

# MTM5001594 & MTM5001595 Water Pump Repair Kits

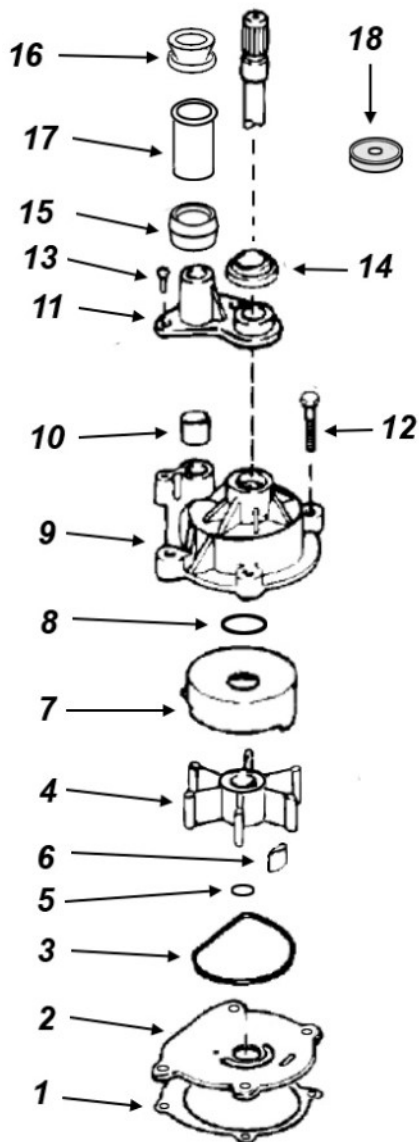
## Evinrude Johnson V4 & V6 Outboards

**Useful Chemicals:** OMC Gasket Sealer (Permatex 80019 or Perfect Seal are equivalent)

Adhesive "M" (3M Scotch-Grip 847 is equivalent)

Vaseline, oil, or similar lubricant to ease impeller installation

*Most auto parts stores have Loctite, Permatex, and 3M products*



1. wear plate gasket
2. wear plate
3. housing o-ring
4. impeller
5. o-ring
6. impeller key
7. insert
8. insert o-ring
9. housing
10. water tube grommet
11. impeller housing cover
12. housing bolt (4)
13. housing cover screw (2)
14. pump to exhaust housing grommet
15. water tube sleeve, 20" models (see note)
16. water tube sleeve (25" & 30" models)
17. water tube (see note)
18. shift rod grommet

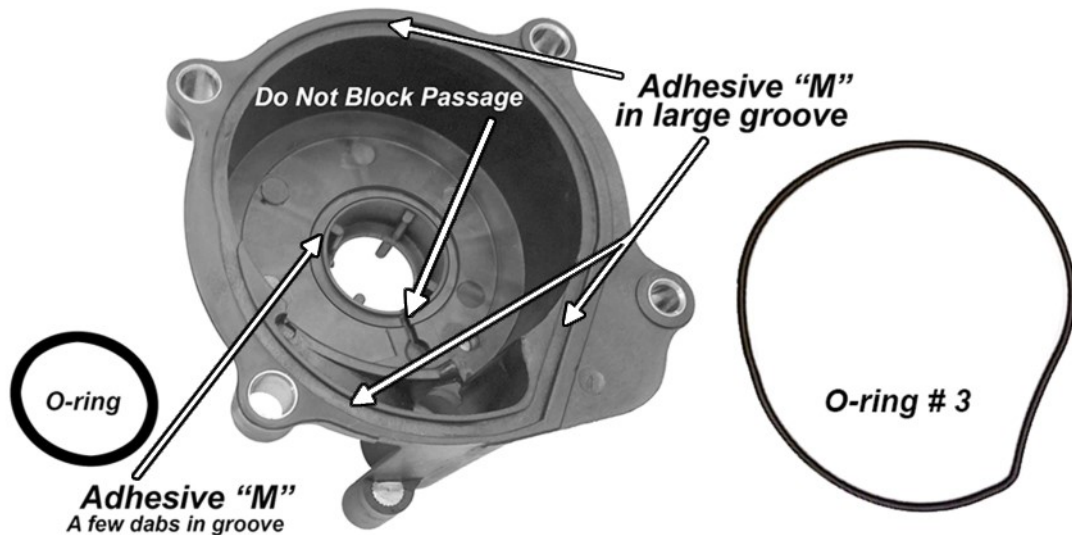
**NOTE # 15** not included in kit  
re-use old one for 90° motors  
it's not used on 60° motors.

