

DTC	13, 14	ABS Control (Motor) Relay Circuit
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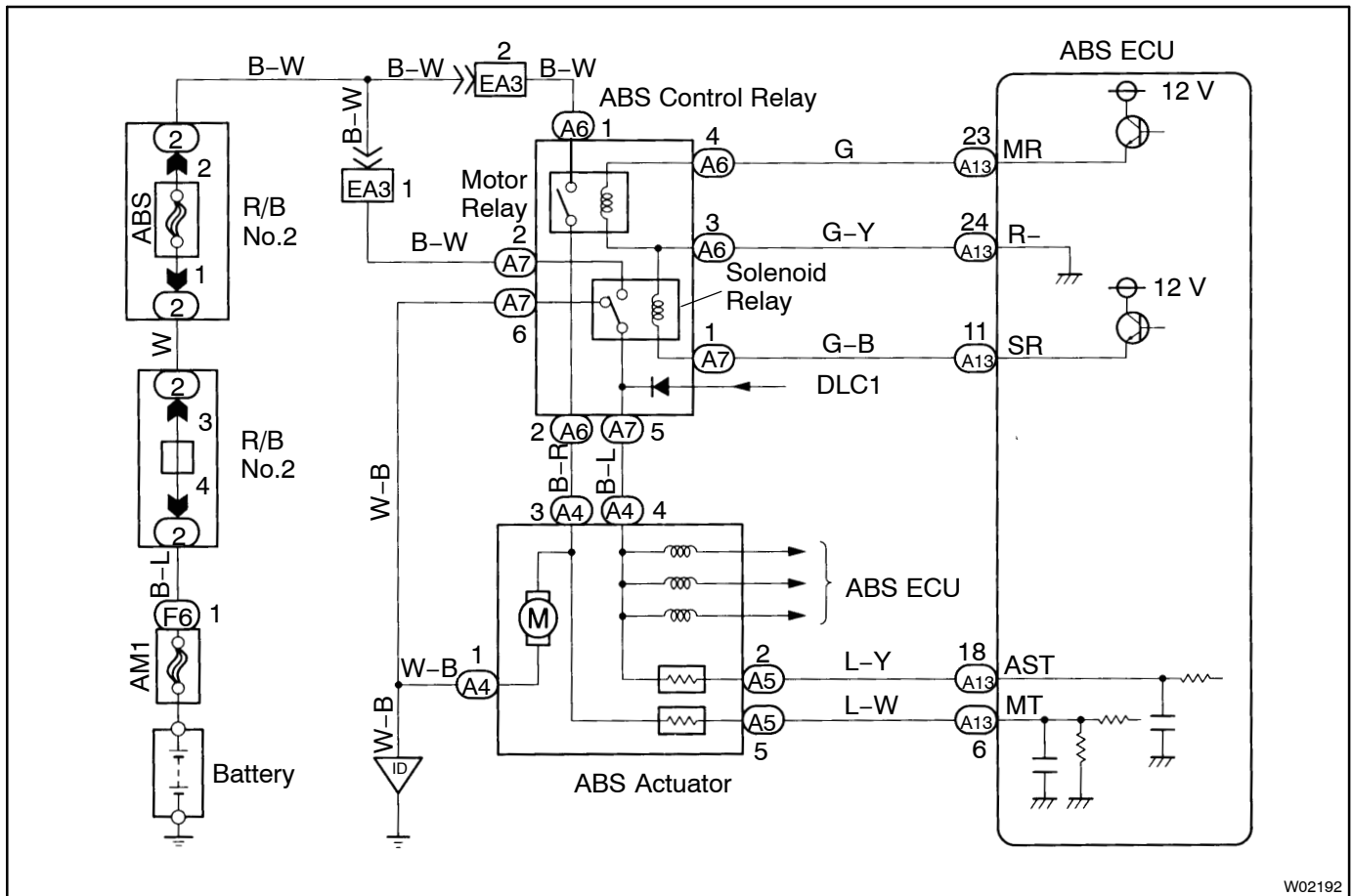
CIRCUIT DESCRIPTION

The ABS control (motor) relay supplies power to the ABS pump motor. While the ABS is activated, the ECU switches the ABS control (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) ABS control (motor) relay terminal (MR) voltage: Battery positive voltage (2) ABS control (motor) relay monitor terminal (MT) voltage: 0 V	• ABS control (motor) relay • Open or short in ABS control (motor) relay circuit
14	Conditions (1) and (2) continued for 2.5 sec. or more: (1) ABS control (motor) relay terminal (MR) voltage: 0 V (2) ABS control (motor) relay monitor terminal (MT) voltage: Battery positive voltage	• ABS control (motor) relay • B+ short in ABS control (motor) relay circuit

