GENERATOR SERVICE INSTRUCTIONS

OMNI International
The Homogenizer Company

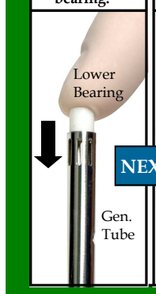
Omni International
Service Department
1-800-776-4431

DISASSEMBLY

ASSEMBLY

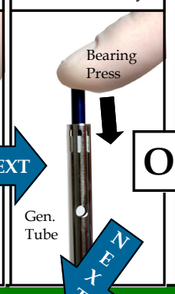
5mm 7mm 10mm 20mm-55mm

1 Insert lower bearing.



NEXT

1a For 5mm, 7mm, & 10mm only

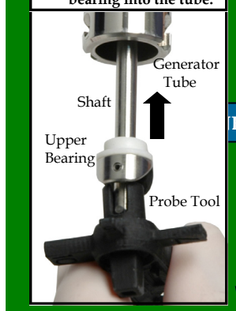


NEXT

OR

1 Insert lower bearing.

2 Slide upper bearing onto shaft and insert shaft and upper bearing into the tube.



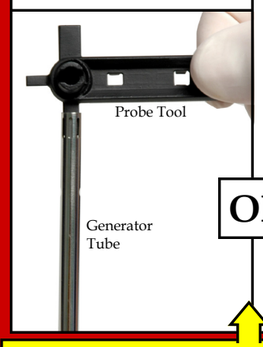
NEXT

3 Support generator vertically on shaft tool.

NEXT

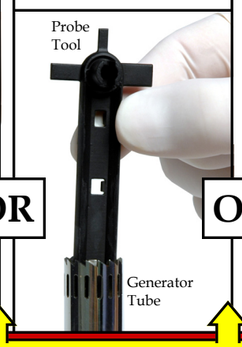
5mm 7mm 10mm 20mm 32mm—55mm

1 Insert and hold probe tool.



OR

1 Insert and hold probe tool.



OR

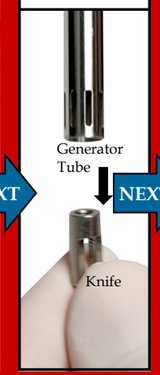
1 Insert and hold knife tool.

NEXT

2 Insert other probe tool and turn counter-clockwise while holding knife tool stationary.

NEXT

3 Remove knife.

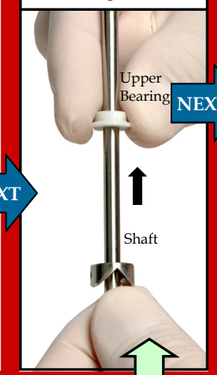


NEXT

4 Remove shaft and upper bearing.

NEXT

5 Remove upper bearing from shaft.



NEXT

10mm 20mm 32mm 35mm 45mm 55mm

The lower bearing will come out with little effort. Remove the lower bearing and the parts are ready for cleaning.

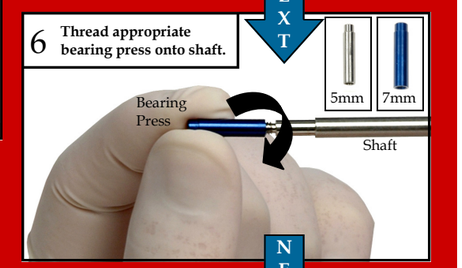
OR

5mm 7mm

A press is required to remove the lower bearing from 5 & 7mm generator probes. The process is illustrated below.

