



1999-2003 Ford Water Pump with Integrated Coolant Filter Kit Installation Instructions (*not* for dual alternator setups)

Included with your new Water Pump

- New water pump with integrated coolant filter
- Water pump replacement gasket
- Thermostat with gasket (square cut o-ring)
- (1) 5/8"x3/4" barbed brass fitting
- New mounting hardware
 - (4)-metric 8 flanged bolts 4 3/8" (110mm) long
 - (2)-metric 8 flanged bolts 2 3/8" (60mm) long
 - (3)-metric 8 flanged bolts 1 1/8" (30mm) long
- (1) 5/8 barbed brass union fitting
- 3 feet of 5/8" black heater hose
 - (3)-#8 mini stainless hose clamps
- (1) New DIESELSITE silicone long life lower radiator hose
 - (1)-#40 large stainless hose clamp
 - (1)-#32 medium stainless hose clamp
- (3) New Baldwin B5134 non-charged coolant filters
- (1) Tube of thread locker

What you will need

- Bucket or coolant drain pan
- Basic metric tool kit
- Coolant: we suggest Evans Waterless Coolant, Motorcraft Green coolant or equivalent
- Fan clutch hub wrench kit – available for rent at many auto parts stores.

Installation

TIP: You may want to disconnect the negative battery cable for each battery before starting.

1. Drain the cooling system into a bucket by opening the valve located on bottom of the radiator. Opening the expansion tank cap will speed the draining process.
2. Disconnect the upper and lower hoses from the radiator using a hose clamp tool or large plier. Disconnect the heater hose from the top of the water pump.
3. Loosen the fan clutch. You will need a fan clutch wrench for this job. You can buy these at most auto parts stores and many will rent these to you.
4. Unbolt the fan shroud from the radiator. Pull the fan and fan shroud out of the engine bay together. Be mindful of the radiator as you do not want to damage it by accidentally bumping into it.
5. Remove the fan belt by applying leverage on the tensioner pulley. To do this, simply take a 1/2" drive breaker bar (no socket attached), stick it in the square hole, and pull the ratchet towards the passenger side of the truck to apply pressure to loosen the tension on the belt. If you do not have the original diagram on the radiator showing the routing of your belt, here is the schematic to use:

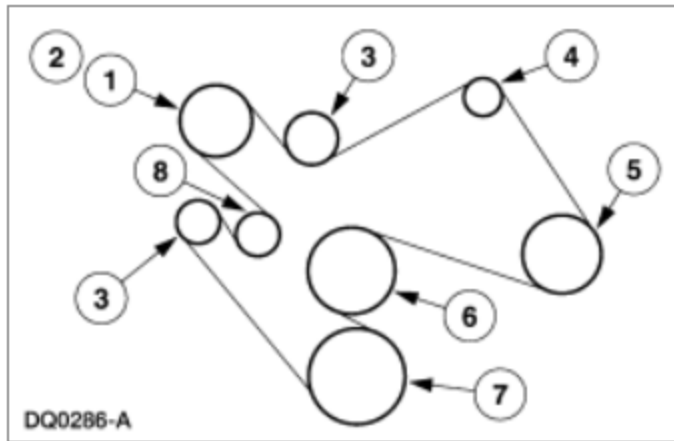


FIGURE 1 Single Alternater Setup

6. Remove the 9 bolts on the water pump and then remove the water pump from the engine block. Discard all original water pump mounting bolts. You will be installing new bolts that are included in your kit.
7. Clean the pockets inside the front cover behind the water pump and all mounting surfaces.
8. Once the engine block mounting area is clean, you are ready to install the new water pump.
9. Complete these tasks before mounting your new pump.
 - a. Install the large brass barbed fitting into your new water pump using the red thread locker provided in your kit
 - b. Remove the silver pipe plug - which can be found immediately to the left of the thermostat housing - from your water Pump using a 3/8 allen wrench.
 - c. Find and remove your OE coolant temperature sensor from your old water pump. This can be found immediately to the left of the thermostat housing.
 - d. Install your OE coolant sensor into the new water pump where you removed the silver pipe plug using the Red thread locker provided in your kit.
 - e. Install the new black water pump gasket provided in your kit by pushing it into the gasket groove on the backside of the new pump. No silicone is needed.
 - f. Install the new thermostat into the new water pump
 - i. If you are re-using your OE thermostat housing or a previously purchased Dieselsite Billet housing, remove from your old pump and install on the new pump.
 - ii. If you purchased a new Dieselsite Billet thermostat housing with your new pump, install it at this time.

NOTE: The supplied O-ring sits on top of the thermostat. The housing is placed directly over the gasket and thermostat. If using a torque wrench, torque specs between 100-110 in./lbs. are sufficient for this application
 - g. Remove the round black plastic impeller guard from the back of your new water pump before installing onto the engine block.
10. Install the new water pump to your engine block. (*Please see the new Bolt Pattern Schematic located in these instructions below*) Torque all bolts to approximately 15-20 FT/lbs.
11. Reinstall the bottom radiator hose onto the new water pump with the new hose provided and tighten using the larger #40 hose clamp on the water pump side. Use the medium #32 clamp on the radiator.
12. Using the 3 feet of coolant hose supplied with your new water pump, attach the new hose to the brass barb fitting on the water pump using a #8 mini stainless hose clamp.
13. The other end of the new 5/8" heater hose can join the OEM heater hose in two possible ways.
 - a. You can connect to the OEM heater hose that originally connected to the top of the OEM water pump. Using the new 5/8" brass barbed union and #8 mini stainless hose clamps included in your kit, splice the two heater hoses together. You will most likely need to cut both hoses to route them in a clean manner.

- b. If you have a factory heater valve or a Dieselsite Max AC valve, simply run the new heater hose to the valve. Use the new #8 mini stainless hose clamps for this connection. If this option is used, you will not need the 5/8" brass union.
14. Reinstall the fan pulley onto the new water pump. Install the pulley bolts and hand tighten.
 15. Reinstall your serpentine belt being careful to route it exactly the way it was. Refer to FIGURE 1 above if you are unsure. Tighten the pulley bolts with a wrench.
 16. Carefully reinstall your fan, clutch and shroud.
 17. Reconnect the upper radiator hose to the thermostat housing. Use your original hose clamp to secure the hose. (*If you purchased the New Dual Alternator style hose with your kit, you can secure the new hose using either the original OE clamps or the stainless steel clamps provided with the new hose.*)
 18. Using one of the new coolant filters provided, screw the filter onto the water pump and turn ½ turn after the rubber gasket makes contact with the pump.
 19. Make sure your coolant valve is running in the North-South direction (open). East-West direction is closed. Close the valve only when changing your filter.
 - a. We suggest changing your filter every 3 months for the first year, then once per year after that.
 20. Make sure everything is clear of moving objects. Special consideration should be placed on upper and lower hoses to make sure they will not come in contact with either the fan or the belt when in operation. If it looks like they might, simple adjustments of turning the hoses slightly at either end is all it takes to remedy this.
 21. Refill your cooling system, reconnect the wiring harness for your coolant sensor, and reconnect your negative battery cable if disconnected. Start your engine and then check for leaks.

For Technical help call DieselSite at 888-414-3457

