

PRECAUTIONS

1. Before working on the fuel system, disconnect the cable from negative (-) terminal of the battery.

HINT: Any diagnostic trouble code retained by the computer will be erased when the battery terminal is removed. Therefore, if necessary, read the diagnosis before removing the battery terminal.

2. Do not smoke or work near an open flame when working on the fuel system.
3. Keep gasoline away from rubber or leather parts.

INSPECTION PRECAUTIONS

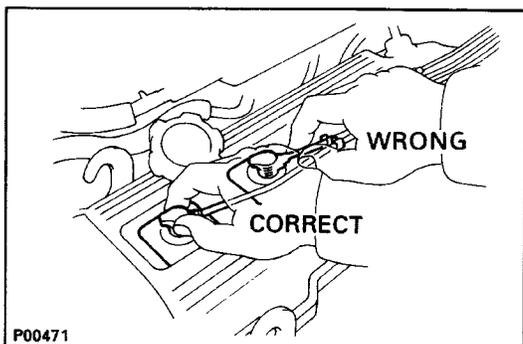
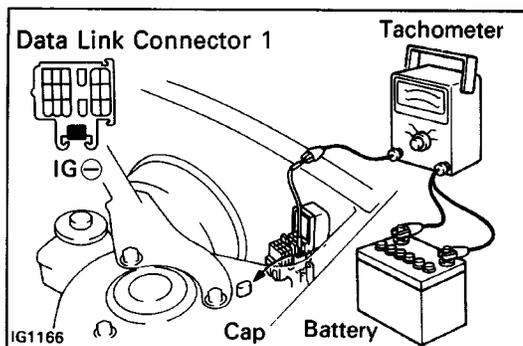
MAINTENANCE PRECAUTIONS

1. CHECK CORRECT ENGINE TUNE-UP

(See page [EM-12](#))

2. PRECAUTIONS WHEN CONNECTING GAUGE

- (a) Use the battery as the power source for the timing light, tachometer, etc.
- (b) Connect the tester probe of a tachometer to the terminal IGO of the data link connector 1.



3. IN EVENT OF ENGINE MISFIRE, FOLLOWING PRECAUTIONS SHOULD BE TAKEN

- (a) Check proper connection of battery terminals, etc.
- (b) Handle high-tension cords carefully.
- (c) After repair work, check that the ignition coil terminals and all other ignition system lines are reconnected securely.
- (d) When cleaning the engine compartment, be especially careful to protect the electrical system from water.

4. PRECAUTIONS WHEN HANDLING OXYGEN SENSOR

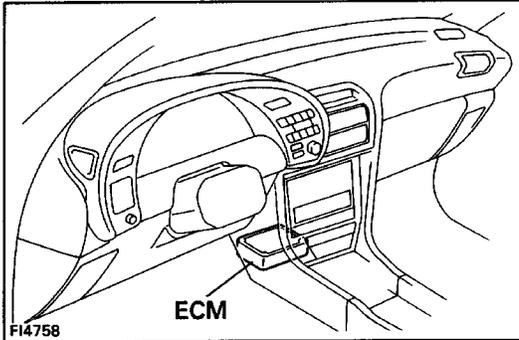
- (a) Do not allow oxygen sensor to drop or hit against an object.
- (b) Do not allow the sensor to come into contact with water.

IF VEHICLE IS EQUIPPED WITH MOBILE RADIO SYSTEM (HAM, CB, ETC.)

The ECM has been designed so that it will not be affected by outside interference. However, if your vehicle is equipped with a CB radio transceiver, etc. (even one with about 10 W output), it may, at times, have an effect upon ECM operation, especially if the antenna and feeder are installed nearby.