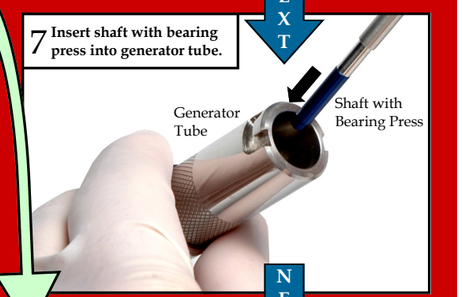
NEXT

6 Thread appropriate bearing press onto shaft.



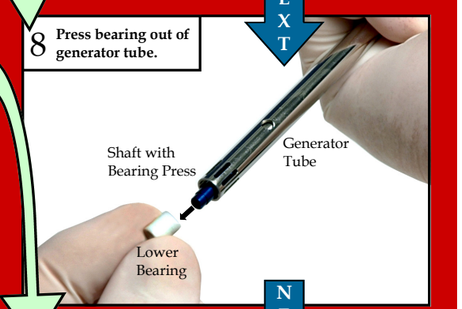
NEXT

7 Insert shaft with bearing press into generator tube.



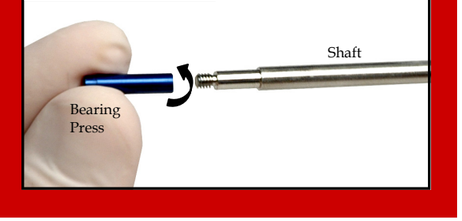
NEXT

8 Press bearing out of generator tube.



NEXT

9 Remove bearing press before cleaning.



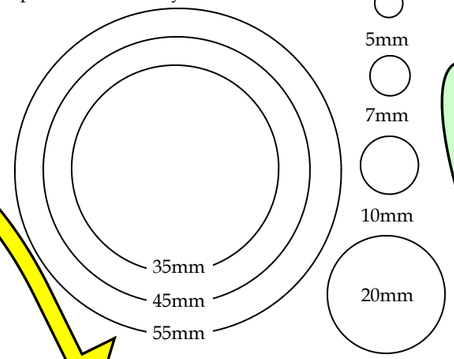
CAUTION
DO NOT use any tools other than those illustrated. Use of any other tool will void your warranty. Contact the service department if a tool kit is required.

WARNING
Generator probe and knife may be sharp.
Always use caution when working with any sharp objects.

CAUTION
DO NOT tighten generator probe parts. Use of any torque may damage the generator probe or complicate assembly and disassembly.

WHAT SIZE GENERATOR PROBE DO YOU HAVE?

Match the bottom of your generator probe to the circles shown below to determine the diameter of the probe. Reference the manual for a complete listing of parts and assembly numbers.



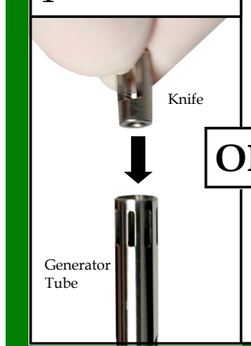
NOTE Inspect bearing for wear or black particles. Clean any dirt from bearing before reassembly. Replace bearing if worn or damaged.

NOTE If bearings are replaced, they must be run-in before initial use.

NOTE 195mm length generator probes may have a mid-bearing pressed into the tube. The tube can be autoclaved with the mid-bearing installed. If you must remove the mid-bearing, contact the service department.

5mm 7mm 10mm 20mm—55mm

4 Insert knife.



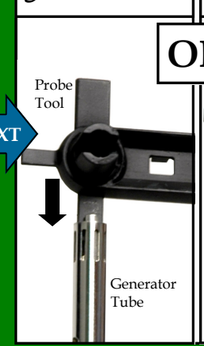
OR

4 Insert knife.

NEXT

5mm 7mm 10mm 20mm 32mm—55mm

5 Insert probe tool.



OR

5 Insert probe tool.

OR

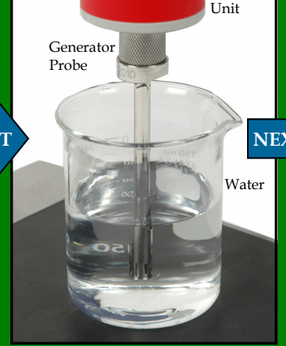
5 Insert knife tool.

NEXT

6 Turn rotor shaft clockwise with shaft tool.

NEXT

7 Run generator in water. Knife will self tighten.



NEXT

RUN-IN PROCEDURE

New bearings must be run-in before initial use.

Procedure:

1. Run 4 minutes on lowest motor setting.
2. Run 5 minutes on medium motor setting.
3. Run 1 minute on highest motor setting.
4. Disassemble generator probe.
5. Clean bearings of run-in dust.
6. Reassemble generator probe.

Generator probe is ready for use.

