

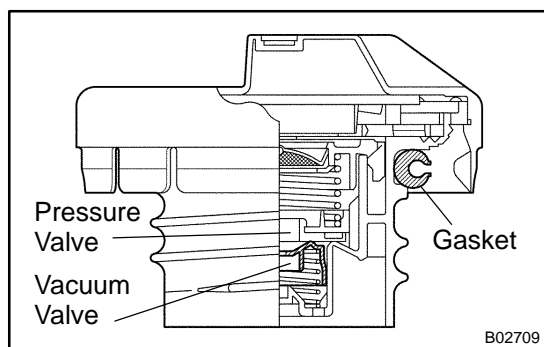
INSPECTION

1. INSPECT LINES AND CONNECTORS

Visually check for loose connections, sharp bends or damage.

2. INSPECT FUEL TANK FILLER PIPE

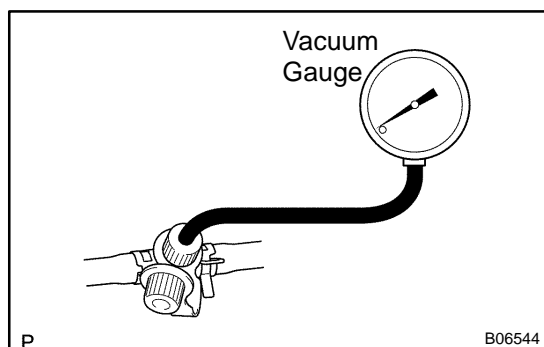
Visually check for deformation, cracks or fuel leakage.



3. VISUALLY INSPECT FUEL TANK CAP

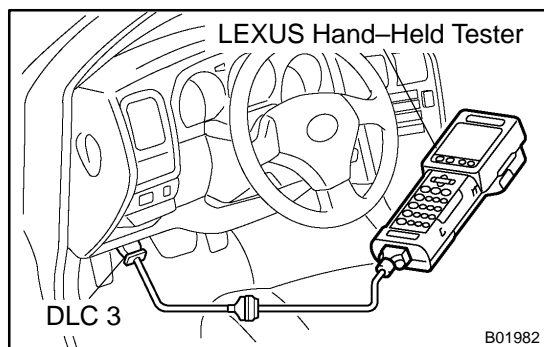
Check if the cap and/or gasket are deformed or damaged.

If necessary, repair or replace the cap.

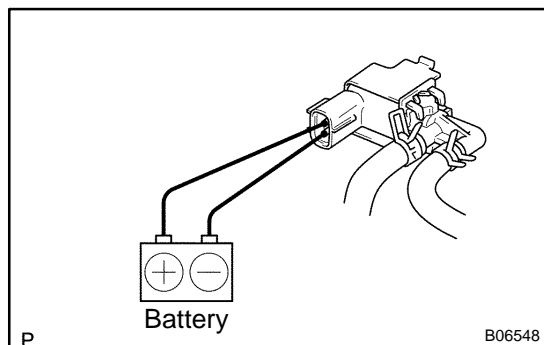


4. INSPECT EVAP SYSTEM LINE

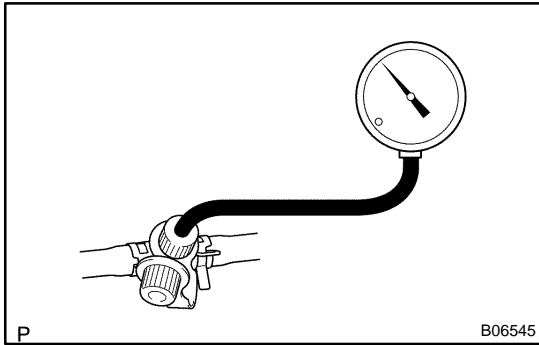
- (a) Warm up the engine and stop the engine.
Allow the engine to warm up to normal operating temperature.
- (b) Install a vacuum gauge (EVAP control system test equipment vacuum gauge) to the EVAP service port on the purge line.



- (c) LEXUS Hand-Held Tester:
Forced driving of the VSV for the EVAP.
 - (1) Connect a LEXUS hand-held tester to the DLC3.
 - (2) Start the engine.
 - (3) Push the LEXUS hand-held tester main switch ON.
 - (4) Use the ACTIVE TEST mode on the LEXUS hand-held tester to operate the VSV for the EVAP.



- (d) If you have no LEXUS Hand-Held Tester:
Forced driving of the VSV for the EVAP.
 - (1) Disconnect the VSV connector for the EVAP.
 - (2) Connect the positive (+) and negative (–) leads from the battery to the VSV terminals for the EVAP.
 - (3) Start the engine.