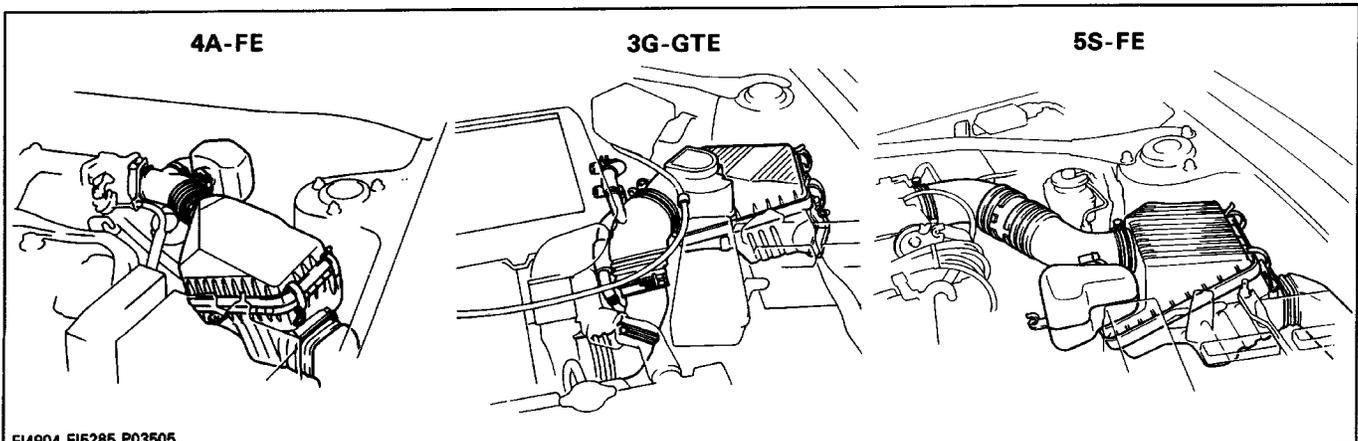
Therefore, observe the following precautions:

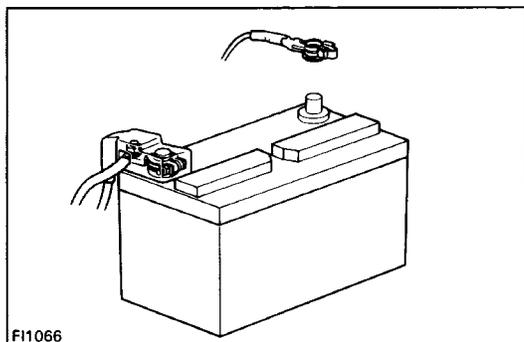
1. Install the antenna as far away as possible from the ECM.
The ECM is located under the radio so the antenna should be installed at the rear side of the vehicle.
2. Keep the antenna feeder as far away as possible from the ECM wires—at least 20 cm (7.87 in.)—and, especially, do not wind them together.
3. Check that the feeder and antenna are properly adjusted.
4. Do not equip your vehicle with a powerful mobile radio system.
5. Do not open the cover or the case of the ECM unless absolutely necessary. (If the IC terminals are touched, the IC may be destroyed by static electricity.)



AIR INDUCTION SYSTEM

1. Separation of the engine oil dipstick, oil filler cap, PCV hose, etc. may cause the engine to run out of tune.
2. Disconnection, looseness or cracks in the parts of the air induction system between the throttle body and cylinder head will cause air suction and cause the engine to run out of tune.





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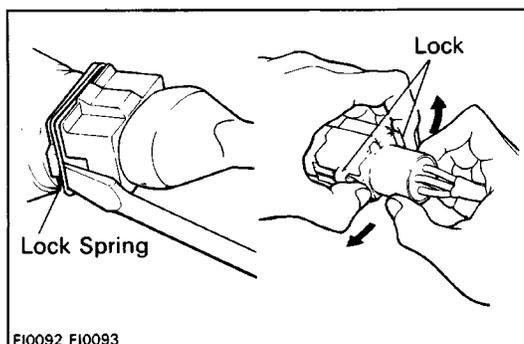
ELECTRONIC CONTROL SYSTEM

1. Before removing MFI and SFI wiring connectors, terminals, etc., first disconnect the power by either turning the ignition switch OFF or disconnecting the battery terminals.

HINT: Always check the diagnostic code before disconnecting the battery terminals.

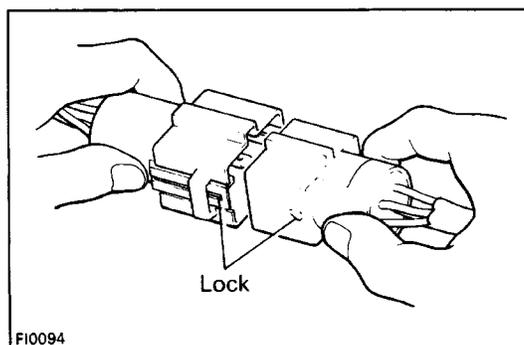
2. When installing the battery, be especially careful not to incorrectly connect the positive (+) and negative (-) cables.
3. Do not permit parts to receive a severe impact during removal or installation. Handle all MFI and SFI parts carefully, especially the ECM.
4. Do not be careless during troubleshooting as there are numerous transistor circuits and even slight terminal contact can cause further troubles.
5. Do not open the ECM cover.
6. When inspecting during rainy weather, take care to prevent entry of water. Also, when washing the engine compartment, prevent water from getting on the MR and SFI parts and wiring connectors.
7. Parts should be replaced as an assembly.
8. Care is required when pulling out and inserting wiring connectors.

