

The logo for revvity, featuring the word "revvity" in a white, lowercase, sans-serif font on a black background. The background of the entire page is a vibrant, abstract graphic of overlapping, translucent spheres in shades of yellow, orange, and green, resembling a molecular or cellular structure.

revvity

**USER MANUAL**

# **μHb Micro Homogenizer**

**Version: F**

**Date: October 2024**

**Document Number: H258-H**

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This product has been engineered for safety; however, basic safety precautions and common sense must always be demonstrated when using any electrical product.

- Use this product only for its intended purpose.
- Keep this product away from heated surfaces.
- **DO NOT** attempt to modify any part of this product.
- **DO NOT** allow the machine to be submerged in any liquid.
- **DO NOT** use in any setting other than an indoor laboratory.
- **DO NOT** use attachments not recommended by the manufacturer.
- **DO NOT** operate the product if it is damaged in any way.
- **DO NOT** operate the product with the safety ground disconnected.
- **DO NOT** modify the plug or cord that is provided.

**WARNING:** Reduce the risk of unintentional starting; make sure the machine is OFF before plugging into a power supply.

**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.

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## Proper Equipment Operation

To reduce the risk of electric shock, do not remove the cover. No user serviceable parts are inside. Refer to qualified service personnel if help is required. Use this product only in the manner described in this manual. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

## FCC

This device complies with part 15 of the FCC (United States Federal Communications Commission) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference
- This device must accept any interference received, including interference that may cause undesired operation.

## CE/UKCA

This device complies with all CE and UKCA rules and requirements.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment is marked with the crossed-out wheeled bin symbol, to indicate that this equipment may not be disposed of as unsorted municipal waste.

It's your responsibility to correctly dispose of your equipment at life-cycle end, by handing it over to an authorized facility for separate collection and recycling of waste equipment. It's also your responsibility to decontaminate your equipment in case of biological, chemical or radiological contamination, and so protect the persons involved in the disposal and recycling of the equipment from health hazards.

For more information about where you can dispose of your waste equipment, please contact your local dealer, from whom you purchased the equipment.





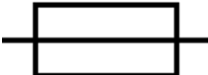







By doing so, you will help to preserve natural and environmental resources and you will ensure that your equipment is recycled in a manner that protects human health.



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## Table of Symbols

Symbol	Description	Symbol	Description
	Caution. Refer to the User documentation (ISO 7000-0434B)		On (power). (IEC 60417-5007)
	Hazardous voltage; risk of electric shock. (IEC 60417-6042)		Off (power). (IEC 60417-5008)
	Fuse. (IEC 60417-5016)		Consult Instructions for Use. (ISO 7000-1641)
	Alternating current. (IEC 60417-5032)		CE Compliance Mark
	UKCA Certification Mark		WEEE symbol (EN50419:2005)
	RoHS Certification Mark		KC Certification Mark

## Specifications

Part Number	UHB-115 and UHB-220
Input Voltage	UHB-115 - 100-115V, 50/60 Hz and UHB-220 - 220-230V 50/60 Hz
Weight	01.02 lbs. (466 g)
Dimensions	W: 23" (7.6 cm), H: 9" (22.9 cm)
Power	35 Watts
Speed	5,000 - 30,000 rpm
Standards Approval	CE and UKCA Approved