**NOTE # 17** short tube 20" models  
long tube 25" & 30" models

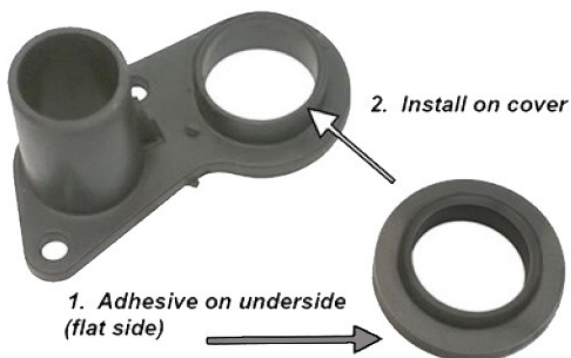
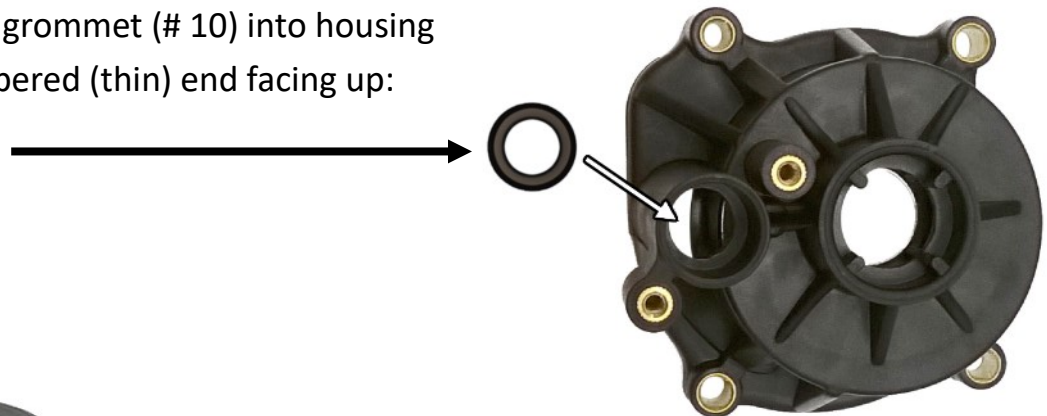
Remove the 4 bolts securing the pump housing (#12)

Slide the housing with waer plate (#1 thru #9) up off of the driveshaft and remove wear plate (#2). Gasket (#1), impeller cam (#6), impeller (#4), and o-ring (#3)

Apply a thin coat of a good tacky gasket sealer such as Adhesive "M", Scotch-Grip 847, or equivalent (do NOT use silicone sealer!) in the large groove in the plastic housing. Also apply a few dabs in the center o-ring groove to hold the o-ring in place during assembly. *Take care* not to get any in the air bleed passage (see image), otherwise the pump will lose prime and not pump water. Set small o-ring (# 8) into center groove and large o-ring (# 3) into outside groove, matching the contour.

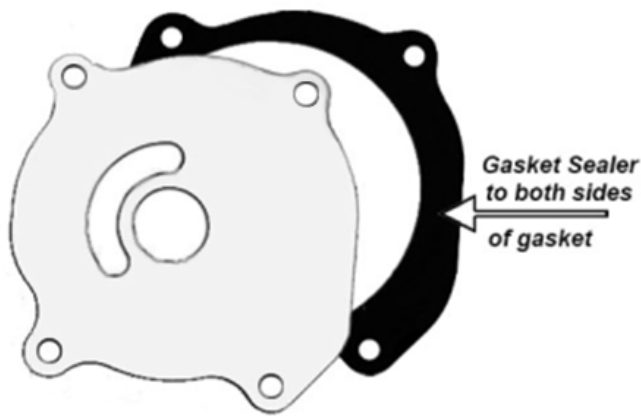


Install water tube grommet (# 10) into housing with the inside tapered (thin) end facing up:



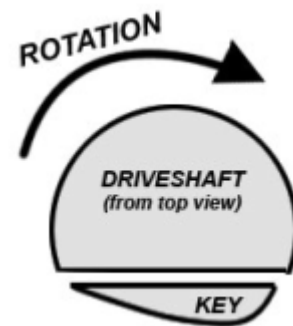
Install grommet (# 14) on cover, then attach cover to housing. You can use Gasket Sealer on the bolts threads, or a good anti-seize instead.

A little Adhesive "M" on the bottom of the grommet will hold it in place on the cover.



Compare wear plate and gasket to pump housing to make sure they orient correctly with each other, then apply a thin coat of OMC Gasket Sealer or similar to both sides of gasket surface and assemble to bottom of wear plate. Slide plate over driveshaft to gearcase

Slide o-ring (# 5) down driveshaft and using it as a retainer, install impeller key (# 6), oriented with shaft as shown. Slide impeller down, and, aligning it with the key as illustrated, press it down, turning it in a **CLOCKWISE** direction to seat it in place on the shaft.



Holding impeller cup (# 7) in place over the impeller, rotate the driveshaft **CLOCKWISE** while pressing down to get the impeller fit into the cup. Be sure to coat the inside of the cup first with outboard oil, Vaseline, or similar lubricant to help ease the impeller into the cup.

Slide the housing down, aligning the cutout with the lip on the cup. The lock tab on the cup should fit the small inside the housing near the lip.

Rotate the driveshaft and housing **CLOCKWISE** until all the bolt holes align, install the bolts, and tighten down securely. Don't overtighten them or you may damage the plastic housing.

And you're done! Reinstall the gearcase to the motor, and you're ready to run it on the hose using flush muffs or by immersing the gearcase in a barrel or body of water.