

DTC	21, 22, 23, 24	ABS Actuator Solenoid Circuit
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CIRCUIT DESCRIPTION

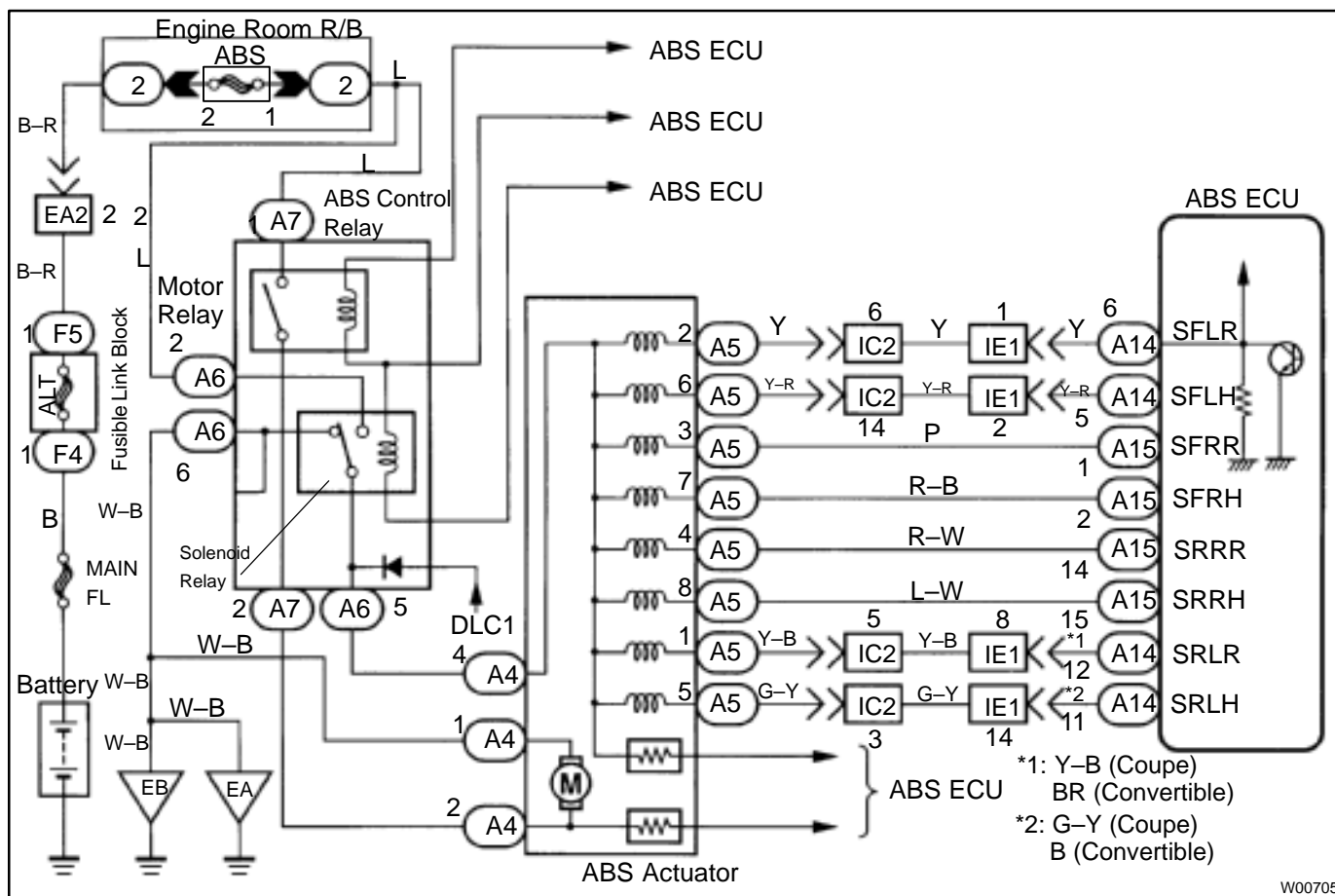
This solenoid goes on when signals are received from the ECU and controls the pressure acting on the brake cylinders, thus controlling the braking force.

DTC No.	DTC Detecting Condition	Trouble Area
21	Conditions (1) through (3) continue for 0.05 sec. or more: (1) ABS control (solenoid) relay terminal (SR) voltage: Battery positive voltage (2) Voltage of ABS ECU terminal AST: Battery positive voltage (3) When power transistor of ECU is ON, voltage of terminal SFR is 0 V or battery positive voltage.	<ul style="list-style-type: none"> • ABS actuator • Open or short in SFR circuit
22	Conditions (1) through (3) continue for 0.05 sec. or more: (1) ABS control (solenoid) relay terminal (SR) voltage: Battery positive voltage (2) Voltage of ABS ECU terminal AST: Battery positive voltage (3) When power transistor of ECU is ON, voltage of terminal SFL is 0 V or battery positive voltage.	<ul style="list-style-type: none"> • ABS actuator • Open or short in SFL circuit
23	Conditions (1) through (3) continue for 0.05 sec. or more: (1) ABS control (solenoid) relay terminal (SR) voltage: Battery positive voltage (2) Voltage of ABS ECU terminal AST: Battery positive voltage (3) When power transistor of ECU is ON, voltage of terminal SRR is 0 V or battery positive voltage.	<ul style="list-style-type: none"> • ABS actuator • Open or short in SRR circuit
24	Conditions (1) through (3) continue for 0.05 sec. or more: (1) ABS control (solenoid) relay terminal (SR) voltage: Battery positive voltage (2) Voltage of ABS ECU terminal AST: Battery positive voltage (3) When power transistor of ECU is ON, voltage of terminal SRL is 0 V or battery positive voltage.	<ul style="list-style-type: none"> • ABS actuator • Open or short in SRL circuit

Fail safe function:

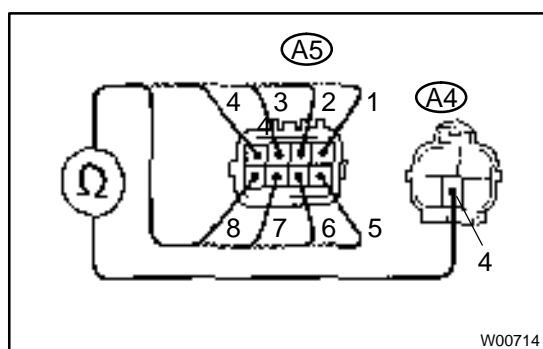
If trouble occurs in the actuator solenoid circuit, the ECU cuts off current to the ABS control (solenoid) relay and prohibits ABS control.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 Check ABS actuator solenoid.



PREPARATION:

Disconnect the 2 connectors from ABS actuator.

CHECK:

Check continuity between terminals A4 - 4 and A5 - 1, 2, 3, 4, 5, 6, 7, 8 of ABS actuator connector.

OK:

Continuity

HINT:

Resistance of each of the solenoids

SFRH, SFLH, SRRH and SRLH is 5.0 Ω

Resistance of each of the solenoids

SFRR, SFLR, SRRR and SRLR is 2.2 Ω

NG

Replace ABS actuator.

OK

2	Check for open and short in harness and connector between ABS ECU and actuator (See page IN-27).
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NG**Repair or replace harness or connector.****OK**

If the same code is still output after the DTC is deleted, check the contact condition of each connection. If the connections are normal, the ECU may be defective.