

FUEL PUMP

ON-VEHICLE INSPECTION

SF0RP-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 (+) lead from the battery to terminal 1 of the fuel pump connector, and the negative (-) lead to terminal 2.

NOTICE:

- These test must be done quickly (within 10 seconds) to prevent the coil from burning out.
- Keep the fuel pump as far away from the battery as possible.
- Always do the switching at the battery side.

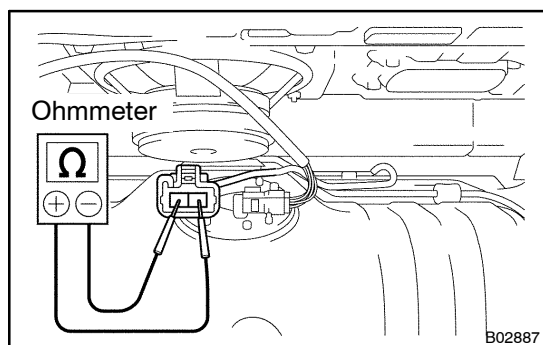
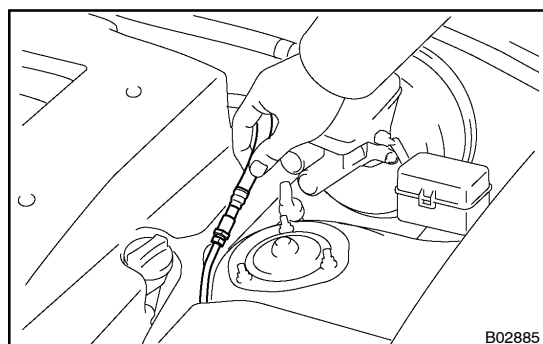
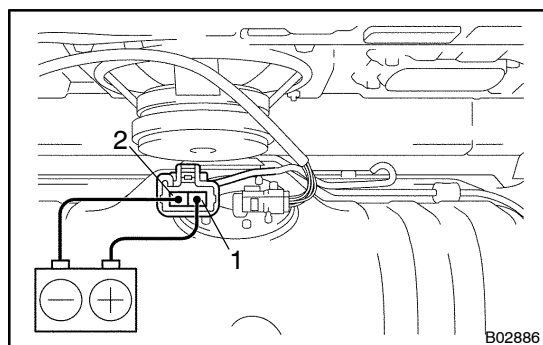
- Check that there is pressure in the fuel inlet hose.

HINT:

If there is fuel pressure, you will hear the sound of fuel flowing. If there is no pressure, check these parts:

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

- Turn the ignition switch OFF.
- Disconnect the LEXUS hand-held tester from the DLC3.



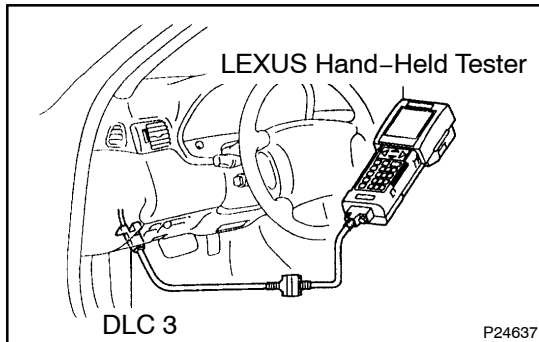
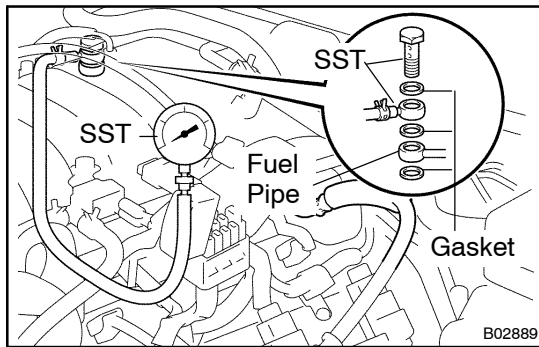
2. INSPECT FUEL PUMP RESISTANCE

Using an ohmmeter, measure the resistance between the terminals.

Resistance:

0.2 - 3.0 Ω at 20°C (68°F)

If the resistance is not as specified, replace the fuel pump and/or set plate.



3. CHECK FUEL PRESSURE

- (a) Check the battery positive voltage is above 12 V.
- (b) Disconnect the negative (-) terminal cable from the battery.
- (c) Remove the RH fuel pressure pulsation damper (See page SF-29).
- (d) Install the fuel inlet hose and SST (pressure gauge) to the delivery pipe with 3 lower gaskets and the SST (union bolt).
SST 09268-45014 (09268-41190, 90405-06167)
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)
- (e) Wipe off any splattered gasoline.
- (f) Connect the LEXUS hand-held tester to the DLC3.
(See step 1. (a) to (e) above)
- (g) Reconnect the negative (-) terminal cable to the battery.
- (h) Turn the ignition switch ON.
- (i) Measure the fuel pressure.

Fuel pressure:

304 – 343 kPa (3.1 – 3.5 kgf/cm², 44 – 50 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
- (j) Remove the LEXUS hand-held tester from the DLC3.
 - (k) Start the engine.
 - (l) Measure the fuel pressure at idle.

Fuel pressure:

304 – 343 kPa (3.1 – 3.5 kgf/cm², 44 – 50 psi)

If pressure is not as specified, check the vacuum sensing hose and fuel pressure regulator.

- (m) Stop the engine.
- (n) 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.

- (o) 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
- (p) Reinstall the fuel pressure pulsation damper (See page SF-30).
- (q) Reconnect the negative (-) terminal cable to the battery.
- (r) Check for fuel leaks.
(See page SF-1)