

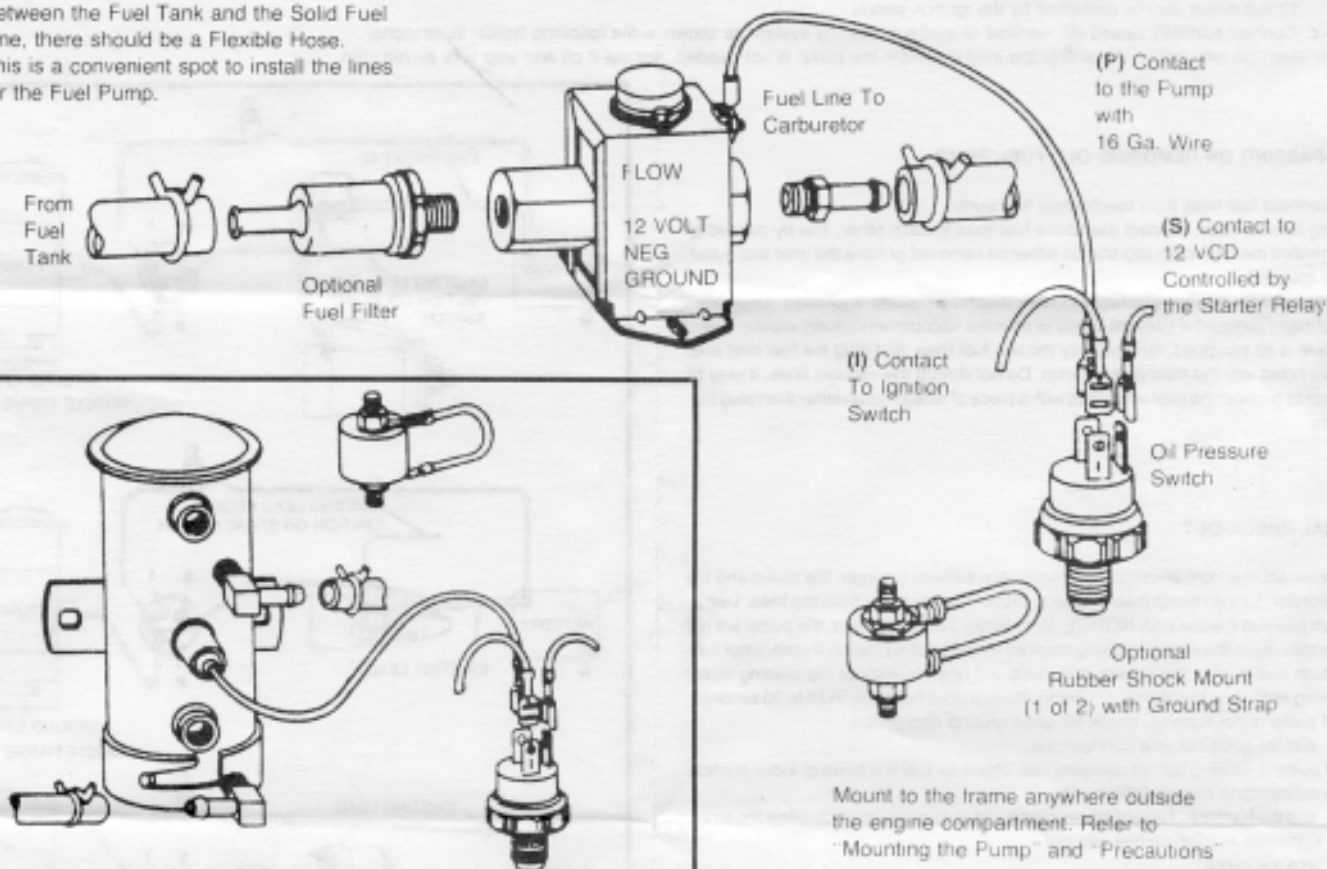
# ELECTRIC FUEL PUMP

## Installation Instructions



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
Between the Fuel Tank and the Solid Fuel Line, there should be a Flexible Hose. This is a convenient spot to install the lines for the Fuel Pump.