(a) Release the lock and pull out the connector, pulling on the connectors.



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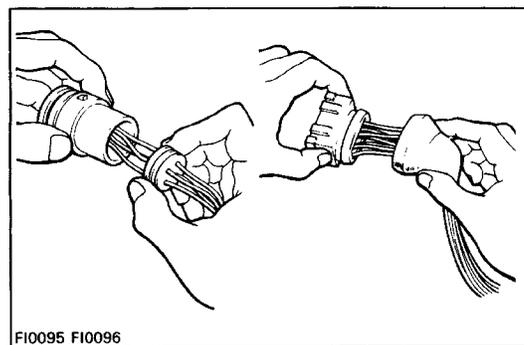
(b) Fully insert the connector and check that it is locked.



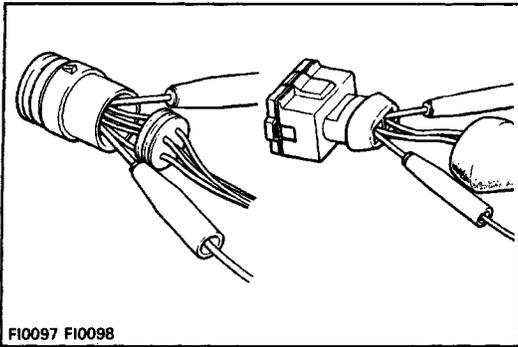
FI0094

9. When inspecting a connector with a volt/ohmmeter.

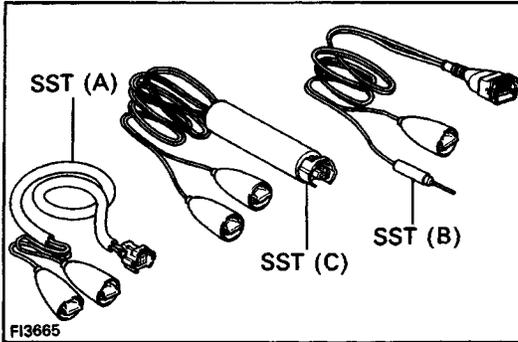
(a) Carefully take out the water-proofing rubber if it is a water-proof type connector.



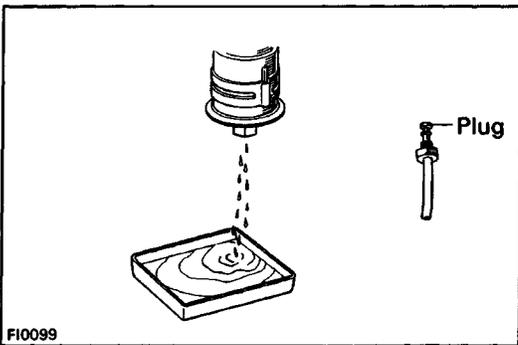
FI0095 FI0096



- (b) Insert the tester probe into the connector from wiring side when checking the continuity, amperage or voltage.
- (c) Do not apply unnecessary force to the terminal.
- (d) After checking, install the water-proofing rubber on the connector securely.

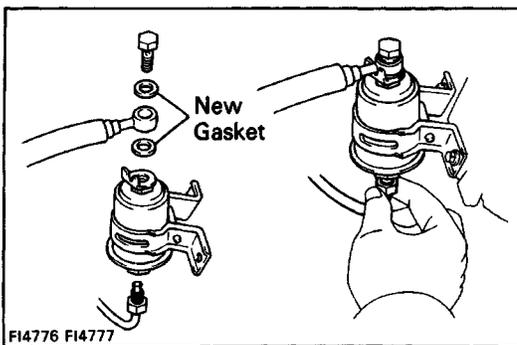


10. Use SST for inspection or test of the injector, cold start injector or its wiring connector.
 SST 09842-30070 (A) for 4A-FE and 5S-FE
 09842-30050 (B) and 09842-30060 (C)
 for 3S-GTE

