Forward Motion Technologies Hub Rebuild Instructions Using the FMT Hub Rebuild Tool Kit and Hub Rebuild Parts Kit.

****Update, 7/17. New seals. Various types of seals and endcaps have been used over the years, but the bearing installation remains the same.**

Step 1: Locate items; Hub rebuild tool kit and hub rebuild parts kit (each sold separately).

Tool kit

Parts kit

Step 2: Remove the end caps from your wheel. They simply pop off.

Step 3: Use a flat blade screwdriver to remove the old seals from your hub. *There may be seals on top of the bearings, or there may be our newest seals on the end caps as shown below.

Step 4: Clean off the end caps and install the new seals (and new O rings in groove, if needed) as shown below. Make sure to press the new seals all the way down until they bottom out. *NOTE: Some older generations of end caps may be slightly too large to fit the new seals. If this is the case, simple do not use the seals. The bearings themselves are sealed. Be careful not to rip the seals when installing.


Step 5: Disassemble the tool kit as shown below.

Step 6: Use the long pin in the tool kit to tap out the axle and bearing from one side of the hub. Flip the wheel over and use the pin to knock out the other

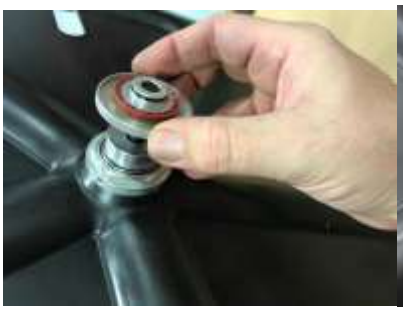
bearing. Thoroughly clean the inside of the hub and lube with light oil.


Step 7: Place a new bearing onto the end of the hub. Then, while holding the bearing, place the tool kit through the center of the hub and through the center of the bearing on the other side as shown below.


Step 8: Place the smaller diameter washer/pin from the kit over the stud as shown.

For 4” and 4.6” hubs, place the other nut onto the stud and tighten down with two 11/16” wrenches until you feel the bearing bottom out. Remove washers and stud.

****For 2.7” and 3.0” hubs, you will need to use your end cap as a spacer as show below because the stud is too long.**



This first tightening operation pulls one bearing into place.

Step 9: Lay the wheel flat and re-install the axle spacer into the hub. Make sure it is installed correctly as shown.



Correct **Incorrect**

Step 10: Place a new bearing on the end of the hub

Step 11: Install stud with large pin through the center of the hub again, being careful not to the axle spacer out of location.



****use endcap as spacer, 2.7,3" Hubs**

Step 12: Install nut and washer and tighten down with two wrenches until the bearing is pulled all the way down into the hub and you can feel it bottom out. Again, be careful to make sure axle spacer is in the proper location.

Step 13: Visually inspect to see that axle spacer is centered in bearings and then install end caps.