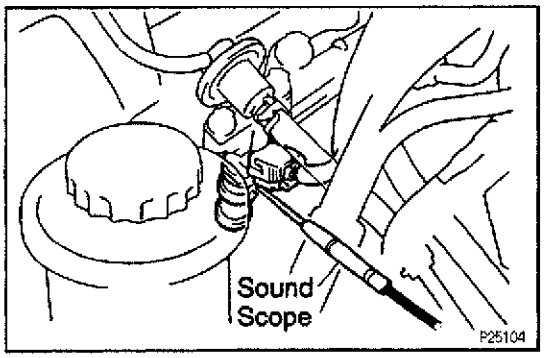
FUEL PRESSURE REGULATOR INSTALLATION

Installation is in the reverse order of removal.



INJECTOR

ON–VEHICLE INSPECTION

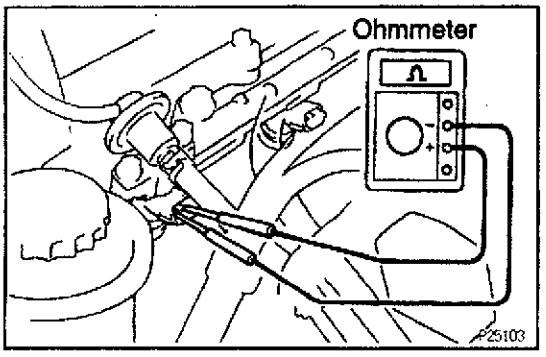
1. INSPECT INJECTOR OPERATION

Check operation sound from each injector.

(a) With the engine running or cranking, use a sound scope to check that there is normal operating noise in proportion to engine speed.

(b) If you have no sound scope, you can check the injector transmission operation with your finger.

If no sound or unusual sound is heard, check the wiring connector, injector or injection signal from the ECU.



2. INSPECT INJECTOR RESISTANCE

(a) Remove the throttle body.
(See throttle body removal)

(b) Disconnect the injector connectors.

(c) Using an ohmmeter, measure the resistance between the terminals.

Resistance:

