DTC	C0278/11	Open or Short Circuit in ABS Solenoid Relay Circuit

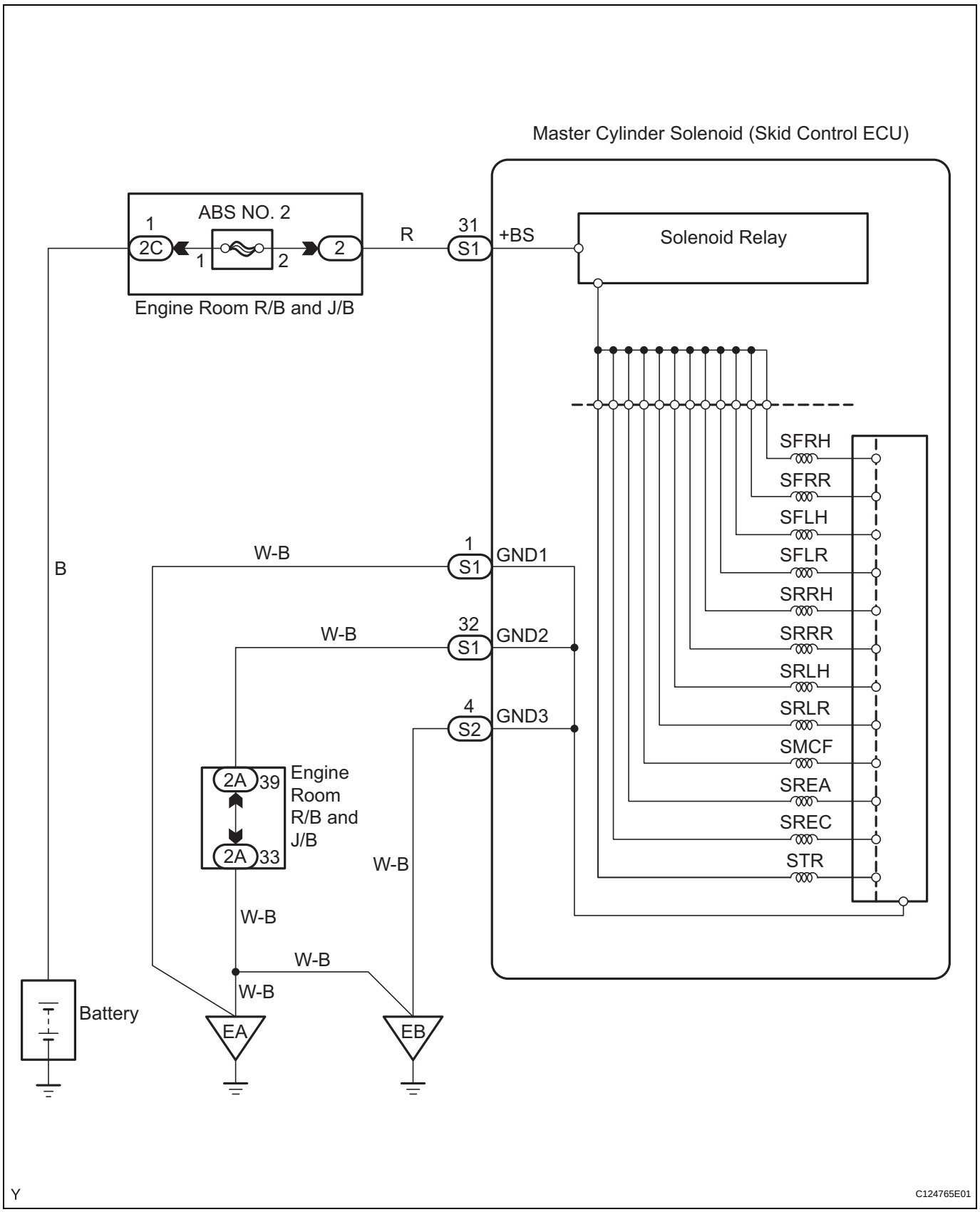
DTC	C0279/12	Short to B+ in ABS Solenoid Relay Circuit

DESCRIPTION

The ABS solenoid relay is built into the master cylinder solenoid.
This relay supplies power to each ABS solenoid. After the ignition switch is turned ON, if the initial check is OK, the relay turns on.

