

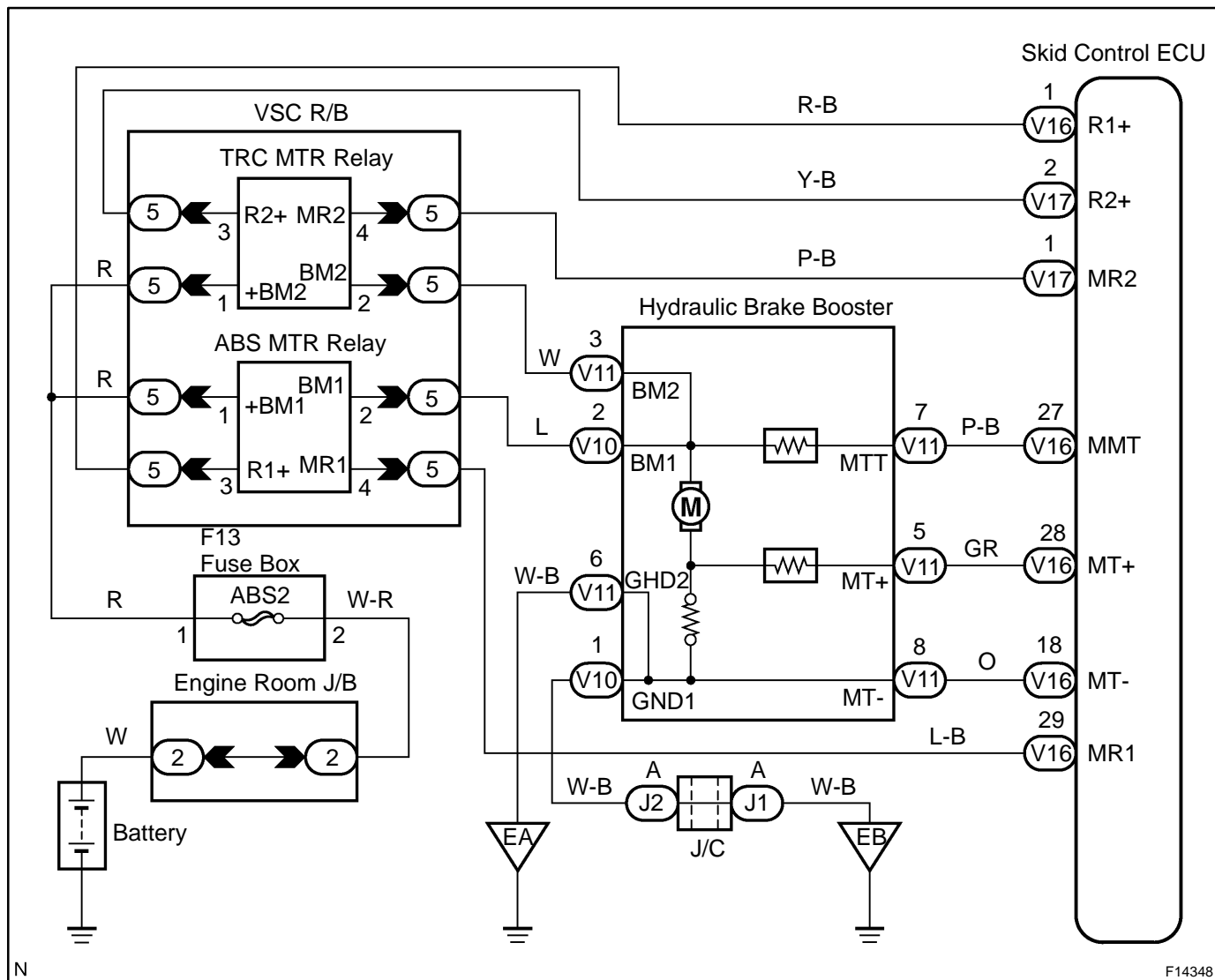
DTC	C1253 / 53	Motor Relay Circuit
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CIRCUIT DESCRIPTION

The ABS MTR relay and TRC MTR relay supply power to the hydraulic brake booster pump motor. While the ABS & BA & TRAC & VSC are activated, the ECU switches the motor relay ON and operates the hydraulic brake booster pump motor.

