

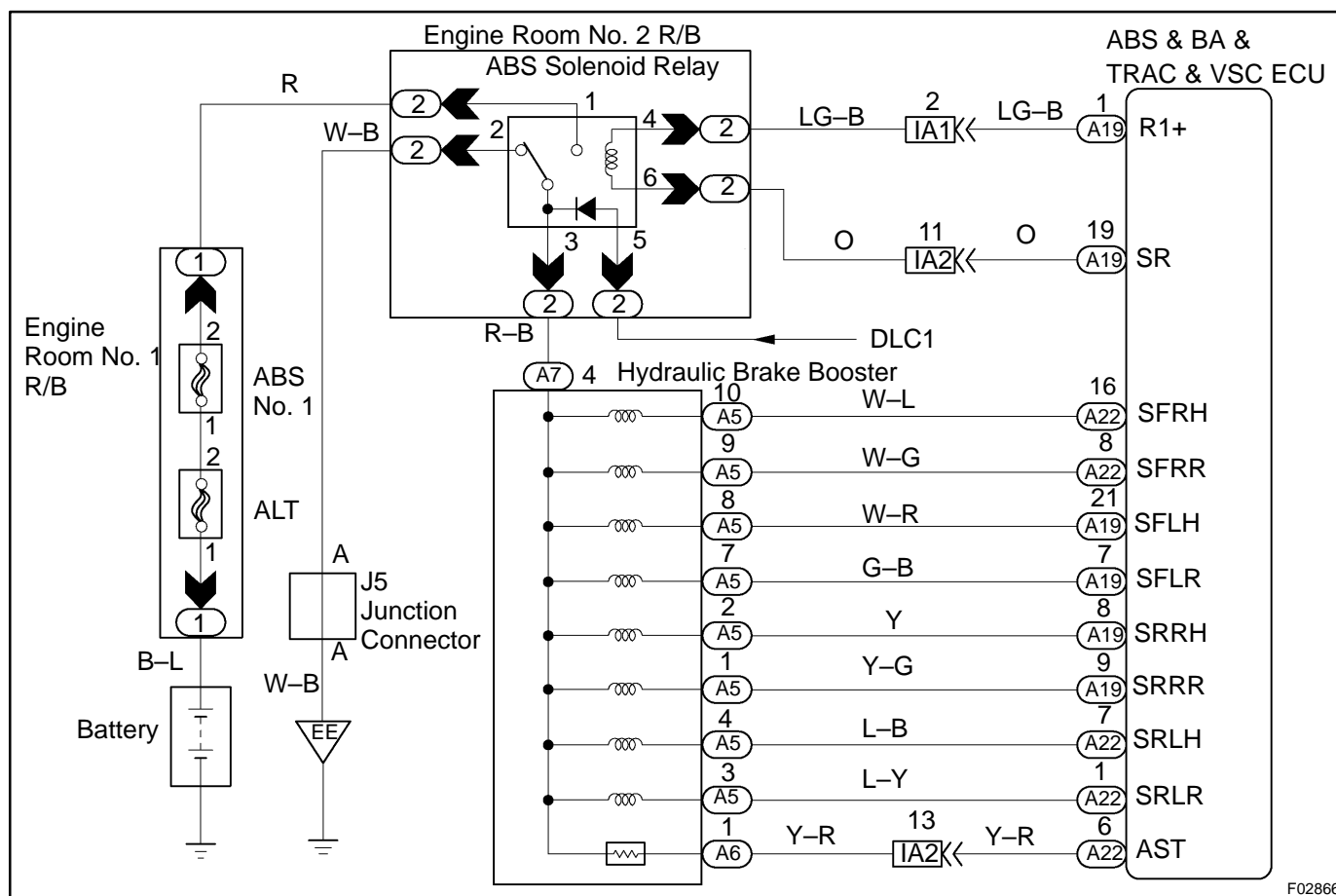
| DTC | C0278 / 11, C0279 / 12 | ABS Solenoid Relay Circuit |
|-----|------------------------|----------------------------|
|-----|------------------------|----------------------------|

CIRCUIT DESCRIPTION

This relay supplies power to each ABS solenoid. After the ignition switch is turned ON, if the initial check is OK, the relay goes on.

| DTC No. | DTC Detecting Condition | Trouble Area |
|------------|---|--|
| C0278 / 11 | Conditions 1. and 2. continue for 0.2 sec. or more: 1. ECU terminal IG1 voltage is 9.5 V to 17.0 V and the solenoid relay is ON, however, the contact point of the solenoid relay is OFF. 2. With solenoid relay ON, ECU terminal IG1 voltage becomes 9.5 V or less and the contact point of the solenoid relay does not become ON. | <ul style="list-style-type: none"> • ABS solenoid relay • ABS solenoid relay circuit |
| C0279 / 12 | Immediately after ECU terminal IG1 becomes ON, and solenoid relay is OFF, however, when the condition that the solenoid relay due to the contact point is ON continues for 0.2 sec. or more. | |

WIRING DIAGRAM



F02866

INSPECTION PROCEDURE**HINT:**

Start the inspection from step 1 in case of using the LEXUS hand-held tester and start from step 2 in case of not using the LEXUS hand-held tester.

| | |
|----------|--|
| 1 | Check ABS solenoid relay operation. |
|----------|--|

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 solenoid relay when operating it with the LEXUS hand-held tester.

