

Accessory Installation Practices



This document is written and maintained by Toyota Motor Sales, U.S.A., Inc. as an aid to defining accessory installation best practices.

Safety

1.1 Eye protection should be worn during any drilling and cutting, and when power tools are used to remove or attach fasteners.

Eye protection should also be used when using any special chemicals (as listed on the first page of the Installation Instruction Sheet) to reduce the risk of these chemicals entering the eye.

1.2 Rechecking of fastener tightness.

For some accessories it is necessary to recheck the tightness of the fasteners securing the accessory, for example – wheel lug nuts, running board bolts, tow hitch bolts etc. Where a recheck is required it will be noted in the Installation Instruction Sheet (either in the Procedure Section and/or the Checklist Section)

1.3 Supplemental Restraint System SRS

Any vehicle equipped with a supplemental restraint system (SRS). Failure to carry out the following procedures listed below could result in possible deployment of airbag, personal injury, or unnecessary repairs to SRS.

1.3.1 Turn the key switch to the LOCK position.

1.3.2 Remove key from ignition switch.

1.3.3 Disconnect the negative battery cable.

1.3.4 Never use a voltmeter to troubleshoot any of the harnesses or connectors to the SRS. Accidentally probing the connectors to the SRS can lead to deployment of the airbag.

1.3.5 SRS wire harness loom/cover is bright yellow in color.

1.3.6 SRS contains a battery backup system; therefore ALWAYS wait for a minimum of 90 seconds after disconnecting the battery negative cable before removal/disassembly of electrical components. (Reference TSB: EL93-001).

Vehicle Protection

2.1 Vehicle should be clean before performing any accessory installation.

2.2 Prepare grille cover, fender cover, seat cover, and floor mat cover as appropriate to the installation area on the vehicle of the accessory before starting installation. Blankets, seat covers, paper floor coverings are suitable for this purpose.

2.3 Do not place any tools on unprotected vehicle surfaces, or leave inside vehicle. Use a tool tray to keep tools separate from the vehicle surface.

2.4 It is recommended that no exposed jewelry (rings, watches etc.), zippers, buttons, rivets, belt buckles or other scratch potential objects be worn. Articles of clothing or jewelry that have the potential to come into contact with the vehicle surface (i.e., generally below the chest) and contain any of the above items should be covered with tape and/or other protective material to prevent scratching of the vehicle.

2.5 Clothing and shoes must be free of grease and dirt to maximize vehicle cleanliness.

2.6 Parts and tool trays should be used for interior installations whenever possible. Parts, tools or trays must not be placed onto unprotected, seats, carpets or trim panels.

2.7 Tools, air hoses and power cords should be free of grease and dirt.

2.8 Blanket should be used to cover engine bay while working on accessory that requires hood to be open (e.g. Hood Protector) to prevent fasteners from being dropped into engine bay.

Vehicle Disassembly/Re-assembly

Panel Removal

3.1 Many panels on the vehicle are held in place with clips. Where the location of this clip is critical it is shown on the figure(s) in the Installation Instruction Sheet. Care must be taken to remove the panel and its clip(s) without damage. Toyota recommends use of plastic (nylon) removal tools, rather than metal and two Toyota Special Service Tools are available:-

Panel Pry Tool #1 Toyota SST # 00002-06001-01

Panel Pry Tool #2 Toyota SST # 00002-06002-01

Panel Protection

3.2 Place all removed parts on a protected surface.

3.3 All work benches, tables, or platforms used for assembly or temporary storage of parts should be carpeted or suitably covered to provide a soft, non-abrasive surface.

Parts Container

3.4 Use a small parts container to keep removed bolts and tapping screws so that they can be reassembled correctly.

Electrical Component Disassembly/Reassembly

Battery Cable

4.1 Unless otherwise stated battery negative terminal must be disconnected and isolated before performing work on any electrical components (i.e. connecting or disconnecting any

electrical connectors, etc.). In some installations fuse removal is used instead of battery terminal disconnection, and will be referred to in the Installation Instruction Sheet.

4.2 Ignition key must be removed from the ignition switch when the negative battery terminal or appropriate fuse is disconnected/removed and reconnected/reinstalled.

4.3 Do not touch the positive terminal with any tool when removing the negative battery cable.

4.4 Use a fender cover (blanket) when connecting or disconnecting battery negative terminal and/or when replacing or removing fuses. Ensure battery negative terminal is fully seated when reconnecting.

4.5 Power tools that can exceed 60 pound force-inch of torque should not be used to tighten battery cable. The torque value for battery cable tightening is given in the Installation Instruction Sheet.

Connectors

4.4. When disconnecting connectors, do not pull on the wires; pull on the connectors.

4.5. DO NOT pull on vehicle wires and/or wire harnesses. To uncouple electrical connectors, pull only on the connector itself and release the connector securing tab (identified in the Installation Instruction Sheet).

4.6. Disconnected wires must not have any strain on connectors or wires (i.e., do not allow components hanging from a wire harness).

4.7. When reconnecting connectors, ensure connectors are securely snapped together and wires are not twisted or kinked.

Wire Harnesses

4.8. When installing the accessories that use wire harnesses (e.g. audio, alarm, trailer wire harness...), make sure the harness is not cut or perforated by any sharp metal objects/edges.

Wire Ties

4.9. When using wire ties to secure harness, clip the wire ties after securing them.

4.10. Ensure that wire routing does not interfere with movement of mechanical components before tightening the wire tie.

Functional Checks

4.11. Functional checks (from the Checklist Section of the Installation Instruction Sheet) must be performed on all disconnected electrical components.

Use of Special Chemicals

Cleaners

5.1 All cloths used for preparatory installations must be cleaned and periodically changed. Any cloth that is dropped on the floor should not be used until cleaned.

5.2. Cleaning solutions/solvents are identified in the Installation Instruction Sheet and are not to be sprayed directly onto vehicle surfaces (interior/exterior).

5.3. Cleaning solutions/solvents are not to be sprayed onto cloth/rag inside of vehicle (this is to prevent over spray on interior).

5.4. When using cleaners such as Prep-Solvent-70, or Household Windex follow manufacturer's recommendations:-

5.4.1 Always use a clean (lint free scratch resistant) soft cloth (or wipe), and clean a small area at a time (~ 3 ft. x 3 ft. max.).

5.4.2 Shake well.

5.4.3 Apply cleaner to cloth or wipe. Do not spray cleaning solution directly on any vehicle surfaces.

5.4.4 Clean surface thoroughly and wipe dry immediately with a new clean cloth. Do not allow cleaner to air dry.

Sealers

5.5 Follow Installation Instruction Sheet recommendations.

5.6 For any cleanup follow sealer manufacturer recommendations.

Temperature

6.1. Some accessories require installation in a controlled temperature environment. The installation instructions will provide the temperature range of this temperature and will differentiate between vehicle and accessory temperature (should it not be the same for both.)

6.2. The installation location will be responsible for determining whether the temperature range has been met.

6.3. The method of temperature measurement will NOT be called out in the instructions.

6.4. Recommended tools for measuring vehicle and accessory temperature are:-
Non-Intrusive IR Temperature Probe/Gun

6.5. Recommended heating/cooling methods are:-
Heat box (for small components), Car HVAC, Heat Gun....

Torque Recheck

7.1. When rechecking of a fastener torque is called out in the Installation Instruction Sheet it is sufficient to ensure that the fastener does not rotate when the installation torque is reapplied. If the fastener rotates then continue tightening until the specified torque is reached. Do not loosen fastener.

2005 Scion tC Accessory Quality Checks

Accessory Function Checklist Select Desired Accessory

[Alloy Wheels](#)

[AM/FM/CD DECK/CHANGER/MP3](#)

[B-Pillar Applique](#)

[Billet Oil Cap and Battery Tie Down](#)

[Car Cover](#)

[Cargo Liner](#)

[Cargo Net](#)

[Cargo Tote by Nifty](#)

[Cold Air Induction](#)

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Alloy Wheel

Accessory Function Checks

- ☐ Inspect Lug Nuts
- ☐ Lug Nut Tightness
- ☐ Correct Tire Pressure
- ☐ Tire information label placed properly

Five lug nuts must be installed on each wheel

Tighten to 76 lbf-ft (103 N-m) torque.

Verify tire pressure is: 32 front, 29 rear \pm 2 PSI.

New label installed

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

AM/FM/CD/CHANGER

Accessory Function Checks

- ☐ Insert CD audio disc and confirm operation.
- ☐ Turn radio on and confirm operation.
- ☐ Antenna is functional
- ☐ Fade
- ☐ Balance
- ☐ Press the radio SSP button for 5 seconds.

Functioning CD player. If equipped with CD changer, check several different discs and several tracks.

Radio functions properly.

Reception of AM/FM stations

Functioning balance to front and rear speakers

Functioning balance to left and right speakers

Radio displays "tC."

Vehicle Function Checks

- ☐ Hazard Switch
- ☐ Air Conditioner
- ☐ Front Passenger Seat Belt Monitor
- ☐ Door Key Lock Monitor
- ☐ Cigarette Lighter

Functioning Hazard Switch

Functioning Air Conditioner

Functioning Front Passenger Seat Belt Monitor

Functioning Door Key Lock Monitor

Functioning Cigarette Lighter

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Door Sill Enhancer

Accessory Function Checks

☐ Trim fully installed

No gaps around door sill trim

☐ Door Sill trim secure

Trim does not rattle or appear loose

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

EC Rearview Mirror

Accessory Function Checks

Vehicle should be in a fairly well lit area.

- ☐ Turn ignition switch to ON.

Verify green LED is on. If it is not ON press On / Off button - confirm LED is ON.

Auto-dimming feature:

- ☐ Cover the forward-looking light sensor (located below the wire harness connection on the back of the mirror).

Verify mirror darkens.

Mirror clears:

- ☐ Remove cover from photocell.

Mirror returns to clear state.

HomeLink[®] feature:

- ☐ Push in HomeLink[®] switches with key in AND out of the key slot.

Verify LED indicator turns red.

- ☐ **Push the On / Off button a second time and hold for 3 seconds.**

Verify the visual display turns off.

Map lights feature:

- ☐ Push the Map Light button on the mirror.

Verify that map lights turn on.

Ambient lighting feature:

Vehicle should be in a fairly dark area if the ambient lighting colors cannot be seen.

- ☐ Push the Map Light button on the mirror.
- ☐ Push the Map Light button on the mirror again and hold until ambient feature is off.

Verify that white map lights turn on.

Colored ambient light should turn on, and cycle - amber - blue - white - amber – off.

2005 Scion tC Accessory Quality Checks

Check:

- ☐ Homelink® Programming Instructions
- ☐ Operation Instruction Card

Look For:

Placed in the vehicle glove box.
Placed in the vehicle glove box

Vehicle Function Checks

- ☐ Check dome light
- ☐ Check Moon Roof
- ☐ Check Power Windows

- ☐ Check battery negative cable

Verify dome light functions properly.
Verify Moon Roof functions properly.
Verify Power Windows function properly.
Terminals are tight.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Fog Lights

Accessory Function Checks

☐ Turn on headlights

Headlights “ON”.

☐ Turn on fog lights

Fog lights “ON”.

☐ Turn off headlight

Fog lights are not “ON” with headlights
“OFF”.

☐ Check fog light switch orientation

Lamp symbol is facing left.

☐ Switch on high beams

High beams “ON” / Fog lights “OFF”.

☐ Check dashboard lights

Low beams “ON” / Fog lights “ON”.

Vehicle Function Checks

☐ Check taillights.

Taillights “ON”.

☐ Turn off headlights.

Headlights “OFF”.

☐ Check brake lights.

Brake lights “ON”.

☐ Check turn signals.

Turn signals “ON”.

☐ Check reverse lights.

Reverse lights “ON”.

☐ Check emergency flashers.

Emergency flashers “ON”.

☐ Check mirror controls.

Mirrors can be adjusted.

☐ Check battery terminals for tightness
with 10 mm socket and torque wrench.

Terminals are tight.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Front End Mask

Accessory Function Checks

☐ Mask is properly adjusted.

Verify that headlights, markers, turn signals, cooling intakes and ducts are unobstructed.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Ground Effects

Accessory Function Checks

- ☐ Check for front and rear skirt gasket gaps.

A maximum allowable gap between the gaskets and the vehicle is ½ mm.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Rear Spoiler (Lip and Pedestal)

Accessory Function Checks

Lip Spoiler

- ☐ Check for spoiler alignment.
- ☐ Check for full tape adhesion.

Centered from side to side.
Full adhesion with no gaps.

Pedestal Spoiler

- ☐ Check for Spoiler Alignment.

The Spoiler should be centered from side to side. The distance between each leading edge of the stanchions and the front part of the deck lid must be within +/-3 mm.

- ☐ Check for tape adhesion.

The Spoiler should have a uniform gap around the perimeter of the stanchion footprint. The maximum allowable gap is 1.7 mm.

- ☐ Verify gas strut operation.

The gas struts should hold the lift gate in the open position.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Mudguards

Accessory Function Checks

☐

Mudguard to body gap

Gaps less than 1.0 mm.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Muffler

Accessory Function Checks

☐ Mating joint flanges have been securely fastened.

Verify joint is tightened.

☐ Hooks have been securely reattached.

Verify hooks are securely attached.

☐ Tailpipe alignment.

Verify the tailpipe tip is aligned:
25 +/- 5 mm top of tip to fascia.
18 +/- 3 mm side to side.

☐ Inspection torque – tailpipe to outlet flange.

35 +/- 7 lbf-ft (48 +/- 9.5 N-m)

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Satellite Radio Tuner

Accessory Function Checks

☐ Satellite Radio Tuner.

Verify the proper operation of the Satellite Radio Tuner.

☐ Receiver/player Assembly.

Verify the proper operation of the Receiver/player Assembly

(Refer to the receiver assembly and radio owner's manuals.)

Vehicle Function Checks

☐ Hazard switch.

Proper operation of the hazard switch.

☐ Passenger's seat belt reminder light.

Proper operation of the passenger's seat belt reminder light

☐ Passenger front seat.

Removed seat is securely fastened.

☐ Rear passenger seat back.

Seat in upright position and seat back lock mechanism secured.

☐ SRS warning light.

SRS warning light illuminates for approximately 6 seconds with the ignition ON, and then goes out.

☐ Air Conditioning

Proper operation of the air conditioning system.

☐ SSP function.

Verify the radio SSP function is set to "tC" by pressing the "SSP" button on the head unit for 5 seconds. (If not, press the volume control and set to "tC".)

☐ Lighter socket.

Proper operation of lighter socket.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Wheel Lock

Accessory Function Checks

- ☐ Correct part number has been installed.
- ☐ Wheel lock tightness.
- ☐ Wheel for damage.

Verify part number on package

Wheel locks have been installed at a torque of 103 N-m (76 lbf-ft

No damage to wheel.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Rear Bumper Protector

Accessory Function Checks

- ☐ Proper adhesion - Visual
- ☐ Proper alignment - Cross-Car

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Look for bubbles, loose and lifting edges.

If bubbles cannot be worked out to the nearest edge, replace part.

Part must be centered within bumper
+/-3 mm.

2005 Scion tC Accessory Quality Checks

Check:

Look For:

B-Pillar Applique

Accessory Function Checks

☐ Applique alignment

Applique is uniform around the perimeter edge of the vehicle B (or C) pillar.

