DI1GJ–06

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 are activated, the ECU switches the motor relay ON and operates the ABS pump motor.

DTC No.	DTC Detecting Condition	Trouble Area
C0273 / 13	Conditions 1. and 2. continued for 0.2 sec. or more: 1. ECU terminal IG1 voltage is 19 V to 36 V in the initial check or ABS operation, and when the motor relay is ON, however, the contact point of the motor relay is OFF. 2. ECU terminal IG1 is 19 V or less, and when the motor relay is ON, but the contact point of the motor relay does not become ON.	• ABS motor relay • ABS motor relay circuit
C0274 / 14	When the motor relay is OFF, the condition that the contact point of motor relay is ON continues for 4 sec. or more.	

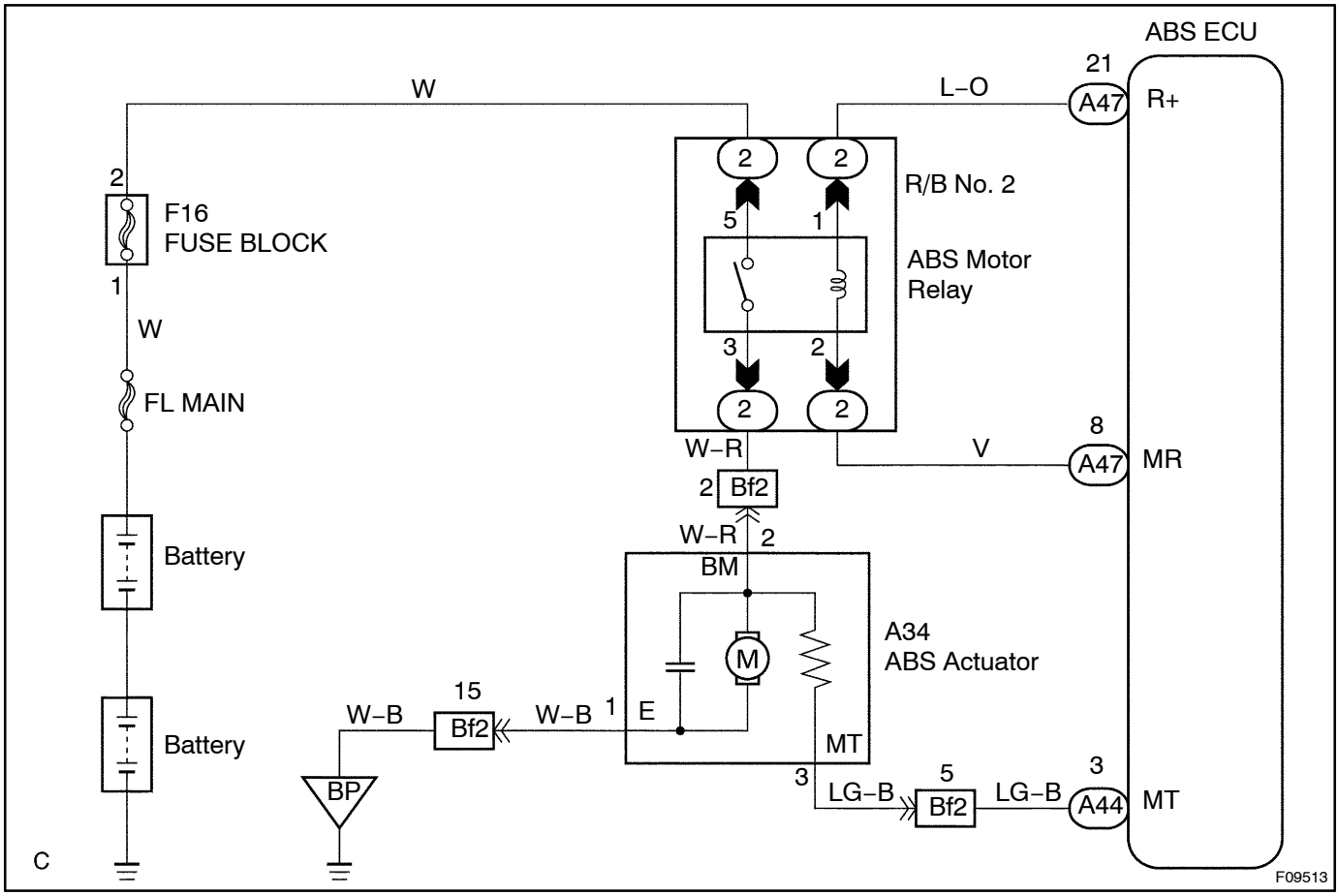
Fail safe function:

If any trouble occurs in the ABS motor relay circuit, the ECU cuts off current to the ABS solenoid relay and prohibits ABS controls and BRAKE PRESSURE INCREASE FUNCTION.

HINT:

When the brake pedal is depressed firmly, the brake force may be lowered.

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.

