

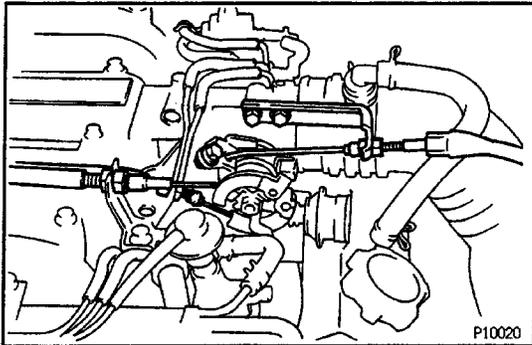


## INJECTORS REMOVAL

(See Components for Removal and Installation)

**1. DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY**

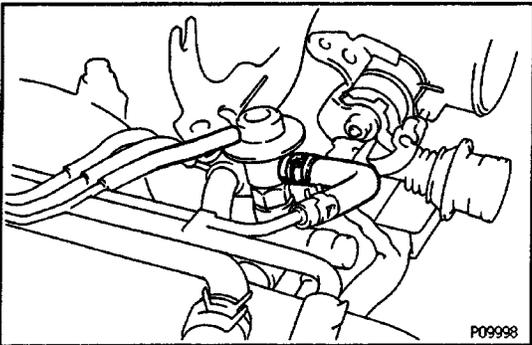
**2. DRAIN ENGINE COOLANT**



**3. DISCONNECT FOLLOWING CABLES:**

- (a) (w/ Cruise control)  
Actuator cable with bracket
- (b) Accelerator cable
- (c) (A/T)  
Throttle cable

**4. DISCONNECT AIR CLEANER HOSE**



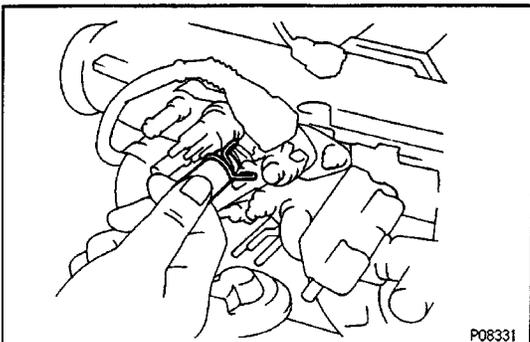
**5. DISCONNECT VACUUM SENSING HOSE**

**6. DISCONNECT FUEL RETURN HOSE**

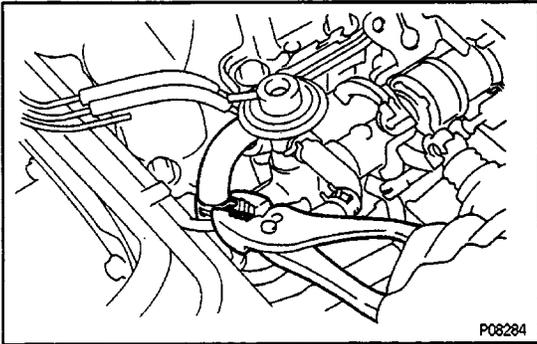
- (a) Place a suitable container or shop towel under the fuel pressure regulator.
- (b) Disconnect the fuel return hose from the fuel pressure regulator.

**7. REMOVE AIR INTAKE CHAMBER**

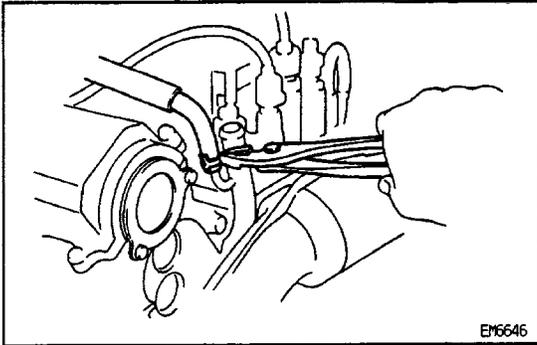
- (a) Disconnect the throttle position sensor connector.
- (b) Disconnect the canister vacuum hose from the throttle body.



