

DTC	C0278 / 11	ABS SOL Relay Circuit
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CIRCUIT DESCRIPTION

This relay supplies power to each ABS solenoid. After the ignition switch is turned ON, if the initial check is OK, the relay goes on.

DTC No.	DTC Detecting Condition	Trouble Area
C0278 / 11	Detection of any conditions from 1. through 2.: 1. 3 or more solenoids are show faulty in response and simultaneously solenoid supply voltage is detected faulty. 2. SOL relay will not be switched OFF.	• ABS SOL relay • ABS SOL relay circuit • Battery

Wiring diagram for the ABS & VSC Actuator. The diagram shows the electrical connections between the actuator and various components including the Engine Room R/B No. 8, ABS SOL Relay, R/B No. 7, ABS No. 3, and the Skid Control ECU. The actuator has 16 pins (BS, SFLH, SFLR, SFRH, SFRR, SRLH, SRLR, SRRH, SRRR, SRC1, SRC2, SMC1, SMC2) and 16 corresponding wires (V8, V8, V8, V8, V8, V8, V8, V8, V8, V8, V8, V8, V8, V8, V8, V8). The diagram includes a battery, an alternator (ALT), and various relays and switches (ED, ED1, ED2).

INSPECTION PROCEDURE

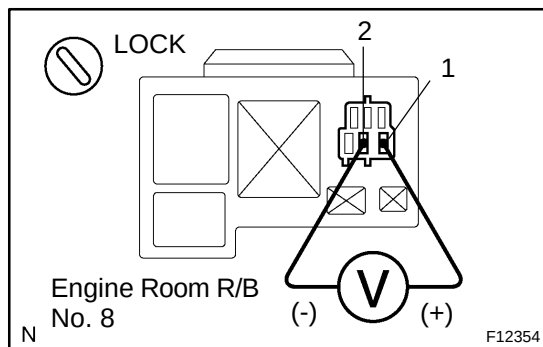
1	Check battery positive voltage.
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OK:

Voltage: 10 - 14 V

NGCheck and repair the charging system (See page [CH-2](#)).**OK**

2	Check voltage between terminals 1 and 2 of engine room R/B No. 8 (for ABS SOL relay).
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**PREPARATION:**

Remove the ABS SOL relay from engine room R/B No. 8.

CHECK:

Measure the voltage between terminals 1 and 2 of engine room R/B No. 8 (for ABS SOL relay).

OK:

Voltage: 10 - 14 V

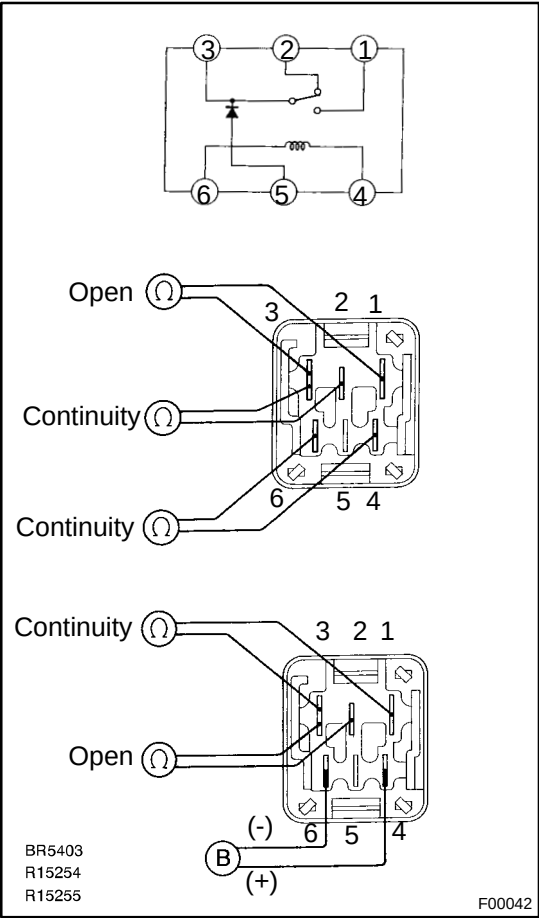
NG

Check and repair harness or connector.

OK

3

Check ABS SOL relay.



CHECK:
Check continuity between following terminals of ABS SOL relay.

OK:

Terminals 4 and 6	Continuity (Reference value 80 Ω)
Terminals 2 and 3	Continuity
Terminals 1 and 3	Open

CHECK:
(a) Apply battery positive voltage between terminals 4 and 6.
(b) Check continuity between following terminals of ABS SOL relay.

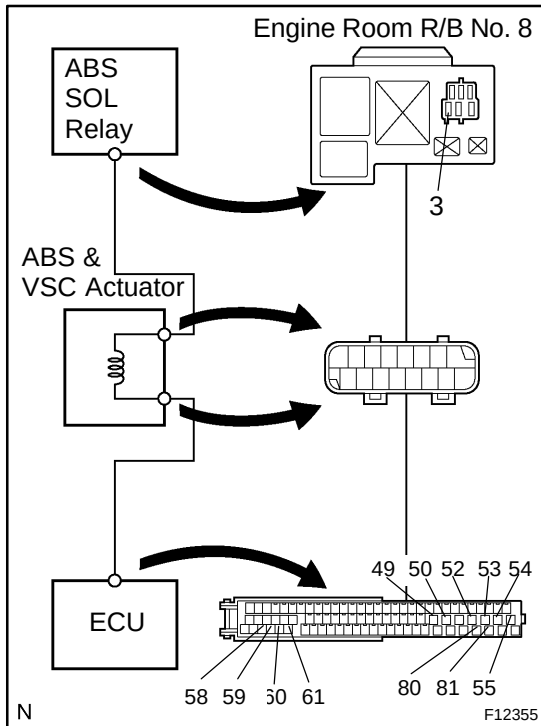
OK:

Terminals 2 and 3	Open
Terminals 1 and 3	Continuity

OK

NG Replace ABS SOL relay.

- 4 Check continuity between terminal 3 of engine room R/B No. 8 (for ABS SOL relay) and each solenoid terminal of skid control ECU.**



PREPARATION:

Disconnect the connector from the skid control ECU.

CHECK:

Check continuity between terminal 3 of engine room R/B No. 8 and each terminals 49, 50, 52, 53, 54, 55, 58, 59, 60, 61, 80 and 81 of ECU harness side connector.

OK:

Continuity

HINT:

Resistance of each solenoid coil.

SFLH (60), SRRH (61), SFRH (81), SMC1 (49), SMC2 (50), SRLH (53): 8 - 9.1 Ω at 20 °C (68 °F)

SFLR (58), SRRR (59), SRLR (80), SRC2 (52), SRC1 (54), SFRR (55): 4.0 - 4.6 Ω at 20 °C (68 °F)

NG

Repair or replace harness or ABS & VSC actuator.

OK

- 5 Check for open and short circuit in harness and connector between ABS SOL relay and skid control ECU (See page [IN-31](#)).**

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.