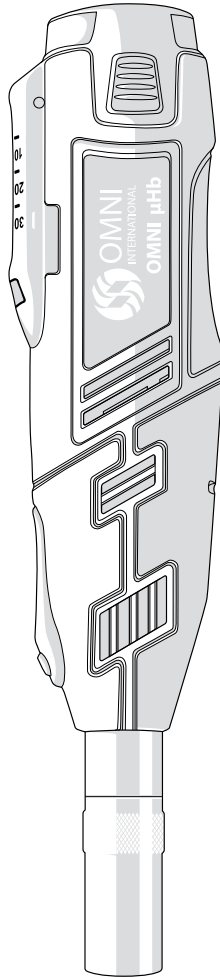


# $\mu$ Hb

## Micro Homogenizer User Manual





This manual is a guide for the use of the Omni International µHb, Micro Homogenizer and accessories. Data herein has been verified and validated. It is believed adequate for the intended use of the instrument. If the instrument or procedures are used for purposes over and above the capabilities specified herein, confirmation of the validity and suitability should be obtained, otherwise Omni International does not guarantee results and assumes no obligation or liability. This publication is not a license to operate under, or a recommendation to infringe upon, any process patents. Notes, cautions, and warnings within the text of this manual are used to emphasize important and critical instructions. This Omni International product is warranted to be free from defects in material and workmanship for a period of ONE YEAR from the date of delivery. Omni International will repair or replace and return free of charge any part which is returned to its factory within said period, transportation prepaid by user, and which is found upon inspection to have been defective in materials or workmanship. For the first 90 days, both parts and service are without charge. For the balance of the period, parts will be provided but service will be charged at established labor rates. This warranty does not include normal wear from use; it does not apply to any instrument or parts which have been altered by anyone other than an employee of Omni International nor to any instrument which has been damaged through accident, negligence, failure to follow operating instructions, the use of electric currents or circuits other than those specified on the plate affixed to the instrument, misuse, or abuse. Omni International reserves the right to change, alter, modify, or improve any of its instruments without any obligation whatsoever to make corresponding changes to any instrument previously sold or shipped.

THE FORGOING OBLIGATION IS IN LIEU OF ALL OBLIGATIONS AND LIABILITIES INCLUDING NEGLIGENCE AND ALL WARRANTIES OF MERCHANTABILITY OR OTHERWISE, EXPRESSED OR IMPLIED IN FACT OR BY LAW, AND STATE OUR ENTIRE AND EXCLUSIVE LIABILITY AND BUYERS EXCLUSIVE REMEDY FOR ANY CLAIM OF DAMAGES IN CONNECTION WITH THE SALE OR FURNISHING OF GOODS OR PARTS, THEIR DESIGN, SUITABILITY FOR USE, INSTALLATION, OR OPERATION. OMNI INTERNATIONAL WILL IN NO EVENT BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES WHATSOEVER, AND THEIR LIABILITY UNDER NO CIRCUMSTANCES WILL EXCEED THE CONTRACT PRICE FOR THE GOODS FOR WHICH LIABILITY IS CLAIMED.

- READ ALL INSTRUCTIONS BEFORE USING.

The Omni µHb has been engineered for economical functionality as well as safety; however, basic safety precautions and common sense must always be demonstrated when using any electrical product. DO NOT attempt to modify any part of the Omni µHb. If you experience problems with or have questions about your Omni µHb, contact your authorized dealer or call Omni International at 1-800-776-4431 or 1-770-421-0058.

- DO NOT allow the machine to be submerged in any liquid.
- DO NOT use in any setting other than an indoor laboratory.
- DO NOT plug power cord into an incorrect outlet.

To reduce the risk of burns, electrocution, fire, or injury:

- Use this product only for its intended purpose as described in this booklet. DO NOT use attachments not recommended by the manufacturer.
- DO NOT operate the product if it is damaged in any way.

- Keep this product away from heated surfaces.

WARNING: The tip of the saw tooth generator probe is sharp.

WARNING: Reduce the risk of unintentional starting; make sure that the battery is removed prior to plugging in the unit.

WARNING: The Omni µHb, Micro Homogenizer has an internal speed control. An external speed control should never be used with this instrument.

WARNING: DO NOT process pathogenic material in an open container, since aerosols created during normal processing could be inhaled by the operator. Please call for assistance in processing pathogens or other material which require sealed enclosures.

WARNING: Keep all housings in place and in working order.