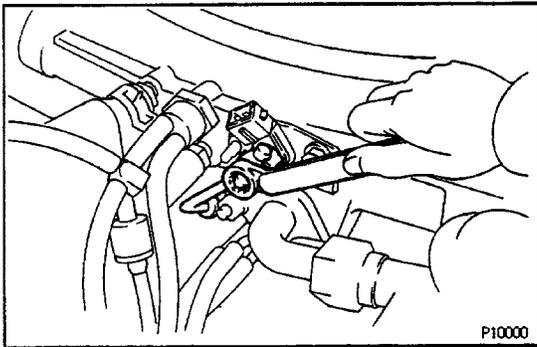
- (c) Disconnect the PCV hose from the union.



- (d) Disconnect the No.4 water by-pass hose from the union of the intake manifold.

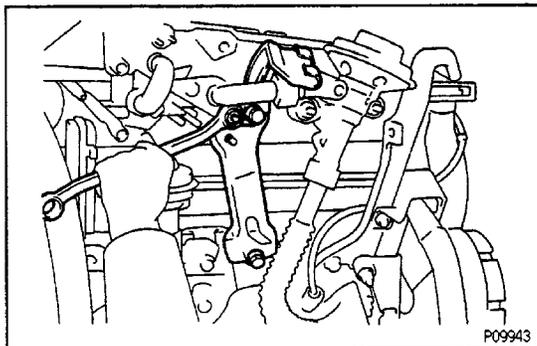


- (e) Disconnect the No.5 water by-pass hose from the water by-pass pipe.

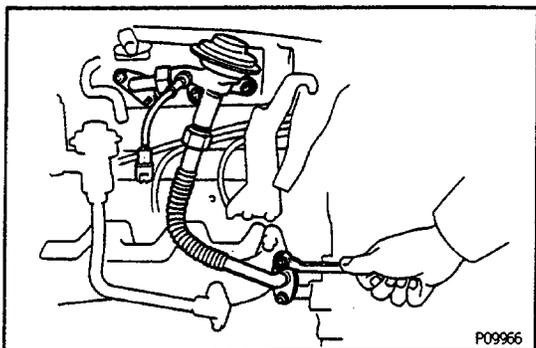


- (f) Disconnect the cold start injector connector.  
 (g) Disconnect the vacuum hose from the gas filter.  
 (h) Remove the union bolt, two gaskets and cold start injector tube.

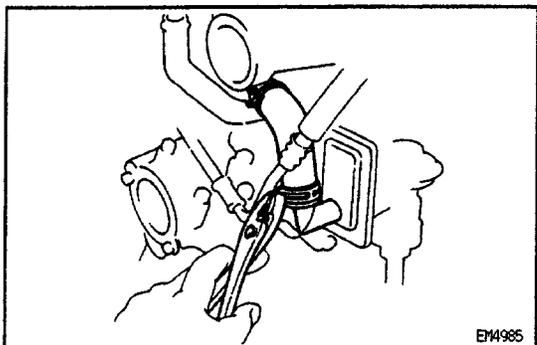
- (i) (California and C & C)  
 Disconnect the EGR gas temp. sensor connector.  
 (j) Disconnect the EGR vacuum hoses from the air pipe and EGR vacuum modulator.



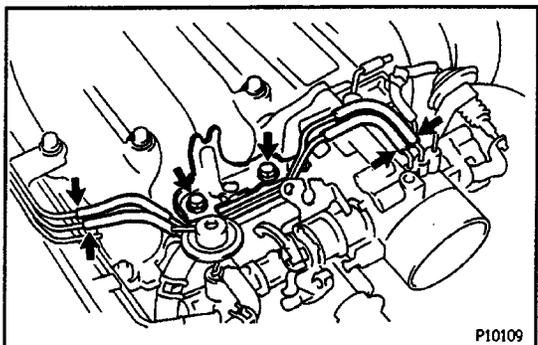
- (k) Remove the nut, two bolts, intake chamber stay and throttle cable bracket.



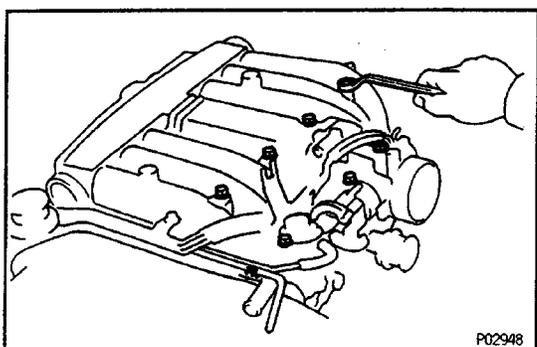
- (l) (C & C only)  
 Disconnect the two water by-pass hoses from the EGR valve.
- (m) Remove the five nuts, EGR valve with the pipes and two gaskets.



