
PURPOSE OF THE KIT

The Eccentric Drive Kit is to upgrade an oil lubricated eccentric drive to grease lubrication or to replace the eccentric drive in case of excessive wear.

INSTALLATION INSTRUCTIONS

CONTENTS OF THE KIT

- Conrod with slider assembly
- Eccentric tappet
- Ball-bearing
- Bearing grease
- Small parts (spacers are differentiated according to serial number affiliation)

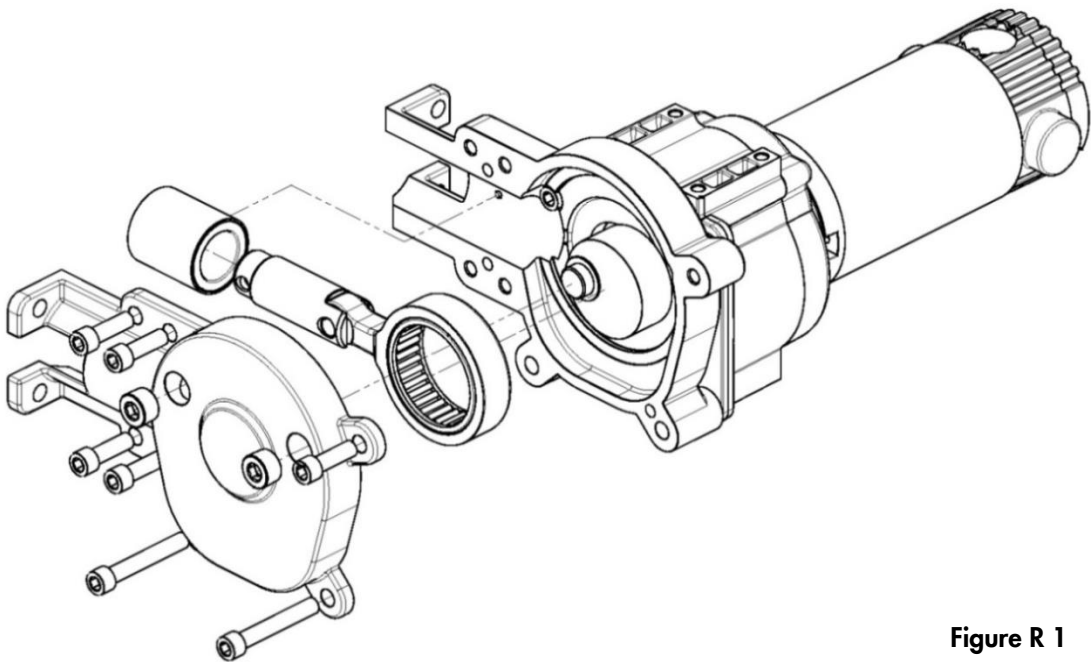


Figure R 1

TOOLS REQUIRED

- 1/4" Allen wrench (Torque wrench if available)
- Hammer
- Cape chisel
- Flat chisel or medium flat blade screwdriver
- Container for used oil

DISASSEMBLY

1. Before beginning disassembly, run the watermaker and stop it when the piston shaft is at its farthest point of travel away from the pump (i.e., toward the drive assembly). This provides enough room for sliding the rubber boot toward the pump in Step 3.
2. Disconnect the pump from the drive assembly by removing the four hex nuts.
3. Slide the black rubber boot on the piston shaft toward the pump to expose the drive shaft coupling pin. Use a small Allen wrench or similar tool to push the coupling pin out of the drive shaft. Be aware that the coupling pin fits loosely in the drive shaft and may fall out when the rubber boot is removed. Be careful not to lose it. Separate the drive assembly from the pump and set the pump aside.
4. Place the drive vertical to remove the plugs. See **Figure R 2**. Drain the oil to a container.
5. Remove the seven 1/4" hex bolts from the eccentric drive assembly. Remove the housing front from the drive assembly. You can use a cape chisel and a hammer to hit from the pump flange side into the groove. See **Figure R 3**. Please note that oil will drain out.

