

Installation Guide

Inline Electric Fuel Pump

555-15942, 555-15943, & 555-15944

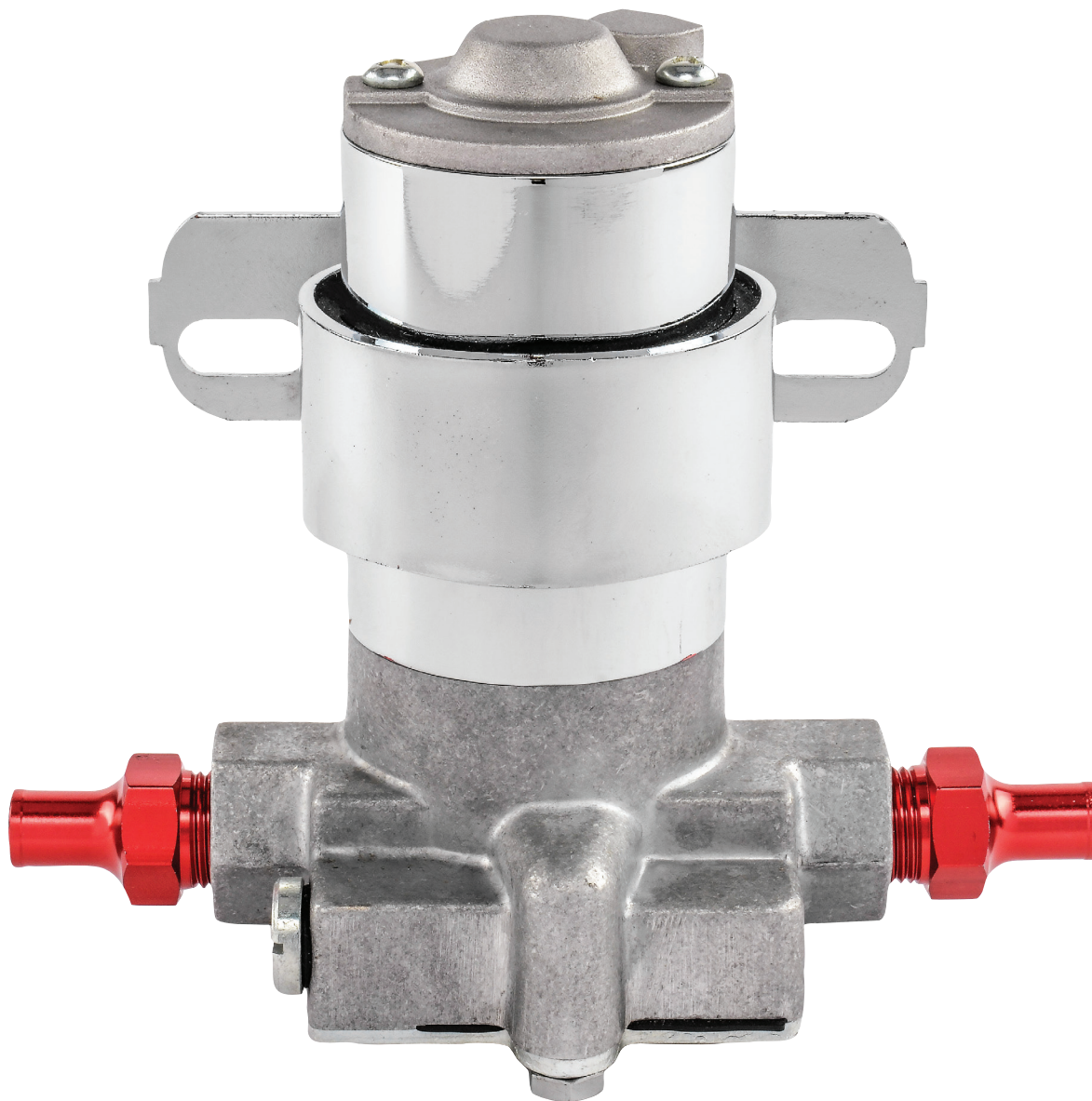


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Preparing the Fuel Pump for Mounting

1. NPT fittings do not seal themselves.
2. Use liquid thread sealant with Teflon on the threads. Do not use a silicone-based sealant or thread tape (plumbers tape).
3. DO NOT over-tighten the fittings on the fuel pump or regulator.
 - Assembly torque should not exceed 40 ft./lbs. This can be achieved by hand tightening the fitting, followed by wrench tightening an additional $\frac{3}{4}$ of 1 turn and the amount necessary to position the fitting in the correct orientation.
 - Over-tightening of the fittings can cause parts to crack, allowing fuel to leak.

