DTC	C0278/11	Open in ABS Solenoid Relay Circuit

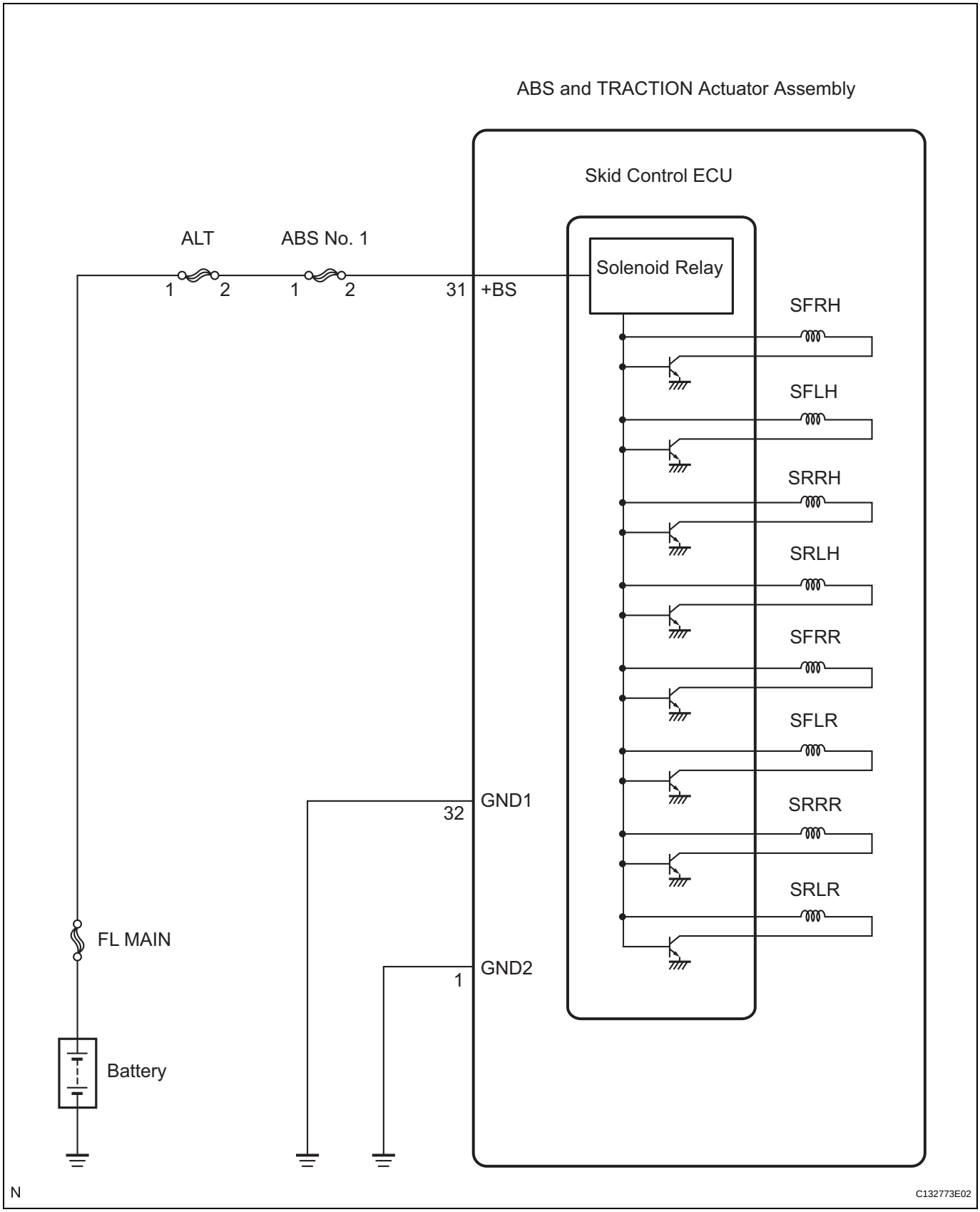
DTC	C0279/12	Short to B+ in ABS Solenoid Relay Circuit

DESCRIPTION

The ABS solenoid relay is built in the ABS and TRACTION actuator assembly. This relay supplies power to each ABS solenoid. If the initial check is OK, after the ignition switch is turned to the ON position, the relay goes on.