- (e) Check the vacuum at idle.

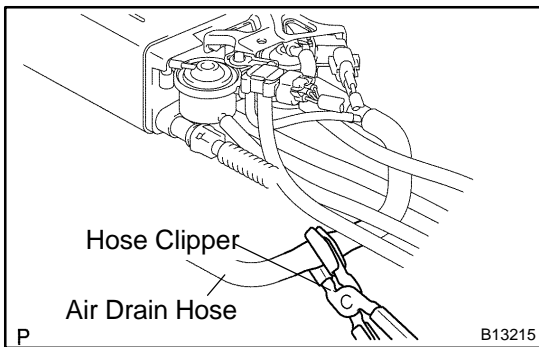
Vacuum:

Maintain at 0.368 – 19.713 in.Hg (5 – 268 in.Aq) for over 5 seconds

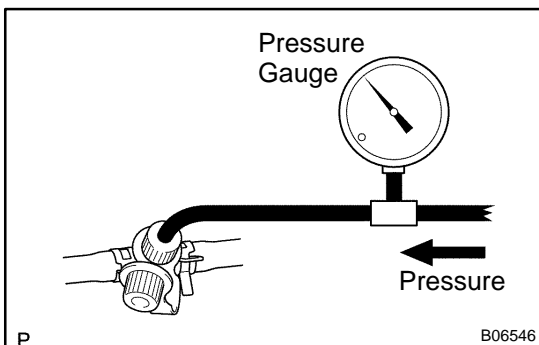
HINT:

If the vacuum does not change, you can conclude that the hose connecting the VSV to the service port has come loose or is blocked, or the VSV is malfunctioning.

- (f) LEXUS Hand-Held Tester:
Conclude forced driving of the VSV for the EVAP.
- (1) Stop the engine.
 - (2) Disconnect the LEXUS hand-held tester from the DLC3.
- (g) If you have no LEXUS Hand-Held Tester:
Conclude forced driving of the VSV for the EVAP.
- (1) Stop the engine.
 - (2) Disconnect the positive (+) and negative (–) leads from the battery from the VSV terminals for the EVAP.
 - (3) Connect the VSV connector for the EVAP.
- (h) Disconnect the vacuum gauge from the EVAP service port on the purge line.
- (i) Connect a pressure gauge to the EVAP service port on the purge line.



- (j) Check the pressure.
- (1) Close off the air drain hose at the marked position of the canister with a hose clipper or similar instrument.



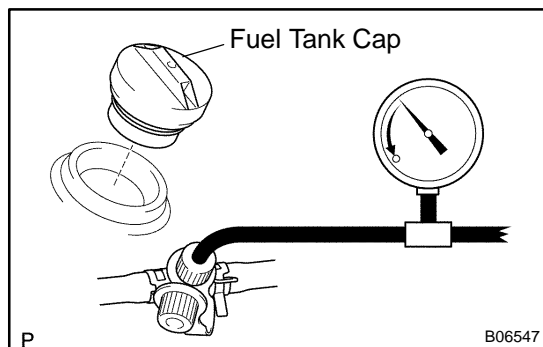
- (2) Add the pressure (13.5 – 15.5 in.Aq) from the EVAP service port.

Pressure:

2 minutes after the pressure is added, the gauge should be over 7.7 – 8.8 in.Aq.

HINT:

If you can't add pressure, you can conclude that the hose connecting the VSV~canister~fuel tank has slipped off or the VSV is open.

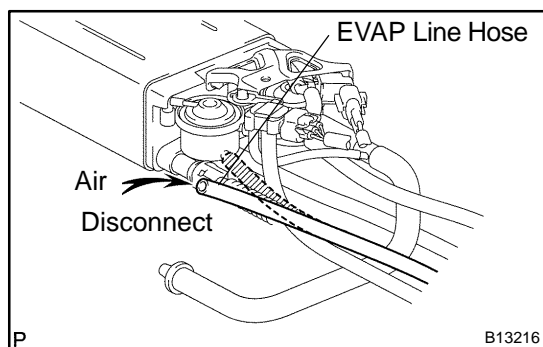


- (3) Check if the pressure decreases when the fuel tank cap is removed while adding pressure.

