

DTC	C1744/44	Tank Solenoid Valve Circuit
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DESCRIPTION

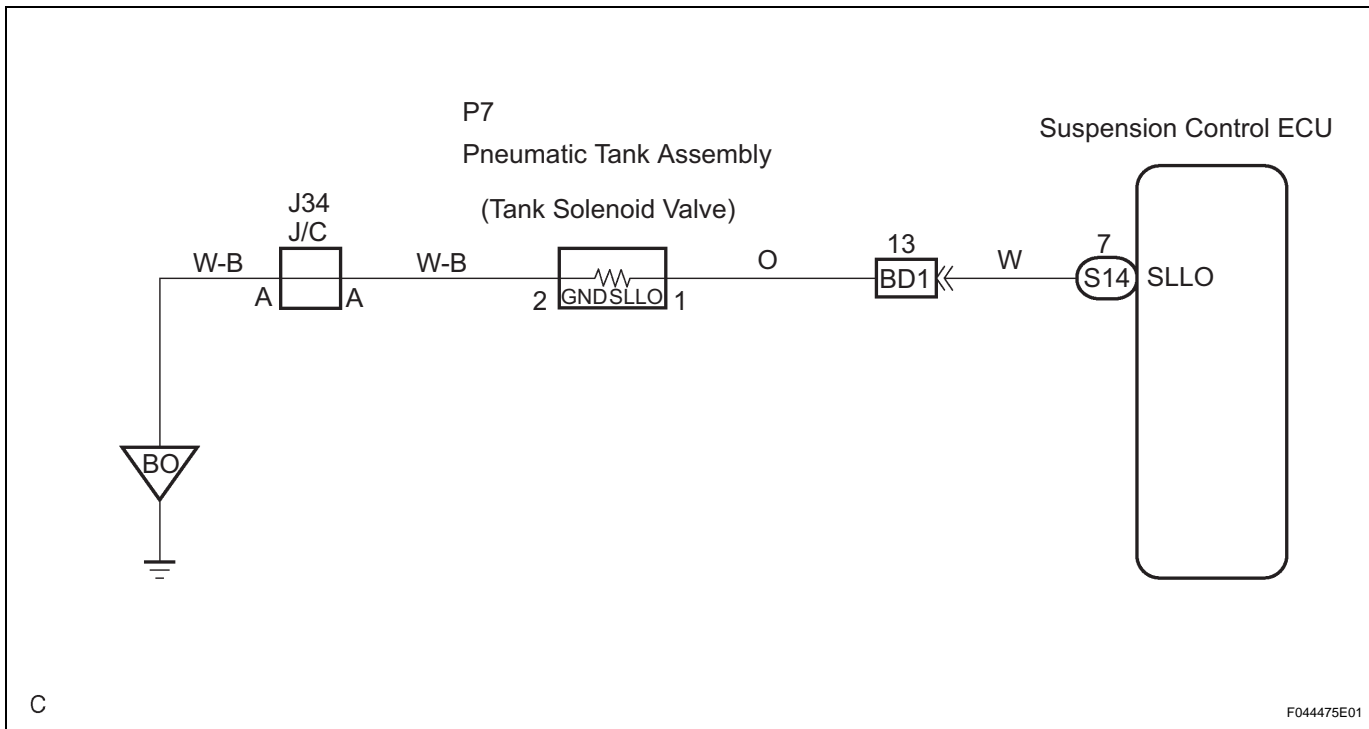
The tank solenoid which is installed in the pneumatic tank assembly operates the solenoid valve according to the signal from suspension control ECU. When lowering the vehicle height, high pressure air in the system is discharged to the pneumatic tank assembly. When the vehicle height control is suspended, the high pressure air in the pneumatic tank assembly is discharged. The tank solenoid continues its operation for max. 60 seconds after the ignition switch is turned off. This takes place in order to discharge the high pressure air which is produced when the vehicle height is lowered by the auto leveling function and access mode or exhausting high pressure air in the pneumatic tank assembly.

HINT:

Since high pressure air which is discharged from the exhaust solenoid is reused for removing moisture in the dryer, discharge speed of the high pressure air is limited. In order to increase the speed of lowering the vehicle height, some amount of high pressure air is discharged to the pneumatic tank assembly. Then, the stored air in the pneumatic tank assembly is discharged from the exhaust solenoid while the vehicle height control is not in operation.

DTC No.	DTC Detecting Condition	Trouble Area
C1744/44	Either the condition 1. or 2. is detected: 1. With the tank solenoid valve inactivated, an open signal of the tank solenoid valve is detected for 1 sec. or more. 2. With the tank solenoid valve activated, a short signal of the valve is detected 8 times successively.	<ul style="list-style-type: none"> • Tank solenoid valve • Tank solenoid valve circuit • Suspension control ECU

WIRING DIAGRAM



SC

C

F044475E01

1	CHECK DTC OUTPUT
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- (a) Check DTCs (See page [SC-28](#)).
- (1) Confirm if the DTC C1761/61 and/or C1774/74 is recorded.