WARNING: Remove all tools from the generator probe before turning the motor on.

WARNING: DO NOT use the motor in a dangerous environment.

WARNING: Disconnect the motor before servicing, and when changing the generator probe.

WARNING: DO NOT modify the plug or cord that is provided. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician.

WARNING: Reduce the risk of unintentional starting; make sure the power switch is in the OFF position before plugging in the motor.

WARNING: Damaged or worn power cords should be repaired or replaced immediately by a qualified electrician.

WARNING: Improper connection of the equipment can result in a risk of electric shock.

#### DECONTAMINATION

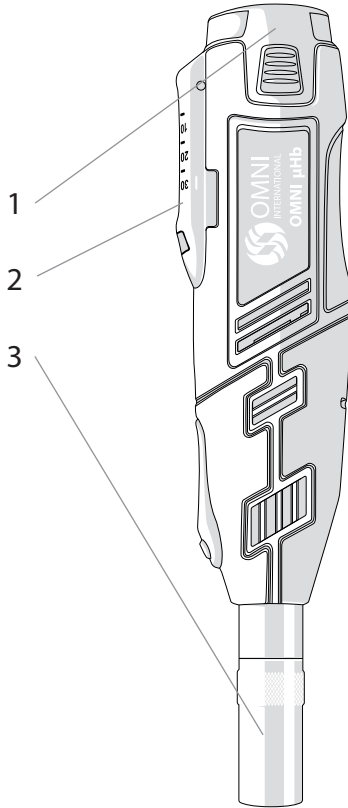
Should an instrument or component that has been used with radioactive or pathogenic material require factory or field service, comply with the following procedure to ensure the safety of service personnel:

Clean the parts to be serviced of all encrusted material and decontaminate them. There must be no radioactivity detectable by survey equipment. Obtain a Decontamination Certificate from Omni International. Complete the certificate and attach to the instrument or parts being returned. If no Decontamination Certificate is attached, and a potential radioactive or biological hazard is detected or suspected by Omni International, the equipment will not be serviced until proper decontamination and certification is complete. The sender will be contacted for instructions as to the disposition of the equipment. Disposition costs will be borne by the sender.

WARNING: It is a violation of federal law to transport biologically hazardous or radioactive materials without proper packaging, labeling, and appropriate warnings.

Should this product ever require service, please contact  
Omni International at 1-800-776-4431

# Overview



1. Battery Pack
2. Variable Speed Control
3. B-Style Probe Adapter

The Omni  $\mu$ Hb consists of the following:

Description	Part Number	Quantity
Motor Drive Unit	F2600	1
Battery Pack	H1160-B	1
Tool Kit	T1001	1
Charger	115V or 230V	1
Instruction Manual	H258-H	1

Optional Stand Available (sold separately) - Order No. F22000

# Stainless Steel Generator Probes

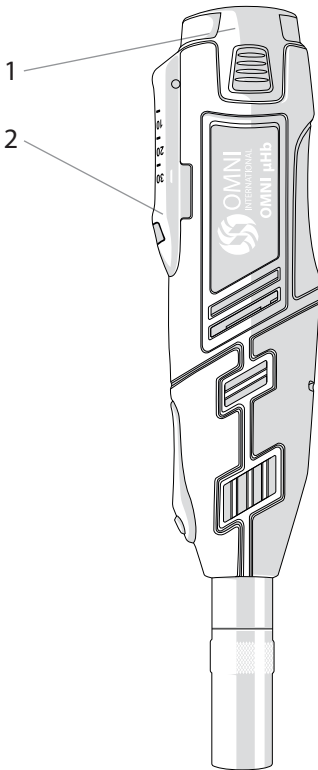
Size	Processing Range	Type	Resulting Particle Size	Order No.
5 mm	.20 mL - 5 mL	Flat Bottom	Fine	B5-075
7 mm	.25 mL - 30 mL	Saw Tooth	Fine	B7-110ST
10 mm	1.5 mL - 100 mL	Saw Tooth	Fine	B10-110ST

## Omni Tips®

Plastic  
Disposable  
Generator  
Probes

Type	Size	Quantity	Order No.
Hard Tissue	7 mm x 110 mm	25 Pack	30750H
	7 mm x 110 mm	50 Pack	32750H
Soft Tissue	7 mm x 110 mm	25 Pack	30750
	7 mm x 110 mm	50 Pack	32750

## Operation



1. Battery Pack
2. Variable Speed Control

## General Operation

### Power

- Insert charged battery into housing.

