

WATER PUMP INSTALLATION REQUIREMENTS PART NUMBER: US8918

- ⚠ **COOLANT:** Flush the cooling system and refill with NEW coolant. Use GM 12346290 (DEX-COOL) or equivalent — verify correct coolant type in the vehicle service manual. Incorrect or contaminated coolant will cause premature water pump seal failure.
- ⚠ **THREADLOCKER:** Apply medium or high strength threadlocker — GM 19332211, Loctite 242, or Loctite 271.
- ⚠ **TORQUE:** 6 bolts @ 10 Nm (89 lb-IN) — INCH-pounds, not foot-pounds. Use a calibrated torque wrench. Do not overtighten.
- ⚠ **BLEED:** Use the vehicle service manual to view the full installation procedure and how to properly bleed the cooling system when filling coolant. Use an airlift vacuum fill tool or the manual burp method per the service manual.

BEFORE YOU START INSTALLATION

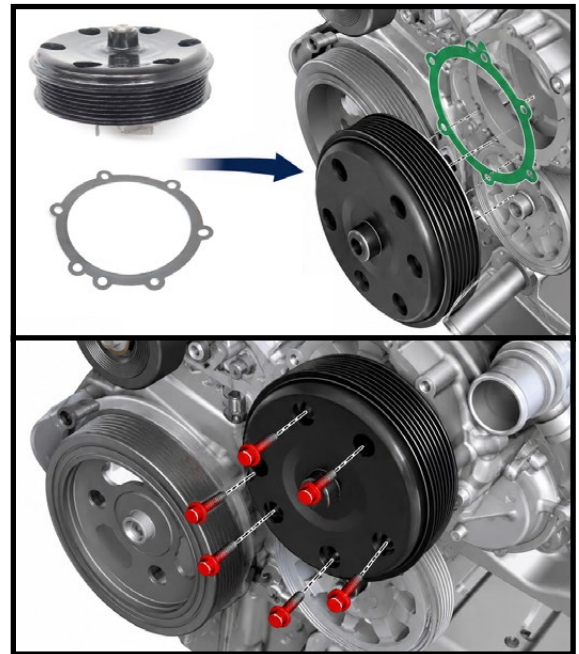
- Engine must be completely cold
 - Disconnect negative battery cable
 - Drain coolant
 - Remove accessory drive belt
 - Remove old water pump
 - Clean mounting surface thoroughly
- (The engine mounting surface must be clean, dry, smooth, and free of gasket material, RTV, oil, or debris before installation.)*

STEP 1 - PREPARE THE BOLT THREADS

1. Wipe loose cured adhesive off the bolt threads with a lint-free cloth.
2. Thread each bolt into the engine block and back out to loosen old adhesive inside the block.
3. Blow out BOTH the bolt threads AND the block threads with compressed air. Wear safety glasses.
4. Inspect threads — must be clean, dry, and free of oil, coolant, and old threadlocker.

STEP 2 - INSTALL THE WATER PUMP

5. Install NEW gaskets (included). Do not reuse old gaskets. Do not use RTV sealer.
6. Position the new US8918 pump on the engine and align bolt holes.
7. Apply threadlocker to each bolt: a strip along HALF the thread length, starting at the TIP. Apply immediately before installing — one bolt at a time.
8. Hand-start all 6 bolts (no power tools) to prevent cross-threading.
9. Torque the 6 bolts in a CROSS (star) pattern, in two passes, to 10 Nm (89 lb-in) final.



STEP 3 – FLUSH, FILL & BLEED THE COOLING SYSTEM

10. Reinstall accessory belt. Reconnect battery.
11. Flush the cooling system with clean water until it runs clear. Drain completely. Refill with NEW coolant per the vehicle service manual — do not reuse old coolant.

Vacuum fill (preferred):

12. Attach an airlift vacuum tool to the radiator/surge tank. Pull vacuum per tool instructions until hoses visibly collapse. Draw in new coolant until the gauge reads zero.

Manual fill & bleed (if no vacuum tool):

13. Park on LEVEL ground. Engine cold. Cap OFF. Fill radiator/surge tank slowly with new coolant to the COLD FILL line.
14. Set heater to HEAT, blower LOW, A/C OFF. Start engine and leave cap OFF. Top off as the level drops.
15. Run until the thermostat opens (upper radiator hose gets HOT and firm). Squeeze upper and lower hoses to burp out trapped air.
16. Top off until level is stable and no bubbles rise. Install cap. Heater must blow HOT — if cold, repeat burp.
17. Let engine cool. Top off to COLD MIN. Road test. Recheck at next cold start.