At 20°C (68°F): 12 – 16 Ω

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

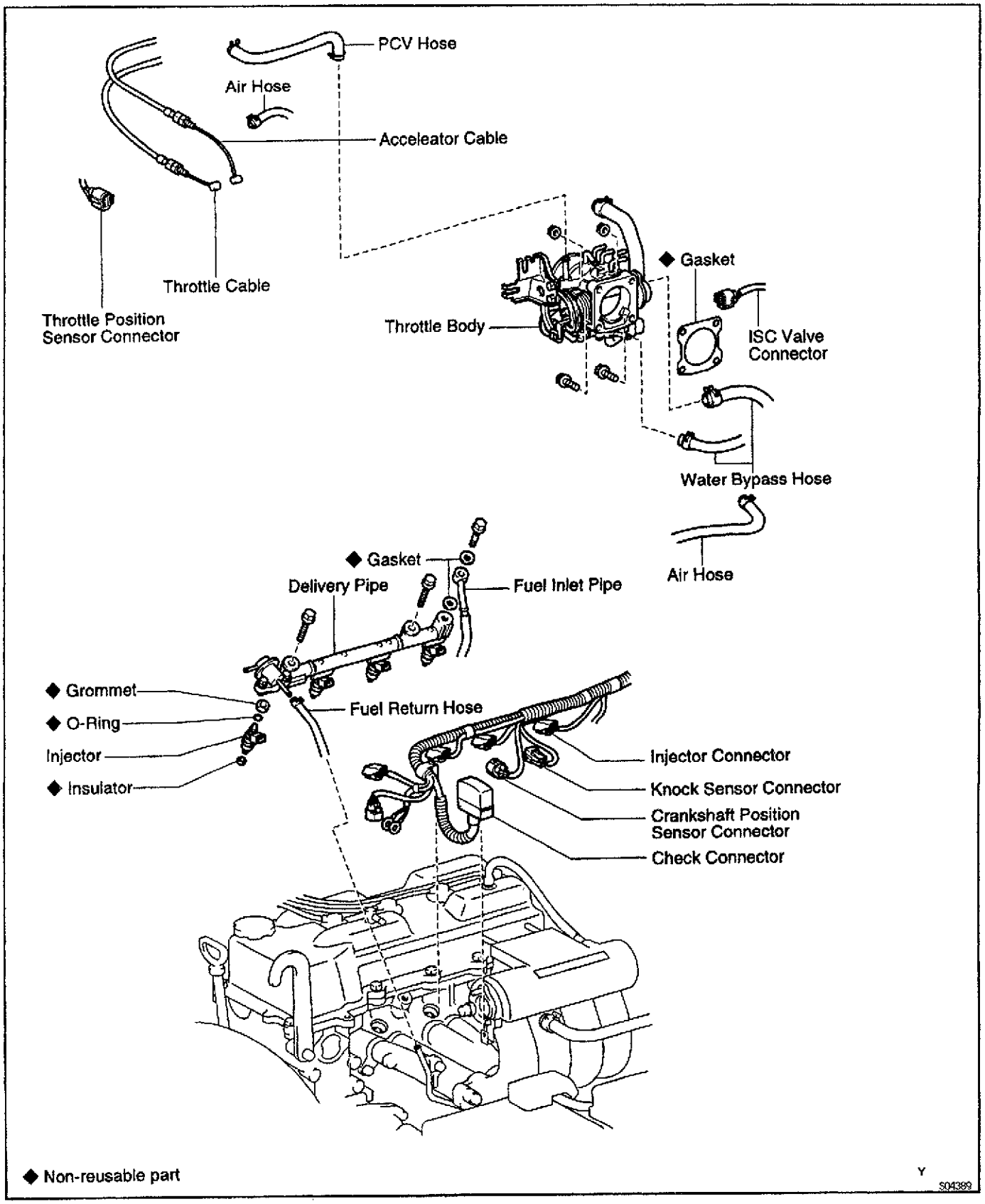
(d) Reconnect the injector connectors.

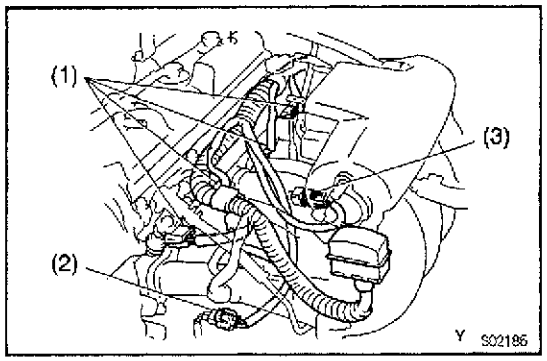
(e) Reinstall the throttle body.
(See throttle body installation)

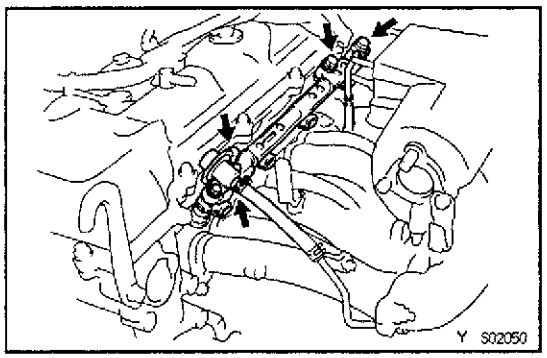
EG190-15

COMPONENTS FOR REMOVAL AND INSTALLATION

EG







INJECTORS REMOVAL

EG1651-03

1. REMOVE THROTTLE BODY
(See throttle body removal)

2. DISCONNECT ENGINE WIRE

(a) Disconnect these connectors:
(1) 4 injector connectors
(2) 3RZ–FE:Crankshaft position sensor connector
(3) Knock sensor connector

(b) Disconnect the check connecter and wire clamp from the brackets.

3. REMOVE DELIVERY PIPE AND INJECTORS

(a) Disconnect the vacuum sensing hose from the fuel pressure regulator.

