

HOWELL

**ENGINE DEVELOPMENTS, INC.
FUEL INJECTION APPLICATIONS**

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FUEL PUMP INSTALLATION AND PRECAUTIONS

This fuel pump is a high quality; Original equipment design intended to serve for 100,000 miles, or more, without losing performance. It should be installed in the fuel line, somewhere near the vehicle fuel tank if possible, and on a level at, or below, the centerline of the tank.

Choose a high quality grade of neoprene fuel hose (new), and positive action fuel hose clamps to attach to both ends of the fuel pump when splicing it into the fuel line. Any high quality FUEL hose will operate satisfactorily with the Multi Port 90 PSI fuel pressures. You do not have to run steel lines for these fuel pressures.

Using hose coupling isolates the fuel pump from the rest of the vehicle to insure quiet operation. To further isolate the pump, you should cushion the fuel pump with neoprene or other soft material with the mounting clamp used. Many times a large Adel type clamp can be used with a single bolt to attach fuel pump to a frame rail.

A two-wire weatherpack connector is supplied to mate with the short lead we have attached to the fuel pump. The red wire is 12-volt power, and the black is ground. Run a 14 or 16-gauge wire from the "Fuel Pump Power" terminal on your harness to the red side of the two-pin connector. You may ground the other side to the frame, using 14 or 16 gauge wire, or you can run the ground all the way back to the engine to be sure it is properly grounded. Crimp and solder the weatherpack terminals to your power and ground wires, and insert them into the supplied two pin female connector. They will latch in place. Use the little green silicon rubber seals on each wire where they insert into the connector, and that will waterproof your connector. When you get your vehicle in operation, it is a good idea to check the voltage across the fuel pump terminals to make sure it is near system voltage of 13-14 V, to be sure of full fuel pump performance.

FUEL FILTERS

A large capacity in-line fuel filter, between fuel pump and fuel tank, is mandatory. You may have purchased one with this pump, if not, make sure you have on hand. It can be spliced in the same location as fuel pump, using a short hose between fuel pump and filter.

You should have some type of production fuel filter/strainer on the fuel pickup in the fuel tank. Many times this is a nylon mesh sock. This is necessary to keep rust and other large contamination out of the fuel pump. Walbro pumps are a gerotor design, with tight internal clearances, 90% of fuel pump problems are caused by dirt in the fuel pump. It is not a good idea to install a paper fuel filter between tank and fuel pump. However, if no in-tank filter is available, it is better to mount your high capacity main filter ahead of the pump than use no filter there at all. Be on the lookout for vapor lock problems though, if you mount your filter upstream of the pump.