INSTALLATION INSTRUCTIONS

COMP PUMP® SERIES 250 ELECTRIC FUEL PUMP

PART NOS. 5250 AND 5250A

PARTS INCLUDED IN THIS KIT:

1 COMP PUMP® Series 250 Electric Fuel Pump
3 Fittings, 3/4" - 16 x #8 AN Flare
3 O-rings, Nitrile 0.644ID x 0.087 thickness

NOTE: DO NOT OPERATE THIS PUMP WITHOUT FUEL EXCEPT FOR BRIEF PERIODS WHILE PRIMING

SPECIFICATIONS

Maximum recommended operating pressure: 20 PSI (factory set at approximately 15 PSI)

Maximum dry suction lift: 3 feet. This is maximum distance above the fuel level in the fuel tank that the fuel pump will prime itself.

Oil pressure switch rating: 15 AMP

Fuel pump over current protection: 15 AMP fuse

Fuel application: Part No. 5250, Gasoline; Part No. 5250A, Alcohol / Methanol

GENERAL INFORMATION

The COMP PUMP® 250 Series Electric Fuel Pump is a high volume fuel pump designed for serious racing applications. The pump is factory set to approximately 15 PSI. In all cases, this fuel pump must be used with a fuel pressure regulator. We recommend the following:

Standard Regulator

Mallory 4 Port Regulator	Part No. 4200	(gasoline)
	Part No. 4201	(alcohol)

Return Style Regulator

Mallory 5 Port Regulator	Part No. 4300M	(gasoline)
	Part No. 4301M	(alcohol)

This fuel system must have a fuel return line going to the fuel tank. We recommend at minimum a #8 AN (1/2") line.

If you use a standard fuel pressure regulator, not a return style, run the fuel return line from the fuel pump's fuel return port. Use the 3/4"-16 thread x #8 AN flare fitting provided to connect your #8 AN line.

If you use a return style fuel pressure regulator, run a #10 AN fuel return line from the fuel pressure regulator's fuel return port and install a 3/4"-16 thread plug and o-ring in the fuel pump's fuel return port. You can find a 3/4"-16 thread plug at most hardware stores. Do not try to adjust the bypass adjustment - pump damage may result.

Be sure to install a suitable fuel filter (maximum 100 micron) between the fuel tank and the fuel pump. Mallory COMP FILTER® Series Part Nos. 3140 or 3500 are recommended. This prevents debris from becoming wedged in the fuel pump's Gerotor and locking it. An additional filter(s) (maximum 40 micron) should be installed just before the carb(s).

MOUNTING PROCEDURE

Step 1

Mount the pump as close as possible to the fuel tank in a well ventilated area with minimal exposure to road debris. Avoid exposing the pump and fuel lines to moving parts and hot surfaces, such as the exhaust system.

The pump should be mounted at tank level or below. ***NOTE: Increasing distance between pump and tank will decrease pump efficiency.***

Step 2

Using the pump mounting bracket as a template, locate mounting holes on a solid member, such as the vehicle chassis. Drill clearance holes for 5/16" bolts. ***NOTE: To ensure against a potential fire hazard from pump flooding, mount the pump in a vertical position with the motor on top.***

See Figure 1.