(b) Disconnect the fuel return hose from the fuel pressure regulator.

(c) Remove the union bolt and 2 gaskets, and disconnect the fuel inlet pipe from the delivery pipe.
HINT:
- Put a suitable container or shop rag under the delivery pipe.
- Slowly loosen the union bolt.

(d) Remove the 2 bolts and delivery pipe together with the 4 injectors.
NOTICE: Be careful not to drop the injectors when removing the delivery pipe.

(e) Remove the 4 insulators from the 4 spacers.

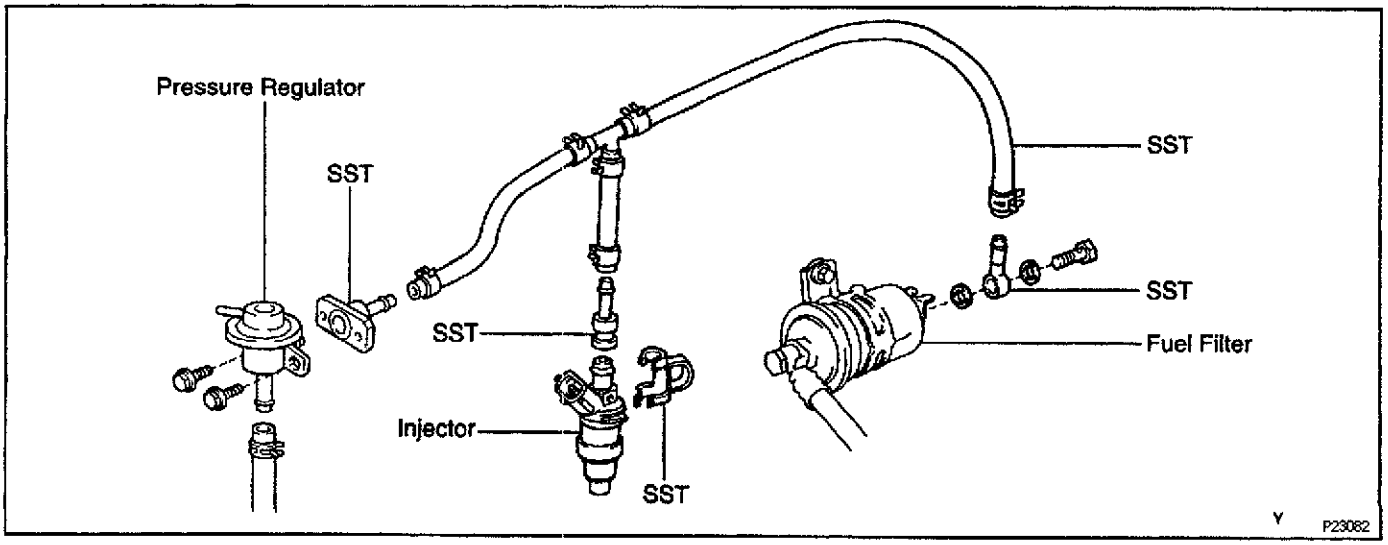
(f) Pull out the 4 injectors from the delivery pipe.

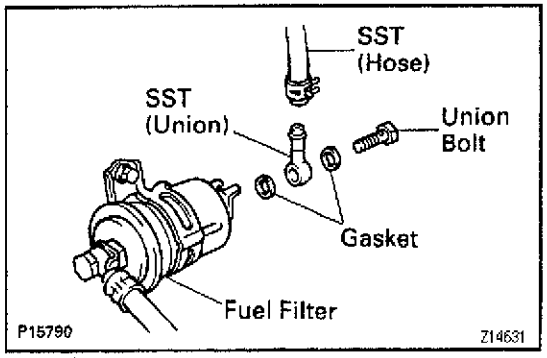
(g) Remove the O–ring and grommet from each injector.

