# **FUEL SYSTEM**

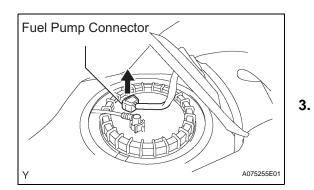
# PRECAUTION

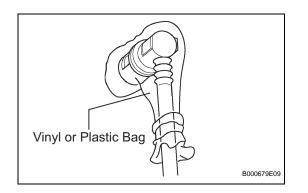
#### 1. PRECAUTION

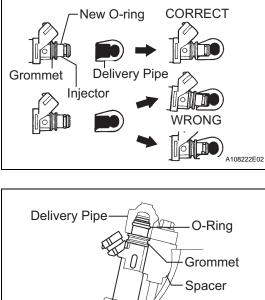
- (a) Before working on fuel system, disconnect the negative (-) battery cable.
- (b) Do not smoke or work near fire when handling the fuel system.
- (c) Keep gasoline away from rubber or leather parts.
- 2. DISCHARGE FUEL SYSTEM PRESSURE CAUTION:
  - Do not disconnect any part of the fuel system pressure until you have discharged the fuel system pressure.
  - Even after discharge the fuel pressure, place a shop rag over fittings as you separate them to reduce risk of fuel spray on yourself or in the engine compartment.
  - (a) Disconnect the fuel pump connector.
  - (b) Start the engine. After the engine has stopped, turn the ignition switch OFF.
  - (c) Disconnect negative (-) battery cable.
  - (d) Connect the fuel pump connector.

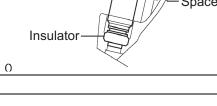
#### FUEL SYSTEM

- (a) When disconnecting the high fuel pressure line, a large amount of gasoline will spill out, so observe these procedures.
  - (1) Discharge the pressure in the fuel system.
  - (2) Disconnect the fuel pump tube (See page FU-35).
  - (3) Drain the fuel that remained inside the fuel pump tube.
  - (4) To prevent the disconnected fuel pump tube from being damaged and foreign objects from being introduced, cover with a vinyl or plastic bag.
  - (5) Place a tray under the vehicle or point of disconnection to catch any fuel that may spill.

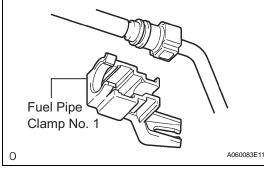


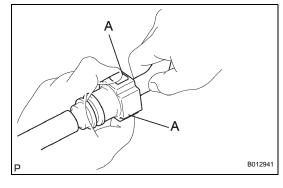


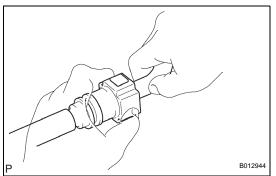




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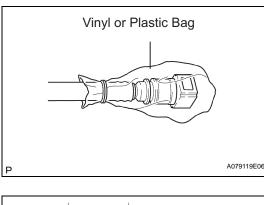


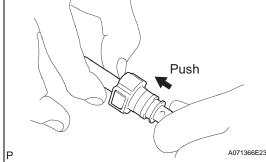
 (b) Observe the following precautions when removing and installing the fuel injectors.
NOTICE:

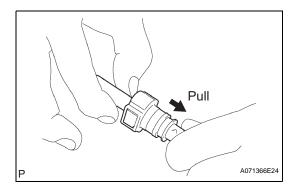
#### Never reuse the O-ring.

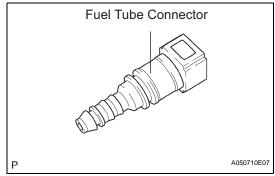
- (1) When installing a new O-ring on the injector, be careful not to damage it.
- (2) Coat new O-ring with grease or gasoline before installing. Never use engine oil, gear oil or brake oil.
- (c) Install the injector to the delivery pipe and cylinder head as shown in the illustration. Before installing the injector, be sure to apply grease or gasoline on the place where the delivery pipe contacts the Oring of the injector.
- (d) Observe these precautions when disconnecting the fuel tube connectors.
  - (1) Disconnect the fuel pipe clamp from the connector.
  - (2) Check if there is any dirt or mud on the pipe and around the connector before disconnecting them and remove the dirt as necessary.
  - (3) Disconnect the connector from the hose while pinching portion A with your fingers as shown in the illustration.