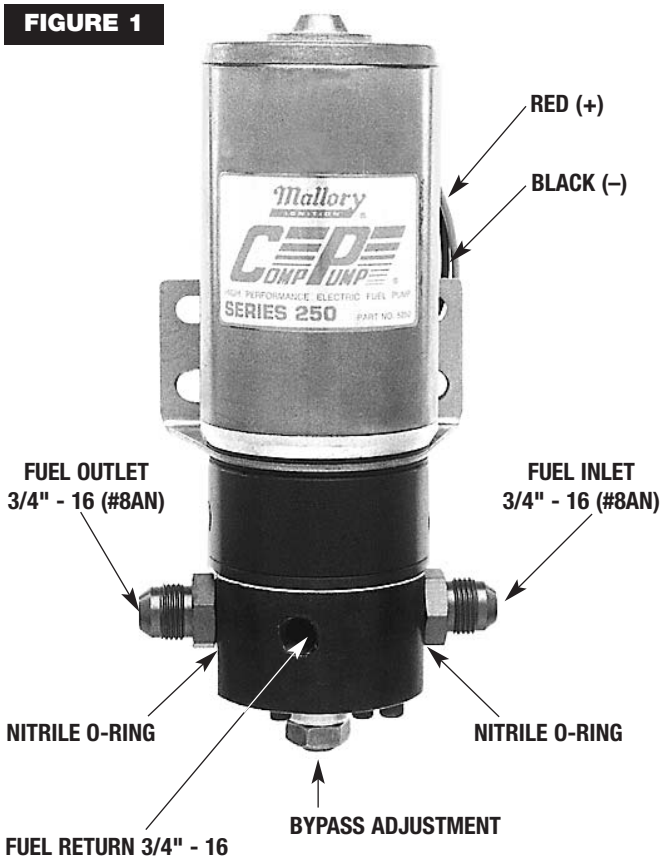
Step 3

To prolong pump life and efficiency, a high volume fuel filter such as the Mallory COMP FILTER® Series 500 Fuel Filter (Part No. 3500) must be installed between the pump and fuel tank. Connect #8 AN fuel lines as shown in Figure 2 for Standard Regulator or #10 AN lines as shown in Figure 3 for Return (Bypass) Style Regulator.

Step 4

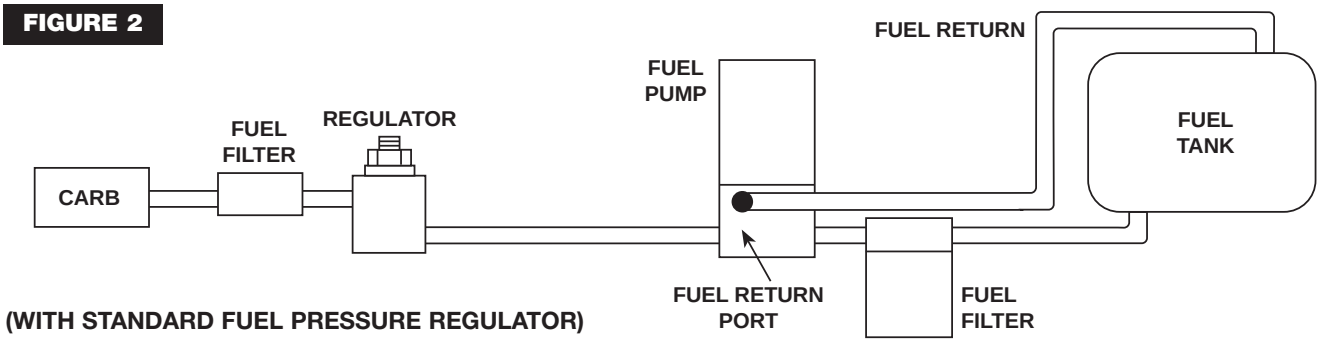
Be sure to install one of the Mallory High Volume Fuel Pressure Regulators between the pump and carburetor. For maximum efficiency, mount the pressure regulator as close as possible to the carburetor. See instructions packaged with the pressure regulator. Make sure all fittings are tight so that air cannot enter the system.

