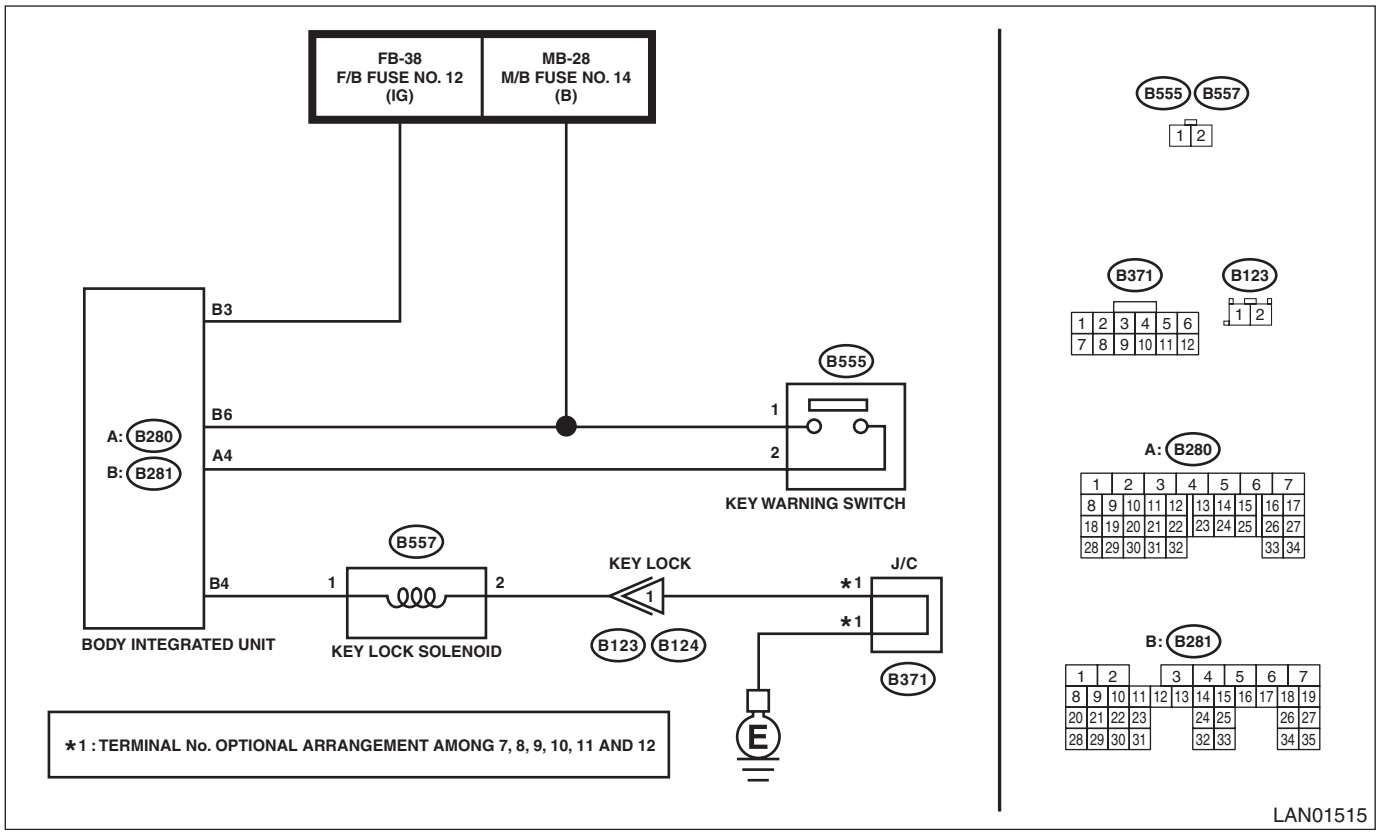


Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1104 current malfunction?	Go to step **2**.	Go to step **5**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect and then connect the body integrated unit connector. 3) Wait approx. 2 minutes. 4) Turn the ignition switch to ON. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1104 current malfunction?	Go to step **3**.	Go to step **5**.
3	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the defective fuse.
4	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B280) No. 32 (+) — Chassis ground (–):***	Is the voltage 8.5 — 16.5 V?	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>	Repair the harness between body integrated unit and fuse.

	Step	Check	Yes	No
5	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

F: DTC B1105 KEY INTERLOCK CIRCUIT ABNORMAL

DTC DETECTING CONDITION:
Ground short of key interlock circuit
TROUBLE SYMPTOM:
Key interlock does not keep lock condition.
WIRING DIAGRAM:
Shift lock control system<Ref. to WI-382, WIRING DIAGRAM, Shift Lock Control System.>

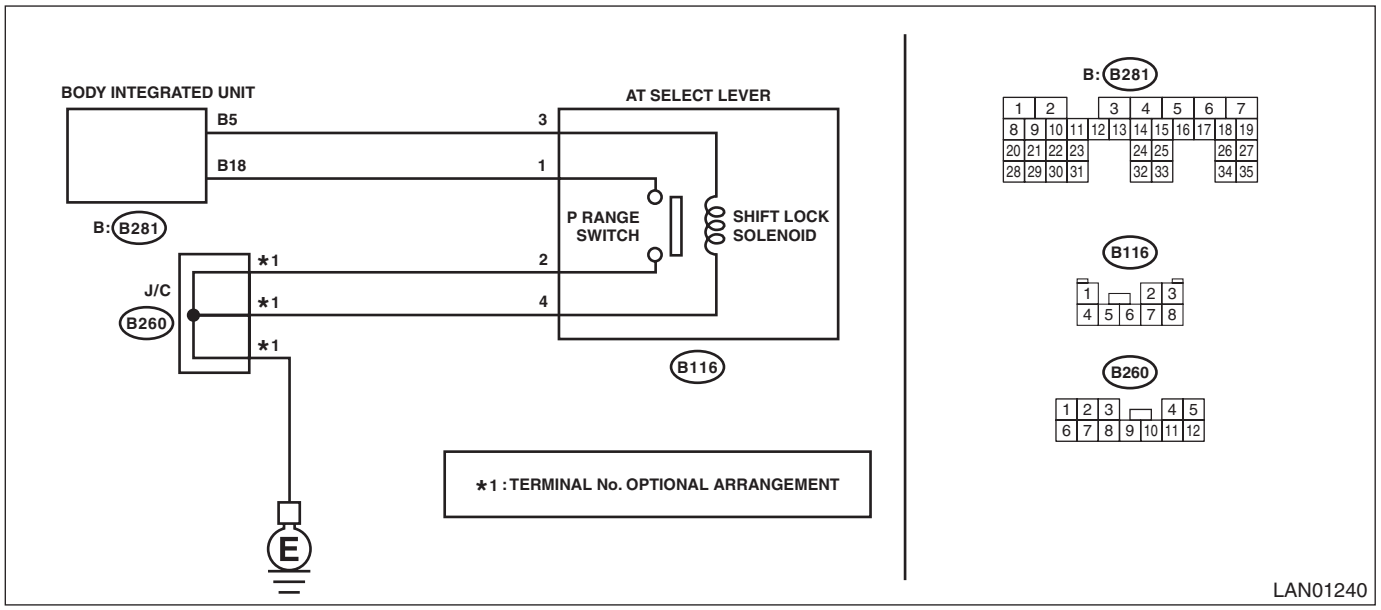


Step		Check	Yes	No
1	**CHECK DTC.** 1) Insert the ignition key. 2) Turn the ignition switch to ON. 3) Shift to the Neutral range. 4) Shift into P range. 5) Shift to the Neutral range. 6) Shift into P range. 7) Shift to the Neutral range. 8) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1105 current malfunction?	Go to step **2**.	Go to step **8**.
2	**CHECK DTC.** 1) Shift the select lever to P range. 2) Remove the ignition key. 3) Disconnect the key actuator connector (B557) and body integrated unit connector (B281). 4) Connect the disconnected connectors. 5) Insert the ignition key. 6) Turn the ignition switch to ON and shift into Neutral. 7) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1105 current malfunction?	Go to step **3**.	Go to step **8**.

	Step	Check	Yes	No
3	**CHECK KEY ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the key actuator connector (B557). 3) Measure the resistance between key actuator connectors. ***Connector & terminal*** ***(B557) No. 1 — No. 2:***	Is the resistance 103 — 115 Ω?	Go to step **4**.	Replace the key actuator.
4	**CHECK KEY ACTUATOR.** Connect the battery terminals to the key actuator. ***Terminals*** ***(B557) No. 2 — positive terminal:*** ***(B557) No. 1 — ground terminal:***	Is the actuator activated and then key locked?	Go to step **5**.	Replace the key actuator.
5	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector (B281). 2) Measure the resistance between body integrated unit and key actuator using tester. ***Connector & terminal*** ***(B557) No. 1 — (B281) No. 4:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** Measure the resistance between body integrated unit and chassis ground using tester. ***Connector & terminal*** ***(B281) No. 4 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Repair or replace the short circuit of the harness.
7	**CHECK HARNESS.** 1) Connect the body integrated unit. 2) Turn the ignition switch to ON. 3) Measure the voltage between body integrated unit and chassis ground using tester. ***Connector & terminal*** ***(B281) No. 4 (+) — Chassis ground (–):***	Is the voltage 6 V or more?	Repair or replace the short circuit of the harness.	Replace the body integrated unit.<Ref. to SL-75, REMOVAL, Body Integrated Unit.>
8	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector (B281) and key actuator connector (B557).	Is there poor contact at disconnected connector terminal?	Repair the terminal where poor contact exists, or replace harness.	It is possible that temporary poor contact occurs.

G: DTC B1106 SHIFT LOCK CIRCUIT FAILURE

DTC DETECTING CONDITION:
Open or power supply-output short, GND-output short in shift lock circuit.
TROUBLE SYMPTOM:
Shift lock does not be released or remain locked.
WIRING DIAGRAM:
Shift lock control system <Ref. to WI-382, WIRING DIAGRAM, Shift Lock Control System.>



Step		Check	Yes	No
1	**CHECK DTC.** 1) Turn the ignition switch to ON. 2) Keep the Parking range for approx. 5 seconds. 3) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step **6**.	Go to step **2**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the shift lock solenoid connector. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON, then keep the Parking range for approx. 5 seconds. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step **3**.	Go to step **7**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the shift lock solenoid connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B116) No. 4 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK SHIFT LOCK SOLENOID.** Using a tester, measure the resistance between shift lock solenoid terminals. ***Connector & terminal*** ***(B116) No. 4 — No. 3:***	Is the resistance less than 27 — 31 Ω?	Go to step **5**.	Replace the shift lock solenoid. <Ref. to CS-58, REMOVAL, AT Shift Lock Solenoid and "P" Range Switch.>

	Step	Check	Yes	No
5	**CHECK SHIFT LOCK SOLENOID.** Connect the battery terminal to shift lock solenoid. ***Connector & terminal*** ***(B116) No. 3 — positive terminal:*** ***(B116) No. 4 — ground terminal:***	Does the shift lock solenoid operate and then release the lock?	Go to step **6**.	Replace the shift lock solenoid. <Ref. to CS-58, REMOVAL, AT Shift Lock Solenoid and "P" Range Switch.>
6	**CHECK HARNESS.** Use a tester to measure the resistance between harness terminals. ***Connector & terminal*** ***(B116) No. 3 — (B281) No. 5:*** NOTE: If body integrated unit and shift lock connector are not disconnected, disconnect them first and then perform measurement.	Is the resistance less than 10 Ω?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Repair or replace the open circuit of harness.
7	**CHECK DTC.** 1) Depress the brake pedal at the parking range. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step **8**.	Go to step **9**.
8	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector and shift lock connector. 3) Connect the disconnected connectors. 4) Turn the ignition switch to ON. 5) Depress the brake pedal at the parking range. 6) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1106 current malfunction?	Go to step **4**.	Go to step **9**.
9	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit connector and shift lock connector.	Is there poor contact of connector terminal?	Repair or replace the poor contact of terminal.	It is possible that temporary poor contact occurs.

H: DTC B1401 M COLLATION NG

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAG). <Ref. to IM(diag)-25, DTC B1401 M COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

I: DTC B1402 IMMOBILIZER KEY COLLATION NG

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAG). <Ref. to IM(diag)-26, DTC B1402 IMMOBILIZER KEY COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

J: DTC B1405 SCU COLLATION NG

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAG). <Ref. to IM(diag)-26, DTC B1405 SCU COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

K: DTC B1406 SCU_EEPROM_NG

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAG). <Ref. to IM(diag)-26, DTC B1406 SCU_EEPROM_NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

L: DTC B1407 M COMMUNICATION ABNORMAL

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAGNOSTICS). <Ref. to IM(diag)-27, DTC B1407 M COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

M: DTC B1408 METER EEPROM ABNORMAL

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAGNOSTICS). <Ref. to IM(diag)-27, DTC B1408 METER EEPROM ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

N: DTC B1409 SCU COMMUNICATION ABNORMAL

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAGNOSTICS). <Ref. to IM(diag)-28, DTC B1409 SCU COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

O: DTC B1410 TRANSPONDER COMMUNICATION ABNORMAL

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAGNOSTICS). <Ref. to IM(diag)-30, DTC B1410 TRANSPONDER COMMUNICATION ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

P: DTC B1411 IMMOBILIZER ANTENNA ABNORMAL

For detailed diagnosis procedure, refer to IMMOBILIZER (DIAGNOSTICS). <Ref. to IM(diag)-30, DTC B1411 IMMOBILIZER ANTENNA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Q: DTC B1500 KEYLESS UART COM. MALFUNCTION

DTC DETECTING CONDITION:

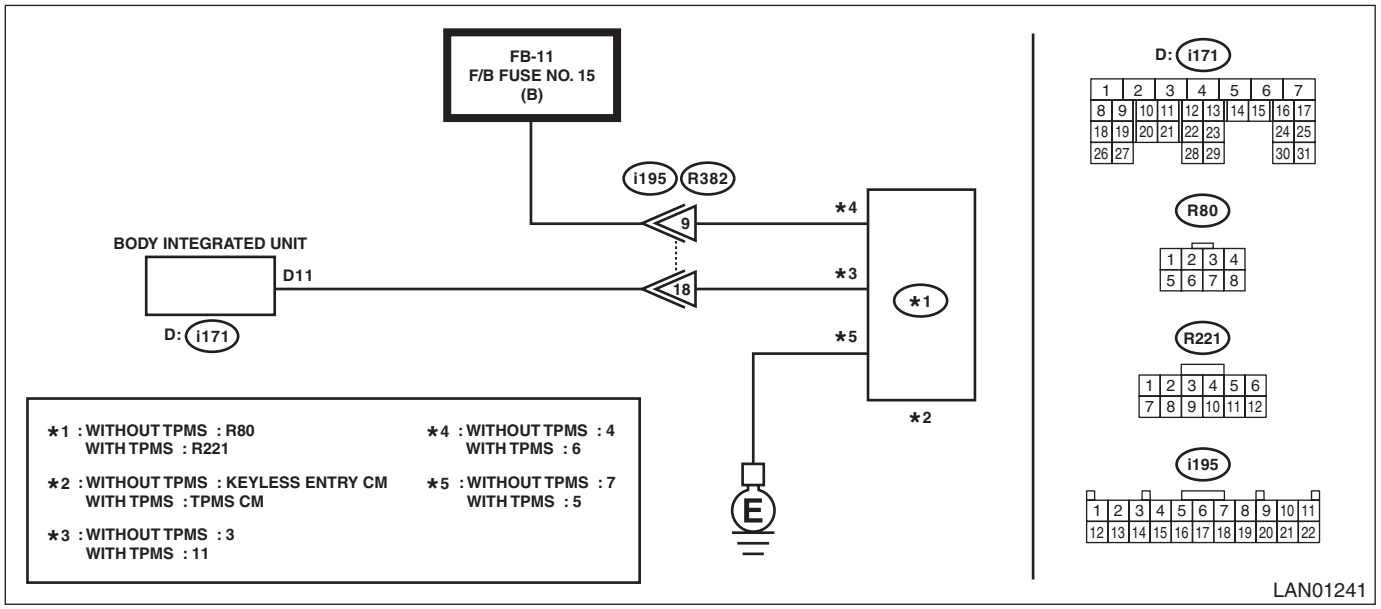
UART between the keyless control module or TPMS CM and body integrated unit is open or shorted, or has communication failure.

TROUBLE SYMPTOM:

- Door lock does not operate with keyless.
- TPMS does not operate. (The indicator blinks.)

WIRING DIAGRAM:

Keyless entry system <Ref. to WI-283, WIRING DIAGRAM, Keyless Entry System.>



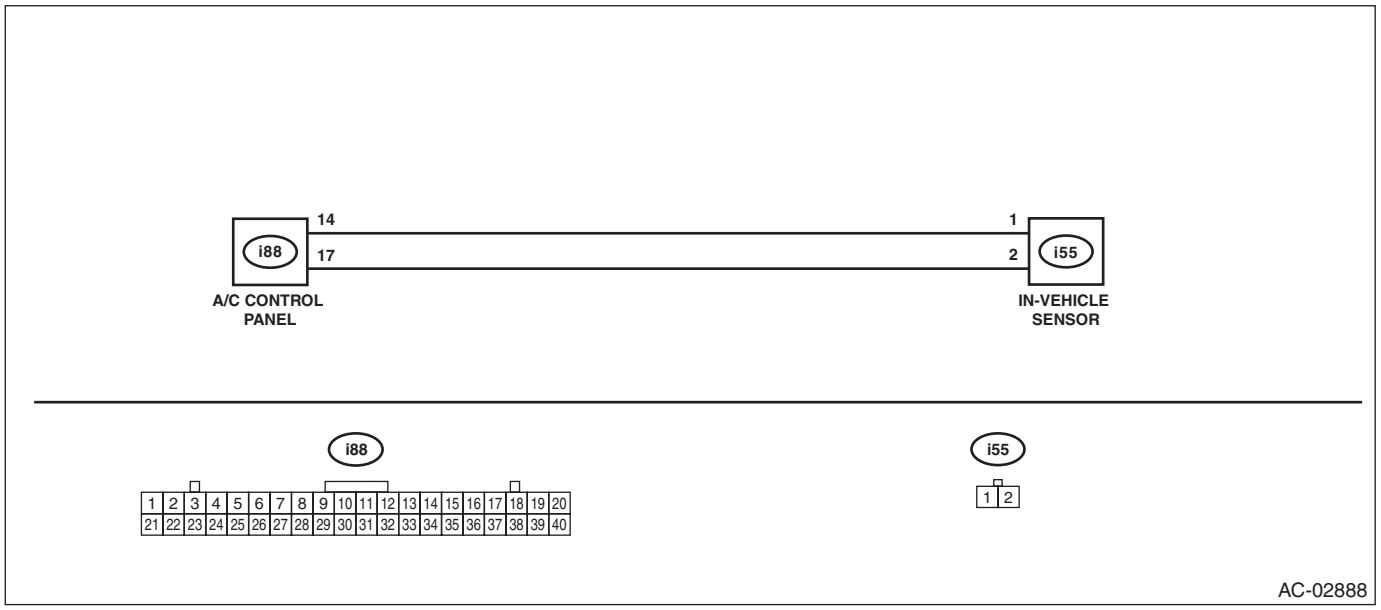
Step		Check	Yes	No
1	**CHECK DTC.** 1) Insert the ignition key to the ignition key cylinder and remove. 2) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1500 current malfunction?	Go to step **2**.	Go to step **7**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit and keyless entry control module connector. 3) Connect the disconnected connectors. 4) Insert the ignition key to the ignition key cylinder and remove. 5) Read the DTC of body integrated unit using Subaru Select Monitor.	Is B1500 current malfunction?	Go to step **3**.	Go to step **7**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the body integrated unit and keyless entry control module connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***With TPMS*** ***(i171) No. 11 — (R221) No. 11:*** ***Without TPMS*** ***(i171) No. 11 — (R80) No. 3:***	Is the resistance 10 Ω or less?	Go to step **4**.	Repair the open circuit of harness or replace harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Use a tester to measure the voltage between the terminals. ***Connector & terminal*** ***With TPMS*** ***(R221) No. 6 (+) — Chassis ground (–):*** ***Without TPMS*** ***(R80) No. 4 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Repair the power supply circuit.
5	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***With TPMS*** ***(R221) No. 5 — Chassis ground:*** ***Without TPMS*** ***(R80) No. 7 — Chassis ground:***	Is the resistance 10 Ω or less?	Go to step **6**.	Repair the ground circuit.
6	**CHECK CONTROL MODULE.** 1) Turn the ignition switch to OFF. 2) Remove the keyless entry control module. 3) Install a keyless entry control module that was operating normally on another vehicle.	Does it operate with the remote control key of another vehicle?	Replace the keyless entry control module. <Ref. to SL-73, REMOVAL, Keyless Entry Control Module.>	Replace the body integrated unit.
7	**CHECK CONNECTOR.** Check the connector used for keyless communication for poor contact.	Is there poor contact of connector?	Repair the connector that has poor contact, or replace harness.	It is possible that temporary poor communication occurs. Delete the DTC.

13.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC B1430 ROOM TEMPERATURE SENSOR CIRCUIT WIRE BREAK

DTC DETECTING CONDITION:
In-vehicle sensor circuit is open.
TROUBLE SYMPTOM:
In-vehicle air temperature is falsely recognized as 25°C (77°F), and the compartment temperature is adjusted.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



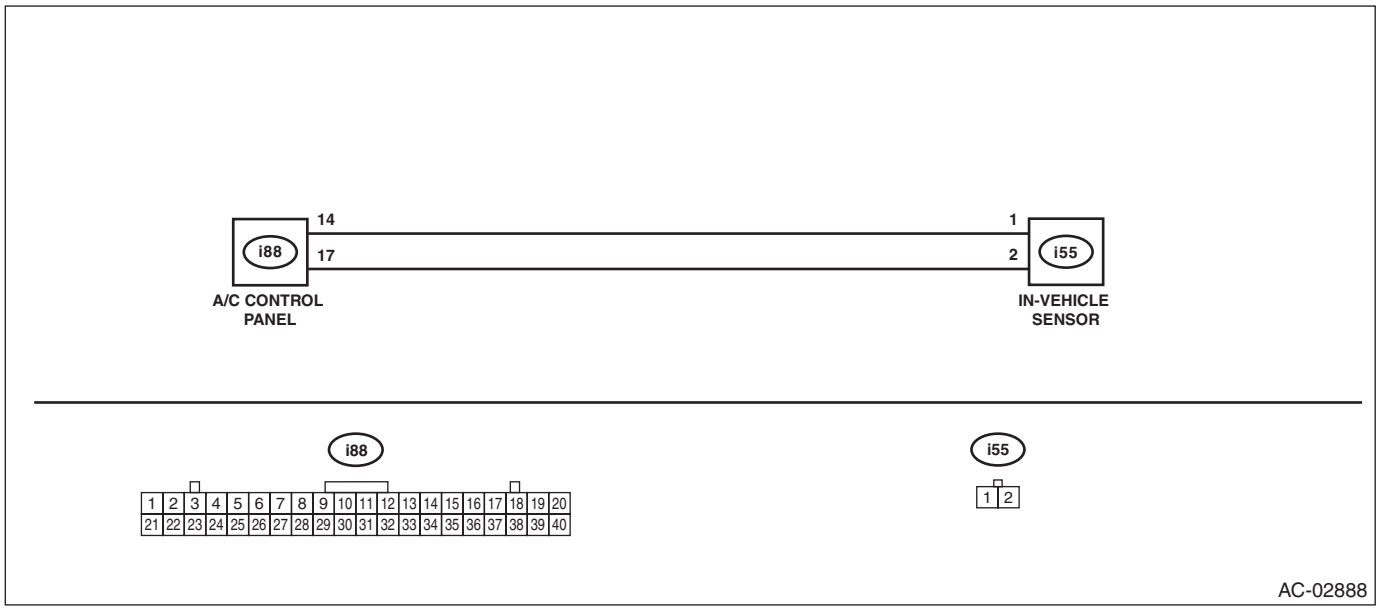
	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1430 displayed?	Go to step **2**.	Check the connection of the in-vehicle sensor circuit.
2	**CHECK IN-VEHICLE SENSOR.** 1) Disconnect the in-vehicle sensor. 2) Short the connector. 3) Read the DTC relating the ECM using the Subaru Select Monitor.	Is B1431 displayed?	Replace the in-vehicle sensor. <Ref. to AC-84, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i55) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i55) No. 1 — (i88) No. 14:*** ***(i55) No. 2 — (i88) No. 17:***	Is there continuity?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Repair or replace the open circuit of harness.

B: DTC B1431 ROOM TEMPERATURE SENSOR CIRCUIT SHORT-CIRCUIT

DTC DETECTING CONDITION:
In-vehicle sensor circuit is shorted.

TROUBLE SYMPTOM:
In-vehicle air temperature is falsely recognized as 25°C (77°F), and the compartment temperature is adjusted.

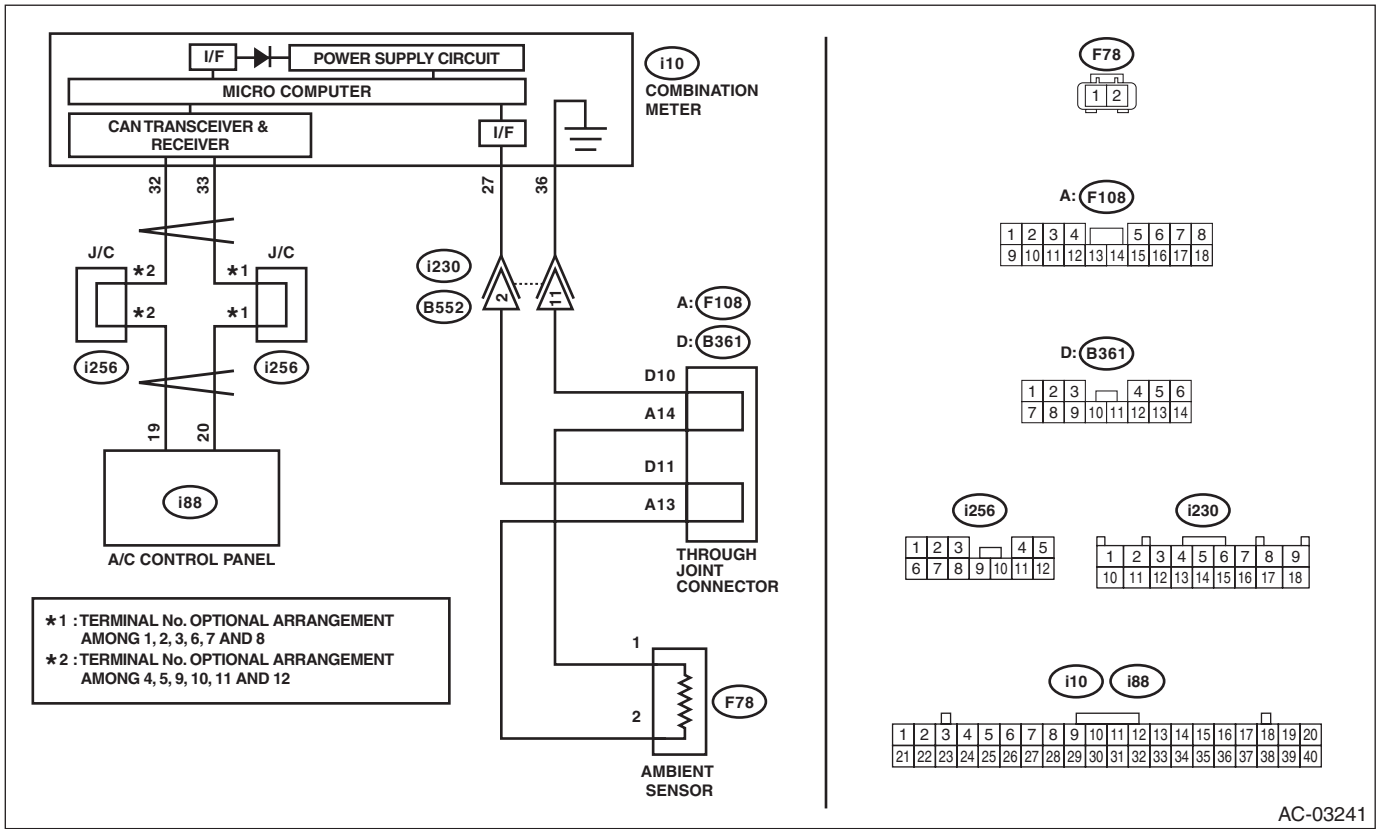
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1431 displayed?	Go to step **2**.	Check the connection of the in-vehicle sensor circuit.
2	**CHECK IN-VEHICLE SENSOR.** 1) Disconnect the in-vehicle sensor. <Ref. to AC-84, REMOVAL, In-Vehicle Sensor (Auto A/C Model).> 2) Read the DTC using Subaru Select Monitor.	Is B1430 displayed?	Replace the in-vehicle sensor. <Ref. to AC-84, REMOVAL, In-Vehicle Sensor (Auto A/C Model).>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal (i55) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Check the connection of the in-vehicle sensor circuit.	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal (i55) No. 1 — No. 2:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

C: DTC B1432 OUTSIDE AIR SENSOR CIRCUIT WIRE BREAK (AIR-CONDITIONING)

DTC DETECTING CONDITION:
Ambient sensor circuit is open.
TROUBLE SYMPTOM:
Ambient temperature is falsely recognized, and the compartment temperature is adjusted.
WIRING DIAGRAM:
Air conditioning system<Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

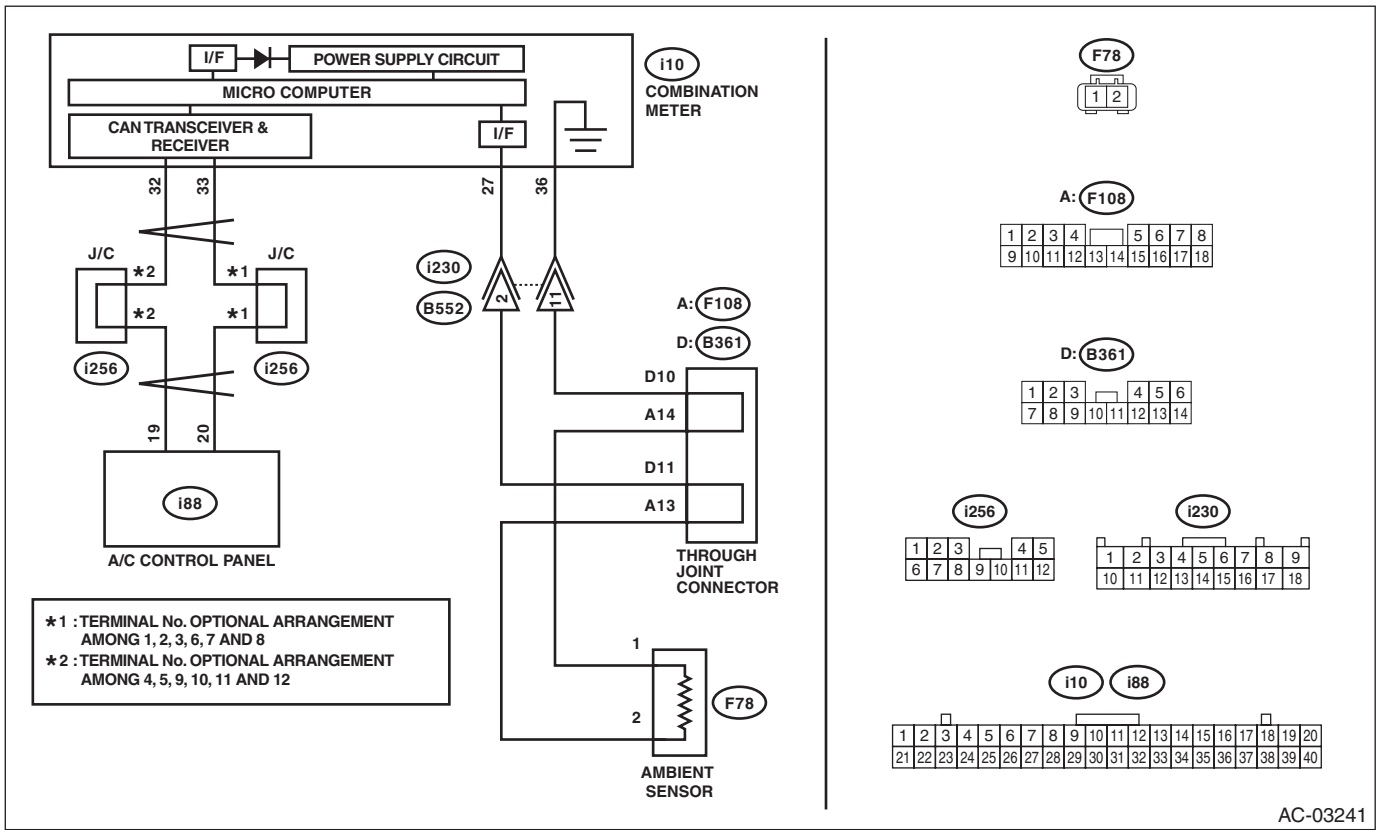


	Step	Check	Yes	No
1	**CHECK AMBIENT SENSOR.** Perform the inspection of ambient sensor unit.<Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the sensor normal?	Go to step **2**.	Replace the ambient sensor.<Ref. to AC-80, REMOVAL, Ambient Sensor.>
2	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(F78) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>	Go to step **3**.
3	**CHECK COMBINATION METER OUTPUT SIGNAL.** 1) Turn the ignition switch to OFF. 2) Pull out the combination meter. 3) Disconnect the connector from the combination meter. 4) Turn the ignition switch to ON. 5) Measure the voltage between the combination meter connector terminals. ***Connector & terminal*** ***(i10) No. 27 (+) — No. 36 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(F78) No. 1 — (i10) No. 36:*** ***(F78) No. 2 — (i10) No. 27:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK FOR POOR CONTACT.** Check for poor contact of combination meter connector.	Is there poor contact of connector?	Repair the connector.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>

D: DTC B1433 OUTSIDE AIR SENSOR CIRCUIT SHORT-CIRCUIT (AIR-CONDITIONING)

DTC DETECTING CONDITION:
Ambient sensor circuit is shorted.
TROUBLE SYMPTOM:
Ambient temperature is falsely recognized, and the compartment temperature is adjusted.
WIRING DIAGRAM:
Air conditioning system<Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

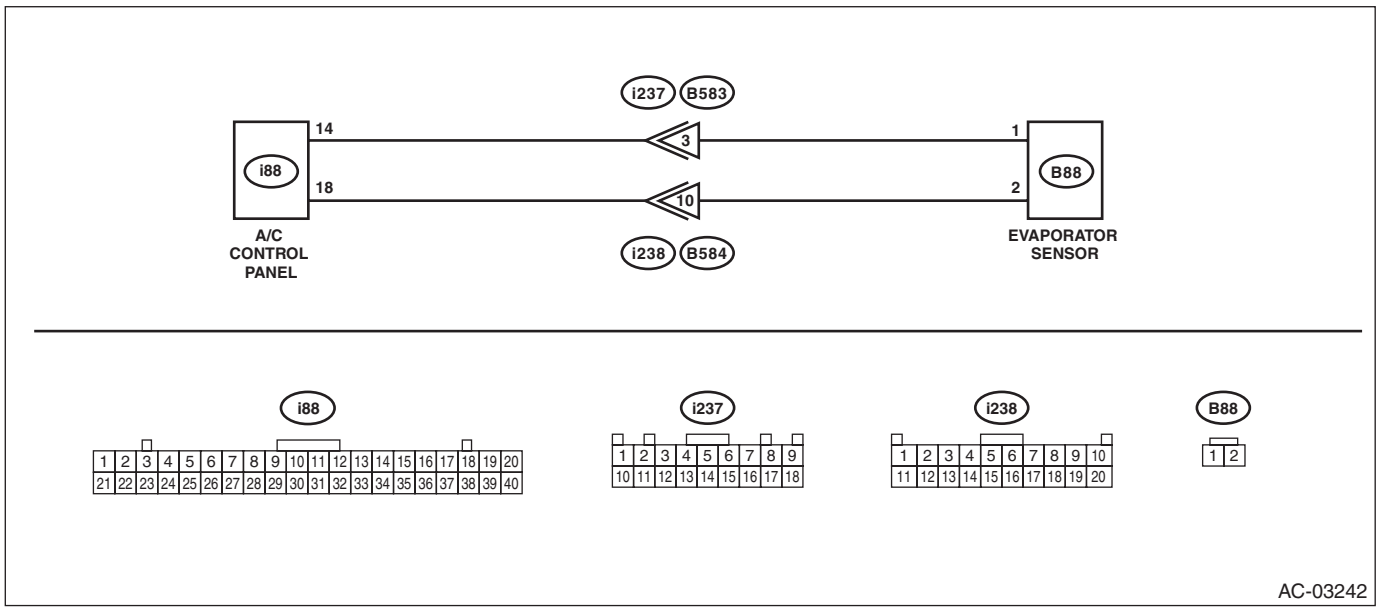


	Step	Check	Yes	No
1	**CHECK AMBIENT SENSOR.** Perform the inspection of ambient sensor unit.<Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the sensor normal?	Go to step **2**.	Replace the ambient sensor.<Ref. to AC-80, REMOVAL, Ambient Sensor.>
2	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(F78) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>	Go to step **3**.
3	**CHECK COMBINATION METER OUTPUT SIGNAL.** 1) Turn the ignition switch to OFF. 2) Pull out the combination meter. 3) Disconnect the connector from the combination meter. 4) Turn the ignition switch to ON. 5) Measure the voltage between the combination meter connector terminals. ***Connector & terminal*** ***(i10) No. 27 (+) — No. 36 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(F78) No. 1 — (F78) No. 2:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the combination meter.<Ref. to IDI-18, REMOVAL, Combination Meter.>

E: DTC B1434 AMBIENT TEMPERATURE SENSOR CIRCUIT WIRE BREAK

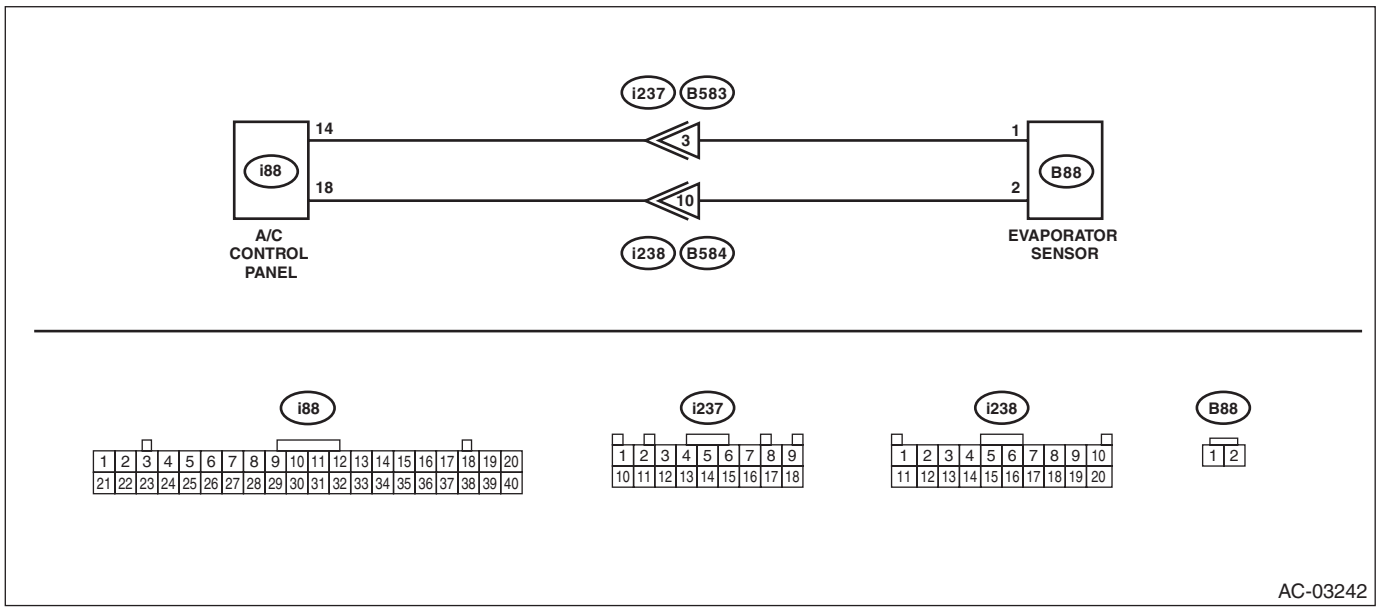
DTC DETECTING CONDITION:
Evaporator sensor circuit is open.
TROUBLE SYMPTOM:
Evaporator temperature is falsely recognized as low, and the compartment temperature is adjusted.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1434 displayed?	Go to step **2**.	Check the connection of the evaporator sensor circuit.
2	**CHECK EVAPORATOR SENSOR.** 1) Disconnect the evaporator sensor. 2) Short the evaporator sensor connector (B88). 3) Read the DTC using Subaru Select Monitor.	Is B1435 displayed?	Replace the evaporator sensor. <Ref. to AC-65, REMOVAL, Evaporator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B88) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B88) No. 1 — (i88) No. 14:*** ***(B88) No. 2 — (i88) No. 18:***	Is there continuity?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Repair or replace the open circuit of harness.

F: DTC B1435 EVAPORATOR SENSOR CIRCUIT SHORT-CIRCUIT

DTC DETECTING CONDITION:
Evaporator sensor circuit is shorted.
TROUBLE SYMPTOM:
Evaporator temperature is falsely recognized as high, and the compartment temperature is adjusted.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B1435 displayed?	Go to step **2**.	Check the connection of the evaporator sensor circuit.
2	**CHECK EVAPORATOR SENSOR.** 1) Disconnect the evaporator sensor. 2) Read the DTC using Subaru Select Monitor.	Is B1434 displayed?	Replace the evaporator sensor. <Ref. to AC-65, REMOVAL, Evaporator.>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal (B88) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Check the connection of the evaporator sensor circuit.	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal (B88) No. 1 — No. 2:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

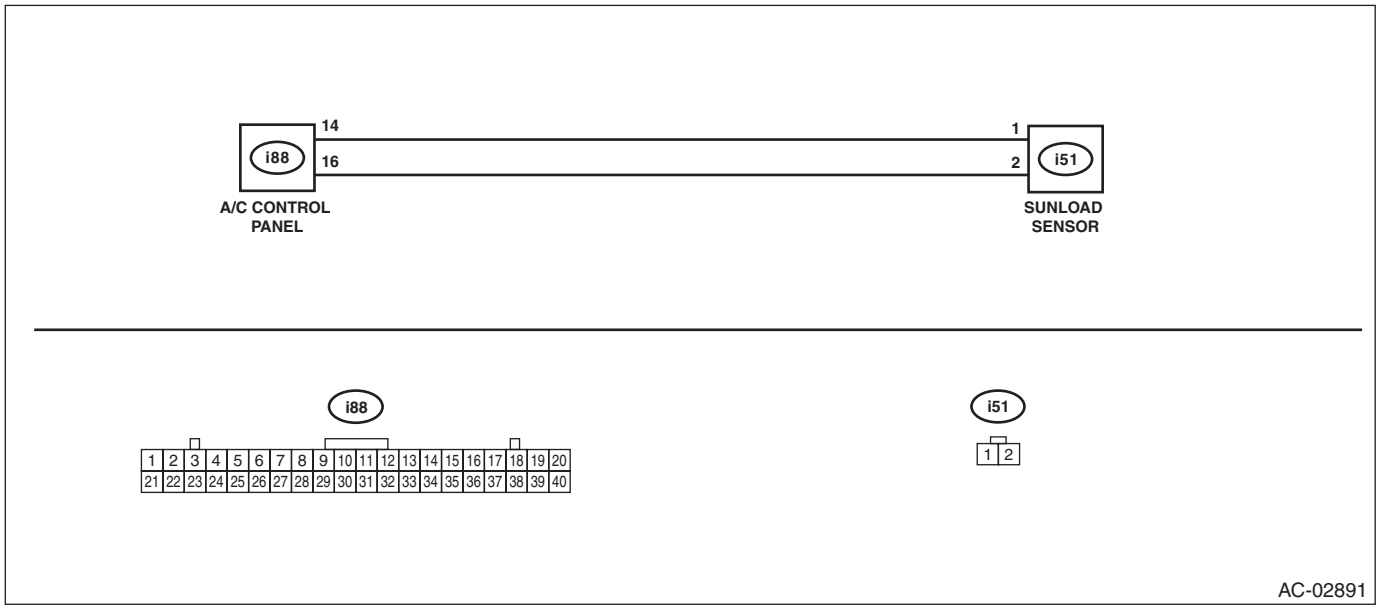
G: DTC B14A1 SUNLOAD SENSOR CIRCUIT OPEN

DTC DETECTING CONDITION:
Sunload sensor circuit is open. (Displayed for current malfunction)

NOTE:
When the sunload sensor check is performed indoors or in the shade, it could be diagnosed as having an open circuit. Always check the sunload sensor in direct sunlight.

TROUBLE SYMPTOM:
Operation is performed as no sunload.

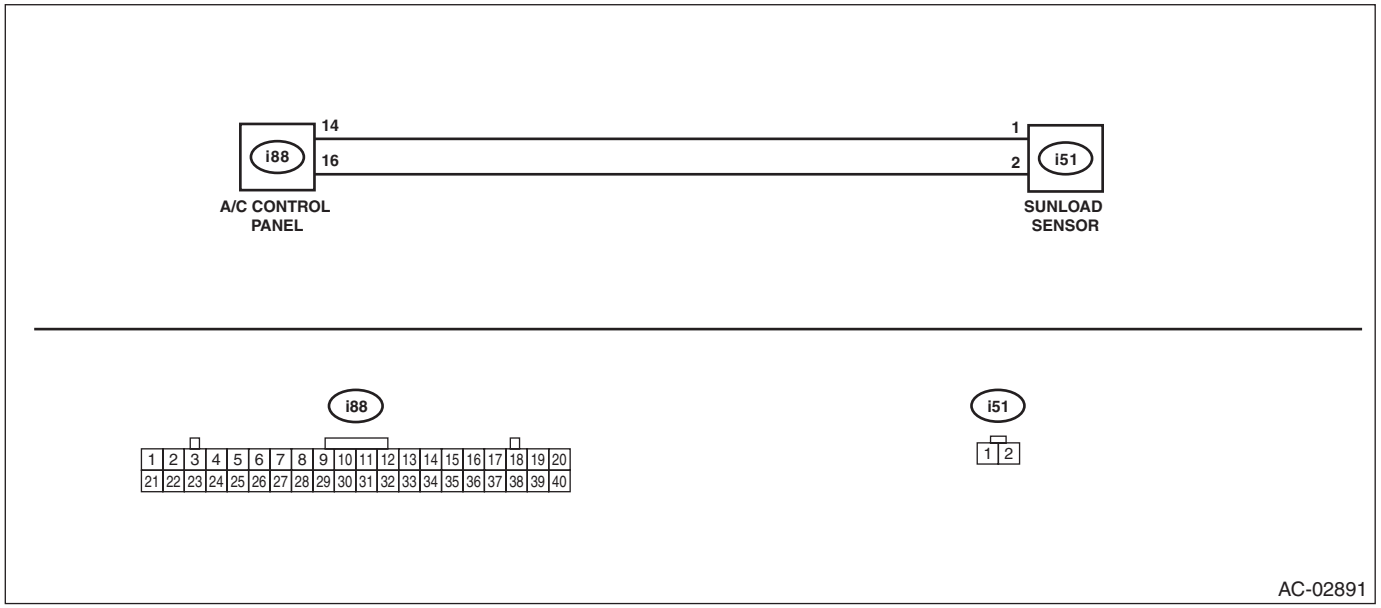
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14A1 displayed?	Go to step **2**.	Check the connection of the sunload sensor circuit.
2	**CHECK SUNLOAD SENSOR.** 1) Disconnect the sunload sensor. 2) Short the connector. 3) Read the DTC using Subaru Select Monitor.	Is B14A2 displayed?	Replace the sunload sensor. <Ref. to AC-82, REMOVAL, Sunload Sensor (Auto A/C Model).>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i51) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of the harness.
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i51) No. 1 — (i88) No. 14:*** ***(i51) No. 1 — (i88) No. 16:***	Is there continuity?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Repair or replace the short circuit of the harness.

H: DTC B14A2 SUNLOAD SENSOR CIRCUIT SHORT

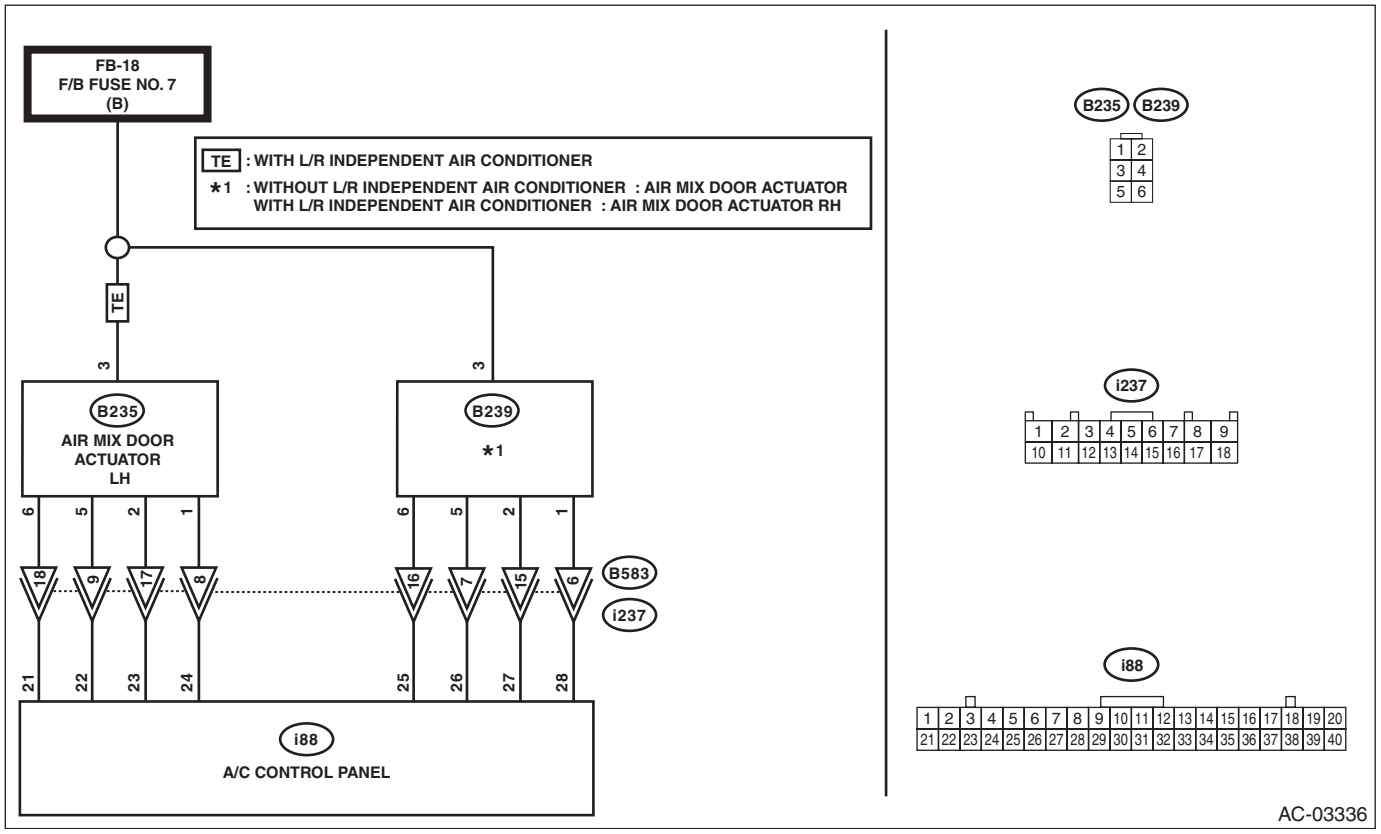
DTC DETECTING CONDITION:
Sunload sensor circuit is shorted.
TROUBLE SYMPTOM:
Operation is performed as no sunload.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14A2 displayed?	Go to step **2**.	Check the connection of the sunload sensor circuit.
2	**CHECK SUNLOAD SENSOR.** 1) Disconnect the sunload sensor. 2) Read the DTC using Subaru Select Monitor.	Is B14A1 displayed?	Replace the sunload sensor. <Ref. to AC-82, REMOVAL, Sunload Sensor (Auto A/C Model).>	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i51) No. 2 (+) — No. 1 (–):***	Is the voltage 4.5 — 5.0 V?	Check the connection of the sunload sensor circuit.	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i51) No. 1 — No. 2:***	Is there continuity?	Repair or replace the short circuit of the harness.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

I: DTC B14E1 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT WIRE BREAK (DRIVER'S SEAT)

DTC DETECTING CONDITION:
Air mix door actuator stepping motor circuit is open.
TROUBLE SYMPTOM:
Temperature cannot be adjusted.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

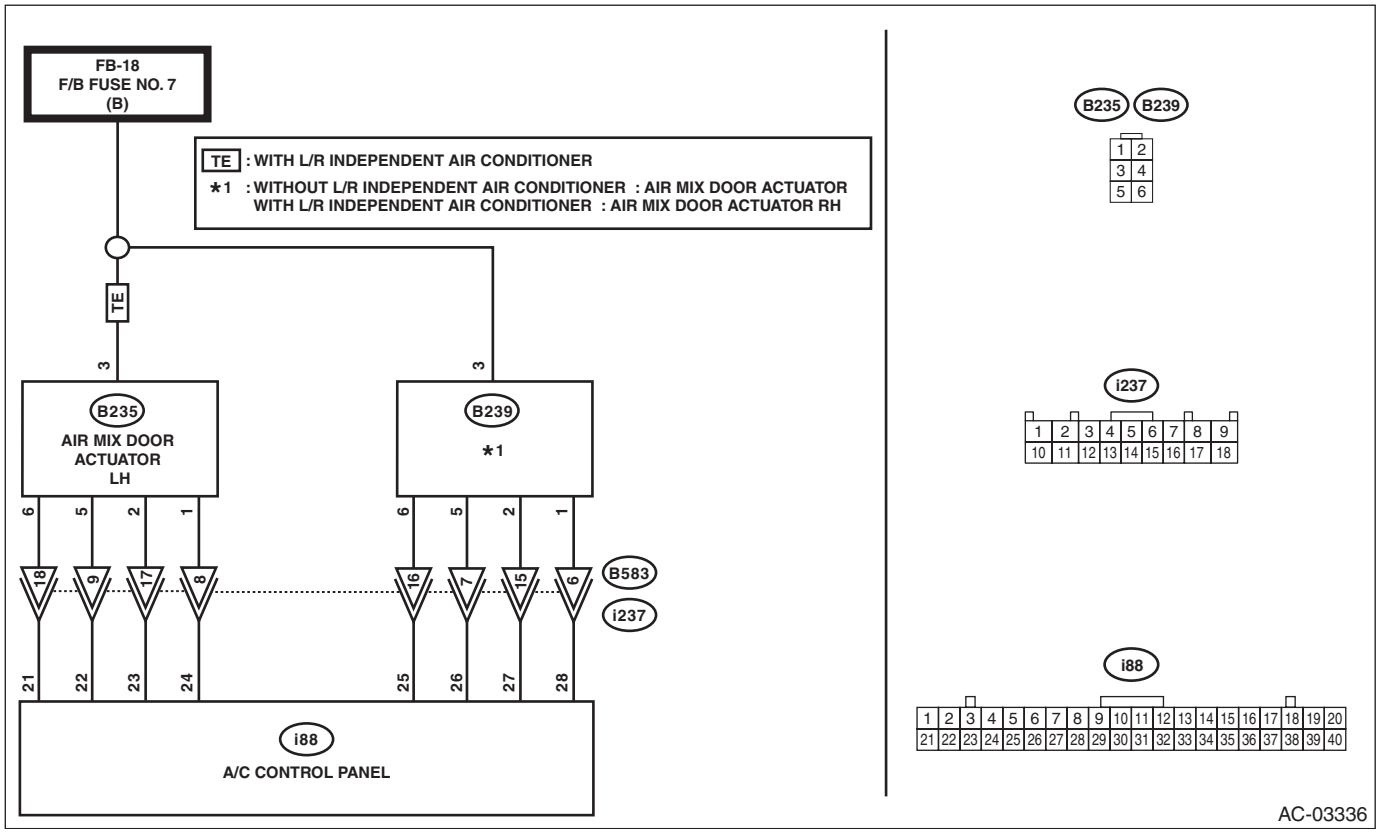


Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14E1 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the air mix door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the air mix door actuator connector terminal and chassis ground. ***Connector & terminal*** ***Without left/right independent air conditioning function*** ***(B239) No. 3 (+) — Chassis ground (–):*** ***With left/right independent air conditioning function*** ***(B235) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **3**.	Check the DC power supply circuit.

	Step	Check	Yes	No
3	**CHECK AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between air mix door actuator terminals using a tester. ***Connector & terminal*** ***Without left/right independent air conditioning function*** ***(B239) No. 3 — No. 1:*** ***(B239) No. 3 — No. 2:*** ***(B239) No. 3 — No. 5:*** ***(B239) No. 3 — No. 6:*** ***With left/right independent air conditioning function*** ***(B235) No. 3 — No. 1:*** ***(B235) No. 3 — No. 2:*** ***(B235) No. 3 — No. 5:*** ***(B235) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **4**.	Replace the actuator. <Ref. to AC-98, REMOVAL, Air Mix Door Actuator.>
4	**CHECK HARNESS BETWEEN A/C CONTROL PANEL AND AIR MIX DOOR ACTUATOR.** 1) Disconnect the A/C control panel connector. 2) Measure the resistance between A/C control panel and air mix door actuator connector. ***Connector & terminal*** ***Without left/right independent air conditioning function*** ***(B239) No. 1 — (i88) No. 28:*** ***(B239) No. 2 — (i88) No. 27:*** ***(B239) No. 5 — (i88) No. 26:*** ***(B239) No. 6 — (i88) No. 25:*** ***With left/right independent air conditioning function*** ***(B235) No. 1 — (i88) No. 24:*** ***(B235) No. 2 — (i88) No. 23:*** ***(B235) No. 5 — (i88) No. 22:*** ***(B235) No. 6 — (i88) No. 21:***	Is there continuity?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Repair or replace the open circuit of harness.

J: DTC B14E2 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT SHORT-CIRCUIT (DRIVER'S SEAT)

DTC DETECTING CONDITION:
Air mix door actuator stepping motor circuit is shorted.
TROUBLE SYMPTOM:
Temperature cannot be adjusted.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

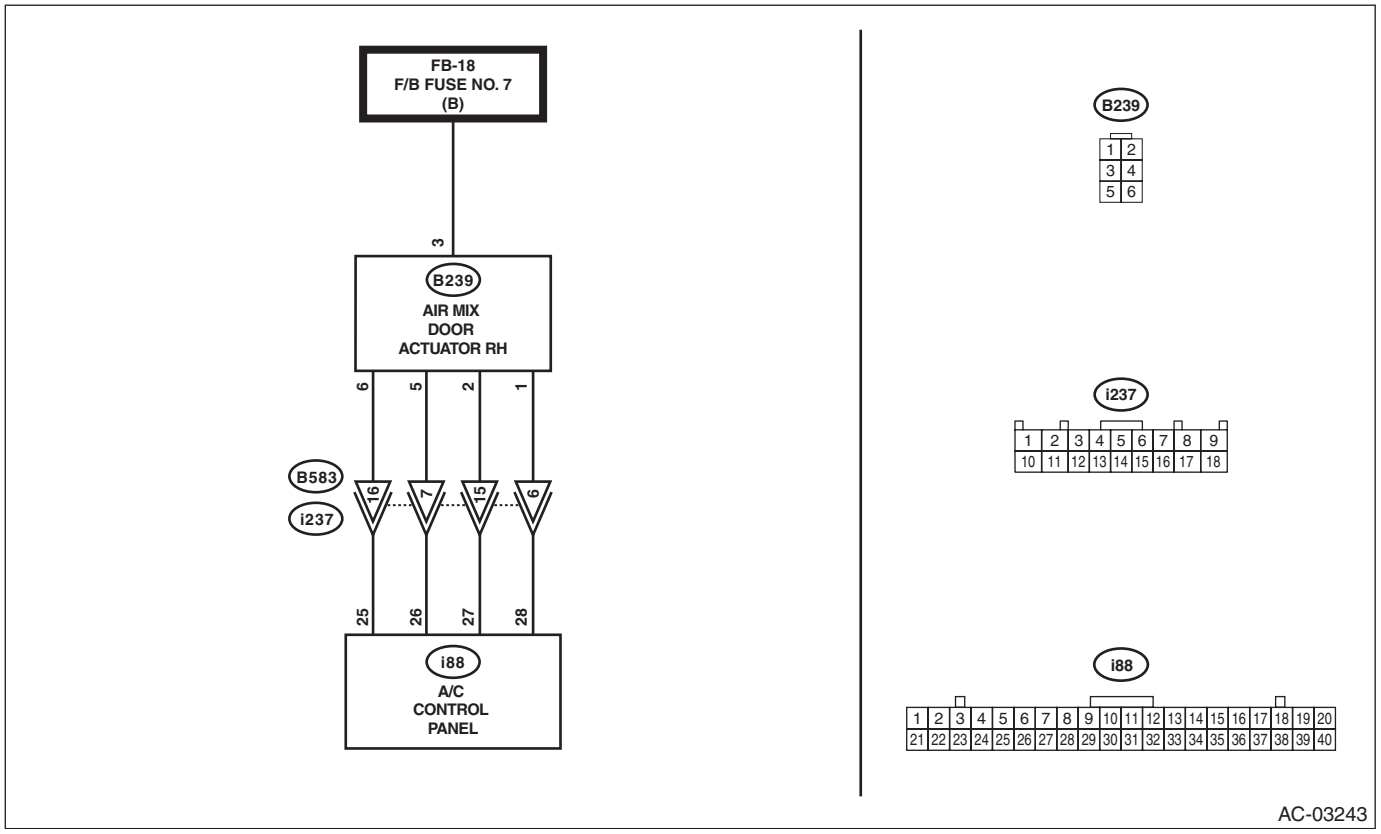


Step		Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14E2 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK POWER SUPPLY OF AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the air mix door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the air mix door actuator connector terminal and chassis ground. ***Connector & terminal*** ***Without left/right independent air conditioning function*** ***(B239) No. 3 (+) — Chassis ground (–):*** ***With left/right independent air conditioning function*** ***(B235) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **3**.	Check the DC power supply circuit.

	Step	Check	Yes	No
3	**CHECK AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between air mix door actuator terminals using a tester. ***Connector & terminal*** ***Without left/right independent air conditioning function*** ***(B239) No. 3 — No. 1:*** ***(B239) No. 3 — No. 2:*** ***(B239) No. 3 — No. 5:*** ***(B239) No. 3 — No. 6:*** ***With left/right independent air conditioning function*** ***(B235) No. 3 — No. 1:*** ***(B235) No. 3 — No. 2:*** ***(B235) No. 3 — No. 5:*** ***(B235) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **4**.	Replace the actuator. <Ref. to AC-98, REMOVAL, Air Mix Door Actuator.>
4	**CHECK HARNESS BETWEEN A/C CONTROL PANEL AND AIR MIX DOOR ACTUATOR.** 1) Disconnect the A/C control panel connector. 2) Measure the voltage between air mix door actuator connector and chassis ground. ***Connector & terminal*** ***Without left/right independent air conditioning function*** ***(B239) No. 1 (+) — Chassis ground (–):*** ***(B239) No. 2 (+) — Chassis ground (–):*** ***(B239) No. 5 (+) — Chassis ground (–):*** ***(B239) No. 6 (+) — Chassis ground (–):*** ***With left/right independent air conditioning function*** ***(B235) No. 1 (+) — Chassis ground (–):*** ***(B235) No. 2 (+) — Chassis ground (–):*** ***(B235) No. 5 (+) — Chassis ground (–):*** ***(B235) No. 6 (+) — Chassis ground (–):***	Is there any voltage?	Repair or replace the short circuit of the harness.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

K: DTC B14E3 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT WIRE BREAK (PASSENGER'S SEAT)

DTC DETECTING CONDITION:
Air mix door actuator stepping motor circuit is open.
TROUBLE SYMPTOM:
Temperature cannot be adjusted.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

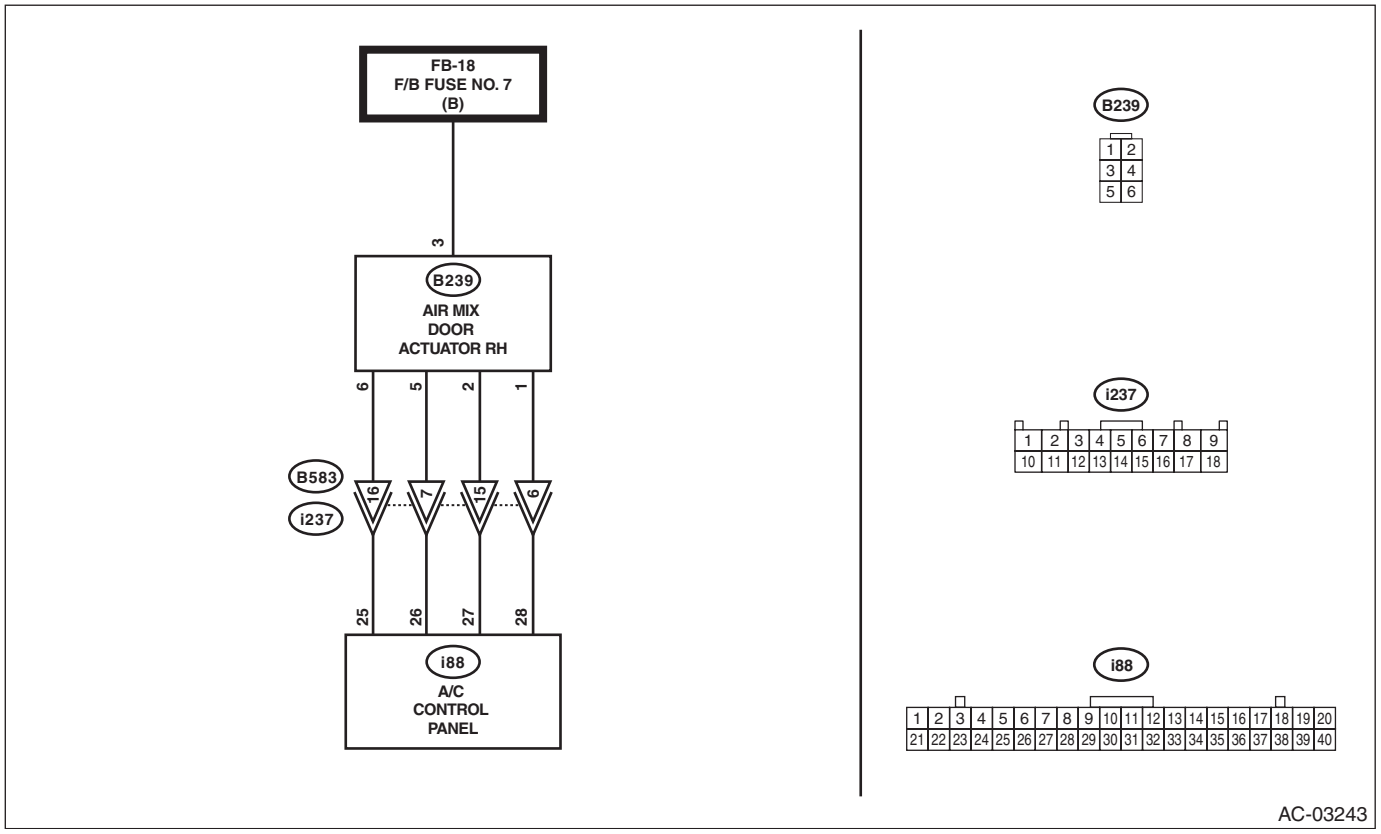


	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14E3 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the air mix door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the air mix door actuator connector terminal and chassis ground. ***Connector & terminal*** ***(B239) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **3**.	Check the DC power supply circuit.

	Step	Check	Yes	No
3	**CHECK AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between air mix door actuator terminals using a tester. ***Connector & terminal*** ***(B239) No. 3 — No. 1:*** ***(B239) No. 3 — No. 2:*** ***(B239) No. 3 — No. 5:*** ***(B239) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **4**.	Replace the actuator. <Ref. to AC-98, REMOVAL, Air Mix Door Actuator.>
4	**CHECK HARNESS BETWEEN A/C CONTROL PANEL AND AIR MIX DOOR ACTUATOR.** 1) Disconnect the A/C control panel connector. 2) Measure the resistance between A/C control panel and air mix door actuator connector. ***Connector & terminal*** ***(B239) No. 1 — (i88) No. 28:*** ***(B239) No. 2 — (i88) No. 27:*** ***(B239) No. 5 — (i88) No. 26:*** ***(B239) No. 6 — (i88) No. 25:***	Is there continuity?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Repair or replace the open circuit of harness.

L: DTC B14E4 AIR MIX DOOR ACTUATOR STEPPING MOTOR CIRCUIT SHORT-CIRCUIT (PASSENGER'S SEAT)

DTC DETECTING CONDITION:
Air mix door actuator stepping motor circuit is shorted.
TROUBLE SYMPTOM:
Temperature cannot be adjusted.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

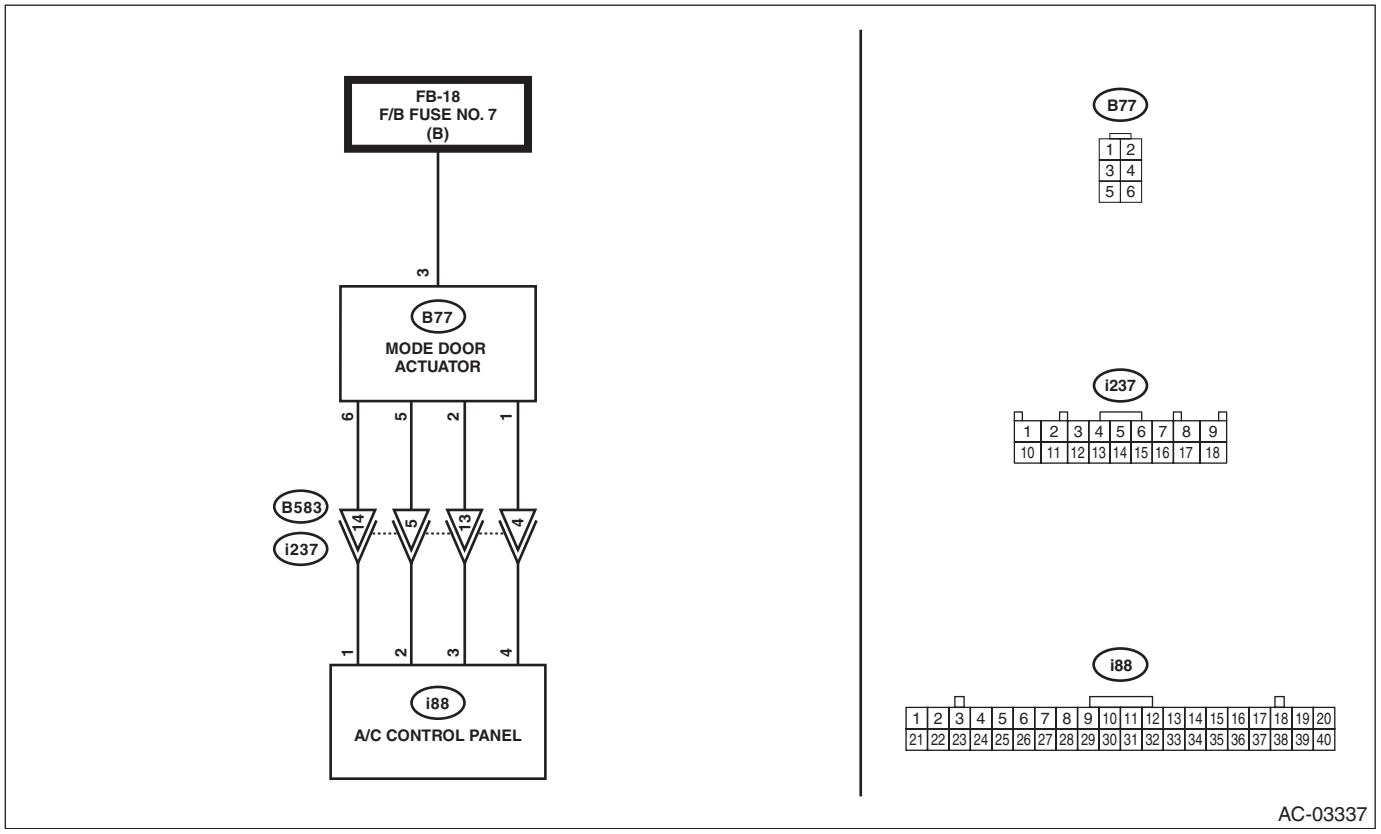


	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14E4 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK POWER SUPPLY OF AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the air mix door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the air mix door actuator connector terminal and chassis ground. ***Connector & terminal*** ***(B239) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **3**.	Check the DC power supply circuit.

	Step	Check	Yes	No
3	**CHECK AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between air mix door actuator terminals using a tester. ***Connector & terminal*** ***(B239) No. 3 — No. 1:*** ***(B239) No. 3 — No. 2:*** ***(B239) No. 3 — No. 5:*** ***(B239) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **4**.	Replace the actuator. <Ref. to AC-98, REMOVAL, Air Mix Door Actuator.>
4	**CHECK HARNESS BETWEEN A/C CONTROL PANEL AND AIR MIX DOOR ACTUATOR.** 1) Disconnect the A/C control panel connector. 2) Measure the voltage between air mix door actuator connector and chassis ground. ***Connector & terminal*** ***(B239) No. 1 (+) — Chassis ground (–):*** ***(B239) No. 2 (+) — Chassis ground (–):*** ***(B239) No. 5 (+) — Chassis ground (–):*** ***(B239) No. 6 (+) — Chassis ground (–):***	Is there any voltage?	Repair or replace the short circuit of the harness.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

M: DTC B14E5 MODE DOOR ACTUATOR STEPPING MOTOR CIRCUIT WIRE BREAK

DTC DETECTING CONDITION:
Mode door actuator stepping motor circuit is open.
TROUBLE SYMPTOM:
Vent does not change.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

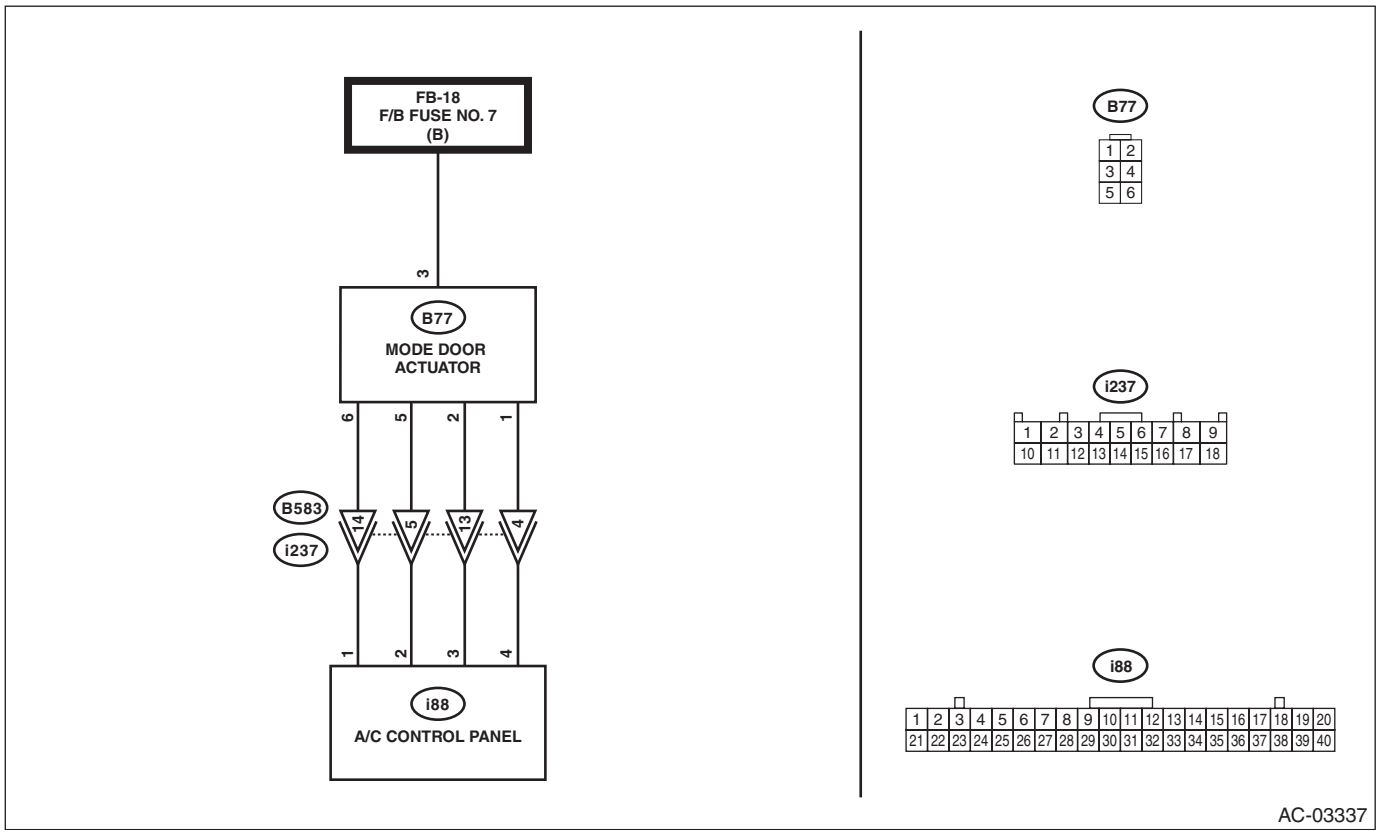


	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14E5 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the mode door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the mode door actuator connector terminal and chassis ground. ***Connector & terminal*** ***(B77) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **3**.	Check the DC power supply circuit.

	Step	Check	Yes	No
3	**CHECK AIR MIX DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between mode door actuator terminals using a tester. ***Connector & terminal*** ***(B77) No. 3 — No. 1:*** ***(B77) No. 3 — No. 2:*** ***(B77) No. 3 — No. 5:*** ***(B77) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **4**.	Replace the actuator. <Ref. to AC-96, REMOVAL, Mode Door Actuator.>
4	**CHECK HARNESS BETWEEN A/C CONTROL PANEL AND MODE DOOR ACTUATOR.** 1) Disconnect the A/C control panel connector. 2) Measure the resistance between A/C control panel and air mix door actuator connector. ***Connector & terminal*** ***(B77) No. 1 — (i88) No. 4:*** ***(B77) No. 2 — (i88) No. 3:*** ***(B77) No. 5 — (i88) No. 2:*** ***(B77) No. 6 — (i88) No. 1:***	Is there continuity?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Repair or replace the open circuit of harness.

N: DTC B14E6 MODE DOOR ACTUATOR STEPPING MOTOR CIRCUIT SHORT-CIRCUIT

DTC DETECTING CONDITION:
Mode door actuator stepping motor circuit is shorted.
TROUBLE SYMPTOM:
Vent does not change.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

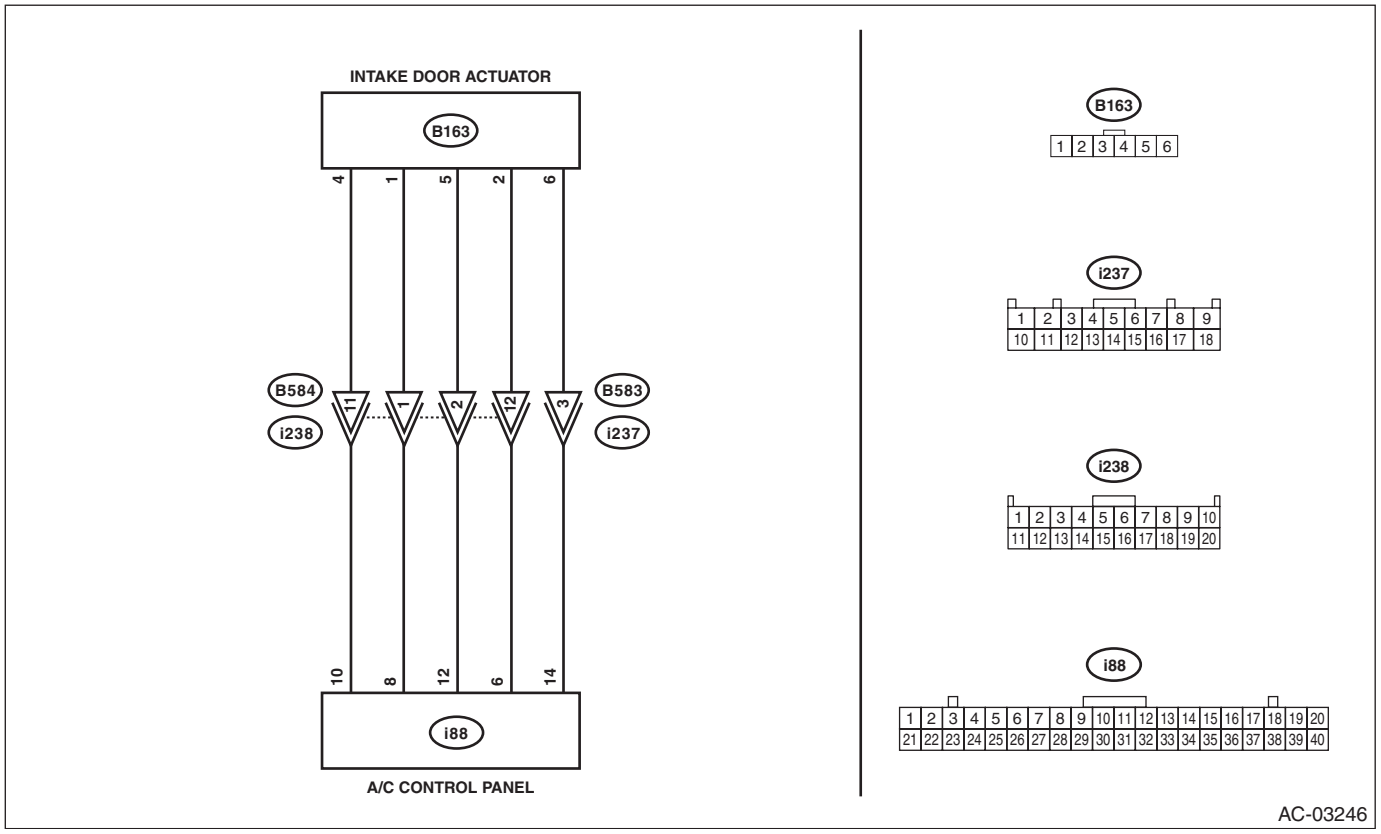


	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14E6 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK POWER SUPPLY FOR MODE DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the mode door actuator connector. 3) Turn the ignition switch to ON. 4) Measure the voltage between the mode door actuator connector terminal and chassis ground. ***Connector & terminal*** ***(B77) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **3**.	Check the DC power supply circuit.

	Step	Check	Yes	No
3	**CHECK MODE DOOR ACTUATOR.** 1) Turn the ignition switch to OFF. 2) Measure the resistance between mode door actuator terminals using a tester. ***Connector & terminal*** ***(B77) No. 3 — No. 1:*** ***(B77) No. 3 — No. 2:*** ***(B77) No. 3 — No. 5:*** ***(B77) No. 3 — No. 6:***	Is the resistance 80 — 100 Ω?	Go to step **4**.	Replace the actuator. <Ref. to AC-96, REMOVAL, Mode Door Actuator.>
4	**CHECK HARNESS BETWEEN A/C CONTROL PANEL AND MODE DOOR ACTUATOR.** 1) Disconnect the A/C control panel connector. 2) Measure the voltage between mode door actuator connector and chassis ground. ***Connector & terminal*** ***(B77) No. 1 (+) — Chassis ground (–):*** ***(B77) No. 2 (+) — Chassis ground (–):*** ***(B77) No. 5 (+) — Chassis ground (–):*** ***(B77) No. 6 (+) — Chassis ground (–):***	Is there any voltage?	Repair or replace the short circuit of the harness.	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>

O: DTC B14E9 INTAKE DOOR ACTUATOR POTENTIOMETER CIRCUIT WIRE BREAK

DTC DETECTING CONDITION:
Intake door actuator potentiometer circuit is open.
TROUBLE SYMPTOM:
FRESH/RECIRC does not operate.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>

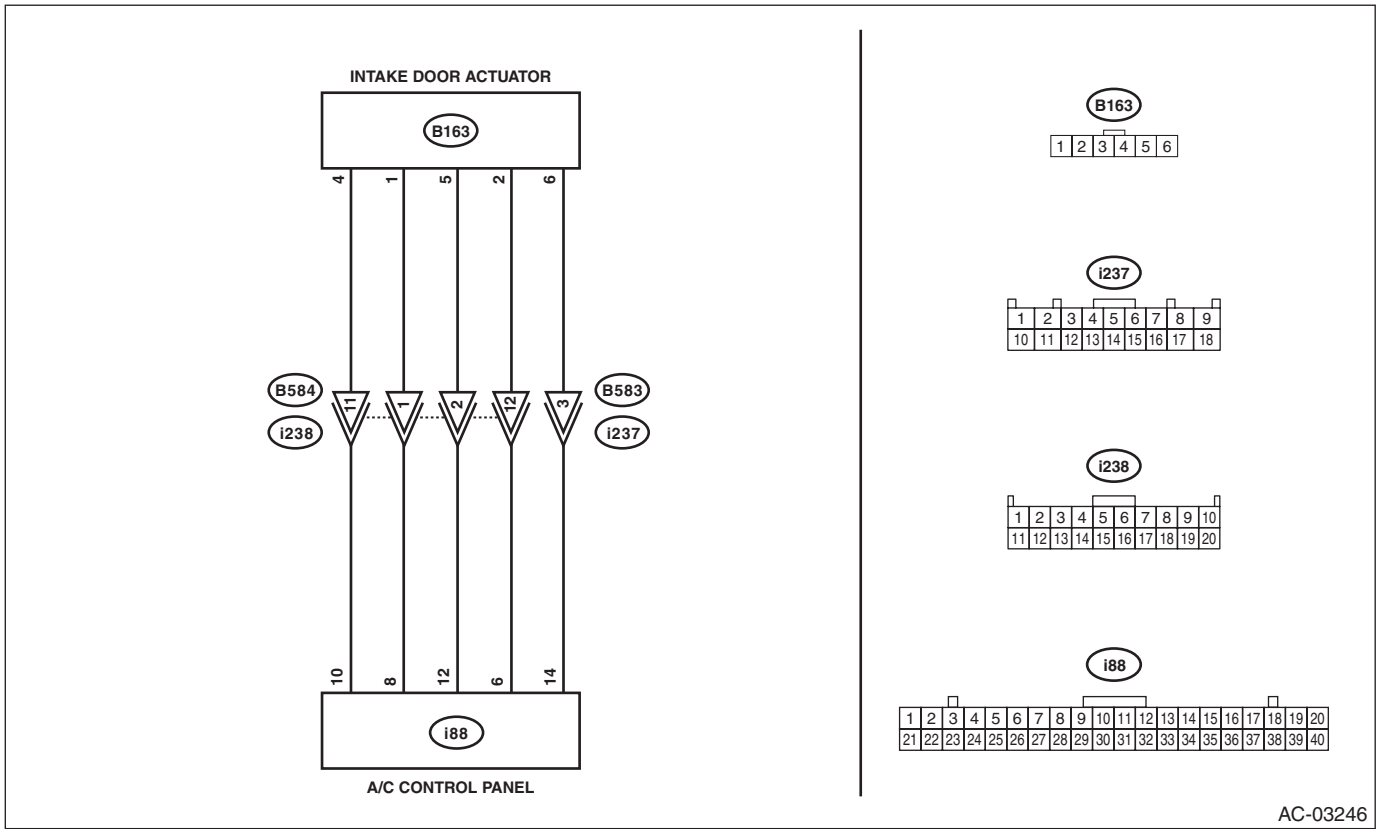


	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14E9 displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B163) No. 4 (+) — No. 6 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B163) No. 1 — (i88) No. 8:*** ***(B163) No. 2 — (i88) No. 6:*** ***(B163) No. 4 — (i88) No. 10:*** ***(B163) No. 5 — (i88) No. 12:*** ***(B163) No. 6 — (i88) No. 14:***	Is there continuity?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK ACTUATOR.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal (B163) No. 5 (+) — No. 6 (–):***	Is the voltage 0.5 — 4.5 V?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Go to step **5**.
5	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal (B163) No. 4 — No. 5:***	Is the resistance less than 1 Ω?	Repair or replace the short circuit of the harness.	Replace the actuator. <Ref. to AC-91, REMOVAL, FRESH/RECIRC Door Actuator.>

P: DTC B14EA INTAKE DOOR ACTUATOR POTENTIOMETER CIRCUIT SHORT-CIRCUIT

DTC DETECTING CONDITION:
Intake door actuator potentiometer circuit is shorted.
TROUBLE SYMPTOM:
FRESH/RECIRC does not operate.
WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14EA displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK ACTUATOR.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B163) No. 4 (+) — No. 6 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(B163) No. 4 — (i88) No. 10:*** ***(B163) No. 5 — (i88) No. 12:*** ***(B163) No. 6 — (i88) No. 14:***	Is there continuity?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK ACTUATOR.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(B163) No. 5 (+) — No. 6 (–):***	Is the voltage 0.5 — 4.5 V?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Go to step **5**.
5	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(B163) No. 5 — No. 6:***	Is the resistance less than 1 Ω?	Repair or replace the short circuit of the harness.	Replace the actuator. <Ref. to AC-91, REMOVAL, FRESH/RECIRC Door Actuator.>

Q: DTC B14EB INTAKE DOOR ACTUATOR LOCK

DTC DETECTING CONDITION:

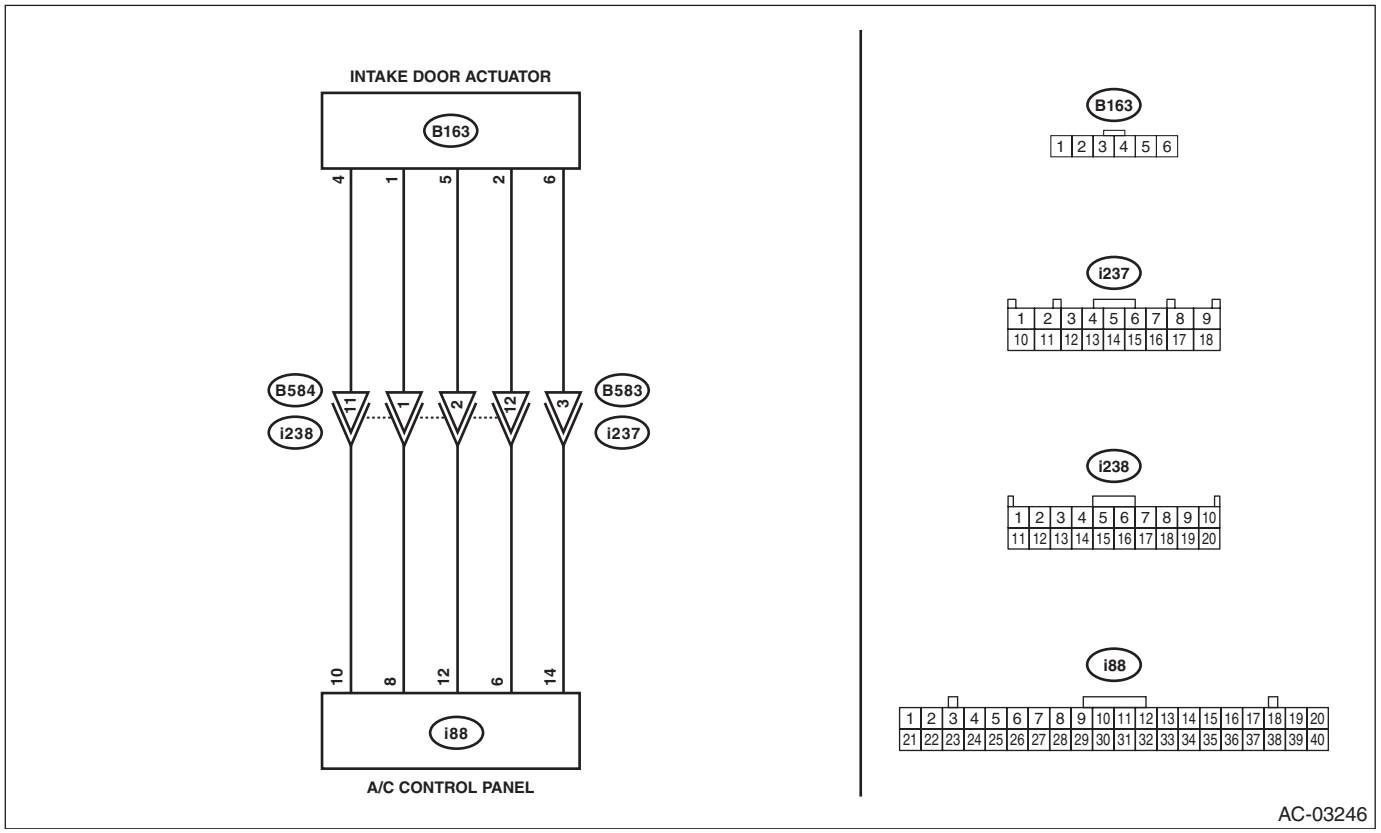
- Intake door actuator is locked.
- The potentiometer value of the actuator does not change.

TROUBLE SYMPTOM:

FRESH/RECIRC does not operate.

WIRING DIAGRAM:

Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



	Step	Check	Yes	No
1	**CHECK CONNECTOR.** 1) Check the condition of connector connection. 2) Read the DTC using Subaru Select Monitor.	Is B14EB displayed?	Go to step **2**.	Repair the poor contact of connector.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, change the setting of “Fresh/Rec Air Dr Act Trgt Open Angle” from Air Conditioning Diagnosis and perform the active test**.**	Did the actuator move to the specified target opening angle?	Intake door actuator circuit is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to ON. 2) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i176) No. 4 (+) — No. 6 (–):***	Is the voltage 4.5 — 5.0 V?	Go to step **4**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
4	**CHECK HARNESS.** 1) Disconnect the connector from the A/C control panel. 2) Using a tester, check continuity between terminals. ***Connector & terminal*** ***(i163) No. 1 — (i88) No. 8:*** ***(i163) No. 2 — (i88) No. 6:*** ***(i163) No. 4 — (i88) No. 10:*** ***(i163) No. 5 — (i88) No. 12:*** ***(i163) No. 6 — (i88) No. 14:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK INTAKE DOOR ACTUATOR.** Check the intake door actuator parts.	Is the actuator normal?	Replace the A/C control panel. <Ref. to AC-50, REMOVAL, Control Panel.>	Replace the actuator. <Ref. to AC-91, REMOVAL, FRESH/RECIRC Door Actuator.>

R: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

Detected when CAN line abnormality is detected.

NOTE:
Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

S: DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”

Detected when CAN data is not received from engine control module (ECM).

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

T: DTC U0101 LOST COMMUNICATION WITH TCM

Detected when CAN data is not received from TCM.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

U: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

Detected when CAN data is not received from VDC.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

V: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

This is detected when CAN signal is not received from BIU.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

W: DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE

This is detected when CAN signal is not received from meter.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

X: DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”

This is detected when CAN data from engine control module (ECM) is abnormal.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

Y: DTC U0402 INVALID DATA RECEIVED FROM TCM

This is detected when CAN data from TCM is abnormal.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

Z: DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE

This is detected when CAN data from VDC is abnormal.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

AA:DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE

This is detected when CAN data from BIU is abnormal.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

AB:DTC U0423 INVALID DATA RECEIVED FROM INSTRUMENT PANEL CLUSTER CONTROL MODULE

This is detected when CAN data from meter is abnormal.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

AIRBAG SYSTEM

AB

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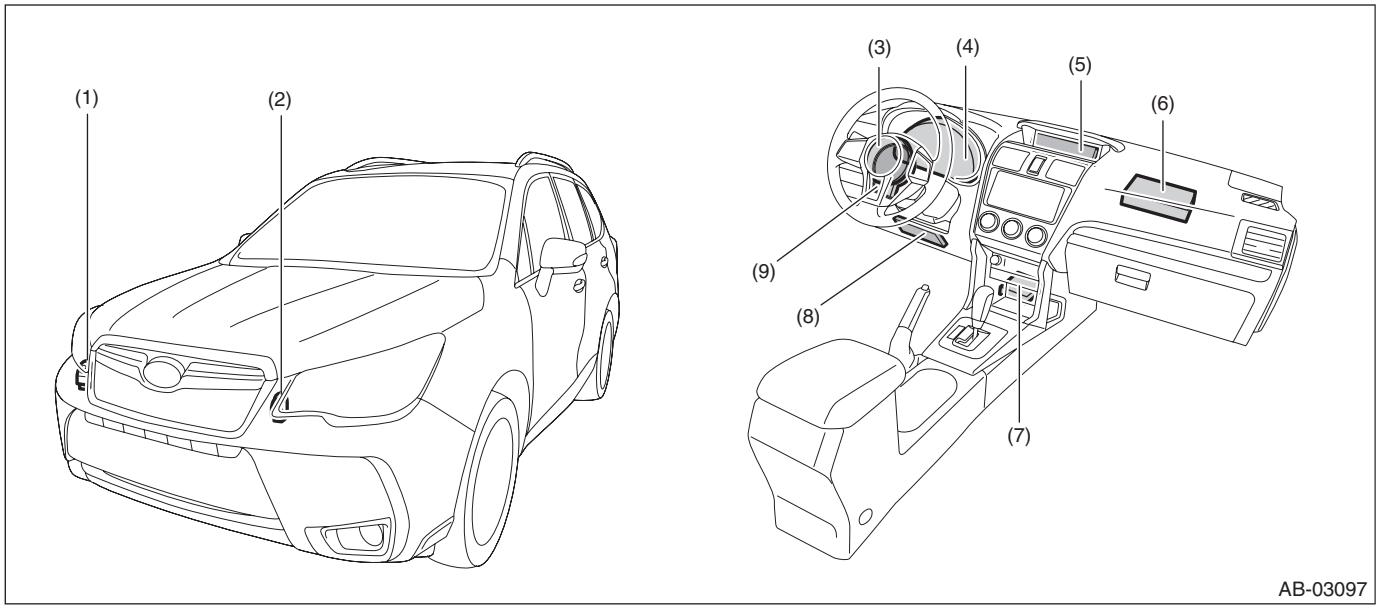
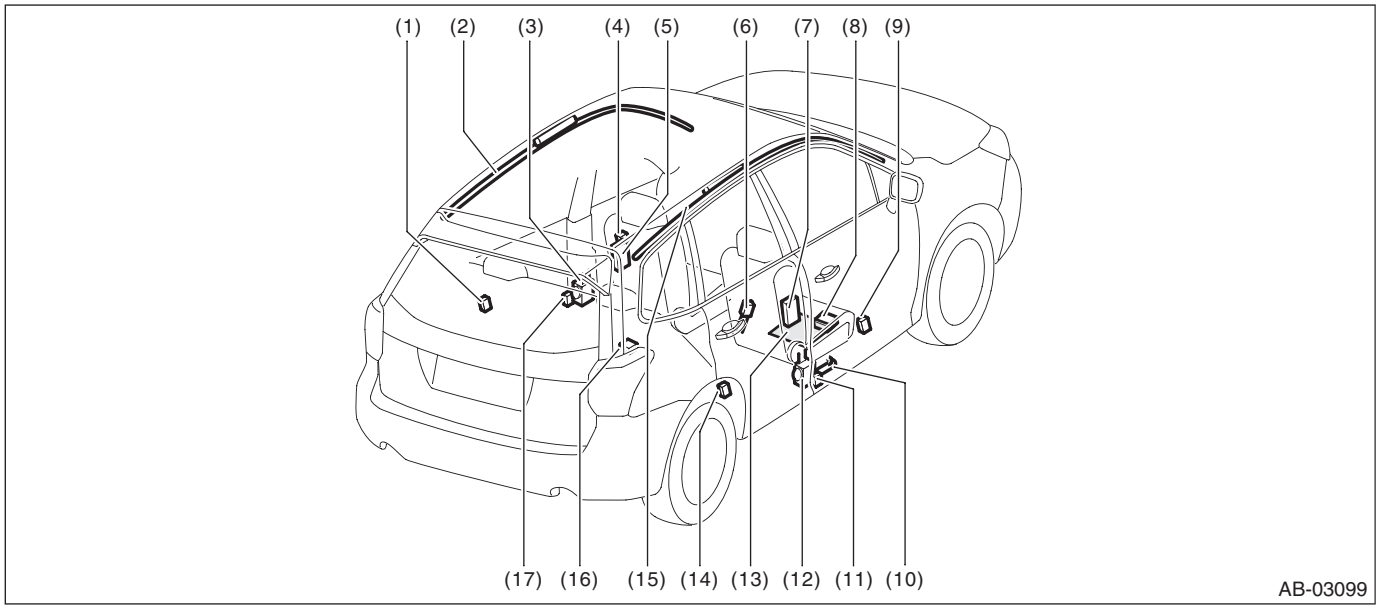
1. General Description

A: COMPONENT



(1)	Front sub sensor RH	(4)	Airbag warning light (in combination meter)	(7)	Airbag control module
(2)	Front sub sensor LH	(5)	Airbag ON/OFF indicator light (MFD)	(8)	Knee airbag module
(3)	Driver's airbag module	(6)	Passenger's airbag module	(9)	Steering roll connector



(1)	Curtain airbag sensor LH	(7)	Side airbag module RH	(13)	Occupant detection sensor
(2)	Curtain airbag module LH	(8)	Occupant detection control module	(14)	Curtain airbag sensor RH
(3)	Seat belt pretensioner LH	(9)	Front door impact sensor RH	(15)	Curtain airbag module RH
(4)	Front door impact sensor LH	(10)	Lap seat belt pretensioner RH	(16)	Satellite safing sensor
(5)	Side airbag module LH	(11)	Side airbag sensor RH	(17)	Side airbag sensor LH
(6)	Buckle switch RH	(12)	Seat belt pretensioner RH		

13.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

Detected when CAN line abnormality is detected.

NOTE:
Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

B: DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”

Detected when CAN data from the engine control module (ECM) does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

C: DTC U0101 LOST COMMUNICATION WITH TCM

Detected when CAN data from TCM does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

D: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

Detected when CAN data from VDC does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

E: DTC U0131 LOST COMMUNICATION WITH POWER STEERING CONTROL MODULE

Detected when CAN data is not received from electric power steering CM.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

F: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

Detected when CAN data is not received from body integrated unit.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

G: DTC U0151 LOST COMMUNICATION WITH RESTRAINTS CONTROL MODULE

Detected when CAN data is not received from airbag CM.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

H: DTC U0164 LOST COMMUNICATION WITH HVAC CONTROL MODULE

Detected when CAN data is not received from A/C CM.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

I: DTC U0327 SOFTWARE INCOMPATIBILITY WITH VEHICLE SECURITY CONTROL MODULE

Detected when CAN data is not received from keyless access CM.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

J: DTC U1201 CAN-HS COUNTER ABNORMAL

Detected when CAN data is abnormal.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

K: DTC U1235 LOST COMMUNICATION WITH EyeSight

Detected when CAN data from the stereo camera does not arrive.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

L: DTC U1433 INVALID DATA RECEIVED FROM EyeSight

Detected when the microcomputer of the stereo camera froze.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

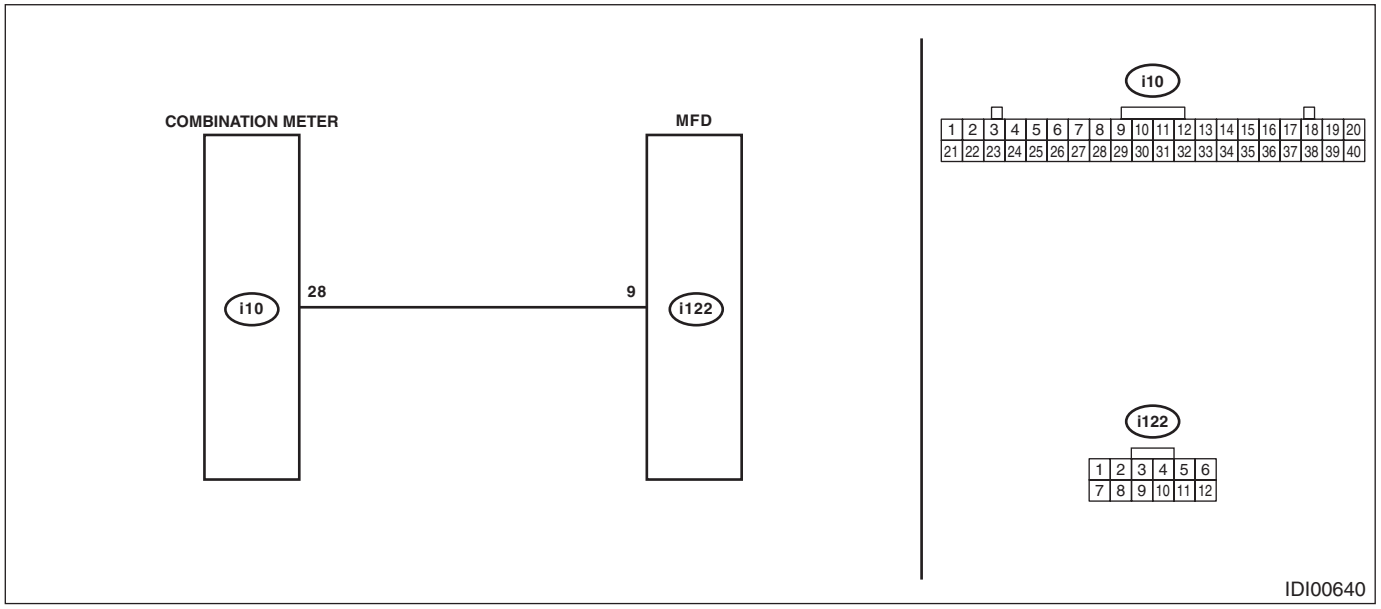
M: DTC U1650 INVALID DATA RECEIVED FROM METER (UART)

DTC DETECTING CONDITION:
There is an abnormality in UART data from combination meter.
TROUBLE SYMPTOM:
LCD is not displayed.

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Read the DTC of the body integrated unit and the LAN system using the Subaru Select Monitor. <Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).> <Ref. to BC(diag)-9, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK CONNECTOR.** 1) Disconnect the MFD connector and meter connector. 2) Connect the disconnected connectors. 3) Read the DTC of the MFD using the Subaru Select Monitor.	Is DTC U1650 a current malfunction?	Go to step **3**.	There was poor contact of connector.
3	**CHECK COMBINATION METER.** 1) Replace the combination meter. <Ref. to IDI-18, Combination Meter.> 2) Read the DTC of the MFD using the Subaru Select Monitor.	Is DTC U1650 a current malfunction?	Replace the MFD. <Ref. to IDI-25, Multi-function Display (MFD).>	There was something wrong with the meter.

N: DTC U1651 LOST COMMUNICATION WITH METER (UART)

DTC DETECTING CONDITION:
UART data from combination meter is not received.
TROUBLE SYMPTOM:
LCD is not displayed.
WIRING DIAGRAM:
Multi-function display (MFD) system <Ref. to WI-288, WIRING DIAGRAM, Multi-function Display (MFD) System.>

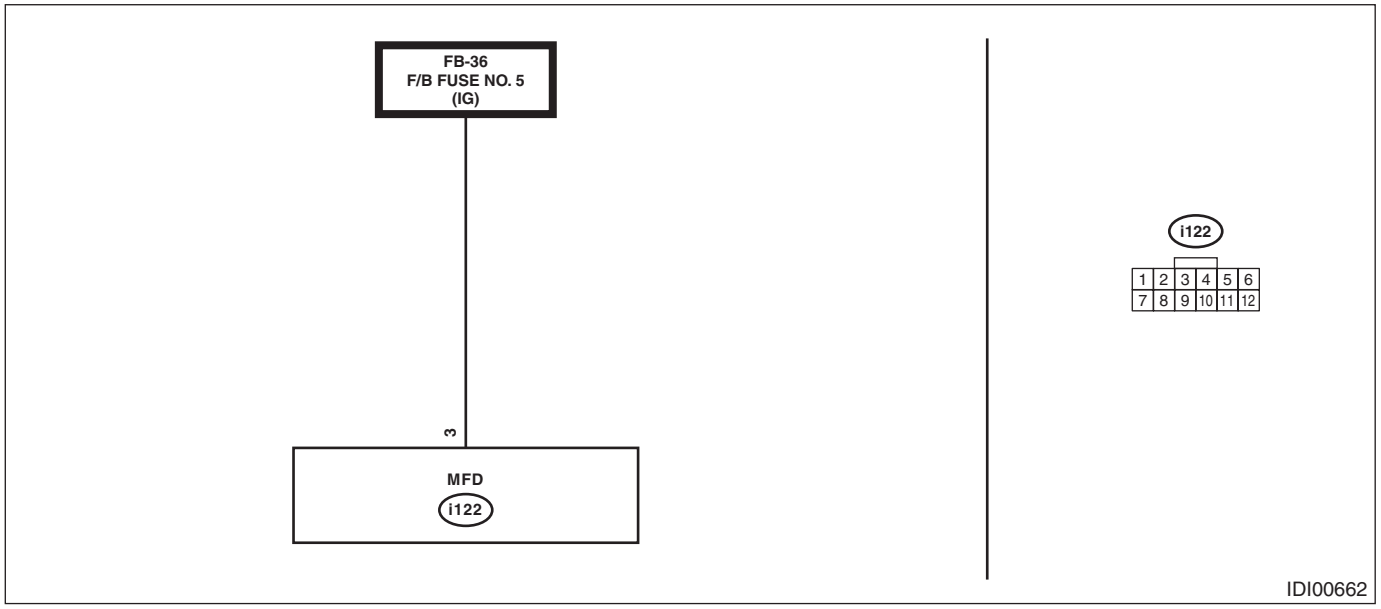


	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Read the DTC of the LAN system using the Subaru Select Monitor. <Ref. to LAN(diag)-38, OPERATION, Read Diagnostic Trouble Code (DTC).>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK CONNECTOR.** 1) Disconnect the MFD connector and meter connector. 2) Connect the disconnected connectors. 3) Read the DTC of the MFD using the Subaru Select Monitor.	Is DTC U1651 a current malfunction?	Go to step **3**.	There was poor contact of connector.
3	**CHECK HARNESS.** 1) Disconnect the MFD connector and meter connector. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i10) No. 28 — (i122) No. 9:***	Is the resistance 10 Ω or less?	Go to step **4**.	Repair the open circuit of harness or replace harness.
4	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i122) No. 9 — Chassis ground:***	Is the resistance 10 Ω or less?	Repair the short circuit of harness or replace harness.	Go to step **5**.
5	**CHECK COMBINATION METER.** 1) Replace the combination meter. <Ref. to IDI-18, Combination Meter.> 2) Read the DTC of the MFD using the Subaru Select Monitor.	Is DTC U1651 a current malfunction?	Go to step **6**.	There was something wrong with the meter.

	Step	Check	Yes	No
6	**CHECK COMBINATION METER.** 1) Replace the current combination meter with the original combination meter. 2) Replace the MFD. <Ref. to IDI-25, Multi-function Display (MFD).> 3) Read the DTC of the MFD using the Subaru Select Monitor.	Is DTC U1651 a current malfunction?	Replace the meter. <Ref. to IDI-18, Combination Meter.>	There was an abnormality in MFD.

O: DTC B2220 BREAK THE WIRE OF IGN

DTC DETECTING CONDITION:
There was voltage malfunction caused by poor contact of IGN power supply circuits.
TROUBLE SYMPTOM:
Airbag indicator does not illuminate.
WIRING DIAGRAM:
Multi-function display (MFD) system <Ref. to WI-288, WIRING DIAGRAM, Multi-function Display (MFD) System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of the MFD using the Subaru Select Monitor.	Is DTC B2220 a current malfunction?	Go to step **2**.	Go to step **5**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF. 2) Disconnect the MFD connector and reconnect it. 3) Turn the ignition switch to ON. 4) Read the DTC relating the MFD using the Subaru Select Monitor.	Is DTC B2220 a current malfunction?	Go to step **3**.	Go to step **5**.
3	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the defective fuse.
4	**CHECK HARNESS.** 1) Disconnect the MFD connector. 2) Turn the ignition switch to ON. 3) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i122) No. 3 (+) — Chassis ground (–):***	Is the voltage 8.5 — 16.5 V?	Replace the MFD. <Ref. to IDI-25, Multi-function Display (MFD).>	Repair the harness between MFD and fuse.
5	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect the MFD connector.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

P: DTC B2222 SYSTEM MICROCOMPUTER FAIL

DTC DETECTING CONDITION:
When the microcomputer froze.
TROUBLE SYMPTOM:
MFD does not operate.

NOTE:
Reset the MFD. If it does not return to the normal operation, replace the MFD. <Ref. to IDI-25, Multi-function Display (MFD).>

Q: DTC B2223 GERDA FAIL

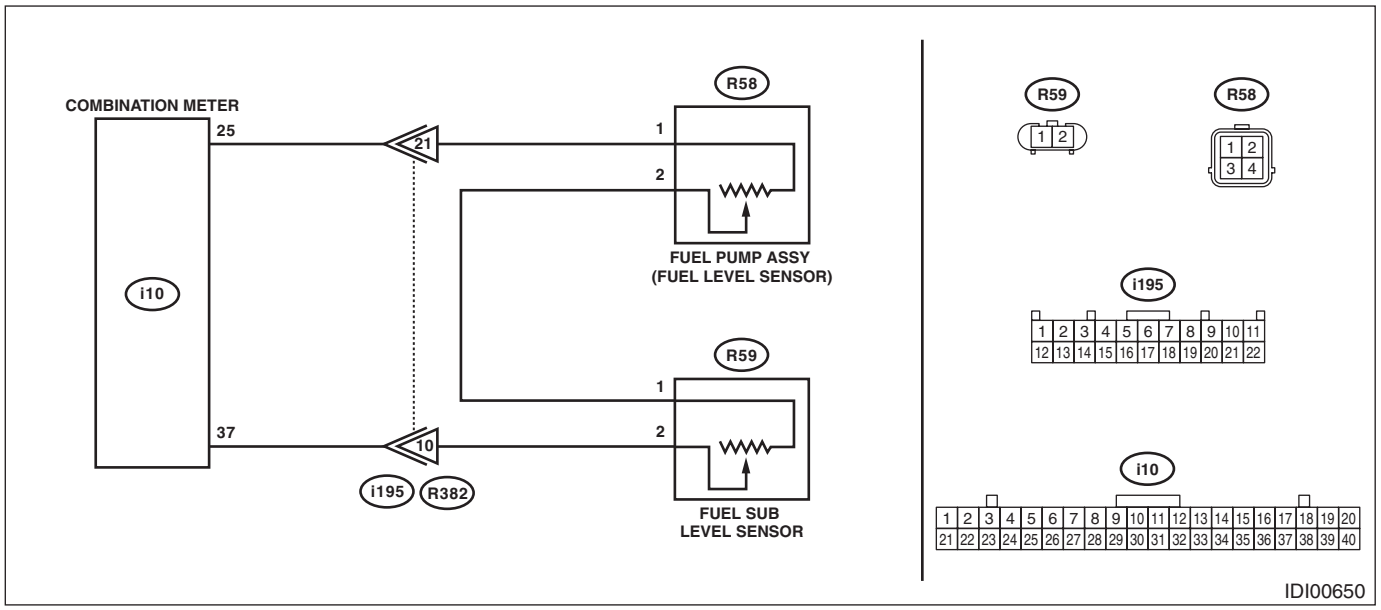
DTC DETECTING CONDITION:
When the system microcomputer can not send/receive the data with the image microcomputer normally.
TROUBLE SYMPTOM:
There is no display on the TFT. Operation is normal.

NOTE:
Replace the MFD. <Ref. to IDI-25, Multi-function Display (MFD).>

R: DTC B1500 FUEL SENDER OPEN/SHORT-CIRCUIT DETECTION

DTC DETECTING CONDITION:
The fuel gauge circuit is open or shorted.
TROUBLE SYMPTOM:
- Defective fuel gauge.
- Fuel level warning light blinks.

WIRING DIAGRAM:
Fuel gauge system <Ref. to WI-252, WIRING DIAGRAM, Fuel Gauge System.>

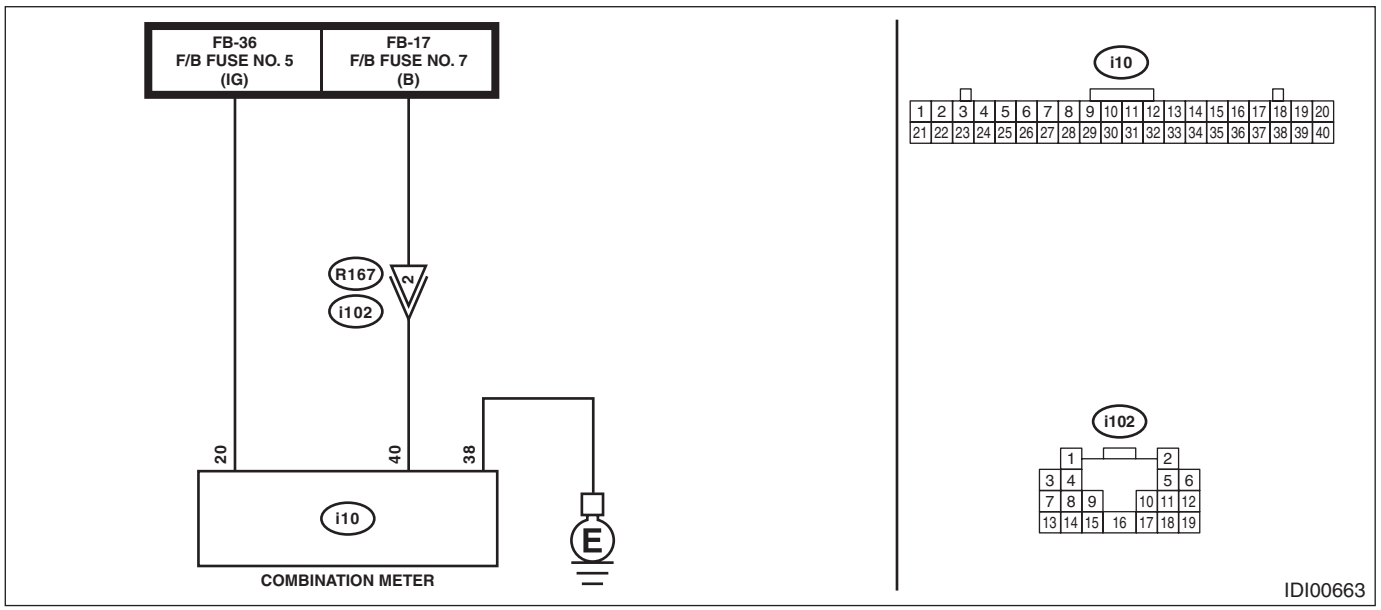


Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of the meter using the Subaru Select Monitor.	Is DTC B1500 a current malfunction?	Go to step **2**.	Go to step **7**.
2	**CHECK COMBINATION METER.** 1) Check the operation of combination meter using Subaru Select Monitor. 2) From the {System Operation Check Mode}, select the «Fuel Meter Operation» and «Remaining fuel warning».	Is the operation of combination meter OK?	Go to step **3**.	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the meter connector and the fuel sub level sensor connector and the fuel level sensor connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i10) No. 25 — (R58) No. 1:*** ***(i10) No. 37 — (R59) No. 2:***	Is the resistance 10 Ω or less?	Go to step **4**.	Repair the open circuit of harness or replace harness.
4	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i10) No. 25 — Chassis ground:*** ***(i10) No. 37 — Chassis ground:***	Is the resistance 10 Ω or less?	Repair the short circuit of harness or replace harness.	Go to step **5**.
5	**CHECK FUEL SUB LEVEL SENSOR.** Check the fuel sub level sensor as a single part. <Ref. to FU(H4DO)-145, INSPECTION, Fuel Sub Level Sensor.>	Is the sensor normal?	Go to step **6**.	Replace the sensor.

	Step	Check	Yes	No
6	**CHECK FUEL LEVEL SENSOR.** Check the fuel level sensor as a single part. <Ref. to FU(H4DO)-138, INSPECTION, Fuel Level Sensor.>	Is the sensor normal?	Go to step **7**.	Replace the sensor.
7	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect connectors.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.
8	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the «Fuel sensing value» from {Current Data Display & Save}.	Does the data display 10 — 570 Ω?	System is normal.	Replace the combination meter. <Ref. to IDI-18, Combination Meter.>

S: DTC B1501 POWER SUPPLY SYSTEM ERROR DETECTION

DTC DETECTING CONDITION:
Open or short in combination meter power supply circuit
TROUBLE SYMPTOM:
Defective operation of combination meter
WIRING DIAGRAM:
Combination meter system <Ref. to WI-110, WIRING DIAGRAM, Combination Meter System.>

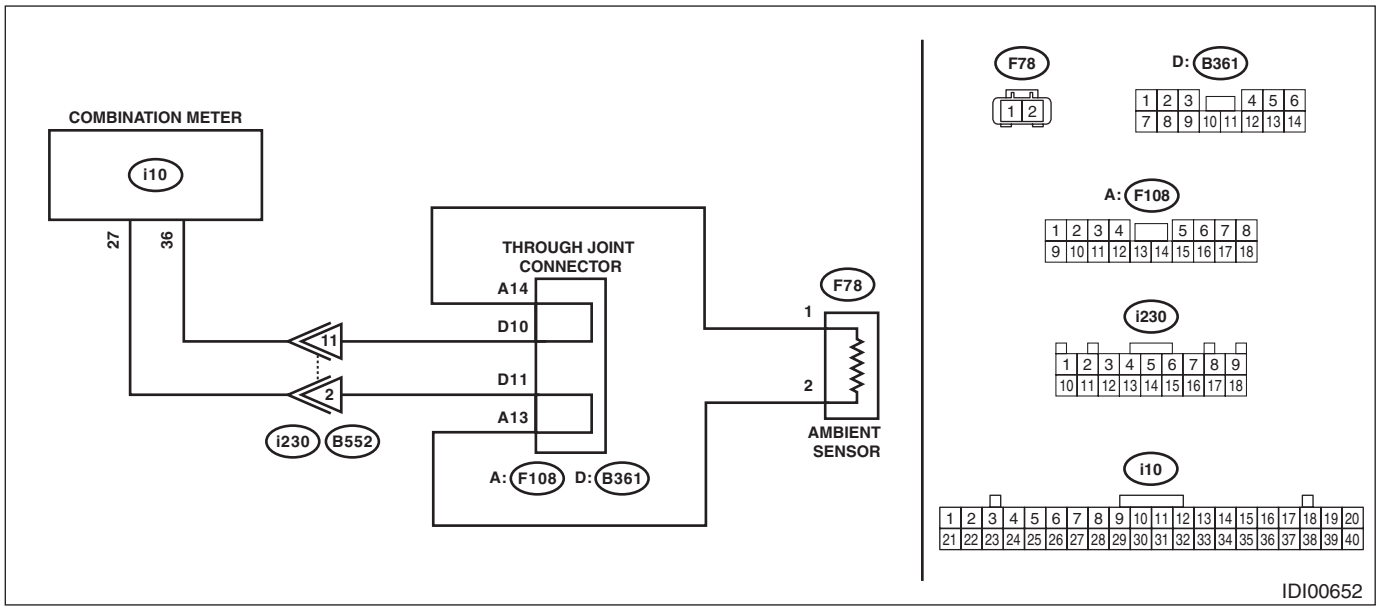


Step		Check	Yes	No
1	**CHECK POWER SUPPLY CIRCUIT.** Turn the ignition switch to ON, and confirm that the illumination of combination meter lights.	Does the illumination light?	Go to step **2**.	Go to step **3**.
2	**CHECK DTC.** Read the DTC of the meter using the Subaru Select Monitor.	Is DTC B1501 a current malfunction?	Go to step **3**.	Go to step **5**.
3	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the defective fuse.
4	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the meter connector. 3) Using the tester, measure the voltage between terminals. ***Connector & terminal*** ***(i10) No. 20 (+) — Chassis ground (–):*** ***(i10) No. 40 (+) — Chassis ground (–):***	Is the voltage 8.5 — 16.5 V?	Go to step **5**.	Repair the open circuit of harness or replace harness.
5	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect connectors.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

T: DTC B1507 EXTERNAL AIR TEMPERATURE OPEN/SHORT-CIRCUIT DETECTION

DTC DETECTING CONDITION:
Open or short circuit in ambient sensor.
TROUBLE SYMPTOM:
- Defective ambient temperature display
- Defective air conditioner operation

WIRING DIAGRAM:
Air conditioning system <Ref. to WI-67, WIRING DIAGRAM, Air Conditioning System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of the meter using the Subaru Select Monitor.	Is DTC B1507 a current malfunction?	Go to step **2**.	Go to step **6**.
2	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the «External air temperature sensing value» from {Current Data Display & Save}.	Is data displayed?	System is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the meter connector and ambient sensor connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i10) No. 36 — (F78) No. 1:*** ***(i10) No. 27 — (F78) No. 2:***	Is the resistance 10 Ω or less?	Go to step **4**.	Repair the open circuit of harness or replace harness.
4	**CHECK HARNESS.** Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(i10) No. 36 — Chassis ground:*** ***(i10) No. 27 — Chassis ground:***	Is the resistance 10 Ω or less?	Repair the short circuit of harness or replace harness.	Go to step **5**.
5	**CHECK AMBIENT SENSOR.** Perform the inspection of ambient sensor unit. <Ref. to AC-81, INSPECTION, Ambient Sensor.>	Is the sensor normal?	Go to step **6**.	Replace the sensor.

Step		Check	Yes	No
6	**CHECK CONNECTOR.** 1) Turn the ignition switch to OFF. 2) Disconnect connectors.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	A temporary change of voltage occurred.

SEATS

SE

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13.Diagnostics with Phenomenon

A: INSPECTION

Refer to “Diagnostics with Phenomenon” of “EyeSight (DIAGNOSTICS)” section. <Ref. to ES(diag)-63, Diagnostics with Phenomenon.>

EyeSight (DIAGNOSTICS)

ES(diag)

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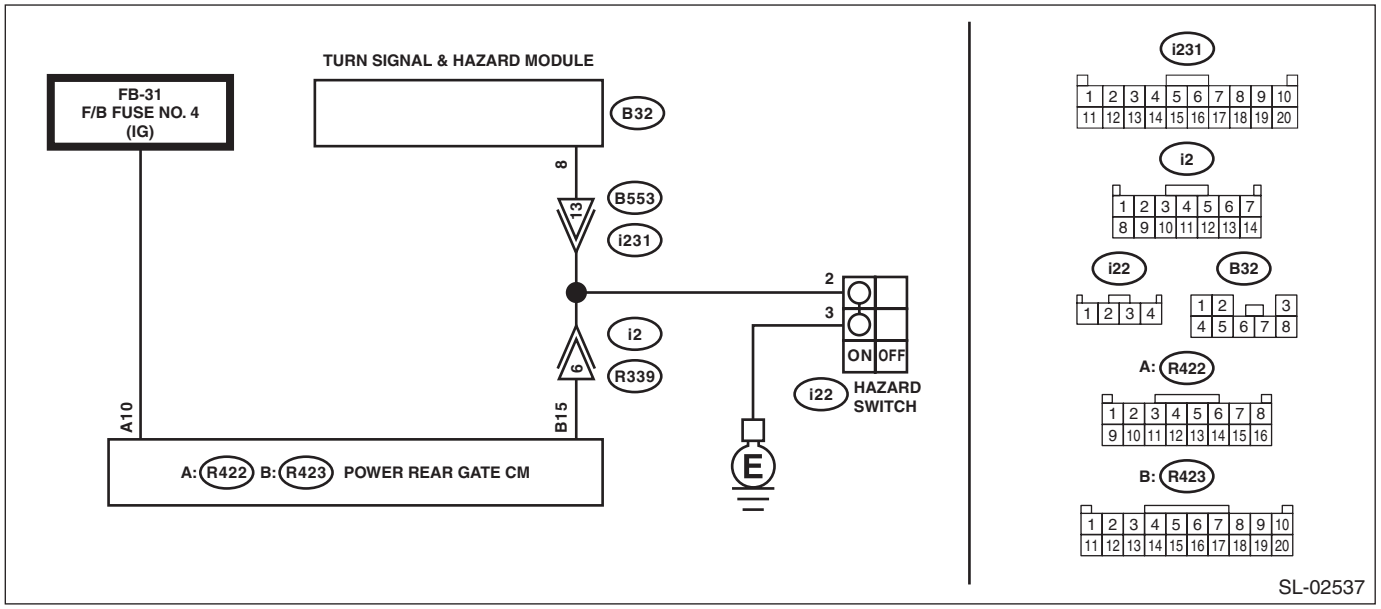
13.Diagnostics with Phenomenon

A: INSPECTION

1. TURN HAZARD LIGHTS DO NOT ILLUMINATE

WIRING DIAGRAM:

Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



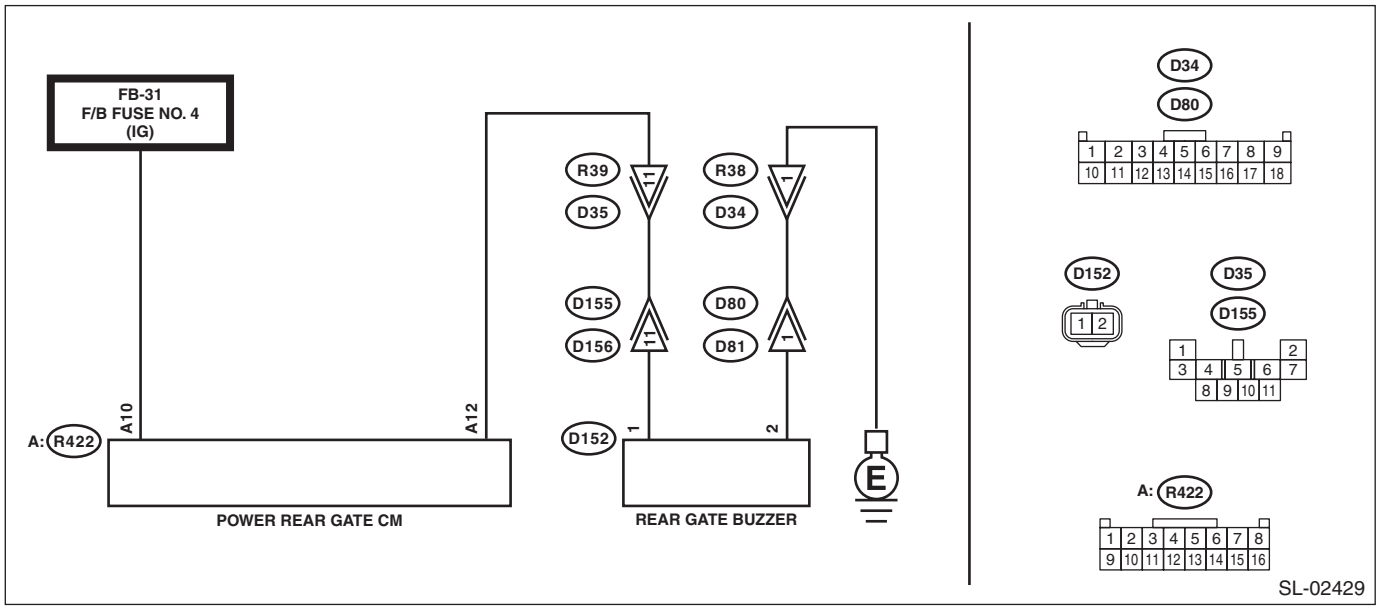
	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** Check «IGN SW» using the Subaru Select Monitor.	Does the data value change according to the ignition switch ON/OFF? (ON ←→ OFF)	Go to step **4**.	Go to step **2**.
2	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **3**.	Replace the defective fuse. When the fuse is blown immediately, repair the short circuit.
3	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 10 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more when the ignition switch is ON?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK CURRENT DATA.** 1) Check «HAZARD» using the Subaru Select Monitor. 2) Operate the power rear gate to open.	Is the change of ON ←→ OFF detected?	Go to step **5**.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>
5	**CHECK HAZARD SWITCH.** Turn the hazard switch to ON.	Does the hazard light blink?	Go to step **6**.	Replace the turn hazard CM. <Ref. to LI-41, REMOVAL, Turn Signal Light & Hazard Light Unit.>

	Step	Check	Yes	No
6	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the turn hazard CM connector. 3) Disconnect the hazard switch connector. 4) Measure the resistance between PRG CM connector and turn hazard CM and hazard switch connector. ***Connector & terminal*** ***(R423) No. 15 — (B32) No. 8:*** ***(B32) No. 8 — (i22) No. 2:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the turn hazard CM connector. 3) Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 15 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the turn hazard CM connector. 3) Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 15 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK CONNECTOR.** Check each connector.	Is there poor contact of connector?	Repair or replace the connector.	A temporary change of voltage occurred.

2. THE BUZZER DOES NOT SOUND

WIRING DIAGRAM:

Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



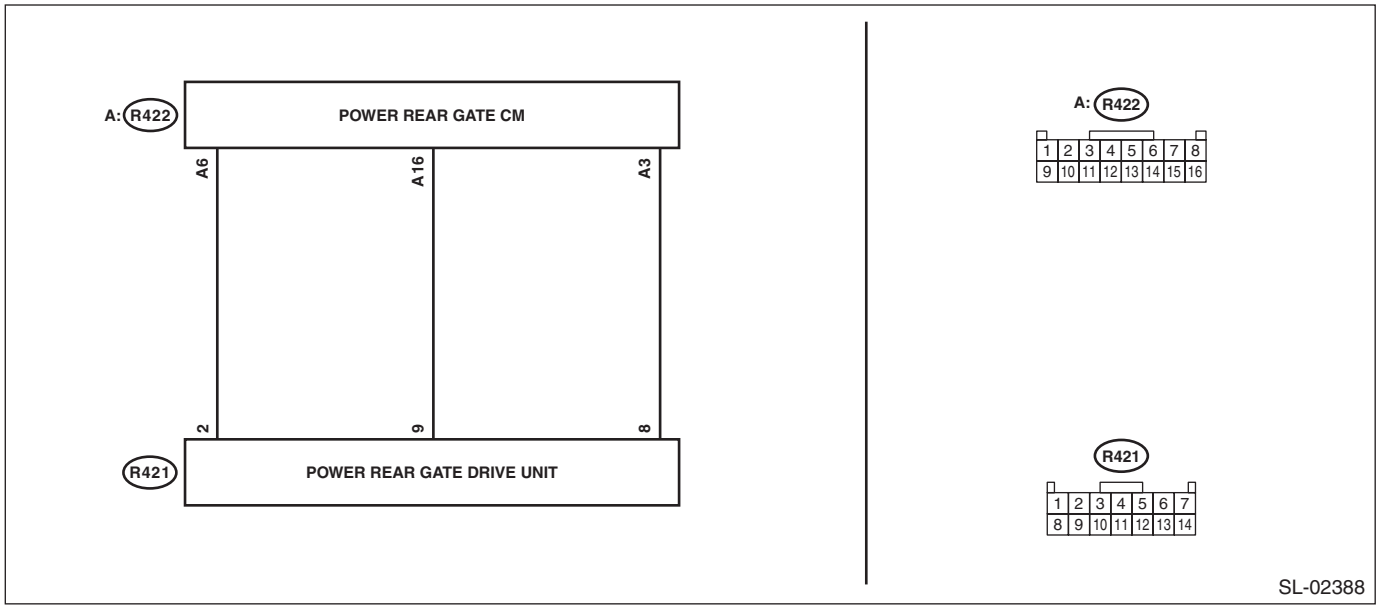
	Step	Check	Yes	No
1	**CHECK CURRENT DATA.** Check «IGN SW» using the Subaru Select Monitor.	Does the data value change according to the ignition switch ON/OFF? (ON ←→ OFF)	Go to step **4**.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK FUSE.** 1) Turn the ignition switch to OFF. 2) Check the fuse.	Is the fuse OK?	Go to step **3**.	Replace the defective fuse. When the fuse is blown immediately, repair the short circuit.
3	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 10 (+) — Chassis ground (–):***	Is the voltage 10 V or more and less than 16 V, when the ignition switch is ON?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK FUNCTION.** 1) Turn the ignition switch to OFF. 2) Fully close PRG. 3) Turn the memory height SW to OFF. 4) Press and hold the PRG driver's SW to open PRG. 5) Repeat tapping the PRG driver's SW to reverse PRG three times so that the door free condition can be achieved.	Does the buzzer sound, when PRG operation starts, or when the door free condition is achieved?	If the buzzer sounds when operation starts, the system is normal. If the buzzer sounds when the door free condition is achieved, Go to step **5**.	Go to step **6**.
5	**CHECK CURRENT DATA.** Check «Answer-Back Buzzer Information» using the Subaru Select Monitor.	Is the data value displayed as OFF?	Currently, system is normal. A temporary poor contact may be a possible cause. Therefore, check the harness connector.	Go to step **6**.
6	**CHECK CURRENT DATA.** 1) Check «BUZZER» using the Subaru Select Monitor. 2) Operate PRG to open.	Is the change of ON ←→ OFF detected during the auto-open operation?	Go to step **7**.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>
7	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the buzzer connector. 3) Measure the resistance between PRG CM connector and buzzer connector. ***Connector & terminal*** ***(R422) No. 12 — (D152) No. 1:***	Is the resistance less than 10 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the buzzer connector. 3) Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 12 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **9**.	Repair or replace the short circuit of the harness.
9	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(D152) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **10**.	Repair or replace the open circuit of harness.
10	**CHECK HARNESS.** 1) Connect the PRG CM connector only. 2) Perform step 4 operations. 3) Measure the voltage between the buzzer connector and chassis ground. ***Connector & terminal*** ***(D152) No. 1 (+) — Chassis ground (–):***	Is the following change measured, when PRG operation starts, or when the door free condition is achieved? Voltage: 10.5 V or more, less than 16 V DUTY: 50%	Replace the buzzer. <Ref. to PRG-22, Power Rear Gate Buzzer.>	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

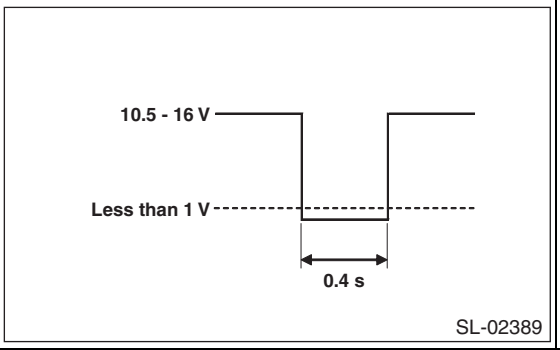
3. HALF-STOP CANNOT BE CANCELLED

WIRING DIAGRAM:

Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



	Step	Check	Yes	No
1	**CHECK OPERATION SW.** Refer to "CHECK PRG DRIVER'S SW INPUT CIRCUIT", "CHECK PRG INNER SW INPUT CIRCUIT", "OPERATION FROM KEYLESS/ KEYLESS ACCESS MOBILE KEY IS NOT POSSIBLE" in "Diagnostics with Phenomenon", and check each operation SW. <Ref. to PRG(diag)-70, CHECK PRG DRIVER'S SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.> <Ref. to PRG(diag)-72, CHECK PRG INNER SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.> <Ref. to PRG(diag)-68, OPERATION FROM KEYLESS/KEYLESS ACCESS MOBILE KEY IS NOT POSSIBLE, INSPECTION, Diagnostics with Phenomenon.>	Is there any fault?	Perform the repair according to each diagnosis.	Go to step **2**.
2	**CHECK CURRENT DATA.** Check «HALF STOP SOL (Cancel)» using the Subaru Select Monitor. **CAUTION:** **ON output for solenoid cancellation requires extremely short time (approx. 0.4 seconds). To check, limit the number of the display items on the Subaru Select Monitor to three. When the display items are too many, changes in the output signals will not be reflected.**	Is the following output displayed, when PRG close-operation is performed with the operation SW? "OFF → ON → OFF"	Go to step **3**.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

	Step	Check	Yes	No
3	**CHECK PRG CM.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 6 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **4**.	Refer to step 4 and subsequent procedures for DTC B2500 diagnosis, and check the power supply circuit. <Ref. to PRG(diag)-17, DTC B2500 BATT P/SUPPLY FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
4	**CHECK PRG CM.** Measure the voltage between PRG CM connector and chassis ground, using an oscilloscope. ***Connector & terminal*** ***(R422) No. 4 (+) — Chassis ground (–):***  	Is the voltage less than 1 V for 0.4 seconds, when PRG close-operation is performed with the operation SW? (Reference: Waveform shown on the left)	Go to step **5**.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>
5	**CHECK PRG CM.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 16 — Chassis ground:***	Is it less than 1 V?	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>	Go to step **6**.
6	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and PRG DU connector. ***Connector & terminal*** ***(R422) No. 6 — (R421) No. 2:*** ***(R422) No. 4 — (R421) No. 8:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 6 — Chassis ground:*** ***(R422) No. 16 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **8**.	Repair or replace the short circuit of the harness.
8	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG DU connector. 3) Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 4 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **9**.	Repair or replace the short circuit of the harness.

	Step	Check	Yes	No
9	**CHECK CONNECTOR.** Turn the ignition switch to OFF.	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG DU. <Ref. to PRG-9, Power Rear Gate Control Module.>

4. OPERATION BY THE PRG DRIVER'S SW IS NOT POSSIBLE

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is DTC stored in current malfunction?	Refer to each DTC diagnosis.	Go to step **2**.
2	**CHECK CURRENT DATA.** Check «D SW» using the Subaru Select Monitor.	Does the display switch between OFF ←→ ON according to PRG driver's SW operation?	Go to step **4**.	Go to step **3**.
3	**CHECK PRG DRIVER'S SW INPUT CIRCUIT.** Refer to "CHECK PRG DRIVER'S SW INPUT CIRCUIT", and check the PRG driver's SW. <Ref. to PRG(diag)-70, CHECK PRG DRIVER'S SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.>	Is there any fault?	Repair according to "CHECK PRG DRIVER'S SW INPUT CIRCUIT".	Go to step **4**.
4	**CHECK POWER REAR GATE AUTO CLOSER.** Refer to step 3 and subsequent procedures for DTC B2513, and check the power rear gate auto closer. <Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2513 diagnosis.	Go to step **5**.
5	**CHECK SOLENOID.** Refer to step 4 and subsequent procedures for DTC B2523, and check the solenoid. <Ref. to PRG(diag)-52, DTC B2523 HALF STOP SOLENOID FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2523 diagnosis.	Go to step **6**.
6	**CHECK CLUTCH.** Refer to step 4 and subsequent procedures for DTC B2509, and check the clutch. <Ref. to PRG(diag)-31, DTC B2509 CLUTCH OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2509 diagnosis.	Go to step **7**.
7	**CHECK PRG MOTOR OPEN CIRCUIT.** Perform step 4 and subsequent procedures for DTC B2507, and check the PRG motor open circuit. <Ref. to PRG(diag)-27, DTC B2507 PRG MOTOR OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2507 diagnosis.	Go to step **8**.
8	**CHECK PRG MOTOR SHORT.** Perform step 4 and subsequent procedures for DTC B2508, and check the PRG motor short. <Ref. to PRG(diag)-29, DTC B2508 PRG MOTOR GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2508 diagnosis.	Go to step **9**.

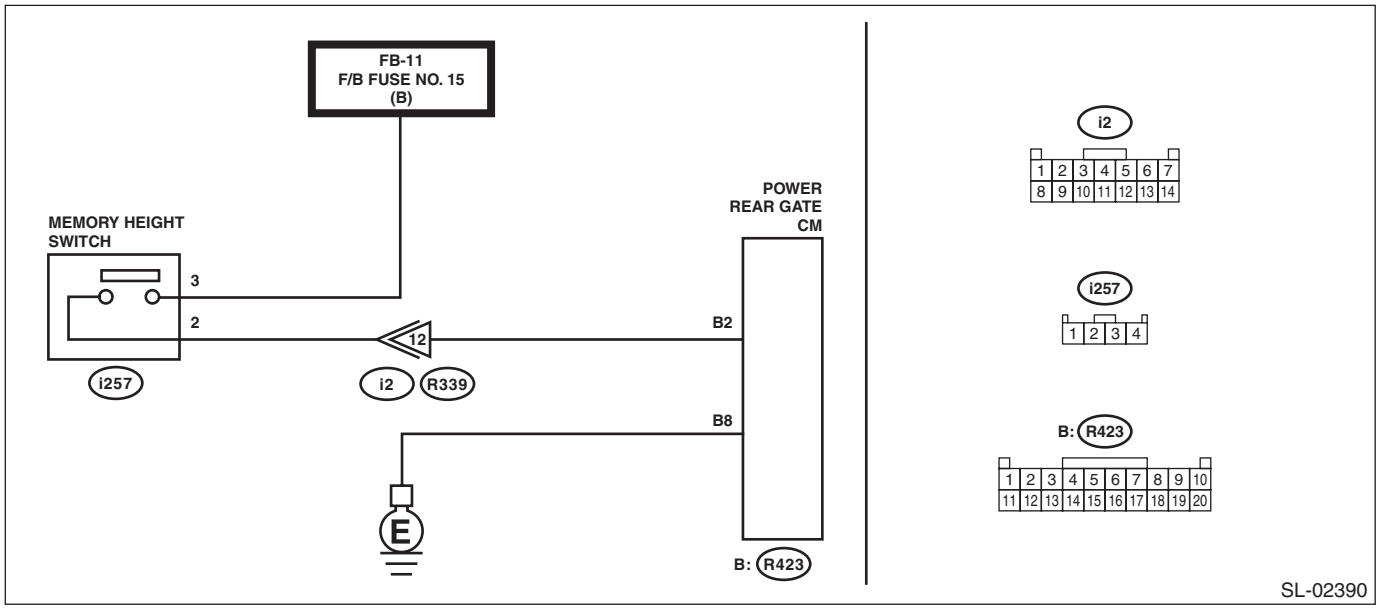
Step		Check	Yes	No
9	**CHECK ROTATION SENSOR.** Perform step 4 and subsequent procedures for DTC B250B, and check the rotation sensor. <Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250B diagnosis.	Go to step **10**.
10	**CHECK TOUCH SENSOR.** Perform step 3 and subsequent procedures for DTC B250A, and check the touch sensor. <Ref. to PRG(diag)-33, DTC B250A TOUCH SENSORS BATT. GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250A diagnosis.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

5. CHECK MEMORY HEIGHT SW INPUT CIRCUIT

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

WIRING DIAGRAM:

Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



	Step	Check	Yes	No
1	**CHECK BACK-UP FUSE.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is the fuse normal without brown-out?	Go to step **2**.	Replace the fuse.
2	**CHECK CURRENT DATA.** Check «Memory stop SW» using the Subaru Select Monitor.	Does the display switch between OFF ←→ ON according to memory height SW operation?	Input circuit is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the memory height SW connector. 3) Measure the resistance between PRG CM connector and memory height SW connector. ***Connector & terminal*** ***(R423) No. 2 — (i257) No. 2:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**CHECK HARNESS.** Measure the voltage between memory height SW connector and chassis ground. ***Connector & terminal*** ***(i257) No. 3 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **7**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
7	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 8 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK MEMORY HEIGHT SW.** Measure the resistance between switch terminals. ***Connector & terminal*** ***(i257) No. 2 — (i257) No. 3:***	Is the resistance 1 MΩ or more at OFF, and less than 1 Ω at ON?	Go to step **9**.	Replace the memory height SW. <Ref. to PRG-25, Memory Height Switch.>
9	**CHECK CONNECTOR.**	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

6. PRG INNER SW DOES NOT FUNCTION

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is DTC stored in current malfunction?	Refer to the DTC diagnosis.	Go to step **2**.
2	**CHECK CURRENT DATA.** Check «R/G inner SW» using the Subaru Select Monitor.	Does the display switch between OFF ←→ ON according to PRG inner SW operation?	Go to step **4**.	Go to step **3**.
3	**CHECK PRG INNER SW INPUT CIRCUIT.** Refer to "CHECK PRG INNER SW INPUT CIRCUIT", and check the PRG inner SW. <Ref. to PRG(diag)-72, CHECK PRG INNER SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.>	Is there any fault?	Repair according to "CHECK PRG INNER SW INPUT CIRCUIT".	Go to step **4**.
4	**CHECK POWER REAR GATE AUTO CLOSER.** Refer to step 3 and subsequent procedures for DTC B2513, and check the power rear gate auto closer. <Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2513 diagnosis.	Go to step **5**.
5	**CHECK SOLENOID.** Refer to step 4 and subsequent procedures for DTC B2523, and check the solenoid. <Ref. to PRG(diag)-52, DTC B2523 HALF STOP SOLENOID FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2523 diagnosis.	Go to step **6**.
6	**CHECK CLUTCH.** Refer to step 4 and subsequent procedures for DTC B2509, and check the clutch. <Ref. to PRG(diag)-31, DTC B2509 CLUTCH OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2509 diagnosis.	Go to step **7**.
7	**CHECK PRG MOTOR OPEN CIRCUIT.** Perform step 4 and subsequent procedures for DTC B2507, and check the PRG motor open circuit. <Ref. to PRG(diag)-27, DTC B2507 PRG MOTOR OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2507 diagnosis.	Go to step **8**.
8	**CHECK PRG MOTOR SHORT.** Perform step 4 and subsequent procedures for DTC B2508, and check the PRG motor short. <Ref. to PRG(diag)-29, DTC B2508 PRG MOTOR GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2508 diagnosis.	Go to step **9**.
9	**CHECK ROTATION SENSOR.** Perform step 4 and subsequent procedures for DTC B250B, and check the rotation sensor. <Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250B diagnosis.	Go to step **10**.

	Step	Check	Yes	No
10	**CHECK TOUCH SENSOR.** Perform step 3 and subsequent procedures for DTC B250A, and check the touch sensor. <Ref. to PRG(diag)-33, DTC B250A TOUCH SENSORS BATT. GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250A diagnosis.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

7. PRG POSITION CANNOT BE MEMORIZED

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

	Step	Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is DTC stored in current malfunction?	Refer to the DTC diagnosis.	Go to step **2**.
2	**CHECK MEMORY HEIGHT SW.**	Is the memory height SW ON?	Go to step **3**.	Set the memory height SW to ON.
3	**CHECK EACH SW.** Perform inspections in "CHECK PRG INNER SW INPUT CIRCUIT", and "CHECK MEMORY HEIGHT SW INPUT CIRCUIT". <Ref. to PRG(diag)-72, CHECK PRG INNER SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.> <Ref. to PRG(diag)-62, CHECK MEMORY HEIGHT SW INPUT CIRCUIT, INSPECTION, Diagnostics with Phenomenon.>	Is there any fault?	Repair it according to each inspection.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

8. PRG OPENER BUTTON DOES NOT FUNCTION

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is DTC stored in current malfunction?	Refer to the DTC diagnosis.	Go to step **2**.
2	**CHECK CURRENT DATA.** Check «R/G Open SW» using the Subaru Select Monitor.	Does the display switch between "OFF" "tap" "press and hold" according to PRG opener button operation?	Go to step **4**.	Go to step **3**.
3	**CHECK BODY INTEGRATED UNIT.** • For models with keyless access Perform step 6 and subsequent procedures in "CANNOT UNLOCK WITH THE REAR GATE OPENER BUTTON" in KPS (DIAGNOSTICS). <Ref. to KPS(diag)-111, REAR GATE CANNOT BE UNLOCKED WITH THE REAR GATE OPENER BUTTON, INSPECTION, Diagnostics with Phenomenon.> • For models without keyless access Perform "CHECK REAR GATE OPENER BUTTON CIRCUIT" in Door Lock Control System. <Ref. to SL-13, CHECK REAR GATE OPENER BUTTON CIRCUIT, INSPECTION, Door Lock Control System.>	Is there any fault?	Repair it according to each inspection.	Go to step **4**.
4	**CHECK POWER REAR GATE AUTO CLOSER.** Refer to step 3 and subsequent procedures for DTC B2513, and check the power rear gate auto closer. <Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2513 diagnosis.	Go to step **5**.
5	**CHECK SOLENOID.** Refer to step 4 and subsequent procedures for DTC B2523, and check the solenoid. <Ref. to PRG(diag)-52, DTC B2523 HALF STOP SOLENOID FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2523 diagnosis.	Go to step **6**.
6	**CHECK CLUTCH.** Refer to step 4 and subsequent procedures for DTC B2509, and check the clutch. <Ref. to PRG(diag)-31, DTC B2509 CLUTCH OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2509 diagnosis.	Go to step **7**.
7	**CHECK PRG MOTOR OPEN CIRCUIT.** Perform step 4 and subsequent procedures for DTC B2507, and check the PRG motor open circuit. <Ref. to PRG(diag)-27, DTC B2507 PRG MOTOR OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2507 diagnosis.	Go to step **8**.
8	**CHECK PRG MOTOR SHORT.** Perform step 4 and subsequent procedures for DTC B2508, and check the PRG motor short. <Ref. to PRG(diag)-29, DTC B2508 PRG MOTOR GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2508 diagnosis.	Go to step **9**.

	Step	Check	Yes	No
9	**CHECK ROTATION SENSOR.** Perform step 4 and subsequent procedures for DTC B250B, and check the rotation sensor. <Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250B diagnosis.	Go to step **10**.
10	**CHECK TOUCH SENSOR.** Perform step 3 and subsequent procedures for DTC B250A, and check the touch sensor. <Ref. to PRG(diag)-33, DTC B250A TOUCH SENSORS BATT. GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250A diagnosis.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

9. OPERATION FROM KEYLESS/KEYLESS ACCESS MOBILE KEY IS NOT POSSIBLE

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

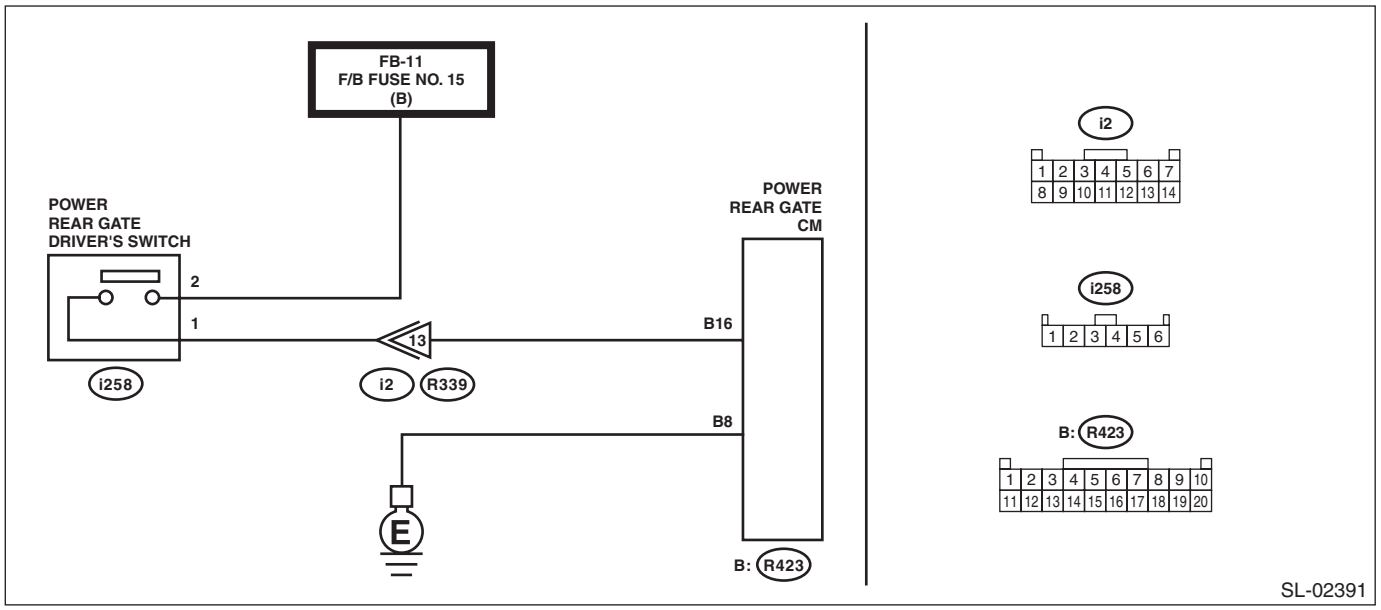
Step		Check	Yes	No
1	**CHECK DTC.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is DTC stored in current malfunction?	Refer to the DTC diagnosis.	Go to step **2**.
2	**CHECK CURRENT DATA.** Check «Normal Keyless R/G SW» or «Smart Keyless R/G SW» using the Subaru Select Monitor.	Does the display switch between "OFF" "tap" "press and hold" according to mobile key SW operation?	Go to step **4**.	Go to step **3**.
3	**CHECK BODY INTEGRATED UNIT.** • For models with keyless access Perform “KEYLESS ACCESS LOCK/UNLOCK CANNOT BE PERFORMED FROM ANY OF THE DOORS” in KPS (DIAGNOSTICS). <Ref. to KPS(diag)-99, KEYLESS ACCESS LOCK/UNLOCK CANNOT BE PERFORMED FROM ANY OF THE DOORS, INSPECTION, Diagnostics with Phenomenon.> • For models without keyless access Perform "NONE OF THE FUNCTIONS OF THE KEYLESS ENTRY SYSTEM OPERATE" in Door Lock Control System. <Ref. to SL-18, SYMPTOM CHART, INSPECTION, Keyless Entry System.>	Is there any fault?	Repair it according to each inspection.	Go to step **4**.
4	**CHECK POWER REAR GATE AUTO CLOSER.** Refer to step 3 and subsequent procedures for DTC B2513, and check the power rear gate auto closer. <Ref. to PRG(diag)-39, DTC B2513 LATCH CONDITION FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2513 diagnosis.	Go to step **5**.
5	**CHECK SOLENOID.** Refer to step 4 and subsequent procedures for DTC B2523, and check the solenoid. <Ref. to PRG(diag)-52, DTC B2523 HALF STOP SOLENOID FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2523 diagnosis.	Go to step **6**.
6	**CHECK CLUTCH.** Refer to step 4 and subsequent procedures for DTC B2509, and check the clutch. <Ref. to PRG(diag)-31, DTC B2509 CLUTCH OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2509 diagnosis.	Go to step **7**.
7	**CHECK PRG MOTOR OPEN CIRCUIT.** Perform step 4 and subsequent procedures for DTC B2507, and check the PRG motor open circuit. <Ref. to PRG(diag)-27, DTC B2507 PRG MOTOR OPEN, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2507 diagnosis.	Go to step **8**.
8	**CHECK PRG MOTOR SHORT.** Perform step 4 and subsequent procedures for DTC B2508, and check the PRG motor short. <Ref. to PRG(diag)-29, DTC B2508 PRG MOTOR GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B2508 diagnosis.	Go to step **9**.

	Step	Check	Yes	No
9	**CHECK ROTATION SENSOR.** Perform step 4 and subsequent procedures for DTC B250B, and check the rotation sensor. <Ref. to PRG(diag)-35, DTC B250B ROTATION SENSOR FAILURE (A OUTPUT FIXATION), Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250B diagnosis.	Go to step **10**.
10	**CHECK TOUCH SENSOR.** Perform step 3 and subsequent procedures for DTC B250A, and check the touch sensor. <Ref. to PRG(diag)-33, DTC B250A TOUCH SENSORS BATT. GND SHORT OUT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>	Is there any fault?	Repair it according to B250A diagnosis.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

10.CHECK PRG DRIVER'S SW INPUT CIRCUIT

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



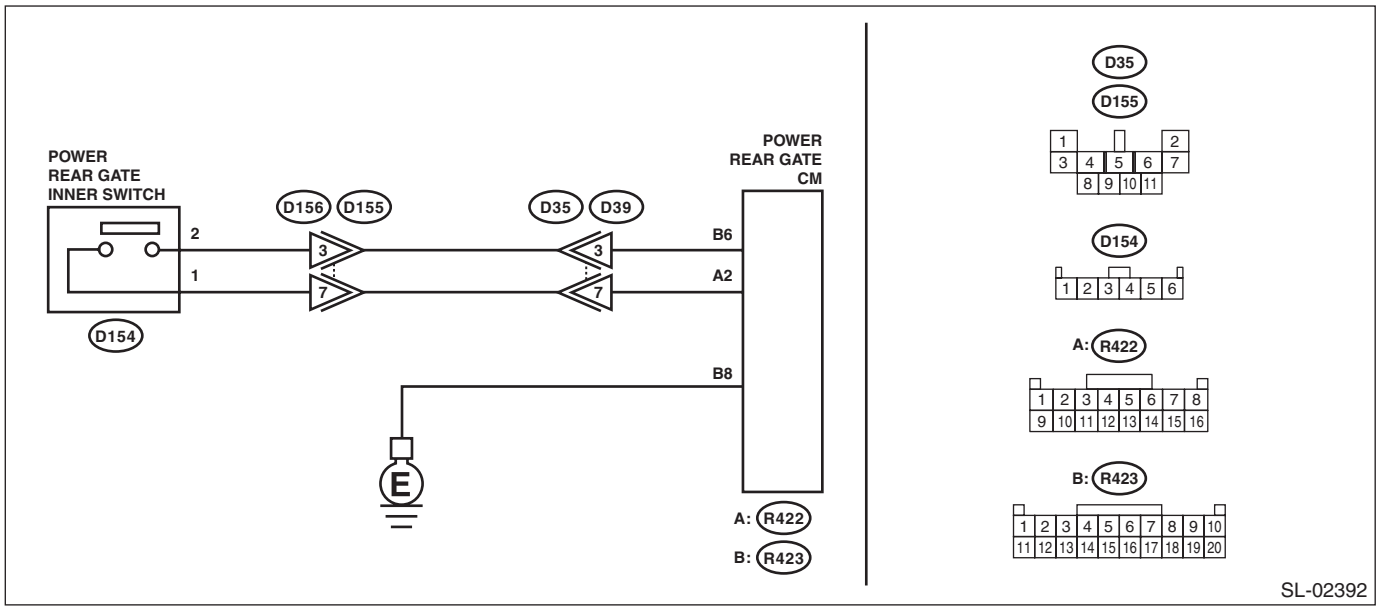
	Step	Check	Yes	No
1	**CHECK BACK-UP FUSE.** Using the Subaru Select Monitor, read DTC of PRG CM.	Is the fuse normal without brown-out?	Go to step **2**.	Replace the fuse.
2	**CHECK CURRENT DATA.** Check «D SW» using the Subaru Select Monitor.	Does the display switch between OFF ←→ ON according to PRG driver's SW operation?	Input circuit is normal.	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the memory height SW connector. 3) Measure the resistance between PRG CM connector and PRG driver's SW connector. ***Connector & terminal*** ***(R423) No. 16 — (i258) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 16 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 16 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**CHECK HARNESS.** Measure the voltage between PRG driver's SW connector and chassis ground. ***Connector & terminal*** ***(i258) No. 2 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **7**.	Repair or replace the open circuit of harness.

Step		Check	Yes	No
7	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 8 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK MEMORY HEIGHT SW.** Measure the resistance between switch terminals. ***Connector & terminal*** ***(i258) No. 1 — (i258) No. 2:***	Is the resistance 1 MΩ or more at OFF, and less than 1 Ω at ON?	Go to step **9**.	Replace the memory height SW. <Ref. to PRG-25, Memory Height Switch.>
9	**CHECK CONNECTOR.**	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

11.CHECK PRG INNER SW INPUT CIRCUIT

NOTE:
Before performing diagnosis, initialize PRG SYS by opening PRG in manual operation, and then operating the power rear gate auto closer from the partially latched state.

WIRING DIAGRAM:
Power rear gate system <Ref. to WI-308, WIRING DIAGRAM, Power Rear Gate System.>



Step		Check	Yes	No
1	**CHECK CURRENT DATA.** Check «R/G inner SW» using the Subaru Select Monitor.	Does the display switch between OFF ←→ ON according to PRG inner SW operation?	Input circuit is normal.	Go to step **2**.
2	**CHECK HARNESS.** 1) Disconnect the PRG CM connector. 2) Disconnect the PRG inner SW connector. 3) Measure the resistance between PRG CM connector and PRG inner SW connector. ***Connector & terminal*** ***(R422) No. 2 — (D154) No. 1:*** ***(R423) No. 6 — (D154) No. 2:***	Is the resistance less than 10 Ω?	Go to step **3**.	Repair or replace the open circuit of harness.
3	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Repair or replace the short circuit of the harness.
4	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 6 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK HARNESS.** Measure the resistance between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R423) No. 8 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the short circuit of the harness.

Step		Check	Yes	No
6	**CHECK HARNESS.** Measure the voltage between PRG CM connector and chassis ground. ***Connector & terminal*** ***(R422) No. 2 (+) — Chassis ground (–):***	Is the voltage 10.5 V or more and less than 16 V?	Go to step **7**.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>
7	**CHECK SW.** Measure the resistance between switch terminals. ***Connector & terminal*** ***(D154) No. 1 — (D154) No. 2:***	Is the resistance 1 MΩ or more at OFF, and less than 1 Ω at ON?	Go to step **8**.	Replace the PRG inner SW. <Ref. to PRG-23, Power Rear Gate Inner Switch.>
8	**CHECK CONNECTOR.**	Is there poor contact of connector?	Repair or replace the poor contact of connector.	Replace the PRG CM. <Ref. to PRG-9, Power Rear Gate Control Module.>

CRUISE CONTROL SYSTEM

CC

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13.Diagnostics with Phenomenon

A: DIAGNOSTIC PROCEDURE WITH PHENOMENON

1. ADAPTIVE CRUISE CONTROL, CONVENTIONAL CRUISE CONTROL

Phenomenon		Check Item	Reference
1	Cruise control main switch is not turned to ON. (CRUISE indicator light does not illuminate.) Or cruise control is cancelled without operating the cruise control command switch.	(1) Read the cancel code of the ECM.	Perform the diagnosis according to displayed cancel code.<Ref. to ES(diag)-87, ECM, LIST, List of Cancel Code.> If not displayed, go to (2).
		(2) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When normal, go to (4). When abnormal, go to (3).
		(3) Check the cruise control command switch.	<Ref. to ES(diag)-76, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics with Phenomenon.>
		(4) Check the CRUISE indicator.	<Ref. to ES(diag)-75, CHECK ADAPTIVE CRUISE CONTROL INDICATOR LIGHT/CONSTANT SPEED CRUISE CONTROL INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT, Diagnostics with Phenomenon.>
2	Cruise control cannot be set. Or cruise control is cancelled without releasing operation. NOTE: • Do not turn the ignition switch to OFF after the cruise control is deactivated. • Do not operate the cruise control command switch after the cruise control is deactivated. If the above is performed, the cancel code the ECM will be cleared.	(1) Read the cancel code of the ECM.	Perform the diagnosis according to displayed cancel code.<Ref. to ES(diag)-82, List of Cancel Code.> If not displayed, go to (2).
		(2) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When normal, go to (6). When abnormal, go to the relevant items for (3), (4), (5).
		(3) Check the cruise control command switch.	<Ref. to ES(diag)-76, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics with Phenomenon.>
		(4) Check stop light switch and brake switch.	<Ref. to BR-66, Brake Pedal.> <Ref. to CC(diag)-17, 12, Diagnostic Procedure with Cancel Code.>
		(5) Check the neutral position switch.	<Ref. to CC(diag)-21, 14, Diagnostic Procedure with Cancel Code.> <Ref. to CC(diag)-26, 62, Diagnostic Procedure with Cancel Code.>
		(6) Check vehicle speed sensor.	<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>
3	SET indicator does not illuminate.	Check the SET indicator.	<Ref. to ES(diag)-75, CHECK ADAPTIVE CRUISE CONTROL INDICATOR LIGHT/CONSTANT SPEED CRUISE CONTROL INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT, Diagnostics with Phenomenon.>
4	Vehicle speed is not held within set speed ±3 km/h (±2 MPH) on a level road.	Check the vehicle speed sensor.	<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>
5	Vehicle speed does not increase or does not return to set speed after RES/+ switch has been pressed.	(1) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When abnormal, go to (2).
		(2) Check the RES/+ switch.	<Ref. to ES(diag)-76, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics with Phenomenon.>

Phenomenon		Check Item	Reference
6	Vehicle speed does not decrease after SET/– switch has been pressed.	(1) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When abnormal, go to (2).
		(2) Check the SET/– switch.	<Ref. to ES(diag)-76, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics with Phenomenon.>
7	Cruise control is not released after CANCEL switch has been pressed.	(1) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When abnormal, go to (2).
		(2) Check the CANCEL switch.	<Ref. to ES(diag)-76, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics with Phenomenon.>
8	Vehicle distance does not change, even after vehicle distance switch is pressed.	(1) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When abnormal, go to (2).
		(2) Check the vehicle distance switch.	<Ref. to ES(diag)-76, CHECK CRUISE CONTROL COMMAND SWITCH, Diagnostics with Phenomenon.>
9	Cruise control is not released after brake pedal has been depressed.	(1) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When abnormal, go to (2).
		(2) Check stop light switch and brake switch.	<Ref. to CC(diag)-17, 12, Diagnostic Procedure with Cancel Code.> <Ref. to BR-71, INSTALLATION, Stop Light Switch.>
10	Cruise control is not released after shifting to the neutral position.	(1) Perform the real-time diagnosis. Check the input signal of cruise control system.	<Ref. to ES(diag)-41, Real-time Diagnosis.> When abnormal, go to (2).
		(2) Check the neutral position switch.	<Ref. to CC(diag)-21, 14, Diagnostic Procedure with Cancel Code.>
11	Acceleration or deceleration does not occur according to the preceding vehicle. The preceding vehicle is difficult to be detected. Braking force is weaker than usual. Alarm for requiring more brake pedal force does not sound.	(1) Using CHECK LIST (ADAPTIVE CRUISE CONTROL), check the condition and respond to it. 1) Is this applied to the condition that the use of adaptive cruise control is not desired? 2) Is this applied to the object or condition that is hard to be recognized by the stereo camera? 3) Is this applied to the driving condition that the preceding vehicle cannot be recognized or the vehicle on the next lane or the object on the roadside may be recognized by mistake? 4) Is this applied to the condition that brake force may become poor? 5) Is this applied to the condition that the alarm for requiring more brake pedal force does not sound even in a short vehicle distance?	<Ref. to ES(diag)-68, CHECK LIST (ADAPTIVE CRUISE CONTROL), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, go to (2).
		(2) Check the windshield glass and dashboard.	<Ref. to ES(diag)-8, WINDSHIELD GLASS AND DASHBOARD, INSPECTION, General Description.> When normal, go to (3).
		(3) Check the front wiper.	<Ref. to ES(diag)-12, FRONT WIPER, INSPECTION, General Description.> When normal, go to (4).
		(4) Check the stereo camera.	<Ref. to ES(diag)-13, STEREO CAMERA, INSPECTION, General Description.> When normal, go to (5).
		(5) Bleed air from brake system.	<Ref. to BR-60, BRAKE LINE, PROCEDURE, Air Bleeding.> Go to (6).
		(6) Check the optical axis of the stereo camera.	Adjust the optical axis of the stereo camera.<Ref. to ES(diag)-43, PROCEDURE, Camera Adjustment, Inspection.>

2. PRE-COLLISION BRAKE, AT RAPID START PREVENTION CONTROL

Phenomenon		Check Item	Reference
1	Pre-collision brake does not operate. Or the pre-collision brake operates, but the vehicle cannot stop safely before collision. Or the pre-collision brake is released automatically. Or the pre-collision brake assist does not operate.	(1) Check that the pre-collision brake OFF indicator light goes off.	If this indicator light illuminates, the operation is not performed.
		(2) Using check list (pre-collision brake), check the following and respond to it. 1) Is this applied to the condition that the pre-collision brake does not operate, or there is a high possibility that the vehicle cannot stop safely before collision with the pre-collision brake? 2) Is this applied to the condition that there is a high possibility that the pre-collision brake does not operate due to the recognition status of the stereo camera? 3) Is this applied to the condition that the system does not operate correctly and the turning OFF of the pre-collision brake is desired? 4) Is this applied to the condition that the pre-collision brake OFF indicator light illuminates?	<Ref. to ES(diag)-70, CHECK LIST (PRE-COLLISION BRAKE), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.
2	Pre-collision brake operates improperly. Or the pre-collision brake is not released. Or the pre-collision brake assist operates improperly.	(1) Using check list (pre-collision brake), check the following and respond to it. 1) Is this applied to the condition that the turning OFF of the pre-collision brake is desired? 2) Is this applied to the condition that the pre-collision brake may operate?	<Ref. to ES(diag)-70, CHECK LIST (PRE-COLLISION BRAKE), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.
3	Pre-collision brake OFF indicator light does not go off. Or the pre-collision brake OFF indicator light illuminates automatically.	(1) Check that this failure occurs during engine start.	Light illumination for a while after the engine start is a normal.
		(2) Using the SSM, check that the system is not in the HALT condition with the cancel code.	If the cancel code is displayed, check the diagnosis contents from the List of Cancel Code, and perform the corresponding operations. <Ref. to ES(diag)-82, List of Cancel Code.> If the cancel code is not displayed, go to (3).
		(3) Check the pre-collision brake OFF switch.	<Ref. to ES(diag)-107, DTC B28B0 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
4	Pre-collision brake OFF indicator light does not illuminate. Or the pre-collision brake OFF indicator light goes off automatically.	(1) Check that this failure occurs during engine start.	Even if the pre-collision brake is turned off, it is turned on again when the engine switch is turned off and the engine has restarted.
		(2) Check the pre-collision brake OFF switch.	<Ref. to ES(diag)-107, DTC B28B0 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
5	AT rapid start prevention control does not operate. Or the AT rapid start prevention control is released automatically.	(1) Check that the pre-collision brake OFF indicator light goes off.	If this indicator light illuminates, the operation is not performed.
		(2) Using check list (at rapid start prevention control), check the following and respond to it. 1) Is this applied to the condition that the AT rapid start prevention control may not operate? 2) Is this applied to the condition that the pre-collision brake OFF indicator light illuminates?	<Ref. to ES(diag)-73, CHECK LIST (AT RAPID START PREVENTION CONTROL), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.

	Phenomenon	Check Item	Reference
6	AT rapid start prevention control operates improperly. Or the AT rapid start prevention control is not released.	(1) Using check list (at rapid start prevention control), check the following and respond to it. 1) Is this applied to the condition that the turning OFF of the AT rapid start prevention control is desired? 2) Is this applied to the condition that the AT rapid start prevention control may operate?	<Ref. to ES(diag)-73, CHECK LIST (AT RAPID START PREVENTION CONTROL), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.

3. LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION

	Phenomenon	Check Item	Reference
1	Lane departure warning does not operate. Or the lane departure warning is released automatically.	(1) Check that the lane departure warning OFF indicator light goes off.	If this indicator light illuminates, the operation is not performed.
		(2) Using check list (lane departure warning, sway warning, forward vehicle's start monitoring function), check the following and respond to it. 1) Is this applied to the condition that the lane departure warning does not operate or is difficult to operate? 2) Is this applied to the condition that the lane departure warning OFF indicator light illuminates?	<Ref. to ES(diag)-74, CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.
2	Lane departure warning operates improperly. Or the lane departure warning is not released.	(1) Using check list (lane departure warning, sway warning, forward vehicle's start monitoring function), check the following and respond to it. 1) Is this applied to the condition that the vehicle lane is recognized erroneously and the lane departure warning may operate?	<Ref. to ES(diag)-74, CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.
3	Lane departure warning OFF indicator light does not go off. Or the lane departure warning OFF indicator light illuminates automatically.	(1) Check that this failure occurs during engine start.	Light illumination for a while after the engine start is a normal. Even if the engine switch is turned off and the engine is restarted, the status before the engine switch off is maintained.
		(2) Using the SSM, check that the system is not in the HALT condition with the cancel code.	If the cancel code is displayed, check the diagnosis contents from the List of Cancel Code, and perform the corresponding operations. <Ref. to ES(diag)-82, List of Cancel Code.> If the cancel code is not displayed, go to (3).
		(3) Check the lane departure warning OFF indicator light.	<Ref. to ES(diag)-107, DTC B28B0 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
4	Lane departure warning OFF indicator light does not illuminate. Or the lane departure warning OFF indicator light goes off automatically.	(1) Check the lane departure warning OFF indicator light.	<Ref. to ES(diag)-107, DTC B28B0 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

Phenomenon		Check Item	Reference
5	Sway warning does not operate. Or the sway warning is released automatically.	(1) Check that the lane departure warning OFF indicator light goes off.	If this indicator light illuminates, the operation is not performed.
		(2) Using CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), check the following and respond to it. 1) Is this applied to the condition that the sway warning may not operate? 2) Is this applied to the condition that the lane departure warning OFF indicator light illuminates?	<Ref. to ES(diag)-74, CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.
6	Sway warning operates improperly. Or the sway warning is not released.	(1) Using CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), check the following and respond to it. 1) Is this applied to the condition that the sway warning may operate improperly?	<Ref. to ES(diag)-74, CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.
7	Forward vehicle's start monitoring function does not operate. Or the forward vehicle's start monitoring function is released automatically.	(1) Using CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), check the following and respond to it. 1) Is this applied to the condition that the forward vehicle's start monitoring function does not operate even when the preceding vehicle has already started?	<Ref. to ES(diag)-74, CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.
8	Forward vehicle's start monitoring function operates improperly. Or the forward vehicle's start monitoring function is not released.	(1) Using CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), check the following and respond to it. 1) Is this applied to the condition that the forward vehicle's start monitoring function operates even when the preceding vehicle has not yet started?	<Ref. to ES(diag)-74, CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION), DIAGNOSTIC PROCEDURE WITH PHENOMENON, Diagnostics with Phenomenon.> When there is a relevant item in the check list, it can be the cause of malfunction. Eliminate the cause, and check that the malfunction has been improved. If not solved, the stereo camera may be malfunctioning.

4. CHECK LIST (ADAPTIVE CRUISE CONTROL)

Item Name			Yes/No	
[1]: When the vehicle does not accelerate or decelerate according to the preceding vehicle, or when it is difficult to detect the preceding vehicle.				
1	Check that the following are applied to the condition that the use of adaptive cruise control is not desired.			
	1	Tire pressure is not correct.	Yes	No
	2	The vehicle is equipped with the temporary spare tire.	Yes	No
	3	The vehicle is equipped with worn tire or tires with excessive wear difference.	Yes	No
	4	The vehicle is equipped with the tires out of specification.	Yes	No
	5	The suspension has been modified.	Yes	No
	6	The vehicle is equipped with the tire chain.	Yes	No
	7	Headlight is dirty or the optical axis is deviated. (The vehicle cannot correctly emit the headlight beam against the object and recognize it.)	Yes	No
	8	The driving of own vehicle is unstable due to an accident or failure.	Yes	No
	9	The brake warning light illuminates.	Yes	No
	10	Vehicle is tilted by the heavy load.	Yes	No
	11	Passenger capacity is exceeded.	Yes	No
	12	The vehicle is towing the trailer or other vehicle.	Yes	No
	13	The vehicle drives on the general road (other than limited highway). (Depending on the road environment (complicated roads etc.), the vehicle may not be able to drive according to the traffic condition, which may lead to the traffic accident.)	Yes	No
	14	The vehicle drives on the sharp bend.	Yes	No
	15	The vehicle drives on the slippery roads such as icy road or snow-covered road. (Tires can spin, losing the vehicle control.)	Yes	No
	16	The vehicle drives under the traffic condition that the certain vehicle distance is difficult to be maintained due to frequent acceleration and deceleration. (The vehicle may not be able to drive according to the traffic condition.)	Yes	No
	17	There is a steep downhill. (The vehicle may drive at higher speed than the set vehicle speed.)	Yes	No
	18	The vehicle performs adaptive driving while recognizing the preceding vehicle on the steep downhills. (Brake can be overheated.)	Yes	No
	19	The vehicle drives on the road with repeated steep uphills and downhills or crossover. (The vehicle may not be able to recognize the preceding vehicle or may recognize the road surface, and appropriate control may not be performed.)	Yes	No
	20	The vehicle is entering the interchange, service area, parking area, junction or tollgate. (The vehicle may not be able to recognize the preceding vehicle.)	Yes	No
	21	When the surrounding brightness (such as inlet and outlet of a tunnel) suddenly changes.	Yes	No
	22	There are water, snow or sandy dust raised by the preceding vehicle or oncoming vehicle, or sand or smoke blown in the wind, or moisture in front of own vehicle. (The vehicle may not be able to recognize the preceding vehicle or may recognize the water, and appropriate control may not be performed.)	Yes	No
	23	The windshield glass is covered with fog, snow, dirt, frost or sandy dust.	Yes	No
	24	The raindrops, water drops or dirt on the windshield glass are not wiped off sufficiently. (The vehicle may not be able to recognize the preceding vehicle, and appropriate control may not be performed.)	Yes	No
	25	Canoes etc. loaded on the roof block the visibility of the stereo camera.	Yes	No

		Item Name	Yes/No	
2	Check that the following are applied to the object or condition that is hard to be recognized by the stereo camera.			
	1	That was a vehicle with large speed difference (low-speed driving vehicle, stopping vehicle, oncoming vehicle).	Yes	No
	2	That was a cutting-in vehicle.	Yes	No
	3	That was a motorcycle, bicycle, pedestrian or animal, etc.	Yes	No
	4	It was dim in the evening or in the morning.	Yes	No
	5	The headlight did not illuminate during nighttime hours or inside the tunnel.	Yes	No
	6	The tail light of the preceding vehicle did not illuminate during nighttime hours or inside the tunnel.	Yes	No
	7	The vehicle was exposed to the intense light (backlight such as sunlight or headlight high-beam light) from the front of the vehicle.	Yes	No
	8	The rearmost surface of the preceding vehicle was small, low or uneven. That was a truck equipped with an unloaded platform without gate, a vehicle that the luggage was protruding from the rear end of the vehicle, a vehicle of special shape (carrier car, side car, etc.) or a vehicle with low vehicle height.	Yes	No
	9	There was an object extremely close to the bumper of the own vehicle.	Yes	No
3	Check that the following are applied to the driving condition that the preceding vehicle cannot be recognized or the vehicle on the next lane or the object on the roadside may be recognized by mistake.			
	1	The vehicle began adaptive cruise control from the condition that the vehicle distance was short immediately after the preceding vehicle was cut in.	Yes	No
	2	The vehicle drives on the curve, outlet and inlet of the curve, or the road with many curves in succession. (Recognition may not be performed properly, because the preceding vehicle is out of recognition area.)	Yes	No
	3	The position against the preceding vehicle deviated laterally.	Yes	No
	4	There were some objects just near the road side.	Yes	No
	5	The speed difference against the preceding vehicle was large.	Yes	No
	6	Other vehicle cut ahead of the own vehicle.	Yes	No
	7	The vehicle distance was extremely short.	Yes	No
	8	The own vehicle swayed in the vehicle lane.	Yes	No
	9	The road surface was uneven due to roll or unpaved track.	Yes	No
	10	The vehicle drove on the narrow lane because of the lane closure or construction work.	Yes	No
	11	The driving of own vehicle was unstable due to an accident or failure.	Yes	No
	12	The own vehicle was loaded with the extremely heavy load in the luggage compartment or on the rear seat.	Yes	No
[2]: When braking force is weaker than usual.				
1	Check that the following are applied to the condition that brake force may become poor.			
	1	The vehicle status (loading amount, passenger, etc.) was inappropriate.	Yes	No
	2	The road surface was very steep, slippery, sharp turn, or uneven.	Yes	No
	3	The service maintenance condition of the vehicle (brake system, tire wear, tire pressure, spare tire, etc.) was inappropriate.	Yes	No
	4	The brake was cold at low ambient temperature or immediately after the driving had started.	Yes	No
	5	The symptom occurred between immediately after engine started and after a while the vehicle started driving (Completion of warming up operation can be used as an indication.).	Yes	No
	6	The brake force becomes poor due to the overheating of the brake on the downhills.	Yes	No
	7	The brake force becomes poor because of the wet brake after driving onto the puddle or washing the vehicle.	Yes	No
[3]: When the alarm for requiring more brake pedal force does not sound.				
1	Check that the following are applied to the condition that the alarm for requiring more brake pedal force does not sound even in a short vehicle distance.			
	1	The speed difference between own vehicle and preceding vehicle (when the vehicle speed of the own vehicle was approximately the same as that of the preceding vehicle) was small.	Yes	No
	2	The vehicle speed of the preceding vehicle was faster than that of the own vehicle (when the vehicle distance was getting longer).	Yes	No
	3	Other vehicle cut in extremely close to the own vehicle.	Yes	No
	4	The preceding vehicle decelerated abruptly.	Yes	No
	5	There are many continuous uphills and downhills.	Yes	No

5. CHECK LIST (PRE-COLLISION BRAKE)

Item Name			Yes/No	
[1]: When pre-collision brake did not operate, or when vehicle could not stop safely before collision in spite of pre-collision brake operation.				
1	Check that the following are applied to the condition that the pre-collision brake does not operate, or there is a high possibility that the vehicle cannot stop safely before collision in spite of pre-collision brake operation.			
	1	The following conditions occurred. Vehicle speed difference in the preceding was small. Vehicle distance was long. Lateral deviation was large (offset amount).	Yes	No
	2	The vehicle status (loading amount, number of passenger, etc.) was inappropriate.	Yes	No
	3	The road surface was very steep, slippery, sharp turn, or uneven.	Yes	No
	4	There was problem for the frontal visibility (rain, snow, fog, smoke, etc.).	Yes	No
	5	The objects were livestock, animals, guardrail, telephone pole, tree, fence, wall, etc.	Yes	No
	6	The object was motorcycle, bicycle, or pedestrian. However, the system could not recognize the object due to surrounding brightness, motion, posture, and/or angle.	Yes	No
	7	Crash avoidance operation (accelerator pedal, brake pedal, steering wheel, etc.) was performed.	Yes	No
	8	The service maintenance condition of the vehicle (brake system, tire wear, tire pressure, spare tire, etc.) was inappropriate.	Yes	No
	9	The vehicle is towing the trailer or other vehicle.	Yes	No
	10	The brake was cold at low ambient temperature or immediately after the driving had started.	Yes	No
	11	The brake force becomes poor due to the overheating of the brake on the downhills.	Yes	No
	12	The brake force becomes poor because of the wet brake after driving onto the puddle or washing the vehicle.	Yes	No

		Item Name	Yes/No	
2	Check that the following are applied to the condition that there is a high possibility that the pre-collision brake does not operate depending on the recognition status of the stereo camera.			
	1	It was bad weather (heavy rain, snowstorm, dense fog).	Yes	No
	2	The field of view was insufficient due to water, snow or sandy dust raised by the preceding vehicle or oncoming vehicle, or the moisture, sand or smoke blown in the wind.	Yes	No
	3	The headlight did not illuminate during nighttime hours or inside the tunnel.	Yes	No
	4	The tail light of the preceding vehicle did not illuminate during nighttime hours or inside the tunnel.	Yes	No
	5	The vehicle approached the motorcycle, bicycle or pedestrian in the night.	Yes	No
	6	It was dark in the evening or in the morning.	Yes	No
	7	The rearmost surface of the preceding vehicle was small, low or uneven. That was a truck equipped with an unloaded platform without gate, a vehicle that the luggage was protruding from the rear end of the vehicle, a vehicle of special shape (carrier car, side car, etc.) or a vehicle with low vehicle height.	Yes	No
	8	There was a wall in front of the stopping vehicle.	Yes	No
	9	There was an object close to the vehicle.	Yes	No
	10	That was a vehicle stopped sideways.	Yes	No
	11	That was a vehicle which was oncoming or driving in reverse.	Yes	No
	12	The object was small seen from the stereo camera. (small animals, infants, person squatting down or lying down)	Yes	No
	13	The preceding vehicle made a sharp turn, or performed abrupt acceleration or deceleration.	Yes	No
	14	Other vehicle, motorcycle, bicycle or pedestrian existed extremely close to the bumper of the own vehicle.	Yes	No
	15	The speed difference was 5 km/h (3.1 MPH) or less. (The control is performed in close distance. Depending on the objects shape and size, the rear end surface may be outside the camera visibility area.)	Yes	No
	16	Other vehicle, motorcycle, bicycle or pedestrian cut in from the side or jumped in front of the own vehicle.	Yes	No
	17	The own vehicle changed the vehicle lane, and followed the preceding vehicle right behind.	Yes	No
	18	The vehicle was exposed to the intense light (backlight such as sunlight or headlight high-beam light) from the front of the vehicle.	Yes	No
	19	The windshield glass was covered with fog, snow, dirt, frost or sandy dust.	Yes	No
	20	The windshield glass has not yet been wiped off sufficiently during or after the use of the window washer.	Yes	No
	21	The recognition of the object was imperfect due to the raindrop or droplet of the window washer or the wiper blade blocking the visibility of the stereo camera.	Yes	No
	22	Canoes etc. loaded on the roof blocked the visibility of the stereo camera.	Yes	No
	23	Other vehicle, motorcycle, bicycle or pedestrian existed out of the illuminating area of the headlight.	Yes	No
	24	The vehicle drove on the sharp turn, steep uphills or steep downhills.	Yes	No
	25	The road surface was uneven due to roll or unpaved track.	Yes	No
	26	The vehicle passed through the outlet or inlet of a tunnel.	Yes	No
	27	The object was fence or wall.	Yes	No
	28	The object was a plate of glass, mirror wall or door.	Yes	No
3	Check that the following are applied to the condition that the system does not operate correctly and the turning OFF of the pre-collision brake is desired.			
	1	Tire pressure is not correct.	Yes	No
	2	The vehicle is equipped with the temporary spare tire.	Yes	No
	3	The vehicle is equipped with worn tire or tires with excessive wear difference.	Yes	No
	4	The vehicle is equipped with the tires out of specification.	Yes	No
	5	The suspension has been modified.	Yes	No
	6	The vehicle is equipped with the tire chain.	Yes	No
	7	Headlight is dirty or the optical axis is deviated. (The vehicle cannot correctly emit the headlight beam against the object and recognize it.)	Yes	No
	8	The driving status of own vehicle is unstable due to an accident or failure.	Yes	No
	9	The brake warning light illuminates.	Yes	No
	10	Vehicle is tilted by the heavy load. Or, passenger capacity is exceeded.	Yes	No

		Item Name	Yes/No	
4	Check that the following are applied to the condition that the pre-collision brake OFF indicator light illuminates. (When the pre-collision brake OFF indicator light illuminates, the pre-collision brake does not operate.)			
	1	The pre-collision brake is turned off, using the pre-collision brake OFF switch.	Yes	No
	2	The VDC operation is stopped by pressing the VDC OFF switch.	Yes	No
	3	Approximately for 7 seconds after the engine has started.	Yes	No
	4	EyeSight is malfunctioning.	Yes	No
	5	EyeSight is stopped temporarily.	Yes	No
[2]: When pre-collision brake operated improperly.				
1	Check that the following are applied to the condition that the turning OFF of the pre-collision brake is desired.			
	1	The vehicle is towed.	Yes	No
	2	The vehicle is loaded on the carrier car.	Yes	No
	3	The chassis dynamometer or free roller is used.	Yes	No
	4	The vehicle is lifted up, engine is started and the tire is spun.	Yes	No
	5	The vehicle passes through the banners, flags, drooping branches or grass while making contact with them.	Yes	No
	6	The vehicle performs sporty driving on the circuit.	Yes	No
	7	When the vehicle uses the movable type car wash machine.	Yes	No
2	Check that the following are applied to the condition that the pre-collision brake may operate.			
	1	The vehicle passes through the ETC gate at a speed exceeding the specification.	Yes	No
	2	The vehicle drives close to the preceding vehicle.	Yes	No
	3	The vehicle drives on the place where the road surface gradient changed suddenly.	Yes	No
	4	The vehicle passes through the moisture or mass of smoke.	Yes	No
	5	When the exhaust gas emitted from the preceding vehicle is visible clearly at cold weather.	Yes	No
	6	There is an obstacle on the curve or crossing.	Yes	No
	7	The vehicle passes through close to other vehicle or obstacle.	Yes	No
	8	The vehicle parks close to the wall in front or to other vehicle.	Yes	No

6. CHECK LIST (AT RAPID START PREVENTION CONTROL)

		Item Name	Yes/No	
[1]: When AT rapid start prevention control did not operate.				
1	Check that the following are applied to the condition that the AT rapid start prevention control may not operate.			
	1	Did the following conditions occur? 1: Distance from the front object is long. 2: Vehicle speed difference is small. 3: Lateral deviation is large (offset amount).	Yes	No
	2	It was bad weather (heavy rain, snowstorm, dense fog).	Yes	No
	3	The visibility was insufficient due to sand or smoke blown in the air.	Yes	No
	4	The vehicle approached the object in the evening, in the morning or in the night.	Yes	No
	5	The vehicle approached the object in the dark place (e.g. closed-in parking lot).	Yes	No
	6	The height of the object was low. (low wall, low guardrail, vehicle with low height etc.)	Yes	No
	7	The object was small seen from the stereo camera. (small animals, infants, person squatting down or lying down)	Yes	No
	8	The object or rearmost area of the preceding vehicle (trailer, etc.) was small. Or the vehicle approached them too close. (The system triggers the operation by recognizing the area other than the rearmost section, resulting in insufficient control.)	Yes	No
	9	The object such as other vehicle, motorcycle, bicycle or pedestrian cut in from the side or jumped in front of the own vehicle.	Yes	No
	10	The own vehicle changed the vehicle lane when it started, and approached right behind the object.	Yes	No
	11	The vehicle was exposed to the intense light (backlight such as sunlight or headlight high-beam light) from the front of the vehicle.	Yes	No
	12	The windshield glass was covered with fog, snow, dirt, frost or sandy dust.	Yes	No
	13	The windshield glass has not yet been wiped off sufficiently during or after the use of the window washer.	Yes	No
	14	The recognition of the object was imperfect due to the raindrop or droplet of the window washer or the wiper blade blocking the visibility of the stereo camera.	Yes	No
	15	Canoes etc. loaded on the roof blocked the visibility of the stereo camera.	Yes	No
	16	The object existed out of the illuminating area of the headlight.	Yes	No
	17	The vehicle drove on the sharp turn, steep uphills or steep downhills.	Yes	No
	18	The object was a fence or wall with even pattern (striped pattern or bricks) or unpatterned surface.	Yes	No
	19	The object was a plate of glass, mirror wall or door.	Yes	No
	20	Crash avoidance operation (accelerator pedal, brake pedal, steering wheel, etc.) was performed.	Yes	No
2	Check that the following are applied to the condition that the pre-collision brake OFF indicator light illuminates. (When the pre-collision brake OFF indicator light illuminates, the AT rapid start prevention control does not operate.)			
	1	The pre-collision brake was turned off, using the pre-collision brake OFF switch.	Yes	No
	2	The VDC operation is stopped by pressing the VDC OFF switch.	Yes	No
	3	Approximately for 7 seconds after the engine has started.	Yes	No
	4	EyeSight is malfunctioning.	Yes	No
	5	EyeSight is stopped temporarily.	Yes	No
[2]: When AT rapid start prevention control operated improperly.				
1	Check that the following are applied to the condition that the releasing of the AT rapid start prevention control is desired.			
	1	The vehicle is towed.	Yes	No
	2	The vehicle is loaded on the carrier car.	Yes	No
	3	The chassis dynamometer or free roller is used.	Yes	No
	4	The vehicle is lifted up, engine is started and the tire is spun.	Yes	No
	5	The vehicle passes through the banners, flags, drooping branches or grass while making contact with them.	Yes	No
	6	The vehicle performs sporty driving on the circuit.	Yes	No

		Item Name	Yes/No	
2	Check that the following are applied to the condition that the AT rapid start prevention control may operate.			
	1	The vehicle passes through the ETC gate at a speed exceeding the specification.	Yes	No
	2	The vehicle drives close to the preceding vehicle.	Yes	No
	3	The vehicle drives on the place where the road surface gradient changed suddenly.	Yes	No
	4	The vehicle passes through the moisture or mass of smoke.	Yes	No
	5	There is an obstacle on the curve or crossing.	Yes	No
	6	The vehicle passes through close to other vehicle or obstacle.	Yes	No
	7	The vehicle parks close to the wall in front or to other vehicle.	Yes	No

7. CHECK LIST (LANE DEPARTURE WARNING, SWAY WARNING, FORWARD VEHICLE'S START MONITORING FUNCTION)

		Item name	Yes/No	
[1]: When the lane departure warning did not operate.				
1	Check that the following are applied to the condition that the lane departure warning does not operate or is difficult to operate.			
	1	The lane departure warning is turned off.	Yes	No
	2	The vehicle speed of the own vehicle is approximately less than 50 km/h (31 MPH).	Yes	No
	3	That was approximately 7 seconds period after the lane departure warning had occurred once.	Yes	No
	4	The steering wheel was turned fully or rapidly.	Yes	No
	5	The brake pedal is depressed.	Yes	No
	6	The vehicle is accelerated by depressing the accelerator pedal.	Yes	No
	7	The vehicle distance from the preceding vehicle is short.	Yes	No
	8	That was approximately 7 seconds period while the turn signal indicator was operating or after the lever was returned.	Yes	No
	9	The vehicle has not returned inside the vehicle lane after the operation of the lane departure warning.	Yes	No
	10	The width of the vehicle lane is narrow.	Yes	No
	11	The vehicle lane is difficult to be recognized seen from the stereo camera. (Lane line (white line, etc.) does not exist or is fading out. Or the color of the lane line is very similar to that of the road surface, and difficult to be seen. Or the width of the lane line is very thin.)	Yes	No
	12	The preceding vehicle performed crash avoidance action to avoid the obstacle, and the own vehicle performed steering operation after the preceding vehicle.	Yes	No
2	Check that the following are applied to the condition that the lane departure warning OFF indicator light illuminates. (When the lane departure warning OFF indicator light illuminates, the lane departure warning does not operate.)			
	1	The lane departure warning is turned off, using the lane departure warning OFF switch.	Yes	No
	2	The VDC operation is stopped by pressing the VDC OFF switch.	Yes	No
	3	Approximately for 7 seconds after the engine has started.	Yes	No
	4	EyeSight is malfunctioning.	Yes	No
	5	EyeSight is stopped temporarily.	Yes	No
[2]: When the lane departure warning malfunctioned.				
1	Check that the following are applied to the condition that the vehicle lane is recognized erroneously and the lane departure warning may operate.			
	1	There was the tire track on the wet road or snow-covered road.	Yes	No
	2	There was the boundary line between snow-covered area and asphalt or on the trace of road repair.	Yes	No
	3	There was the double vehicle lane.	Yes	No
	4	The shadow of the guardrail was detected by mistake.	Yes	No

Item name			Yes/No	
[3]: When the sway warning did not operate.				
1	Check that the following are applied to the condition that the sway warning may not operate.			
	1	The vehicle drove on the road with many curves in succession.	Yes	No
	2	The vehicle speed changed greatly.	Yes	No
	3	That was immediately after the vehicle lane had changed.	Yes	No
	4	The vehicle lane was difficult to be recognized seen from the stereo camera. (Lane line (white line, etc.) does not exist or is fading out. Or the color of the lane line is very similar to that of the road surface, and difficult to be seen. Or the width of the lane line is very thin.)	Yes	No
	5	That was immediately after the sway had begun.	Yes	No
2	Check that the following are applied to the condition that the lane departure warning OFF indicator light illuminates. (When the lane departure warning OFF indicator light illuminates, the sway warning does not operate.)			
	1	The lane departure warning is turned off, using the lane departure warning OFF switch.	Yes	No
	2	The VDC operation is stopped by pressing the VDC OFF switch.	Yes	No
	3	Approximately for 7 seconds after the engine has started.	Yes	No
	4	EyeSight is malfunctioning.	Yes	No
	5	EyeSight is stopped temporarily.	Yes	No
[4]: When the sway warning malfunctioned.				
1	Check that the following are applied to the condition that the sway warning may operate.			
	1	That was after the sway had stopped.	Yes	No
	2	The driver lost concentration on driving the vehicle due to fatigue or looking away.	Yes	No
[5]: When the forward vehicle's start monitoring function did not operate or when it malfunctioned.				
1	Check that the following are applied to the condition that the forward vehicle's start monitoring function does not operate even when the preceding vehicle has already started, or the forward vehicle's start monitoring function operates even when the preceding vehicle has not yet started.			
	1	The motorcycle cut in the space between the own vehicle and the stopped preceding vehicle.	Yes	No
	2	The vehicle could not recognize the preceding vehicle properly due to the weather condition or road shape.	Yes	No
	3	The stereo camera lost sight of the preceding vehicle.	Yes	No
	4	The driver did not depress the brake pedal with select lever in D, M or N range. (At this time, forward vehicle's start monitoring function does not operate.)	Yes	No
	5	The forward vehicle's start monitoring function was turned OFF, using the customize function.	Yes	No

B: CHECK ADAPTIVE CRUISE CONTROL INDICATOR LIGHT/CONSTANT SPEED CRUISE CONTROL INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT

TROUBLE SYMPTOM:

Adaptive cruise control or conventional cruise control can be set, but adaptive cruise control indicator light/constant speed cruise control indicator light and cruise SET indicator light do not illuminate.

Step		Check	Yes	No
1	**CHECK ADAPTIVE CRUISE CONTROL INDICATOR LIGHT/CONSTANT SPEED CRUISE CONTROL INDICATOR LIGHT AND CRUISE SET INDICATOR LIGHT.** Check the combination meter. <Ref. to IDI(diag)-19, OPERATION, System Operation Check Mode.>	Does adaptive cruise control indicator light/constant speed cruise control indicator light and cruise SET indicator light illuminate?	Go to step **2**.	Replace the meter case assembly. <Ref. to IDI-18, Combination Meter.>
2	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Is a DTC of the LAN system detected?	Perform the diagnosis according to DTC for LAN system.	Replace the ECM. <Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).>

C: CHECK CRUISE CONTROL COMMAND SWITCH

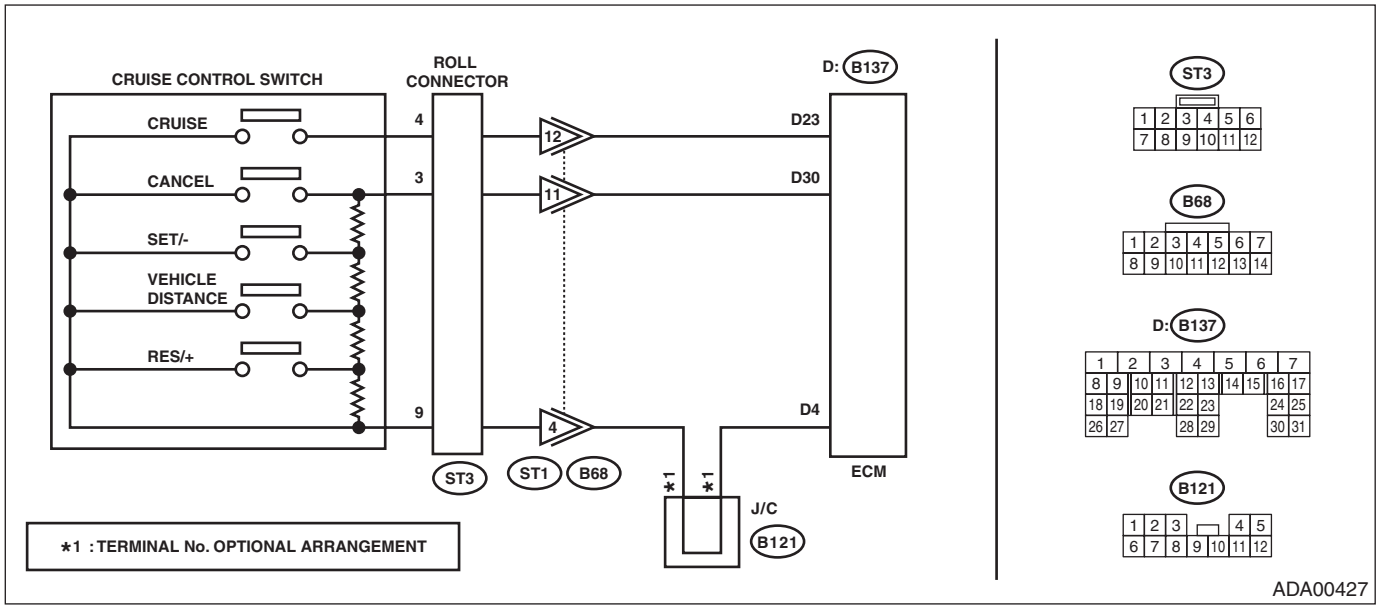
TROUBLE SYMPTOM:

- Cruise control cannot be set. (Cancelled immediately.)
- Cruise control cannot be released.

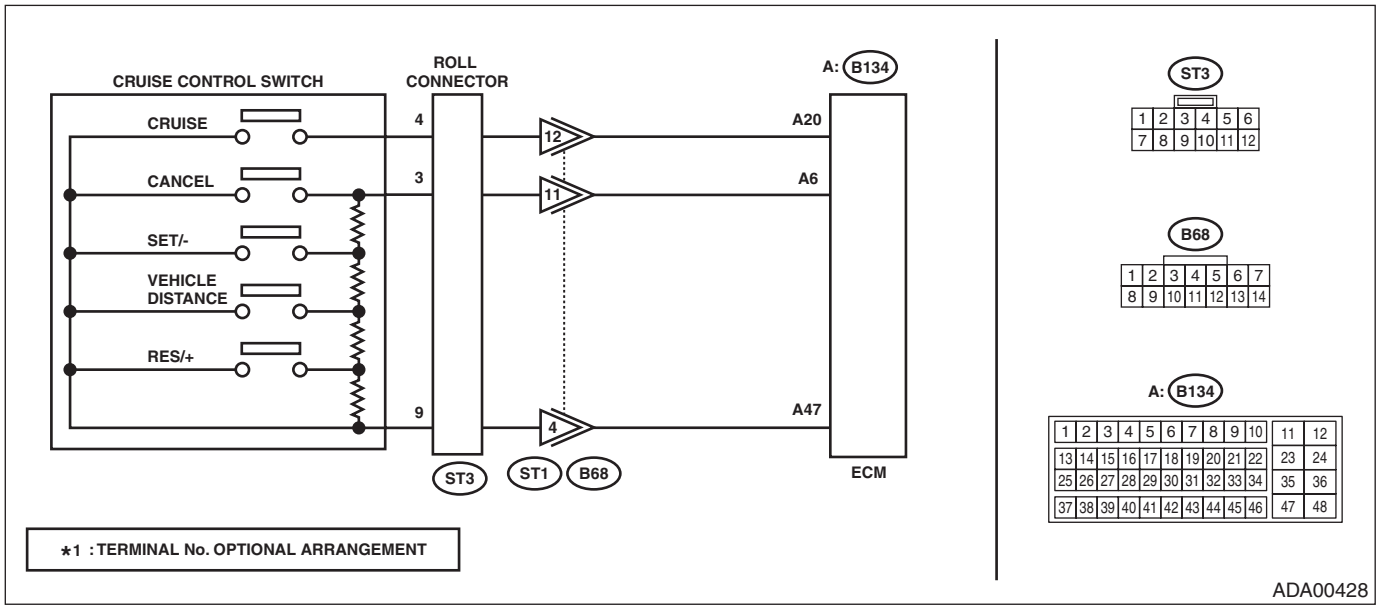
WIRING DIAGRAM:

EyeSight System<Ref. to WI-232, WIRING DIAGRAM, EyeSight System.>

- Non-turbo model



- Turbo model



	Step	Check	Yes	No
1	**CHECK CRUISE CONTROL COMMAND SWITCH CIRCUIT.** 1) Remove the driver's airbag module.<Ref. to AB-39, REMOVAL, Driver's Airbag Module.> 2) Disconnect the harness connector of cruise control command switch. 3) Turn the ignition switch to ON. 4) Measure the voltage between harness connector terminal and chassis ground. ***Connector & terminal*** ***(ST3) No. 4 (+) — Chassis ground (–):*** ***(ST3) No. 3 (+) — Chassis ground (–):***	Is the voltage 5 V or more?	Go to step **2**.	Check the harness between cruise control command switch and ECM, and the steering roll connector for open or short circuit, or for poor contact.
2	**CHECK CRUISE CONTROL COMMAND SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Remove the cruise control command switch.<Ref. to CC-7, REMOVAL, Cruise Control Command Switch.> 3) Measure the resistance between harness connector terminal and chassis ground. ***Connector & terminal*** ***(ST3) No. 9 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **3**.	Check for open circuit between cruise control command switch and chassis ground.
3	**CHECK CRUISE CONTROL COMMAND SWITCH.** Check the cruise control command switch.<Ref. to CC-10, INSPECTION, Cruise Control Command Switch.>	Is the cruise control command switch normal?	Replace the ECM.<Ref. to FU(H4DO)-91, REMOVAL, Engine Control Module (ECM).>	Replace the cruise control command switch.

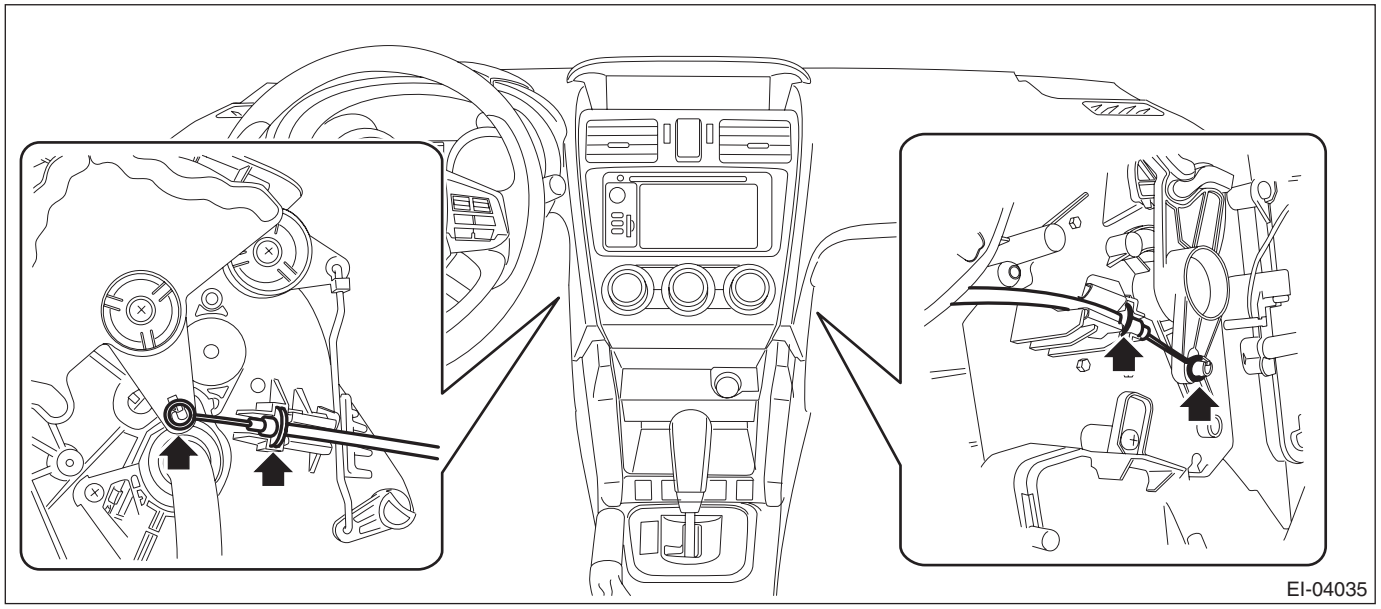
13.GPS Antenna

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the combination meter assembly. <Ref. to IDI-18, REMOVAL, Combination Meter.>
3) Remove the panel center assembly.

CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

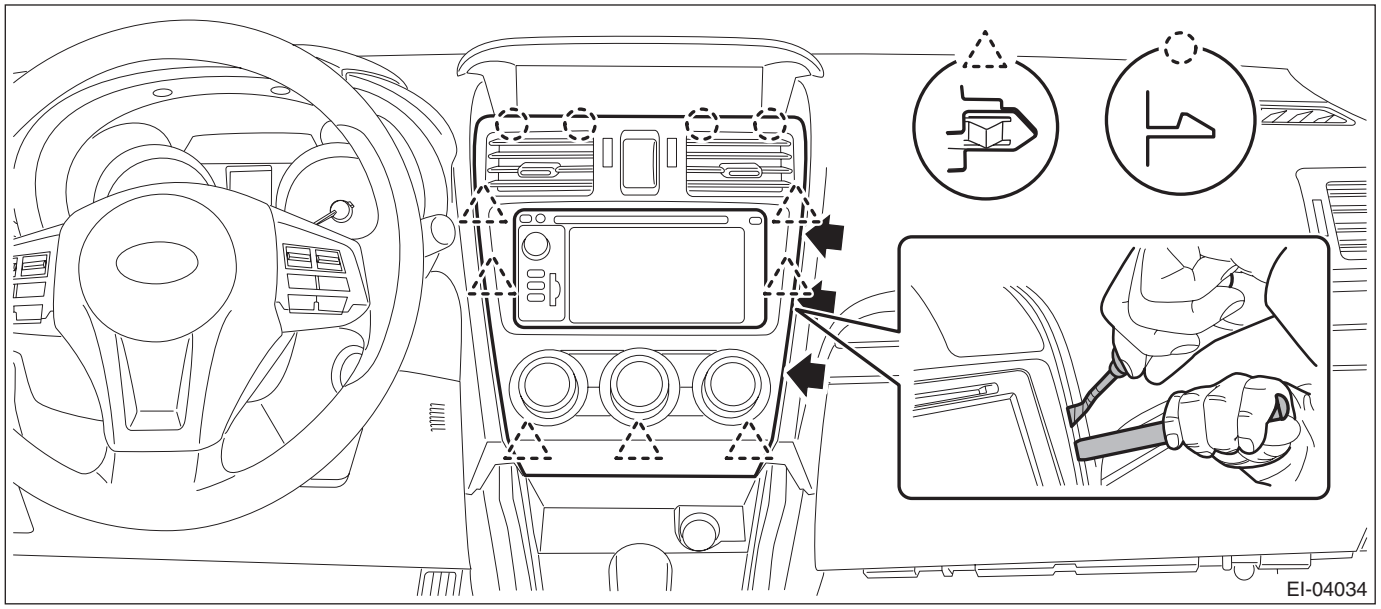
(1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.



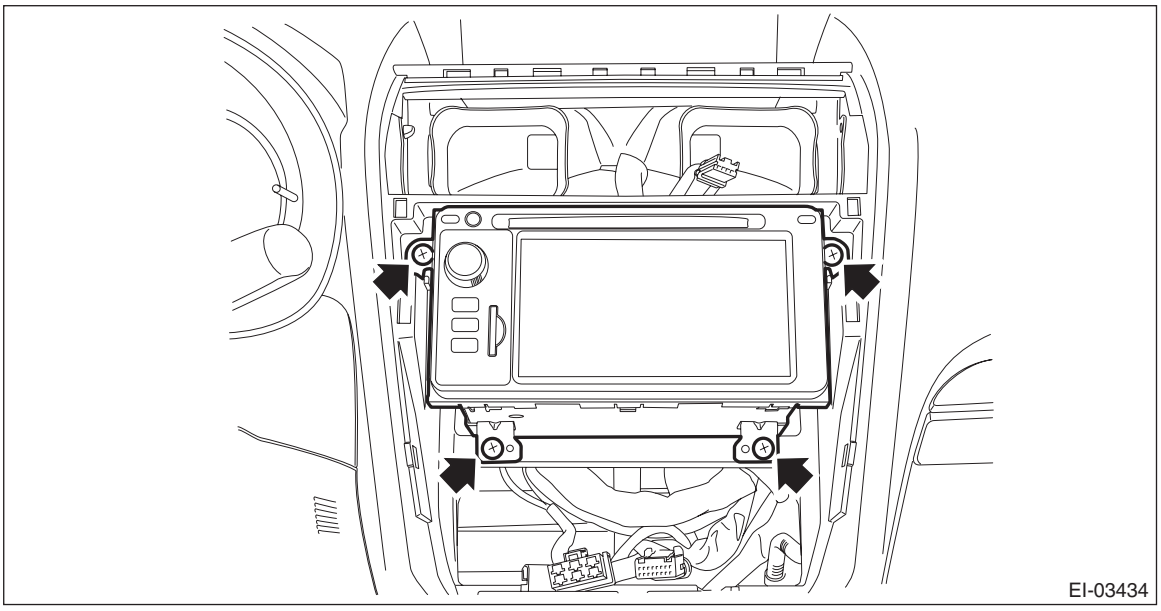
NOTE:
Remove the glove box pocket assembly on the passenger's side.

(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.

(5) Disconnect the connectors, and remove the panel center assembly.



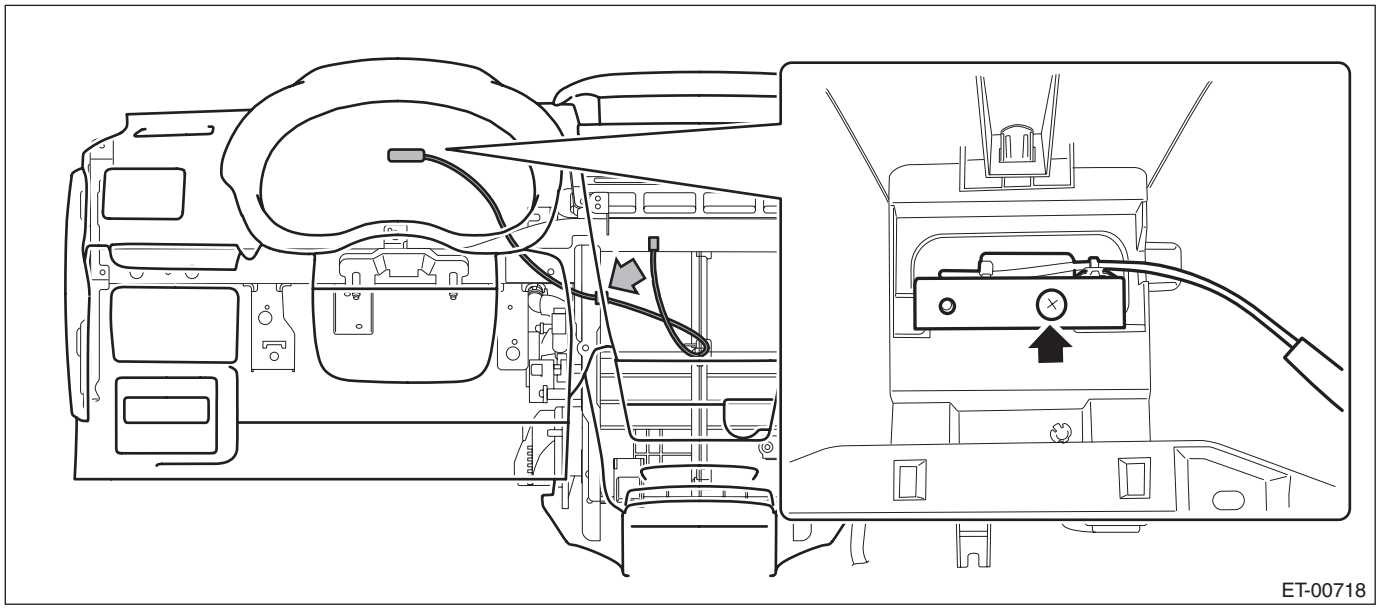
4) Remove the navigation assembly.
(1) Remove the left and right screws, and partially pull out the navigation assembly.
(2) Disconnect the connector and remove the navigation assembly.



5) Remove the GPS antenna assembly.
(1) Tie a string to the GPS antenna assembly connector on the navigation unit side.

NOTE:
A string makes operation easier during installation.

(2) Remove the screw and harness clamp, and pull out the GPS antenna assembly cord from the combination meter side.



(3) When the GPS antenna assembly is pulled out, remove the string attached to the connector in step (1).

B: INSTALLATION

CAUTION:
After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

13.Heater Core

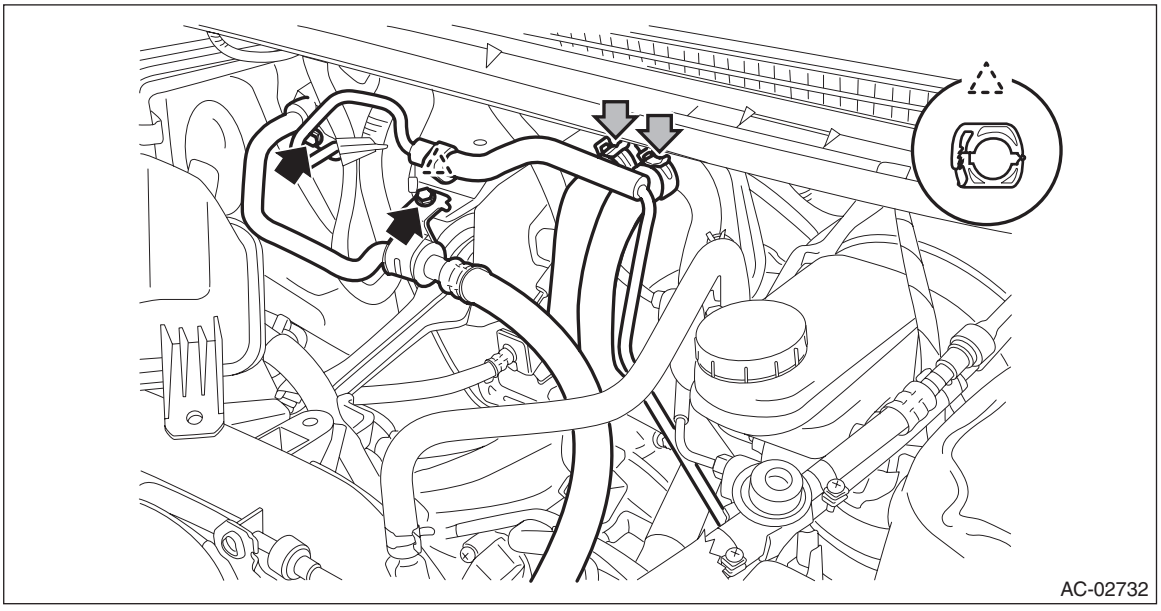
A: REMOVAL

1) Disconnect the ground cable from battery.
2) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
3) Drain the coolant from the radiator.
• Non-turbo model:<Ref. to CO(H4DO)-14, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
• Turbo model:<Ref. to CO(H4DOTC)-13, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
4) Remove the air intake boot. (Non-turbo model)<Ref. to IN(H4DO)-11, REMOVAL, Air Intake Boot.>

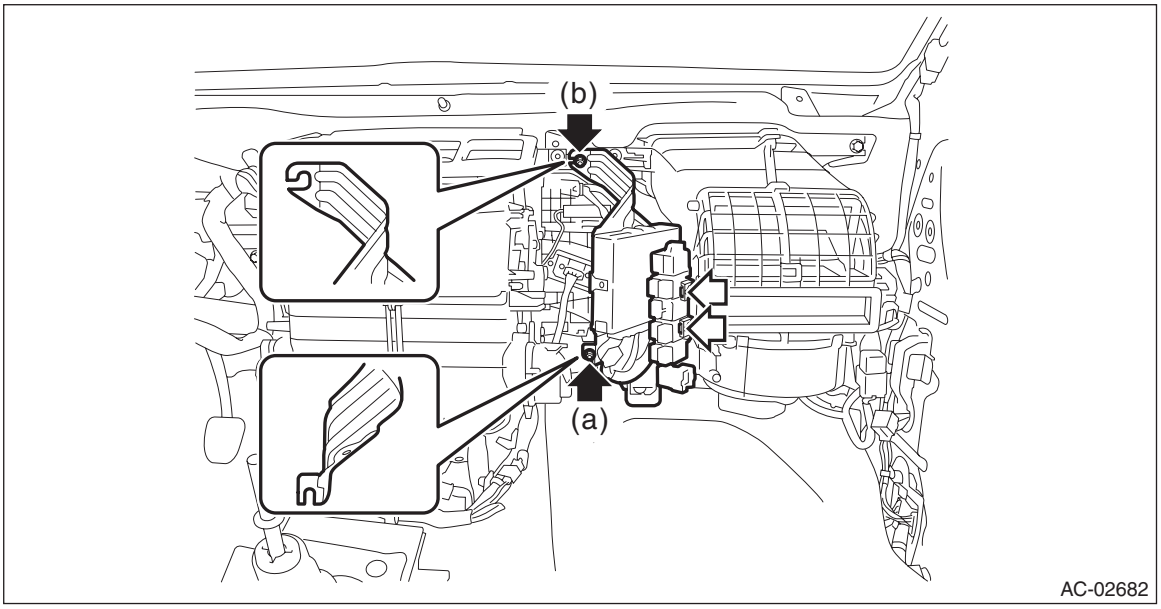
CAUTION:
Move aside the air intake boot to perform the operation without disconnecting the PCV hose.
5) Remove the intercooler. (Turbo model)<Ref. to IN(H4DOTC)-35, REMOVAL, Intercooler.>
6) Remove the bolt, and remove the hose - pressure suction and the pipe - evaporator cooling from the expansion valve - cooling.

CAUTION:
Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.
7) Loosen the heater hose clamps and remove the hoses.

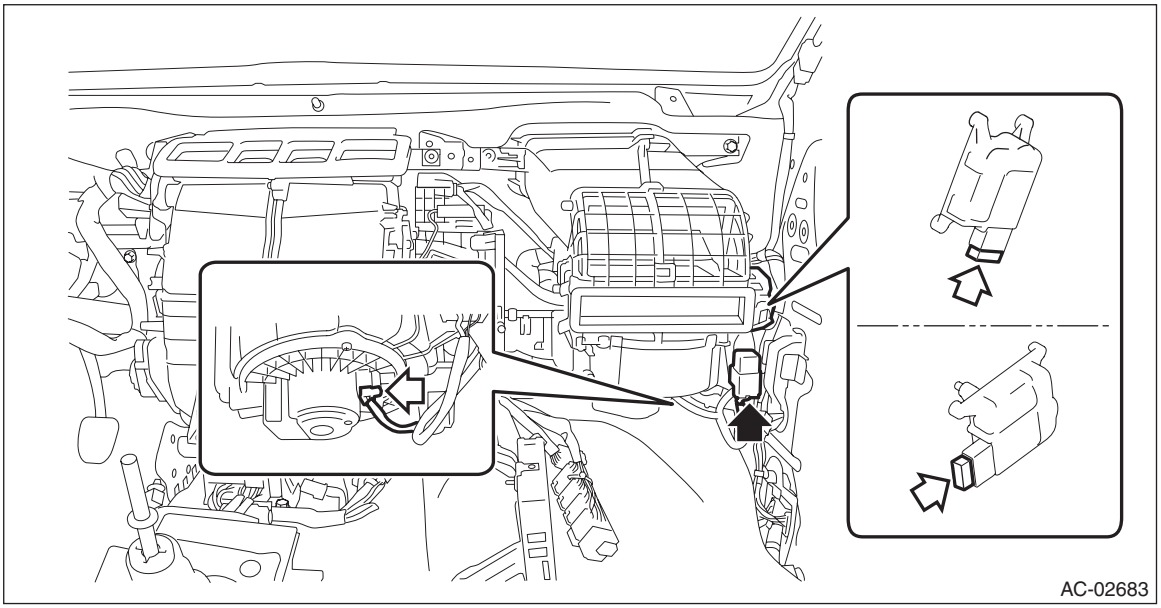
NOTE:
Put alignment marks to hoses, clamps, etc. and remove them.



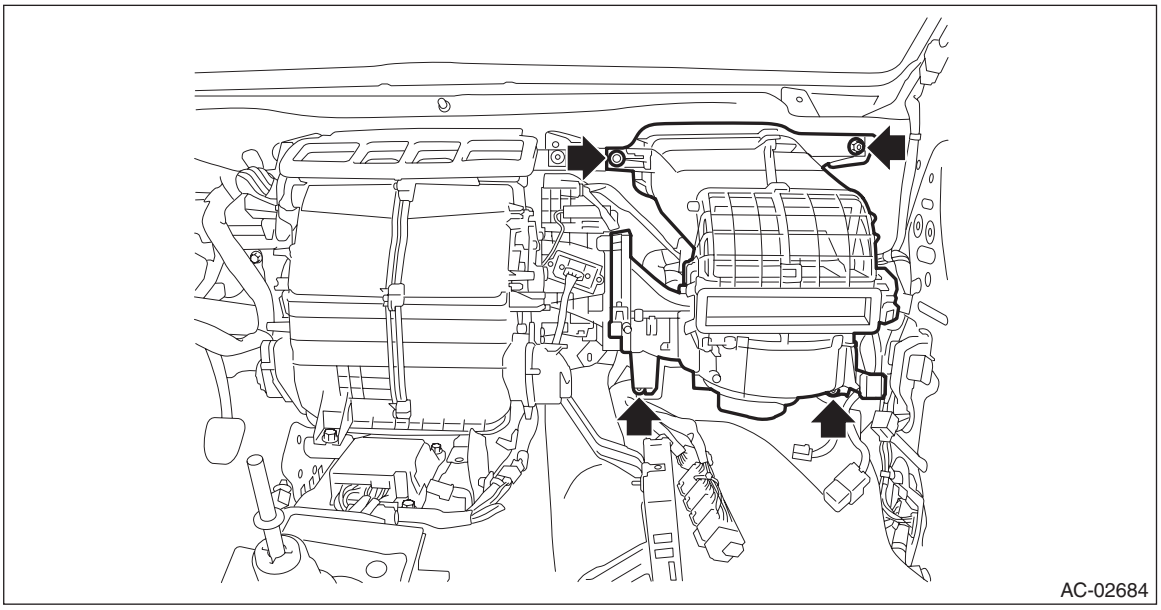
8) Remove the instrument panel assembly.<Ref. to EI-69, REMOVAL, Instrument Panel Assembly.>
9) Remove the engine control module (ECM). (Non-turbo model)
   (1) Release the lock and remove the relay holder.
   (2) Remove the nuts (a).
   (3) Loosen the bolt (b), and remove the engine control module (ECM).



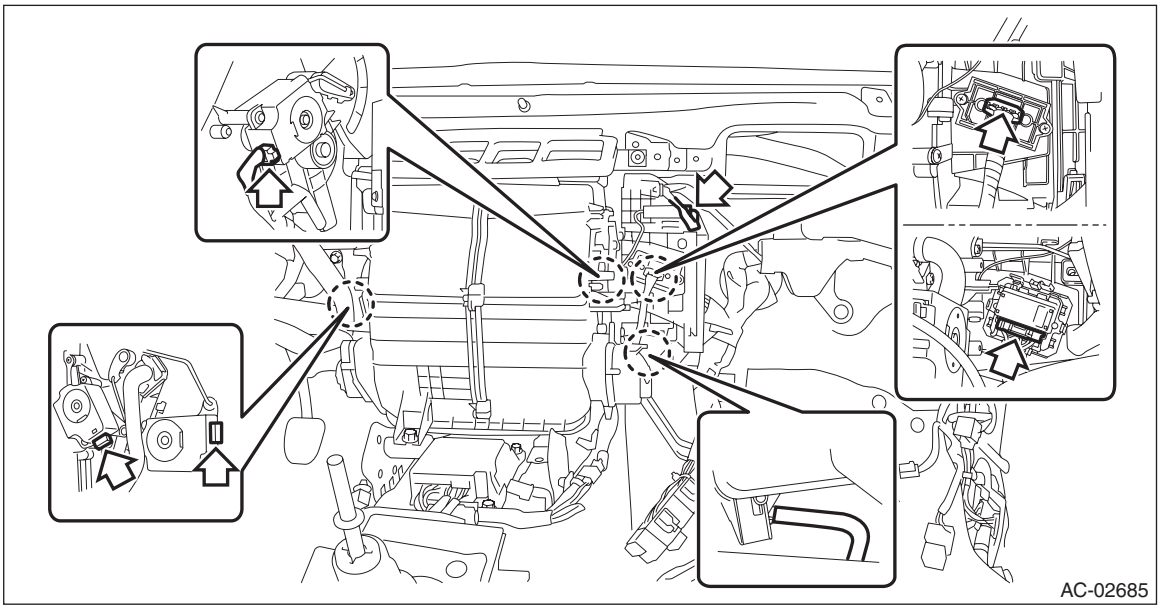
10) Remove the blower motor unit assembly.
   (1) Disconnect the blower motor relay and each connector.