Mounting the Fuel Pump

- The pump should be mounted on the chassis, in a vertical position with the pump motor on top.
- Ideally the inlet and outlet of the pump should be mounted below the lowest point of the tank to be gravity-fed. If it's pulling from the top of the tank, it needs to develop a siphon feed to the pump, be sure the fuel tank pickup tube is of the same size as the inlet of the pump and extends down to 1" or 2" off the bottom of the fuel tank.
- Avoid exposure of the pump and fuel lines to moving parts and to any heat, such as the exhaust system.

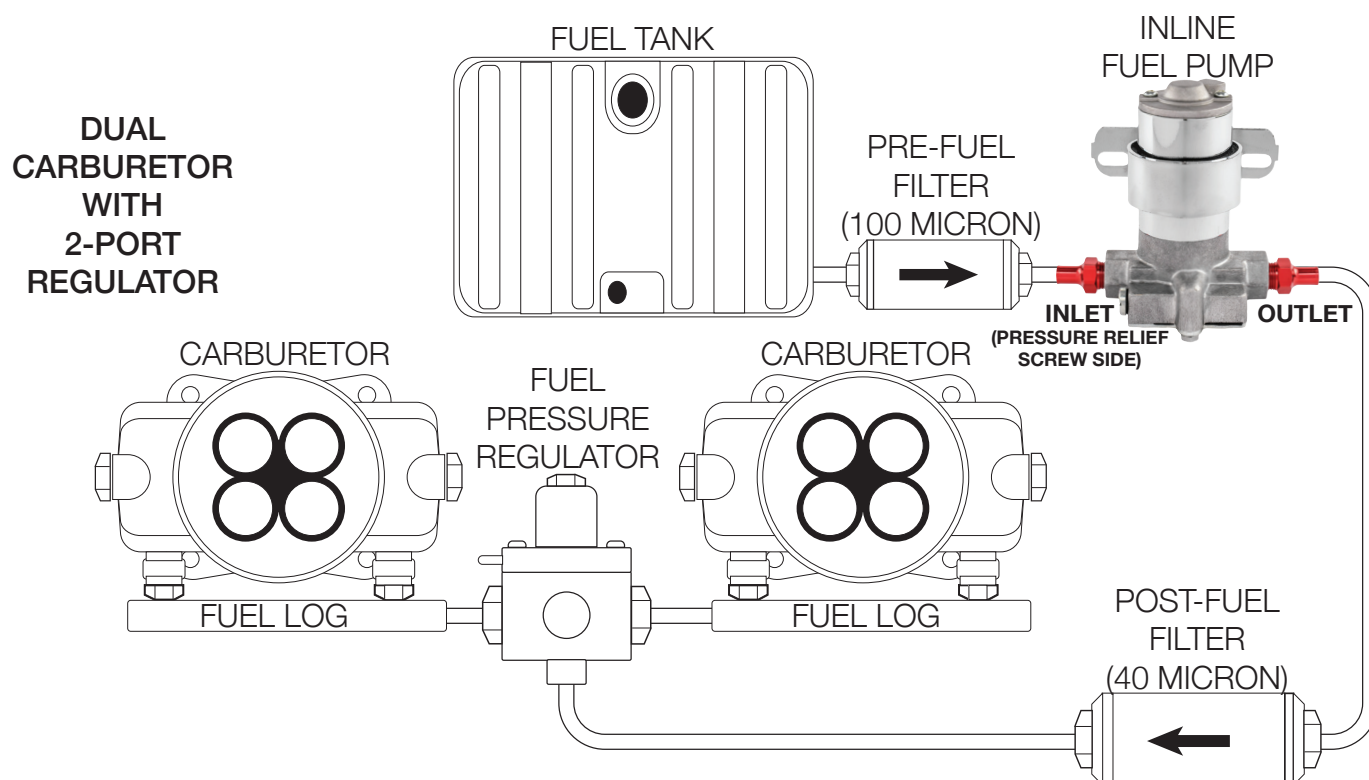
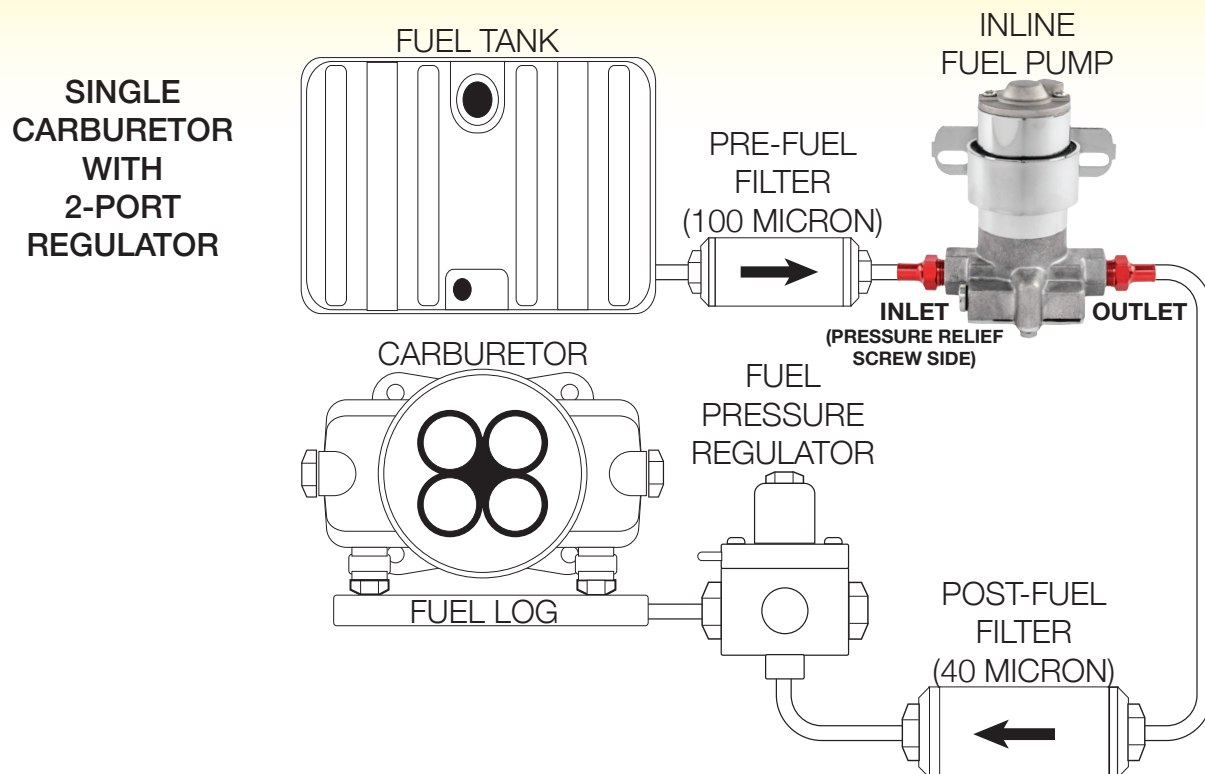
Mounting the Fuel Pump Contd.

