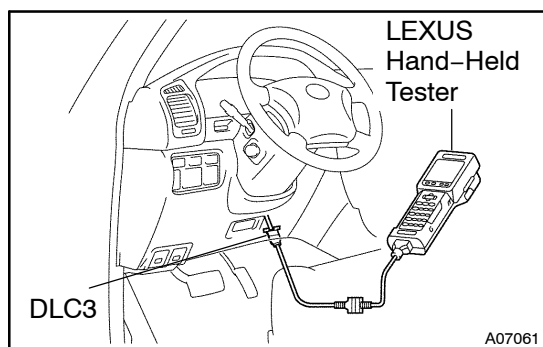




FUEL PUMP

ON-VEHICLE INSPECTION

SF10U-02

1. CHECK FUEL PUMP OPERATION

- Connect a LEXUS hand-held tester or OBD II scan tool to the DLC3.
- Turn the ignition switch ON, and press the LEXUS hand-held tester or OBD II scan tool main switch ON.

NOTICE:

Do not start the engine.

- Select the ACTIVE TEST mode on the LEXUS hand-held tester or OBD II scan tool.
- Please refer to the LEXUS hand-held tester or OBD II scan tool operator's manual for further details.
- If you have no LEXUS hand-held tester or OBD II scan tool, connect the positive (+) and negative (-) leads from the battery to the fuel pump connector. (See step 3)
- Disconnect the fuel return hose from the clamp on the V-bank cover.
- Remove the 2 bolts, nuts and V-bank cover.
- Check that the pulsation damper screw pop up when the fuel pump operates.

If operation is not as specified, check following parts:

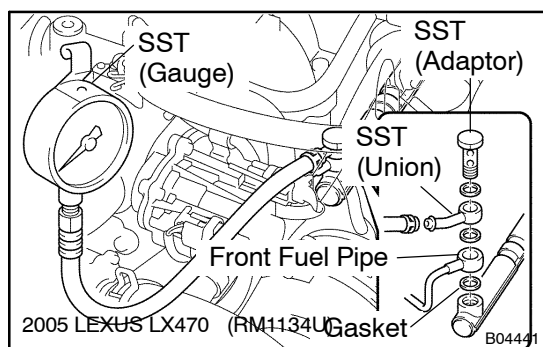
- Fusible link
- Fuses
- EFI main relay
- Fuel pump
- ECM
- Wiring connections

If no malfunctions are found in the aforementioned components, replace the pulsation damper.

- Turn the ignition switch OFF.
- Disconnect the LEXUS hand-held tester or OBD II scan tool from the DLC3.

2. CHECK FUEL PRESSURE

- Check the battery positive voltage is above 12 V.
- Disconnect the negative (-) terminal cable from the battery.
- Remove the front fuel pipe from the LH delivery pipe. (See page [SF-22](#))



- Install the front fuel pipe and SST (pressure gauge) to the delivery pipe with the 3 lower gaskets and SST (adaptor). SST 09268-45014 (09268-41190, 90405-06167)

Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)

- Wipe off any splattered gasoline.
- Reconnect the negative (-) terminal cable to the battery.

- (g) Connect a LEXUS hand-held tester or OBD II scan tool to the DLC3 (See (a) to (e) step 1 on the check fuel pump operation).
- (h) Measure the fuel pressure.

Fuel pressure:

265 – 304 kPa (2.7 – 3.1 kgf/cm², 38 – 44 psi)

If pressure is higher than the specification, replace the fuel pressure regulator.

If pressure is lower than the specification, check these parts:

- Fuel hoses and connections
 - Fuel pump
 - Fuel filter
 - Fuel pressure regulator
- (i) Disconnect the LEXUS hand-held tester or OBD II scan tool from the DLC3.
 - (j) Start the engine.
 - (k) Measure the fuel pressure at idle.

Fuel pressure:

265 – 304 kPa (2.7 – 3.1 kgf/cm², 38 – 44 psi)

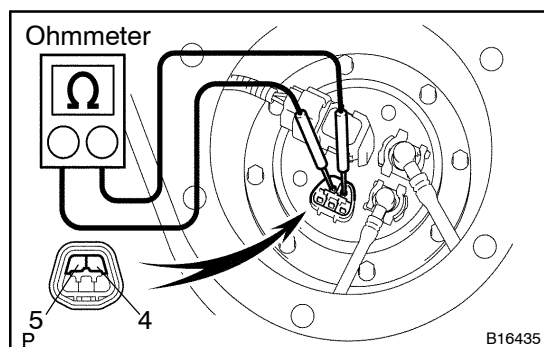
- (l) Stop the engine.
- (m) Check that the fuel pressure remains in the specification below for 5 minutes after the engine stop.

Fuel pressure:

147 kPa (1.5 kgf/cm², 21 psi) or more

If the pressure is not as specified, check the fuel pump, the pressure regulator and/or the injectors.

- (n) After checking the fuel pressure, disconnect the negative (–) terminal cable from the battery and carefully remove the SST to prevent gasoline from splashing.
SST 09268–45014
- (o) Reinstall the front fuel pipe to the LH delivery pipe.
(See page [SF-27](#))
- (p) Reconnect the negative (–) terminal cable to the battery.
- (q) Check for fuel leaks. (See page [SF-1](#))
- (r) Reinstall the V-bank cover with the 2 bolts and nuts.
- (s) Reconnect the fuel return hose to the clamp on the V-bank cover.

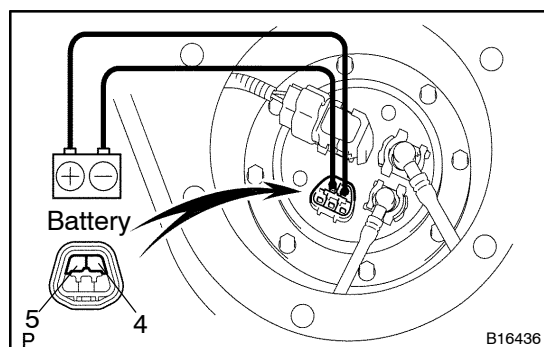


3. INSPECT FUEL PUMP

- (a) Remove the No.1 rear seats.
- (b) Remove the 2 rear door scuff plates, the step plates and the rear seat lock covers.
- (c) Pull off the front and rear floor carpets.
- (d) Remove the 2 screws and the rear floor service hole cover.
- (e) Disconnect the fuel pump & sender gauge connector.
- (f) Using an ohmmeter, measure the resistance between terminal 4 and 5.

Resistance: 0.2 – 3.0 Ω at 20°C (68°F)

If the resistance is not as specified, replace the fuel pump and/or the lead wire.



- (g) Inspect the fuel pump operation.
Connect the battery positive (+) lead to terminal 4 of the connector, and the battery negative (-) lead to terminal 5. Check that the fuel pump operates.

NOTICE:

- **These tests must be done quickly (within 10 seconds) to prevent the coil burning out.**
- **Keep the fuel pump as far away from the battery as possible.**
- **Always change the connection on the battery side.**

If operation is not as specified, replace the fuel pump and/or lead wire.

- (h) Reconnect the fuel pump & sender gauge connector.
- (i) Reinstall the rear floor service hole cover with the 2 screws.
- (j) Reinstall the front and rear floor carpets.
- (k) Remove the 2 rear door scuff plates, the step plates and the rear seat lock covers.
- (l) Reinstall the No.1 rear seats.