

# FUEL PUMP

## ON-VEHICLE INSPECTION

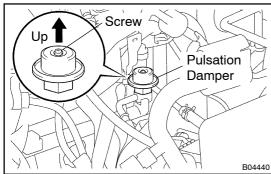
## 1. CHECK[FUEL[PUMP[OPERATION

- (a) Connect a hand-held tester to the DLC3.
- (b) Turn[the[ignition]switch[ON,[and[push[the[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 perator manual for urther details.
- (e) If [you[have[ho[hand-held[tester, connect[the positive]]+) and [hegative] -) [leads from the battery to the fuel pump connector. [See tep 3)
- (f) Disconnect[the] uel [eturn] bank [cover.
- (g)  $\square$  Remove the 2 bolts, thuts and  $\square$  -bank cover.



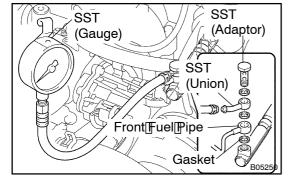
(h) Check[that[the[pulsation[damper[screw[jises[up]when[the fuel[pump[operates.]

If peration is not as specified, check hese parts:

- •□ Fuses
- EFI main relay
- •□ Fuel pump
- Engine ECU
- Wiring connections
- (i) Turn the ignition switch OFF.
- (j) 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 front fuel pipe from the LH delivery pipe. (SeepageFI-27)



(d) Install the front fuel pipe and SST (pressure gauge) to the delivery pipe with 3 lower gaskets and SST (adaptor).

SST 09268-45012 (09268-41190, 90405-06167)

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

- (e) Wipe off any splattered gasoline.
- (f) Reconnect the negative (-) terminal cable to the battery.
- (g) Connect a hand-held tester to the DLC3.(See step 1 in check fuel pump operation (a) to (e))
- (h) Measure the fuel pressure.

#### Fuel pressure:

## 265 - 304 kPa 2.7 - 3.1 kgf/cm 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 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/cm<sup>2</sup>, 38 - 44 psi)

- (I) 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.

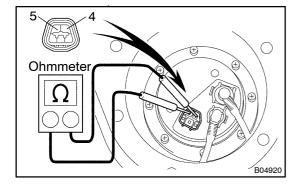
(n) After checking fuel pressure, disconnect the negative (–) terminal cable from the battery and carefully remove the SST to prevent gasoline from splashing.

SST 09268-45012

- (o) Reinstall the front fuel pipe to the LH delivery pipe. (SeepageFI-32)
- (p) Reconnect the negative (-) terminal cable to the battery.
- (q) Check for fuel eaks. See page FI-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

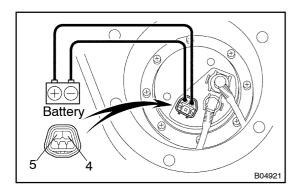
- (a) Remove the No.1 rear seats.
- (b) Remove the 2 rear door scuff plates, step plates and rear seat lock covers.
- (c) Pull off the front and rear floor carpets.
- (d) Remove the 2 screws and rear floor service hole cover.
- (e) Disconnect the fuel pump & sender gauge connector.



(f) Using an ohmmeter, measure the resistance between terminals 4 and 5.

Resistance:  $0.2 - 3.0 \Omega$  at  $20^{\circ}$ 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 sear lock covers.
- (I) Reinstall the No.1 rear seats.