

Diag. Code 13, 14 ABS Motor Relay Circuit

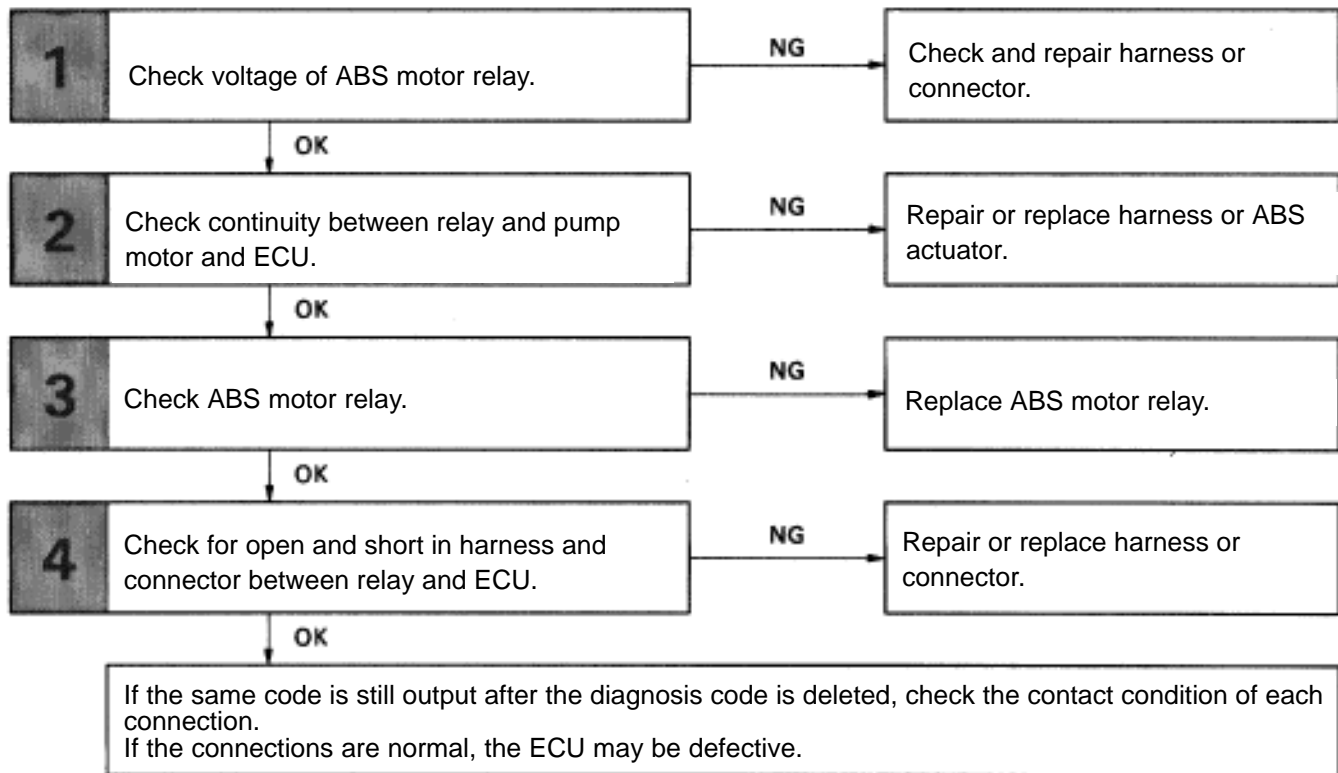
— CIRCUIT DESCRIPTION —

The ABS motor relay supplies power to the ABS pump motor. If the accumulator pressure drops, the ECU switches the motor relay ON and operates the ABS pump motor.

