

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

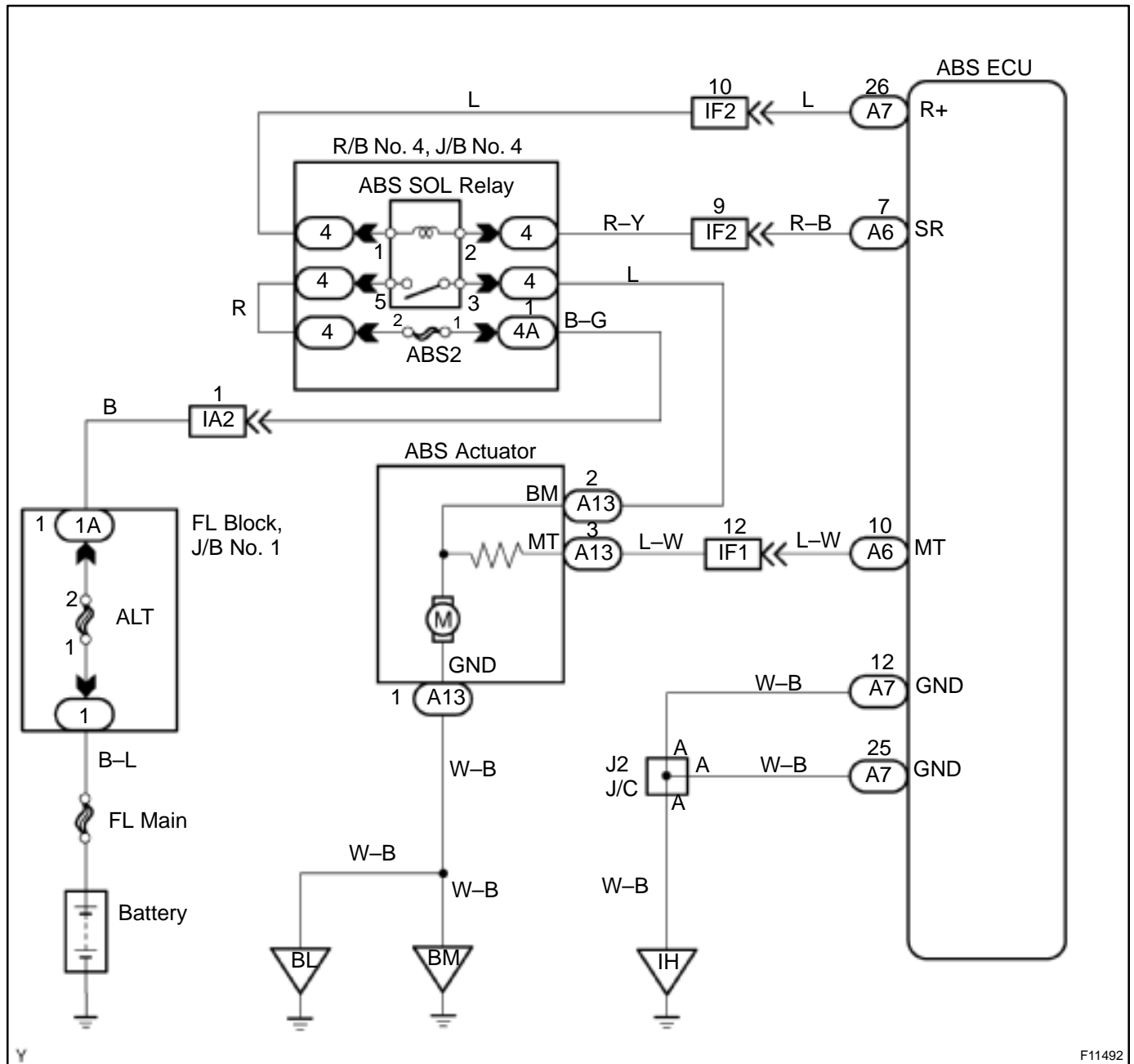
The ABS motor relay (Marking: ABS MTR) supplies power to the ABS pump motor. While the ABS is activated, the ECU switches the ABS motor relay ON and operates the ABS pump motor.

DTC No.	DTC Detection 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 when ABS control is in operation.*1 2. Motor relay is ON driving in the midst of initial check or when ABS control is in operation, ABS ECU terminal IG1 voltage becomes 9.5 V or less.*2	<ul style="list-style-type: none"> • 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



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INSPECTION PROCEDURE

HINT:

Start the inspection from step 1 in case of using the TOYOTA hand-held tester and start from step 2 in case of not using TOYOTA hand-held tester.

1	Check ABS motor relay (Marking: ABS MTR) operation.
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PREPARATION:

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

CHECK:

Check the operation sound of the ABS motor relay when operating it with the TOYOTA hand-held tester.

