DI6QI–01

DTC	C0273/13, C0274/14	ABS Motor Relay Circuit

CIRCUIT DESCRIPTION

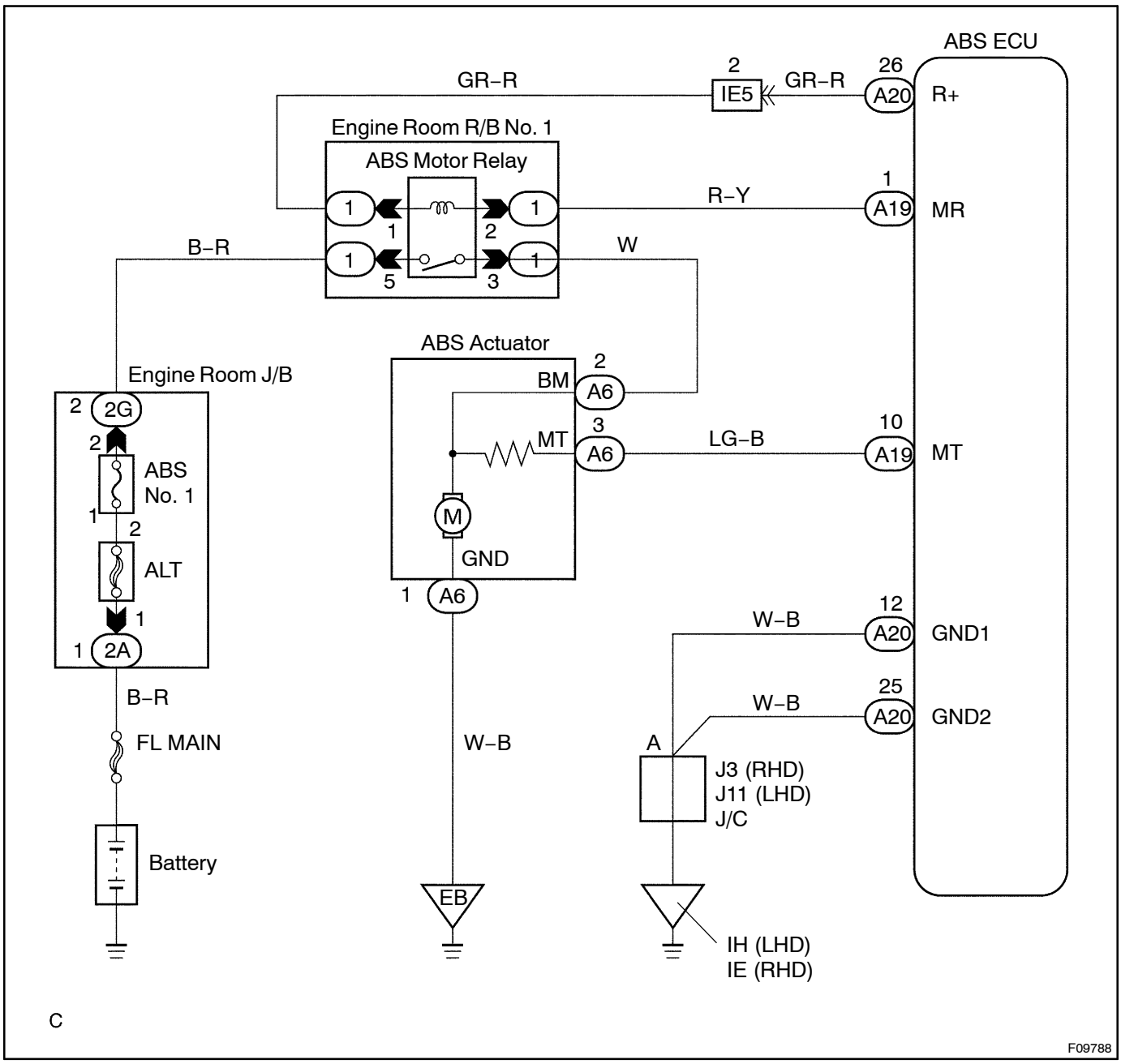
The ABS motor relay supplies power to the ABS pump motor. While the ABS is activated, the ECU switches the ABS motor relay ON and operates the ABS pump motor.

DTC No.	DTC Detecting Condition	Trouble Area
C0273/13	Condition 1. or 2. continues for 0.2 sec. or more: 1. ABS ECU terminal IG1 voltage is 9.5 V to 18.5 V, and when motor relay is ON in the midst of initial check or in operation of ABS control.*1 2. Motor relay is ON driving in the midst of initial check or in operation of ABS control, ABS ECU terminal IG1 voltage becomes 9.5 V or less.*2	• ABS motor relay • ABS motor relay circuit
C0274/14	Condition below continues for 4 sec. or more: When the motor relay is OFF, there is open circuit in MT terminal of ABS ECU.	

*1 Relay contact OFF condition: MT terminal voltage is below 3.6 V.

*2 Relay contact ON condition: MT terminal voltage is 3.6 V or above.

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:
Start the inspection from step 1 in case of using the hand–held tester and start from step 2 in case of not using hand–held tester.

1	**Check ABS motor relay operation.**

PREPARATION:
(a) Connect the hand–held tester to the DLC3.
(b) Turn the ignition switch ON and push the hand–held tester main switch ON.
(c) Select the ACTIVE TEST mode on the hand–held tester.