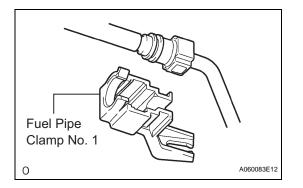
- (4) If the connector and the pipe are stuck, pinch the fuel pipe, push and pull the connector to free to disconnect and pull it out. Do not use any tools.
- (5) If there is dirt or any other substance on the sealing surface that might interfere with the seal, clean the area thoroughly before assembly.











(6) Prevent the disconnected pipe and connector from damage and dirt by covering them with a vinyl or plastic bag.

- (e) Observe these precautions when connecting the fuel tube connector.
  - (1) Check that there is any damage or foreign objects in the connected part of the pipe.
  - (2) Align the axis of the connector with the axis of the pipe, and push into the connector until the connector makes a "click" sound. In case that the connection is tight, apply little amount of fresh engine oil on the tip of the pipe.
  - (3) After having finished the connection, check if the pipe and the connector are securely connected by pulling on them.
  - (4) Install the fuel pipe clamp to the connector.
  - (5) Check if there is any fuel leakage.

#### 4. CHECK FOR FUEL LEAKS

 (a) Check that there are no fuel leaks after doing maintenance anywhere on the fuel system (See page FU-4).

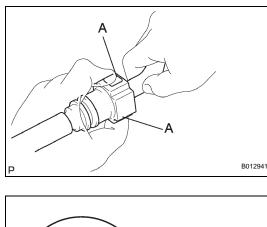
## **ON-VEHICLE INSPECTION**

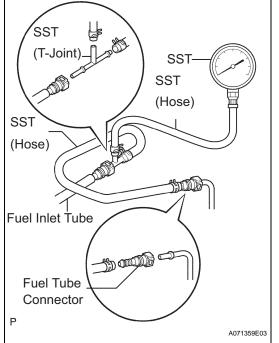
#### 1. CHECK FUEL PRESSURE

- (a) Discharge fuel system pressure and take precautions for possible fuel spillage (See page FU-1).
- (b) Check the battery voltage is above 12 V.
- (c) Disconnect the negative (-) battery cable.
- (d) Pull out the connector from a new fuel tube. HINT:

Part No. 23801-20180

(e) Detach the fuel tube clamp from the fuel tube connector.





Disconnect the fuel tube connector from the fuel (f) pipe by pinching portion A with your fingers as shown in the illustration. CAUTION:

- After taking the precautions, disconnect the fuel tube connector (quick type).
- As there is retained pressure in the fuel line, prevent it from splashing inside the vehicle compartment.
- (g) Install SST (pressure gauge) and fuel tube connector using SST as shown in the illustration. SST 09268-41047 (95336-08070), 09268-45014 (09268-41250, 09268-41200, 09268-41220)
- (h) Wipe up any gasoline.
- Reconnect the negative (-) battery cable. (i)
- Connect the intelligent tester to the DLC3. (j)
- (k) Measure the fuel pressure. Fuel pressure:

### 304 to 343 kPa (3.1 to 3.5 kgf/cm<sup>2</sup>, 44 to 50 psi)

If the pressure is high, replace the fuel pressure regulator.

If the pressure is low, check the fuel hoses connections, the fuel pump, the fuel filter and the fuel pressure regulator.

- Disconnect the intelligent tester from the DLC3. (I)
- (m) Start the engine.
- (n) Measure the fuel pressure at idle. Fuel pressure:

## 304 to 343 kPa (3.1 to 3.5 kgf/cm<sup>2</sup>, 44 to 50 psi)

- (o) Stop the engine.
- (p) Check that the fuel pressure remains as specified for 5 minutes after the engine has stopped. Fuel pressure:

### 147 kPa (105 kgf/cm<sup>2</sup>, 21 psi)

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

- (q) After checking fuel pressure, disconnect the negative (-) battery cable and carefully remove SST and the fuel tube connector to prevent gasoline from splashing.
- (r) Reconnect the fuel inlet tube (fuel tube connector). CAUTION:

After taking the precautions, connect the fuel tube connector (quick type).

- CHECK FUEL PUMP OPERATION AND CHECK FOR 2. FUEL LEAKS
  - (a) When using intelligent tester
    - (1) Connect the intelligent tester to the DLC3.

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(2) Turn the ignition switch ON and intelligent tester main switch ON.
NOTICE:
Do not start the engine.

## (3) Select the active test mode on the intelligent

- tester.(4) If you need help to select active test on the intelligent tester, refer to the intelligent tester operator's manual.
- (b) When not using the intelligent tester
  - Connect the positive (+) lead from the battery to terminal 4 of the connector, and the negative (-) lead to terminal 5.

