

DTC	C1743 / 43	AHC Main Relay Circuit
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CIRCUIT DESCRIPTION

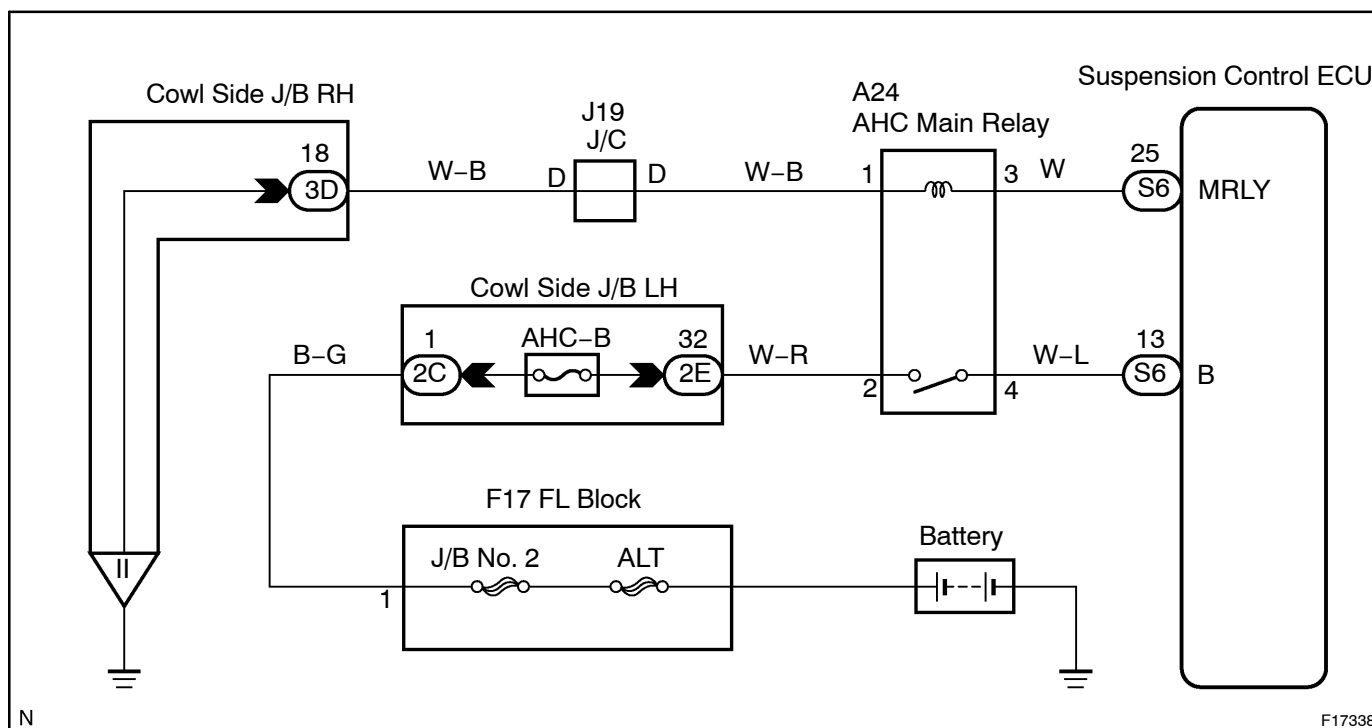
This relay is to supply power source to the suspension control ECU. The relay comes ON a few seconds after the ignition switch is turned ON.

DTC No.	DTC Detecting Condition	Trouble Area
C1743 / 43	Either of the following 1., 2. or 3. detected: - When the condition that the IG terminal voltage of ECU is more than 10 ± 0.5 V and the B terminal voltage of ECU is 1.0 V or less while the main relay is in drive condition continued for 0.5 sec. - After the condition that the upper reaches voltage of the main solenoid when the main relay is ON is 2 V or less continued for 40 ± 10 msec. and when turning the electricity 1 ± 0.1 sec. later and detecting the short circuit condition 4 times continuously - When detecting that the IG terminal voltage of ECU is 10 ± 0.5 V or more when the main relay is non-driving and the condition that the IG terminal voltage is less than the voltage added 4 V to the B terminal voltage of ECU continued for 2 secs.	• AHC main relay • AHC main relay circuit • ECU

Fail safe function:

If a trouble occurs in the AHC main relay circuit, the ECU prohibits the height control and fixed the damping force at the sports mode.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	Check AHC main relay operation.
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IN CASE OF USING LEXUS HAND-HELD TESTER:

PREPARATION:

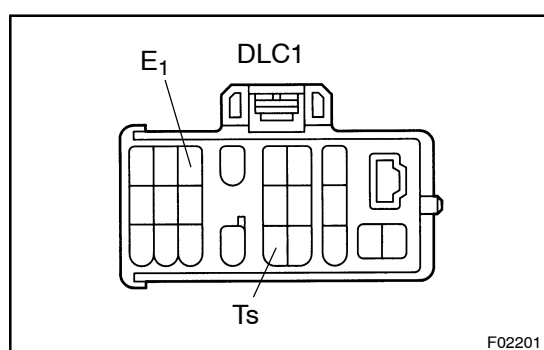
- Connect the LEXUS hand-held tester to the DLC3.
- Turn the ignition switch ON and push the LEXUS hand-held tester main switch ON.
- Select the ACTIVE TEST mode on the LEXUS hand-held tester.