OK:

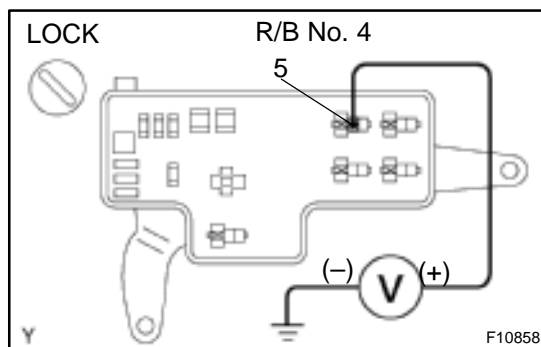
The operation sound of the ABS motor relay should be heard.

OK

Go to step 5.

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2	Check voltage between terminal 5 of R/B No. 4 (for ABS motor relay (Marking: ABS MTR)) and body ground.
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PREPARATION:

Remove the ABS motor relay from the R/B No. 4.

CHECK:

Measure the voltage between terminal 5 of the R/B No. 4 (for ABS motor relay) and body ground.

OK:

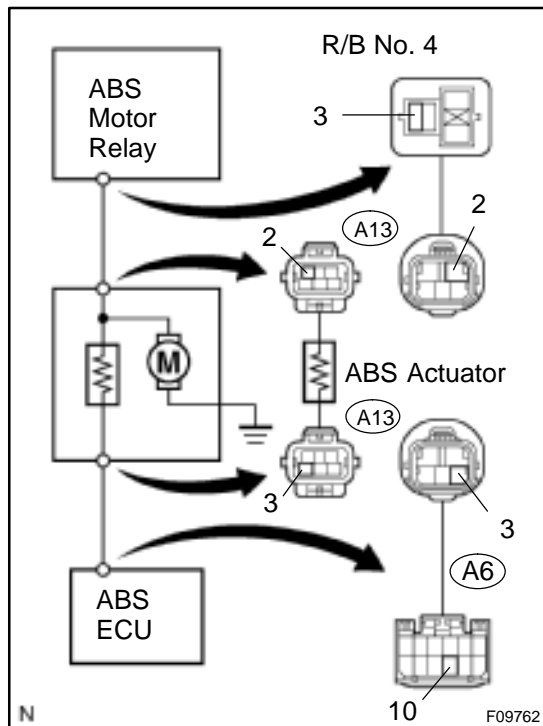
Voltage: 10 – 14 V

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Check and repair harness or connector between R/B No. 4 and battery.

OK

- 3 Check continuity between terminal 3 of R/B No. 4 (for ABS motor relay (Marking: ABS MTR)) and terminal MT (A6–10) of ABS ECU.**

**CHECK:**

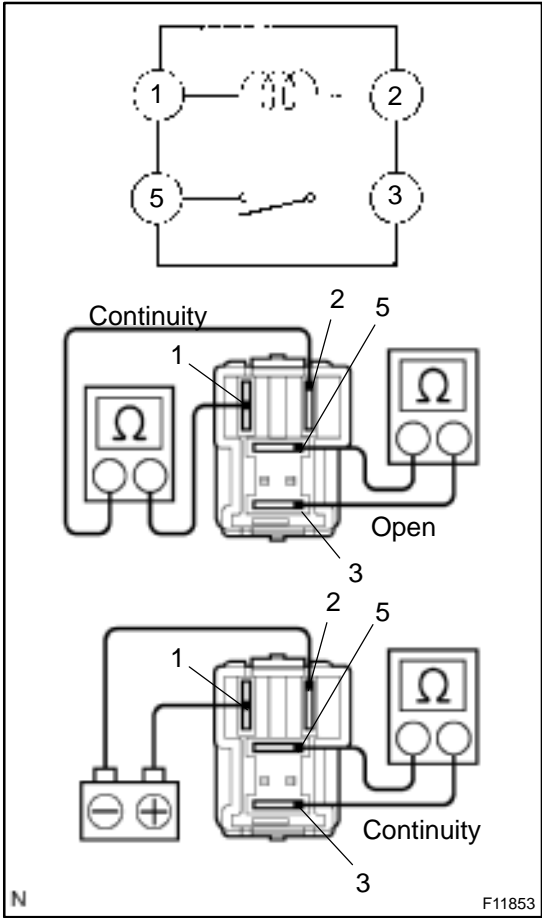
Check the continuity between terminal 3 of the R/B No. 4 (for ABS motor relay) and terminal MT (A6–10) of the ABS ECU.

OK:**Continuity****HINT:**

There is a resistance of 4 – 6 Ω between terminals A13–2 and A12–3 of the ABS actuator.

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

4 Check ABS motor relay (Marking: ABS MTR).



PREPARATION:

Remove the ABS motor relay from the R/B No. 4.

CHECK:

Check the continuity between each terminal of the ABS motor relay.

OK:

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

CHECK:

- (a) Apply battery positive voltage between terminals 1 and 2.
- (b) Check the continuity between terminals of the ABS motor relay.

OK:

Terminals 3 and 5	Continuity
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Replace ABS motor relay.

OK

5 Check for open and short circuit in harness and connector between ABS motor relay (Marking: ABS MTR) and ABS ECU (See page IN-28).

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Repair or replace harness or connector.

OK

If same code is still output after the DTC is deleted, check connections. If connections are normal, ECU may be defective.