OK:**DTC C1761/61 and/or C1774/74 is not output.****HINT:**

If either DTCC1761/61 (ECU malfunction) (See page [SC-76](#)) or C1774/74 (power source circuit) (See page [SC-79](#)) is displayed, carry out the necessary inspection. If they are output at the same time, carry out the necessary inspection for DTC C1774/74 first.

NG**REPAIR CIRCUIT INDICATED BY OUTPUT CODE****OK****2****PERFORM ACTIVE TEST BY INTELLIGENT TESTER****HINT:**

When not using intelligent tester, go to step 3.

- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch to the ON position, and push the intelligent tester main switch on.
- (c) Select the item below in the ACTIVE TEST, and operate it with the intelligent tester.

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Item	Vehicle Condition / Test Details	Diagnostic Note
LOW PRS TNK SOL	Turn OFF tank solenoid valve one second after turning it ON	Operation of solenoid (clicking sound) can be heard

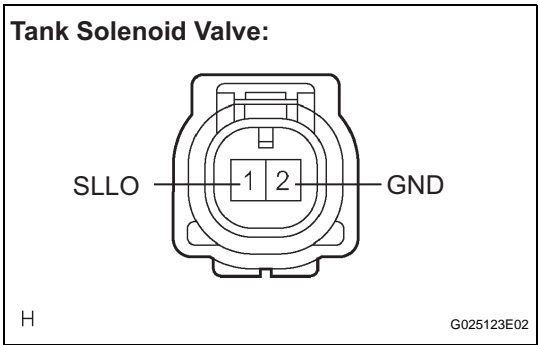
- (d) Check whether the tank solenoid valve has a continuity (will vibrate).

OK:

The solenoid makes sound, and the tank solenoid valve has a continuity (will vibrate).

NG**Go to step 3****OK****REPLACE SUSPENSION CONTROL ECU**

3 INSPECT TANK SOLENOID VALVE



- (a) Disconnect the tank solenoid valve connector.
- (b) Measure the resistance according to the values in the table below.

Resistance

Tester Connection	Specified Condition
1 (SLLO) - 2 (GND)	12 +- 2 Ω

- (c) Check the operating sound of the tank solenoid valve when positive battery voltage is applied to the terminals.

Battery Positive	Battery Negative
1 (SLLO)	2 (GND)

OK:

It should make an operating sound (click).

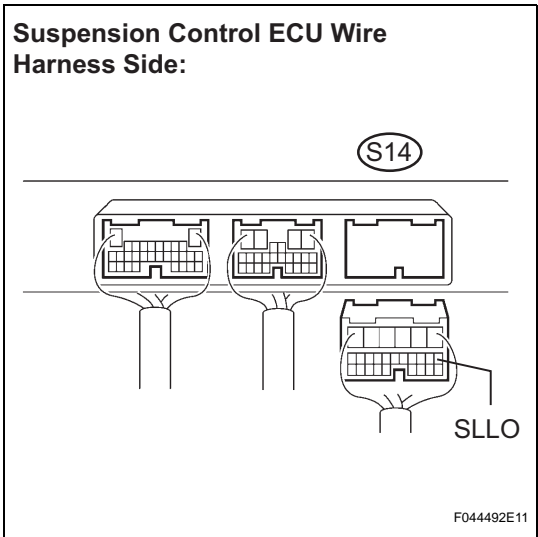
HINT:

When a malfunction is found in the tank solenoid valve, replace the pneumatic tank assembly.

NG → **REPLACE PNEUMATIC W/TUBE TANK ASSEMBLY**

OK

4 CHECK HARNESS AND CONNECTOR (SUSPENSION CONTROL ECU - TANK SOLENOID VALVE)



- (a) Disconnect the suspension control ECU S14 connector.
- (b) Measure the resistance according to the values in the table below.

Resistance

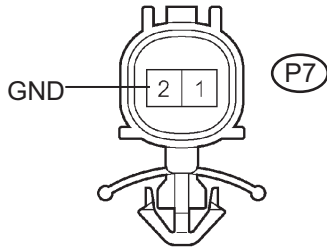
Tester Connection	Specified Condition
S14-7 (SLLO) - P7-1 (SLLO)	Below 1 Ω
S14-7 (SLLO) - Body ground	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

5 CHECK HARNESS AND CONNECTOR (TANK SOLENOID VALVE - BODY GROUND)

Tank Solenoid Valve Wire Harness Side:



(a) Measure the resistance according to the values in the table below.

Resistance

Tester Connection	Specified Condition
P7-2 (GND) - Body ground	Below 1 Ω

NG**REPAIR OR REPLACE HARNESS OR CONNECTOR****OK****REPLACE SUSPENSION CONTROL ECU**