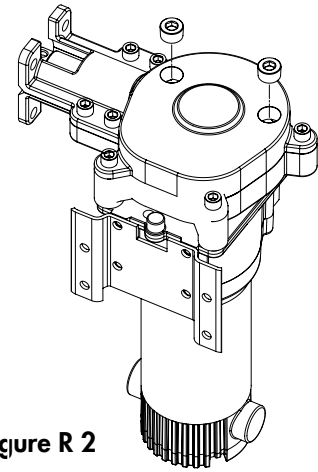


Figure R 2

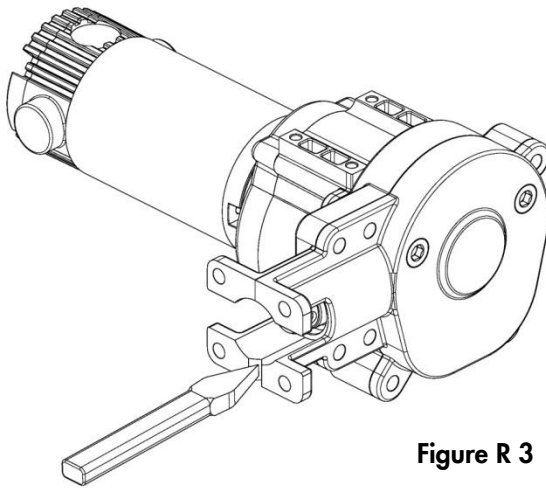


Figure R 3

6. Remove the connecting rod with slider assembly from the eccentric. Use a flat chisel to lift the connecting rod. Place the parts away.
7. Remove the eccentric from the motor shaft. If it is stuck on the shaft apply penetrating oil. If it is still stuck, carefully lift it with a flat chisel. See **Figure R 4**.
8. Remove the sleeve and the woodruff key from the shaft.
9. Remove the ball bearing from the housing front by smashing the housing front with the bearing ahead to the table.
10. Clean the housing with a cleaning rag and a degreaser.
11. Make sure that the new eccentric tappet fits smooth to the shaft. If necessary, use fine sandpaper to remove residues from the shaft.

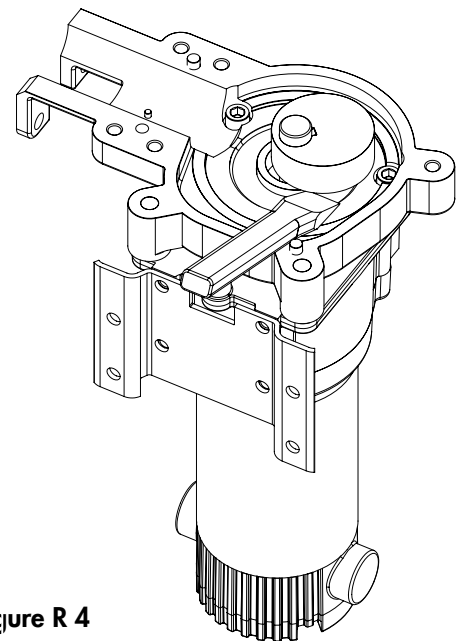
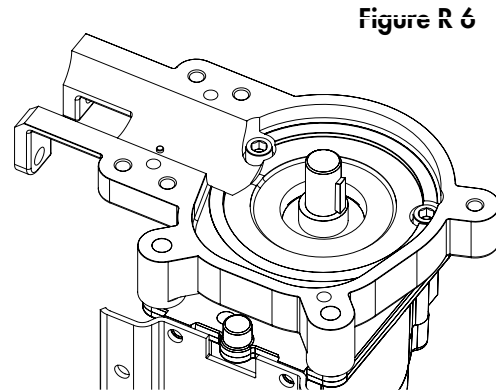
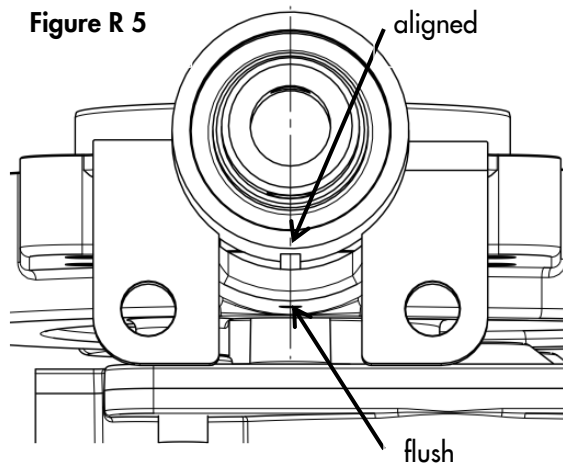