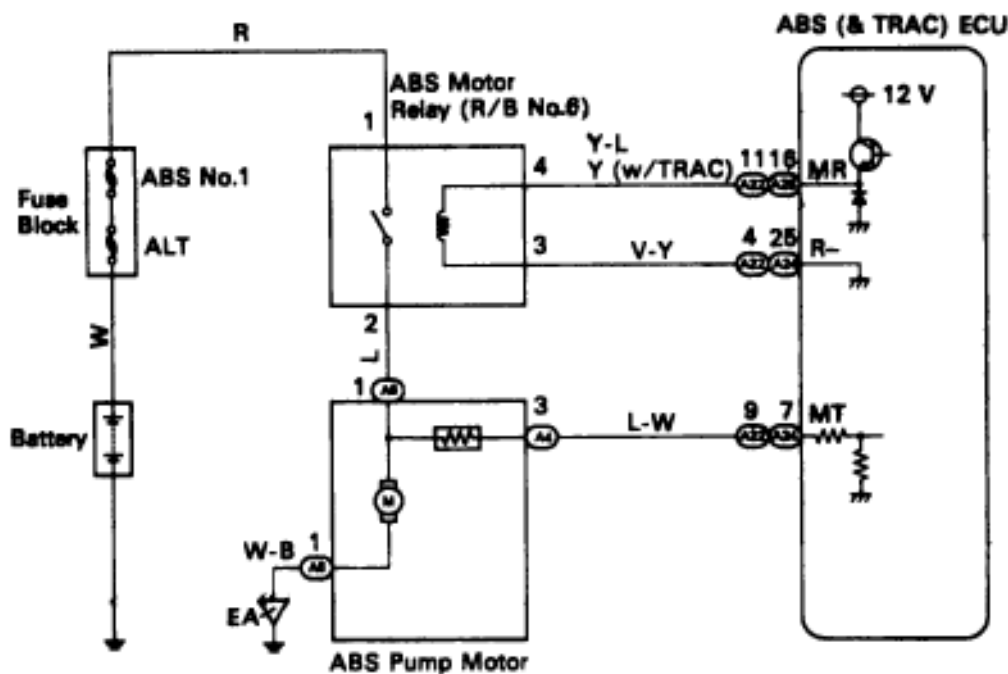
Code No.	Diagnostic Code Detecting Condition	Trouble Area
13	Conditions (1) and (2) continue for 0.2 sec. or more (1) ABS motor relay: ON (2) Motor relay monitor terminal voltage: OV	<ul style="list-style-type: none"> •ABS motor relay •Open or short in ABS motor relay circuit •ECU
14	Conditions (1) and (2) continue for 2 sec. or more (1) ABS motor relay: OFF (2) Motor relay monitor terminal voltage: Battery Voltage	<ul style="list-style-type: none"> •ABS motor relay •+ B short in ABS motor relay circuit. •ECU

Fail safe function: If trouble occurs in the motor relay circuit, the ECU cuts off the current to the motor relay and prohibits ABS control.

DIAGNOSTIC CHART



WIRING DIAGRAM

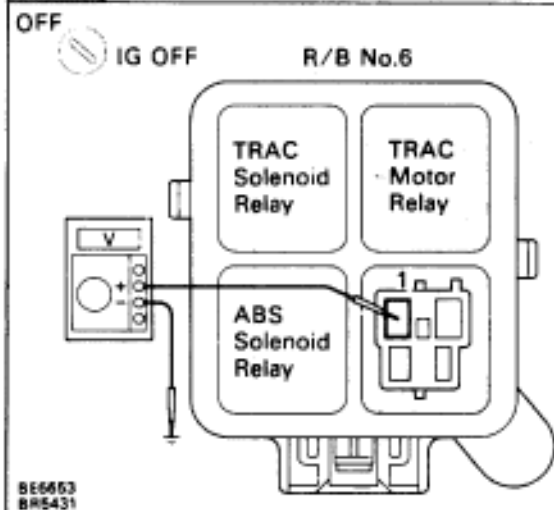


BR6415

INSPECTION PROCEDURE

1

Check voltage between terminal 1 of ABS motor relay and body ground.