Vehicle Function Checks

☐ Door Operation

Front doors open and close without interference from the Applique.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Billet Oil Cap and Battery

Tie-Down

Accessory Function Checks

- ☐ Oil cap is secure
- ☐ No oil leaks present

- ☐ Battery is secure
- ☐ Battery tie-down fasteners tight

Oil cap is tight

Visual inspection around oil cap and engine compartment

Battery is secure

Fasteners are tight

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Car Cover

Accessory Function Checks

☐ Included as a throw-in

Car cover is in the trunk

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Cargo Liner

Accessory Function Checks

☐ Check installation instructions

☐ Check security of headrests

☐ Check security of seatback

Installation instructions are placed in glove box.

Center headrests are secure.

Rear seatback is locked into position and secure.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Cargo Net

Accessory Function Checks

- ☐ Confirm that the net is attached properly to the anchor points in the vehicle.

Hooks are attached to the D-rings and the pouch is on the drivers side of the vehicle.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Cargo Tote by Nifty

Accessory Function Checks

☐ Cargo tote is included as a throw-in

Cargo tote is in the trunk

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Cold Air Induction

Accessory Function Checks

- ☐ Start the vehicle.
- ☐ If after you start the vehicle, or while driving, you encounter a Malfunction Indicator Lamp (MIL)

Return to installer for diagnosis

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Color Steering Wheel

Accessory Function Checks

- ☐ Steering wheel angle
- ☐ Horn
- ☐ SRS warning light – turn ignition key ON

Steering wheel is straight
Within 3 degrees of center
Verify that the horn works.
Verify that SRS warning light comes ON
and then goes OFF (after ~ 5 to 6
seconds).
Return to installer if the light does not
extinguish

- ☐ Cruise control switch

Verify that the switch functions correctly.
If switch does not function correctly,
troubleshooting is required in accordance
with the service repair manual.

- ☐ Negative battery terminal for tightness

Terminal should be tight.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Floor Mats/Cargo Mat

Accessory Function Checks

- ☐ All carpet mat in rubber mat edge
- ☐ Plastic plate joint properly secured
- ☐ Install retention clip correctly and hook floor mat onto clip

Carpet mat must be inside rubber mat for front mat

Correctly fitted

Correctly fitted

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Front Strut Tie Bar by Hotchkis Tuning

Accessory Function Checks

☐ Clearance to vehicle

Strut Tie bar does not contact brake fluid reservoir.

Strut Tie bar does not contact insulation retainer nut.

Strut Tie bar does not contact VSV connector or wires.

Strut Tie Bar Mounting Plates do not contact cowl/cowl cover.

Vehicle Function Checks

☐ Windshield Wipers

Function of wipers

Wipers do not contact windshield molding when “parked”.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Fuel Door Applique

Accessory Function Checks

☐ Applique alignment

Applique is uniform around the perimeter edge of the vehicle fuel door.

☐ Vehicle Fuel Door operation

Fuel door opens and closes without interference from the applique.

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

LED Under Dash/Cup

Holder Illumination

Accessory Function Checks

☐ All LED's are functional

There are four LED's, one in each front floor well and one in each cup holder.

☐ Switch functions correctly

Switch toggles between:

All lights off

Cup holder only

All lights on

Interior lights only

Vehicle Function Checks

☐ Cigarette Lighter

Return to installer if inoperative

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

License Plate Frames by Grenada

Accessory Function Checks

- ☐ License plate bolts secure
- ☐ License plate frame is properly aligned

License plate is secure

License plate is secure in frame and
aligned in recess

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Rear Tail Lights by TYC

Accessory Function Checks

<input type="checkbox"/> Brake Lights	Proper operation
<input type="checkbox"/> Turn Signals	Proper operation
<input type="checkbox"/> Reverse Lights	Proper operation
<input type="checkbox"/> Hazard Lights	Proper operation
<input type="checkbox"/> Taillights	Proper operation

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Security (V5)

Vehicle Function Checks

<input type="checkbox"/> Head Lights	Functioning Head Lights
<input type="checkbox"/> High Beams	Functioning High Beams
<input type="checkbox"/> Turn Signal Lights	Functioning Turn Signal Lights
<input type="checkbox"/> Tail Lights	Functioning Tail Lights
<input type="checkbox"/> Stop Lights	Functioning Stop Lights
<input type="checkbox"/> Backup Lights	Functioning Backup Lights
<input type="checkbox"/> Hazard Lights	Functioning Hazard Lights
<input type="checkbox"/> Marker Lights	Functioning Marker Lights
<input type="checkbox"/> Dome/Courtesy/Map Lights	Functioning Dome/Courtesy/Map Lights
<input type="checkbox"/> Panel/Switch Illumination	Functioning Controls/Illumination
<input type="checkbox"/> Accessory Controls/Illumination (if equipped)	Functioning Accessory
<input type="checkbox"/> Key Sensor Buzzer	Functioning Key Sensor
<input type="checkbox"/> Fog Lights (if equipped)	Functioning Fog Lights
<input type="checkbox"/> Daytime Running Lights (if equipped)	Functioning DR Lights
<input type="checkbox"/> Trunk/Tailgate/Bed Lights (if equipped)	Functioning Lights
<input type="checkbox"/> Glove Box Light (if equipped)	Functioning Glove Box Light
<input type="checkbox"/> Cruise Control Light (if equipped)	Functioning Cruise Control Light

2005 Scion tC Accessory Quality Checks

Check:

- ☐ Seat Belt Warning Light
- ☐ Air Bag Warning Light
- ☐ ABS Light (if equipped)
- ☐ Lamp Failure Sensor (if equipped)
- ☐ Track/Skid Control Light (if equipped)
- ☐ HVAC
- ☐ Power Locks (if equipped)
- ☐ Power Windows (if equipped)
- ☐ Power Seats (if equipped)
- ☐ Power Sunroof (if equipped)
- ☐ Horn
- ☐ Gauges
- ☐ Front Wiper/Washer
- ☐ Rear Wiper/Washer (if equipped)

Look For:

Functioning Seatbelt Warning Light. If the warning light remains "ON", it may indicate a system malfunction.

Functioning Air Bag Warning Light. If the warning light remains "ON", it may indicate a system malfunction.

Functioning ABS Light. If the warning light remains "ON", it may indicate a system malfunction.

Functioning Lamp Failure Light. If the warning light remains "ON", it may indicate a system malfunction.

Functional Track/VSC Light. If the warning light remains "ON", it may indicate a system malfunction.

All HVAC Controls Function

Functioning Power Locks

Functioning Power Windows

Functioning Power Seats

Functioning Sunroof

Functioning Horn

Functioning Gauges

Functioning Front Wiper/Washer

Functioning Rear Wiper/Washer

2005 Scion tC Accessory Quality Checks

Check:

- ☐ Clock (if equipped)
- ☐ Accessory Power Socket (if equipped)
- ☐ Starter
- ☐ Audio/Video (if equipped)
- ☐ Convenience Memory Settings (if equipped)
- ☐ Rear Window Defogger (if equipped)
- ☐ Power Side Mirrors (if equipped)
- ☐ Front Windshield Defogger (if equipped)

Look For:

Functioning Clock

Functioning Power Socket

Functioning Starter

Functioning Audio/Video

Functioning Memory Settings

Functioning Rear Window Defogger

Functioning Power Side Mirrors

Functioning Front Windshield Defogger

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Subwoofer by Bazooka

Accessory Function Checks

- | | |
|--|---|
| <input type="checkbox"/> Turn on Radio | Radio display turns on & sound is heard |
| <input type="checkbox"/> Verify CD & Satellite Tuner (if equipped)
Antenna is functioning | CD player functions & Satellite Tuner stations are playing (if equipped)
Reception of AM/FM stations |
| <input type="checkbox"/> VSE Subwoofer operation | VSE Subwoofer – Listen to make sure it is functioning properly or by feeling the VSE Subwoofer for vibration. Be sure the Phase Switch is in the “UP” position. |
-

Vehicle Function Checks

- | | |
|--|---|
| <input type="checkbox"/> Hazard switch. | Proper operation of the hazard switch. |
| <input type="checkbox"/> Passenger's seat belt reminder light. | Proper operation of the passenger's seat belt reminder light |
| <input type="checkbox"/> Rear passenger seat back. | Seat in upright position and seat back lock mechanism secured. |
| <input type="checkbox"/> SRS warning light. | SRS warning light illuminates for approximately 6 seconds with the ignition ON, and then goes out. |
| <input type="checkbox"/> HVAC. | Proper operation of HVAC |
| <input type="checkbox"/> SSP function. | Verify the radio SSP function is set to "tC" by pressing the "SSP" button on the head unit for 5 seconds. (If not, press the volume control and set to "tC".) |
| <input type="checkbox"/> Lighter socket. | Proper operation of lighter socket. |

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Shift Knob

Accessory Function Checks

☐ Alignment of Decal

Manual Transmission: Shift pattern decal is the correct one and aligned on shift knob

Automatic Transmission: Decal is aligned.

Vehicle Function Checks

☐ Knob to Shaft Assembly

Knob is securely fastened and there is no vertical or rotational movement in the knob

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2005 Scion tC Accessory Quality Checks

Check:

Look For:

Sport Pedals

Accessory Function Checks

- ☐ Accelerator, Brake & Clutch (for Manual Transmission) Sport Pedals

Accelerator, Brake & Clutch (for Manual Transmission) Sport Pedal should be completely wrapped around the backside of the OE Accelerator, Brake & Clutch (for Manual Transmission) Pedals. Be sure to check that the lips are wrapped around the OE pedal and by pulling up on the Sport Pedal assemblies.

- ☐ Shifting or Looseness

Slight shifting or looseness is acceptable in the pedals, especially when the pedals are freshly lubricated.

- ☐ OE Pedal Functionality

All OE Pedals should be engaged and disengaged to ensure proper functionality, and that there is no interference with floor pan, floor mats, etc.

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Part Number: PT533-21070

NOTE: Part number of this accessory may not be the same as the part number shown.

Kit Contents

Item #	Quantity Req.	Description
1a	1	18" Alloy Wheel Painted
2	1	Customer Care Card

Hardware Bag Contents

Item #	Quantity Req.	Description
1		

Additional Items Required For Installation

Item #	Quantity Req.	Description
1	5	Lug Nuts (reused from OE wheel)
2	1	Center Cap (reused from OE wheel)
3	As Required	Balance Weights Clip-on Type (Hofmann Standard)
4	As Required	Balance Weights Stick-on Type (Hofmann Standard)
5	1 per wheel	Pirelli or Yokohama tire P/N DT001-43505-P1
6	1	Tire Pressure Label P/N 00107-00382
7	1	Owners Manual Label P/N 00107-00387

Conflicts

Note:

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Seat Protection	Blanket
Special Tools	Notes
Wheel Balancing Machine	DSP9700 or equivalent
Tire Mounting Machine	Hunter TC3250 or equivalent
Centering Cone	Hunter 192-51-2
Foot Brake Application Tool	Snap-on B240A Pedal Jack or equivalent
Installation Tools	Notes
Lug Nut Wrench	
Rubber Mallet	
Torque Wrench	0-75 lb-in. (8.50 m)

Torque Wrench	0-250 lbf-ft (340 N-m)
Socket	21 mm Deep Well, 12 mm Deep Well
Balance Weight Pliers	
Clean Lint-Free Cloth	
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST #0002-06001-01
Special Chemicals	Notes
Tire lube	
Cleaner (for re-work only)	3M™ Prepsolvent-70

General Applicability

Applicable to Scion tC only. Use with tire size 225/40R18 PT533-21070 (tC)
--

Recommended Sequence of Application





Item #	Accessory
1	Alloy Wheel
2	Wheel Lock

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req.	Description

Legend

	STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.
	OPERATOR SAFETY: Use caution to avoid risk of injury.
	CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.
	TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

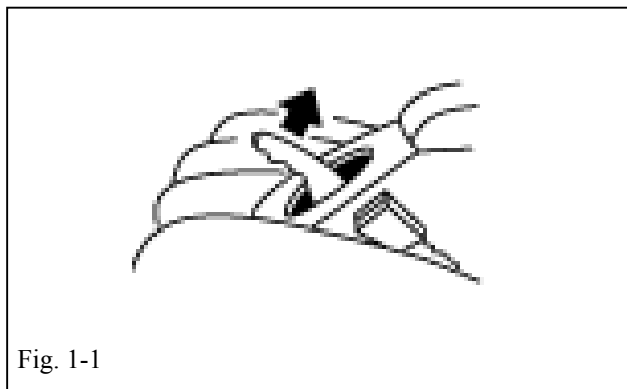
These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

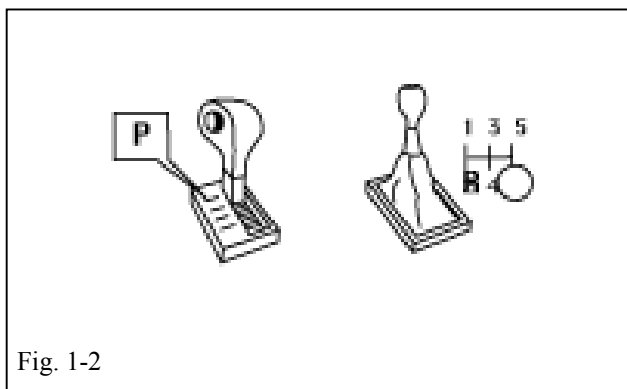
- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.

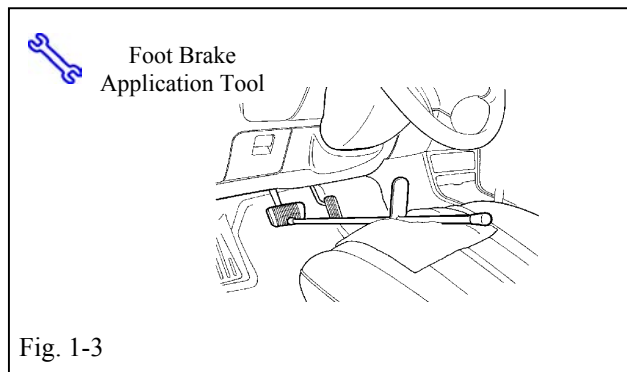
1. Vehicle Preparation.



(a) Firmly apply parking brake (Fig. 1-1).

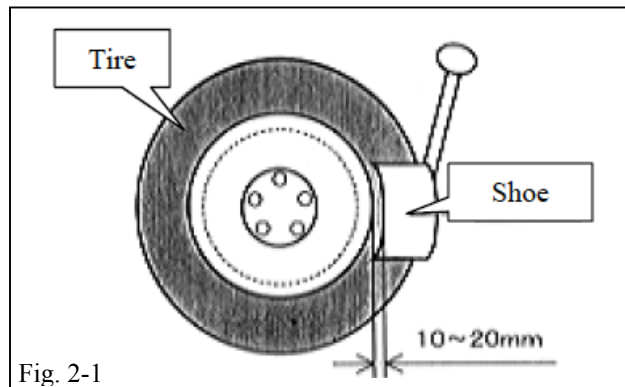
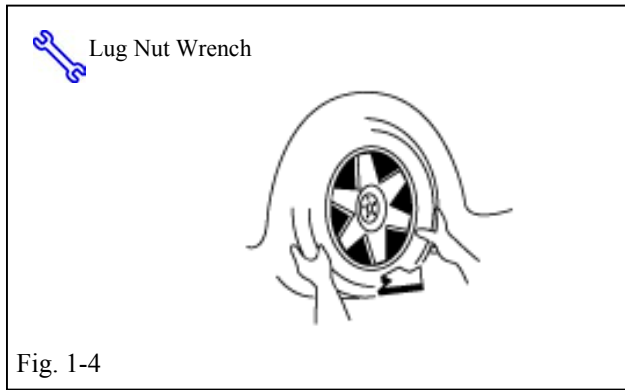


(b) Put transmission in "P" (automatic) or reverse (manual) (Fig. 1-2).



