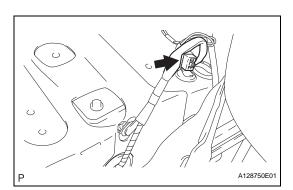
# **REMOVAL**

- DISCHARGE FUEL SYSTEM PRESSURE CAUTION:
  - DISCHARGE FUEL SYSTEM PRESSURE procedures must be performed before disconnecting any part of the fuel system.
  - After performing the DISCHARGE FUEL SYSTEM PRESSURE procedures, pressure will remain in the fuel line. When disconnecting the fuel line, place a cloth or equivalent over fittings to reduce the risk of fuel spray.
  - (a) Remove the console box (see page IR-83).
  - (b) Disconnect the connector.
  - (c) Start the engine. After the engine has stopped, turn the ignition switch off.
    HINT:
    - DTC P0171 (system too lean) may be set.
  - (d) Check that the engine does not start.
  - (e) Remove the fuel tank cap, and let the air out of the fuel tank.





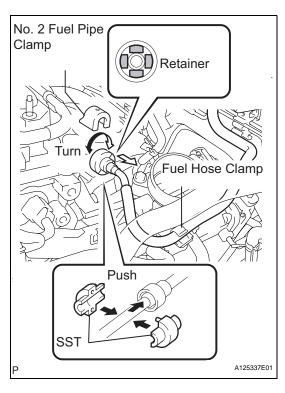
- (f) Connect the connector.
- (g) Install the console box (see page IR-90).
- 2. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

### **CAUTION:**

A128750E01

Wait at least 90 seconds after disconnecting the cable from the negative (-) battery terminal to prevent airbag and seat belt pretensioner activation.

- 3. REMOVE NO. 1 ENGINE COVER (See page ES-410)
- 4. REMOVE AIR CLEANER CAP SUB-ASSEMBLY (See page ES-411)

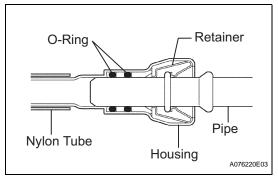


# 5. DISCONNECT FUEL MAIN TUBE NOTICE:

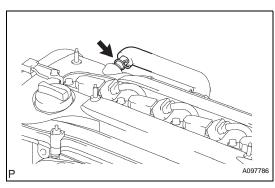
Do not forcibly bend and twist the fuel main tube.

- (a) Remove the fuel tube from the fuel hose clamp.
- (b) Remove the fuel pipe clamp.
- (c) Wipe off any dirt on the fuel tube connector.
- (d) Hold the fuel tube connector, and then install SST. **SST 09268-21010**
- (e) Turn SST to align the retainer inside the fuel tube connector with the chamfered part of SST.
- (f) Insert SST into the fuel tube and hold it. Then push the fuel tube connector toward SST side.
- (g) Mount the retainer of the fuel tube connector onto the chamfered part of SST.



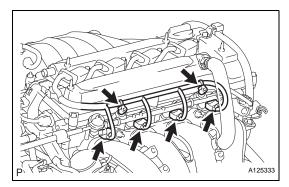


- (h) Slide SST and fuel tube connector together towards the fuel tube until they make a "click" sound, and then disconnect the fuel tube.
- (i) Drain the fuel remaining inside the fuel tube.
- (j) Cover the fuel tube and fuel pipe with a plastic bag to protect the disconnected part.



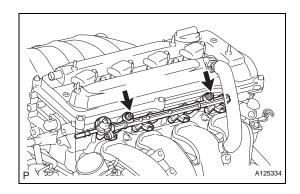
#### 6. DISCONNECT NO. 2 VENTILATION HOSE

(a) Disconnect the No. 2 ventilation hose from the ventilation valve.



#### 7. REMOVE FUEL DELIVERY PIPE SUB-ASSEMBLY

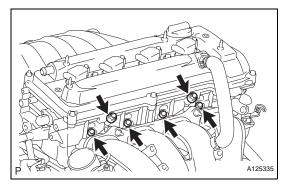
- (a) Remove the 2 wire harness clamps.
- (b) Disconnect the 4 fuel injector connectors.



