



INSTALLATION INSTRUCTIONS

Water Pumps

IMPORTANT

CAREFULLY READ THESE INSTRUCTIONS BEFORE INSTALLATION!

Proper installation of this water pump is the responsibility of the installer. Improper installation will void your warranty and may result in vehicle damage or personal injury. If you have any installation questions, call our Tech Service personnel at 216-961-1800 from 7am to 4pm EDT.

CAUTION!

NEVER REMOVE RADIATOR CAP WHEN ENGINE IS HOT!

These are custom water pumps designed for performance applications. Water pumps for race applications are available from Tuff Stuff - see catalog for complete information. Always refer to your vehicle manufacturer repair manual for exact replacement procedure and torque specifications when replacing your water pump. If you do not feel qualified to perform this installation, have a professional mechanic install the pump.

If used on a Vortec block or Ramjet engine without a bypass port on the block that mates with the bypass port on the pump mounting flange, you must use a bypass thermostat or modify existing thermostat by drilling two 1/8 inch holes in thermostat.

FLUSH COOLING SYSTEM BEFORE REPLACING WATER PUMP!

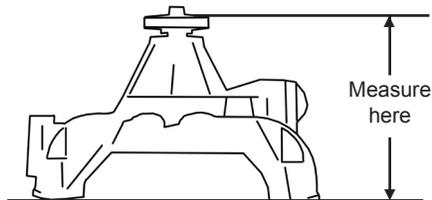
Any fluid contamination or dirt in the cooling system could ruin the seal on the new pump.

Removal of Stock Water Pump

1. Drain cooling system.
2. Disconnect the lower radiator hose and heater hose at the water pump. Inspect all hoses for dry rot, cracks and tears. Replace if necessary.
3. Remove all drive belts to the water pump pulley.
4. Loosen and remove the fan, fan clutch (if equipped) and pulley assembly.
5. Remove the water pump to cylinder block bolts and remove water pump.
6. Compare the new and the old water pumps and verify that the hub height dimensions are the same. Water pumps are available in a number of heights - it is the installer's responsibility to make sure the correct height water pump is installed.

WATER PUMP HEIGHTS

A long or short water pump may be used on any Chevy V8 (Gen I SB - Gen II BB) engine as long as the correct pulleys are used and the belts are in alignment.



Measure from the top fan hub surface to the water pump mounting surface

APPLICATION	Short Water Pump	Long Water Pump
Chevy Small Block		
All except Corvette	5.659"	6.932"
Corvette	5.800"	
Chevy Big Block		
All including Corvette	5.752"	7.287"

Water Pump Installation

1. Clean the water pump mounting surface before installation.
2. Inspect the fan, fan clutch and pulley to verify that all are in good working condition. A defective or out of balance fan, fan clutch or pulley will cause premature pump failure.
3. Inspect the belt tensioner (if equipped) and verify that it is in good working order.
4. If water pump is equipped with a steel back plate covering the impeller, verify that all fasteners are tight. If the water pump has a threaded nipple, verify that it is tight. **CAUTION - do not over-tighten the nipple as it can crack the housing!**
5. Install the water pump on the block using new gaskets and gasket sealer to assure a positive seal. Tighten the mounting bolts gradually and evenly in a staggered sequence to factory torque specifications.
6. Install the pulley and fan onto the pump, making sure that the pulley does not scrape the face of the pump. If scraping occurs, use a 1/16" shim between the pump hub and pulley to solve the problem. Tighten securely.
7. Rotate the fan / water pump shaft by hand to make sure it turns freely.
8. Connect all hoses and fill the cooling system.
9. Install and tighten the fan belts to factory specifications. Reinstall any brackets or fasteners that may have been removed during disassembly.
10. Check belt alignment as additional shimming may be required.
11. Start the engine and check for leaks. Let engine cool down, top off radiator coolant and recheck for leaks.