

ROTOVAC POWERWAND/DHX GEARSET INSTALLATION GUIDE

- 1) Place Snap Ring P/N: S-024 and Drive Key P/N: K-025 onto Female Shaft (Left female shaft P/N: B-2330AL, Right female shaft P/N: B-2330AR), then slide on Large Gear P/N: B-2313, so that the drive key inserts into the groove on the inside of the large gear.



- 2) Place Female Shaft on end so that Large Gear is on top, and slide the Upper Gearbox Housing P/N: D2324 down onto it until firmly in place, being careful that the spring in the Drive Shaft Seal P/N S-028, does not fall out as the shaft is pushed through.



- 3) Place Upper Gearbox Housing upside down and install Gearbox Spacer P/N: D-2322 (on female shaft), Intermediate Gear P/N: B-2314 (onto large dowel pin in center of gearbox), and O-Ring Oil Seal P/N: O-111 (in groove around outside of housing). Note: Be sure that the rubber O-Ring stays in it's channel during the assembly process.



- 4) Slide Bottom Plate P/N: D-2319 onto Female Shaft. Note: It may be necessary to grease the inside of the large bearing and work the Bottom plate back and forth to walk it down the shaft. ****IMPORTANT – BEFORE BOTTOM PLATE IS SEALED DOUBLE CHECK THAT THE O-RING OIL SEAL HAS NOT MOVED OUT OF PLACE, AS THIS MAY CAUSE OIL LEAKS WHEN REPAIR IS COMPLETE.****



- 5) Use Phillips Screwdriver to fasten bottom plate screws P/N S-053 to bottom plate.



- 6) Holding the Vacuum Chamber P/N: C-2309 in one hand, use a pair of needle nose pliers to insert the two long vacuum chamber screws P/N: S-056 into the two back holes of the vacuum chamber.



- 7) While holding these screws in place with one hand, place the gearbox over the screws and install vacuum chamber nuts P/N: S-046 until hand tight. Repeat this process with the three short vacuum chamber screws P/N: S-044 for the holes on the front of the gearbox then tighten all the nuts until the vacuum chamber is securely mounted and flush with the gearbox. **Caution: Do Not Over-tighten the vacuum chamber nuts as this may cause the screws to shear off.**



- 8) Fill the gearbox with 65cc's of 90 weight synthetic gear oil and use 7/16" wrench to install oil plug P/N: B-009. Check the oil level with a tooth pick and there should be a 1/2" of oil at the deepest point.



- 9) Place Armature P/N: MA-110 into gearbox and rotate left and right with downward force until fully seated into gearbox.



- 10) Wrap Reducer Bushing P/N: B-010 with Teflon Tape and hand tighten into female shaft. Wearing a heavy glove, grasp Armature firmly and use 7/8" wrench to fully tighten Reducer Bushing.

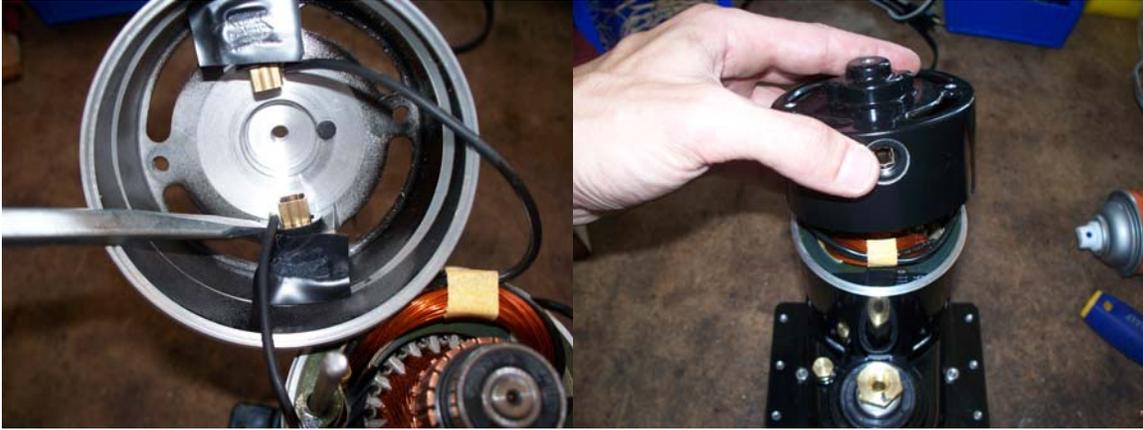


- 11) Install all-thread motor screws P/N: A-006 three or four turns.



- 12) Slide Motor Tube down over armature, making sure that the black field wires are routed around the outside of the all-thread motor screws.

- 13) Connect the two field wires to the carbon brush holders located inside the motor cap and install the motor cap P/N: C-2318. Note: Be sure to avoid pinching the wires between the motor tube and cap.



- 14) Use a 3/8" wrench or nut driver to install the acorn cap nuts P/N: S-048, being sure to tighten each side with equal force to ensure a balanced rotation of the armature.



- 15) Use a flat head screwdriver to install Carbon Brushes P/N: C-018 and Carbon Brush Caps P/N: C-020. Note: Be sure that the curvature of the carbon brushes matches the rotation of the armature, or premature wear of the carbon brushes may occur.

