DI1J6–03

CIRCUIT INSPECTION

DTC	11, 12	ABS Solenoid Relay Circuit

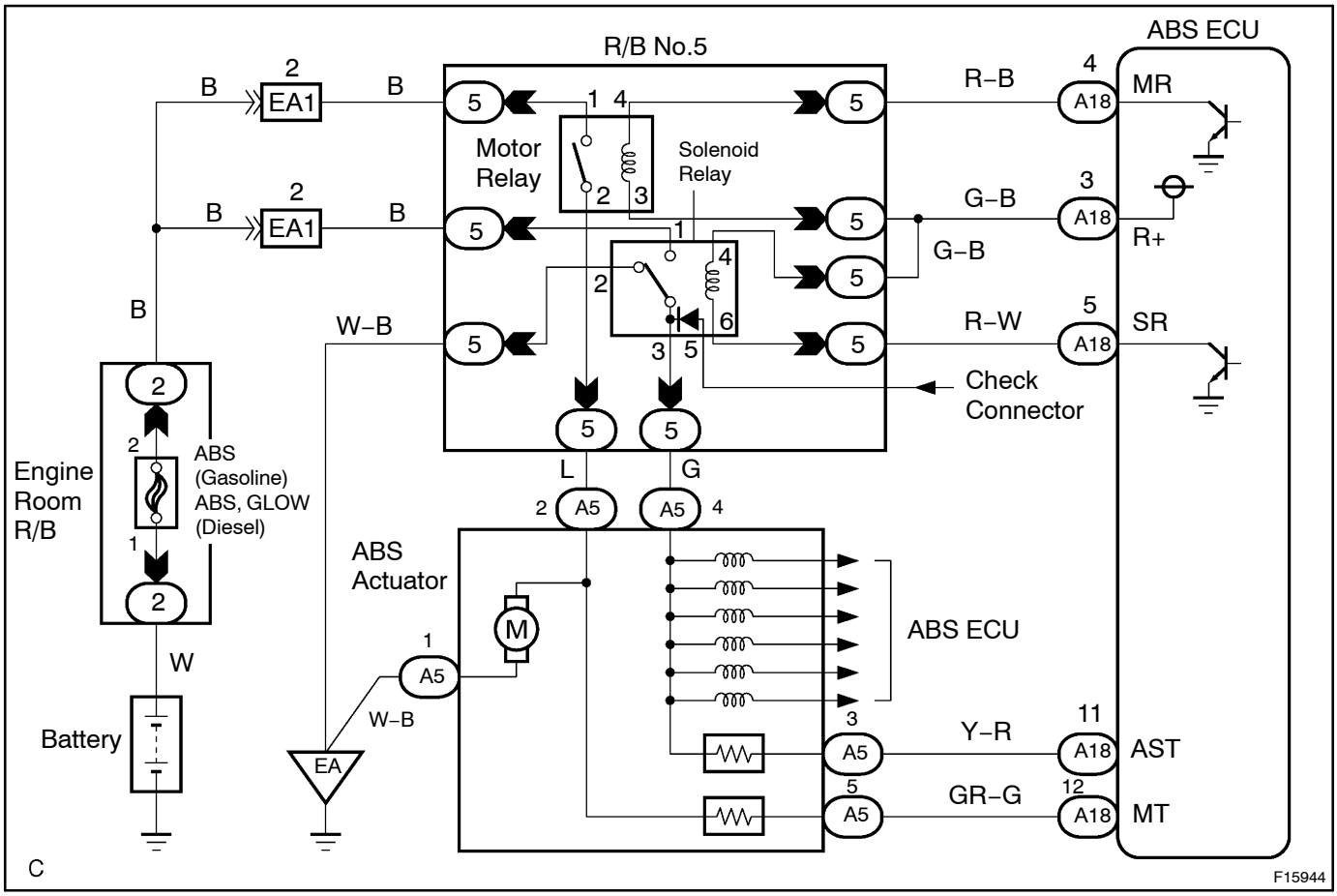
CIRCUIT DESCRIPTION

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
11	Conditions (1) and (2) continue for 0.2 sec. or more: (1) ABS solenoid relay terminal (SR) voltage: Battery voltage (2) ABS solenoid relay monitor terminal (AST) voltage: 0 V	• ABS solenoid relay • Open or short in ABS solenoid relay circuit • ECU
12	Conditions (1) and (2) continue for 0.2 sec. or more: (1) ABS solenoid relay terminal (SR) voltage: 0 V (2) ABS solenoid relay monitor terminal (AST) voltage: Battery voltage	• ABS solenoid relay • B+ short in ABS solenoid relay circuit • ECU