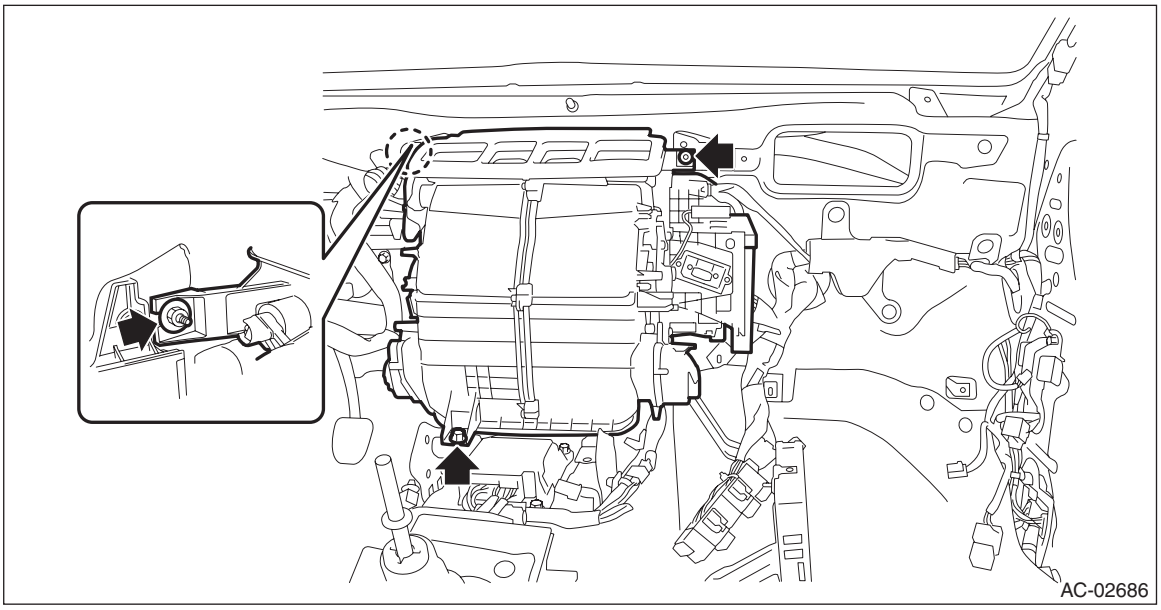
(2) Remove the bolts and nuts to remove blower motor unit assembly.



11) Remove the heater and cooling unit assembly.
(1) Disconnect each connector and the hose - drain.

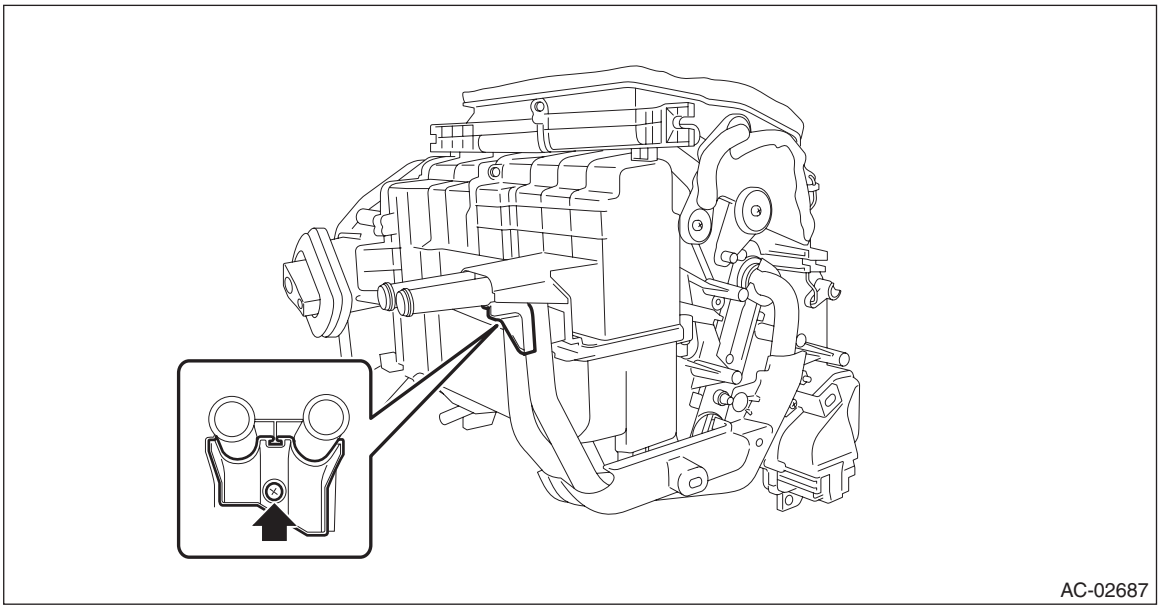


(2) Remove the bolt and nuts, and remove the heater & cooling unit assembly.

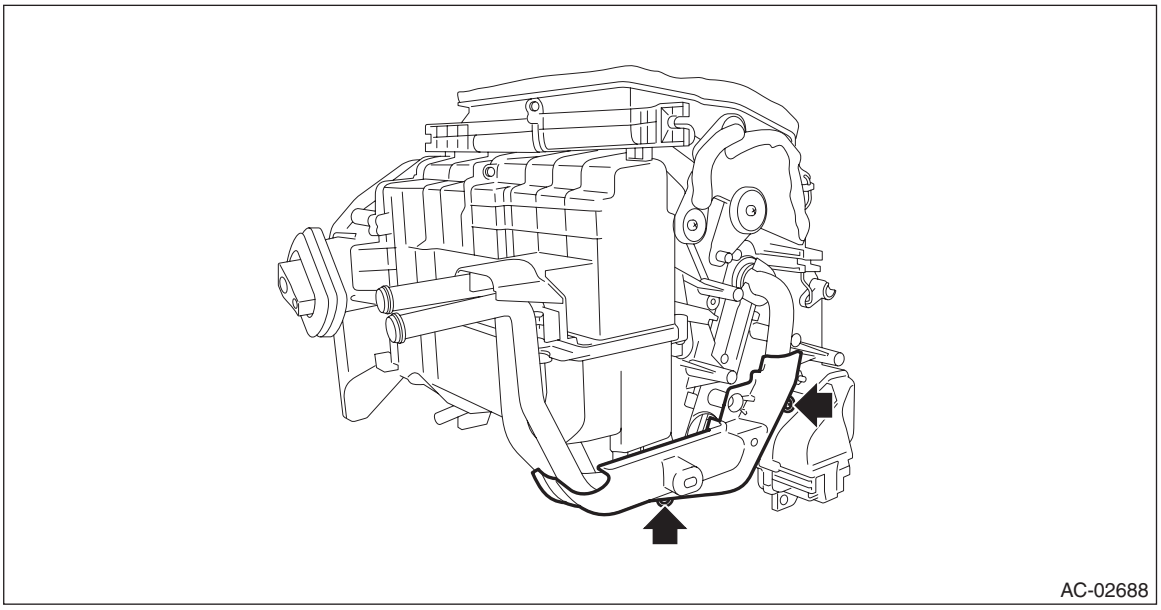


12) Remove the heater core.

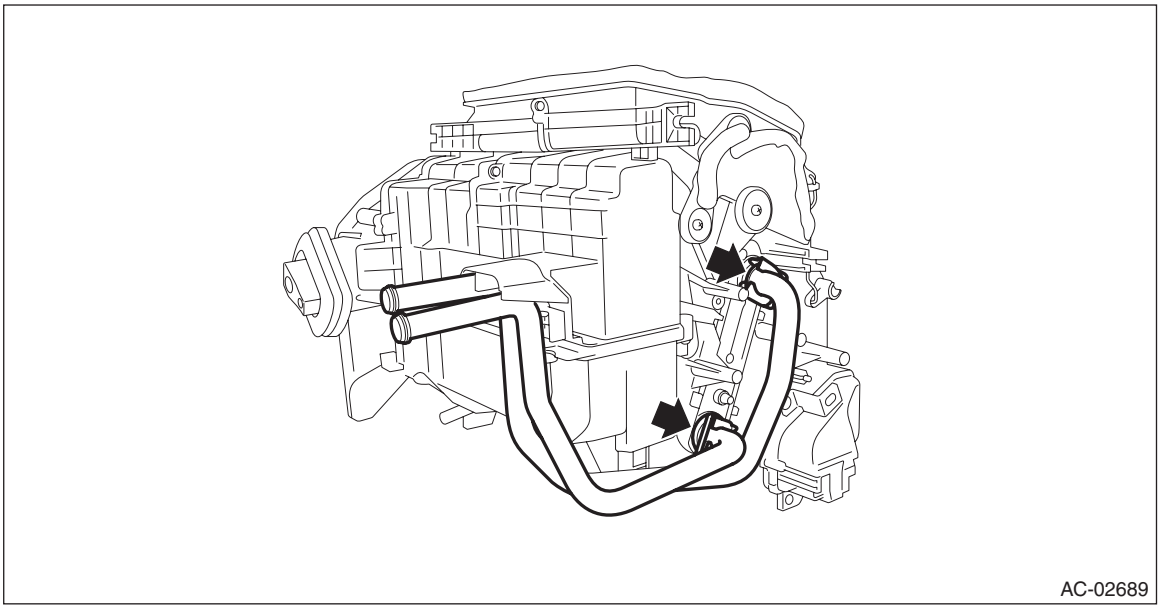
(1) Remove the screw and detach the clamp - pipe.



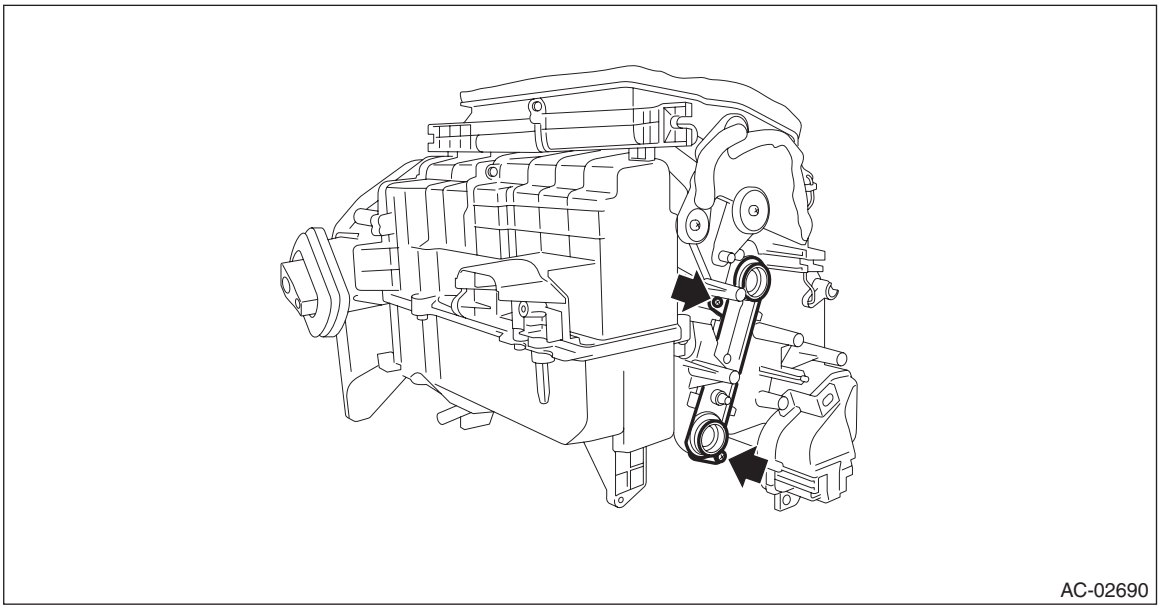
(2) Remove the screws and detach the cover - heater pipe.



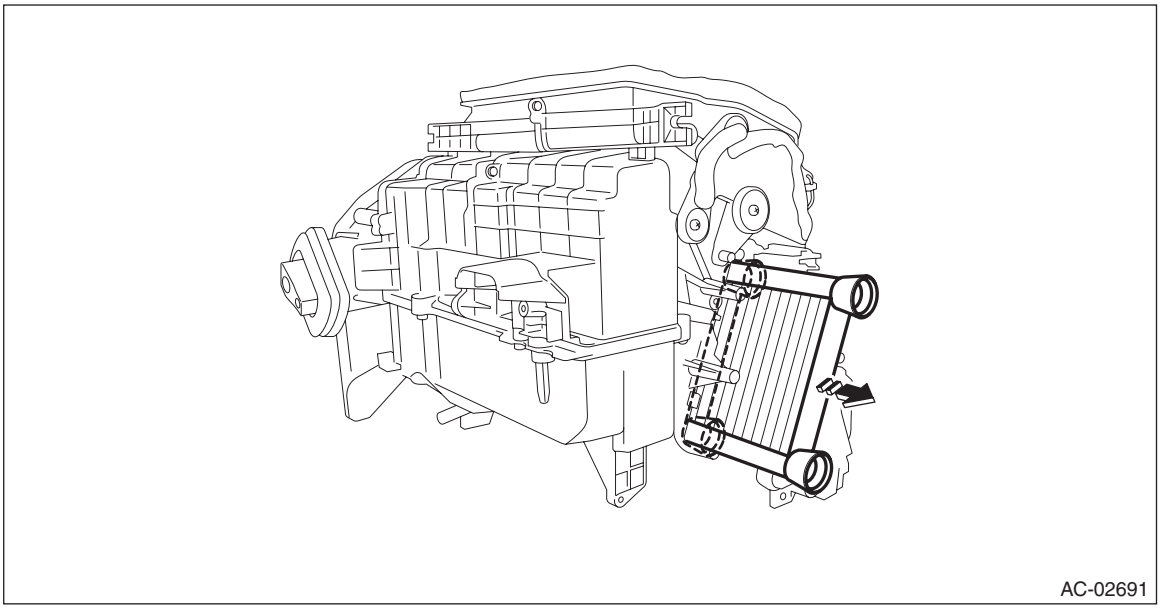
(3) Remove the clamp, and remove the pipe - inlet and outlet.



(4) Remove the screws and detach the plate - heater core.


AC-02690

(5) Pull out the heater core from the case - heater unit.


AC-02691

B: INSTALLATION

CAUTION:
Replace O-rings and clamps with new parts and install securely.
1) Install each part in the reverse order of removal.

Tightening torque:
Heater cooling unit: <Ref. to AC-6, HEATER AND COOLING UNIT, COMPONENT, General Description.>
Blower motor unit: <Ref. to AC-10, BLOWER MOTOR UNIT, COMPONENT, General Description.>
Engine control module (ECM): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
2) Fill engine coolant.
• Non-turbo model: <Ref. to CO(H4DO)-15, FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
• Turbo model: <Ref. to CO(H4DOTC)-14, FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
3) Charge refrigerant. <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

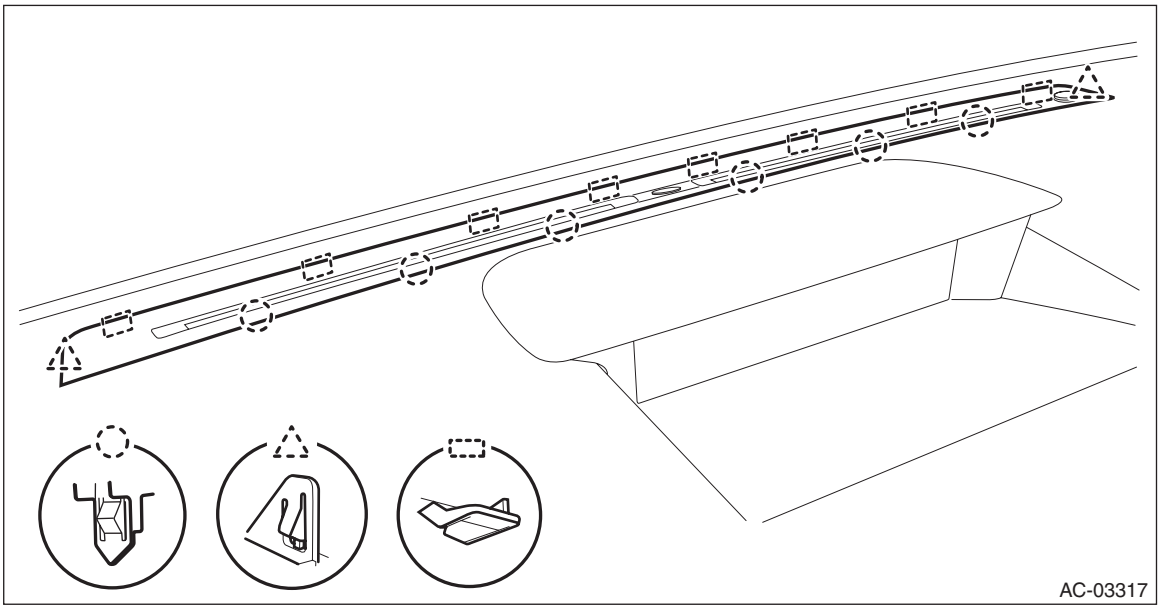
13.Light Control Sensor

A: REMOVAL

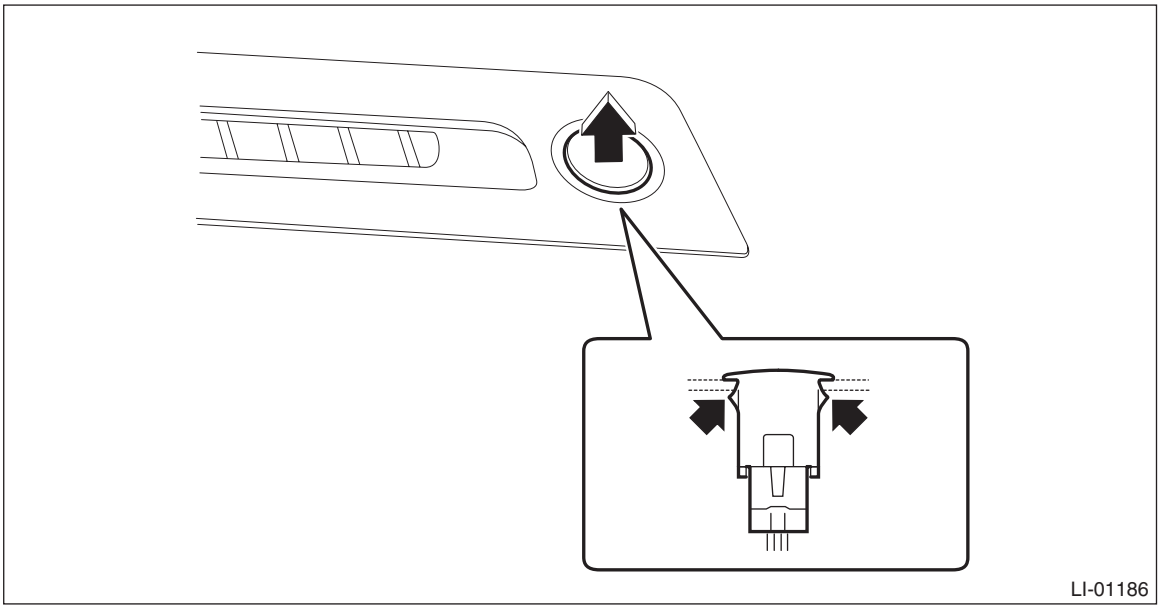
1) Disconnect the ground cable from battery.
2) Remove the sensor - automatic light.

CAUTION:
Be careful not to damage the sensors and interior trims when removing.

(1) Release the connector and claws, and remove the panel COMPL - instrument UPR.



(2) Release the claws, and remove the sensor - automatic light from the panel COMPL - instrument UPR.



B: INSTALLATION

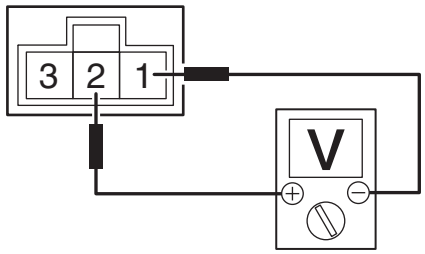
Install each part in the reverse order of removal.

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

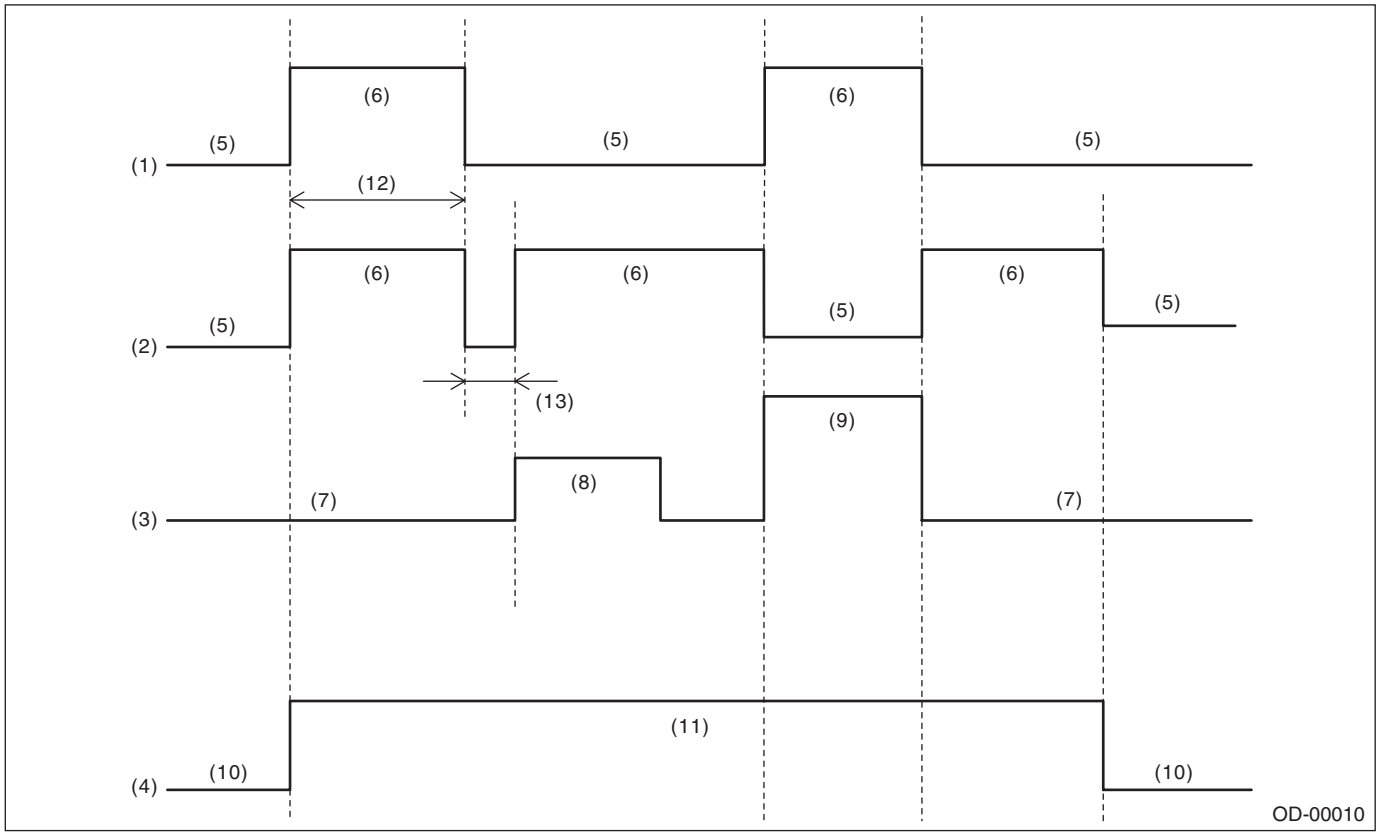
1) Turn the ignition switch to ON.
2) Set the lighting switch to AUTO position.
3) Check the voltage between the sensor terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
2 (+) — 1 (–)	Measure the voltage when the area around the sensor - automatic light, which was dark, becomes bright.	Dark condition: Approx. 0.6 V or less Bright condition: Approx. 3.0 V or more	 LI-01280

4) Replace the sensor - automatic light if the inspection result is not within the standard value.

13.Passenger's Airbag ON/OFF Indicator Light Illumination Pattern

A: INSPECTION



(1)	Passenger's airbag ON indicator light	(6)	Light ON	(10)	OFF
(2)	Passenger's airbag OFF indicator light	(7)	Empty	(11)	ON
(3)	Occupant seating	(8)	Child seat + infant	(12)	Approx. 6 seconds
(4)	Ignition switch	(9)	Adult	(13)	Approx. 2 seconds
(5)	Light OFF				

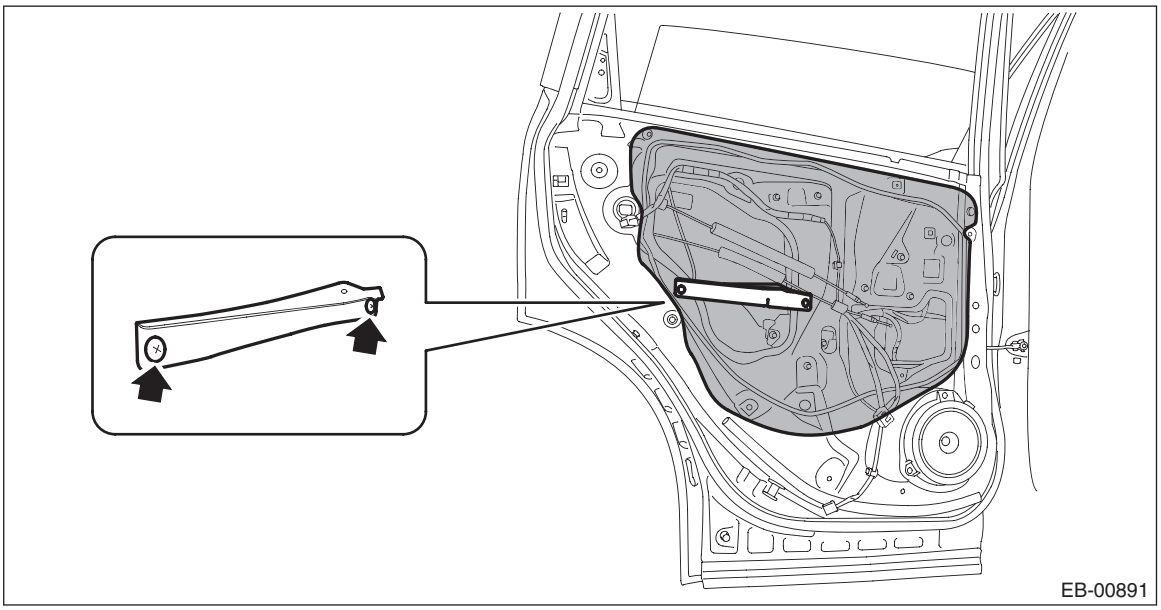
13.Rear Door Latch and Door Lock Actuator Assembly

A: REMOVAL

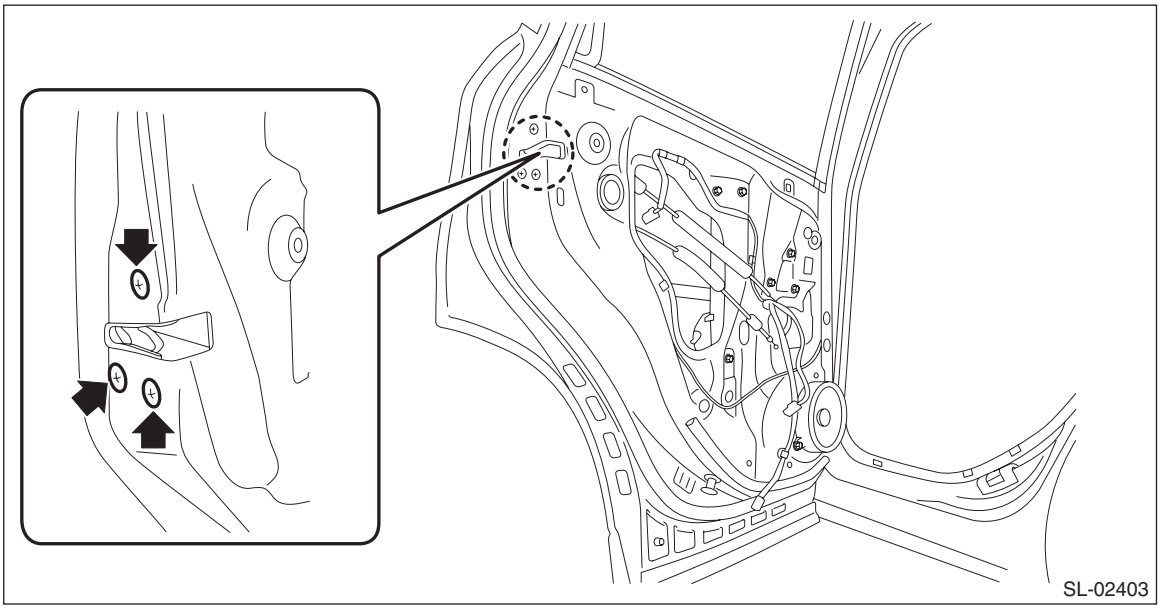
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear door. <Ref. to EI-55, REAR DOOR, REMOVAL, Door Trim.>
3) Turn over the sealing cover - rear door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - rear door.**
- **If the sealing cover - rear door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

(1) Remove the screw to remove the bracket - door trim rear.
(2) Disconnect connectors.
(3) Carefully remove the butyl tape and turn over the sealing cover - rear door within the area where the operation can be performed.



4) Remove the glass assembly - rear door. <Ref. to GW-32, REMOVAL, Rear Door Glass.>
5) Remove the screws to remove the latch & actuator assembly - rear.



B: INSTALLATION

1) Before installation, check the following items.
- Cable is free from deformation.
- Grease is applied sufficiently to lever joints.
- If grease is insufficient, add it as necessary before assembling.

2) Install each part in the reverse order of removal.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

NOTE:
Make sure the child safety lock works correctly after installation.

C: INSPECTION

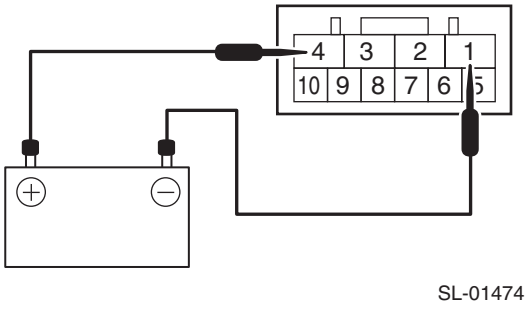
1. LATCH

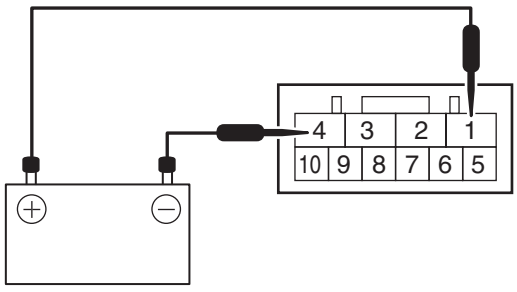
Check if the latch operates normally.
If the cable is faulty, replace the latch & actuator assembly - rear.

2. ACTUATOR

UNIT INSPECTION

1) Check door lock operation
Check the door lock operation when battery voltage is applied between the terminals of actuator.

<table>
<tr><th>Terminal No.</th><th>Inspection conditions</th><th>Specification</th><th>Connection diagram</th></tr>
<tr><td>4 (+) — 1 (–)</td><td rowspan="2">Apply battery voltage.</td><td>LOCK</td><td> 

SL-01474</td></tr>
<tr><td>1 (+) — 4 (–)</td><td>UNLOCK</td><td> 

SL-01473</td></tr>
</table>

2) If it does not operate properly as a result of inspection, replace the latch & actuator assembly - rear.

13.Rear Gate Opener Button

A: NOTE

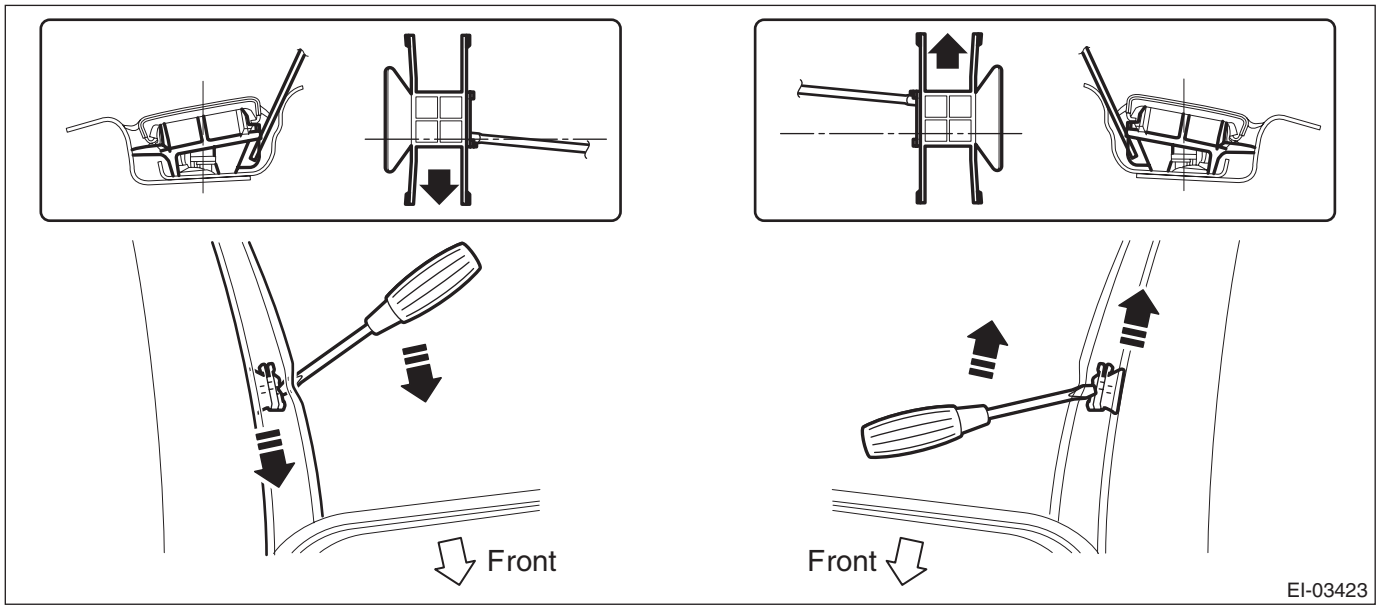
Refer to the “SECURITY AND LOCKS” section for rear gate opener button (PRG). <Ref. to SL-49, Rear Gate Opener Button.>

13.Roof Molding

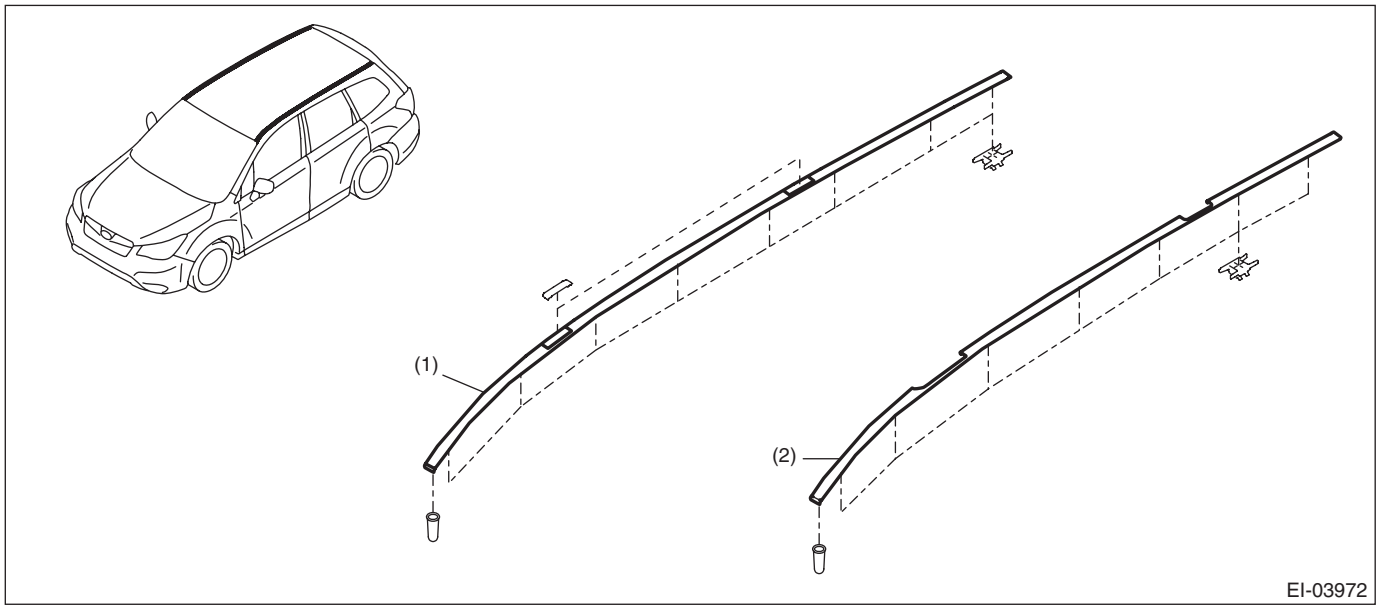
A: REMOVAL

CAUTION:
Be careful not to damage the body.

1) Remove the roof rail assembly. (model with roof rail) <Ref. to EI-53, REMOVAL, Roof Rail.>
2) Turn over the front end of the molding - roof.
3) Slide the inner fastener in the direction of the arrow using a flat tip screwdriver, then remove the fastener from the stud on the vehicle side.



Right side: Slide towards the front of the vehicle.
Left side: Slide towards the rear of the vehicle.



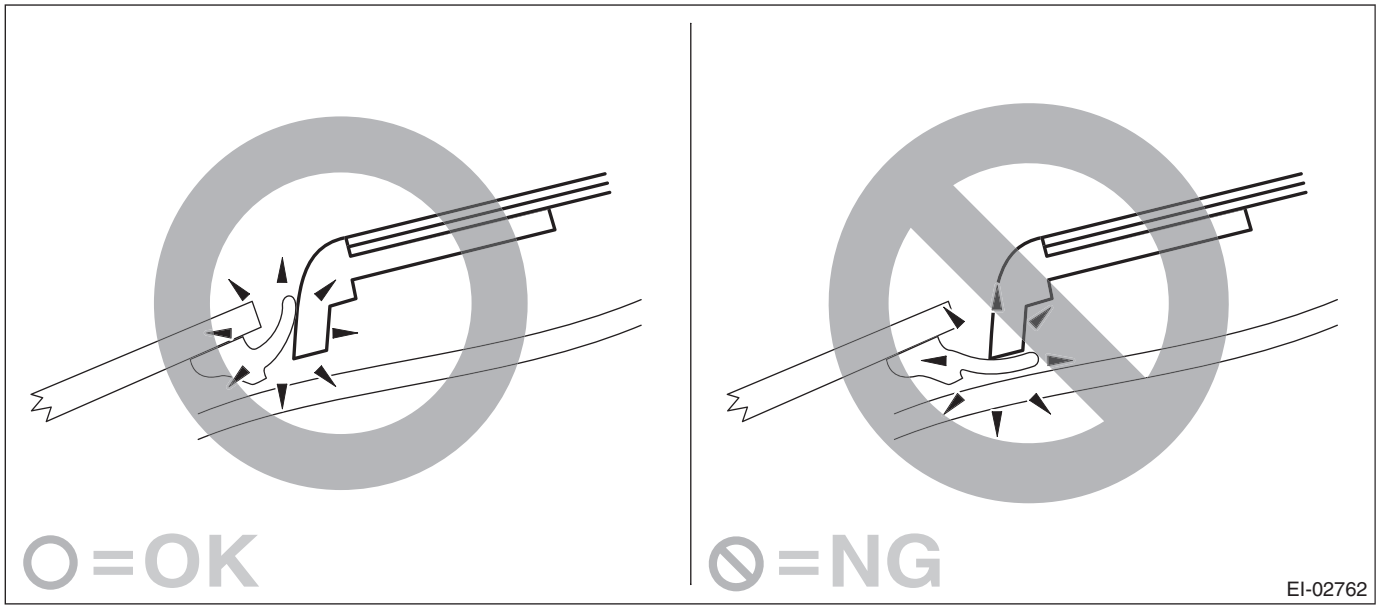
(1) Without roof rail: 8 places (2) With roof rail: 7 places

4) Pull up the molding - roof, and remove from the vehicle.

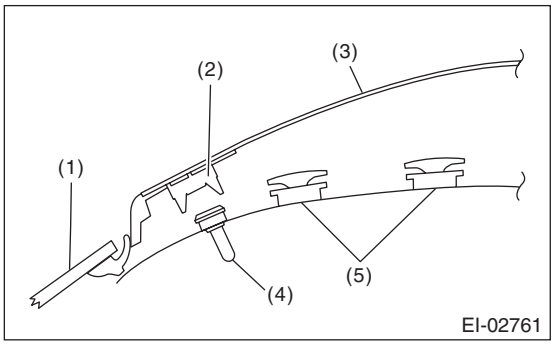
B: INSTALLATION

1) Remove the clips from the molding - roof, and attach to the studs on the vehicle.

CAUTION:
- **Always replace the clips that were damaged during removal of the molding - roof with new parts.**
- **While installing the molding - roof, be careful not to catch the glass molding with the tip of the front side and rear side.**



2) Push the front end of the molding - roof against the front window, and attach the forward positioning clip onto the rivet on the body.



(1) Windshield
(2) Positioning clip
(3) Molding - roof
(4) Rivet
(5) Clip

3) While pushing down the molding - roof from above, connect the molding - roof and the clip.

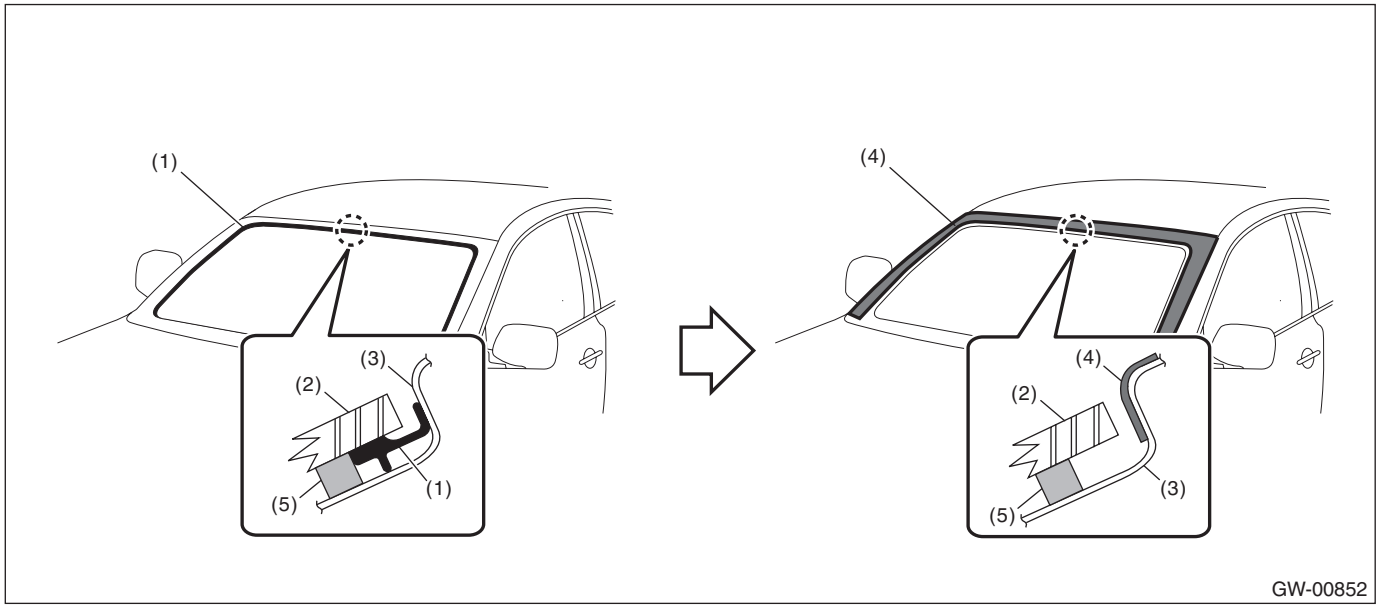
13.Windshield Glass

A: REMOVAL

CAUTION:
• For model with EyeSight, always use Subaru genuine windshield glass specially designed for EyeSight. (If the windshield glass other than the glass specially designed for EyeSight is used, the visibility of the camera is blocked or the distortion of the glass prevents the correct measurement of the object, resulting in the EyeSight abnormal operation.)
• For model with EyeSight, if the windshield glass is installed after removal or replaced, always perform the "Inspection" and "Adjustment and check" of the stereo camera.
Inspection:<Ref. to ES(diag)-8, INSPECTION, General Description.>
Adjustment and check:<Ref. to ES(diag)-43, Camera Adjustment, Inspection.>
• For model with EyeSight, if the damage is found in the glass repair prohibited area, always replace the glass. Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.

1. USING WINDSHIELD GLASS KNIFE

1) Disconnect the ground cable from battery. (Models with wiper deicer)
2) Remove the trim panel - front pillar UPR. <Ref. to EI-97, REMOVAL, Upper Inner Trim.>
3) Remove the cowl panel assembly. <Ref. to EI-45, REMOVAL, Cowl Panel.>
4) Disconnect the wiper deicer connector. (Models with wiper deicer)
5) Remove the stereo camera cover and stereo camera. (Models with EyeSight) <Ref. to ES-11, REMOVAL, Stereo Camera.>
6) Remove the molding - front window from the glass - front window, and attach protective tape on the body side of the circumference of the glass - front window.

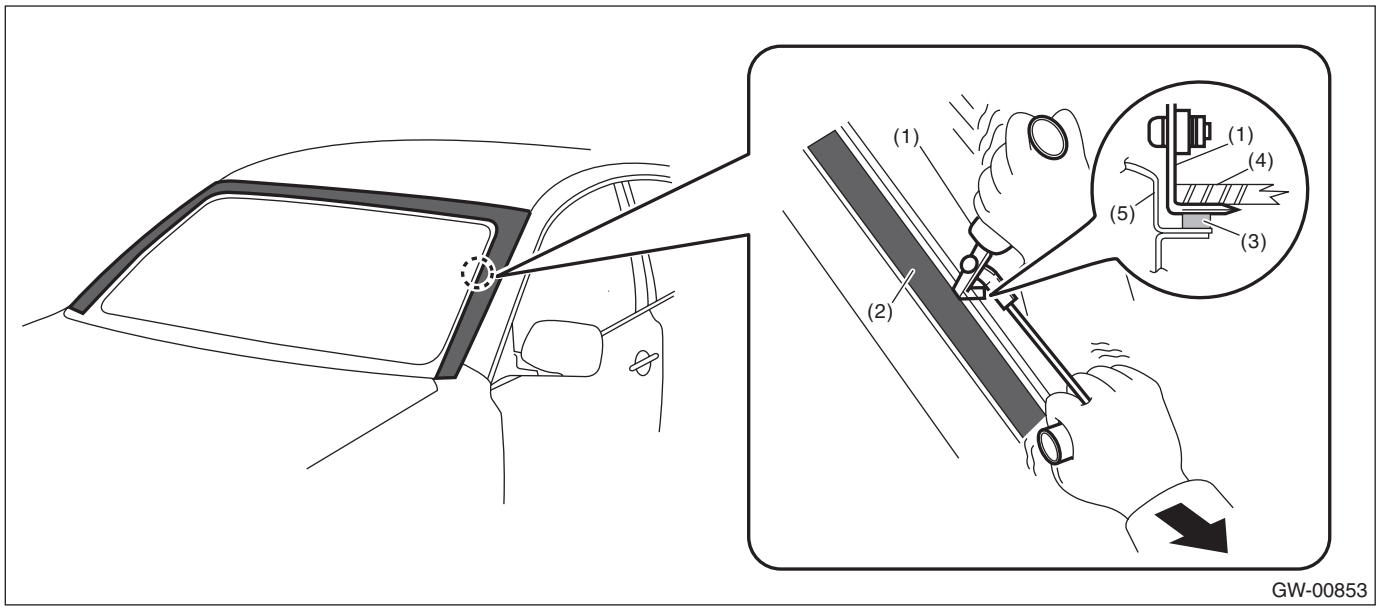


(1) Molding - front window
(2) Glass - front window
(3) Body panel
(4) Protective tape
(5) Adhesive

7) Remove the glass - front window.
(1) Apply sufficient amount of soapy water to the adhesive part and insert the windshield glass knife.

(2) While holding the edges of the knife and the glass - front window at a right angle, move the windshield glass knife parallel to the edge of the glass - front window, and cut the adhesive along the surface and the edge of the glass - front window.

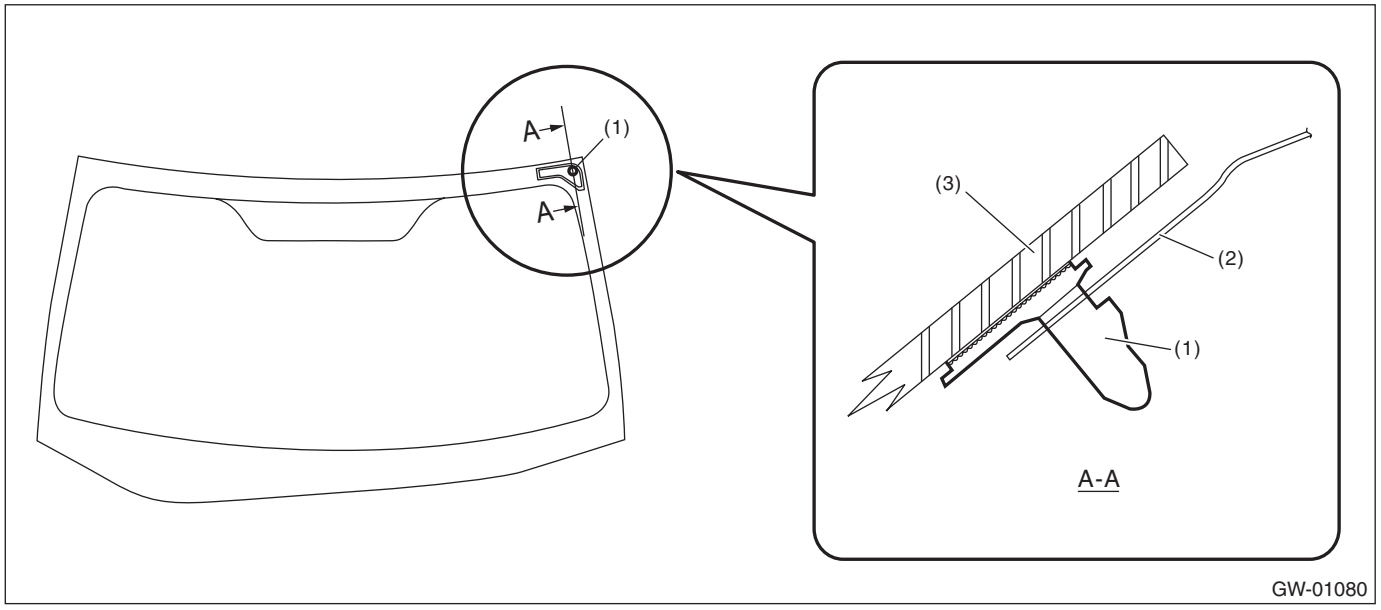
CAUTION:
• Cutting of adhesive part should be started from an area with wider gap between the glass - front window and the body.
• Never twist the windshield glass knife.



(1) Windshield glass knife
(2) Protective tape
(3) Adhesive
(4) Glass - front window
(5) Body panel

(3) Disconnect the locating pin - front window, and remove the glass - front window.

NOTE:
The locating pin - front window are bonded to the corners of the glass - front window. Use piano wire to disconnect the pins.

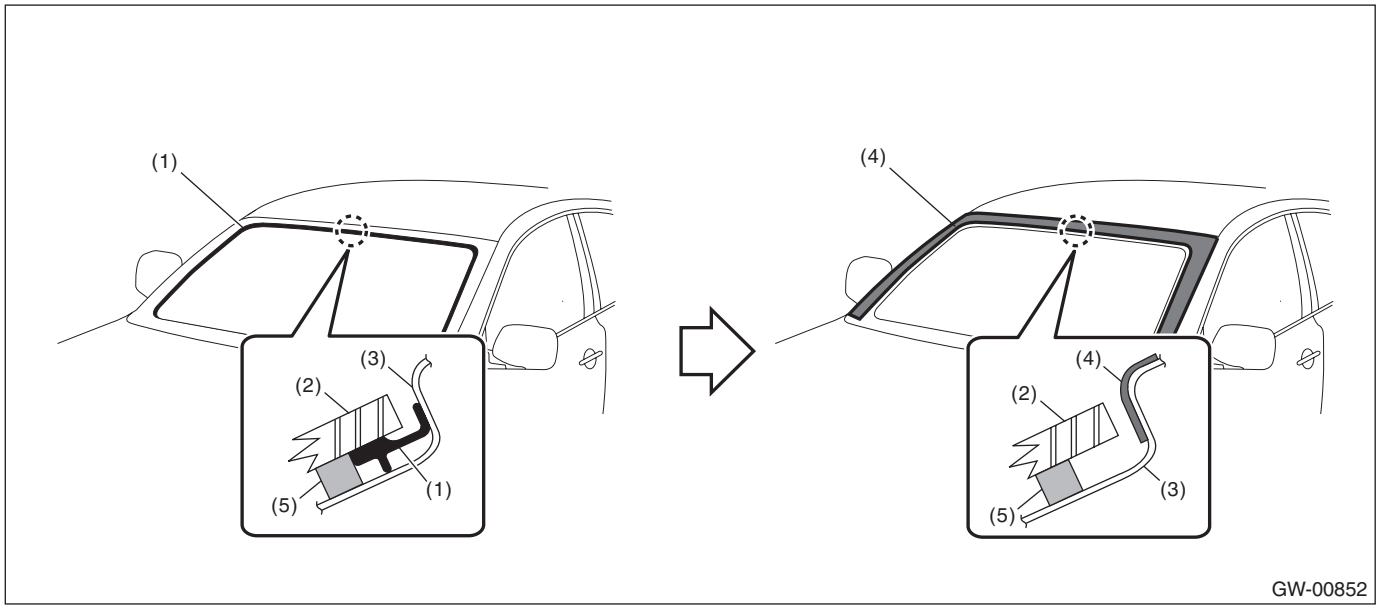


(1) Locating pin - front window
(2) Body panel
(3) Glass - front window

2. USING PIANO WIRE

CAUTION:
- **Do not tightly pull the piano wire against the glass - front window edge.**
- **Apply protective tape, etc, and be careful that the inner and outer components of the vehicle are not damaged.**
- **Do not cross piano wires. Otherwise they may be cut.**

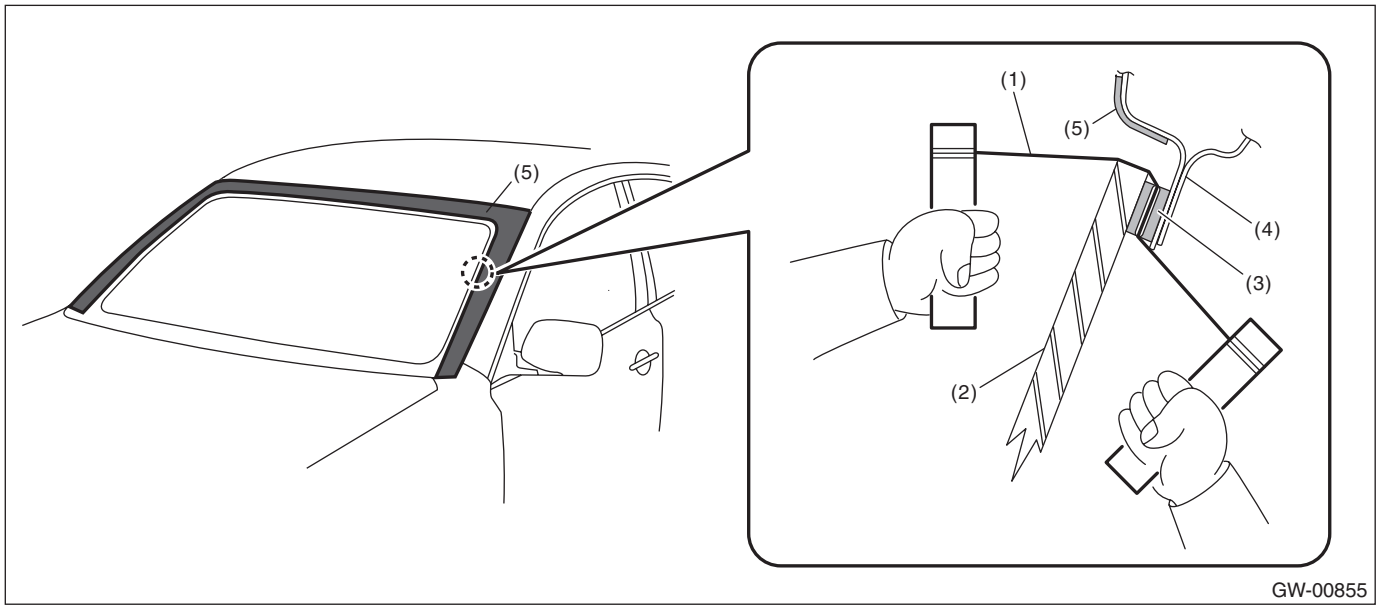
1) Disconnect the ground cable from battery. (Models with wiper deicer)
2) Remove the trim panel - front pillar UPR. <Ref. to EI-97, REMOVAL, Upper Inner Trim.>
3) Remove the cowl panel assembly. <Ref. to EI-45, REMOVAL, Cowl Panel.>
4) Disconnect the wiper deicer connector. (Models with wiper deicer)
5) Remove the stereo camera cover and stereo camera. (Models with EyeSight) <Ref. to ES-11, REMOVAL, Stereo Camera.>
6) Remove the molding - front window from the glass - front window, and attach protective tape on the body side of the circumference of the glass - front window.



(1) Molding - front window
(2) Glass - front window
(3) Body panel
(4) Protective tape
(5) Adhesive

7) Remove the glass - front window.
(1) Using a drill, make a hole in the adhesive part.
(2) Pass the piano wire through the hole, and pull the wire ends alternately to cut off the adhesive part and the locating pin - front window.

CAUTION:
Attach a piece of wood to both piano wire ends.

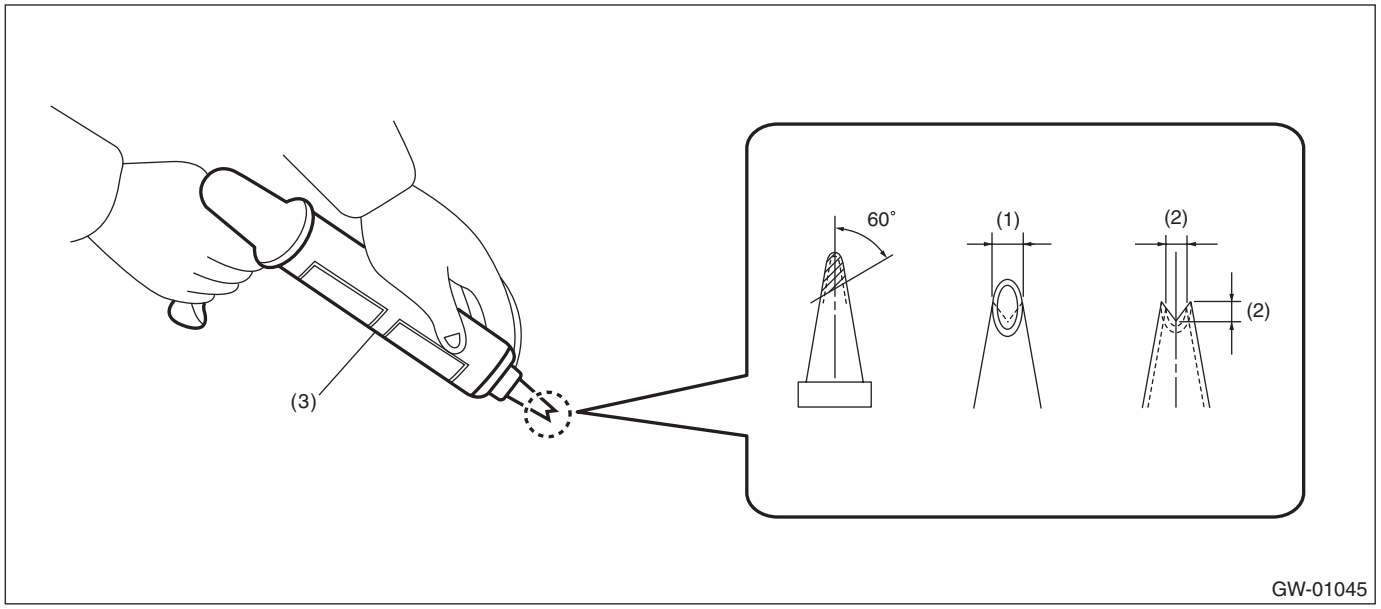


(1) Piano wire
(2) Glass - front window
(3) Adhesive
(4) Body panel
(5) Protective tape

B: INSTALLATION

CAUTION:
• For model with EyeSight, always use Subaru genuine windshield glass specially designed for EyeSight. (If the windshield glass other than the glass specially designed for EyeSight is used, the visibility of the camera is blocked or the distortion of the glass prevents the correct measurement of the object, resulting in the EyeSight abnormal operation.)
• For model with EyeSight, if the windshield glass is installed after removal or replaced, always perform the "Inspection" and "Adjustment and check" of the stereo camera.
Inspection:<Ref. to ES(diag)-8, INSPECTION, General Description.>
Adjustment and check:<Ref. to ES(diag)-43, Camera Adjustment, Inspection.>
• For model with EyeSight, if the damage is found in the glass repair prohibited area, always replace the glass. Damage in the prohibited area can affect the recognition of the stereo camera even if it is repaired, and thereby EyeSight function may not operate properly.

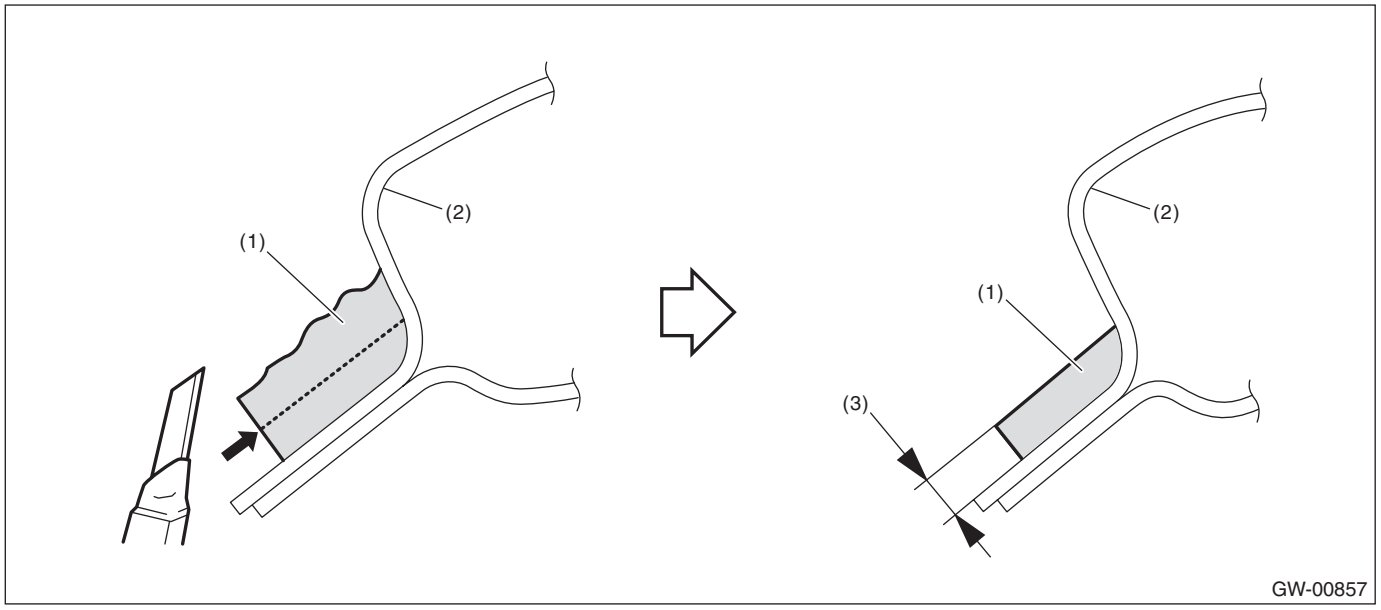
1) Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



(1) 10 mm (0.39 in) (2) 8 mm (0.31 in) (3) Sealant gun

2) Remove the adhesive layer on the body using cutter knife to obtain smooth face of 2 mm (0.08 in) thick.

CAUTION:
- **Be careful not to damage the body and paint surface.**
- **Be sure to keep some of old adhesive.**

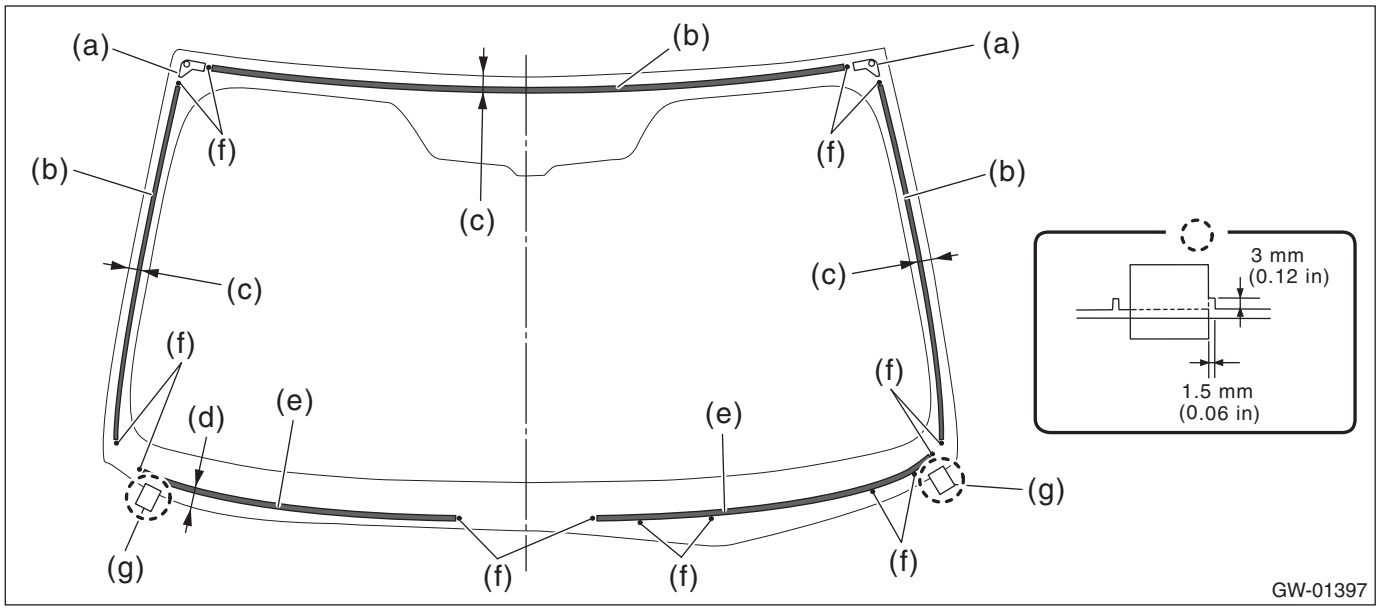


(1) Adhesive (2) Body panel (3) 2 mm (0.08 in)

3) Clean the glass - front window and the body with appropriate cleaning solvent to completely eliminate cutting powder, dust and dirt.

4) Attach the dam rubber - front to the glass - front window.

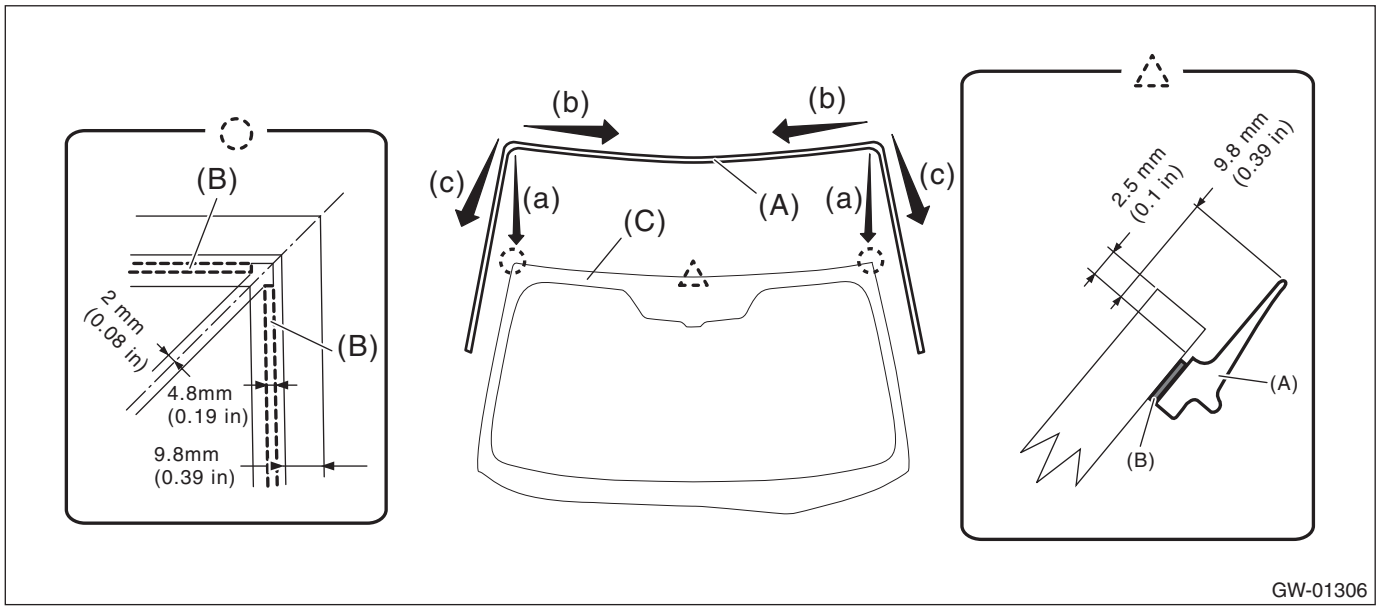
CAUTION:
• Attach the driver's side dam rubber - front lower to the constant distance of 18.5 mm (0.73 in) from the glass end.
• Attach the passenger's side dam rubber - front lower straight between the dam rubber set marks while aligning with the dam rubber set mark.



(a)	Locating pin - front window	(d)	18.5 mm (0.73 in)	(g)	Seal - lower
(b)	Dam rubber - front upper	(e)	Dam rubber - front lower		
(c)	19.8 mm (0.78 in)	(f)	Dam rubber set mark		

5) Attach the molding - front window to the glass - front window.

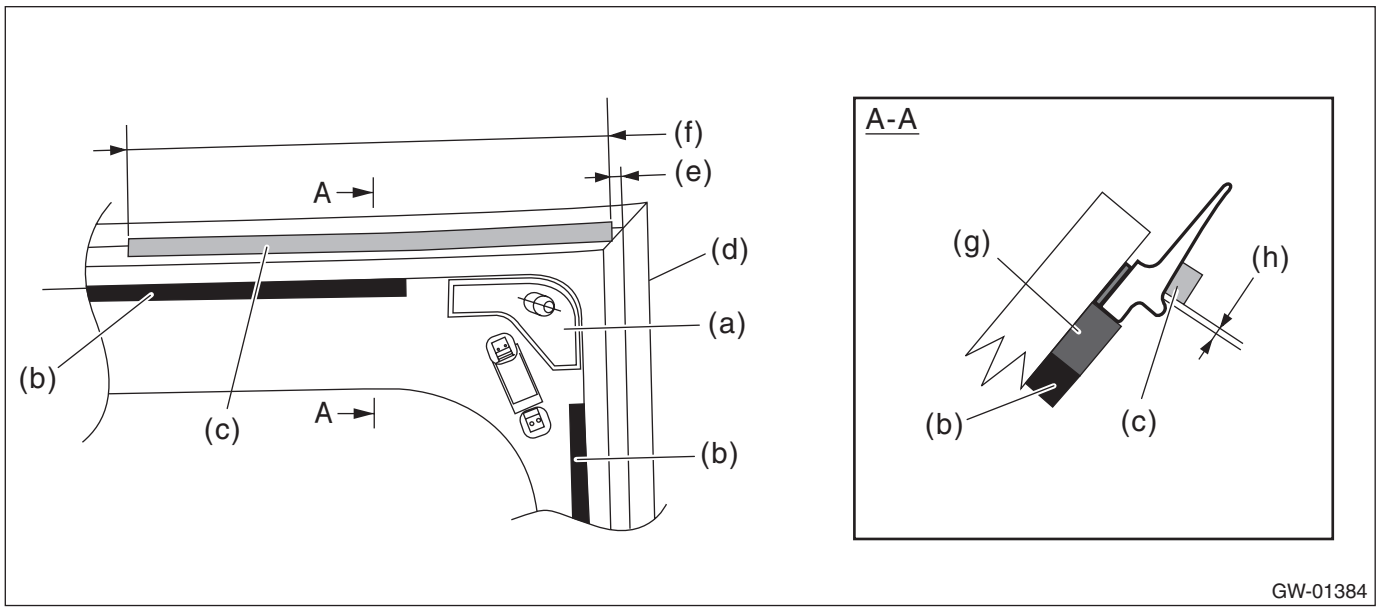
CAUTION:
Be careful to attach the molding - front window so that the molding has no loose or undulating part.



(1) Align the molding - front window (A) to the upper ends (a) of the glass - front window (C).
(2) Install the molding - front window from both corners of the upper edge toward the center (b).
(3) Install the molding - front window from both corners of the upper edge toward the lower side (c).

(4) Firmly apply the double sided tape (B) of the molding - front window evenly to the surface of the glass - front window.

6) Attach the seal - upper to the molding - front window.



(a)	Locating pin - front window	(d)	Molding - front window	(g)	Adhesive
(b)	Dam rubber - front upper	(e)	4 mm (0.16 in)	(h)	0.5 mm (0.02 in)
(c)	Seal - upper	(f)	165 mm (6.50 in)		

7) Install the glass - front window.

(1) Apply the primer to the adhesive surface of glass - front window side and body side using sponge.

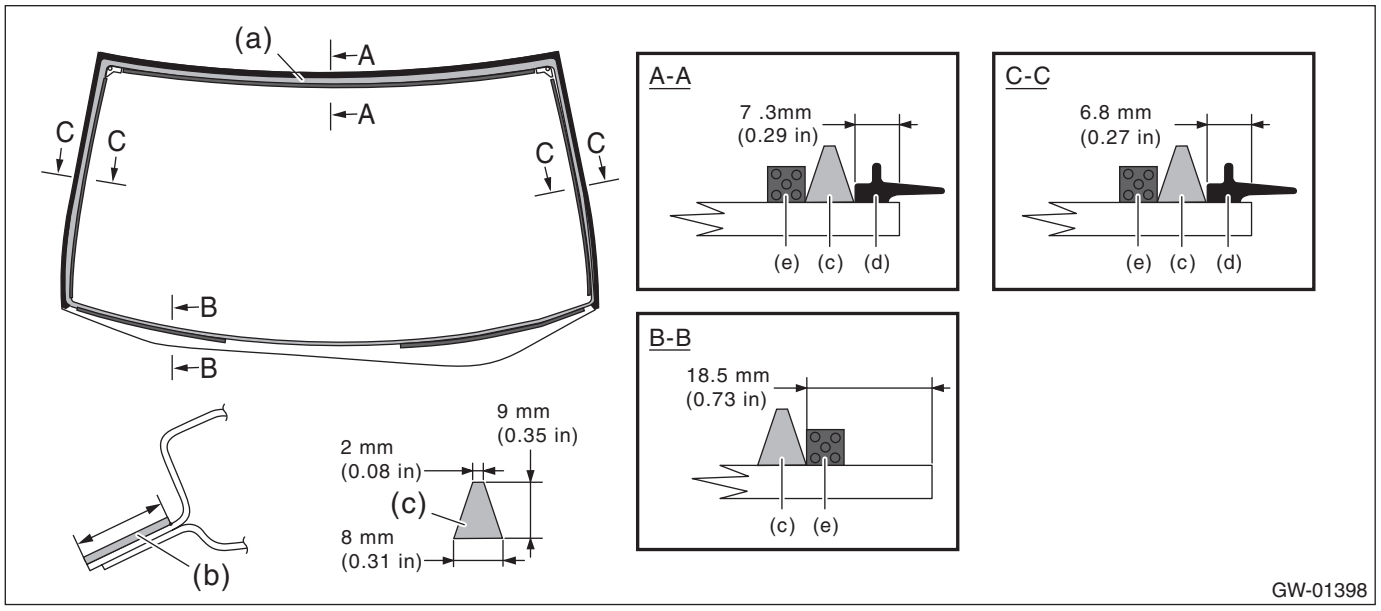
Glass primer:
Dow Automotive's
ESSEX U-401, U-402 or equivalent

Painted surface primer:
Dow Automotive's
ESSEX U-413 or equivalent

NOTE:
- Primer once attached to the painted surface of the body and internal trim is hard to wipe off. Mask the circumference of such area.
- Let primer dry for about ten minutes before installing the glass - front window.
- Do not touch the surface coated with primer.

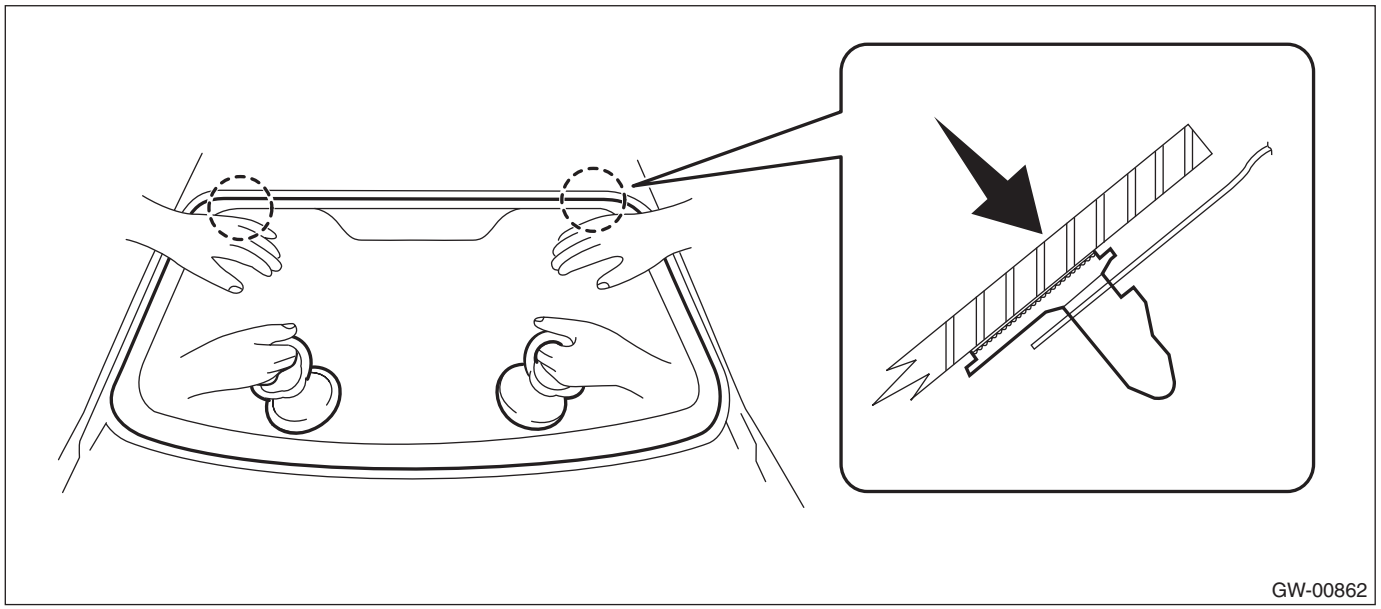
(2) Apply adhesive to the end back surface of the glass - front window.

Adhesive:
Dow Automotive's
ESSEX U-400HV or equivalent



(a) Application of primer (glass side)
(b) Application of primer (body side)
(c) Adhesive
(d) Molding - front window
(e) Dam rubber - front

(3) Fit the locating pins - front window to the vehicle body using suction rubber cups to install the windshield glass.



(4) Lightly press the entire perimeter of the glass - front window for tight fit.
(5) Make flush the adhesive surface jutted out using spatula.

8) After completion of all work, allow the vehicle to stand for about 24 hours.

NOTE:
• When opening/closing the door after the glass - front window was bonded, always lower the glass assembly - door first, and then open/close it carefully.
• Move the vehicle slowly.
• For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.

9) Connect the wiper deicer connector. (Models with wiper deicer)
10) Install the cowl panel assembly.<Ref. to EI-46, INSTALLATION, Cowl Panel.>
11) Install the stereo camera cover and stereo camera. (Models with EyeSight)<Ref. to ES-15, INSTALLATION, Stereo Camera.>
12) Install the trim panel - front pillar UPR.<Ref. to EI-101, INSTALLATION, Upper Inner Trim.>
13) Connect the battery ground terminal. (Models with wiper deicer)
14) After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

NOTE:
When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

14.Airbag Warning Light Failure

A: AIRBAG WARNING LIGHT REMAINS ON

DETECTING CONDITION:

- Airbag warning light is faulty.
- Airbag control module to combination meter circuit is shorted or open.
- Grounding circuit is faulty.
- Airbag control module is faulty.
- Connector connection is improper.
- Connections of (AB6, AB17, AB18) to airbag control module are improper.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK CAN COMMUNICATION.** Inspect LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Repair it according to diagnosis of LAN system.	Go to step **2**.
2	**CHECK DTC.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Check the connection status of airbag CM connector.	Is there poor contact of connector?	Reconnect the connector. Or repair the connector.	Go to step **3**.
3	**CHECK FOR POOR CONTACT.** Check the combination meter. <Ref. to IDI(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is there any fault?	Repair it according to INSTRUMENTATION/DRIVER INFO (DIAGNOSTICS).	Replace the airbag CM. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

B: AIRBAG WARNING LIGHT REMAINS OFF

NOTE:
For the diagnostic procedure, refer to "AIRBAG WARNING LIGHT REMAINS ON". <Ref. to AB(diag)-29, AIRBAG WARNING LIGHT REMAINS ON, Airbag Warning Light Failure.>

14.Body Integrated Unit

A: NOTE

Refer to the “SECURITY AND LOCKS” section for body integrated unit. <Ref. to SL-75, Body Integrated Unit.>

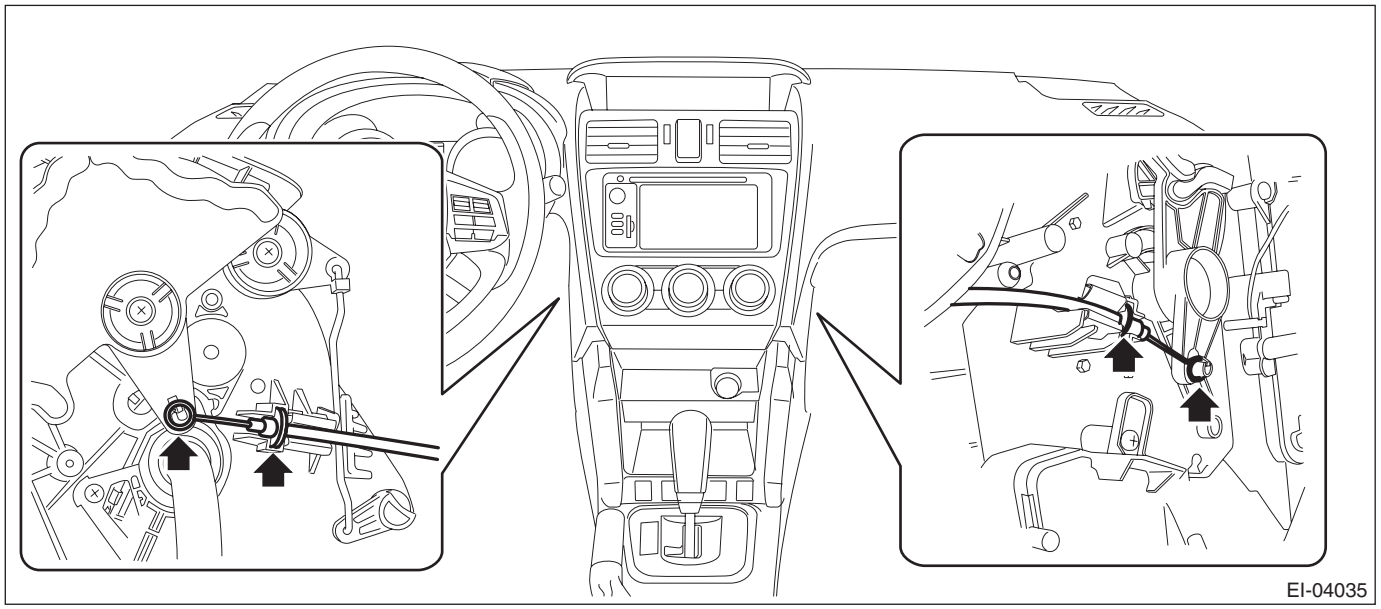
14.Control Panel

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the panel center assembly.

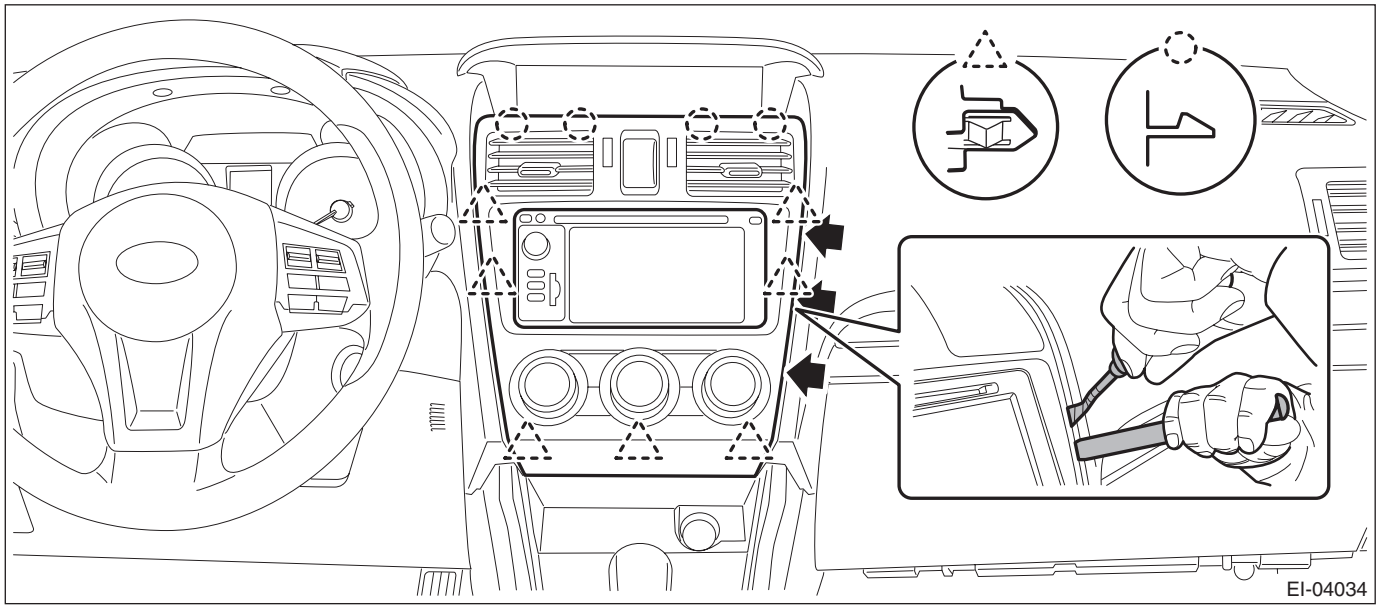
CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

(1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.

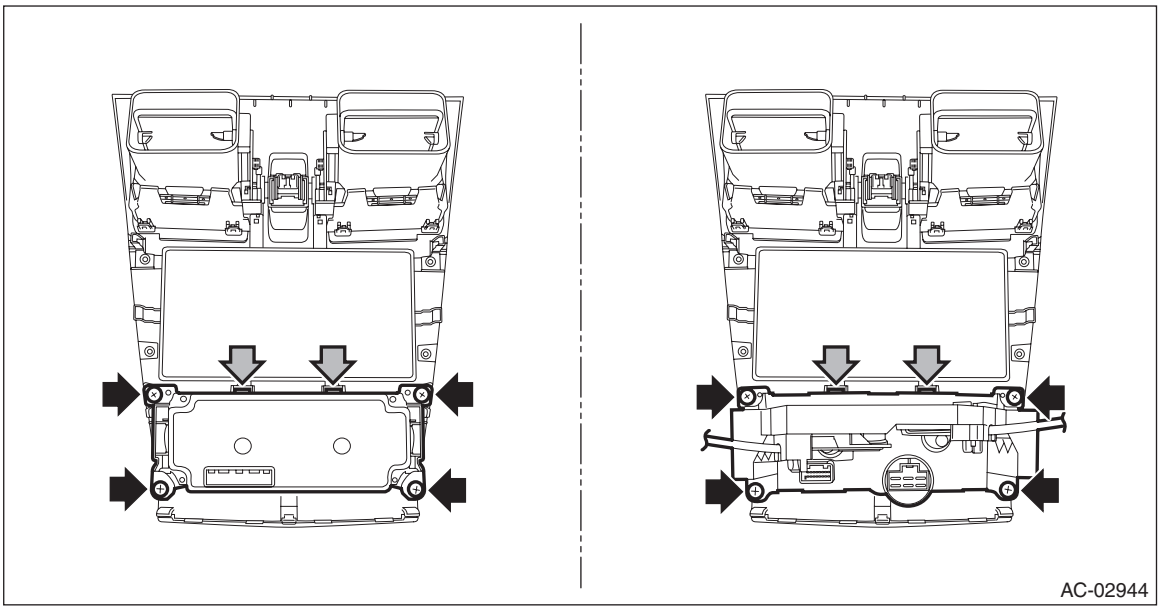

EI-04035

NOTE:
Remove the glove box pocket assembly on the passenger's side.

(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.
(5) Disconnect the connectors, and remove the panel center assembly.


EI-04034

3) Remove the heater control assembly.
   (1) Remove the screws.
   (2) Release the claws, and then remove the heater control assembly from the panel center assembly.



B: INSTALLATION

CAUTION:
After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

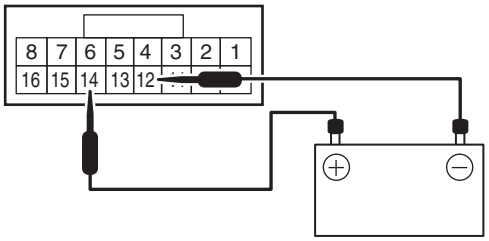
C: INSPECTION

1. CHECK ILLUMINATION

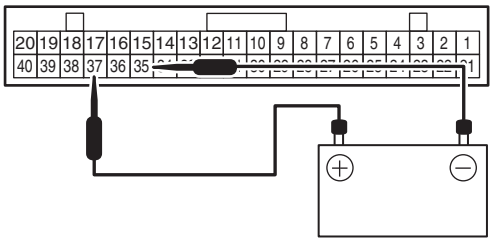
UNIT INSPECTION

1) Check the illumination operation when battery voltage is applied between the terminals of control panel.

- Manual A/C model

Terminal No.	Inspection conditions	Specification	Connection diagram
14 (+) — 12 (–)	Connect battery to the terminals	Light ON	 AC-02733

- Auto A/C model

Terminal No.	Inspection conditions	Specification	Connection diagram
37 (+) — 35 (–)	Connect battery to the terminals	Light ON	 AC-02734

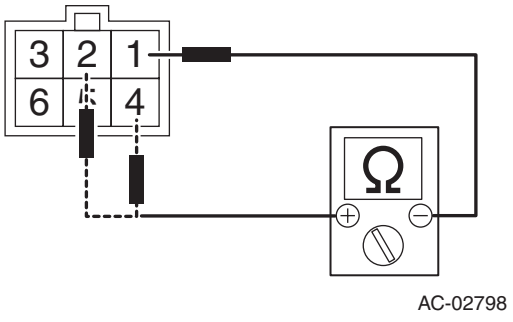
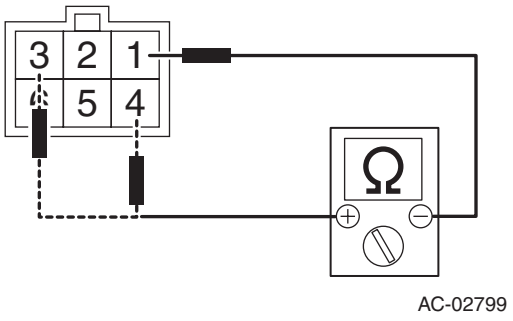
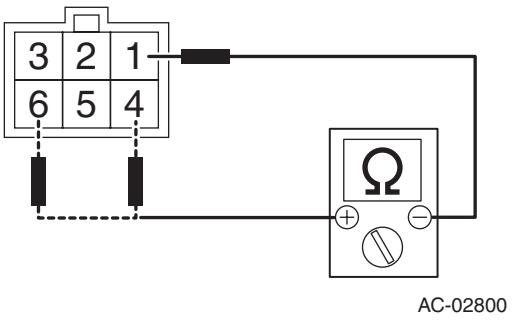
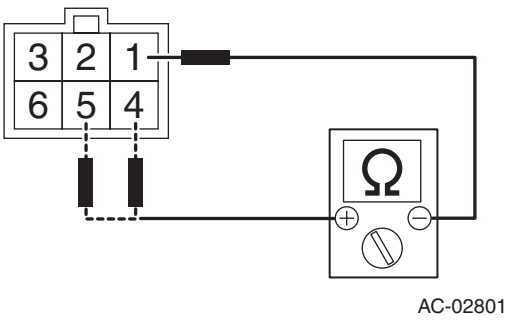
2) If it does not operate normally, replace the heater control assembly.

2. BLOWER SWITCH (MANUAL A/C MODEL)

Unit inspection

Preparation tool:
Circuit tester

1) Measure the resistance between the control panel terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
—	OFF	—	—
1 — 2, 4	1 (LO)	Less than 1 Ω	 AC-02798
1 — 3, 4	2 (M1)	Less than 1 Ω	 AC-02799
1 — 4, 6	3 (M2)	Less than 1 Ω	 AC-02800
1 — 4, 5	4 (HI)	Less than 1 Ω	 AC-02801

2) Replace the heater control assembly if the inspection result is not within the standard.

14.General Diagnostic Table

A: INSPECTION

1. IMMOBILIZER SYSTEM

Symptoms	Note
Engine does not start	<Ref. to KPS(diag)-124, ENGINE DOES NOT START, INSPECTION, Diagnostics with Phenomenon.>
	<Ref. to KPS(diag)-66, DTC B2784 ANTENNA COIL FAULT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
	<Ref. to KPS(diag)-75, DTC B278A ABNORMAL IMMOBILIZER POWER SUPPLY, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
	<Ref. to KPS(diag)-67, DTC B2785 LIN COMMUNICATION ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
	Check the brake switch. <Ref. to BR-72, INSPECTION, Stop Light Switch.>
	Check the parking switch signal. <Ref. to CS-60, INSPECTION, AT Shift Lock Solenoid and “P” Range Switch.>
	Check the DTC of the ECM.
Cannot register the immobilizer.	Refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.
Engine does not start with the remote engine starter.	<Ref. to KPS(diag)-63, DTC B2779 REMOTE CONTROL ENGINE STARTER COMMUNICATION COLLATION NG, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

2. KEYLESS ACCESS SYSTEM

Symptoms	Reference
All doors cannot be locked/unlocked with keyless access.	<Ref. to KPS(diag)-99, KEYLESS ACCESS LOCK/UNLOCK CANNOT BE PERFORMED FROM ANY OF THE DOORS, INSPECTION, Diagnostics with Phenomenon.>
Cannot lock with keyless access from the driver’s door.	<Ref. to KPS(diag)-101, CANNOT LOCK WITH KEYLESS ACCESS FROM THE DRIVER’S DOOR, INSPECTION, Diagnostics with Phenomenon.>
Cannot lock/unlock from the driver’s door with keyless access.	<Ref. to KPS(diag)-102, CANNOT LOCK/UNLOCK WITH KEYLESS ACCESS FROM THE DRIVER’S DOOR, INSPECTION, Diagnostics with Phenomenon.>
Cannot unlock from the driver’s door with keyless access.	<Ref. to KPS(diag)-103, CANNOT UNLOCK WITH KEYLESS ACCESS FROM THE DRIVER’S DOOR, INSPECTION, Diagnostics with Phenomenon.>
Cannot unlock from the passenger’s door with keyless access.	<Ref. to KPS(diag)-106, CANNOT UNLOCK WITH KEYLESS ACCESS FROM THE PASSENGER’S DOOR, INSPECTION, Diagnostics with Phenomenon.>
Cannot lock/unlock from the passenger’s door with keyless access.	<Ref. to KPS(diag)-105, CANNOT LOCK/UNLOCK WITH KEYLESS ACCESS FROM THE PASSENGER’S DOOR, INSPECTION, Diagnostics with Phenomenon.>
Cannot lock from the passenger’s door with keyless access.	<Ref. to KPS(diag)-104, CANNOT LOCK WITH KEYLESS ACCESS FROM THE PASSENGER’S DOOR, INSPECTION, Diagnostics with Phenomenon.>
Keyless access passenger room buzzer does not sound.	<Ref. to KPS(diag)-107, THE KEYLESS ACCESS PASSENGER ROOM BUZZER DOES NOT SOUND, INSPECTION, Diagnostics with Phenomenon.>
Keyless access external buzzer does not beep.	<Ref. to KPS(diag)-107, KEYLESS ACCESS EXTERNAL BUZZER DOES NOT BEEP, INSPECTION, Diagnostics with Phenomenon.>
Interior collation does not function.	<Ref. to KPS(diag)-108, INTERNAL COLLATION DOES NOT FUNCTION, INSPECTION, Diagnostics with Phenomenon.>
Rear gate cannot be unlocked with the rear gate opener button.	<Ref. to KPS(diag)-111, REAR GATE CANNOT BE UNLOCKED WITH THE REAR GATE OPENER BUTTON, INSPECTION, Diagnostics with Phenomenon.>
Rear gate can not be locked when using the rear lock button.	<Ref. to KPS(diag)-113, CAN NOT LOCK WHEN USING THE REAR LOCK BUTTON, INSPECTION, Diagnostics with Phenomenon.>

3. STEERING LOCK SYSTEM

Symptoms	Index
The steering lock cannot be released (Cannot start the engine).	<Ref. to KPS(diag)-115, THE STEERING LOCK IS NOT RELEASED, INSPECTION, Diagnostics with Phenomenon.>
The steering lock does not operate.	<Ref. to KPS(diag)-116, THE STEERING LOCK DOES NOT OPERATE, INSPECTION, Diagnostics with Phenomenon.>

4. POWER SUPPLY SWITCHING SYSTEM

Symptoms	Reference
Power will not turn ON (both accessory and ignition).	<Ref. to KPS(diag)-117, POWER WILL NOT TURN ON (BOTH ACCESSORY AND IGNITION), INSPECTION, Diagnostics with Phenomenon.>
Power will not turn ON (Accessory only).	<Ref. to KPS(diag)-120, POWER WILL NOT TURN ON (ACCESSORY DOES NOT TURN ON, BUT IGNITION TURNS ON), INSPECTION, Diagnostics with Phenomenon.>
Power will not turn ON (Ignition only).	<Ref. to KPS(diag)-122, POWER WILL NOT TURN ON (ACCESSORY TURNS ON, BUT IGNITION DOES NOT TURN ON), INSPECTION, Diagnostics with Phenomenon.>

14.General Diagnostic Table

A: INSPECTION

Using the Subaru Select Monitor, read DTC, or check the following data on the current data display to make judgments.

Item	Operation	Specifications		Note
		YES	NO	
Diagnostic code	DTC is not displayed when inspecting all DTCs.	DTC is not displayed.	Perform the diagnosis according to DTC.	—
Clearance light (Low beam) (High beam)	Clearance light and low/high beams illuminate normally when the switch is operated. Indicator in the meter illuminates at the same time.	System is normal.	Check the lighting system, combination meter system and LAN system.	—
Auto light	When the area around the light control sensor is darkened after the ignition switch and the lighting switch (AUTO) are turned to ON, the clearance light and the low beam illuminate after 15 seconds. Indicator in the combination meter illuminates at the same time.	System is normal.	Check the lighting system, combination system and LAN system.	—
	When the ignition switch and the lighting switch (AUTO) are turned to ON after the area around the light control sensor is darkened, the clearance light and the low beam illuminate immediately. Indicator in the combination meter illuminates at the same time.			—
Fog light	Front fog light illuminates when the switch is operated. Indicator in the meter illuminates at the same time.	System is normal.	Check the lighting system, combination meter system and LAN system.	—
Rear defogger	Rear defogger operates when the switch is operated. The indicator illuminates at the same time.	System is normal.	Check the rear window defogger system and A/C system.	—
Wiper deicer	Wiper deicer operates when the switch is operated. The indicator illuminates at the same time. When the ambient temperature is 5°C (41°F) or higher, press the switch 3 seconds or more to forcibly activate the system.	System is normal.	Check the wiper deicer system and A/C system.	Wiper deicer operates when “Wiper deicer setting” of the body integrated unit is set to on.
DRL	After starting the engine and releasing the parking brake, the DRL illuminates.	System is normal.	Check the lighting system and LAN system.	—
Rear wiper	Rear wiper operates when the switch is operated.	System is normal.	Check wiper or washer system.	Depending on user customizing “Sedan/Wagon Setting” of the body integrated unit, vehicle sensory time varies.
Key interlock	• Key cannot be removed in other than P range. • Key can be removed in other than P range.	System is normal.	Check the body control system.	—

General Diagnostic Table

Item	Operation	Specifications		Note
		YES	NO	
Shift lock	The select lever can be moved from the P range to other ranges only when the brake pedal is depressed with IG ON.	System is normal.	Check the body control system.	—
Key warning switch alarm	When the driver's door is open without the key removed, the buzzer sounds.	System is normal.	Check the combination meter and body control system.	—
Door lock	The doors lock/unlock when the door switch is operated. Rear gate/ trunk opens when the rear gate/ trunk release switch is operated.	System is normal.	Check the security & lock and body control system.	If user customizing "Sedan/Wagon Setting" is different, trunk and rear gate do not open.
Keyless entry	The lock locks/unlocks when the keyless transmitter is operated. Trunk/rear gate unlocks when trunk/ rear gate unlock button is operated.	System is normal.	Check the keyless entry and body control system.	—
Answer back	Answer-back operates when the keyless entry locks/unlocks.	System is normal.	Check the security & lock system, and LAN system.	—
Room light	The light illuminates/goes off according to the door open/close.	System is normal.	Check the room light system, security & lock system, and LAN system.	—
Map light	The light illuminates/goes off according to the door open/close. (Except for rear gate)	System is normal.	Check the spot map light, security & lock system, and LAN system.	—
Luggage/trunk light	The light illuminates/goes off according to the rear gate open/ close.	System is normal.	Check the luggage/ trunk light, security & lock system, and LAN system.	—
Key illumination	The light illuminates/goes off according to the driver's door open/ close.	System is normal.	Check the ignition switch illumination, security & lock, and LAN system.	—
Illumination control	Illumination volume control is available.	System is normal.	Check the illumination control switch, combination meter, and body control system.	Illumination volume control is not available when user customizing "Illumination Control On/Off" of the body integrated unit is set to off.
Engine start	Engine starts.	System is normal.	Check the engine system, immobilizer, and LAN system.	—
Vehicle security	Security monitoring/security canceling can be performed by operating the keyless entry.	System is normal.	Check the security & lock system, and LAN system.	Security monitoring starts and at the same time the warning buzzer sounds, when impact sensor is not connected and user customizing "Impact Sensor" of the body integrated unit is set to on.

WIRING SYSTEM SECTION

WIRING SYSTEM WI

This service manual has been prepared to provide SUBARU service personnel with the necessary information and data for the correct maintenance and repair of SUBARU vehicles.
This manual includes the procedures for maintenance, disassembling, reassembling, inspection and adjustment of components and diagnostics for guidance of experienced mechanics.
Please peruse and utilize this manual fully to ensure complete repair work for satisfying our customers by keeping their vehicle in optimum condition. When replacement of parts during repair work is needed, be sure to use SUBARU genuine parts.

All information, illustration and specifications contained in this manual are based on the latest product information available at the time of publication approval.

FUJI HEAVY INDUSTRIES LTD. G8200BE7

WIRING SYSTEM

WI

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14.Headlight Assembly

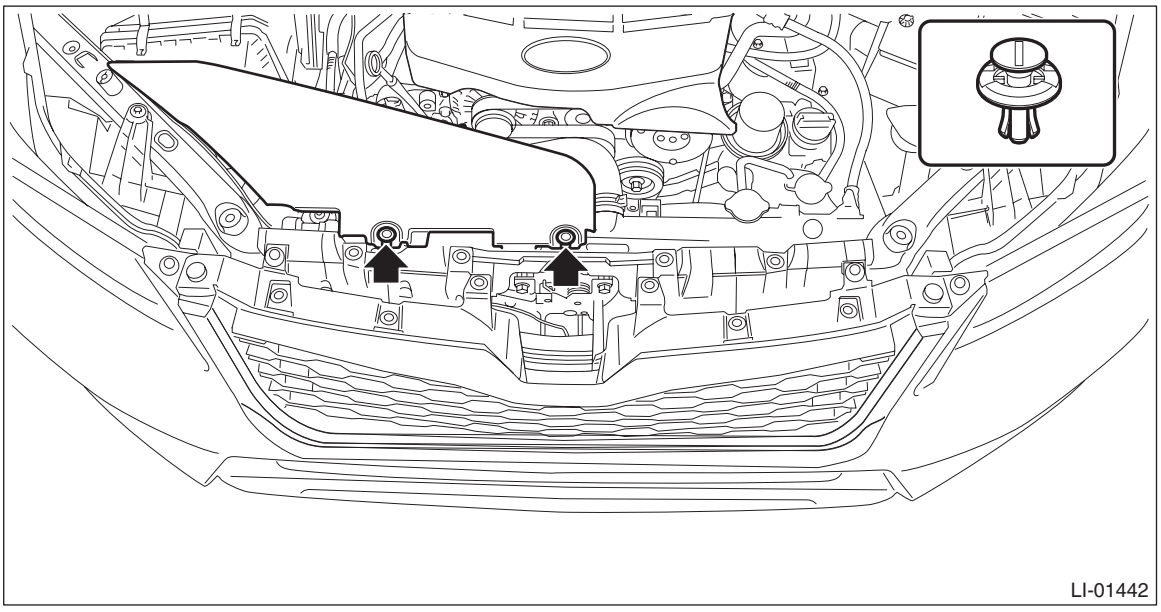
A: REMOVAL

1. WHEN REMOVING RH SIDE

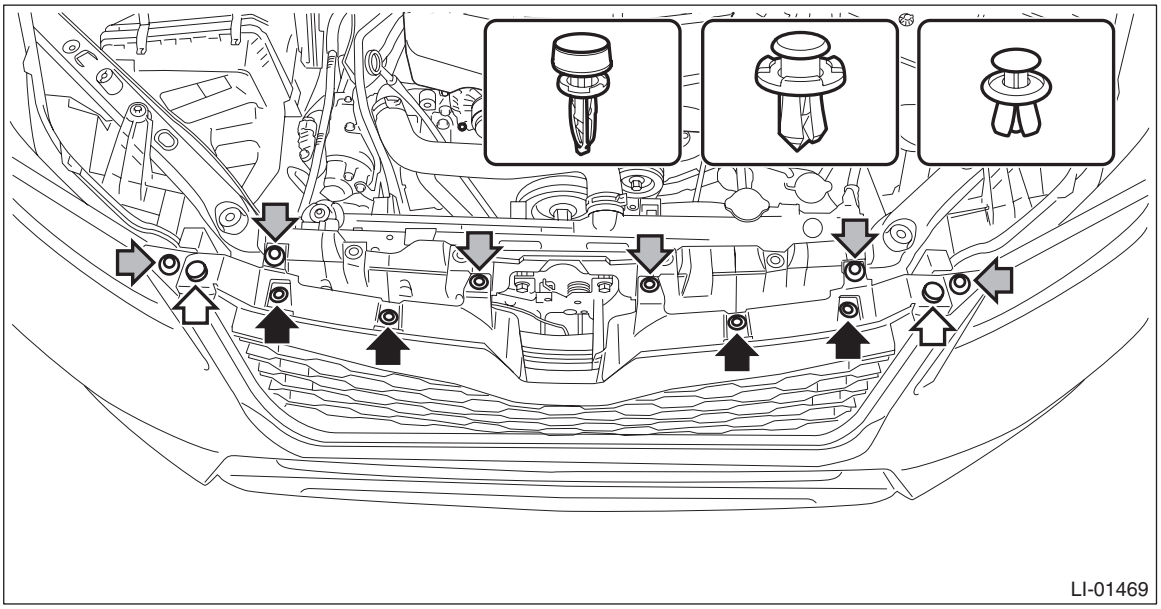
WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

CAUTION:
The HID type uses very high voltages for the lighting circuit. Make sure that the power supply is turned OFF before working.

1) Disconnect the ground cable from battery.
2) Remove the clips and remove the air intake duct (rear).

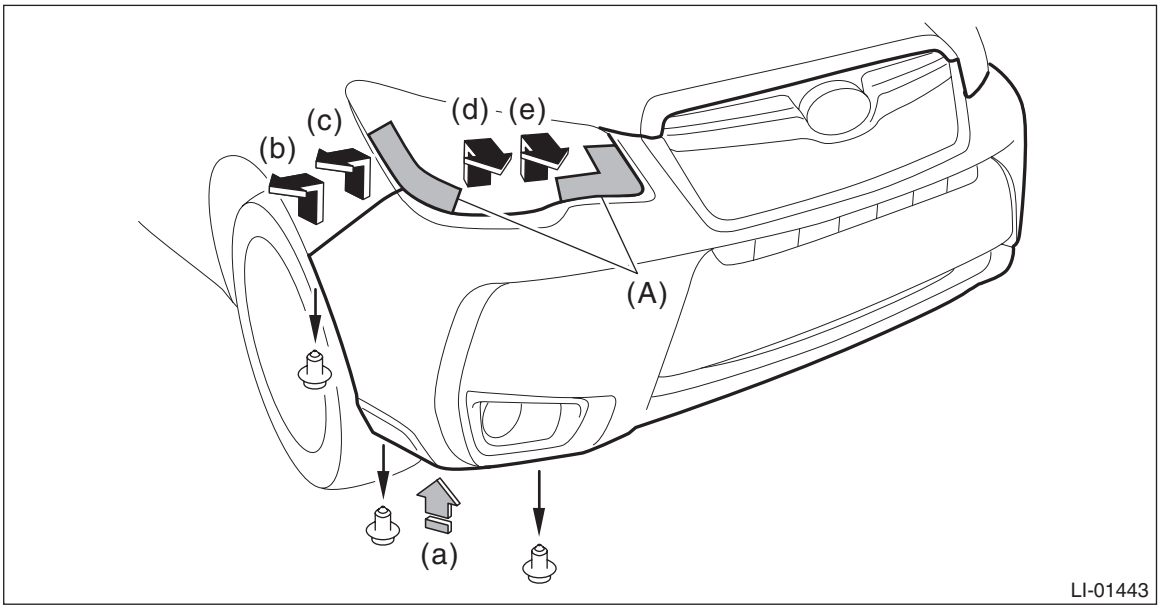


3) Detach the flange section on the right side of the bumper face - front.
   (1) Remove each bumper clip.



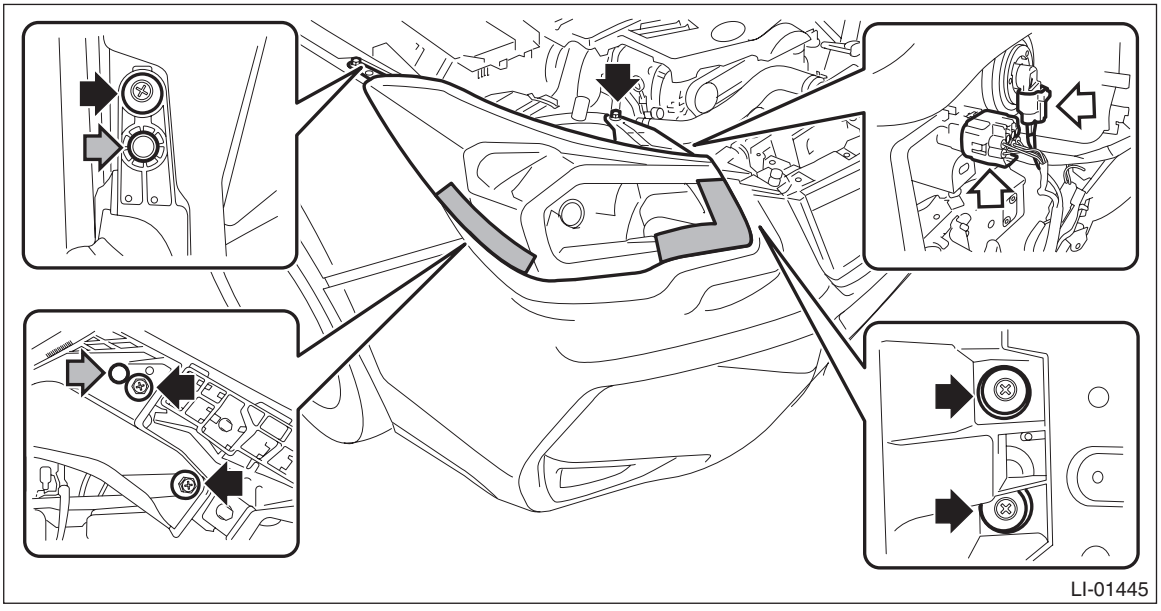
(2) Apply protective tape (A) to the light assembly - head.
(3) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove from (b) to (e).

CAUTION:
Do not pull forcibly. It may damage the flange sections of the bumper face - front.



4) Remove the light assembly - head.

CAUTION:
Be careful not to damage the light assembly - head, fender COMPL - front, and bumper face - front.
(1) Disconnect connectors.
(2) Remove the bolts and clips, and remove the light assembly - head.

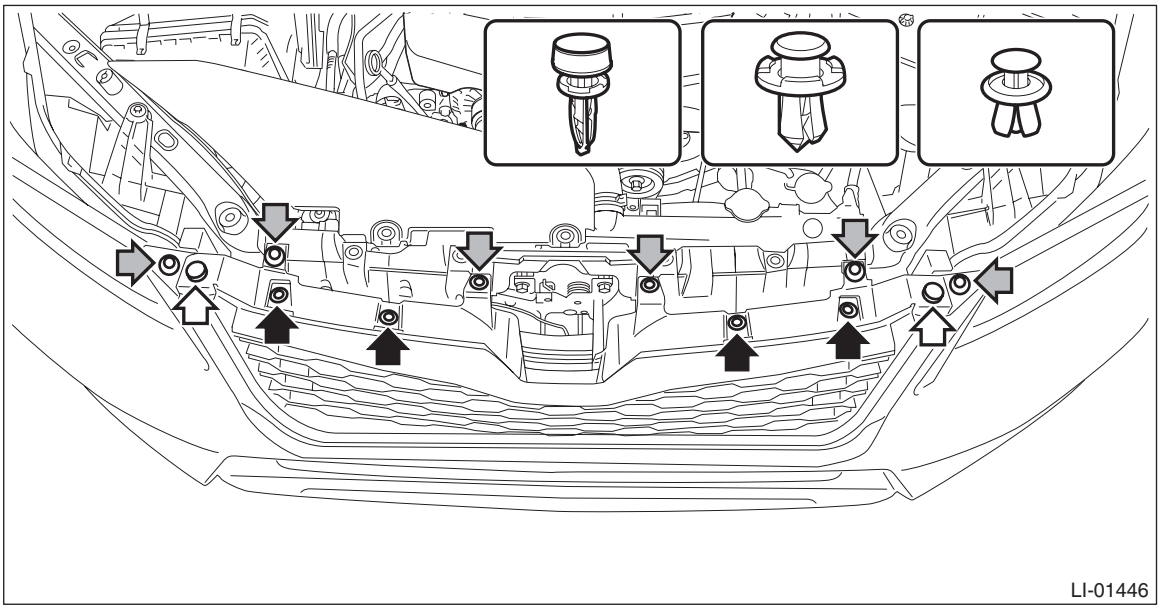


2. WHEN REMOVING LH SIDE

WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

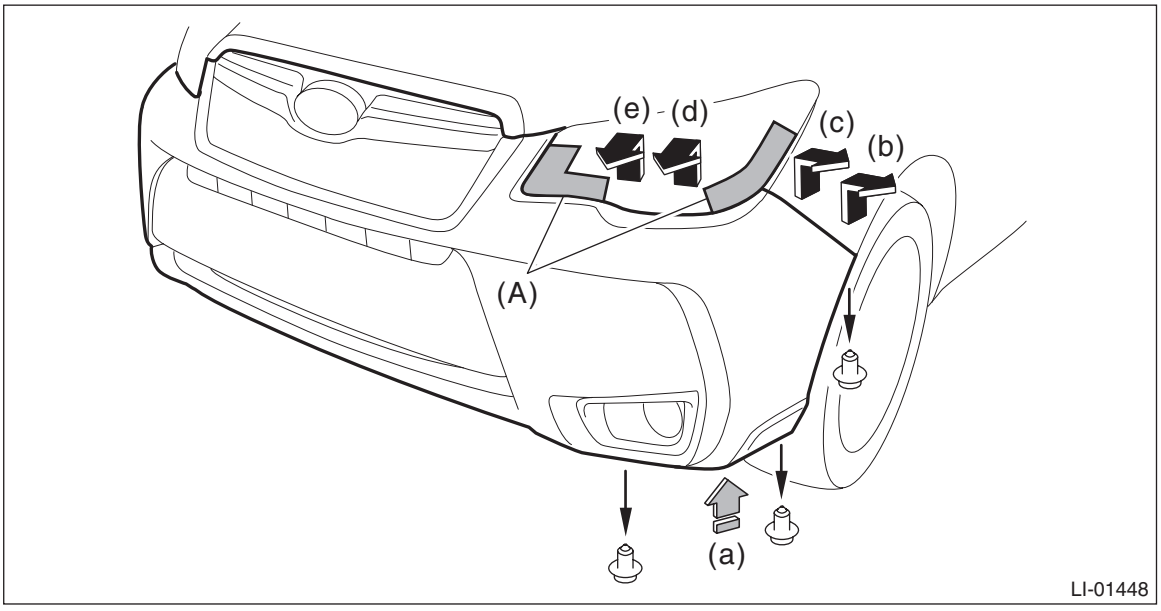
CAUTION:
The HID type uses very high voltages for the lighting circuit. Make sure that the power supply is turned OFF before working.

1) Disconnect the ground cable from battery.
2) Detach the flange section on the bumper face - front left side.
   (1) Remove each bumper clip.



   (2) Apply protective tape (A) to the light assembly - head.
   (3) Release the clips, and while pushing up the lower side (a) of the bumper face - front, remove in the order from (b) to (e).

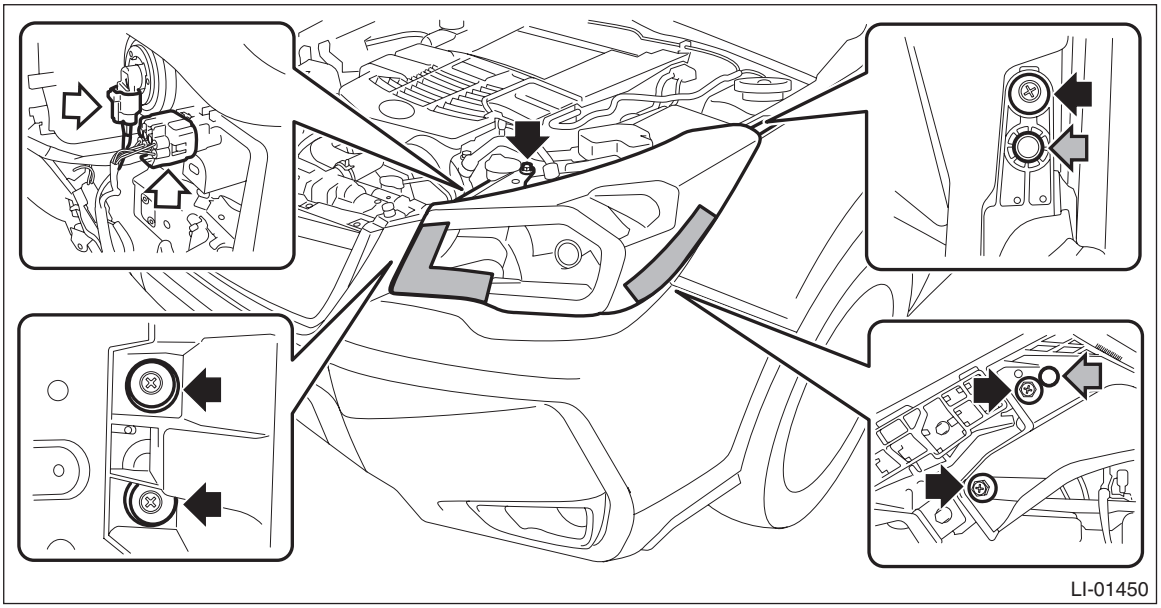
CAUTION:
Do not pull forcibly. It may damage the flange sections of the bumper face - front.



3) Remove the light assembly - head.

CAUTION:
Be careful not to damage the light assembly - head, fender COMPL - front, and bumper face - front.

(1) Disconnect connectors.
(2) Remove the bolts and clips, and remove the light assembly - head.

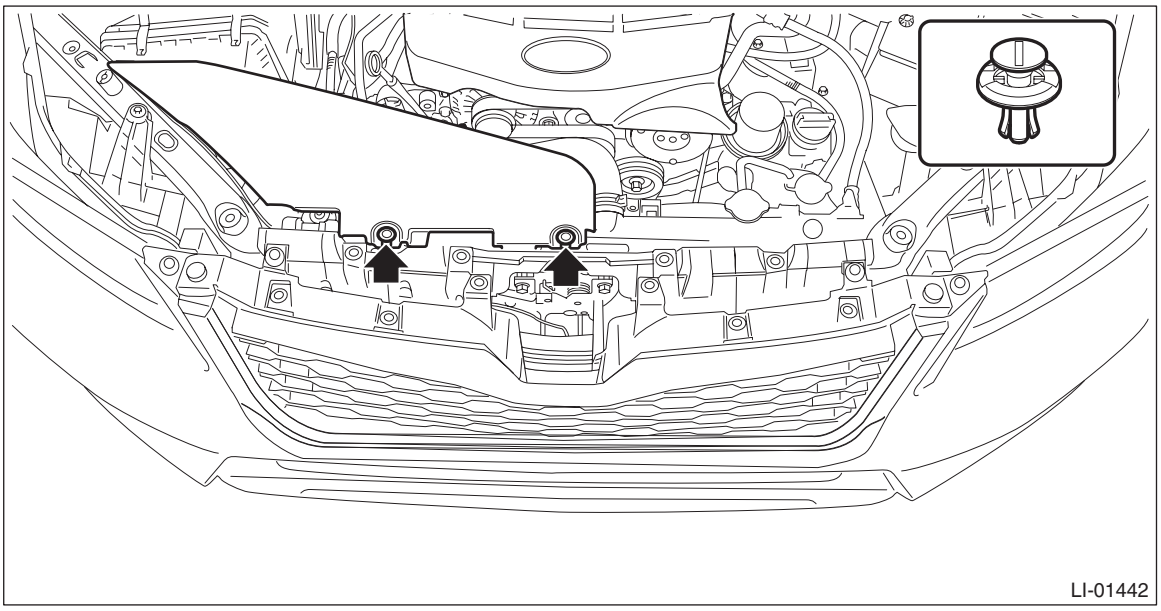


3. WHEN REMOVING BOTH SIDE

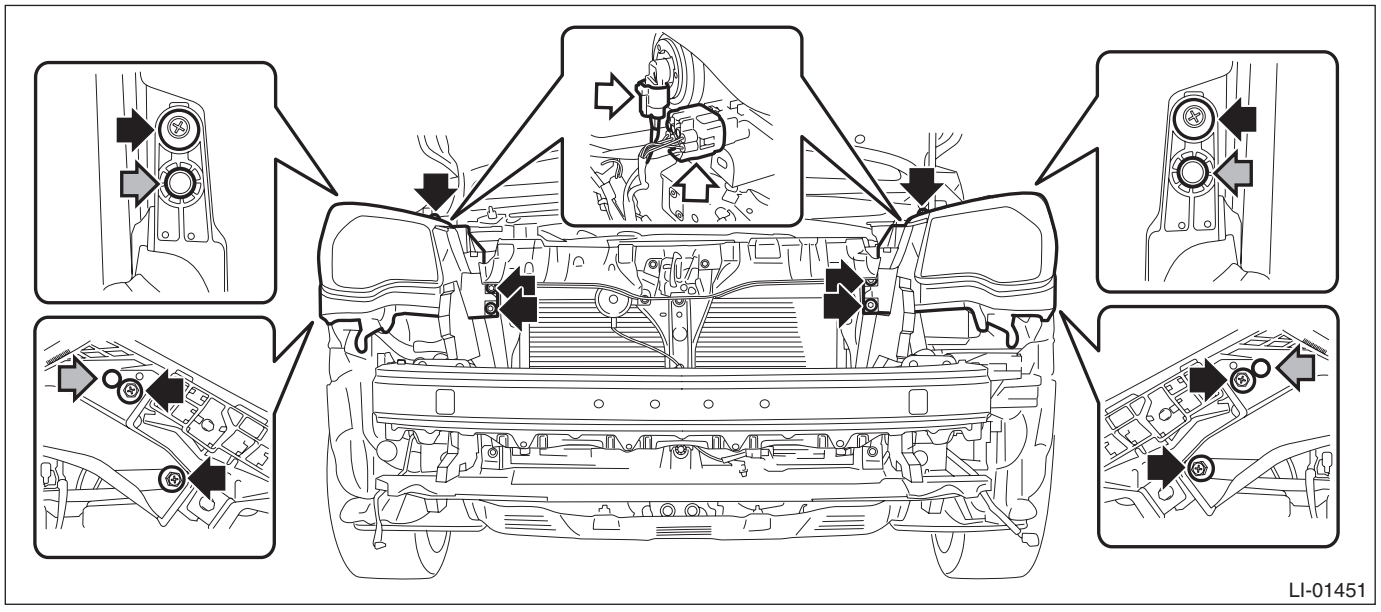
WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

CAUTION:
The HID type uses very high voltages for the lighting circuit. Make sure that the power supply is turned OFF before working.

1) Disconnect the ground cable from battery.
2) Remove the clips and remove the air intake duct (rear).



3) Remove the bumper face - front. <Ref. to EI-32, REMOVAL, Front Bumper.>
4) Remove the light assembly - head.
   (1) Disconnect connectors.
   (2) Remove the bolts and clips, and remove the light assembly - head.



B: INSTALLATION

1) Install each part in the reverse order of removal.

NOTE:
Secure the flange section of the bumper face - front to the bracket - front bumper side.

Tightening torque:
Light assembly - head: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

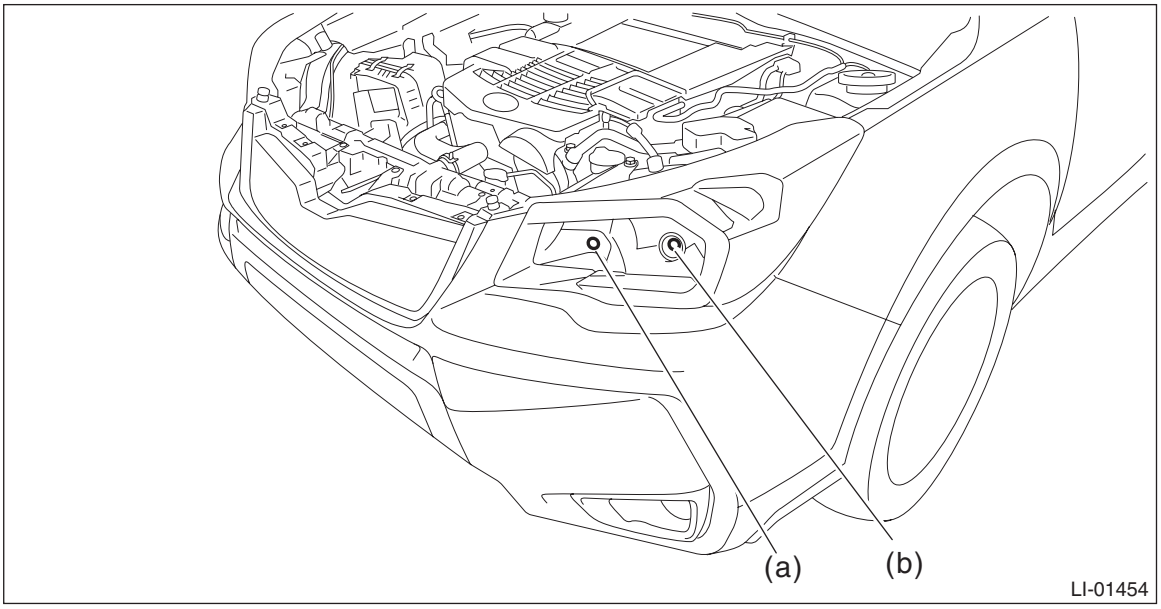
2) Adjust the headlight beam and fog light beam.
• Adjust the headlight beam. <Ref. to LI-32, HEADLIGHT BEAM ADJUSTMENT, ADJUSTMENT, Headlight Assembly.>
• Adjust the fog light beam. (Model with fog light) <Ref. to LI-47, FOG LIGHT AIMING, ADJUSTMENT, Front Fog Light Assembly.>

C: ADJUSTMENT

1. HEADLIGHT BEAM ADJUSTMENT

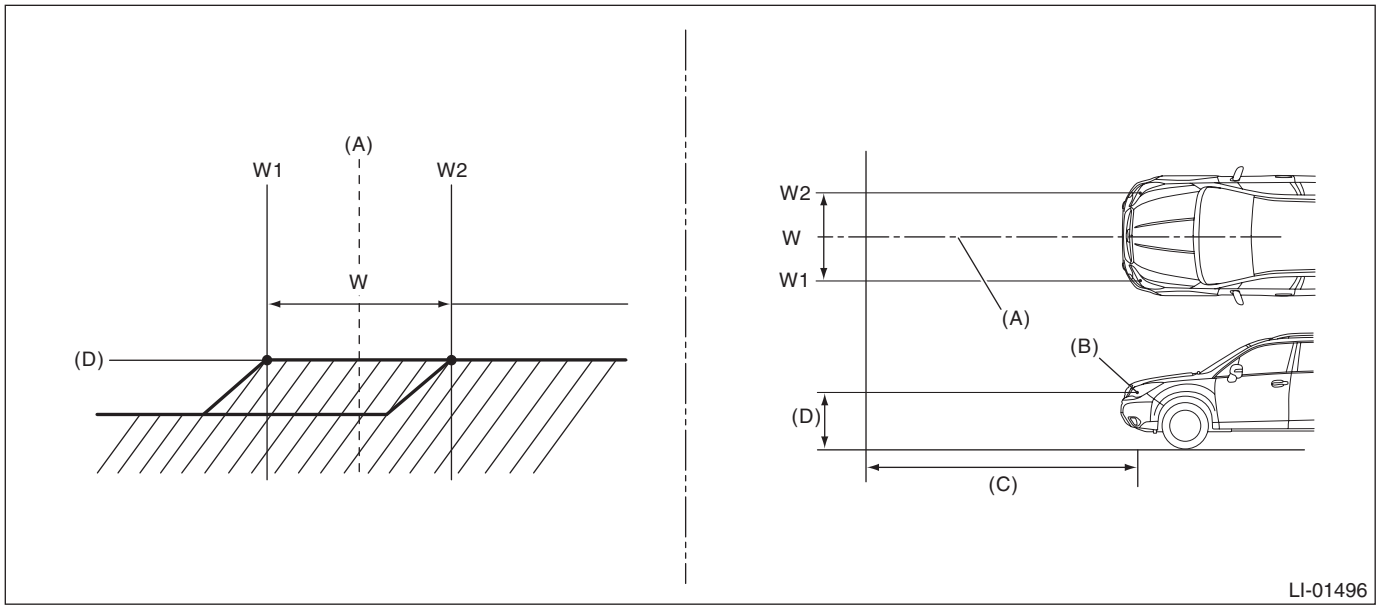
CAUTION:
• Turn off the light before adjusting the beam level of the light assembly - head. If it is necessary to inspect the beam level, do not keep the light on for two minutes or more.
• When blocking the light emitted from the headlight, use a light shield or equivalent.
Do not apply the tape on the lens or place the cloth over it. It may raise the temperature in the light and cause deformation/bubble formations of the plastic lens.

1) Before checking the beam level of the light assembly - head, be sure of the following:
• The area around the light assembly - head has not sustained any scratches, damage or other type of deformation.
• The vehicle is parked on a level surface.
• The inflation pressure of tires is correct.
• The vehicle does not have load.
• Vehicle's fuel tank is fully filled.
2) Set the headlight beam leveler switch to "0" position. (Model with manual leveler)
3) Bounce the vehicle several times to normalize the suspension.
4) Make certain that someone is seated in the driver's seat.
5) Measure the distance between the low beam bulb centers and the height of the bulb center.



(a) High beam (b) Low beam

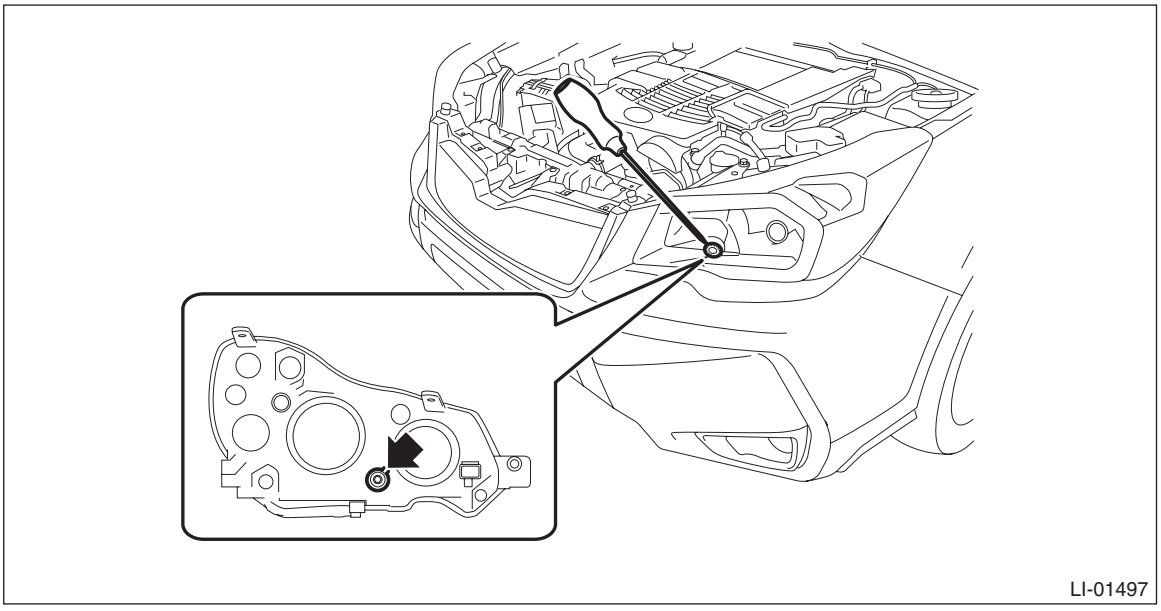
6) Adjust the beam level of the light assembly - head.
(1) Place the vehicle with the front end facing to the measurement panel, then illuminate the low beam.



(A) Vehicle center
(B) Bulb center marking
(C) 3 m (10 ft)
(D) Height of headlight center

W mm (in)
1,298 (51.10)

(2) Adjust the low beam by turning the aiming screw.



14.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Subaru Select Monitor display items	Contents of diagnosis	Reference
U0073	Control Module Communication Bus Off	Detected when bus off status (the stereo camera detects the failure and is disconnected from CAN line) occurs.	<Ref. to ES(diag)-90, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0100	Lost Communication With ECM/PCM “A”	Detected when CAN data from ECM is not transmitted to stereo camera.	<Ref. to ES(diag)-90, DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0101	Lost Communication With TCM	Detected when CAN data from TCM is not transmitted to stereo camera.	<Ref. to ES(diag)-90, DTC U0101 LOST COMMUNICATION WITH TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0122	Lost Communication With Vehicle Dynamics Control Module	Detected when CAN data from VDC is not transmitted to stereo camera.	<Ref. to ES(diag)-90, DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0140	Lost Communication With Body Control Module	Detected when CAN data from body integrated unit is not transmitted to stereo camera.	<Ref. to ES(diag)-90, DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0155	Lost Communication With Instrument Panel Cluster (IPC) Control Module	Detected when CAN data from combination meter is not transmitted to stereo camera.	<Ref. to ES(diag)-90, DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0401	Invalid Data Received From ECM/PCM “A”	Failure counter diagnosis of engine control module (ECM)	<Ref. to ES(diag)-90, DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0402	Invalid Data Received From TCM	Failure counter diagnosis of automatic transmission control module (TCM)	<Ref. to ES(diag)-90, DTC U0402 INVALID DATA RECEIVED FROM TCM, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0416	Invalid Data Received From Vehicle Dynamics Control Module	Failure counter diagnosis of VDC control module (VDC CM)	<Ref. to ES(diag)-90, DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0422	Invalid Data Received From Body Control Module	Failure counter diagnosis of body integrated unit	<Ref. to ES(diag)-91, DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U0423	Invalid Data Received From Instrument Panel Cluster Control Module	Failure counter diagnosis of combination meter	<Ref. to ES(diag)-91, DTC U0423 INVALID DATA RECEIVED FROM INSTRUMENT PANEL CLUSTER CONTROL MODULE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
U1001	CAN-HS Abnormal	Detected when error occurs in the high speed CAN communication circuit.	<Ref. to ES(diag)-91, DTC U1001 CAN-HS ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2801	TCM Abnormal	Detected when error occurs in the automatic transmission.	<Ref. to ES(diag)-91, DTC B2801 TCM ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Subaru Select Monitor display items	Contents of diagnosis	Reference
B2802	ETC Abnormal	Detected when error occurs in the electronic throttle control.	<Ref. to ES(diag)-91, DTC B2802 ETC ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2805	BIU Abnormal	Detected when error occurs in the body integrated unit.	<Ref. to ES(diag)-91, DTC B2805 BIU ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2806	ECM Abnormal	Detected when error occurs in the engine control module (ECM).	<Ref. to ES(diag)-91, DTC B2806 ECM ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2807		Detected when cruise indicator illumination request from ECM and ON/OFF information of cruise function do not match.	<Ref. to ES(diag)-91, DTC B2807 ECM ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2809	VDC Abnormal	Detected when error occurs in the VDC.	<Ref. to ES(diag)-91, DTC B2809 VDC ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B280A		• VDC brake control malfunction 1 • When the compulsory drive of brake light relay for VDC, ABS sequence control, or VDC sequence control is performed, the EyeSight warning light illuminates, and this DTC may be detected. At that time, clear the memory.	<Ref. to ES(diag)-92, DTC B280A VDC ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B280B		VDC brake control malfunction 2	<Ref. to ES(diag)-92, DTC B280B VDC ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B280C		VDC fluid pressure control is prohibited.	<Ref. to ES(diag)-92, DTC B280C VDC ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B280D		Pre-collision brake assist is prohibited.	<Ref. to ES(diag)-92, DTC B280D VDC ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B280E		VDC wrong variant	<Ref. to ES(diag)-92, DTC B280E VDC ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B280F	Meter Abnormal	Detected when error occurs in the CAN communication with combination meter.	<Ref. to ES(diag)-92, DTC B280F METER ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2810		Detected when different (undesignated) type of combination meter is installed.	<Ref. to ES(diag)-92, DTC B2810 METER ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2813	Brake Switch Abnormal	Detected when error occurs in the brake switch system.	<Ref. to ES(diag)-93, DTC B2813 BRAKE SWITCH ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2814	Power Supply Volt Error	Detected when battery voltage is below specified value or when the +B harness of the stereo camera is broken.	<Ref. to ES(diag)-96, DTC B2814 POWER SUPPLY VOLT ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2815		Detected when battery voltage exceeds the specified value.	<Ref. to ES(diag)-98, DTC B2815 POWER SUPPLY VOLT ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B2816	Brake Control Error	• Detected when the large differences occur between left and right wheels in brake fluid pressure. • When the ABS sequence control of VDC, VDC sequence control, or air bleeding from brake system with engine running is performed, the EyeSight warning light illuminates, and this DTC may be detected. At that time, clear the memory.	<Ref. to ES(diag)-98, DTC B2816 BRAKE CONTROL ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Subaru Select Monitor display items	Contents of diagnosis	Reference
B2817	Brake Lamp Error	• Detected when error occurs in the brake light illumination circuit. • When the compulsory drive of brake light relay for VDC is performed, the EyeSight warning light illuminates, and this DTC may be detected. At that time, clear the memory.	<Ref. to ES(diag)-98, DTC B2817 BRAKE LAMP ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A0	Vehicle Model Judgment Abnormal	Detected when the model code stored in EEPROM and the model code used for CAN data are different, or when +B harness of the stereo camera is broken at aiming completion.	<Ref. to ES(diag)-99, DTC B28A0 VEHICLE MODEL JUDGMENT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A1	Adaptive CC ECM Communication Data Error	Abnormal judgment for stereo camera by ECM Or detected when the stereo camera or ECM is assembled incorrectly.	<Ref. to ES(diag)-101, DTC B28A1 ADAPTIVE CC ECM COMMUNICATION DATA ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A2		Abnormal judgment for stereo camera data by VDC	<Ref. to ES(diag)-102, DTC B28A2 ADAPTIVE CC ECM COMMUNICATION DATA ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A3		Abnormal judgment for stereo camera data by combination meter	<Ref. to ES(diag)-103, DTC B28A3 ADAPTIVE CC ECM COMMUNICATION DATA ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A5		Detected when error occurs in the transmission data from stereo camera to ECM.	<Ref. to ES(diag)-104, DTC B28A5 ADAPTIVE CC ECM COMMUNICATION DATA ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

DTC	Subaru Select Monitor display items	Contents of diagnosis	Reference
B28A6	Stereo Camera Abnormal	Detected when error occurs in the communication between stereo camera and CPU.	<Ref. to ES(diag)-104, DTC B28A6 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A7		Detected when error occurs in the communication data inside the control module due to external factors such as noises.	<Ref. to ES(diag)-105, DTC B28A7 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A8			<Ref. to ES(diag)-105, DTC B28A8 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28A9			<Ref. to ES(diag)-105, DTC B28A9 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28AA		Detected when error occurs in the communication with microcomputer 1 system inside the stereo camera.	<Ref. to ES(diag)-105, DTC B28AA STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28AB		Detected when error occurs in the communication with microcomputer 2 system inside the stereo camera.	<Ref. to ES(diag)-105, DTC B28AB STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28AC		Detected when error occurs in the ASIC system inside the stereo camera.	<Ref. to ES(diag)-105, DTC B28AC STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28AD		Detected when error occurs in the stereo camera image system.	<Ref. to ES(diag)-106, DTC B28AD STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28AE		Detected when error occurs in the internal power supply system of stereo camera.	<Ref. to ES(diag)-106, DTC B28AE STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28AF		Detected when adjustment/inspection of camera has not been completed normally.	<Ref. to ES(diag)-106, DTC B28AF STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28B0		Detected when error occurs in pre-collision brake/lane departure warning OFF switch or harness, or also detected when the switch is held for 45 seconds or more.	<Ref. to ES(diag)-107, DTC B28B0 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28B1		Detected when the optical axis of stereo camera is deviated in lateral direction or when the fluctuation range of automatic adjustment value has been enlarged.	<Ref. to ES(diag)-108, DTC B28B1 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28B2		Detected when the temperature of the stereo camera excessively increases. (When this DTC is detected, the camera will not return to the normal state after performing adjustment or inspection. In this case, always replace the stereo camera.)	<Ref. to ES(diag)-108, DTC B28B2 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B28B3		Detected when the temperature of the stereo camera excessively decreases. (When this DTC is detected, the camera will not return to the normal state after performing adjustment or inspection. In this case, always replace the stereo camera.)	<Ref. to ES(diag)-108, DTC B28B3 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

14.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Content of diagnosis	Reference
B1650	Occupant Classification System Malfunction	• Occupant detection sensor is faulty. • Occupant detection control module is faulty. • Occupant detection harness is faulty. • Fuse No. 25 is blown. • Rear airbag harness is faulty.	<Ref. to OD(diag)-19, DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1655	Front Buckle Switch RH Failure	• Passenger's buckle switch circuit is open, shorted or shorted to ground. • Occupant detection system is faulty. • Occupant detection harness is faulty.	<Ref. to OD(diag)-21, DTC B1655 FRONT BUCKLE SWITCH RH FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1760	Sensor Mat Abnormal	• Occupant detection sensor is faulty. • Occupant detection sensor is open, shorted between terminals, shorted to power supply or shorted to ground. • Seat heater is open. • Occupant detection control module is faulty.	<Ref. to OD(diag)-22, DTC B1760 SENSOR MAT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1771	Buckle Switch Abnormal	• Passenger's buckle switch is faulty. • Passenger's buckle switch circuit is open, shorted or shorted to ground. • Occupant detection system is faulty. • Occupant detection harness is faulty.	<Ref. to OD(diag)-22, DTC B1771 BUCKLE SWITCH ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
B1795	ECU Internal Circuit Fault	Occupant detection control module is faulty.	<Ref. to OD(diag)-22, DTC B1795 ECU INTERNAL CIRCUIT FAULT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

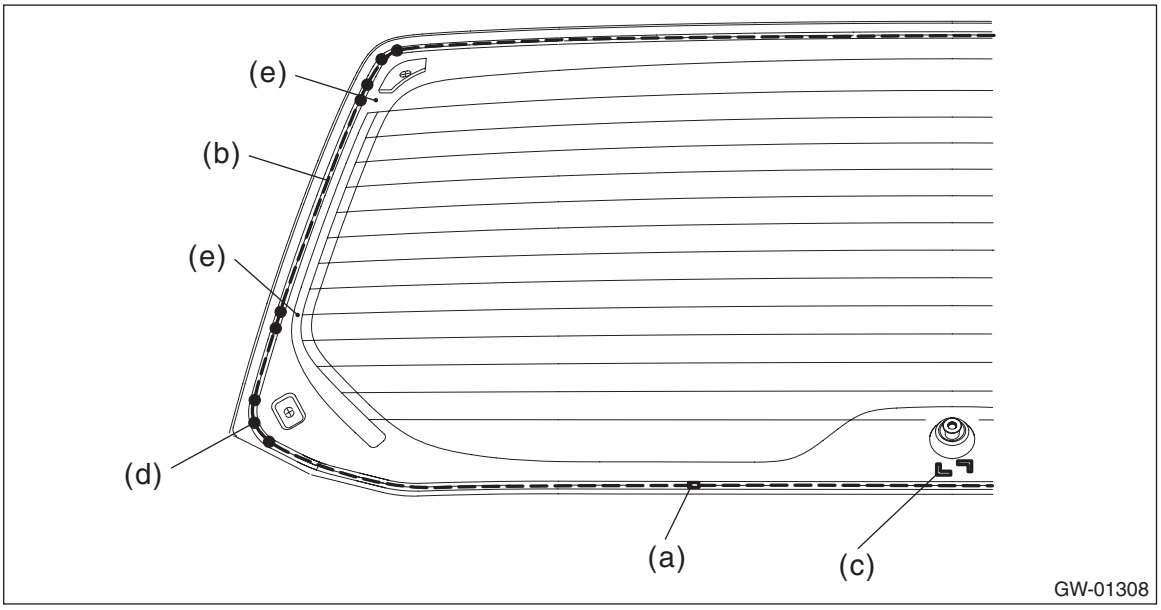
14.Rear Gate Glass

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate and the motor assembly - rear wiper. <Ref. to WW-41, REMOVAL, Rear Wiper Motor.>
3) Disconnect the rear defogger connector.
4) Remove the glass - rear gate in the same procedure as for the glass - front window. <Ref. to GW-36, REMOVAL, Windshield Glass.>

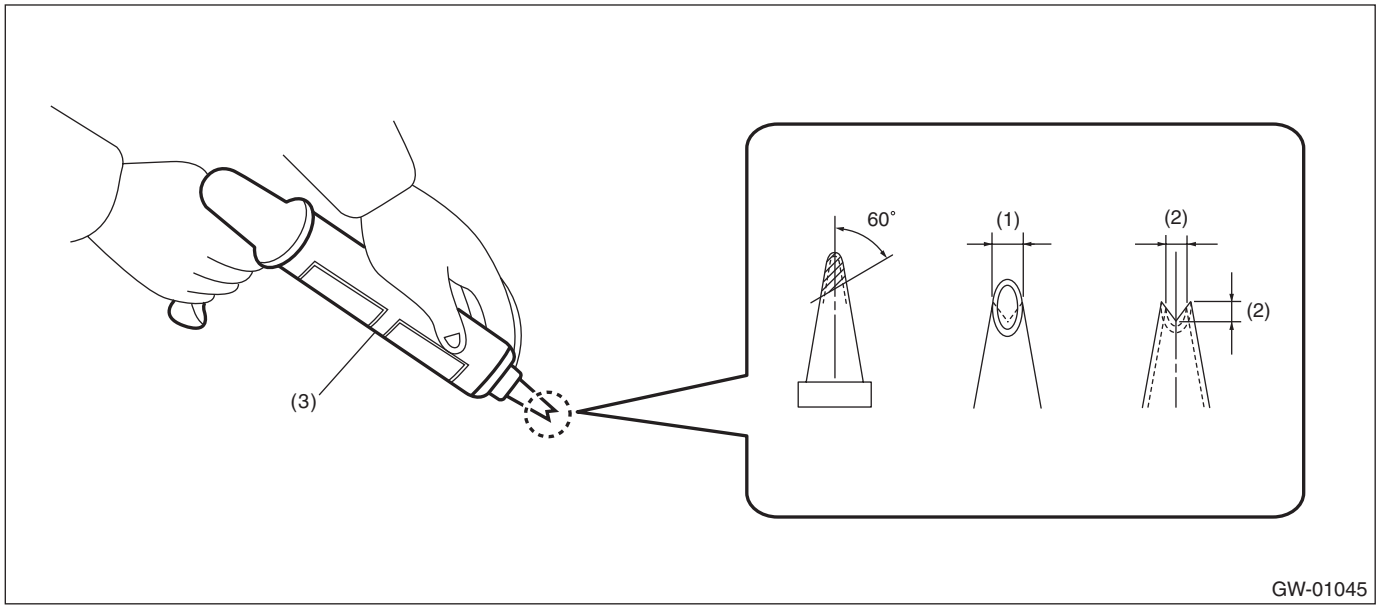
B: INSTALLATION

NOTE:
Use the markings on the glass to apply adhesive and primer, and to install the dam rubber - rear gate and the spacer - rear gate.



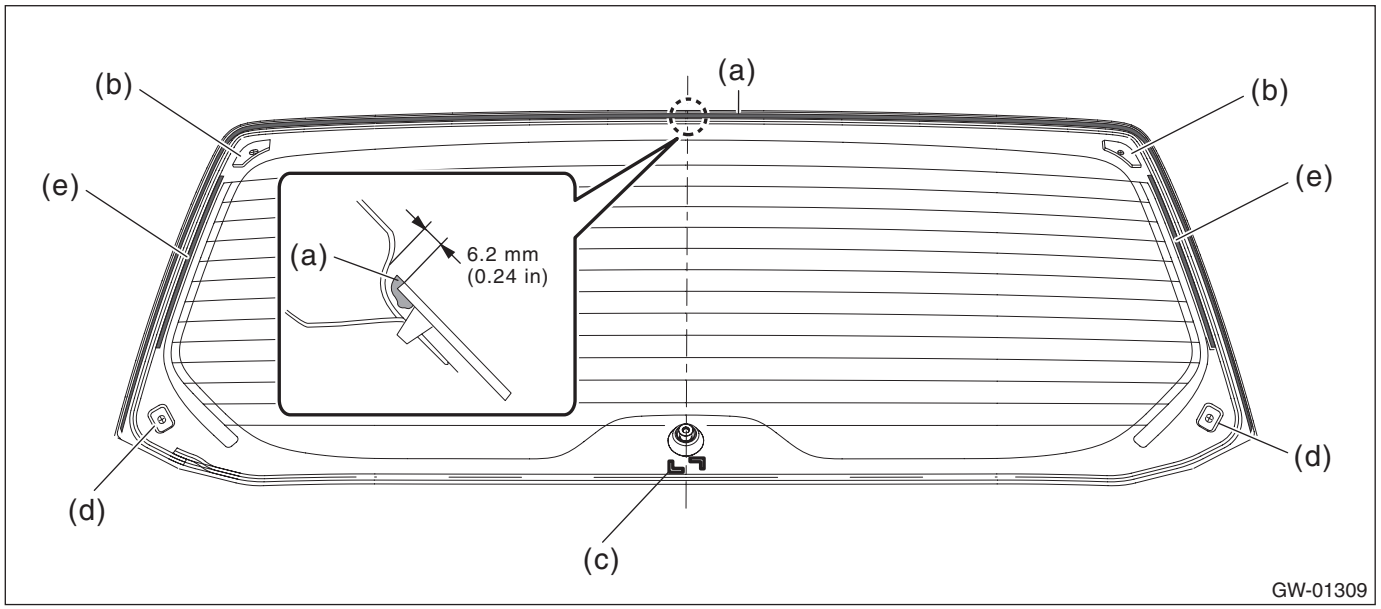
(a) Marking for dam rubber - rear gate application (Ag print)
(b) Center line for adhesive
(c) Marking for spacer - rear gate application (Ag print)
(d) Marking for primer application
(e) Marking for dam rubber - rear gate set application (ceramic through hole)

1) Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



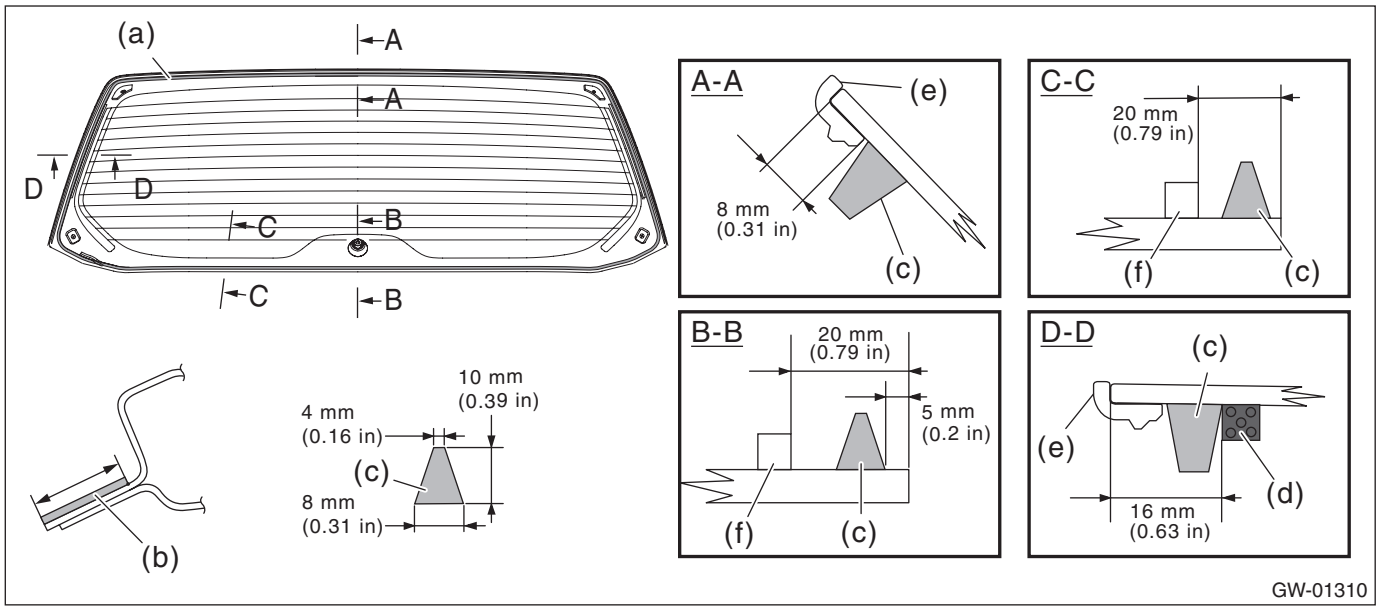
(1) 10 mm (0.39 in)
(2) 8 mm (0.31 in)
(3) Sealant gun

2) Smoothen and clean the adhesive surfaces of the glass - rear gate and body using the same procedures as for the glass - front window. <Ref. to GW-39, INSTALLATION, Windshield Glass.>
3) Attach the rubber - rear gate to the glass - rear gate.
4) Attach the dam rubber - rear gate to the glass - rear gate.



(a) Rubber - rear gate
(b) Locating pin - rear gate
(c) Spacer - rear gate
(d) Fastener - rear gate
(e) Dam rubber - rear gate

5) Install the glass - rear gate.
(1) Apply the primer to the adhesive surface of glass - rear gate side and body side using sponge.
(2) Apply adhesive to the glass - rear gate end back surface.



(a) Application of primer (glass side)
(b) Application of primer (body side)
(c) Adhesive
(d) Dam rubber - rear gate
(e) Rubber - rear gate
(f) Spacer - rear gate

(3) Attach the dam rubber - rear gate to the glass - rear gate.
(4) Insert the locating pins - rear gate into the rear gate panel holes, and install the fastener - rear gate to the fastener on the body side, and then install the glass - rear gate.
(5) Lightly press the entire perimeter of the glass - rear gate for tight fit.
(6) Make flush the adhesive surface jutted out using spatula.

6) After completion of all work, allow the vehicle to stand for about 24 hours.

NOTE:
• When opening/closing the door after the glass - rear gate was bonded, always lower the glass assembly - door first, and then open/close it carefully.
• Move the vehicle slowly.
• For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.

7) Connect the rear defogger connector.
8) Install the motor assembly - rear wiper and the arm assembly - rear wiper.

Tightening torque:
Motor assembly - rear wiper and arm assembly - rear wiper: <Ref. to WW-3, REAR WIPER, COMPONENT, General Description.>

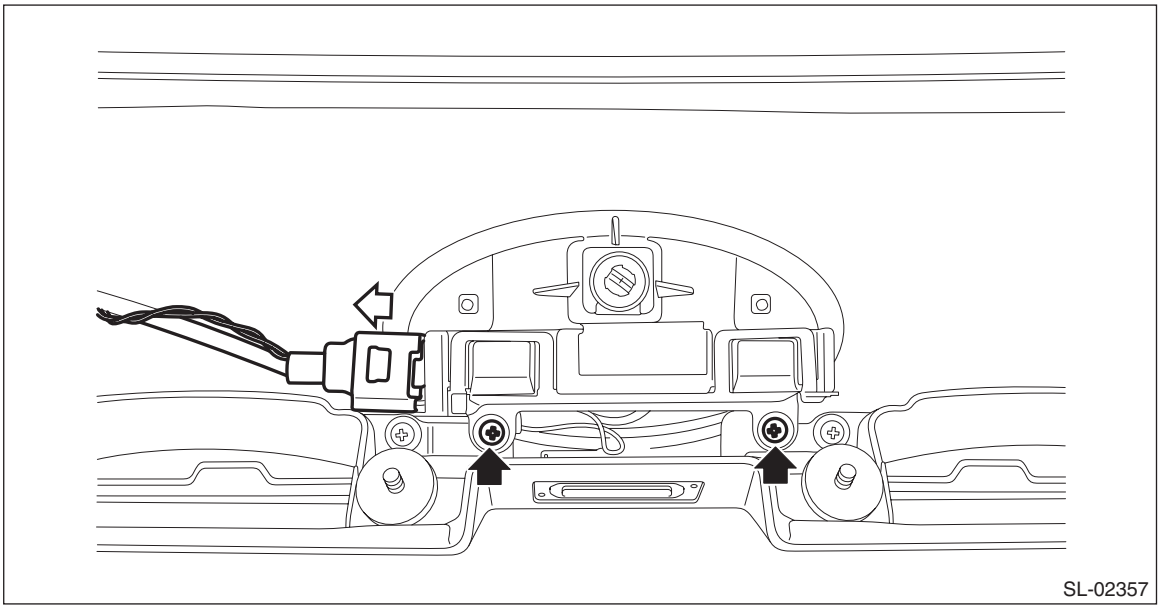
9) Install the trim panel - rear gate. <Ref. to EI-123, INSTALLATION, Rear Gate Trim.>
10) After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

NOTE:
When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

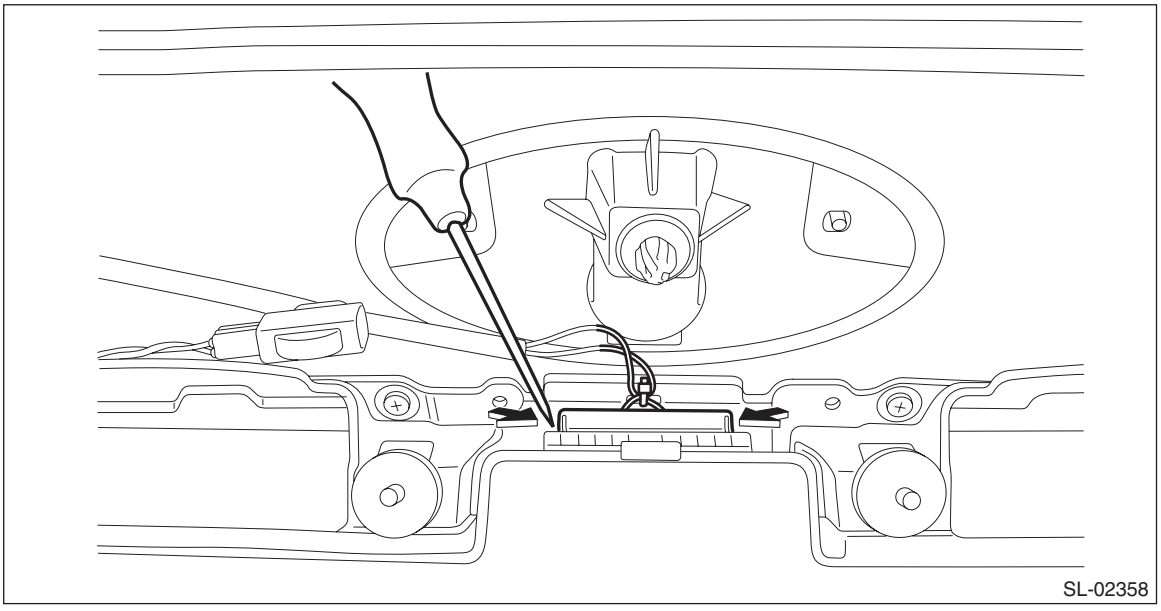
14.Rear Gate Opener Button

A: REMOVAL

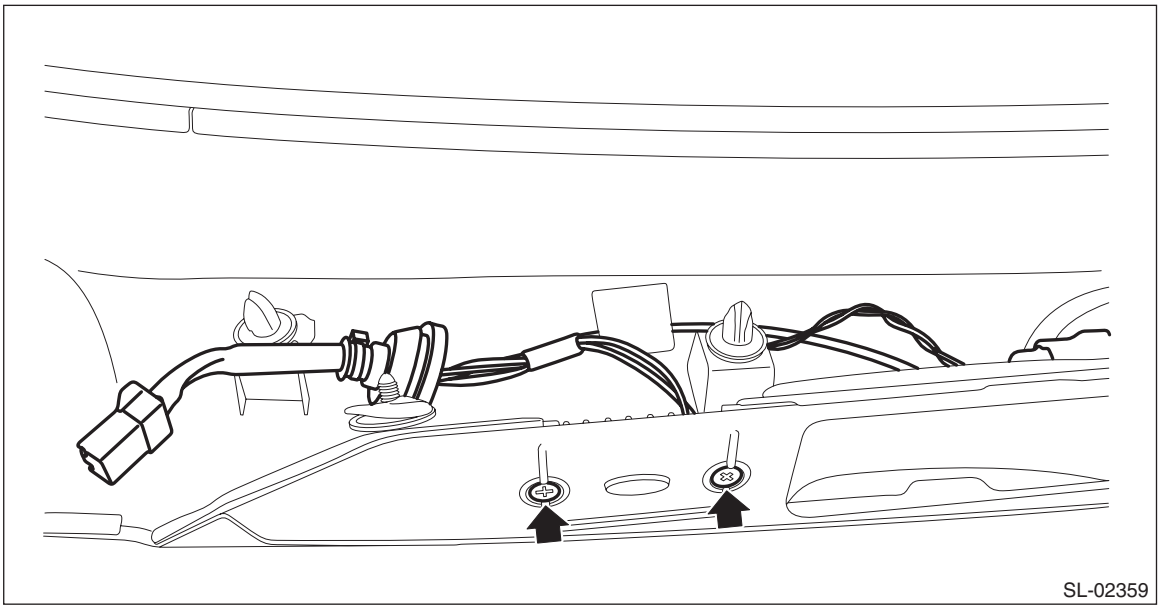
NOTE:
The button - opener rear gate is integrated with the rear lock button. (Model with keyless access)
1) Remove the trim panel - rear gate and the garnish assembly - rear gate. <Ref. to EI-126, REMOVAL, Rear Gate Garnish.>
2) Remove the interior antenna. (Model with keyless access)
   (1) Remove the connector.
   (2) Remove the screws and detach the interior antenna.


SL-02357

3) Release the locks at both ends of the button - opener rear gate by pushing them with a flat tip screwdriver, and remove the button - opener rear gate.


SL-02358

4) Remove the screws, and remove the rear lock button, and remove the integrated harness. (Model with keyless access)



B: INSTALLATION

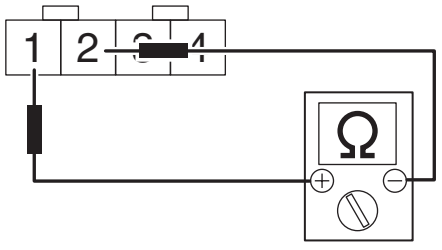
CAUTION:
Make sure that the harness grommet is securely installed.
If not properly installed, this may cause leaks.
Install each part in the reverse order of removal.

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
1 — 2	OPEN	Less than 5 Ω	
	CLOSE	1 MΩ or more	

2) If the inspection result is not within the standard, replace the button - opener rear gate.

14.Rearview Camera System

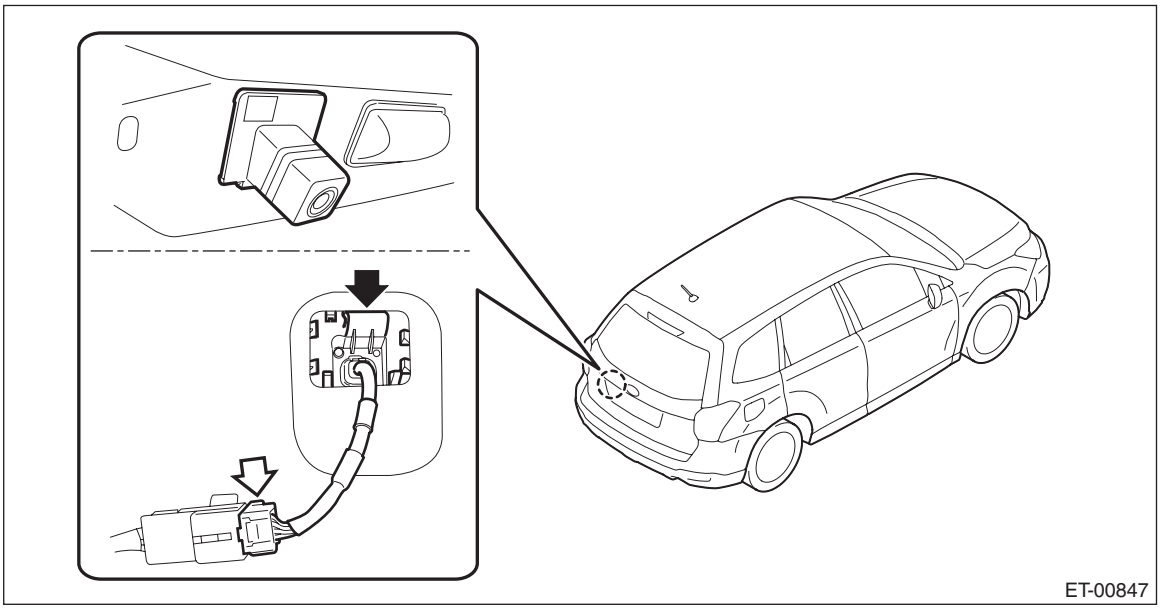
A: WIRING DIAGRAM

Refer to “Rearview Camera System” in the wiring diagram. <Ref. to WI-347, WIRING DIAGRAM, Rearview Camera System.>

B: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate and the garnish assembly - rear gate. <Ref. to EI-126, REMOVAL, Rear Gate Garnish.>
3) Remove the rearview camera assembly.

CAUTION:
Do not drop or apply any impact to the rearview camera because it is a precision equipment.
(1) Disconnect the rearview camera connector.
(2) Disconnect the claws and then remove the rearview camera assembly.



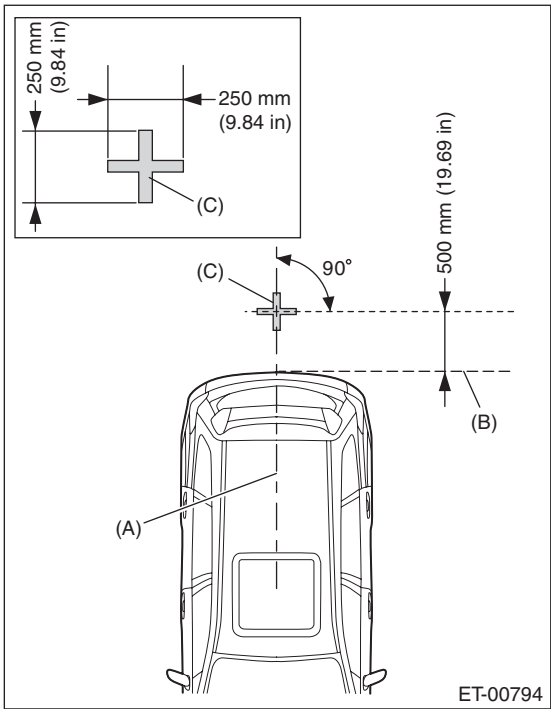
C: INSTALLATION

CAUTION:
Be sure to confirm the marker position, whenever the rearview camera is removed/installed/replaced.
Install each part in the reverse order of removal.

D: INSPECTION

1) Park the vehicle at the level place where there are enough area at the rear of the vehicle.
2) Attach the tape as the target point for standard at the floor rearward of the vehicle as shown in the figure below.

NOTE:
Standard tape width is about 30 — 50 mm (1.18 — 1.97 in) and brilliant color shall be used.



(A) Vehicle body center line
(B) Rear edge of bumper
(C) Target point

3) Confirm the following before checking the corresponding items.
• When the display is blank:
Rearview camera image is not displayed. (Navigation or multi-function display screen is displayed normally.)
1. Check the condition of back sensor connection.
   • Navigation system:<Ref. to ET-6, CHECK EACH VEHICLE SIGNAL, INSPECTION, Navigation System.>
   • Multi-function display (MFD) system:<Ref. to IDI-14, DIAGNOSTIC MODE (HIGH GRADE TYPE ONLY), OPERATION, Multi-function Display (MFD) System.>
2. Check the condition of rearview camera connection.
   • Navigation system:<Ref. to ET-5, CHECK EACH CONNECTION, INSPECTION, Navigation System.>
   • Multi-function display (MFD) system:<Ref. to IDI-14, DIAGNOSTIC MODE (HIGH GRADE TYPE ONLY), OPERATION, Multi-function Display (MFD) System.>

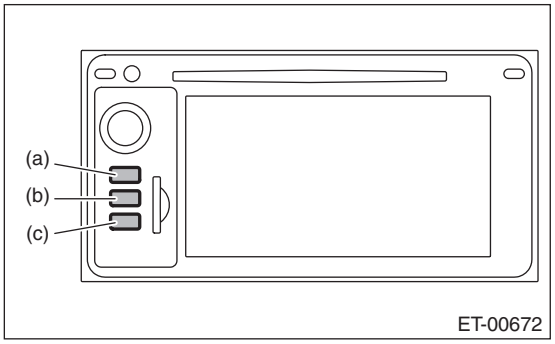
• When the marker position is not aligned:
1. Adjust the marker position according to the MARKER ADJUSTMENT MODE.<Ref. to ET-30, MARKER ADJUSTMENT MODE, ADJUSTMENT, Rearview Camera System.>

E: ADJUSTMENT

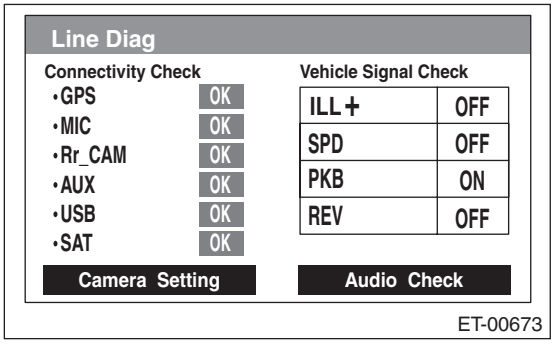
1. MARKER ADJUSTMENT MODE

- **Navigation system**

CAUTION:
When replacing the navigation unit, be sure to replace with specified navigation unit. The marker adjustment can not be performed correctly if replacing with unspecified navigation unit.
1) Prepare the target point.<Ref. to ET-29, INSPECTION, Rearview Camera System.>
2) With the main power OFF, press and hold the button (c) for 3 seconds or more while pressing the buttons (a) and (b) simultaneously.

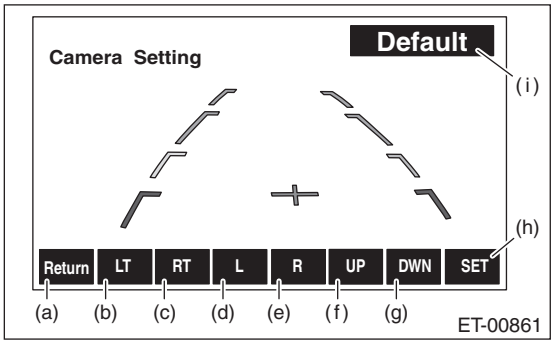


NOTE:
Pressing the button (a) for 3 seconds or more, or turning the ignition switch from ACC OFF to ON position can exit the diagnostic mode.
3) Line Diag screen is displayed.



4) Touch {Camera Setting} key to display «Camera Setting» screen.
5) Shift the shift lever or the select lever to the following position to display the image of the rearview camera:
- MT model: Shift lever shifted to “Reverse” position.
- CVT model: Select lever shifted to “R” position.

6) Touch the adjustment keys (d), (e), (f) and (g) on the display screen to adjust the marker line.



(a) Returns to vehicle selection screen.
(b) Rotates the cross line on the center of the screen counterclockwise by 0.25°.
(c) Rotates the cross line on the center of the screen clockwise by 0.25°.
(d) Moves the guide line and cross line to the left.
(e) Moves the guide line and cross line to the right.
(f) Moves the guide line and cross line upward.
(g) Moves the guide line and cross line downward.
(h) Saves settings for vehicle selection and guide line.
(i) Resets the adjustment value to the default condition.

(1) Confirm that the target point position in the display screen is identified.
(2) Adjust by touching the adjustment keys so that the cross line and target point join together.

7) Turn the ignition switch to OFF and wait for 60 seconds or more before turning the ignition switch to ON again.

CAUTION:
If the ignition switch is turned to OFF, be sure to wait for 60 seconds or more before turning the ignition switch to ON again.
If turning the ignition switch to ON again or disconnecting the ground cable from battery within 60 seconds after turning the ignition switch to OFF, the navigation unit data updating can not be performed correctly.

8) Shift the shift lever or the select lever to the following position to display the image of the rearview camera:
- MT model: Shift lever shifted to “Reverse” position.
- CVT model: Select lever shifted to “R” position.

9) Confirm that the marker line position is correctly adjusted before turning the ignition switch to OFF, then finish the procedures.

- **Multi-function display (MFD) system**

For marker adjustment of the multi-function display (MFD) system, refer to “INSTRUMENTATION/DRIVER INFO”.<Ref. to IDI-14, DIAGNOSTIC MODE (HIGH GRADE TYPE ONLY), OPERATION, Multi-function Display (MFD) System.>

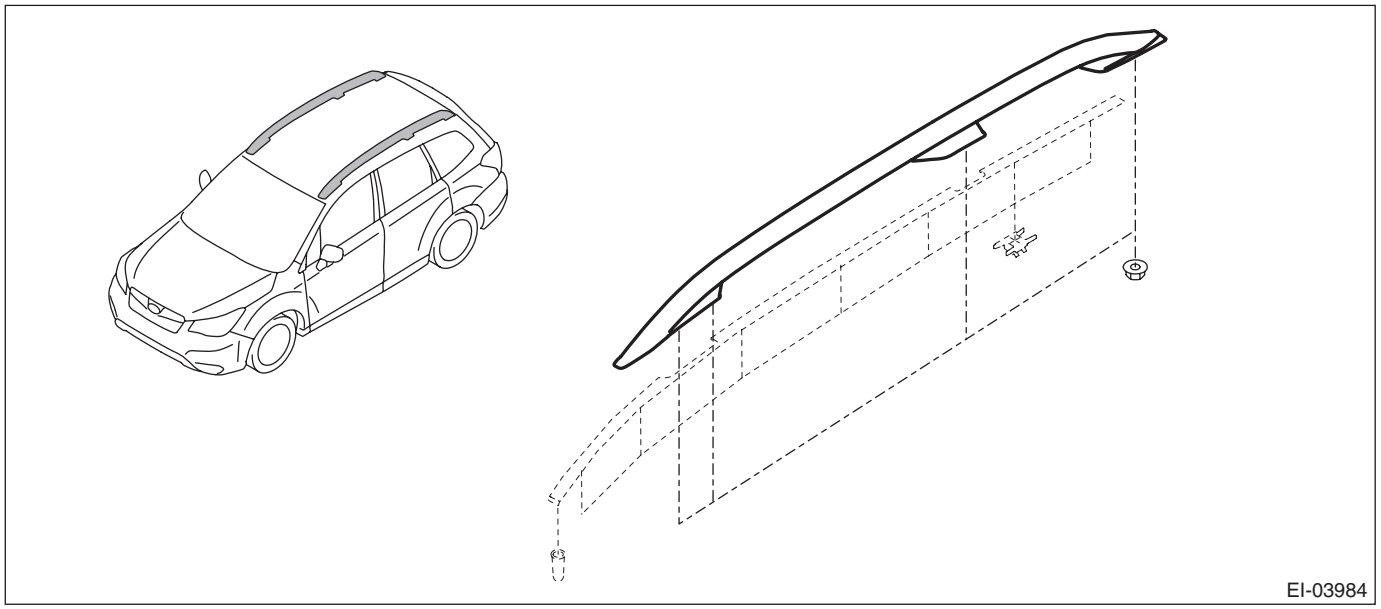
14.Roof Rail

A: REMOVAL

1) Remove the trim panel - roof. <Ref. to EI-109, REMOVAL, Roof Trim.>
2) Remove the curtain airbag module. <Ref. to AB-76, REMOVAL, Curtain Airbag Module.>

CAUTION:
• Refer to "CAUTION" of "General Description" before handling the airbag module. <Ref. to AB-9, CAUTION, General Description.>
• Be careful not to damage the curtain airbag module during removal.

3) Remove the four installing nuts.



B: INSTALLATION

CAUTION:
When removing or installing the roof rail, be careful not to scratch the body panel with the stud bolt of roof rail.

Install each part in the reverse order of removal.

Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

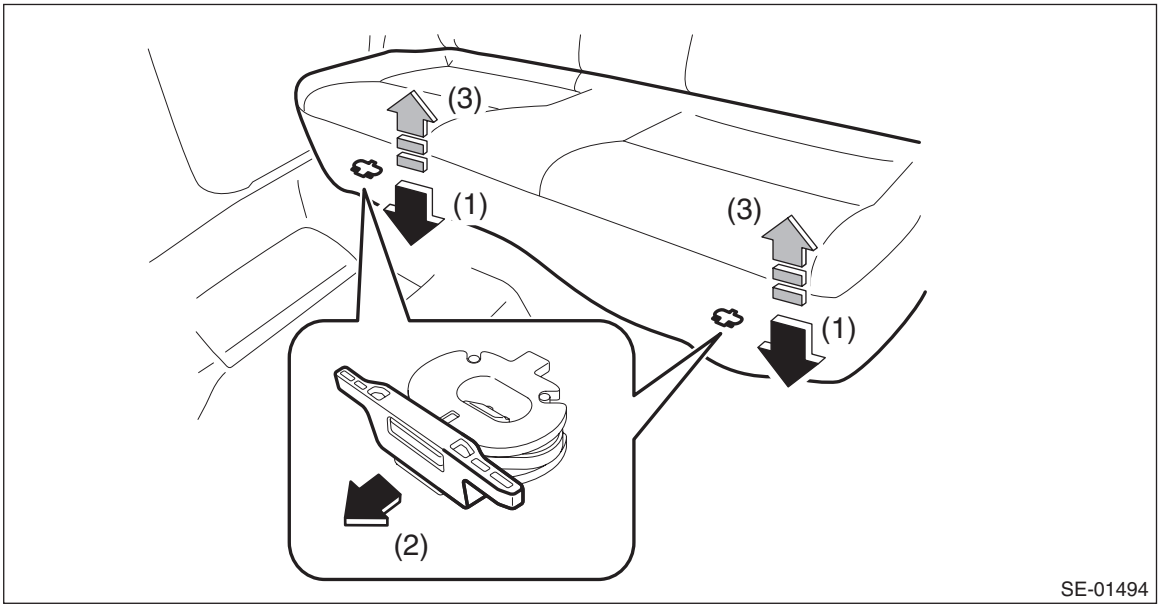
14.Satellite Safing Sensor

A: REMOVAL

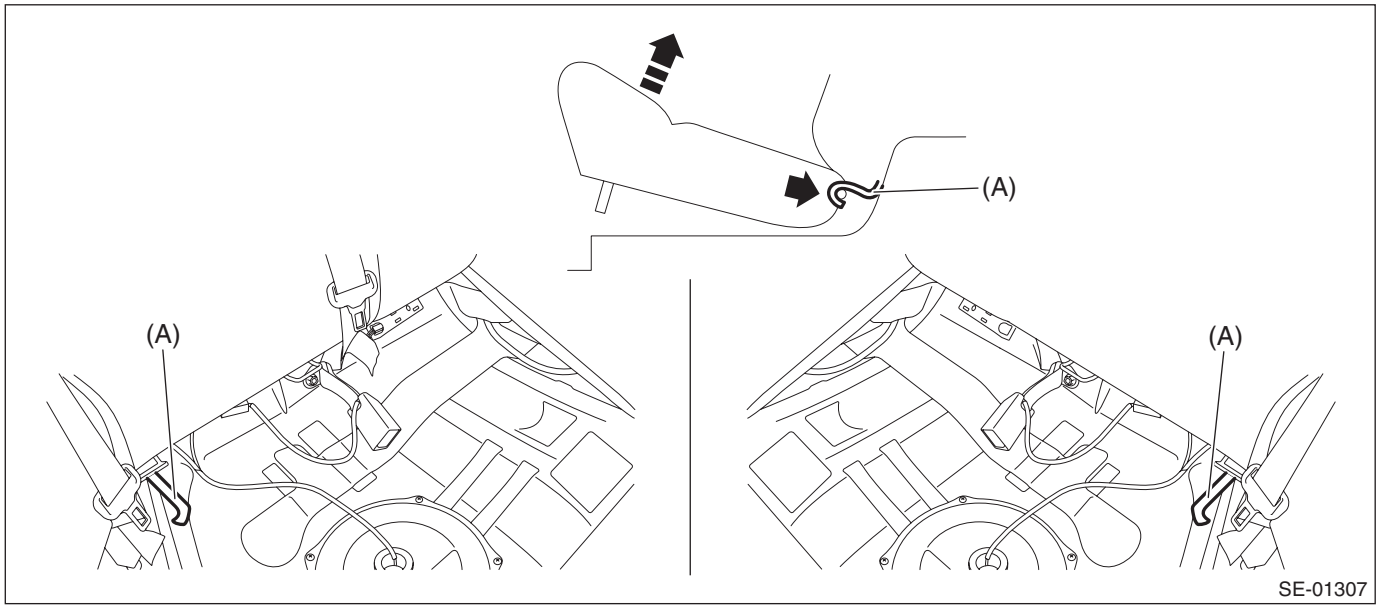
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.

CAUTION:
The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

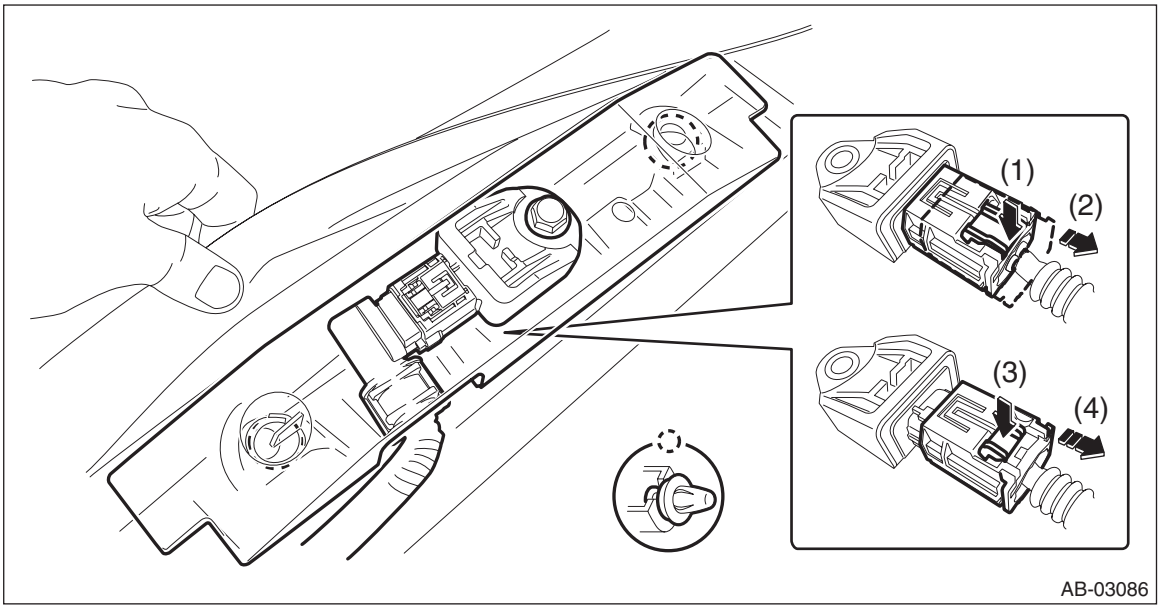
3) Remove the rear seat cushion assembly.
   (1) Push the corners of the rear seat cushion from above.
   (2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
   (3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.



   (4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



4) Remove the satellite safing sensor.
(1) Remove the clip, and remove the cover - satellite safing.
(2) Remove the bolts and then remove the satellite safing sensor. <Ref. to AB-23, FRONT SUB SENSOR, FRONT DOOR IMPACT SENSOR AND SATELLITE SAFING SENSOR, PROCEDURE, Airbag Connector.>



B: INSTALLATION

CAUTION:
• Do not reuse the bolt and nut.
Always replace with the specified new bolts and nuts.
• When installing the cover - satellite safing, push the cover securely until it contacts the floor panel.
• If the cover - satellite safing is too loose at its mounting portion to remove easily, replace with a new cover - satellite safing.
• After installing the cover - satellite safing, make sure that the sensor harness does not get caught.
Install each part in the reverse order of removal.

Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: INSPECTION

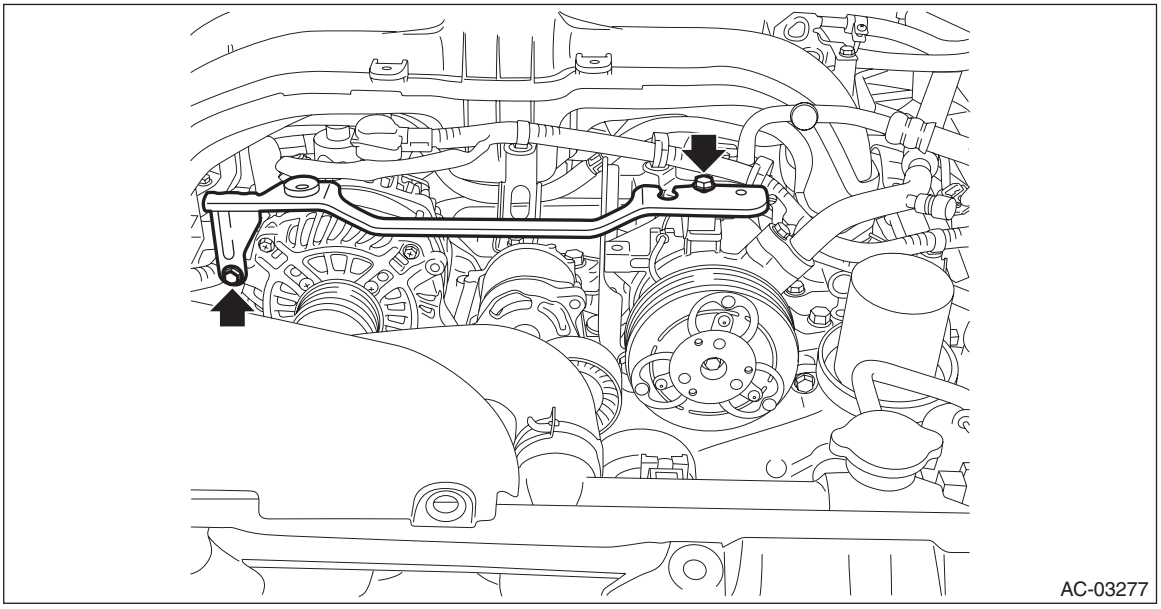
Check for the following, and replace the damaged parts with new parts.
- The satellite safing sensor connector is damaged.
- The cover - satellite safing is damaged
- Side airbag or curtain airbag has been activated.

15.Compressor

A: REMOVAL

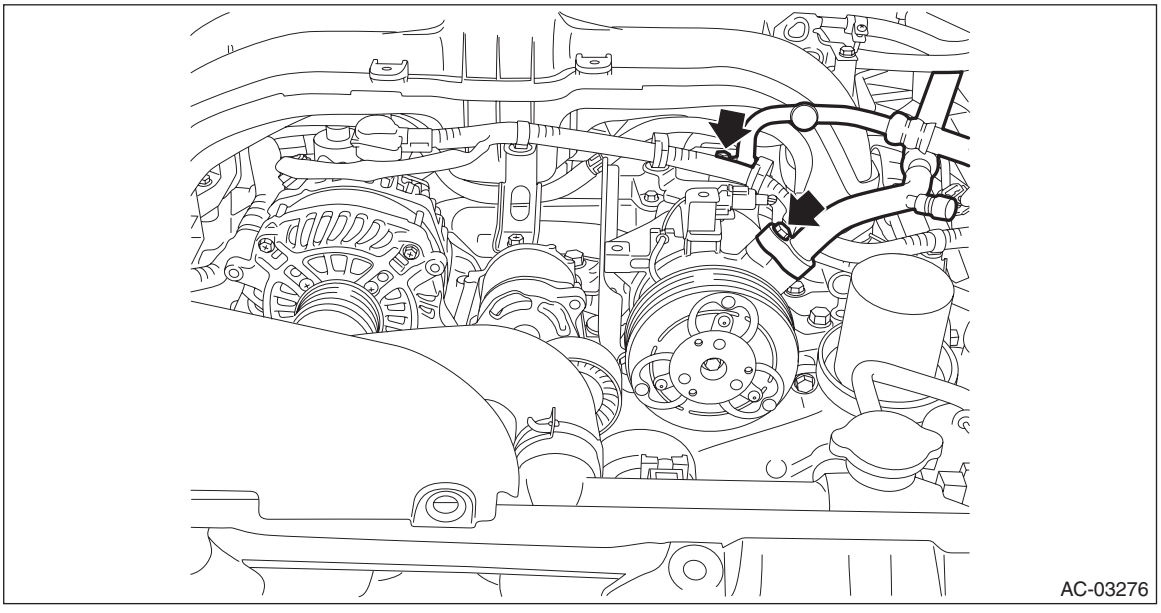
1) Perform compressor oil return operation.<Ref. to AC-36, PROCEDURE, Compressor Oil.>
2) Turn the A/C switch to OFF and stop the engine.
3) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
4) Disconnect the ground cable from battery.
5) Remove the V-belts.
- Non-turbo model:<Ref. to ME(H4DO)-89, REMOVAL, V-belt.>
- Turbo model:<Ref. to ME(H4DOTC)-77, REMOVAL, V-belt.>

6) Remove the bolts and remove the V-belt cover bracket.

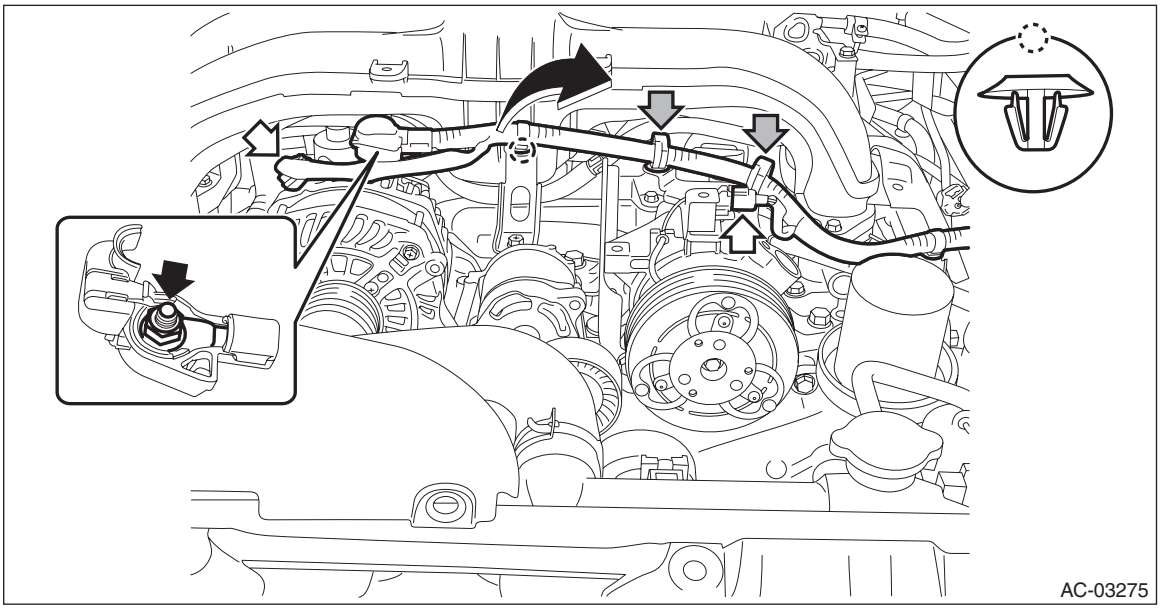

AC-03277

7) Remove the bolt, and detach the hose - pressure suction and the hose - pressure discharge.

CAUTION:
Seal the disconnected hose and engaging part of compressor with a plug or vinyl tape to prevent foreign matter from entering.

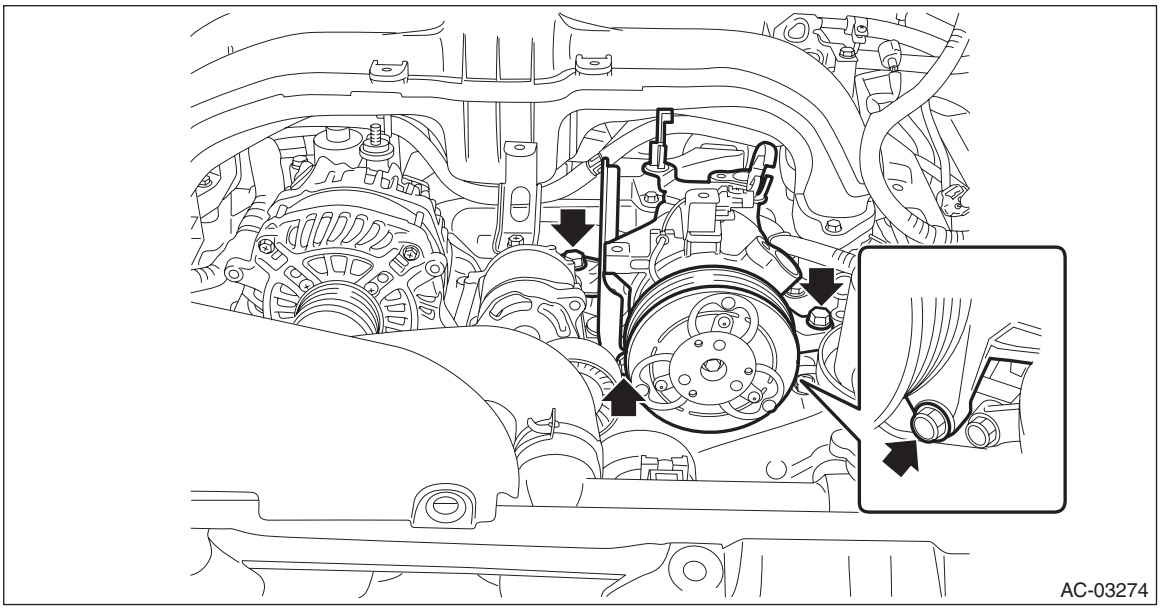

AC-03276

8) Disconnect the nut, washer, harness clams and each connector, and move the generator harness to the right.



9) Remove the bolts and remove the compressor assembly.

NOTE:
The hanger - engine front is tightened with the compressor assembly.



B: INSTALLATION

CAUTION:
• Replace the O-rings on the hose - pressure suction and discharge with new parts, and then apply compressor oil.
• After replacing the compressor assembly, adjust the amount of the compressor oil. <Ref. to AC-36, PROCEDURE, Compressor Oil.>
1) Install each part in the reverse order of removal.

Tightening torque:
Air conditioning unit: <Ref. to AC-12, AIR CONDITIONING UNIT, COMPONENT, General Description.>
Compressor: <Ref. to AC-13, COMPRESSOR, COMPONENT, General Description.>
V-belt cover bracket: <Ref. to SC(H4DO)-5, GENERATOR BRACKET, COMPONENT, General Description.>
2) Charge refrigerant. <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

C: INSPECTION

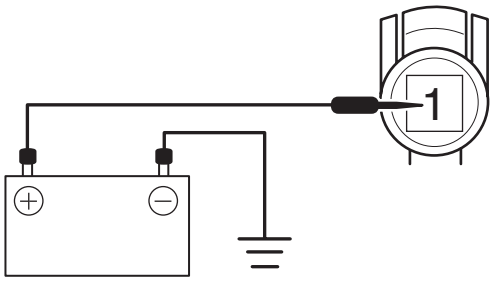
1. MAGNET CLUTCH CLEARANCE INSPECTION

1) Check the clearance of entire circumference around the drive plate and pulley.

Specification:
0.3 — 0.6 mm (0.0118 — 0.0236 in)
2) Replace the compressor assembly if the inspection result is not within the standard.

2. MAGNET CLUTCH OPERATION INSPECTION

UNIT INSPECTION
1) Check the magnet clutch operation when battery voltage is applied to the compressor terminal.

Terminal No.	Inspection conditions	Specification	Connection diagram
1 (+) — chassis ground (–)	Battery connection between compressor terminal and chassis ground	Engagement of magnet clutch	 AC-02772

2) If it does not operate normally, replace the compressor assembly.

15.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION

DTC DETECTING CONDITION:

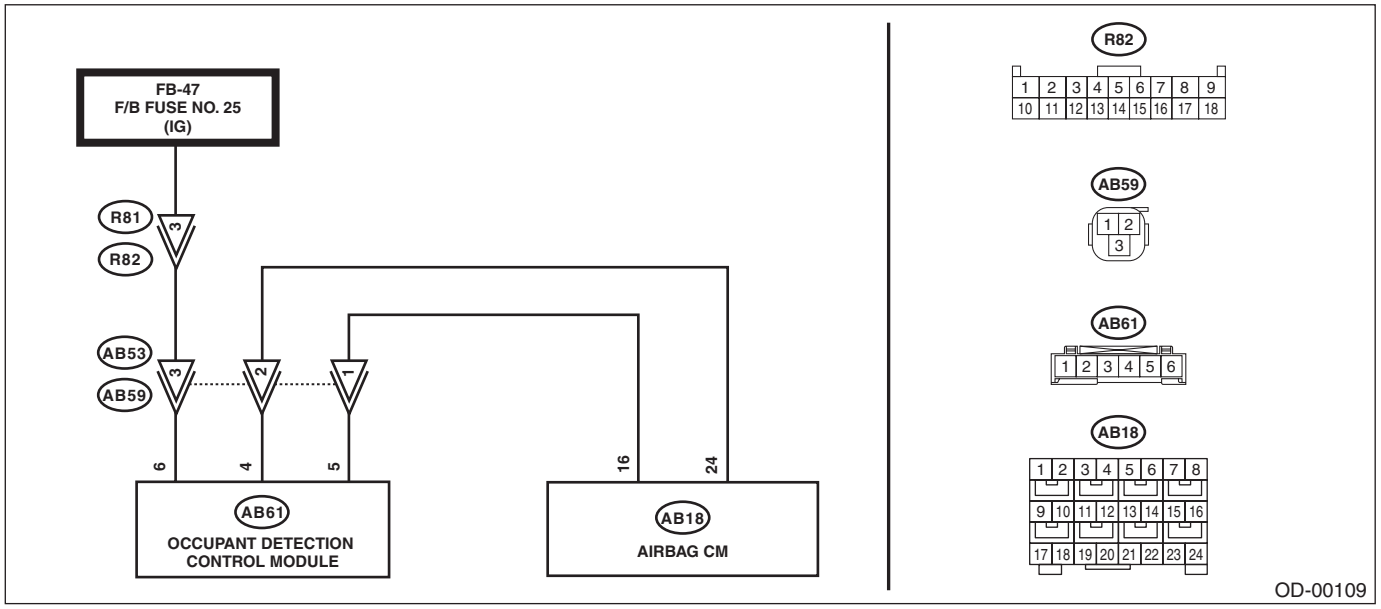
- Occupant detection sensor is faulty.
- Occupant detection control module is faulty.
- Occupant detection harness is faulty.
- Fuse No. 25 is blown out.
- Rear airbag harness is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Occupant detection system<Ref. to WI-301, WIRING DIAGRAM, Occupant Detection System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of the occupant detection system.	Is any of DTC B1760, B1771 and B1795 detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the occupant detection control module and airbag control module.	Is there poor contact?	Reconnect the connector. If defective is not improved, replace the airbag rear harness along with the body harness or the occupant detection harness (seat harness).	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB59) and (AB53) under the passenger's seat. 3) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG to connectors (AB6, AB17, AB18). 4) Connect the connector (1AP) in the test harness AP to the connector (AB53). 5) Measure the resistance between connector (6AG) in the test harness AG and connector (2AP) in the test harness AP. ***Connector & terminal*** ***(6AG) No. 9 — (2AP) No. 2:*** ***(6AG) No. 11 — (2AP) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG REAR HARNESS.** Measure the resistance between connector (6AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(6AG) No. 9 — Chassis ground:*** ***(6AG) No. 11 — Chassis ground:*** ***(6AG) No. 9 — (6AG) No. 11:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Replace the airbag rear harness along with body harness.
5	**CHECK OCCUPANT DETECTION HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between connector (2AP) in the test harness AP and chassis ground. ***Connector & terminal*** ***(2AP) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Replace the occupant detection harness (seat harness). If defective is not improved, replace the occupant detection system (passenger's side cushion & frame assembly), and then the airbag control module in this order.<Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.>	Check the battery voltage and fuse. If there is no fault, replace the airbag rear harness together with body harness.

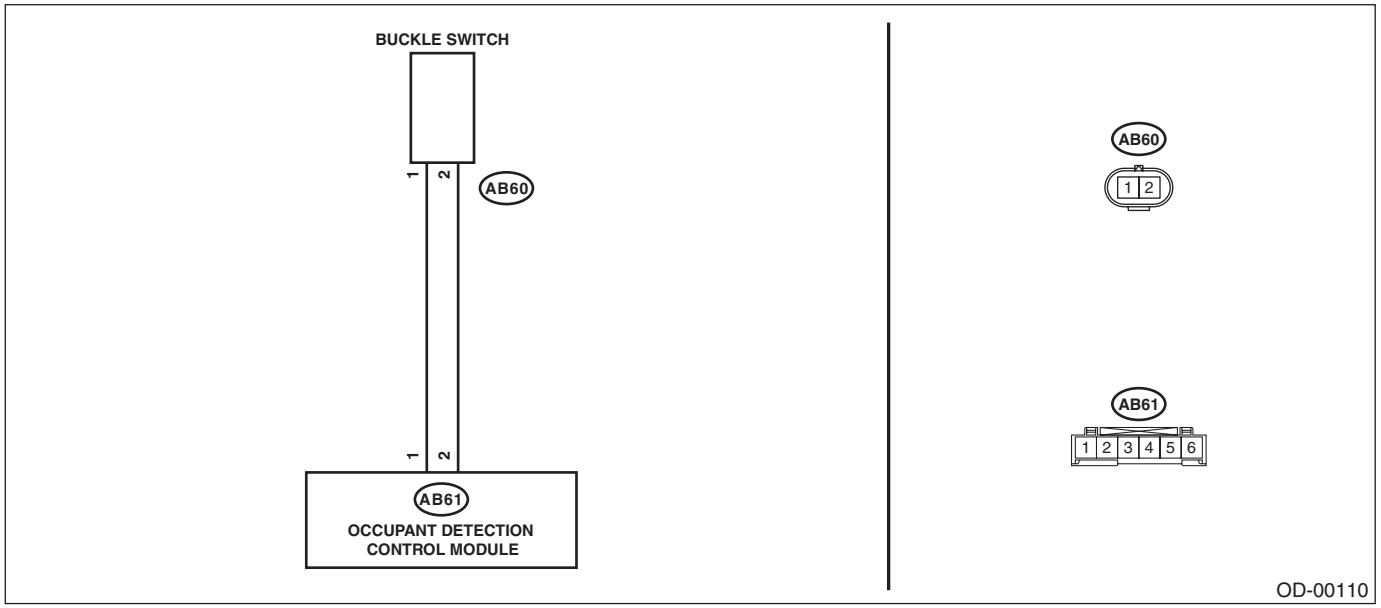
B: DTC B1655 FRONT BUCKLE SWITCH RH FAILURE

DTC DETECTING CONDITION:

- Passenger's buckle switch circuit is open, shorted or shorted to ground.
- Seat harness circuit is open, shorted or shorted to ground.
- Occupant detection control module is faulty.

WIRING DIAGRAM:

Occupant detection system<Ref. to WI-301, WIRING DIAGRAM, Occupant Detection System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC of the occupant detection system.	Is any of DTC B1760, B1771 and B1795 detected?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the occupant detection control module and buckle switch.	Is there poor contact?	Reconnect the connector. If the fault is not fixed, replace the airbag harness.	Go to step **3**.
3	**CHECK BUCKLE SWITCH.** 1) Turn the ignition switch to OFF, disconnect the battery ground terminal, and wait for 60 seconds. 2) Disconnect the buckle switch connector (AB60). 3) Connect the test harness AE and test harness connector Y to buckle switch connector (AB60). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the buckle switch.<Ref. to SB-16, SEAT BELT OUTER - FRONT, REMOVAL, Front Seat Belt.>	Check the seat harness, and if any fault is found, replace the seat harness. If the fault is not fixed, replace the occupant detection system (passenger's side cushion & frame assembly).<Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.>

C: DTC B1760 SENSOR MAT ABNORMAL

DTC DETECTING CONDITION:

- Occupant detection sensor circuit is open, shorted between terminals, shorted to power supply or shorted to ground.
- Seat heater circuit is open.
- Occupant detection control module is faulty.

	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of connectors between the occupant detection control module and the occupant detection sensor.	Is there poor contact of connector?	Reconnect the connector. If the fault is not fixed, replace the occupant detection harness or replace the occupant detection system (passenger's side cushion & frame assembly).	Replace the occupant detection system (passenger's & frame assembly). <Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.>

D: DTC B1771 BUCKLE SWITCH ABNORMAL

DTC DETECTING CONDITION:

- Passenger's seat buckle switch is faulty.
- Passenger's buckle switch circuit is open, shorted or shorted to ground.
- Occupant detection system is faulty.
- Occupant detection harness is faulty.

Perform the diagnosis from step 2 in "DTC B1655 FRONT BUCKLE SWITCH RH FAILURE". <Ref. to OD(diag)-21, DTC B1655 FRONT BUCKLE SWITCH RH FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

E: DTC B1795 ECU INTERNAL CIRCUIT FAULT

DTC DETECTING CONDITION:

Occupant detection control module is faulty.

When "DTC B1795 ECU INTERNAL CIRCUIT FAULT" is displayed, the occupant detection control module is faulty. Replace the occupant detection system (passenger's side cushion & frame assembly). <Ref. to SE-27, PASSENGER'S SEAT, DISASSEMBLY, Front Seat.>

SEAT BELT SYSTEM

SB

Page

1. General Description 2
2. Pretensioner Connector 11
3. Inspection Locations after a Collision 12
4. Seat Belt Warning System 13
5. Front Seat Belt 16
6. Rear Seat Belt 30
7. Disposal of Pretensioner 40

15.Diagnostics with Phenomenon

A: INSPECTION

1. KEYLESS ACCESS LOCK/UNLOCK CANNOT BE PERFORMED FROM ANY OF THE DOORS

CAUTION:
• Check that there are no other registered access keys inside the vehicle.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK OPERATION OF KEYLESS DOOR LOCK.** Using the keyless function of the access key, check the operation of the door lock.	Does it lock/unlock normally?	Check the exterior antenna, oscillator, touch sensor, lock/unlock buttons.	Go to step **2**.
2	**CHECK ACCESS KEY.** Check for whether lock and unlock is possible with the registered access key.	Is there any access key which can lock/unlock when the touch sensor is operated?	Check the access key that does not operate. Go to step **3**.	Go to step **4**.
3	**CHECK ACCESS KEY.** Measure the battery voltage of the access key that does not operate.	Is the voltage 2.5 — 3.2 V?	Replace the access key.	Replace the battery.
4	**CHECK DOOR LOCK.** Operate the driver's center door lock switch.	Does the door lock operate?	Go to step **5**.	Check the door lock control system. <Ref. to SL-11, INSPECTION, Door Lock Control System.>
5	**CHECK HARNESS.** 1) Disconnect the receiver connector (R296). 2) Using a tester, measure the resistance between receiver and chassis ground. ***Connector & terminal*** ***(R296) No. 1 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the resistance between receiver and keyless access CM. ***Connector & terminal*** ***(R296) No. 4 — (B573) No. 5:*** ***(R296) No. 5 — (B573) No. 17:*** ***(R296) No. 2 — (B573) No. 19:***	Is the resistance less than 10 Ω?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK RECEIVER.** Replace with a receiver that is operating normally. <Ref. to SL-93, REMOVAL, Receiver.>	When the front unlock sensor and the rear gate opener button are operated, does it lock/unlock?	Malfunction occurred in receiver.	Go to step **8**.
8	**CHECK HARNESS.** Using a tester, measure the voltage between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage 10 V or more when the ignition switch is turned to ON?	Go to step **9**.	Check the keyless access CM power supply circuit.

Step		Check	Yes	No
9	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is the resistance less than 10 Ω?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the open circuit of harness.

2. CANNOT LOCK WITH KEYLESS ACCESS FROM THE DRIVER'S DOOR

CAUTION:
• Check that there are no other registered access keys inside the vehicle.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DOOR LOCK SWITCH.** Check that the lock/unlock operates with the driver's door lock switch.	Does it lock/unlock normally?	Go to step **2**.	Check the door lock circuit. <Ref. to SL-11, SYMPTOM CHART, INSPECTION, Door Lock Control System.>
2	**CHECK CURRENT DATA.** 1) Display the current data «Driver's seat lock status SW input» of body integrated unit using Subaru Select Monitor. 2) Read the data when locking/unlocking the driver's side lock actuator.	Does the data change from ON/OFF?	Go to step **3**.	Check the door lock switch circuit.
3	**CHECK CURRENT DATA.** 1) Display the current data «Driver's lock touch sensor SW» of Keyless access system check for keyless access system using Subaru Select Monitor. 2) Read the data when operating the touch sensor (lock) of the door outer handle.	Does the data change from ON/OFF according to the sensor operation?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front outer handle connector. 3) Using a tester, measure the resistance between the keyless access CM connector and front outer handle connector. ***Connector & terminal*** ***(B574) No. 20 — (D66) No. 1:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 20 — Chassis ground:*** ***(D66) No. 1 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**REPLACE FRONT DOOR OUTER HANDLE.** Replace the driver's side front outer handle with the passenger's side front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Does it operate properly?	Replace the driver's front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

3. CANNOT LOCK/UNLOCK WITH KEYLESS ACCESS FROM THE DRIVER'S DOOR

CAUTION:
• Check that there are no other registered access keys inside the vehicle.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DOOR LOCK SWITCH.** Check that the lock/unlock operates with the driver's door lock switch.	Does it lock/unlock normally?	Go to step **2**.	Check the door lock circuit. <Ref. to SL-11, SYMPTOM CHART, INSPECTION, Door Lock Control System.>
2	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **3**.	Replace the fuse.
3	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front outer handle connector. 3) Using a tester, measure the resistance between the keyless access CM connector and front outer handle connector, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 12 — (D66) No. 6:*** ***(B574) No. 13 — (D66) No. 3:*** ***(B574) No. 19 — (D66) No. 5:*** ***(D66) No. 2 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 12 — Chassis ground:*** ***(D66) No. 6 — Chassis ground:*** ***(B574) No. 13 — Chassis ground:*** ***(D66) No. 3 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Turn the ignition switch to OFF, close all doors and take the access key out of passenger room. 3) Use the Subaru Select Monitor, measure the waveform between the keyless access CM connectors. ***Connector & terminal*** ***(D66) No. 6 — (D66) No. 3:***	Does pulse output change from pulse output OFF → pulse output ON by the lock operation using access key?	Go to step **6**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
6	**REPLACE FRONT DOOR OUTER HANDLE.** Replace the driver's side front outer handle with the passenger's side front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Does it operate properly?	Replace the driver's front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

4. CANNOT UNLOCK WITH KEYLESS ACCESS FROM THE DRIVER'S DOOR

CAUTION:
• Check that there are no other registered access keys inside the vehicle.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DOOR LOCK SWITCH.** Check that the lock/unlock operates with the driver's door lock switch.	Does it lock/unlock normally?	Go to step **2**.	Check the door lock circuit. <Ref. to SL-11, SYMPTOM CHART, INSPECTION, Door Lock Control System.>
2	**CHECK CURRENT DATA.** 1) Display the current data «Driver's seat lock status SW input» of body integrated unit using Subaru Select Monitor. 2) Read the data when locking/unlocking the driver's side lock actuator.	Does the data change from ON/OFF?	Go to step **3**.	Check the door lock switch circuit.
3	**CHECK CURRENT DATA.** 1) Display the current data «Driver's unlock touch sensor switch» of Keyless access system check for keyless access system using Subaru Select Monitor. 2) Read the data when operating the touch sensor (unlock) of the door outer handle.	Does the data change from ON/OFF according to the sensor operation?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front outer handle connector. 3) Using a tester, measure the resistance between the keyless access CM connector and front outer handle connector. ***Connector & terminal*** ***(B574) No. 22 — (D66) No. 4:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 22 — Chassis ground:*** ***(D66) No. 4 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**REPLACE FRONT DOOR OUTER HANDLE.** Replace the driver's side front outer handle with the passenger's side front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Does it operate properly?	Replace the driver's front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

5. CANNOT LOCK WITH KEYLESS ACCESS FROM THE PASSENGER'S DOOR

CAUTION:
• Check that there are no other registered access keys inside the vehicle.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DOOR LOCK SWITCH.** Check that the lock/unlock operates with the driver's door lock switch.	Does it lock/unlock normally?	Go to step **2**.	Check the door lock circuit. <Ref. to SL-11, SYMPTOM CHART, INSPECTION, Door Lock Control System.>
2	**CHECK CURRENT DATA.** 1) Display the current data «Passenger's seat lock status SW input» of body integrated unit using Subaru Select Monitor. 2) Read the data when locking/unlocking the passenger's side lock actuator.	Does the data change from ON/OFF?	Go to step **3**.	Check the door lock switch circuit.
3	**CHECK CURRENT DATA.** 1) Display the current data «Passenger's lock touch sensor SW» of Keyless access system check for keyless access system using Subaru Select Monitor. 2) Read the data when operating the touch sensor (lock) of the door outer handle.	Does the data change from ON/OFF according to the sensor operation?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front outer handle connector. 3) Using a tester, measure the resistance between the keyless access CM connector and front outer handle connector. ***Connector & terminal*** ***(B574) No. 8 — (D56) No. 1:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 8 — Chassis ground:*** ***(D56) No. 1 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**REPLACE FRONT DOOR OUTER HANDLE.** Replace the passenger's side front outer handle with the driver's side front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Does it operate properly?	Replace the passenger's front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

6. CANNOT LOCK/UNLOCK WITH KEYLESS ACCESS FROM THE PASSENGER'S DOOR

CAUTION:
• Check that there are no other registered access keys inside the vehicle.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DOOR LOCK SWITCH.** Check that the lock/unlock operates with the driver's door lock switch.	Does it lock/unlock normally?	Go to step **2**.	Check the door lock circuit. <Ref. to SL-11, SYMPTOM CHART, INSPECTION, Door Lock Control System.>
2	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **3**.	Replace the fuse.
3	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front outer handle connector. 3) Using a tester, measure the resistance between the keyless access CM connector and front outer handle connector, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 11 — (D56) No. 6:*** ***(B574) No. 10 — (D56) No. 3:*** ***(B574) No. 23 — (D56) No. 4:*** ***(D56) No. 2 — Chassis ground:***	Is the resistance less than 1 Ω?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 11 — Chassis ground:*** ***(D56) No. 6 — Chassis ground:*** ***(B574) No. 10 — Chassis ground:*** ***(D56) No. 3 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **5**.	Repair or replace the short circuit of the harness.
5	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Turn the ignition switch to OFF, close all doors and take the access key out of passenger room. 3) Use the Subaru Select Monitor, measure the waveform between the keyless access CM connectors. ***Connector & terminal*** ***(D56) No. 6 — (D56) No. 3:***	Does pulse output change from pulse output OFF → pulse output ON by the lock operation using access key?	Go to step **6**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
6	**REPLACE FRONT DOOR OUTER HANDLE.** Replace the passenger's side front outer handle with the driver's side front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Does it operate properly?	Replace the passenger's front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

7. CANNOT UNLOCK WITH KEYLESS ACCESS FROM THE PASSENGER'S DOOR

CAUTION:
• Check that there are no other registered access keys inside the vehicle.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DOOR LOCK SWITCH.** Check that the lock/unlock operates with the driver's door lock switch.	Does it lock/unlock normally?	Go to step **2**.	Check the door lock circuit. <Ref. to SL-11, SYMPTOM CHART, INSPECTION, Door Lock Control System.>
2	**CHECK CURRENT DATA.** 1) Display the current data «Passenger's seat lock status SW input» of body integrated unit using Subaru Select Monitor. 2) Read the data when locking/unlocking the passenger's side lock actuator.	Does the data change from ON/OFF?	Go to step **3**.	Check the door lock switch circuit.
3	**CHECK CURRENT DATA.** 1) Display the current data «Passenger's unlock touch sensor switch» of Keyless access system check for keyless access system using Subaru Select Monitor. 2) Read the data when operating the touch sensor (unlock) of the door outer handle.	Does the data change from ON/OFF according to the sensor operation?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Go to step **4**.
4	**CHECK HARNESS.** 1) Disconnect the keyless access CM connector. 2) Disconnect the front outer handle connector. 3) Using a tester, measure the resistance between the keyless access CM connector and front outer handle connector. ***Connector & terminal*** ***(B574) No. 23 — (D56) No. 4:***	Is the resistance less than 1 Ω?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK HARNESS.** Using a tester, measure the resistance between the keyless access CM connector and chassis ground, and between front outer handle connector and chassis ground. ***Connector & terminal*** ***(B574) No. 23 — Chassis ground:*** ***(D56) No. 4 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **6**.	Repair or replace the short circuit of the harness.
6	**REPLACE FRONT DOOR OUTER HANDLE.** Replace the passenger's side front outer handle with the driver's side front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Does it operate properly?	Replace the passenger's front outer handle. <Ref. to SL-35, REMOVAL, Front Outer Handle.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

8. THE KEYLESS ACCESS PASSENGER ROOM BUZZER DOES NOT SOUND

CAUTION:
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK COMBINATION METER.** Check the combination meter. <Ref. to IDI(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is combination meter OK?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Replace the combination meter. <Ref. to IDI-18, REMOVAL, Combination Meter.>

9. KEYLESS ACCESS EXTERNAL BUZZER DOES NOT BEEP

	Step	Check	Yes	No
1	**CHECK BODY INTEGRATED UNIT SETTING.** Using the Subaru Select Monitor, check the «Ans.-back Buzzer» data of body integrated unit.	Is the setting "ON"?	Go to step **2**.	Change the setting to "ON".
2	**CHECK BUZZER OPERATION.** Use the Subaru Select Monitor to perform the body integrated unit function check «Keyless Buzzer Output». <Ref. to BC(diag)-21, OPERATION, Function Check.>	Does the buzzer sound?	Go to step **3**.	Go to step **5**.
3	**CHECK KEYLESS ACCESS SYSTEM.** 1) Turn to IGN ON. 2) With all doors closed and the access key carried, touch the touch sensor (lock) on the driver's door handle.	Does the door lock?	Go to step **4**.	Refer to "CANNOT LOCK WITH KEYLESS ACCESS FROM THE DRIVER'S DOOR" and perform inspection. <Ref. to KPS(diag)-101, CANNOT LOCK WITH KEYLESS ACCESS FROM THE DRIVER'S DOOR, INSPECTION, Diagnostics with Phenomenon.>
4	**CHECK KEYLESS ACCESS SYSTEM.** 1) Open the door glass. 2) Place the access key on the driver's seat, and close the door. 3) Touch the touch sensor (lock) on the driver's door handle.	Does the buzzer sound? (Lock-out protection warning)	System is normal.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
5	**CHECK HARNESS.** 1) Turn to IGN OFF. 2) Disconnect the connectors of the body integrated unit and keyless buzzer. 3) Measure the resistance between body integrated unit connector and keyless buzzer connector. ***Connector & terminal*** ***(B280) No. 20 — (B164) No. 1:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
6	**CHECK HARNESS.** Measure the resistance between keyless buzzer connector and chassis ground. ***Connector & terminal*** ***(B164) No. 1 — Chassis ground:***	Is the resistance 10 kΩ or more?	Go to step **7**.	Repair or replace the short circuit of the harness.
7	**CHECK HARNESS.** Measure the resistance between keyless buzzer connector and chassis ground. ***Connector & terminal*** ***(B164) No. 2 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK BODY INTEGRATED UNIT.** 1) Connect the connector of body integrated unit. 2) Use the Subaru Select Monitor to perform the body integrated unit function check «Keyless Buzzer Output». <Ref. to BC(diag)-21, OPERATION, Function Check.> 3) Measure the voltage between body integrated unit connector and chassis ground using an oscilloscope. ***Connector & terminal*** ***(B280) No. 20 (+) — Chassis ground (–):***	Is the frequency 2kHz, voltage 9 V or more?	Replace the keyless buzzer. <Ref. to SL-110, REMOVAL, Access Buzzer.>	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>

10.INTERNAL COLLATION DOES NOT FUNCTION

CAUTION:
When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK ACCESS KEY.** Check the access key. <Ref. to SL-82, INSPECTION, Access Key.>	Is the battery OK?	Go to step **2**.	Replace the battery.
2	**CHECK INTERIOR ANTENNA.** 1) Using the Subaru Select Monitor, select System check of the keyless access CM «Front interior transmitter + interior tuner». <Ref. to KPS(diag)-33, Keyless Access System Check.> 2) Using a tester, check the output between keyless access CM connector terminals while performing the Keyless access system check. ***Connector & terminal*** ***(B574) No. 2 — No. 3:***	Is a pulse output?	Go to step **3**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
3	**CHECK INTERIOR ANTENNA.** 1) Using the Subaru Select Monitor, select System check of the keyless access CM «Rear interior transmitter + interior tuner». <Ref. to KPS(diag)-33, Keyless Access System Check.> 2) Using a tester, check the output between keyless access CM connector terminals while performing the Keyless access system check. ***Connector & terminal*** ***(B573) No. 10 — No. 11:***	Is a pulse output?	Go to step **4**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

	Step	Check	Yes	No
4	**CHECK INTERIOR ANTENNA.** 1) Using the Subaru Select Monitor, select System check of the keyless access CM «Trunk internal transmitter + interior tuner» or «Rear gate internal transmitter + interior tuner». <Ref. to KPS(diag)-33, Keyless Access System Check.> 2) Using a tester, check the output between keyless access CM connector terminals while performing the Keyless access system check. ***Connector & terminal*** ***(B573) No. 8 — No. 9:***	Is a pulse output?	Go to step **5**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
5	**CHECK WIRING HARNESS.** 1) Disconnect the front interior antenna connector and the keyless access CM connector. 2) Using a tester, check continuity between the front interior antenna connector and the keyless access CM connector. ***Connector & terminal*** ***(B579) No. 1 — (B574) No. 3:*** ***(B579) No. 3 — (B574) No. 2:***	Is there continuity?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK WIRING HARNESS.** 1) Disconnect the center interior antenna connector and the keyless access CM connector. 2) Using a tester, check continuity between the center interior antenna connector and the keyless access CM connector. ***Connector & terminal*** ***(R298) No. 1 — (B573) No. 11:*** ***(R298) No. 3 — (B573) No. 10:***	Is there continuity?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK WIRING HARNESS.** 1) Disconnect the rear interior antenna connector and the keyless access CM connector. 2) Using a tester, check continuity between the rear interior antenna connector and the keyless access CM connector. ***Connector & terminal*** ***(R297) No. 1 — (B573) No. 9:*** ***(R297) No. 3 — (B573) No. 8:***	Is there continuity?	Go to step **8**.	Repair or replace the open circuit of harness.
8	**CHECK ANTENNA.** Replace the front interior antenna with a new or properly functioning part. <Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.>	Does it operate properly?	Replace the front interior antenna. <Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.>	Go to step **9**.
9	**CHECK ANTENNA.** Replace the center passenger room antenna with a new or properly functioning part. <Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.>	Does it operate properly?	Replace the center passenger room antenna. <Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.>	Go to step **10**.
10	**CHECK ANTENNA.** Replace the rear interior antenna with a new or properly functioning part. <Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.>	Does it operate properly?	Replace the rear interior antenna. <Ref. to SL-87, REMOVAL, Keyless Access Indoor Antenna.>	Go to step **11**.

	Step	Check	Yes	No
11	**CHECK WIRING HARNESS.** 1) Disconnect the receiver connector and the keyless access CM connector. 2) Using a tester, check continuity between the receiver connector and keyless access CM connector. ***Connector & terminal*** ***(R296) No. 4 — (B573) No. 5:*** ***(R296) No. 5 — (B573) No. 17:*** ***(R296) No. 2 — (B573) No. 19:***	Is there continuity?	Go to step **12**.	Repair or replace the open circuit of harness.
12	**CHECK RECEIVER.** Replace the receiver with a new or properly functioning part. <Ref. to SL-93, REMOVAL, Receiver.>	Does it operate properly?	Replace the receiver. <Ref. to SL-93, REMOVAL, Receiver.>	Go to step **13**.
13	**CHECK KEYLESS ACCESS SYSTEM CHECK.** 1) Using the Subaru Select Monitor, select System check of the keyless access CM «Front interior transmitter + interior tuner». <Ref. to KPS(diag)-33, Keyless Access System Check.> 2) Hold the access key 1 m or more away from the audio panel, then come closer to within 0.8 m.	Does the buzzer sound?	Go to step **14**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
14	**CHECK KEYLESS ACCESS SYSTEM CHECK.** 1) Using the Subaru Select Monitor, select System check of the keyless access CM «Rear interior transmitter + interior tuner». <Ref. to KPS(diag)-33, Keyless Access System Check.> 2) Hold the access key 1 m or more away from the center of the second row seats, then come closer to within 0.8 m.	Does the buzzer sound?	Go to step **15**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
15	**CHECK KEYLESS ACCESS SYSTEM CHECK.** 1) Using the Subaru Select Monitor, select System check of the keyless access CM «Trunk internal transmitter + interior tuner» or «Rear gate internal transmitter + interior tuner». <Ref. to KPS(diag)-33, Keyless Access System Check.> 2) Hold the access key 1 m or more away from the back of the rear seat, then come closer to within 0.8 m.	Does the buzzer sound?	System is normal.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

11.REAR GATE CANNOT BE UNLOCKED WITH THE REAR GATE OPENER BUTTON

CAUTION:
• Check that there are no other registered access keys inside the rear gate.
• Inspect LAN system according to the basic diagnostic procedure, and make sure that there is no fault.
• Check that the keyless access function is not stopped.
• When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK KEYLESS OPERATION.** Check that the rear gate unlocks when the rear gate unlock button of the access key is pressed.	Does it operate properly?	Go to step **6**.	For vehicles without power rear gate Go to step **2**. For vehicles with power rear gate <Ref. to PRG(diag)-66, PRG OPENER BUTTON DOES NOT FUNCTION, INSPECTION, Diagnostics with Phenomenon.>
2	**CHECK REAR GATE UNLOCK OPERATION.** 1) Using the Subaru Select Monitor, select the function check «R gate/trunk UNLK output» of the body integrated unit. 2) Check that the rear gate unlocks when the R gate/trunk UNLK signal is output.	Does it operate properly?	Go to step **6**.	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector and rear gate lock actuator connector. 2) Check the continuity between body integrated unit connector and rear gate lock actuator connector. ***Connector & terminal*** ***(i171) No. 7 — (D46) No. 1:***	Is there continuity?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK HARNESS.** 1) Check the continuity between the rear gate lock actuator connector and chassis ground. ***Connector & terminal*** ***(D46) No. 2 — Chassis ground:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK REAR GATE LOCK ACTUATOR.** 1) Check the rear gate lock actuator. <Ref. to SL-52, INSPECTION, Rear Gate Latch and Actuator Assembly.>	Is the rear gate lock actuator normal?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Replace the rear gate latch and actuator assembly. <Ref. to SL-51, Rear Gate Latch and Actuator Assembly.>
6	**CHECK ACCESS KEY.** 1) Prepare all access keys registered to the vehicle. 2) Check that the rear gate lock can be unlocked with each access key.	Does it operate properly?	Go to step **7**.	Replace the access key. <Ref. to SL-82, REPLACEMENT, Access Key.>
7	**CHECK CURRENT DATA.** 1) Display the current data «R Gate Release SW input» of body integrated unit using Subaru Select Monitor. 2) Read the data when pressing the rear gate opener button.	Does the data display ON?	Go to step **14**.	Go to step **8**.