## Site Requirements

### Operating Environment

4°C to 40°C / 39°F to 104°F, Humidity: 5% to 95% RH

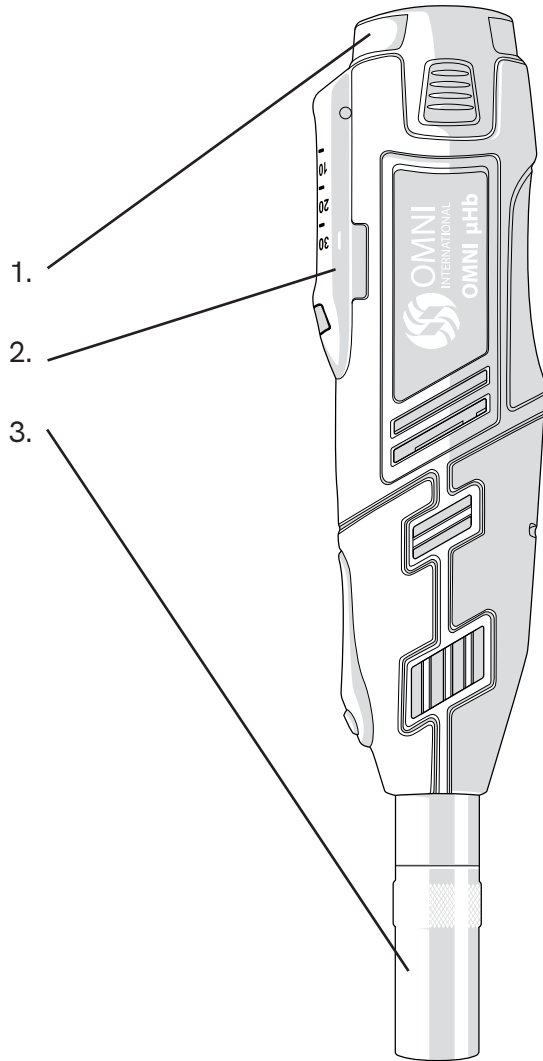
### Ambient Air

The system must be located in an area where the ambient air is clean. No emission of solid particles or smoke in the air by adjacent equipment is allowed. The level of dust should be comparable to that of normal laboratory spaces.

### External Fire Protection

External fire protection should be installed according to local regulations for equipment operating unattended.

## System Overview



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

The  $\mu$ 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

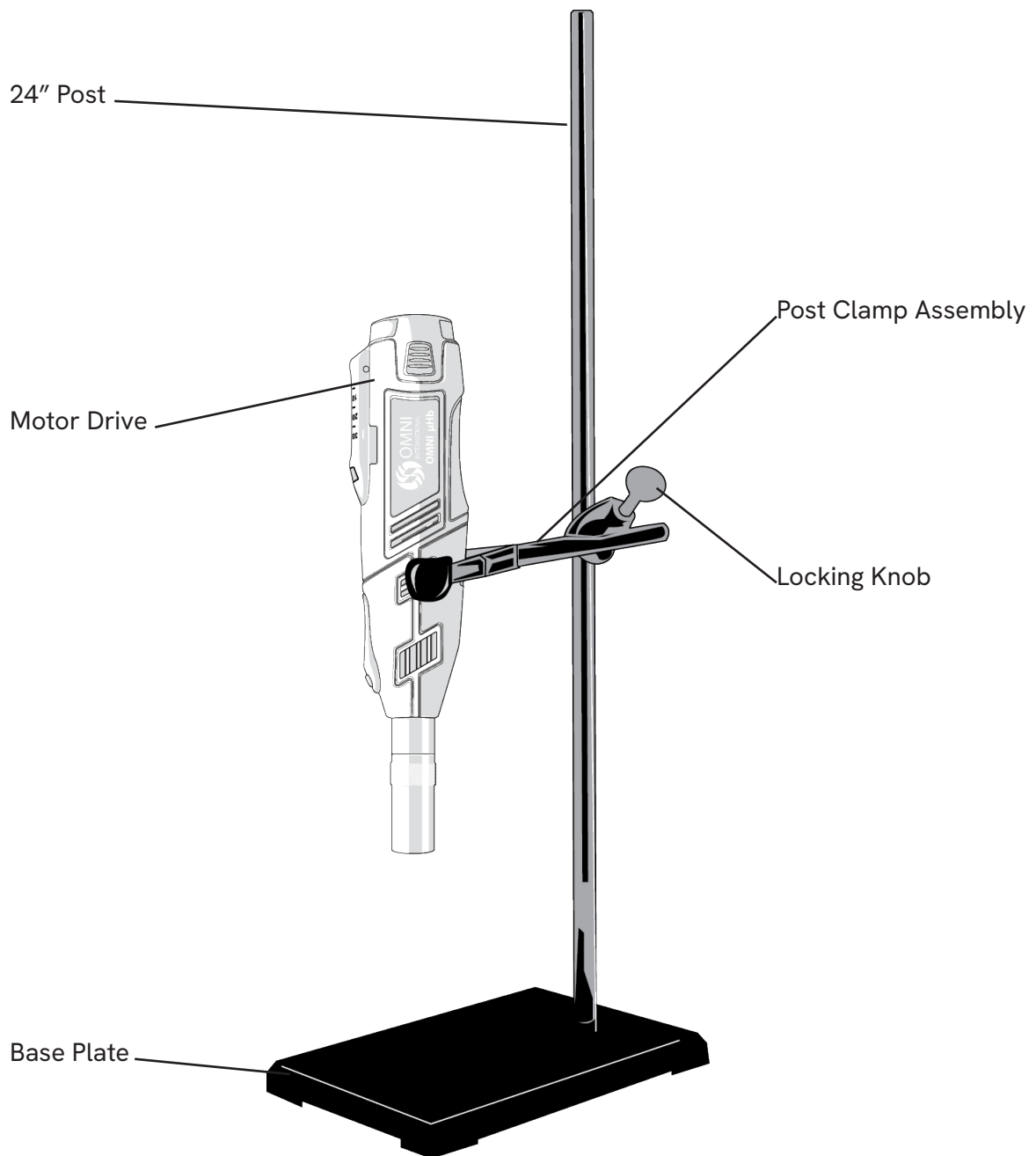
Optional Stand Available (sold separately) - Order No. F22000

