

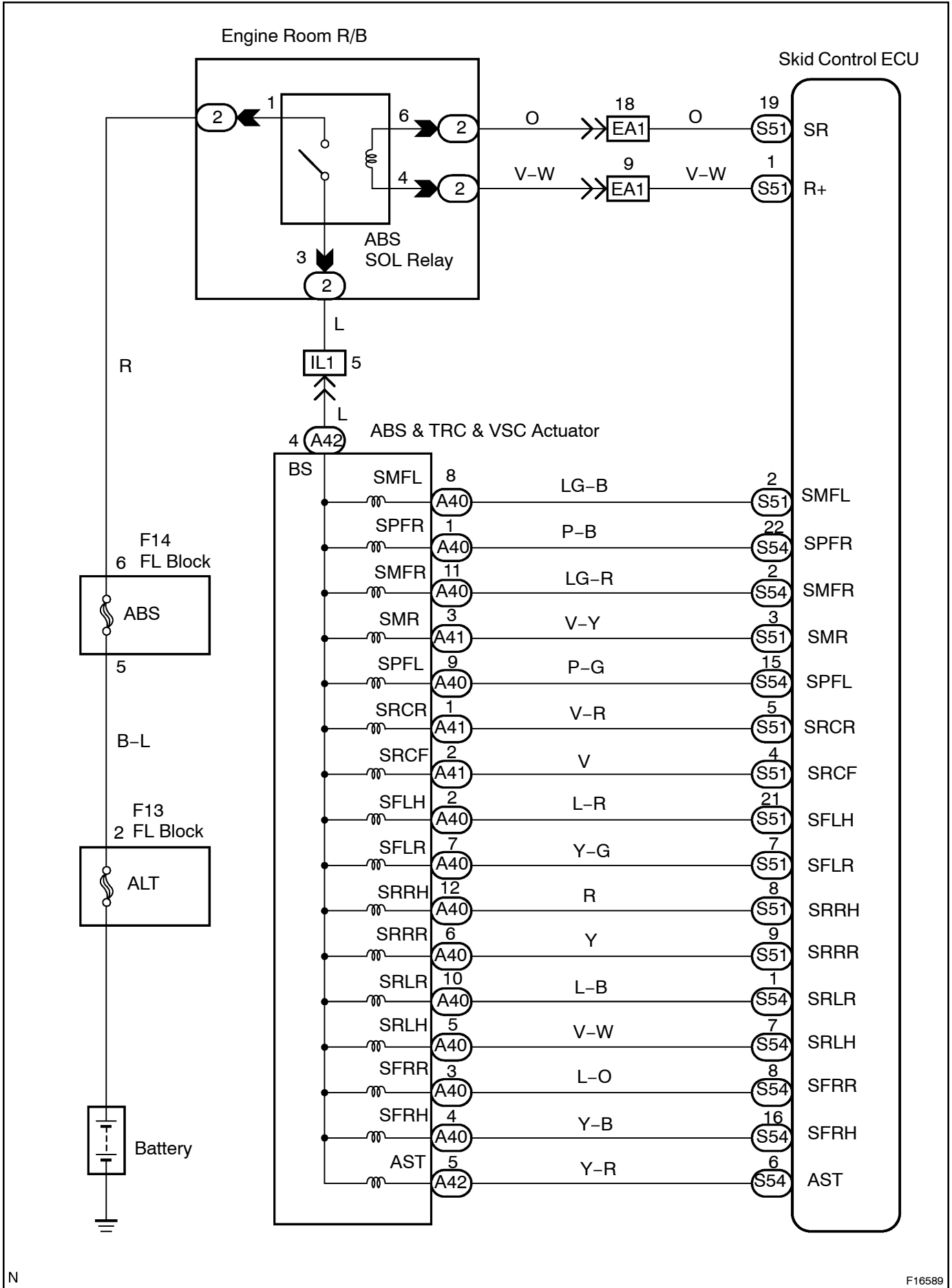
| | | |
|------------|-------------------------------|-----------------------------------|
| DTC | C0278 / 11, C0279 / 12 | ABS Solenoid Relay Circuit |
|------------|-------------------------------|-----------------------------------|

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 17.2 V and the solenoid relay is ON, however the contact point of the solenoid relay is OFF. 2. With solenoid relay ON driving, 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 the condition that the contact point of the solenoid relay is ON continues for 0.2 sec. or more. | |

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

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

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

PREPARATION:

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

CHECK:

Check the operation sound of the ABS solenoid relay when operating it with the hand-held tester.

