



## **SMALL BLOCK FORD ELECTRIC WATER PUMP** **P/N 63585**

These instructions are a basic guideline for installing a Moroso Performance Electric Water Pump. Always consult the proper manufacturer service manual for your vehicle for any general assembly/disassembly information.

**NOTE:** If this water pump is to be used with a front engine motor plate, longer bolt-up hardware not supplied will be necessary.

Before you install the water pump, check for which side the water pump inlet housing port should face for easiest plumbing to the lower radiator hose. Our inlet housing can be rotated to accommodate either driver or passenger side routing. Perform this operation prior to installing the water pump on the vehicle. It is much easier. See the instructions below for RE-ORIENTATION of the inlet housing if necessary.

The bypass hose from the thermostat housing to the Water Pump is not used, and should be blocked off at the thermostat housing. The stock accessories (power steering pump, alternator, etc.) may have to be relocated in some cases to ensure clearance between belts, hoses, etc.. The accessory drive belt no longer turns the water pump. In applications where the water pump belt drives other accessories, a shorter drive belt will have to be used to bypass the water pump drive. On serpentine belt drive systems the tension/idler pulley may have to be re-located

**CAUTION: Seal failure will occur if pump is operated without water or coolant in the system or the pump.**

This Electric Water Pump was designed to fit in the stock location on the engine. Check and clean all new pieces for any debris that may prevent the gaskets from sealing. When installing make sure the gasket sealing area on the engine is cleaned of any old sealing material. Use a high quality gasket sealer and the supplied hardware and gaskets to prevent leaks.

**NOTE: Lubricate the screw threads with oil prior to installation**

1. Place the gasket (Det 11), the separator plate (Det 13) and the last gasket (Det 11) to the back of the water pump as shown in the illustration.
2. Install the (4) 5/16-18 X 3.00" long cap screws (Det 8) thru the holes shown in illustration and the corresponding holes on the opposite side. Mount the water pump assembly to the timing cover and torque the cap screws first pass to 11 ft-lbs.
3. Install the (5) 5/16-18 X 1.00" long cap screw (Det 9) thru the holes as shown and the corresponding holes on the opposite side. Torque the cap screws first pass to 11 ft-lbs.
4. Re-torque all the 5/16-18 cap screws second pass to 15 ft-lbs.

Incorrect wiring of this pump will cause damage to the pump motor and/or your engine. The Red Wire is Positive and should be connected to a 12 to 16 Volt maximum system with a 20 Amp fused source. The Black Wire is Negative and should be connected to a suitable ground such as the engine or chassis.

