

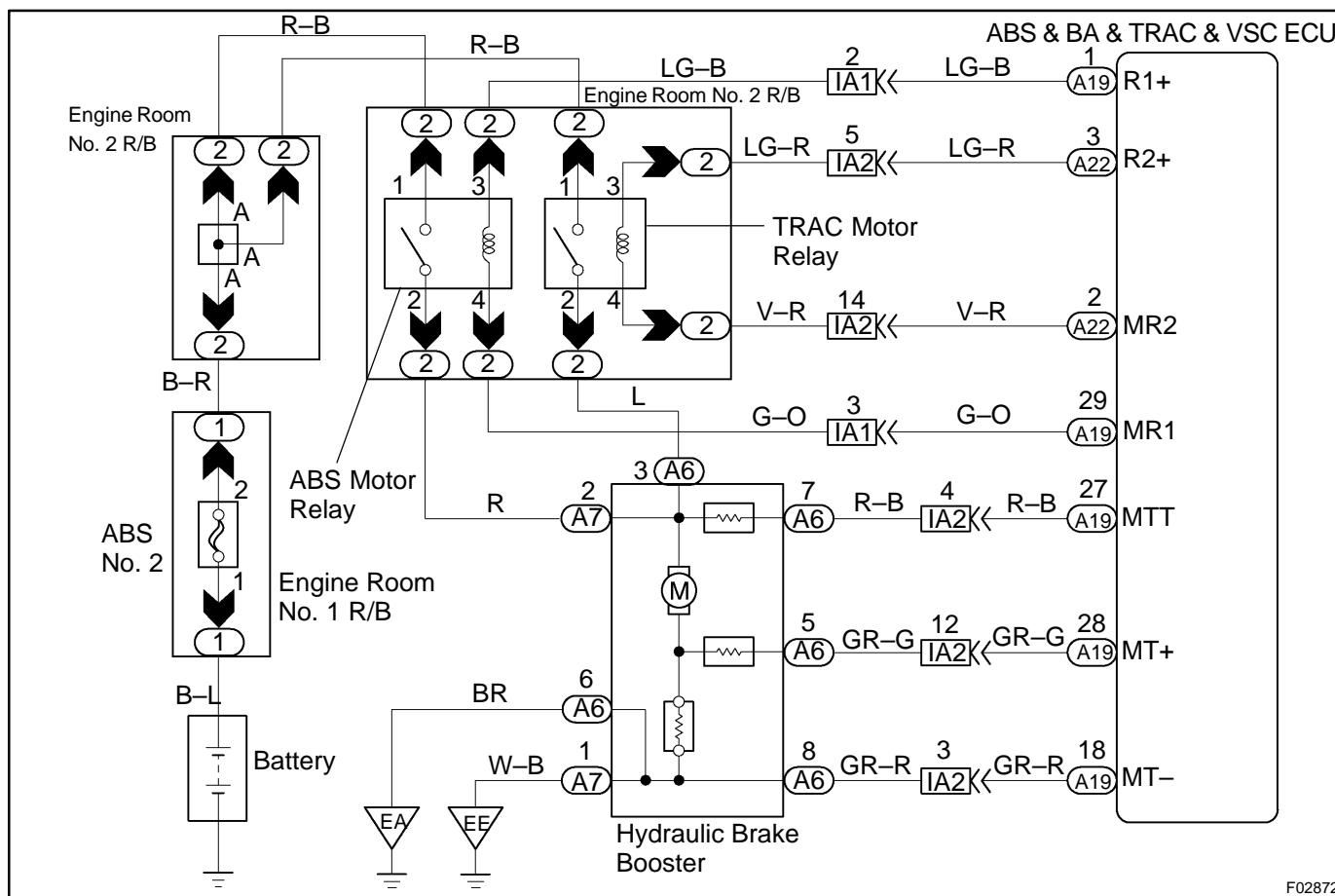
DTC	C1253 / 53	Motor Relay Circuit
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CIRCUIT DESCRIPTION

The ABS and TRAC motor relay supplies 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	When any of the following 1. through 4. is detected: 1. After turning the ignition switch 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 or TRAC motor relay • ABS or TRAC motor relay circuit • Hydraulic brake booster pump motor circuit

WIRING DIAGRAM



F02872

INSPECTION PROCEDURE

HINT:

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

1	Check ABS and TRAC motor relay operation.
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PREPARATION:

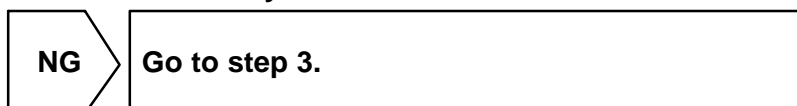
- (a) Connect the LEXUS hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and push the LEXUS hand-held tester main switch ON.
- (c) Select the ACTIVE TEST mode on the LEXUS hand-held tester.

CHECK:

Check the operation sound of the ABS and TRAC motor relays individually when operating it with the LEXUS hand-held tester.