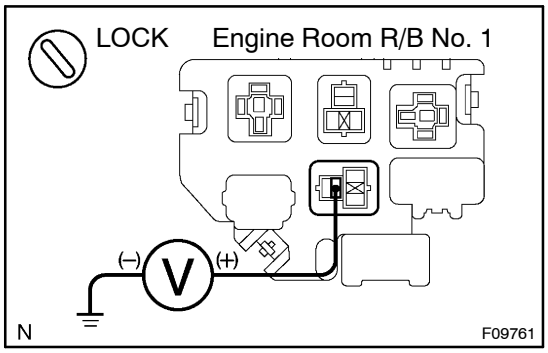
CHECK:
Check the operation sound of the ABS motor relay when operating it with the hand–held tester.

OK:
The operation sound of the ABS motor relay should be heard.

OK → **Go to step 5.**

NG

2	**Check voltage between terminal 5 of engine room R/B No. 1 (for ABS motor relay) and body ground.**



PREPARATION:
Remove the ABS motor relay from engine room R/B No. 1.

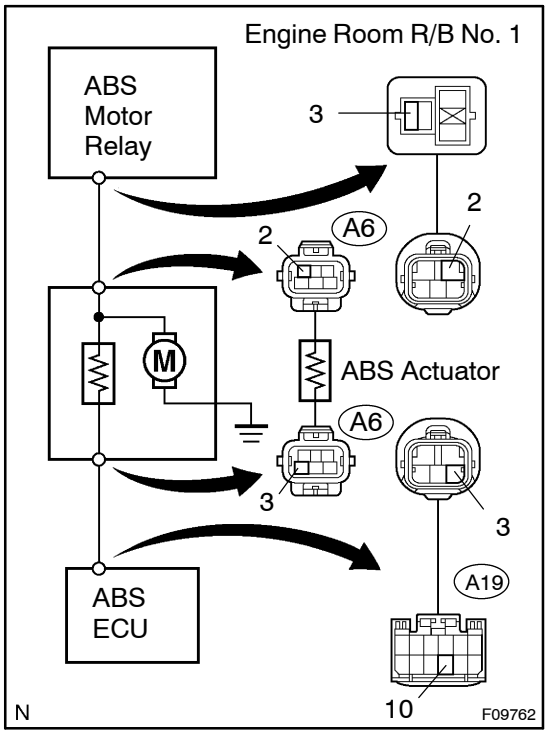
CHECK:
Measure voltage between terminal 5 of engine room R/B No. 1 (for ABS motor relay) and body ground.

OK:
Voltage: 10 – 14 V

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

OK

3	**Check continuity between terminal 3 of ABS motor relay and terminal MT (A19 – 10) of ABS ECU.**



CHECK:

Check continuity between terminal 3 of engine room R/B No.1 (for ABS motor relay) and terminal MT (A19 – 10) of ABS ECU.

OK:

Continuity

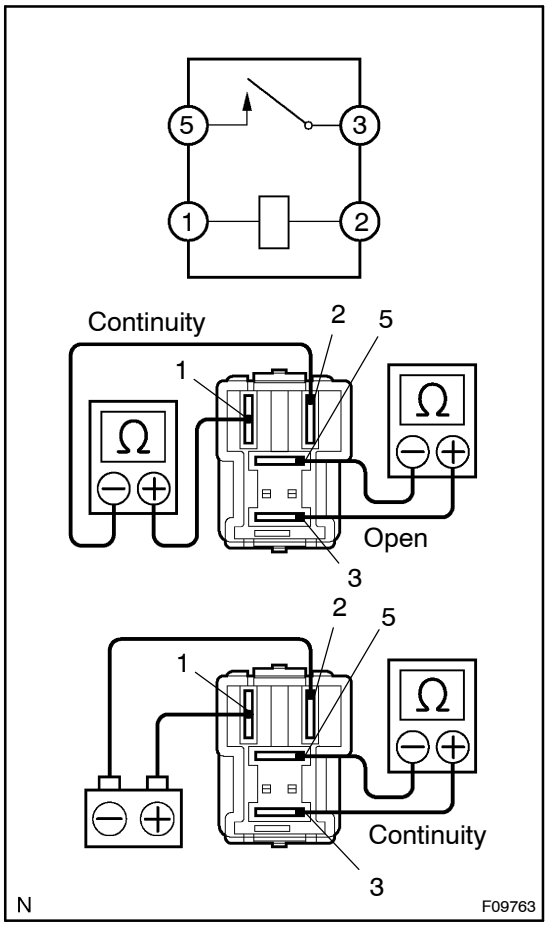
HINT:

There is a resistance of 4 – 6 Ω between terminals A6 – 2 and A6 – 3 of ABS actuator.

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

OK

4	Check ABS motor relay.



CHECK:

Check continuity between each terminal of ABS motor relay.

OK:

Terminals 1 and 2	Continuity (Reference value 62 Ω)
Terminals 3 and 5	Open

CHECK:

(a) Apply battery voltage between terminals 1 and 2.

(b) Check continuity between terminals of ABS motor relay.

OK:

Terminals 3 and 5	Continuity

NG → Replace ABS motor relay.

OK

5	Check for open and short circuit in harness and connector between ABS motor relay and ABS ECU (See page IN–30).

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.