1. Select a mounting site as close as possible to the fuel tank.
2. Use the mounting bracket (supplied) as a template and drill two $\frac{11}{16}$ " holes.
3. Place the rubber gaskets (supplied) between the mounting bracket and motor housing and mount the pump in the vertical position (motor on top) using two $\frac{5}{16}$ " bolts.

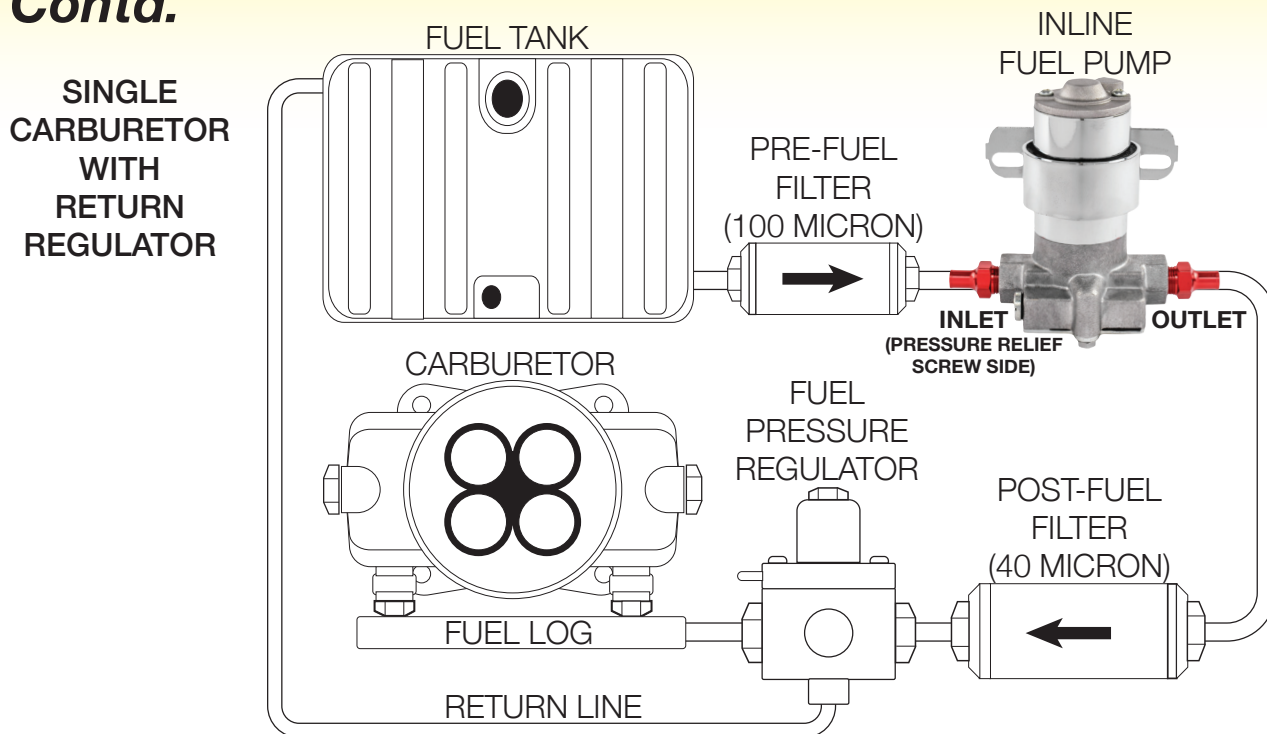
Plumbing the Fuel System

- Use the appropriate fuel line size for your applications fueling demands.
- Avoid unnecessary restrictions such as sharp bends and undersized fuel fittings.
- Avoid routing fuel lines in areas that would cause chafing.
- Use rubber grommets when passing fuel line through body panels.
- All fuel line connections must be leak-proof.