	Step	Check	Yes	No
8	**CHECK WIRING HARNESS.** 1) Disconnect the rear gate opener button connector and body integrated unit connector. 2) Using a tester, check the continuity between the rear gate opener button connector and body integrated unit connector. ***Connector & terminal*** ***(D77) No. 5 — (i84) No. 10:***	Is there continuity?	Go to step **9**.	Repair or replace the open circuit of harness.
9	**CHECK WIRING HARNESS.** 1) Using a tester, check the continuity between the rear gate opener button connector and chassis ground. ***Connector & terminal*** ***(D77) No. 6 — Chassis ground:***	Is there continuity?	Go to step **10**.	Repair or replace the open circuit of harness.
10	**CHECK REAR GATE OPENER BUTTON.** Using a tester, check the continuity between rear gate opener button switch terminals. ***Connector & terminal*** ***(D77) No. 5 — (D77) No. 6:***	Is there continuity when pressing the switch?	Go to step **11**.	Replace the rear gate opener button. <Ref. to SL-49, REMOVAL, Rear Gate Opener Button.>
11	**CHECK WIRING HARNESS.** 1) Disconnect the exterior rear antenna connector and the keyless access CM connector. 2) Using a tester, check continuity between the exterior rear antenna connector and keyless access CM connector. ***Connector & terminal*** ***(AD23) No. 1 — (B573) No. 2:*** ***(AD23) No. 2 — (B573) No. 1:***	Is there continuity?	Go to step **12**.	Repair or replace the open circuit of harness.
12	**CHECK OUTSIDE REAR ANTENNA.** Replace the outside rear antenna with new or properly working parts. <Ref. to SL-89, REMOVAL, Keyless Access Outdoor Antenna.>	Does it operate properly?	The outside rear antenna has a failure.	Go to step **13**.
13	**CHECK CURRENT DATA.** 1) Display the current data «R gate lock status SW input» of body integrated unit using Subaru Select Monitor. 2) Read the data when locking/unlocking the rear gate lock actuator.	Does the data change from ON ←→ OFF?	Go to step **14**.	Check body integrated unit. <Ref. to SL-75, REMOVAL, Body Integrated Unit.>
14	**CHECK KEYLESS ACCESS SYSTEM CHECK.** 1) Using the Subaru Select Monitor, select System check of the keyless access CM «Rear gate external transmitter + interior tuner». <Ref. to KPS(diag)-33, Keyless Access System Check.> 2) Hold the access key 1 m or more away from the trunk, then come closer to within 0.8 m.	Does the outside buzzer sound?	System is normal.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

12.CAN NOT LOCK WHEN USING THE REAR LOCK BUTTON

CAUTION:
- **Check that there are no other registered access keys inside the vehicle.**
- **Check that the keyless access function is not stopped.**
- **Inspect LAN system or keyless access system according to the basic diagnostic procedure, and make sure that DTC is not input.**
- **When the access key or keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".**

	Step	Check	Yes	No
1	**CHECK REAR GATE ACTUATOR.** While carrying the access key, operate the touch sensor (lock) and touch sensor (unlock).	When the switch is operated, does the rear gate lock/unlock?	Go to step **2**.	Go to step **10**.
2	**CHECK REAR LOCK BUTTON.** 1) Display the «Rear Gate Request SW» of the keyless access CM using the Subaru Select Monitor. 2) Read the data when operating the rear lock button.	Does the data change between ON/OFF?	Go to step **8**.	Go to step **3**.
3	**CHECK HARNESS.** 1) Disconnect the rear lock button connector and the keyless access CM connector. 2) Using a tester, measure the resistance between harness. ***Connector & terminal*** ***(D77) No. 3 — (B573) No. 27:***	Is the resistance less than 10 Ω?	Go to step **4**.	Repair or replace the open circuit of the harness.
4	**CHECK HARNESS.** Using a tester, measure the resistance between harness and chassis ground. ***Connector & terminal*** ***(D77) No. 3 — Chassis ground:***	Is the resistance 10 MΩ or more?	Go to step **5**.	Repair or replace the short of harness.
5	**CHECK HARNESS.** Using a tester, measure the resistance between harness and chassis ground. ***Connector & terminal*** ***(D77) No. 4 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the open circuit of the harness.
6	**CHECK REAR LOCK BUTTON.** Measure the resistance when the rear lock button is operated using the tester. ***Connector & terminal*** ***(D77) No. 3 — No. 4:***	Did the resistance change from 1 MΩ or more to less than 10 Ω?	Go to step **7**.	Replace the rear lock button. <Ref. to SL-91, REMOVAL, Rear Lock Button.>
7	**CHECK REAR LOCK BUTTON.** 1) Display the «Rear Gate Request SW» of the keyless access CM using the Subaru Select Monitor. 2) Read the data when operating the rear lock button.	Does the data change between ON/OFF?	Go to step **8**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
8	**CHECK WIRING HARNESS.** 1) Disconnect the exterior rear antenna connector and the keyless access CM connector. 2) Using a tester, check continuity between the exterior rear antenna connector and keyless access CM connector. ***Connector & terminal*** ***(AD23) No. 1 — (B573) No. 2:*** ***(AD23) No. 2 — (B573) No. 1:***	Is there continuity?	Go to step **9**.	Repair or replace the open circuit of harness.
9	**CHECK OUTSIDE REAR ANTENNA.** Replace the outside rear antenna with new or properly working parts. <Ref. to SL-89, REMOVAL, Keyless Access Outdoor Antenna.>	Does it operate properly?	The outside rear antenna has a failure.	Go to step **10**.

Step		Check	Yes	No
10	**CHECK BODY INTEGRATED UNIT.** 1) Connect the disconnected connectors. 2) Use the Subaru Select Monitor to perform the body integrated unit function check. 3) Actuate the door lock actuator LOCK output.	Does the rear gate lock actuator lock?	It is possible that temporary poor communication occurs.	Go to step **11**.
11	**CHECK HARNESS.** 1) Disconnect the body integrated unit connector and rear gate lock actuator connector. 2) Check the continuity between body integrated unit connector and rear gate lock actuator connector. ***Connector & terminal*** ***(i171) No. 7 — (D46) No. 1:***	Is there continuity?	Go to step **12**.	Repair or replace the open circuit of harness.
12	**CHECK HARNESS.** 1) Check the continuity between the rear gate lock actuator connector and chassis ground. ***Connector & terminal*** ***(D46) No. 2 — Chassis ground:***	Is there continuity?	Go to step **13**.	Repair or replace the open circuit of harness.
13	**CHECK REAR GATE LOCK ACTUATOR.** 1) Check the rear gate lock actuator. <Ref. to SL-52, INSPECTION, Rear Gate Latch and Actuator Assembly.>	Is the rear gate lock actuator normal?	Replace the body integrated unit. <Ref. to SL-75, Body Integrated Unit.>	Replace the rear gate latch and actuator assembly. <Ref. to SL-51, Rear Gate Latch and Actuator Assembly.>

13.THE STEERING LOCK IS NOT RELEASED

CAUTION:
When the steering lock CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK OPERATION.** 1) Depress the brake pedal (except for MT model) or clutch pedal (MT model). 2) While turning the steering wheel lightly to the left and right, press the push button ignition switch. 3) Confirm that the steering lock is released and the engine start.	Does the engine fail to start with the steering lock released?	Perform the diagnosis for engine system. <Ref. to EN(H4DO)(diag)-62, Diagnostics for Engine Starting Failure.>	Go to step **2**.
2	**CHECK DTC.** Read keyless access CM DTCs using the Subaru Select Monitor.	Is a DTC displayed?	Perform the diagnosis according to the corresponding procedures of DTC.	Go to step **3**.
3	**CHECK CURRENT DATA.** 1) Using the Subaru Select Monitor, display the current data of the keyless access CM «Steering lock unlock request reception status» and «Steering lock lock/unlock command reception history». 2) Read the data when the push button ignition switch is pressed while in possession of the access key. (Maintain for 10 seconds after switch operation)	Does the data change from «Not yet received» to «Reception», and from «OFF» to «ON»?	Go to step **4**.	Go to step **7**.
4	**CHECK STEERING LOCK CM.** 1) Disconnect the steering lock CM connector. 2) Using a tester, measure the voltage between the steering lock CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 7 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK STEERING LOCK CM.** Using a tester, check continuity between the steering lock CM connector and chassis ground. ***Connector & terminal*** ***(B424) No. 1 — Chassis ground:***	Is there continuity?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK STEERING LOCK CM.** 1) Connect the disconnected connectors. 2) Using a tester, measure the voltage between steering lock CM terminals right after the ignition switch is turned to ON. ***Connector & terminal*** ***(B424) No. 3 (+) — (B424) No. 1 (–):***	Is the voltage 1 V or less right after the ignition ON?	Replace the steering lock CM. <Ref. to SL-97, REMOVAL, Steering Lock CM.>	Repair or replace the open circuit of harness.
7	**CHECK STEERING LOCK CM.** 1) Replace with a properly functioning or new steering lock CM. <Ref. to SL-97, REMOVAL, Steering Lock CM.> 2) After registering, the steering lock operates when the ignition is turned to OFF and the driver's door is opened and closed. 3) Turn the ignition to ON. 4) Operate the steering and check for whether the steering lock is released.	Is the steering lock released, and does the engine start?	Replace the steering lock CM. <Ref. to SL-97, REMOVAL, Steering Lock CM.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>

14.THE STEERING LOCK DOES NOT OPERATE

CAUTION:
When the keyless access CM or steering lock CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK DTC.** Read keyless access system DTCs using the Subaru Select Monitor.	Is a DTC displayed?	Perform the diagnosis according to the corresponding DTC.	Go to step **2**.
2	**CHECK CURRENT DATA.** 1) Display the current data «Driver's door SW input» of body integrated unit using Subaru Select Monitor. 2) Read the data when opening and closing the driver's door.	Does the data change from ON to OFF according to the opening and closing?	Go to step **3**.	Inspect door switch circuit.
3	**CHECK CURRENT DATA.** Display the current data «Shift P Signal» of keyless access system using Subaru Select Monitor.	Is the status displayed correctly when the shift lever is shifted from P to other than P?	Go to step **4**.	Check the P range switch and harness.
4	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the current data «Code collation result between smart ECM and ID code box» of keyless access system.	Is the status normal?	Go to step **5**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
5	**CHECK CURRENT DATA.** Using the Subaru Select Monitor, display the current data «Code collation result between steering locked ECM and ID code box» of keyless access system.	Is the status normal?	Go to step **6**.	Replace the steering lock CM. <Ref. to SL-97, REMOVAL, Steering Lock CM.>
6	**CHECK CURRENT DATA.** 1) Using Subaru Select Monitor, display the current data «Steering lock lock/unlock command reception history» of keyless access system. 2) While in possession of the access key, perform engine start operations, and read data within 10 seconds after starting.	Is data displayed as ON?	Go to step **7**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
7	**CHECK STEERING LOCK CM.** Using a tester, measure the waveform between steering lock CM terminals immediately after the following operations. Perform ignition ON, driver's side door close → shift lever P range, ignition OFF, and close → open the driver's side door. ***Connector & terminal*** ***(B424) No. 3 — No. 1:***	Is the waveform immediately after opening the driver's side door abnormal?	Replace the steering lock CM. <Ref. to SL-97, REMOVAL, Steering Lock CM.>	Go to step **8**.
8	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector and the steering lock CM connector. 2) Using a tester, check continuity between the keyless access CM connector and steering lock CM connector. ***Connector & terminal*** ***(B424) No. 3 — (i242) No. 29:***	Is there continuity?	Go to step **9**.	Repair or replace the open circuit of harness.

	Step	Check	Yes	No
9	**CHECK WIRING HARNESS.** Using a tester, check continuity between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is there continuity?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the open circuit of harness.

15.POWER WILL NOT TURN ON (BOTH ACCESSORY AND IGNITION)

CAUTION:
• When the keyless access CM is replaced with a new unit, and the battery ground terminal is connected, it will become ignition ON. Also, if the battery is disconnected, it will resume to a condition with the battery cut off.
• When the keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **2**.	Replace the fuse.
2	**CHECK POWER SUPPLY.** 1) Remove IG relay 1 (push button start), IG relay 2 (push button start) and accessory relay (push button start). 2) Using a tester, measure the voltage between the relay block connector and chassis ground.	Is the voltage 10 V or more?	Go to step **3**.	Check the DC power supply circuit.
3	**CHECK CONNECTOR.** Check the engagement of each connector and for any deformation or looseness.	Are the connectors and terminals normal?	Go to step **4**.	Repair the connector, or replace harness.
4	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage between 8 V and 16 V?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK WIRING HARNESS.** Using a tester, check continuity between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is there continuity?	Go to step **6**.	Repair or replace the open circuit of harness.
6	**CHECK DTC.** 1) Connect the keyless access CM connector. 2) Carrying the access key, depress the brake pedal (except for MT model) or clutch pedal (MT model), and push the push button ignition switch. 3) Read keyless access CM DTCs using the Subaru Select Monitor.	Is a DTC output?	Perform diagnosis according to the DTC.	Go to step **7**.
7	**CHECK CURRENT DATA.** 1) Display the current data «Push start SW 1» and «Push start SW 2» of the keyless access CM using the Subaru Select Monitor. 2) Read the data when pressing the push button ignition switch.	Does it change from OFF to ON along with the operation?	Go to step **8**.	Go to step **15**.

	Step	Check	Yes	No
8	**CHECK RELAY (PUSH BUTTON START).** Check IG relay 1 and 2 (push button start), and accessory relay (push button start). <Ref. to SL-104, INSPECTION, IG Relay1 (Push Button Start).>	Is each relay normal?	Go to step **9**.	Replace the faulty relay.
9	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector, IG relay 1 (push button start), IG relay 2 (push button start) and accessory relay (push button start). 2) Using a tester, check continuity between terminals of keyless access CM connector, IG relay 1 (push button start), IG relay 2 (push button start) and accessory relay (push button start). ***Connector & terminal*** ***(B574) No. 6 — (B225) No. 38:*** ***(B572) No. 9 — (B225) No. 34:*** ***(B574) No. 4 — (B426) No. 2:***	Is there continuity?	Go to step **10**.	Repair or replace the open circuit of harness.
10	**CHECK WIRING HARNESS.** Using a tester, check continuity between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 9 — Chassis ground:*** ***(B574) No. 4 — Chassis ground:*** ***(B574) No. 6 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Go to step **11**.
11	**CHECK WIRING HARNESS.** Using a tester, check the continuity between the IG relay 1 (push button start) connector and chassis ground. ***Connector & terminal*** ***(B225) No. 39 — Chassis ground:***	Is there continuity?	Go to step **12**.	Repair or replace the open circuit of harness.
12	**CHECK WIRING HARNESS.** Using a tester, check the continuity between the IG relay 2 connector and chassis ground. ***Connector & terminal*** ***(B225) No. 35 — Chassis ground:***	Is there continuity?	Go to step **13**.	Repair or replace the open circuit of harness.
13	**CHECK WIRING HARNESS.** Using a tester, check the continuity between the accessory relay connector and chassis ground. ***Connector & terminal*** ***(B426) No. 3 — Chassis ground:***	Is there continuity?	Go to step **14**.	Repair or replace the open circuit of harness.
14	**CHECK KEYLESS ACCESS CM.** 1) Connect all the disconnected connectors. 2) Using a tester, measure the voltage between the keyless access CM connector and chassis ground when the ignition is turned from OFF to ON. ***Connector & terminal*** ***(B572) No. 9 (+) — Chassis ground (–):*** ***(B574) No. 4 (+) — Chassis ground (–):*** ***(B574) No. 6 (+) — Chassis ground (–):***	Did the voltage change from 1 V or less to +B-2 V or more?	Go to step **15**.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
15	**CHECK PUSH BUTTON IGNITION SWITCH.** 1) Disconnect the push button ignition switch. 2) Using a tester, check the continuity between terminals. ***Connector & terminal*** ***(i150) No. 7 — No. 5:*** ***(i150) No. 2 — No. 5:***	When the button was pressed, did it change to continuity exists? (No continuity when button is released)	Go to step **16**.	Replace the push button ignition switch. <Ref. to SL-98, REMOVAL, Push Button Ignition Switch.>

	Step	Check	Yes	No
16	**CHECK WIRING HARNESS.** Using a tester, check the continuity between the push button ignition switch connector and chassis ground. ***Connector & terminal*** ***(i150) No. 4 — Chassis ground:*** ***(i150) No. 5 — Chassis ground:***	Is there continuity?	Go to step **17**.	Repair or replace the open circuit of harness.
17	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, check continuity between the keyless access CM connector and push button ignition switch. ***Connector & terminal*** ***(i150) No. 7 — (B574) No. 28:*** ***(i150) No. 2 — (B574) No. 30:***	Is there continuity?	System is normal.	Repair or replace the open circuit of harness.

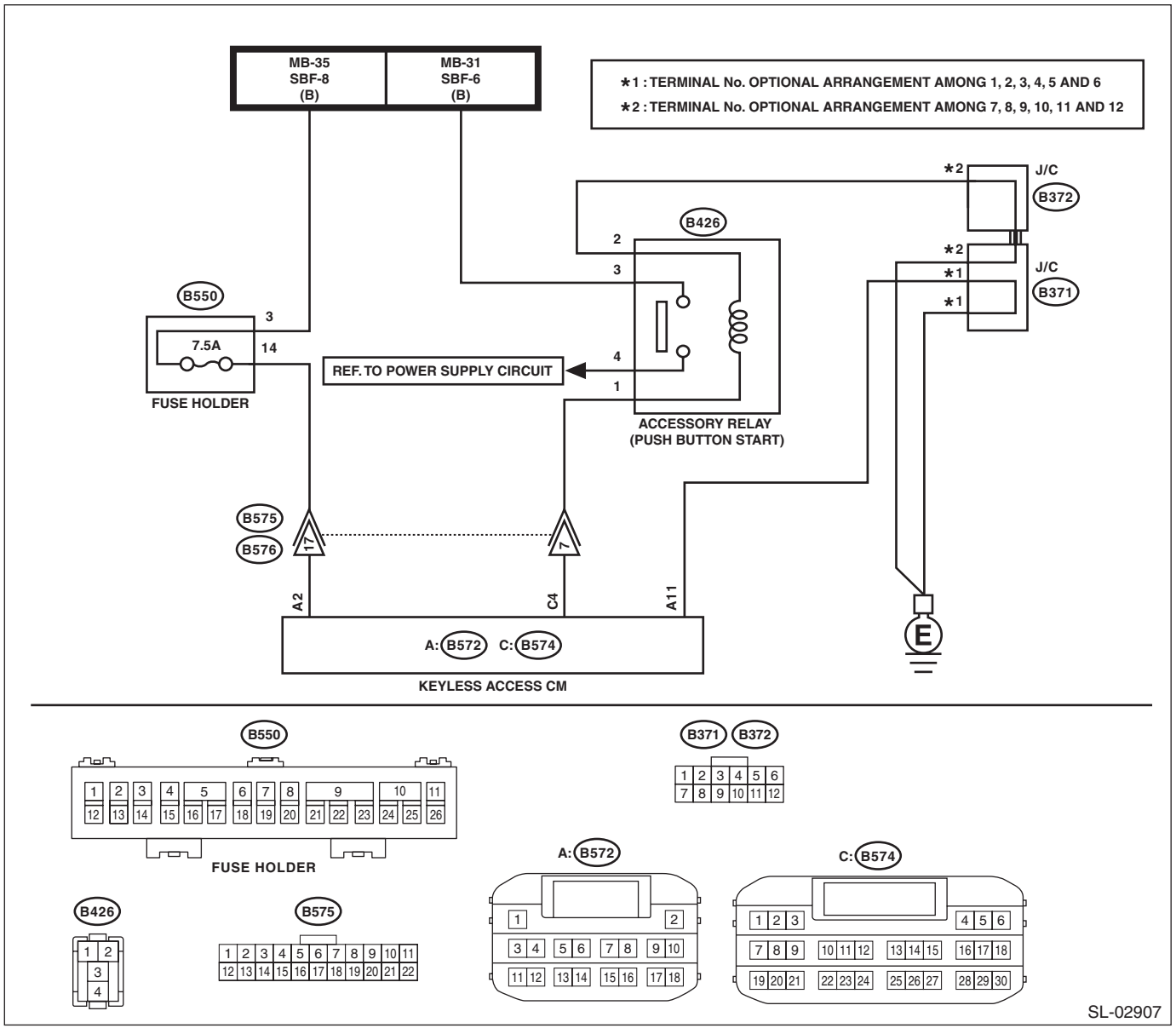
16.POWER WILL NOT TURN ON (ACCESSORY DOES NOT TURN ON, BUT IGNITION TURNS ON)

CAUTION:

- **When the keyless access CM is replaced with a new unit, and the battery ground terminal is connected, it will become ignition ON. Also, if the battery is disconnected, it will resume to a condition with the battery cut off.**
- **When the keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".**

WIRING DIAGRAM:

Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



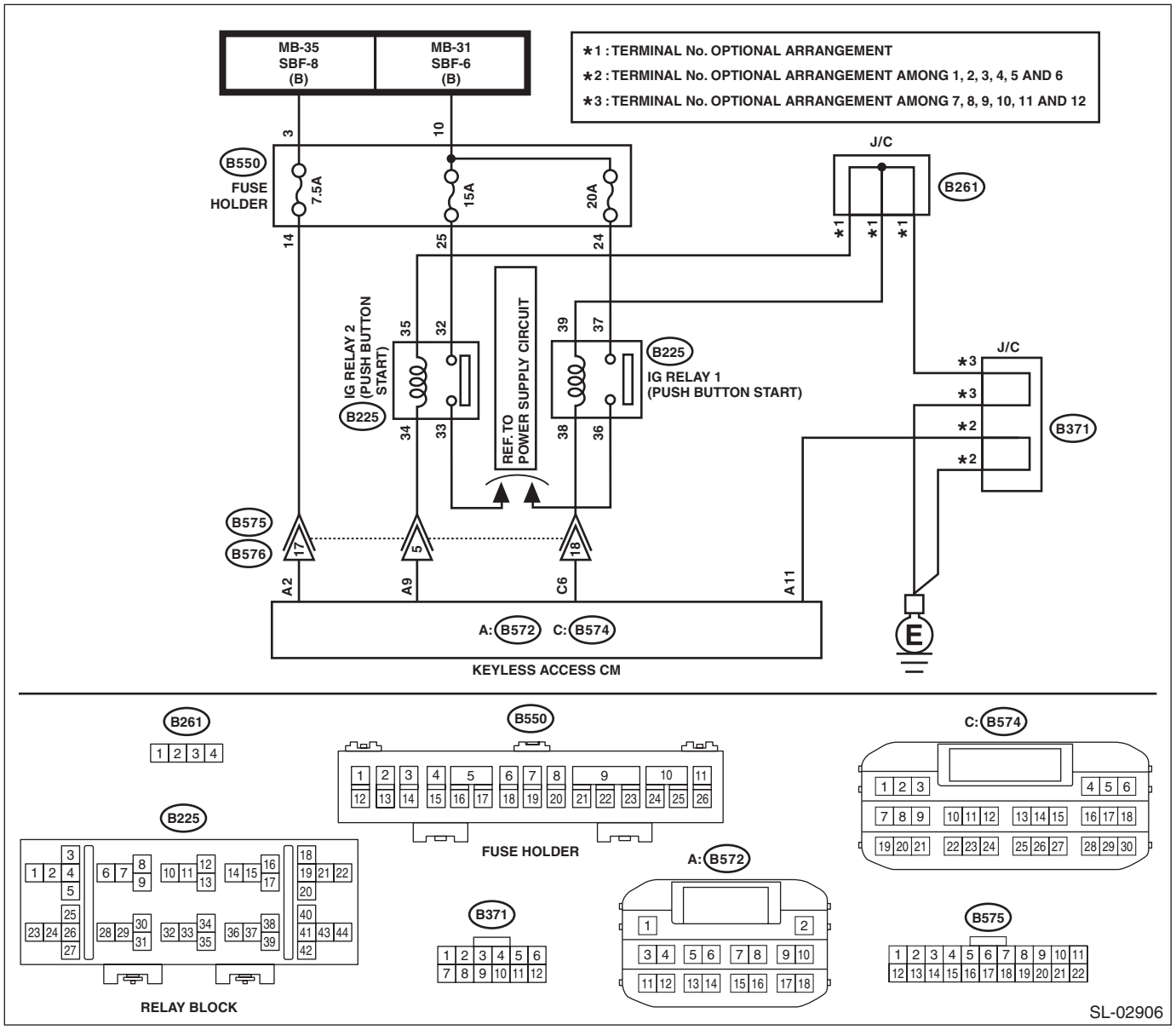
Step		Check	Yes	No
1	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **2**.	Replace the fuse.
2	**CHECK CONNECTOR.** Check the engagement of each connector and for any deformation or looseness.	Are the connectors and terminals normal?	Go to step **3**.	Repair the connector, or replace harness.

	Step	Check	Yes	No
3	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage between 8 V and 16 V?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK WIRING HARNESS.** Using a tester, check continuity between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK ACCESSORY RELAY (PUSH BUTTON START).** Check the accessory relay (push button start).<Ref. to SL-107, INSPECTION, Accessory Relay (Push Button Start).>	Is the relay OK?	Go to step **6**.	Replace the relay.
6	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector and the accessory relay (push button start). 2) Using a tester, check continuity between the keyless access CM connector and accessory relay (push button start). ***Connector & terminal*** ***(B574) No. 4 — (B426) No. 1:***	Is there continuity?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK WIRING HARNESS.** Using a tester, check continuity between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B574) No. 4 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Go to step **8**.
8	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Using a tester, measure the voltage between the keyless access CM connector and chassis ground when the ignition is turned from OFF to ON. ***Connector & terminal*** ***(B574) No. 4 (+) — Chassis ground (–):***	Did the voltage change from 1 V or less → +B-2 V or more?	System is normal.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>

17.POWER WILL NOT TURN ON (ACCESSORY TURNS ON, BUT IGNITION DOES NOT TURN ON)

CAUTION:
When the keyless access CM is replaced with a new unit, and the battery ground terminal is connected, it will become ignition ON. Also, if the battery is disconnected, it will resume to a condition with the battery cut off.

WIRING DIAGRAM:
Push button start system<Ref. to WI-325, WIRING DIAGRAM, Push Button Start System.>



Step		Check	Yes	No
1	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **2**.	Replace the fuse.
2	**CHECK CONNECTOR.** Check the engagement of each connector and for any deformation or looseness.	Are the connectors and terminals normal?	Go to step **3**.	Repair the connector, or replace harness.

	Step	Check	Yes	No
3	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector. 2) Using a tester, measure the voltage between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 2 (+) — Chassis ground (–):***	Is the voltage between 8 V and 16 V?	Go to step **4**.	Repair or replace the open circuit of harness.
4	**CHECK WIRING HARNESS.** Using a tester, check continuity between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 11 — Chassis ground:***	Is there continuity?	Go to step **5**.	Repair or replace the open circuit of harness.
5	**CHECK IG RELAY 1 AND 2 (PUSH BUTTON START).** Check IG relay 1 (push button start) and IG relay 2 (push button start).<Ref. to SL-104, INSPECTION, IG Relay1 (Push Button Start).>	Is the relay OK?	Go to step **6**.	Replace the relay.
6	**CHECK WIRING HARNESS.** 1) Disconnect the keyless access CM connector and the IG relay 1 and 2 (push button start). 2) Using a tester, check continuity between keyless access CM connector and IG relay 1 (push button start) or IG relay 2 (push button start). ***Connector & terminal*** ***(B572) No. 9 — (B225) No. 34:*** ***(B574) No. 6 — (B225) No. 38:***	Is there continuity?	Go to step **7**.	Repair or replace the open circuit of harness.
7	**CHECK WIRING HARNESS.** Using a tester, check continuity between the keyless access CM connector and chassis ground. ***Connector & terminal*** ***(B572) No. 9 — Chassis ground:*** ***(B574) No. 6 — Chassis ground:***	Is there continuity?	Repair or replace the short circuit of the harness.	Go to step **8**.
8	**CHECK KEYLESS ACCESS CM.** 1) Connect the keyless access CM connector. 2) Using a tester, measure the voltage between the keyless access CM connector and chassis ground when the ignition is turned from OFF to ON. ***Connector & terminal*** ***(B572) No. 9 (+) — Chassis ground (–):*** ***(B574) No. 6 (+) — Chassis ground (–):***	Did the voltage change from 1 V or less → +B-2 V or more?	System is normal.	Replace the keyless access CM.<Ref. to SL-94, REMOVAL, Keyless Access CM.>

18.ENGINE DOES NOT START

CAUTION:
• When the keyless access CM is replaced with a new unit, and the battery ground terminal is connected, it will become ignition ON. Also, if the battery is disconnected, it will resume to a condition with the battery cut off.
• When the keyless access CM is replaced, registration of the immobilizer is required. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

	Step	Check	Yes	No
1	**INITIALIZE STEERING LOCK.** 1) Shift the shift lever to parking (except for MT model), or neutral for MT model. 2) Operate the driver's door switch ON/OFF with the ignition switch OFF. 3) Wait for 10 seconds. 4) Place the access key on the driver's seat. 5) Depress the brake pedal (except for MT model) or clutch pedal (MT model), and push the push button ignition switch.	Can the engine start?	System is normal.	Go to step **2**.
2	**CHECK DTC.** Read the DTC of the keyless access system using Subaru Select Monitor.	Is DTC detected?	Perform the diagnosis according to the DTC. <Ref. to KPS(diag)-35, LIST, List of Diagnostic Trouble Code (DTC).>	Go to step **3**.
3	**CHECK POWER SUPPLY SWITCHING.** 1) Place the access key on the driver's seat. 2) Without depressing the brake pedal (except for MT model) or clutch pedal (MT model), push the push button ignition switch.	When the switch is operated, does the <IG-OFF> → <ACC-ON> → <IG-ON> → <IG-OFF> change occur?	Go to step **4**.	Perform the diagnostics according to the symptom for power supply switching system in General Diagnostic Table. <Ref. to KPS(diag)-98, POWER SUPPLY SWITCHING SYSTEM, INSPECTION, General Diagnostic Table.>
4	**CHECK CURRENT DATA.** 1) Place the access key on the driver's seat. 2) Depress the brake pedal (except for MT model) or clutch pedal (MT model), and push the push button ignition switch. 3) Using the Subaru Select Monitor, confirm the keyless access CM, the current data «STSW signal monitor» when pressing the push button ignition switch. NOTE: If it is difficult to confirm, press the push button ignition switch for approximately five seconds longer.	Does the data change from OFF → ON?	Go to step **10**.	Go to step **5**.
5	**CHECK CURRENT DATA.** Check the keyless access CM, current data «Shift P Signal» using the Subaru Select Monitor.	Is ON displayed in parking position, and OFF displayed in other positions?	Go to step **6**.	Go to step **11**.
6	**CHECK CURRENT DATA.** Confirm the keyless access CM, current data «Stop Light Switch» using the Subaru Select Monitor.	Is ON displayed when brake pedal depressed, and OFF displayed when brake pedal not depressed?	Go to step **7**.	Go to step **13**.

	Step	Check	Yes	No
7	**CHECK CURRENT DATA.** Confirm the keyless access CM, current data «Neutral SW/Clutch SW» using the Subaru Select Monitor.	Except for MT model: is ON displayed in parking and neutral position and OFF displayed in other positions? MT model: is ON displayed when clutch pedal depressed and OFF displayed when clutch pedal not depressed?	Go to step **8**.	Go to step **15**.
8	**CHECK STEERING LOCK.** Operate the push button ignition switch to perform the power supply switching and check steering lock condition during ACC-ON condition.	Is the steering lock in unlocked condition?	Go to step **9**.	Perform the diagnostics according to the symptom for steering lock system in General Diagnostic Table. <Ref. to KPS(diag)-98, STEERING LOCK SYSTEM, INSPECTION, General Diagnostic Table.>
9	**CHECK KEYLESS ACCESS CM.** 1) Turn the ignition switch to OFF. 2) Disconnect the ECM connector. 3) Using a tester, measure the battery voltage in following procedures. 1. Press the push button ignition switch with the brake pedal depressed (MT model: clutch pedal depressed). (Measure within 10 seconds.) 2. Release the push button ignition switch from the condition of step 1. above. ***Connector & terminal*** ***(B572) No. 13 (+) — Chassis ground (–):***	Does the value change from 1 V or less to +B-2 V or more in the step 1, and return to 1 V or less in the step 2?	Perform the diagnosis for engine system. <Ref. to EN(H4DO)(diag)-62, Diagnostics for Engine Starting Failure.>	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
10	**CHECK CURRENT DATA.** 1) Connect the disconnected connectors. 2) Confirm the keyless access CM, current data «Engine start permission request reception status» using the Subaru Select Monitor.	Is “Reception” displayed with ignition switch ON, and “Not yet received” displayed in other positions?	Perform the diagnosis for engine system.	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>
11	**CHECK “P” RANGE SWITCH.** 1) Turn the ignition switch to OFF. 2) Disconnect the AT shift lever connector. 3) Using a tester, check the continuity of P range switch. ***Connector & terminal*** ***(B116) No. 1 — 2:***	Does it change from Continuity ←→ No continuity according to shift lever operation?	Go to step **12**.	Replace the “P” range switch. <Ref. to CS-58, REMOVAL, AT Shift Lock Solenoid and “P” Range Switch.>
12	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the keyless access CM connector. 3) Using a tester, check continuity between the keyless access CM and AT select lever. ***Connector & terminal*** ***(B116) No. 1 — (B574) No. 25:*** ***(B116) No. 2 — Chassis ground:***	Is there continuity?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the harness.

	Step	Check	Yes	No
13	**CHECK STOP LIGHT SWITCH.** 1) Turn the ignition switch to OFF. 2) Disconnect the stop light switch connector. 3) Using a tester, check the continuity of the stop light switch. ***Connector & terminal*** ***(B65) No. 3 — No. 4:***	Does it change from Continuity ←→ No continuity according to brake pedal operation?	Go to step **14**.	Replace the stop light switch. <Ref. to BR-69, REMOVAL, Stop Light Switch.>
14	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Using a tester, check continuity between the keyless access CM and stop light switch. ***Connector & terminal*** ***(B572) No. 18 — (B65) No. 4:*** ***(B65) No. 3 — F/B fuse No. 8:***	Is there continuity?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the harness.
15	**CHECK INHIBITOR SWITCH.** Check the inhibitor switch. <Ref. to CVT(TR580)-90, INSPECTION, Inhibitor Switch.>	Is the inhibitor switch working normal?	Go to step **16**.	Replace the inhibitor switch.
16	**CHECK HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the inhibitor switch connector. 3) Using a tester, check continuity between the keyless access CM connector and inhibitor switch connector. ***Connector & terminal*** ***(B572) No. 5 — (B12) No. 16:*** ***(B12) No. 15 — Starter motor:***	Is there continuity?	Replace the keyless access CM. <Ref. to SL-94, REMOVAL, Keyless Access CM.>	Repair or replace the harness.

BODY CONTROL SYSTEM (DIAGNOSTICS)

BC(diag)

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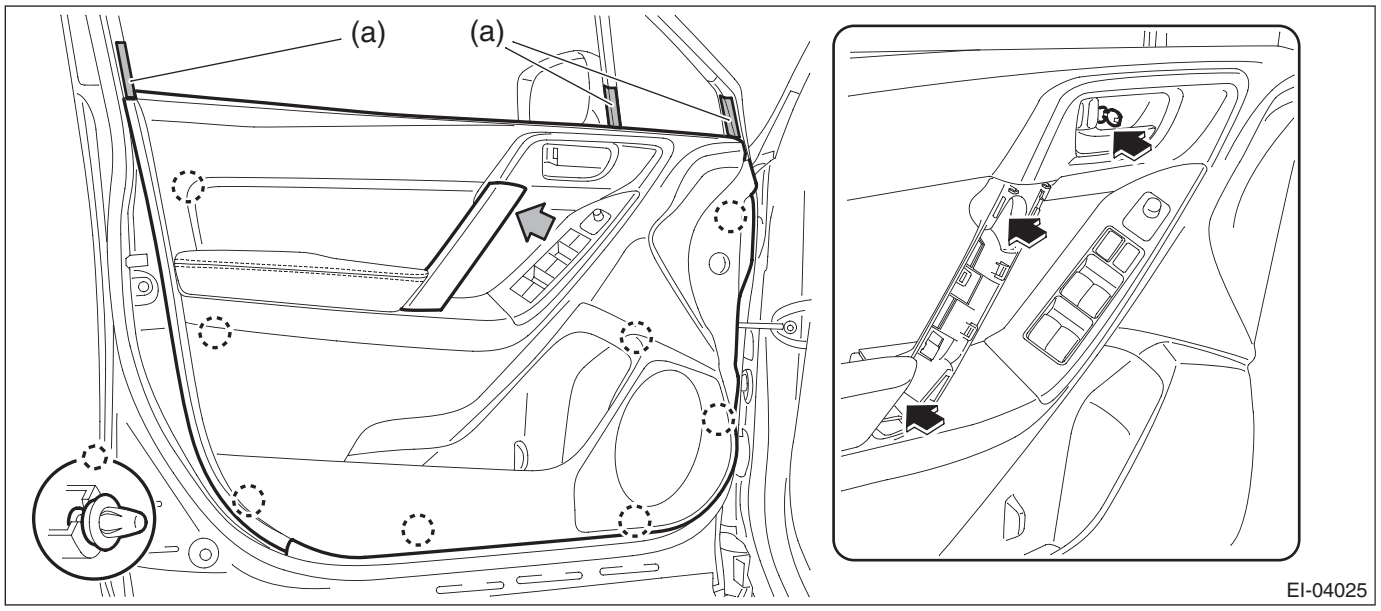
15.Door Trim

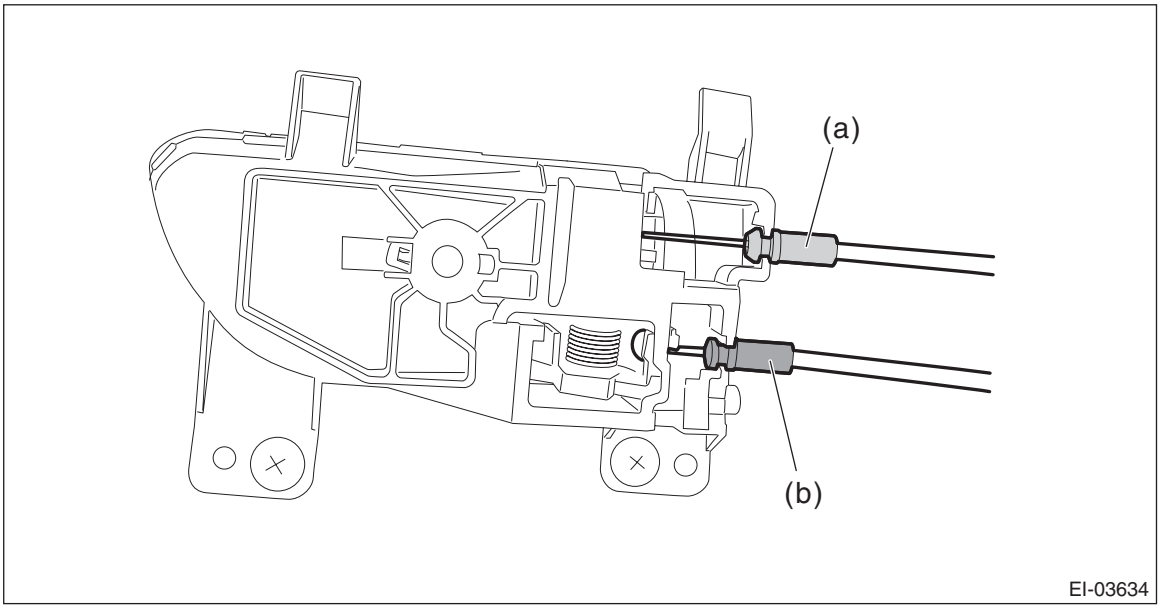
A: REMOVAL

1. FRONT DOOR

1) Disconnect the ground cable from battery.
2) Remove the trim panel - front door.
   (1) Attach the protective tape (a).
   (2) Remove the cover - door handle by using a plastic remover.
   (3) Remove the screws and clips, and remove the trim panel - front door from the panel assembly - front door.



NOTE:
It is easier to remove the cover - door handle if the removal is performed from the gray arrow section.
   (4) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.



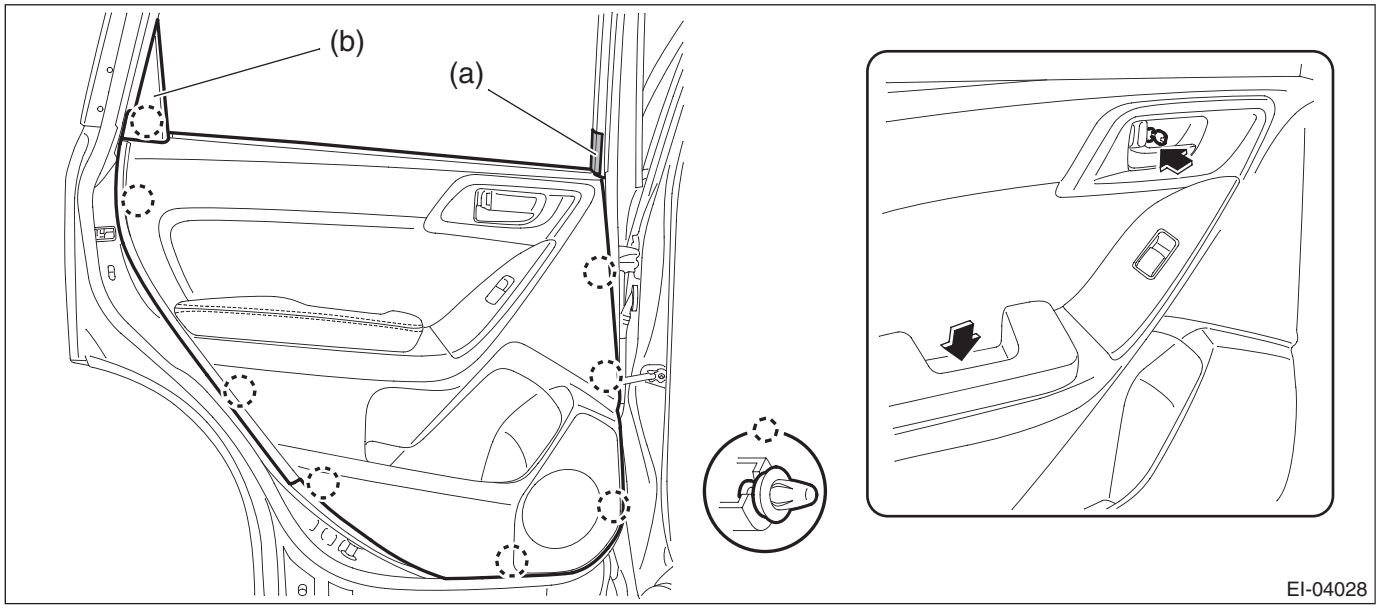
(5) Disconnect the harness connector and remove the trim panel - front door.

CAUTION:
Pulling the door trim excessively may damage the harness.

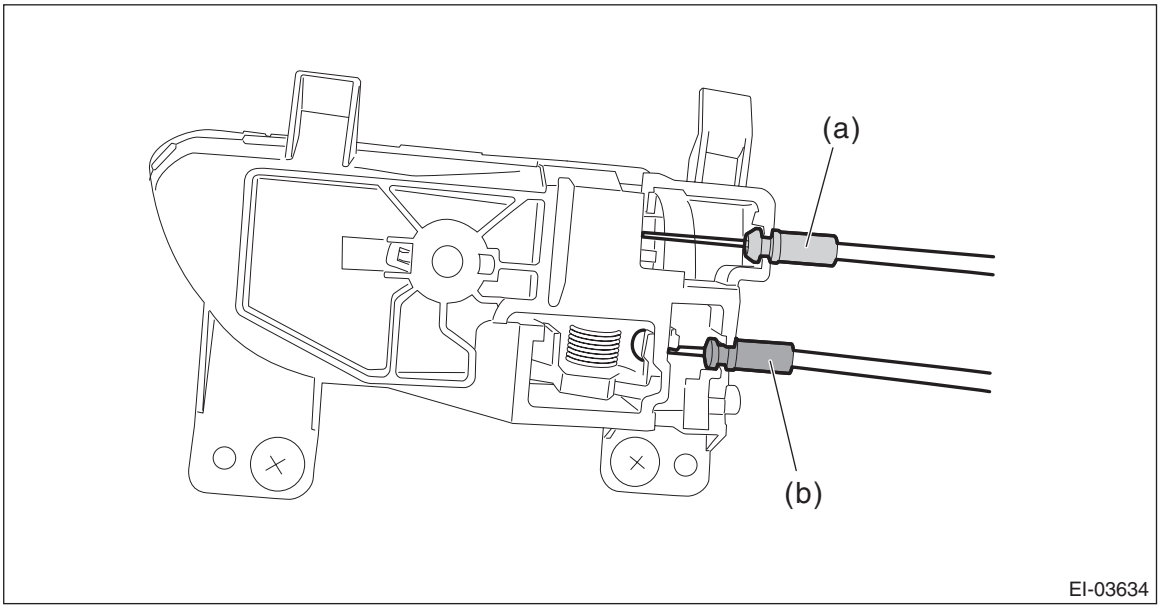
3) Remove each part as required.
- Remote assembly - door: <Ref. to SL-34, REMOVAL, Front Inner Remote.>
- Switch - power window main: <Ref. to GW-11, MAIN SWITCH, REMOVAL, Power Window Control Switch.>
- Weather strip - door INN: <Ref. to EI-57, DISASSEMBLY, Door Trim.>

2. REAR DOOR

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear door.
   (1) Attach the protective tape (a) to the door sash.
   (2) Remove the clip, and remove the cover - gusset door (b).
   (3) Open the cover and remove the screw.
   (4) Remove the clips, and remove the trim panel - rear door from the panel assembly - rear door.



(5) Detach the door lock cable (a) and door open cable (b) from the remote assembly - door.



(6) Disconnect the harness connector and remove the trim panel - rear door.

CAUTION:
Pulling the door trim excessively may damage the harness.

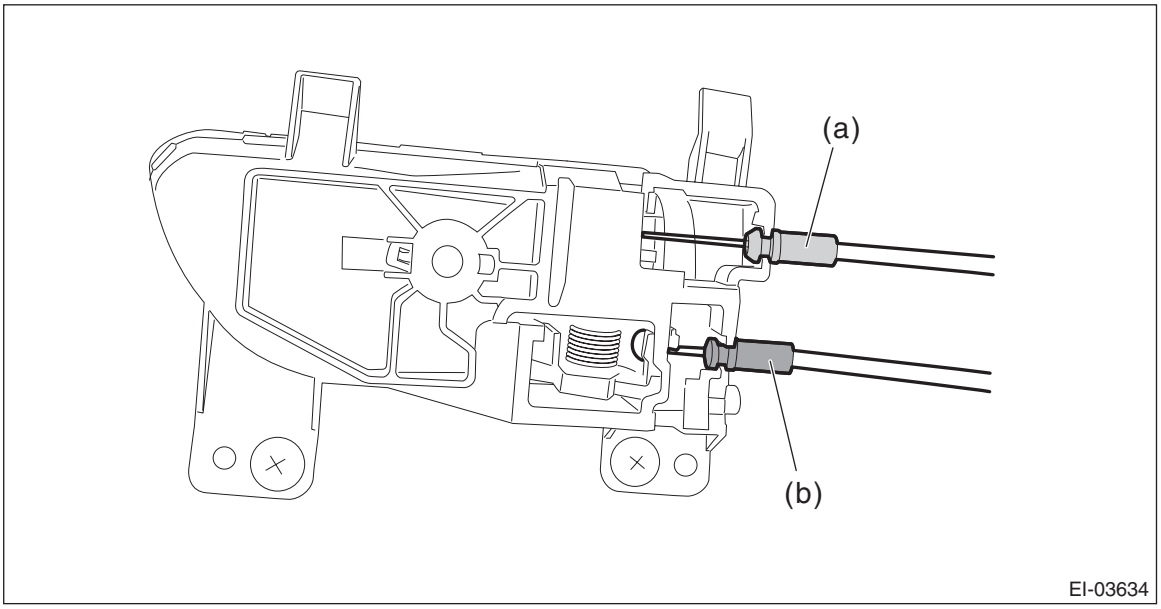
3) Remove each part as required.
- Remote assembly - door: <Ref. to SL-42, REMOVAL, Rear Inner Remote.>
- Switch - power window sub: <Ref. to GW-12, SUB-SWITCH, REMOVAL, Power Window Control Switch.>
- Weather strip - door INN: <Ref. to EI-57, DISASSEMBLY, Door Trim.>

B: INSTALLATION

1) Before installation, check the following items.
- Cable is free from deformation such as fray.
- Grease is applied sufficiently to cable joints.
- If grease is insufficient, add it as necessary before assembling the cable.

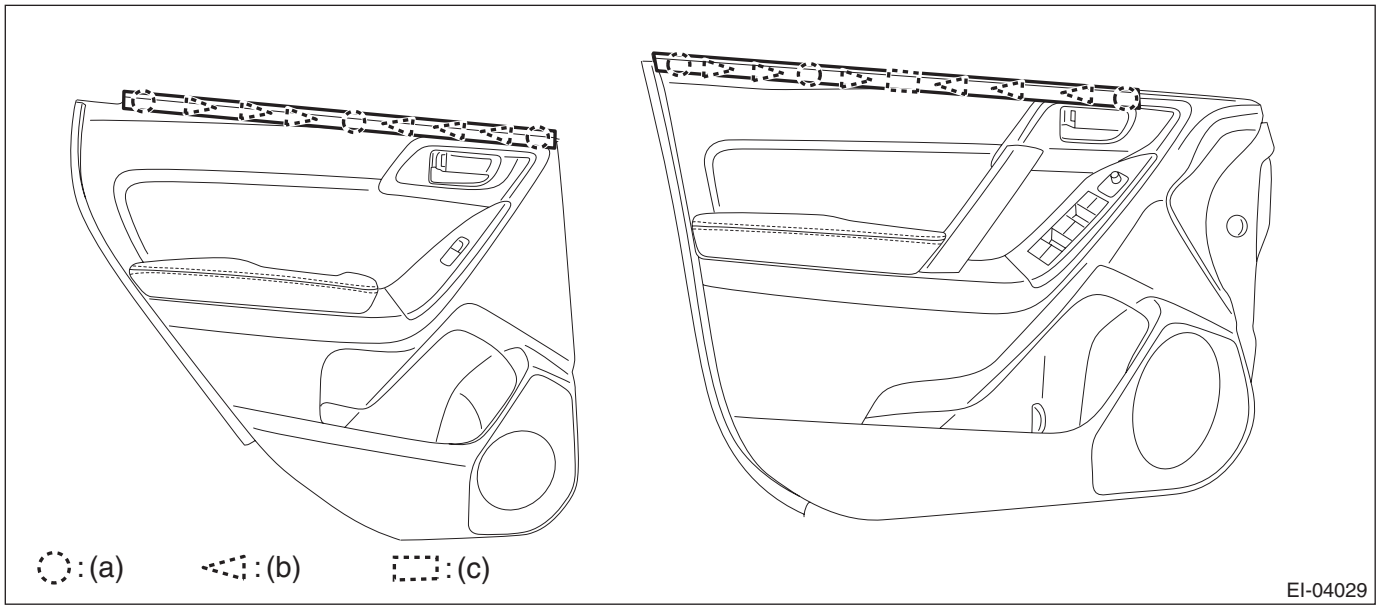
2) Install each part in the reverse order of removal.

NOTE:
Attach the door lock cable (a - end ball: small) to the upper side, and attach the door open cable (b - end ball: large) to the lower side.



C: DISASSEMBLY

1) Remove the door trim.
2) Remove the rivets and claws, and remove the weather strip - door INN from the door trim.



(a) Rivet (b) Claw (c) Claw

NOTE:
Remove the rivets with a rivet cutter or nipper, etc.

D: ASSEMBLY

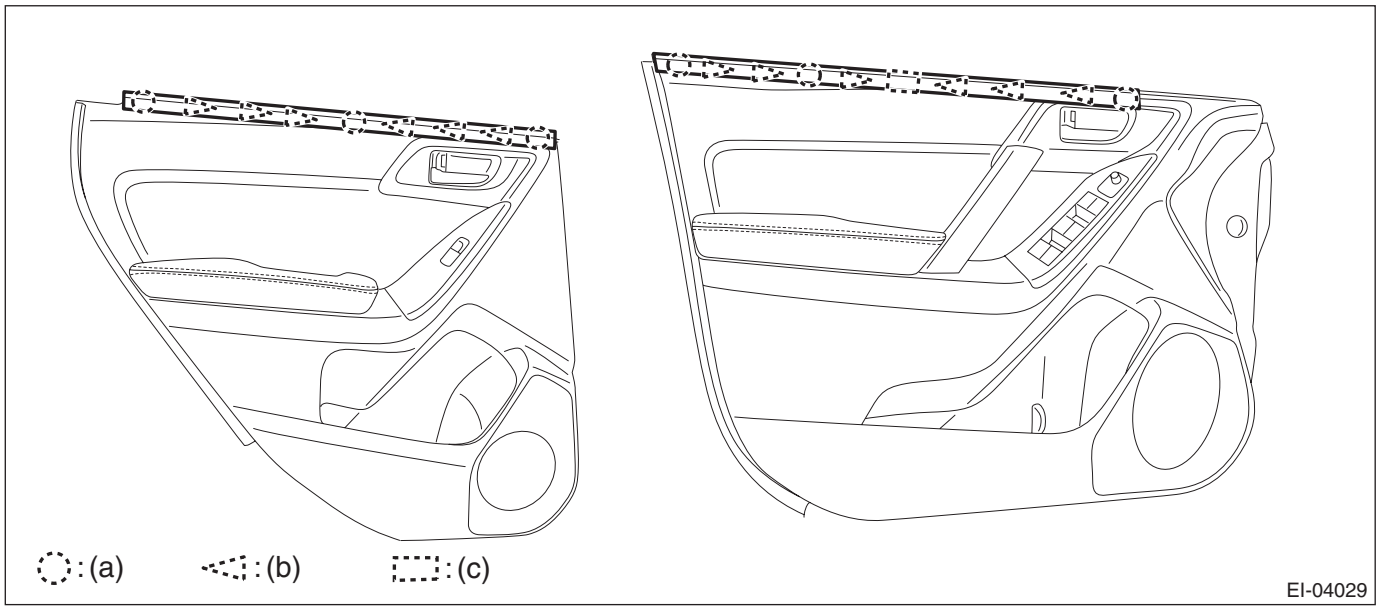
1) Bend the claws while pushing the weather strip - door INN against the door trim.

CAUTION:
Beware of the direction of folding the claws.

2) Install the rivet, and attach unwoven cloth to the rivet crimped section.

CAUTION:
Set the height of rivet crimped section as 3 mm (0.12 in). If the crimp is not sufficient, press them with pliers, etc. in order not to interfere the door trim.

Preparation tool and item:
Hand riveter (corresponding to ϕ3.2 mm (0.13 in))
Rivet
Tape: 94029FG000/TAPE or unwoven cloth



(a) Rivet
(b) Direction of folding claws
(c) Claw bending direction: bend forward for LH side, backward for RH side.

3) After installing the weather strip - door INN, perform the following checks.
- Make sure there are no gaps between the weather strip - door INN and the door trim.
- Make sure there are no looseness when pulling the weather strip - door INN lightly.

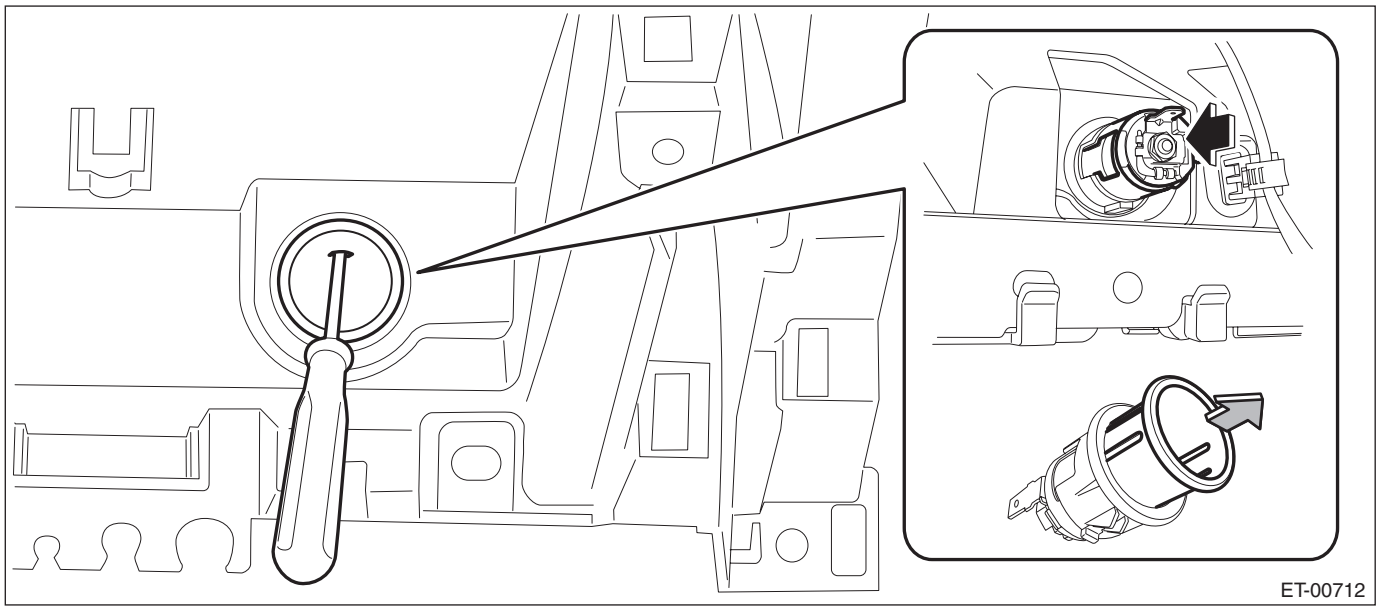
15.Front Accessory Power Supply Socket

A: WIRING DIAGRAM

Refer to “Front Accessory Power Supply Socket System” in the wiring diagram. <Ref. to WI-244, WIRING DIAGRAM, Front Accessory Power Supply Socket System.>

B: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the front accessory power supply socket.
   (1) Disconnect the connector.
   (2) While releasing the claw inside the accessory power supply socket, press in the claw from the rear to remove the accessory power supply socket.

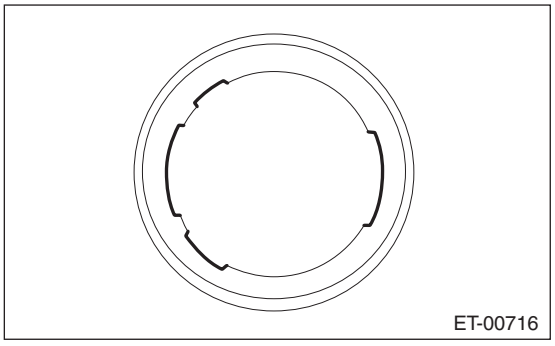


NOTE:
If it is hard to remove, remove the panel center assembly and then release the claws from behind.

C: INSTALLATION

Install each part in the reverse order of removal.

NOTE:
Align the grooves of the holder with the claws of accessory power supply socket.



15.Headlight Bulb

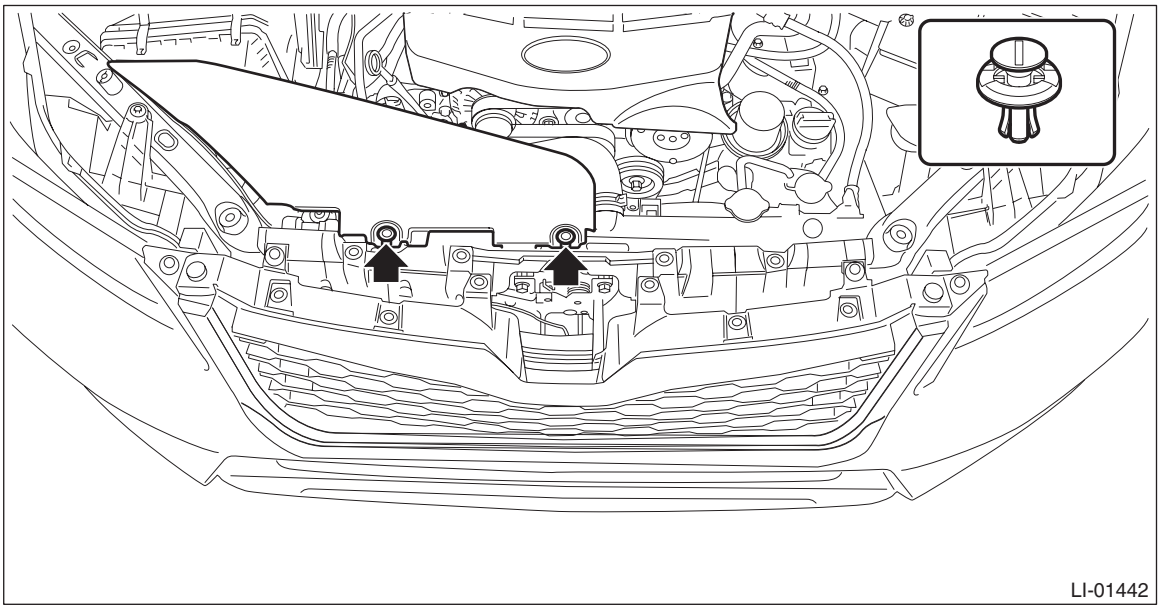
A: REMOVAL

1. HIGH BEAM

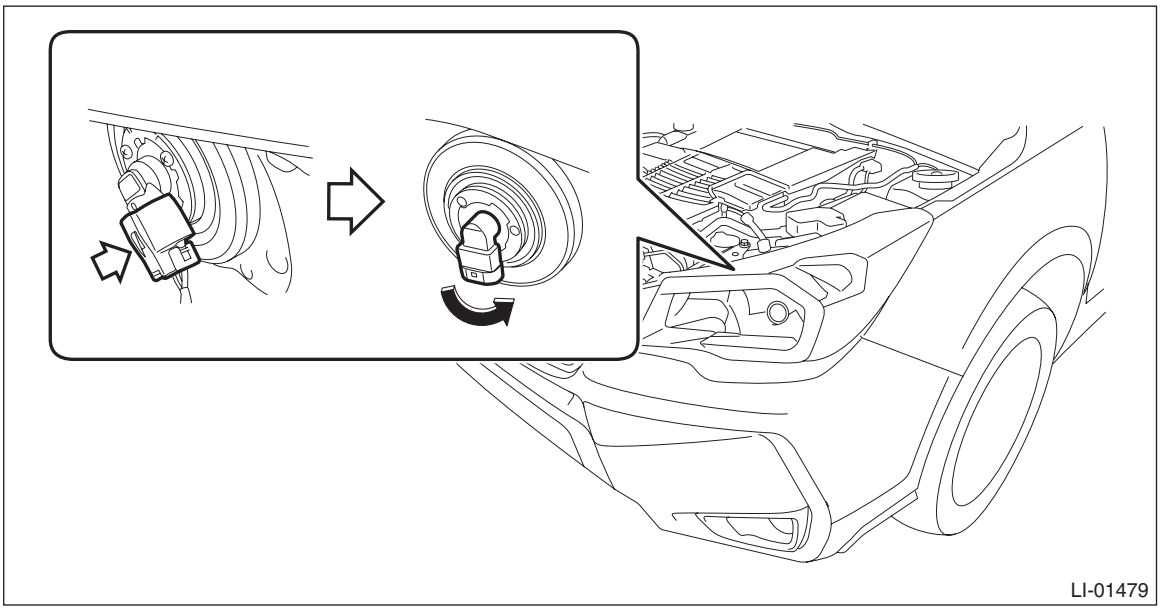
WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

CAUTION:
• Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
• Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1) Disconnect the ground cable from battery.
2) Remove the clips and remove the air intake duct (rear). (When removing the high beam bulb RH)



3) Disconnect the connector and remove the high beam bulb.

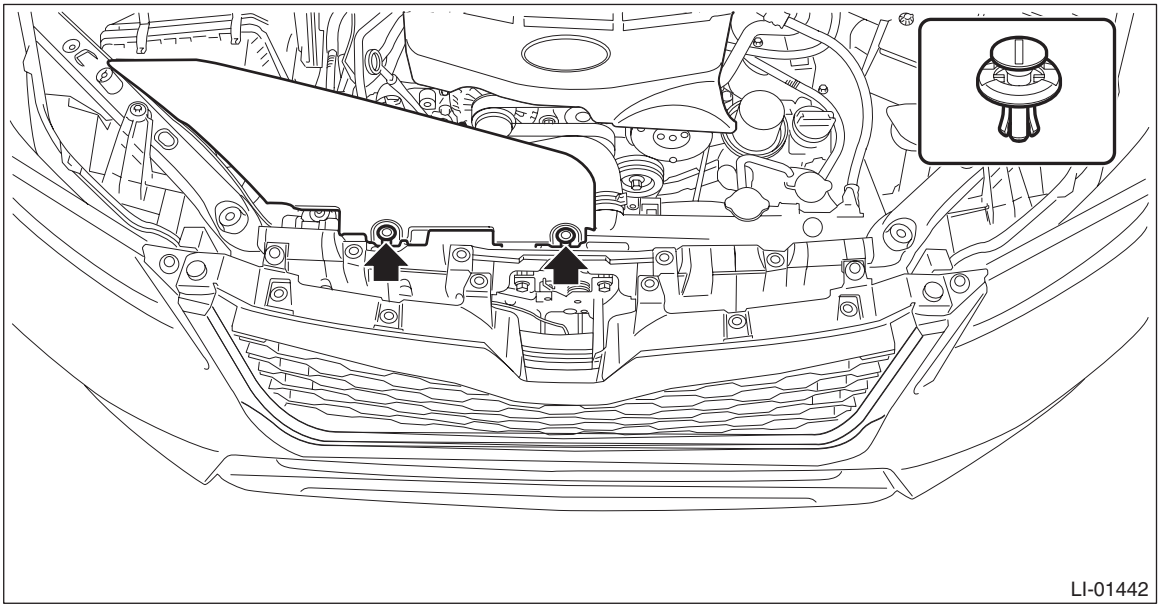


2. HALOGEN TYPE LOW BEAM

WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

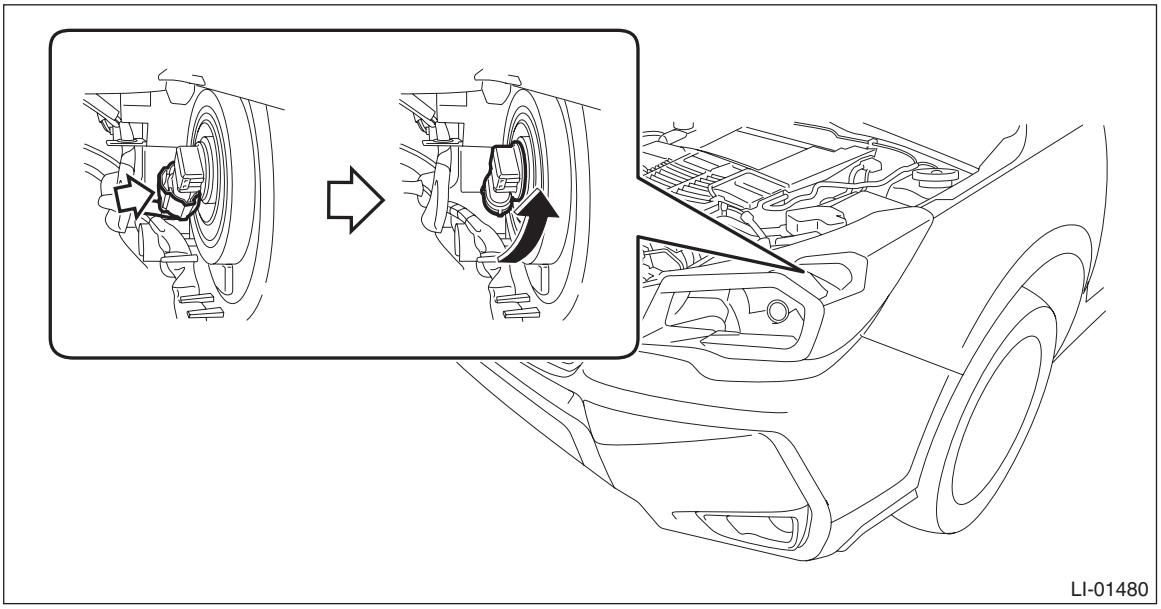
CAUTION:
• Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
• Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the light may affect its performance.

1) Disconnect the ground cable from battery.
2) Remove the clips and remove the air intake duct (rear). (When removing the low beam bulb RH)



3) Disconnect the connector and remove the low beam bulb.

CAUTION:
Make sure to check if any bulb O-ring is remained on the housing side as this may sometimes happen.

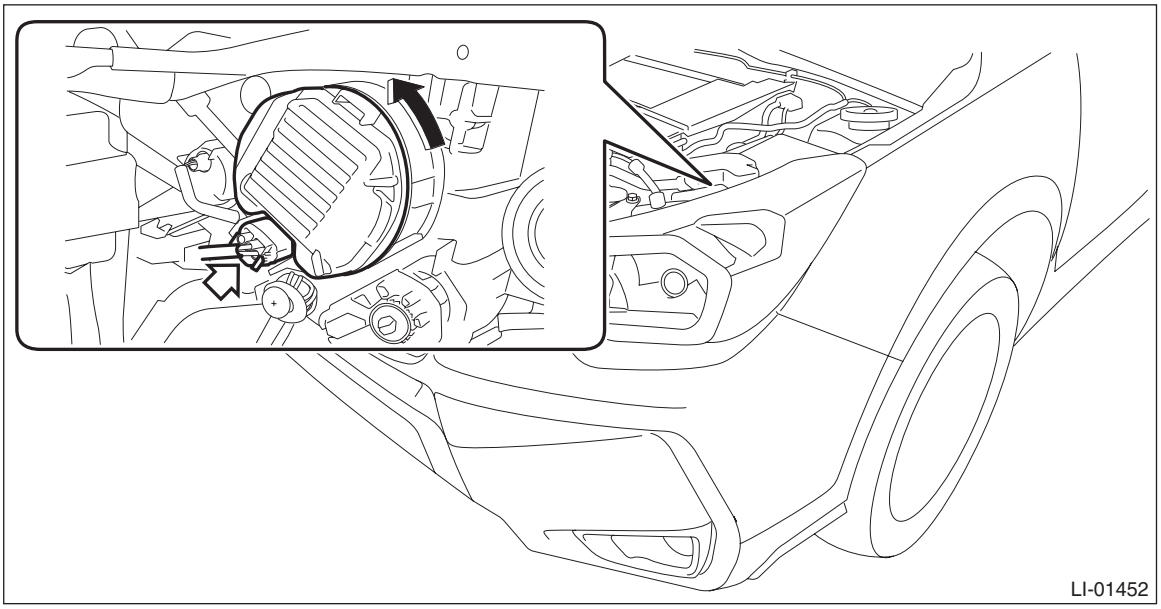


3. HID TYPE LOW BEAM

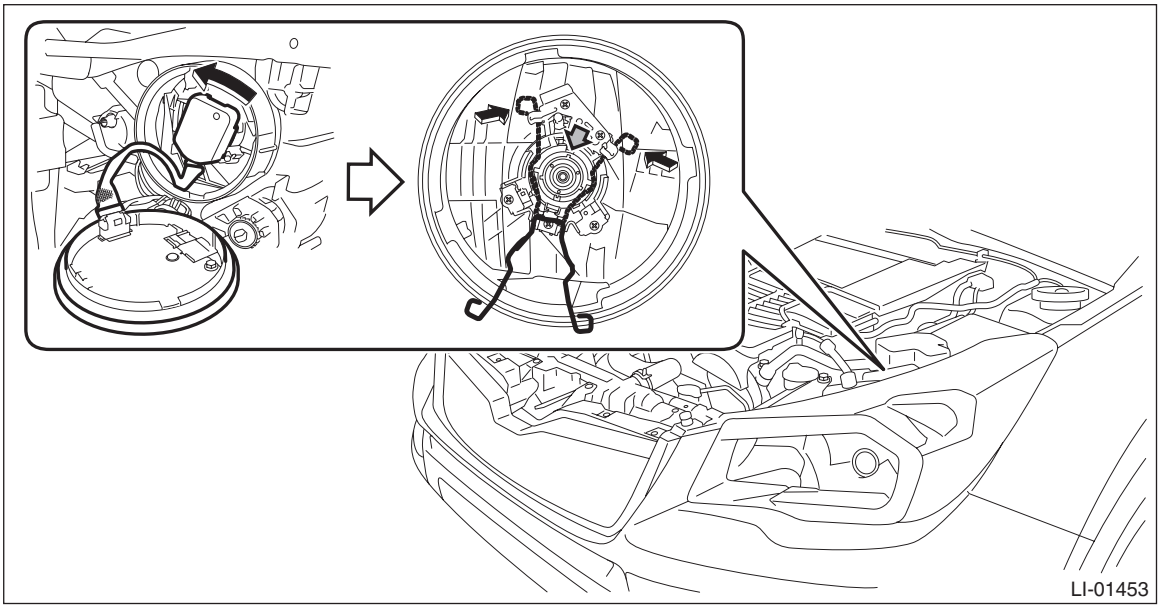
WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

CAUTION:
• Because the lighting circuit uses high voltage, be sure to confirm that the power supply is turned off before operation.
• When replacing bulb, hold the flange area. Be careful not to touch the glass area.
• Do not leave the light assembly - head without the bulb and ballast - headlight for a long time. Dust, moisture, etc. entering the light may affect its performance.

1) Disconnect the ground cable from battery.
2) Remove the battery. (When removing the low beam bulb LH) <Ref. to SC(H4DO)-63, REMOVAL, Battery.>
3) Remove the air cleaner case. (When removing the low beam bulb RH)
• Non-turbo model: <Ref. to IN(H4DO)-6, REMOVAL, Air Cleaner Case.>
• Turbo model: <Ref. to IN(H4DOTC)-9, REMOVAL, Air Cleaner Case.>
4) Remove the low beam bulb.
(1) Disconnect the connector.
(2) Remove the ballast - headlight, and pull out the light assembly - head.



(3) Remove the bulb socket and remove the ballast - headlight.
(4) Unlock the bulb spring, and remove the low beam bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. HALOGEN TYPE

WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

CAUTION:
• Because the halogen bulb operates at a high temperature, dirt and oil on the bulb surface reduces the bulb's service life. Hold the flange portion when replacing the bulb. Never touch the glass portion.
• Do not leave the light assembly - head without the bulb for a long time. Dust, moisture, etc. entering the headlight may affect its performance.
1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

2. HID TYPE

WARNING:
Because the headlight system uses high voltage, be careful not to perform work with wet hands. There is a possibility of electrical shock.

CAUTION:
• Do not leave the light assembly - head without the bulb and ballast - headlight for a long time. Dust, moisture, etc. entering the headlight may affect its performance.
• When lit (lighting switch is ON), do not touch the harness, light internals, or metal parts of the light.
• When performing a lighting test, make sure that the headlight is mounted on the vehicle, and the power supply is connected to the connector on the vehicle's side.

1) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
2) Install the specified bulb to check whether it lights properly.
3) If it does not light properly, replace with a new bulb.
4) Check the ballast - headlight.

Inspect the ballast - headlight in the following manner, and determine whether or not to reuse.

(1) Perform cold starts (light the headlight after turning off for 10 minutes or more), and hot starts (light the headlight for 15 minutes or more, then turn off for 1 minute and relight) several times, to make sure that the headlight lights properly.
(2) Monitor the lighting condition right after a cold start up to a stable state (approx. 5 min.), to see if there are any unstable conditions such as flickering.
(3) Install bulbs with the same number of operating hours on both headlights, and light for approximately 30 minutes. Check for whether there is a difference in brightness on the right and left sides.

5) Replace the ballast - headlight if it is found defective.

15.List of Cancel Code

A: LIST

1. STEREO CAMERA

If the following cancel codes are detected from the stereo camera, all the functions of the EyeSight excluding the conventional cruise control stop temporarily and cannot be used. When the failure is resolved, the function starts operating.

NOTE:
• Temporary stop is not released even if the lane departure warning OFF switch or pre-collision brake OFF switch is pressed.
• Depending on the situation, temporary stop may not be released even if the ignition switch is turned off.

Cancel code	Subaru Select Monitor display items	Contents of diagnosis	Reference
25-33H	Camera temporary stop	Detected when engine speed is 300 rpm or less. (During CRUISE MAIN ON, “E3” is displayed in the multi information display. “System halted temporarily because operating condition is not met” is displayed in the multi-function display.)	Detected when the engine speed drops below 300 rpm after the engine has started once.
60-A0H	CAN diagnosis prohibited	The voltage dropped below 10 V immediately after IGN ON. (During CRUISE MAIN ON, “E3” is displayed in the multi information display. “System halted temporarily because operating condition is not met” is displayed in the multi-function display.)	This code may be displayed when the engine is not started for a while with the ignition switch ON and when the engine has started after that. This is a normal operation. If this is not the case, the supply voltage may be malfunctioning. <Ref. to ES(diag)-96, DTC B2814 POWER SUPPLY VOLT ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>
61-A1H	ECM reprogramming	Because the control module (CM) is being reprogrammed, temporary stop is performed. (During CRUISE MAIN ON, “E3” is displayed in the multi information display. “System halted temporarily because operating condition is not met” is displayed in the multi-function display.)	After the completion of the reprogramming operation, turn the ignition to OFF and restart. If the operation returns from the temporary stop status, it is normal.
65-C0H	Pre-crash hard brake operation	Because the pre-collision secondary brake operated three times between engine starting and stopping, the temporary stop is performed. (This is not a normal operation, or the system failure may occur.) (During CRUISE MAIN ON, “E3” is displayed in the multi information display. “System halted temporarily because operating condition is not met” is displayed in the multi-function display.)	This code may be displayed when the pre-collision brake is operated intentionally. Turn the ignition switch to OFF, and restart after a while. If the operation returns from the temporary stop status, it is normal. When temporary stop status continues with the code other than 65-C0H after restart, perform diagnosis according to the code. When temporary stop status continues with the code of 65-C0H after restart, the stereo camera may be malfunctioning. In this case, replace the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>

Cancel code	Subaru Select Monitor display items	Contents of diagnosis	Reference
72-CCH 72-CDH	Camera temporary stop	Temporary stop was performed due to the bad weather, backlight, fogged window or dirty window interfering with the recognition function of the stereo camera. And also when the front of the camera is blocked by the hand or when it is very dark around the vehicle or when the vehicle is surrounded by the blanket of snow and nothing can be seen from the stereo camera, this code may be displayed even after the temperature becomes extremely high or low. (During CRUISE MAIN ON, “E1” is displayed in the multi information display. “System halted temporarily because stereo camera has poor visibility” is displayed in the multi-function display.)	Investigate the following items No. 1 and No. 2, and check that the possible cause of the temporary stop is applied either to No. 1 or No. 2. 1. Using the “CHECK LIST (CAMERA TEMPORARY STOP)”, investigate the cause of the temporary stop.<Ref. to ES(diag)-86, CHECK LIST (CAMERA TEMPORARY STOP), LIST, List of Cancel Code.>When there is a relevant item in the check list, it can be the cause of malfunction. 2. Read the temporary stop count stored in the temporary stop count of current data, and check the cause of the temporary stop occurred in the past from “LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS”.<Ref. to ES(diag)-84, LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS, LIST, List of Cancel Code.> When the causes of the temporary stop for No. 1 and No. 2 correspond, drive the vehicle for a while after the cause of the temporary stop has been eliminated. If the operation returns from the temporary stop status, it is normal. (However, when the occurrence and cancellation of the temporary stop take place repeatedly, the temporary stop status is held to prevent the irritation, delaying the return of the operation.) When this is not the case, check the stereo camera and its periphery.<Ref. to ES(diag)-8, WINDSHIELD GLASS AND DASHBOARD, INSPECTION, General Description.> <Ref. to ES(diag)-12, FRONT WIPER, INSPECTION, General Description.> <Ref. to ES(diag)-13, STEREO CAMERA, INSPECTION, General Description.>
72-CEH		The temperature of the stereo camera became excessively high or low, and the operation stopped temporarily. (During CRUISE MAIN ON, “E2” is displayed in the multi information display. “System halted temporarily because acceptable temperature range of camera is exceeded” is displayed in the multi-function display.)	Perform inspection concerning the item for 72-CEH of the “CHECK LIST (CAMERA TEMPORARY STOP)”.<Ref. to ES(diag)-86, CHECK LIST (CAMERA TEMPORARY STOP), LIST, List of Cancel Code.>When the failure is resolved, and the operation returns from the temporary stop status, it is normal. When the operation does not return from the temporary status even if driving the vehicle for a while after the failure has been resolved, replace the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>
72-E5H		The operation stopped temporarily due to vertical deviation of the optical axis of the stereo camera. (During CRUISE MAIN ON, “E3” is displayed in the multi information display. “System halted temporarily because operating condition is not met” is displayed in the multi-function display.)	Perform inspection concerning the item for 72-E5H of the “CHECK LIST (CAMERA TEMPORARY STOP)”.<Ref. to ES(diag)-86, CHECK LIST (CAMERA TEMPORARY STOP), LIST, List of Cancel Code.>This code may be displayed when the rear of the vehicle is lowered by the overload. When the failure is resolved, and the operation returns from the temporary stop status after driving for a while, it is normal. If this item is displayed in an ordinary use under which the vehicle is not tilted, readjust the stereo camera.<Ref. to ES(diag)-43, PROCEDURE, Camera Adjustment, Inspection.> If the same cancel code is still detected after readjustment, replace the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>

2. LIST OF CONTENTS FOR CAMERA TEMPORARY STOP: 0 — 23 COUNTS

Read the camera temporary stop count from Current Data Display & Save of Subaru Select Monitor, estimate the possible cause of the temporary stop according to the chart below. (After clearing the memory, the number of occurrence for each temporary stop is accumulated.)

Subaru Select Monitor display items	Main causes	Possible conditions for temporary stop (including events occurring less frequently)	Cancel code/ DTC	Meter display
Camera temporary stop 0 count	Backlight of the sunlight	Backlight, dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, deteriorated wiper, front of the camera is blocked by hand, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm, dense fog), unpatterned wall, fence, wall with vertical stripe, water drop raised by preceding vehicle, steep slope, banner, grass, preceding vehicle with large uneven surface (trailer, etc.), preceding vehicle driving in the night without illuminating the tail light	72-CC	E1
Camera temporary stop 1 count Camera temporary stop 2 count	Dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm), water drop raised by preceding vehicle			
Camera temporary stop 3 count	Fogged window glass, frost on the window glass	Backlight, dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, deteriorated wiper, front of the camera is blocked by hand, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm, dense fog), water drop raised by preceding vehicle, very dark and no obstacle around the vehicle, unpatterned wall, blanket of snow around the vehicle and no obstacle is found		
Camera temporary stop 4 count	Front of the camera is blocked by hand.	Backlight, dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, deteriorated wiper, front of the camera is blocked by hand, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm, dense fog), banner, grass, etc.		
Camera temporary stop 5 count	Heavy snowfall in the night	Heavy snowfall in the night, wall with vertical stripe, fence, etc.		
Camera temporary stop 6 count	Dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm), water drop raised by preceding vehicle	Backlight, dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, deteriorated wiper, front of the camera is blocked by hand, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm, dense fog), water drop raised by preceding vehicle, preceding vehicle driving in the night without illuminating the tail light, preceding vehicle with large uneven surface (trailer, etc.), etc.		
Camera temporary stop 7 count	Not used			

Subaru Select Monitor display items	Main causes	Possible conditions for temporary stop (including events occurring less frequently)	Cancel code/ DTC	Meter display
Camera temporary stop 8 count	Malfunction of electronic circuit	This temporary stop occurs when there is an object blocking the visibility of the camera at IGN ON or when the camera was exposed to the backlight during startup. This temporary stop occurs immediately after IGN ON. Unless the ignition switch is turned to OFF, the temporary stop is not canceled.	72-CD	E1
Camera temporary stop 9 count	Malfunction of electronic circuit	This item may be displayed when the condition that there is no object around the vehicle continues for a long time.		
Camera temporary stop 10 count	Malfunction of electronic circuit	This item is displayed when the cause of the temporary stop has not been eliminated for several hours. When the vehicle is driven with a piece of paper applied in front of the camera or with the object placed on the dashboard reflected against the windshield glass, the temporary stop status continues for a long time.		
Camera temporary stop 11 count	Backlight	Backlight		
Camera temporary stop 12 count	Malfunction of electronic circuit	This item is displayed by the snowfall in the night, wall with vertical stripe or fence, etc.		
Camera temporary stop 13 count	The number of surrounding objects is larger than expected.	When the number of surrounding objects is larger than expected, etc.		
Camera temporary stop 14 count	Dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm)	Backlight, dirty window glass, fogged window glass, frost on the window glass, oil film on the window glass, raindrop adhering to the window glass, fingerprint adhering to the lens, deteriorated wiper, front of the camera is blocked by hand, object on the dashboard reflected against the windshield glass, bad weather (heavy rain, snowstorm, dense fog), water drop raised by preceding vehicle, banner, grass, preceding vehicle with large uneven surface (trailer, etc.), etc.		
Camera temporary stop 15 count	Not used			
Camera temporary stop 16 count	When the vehicle is tilted excessively by the heavy load	• The vehicle is tilted excessively by the heavy load. • The vehicle drives on the steep uphills or steep downhills. • The stereo camera was subject to impact, and the displacement or distortion occurred.	72-E5	E3
Camera temporary stop 17 count	Malfunction of electronic circuit	This item is displayed by the reflection of the object on the dashboard.	B28B1	EyeSight warning light illuminates.
Camera temporary stop 18 count	Camera has been deformed by hitting it.	Camera has been deformed by hitting it.		
Camera temporary stop 19 count				
Camera temporary stop 20 count				
Camera temporary stop 21 count				
Camera temporary stop 22 count	Not used			
Camera temporary stop 23 count	High temperature (Camera portion: approx. 70°C or more), low temperature (Camera portion: approx. -10°C or less)	High temperature (Camera portion: approx. 70°C or more), low temperature (Camera portion: approx. –10°C or less)	72-CE	E2

3. CHECK LIST (CAMERA TEMPORARY STOP)

Even when the set status of the adaptive cruise control is canceled or temporary stop status occurs, the cancel codes will not be retained for the following.

- When the VDC operation is stopped by pressing the VDC OFF switch
- When the pre-collision brake operation is stopped by pressing the pre-collision brake OFF switch
- When the lane departure warning is stopped by pressing the lane departure warning OFF switch
- Immediately after the engine start

If not applicable to the cases described above, and the cancel code is displayed, perform the inspection according to the following items.

Item name			Yes/No	
[1]: Cancel code [72-CCH, 72-CDH] (At this time, “E1” is displayed in the multi information display. “System halted temporarily because stereo camera has poor visibility” is displayed in the multi-function display.)				
1	Check that the following are applied to the conditions that are difficult to be recognized by the stereo camera.			
	1	It was bad weather (heavy rain, snowstorm, dense fog; especially when the oil film adheres to the windshield glass, the glass coating agent is used, or when the old wiper is used).	Yes	No
	2	The vehicle was exposed to the intense light (backlight such as sunlight or headlight high-beam light) from the front of the vehicle.	Yes	No
	3	The raindrops, water drops or dirt on the windshield glass are not wiped off sufficiently.	Yes	No
	4	The windshield glass is covered with fog, snow, dirt, frost or sandy dust, and either of them blocks the visibility of the stereo camera.	Yes	No
	5	The vehicle was tilted excessively by the heavy load.	Yes	No
	6	Canoes etc. loaded on the roof blocked the visibility of the stereo camera.	Yes	No
	7	The field of view was insufficient due to water or snow raised by the preceding vehicle or oncoming vehicle, or the moisture, sand, smoke or sandy dust blown in the wind.	Yes	No
	8	The vehicle passed through the outlet or inlet of a tunnel.	Yes	No
	9	The rearmost area of preceding vehicle was small (trailer, etc.), low or uneven.	Yes	No
	10	The object was a fence or wall with even pattern (striped pattern or bricks) or unpatterned surface.	Yes	No
	11	The object was a plate of glass, mirror wall or door.	Yes	No
	12	The tail light of the preceding vehicle did not illuminate during nighttime hours or inside the tunnel.	Yes	No
	13	The vehicle passed through the banners, flags, drooping branches or grass.	Yes	No
	14	The vehicle drove on the steep uphills or steep downhills.	Yes	No
	15	Front of the camera was blocked by the hand.	Yes	No
	16	It was very dark and there was no obstacle around the vehicle.	Yes	No
	17	The surrounding surface was similarly colored. (There is snow as far as the eye can see.)	Yes	No
	18	Dirt such as fingerprint adhered to the lens portion of the stereo camera.	Yes	No
	19	Stable recognition was difficult because of reflection to the windshield glass.	Yes	No
	20	The stereo camera was subject to impact, and the displacement or distortion occurred.	Yes	No
[2]: Cancel code [72-CEH] (At this time, “E2” is displayed in the multi information display. “System halted temporarily because acceptable temperature range of camera is exceeded” is displayed in the multi-function display.)				
1	Check that the following is applied to the condition that the temperature of the stereo camera becomes excessively high or low.			
	1	The compartment temperature was high. (For example: The vehicle was left under the scorching sun.) Or the compartment temperature was low. (For example: The vehicle was left under the frigid environment.)	Yes	No
[3]: Cancel code [72-E5H] (At this time, “E3” is displayed in the multi information display. “System halted temporarily because operating condition is not met” is displayed in the multi-function display.)				
1	Check that the following are applied to the condition that the vertical deviation of the optical axis of stereo camera occurs.			
	1	The vehicle was tilted excessively by the heavy load.	Yes	No
	2	The vehicle drove on the steep uphills or steep downhills.	Yes	No
	3	The stereo camera was subject to impact, and the displacement or distortion occurred.	Yes	No
[4]: Cancel code [25-33H] (At this time, “E3” is displayed in the multi information display. “System halted temporarily because operating condition is not met” is displayed in the multi-function display.)				
1	Check that the following are applied to the condition that the engine speed drops below 300 rpm.		Yes	No

4. ECM

When the cruise control is cancelled, the ECM outputs the following cancel codes.

Cancel code	Subaru Select Monitor display items	Contents of diagnosis	Reference
11	Main switch	Main switch of cruise control command switch is turned to OFF, and then the cruise control is released.	This DTC is displayed without operating the main switch. <Ref. to CC(diag)-15, 11, Diagnostic Procedure with Cancel Code.>
12	Stop & Brake switch	Stop light switch or brake switch is turned to ON, and then the cruise control is released.	This DTC is displayed without depressing the brake pedal. <Ref. to CC(diag)-17, 12, Diagnostic Procedure with Cancel Code.>
14	Neutral switch	Neutral position switch is turned to ON, and then the cruise control is released.	This DTC is displayed without shifting to neutral position. <Ref. to CC(diag)-21, 14, Diagnostic Procedure with Cancel Code.>
15	Cancel switch	Cancel switch is turned to ON, and then the cruise control is released.	This DTC is displayed without operating the cancel switch. <Ref. to CC(diag)-22, 15, Diagnostic Procedure with Cancel Code.>
16	Ignition switch	Ignition switch is turned to OFF, and then the cruise control is released.	This DTC is displayed without operating the ignition switch. <Ref. to CC(diag)-23, 16, Diagnostic Procedure with Cancel Code.>
21	Abnormality of switches when Ignition switch on	When the ignition switch is turned to ON, each switch of cruise control command switch is already turned to ON.	This DTC is displayed when turning ignition switch to ON without operating the cruise control switch. <Ref. to CC(diag)-24, 21, Diagnostic Procedure with Cancel Code.>
22	Abnormality of change in vehicle speed	Malfunction of vehicle speed signal variation is detected.	<Ref. to CC(diag)-25, 22, Diagnostic Procedure with Cancel Code.>
24	Abnormality of switches related to cruise control	Open circuit of cruise control switch is detected during cruise driving. (The system is judged as model without cruise control.)	This DTC is displayed with normal operation. <Ref. to CC(diag)-25, 24, Diagnostic Procedure with Cancel Code.>
31	Engine Speed	• Abnormal increase of engine speed is detected. • Gear is placed in Neutral, 1st or Reverse position.	Cruise in 2nd shift position or more. <Ref. to CC(diag)-25, 31, Diagnostic Procedure with Cancel Code.>
32	Cruse Control out of Range	• Vehicle speed exceeds the controllable range during cruising. • Set operation was performed at vehicle speed unavailable for setting. • RESUME operation was performed without memorized vehicle speed. • System entered X MODE.	This DTC is displayed, though the vehicle speed is increased to the speed available for cruise set and set operation was performed again. <Ref. to CC(diag)-25, 32, Diagnostic Procedure with Cancel Code.>
34	Prohibition of cruise control at continuing big Accel. angle	The vehicle has been driven at higher speed than set vehicle speed for an abnormally long time (approximately 10 minutes) during cruise driving.	<Ref. to CC(diag)-25, 34, Diagnostic Procedure with Cancel Code.>
35	Prohibition of cruise control at vehicle speed F/B malfunction	Set vehicle speed cannot be kept because of some reasons (steep uphill, parking brake, abnormal decrease of engine output, etc.) during cruise driving.	<Ref. to CC(diag)-26, 35, Diagnostic Procedure with Cancel Code.>
41	VDC/TCS/EPB Operating	Vehicle dynamics control (VDC), TCS or EPB is operated during cruise driving or cruise setting.	<Ref. to CC(diag)-26, 41, Diagnostic Procedure with Cancel Code.>
43	ABS/VDC Failure	When CRUISE switch is ON, ABS or vehicle dynamics control (VDC) system malfunction is detected.	<Ref. to CC(diag)-26, 43, Diagnostic Procedure with Cancel Code.>

Cancel code	Subaru Select Monitor display items	Contents of diagnosis	Reference
44	Body Integrated unit Failure	When CRUISE switch is ON, body integrated unit system malfunction is detected.	<Ref. to CC(diag)-26, 44, Diagnostic Procedure with Cancel Code.>
45	Meter Failure	When CRUISE switch is ON, combination meter malfunction is detected.	<Ref. to CC(diag)-26, 45, Diagnostic Procedure with Cancel Code.>
47	Adaptive CC ECM malfunction	When CRUISE switch is ON, stereo camera malfunction is detected.	Check the DTCs related to stereo camera.
49	TCM Failure	Transmission control module (TCM) malfunction is detected during cruise driving or cruise setting.	<Ref. to CC(diag)-26, 49, Diagnostic Procedure with Cancel Code.>
53	Adaptive cruise control compulsory cancellation	Stereo camera detects the release command of the cruise control during cruise driving or cruise setting operation.	Check the stereo camera. Confirm the display contents of the current data “ACC forced cancellation code 1 — 8”, and perform inspection. <Ref. to ES(diag)-88, LIST OF ACC FORCED CANCELLATION CODE, LIST, List of Cancel Code.>
54	Release SW	Brake control module detects the brake pedal operation by the driver during cruise driving or cruise setting operation.	If this code is detected when the brake pedal is not depressed intentionally, check the release switch.
55	Adaptive cruise control reception data abnormal	When CRUISE switch is ON, malfunction is detected in the reception data from the stereo camera.	Check the cancel code of stereo camera.
61	Brake Switch Failure	Malfunction in the stop light & brake switch is detected.	<Ref. to CC(diag)-26, 61, Diagnostic Procedure with Cancel Code.>
62	Neutral Switch Failure	Neutral position switch malfunction is detected.	<Ref. to CC(diag)-26, 62, Diagnostic Procedure with Cancel Code.>
63	Abnormality 1 of change in vehicle speed	Malfunction of vehicle speed signal variation is detected.	<Ref. to CC(diag)-27, 63, Diagnostic Procedure with Cancel Code.>
64	Engine Sensor Failure 1	Malfunction related to engine is detected.	<Ref. to CC(diag)-27, 64, Diagnostic Procedure with Cancel Code.>
65	Abnormality 1 of switches related to cruise control	Cruise control command switch malfunction is detected. (When the switch is pressed ON for a long time (approximately two minutes), stuck ON condition is detected.)	<Ref. to CC(diag)-27, 65, Diagnostic Procedure with Cancel Code.>
66	Cruise Control Calculation Error	Cruise control calculation (microcomputer) malfunction is detected.	<Ref. to CC(diag)-27, 66, Diagnostic Procedure with Cancel Code.>

5. LIST OF ACC FORCED CANCELLATION CODE

When the following forced cancellation codes are detected from the stereo camera, the cruise control will be cancelled.
The following chart is the list of contents displayed in “ACC forced cancellation code 1 — 8” of “Current Data Display & Save”.
For 1 through 8, 1 is the latest record, and the maximum of 8 experienced forced cancellation codes are displayed. The same code stores the last IG number.

Subaru Select Monitor display items	Description
No cancel code	Displayed when the cancel code of the cruise control is not stored.
Adaptive mode: Low speed, no leading vehicle	During driving in the adaptive cruise mode, this item is displayed when the own vehicle speed becomes 30 km/h (19 MPH) or less, and the detection status of the preceding vehicle changes from Present → Not present, and the cruise control is canceled.
Adaptive mode: Camera temporary stop	During driving in the adaptive cruise mode, this item is displayed when the cruise control is canceled by temporarily stopping the EyeSight.
Adaptive mode: Leading vehicle no acceleration	During driving in the adaptive cruise mode, this item is displayed when the driver attempted to set the cruise control, however it was impossible because the preceding vehicle had not yet started.

Subaru Select Monitor display items	Description
Constant speed mode: Low speed	During driving in the constant speed mode, this item is displayed when the own vehicle speed becomes approximately 30 km/h or less and the cruise control is canceled.
Common: Wheel speed sensor abnormal	This item is displayed when the cruise control is canceled because of the wheel speed sensor malfunctions.
Common: Brake operation	This item is displayed when the cruise control is canceled by the brake operation of the driver.
Common: Pre-crash brake	This item is displayed when the cruise control is canceled by the operation of the pre-collision brake.
Common: AT manual mode	This item is displayed when the cruise control is canceled because the AT is shifted into manual mode or paddle operation is performed.
Common: VDC switch OFF	This item is displayed when the VDC function is turned off by the VDC OFF switch and the cruise control is canceled.
Common: Door open	This item is displayed when the cruise control is canceled by opening the driver's door, passenger's door or rear doors.
Common: Driver's seat belt released	This item is displayed when the cruise control is canceled by unfastening the driver's seat belt.
Common: High speed	This item is displayed when the own vehicle speed becomes approximately 160 km/h (99 MPH) or more and the cruise control is canceled.
Common: AT gear range	This item is displayed when the following occurs. Since the driver desired to drive the vehicle in the adaptive cruise mode or in the constant speed mode, he or she performed SET or RES operation. However, the operation was not accepted because it was done immediately after D-range shifting.
Common: Road surface incline	This item is displayed when the road surface gradient was judged to be steep and the cruise control is canceled.
Common: ABS operation	This item is displayed when the cruise control is canceled by the operation of the ABS.
Common: Large steering operation	This item is displayed when the steering wheel is fully turned and the cruise control is canceled.
Adaptive mode: Stop judgment	This item is displayed when the cruise control is cancelled after the own vehicle stops followed by the preceding vehicle in the adaptive cruise control mode.
Common: Parking brakes pull	This item is displayed when the cruise control is cancelled by the parking brake application.
Adaptive mode: Stop forced cancellation	This item is displayed when the cruise control is cancelled by the following operation. In adaptive cruise control mode, the own vehicle stops after the preceding vehicle stops. Then, the driver repeats SET or RES operation, and automatic brake control continues for 120 seconds.
common:X mode	This item is displayed when the cruise control is cancelled by switching SI Drive mode to X mode.
TSM actuation	This item is displayed when the cruise control is cancelled by the operation of TSM commanded by VDC.
VDC actuation	This item is displayed when the cruise control is cancelled by the understeer control, oversteer control, or operation of TCS commanded by VDC.

NOTE:
- ACC: Adaptive Cruise Control
- "Adaptive cruise mode": Adaptive cruise control
- "Constant speed mode": Conventional cruise control
- "Common": Adaptive cruise control and conventional cruise control

15.List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Content of diagnosis	Reference
U0073	Control Module Communication Bus Off	CAN communication error occurred.	<Ref. to AB(diag)-39, DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF, Diagnostic Chart with Trouble Code.>
B1000	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1003	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-39, DTC B1003 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1105	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-39, DTC B1105 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1106	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-39, DTC B1106 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1115	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-39, DTC B1115 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1116	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-39, DTC B1116 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1120	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-39, DTC B1120 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1121	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1121 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1125	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1125 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1126	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1126 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1135	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1135 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1136	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1136 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1145	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1145 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1146	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1146 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1170	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1170 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1185	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1185 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

DTC	Item	Content of diagnosis	Reference
B1195	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1195 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1196	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-40, DTC B1196 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1199	Airbag ECU Malfunction	Airbag control module is faulty.	<Ref. to AB(diag)-41, DTC B1199 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>
B11E0	Rollover Ignition	Curtain airbag module (LH/RH) and seat belt pretensioner (LH/RH) are deployed.	<Ref. to AB(diag)-41, DTC B11E0 ROLLOVER IGNITION, Diagnostic Chart with Trouble Code.>
B11F2	Front Impact Ignition	Front airbag module and seat belt pretensioner (LH/RH) are inflated.	<Ref. to AB(diag)-41, DTC B11F2 FRONT IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11F3	Front Impact Ignition	Front airbag module and seat belt pretensioner (LH/RH) are inflated.	<Ref. to AB(diag)-41, DTC B11F3 FRONT IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11F4	Front Impact Ignition	Front airbag module and seat belt pretensioner (LH/RH) are inflated.	<Ref. to AB(diag)-41, DTC B11F4 FRONT IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11F5	Front Impact Ignition	Front airbag module and seat belt pretensioner (LH/RH) are inflated.	<Ref. to AB(diag)-41, DTC B11F5 FRONT IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11F7	Side Impact Ignition	• Side airbag module and curtain airbag module are deployed. • Curtain airbag module is deployed.	<Ref. to AB(diag)-41, DTC B11F7 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11F8	Side Impact Ignition	• Side airbag module and curtain airbag module are deployed. • Curtain airbag module is deployed.	<Ref. to AB(diag)-42, DTC B11F8 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11F9	Side Impact Ignition	• Side airbag module and curtain airbag module are deployed. • Curtain airbag module is deployed.	<Ref. to AB(diag)-42, DTC B11F9 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11FA	Side Impact Ignition	• Side airbag module and curtain airbag module are deployed. • Curtain airbag module is deployed.	<Ref. to AB(diag)-42, DTC B11FA SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11FB	Side Impact Ignition	• Side airbag module and curtain airbag module are deployed. • Curtain airbag module is deployed.	<Ref. to AB(diag)-42, DTC B11FB SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B11FC	Side Impact Ignition	• Side airbag module and curtain airbag module are deployed. • Curtain airbag module is deployed.	<Ref. to AB(diag)-42, DTC B11FC SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>
B1610	Front Sub Sensor RH Failure	Front sub sensor RH is faulty	<Ref. to AB(diag)-42, DTC B1610 FRONT SUB SENSOR RH FAILURE, Diagnostic Chart with Trouble Code.>
B1612	Front Sub Sensor RH Lost Communication	• Open or short circuit in harness RH between airbag control module and front sub sensor. • Front sub sensor RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-42, DTC B1612 FRONT SUB SENSOR RH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1613	Front Sub Sensor RH Initialization Error		<Ref. to AB(diag)-43, DTC B1613 FRONT SUB SENSOR RH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>
B1615	Front Sub Sensor LH Failure	Front sub sensor LH is faulty.	<Ref. to AB(diag)-45, DTC B1615 FRONT SUB SENSOR LH FAILURE, Diagnostic Chart with Trouble Code.>

DTC	Item	Content of diagnosis	Reference
B1617	Front Sub Sensor LH Lost Communication	• Open or short circuit in harness LH between airbag control module and front sub sensor. • Front sub sensor LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-45, DTC B1617 FRONT SUB SENSOR LH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1618	Front Sub Sensor LH Initialization Error		<Ref. to AB(diag)-46, DTC B1618 FRONT SUB SENSOR LH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>
B16F2	Front Sub Sensor RH Recognition Error	• Front sensor RH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-48, DTC B16F2 FRONT SUB SENSOR RH RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>
B16F3	Front Sub Sensor LH Recognition Error	• Front sensor LH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-48, DTC B16F3 FRONT SUB SENSOR LH RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>
B1620	Side Airbag Sensor RH Failure	Side airbag sensor RH is faulty.	<Ref. to AB(diag)-48, DTC B1620 SIDE AIRBAG SENSOR RH FAILURE, Diagnostic Chart with Trouble Code.>
B1622	Side Airbag Sensor RH Lost Communication	• Open or short circuit in harness RH between airbag control module and side airbag sensor. • Side airbag sensor RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-48, DTC B1622 SIDE AIRBAG SENSOR RH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1623	Side Airbag Sensor RH Initialization Error		<Ref. to AB(diag)-49, DTC B1623 SIDE AIRBAG SENSOR RH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>
B1625	Side Airbag Sensor LH Failure	Side airbag sensor LH is faulty.	<Ref. to AB(diag)-51, DTC B1625 SIDE AIRBAG SENSOR LH FAILURE, Diagnostic Chart with Trouble Code.>
B1627	Side Airbag Sensor LH Lost Communication	• Open or short circuit in harness LH between airbag control module and side airbag sensor. • Side airbag sensor LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-51, DTC B1627 SIDE AIRBAG SENSOR LH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1628	Side Airbag Sensor LH Initialization Error		<Ref. to AB(diag)-52, DTC B1628 SIDE AIRBAG SENSOR LH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>
B1630	Curtain Airbag Sensor RH Failure	Curtain airbag sensor RH is faulty.	<Ref. to AB(diag)-54, DTC B1630 CURTAIN AIRBAG SENSOR RH FAILURE, Diagnostic Chart with Trouble Code.>
B1632	Curtain Airbag Sensor RH Lost Communication	• Open or short circuit in harness RH between airbag control module and curtain airbag sensor. • Side airbag sensor RH is faulty. • Curtain airbag sensor RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-54, DTC B1632 CURTAIN AIRBAG SENSOR RH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1633	Curtain Airbag Sensor RH Initialization Error		<Ref. to AB(diag)-55, DTC B1633 CURTAIN AIRBAG SENSOR RH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>
B1635	Curtain Airbag Sensor LH Failure	Curtain airbag sensor LH is faulty.	<Ref. to AB(diag)-57, DTC B1635 CURTAIN AIRBAG SENSOR LH FAILURE, Diagnostic Chart with Trouble Code.>
B1637	Curtain Airbag Sensor LH Lost Communication	• Open or short circuit in harness LH between airbag control module and curtain airbag sensor. • Side airbag sensor LH is faulty. • Curtain airbag sensor LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-57, DTC B1637 CURTAIN AIRBAG SENSOR LH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1638	Curtain Airbag Sensor LH Initialization Error		<Ref. to AB(diag)-58, DTC B1638 CURTAIN AIRBAG SENSOR LH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>
B16F4	Side Airbag Sensor RH Recognition Error	• Side airbag sensor RH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-61, DTC B16F4 SIDE AIRBAG SENSOR RH RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>
B16F5	Side Airbag Sensor LH Recognition Error	• Side airbag sensor LH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-61, DTC B16F5 SIDE AIRBAG SENSOR LH RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>

DTC	Item	Content of diagnosis	Reference
B16F6	Curtain Airbag Sensor RH Recognition Error	• Curtain airbag sensor RH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-61, DTC B16F6 CURTAIN AIRBAG SENSOR RH RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>
B16F7	Curtain Airbag Sensor LH Recognition Error	• Curtain airbag sensor LH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-62, DTC B16F7 CURTAIN AIRBAG SENSOR LH RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>
B1642	Side Satellite Sensor Bus RH Lost Communication	• Open or short circuit in harness RH between airbag control module and front door impact sensor. • Side airbag sensor RH is faulty. • Curtain airbag sensor RH is faulty. • Front door impact sensor RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-63, DTC B1642 SIDE SATELLITE SENSOR BUS RH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1647	Side Satellite Sensor Bus LH Lost Communication	• Open or short circuit in harness LH between airbag control module and front door impact sensor. • Side airbag sensor LH is faulty. • Curtain airbag sensor LH is faulty. • Front door impact sensor LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-67, DTC B1647 SIDE SATELLITE SENSOR BUS LH LOST COMMUNICATION, Diagnostic Chart with Trouble Code.>
B1650	Occupant Classification System Malfunction	• Occupant detection sensor is faulty. • Occupant detection control module is faulty. • Occupant detection harness is faulty. • Rear airbag harness RH is faulty. • Fuse No. 25 is blown.	<Ref. to AB(diag)-70, DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION, Diagnostic Chart with Trouble Code.>
B1655	Front Buckle Switch RH Failure	• Buckle switch RH circuit is open, shorted or shorted to ground. • Occupant detection system is faulty. • Occupant detection harness is faulty.	<Ref. to AB(diag)-70, DTC B1655 FRONT BUCKLE SWITCH RH FAILURE, Diagnostic Chart with Trouble Code.>
B1660	Passenger's Airbag On Indicator Failure	• Passenger's airbag indicator is faulty. • Airbag control module is faulty. • Airbag main harness circuit is open, shorted or shorted to ground. • Body harness circuit is open.	<Ref. to AB(diag)-71, DTC B1660 PASSENGER'S AIRBAG ON INDICATOR FAILURE, Diagnostic Chart with Trouble Code.>
B1675	Satellite Safing Sensor Failure	Satellite safing sensor is faulty.	<Ref. to AB(diag)-73, DTC B1675 SATELLITE SAFING SENSOR FAILURE, Diagnostic Chart with Trouble Code.>
B1676	Lost Communication With Satellite Safing Sensor	• Open or short circuit in harness between airbag control module and satellite safing sensor. • Satellite safing sensor is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-73, DTC B1676 LOST COMMUNICATION WITH SATELLITE SAFING SENSOR, Diagnostic Chart with Trouble Code.>
B1677	Satellite Safing Sensor Initialization Incomplete		<Ref. to AB(diag)-74, DTC B1677 SATELLITE SAFING SENSOR INITIALIZATION INCOMPLETE, Diagnostic Chart with Trouble Code.>
B16F8	Satellite Safing Sensor Recognition Error	• Satellite safing sensor is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-76, DTC B16F8 SATELLITE SAFING SENSOR RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>
B16F9	Door Sensor RH Recognition Error	• Front door impact sensor RH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-76, DTC B16F9 DOOR SENSOR RH RECOGNITION ERROR, Diagnostic Chart with Trouble Code.>
B1690	Door Sensor RH Failure	Front door impact sensor RH is faulty.	<Ref. to AB(diag)-76, DTC B1690 DOOR SENSOR RH FAILURE, Diagnostic Chart with Trouble Code.>

DTC	Item	Content of diagnosis	Reference
B1692	Lost Communication With Door Sensor RH	• Open or short circuit in harness between curtain airbag sensor and front door impact sensor. • Front door impact sensor RH is faulty. • Curtain airbag sensor RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-76, DTC B1692 LOST COMMUNICATION WITH DOOR SENSOR RH, Diagnostic Chart with Trouble Code.>
B1693	Door Sensor RH Initialization Incomplete		<Ref. to AB(diag)-77, DTC B1693 DOOR SENSOR RH INITIALIZATION INCOMPLETE, Diagnostic Chart with Trouble Code.>
B16FA	Lost Communication With Door Sensor LH	• Front door impact sensor LH is misinstalled. • Airbag control module is faulty.	<Ref. to AB(diag)-80, DTC B16FA LOST COMMUNICATION WITH DOOR SENSOR LH, Diagnostic Chart with Trouble Code.>
B1695	Door Sensor LH Failure	Front door impact sensor LH is faulty.	<Ref. to AB(diag)-80, DTC B1695 DOOR SENSOR LH FAILURE, Diagnostic Chart with Trouble Code.>
B1697	Lost Communication With Door Sensor LH	• Open or short circuit in harness between curtain airbag sensor and front door impact sensor. • Front door impact sensor LH is faulty. • Curtain airbag sensor LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-80, DTC B1697 LOST COMMUNICATION WITH DOOR SENSOR LH, Diagnostic Chart with Trouble Code.>
B1698	Door Sensor LH Initialization Incomplete		<Ref. to AB(diag)-81, DTC B1698 DOOR SENSOR LH INITIALIZATION INCOMPLETE, Diagnostic Chart with Trouble Code.>
B161A	Lost Communication With Front Satellite Sensor Bus	• Open or short circuit in harness between airbag control module and front sub sensor. • Front sub sensor is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-84, DTC B161A LOST COMMUNICATION WITH FRONT SATELLITE SENSOR BUS, Diagnostic Chart with Trouble Code.>
B16F1	Passenger's Seat Belt Warning Failure	• Airbag control module is faulty. • Meter is faulty. • Harness circuits between meter and airbag control module are open, shorted or shorted to ground.	<Ref. to AB(diag)-87, DTC B16F1 PASSENGER'S SEAT BELT WARNING FAILURE, Diagnostic Chart with Trouble Code.>
B16F0	Passenger's Airbag Off Indicator Failure	• Passenger's airbag indicator is faulty. • Airbag control module is faulty. • Airbag main harness circuit is open or shorted. • Body harness circuit is open.	<Ref. to AB(diag)-88, DTC B16F0 PASSENGER'S AIRBAG OFF INDICATOR FAILURE, Diagnostic Chart with Trouble Code.>
B1760	Sensor Mat Abnormal	• Occupant detection sensor is open, shorted between terminals, shorted to power supply or shorted to ground. • Seat heater is open. • Occupant detection control module is faulty.	<Ref. to AB(diag)-88, DTC B1760 SENSOR MAT ABNORMAL, Diagnostic Chart with Trouble Code.>
B1771	Buckle Switch Abnormal	• Passenger's buckle switch circuit is open, shorted or shorted to ground. • Occupant detection system is faulty. • Occupant detection harness is faulty.	<Ref. to AB(diag)-88, DTC B1771 BUCKLE SWITCH ABNORMAL, Diagnostic Chart with Trouble Code.>
B1795	ECU Internal Circuit Fault	Occupant detection control module is faulty.	<Ref. to AB(diag)-88, DTC B1795 ECU INTERNAL CIRCUIT FAULT, Diagnostic Chart with Trouble Code.>
B1800	Short in Driver's Airbag	• Airbag main harness circuit is shorted. • Airbag module harness (driver's side) circuit is shorted. • Roll connector circuit is shorted. • Driver's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-89, DTC B1800 SHORT IN DRIVER'S AIRBAG, Diagnostic Chart with Trouble Code.>
B1801	Open in Driver's Airbag	• Airbag main harness circuit is open. • Airbag module harness circuit (driver's side) is open. • Roll connector circuit is open. • Driver's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-91, DTC B1801 OPEN IN DRIVER'S AIRBAG, Diagnostic Chart with Trouble Code.>

DTC	Item	Content of diagnosis	Reference
B1802	Short in Driver's Airbag (To Ground)	• Airbag main harness circuit is shorted to ground. • Airbag module harness (driver's side) circuit is shorted to ground. • Roll connector circuit is shorted to ground. • Driver's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-93, DTC B1802 SHORT IN DRIVER'S AIRBAG (TO GROUND), Diagnostic Chart with Trouble Code.>
B1803	Short in Driver's Airbag (To +B)	• Airbag main harness circuit is shorted to power supply. • Airbag module harness circuit (driver's side) is shorted to power supply. • Roll connector circuit is shorted to power supply. • Airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-95, DTC B1803 SHORT IN DRIVER'S AIRBAG (TO +B), Diagnostic Chart with Trouble Code.>
B1805	Short in Passenger's Airbag	• Airbag main harness circuit is shorted. • Airbag module harness circuit (passenger's side) is shorted. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-97, DTC B1805 SHORT IN PASSENGER'S AIRBAG, Diagnostic Chart with Trouble Code.>
B1806	Open in Passenger's Airbag	• Airbag main harness circuit is open. • Airbag module harness circuit (passenger's side) is open. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-99, DTC B1806 OPEN IN PASSENGER'S AIRBAG, Diagnostic Chart with Trouble Code.>
B1807	Short in Passenger's Airbag (To Ground)	• Airbag main harness circuit is shorted to ground. • Airbag module harness (passenger's side) circuit is shorted to ground. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-102, DTC B1807 SHORT IN PASSENGER'S AIRBAG (TO GROUND), Diagnostic Chart with Trouble Code.>
B1808	Short in Passenger's Airbag (To +B)	• Airbag main harness circuit is shorted to power supply. • Airbag module harness (passenger's side) circuit is shorted to power supply. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-105, DTC B1808 SHORT IN PASSENGER'S AIRBAG (TO +B), Diagnostic Chart with Trouble Code.>
B1810	Short in Driver's Airbag Dual Stage - 2nd Step	• Airbag main harness circuit is shorted. • Airbag module harness (driver's side) circuit is shorted. • Roll connector circuit is shorted. • Driver's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-108, DTC B1810 SHORT IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP, Diagnostic Chart with Trouble Code.>
B1811	Open in Driver's Airbag Dual Stage - 2nd Step	• Airbag main harness circuit is open. • Airbag module harness circuit (driver's side) is open. • Roll connector circuit is open. • Driver's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-110, DTC B1811 OPEN IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP, Diagnostic Chart with Trouble Code.>
B1812	Short in Driver's Airbag Dual Stage - 2nd Step (To Ground)	• Airbag main harness circuit is shorted to ground. • Airbag module harness (driver's side) circuit is shorted to ground. • Roll connector circuit is shorted to ground. • Driver's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-112, DTC B1812 SHORT IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP (TO GROUND), Diagnostic Chart with Trouble Code.>

DTC	Item	Content of diagnosis	Reference
B1813	Short in Driver's Airbag Dual Stage - 2nd Step Circuit (To +B)	• Airbag main harness circuit is shorted to power supply. • Airbag module harness circuit (driver's side) is shorted to power supply. • Roll connector circuit is shorted to power supply. • Airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-114, DTC B1813 SHORT IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP CIRCUIT (TO +B), Diagnostic Chart with Trouble Code.>
B1815	Open in Passenger's Airbag Dual Stage - 2nd Step	• Airbag main harness circuit is shorted. • Airbag module harness circuit (passenger's side) is shorted. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-116, DTC B1815 OPEN IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP, Diagnostic Chart with Trouble Code.>
B1816	Open in Passenger's Airbag Dual Stage - 2nd Step	• Airbag main harness circuit is open. • Airbag module harness circuit (passenger's side) is open. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-118, DTC B1816 OPEN IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP, Diagnostic Chart with Trouble Code.>
B1817	Short in Passenger's Airbag Dual Stage - 2nd Step (To Ground)	• Airbag main harness circuit is shorted to ground. • Airbag module harness (passenger's side) circuit is shorted to ground. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-121, DTC B1817 SHORT IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP (TO GROUND), Diagnostic Chart with Trouble Code.>
B1818	Short in Passenger's Airbag Dual Stage - 2nd Step Circuit (To +B)	• Airbag main harness circuit is shorted to power supply. • Airbag module harness (passenger's side) circuit is shorted to power supply. • Passenger's airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-124, DTC B1818 SHORT IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP CIRCUIT (TO +B), Diagnostic Chart with Trouble Code.>
B1820	Short in Side Airbag RH	• Side airbag harness RH circuit is shorted. • Side airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-127, DTC B1820 SHORT IN SIDE AIRBAG RH, Diagnostic Chart with Trouble Code.>
B1821	Open in Side Airbag RH	• Side airbag harness RH circuit is open. • Side airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-129, DTC B1821 OPEN IN SIDE AIRBAG RH, Diagnostic Chart with Trouble Code.>
B1822	Short in Side Airbag RH (To Ground)	• Side airbag harness RH circuit is shorted to ground. • Side airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-131, DTC B1822 SHORT IN SIDE AIRBAG RH (TO GROUND), Diagnostic Chart with Trouble Code.>
B1823	Short in Side Airbag RH (To +B)	• Side airbag harness RH circuit is shorted to power supply. • Side airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-133, DTC B1823 SHORT IN SIDE AIRBAG RH (TO +B), Diagnostic Chart with Trouble Code.>
B1825	Short in Side Airbag LH	• Side airbag harness LH circuit is shorted. • Side airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-135, DTC B1825 SHORT IN SIDE AIRBAG LH, Diagnostic Chart with Trouble Code.>
B1826	Open in Side Airbag LH	• Side airbag harness LH circuit is open. • Side airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-137, DTC B1826 OPEN IN SIDE AIRBAG LH, Diagnostic Chart with Trouble Code.>
B1827	Short in Side Airbag LH (To Ground)	• Side airbag harness LH circuit is shorted to ground. • Side airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-139, DTC B1827 SHORT IN SIDE AIRBAG LH (TO GROUND), Diagnostic Chart with Trouble Code.>
B1828	Short in Side Airbag LH (To +B)	• Side airbag harness LH circuit is shorted to power supply. • Side airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-141, DTC B1828 SHORT IN SIDE AIRBAG LH (TO +B), Diagnostic Chart with Trouble Code.>

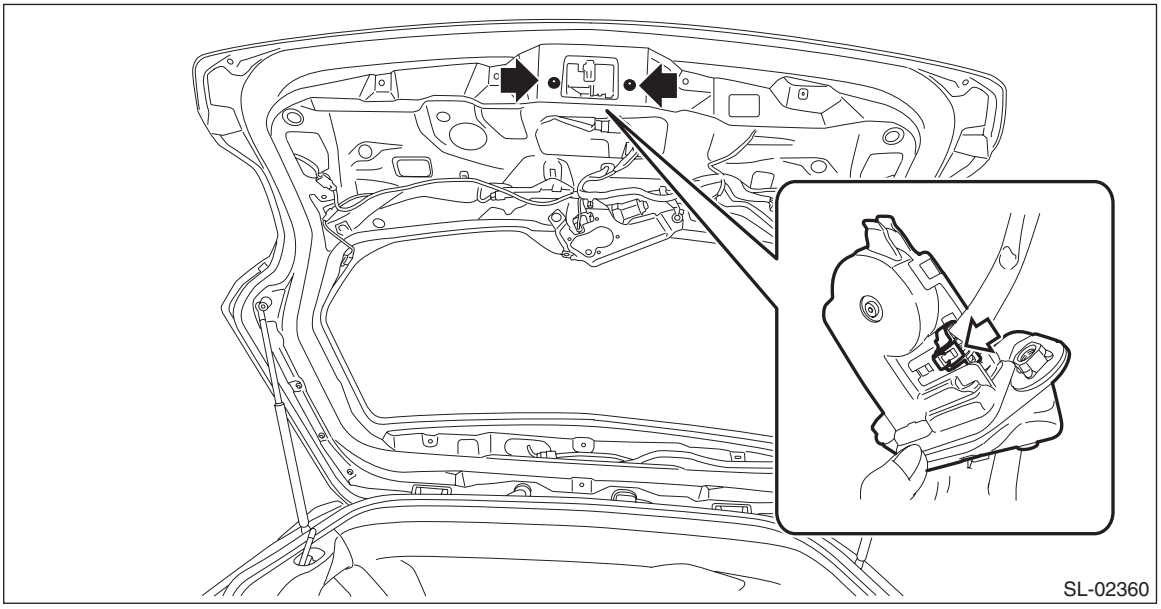
DTC	Item	Content of diagnosis	Reference
B1830	Short in Curtain Airbag RH Squib Circuit	• Curtain airbag harness RH circuit is shorted. • Curtain airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-143, DTC B1830 SHORT IN CURTAIN AIRBAG RH SQUIB CIRCUIT, Diagnostic Chart with Trouble Code.>
B1831	Open in Curtain Airbag RH Squib Circuit	• Curtain airbag harness RH circuit is open. • Curtain airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-145, DTC B1831 OPEN IN CURTAIN AIRBAG RH SQUIB CIRCUIT, Diagnostic Chart with Trouble Code.>
B1832	Short in Curtain Airbag RH Squib Circuit (To Ground)	• Curtain airbag harness RH circuit is shorted to ground. • Curtain airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-147, DTC B1832 SHORT IN CURTAIN AIRBAG RH SQUIB CIRCUIT (TO GROUND), Diagnostic Chart with Trouble Code.>
B1833	Short in Curtain Shield Airbag RH Squib Circuit (To +B)	• Curtain airbag harness RH is shorted to power supply. • Curtain airbag module RH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-149, DTC B1833 SHORT IN CURTAIN SHIELD AIRBAG RH SQUIB CIRCUIT (TO +B), Diagnostic Chart with Trouble Code.>
B1835	Short in Curtain Airbag LH Squib Circuit	• Curtain airbag harness LH circuit is shorted. • Curtain airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-151, DTC B1835 SHORT IN CURTAIN AIRBAG LH SQUIB CIRCUIT, Diagnostic Chart with Trouble Code.>
B1836	Open in Curtain Airbag LH Squib Circuit	• Curtain airbag harness LH circuit is open. • Curtain airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-153, DTC B1836 OPEN IN CURTAIN AIRBAG LH SQUIB CIRCUIT, Diagnostic Chart with Trouble Code.>
B1837	Short in Curtain Airbag LH Squib Circuit (To Ground)	• Curtain airbag harness LH circuit is shorted to ground. • Curtain airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-155, DTC B1837 SHORT IN CURTAIN AIRBAG LH SQUIB CIRCUIT (TO GROUND), Diagnostic Chart with Trouble Code.>
B1838	Short in Curtain Shield Airbag LH Squib Circuit (To +B)	• Curtain airbag harness LH is shorted to power supply. • Curtain airbag module LH is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-157, DTC B1838 SHORT IN CURTAIN SHIELD AIRBAG LH SQUIB CIRCUIT (TO +B), Diagnostic Chart with Trouble Code.>
B1860	Short in Driver's Knee Airbag	• Airbag main harness circuit is shorted. • Knee airbag module harness circuit is shorted. • Knee airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-159, DTC B1860 SHORT IN DRIVER'S KNEE AIRBAG, Diagnostic Chart with Trouble Code.>
B1861	Open in Driver's Knee Airbag	• Airbag main harness circuit is open. • Knee airbag module harness circuit is open. • Knee airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-161, DTC B1861 OPEN IN DRIVER'S KNEE AIRBAG, Diagnostic Chart with Trouble Code.>
B1862	Short in Driver's Knee Airbag (To Ground)	• Airbag main harness circuit is shorted to ground. • Knee airbag module harness circuit is shorted to ground. • Knee airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-163, DTC B1862 SHORT IN DRIVER'S KNEE AIRBAG (TO GROUND), Diagnostic Chart with Trouble Code.>
B1863	Short in Driver's Knee Airbag (To +B)	• Airbag main harness circuit is shorted to power supply. • Knee airbag module harness circuit is shorted to power supply. • Knee airbag module is faulty. • Airbag control module is faulty.	<Ref. to AB(diag)-165, DTC B1863 SHORT IN DRIVER'S KNEE AIRBAG (TO +B), Diagnostic Chart with Trouble Code.>
B1900	Short in Front P/T RH	• Seat belt pretensioner RH circuit is shorted. • Pretensioner RH is faulty. • Pretensioner harness RH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-167, DTC B1900 SHORT IN FRONT P/T RH, Diagnostic Chart with Trouble Code.>
B1901	Open in Front P/T RH	• Seat belt pretensioner RH circuit is open. • Pretensioner RH is faulty. • Pretensioner harness RH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-169, DTC B1901 OPEN IN FRONT P/T RH, Diagnostic Chart with Trouble Code.>

DTC	Item	Content of diagnosis	Reference
B1902	Short in Front P/T RH (To Ground)	• Seat belt pretensioner RH circuit is shorted to ground. • Pretensioner RH is faulty. • Pretensioner harness RH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-171, DTC B1902 SHORT IN FRONT P/T RH (TO GROUND), Diagnostic Chart with Trouble Code.>
B1903	Short in Front P/T RH (To +B)	• Seat belt pretensioner RH circuit is shorted to power supply. • Pretensioner RH is faulty. • Pretensioner harness RH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-173, DTC B1903 SHORT IN FRONT P/T RH (TO +B), Diagnostic Chart with Trouble Code.>
B1905	Short in Front P/T LH	• Seat belt pretensioner LH circuit is shorted. • Pretensioner LH is faulty. • Pretensioner harness LH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-175, DTC B1905 SHORT IN FRONT P/T LH, Diagnostic Chart with Trouble Code.>
B1906	Open in Front P/T LH	• Seat belt pretensioner LH circuit is open. • Pretensioner LH is faulty. • Pretensioner harness LH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-177, DTC B1906 OPEN IN FRONT P/T LH, Diagnostic Chart with Trouble Code.>
B1907	Short in Front P/T LH (To Ground)	• Seat belt pretensioner LH circuit is shorted to ground. • Pretensioner LH is faulty. • Pretensioner harness LH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-179, DTC B1907 SHORT IN FRONT P/T LH (TO GROUND), Diagnostic Chart with Trouble Code.>
B1908	Short in Front P/T LH (To +B)	• Seat belt pretensioner LH circuit is shorted to power supply. • Pretensioner LH is faulty. • Pretensioner harness LH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-181, DTC B1908 SHORT IN FRONT P/T LH (TO +B), Diagnostic Chart with Trouble Code.>
B19F0	Short in Front P/T 2 RH	• Lap seat belt pretensioner RH circuit is shorted. • Lap seat belt pretensioner RH is faulty. • Lap seat belt pretensioner harness RH is shorted. • Airbag control module is faulty.	<Ref. to AB(diag)-183, DTC B19F0 SHORT IN FRONT P/T 2 RH, Diagnostic Chart with Trouble Code.>
B19F1	Open in Front P/T 2 RH	• Lap seat belt pretensioner RH circuit is open. • Lap seat belt pretensioner RH is faulty. • Lap seat belt pretensioner harness RH is open. • Airbag control module is faulty.	<Ref. to AB(diag)-185, DTC B19F1 OPEN IN FRONT P/T 2 RH, Diagnostic Chart with Trouble Code.>
B19F2	Short in Front P/T 2 RH (To Ground)	• Lap seat belt pretensioner RH circuit is shorted to ground. • Lap seat belt pretensioner RH is faulty. • Lap seat belt pretensioner harness RH is shorted to ground. • Airbag control module is faulty.	<Ref. to AB(diag)-187, DTC B19F2 SHORT IN FRONT P/T 2 RH (TO GROUND), Diagnostic Chart with Trouble Code.>
B19F3	Short in Front P/T 2 RH (To +B)	• Lap seat belt pretensioner RH circuit is shorted to power supply. • Lap seat belt pretensioner RH is faulty. • Lap seat belt pretensioner harness RH is shorted to power supply. • Airbag control module is faulty.	<Ref. to AB(diag)-189, DTC B19F3 SHORT IN FRONT P/T 2 RH (TO +B), Diagnostic Chart with Trouble Code.>

15.Rear Gate Latch and Actuator Assembly

A: REMOVAL

NOTE:
For models with power rear gate, refer to “Power Rear Gate Auto Closer”. <Ref. to PRG-17, REMOVAL, Power Rear Gate Auto Closer.>
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate. <Ref. to EI-122, REMOVAL, Rear Gate Trim.>
3) Remove the latch and actuator - rear gate.
   (1) Disconnect the connector.
   (2) Remove the bolts, and remove the latch and actuator - rear gate.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Refer to “COMPONENT” of “General Description”. <Ref. to SL-3, REAR GATE LOCK, COMPONENT, General Description.>

C: INSPECTION

1. LATCH

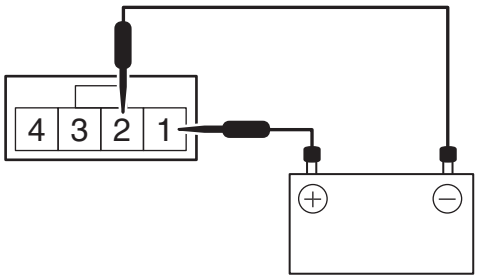
Check if the latch operates normally.
If latch deformation, abnormal wear, or unsmooth lock operation is observed, replace the latch and actuator - rear gate.

2. ACTUATOR

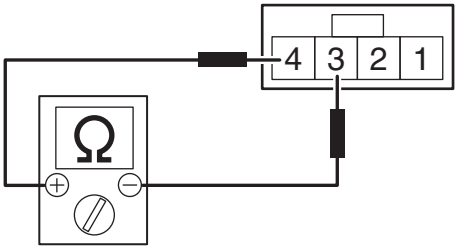
UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check door lock operation
Check the door lock operation when battery voltage is applied between the terminals of actuator.

Terminal No.	Inspection conditions	Specification	Connection diagram
1 (+) — 2 (–)	Connect battery to the terminals	OPEN	 SL-01477

2) Check switch
Check the resistance between actuator terminals.

Terminal No.	Inspection conditions	Specification	Connection diagram
3 — 4	OPEN	Less than 1.5 Ω	 SL-01478
	CLOSE	1 MΩ or more	

3) If it does not operate properly as a result of inspection, replace the latch and actuator - rear gate.

15.Rear Window Defogger System

A: WIRING DIAGRAM

Refer to “Rear Defogger System” in the wiring diagram. <Ref. to WI-345, WIRING DIAGRAM, Rear Defogger System.>

B: INSPECTION

1. CHECK SYSTEM

Symptoms	Inspection order
Rear window defogger does not operate.	1. Check the fuse. 2. Check the rear defogger relay. 3. Check the rear window defogger switch. 4. Check the heat wire. 5. Check the wiring harness. 6. Check body integrated unit.

NOTE:
Rear window defogger system can be customized using the Subaru Select Monitor, when the customize setting {Auto A/C ECU Setting} of the body integrated unit is set to {support}.

System name	Initial setting	Customize setting
Rear defogger operation mode	OFF after 15 min.	Repeat 15 min. operation and 2 min. stop.

2. CHECK WITH SUBARU SELECT MONITOR

CAUTION:
Check whether the Rr Defogger op. mode setting is in initial setting or customize setting before performing inspection.

1) Check the input signal when the rear window defogger switch is operated using Subaru Select Monitor.
   (1) Prepare the Subaru Select Monitor. <Ref. to GW-6, PREPARATION TOOL, General Description.>
   (2) Turn the ignition switch to ON (engine OFF) and run the “PC application for Subaru Select Monitor”.
   (3) On «System Selection Menu» display, select {Integ. unit mode}.
   (4) Select {Auto A/C ECU Setting} from Current Data Display & Save.
   (5) Check the vehicle equipment and the settings of body integrated unit.
   • Model with manual A/C: Without auto A/C ECM setting
   • Model with auto A/C: With auto A/C ECM setting
   If correct, go to (6).
   If not correct, go to (8).
   (6) Select the {Rr Defogger output} on {Current Data Display & Save}.
   (7) Check the displayed data (ON/OFF) by operating the rear window defogger switch.
   (8) On the system selection menu display, select the body integrated unit mode. Select customize from work support, then select {Auto A/C ECU Setting}. Match the auto A/C ECM setting to the actual vehicle equipment.
2) Check the operation with rear window defogger switch ON.
• When customize setting is set as “Continuous”, it is normal if the 15-minute operation and 2-minute stop repeats.
• When customize setting is “Normal”, it is normal if the operation lasts for 15 minutes and then turns OFF.
3) When the operation in 2) above fails, replace the body integrated unit.

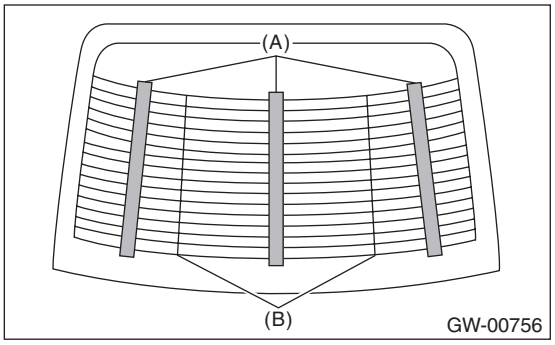
3. HEAT WIRE INSPECTION

CAUTION:
Use a dry soft cloth to wipe off dirt on the glass along the heat wires with care not to damage the heat wires.

1) Prepare the following checking items.
- Liquid crystal thermograph sheet (approximate Size: 300 × 300 mm (11.8 × 11.8 in) and thermal temperature: 35 — 40°C (95 — 104°F))
- Aluminum foil

2) Turn the ignition switch to ON.
3) Turn the defogger switch to ON.
4) Push the liquid crystal thermograph sheet from the outside of the glass - rear window.

NOTE:
Use the liquid crystal thermograph sheet every range it is separated with the separate line.



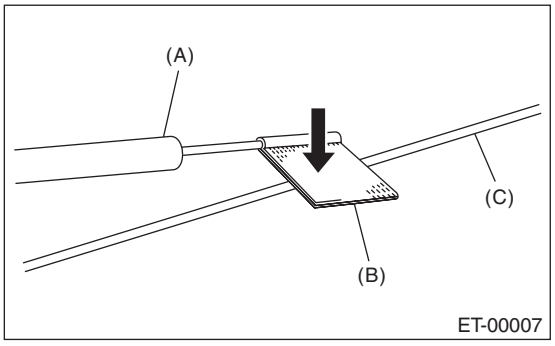
(A) Liquid crystal thermograph sheet
(B) Separate line

5) Determine the faulty heat wire by checking the color of the liquid crystal thermograph sheet.

Liquid crystal thermograph sheet	Criteria
Change occurred (red → blue)	Normal
No change (black)	Open

NOTE:
- Check from the inside of the glass - rear window if the liquid crystal thermograph sheet does not change.
- The time for the color change may differ depends on the surface temperature of the glass.

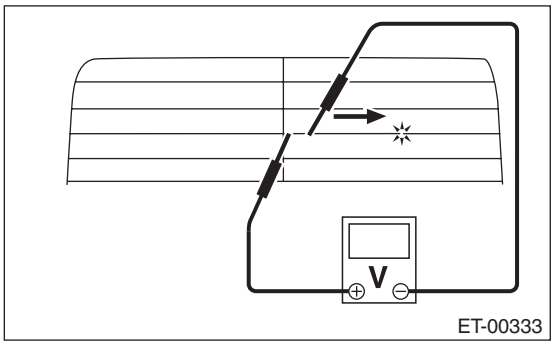
6) Wrap a piece of aluminum foil around the tip of tester probe and press it against the heat wire with your finger.



(A) Tester probe
(B) Aluminum foil
(C) Heat wire

7) To both ends of the section that has been found to include an open in the step 5), apply the tester positive (+) probe and the negative (–) probe.

8) Move the tester probe on the negative (–) side slowly along the heat wire. If voltage changes from zero while moving the tester probe, heat wire is open at the voltage change point.

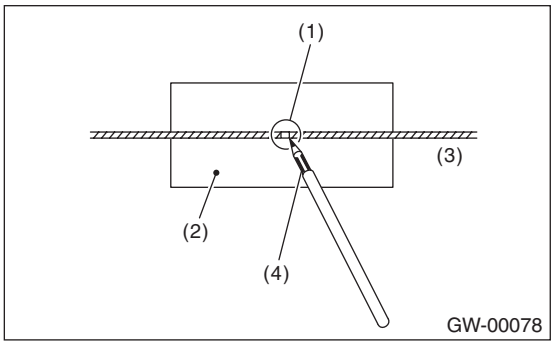


9) Repair the heat wire that determines the place of the open circuit.<Ref. to GW-50, REPAIR, Rear Window Defogger System.>

C: REPAIR

1) Clean the broken portion with alcohol or appropriate cleaning solvent.
2) Mask both side of wire with masking tape.
3) Apply the conductive silver composition to the broken portion.

Conductive silver composition:
By Permatex
QUICK GRID



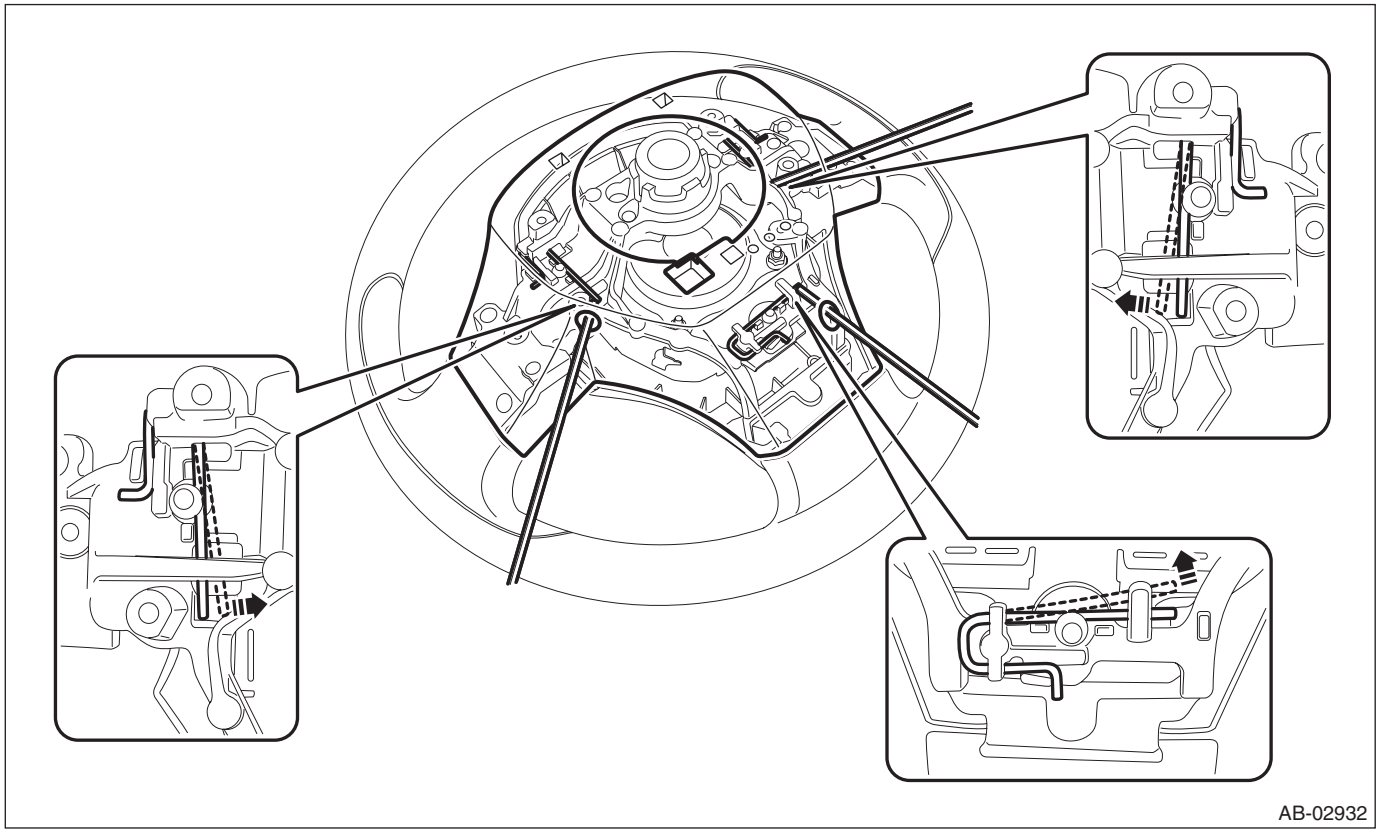
(1) Broken portion
(2) Masking tape
(3) Broken wire
(4) Conductive silver composition

4) Dry using a dryer after applying the composition.
5) After repair, check the wire.

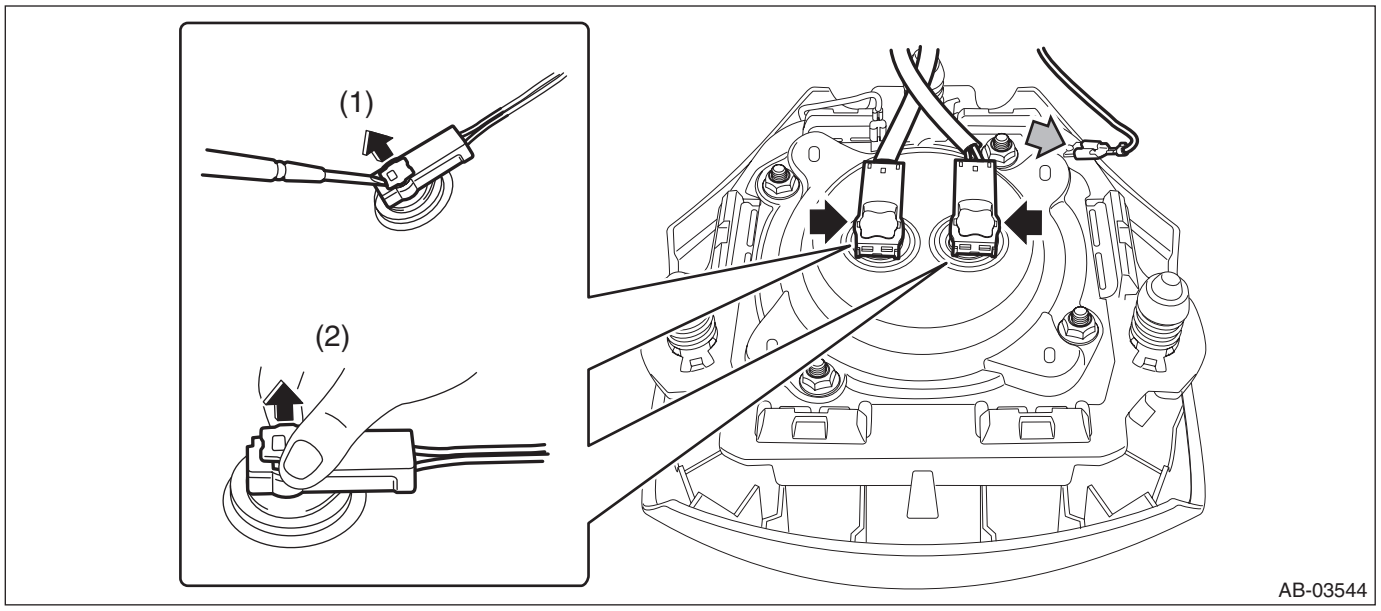
15.Roll Connector

A: REMOVAL

1) Position the front wheels straight ahead. (After moving a vehicle 5 m (16 ft) or more with front wheels positioned straight ahead, make sure that the vehicle moves straight ahead.)
2) Turn the ignition switch to OFF.
3) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
4) Remove the driver's airbag module.
   (1) Using a hexagon wrench etc. wrapped by protective tape, insert the snap pins and release the locks (3 locations).



(2) Disconnect the horn harness and airbag connector, and remove the driver's airbag module.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>

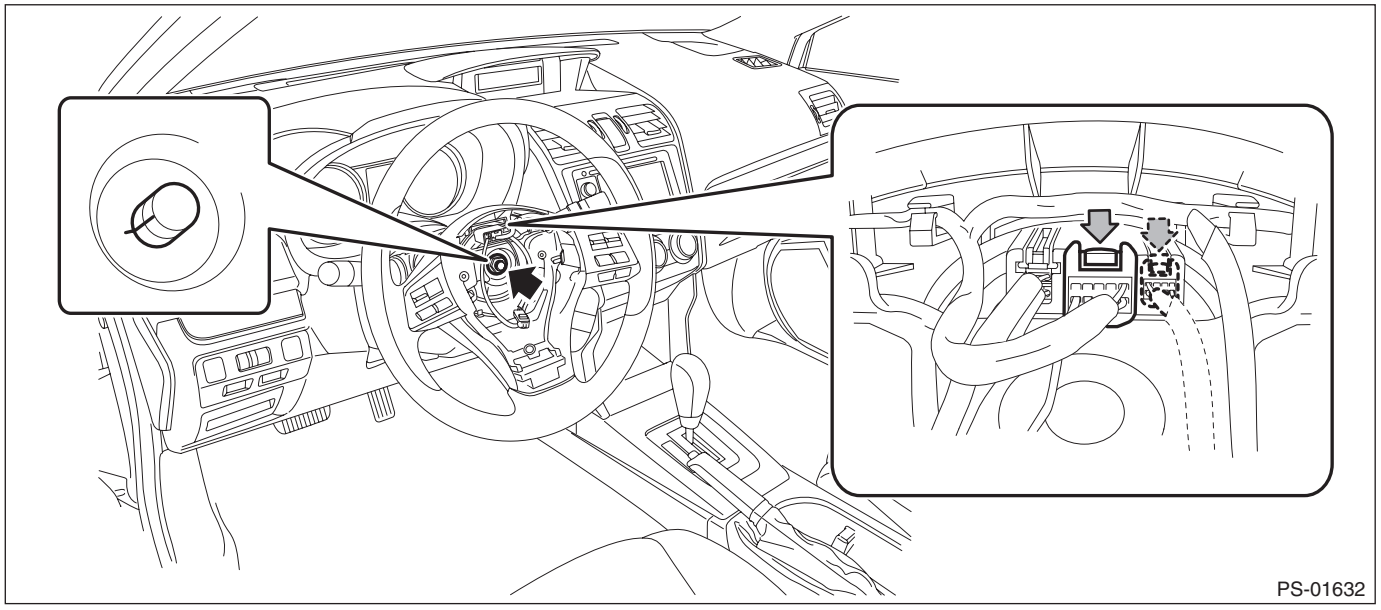


5) Remove the steering wheel.

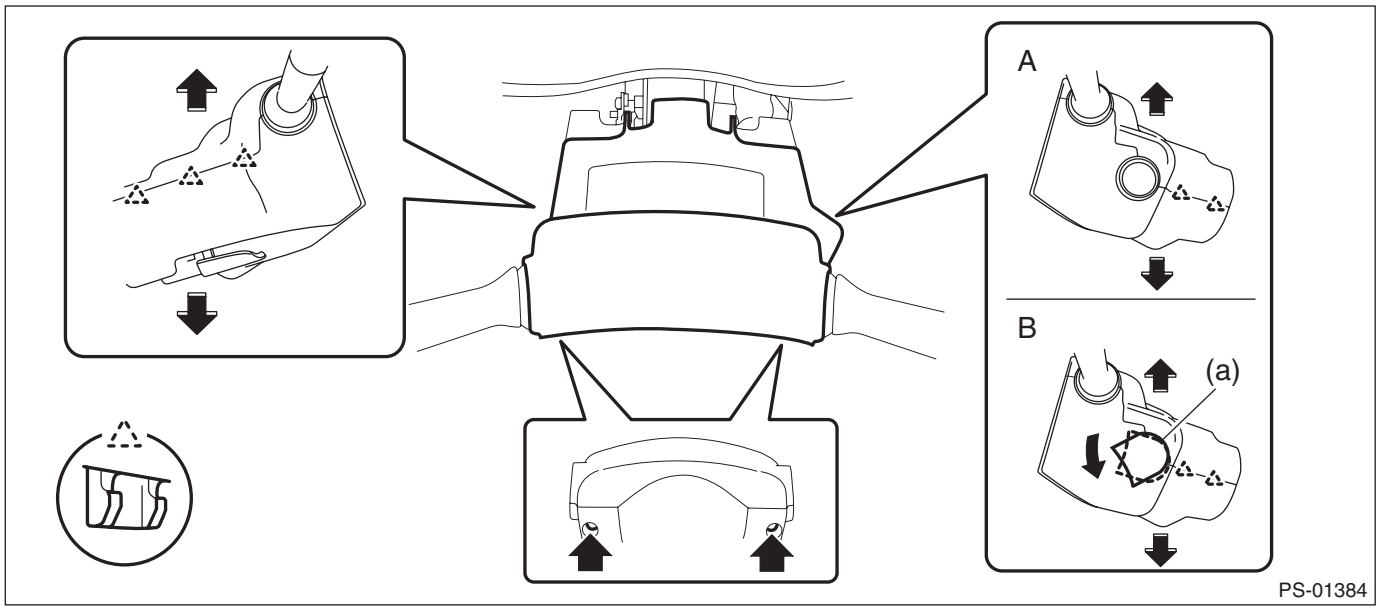
CAUTION:
- **Always use the steering wheel puller for removal to avoid deforming the steering wheel.**
- **If the steering wheel has been removed, make sure that the roll connector is not turned from the original position.**

(1) Disconnect the connector and remove the nut.
(2) Put alignment marks and remove the steering wheel.

Preparation tool:
Steering wheel puller



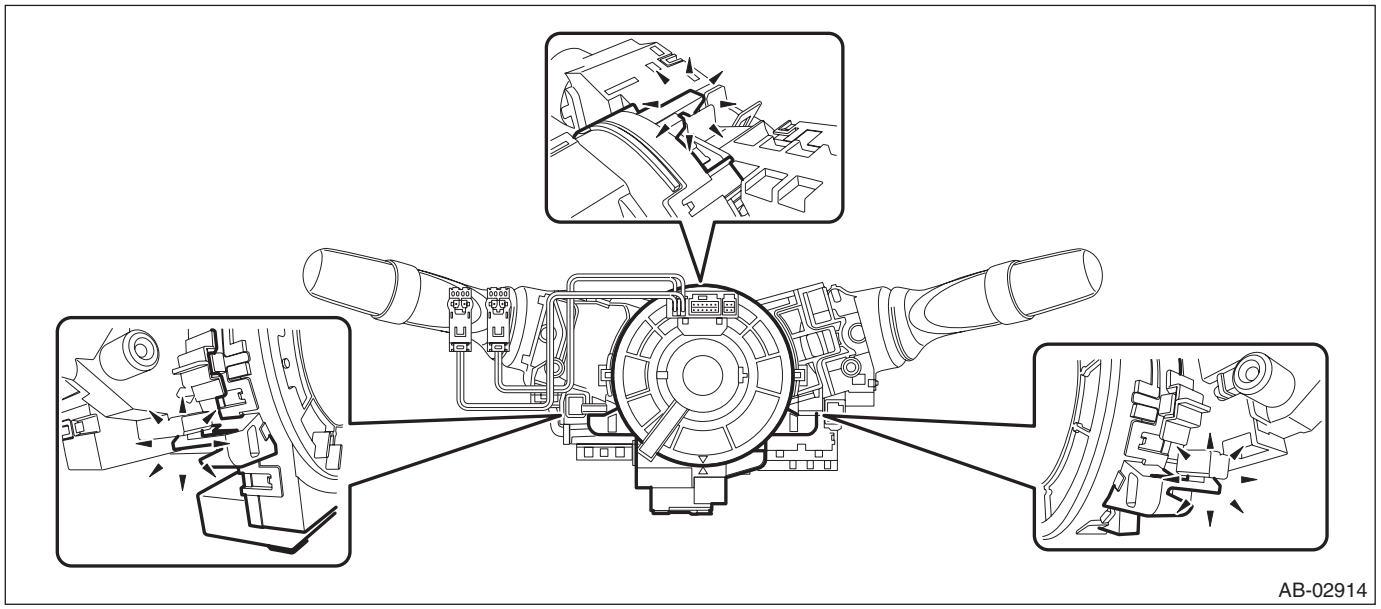
6) Remove the cover assembly - column.
(1) Remove the screws.
(2) Remove the cap - key cylinder (a). (Model with keyless access)
(3) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.



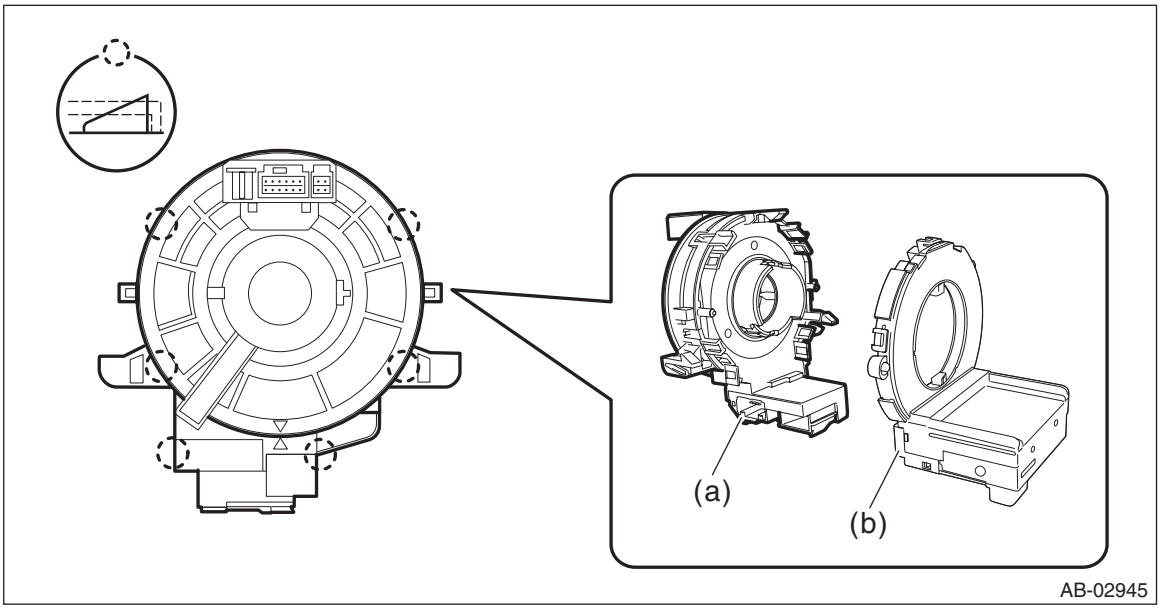
A Model without keyless access B Model with keyless access

7) Remove the roll connector.

CAUTION:
Make sure that the roll connector is not turned from the original position.
(1) Disconnect the connector under the roll connector.
(2) Release the claws and remove the roll connector.



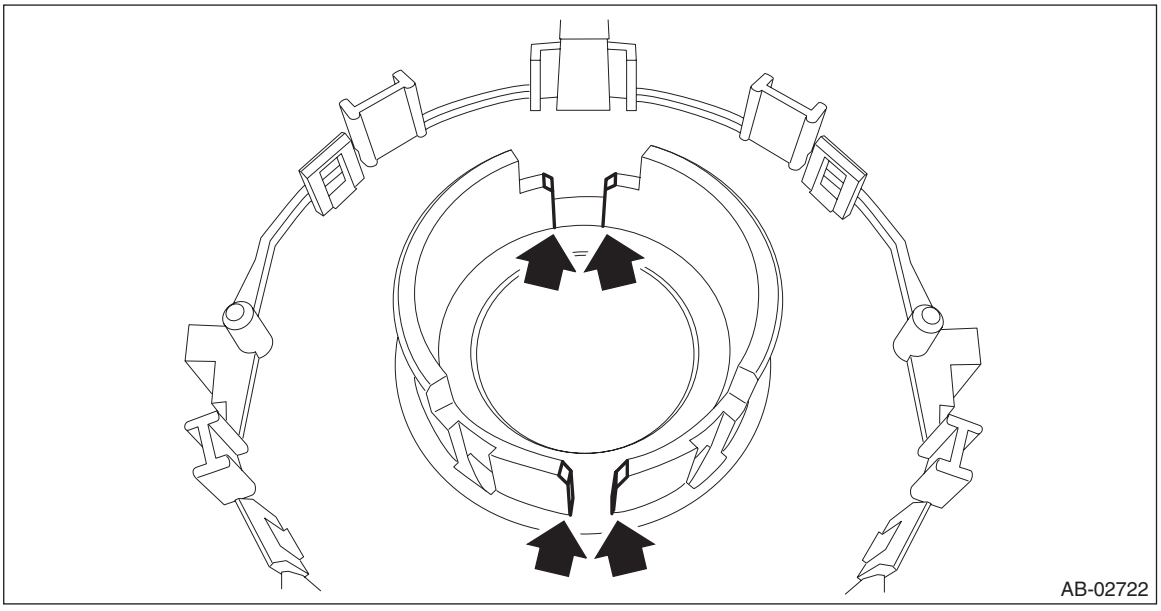
(3) Release the claws and separate the roll connector (a) and steering angle sensor (b).



B: INSTALLATION

CAUTION:
If the steering wheel and steering angle sensor are removed, perform "VDC sensor midpoint setting mode" of the VDC. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

1) Before attaching a new roll connector, apply a thin coat of grease contained in the connector onto the areas shown by the arrows.



2) Install each part in the reverse order of removal.
3) Before installing steering wheel, be sure to adjust the direction of roll connector with steering. <Ref. to AB-107, ADJUSTMENT, Roll Connector.>

Tightening torque:
Steering wheel: 39 N·m (3.98 kgf-m, 28.8 ft-lb)

Clearance:
Cover assembly - column to Steering wheel: 4 — 6 mm (0.16 — 0.24 in)

C: INSPECTION

1. VISUAL INSPECTION

Check for the following, and replace the damaged parts with new parts.
- Combination switch is cracked or deformed.
- Roll connector is cracked or deformed.

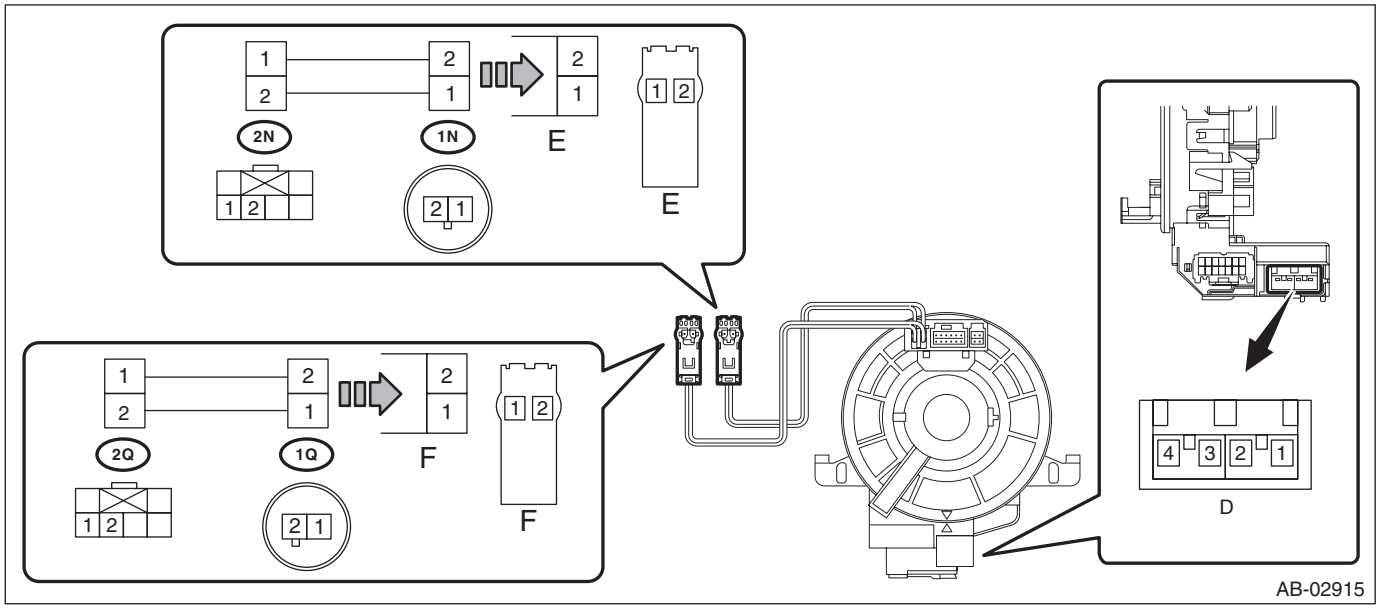
2. UNIT INSPECTION OF ROLL CONNECTOR

CAUTION:
• Do not rotate the roll connector to more than the specified number of turns. Otherwise, the roll connector internal wire may be broken.
• When determining the end stop, rotate the connector slowly without applying excessive force. Applying excessive force at the end stop may break the internal wire.
1) Adjust the roll connector. <Ref. to AB-107, ADJUSTMENT, Roll Connector.>
2) Set the roll connector to the central position.
3) Connect the test harness to the connector E and connector F.

Preparation tool:
Test harness N (98299SA000)
Test harness Q (98299SA040)
- Connector E - Test harness N (1N)
- Connector F - Test harness Q (1Q)

4) With the following conditions, check the resistance between the test harness connector terminals.
- Perform the check with the roll connector centered (front wheels direct straightforward).
- Rotate the roll connector counterclockwise from the center (front wheels direct straightforward) to an end stop. Then, perform the check while rotating it clockwise to approximately 4.5 turns.

Preparation tool:
Circuit tester



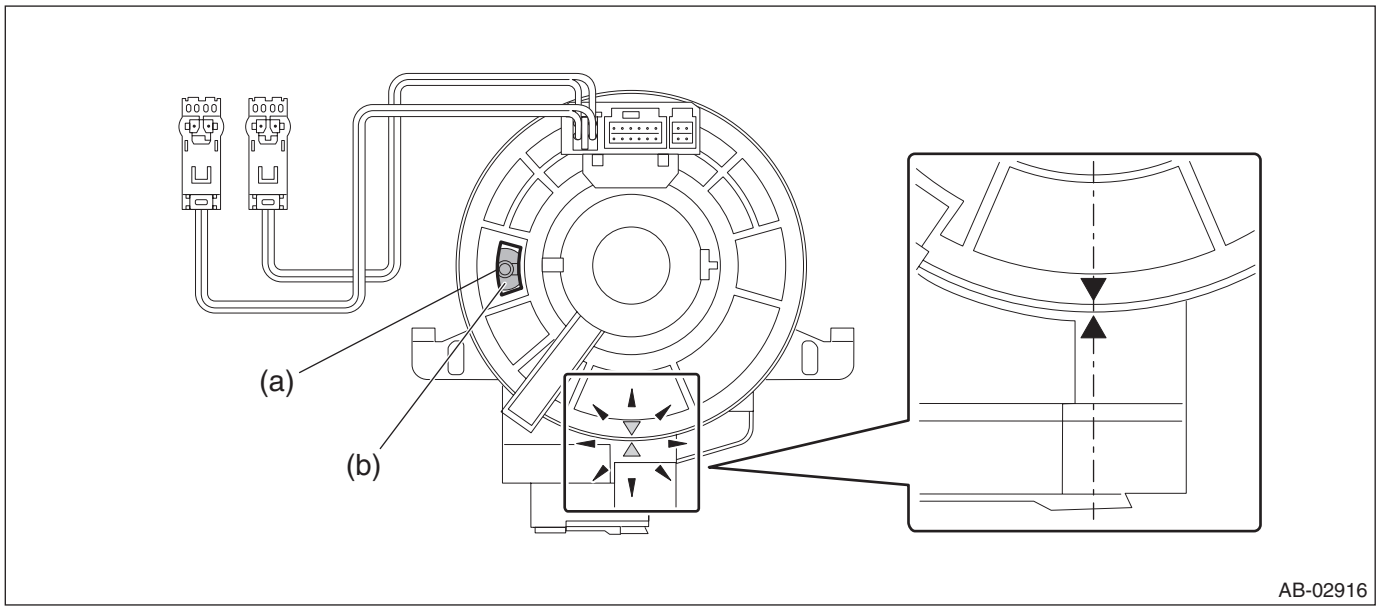
Terminal No.	Inspection conditions	Standard
(2N) No. 1 — (2N) No. 2	Always	Less than 1 Ω
(2Q) No. 1 — (2Q) No. 2	Always	Less than 1 Ω

NOTE:
The connector D is designed to short the terminals D1/D2 and D3/D4 when disconnected.
5) Replace the roll connector with a new part if the inspection result is not within the standard.

D: ADJUSTMENT

CAUTION:
• Do not rotate the roll connector to more than the specified number of turns. Otherwise, the roll connector internal wire may be broken.
• When determining the end stop, rotate the connector slowly without applying excessive force. Applying excessive force at the end stop may break the internal wire.
1) Check that front wheels are positioned in straight ahead direction.
2) Rotate the roll connector counterclockwise until it stops.
3) Rotate the roll connector clockwise approx. 2.5 turns until "▲" marks are aligned.

NOTE:
When the roll connector comes to the center position, the orange roller (b) can be seen from the sight glass (a).



15.Turn Signal Light & Hazard Light Unit

A: NOTE

Refer to the “LIGHTING SYSTEM” section for turn signal and hazard unit. <Ref. to LI-41, Turn Signal Light & Hazard Light Unit.>

16.Airbag Module Disposal (Deployment Processing on Vehicle)

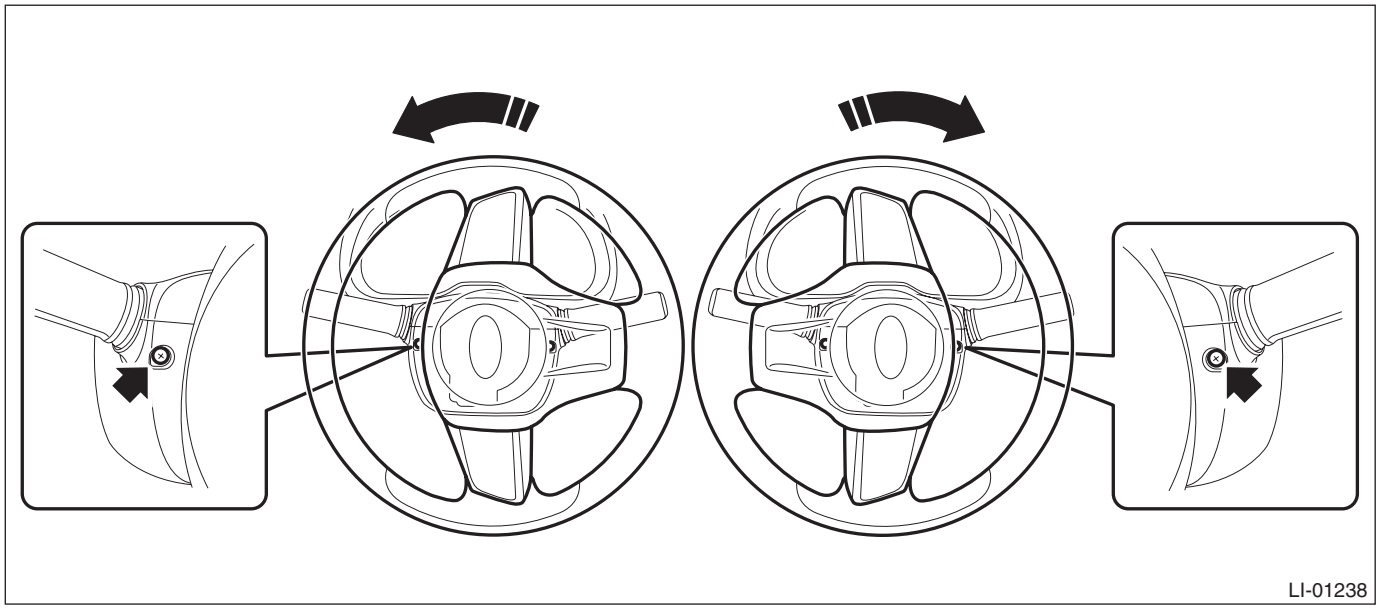
A: PROCEDURE

WARNING:
Make sure to follow the instructions below. Otherwise, personal injuries may occur.
• Before discarding an airbag module, always perform an operation process to prevent any false activation.
• Wear protective gloves, safety goggles and earplugs during this operation. Wash your hands afterwards.
• Do not touch the airbag module just after activation because it is very hot. Before handling it for disposal, wait for 40 minutes.

CAUTION:
• Airbag module operation process should be performed on a flat place in safety area. Do not perform the process outdoors when there is rain or strong wind.
• Activating an airbag module causes a high explosive noise, be sure to warn people in the area, and do not allow anyone within 5 m (16 ft) radius of the disposal site.
• After activating the airbag module, smoke may arise. Therefore, it must be activated in a well-ventilated place with no smoke detector nearby.
• Do not expose the activated airbag module to water.
• Wrap the activated airbag module in a sealed vinyl bag when discarding.
• If it is impossible to perform an airbag module operation process due to some situational reasons, consult SUBARU dealership or one of the authorized workshops.

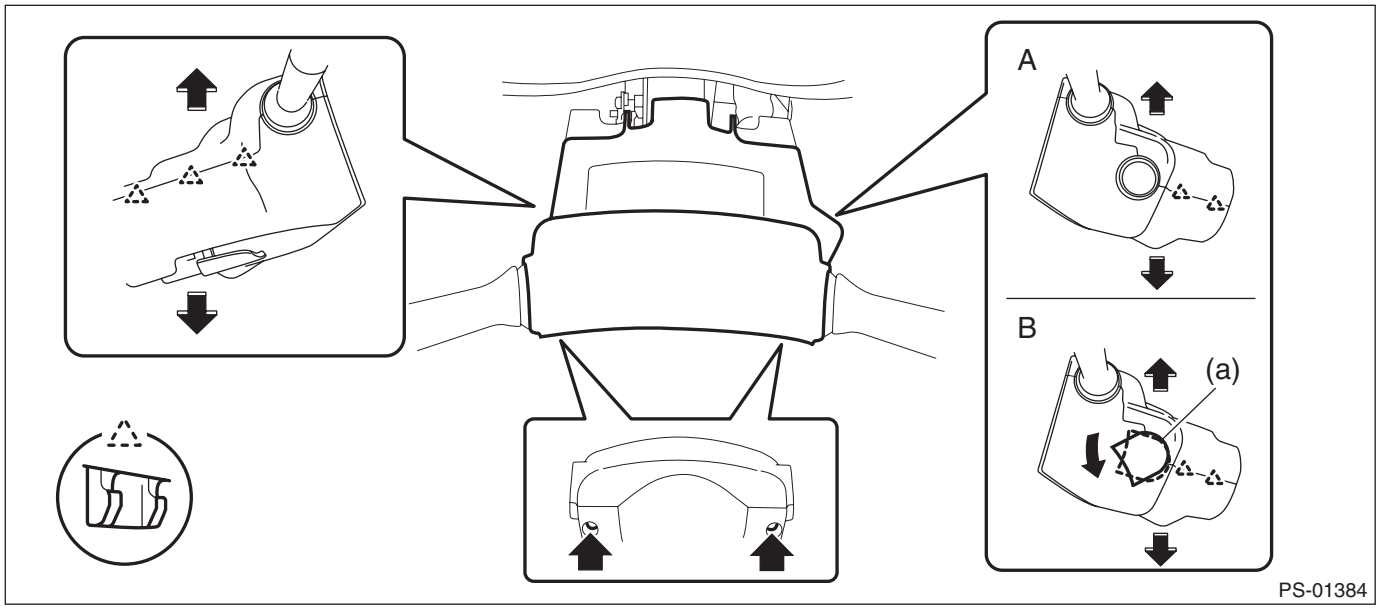
1. DRIVER'S AIRBAG MODULE

1) Remove the steering column cover.
(1) Remove the screws by turning the steering wheel to right and left.



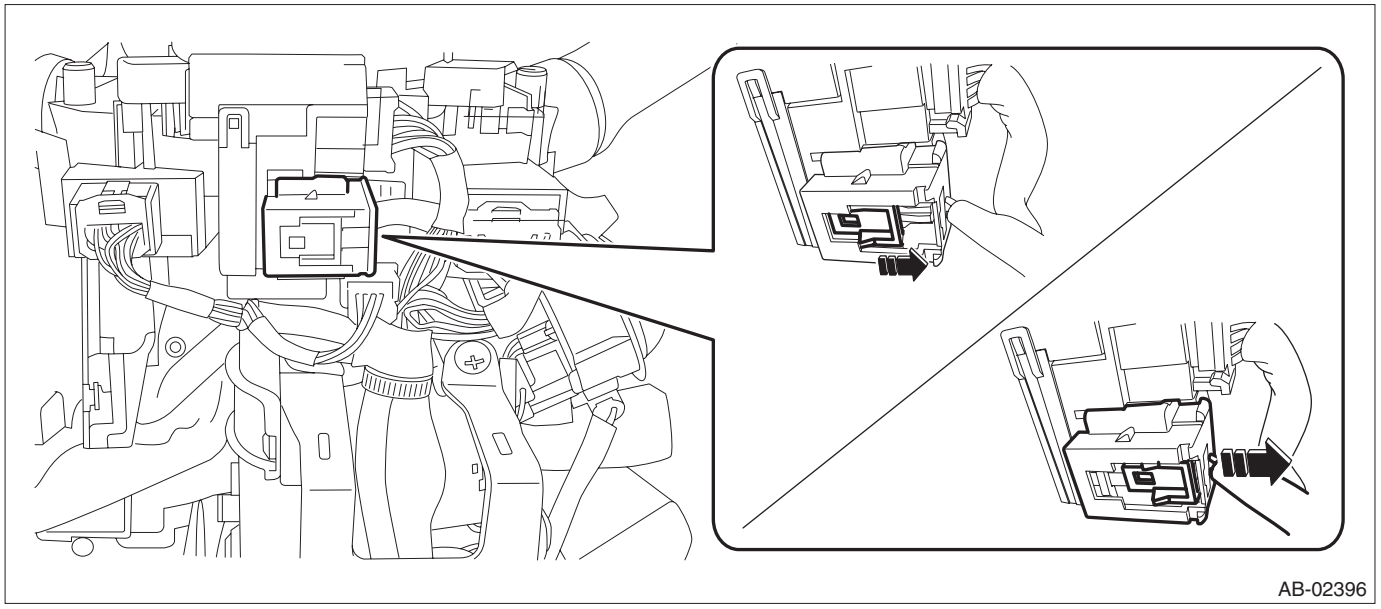
(2) Remove the cap - key cylinder (a). (Model with keyless access)

(3) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.



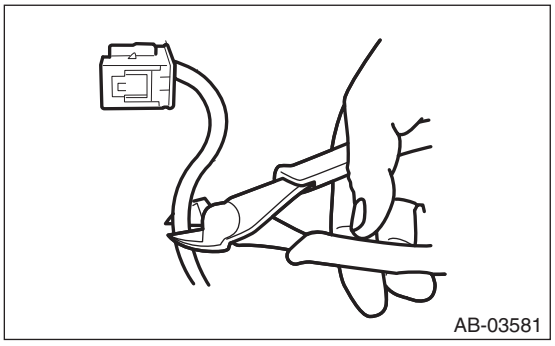
A Model without keyless access B Model with keyless access

2) Disconnect the driver's airbag module connector.



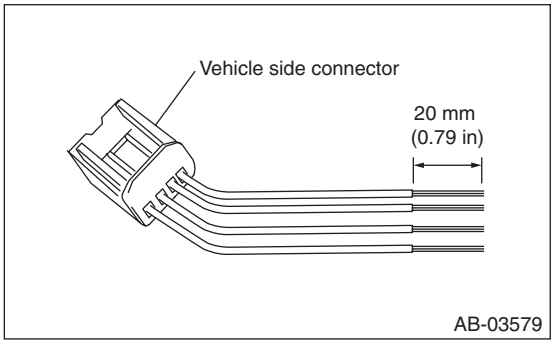
3) Cut off the harness on the body side of the removed connector approx. 70 mm (2.76 in) from the edge of the connector.

Preparation tool:
Nippers

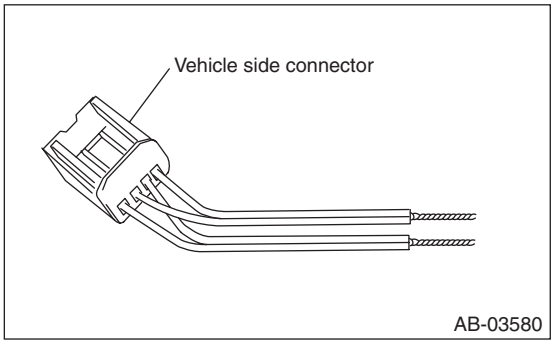


4) Peel off the shield approx. 20 mm (0.79 in) from the four harnesses of the removed body side connector.

Preparation tool:
Wire stripper

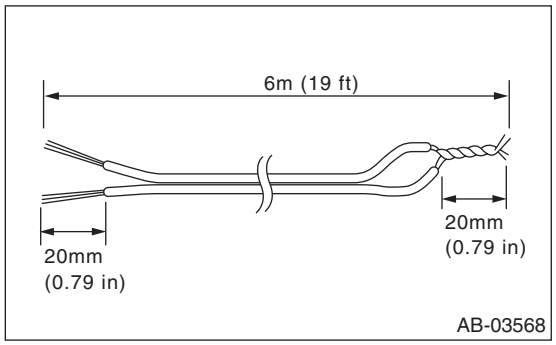


5) Twist the end of harness as shown in the figure.



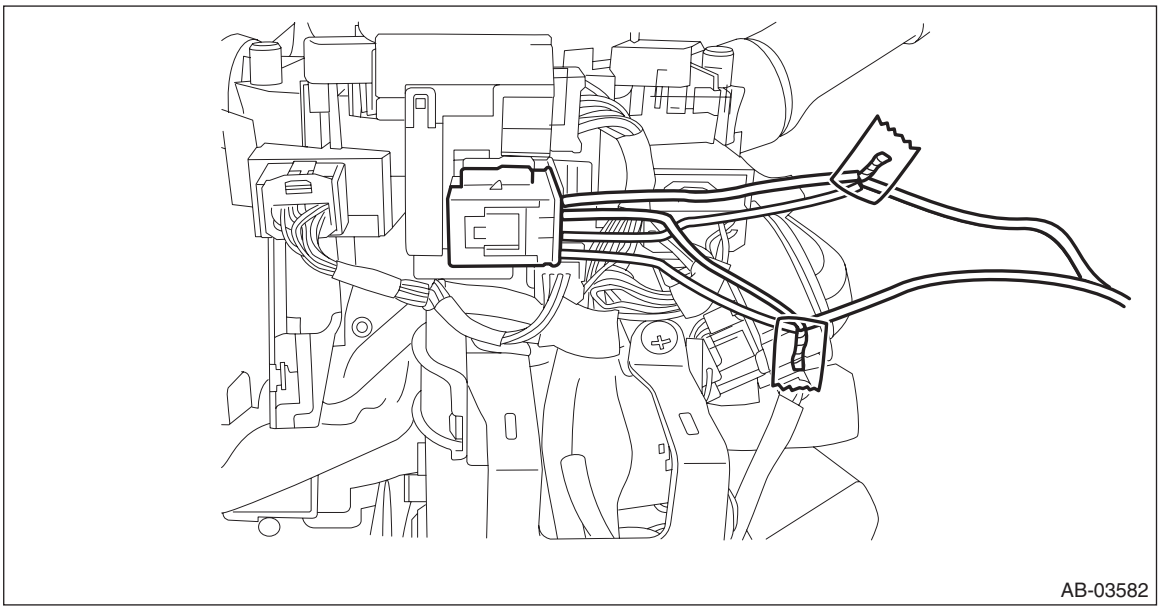
6) Prepare two vinyl-shielded parallel wires of 6 m (19 ft) long. Peel off the shield of both ends approx. 20 mm (0.79 in) and twist one end together into shorted condition.

7) The other end, not shorted, will be connected to harnesses of repaired body connector as shown in the figure, and insulated with vinyl tape.



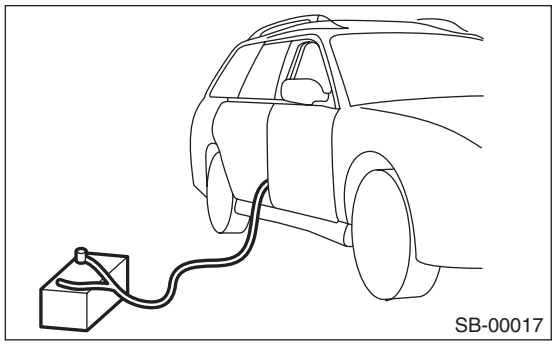
NOTE:
No concern about polarity.

8) After completing the connecting work, connect the body side connector to the connector of the airbag connector lower side again.



9) Bring the vinyl wire for operation out of the vehicle and make sure there is no person in the vehicle.

10) Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.

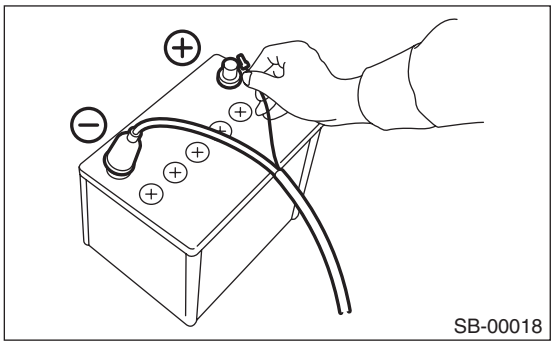


11) Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.

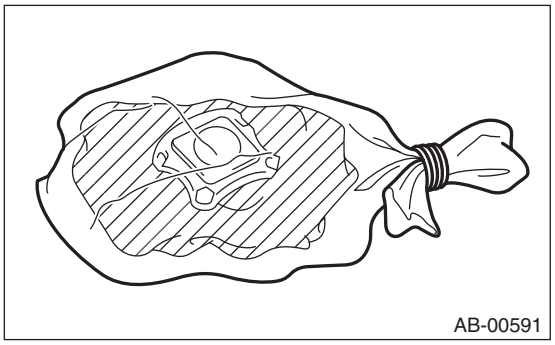
12) Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.

13) Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

CAUTION:
• After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
• Do not expose the activated airbag module to water.

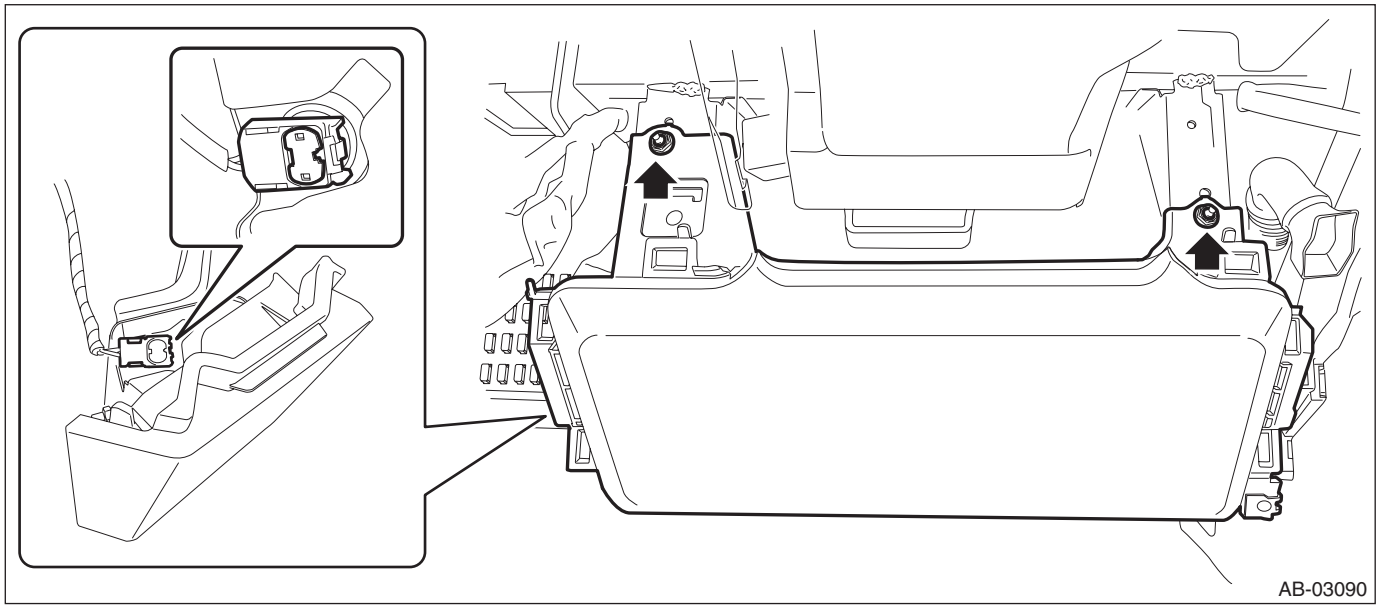


14) Remove the driver's airbag module.<Ref. to AB-39, REMOVAL, Driver's Airbag Module.>
15) Place the activated airbag module in a sealed vinyl bag, then discard.



2. KNEE AIRBAG MODULE

1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the cover assembly - instrument panel LWR driver.
4) Remove the nuts to remove the knee airbag module and disconnect the harness connector.<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



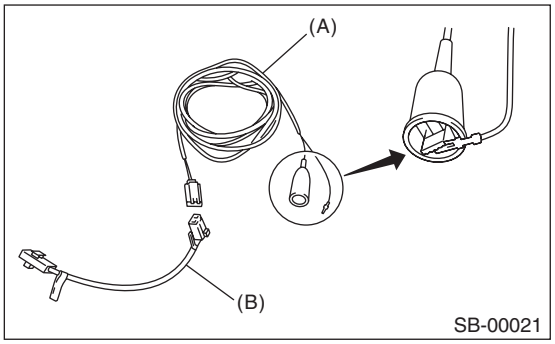
5) Short the terminal to the alligator clip furnished as airbag deployment tool.

CAUTION:
The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.

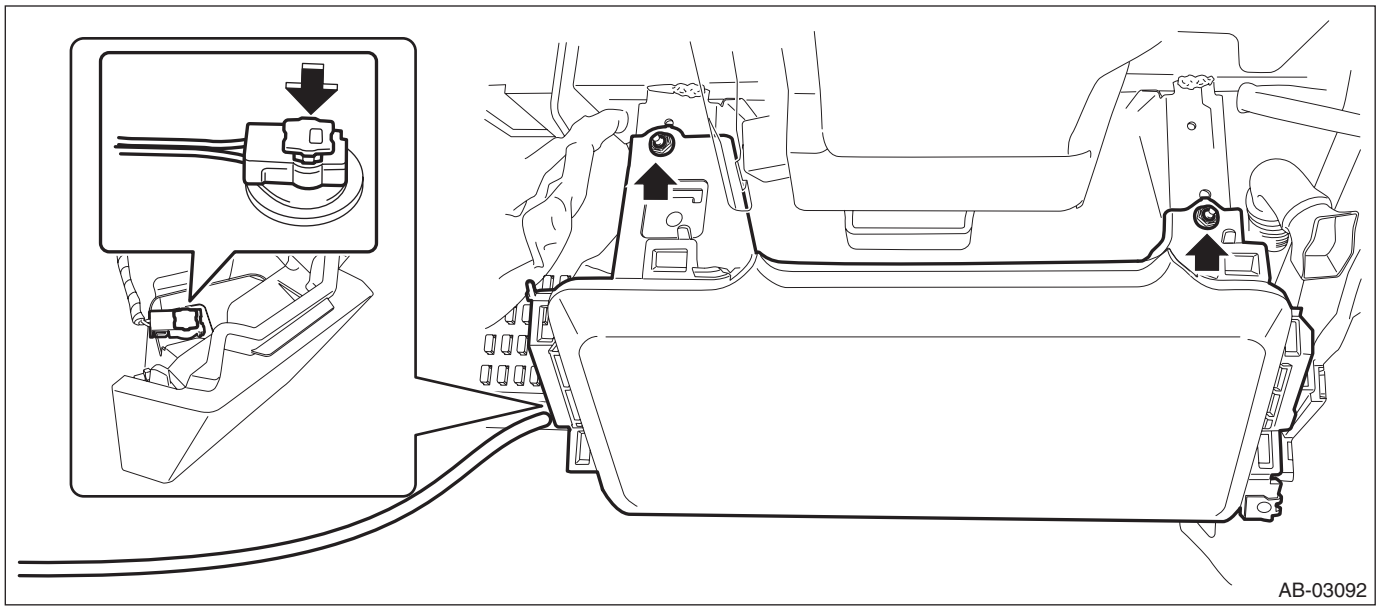
Preparation tool:
ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

6) Connect the airbag deployment tool (A) and test harness adapter D (B).

Preparation tool:
ST: TEST HARNESS ADAPTER D (98299SA010)

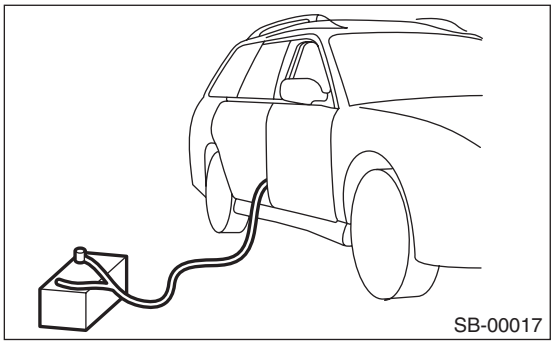


7) Connect the test harness adapter D to the knee airbag module and install the knee airbag module to the vehicle again.



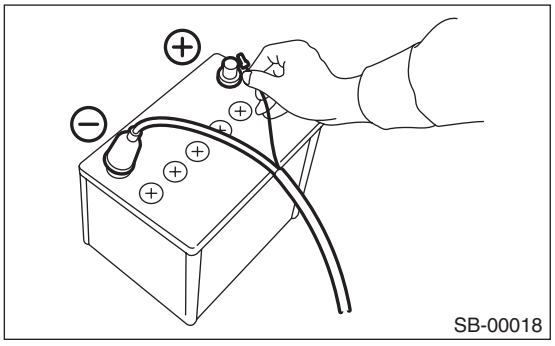
Tightening torque:
7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

8) Make sure there is no one inside the vehicle.
9) Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.

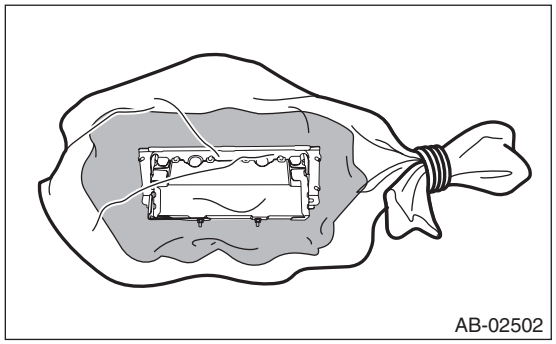


10) Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
11) Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
12) Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

CAUTION:
• After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
• Do not expose the activated airbag module to water.



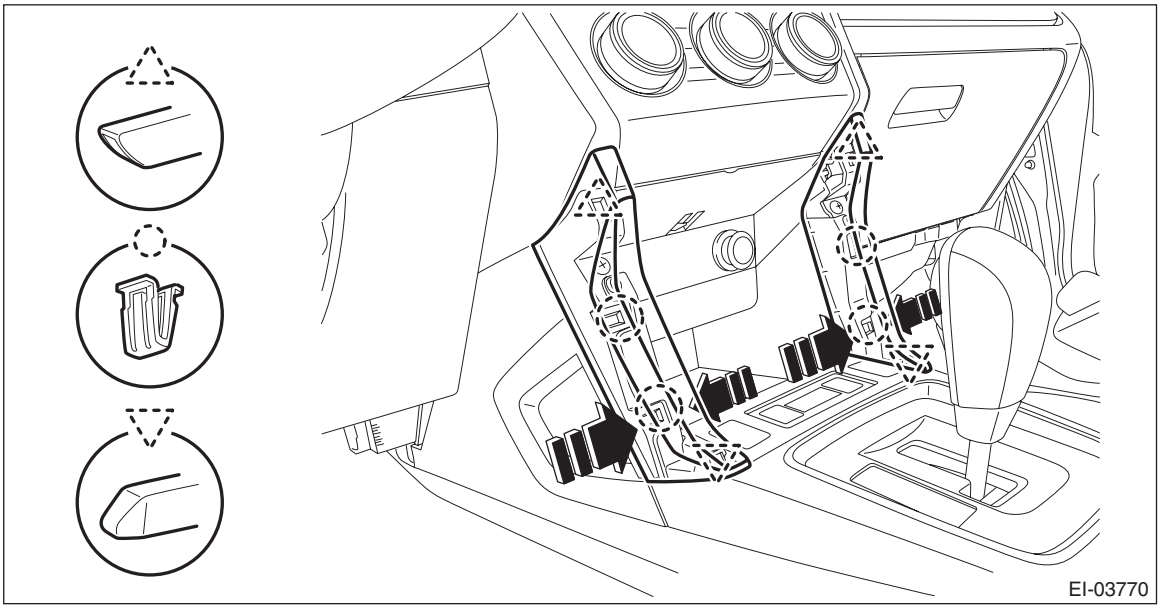
13) Remove the bolts and remove knee airbag module.
14) Place the activated airbag module in a sealed vinyl bag, then discard.



NOTE:
When necessary, fold the fabric part of airbag into three or four sections, rope and seal in a vinyl bag.

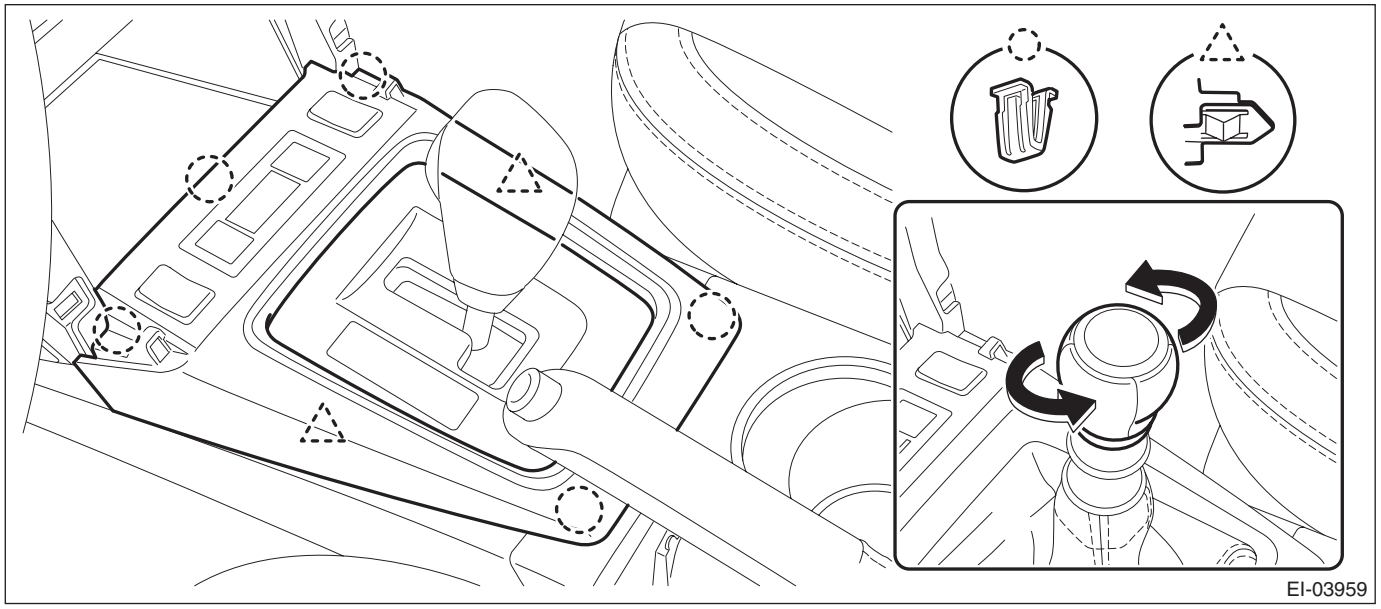
3. PASSENGER'S AIRBAG MODULE

1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Release the clips, and remove the ornament panel - console.

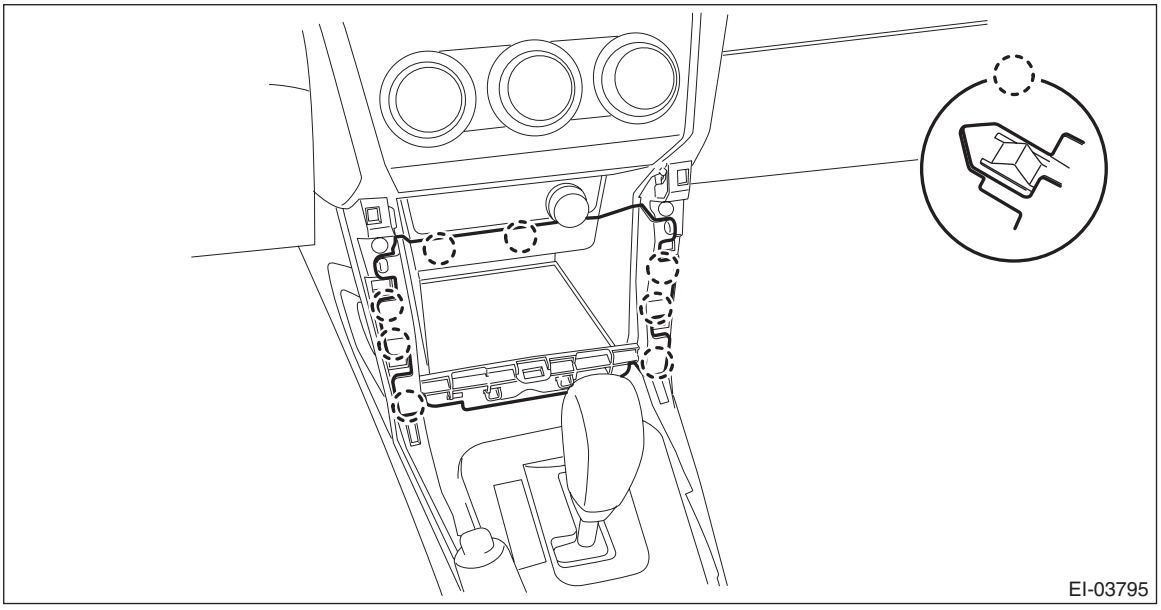


NOTE:
Removal is easier if you grab the arrow sections from right and left and pull them at the same time.

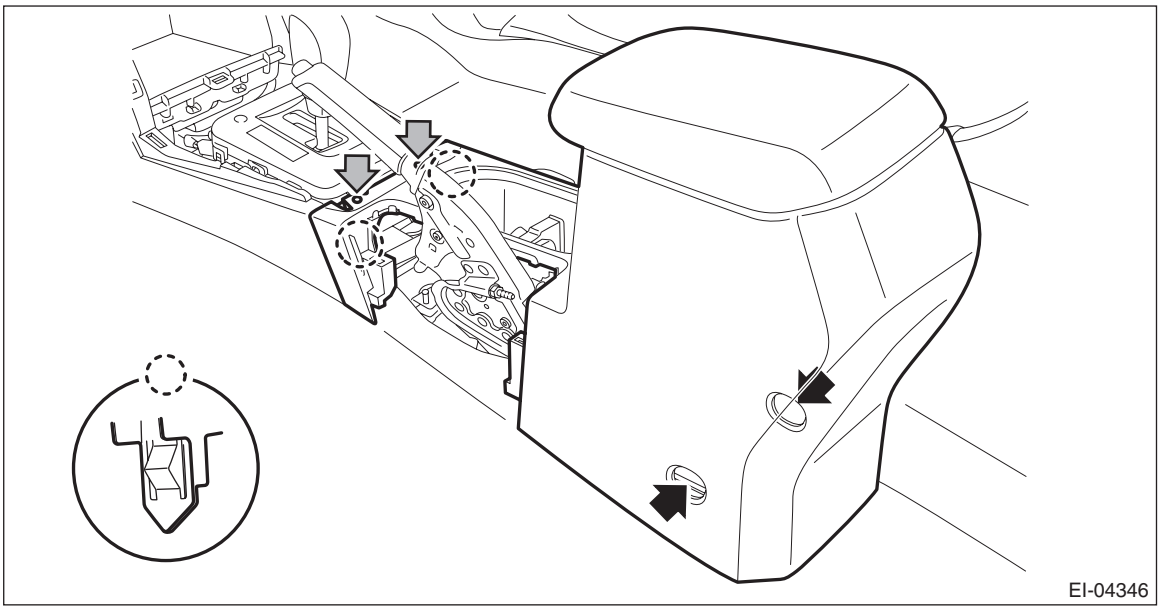
4) Remove the cover - shift lever.
   (1) Remove the shift knob. (MT model)
   (2) Release the clips and claws, then pull up the cover - shift lever.



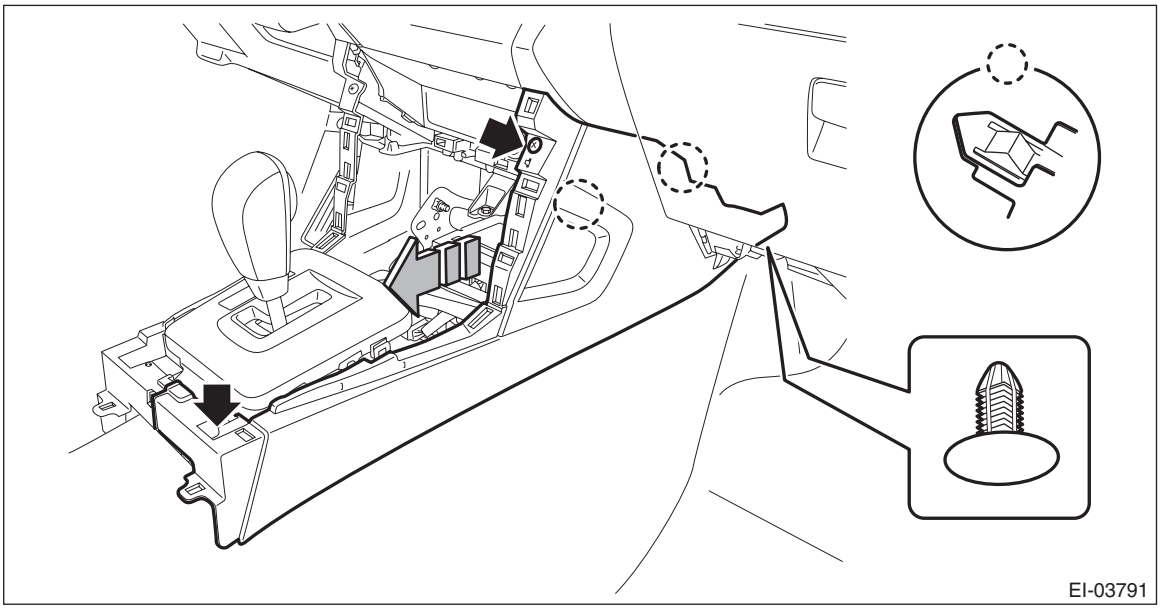
5) Release the claws, and remove the tray assembly - CTR LWR.



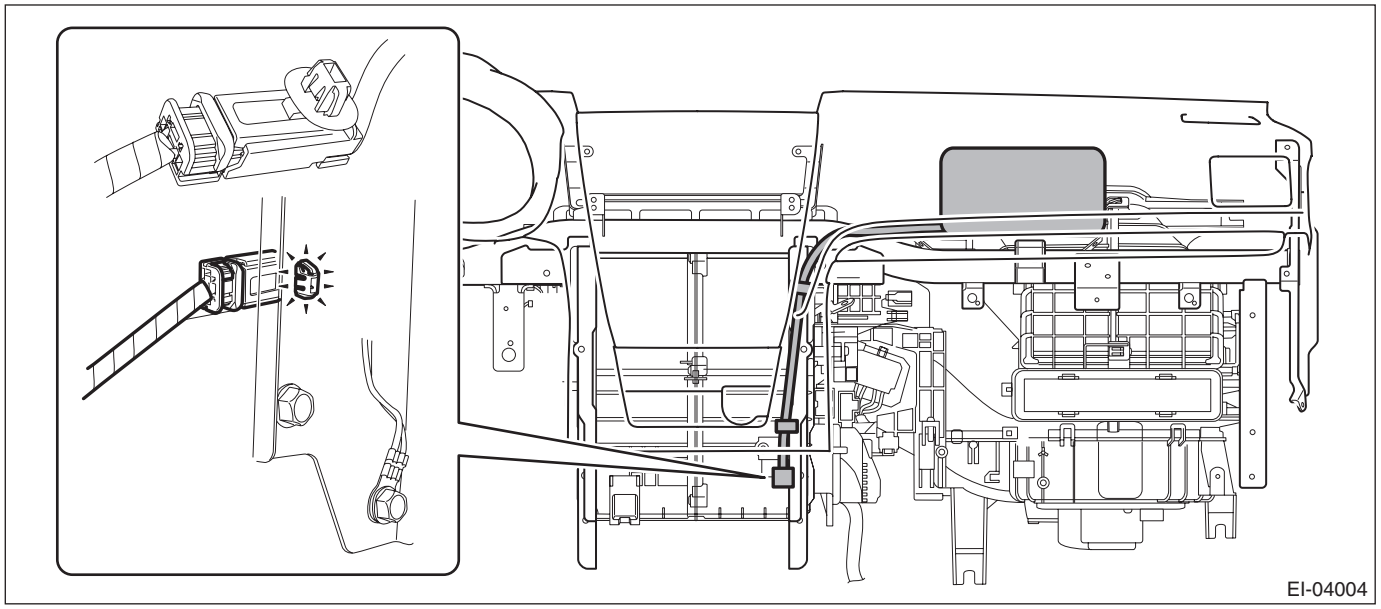
6) Remove the console box assembly.
(1) Move the seat forward, and remove the bolts after detaching the left and right caps.
(2) Remove the screws and clips, disconnect the harness connector and remove the console box assembly.



7) Remove the panel center LWR RH.
(1) Remove the screws and clips.
(2) Release the claws, and pull the panel center LWR RH to remove.



8) Disconnect the passenger's airbag module connector.



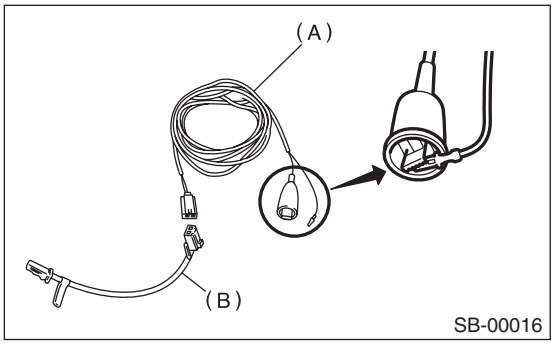
9) Short the terminal to the alligator clip furnished as airbag deployment tool.

CAUTION:
The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.

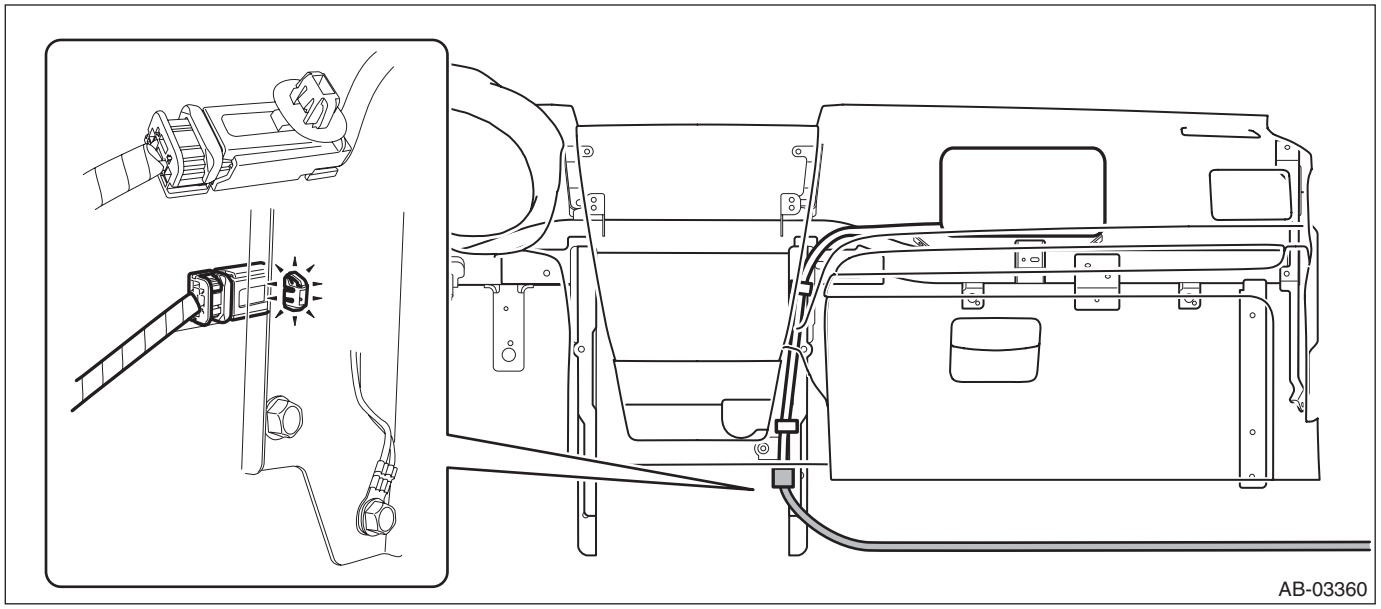
Preparation tool:
ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

10) Connect airbag deployment tool (A) and test harness adapter AM (B).

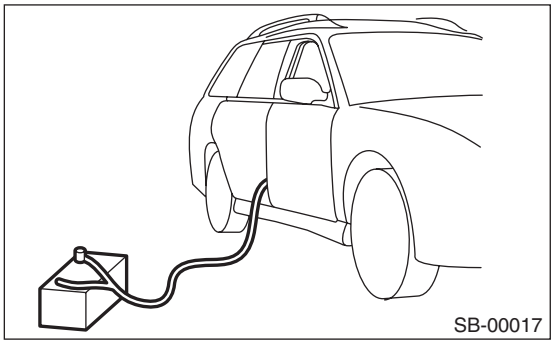
Preparation tool:
ST: TEST HARNESS ADAPTER AM (98299FJ000)



11) Connect test harness adapter AM to airbag connector.

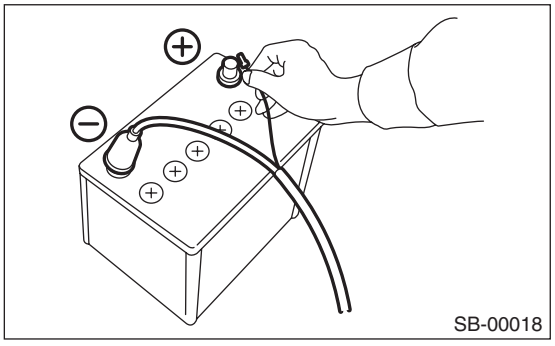


12) Make sure there is no one inside the vehicle.
13) Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.

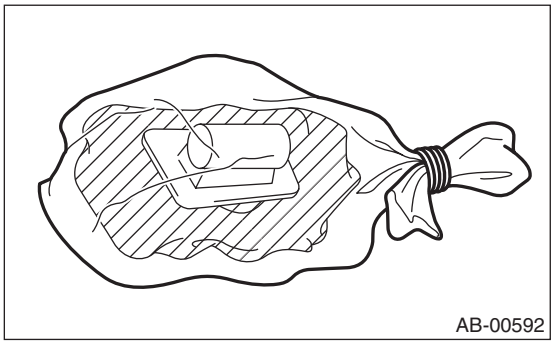


14) Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
15) Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
16) Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

CAUTION:
• After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
• Do not expose the activated airbag module to water.



17) Remove the passenger's airbag module.<Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>
18) Place the activated airbag module in a sealed vinyl bag, then discard.



4. SIDE AIRBAG MODULE

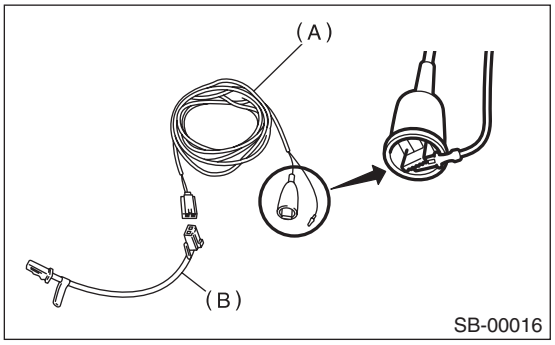
1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Disconnect the side airbag module connector under the front seat cushion.<Ref. to AB-27, SIDE AIRBAG MODULE, PROCEDURE, Airbag Connector.>
4) Adjust both the front seat and front seat backrest to the center positions.
5) Short the terminal to the alligator clip furnished as airbag deployment tool.

CAUTION:
The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.

Preparation tool:
ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

6) Connect the airbag deployment tool (A) and test harness adapter K (B).

Preparation tool:
ST: TEST HARNESS ADAPTER K (98299FG010)

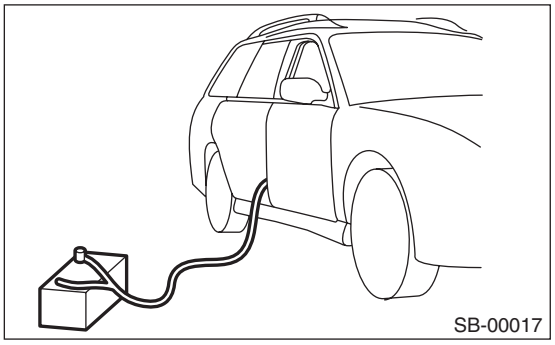


7) Connect the test harness adapter K to side airbag module connector (yellow).

CAUTION:
Do not place any object on front seat.

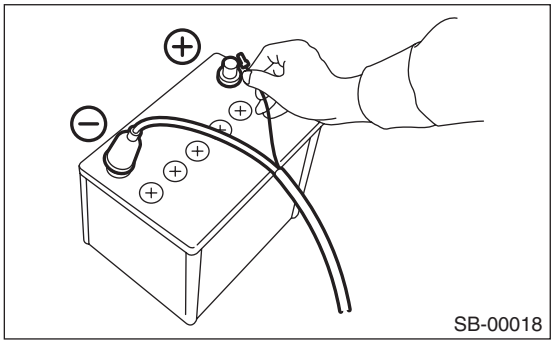
8) Make sure there is no one inside the vehicle.

9) Extend the wiring of the airbag deployment tool to its limit, and completely close all windows and rear gate.

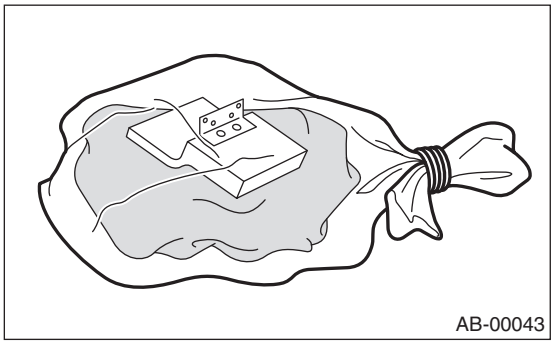

SB-00017

10) Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
11) Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
12) Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

CAUTION:
• After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
• Do not expose the activated airbag module to water.

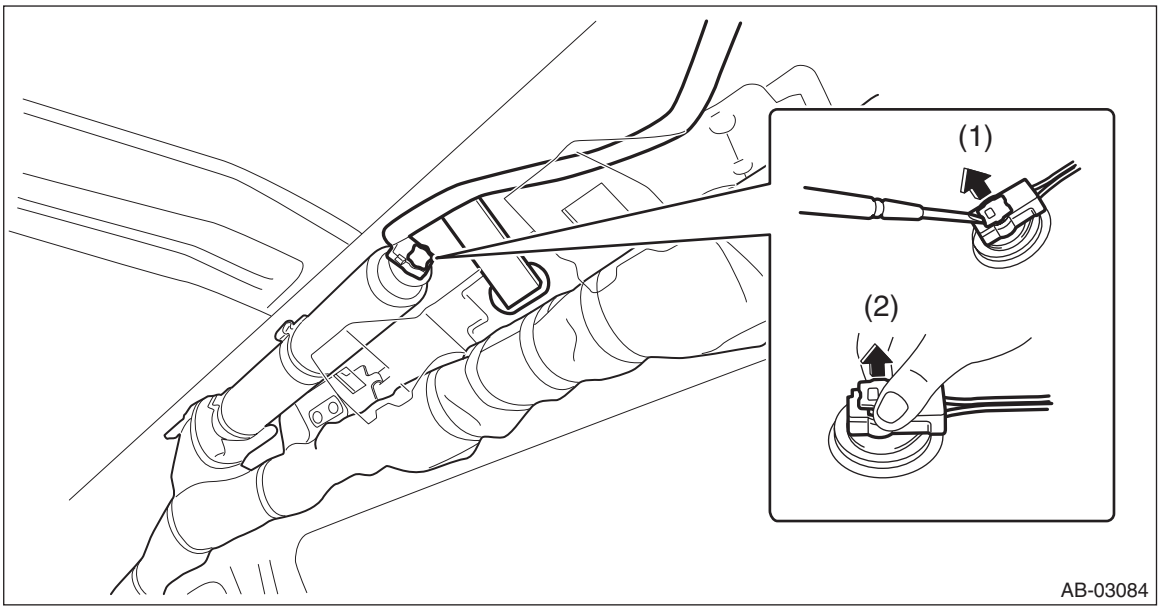

SB-00018

13) Remove the side airbag module.<Ref. to AB-65, REMOVAL, Side Airbag Module.>
14) Place the activated airbag module in a sealed vinyl bag, then discard.


AB-00043

5. CURTAIN AIRBAG MODULE

1) Turn the ignition switch to OFF.
2) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
3) Remove the roof trim.<Ref. to EI-109, REMOVAL, Roof Trim.>
4) Disconnect the curtain airbag harness.<Ref. to AB-19, PROCEDURE, Airbag Connector.>



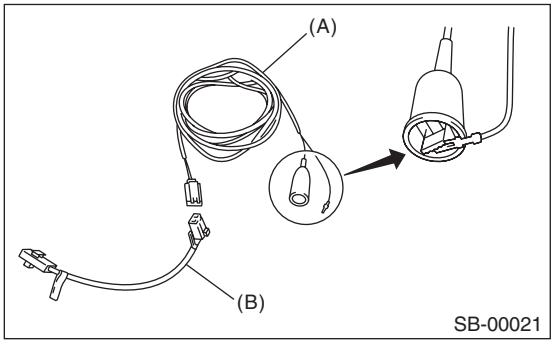
5) Short the terminal to the alligator clip furnished as airbag deployment tool.

CAUTION:
The airbag deployment tool should be kept shorted on the terminals until just before activation of airbag module.

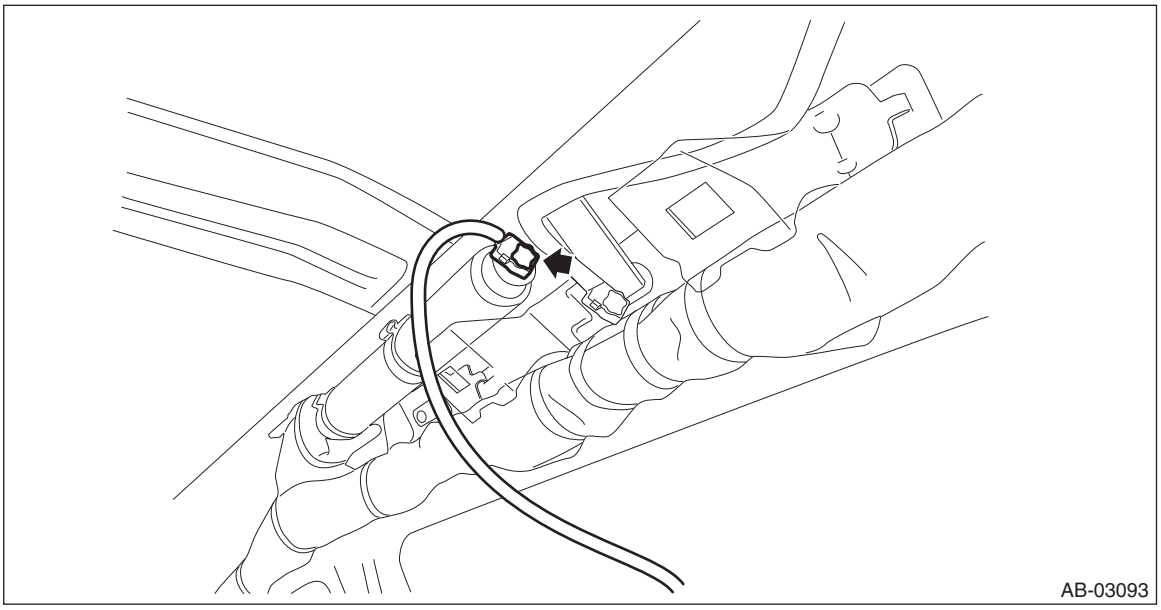
Preparation tool:
ST: AIRBAG DEPLOYMENT TOOL (98299PA030)

6) Connect the airbag deployment tool (A) and test harness adapter D (B).

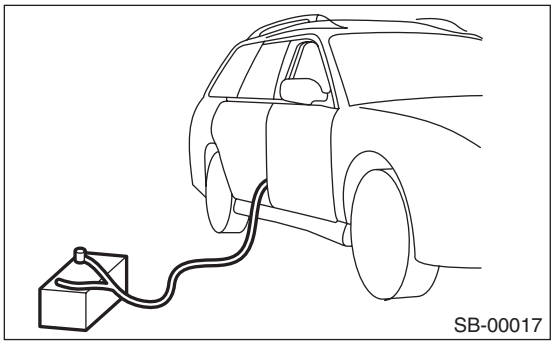
Preparation tool:
ST: TEST HARNESS ADAPTER D (98299SA010)



7) Connect the test harness adapter D to the curtain airbag module.

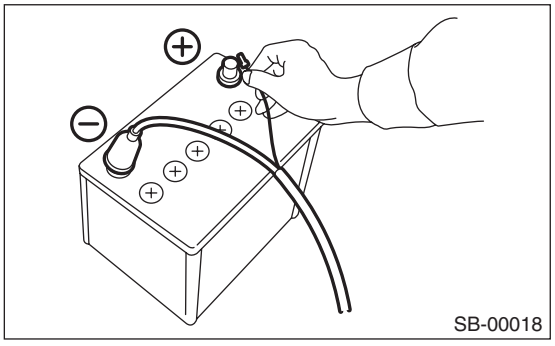


8) Make sure there is no one inside the vehicle.
9) Extend the wiring of airbag deployment tool to the limit, and close all the windows, sunroof and rear gate completely.

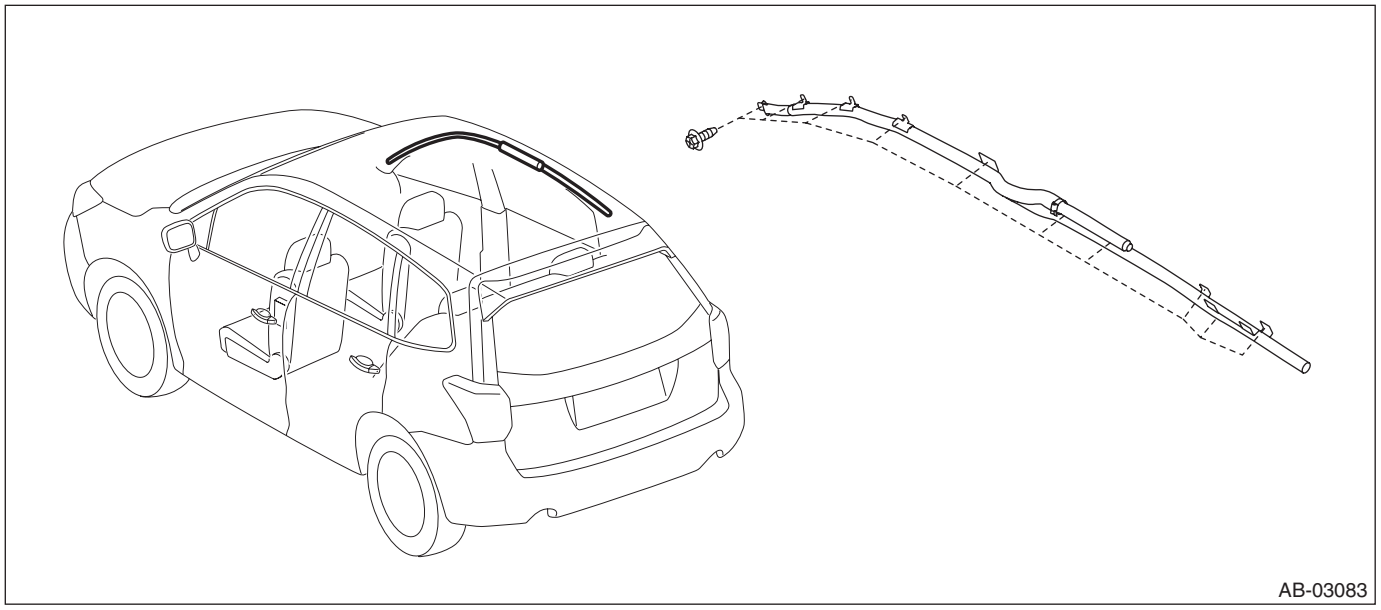


10) Move the battery at least 5 m (16 ft) from the vehicle, and confirm safety in the area.
11) Connect the airbag deployment tool alligator clip to the battery negative (–) terminal.
12) Connect the other cable of airbag deployment tool to the battery positive (+) terminal, and activate the airbag module.

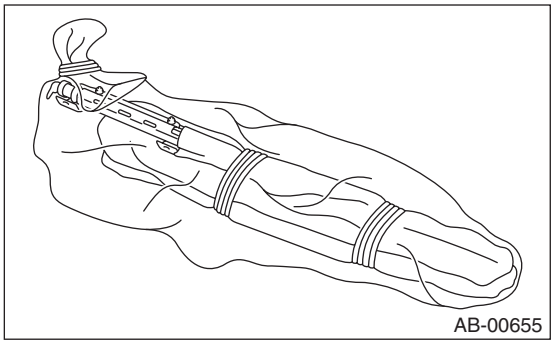
CAUTION:
• After activation, the airbag module will be extremely hot. Let it cool down for at least 40 minutes in an area with no one around.
• Do not expose the activated airbag module to water.



13) Remove the bolts and clips, and remove the curtain airbag module.



14) Place the activated airbag module in a sealed vinyl bag, then discard.



NOTE:
When necessary, fold the fabric part of airbag into three or four sections, rope and seal in a vinyl bag.

AIRBAG SYSTEM (DIAGNOSTICS)

AB(diag)

		Page
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16.Condenser

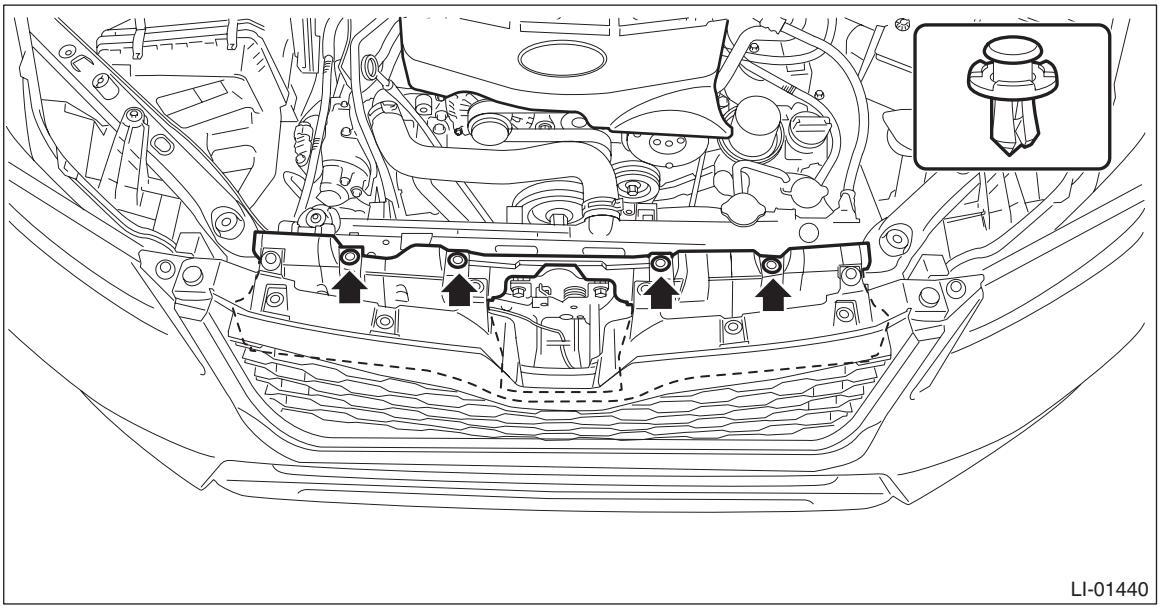
A: REMOVAL

1) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
2) Remove the air intake duct.
- Non-turbo model:<Ref. to IN(H4DO)-12, REMOVAL, Air Intake Duct.>
- Turbo model:<Ref. to IN(H4DOTC)-19, REMOVAL, Air Intake Duct.>

3) Remove the reservoir tank.
- Non-turbo model:<Ref. to CO(H4DO)-70, REMOVAL, Reservoir Tank.>
- Turbo model:<Ref. to CO(H4DOTC)-59, REMOVAL, Reservoir Tank.>

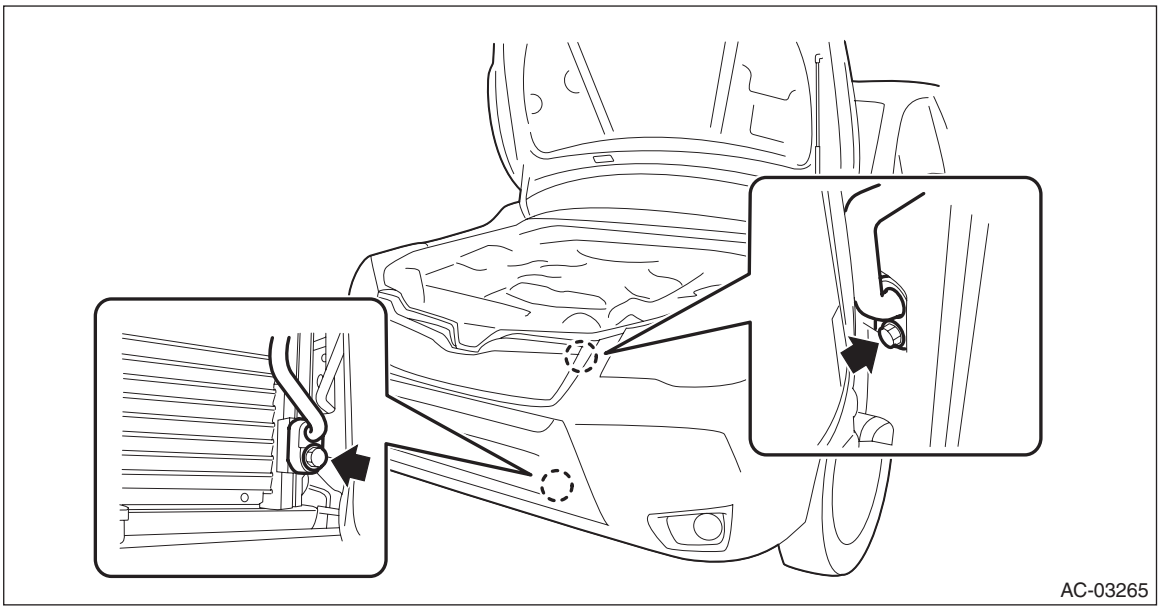
4) Remove the clip, and remove the bracket - grille.