INJECTORS INSPECTION

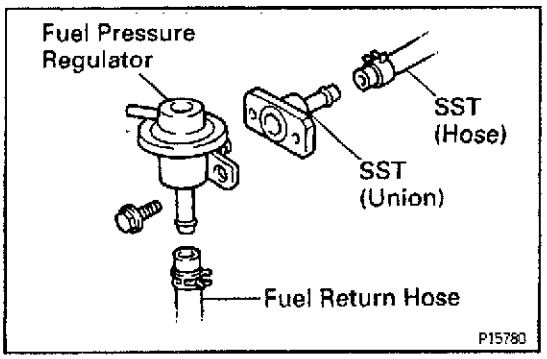
EG1652-04

1. INSPECT INJECTOR INJECTION
CAUTION: Keep injector clean of sparks during the test.

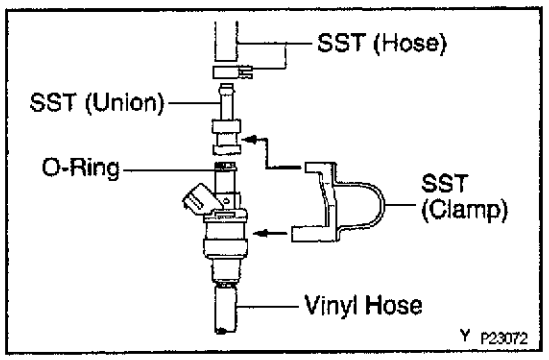




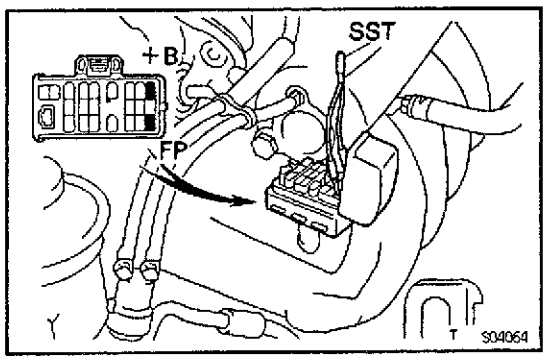
(a) Remove the fuel inlet pipe from the fuel filter outlet.
(b) Connect SST (union and hose) to the fuel filter outlet with the 2 gaskets and union bolt.
SST 09268–41046 (90405–09015)
Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)



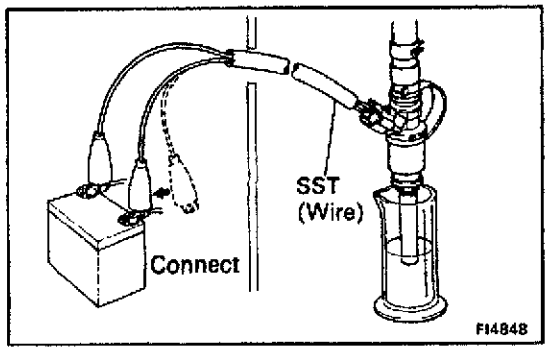
(c) Remove the fuel pressure regulator from the delivery pipe.
(d) Install the O–ring to the fuel inlet of pressure regulator.
(e) Connect SST (hose) to the fuel inlet of the pressure regulator with SST (union) and the 2 bolts.
SST 09268–41046 (09268–41091)
(f) Connect the fuel return hose to the fuel outlet of the pressure regulator.



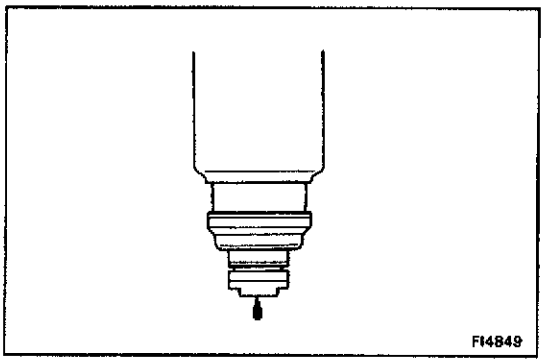
(g) Install the O–ring to the injector.
(h) Connect SST (union and hose) to the injector, and hold the injector and union with SST (clamp).
SST 09268–41046
(i) Put the injector into a graduated cylinder.
HINT: Install a suitable vinyl hose onto the injector to prevent gasoline from splashing out.