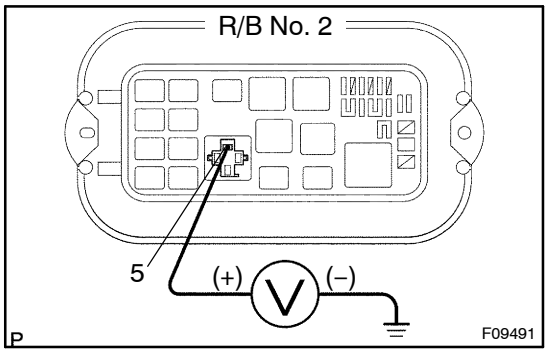
CHECK:
Check the operation sound of the ABS motor relay when operating it with the hand–held tester.

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

OK → **Go to step 4.**

NG

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



PREPARATION:
Remove the ABS motor relay from the R/B No. 2.

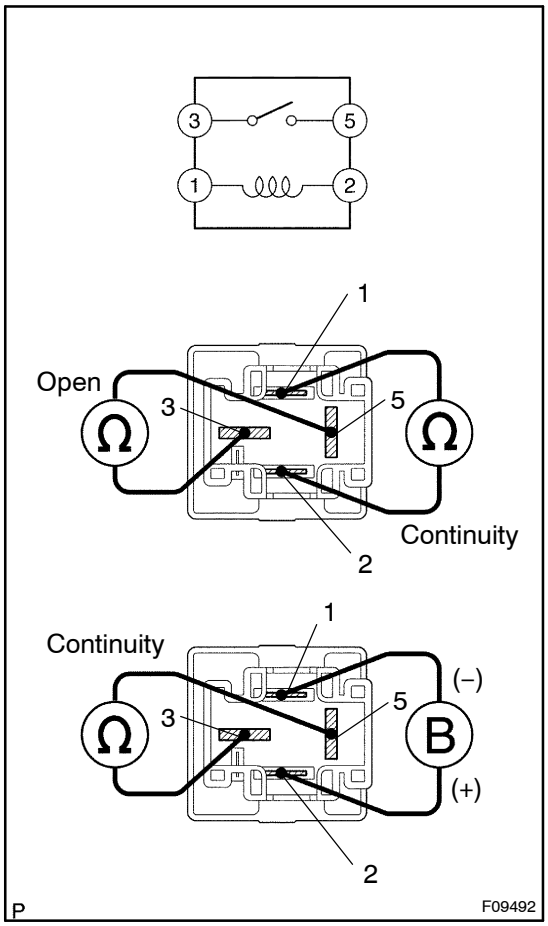
CHECK:
Measure voltage between terminal 5 of R/B No. 2 (for ABS motor relay) and body ground.

OK:
Voltage: 20 – 28 V

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

OK

3	Check ABS motor relay.



CHECK:

Check continuity between each pair of terminal of motor relay.

OK:

Terminals 1 and 2	Continuity (Reference value 150 ± 30 Ω)
Terminals 3 and 5	Open

CHECK:

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

(b) Check continuity between terminals.

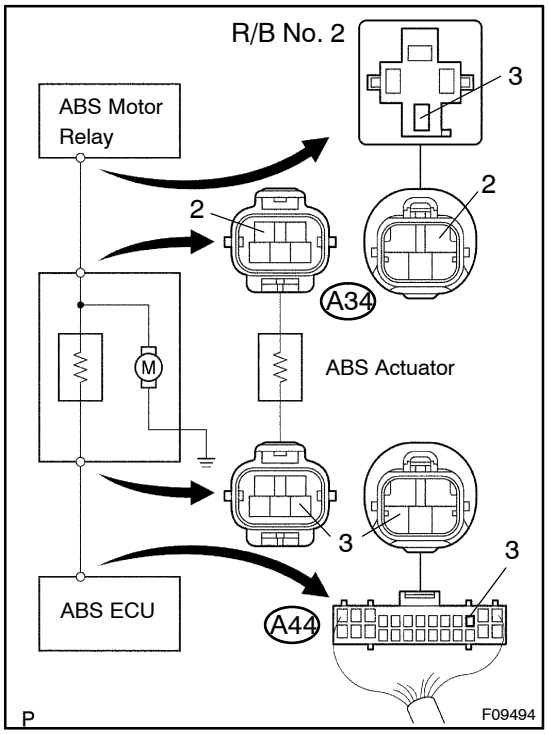
OK:

Terminals 3 and 5	Continuity

NG → **Replace ABS motor relay.**

OK

4	**Check continuity between terminals 3 of R/B No. 2 (for ABS motor relay) and terminal MT (A44 – 3) of ABS ECU.**



CHECK:

Check continuity between terminals 3 of R/B No. 2 (for ABS motor relay) and terminal MT (A44 – 3) of ABS ECU.

OK:

Continuity

HINT:

There is a resistance of 26 – 40 Ω between terminals A34 – 2 and 3 of ABS actuator.

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

OK

5	**Check for open and short circuit in harness and connector between ABS motor relay and ABS ECU (See page IN–21).**

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.