DTC	C0278/11	Open in ABS Solenoid Relay Circuit

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

DESCRIPTION

This relay supplies power to each ABS solenoid.
Immediately after the ignition switch is turned to the ON position, the relay turns on if the solenoid is determined to be normal as a result of self-diagnosis during initial check.
The relay turns off if an open / short is detected.
If the voltage supplied to the motor relay (+BS) is below the DTC detection threshold due to battery / alternator shortage, the DTCs may be stored.

DTC No.	DTC Detecting Condition	Trouble Area
C0278/11	No voltage supply to the solenoid terminal when the ignition switch is ON (less than 1 second).	• ABS solenoid relay • ABS solenoid relay circuit • Brake actuator assembly
C0279/12	Voltage is supplied to the solenoid terminal for 0.2 second or more during initial check (solenoid relay is OFF).	• ABS solenoid relay • ABS solenoid relay circuit • Brake actuator assembly

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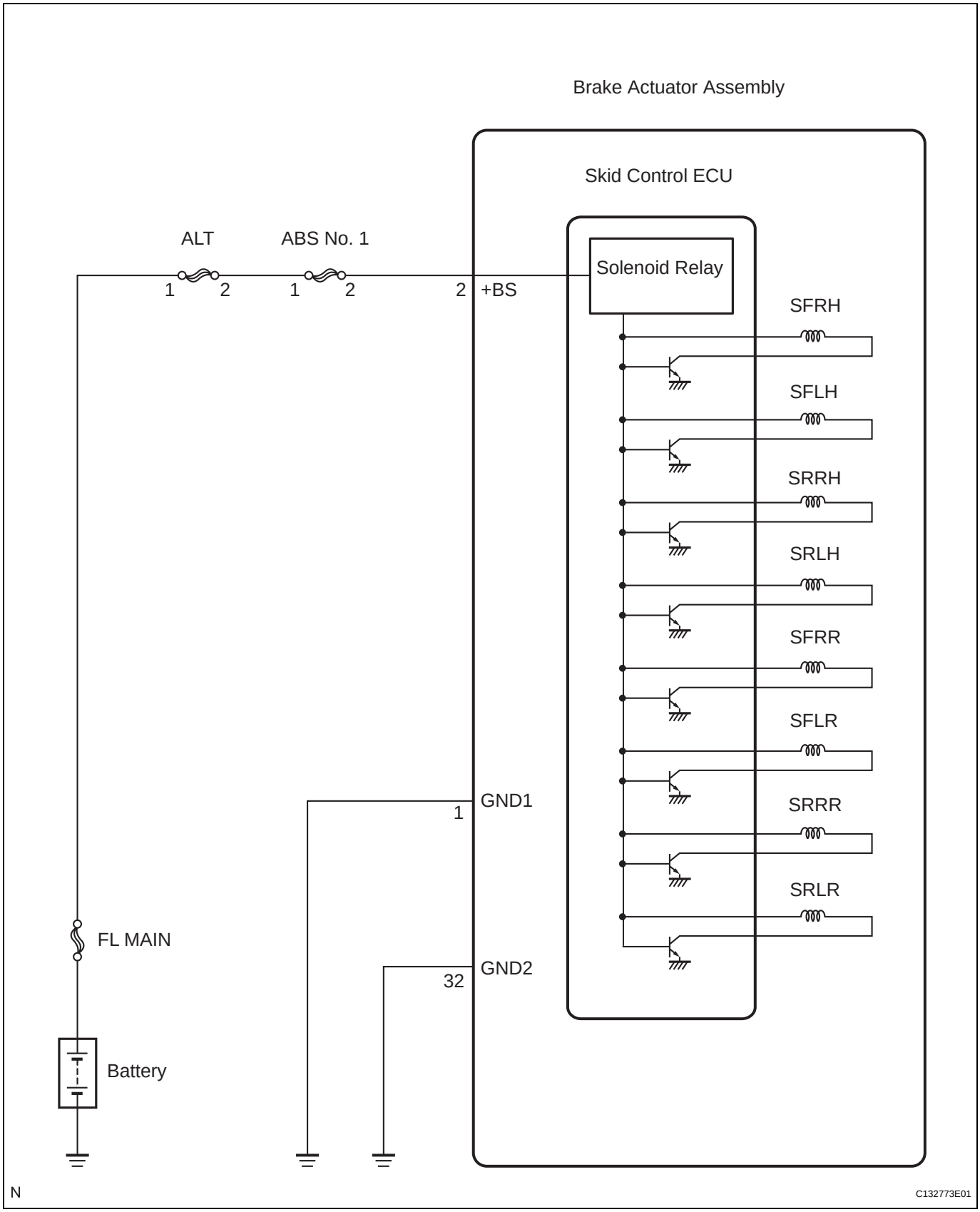
WIRING DIAGRAM