FIGURE 1



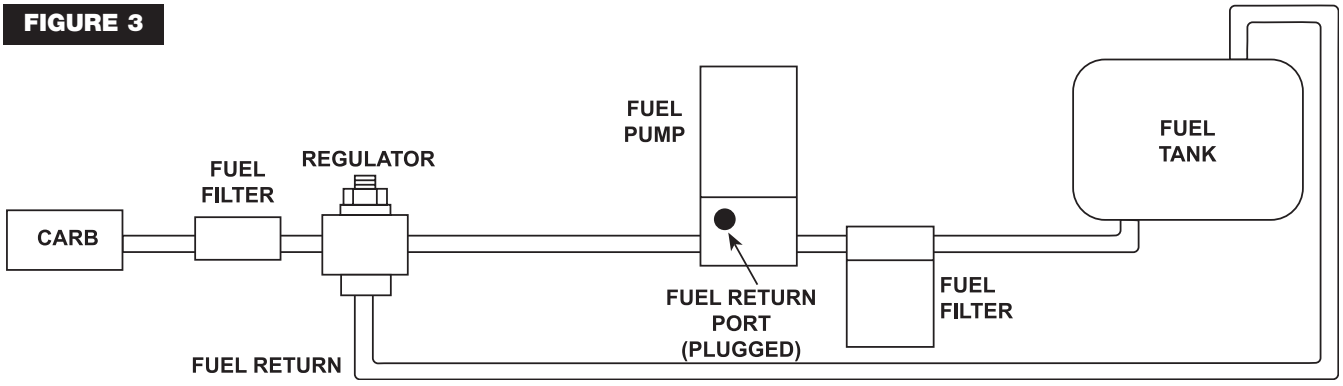
NOTE: Bypass pressure above 20 psi will make the pump draw more current and significantly reduce pump life.

FIGURE 2



(WITH STANDARD FUEL PRESSURE REGULATOR)

FIGURE 3



(WITH REGULAR STYLE FUEL PRESSURE REGULATOR)

WIRING PROCEDURE

Wiring the pump to an oil pressure switch provides power only when the ignition switch is on and the engine is running. This prevents the pump from running if your engine stalls. Use 12 gauge wire or larger and be sure to disconnect the battery ground cable before wiring the pump. Refer to Figure 4 when connecting the pump to an oil pressure switch.

The pump may be wired directly to the ignition switch “ON” terminal and grounded to the frame or battery. Refer to Figure 5 when connecting the pump to the ignition switch “ON” terminal.