- (n) Disconnect the No.1 air hose from the PAIR reed valve.



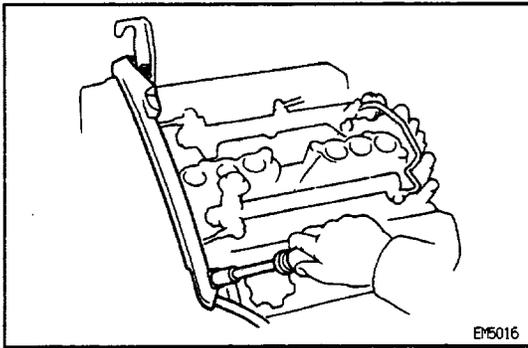
- (o) Disconnect the four vacuum hoses from air pipes.
- (p) Remove the two bolts and accelerator cable bracket.



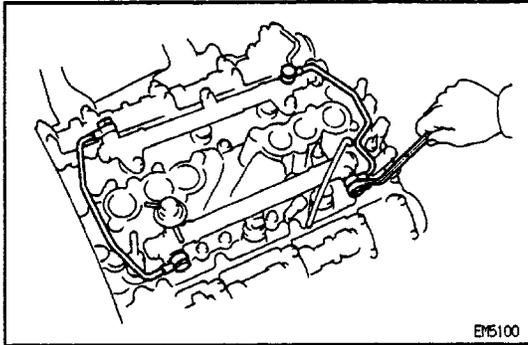
- (q) Remove the six bolts, two nuts, intake chamber and gasket.

## 8. REMOVE ENGINE WIRE

- (a) Disconnect the following connectors:
- Knock sensor connector
  - Cold start injector time switch connector
  - Engine coolant temp. sensor connector
  - Engine coolant temp. sender gauge connector
  - RH ground strap from No.3 camshaft bearing cap
  - Injector connectors

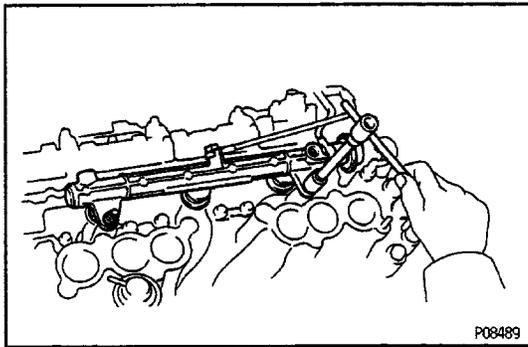


(b) Remove two bolts and engine wire.



### 9. REMOVE NO.2 AND NO.3 FUEL PIPES

Remove the four union bolts, No.2, No.3 fuel pipes and eight gaskets.



### 10. REMOVE DELIVERY PIPES AND INJECTORS

(a) Remove the four nuts holding the delivery pipes to the intake manifold.

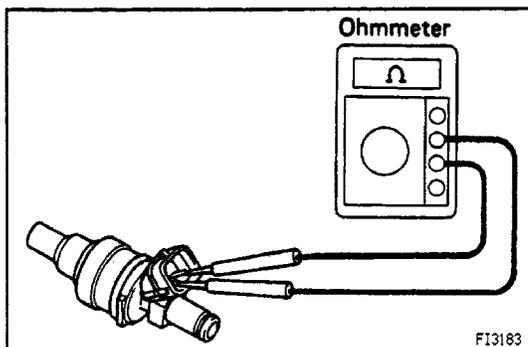
(b) Remove the the two delivery pipes and six injectors assemblies.

**NOTICE:** Be careful not to drop the injectors when removing the delivery pipes.

(c) Remove the four insulators, ten spacers and four O-rings from the cylinder head.

(d) Pull out the six injectors from the delivery pipes.

(e) Remove the O-ring and grommet from each injector.



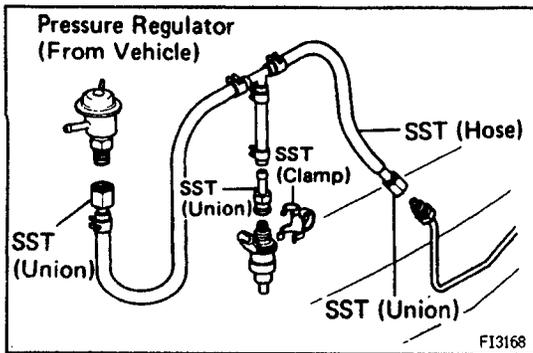
## INJECTORS INSPECTION

### 1. MEASURE RESISTANCE OF INJECTOR

Using an ohmmeter, check the resistance of both terminals.