DTC No.	DTC Detecting Condition	Trouble Area
C0278/11	When either of the following (1 and 2) is detected: (a) All the following conditions continue for at least 0.2 seconds. * IG1 voltage is between 9.5 and 17.2 V. * Relay contact is open when the relay is ON. (b) All the following conditions continue for at least 0.2 seconds. * IG1 voltage is 9.5 V or less when the relay is ON. * Relay contact remains open.	• ABS No. 1 fuse • ABS solenoid relay • ABS solenoid relay circuit • ABS and TRACTION actuator
C0279/12	The following condition continues for at least 0.2 seconds. – Relay contact is closed immediately after turning IG switch to the ON position when the relay is OFF.	• ABS No. 1 fuse • ABS solenoid relay • ABS solenoid relay circuit • ABS and TRACTION actuator

WIRING DIAGRAM

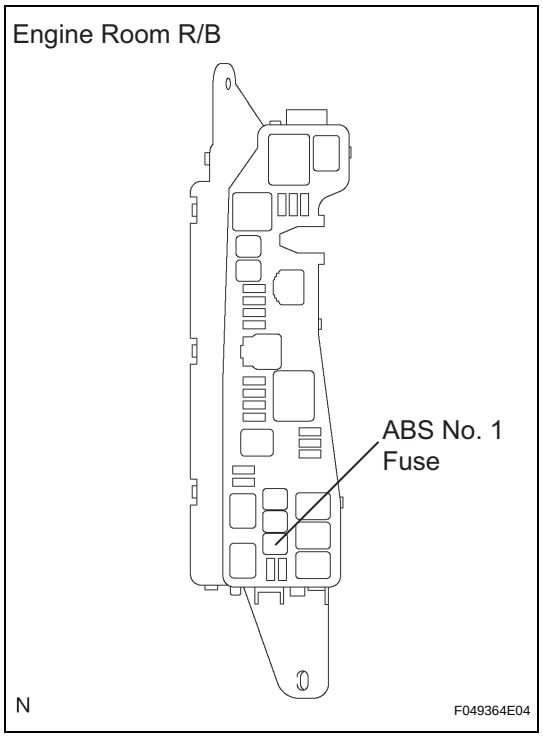


INSPECTION PROCEDURE

NOTICE:

When replacing the ABS and TRACTION actuator assembly, perform zero point calibration (See page BC-80).

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.

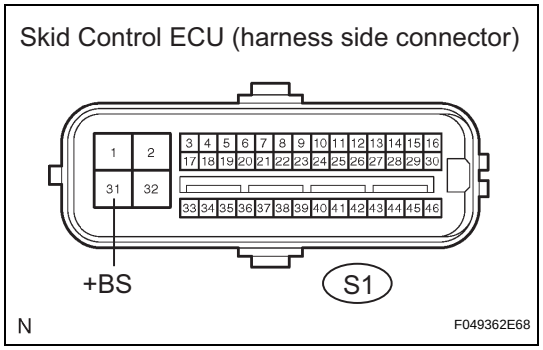
Standard resistance

Tester Connection	Specified Condition
ABS No. 1 fuse	Below 1 Ω (Continuity)

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

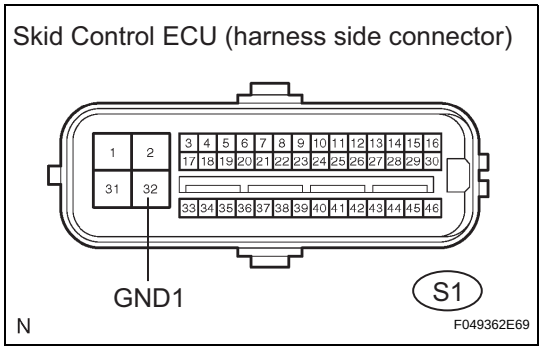
Tester Connection	Condition	Specified Condition
S1-31 (+BS) - Body ground	Always	10 to 14 V

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

OK

BC

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
S1-32 (GND1) - Body ground	Below 1 Ω

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

OK

4 RECONFIRM DTC

HINT:
These codes are detected when a problem is determined in the ABS and TRACTION actuator assembly.
The ABS solenoid relay is in the ABS and TRACTION actuator assembly.
Therefore, solenoid relay circuit inspection relay unit inspection cannot be performed. Be sure to check if the DTC code is output before replacing the ABS and TRACTION actuator assembly.

(a) Clear the DTCs (See page BC-96).
(b) Turn the ignition switch to the ON position.
(c) Are the same DTCs recorded?

NO → **END**

YES

REPLACE ABS AND TRACTION ACTUATOR ASSEMBLY