FIGURE 4

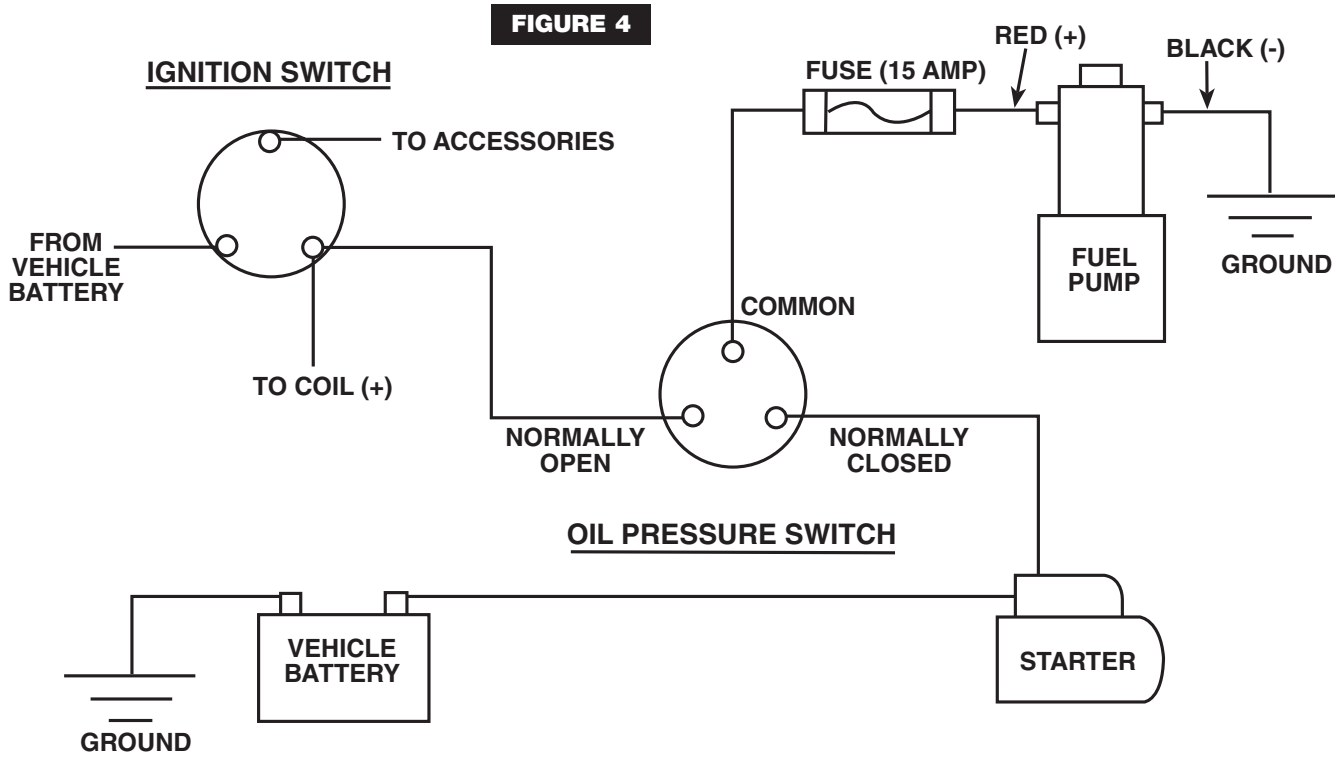
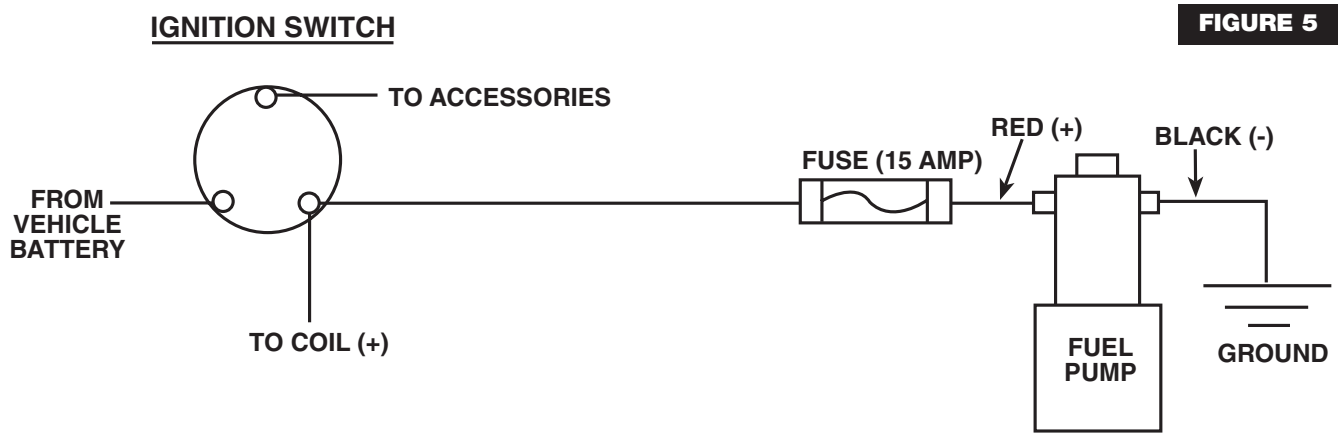


FIGURE 5



MAINTENANCE – PUMP DISASSEMBLY

If your pump fails to produce adequate pressure or volume, it may require cleaning. Follow the steps below to disassemble and clean your Mallory Electric Fuel Pump. Refer to Figure 6 while performing the following steps.

Step 1

Remove the pump from the vehicle and clean pump exterior. Place the pump on its side on a clean work surface. Scribe or draw a line across the pump housing, port plate and fuel chamber so that you can reassemble the pump correctly.

Step 2

Remove the two fuel chamber screws from the bottom of the pump. Remove fuel chamber and port plate from the pump. ***NOTE: Do not drop the gerotor from the pump cavity.***

