

# WATER PUMP INSTALLATION GUIDE

To ensure full core credit, if applicable, the core must be returned in the replacement unit box.



## Top things to do to ensure successful installation

1. Thoroughly flush the entire cooling system.
2. Replace a defective fan clutch, a bent or broken cooling fan, or worn, cracked or damaged hoses.
3. Use coolant, sealants and adhesives recommended by vehicle manufacturer.
4. Tighten all fasteners and fittings to vehicle specifications – DO NOT OVER-TIGHTEN.
5. Install belts to proper tension. Be sure belt tensioner systems are working properly.

### Precautions and Notices

- Refer to the vehicle service manual for required safety precautions, correct removal, installation, and testing procedures. If you lack the installation experience, proper tools or reference material, you should seek the services of a qualified technician.
- Instruction material supplied with this unit is intended as a supplement to the vehicle service manual; it is not the sole information required for successful installation of the replacement unit. It is not intended to cover all possible removal and installation steps and procedures.
- This unit is guaranteed to fit and function in the applications for which it is listed. Carefully verify that the replacement unit part number is correct for your application.
- Most original units fail because of some external cause. Make necessary repairs before installing and operating the replacement unit.
- Prevent debris from entering the cooling system or contacting operating surfaces.
- Replace damaged fasteners with components of equal or better quality.

### REMOVAL:

1. Refer to the vehicle service manual for detailed removal instructions.
2. Avoid dangerous burns and scalds! Let engine cool before removing pump.
3. Disable electric cooling fans (if so equipped).

4. Thoroughly flush the entire cooling system before installing the replacement unit. Failure to flush the system will cause premature pump seal failure, and will **VOID UNIT WARRANTY**. Drain coolant.
5. Inspect fan clutch, pulleys and fan (if so equipped) for damage. DO NOT reuse if damaged. Faulty rotating components will shorten replacement pump life and lead to failure not covered by the pump warranty.
6. Inspect all hoses; replace as needed.
7. Remove and save accessory mounting hardware.
8. Loosen and remove pump mounting nuts and bolts. **IMPORTANT: Make note of the position and length of bolts. Incorrect location of these bolts during installation can result in leakage and/or serious damage to the engine or other components.**
9. Remove pump.
10. Remove and transfer heater hose fittings and other hardware to replacement unit as needed.

### INSTALLATION:

1. Refer to the vehicle service manual for detailed installation instructions, and please follow all supplemental instructions supplied with the replacement unit.
2. Check thermostat operation before installing replacement pump.
3. Thoroughly clean all mounting surfaces and hose connections.
4. Clean rust and debris from engine water pump cavity.
5. Install gaskets/seals following manufacturer's recommendations.
6. Reverse removal procedure to install replacement pump.
7. Do not strike on or leverage against pump hub or shaft for alignment during installation.
8. Install the mounting bolts finger-tight, then tighten in the pattern and torque specified by the vehicle manufacturer. **Note: Over-tightening fasteners will damage the pump and other components, and will VOID PUMP WARRANTY.**
9. After pump is installed, check that it spins freely.
10. Install pump accessories, hoses and belts.
11. If cooling system was not flushed before removing the old unit, it must be done now. Failure to flush the system **VOIDS UNIT WARRANTY**.
12. Referring to the original manufacturer's coolant specification and re-fill procedure, fill system with the correct percentage of coolant and clean water. Never use only water. **Note: Mixing different colors or types of coolant will reduce the effectiveness of the coolant and possibly damage the engine, pump or other components, and will VOID PUMP WARRANTY.**
13. Enable cooling fans (if equipped).
14. Start engine, check for leaks, and top off fluid when engine reaches normal operating temperature.

# CARDONE