CHECK:

Check the operation sound of the AHC main relay when operating it with the LEXUS hand-held tester.

OK:

The operation sound of the AHC main relay should be heard.



IN CASE OF NOT USING LEXUS HAND-HELD TESTER:

PREPARATION:

- Using SST, connect terminals Ts and E₁ of DLC1.
SST 09843-18020
- Push the "DOWN" button of the height select switch 5 times or more within 5 seconds after turning the ignition switch ON.

HINT:

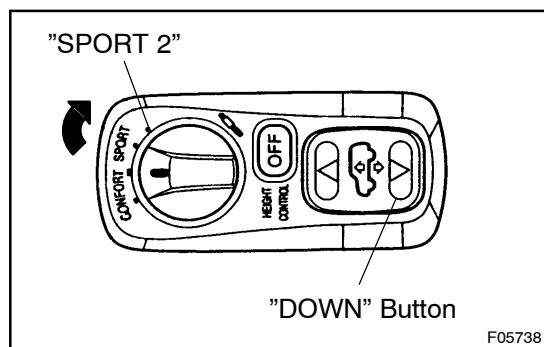
At this time the height control OFF indicator light flashes at 0.25 second intervals.

CHECK:

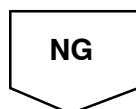
- Change the damping mode select switch to the "SPORT 2" position.
- Push the "DOWN" button of the height select switch, then check the operation sound of the AHC main relay.

OK:

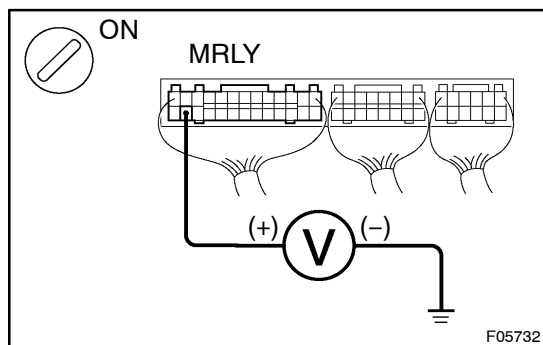
The operation sound of the AHC main relay should be heard.



OK	Clear the DTC (See page DI-511).
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2 Check voltage between terminal MRLY of suspension control ECU and body ground.

**PREPARATION:**

Remove the suspension control ECU with connectors still connected.

CHECK:

- Turn the ignition switch ON.
- Measure voltage between terminal MRLY of suspension control ECU and body ground.

OK:

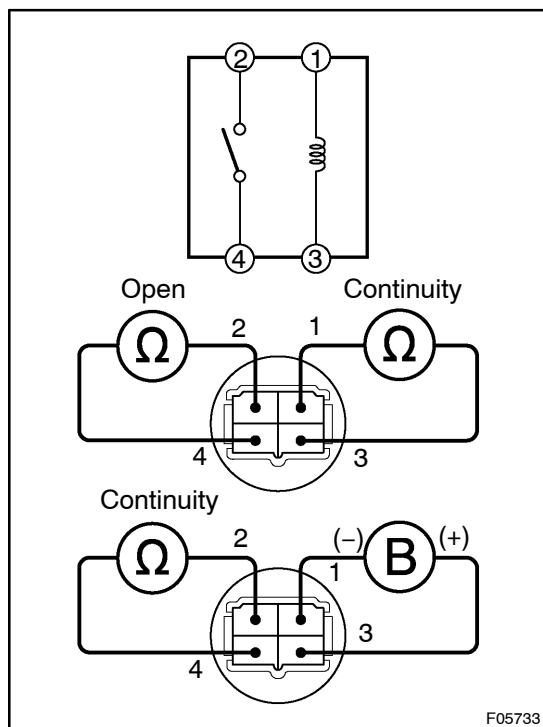
Voltage: 9 – 14 V

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Check and replace suspension control ECU.

OK

3 Check AHC main relay.

**PREPARATION:**

- Disconnect the AHC main relay connector.
- Remove the AHC main relay from suspension control ECU.

CHECK:

Check continuity between each pair of terminal of motor relay.

OK:

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

CHECK:

- Apply battery positive voltage between terminals 1 and 3.
- Check continuity between terminals 2 and 4.

OK:

Terminals 2 and 4	Continuity
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Replace AHC main relay.

OK

4	Check for open and short circuit in harness and connector between AHC main relay and battery, suspension control ECU (See page IN-36).
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Repair or replace harness or connector.

OK

Clear the DTC (See page [DI-511](#)).