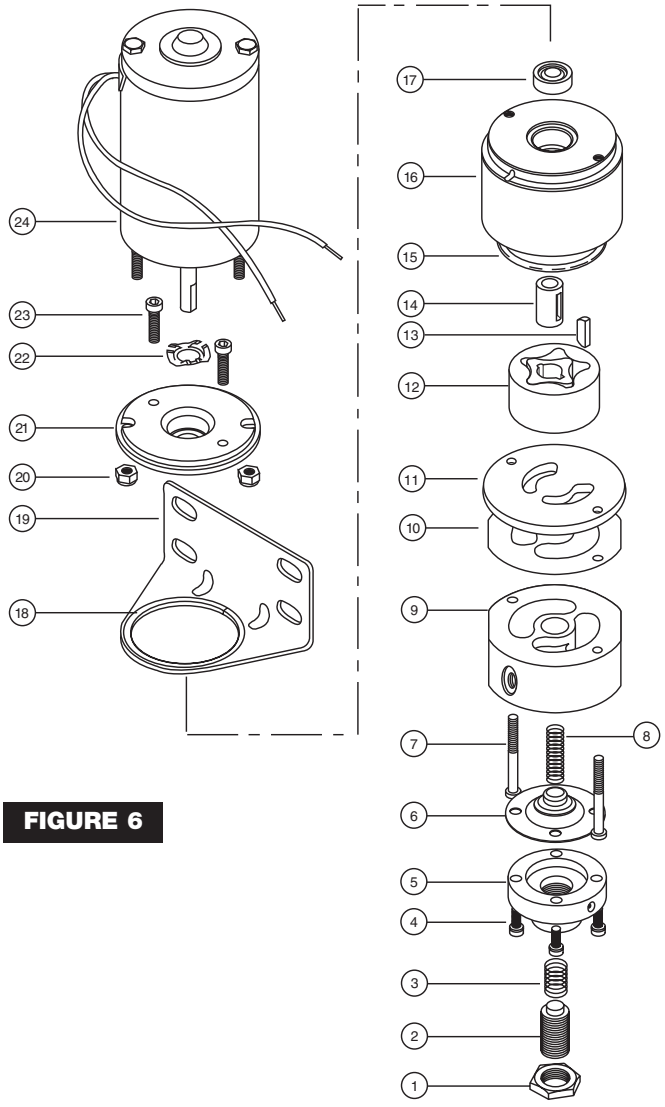


FIGURE 6

Step 3

Place your hand beneath the gerotor and hold the pump in an upright position. The gerotor should slide out of the pump and into your hand.

Step 4

To disassemble the fuel chamber, first remove the lock nut and adjusting screw, then turn the fuel chamber over so that the diaphragm spring falls into your hand. Remove the four screws holding the diaphragm cap to the fuel chamber. Remove the diaphragm cap, diaphragm, and damper spring from the fuel chamber.

Step 5

Clean the gerotor and reinstall it in the pump housing. Inspect the O-ring and gasket, and replace them if necessary. Inspect the diaphragm for any small tears or bubbles in the surface, and replace it if necessary. Inspect the gerotor housing and port plate for wear. If the generator has worn through the plating, return the pump to Mallory for repair.

Step 6

Assemble the pump in the reverse order that you disassembled it. Test bypass pressure. Adjust bypass so that pump is producing between 13 and 20 psi.

1. JAM NUT
2. ADJUSTING SCREW
*3. PRESSURE ADJUSTMENT SPRING
*4. CAP SCREW (4)
5. REGULATOR CAP
*6. GASOLINE DIAPHRAGM
ALCOHOL/METHANOL DIAPHRAGM
*7. FUEL CHAMBER SCREW
*8. DAMPER SPRING
9. FUEL CHAMBER
*10. FUEL CHAMBER GASKET
11. PORT PLATE
12. GEROTOR
*13. GEROTOR BUSHING KEY
*14. GEROTOR BUSHING
*15. O-RING
16. GEROTOR HOUSING
*17. SEAL
*18. BRACKET VIBRATION GASKET
19. BRACKET
20. MOTOR HOUSING NUT (2)
21. MOTOR ADAPTER
22. SPRING WASHER
23. MOTOR ADAPTER SCREW (2)
24. MOTOR

*THESE PARTS ARE INCLUDED IN SEAL / DIAPHRAGM KITS
PART NO. 3171 FOR GASOLINE
PART NO. 3172 FOR ALCOHOL

***IMPORTANT:** Turn fuel chamber screws by hand until they contact the chamber. Then torque to 24 inch/pounds*

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