(c) Add seat protection (blanket) and apply foot brake using foot brake application tool (Fig. 1-3).

(d) Lift vehicle.



- +** (e) Remove OE wheel and tire assemblies from vehicle (Fig. 1-4). Wear safety glasses while removing wheels.

- (f) Save the center cap and lug nuts for later use.

2. Remove Tire Pressure Monitor Valve Sub-assembly.

- +** (a) Remove the valve core and release pressure from the tire.

- (b) Remove the nut and washer and retain for reinstallation later. Let the pressure sensor drop inside the tire.

- (c) Carefully separate the upper tire bead from the wheel rim. (Fig. 2-1).

STOP NOTE: Be careful not to damage the tire pressure monitor due to interference between the sensor and tire bead.

- (d) Remove the sensor from the tire and remove the bead on the lower side as in usual tire removal operation.

- (e) Dismount OE tire from the OE wheel.

3. Install Tire Pressure Monitor Valve Sub-assembly to Accessory Wheel.

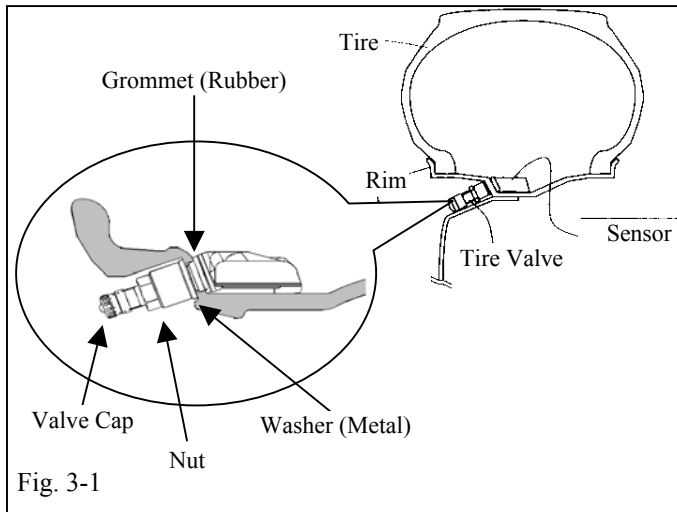
- (a) Visually check that there is no deformation or damage on the tire pressure monitor valve sub-assembly.

- (b) Check that the rim is clean.

- (c) Change the original grommet to a new one if the grommet is damaged.

STOP NOTE: Damaged grommet is NOT re-usable.

- (d) Check that the grommet, washer and nut are clean.



(e) Insert the tire pressure monitor valve sub-assembly into the valve installation hole from the inside of the rim and bring the valve stem to the outside. (Fig. 3-1).

(1) Insert the tire pressure monitor valve sub-assembly so that "PACIFIC" mark is visible.



NOTE: Incorrect orientation of pressure monitor sub-assembly may cause damage and prevent signal transmission during high-speed running.

(f) Install the washer and secure with the nut.



(1) Tighten the nut to 4.0 N-m (36 lbf-in).

4. Tire Mounting.

(a) Mount a new 18" tire on alloy wheel.

(b) Use tire lube on tire bead and bead location on wheel prior to mounting the tire.

(c) Position the wheel on the mounting machine with the sensor at ~ 7 o'clock position (shaded area in Fig. 4-1)

(1) Mount/dismount head is considered as 12 o'clock position.

(d) Mount the lower tire bead.



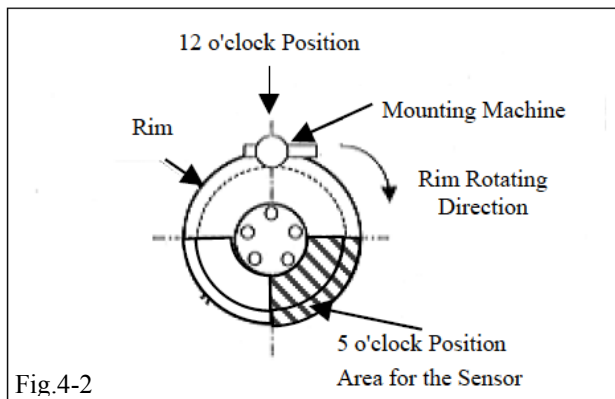
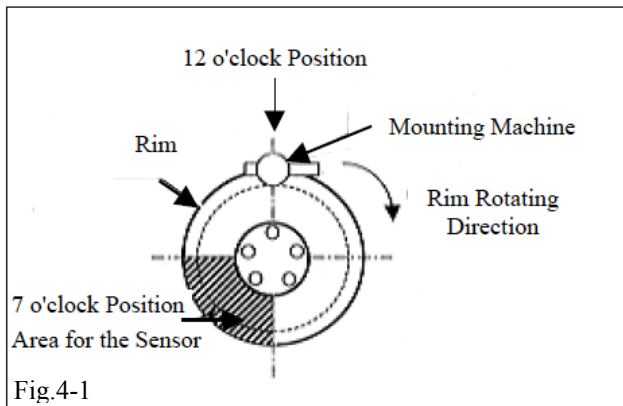
NOTE: If the sensor is positioned outside this area, it generates interference with the tire bead, causing possible damage to the sensor.


(e) Re-position the wheel on the mounting machine with the sensor at ~ 5 o'clock position (shaded area in Fig. 4-2).


(f) Mount upper tire bead.

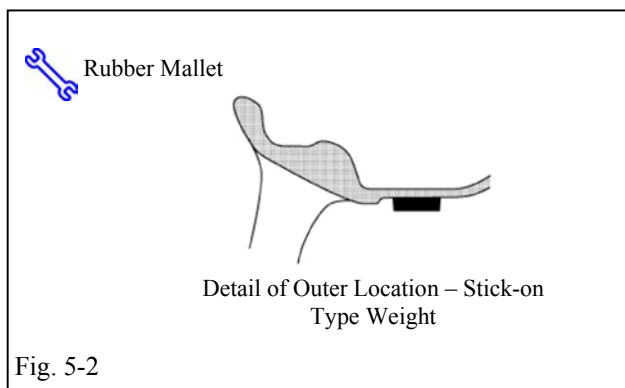
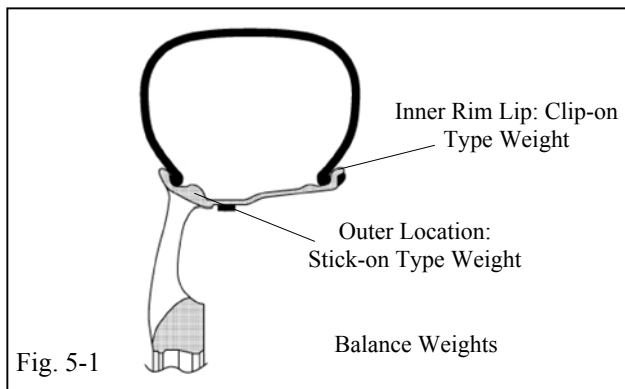


NOTE: Make sure that the tire bead and tool do not interfere with the main body of the sensor and the bead does not clamp the sensor.



-  (g) To seat tire bead, inflate tire beyond 33 PSI but not more than the maximum tire bead seat pressure indicated on the tire sidewall. If it is not indicated use 40 PSI as a limit. If tire bead is not seated when pressure registers 40 PSI, deflate the tire and re-inflate to seat the bead. Regulate tire pressure to owners manual value.

-  (h) After inflating the tire, re-tighten the nut of tire pressure monitor valve sub-assembly to 4.0 +/- 0.6 N-m (36 +/- 5.3 lbf-in)



5. Wheel Balancing.

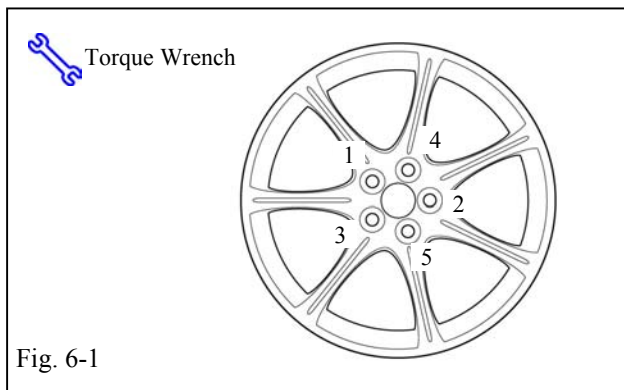
NOTES: Application temperature for stick-on type weight: above 10°C (50°F). It is good practice to apply the stick-on type weights in sections comprising no more than 5 or 6 individual weight segments. This wheel requires stick-on weight on outer and clip-on weight on inner rim for correct balancing.

- (a) Mount wheel/tire on wheel balance machine and balance in **DYNAMIC MODE with LOAD ROLLER ENABLED**. If applicable (enabling the load roller ensures proper bead seating.) Use clip-type balance weights on the inner rim lip and stick-on type weights at outer location. (Fig. 5-1 & Fig. 5-2).
- (b) Prior to mounting stick-on type weight, wipe down the wheel weight mounting location on wheel with a clean lint-free dry cloth. Ensure that location is clean and dry. Apply stick-on weights at perimeter location identified by dynamic balance machine as shown. Use rubber mallet, if required, to achieve complete adhesion of stick-on type weight.

NOTES: Maximum clip-on type weight on inner lip is 80 g. Maximum stick-on type weight at outer location is 98 g. If removal and replacement of stick type weight is necessitated,

then remove the weights using a nylon removal tool. Clean the surface with clean cloth using 3M™ Prepsolvent-70. Wipe the surface dry before re-applying a new weight. **(DO NOT RE-USE STICK-ON WEIGHTS.)**

- (c) Re-spin the wheel on the machine with LOAD ROLLER DISABLED (if applicable) and note the indicated remainder unbalance. The maximum permitted unbalance is 8 g at inner lip and 8 g at outer location.



- (a) Install wheel/tire assembly on vehicle. Hand start the lug nuts. Tighten (snug up) the lug nuts in sequence 1 through 5. (Fig. 6-1)

NOTES: Reuse the lug nuts removed from -step 1(e).

- (1) Ensure that the socket does not scuff the wheel.



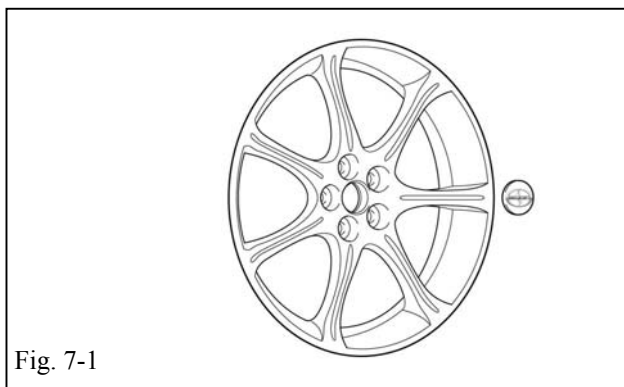
- (2) Tighten to 76 lbf-ft (103 N-m) using a torque wrench.



- (b) Lower the vehicle.



- (c) Tire pressure should be adjusted to the value recommended in the owner's manual for this vehicle. Install valve stem cap.



7. Center Cap Installation.



- (a) Install center caps on wheels. Gently push cap into wheel until cap snaps into place. (Fig. 7-1)

8. Resetting Tire Pressure Monitoring System.

- (a) Turn ignition switch to ON.
- (b) Check that the low tire pressure warning light blinks (twice per second.)

(c) Push and hold the tire pressure warning reset switch (in glove box) for at least 0.5 seconds, until the warning light blinks 3 times (once every two seconds.)

(d) Make sure warning light switches off.

NOTE: If the warning light does not blink, release the reset switch and press again.

9. Tire Pressure Label.

(a) The tire pressure label is available from MDC, P/N 00107-00382.

10. Customer Care Card.



(a) Place the customer care card in the glove box.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

Accessory Function Checks

☐ Inspect Lug Nuts



☐ Lug Nut Tightness



☐ Correct Tire Pressure

☐ Label Placement

Look For:

Five lug nuts must be installed on each wheel

Lug nuts have been installed at a torque of 76 lbf-ft (103 N-m). Verify process only. Check torque during installation

Verify tire pressure is: - owner's manual value \pm 2 PSI.

Correct label is affixed over the OE label. New label completely covers the OE label.

Part Number: PT398-21070

NOTE: Part number of this accessory may not be the same as the part number shown.

Kit Contents

Item #	Quantity Req'd.	Description
1	1	V5 Harness
2	1	GBS ECU

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1	V5 Security ECU
2	1	ECU Mounting Bracket (For V5 ECU and GBS ECU)
3	1	Status Monitor
4	2	Bolts
5	1	Foam Tape Strip (1pcs)
6	40	Wire Ties
7	2	Splicing Connector
8	2	Warning Labels
9	1	Owner's Manual
10	1	Warranty Card

Additional Items Required For Installation

Item #	Quantity Req'd.	Description

Conflicts

Note: Do not install in vehicles with factory security

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Safety Gloves	Optional
Vehicle Protection	Blankets, Part Boxes
Special Tools	Notes
Striker Tool (PPO only)	CAD-E IADS P/N ALL 02-016-01
Wiring Terminal Tool (PPO only)	CAD-E IADS P/N ALL 02-016-03
Installation Tools	Notes
Screwdriver	Phillips Head, #2
Wrench	10 mm
Socket	10 mm
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST #00002-06001-01
Side Cutter	
Screwdriver	Flat Blade, Small
Screwdriver	Jeweler's
Torque Wrench	4.1N·m (36lbf·in)
Pliers	
Pick Tool	

Special Chemicals	Notes
Glass Cleaner	Household Windex

General Applicability

Note: tC with factory keyless entry system, only.

Recommended Sequence of Application

Item #	Accessory
1	Security
2	Satellite Receiver
3	Audio
4	EC Mirror

*Mandatory

Vehicle Service Parts (may be required for reassembly)

Item #	Quantity Req'd.	Description
1		
2		
3		

Legend



STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.



OPERATOR SAFETY: Use caution to avoid risk of injury.



CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle.



TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

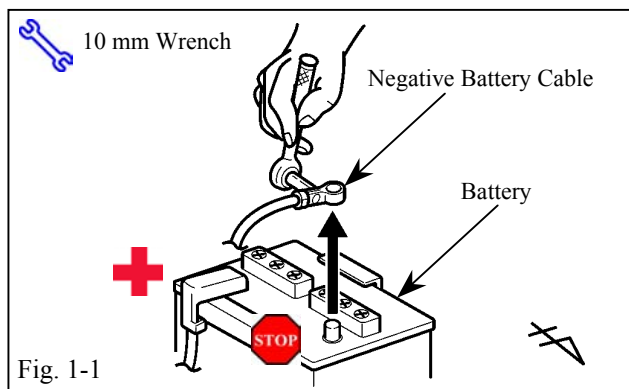
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This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.

