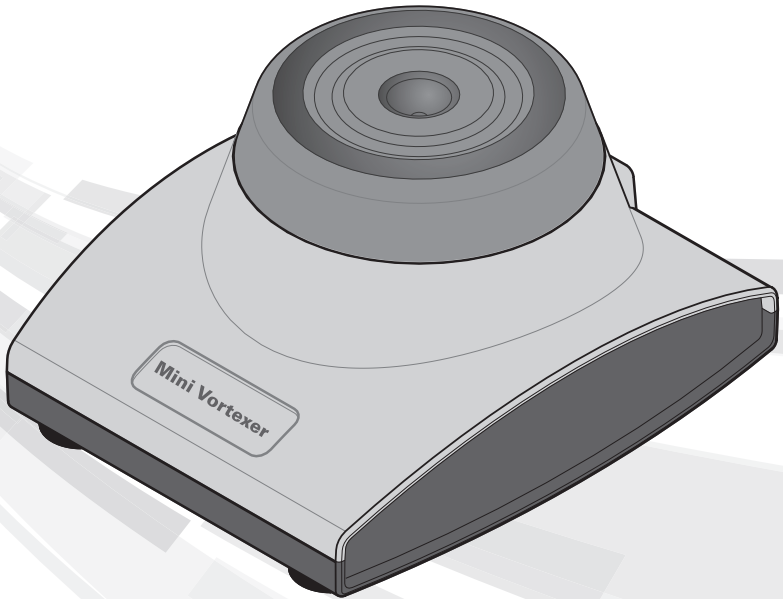


Mini Vortexer

Instruction Manual



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Safety Precautions

Your Mini Vortexer instrument is designed for general laboratory use. The Mini Vortexer is a small tube mixing unit designed for laboratories in the bioscience, medical, and chemistry fields. This instruction manual cannot address all safety hazards. It is the responsibility of the user to consult and observe all health and safety precautions and to assess the instrument's suitability to perform the task.

Caution!

Before operating the mini vortexer unit for the first time, please read this instruction manual carefully. This manual contains important information, safeguards, and operating instructions.

1. Never use this product in any manner inconsistent with these instructions.
2. This product is intended to be used indoors only.
3. This product is intended for mixing aqueous solutions in suitable tube containers with cap properly installed.
4. Do not attempt to vortex materials with a density greater than 1.2 g/mL.
5. **Note on Vortexing:** use only approved containers with screw-tight lids or lockable lids to vortex fluids.
6. Check that the cap/lid of the container is completely secure before using unit to mix.
7. Observe general laboratory safety precautions and regulations when using this product.
8. Do not attempt to vortex explosive, flammable, or corrosive liquids.
9. Do not use if the unit is damaged.
10. Do not attempt to operate if the flexible vortexing cover is loose, missing, or damaged.
11. Do not use units that have not been correctly installed or repaired.
12. Do not attempt to disassemble or modify this product.
13. Do not move the unit while it is in operation.
14. Do not immerse the unit in water. Injury due to shock or fire may result.
15. Follow all precautions from the Material Safety Data Sheet (MSDS) for any reagent you use with this instrument.
16. Do not use caustic solvents or flammable liquids near this or other electrical equipment.
17. Do not operate in a hazardous, explosive or flammable environment.

18. Always work in a manner which endangers neither the user nor any other person.
19. If unit is malfunctioning or needs to be returned, please contact either the authorized dealer or Heathrow Scientific LLC.
20. Only use original manufacturer's flexible vortexing cover or AC adapter.
21. Improper use of equipment will void the warranty.
22. Any attempt to disassemble unit will void warranty.
23. Store at room temperature in a dry area. Do not expose to sunlight, moisture, or extreme temperatures for prolonged periods of time.

Positioning For Disconnect

Plug the power adapter cord into the rear of the unit and the power cord into an approved outlet. Make sure that the power cord connector can be readily grasped at the rear of the device so that it can be removed to easily disconnect it from the Mini Vortexer.

Cleaning

1. Unplug unit. Wipe with cloth dampened with water and use with mild soap if needed.
2. Before using any cleaning or decontamination methods except those recommended in this manual; please contact Heathrow Scientific® LLC to ensure that the proposed method will not damage the device. See maintenance section for more on cleaning.

Warning!

- If the unit is not used as recommended by the manufacturer the overall safety will be impaired
- Check MSDS, wear required Personal Protective Equipment, and observe all applicable local and national regulations before dispensing and disposing of hazardous samples.
- The laboratory procedure should ensure that no person or hazardous substances are present within a 12" (30cm) zone around the instrument when operating.