### PRECAUTIONS

1. To prevent damage to your new fuel pump, install only after checking the proper voltage and polarity. The vehicle's polarity can be determined by checking to see which battery terminal (positive ⊕ or negative ⊖) has a heavy lead wire connected from it to the engine block. On U.S. cars, it will be negative.
2. To reduce the possibility of vapor lock, do not mount the fuel pump in the engine compartment, near the exhaust system, or any location that may exceed 140°F (65°C) ambient temperature.
3. To avoid priming problems, do not mount the fuel pump more than 18" (45 cm) above the bottom level of the fuel tank.
4. To ensure a good ground, mount the fuel pump on the vehicle frame, whenever possible. The area of the frame to be used should be thoroughly cleaned to obtain a good electrical connection.
5. Use an oil pressure safety switch which will shut off the fuel pump if your vehicle is involved in an accident that stalls the engine.
6. An in-line filter should be installed before the inlet of the cubical pump, but is not required with the cylindrical pump.
7. The pump may make a tapping or clicking noise during operation. To dampen this noise, use rubber shock mounts when installing the fuel pump. NOTE: When using shock mounts, be sure to use a ground strap to maintain your electrical connection (pump case to vehicle frame.)
8. Carefully read all instructions before proceeding with your installation.

### MOUNTING THE PUMP

1. Select a location near existing fuel lines and close to the fuel tank. Use the vehicle frame where possible. If another location is used, be sure you have a good electrical ground and that the pump is not more than 18" (45 cm) above the bottom level of the fuel tank.
2. Using the pump mounting bracket as a template, drill two 7/32" holes for mounting the pump. NOTE: The pump may be mounted in any position; however, it is recommended that the outlet of the pump be at least 30" above horizontal. This will allow any vapor buildup to easily pass through the pump.
3. Thoroughly clean frame surface around drilled holes to remove paint, grease, rust, etc., to ensure a good ground. THE PUMP CASE MUST BE WELL GROUNDED, OR IT WILL NOT OPERATE.
4. Firmly secure pump to frame with self-tapping screws.
5. If rubber shock mounts are used normally not required with solid state pump, a location must be selected that allows you to tighten the 1/4 inch nuts from the back side. On box frames, very often a  bracket is required that can be secured to the frame with self-tapping screws, and leave space to tighten the nuts onto the shock mount. Always use the ground strap (wire) to make the electrical connection from one side of the shock mount to the other.
6. The installation of the fuel fittings and filter may be done prior to mounting the pump on the vehicle and should be tightened with approximately 10 ft. lbs. of torque.
7. Cut fuel line near fuel pump, and use required lengths of flexible hose to connect inlet side of pump to fuel line from tank, and outlet side to fuel line to carburetor. The flexible hose should extend at least 2" over the fuel line. Use hose clamps at end of hose. NOTE: Gas tank should be near empty to avoid excessive spillage after cutting fuel lines. Use a catch basin to collect any fuel that does drain from lines. It is advisable to have the pump mounted on the vehicle with the fittings and fuel hose installed on pump prior to cutting vehicle fuel lines. This will allow for a quick changeover.

## ELECTRICAL CONNECTIONS

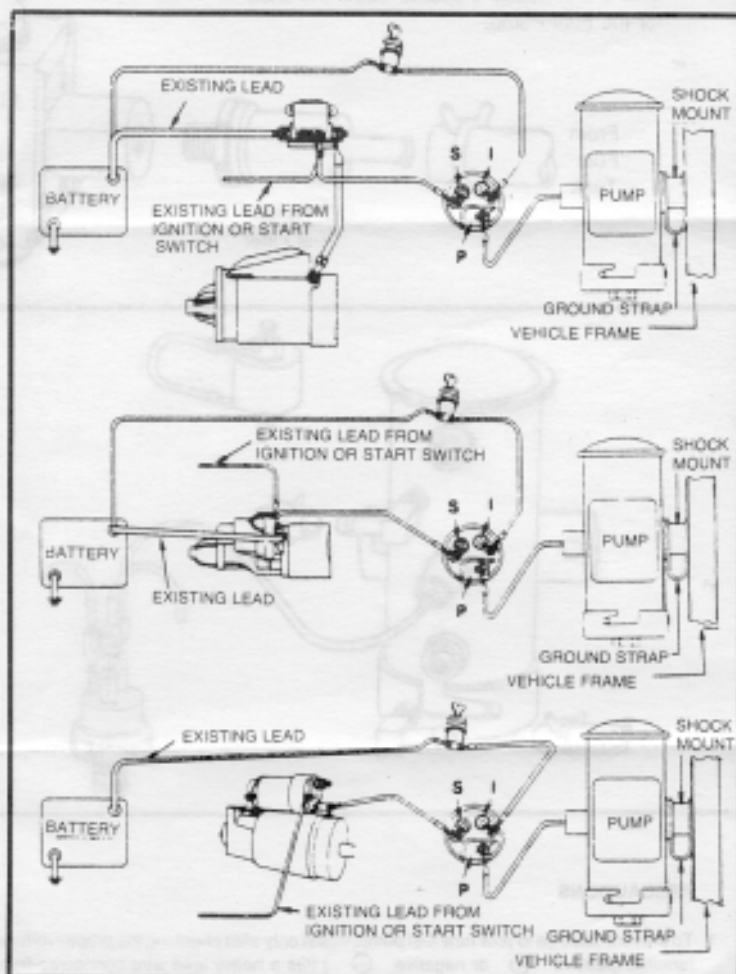
1. Disconnect ground cable from battery. Reconnect cable after oil pressure switch installation is completed.
2. Install switch in an oil gallery opening in the engine where oil pressure can be detected.
3. Using #16 gauge or larger wire and the push on terminals supplied with the switch,
  - a. Connect power lead from fuel pump to common (P) terminal of switch. Do not connect wire to pump case.
  - b. Connect normally open (I) terminal of switch to ignition switch, accessory take-off of fuse block, or some other 12 volt power source controlled by the ignition switch.
  - c. Connect normally closed (S) terminal of switch to starting system as shown in the following typical illustrations.
4. If the electrical terminal on the end of the lead wire from the pump is not needed, just cut it off and strip wire as required.

