

## 5-8 FUEL SYSTEM

### To install:

- Lubricate new engine O-rings with engine oil and install 2 on each injector.
- Install the injectors, using a light, twisting, pushing motion to install them.
- Reconnect the injector retaining clips.
- Install the fuel rail assembly.
- Install the electrical harness connectors to the injectors.
- Install the upper intake manifold by reversing the removal procedure.
- Install the fuel cap at the tank.
- Connect the negative battery cable.
- Turn the ignition switch from ON to OFF position several times without starting the engine to check for fuel leaks.

### 4.6L Engine

#### ♦ See Figures 32 thru 37

- Disconnect the negative battery cable.
- Remove the fuel tank cap and relieve the fuel system pressure, as explained in this Section.
- Disconnect the vacuum line at the pressure regulator.
- Disconnect the fuel lines from the fuel rail.
- Detach the electrical connectors from the injectors.
- Remove the fuel rail assembly retaining bolts.
- Carefully disengage the fuel rail from the fuel injectors and remove the fuel rail.

► It may be easier to remove the injectors with the fuel rail as an assembly.

8. Grasping the injector body, pull while gently rocking the injector from side-to-side to remove the injector from the fuel rail or intake manifold.

9. Inspect the pintle protection cap and washer for signs of deterioration. Replace the complete injector, as required. If the cap is missing, look for it in the intake manifold.

► The pintle protection cap is not available as a separate part.

### To install:

10. Lubricate new O-rings with light grade oil and install 2 on each injector.

► Never use silicone grease as it will clog the injectors.

11. Install the injectors using a light, twisting, pushing motion.

12. Install the fuel rail, pushing it down to ensure all injector O-rings are fully seated in the fuel rail cups and intake manifold.

13. Install the retaining bolts while holding the fuel rail down and tighten to 71–106 inch lbs. (8–12 Nm).

14. Connect the fuel lines to the fuel rail and the vacuum line to the pressure regulator.

15. With the injector wiring disconnected, connect the negative battery cable and turn the ignition switch to the **RUN** position to allow the fuel pump to pressurize the system.

16. Check for fuel leaks.

17. Disconnect the negative battery cable.

18. Connect the electrical connectors to the fuel injectors.

19. Connect the negative battery cable and start the engine. Let it idle for 2 minutes.

20. Turn the engine **OFF** and check for leaks.

### 5.0L Engine

#### ♦ See Figure 38

- Disconnect the negative battery cable.
- Remove the fuel tank cap and relieve the fuel system pressure, as explained in this Section.
- Partially drain the cooling system into a suitable container.

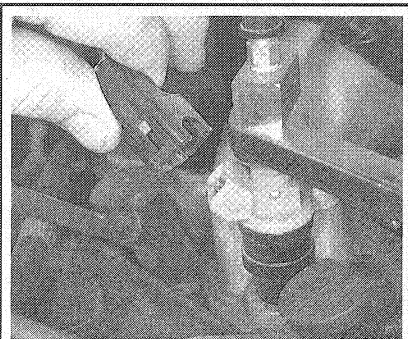
### \*\*\* CAUTION

When draining the coolant, keep in mind that cats and dogs are attracted by the ethylene glycol antifreeze, and are quite likely to drink any that is left in an uncovered container or in puddles on the ground. This will prove fatal in sufficient quantity. Always drain the coolant into a sealable container. Coolant should be reused unless it is contaminated or several years old.

4. Label and detach the electrical connectors at the idle air control valve, throttle position sensor and EGR sensor.

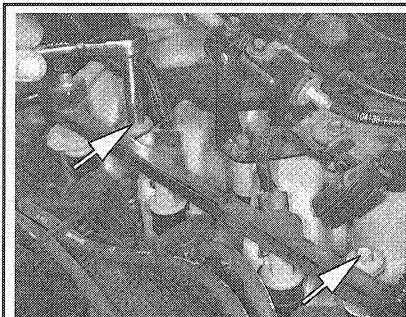
5. Disconnect the throttle linkage at the throttle ball and transmission linkage from the throttle body. Remove the 2 bolts securing the bracket to the intake manifold and position the bracket with the cables aside.

6. Label and disconnect the upper intake manifold vacuum fitting connections by disconnecting



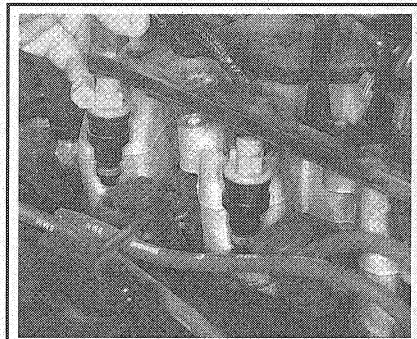
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Fig. 32 Detach the electrical connectors from the injectors



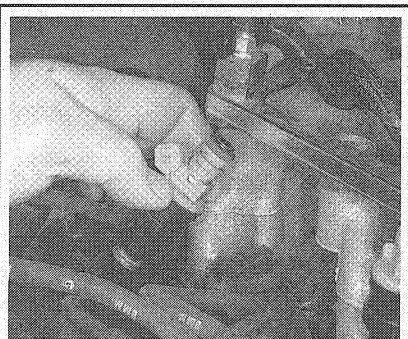
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Fig. 33 Remove the fuel rail assembly retaining bolts. There are two on each side of the engine



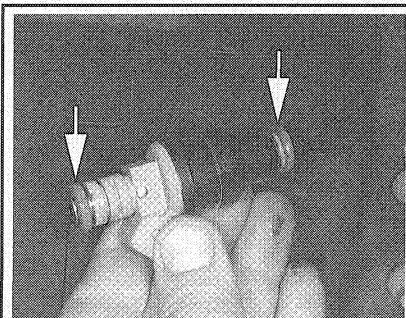
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Fig. 34 Lift the rail from the intake manifold and . . .



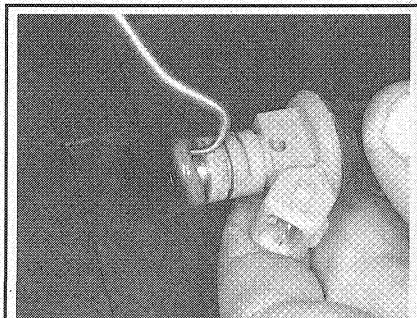
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Fig. 35 . . . remove the injectors by gently pulling them out of the rail



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Fig. 36 Replace the injector O-rings before installing the injectors back into the engine



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Fig. 37 Remove the O-rings from the injectors using a small pick or other suitable tool