

FUEL-02, Fuel Injector and Fuel Rail Removal and Installation

Tools

- 10 mm socket/ratchet and 6" extension
- Flat tip screwdriver
- Thin head 24 mm or 15/16" open end wrench
- 19 mm open end wrench
- Small flat tip screwdriver or probe
- Catch Rags

Other Procedures Needed

None

Fuel Rail Removal

1. Disconnect the battery negative lead.

NOTE

Stuff catch rags underneath the fuel pressure damper and fuel pressure regulator to catch fuel when disconnecting the fuel supply and return lines.

2. On '85/2 and newer model cars, use the thin head 24 mm or 15/16" open end wrench to hold the fuel pressure damper retaining nut and disconnect the fuel supply line using the 19 mm open end wrench. On '85 model and older cars, disconnect the fuel supply line at the connection on top of the intake manifold (19 mm?).
3. Using the flat tip screwdriver, loosen the retaining clamp on the fuel return line and disconnect the fuel return line from the fuel pressure regulator.

NOTE

The fuel supply line is connected to the fuel damper and the fuel return line is connected to the fuel pressure regulator. On '85 model and older cars, the fuel damper and fuel pressure are located next to each other near the back of the fuel rail. On '85/2 and newer model cars, the fuel damper is located front of the fuel rail while the fuel pressure regulator is located near the back of the fuel rail.

4. Disconnect the fuel damper and fuel pressure regulator vacuum lines.
5. Remove the plastic cover from the fuel rail.

6. Using a small flat tip screwdriver or probe, disengage the wire clips on the fuel injector electrical connectors plugs and disconnect the plugs. Move the fuel injector wiring harness out of the way.
7. Using the 10 mm socket, remove the fuel rail retaining bolts (4).

NOTE

The two bolts closest to the intake manifold are difficult to see because they are located below the fuel damper and fuel pressure regulator.

8. Disconnect the spark plug wire retaining clips from the fuel rail.

NOTE

The routing of spark plug wires to cylinders #3 and #4 may require the plug wires to be disconnected and removed for the removal of the fuel rail.

9. Grasp the fuel rail and pull firmly upward away from the intake manifold. The fuel injectors will come out with the fuel rail.

Fuel Injector Removal and Installation

1. The fuel injectors are held into the fuel rail by retaining clips near the top of the injector body. Note how the clips are installed prior to removing the clips for injector removal.
2. Check the condition of the injector o-ring seals and injector caps (hats) prior to installing the injectors.
3. Ensure the injector retaining clips are properly installed prior to installing the fuel rail.

Fuel Rail Installation

NOTE

Spark plug wires should be routed as the fuel rail is installed.

1. Ensure fuel injectors are correctly attached to the fuel rail with retaining clips.
2. Install the fuel rail ensuring that the fuel injectors insert into the holes in the intake manifold.
3. Torque the fuel rail retaining bolts (4-M6 bolts) using the 10 mm socket to 8 Nm (6 ft-lbs).
4. Route the fuel injector wiring harness along the top of the fuel rail and connect the harness plugs to the injectors.

5. Install the plastic fuel rail cover.
6. Connect the fuel supply and return lines (Sorry no torque spec for the supply line connector).
7. Connect the fuel damper and fuel pressure regulator vacuum lines.
8. Reconnect the battery.
9. Turn the ignition on to pressurize the fuel system and check for leaks.

Clark's Garage © 1998
