DTC	C1743 / 43	AHC Main Relay Circuit

CIRCUIT DESCRIPTION

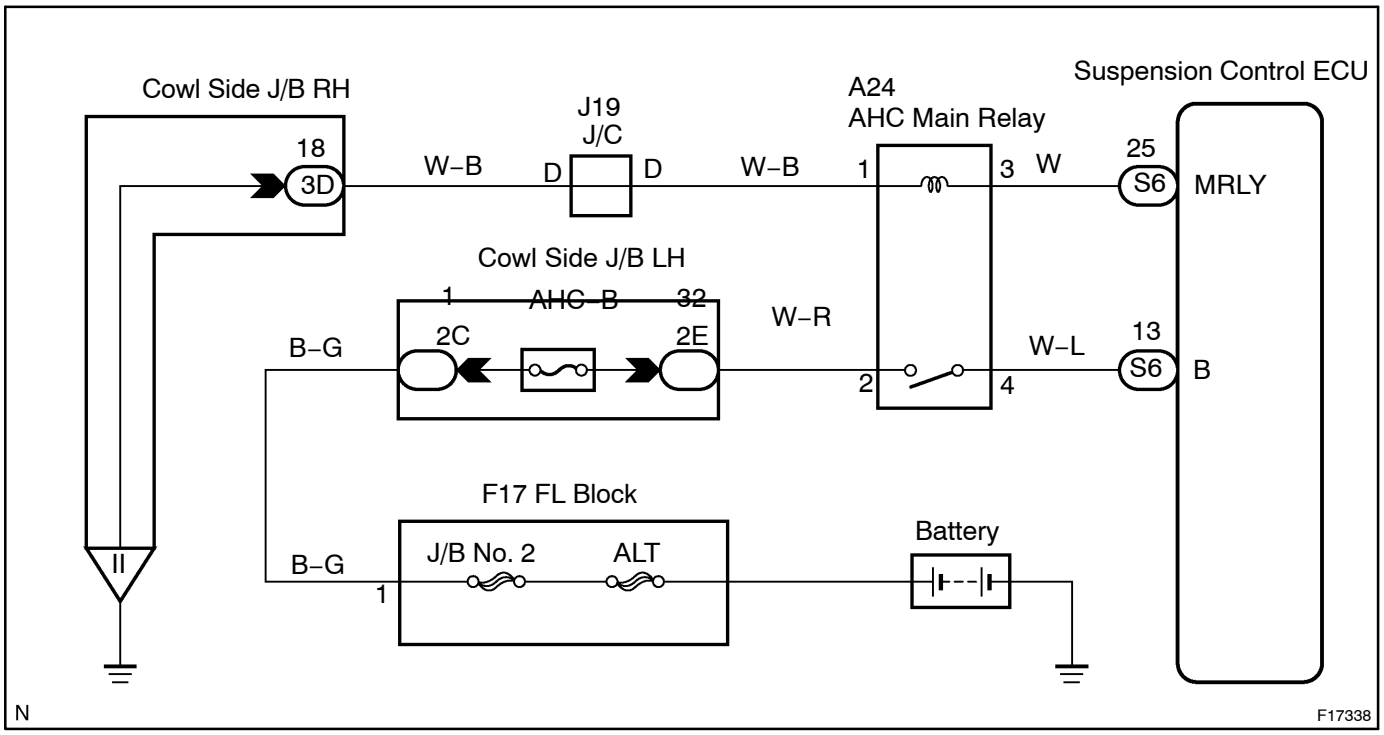
This relay is to supply power source to the suspension control ECU. The relay comes ON a few seconds after the ignition switch is turned ON.

DTC No.	DTC Detecting Condition	Trouble Area
C1743 / 43	Either of the following 1., 2. or 3. detected: 1. 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. 2. 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 3. 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.**

IN CASE OF USING LEXUS HAND–HELD TESTER:

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.

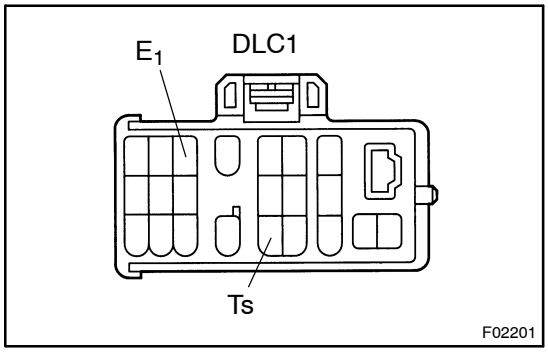
(c) Select the ACTIVE TEST mode on the LEXUS hand–held tester.

