

FUEL PUMP

ON-VEHICLE INSPECTION

- 1. CHECK FUEL PUMP OPERATION
- (a) Connect a hand-held tester to the DLC3.
- (b) Turn the ignition switch ON and hand-held tester main switch ON.

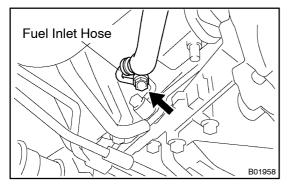
NOTICE:

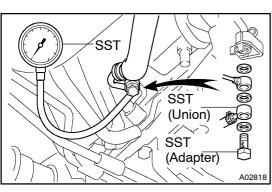
Do not start the engine.

- (c) Select the ACTIVE TEST mode on the hand-held tester.
- (d) Please refer to the hand-held tester operator's manual for further details.
- (e) If you have no hand-held tester, connect the positive (+) and negative (-) leads from the battery to the fuel pump connector. (See step 3)
- (f) Check that the pulsation damper screw rises up when the fuel pump operates.

If there is no pressure, check these parts:

- Fusible link
- Fuses
- EFI main relay
- Fuel pump ECU
- Fuel pump
- Engine ECU
- Wiring connections
- (g) Turn the ignition switch OFF.
- (h) Disconnect the hand-held tester from the DLC3.





2. 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 union bolt and 2 gaskets, and disconnect the fuel inlet hose from the fuel pipe support.

NOTICE:

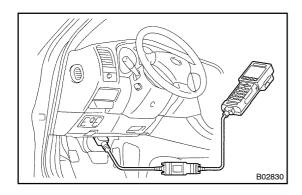
- Put a shop towel under the fuel pipe support.
- Slowly loosen the union bolt.
- (d) Install the fuel inlet hose and SST (pressure gauge) to the fuel pipe support with the 3 gaskets and SST (union and adapter).

SST 09268-45014 (09268-41190, 90405-06167)

Torque: 29 N·m (300 kgf·cm, 21 ft·lbf)

(e) Wipe off any splattered gasoline.

LEXUS GS300 (RM588E)



- (f) Connect a hand-held tester to the DLC3.(See step 1 in check fuel pump operation (a) to (e))
- (g) 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
- (h) Disconnect the hand-held tester from the DLC3.
- (i) Start the engine.
- (i) Measure the fuel pressure at idle.

Fuel pressure:

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

- (k) Stop the engine.
- (I) 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.

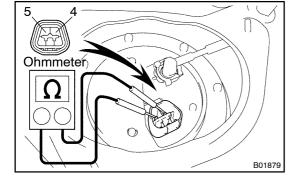
(m) After checking fuel pressure, disconnect the negative (–) terminal cable from the battery and carefully remove SST to prevent gasoline from splashing.

SST 09268-45014

(n) Reconnect the fuel inlet hose to the fuel pipe support with 2 new gaskets and the union bolt.

Torque: 29 N·m (300 kgf·cm, 21 ft·lbf)

- (o) Reconnect the negative (-) terminal cable to the battery.
- (p) Check for fuel leaks.

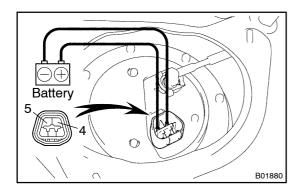


3. INSPECT FUEL PUMP

- (a) Remove the rear seat cushion.
- (b) Remove the 3 cap nuts and floor service hole cover.
- (c) Disconnect the fuel pump & sender gauge connector.
- (d) 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.



(e) 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.

- (f) Reconnect the fuel pump & sender gauge connector.
- (g) Reinstall the floor service hole cover with the cap nuts.
- (h) Reinstall the rear seat cushion.