CLEANING GENERATOR PROBES

Generator probes are configured with a Teflon upper and lower bearing (400-series stainless steel bearings may be ordered). Please note that 400-series stainless steel bearings are subject to corrosion if not properly maintained. After cleaning, stainless steel bearings should be removed from the generator probe and wiped clean of all debris and moisture Stainless steel bearings should not be used when working with organic solvents or in an environment that does not allow for proper maintenance. If the generator probe is to be used with organic solvents, then it is recommended that the stainless steel bearing be replaced with a glass filled Teflon bearing (PN 10503). Teflon bearings are generally corrosion resistant, and are self-lubricating.

CAUTION: DO NOT autoclave or lubricate stainless steel bearings.

Generator probes can be autoclaved as a complete assembly, if Teflon bearings are used. However, if it is necessary to disassemble the generator probe for special cleaning, or replacement of the rotor knife, rotor shaft, or the bearings, then follow the disassembly introductions.

NOTE: If you experience excessive vibration, heat, or bearing wear, please contact technical support at 1-800-776-4431

REPLACEMENT AND RUN-IN OF TEFLON BEARINGS

Over time, and with repeated use, Teflon bearings will wear out and must be replaced. Failure to replace worn Teflon bearings will result in damage to the generator probe. Teflon bearings should be replaced when they no longer fit snugly against the rotor shaft, or when visible wear is apparent, or if black particles become visible in the sample.

Run-in: The new bearing must be run-in in order to assure proper seating and to operate properly. Immerse one-third of the generator probe in water and operate the motor drive at low speed for 5 minutes, then run at full speed for 1 minute to complete the run-in procedure. If excessive or unusual noise is experienced during the run-in, immediately turn off the motor drive, and restart the break-in procedure at low speed. After completion of the run-in procedure, disassemble the generator probe and clean the bearing. Reassemble the generator probe and operate as needed.

WARNING: The tip of the generator probe, especially on the saw tooth generator probes, is sharp. For safety purposes it is advisable that the protective cap be replaced on the generator probe when not in use.

CAUTION: The bottom of the generator probe is extremely fragile and care should be taken to protect it. Replace the blue protective cap on the end of the generator probe when the generator probe is not being used.

CAUTION: When using Teflon lower bearings, immerse the bottom of the generator probe in liquid or in the sample to avoid premature failure of the lower bearing.

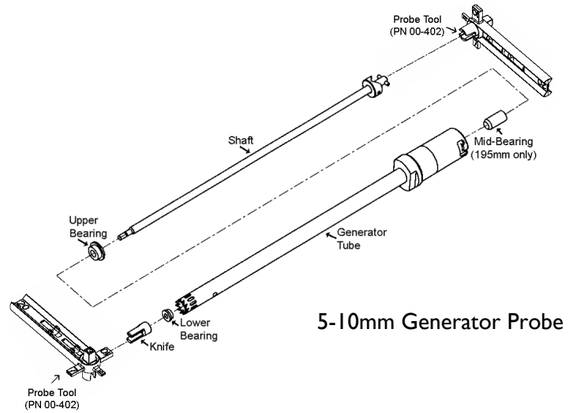
NOTE: For optimal sample recovery during processing, completely remove the generator probe from the sample prior to turning off the motor drive unit.

NOTE: Liquid circulates through the two holes in the generator probe. DO NOT block the upper hole, although the lower hole may be completely submerged during processing.

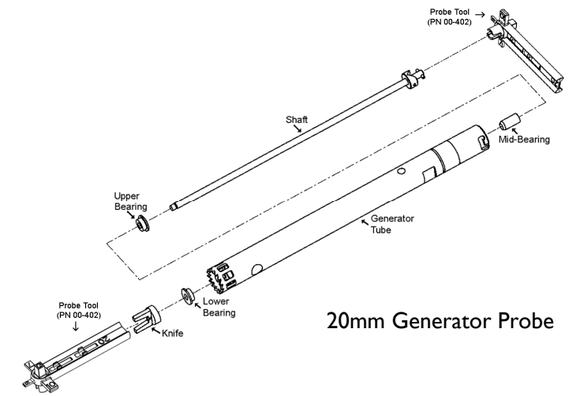
CAUTION: To protect the motor and the generator probe never operate the motor with the generator probe partially threaded onto the motor.