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

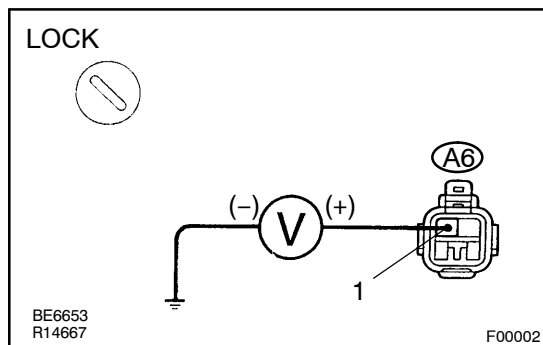
WIRING DIAGRAM



W02192

INSPECTION PROCEDURE

1	Check voltage between terminal A6 - 1 of ABS control relay and body ground.
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**PREPARATION:**

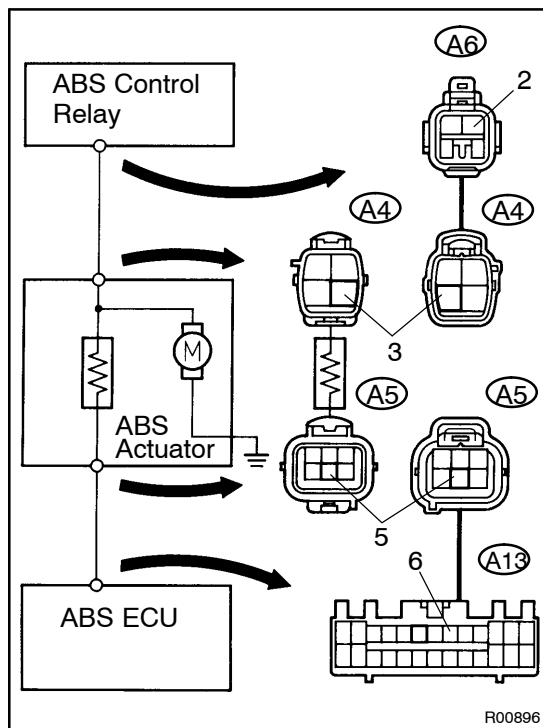
Disconnect the ABS control relay connector.

CHECK:

Measure voltage between terminal A6 - 1 of ABS control relay harness side connector and body ground.

OK:**Voltage: 10 - 14 V****NG****Check and repair harness or connector.****OK**

2	Check continuity between terminals A6 - 2 and A4 - 3, A4 - 3 and A5 - 5, A5 - 5 and A13 - 6.
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**PREPARATION:**

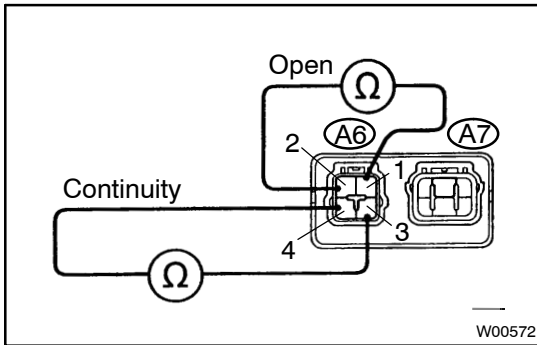
Disconnect the 2 connectors from ABS actuator.

CHECK:

Check continuity between terminals A6 - 2 and A4 - 3, A4 - 3 and A5 - 5, A5 - 5 and A13 - 6.

OK:**Continuity****HINT:**There is a resistance of 4 ~ 6 Ω between terminals A4 - 3 and A5 - 5.**NG****Repair or replace harness or ABS actuator.****OK**

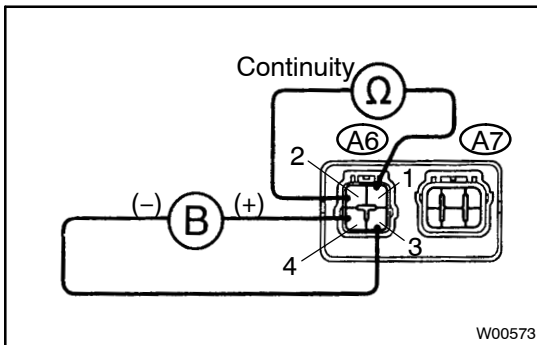
3 Check ABS control (motor) relay.

**CHECK:**

Check continuity between each terminal of ABS control (motor) relay.

OK:

Terminals A6 - 3 and A6 - 4	Continuity (Reference value approx. 62 Ω)
Terminals A6 - 1 and A6 - 2	Open

**CHECK:**

- Apply battery positive voltage between terminals A6 - 3 and A6 - 4.
- Check continuity between each terminal of ABS control relay.

OK:

Terminals A6 - 1 and A6 - 2	Continuity
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NG**Replace ABS control relay.****OK**

4 Check for open and short in harness and connector between ABS control relay and ABS ECU (See [IN-27](#)).

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.