DTC No.	DTC Detecting Condition	Trouble Area
C1253 / 53	<p>When any of the condition 1. through 4. is detected:</p> <ol style="list-style-type: none"> 1. After the ignition switch is turned ON, open in the relay coil is detected for more than 1 sec. 2. When the pressure switch does not control motor driving, the status that the motor relay is always ON continues for more than 1 sec. due to short circuit. 3. When the pressure switch (PH) detects the low pressure or while the pump motor operates to increase the pressure, the status that the motor relay does not turn ON continues for more than 0.2 sec. 4. When pressure switch does not control motor driving, the status that the motor relay is always ON due to the welded contact continues for more than 2 sec. 	<ul style="list-style-type: none"> • ABS MTR relay or TRC MTR relay • ABS MTR relay or TRC MTR relay circuit • Hydraulic brake booster pump motor circuit

WIRING DIAGRAM



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F14348

INSPECTION PROCEDURE

HINT:

Start the inspection from step 1 in case of using the hand-held tester and start from step 3 in case of not using the hand-held tester.

1	Check ABS MTR relay and TRC MTR relay operation.
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PREPARATION:

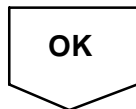
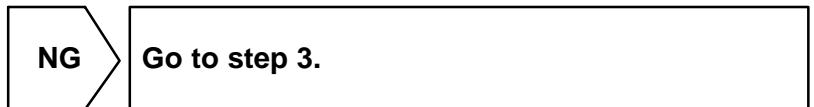
- (a) Connect the hand-held tester to DLC3.
- (b) Turn the ignition switch ON and push the hand-held tester main switch ON.
- (c) Select the ACTIVE TEST mode on the hand-held tester.

CHECK:

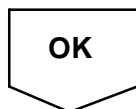
Check the operation sound of the ABS MTR relay and TRC MTR relay individually when operating them with the hand-held tester.

OK:

The operation sound of the ABS MTR relay and TRC MTR relay should be heard.

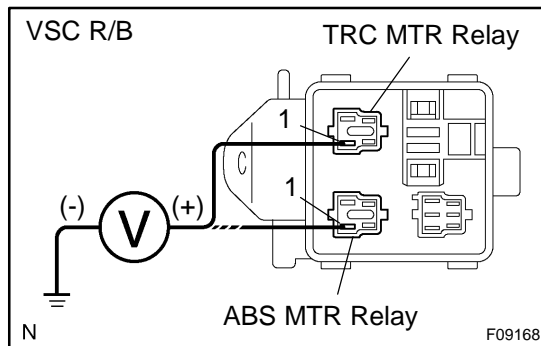


2	Check for short circuit (to B+) in harness and connector between MT of hydraulic brake booster and skid control ECU (See page IN-28).
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Check and replace skid control ECU.
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3 Check voltage between terminal 1 of VSC R/B (for ABS MTR relay and TRC MTR relay) and body ground.



PREPARATION:

Remove the ABS MTR relay and TRC MTR relay from VSC R/B.

CHECK:

Measure voltage between terminal 1 of VSC R/B (for ABS MTR relay and TRC MTR relay) and body ground.