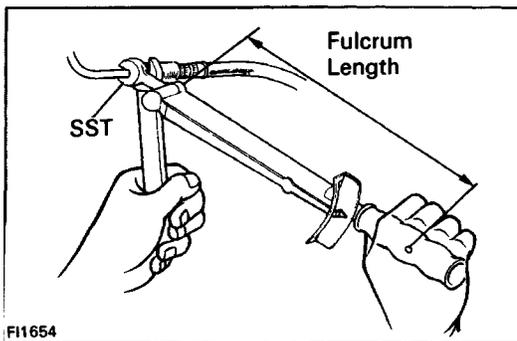


FUEL SYSTEM

1. When disconnecting the high fuel pressure line, a large amount of gasoline will spill out, so observe the following procedures:
- (a) Put a container under the connection.
 - (b) Slowly loosen the connection.
 - (c) Disconnect the connection.
 - (d) Plug the connection with a rubber plug.



2. When connecting the flare nut or union bolt on the high pressure pipe union, observe the following procedures: (Union Bolt Type)
- (a) Always use a new gasket.
 - (b) Tighten the union bolt by hand.
 - (c) Tighten the union bolt to the specified torque.
Torque: 29 N-m (300 kgf-cm, 22 ft-1160)



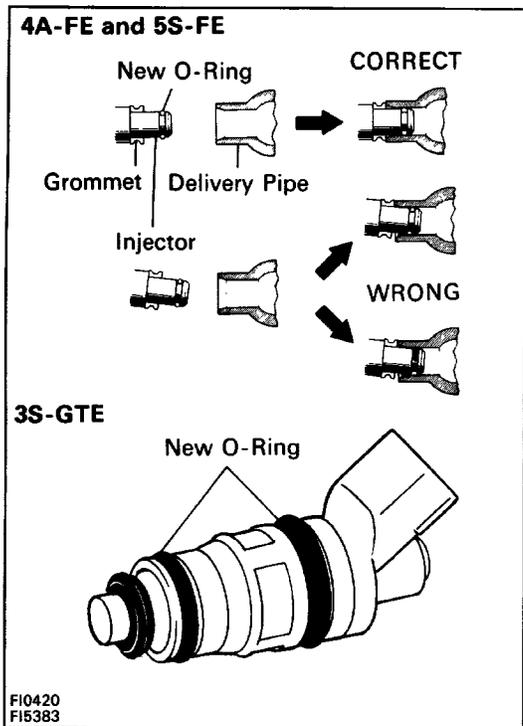
(Flare Nut Type)

- (a) Apply a light coat of engine oil to the flare nut and tighten the flare nut by hand.
- (b) Using SST, tighten the flare nut to the specified torque.