(j) Using SST, connect terminals +B and FP of the check connector.
SST 09843–18020
(k) Reconnect negative (–) terminal cable to the battery.
(l) Turn the ignition switch ON.
NOTICE: Do not start the engine.



(m) Connect SST (wire) to the injector and battery for 15 seconds, and measure the injection volume with a graduated cylinder. Test each injector 2 or 3 times.
SST 09842–30070
Volume:
69 – 88 cm³ (4.2 – 5.4 cu in.) per 15 sec.
Difference between each injector:
5 cm³ (0.3 cu in.) or less
If the injection volume is not as specified, replace the injector.



2. INSPECT LEAKAGE

(a) In the condition above, disconnect the test probes of SST (wire) from the battery and check the fuel leakage from the injector.
SST 09842–30070
Fuel drop:
1 drop or less per 3 minutes

(b) Turn the ignition switch OFF.

(c) Disconnect the negative (–) terminal cable from the battery.

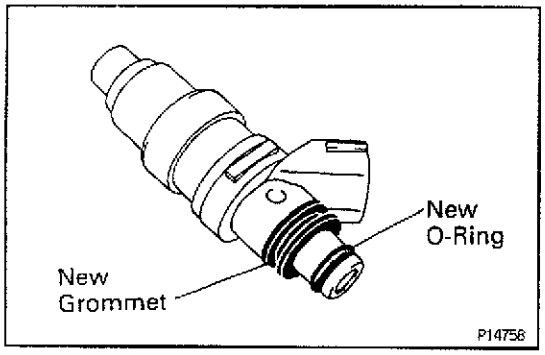
(d) Remove the SST.
SST 09268–41046, 09843–18020

(e) Reinstall the fuel inlet hose to the fuel filter outlet with 2 new gaskets and the union bolt.
Torque: 29 N·m (300 kgf·cm, 22 ft·lbf)

EG

INJECTORS INSTALLATION

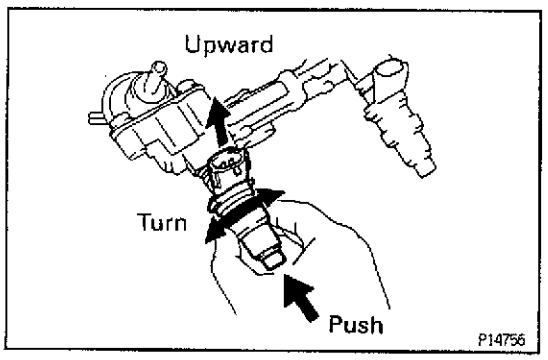
EG5B3–06



1. INSTALL INJECTORS TO DELIVERY PIPE

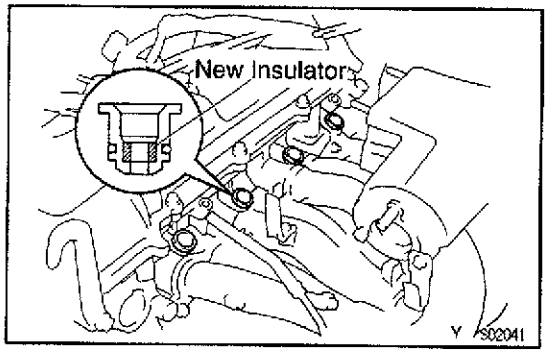
(a) Install a new grommet to the injector.

(b) Apply a light coat of gasoline to a new O–ring and install it to the injector.



(c) While turning the injector left and right, install it to the delivery pipe. Install the 4 injectors.

(d) Position the injector connector upward.



2. INSTALL INJECTORS AND DELIVERY PIPE

(a) Place the 4 new insulators and in position on the spacers.

(b) Place the 4 injectors together with the delivery pipe in position on the cylinder head.

(c) Temporarily install the 2 bolts holding the delivery pipe to the cylinder head.