



Electric Water pump Installation instructions

Parts List	
Item	Quantity
<i>Electric Water Pump, Housing and Motor</i>	<i>1 each</i>
<i>5/16" Socket Head Bolts & AN Washers</i>	<i>8 each</i>
<i>Water Pump Housing to Elbow Rubber "O" Rings</i>	<i>2 each</i>
<i>Water Pump Elbow to Block Gaskets</i>	<i>2 each</i>
<i>3/4" NPT Plug and 3" Long Inlet Fitting (Loosely Installed in Housing)</i>	<i>1 each</i>
<i>Low-Voltage Pigtail Connector</i>	<i>1 each</i>
<i>2 ml Bullet Tube Aluminum Anti-seize</i>	<i>1 each</i>
<i>Water Pump Housing Cover Plate, Housing Gasket, and 5/16" Hex Socket Fasteners (Ford models only)</i>	<i>As Detailed Below</i>

Before you begin, read these instructions carefully first: You will need proper tools and supplies, including a strap wrench to tighten the inlet fitting, Teflon tape to seal the Inlet Fitting, silicone or gasket sealant, a set of 3/8" drive Allen head socket wrenches, and a torque wrench. The Electric Water Pump Relay Kit (SUM-890024-1) is recommended for simple and reliable electrical installation.

Plan the installation carefully, since OEM accessories (power steering pump, alternator, etc.) may need to be relocated to ensure clearance between belts, hoses, etc. Also, the original bypass and/or heater hoses to the water pump are not used, and should be blocked-off or appropriately rerouted. The accessory drive belt no longer turns the water pump, so a shorter drive belt must be used to bypass the original water pump pulley. On serpentine belt drive systems the tension/idler pulley may need to be re-located.

Step 1 – Removing the Old Water Pump

Make certain the engine is cool enough to complete the work. Take extra precautions when working with electrical components. Disconnect, or otherwise disable, the battery. Drain the coolant and remove your existing water pump. Clean old gasket material from the engine block thoroughly. Use a high quality gasket sealer and the supplied hardware and gaskets to prevent leaks.

Step 2 – Mounting the Water Pump

This Electric Water Pump was designed to fit in the stock location on the engine. Check and clean the new parts of any debris that may prevent the gaskets from sealing. If not already assembled, install the "O" rings on the water pump elbows, use the anti-seize provided to coat the fastener threads and hand tighten. You may wish to use white grease or a thin film of silicone sealant between the elbows and the pump housing as well.

Then, apply sealant to the water pump side of the gasket. Tack the gaskets to the back of each side of your new water pump, aligning the gaskets to the bolt holes. Apply sealant to the engine block and bolt the water pump into place. Run each of the four bolts up to a snug fit; then tighten the water pump housing and elbow fasteners to 15 ft/lbs. before tightening the engine block fasteners to a recommended 25 ft/lbs.

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Using the gasket, 5/16" fasteners, and cover plate provided, apply sealant to the gasket and hand-tighten in place with the additional fasteners provided. The last four (4) fasteners will be used to secure the water pump to the housing bolted through the cover plate as described in Step 2 above. Tighten the water pump fasteners first, then torque the remaining hex machine screws into place using a crossing pattern to 20 ft/lbs.

Step 3 – Installing the Hose Inlet and Hoses

First make certain that adequate clearance is available to install the water pump hose to the inlet fitting provided. Some larger dampers may require a longer (5" extended fitting) or smaller diameter (1.50"/1.25" male hose) inlet fitting to mate with your original or aftermarket radiator hose.

If fitment does not appear to be an issue, apply a small amount of thread sealant, Teflon tape, white grease or anti-seize to the pipe threads of the hose inlet. Tighten the hose inlet using a strap wrench. Some white grease inside the lower hose will also simplify the hose installation.

Step 4 – Wiring the Water Pump

Use of a Summit Electric Water Pump Relay Kit (p/n SUM-890024-1) is recommended to simplify installation and provide the most reliable service. The RED Wire is POSITIVE and should be connected to the high amperage positive output of the relay or switched 12V positive. The BLACK wire is NEGATIVE and should be connected to a suitable ground such as the engine or chassis. You may wish to install a toggle switch to maintain coolant flow for additional cool down. NOTES: Due to the design of the impeller, the motor should not be wired to run in reverse operation. Incorrect wiring will cause damage to the pump motor and/or your engine.

Step 4 – Operating the Water Pump

Refill your cooling system, replace the fill cap, and turn on your ignition switch and/or water pump toggle switch. Start the engine and allow the thermostat to open and coolant to flow. Recheck your coolant level after one heat cycle and "top off" coolant as necessary. Never let your pump run dry for more than a few seconds. Never remove the radiator cap while engine is hot.

IMPORTANT: Chevrolet small blocks with an extra bypass hole may require a 1/8" pipe tap and threaded pipe plug installed to prevent leaking.

Do not use radiator stop leak or block sealer with this water pump. Due to close tolerances between the impeller and the housing, additives may cause electric motor lock-up and void the warranty.

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