1. Vehicle Disassembly.

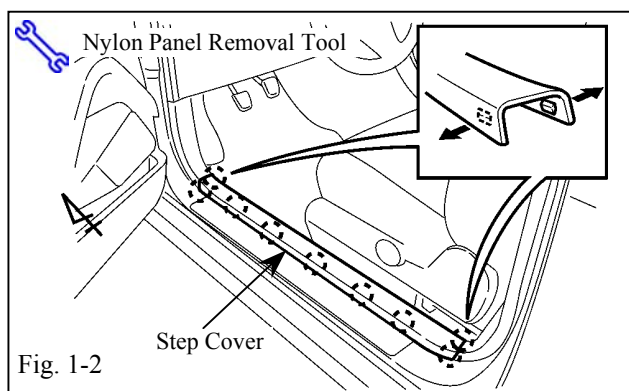


- (a) Take note of the battery cable installation position, as this will need to be re-installed in the same position after installation completion.

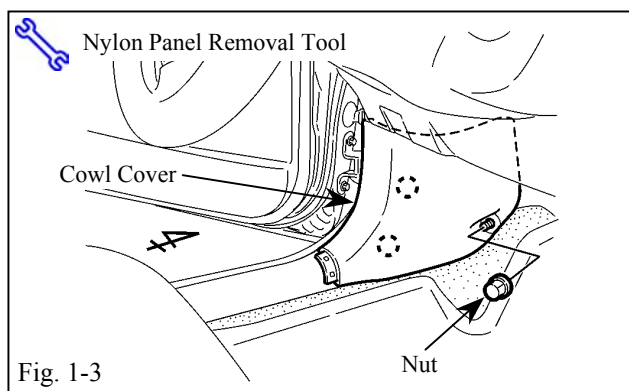
- (b) Remove the negative battery cable. (Fig. 1-1)

- (1) For vehicles equipped with automatic transmission, place the shifter in the N (neutral) position and set the parking brake prior to disconnecting the battery.

- (2) Do not touch the positive terminal with any tool when removing cable.

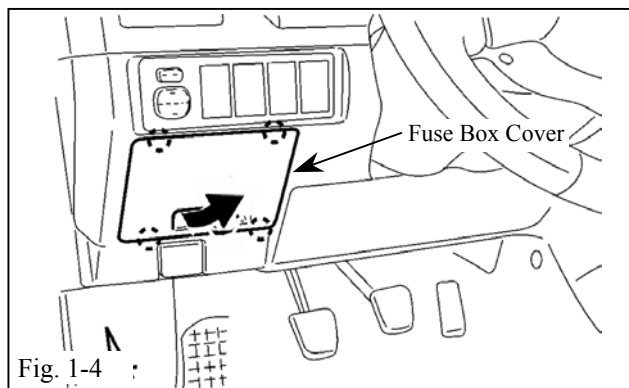


- (c) Remove the driver's step cover. (Fig. 1-2)



- (d) Remove the driver's cowl cover. (Fig. 1-3)

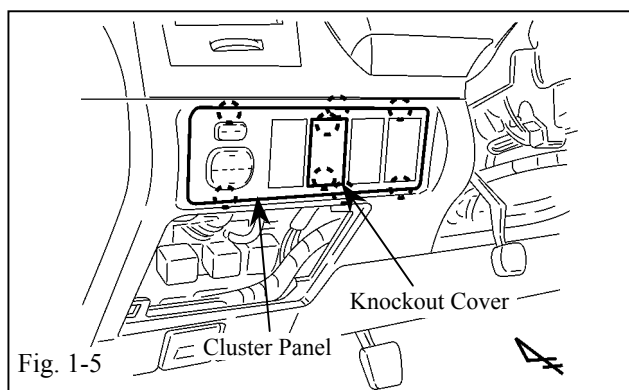
- (1) Remove the one nut securing the cowl cover.



(e) Remove the fuse box cover. (Fig. 1-4)



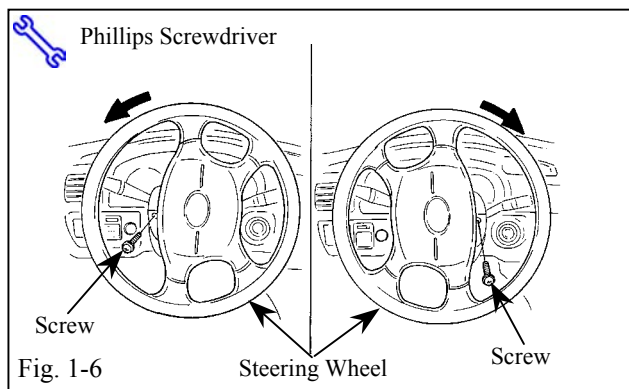
(1) Take care not to damage the two upper tabs.



(f) Remove the cluster panel. (Fig. 1-5)

(1) Reach through the fuse box opening, then push out the cluster panel from the backside.

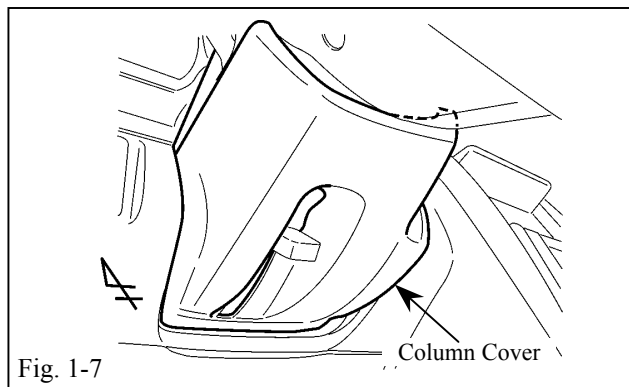
(g) Remove the knockout cover in the cluster panel, third space from the right. (Fig. 1-5)



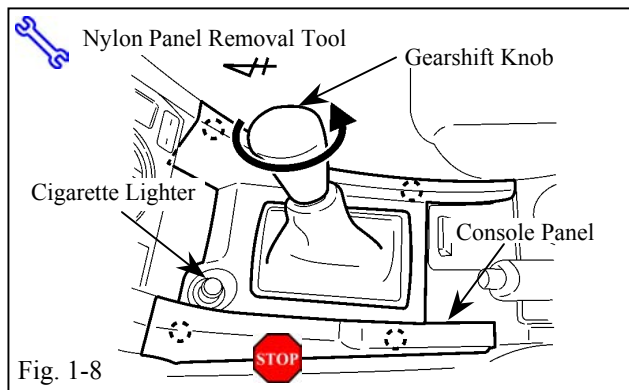
(h) Remove two screws securing the lower steering column cover behind the steering wheel. (Fig. 1-6)

(1) Insert the key into the ignition switch and turn it to ON to unlock the steering wheel.

(2) Turn the steering wheel left and right to gain access to the screws.



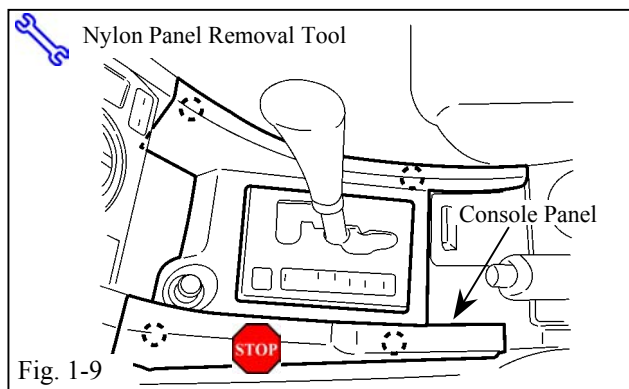
(i) Remove the lower steering column cover. (Fig. 1-7)



FOR MANUAL TRANSMISSION MODELS ONLY.
(Step j)

(j) Remove the gearshift knob, then loosen the console panel. (Fig. 1-8)

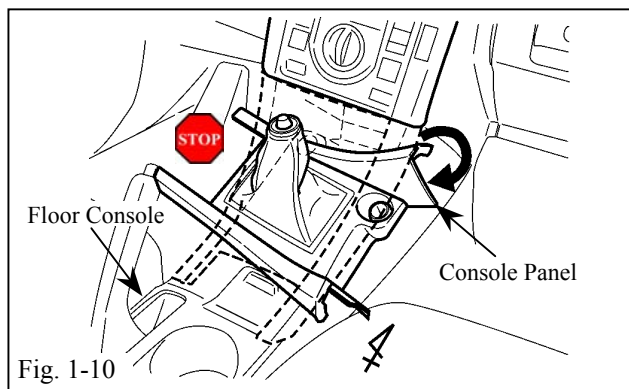
(1) Do not remove the clip securing the cigarette lighter harness.



FOR AUTOMATIC TRANSMISSION MODELS ONLY. (Step k)

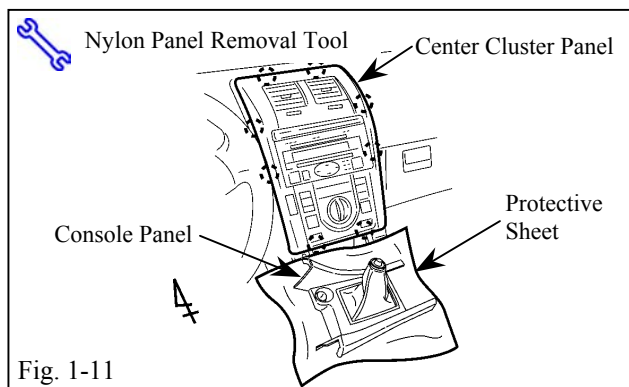
(k) Loosen the console panel. (Fig. 1-9)

(1) Do not remove the clip securing the cigarette lighter harness.



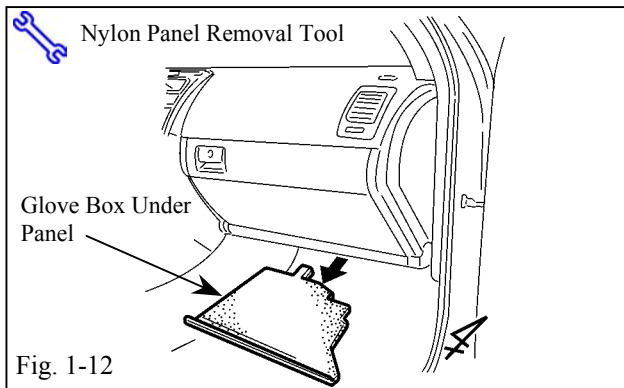
(l) Lightly lift up the console panel, and then turn the console panel clockwise as shown. (Fig. 1-10)

(1) Cover the floor console with blanket (protective sheet). (Fig. 1-11)

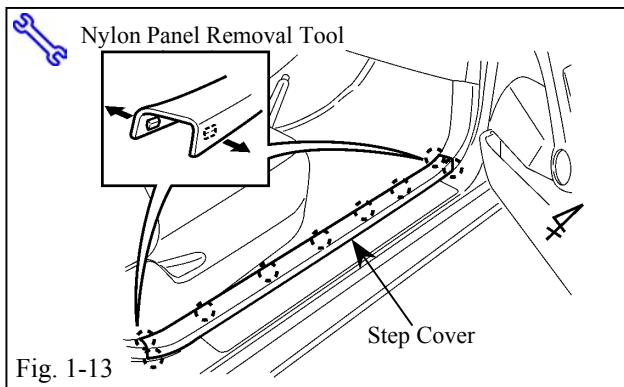


(m) Remove the center cluster panel. (Fig. 1-11)

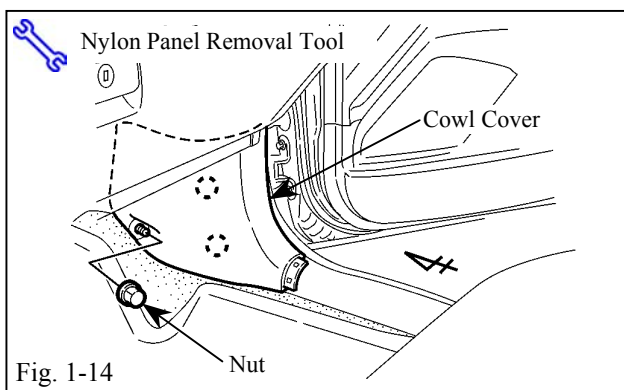
(1) Disconnect one (1) connector.



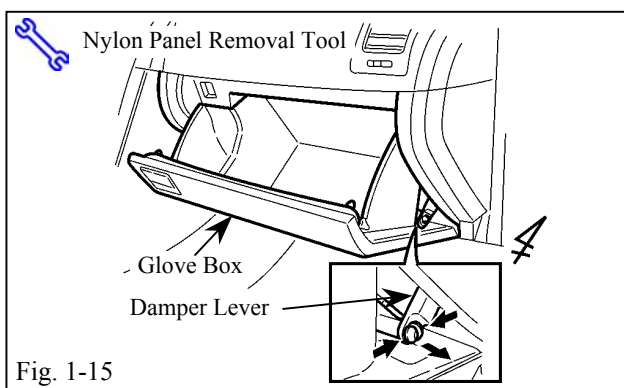
- (n) Remove the glove box under panel.
(Fig. 1-12)



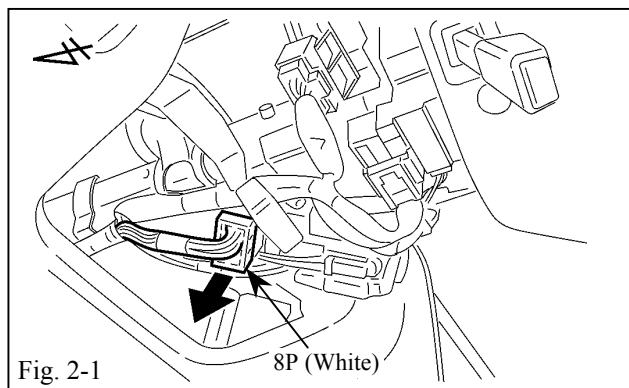
- (o) Remove the passenger's step cover.
(Fig. 1-13)



- (p) Remove the passenger's cowl cover.
(Fig. 1-14)
- (1) Remove the one nut securing the cowl cover.

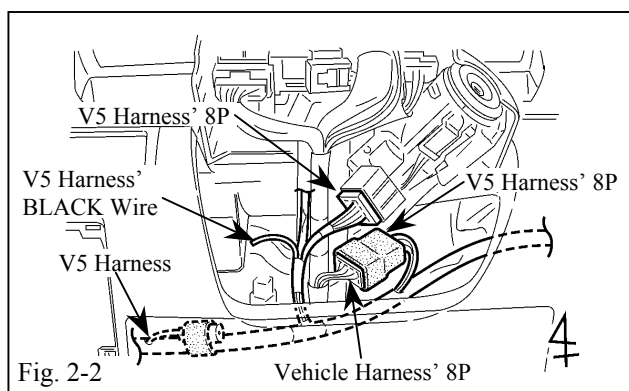


- (q) Remove the glove box assembly. (Fig. 1-15)
- (1) Release the damper lever.