OK:

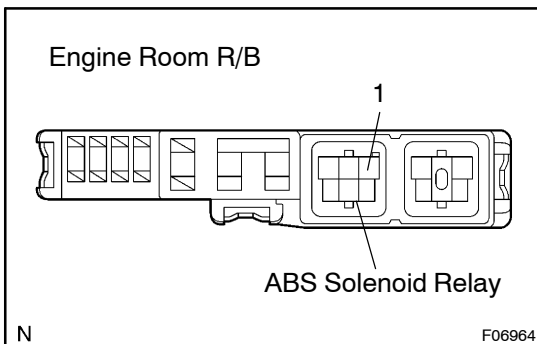
The operation sound of the ABS solenoid relay should be heard.

OK

Go to step 4.

NG

| | |
|----------|--|
| 2 | Check voltage between terminal 1 of engine room R/B (for ABS solenoid relay) and body ground. |
|----------|--|



PREPARATION:

Remove the ABS solenoid relay from engine room R/B.

CHECK:

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

OK:

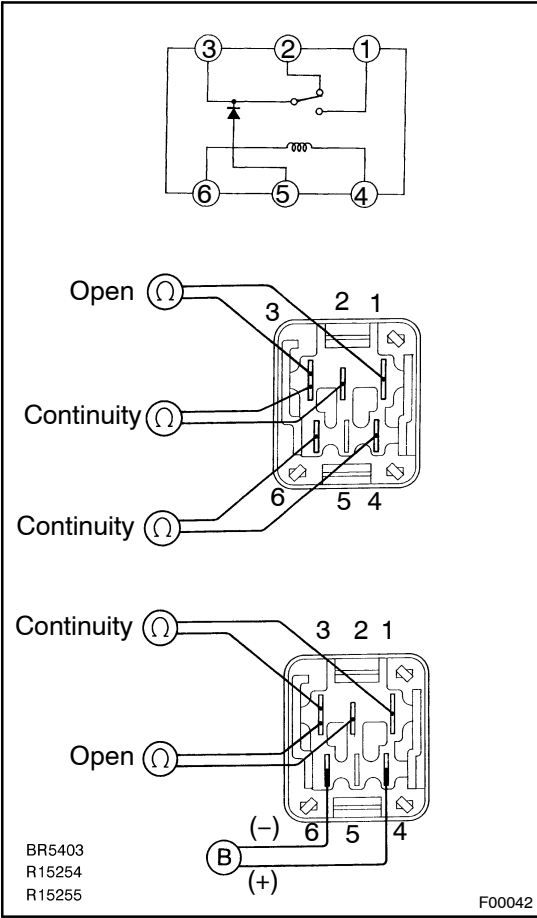
Voltage: 10 - 14 V

NG

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:

- (a) Apply battery voltage between terminals 4 and 6.
- (b) Check continuity between each terminal of ABS solenoid relay.

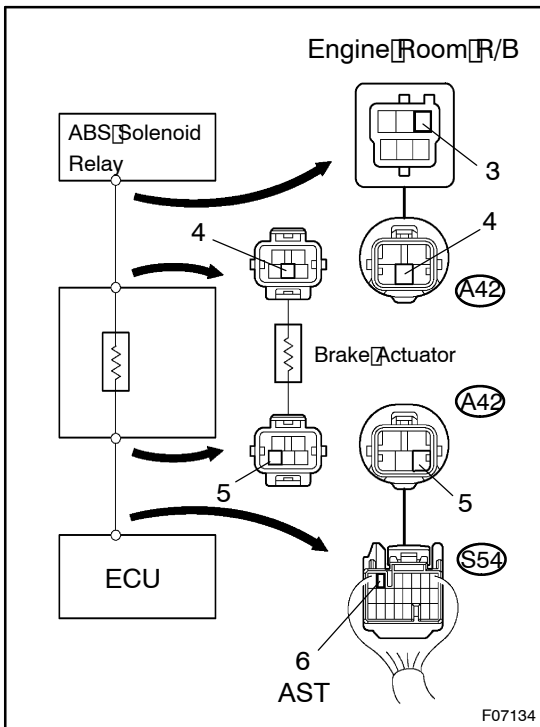
OK:

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

NG Replace ABS solenoid relay.

OK

4 Check continuity between terminals 3 of ABS solenoid relay and each solenoid terminal of skid control ECU.



CHECK:

Check continuity between terminal 3 of engine room R/B (for ABS solenoid relay) and terminal AST of skid control ECU

OK:

Continuity

HINT:

There is a resistance of 26 - 40 Ω between terminals A42 - 4 and A42 - 5 of brake actuator.

NG

Repair or replace harness or brake actuator.

OK

5 Check for open and short circuit in harness and connector between ABS solenoid relay and skid control ECU (See page IN-31).

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.