CAUTION:
Be careful not to damage the front grille assembly, etc.

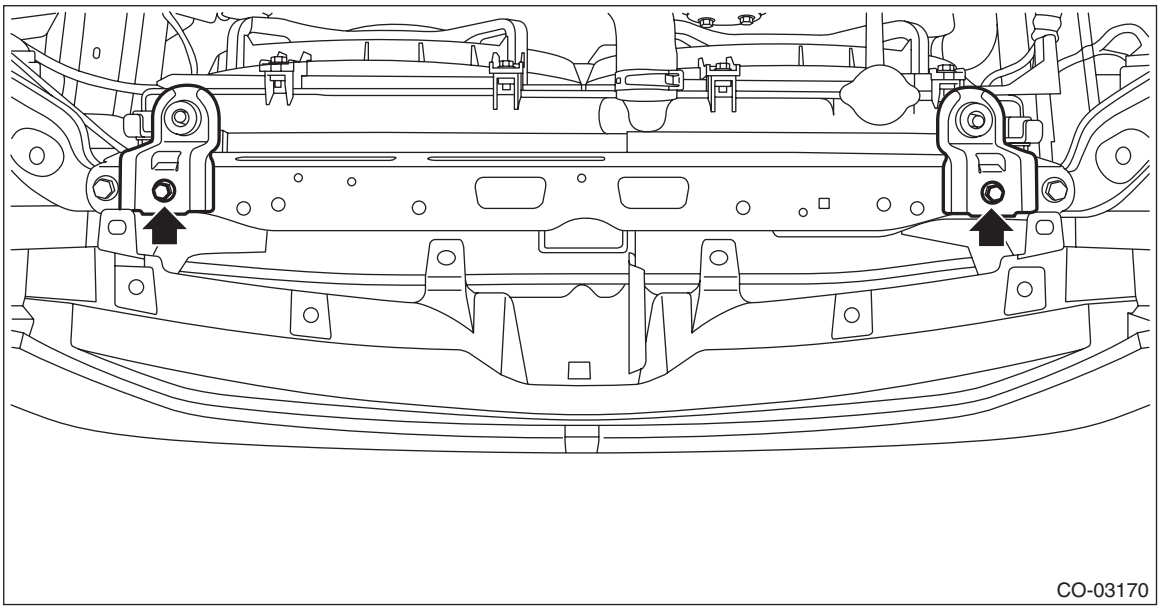


5) Remove the bolt, and disconnect the hose - pressure discharge and the pipe - evaporator cooling from the condenser assembly - air conditioner.

CAUTION:
Seal the disconnected hose, pipe and engaging part of condenser assembly with a plug or vinyl tape to prevent foreign matter from entering.

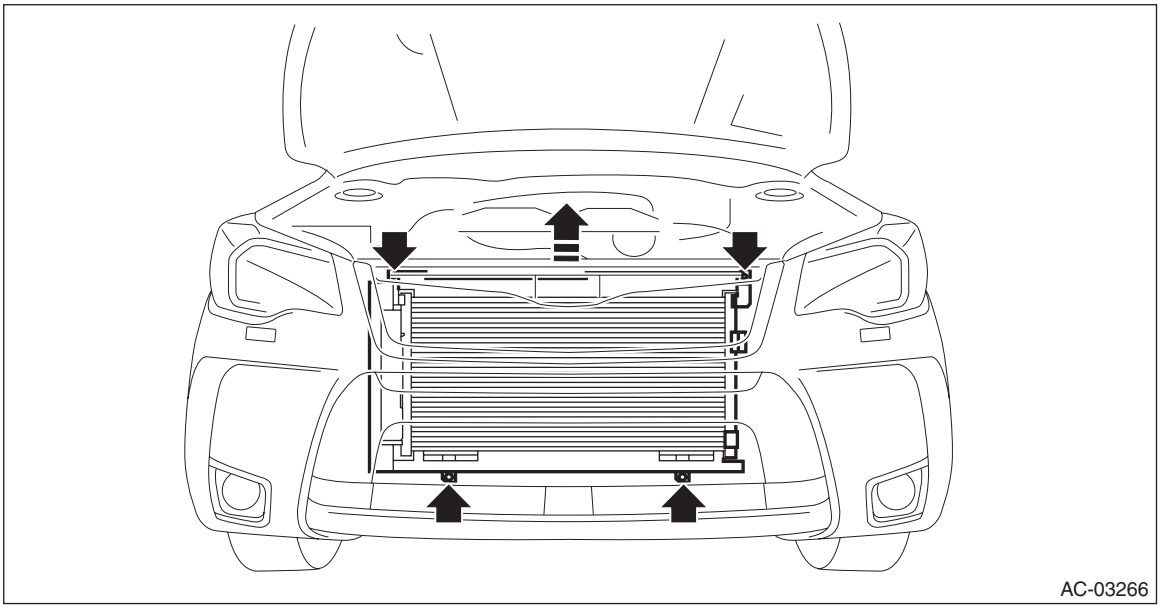


6) Remove the bolts and remove the radiator upper bracket.



7) Remove the condenser assembly - air conditioner.
   (1) Remove the bolt.
   (2) By lifting the condenser assembly - air conditioner, pull it out through the space between the radiator and the radiator panel.

CAUTION:
Be careful not to damage the condenser and radiator fin. If a damaged fin is found, repair it using a thin screwdriver.



B: INSTALLATION

CAUTION:
• If the condenser assembly - air conditioner has been replaced, add an appropriate amount of compressor oil.<Ref. to AC-36, ADJUSTMENT, Compressor Oil.>
• Replace the O-rings with new parts, and then apply compressor oil.
1) Install each part in the reverse order of removal.

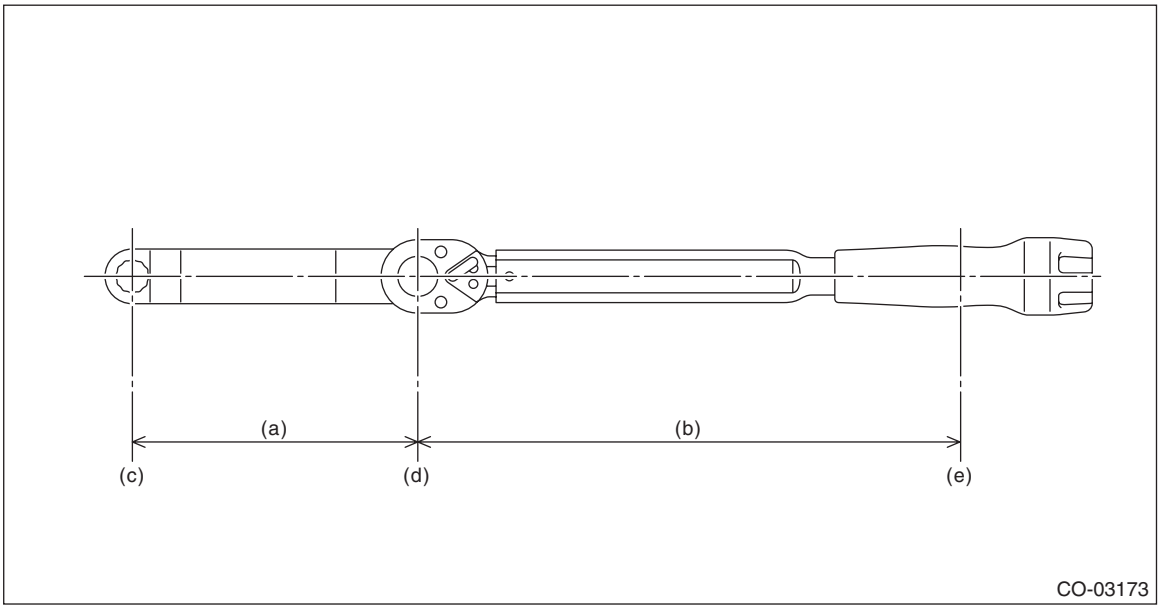
NOTE:
To tighten the bolts at the bottom of the condenser, use the ST.
ST 73099SG000 SPECIAL TOOL CONDENSER

Tightening torque:
Air conditioning unit:<Ref. to AC-12, AIR CONDITIONING UNIT, COMPONENT, General Description.>
Radiator upper bracket: 12 N·m (1.22 kgf-m, 8.9 ft-lb)
Condenser (bolts at the bottom)

Calculation formula
T = L/(100 mm (3.94 in) + L) × 7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

T: Tightening torque
L: Effective length of torque wrench

NOTE:
If the effective length of the torque wrench used is unknown, consult the manufacturer of the torque wrench.



(a) Effective length of the ST
(b) Effective length of the torque wrench
(c) Center of drive angle of the ST
(d) Center of drive angle of the torque wrench
(e) Center of the position where a force is applied by hand

2) Charge refrigerant.<Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

C: INSPECTION

1) Check to see that the condenser fins are not clogged with debris or insects. Blow with compressed air or flush fins with water as needed.
2) If any oil leak is found, replace the condenser assembly - air conditioner.

16.Diagnostic Chart with Trouble Code

A: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

This is detected when a CAN line malfunction occurs.

NOTE:
Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

B: DTC B1000 AIRBAG ECU MALFUNCTION

DTC DETECTING CONDITION:
Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**CHECK DTC.** Read the DTC. (Current malfunction) <Ref. to AB(diag)-23, Read Diagnostic Trouble Code (DTC).>	Is any of B1000, B1003, B1105, B1106, B1115, B1116, B1120, B1121, B1125, B1126, B1135, B1136, B1145, B1146, B1170, B1185, B1195, B1196 or B1199 displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Perform the Clear Memory Mode. <Ref. to AB(diag)-25, Clear Memory Mode.>

C: DTC B1003 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1103 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

D: DTC B1105 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1105 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

E: DTC B1106 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1106 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

F: DTC B1115 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1115 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

G: DTC B1116 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1116 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

H: DTC B1120 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1120 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

I: DTC B1121 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1121 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

J: DTC B1125 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1125 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

K: DTC B1126 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1126 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

L: DTC B1135 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1135 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

M: DTC B1136 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1136 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

N: DTC B1145 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1145 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

O: DTC B1146 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1146 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

P: DTC B1170 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1170 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

Q: DTC B1185 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1185 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

R: DTC B1195 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1195 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

S: DTC B1196 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1196 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

T: DTC B1199 AIRBAG ECU MALFUNCTION

NOTE:
Refer to DTC B1199 for details on DTC B1000. <Ref. to AB(diag)-39, DTC B1000 AIRBAG ECU MALFUNCTION, Diagnostic Chart with Trouble Code.>

U: DTC B11E0 ROLLOVER IGNITION

This DTC is indicated when the curtain airbag module and the seat belt pretensioner are deployed.
Once this DTC is displayed, the memory cannot be cleared. Replace the following parts.
- Airbag control module <Ref. to AB-78, Airbag Control Module.>
- Curtain airbag module <Ref. to AB-76, Curtain Airbag Module.>
- Front outer seat belt with pretensioner <Ref. to SB-16, Front Seat Belt.>

V: DTC B11F2 FRONT IMPACT IGNITION

DTC DETECTING CONDITION:
This DTC is indicated when the front airbag module and the pretensioner are deployed.
Once this DTC is displayed, the memory cannot be cleared. Therefore replace the following parts.
- Airbag control module <Ref. to AB-78, Airbag Control Module.>
- Driver's airbag module <Ref. to AB-39, Driver's Airbag Module.>
- Passenger's airbag module <Ref. to AB-44, Passenger's Airbag Module.>
- Driver's knee airbag module <Ref. to AB-41, Knee Airbag Module.>
- Front sub sensor of both sides. <Ref. to AB-83, Front Sub Sensor.>
- Front outer seat belt with pretensioner of both sides. <Ref. to SB-16, Front Seat Belt.>
- Steering roll connector <Ref. to AB-102, Roll Connector.>
- Occupant detection system (passenger's seat cushion & frame assembly) <Ref. to SE-9, Front Seat.>
- Side airbag module on both sides (when activated) <Ref. to AB-89, Side Airbag Sensor.>
- Curtain airbag module on both sides (when activated) <Ref. to AB-76, Curtain Airbag Module.>

W: DTC B11F3 FRONT IMPACT IGNITION

NOTE:
For details on DTC B11F3, refer to DTC B11F2. <Ref. to AB(diag)-41, DTC B11F2 FRONT IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

X: DTC B11F4 FRONT IMPACT IGNITION

NOTE:
For details on DTC B11F4, refer to DTC B11F2. <Ref. to AB(diag)-41, DTC B11F2 FRONT IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

Y: DTC B11F5 FRONT IMPACT IGNITION

NOTE:
For details on DTC B11F5, refer to DTC B11F2. <Ref. to AB(diag)-41, DTC B11F2 FRONT IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

Z: DTC B11F7 SIDE IMPACT IGNITION

This DTC is displayed when the side airbag module and curtain airbag module are deployed.
Once this DTC is displayed, the memory cannot be cleared. Replace the following parts.
- Airbag control module <Ref. to AB-78, Airbag Control Module.>
- Side airbag module (operating side) <Ref. to AB-65, Side Airbag Module.>
- Side airbag sensor (operating side) <Ref. to AB-89, Side Airbag Sensor.>
- Curtain airbag module (operating side) <Ref. to AB-76, Curtain Airbag Module.>
- Curtain airbag sensor (operating side) <Ref. to AB-95, Curtain Airbag Sensor.>
- Satellite safing sensor <Ref. to AB-100, Satellite Safing Sensor.>
- Front door impact sensor (operating side) <Ref. to AB-86, Front Door Impact Sensor.>

AA:DTC B11F8 SIDE IMPACT IGNITION

NOTE:
For details on DTC B11F8. refer to DTC B11F7. <Ref. to AB(diag)-41, DTC B11F7 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

AB:DTC B11F9 SIDE IMPACT IGNITION

NOTE:
For details on DTC B11F9, refer to DTC B11F7. <Ref. to AB(diag)-41, DTC B11F7 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

AC:DTC B11FA SIDE IMPACT IGNITION

NOTE:
For details on DTC B11FA, refer to DTC B11F7. <Ref. to AB(diag)-41, DTC B11F7 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

AD:DTC B11FB SIDE IMPACT IGNITION

NOTE:
For details on DTC B11FB, refer to DTC B11F7. <Ref. to AB(diag)-41, DTC B11F7 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

AE:DTC B11FC SIDE IMPACT IGNITION

NOTE:
For details on DTC B11FC, refer to DTC B11F7. <Ref. to AB(diag)-41, DTC B11F7 SIDE IMPACT IGNITION, Diagnostic Chart with Trouble Code.>

AF:DTC B1610 FRONT SUB SENSOR RH FAILURE

DTC DETECTING CONDITION:
Front sub sensor RH is faulty.
If DTC B1610 is displayed, the circuit within the front sub sensor RH is faulty.
Replace the front sub sensor RH. <Ref. to AB-83, Front Sub Sensor.>

AG:DTC B1612 FRONT SUB SENSOR RH LOST COMMUNICATION

NOTE:
For details on DTC B1612, refer to DTC B1613. <Ref. to AB(diag)-43, DTC B1613 FRONT SUB SENSOR RH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>

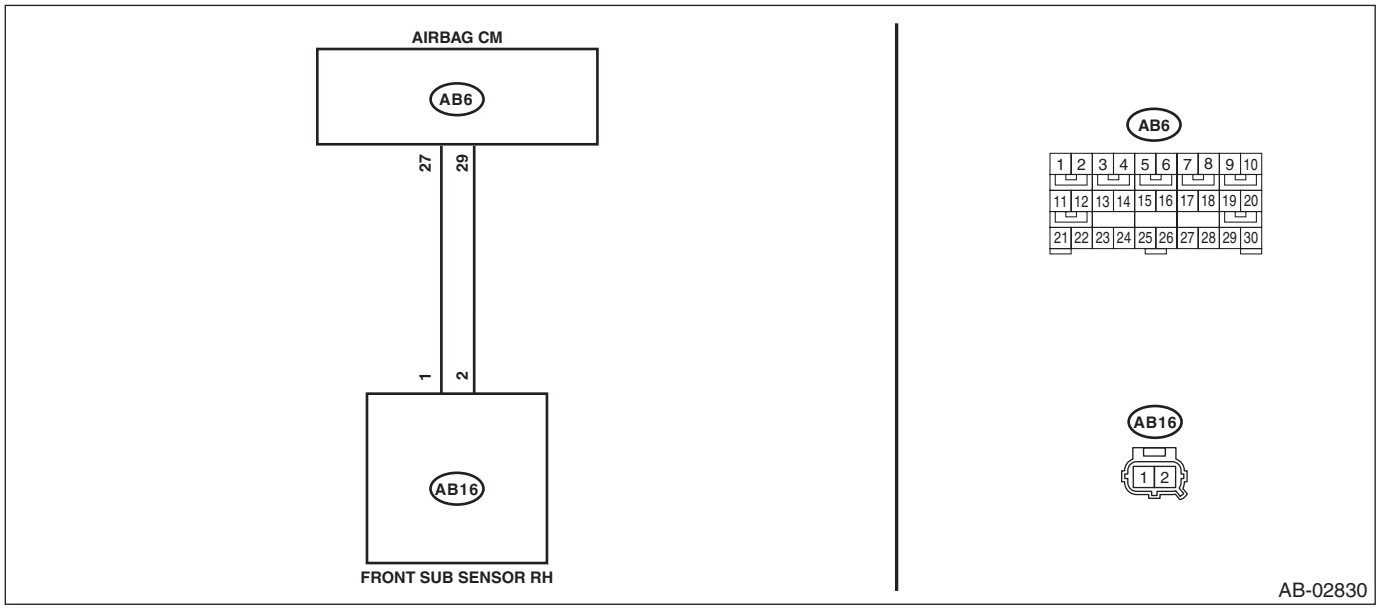
AH:DTC B1613 FRONT SUB SENSOR RH INITIALIZATION ERROR

DTC DETECTING CONDITION:

- Open or short circuit in harness of front sensor bus RH.
- Front sub sensor RH is faulty.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:
Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors (AB6, AB16) between the airbag control module and the front sub sensor RH.	Is there poor contact?	Replace the airbag main harness along with body harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connectors (AB7) and (AB2). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connector (AB66) from the driver's knee airbag module. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Disconnect the connector (AB16) from the front sub sensor RH, and then connect the connector (1H) in the test harness H to connector (AB16). 8) Measure the resistance between connector (4AG) in the test harness AG and connector (3H) in the test harness H. ***Connector & terminal*** ***(4AG) No. 14 — (3H) No. 5:*** ***(4AG) No. 12 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS RH).** Measure the resistance between connector (4AG) in the test harness AG and chassis ground, and the resistance between connector (4AG) terminals in the test harness AG. ***Connector & terminal*** ***(4AG) No. 12 — Chassis ground:*** ***(4AG) No. 14 — Chassis ground:*** ***(4AG) No. 12 — (4AG) No. 14:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag main harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the front sub sensor RH. <Ref. to AB-83, REMOVAL, Front Sub Sensor.> Replace the airbag control module if not operating normally even after replacing the sensor. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

AI: DTC B1615 FRONT SUB SENSOR LH FAILURE

DTC DETECTING CONDITION:

Front sub sensor LH is faulty.

If DTC B1615 is displayed, the circuit within the front sub sensor LH is faulty.

Replace the front sub sensor LH. <Ref. to AB-83, Front Sub Sensor.>

AJ:DTC B1617 FRONT SUB SENSOR LH LOST COMMUNICATION

NOTE:

For details on DTC B1617, refer to DTC B1618. <Ref. to AB(diag)-46, DTC B1618 FRONT SUB SENSOR LH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>

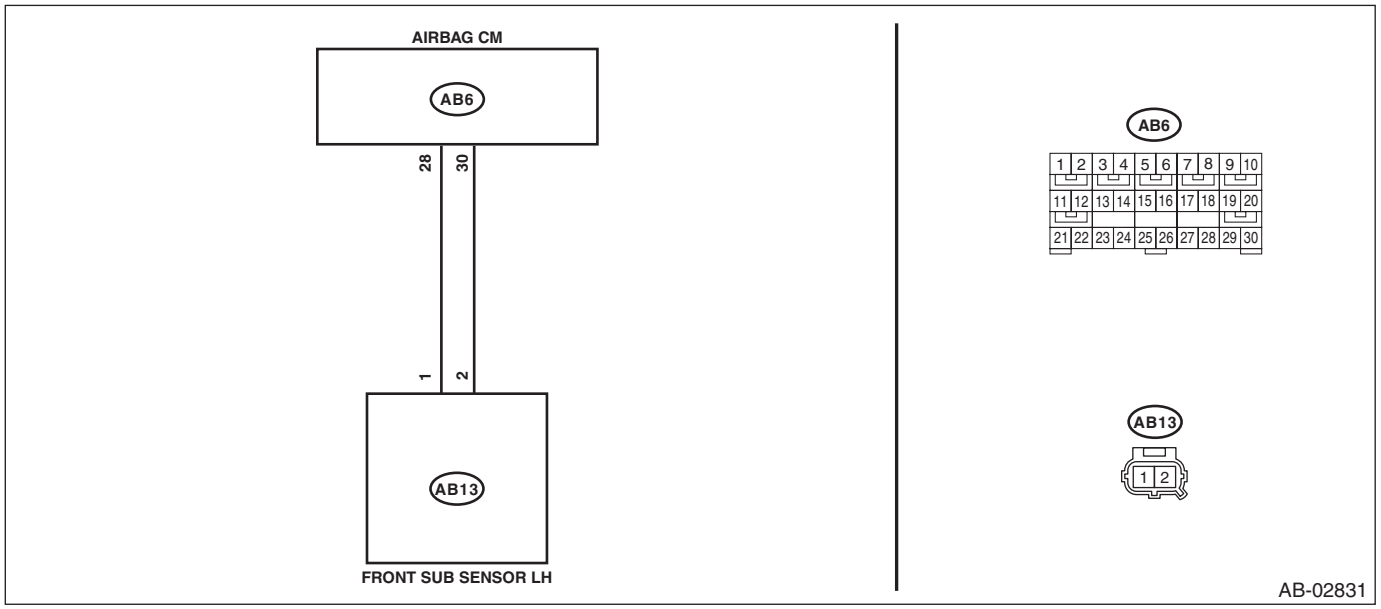
AK:DTC B1618 FRONT SUB SENSOR LH INITIALIZATION ERROR

DTC DETECTING CONDITION:

- Open or short circuit in harness of front sensor bus LH.
- Front sub sensor LH is faulty.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:
Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors (AB6, AB13) between the airbag control module and the front sub sensor LH.	Is there poor contact?	Replace the airbag main harness along with body harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connectors (AB7) and (AB2). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connector (AB66) from the driver's knee airbag module. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Disconnect the connector (AB13) from the front sub sensor LH, and then connect the connector (1H) in the test harness H to connector (AB13). 8) Measure the resistance between connector (4AG) in the test harness AG and connector (3H) in the test harness H. ***Connector & terminal*** ***(4AG) No. 7 — (3H) No. 5:*** ***(4AG) No. 9 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS LH).** Measure the resistance between connector (4AG) in the test harness AG and chassis ground, and the resistance between connector (4AG) terminals in the test harness AG. ***Connector & terminal*** ***(4AG) No. 7 — Chassis ground:*** ***(4AG) No. 9 — Chassis ground:*** ***(4AG) No. 7 — (4AG) No. 9:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag main harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the front sub sensor LH. <Ref. to AB-83, REMOVAL, Front Sub Sensor.> Replace the airbag control module if not operating normally even after replacing the sensor. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

AL:DTC B16F2 FRONT SUB SENSOR RH RECOGNITION ERROR

DTC DETECTING CONDITION:
Front sub sensor RH is wrongly installed.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE FRONT SUB SENSOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front sub sensor RH with a genuine sensor. <Ref. to AB-83, REMOVAL, Front Sub Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

AM:DTC B16F3 FRONT SUB SENSOR LH RECOGNITION ERROR

DTC DETECTING CONDITION:
Front sub sensor LH is wrongly installed.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE FRONT SUB SENSOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front sub sensor LH with a genuine sensor. <Ref. to AB-83, REMOVAL, Front Sub Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

AN:DTC B1620 SIDE AIRBAG SENSOR RH FAILURE

DTC DETECTING CONDITION:
Side airbag sensor RH is faulty.
When DTC B1620 is displayed, the circuit within the side airbag sensor RH is faulty.
Replace the side airbag sensor RH. <Ref. to AB-89, Side Airbag Sensor.>

AO:DTC B1622 SIDE AIRBAG SENSOR RH LOST COMMUNICATION

NOTE:
For details on DTC B1622, refer to DTC B1623. <Ref. to AB(diag)-49, DTC B1623 SIDE AIRBAG SENSOR RH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>

AP:DTC B1623 SIDE AIRBAG SENSOR RH INITIALIZATION ERROR

DTC DETECTING CONDITION:

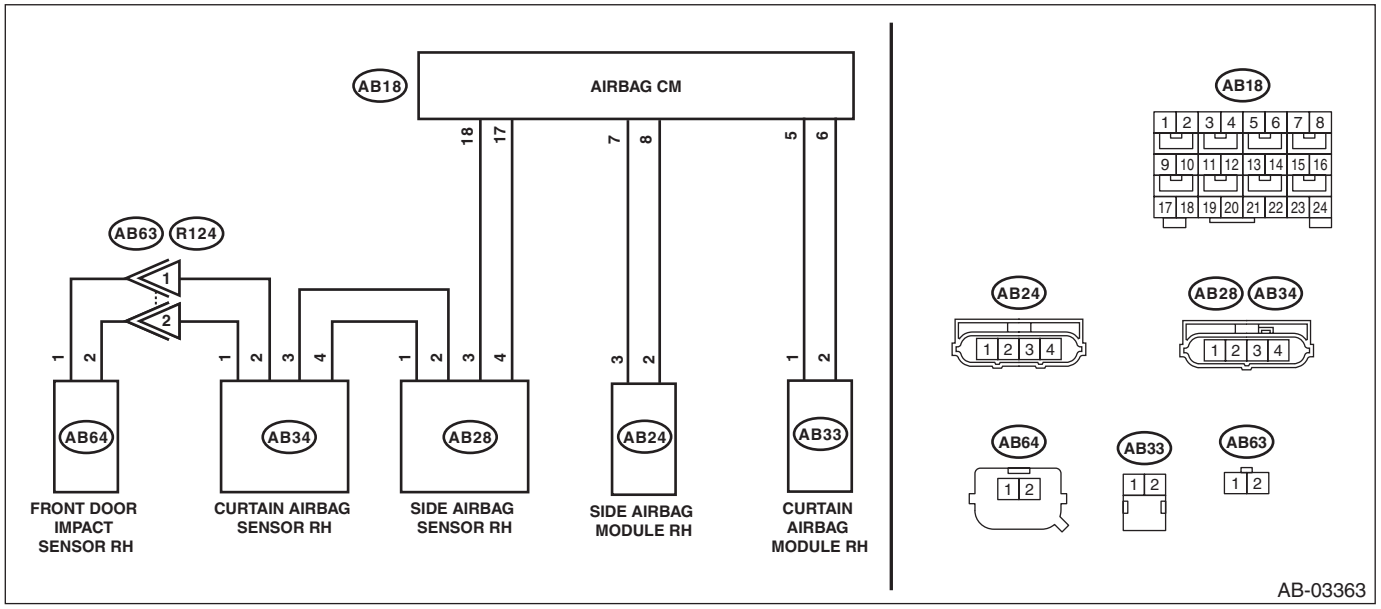
- Open or short circuit in harness of side sensor bus RH.
- Side airbag sensor RH and curtain airbag sensor RH are faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the side airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) of side airbag module RH. 5) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Disconnect the connector (AB28) from side airbag sensor RH, and connect the connector (2V) in test harness V to connector (AB28). 9) Measure the resistance between connector (5AG) in the test harness AG and connector (3V) in the test harness V. ***Connector & terminal*** ***(5AG) No. 14 — (3V) No. 1:*** ***(5AG) No. 16 — (3V) No. 2:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag rear harness along with body harness.
3	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR RH).** Measure the resistance between test harness AG connectors (5AG) and chassis ground, and the resistance between connectors (5AG) of the test harness AG. ***Connector & terminal*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — (3V) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **5**.	Go to step **6**.
5	**REPLACE SIDE AIRBAG SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor RH. <Ref. to AB-89, REMOVAL, Side Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the system normal?	Go to step **6**.	Replace the curtain airbag sensor RH. <Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> Replace the airbag control module if not operating normally even after replacing the sensor. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

Step		Check	Yes	No
6	CHECK FOR ANY OTHER DTC ON DISPLAY.	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

AQ:DTC B1625 SIDE AIRBAG SENSOR LH FAILURE

DTC DETECTING CONDITION:

Side airbag sensor LH is faulty.

When DTC B1625 is displayed, the circuit within the side airbag sensor LH is faulty.

Replace the side airbag sensor LH. <Ref. to AB-89, Side Airbag Sensor.>

AR:DTC B1627 SIDE AIRBAG SENSOR LH LOST COMMUNICATION

NOTE:

For details on DTC B1627, refer to DTC B1628. <Ref. to AB(diag)-52, DTC B1628 SIDE AIRBAG SENSOR LH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>

AS:DTC B1628 SIDE AIRBAG SENSOR LH INITIALIZATION ERROR

DTC DETECTING CONDITION:

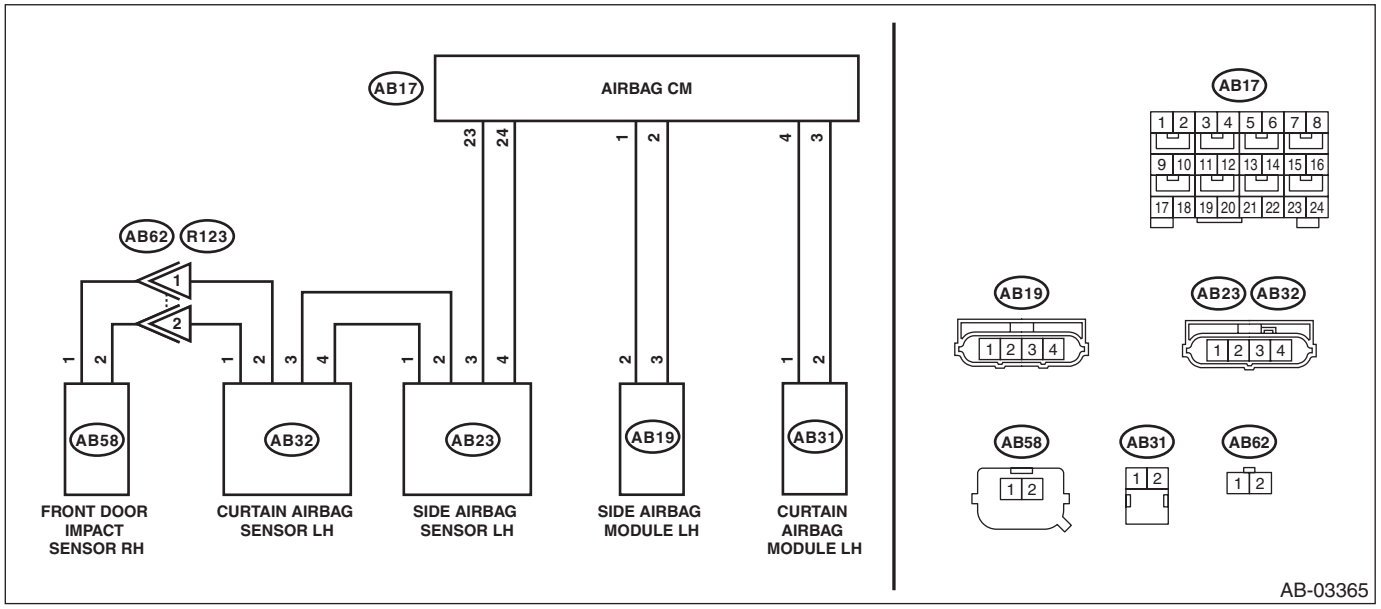
- Open or short circuit in harness of side sensor bus LH.
- Side airbag sensor LH and curtain airbag sensor LH are faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the side airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the connector (AB19) of the side airbag module LH. 5) Disconnect the connectors (AB17, AB6, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Disconnect the connector (AB23) from side airbag sensor LH, and connect the connector (2V) in test harness V to connector (AB23). 8) Measure the resistance between connector (5AG) in the test harness AG and connector (3V) in the test harness V. ***Connector & terminal*** ***(5AG) No. 8 — (3V) No. 2:*** ***(5AG) No. 10 — (3V) No. 1:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag rear harness along with body harness.
3	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR LH).** Measure the resistance between test harness AG connectors (5AG) and chassis ground, and the resistance between connectors (5AG) of the test harness AG. ***Connector & terminal*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — (3V) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **5**.	Go to step **6**.
5	**REPLACE SIDE AIRBAG SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor LH. <Ref. to AB-89, REMOVAL, Side Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the system normal?	Go to step **6**.	Replace the curtain airbag sensor LH. <Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> Replace the airbag control module if not operating normally even after replacing the sensor. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

Step		Check	Yes	No
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

AT:DTC B1630 CURTAIN AIRBAG SENSOR RH FAILURE

DTC DETECTING CONDITION:

Curtain airbag sensor RH is faulty.

If DTC B1630 is displayed, the circuit within the curtain airbag sensor RH is faulty.

Replace the curtain airbag sensor RH. <Ref. to AB-95, Curtain Airbag Sensor.>

AU:DTC B1632 CURTAIN AIRBAG SENSOR RH LOST COMMUNICATION

NOTE:

For details on DTC B1632, refer to DTC B1633. <Ref. to AB(diag)-55, DTC B1633 CURTAIN AIRBAG SENSOR RH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>

AV:DTC B1633 CURTAIN AIRBAG SENSOR RH INITIALIZATION ERROR

DTC DETECTING CONDITION:

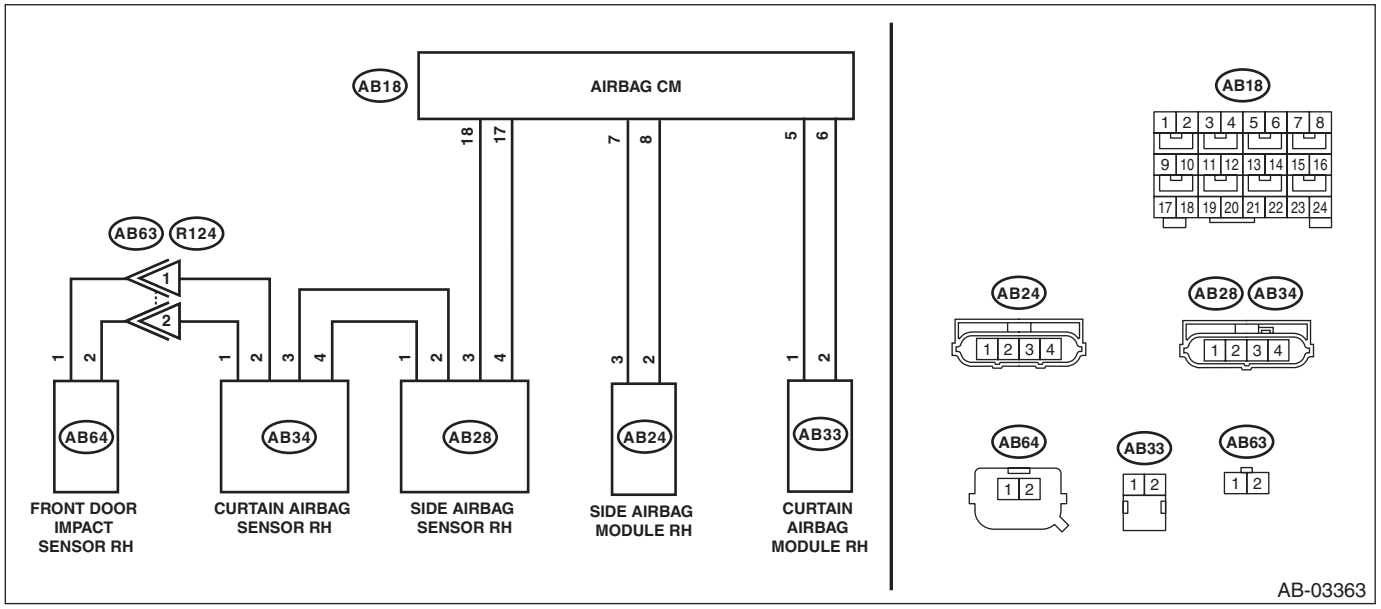
- Open or short circuit in harness of side sensor bus RH.
- Side airbag sensor RH and curtain airbag sensor RH are faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1622 or B1623 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the door sensor RH.	Is there poor contact?	Replace the airbag rear harness and the door harness.	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR RH AND CURTAIN AIRBAG SENSOR RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) of side airbag module RH. 5) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 6) Disconnect the connector (AB28) of side airbag sensor RH. 7) Connect the connector (AB28) of side airbag sensor RH and the connector (1AI) in the test harness AI. 8) Connect the connector (2AI) in the test harness AI and the connector (1V) in the test harness V. 9) Disconnect the connector (AB34) from curtain airbag sensor (RH), and connect the connector (2V) in test harness V to connector (AB34). 10) Measure the resistance between connector (3V) terminals in the test harness V. ***Connector & terminal*** ***(3V) No. 2 — (3V) No. 6:*** ***(3V) No. 1 — (3V) No. 7:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR RH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) in test harness V. ***Connector & terminal*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 2 — (3V) No. 1:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Replace the airbag rear harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **6**.	Go to step **7**.
6	**REPLACE CURTAIN AIRBAG SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor RH. <Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **7**.	Go to step **8**.

	Step	Check	Yes	No
7	**REPLACE SIDE AIRBAG SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor RH. <Ref. to AB-89, REMOVAL, Side Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **8**.
8	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

AW:DTC B1635 CURTAIN AIRBAG SENSOR LH FAILURE

DTC DETECTING CONDITION:

Curtain airbag sensor LH is faulty.

If DTC B1635 is displayed, the circuit within the curtain airbag sensor LH is faulty.

Replace the curtain airbag sensor LH. <Ref. to AB-95, Curtain Airbag Sensor.>

AX:DTC B1637 CURTAIN AIRBAG SENSOR LH LOST COMMUNICATION

NOTE:

Refer to DTC B1637 for details on DTC B1638. <Ref. to AB(diag)-58, DTC B1638 CURTAIN AIRBAG SENSOR LH INITIALIZATION ERROR, Diagnostic Chart with Trouble Code.>

AY:DTC B1638 CURTAIN AIRBAG SENSOR LH INITIALIZATION ERROR

DTC DETECTING CONDITION:

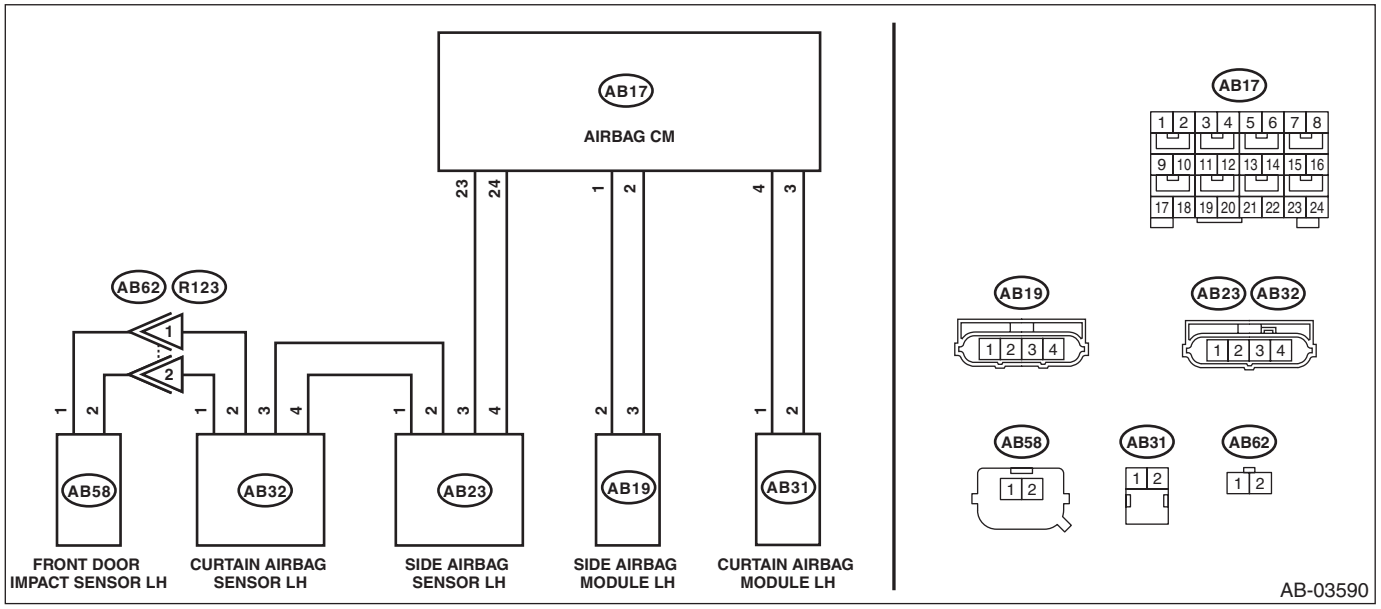
- Open or short circuit in harness of side sensor bus LH.
- Side airbag sensor LH and curtain airbag sensor LH are faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1627 or B1628 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the door sensor LH.	Is there poor contact?	Replace the airbag rear harness and the door harness.	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR LH AND CURTAIN AIRBAG SENSOR LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the connector (AB19) of the side airbag module LH. 5) Disconnect the connector (AB23) in the side airbag sensor LH. 6) Connect the connector (AB23) of side airbag sensor LH and the connector (1AI) in the test harness AI. 7) Connect the connector (2AI) in the test harness AI and the connector (1V) in the test harness V. 8) Disconnect the connector (AB32) from curtain airbag sensor LH, and connect it to the connector (2V) in test harness V. 9) Measure the resistance between connector (3V) terminals in the test harness V. ***Connector & terminal*** ***(3V) No. 2 — (3V) No. 6:*** ***(3V) No. 1 — (3V) No. 7:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR LH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) in test harness V. ***Connector & terminal*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — (3V) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Replace the airbag rear harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **6**.	Go to step **8**.
6	**REPLACE CURTAIN AIRBAG SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor LH.<Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **7**.	Go to step **8**.

	Step	Check	Yes	No
7	**REPLACE SIDE AIRBAG SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor LH.<Ref. to AB-89, REMOVAL, Side Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **8**.
8	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

AZ:DTC B16F4 SIDE AIRBAG SENSOR RH RECOGNITION ERROR

DTC DETECTING CONDITION:

- Side airbag sensor RH is misinstalled.
- Airbag CM is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE SIDE AIRBAG SENSOR RH.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor RH with a genuine sensor. <Ref. to AB-89, REMOVAL, Side Airbag Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BA:DTC B16F5 SIDE AIRBAG SENSOR LH RECOGNITION ERROR

DTC DETECTING CONDITION:

- Side airbag sensor LH is misinstalled.
- Airbag CM is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE SIDE AIRBAG SENSOR LH.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor LH with a genuine sensor. <Ref. to AB-89, REMOVAL, Side Airbag Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BB:DTC B16F6 CURTAIN AIRBAG SENSOR RH RECOGNITION ERROR

DTC DETECTING CONDITION:

- Curtain airbag sensor RH is misinstalled.
- Airbag CM is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE CURTAIN AIRBAG SENSOR RH.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor RH with a genuine sensor. <Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BC:DTC B16F7 CURTAIN AIRBAG SENSOR LH RECOGNITION ERROR

DTC DETECTING CONDITION:

- Curtain airbag sensor LH is misinstalled.
- Airbag CM is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

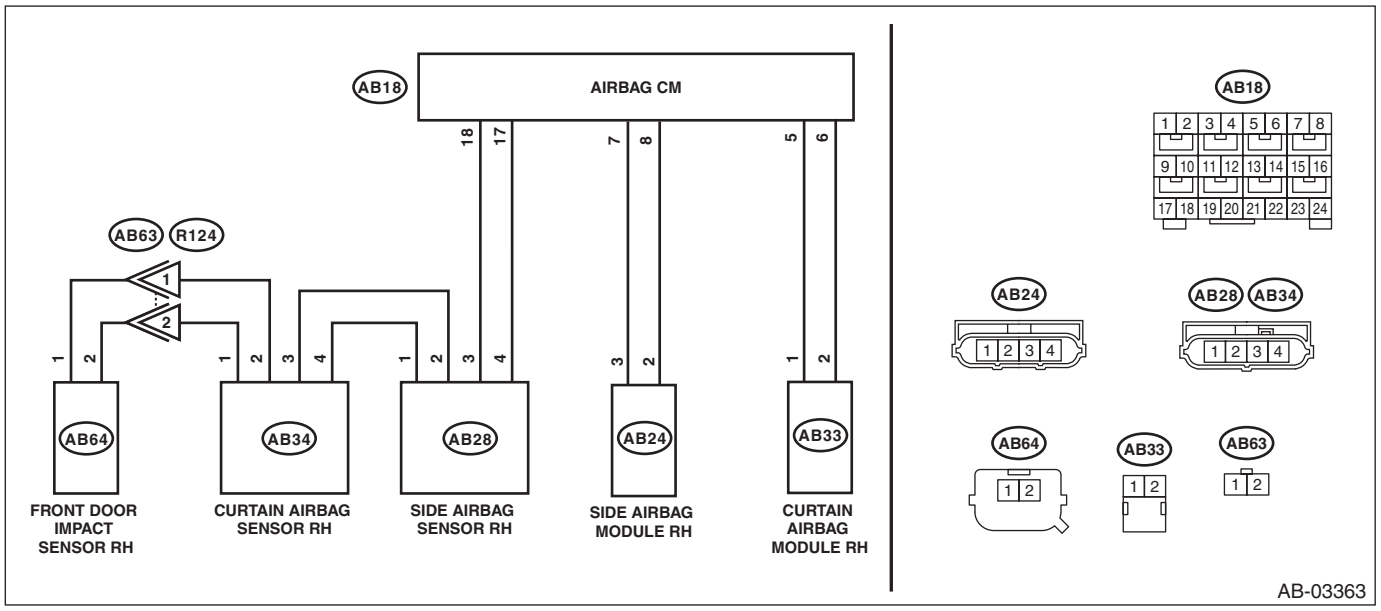
	Step	Check	Yes	No
1	**REPLACE CURTAIN AIRBAG SENSOR LH.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor LH with a genuine sensor. <Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BD:DTC B1642 SIDE SATELLITE SENSOR BUS RH LOST COMMUNICATION

DTC DETECTING CONDITION:

- Open or short circuit in harness of side sensor bus RH.
- Side airbag sensor RH is faulty.
- Curtain airbag sensor RH is faulty.
- Front door impact sensor RH is faulty.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>
WIRING DIAGRAM:
Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1622 or B1623 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1632 or B1633 displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1692 or B1693 displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the front door impact sensor RH.	Is there poor contact?	Replace the airbag rear harness and the door harness.	Go to step **5**.

	Step	Check	Yes	No
5	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) of side airbag module RH. 5) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Disconnect the connector (AB28) from side airbag sensor RH. 9) Connect the connector (2V) in the test harness V to the connector (AB28). 10) Measure the resistance between connector (5AG) in the test harness AG and connector (3V) in the test harness V. ***Connector & terminal*** ***(5AG) No. 14 — (3V) No. 1:*** ***(5AG) No. 16 — (3V) No. 2:***	Is the resistance less than 10 Ω?	Go to step **6**.	Replace the airbag rear harness along with body harness.
6	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR RH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals. ***Connector & terminal*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — (3V) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Replace the airbag rear harness along with body harness.
7	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR RH).** 1) Disconnect the connector (2V) in the test harness V from the connector (AB28) of side airbag sensor RH. 2) Connect the connector (AB28) of side airbag sensor RH and the connector (1AI) in the test harness AI. 3) Connect the connector (2AI) in the test harness AI and the connector (1V) in the test harness V. 4) Disconnect the connector (AB34) from curtain airbag sensor (RH), and connect the connector (2V) in test harness V to connector (AB34). 5) Measure the resistance between connector (3V) terminals in the test harness V. ***Connector & terminal*** ***(3V) No. 2 — (3V) No. 6:*** ***(3V) No. 1 — (3V) No. 7:***	Is the resistance less than 10 Ω?	Go to step **8**.	Replace the airbag rear harness along with body harness.

	Step	Check	Yes	No
8	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR RH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals in test harness V. ***Connector & terminal*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 1 — (3V) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **9**.	Replace the airbag rear harness along with body harness.
9	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR RH AND DOOR SENSOR RH).** 1) Disconnect the connector (AB64) from the front door impact sensor RH, and connect the connector (1H) in the test harness H to connector (AB64). 2) Measure the resistance between connector (3V) in the test harness V and connector (3H) in the test harness H. ***Connector & terminal*** ***(3V) No. 4 — (3H) No. 5:*** ***(3V) No. 5 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **10**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
10	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR RH AND FRONT DOOR IMPACT SENSOR RH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals in test harness V. ***Connector & terminal*** ***(3V) No. 4 — Chassis ground:*** ***(3V) No. 5 — Chassis ground:*** ***(3V) No. 4 — (3V) No. 5:***	Is the resistance 1 MΩ or more?	Go to step **11**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
11	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **12**.	Go to step **15**.
12	**REPLACE SIDE AIRBAG SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor RH.<Ref. to AB-89, REMOVAL, Side Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **13**.	Go to step **15**.

Step		Check	Yes	No
13	**REPLACE CURTAIN AIRBAG SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor RH.<Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **14**.	Go to step **15**.
14	**REPLACE FRONT DOOR IMPACT SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front door impact sensor RH.<Ref. to AB-86, REMOVAL, Front Door Impact Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **15**.
15	**CHECK FOR ANY OTHER DTC ON DISPLAY.** Read the DTC. (Current malfunction)	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Finish the diagnosis.

BE:DTC B1647 SIDE SATELLITE SENSOR BUS LH LOST COMMUNICATION

DTC DETECTING CONDITION:

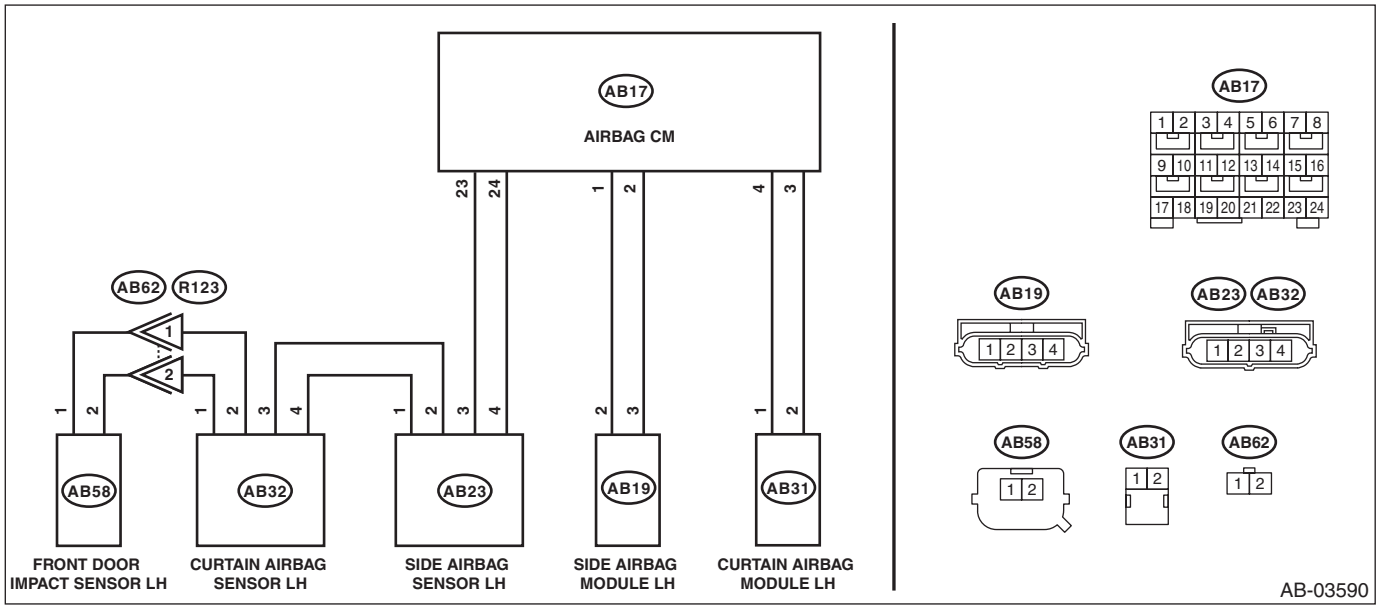
- Open or short circuit in harness of side sensor bus LH.
- Side airbag sensor LH is faulty.
- Curtain airbag sensor LH is faulty.
- Front door impact sensor LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1627 or B1628 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1637 or B1638 displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1697 or B1698 displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the front door impact sensor LH.	Is there poor contact?	Replace the airbag rear harness and the door harness.	Go to step **5**.

	Step	Check	Yes	No
5	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the connector (AB19) of the side airbag module LH. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Disconnect the connector (AB23) from the side airbag sensor LH. 8) Connect the connector (2V) in the test harness V to the connector (AB23). 9) Measure the resistance between connector (5AG) in the test harness AG and connector (3V) in the test harness V. ***Connector & terminal*** ***(5AG) No. 10 — (3V) No. 1:*** ***(5AG) No. 8 — (3V) No. 2:***	Is the resistance less than 10 Ω?	Go to step **6**.	Replace the airbag rear harness along with body harness.
6	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SIDE AIRBAG SENSOR LH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals. ***Connector & terminal*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — (3V) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **7**.	Replace the airbag rear harness along with body harness.
7	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR LH).** 1) Disconnect the connector (2V) in the test harness V from the connector (AB23) of side airbag sensor LH. 2) Connect the connector (AB23) of side airbag sensor LH and the connector (1AI) in the test harness AI. 3) Connect the connector (2AI) in the test harness AI and the connector (1V) in the test harness V. 4) Disconnect the connector (AB32) from curtain airbag sensor LH, and connect the connector (2V) in test harness V to connector (AB32). 5) Measure the resistance between connector (3V) terminals in the test harness V. ***Connector & terminal*** ***(3V) No. 2 — (3V) No. 6:*** ***(3V) No. 1 — (3V) No. 7:***	Is the resistance less than 10 Ω?	Go to step **8**.	Replace the airbag rear harness along with body harness.

	Step	Check	Yes	No
8	**CHECK AIRBAG REAR HARNESS (BETWEEN SIDE AIRBAG SENSOR AND CURTAIN AIRBAG SENSOR LH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals in test harness V. ***Connector & terminal*** ***(3V) No. 2 — Chassis ground:*** ***(3V) No. 1 — Chassis ground:*** ***(3V) No. 1 — (3V) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **9**.	Replace the airbag rear harness along with body harness.
9	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR LH AND DOOR SENSOR LH).** 1) Disconnect the connector (AB58) from the front door impact sensor LH, and connect the connector (1H) in the test harness H to connector (AB58). 2) Measure the resistance between connector (3V) in the test harness V and connector (3H) in the test harness H. ***Connector & terminal*** ***(3V) No. 4 — (3H) No. 5:*** ***(3V) No. 5 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **10**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
10	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR LH AND DOOR SENSOR LH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals in test harness V. ***Connector & terminal*** ***(3V) No. 4 — Chassis ground:*** ***(3V) No. 5 — Chassis ground:*** ***(3V) No. 4 — (3V) No. 5:***	Is the resistance 1 MΩ or more?	Go to step **11**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
11	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **12**.	Go to step **15**.
12	**REPLACE SIDE AIRBAG SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the side airbag sensor LH.<Ref. to AB-89, REMOVAL, Side Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **13**.	Go to step **15**.

Step		Check	Yes	No
13	**REPLACE CURTAIN AIRBAG SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor LH.<Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **14**.	Go to step **15**.
14	**REPLACE FRONT DOOR IMPACT SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front door impact sensor LH.<Ref. to AB-86, REMOVAL, Front Door Impact Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **15**.
15	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Perform the diagnosis according to DTC.	Finish the diagnosis.

BF:DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION

NOTE:
Refer to “Occupant Detection System” for details on DTC B1650. <Ref. to OD(diag)-19, DTC B1650 OCCUPANT CLASSIFICATION SYSTEM MALFUNCTION, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

BG:DTC B1655 FRONT BUCKLE SWITCH RH FAILURE

NOTE:
Refer to “Occupant Detection System” for details on DTC B1655. <Ref. to OD(diag)-21, DTC B1655 FRONT BUCKLE SWITCH RH FAILURE, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

BH:DTC B1660 PASSENGER'S AIRBAG ON INDICATOR FAILURE

DTC DETECTING CONDITION:

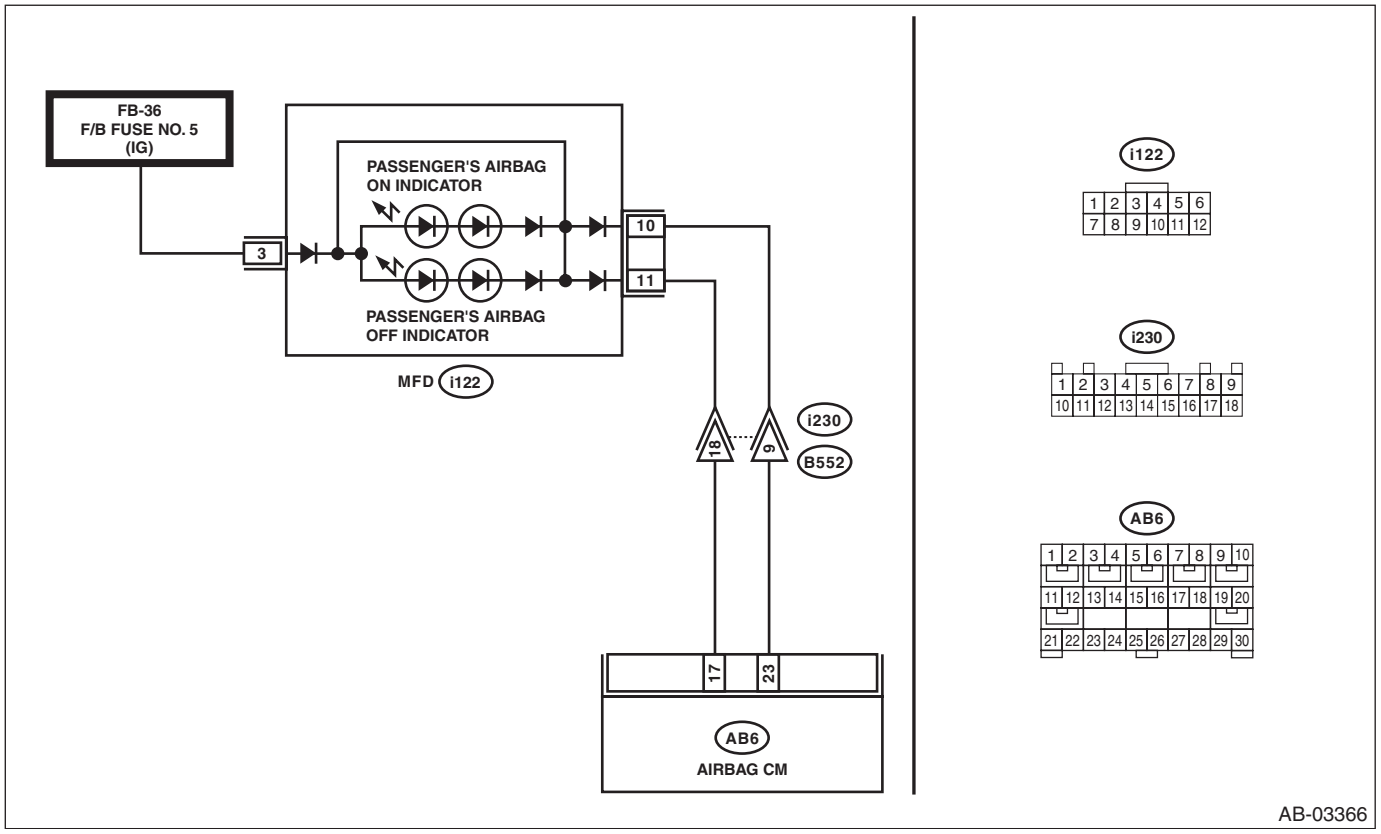
- Passenger's airbag indicator is faulty.
- Airbag control module is faulty.
- Airbag main harness circuit is open or shorted.
- Body harness circuit is open.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK FOR POOR CONTACT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Check that the connector between the airbag control module and MFD is securely connected.	Is there poor contact of any connector?	Repair the bulkhead harness. Or replace the airbag main harness along with body harness.	Go to step **2**.
2	**CHECK AIRBAG MAIN HARNESS.** 1) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 2) Connect the battery ground terminal and turn the ignition switch to ON. NOTE: Neither of ON/OFF illuminates when it is normal.	Does the passenger's airbag indicator illuminate?	Go to step **3**.	Go to step **4**.

	Step	Check	Yes	No
3	**CHECK AIRBAG MAIN HARNESS.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the MFD and disconnect the connector (i122). 3) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 4) Measure the resistance between connector (2AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(2AG) No. 9 — (2AG) No. 8:*** ***(2AG) No. 9 — Chassis ground:*** ***(2AG) No. 8 — Chassis ground:***	Is the resistance 1 MΩ or more?	Replace the MFD. <Ref. to IDI-25, REMOVAL, Multi-function Display (MFD).>	Repair the bulkhead harness. Or replace the airbag main harness along with body harness.
4	**CHECK AIRBAG MAIN HARNESS.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 3) Connect the connectors (7AG) and (8AG) in the test harness AG. 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the passenger's airbag indicator illuminate?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK AIRBAG MAIN HARNESS.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the MFD and disconnect the connector (i122). 3) Measure the resistance between connector (2AG) in the test harness AG and connector (i122). ***Connector & terminal*** ***(2AG) No. 9 — (i122) No. 11:*** ***(2AG) No. 8 — (i122) No. 10:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair the bulkhead harness. Or replace the airbag main harness along with body harness.
6	**CHECK BODY HARNESS.** 1) Turn the ignition switch to ON. 2) Measure the voltage between connector (i122) and chassis ground. ***Connector & terminal*** ***(i122) No. 3 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Replace the MFD. <Ref. to IDI-25, REMOVAL, Multi-function Display (MFD).>	Check the power supply circuit of MFD.

BI: DTC B1675 SATELLITE SAFING SENSOR FAILURE

DTC DETECTING CONDITION:

- Satellite safing sensor is faulty.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE SATELLITE SAFING SENSOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the satellite safing sensor with a genuine sensor. <Ref. to AB-100, REMOVAL, Satellite Safing Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BJ:DTC B1676 LOST COMMUNICATION WITH SATELLITE SAFING SENSOR

NOTE:
For details on DTC B1676, refer to DTC B1677. <Ref. to AB(diag)-74, DTC B1677 SATELLITE SAFING SENSOR INITIALIZATION INCOMPLETE, Diagnostic Chart with Trouble Code.>

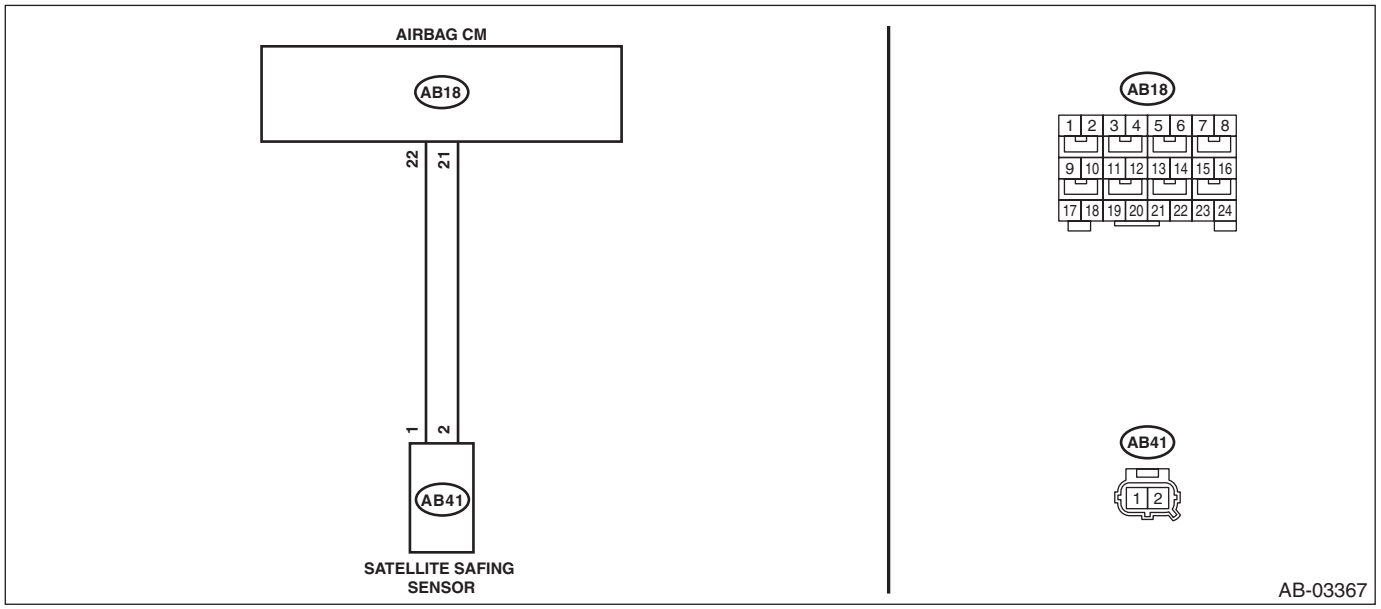
BK:DTC B1677 SATELLITE SAFING SENSOR INITIALIZATION INCOMPLETE

DTC DETECTING CONDITION:

- Open or short circuit in harness of satellite safing sensor.
- Satellite safing sensor is faulty.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:
Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors (AB18, AB41) between the airbag control module and the satellite safing sensor.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SATELLITE SAFING SENSOR).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Disconnect the connector (AB41) from the satellite safing sensor and connect to the test harness H connector (1H). 9) Measure the resistance between connector in the test harness AG and connector in the test harness H. ***Connector & terminal*** ***(5AG) No. 15 — (3H) No. 5:*** ***(6AG) No. 14 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag rear harness along with body harness.
3	**CHECK AIRBAG REAR HARNESS (BETWEEN AIRBAG CONTROL MODULE AND SATELLITE SAFING SENSOR).** Measure the resistance between connector in the test harness AG and chassis ground, and the resistance between connector terminals in the test harness AG. ***Connector & terminal*** ***(5AG) No. 15 — Chassis ground:*** ***(6AG) No. 14 — Chassis ground:*** ***(5AG) No. 15 — (6AG) No. 14:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the satellite safing sensor.<Ref. to AB-100, REMOVAL, Satellite Safing Sensor.>Replace the airbag control module if not operating normally even after replacing the sensor.<Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

BL:DTC B16F8 SATELLITE SAFING SENSOR RECOGNITION ERROR

DTC DETECTING CONDITION:

- Satellite safing sensor is misinstalled.
- Airbag control module is faulty.

	Step	Check	Yes	No
1	**REPLACE SATELLITE SAFING SENSOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the satellite safing sensor with a genuine sensor. <Ref. to AB-100, REMOVAL, Satellite Safing Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BM:DTC B16F9 DOOR SENSOR RH RECOGNITION ERROR

DTC DETECTING CONDITION:

- Front door impact sensor RH is misinstalled.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE FRONT DOOR IMPACT SENSOR RH.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front door impact sensor RH with a genuine sensor. <Ref. to AB-86, REMOVAL, Front Door Impact Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BN:DTC B1690 DOOR SENSOR RH FAILURE

DTC DETECTING CONDITION:

Front door impact sensor RH is faulty.
If DTC B1690 is displayed, the circuit within the front door impact sensor RH is faulty.
Replace the front door impact sensor RH. <Ref. to AB-86, REMOVAL, Front Door Impact Sensor.>

BO:DTC B1692 LOST COMMUNICATION WITH DOOR SENSOR RH

NOTE:
For details on DTC B1692, refer to DTC B1693. <Ref. to AB(diag)-77, DTC B1693 DOOR SENSOR RH INITIALIZATION INCOMPLETE, Diagnostic Chart with Trouble Code.>

BP:DTC B1693 DOOR SENSOR RH INITIALIZATION INCOMPLETE

DTC DETECTING CONDITION:

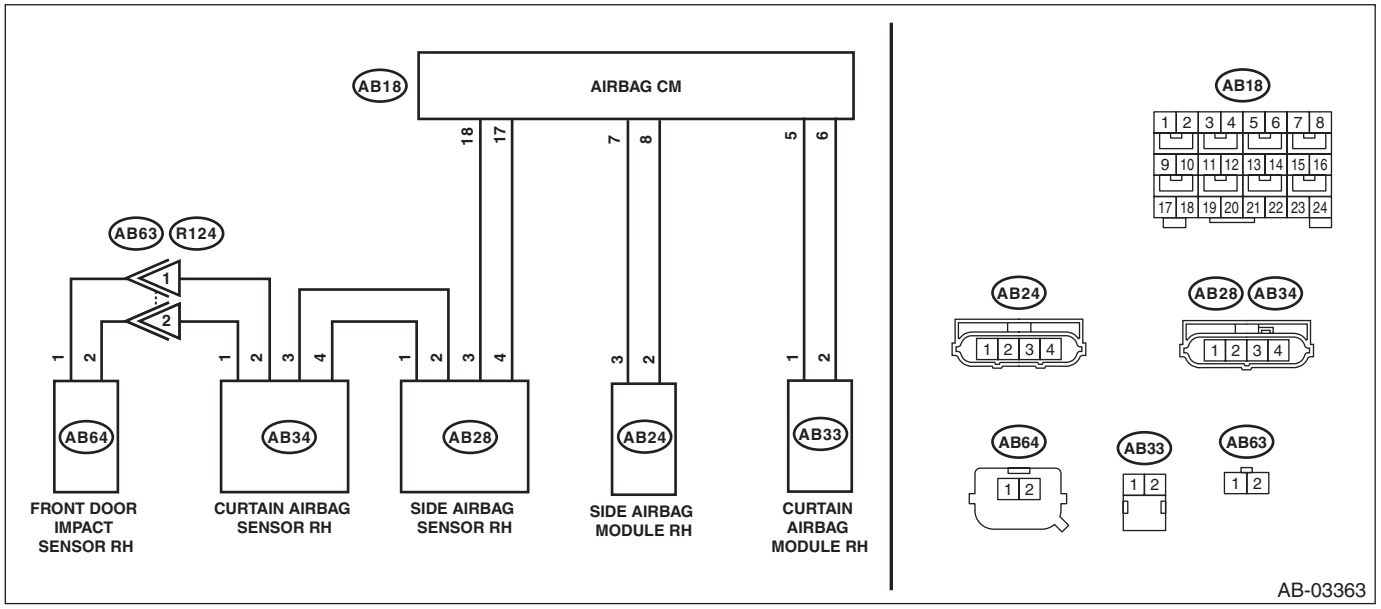
- Open or short circuit in harness of side sensor bus RH.
- Front door impact sensor RH is faulty.
- Curtain airbag sensor RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1622 or B1623 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1632 or B1633 displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the front door impact sensor RH.	Is there poor contact?	Replace the airbag rear harness and the door harness.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR RH AND DOOR SENSOR RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 6) Disconnect the connector (AB34) from curtain airbag sensor (RH), and connect the connector (2V) in test harness V to connector (AB34). 7) Disconnect the connector (AB64) from the front door impact sensor RH, and connect the connector (1H) in the test harness H to connector (AB64). 8) Measure the resistance between connector (3V) in the test harness V and connector (3H) in the test harness H. ***Connector & terminal*** ***(3V) No. 4 — (3H) No. 5:*** ***(3V) No. 5 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **5**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
5	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR RH AND DOOR SENSOR RH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals in test harness V. ***Connector & terminal*** ***(3V) No. 4 — Chassis ground:*** ***(3V) No. 5 — Chassis ground:*** ***(3V) No. 4 — (3V) No. 5:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
6	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **7**.	Go to step **9**.
7	**REPLACE FRONT DOOR IMPACT SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front door impact sensor RH.<Ref. to AB-86, REMOVAL, Front Door Impact Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **8**.	Go to step **9**.

	Step	Check	Yes	No
8	**REPLACE CURTAIN AIRBAG SENSOR RH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor RH.<Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **9**.
9	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code".<Ref. to AB(diag)-30, LIST, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

BQ:DTC B16FA LOST COMMUNICATION WITH DOOR SENSOR LH

DTC DETECTING CONDITION:

- Front door impact sensor LH is misinstalled.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

	Step	Check	Yes	No
1	**REPLACE FRONT DOOR IMPACT SENSOR LH.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front door impact sensor LH with a genuine sensor. <Ref. to AB-86, REMOVAL, Front Door Impact Sensor.>	Does the warning light go off?	Finish the diagnosis.	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>

BR:DTC B1695 DOOR SENSOR LH FAILURE

DTC DETECTING CONDITION:

Front door impact sensor LH is faulty.
If DTC AB is displayed, the circuit within the front door impact sensor LH is faulty.
Replace the front door impact sensor LH. <Ref. to AB-86, REMOVAL, Front Door Impact Sensor.>

BS:DTC B1697 LOST COMMUNICATION WITH DOOR SENSOR LH

NOTE:
For details on DTC B1697, refer to DTC B1698. <Ref. to AB(diag)-81, DTC B1698 DOOR SENSOR LH INITIALIZATION INCOMPLETE, Diagnostic Chart with Trouble Code.>

BT:DTC B1698 DOOR SENSOR LH INITIALIZATION INCOMPLETE

DTC DETECTING CONDITION:

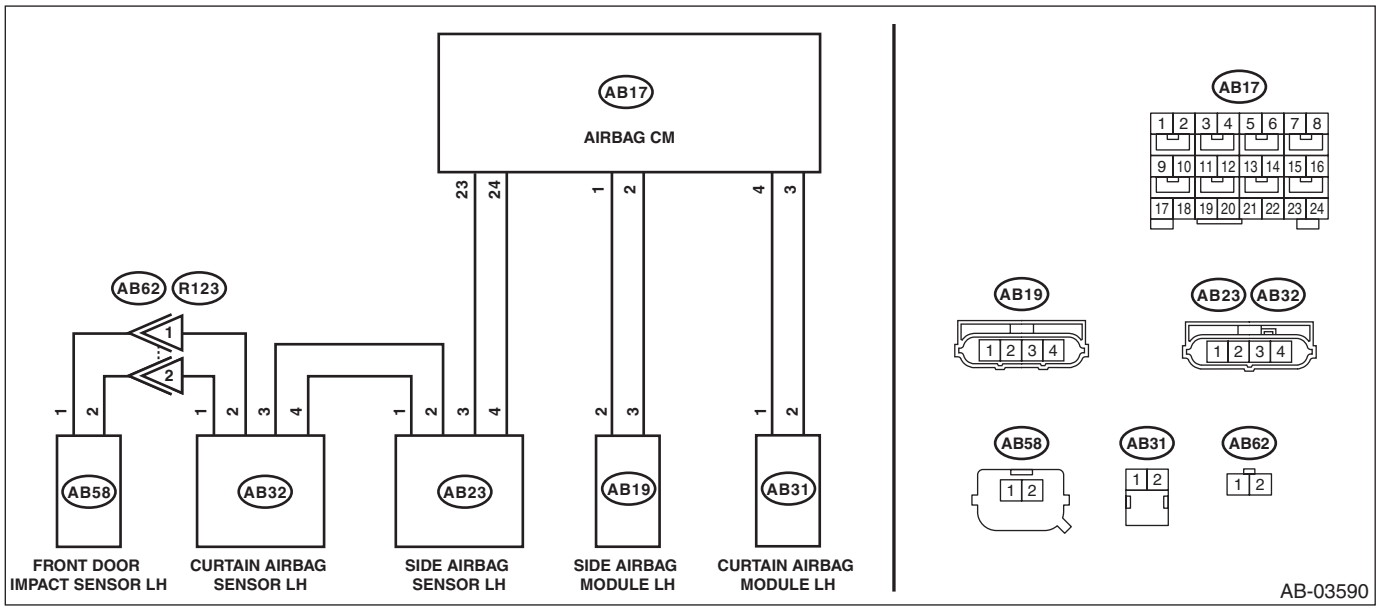
- Open or short circuit in harness of side sensor bus LH.
- Front door impact sensor LH is faulty.
- Curtain airbag sensor LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1627 or B1628 displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK DTC.** Read the DTC. (Current malfunction)	Is DTC B1637 or B1638 displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the front door impact sensor LH.	Is there poor contact?	Replace the airbag rear harness and the door harness.	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR LH AND FRONT DOOR IMPACT SENSOR LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the connector (AB19) from side airbag module LH. 5) Disconnect the connector (AB32) from curtain airbag sensor LH, and connect the connector (2V) in test harness V to connector (AB32). 6) Disconnect the connector (AB58) from the front door impact sensor LH, and connect the connector (1H) in the test harness H to connector (AB58). 7) Measure the resistance between connector (3V) in the test harness V and connector (3H) in the test harness H. ***Connector & terminal*** ***(3V) No. 4 — (3H) No. 5:*** ***(3V) No. 5 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **5**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
5	**CHECK AIRBAG REAR HARNESS AND DOOR HARNESS (BETWEEN CURTAIN AIRBAG SENSOR LH AND FRONT DOOR IMPACT SENSOR LH).** Measure the resistance between connector (3V) in test harness V and chassis ground, and the resistance between connector (3V) terminals in test harness V. ***Connector & terminal*** ***(3V) No. 4 — Chassis ground:*** ***(3V) No. 5 — Chassis ground:*** ***(3V) No. 4 — (3V) No. 5:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Check the door harness, and if any fault is found, replace the harness. If there is no fault, replace the airbag rear harness together with body harness.
6	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **7**.	Go to step **9**.
7	**REPLACE FRONT DOOR IMPACT SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the front door impact sensor LH.<Ref. to AB-86, REMOVAL, Front Door Impact Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Go to step **8**.	Go to step **9**.

	Step	Check	Yes	No
8	**REPLACE CURTAIN AIRBAG SENSOR LH AND CHECK AIRBAG CONTROL MODULE AFTER REPLACEMENT.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Replace the curtain airbag sensor LH.<Ref. to AB-95, REMOVAL, Curtain Airbag Sensor.> 3) Connect all connectors. 4) Clear the memory. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **9**.
9	**CHECK FOR ANY OTHER DTC ON DISPLAY.** Read the DTC. (Current malfunction)	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code".<Ref. to AB(diag)-30, LIST, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

BU:DTC B161A LOST COMMUNICATION WITH FRONT SATELLITE SENSOR BUS

DTC DETECTING CONDITION:

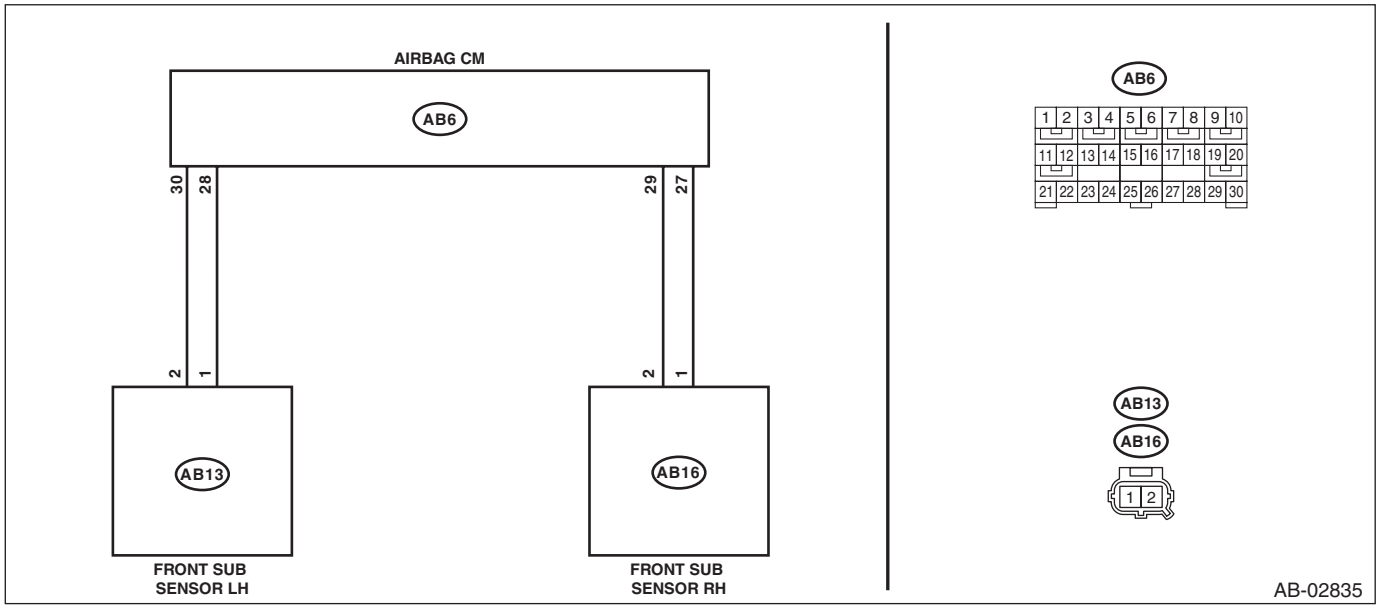
- Harness between airbag control module and front sub sensor is open or shorted.
- Front sub sensor is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the front sub sensor.	Is there poor contact?	Replace the airbag main harness along with body harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connectors (AB7) and (AB2). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connector (AB66) from the driver's knee airbag module. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Disconnect the connector (AB13) from the front sub sensor LH, and then connect the connector (1H) in the test harness H to connector (AB13). 8) Measure the resistance between connector (4AG) in the test harness AG and connector (3H) in the test harness H. ***Connector & terminal*** ***(4AG) No. 7 — (3H) No. 5:*** ***(4AG) No. 9 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS LH).** Measure the resistance between connector (4AG) in the test harness AG and chassis ground, and the resistance between connector (4AG) terminals in the test harness AG. ***Connector & terminal*** ***(4AG) No. 7 — Chassis ground:*** ***(4AG) No. 9 — Chassis ground:*** ***(4AG) No. 7 — (4AG) No. 9:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS RH).** 1) Disconnect the connector (AB16) from the front sub sensor RH, and then connect the connector (1H) in the test harness H to connector (AB16). 2) Measure the resistance between connector (4AG) in the test harness AG and connector (3H) in the test harness H. ***Connector & terminal*** ***(4AG) No. 14 — (3H) No. 5:*** ***(4AG) No. 12 — (3H) No. 6:***	Is the resistance less than 10 Ω?	Go to step **5**.	Replace the airbag main harness along with body harness.
5	**CHECK AIRBAG MAIN HARNESS (FRONT SENSOR BUS RH).** Measure the resistance between connector (4AG) in the test harness AG and chassis ground, and the resistance between connector (4AG) terminals in the test harness AG. ***Connector & terminal*** ***(4AG) No. 12 — Chassis ground:*** ***(4AG) No. 14 — Chassis ground:*** ***(4AG) No. 12 — (4AG) No. 14:***	Is the resistance 1 MΩ or more?	Go to step **6**.	Replace the airbag rear harness along with body harness.

Step		Check	Yes	No
6	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the front sub sensor LH and front sub sensor RH. <Ref. to AB-83, REMOVAL, Front Sub Sensor.> Replace the airbag control module if not operating normally even after replacing the sensor. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **7**.
7	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

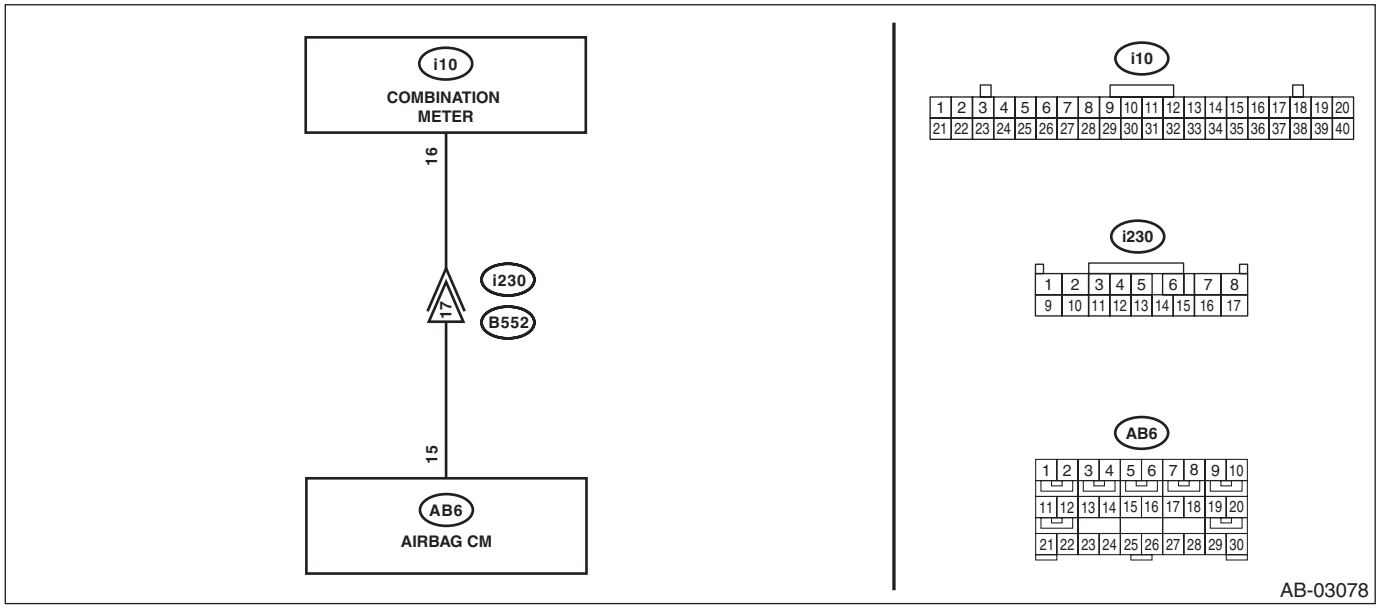
BV:DTC B16F1 PASSENGER'S SEAT BELT WARNING FAILURE

DTC DETECTING CONDITION:

- Airbag control module is faulty.
- Meter is faulty.
- Harness circuits between meter and airbag control module are open, shorted or shorted to ground.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:
Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK AIRBAG HARNESS.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 3) Connect the battery ground terminal and turn the ignition switch to ON.	Does the passenger's seat belt warning light blink for 6 seconds and go off?	Go to step **3**.	Go to step **2**.
2	**CHECK AIRBAG HARNESS.** 1) Turn the ignition switch to OFF. 2) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 3) Measure the resistance between connector (2AG) in the test harness AG and chassis ground. ***Connector & terminal (2AG) No. 10 — Chassis ground:***	Is the resistance 1 MΩ or more?	Replace the meter. <Ref. to IDI-18, REMOVAL, Combination Meter.>	Repair the bulkhead harness and instrument panel harness. Or replace the airbag main harness along with body harness.
3	**CHECK AIRBAG HARNESS.** 1) Turn the ignition switch to OFF. 2) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 3) Connect the connectors (7AG) and (8AG) in the test harness AG. 4) Turn the ignition switch to ON.	Does the passenger's seat belt warning light blink for 6 seconds, then repeatedly light and go off?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK AIRBAG HARNESS.** 1) Turn the ignition switch to OFF. 2) Disconnect the connectors (7AG) and (8AG) in the test harness AG in the condition of step 3. 3) Disconnect the connector (i10) from meter. 4) Measure the resistance between connector (2AG) in the test harness AG and connector (i84). ***Connector & terminal*** ***(2AG) No. 10 — (i10) No. 16:***	Is the resistance less than 10 Ω?	Replace the meter. <Ref. to IDI-18, REMOVAL, Combination Meter.>	Repair the bulkhead harness and instrument panel harness. Or replace the airbag main harness along with body harness.

BW:DTC B16F0 PASSENGER'S AIRBAG OFF INDICATOR FAILURE

NOTE:
For details on DTC B16F0, refer to DTC B1660. <Ref. to AB(diag)-71, DTC B1660 PASSENGER'S AIRBAG ON INDICATOR FAILURE, Diagnostic Chart with Trouble Code.>

BX:DTC B1760 SENSOR MAT ABNORMAL

NOTE:
Refer to "Occupant Detection System" for details on DTC B1760. <Ref. to OD(diag)-22, DTC B1760 SENSOR MAT ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

BY:DTC B1771 BUCKLE SWITCH ABNORMAL

NOTE:
Refer to "Occupant Detection System" for details on DTC B1771. <Ref. to OD(diag)-22, DTC B1771 BUCKLE SWITCH ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

BZ:DTC B1795 ECU INTERNAL CIRCUIT FAULT

NOTE:
Refer to "Occupant Detection System" for details on DTC B1795. <Ref. to OD(diag)-22, DTC B1795 ECU INTERNAL CIRCUIT FAULT, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

CA:DTC B1800 SHORT IN DRIVER'S AIRBAG

DTC DETECTING CONDITION:

- Airbag main harness circuit is shorted.
- Airbag module harness (driver's side) circuit is shorted.
- Roll connector circuit is shorted.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

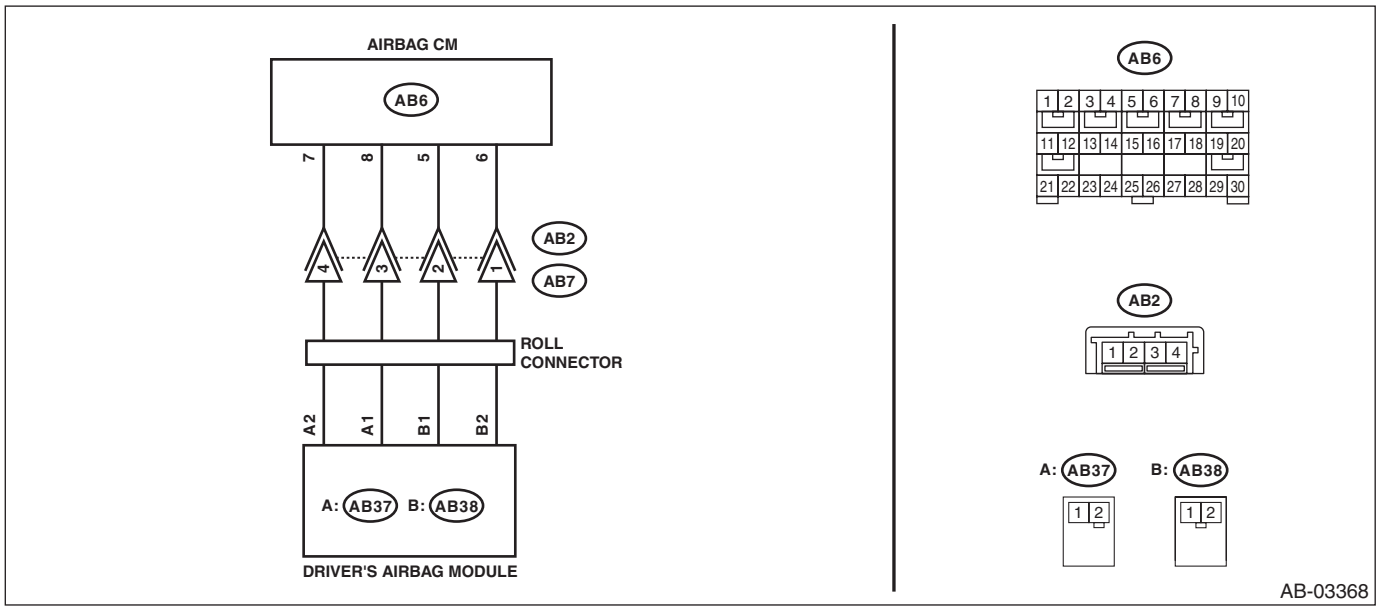
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:

Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK ROLL CONNECTOR AND AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the console front panel and disconnect the connector (AB9). 3) Disconnect the driver's knee airbag module connector (AB66). 4) Disconnect the airbag resistor from the connector (2N) in test harness N and from the connector (2Q) in test harness Q. 5) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 6) Measure the resistance between connector (2Q) terminals in test harness Q. ***Connector & terminal (2Q) No. 1 — (2Q) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Go to step **4**.
4	**CHECK AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 2) Measure the resistance between connector (3AG) terminals in test harness AG. ***Connector & terminal (3AG) No. 1 — (3AG) No. 3:***	Is the resistance 1 MΩ or more?	Replace the roll connector. <Ref. to AB-102, Roll Connector.>	Replace the airbag main harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CB:DTC B1801 OPEN IN DRIVER'S AIRBAG

DTC DETECTING CONDITION:

- Airbag main harness circuit is open.
- Airbag module harness (driver's side) circuit is open.
- Roll connector is open.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

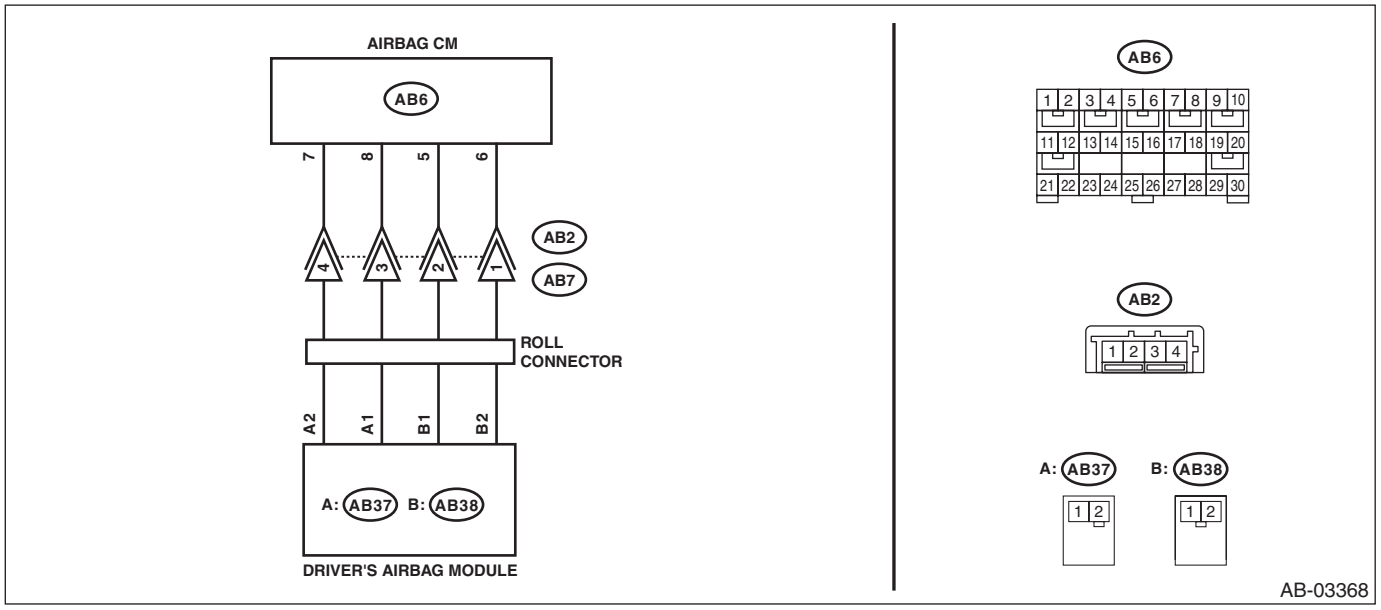
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:

Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK ROLL CONNECTOR AND AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the console front panel and disconnect the connector (AB9). 3) Disconnect the driver's knee airbag module connector (AB66). 4) Disconnect the airbag resistor from the connector (2N) in test harness N. 5) Disconnect the airbag resistor from the connector (2Q) of test harness Q. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Measure the resistance between connector (2Q) terminals in test harness Q. ***Connector & terminal*** ***(2Q) No. 1 — (2Q) No. 2:***	Is the resistance less than 10 Ω?	Go to step **5**.	Go to step **4**.
4	**CHECK ROLL CONNECTOR.** 1) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 2) Measure the resistance between connector (2Q) terminals in test harness Q. ***Connector & terminal*** ***(2Q) No. 1 — (2Q) No. 2:***	Is the resistance less than 10 Ω?	Replace the airbag main harness along with body harness.	Replace the roll connector. <Ref. to AB-102, Roll Connector.>
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CC:DTC B1802 SHORT IN DRIVER'S AIRBAG (TO GROUND)

DTC DETECTING CONDITION:

- Airbag main harness circuit is shorted to ground.
- Airbag module harness (driver's side) circuit is shorted to ground.
- Roll connector circuit is shorted to ground.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

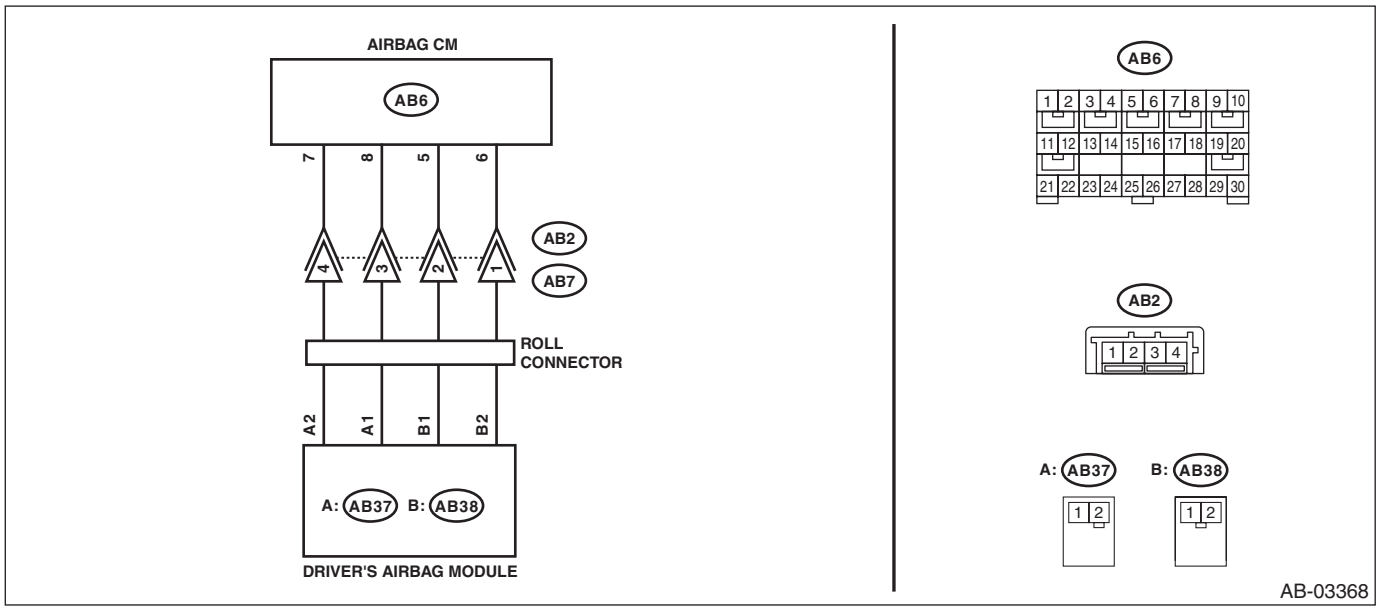
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:

Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK ROLL CONNECTOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 3) Disconnect the driver's knee airbag module connector (AB66). 4) Disconnect the airbag resistor from the connector (2N) in test harness N and from the connector (2Q) in test harness Q. 5) Measure the resistance between connector (2Q) in the test harness Q and chassis ground. ***Connector & terminal*** ***(2Q) No. 1 — Chassis ground:*** ***(2Q) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the roll connector. <Ref. to AB-102, Roll Connector.>
4	**CHECK AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Disconnect the test harness N from connector (AB38). 2) Disconnect the test harness Q from connector (AB37). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 5) Measure the resistance between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 1 — Chassis ground:*** ***(3AG) No. 3 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Replace the airbag main harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CD:DTC B1803 SHORT IN DRIVER'S AIRBAG (TO +B)

DTC DETECTING CONDITION:

- Airbag main harness circuit is shorted to power supply.
- Airbag module harness (driver's side) circuit is shorted to power supply.
- Roll connector circuit is shorted to power supply.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

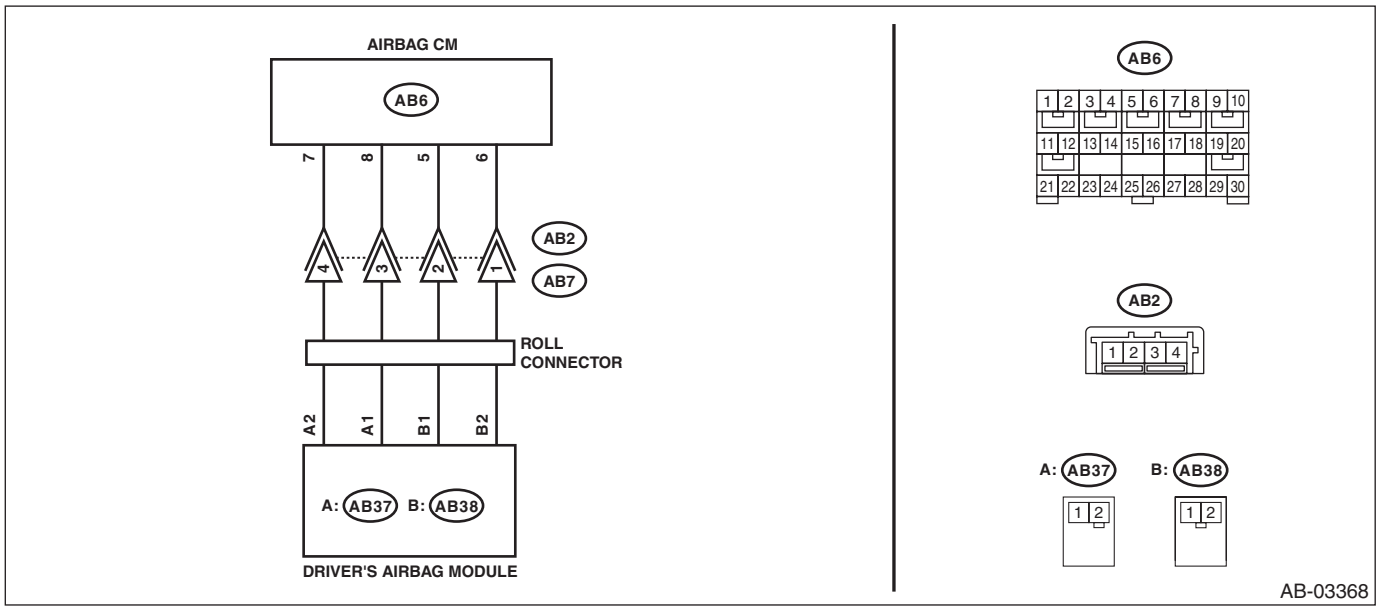
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:

Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK ROLL CONNECTOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 3) Disconnect the driver's knee airbag module connector (AB66). 4) Disconnect the airbag resistor from the connector (2N) in test harness N and from the connector (2Q) in test harness Q. 5) Measure the voltage between connector (2Q) in the test harness Q and chassis ground. ***Connector & terminal*** ***(2Q) No. 1 (+) — Chassis ground (–):*** ***(2Q) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the roll connector. <Ref. to AB-102, Roll Connector.>
4	**CHECK AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Disconnect the test harness N from connector (AB38). 2) Disconnect the test harness Q from connector (AB37). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 5) Connect the battery ground terminal and turn the ignition switch to ON. 6) Measure the voltage between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 1 (+) — Chassis ground (–):*** ***(3AG) No. 3 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **5**.	Replace the airbag main harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CE:DTC B1805 SHORT IN PASSENGER'S AIRBAG

DTC DETECTING CONDITION:

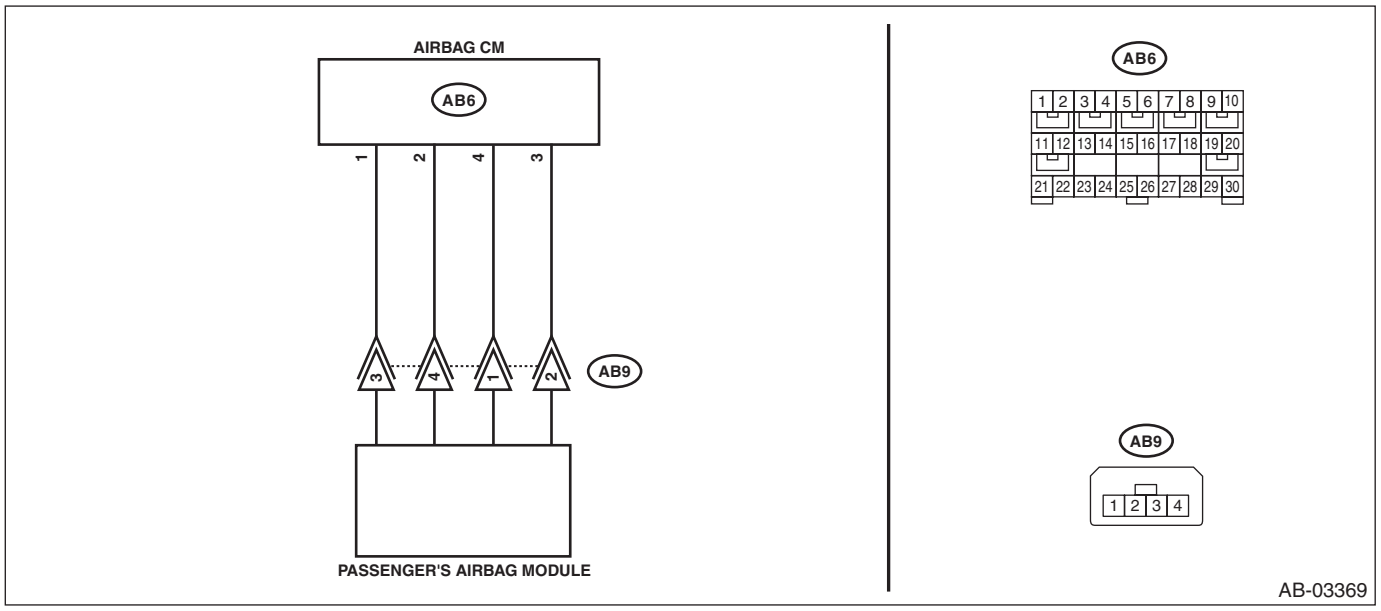
- Airbag main harness circuit is shorted.
- Airbag module harness circuit (passenger's side) is shorted.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, connect the connector (1AG) in the test harness AG, and release the short mechanism of the connectors (AB6, AB17, AB18). 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the resistance between the terminals of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the resistance, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 1 — (AB9) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Disconnect the test harness AG from the connectors (AB6, AB17, AB18). 2) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 3) Connect the connectors (AB7) and (AB2). 4) Connect the connector (AB66) to the driver's knee airbag module. 5) Connect the battery ground terminal and turn the ignition switch to ON. 6) Perform the Inspection Mode. 7) Read the DTC. (Current malfunction)	Is DTC B1805 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Connect the passenger's airbag module connector (AB9). 3) Connect the battery ground terminal and turn the ignition switch to ON. 4) Perform the Inspection Mode. 5) Read the DTC. (Current malfunction)	Is DTC B1805 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CF:DTC B1806 OPEN IN PASSENGER'S AIRBAG

DTC DETECTING CONDITION:

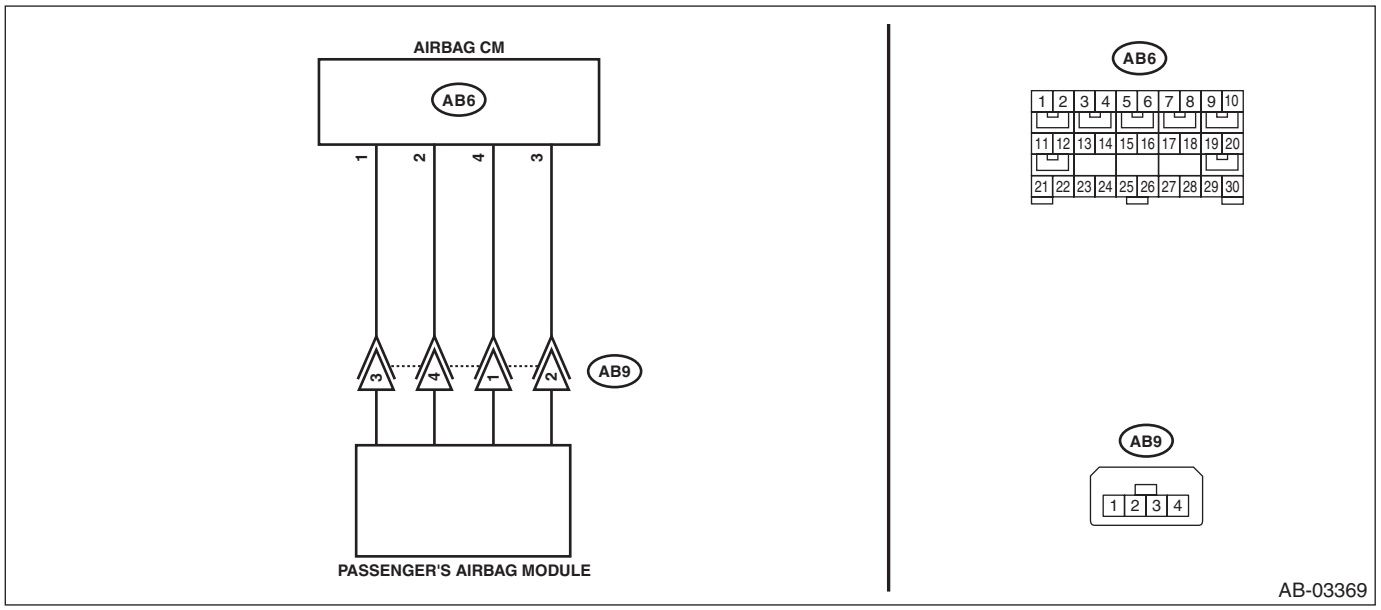
- Airbag main harness circuit is open.
- Airbag module harness (passenger's side) circuit is open.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the resistance between the terminals of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the resistance, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 1 — (AB9) No. 2:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 2) Connect the connectors (AB7) and (AB2). 3) Connect the connector (AB66) to the driver's knee airbag module. 4) Using a probe, short the terminals No. 1 and No. 2 of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When shorting the terminals, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 1 — (AB9) No. 2:*** 5) Connect the battery ground terminal and turn the ignition switch to ON. 6) Perform the Inspection Mode. 7) Read the DTC. (Current malfunction)	Is DTC B1806 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Connect the passenger's airbag module connector (AB9). 3) Connect the battery negative terminal, and clear the memory. 4) Perform the Inspection Mode. 5) Read the DTC. (Current malfunction)	Is DTC B1806 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.

Step		Check	Yes	No
5	CHECK FOR ANY OTHER DTC ON DISPLAY.	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CG:DTC B1807 SHORT IN PASSENGER'S AIRBAG (TO GROUND)

DTC DETECTING CONDITION:

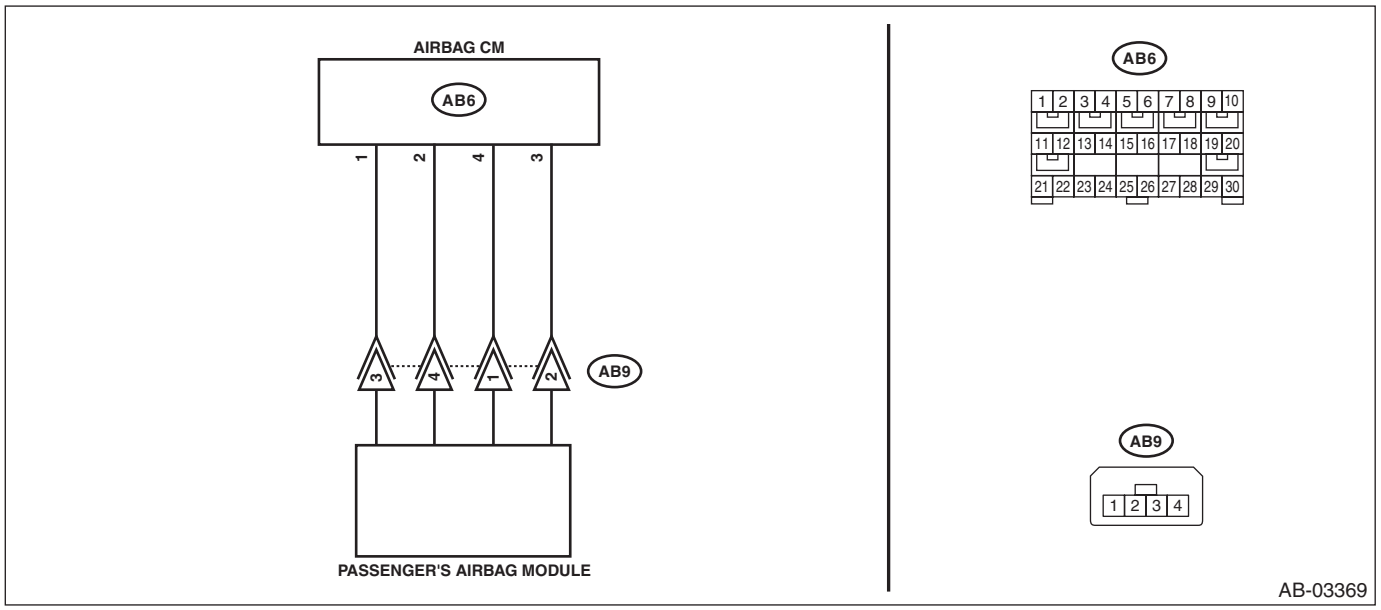
- Airbag main harness circuit is shorted to ground.
- Airbag module harness (passenger's side) circuit is shorted to ground.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the resistance between the connector (AB9) and chassis ground. <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the resistance, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 1 — Chassis ground:*** ***(AB9) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 2) Using a probe, short the terminals No. 1 and No. 2 of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When shorting the terminals, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 1 — (AB9) No. 2:*** 3) Connect the battery ground terminal and turn the ignition switch to ON. 4) Perform the Inspection Mode. 5) Read the DTC. (Current malfunction)	Is DTC B1807 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Release the short circuit of connector (AB9). 3) Connect the passenger's airbag module connector (AB9). 4) Connect the connectors (AB7) and (AB2). 5) Connect the connector (AB66) to the driver's knee airbag module. 6) Connect the battery ground terminal and turn the ignition switch to ON. 7) Perform the Inspection Mode. 8) Read the DTC. (Current malfunction)	Is DTC B1807 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.

Step		Check	Yes	No
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CH:DTC B1808 SHORT IN PASSENGER'S AIRBAG (TO +B)

DTC DETECTING CONDITION:

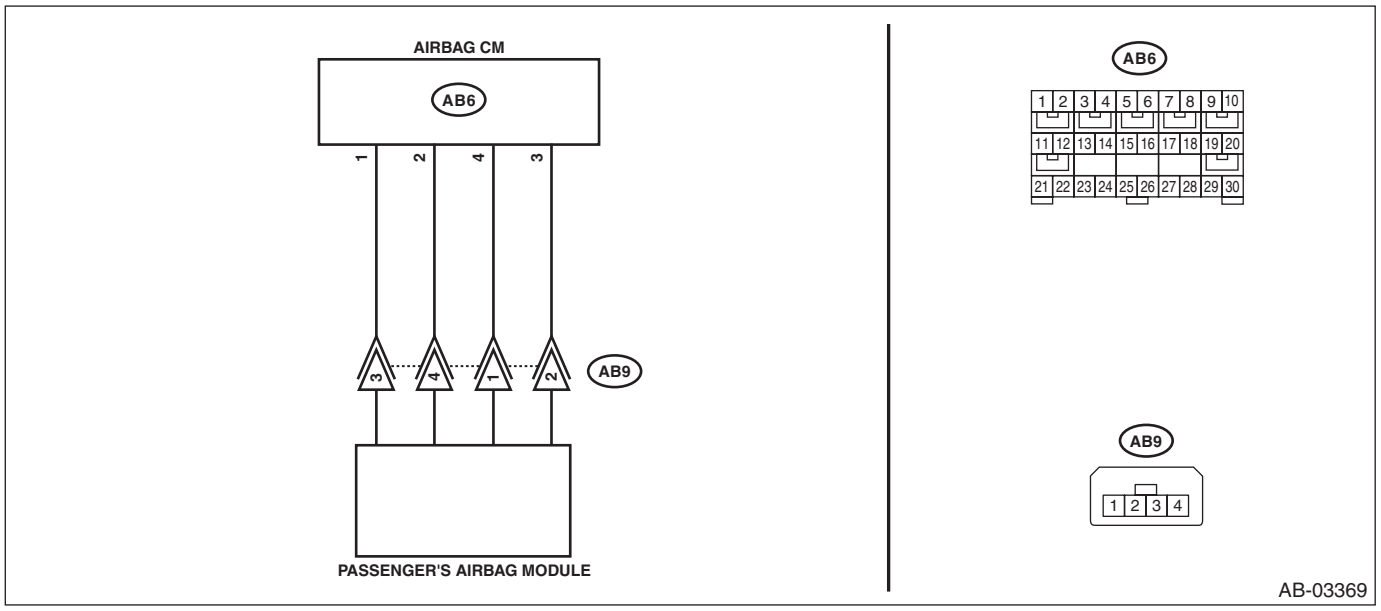
- Airbag main harness circuit is shorted to power supply.
- Airbag module harness (passenger's side) circuit is shorted to power supply.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the voltage between the connector (AB9) and chassis ground. <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the voltage, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 1 (+) — Chassis ground (–):*** ***(AB9) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 3) Using a probe, short the terminals No. 1 and No. 2 of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When shorting the terminals, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 1 — (AB9) No. 2:*** 4) Connect the battery ground terminal and turn the ignition switch to ON. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is DTC B1808 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Release the short circuit of connector (AB9). 3) Connect the passenger's airbag module connector (AB9). 4) Connect the connectors (AB7) and (AB2). 5) Connect the connector (AB66) to the driver's knee airbag module. 6) Connect the battery ground terminal and turn the ignition switch to ON. 7) Perform the Inspection Mode. 8) Read the DTC. (Current malfunction)	Is DTC B1808 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CI: DTC B1810 SHORT IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP

DTC DETECTING CONDITION:

- Airbag main harness circuit is shorted.
- Airbag module harness (driver's side) circuit is shorted.
- Roll connector circuit is shorted.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

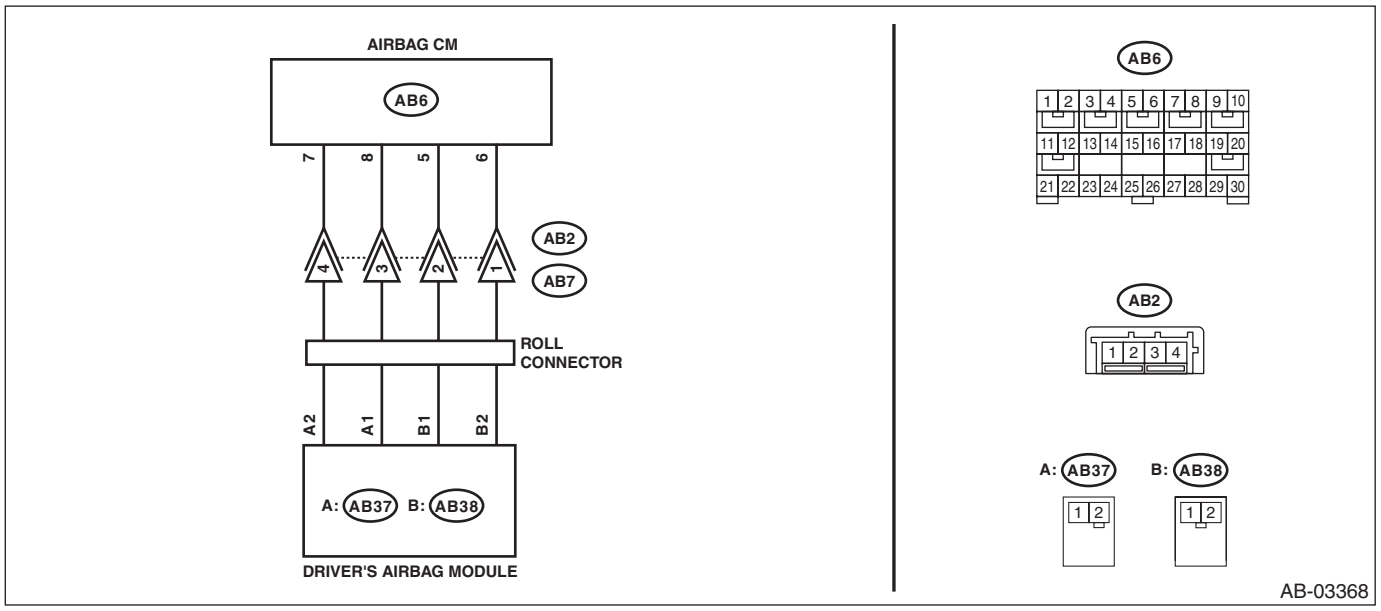
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:

Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

Step		Check	Yes	No
3	**CHECK ROLL CONNECTOR AND AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the console front panel and disconnect the connector (AB9). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the airbag resistor from the connector (2N) in test harness N and from the connector (2Q) in test harness Q. 5) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 6) Measure the resistance between connector (2N) terminals in test harness N. ***Connector & terminal (2N) No. 1 — (2N) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Go to step **4**.
4	**CHECK AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 2) Disconnect the test harness Q from connector (AB37). 3) Measure the resistance between connector (3AG) terminals in test harness AG. ***Connector & terminal (3AG) No. 2 — (3AG) No. 4:***	Is the resistance 1 MΩ or more?	Replace the roll connector. <Ref. to AB-102, Roll Connector.>	Replace the airbag main harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CJ:DTC B1811 OPEN IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP

DTC DETECTING CONDITION:

- Airbag main harness circuit is open.
- Airbag module harness (driver's side) circuit is open.
- Roll connector circuit is open.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

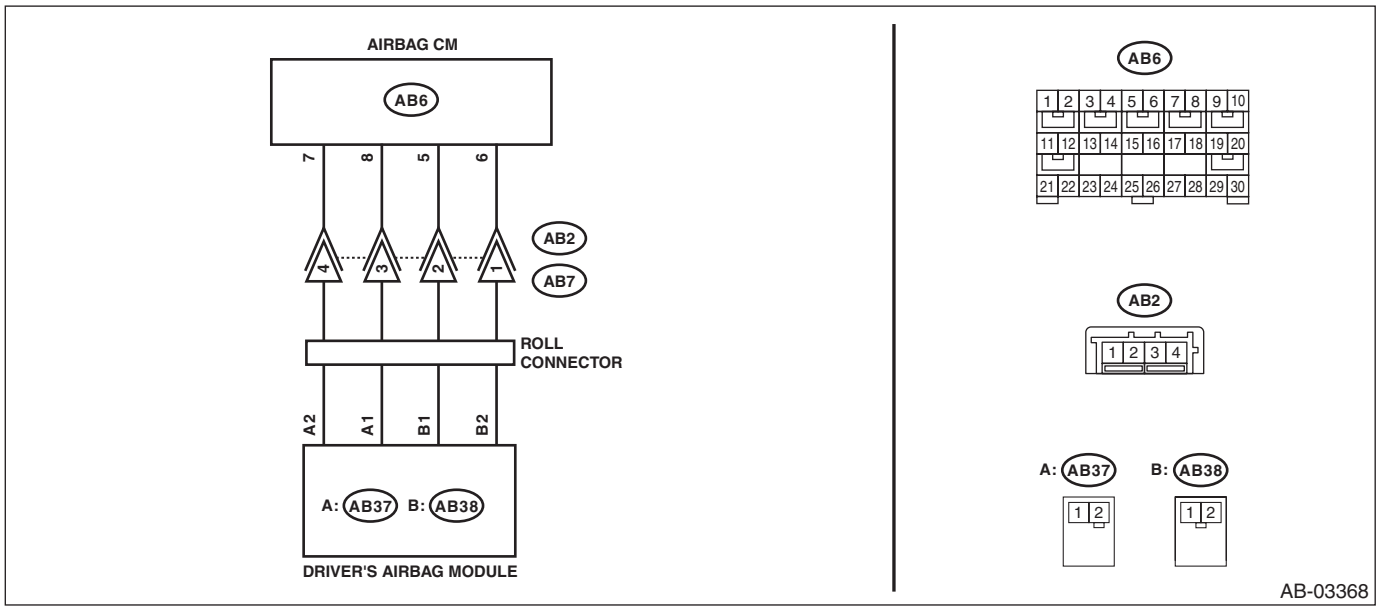
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:

Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK ROLL CONNECTOR AND AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the console front panel and disconnect the connector (AB9). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the airbag resistor from the connector (2N) in test harness N. 5) Disconnect the airbag resistor from the connector (2Q) of test harness Q. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Measure the resistance between connector (2N) terminals in test harness N. ***Connector & terminal*** ***(2N) No. 1 — (2N) No. 2:***	Is the resistance less than 10 Ω?	Go to step **5**.	Go to step **4**.
4	**CHECK ROLL CONNECTOR.** 1) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 2) Measure the resistance between connector (2N) terminals in test harness N. ***Connector & terminal*** ***(2N) No. 1 — (2N) No. 2:***	Is the resistance less than 10 Ω?	Replace the airbag main harness along with body harness.	Replace the roll connector. <Ref. to AB-102, Roll Connector.>
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CK:DTC B1812 SHORT IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP (TO GROUND)

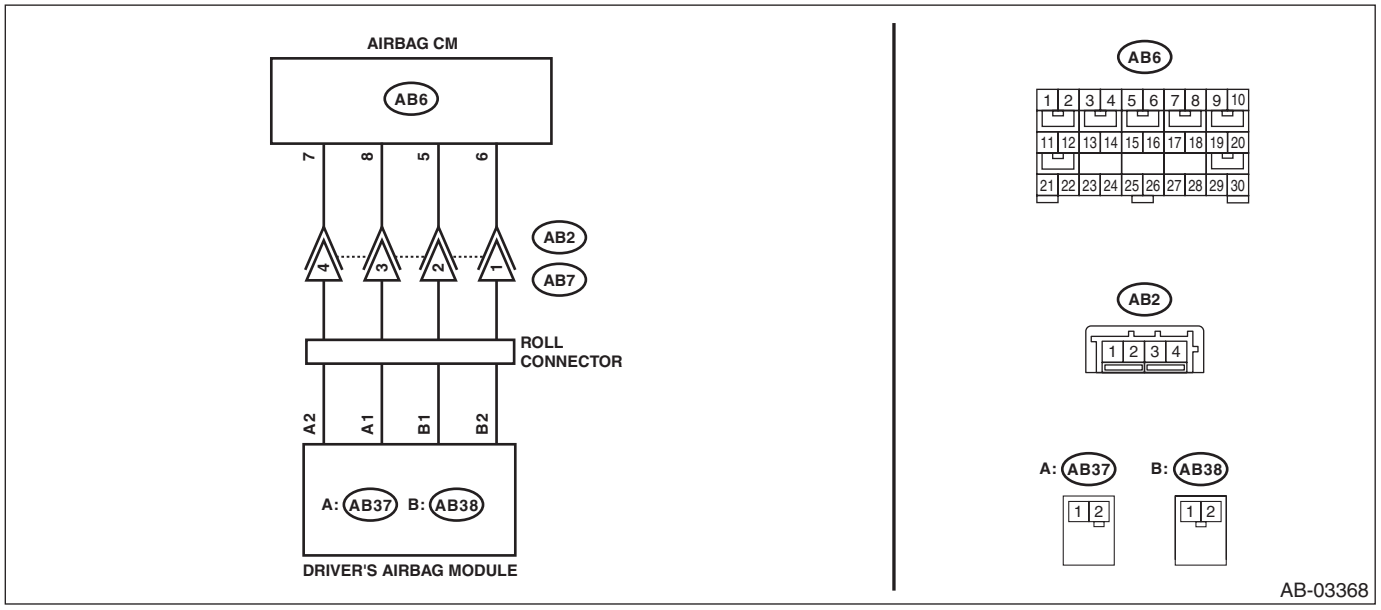
DTC DETECTING CONDITION:

- Airbag main harness circuit is shorted to ground.
- Airbag module harness (driver's side) circuit is shorted to ground.
- Roll connector circuit is shorted to ground.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:
Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:
Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK ROLL CONNECTOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the airbag resistor from the connector (2N) in test harness N and from the connector (2Q) in test harness Q. 5) Measure the resistance between connector (2N) in the test harness N and chassis ground. ***Connector & terminal*** ***(2N) No. 1 — Chassis ground:*** ***(2N) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the roll connector. <Ref. to AB-102, Roll Connector.>
4	**CHECK AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Disconnect the test harness N from connector (AB38). 2) Disconnect the test harness Q from connector (AB37). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 5) Measure the resistance between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 2 — Chassis ground:*** ***(3AG) No. 4 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **5**.	Replace the airbag main harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CL:DTC B1813 SHORT IN DRIVER'S AIRBAG DUAL STAGE - 2ND STEP CIRCUIT (TO +B)

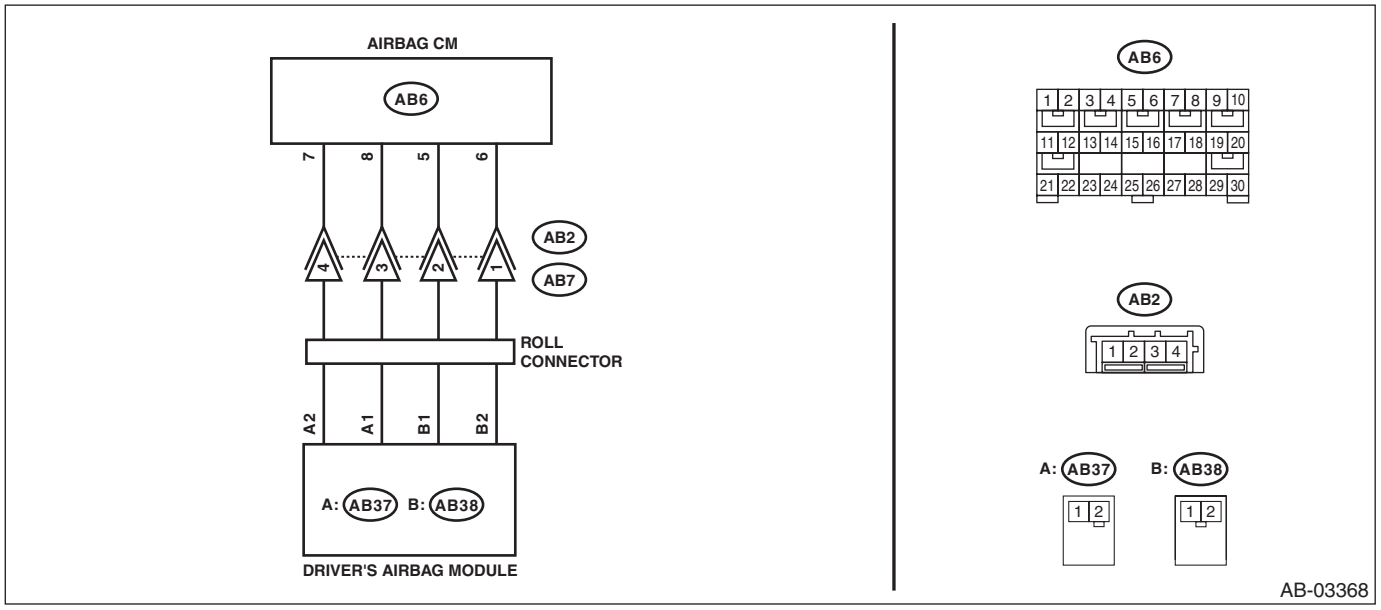
DTC DETECTING CONDITION:

- Airbag main harness circuit is shorted to power supply.
- Airbag module harness (driver's side) circuit is shorted to power supply.
- Roll connector is shorted to power supply.
- Driver's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:
Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

NOTE:
Prior to starting work, prepare two AIRBAG RESISTORs (98299PA040).

WIRING DIAGRAM:
Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the driver's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK DRIVER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the driver's airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB38). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the connector (1Q) in the test harness Q to connector (AB37). 6) Connect the airbag resistor to the connector (2Q) in the test harness Q. 7) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the driver's airbag module. <Ref. to AB-39, Driver's Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK ROLL CONNECTOR.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the airbag resistor from the connector (2N) in test harness N and from the connector (2Q) in test harness Q. 5) Measure the voltage between connector (2N) in the test harness N and chassis ground. ***Connector & terminal*** ***(2N) No. 1 (+) — Chassis ground (–):*** ***(2N) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the roll connector. <Ref. to AB-102, Roll Connector.>
4	**CHECK AIRBAG MAIN HARNESS (DRIVER'S AIRBAG HARNESS).** 1) Disconnect the test harness N from connector (AB38). 2) Disconnect the test harness Q from connector (AB37). 3) Remove the console front panel and disconnect the connector (AB9). 4) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 5) Measure the voltage between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 2 (+) — Chassis ground (–):*** ***(3AG) No. 4 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **5**.	Replace the airbag main harness along with body harness.
5	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **6**.
6	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CM:DTC B1815 OPEN IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP

DTC DETECTING CONDITION:

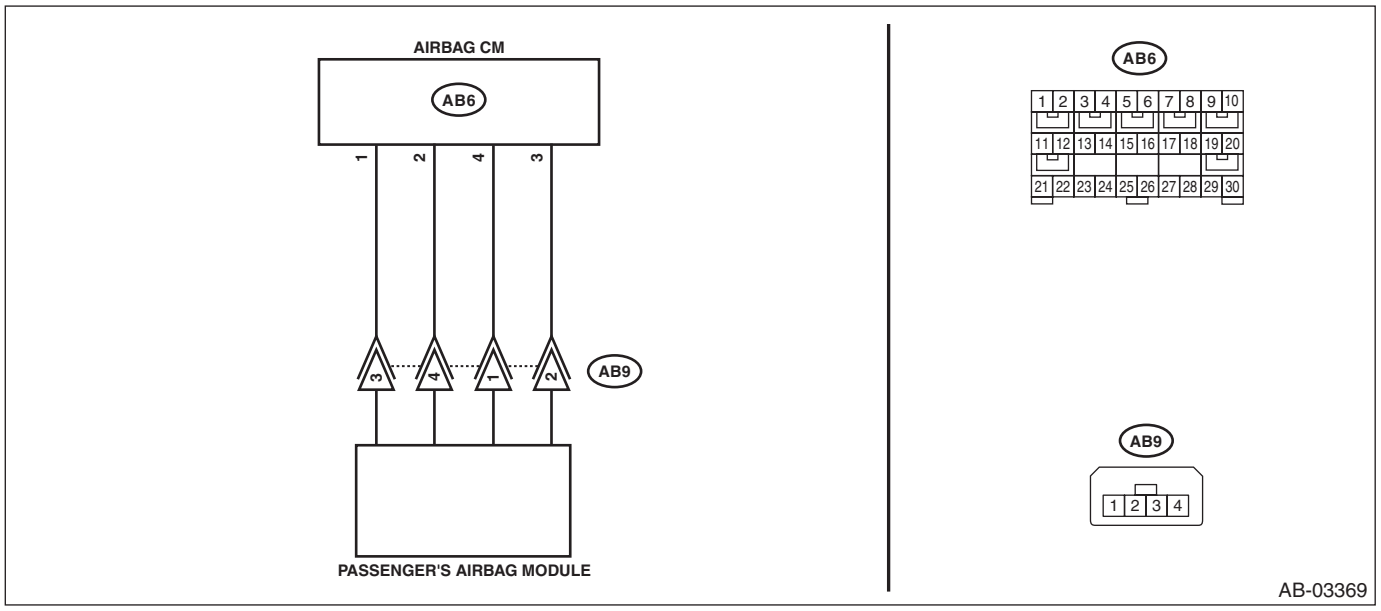
- Airbag main harness circuit is shorted.
- Airbag module harness circuit (passenger's side) is shorted.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, connect the connector (1AG) in the test harness AG, and release the short mechanism of the connectors (AB6, AB17, AB18). 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the resistance between the terminals of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the resistance, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 3 — (AB9) No. 4:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Disconnect the test harness AG from the connectors (AB6, AB17, AB18). 2) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 3) Connect the connectors (AB7) and (AB2). 4) Connect the connector (AB66) to the driver's knee airbag module. 5) Connect the battery ground terminal and turn the ignition switch to ON. 6) Perform the Inspection Mode. 7) Read the DTC. (Current malfunction)	Is DTC B1815 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Connect the passenger's airbag module connector (AB9). 3) Connect the battery ground terminal and turn the ignition switch to ON. 4) Perform the Inspection Mode. 5) Read the DTC. (Current malfunction)	Is DTC B1815 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CN:DTC B1816 OPEN IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP

DTC DETECTING CONDITION:

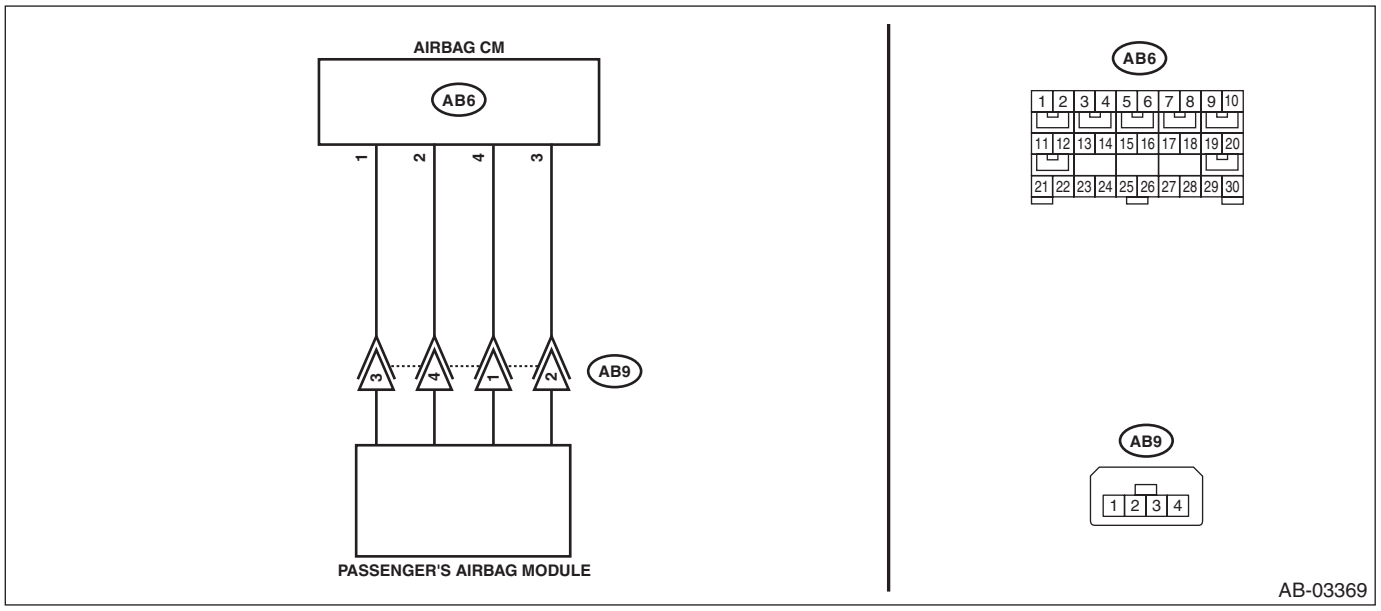
- Airbag main harness circuit is open.
- Airbag module harness (passenger's side) circuit is open.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the resistance between the terminals of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the resistance, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 3 — (AB9) No. 4:***	Is the resistance less than 10 Ω?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 2) Connect the connectors (AB7) and (AB2). 3) Connect the connector (AB66) to the driver's knee airbag module. 4) Using a probe, short the terminals No. 3 and No. 4 of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When shorting the terminals, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 3 — (AB9) No. 4:*** 5) Connect the battery ground terminal and turn the ignition switch to ON. 6) Perform the Inspection Mode. 7) Read the DTC. (Current malfunction)	Is DTC B1816 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Connect the passenger's airbag module connector (AB9). 3) Connect the battery ground terminal and turn the ignition switch to ON. 4) Perform the Inspection Mode. 5) Read the DTC. (Current malfunction)	Is DTC B1816 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.

Step		Check	Yes	No
5	CHECK FOR ANY OTHER DTC ON DISPLAY.	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CO:DTC B1817 SHORT IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP (TO GROUND)

DTC DETECTING CONDITION:

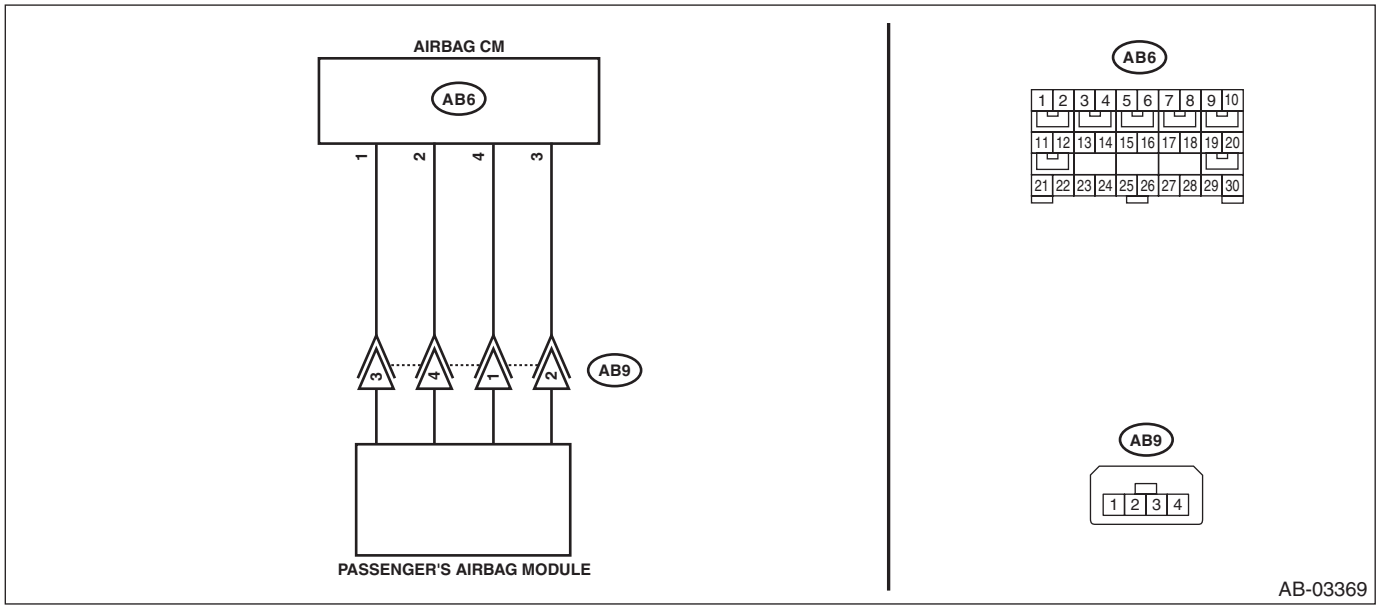
- Airbag main harness circuit is shorted to ground.
- Airbag module harness (passenger's side) circuit is shorted to ground.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the resistance between the connector (AB9) and chassis ground. <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the resistance, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 3 — Chassis ground:*** ***(AB9) No. 4 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 2) Using a probe, short the terminals No. 3 and No. 4 of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When shorting the terminals, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 3 — (AB9) No. 4:*** 3) Connect the battery ground terminal and turn the ignition switch to ON. 4) Perform the Inspection Mode. 5) Read the DTC. (Current malfunction)	Is DTC B1817 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Release the short circuit of connector (AB9). 3) Connect the passenger's airbag module connector (AB9). 4) Connect the connectors (AB7) and (AB2). 5) Connect the connector (AB66) to the driver's knee airbag module. 6) Connect the battery ground terminal and turn the ignition switch to ON. 7) Perform the Inspection Mode. 8) Read the DTC. (Current malfunction)	Is DTC B1817 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.

Step		Check	Yes	No
5	CHECK FOR ANY OTHER DTC ON DISPLAY.	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CP:DTC B1818 SHORT IN PASSENGER'S AIRBAG DUAL STAGE - 2ND STEP CIRCUIT (TO +B)

DTC DETECTING CONDITION:

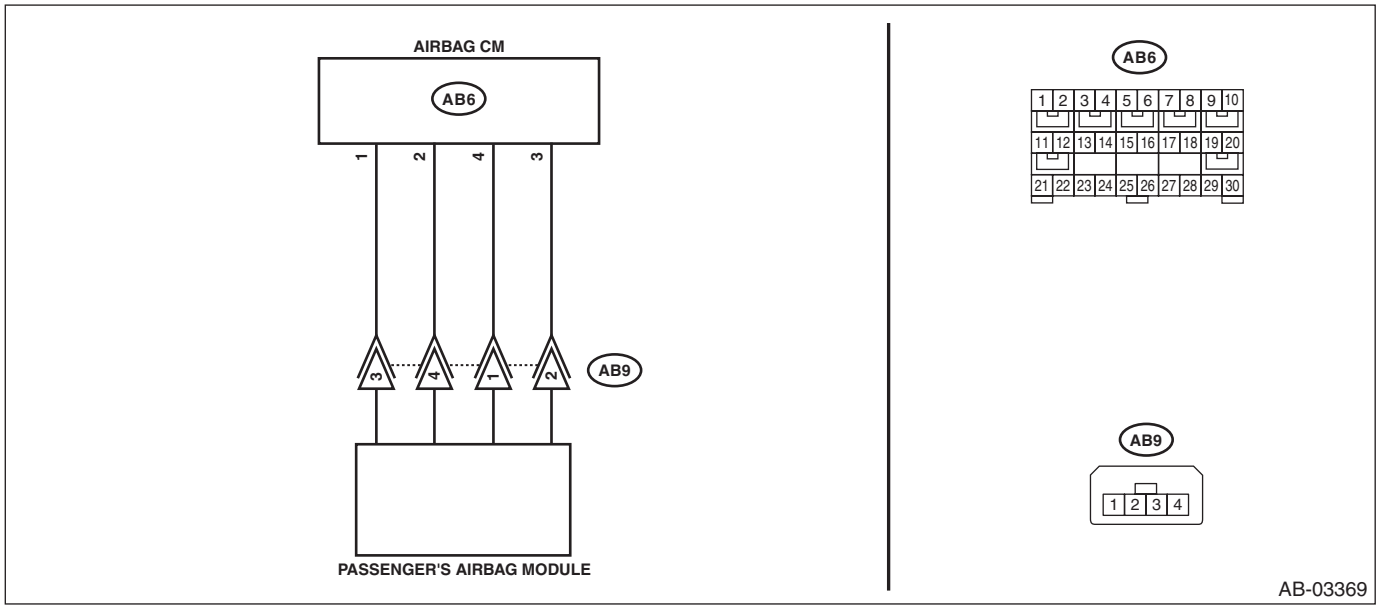
- Airbag main harness circuit is shorted to power supply.
- Airbag module harness (passenger's side) circuit is shorted to power supply.
- Passenger's airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the passenger's airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.

	Step	Check	Yes	No
2	**CHECK AIRBAG MAIN HARNESS (PASSENGER'S AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connectors (AB7) and (AB2). 3) Disconnect the connector (AB66) from the driver's knee airbag module. 4) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 5) Disconnect the passenger's airbag module connector (AB9). 6) Using a probe, measure the voltage between the connector (AB9) and chassis ground. <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When measuring the voltage, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 3 (+) — Chassis ground (–):*** ***(AB9) No. 4 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **3**.	Replace the airbag main harness along with body harness.
3	**CHECK AIRBAG CONTROL MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Connect the connectors (AB6, AB17, AB18) and the airbag control module. 3) Using a probe, short the terminals No. 3 and No. 4 of connector (AB9). <Ref. to AB(diag)-14, HOW TO USE PROBE, PREPARATION TOOL, General Description.> **CAUTION:** **When shorting the terminals, make sure that the probe is inserted from the back side (harness side) of the connector. Also, do not insert the probe forcibly.** ***Connector & terminal*** ***(AB9) No. 3 — (AB9) No. 4:*** 4) Connect the battery ground terminal and turn the ignition switch to ON. 5) Perform the Inspection Mode. 6) Read the DTC. (Current malfunction)	Is DTC B1818 displayed?	Replace the airbag control module. <Ref. to AB-78, REMOVAL, Airbag Control Module.>	Go to step **4**.

	Step	Check	Yes	No
4	**CHECK PASSENGER'S AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Release the short circuit of connector (AB9). 3) Connect the passenger's airbag module connector (AB9). 4) Connect the connectors (AB7) and (AB2). 5) Connect the connector (AB66) to the driver's knee airbag module. 6) Connect the battery ground terminal and turn the ignition switch to ON. 7) Perform the Inspection Mode. 8) Read the DTC. (Current malfunction)	Is DTC B1818 displayed?	Replace the passenger's airbag module. <Ref. to AB-44, REMOVAL, Passenger's Airbag Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CQ:DTC B1820 SHORT IN SIDE AIRBAG RH

DTC DETECTING CONDITION:

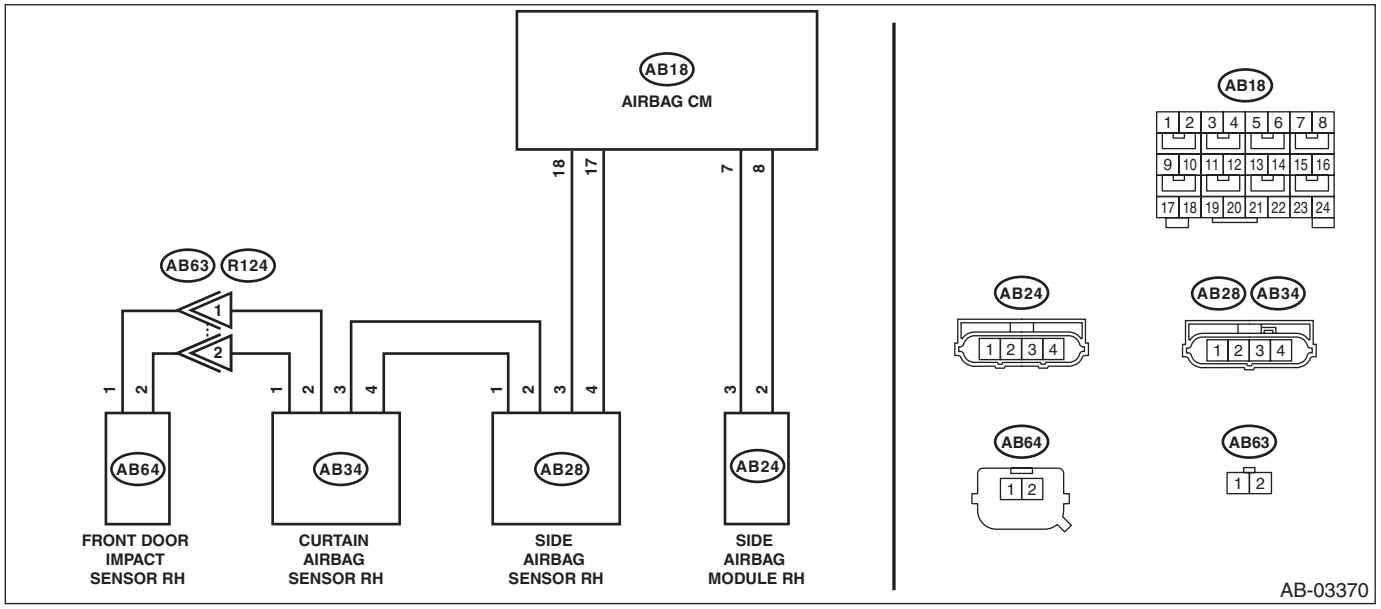
- Side airbag harness RH circuit is shorted.
- Side airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module RH and the side airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB24) from the side airbag module RH, and connect the connector (1AJ) in the test harness AJ to connector (AB24). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the side airbag module RH. <Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB33) from curtain airbag module RH. 5) Disconnect the airbag resistor from test harness AJ. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AJ) in the test harness AJ and chassis ground. ***Connector & terminal (3AJ) No. 1 — (3AJ) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CR:DTC B1821 OPEN IN SIDE AIRBAG RH

DTC DETECTING CONDITION:

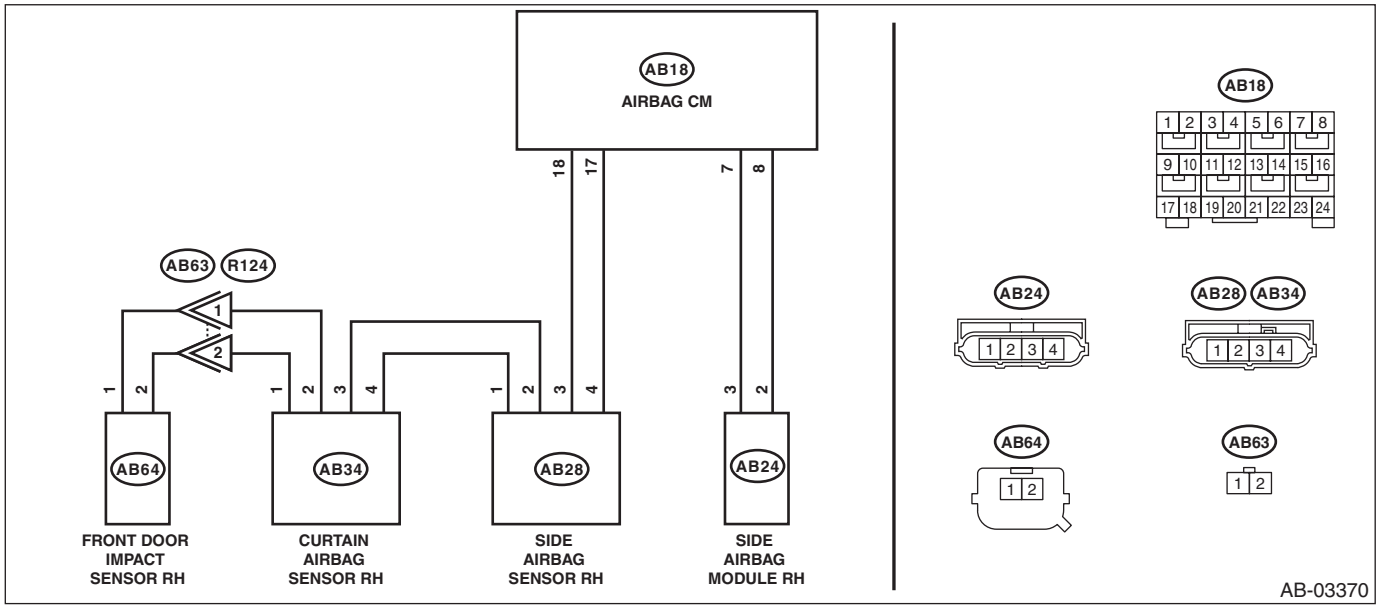
- Side airbag harness RH circuit is open.
- Side airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module RH and the side airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB24) from the side airbag module RH, and connect the connector (1AJ) in the test harness AJ to connector (AB24). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the side airbag module RH. <Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB33) from curtain airbag module RH. 5) Disconnect the airbag resistor from test harness AJ. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector in the test harness AG and connector in the test harness AJ. ***Connector & terminal*** ***(5AG) No. 5 — (3AJ) No. 1:*** ***(5AG) No. 7 — (3AJ) No. 2:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CS:DTC B1822 SHORT IN SIDE AIRBAG RH (TO GROUND)

DTC DETECTING CONDITION:

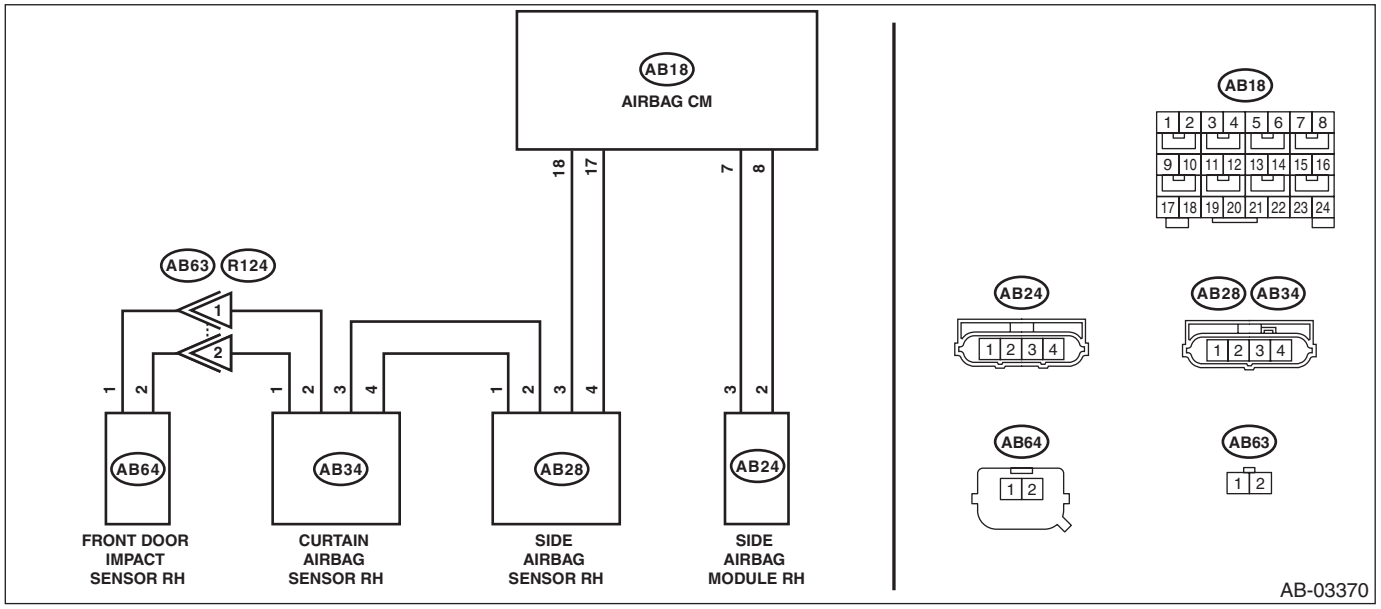
- Side airbag harness RH circuit is shorted to ground.
- Side airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module RH and the side airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB24), and connect the connector (1AJ) in test harness AJ to connector (AB24). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the side airbag module RH. <Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB33) from curtain airbag module RH. 5) Disconnect the airbag resistor from test harness AJ. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AJ) in the test harness AJ and chassis ground. ***Connector & terminal*** ***(3AJ) No. 1 — Chassis ground:*** ***(3AJ) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CT:DTC B1823 SHORT IN SIDE AIRBAG RH (TO +B)

DTC DETECTING CONDITION:

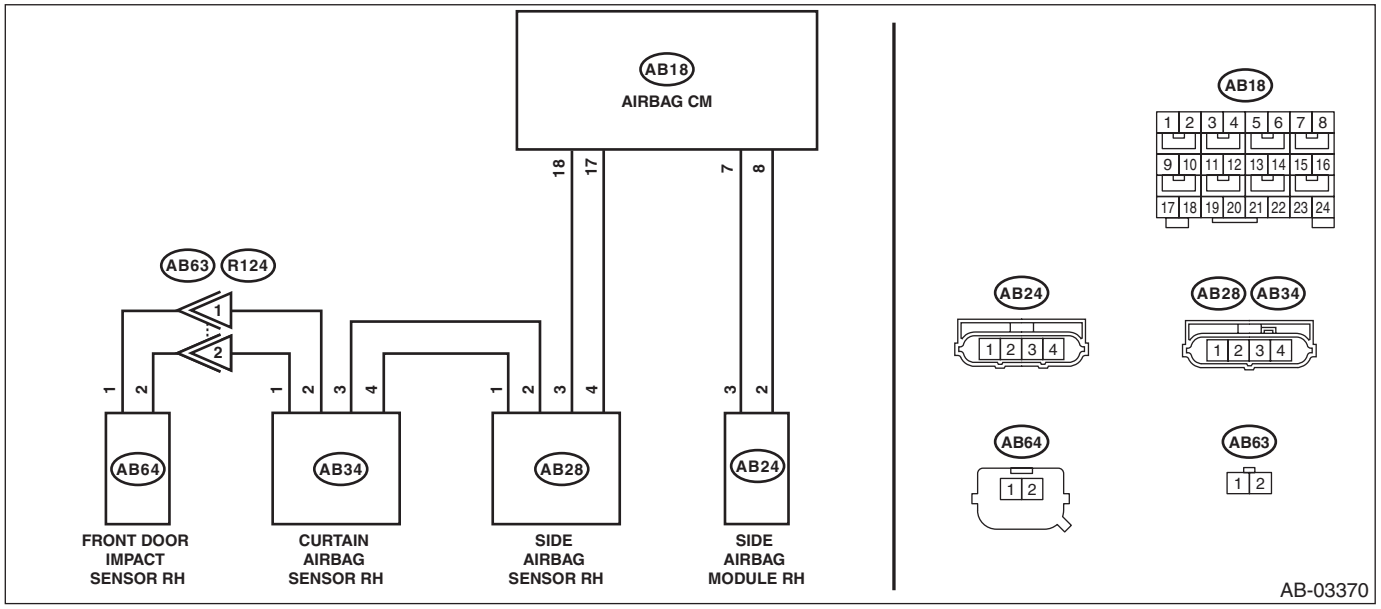
- Side airbag harness RH is shorted to power supply.
- Side airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module RH and the side airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB24), and connect the connector (1AJ) in test harness AJ to connector (AB24). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the side airbag module RH. <Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB33) from curtain airbag module RH. 5) Disconnect the airbag resistor from test harness. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Connect the battery ground terminal and turn the ignition switch to ON. 9) Measure the voltage between connector (3AJ) in the test harness AJ and chassis ground. ***Connector & terminal*** ***(3AJ) No. 1 (+) — Chassis ground (–):*** ***(3AJ) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CU:DTC B1825 SHORT IN SIDE AIRBAG LH

DTC DETECTING CONDITION:

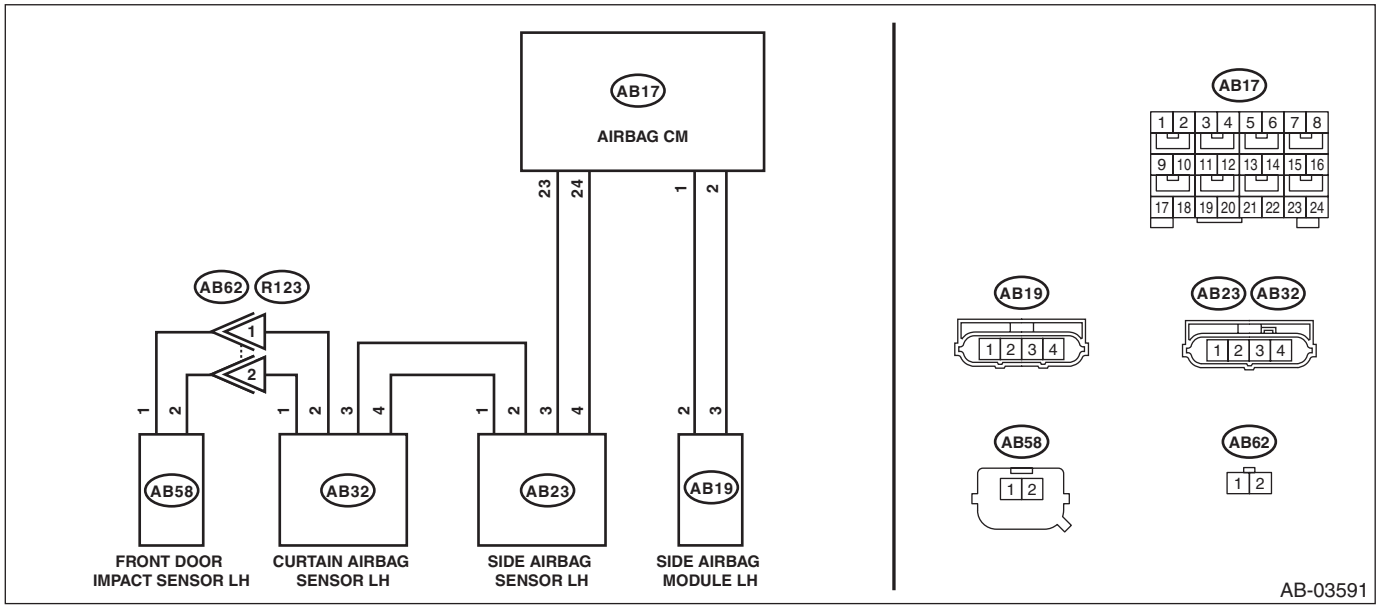
- Side airbag harness LH circuit is shorted.
- Side airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module LH and the side airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB19) from the side airbag module LH, and connect the connector (1AJ) in test harness AJ to the connector (AB19). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the side airbag module LH.<Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the airbag resistor from test harness AJ. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (3AJ) terminals in test harness AJ. ***Connector & terminal (3AJ) No. 1 — (3AJ) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CV:DTC B1826 OPEN IN SIDE AIRBAG LH

DTC DETECTING CONDITION:

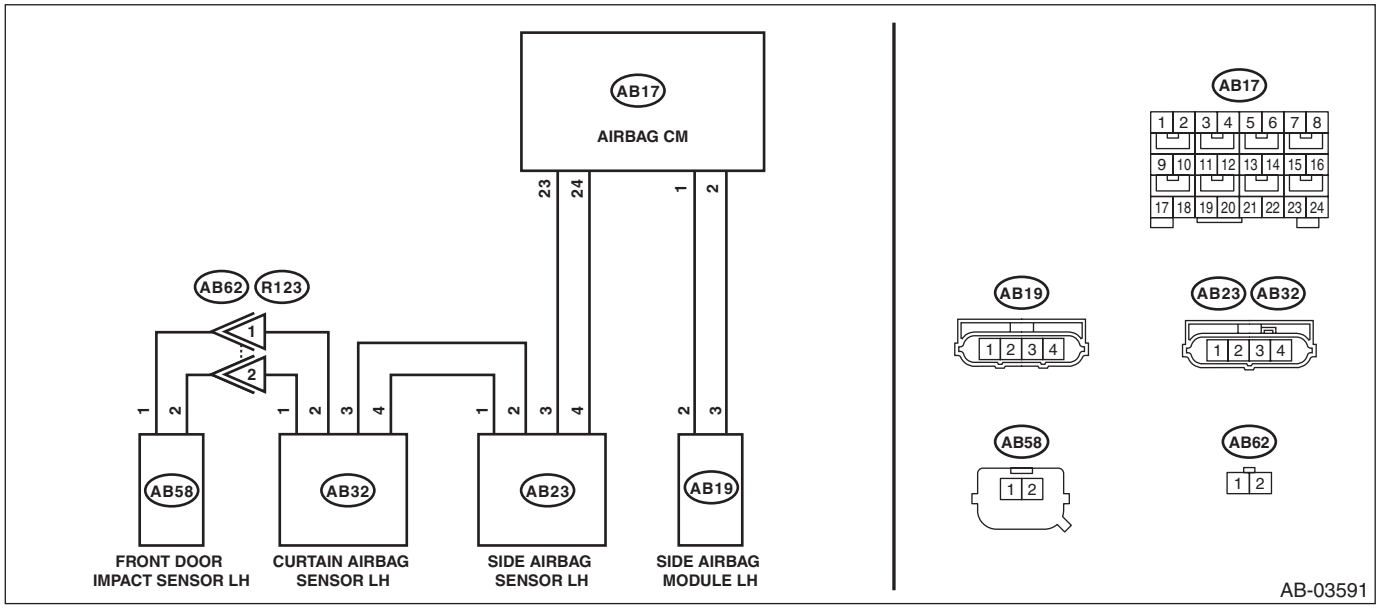
- Side airbag harness LH circuit is open.
- Side airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module LH and the side airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB19) from the side airbag module LH, and connect the connector (1AJ) in test harness AJ to the connector (AB19). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the side airbag module LH.<Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the airbag resistor from test harness AJ. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (4AG) or (5AG) in the test harness AG and connector (3AJ) in the test harness AJ. ***Connector & terminal*** ***(5AG) No. 1 — (3AJ) No. 2:*** ***(5AG) No. 3 — (3AJ) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CW:DTC B1827 SHORT IN SIDE AIRBAG LH (TO GROUND)

DTC DETECTING CONDITION:

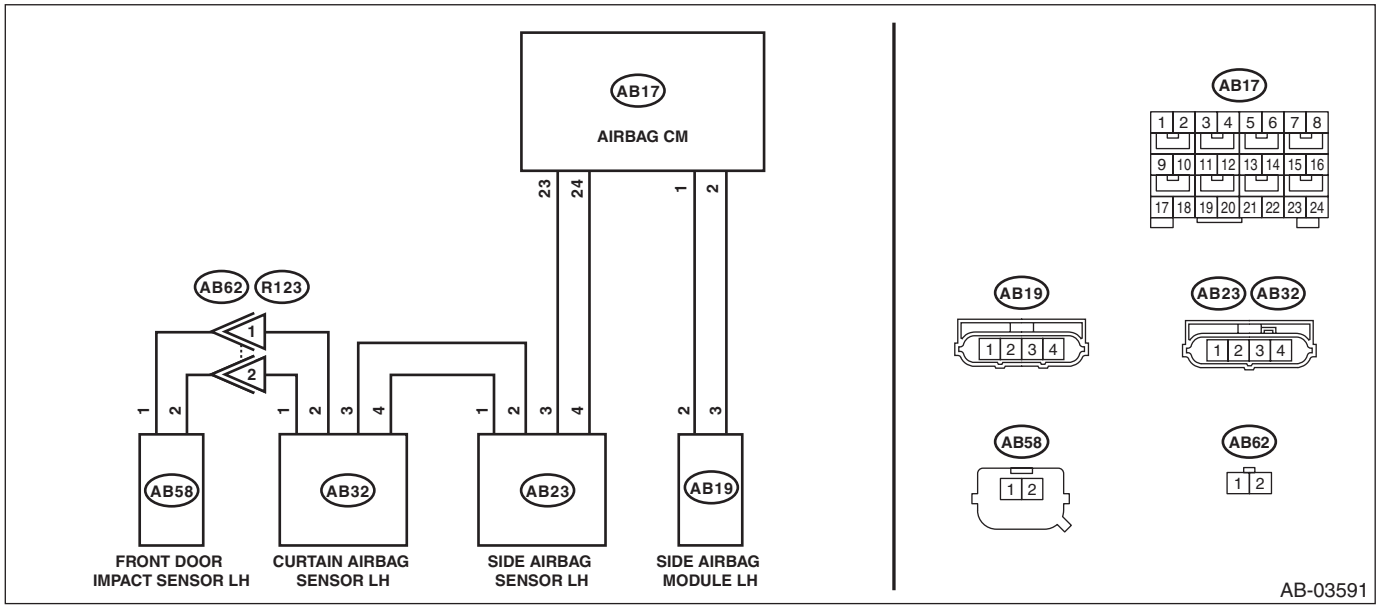
- Side airbag harness LH circuit is shorted to ground.
- Side airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module LH and the side airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB19), and connect the connector (1AJ) in test harness AJ to connector (AB19). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the side airbag module LH.<Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the airbag resistor from test harness. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (3AJ) in the test harness AJ and chassis ground. ***Connector & terminal*** ***(3AJ) No. 1 — Chassis ground:*** ***(3AJ) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CX:DTC B1828 SHORT IN SIDE AIRBAG LH (TO +B)

DTC DETECTING CONDITION:

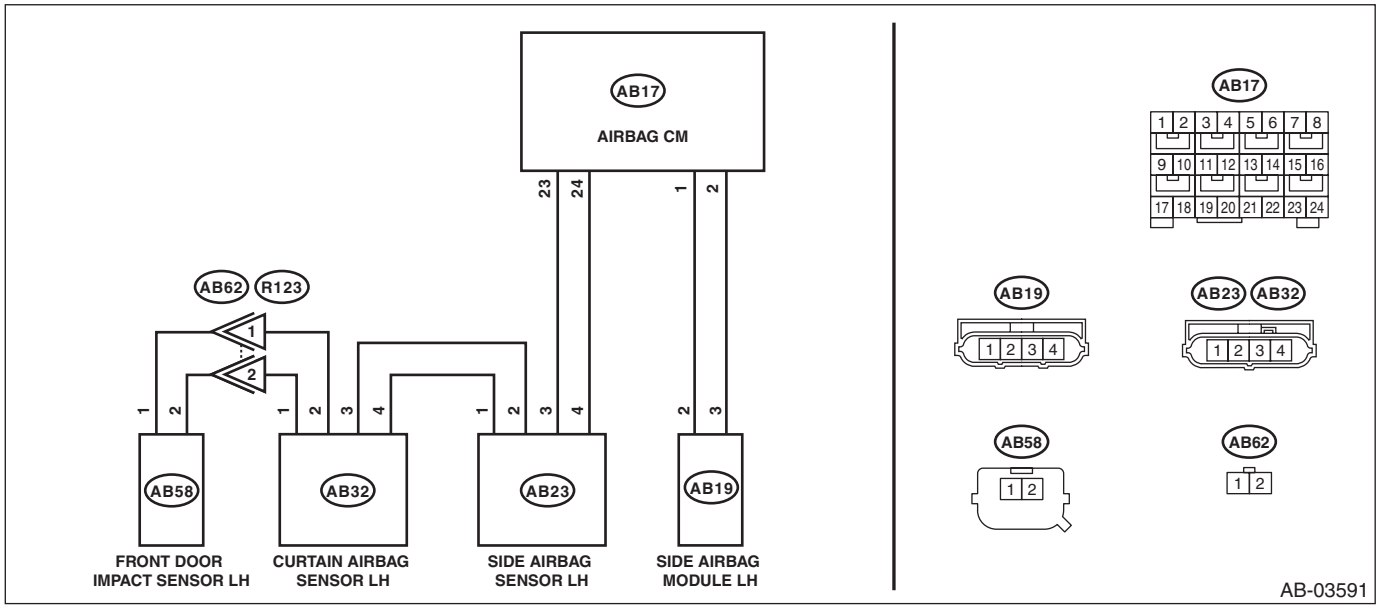
- Side airbag harness LH is shorted to power supply.
- Side airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, side airbag module LH and the side airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SIDE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB19), and connect the connector (1AJ) in test harness AJ to connector (AB19). 3) Connect the airbag resistor to the test harness AJ connector (3AJ). 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the side airbag module LH.<Ref. to AB-65, REMOVAL, Side Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB31) from curtain airbag module LH. 4) Disconnect the airbag resistor from test harness. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Connect the battery ground terminal and turn the ignition switch to ON. 8) Measure the voltage between connector (3AJ) in the test harness AJ and chassis ground. ***Connector & terminal*** ***(3AJ) No. 1 (+) — Chassis ground (–):*** ***(3AJ) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CY:DTC B1830 SHORT IN CURTAIN AIRBAG RH SQUIB CIRCUIT

DTC DETECTING CONDITION:

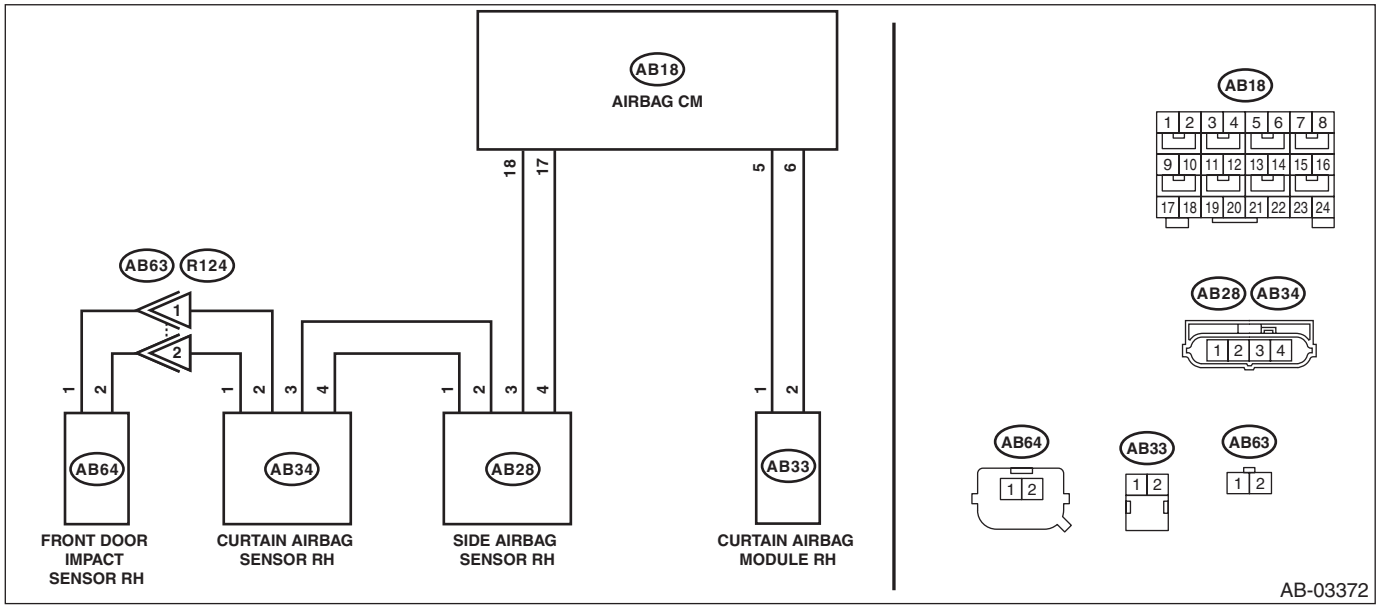
- Curtain airbag harness RH circuit is shorted.
- Curtain airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module RH and the curtain airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB33) from curtain airbag module RH. 3) Connect the connector (1N) in the test harness N to the connector (AB33). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the curtain airbag module RH. <Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the airbag resistor from test harness N. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (2N) terminals in test harness N. ***Connector & terminal (2N) No. 1 — (2N) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

CZ:DTC B1831 OPEN IN CURTAIN AIRBAG RH SQUIB CIRCUIT

DTC DETECTING CONDITION:

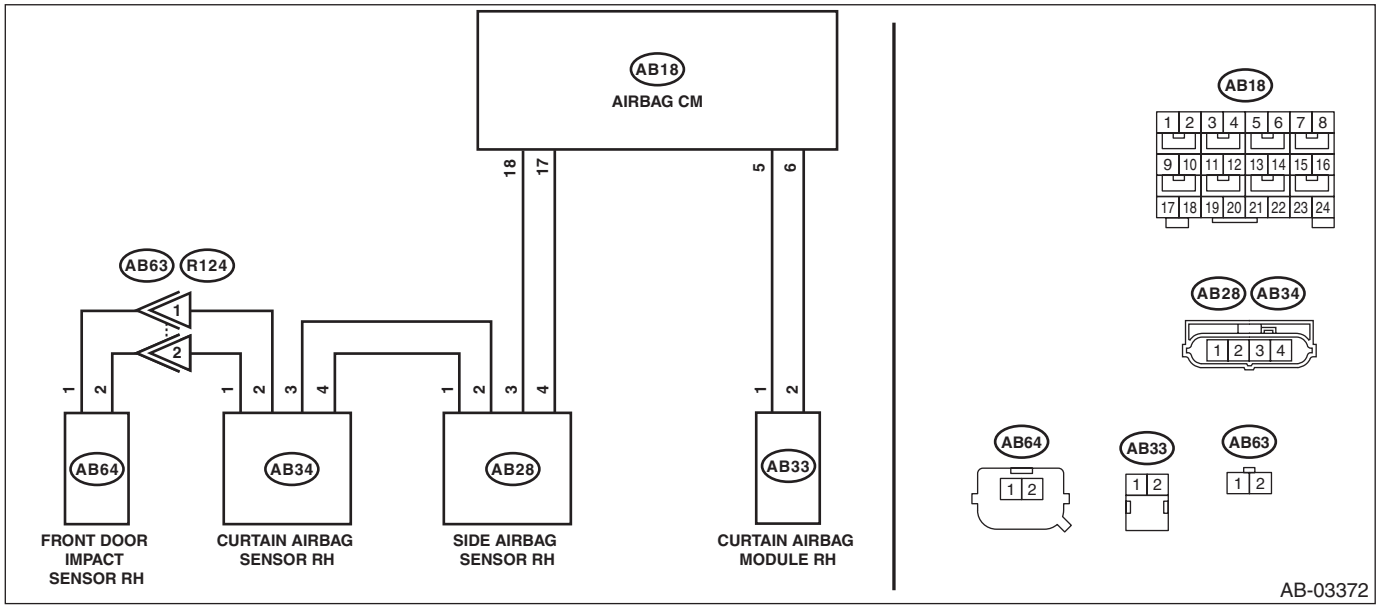
- Curtain airbag harness RH circuit is open.
- Curtain airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module RH and the curtain airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB33) from curtain airbag module RH. 3) Connect the connector (1N) in the test harness N to the connector (AB33). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the curtain airbag module RH. <Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the airbag resistor from test harness N. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (5AG) or (6AG) in the test harness AG and connector (2N) in the test harness N. ***Connector & terminal*** ***(6AG) No. 8 — (2N) No. 1:*** ***(6AG) No. 6 — (2N) No. 2:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DA:DTC B1832 SHORT IN CURTAIN AIRBAG RH SQUIB CIRCUIT (TO GROUND)

DTC DETECTING CONDITION:

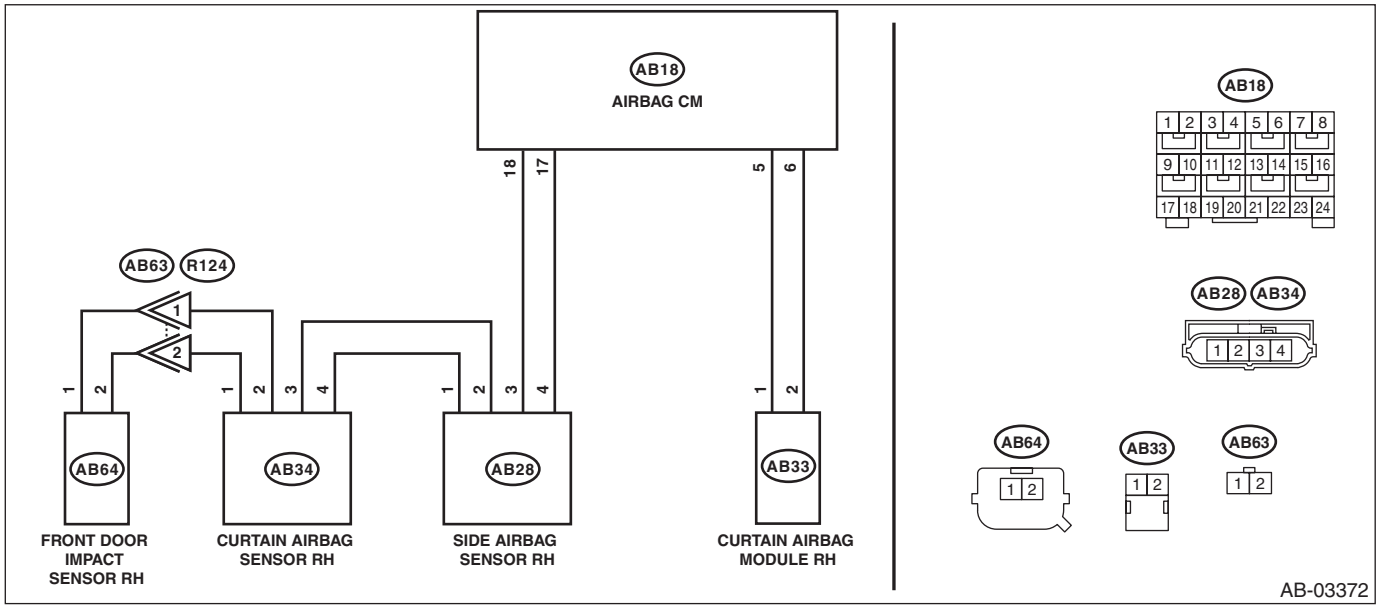
- Curtain airbag harness RH circuit is shorted to ground.
- Curtain airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module RH and the curtain airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB33), and connect the connector (1N) in test harness N to connector (AB33). 3) Connect the airbag resistor to the connector (2N) of test harness N. 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the curtain airbag module RH. <Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the airbag resistor from test harness N. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (2N) in the test harness N and chassis ground. ***Connector & terminal*** ***(2N) No. 1 — Chassis ground:*** ***(2N) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DB:DTC B1833 SHORT IN CURTAIN SHIELD AIRBAG RH SQUIB CIRCUIT (TO +B)

DTC DETECTING CONDITION:

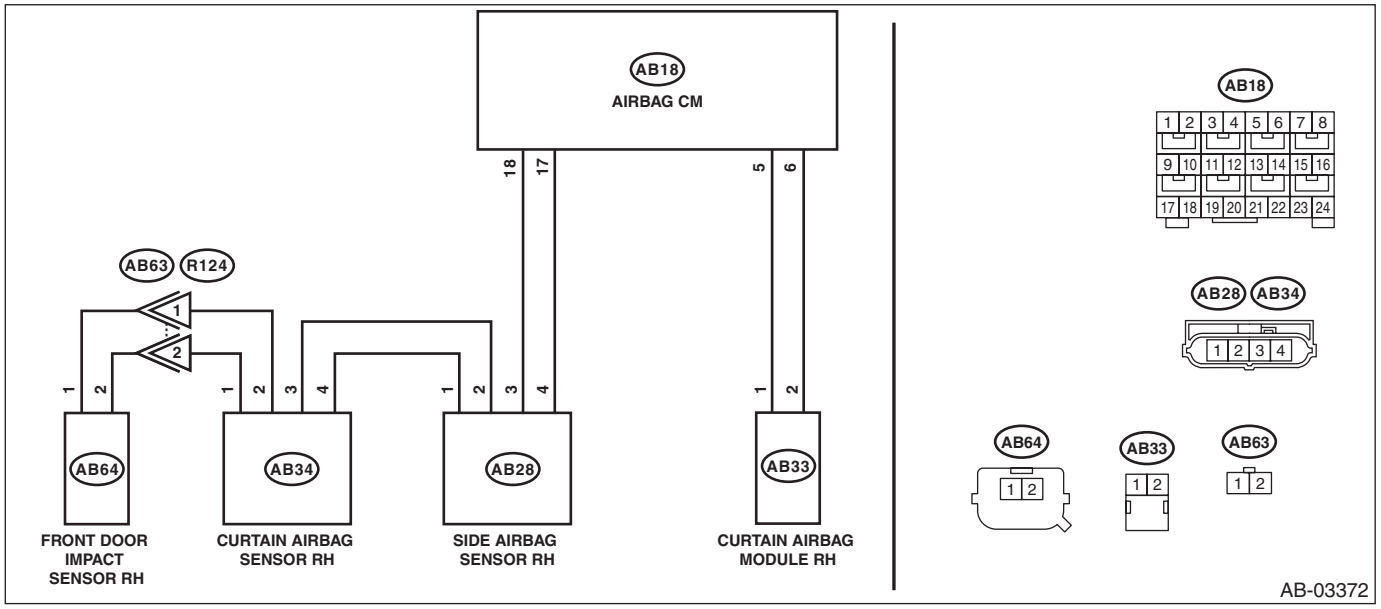
- Curtain airbag harness RH is shorted to power supply.
- Curtain airbag module RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module RH and the curtain airbag sensor RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB33), and connect the connector (1N) in test harness N to connector (AB33). 3) Connect the airbag resistor to the connector (2N) of test harness N. 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the curtain airbag module RH. <Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the airbag resistor from test harness N. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Connect the battery ground terminal and turn the ignition switch to ON. 9) Measure the voltage between connector (2N) in the test harness N and chassis ground. ***Connector & terminal*** ***(2N) No. 1 (+) — Chassis ground (–):*** ***(2N) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DC:DTC B1835 SHORT IN CURTAIN AIRBAG LH SQUIB CIRCUIT

DTC DETECTING CONDITION:

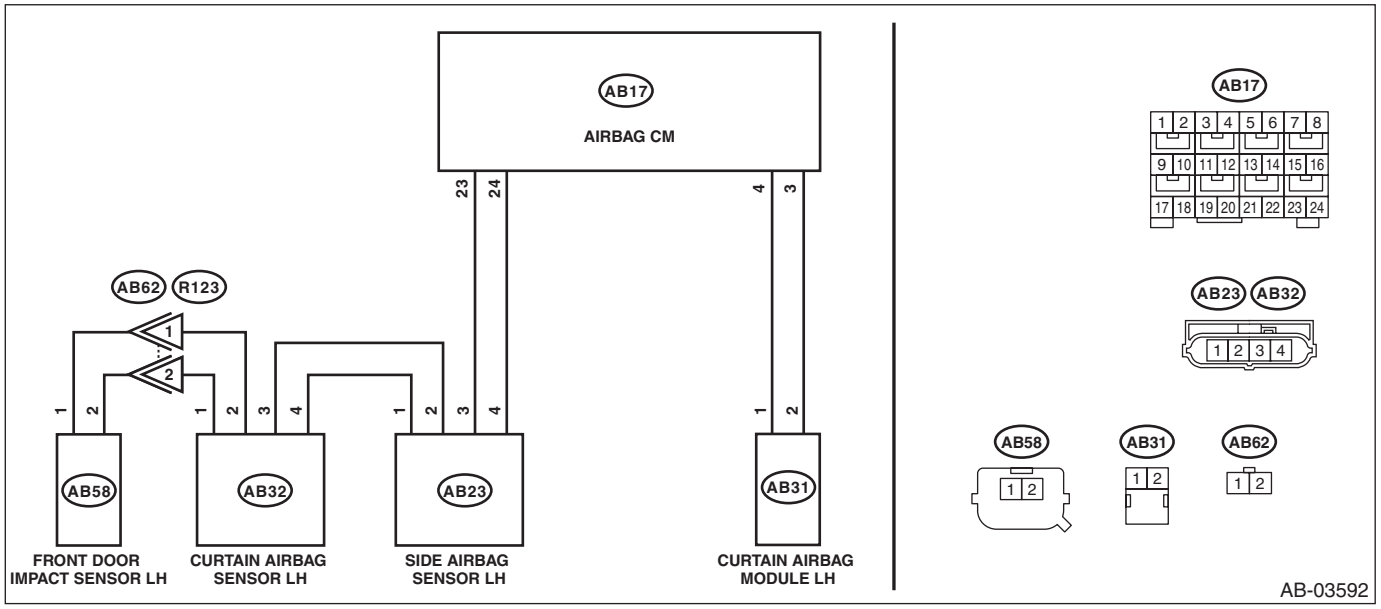
- Curtain airbag harness LH circuit is shorted.
- Curtain airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module LH and the curtain airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB31) from curtain airbag module LH. 3) Connect the connector (1N) in the test harness N to the connector (AB31). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the curtain airbag module LH.<Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the airbag resistor from test harness N. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (2N) terminals in test harness N. ***Connector & terminal (2N) No. 1 — (2N) No. 2:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DD:DTC B1836 OPEN IN CURTAIN AIRBAG LH SQUIB CIRCUIT

DTC DETECTING CONDITION:

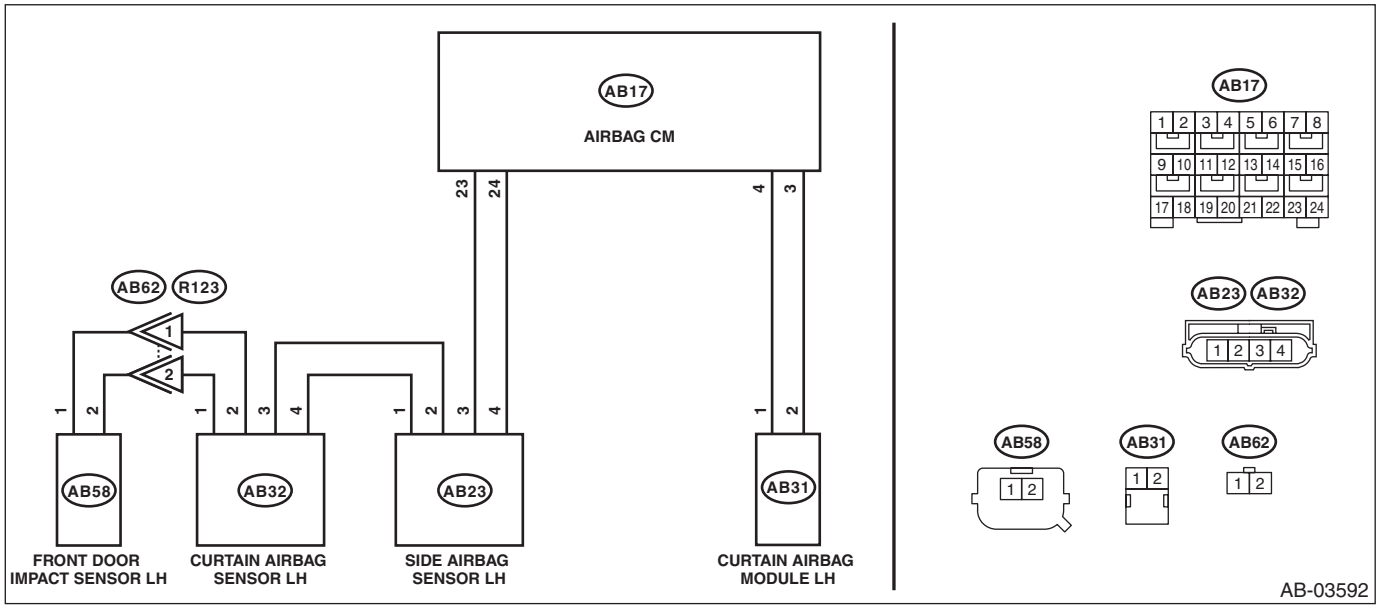
- Curtain airbag harness LH circuit is open.
- Curtain airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module LH and the curtain airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB31) from curtain airbag module LH. 3) Connect the connector (1N) in the test harness N to the connector (AB31). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the curtain airbag module LH.<Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the airbag resistor from test harness N. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (5AG) or (6AG) in the test harness AG and connector (2N) in the test harness N. ***Connector & terminal*** ***(6AG) No. 1 — (2N) No. 2:*** ***(6AG) No. 3 — (2N) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DE:DTC B1837 SHORT IN CURTAIN AIRBAG LH SQUIB CIRCUIT (TO GROUND)

DTC DETECTING CONDITION:

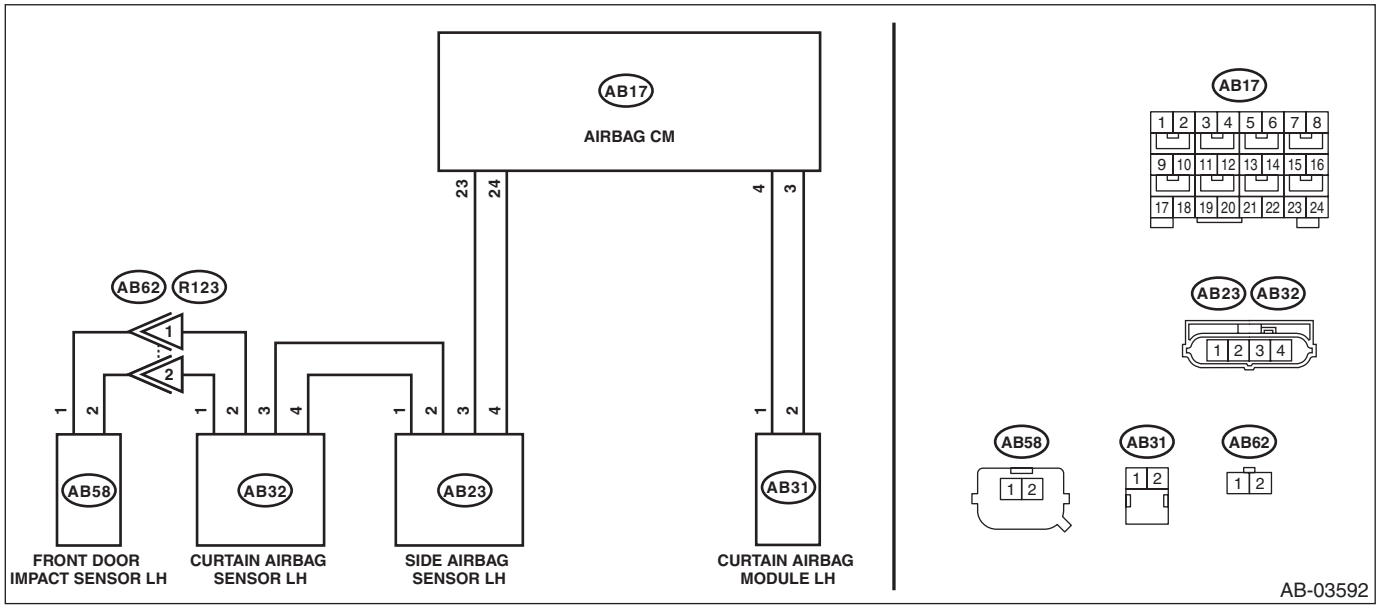
- Curtain airbag harness LH circuit is shorted to ground.
- Curtain airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module LH and the curtain airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB31), and connect the connector (1N) in test harness N to connector (AB31). 3) Connect the airbag resistor to the connector (2N) of test harness N. 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the curtain airbag module LH.<Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the airbag resistor from test harness N. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (2N) in the test harness N and chassis ground. ***Connector & terminal*** ***(2N) No. 1 — Chassis ground:*** ***(2N) No. 2 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DF:DTC B1838 SHORT IN CURTAIN SHIELD AIRBAG LH SQUIB CIRCUIT (TO +B)

DTC DETECTING CONDITION:

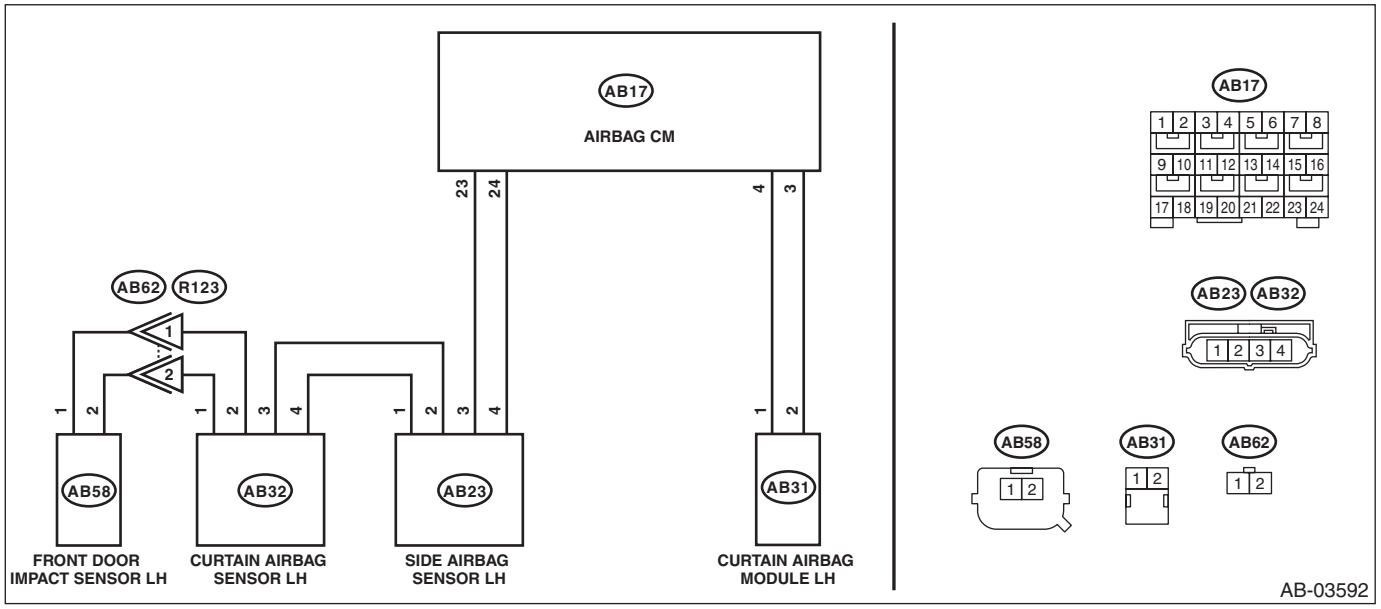
- Curtain airbag harness LH is shorted to power supply.
- Curtain airbag module LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description".<Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system<Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module, curtain airbag module LH and the curtain airbag sensor LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK CURTAIN AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB31), and connect the connector (1N) in test harness N to connector (AB31). 3) Connect the airbag resistor to the connector (2N) of test harness N. 4) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the curtain airbag module LH.<Ref. to AB-76, Curtain Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (CURTAIN AIRBAG MODULE HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the airbag resistor from test harness N. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Connect the battery ground terminal and turn the ignition switch to ON. 8) Measure the voltage between connector (2N) in the test harness N and chassis ground. ***Connector & terminal*** ***(2N) No. 1 (+) — Chassis ground (–):*** ***(2N) No. 2 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module.<Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)".<Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DG:DTC B1860 SHORT IN DRIVER'S KNEE AIRBAG

DTC DETECTING CONDITION:

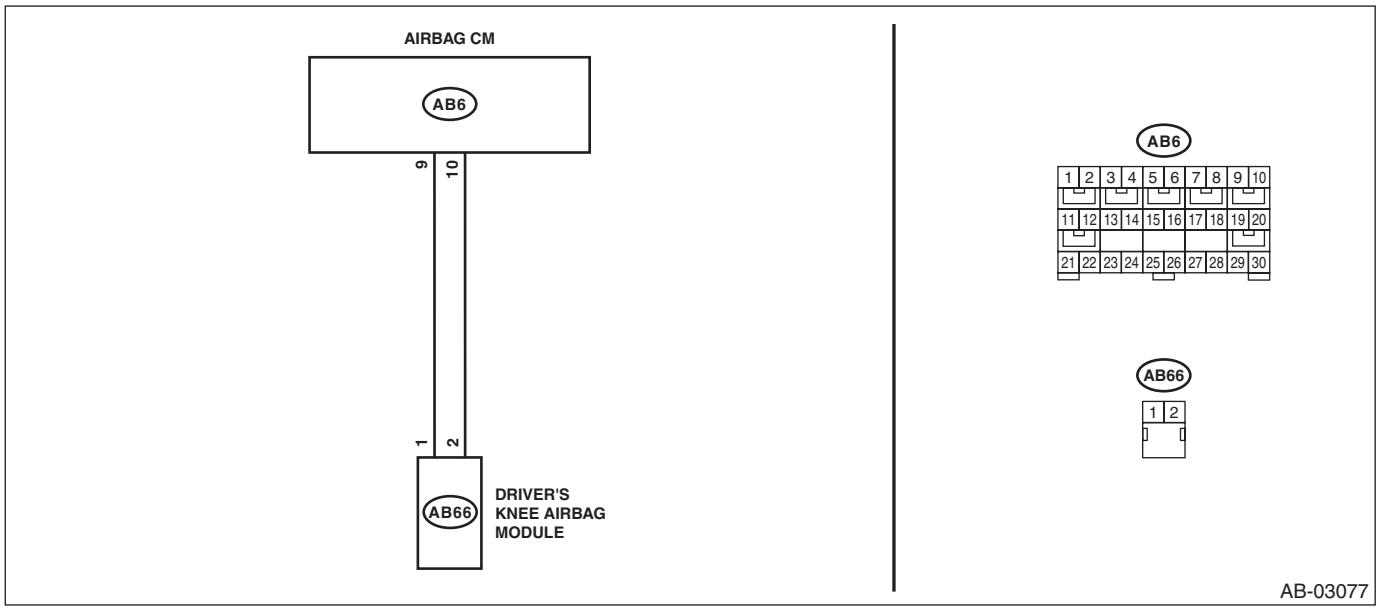
- Airbag main harness circuit is shorted.
- Knee airbag module harness circuit is shorted.
- Knee airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the knee airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK KNEE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB66) from knee airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB66). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG MAIN HARNESS (KNEE AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 4) Remove the console front panel and disconnect the connector (AB9). 5) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG to connectors (AB6, AB17, AB18). 6) Measure the resistance between connector (3AG) terminals in test harness AG. ***Connector & terminal (3AG) No. 14 — (3AG) No. 16:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag main harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DH:DTC B1861 OPEN IN DRIVER'S KNEE AIRBAG

DTC DETECTING CONDITION:

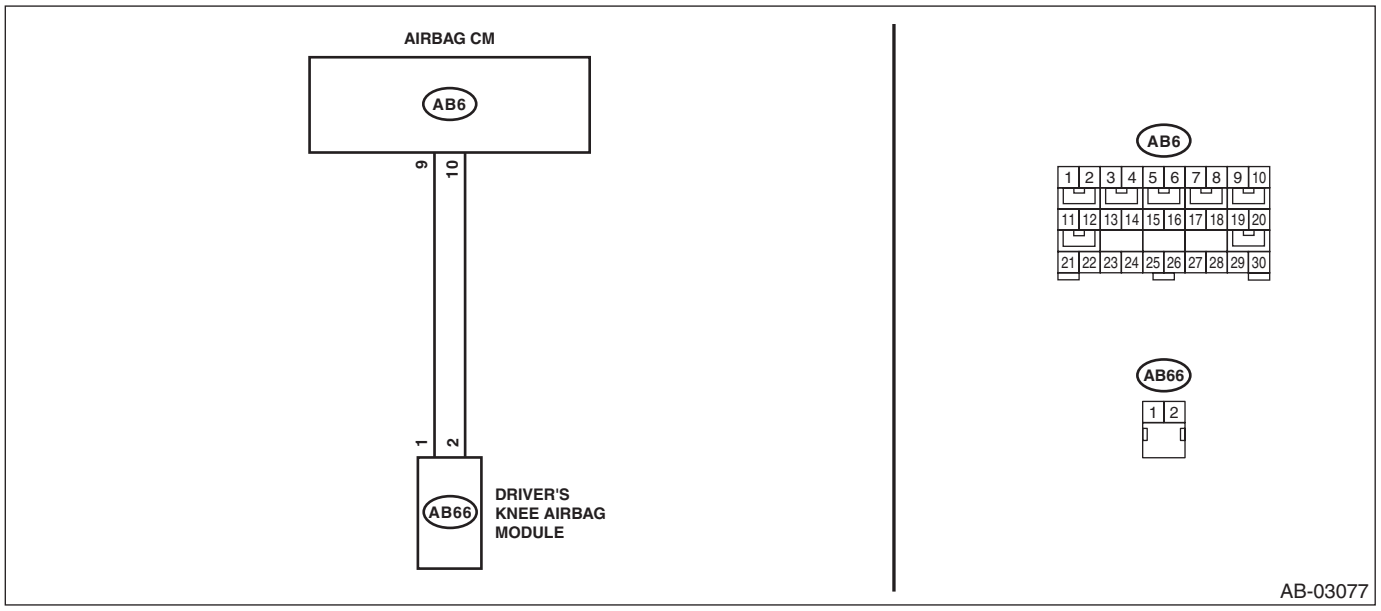
- Airbag main harness circuit is open.
- Knee airbag module harness circuit is open.
- Knee airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the knee airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK KNEE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB66) from knee airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB66). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG MAIN HARNESS (KNEE AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 4) Remove the console front panel and disconnect the connector (AB9). 5) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG to connectors (AB6, AB17, AB18). 6) Measure the resistance between connector (3AG) in the test harness AG and connector (2N) in the test harness N. ***Connector & terminal*** ***(3AG) No. 14 — (2N) No. 2:*** ***(3AG) No. 16 — (2N) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag main harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DI: DTC B1862 SHORT IN DRIVER'S KNEE AIRBAG (TO GROUND)

DTC DETECTING CONDITION:

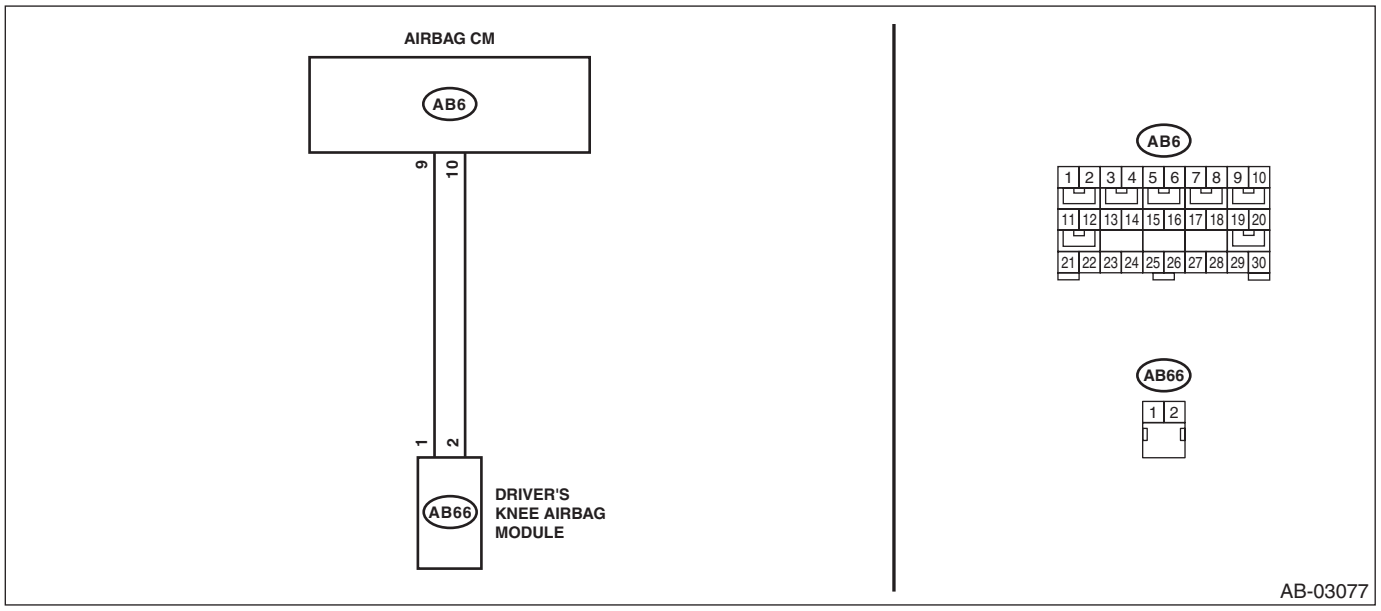
- Airbag main harness circuit is shorted to ground.
- Knee airbag module harness circuit is shorted to ground.
- Knee airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the knee airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK KNEE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB66) from knee airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB66). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG MAIN HARNESS (KNEE AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 4) Remove the console front panel and disconnect the connector (AB9). 5) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG to connectors (AB6, AB17, AB18). 6) Measure the resistance between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 14 — Chassis ground:*** ***(3AG) No. 16 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag main harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DJ:DTC B1863 SHORT IN DRIVER'S KNEE AIRBAG (TO +B)

DTC DETECTING CONDITION:

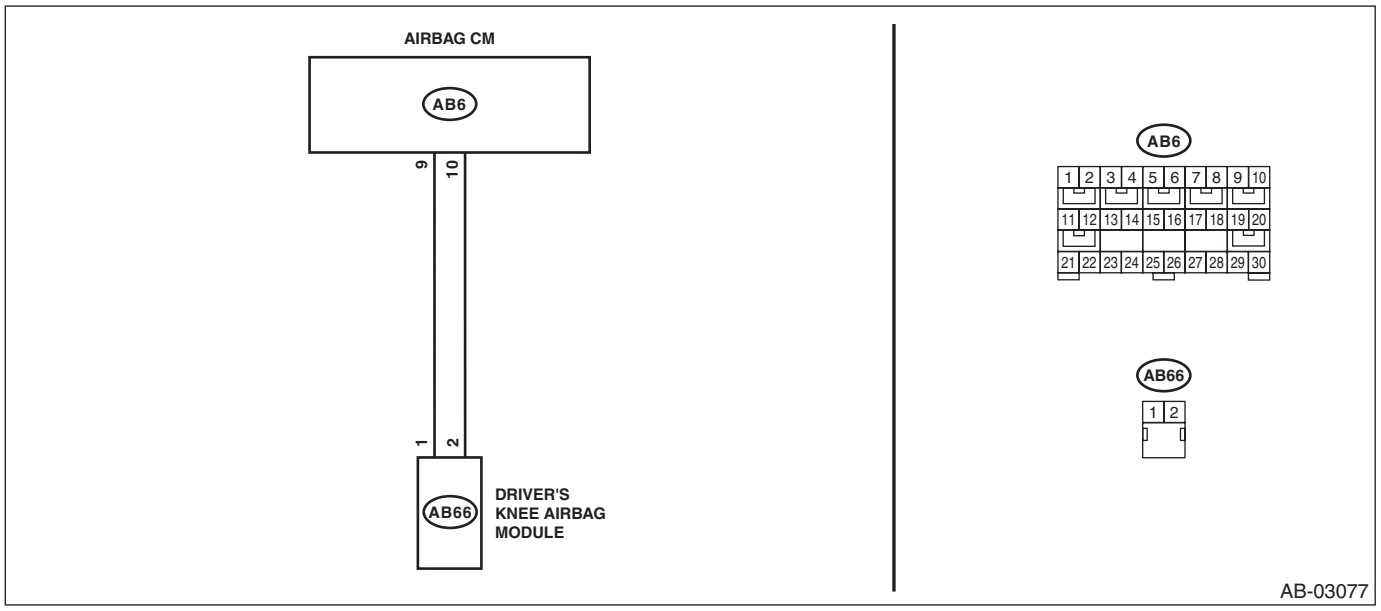
- Airbag main harness circuit is shorted to power supply.
- Knee airbag module harness circuit is shorted to power supply.
- Knee airbag module is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the knee airbag module.	Is there poor contact?	Replace the airbag harness.	Go to step **2**.
2	**CHECK KNEE AIRBAG MODULE.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB66) from knee airbag module. 3) Connect the connector (1N) in the test harness N to the connector (AB66). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG MAIN HARNESS (KNEE AIRBAG HARNESS).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Remove the instrument panel lower cover and column cover, and disconnect the connector (AB7) from (AB2). 4) Remove the console front panel and disconnect the connector (AB9). 5) Disconnect the connectors (AB6, AB17, AB18) from the airbag control module, and connect the connector (1AG) in the test harness AG. 6) Connect the battery ground terminal and turn the ignition switch to ON. 7) Measure the voltage between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 14 (+) — Chassis ground (–):*** ***(3AG) No. 16 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag main harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using “List of Diagnostic Trouble Code (DTC)”. <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DK:DTC B1900 SHORT IN FRONT P/T RH

DTC DETECTING CONDITION:

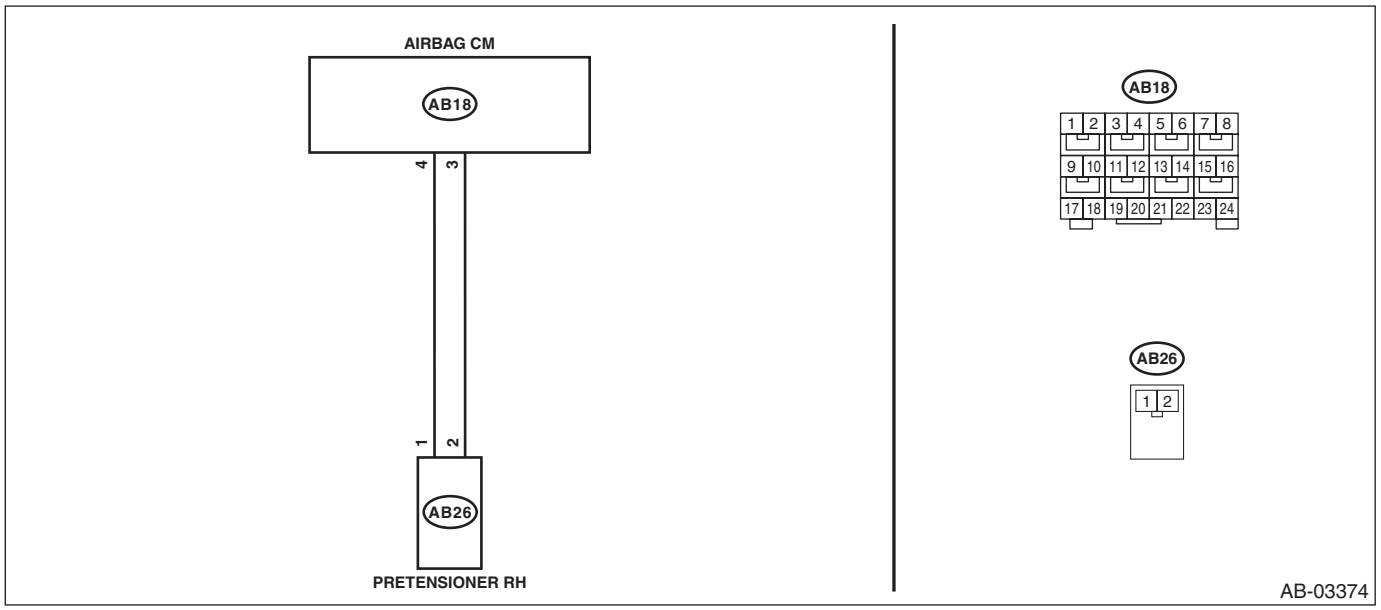
- Seat belt pretensioner RH circuit is shorted.
- Pretensioner RH is faulty.
- Pretensioner harness RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB26). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the seat belt pretensioner RH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB33) from curtain airbag module RH. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AG) terminals in test harness AG. ***Connector & terminal (3AG) No. 18 — (3AG) No. 20:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DL:DTC B1901 OPEN IN FRONT P/T RH

DTC DETECTING CONDITION:

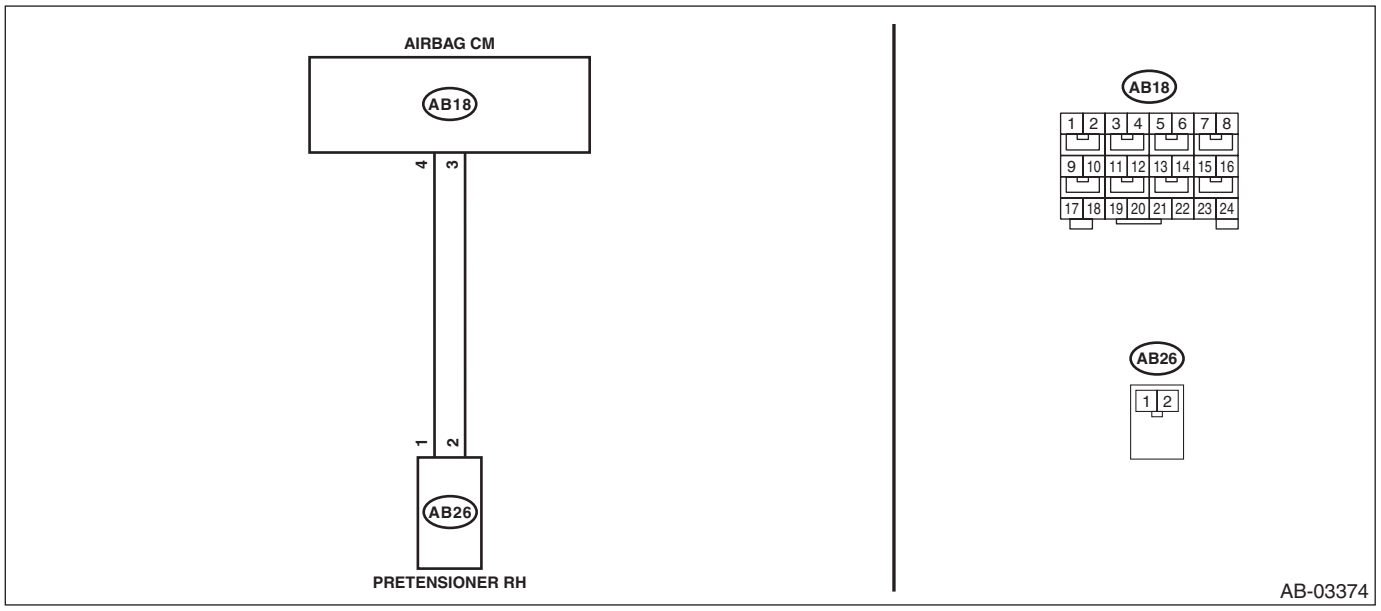
- Seat belt pretensioner RH circuit is open.
- Pretensioner RH is faulty.
- Pretensioner harness RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB26). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the seat belt pretensioner RH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from the connector (2N) of test harness N. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB33) from curtain airbag module RH. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AG) in the test harness AG and connector (2N) in the test harness N. ***Connector & terminal*** ***(3AG) No. 18 — (2N) No. 2:*** ***(3AG) No. 20 — (2N) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DM:DTC B1902 SHORT IN FRONT P/T RH (TO GROUND)

DTC DETECTING CONDITION:

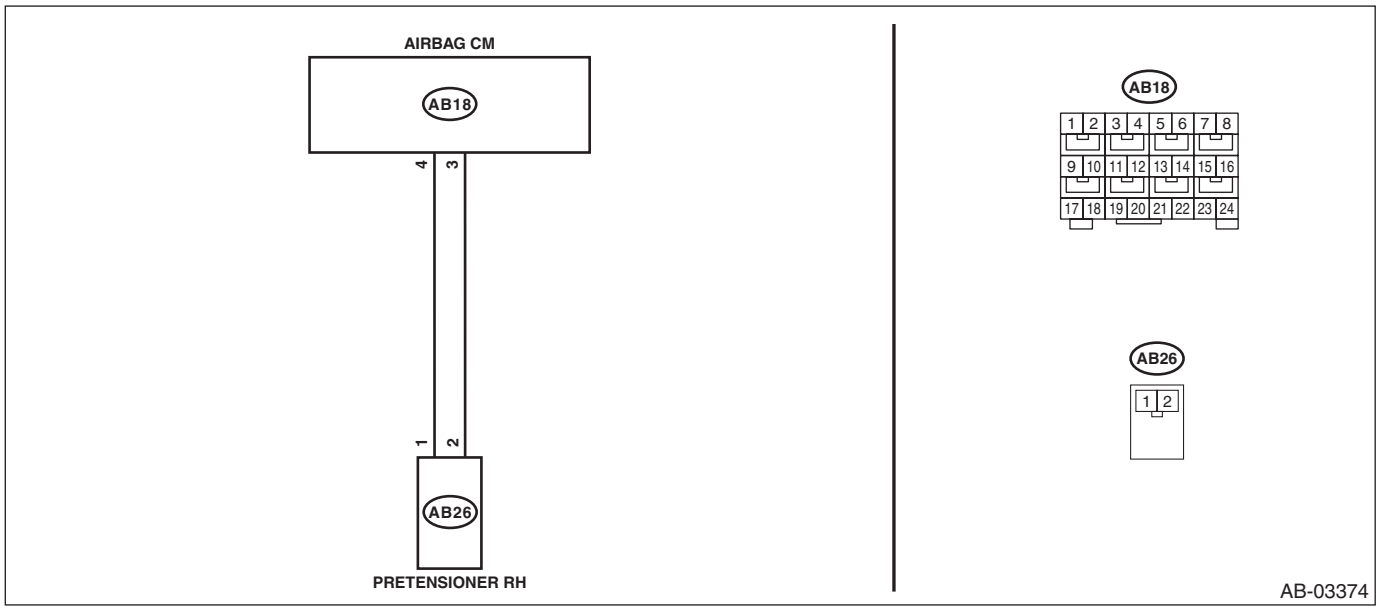
- Seat belt pretensioner RH circuit is shorted to ground.
- Pretensioner RH is faulty.
- Pretensioner harness RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB26). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the seat belt pretensioner RH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from the connector (2N) of test harness N. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB33) from curtain airbag module RH. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 18 — Chassis ground:*** ***(3AG) No. 20 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DN:DTC B1903 SHORT IN FRONT P/T RH (TO +B)

DTC DETECTING CONDITION:

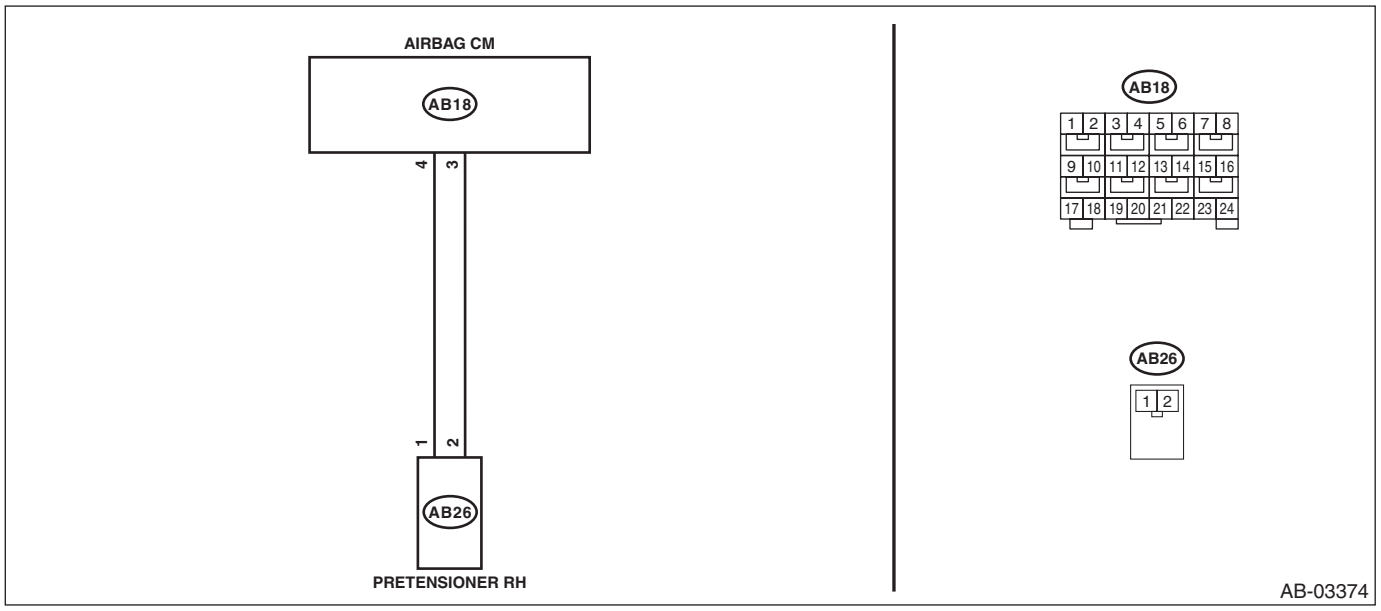
- Seat belt pretensioner RH circuit is shorted to power supply.
- Pretensioner RH is faulty.
- Pretensioner harness RH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB26) from seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB26). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the seat belt pretensioner RH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from the connector (2N) of test harness N. 3) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB33) from curtain airbag module RH. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Connect the battery ground terminal and turn the ignition switch to ON. 9) Measure the voltage between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 20 (+) — Chassis ground (–):*** ***(3AG) No. 18 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DO:DTC B1905 SHORT IN FRONT P/T LH

DTC DETECTING CONDITION:

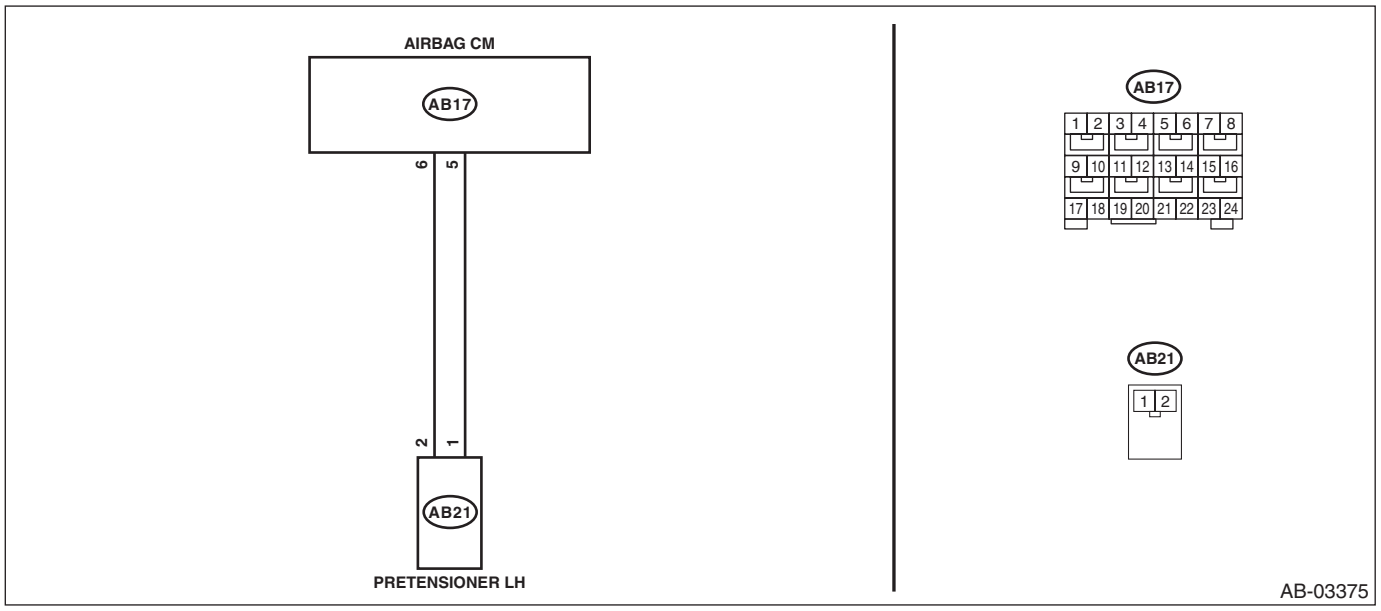
- Seat belt pretensioner LH circuit is shorted.
- Pretensioner LH is faulty.
- Pretensioner harness LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Connect the connector (1N) in the test harness N to the connector (AB21). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the seat belt pretensioner LH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from the connector (2N) of test harness N. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the connector (AB31) from curtain airbag module LH. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (3AG) terminals in test harness AG. ***Connector & terminal (3AG) No. 10 — (3AG) No. 12:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DP:DTC B1906 OPEN IN FRONT P/T LH

DTC DETECTING CONDITION:

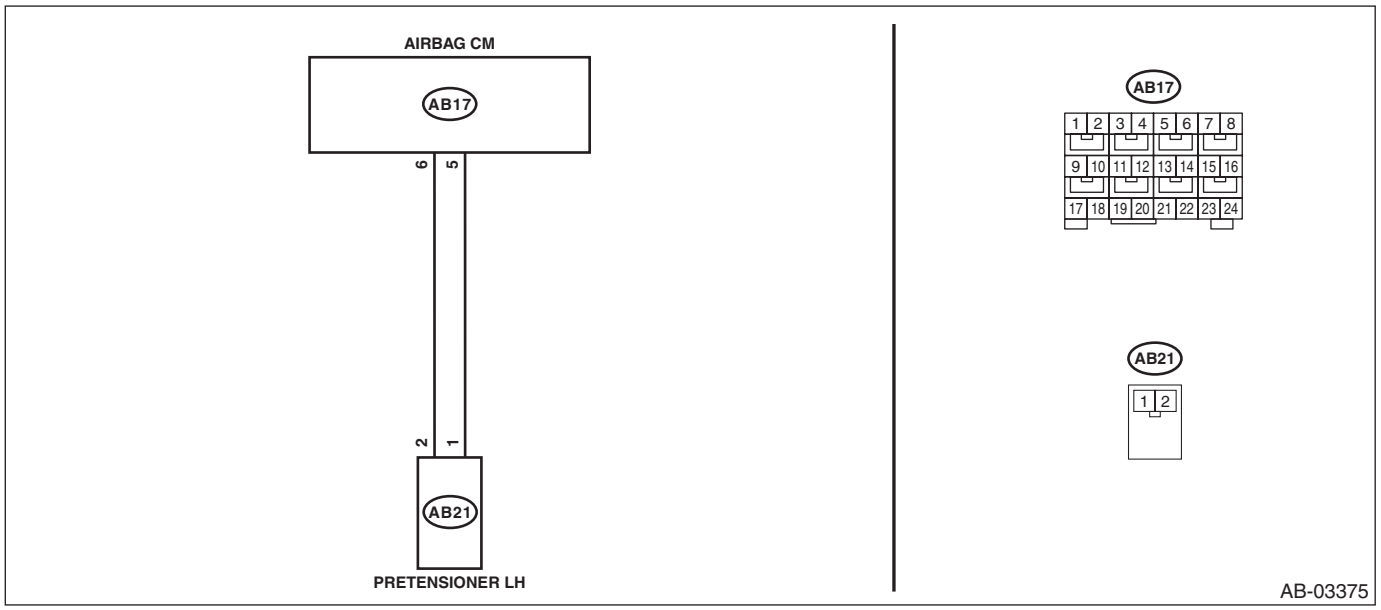
- Seat belt pretensioner LH circuit is open.
- Pretensioner LH is faulty.
- Pretensioner harness LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Connect the connector (1N) in the test harness N to the connector (AB21). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the seat belt pretensioner LH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from the connector (2N) of test harness N. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the connector (AB31) from curtain airbag module LH. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (3AG) in the test harness AG and connector (2N) in the test harness N. ***Connector & terminal*** ***(3AG) No. 10 — (2N) No. 1:*** ***(3AG) No. 12 — (2N) No. 2:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DQ:DTC B1907 SHORT IN FRONT P/T LH (TO GROUND)

DTC DETECTING CONDITION:

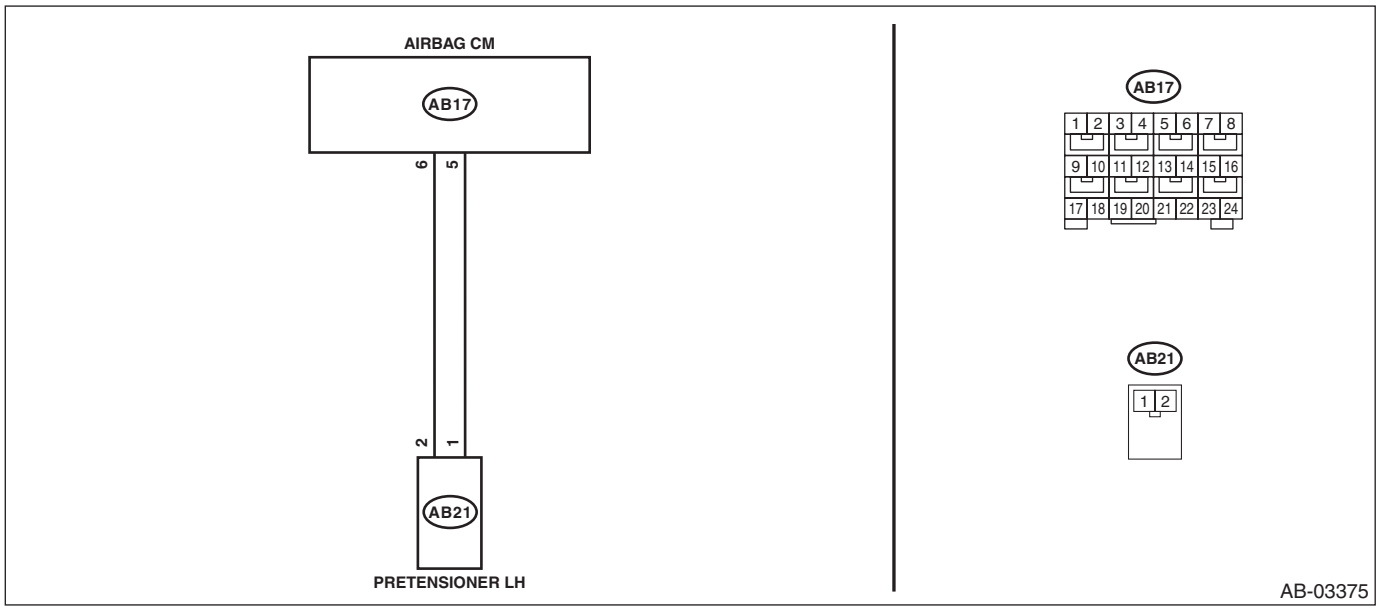
- Seat belt pretensioner LH circuit is shorted to ground.
- Pretensioner LH is faulty.
- Pretensioner harness LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Connect the connector (1N) in the test harness N to the connector (AB21). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the seat belt pretensioner LH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from the connector (2N) of test harness N. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the connector (AB31) from curtain airbag module LH. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Measure the resistance between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 10 — Chassis ground:*** ***(3AG) No. 12 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DR:DTC B1908 SHORT IN FRONT P/T LH (TO +B)

DTC DETECTING CONDITION:

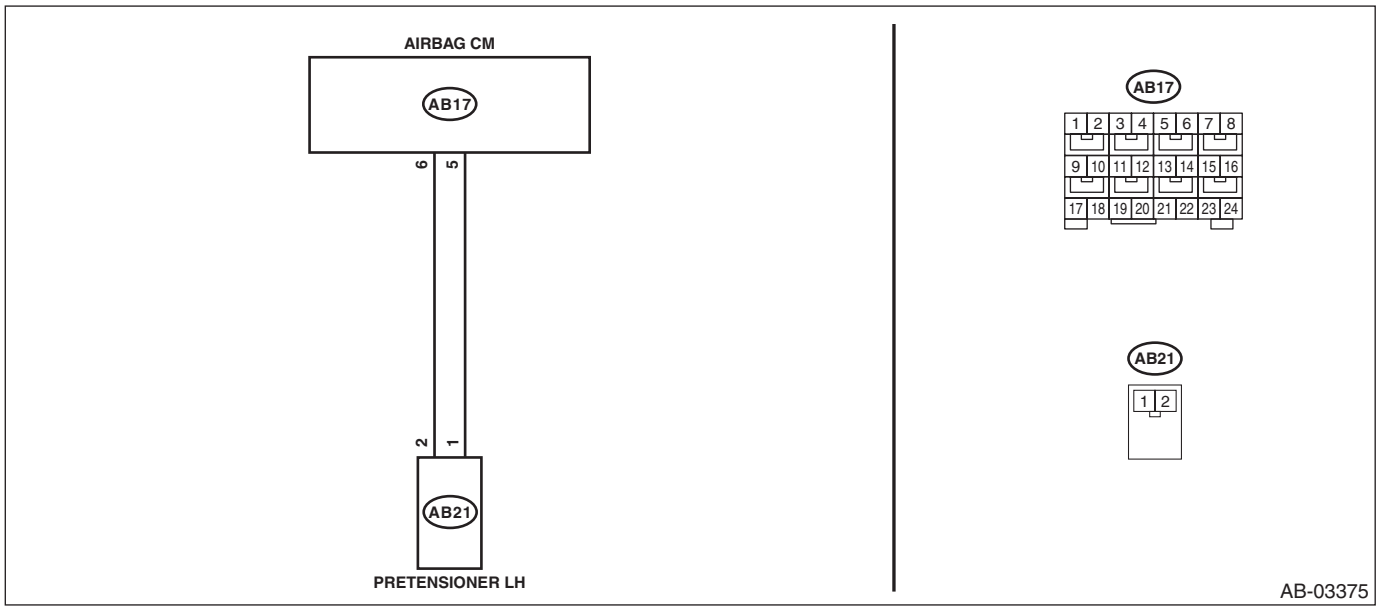
- Seat belt pretensioner LH circuit is shorted to power supply.
- Pretensioner LH is faulty.
- Pretensioner harness LH is faulty.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the seat belt pretensioner LH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB21) from seat belt pretensioner LH. 3) Connect the connector (1N) in the test harness N to the connector (AB21). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for six seconds and go off?	Replace the seat belt pretensioner LH. <Ref. to SB-16, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (PRETENSIONER HARNESS LH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from the connector (2N) of test harness N. 3) Disconnect the connector (AB19) from side airbag module LH. 4) Disconnect the connector (AB31) from curtain airbag module LH. 5) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 6) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 7) Connect the battery ground terminal and turn the ignition switch to ON. 8) Measure the voltage between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 10 (+) — Chassis ground (–):*** ***(3AG) No. 12 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DS:DTC B19F0 SHORT IN FRONT P/T 2 RH

DTC DETECTING CONDITION:

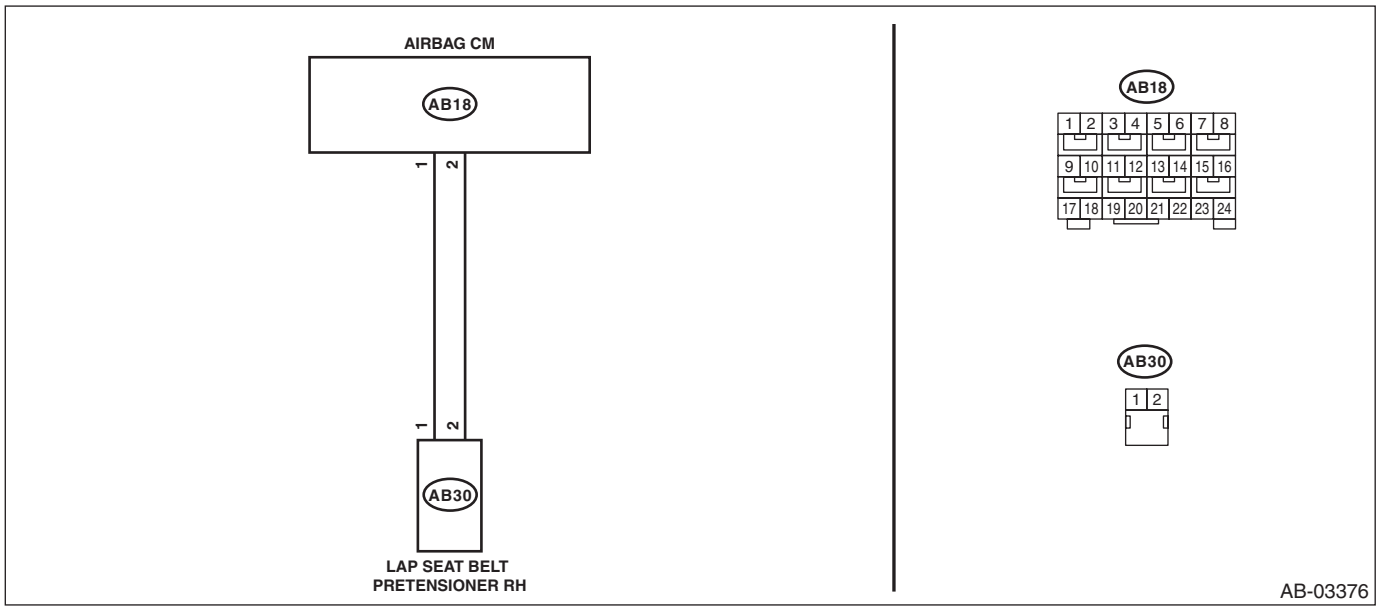
- Lap seat belt pretensioner RH circuit is shorted.
- Lap seat belt pretensioner RH is faulty.
- Lap seat belt pretensioner harness RH is shorted.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



Step		Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the lap seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK LAP SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB30). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the lap seat belt pretensioner RH. <Ref. to SB-16, SEAT BELT OUTER - FRONT, REMOVAL, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (LAP SEAT BELT PRETENSIONER HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB26) from seat belt pretensioner. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AG) terminals in test harness AG. ***Connector & terminal (3AG) No. 17 — (3AG) No. 19:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DT:DTC B19F1 OPEN IN FRONT P/T 2 RH

DTC DETECTING CONDITION:

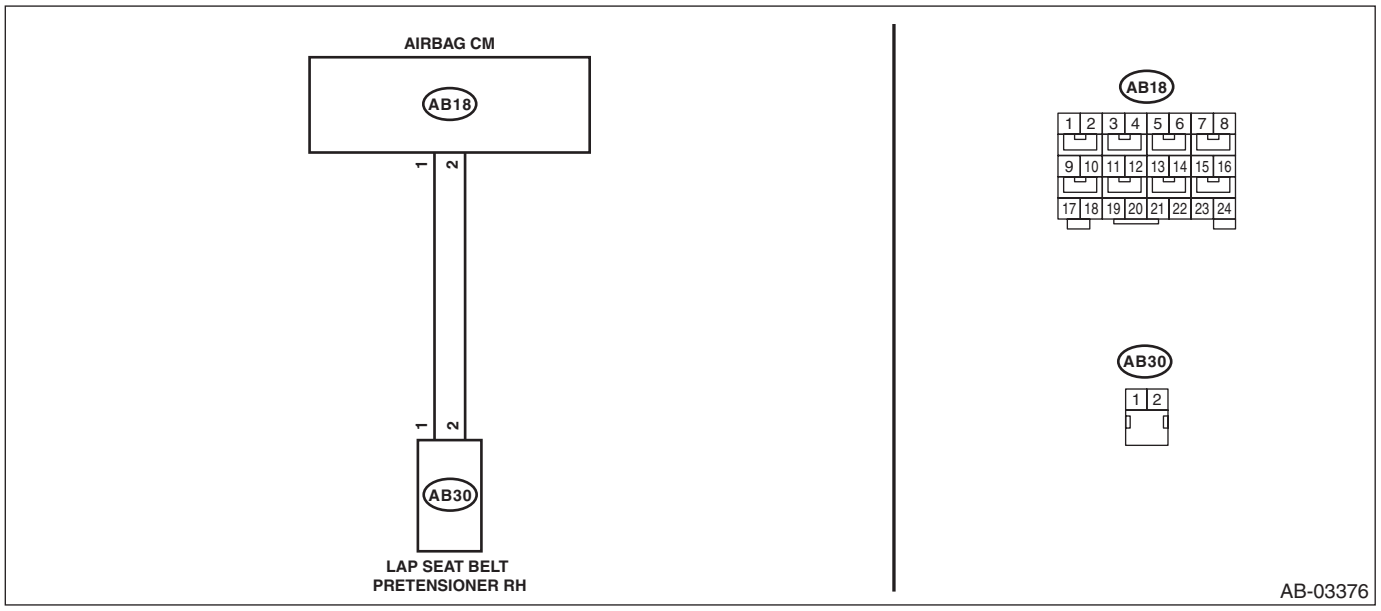
- Lap seat belt pretensioner RH circuit is open.
- Lap seat belt pretensioner RH is faulty.
- Lap seat belt pretensioner harness RH is open.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the lap seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK LAP SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB30). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the lap seat belt pretensioner RH. <Ref. to SB-16, SEAT BELT OUTER - FRONT, REMOVAL, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (SIDE AIRBAG HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB26) from seat belt pretensioner. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AG) in the test harness AG and connector (2N) in the test harness N. ***Connector & terminal*** ***(3AG) No. 17 — (2N) No. 2:*** ***(3AG) No. 19 — (2N) No. 1:***	Is the resistance less than 10 Ω?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DU:DTC B19F2 SHORT IN FRONT P/T 2 RH (TO GROUND)

DTC DETECTING CONDITION:

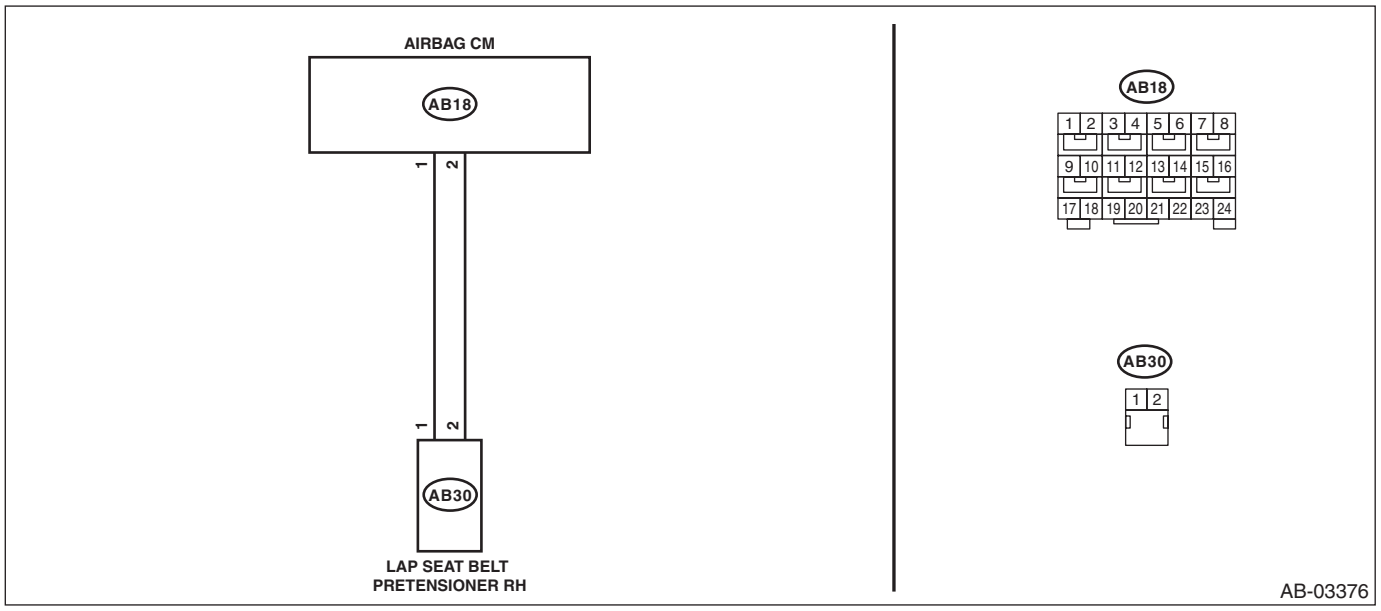
- Lap seat belt pretensioner RH circuit is shorted to ground.
- Lap seat belt pretensioner RH is faulty.
- Lap seat belt pretensioner harness RH is shorted to ground.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the lap seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK LAP SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB30). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the lap seat belt pretensioner RH. <Ref. to SB-16, SEAT BELT OUTER - FRONT, REMOVAL, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (LAP SEAT BELT PRETENSIONER HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB26) from seat belt pretensioner. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Measure the resistance between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 17 — Chassis ground:*** ***(3AG) No. 19 — Chassis ground:***	Is the resistance 1 MΩ or more?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

DV:DTC B19F3 SHORT IN FRONT P/T 2 RH (TO +B)

DTC DETECTING CONDITION:

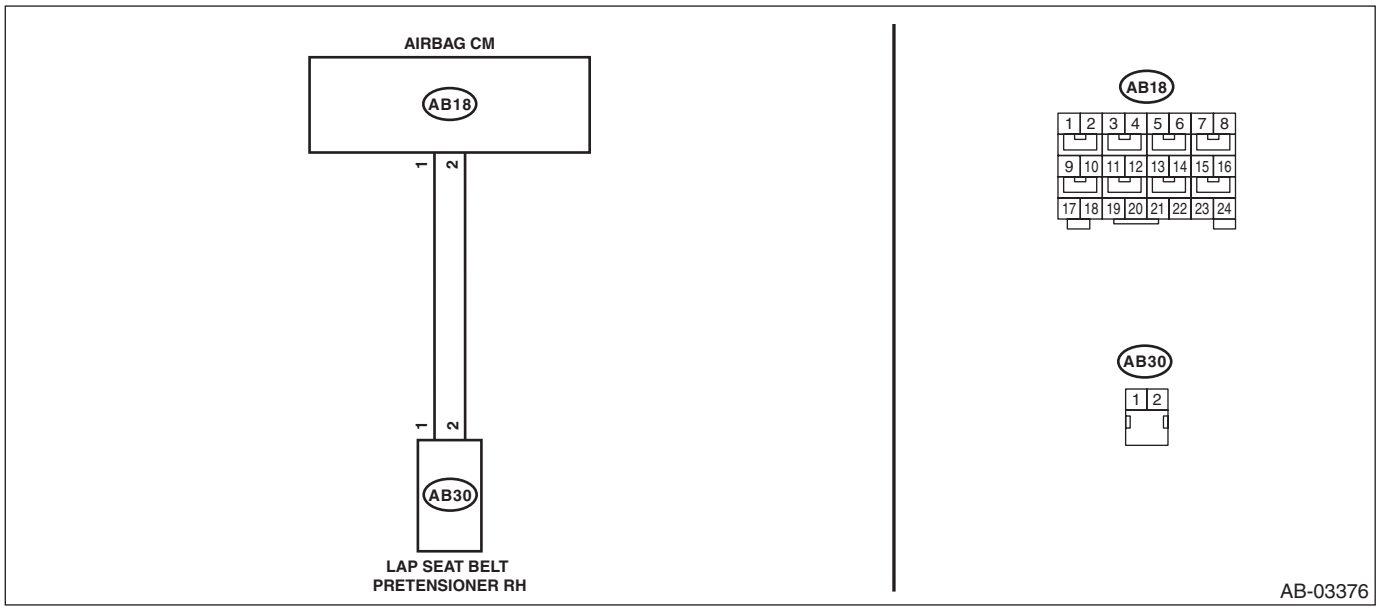
- Lap seat belt pretensioner RH circuit is shorted to power supply.
- Lap seat belt pretensioner RH is faulty.
- Lap seat belt pretensioner harness RH is shorted to power supply.
- Airbag control module is faulty.

