

2004 Corvette Water Pump Installation Instructions

- Handle you new Corvette water pump with care.
- Never strike shaft. This can damage the shaft or bearing
- Always check fan, pulleys, belts, and fan clutch when installing Corvette water pump.
- Let the Corvette engine cool down before attempting repairs!
- For your protection, the Corvette's hood should be closed when revving the engine.

Installation Instructions

Before beginning work on the vehicle be sure the vehicle is in park or neutral, and the wheels are blocked to prevent the vehicle from moving. Disconnect the ground cable from the battery to prevent accidental starting and to disable electric fans that may automatically turn on. NOTE: disconnecting the battery ground cable may erase pre-programmed electronic memories (such as radio presets, ECM drivability patterns and codes). Take necessary precautions to retain or store these settings.

1. Drain and flush cooling system of all sediment. Failure to flush cooling system prior to installation of new water pump is the major cause for premature failure of the water pump! **Contaminated coolant will cause seal failure and void warranty.**
2. Remove old water pump, clean impeller cavity in engine block, and clean gasket surface.
3. Before discarding your old water pump, compare it to your new water pump to ensure the correct replacement part.
4. Tighten steel back plate bolts on your new water pump where applicable.
5. Install new water pump. Tighten bolts in a crossing pattern unless otherwise instructed, and tighten to vehicle manufacture torque requirements.
6. Turn pump shaft by hand once mounted to check for free rotation.
7. Inspect all hoses, belts, pulleys, idler pulleys, and belt tensioners for wear, damage, or deterioration and replace as necessary.
8. Reinstall hoses, belts, tensioners, and pulleys. Bu sure belt(s) and pulley line up.
9. Remove thermostat. Check thermostat, radiator cap and replace if necessary.
10. Fill radiator with new coolant/distilled water mixture (per vehicle manufacturer requirements) and check for leaks. Purge system of air.
11. Check fan blades. If bent or cracked, or if rivets are loose replace entire fan. DO NOT try to straighten or repair a fan! Even a small unbalance can break the water pump shaft due to centrifugal forces generated during operation.
12. Check the fan clutch for loss of oil, looseness or wobble (if equipped with fan clutch)
13. Install fan clutch. Make sure it seats flat on pump hub. Use lock washers and tighten bolts evenly. **Do not strike shaft.**
14. Spin the fan blade by hand. If you cannot turn the fan blade by hand or there is a rough feeling as you turn the fan, the fan clutch must be replaced.
15. Tighten fan belts to factory recommended tension.
16. Check motor mounts, shroud, and radiator for looseness. Make sure fan does not come into contact with shroud.
17. Reconnect the battery.

18. Start engine and run until operating temperature is reached. Checks for leaks and smooth operation.
19. Shut off engine and let it cool, "top off" radiator coolant. Check reservoir for recommended proper fill level.

Note:

Many things can cause water pump failure including: The use of silicone sealants on formed rubber gaskets. Defective, crooked, or unbalanced fans, defective or unbalanced fan clutches, excessive fan belt tension, dirty cooling systems, insufficient clearance between fan and shroud or radiator, loose or broken motor mounts. Check everything when you have the chance to help avoid future water pump failures.