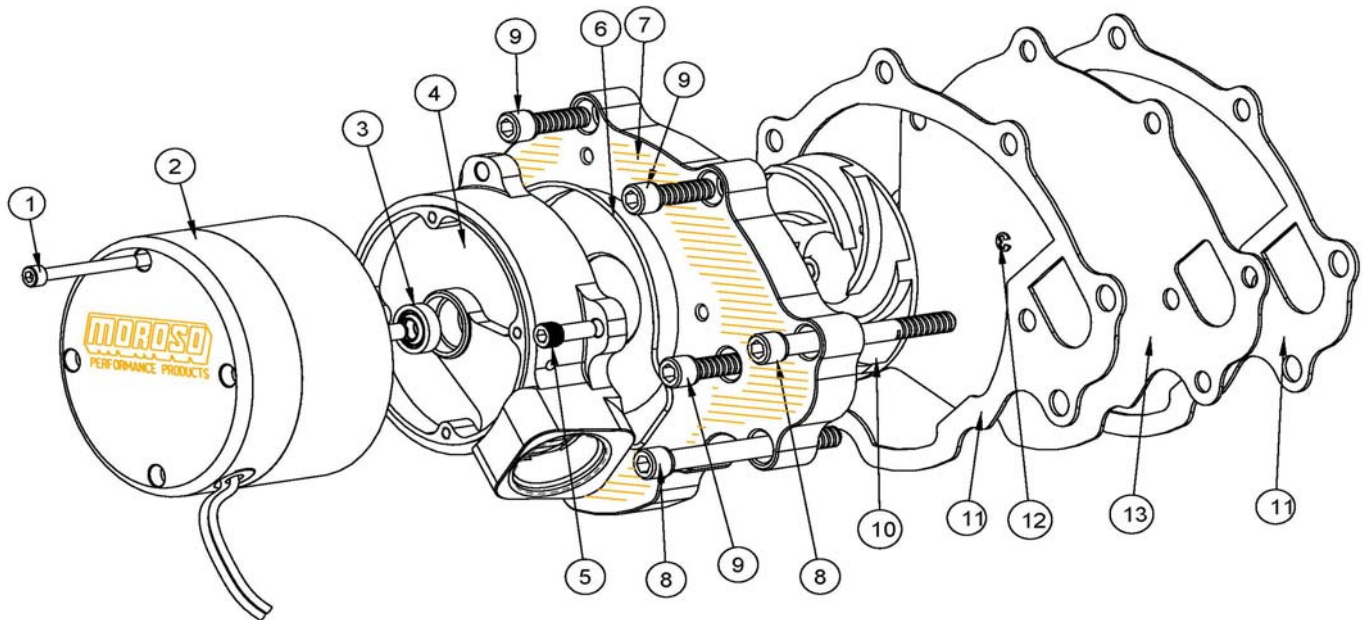
**RE-ORIENTATION** of the inlet housing

1. Use a piece of masking tape and wrap it around the motor cap and the black stator ring at the joint. This will keep the two motor assemblies aligned to each other and help keep the parts from separating.
2. Remove (2) of the (4) socket cap screws (Det. 5). Place a drop of Loctite 242 thread retainer on these (2) screws so they will be ready for re-installation.
3. Keep constant pressure on the motor cap toward the water pump plate (Det. 7) while removing the last (2) screws to insure the O-ring does not come out of its seat.
4. Carefully rotate the inlet housing 90 degrees to the desired location and re-install the (2) socket cap screws that have Loctite applied.
5. Add Loctite to the other (2) screws and re-install them.
6. Remove (2) of the (4) motor cover screws (Det. 1) and add Loctite 242 thread retainer to them. Remove the next (2) screws while keeping pressure on the motor cap toward the water pump plate.

7. Rotate the motor cap and the stator housing 90 degrees back to its original position. Reinstall the (2) screws with Loctite. (Note they are in alignment with the screws holding the inlet housing). Add Loctite to the last (2) screws and re-install them.

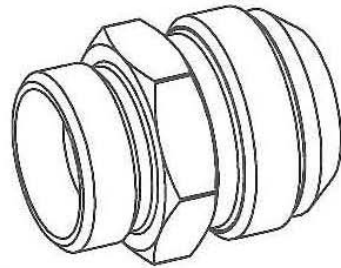
**IN ERROR** if the O-ring slipped out of its' seat while re-orientating:

1. Remove the E-circlip (Det12) from the motor shaft.
2. Use a 1/4" Snap-on or Bluepoint open end wrench and insert it thru the water pump inlet hole to the motor shaft. The motor shaft has (2) wrench flats for loosening/tightening the impeller. Remove the impeller by a counterclockwise rotation using a pin faced spanner wrench. There are (2) holes in the impeller for the use of the spanner wrench.
3. Remove the (4) socket head cap screws (Det 5) from the inlet housing. Check for any damage to the O-ring and replace if necessary.
4. Re-insert the O-ring in the groove and use a small amount of O-ring grease or household Vaseline to help hold the O-ring in place.
5. Use Loctite 242 thread retainer on all fasteners and impeller threads prior to re-installing.
6. Put the water pump components back together in the reverse manner it came apart in.

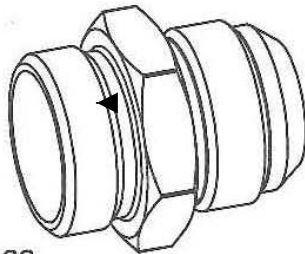


13	63585154	1	PLATE, SEPARATOR
12	63765107	1	E-CIRCLIP
11	63585600	2	FORD GASKET
10	63565553	1	IMPELLER 6 VANE
9	0505083	5	5/16-18 X 1.00 SHCS
8	0505249	4	5/16-18 X 3.00 SHCS
7	63585152	1	W/P PLATE SBF
6	63565222	1	O-RING
5	0504060	4	1/4-20 X .62 SHCS
4	63564200	1	INLET HOUSING
3	63540130	1	WTR PUMP SEAL
2	63564751	1	MOTOR ASSEMBLY
1	63565815	4	10-24 X 2.62 SHCS
DETAIL	P/N	QTY	DESCRIPTION

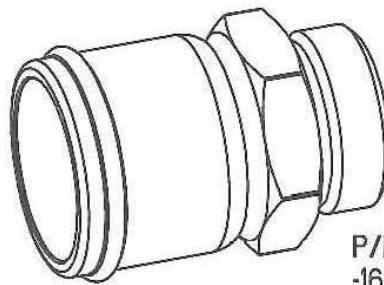
Water Pump Inlet Fittings Are Available From Your Moroso Retailer:



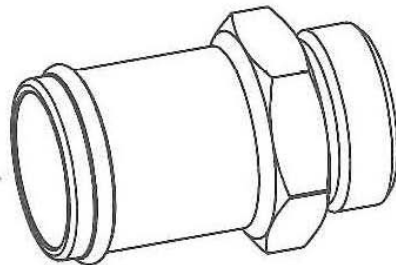
P/N 63525  
-16AN TO -20AN



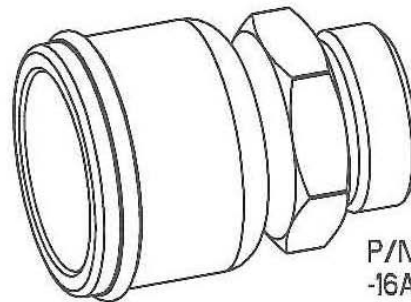
P/N 22622  
-16AN TO -16AN



P/N 63522  
-16AN TO 1 1/2" HOSE



P/N 63521  
-16AN TO 1 1/4" HOSE



P/N63523  
-16AN TO 1 3/4" HOSE

**ALL ABOVE FITTINGS INCLUDE O-RINGS P/N 22643-650**