HINT:

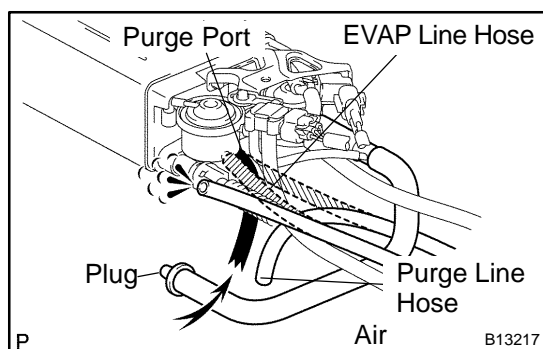
If the pressure does not decrease when the filler cap is removed, then you can conclude that the hose connecting the service port to the fuel tank is blocked, etc.

- (k) Disconnect the pressure gauge from the EVAP service port on the purge line.



5. CHECK AIRTIGHTNESS IN FUEL TANK AND FILLER PIPE

- Disconnect the EVAP line hose from the charcoal canister side and then pressurize and make the internal pressure in the fuel tank 4 kPa (41 gf/cm², 0.58 psi).
 - Check that the internal pressure of the fuel tank can be hold for 1 minute.
 - Check the connected portions of each hose and pipe.
 - Check the installed parts on the fuel tank.
- If there is no abnormality, replace the fuel tank and filler pipe.
- Reconnect the EVAP line hose to the charcoal canister.



6. INSPECT FUEL CUTOFF VALVE AND FILL CHECK VALVE

- Disconnect the purge line hose and EVAP line hose from the charcoal canister.
- Disconnect the air drain hose from the canister tank, and plug its.
- Pressurize 4 kPa (41 gf/cm², 0.58 psi) to the purge port and check that there is ventilation through the EVAP line hose.

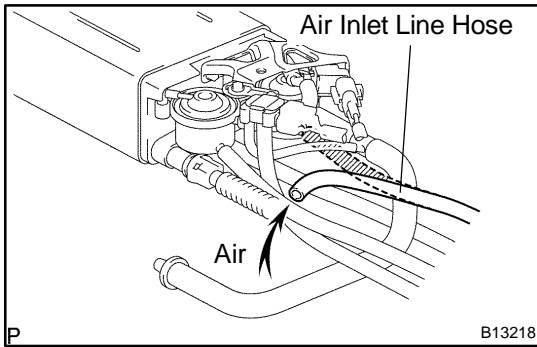
HINT:

In the condition that the fuel tank is full, as the float valve of the fill check valve is closed and has no ventilation, it is necessary to check the fuel amount (volume).

- Check if there is any stuck in the vent line hose and EVAP line hose.

If there is no stuck in hoses, replace the fuel cutoff valve and fill check valve.

- Reconnect the purge line hose and EVAP line hose to the charcoal canister.
- Reconnect the air drain hose to the canister tank.

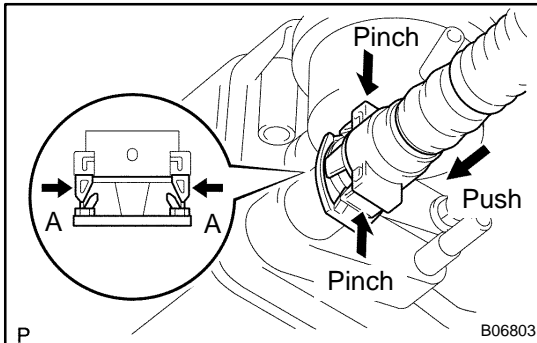


7. CHECK AIR INLET LINE

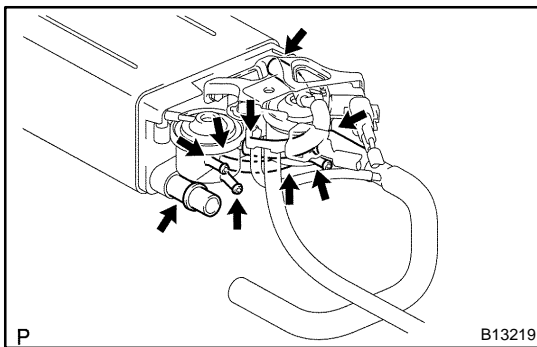
- (a) Disconnect the air inlet line hose from the charcoal canister.
- (b) Check that there is ventilation in the air inlet line.
- (c) Reconnect the air inlet line hose to the charcoal canister.

