# **ELECTRIC WATER PUMP DRIVE KIT #4333**

## INSTALLATION INSTRUCTION

## FOR: Chevy Small and Big Block Ford Small and Big Block Mopar Small and Big Block

Pontiac 350 thru 455 Buick 350 Olds 350 thru 455 GM V-6 231 cu. in.

#### MECHANISM INSTRUCTIONS

- 1. Remove fan, stock pulley, and any fan beits that utilize the water pump pulley.
- Remove the two bolts on either side of the water pump depending on the application to be used. The electric motor plate will be mounted by replacing the stock bolts with the longer bolts supplied in the kit. It may be necessary to get different length bolts for special water pump applications.

#### NOTE:

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This water pump drive kit can be mounted in two different positions for small and big block Chevy and small block Mopar.

- A. For small block Chevy applications, use the two  $3/8^{\prime\prime}$  -16 x  $4\frac{1}{2}^{\prime\prime}$  bolts with a long and short spacer.
- B. For big block Chevy applications, use the two  $3/8^{\prime\prime}$  -16 x 5 $^{\prime\prime}$  bolts with two long spacers.
- C. For small block Ford applications, use two 5/16" -18 x 3¼" bolts in hole no. 1 and the slotted hole with one short spacer and one long spacer for each hole.
- D. For big block Ford applications, use the  $3/8'' 16 \times 1''$  bolt in hole #1 and the  $3/8'' 16 \times 5''$  bolt in hole #2. Use one short spacer for hole #1 and one flat washer and three long spacers for hole #2.
- E. For small block Mopar applications, use a  $3/8'' 16 \times 3\frac{1}{2}''$  bolt along with a short and a long spacer in hole #1. This bolt and spacers should be used for the middle hole of the stock water pump. For the other mounting hole use a  $3/8'' 16 \times 6\frac{1}{2}''$  bolt along with two short spacers in hole #3.
- F. For big block Mopar applications, working on the drivers side of the engine, use the two 3/8'' -16 x  $4\frac{1}{2}''$  bolts in holes #1 and #3. Use two short spacers for hole #1 and one long spacer for hole #3.
- G. For Pontiac applications use the two  $5/16'' 18 \times 2''_{2}$  bolts with one long spacer for each bolt.
- H. For Buick applications, working on the drivers side of the engine, use the two  $5/16^{\prime\prime} \cdot 18 \times 5\frac{1}{2}^{\prime\prime}$  bolts in holes #1 and #2 with one short spacer for each bolt. These bolts may require shortening.
- For Oldsmobile applications, use the ¼" -20 x 3" bolt in hole #1 and the 5/16" -18 x 3" bolt in the 21/64 hole (this hole must be drilled in the plate by user). Use one short spacer and one long spacer for each hole.
- J. For GM V-6 applications, use the  $\frac{1}{2}$  -20 x 2 $\frac{1}{2}$  bolt with two short spacers in hole no. 1 and the 5/16" -18 x 5 $\frac{1}{2}$ " bolt with two short spacers and two long spacers in hole no. 3.

NOTE: 18-20 AMPS See illustration for correct positioning of mounting bracket, bolts, and spacers.

- 3. Assemble motor onto plate as illustrated. Insert adapter sleeve into the small sprocket making sure the hole in the sleeve lines up with the screw. Slide sprocket onto the armature shaft and tighten set screw securely. (Be sure to use longer socket screw provided).
- 4. Assemble large sprocket, fan, and fan belt on water pump. (Note: On some applications, it may be necessary to modify water pump webbing for pulley clearance.) We recommend using the lightest fan available, such as our Mr. Gasket No. 6205 Super Lightweight, 17" diameter fan, which is specifically designed for this application, featuring lightweight construction and increased air flow. For big block Ford and Buick applications, use the large 3/8" x 3/16" thick flat washers as spacers between the inside of the sprocket and the flange it is bolted to.
- 5. Adjust belt tension with motor mounting nuts loose, by rotating motor in plate slot. Belt should be adjusted to allow NO LESS than ONE INCH (1) of flexibility when measured at center point between pulleys. Tighten mounting nuts securely.

#### WIRING INSTRUCTIONS

- 1. Mount switch for easy accessibility.
- 2. Install positive wire from switch to fuse box or an inline fuse to a 12-volt power supply. It is important to keep a fully charged battery in the vehicle since low voltage will adversely affect the life of the electric motor.
- Ground motor to block using the black wire from the motor. If wire is not long enough, splice a piece of wire from the roll which is provided in the kit.
- 4. Using the remaining wire, splice to the orange lead from the motor. Run wire along valve cover, through the firewall and attach to one terminal of the on/off switch. Installation is now complete!

### TIPS FOR TROUBLE-FREE OPERATION

- Continuous operation of the water pump motor should be avoided. Running the electric motor for two or three minutes at a time is advised. This will provide faster and more complete cooling of the engine.
- 2. Avoid using a water pump with a tight bearing, as it will overload the electric motor.
- Because the Mr. Gasket Water Pump Kit is designed to spin the water pump approximately 1,500 RPM, we highly recommend removing the thermostat. This will increase water circulation and aid in more efficient cooling. Failure to remove the thermostat can result in excessive loading of the electric motor and a definite loss of cooling efficiency.
- 4. Excessive engine overheating should be avoided when possible. Since this will transfer heat to the electric motor, resulting in damage to the motor.
- If replacement parts for this kit are needed, they may be obtained by referring to the following catalog numbers: No. 4396, 12-volt D.C. Motor: No. 4397 Drive Belt, 21" long; No. 4398 Motor Sprocket Kit; No. 4399 Water Pump Sprocket.