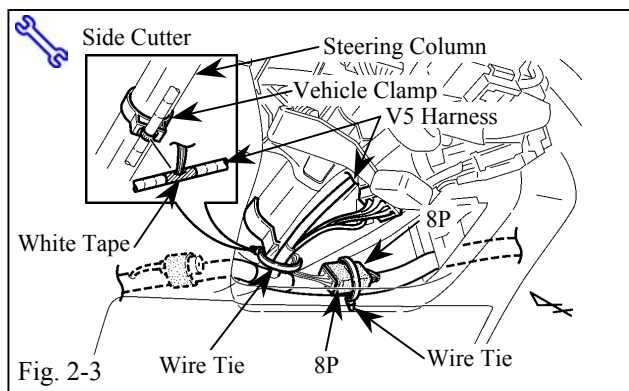


2. V5 Wire Harness Installation. (Steering Column Area)

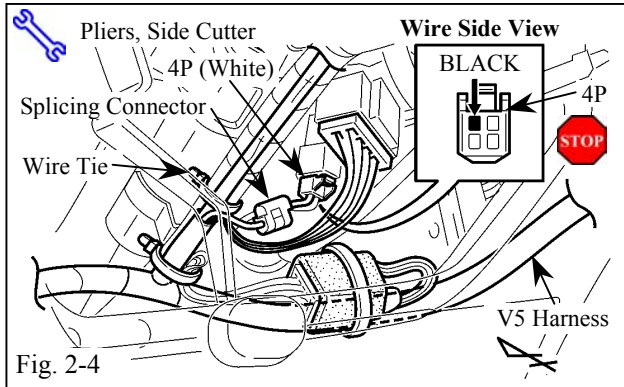
- (a) Locate and disconnect the white 8P connector from the ignition switch area. (Fig. 2-1)



- (b) Plug in the V5 harness' white 8P connectors between the vehicle harness' 8P connector and the ignition switch. (Fig. 2-2)
 - (1) Verify the connectors are plugged in securely.



- (c) Secure the V5 harness to the vehicle harness with one wire tie. (Fig. 2-3)
 - (1) Ensure the wire tie is secured at the vehicle clamp where the harnesses meet.
- (d) Secure the 8P connectors (vehicle and V5 harness) to the V5 harness with one large wire tie on the right side of the steering column. (Fig. 2-3)



FOR AUTOMATIC TRANSMISSION MODELS ONLY. (Steps e – f)

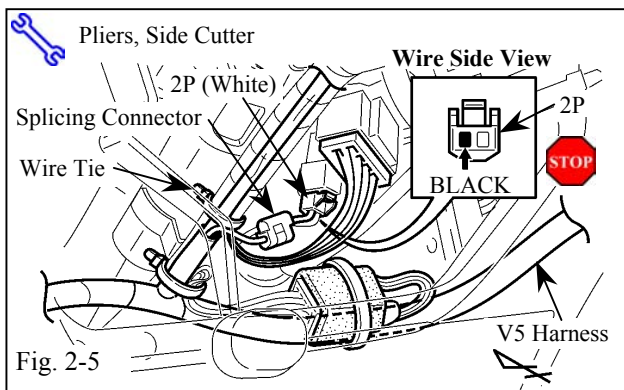
(e) In the ignition switch area, locate the white 4P connector's BLACK wire (top row, first space from the left). Attach the V5 harness' BLACK wire with a splicing connector. (Fig. 2-4)

(1) Turn the connector so the wires face you and the tab is on top.

(2) Verify the correct wire is chosen for splicing.

(3) Verify the splicing connector is applied properly.

(f) Route the V5 harness upward along the steering column, then secure it to the vehicle harness with one wire tie. (Fig. 2-4)



FOR MANUAL TRANSMISSION MODELS ONLY. (Steps g –h)

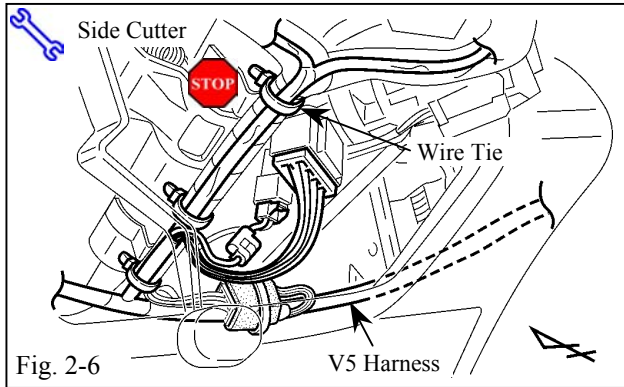
(g) Locate in the ignition switch area the white 2P connector's BLACK wire in the first space from the left, and attach the V5 harness' BLACK wire with a splicing connector. (Fig. 2-5)

(1) Turn the connector so the wires face you and the tab is on top.

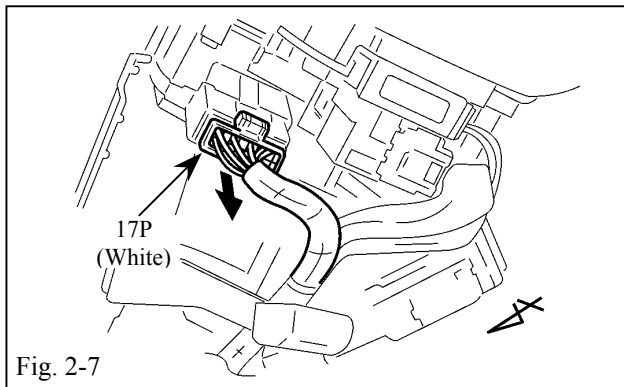
(2) Verify the correct wire is chosen for splicing.

(3) Verify the splicing connector is applied properly.

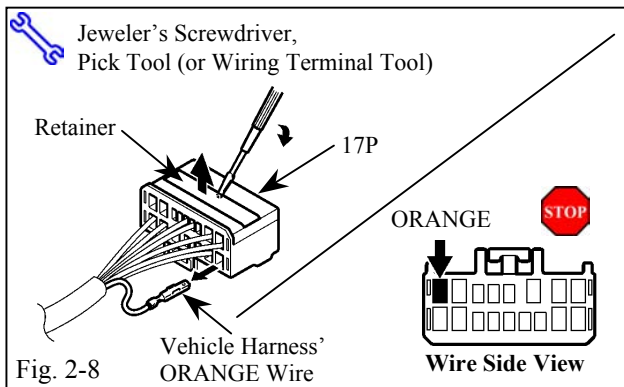
(h) Route the V5 harness upward along the steering column, then secure it to the vehicle harness with one wire tie. (Fig. 2-5)



- (i) Loosely secure the V5 harness to the vehicle harness with one wire tie below the steering column. (Fig. 2-6)



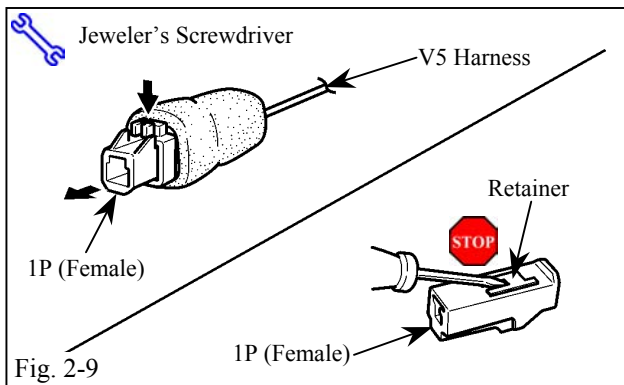
- (j) Locate and disconnect the white 17P connector from the steering column area. (Fig. 2-7)



- (k) Use a small jeweler's screwdriver to lift up the terminal retainer on the back of the 17P connector. (Fig. 2-8)
- (l) Locate the ORANGE wire in the top row, first space from the left. Using a pick (or wiring terminal tool (PPO)), release and pull out the terminal for the ORANGE wire. (Fig. 2-8)

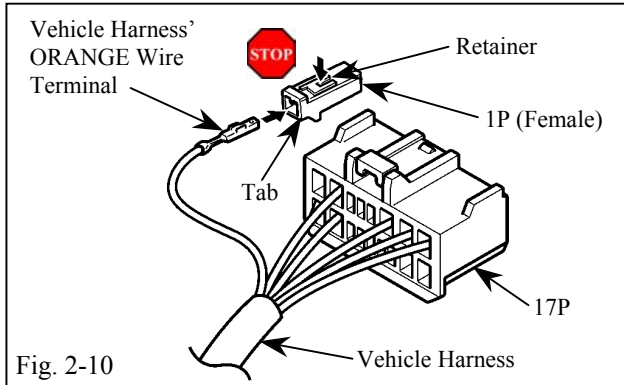
(1) Turn the connector so the wires face you and the tab is on top.

(2) Verify the correct wire is chosen.



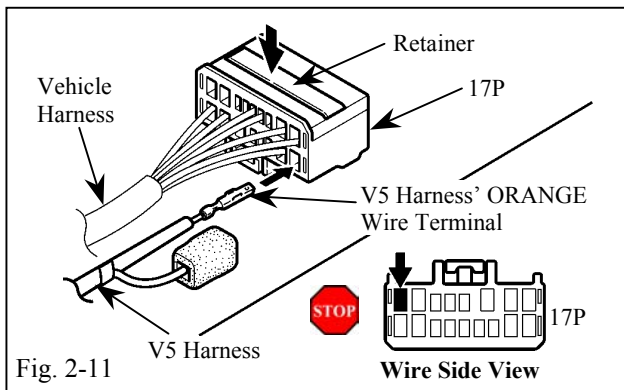
- (m) Disconnect the empty 1P female connector plugged into the V5 harness. Using a small jeweler's screwdriver, lift up the terminal retainer on the back of the empty connector. (Fig. 2-9)

(1) Do not pull out the retainer.



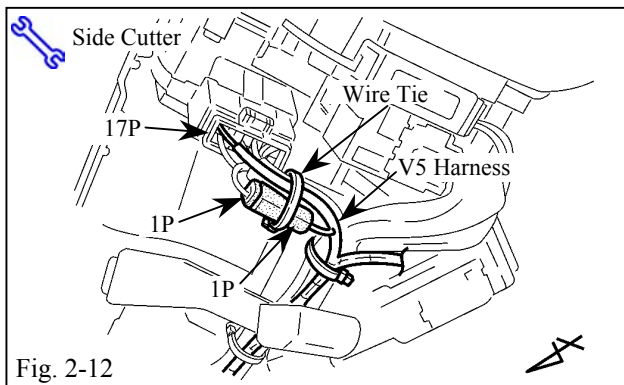
- (n) Insert the terminal at the end of the vehicle harness' ORANGE wire into the opening of the empty 1P connector, then close the retainer. (Fig. 2-10)

(1) The terminal should not come out when pulled lightly from the back. If it does, push it in again.

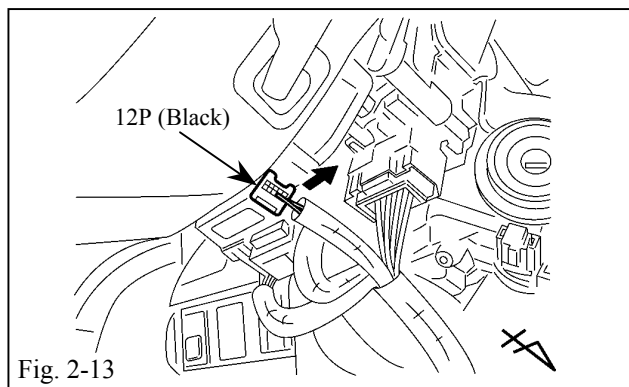


- (o) Insert the terminal at the end of the V5 harness' ORANGE wire into the top row, first space from the left of the vehicle harness' 17P connector, then close the retainer. (Fig. 2-11)

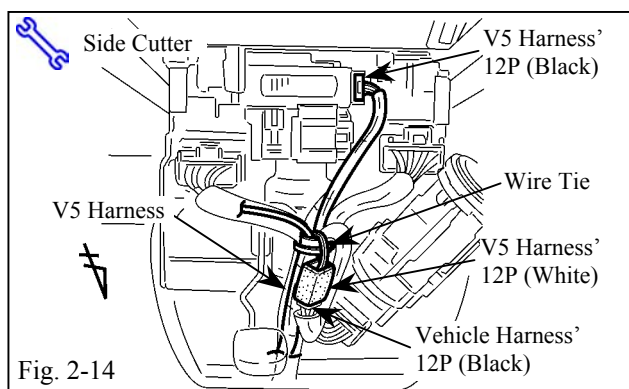
- (1) Turn the connector so the wires face you and the tab is on top.
- (2) Verify the correct wire is chosen.
- (3) Verify the terminal is inserted and seated properly.
- (4) The terminal should not come out when pulled lightly from the back. If it does, push it in again, until securely seated.



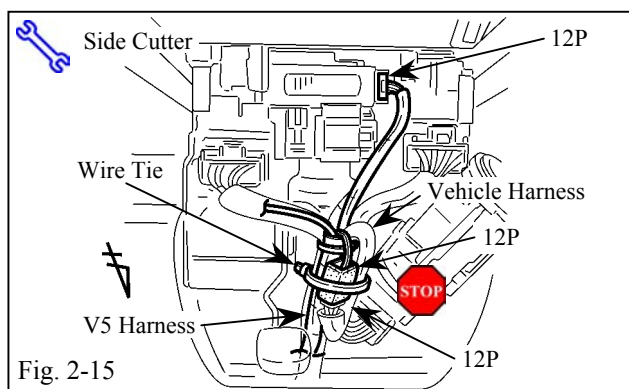
- (p) Plug in the 1P connectors, and then reconnect the 17P connector. Secure the 1P connectors and the V5 harness to the vehicle harness with one wire tie. (Fig. 2-12)



- (q) Locate and disconnect the black 12P connector from the steering column area. (Fig. 2-13)

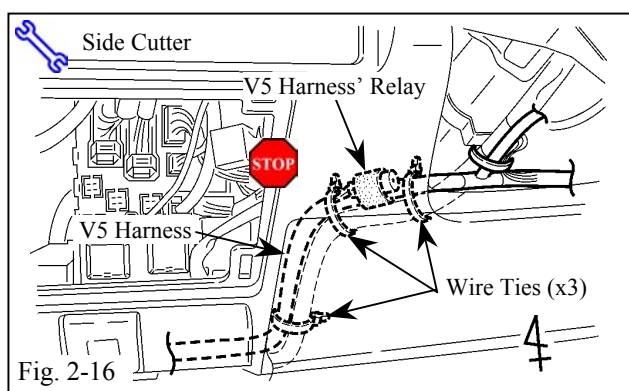


- (r) Plug in the V5 harness' black 12P connectors between the vehicle harness' black 12P connector and the steering column area. Secure the wire tie previously installed below the steering column. (Fig. 2-14)

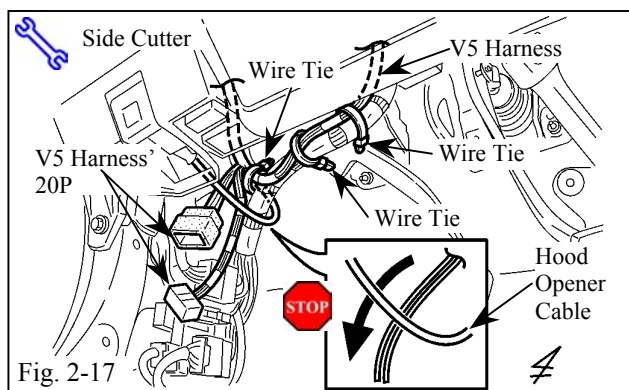


- (s) Secure the 12P connectors to the V5 harness with one wire tie. (Fig. 2-15)

- (1) Arrange the V5 harness' 12P connectors on the right side of the V5 harness as shown.
- (2) Ensure the connectors do not interfere with the steering column adjustment lever.