CAUTION:

Before performing diagnosis, refer to "CAUTION" in "General Description". <Ref. to AB(diag)-4, CAUTION, General Description.>

WIRING DIAGRAM:

Airbag system <Ref. to WI-55, WIRING DIAGRAM, Airbag System.>



	Step	Check	Yes	No
1	**CHECK POOR CONTACT OF CONNECTORS.** Check for poor contact of the connectors between the airbag control module and the lap seat belt pretensioner RH.	Is there poor contact?	Replace the airbag rear harness along with body harness.	Go to step **2**.
2	**CHECK LAP SEAT BELT PRETENSIONER.** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the connector (AB30) from the lap seat belt pretensioner RH. 3) Connect the connector (1N) in the test harness N to the connector (AB30). 4) Connect the airbag resistor to the connector (2N) of test harness N. 5) Connect the battery ground terminal and turn the ignition switch to ON.	Does the airbag warning light illuminate for 6 seconds and go off?	Replace the lap seat belt pretensioner RH. <Ref. to SB-16, SEAT BELT OUTER - FRONT, REMOVAL, Front Seat Belt.>	Go to step **3**.

	Step	Check	Yes	No
3	**CHECK AIRBAG REAR HARNESS (LAP SEAT BELT PRETENSIONER HARNESS RH).** 1) Turn the ignition switch to OFF, disconnect the battery ground cable, and wait for 60 seconds or more. 2) Disconnect the airbag resistor from test harness N. 3) Disconnect the connector (AB33) from curtain airbag module RH. 4) Disconnect the connector (AB24) from side airbag module RH. 5) Disconnect the connector (AB26) from seat belt pretensioner. 6) Disconnect the connectors (AB6, AB17, AB18) from airbag control module. 7) Connect the connector (1AG) in the test harness AG to the connectors (AB6, AB17, AB18). 8) Connect the battery ground terminal and turn the ignition switch to ON. 9) Measure the voltage between connector (3AG) in the test harness AG and chassis ground. ***Connector & terminal*** ***(3AG) No. 17 (+) — Chassis ground (–):*** ***(3AG) No. 19 (+) — Chassis ground (–):***	Is the voltage less than 1 V?	Go to step **4**.	Replace the airbag rear harness along with body harness.
4	**CHECK AIRBAG CONTROL MODULE.** 1) Connect all connectors. 2) Clear the memory. 3) Perform the Inspection Mode. 4) Read the DTC. (Current malfunction)	Is the same DTC displayed?	Replace the airbag control module. <Ref. to AB-78, Airbag Control Module.>	Go to step **5**.
5	**CHECK FOR ANY OTHER DTC ON DISPLAY.**	Is any other DTC displayed?	Check DTC using "List of Diagnostic Trouble Code (DTC)". <Ref. to AB(diag)-30, List of Diagnostic Trouble Code (DTC).>	Finish the diagnosis.

OCCUPANT DETECTION SYSTEM (DIAGNOSTICS)

OD(diag)

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16.Diagnostic Procedure with Diagnostic Trouble Code (DTC)

A: DTC U0073 CONTROL MODULE COMMUNICATION BUS OFF

Detected when error occurs in the CAN line. (Bus off)

NOTE:
Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

B: DTC U0100 LOST COMMUNICATION WITH ECM/PCM “A”

Detected when CAN data from engine control module (ECM) is not transmitted to stereo camera.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

C: DTC U0101 LOST COMMUNICATION WITH TCM

Detected when CAN data from TCM is not transmitted to stereo camera.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

D: DTC U0122 LOST COMMUNICATION WITH VEHICLE DYNAMICS CONTROL MODULE

Detected when CAN data from VDC is not transmitted to stereo camera.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

E: DTC U0140 LOST COMMUNICATION WITH BODY CONTROL MODULE

Detected when CAN data from body integrated unit is not transmitted to stereo camera.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

F: DTC U0155 LOST COMMUNICATION WITH INSTRUMENT PANEL CLUSTER (IPC) CONTROL MODULE

Detected when CAN data from meter is not transmitted to stereo camera.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

G: DTC U0401 INVALID DATA RECEIVED FROM ECM/PCM “A”

Failure counter diagnosis of engine control module (ECM)

NOTE:
Perform check of the ECM. <Ref. to EN(H4DO)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

H: DTC U0402 INVALID DATA RECEIVED FROM TCM

Failure counter diagnosis of automatic transmission control module (TCM)

NOTE:
Check the automatic transmission. <Ref. to CVT(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

I: DTC U0416 INVALID DATA RECEIVED FROM VEHICLE DYNAMICS CONTROL MODULE

Failure counter diagnosis of VDC control module (VDC CM)

NOTE:
Check the VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

J: DTC U0422 INVALID DATA RECEIVED FROM BODY CONTROL MODULE

Failure counter diagnosis of body integrated unit

NOTE:
Inspect the body integrated unit. <Ref. to BC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

K: DTC U0423 INVALID DATA RECEIVED FROM INSTRUMENT PANEL CLUSTER CONTROL MODULE

Failure counter diagnosis of combination meter

NOTE:
Check the combination meter. <Ref. to IDI-11, INSPECTION, Combination Meter System.>

L: DTC U1001 CAN-HS ABNORMAL

Detected when error occurs in the high speed CAN communication circuit.

NOTE:
Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

M: DTC B2801 TCM ABNORMAL

Detected when error occurs in the automatic transmission.

NOTE:
Check the automatic transmission. <Ref. to CVT(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

N: DTC B2802 ETC ABNORMAL

Detected when error occurs in the electronic throttle control.

NOTE:
Check the electronic throttle control. <Ref. to EN(H4DO)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

O: DTC B2805 BIU ABNORMAL

Detected when error occurs in the body integrated unit.

NOTE:
Inspect the body integrated unit. <Ref. to BC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

P: DTC B2806 ECM ABNORMAL

Detected when error occurs in the engine control module (ECM).

NOTE:
Perform check of the ECM. <Ref. to EN(H4DO)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

Q: DTC B2807 ECM ABNORMAL

Detected when cruise indicator illumination request from ECM and ON/OFF information of cruise function do not match.

NOTE:
Perform check of the ECM. <Ref. to EN(H4DO)(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

R: DTC B2809 VDC ABNORMAL

Detected when error occurs in the VDC. (VDC failure)

NOTE:
Check the VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

S: DTC B280A VDC ABNORMAL

Detected when error occurs in the VDC. (VDC brake control malfunction 1)

NOTE:
Check the VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>
When the DTC is detected by the compulsory drive of brake light relay for VDC, ABS sequence control, or VDC sequence control, the system malfunction does not exist. So, clear the memory.

T: DTC B280B VDC ABNORMAL

Detected when error occurs in the VDC. (VDC brake control malfunction 2)

NOTE:
Check the VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

U: DTC B280C VDC ABNORMAL

Detected when error occurs in the VDC. (VDC fluid pressure control prohibited)

NOTE:
Check the VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

V: DTC B280D VDC ABNORMAL

Detected when error occurs in the VDC. (Pre-collision BA prohibited)

NOTE:
Check the VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

W: DTC B280E VDC ABNORMAL

Detected when error occurs in the VDC. (VDC wrong variant)

NOTE:
Check the VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>

X: DTC B280F METER ABNORMAL

Malfunction is detected in the combination meter.
DTC DETECTING CONDITION:
Defective combination meter
TROUBLE SYMPTOM:
- All functions of EyeSight system do not operate.
- EyeSight warning light blinks or illuminates.
- Combination meter does not illuminate.

NOTE:
Check the combination meter. <Ref. to IDI-11, INSPECTION, Combination Meter System.>

Y: DTC B2810 METER ABNORMAL

Detected when the combination meter, which is not designed exclusively for EyeSight is installed.
DTC DETECTING CONDITION:
Incorrect specifications of combination meter
TROUBLE SYMPTOM:
All functions of EyeSight system do not operate.

NOTE:
Replace the combination meter with the one designed for EyeSight.

Z: DTC B2813 BRAKE SWITCH ABNORMAL

Detected when the error related to brake switch occurs.

DTC DETECTING CONDITION:

- Defective brake switch
- Defective brake light switch

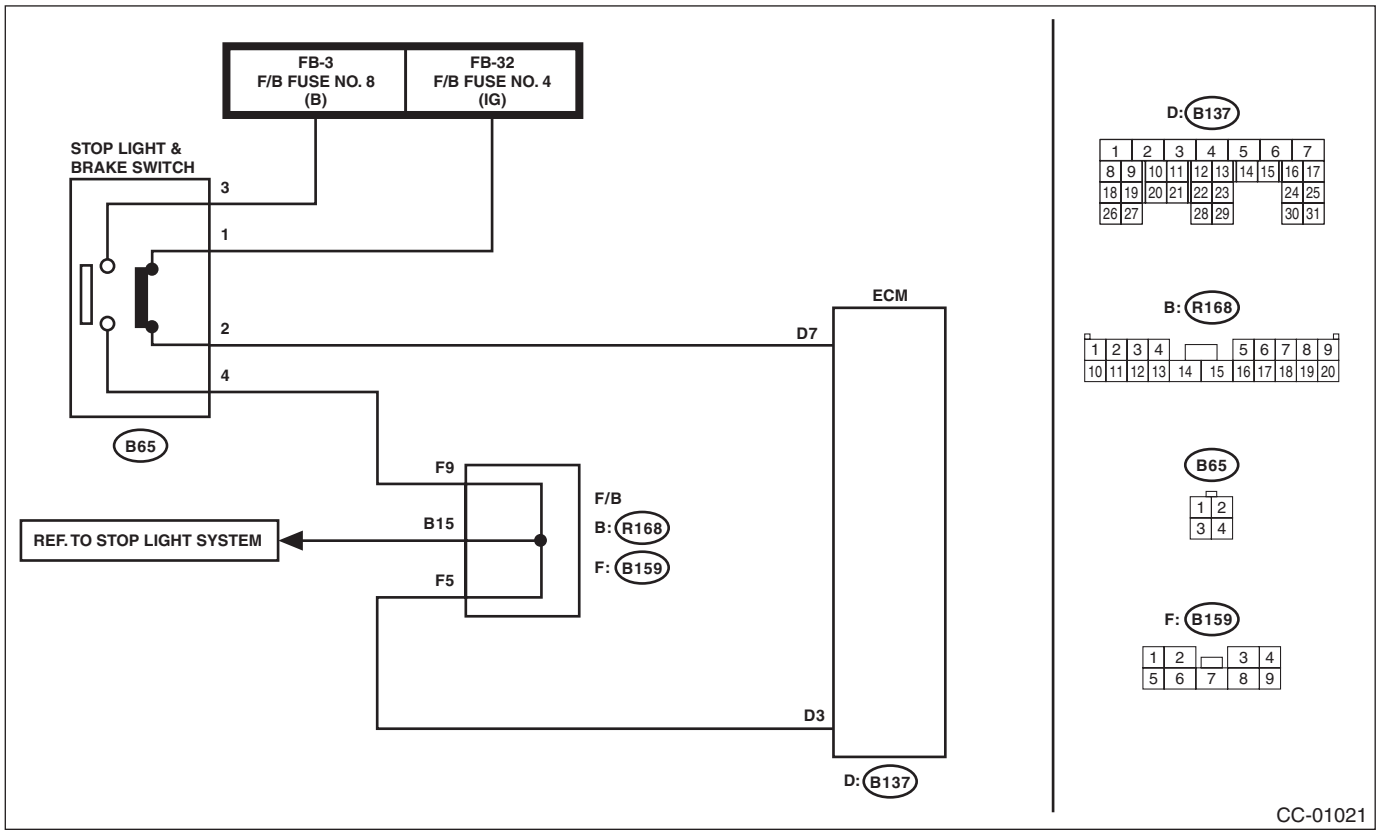
TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.
- Malfunction indicator light illuminates.

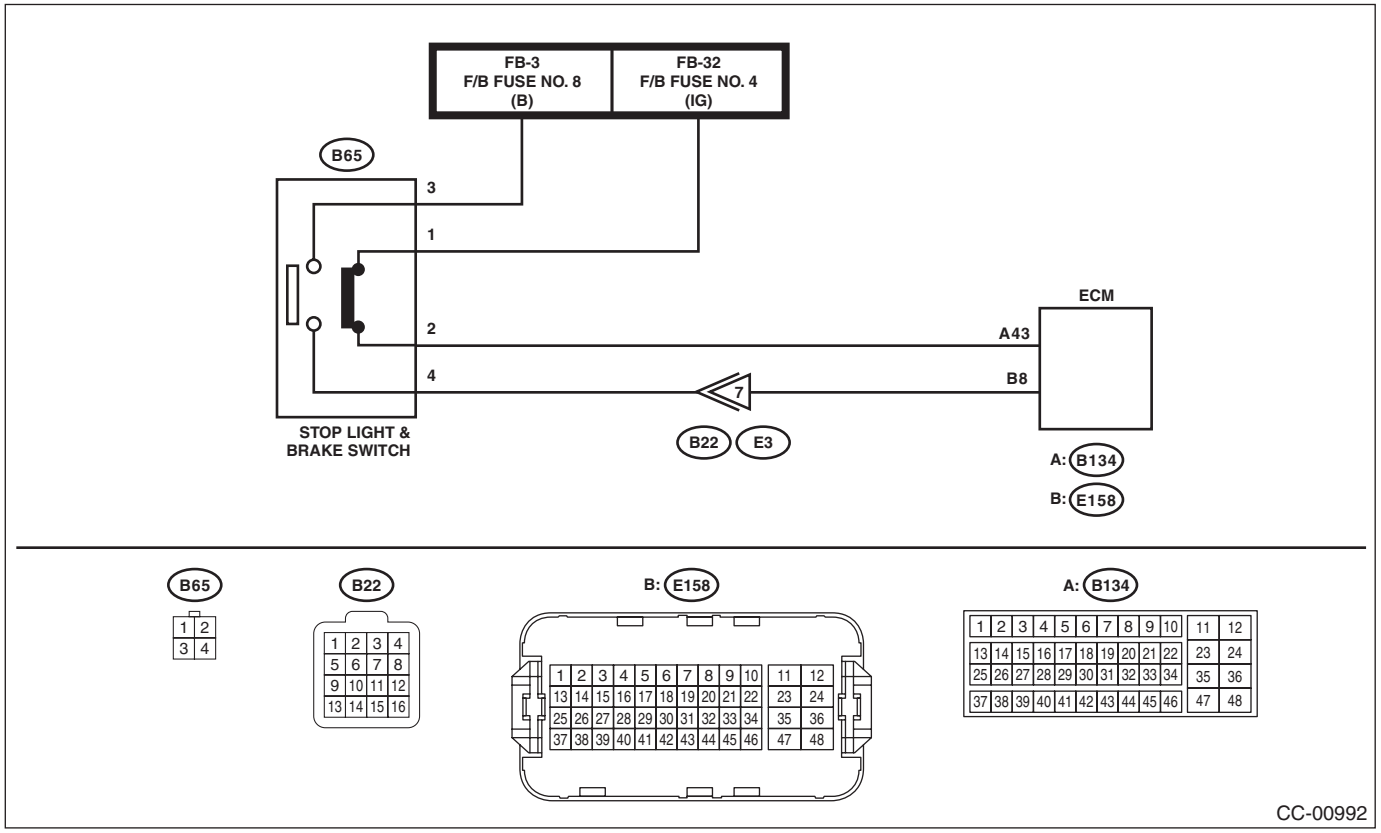
WIRING DIAGRAM:

EyeSight System<Ref. to WI-232, WIRING DIAGRAM, EyeSight System.>

- Non-turbo model



- Turbo model



Step		Check	Yes	No
1	**CHECK BRAKE SWITCH SIGNAL (ECM).** 1) Turn the ignition switch to ON. 2) Confirm the current data of stereo camera using Subaru Select Monitor. 3) Display the data of brake switch to check it.	Is ON ←→ OFF displayed on the display when the brake pedal is depressed or released?	Go to step **2**.	Go to step **3**.
2	**CHECK BRAKE SWITCH SIGNAL (BODY INTEGRATED UNIT).** 1) Turn the ignition switch to ON. 2) Connect the Subaru Select Monitor. 3) Select {Integ. unit mode} from main menu. 4) Select {Current Data Display & Save}, check the brake switch output.	Is ON ←→ OFF displayed on the display when the brake pedal is depressed or released?	Go to step **6**.	Go to step **3**.
3	**CHECK STOP LIGHT & BRAKE SWITCH.** Check the stop light & brake switch.<Ref. to BR-72, INSPECTION, Stop Light Switch.>	Is the stop light & brake switch OK?	Go to step **4**.	Replace the stop light & brake switch.<Ref. to BR-69, REMOVAL, Stop Light Switch.>
4	**CHECK BRAKE SWITCH CIRCUIT (BATTERY POWER SUPPLY CIRCUIT).** 1) Turn the ignition switch to OFF. 2) Disconnect the harness connector from stop light & brake switch. 3) Turn the ignition switch to ON. 4) Measure the voltage between stop light & brake switch harness connector terminal and chassis ground. ***Connector & terminal*** ***(B65) No. 1 (+) — Chassis ground (–):*** ***(B65) No. 3 (+) — Chassis ground (–):***	Is the voltage approx. 10 V or more?	Go to step **5**.	Check the power supply system circuit, and if any fault is found, repair or replace the defective parts.

	Step	Check	Yes	No
5	**CHECK BRAKE SWITCH CIRCUIT.** 1) Turn the ignition switch to OFF. 2) Disconnect the ECM connector. 3) Measure the resistance between ECM harness connector terminal and stop light & brake switch. ***Connector & terminal*** ***Non-turbo model*** ***(B137) No. 3 — (B65) No. 4:*** ***(B137) No. 7 — (B65) No. 2:*** ***Turbo model*** ***(E158) No. 8 — (B65) No. 4:*** ***(B134) No. 43 — (B65) No. 2:***	Is the resistance less than 10 Ω?	Go to step **6**.	Repair or replace the harness.
6	**CHECK STEREO CAMERA.** 1) Connect all connectors. 2) Turn the ignition switch to ON. 3) Connect the Subaru Select Monitor. 4) Read the DTC.	Is another DTC (other than DTC B2813) displayed?	Perform the diagnosis according to DTC.	Go to step **7**.
7	**CHECK CONNECTOR.** Check the connectors of stop light & brake switch, ECM and stereo camera.	Is the connector normal?	Go to step **8**.	Repair or replace the connector.
8	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Is a DTC of the LAN system detected?	Perform the diagnosis according to DTC for LAN system.	Go to step **9**.
9	**CHECK STEREO CAMERA.** 1) Clear the memory. 2) Read the DTC.	Is the same DTC (DTC B2813) displayed?	Replace the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>	Temporary poor contact occurs.

AA:DTC B2814 POWER SUPPLY VOLT ERROR

Detected when the status of 7.9 V or less continues approximately for 5 seconds and is judged to be low-voltage malfunction, or when the +B harness of the stereo camera is broken.

DTC DETECTING CONDITION:

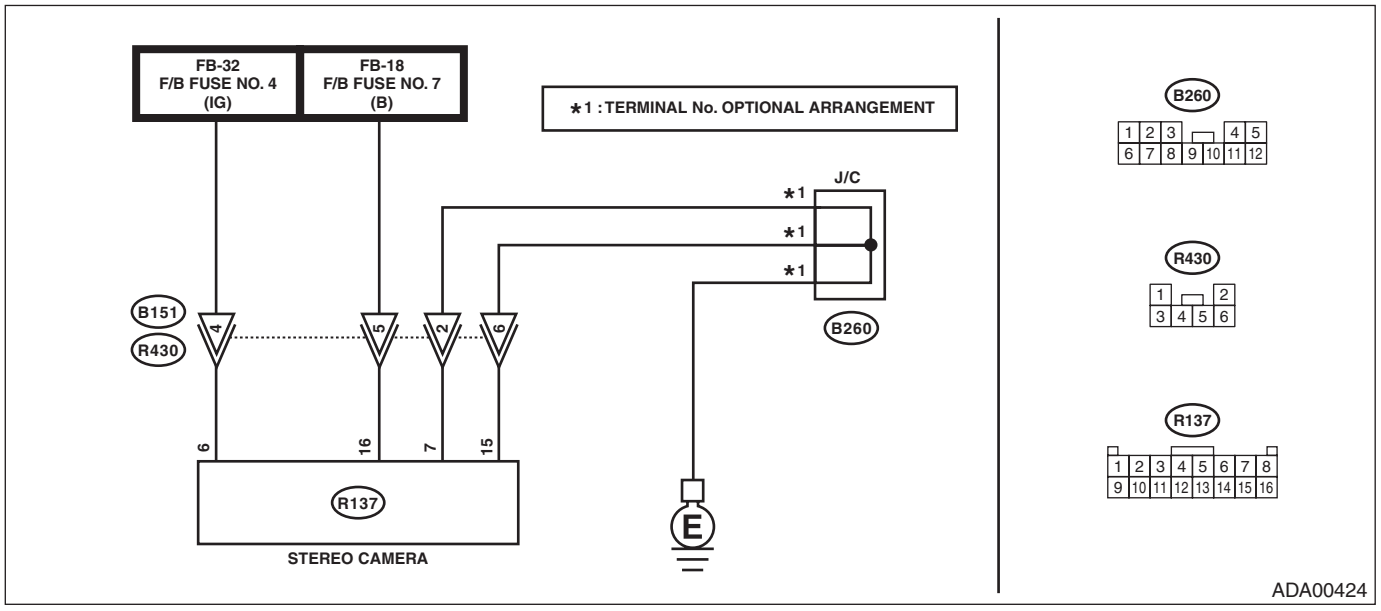
- Input voltage to stereo camera is out of specifications.
- Defective stereo camera control harness (open circuit in +B harness)
- Defective stereo camera

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light blinks or illuminates.
- CRUISE indicator light blinks.
- Malfunction indicator light illuminates.
- VDC warning light illuminates.
- ATF temperature warning light illuminates.

WIRING DIAGRAM:

EyeSight System <Ref. to WI-232, WIRING DIAGRAM, EyeSight System.>



Step		Check	Yes	No
1	**CHECK GENERATOR.** 1) Start the engine and idle for a while. 2) Measure the voltage between generator terminal B and chassis ground. ***Connector & terminal*** ***Generator terminal B (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **2**.	Check the generator.
2	**CHECK BATTERY TERMINAL.** Turn the ignition switch to OFF.	Is the battery terminal connected securely?	Go to step **3**.	Tighten the battery terminal securely.
3	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **4**.	Replace the faulty fuse. If the newly replaced fuse is blown instantly, check the short circuit in harness.

	Step	Check	Yes	No
4	**CHECK HARNESS (POWER SUPPLY CIRCUIT).** 1) Disconnect the stereo camera. 2) Turn the ignition switch to ON. 3) Measure the voltage between harness connector of stereo camera and chassis ground. ***Connector & terminal*** ***(R137) No. 6 (+) — Chassis ground (–):*** ***(R137) No. 16 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **5**.	Check the power supply system circuit, and if any fault is found, repair the defective parts or replace the harness.
5	**CHECK HARNESS (GROUND CIRCUIT).** 1) Turn the ignition switch to OFF. 2) Disconnect the ground cable from battery. 3) Measure the resistance between stereo camera and chassis ground. ***Connector & terminal*** ***(R137) No. 7 — Chassis ground:*** ***(R137) No. 15 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **6**.	Check the ground system circuit, and if any fault is found, repair the defective parts or replace the harness.
6	**CHECK POOR CONTACT OF CONNECTORS.** Check stereo camera connector.	Is there poor contact of the connector?	Repair the connector.	Go to step **7**.
7	**CHECK STEREO CAMERA.** 1) Connect all connectors and battery terminals securely. 2) Start the engine, drive the vehicle at 40 km/h (24.9 MPH) or more, stop the vehicle and then stop the engine. 3) After 3 seconds or more have elapsed, restart the engine. 4) Clear the memory. 5) Read the DTC.	Is the same DTC (DTC B2814 or B2815) displayed?	Replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>	Temporary poor contact occurs.

AB:DTC B2815 POWER SUPPLY VOLT ERROR

Detected when the status for the battery voltage of 16 V or more continues approximately for 5 seconds and is judged to be abnormally high voltage.
Refer to DTC B2814 for DTC detecting condition, trouble symptom and diagnostic procedure. <Ref. to ES(diag)-96, DTC B2814 POWER SUPPLY VOLT ERROR, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AC:DTC B2816 BRAKE CONTROL ERROR

DTC DETECTING CONDITION:

- Defective VDC
- Defective CAN system

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.

NOTE:
When this DTC is detected, check VDC system. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>
When the DTC is detected by the ABS sequence control for VDC, VDC sequence control, or air bleeding from brake system with engine running, the system malfunction does not exist. So, clear the memory.

AD:DTC B2817 BRAKE LAMP ERROR

DTC DETECTING CONDITION:

- Defective brake light relay
- Defective brake light switch
- Defective VDC

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.
- Brake light does not go off or illuminate.

NOTE:
When this DTC is detected, check VDC system. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>
When the DTC is detected by the compulsory drive of brake light relay for VDC, the system malfunction does not exist. So, clear the memory.

AE:DTC B28A0 VEHICLE MODEL JUDGMENT ABNORMAL

Detected when the model code for stereo camera and the model code used for CAN data are different.

DTC DETECTING CONDITION:

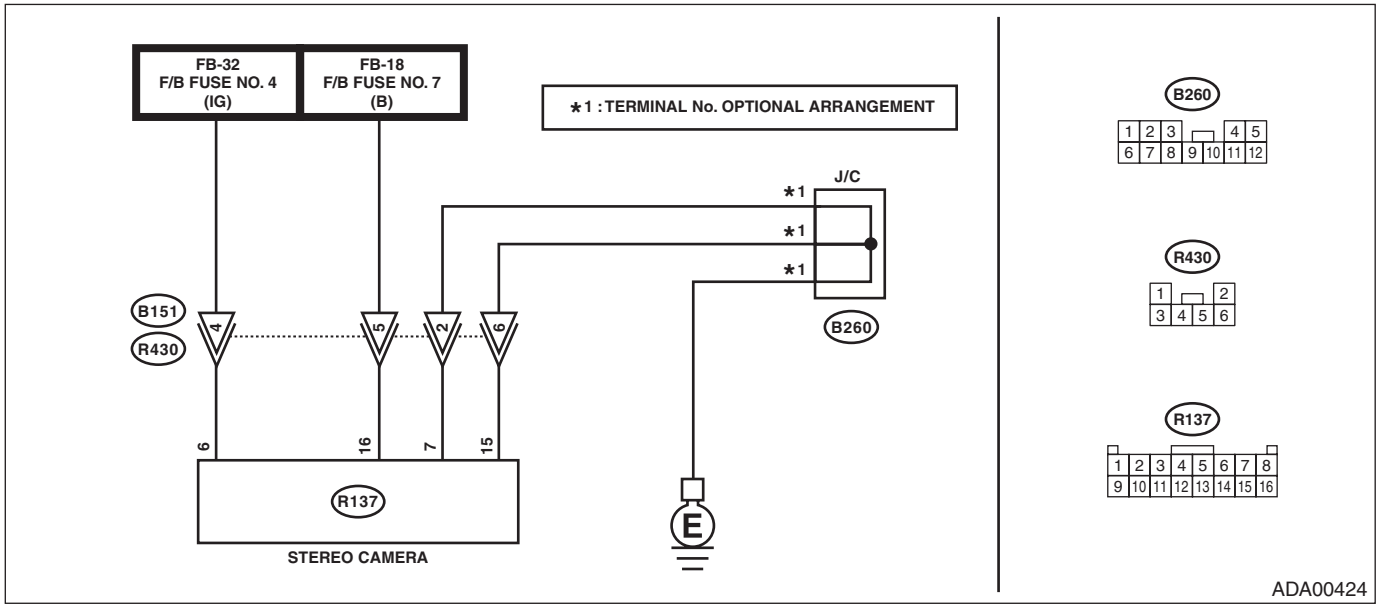
- Defective CAN system
- Defective stereo camera
- In the aiming operation, there is an open circuit in the +B harness of the stereo camera.
- In the completion of the aiming operation, the switching from IGN OFF to IGN ON takes place too early, and the recording of the model information has not yet been finished.

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.

WIRING DIAGRAM:

EyeSight System<Ref. to WI-232, WIRING DIAGRAM, EyeSight System.>



Step		Check	Yes	No
1	**CHECK RELATED CM.** Check the part number of the ECM, TCM, VDC CM and combination meter.	Is each CM a genuine part?	Go to step **2**.	Replace the non-genuine CM with a genuine one.
2	**CHECK STEREO CAMERA.** 1) Remove the camera cover. 2) Check the part number of the stereo camera.	Is the stereo camera genuine?	Go to step **3**.	Replace the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>
3	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system.<Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK MODEL REGISTRATION INFORMATION.** Check the model registration information from the current data of stereo camera.	Does vehicle and data correspond?	Perform the adjustment or inspection of the camera.<Ref. to ES(diag)-43, Camera Adjustment, Inspection.>	Go to step **5**.
5	**CHECK FUSE.** Check the fuse.	Is the fuse OK?	Go to step **6**.	Replace the faulty fuse. If the newly replaced fuse is blown instantly, check the short circuit in harness.

	Step	Check	Yes	No
6	**CHECK HARNESS (POWER SUPPLY CIRCUIT).** 1) Disconnect the stereo camera. 2) Turn the ignition switch to ON. 3) Measure the voltage between harness connector of stereo camera and chassis ground. ***Connector & terminal*** ***(R137) No. 6 (+) — Chassis ground (–):*** ***(R137) No. 16 (+) — Chassis ground (–):***	Is the voltage 10 V or more?	Go to step **7**.	Check the power supply system circuit, and if any fault is found, repair the defective parts or replace the harness.
7	**CHECK HARNESS (GROUND CIRCUIT).** 1) Turn the ignition switch to OFF. 2) Disconnect the ground cable from battery. 3) Measure the resistance between stereo camera and chassis ground. ***Connector & terminal*** ***(R137) No. 7 — Chassis ground:*** ***(R137) No. 15 — Chassis ground:***	Is the resistance less than 10 Ω?	Go to step **8**.	Check the ground system circuit, and if any fault is found, repair the defective parts or replace the harness.
8	**CHECK POOR CONTACT OF CONNECTORS.** Check stereo camera connector.	Is there poor contact of the connector?	Repair the connector.	Go to step **9**.
9	**CHECK STEREO CAMERA.** 1) Connect all connectors and battery terminals securely. 2) Clear the memory. 3) Read the DTC.	Is the same DTC (DTC B28A0) displayed?	Replace the stereo camera.<Ref. to ES-11, REMOVAL, Stereo Camera.>	Temporary poor contact occurs.

AF:DTC B28A1 ADAPTIVE CC ECM COMMUNICATION DATA ERROR

Detected when the engine control module (ECM) detects the malfunction of stereo camera, or when the stereo camera or ECM is assembled incorrectly.

DTC DETECTING CONDITION:

- Defective CAN system
- Defective engine control module (ECM)
- Defective stereo camera
- Incorrect assembly of stereo camera (When the stereo camera designed for C-type vehicle is installed to the B-type vehicle, etc.)
- Incorrect assembly of ECM (When the ECM designed for B-type vehicle is installed to the C-type vehicle, etc.)

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.

	Step	Check	Yes	No
1	**CHECK ECM.** Check the part number of the ECM.	Is the ECM genuine?	Go to step **2**.	Replace the ECM.
2	**CHECK STEREO CAMERA.** 1) Remove the camera cover. 2) Check the part number of the stereo camera.	Is the stereo camera genuine?	Go to step **3**.	Replace the stereo camera.
3	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **4**.
4	**CHECK ECM.** Perform the diagnosis for the engine. <Ref. to EN(H4DO)(diag)-2, Basic Diagnostic Procedure.>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **5**.
5	**CHECK CONNECTOR.** Check the ECM connector and the stereo camera connector.	Is the connector OK?	Go to step **6**.	Repair or replace the connector.
6	**CHECK STEREO CAMERA.** Read the DTC.	Is another DTC displayed?	Perform the diagnosis according to DTC.	Go to step **7**.
7	**CHECK STEREO CAMERA.** 1) Clear the memory. 2) Read the DTC.	Is the same DTC displayed?	Replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>	Temporary poor contact.

AG:DTC B28A2 ADAPTIVE CC ECM COMMUNICATION DATA ERROR

Detected when the VDC control module (VDCCM) detects the malfunction of stereo camera.

DTC DETECTING CONDITION:

- Defective CAN system
- Defective VDC control module (VDCCM)
- Defective stereo camera

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK VDC.** Perform the diagnosis for VDC. <Ref. to VDC(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK CONNECTOR.** Check the VDC connector and the stereo camera connector.	Is the connector OK?	Go to step **4**.	Repair or replace the connector.
4	**CHECK STEREO CAMERA.** Read the DTC.	Is another DTC displayed?	Perform the diagnosis according to DTC.	Go to step **5**.
5	**CHECK STEREO CAMERA.** 1) Clear the memory. 2) Read the DTC.	Is the same DTC displayed?	Replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>	Temporary poor contact.

AH:DTC B28A3 ADAPTIVE CC ECM COMMUNICATION DATA ERROR

Detected when the combination meter detects the malfunction of stereo camera.

DTC DETECTING CONDITION:

- Defective CAN system
- Defective combination meter
- Defective stereo camera

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, PROCEDURE, Basic Diagnostic Procedure.>	Is the DTC displayed in the LAN system?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK COMBINATION METER.** Check the combination meter.	Is combination meter OK?	Go to step **3**.	Perform the diagnosis for combination meter.
3	**CHECK CONNECTOR.** Check the combination meter connector and the stereo camera connector.	Is the connector OK?	Go to step **4**.	Repair or replace the connector.
4	**CHECK STEREO CAMERA.** Read the DTC.	Is another DTC displayed?	Perform the diagnosis according to DTC.	Go to step **5**.
5	**CHECK STEREO CAMERA.** 1) Clear the memory. 2) Read the DTC.	Is the same DTC displayed?	Replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>	Temporary poor contact.

AI: DTC B28A5 ADAPTIVE CC ECM COMMUNICATION DATA ERROR

Detected when abnormal data is transmitted from stereo camera to engine control module (ECM) and the engine control module (ECM) prohibits the AT rapid start prevention control, or when the engine control module (ECM) prohibits the AT rapid start prevention control.

DTC DETECTING CONDITION:

- Defective CAN system
- Defective engine control module (ECM)
- Defective stereo camera

TROUBLE SYMPTOM:

- All functions of EyeSight system do not operate.
- EyeSight warning light illuminates.

	Step	Check	Yes	No
1	**CHECK LAN SYSTEM.** Perform the diagnosis for LAN system. <Ref. to LAN(diag)-2, Basic Diagnostic Procedure.>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **2**.
2	**CHECK ECM.** Perform the diagnosis for the engine. <Ref. to EN(H4DO)(diag)-2, Basic Diagnostic Procedure.>	Is DTC displayed?	Perform the diagnosis according to DTC.	Go to step **3**.
3	**CHECK CONNECTOR.** Check the ECM connector and the stereo camera connector.	Is the connector OK?	Go to step **4**.	Repair or replace the connector.
4	**CHECK STEREO CAMERA.** Read the DTC.	Is another DTC displayed?	Perform the diagnosis according to DTC.	Go to step **5**.
5	**CHECK STEREO CAMERA.** 1) Clear the memory. 2) Read the DTC again.	Is the same DTC displayed?	Replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>	Temporary poor contact.

AJ:DTC B28A6 STEREO CAMERA ABNORMAL

Detected when communication error occurs inside the stereo camera.

DTC DETECTING CONDITION:

Communication error occurs inside the stereo camera.

TROUBLE SYMPTOM:

All functions of EyeSight system do not operate.

	Step	Check	Yes	No
1	**CHECK RESTARTING.** 1) Turn the ignition switch to OFF. 2) Start the engine. 3) Read the DTC related to the stereo camera using the Subaru Select Monitor.	Is DTC displayed after restarting the engine?*1	Replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>	Clear the memory, in which temporary communication failure occurs and complete the step.

*1: When malfunction is detected after restarting the engine, 0 is registered in IG counter. Other values can be regarded as DTCs detected in the past.

AK:DTC B28A7 STEREO CAMERA ABNORMAL

Detected when error occurs in the communication data inside the control module caused by external factors such as noises.

NOTE:
If the same DTC is still detected after the engine has restarted, replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>

AL:DTC B28A8 STEREO CAMERA ABNORMAL

Detected when error occurs in the communication data inside the control module caused by external factors such as noises.

NOTE:
If the same DTC is still detected after the engine has restarted, replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>

AM:DTC B28A9 STEREO CAMERA ABNORMAL

Detected when error occurs in the communication data inside the control module caused by external factors such as noises.

NOTE:
If the same DTC is still detected after the engine has restarted, replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>

AN:DTC B28AA STEREO CAMERA ABNORMAL

Detected when communication error occurs due to malfunction of microcomputer inside the stereo camera.
DTC DETECTING CONDITION:
Communication error occurs due to malfunction of microcomputer inside the stereo camera.
TROUBLE SYMPTOM:
All functions of EyeSight system do not operate.
For diagnostic procedure, refer to “DTC B28A6 STEREO CAMERA ABNORMAL”.<Ref. to ES(diag)-104, DTC B28A6 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AO:DTC B28AB STEREO CAMERA ABNORMAL

Detected when communication error occurs due to malfunction of microcomputer inside the stereo camera.
DTC DETECTING CONDITION:
Communication error occurs due to malfunction of microcomputer inside the stereo camera.
TROUBLE SYMPTOM:
All functions of EyeSight system do not operate.
For diagnostic procedure, refer to “DTC B28A6 STEREO CAMERA ABNORMAL”.<Ref. to ES(diag)-104, DTC B28A6 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AP:DTC B28AC STEREO CAMERA ABNORMAL

Detected when communication error occurs due to malfunction of ASIC.
DTC DETECTING CONDITION:
Communication error occurs due to malfunction of ASIC.
TROUBLE SYMPTOM:
All functions of EyeSight system do not operate.
For diagnostic procedure, refer to “DTC B28A6 STEREO CAMERA ABNORMAL”. <Ref. to ES(diag)-104, DTC B28A6 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AQ:DTC B28AD STEREO CAMERA ABNORMAL

Detected when improper image recognition occurs in the microcomputer inside the stereo camera.
DTC DETECTING CONDITION:
Improper image recognition occurs in the microcomputer inside the stereo camera.
TROUBLE SYMPTOM:
All functions of EyeSight system do not operate.
For diagnostic procedure, refer to “DTC B28A6 STEREO CAMERA ABNORMAL”. <Ref. to ES(diag)-104, DTC B28A6 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AR:DTC B28AE STEREO CAMERA ABNORMAL

Detected when improper power supply inside the stereo camera occurs.
DTC DETECTING CONDITION:
Improper power supply inside the stereo camera occurs.
TROUBLE SYMPTOM:
All functions of EyeSight system do not operate.
For diagnostic procedure, refer to “DTC B28A6 STEREO CAMERA ABNORMAL”. <Ref. to ES(diag)-104, DTC B28A6 STEREO CAMERA ABNORMAL, Diagnostic Procedure with Diagnostic Trouble Code (DTC).>

AS:DTC B28AF STEREO CAMERA ABNORMAL

Detected when adjustment or inspection of stereo camera has not been completed normally.
DTC DETECTING CONDITION:
- Operation is aborted during adjustment or inspection of the stereo camera.
- After the replacement of the stereo camera, adjustment or inspection of camera has not yet been performed.

TROUBLE SYMPTOM:
All functions of EyeSight system do not operate.
For diagnostic procedure, perform adjustment/inspection of camera. When the adjustment or inspection of camera is performed, and if it is not completed successfully, replace the camera.

AT:DTC B28B0 STEREO CAMERA ABNORMAL

Detected when pre-collision brake OFF switch or lane departure warning OFF switch circuit is shorted.

DTC DETECTING CONDITION:

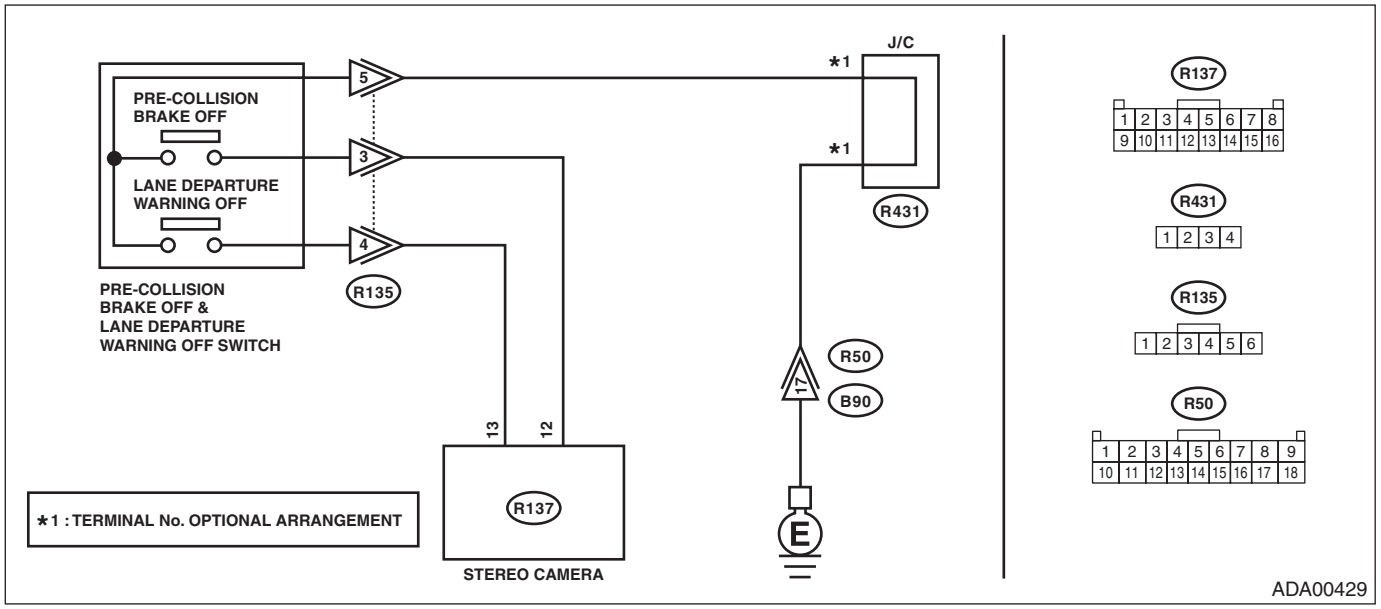
Pre-collision brake OFF switch or lane departure warning OFF switch circuit stays ON for 45 seconds or more.

TROUBLE SYMPTOM:

All functions of EyeSight system do not operate.

WIRING DIAGRAM:

EyeSight System <Ref. to WI-232, WIRING DIAGRAM, EyeSight System.>



Step		Check	Yes	No
1	**CHECK SWITCH.** 1) Turn the ignition switch to OFF. 2) Disconnect the stereo camera connector. 3) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(R137) No. 12 — Chassis ground:*** ***(R137) No. 13 — Chassis ground:***	Is the resistance 10 Ω or less?	Go to step **2**.	If the code is still detected after restoring, replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>
2	**CHECK HARNESS.** 1) Disconnect the switch connector for the stereo camera cover. 2) Using the tester, measure the resistance between terminals. ***Connector & terminal*** ***(R137) No. 12 — Chassis ground:*** ***(R137) No. 13 — Chassis ground:***	Is the resistance 10 Ω or less?	Repair or replace the harness.	Go to step **3**.
3	**CHECK SWITCH.** Using the tester, measure the resistance of the switch. ***Connector & terminal*** ***(R135) No. 3 — No. 5:*** ***(R135) No. 4 — No. 5:***	Does the resistance change when the switch is operated?	Repair or replace the harness.	Replace the switch.

AU:DTC B28B1 STEREO CAMERA ABNORMAL

Detected when the optical axis of stereo camera is deviated in lateral direction or when the fluctuation range of automatic adjustment value has expanded.

NOTE:
Readjust the stereo camera. <Ref. to ES(diag)-43, PROCEDURE, Camera Adjustment, Inspection.>
If the same DTC is still detected after readjustment, replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>

AV:DTC B28B2 STEREO CAMERA ABNORMAL

Detected when the temperature of the stereo camera excessively increases.

NOTE:
When this DTC is detected, performing adjustment or inspection of the camera will not return to the normal state. In this case, always replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>

AW:DTC B28B3 STEREO CAMERA ABNORMAL

Detected when the temperature of the stereo camera excessively decreases.

NOTE:
When this DTC is detected, performing adjustment or inspection of the camera will not return to the normal state. In this case, always replace the stereo camera. <Ref. to ES-11, REMOVAL, Stereo Camera.>

KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)

KPS(diag)

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16.Diagnostics with Phenomenon

A: INSPECTION

Refer to “Diagnostics with Phenomenon” in the “POWER REAR GATE SYSTEM (DIAGNOSTICS)” section. <Ref. to PRG(diag)-55, Diagnostics with Phenomenon.>

POWER REAR GATE SYSTEM (DIAGNOSTICS)

PRG(diag)

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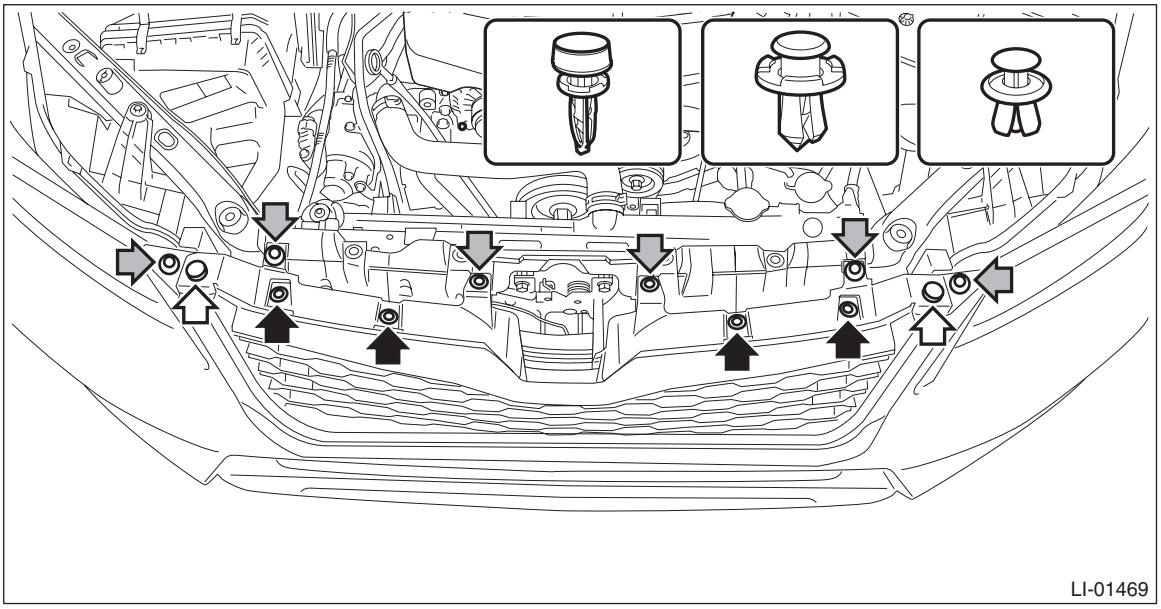
16.Front Hood Lock Assembly

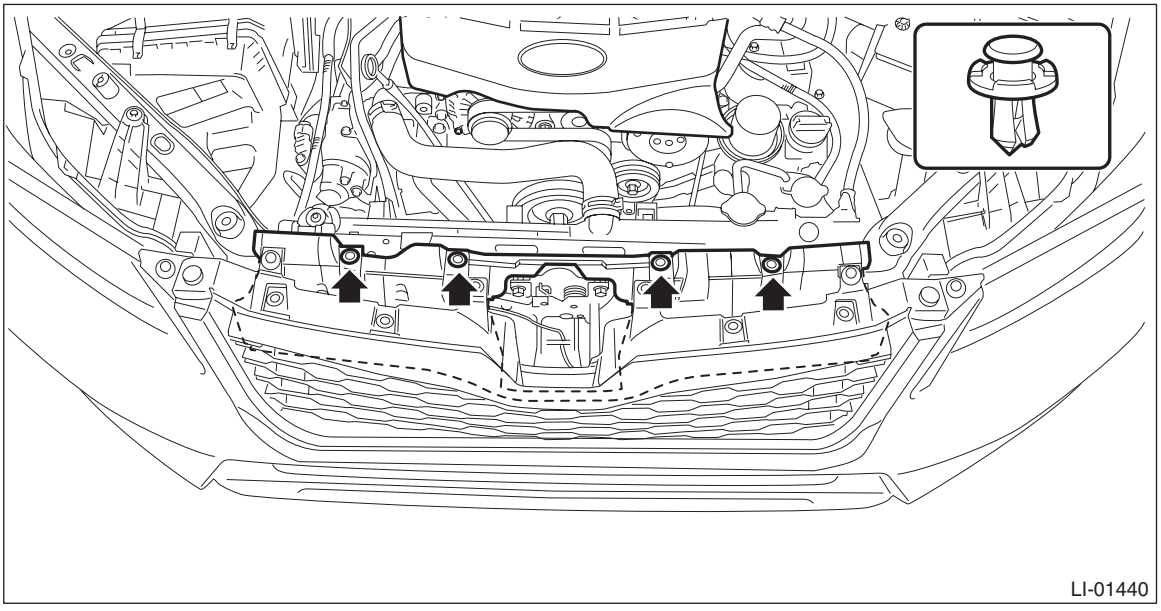
A: REMOVAL

1) Open the front hood.
2) Remove the beam COMPL - front UPR.
   (1) Remove each bumper clip.

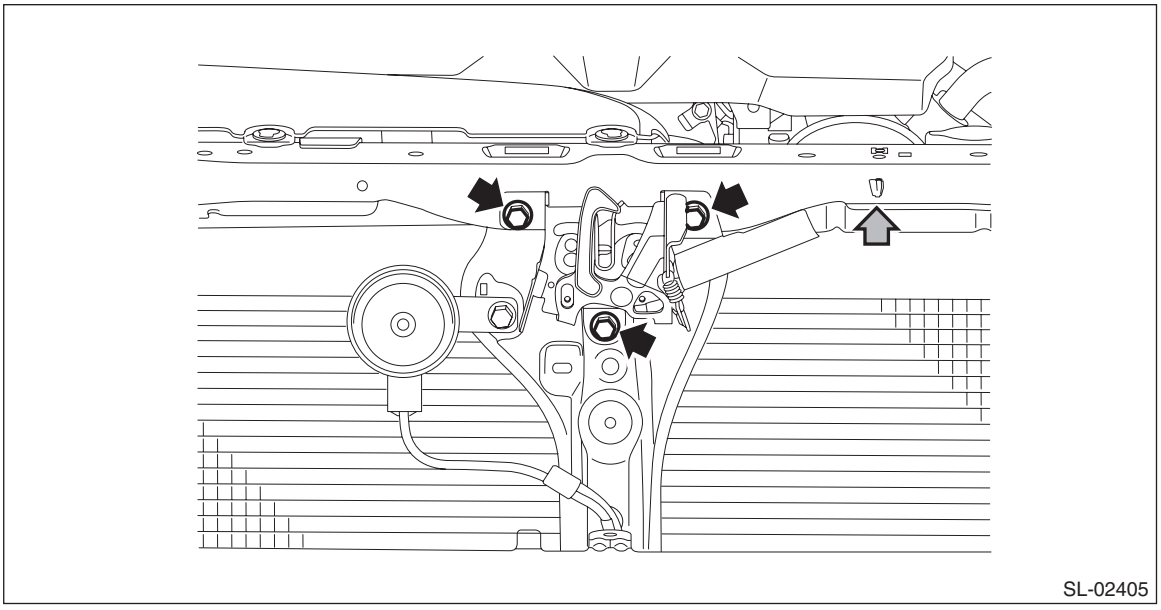


3) Remove the clip, and remove the bracket - grille.

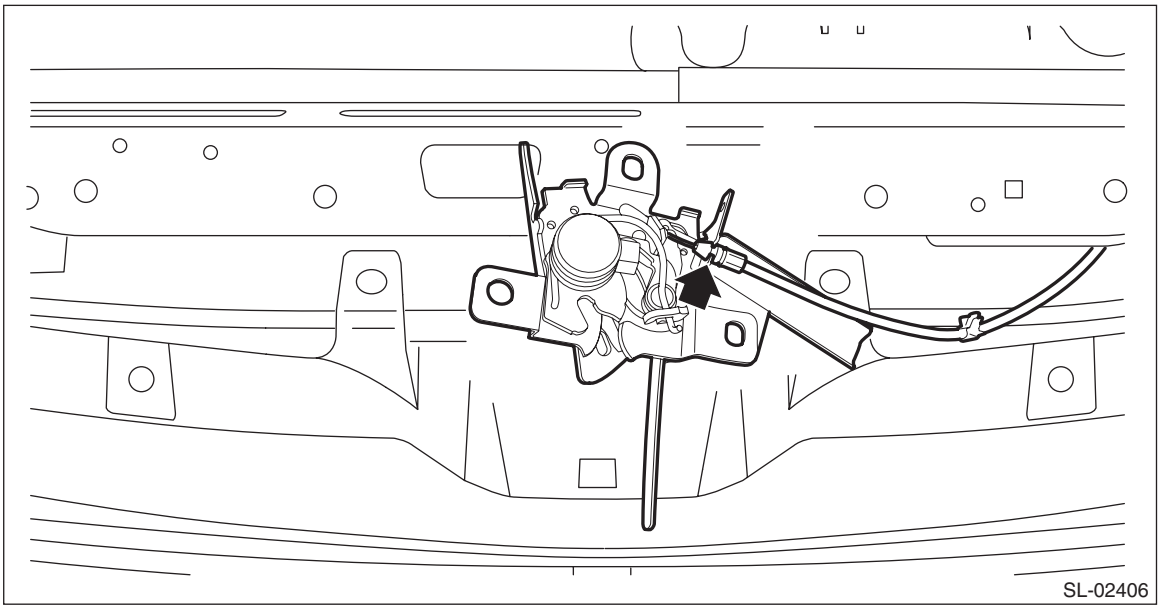
CAUTION:
- **To prevent damage to the bracket - grille, make sure to remove all clips.**
- **Be careful not to damage the front grille assembly, etc.**



4) Remove the lock assembly - front hood.
(1) Remove the bolt and clip.



(2) Disconnect the release cable, and detach the lock assembly - front hood.



NOTE:
When disconnecting the release cable, refer to “FRONT HOOD OPENER” of “Remote Openers”. <Ref. to SL-56, FRONT HOOD OPENER, REMOVAL, Remote Openers.>

B: INSTALLATION

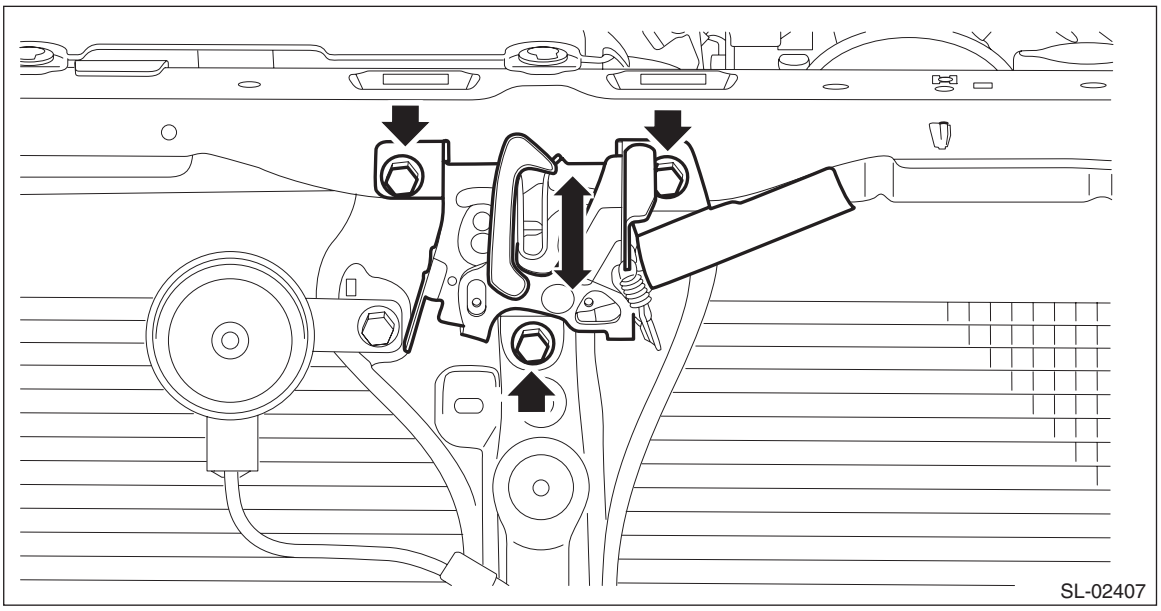
1) Before installation, check the following items.
- Is the cable deformed?
- Grease is applied sufficiently to cable joints.

If grease is insufficient, add it as necessary before assembling the cable.
2) Install each part in the reverse order of removal.

Tightening torque:
Refer to “COMPONENT” of “General Description”. <Ref. to SL-4, FRONT HOOD LOCK, COMPONENT, General Description.>

C: ADJUSTMENT

1) Loosen the bolt, and adjust the lock assembly - front hood while moving it up and down.



2) After adjustment, tighten the bolts securely.

Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SL-4, FRONT HOOD LOCK, COMPONENT, General Description.>

D: INSPECTION

Check if the lock assembly operates normally.
If lever deformation, abnormal wear, or unsmooth lock operation is observed, replace the lock assembly - front hood.

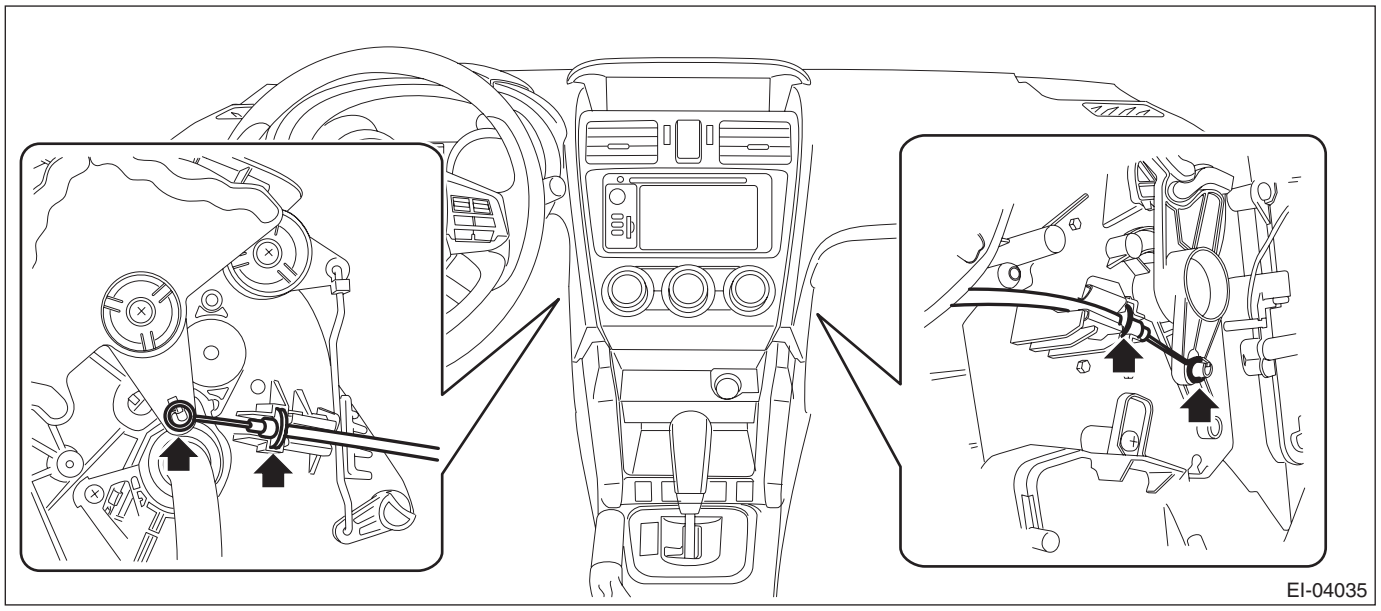
16.Hazard Switch

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the panel center assembly.

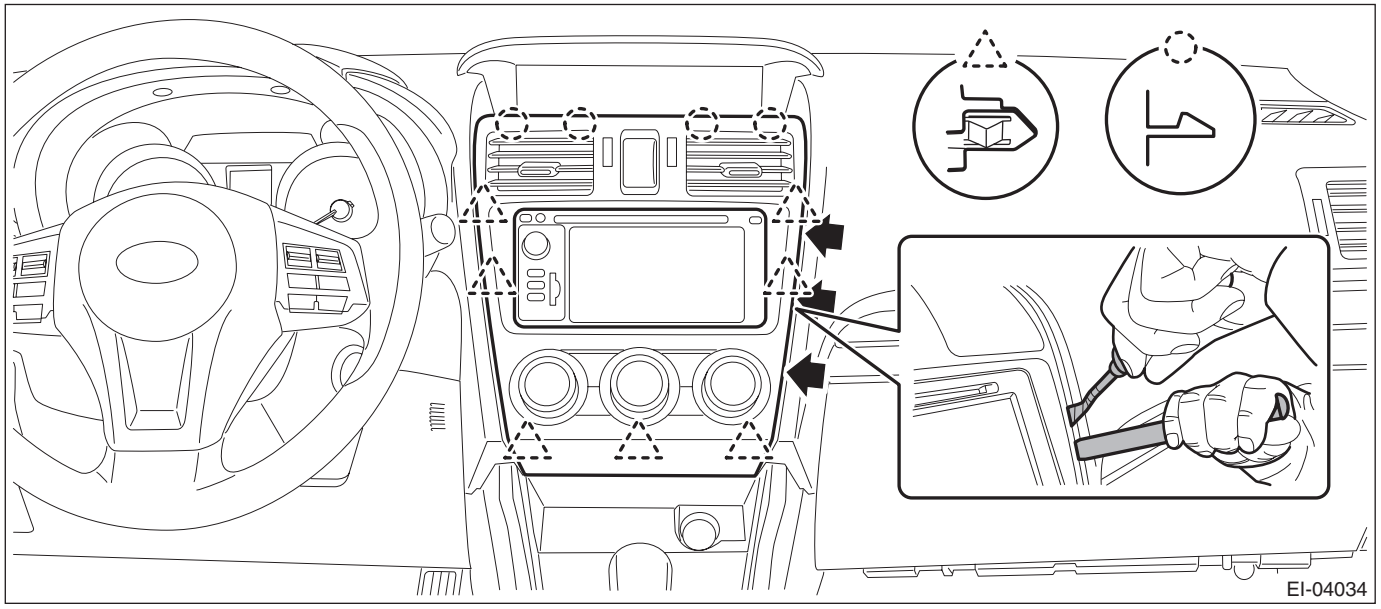
CAUTION:
Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.

(1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.

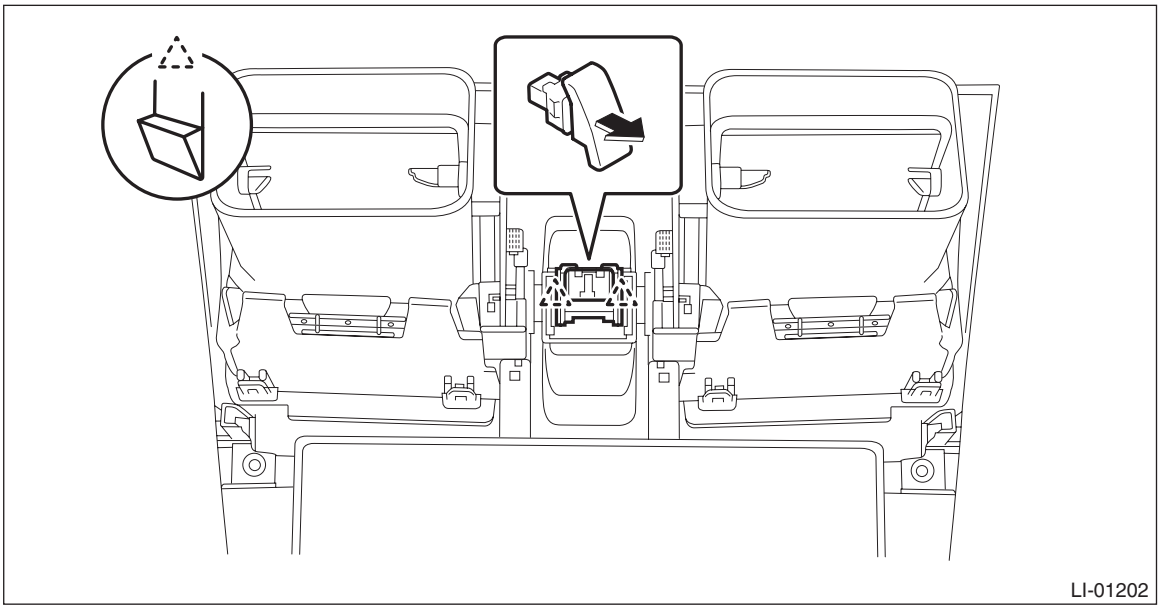


NOTE:
Remove the glove box pocket assembly on the passenger's side.

(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.
(5) Disconnect the connectors, and remove the panel center assembly.



3) Release the claws, and remove the switch - hazard from the panel center assembly.



B: INSTALLATION

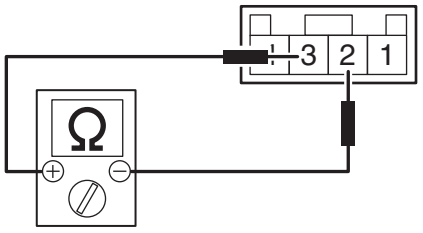
CAUTION:
After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

C: INSPECTION

Unit inspection

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

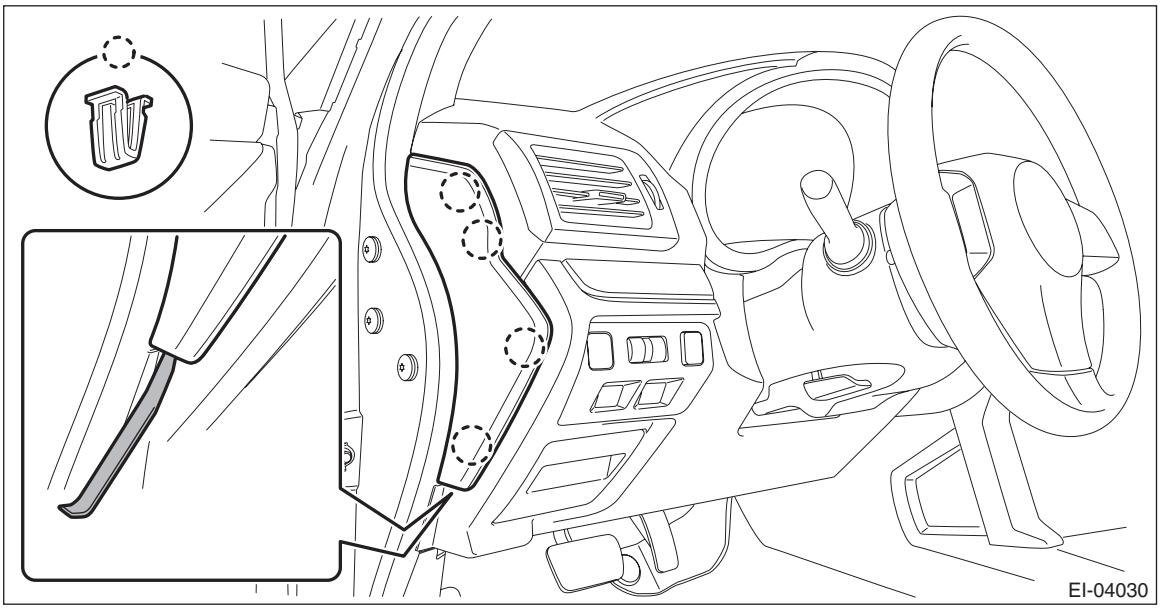
Terminal No.	Inspection conditions	Standard	Connection diagram
2 — 3	Switch OFF	1 MΩ or more	
	Switch ON	Less than 1 Ω	

2) Replace the switch - hazard if the inspection result is not within the standard value.

16.Instrument Panel Lower Cover

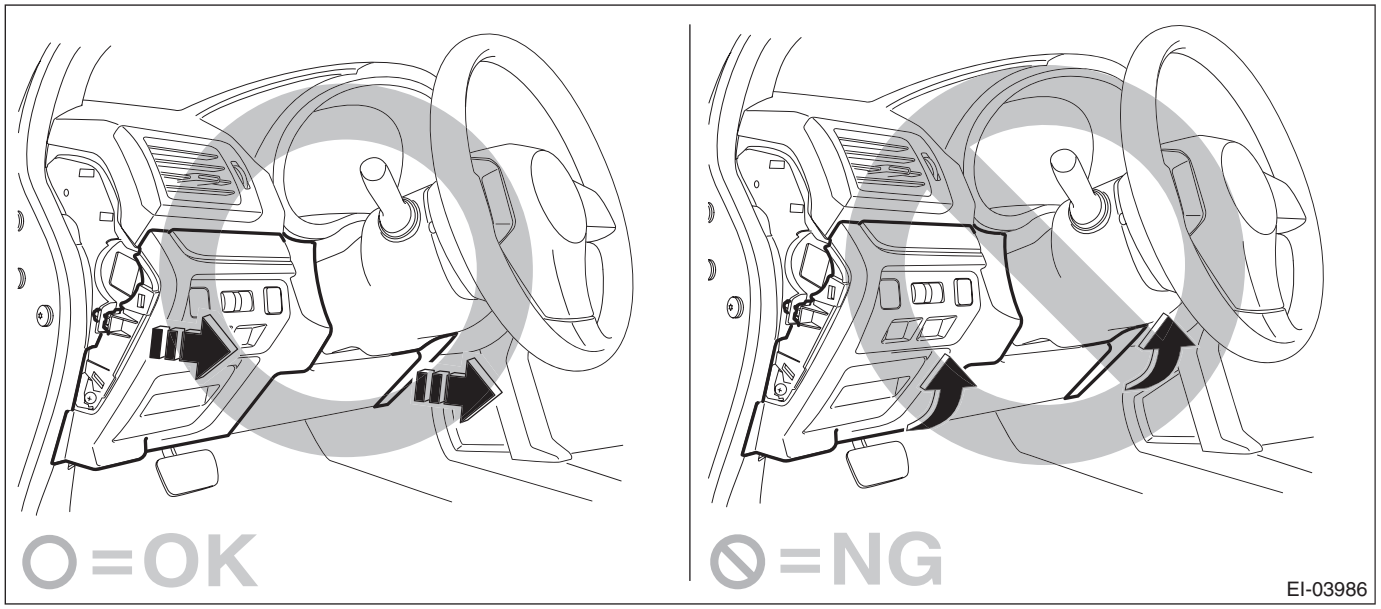
A: REMOVAL

1) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
2) Remove the clips, and remove the cover - instrument panel side LH.



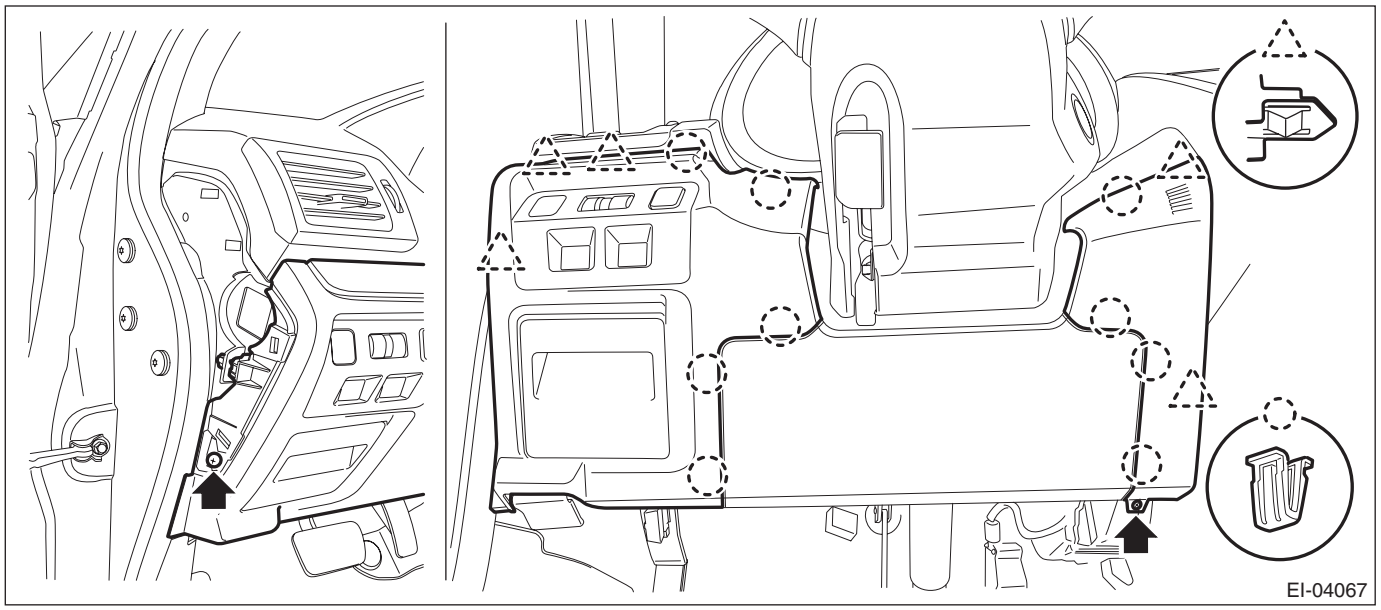
NOTE:
Using a plastic remover, open the cover - instrument panel side LH.
3) Remove the cover assembly - instrument panel LWR driver INN and OUT.

CAUTION:
When removing the cover assembly - instrument panel LWR driver, be sure to pull it toward you. If attempting to remove by turning it upward, the claws may be damaged.



(1) Remove the screws and release the clips and claws.

(2) Disconnect the harness connectors, and remove the cover assembly - instrument panel LWR driver INN and OUT.



B: INSTALLATION

Install each part in the reverse order of removal.

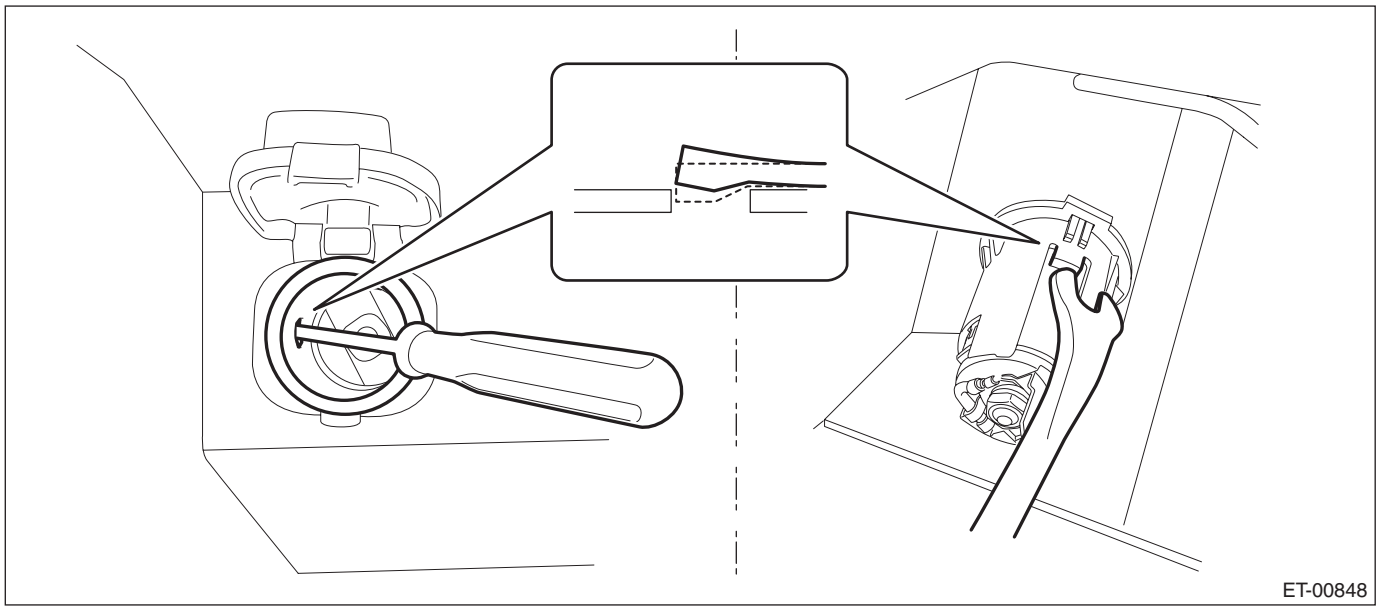
16.Rear Accessory Power Supply Socket

A: WIRING DIAGRAM

Refer to “Rear Accessory Power Supply Socket System” in the wiring diagram. <Ref. to WI-343, WIRING DIAGRAM, Rear Accessory Power Supply Socket System.>

B: REMOVAL

1) Disconnect the ground cable from battery.
2) Open the console box, and remove the rear accessory power supply socket.
   (1) While releasing the claw inside the accessory power supply socket, pull it toward you to remove the accessory power supply socket.
   (2) Disconnect the connector, and remove the accessory power supply socket and holder.

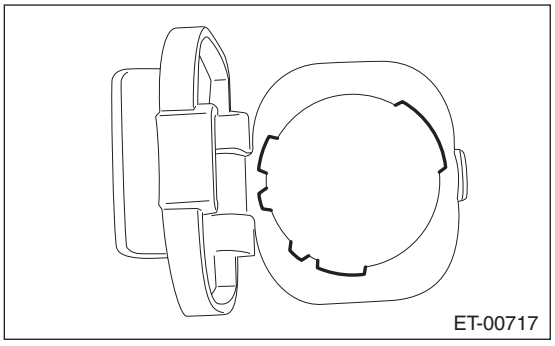


NOTE:
If it is hard to remove, remove the console box assembly and then release the claws from behind.

C: INSTALLATION

Install each part in the reverse order of removal.

NOTE:
Align the grooves of the holder with the claws of accessory power supply socket.



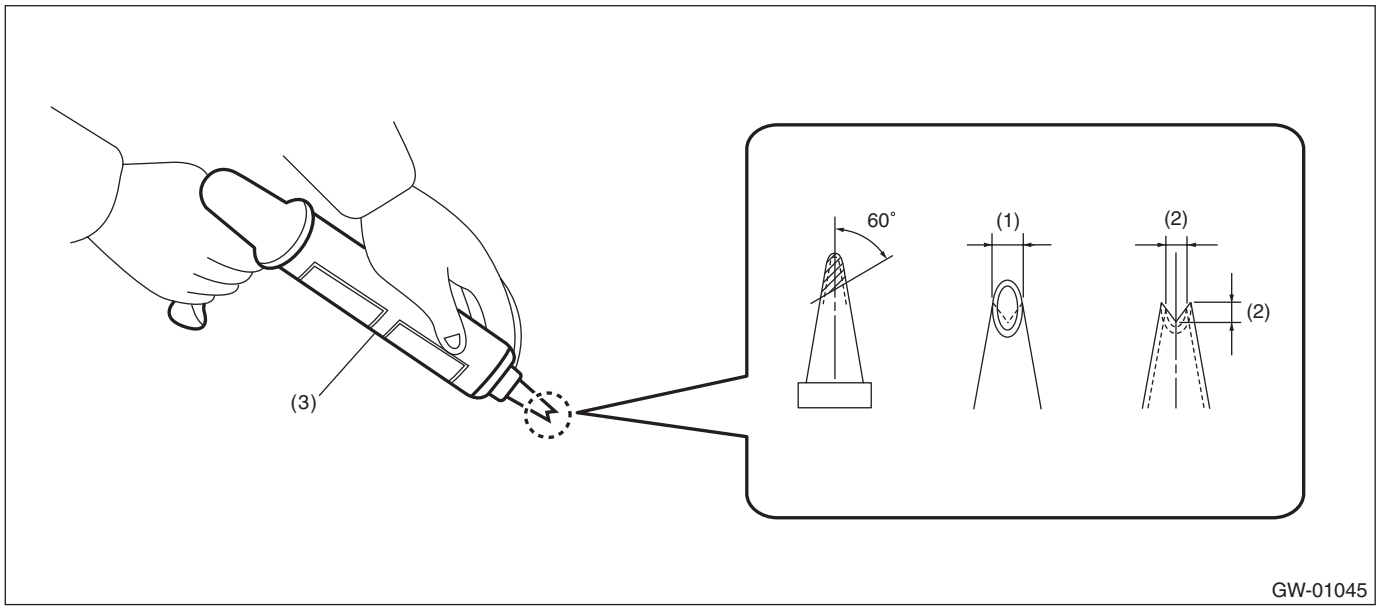
16.Rear Quarter Glass

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear pillar UPR. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>
3) Remove the glass - rear quarter in the same procedure as for the glass - front window. <Ref. to GW-36, REMOVAL, Windshield Glass.>

B: INSTALLATION

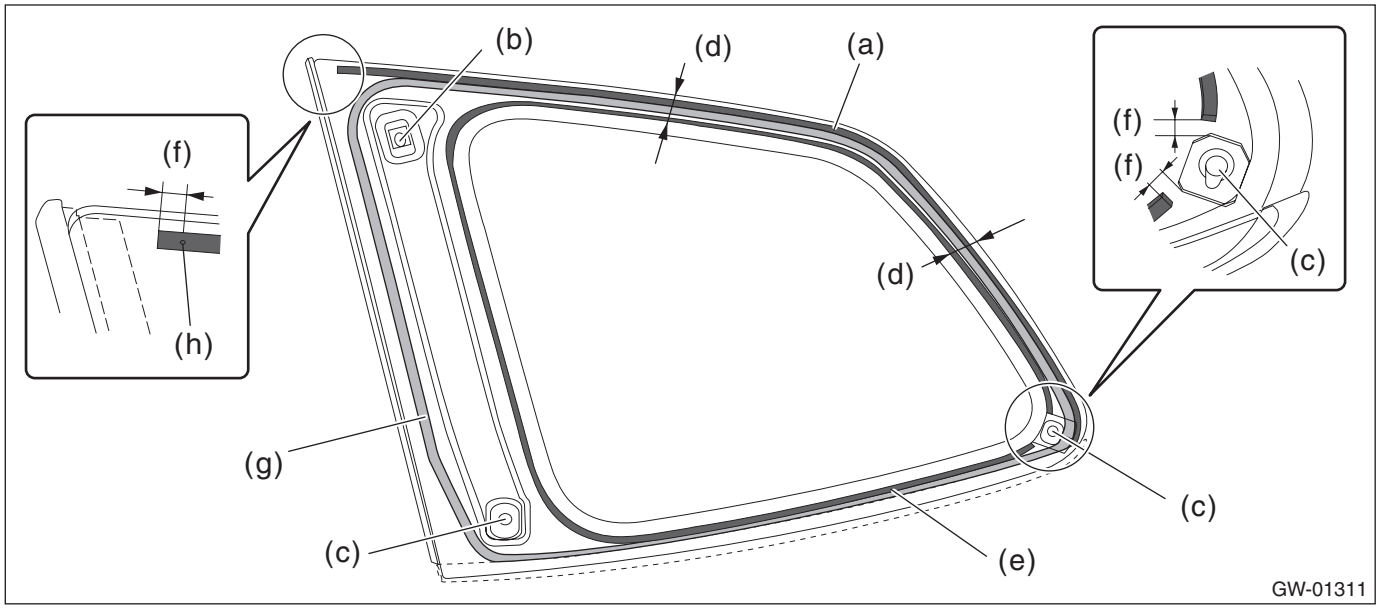
1) Fabricate the cartridge nozzle tip as shown and set the sealant gun with the adhesive.



(1) 10 mm (0.39 in) (2) 8 mm (0.31 in) (3) Sealant gun

2) Smoothen and clean the adhesive surfaces of the glass - rear quarter and body using the same procedures as for the glass - front window. <Ref. to GW-39, INSTALLATION, Windshield Glass.>

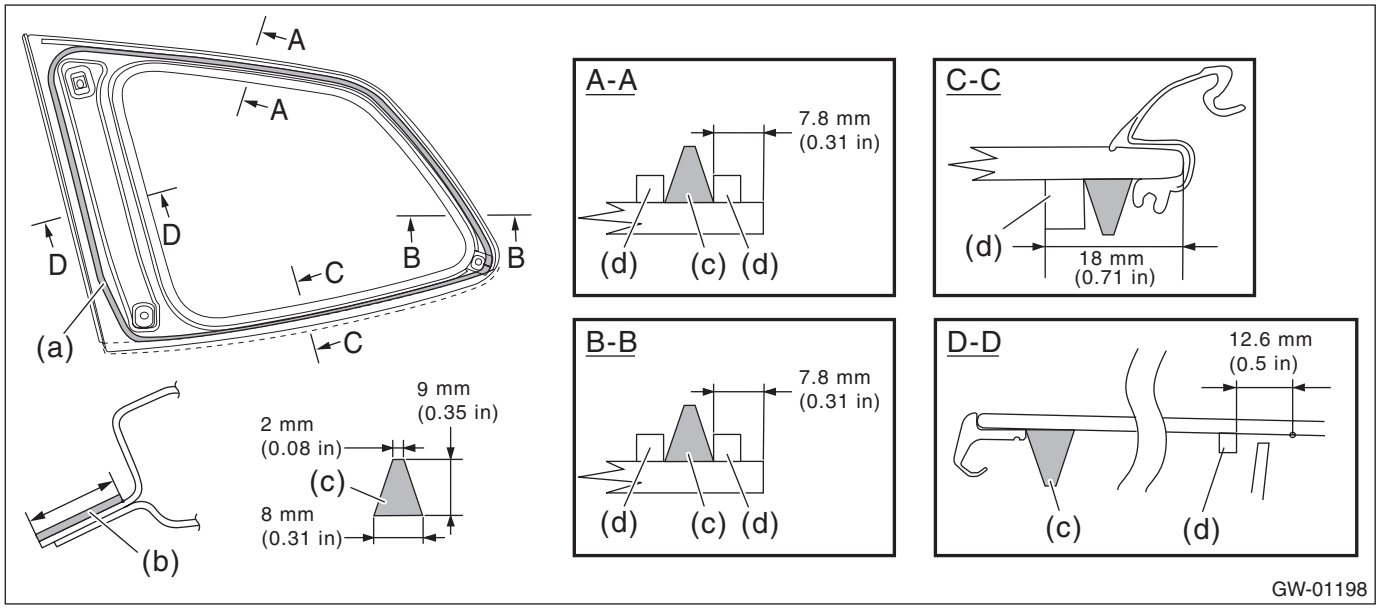
3) Install the dam rubber - rear and the seal - rear quarter to the glass - rear quarter.



(a) Dam rubber - rear quarter
(b) Fastener - rear quarter
(c) Locating pin - rear quarter
(d) 21.8 mm (0.86 in)
(e) Dam rubber - rear quarter
(f) 5 mm (0.2 in)
(g) Adhesive
(h) Marking for dam rubber - rear quarter attachment

4) Install the glass - rear quarter in the same procedure as for the glass - front window. <Ref. to GW-39, INSTALLATION, Windshield Glass.>

(1) Apply the primer to the adhesive surface of glass - rear quarter side and body side using sponge.
(2) Apply adhesive to the glass - rear quarter end back surface.



(a) Application of primer (glass side)
(b) Application of primer (body side)
(c) Adhesive
(d) Dam rubber - rear quarter

(3) Mount the fastener - rear quarter on the vehicle body.
(4) Insert the locating pins - rear quarter into the side panel holes, and install the glass - rear quarter.
(5) Lightly press the entire perimeter of the glass - rear quarter for tight fit.
(6) Make flush the adhesive surface jutted out using spatula.

5) After completion of all work, allow the vehicle to stand for about 24 hours.

NOTE:
- When opening/closing the door after the glass - rear quarter was bonded, always lower the glass assembly - door first, and then open/close it carefully.
- Move the vehicle slowly.
- For minimum drying time and vehicle standing time before driving after bonding, follow instructions or instruction manual from the adhesive manufacturer.

6) Install the trim panel - rear pillar UPR. <Ref. to EI-106, INSTALLATION, Rear Quarter Trim.>

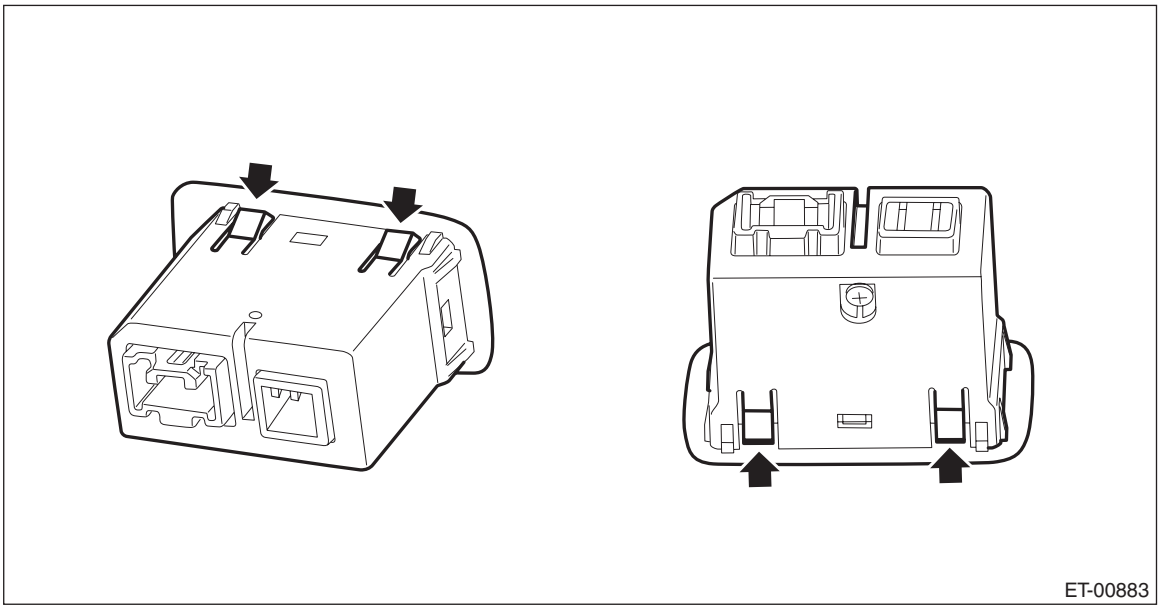
7) After curing of adhesive, pour the water on external surface of vehicle to check that there are no water leaks.

NOTE:
When a vehicle is returned to the user, tell him or her that the vehicle should not be subjected to heavy impact for at least three days.

17.AUX Input Terminal

A: REMOVAL

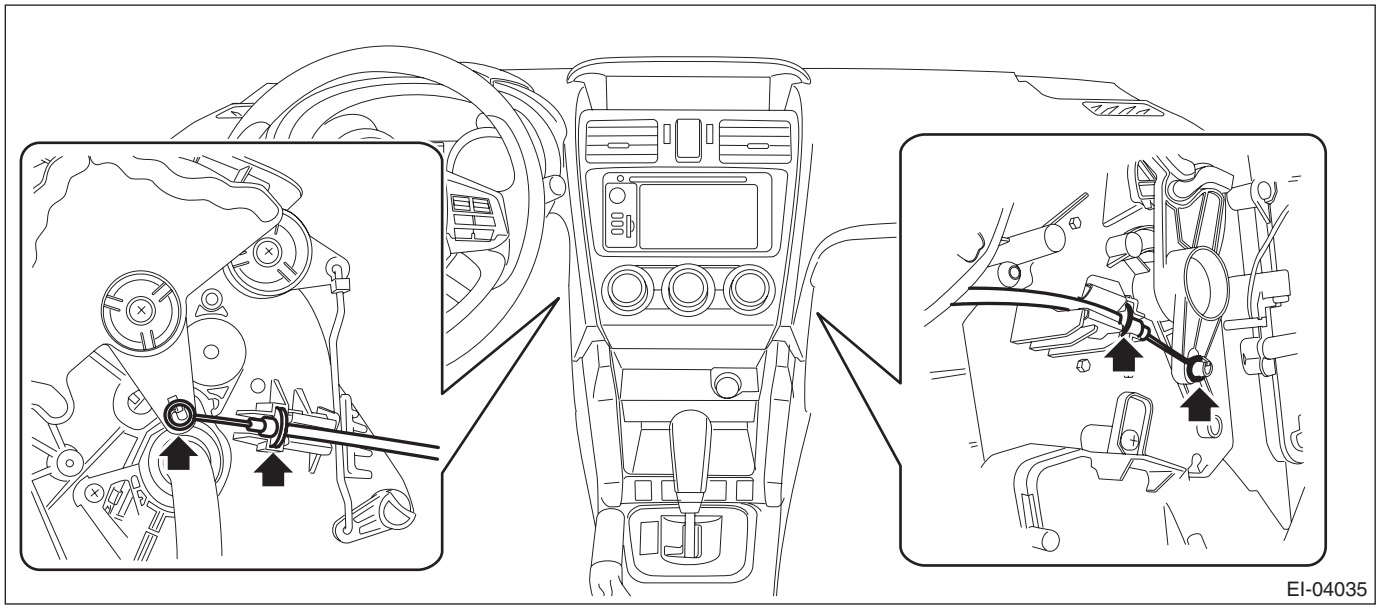
1) Disconnect the ground cable from battery.
2) Remove the cover - shift lever, the console box assembly and the panel center LWR.<Ref. to EI-65, REMOVAL, Console Box.>
3) Remove the AUX input terminal.
   (1) Release the claws.
   (2) Remove the AUX input terminal assembly by pushing it into the console box.



4) Remove the panel center assembly.

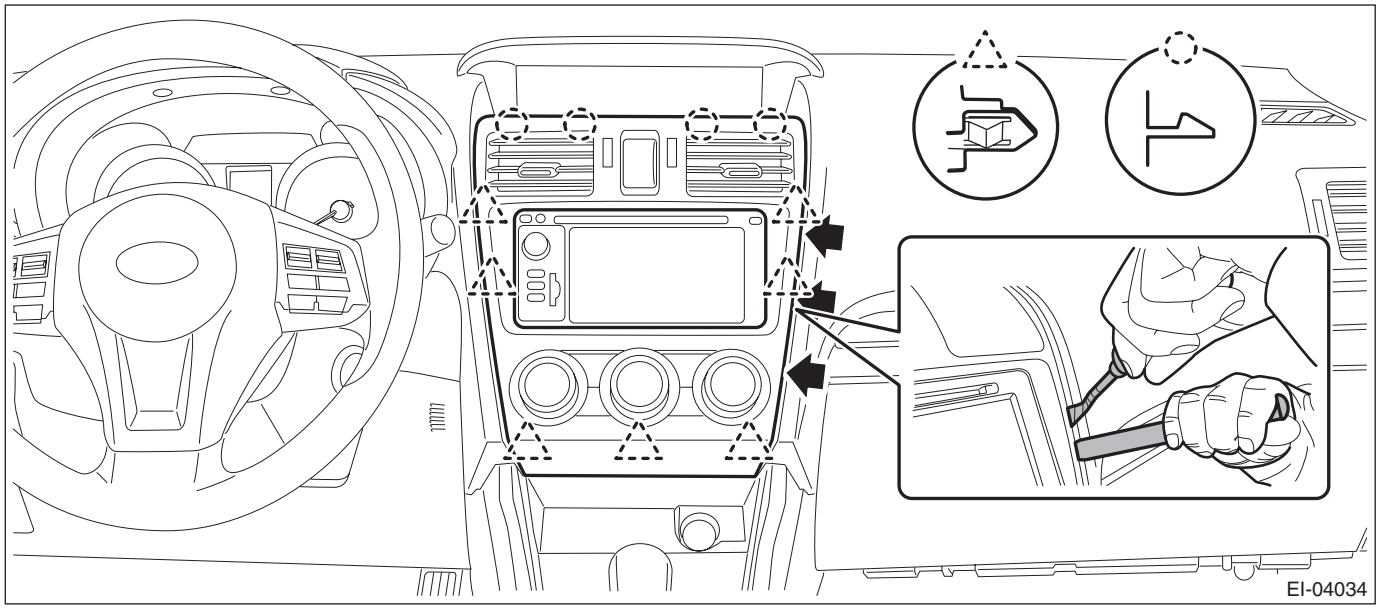
CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

   (1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.

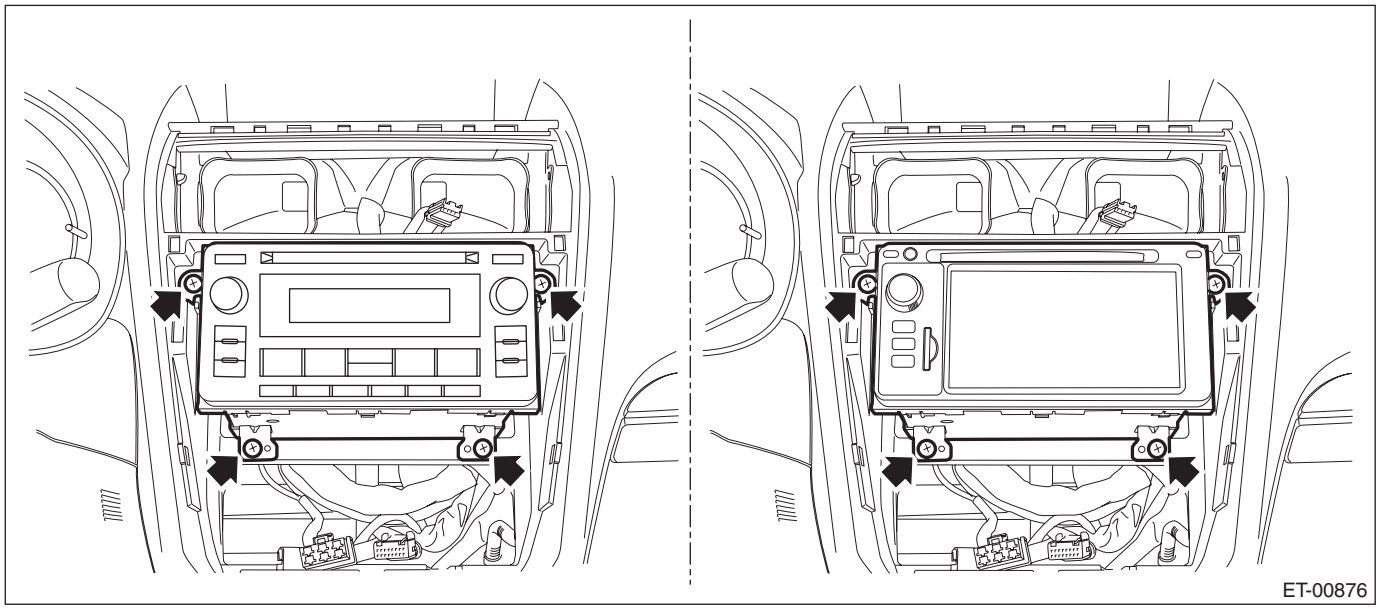


NOTE:
Remove the glove box pocket assembly on the passenger's side.

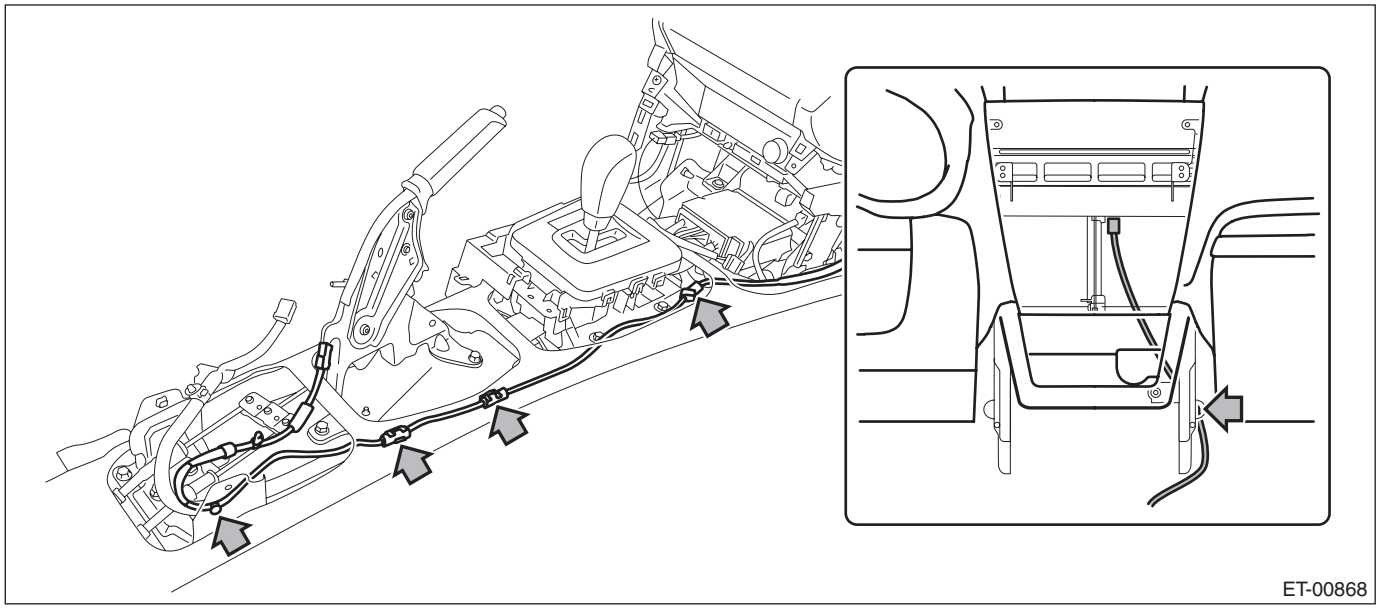
(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.
(5) Disconnect the connectors, and remove the panel center assembly.



5) Remove the audio assembly or navigation assembly.
(1) Remove the screws, and partially pull out the audio assembly or navigation assembly.
(2) Disconnect the connectors, and remove the audio assembly or navigation assembly.



6) Remove the clamp and remove the AUX (USB) terminal cord.



B: INSTALLATION

CAUTION:
After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

COMMUNICATION SYSTEM

COM

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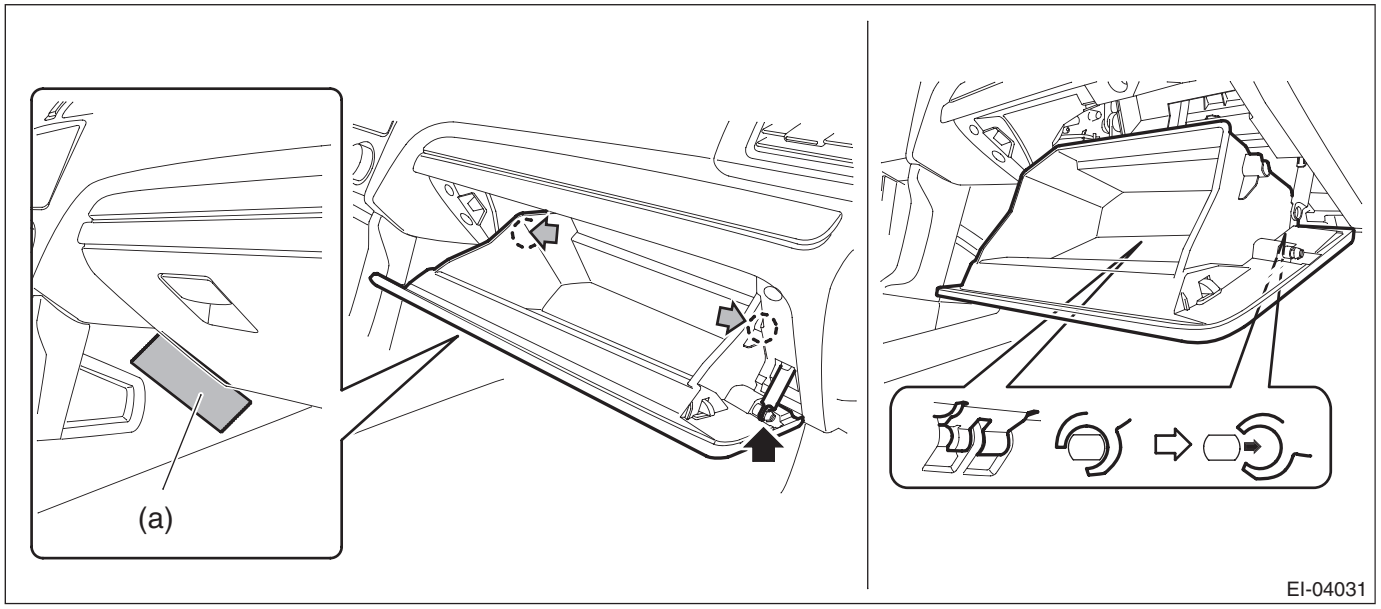
1. General Description 2
2. Relay and Fuse 3
3. Horn System 4
4. Horn 5
5. Horn Switch 8

17.Glove Box

A: REMOVAL

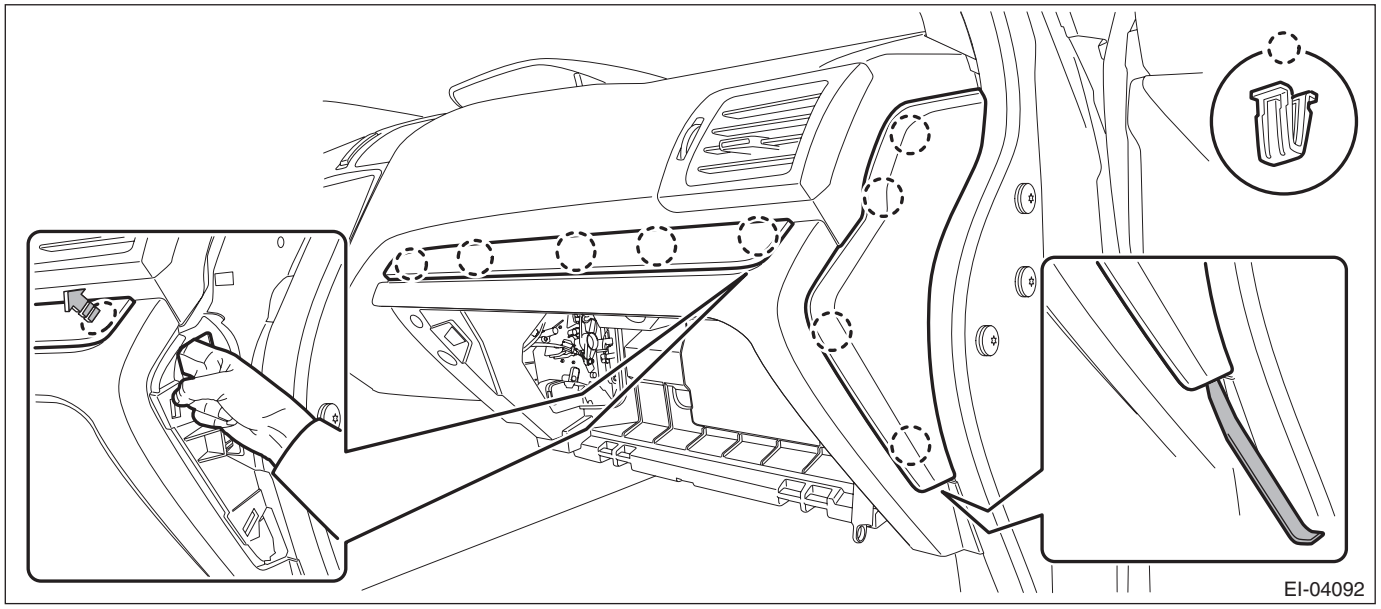
1) Remove the pocket assembly.
   (1) Attach the protective tape (a) to the panel center LWR.
   (2) Remove the damper complete - pocket.
   (3) Release the stoppers and remove the pocket assembly by pulling it toward you.



2) Remove the back panel - pocket.
   (1) Remove the clips, and remove the cover - instrument panel side RH.

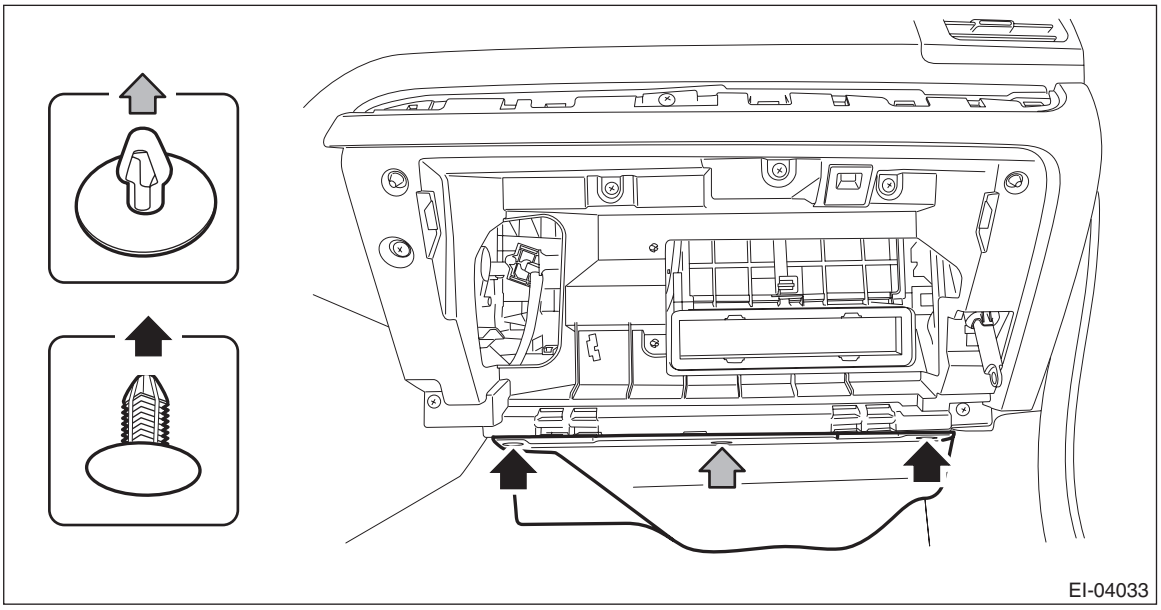
NOTE:
Remove the cover - instrument panel side RH by using a plastic remover.

   (2) Release the clips, and remove the ornament - panel assembly passenger.

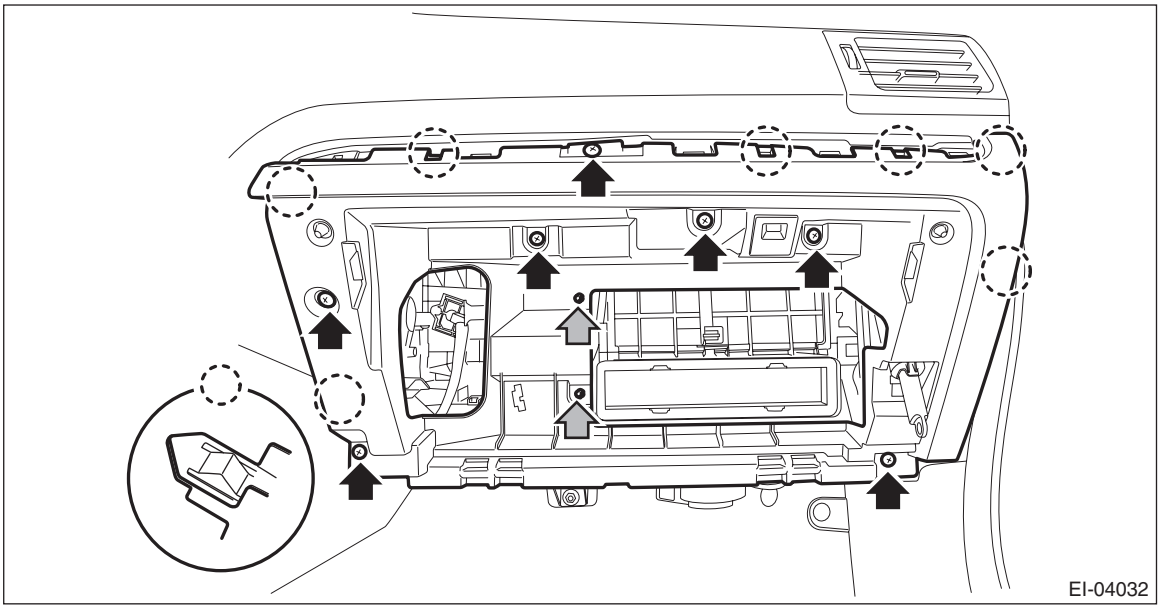


NOTE:
To facilitate the removal, push the clip of the ornament - panel assembly passenger from the backside.

(3) Release the clips, and remove the glove box under cover.



(4) Remove the screws, claws and harness clamp, then remove the back panel - pocket.



B: INSTALLATION

Install each part in the reverse order of removal.

17.Heater and Cooling Unit

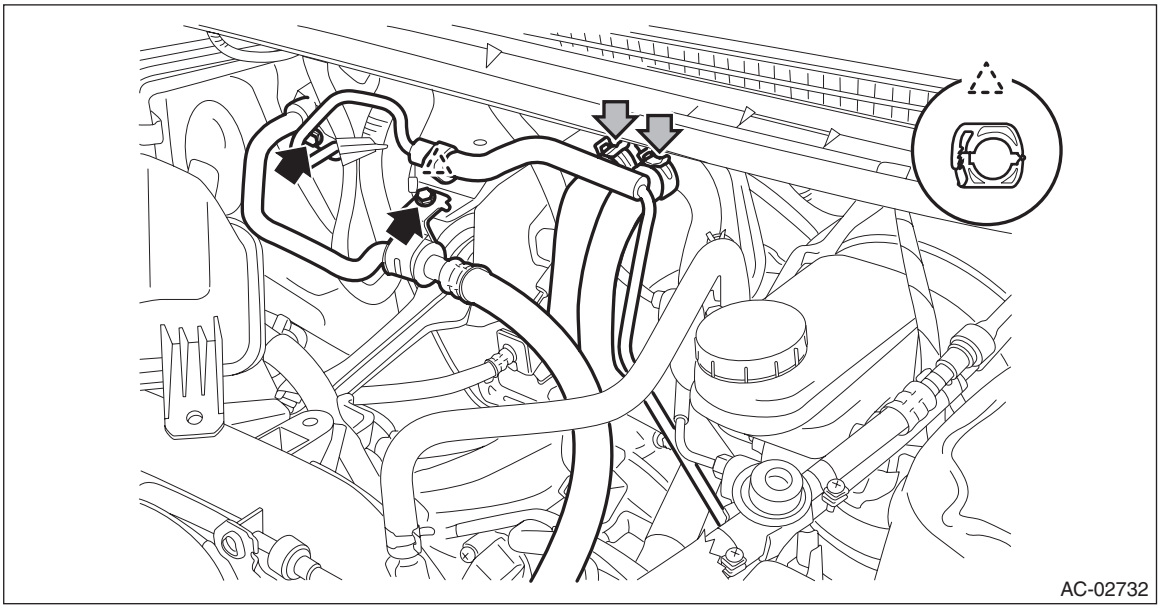
A: REMOVAL

1) Disconnect the ground cable from battery.
2) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
3) Drain the coolant from the radiator.
• Non-turbo model:<Ref. to CO(H4DO)-14, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
• Turbo model:<Ref. to CO(H4DOTC)-13, DRAINING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
4) Remove the air intake boot. (Non-turbo model)<Ref. to IN(H4DO)-11, REMOVAL, Air Intake Boot.>

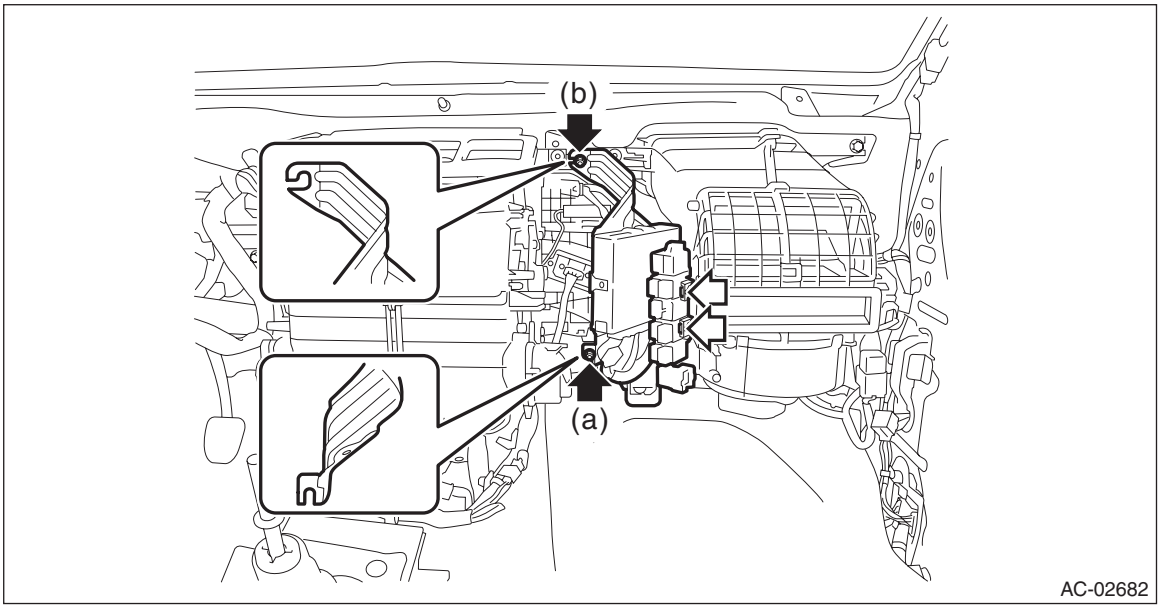
CAUTION:
Move aside the air intake boot to perform the operation without disconnecting the PCV hose.
5) Remove the intercooler. (Turbo model)<Ref. to IN(H4DOTC)-35, REMOVAL, Intercooler.>
6) Remove the bolt, and remove the hose - pressure suction and the pipe - evaporator cooling from the expansion valve - cooling.

CAUTION:
Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.
7) Loosen the heater hose clamps and remove the hoses.

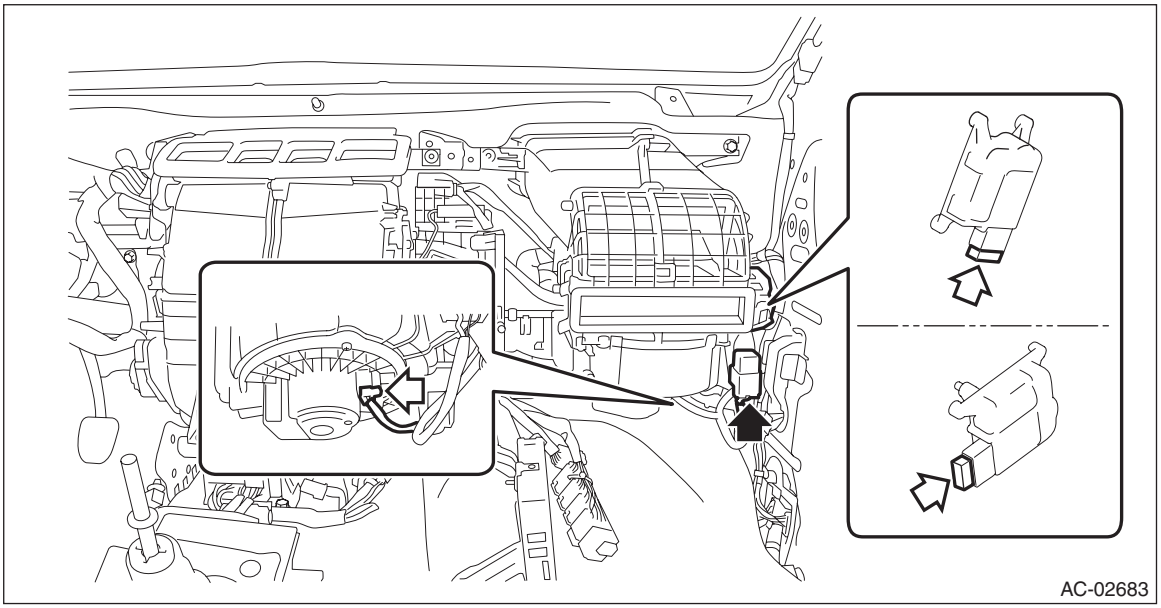
NOTE:
Put alignment marks to hoses, clamps, etc. and remove them.



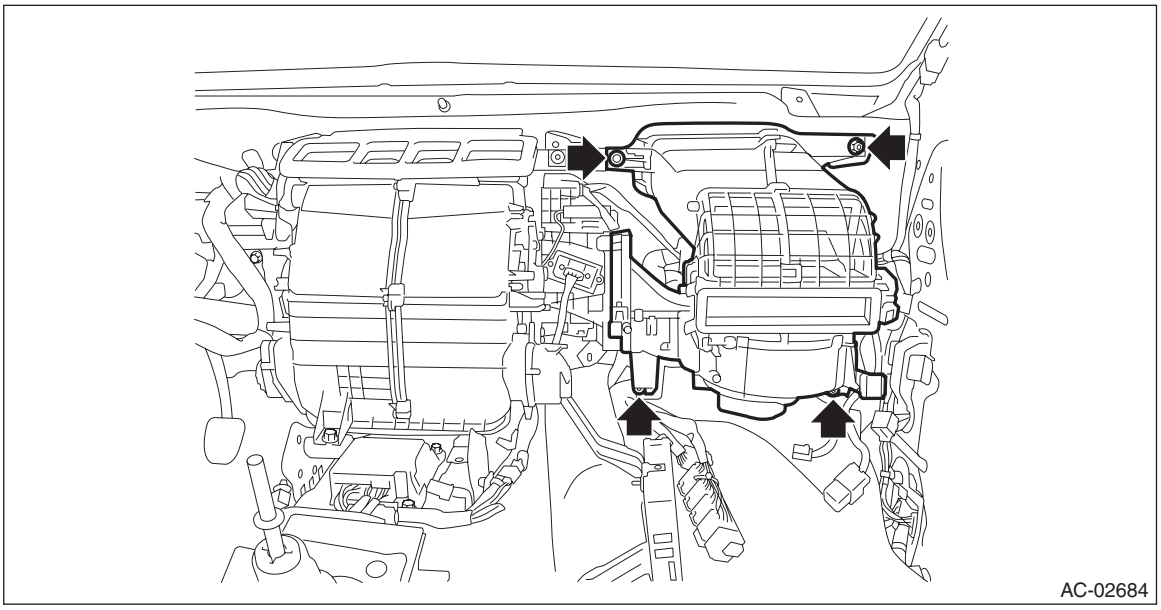
8) Remove the instrument panel assembly.<Ref. to EI-69, REMOVAL, Instrument Panel Assembly.>
9) Remove the engine control module (ECM). (Non-turbo model)
   (1) Release the lock and remove the relay holder.
   (2) Remove the nuts (a).
   (3) Loosen the bolt (b), and remove the engine control module (ECM).



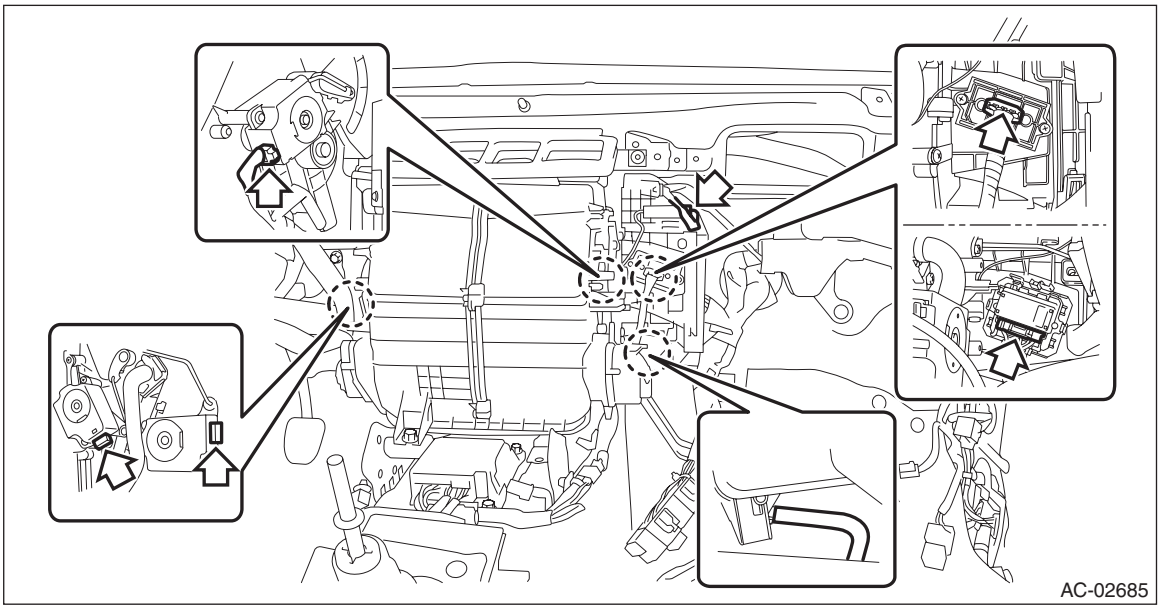
10) Remove the blower motor unit assembly.
   (1) Disconnect the blower motor relay and each connector.



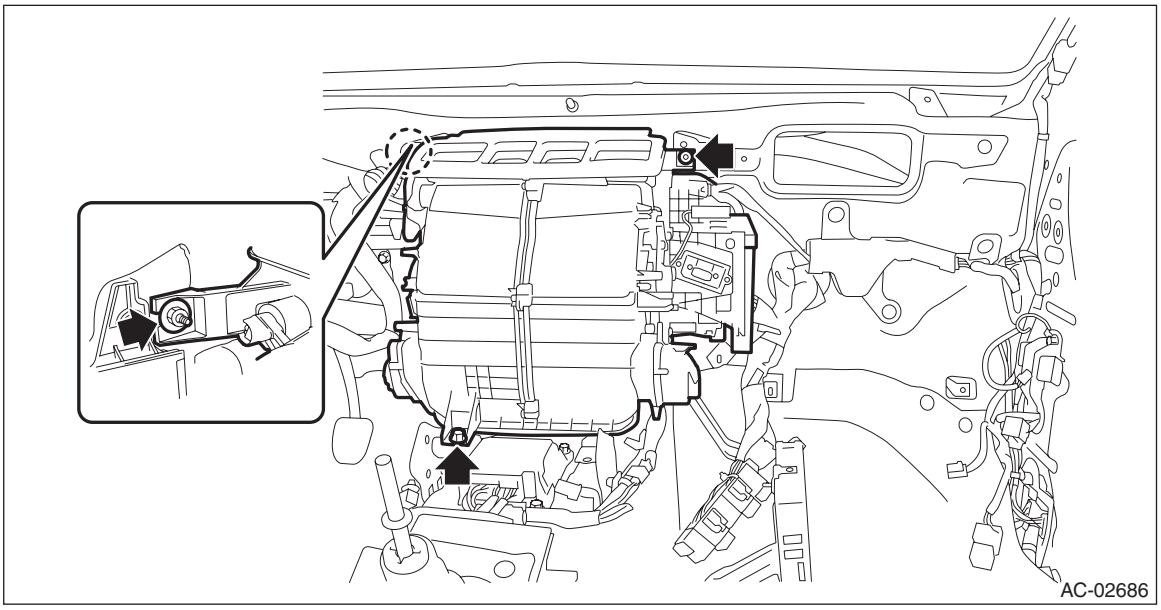
(2) Remove the bolts and nuts to remove blower motor unit assembly.



11) Remove the heater and cooling unit assembly.
(1) Disconnect each connector and the hose - drain.



(2) Remove the bolt and nuts, and remove the heater & cooling unit assembly.



B: INSTALLATION

CAUTION:
Replace O-rings with new parts and install securely.
1) Install each part in the reverse order of removal.

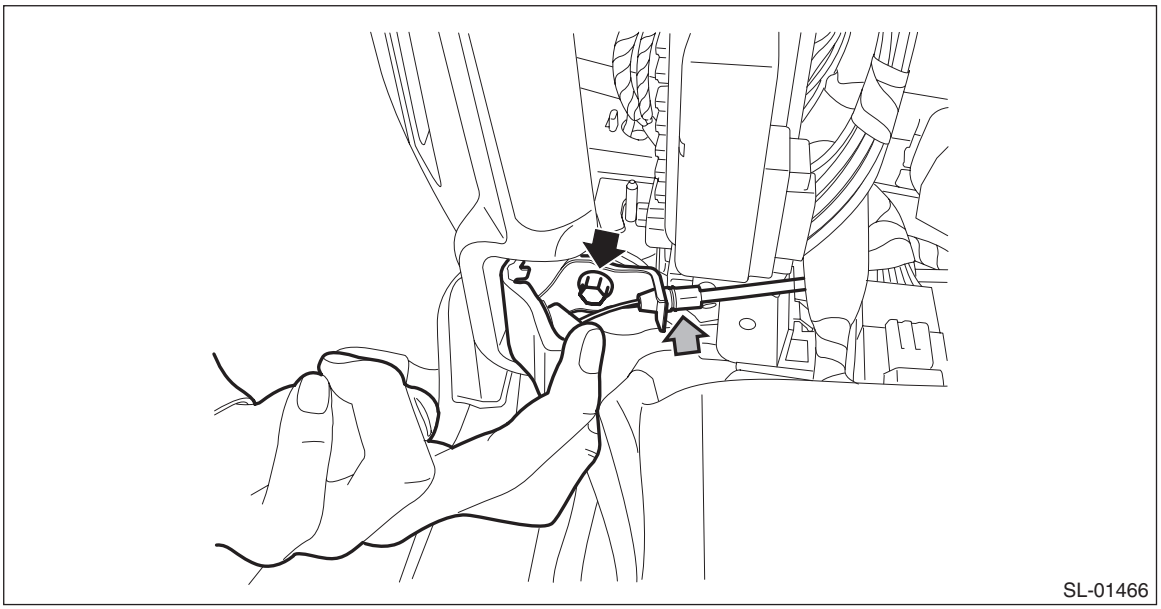
Tightening torque:
Heater cooling unit: <Ref. to AC-6, HEATER AND COOLING UNIT, COMPONENT, General Description.>
Blower motor unit: <Ref. to AC-10, BLOWER MOTOR UNIT, COMPONENT, General Description.>
Engine control module (ECM): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
2) Fill engine coolant.
• Non-turbo model: <Ref. to CO(H4DO)-15, FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
• Turbo model: <Ref. to CO(H4DOTC)-14, FILLING OF ENGINE COOLANT, REPLACEMENT, Engine Coolant.>
3) Charge refrigerant. <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

17.Remote Openers

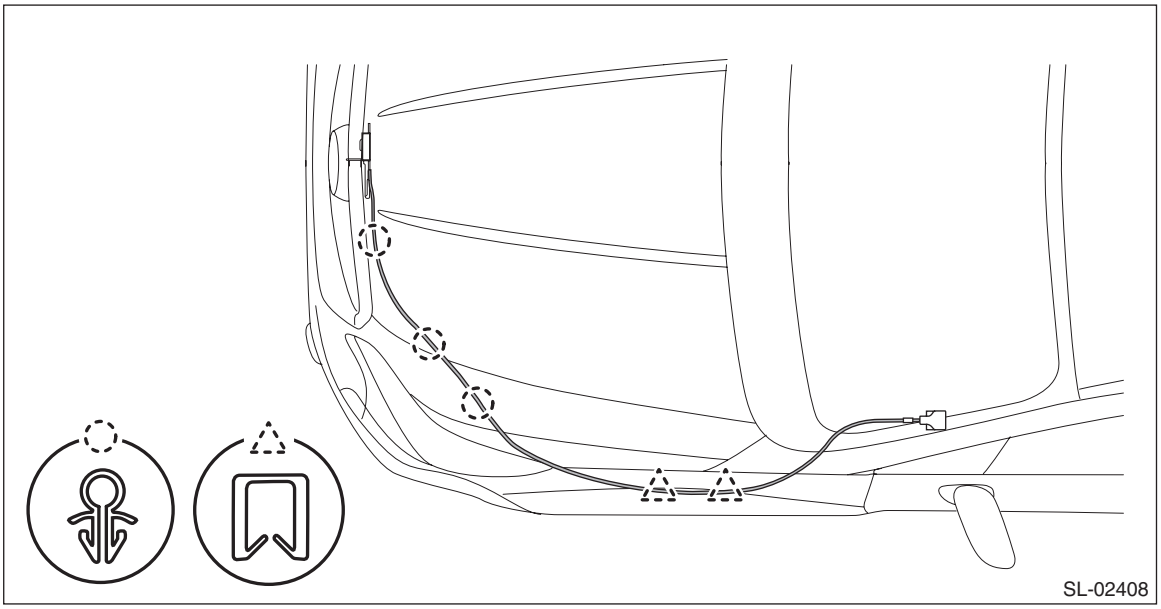
A: REMOVAL

1. FRONT HOOD OPENER

1) Remove the opener handle.
   (1) Remove the cable.
   (2) Remove the bolt, and remove the opener handle.

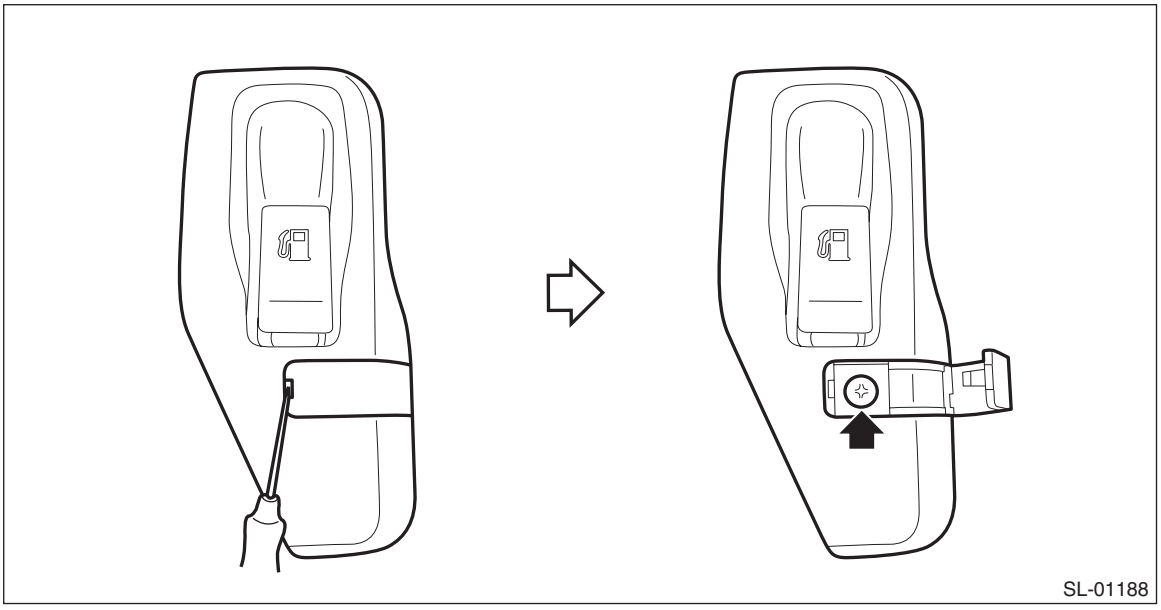


2) Remove the following parts and remove the cable clip and cable.
- Lock assembly - front hood: <Ref. to SL-53, REMOVAL, Front Hood Lock Assembly.>
- Cover assembly - instrument panel LWR driver: <Ref. to EI-59, REMOVAL, Instrument Panel Lower Cover.>

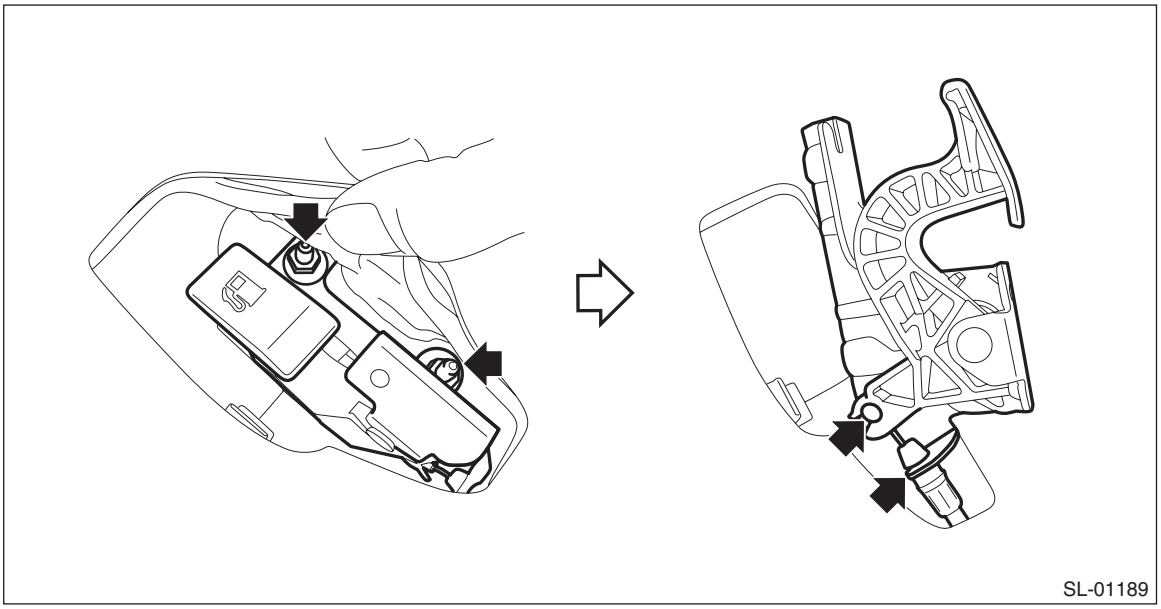


2. FUEL FLAP OPENER

1) Remove the cover - handle.
   (1) Open the cover by using a flat tip screwdriver.
   (2) Remove the screws and detach the cover - handle.

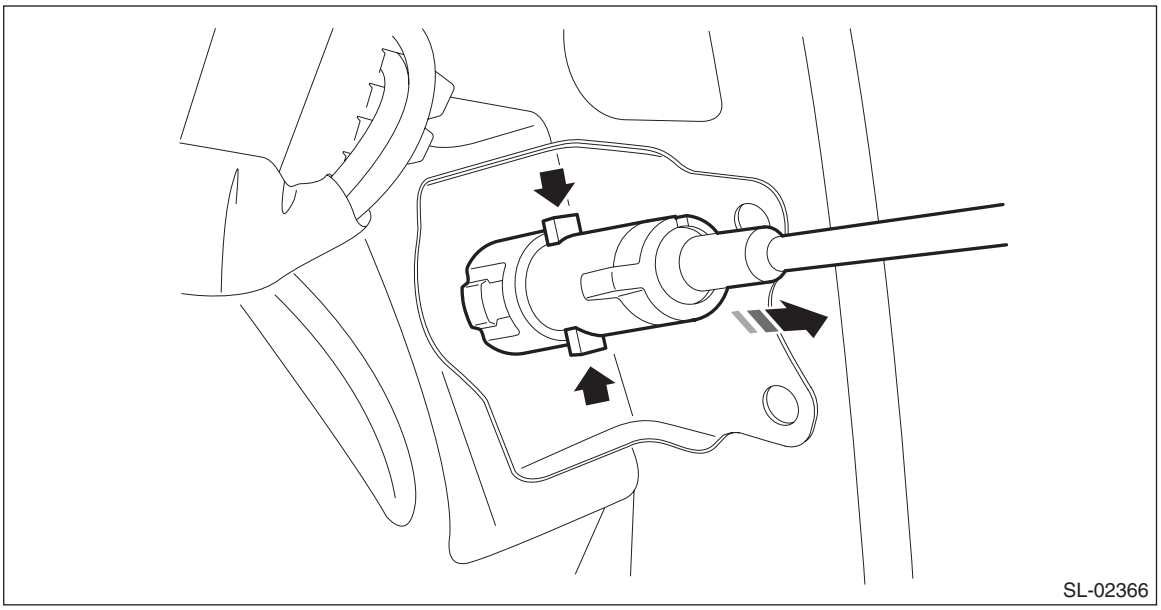


2) Remove the pull handle - opener.
   (1) Remove the nut.
   (2) Remove the cable from pull handle - opener.

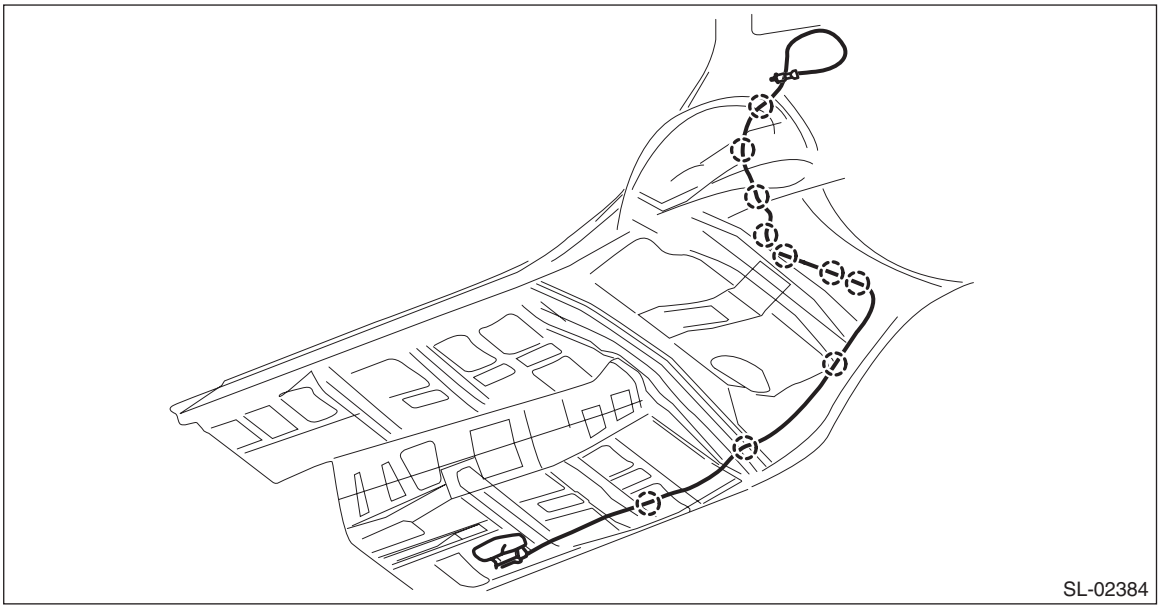


3) Remove the trim panel - rear apron RH. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>

4) Remove the fuel lock inside the quarter panel.
   (1) Press the claws of the fuel lock.
   (2) While keeping the condition in step (1), pull the fuel lock to the rearward of the vehicle.



5) Remove the lower inner trim. <Ref. to EI-92, REMOVAL, Lower Inner Trim.>
6) Remove the cable clip, and remove the cable.



B: INSTALLATION

1) Before installation, check the following items.
- Cable is free from deformation such as fray.

2) Install each part in the reverse order of removal.

Tightening torque:
Front hood lock: <Ref. to SL-4, FRONT HOOD LOCK, COMPONENT, General Description.>
Remote opener: <Ref. to SL-4, FUEL FLAP OPENER, COMPONENT, General Description.>

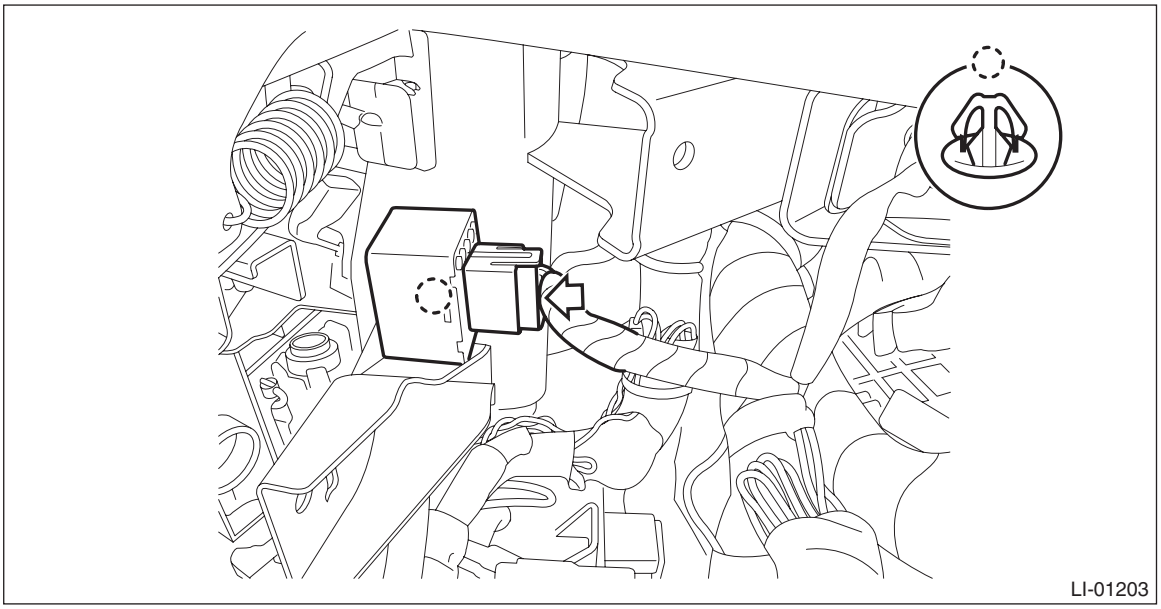
C: INSPECTION

Check if the front hood and fuel flap operate normally.

17.Turn Signal Light & Hazard Light Unit

A: REMOVAL

1) Remove the instrument panel lower cover and knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Remove the turn signal & hazard unit.
   (1) Disconnect the connector.
   (2) Release the claws and remove the turn signal & hazard unit from the beam COMPL - steering.



B: INSTALLATION

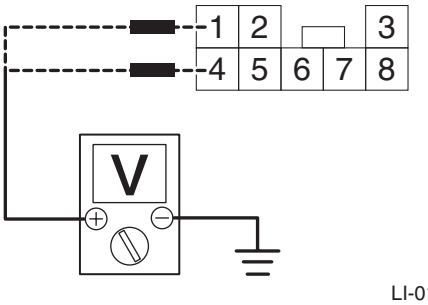
Install each part in the reverse order of removal.

C: INSPECTION

On the vehicle inspection

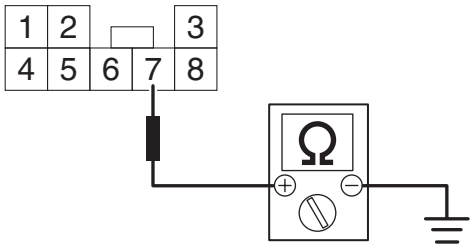
Preparation tool:
Circuit tester

1) Disconnect the connector of the turn signal & hazard unit.
2) Measure the voltage between the turn signal & hazard unit connector and the chassis ground.

Terminal No.	Inspection conditions	Standard	Connection diagram
4 (+) — Chassis ground (–)	Always	10 — 14 V	
1 (+) — Chassis ground (–)	IG OFF → ON	Less than 1 V → 10 — 14 V	

Repair or replace the harness if the inspection result is not within the standard value.

3) Measure the resistance between the turn signal & hazard unit connector and the chassis ground.

Terminal No.	Inspection conditions	Standard	Connection diagram
7 — Chassis ground	Always	Less than 1 Ω	

Repair or replace the harness if the inspection result is not within the standard value.
4) Connect the turn signal & hazard unit connector.
5) Measure the voltage between turn signal & hazard unit and chassis ground.

Terminal No.	Input/Output	Inspection conditions	Standard
6 (+) — Chassis ground (–)	Input	Turn signal switch (right) OFF → ON	Less than 1 V → 9 V or more
5 (+) — Chassis ground (–)	Input	Turn signal switch (left) OFF → ON	Less than 1 V → 9 V or more
8 (+) — Chassis ground (–)	Input	Hazard switch OFF → ON	Less than 1 V → 9 V or more
2 (+) — Chassis ground (–)	Output	Turn signal switch (right) OFF → ON	Repeat less than 1 V → less than 1 V ←→ more than 9 V at 60 to 120 times per minute.
3 (+) — Chassis ground (–)	Output	Turn signal switch (left) OFF → ON	Repeat less than 1 V → less than 1 V ←→ more than 9 V at 60 to 120 times per minute.
2 (+) — Chassis ground (–)	Output	Hazard switch OFF → ON	Repeat less than 1 V → less than 1 V ←→ more than 9 V at 60 to 120 times per minute.
3 (+) — Chassis ground (–)	Output	Hazard switch OFF → ON	Repeat less than 1 V → less than 1 V ←→ more than 9 V at 60 to 120 times per minute.

Replace the turn signal & hazard unit if the inspection result is not within the standard value.

17.Wiper Deicer System

A: WIRING DIAGRAM

Refer to “Wiper Deicer System” in the wiring diagram. <Ref. to WI-424, Wiper Deicer System.>

B: INSPECTION

1. CHECK SYSTEM

NOTE:
- The wiper deicer does not operate when the ambient temperature becomes 5°C (41°F) or more.
- The wiper deicer operates with the rear window defogger at the same time.
- It is possible to perform a forced operation if you keep holding the rear window defogger switch for 3 seconds or more.

Symptoms	Inspection order
Wiper deicer does not operate.	1. Check the fuse. 2. Check the wiper deicer relay. 3. Check the wiper deicer switch. 4. Check the heat wire. 5. Check the wiring harness. 6. Check body integrated unit.

NOTE:
- Wiper deicer system can be customized using the Subaru Select Monitor, when the customize setting {Auto A/C ECU Setting} of the body integrated unit is set to {support}.
- Set the system using the Rr Defogger op. mode, and setting will be the same as rear defogger system setting.

System name	Initial setting	Customize setting
Rear defogger operation mode	OFF after 15 min.	Continuous operation*

*: When one of the following conditions occurs, continuous operation is suspended and turned off after 15 minutes.
- Ambient temperature at 5°C (41°F) or more continues for 10 seconds.
- Malfunction occurs on ambient sensor.
- Vehicle speed of 15 km/h (9 MPH) or less continues 15 minutes (OFF when conditions are met)
- Malfunction occurs in CAN communication.
- Battery voltage remains at 10 V or less for 30 seconds.
- SI-DRIVE [I] mode driving continues for 10 seconds.

2. CHECK WITH SUBARU SELECT MONITOR

CAUTION:
Before performing the inspection, check the following settings.
- **Wiper deicer setting → “support”. If “no support”, set to “support” using customize setting.**
- **Rr Defogger op. mode setting → Initial setting or customize setting.**

1) Check the input signal when the rear window defogger switch is operated using Subaru Select Monitor.
   (1) Prepare the Subaru Select Monitor. <Ref. to GW-6, PREPARATION TOOL, General Description.>
   (2) Turn the ignition switch to ON (engine OFF) and run the “PC application for Subaru Select Monitor”.
   (3) On «System Selection Menu» display, select {Integ. unit mode}.
   (4) Select {Auto A/C ECU Setting} from Current Data Display & Save.
   (5) Check the vehicle equipment and the settings of body integrated unit.
   - Model with manual A/C: Without auto A/C ECM setting
   - Model with auto A/C: With auto A/C ECM setting

   If correct, go to (6).
   If not correct, go to (8).
   (6) Select the {wiper deicer output} on {Current Data Display & Save}.
   (7) Check the displayed data (ON/OFF) by operating the rear window defogger switch.

(8) On the system selection menu display, select the body integrated unit mode. Select customize from work support, then select {Auto A/C ECU Setting}. Match the auto A/C ECM setting to the actual vehicle equipment.

2) Check the operation with rear window defogger switch ON.

- When customize setting is set as “Continuous”, it is normal if the 15-minute operation and 2-minute stop repeats.
- When customize setting is “Normal”, it is normal if the operation lasts for 15 minutes and then turns OFF.

3) When the operation in 2) above fails, replace the body integrated unit.

3. HEAT WIRE INSPECTION

Refer to “HEAT WIRE INSPECTION” of “Rear Window Defogger System”. <Ref. to GW-49, HEAT WIRE INSPECTION, INSPECTION, Rear Window Defogger System.>

NOTE:
Heat wire inspection needs removing/installing procedure of instrument panel assembly.

C: REPAIR

Refer to “REPAIR” of “Rear Window Defogger System”. <Ref. to GW-50, REPAIR, Rear Window Defogger System.>

NOTE:
Heat wire repair needs removing/installing procedure of instrument panel assembly.

BODY STRUCTURE

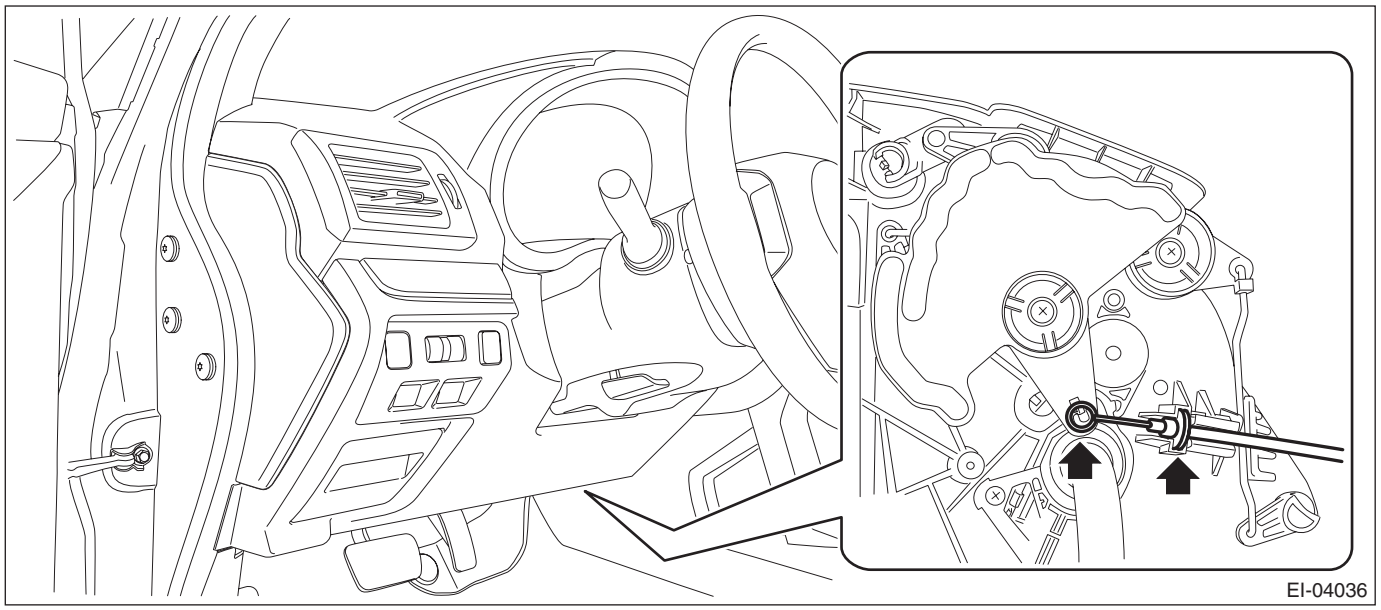
BS

Page
1. General Description 2

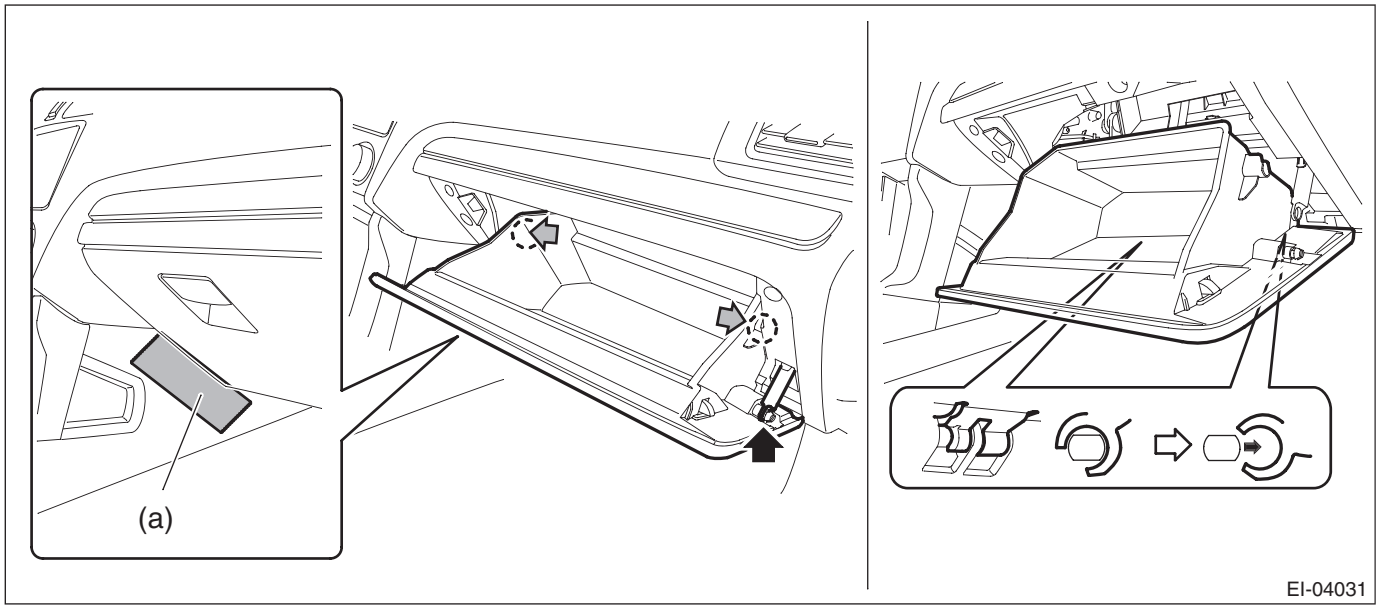
18.Center Console

A: REMOVAL

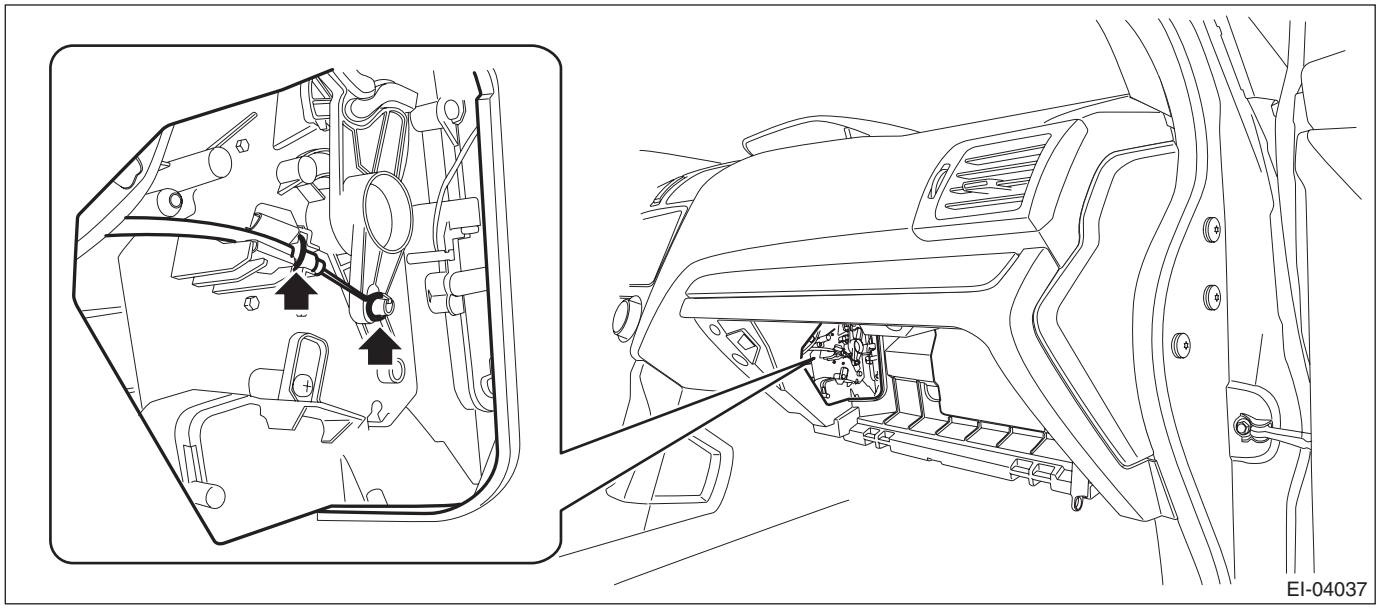
1) On manual A/C models, disconnect the control cables from both sides of the heater & cooling unit.
   (1) Disconnect the cable on the driver's side.



   (2) Attach the protective tape (a) to the panel center LWR.
   (3) Release the glove box dampers and stoppers, and remove the pocket assembly by pulling it toward you.



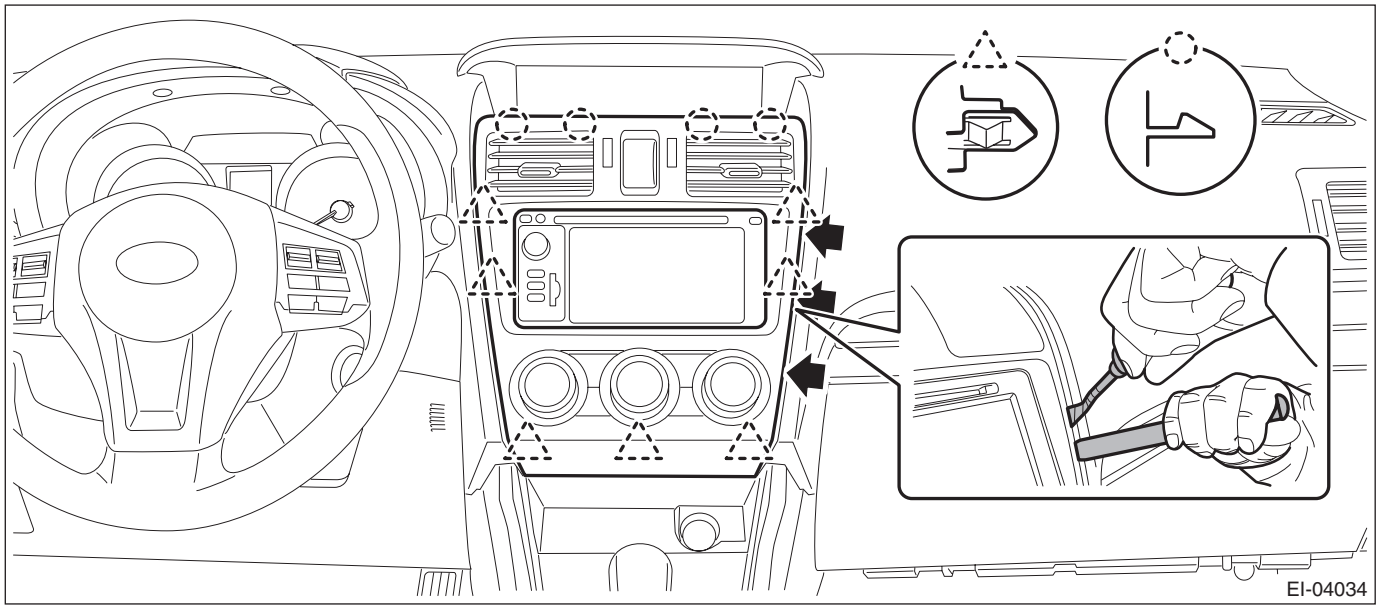
(4) Disconnect the cable on the passenger's side.



2) Remove the panel center assembly.

CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector on the back.**

(1) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(2) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(3) Release the rest of the claws, and pull out the panel center assembly.
(4) Disconnect the connectors, and remove the panel center assembly.



B: INSTALLATION

CAUTION:
After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

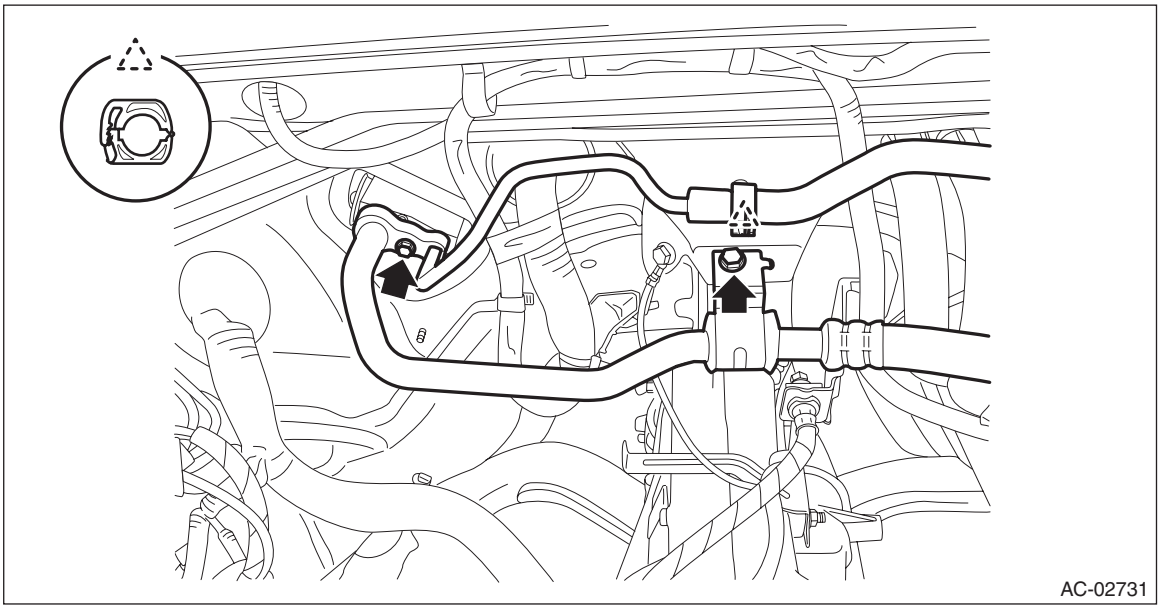
18.Evaporator

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
3) Remove the air intake boot. (Non-turbo model)<Ref. to IN(H4DO)-11, REMOVAL, Air Intake Boot.>

CAUTION:
Move aside the air intake boot to perform the operation without disconnecting the PCV hose.
4) Remove the intercooler. (Turbo model)<Ref. to IN(H4DOTC)-35, REMOVAL, Intercooler.>
5) Remove the expansion valve - cooling.
(1) Remove the bolt, and detach the hose - pressure suction and the pipe - evaporator cooling.

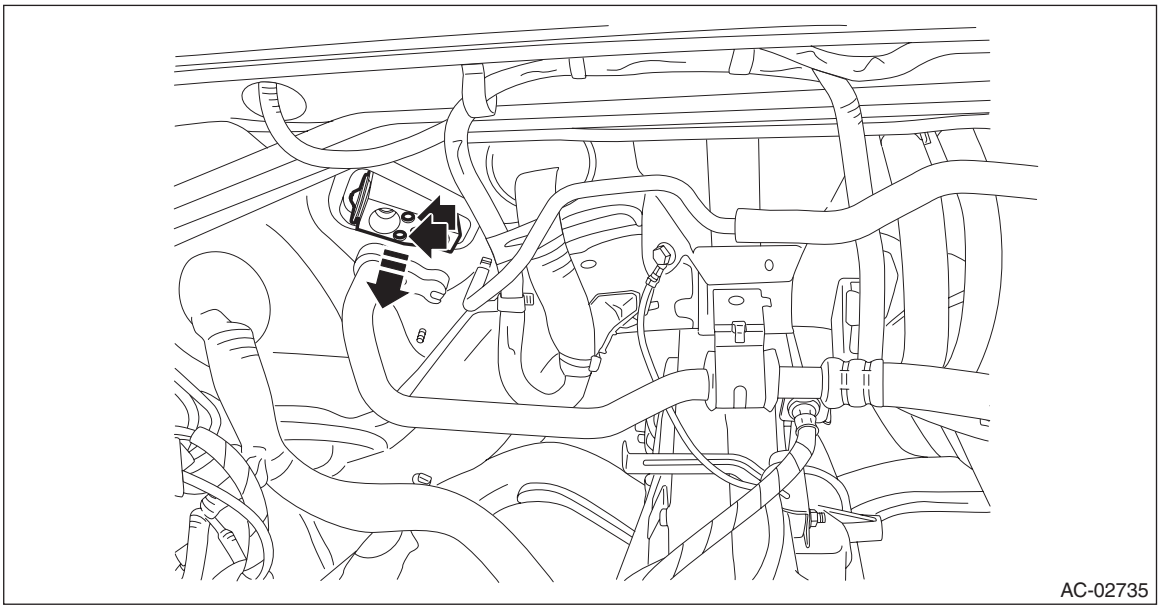
CAUTION:
Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.



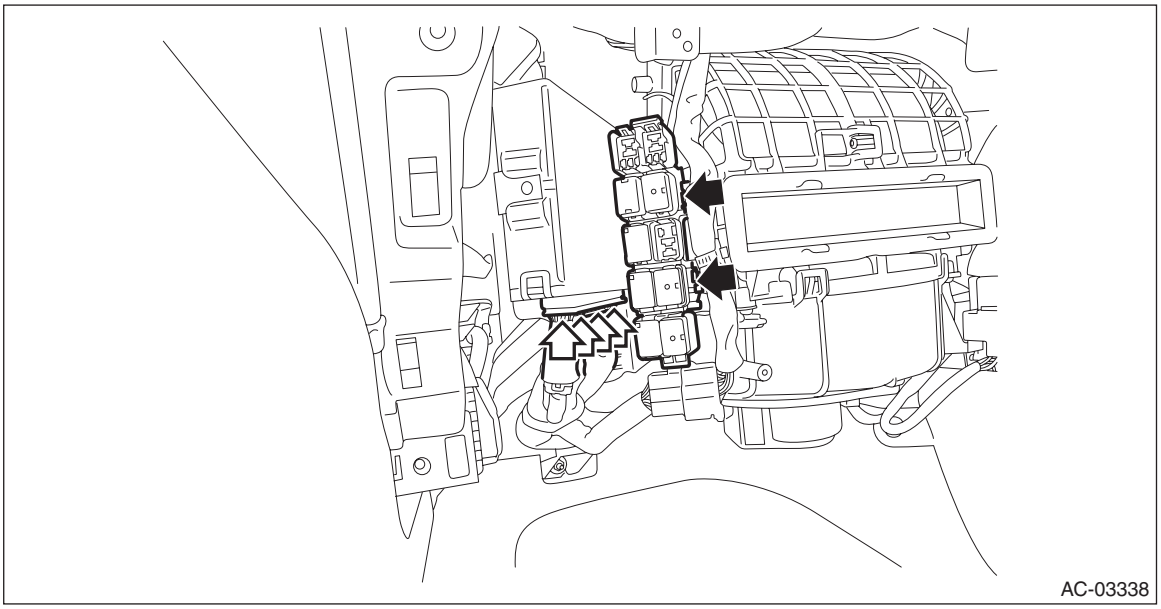
(2) Remove the bolt, and remove the expansion valve - cooling.

CAUTION:
Seal the disconnected pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.

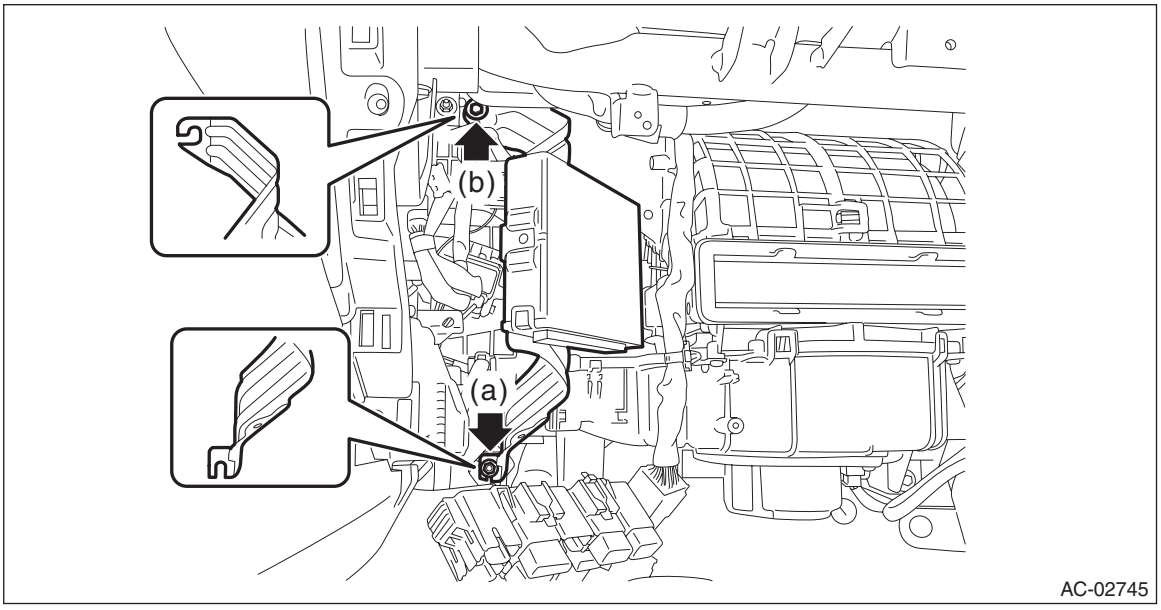
Preparation tool:
Hexagon wrench: 4 mm (0.16 in)


AC-02735

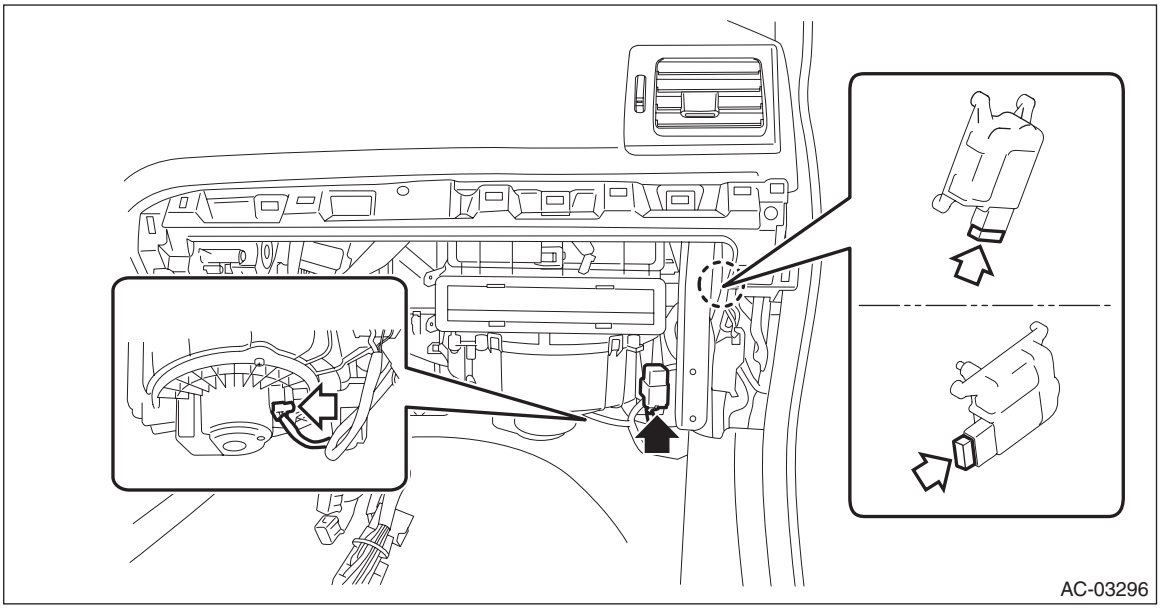
6) Remove the glove box.<Ref. to EI-61, REMOVAL, Glove Box.>
7) Remove the engine control module (ECM). (Non-turbo model)
(1) Release the lock and remove the relay holder.
(2) Disconnect the connector.


AC-03338

(3) Remove the nuts (a).
(4) Loosen the bolt (b), and remove the engine control module (ECM).

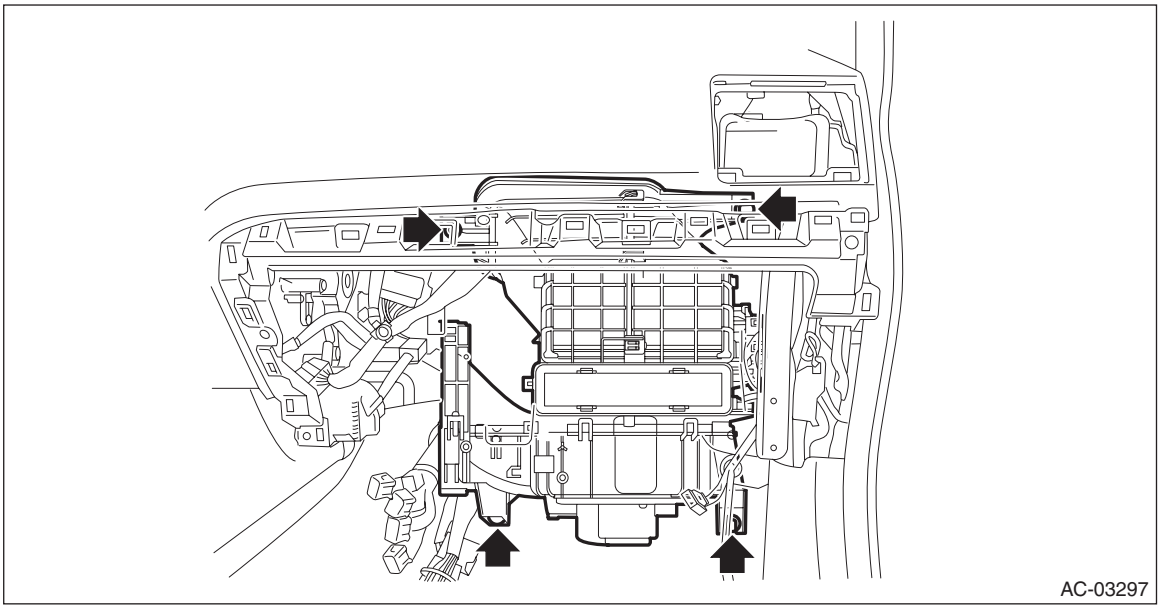


8) Remove the blower motor unit assembly.
(1) Release the claws, and then remove the grille assembly - ventilation RH.
(2) Disconnect the blower motor relay and each connector.

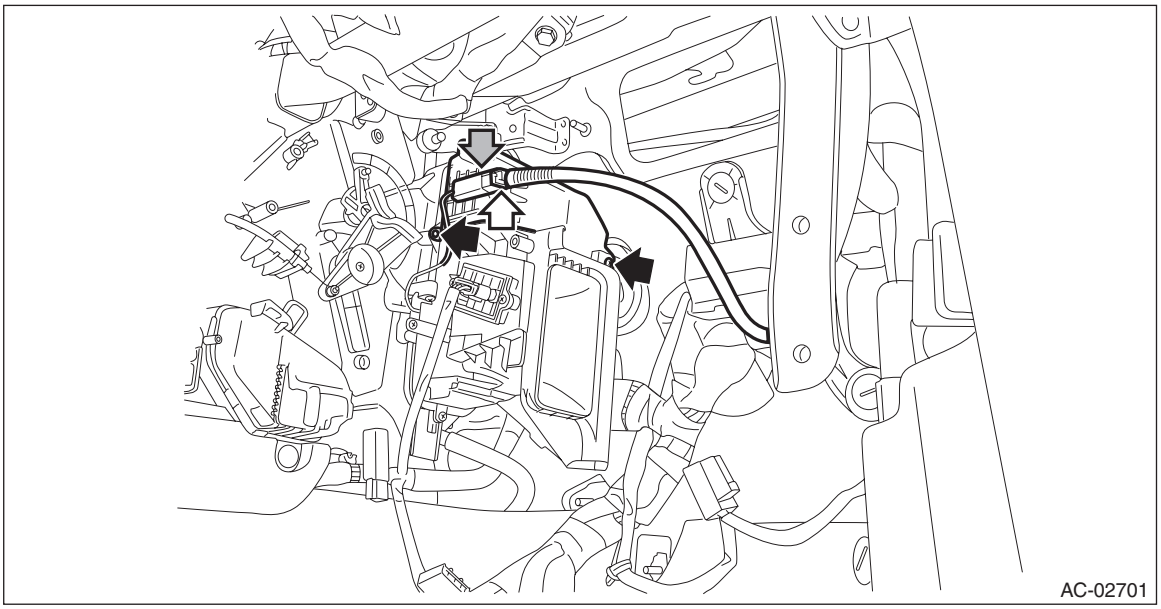


(3) Remove the bolts and nuts to remove blower motor unit assembly.

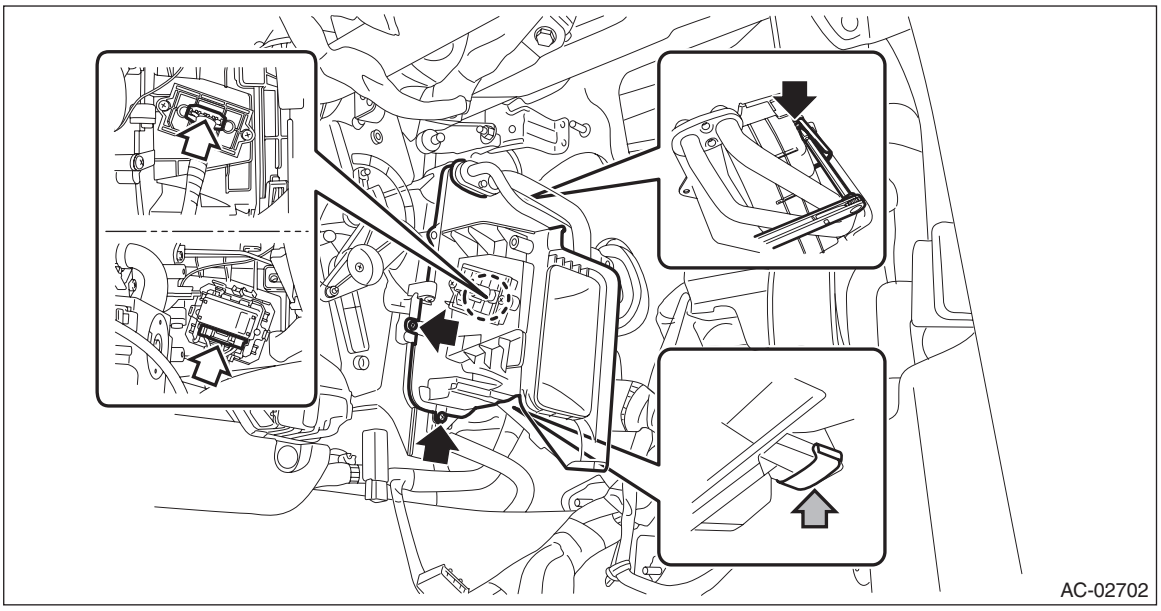
NOTE:
Remove the RH upper nut from the mounting portion of the grille assembly - ventilation RH.



9) Remove the evaporator assembly - cooling.
(1) Disconnect the connector and lock of the thermostat - cooling.
(2) Remove the screws and detach the cover.



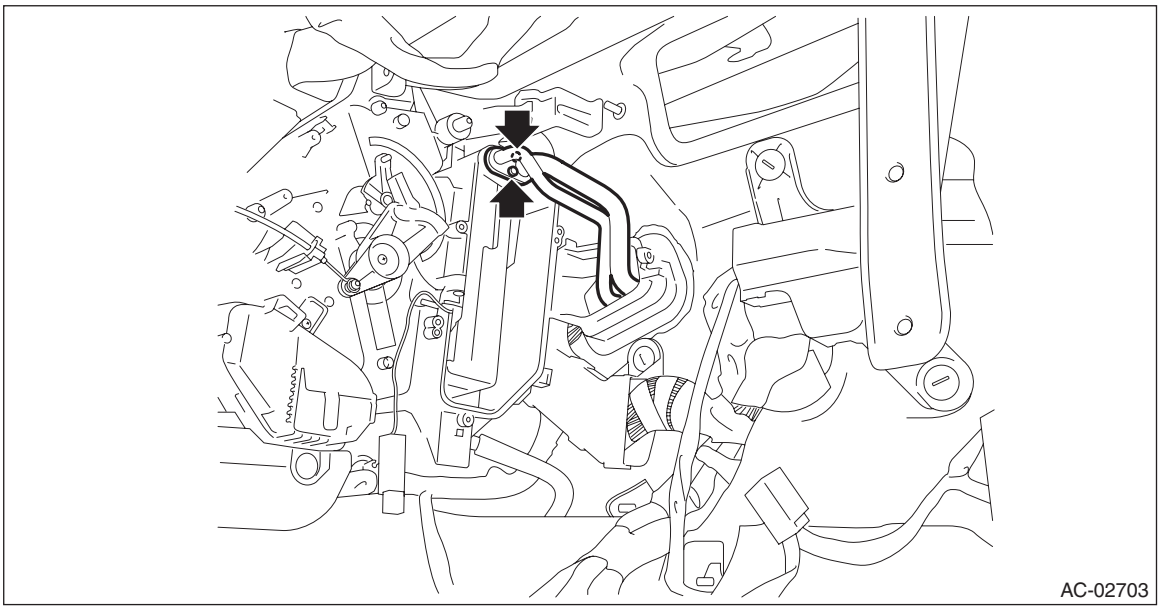
(3) Remove the cover - heater unit.
a) Disconnect the connector for the power transistor or resistor.
b) Remove the screws and clips to remove the cover - heater unit.



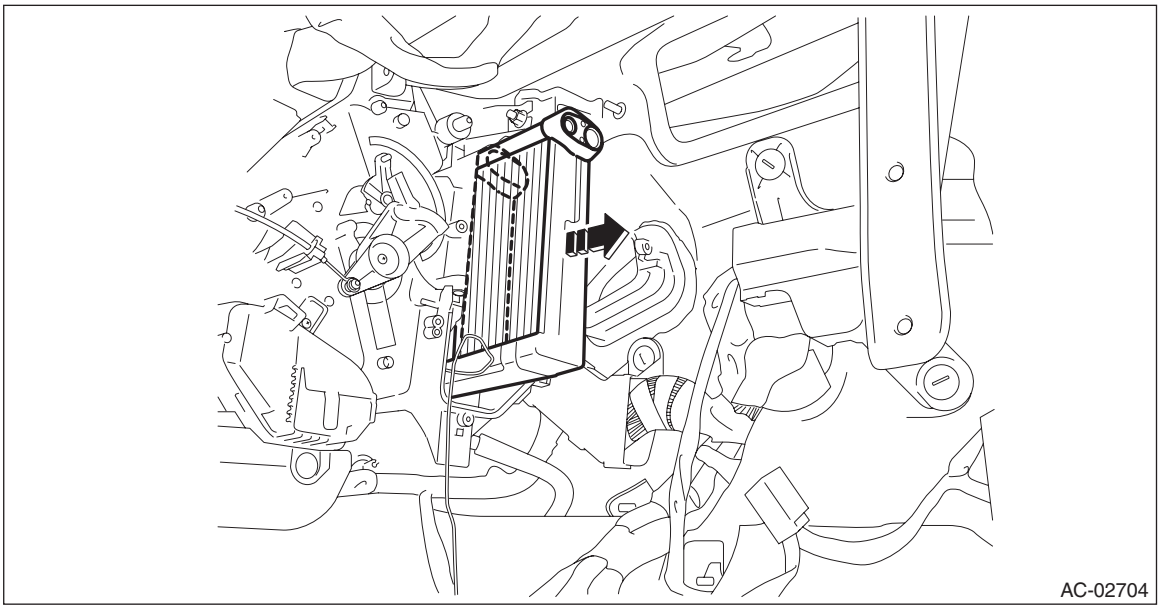
(4) Remove the bolt, and detach the pipe - evaporator core.

CAUTION:
Seal the disconnected pipe and engaging part of evaporator assembly with a plug or vinyl tape to prevent foreign matter from entering.

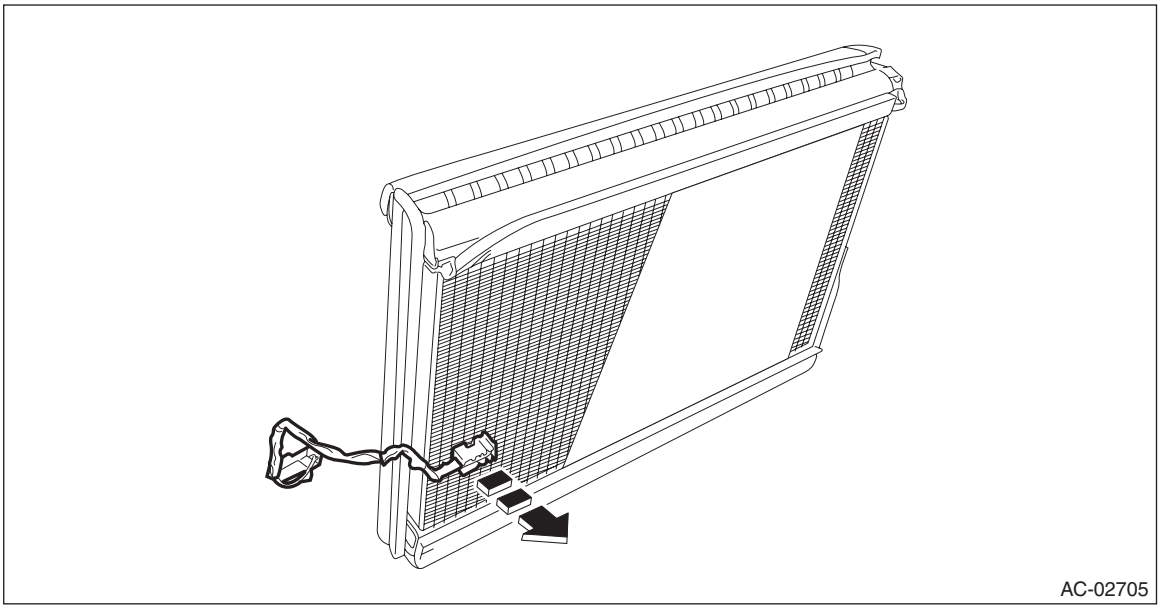
Preparation tool:
Hexagon wrench: 4 mm (0.16 in)



(5) Pull out the evaporator assembly - cooling from the case - heater unit.



(6) Remove the thermostat - cooling from the evaporator assembly - cooling.



B: INSTALLATION

CAUTION:
• If the evaporator assembly - cooling has been replaced, add an appropriate amount of compressor oil. <Ref. to AC-36, ADJUSTMENT, Compressor Oil.>
• When the evaporator assembly - cooling has been replaced, replace the packing of the expansion valve - cooling with a new one, and then apply compressor oil.
• Make sure that the water seal packing on the cover attachment area is securely attached.
• Replace the O-rings with new parts, and then apply compressor oil.
1) Install the thermostat - cooling to the specified position. <Ref. to AC-88, INSTALLATION, Evaporator Sensor.>
2) Install each part in the reverse order of removal.

Tightening torque:
Blower motor unit: <Ref. to AC-10, BLOWER MOTOR UNIT, COMPONENT, General Description.>
Engine control module (ECM): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
3) Charge refrigerant. <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

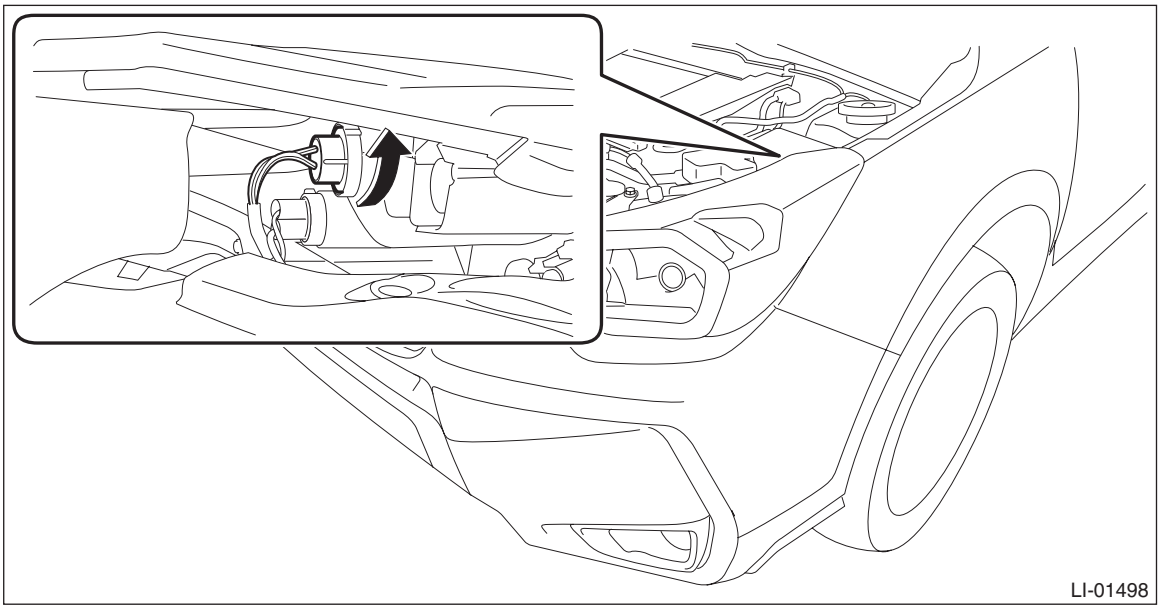
C: INSPECTION

1) Check the evaporator fin for dust. Blow with compressed air or flush fins with water as needed.
2) If any oil leak is found, replace the evaporator assembly - cooling.

18.Front Turn Signal Light Bulb

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the bulb socket and front turn signal light bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

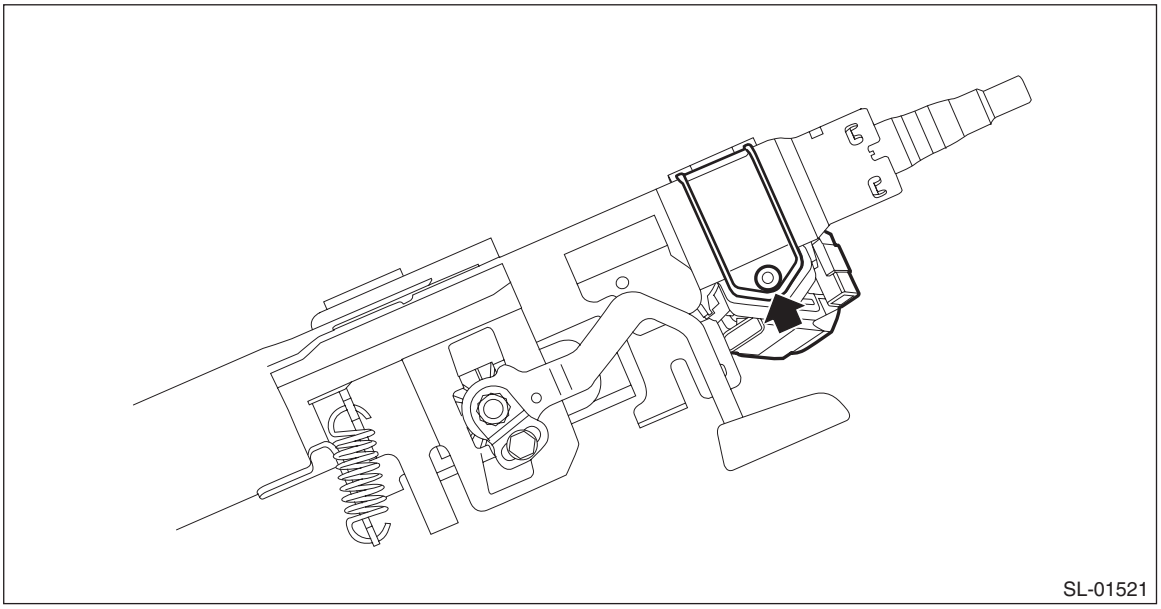
1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

18.Ignition Key Lock

A: REPLACEMENT

CAUTION:
• Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM". <Ref. to AB-9, CAUTION, General Description.>
• If the steering wheel and steering angle sensor (steering roll connector) are removed, perform "VDC sensor midpoint setting mode" of the VDC. <Ref. to VDC-23, VDC SENSOR MIDPOINT SETTING MODE, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

1) Disconnect the ground cable from battery.
2) Remove the column assembly - steering. <Ref. to PS-18, REMOVAL, Steering Column.>
3) Remove the ignition key lock.
   (1) Secure the column assembly - steering in a vise.
   (2) Use the reverse tap or drill to remove the set bolt and remove the ignition key lock.

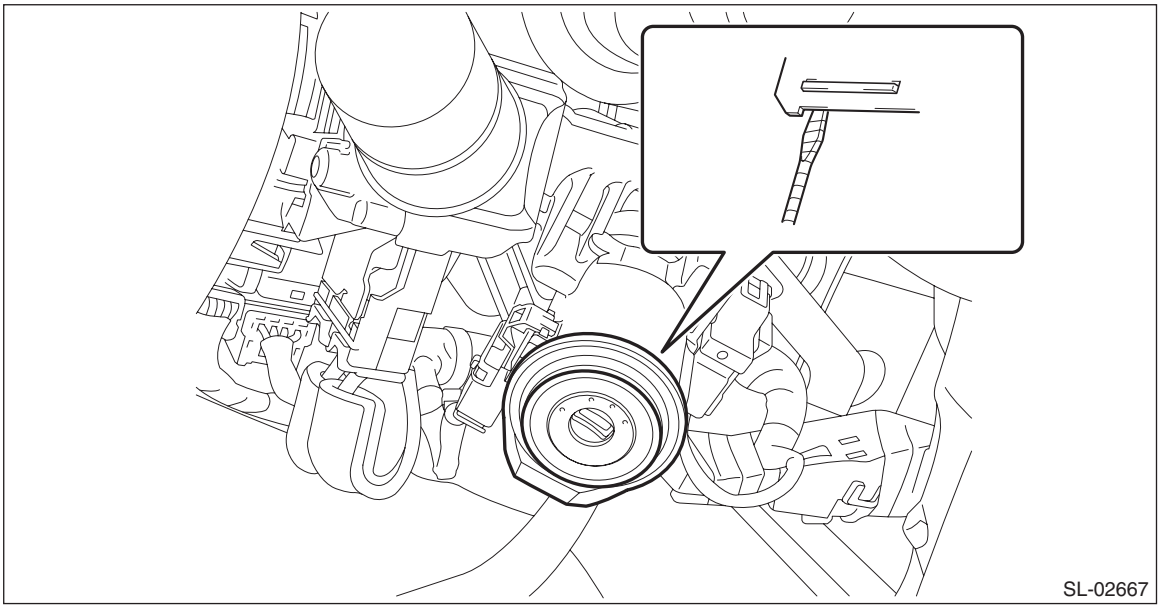


4) Install the ignition key lock.
   (1) Secure the ignition key lock to the column assembly - steering.
   (2) Use new set bolts. Tighten the bolt until the bolt head is broken (bolt head wrenched off).

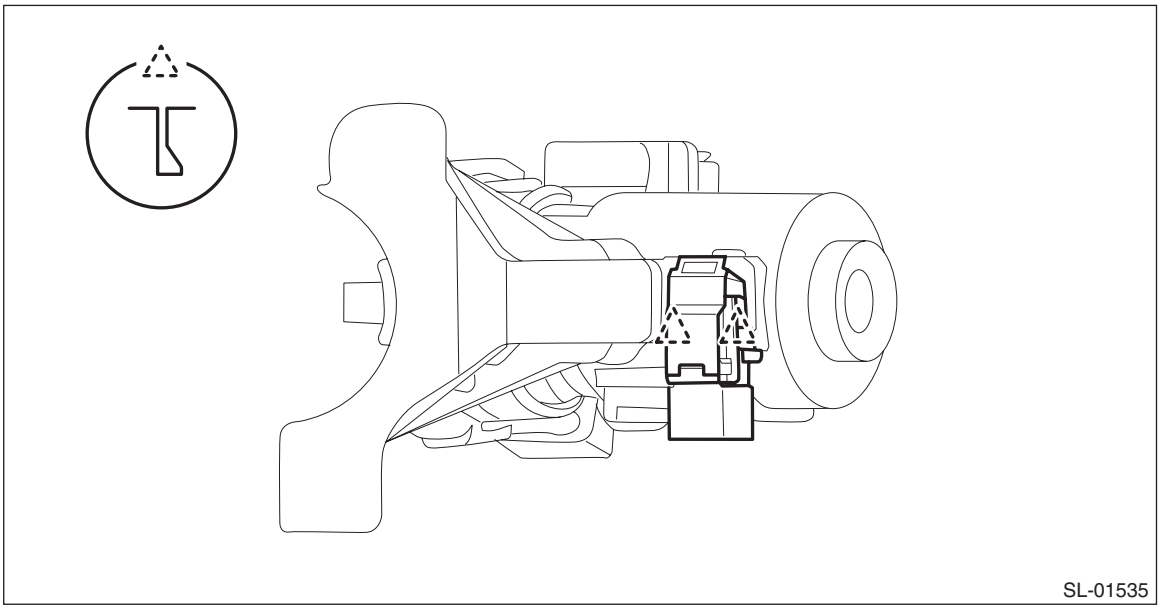
B: DISASSEMBLY

1) Remove the immobilizer antenna assembly.
   (1) Disconnect the connector.
   (2) Release two claws using a flat tip screwdriver or similar tool wrapped with a protection tape, and remove the immobilizer antenna assembly.

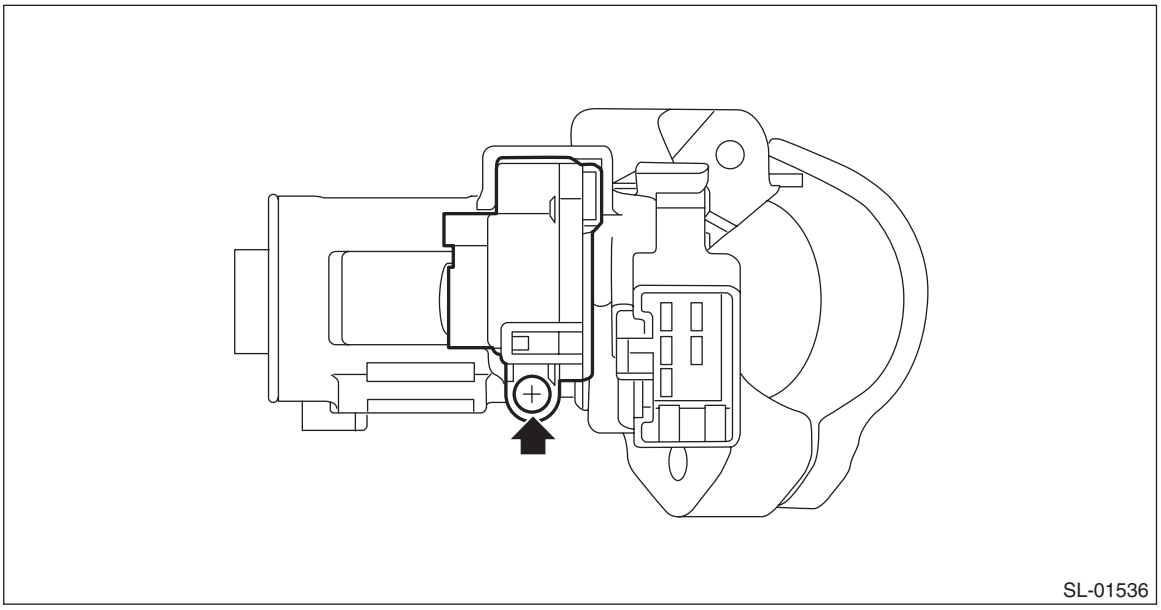
CAUTION:
Do not apply excessive force to disengage the lock of immobilizer antenna assembly. Otherwise they may be broken because those parts are the products made of a plastic.


SL-02667

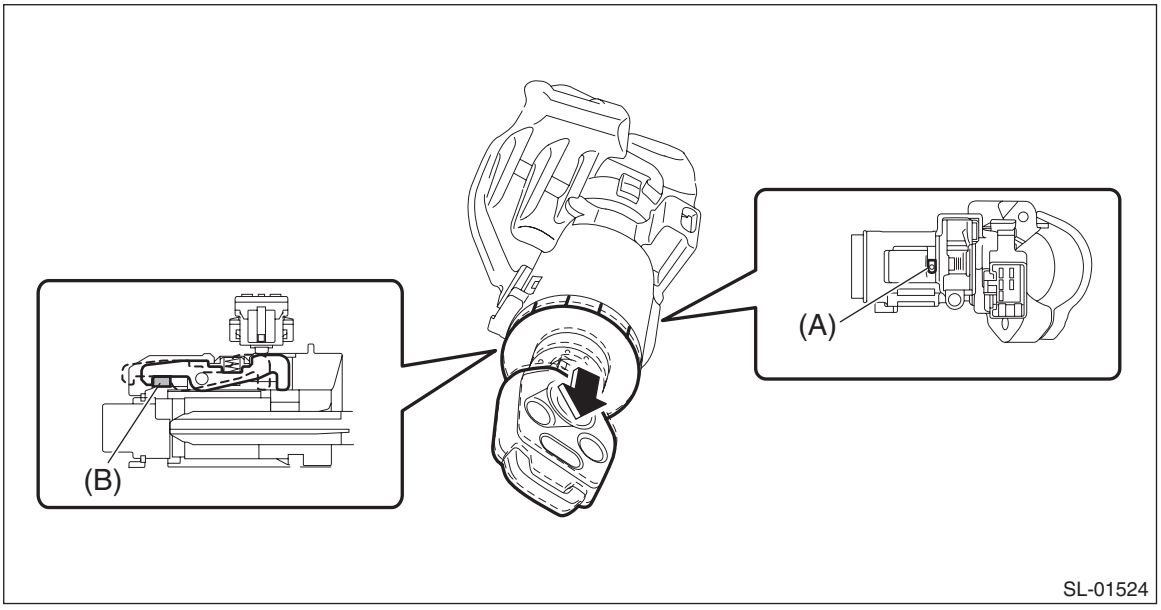
2) Release the claws, and pull the key warning switch downwards to remove.


SL-01535

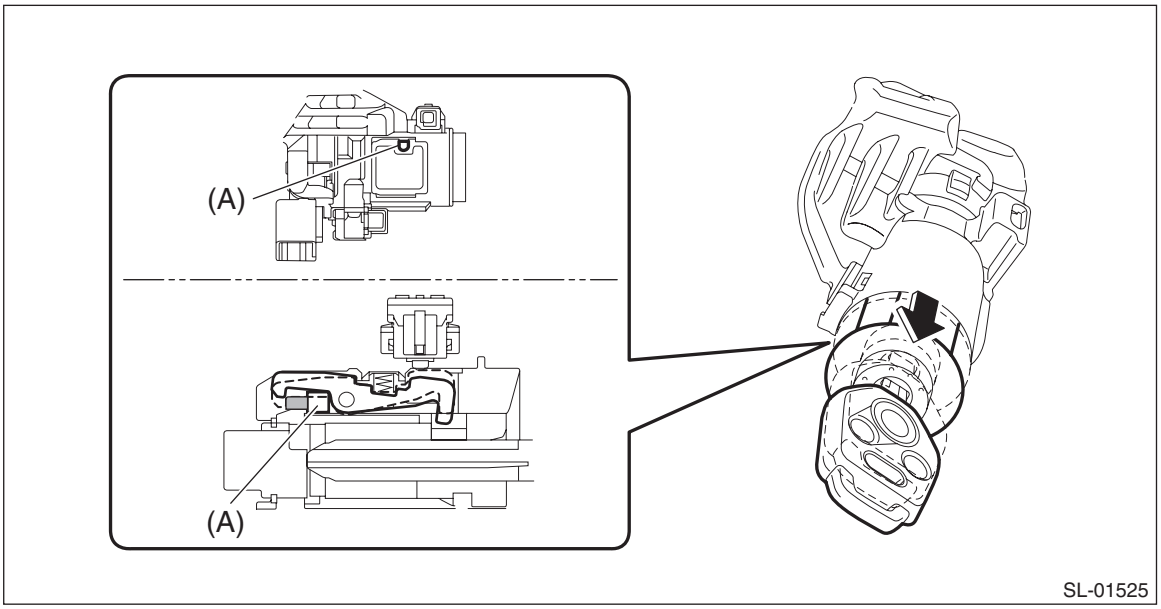
3) Remove the screws and remove the key lock solenoid.



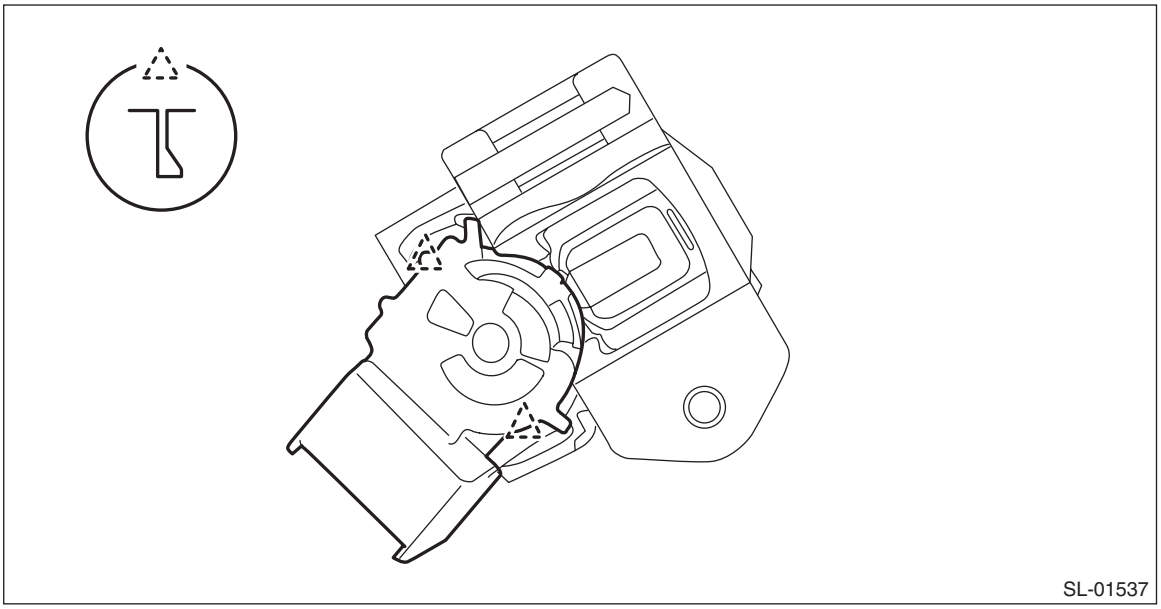
4) Replace the key cylinder.
   (1) Insert the key into the key cylinder, and turn the key to the ACC position.
   (2) Insert a flat tip screwdriver from the steering lock frame hole (A), and pull the key cylinder until the key cylinder claws touch the steering lock frame stopper (B).



(3) Insert a flat tip screwdriver from the steering lock frame hole (A), and release the claws to pull out the key cylinder.



5) Release the claws and remove the ignition switch assembly.

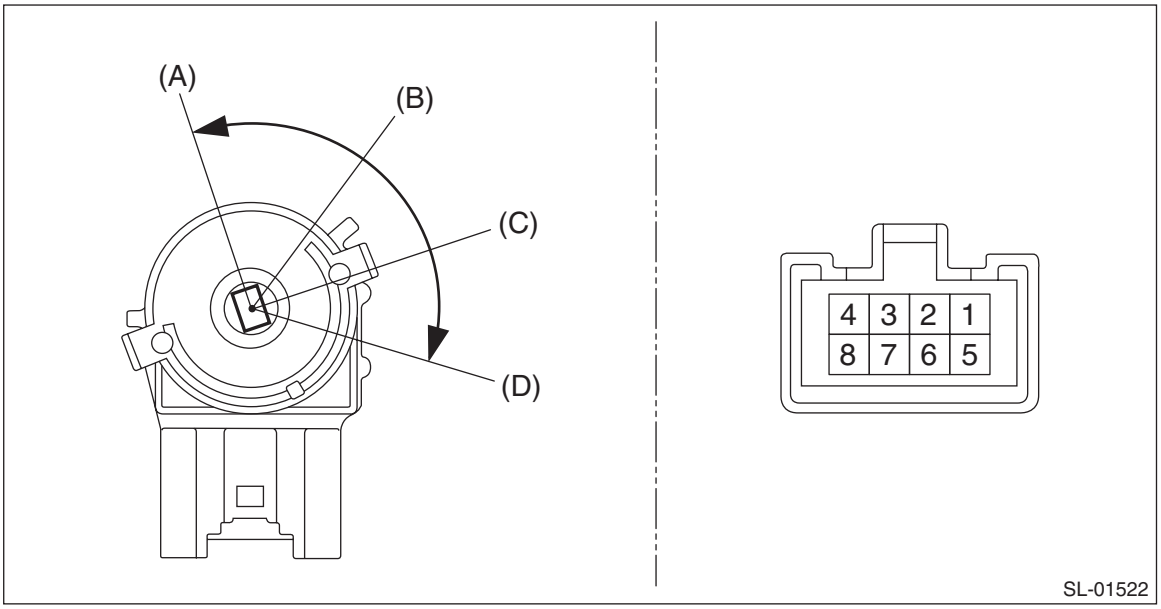


C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.