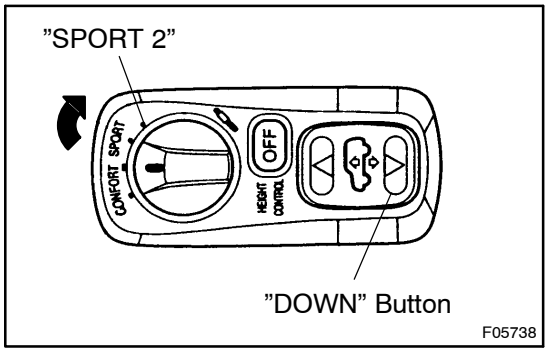
CHECK:

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

OK:

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





NG

IN CASE OF NOT USING LEXUS HAND–HELD TESTER:

PREPARATION:

(a) Using SST, connect terminals Ts and E_1 of DLC1.
SST 09843–18020

(b) 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:

(a) Change the damping mode select switch to the "SPORT 2" position.

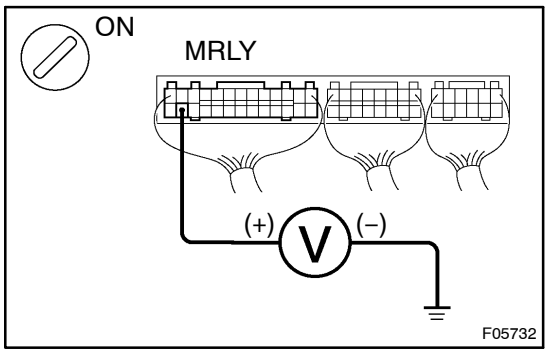
(b) Push the "DOWN" button of the height select switch, then check the operation sound of the AHC main relay.

OK:

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

OK	**Clear the DTC (See page DI–505).**

2	Check voltage between terminal MRLY of suspension control ECU and body ground.



PREPARATION:

Remove the suspension control ECU with connectors still connected.

CHECK:

(a) Turn the ignition switch ON.

(b) Measure voltage between terminal MRLY of suspension control ECU and body ground.

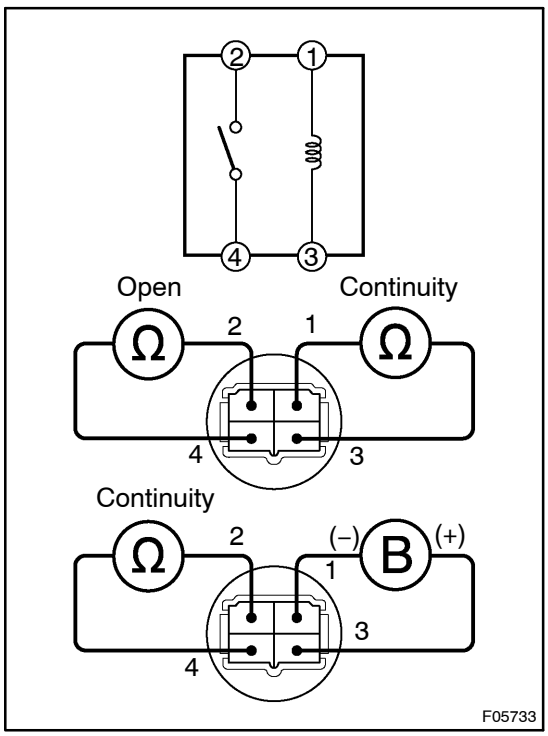
OK:

Voltage: 9 – 14 V

NG	Check and replace suspension control ECU.

OK

3	Check AHC main relay.



PREPARATION:

(a) Disconnect the AHC main relay connector.

(b) 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:

(a) Apply battery positive voltage between terminals 1 and 3.

(b) Check continuity between terminals 2 and 4.

OK:

Terminals 2 and 4	Continuity

NG	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).**

NG → **Repair or replace harness or connector.**

OK

Clear the DTC (See page DI–505).