

<b>DTC</b>	<b>13, 14</b>	<b>ABS Motor Relay Circuit</b>
------------	---------------	--------------------------------

### CIRCUIT DESCRIPTION

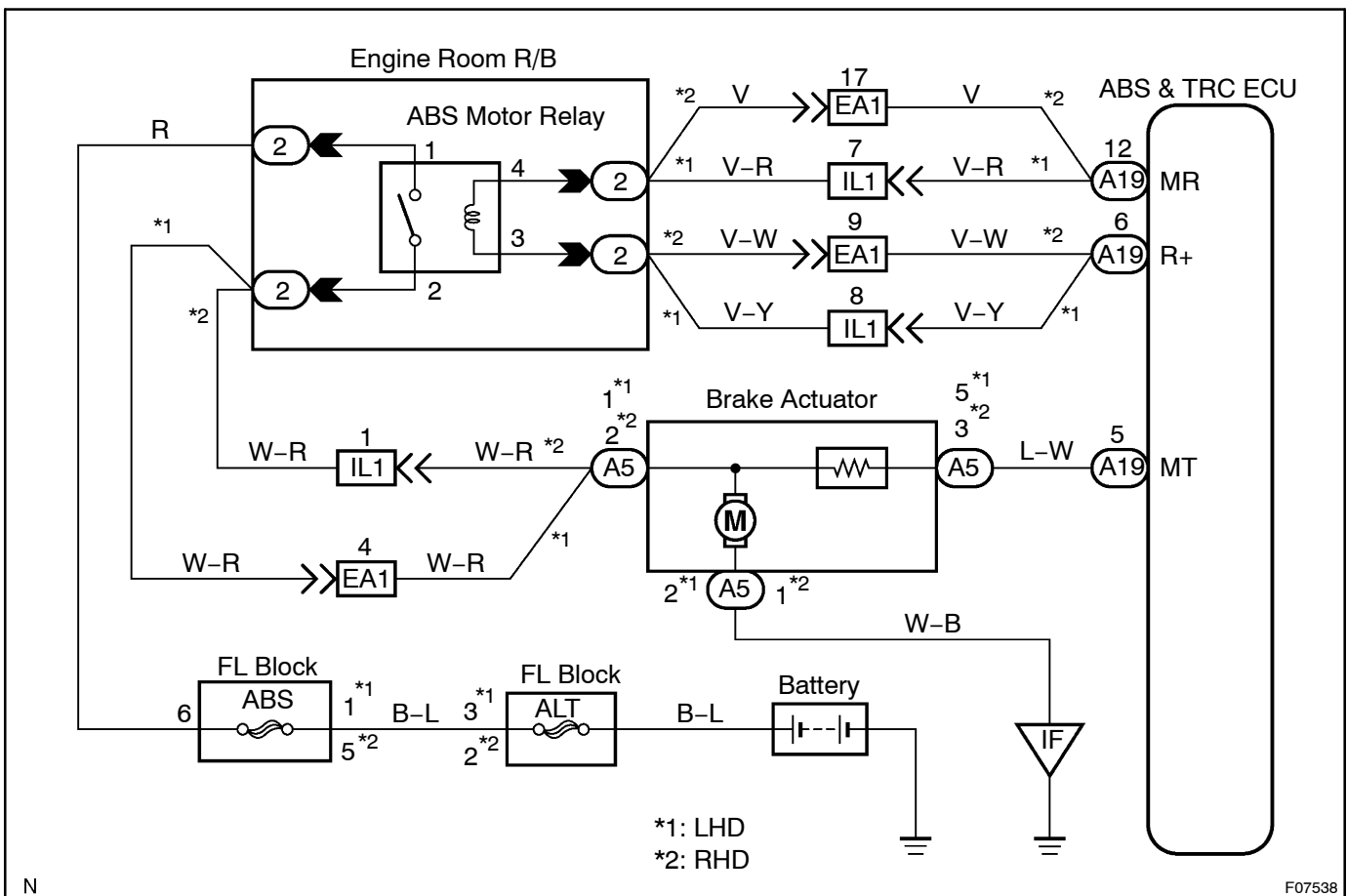
The ABS motor relay supplies power to the ABS pump motor. While the ABS is activated, the ECU switches the ABS motor relay ON and operates the ABS pump motor.

DTC No.	DTC Detecting Condition	Trouble Area
13	Conditions 1. and 2. continued for 0.2 sec. or more: 1. ECU terminal IG1 voltage is 9.5 V to 18 V in the initial check or ABS, is in operation, and when the motor relay is ON, however the contact point of the motor relay is OFF. 2. ECU terminal IG1 is 9.5 V or less, and when the motor relay is ON, but the contact point of the motor relay does not become ON.	<ul style="list-style-type: none"> <li>• ABS motor relay</li> <li>• ABS motor relay circuit</li> </ul>
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 control.

