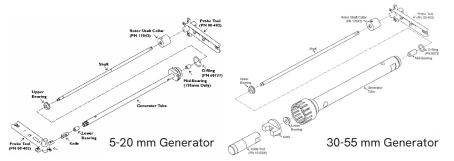
# **Generator Probe Service Instructions**



## **Tool Selection Guidelines:**

5mm, 7mm, 10mm or 20mm generator: Select the appropriate size end of the Probe Tool (PN 00-402) included with your motor unit. The tool tip should fit cleanly into the knife end of the generator. 30mm or larger generator: Use the knife tool (PN 15100K) included with your generator.

See the visual instruction poster included with your generator for color pictures of assembly and disassembly.

### **Disassembly Instructions:**

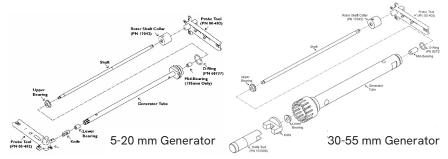
- 1. Insert the proper size tool into the knife end of the generator probe to hold the knife (see tool selection guidelines).
- 2. Insert the Probe Tool (PN 00-402) into the driven end of the generator.
- Holding both tools, carefully turn the Probe Tool counter-clockwise, unscrewing the shaft from the knife. Care should be taken to align the knife tool with the knife to prevent damage to the walls of the tube.
   With the knife removed, pull the shaft out the tube.
- With the knife removed, pull the shaft out the tube.
  Remove the upper bearing from the shaft.
- 195mm and longer generators have mid-bearings which can be autoclaved inside the tube.
- 7. If servicing a 5mm or 7mm generator probe, thread the appropriate bearing press onto the shaft and reinstall the shaft into the tube to press the lower bearing out of the tube.
- 8. Remove the bearing press from the shaft before cleaning the generator parts.
- Remove the rotor shaft collar from the shaft by loosening the set screw located on the side of the rotor shaft collar with the Allen wrench (PN 60027) provided in the tool kit.

### Assembly Instructions:

- Assemble the shaft and the rotor shaft collar by inserting the non-threaded end of the rotor shaft into the bottom of the rotor shaft collar. Align the flat end of the shaft with the set screw in the side of the rotor shaft collar and tighten the set screw with the Allen wrench (PN 60027) provided in the tool kit. Loosen the set screw 1/2 turn.
- 2. Slide the upper bearing onto the shaft so that the flanged side of the bearing is resting against the rotor shaft collar (see figure).
- 3. Insert the lower bearing into the knife end of the generator tube.
- 4. For 5mm and 7mm probes, use the appropriate bearing press to set the lower bearing by gently pressing the bearing press into the tube. Remove the bearing press (leaving the bearing in place).
- 5. Insert the shaft into the driven end of the generator tube. Insert the Probe Tool (PN 00-402) into the driven end of the tube. Holding the Probe Tool, stand the tube on end so that the knife end points up.
- 6. Insert the knife into the processing end of the generator tube and turn it clockwise with your finger to begin threading it onto the shaft.
- 7. Select the appropriate tool for your generator (see guidelines) and use it to turn the knife clockwise onto the shaft until it stops. DO NOT TIGHTEN OR TORQUE THE KNIFE; this is especially important with 5 and 7 mm generators, as these knives are fragile and will bend or break. Care should be taken to align the tool with the knife to prevent damage to the walls of the generator tube.
- 8. Remove the tools from generator.
- 9. Holding the generator probe vertically upright, gently place the knife end of the generator probe on a solid, flat tabletop. Let the rotor shaft collar rest gently on the upper bearing. Raise the rotor shaft collar, approximately the thickness of a piece of paper, off the upper bearing and tighten the set screw securely.
- 10. Insert the Probe Tool into the driven end of the generator, support the assembly by the shaft tool only, and spin the generator. The generator should spin freely. If not, disassemble and reassemble the generator to be sure the bearings are fully seated. Spin the generator again. If problems persist, please call Revvity@ 1-800-776-4431.
- 11. Run the generator in clean water for 5 minutes at slow speed, 5 minutes at a medium speed, and then 1 minute at full speed. The knife is self-tightening, and running the generator in water will tighten the knife onto the shaft to the proper torque.

For research use only. Not for use in diagnostic procedures.

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See the visual instruction poster included with your generator for color pictures of assembly and disassembly.

### **Disassembly Instructions:**

- 1. Insert the proper size tool into the knife end of the generator probe to hold the knife (see tool selection guidelines).
- 2. Insert the Probe Tool (PN 00-402) into the driven end of the generator.
- 3. Holding both tools, carefully turn the Probe Tool counter-clockwise, unscrewing the shaft from the knife. Care should be taken to align the knife tool with the knife to prevent damage to the walls of the tube.
- 4. With the knife removed, pull the shaft out the tube.
- 5. Remove the upper bearing from the shaft.
- 6. 195mm and longer generators have mid-bearings which can be autoclaved inside the tube.
- 7. If servicing a 5mm or 7mm generator probe, thread the appropriate bearing press onto the shaft and reinstall the shaft into the tube to press the lower bearing out of the tube.
- 8. Remove the bearing press from the shaft before cleaning the generator parts.
- 9. Remove the rotor shaft collar from the shaft by loosening the set screw located on the side of the rotor shaft collar with the Allen wrench (PN 60027) provided in the tool kit.

### Assembly Instructions:

- Assemble the shaft and the rotor shaft collar by inserting the non-threaded end of the rotor shaft into the bottom of the rotor shaft collar. Align the flat end of the shaft with the set screw in the side of the rotor shaft collar and tighten the set screw with the Allen wrench (PN 60027) provided in the tool kit. Loosen the set screw 1/2 turn.
- 2. Slide the upper bearing onto the shaft so that the flanged side of the bearing is resting against the rotor shaft collar (see figure).
- 3. Insert the lower bearing into the knife end of the generator tube.
- 4. For 5mm and 7mm probes, use the appropriate bearing press to set the lower bearing by gently pressing the bearing press into the tube. Remove the bearing press (leaving the bearing in place).
- 5. Insert the shaft into the driven end of the generator tube. Insert the Probe Tool (PN 00-402) into the driven end of the tube. Holding the Probe Tool, stand the tube on end so that the knife end points up.
- 6. Insert the knife into the processing end of the generator tube and turn it clockwise with your finger to begin threading it onto the shaft.
- 7. Select the appropriate tool for your generator (see guidelines) and use it to turn the knife clockwise onto the shaft until it stops. DO NOT TIGHTEN OR TORQUE THE KNIFE; this is especially important with 5 and 7 mm generators, as these knives are fragile and will bend or break. Care should be taken to align the tool with the knife to prevent damage to the walls of the generator tube.
- 8. Remove the tools from generator.
- 9. Holding the generator probe vertically upright, gently place the knife end of the generator probe on a solid, flat tabletop. Let the rotor shaft collar rest gently on the upper bearing. Raise the rotor shaft collar, approximately the thickness of a piece of paper, off the upper bearing and tighten the set screw securely.
- 10. Insert the Probe Tool into the driven end of the generator, support the assembly by the shaft tool only, and spin the generator. The generator should spin freely. If not, disassemble and reassemble the generator to be sure the bearings are fully seated. Spin the generator again. If problems persist, please call Revvity@ 1-800-776-4431.
- 11. Run the generator in clean water for 5 minutes at slow speed, 5 minutes at a medium speed, and then 1 minute at full speed. The knife is self-tightening, and running the generator in water will tighten the knife onto the shaft to the proper torque.

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