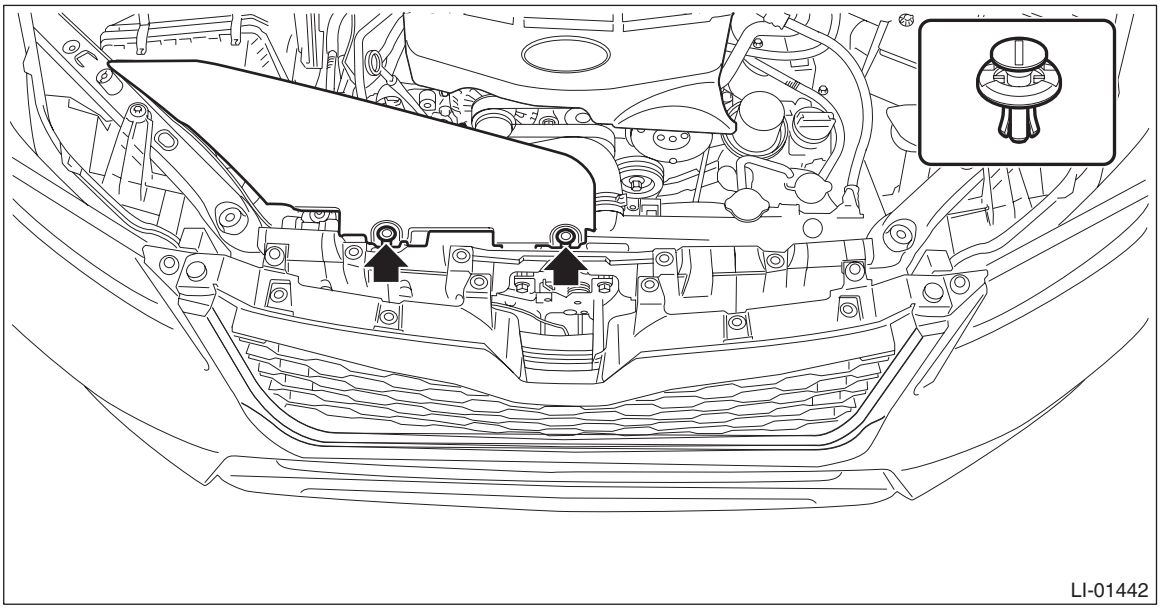
Terminal No.	Inspection conditions		Standard
Between all terminals	(A)	LOCK	1 MΩ or more
2 — 4	(B)	ACC	Less than 1 Ω
1 — 2 — 4 5 — 6	(C)	ON	Less than 1 Ω
1 — 3 — 4 5 — 6 — 7	(D)	ST	Less than 1 Ω

2) Replace the ignition switch assembly if the inspection result is not within the standard.

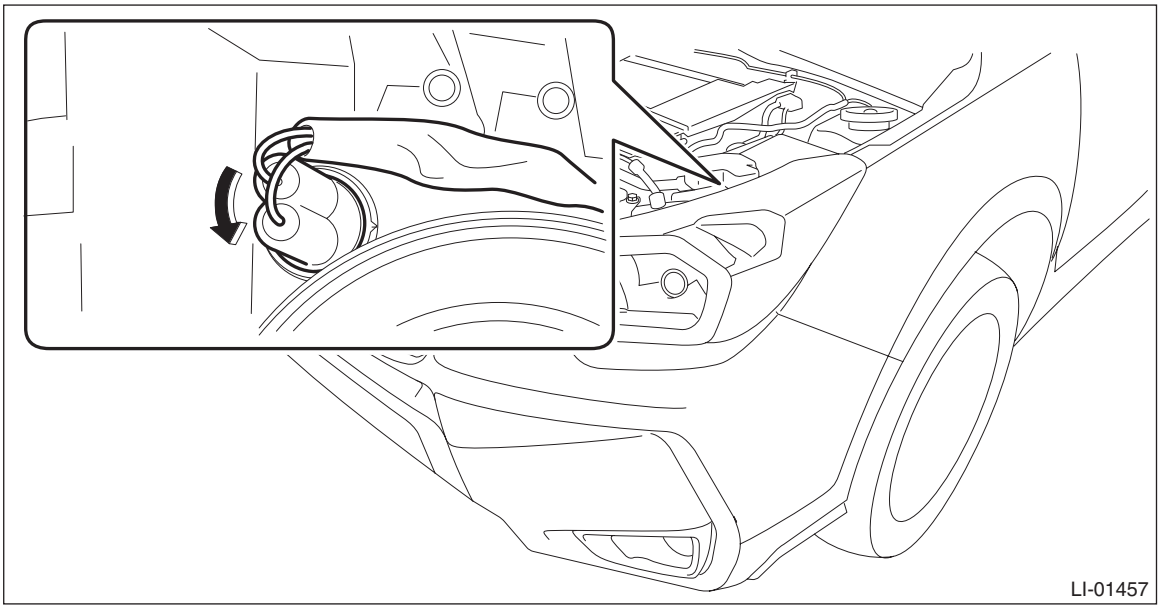
19.Clearance/Parking Light Bulb

A: REMOVAL

NOTE:
Since the LED type parking light cannot be disassembled, it cannot be removed.
1) Disconnect the ground cable from battery.
2) Remove the clips and remove the air intake duct (rear). (When removing the parking light bulb RH)



3) Remove the bulb socket and parking light bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

NOTE:
When the LED type parking light burns out, replace the light assembly - head.
1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

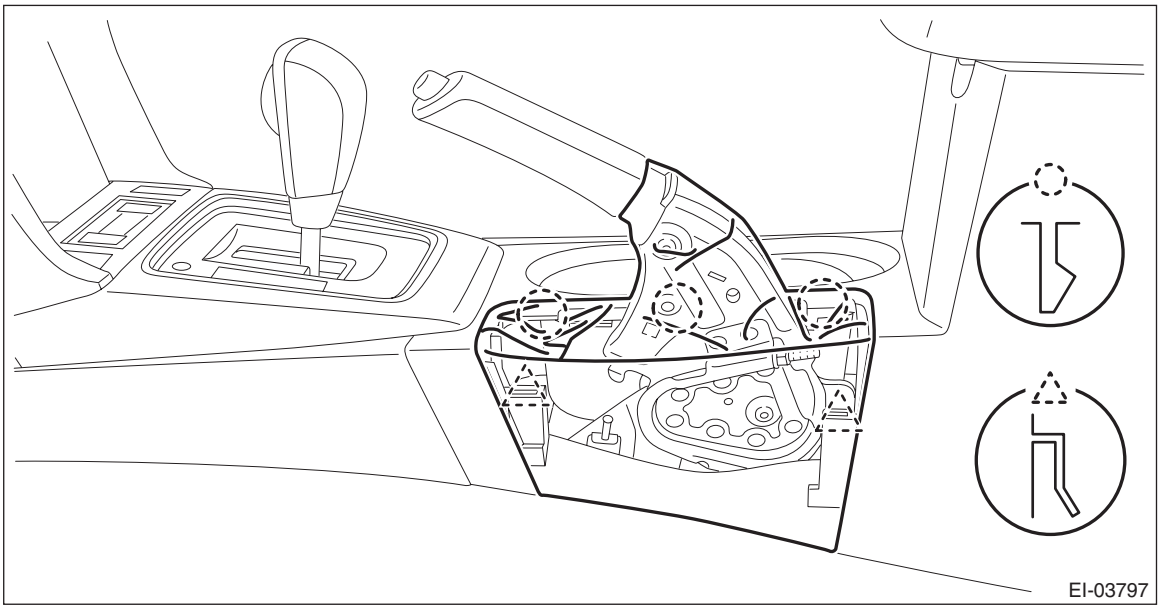
19.Console Box

A: REMOVAL

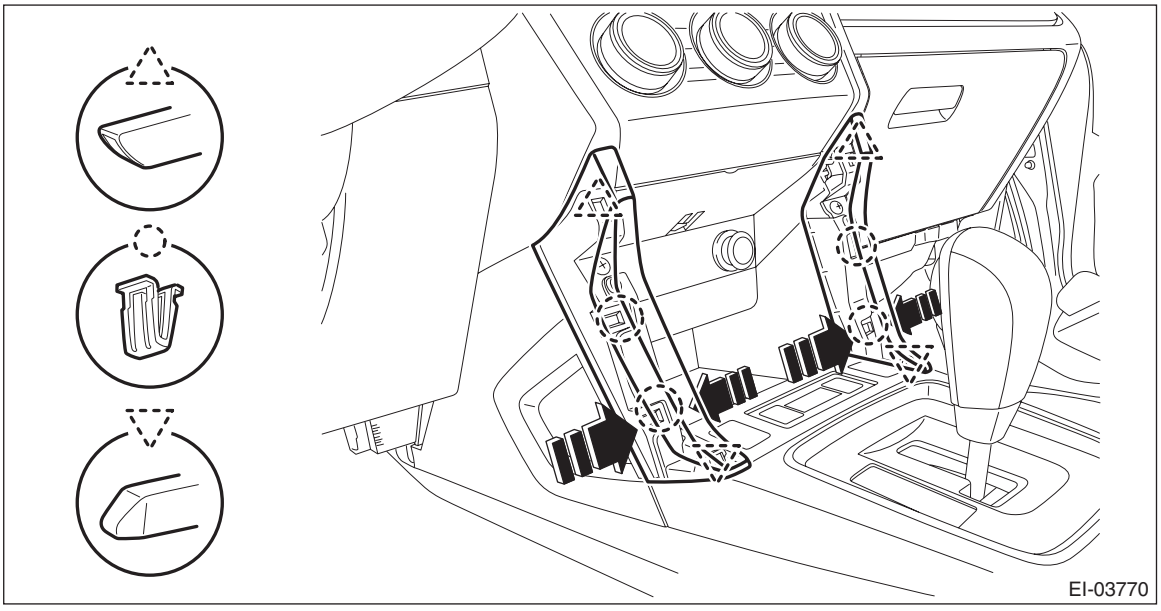
1) Disconnect the ground cable from battery.

NOTE:
- On CVT models, shift the select lever into “N” before disconnecting the battery ground cable.
- For the power seat, move the seat to the front-most position before removing the battery ground terminal.

2) Release the claws, and then remove the boot - hand brake.

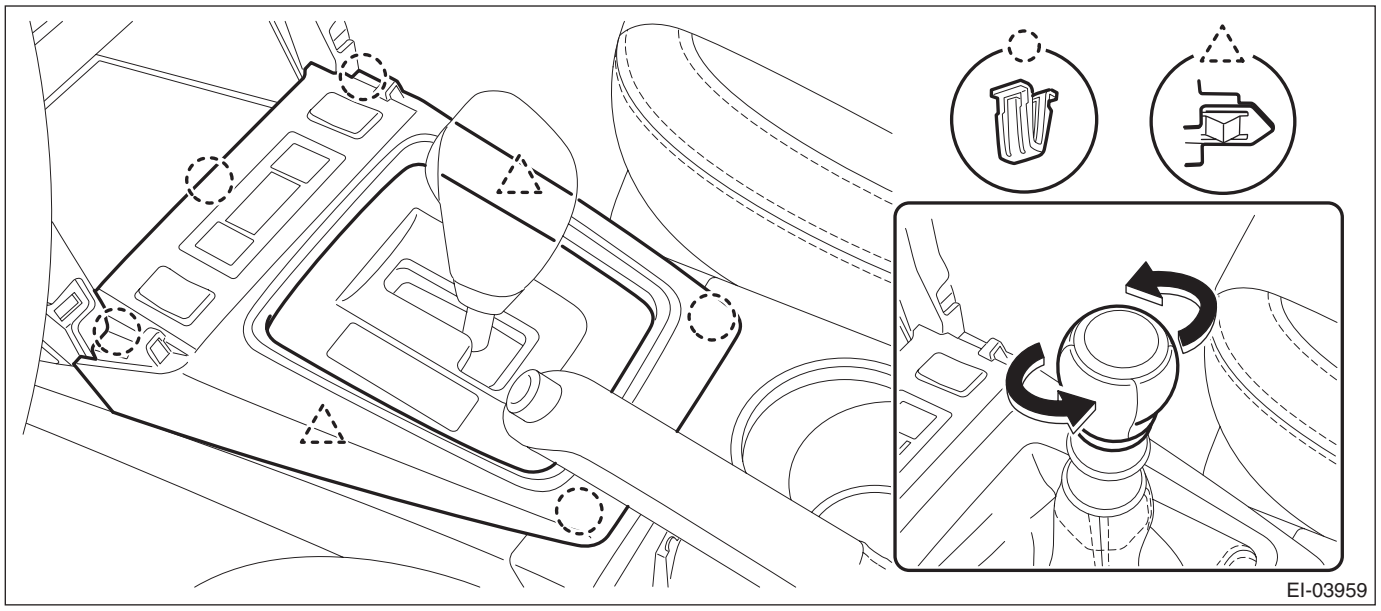


3) Release the clips, and remove the ornament panel - console.

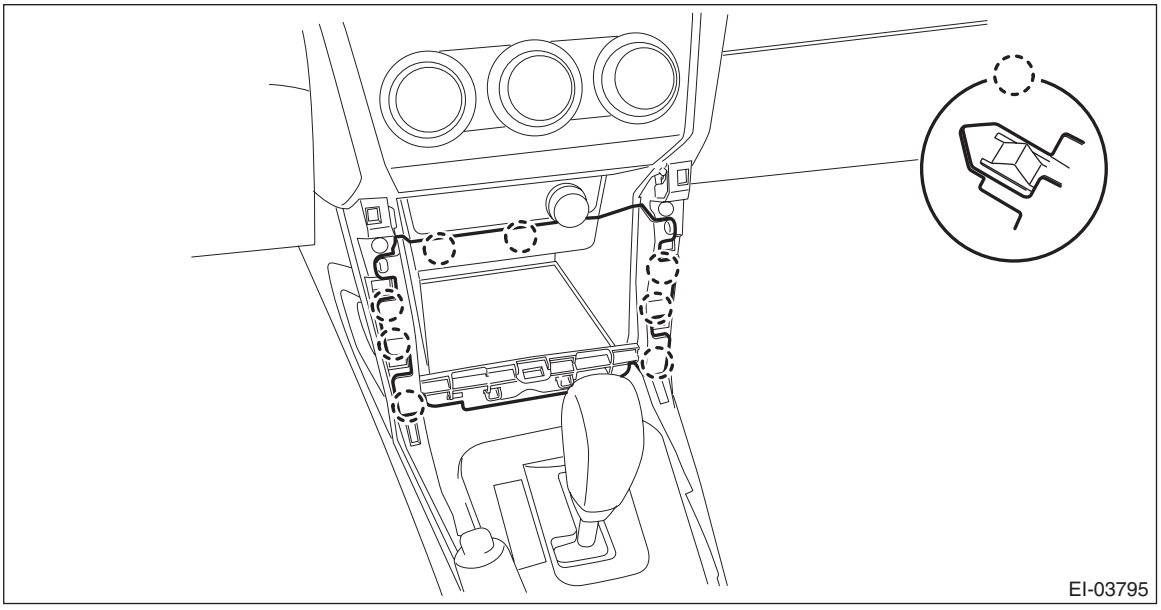


NOTE:
Removal is easier if you grab the arrow sections from right and left and pull them at the same time.

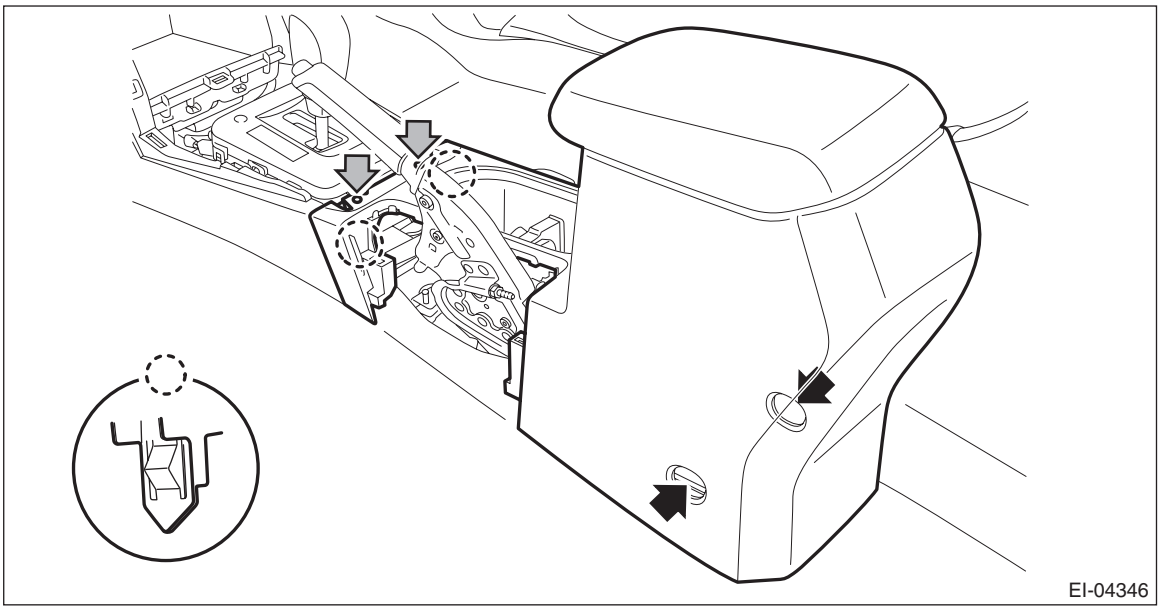
4) Remove the cover - shift lever.
   (1) Remove the shift knob. (MT model)
   (2) Release the clips and claws, then pull up the cover - shift lever.



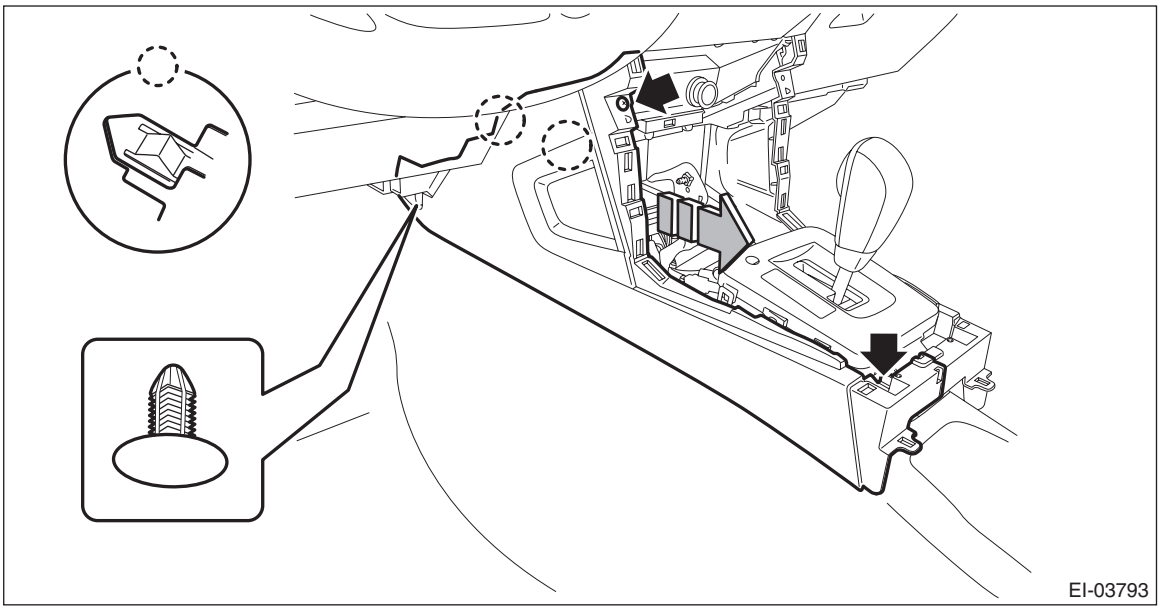
5) Release the claws, and remove the tray assembly - CTR LWR.

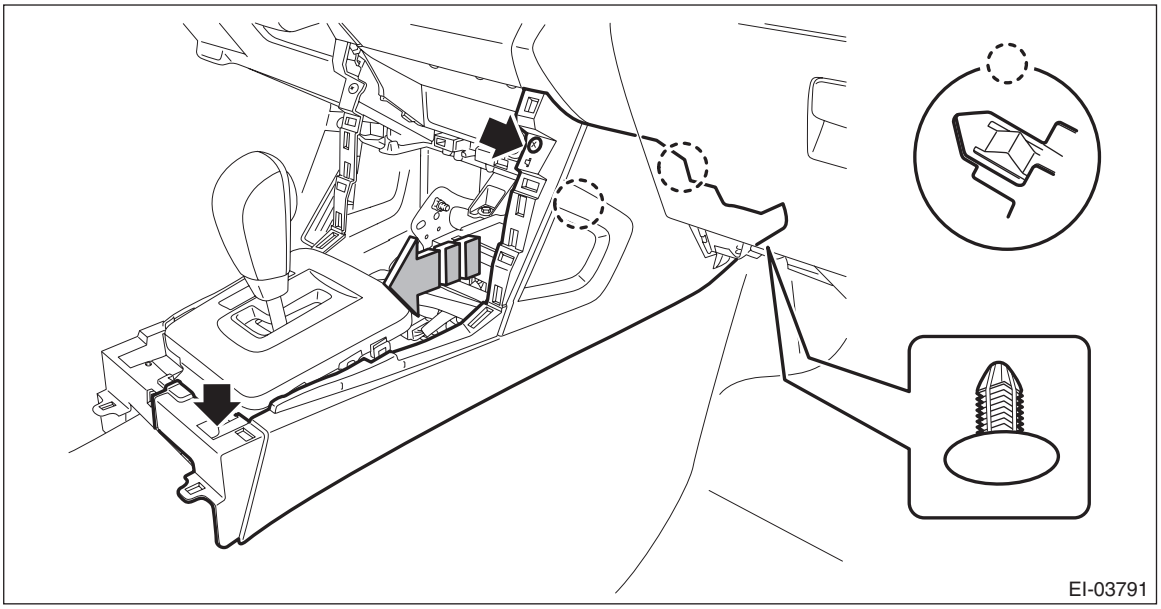


6) Remove the console box assembly.
(1) Move the seat forward, and remove the bolts after detaching the left and right caps.
(2) Remove the screws and release the claws, then disconnect the harness connector and remove the console box assembly.



7) Remove the left and right panel center LWR.
   (1) Remove the screws and clips.
   (2) Release the claws, and then pull the panel center LWR to remove.





B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
6.5 N·m (0.66 kgf-m, 4.8 ft-lb)

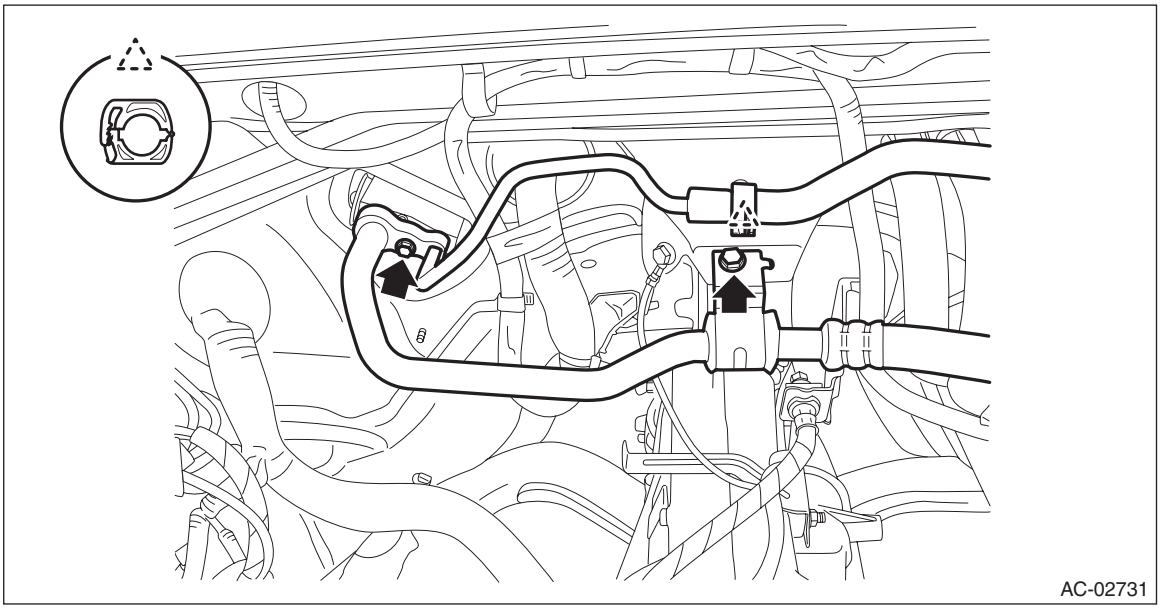
19.Expansion Valve

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
3) Remove the air intake boot. (Non-turbo model)<Ref. to IN(H4DO)-11, REMOVAL, Air Intake Boot.>

CAUTION:
Move aside the air intake boot to perform the operation without disconnecting the PCV hose.
4) Remove the intercooler. (Turbo model)<Ref. to IN(H4DOTC)-35, REMOVAL, Intercooler.>
5) Remove the expansion valve - cooling.
(1) Remove the bolt, and detach the hose - pressure suction and the pipe - evaporator cooling.

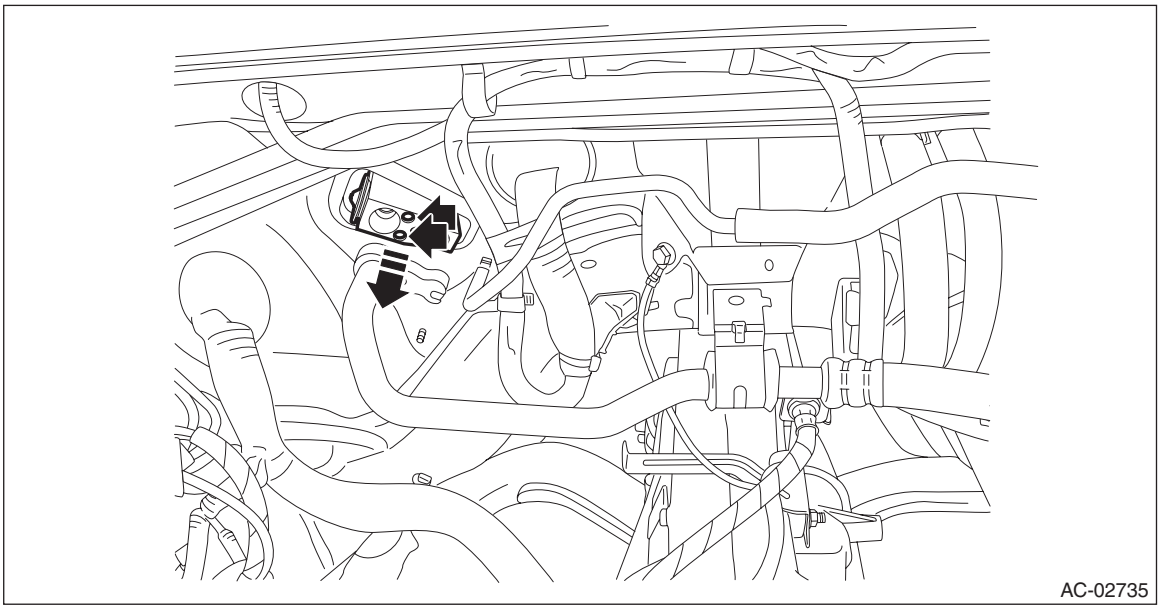
CAUTION:
Seal the disconnected hose, pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.



(2) Remove the bolt, and remove the expansion valve - cooling.

CAUTION:
Seal the disconnected pipe and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.

Preparation tool:
Hexagon wrench: 4 mm (0.16 in)



B: INSTALLATION

CAUTION:
Replace the O-rings with new parts, and then apply compressor oil.
1) Install each part in the reverse order of removal.

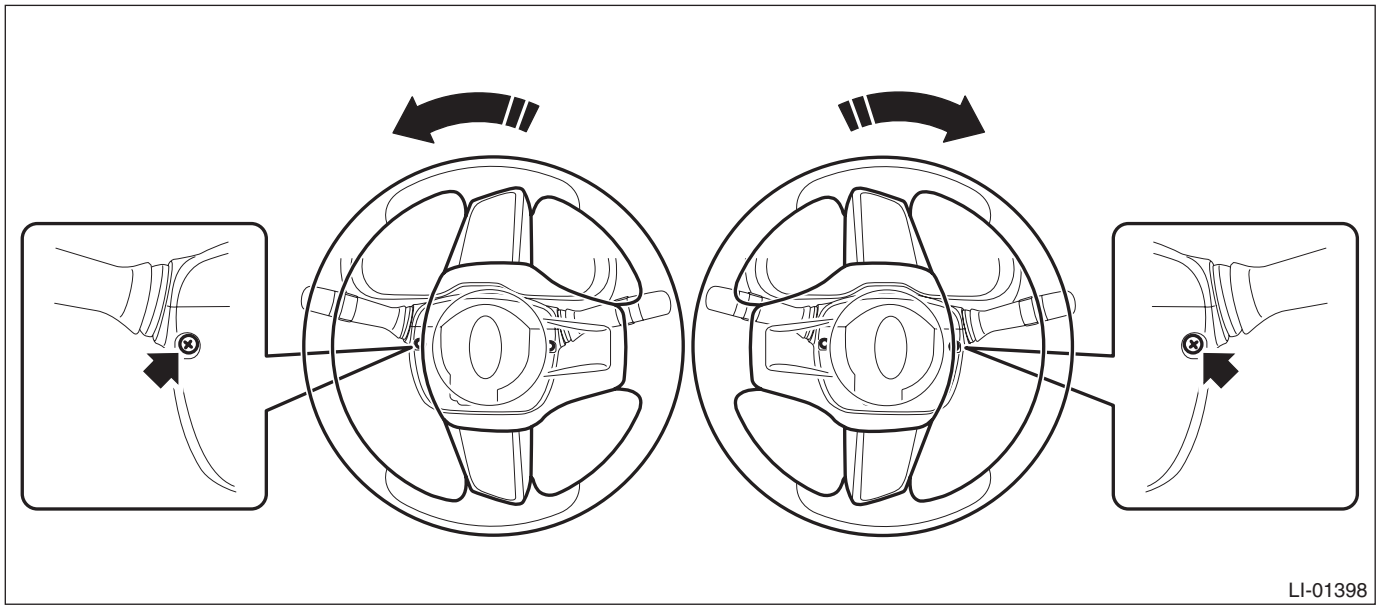
Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to AC-12, AIR CONDITIONING UNIT, COMPONENT, General Description.>
2) Charge refrigerant. <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

19.Key Lock Cylinders

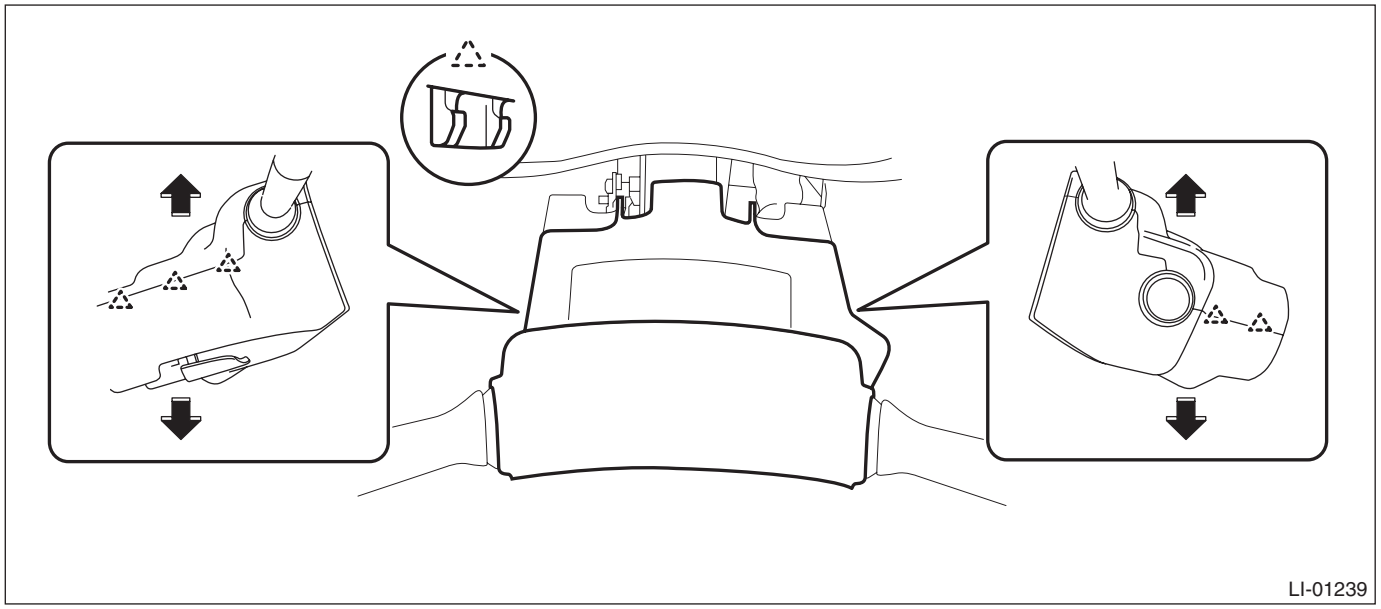
A: REPLACEMENT

1. STEERING LOCK

1) Disconnect the ground cable from battery.
2) Remove the cover assembly - column.
   (1) Remove the screws by turning the steering wheel to right and left.

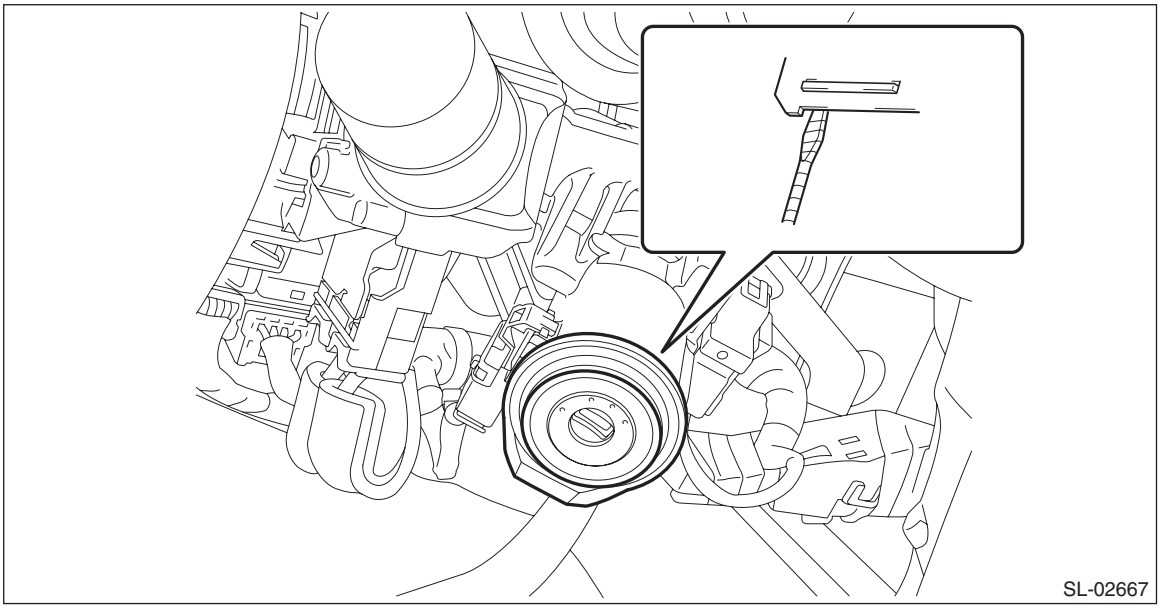


   (2) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.

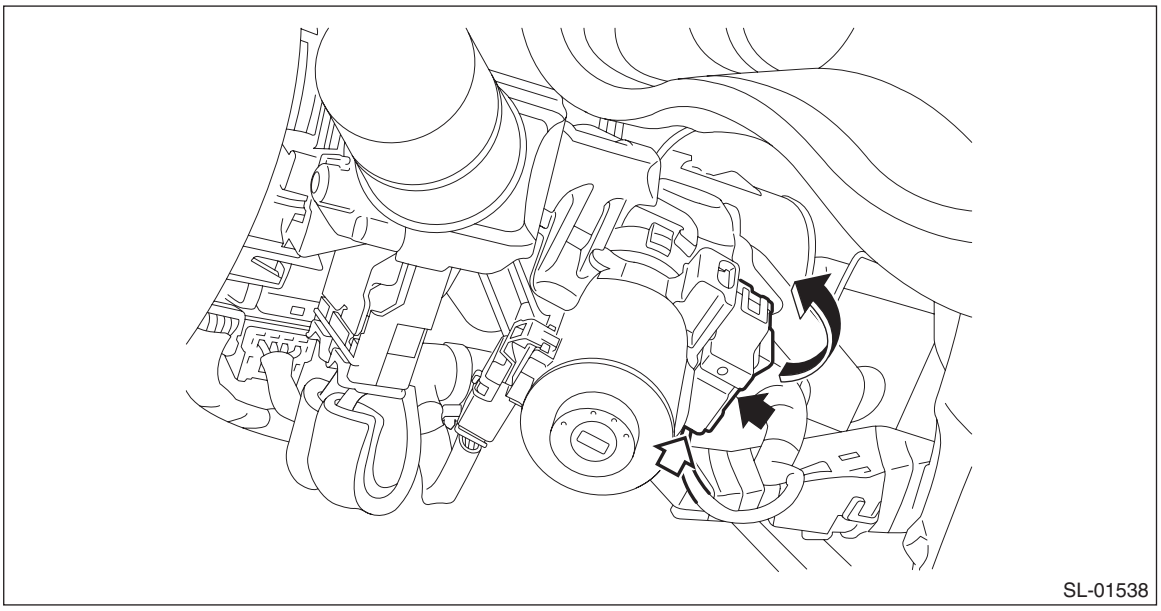


3) Remove the immobilizer antenna assembly.
   (1) Disconnect the connector.
   (2) Release two claws using a flat tip screwdriver or similar tool wrapped with a protection tape, and remove the immobilizer antenna assembly.

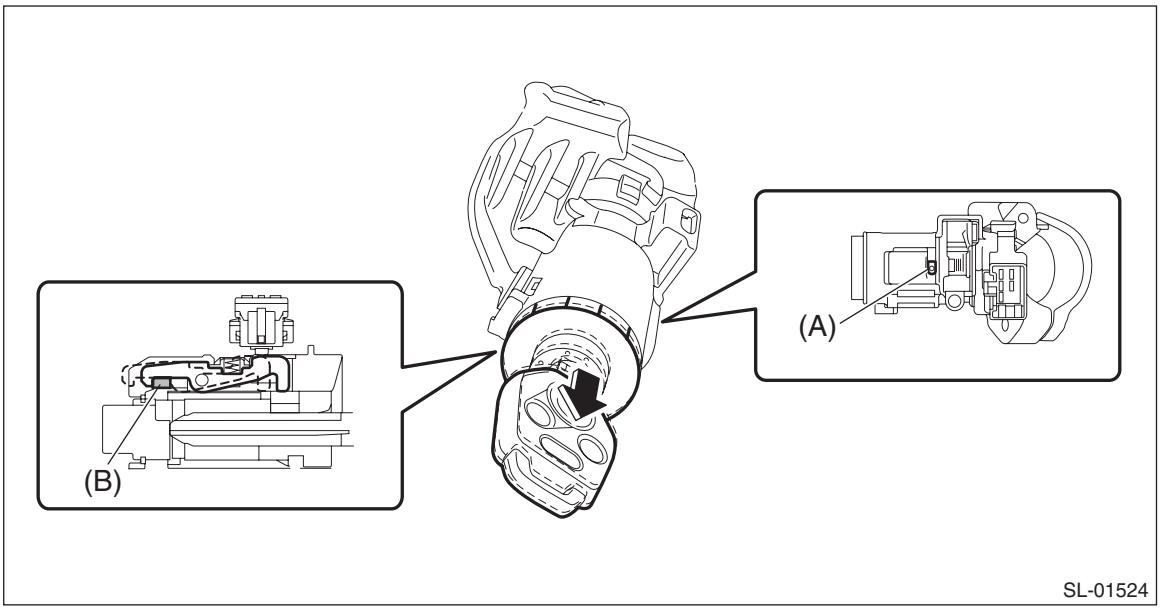
CAUTION:
Do not apply excessive force to disengage the lock of immobilizer antenna assembly. Otherwise they may be broken because those parts are the products made of a plastic.



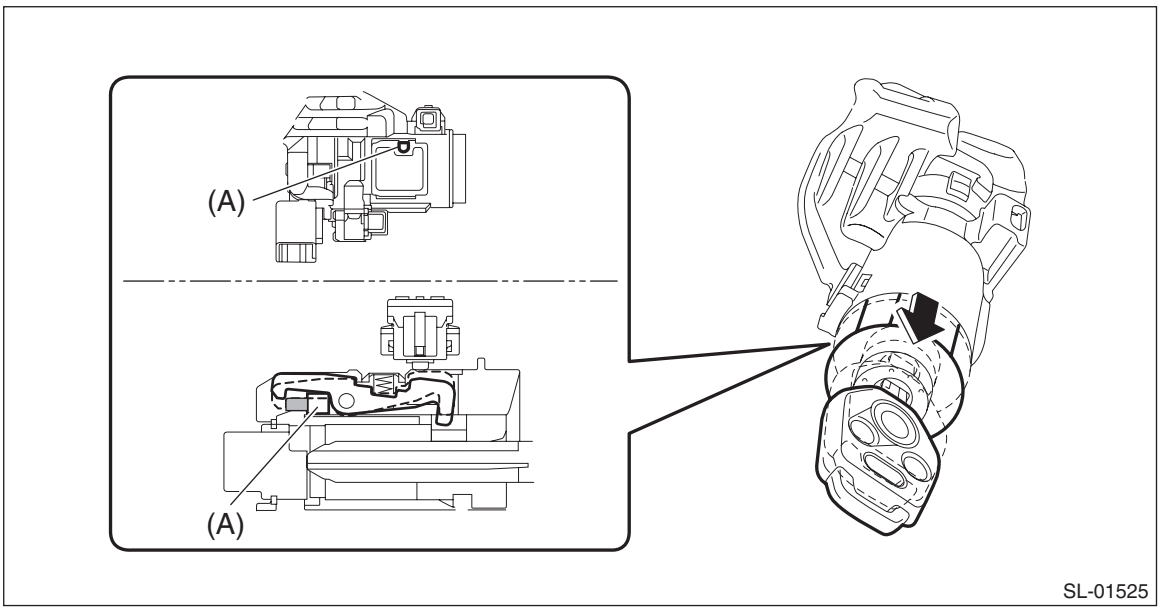
4) Remove the key lock solenoid.
   (1) Disconnect the connector.
   (2) Remove the screws and remove the key lock solenoid.



5) Replace the key cylinder.
(1) Insert the key into the key cylinder, and turn the key to the ACC position.
(2) Insert a flat tip screwdriver from the steering lock frame hole (A), and pull the key cylinder until the key cylinder claws touch the steering lock frame stopper (B).



(3) Insert a flat tip screwdriver from the steering lock frame hole (A), and release the claws to pull out the key cylinder.



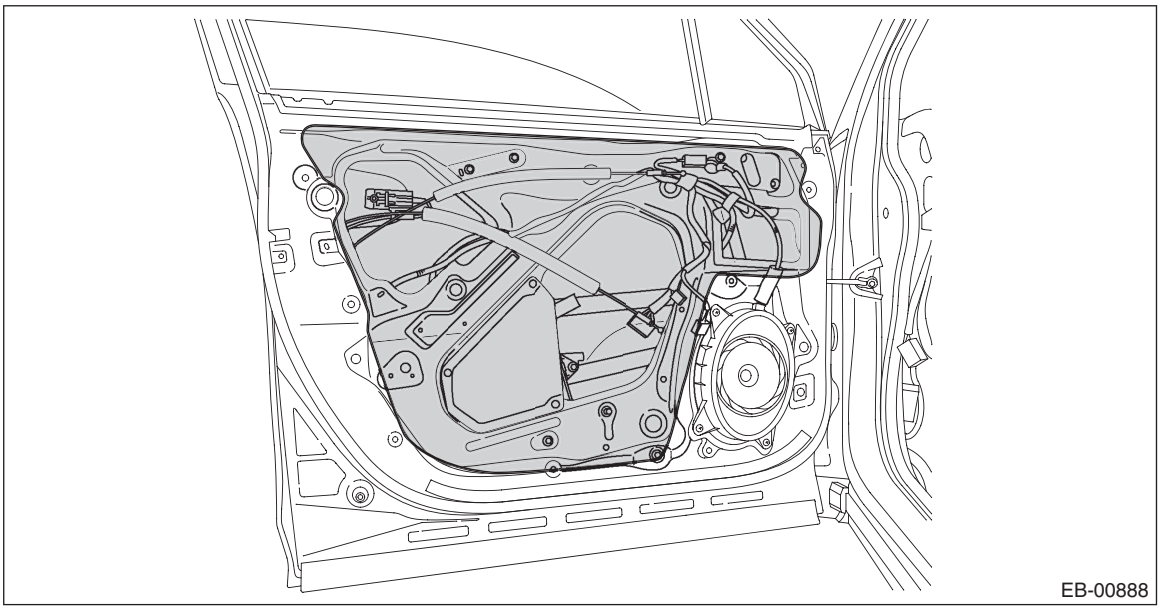
6) Install each part in the reverse order of removal.

2. FRONT DOOR

1) Raise the glass assembly - front door to the top position.
2) Remove the trim panel - front door. <Ref. to EI-54, FRONT DOOR, REMOVAL, Door Trim.>
3) Remove the sealing cover - front door.

CAUTION:
- **Carefully remove the butyl tape. Excessive force will easily break the sealing cover - front door.**
- **If the sealing cover - front door gets broken, replace it with a new part.**
- **Be careful not to allow the butyl tape to contact any trims and seats because the butyl tape, which has a strong adhesive force, is difficult to remove once it adhered.**

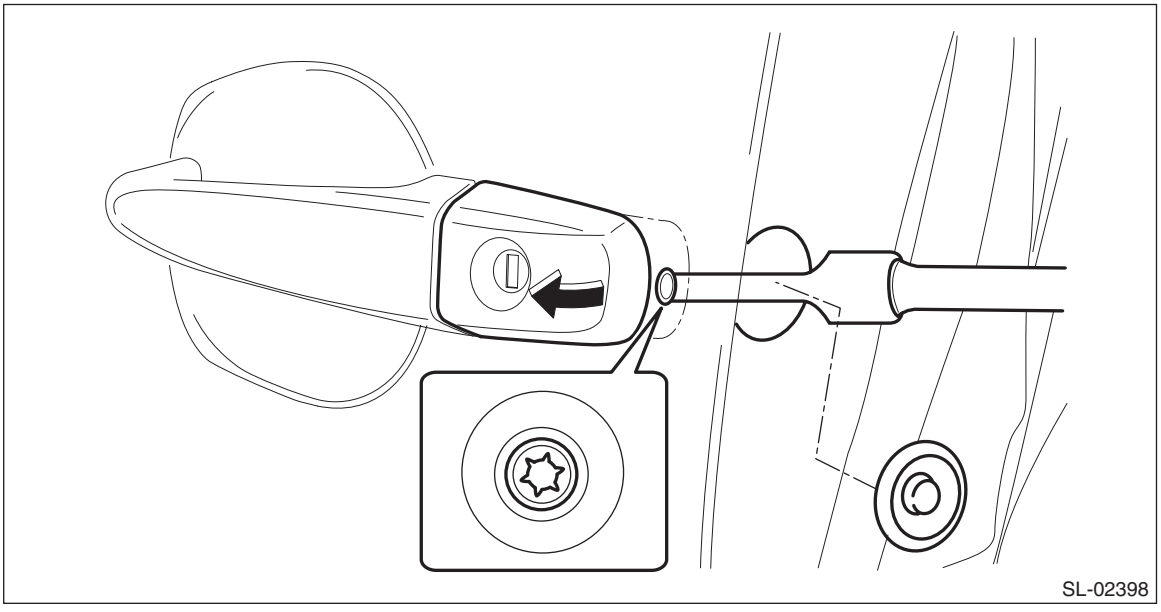
(1) Disconnect connectors.
(2) Carefully remove the butyl tape and turn over the sealing cover - front door within the area where the operation can be performed.


EB-00888

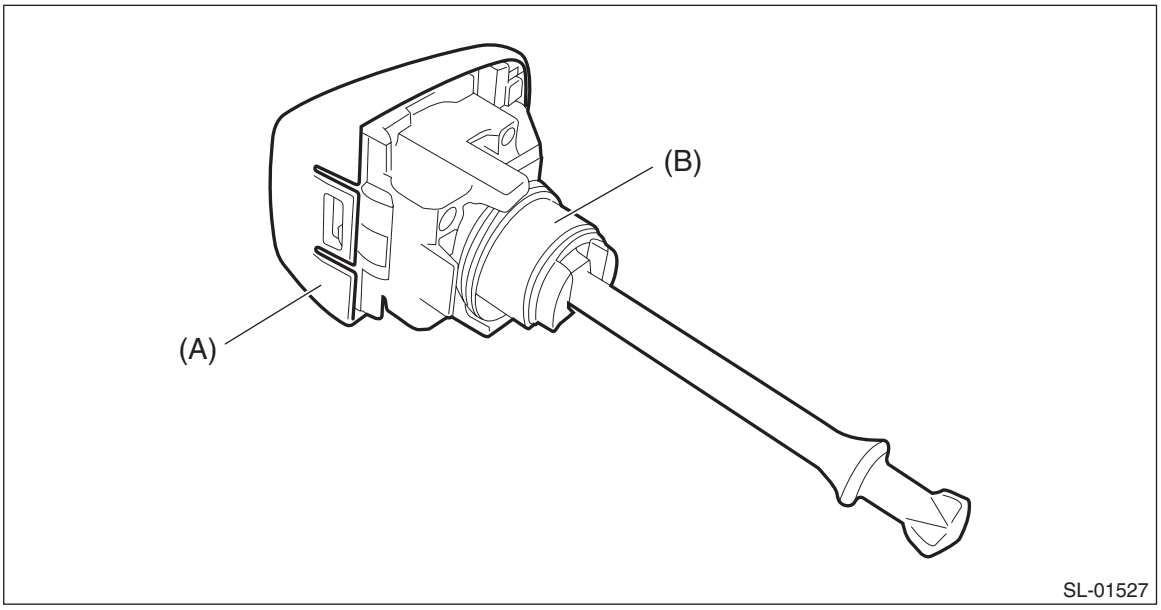
4) Remove the cover - handle front outer.

Preparation tool:
TORX® T30

(1) Remove the plug at the rear end of the panel assembly - front door.
(2) Loosen the TORX® bolt and remove the cover - handle front outer.


SL-02398

5) Remove the key cylinder (B) from the cover - handle front outer (A), and replace the key cylinder.

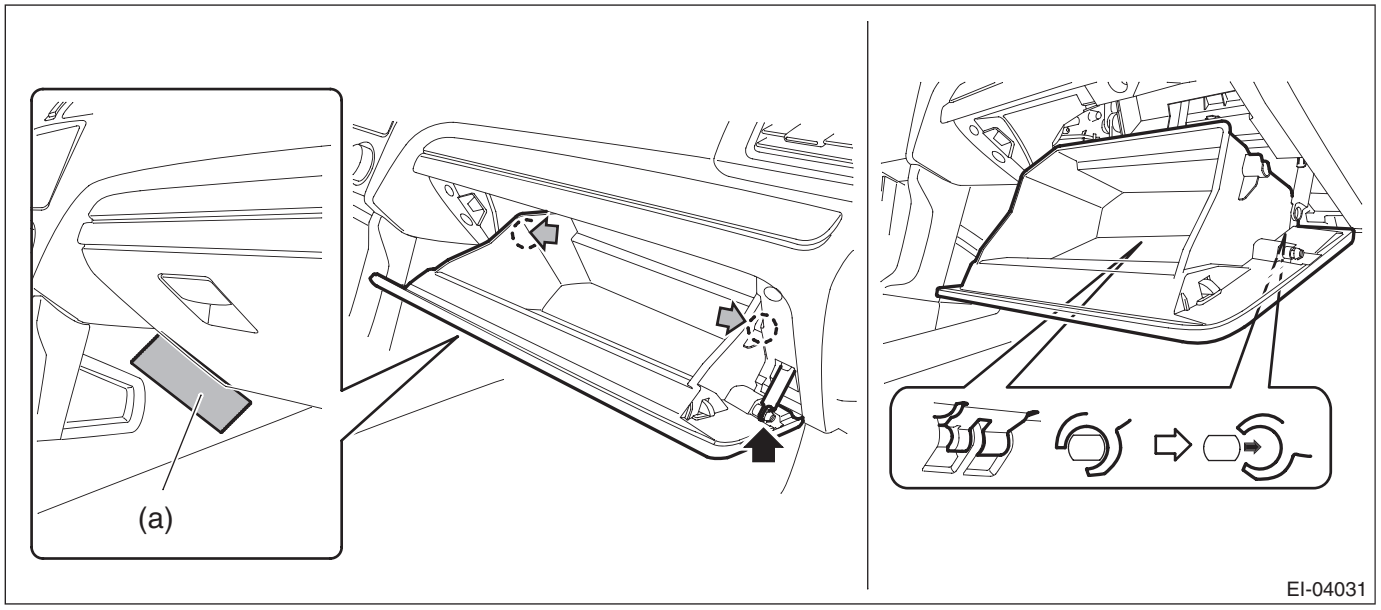


6) Install each part in the reverse order of removal.

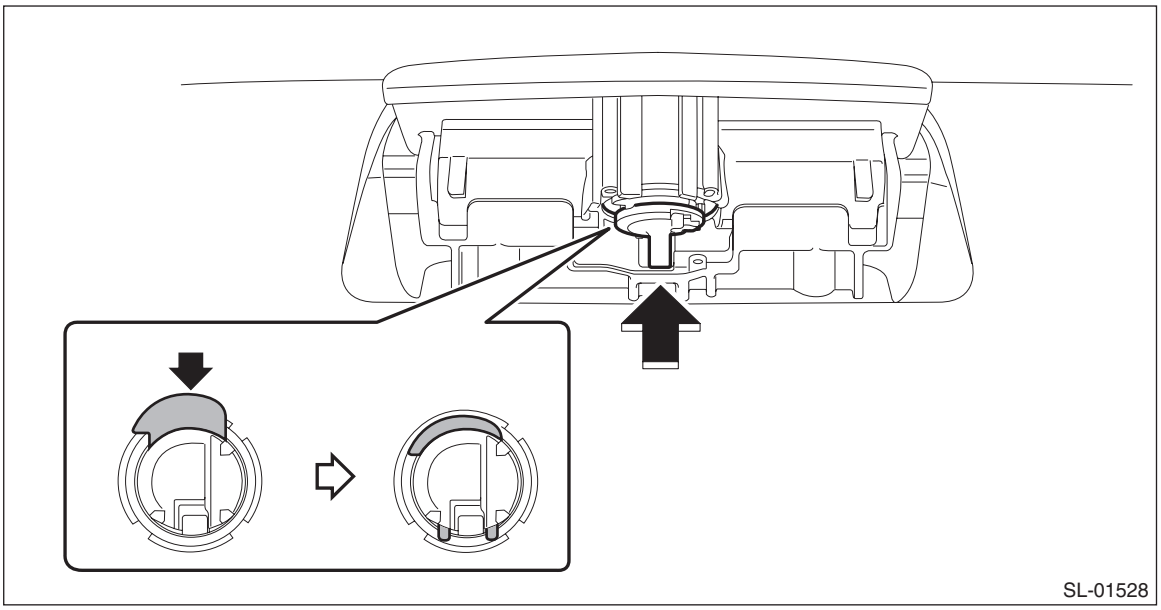
Tightening torque:
Refer to "COMPONENT" of "General Description". <Ref. to SL-2, DOOR LOCK ASSEMBLY, COMPONENT, General Description.>

3. GLOVE BOX LID

1) Remove the pocket assembly.
   (1) Attach the protective tape (a) to the panel center LWR.
   (2) Remove the damper COMPL - pocket.
   (3) Release the stoppers and remove the pocket assembly by pulling it toward you.



2) Replace the key cylinder.
   (1) Pull up the lock knob.
   (2) Push out the key cylinder from the pocket assembly while pressing in the metal plate.

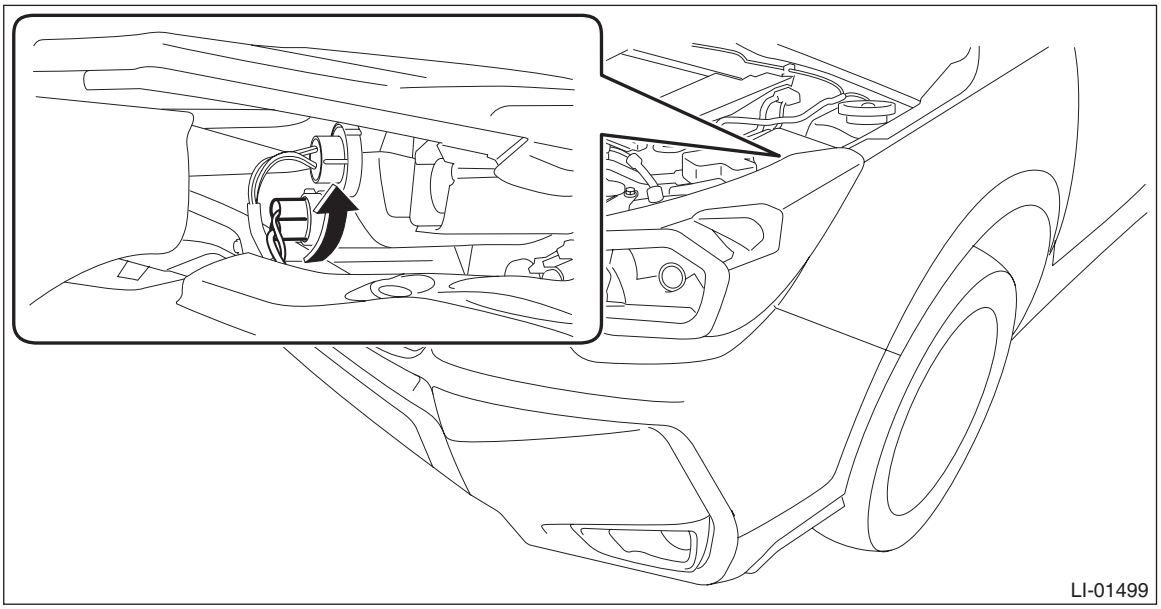


3) Install each part in the reverse order of removal.

20.Front Side Marker Light Bulb

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the bulb socket and front side marker light bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

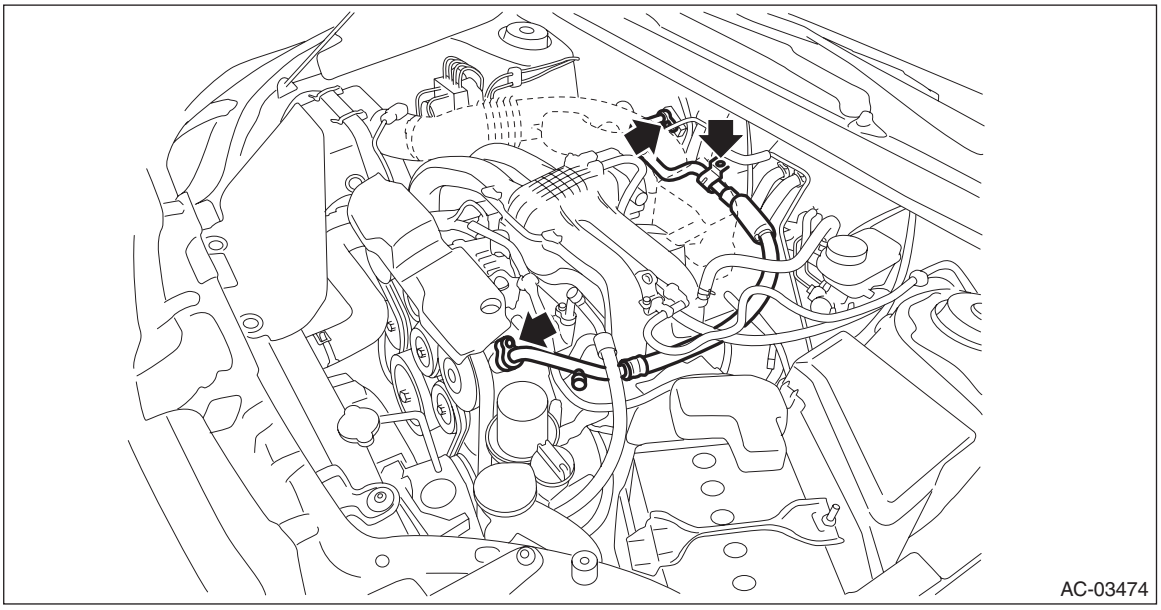
20.Hose and Pipe

A: REMOVAL

1. LOW-PRESSURE HOSE

1) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
2) Remove the air intake boot. (Non-turbo model)<Ref. to IN(H4DO)-11, REMOVAL, Air Intake Boot.>
3) Remove the intercooler. (Turbo model)<Ref. to IN(H4DOTC)-35, REMOVAL, Intercooler.>
4) Remove the bolts and remove the hose - pressure suction.

CAUTION:
- **Do not apply excessive force to the hose.**
- **Seal the disconnected hose, compressor and engaging part of expansion valve with a plug or vinyl tape to prevent foreign matter from entering.**

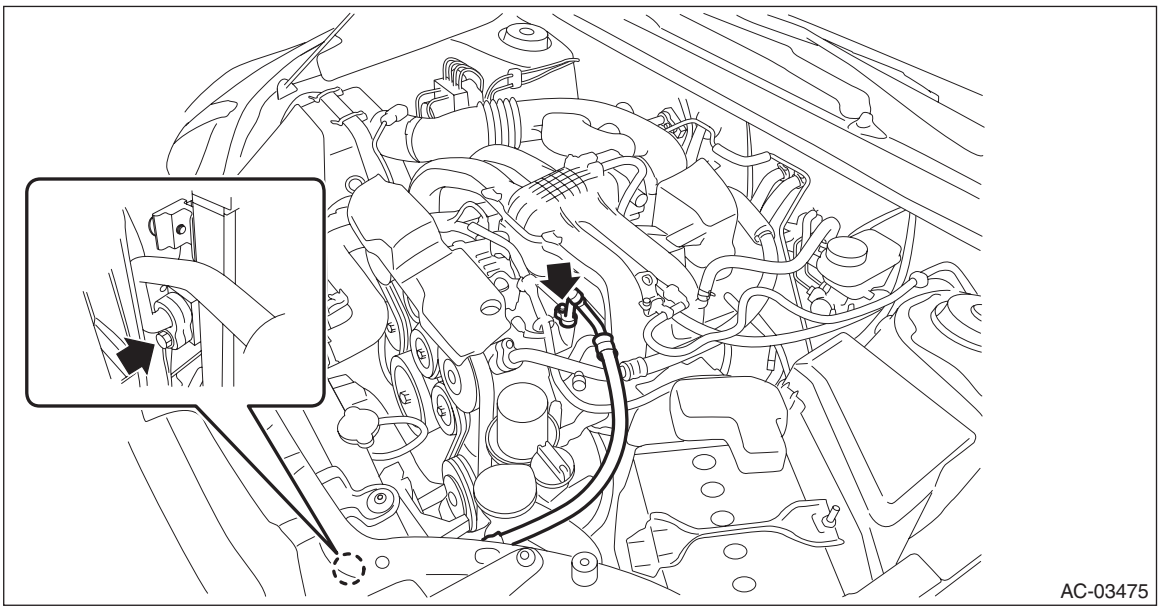


2. HIGH-PRESSURE HOSE

1) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
2) Remove the reservoir tank.
- Non-turbo model:<Ref. to CO(H4DO)-70, REMOVAL, Reservoir Tank.>
- Turbo model:<Ref. to CO(H4DOTC)-59, REMOVAL, Reservoir Tank.>

3) Remove the bolts and remove the hose - pressure discharge.

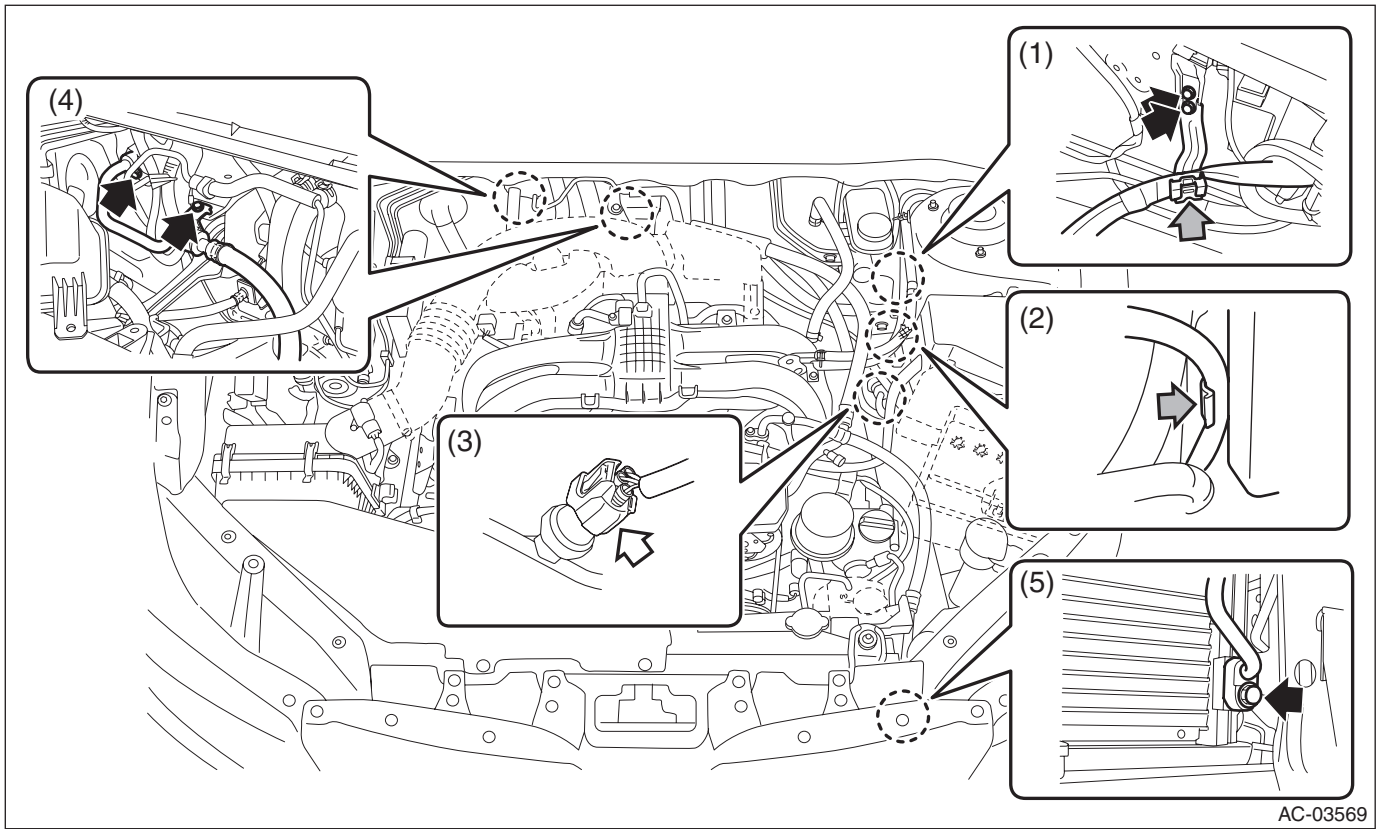
CAUTION:
- **Do not apply excessive force to the hose.**
- **Seal the disconnected hose, compressor and engaging part of compressor with a plug or vinyl tape to prevent foreign matter from entering.**



3. A/C PIPE

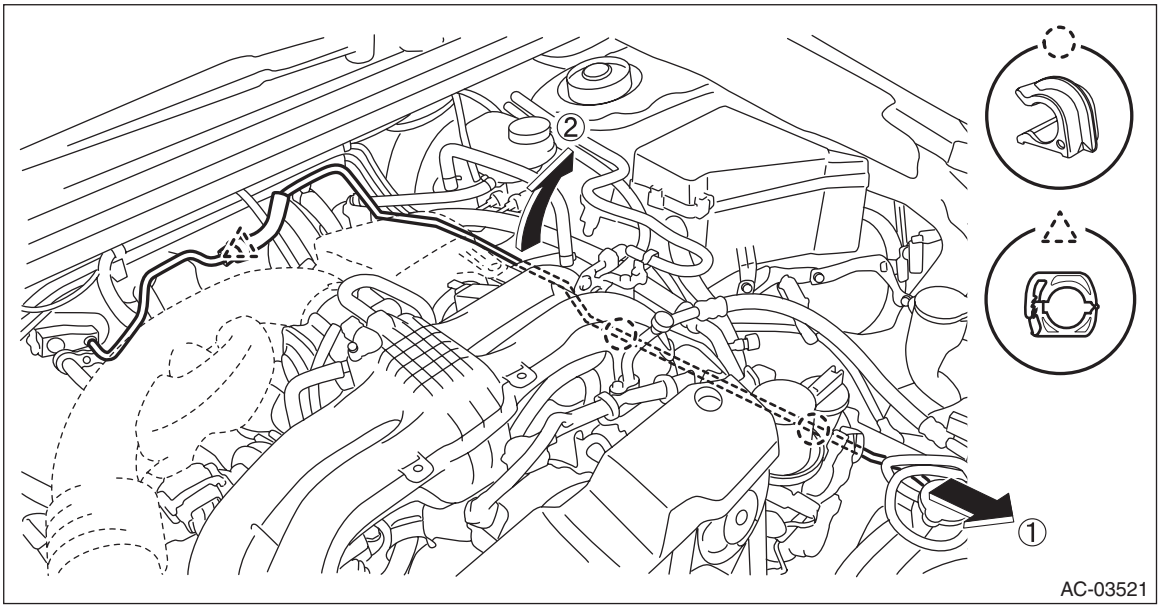
1) Using the refrigerant recovery system, discharge refrigerant.<Ref. to AC-28, PROCEDURE, Refrigerant Recovery Procedure.>
2) Remove the battery.<Ref. to SC(H4DO)-63, REMOVAL, Battery.>
3) Remove the reservoir tank.
- Non-turbo model:<Ref. to CO(H4DO)-70, REMOVAL, Reservoir Tank.>
- Turbo model:<Ref. to CO(H4DOTC)-59, REMOVAL, Reservoir Tank.>

4) Remove the air intake boot. (Non-turbo model)<Ref. to IN(H4DO)-11, REMOVAL, Air Intake Boot.>
5) Remove the intercooler. (Turbo model)<Ref. to IN(H4DOTC)-35, REMOVAL, Intercooler.>
6) Remove the pipe - evaporator cooling.
   (1) Remove the cable clamps and bolts, and remove the battery cable stay.
   (2) Disconnect the battery sensor harness from the main fuse box.
   (3) Disconnect the pressure switch connector.
   (4) Remove the bolts, and detach the hose - pressure suction from the expansion valve - cooling.
   (5) Remove the bolts, and detach the pipe - evaporator cooling from the condenser assembly - air conditioner.



(6) Remove the pipe - evaporator cooling from the clip - pipe, clip and expansion valve, and remove the pipe - evaporator cooling in numerical order as shown in the figure.

CAUTION:
- **Do not apply excessive force to the pipe and hose.**
- **Seal the engaging parts of disconnected pipe, hose, expansion valve and condenser with a plug or vinyl tape to prevent foreign matter from entering.**
- **Do not pull the harness and cable forcibly.**



B: INSTALLATION

CAUTION:
- **If the hose and pipe have been replaced, add an appropriate amount of compressor oil to the compressor.<Ref. to AC-36, ADJUSTMENT, Compressor Oil.>**
- **Replace the O-rings with new parts, and then apply compressor oil.**
- **When connecting hoses and pipes, do not apply excessive force. After installing, check that no torsion or excessive tension applied to the hoses.**

1) Install each part in the reverse order of removal.

Tightening torque:
Air conditioning unit:<Ref. to AC-12, AIR CONDITIONING UNIT, COMPONENT, General Description.>
Battery cable stay: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
Engine harness bracket: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

2) Charge refrigerant.<Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

C: INSPECTION

1) Check the hoses for cracks, damage and expansion. Replace the hose if faulty.
2) Check the pipes for crack or damage. Replace the pipe if faulty.

20.Instrument Panel Assembly

A: REMOVAL

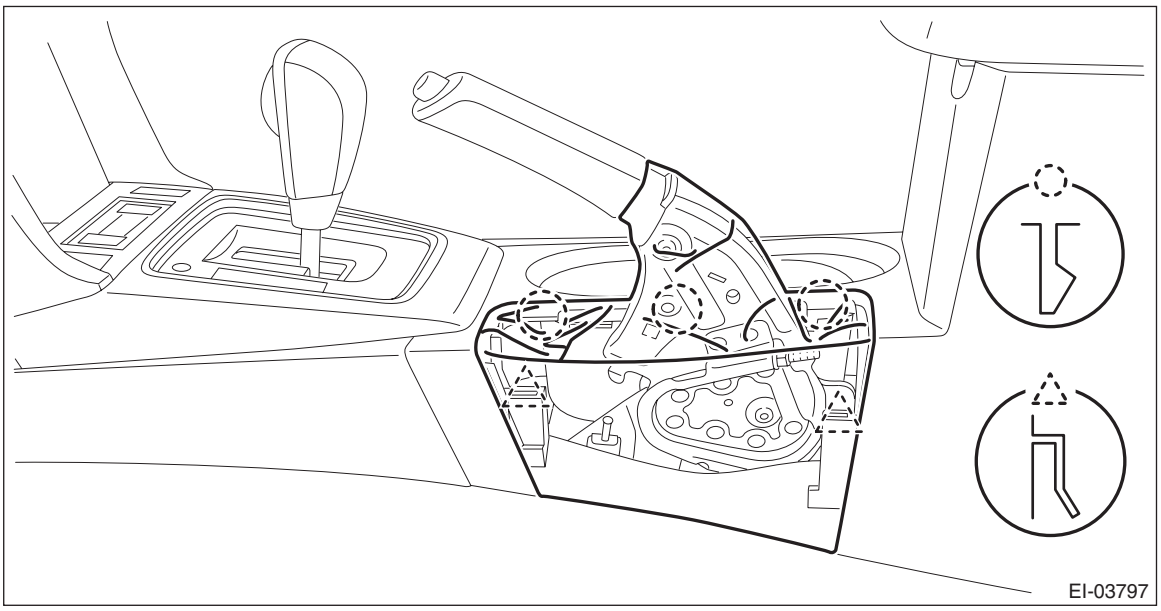
CAUTION:
Be careful not to damage the airbag system harness when servicing the instrument panel. Damage may cause the system to malfunction.

NOTE:
- Remove the instrument panel assembly and the beam COMPL - steering as a unit.
- For models with power amplifier, remove the front seat assembly LH and turn over the floor mat before disconnecting the power amplifier harness.

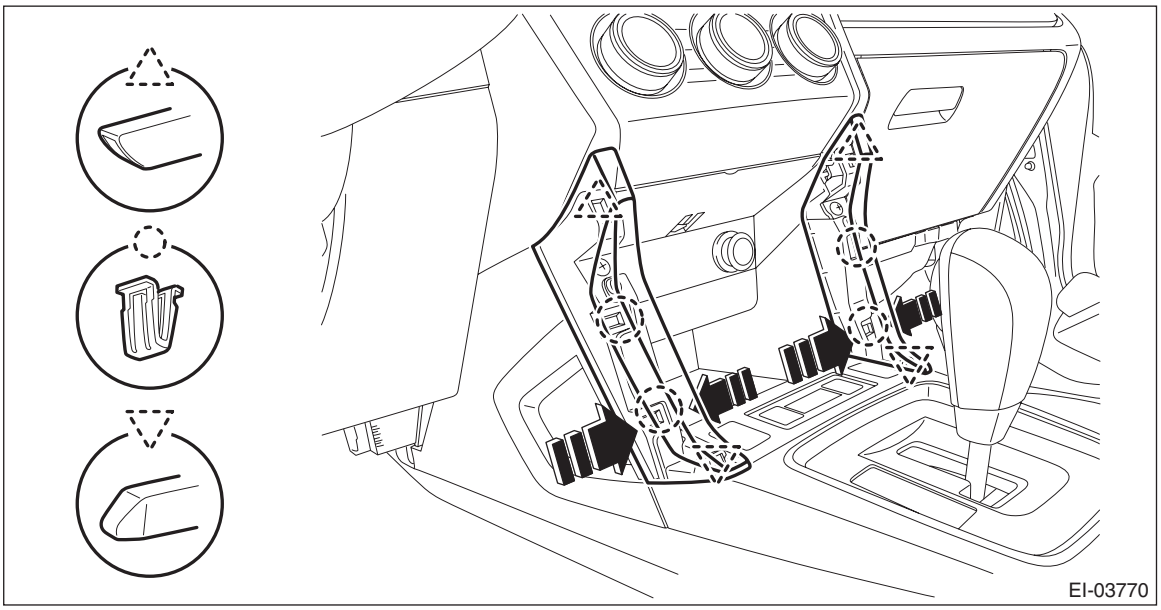
1) Disconnect the ground cable from battery.

NOTE:
On CVT models, shift the select lever into “N” before disconnecting the battery ground cable.

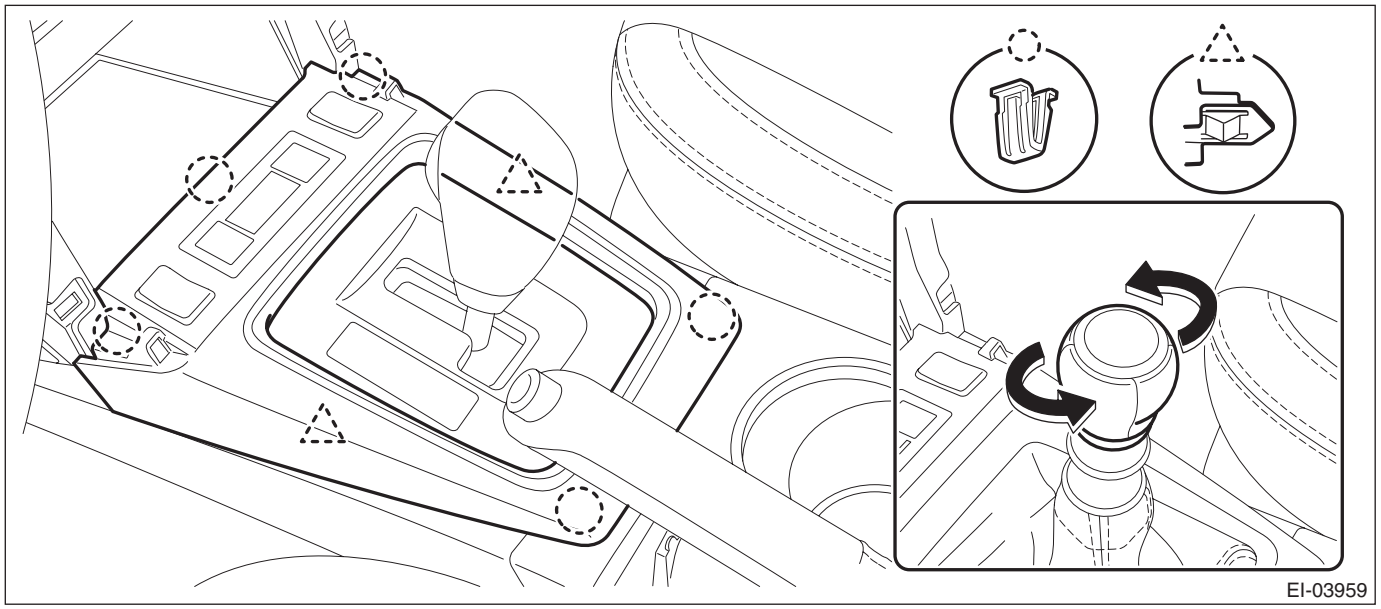
2) Remove the console box assembly.<Ref. to EI-65, REMOVAL, Console Box.>
3) Release the claws, and then remove the boot - hand brake.



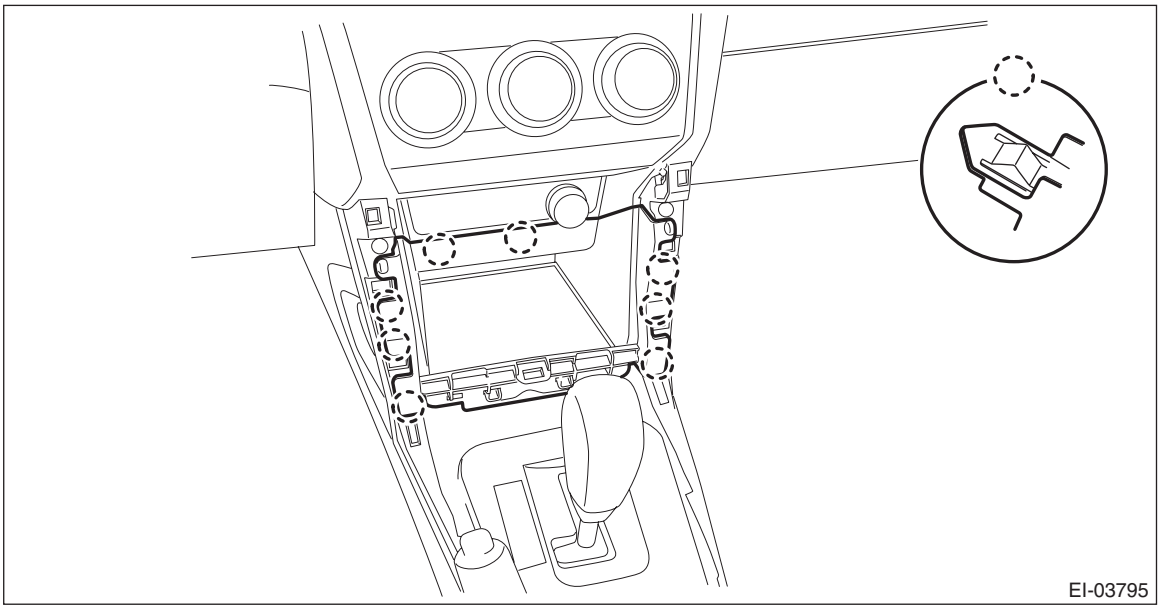
4) Release the clips, and remove the ornament panel - console.



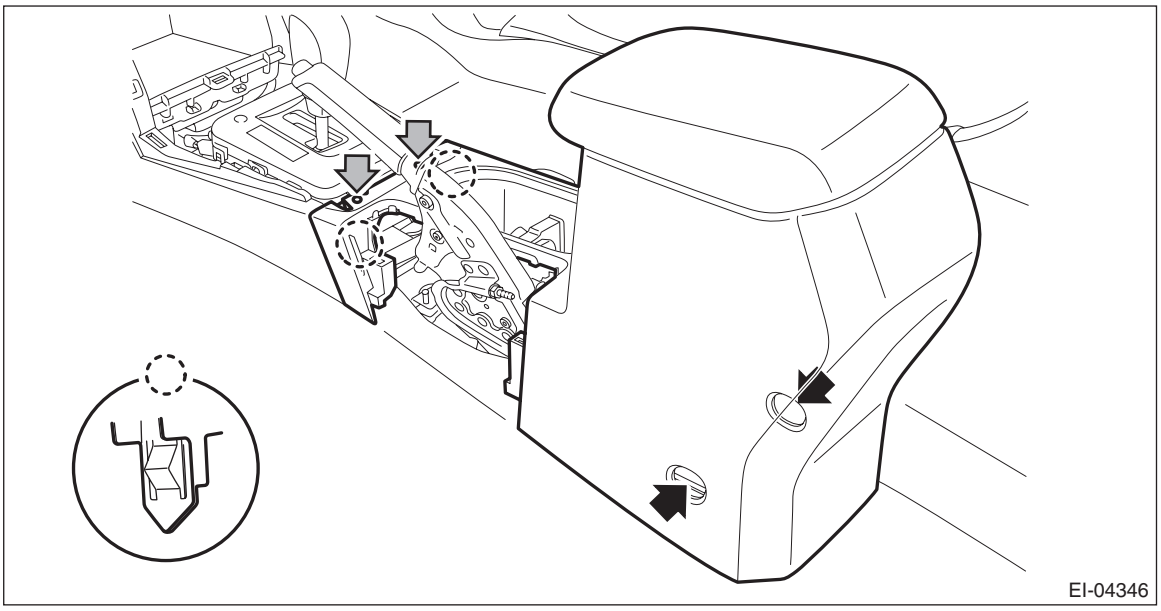
NOTE:
Removal is easier if you grab the arrow sections from right and left and pull them at the same time.
5) Remove the cover - shift lever.
(1) Remove the shift knob. (MT model)
(2) Release the clips and claws, then pull up the cover - shift lever.


EI-03959

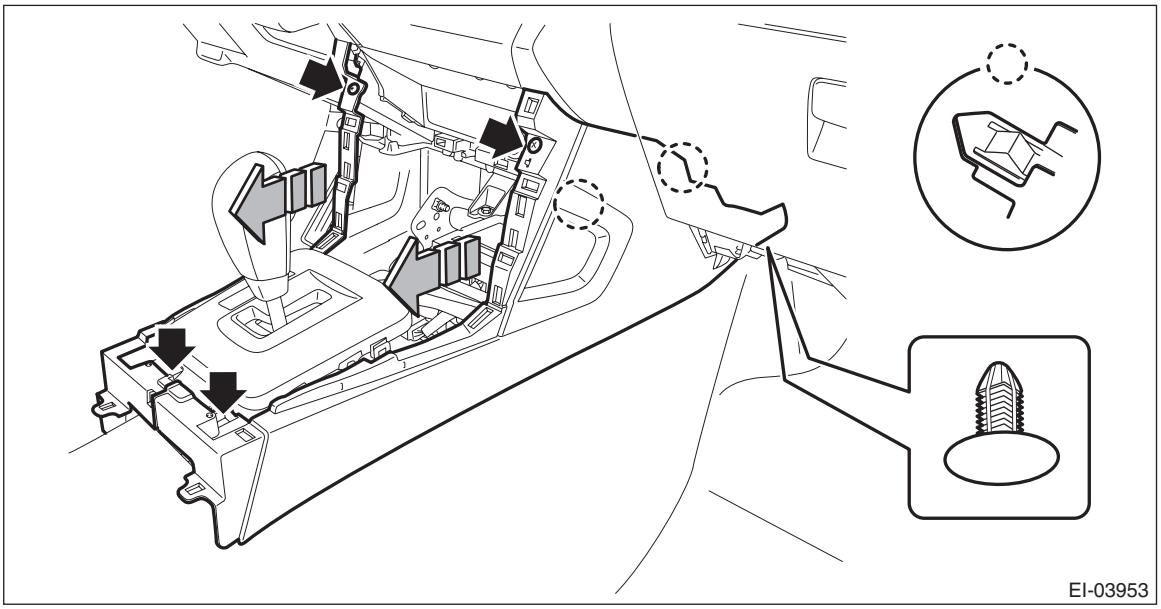
6) Release the claws, and remove the tray assembly - CTR LWR.


EI-03795

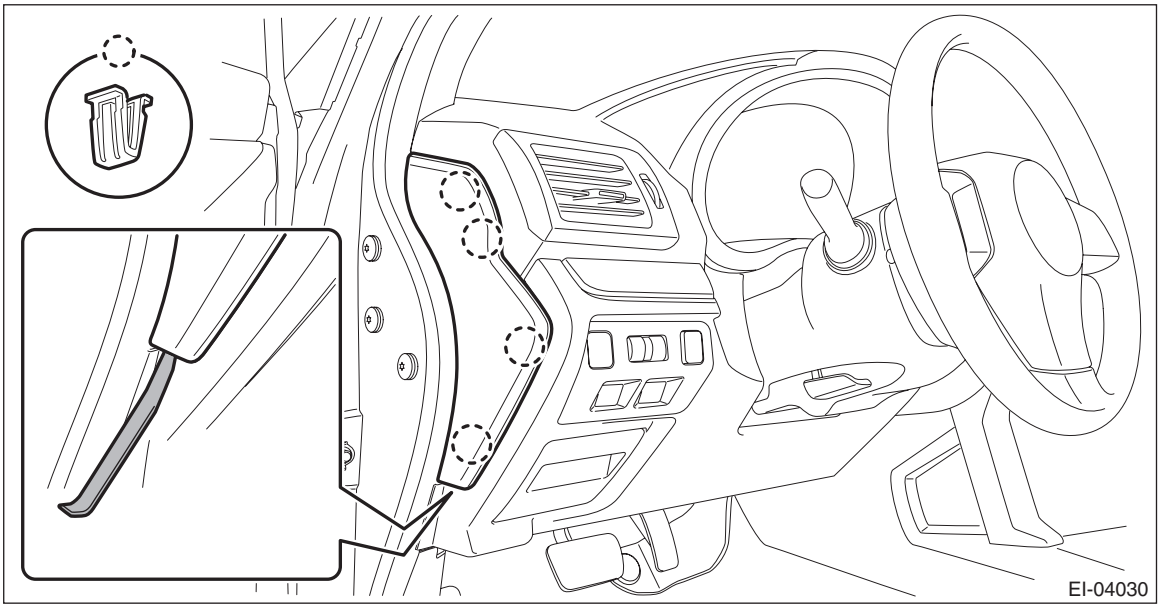
7) Remove the console box assembly.
(1) Move the seat forward, and remove the bolts after detaching the left and right caps.
(2) Remove the screws and release the claws, then disconnect the harness connector and remove the console box assembly.



8) Remove the left and right panel center LWR.
(1) Remove the screws and clips.
(2) Release the claws, and then pull the panel center LWR to remove.

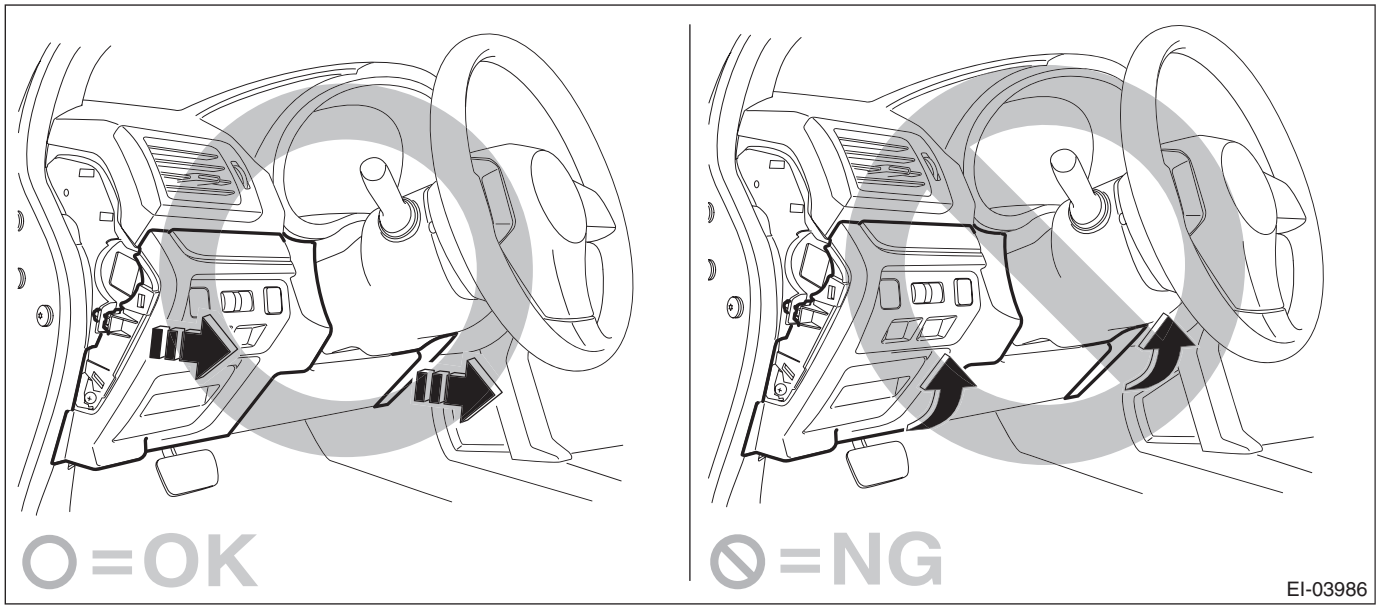


9) Remove the clips, and remove the cover - instrument panel side LH.



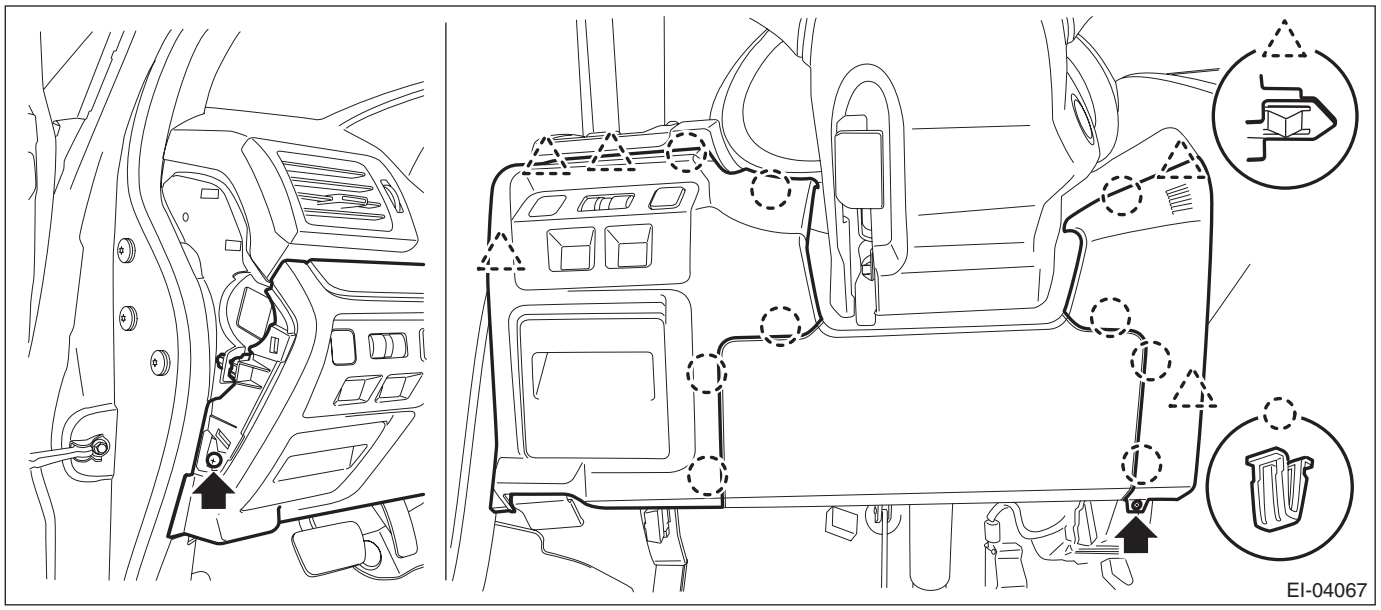
NOTE:
Using a plastic remover, open the cover - instrument panel side LH.
10) Remove the cover assembly - instrument panel LWR driver INN and OUT.

CAUTION:
When removing the cover assembly - instrument panel LWR driver, be sure to pull it toward you. If attempting to remove by turning it upward, the claws may be damaged.

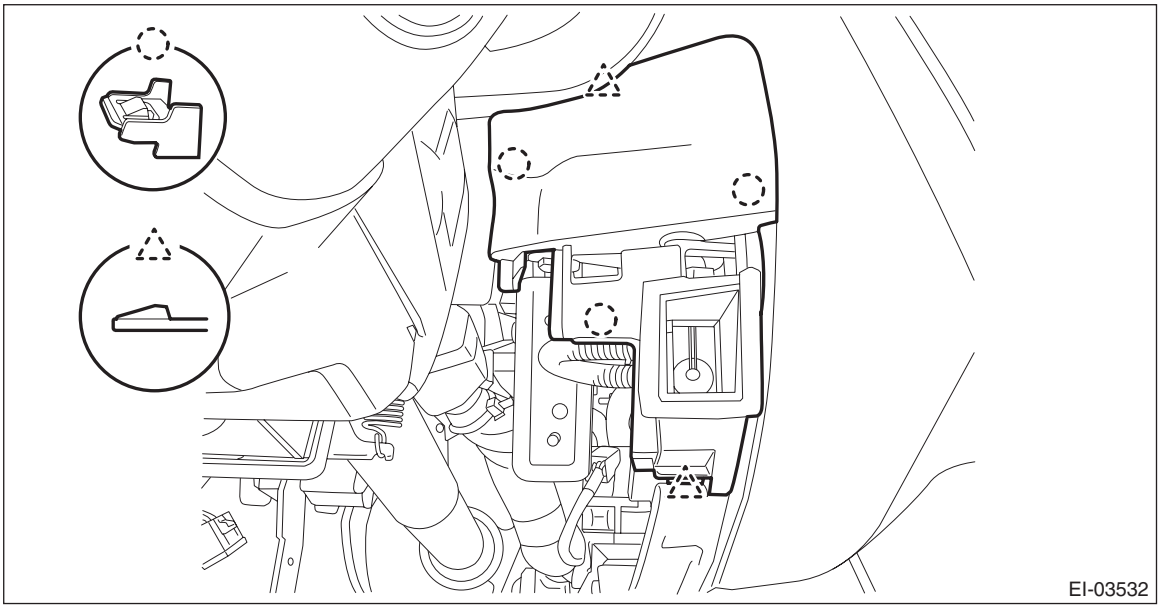


(1) Remove the screws and release the clips and claws.

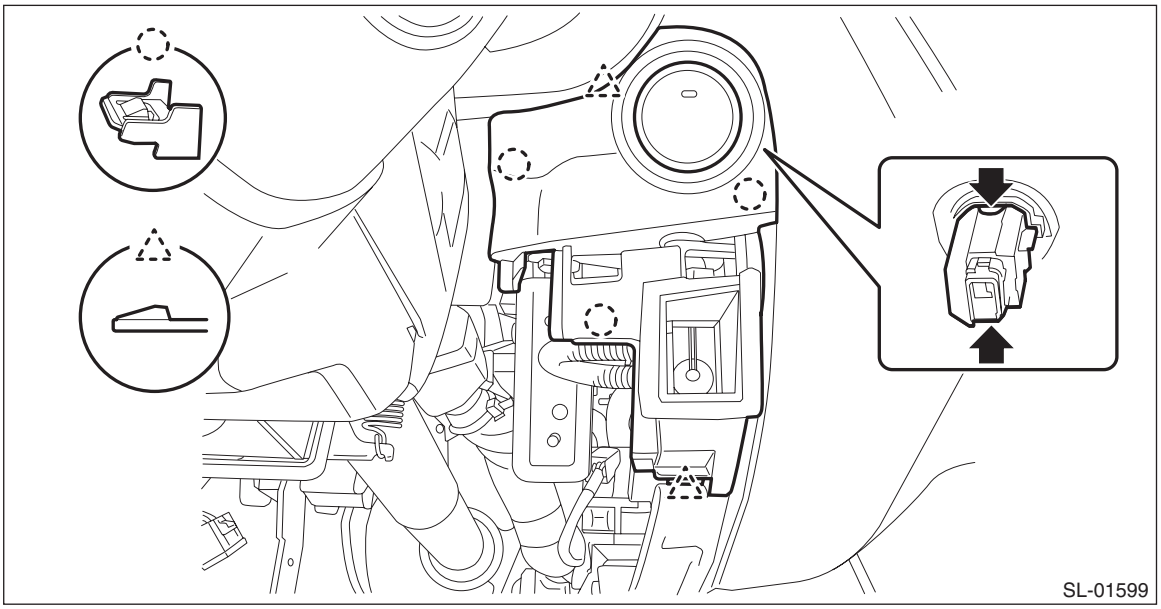
(2) Disconnect the harness connectors, and remove the cover assembly - instrument panel LWR driver INN and OUT.



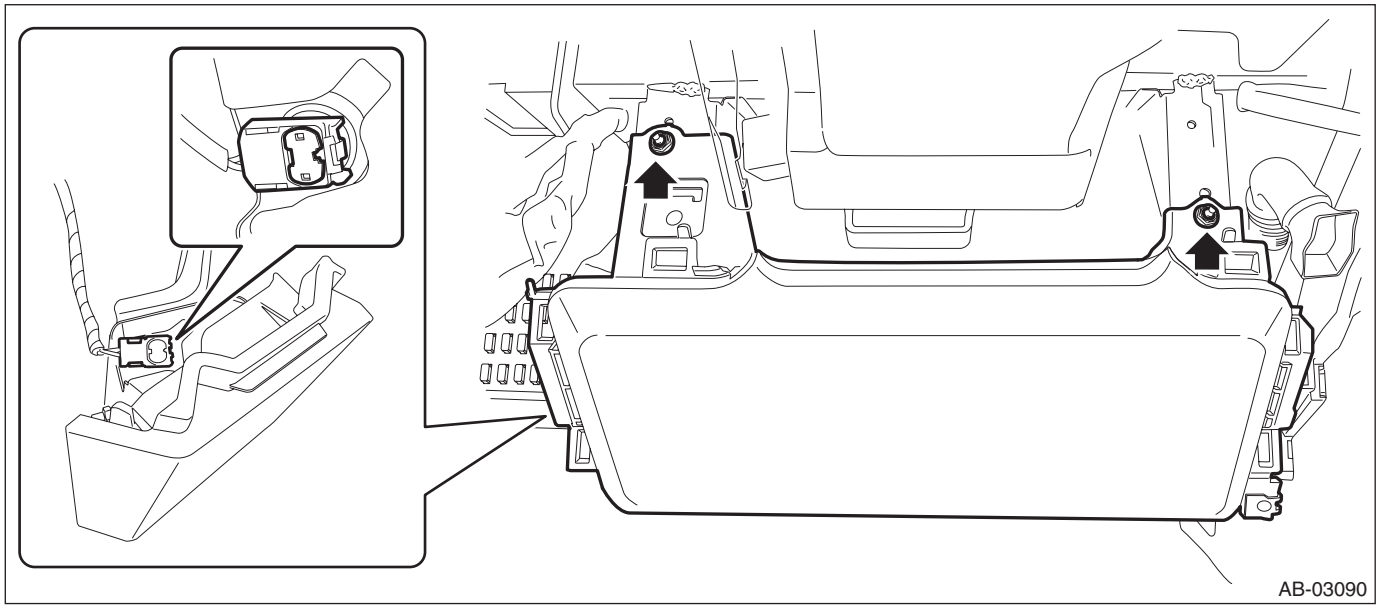
11) Remove the cover switch - starter. (Model without keyless access)
(1) Release the claws and remove the cover switch - starter.
(2) Disconnect the connector and aspirator hose.



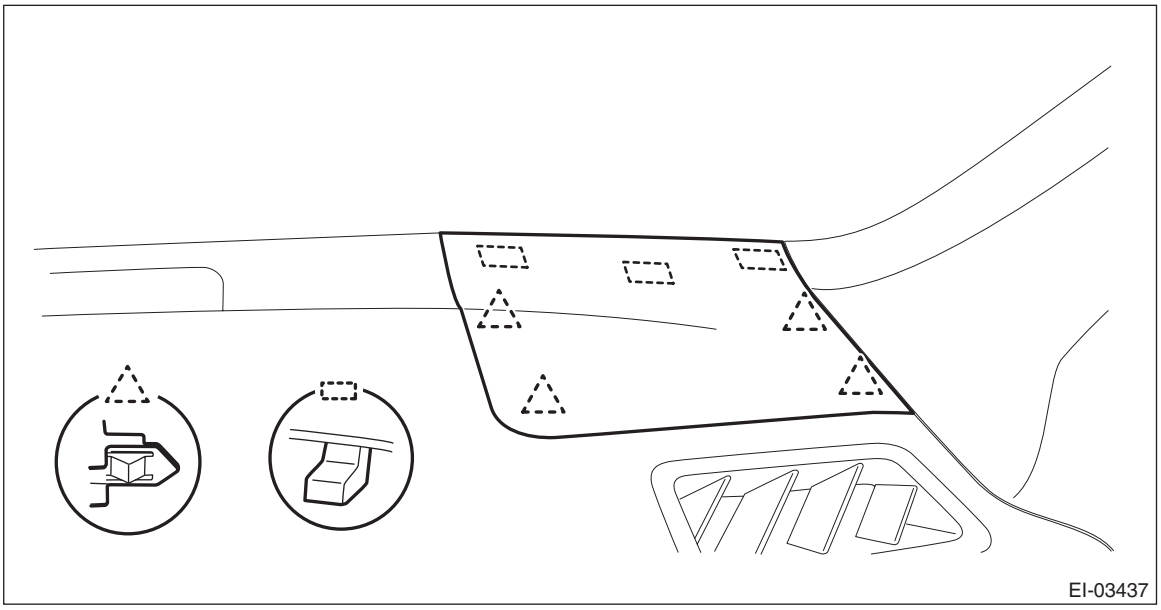
12) Remove the panel - switch. (Model with keyless access)
(1) Release the claws of the push button ignition switch, and disconnect the connector.
(2) Release the claws, and then remove the panel - switch.
(3) Disconnect the connector and aspirator hose.



13) Remove the nuts to remove the knee airbag module and disconnect the harness connector. (Model with knee airbag)<Ref. to AB-22, DRIVER'S AIRBAG MODULE, KNEE AIRBAG MODULE, CURTAIN AIRBAG MODULE AND PRETENSIONER, PROCEDURE, Airbag Connector.>



14) Release the clips and claws, then detach the left and right grille speaker side.

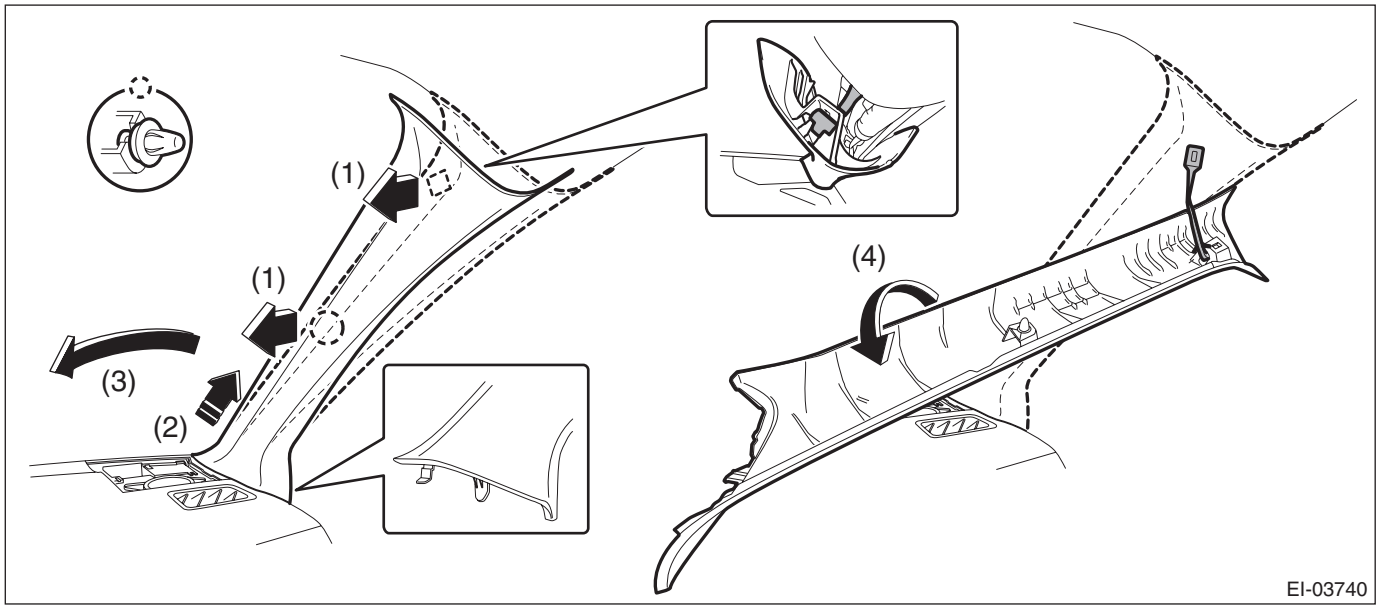


NOTE:
Remove the grille speaker side by using a plastic remover.
15) Remove the trim panel - front pillar UPR on the left and right sides.

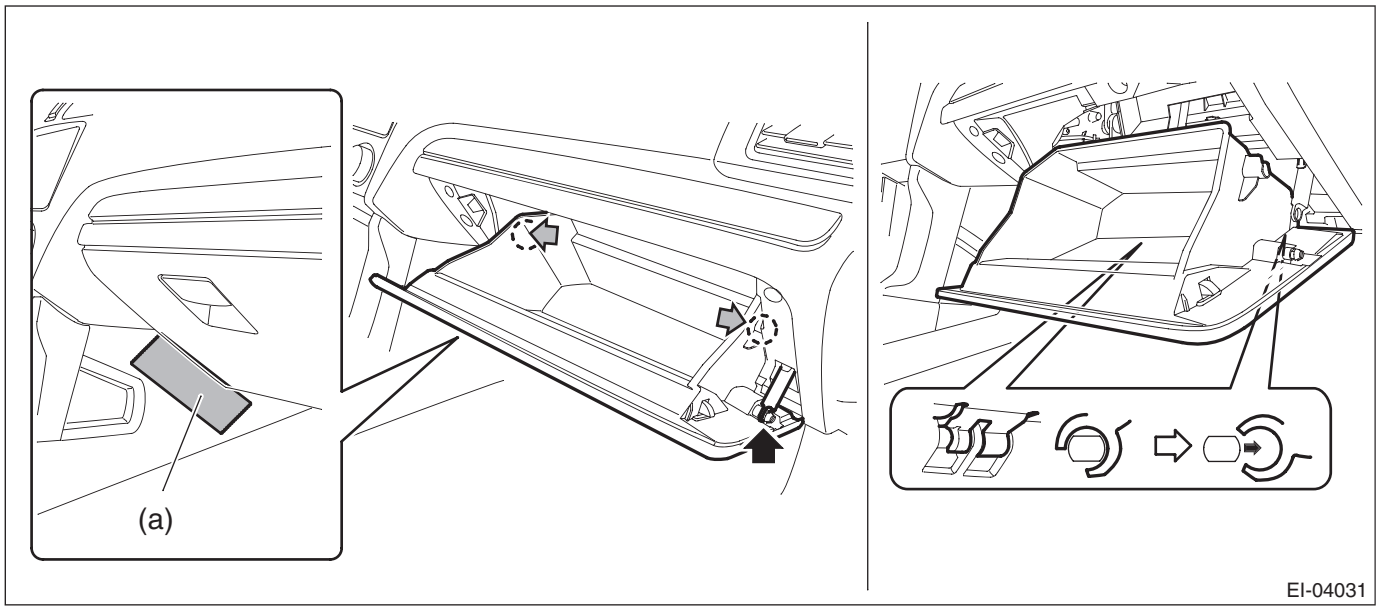
CAUTION:
Be careful not to damage the trim panel surface and curtain airbag module.

(1) Pull the trim panel - front pillar UPR towards the center of the vehicle to release the clips.
(2) Pull out the end portion of the trim panel - front pillar UPR.
(3) Pull out the trim panel - front pillar UPR towards the center of the vehicle.
(4) Rotate the trim panel - front pillar UPR, release the tether clips, and remove the trim panel - front pillar UPR.

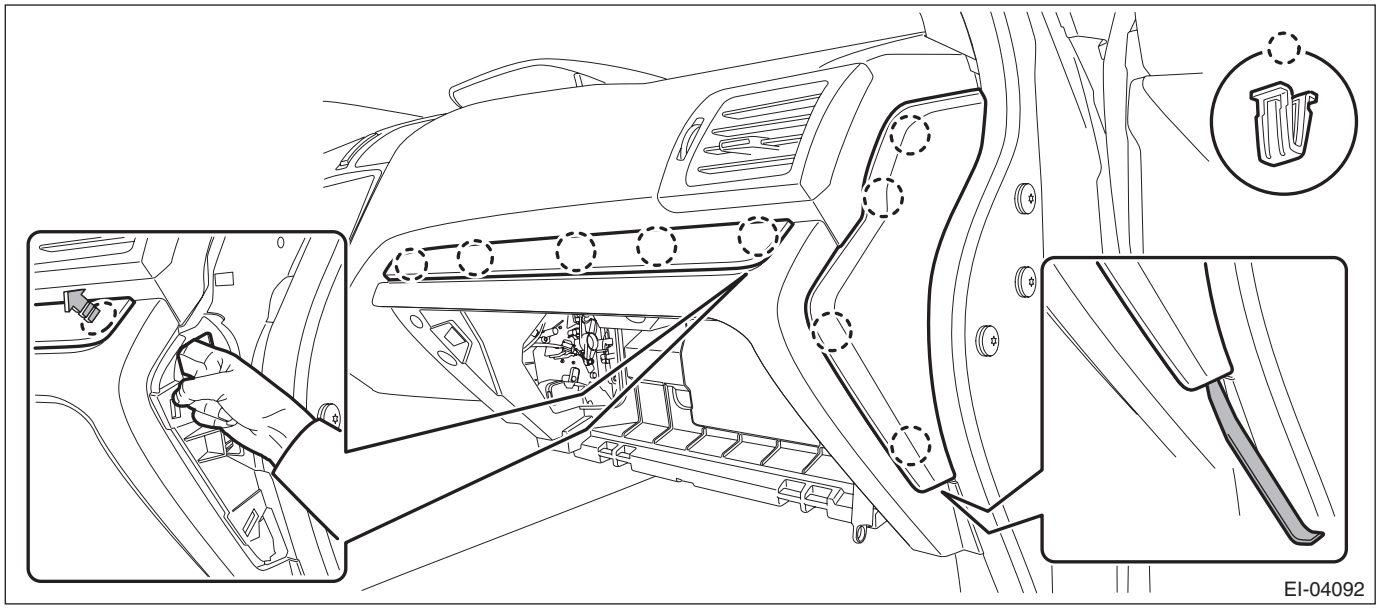
CAUTION:
Do not use tools when releasing the tether clip. If the tether clip is damaged, replace it with a new tether clip.



16) Remove the pocket assembly.
(1) Attach the protective tape (a) to the panel center LWR.
(2) Remove the damper complete - pocket.
(3) Release the stoppers and remove the pocket assembly by pulling it toward you.

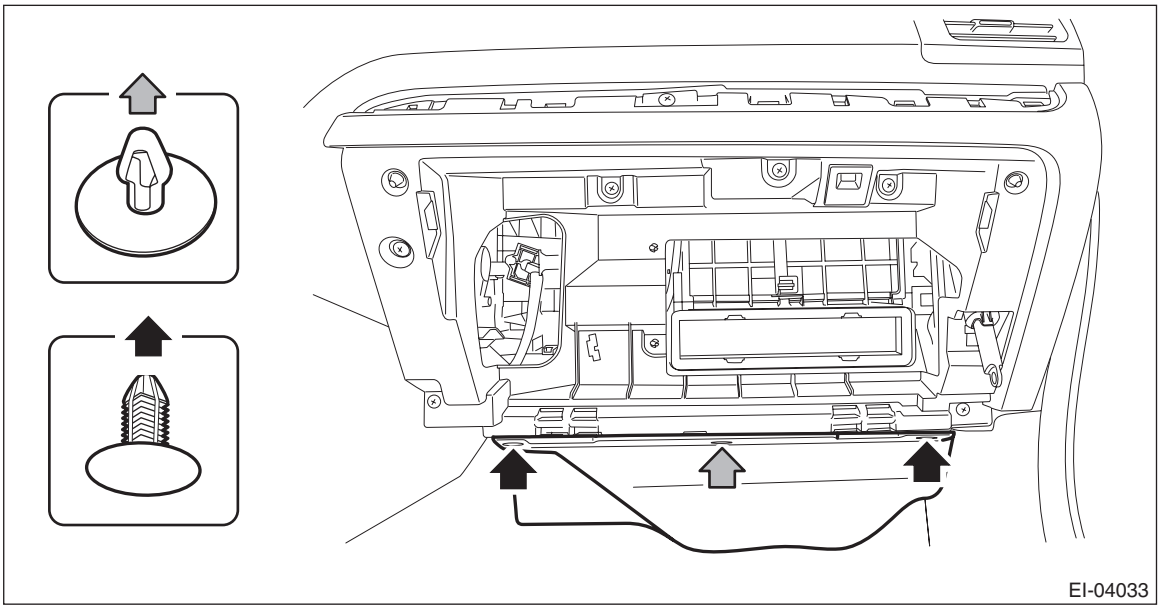


17) Remove the back panel - pocket.
(1) Release the clips, and remove the ornament - panel assembly passenger.



NOTE:
To facilitate the removal, push the clip of the ornament - panel assembly passenger from the backside.

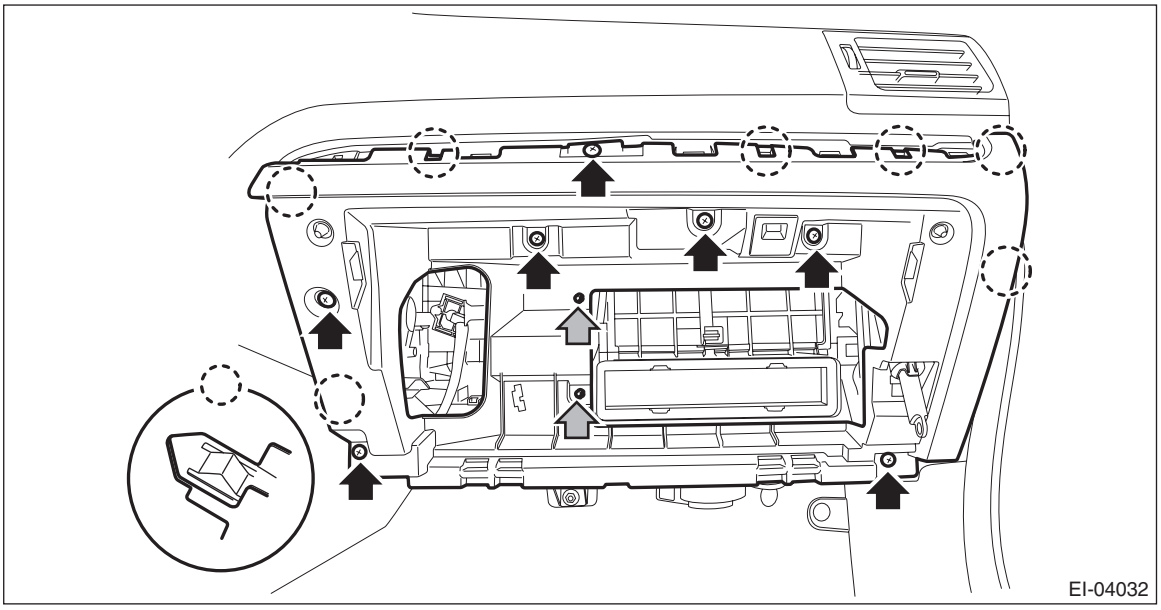
(2) Release the clips, and remove the glove box under cover.



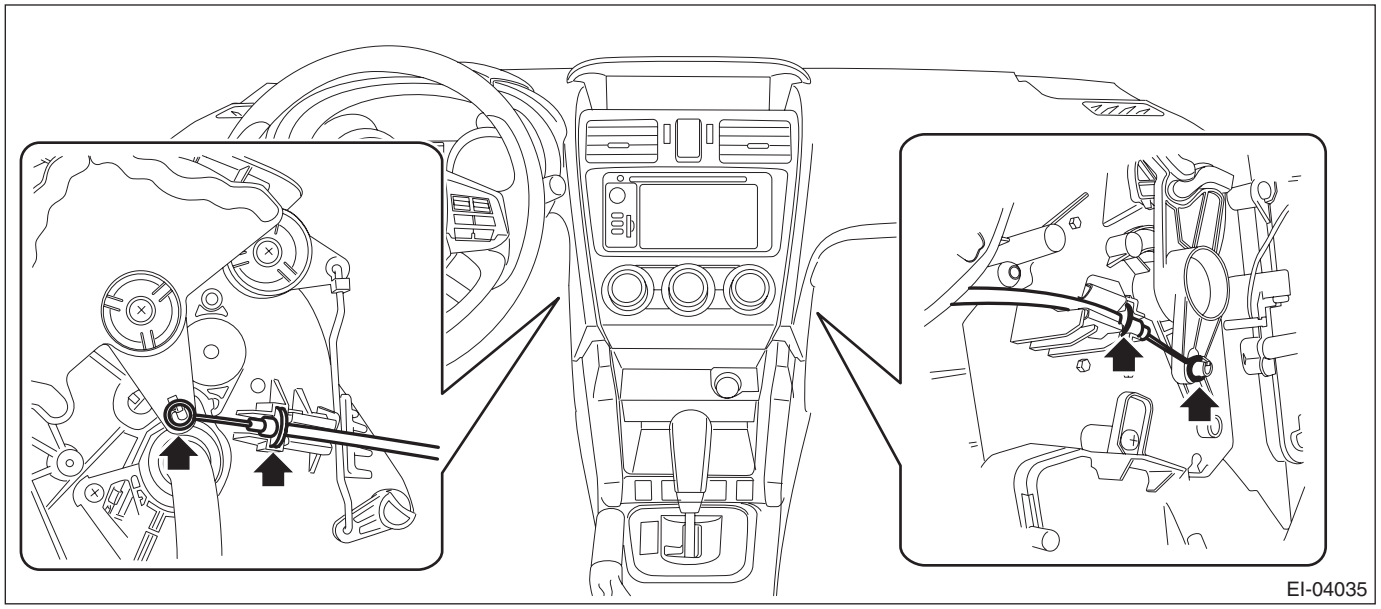
(3) Remove the clips, and remove the cover - instrument panel side RH.

NOTE:
Remove the cover - instrument panel side RH by using a plastic remover.

(4) Remove the screws, claws and harness clamp, then remove the back panel - pocket.



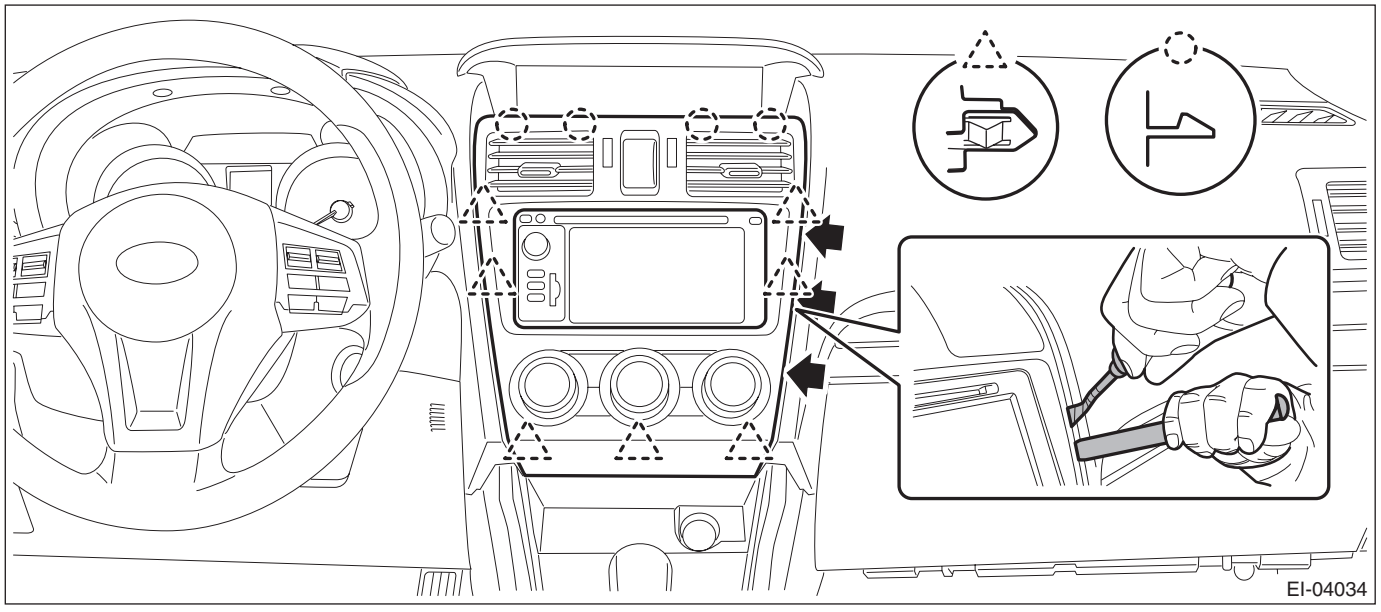
18) On manual A/C models, disconnect the control cables from both sides of the heater & cooling unit.



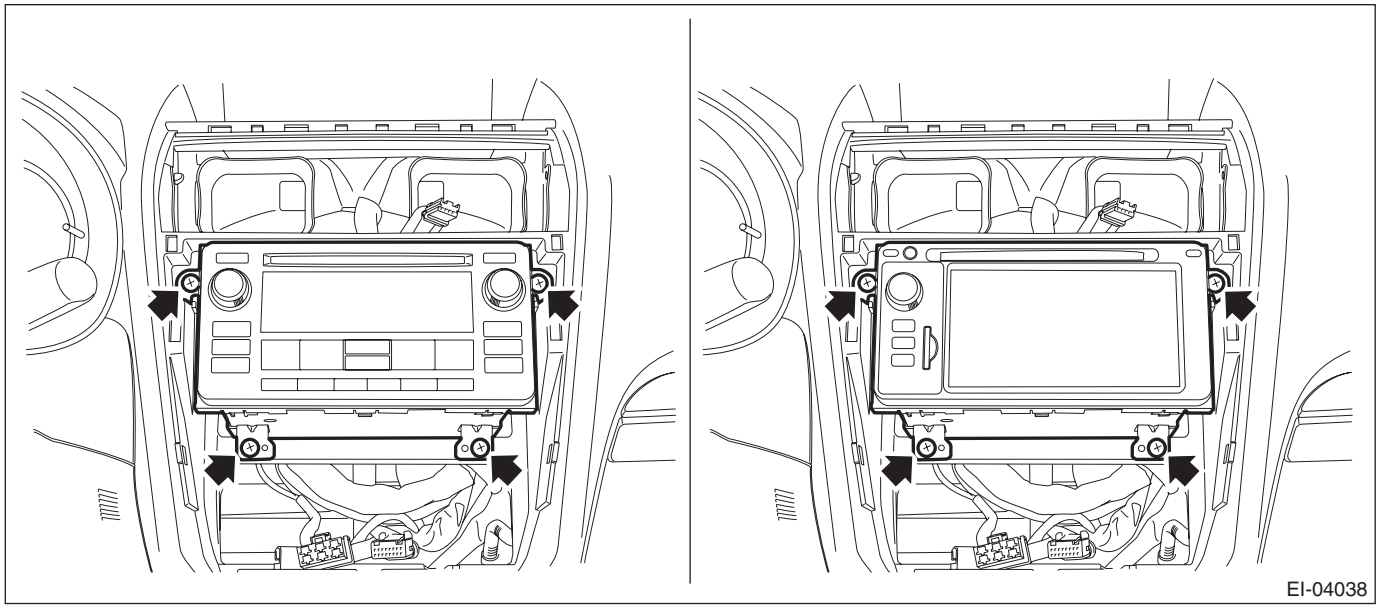
19) Remove the panel center assembly.

CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector on the back.**

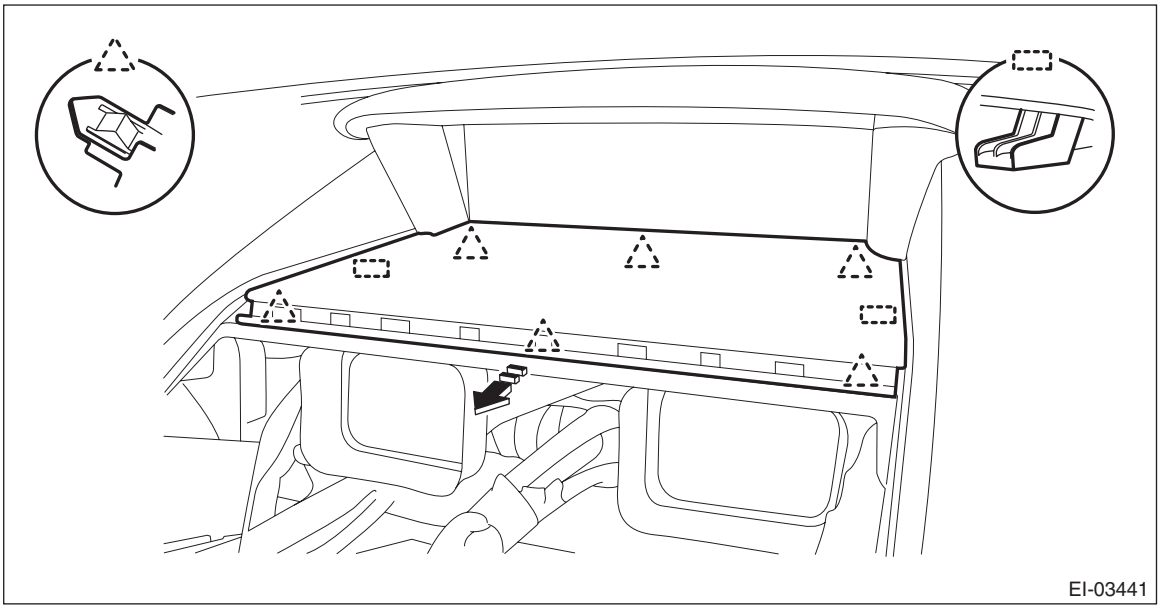
(1) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(2) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(3) Release the rest of the claws, and pull out the panel center assembly.
(4) Disconnect the connectors, and remove the panel center assembly.



20) Remove the audio assembly or navigation assembly.
(1) Remove the screws, and partially pull out the audio assembly or navigation assembly.
(2) Disconnect the connectors, and remove the audio assembly or navigation assembly.



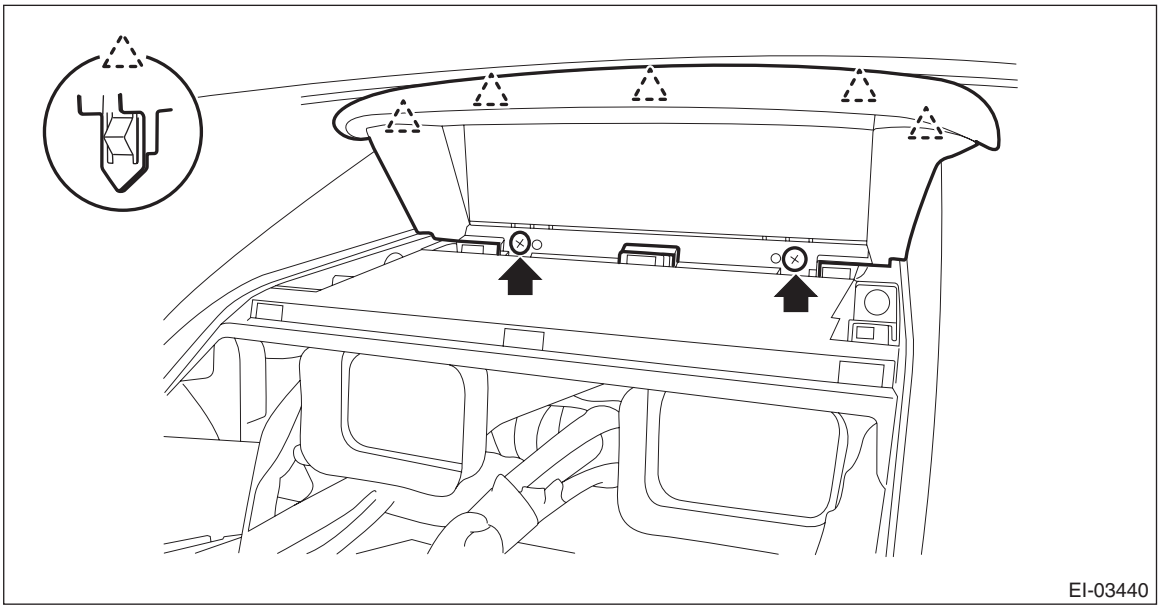
21) Remove the multi-function display assembly.
(1) Disconnect the claws and then remove the cover center UPR.



NOTE:
Lightly push up the back of the cover center UPR, hook the finger to the end portion and pull it toward you to remove it.
(2) Release the claws and then remove the panel - display UPR and the panel - display LWR.

NOTE:
Remove the panel - display UPR & panel - display LWR and the multi-function display assembly as a unit.

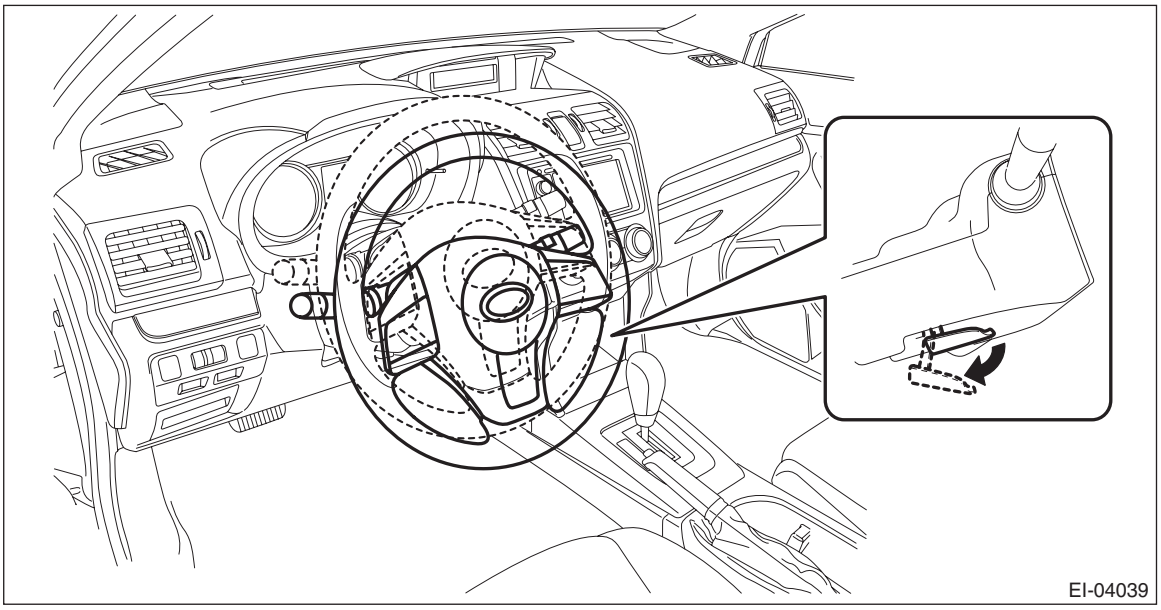
(3) Disconnect the connector and remove the multi-function display assembly.



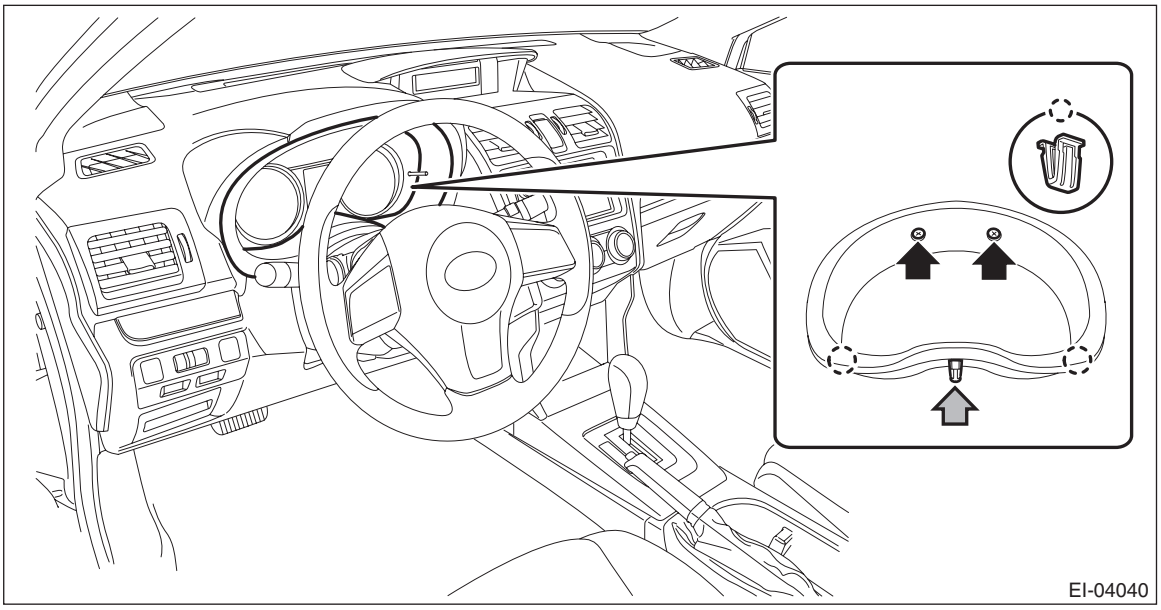
22) Remove the combination meter assembly.

CAUTION:
- **Be careful not to damage the meter or instrument panel.**
- **Pay particular attention to avoid damaging the meter glass.**

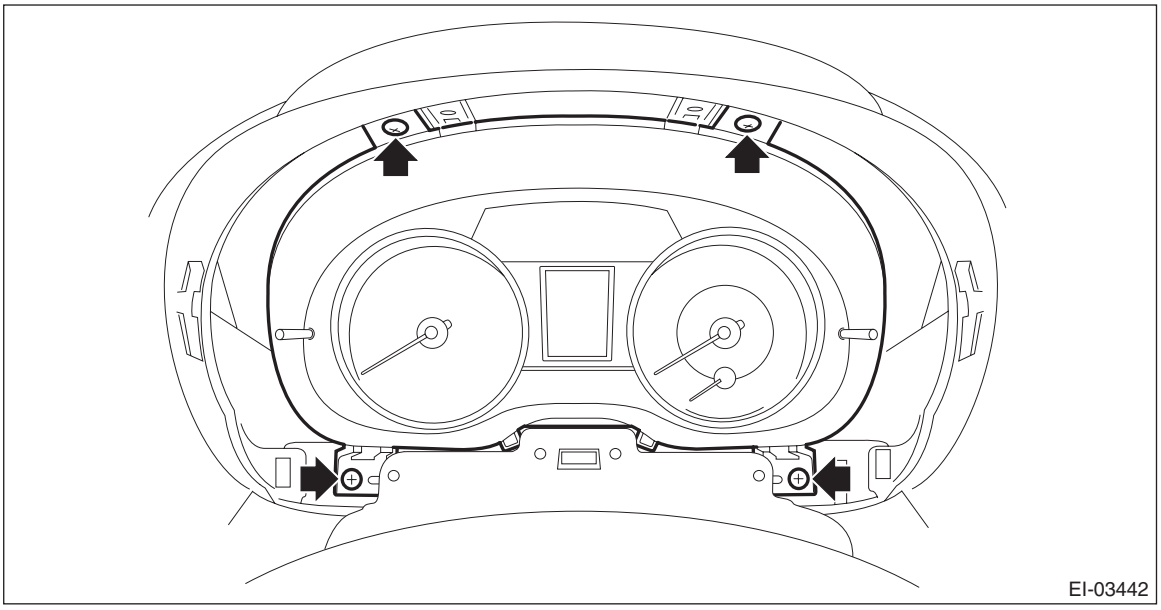
(1) Release the lock, tilt the steering column to the lowest end and fully extend the column by the telescopic system.



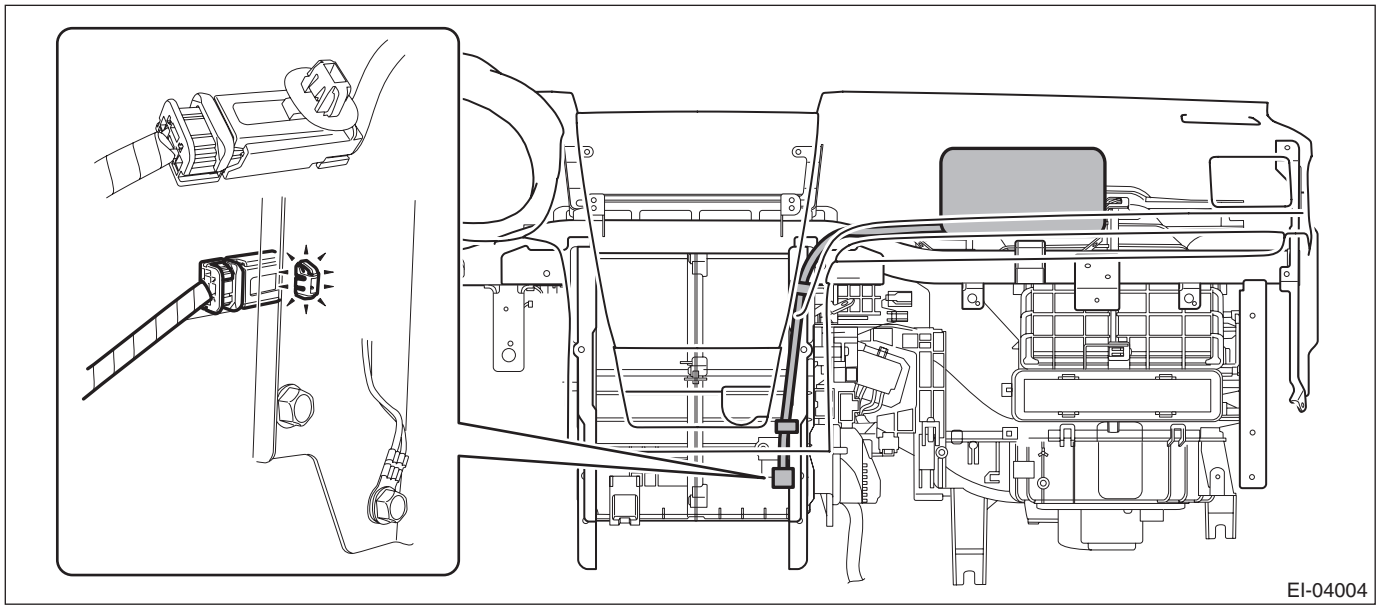
(2) Release the screws and clips, then detach the visor - combination meter.



(3) Remove the screws, disconnect the connector and remove the combination meter assembly.

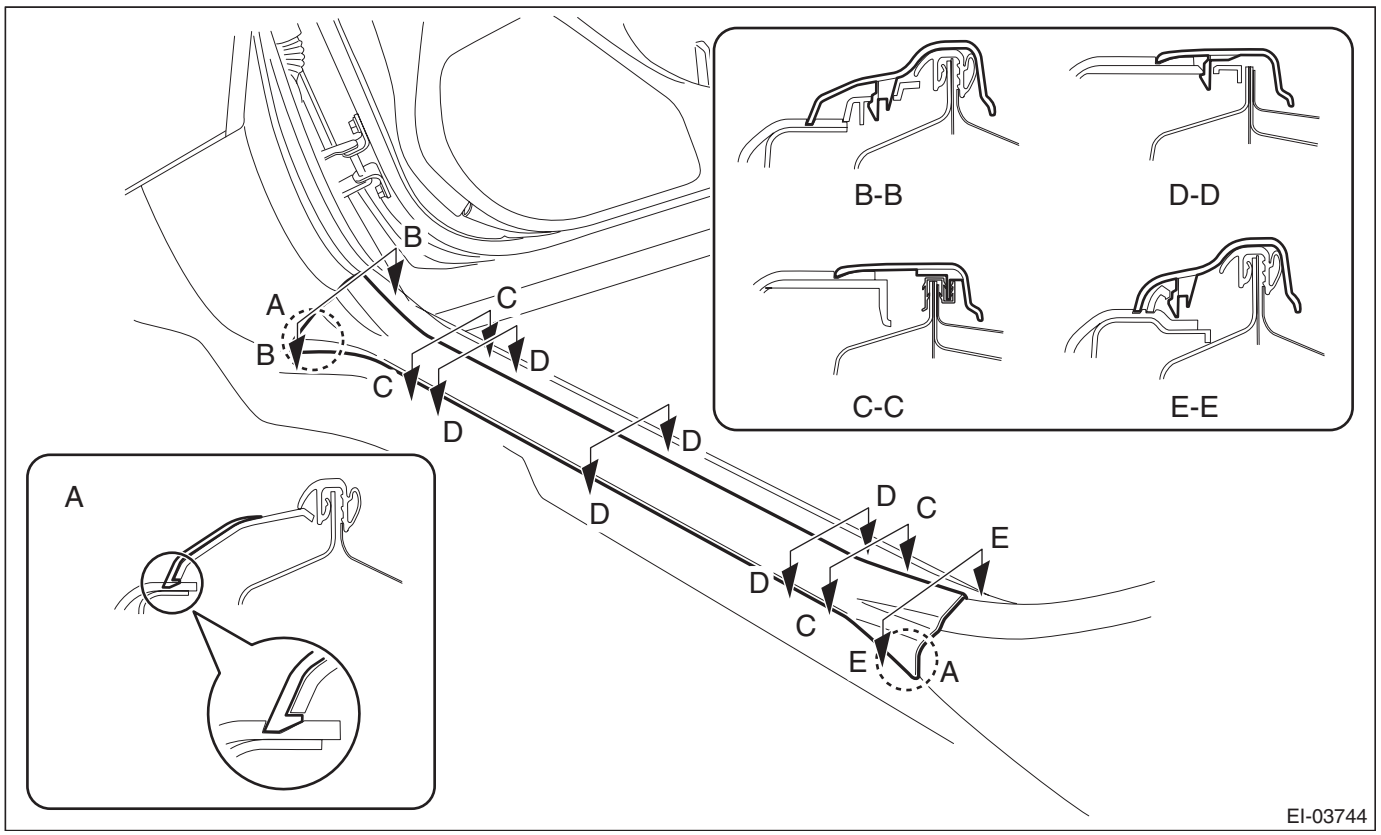


23) Disconnect the passenger's airbag module connector.<Ref. to AB-21, PASSENGER'S AIRBAG MODULE, PROCEDURE, Airbag Connector.>

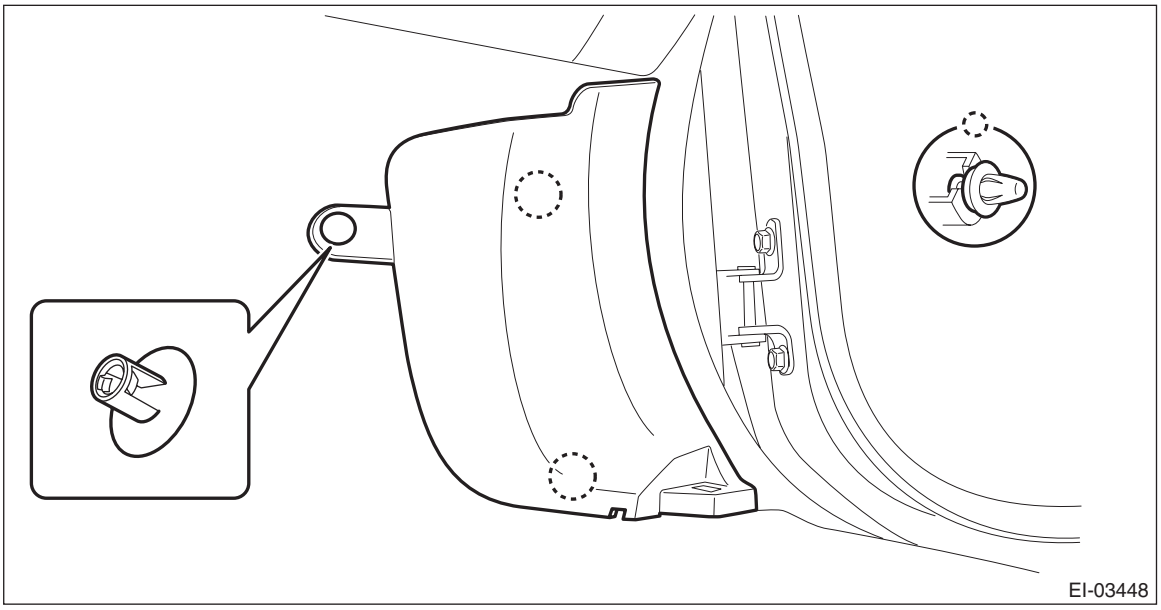


24) Remove the column assembly - steering.<Ref. to PS-18, REMOVAL, Steering Column.>
25) Release the claws, and then remove the cover side sill - front INN on LH and RH sides.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



26) Remove the clip, and remove the cover side sill - front on LH and RH sides.



27) For models with power amplifier, disconnect the power amplifier harness.
    (1) Remove the front seat assembly LH.
    (2) Disconnect the power amplifier harness.
    (3) Turn over the floor mat, and pull out the power amplifier harness.
28) Remove the body side weather strip - flange front.

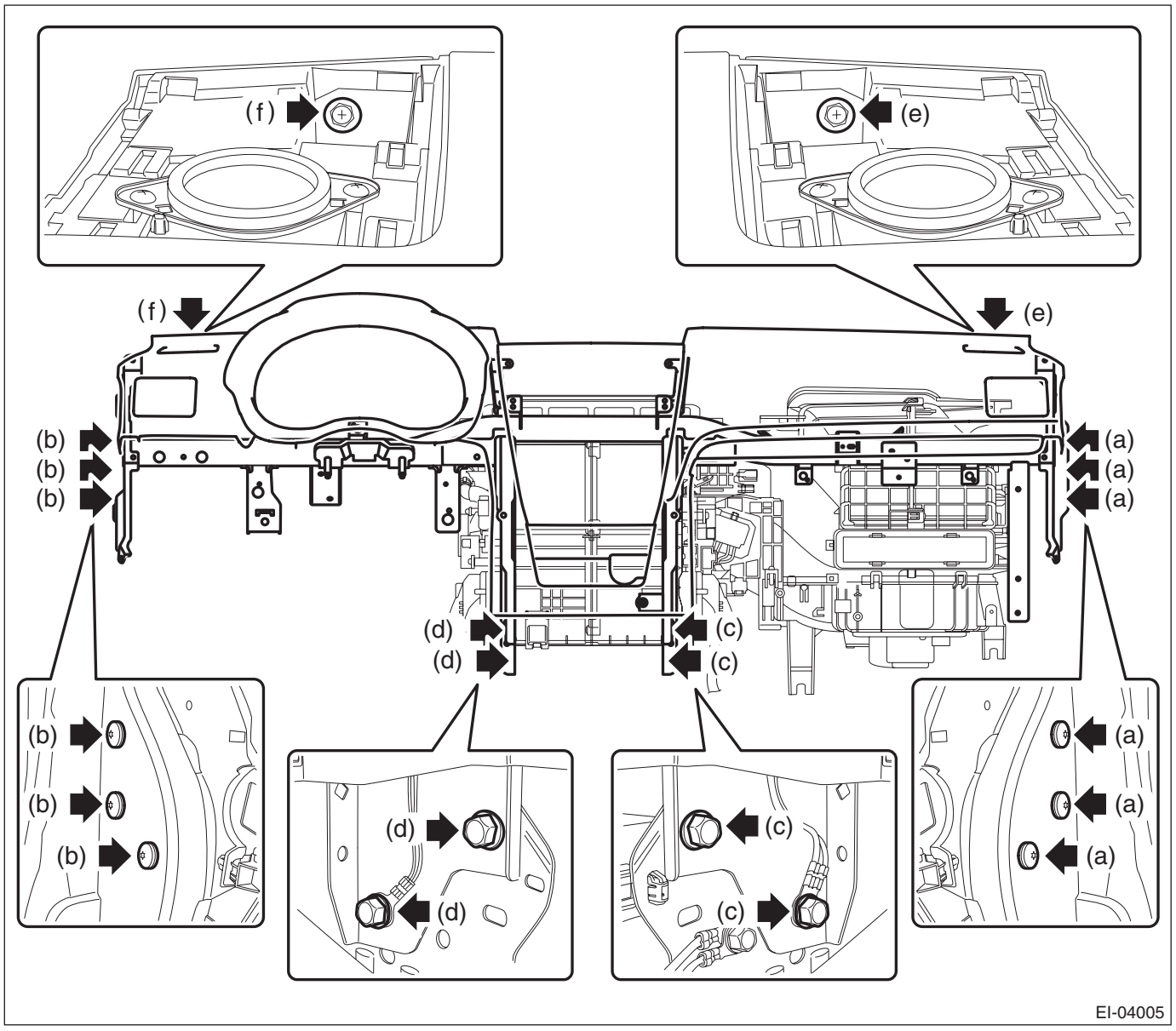
29) Remove the instrument panel assembly and the beam COMPL - steering as a unit.

CAUTION:
The instrument panel assembly and the beam COMPL - steering are heavy. Always work in a team of two persons when removing them from the vehicle, so as not to damage the vehicle interior.

(1) Remove the fuse box and relay box.
(2) Disconnect all harness clamps and connectors of the instrument panel harness.
(3) Remove the TORX® bolt. (a), (b)

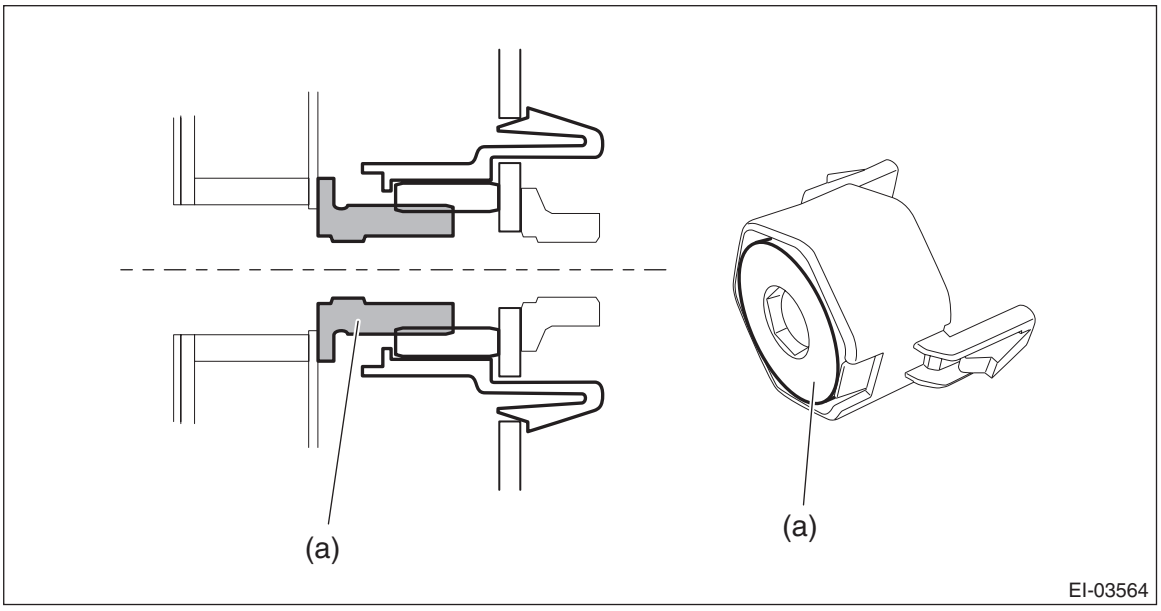
Preparation tool:
TORX® T40

(4) Remove the bolts at the floor center. (c), (d)
(5) Remove the bolt. (e), (f)



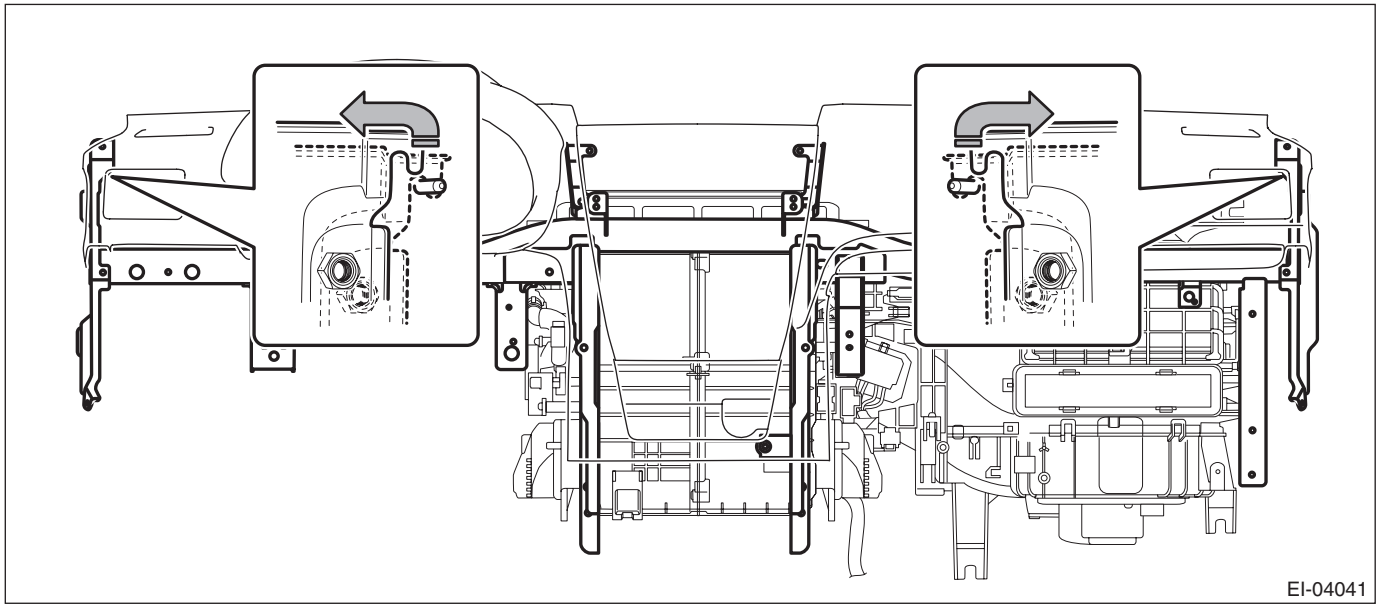
(6) Loosen the adjuster portion (a) of the adjuster - clip space. (only LH side of the beam COMPL - steering)

Preparation tool:
Hexagon wrench: 8 mm (0.31 in)

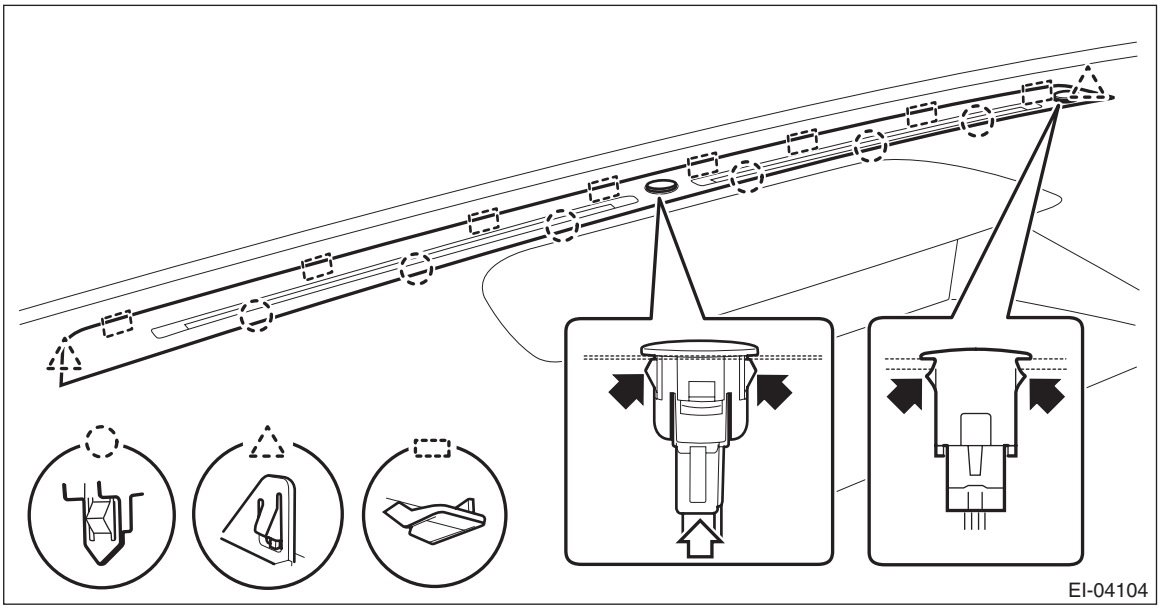


(7) Slightly lift the instrument panel assembly together with the beam COMPL - steering to detach the left and right pins. Then pull it toward you to remove the assembly.

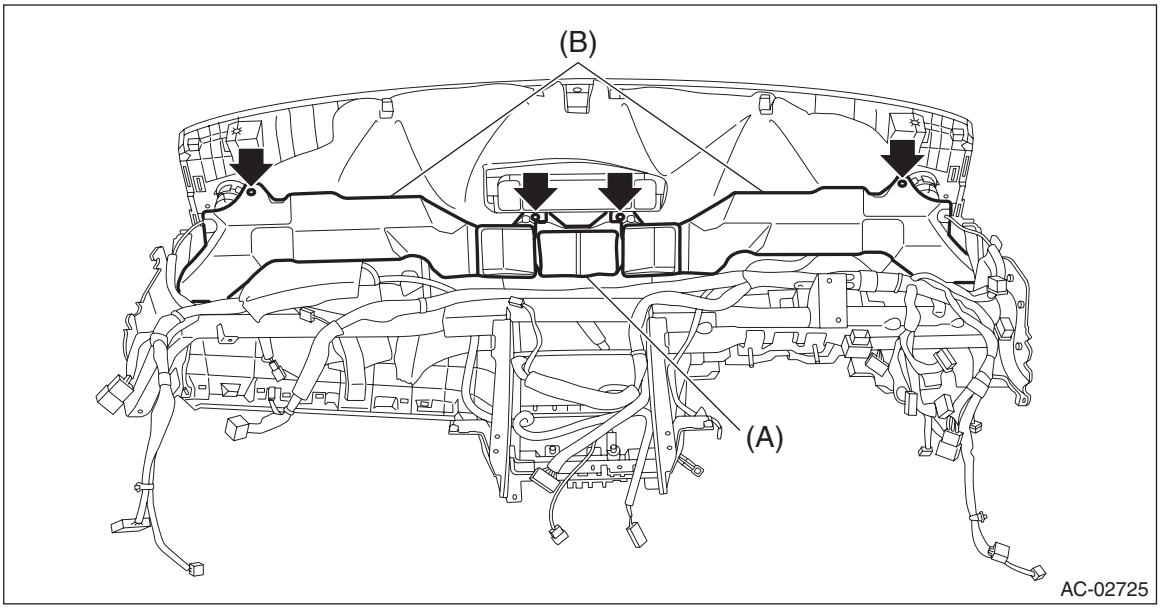
CAUTION:
- **Check that all harness clamps and connectors are detached.**
- **The instrument panel assembly and the beam COMPL - steering are heavy. Always work in a team of two persons when removing them from the vehicle, so as not to damage the vehicle interior.**



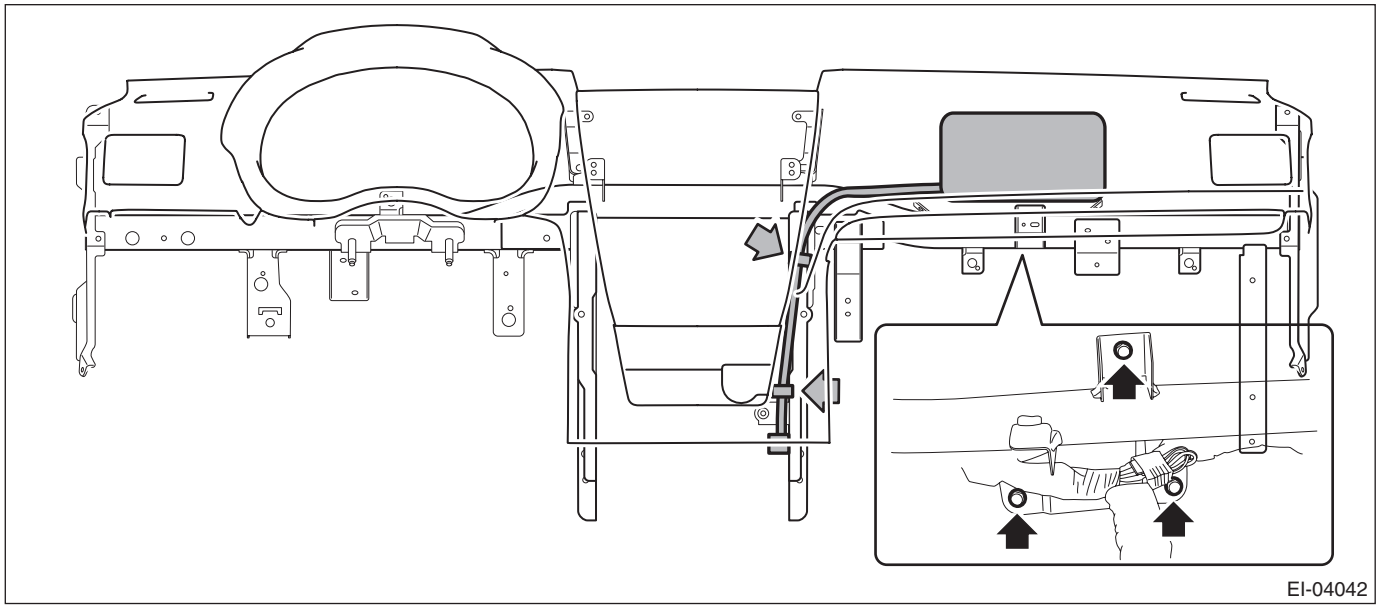
30) Remove the panel COMPL - instrument UPR.
(1) Disconnect the connector of the sensor - sunload.
(2) Disconnect the connector of the sensor - automatic light. (Model with automatic light function)
(3) Release the claws, and remove the panel COMPL - instrument UPR.



31) Remove the screws and remove the front (A) and side vent duct (B) LH, RH.



32) Separate the panel COMPL - instrument and the beam COMPL - steering.
(1) Remove the clamps and bolts of the passenger's airbag module harness.

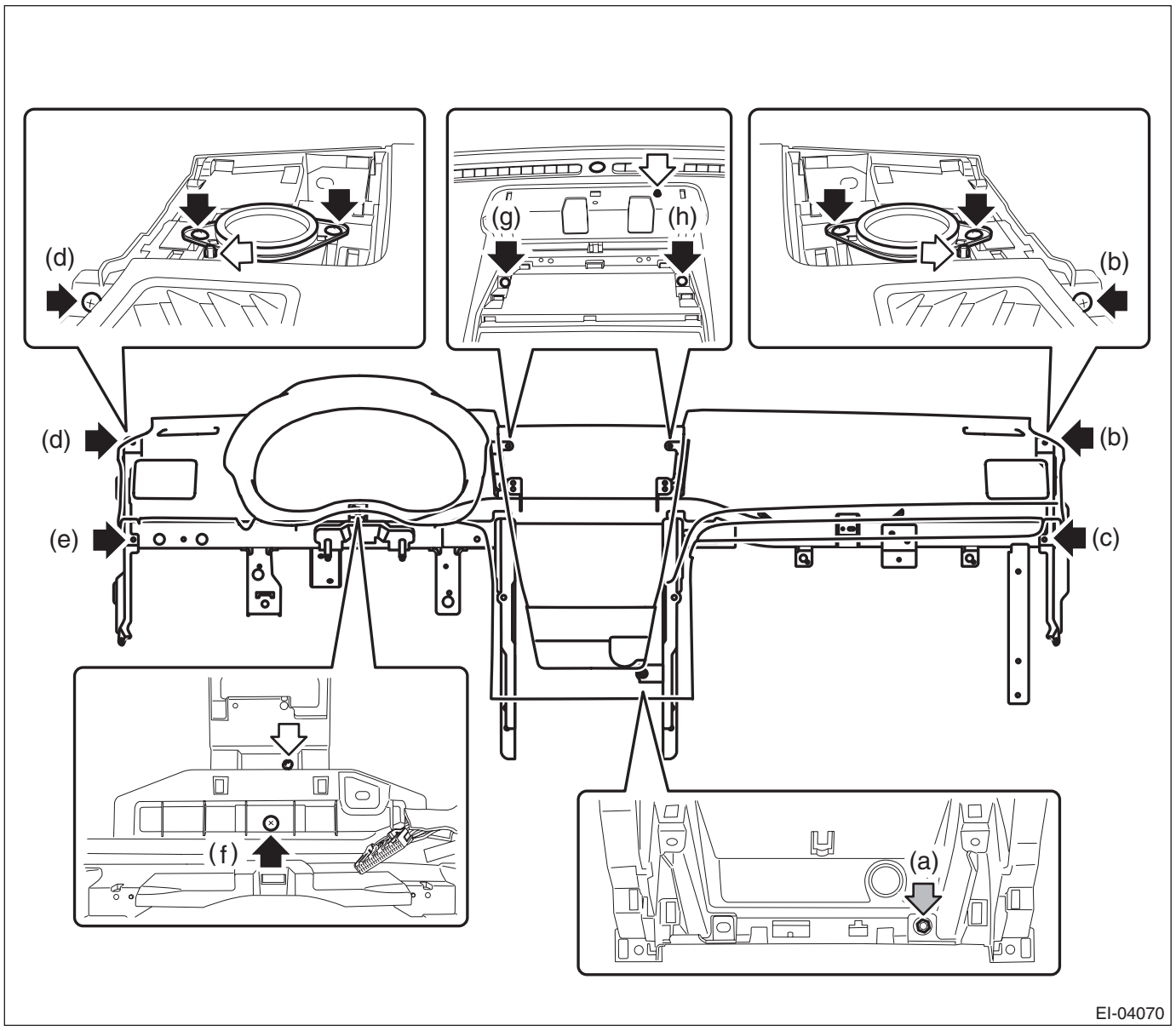

EI-04042

(2) Remove the left and right speakers.

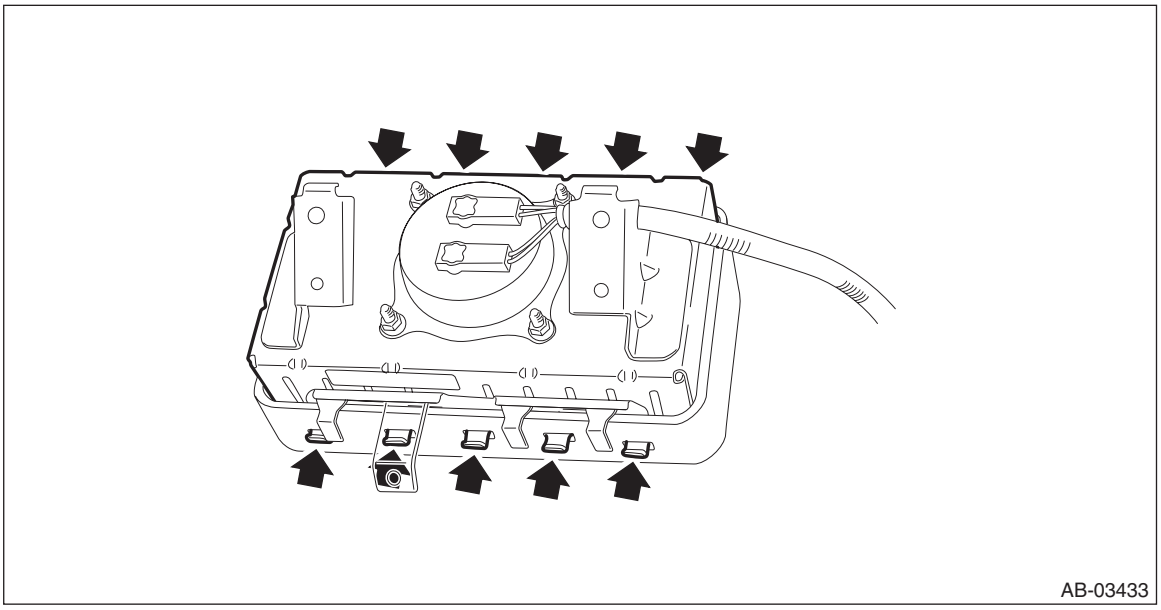
NOTE:
Detach the harness clamp together.

(3) Disconnect the front accessory socket connector.

(4) Remove the nut (a) and screws (b), (c), (d), (e), (f), (g) and (h).
(5) While being careful with the harness, separate the panel COMPL - instrument and the beam COMPL - steering.



33) Remove the claws, and remove the passenger's airbag module.



B: INSTALLATION

1) Attach components until the instrument panel assembly is formed, in the reverse order of removal.

Tightening torque:
Passenger's airbag module: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

NOTE:
Method of installing insulator
- Adhesive

Use polyurethane adhesive. When assembling the instrument panel assembly, wait until the adhesive has evaporated to prevent filling of the smell in the compartment.
- Double-sided tape

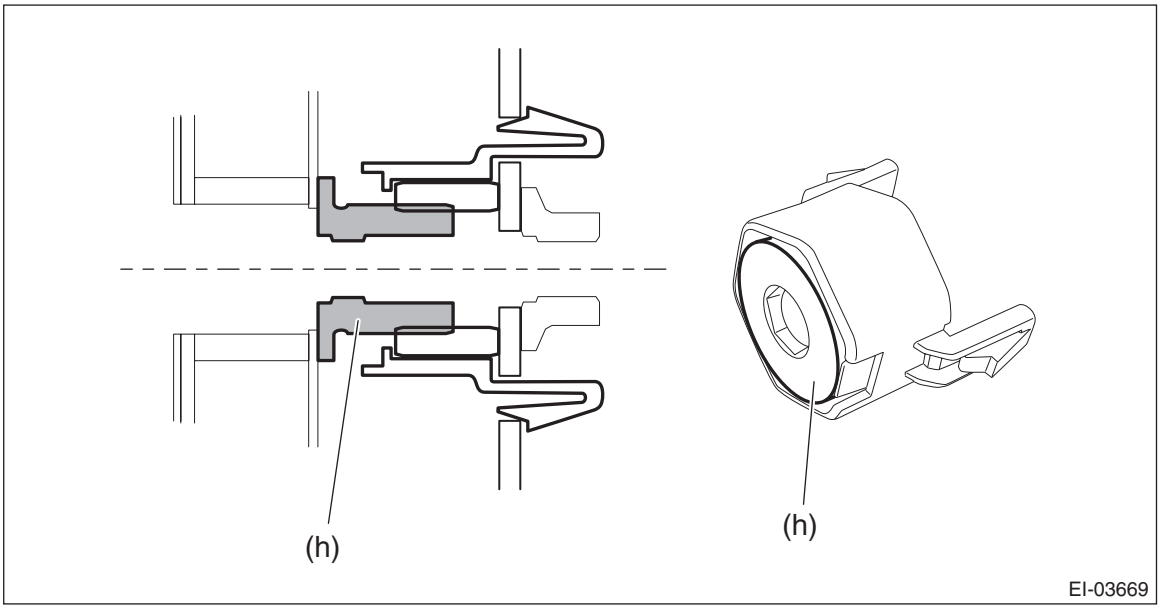
Use commercial double-sided tape. (Use strong double-sided adhesive tape.)
2) Insert the matching pins on the body side (three locations - one in the center and the remaining two on both sides) into the instrument panel assembly and the beam COMPL - steering.
3) Check that the matching pins are inserted securely, and then route the harness.

4) Secure the instrument panel assembly and the beam COMPL - steering to the vehicle body.
(1) Position the instrument panel assembly and the beam COMPL - steering to the vehicle body and tighten the adjuster - clip space.

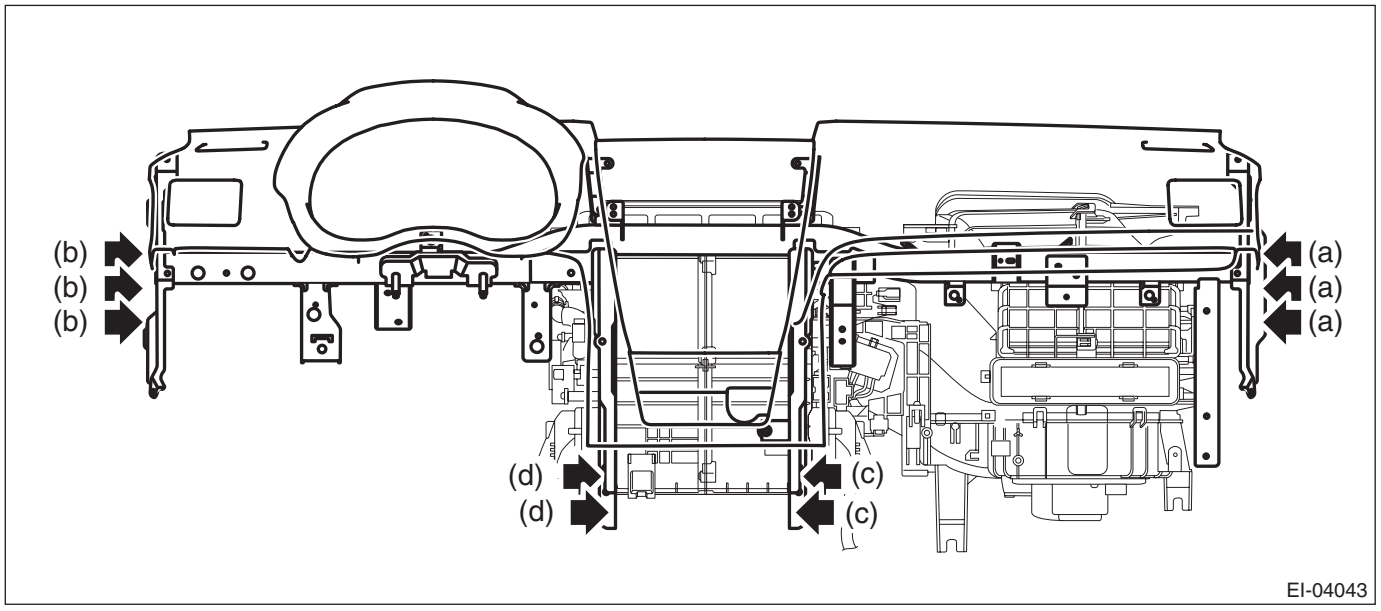
Preparation tool:
Hexagon wrench: 8 mm (0.31 in)

NOTE:
Tighten so that there is no gap between the adjuster portion (h) and the body.

Tightening torque:
Adjuster - clip space: 0.4 — 4 N·m (0.04 — 0.41 kgf-m, 0.3 — 2.95 ft-lb)



(2) Temporarily tighten the bolts (a), (b), (c) and (d) of the beam COMPL - steering.

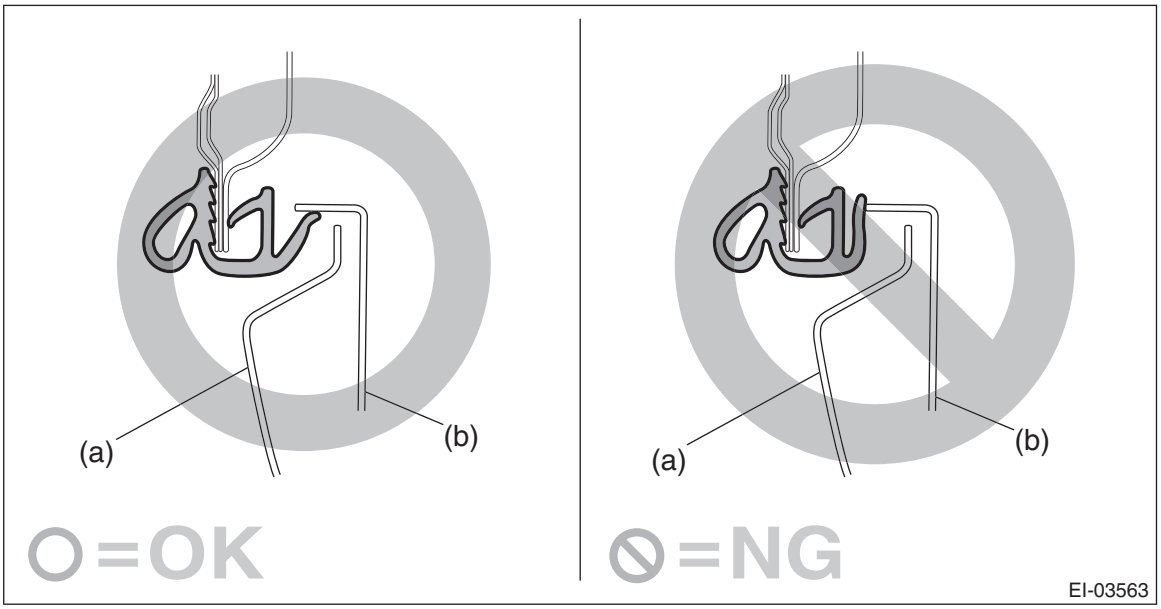


(3) Tighten the beam COMPL - steering in the order from (a) to (d) to the specified torque.

Tightening torque:
Beam COMPL - steering: 25 N·m (2.55 kgf-m, 18.4 ft-lb)

5) Install each part in the reverse order of removal.

CAUTION:
• After installing the panel center assembly, check that the air vent grille of the panel center assembly is inserted correctly into the air vent duct.
• When installing the cover - instrument panel side (a), make sure that the body side weather strip - flange front does not come inside the panel COMPL instrument (b).



• Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
• Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
• Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.
• Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

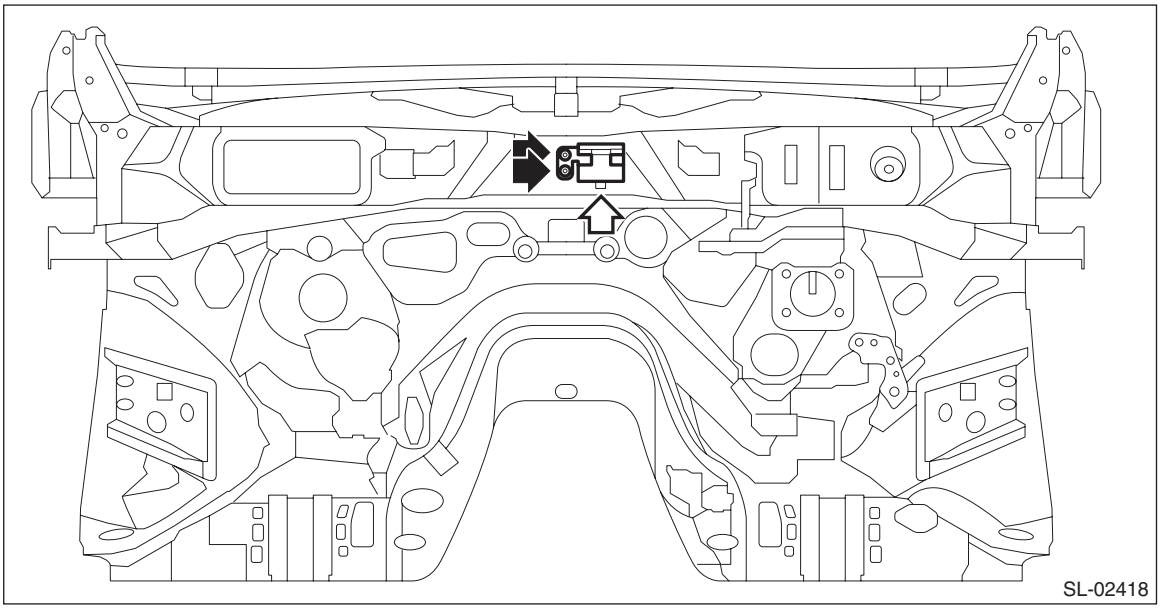
NOTE:
For installation of the trim panel - front pillar UPR, refer to “Upper Inner Trim”.<Ref. to EI-101, INSTALLATION, Upper Inner Trim.>

Tightening torque:
Column assembly - steering:<Ref. to PS-3, STEERING WHEEL AND COLUMN, COMPONENT, General Description.>
Console box assembly: 6.5 N·m (0.66 kgf-m, 4.8 ft-lb)
Front seat assembly: 53 N·m (5.40 kgf-m, 39.1 ft-lb)

20.Security Control Module

A: REMOVAL

NOTE:
Equipped on C0 and C5 models without keyless access.
1) Remove the heater and cooling unit assembly. <Ref. to AC-61, REMOVAL, Heater and Cooling Unit.>
2) Remove the security control module.
   (1) Disconnect the connector.
   (2) Remove the nuts, and remove the security control module.



B: INSTALLATION

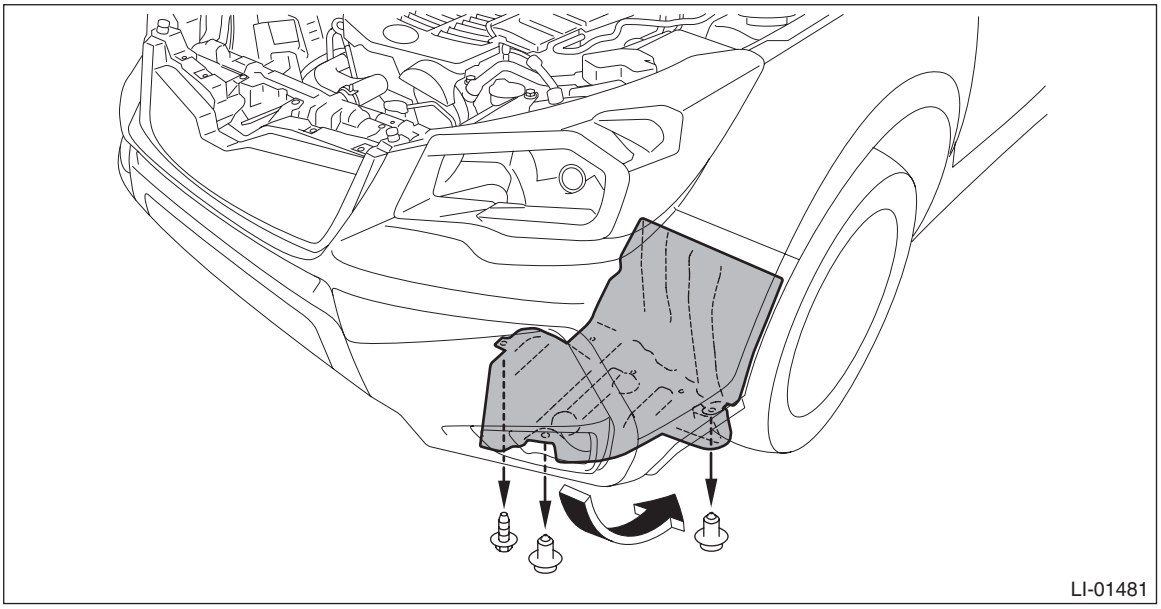
Install each part in the reverse order of removal.

Tightening torque:
Security control module: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

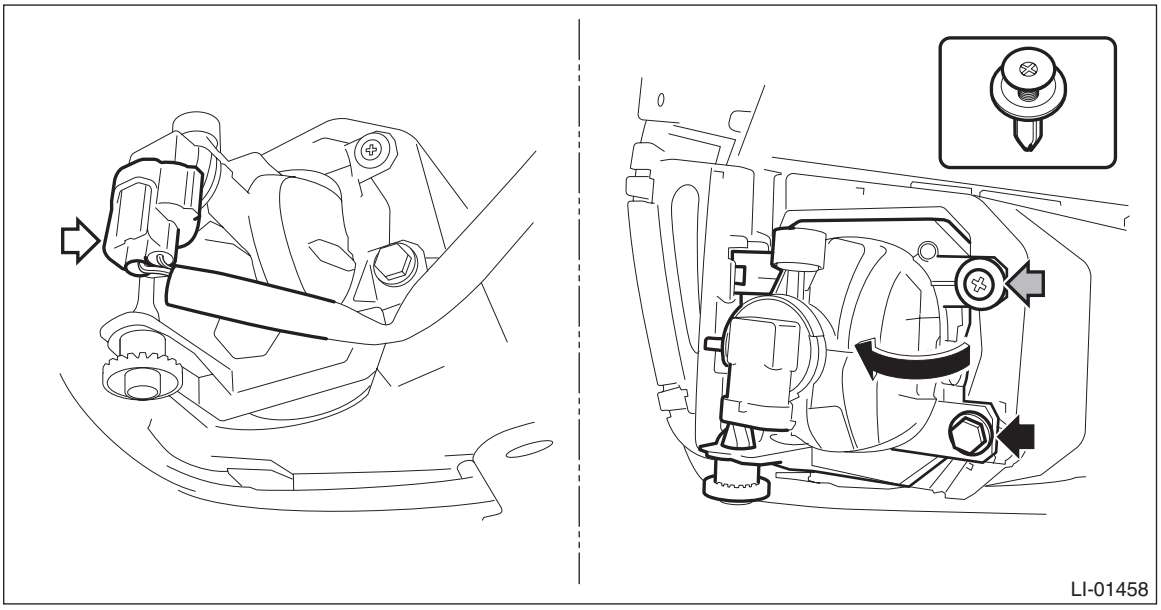
21.Front Fog Light Assembly

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Lift up the vehicle.
3) Remove the screw and clips, and turn over the front side of the mud guard - front.



4) From the bottom of the bumper face - front, remove the fog light assembly - front.
   (1) Disconnect the connector.
   (2) Remove the bolts and clips, and remove the fog light assembly - front.



B: INSTALLATION

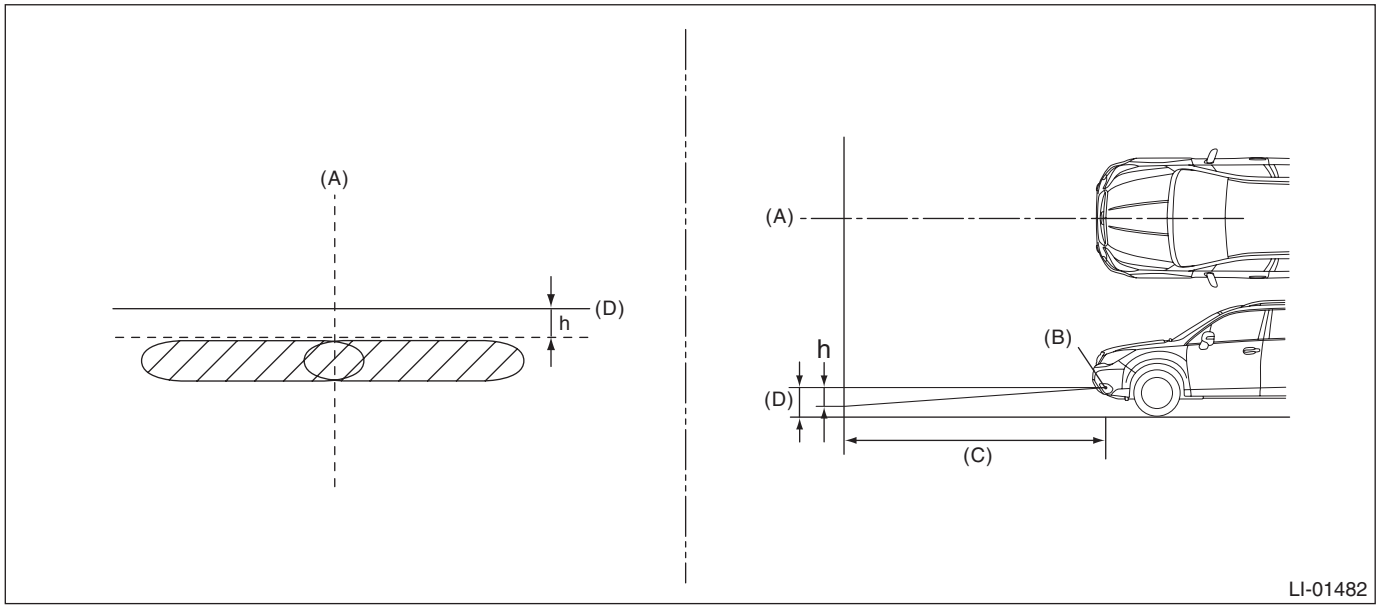
1) Install each part in the reverse order of removal.

Tightening torque:
Fog light assembly - front: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
2) Adjust the fog light beam. <Ref. to LI-47, FOG LIGHT AIMING, ADJUSTMENT, Front Fog Light Assembly.>

C: ADJUSTMENT

1. FOG LIGHT AIMING

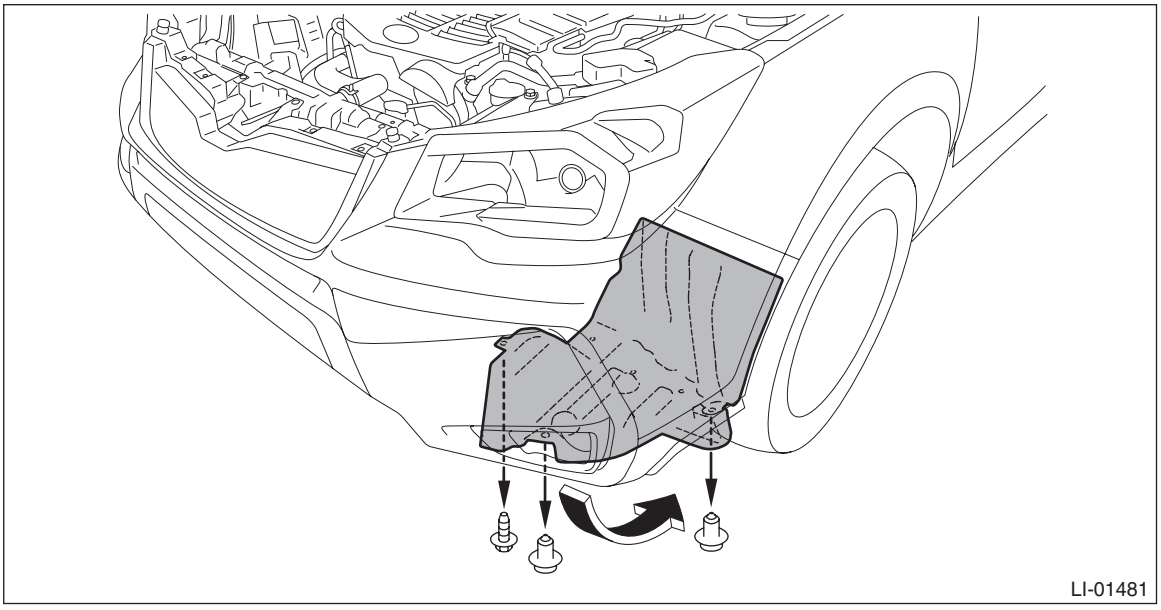
1) Before checking the fog light assembly - front beam level, be sure of the following:
• The area around the fog light assembly - front has not sustained any scratches, damage or other type of deformation.
• The vehicle is parked on a level surface.
• The inflation pressure of tires is correct.
• The vehicle does not have load.
• Vehicle's fuel tank is fully filled.
2) Bounce the vehicle several times to normalize the suspension.
3) Make certain that someone is seated in the driver's seat.
4) Place the vehicle with the front end facing to the measurement panel.



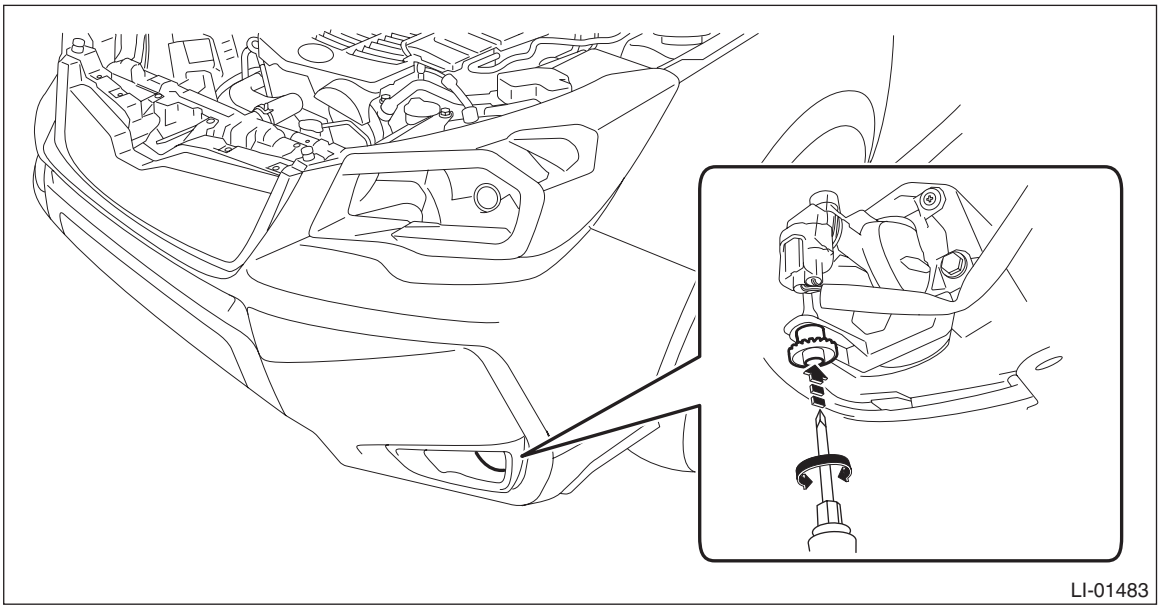
(A) Vehicle center
(B) Bulb center marking
(C) 3 m (10 ft)
(D) Height of fog light center

h mm (in) at 3 m (10 ft)
40 (1.58)

5) Adjust the fog light assembly - front beam.
(1) Remove the screw and clips, and turn over the front side of the mud guard - front.



(2) Adjust the beam direction by turning the aiming screw from the bottom of the bumper face - front.



21.Impact Sensor

A: REMOVAL

1) Pull out the key from the ignition switch, or turn the ignition to OFF.
2) Close all the doors and rear gate.
3) Press the UNLOCK button of the keyless transmitter or access key.
4) Disconnect the ground cable from battery.
5) Remove the impact sensor.
6) Change the setting of impact sensor using Subaru Select Monitor.

B: INSTALLATION

1) Pull out the key from the ignition switch, or turn the ignition to OFF.
2) Close all the doors and rear gate.
3) Press the UNLOCK button of the keyless transmitter or access key.
4) Disconnect the ground cable from battery.
5) Install the impact sensor.
6) Change the setting of impact sensor using Subaru Select Monitor.

C: OPERATION

1. IMPACT SENSOR SETTING USING SUBARU SELECT MONITOR

1) Prepare the Subaru Select Monitor kit.
2) Turn the ignition switch to ON (engine OFF) and run the “PC application for Subaru Select Monitor”.
3) On «System Selection Menu» display, select {Integ. unit mode}.
4) Select {Unit customizing} from {Work Support}.
5) Make a impact monitor setting.
- When installing: ON
- When removing: OFF

6) Make a impact monitor ON/OFF setting.
- When installing: ON
- When removing: OFF

7) Turn the ignition switch to OFF, and then remove the Subaru Select Monitor.

D: ADJUSTMENT

1. CHECK IMPACT SENSOR

1) Pull out the key from the ignition switch, or turn the ignition to OFF.
2) Close all the windows.
3) Close all the doors and rear gate. Leave open the front hood.
4) Press the LOCK button of the keyless transmitter or access key from outside of vehicle.
5) Check that the security indicator light blinks twice within 0.5 seconds in 2 second cycles after 30 seconds.
6) Hit all windows with the palm with force repeatedly, to check for whether the security alarm operates. Lift up the front hood approx. 12 cm (4.7 in) or more, and then drop it off to check the operation of security alarm.
7) If NG, adjust the impact sensitivity.

2. IMPACT SENSITIVITY ADJUSTMENT

1) Prepare the Subaru Select Monitor kit.
2) Turn the ignition switch to ON (engine OFF) and run the “PC application for Subaru Select Monitor”.
3) On the «System Selection Menu», select the {Impact Sensor}.
4) Make a {Sensitivity Adjustment Mode}.
- Sensitivity can be adjusted in 11 levels (0 to 10).
- Initial setting is 5.
- Smaller number means more sensitive.
- Larger number means less sensitive.

5) Turn the ignition switch to OFF, and then remove the Subaru Select Monitor.

NOTE:
- Set the sensor so that it is not triggered by normal vibrations (someone reclining on the door, hit by a ball, etc.).
- Set the sensor to operate the alarm when the windshield glass or door is hit hard repeatedly, etc, where it can be assumed that there is an attempt to damage the car by a burglar, etc.
- Even if there is no burglary attempt, if there is vibration (road construction, elevated parking lots, passage of trains or boarding of ferries), the alarm can be triggered. Because of this, ask the customer about their parking conditions, and set an appropriate sensitivity level after discussion.
- If the sensitivity setting was not performed properly, a buzzer will sound four times. In this case, check that there is no error in CAN communication.

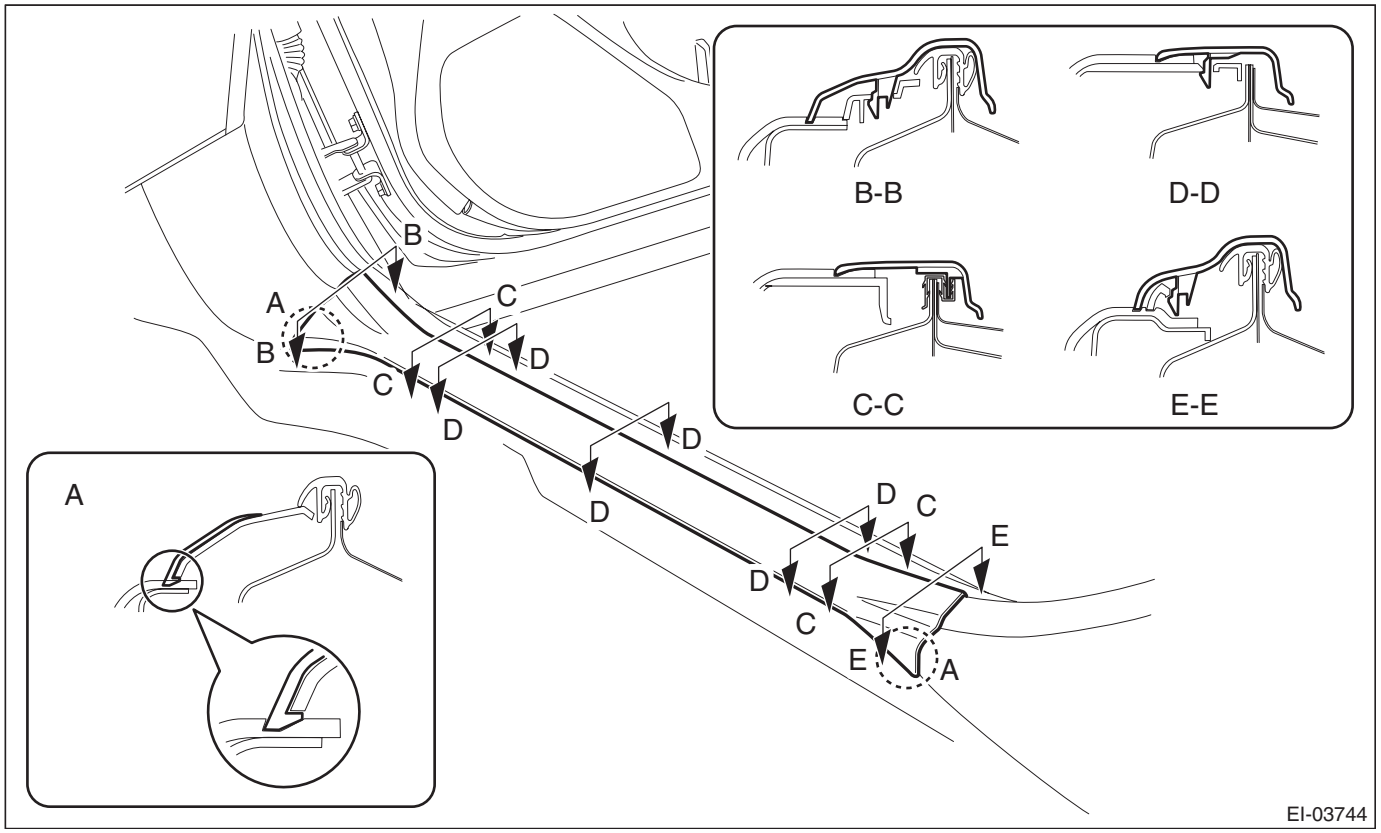
21.Lower Inner Trim

A: REMOVAL

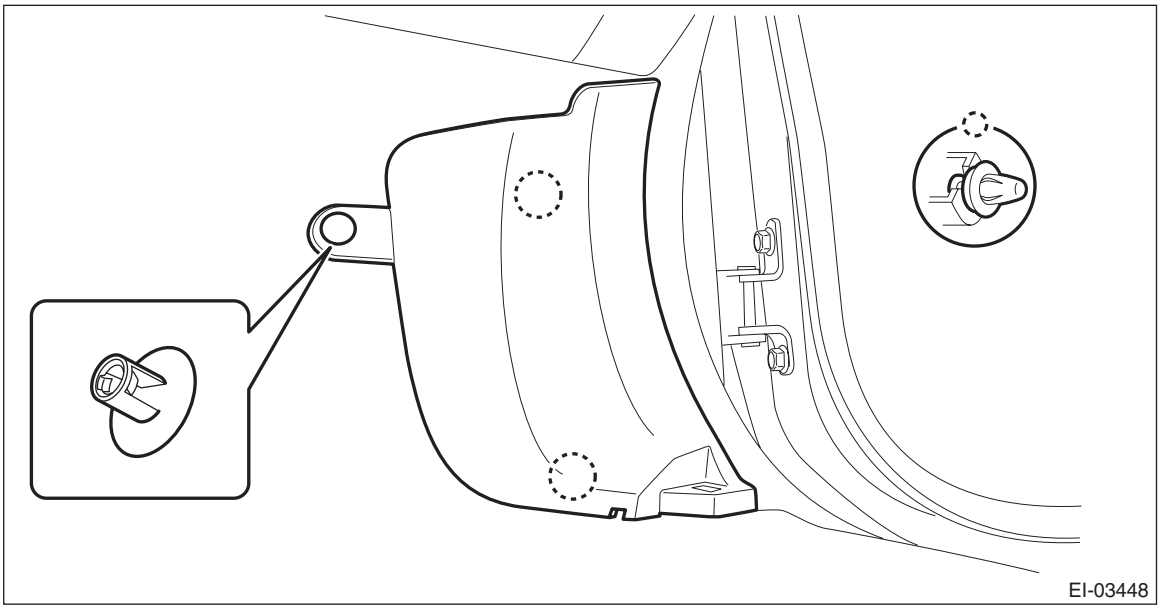
CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

1) Release the claws, and then remove the cover side sill - front INN.

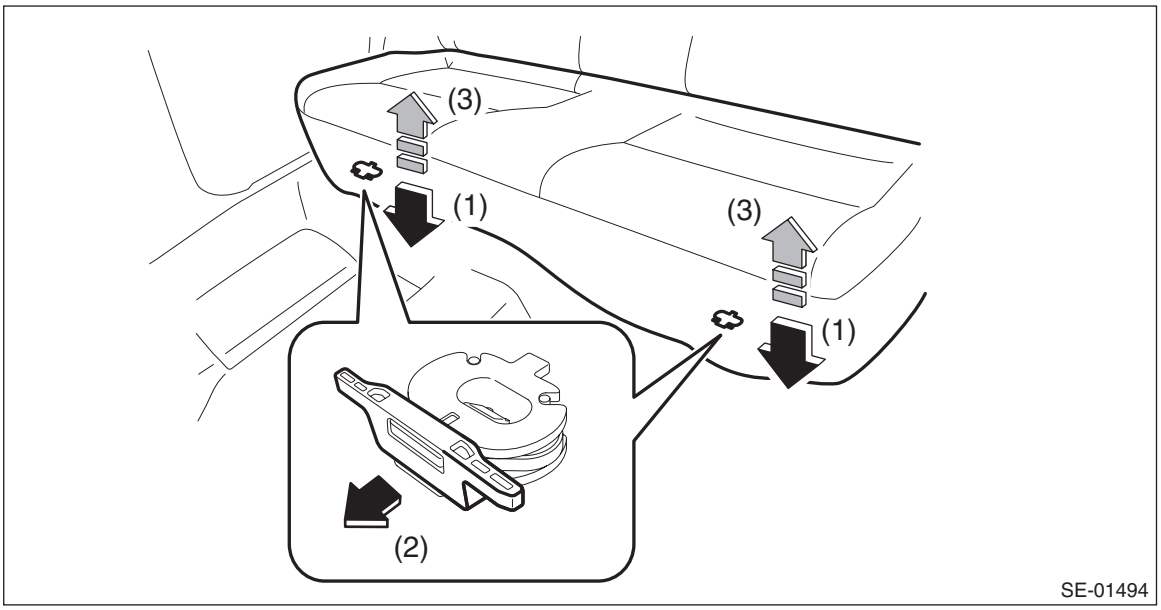
CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



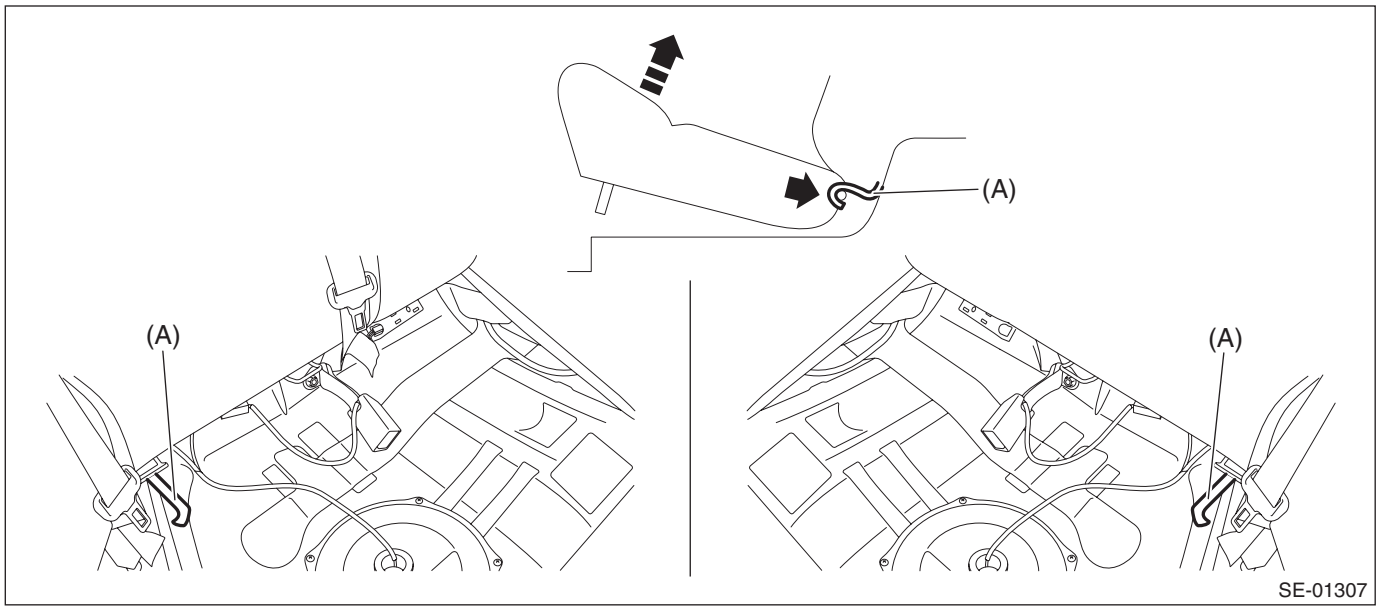
2) Remove the clips, and remove the cover side sill - front.



3) Remove the rear seat cushion assembly.
(1) Push the corners of the rear seat cushion from above.
(2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
(3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

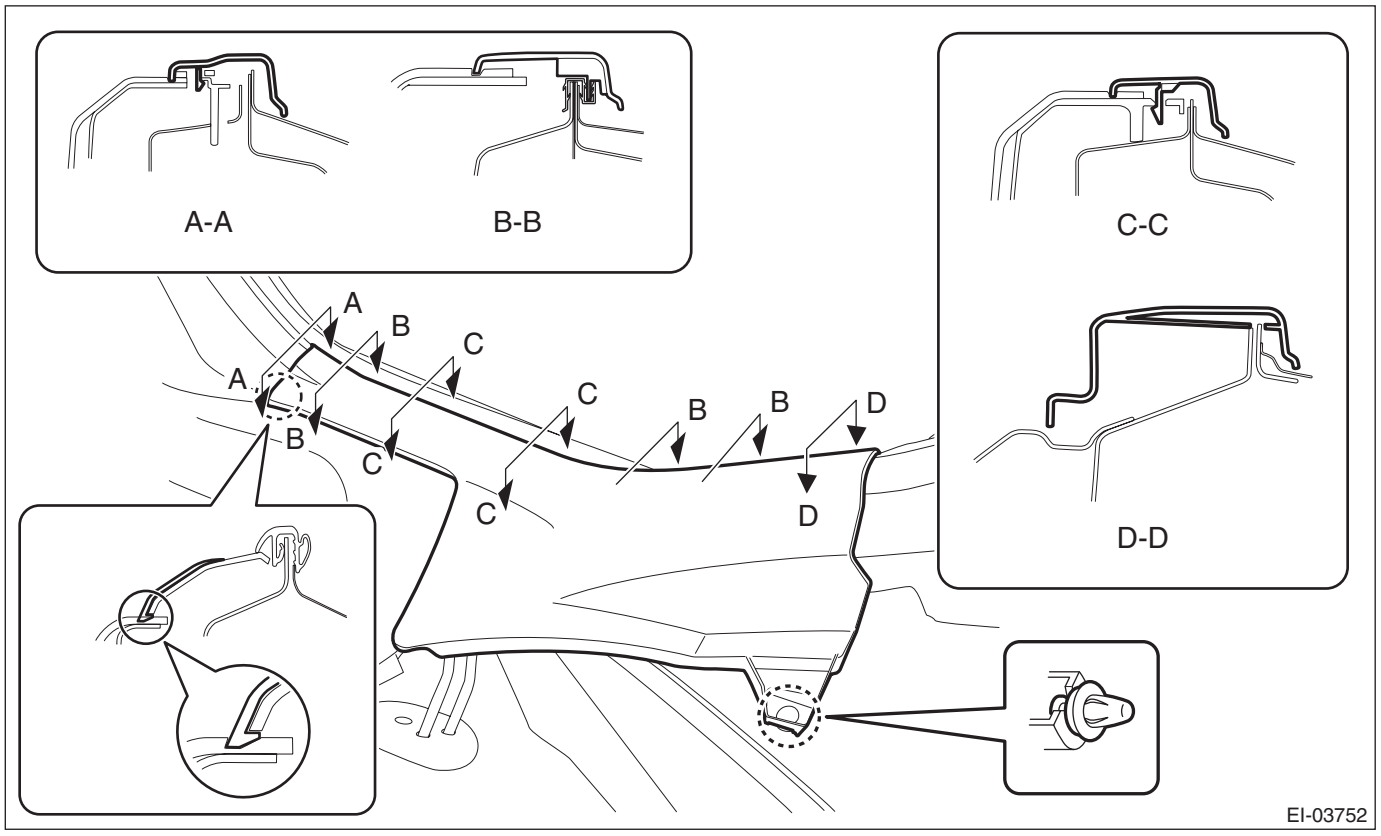


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



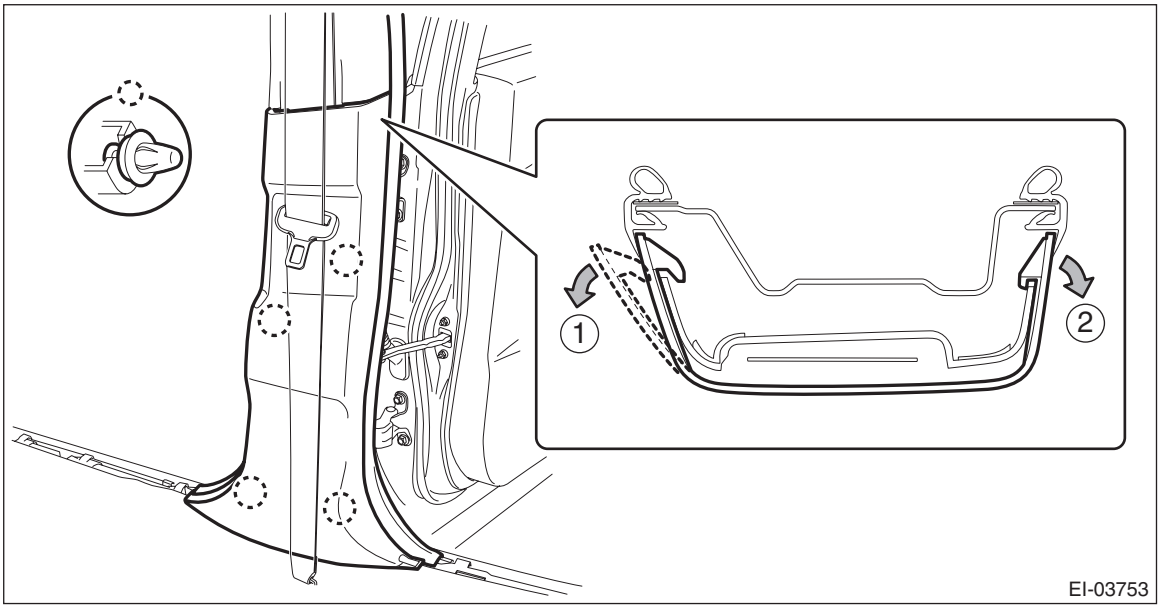
4) Release the clips and claws, and then remove the cover side sill - rear INN.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.

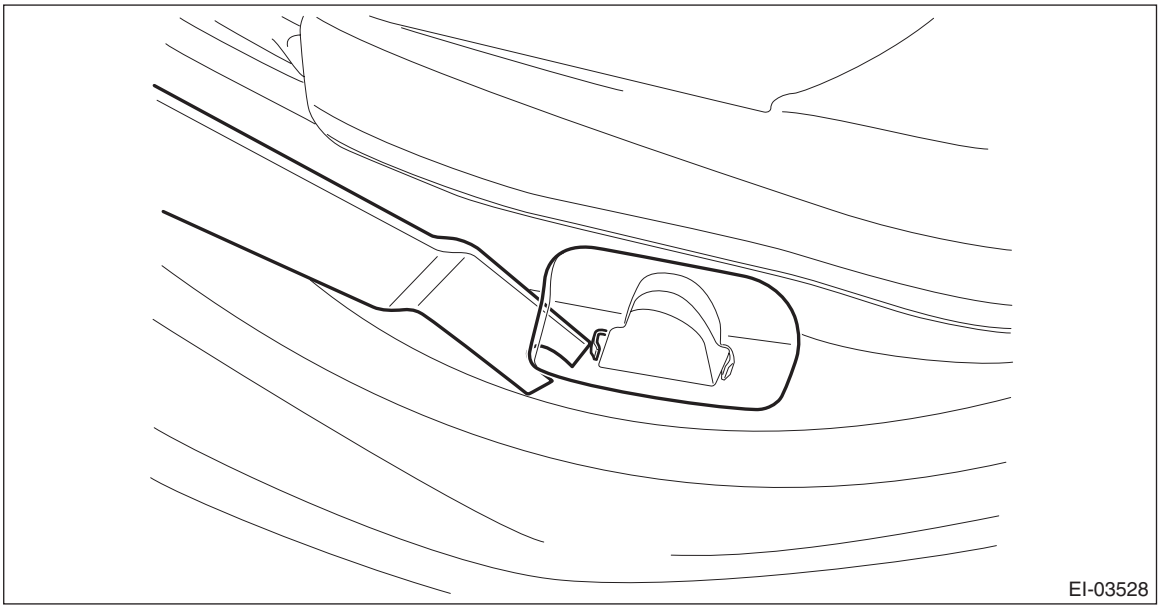


5) Remove the trim panel - center pillar LWR.
(1) Release the clip by pulling the trim panel - center pillar LWR toward you.
(2) Expand the claws of the trim panel - center pillar LWR outward, and remove it from the trim panel - center pillar UPR.

CAUTION:
Do not expand the trim panel - center pillar LWR excessively. Doing so may damage the trim.



NOTE:
First release the claw located to the front of the vehicle.
6) Disconnect the claws and remove the cover - catcher.

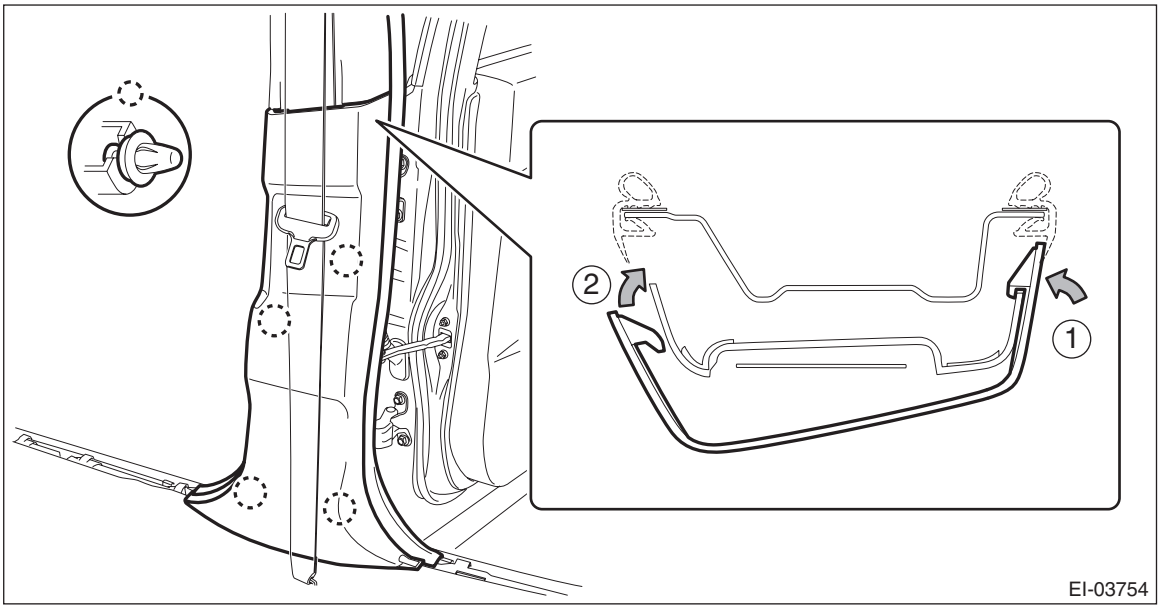


NOTE:
Remove the cover - catcher by using a plastic remover.

B: INSTALLATION

Install each part in the reverse order of removal.

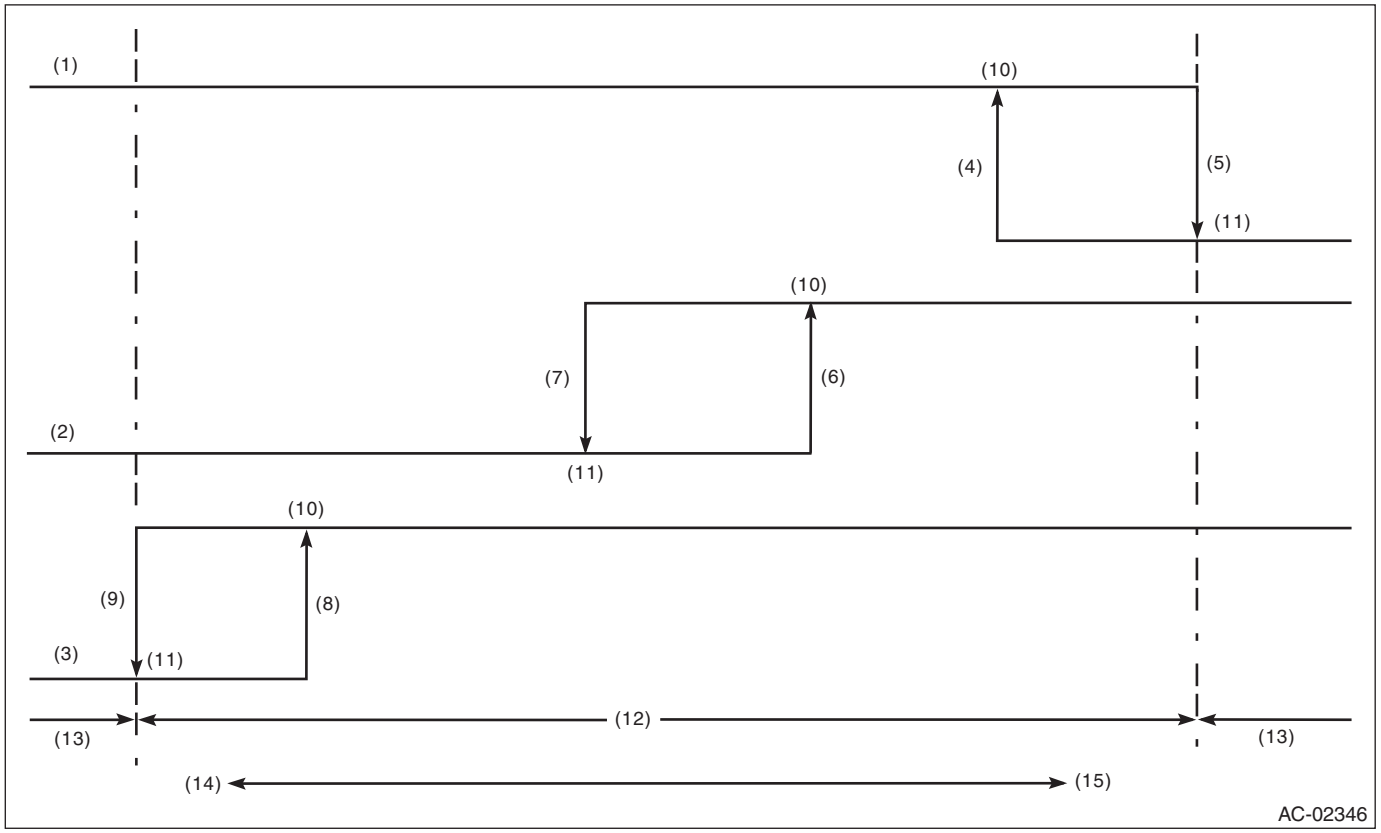
NOTE:
Assemble the trim panel - center pillar LWR to the trim panel - center pillar UPR securely.



21.Pressure Switch (Triple Pressure Switch)

A: INSPECTION

1) Connect the manifold gauge to the service valve on the high-pressure side.
2) Disconnect the connector.
3) Start the air conditioner, and check the operating pressure of switch by turning the compressor assembly (magnet clutch) to ON/OFF. Operation of each switch is as follows.



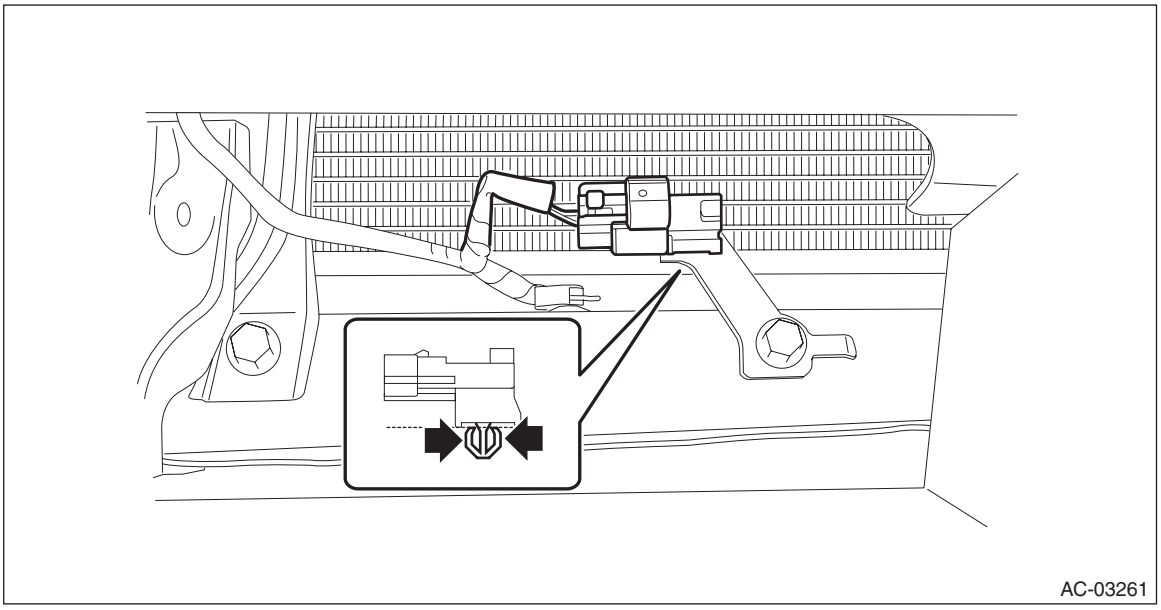
(1)	High pressure switch	(6)	1,770±100 kPa (18.05±1.02 kg/cm^2, 256.65±14.5 psi)	(11)	OFF
(2)	Middle pressure switch	(7)	1,470±120 kPa (14.99±1.22 kg/cm^2, 213.15±17.4 psi)	(12)	Operative range of compressor ASSY
(3)	Low pressure switch	(8)	225±30 kPa (2.29±0.31 kg/cm^2, 32.6±4.3 psi)	(13)	Inoperative range of compressor ASSY
(4)	2,350±200 kPa (24.00±2.04 kg/cm^2, 340.7±29.0 psi)	(9)	196±25 kPa (2.00±0.25 kg/cm^2, 28.4±3.6 psi)	(14)	Low pressure
(5)	2,940±200 kPa (29.98±2.04 kg/cm^2, 426.3±29.0 psi)	(10)	ON	(15)	High pressure

NOTE:
- High pressure switch turns the compressor assembly (magnet clutch) to OFF when the refrigerant pressure becomes extremely high to prevent the evaporator, air conditioner piping and expansion valve from getting damaged or frozen, etc.
- The middle pressure switch is used to effectively control the radiator fan output by judging high load/low load in normal pressure range.
- The low pressure switch detects a refrigerant shortage and deactivates the compressor assembly (magnet clutch) if the refrigerant pressure is abnormally low. (Because any further compressor assembly operation in such a state may lead to compressor seizure)

22.Ambient Sensor

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the ambient sensor.
   (1) Disconnect the connector.
   (2) Release the claws, and then remove the ambient sensor from the bracket.



B: INSTALLATION

Install each part in the reverse order of removal.

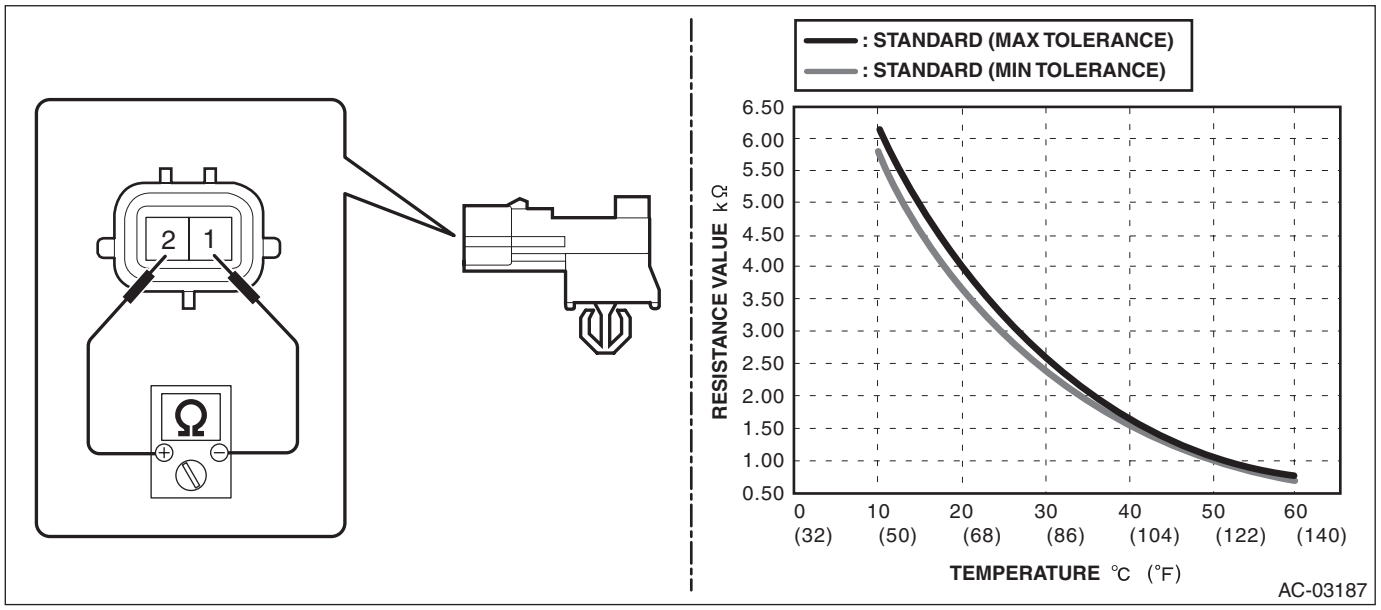
C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Visually check the ambient sensor for dirt or damage, and clean or replace as necessary.
2) Check the resistance between ambient sensor terminals.