## General Operation

- Insert charged battery into housing.
- Move the On/Off switch on the front of the unit to the On position.
- **5,000 - 30,000 rpm**
- Adjust speed using the variable speed control. To increase rpm, move control from back to front.
- Move the On/Off switch on the front of the unit to the Off position.

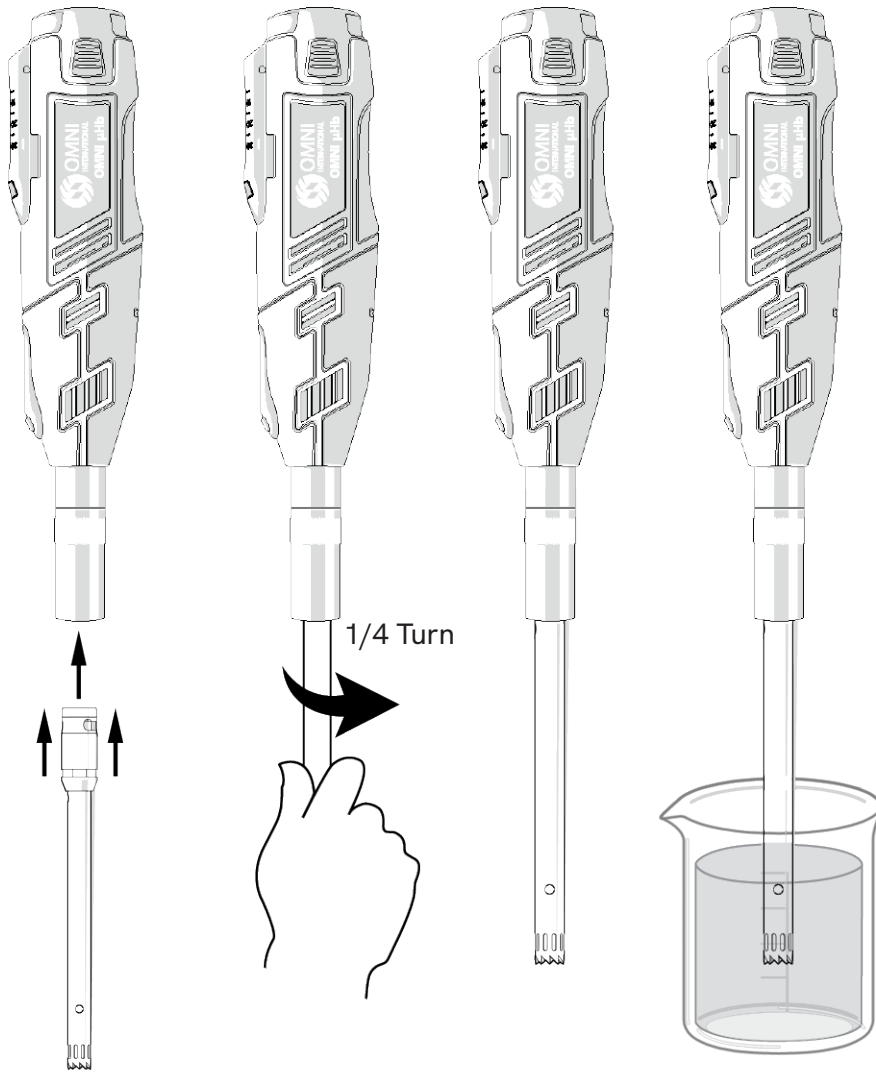
## Stand Mounting the $\mu$ Hb

The Stand Assembly (F22000) is sold separately.