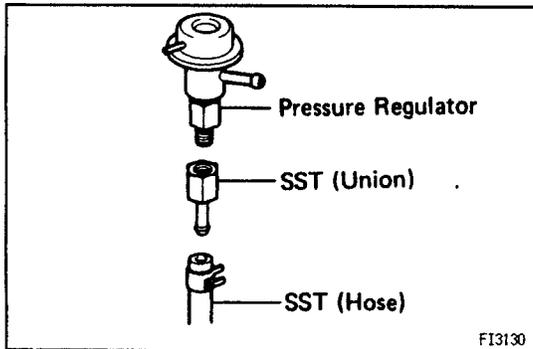
**Resistance:**

**13.4–14.2  $\Omega$**

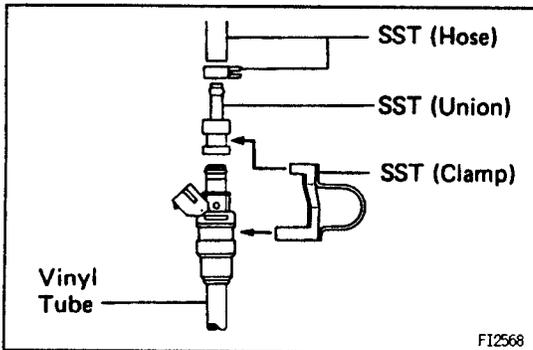


## 2. TEST INJECTION OF INJECTOR

**CAUTION:** Keep injectors clear of sparks during the test.

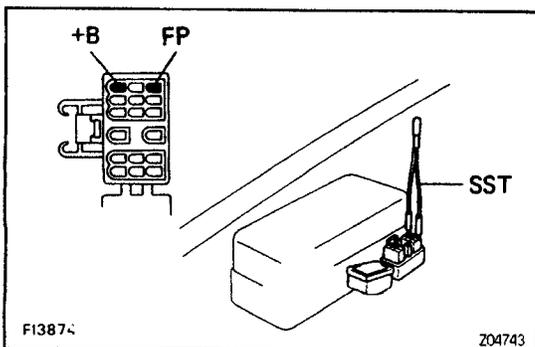


- (a) Disconnect the No.1 fuel hose from the fuel tube.
- (b) Connect SST (hose and union) to the fuel tube.  
SST 09268-41045 (09268-52010)
- (c) Remove the fuel pressure regulator.
- (d) Connect SST (hose) to the fuel pressure regulator with SST (union).  
SST 09268-41045 (09268-52010)

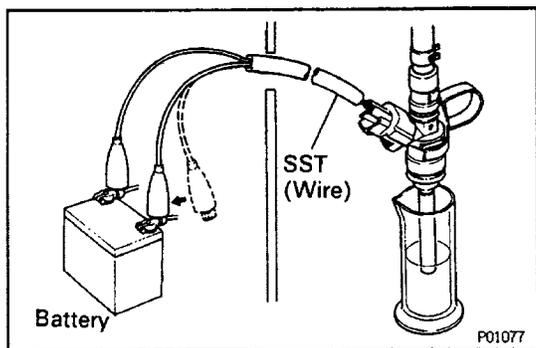


- (e) Install SST (union) to the injector and hold the injector and union with SST (clamp).  
SST 09268-41045
- (f) Put the injector into the graduated cylinder.  
HINT: Install a suitable vinyl tube onto the injector to prevent gasoline from splashing out.

- (g) Connect the battery negative cable.
- (h) Turn the ignition switch ON.  
HINT: Do not start the engine.



- (i) Using SST, connect terminals FP and +B of the DLC1.  
SST 09843-18020  
HINT: Fuel pump will operate.



- (j) Connect SST (wire) to the injector and battery for 15 seconds and measure the injection volume with a graduated cylinder. Test each injector two or three times.

SST 09842-30070

**Volume:**

**45 – 55 cm<sup>3</sup>/15 sec. (2.7 – 3.4 cu in.)**

**Difference between each injector:**

**6 cm<sup>3</sup> (0.4 cu in.) or less**

If not within specified volume, replace the injector.