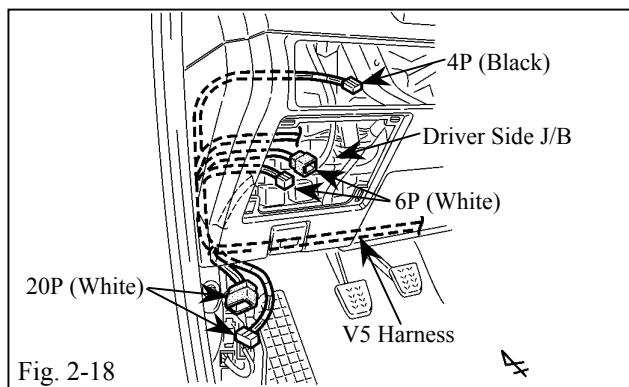


- (t) Route the V5 harness toward the bottom of the driver side J/B, then secure it to the vehicle harness with three wire ties. (Fig. 2-16)
- (1) Route the V5 harness away from any moving parts such as levers.

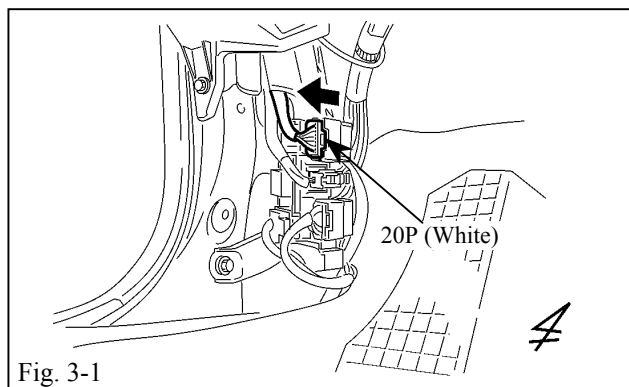


- (u) Route the V5 harness toward the driver side cowl area, then secure it to the vehicle harness with three wire ties in the bottom of the driver side J/B. (Fig. 2-17)

- (1) Route the V5 harness between the dashboard and the hood release cable.

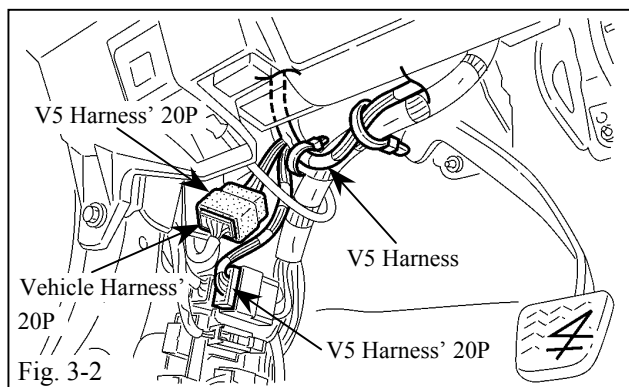


- (v) Route the V5 harness to the driver side J/B area as shown. (Fig. 2-18)

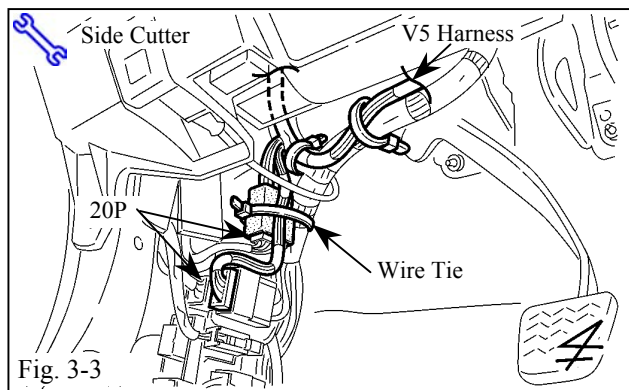


3. V5 Wire Harness Installation. (Driver Side Cowl Area)

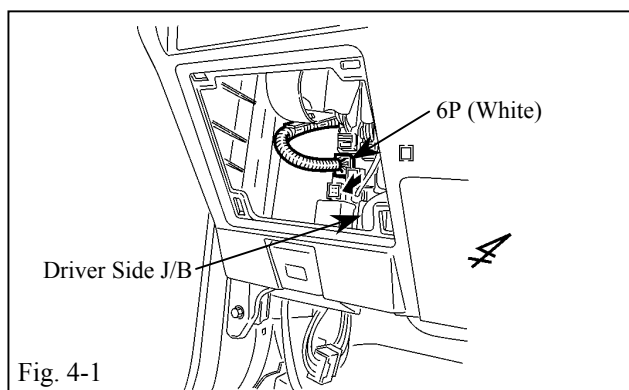
- (a) Locate and disconnect the white 20P connector from the driver side cowl area. (Fig. 3-1)



- (b) Plug in the V5 harness' white 20P connectors between the vehicle harness' 20P connector and the driver side cowl area. (Fig. 3-2)
- (1) Verify the connectors are plugged in securely.

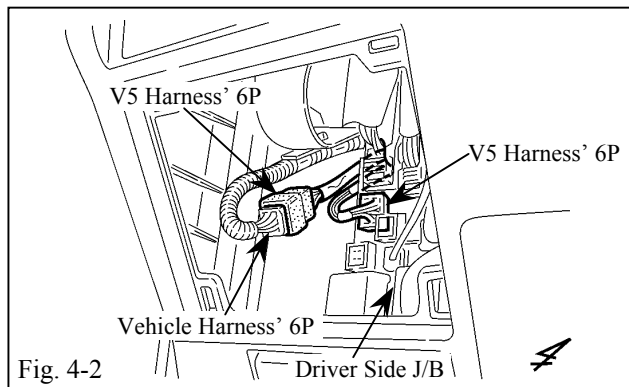


- (c) Secure the 20P connectors and the V5 harness to the vehicle harness with one wire tie. (Fig. 3-3)



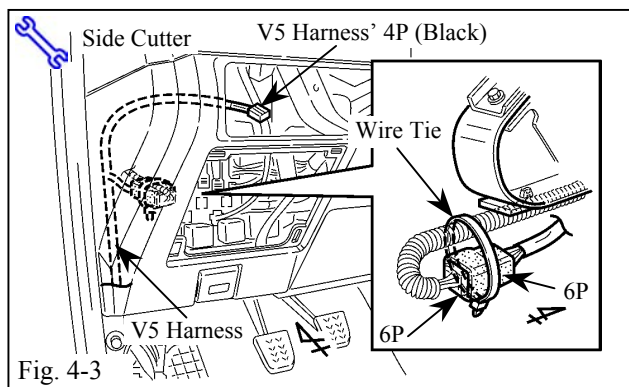
4. V5 Wire Harness Installation. (Driver side J/B area)

- (a) From the fuse box opening, locate and disconnect the white 6P connector from the left side of the driver side J/B. (Fig. 4-1)

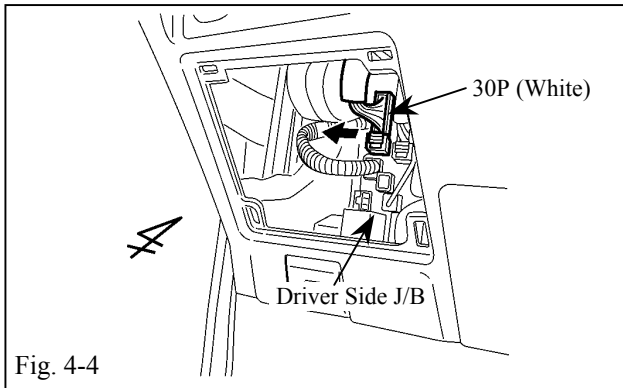


- (b) Plug in the V5 harness' white 6P connectors between the vehicle harness' 6P connector and the driver side J/B. (Fig. 4-2)

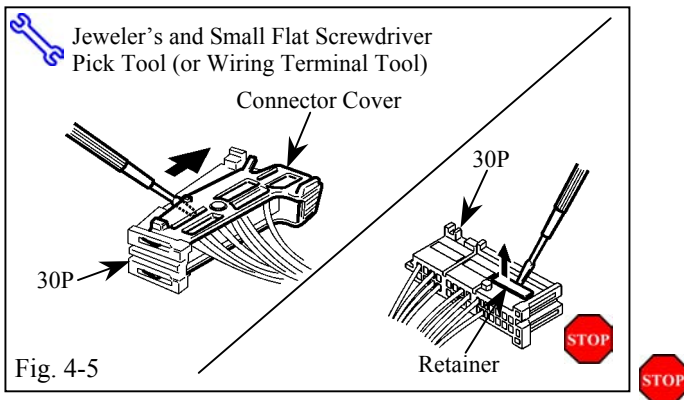
- (1) Verify the connectors are plugged in securely.



- (c) Secure the 6P connectors to the vehicle harness with one wire tie, near the vehicle harness' clamp. (Fig. 4-3)

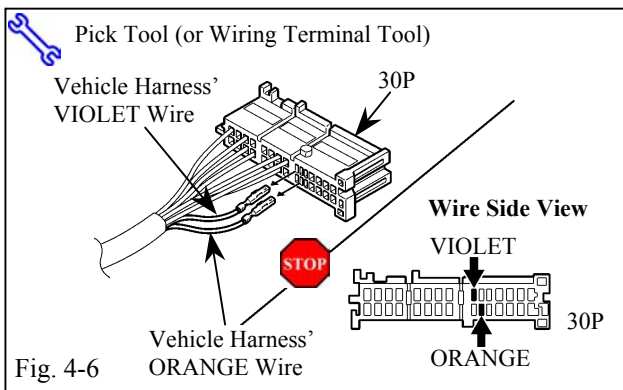


- (d) From the fuse box opening, locate and unlock the white 30P connector from the upper left side of the driver side J/B, then disconnect it. (Fig. 4-4)

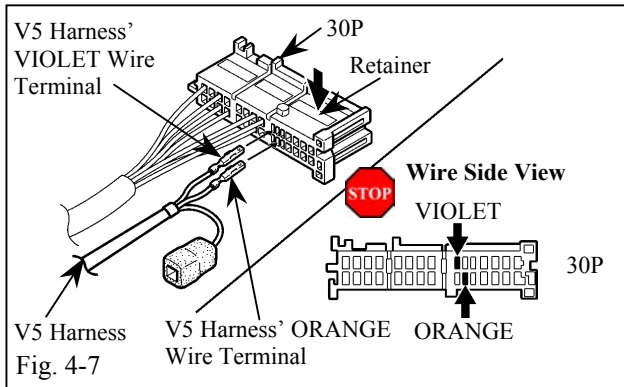


- (e) Using a small flat screwdriver, lift up and slide the 30P connector's black lock cover to remove it. (Fig. 4-5)
- (f) Using a small jeweler's screwdriver or pick tool, lift the long terminal retainer on the 30P connector. (Fig. 4-5)

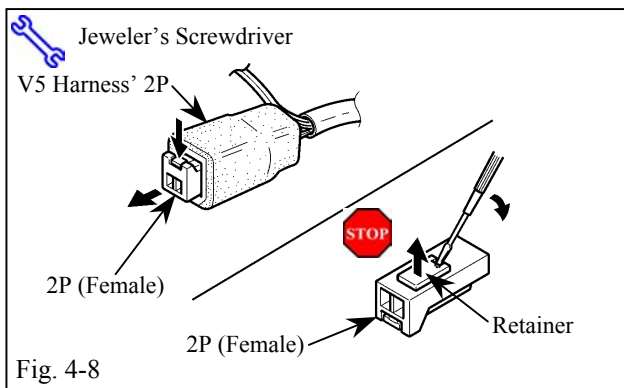
(1) Do not pull out the retainer.



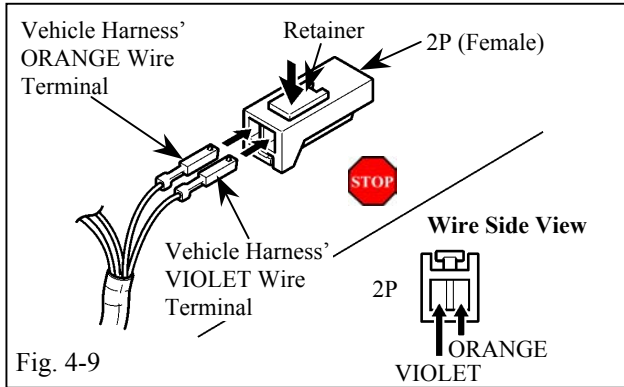
- (g) Locate the VIOLET wire in the top row, nine spaces from the left. Using a pick (or wiring terminal tool (PPO)), release and pull out the terminal for the VIOLET wire. (Fig. 4-6)
- (h) Locate the ORANGE wire in the bottom row, ten spaces from the left. Using a pick (or wiring terminal tool (PPO)), release and pull out the terminal for the ORANGE wire. (Fig. 4-6)



- (i) Insert the terminal at the end of the V5 harness' VIOLET wire into the top row, nine spaces from the left of the vehicle's harness 30P connector. (Fig. 4-7)
 - (j) Insert the terminal at the end of the V5 harness' ORANGE wire into the bottom row, ten spaces from the left of the vehicle harness 30P connector. (Fig. 4-7)
- (1) Verify the correct wire is chosen.
 - (2) Verify the terminal is inserted and seated properly.
 - (3) The terminal should not come out when pulled lightly from the back. If it does, push it in again until securely seated.
- (k) Close the long terminal retainer of the 30P connector. (Fig. 4-7)



- (l) Disconnect the empty 2P female connector plugged into the V5 harness. Using a small jeweler's screwdriver, lift the terminal retainer on the back of the empty connector. (Fig. 4-8)
- (1) Do not pull out the retainer.



(m) Insert the terminal at the end of the vehicle harness' VIOLET wire into empty 2P connector's left side opening. (Fig. 4-9)

(n) Insert the terminal at the end of the vehicle harness' ORANGE wire into the empty 2P connector's right side opening. (Fig. 4-9)

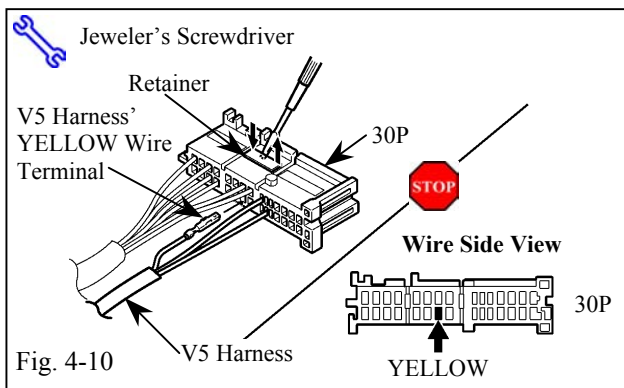
(1) Turn the connector so the wires face you and the tab is on top.

(2) Verify the correct wire is chosen.

(3) Verify the terminal is inserted and seated properly.

(4) The terminal should not come out when pulled lightly from the back. If it does, push it in again until securely seated.