CAUTION:
During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.



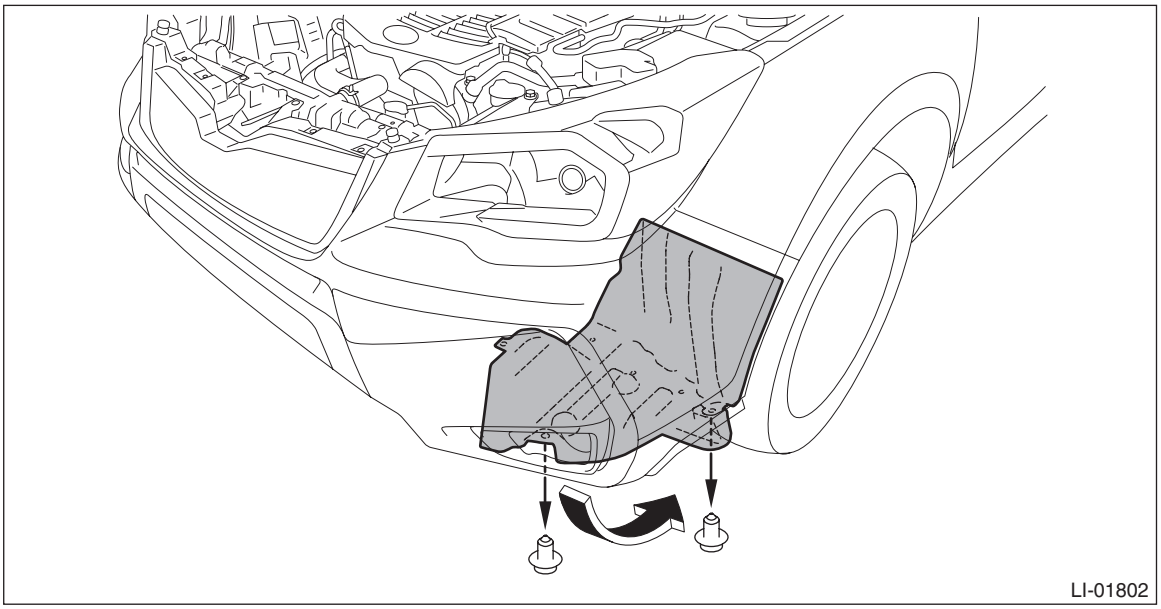
Terminal No.	Inspection conditions	Standard
1 — 2	10°C	5.82 — 6.18 kΩ
	15°C	4.58 — 4.87 kΩ
	20°C	3.64 — 3.86 kΩ
	25°C	2.91 — 3.09 kΩ
	30°C	2.35 — 2.49 kΩ
	35°C	1.9 — 2.02 kΩ
	40°C	1.56 — 1.65 kΩ
	45°C	1.28 — 1.36 kΩ
	50°C	1.06 — 1.12 kΩ
	55°C	0.88 — 0.93 kΩ
	60°C	0.74 — 0.78 kΩ

3) Replace the ambient sensor if the inspection result is not within the standard value.

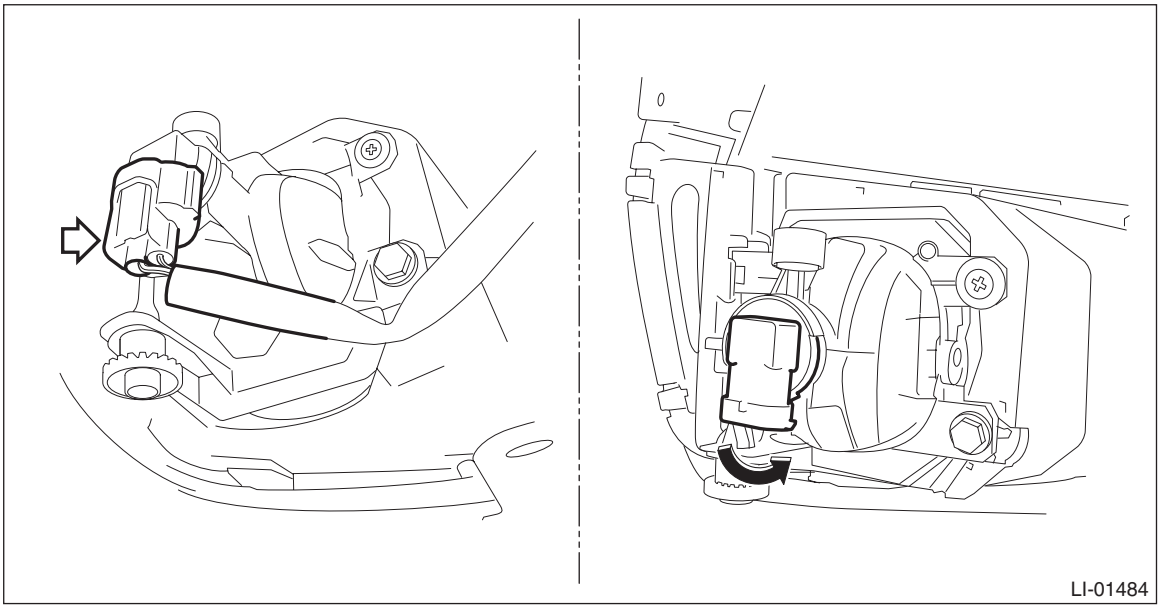
22.Front Fog Light Bulb

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the clips, and turn over the front side of the mud guard - front.



3) From the bottom of the bumper face - front, remove the front fog light bulb.
   (1) Disconnect the connector.
   (2) Remove the bulb.



B: INSTALLATION

CAUTION:
After connecting the connector, make sure that the bulb is locked securely.
Install each part in the reverse order of removal.

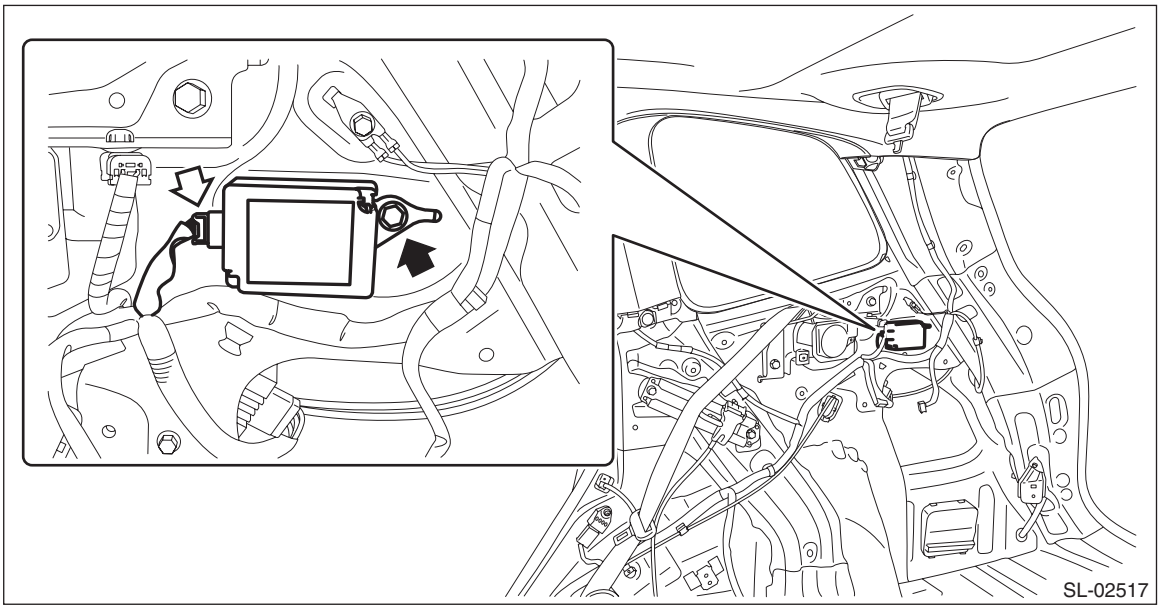
C: INSPECTION

1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

22.Keyless Entry Control Module

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear apron RH and trim panel - rear quarter pillar UPR RH. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>
3) Remove the keyless entry control module.
   (1) Disconnect the connector.
   (2) Remove the bolt and then remove the keyless entry control module.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Keyless entry control module: 13 N·m (1.33 kgf-m, 9.6 ft-lb)

22.Upper Inner Trim

A: REMOVAL

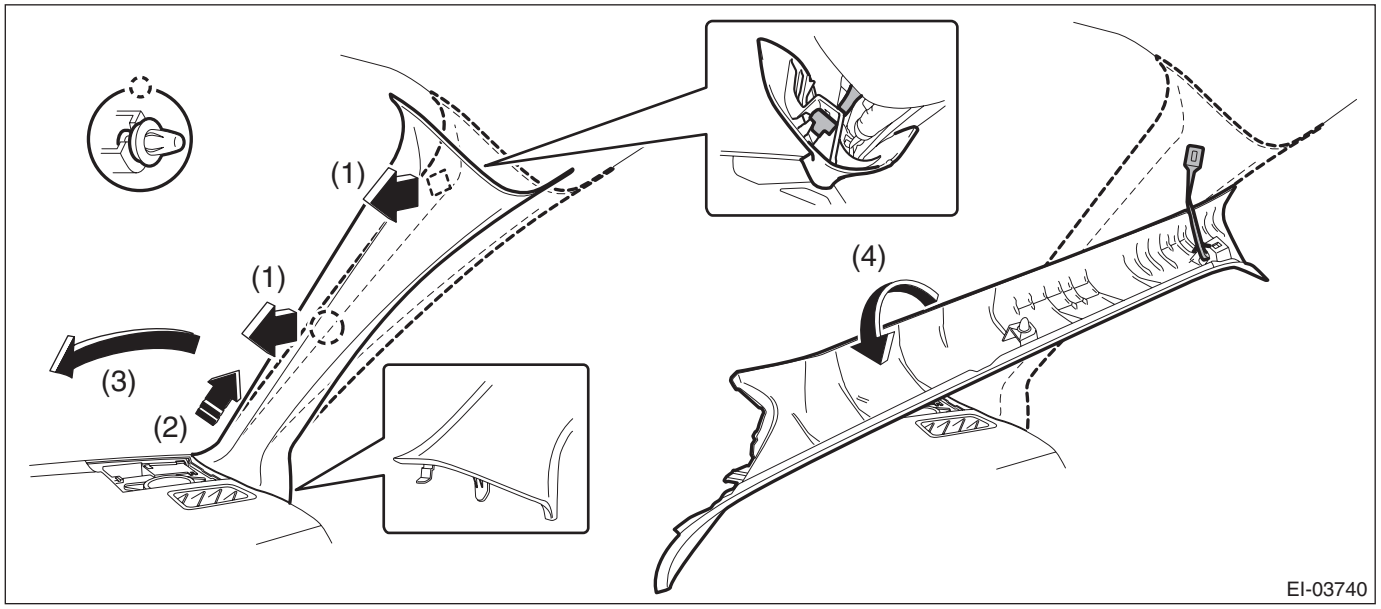
CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

1) Remove the trim panel - front pillar UPR.

CAUTION:
Be careful not to damage the trim panel surface and curtain airbag module.

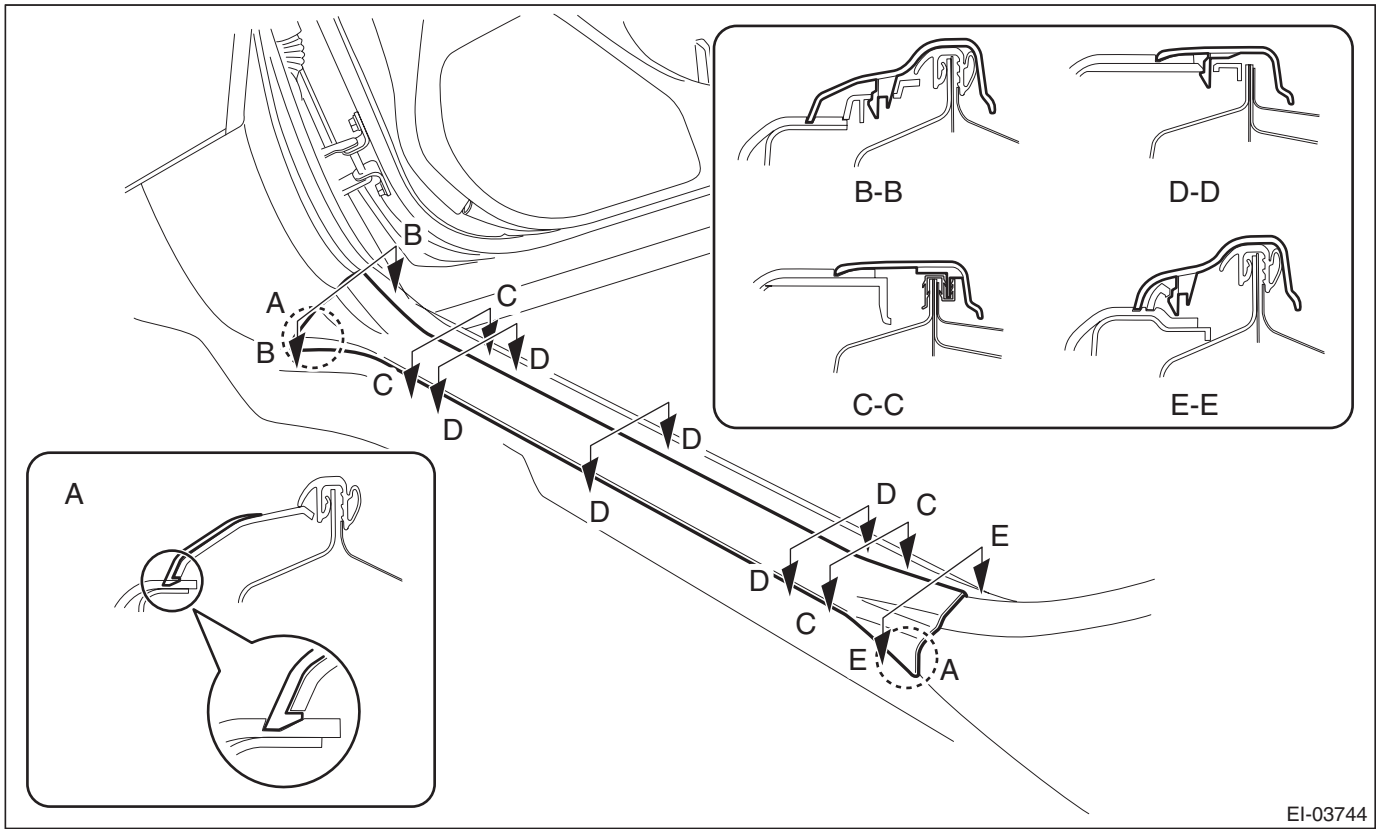
(1) Pull the trim panel - front pillar UPR towards the center of the vehicle to release the clips.
(2) Pull out the end portion of the trim panel - front pillar UPR.
(3) Pull out the trim panel - front pillar UPR towards the center of the vehicle.
(4) Rotate the trim panel - front pillar UPR, release the tether clips, and remove the trim panel - front pillar UPR.

CAUTION:
Do not use tools when releasing the tether clip. If the tether clip is damaged, replace it with a new clip.

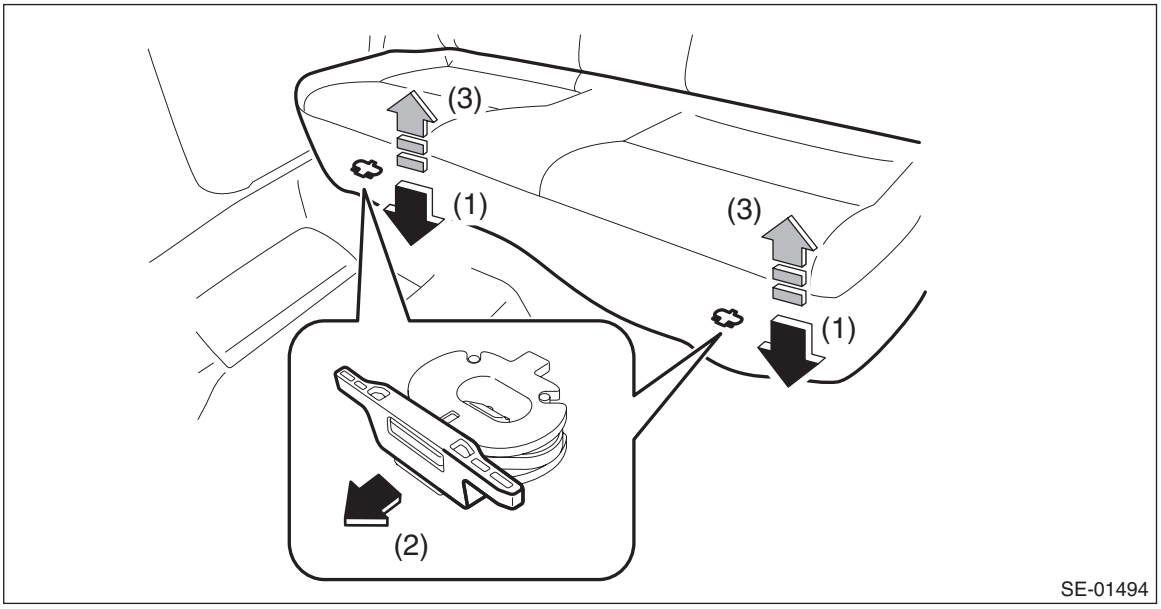


2) Release the claws, and then remove the cover side sill - front INN.

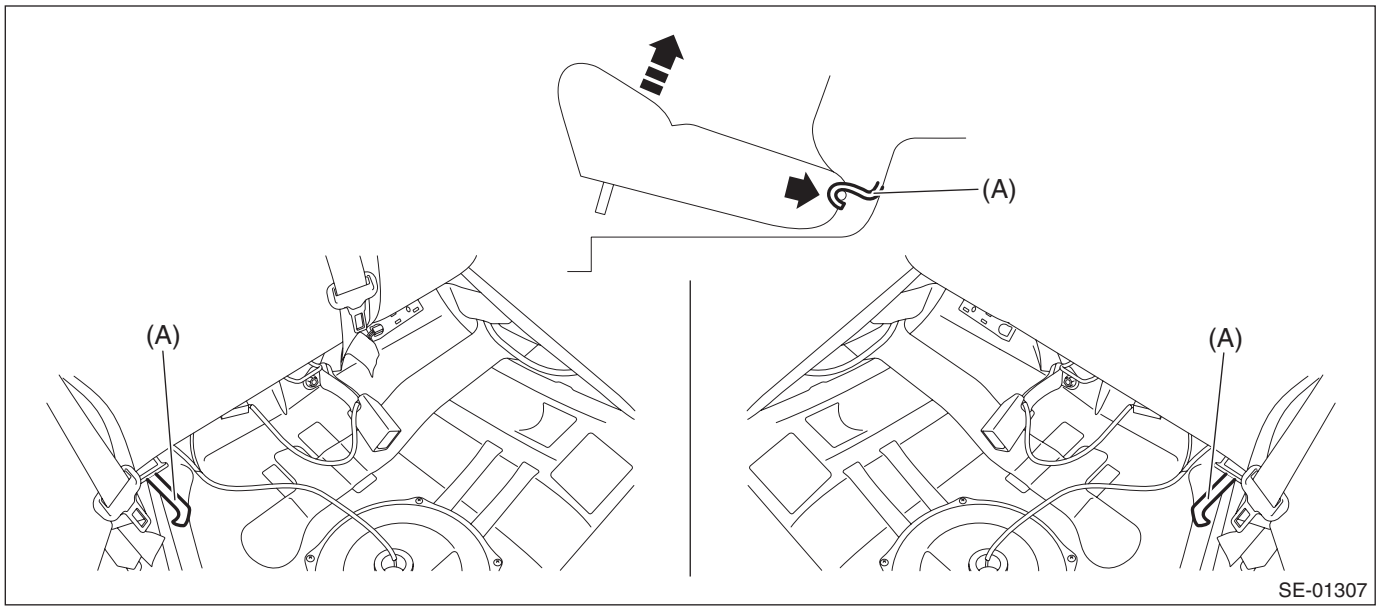
CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



3) Remove the rear seat cushion assembly.
(1) Push the corners of the rear seat cushion from above.
(2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
(3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

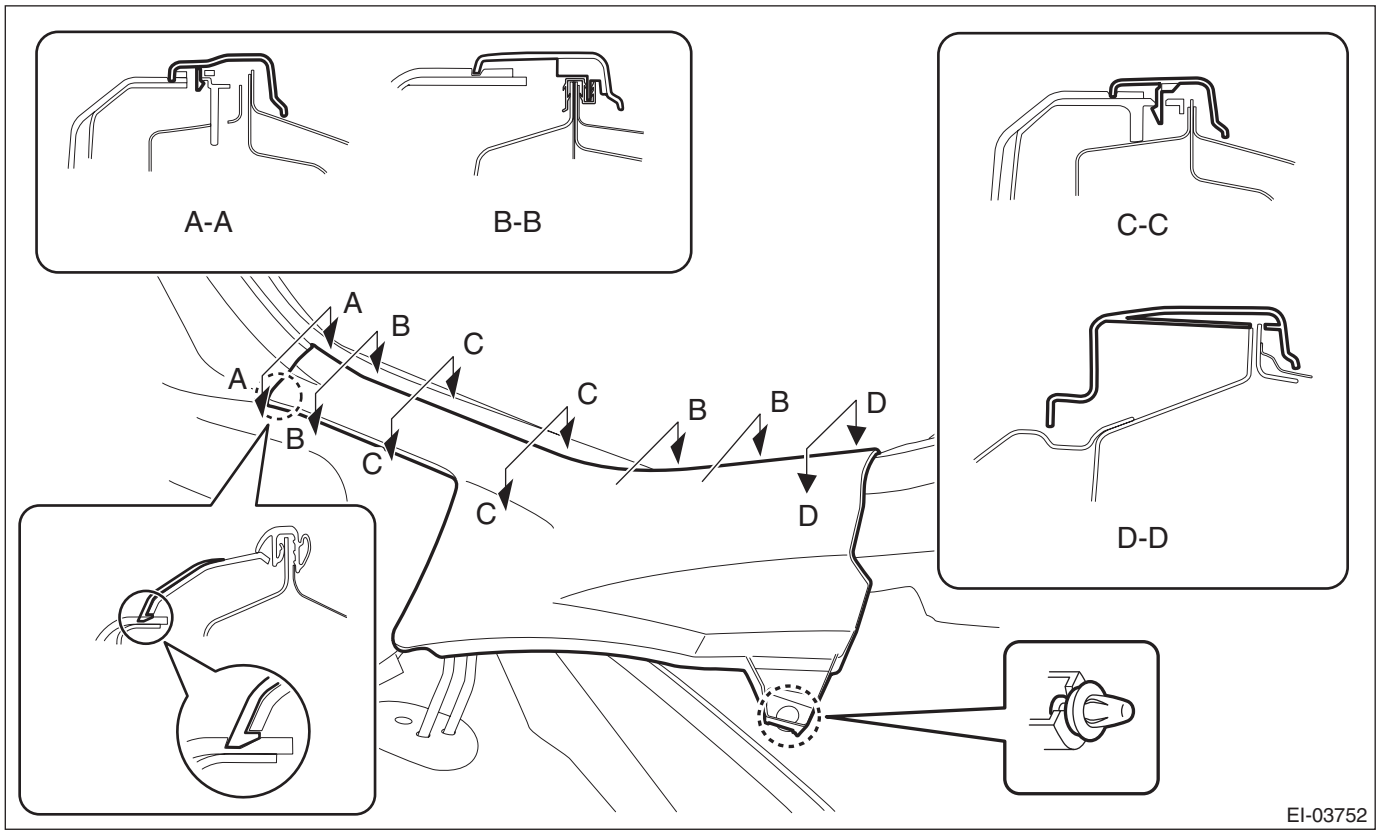


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



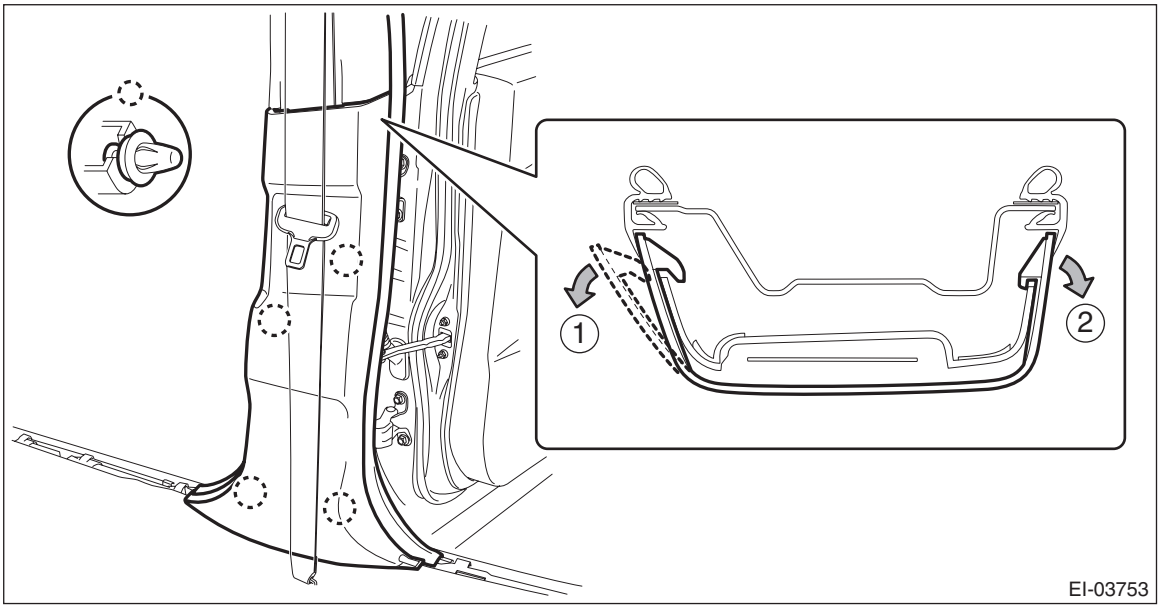
4) Release the clips and claws, and then remove the cover side sill - rear INN.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



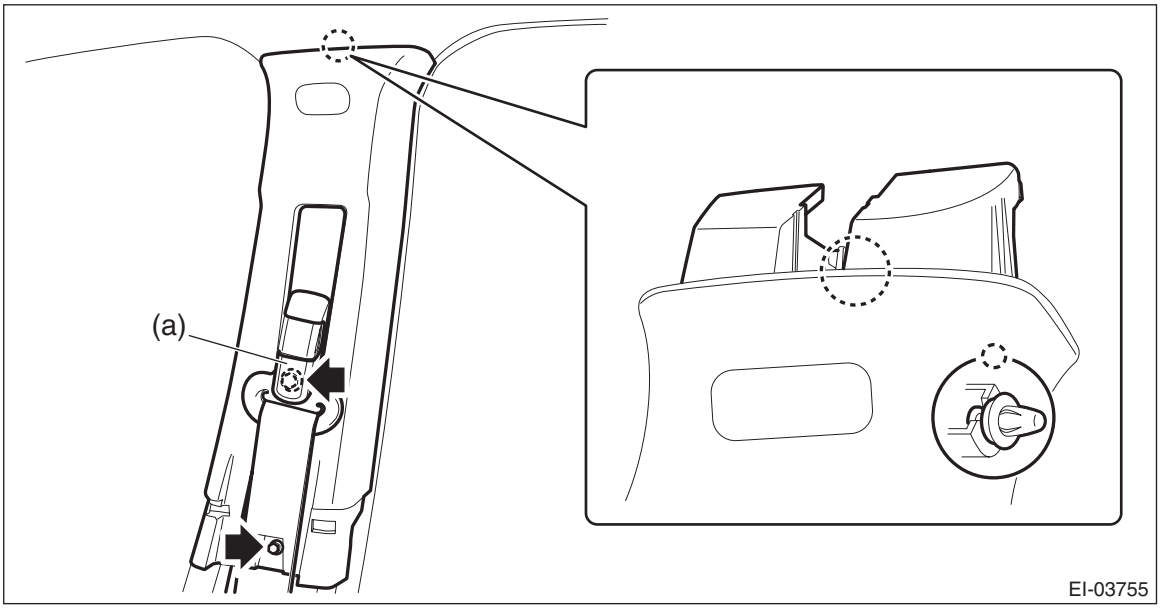
5) Remove the trim panel - center pillar LWR.
(1) Release the clip by pulling the trim panel - center pillar LWR toward you.
(2) Expand the claws of the trim panel - center pillar LWR outward, and remove it from the trim panel - center pillar UPR.

CAUTION:
Do not expand the trim panel - center pillar LWR excessively. Doing so may damage the trim.



NOTE:
First release the claw located to the front of the vehicle.
6) Remove the trim panel - center pillar UPR.
(1) Remove the cover through (a), and remove the seat belt anchor bolt.
(2) Remove the bolt on the lower side of the trim panel - center pillar UPR.
(3) Remove the clip by pulling the upper part of the trim toward you, and while lowering the entire trim, remove the trim panel - center pillar UPR.

CAUTION:
Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.

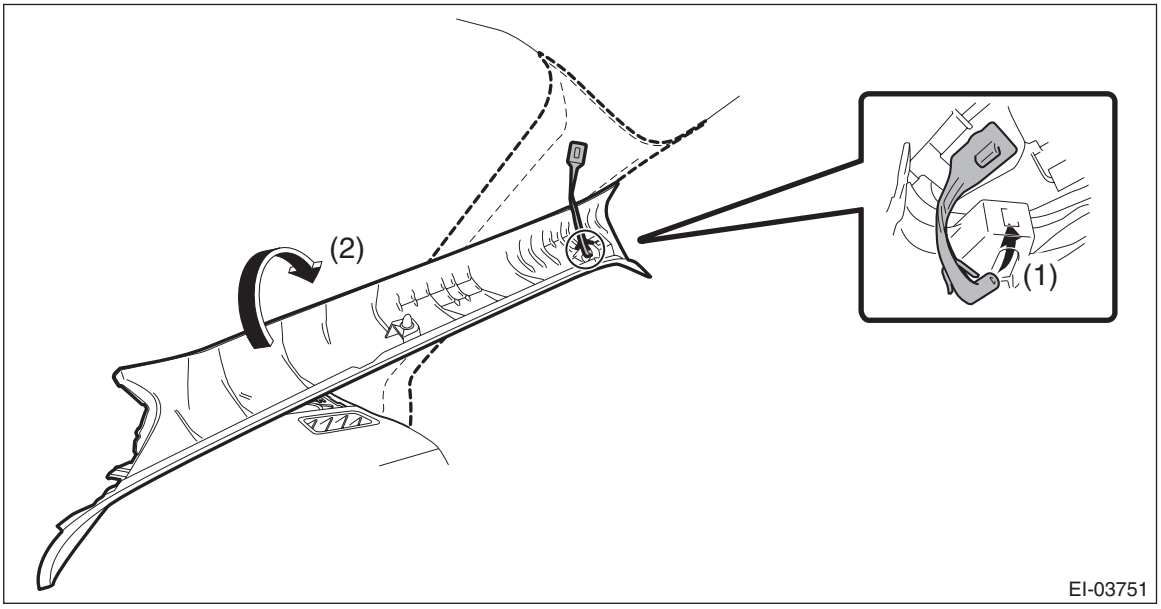


B: INSTALLATION

CAUTION:
• Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
• Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.
• Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

1) Install the trim panel - front pillar UPR.
   (1) Hook the tip of the tether clip on the trim panel - front pillar UPR.
   (2) Turn the trim panel - front pillar UPR, and install the trim panel - front pillar UPR.

CAUTION:
When attaching the tether clips, do not use any tools. If the tether clip is damaged, replace it with a new tether clip.



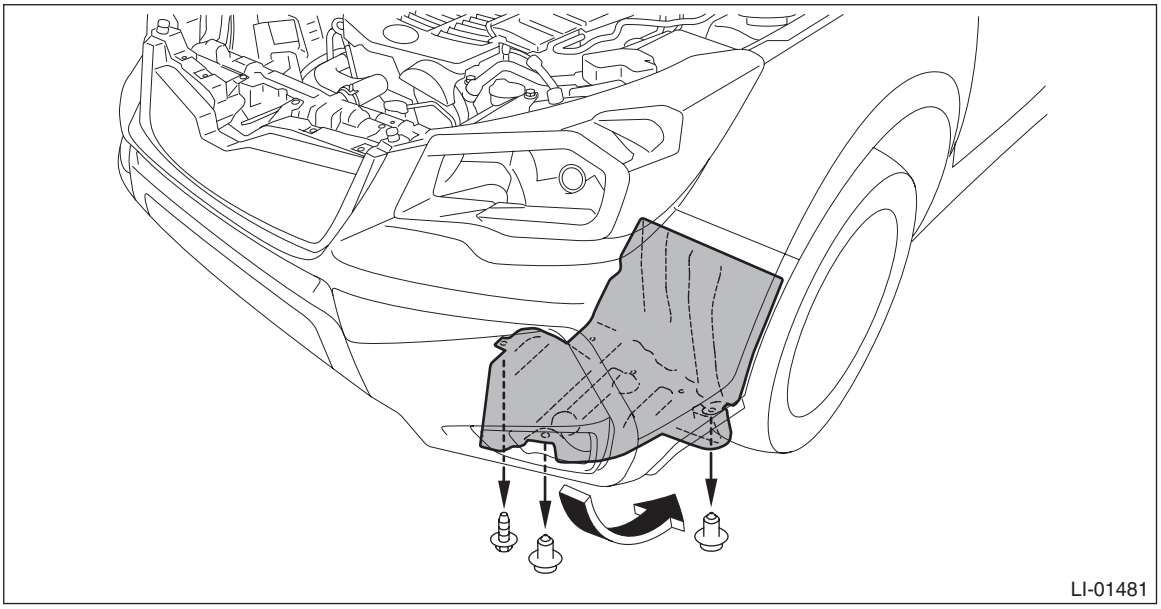
2) Install each part in the reverse order of removal.

Tightening torque:
Front seat belt: <Ref. to SB-2, FRONT SEAT BELT, COMPONENT, General Description.>

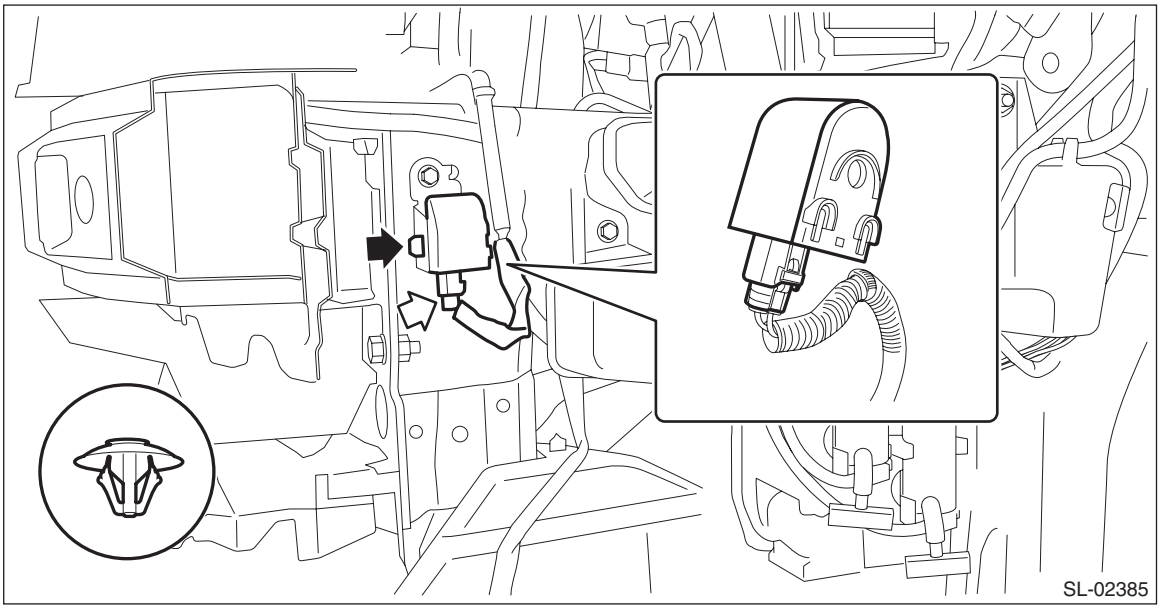
23.Keyless Buzzer

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Lift up the vehicle.
3) Remove the screw and clips, and turn over the front side of the mud guard - front.



4) Remove the keyless buzzer.
   (1) Disconnect the connector.
   (2) Remove the clip and detach the keyless buzzer.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

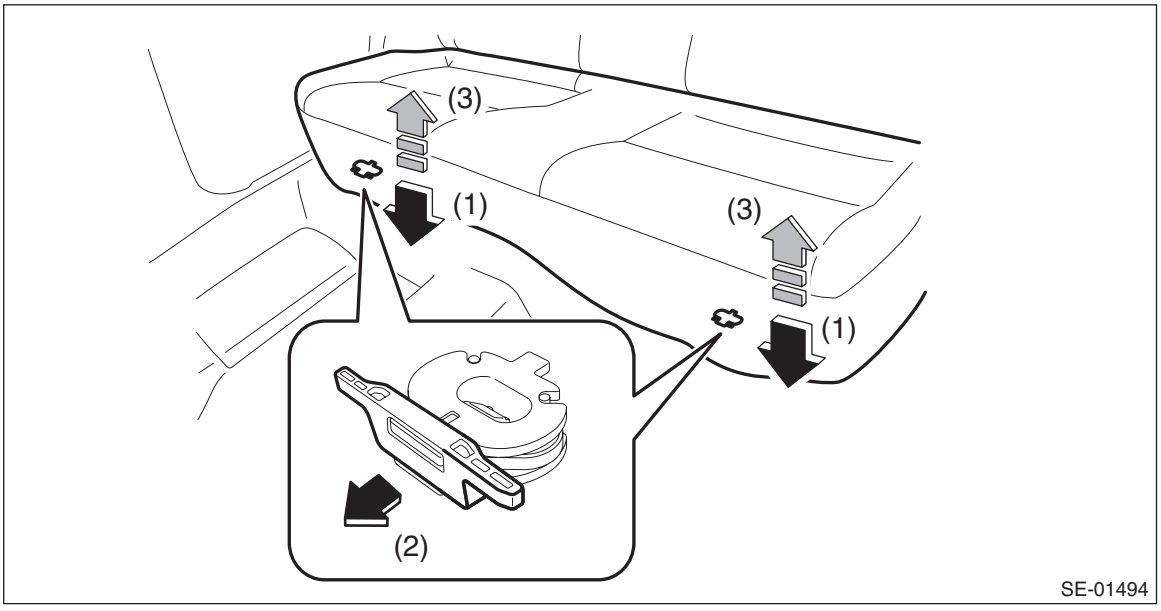
Using the Subaru Select Monitor, perform forced operation of the keyless buzzer. <Ref. to BC(diag)-15, OPERATION, User Customizing.>
If the buzzer does not sound, replace the keyless buzzer.

23.Rear Quarter Trim

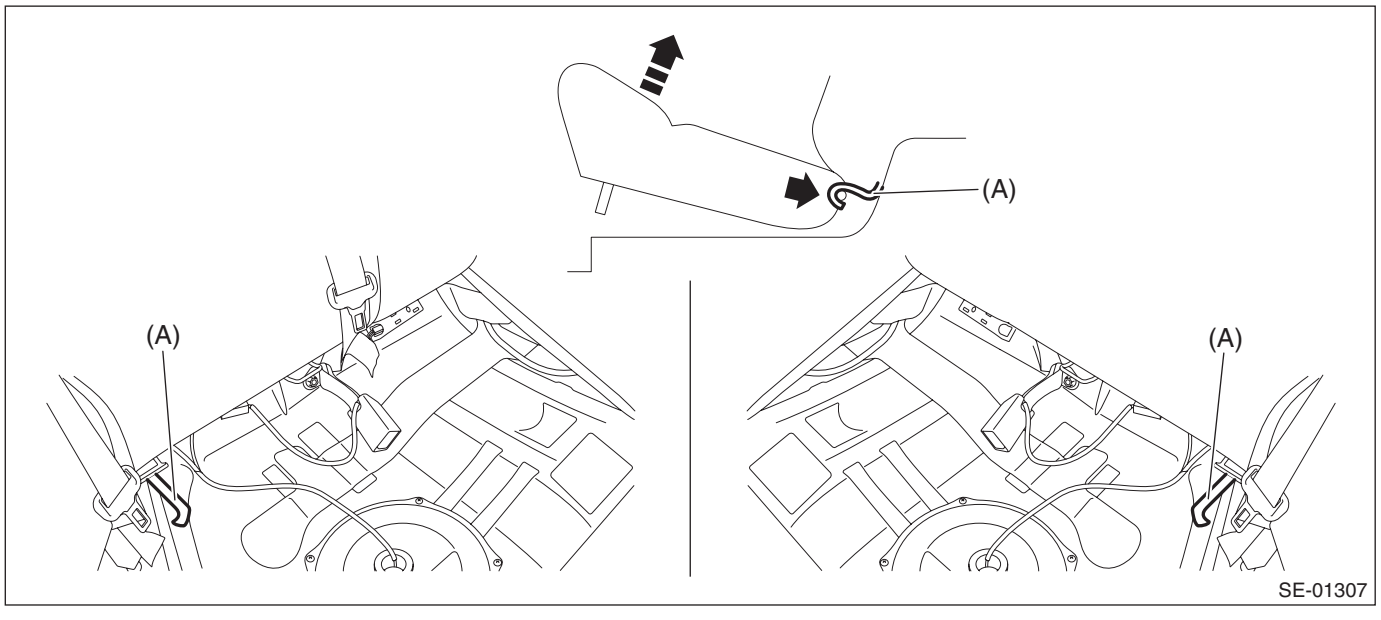
A: REMOVAL

CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

1) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
2) Remove the rear seat cushion assembly.
   (1) Push the corners of the rear seat cushion from above.
   (2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
   (3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

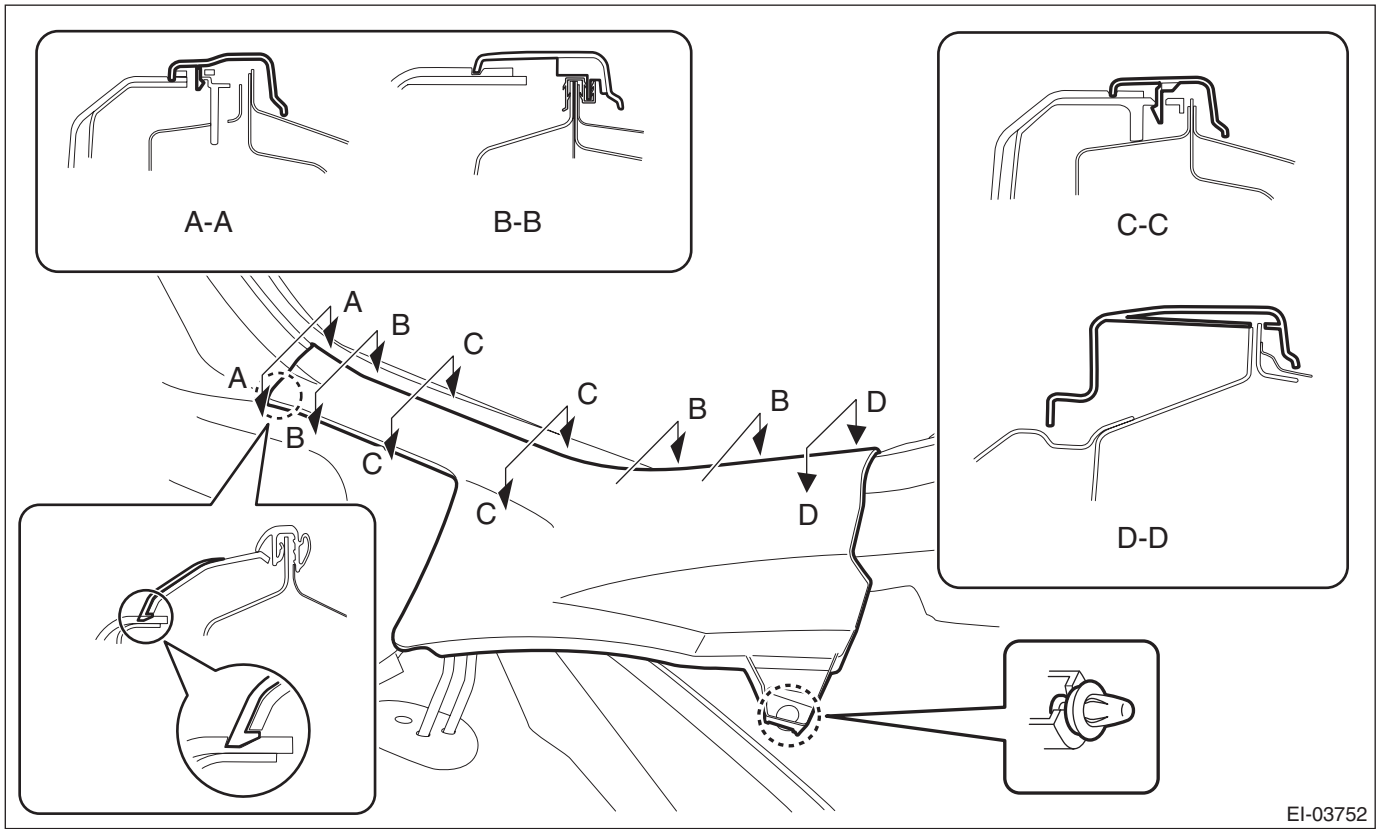


   (4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.

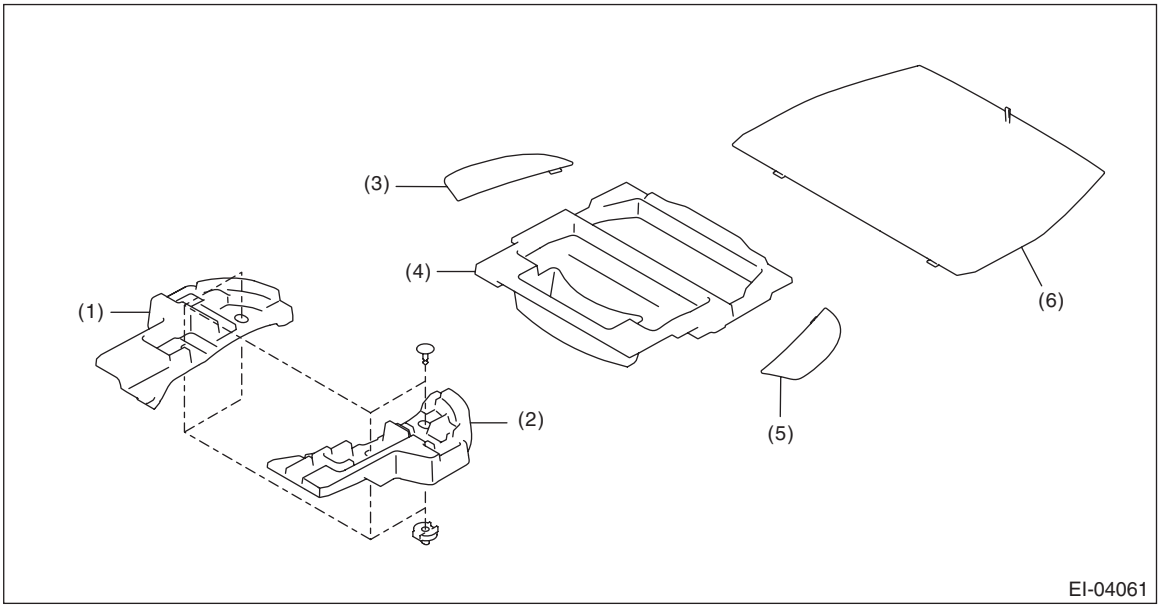


3) Release the clips and claws, and then remove the cover side sill - rear INN.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



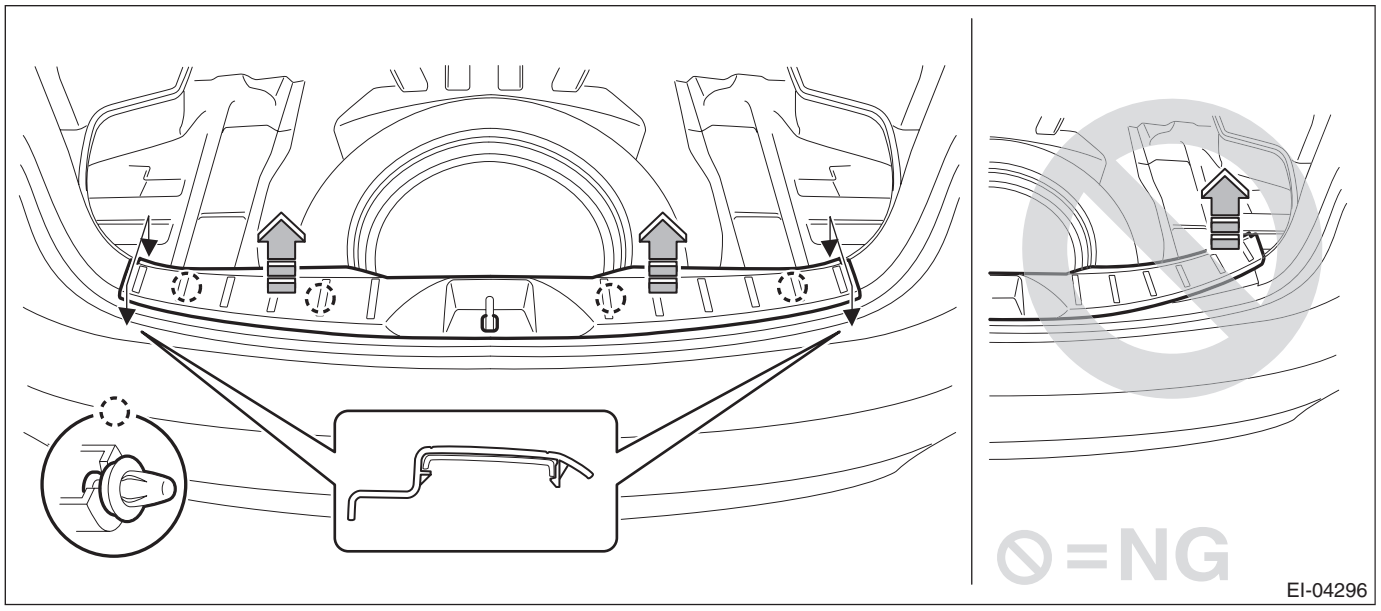
4) Remove the mat - rear floor, spacer - rear floor, and cover - trunk.



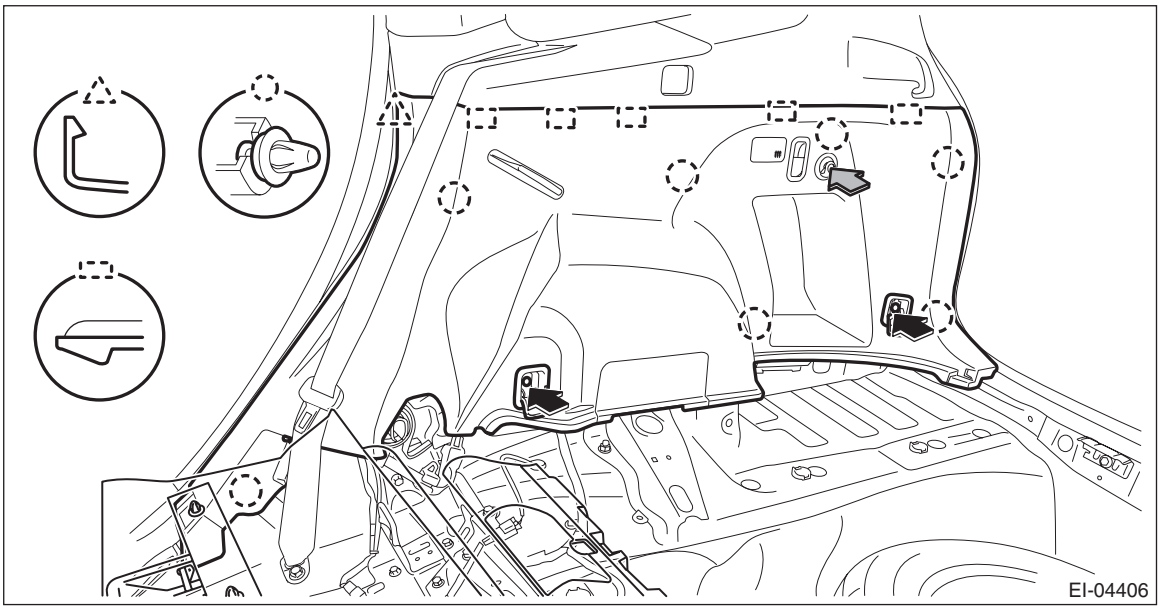
(1) Spacer - rear floor side RH
(2) Spacer - rear floor side LH
(3) Mat - rear floor RH
(4) Cover - trunk
(5) Mat - rear floor LH
(6) Mat - rear floor CTR

5) Remove the clips, and remove the trim panel - rear skirt.

CAUTION:
Do not lift the trim panel - rear skirt from the edge. Doing so may damage the part.

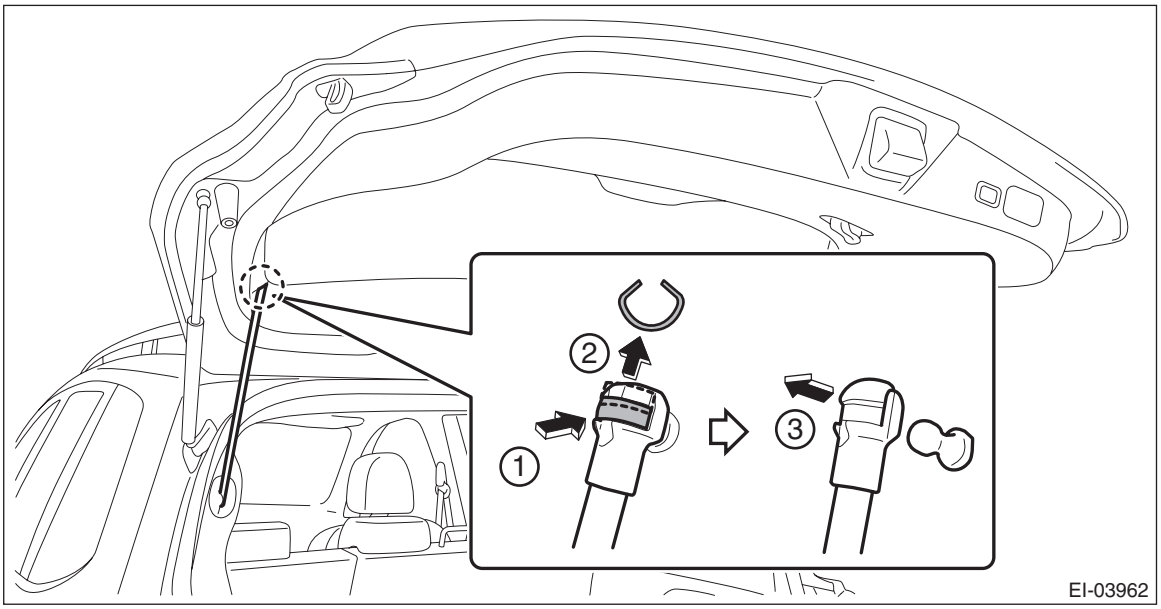


6) Remove the trim panel - rear apron.
(1) Open the cover, remove the bolts, and remove the hook - luggage. (2 places)
(2) Remove the screws, and release the clips.
(3) Disconnect the connectors and remove the trim panel - rear apron.

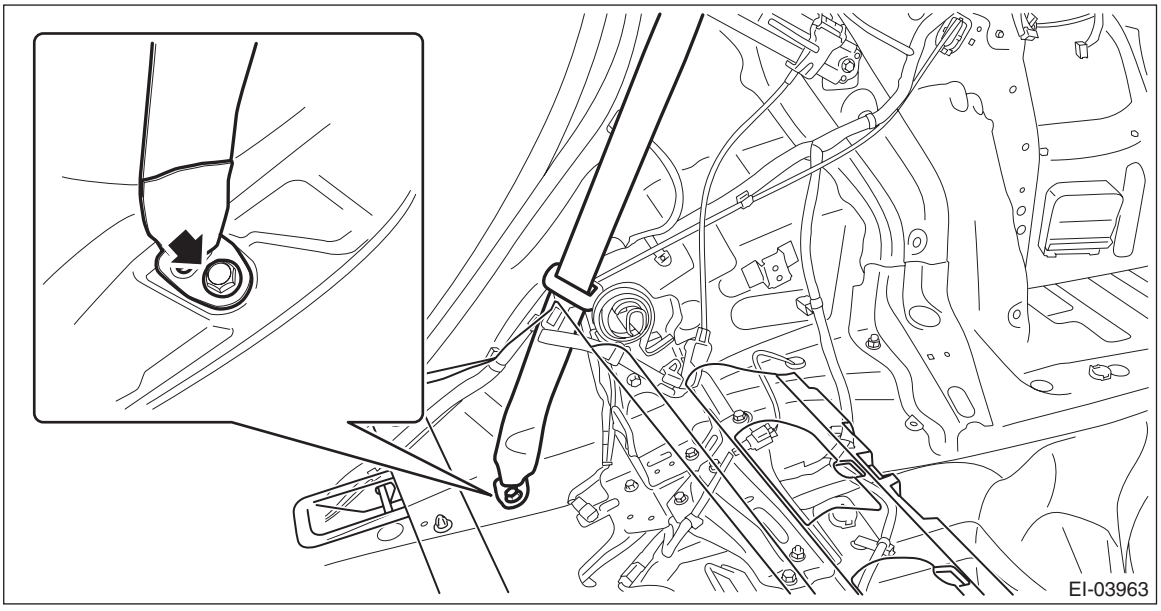


7) Remove the trim panel - rear quarter pillar UPR.
(1) Disconnect the rod - power rear gate before removing the trim panel - rear quarter pillar UPR LH. (Only for models with power rear gate)

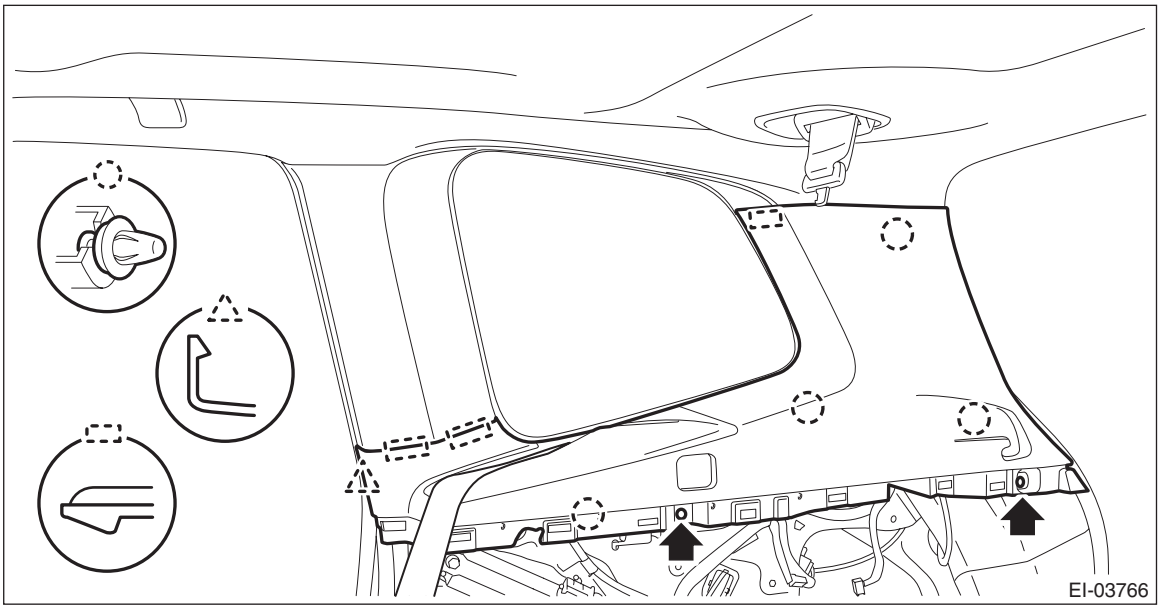
CAUTION:
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.<Ref. to PRG-15, REMOVAL, Power Rear Gate Rod.>



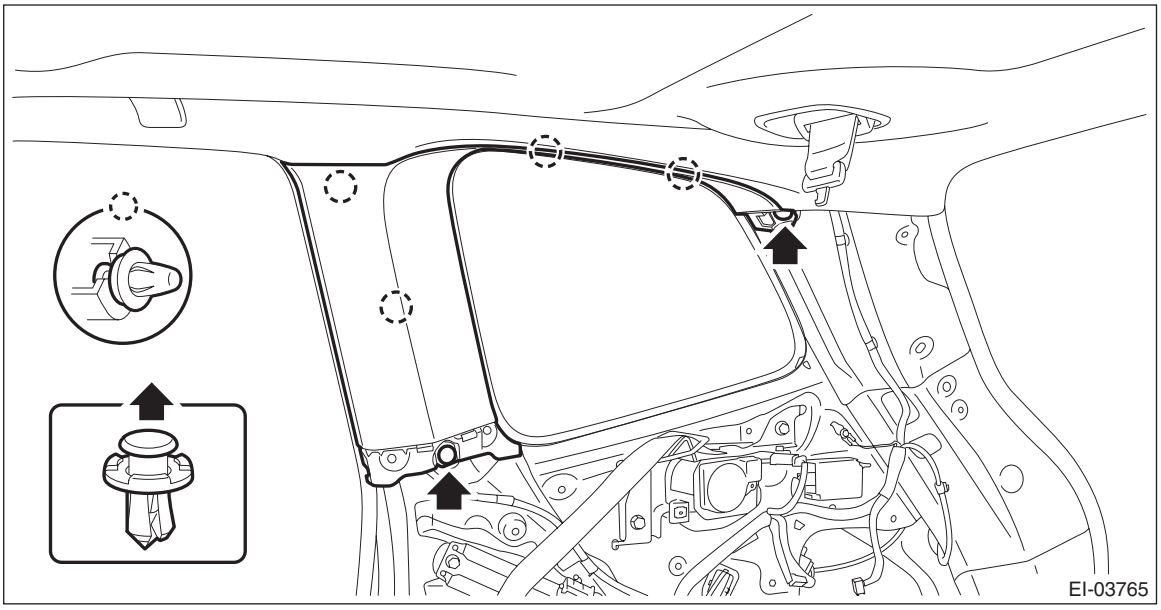
(2) Remove the lower anchor bolts of rear seat belts.



(3) Remove the screws and clips, and remove the trim panel - rear quarter pillar UPR.



8) Release the clips, and remove the trim panel - rear pillar UPR.



B: INSTALLATION

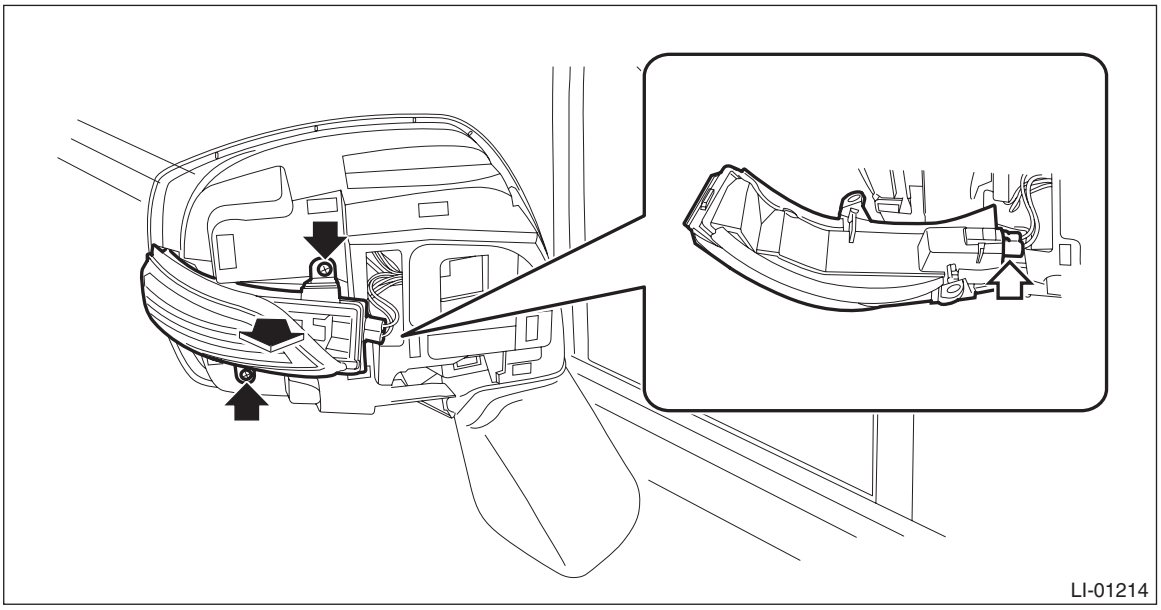
CAUTION:
For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation. <Ref. to PRG-16, INSTALLATION, Power Rear Gate Rod.>
Install each part in the reverse order of removal.

Tightening torque:
Rear seat belt lower anchor: 30 N·m (3.06 kgf-m, 22.1 ft-lb)
Trim panel - rear apron: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

23.Side Turn Signal Light Assembly

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the mirror - repair, the cover - cap outer mirror lower and the cover - cap outer mirror.<Ref. to GW-24, DISASSEMBLY, Outer Mirror Assembly.>
3) Remove the light assembly - side turn mirror.
   (1) Remove the screws and pull out the light assembly - side turn mirror to the front of the vehicle.
   (2) Disconnect the connector and remove the light assembly - side turn mirror.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1) Install the light to check if it blinks normally.
2) If it fails to blink normally, replace the light assembly - side turn mirror with a new part.

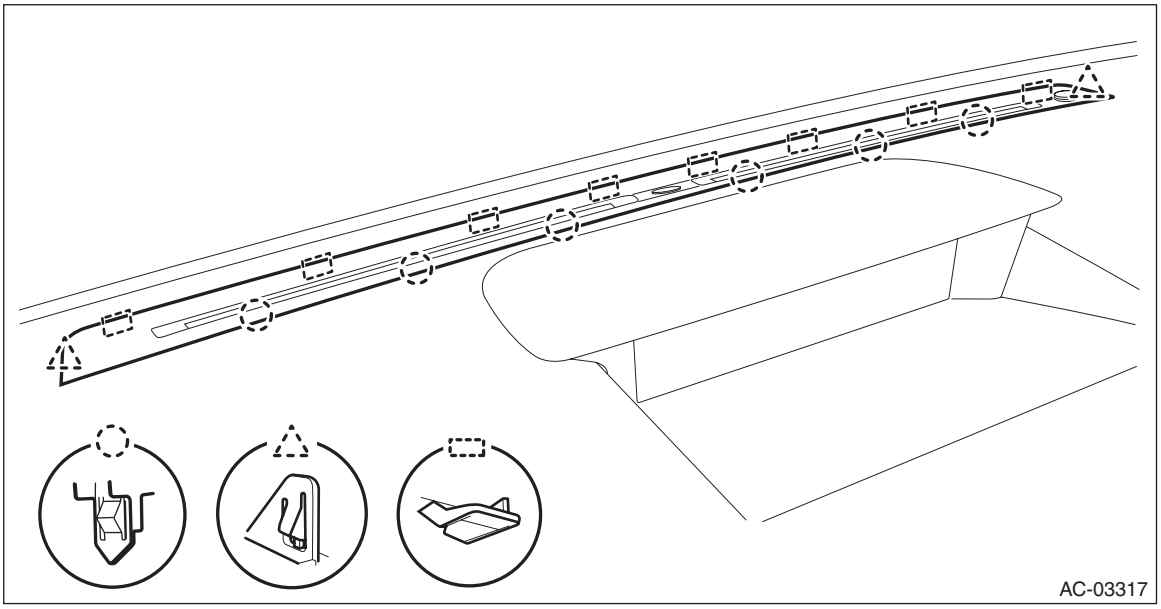
NOTE:
Since LED (Light Emitting Diode) is used for the light, replace the light assembly - side turn mirror if the LED burns out.

23.Sunload Sensor (Auto A/C Model)

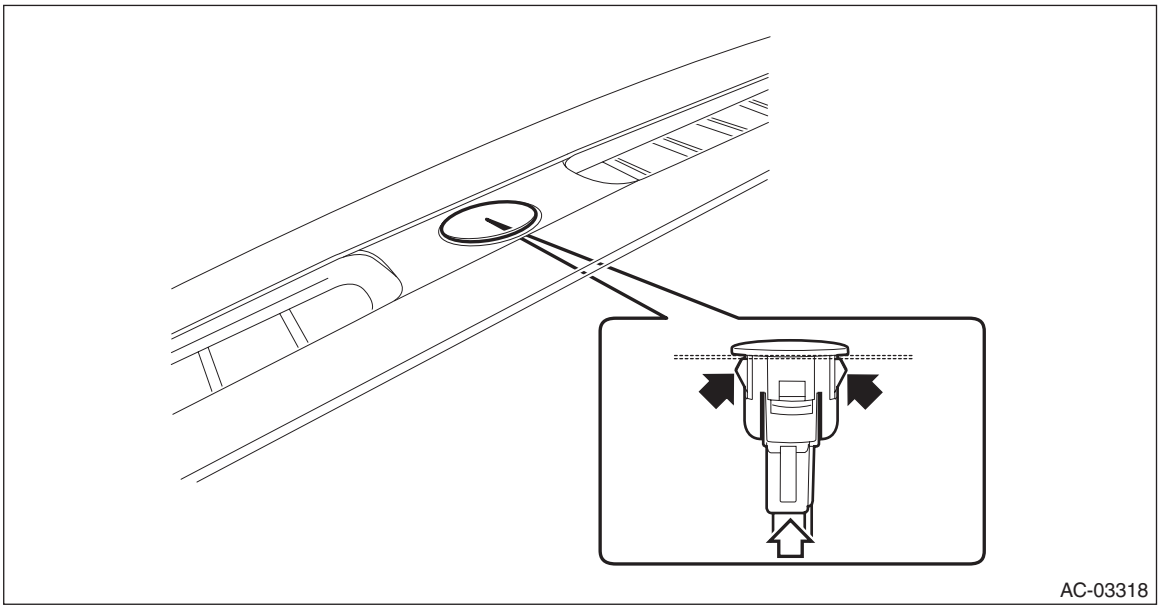
A: REMOVAL

CAUTION:
Be careful not to damage the sensors and interior trims when removing.

1) Disconnect the ground cable from battery.
2) Remove the sensor - sunload.
   (1) Release the connector and claws, and remove the panel COMPL - instrument UPR.



   (2) Press the left and right claws to remove the sensor - sunload from the panel COMPL - instrument UPR.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

On- the vehicle inspection

Preparation tool:
SUBARU SELECT MONITOR III KIT

1) Check if there is anything that affects sensing, around the sensor - sunload.
   (1) Is there anything placed on the sensor - sunload that disturbs sensing?
   (2) Is there anything on the windshield glass, such as sticker and film, that disturbs sensing?
   - **No** → Go to step 2).
   - **Yes** → Remove everything that affects sensing.
2) Using the Subaru Select Monitor, check «Quantity of Sunload».

NOTE:
For detailed procedures, refer to “PC application help for Subaru Select Monitor”.
   (1) Cover the sensor - sunload with cloth.
   (2) Does the «Quantity of Sunload» indicate 0 W/m^2 when the direct sunlight is shielded?
   - **Yes** → Go to step 3).
   - **No** → Replace the sensor - sunload.
3) From the condition in step 2), expose the sensor - sunload to light.
   (1) Place intense light such as incandescent light at 30 cm or less from the sunload sensor.
   (2) Does «Quantity of Sunload» indicate 2,000 W/m^2 or less?

CAUTION:
The value changes depending on the angle of light.
   - **Yes** → The sensor - sunload is normal.
   - **No** → Replace the sensor - sunload.

24.Body Integrated Unit

A: NOTE

1. WHEN REPLACING THE BODY INTEGRATED UNIT

1) Check and record the current setting. <Ref. to BC(diag)-17, CONFIRM CURRENT SETTING, OPERATION, Registration Body Integrated Unit.>
2) Prepare all immobilizer keys already registered. (Model without keyless access)

NOTE:
If some of the registered immobilizer keys are missing, the following parts must be replaced.
- Except for C0 and C5 models: Combination meter
- C0 and C5 models: Security control module

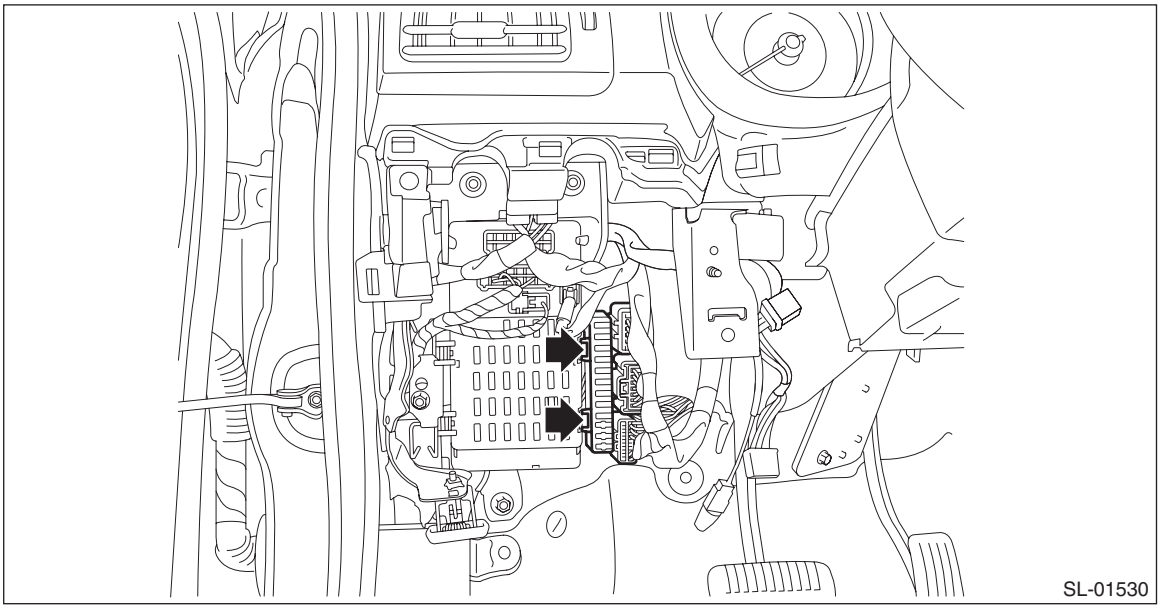
2. AFTER REPLACING THE BODY INTEGRATED UNIT

1) Set the current settings as recorded.
2) Register the immobilizer. (Model without keyless access)

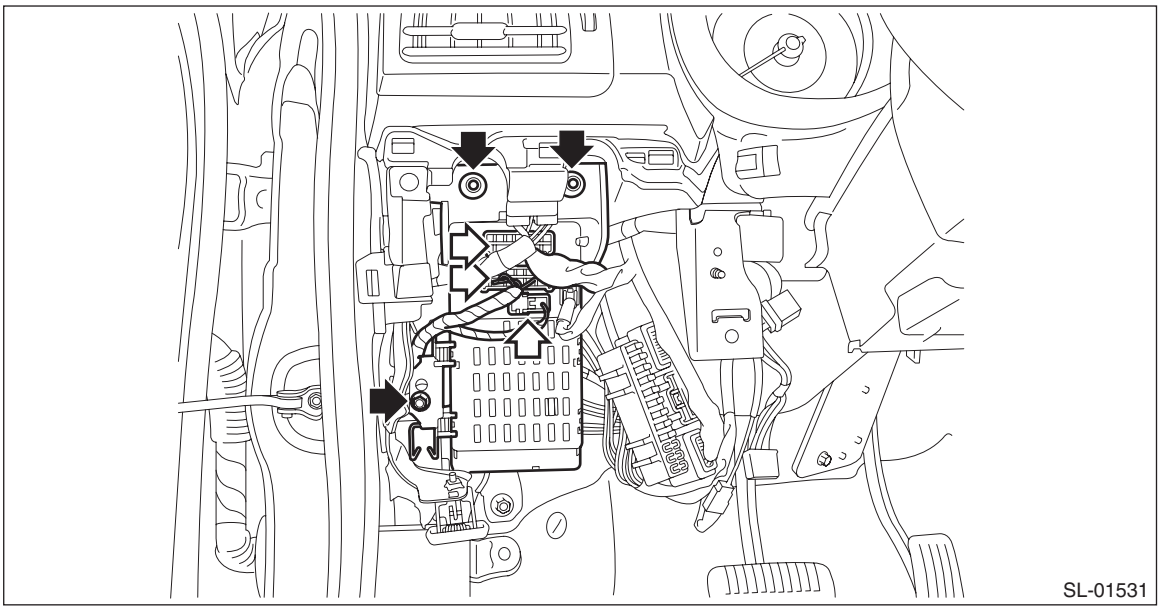
NOTE:
For detailed operation procedure, refer to the “REGISTRATION MANUAL FOR IMMOBILIZER”.
3) Set the current settings as recorded.

B: REMOVAL

1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.

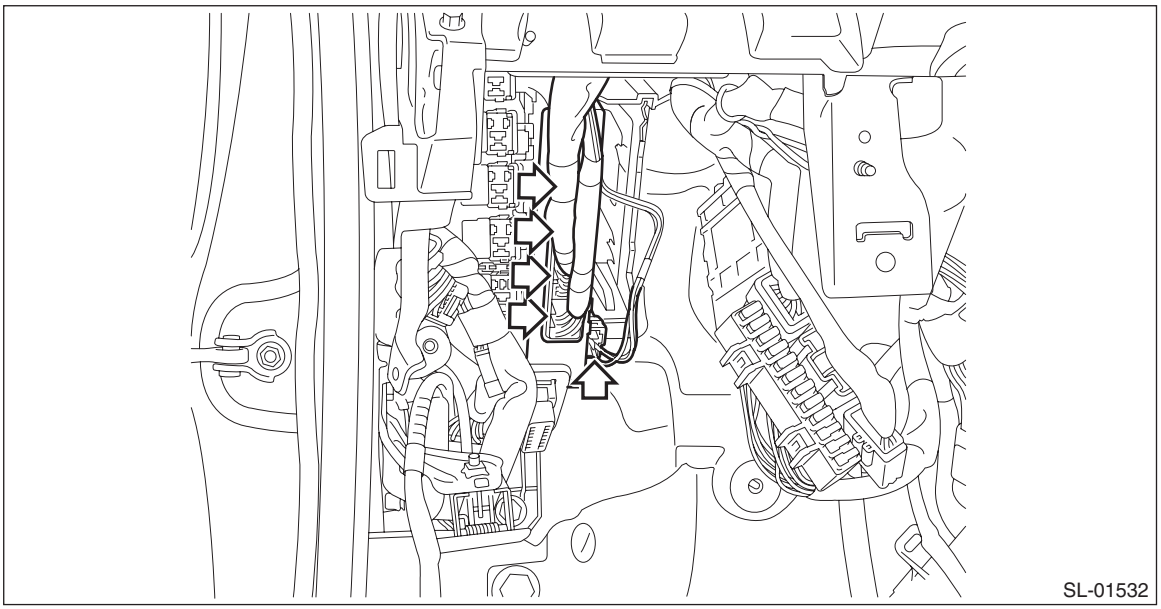


3) Remove the relay & fuse box.
   (1) Disconnect the connector.
   (2) Remove the bolts and nuts, and remove the relay & fuse box.

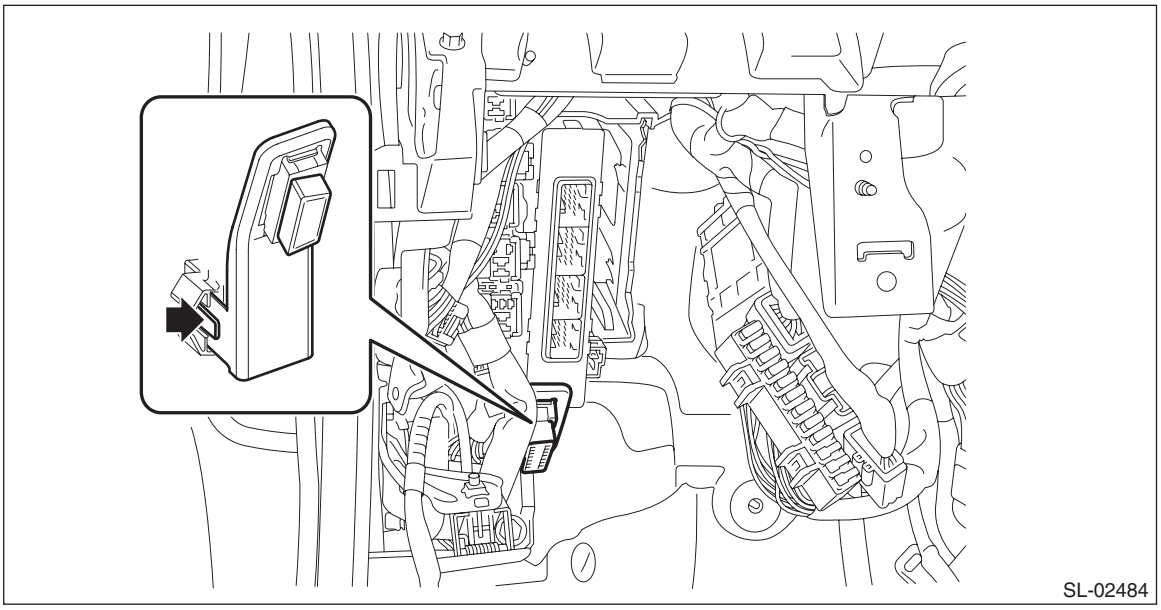

SL-01531

4) Remove the body integrated unit.

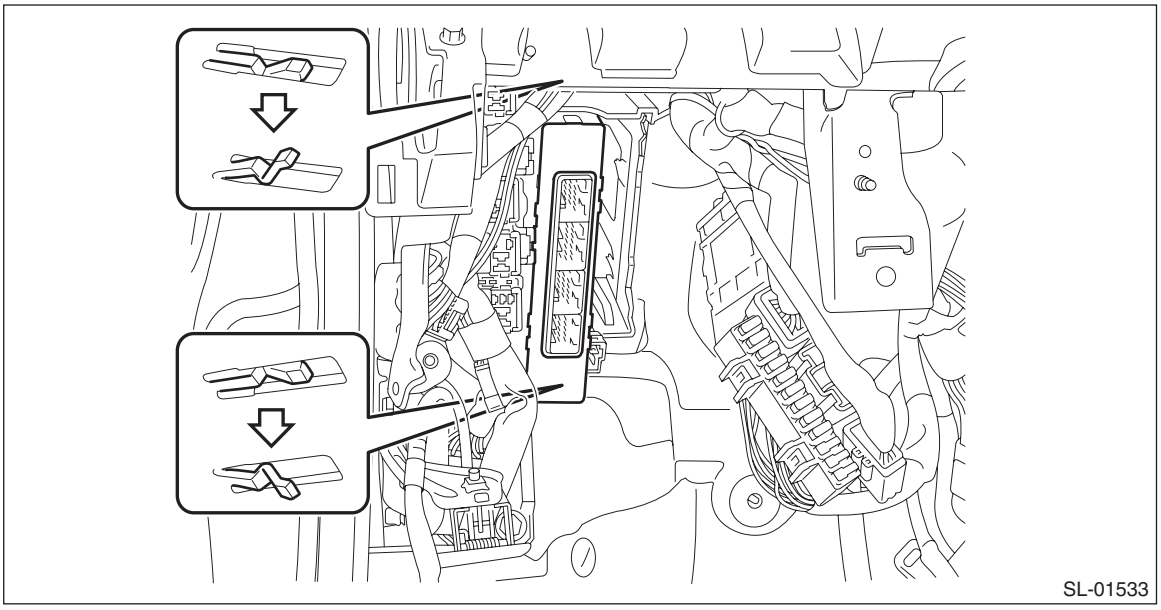
CAUTION:
Be careful to keep water and other foreign materials away from body integrated unit.
   (1) Disconnect the connector.


SL-01532

(2) Release the lock, and remove the data link connector bracket from the bracket.



(3) Release the claws, and pull out the body integrated unit from the bracket.



C: INSTALLATION

CAUTION:

- **Before handling the airbag module, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM".<Ref. to AB-9, CAUTION, General Description.>**
- **Do not allow harness and connectors to interfere or get tangled up with other parts.**

Install each part in the reverse order of removal.

Tightening torque:

Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

NOTE:

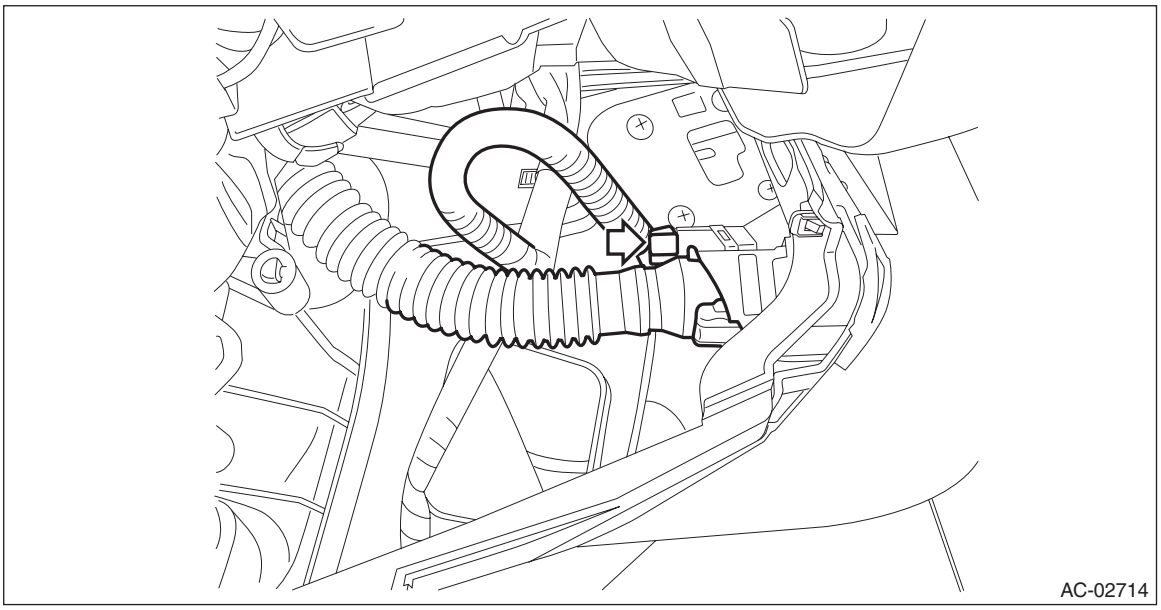
Make sure that there are no differences from the contents of the current settings after installation.<Ref. to BC(diag)-11, LIST, Read Current Data.>

24.In-Vehicle Sensor (Auto A/C Model)

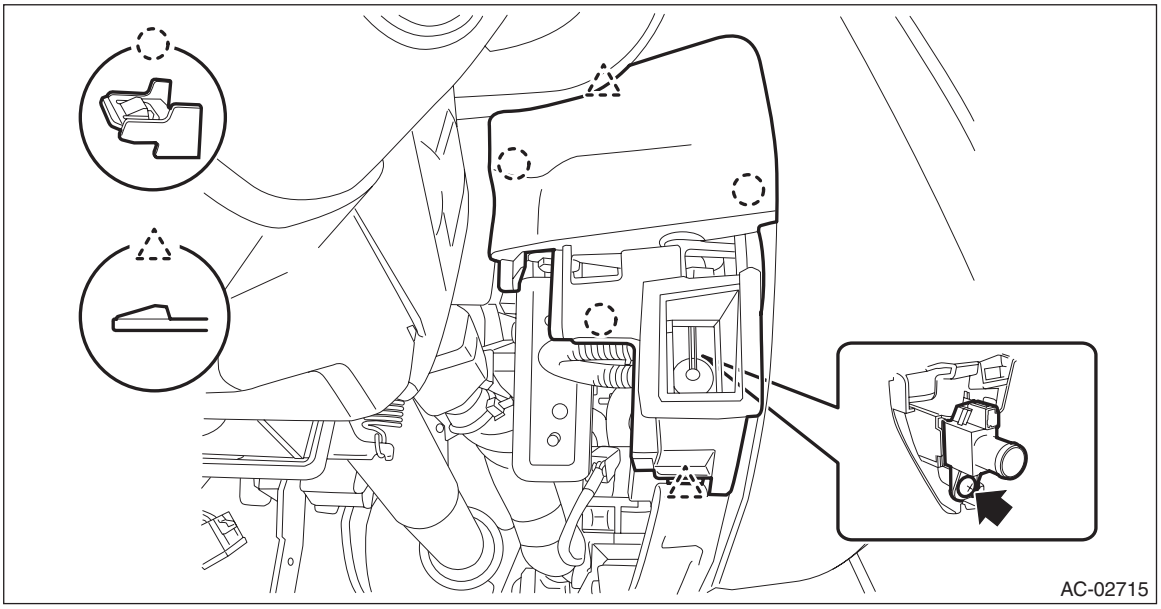
A: REMOVAL

CAUTION:
Be careful not to damage the sensors and interior trims when removing.

1) Remove the instrument panel lower cover and knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Remove the in-vehicle sensor.
   (1) Disconnect the connector, and remove the aspirator hose.



   (2) Release the claws and remove the cover switch - starter.
   (3) Remove the screw and remove the in-vehicle sensor from the cover switch - starter.



B: INSTALLATION

Install each part in the reverse order of removal.

NOTE:
Refer to “INSTALLATION” of “Knee Airbag Module”. <Ref. to AB-43, INSTALLATION, Knee Airbag Module.>

Tightening torque:
Blower motor unit: <Ref. to AC-10, BLOWER MOTOR UNIT, COMPONENT, General Description.>
Engine control module (ECM): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: INSPECTION

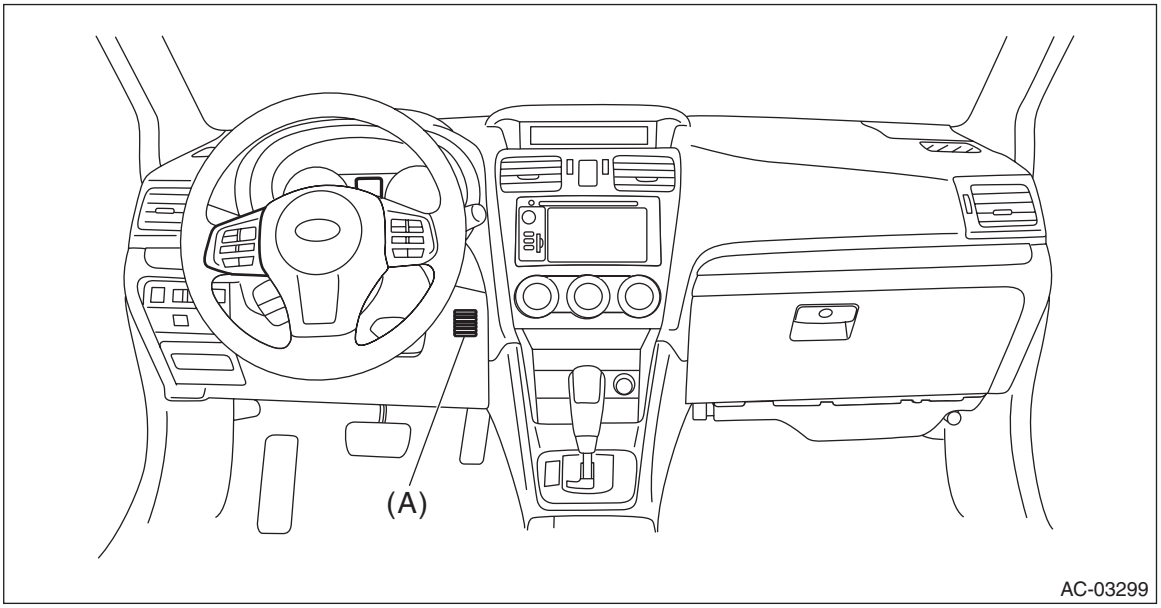
On the vehicle inspection

Preparation tool:
Circuit tester

1) Set the vehicle to the following conditions.

Item	Condition
Ignition switch	ON
A/C switch	ON
Temperature adjustment dial	HI (MAX HOT)
Air flow control dial or switch	DEF
Fan dial	HI (MAX)

2) Check the suction port (A) for in-vehicle sensor of the cover assembly - instrument panel LWR driver INN.

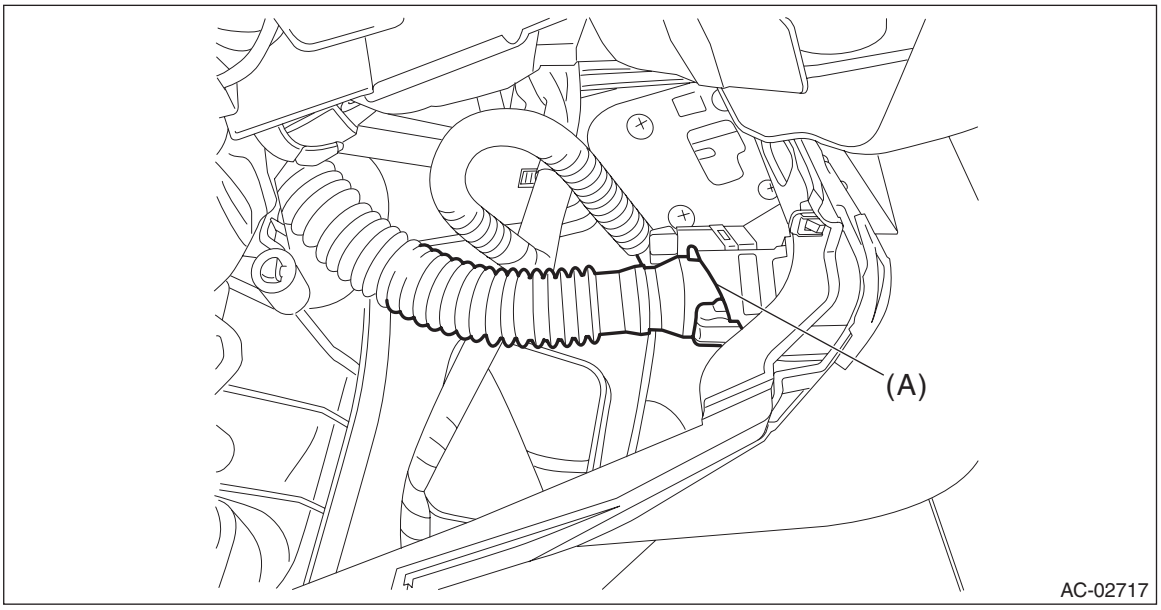


(1) Put a strip of paper close to the front side of the suction port (A).
(2) Can you see the paper moving towards the port and the air being sucked into the port?

CAUTION:
Be careful not to let the paper get sucked into the port.

- **Yes** → Go to step 5).
- **No** → Go to step 3).

3) Remove the cover assembly - instrument panel LWR driver INN, and check the aspirator hose (A).



(1) Are the aspirator hoses on both sides of the case and sensor connected securely?
(2) Is the aspirator hose free from any kinks or cracks?

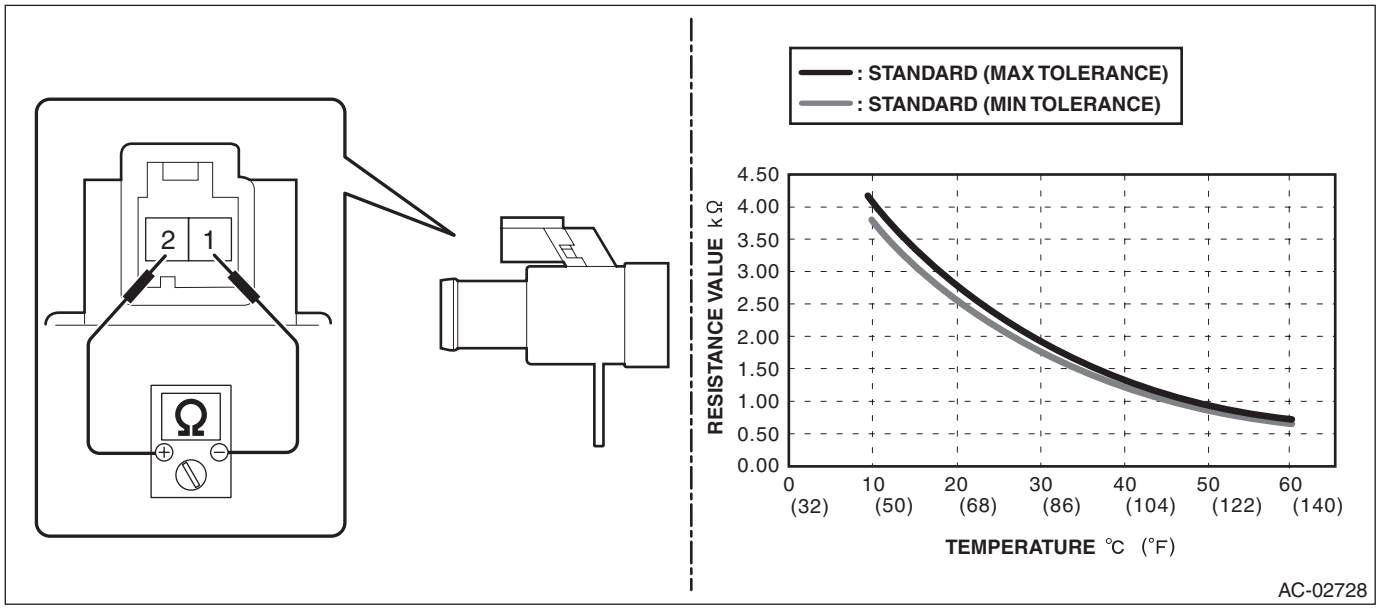
- **Yes** → Go to step 4).
- **No** → Repair or replace the aspirator hose if necessary.

4) Check if there is anything that affects sensing, around the in-vehicle sensor.
(1) Is the in-vehicle sensor hole free from clogging?
(2) Is the peripheral area of in-vehicle sensor free from any heat-producing parts (such as audio, navigation system etc.)?

- **Yes** → Go to step 5).
- **No** → Remove everything that affects sensing.

5) Perform the inspection of in-vehicle sensor unit.
(1) Disconnect the in-vehicle sensor connector.
(2) Is the resistance between terminals of in-vehicle sensor within standard value?

CAUTION:
During inspection, be careful not to touch the sensor end in order to avoid misjudgment due to body temperature.



Terminal No.	Inspection conditions	Standard
1 — 2	10°C	3.772 — 4.101 kΩ
	15°C	3.096 — 3.338 kΩ
	20°C	2.556 — 2.734 kΩ
	25°C	2.121 — 2.251 kΩ
	30°C	1.756 — 1.878 kΩ
	35°C	1.462 — 1.574 kΩ
	40°C	1.223 — 1.326 kΩ
	45°C	1.028 — 1.122 kΩ
	50°C	0.868 — 0.9542 kΩ
	55°C	0.7363 — 0.8147 kΩ
	60°C	0.6273 — 0.6984 kΩ

- **Yes** → The in-vehicle sensor is normal.
- **No** → Replace the in-vehicle sensor.

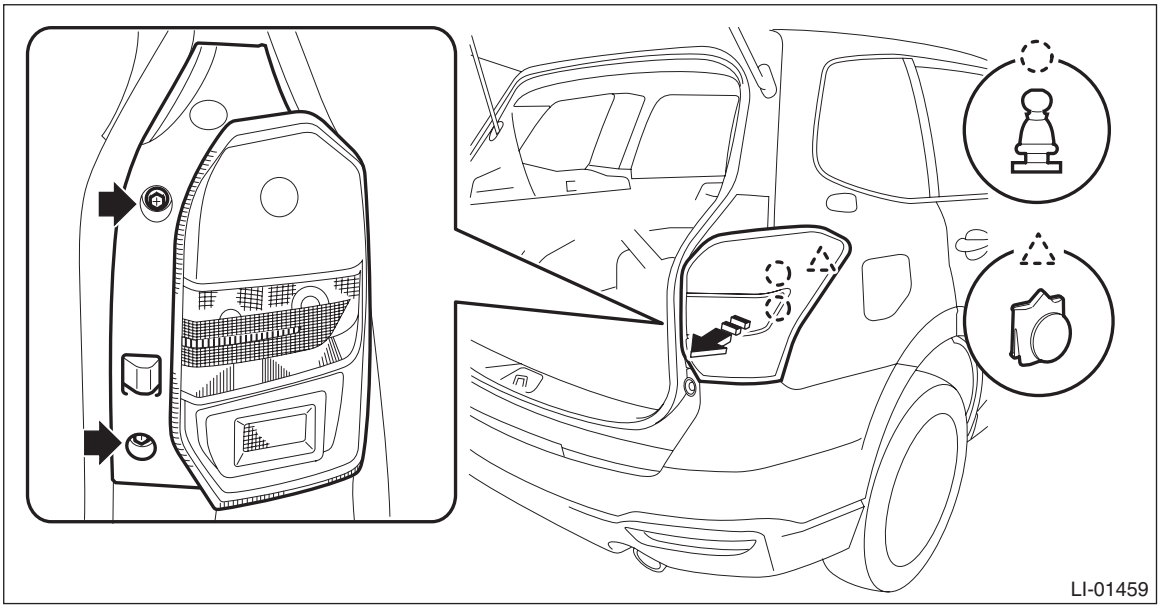
24.Rear Combination Light Assembly

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the light assembly - rear combination.

CAUTION:
Be careful not to damage the clips.

(1) Release the bolts and clips, then pull out the light assembly - rear combination to the vehicle rear.
(2) Disconnect the connector and remove the light assembly - rear combination.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Light assembly - rear combination: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

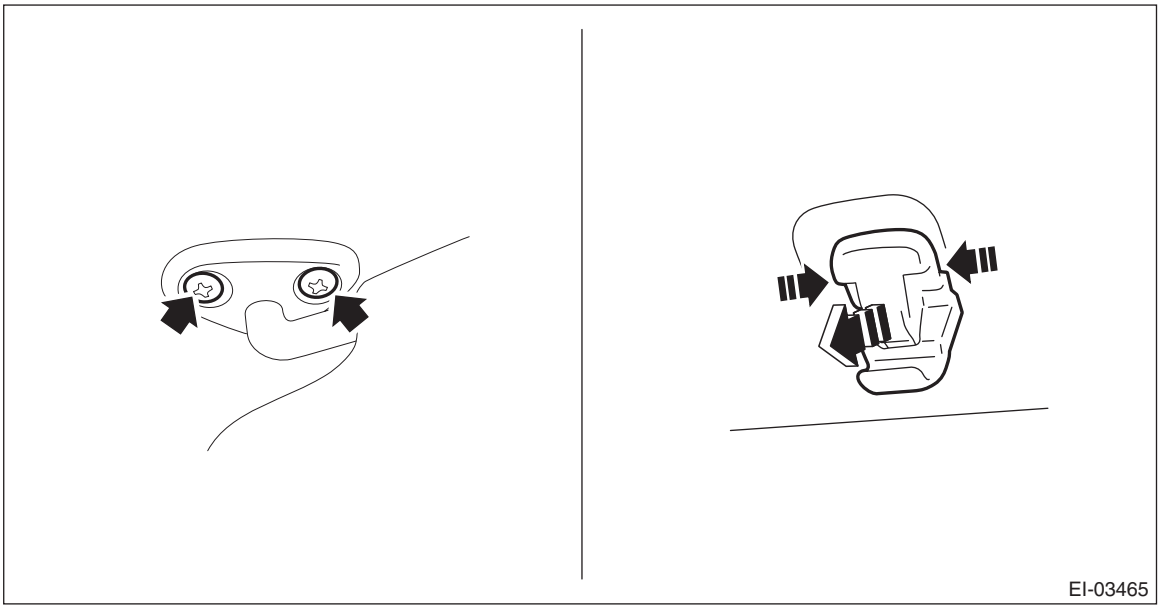
C: INSPECTION

1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

24.Sun Visor

A: REMOVAL

1) Remove the screws and remove the sun visor assembly.
2) Remove the hook - sun visor.
   (1) Press both sides using a flat tip screwdriver.
   (2) Remove the hook - sun visor by pulling it toward you.



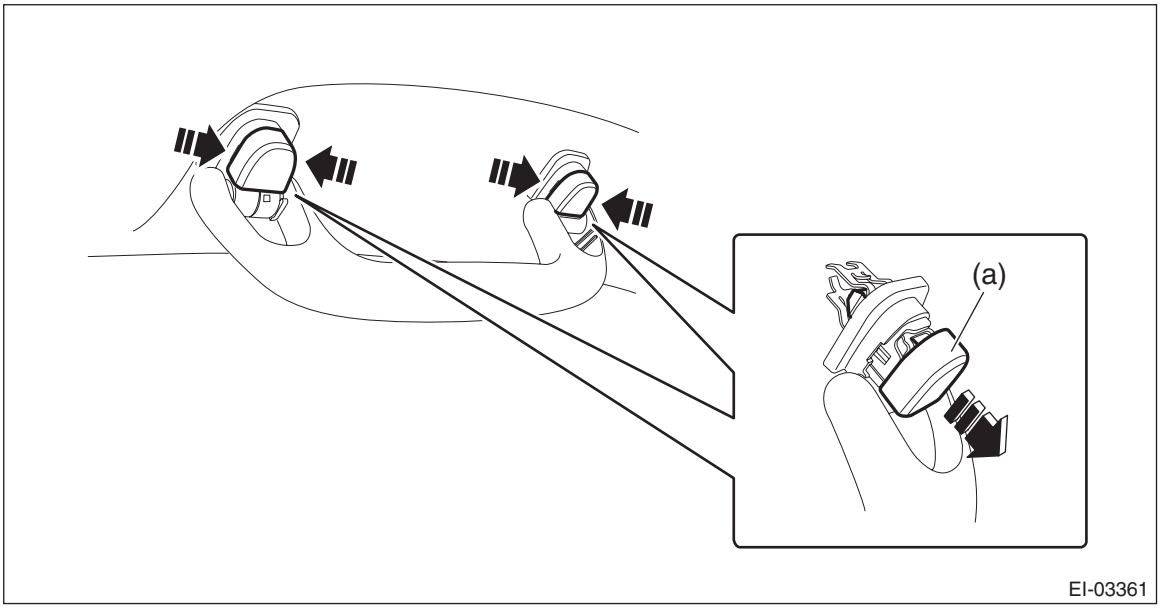
B: INSTALLATION

Install each part in the reverse order of removal.

25.Assist Grip

A: REMOVAL

Remove the assist rail.
1) Remove the cap (a) by pulling the both sides of the cap (a) using a flat tip screwdriver wrapped with a protection tape.
2) Pull the assist grip toward you (to the vehicle center) and remove the metal clip from the bracket.



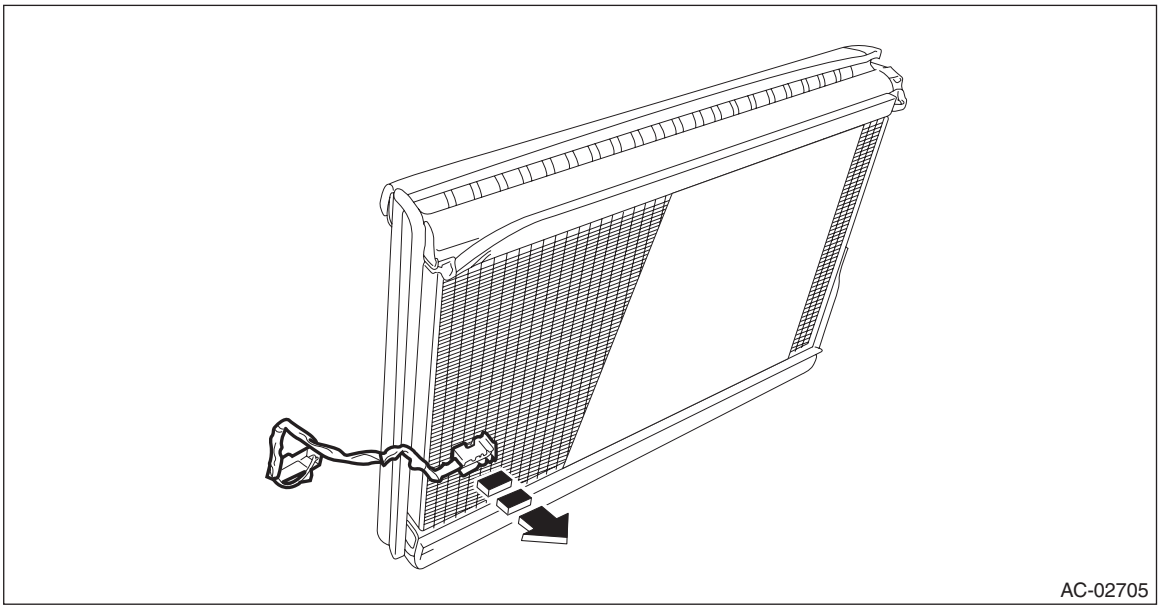
B: INSTALLATION

Install each part in the reverse order of removal.

25.Evaporator Sensor

A: REMOVAL

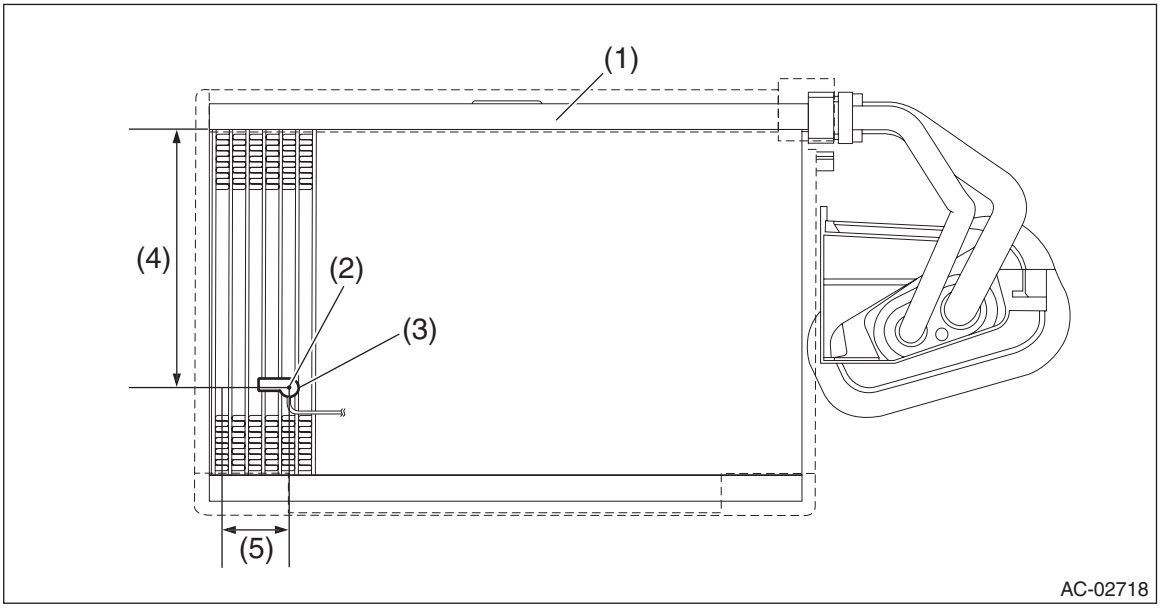
1) Remove the evaporator assembly - cooling. <Ref. to AC-65, REMOVAL, Evaporator.>
2) Remove the thermostat - cooling from the evaporator assembly - cooling.



B: INSTALLATION

CAUTION:
- **Make sure that the water seal packing on the cover attachment area is securely attached.**
- **Replace the O-rings with new parts, and then apply compressor oil.**

1) Install the thermostat - cooling at the position shown in the figure below.



(1) Evaporator ASSY - cooling
(2) Center
(3) Thermostat - cooling
(4) 130 mm (5.12 in) from the upper end of the fins
(5) Fifth row fin from the left end

2) Install each part in the reverse order of removal.

Tightening torque:
Heater cooling unit: <Ref. to AC-6, HEATER AND COOLING UNIT, COMPONENT, General Description.>
Blower motor unit: <Ref. to AC-10, BLOWER MOTOR UNIT, COMPONENT, General Description.>
3) Charge refrigerant. <Ref. to AC-29, PROCEDURE, Refrigerant Charging Procedure.>

C: INSPECTION

On- the vehicle inspection

Preparation tool:
SUBARU SELECT MONITOR III KIT
Circuit tester
Thermometer and hygrometer
1) Prepare the vehicle.

NOTE:
Check that the ambient temperature is 25 — 40°C (77 — 104°F) and that the humidity is 30% — 80%.
- Place the vehicle in the workshop or in the shade and windless condition.
- Open all windows.

2) Set the vehicle to the following conditions.

Item	Condition
Engine	Idling
Air vent grille	Shutter is fully open.
A/C switch	OFF
Temperature adjustment dial	LO (MAX COOL)
FRESH/RECIRC switch	CIRC
Air flow control dial or switch	VENT
Fan dial	Auto A/C model: 5/7 level
	Manual A/C model: 3/4 level

3) Using the Subaru Select Monitor, check «Evaporator Temperature».

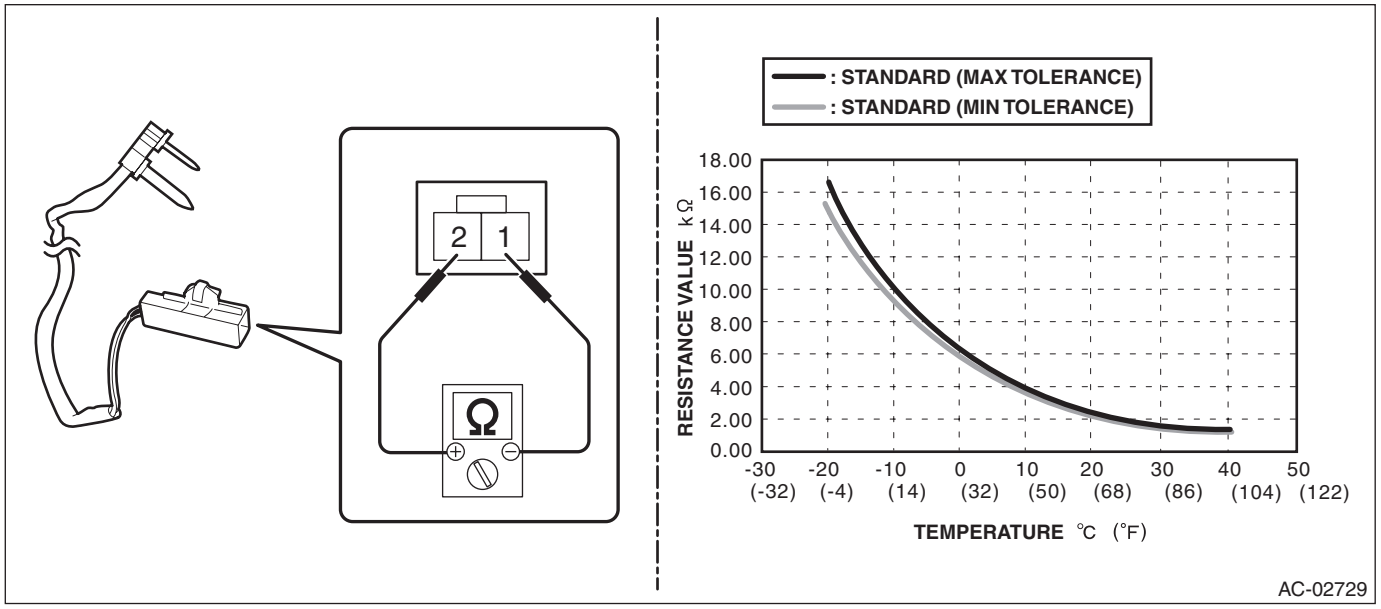
NOTE:
For detailed procedures, refer to “PC application help for Subaru Select Monitor”.

(1) Idle the engine for 15 minutes, and then compare the air flow outlet temperature with «Evaporator Temperature».

NOTE:
For outlet opening temperature, measure the average temperature of center grille assembly and side grille assembly.

(2) Do the air flow outlet temperature and «Evaporator Temperature» differ by 3°C (5.4°F) or more?
- **Yes** → Go to step 4).
- **No** → Evaporator sensor is normal.

4) Check the evaporator sensor.
(1) Disconnect the evaporator sensor connector.
(2) Is the resistance between terminals of evaporator sensor within standard value?



Terminal No.	Inspection conditions	Standard
1 — 2	-20°C	15.37 — 16.62 kΩ
	-15°C	12.09 — 12.87 kΩ
	-10°C	9.576 — 10.05 kΩ
	-5°C	7.636 — 7.899 kΩ
	0°C	6.132 — 6.256 kΩ
	5°C	4.891 — 5.057 kΩ
	10°C	3.928 — 4.113 kΩ
	15°C	3.174 — 3.366 kΩ
	20°C	2.581 — 2.77 kΩ
	25°C	2.111 — 2.292 kΩ
	30°C	1.737 — 1.907 kΩ
	35°C	1.437 — 1.595 kΩ
	40°C	1.195 — 1.34 kΩ

- **Yes** → Evaporator sensor is normal.
- **No** → Replace the evaporator sensor.

25.Keyless Transmitter

A: REMOVAL

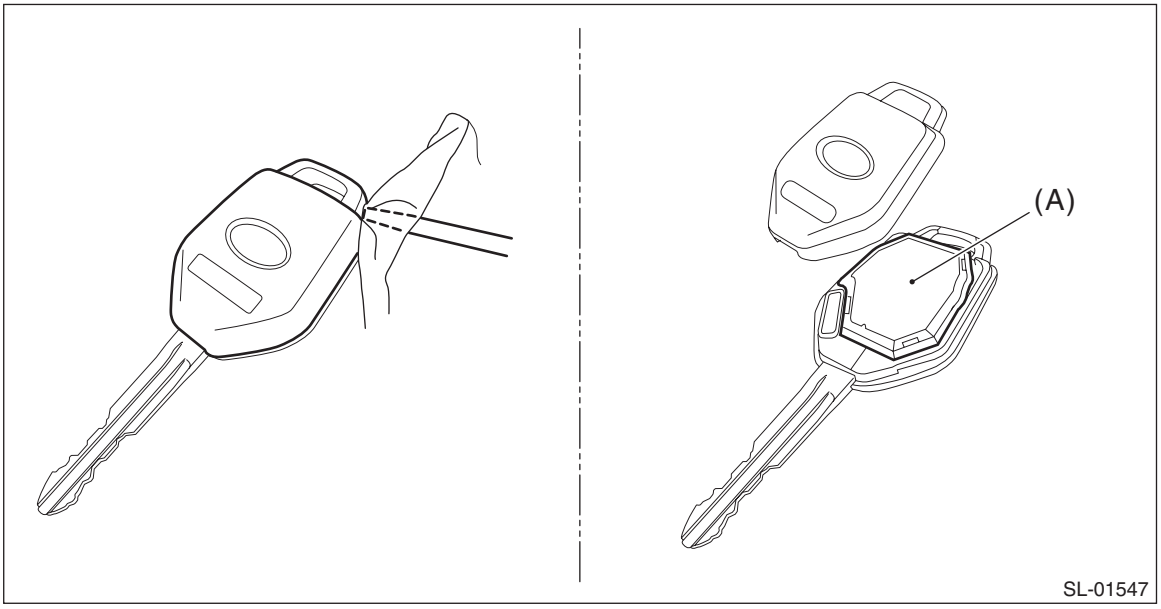
NOTE:
Refer to the access key section for model with keyless access. <Ref. to SL-81, REMOVAL, Access Key.>

1. KEYLESS TRANSMITTER BATTERY

CAUTION:
To prevent static electricity damage to the keyless transmitter printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the keyless transmitter.

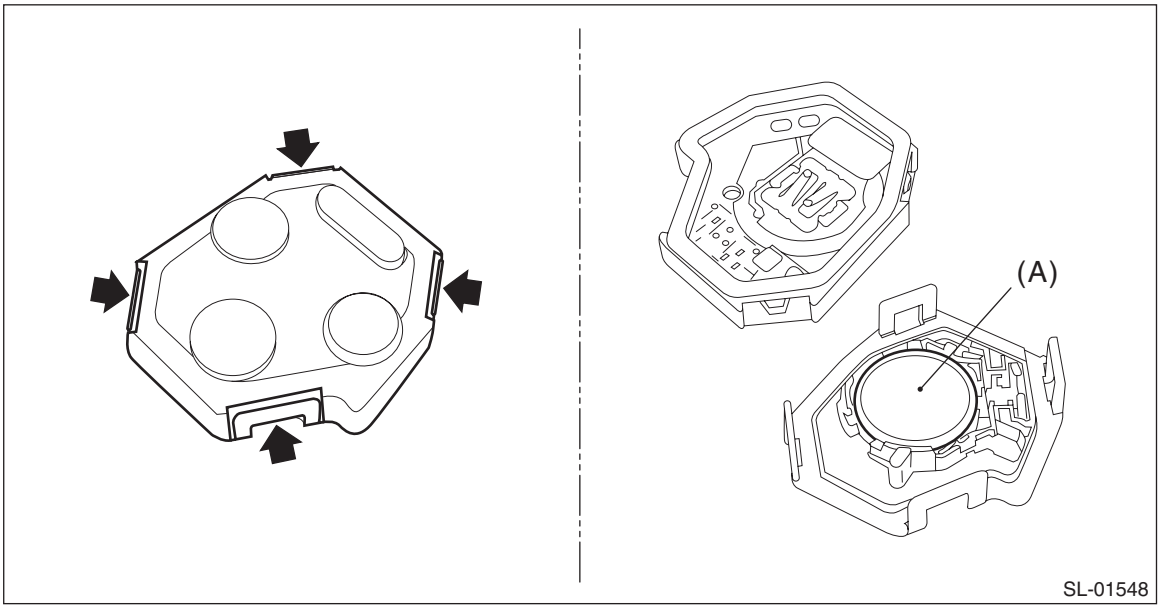
1) Remove the keyless transmitter cover, and take out the transmitter case (A).

NOTE:
Use a flat tip screwdriver with protective tape or cloth in order not to damage the components.



2) Release the claws to open the transmitter case, then remove the battery (A).

CAUTION:
Press and hold the battery with a finger in order to prevent it from popping out.



B: INSTALLATION

1. KEYLESS TRANSMITTER BATTERY

Install each part in the reverse order of removal.

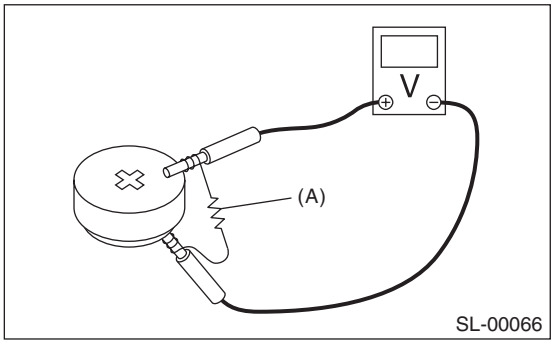
C: INSPECTION

1. KEYLESS TRANSMITTER BATTERY

1) Check the keyless transmitter battery voltage.

Preparation tool:
Circuit tester

NOTE:
Complete the measurement within 5 seconds because the battery discharges during measurement.



Battery terminal	Inspection Conditions	Standard
(+) — (–)	Connect resistor (A) 47 Ω	2.5 — 3.0 V

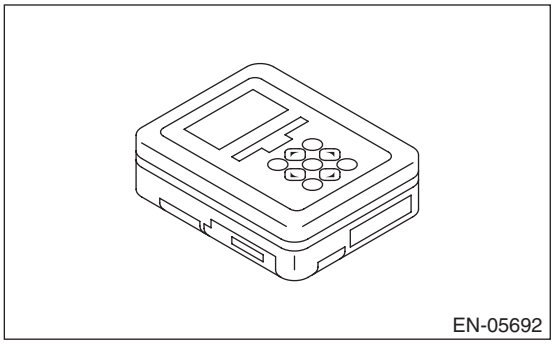
2) Replace the battery if the inspection result is not within the standard value. (Use CR1620 or equivalent.)

D: REPLACEMENT

1. REGISTRATION OF KEYLESS TRANSMITTER WITH SUBARU SELECT MONITOR

NOTE:
- A maximum of four keyless transmitters can be registered for each individual vehicle.
- When replacing or adding the keyless transmitter, new registration of transmitter is necessary.

1) Prepare the Subaru Select Monitor kit.<Ref. to SL-8, SPECIAL TOOL, PREPARATION TOOL, General Description.>

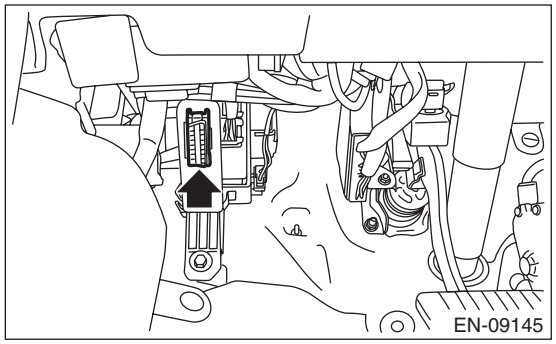


2) Prepare PC with Subaru Select Monitor installed.
3) Connect the USB cable to SDI (Subaru Diagnosis Interface) and USB port on the personal computer (dedicated port for the Subaru Select Monitor).

NOTE:
The dedicated port for the Subaru Select Monitor means the USB port which was used to install the Subaru Select Monitor.
4) Connect the diagnosis cable to SDI.

5) Connect SDI to data link connector located in the lower portion of the instrument panel (on the driver's side).

CAUTION:
Do not connect scan tools other than the Subaru Select Monitor.



6) Start the PC.
7) Turn the ignition switch to OFF and run the "PC application for Subaru Select Monitor".
8) On the «Main Menu» of the Subaru Select Monitor, select {Each System Check} → {Integ. unit mode} → {Work Support} → {Keyless ID registration}.
9) According to the directions on the screen, press the button of the transmitter to be registered in the LOCK → UNLOCK order. «When registration completed, interior buzzer sounds once.» Repeat the registration as many times as desired.
10) Press the [Exit] button to finish the operations.

NOTE:
When attempting to register a key that has already been registered, the passenger room buzzer sounds twice.

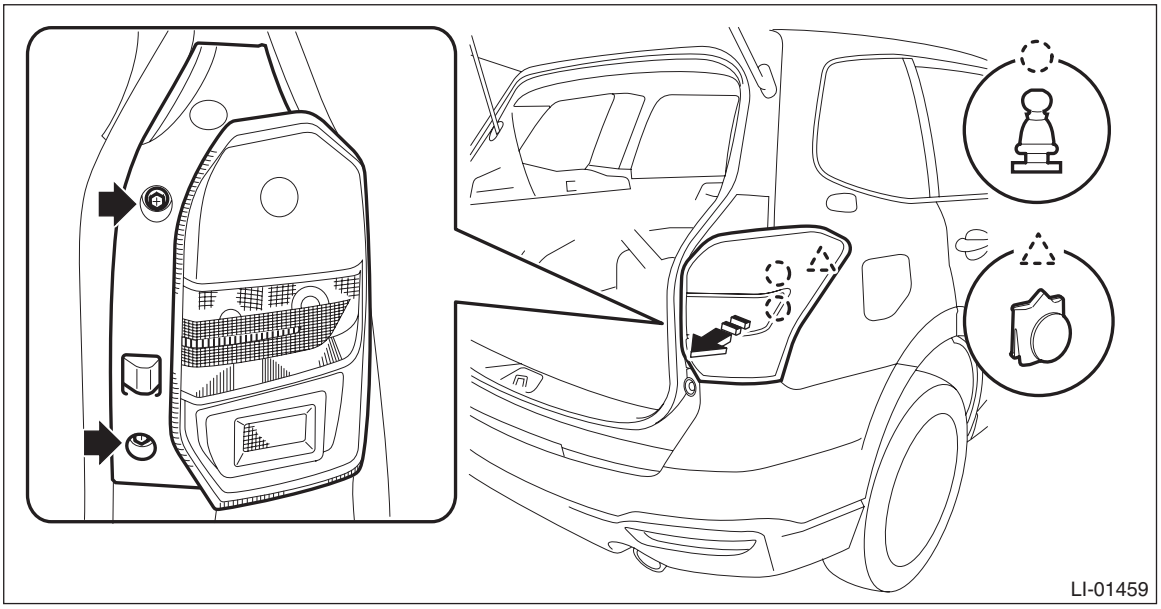
25.Tail/Stop Light Bulb

A: REMOVAL

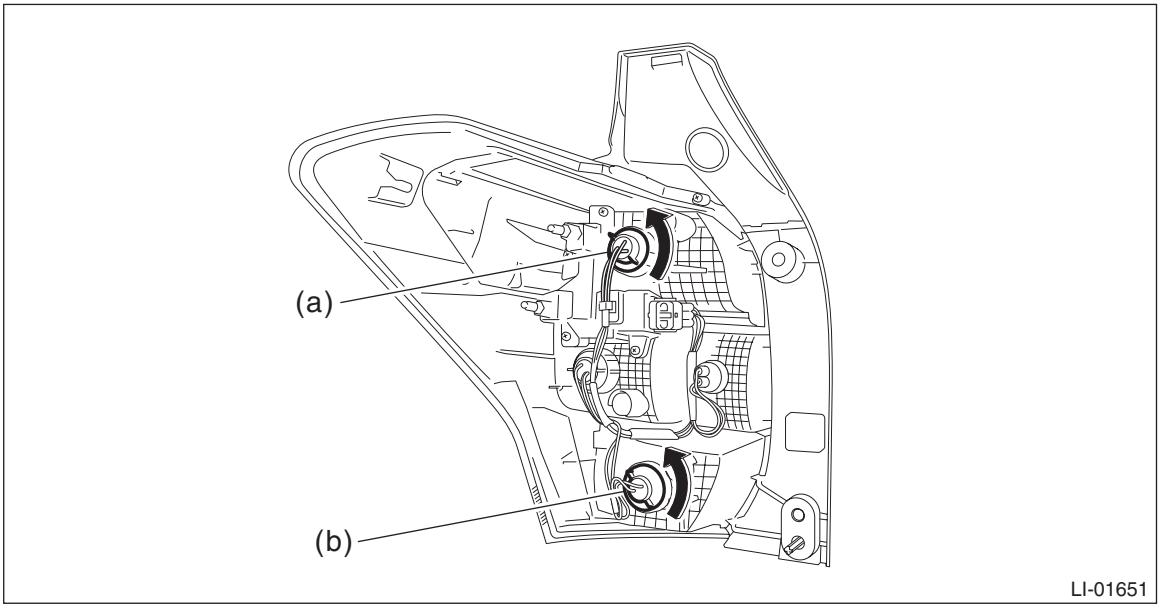
1) Disconnect the ground cable from battery.
2) Remove the light assembly - rear combination.

CAUTION:
Be careful not to damage the clips.

(1) Release the bolts and clips, then pull out the light assembly - rear combination to the vehicle rear.
(2) Disconnect the connector and remove the light assembly - rear combination.



3) Remove the bulb sockets and bulbs.



(a) Tail light/stop light (b) Tail light

B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Light assembly - rear combination: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: INSPECTION

1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

26.Access Key

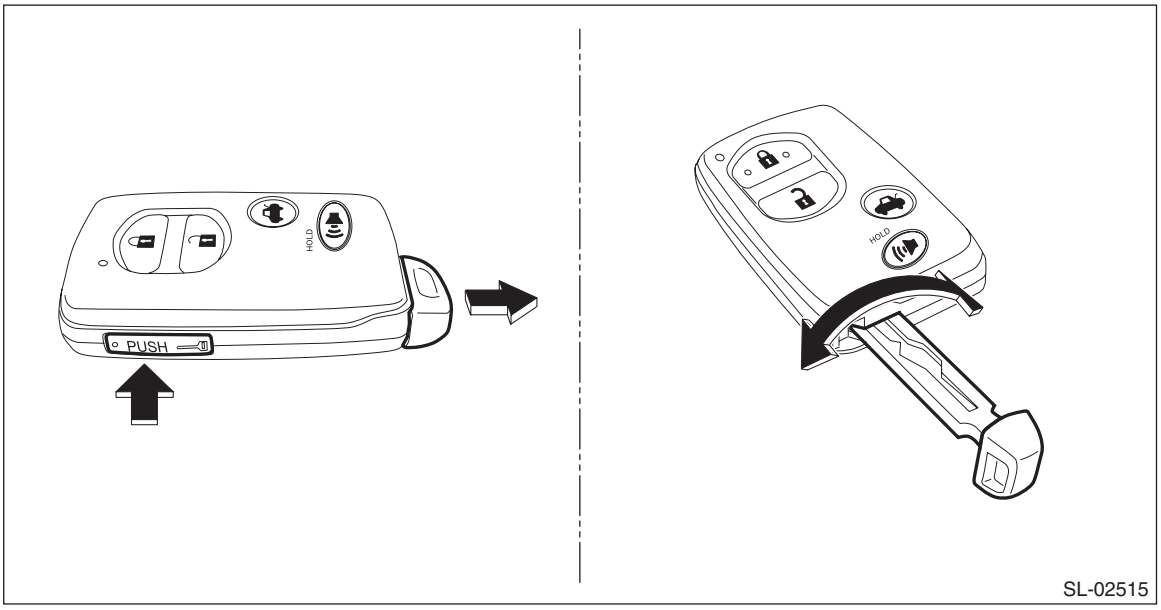
A: REMOVAL

NOTE:
Refer to keyless transmitter for model without keyless access. <Ref. to SL-78, KEYLESS TRANSMITTER BATTERY, REMOVAL, Keyless Transmitter.>

1. ACCESS KEY BATTERY

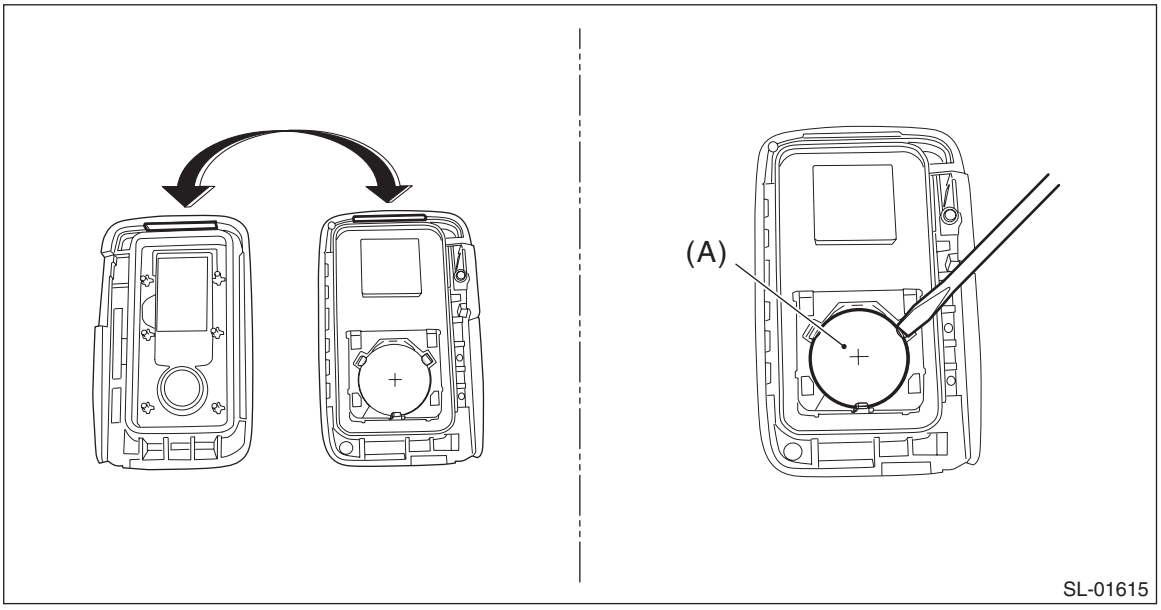
CAUTION:
To prevent static electricity damage to the access key printed circuit board, touch the steel area of building with hand to discharge static electricity carried on body or clothes before disassembling the access key.

1) Push the lock button and remove the mechanical key from the access key.
2) Insert the mechanical key into the slit of the access key to open the case.



SL-02515

3) Insert a flat tip screwdriver to remove the battery (A) from the case.



SL-01615

B: INSTALLATION

1. ACCESS KEY BATTERY

Install each part in the reverse order of removal.

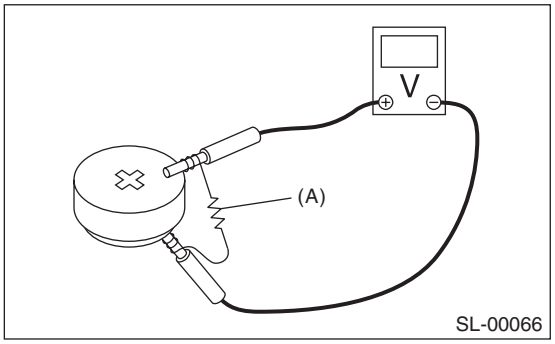
C: INSPECTION

1. ACCESS KEY BATTERY

Check the access key battery voltage.

Preparation tool:
Circuit tester

NOTE:
Complete the measurement within 5 seconds because the battery discharges during measurement.



Battery terminal	Inspection conditions	Standard
(+) — (–)	Connect resistor (A) 47 Ω	2.5 — 3.0 V

Replace the battery if the inspection result is not within the standard value. (Use CR1632 V or equivalent.)

D: REPLACEMENT

1. ACCESS KEY REGISTRATION

NOTE:
- A maximum of seven access keys can be registered for each individual vehicle.
- When replacing or adding an access key, new registration of the access key is necessary.
- When the access key has been newly added, it is registered to the immobilizer system at the same time.

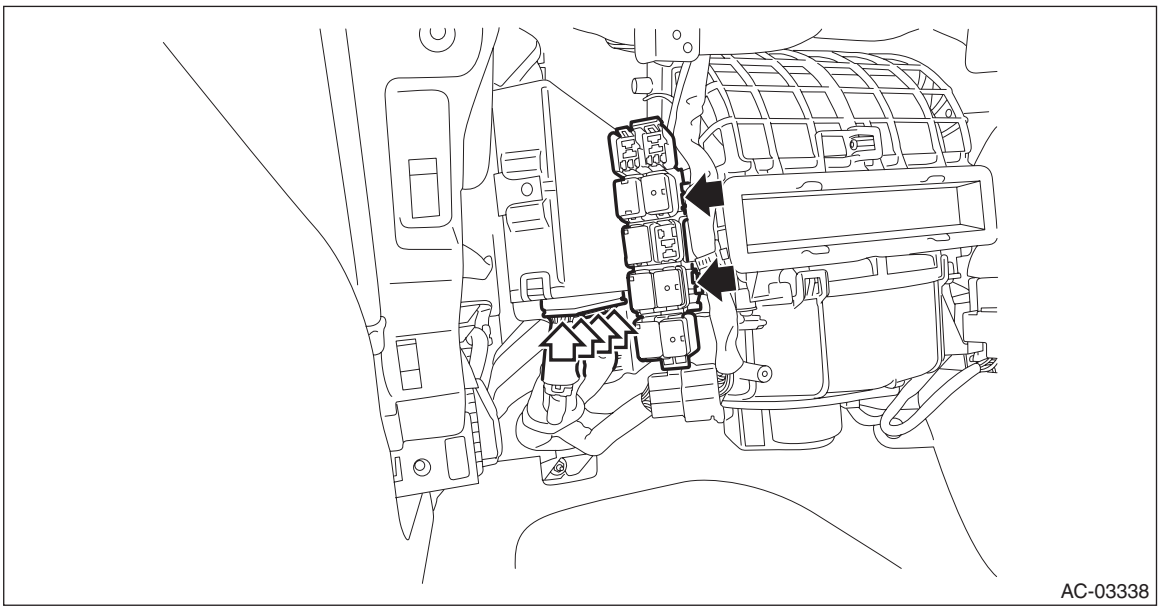
2. CLEARING ACCESS KEY REGISTRATION

Refer to the “REGISTRATION MANUAL FOR IMMOBILIZER” for clearing access key registration.

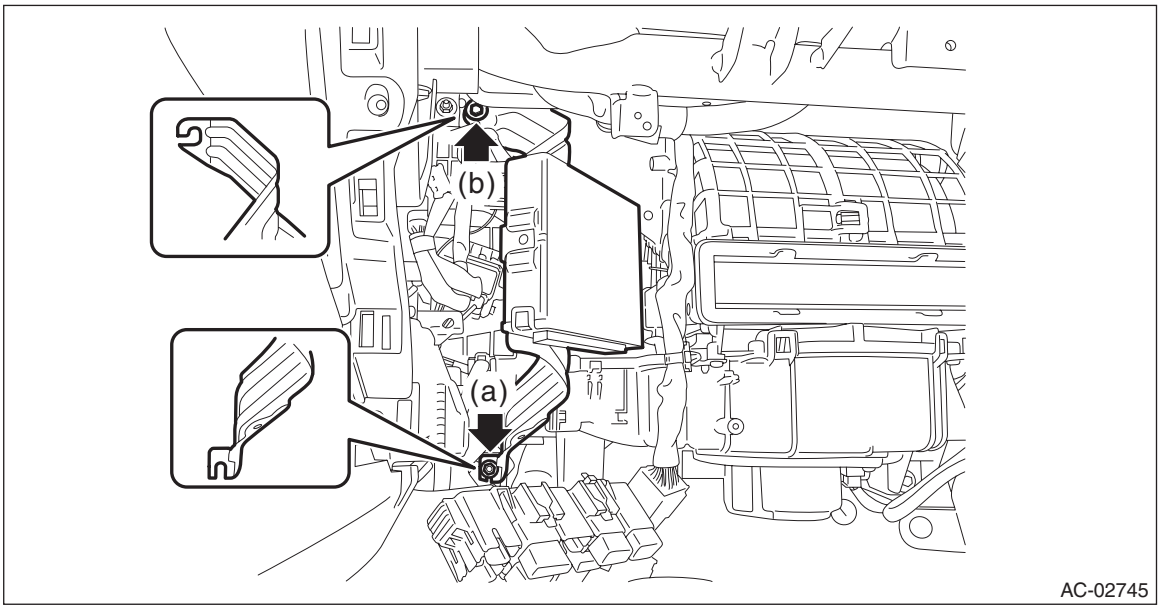
26.FRESH/RECIRC Door Actuator

A: REMOVAL

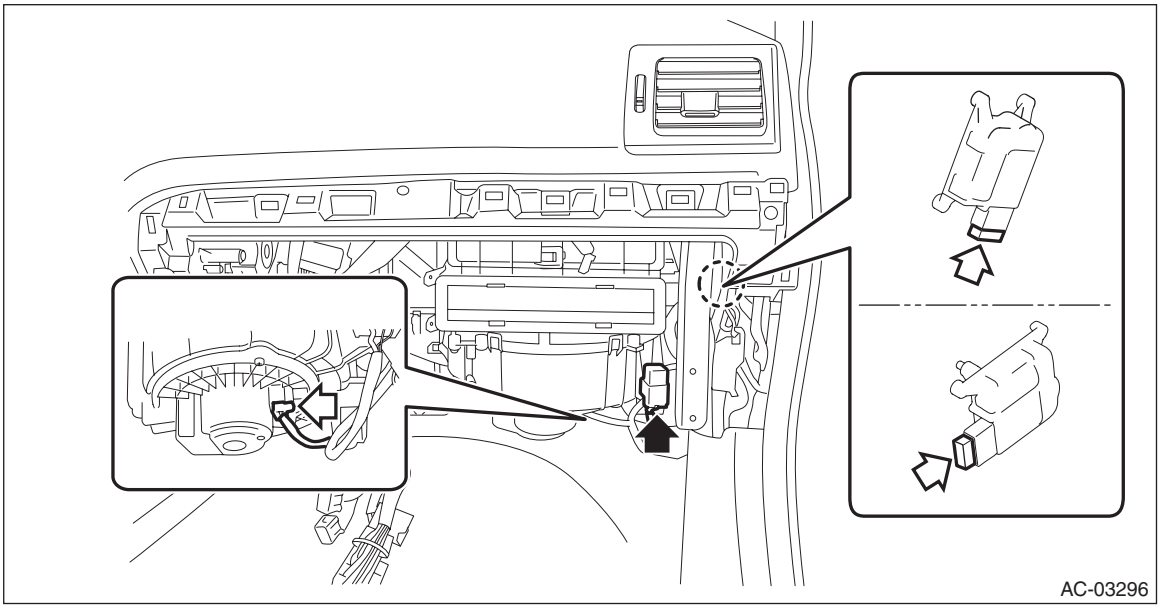
1) Disconnect the ground cable from battery.
2) Remove the glove box. <Ref. to EI-61, REMOVAL, Glove Box.>
3) Remove the engine control module (ECM). (Non-turbo model)
   (1) Release the lock and remove the relay holder.
   (2) Disconnect the connector.



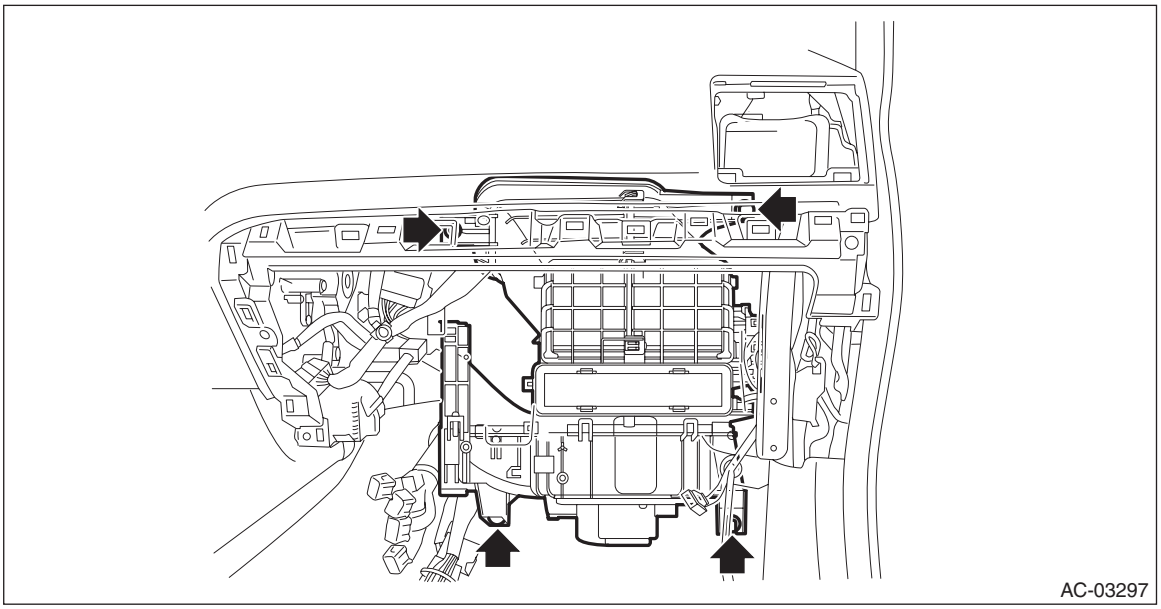
   (3) Remove the nuts (a).
   (4) Loosen the bolt (b), and remove the engine control module (ECM).



4) Remove the blower motor unit assembly.
(1) Disconnect the blower motor relay and each connector.

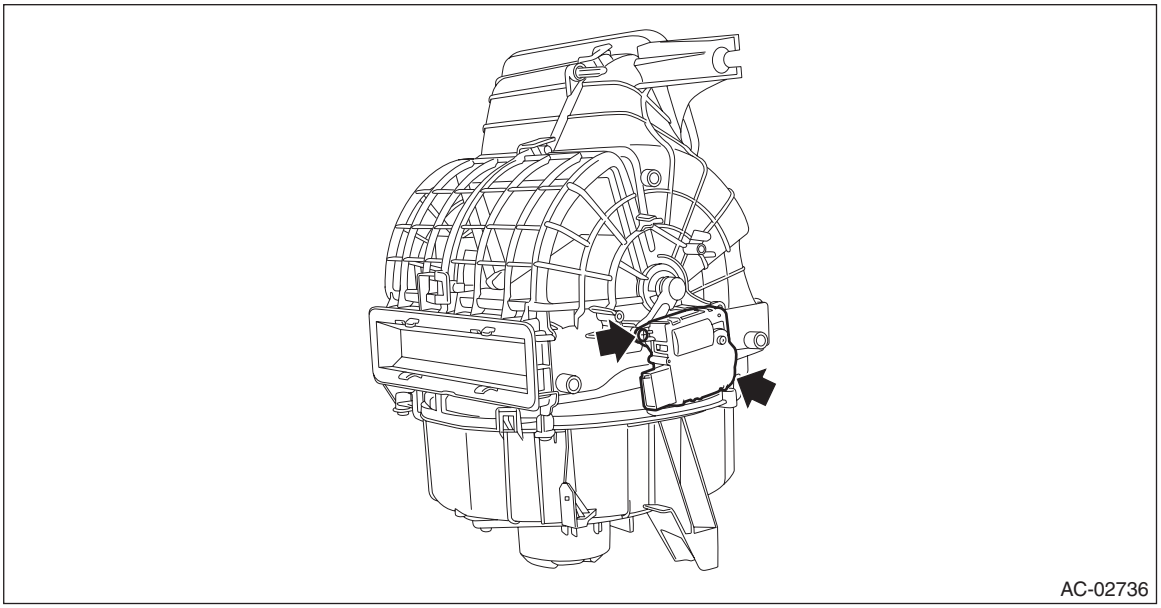


(2) Remove the bolts and nuts to remove blower motor unit assembly.

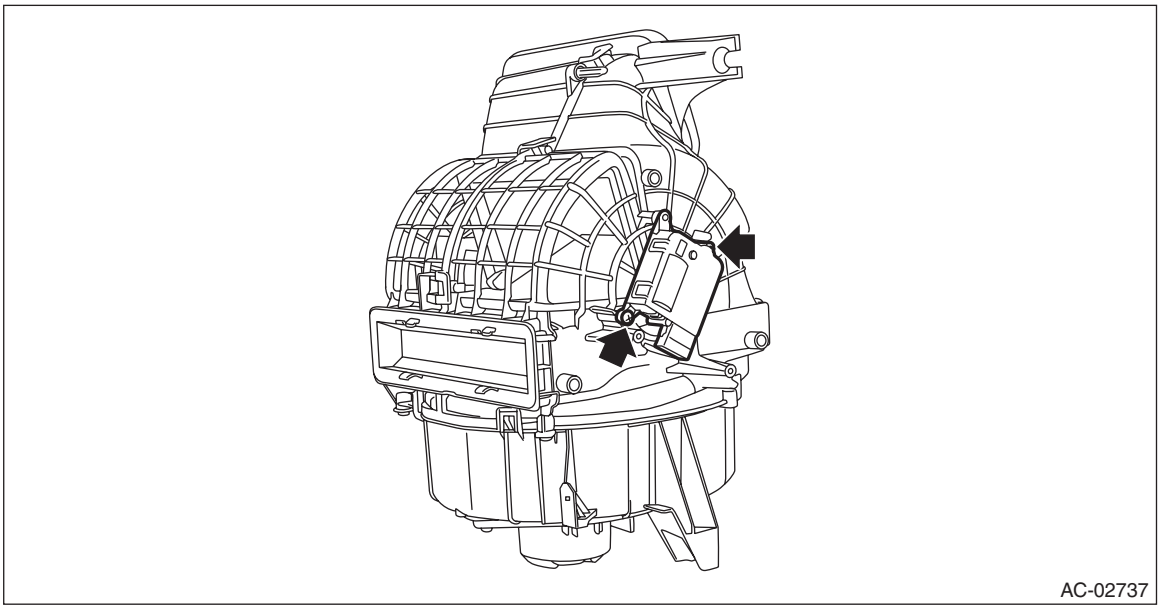


5) Remove the screws and detach the motor - actuator blower.

- Manual A/C model



- Auto A/C model



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:

Blower motor unit: <Ref. to AC-10, BLOWER MOTOR UNIT, COMPONENT, General Description.>
Engine control module (ECM): 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: INSPECTION

1. CHECK LINK

1) Visually check the operation range of the link, and remove the foreign material if any.
2) Operate the FRESH/RECIRC switch to check that the link operates normally.
3) If it does not operate normally as the result of inspection, check the motor - actuator blower.

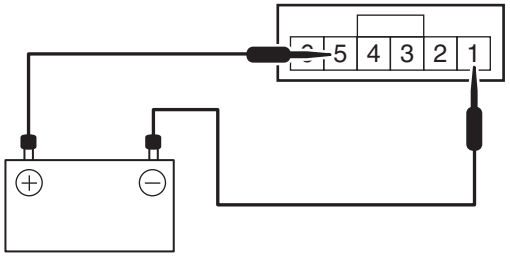
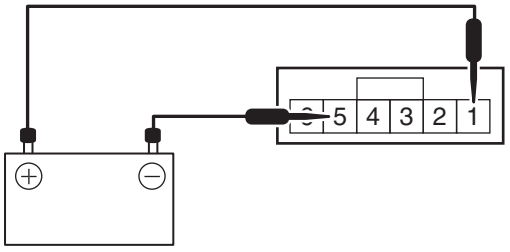
2. CHECK ACTUATOR

UNIT INSPECTION

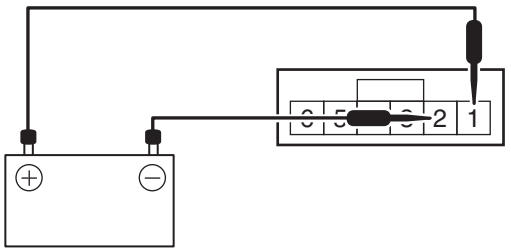
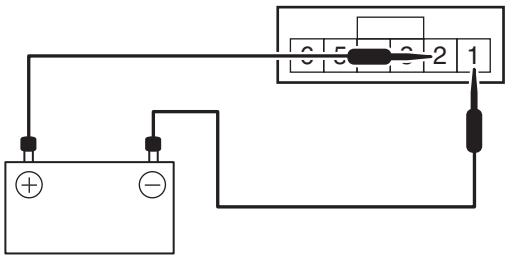
1) Check the actuator operation when battery voltage is applied between the terminals of actuator.

CAUTION:
Remove the battery immediately once the actuator stops operating. Otherwise, damage to the motor can occur.

- Manual A/C model

Terminal No.	Inspection conditions	Position	Connection diagram
5 (+) — 1 (–)	Connect battery to the terminals	RECIRC	 AC-02738
1 (+) — 5 (–)		FRESH	 AC-02739

- Auto A/C model

Terminal No.	Inspection conditions	Position	Connection diagram
1 (+) — 2 (–)	Connect battery to the terminals	RECIRC	 AC-02742
2 (+) — 1 (–)		FRESH	 AC-02741

2) If it does not operate normally as the result of inspection, replace the motor - actuator blower.

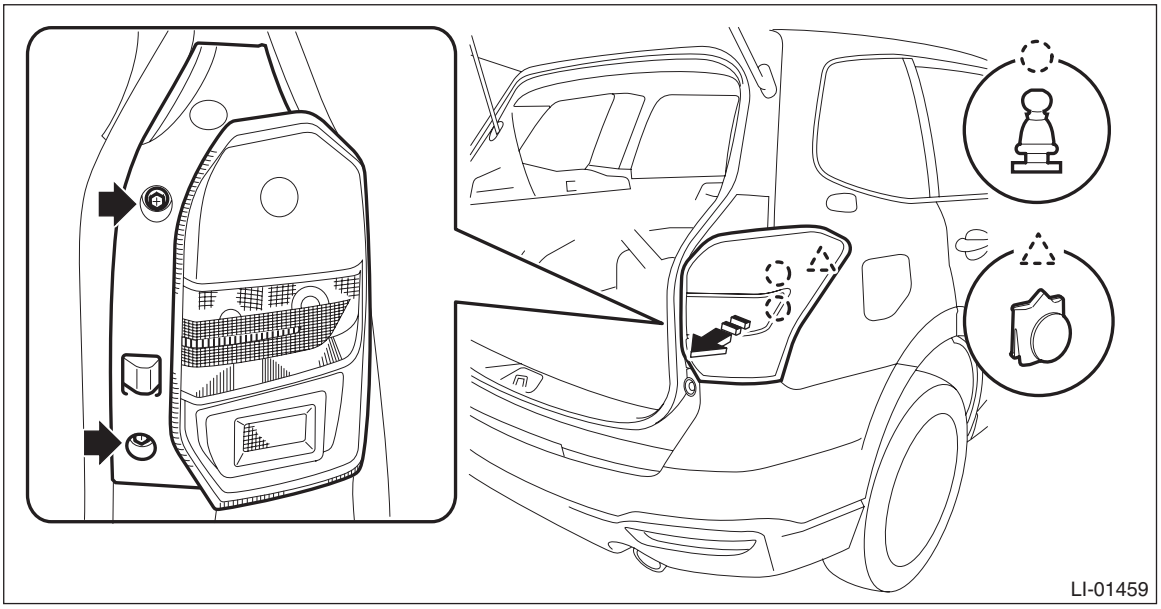
26.Rear Turn Signal Light Bulb

A: REMOVAL

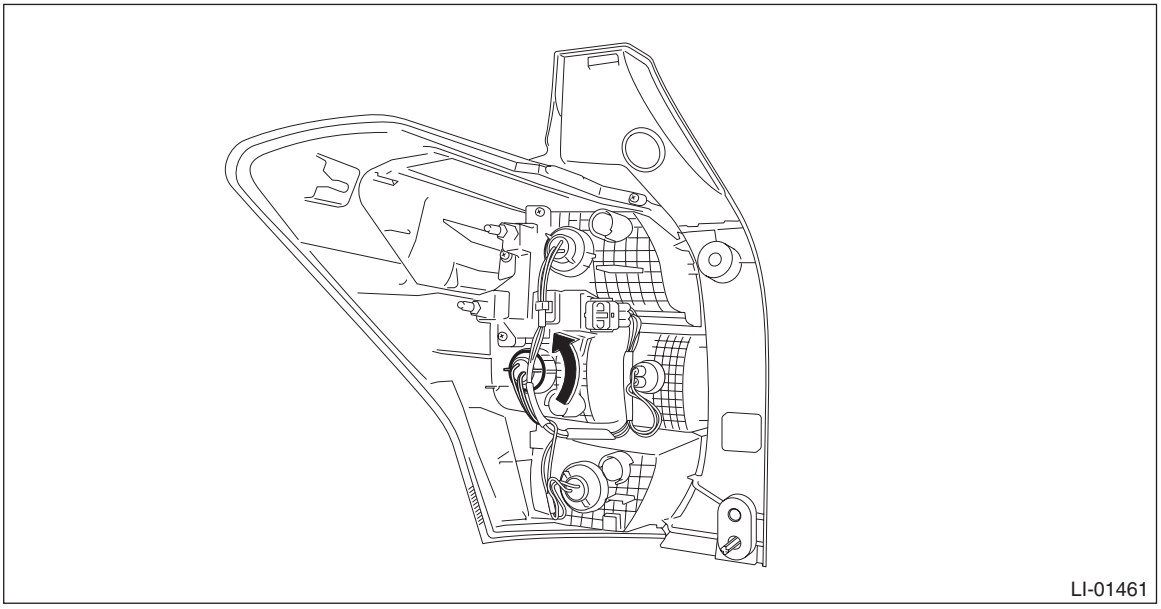
1) Disconnect the ground cable from battery.
2) Remove the light assembly - rear combination.

CAUTION:
Be careful not to damage the clips.

(1) Release the bolts and clips, then pull out the light assembly - rear combination to the vehicle rear.
(2) Disconnect the connector and remove the light assembly - rear combination.



3) Remove the bulb socket and rear turn signal light bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Light assembly - rear combination: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

C: INSPECTION

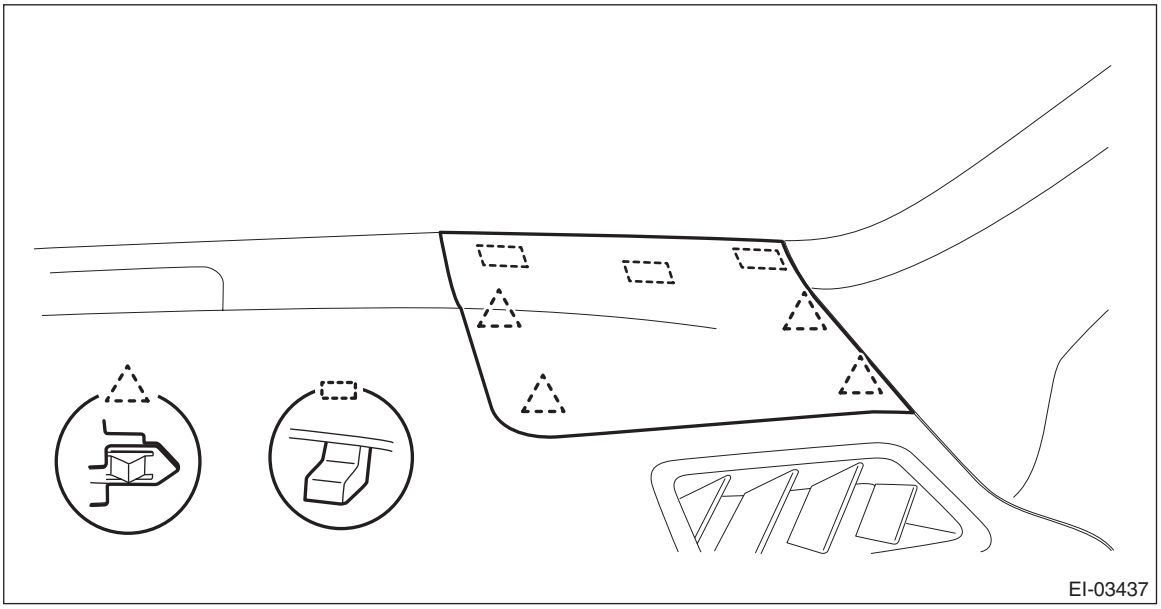
1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

26.Roof Trim

A: REMOVAL

CAUTION:
• Airbag system satellite safing sensor is located in the lower of the rear seat cushion center. Before removing the rear seat, refer to "CAUTION" of "General Description" in "AIRBAG SYSTEM" section.<Ref. to AB-9, CAUTION, General Description.>
• The airbag system is fitted with a backup power supply. After disconnecting the battery ground cable, the airbag may operate if you do not wait for 60 seconds before starting the service of airbag system.

1) Disconnect the ground cable from battery and wait for at least 60 seconds before starting work.
2) Adjust the front seat position.
   (1) Remove the headrest.
   (2) Move the seat to the front-most position and tilt the backrest rearward.
3) Release the clips and claws, then detach the left and right grille speaker side.

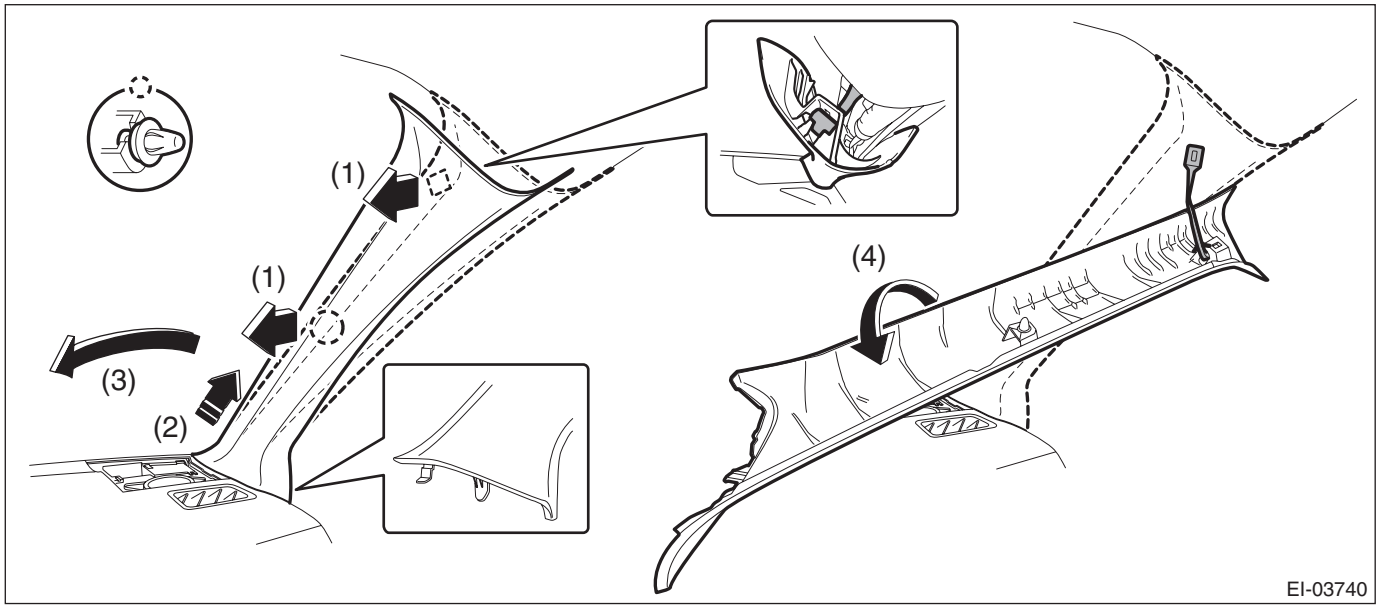


NOTE:
Remove the grille speaker side by using a plastic remover.
4) Remove the trim panel - front pillar UPR on the left and right sides.

CAUTION:
Be careful not to damage the trim panel surface and curtain airbag module.
   (1) Pull the trim panel - front pillar UPR towards the center of the vehicle to release the clips.
   (2) Pull out the end portion of the trim panel - front pillar UPR.
   (3) Pull out the trim panel - front pillar UPR towards the center of the vehicle.

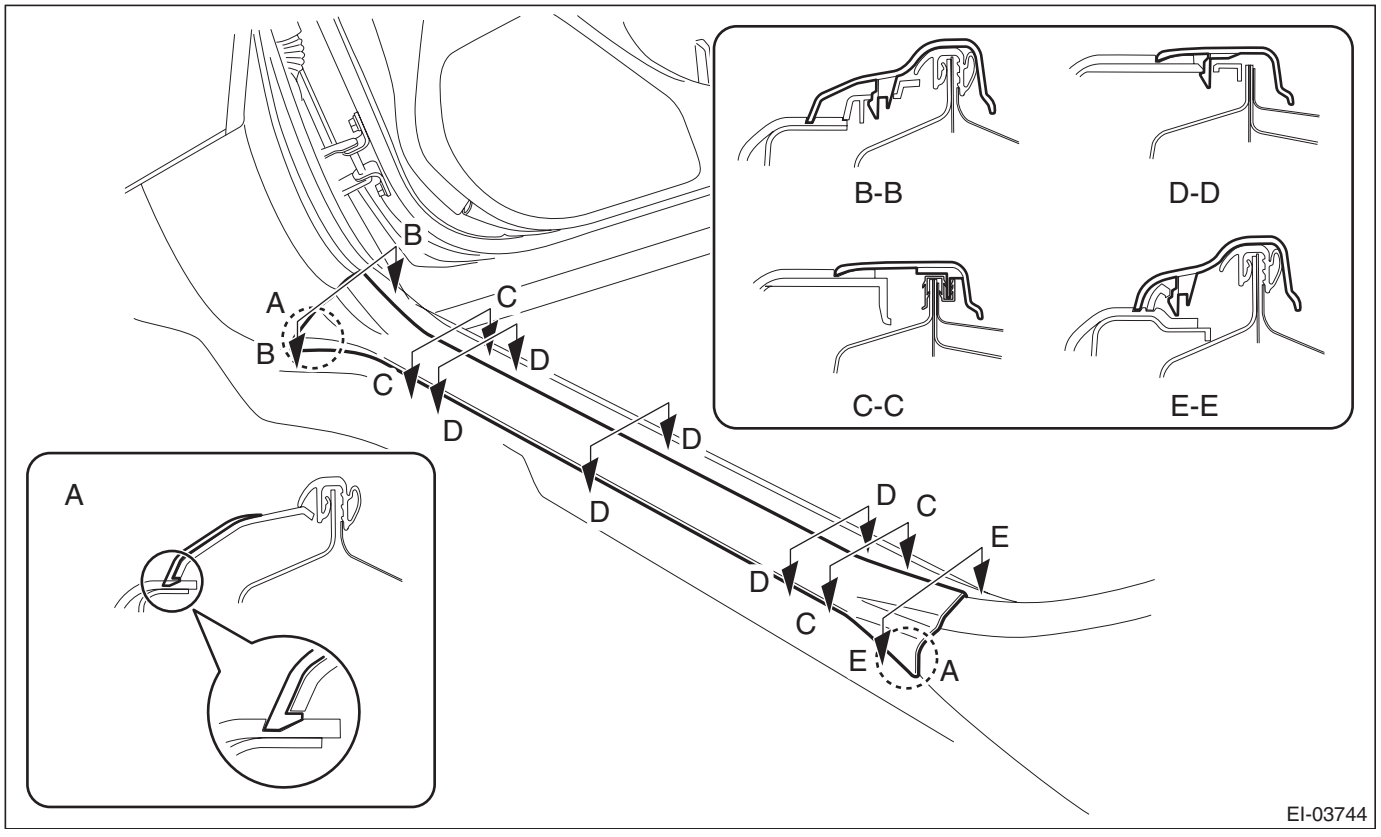
(4) Rotate the trim panel - front pillar UPR, release the tether clips, and remove the trim panel - front pillar UPR.

CAUTION:
Do not use tools when releasing the tether clip. If the tether clip is damaged, replace it with a new tether clip.

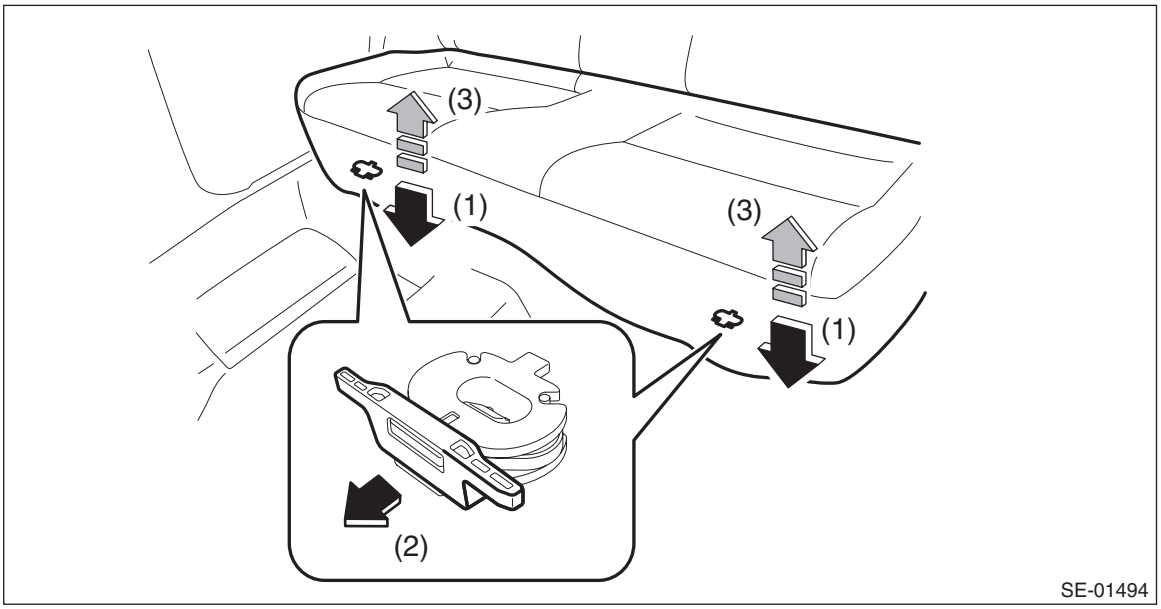


5) Release the claws, and then remove the cover side sill - front INN on LH and RH sides.

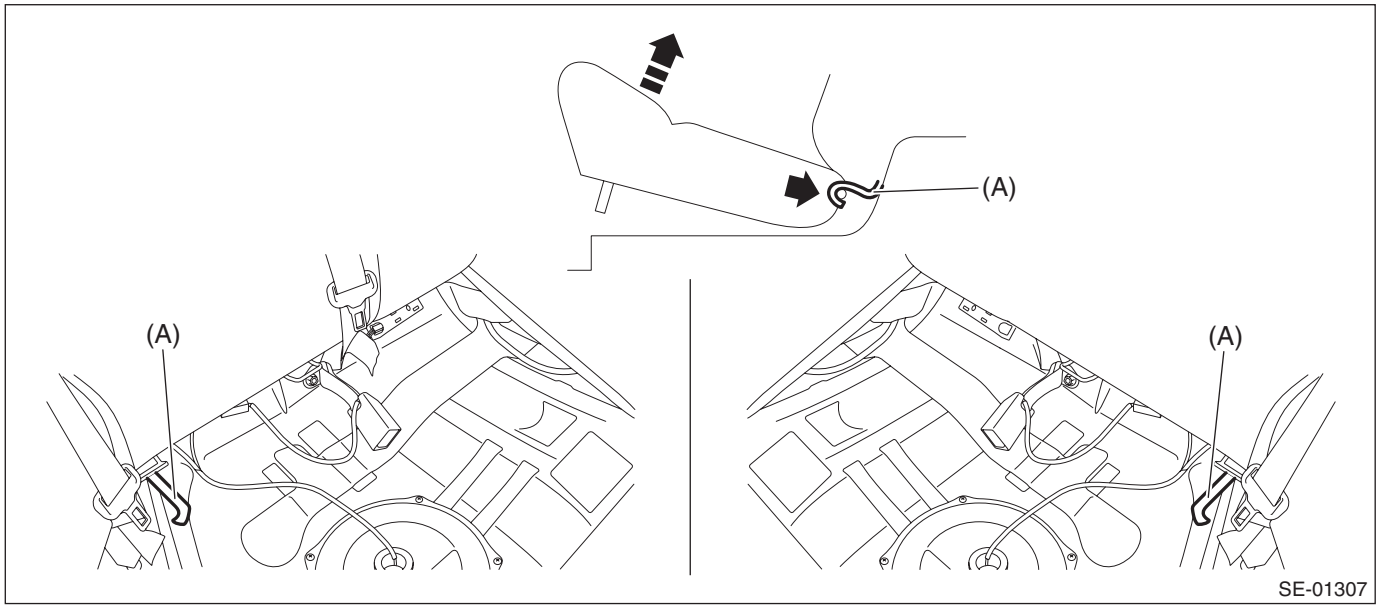
CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - front INN.



6) Remove the rear seat cushion assembly.
(1) Push the corners of the rear seat cushion from above.
(2) While pushing the corners of the rear seat cushion from above, pull the knob of the hook - seat cushion rear towards yourself.
(3) While pulling the knob towards yourself, disconnect the hooks by lifting up the rear seat cushion.

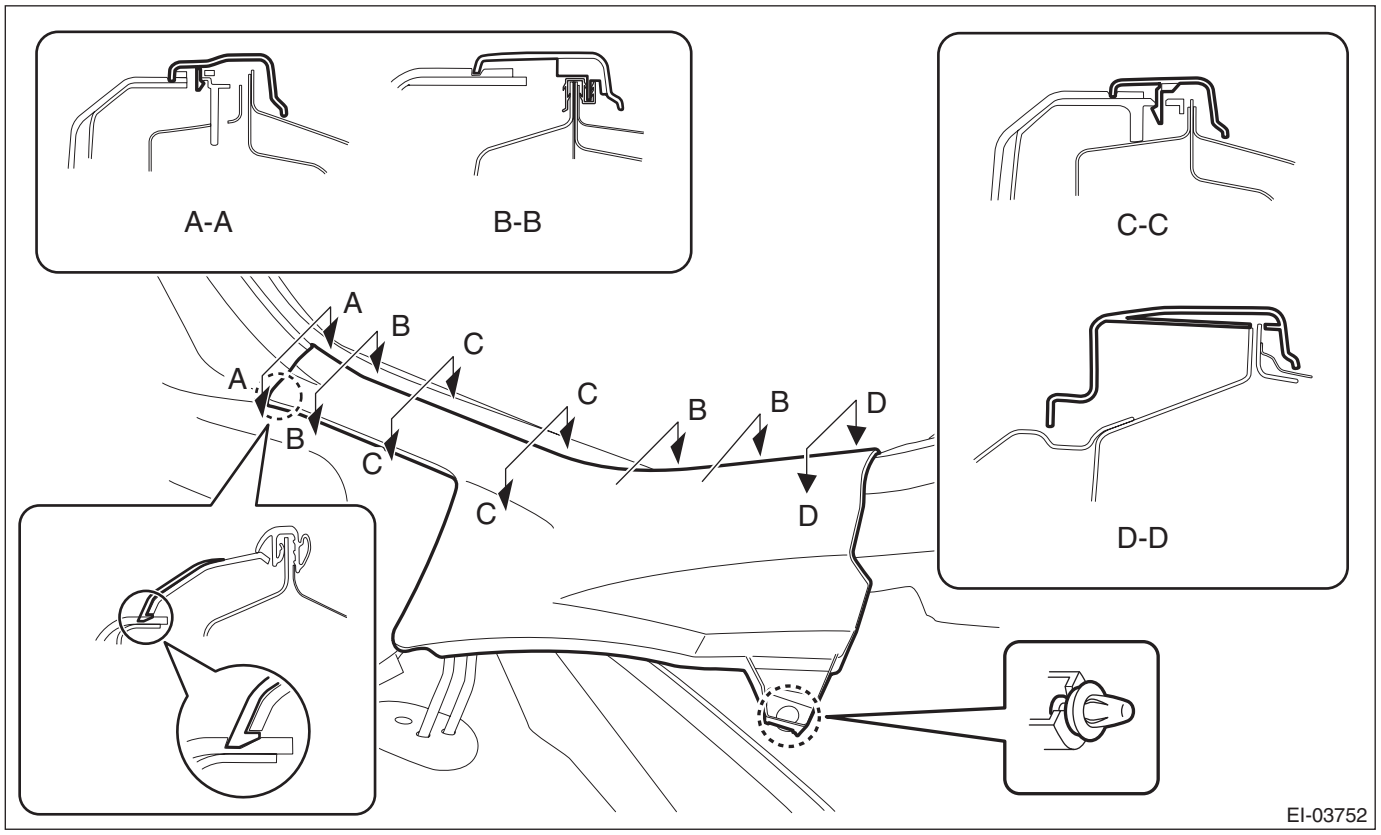


(4) Remove the hook (A) by pushing it back while lifting the front side of the rear seat cushion, and remove the rear seat cushion.



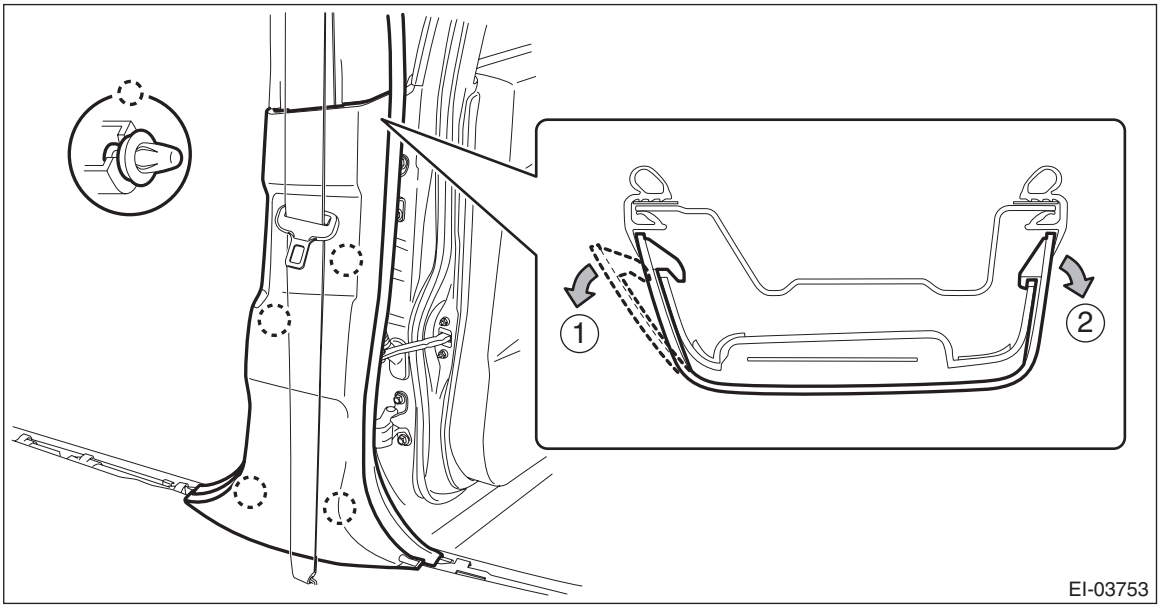
7) Release the clips and claws, and remove the cover side sill - rear INN on LH and RH sides.

CAUTION:
Do not pull with excessive force. Doing so may damage the claws of the cover side sill - rear INN.



8) Remove the trim panel - center pillar LWR on the left and right sides.
(1) Release the clip by pulling the trim panel - center pillar LWR toward you.
(2) Expand the claws of the trim panel - center pillar LWR outward, and remove it from the trim panel - center pillar UPR.

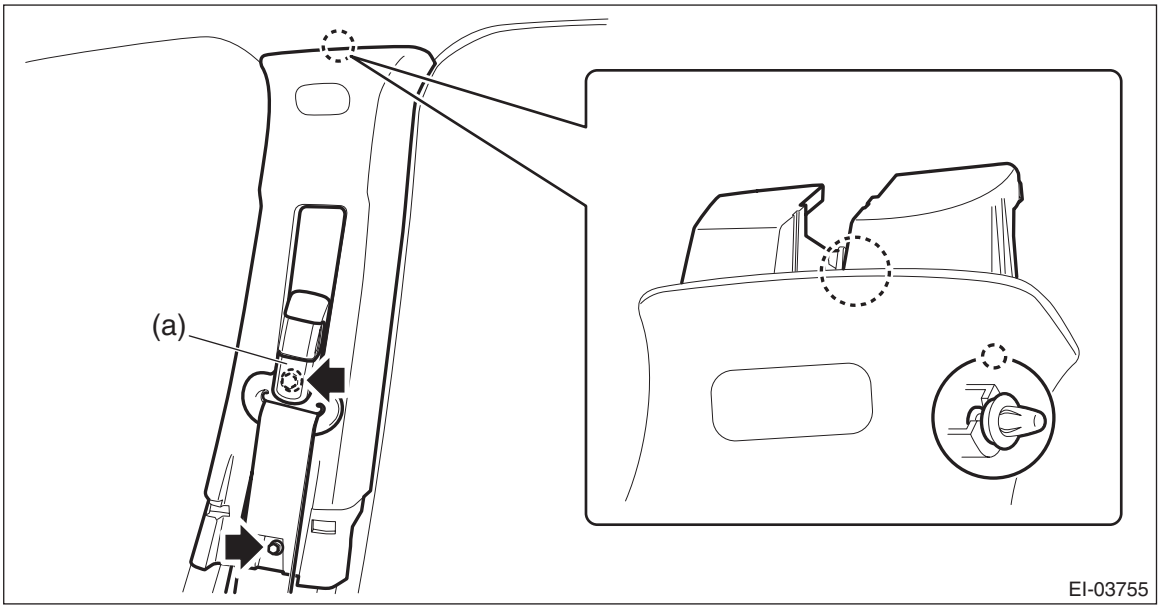
CAUTION:
Do not expand the trim panel - center pillar LWR excessively. Doing so may damage the trim.



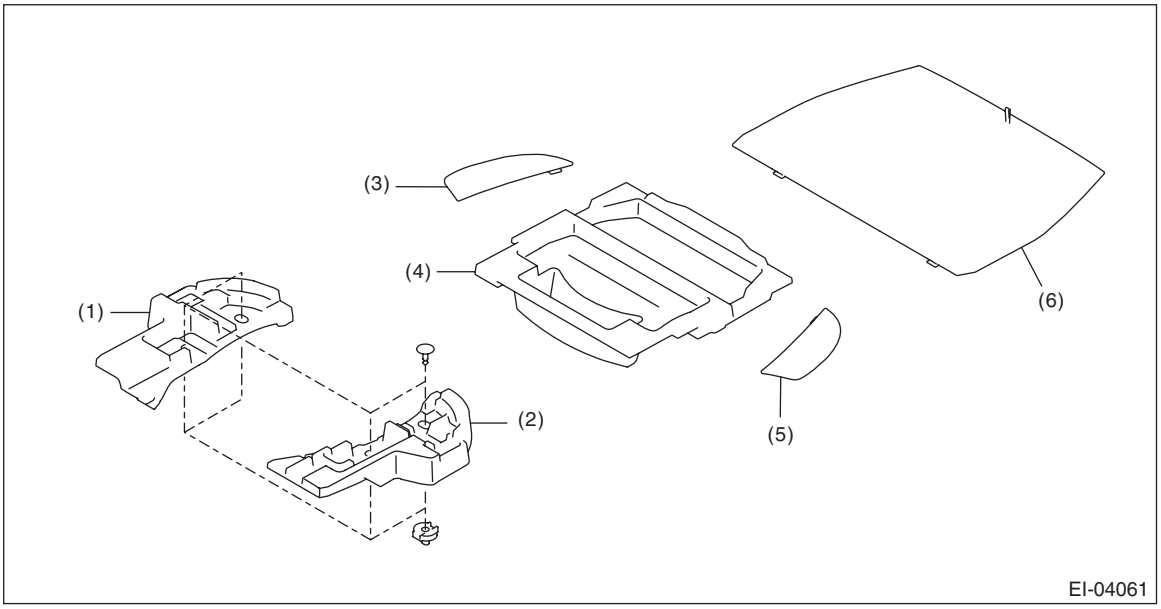
NOTE:
First release the claw located to the front of the vehicle.

9) Remove the trim panel - center pillar UPR on the left and right sides.
(1) Remove the cover through (a), and remove the seat belt anchor bolt.
(2) Remove the bolt on the lower side of the trim panel - center pillar UPR.
(3) Remove the clip by pulling the upper part of the trim toward you, and while lowering the entire trim, remove the trim panel - center pillar UPR.

CAUTION:
Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.



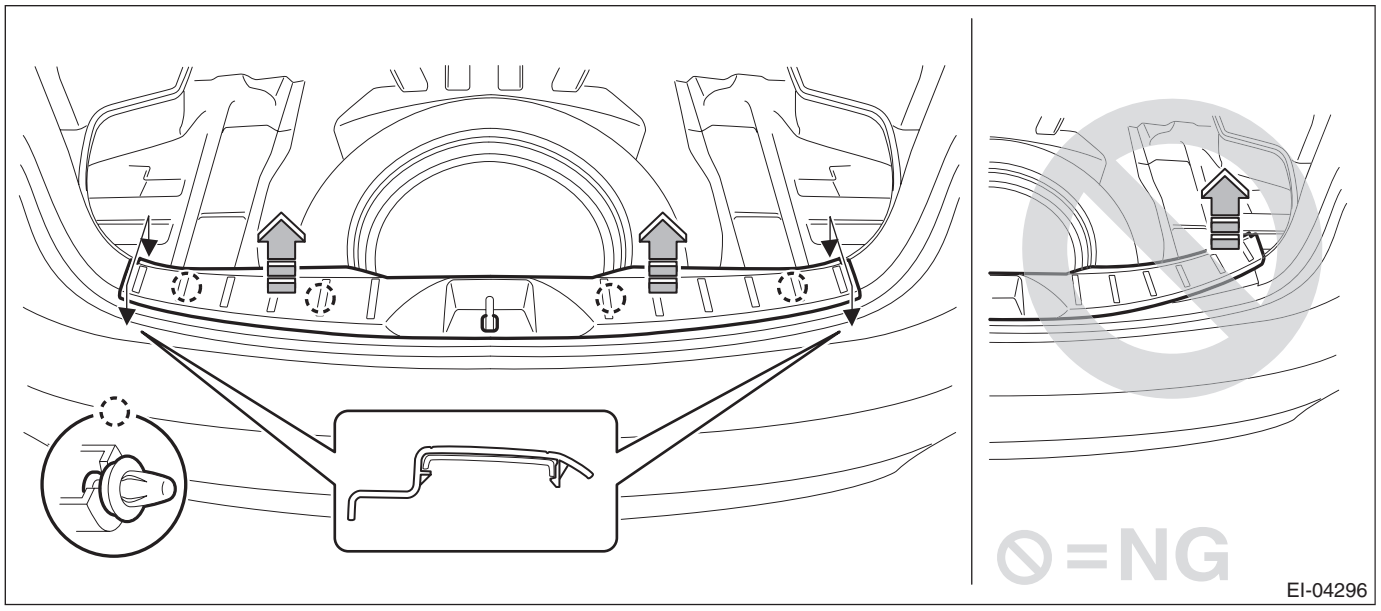
10) Remove the mat - rear floor, spacer - rear floor, and cover - trunk.



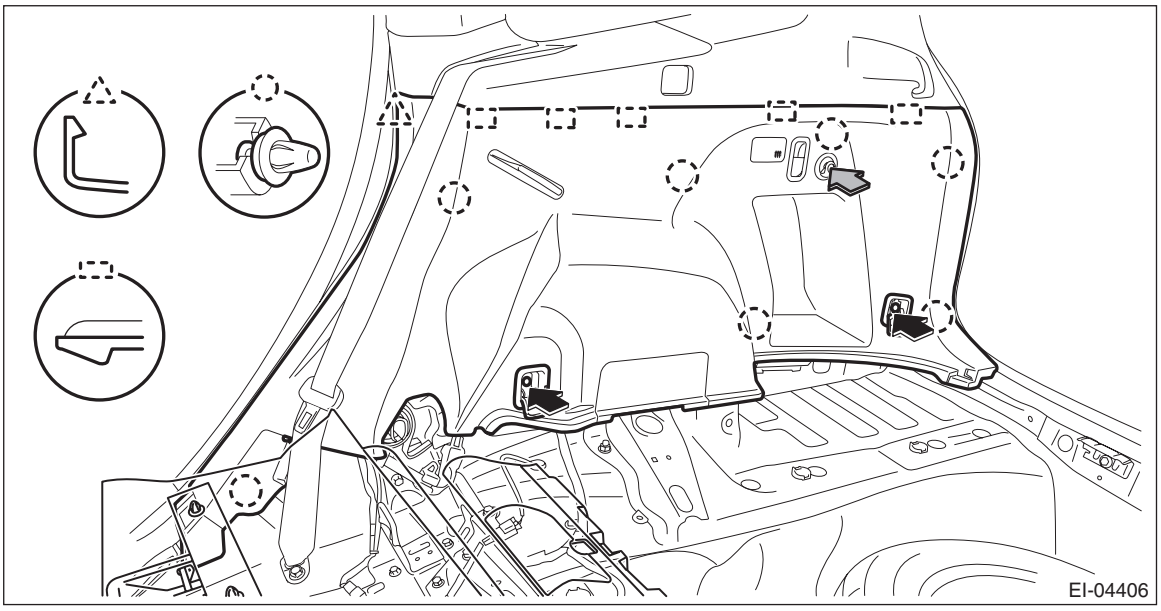
(1) Spacer - rear floor side RH
(2) Spacer - rear floor side LH
(3) Mat - rear floor RH
(4) Cover - trunk
(5) Mat - rear floor LH
(6) Mat - rear floor CTR

11) Remove the clips, and remove the trim panel - rear skirt.

CAUTION:
Do not lift the trim panel - rear skirt from the edge. Doing so may damage the part.

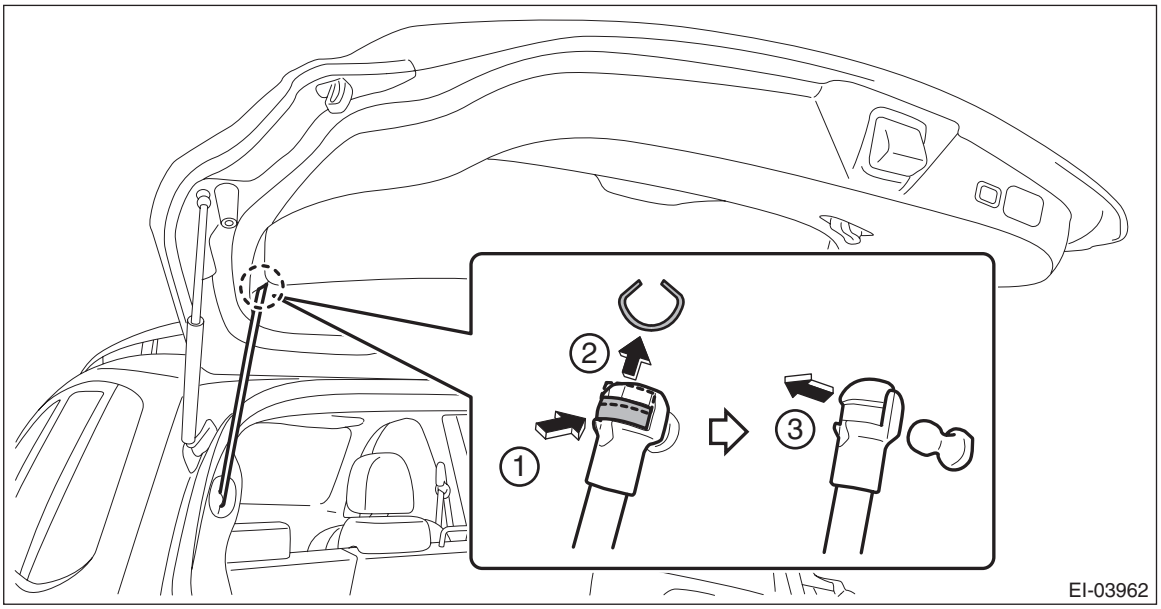


12) Remove the trim panel - rear apron.
(1) Open the cover, remove the bolts, and remove the hook - luggage. (2 places)
(2) Remove the screws, and release the clips.
(3) Disconnect the connectors and remove the trim panel - rear apron.

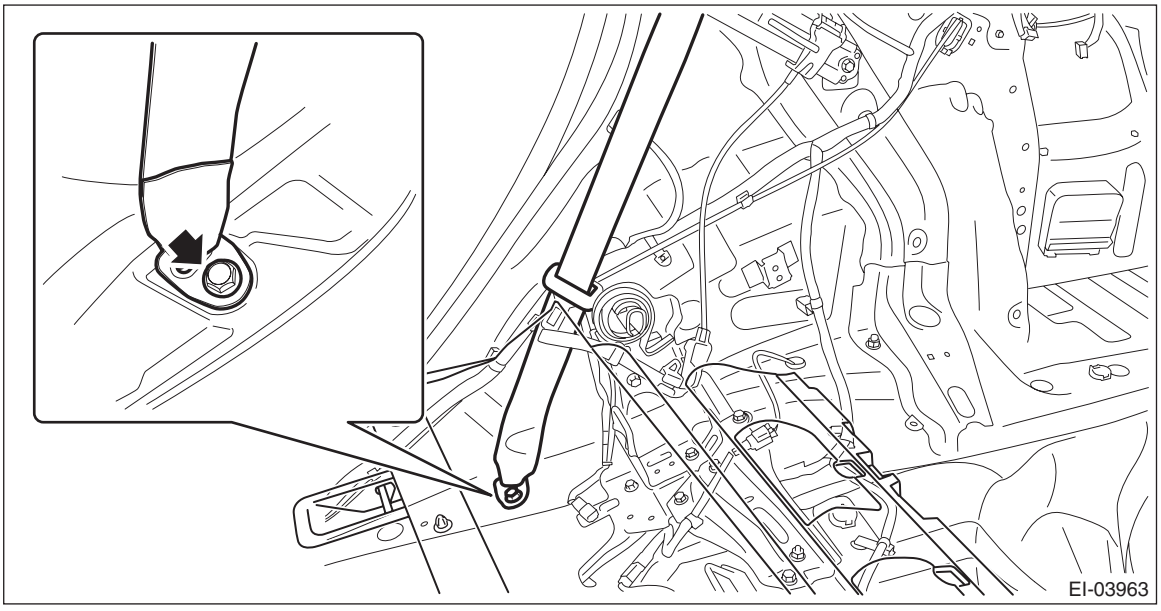


13) Remove the trim panel - rear quarter pillar UPR.
(1) Disconnect the rod - power rear gate before removing the trim panel - rear quarter pillar UPR LH. (Only for models with power rear gate)

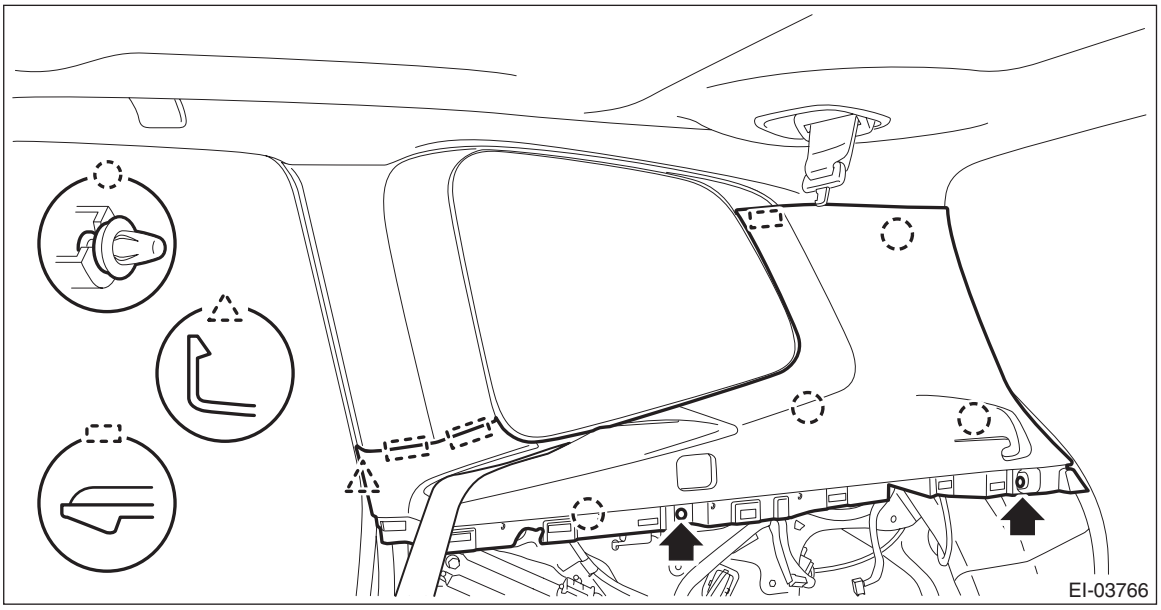
CAUTION:
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal.<Ref. to PRG-15, REMOVAL, Power Rear Gate Rod.>



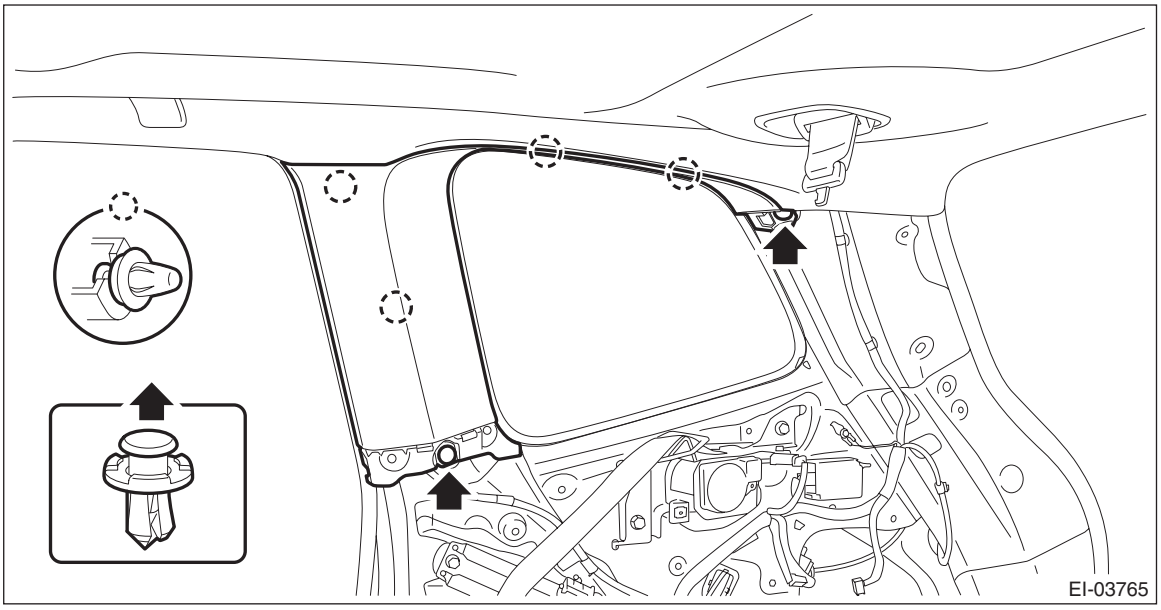
(2) Remove the lower anchor bolts of rear seat belts.



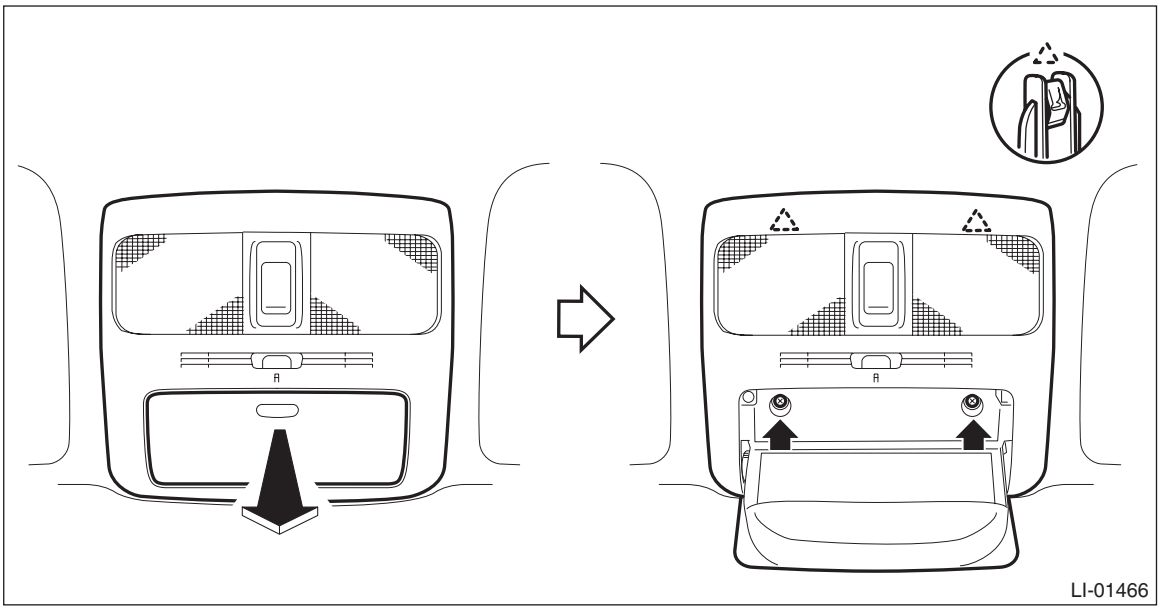
(3) Remove the screws and clips, and remove the trim panel - rear quarter pillar UPR.



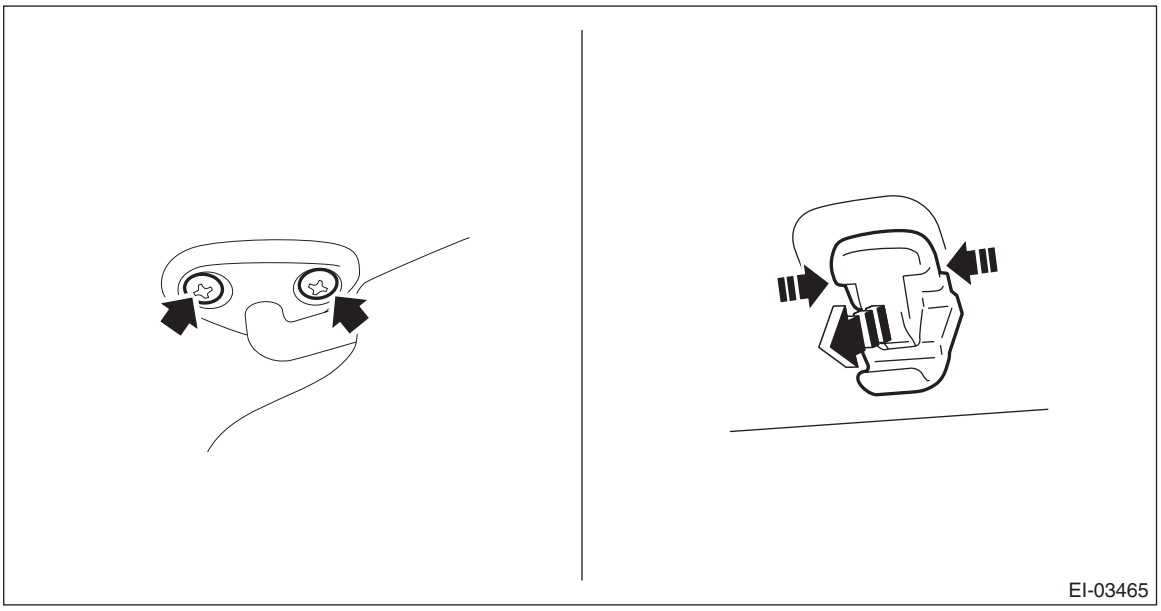
14) Release the clips, and remove the trim panel - rear pillar UPR.



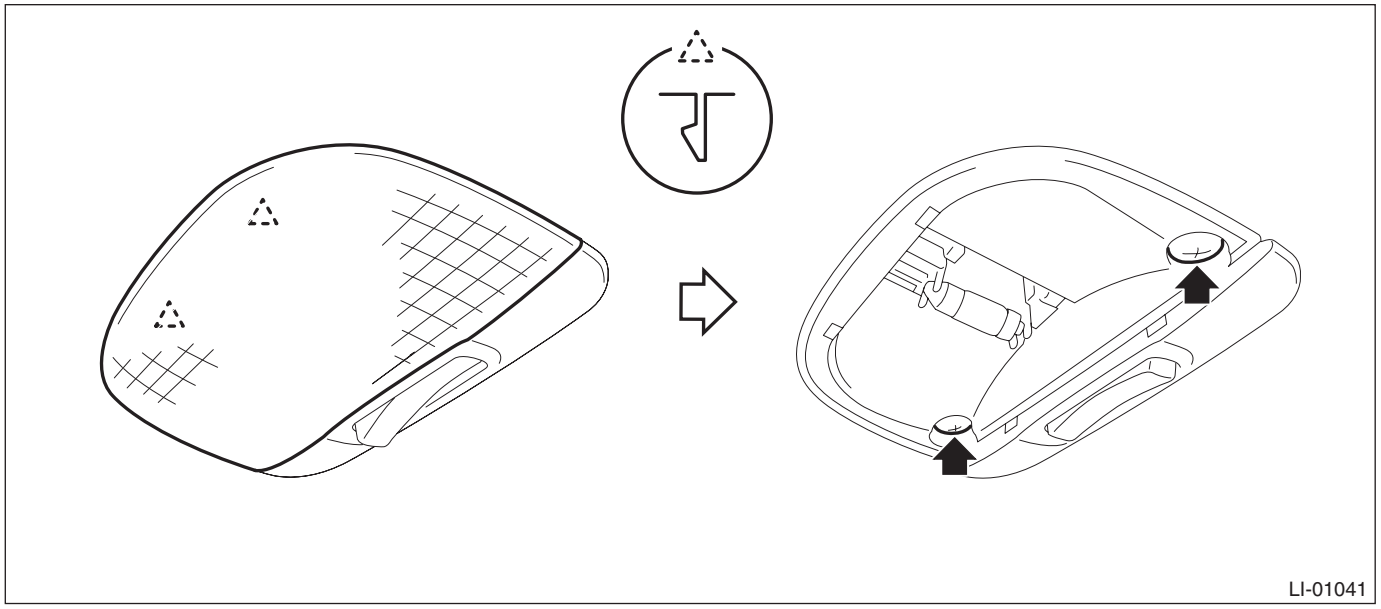
15) Remove the overhead console assembly.
(1) Push and open the rear end of the overhead console lid, and remove the screws.
(2) Remove the clips and pull out the overhead console to disconnect the connectors.



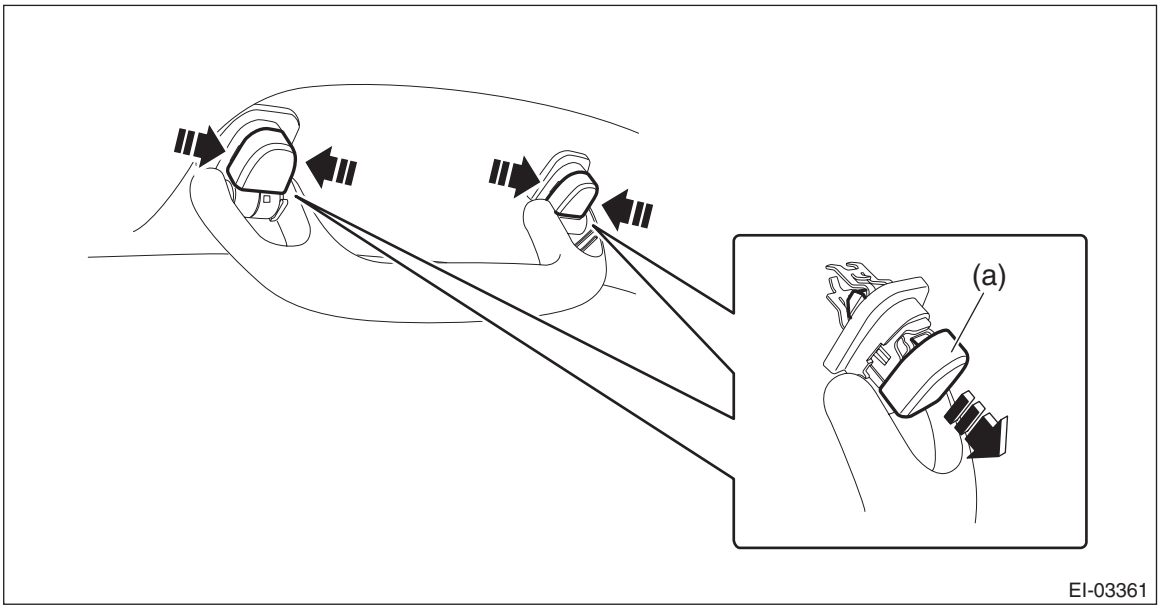
16) Remove the stereo camera cover. (Models with EyeSight)<Ref. to ES-11, REMOVAL, Stereo Camera.>
17) Remove the left and right sun visor assembly.
(1) Remove the screws and remove the sun visor assembly.
(2) Press both sides of the hook - sun visor using a flat tip screwdriver.
(3) Remove the hook - sun visor by pulling it toward you.



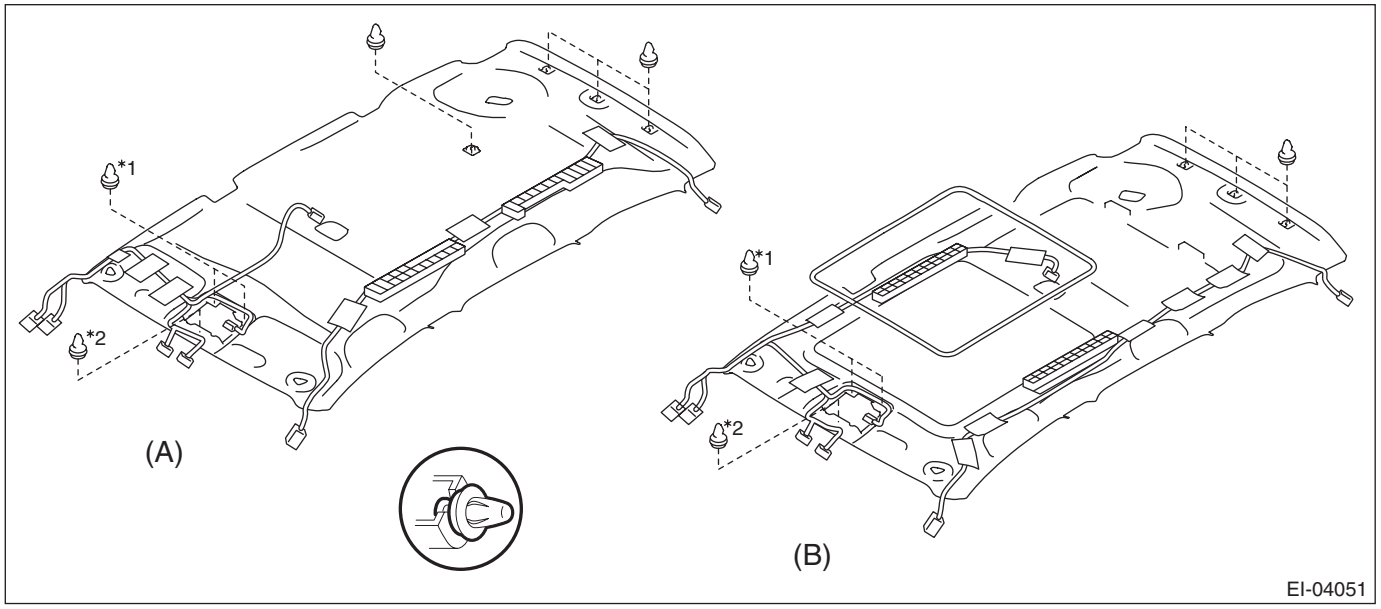
18) Remove the light assembly - room.
(1) Remove the lens and detach the screws.
(2) Disconnect the connector and remove the light assembly - room.



19) Remove all assist rails.
(1) Remove the cap (a) by pulling the both sides of the cap (a) using a flat tip screwdriver wrapped with a protection tape.
(2) Pull the assist grip toward you (to the vehicle center) and remove the metal clip from the bracket.



20) Remove the trim panel - roof assembly.
(1) Remove the harness clamp of the cord assembly - antenna feeder and the cord - roof, and disconnect the connectors.
(2) Remove the clips and remove the Velcro tape behind the room light.



(A) Normal roof type (4 door model) (B) Sunroof type

*1 Models with EyeSight *2 Models without EyeSight

(3) Remove the weather strip - body side flange from the front/rear and left/right doors, and remove the trim panel - roof assembly.
(4) Take out the trim panel - roof assembly from the rear gate opening to outside.

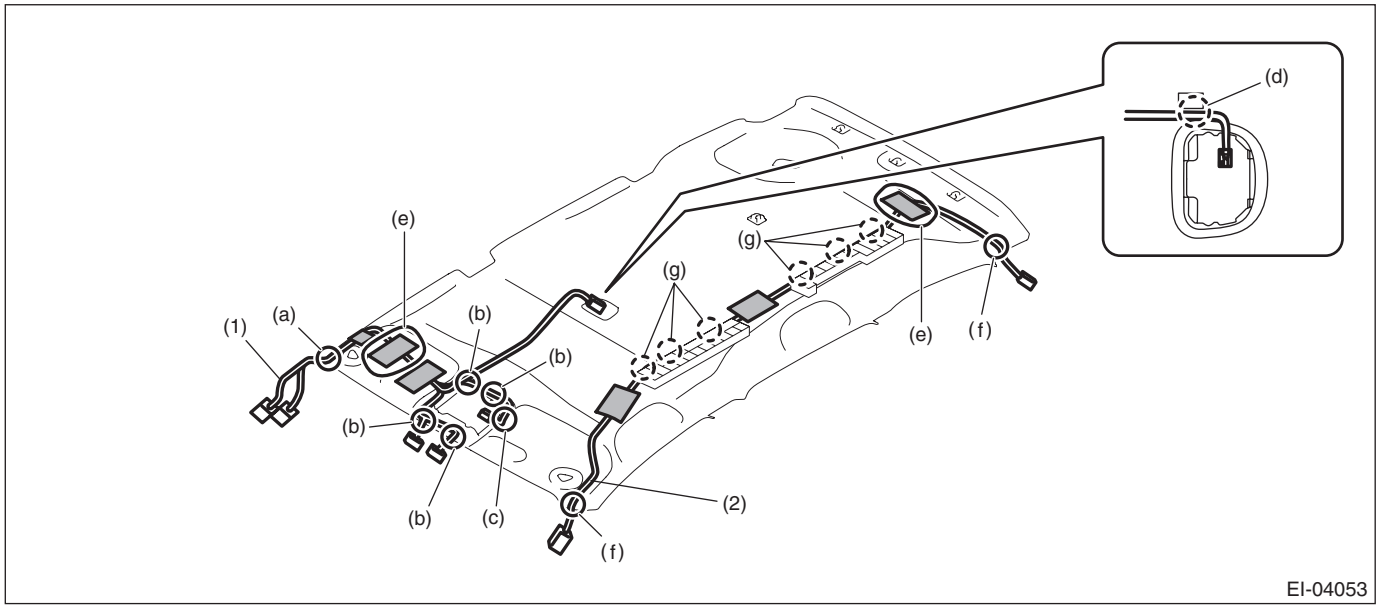
B: INSTALLATION

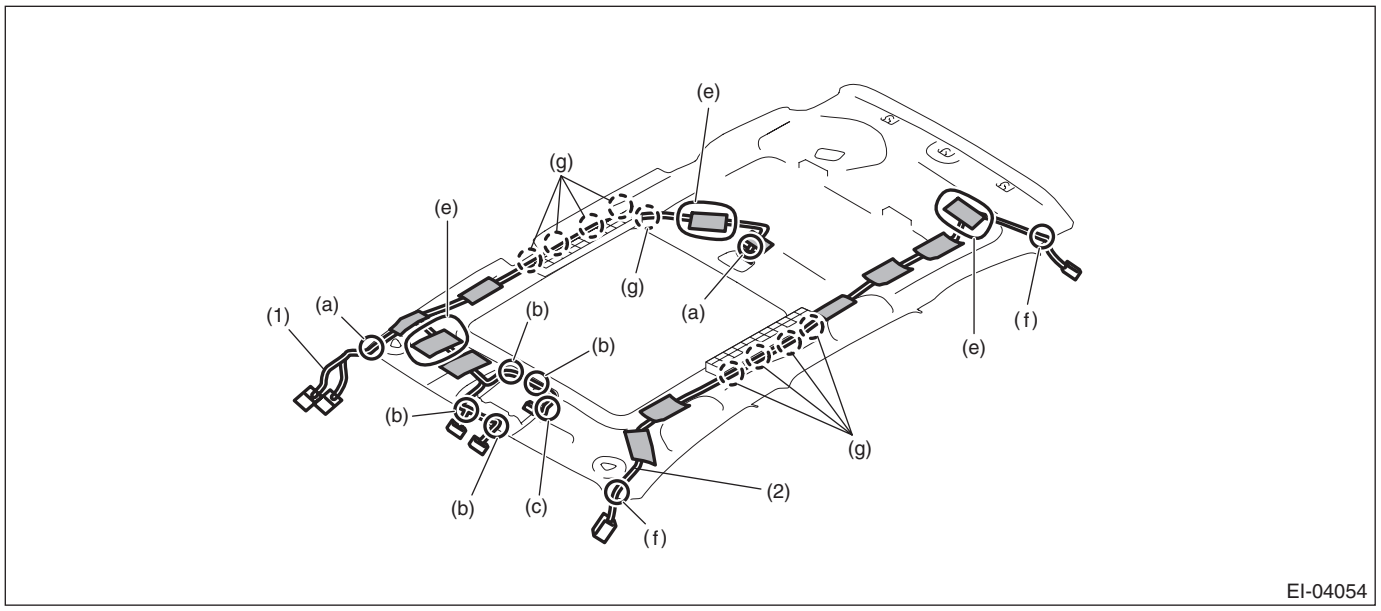
1) Apply the feeder cord and roof cord along the mark-off line of the roof trim.

CAUTION:
Route each cord carefully. The cord may interfere, thus preventing normal deployment of the curtain airbag when necessary.

Tape:
Item number: 86359SC000/TAPE

NOTE:
Use the tape (service parts) by cutting into 80 mm × 50 mm (3.2 in × 2.0 in).





(1)	Roof cord	(2)	Feeder cord		
(a)	Align the marking (white tape) of the cord with the clamp to secure.	(d)	Bind the cord between the patch and the trim.	(g)	Secure the cord to the roof pad clamp.
(b)	Secure the cord to the clamp of the patch.	(e)	Fix with the tape by adjusting the excess portion of cord at the (e) position.		
(c)	Affix the polyurethane section of the cord to the clamp of the patch.	(f)	Align the marking (red tape) of the cord with the clamp to secure.		

2) Install each part in the reverse order of removal.

CAUTION:
• For installation of the stereo camera cover, refer to "INSTALLATION", "Stereo Camera Cover" in the "EyeSight" section and observe the precautions for installation. <Ref. to ES-15, INSTALLATION, Stereo Camera.>
• For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation. <Ref. to PRG-16, INSTALLATION, Power Rear Gate Rod.>
• Check that there is no damage to the tether clip on the upper part of the trim panel - front pillar UPR. If the tether clip is damaged, always replace it with a new tether clip.
• Do not reuse the tether clip removed from the upper part of the trim panel - front pillar UPR. Always replace with a new part.
• Do not reuse the upper clips of the trim panel - center pillar UPR. Once the clip is removed, its holding force is reduced. Be sure to replace it with a new clip.
• Before installing the trim panel - front pillar UPR, check the condition of protective non-woven fabric (white) of the curtain airbag. If it is damaged (airbag module cloth is exposed), replace the curtain airbag module assembly with a new part.

NOTE:
For installation of the trim panel - front pillar UPR, refer to "Upper Inner Trim". <Ref. to EI-101, INSTALLATION, Upper Inner Trim.>

Tightening torque:
Rear seat belt lower anchor: 30 N·m (3.06 kgf-m, 22.1 ft-lb)
Trim panel - rear apron: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

27.Immobilizer Control Module

A: NOTE

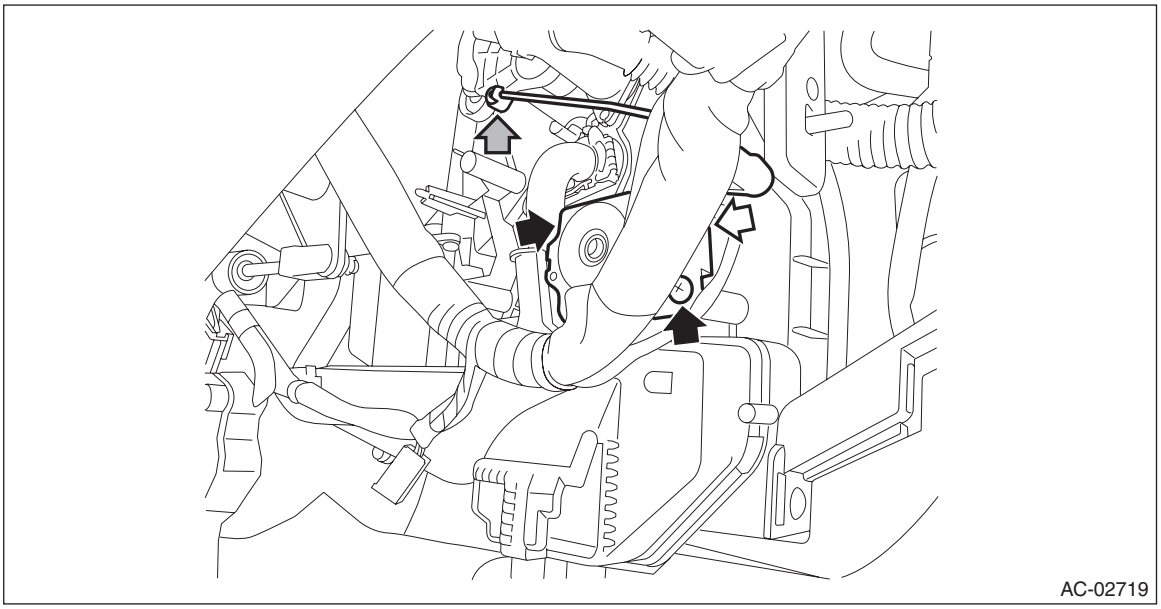
The control of immobilizer system is carried out in body integrated unit. For the detailed procedure, refer to the section of body integrated unit.

- Removal: <Ref. to SL-75, REMOVAL, Body Integrated Unit.>
- Installation: <Ref. to SL-77, INSTALLATION, Body Integrated Unit.>

27.Mode Door Actuator

A: REMOVAL

1) Remove the instrument panel lower cover and knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Remove the motor - actuator mode.
   (1) Disconnect the connector, and remove the rod from the rod clamp.
   (2) Remove the screws and detach the motor - actuator mode.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. CHECK LINK

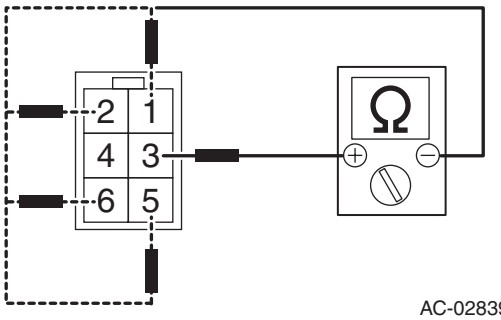
1) Visually check the operation range of the link, and remove the foreign material if any.
2) Operate the air flow control dial or switch to check that the link operates normally.
3) If it does not operate normally as the result of inspection, check the motor - actuator mode.

2. CHECK ACTUATOR

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between actuator terminals.

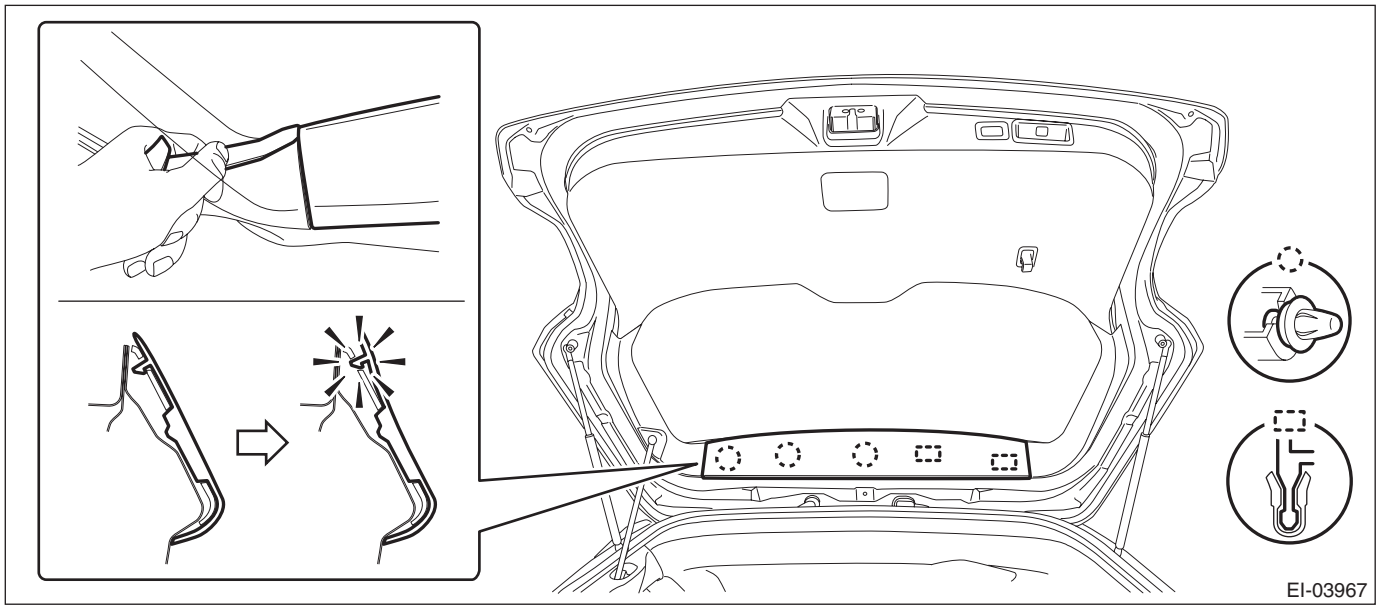
Terminal No.	Inspection conditions	Standard	Connector sketch
3 — 1	Always	80 — 100 Ω	
3 — 2			
3 — 5			
3 — 6			

2) Replace the motor - actuator mode if it is found defective as a result of inspection.

27.Rear Gate Trim

A: REMOVAL

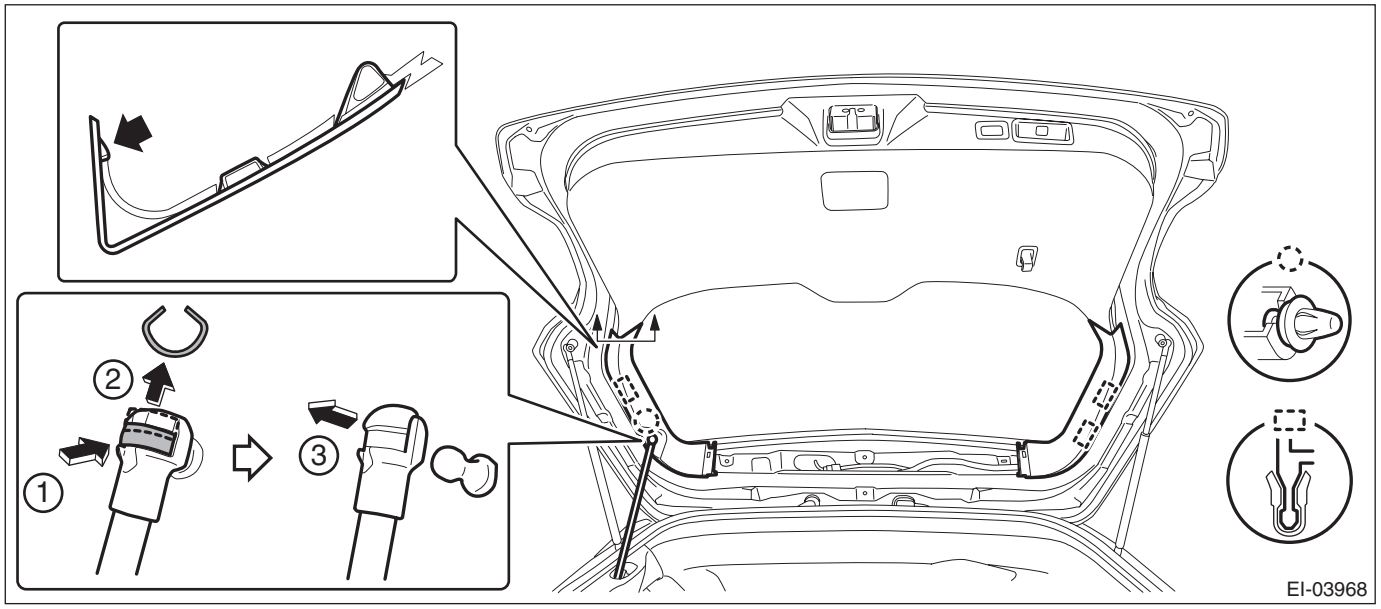
1) Remove the trim panel - rear gate UPR.
   (1) Remove the claws on the trim edge.
   (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



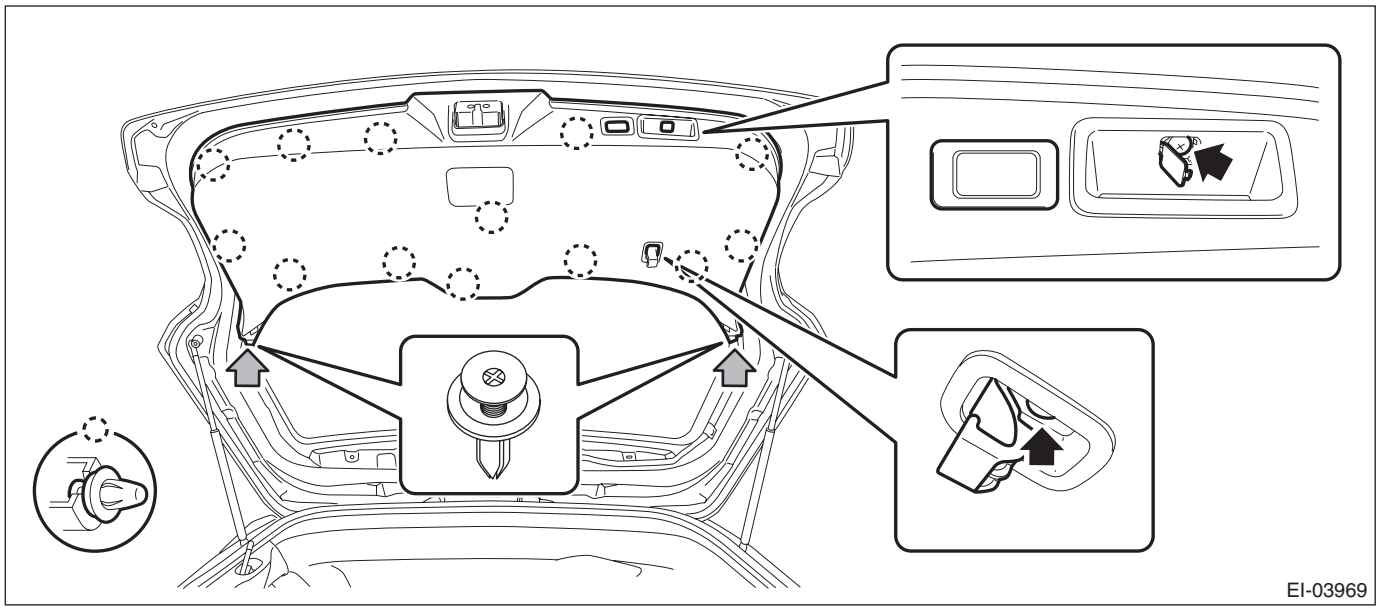
2) Remove the trim panel - rear gate pillar side.
   (1) Disconnect the rod - power rear gate before removing the trim panel - rear gate pillar side LH. (Only for models with power rear gate)

CAUTION:
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal. <Ref. to PRG-15, REMOVAL, Power Rear Gate Rod.>

   (2) Release the claws.
   (3) Remove the claws on the bottom of trim, and remove the trim panel - rear gate pillar side.