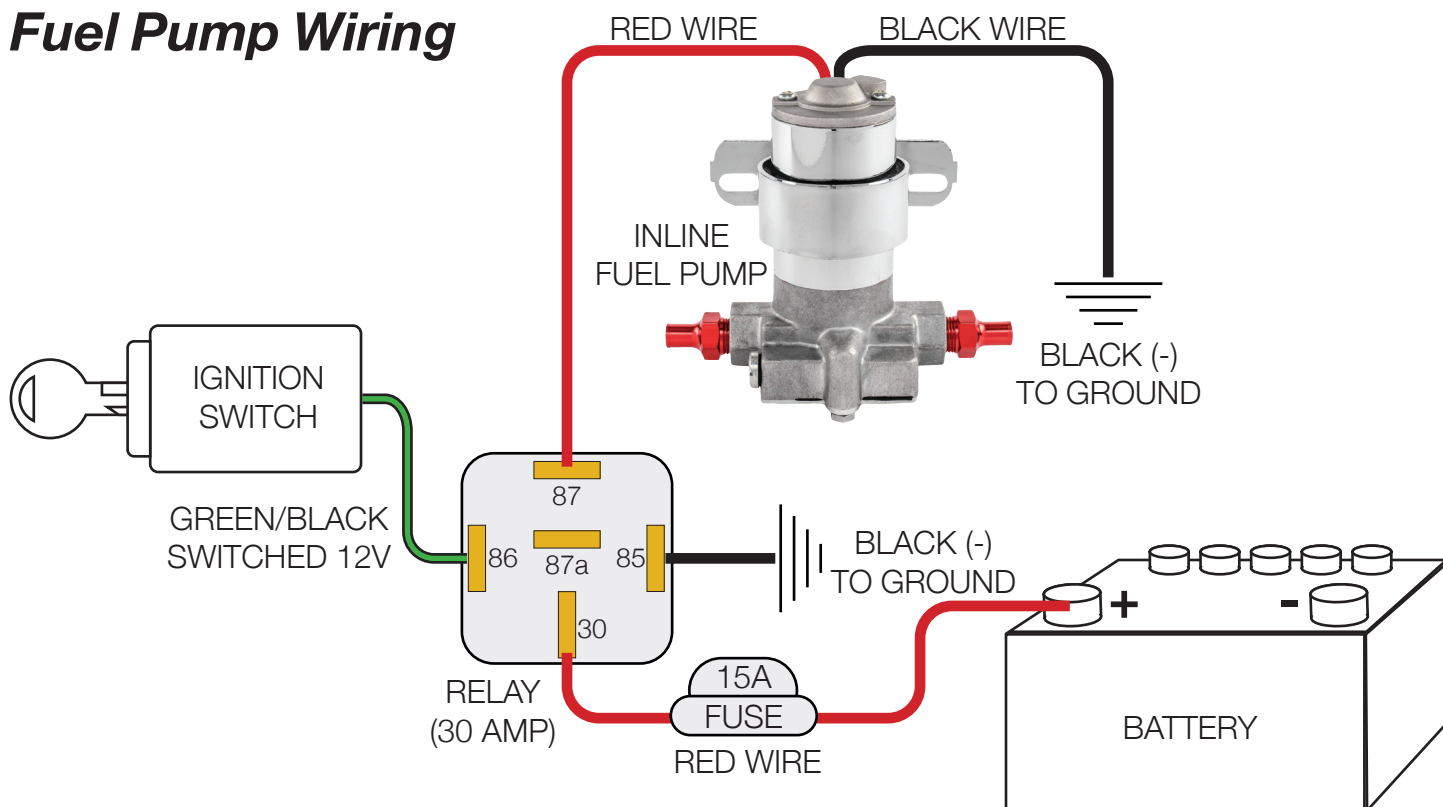
Fuel System Configuration



Fuel System Configuration Contd.



Fuel Pump Wiring



Wiring the Fuel Pump

- If replacing a mechanical fuel pump, make sure the vehicle charging system will support the addition of an electric fuel pump.
- Wire the fuel pump as shown in the diagram below using a 30-amp SPST or SPDT relay and a 15-amp in-line fuse.
- **NOTE:** The pin numbers on the relay terminals and where they go. Pin 87a in a SPDT relay is not used.
- **NOTE:** A good ground is **NOT** painted, powder coated or anodized.

Maintenance & Cleaning Instructions

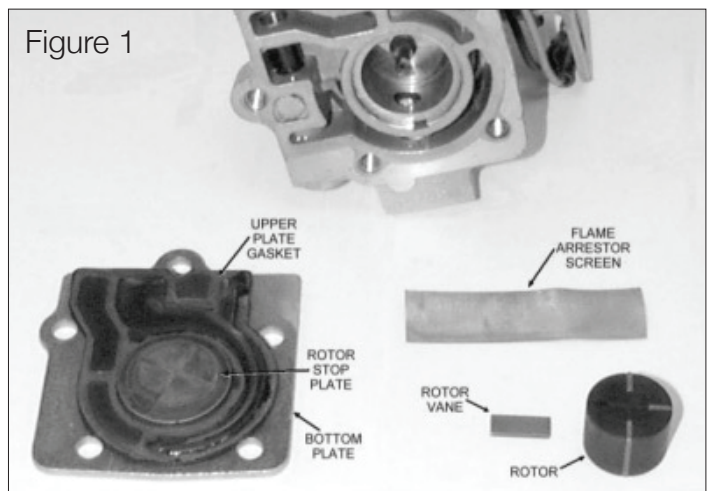
Due to the current poor-quality gasoline that's available, it is recommended that periodically a can of dry gas be used to absorb the water out of the fuel delivery system. The fuel filter element should be blown clean with compressed air every 6,000 miles and replaced every 12,000 miles to assure maximum protection. If your fuel pump fails to pump or fails to maintain adequate pressure, check the following:

1. Check the voltage at the pump to ensure 12-volt supply.
2. Check the fuel line (especially the fuel filter) for any obstruction. Use compressed air to blow the line free.
3. If this doesn't solve the problem, turn the pump on and listen for a hum from the top of the pump. If there is no hum, the pump's electrical system should be checked by a competent repairman. If the pump hums, it probably only needs to be cleaned.