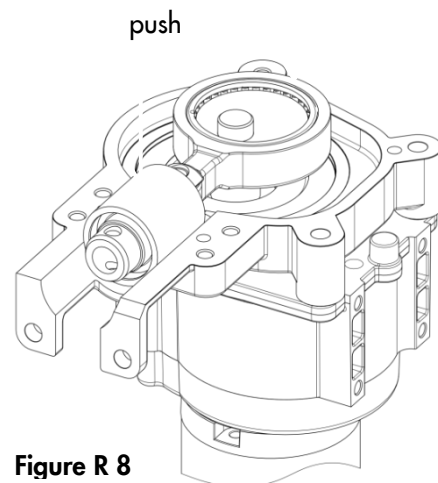
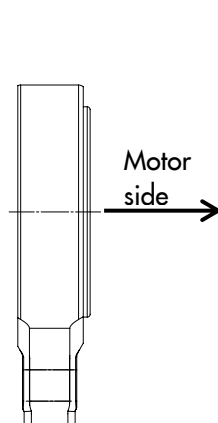
Figure R 4

ASSEMBLY

1. If it is possible to move the small pin in the housing push it until it is flush with the outer side. This helps to align the sleeve in a later step. See **Figure R 5**.
2. Place the eccentric drive housing front to a flat surface. Apply some bearing grease to the outside of the ball bearing from the kit and push it by hand into the housing.
3. Note the serial number of your PowerSurvivor 40. Choose the correct sleeves, according to the serial number indication on the bag. Install the long sleeve and the woodruff key from the kit to the shaft of the motor. See **Figure R 6**.



4. Place the motor with the shaft up to a flat surface. Apply some bearing grease to the eccentric. Align the slot in the eccentric with the woodruff key, so that the eccentric partially engages the key. Slide the eccentric in place by hand. If necessary, after the eccentric is aligned, use a soft rubber mallet, and tap it into place.
5. Lubricate the needles of the needle bearing with bearing grease.
6. Put the sleeve with the bronze bushing first onto the slider. It is not necessary to lubricate as the bronze bushing is oil impregnated. Push the wiper over the edge while turning the sleeve. Turn the hole of the sleeve to the side where the needle bearing is not flush with the connection rod. Align it with the cross holes of the slider.
7. Place the needle bearing of the connection rod with the jutting side first onto the eccentric See **Figure R 7**. Align the hole in the sleeve with the pin in the housing and push it back to the housing. See **Figure R 5** and



R 8.

8. Install the short sleeve from the bag (compare to step nr.3 above) on the shaft of the motor.
9. Place the housing front back to the drive assembly. Insert the bolts and tighten it with 25 Nm (19 ft lb).
10. Connect the drive to the power source and check if the drive runs smooth. If it does not run smooth disassemble the drive again and correct the fault.
11. Slide the rubber boot onto the piston shaft of the pump.
See **Figure R-9**.
12. Insert a small screwdriver or an Allen wrench through the hole in the piston shaft and rotate the shaft to align its hole with the hole in the slider shaft of the drive assembly. When they are aligned, slide the holes in the drive assembly bracket over the studs projecting from the pump back plate. Insert the coupling pin through the aligned holes in the slider shaft and piston shaft. Push the rubber boot over the coupling pin to hold it in place.
13. Install the four hex nuts on the studs projecting from the pump back plate through the drive assembly bracket and tighten evenly with a 1/2" open-end wrench and 1/4" Allen wrench. *Do not overtighten these fasteners!*