OMNI International
The Homogenizer Company

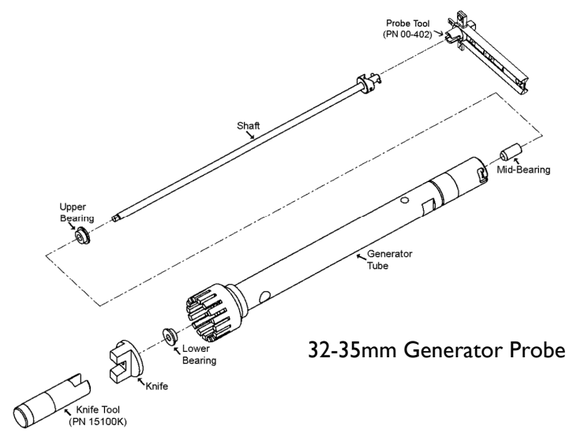
GENERATOR PROBES FOR OMNI μH, TH, GLH, & PDH



5-10mm Generator Probe

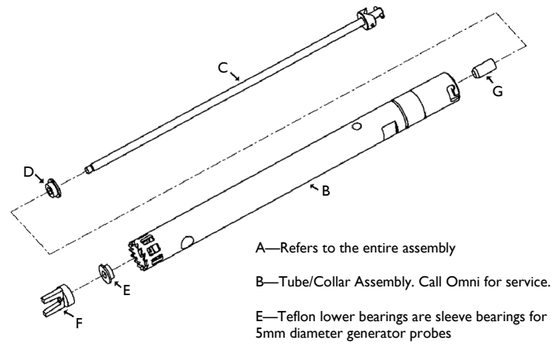


20mm Generator Probe



32-35mm Generator Probe

GENERATOR PROBE REPLACEMENT PARTS



A—Refers to the entire assembly

B—Tube/Collar Assembly. Call Omni for service.

E—Teflon lower bearings are sleeve bearings for 5mm diameter generator probes

Generator	Diameter	Length	Shaft	Upper Bearing		Lower Bearing		Knife	Mid Bearing
				Teflon	S.S.	Teflon	S.S.		
A			C	D (4/pkg)	D (2/pkg)	E (4/pkg)	E (2/ pkg)	F	G
G5-95	5mm	95mm	5952	10503	10651	10505	N/A	10045	N/A
G5-95W	5mm	95mm	5952	10503	10651	10505	N/A	10045	N/A
G7-95	7mm	95mm	7952	10503	10651	10507	N/A	10047	N/A
G7-95ST	7mm	95mm	7952	10503	10651	10507	N/A	10047	N/A
G7-95STW	7mm	95mm	7952	10503	10651	10507	N/A	10047	N/A
G7-95W	7mm	95mm	7952	10503	10651	10507	N/A	10047	N/A
G7-195	7mm	195mm	71952	10503	10651	10507	N/A	10047	10071_R
G7-195ST	7mm	195mm	71952	10503	10651	10507	N/A	10047	10071_R
G7-195STW	7mm	195mm	71952	10503	10651	10507	N/A	10047	10071_R
G10-95	10mm	95mm	10952	10503	10651	10504	10652	15013	N/A
G10-95W	10mm	95mm	10952	10503	10651	10504	10652	15013	N/A
G10-95K	10mm	95mm	10952	10503	10651	10504	10652	15013-B	N/A
G10-95KW	10mm	95mm	10952	10503	10651	10504	10652	15013-B	N/A
G10-195	10mm	195mm	101952	10503	10651	10504	10652	15013	10069
G10-195W	10mm	195mm	101952	10503	10651	10504	10652	15013	10069
G10-195K	10mm	195mm	101952	10503	10651	10504	10652	15013-B	10069
G10-195KW	10mm	195mm	101952	10503	10651	10504	10652	15013-B	10069
G20-195ST	20mm	195mm	201952	10503	10651	10503	10651	15023	10069
G20-195STW	20mm	195mm	201952	10503	10651	10503	10651	15023	10069
G20-195STK	20mm	195mm	201952	10503	10651	10503	10651	15023-B	10069
G20-195STKW	20mm	195mm	201952	10503	10651	10503	10651	15023-B	10069
G-32TT-195	32mm	195mm	15-05-195	10506	10653	10506	10653	15-03-32T	15-11-250
G-35NA-195	35mm	195mm	15-05-195	10506	10653	10506	10653	15-03-35A	15-11-250
G-35WA-195	35mm	195mm	15-05-195	10506	10653	10506	10653	15-03-35A	15-11-250

P/N: 03-220

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