- P** Remove ABS motor relay from R/B No.6.
- C** Measure voltage between terminal 1 of ABS motor relay and body ground.
- OK** **Voltage:** 10 – 14V

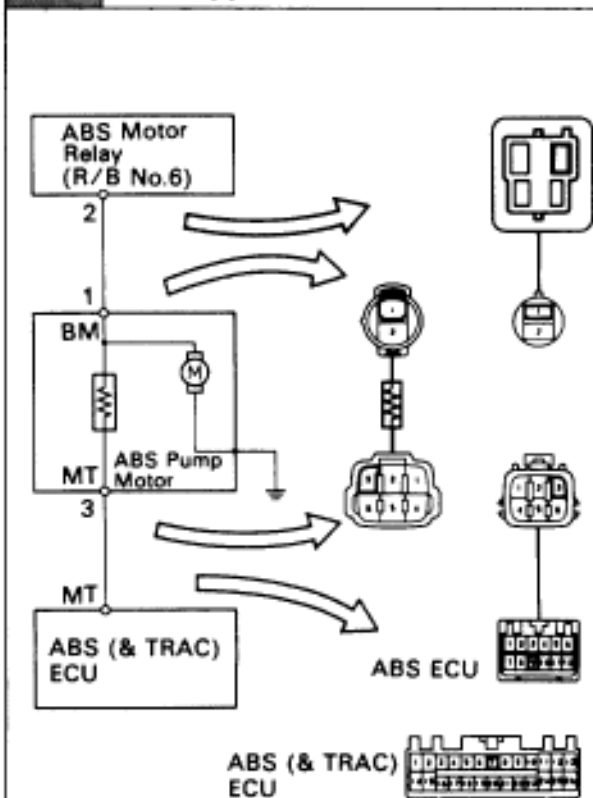
OK

NG

Check and repair harness or connector.

2

Check continuity between terminal 2 of R/B No.6 (for ABS motor relay) and terminal MT of ABS (& TRAC) ECU.



- C** Check continuity between terminal 2 of R/B No.6 (for ABS Motor relay) and terminal MT of ABS (& TRAC) ECU.

OK **Continuity**

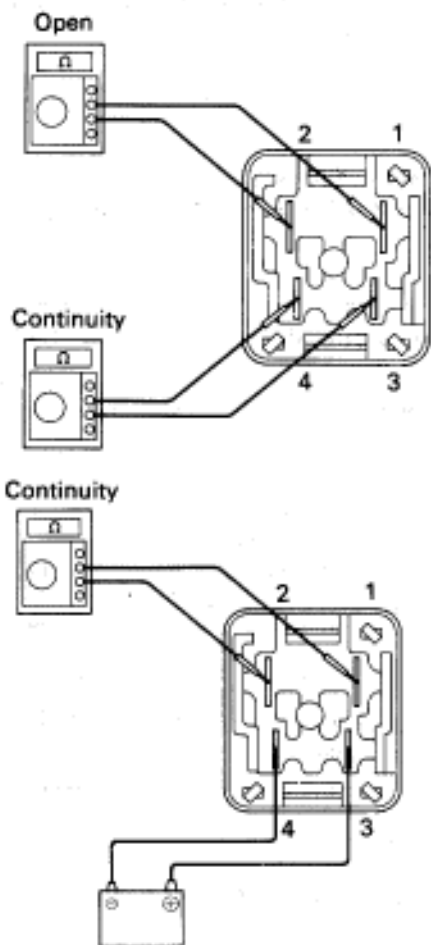
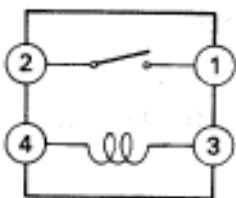
HINT: There is a resistance of 4–6Ω between terminals BM and MT of ABS actuator.

OK

NG

Repair or replace harness or ABS actuator.

3 Check ABS motor relay.



BE1B40
BR5408
BR5409

P Remove motor relay from R/B No.6.

C Check continuity between each pair of terminals of motor relay shown below.

OK

Terminals 3 and 4	Continuity (Reference value 62Ω)
Terminals 1 and 2	Open

- C**
1. Apply battery voltage between terminals 3 and 4.
 2. Check continuity between terminals shown below

OK

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

OK

NG

Replace ABS motor relay.

4

Check for open and short in harness and connector between ABS motor relay and ABS (& TRAC) ECU (see page IN-27).

OK

NG

Repair or replace harness or connector.

If the same code is still output after the diagnosis code is deleted, check the contact condition of each connection.
If the connections are normal, the ECU may be defective.