(c) Remove the 2 bolts, then remove the fuel delivery pipe together with the 4 fuel injectors.

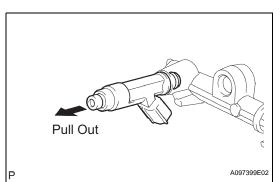
#### NOTICE:

Be careful not to drop the fuel injectors when removing the fuel delivery pipe.



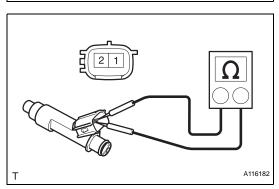
- (d) Remove the 2 delivery pipe spacers from the cylinder head.
- (e) Remove the 4 insulators from the cylinder head.





#### 8. REMOVE FUEL INJECTOR ASSEMBLY

(a) Pull the 4 fuel injectors out of the fuel delivery pipe.



# **INSPECTION**

#### 1. INSPECT FUEL INJECTOR ASSEMBLY

(a) Measure the resistance between the injector terminals.

#### Standard resistance:

11.6 to 12.4  $\Omega$  at 20°C (68°F)

If the result is not as specified, replace the injector.

(b) Inspect the injector injection.

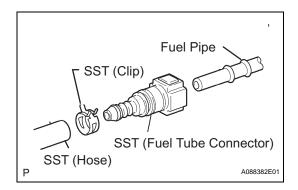
## **CAUTION:**

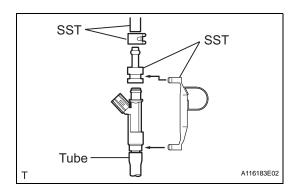
Keep the injector away from sparks during the test.

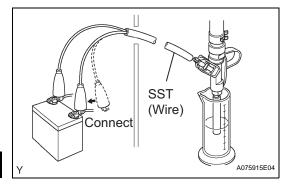
 Connect SST (fuel tube connector) to SST (hose), then connect them to the fuel pipe (vehicle side).

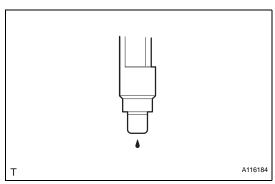
SST 09268-31011 (09268-41500, 90467-13001, 95336-08070)

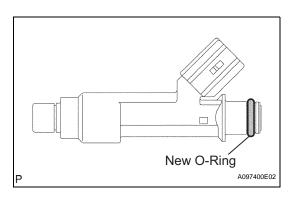
(2) Install the O-ring to the fuel injector.











(3) Connect SST (adapter and hose) to the injector, and hold the injector and union with SST (clamp).

SST 09268-31011 (09268-41110, 09268-41130, 09268-41310)

(4) Put the injector into the graduated cylinder. **CAUTION:** 

Install a suitable vinyl tube onto the injector to contain gasoline spray.

- (5) Operate the fuel pump.
- (6) Connect SST (wire) to the injector and the battery for 15 seconds, and measure the injection volume with the graduated cylinder. Test each injector 2 or 3 times.

SST 09842-30080

Standard injection volume:

76 to 92 cm<sup>3</sup> (4.6 to 5.6 cu in.) per 15 seconds

Standard difference between each injector: 16 cm<sup>3</sup> (1.0 cu in.) or less

- (c) Inspect the fuel leakage.
  - Disconnect the SST (wire) tester probes from the battery and check the fuel leakage from the injector.

Standard fuel drop:

# 1 drop or less per 12 minutes

- (2) Turn the ignition switch OFF.
- (3) Disconnect the cable from the negative (-) battery terminal.
- (4) Remove SST.

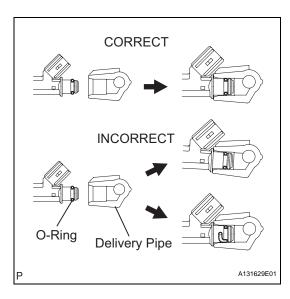
### SST 09842-30080

- (5) Disconnect the intelligent tester from the DLC3.
- (6) Reconnect the fuel inlet hose (rear fuel pipe) to the fuel main tube.

# **INSTALLATION**

### 1. INSTALL FUEL INJECTOR ASSEMBLY

(a) Apply a light coat of gasoline or spindle oil to new Orings, then install one onto each fuel injector.