### WIRING DIAGRAM

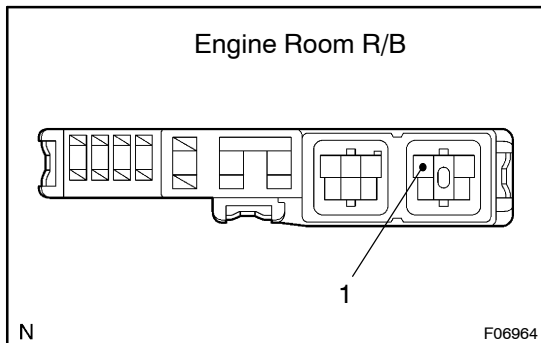


N

F07538

## INSPECTION PROCEDURE

- 1 Check voltage between terminal +BM (1) of engine room R/B (for ABS motor relay) and body ground.**

**PREPARATION:**

Remove ABS motor relay from engine room R/B.

**CHECK:**

Measure voltage between terminal 1 of engine room R/B (for ABS motor relay) and body ground.

**OK:**

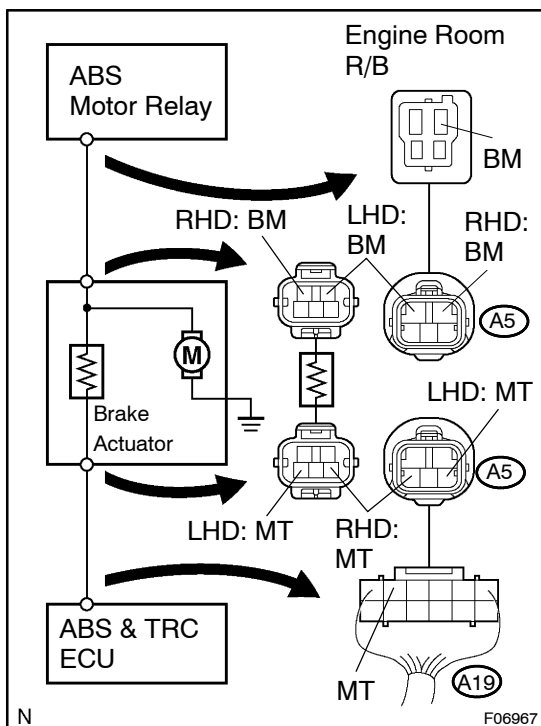
**Voltage: 10 - 14 V**

**NG**

**Check and repair harness or connector.**

**OK**

- 2 Check continuity between terminal BM (2) of engine room R/B (for ABS motor relay) and terminal MT (A19 - 5) of ABS & TRC ECU.**

**CHECK:**

Check continuity between terminal BM of engine room R/B and terminal MT of ABS & TRC ECU.

**OK:**

**Continuity**

**HINT:**

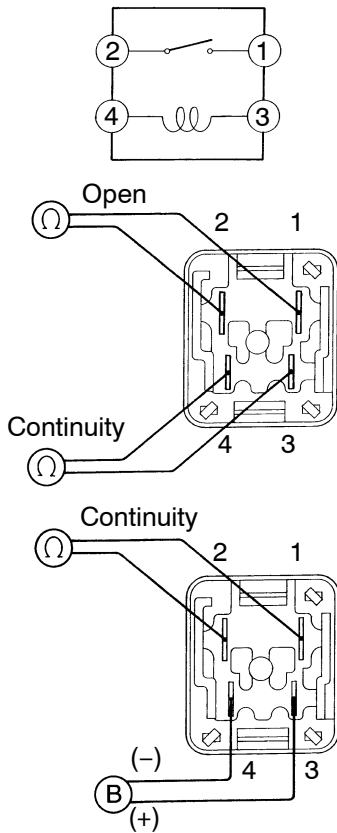
There is a resistance of 31 - 35  $\Omega$  between terminals BM and MT of brake actuator.

**NG**

**Repair or replace harness or brake actuator.**

**OK**

### 3 Check ABS motor relay.



BE1840  
R15257  
R15258

F00044

#### CHECK:

Check continuity between each terminal of ABS motor relay.

#### OK:

Terminals 3 and 4	Continuity (Reference value 38 - 103 Ω)
Terminals 1 and 2	Open

#### CHECK:

(a) Apply battery voltage between terminals 3 and 4.

(b) Check continuity between terminals of ABS motor relay.

#### OK:

Terminals 1 and 2	Continuity
-------------------	------------

NG

Replace ABS motor relay.

OK

### 4 Check for open and short circuit in harness and connector between ABS motor relay and ABS & TRC 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.