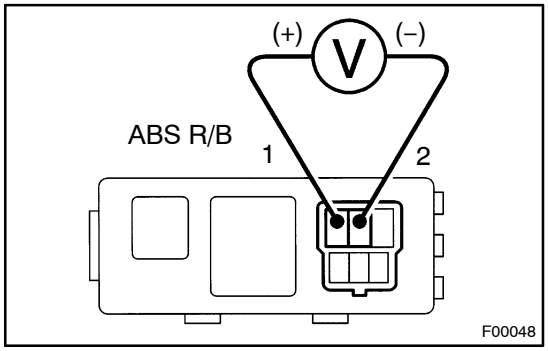
Fail safe function:
If trouble occurs in the ABS solenoid relay circuit, the ECU cuts off current to the ABS solenoid relay and prohibits ABS control.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check voltage between terminals 1 and 2 of ABS R/B (for ABS solenoid relay).**

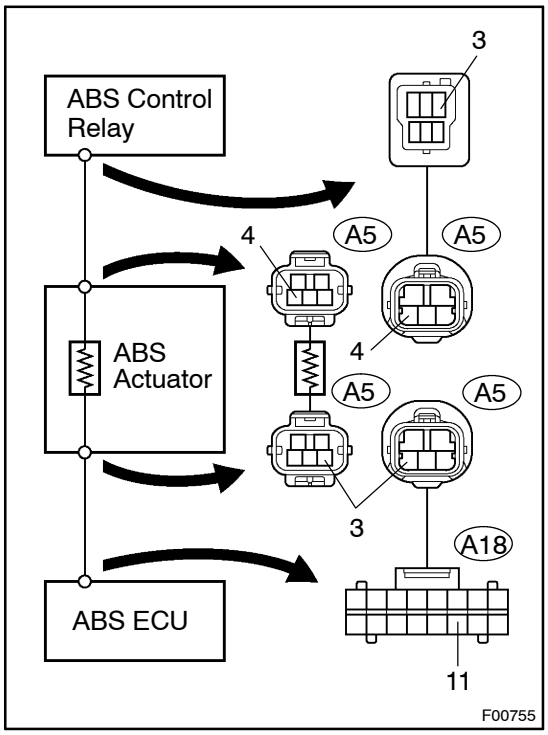


PREPARATION:
Remove ABS solenoid relay from ABS R/B.
CHECK:
Measure the voltage between terminals 1 and 2 of ABS R/B side.
OK:
Voltage: 10 – 14 V

NG	**Check and repair harness or connector.**

OK

2	**Check continuity between terminals 3 of ABS R/B (for ABS solenoid relay) and A5 – 4, A5 – 4 and A5 – 3, A5 – 3 and A18 – 11.**

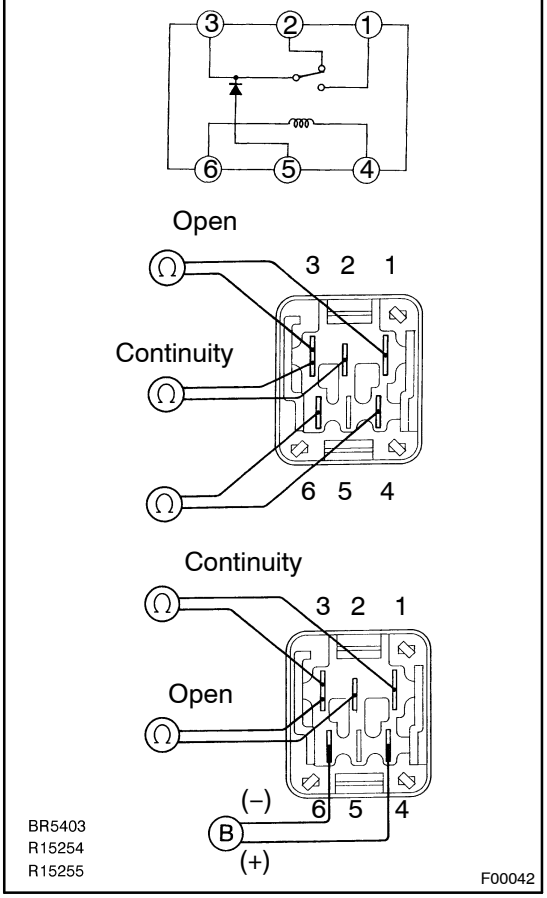


PREPARATION:
Disconnect the 2 connectors from ABS actuator.
CHECK:
Check continuity between terminals 3 of ABS R/B and A5 – 4, A5 – 4 and A5 – 3, A5 – 3 and A18 – 11.
OK:
Continuity
HINT:
There is a resistance of 26 – 40 Ω between terminals A5 – 4 and A5 – 3.

NG	**Repair or replace harness or ABS actuator.**

OK

3	Check ABS solenoid relay.



PREPARATION:

Remove ABS solenoid relay from ABS R/B.

CHECK:

Check continuity between each terminal of ABS solenoid relay.

OK:

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

CHECK:

(a) Apply battery voltage between terminals 4 and 6.

(b) Check continuity between each terminal of ABS solenoid relay.

OK:

Terminal 2 and 3	Open
Terminal 1 and 3	Continuity

NG → **Replace ABS solenoid relay.**

OK

4	Check for open and short in harness and connector between ABS solenoid relay and ABS ECU (See page IN–26).

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.
It the connection is normal, the ECU may be defective.