8. REMOVE CHARCOAL CANISTER ASSEMBLY

- (a) Disconnect the RH rear drive shaft from the differential.
(See page [SA-52](#))

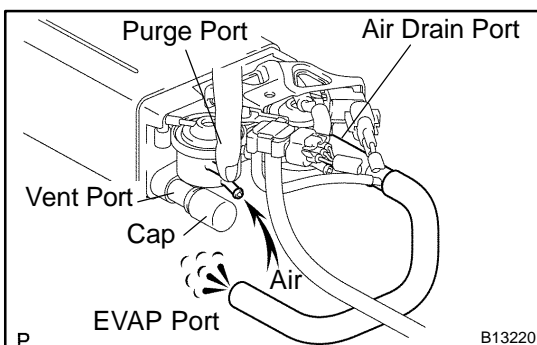


- (b) Remove the charcoal canister assembly.
 - (1) Disconnect the vapor pressure sensor connector.
 - (2) Disconnect the VSV connector for pressure switching valve.
 - (3) Disconnect the purge line hose, EVAP line hose and air inlet line from the charcoal canister.
 - (4) Disconnect the vent line hose from the charcoal canister.
Push the connector deep inside, pinch portion A, and pull out the connector.
 - (5) Disconnect the air drain hose from the charcoal tank.
 - (6) Remove the 3 nuts and the charcoal canister assembly.

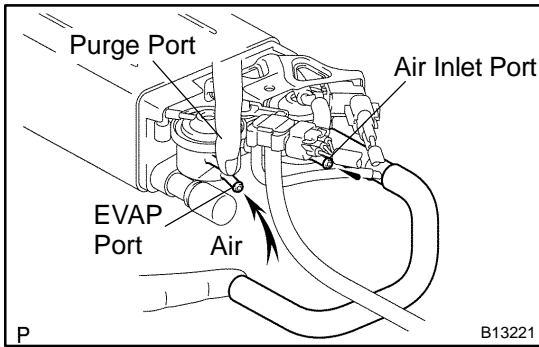


9. INSPECT CHARCOAL CANISTER

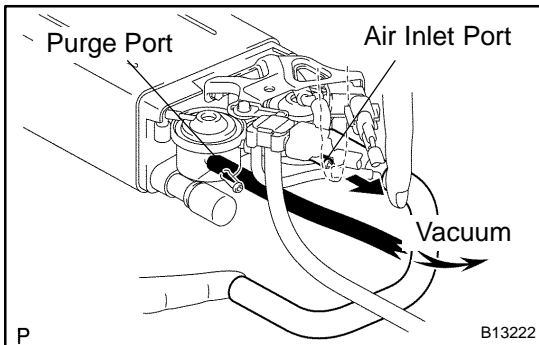
- (a) Visually check the charcoal canister for cracks or damage.



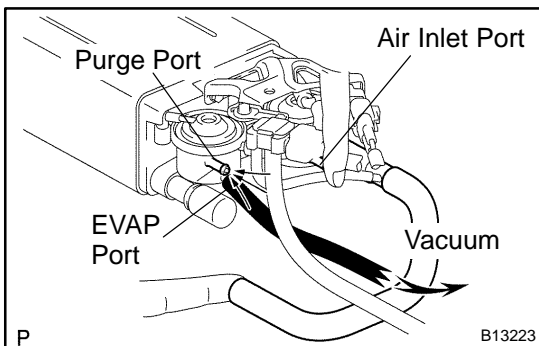
- (b) Inspect the charcoal canister operation.
 - (1) Plug the vent port with a cap.
 - (2) While holding the purge port closed, blow air (1.76 kPa, 18 gf/cm², 0.26 psi) into the EVAP port and check that air flows from the air drain port.



- (3) While holding the purge port and the air drain port closed, blow air (1.76 kPa, 18 gf/cm², 0.26 psi) into the EVAP port and check that air does not flow from the air inlet port.



- (4) Apply vacuum (3.43 kPa, 25.7 mmHg, 1.01 in.Hg) to the purge port, check that the vacuum does not decrease when the air inlet port is closed, and check that the vacuum decreases when the air inlet port is released.



- (5) While holding the air inlet port closed, apply vacuum (3.43 kPa, 25.7 mmHg, 1.01 in.Hg) to the EVAP port and check that air flows into the purge port.

If operation is not as specified, replace the charcoal canister.

10. INSPECT VSV FOR EVAP

(See page [SF-56](#))

11. INSPECT VSV FOR PRESSURE SWITCHING VALVE

(See page [SF-64](#))

12. INSPECT VSV FOR CANISTER CLOSED VALVE (CCV)

(See page [SF-62](#))

13. INSPECT VAPOR PRESSURE SENSOR

(See page [SF-68](#))

14. REINSTALL CHARCOAL CANISTER ASSEMBLY

- (a) Install the charcoal canister assembly.
- (b) Connect the RH rear drive shaft to the differential.
(See page [SA-59](#))