OK:

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

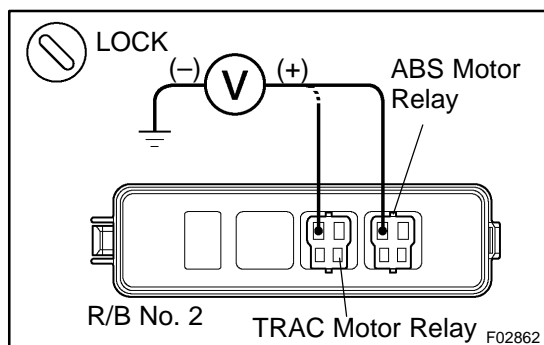


2	Check for short circuit (to B+) in harness and connector between MTT of hydraulic brake booster and ABS & BA & TRAC & VSC ECU (See page IN-32).
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Check and replace ABS & BA & TRAC & VSC ECU.

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



PREPARATION:

Remove ABS and TRAC motor relay from engine room R/B No. 2.

CHECK:

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

OK:

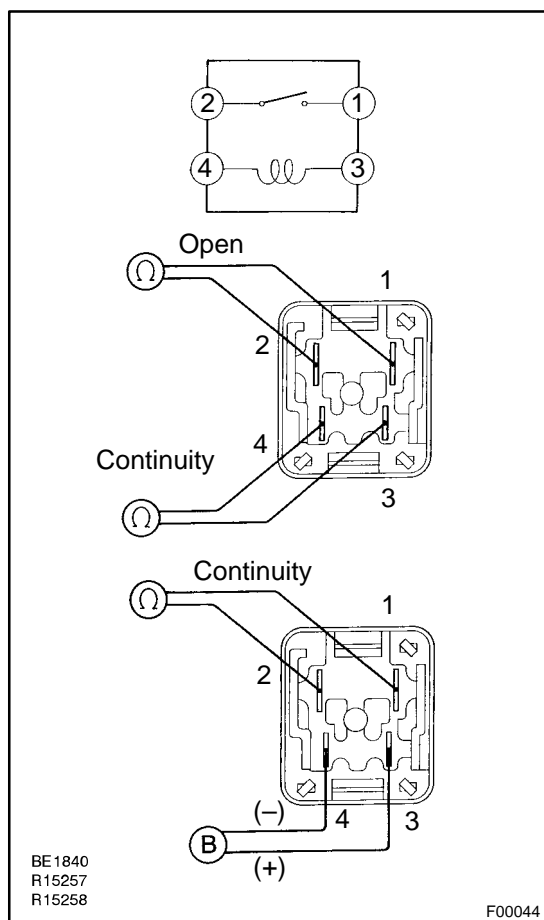
Voltage: 10 – 14 V

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Check and repair harness or connector.

OK

4 Check ABS and TRAC motor relay.



CHECK:

Check continuity between each pair of terminal of motor relay.

OK:

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

*1: ABS motor relay 62 Ω
TRAC motor relay 54 Ω

CHECK:

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

OK:

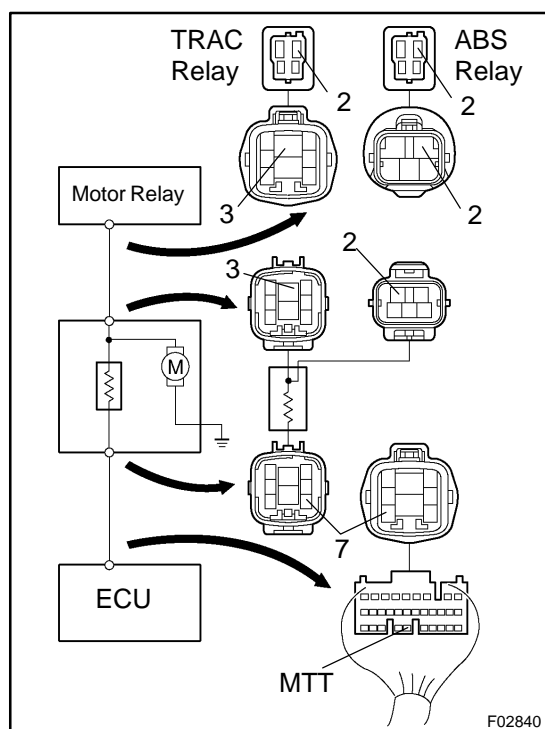
Terminals 1 and 2	Continuity
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Replace ABS or TRAC motor relay.

OK

5 Check continuity between each terminal BM1 and BM2 and terminal MTT of ABS & BA & TRAC & VSC ECU.



PREPARATION:

Disconnect the 2 connectors from the hydraulic brake booster.

CHECK:

- Check continuity between terminal BM1 of ABS motor relay and terminal MTT of ABS & BA & TRAC & VSC ECU.
- Check continuity between terminal BM2 of TRAC motor relay and terminal MTT of ABS & BA & TRAC & VSC ECU.

OK:

Continuity

HINT:

There is resistance of $33 \pm 3 \Omega$ between terminal BM1 or BM2 and MTT 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 and TRAC motor relay and ABS & BA & TRAC & VSC ECU (See page IN-32).

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Repair or replace harness or connector.

OK

Check and replace ABS & BA & TRAC & VSC ECU.