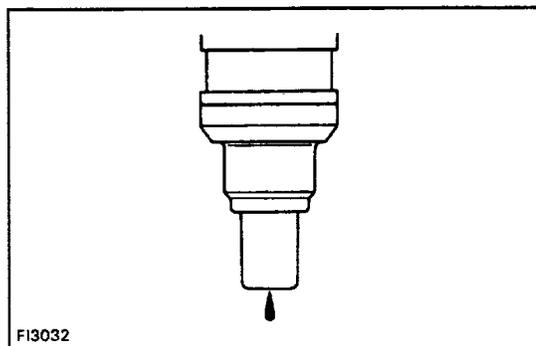
**3. CHECK LEAKAGE**

- (a) In the condition above, disconnect SST from the battery and check for fuel leakage from the injector nozzle.

SST 09842-30070

**Fuel drop:**

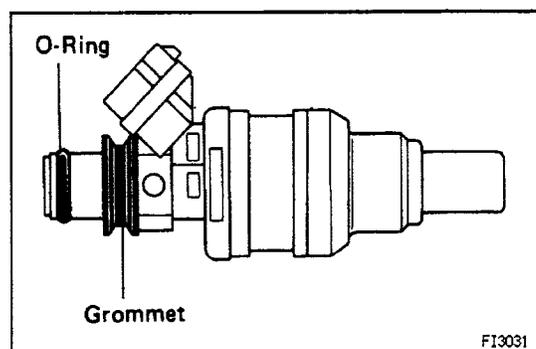
**One drop or less per minute**



- (b) Disconnect the battery negative cable.

- (c) Remove SST.

SST 09268-41045 and 09843-18020



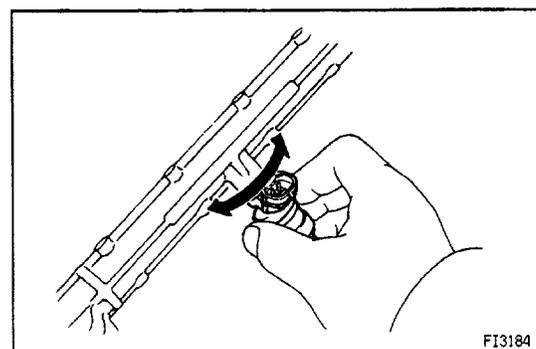
## INJECTORS INSTALLATION

EG200-01

(See Components for Removal and Installation)

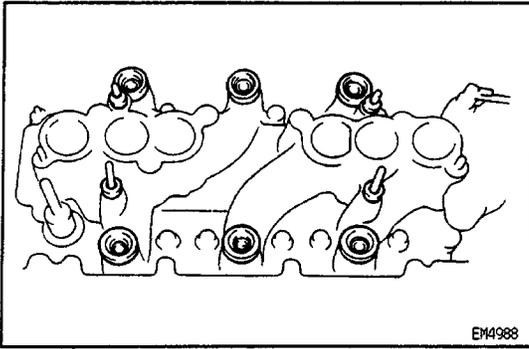
**1. INSTALL INJECTORS AND DELIVERY PIPES**

- (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.

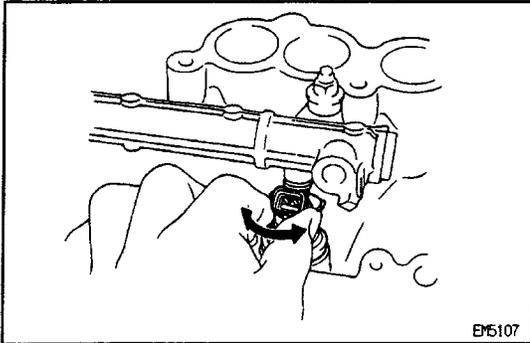


- (c) While turning the injector clockwise and counter-clockwise, push it to the delivery pipe. Install the eight injectors.

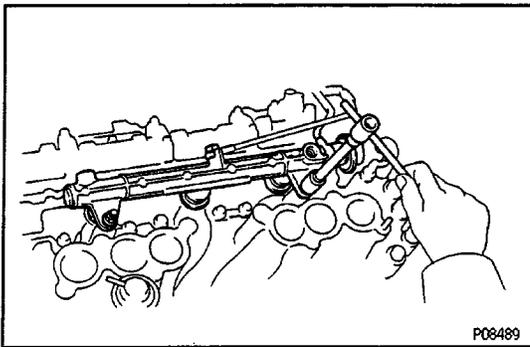
- (d) Position the injector connector outward.



