



Perma-Cool® Products
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Installation Instructions

This guide covers the following Item Numbers:

81704, 81794, 84794, 88864

Congratulations, you have made a wise decision. Thank you for purchasing our product.

Fuel Filter/Water Separator System

IMPORTANT! READ ALL INSTRUCTIONS BEFORE BEGINNING INSTALLATION.

Our fuel filter kits are designed for use with all types of fuel, i.e., gasoline, diesel fuel, ethanol, and gasohol. They are not designed for use with nitro-methane racing fuel! Virtually all fuels, especially diesel fuel, contain some water. Water is the most common cause of failure for injection pumps and nozzles. Water settles in low spots, and contaminates fuel and causes rust. Replacement is expensive, however we offer an alternative.

Our fuel filter removes virtually all water and filters 95% of particles above 2 microns. This is accomplished by not allowing the molecules of water to pass through the filter element. The specially designed element is manufactured with a resin impregnated paper designed to allow only filtered fuel to pass through. The molecules of moisture combine creating water which then forms into beads and falls to the sump portion of the filter element. The fuel then passes through the filter element. Water can now be easily drained via the petcock. The highly advanced fuel filter element will handle flow rates of more than 30 GPM (110 LPM).

P/N 81074 INSTALLATION INSTRUCTIONS

Locate a convenient location to mount the unit. Allow space for servicing the petcock and element replacement. Install the 90° fittings into the filter bracket, facing the direction desired. Use Teflon® tape or appropriate sealer on all tapered fittings. Maximum torque on tapered fittings is 28 ft. lbs. (38Nm). Mount the unit using any of the available hardware. Recommended locations are a fender brace, fenderwell, firewall, or an air conditioning dryer unit (Refer to the illustrations).

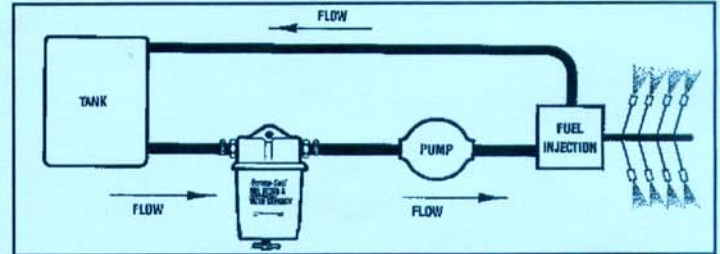
Disconnect the existing fuel line from the fuel tank to the engine. Place the fuel filter / water separator between the tank and the fuel pump. Using the hose supplied attach the fuel line to the filter / separator unit. Allow 3" (80mm) extra hose for torque movement of the engine. The straight barb fitting in the kit will intercept the line to Roosa Master Filter on GM products. If fittings do not match, cut the lines. Be sure to remove any metal chips and clean area thoroughly. Make sure that the fuel enters the IN port on the filter bracket, and exits from the OUT port.

Apply a small amount of clean oil to the gasket of the fuel filter and install onto the filter bracket. If possible, fill with fuel before installing. Tighten filter 1/4 to 1/2 turn past contact between the gasket and bracket. Filter elements should be replaced every 24,000 miles (38,000 Km), more often if impurities or water are suspected. Water should be drained at each maintenance interval or about every 3,000 miles (4,800 Km).

P/N 81794 INSTALLATION INSTRUCTIONS

Locate a convenient location to mount the fuel filter bracket. Allow sufficient space for element removal and replacement, as well as draining water via the petcock. Use Teflon® tape or appropriate sealer on all tapered fittings. Install plugs in the holes that are not used. A pressure gauge (with a reducer bushing) may be used in place of one of the plugs. In racing applications where dual fuel pumps are used, the dual inlets and/or outlets of the filter bracket may be utilized to avoid the use of excessive "T"s or unnecessary plumbing. Maximum torque on all fittings is 28 ft. lbs. (38Nm).

Apply a small amount of clean oil to the gasket of the fuel filter and install onto the filter bracket. If possible, fill with fuel before installing. Tighten filter 1/4 to



1/2 turn past contact between the gasket and bracket. Filter elements should be replaced every 24,000 miles (38,000 Km), more often if impurities are suspected. Water should be drained at each maintenance interval or about every 3,000 miles (4,800 Km).

P/N 88864 HIGH VOLUME FUEL FILTER AND HEAD

The high volume fuel filter element prevents expensive equipment failures in the field by pre-filtering fuels. The filter head is designed to be mounted in-line on stationary and portable pumping equipment. Some examples include transfer pumps, dispensing trucks, consumer gasoline pumps, and hand crank / barrel set ups. May be used for any number of uses, such as agricultural or farming, fleet servicing, and commercial dispensing.

Allow space for servicing the petcock and element replacement when selecting a location to install fuel filter head. If not installing on a stationary application, install 3/4" tapered fittings into the ports. Use Teflon® tape or appropriate sealer on all fittings or pipes. Do not exceed 28 ft. lbs. (38Nm) of torque on all fittings and pipes. Refer to the illustrations.

Apply a small amount of clean oil to the gasket of the fuel filter and install onto the filter bracket. If possible, fill with fuel before installing. Tighten filter 1/4 to 1/2 turn past contact between the gasket and bracket. Filter elements should be replaced every 2,000 to 5,000 gallons (8,000 to 19,000 Liters) or every 6 months. More often if impurities or water contamination are suspected. A drop in pressure or flow can be an indication of a obstructed filter.

SERVICING HINTS

To service the unit for contaminants, open the pet-cock and allow a few ounces of fuel to escape. If no liquid drains, the system may have a "vacuum" seal, thereby preventing proper drainage. If this is the case, slap the element abruptly to break the "vacuum" seal and allow the passage of liquid.

ACCESSORIES AVAILABLE:

- P/N 81000 Replacement Fuel Filter / Water Separator Element.
- P/N 130 Replacement Hose 11/32" x 4' (1.2 M)
- P/N 15146 Teflon® Tape 1/2" x 300" (7.6 M)
- P/N 15155 Brass Fittings (2) 3/8" Hosebarb x 1/2" MPT.
- P/N 15156 Brass Fittings (2) 1/2" Hosebarb x 1/2" MPT.
- P/N 15161 Brass Reducer (1) 1/8" FPT x 1/2" MPT.

For additional accessories or replacement parts
visit www.perma-cool.com