## BY-PASSING OR REMOVING OLD FUEL PUMP

1. Disconnect fuel lines from mechanical fuel pump.
2. Using flexible hose, connect the above fuel lines to each other. The by-passed or eliminated mechanical pump should either be removed or have the inlet and outlet hole plugged.
3. On some older model vehicles, a double diaphragm pump was used. One diaphragm pumped a vacuum to aid or operate vacuum windshield wipers. If your vehicle is so equipped, remove only the two fuel lines, and plug the fuel inlet and outlet holes into the mechanical pump. Do not disturb the vacuum lines. It may be easier to connect the inlet and outlet with a piece of rubber hose rather than plug the holes.

## FINAL CHECK-OUT

1. Disconnect line from electrical fuel pump, somewhere between the pump and the carburetor, turn on pump (see notice) to prime, and bleed air from the lines. Use a catch basin at the line end. **NOTICE:** With safety switch installed, the pump will not operate unless the engine is being cranked by the starting motor. If carburetor has enough fuel to start the engine, the pump will operate without the starting motor running as long as the engine is running. If pump does not prime in 20 to 30 seconds:
  - a. If pump is not running, check for good ground connection and for good hot wire connections.
  - b. If pump is running but not pumping fuel, check for fuel line kinks or loose suction line connections between the pump and the fuel tank. The outlet line must be open to atmosphere to allow the air in the system to escape so fuel can get into the pump.
2. Start engine and check installation of the following:
  - a. Air or fuel leaks in lines and fittings.
  - b. Kinked or clogged lines.
  - c. Improper or loose electrical connections.
  - d. Carburetor flooding. (Inspect needle valve and seat.)
3. As long as the engine is running, even at slow idle, the electrical fuel pump will be pulsing. Because of the oil pressure safety switch, the fuel pump will remain running a second or two longer after the engine stops.
4. If the electric fuel pump develops a different loud noise during hot operation, vapor lock may be forming. Severe cases of vapor lock will cause the engine to run out of fuel, and the pump will not reprime until it cools down. Vapor lock normally indicates that the pump is mounted in an area that sees excessive temperatures or that the fuel suction line is positioned where it gets excessively hot. The best installation has the shortest possible suction line and the pump is the coolest spot on the vehicle.



## LIMITED WARRANTY

Facet Enterprises, Inc. warrants this Electric Fuel Pump to the original consumer purchaser against defects in material or workmanship under normal use and service for a period of one (1) year from the date of purchase. In the event of a defect covered by this warranty, the unit should be returned to the dealer from whom it was purchased, with proof of purchase date. Any defective unit will be repaired or, at the dealer's or Facet's option, replaced without charge for either parts or labor. If the dealer is unable or unwilling to cure the defect, Facet should be notified in writing at the address shown below. Facet will then issue instructions as to the proper procedure to follow based on the information supplied in the notice.

ANY IMPLIED WARRANTIES ARE ALSO LIMITED IN DURATION TO THE ONE (1) YEAR PERIOD FROM THE ORIGINAL PURCHASE DATE. FACET ENTERPRISES INC. SHALL NOT BE LIABLE FOR LOSS OF USE OF THIS ELECTRICAL FUEL PUMP OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES.

This warranty does not cover any defect resulting from misuse, abuse, neglect, accident, alteration, improper installation or any other cause not arising out of a defect in materials or workmanship.

This Limited Warranty gives the original purchaser specific legal rights. The purchaser may also have other rights which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not be applicable.

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