

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

The ABS MTR relay supplies power to the ABS pump motor. While the ABS & TRC 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 0.12 sec. or more: 1. ECU terminal IG1 voltage is 9.5 V to 17.2 V in the initial check or ABS, TRC, VSC and BA are in operation, and when the MTR relay is ON, however, the contact point of the MTR relay is OFF. 2. ECU terminal IG1 is 9.5 V or less, and when the MTR relay is ON, but the contact point of the MTR relay does not become ON.	• ABS MTR relay • ABS MTR relay circuit • Skid control ECU
C0274 / 14	When the MTR relay is OFF, the condition that the contact point of MTR relay is ON continues for 4 sec. or more.	

Skid Control ECU

1 R+ (S16)

23 MR (S16)

14 MT (S19)

24 MRF (S16)

GR-R

Engine Room R/B No. 3

VSC MTR Relay

GR-R

B

W

A31 ABS&TRC&VSC Actuator

2 GND

1 W

+BM

MT

11 V-Y

14 MT (S19)

24 MRF (S16)

R-L

GR-R

Engine Room J/B

2A

1

2

ALT

1

2

ABS No. 1

1

2

2G

B-R

B-R

FL MAIN

Battery

EB

INSPECTION PROCEDURE

HINT:

After step 1, go to step 2 in case of using the hand-held tester and start go to step 3 in case of not using hand-held tester.

1 Is there DTC C1361/91 being indicated?

YES

Repair circuit indicated by C1361/91.

NO

2 Check VSC MTR 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 VSC MTR relay when operating it with the hand-held tester.

OK:

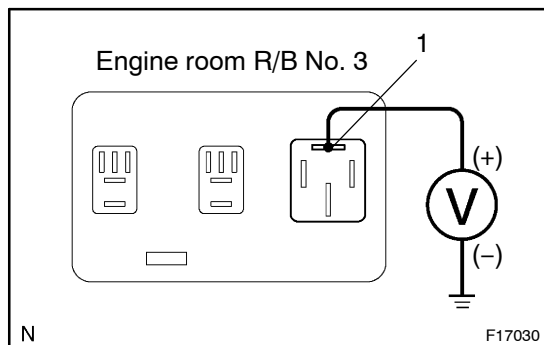
The operation sound of the VSC MTR relay should be heard.

OK

Go to step 4.

NG

- 3 Check voltage between terminal 1 of engine room R/B No. 3 (for VSC MTR relay) and body ground.**

**PREPARATION:**

- Turn the ignition switch OFF.
- Remove the VSC MTR relay from the engine room R/B No. 3.
- Turn the ignition switch ON.

CHECK:

Measure voltage between terminal 1 of engine room R/B No. 3 (for VSC MTR relay) and body ground.

OK:

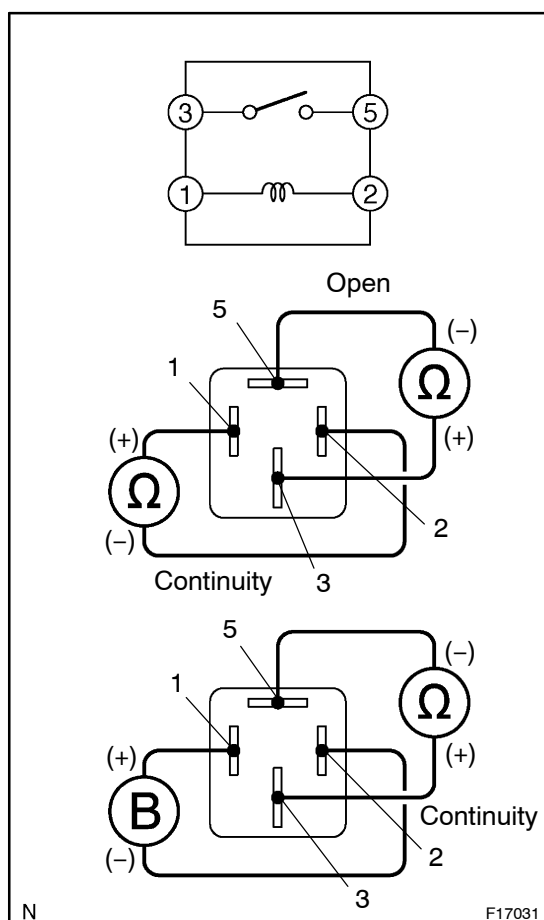
Voltage: 10 – 14 V

NG

Check and repair harness or connector.

OK

- 4 Check VSC MTR relay.**

**CHECK:**

Check continuity between each pair of terminal of VSC MTR relay.

OK:

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

CHECK:

- Apply battery voltage between terminals 1 and 2.
- Check continuity between terminals.

OK:

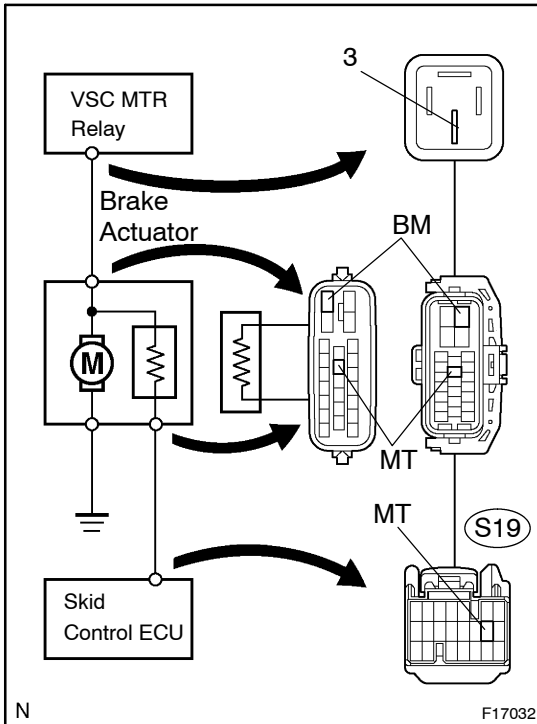
Terminals 3 and 5	Continuity
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Replace VSC MTR relay.

OK

- 5 Check continuity between terminals 3 of engine room R/B No. 3 (for VSC MTR relay) and terminal MT of skid control ECU.**

**PREPARATION:**

- (a) Remove the VSC MTR relay from the engine room R/B No. 3.
- (b) Disconnect the connector from the skid control ECU.

CHECK:

Check continuity between terminals 3 of engine room R/B No. 3 (for VSC MTR relay) and terminal MT of skid control ECU harness side connector.

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

There is no continuity between terminals BM and MT of brake actuator.

NG

Repair or replace harness or brake actuator.

OK

- 6 Check for open and short circuit in harness and connector between VSC MTR relay and skid control 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.