### Start

- Move the On/Off switch on the front of the unit to the On position.

### Set Speed

- Adjust speed using the variable speed control. To increase rpm, move control from back to front.

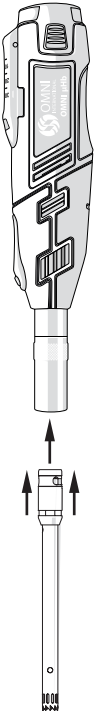
### Stop

- Move the On/Off switch on the front of the unit to the Off position.

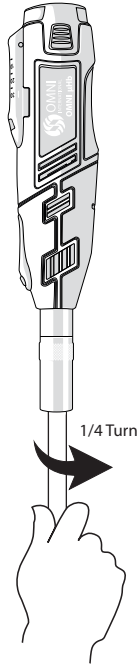
# Accessories

## Generator Probes and Omni Tips™

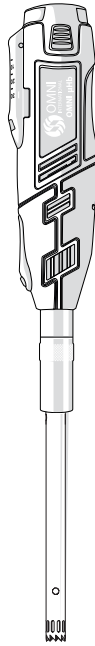
1. Insert Generator Probe into coupling



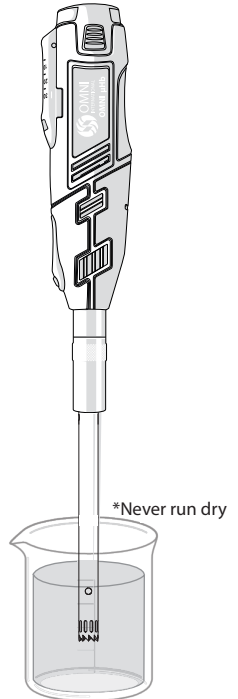
2. Quarter turn clockwise to lock



3. Release



4. Ready to use  
\*always submerge probe in liquid before starting



## IMPORTANT INFORMATION

The blue cap must be removed from the end of the generator probe before operating.

1.



2.

