

FUEL PUMP

ON-VEHICLE INSPECTION

SF10U-01

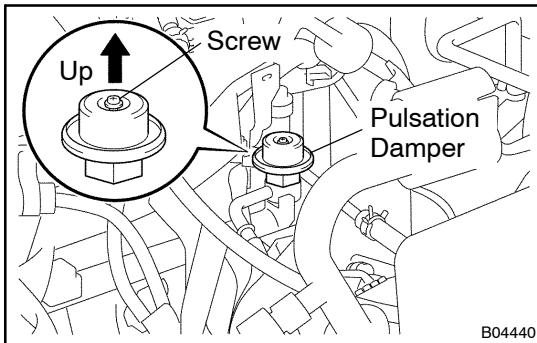
1. CHECK FUEL PUMP OPERATION

- Connect a LEXUS hand-held tester to the DLC3.
- Turn the ignition switch ON, and push the LEXUS hand-held tester main switch ON.

NOTICE:

Do not start the engine.

- Select the ACTIVE TEST mode on the LEXUS hand-held tester.
- Please refer to the LEXUS hand-held tester operator's manual for further details.
- If you have no LEXUS hand-held tester, 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 rises up when the fuel pump operates.

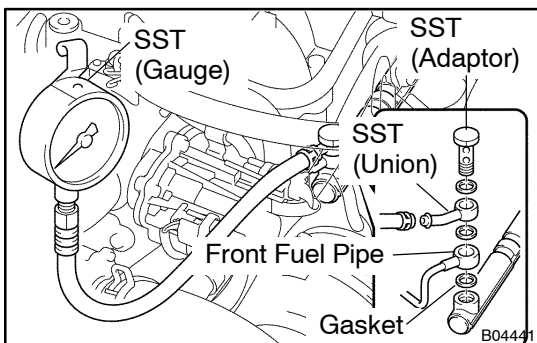
If operation is not as specified, check these parts:

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

- Turn the ignition switch OFF.
- Disconnect the LEXUS hand-held tester 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 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.
- Connect a LEXUS hand-held tester to the DLC3. (See step 1 in check fuel pump operation (a) to (e))
- Measure the fuel pressure.

Fuel pressure:**265 – 304 kPa (2.7 – 3.1 kgf/cm², 38 – 44 psi)**

If pressure is high, replace the fuel pressure regulator.

If pressure is low, check these parts:

- Fuel hoses and connections
- Fuel pump
- Fuel filter
- Fuel pressure regulator

- (i) Disconnect the LEXUS hand-held tester 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 as specified for 5 minutes after the engine has stopped.

Fuel pressure: 147 kPa (1.5 kgf/cm², 21 psi) or more

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

- (n) After checking fuel pressure, disconnect the negative (–) terminal cable from the battery and carefully remove the SST to prevent gasoline from splashing.

SST 09268–45014

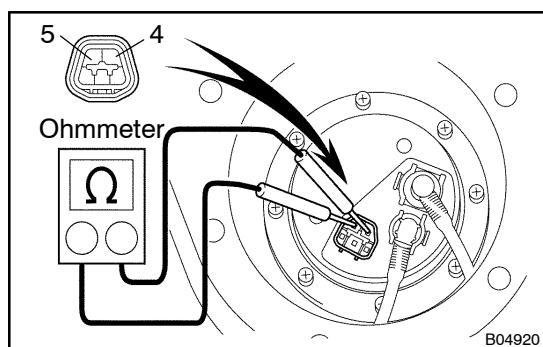
- (o) Reinstall the front fuel pipe to the LH delivery pipe.
(See page [SF-27](#))
- (p) Reconnect the negative (–) terminal cable to the battery.
- (q) Check for fuel leaks. (See page [SF-1](#))
- (r) Reinstall the V-bank cover with the 2 bolts and nuts.
- (s) Reconnect the fuel return hose to the clamp on the V-bank cover.

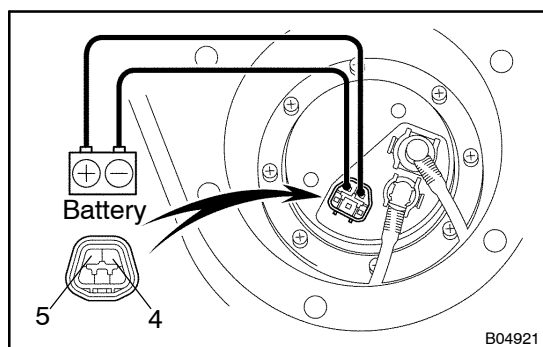
3. INSPECT FUEL PUMP

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





- (g) Inspect the fuel pump operation. Connect the positive (+) lead from the battery to terminal 4 of the connector, and the 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 do the switching at 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, step plates and rear seat lock covers.
- (l) Reinstall the No.1 rear seats.