05B3D-05

DTC C1742/42 HEIGHT CONTROL COMPRESSOR CIRCUIT

# CIRCUIT DESCRIPTION

When "UP" side of the height control is pressed, a signal is sent from terminal RC of the suspension control ECU to switch the AIR SUS relay ON. As a result, the relay contacts close and the compressor motor turns on, producing compressed air.

At this time, the suspension control ECU detects the amount of current flow to the compressor motor by means of the differences in potential at terminal RM+ and RM- of the suspension control ECU. In this way, the suspension control ECU monitors the compressor circuit for abnormalities.

| DTC No.  | DTC Detecting Condition   | Trouble Area  |
|----------|---|---|
| C1742/42 | With the AIR SUS relay activated, a lock, open or short signal of the height control compressor motor is detected for 4 sec. or more. | Height control compressor assy     Height control compressor circuit     Suspension control ECU |

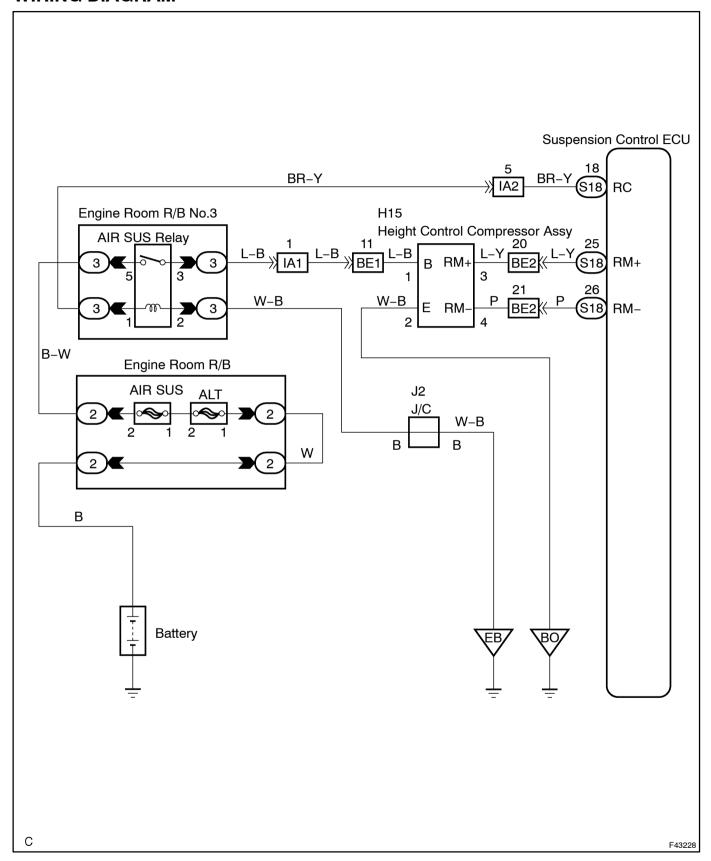
## HINT:

Once ECU stores DTC C1742/42 in the memory, the vehicle height control is not carried out until the normal signal is input to ECU from the compressor motor. However, the control automatically resumes approx. 70 min. after the ignition switch is turned ON.

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2005 LEXUS GX470 REPAIR MANUAL (RM1164U)

# **WIRING DIAGRAM**



# INSPECTION PROCEDURE

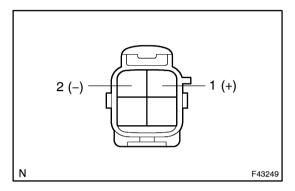
# 1 RECONFIRM DTC

(a) Check if the other DTCs are recorded (See page 05-468).

YES REPAIR CIRCUIT INDICATED BY OUTPUT CODE

NO

# 2 INSPECT HEIGHT CONTROL COMPRESSOR ASSY



- (a) Disconnect the height control compressor assy connector.
- (b) Apply battery voltage between terminals 1 and 2 of the height control compressor assy.

Standard:

Compressor motor operates.

## NOTICE:

- Do not operate the height control compressor assy 90 sec. or more.
- Since short and lock inside the height control compressor assy causes enormous current to flow, stop the operation immediately when it does not rotate.

NG REPLACE HEIGHT CONTROL COMPRESSOR ASSY

OK

- 3 CHECK HARNESS AND CONNECTOR(HEIGHT CONTROL COMPRESSOR ASSY SUSPENSION CONTROL ECU)
- (a) Check for open and short circuit in the harness and the connector between the height control compressor assy and the suspension control ECU (See page 01–36).

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

- 4 | CHECK HARNESS AND CONNECTOR(HEIGHT CONTROL COMPRESSOR ASSY AIR SUS RELAY)
- (a) Check for open and short circuit in the harness and the connector between the height control compressor assy and the AIR SUS relay (See page 01–36).

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

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# 5 INSPECT HEIGHT CONTROL SOLENOID VALVE OR EXHAUST SOLENOID VALVE

# When using hand-held tester:

- (a) Connect the hand-held tester to DLC3.
- (b) Turn the ignition switch ON, and push the hand-held tester main switch ON.
- (c) Select the item "LEVEL SOL REAR", "GATE SOL REAR", "LOW PRS TNK SOL", "EXHAUST SOL" in the ACTIVE TEST, and operate it with the hand-held tester.
- (d) Check whether the solenoid makes sound.
- (e) Check whether the height control solenoid valve has a continuity (will vibrate).

### Standard:

The solenoid makes sound, the height control solenoid valve has a continuity (will vibrate).

# Gate Solenoid Valve: Leveling Solenoid Valve: Exhaust Solenoid Valve: 2 (+) (+) (-) Exhaust Solenoid Valve:

# When not using hand-held tester:

- (a) Disconnect the valve connector.
- (b) Check the operating sound of the valves when battery positive voltage is applied to the terminals as shown below.

| Solenoid valve          | Battery positive | Battery negative |
|-------------------------|------------------|------------------|
| Gate solenoid valve     | 1                | 2                |
| Leveling solenoid valve | 3                | 2                |
| Exhaust solenoid valve  | 1                | 2                |
| Tank solenoid valve     | 2                | 1                |

### Standard:

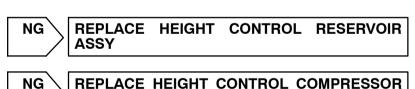
**ASSY** 

It should make an operating sound (click).

### HINT:

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- When a malfunction is found in the gate solenoid valve, the leveling valve or the tank solenoid valve, replace the height control reservoir assy.
- When a malfunction is found in the exhaust solenoid valve, replace the height control compressor assy.



ОК

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# 6 INSPECT FOR AIR TUBE CLOGGED

(a) Check visually for clog, damage or breakage on the air tube (See page 25-3).

NG > REPAIR OR REPLACE AIR TUBE

OK

CHECK AND REPLACE SUSPENSION CONTROL ECU (See page 01-36)

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