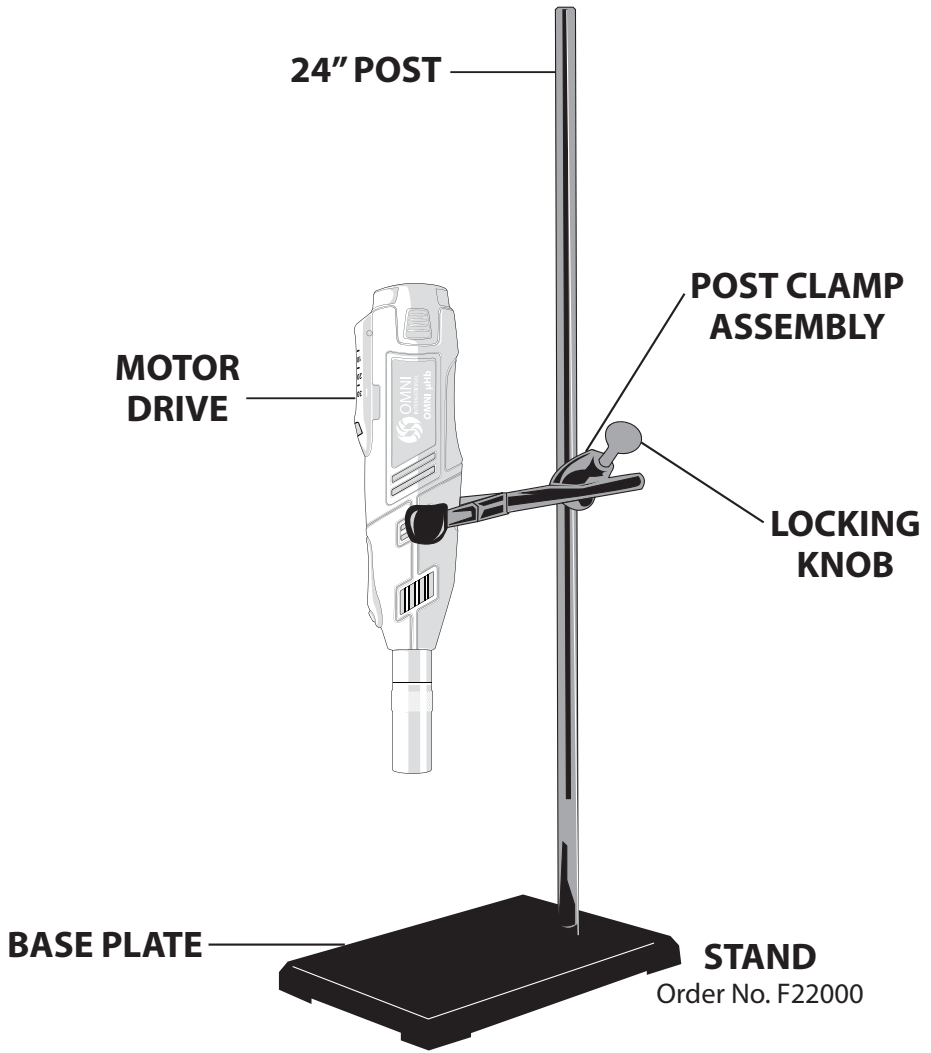


3.



Ready to homogenize.

# Stand Mounting

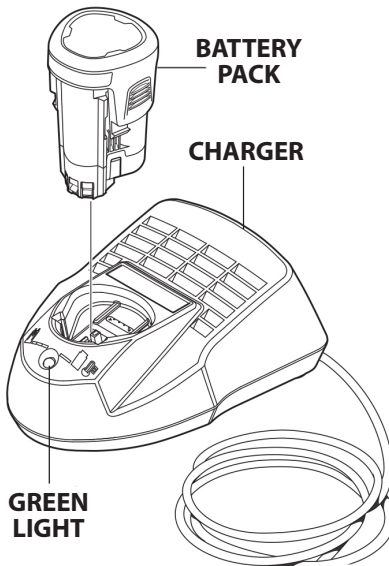
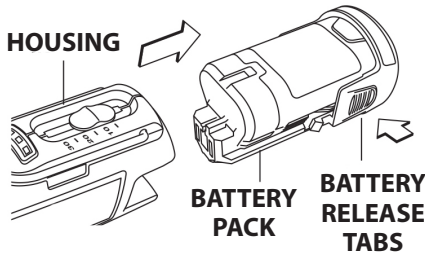


# Battery Pack and Battery Charger

Battery life will vary as a function of load, speed, number of charges, etc.

A fully charged battery is generally capable of 30 minutes of power with a 7 mm generator probe at 25,000 rpm in water. It may be convenient to purchase additional battery packs (P/N H1160-B) to keep the motor unit operational while battery packs are recharging.

For optimal battery life, the battery should be completely discharged before recharging. It takes approximately 6 hours to recharge a completely spent battery pack.





# Battery Pack and Battery Charger

## Safety Information

### General Information

- Battery powered equipment is always in the ON position. Keep the motor unit switch in the OFF position when not in use, during recharging, or plugging in the unit.
- Keep batteries away from heat or fire, they may explode.
- Batteries may leak under extreme use or temperature conditions. If any liquid comes in contact with skin, wash immediately with soap and water, and consult a physician. If liquid comes in contact with eyes, flush them with clean water for a minimum of 10 minutes and seek immediate medical attention.

### The Battery Charger

- Use only the charger supplied with your Omni  $\mu$ Hb.
- Before using the battery charger, read all instructions and cautionary markings on the charger and the motor unit.
- **DO NOT** use an attachment that is not recommended or sold by the battery charger manufacturer. Such use may result in fire, electric shock, or injury.
- **DO NOT** operate the charger if it is damaged in any way, such as receiving a sharp blow or being dropped. Return it to Omni International for repair or replacement.
- To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
- **DO NOT** disassemble the charger, incorrect assembly may result in fire or electric shock. Return it to Omni International when service or repair is required.

# Battery Pack and Battery Charger Safety Information (cont.)

## Recharging The Battery Pack

- **DO NOT** recharge the battery pack in a damp or wet environment.
- Never recharge the unit in an environment where the temperature is less than +40°F or more than +140°F.
- Improperly charging Nickel Cadmium batteries can cause batteries to explode, causing personal injury.

## Cords

- To reduce risk of damage to the electrical plug and the cord, unplug the charger or motor unit by the plug rather than by the cord.
- Make sure the charger cord is located so that it will not be stepped on, tripped over, or otherwise subjected to stress or damage.

## Troubleshooting

PROBLEM	CORRECTIVE ACTION
PTFE bearing wears quickly	- Fluid level may be too low in the tube. - Immerse the probe deeper into the fluid.

Should this product ever require service, please contact  
Omni International at 1.800.776.4431





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