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.

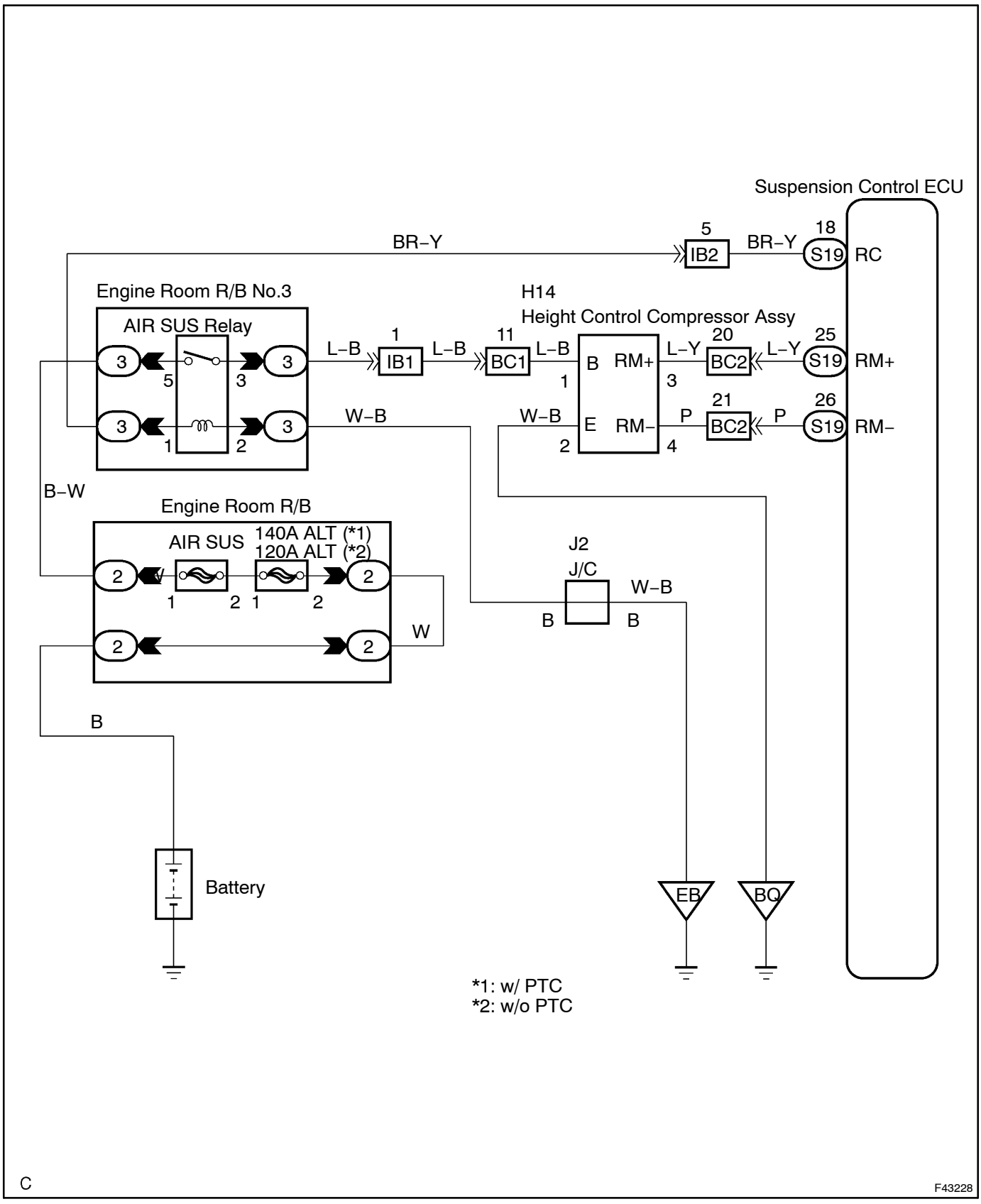
At this time, the suspension control ECU detects the amount of current flow to the compressor motor by means of the differences in potential at terminal RM+ and RM– of the suspension control ECU. In this way, the suspension control ECU monitors the compressor circuit for abnormalities.

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.

WIRING DIAGRAM



INSPECTION PROCEDURE

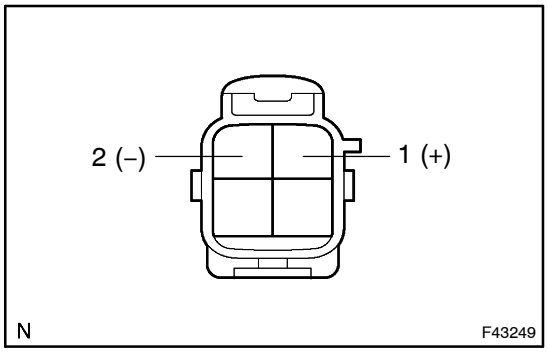
1	RECONFIRM DTC

(a) Check if the other DTC are recorded (See page 05–580).

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 terminal 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 dose 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

5	INSPECT HEIGHT CONTROL SOLENOID VALVE OR EXHAUST SOLENOID VALVE

In the case of not using hand–held tester:

(a) Connect the hand–held tester to DLC3.
(b) Turn the ignition switch to ON, and turn the hand–held tester main switch to ON.
(c) Select the item "LEVEL SOL REAR", "GATE SOL REAR", "LOW PRS TNK SOL" in the ACTIVE TEST, and operate it with the hand–held tester.

HINT:

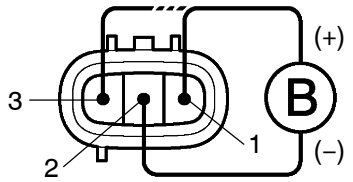
Since the exhaust solenoid valve cannot be tested in ACTIVE TEST.

(d) Check whether the solenoid makes sound.
(e) Check whether the height control solenoid valve has a continuity (having vibration).

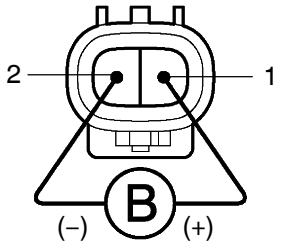
Standard:

The solenoid makes sound, the height control solenoid valve has a continuity (having vibration).

Gate Solenoid Valve:
Leveling Solenoid Valve:



Exhaust Solenoid Valve:
Tank Solenoid Valve:



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In the case of 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:

It make an operating sound (click).

HINT:

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

NG → **REPLACE HEIGHT CONTROL RESERVOIR ASSY**

NG → **REPLACE HEIGHT CONTROL DRYER ASSY**

OK

6	INSPECT 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)