Cleaning the Pump

1. The following is a step-by-step procedure for cleaning electric fuel pumps. Do all disassembling on a clean bench.
2. Read all instructions thoroughly and completely before starting.
3. Remove the pump from the car.
4. Remove the 5 bolts from the bottom of the pump.
5. Holding the pump in position, remove the bottom plate. Remove the upper plate gasket and rotor stop plate. Note the position of the rotor, rotor vanes, flame arrestor (screen), and relief valve arrangement for re-installation.
6. Remove the flame arrestor (note the position of the screen). Remove the rotor vanes and rotor by inverting the pump. Lay all pieces on a flat clean surface. See Figure 1.

Figure 1



7. Remove the pressure relief screw. The screw is spring loaded. Remove the spring and relief plunger.

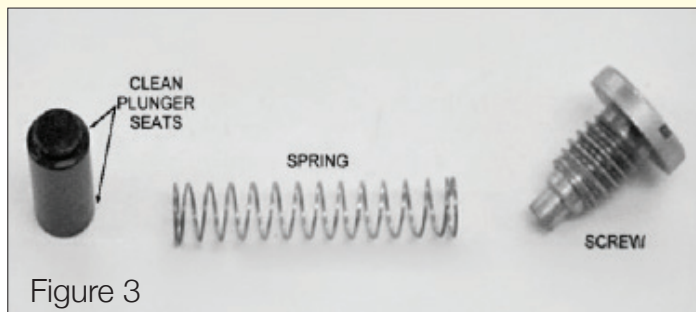
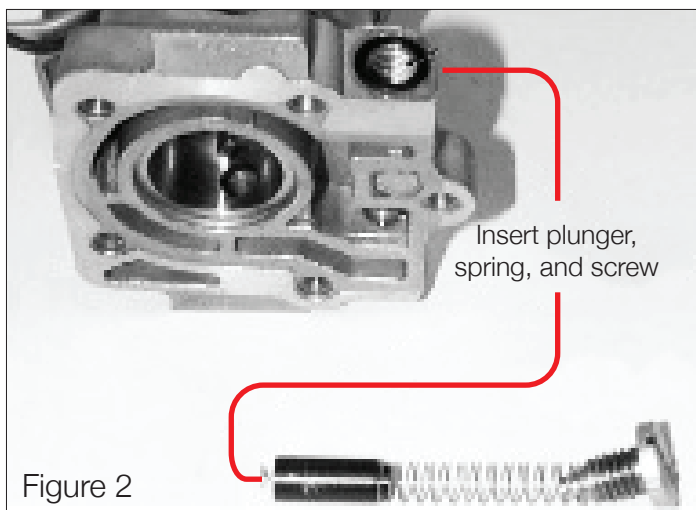
Cleaning the Pump Contd.

8. Clean the base housing with any good quality carburetor cleaner (spray-type only). Blow the base dry with compressed air. Clean any loose thread tape, etc. from the inlet and outlets.

WARNING

DO NOT IMMERSE THE ENTIRE UNIT IN ANY LIQUID. IMMERSION COULD DAMAGE THE ELECTRICAL CIRCUITRY, RESULTING IN A PUMP MALFUNCTION. A PUMP MALFUNCTION COULD RESULT IN A FIRE, WHICH MAY RESULT IN PROPERTY DAMAGES, SERIOUS INJURY, OR DEATH.

9. If the relief plunger is rusty, clean it with emery paper. The plunger must slide freely in the base. Check the plunger, spring, and o-ringed screw. Check that plunger is free in the slide. See Figures 2 and 3.



10. Clean the rotor vanes with emery paper. The vanes must slide freely in the rotor slot. Check that the vanes move freely. Replace the rotor stop plate. Install the flame arrestor making sure the screen is behind the screen stop. Replace the upper plate gasket and upper plate. Fasten with five screws.
11. Replace the pump in the car.

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Prior to installation, please inspect your fuel pump for any damage or missing parts. If any components are missing or damaged please contact customer service at: 1.800.345.4545.

Return Information: Before modifying any of the parts in, or on, this fuel pump, please trial fit. *Modified fuel pumps will not be accepted for return.*