OK:

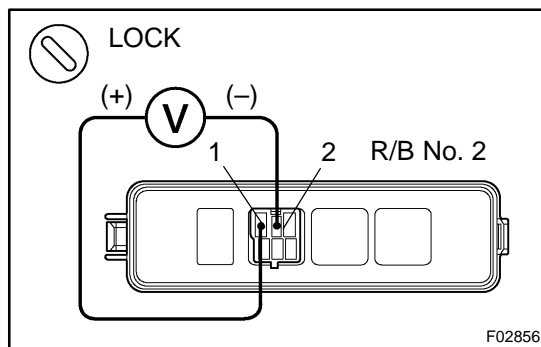
The operation sound of the ABS solenoid relay should be heard.

OK

Go to step 4.

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| | |
|----------|---|
| 2 | Check voltage between terminals 1 and 2 of engine room R/B No. 2 (for ABS solenoid relay). |
|----------|---|

**PREPARATION:**

Remove the ABS solenoid relay from the engine room R/B No. 2.

CHECK:

Measure the voltage between terminals 1 and 2 of engine room R/B No. 2 (for ABS solenoid relay).

OK:

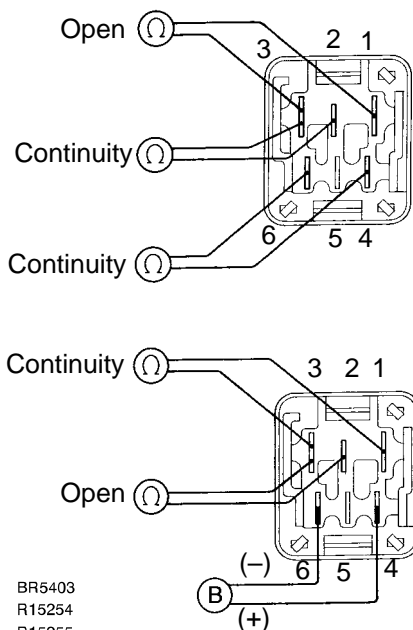
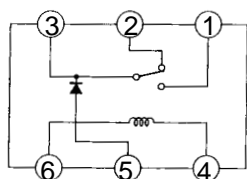
Voltage: 10 – 14 V

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Check and repair harness or connector.

OK

3 Check ABS solenoid relay.



CHECK:

Check continuity between each terminal of ABS solenoid relay.

OK:

| | |
|-------------------|--------------------------------------|
| Terminals 4 and 6 | Continuity (Reference value 80 Ω) |
| Terminals 2 and 3 | Continuity |
| Terminals 1 and 3 | Open |

CHECK:

- Apply battery positive voltage between terminals 4 and 6.
- Check continuity between each terminal of ABS solenoid relay.

OK:

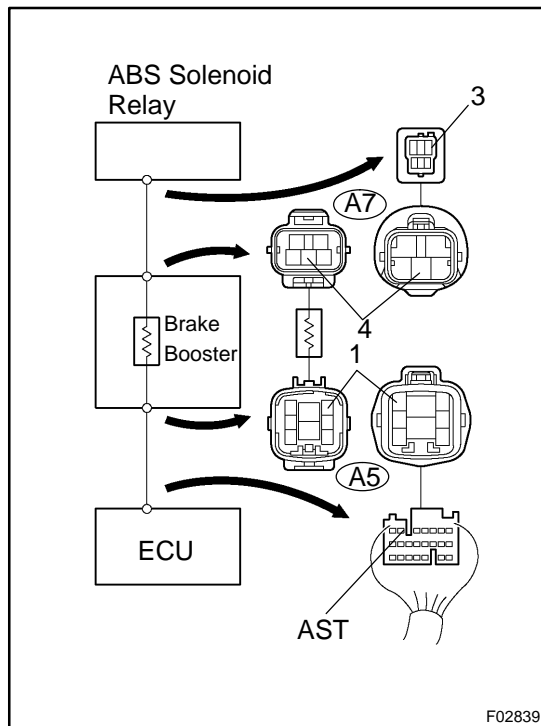
| | |
|-------------------|------------|
| Terminals 2 and 3 | Open |
| Terminals 1 and 3 | Continuity |

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Replace ABS solenoid relay.

OK

4 Check continuity between terminals 3 of ABS solenoid relay and terminal AST of ABS & BA & TRAC & VSC ECU.



PREPARATION:

Disconnect the 2 connectors from hydraulic brake booster.

CHECK:

Check continuity between terminal 3 of ABS solenoid relay and terminal AST of ABS & BA & TRAC & VSC ECU.

OK:

Continuity

HINT:

There is a resistance of 30 – 36 Ω between terminals 4 of connector A and terminal 1 of connector B.

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Repair or replace harness or hydraulic brake booster.

OK

5 Check for open and short circuit in harness and connector between ABS solenoid relay and ABS & BA & TRAC & VSC ECU (See page [IN-32](#)).

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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.