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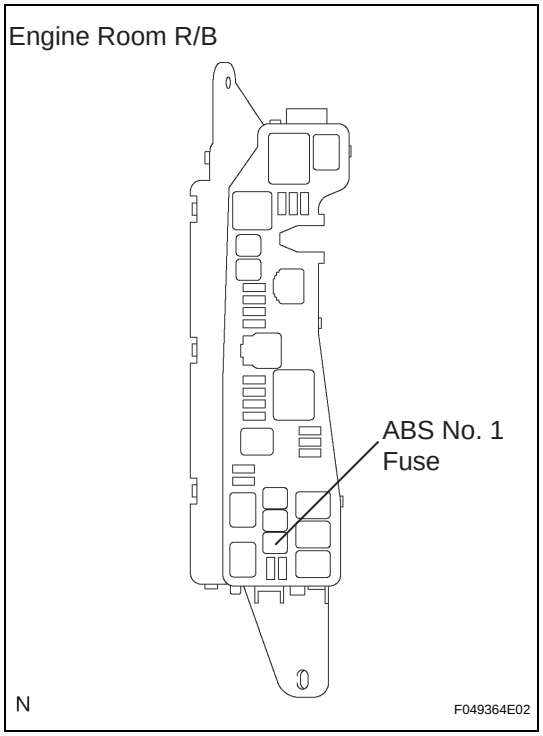
INSPECTION PROCEDURE

1 INSPECT ABS NO. 1 FUSE



(a) Remove the ABS No.1 fuse from the engine room R/B.
(b) Measure the resistance according to the value(s) in the table below.

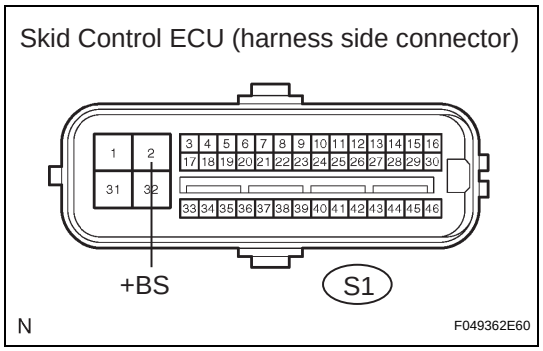
Standard resistance

Tester Connection	Specified Condition
ABS No. 1 fuse	Below 1 Ω

NG → **REPLACE ABS NO. 1 FUSE**

OK

2 INSPECT SKID CONTROL ECU (+BS TERMINAL)



(a) Disconnect the skid control ECU connector.
(b) Measure the voltage according to the value(s) in the table below.

Standard voltage

Tester Connection	Condition	Specified Condition
S1-2 (+BS) - Body ground	Always	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (+BS CIRCUIT)**

OK

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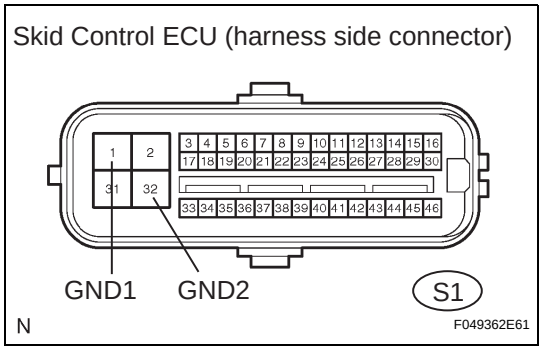
3 INSPECT SKID CONTROL ECU (GND TERMINAL)



(a) Disconnect the skid control ECU connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard resistance

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

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

OK

4 RECONFIRM DTC

(a) Clear the DTCs (See page BC-13).
(b) Drive the vehicle at a speed of 4 mph (6 km/h) or more.
(c) Are the same DTCs recorded? (See page BC-13)
HINT:
The skid control ECU inspects the solenoid relay circuit when the stop light switch is turned off and the vehicle is running at a speed of 4 mph (6 km/h) or more.

NO → **END**

YES

REPLACE BRAKE ACTUATOR ASSEMBLY

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