(o) Close the retainer. (Fig. 4-9)



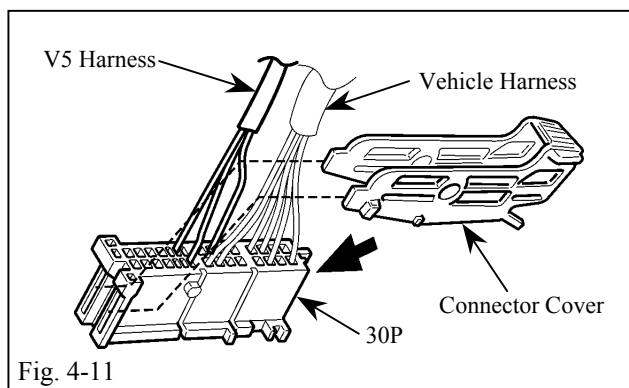
(p) Using a small jeweler's screwdriver, lift the center terminal retainer on the 30P connector. Then insert the terminal at the end of the V5 harness' YELLOW wire into the bottom row, seventh space from the left of the vehicle harness' 30P connector. (Fig. 4-10)

(1) Verify the correct wire is chosen.

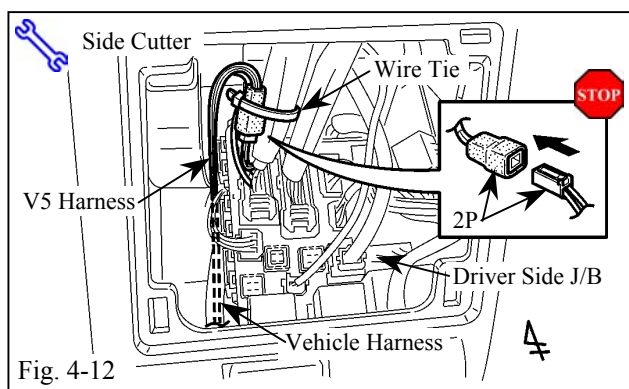
(2) Verify the terminal is inserted and seated properly.

(3) The terminal should not come out when pulled lightly from the back. If it does, push it in again until securely seated.

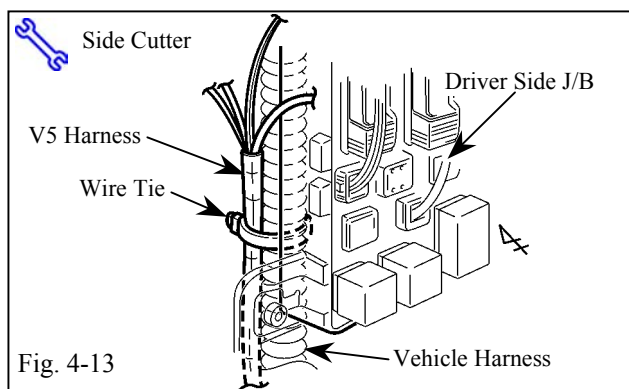
(q) Close the center terminal retainer of the 30P connector. (Fig. 4-10)



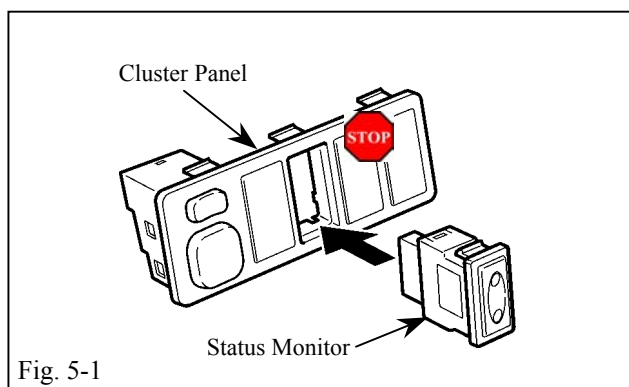
- (r) Refit the 30P connector's lock cover.
(Fig. 4-11)
- (s) Reconnect 30P connector to the driver side J/B.



- (t) Plug the V5 harness' 2P male connector into the V5 harness' 2P female connector.
(Fig. 4-12)
- (1) Verify the connectors are plugged in securely.
- (u) Secure the 2P connectors to the vehicle harness with one wire tie. (Fig. 4-12)

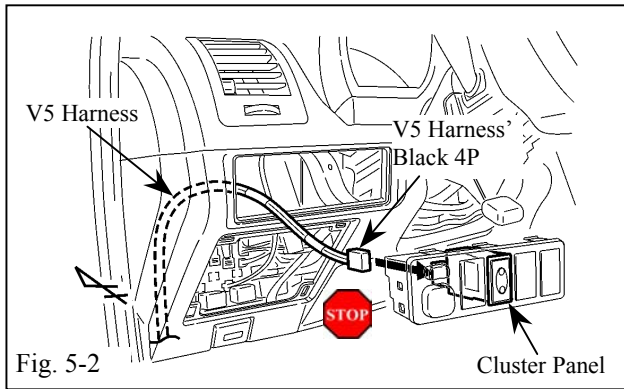


- (v) Secure the V5 harness to the vehicle harness behind the driver side J/B with one wire tie.
(Fig. 4-13)



5. Status Monitor Installation.

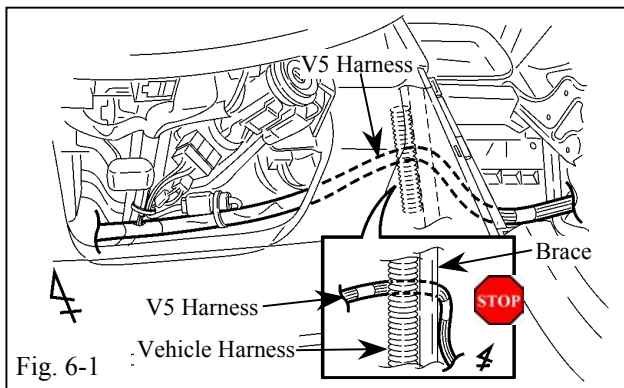
- (a) Insert the status monitor into the open knockout space of the cluster panel.
(Fig. 5-1)
- (1) Ensure the correct knockout space is chosen.



- (b) Connect the V5 harness' black 4P connector to the status monitor 4P connector.
(Fig. 5-2)

(1) Verify the connectors are plugged in securely.

- (c) Refit the cluster panel. (Fig. 5-2)

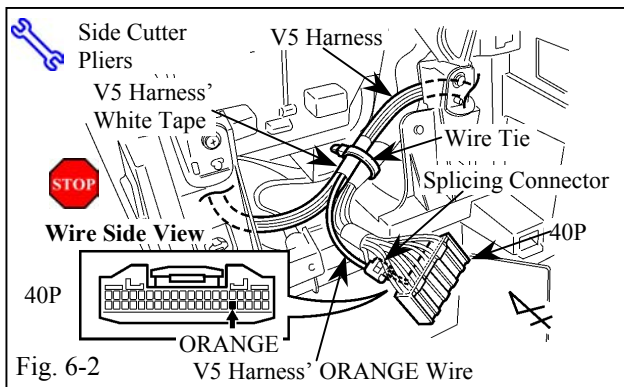


6. V5 Wire Harness Installation.

(From Steering Area to Center Console Area)

- (a) Route the V5 harness toward the center console area. (Fig. 6-1)

(1) Route the V5 harness through the opening space in front of the driver side brace as shown.



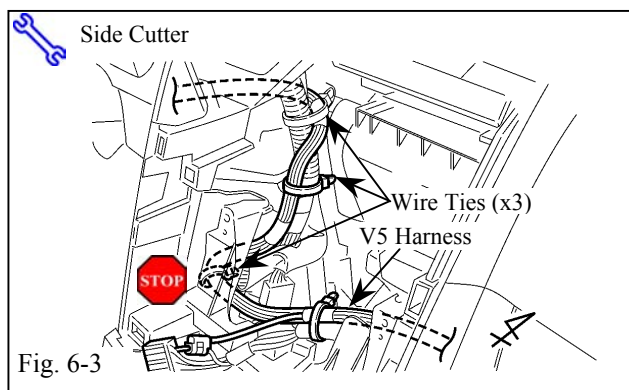
- (b) In the center console area, locate the white 40P connector's ORANGE wire (bottom row, sixteenth space from the left). Attach the V5 harness' ORANGE wire with a splicing connector. (Fig. 6-2)

(1) Turn the connector so the wires face you and the tab is on top.

(2) Verify the correct wire is chosen for splicing.

(3) Verify the splicing connector is applied properly.

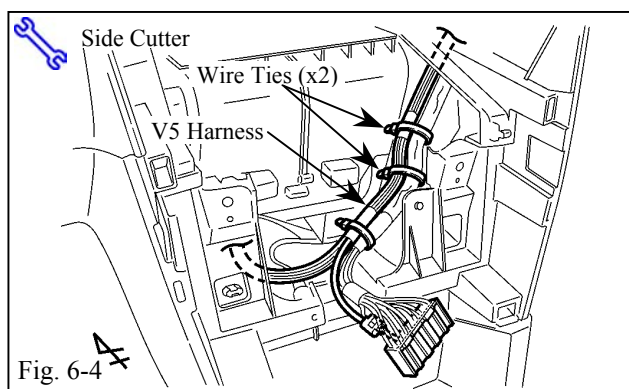
- (c) Locate the tape on the vehicle harness' 40P connector wires, then match it with the V5 harness' white taping. Secure the harnesses with one wire tie at the taping. (Fig. 6-2)



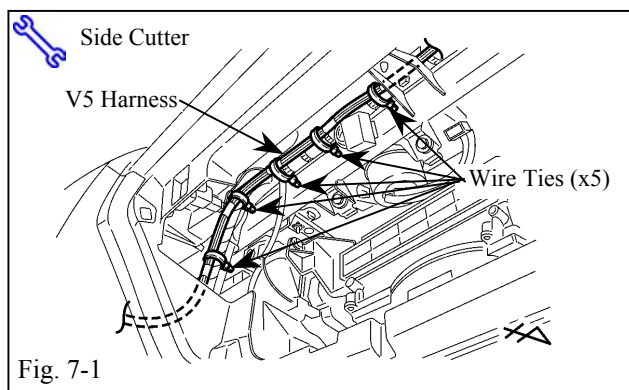
(d) Secure the V5 harness to the vehicle harness with three wire ties in the driver side center console area. (Fig. 6-3)



(1) Do not secure the V5 harness to the 10P and 6P connectors' harness with a wire tie.

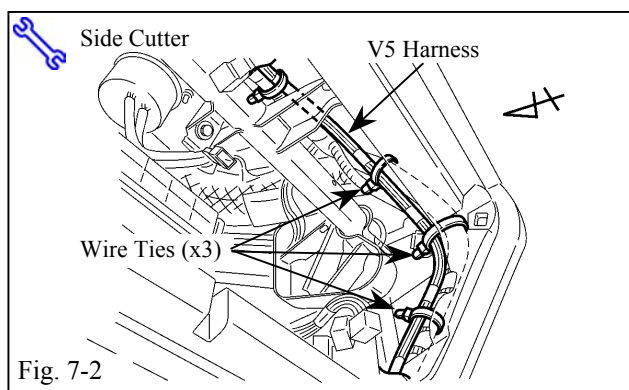


(e) Route the V5 harness toward the glove box area, then secure it to the vehicle harness with two wire ties in the passenger side center console area. (Fig. 6-4)

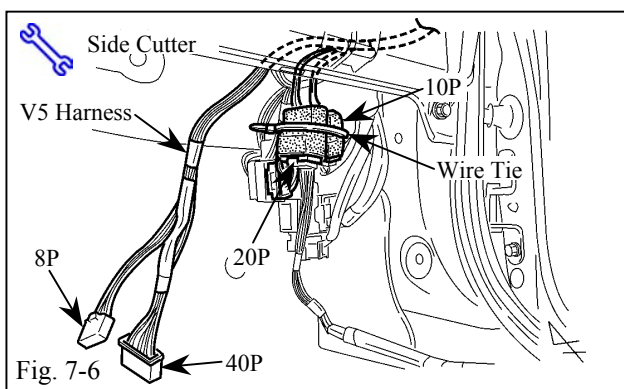
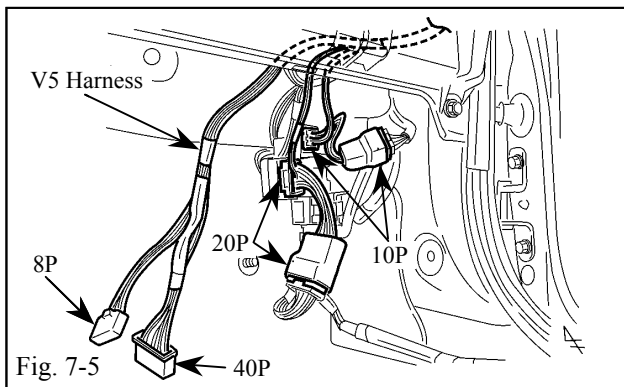
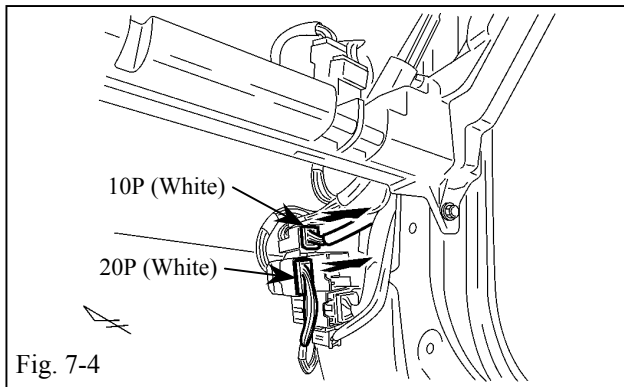
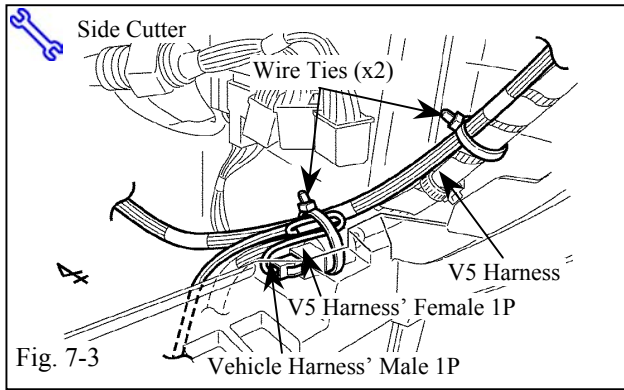


7. V5 Wire Harness Installation. (Passenger Side Area)

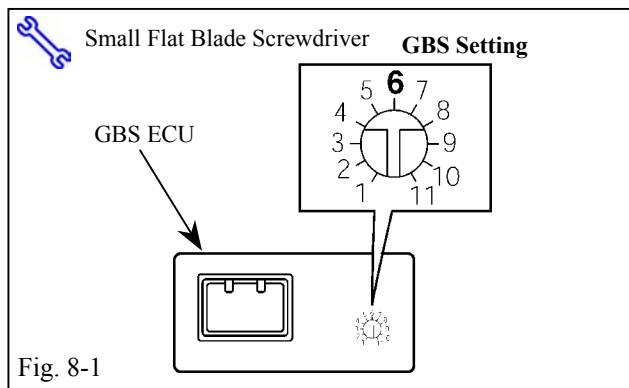
(a) Route the V5 harness to the glove box area, then secure it to the vehicle harness with five wire ties. (Fig. 7-1)



(b) Route the V5 harness through the glove box area, then secure it to the vehicle harness with three wire ties. (Fig. 7-2)