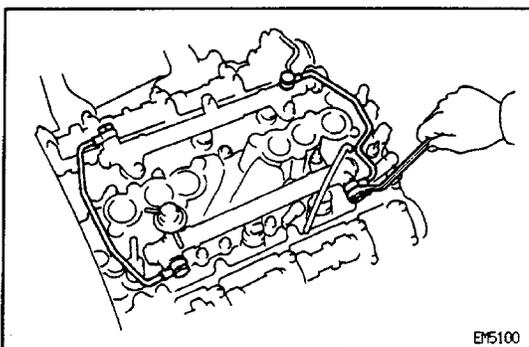
- (e) Install a O-ring to the spacer.
- (f) Place the six spacers and insulators into the injector holes.
- (g) Place the four spacers on the stud bolts.



- (h) Place the two delivery pipes together with the six injectors in position on the intake manifold.
  - (i) Temporarily install the four spacers and nuts.
  - (j) Check that the injectors rotate smoothly.
- HINT: If injectors do not rotate smoothly, the probable cause is incorrect installation of O-rings. Replace the O-rings.
- (k) Position the injector connector upward.

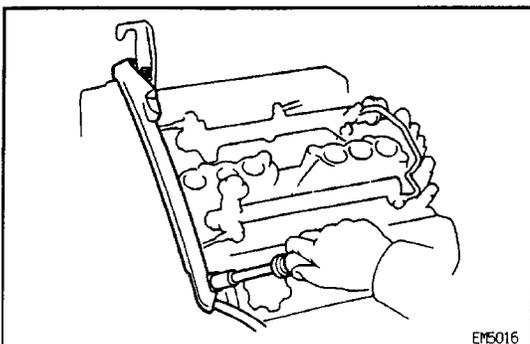


- (l) Tighten the four nuts holding the delivery pipes to the intake manifold.
- Torque: 13 N-m (130 kgf-cm, 9 ft-lbf)**
- (m) Install the No. 1 fuel pipe to the No.3 bearing cap with the bolt.



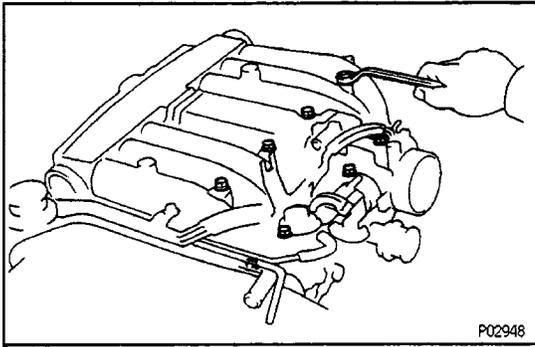
## 2. INSTALL NO.2 AND NO.3 FUEL PIPES

- (a) Install the No.2 fuel pipe with four new gaskets and two union bolts.
- Torque: 34 N-m (350 kgf-cm, 25 ft-lbf)**
- (b) Install the No.3 fuel pipe with four new gaskets and two union bolts.
- Torque: 34 N-m (350 kgf-cm, 25 ft-lbf)**



## 3. INSTALL ENGINE WIRE

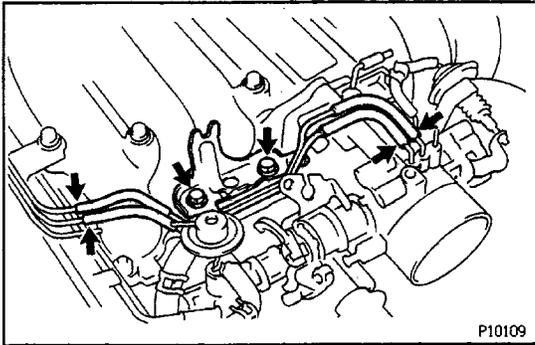
- (a) Install the engine wire with the two bolts.
- (b) Connect the following connectors:
  - Injector connectors
  - RH ground strap
  - Engine coolant temp. sender gauge connector
  - Engine coolant temp. sensor connector
  - Cold start injector time switch connector
  - Knock sensor connector