OK:

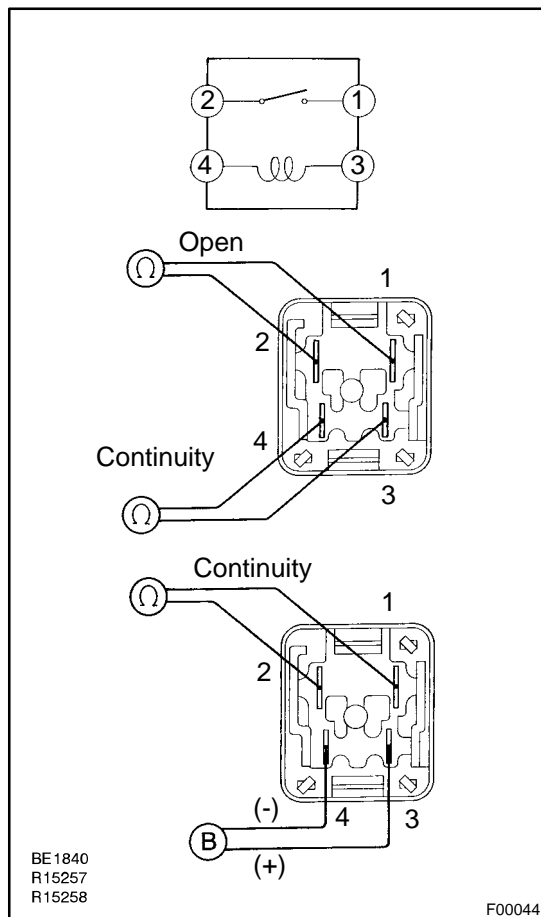
Voltage: 10 - 14 V

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Check and repair harness or connector.

OK

4 Check ABS MTR relay and TRC MTR relay.



CHECK:

Check continuity between each pair of terminals of the motor relay.

OK:

Terminals 3 and 4	Continuity (Reference value *1)
Terminals 1 and 2	Open

*1: ABS MTR relay 62 Ω

TRC MTR relay 54 Ω

CHECK:

- Apply battery positive voltage between terminals 3 and 4.
- Check continuity between terminals.

OK:

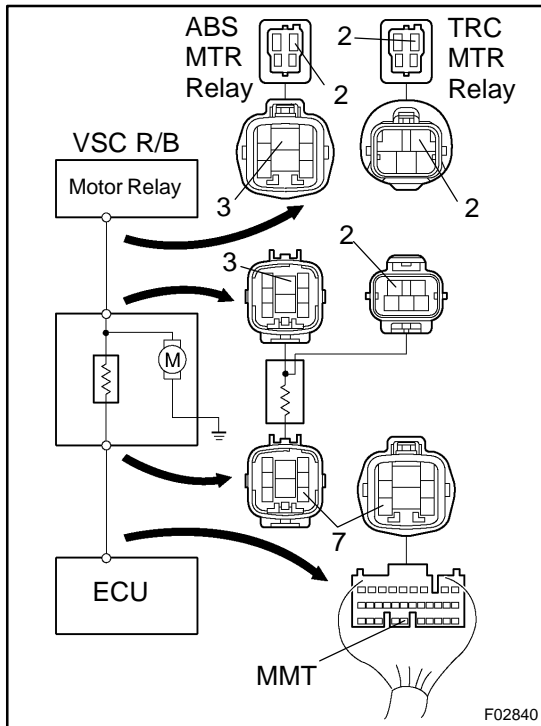
Terminals 1 and 2	Continuity
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Replace ABS MTR relay or TRC MTR relay.

OK

5 Check continuity between each terminal BM1 and BM2 and terminal MMT of skid control ECU.



CHECK:

- (a) Check continuity between terminal BM1 of the ABS MTR relay and terminal MMT of the skid control ECU.
- (b) Check continuity between terminal BM2 of the TRC MTR relay and terminal MMT of the skid control ECU.

OK:

Continuity

HINT:

There is resistance of $33 \pm 3 \Omega$ between terminal BM1 or BM2 and MT of the hydraulic brake booster.

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Repair or replace harness, connector or hydraulic brake booster.

OK

6 Check for open and short circuit in harness and connector between ABS MTR and TRC MTR relay and skid control ECU (See page [IN-28](#)).

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Repair or replace harness or connector.

OK

Check and replace skid control ECU.