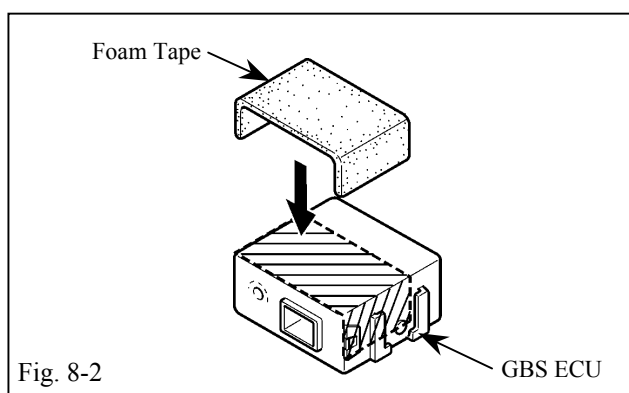


- (c) Locate the vehicle harness' white 1P connector above the passenger side cowl area. Plug the V5 harness' white 1P female connector into the vehicle harness' white 1P male connector. (Fig. 7-3)
- (d) Secure the V5 harness to the vehicle harness with one wire tie. (Fig. 7-3)
- (e) Secure the 1P connector and V5 harness to the vehicle harness with one wire tie. (Fig. 7-3)
- (f) Locate and disconnect the white 10P and white 20P connectors from the passenger side cowl area. (Fig. 7-4)
 - (1) If the 10P connector harness is secured to the vehicle harness with breakaway tape, then cut the breakaway tape.
- (g) Plug in the V5 harness' white 10P connectors between the vehicle harness' 10P connector and the passenger side cowl area. (Fig. 7-5)
 - (1) Verify the connectors are plugged in securely.
- (h) Plug in the V5 harness' white 20P connectors between the vehicle harness' 20P connector and the passenger side cowl area. (Fig. 7-5)
 - (1) Verify the connectors are plugged in securely.
- (i) Secure the V5 harness' 10P and 20P connectors to the vehicle harness with one wire tie. (Fig. 7-6)

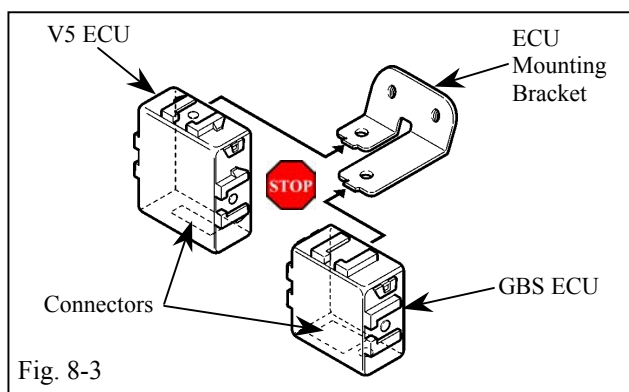


8. V5 ECU, GBS ECU Preparation and Installation.

- (a) Turn the adjustment screw on the GBS ECU to the “6” position. (Fig. 8-1)



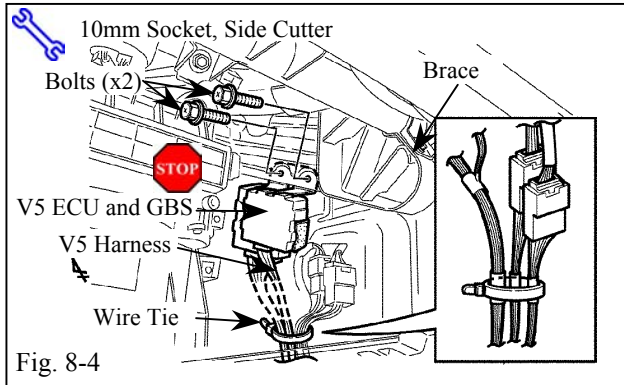
- (b) Attach one foam tape to the GBS ECU. (Fig. 8-2)



- (c) Insert the ECU mounting bracket into the indicated bracket slot on the V5 ECU and the indicated bracket slot on the GBS ECU. (Fig. 8-3)

- (1) Insert the mounting bracket into the correct ECU slot; you have only one chance to install it properly.

- (2) Ensure the bracket is firmly attached to each ECU.



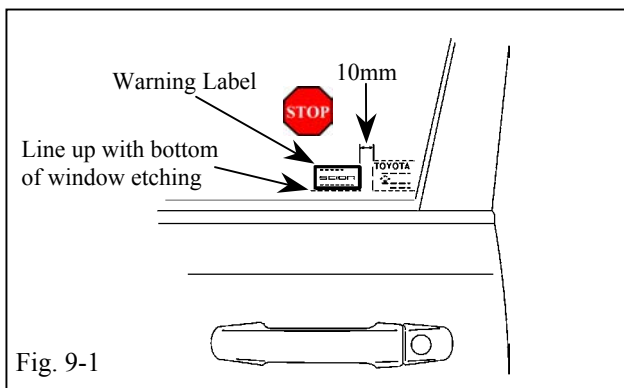
(d) Connect the V5 harness' 40P connector to the V5 ECU and 8P connector to the GBS ECU.

(e) Locate the two holes in the brace to the right side of the glove box area. Secure the V5 ECU and GBS ECU to the outside of the brace with two bolts supplied in kit. (Fig. 8-4)



(1) Verify the bolts are tightened and secured.

(f) Locate the V5 harness' black taping, and the white and gray connectors harness' black taping in the right side of the glove box area. Match those tapings and secure with one wire tie. (Fig. 8-4)



9. Warning Label Installation.

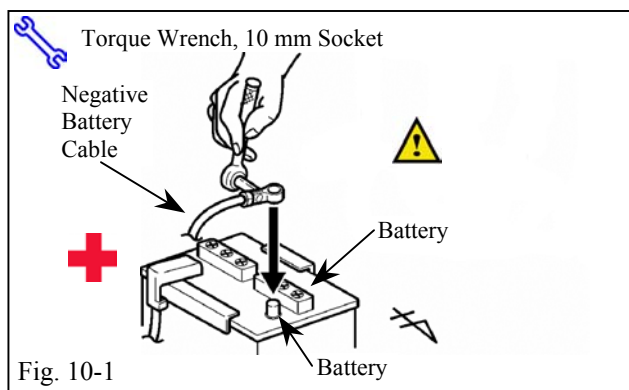
(a) Clean the inside surface of the front door's windows. (Fig. 9-1)

(b) Place the warning label on the inside surface of the front door's windows as shown. (Fig. 9-1)

(1) Use a piece of clean adhesive tape to lift the labels off their protective backing sheet.



(2) Do not touch the adhesive surface of the warning labels.



10. Completing the Installation.

- (a) Complete the vehicle reassembly.
 - (1) Reconnect any disconnected connectors.
 - (2) Verify the panels fit together properly with no uneven gaps between them.
- (b) Clean up and remove any trash.
- (c) Reconnect the vehicle's negative battery cable. (Fig. 10-1)
 - (1) Position the negative terminal at an angle of $\sim 90^\circ$ to the battery as shown.
 - (2) Tighten the nut with 4.1N·m (36lbf·in) of torque.
 - (3) Be careful not to touch the positive battery terminal.
- (d) Reset the power windows.
 - (1) Turn ignition key to ON position.
 - (2) Push down the power window switches of each door, and lower the windows halfway.
 - (3) Pull up the switches until the windows close and hold switches up for a further one (1) second (minimum.)
- (e) Reset the power moon roof.
 - (1) Push and hold moon roof switch to close side until moon roof closes. Hold for a further two (2) seconds.
- (f) Reset the tailgate door.
 - (1) Push door lock control switch to the "unlock" side.
 - (2) Pull up tailgate door handle.
- (g) Place the owner's manual, and warranty card, left in their protective bags, in the glove box.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
<u>Accessory Function Checks</u>	
Fit appropriate fuse before beginning.	
<input type="checkbox"/> Press and release the remote control's lock button to start the system's arming process.	1. The turn signal lights flash once. All doors lock. The Status Monitor's LED lights up.
<input type="checkbox"/> Wait 30 seconds.	2. After 30 seconds, the LED starts flashing; the system is now armed.
<input type="checkbox"/> Press and release the remote control's unlock button to disarm the system.	3. The turn signal lights flash twice. The driver's door unlocks. The LED stops flashing.
Open the driver's door, insert the key into the ignition switch and turn it to "ON". Roll down all the windows, remove the key and exit the vehicle.	
<input type="checkbox"/> Arm and disarm the system with the remote again, then wait 30 seconds.	4. The doors automatically relock. The system automatically starts the arming process.
<input type="checkbox"/> Press and release the remote control's unlock button again to stop the arming process.	5. Refer to step # 3.
<input type="checkbox"/> Insert the key into the driver's door key cylinder and turn it toward the front of the vehicle to start the arming process.	6. All doors lock. The LED lights up.
<input type="checkbox"/> Wait 30 seconds.	7. After 30 seconds, the LED starts flashing; the system is now armed.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

- ☐ Reach inside and manually unlock the driver's door to trigger an alarm.
- ☐ Manually unlock the driver's door again and hold it unlocked, open the door, then sit in the driver's seat.
- ☐ Insert the key into the ignition switch and turn it to "START" to stop the alarm.

Turn the key back to "LOCK", remove it, and then exit the vehicle.

- ☐ With the door open, press the lock switch on the door to lock the doors, then close the door to start the system's arming process.
- ☐ Wait 30 seconds.
- ☐ Reach inside and manually unlock the front passenger's door to trigger an alarm.

Look For:

- 8. The driver's door automatically relocks.
The horn sounds repeatedly.
The headlights flash repeatedly.
The turn signal lights flash repeatedly.
The LED lights up.
- 9. The driver's door lock attempts to lock repeatedly.
The horn continues to sound repeatedly.
The headlights and turn signal lights continue flashing.
The LED remains on.
- 10. The horn stops sounding.
All the lights stop flashing and/ or turn off.
The LED turns off.
The starter cranks and the engine starts.
- 11. All doors lock.
The LED lights up.
- 12. After 30 seconds, the LED starts flashing; the system is now armed.
- 13. The front passenger's door automatically relocks.
The horn sounds repeatedly.
The headlights flash repeatedly.
The turn signal lights flash repeatedly.
The LED lights up.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

- ☐ Press and release the remote control's unlock button to stop the alarm.
- ☐ Press and release the remote control's lock button to start the system's arming process, then wait 30 seconds until the system is armed.

Roll up all windows, remove the key and exit the vehicle.

- ☐ Press and release the remote control's lock button to start the arming process.
- ☐ Wait 30 seconds.

Perform the following check in a temperature-controlled environment (50° - 90° F.)



- ☐ With the tip of key (or Striker Tool pulled all way out (PPO only)), tap the center of the driver's door window to trigger the "warn away" alarm.

Look For:

- 14. The horn stops sounding.
All the lights stop flashing.
The LED turns off
- 15. Refer to step #1 and #2.
- 16. Refer to step # 1.
- 17. After 30 seconds, the LED starts flashing;
the system is now armed.
- 18. The horn sounds repeatedly.
The headlights flash repeatedly.
The turn signal lights flash repeatedly.
The LED lights up.

NOTE: Adjust as necessary by increasing the GBS setting to the next level if the alarm does not trigger during the functional verifications.

NOTE: If you do not disarm the system, the alarm will last 20 seconds. *It is not necessary to check the alarm duration.*

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
<input type="checkbox"/> Insert the key into the driver's door key cylinder and turn it toward the back of the vehicle to stop the alarm	19. The horn stops sounding. All the lights stop flashing and/ or turn off. The status monitor's LED turns off
<p><u>Vehicle Function Checks</u></p> <input type="checkbox"/> Head Lights <input type="checkbox"/> High Beams <input type="checkbox"/> Turn Signal Lights <input type="checkbox"/> Tail Lights <input type="checkbox"/> Stop Lights <input type="checkbox"/> Backup Lights <input type="checkbox"/> Hazard Lights <input type="checkbox"/> Marker Lights <input type="checkbox"/> Dome/Courtesy Lights <input type="checkbox"/> Panel/Switch Illumination Accessory Controls/Illumination (if equipped) <input type="checkbox"/> Key Sensor Buzzer <input type="checkbox"/> Fog Lights (if equipped) <input type="checkbox"/> Daytime Running Lights (if equipped) <input type="checkbox"/> Trunk/Tailgate/Bed Lights (if equipped) <input type="checkbox"/> Glove Box Light (if equipped) <input type="checkbox"/> Cruise Control Light (if equipped)	Functioning Head Lights Functioning High Beams Functioning Turn Signal Lights Functioning Tail Lights Functioning Stop Lights Functioning Backup Lights Functioning Hazard Lights Functioning Marker Lights Functioning Dome/Courtesy Lights Functioning Accessory Functioning Key Sensor Functioning Fog Lights Functioning DR Lights Functioning Lights Functioning Glove Box Light Functioning Cruise Control Light

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
<input type="checkbox"/> Seat Belt Warning Light	Functioning Seatbelt Warning Light. If the warning light remains "ON", it may indicate a system malfunction.
<input type="checkbox"/> Air Bag Warning Light	Functioning Air Bag Warning Light. If the warning light remains "ON", it may indicate a system malfunction
<input type="checkbox"/> ABS Light (if equipped)	Functioning ABS Light. If the warning light remains "ON," it may indicate a system malfunction.
<input type="checkbox"/> Lamp Failure Sensor (if equipped)	Functioning Lamp Failure Light. If the warning light remains "ON," it may indicate a system malfunction.
<input type="checkbox"/> Track/Skid Control Light (if equipped)	Functional Track/VSC Light. If the warning light remains "ON", it may indicate a system malfunction.
<input type="checkbox"/> HVAC	All HVAC Controls Function
<input type="checkbox"/> Power Locks (if equipped)	Functioning Power Locks
<input type="checkbox"/> Power Windows (if equipped)	Functioning Power Windows
<input type="checkbox"/> Power Seats (if equipped)	Functioning Power Seats
<input type="checkbox"/> Power Sunroof (if equipped)	Functioning Sunroof
<input type="checkbox"/> Horn	Functioning Horn
<input type="checkbox"/> Gauges	Functioning Gauges
<input type="checkbox"/> Front Wiper/Washer	Functioning Front Wiper/Washer
<input type="checkbox"/> Rear Wiper/Washer (if equipped)	Functioning Rear Wiper/Washer
<input type="checkbox"/> Clock (if equipped)	Functioning Clock
<input type="checkbox"/> Accessory Power Socket (if equipped)	Functioning Power Socket

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

- ☐ Starter
- ☐ Audio/Video (if equipped)
- ☐ Power Sliding Door (if equipped)
- ☐ Convenience Memory Settings (if equipped)
- ☐ Heated Seats (if equipped)
- ☐ Massage Seats (if equipped)
- ☐ Rear Window Defogger (if equipped)
- ☐ Power Side Mirrors (if equipped)
- ☐ Side Mirror Defogger (if equipped)
- ☐ Front Windshield Defogger (if equipped)
- ☐ Navigation System (if equipped)
- ☐ Power Back Door (if equipped)
- ☐ Audio Steering Wheel Controls (if equipped)

Remove the appropriate fuse after checks are completed.

Look For:

Functioning Starter

Functioning Audio/Video

Functioning Power Sliding Door

Functioning Memory Settings

Functioning Heated Seats

Functioning Massage Seats

Functioning Rear Window Defogger

Functioning Power Side Mirrors

Functioning Side Mirror Defogger

Functioning Front Windshield Defogger

Functioning Navigation System

Functioning Power Back Door

Functioning Audio Steering Wheel Controls