## Inserting Probes into the $\mu$ Hb



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.

\*Never run dry

**WARNING:** The blue protective cap must be removed from the end of the generator probe before operating.

## Generator Probes for the $\mu$ Hb

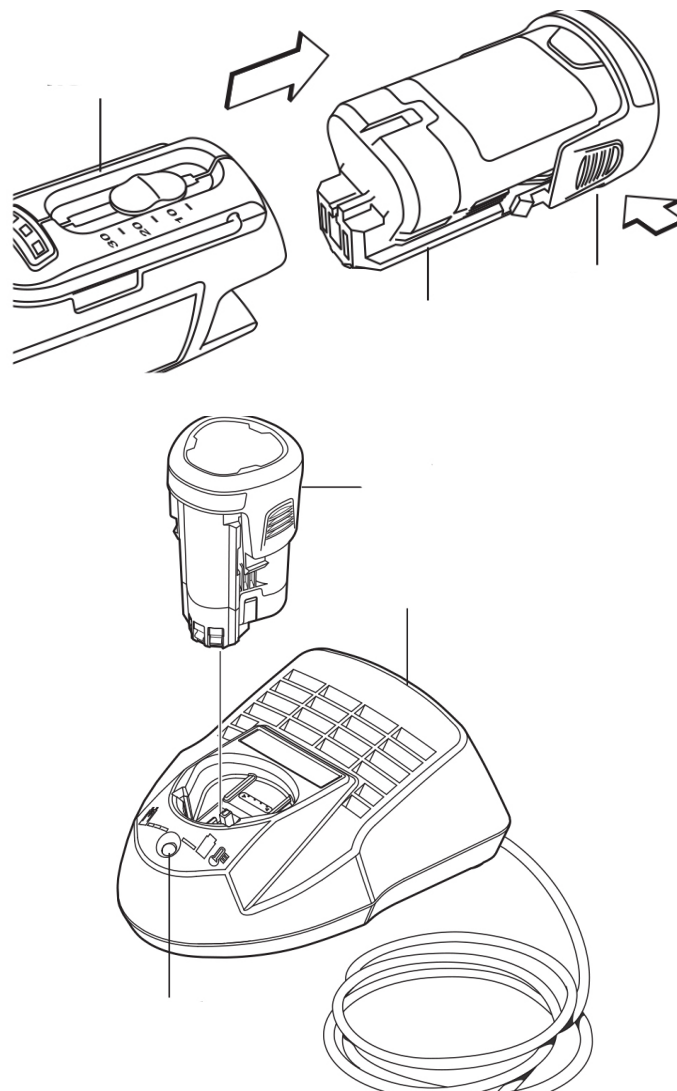
Diameter	Length	Part Number	Processing Range	Pack Qty
5 mm	75 mm	B5-075	<200 $\mu$ L - 5 mL	1
5 mm	75 mm	B5-075-6	<200 $\mu$ L - 5 mL	6
7 mm	110 mm	B7-110ST	250 $\mu$ L - 30 mL	1
7 mm	110 mm	B7-110ST-6	250 $\mu$ L - 30 mL	6
10 mm	110 mm	B10-110ST	1.5 - 100 mL	1
10 mm	110 mm	B10-110ST-6	1.5 - 100 mL	6

## Disposable Probes for the $\mu\text{Hb}$

Diameter	Length	Part Number	Type	Pack Qty
7 mm	110 mm	30750H	Soft Tissue	25
7 mm	110 mm	32750H	Soft Tissue	50
7 mm	110 mm	30750	Hard Tissue	25
7 mm	110 mm	32750	Hard Tissue	50
12 mm	110 mm	301250	Hard Tissue	25
12 mm	110 mm	321250	Hard Tissue	50

## Battery Pack and 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 Charger Safety 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.
- Use only the charger supplied with your  $\mu\text{Hb}$ .
- 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 Revvity 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.
- **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.
- 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	Possible Solution
Teflon bearing wears quickly	- Fluid level in the sample may be too low - Immerse the probe further into the fluid
Excessive splashing in the sample	- Fluid level is too low for the tube size

**WARNING: Any service must be performed by a qualified service technician. This can be either an Revvity Technician or an end user resource.**

**All parts need to be sourced from the Revvity service department.**



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