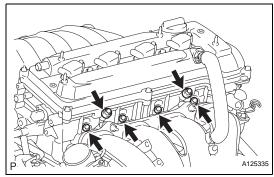


- (b) Apply a light coat of gasoline or spindle oil to the part of the fuel delivery pipe which comes into contact with the O-ring of the fuel injector.
- (c) Apply a light coat of gasoline or spindle oil to the Oring again, then install the right and left fuel injectors onto the fuel delivery pipe.

#### NOTICE:

Make sure that the O-ring is not cracked or jammed when installing.

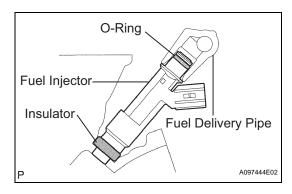
(d) Check that the fuel injector rotates smoothly. If the fuel injector does not rotate, replace the O-ring.



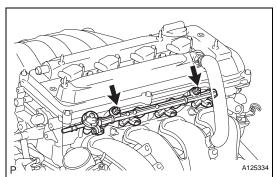
#### 2. INSTALL FUEL DELIVERY PIPE SUB-ASSEMBLY

- (a) Install 4 new insulators into the cylinder head.
- (b) Install the 2 delivery pipe spacers onto the cylinder head.

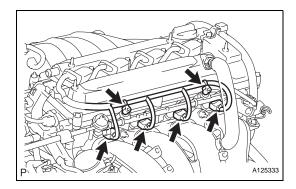


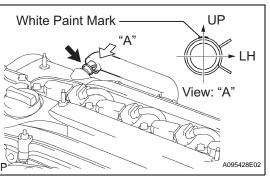


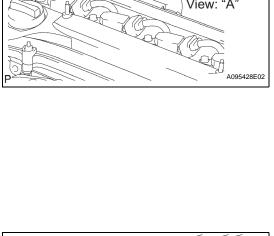
- (c) Install the fuel delivery pipe together with the 4 fuel injectors, then temporarily tighten the 2 bolts.
  NOTICE:
  - Be careful not to drop the fuel injectors when installing the fuel delivery pipe.
- (d) Check that the fuel injector rotates smoothly. If the fuel injector does not rotate, replace the Oring.

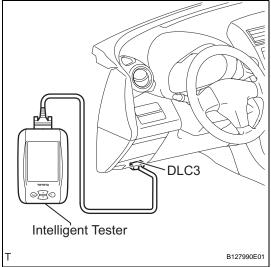


(e) Tighten the 2 bolts to the specified torque. Torque: 20 N\*m (205 kgf\*cm, 15 ft.\*lbf)









- Connect the 4 fuel injector connectors.
- (g) Install the 2 wire harness clamps.

#### 3. **CONNECT NO. 2 VENTILATION HOSE**

(a) Connect the ventilation hose to the ventilation valve. NOTICE:

Make sure that the paint mark and hose clamp are at the correct angle when installing the hose.

#### **CONNECT FUEL MAIN TUBE**

- (a) Connect the fuel main tube.
- (b) Push the fuel tube connector until it makes a "click"
- (c) Install the fuel pipe clamp.
- (d) Install the fuel tube to the fuel hose clamp.
- **INSTALL AIR CLEANER CAP SUB-ASSEMBLY (See** page **ES-413**)
- INSTALL NO. 1 ENGINE COVER (See page ES-414)
- **CONNECT CABLE TO BATTERY NEGATIVE** 7. **TERMINAL**

#### **CHECK FOR FUEL LEAKAGE** 8.

- (a) Make sure that there are no fuel leaks after performing maintenance on the fuel system.
  - (1) Connect the intelligent tester to the DLC3.
  - (2) Turn the ignition switch ON, and push the intelligent tester main switch ON.

#### NOTICE:

#### Do not start the engine.

(3) Select the Active Test mode on the intelligent tester.

HINT:

Refer to the intelligent tester operator's manual for further details.

- (4) Check that there are no leaks from the fuel system.
- (5) Turn the ignition switch OFF.
- (6) Disconnect the intelligent tester from the DLC3.