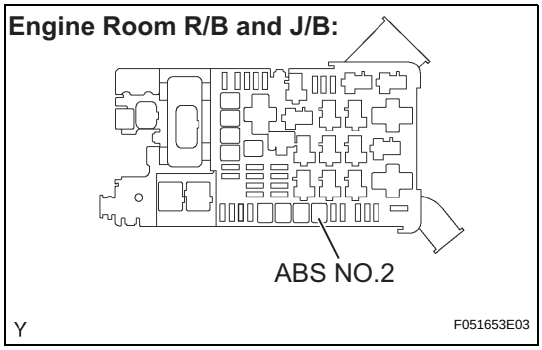
DTC No.	DTC Detecting Conditions	Trouble Areas
C0278/11	When either of following condition detected: 1. Both of following conditions continue for at least 0.2 seconds. (a) IG voltage between 9.5 V and 17 V. (b) Relay contact open when relay ON 2. Both of the following conditions continue for at least 0.2 seconds. (a) IG voltage 9.5 V or less when relay ON. (b) Relay contact remains open.	• ABS NO. 2 fuse • ABS solenoid relay • ABS solenoid relay circuit • Master cylinder solenoid (skid control ECU)
C0279/12	The following condition continues for at least 0.2 seconds. • Relay contact closed immediately after turning IG switch to the ON position when the relay OFF.	• ABS NO. 2 fuse • ABS solenoid relay • ABS solenoid relay circuit • Master cylinder solenoid (skid control ECU)

WIRING DIAGRAM



BC

1	INSPECT FUSE (ABS NO. 2)

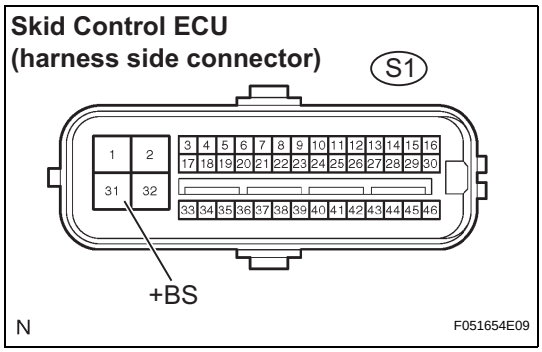


(a) Remove the ABS NO. 2 fuse from the engine room R/B and J/B.
(b) Measure the resistance of the ABS NO. 2 fuse.
Standard Resistance:
Below 1 Ω
(c) Reinstall the ABS NO. 2 fuse.

NG → **CHECK FOR SHORTS IN ALL HARNESSES AND CONNECTORS CONNECTED TO FUSE AND REPLACE FUSE**

OK

2	INSPECT SKID CONTROL ECU CONNECTOR (+BS TERMINAL VOLTAGE)



(a) Disconnect the skid control ECU connector.
(b) Measure the voltage.
Standard Voltage

Tester Connection	Specified Condition
S1-31 (+BS) - Body ground	10 to 14 V

(c) Reconnect the skid control ECU connector.

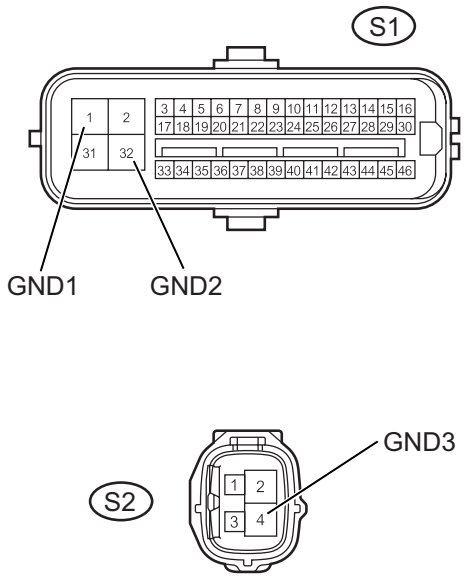
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

BC

3	CHECK HARNESS OR CONNECTOR (GND - BODY GROUND)

Skid Control ECU
(harness side connector):



(a) Disconnect the skid control connectors.
(b) Measure the resistance.

Standard Resistance

Tester Connection	Specified Condition
S1-1, 32 (GND1, GND2) - Body ground	Below 1 Ω
S2-4 (GND3) - Body ground	Below 1 Ω

(c) Reconnect the skid control connectors.

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (GND CIRCUIT)**

OK

4	RECONFIRM DTC

(a) Clear the DTCs (See page BC-118).
(b) Check if the same DTCs are recorded.

Result	Proceed to
DTC output	A
DTC not output	B

B → **END**

A

REPLACE MASTER CYLINDER SOLENOID

BC