SST 09631-22020

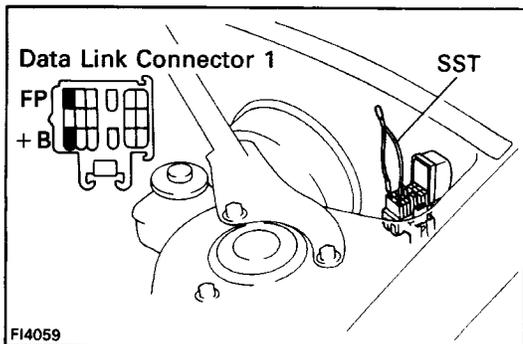
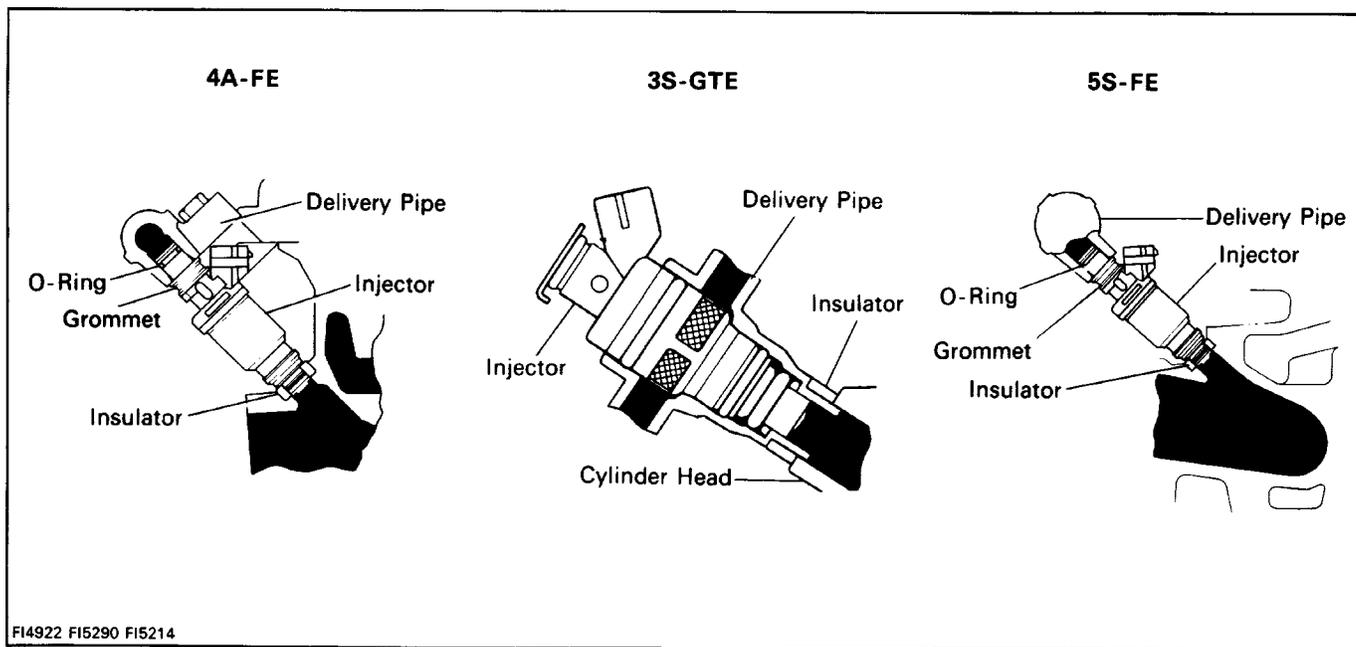
Torque: 30 N-m (310 kgf-cm, 22 ft-lbf)

HINT: Use a torque wrench with a fulcrum length of 30 cm (11.81 in.).

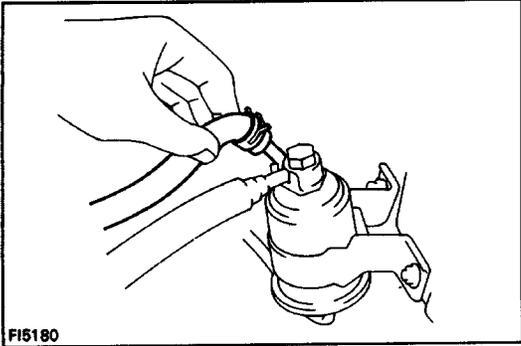


3. Observe the following precautions when removing and installing the injectors.
 - (a) Never reuse the O-ring.
 - (b) When placing a new O-ring on the injector, take care not to damage it in any way.
 - (c) Coat a new O-ring with spindle oil or gasoline before installing - never use engine, gear or brake oil.

4. Install the injector to delivery pipe and cylinder head as shown in the illustration.

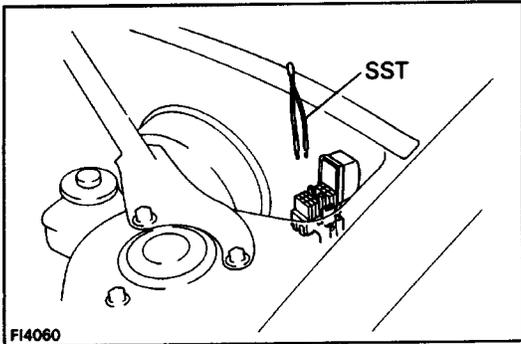


5. Check that there are no fuel leaks after performing any maintenance on the fuel system.
 - (a) Using SST, connect terminals +B and FP of the data link connector 1.
SST 09843-18020
 - (b) With engine stopped, turn the ignition switch ON.



- (c) When the fuel return hose is pinched, the pressure within high pressure line will rise to approx. 392 kPa (4 kgf/cm², 51 psi). In this state, check to see that there are no leaks from any part of the fuel system.

NOTICE: Always pinch the hose. Avoid bending as it may cause the hose to crack.



- (d) Turn the ignition switch OFF.

- (e) Remove the SST.
SST 09843-18020