3) Remove the trim panel - rear gate LWR.
   (1) Remove the power rear gate inner switch and disconnect the connector. (Only for models with power rear gate)
   (2) Remove the screw and clips on both ends.
   (3) Release the clips, and remove the trim panel - rear gate LWR.



B: INSTALLATION

CAUTION:
For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation. <Ref. to PRG-16, INSTALLATION, Power Rear Gate Rod.>
Install each part in the reverse order of removal.

27.Rear Side Marker Light Bulb

A: NOTE

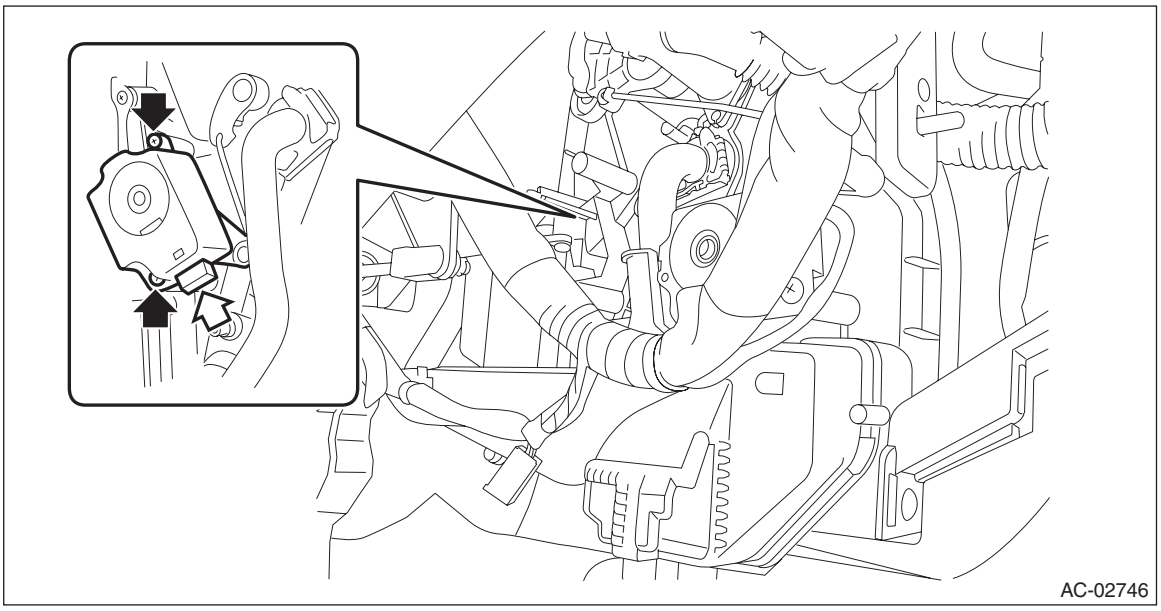
Integrated with the tail/stop light bulb. For details concerning operation procedures, refer to “Tail/Stop Light Bulb”.<Ref. to LI-52, Tail/Stop Light Bulb.>

28.Air Mix Door Actuator

A: REMOVAL

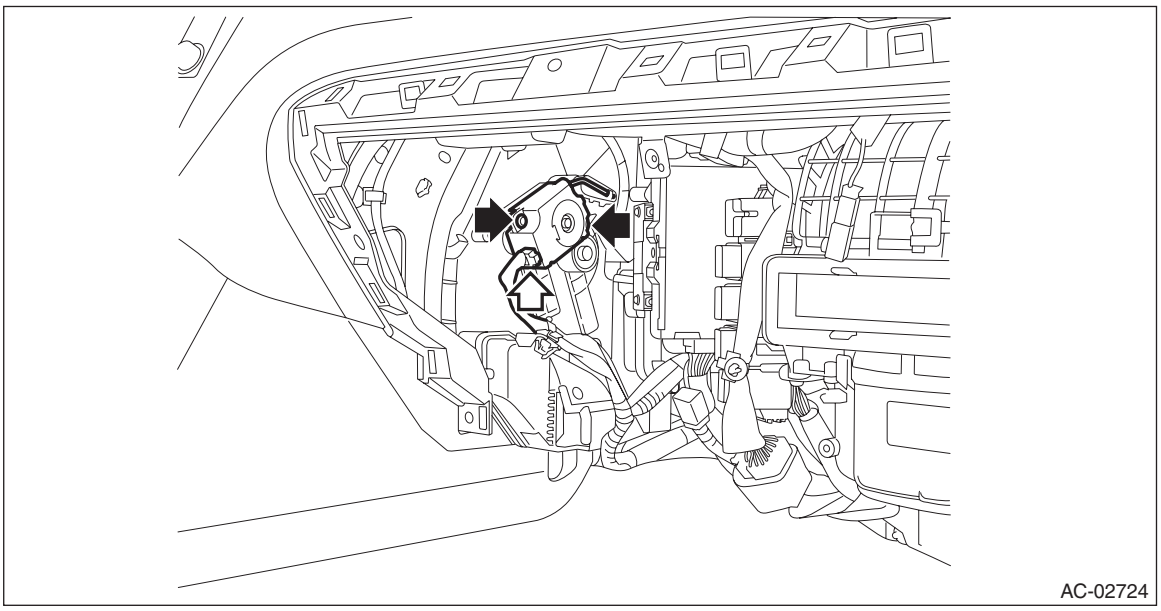
1. LH

1) Remove the instrument panel lower cover and knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Remove the motor - actuator mix.
   (1) Disconnect the connector, and remove the rod from the rod clamp.
   (2) Remove the screws and detach the motor - actuator mix.


AC-02746

2. RH

1) Remove the glove box. <Ref. to EI-61, REMOVAL, Glove Box.>
2) Remove the motor - actuator mix.
   (1) Disconnect the connector, and remove the rod from the rod clamp.
   (2) Remove the screws and detach the motor - actuator mix.


AC-02724

B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. CHECK LINK

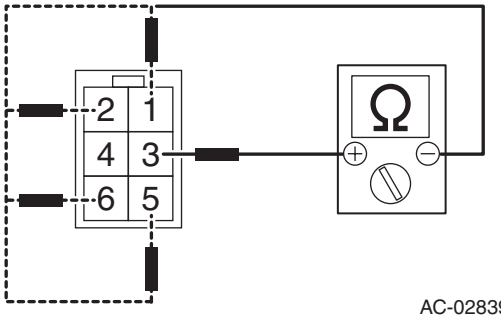
1) Visually check the operation range of the link, and remove the foreign material if any.
2) Operate the temperature control dial to check that the link operates normally.
3) If it does not operate normally as the result of inspection, check the motor - actuator mix.

2. CHECK ACTUATOR

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Check the resistance between actuator terminals.

Terminal No.	Inspection conditions	Standard	Connector sketch
3 — 1	Always	80 — 100 Ω	
3 — 2			
3 — 5			
3 — 6			

2) Replace the motor - actuator mix if it is found defective as a result of inspection.

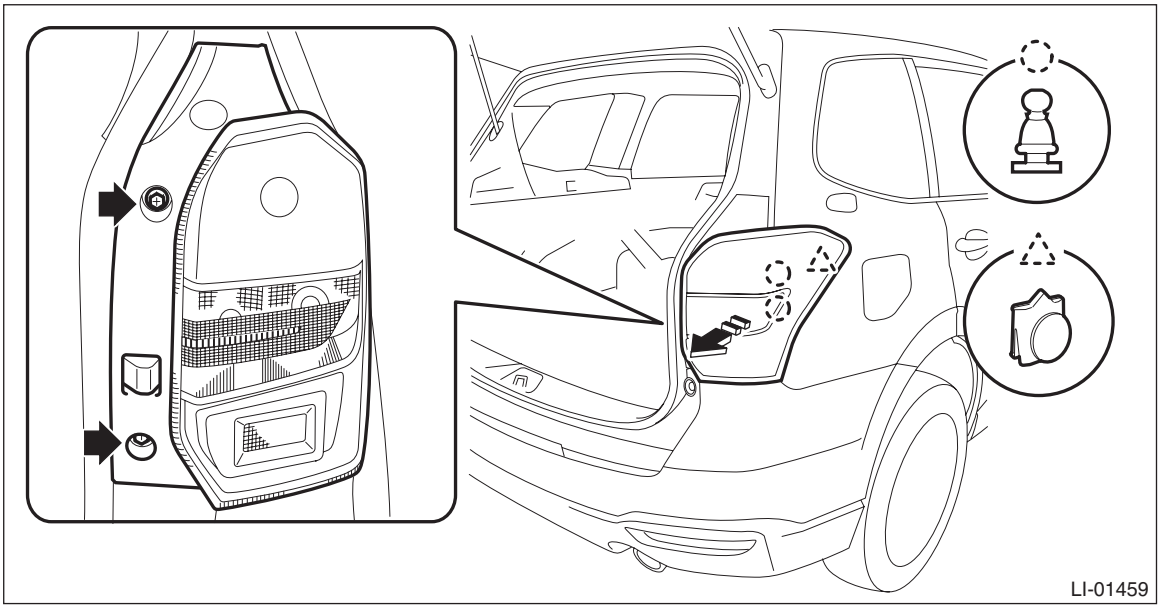
28.Back-up Light Bulb

A: REMOVAL

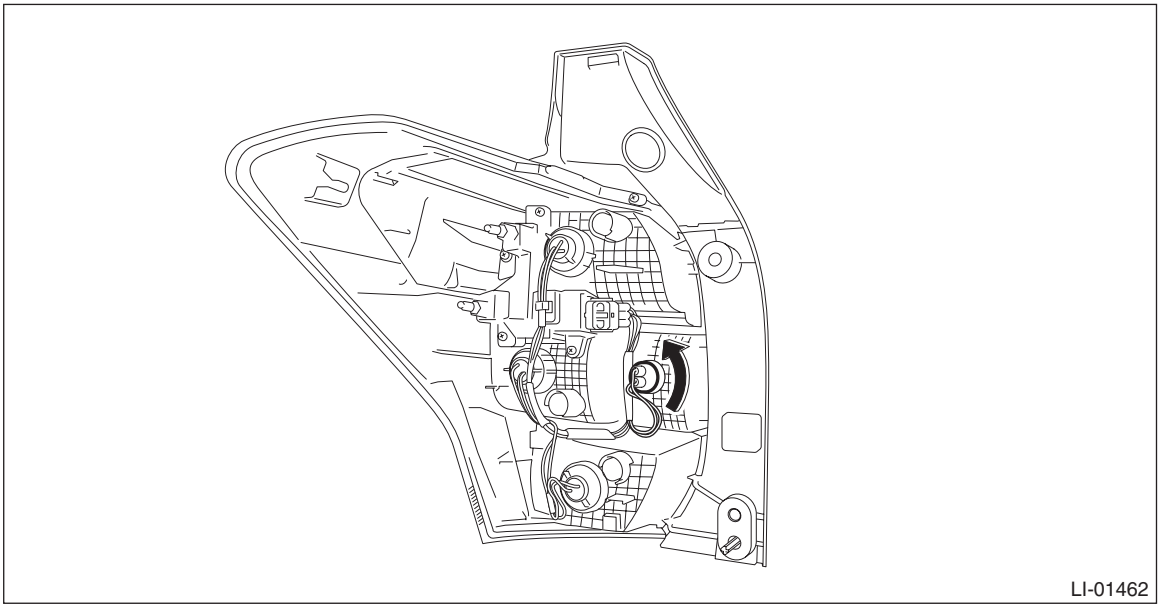
1) Disconnect the ground cable from battery.
2) Remove the light assembly - rear combination.

CAUTION:
Be careful not to damage the clips.

(1) Release the bolts and clips, then pull out the light assembly - rear combination to the vehicle rear.
(2) Disconnect the connector and remove the light assembly - rear combination.



3) Remove the bulb socket and back-up light bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Light assembly - rear combination: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

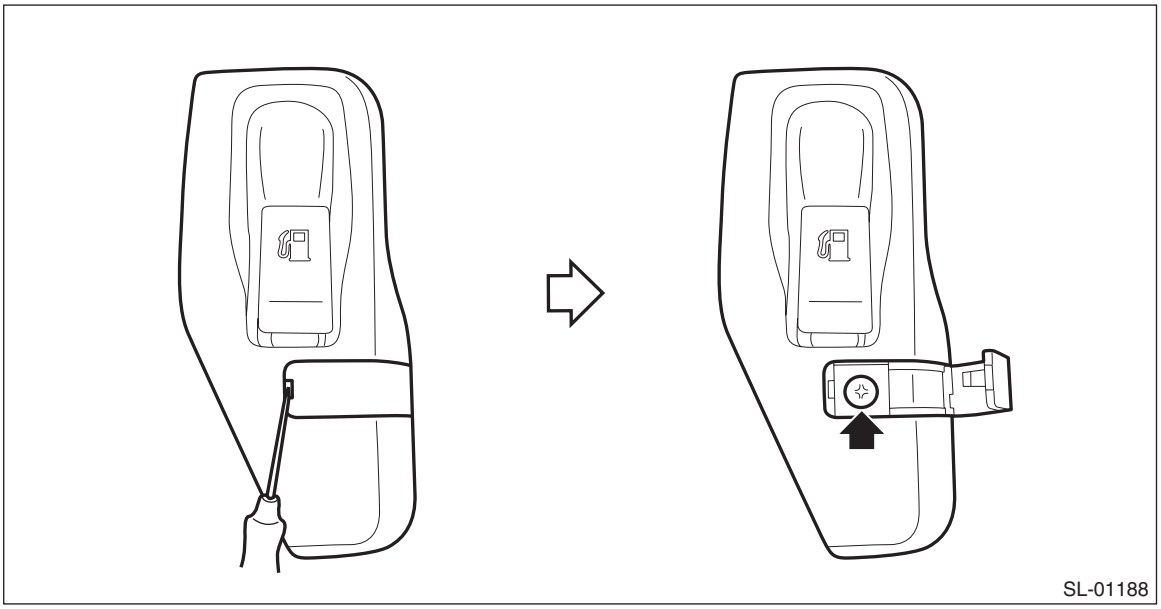
C: INSPECTION

1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

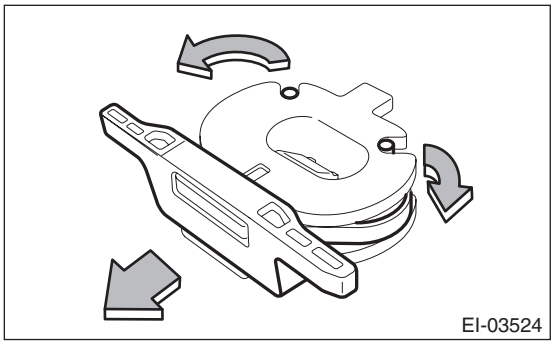
28.Floor Mat

A: REMOVAL

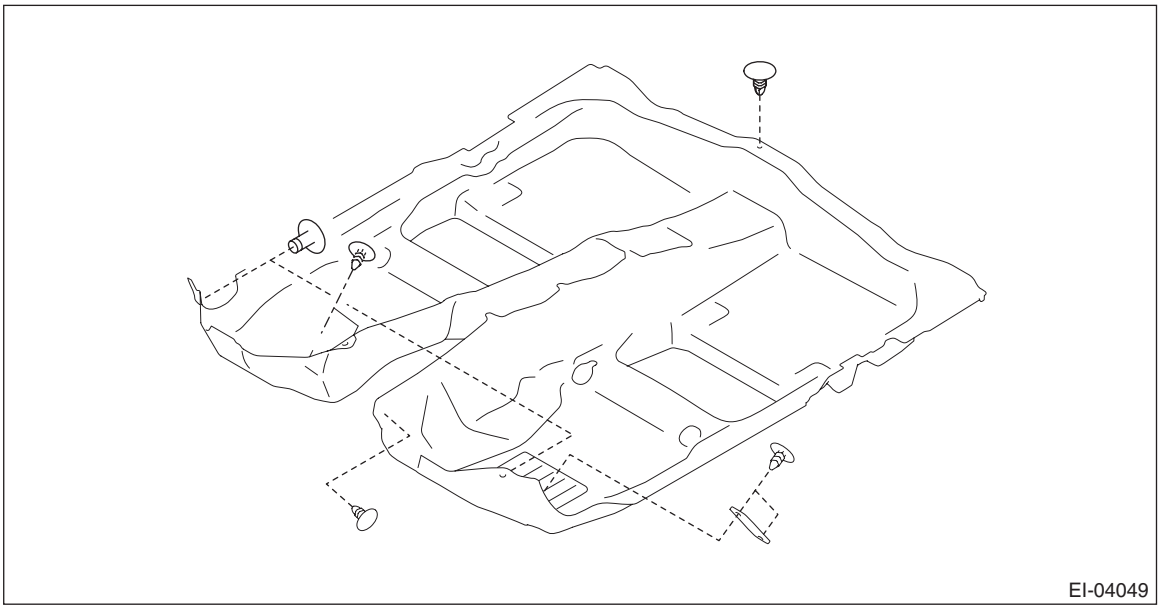
1) Remove the front seat assembly. <Ref. to SE-9, REMOVAL, Front Seat.>
2) Remove the rear seat cushion assembly. <Ref. to SE-34, REMOVAL, Rear Seat.>
3) Remove the console box assembly and panel center LWR. <Ref. to EI-65, REMOVAL, Console Box.>
4) Remove the lower inner trim. <Ref. to EI-92, REMOVAL, Lower Inner Trim.>
5) Remove the pull handle cover.
   (1) Open the cover by using a flat tip screwdriver.
   (2) Remove the screw and remove the pull handle cover.


SL-01188

6) Remove the knobs of the hook - seat cushion rear.


EI-03524

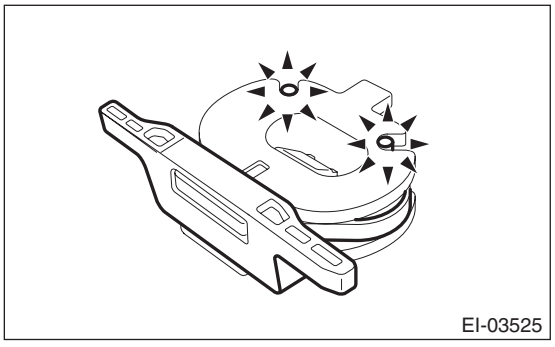
7) Take out the floor mat from the vehicle.
   (1) Remove the clips from the floor mat.
   (2) Remove the mat hook on both sides.
   (3) Take out the floor mat after folding down.


EI-04049

B: INSTALLATION

Install each part in the reverse order of removal.

CAUTION:
Make sure that the knobs of the hook - seat cushion rear are securely installed.


EI-03525

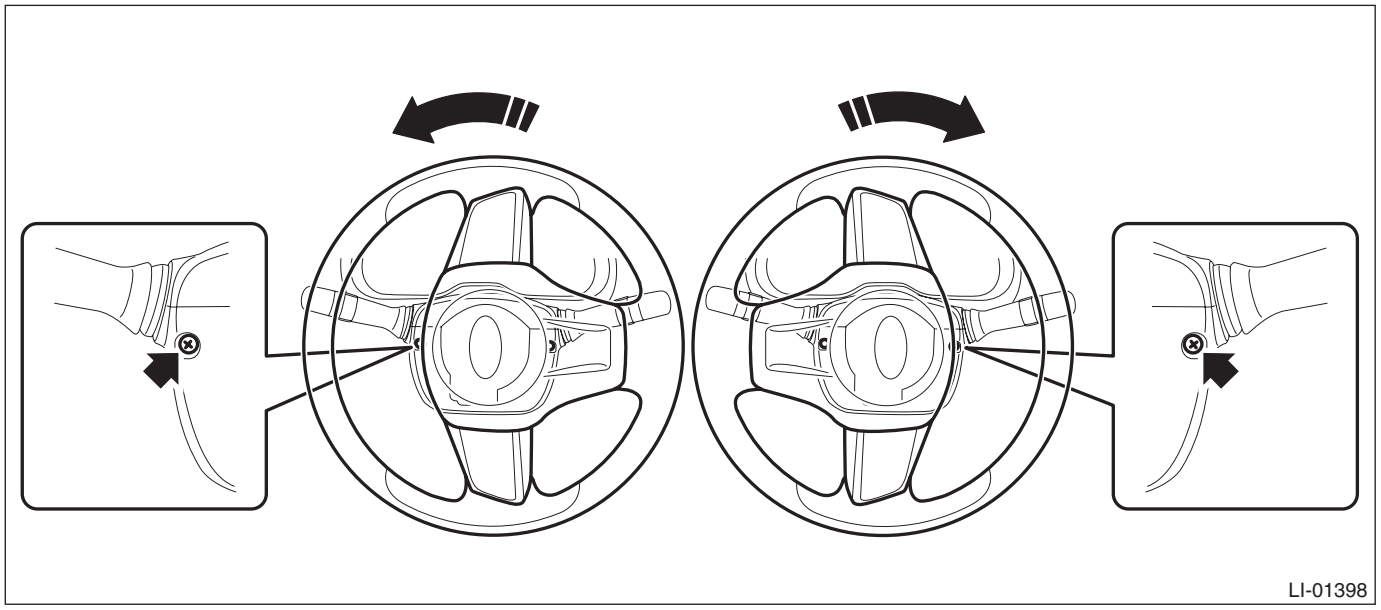
NOTE:
Secure the mat firmly with clips.

28.Immobilizer Antenna

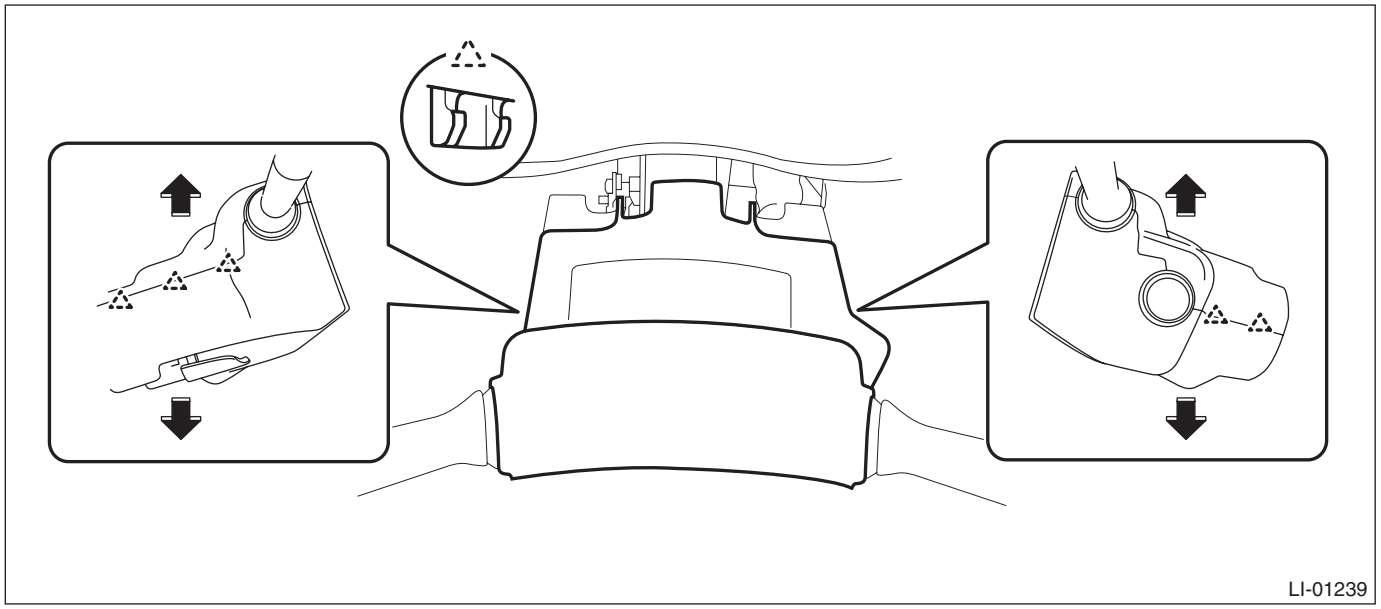
A: REMOVAL

1. MODELS WITHOUT KEYLESS ACCESS

1) Disconnect the ground cable from battery.
2) Remove the cover assembly - column.
   (1) Remove the screws by turning the steering wheel to right and left.

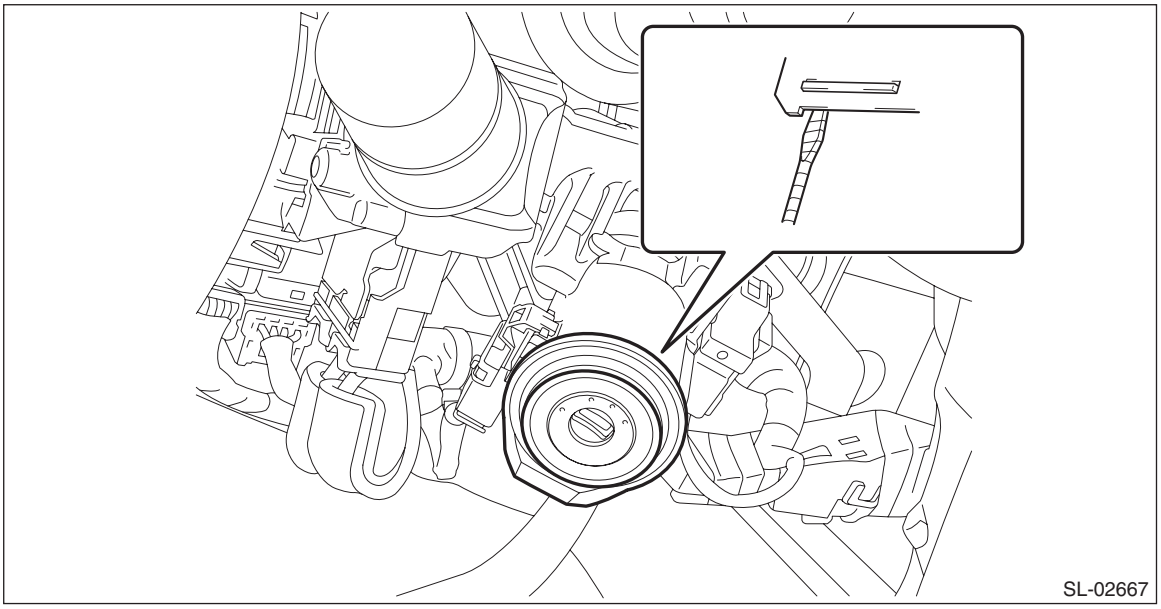


   (2) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.



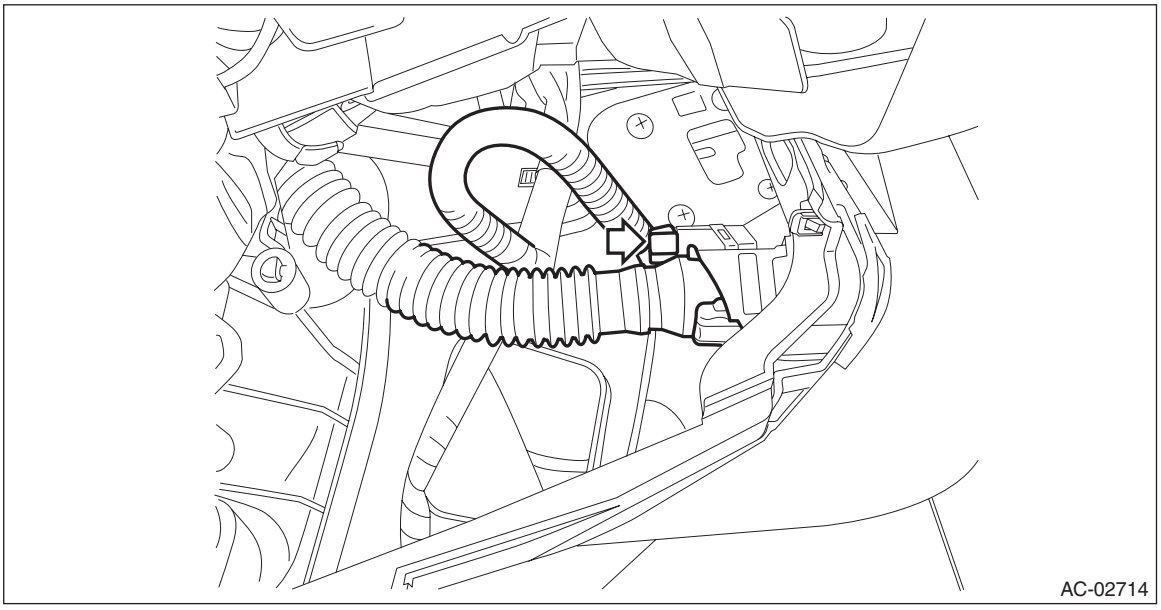
3) Remove the immobilizer antenna assembly.
(1) Disconnect the connector.
(2) Release two claws using a flat tip screwdriver or similar tool wrapped with a protection tape, and remove the immobilizer antenna assembly.

CAUTION:
Do not apply excessive force to disengage the lock of immobilizer antenna assembly. Otherwise they may be broken because those parts are the products made of a plastic.



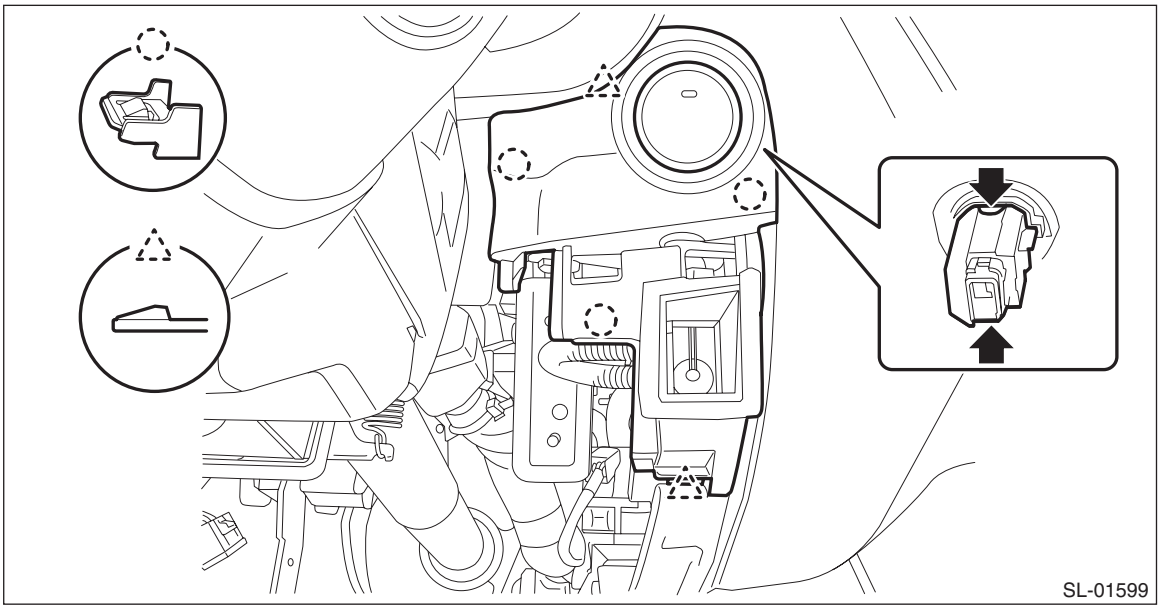
2. MODELS WITH KEYLESS ACCESS

NOTE:
Immobilizer antenna is integrated with the push button ignition switch.
1) Remove the cover assembly - instrument panel LWR driver. <Ref. to EI-59, REMOVAL, Instrument Panel Lower Cover.>
2) Remove the push button ignition switch.
(1) Disconnect the connector, and remove the aspirator hose.



(2) Release the claws, and then remove the panel - switch.

(3) Release the claws, and then remove the push button ignition switch from the panel - switch.



B: INSTALLATION

Install each part in the reverse order of removal.

29.Air Vent Grille

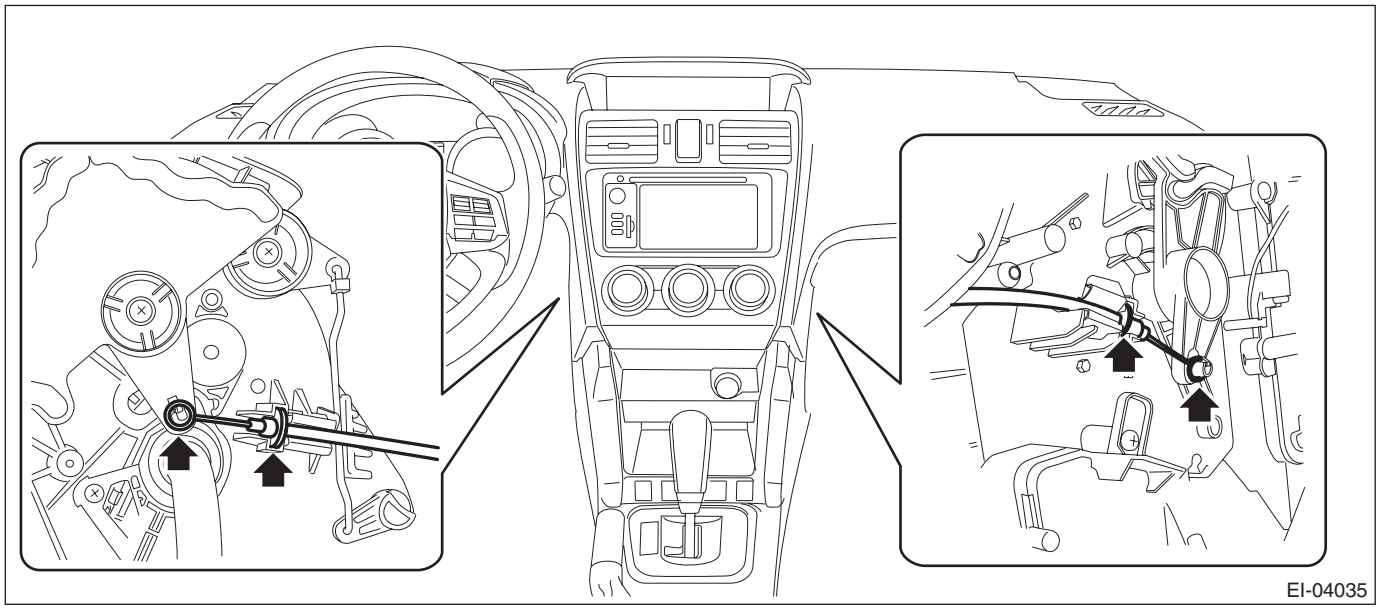
A: REMOVAL

1. CENTER GRILLE ASSEMBLY

CAUTION:
Be careful not to damage the interior trims when removing.
1) Disconnect the ground cable from battery.
2) Remove the panel center assembly.

CAUTION:
- **Do not put your finger on the fin of the air vent grille. Doing so may damage the fin.**
- **Pull the panel center assembly slowly. Pulling with excessive force may damage the connector.**

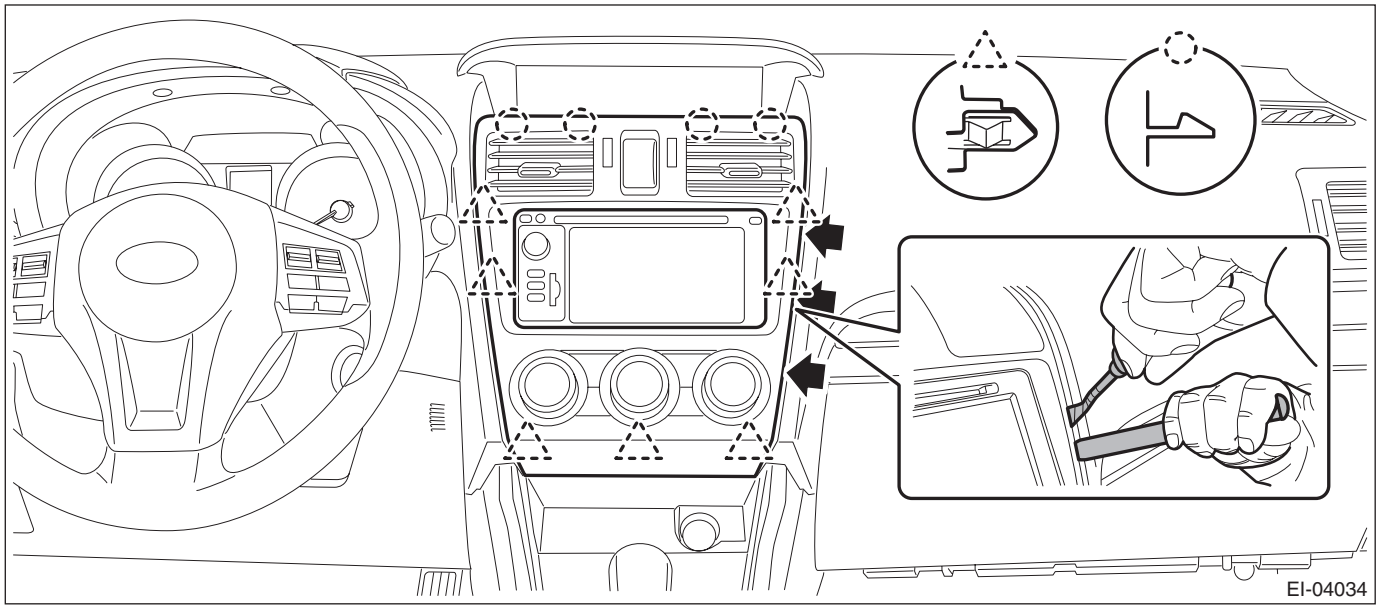
(1) On manual A/C models, disconnect the control cables from both sides of the heater and cooling unit assembly.



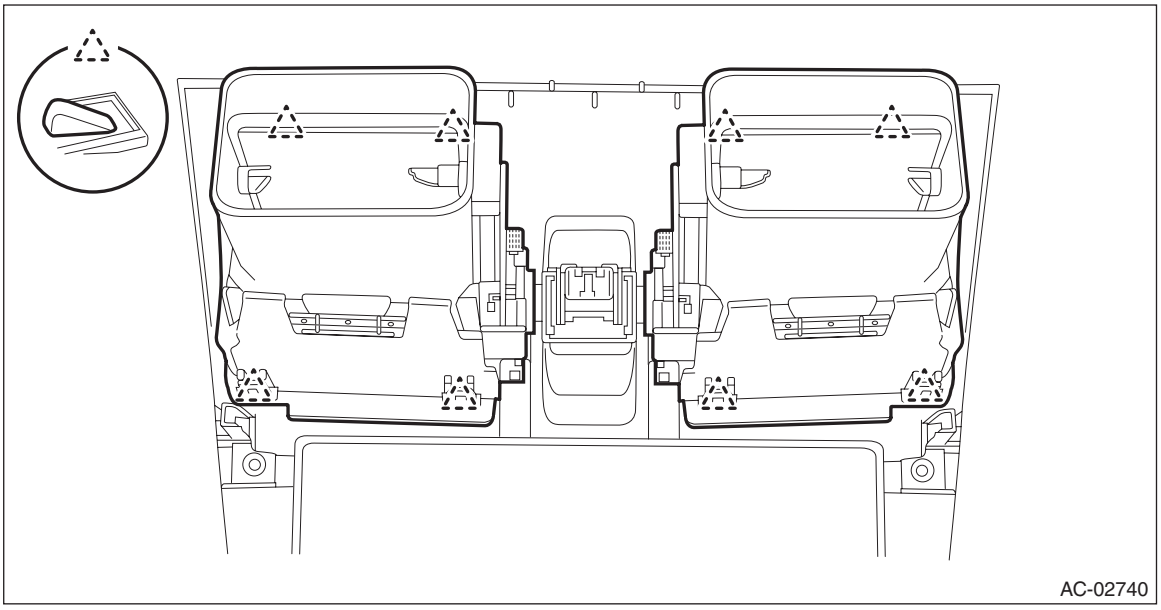
NOTE:
Remove the glove box pocket assembly on the passenger's side.

(2) Insert a plastic remover to the three areas shown by the arrows, and slightly lift up the panel center assembly.
(3) With the panel center assembly lifted up slightly, release the claw by using a clip remover wrapped with protective tape.
(4) Release the rest of the claws, and pull out the panel center assembly.

(5) Disconnect the connectors, and remove the panel center assembly.



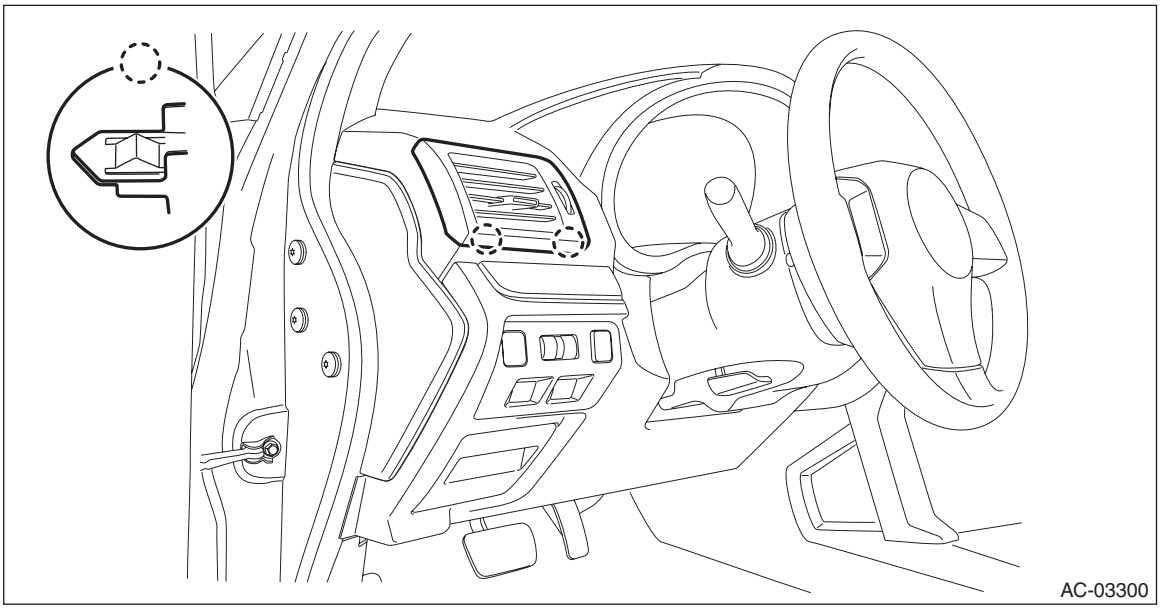
3) Release the claws, and then remove the grille assembly - CTR ventilation from the panel center assembly.



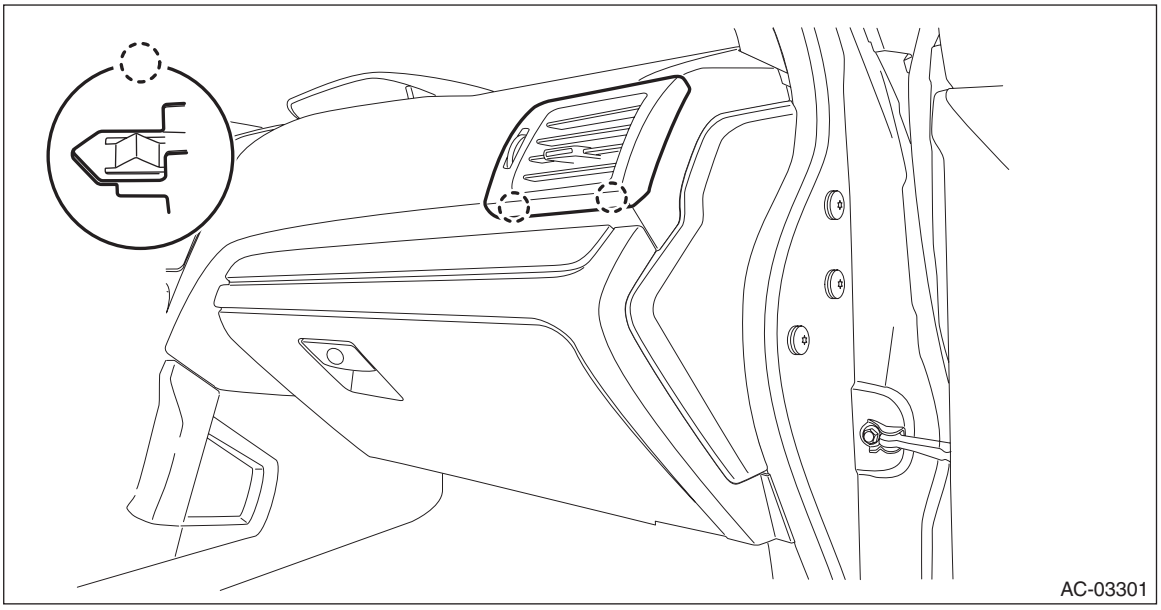
2. SIDE GRILLE ASSEMBLY

Release the claws, and then remove the grille assembly - ventilation RH.

- LH



- RH



B: INSTALLATION

CAUTION:
After installing the panel center assembly or grille assembly - ventilation, check that the air vent grille is inserted correctly into the air vent duct.
Install each part in the reverse order of removal.

C: INSPECTION

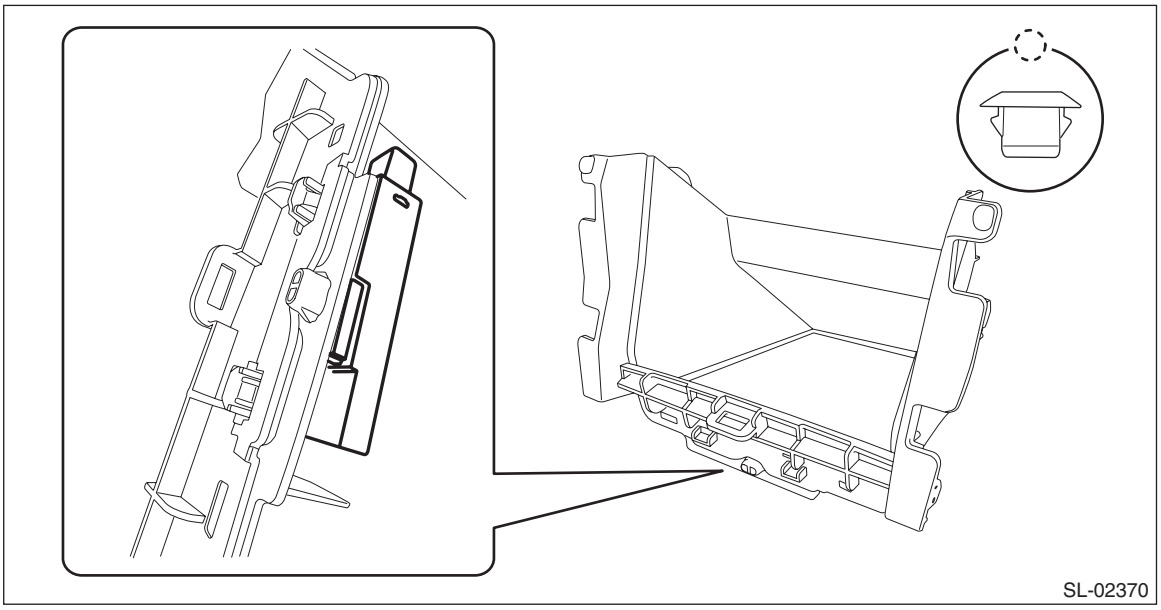
1) Check that the direction and amount of air can be adjusted smoothly. Replace the grille assembly - ventilation if faulty.
2) Check that the adjustment can be maintained in each position. Replace the grille assembly - ventilation if faulty.

29.Keyless Access Indoor Antenna

A: REMOVAL

1. FRONT ANTENNA

1) Remove the tray assembly - CTR. <Ref. to EI-65, REMOVAL, Console Box.>
2) Disconnect the connector and remove the front antenna assembly - interior.

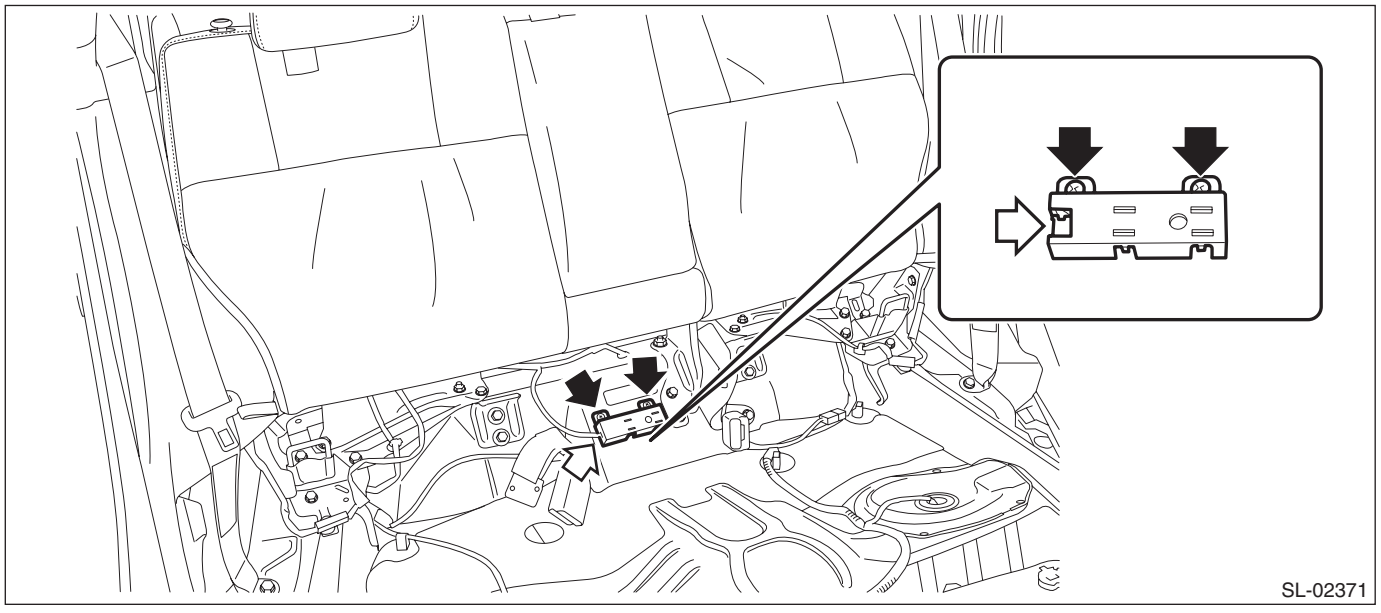


2. CENTER ANTENNA

1) Disconnect the ground cable from battery.
2) Remove the rear seat cushion assembly. <Ref. to SE-34, REMOVAL, Rear Seat.>
3) Remove the center antenna assembly - interior.

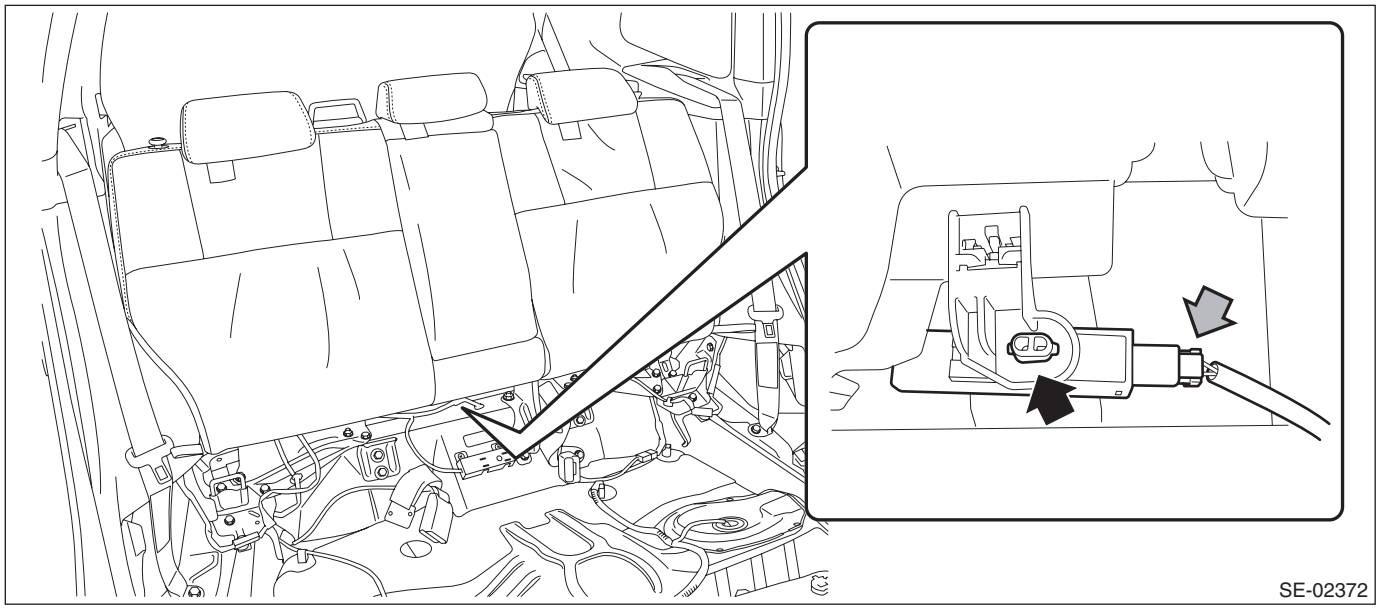
NOTE:
Do not remove the antenna assembly from the cover. If removed, the antenna assembly and cover mounting becomes loose, causing abnormal noises.

(1) Disconnect the connector.
(2) Remove the screw, and remove the center antenna assembly - interior.



3. REAR ANTENNA

1) Disconnect the ground cable from battery.
2) Remove the rear seat cushion assembly. <Ref. to SE-34, REMOVAL, Rear Seat.>
3) Disconnect the connector and remove the rear antenna assembly - interior.



B: INSTALLATION

Install each part in the reverse order of removal.

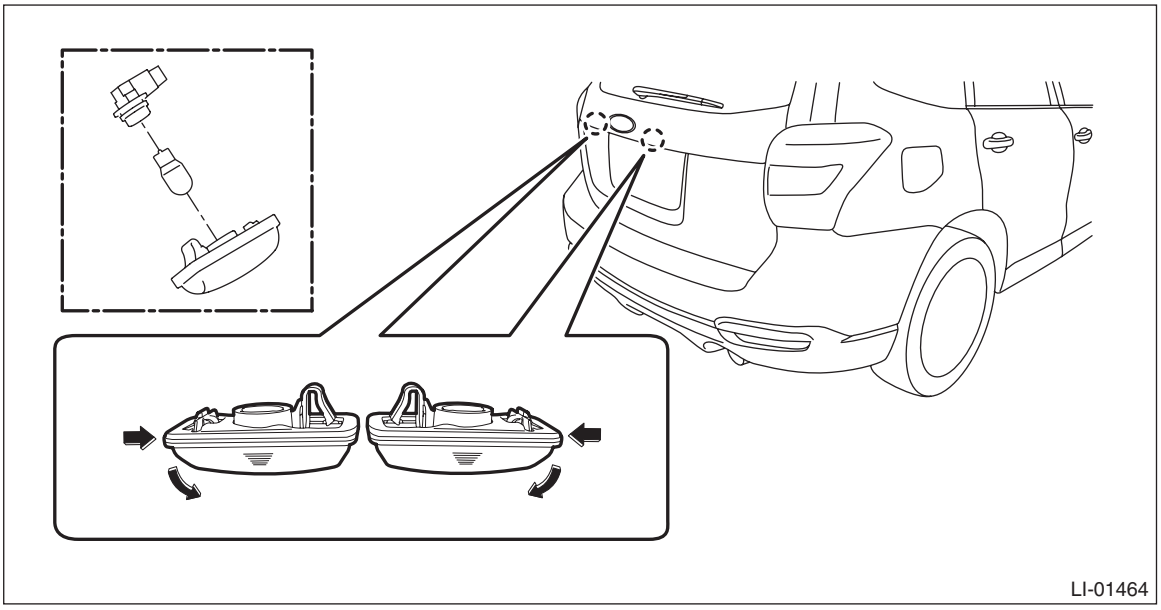
C: INSPECTION

1) Check the setting by performing Keyless access system check using the Subaru Select Monitor. <Ref. to KPS(diag)-33, OPERATION, Keyless Access System Check.>
2) Disconnect the Subaru Select Monitor. After placing the access key near the changed antenna, operate the push button ignition switch to check that the power can be switched.
3) If the system does not operate normally as the result of inspection, refer to “General Diagnostic Table” of the “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-97, KEYLESS ACCESS SYSTEM, INSPECTION, General Diagnostic Table.>

29.License Plate Light

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the license plate light.
   (1) Release the claws and pull out the license plate light.
   (2) Disconnect the connector and remove the bulb socket and bulb from the license plate light.



B: INSTALLATION

Install each part in the reverse order of removal.

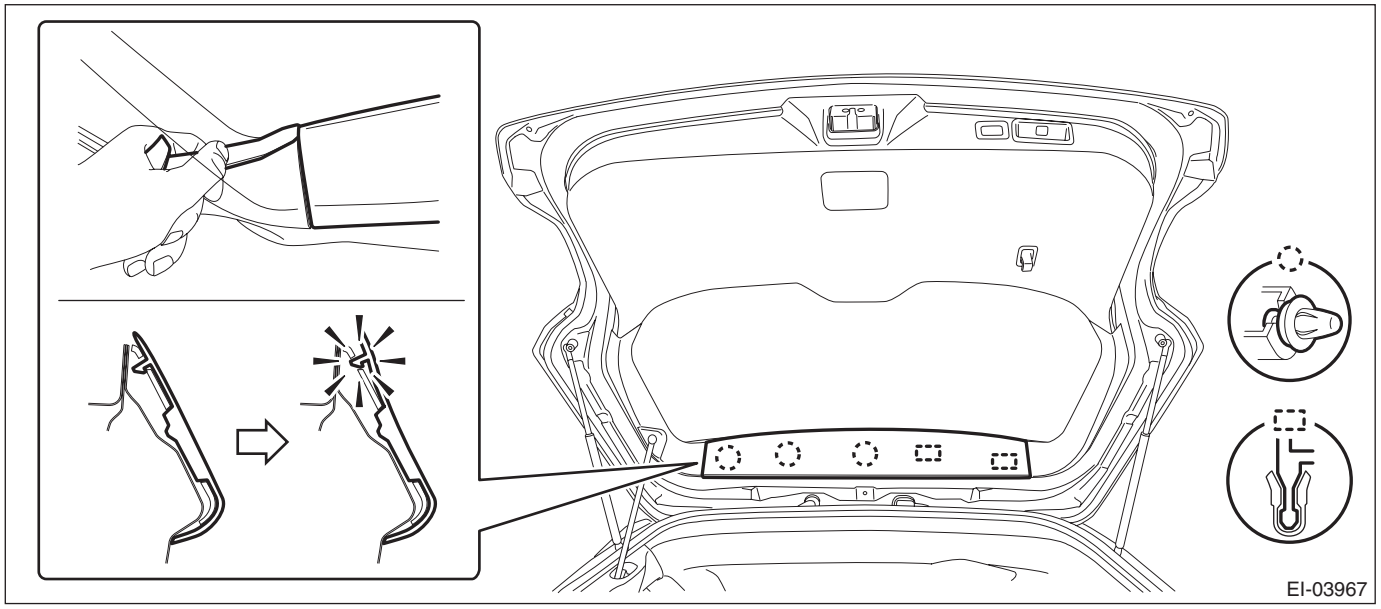
C: INSPECTION

1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

29.Rear Gate Garnish

A: REMOVAL

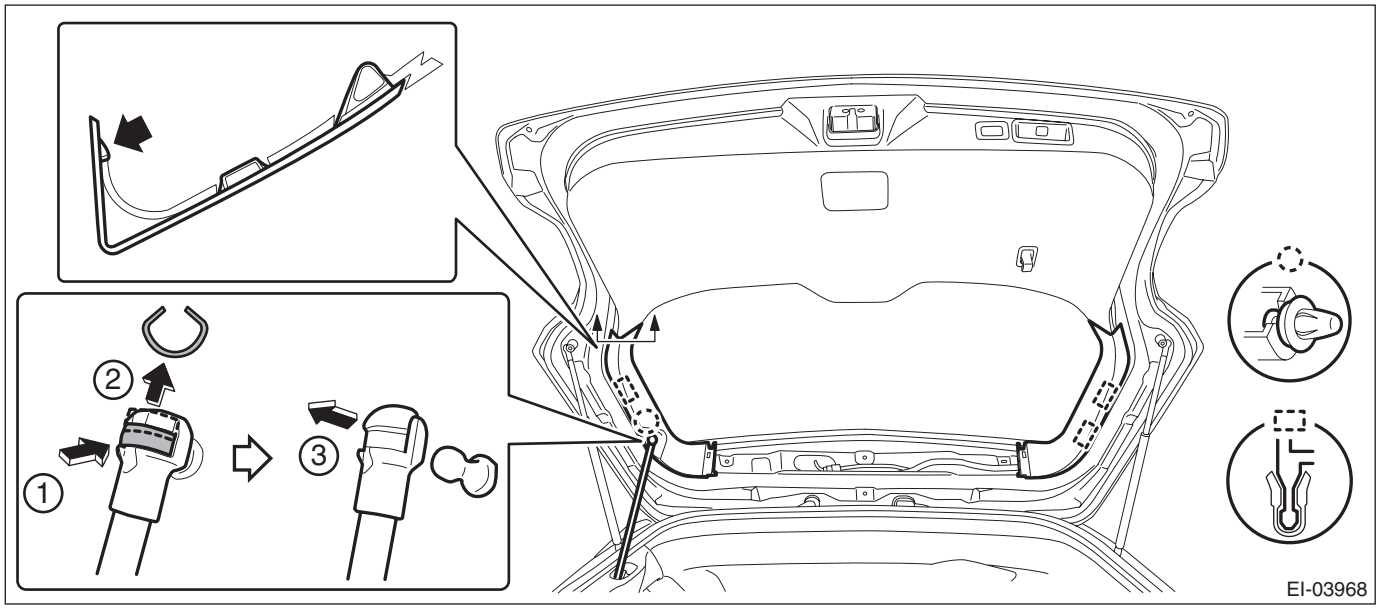
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate UPR.
   (1) Remove the claws on the trim edge.
   (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



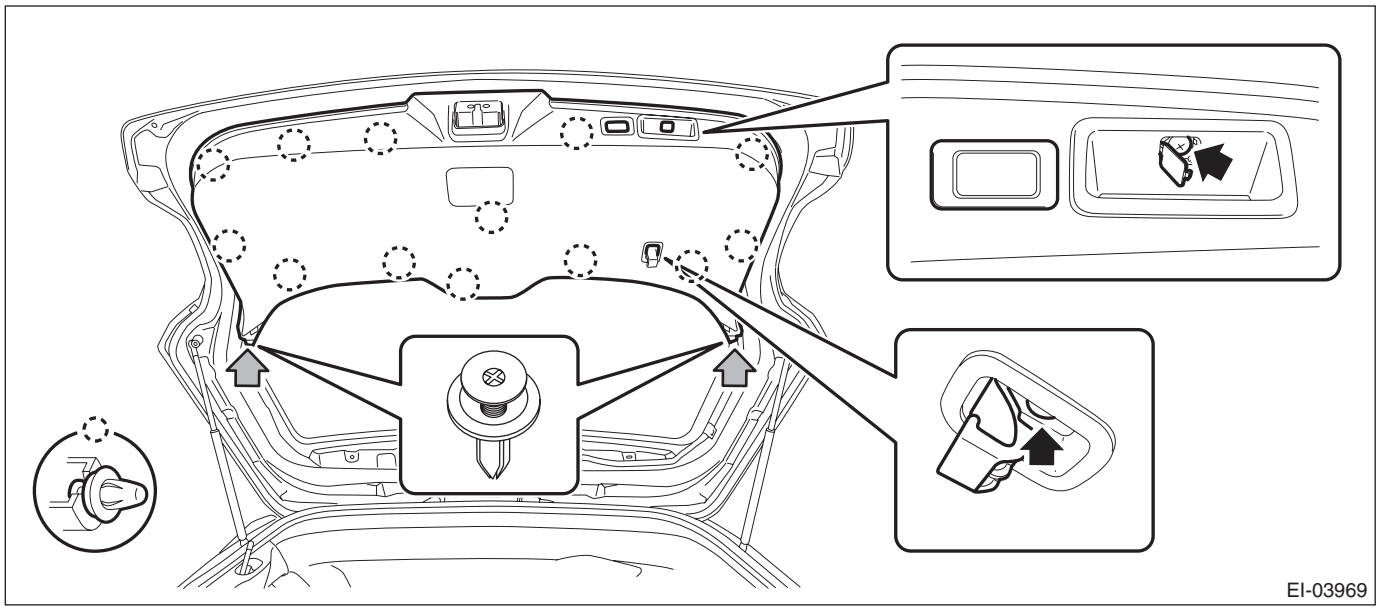
3) Remove the trim panel - rear gate pillar side.
   (1) Disconnect the rod - power rear gate. (Only for models with power rear gate)

CAUTION:
For the disconnection procedure of the rod - power rear gate, refer to "REMOVAL", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for removal. <Ref. to PRG-15, REMOVAL, Power Rear Gate Rod.>

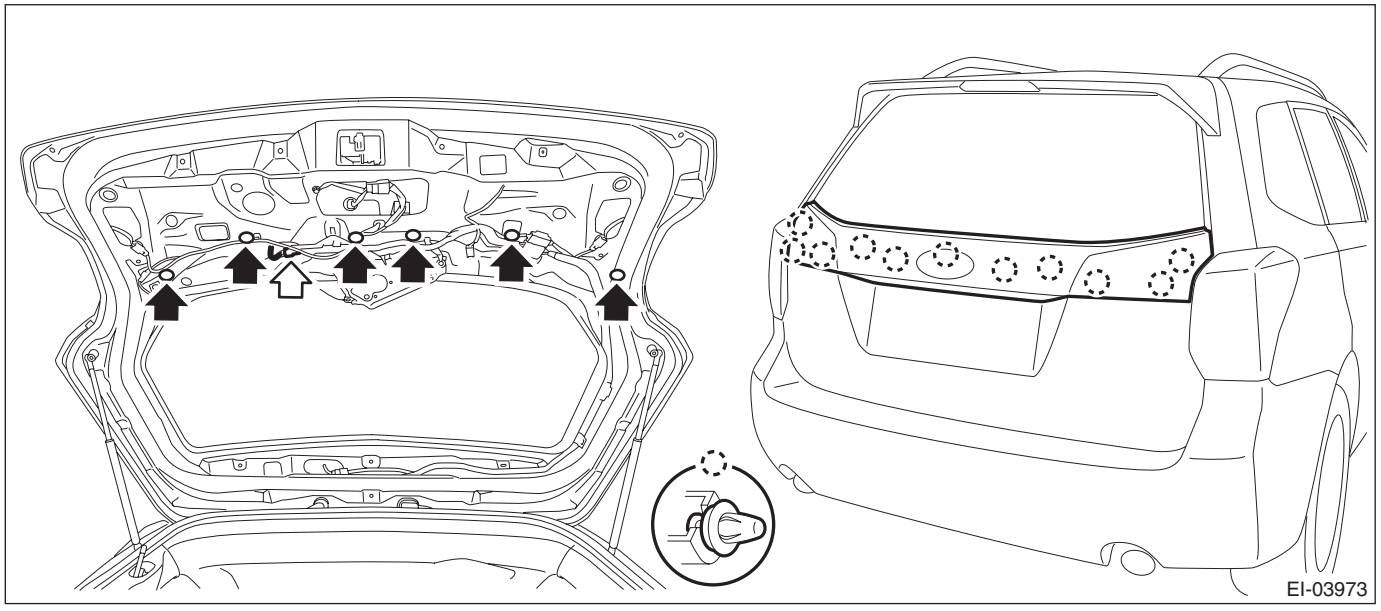
   (2) Release the claws.
   (3) Remove the claws on the bottom of trim, and remove the trim panel - rear gate pillar side.



4) Remove the trim panel - rear gate LWR.
   (1) Remove the power rear gate inner switch and disconnect the connector. (Only for models with power rear gate)
   (2) Remove the screw and clips on both ends.
   (3) Release the clips, and remove the trim panel - rear gate LWR.



5) Remove the garnish assembly - rear gate.
   (1) Disconnect the harness connector of license plate light assembly.
   (2) Remove the nuts.
   (3) Remove the clips and remove the garnish assembly - rear gate.



B: INSTALLATION

CAUTION:
• Make sure that the harness grommet is securely installed. If not properly installed, this may cause leaks.
• For installation of the rod - power rear gate, refer to "INSTALLATION", "Power Rear Gate Rod" in the "POWER REAR GATE" section and observe the precautions for installation. <Ref. to PRG-16, INSTALLATION, Power Rear Gate Rod.>
Install each part in the reverse order of removal.

Tightening torque:
4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

30.Heat Shield Cover

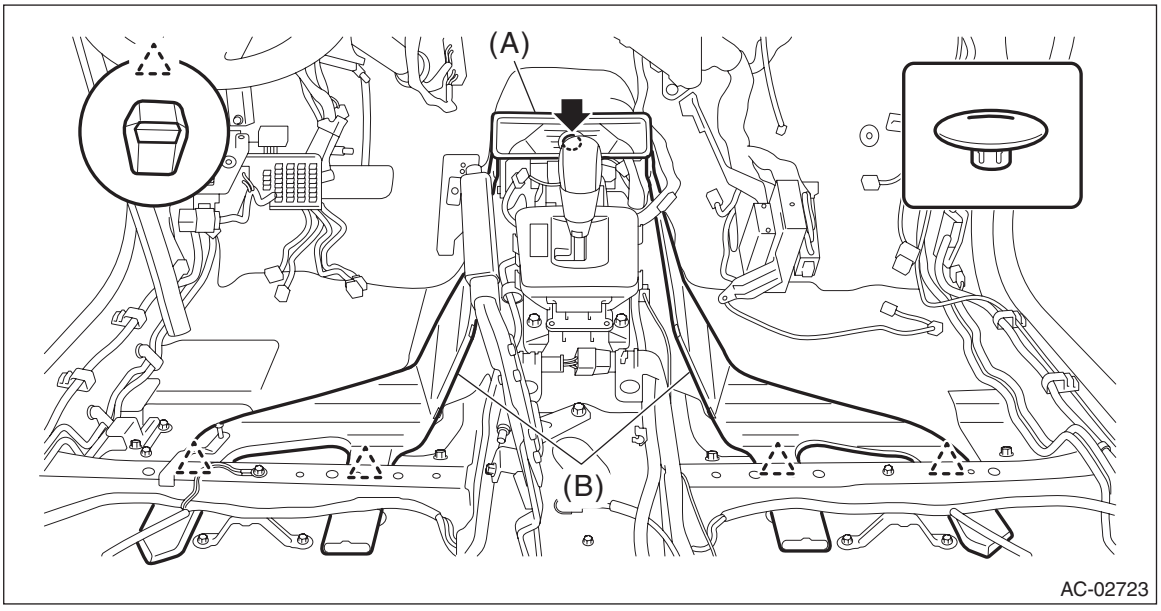
A: NOTE

Refer to “EXHAUST” section for removal and installation procedure of the heat shield cover.

30.Heater Duct

A: REMOVAL

1) Remove the front seats. <Ref. to SE-9, REMOVAL, Front Seat.>
2) Remove the instrument panel assembly. <Ref. to EI-69, REMOVAL, Instrument Panel Assembly.>
3) Remove the duct - rear heater extension and the power amplifier assembly. (Model with harman/kardon® audio system) <Ref. to ET-14, REMOVAL, Power Amplifier.>
4) Remove the duct - rear heater.
   (1) Lift the floor carpet.
   (2) Remove the clips, and remove the duct - rear heater CTR (A).
   (3) Release the claws, and remove the duct - rear heater (B) on LH and RH sides.



B: INSTALLATION

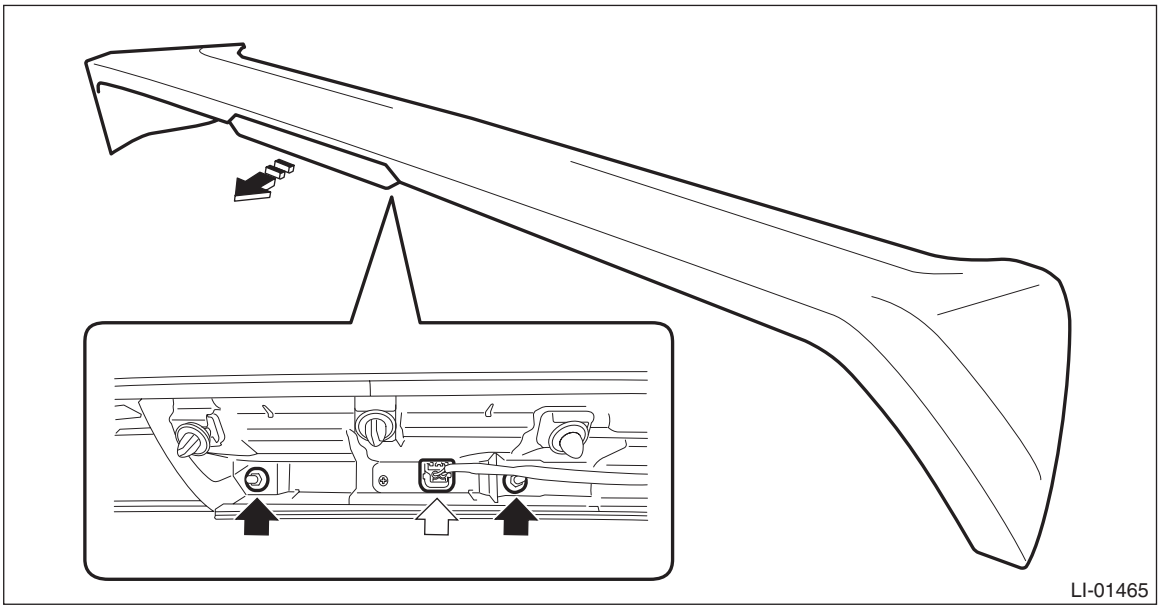
Install each part in the reverse order of removal.

30.High-mounted Stop Light

A: REMOVAL

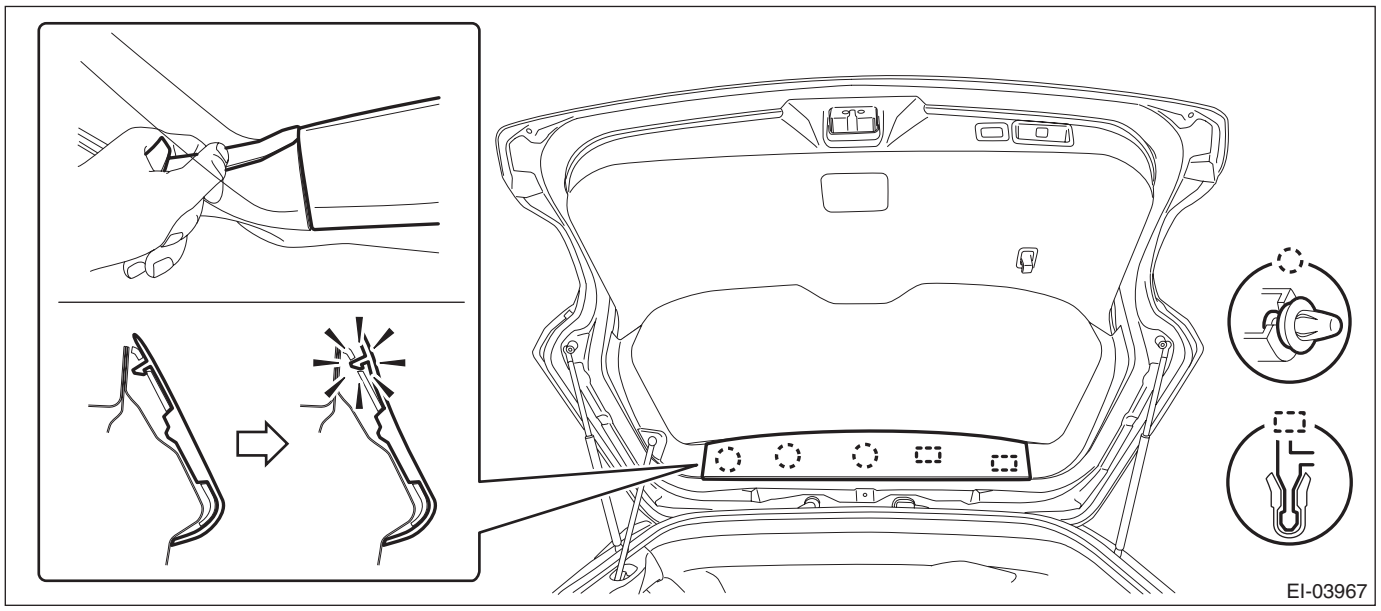
1. ROOF SPOILER TYPE

1) Disconnect the ground cable from battery.
2) Remove the roof spoiler. <Ref. to EI-49, REMOVAL, Roof Spoiler.>
3) Remove the light assembly - high-mounted.
   (1) Disconnect the connector.
   (2) Remove the nuts and remove the light assembly - high-mounted.

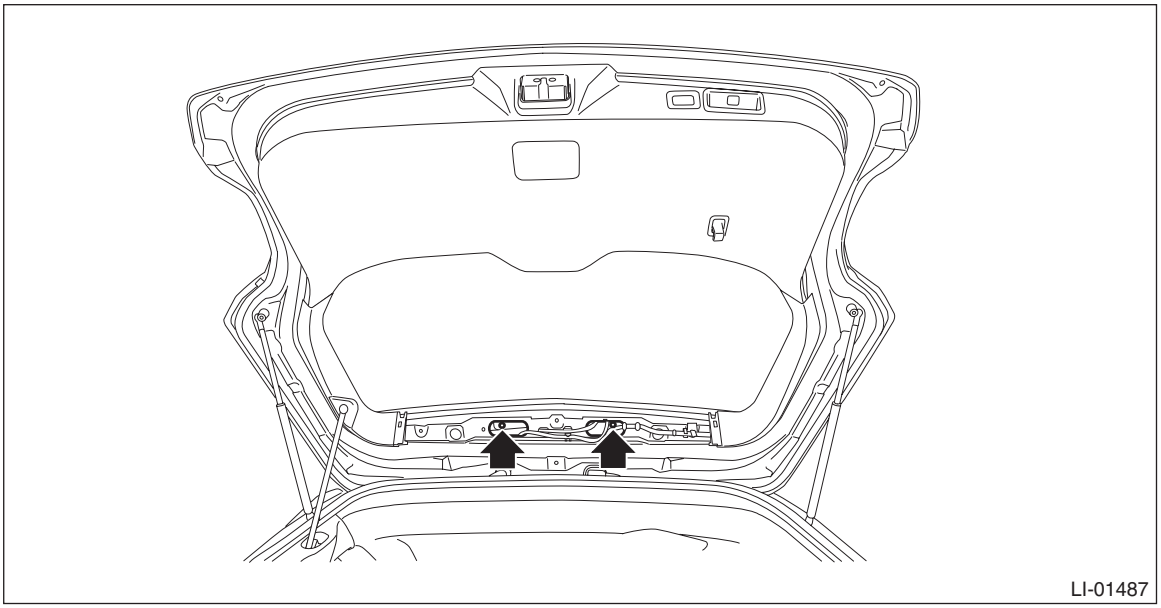


2. REAR GATE TYPE

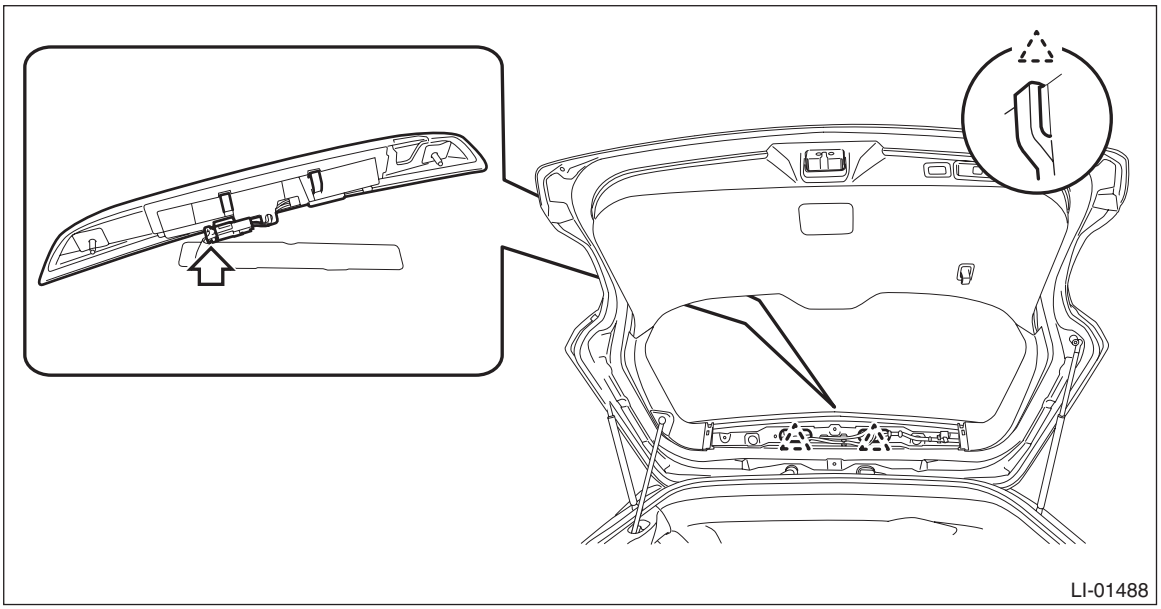
1) Disconnect the ground cable from battery.
2) Remove the trim panel - rear gate UPR.
   (1) Remove the claws on the trim edge.
   (2) Release the claws in the center of trim, and remove the trim panel - rear gate UPR.



3) Remove the light assembly - high-mounted.
(1) Remove the nut.



(2) Release the claws, and pull out the light assembly - high-mounted to the rear side of the vehicle.
(3) Disconnect the connector and remove the light assembly - high-mounted.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Light assembly - high-mounted: 4.5 N·m (0.46 kgf-m, 3.3 ft-lb)

C: INSPECTION

1) Install the light to test if it illuminates normally.
2) If it fails to illuminate normally, replace the light assembly - high-mounted with a new part.

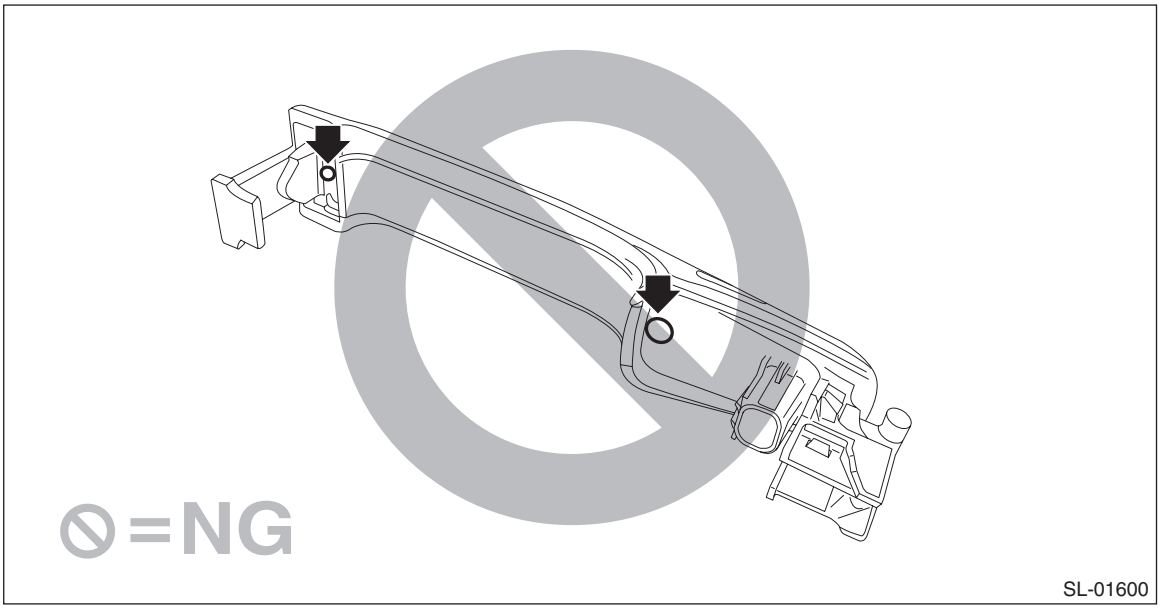
NOTE:
Since LED (Light Emitting Diode) is used for the light, replace the light assembly - high-mounted if the LED burns out.

30.Keyless Access Outdoor Antenna

A: REMOVAL

1. FRONT ANTENNA

CAUTION:
Do not detach the antenna from the front door outer handle.
If replacement is required, replace the front outer handle assembly as a whole.

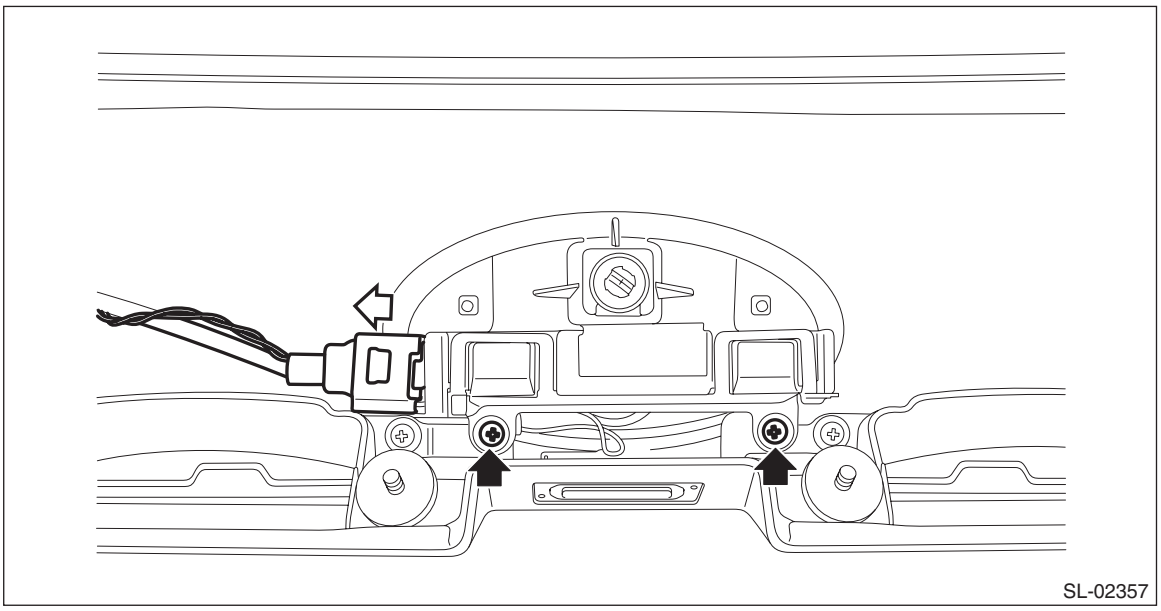


Remove the handle - door outer. <Ref. to SL-35, REMOVAL, Front Outer Handle.>

2. REAR ANTENNA

CAUTION:
• Do not detach the antenna except when replacing it. Detaching unnecessarily will lead to insecure attachment of the antenna.
• When replacing the antenna, do not reuse the tapping screw. Always replace with new tapping screws.

1) Remove the garnish assembly - rear gate. <Ref. to EI-126, REMOVAL, Rear Gate Garnish.>
2) Remove the rear antenna assembly - exterior.
   (1) Disconnect the connector.
   (2) Remove the screws, and remove the rear antenna assembly - exterior.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Rear antenna assembly - exterior: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

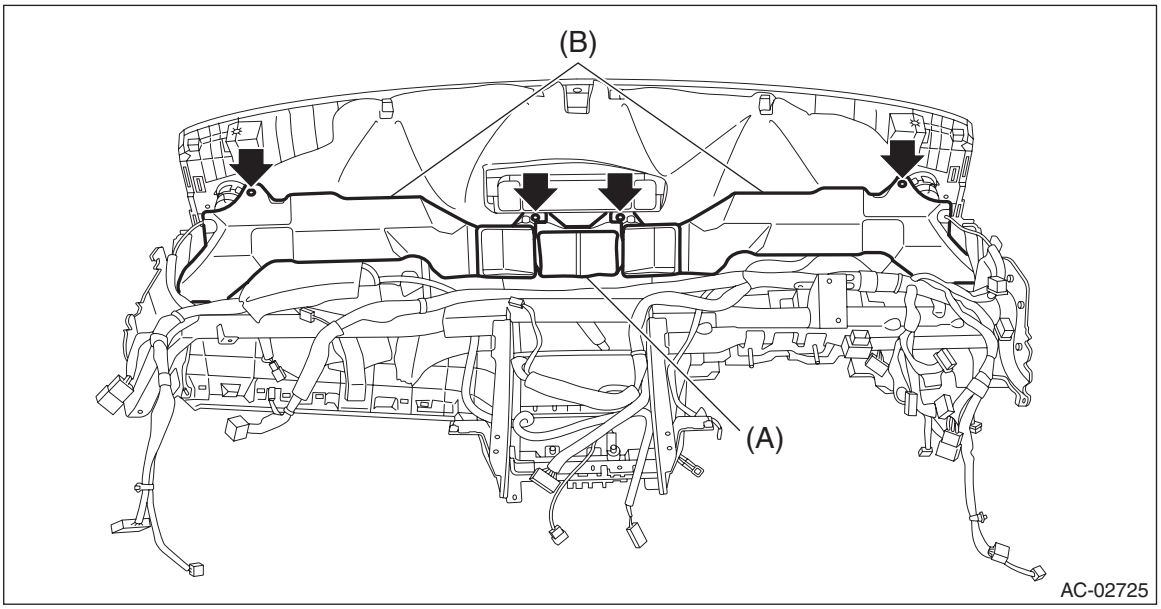
C: INSPECTION

1) Check the setting by performing Keyless access system check using the Subaru Select Monitor. <Ref. to KPS(diag)-33, OPERATION, Keyless Access System Check.>
2) Disconnect the Subaru Select Monitor. While bringing the access key, operate the opener switch on the rear gate and the lock request switch to check if the door unlock and lock operate.
3) If the system does not operate normally as the result of inspection, refer to “General Diagnostic Table” of the “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-97, KEYLESS ACCESS SYSTEM, INSPECTION, General Diagnostic Table.>

31.Heater Vent Duct

A: REMOVAL

1) Remove the instrument panel assembly. <Ref. to EI-69, REMOVAL, Instrument Panel Assembly.>
2) Remove the screws and remove the duct - center vent (A) and the duct - side ventilation (B) on LH and RH sides.



B: INSTALLATION

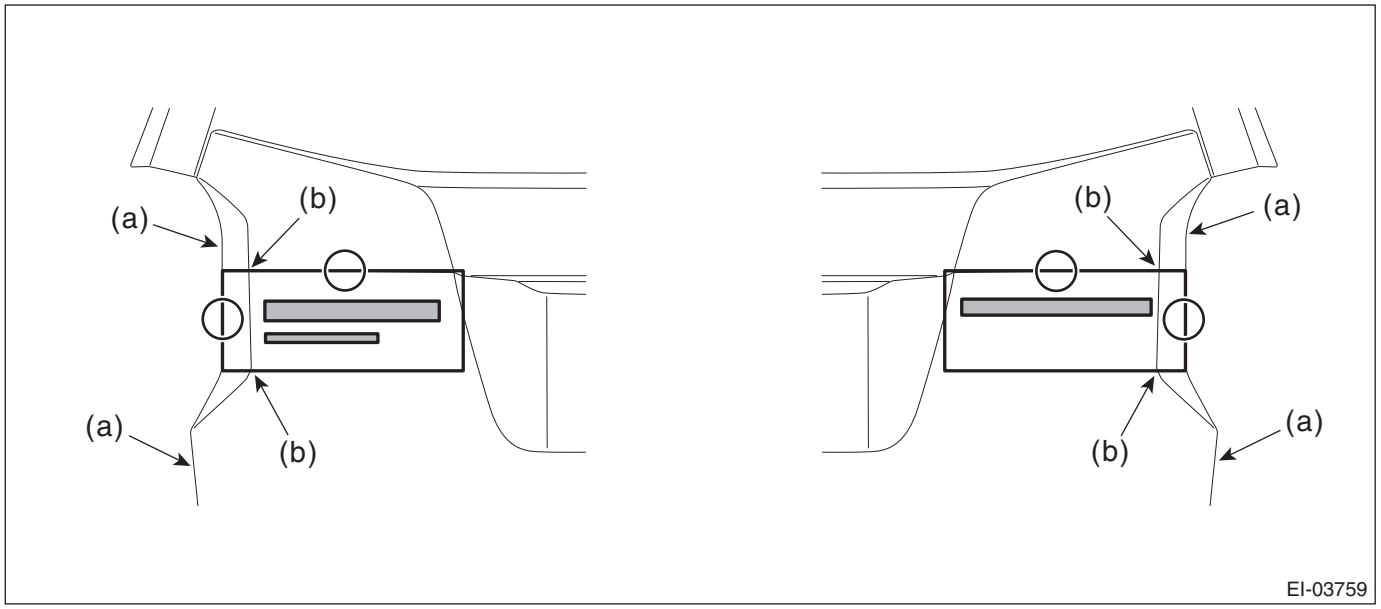
Install each part in the reverse order of removal.

31.Ornament

A: INSTALLATION

1. LETTER MARK

Align the end of application tape with the end of panel, then adhere the letter mark.



(a) Panel - rear gate end

(b) Fold it along with the character line.

EXTERIOR BODY PANELS

EB

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6.	Rear Door	37
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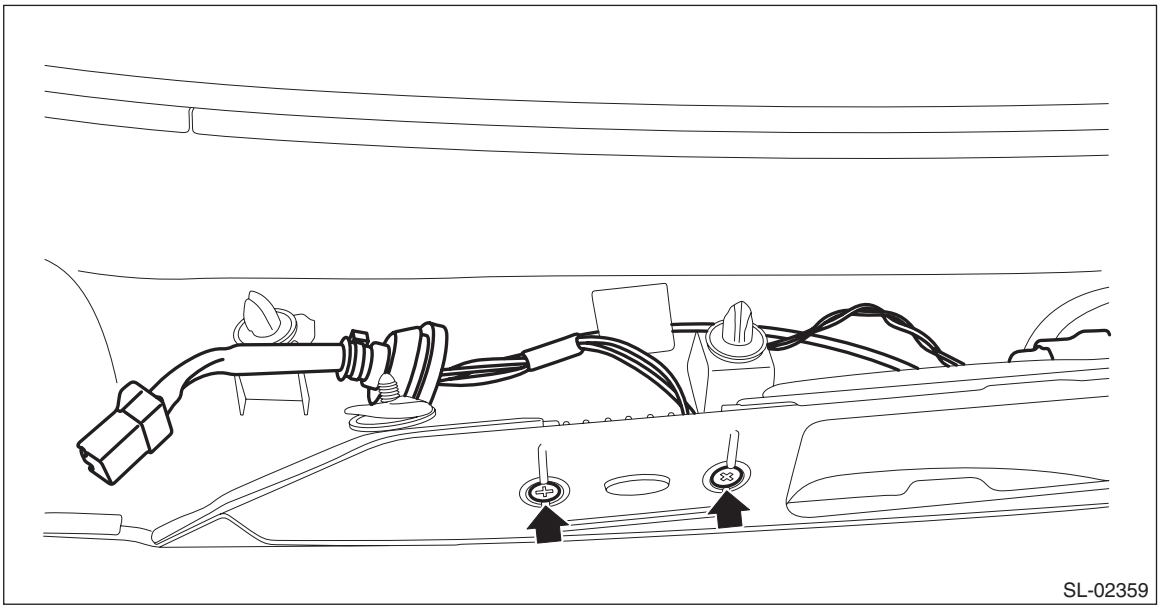
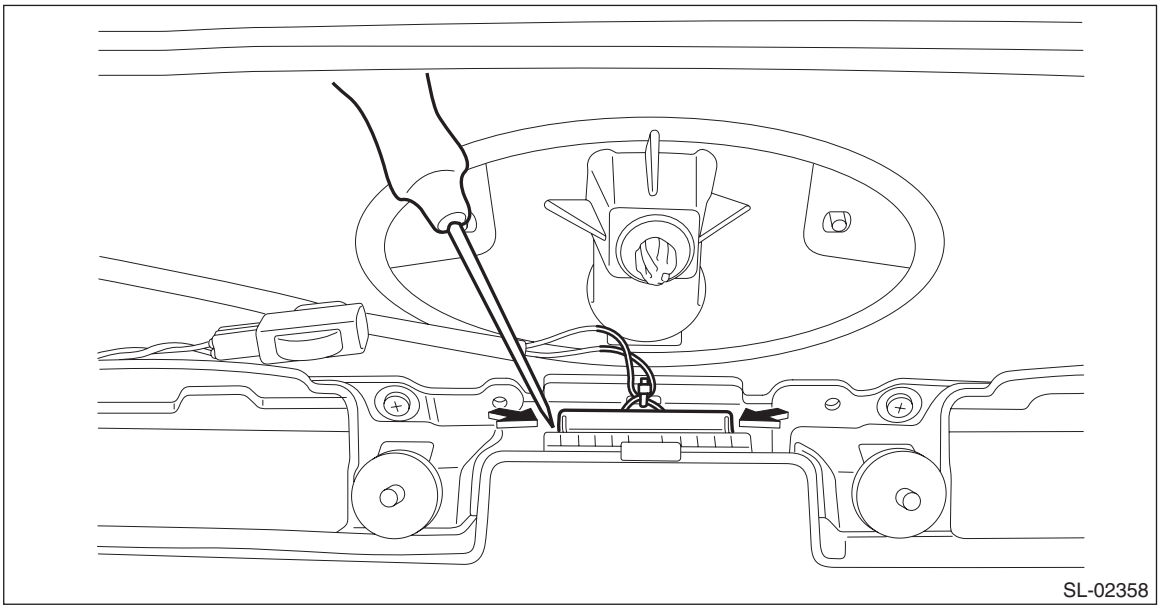
31.Rear Lock Button

A: REMOVAL

NOTE:
The rear lock button is integrated into the rear gate opener button.
1) Remove the garnish assembly - rear gate. <Ref. to EI-126, REMOVAL, Rear Gate Garnish.>
2) Remove the screws and remove the rear lock button.



3) Remove the rear antenna assembly - exterior.
4) Release the locks at both ends of the button - opener rear gate by pushing them with a flat tip screwdriver, remove the button - opener rear gate and remove the integrated harness.



B: INSTALLATION

CAUTION:
Make sure that the harness grommet is securely installed.
If not properly installed, this may cause leaks.
Install each part in the reverse order of removal.

C: INSPECTION

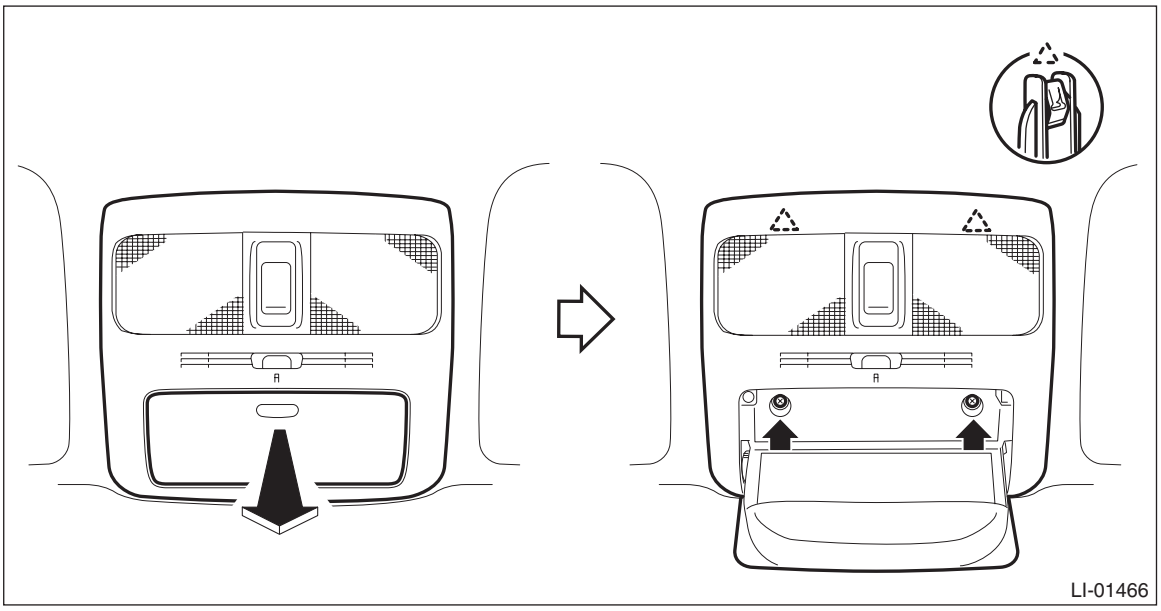
1) Display the current data using the Subaru Select Monitor.
2) Check if the display changes when the rear lock button is operated.
3) If the display is not correct as the result of inspection, refer to “General Diagnostic Table” of the “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-97, KEYLESS ACCESS SYSTEM, INSPECTION, General Diagnostic Table.>

31.Spot Map Light

A: REMOVAL

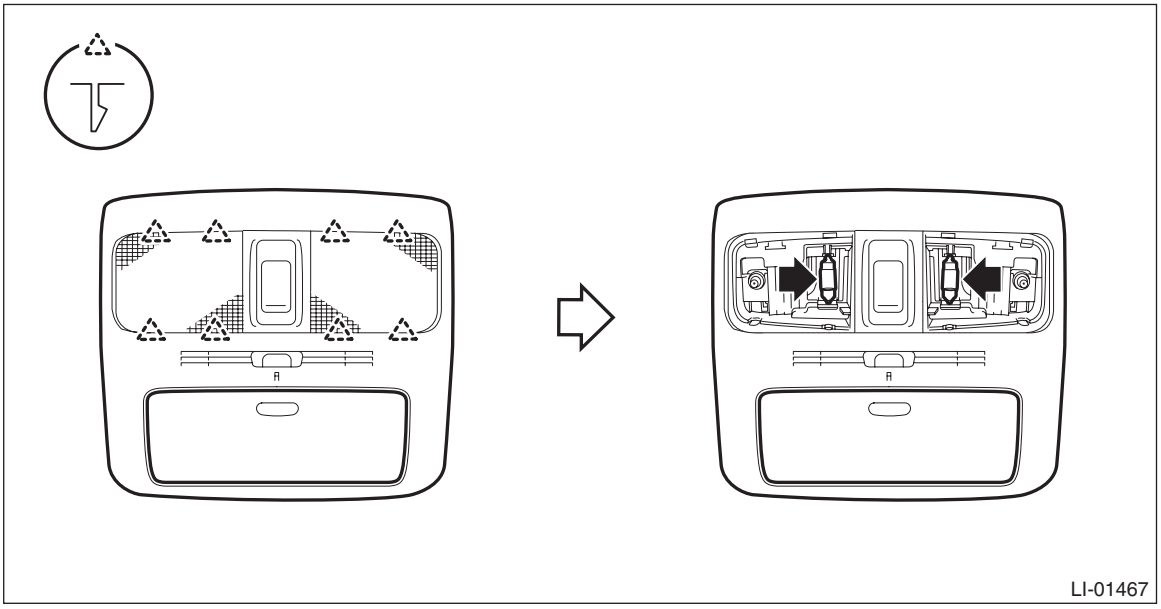
1. MODELS WITHOUT EyeSight

NOTE:
The spot map light is a single unit with the overhead console.
1) Disconnect the ground cable from battery.
2) Remove the overhead console assembly.
   (1) Push and open the rear end of the overhead console lid, and remove the screws.
   (2) Remove the clips and pull out the overhead console to disconnect the connectors.



3) Release the claws, then detach the spot map light cover and bulb.

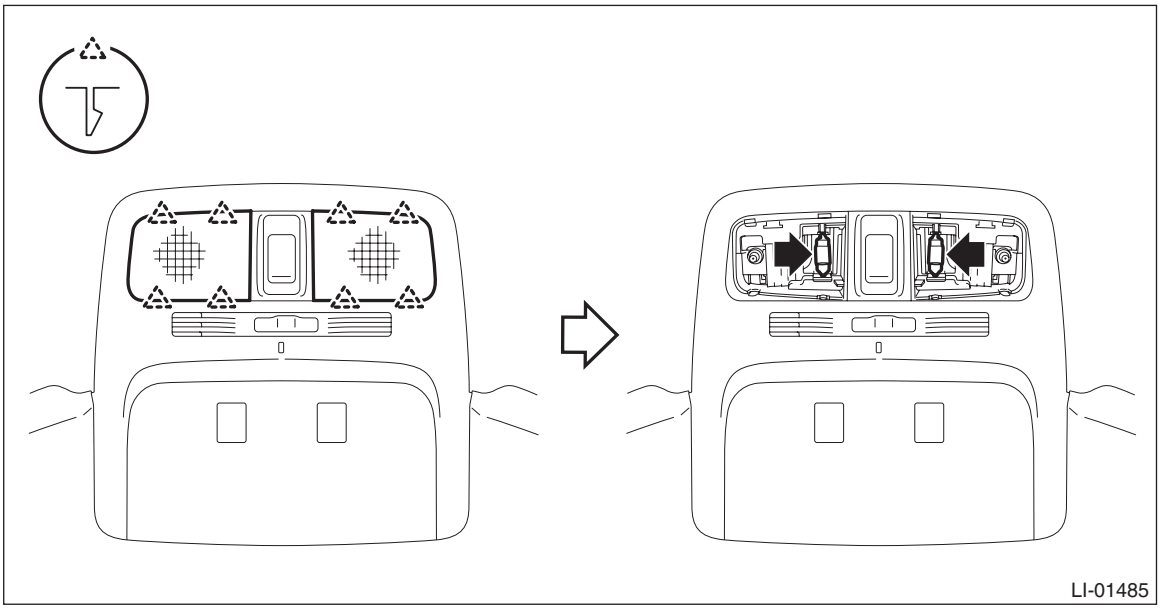
CAUTION:
When using a flat tip screwdriver, apply protective tape or cloth and be careful not to cause damage.



2. MODELS WITH EyeSight

NOTE:
The spot map light is a single unit with the stereo camera cover.
1) Remove the stereo camera cover. <Ref. to ES-11, REMOVAL, Stereo Camera.>

CAUTION:
When using a flat tip screwdriver, apply protective tape or cloth and be careful not to cause damage.
2) Release the claws and remove the lens.
3) Remove the bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. SPOT MAP LIGHT BULB

1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

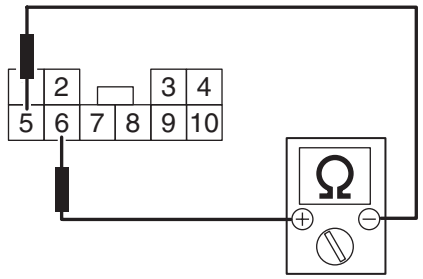
2. SPOT MAP LIGHT SWITCH

UNIT INSPECTION

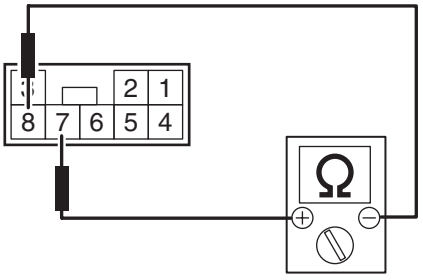
Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

- Models without EyeSight

Terminal No.	Inspection conditions	Standard	Connection diagram
6 — 5	Switch OFF	1 MΩ or more	 LI-01643
	Switch ON	Approx. 18 Ω	

- Models with EyeSight

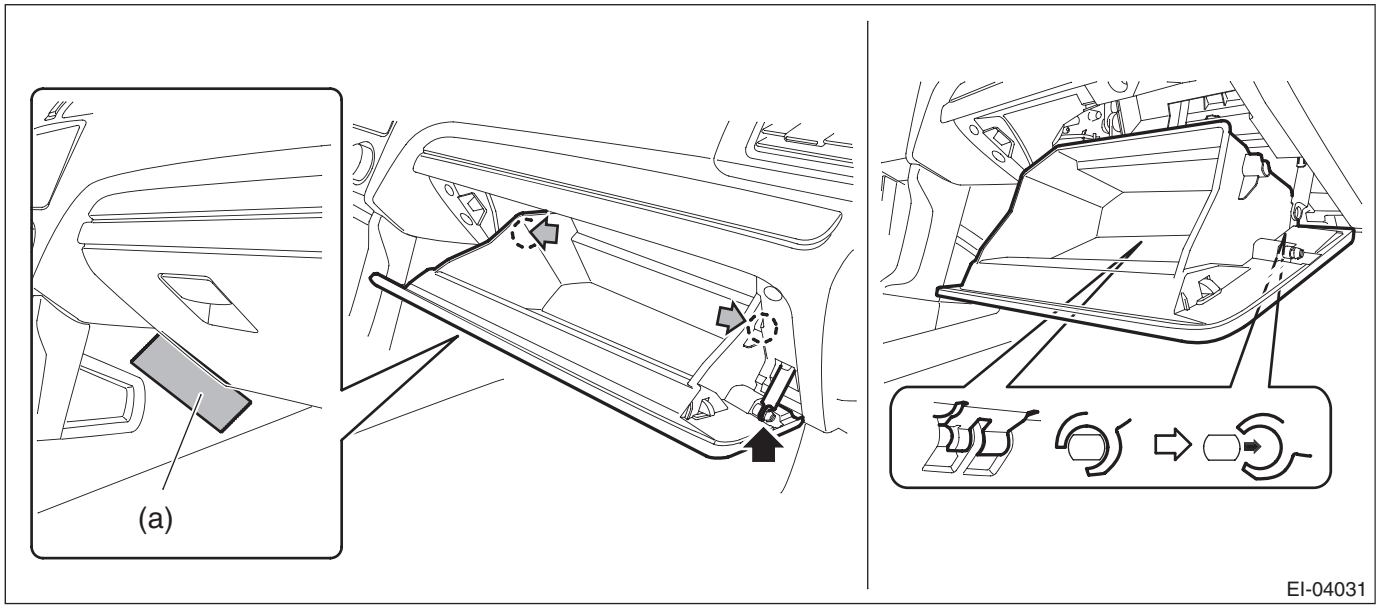
Terminal No.	Inspection conditions	Standard	Connection diagram
7 — 8	Switch OFF	1 MΩ or more	 LI-01644
	Switch ON	Approx. 18 Ω	

2) Replace the light assembly - map if the inspection result is not within the standard value.

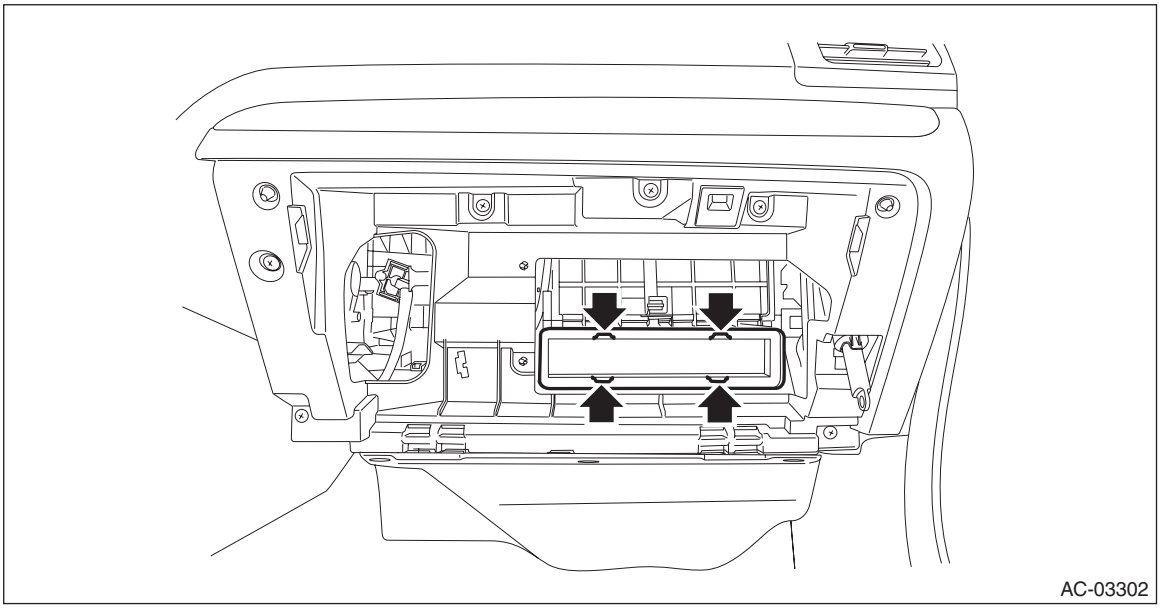
32.A/C Filter

A: REPLACEMENT

1) Remove the pocket assembly.
   (1) Attach the protective tape (a) to the panel center LWR.
   (2) Remove the damper COMPL - pocket.
   (3) Release the stoppers and remove the pocket assembly by pulling it toward you.



2) Pinch the tabs to release the lock, and remove the filter kit.

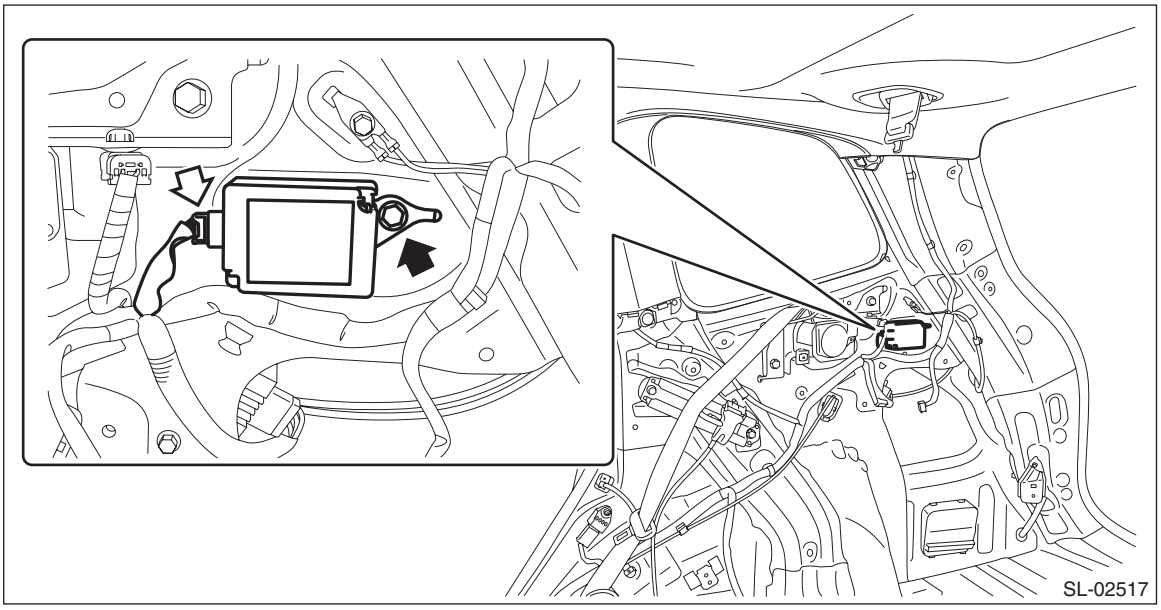


3) Install each part in the reverse order of removal.

32.Receiver

A: REMOVAL

NOTE:
Except for model with keyless entry
1) Remove the trim panel - rear apron RH. <Ref. to EI-102, REMOVAL, Rear Quarter Trim.>
2) Remove the receiver assembly.
   (1) Disconnect the connector.
   (2) Remove the bolt and remove the receiver assembly.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Receiver assembly: 13 N·m (1.33 kgf-m, 9.6 ft-lb)

C: INSPECTION

1) Check if the door lock operates when the touch sensor of the door outer handle and rear lock button is operated.
2) If the system does not operate normally as the result of inspection, refer to “General Diagnostic Table” of the “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-97, KEYLESS ACCESS SYSTEM, INSPECTION, General Diagnostic Table.>

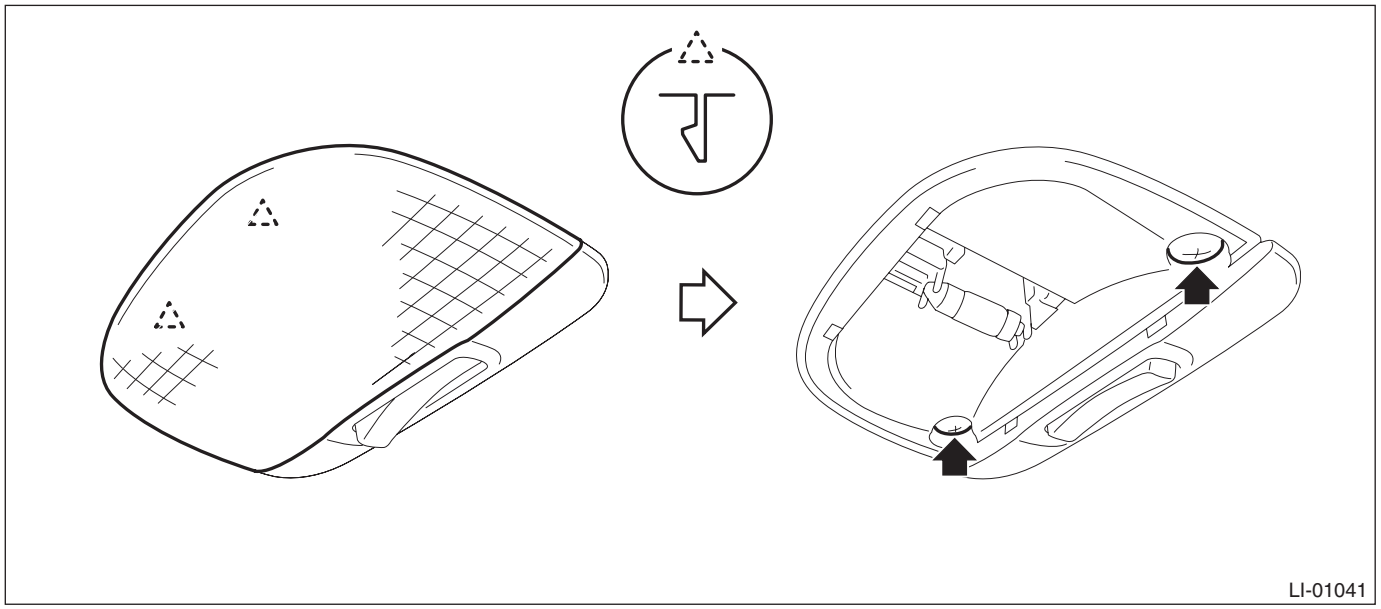
32.Room Light

A: REMOVAL

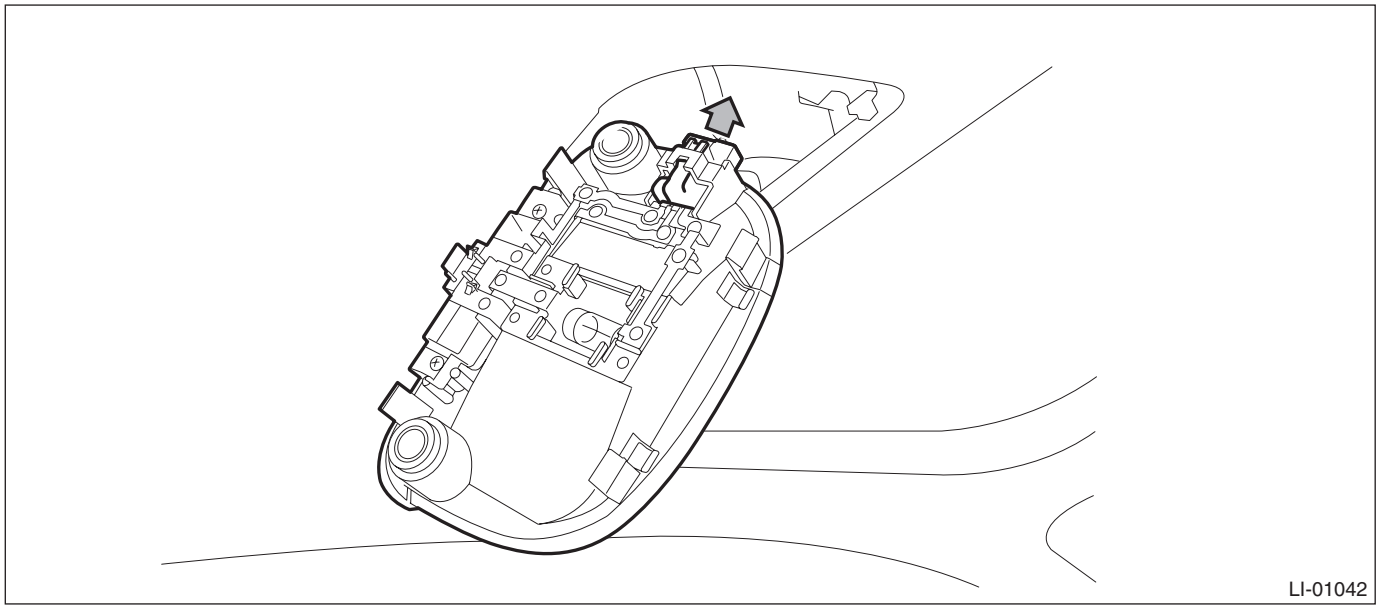
1) Disconnect the ground cable from battery.
2) Remove the light assembly - room.

CAUTION:
When using a flat tip screwdriver, apply protective tape or cloth and be careful not to cause damage.

(1) Release the claws and remove the lens.
(2) Remove the screws and pull out the light assembly - room.



(3) Disconnect the connector and remove the light assembly - room and the bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. ROOM LIGHT BULB

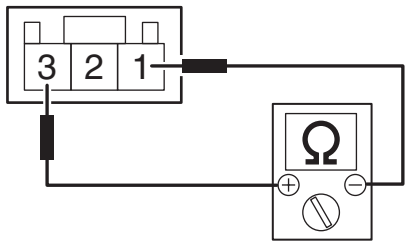
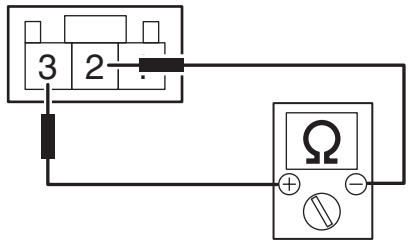
1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

2. ROOM LIGHT SWITCH

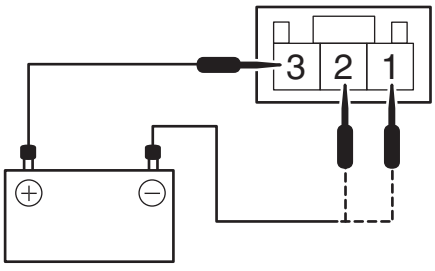
Unit inspection

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
1 — 3	Switch OFF	1 MΩ or more	 LI-01254
	Switch ON	Less than 1 Ω	
2 — 3	Switch door	Less than 1 Ω	 LI-01255

2) Apply battery voltage to check the lighting condition of the light.

Terminal No.	Inspection conditions	Specification	Connection diagram
3 (+) — 1, 2 (–)	Switch OFF	Light OFF	 LI-01256
	Switch ON	Light ON	
	Switch door	Light ON	

3) Replace the light assembly - room if the inspection result is not within the standard value.

33.Diagnostics with Phenomenon

A: INSPECTION

Refer to “Diagnostics with Phenomenon” for “HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)” section. <Ref. to AC(diag)-18, Diagnostics with Phenomenon.>

HVAC SYSTEM (AUTO A/C) (DIAGNOSTICS)

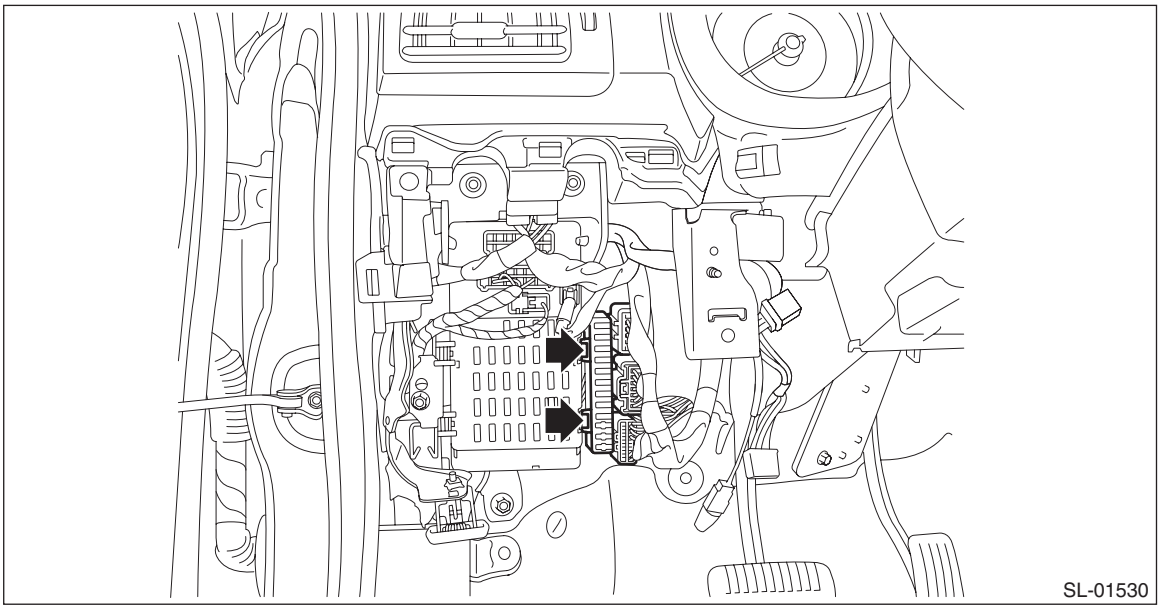
AC(diag)

		Page
1.	Basic Diagnostic Procedure	2
2.	General Description	3
3.	Electrical Component Location	4
4.	Auto A/C Control Module I/O Signal	6
5.	Diagnostic Chart for Self-Diagnosis	8
6.	Diagnostics with Phenomenon	18
7.	Subaru Select Monitor	41
8.	Read Diagnostic Trouble Code (DTC)	42
9.	Clear Memory Mode	43
10.	Read Current Data	44
11.	Diagnostic Procedure for Subaru Select Monitor Communication	46
12.	List of Diagnostic Trouble Code (DTC)	48
13.	Diagnostic Procedure with Diagnostic Trouble Code (DTC)	50

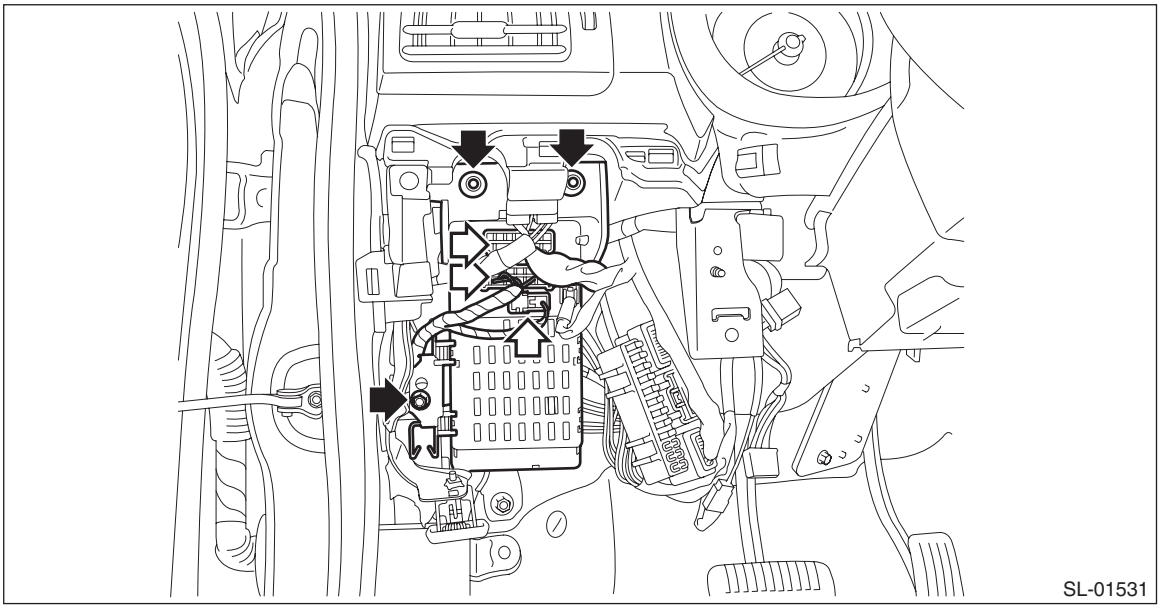
33.Keyless Access CM

A: REMOVAL

1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.



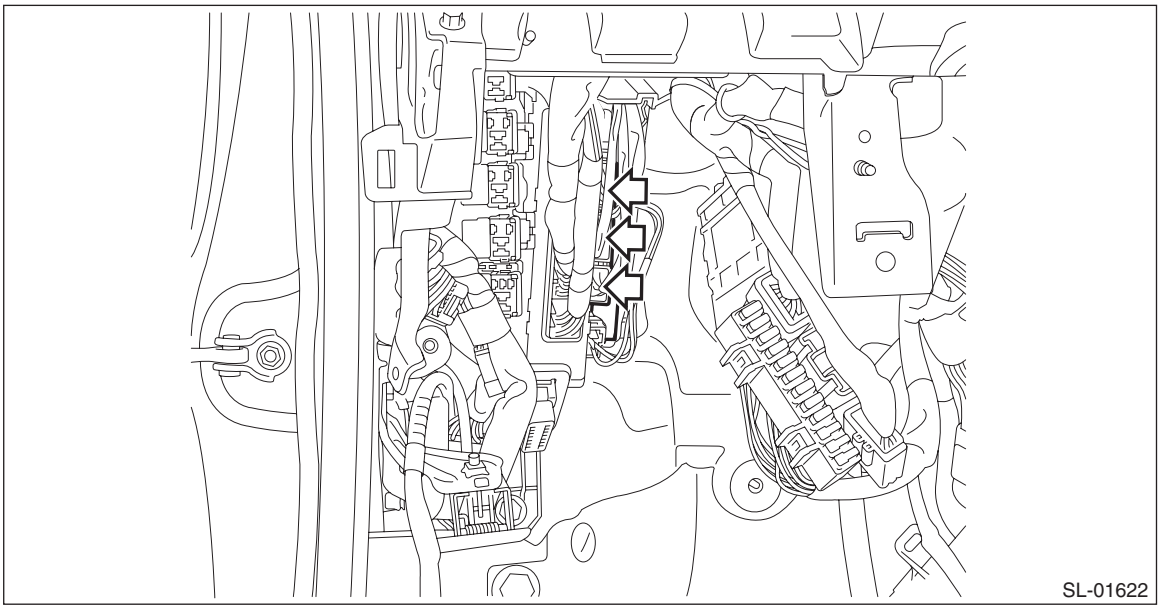
3) Remove the relay & fuse box.
   (1) Disconnect the connector.
   (2) Remove the bolts and nuts, and remove the relay & fuse box.



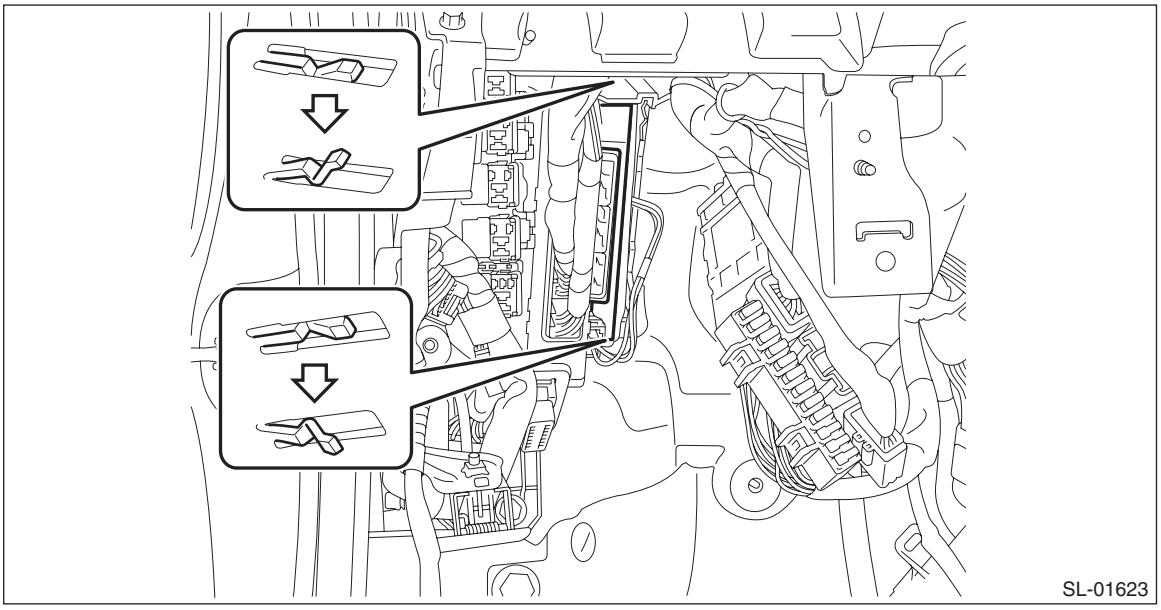
4) Remove the keyless access CM.

CAUTION:
Be careful to keep water and other foreign materials away from body integrated unit.

(1) Disconnect the connector.


SL-01622

(2) Release the claws, and pull out the keyless access CM from the bracket.


SL-01623

B: INSTALLATION

CAUTION:
Registration of the immobilizer is necessary when a immobilizer-related control module has been replaced. For detailed operation procedure, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".

Install each part in the reverse order of removal.

Tightening torque:
Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

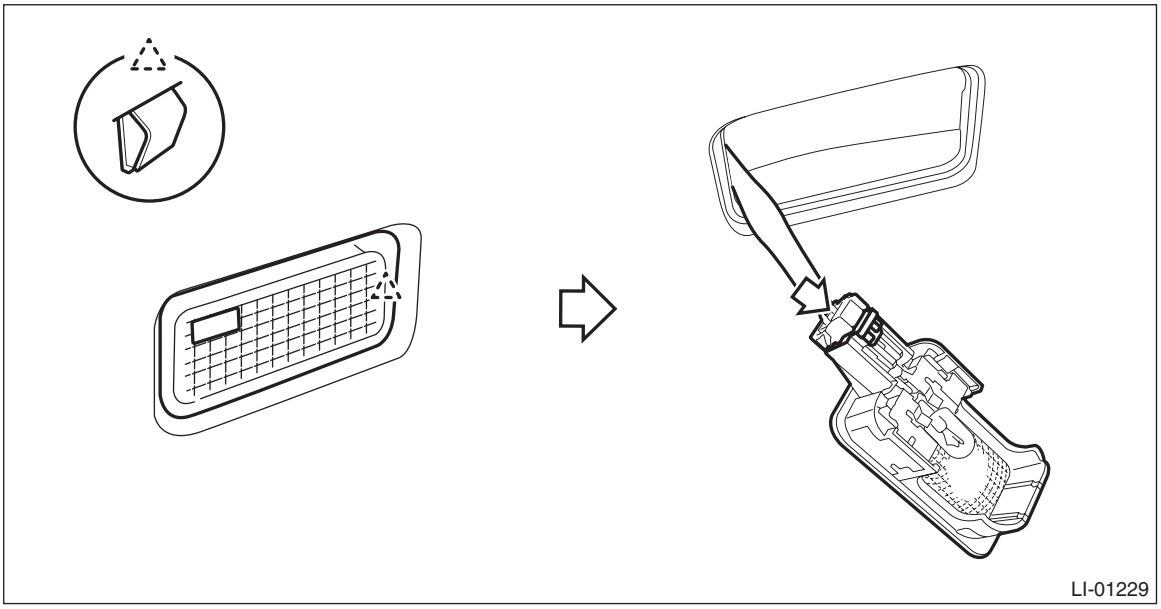
33.Luggage Room Light

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the light assembly - luggage room.

CAUTION:
When using a flat tip screwdriver, apply protective tape or cloth and be careful not to cause damage.

(1) Release the claws and remove the main body of the light assembly - luggage room.
(2) Disconnect the connector and remove the light assembly - luggage room and the bulb.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

1. LUGGAGE ROOM LIGHT BULB

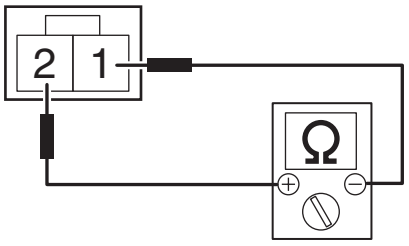
1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

2. LUGGAGE ROOM LIGHT SWITCH

Unit inspection

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Specification	Connection diagram
1 — 2	Switch OFF	1 MΩ or more	 LI-01253
	Switch ON	Less than 1 Ω	

2) Replace the light assembly - luggage room if the inspection result is not within the standard value.

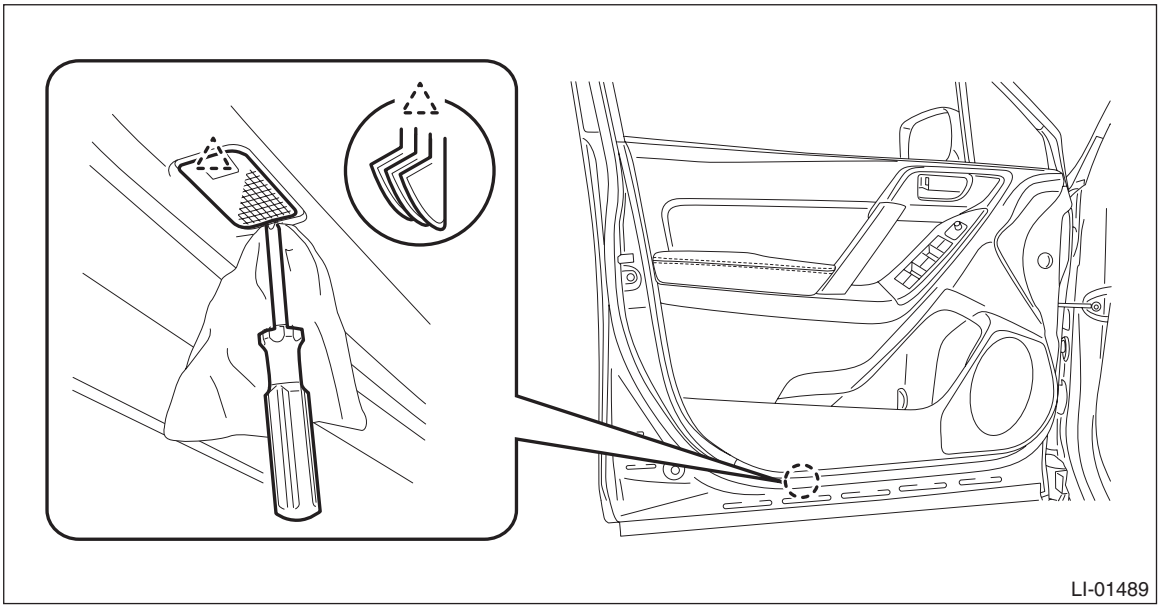
34.Door Step Light

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the door step light.

CAUTION:
When using a flat tip screwdriver, apply protective tape or cloth and be careful not to cause damage.

(1) Insert a flat tip screwdriver into the slit of the door step light to release the claw.
(2) Disconnect the connector and remove the door step light.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

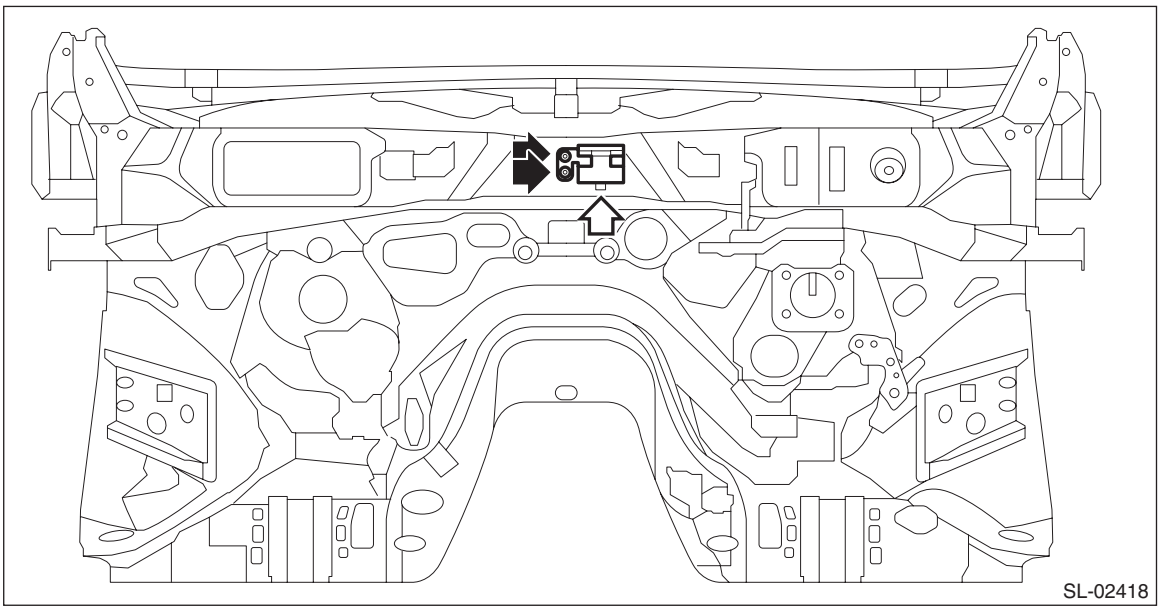
1) Visually check the bulb for blow out.
2) Check the bulb specification. <Ref. to LI-2, SPECIFICATION, General Description.>
3) Replace the bulb if it is found defective.

34.ID Code Box

A: REMOVAL

NOTE:
- Equipped on C0 and C5 models with keyless access.
- The ID code box is located at the place of security control module.

1) Remove the heater and cooling unit assembly.<Ref. to AC-61, REMOVAL, Heater and Cooling Unit.>
2) Remove the ID code box.
   (1) Disconnect the connector.
   (2) Remove the nut and remove the ID code box.



B: INSTALLATION

CAUTION:
Registration of the immobilizer is necessary when a immobilizer-related control module has been replaced. For detailed operation procedure, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
Install each part in the reverse order of removal.

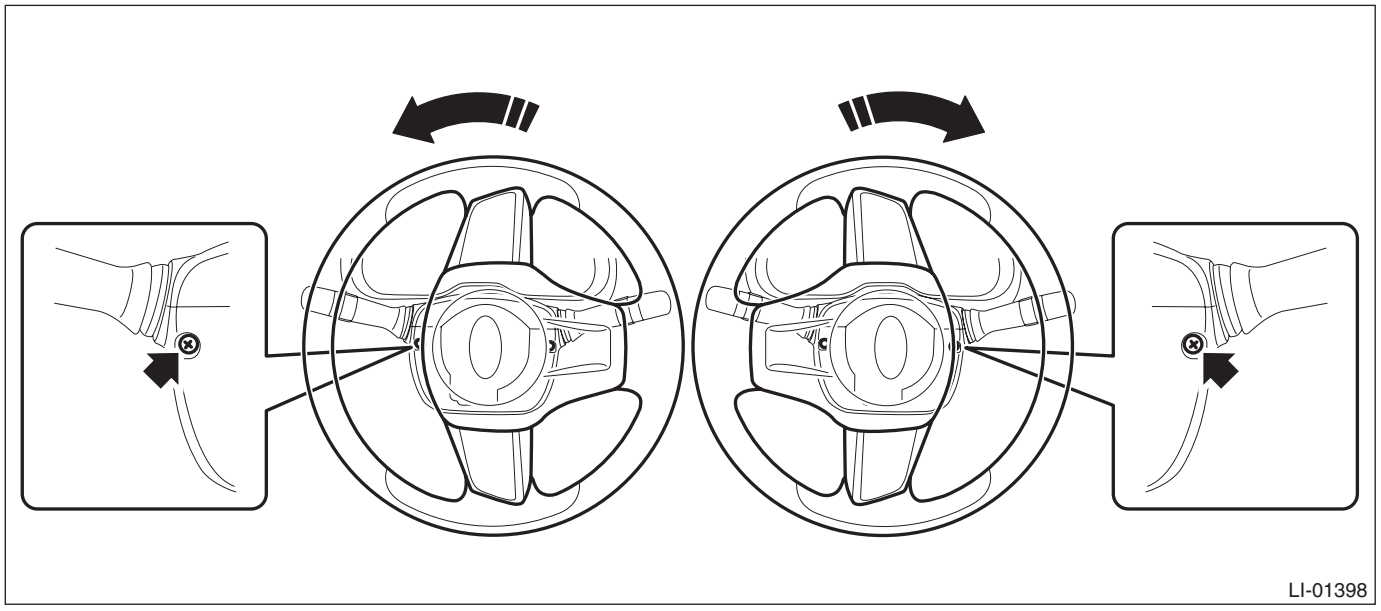
NOTE:
Refer to "INSTALLATION" of "Heater and Cooling Unit Assembly".<Ref. to AC-64, INSTALLATION, Heater and Cooling Unit.>

Tightening torque:
ID code box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

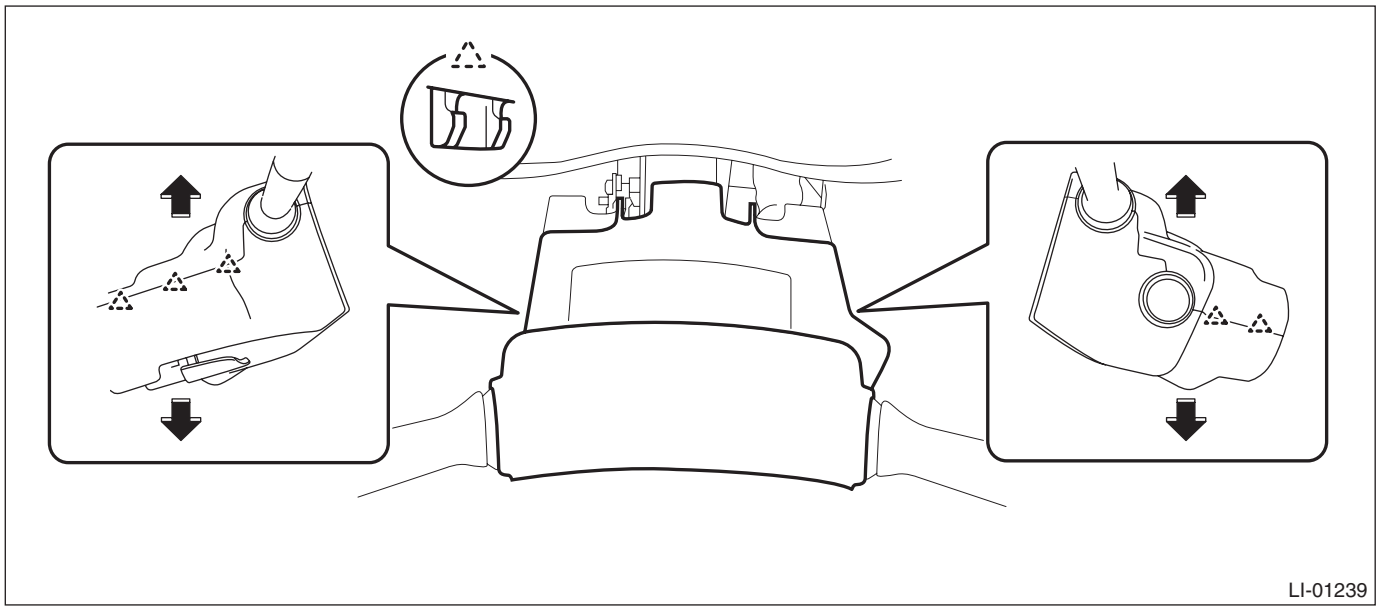
35.Ignition Switch Illumination

A: REMOVAL

NOTE:
The ignition switch illumination is integrated into the immobilizer antenna assembly.
1) Disconnect the ground cable from battery.
2) Remove the cover assembly - column.
(1) Remove the screws by turning the steering wheel to right and left.

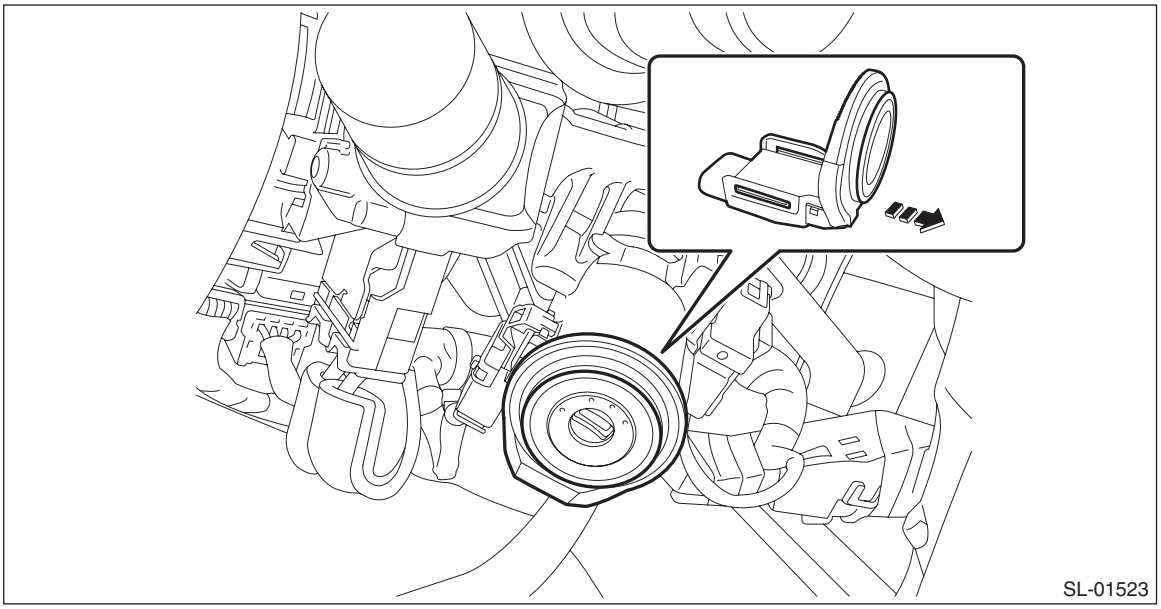

LI-01398

(2) Release the claw, and remove the cover assembly - column UPR and the cover assembly - column LWR.


LI-01239

3) Disconnect the connector and remove the ignition switch illumination.

CAUTION:
Do not apply excessive force to remove the ignition switch illumination lock. Otherwise they may be broken because those parts are the products made of a plastic.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

On- the vehicle inspection

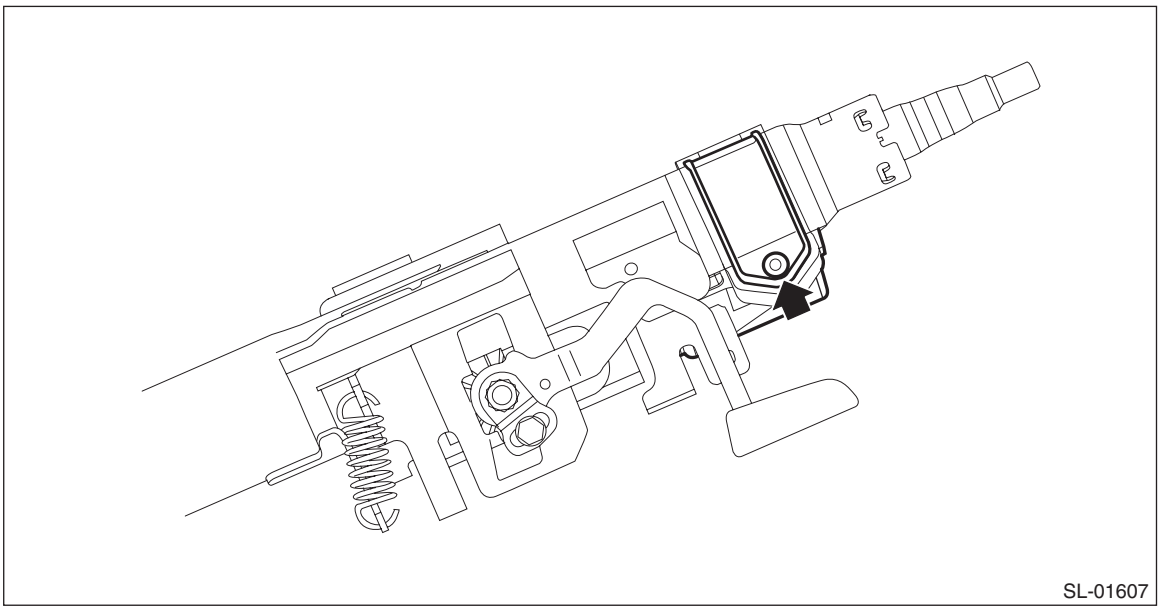
Preparation tool:
Circuit tester

Step		Check	Yes	No
1	**CHECK THE IGNITION SWITCH ILLUMINATION.** Make sure the ignition switch illumination illuminates when driver's side door is open.	Does the ignition switch illumination illuminate?	Ignition switch illumination is normal.	Go to step **2**.
2	**CHECK THE IGNITION SWITCH ILLUMINATION.** Make sure the ignition switch illumination blinks when the ignition switch is turned to ON.	Does the ignition switch illumination blink?	Check the function setting of body integrated unit. <Ref. to BC(diag)-2, Basic Diagnostic Procedure.>	Check the ignition switch illumination circuit. <Ref. to SL-25, CHECK IGNITION SWITCH ILLUMINATION, INSPECTION, Keyless Entry System.>

35.Steering Lock CM

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the column assembly - steering. <Ref. to PS-18, REMOVAL, Steering Column.>
3) Remove the steering lock CM.
   (1) Secure the column assembly - steering in a vise.
   (2) Use the reverse tap or drill to remove the set bolt and remove the steering lock CM.



B: INSTALLATION

CAUTION:
Registration of the immobilizer is necessary when a immobilizer-related control module has been replaced. For the relevant procedures, refer to the "REGISTRATION MANUAL FOR IMMOBILIZER".
1) Secure the steering lock CM to the steering column.
2) Use new set bolts. Tighten the bolt until the bolt head is broken (bolt head wrenched off).

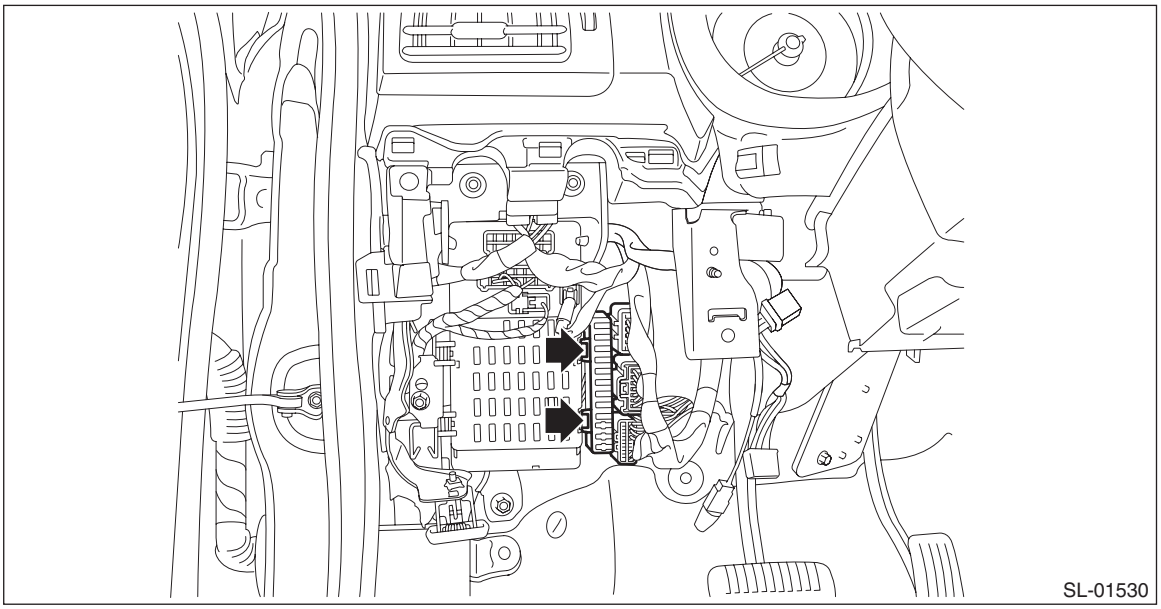
C: INSPECTION

1) Check if the steering lock is released when you start the engine using the push button ignition switch.
2) If the system does not operate normally as the result of inspection, refer to "General Diagnostic Table" of the "KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)" section. <Ref. to KPS(diag)-98, STEERING LOCK SYSTEM, INSPECTION, General Diagnostic Table.>

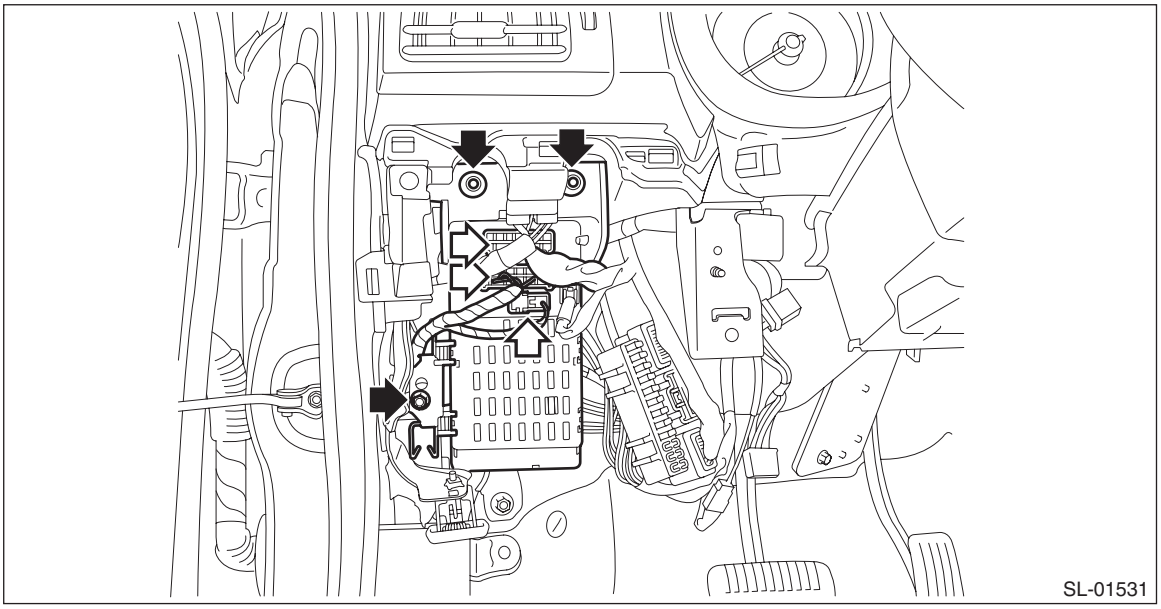
36.Auto Headlight Beam Leveler Control Module

A: REMOVAL

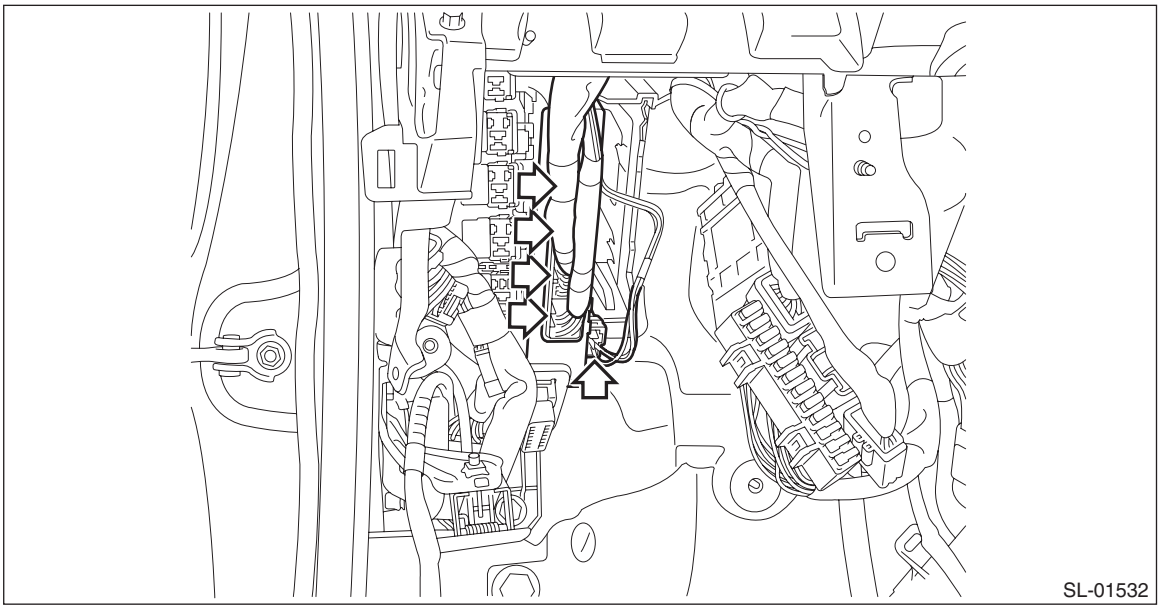
1) Remove the instrument panel lower cover and knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.



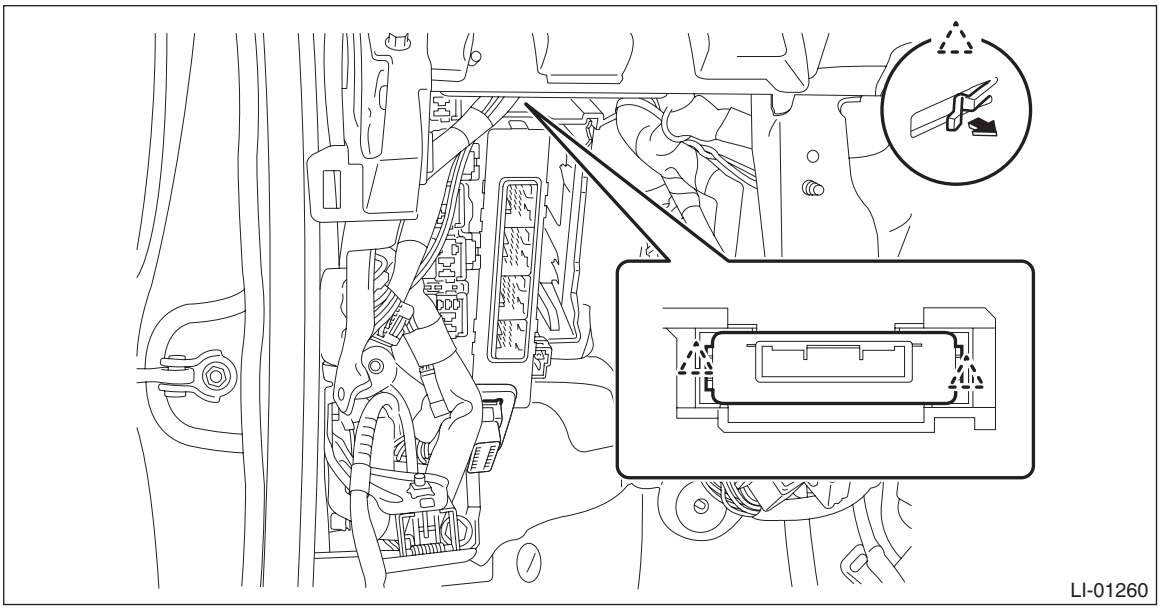
3) Remove the relay & fuse box.
   (1) Disconnect the connector.
   (2) Remove the bolts and nuts, and remove the relay & fuse box.



4) Disconnect the connector of body integrated unit.



5) Remove the auto headlight beam leveler CM.
   (1) Disconnect the connector.
   (2) Release the claws and pull out the auto headlight beam leveler CM.



B: INSTALLATION

Install each part in the reverse order of removal.

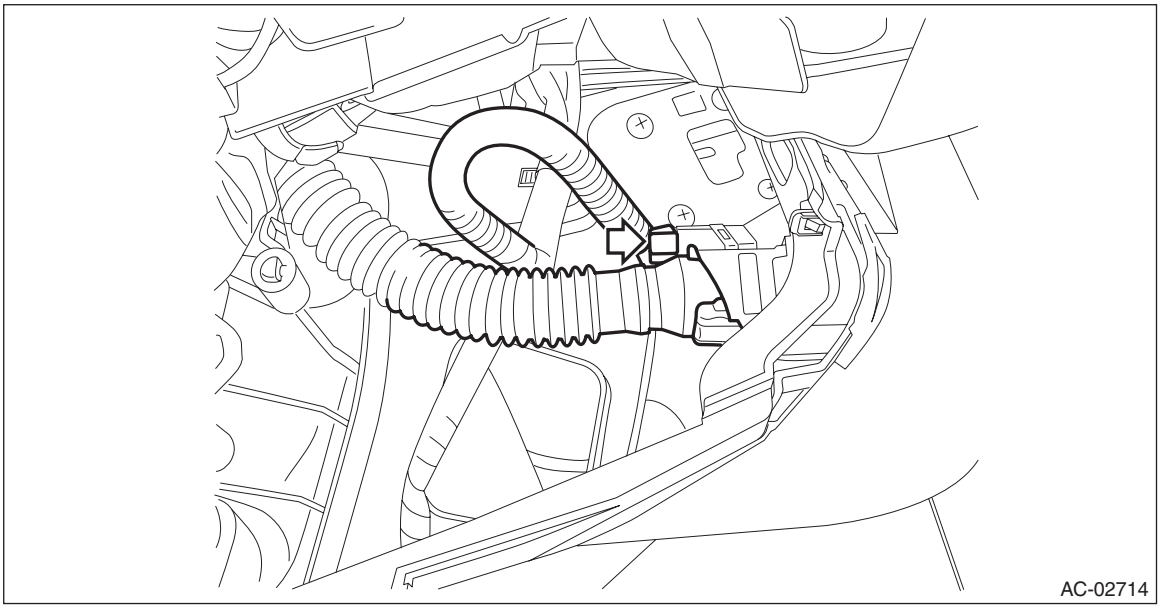
Tightening torque:
Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

NOTE:
When the auto headlight beam leveler CM is removed, perform initialization or reinitialization. <Ref. to LI-17, PROCEDURE, Auto Headlight Beam Leveler System.>

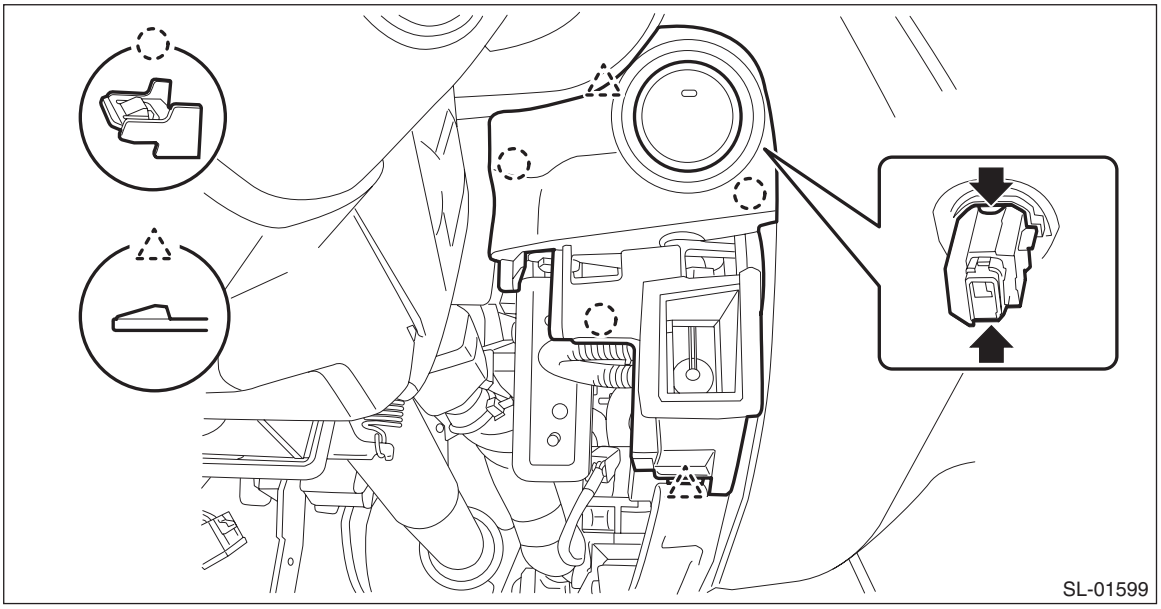
36.Push Button Ignition Switch

A: REMOVAL

1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Remove the push button ignition switch.
   (1) Disconnect the connector, and remove the aspirator hose.



   (2) Release the claws, and then remove the panel - switch.
   (3) Release the claws, and then remove the push button ignition switch from the panel - switch.



B: INSTALLATION

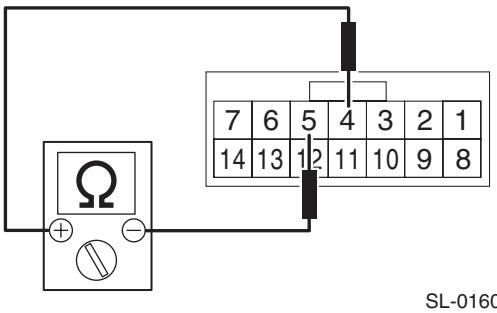
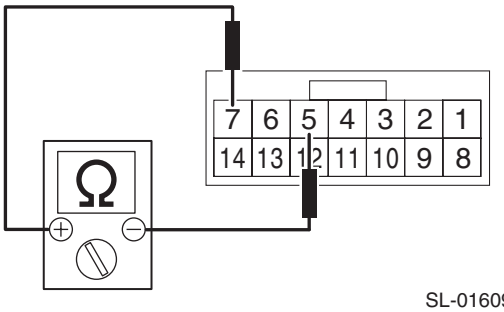
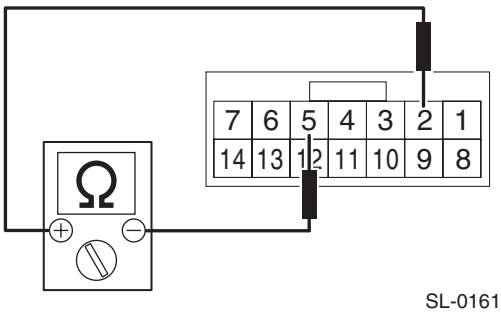
Install each part in the reverse order of removal.

C: INSPECTION

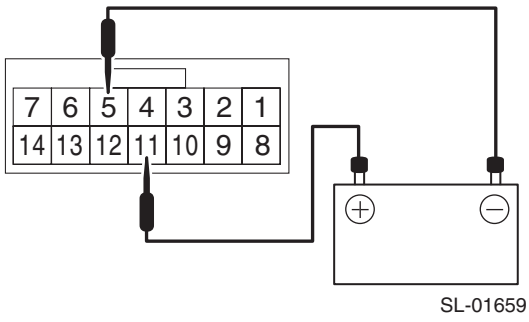
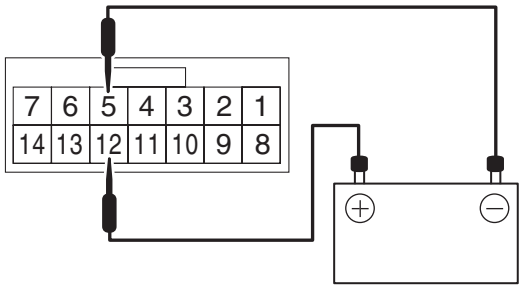
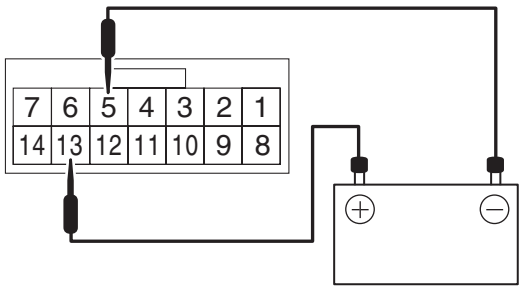
On the vehicle inspection

Preparation tool:
Circuit tester

1) Check the continuity between push button ignition switch terminals.

Terminal No.	Inspection conditions	Specification	Connection diagram
4 (COM) — 5 (GND)	Always	Continuity exists	 SL-01608
7 (SSW1) — 5 (GND)	Push button ignition switch released → pressed	Continuity exists	 SL-01609
2 (SSW2) — 5 (GND)	Push button ignition switch released → pressed	Continuity exists	 SL-01610

2) Check the push button ignition switch operation when battery voltage is applied between the terminals of the push button ignition switch.

Terminal No.	Inspection conditions	Specification	Connection diagram
11 (SWIL) — 5 (GND)	Connect battery to the terminals	Goes off → Red switch illumination light	 SL-01659
12 (INDS) — 5 (GND)		Turns off → Switch indicator lights in green	 SL-01660
13 (INDW) — 5 (GND)		Turns off → Switch indicator lights in orange	 SL-01661

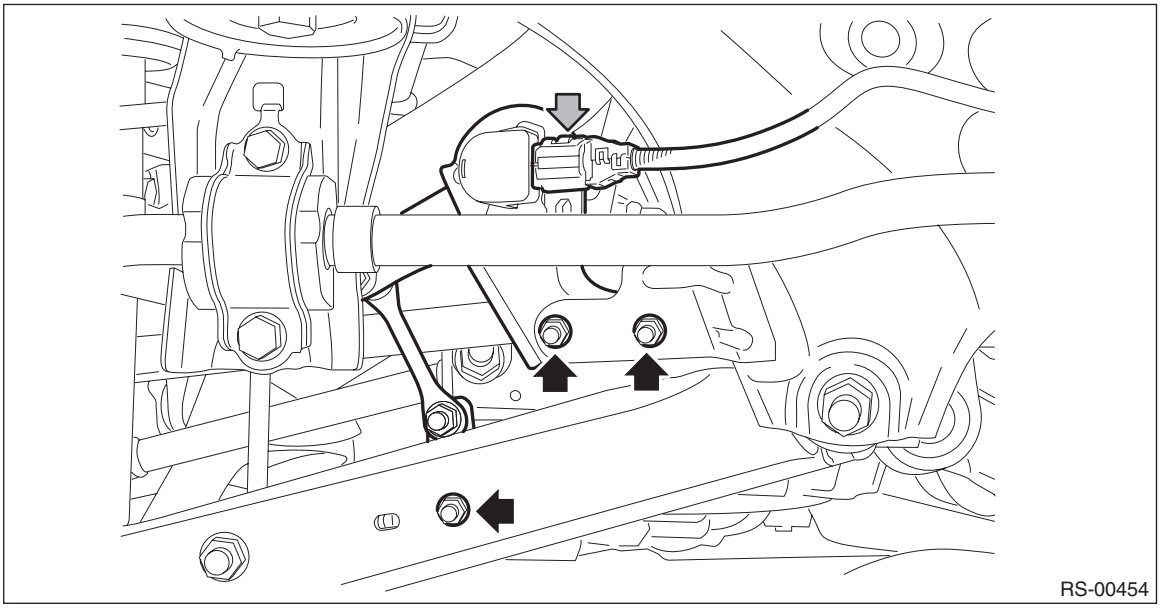
3) Replace the push button ignition switch if the inspection result is not within the standard value.

37.Rear Height Sensor

A: REMOVAL

CAUTION:
• Always remove the sensor assembly - headlight beam leveler before removing any parts related to the suspension.
• Do not apply impact to the sensor assembly - headlight beam leveler or forcibly move the arm. Doing so may cause sensor damage and malfunction.
1) Disconnect the ground cable from battery.
2) Lift up the vehicle, and remove the left rear wheel.
3) Remove the sensor assembly - headlight beam leveler.

CAUTION:
Do not disassemble the sensor and lever.
(1) Disconnect the connector.
(2) Remove the nuts, and remove the sensor assembly - headlight beam leveler.



B: INSTALLATION

CAUTION:
Do not apply impact to the sensor assembly - headlight beam leveler or forcibly move the arm. Doing so may cause sensor damage and malfunction.
1) Install each part in the reverse order of removal.

Tightening torque:
Sensor assembly - headlight beam leveler: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)
Rear wheel: 120 N·m (12.24 kgf-m, 88.5 ft-lb)
2) Perform reinitialization of the sensor assembly - headlight beam leveler. <Ref. to LI-17, REINITIALIZATION, PROCEDURE, Auto Headlight Beam Leveler System.>

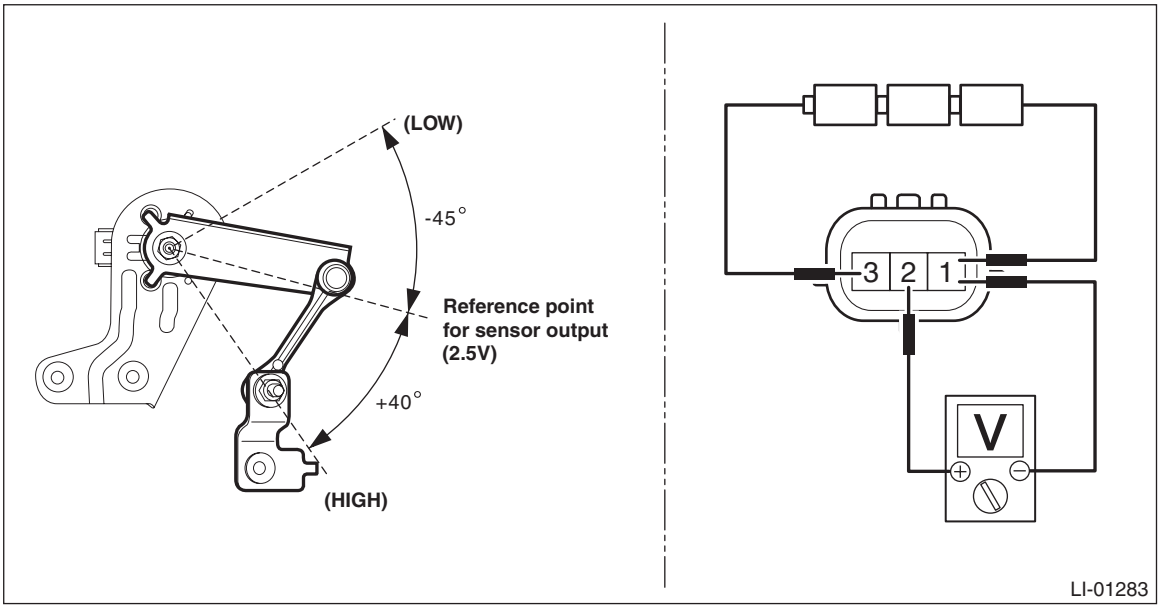
NOTE:
When replacing the sensor assembly - headlight beam leveler with a new part, perform the initialization. <Ref. to LI-17, INITIALIZATION, PROCEDURE, Auto Headlight Beam Leveler System.>

C: INSPECTION

UNIT INSPECTION

Preparation tool:
Circuit tester

1) Connect three dry cell batteries (1.5 V) in series.
2) Connect the (+) side of the battery to terminal No. 3 of the sensor, and the (–) side of the battery to terminal No. 1, and apply a voltage of 4.5 V between terminals No. 3 — No. 1.
3) With voltage applied, check the voltage between terminals when the sensor link is moved slowly up and down.



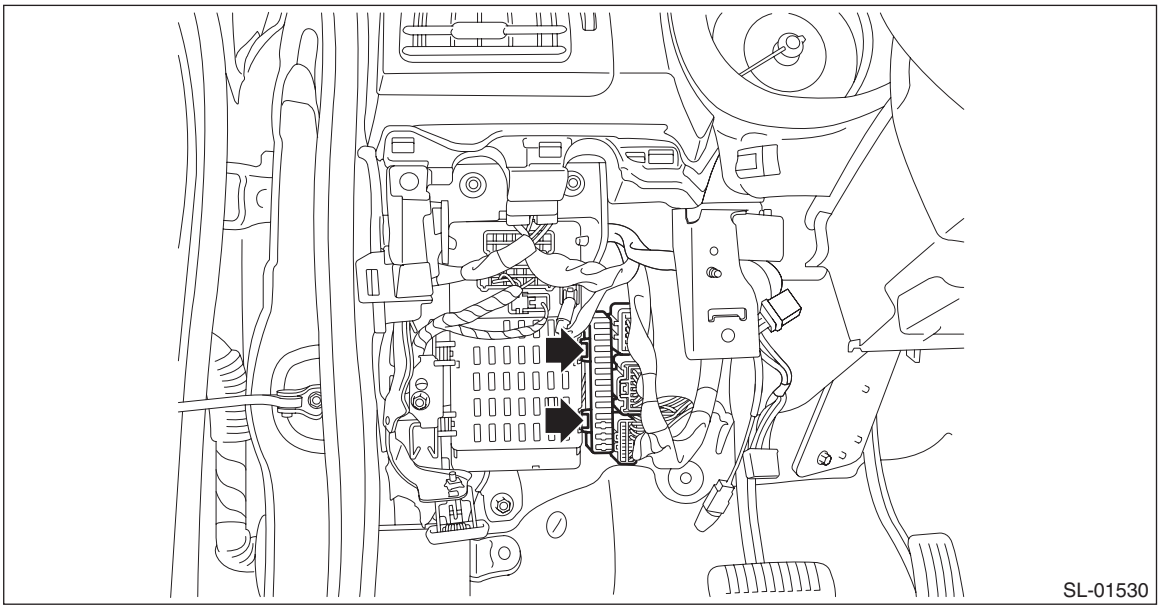
Terminal No.	Inspection conditions	Standard
2 (+) — 1 (–)	Move the link within the operation range.	0.5 — 4.1 V

4) Replace the sensor assembly - headlight beam leveler if the inspection result is not within the standard value.

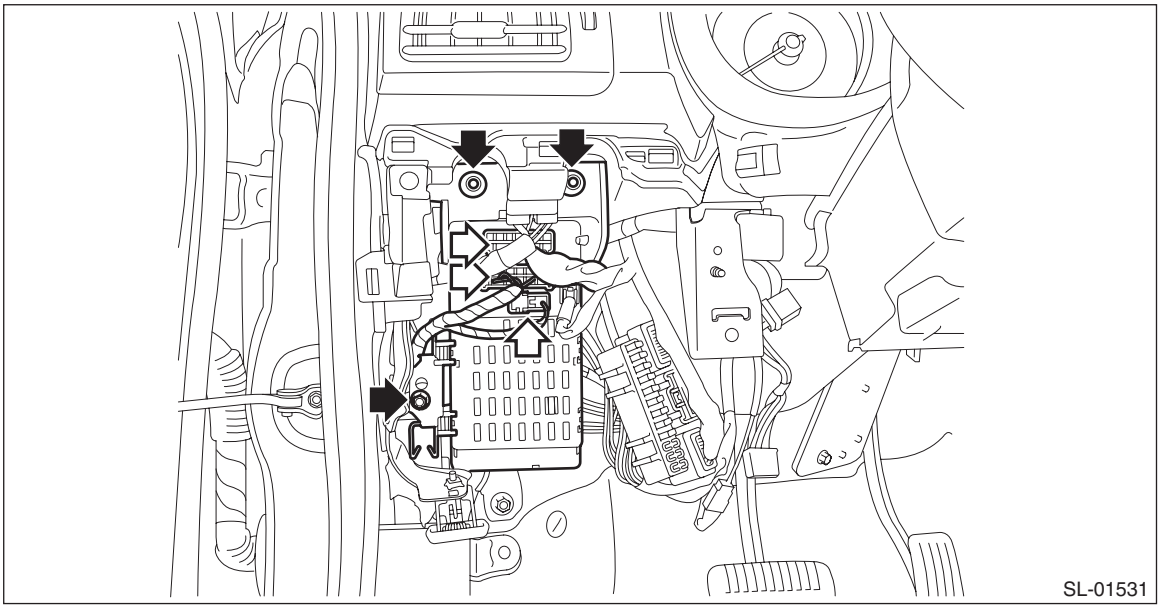
37.Starter Relay (Push Button Start)

A: REMOVAL

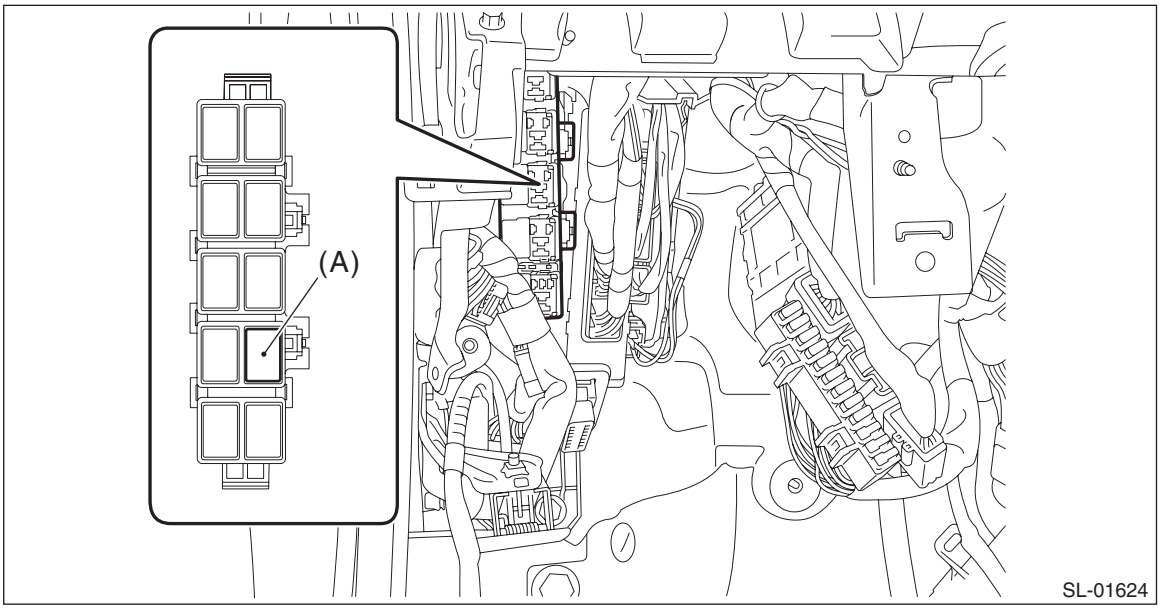
1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.



3) Remove the relay & fuse box.
   (1) Disconnect the connector.
   (2) Remove the bolts and nuts, and remove the relay & fuse box.



4) Remove the starter relay (push button start) (A) from the relay holder.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

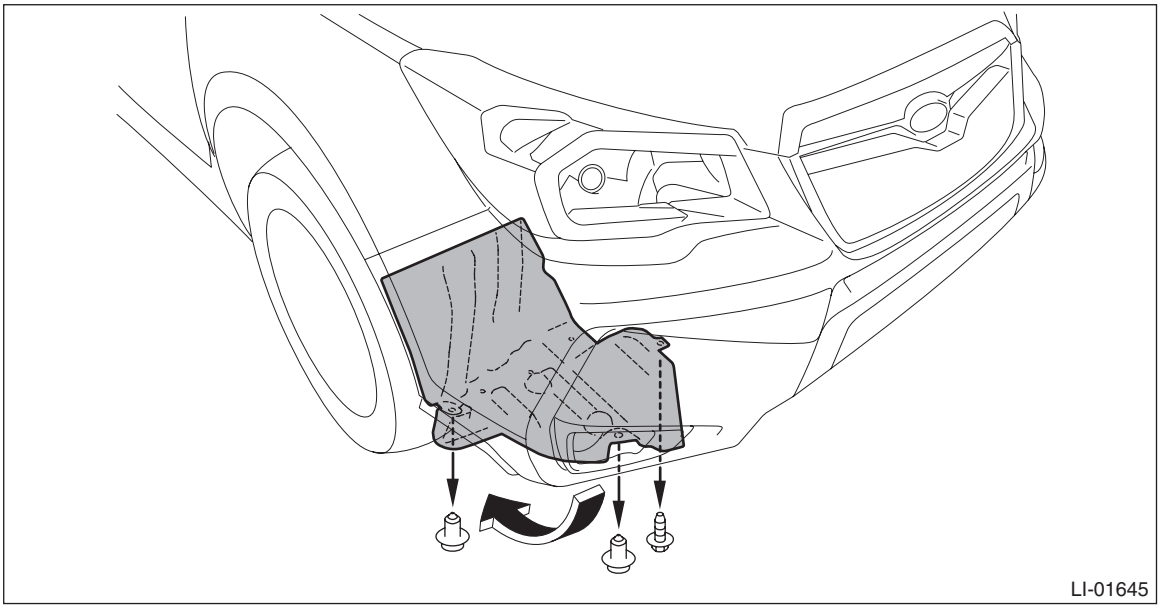
C: INSPECTION

Refer to “CHECK RELAY” in “Relay and Fuse”. <Ref. to SL-10, CHECK RELAY, INSPECTION, Relay and Fuse.>

38.Day Time Running Resistor

A: REMOVAL

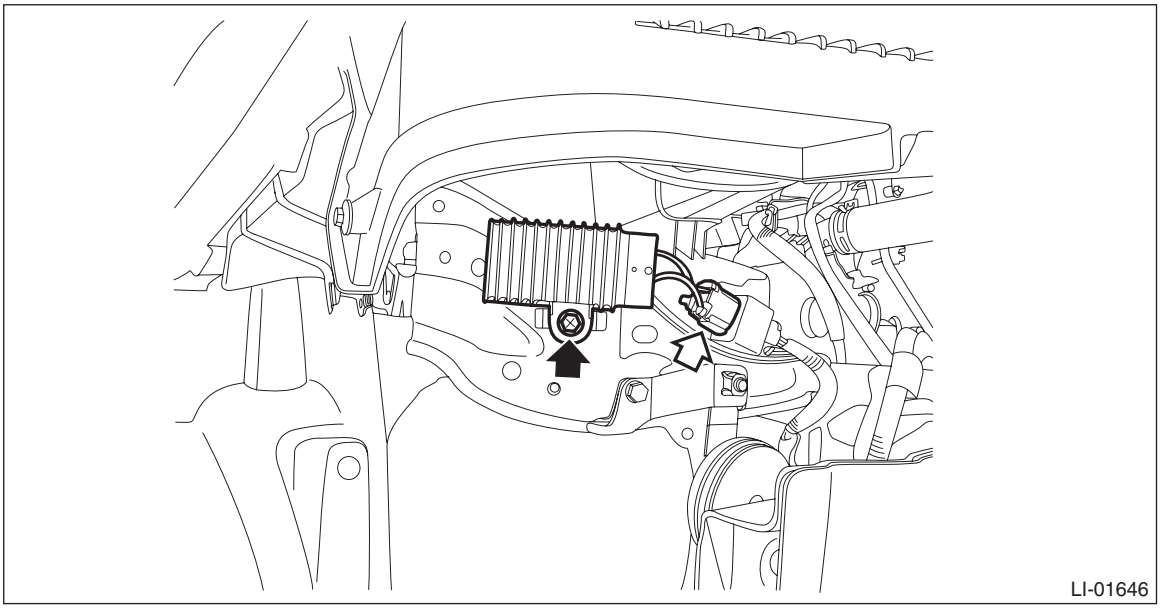
1) Disconnect the ground cable from battery.
2) Lift up the vehicle.
3) Remove the screw and clips, and turn over the front side of the mud guard - front.



4) Remove the resistor assembly - daytime running light.

CAUTION:
The resistor may become hot. Be careful not to burn yourself when removing it.

(1) Disconnect the connector.
(2) Remove the bolts, then remove the resistor assembly - daytime running light.



B: INSTALLATION

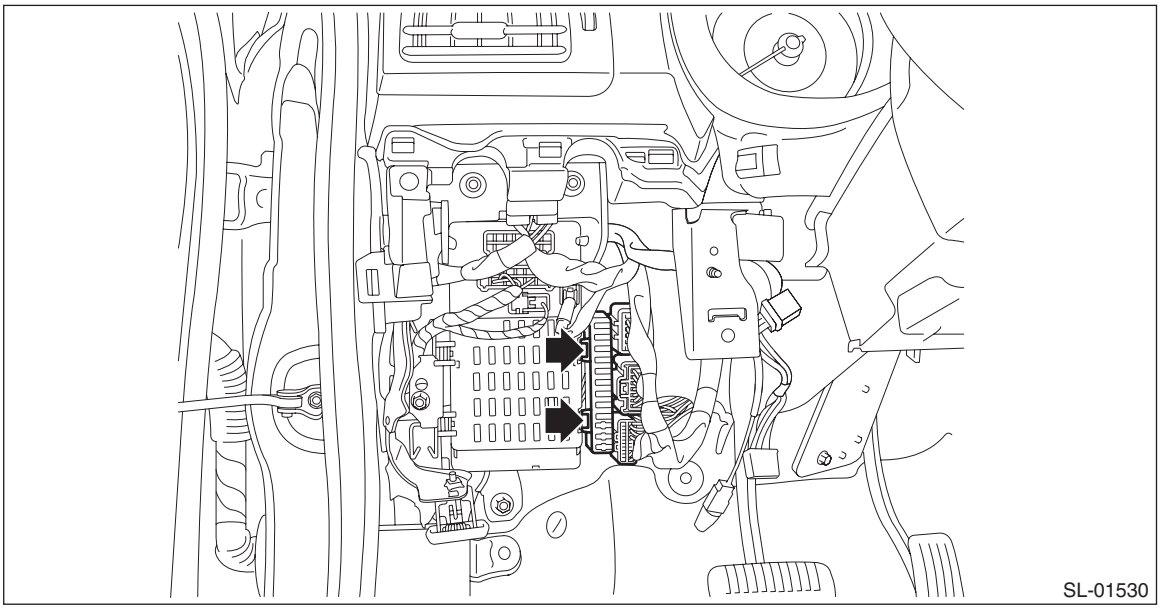
Install each part in the reverse order of removal.

Tightening torque:
Resistor assembly - daytime running light: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

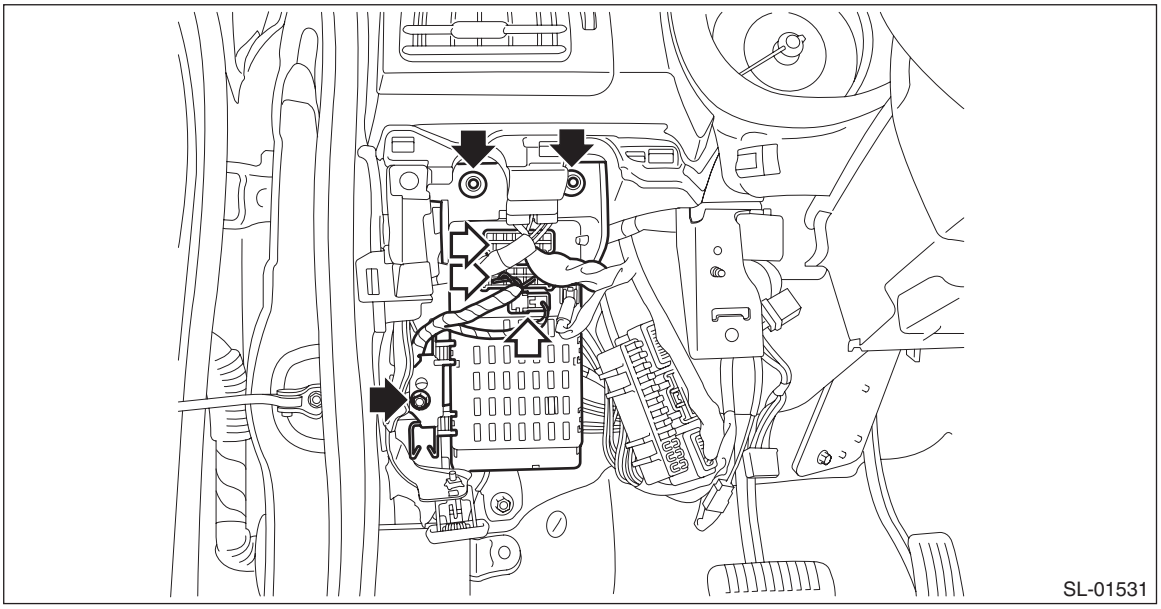
38.IG Relay1 (Push Button Start)

A: REMOVAL

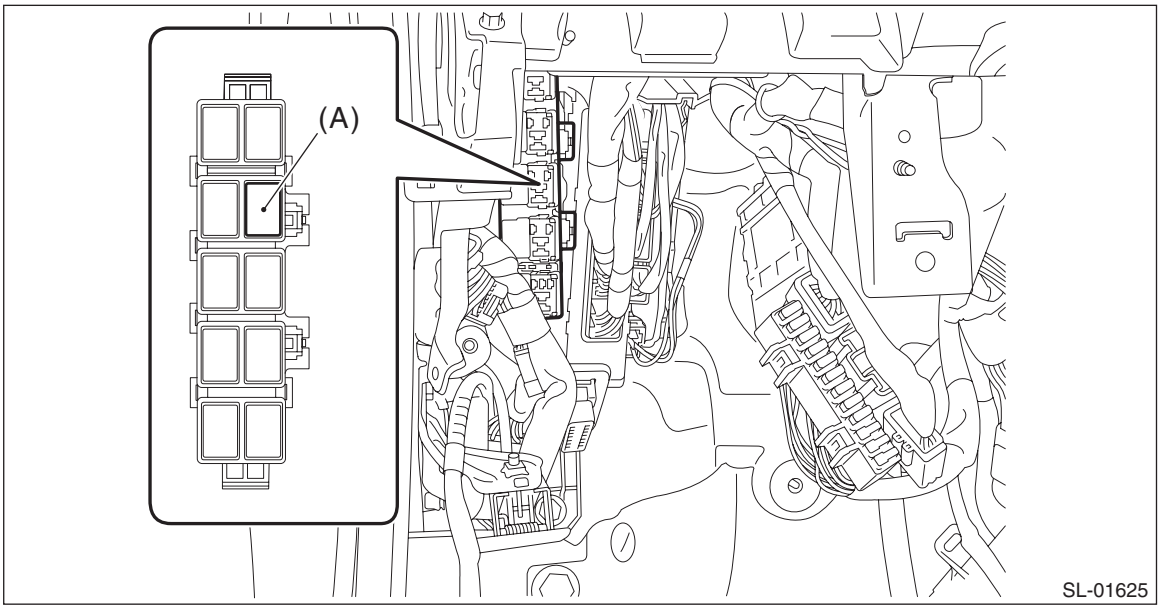
1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.



3) Remove the relay & fuse box.
   (1) Disconnect the connector.
   (2) Remove the bolts and nuts, and remove the relay & fuse box.



4) Remove IG relay 1 (push button start) (A) from the relay holder.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

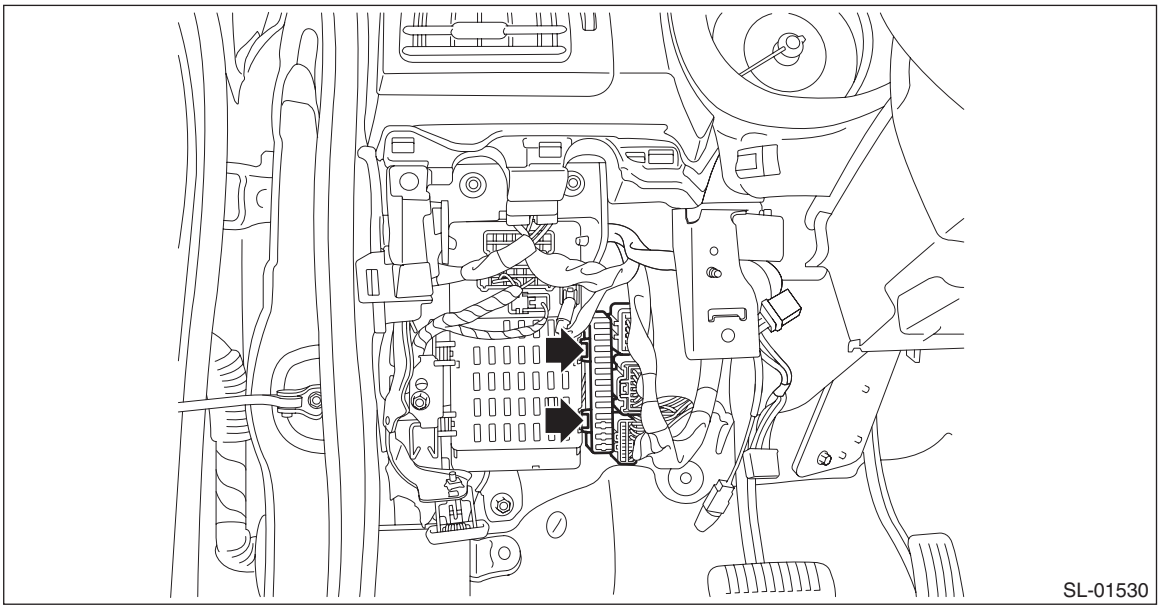
C: INSPECTION

Refer to “CHECK RELAY” in “Relay and Fuse”. <Ref. to SL-10, CHECK RELAY, INSPECTION, Relay and Fuse.>

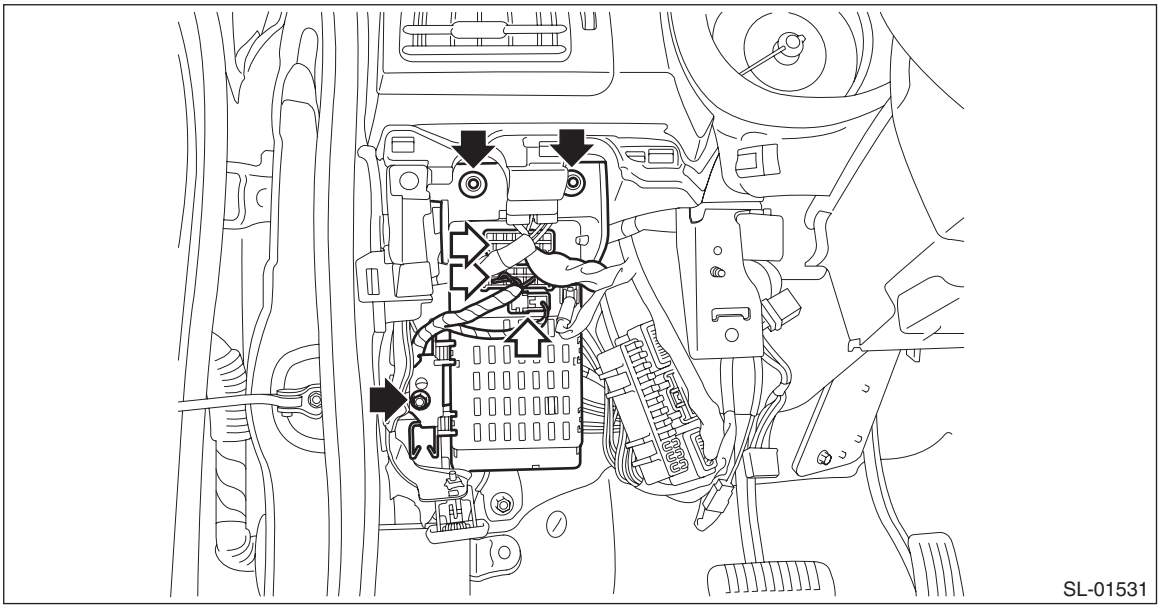
39.IG Relay2 (Push Button Start)

A: REMOVAL

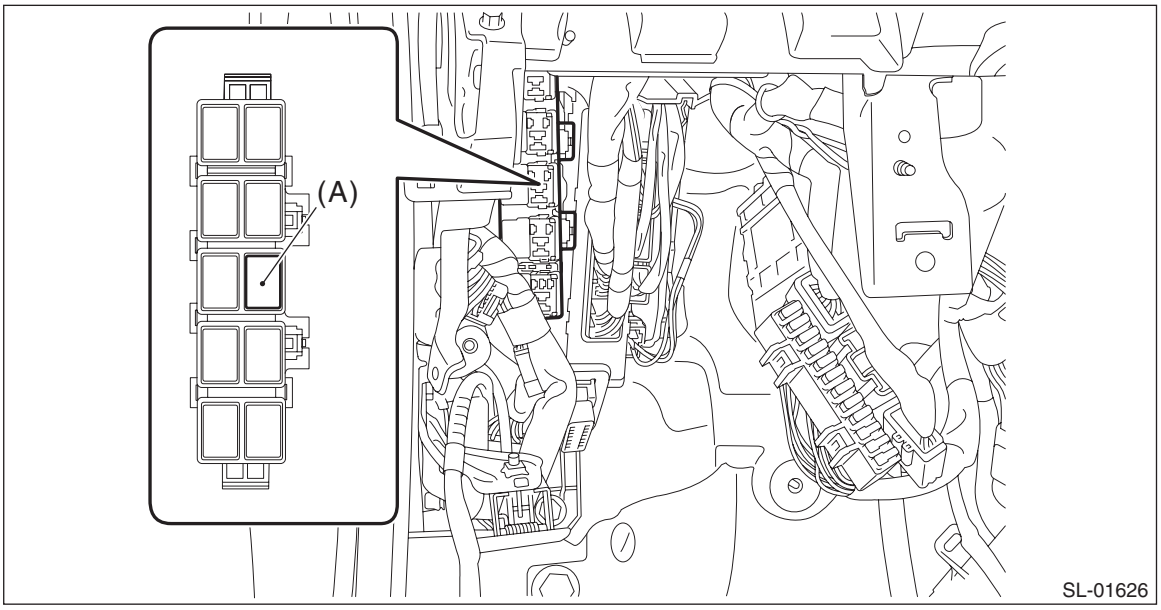
1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.



3) Remove the relay & fuse box.
   (1) Disconnect the connector.
   (2) Remove the bolts and nuts, and remove the relay & fuse box.



4) Remove IG relay 2 (push button start) (A) from the relay holder.



B: INSTALLATION

Tightening torque:
Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

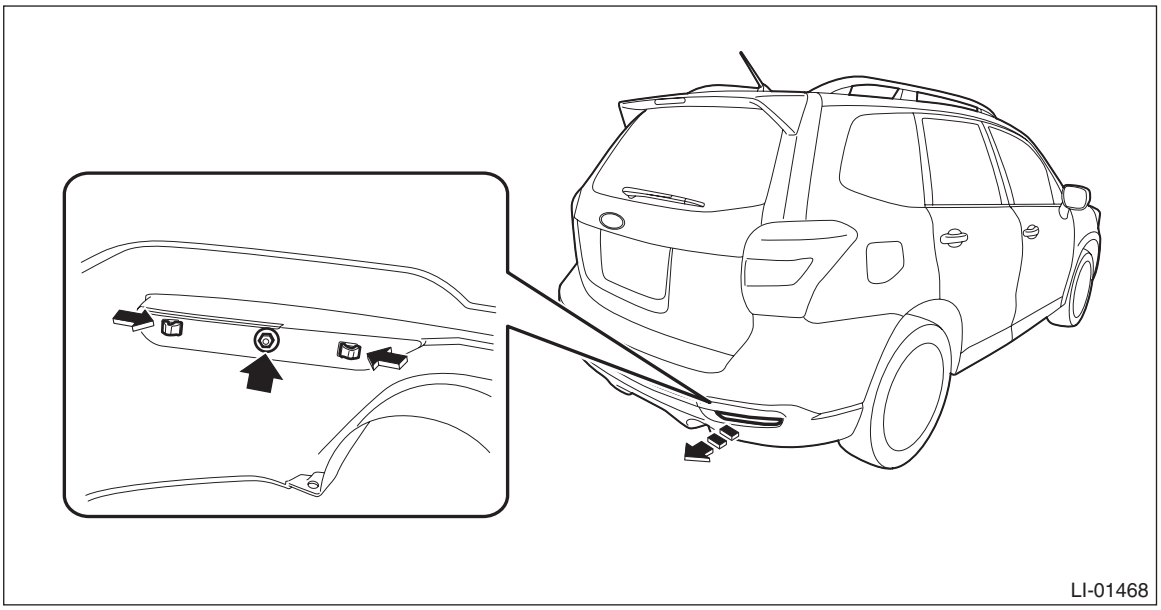
C: INSPECTION

Refer to “CHECK RELAY” in “Relay and Fuse”. <Ref. to SL-10, CHECK RELAY, INSPECTION, Relay and Fuse.>

39.Reflex Reflector

A: REMOVAL

From behind the bumper face - rear, release the nuts and claws and remove the reflex reflector assembly.



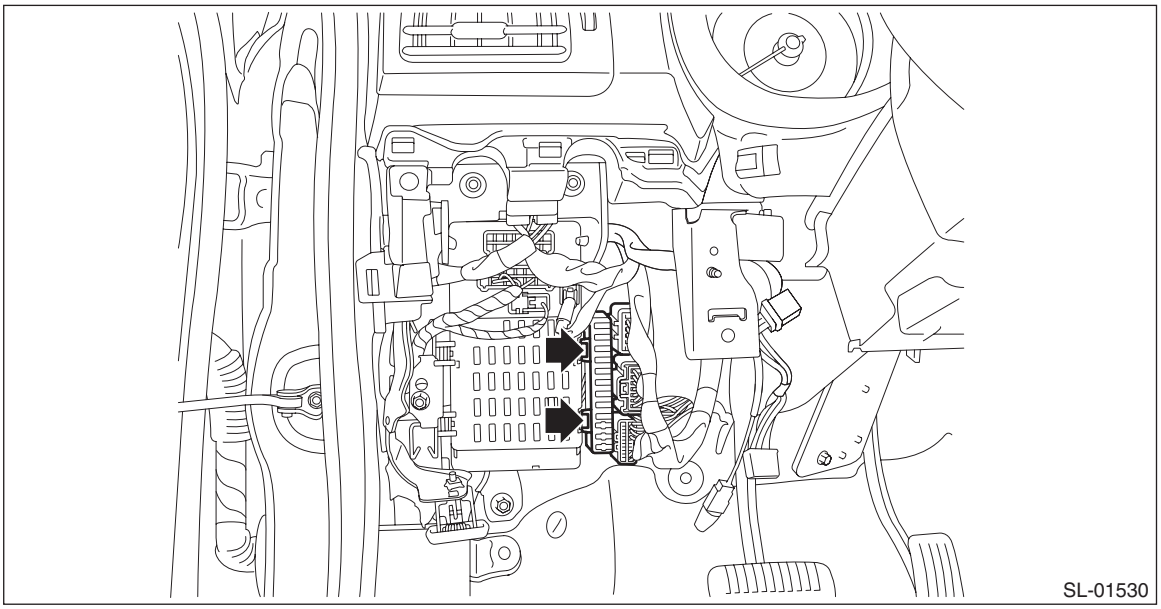
B: INSTALLATION

Install each part in the reverse order of removal.

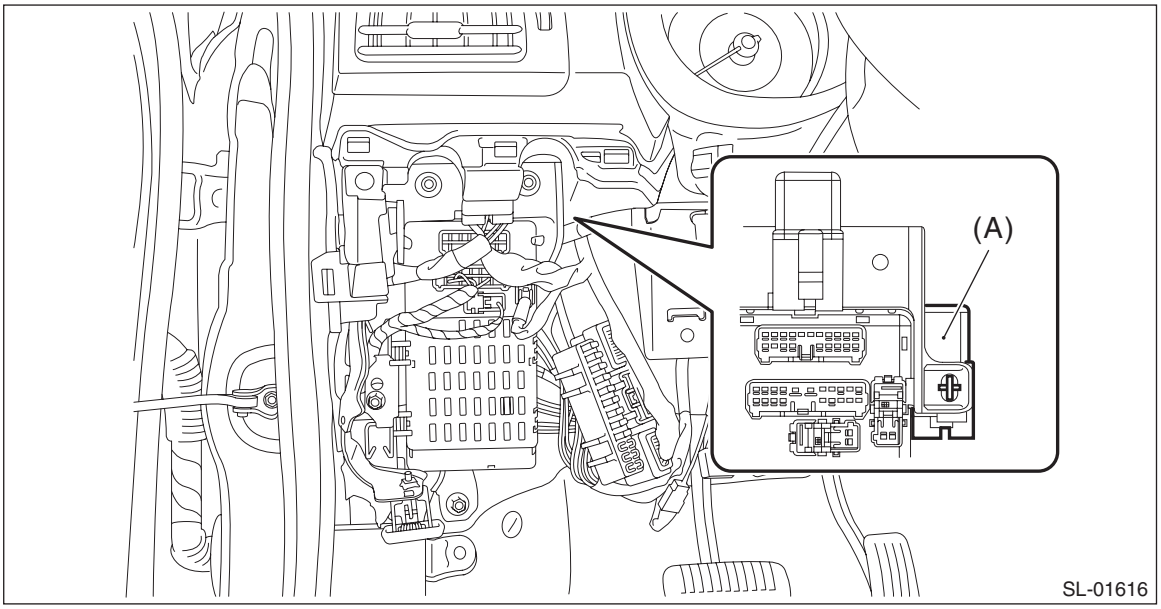
40.Accessory Relay (Push Button Start)

A: REMOVAL

1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.



3) Remove the accessory relay (push button start) (A) from the relay and fuse box.



B: INSTALLATION

Install each part in the reverse order of removal.

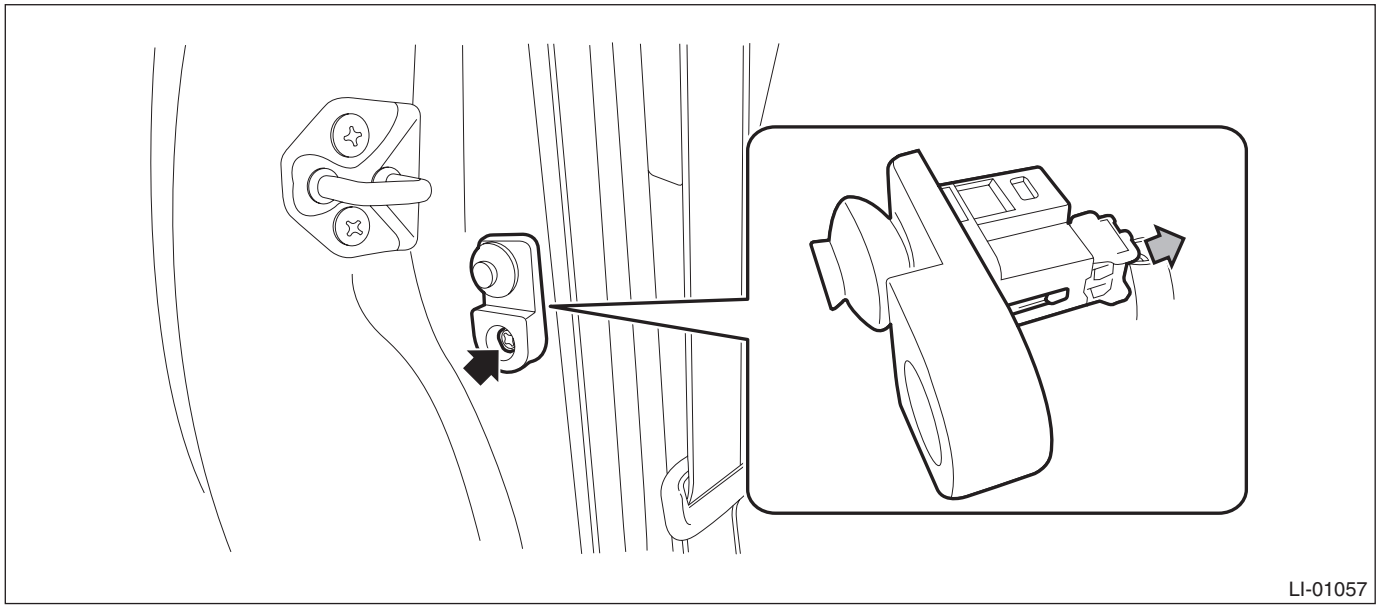
C: INSPECTION

Refer to “CHECK RELAY” in “Relay and Fuse”. <Ref. to SL-10, CHECK RELAY, INSPECTION, Relay and Fuse.>

40.Door Switch

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Remove the switch assembly - door.
   (1) Remove the screws, and pull out the switch assembly - door toward you.
   (2) Disconnect the connector and remove the switch assembly - door.



B: INSTALLATION

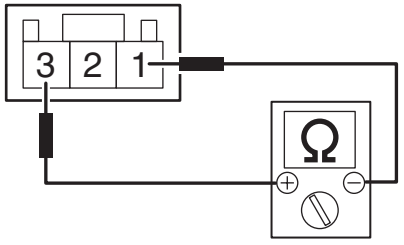
Install each part in the reverse order of removal.

C: INSPECTION

Unit inspection

Preparation tool:
Circuit tester

1) Check the resistance between switch terminals.

Terminal No.	Inspection conditions	Standard	Connection diagram
1 — 3	When door is opened	Less than 1 Ω	 LI-01327
	When door is closed	1 MΩ or more	

2) Replace the switch assembly - door if the inspection result is not within the standard value.

AUTO HEADLIGHT BEAM LEVELER SYSTEM (DIAGNOSTICS)

AL(diag)

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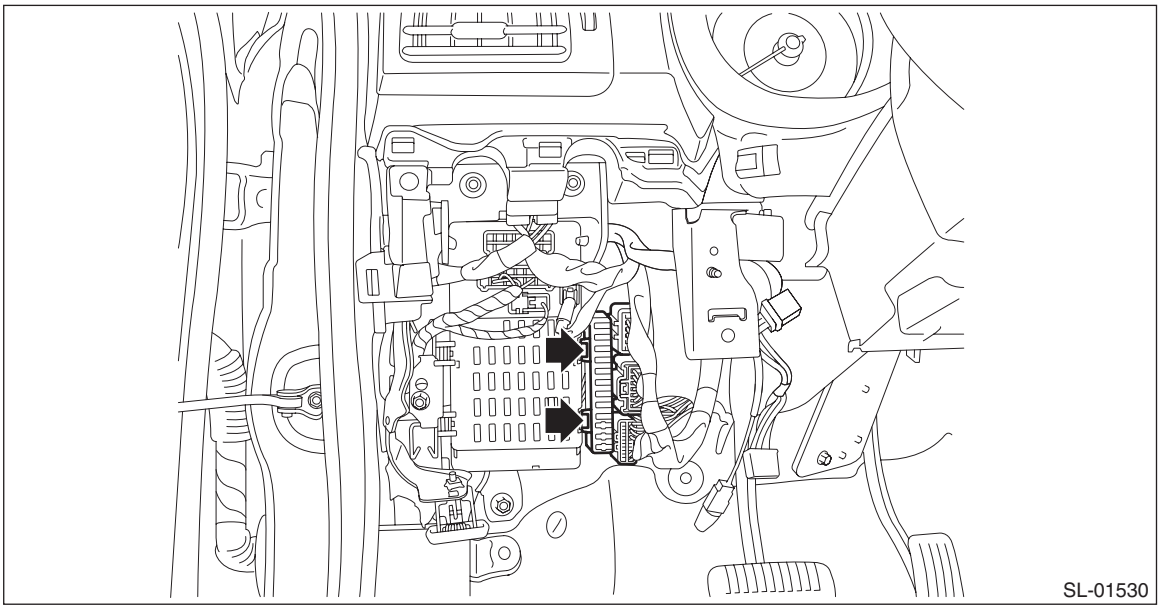
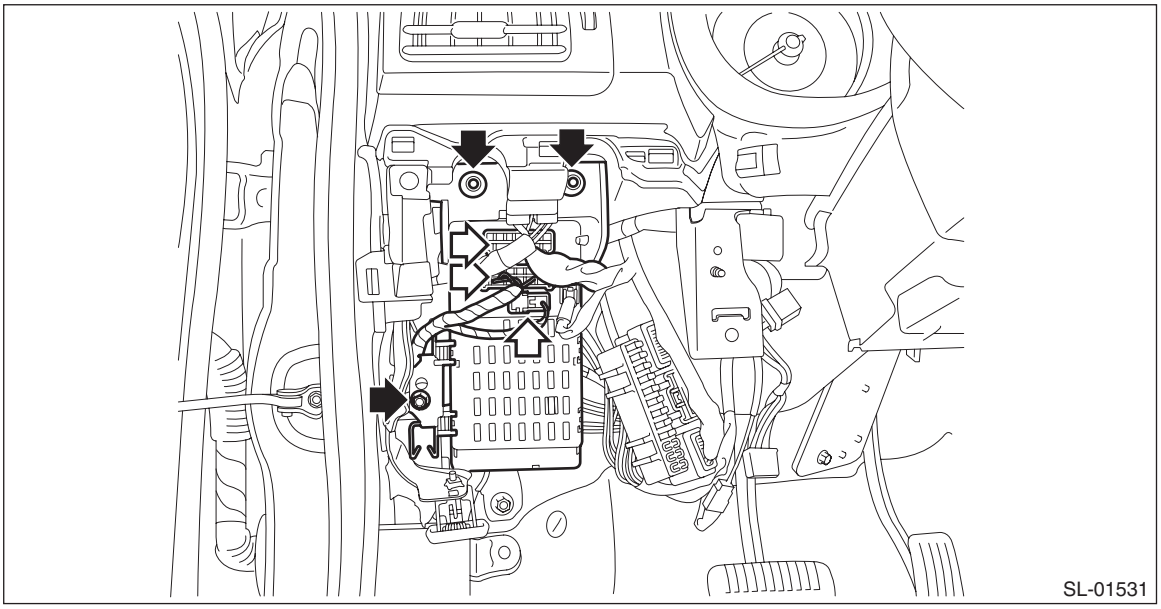
41.Starter Cut Relay

A: REMOVAL

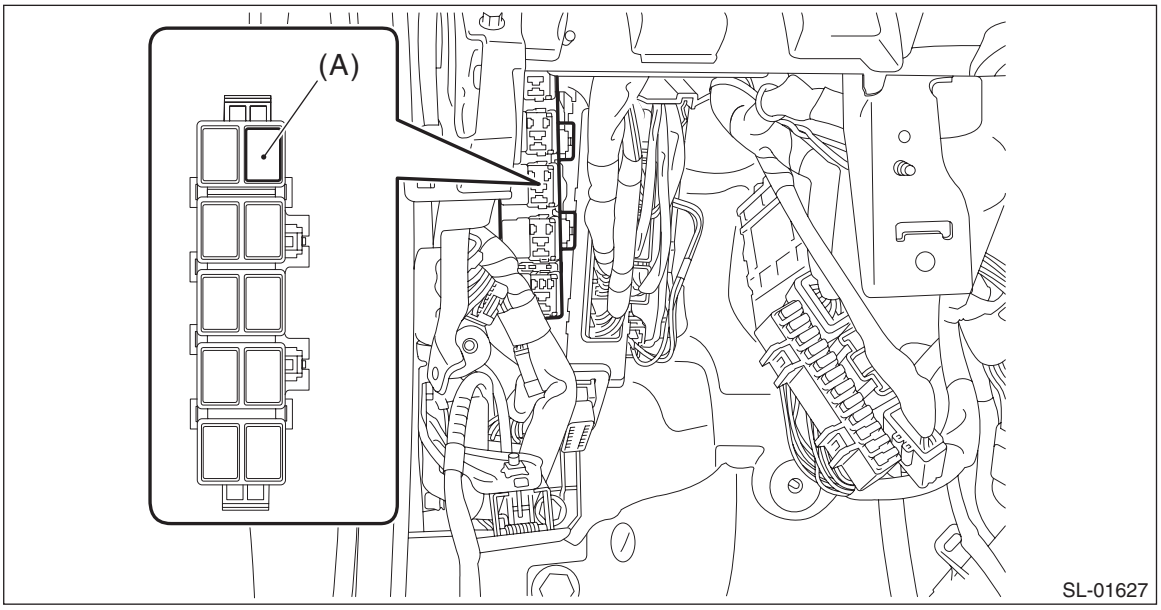
1) Remove the cover assembly - instrument panel LWR driver and the knee airbag module. <Ref. to AB-41, REMOVAL, Knee Airbag Module.>
2) Release the lock and remove the fuse holder.



3) Remove the relay & fuse box.
   (1) Disconnect the connector.
   (2) Remove the bolts and nuts, and remove the relay & fuse box.



4) Remove the starter cut relay (A) from the relay holder.



B: INSTALLATION

Install each part in the reverse order of removal.

Tightening torque:
Relay & fuse box: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

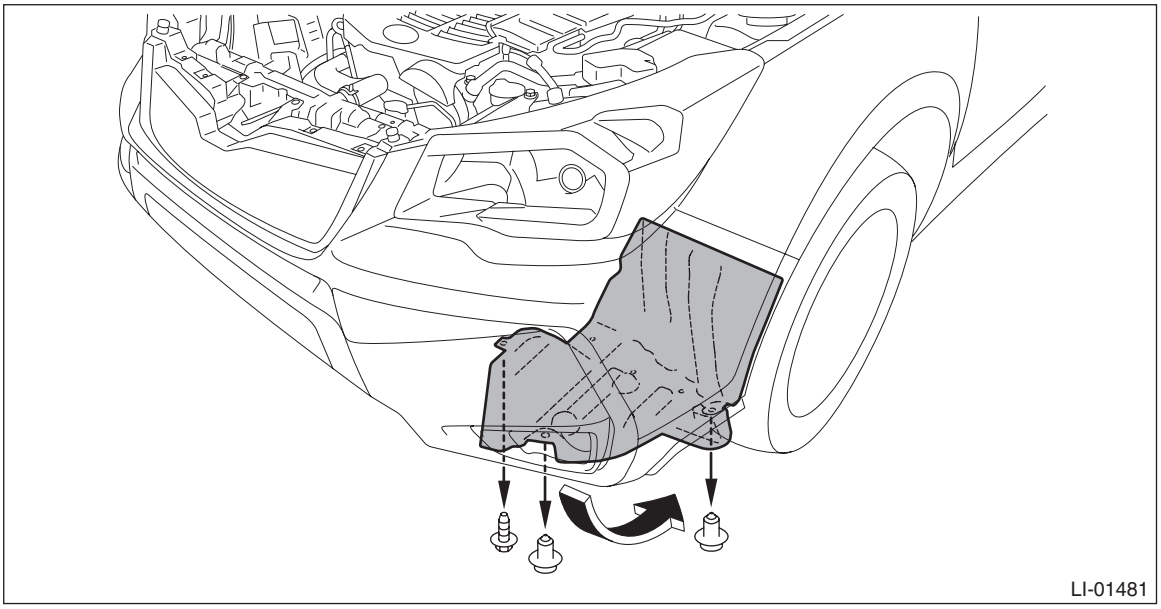
C: INSPECTION

Refer to “CHECK RELAY” in “Relay and Fuse”. <Ref. to SL-10, CHECK RELAY, INSPECTION, Relay and Fuse.>

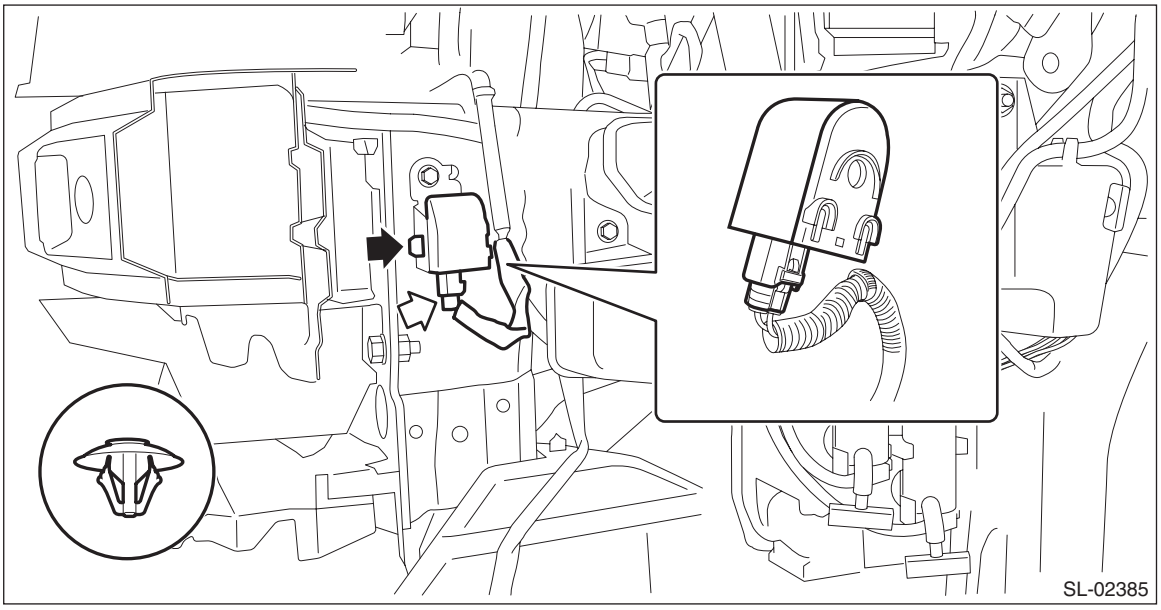
42.Access Buzzer

A: REMOVAL

1) Disconnect the ground cable from battery.
2) Lift up the vehicle.
3) Remove the screw and clips, and turn over the front side of the mud guard - front.



4) Remove the keyless buzzer.
   (1) Disconnect the connector.
   (2) Remove the clip and detach the keyless buzzer.



B: INSTALLATION

Install each part in the reverse order of removal.

C: INSPECTION

Using the Subaru Select Monitor, perform forced operation of the keyless buzzer. <Ref. to BC(diag)-15, OPERATION, User Customizing.>
If a buzzer does not sound, refer to “Diagnostics with Phenomenon” of “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-107, KEYLESS ACCESS EXTERNAL BUZZER DOES NOT BEEP, INSPECTION, Diagnostics with Phenomenon.>

43.Function Setting (Customize)

A: OPERATION

Disabling/Activating the keyless access system

The following functions are disabled when the keyless access system functions are disabled:

- LOCK function performed by the operation of touch sensor on the door outer handle
- Rear gate LOCK function by rear lock button operation
- UNLOCK function by the door touch sensor
- Rear gate open function by rear gate opener button operation in the rear gate lock condition
- Lockout prevention feature
- Warning function
- Engine starting control using keyless access collation

B: PROCEDURE

1) Check that the vehicle status is as follows:
- Ignition switch OFF
- One window is completely open
- Keyless access system is activated (or disabled if re-activating)

2) Sit in the driver's seat with the door closed and press the door lock switch to UNLOCK once.
3) Open the driver's door within five seconds.
4) Within 5 seconds, with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
5) Within 30 seconds, perform the closing → opening operation of the driver's door twice.
6) Within 30 seconds, with the driver's door opened, slowly press the door lock switch to UNLOCK twice.
7) Within 30 seconds, perform the closing → opening operation of the driver's door once.
8) Within 5 seconds, close the driver's door.

NOTE:
- Perform the same procedures to re-activate the keyless access system from the disabled condition.
- If the driver's door is opened or closed in step 4) and step 6), the cancel operation is disabled.

44.Keyless Access With Push Button Start System

A: DIAGNOSTIC PROCEDURE WITH PHENOMENON

Refer to “Diagnostics with Phenomenon” of “KEYLESS ACCESS WITH PUSH BUTTON START SYSTEM (DIAGNOSTICS)” section. <Ref. to KPS(diag)-99, Diagnostics with Phenomenon.>

SUNROOF/T-TOP/CONVERTIBLE TOP (SUNROOF)

SR

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