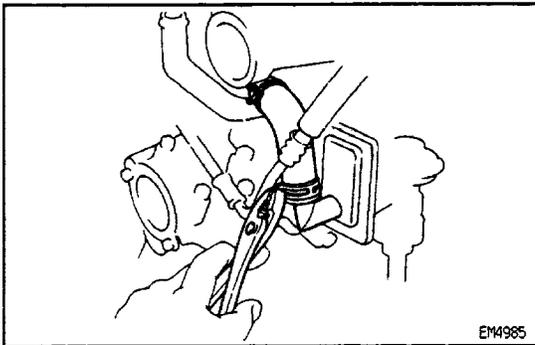
#### 4. INSTALL AIR INTAKE CHAMBER

- (a) Position a new gasket on the intake manifold.
- (b) Install the intake chamber with the six bolts and two nuts.

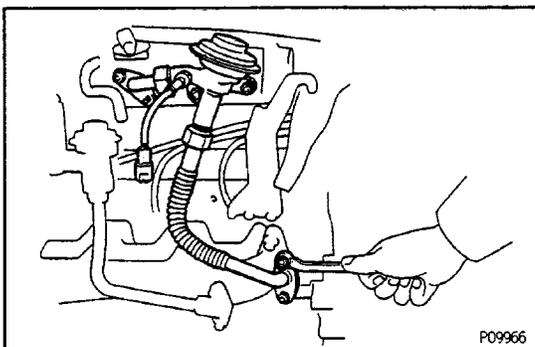
**Torque: 18 N-m (185 kgf-cm, 13 ft-lbf)**



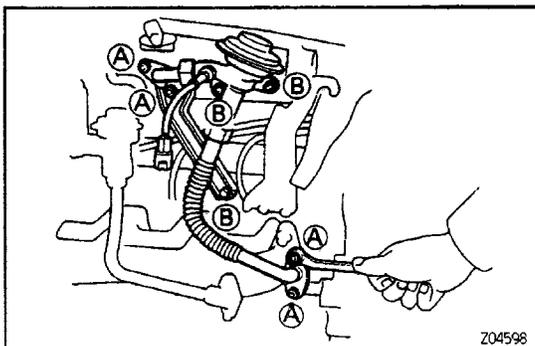
- (c) Install the accelerator cable bracket with the two bolts.
- (d) Connect the four vacuum hoses to the air pipes.



- (e) Connect the No.1 air hose to the reed valve.



- (f) Position two new gaskets to the intake chamber and RH exhaust manifold.
- (g) Install the EGR valve with the pipes to the intake chamber and RH exhaust manifold.
- (h) (C & C only)  
Connect the two water by-pass hose to the EGR valve.



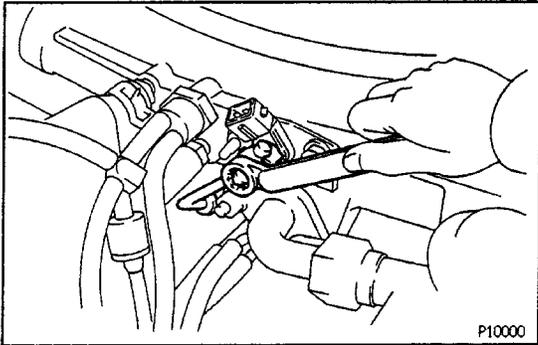
- (i) Install the air intake chamber stay and throttle cable bracket. Install and torque the six nuts and two bolts.

**Torque:**

**(A) 29 N-m (300 kgf-cm, 22 ft-lbf)**

**(B) 18 N-m (185 kgf-cm, 13 ft-lbf)**

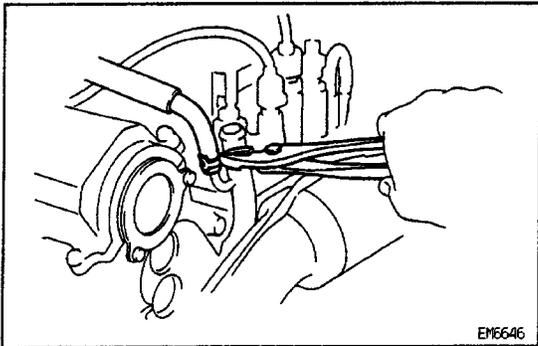
- (j) Connect the EGR hoses to the air pipe and EGR vacuum modulator.
- (k) (California and C & C)  
Connect the EGR gas temp. sensor connector.
- (l) Connect the vacuum hose to the gas filter.



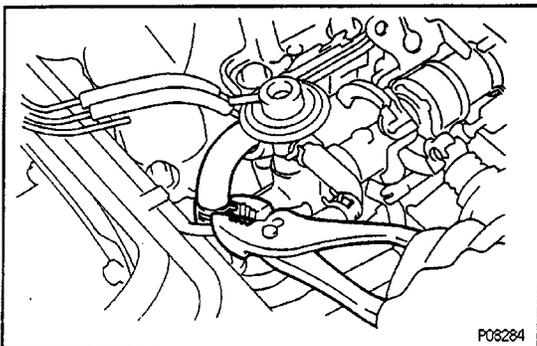
- (m) Connect the cold start injector tube with a new gasket and the union bolt.

**Torque: 15 N-m (150 kgf-cm, 13 ft-lbf)**

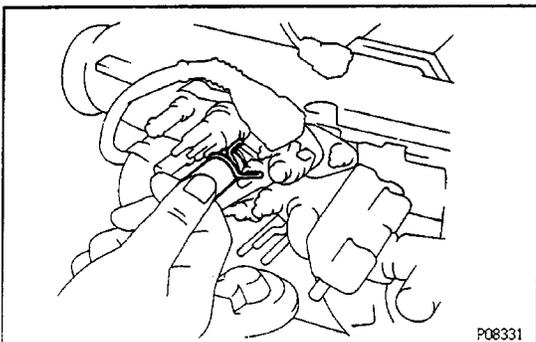
- (n) Connect the cold start injector connector.



- (o) Install the No.5 water by-pass hose to the water by-pass pipe.

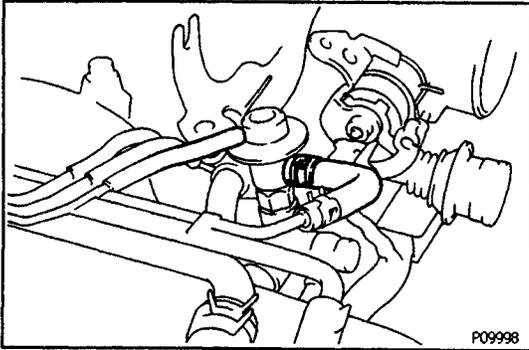


- (p) Connect the No.4 water by-pass hose to the union of the intake manifold.

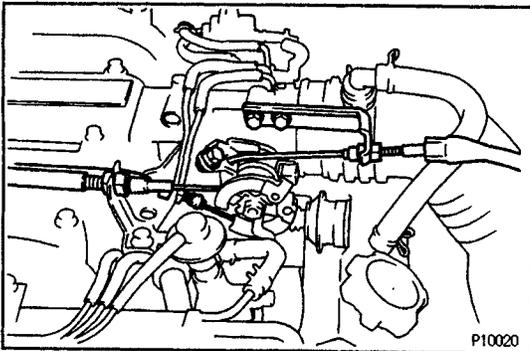


- (q) Connect the PCV hose to the union.

- (r) Connect the canister vacuum hose to the throttle body.
- (s) Connect the throttle position sensor connector.



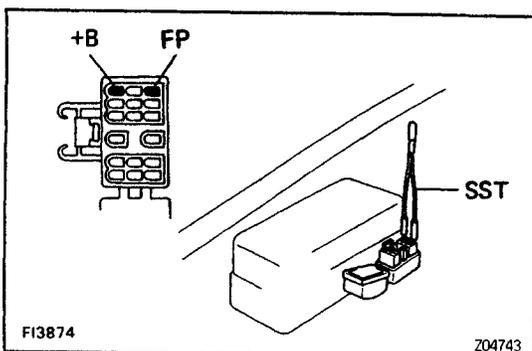
- 5. CONNECT FUEL RETURN HOSE**
- 6. CONNECT VACUUM SENSING HOSE**
- 7. CONNECT AIR CLEANER HOSE**



**8. CONNECT FOLLOWING CABLES:**

- (a) (A/T)  
Throttle cable
- (b) Accelerator cable
- (c) (w/ Cruise control)  
Actuator cable with bracket

- 9. REFILL WITH ENGINE COOLANT**
- 10. CONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY**



**11. CHECK FOR FUEL LEAKAGE**

- (a) With the ignition switch ON, use SST to connect terminals FP and +B of the DLC1.  
SST 09843-18020
- (b) Check for fuel leakage.
- (c) Remove SST from the DLC1.