Specifications

Environmental Ratings:

Note: For indoor use only

Altitude: Up to 2000 m

Temperature: 2°C to 40°C

Maximum Relative Humidity: Non-condensing, 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C

Technical Features:

Dimensions:

132 mm x 111 mm x 76 mm (LxWxH)

5.2 in x 4.4 in x 3.0 in (LxWxH)

Weight:

1.9 lbs (.87 kg) not including power supply

Orbit, Speed :

6.0 mm, approx 4,500 rpm

Primary Tube Sizes for Mini Vortexer Unit:

50 mL, 15 mL, 5 mL, 2 mL

Note: full tubes will not show a visible vortex

Electrical:

Power Adapter rating

Input: 100 - 240VAC

50/60Hz, 0.3A

Output: 12VDC, 1000mA

Device comes with interchangeable plugs for the:
UK, EU, North America, and Australia.

Mini Vortexer:

Input: 12VDC

Current under load (approx.): 0.65A

Power under load (approx.): 7.8W

Accessories:

Flexible vortexer cap (120617)



This mark is the confirmation that the unit conforms to the EU guidelines and has been tested according to the following EU Declaration of Conformity.



Conforms to:

EN/IEC 61010-1 ed. 3.1, 2017

EN/IEC 61010-2-051 ed.3, 2015

UL Std. 61010-1 ed.3, 2012

UL Std. 61010-2-051 ed.3, 2015

CAN/CSA C22.2 No.61010-1-12 (R2017)

CAN/CSA C22.2 No.61010-2-051 (R2015)

IEC 61326-1:2013 (IEC 61326-1:2012)

FCC Part 15, Subpart B: 2015

ICES-003, Issue 6

EC Declaration of Conformity

Manufacturer: Heathrow Scientific® LLC
Address: 620 Lakeview Parkway • Vernon Hills, IL 60061 USA
European Contact: Emergo, Europe
Prinsessegracht 20 • 2514 AP The Hague • The Netherlands

Model: Mini Vortexer, Catalog #: 120567, 120598

This unit has been constructed and conforms to the following:

Safety Standards:

EN/IEC 61010-1 ed. 3.1, 2017
EN/IEC 61010-2-051 ed.3, 2015
UL Std. 61010-1 ed.3, 2012
UL Std. 61010-2-051 ed.3, 2015
CAN/CSA C22.2 No.61010-1-12 (R2017)
CAN/CSA C22.2 No.61010-2-051 (R2015)
2014/35/EU (Low Voltage Directive)

EMC Standards:

IEC 61326-1:2013 (IEC 61326-1:2012)
FCC Part 15, Subpart B: 2015
ICES-003, Issue 6

2012/19/EU (WEEE)
2011/65/EU RoHS3

Signed:



Gary Kamees
Vice President, Product Development and Manufacturing
February 2018

Disposal Responsibilities

The equipment you purchased may contain hazardous substances that could impact the environment. Per regulations on electronic devices in the European Community, you must use the appropriate disposal systems to avoid exposure of these substances to the environment. The disposal systems will reuse or recycle hazardous materials from your equipment responsibly.

The crossed-out wheeled bin symbol invites you to use those systems.



If you need more information on the collection, reuse and recycling systems, please contact your local or regional waste administration. You can also contact us for more information on the environmental performance of our products.

Packaging Contents

1. Mini Vortexer
2. Power Adapter with 4 plugs
(North America, Japan, EU, UK, and Australia)
3. 2 Flexible Vortexer Caps

Operation

1. Remove the contents from the package, examining them carefully for breakage, defects, or missing parts. Save the packaging.
2. If necessary see package insert for assembly instructions.
3. Place Mini Vortexer on a sturdy, stable, level surface near a grounded electrical outlet away from the edge of the counter and other moving equipment. The surface should be clean. Ensure that no person or hazardous substances are present within a 12" (30cm) zone around the instrument when operating. Make sure the power cord is clear of hot surfaces and other hazards.
4. Carefully fill container with fluids to no more than 75% of container's total volume. Note the level of the liquid which will rise to accommodate the spinning vortex of fluid when unit is powered. Be sure to leave sufficient room at the container top for this rise in fluid level.
5. Secure the container lid to the tube being used.
6. Place bottom cone of the tube into the cone-shaped pocket on top of the vortex unit.
7. **Firmly hold only the top** of the tube by the lid or cap and press down just hard enough to activate the orbital vortex action, pressing harder than necessary will only decrease the efficiency of the vortexing action.
8. Hold down tube as long as necessary to blend the mixture.

Warning!

Use only the power adapter delivered with the product. Use of other power adapters will void warranty.

Warning!

Do not use if cord or power supply is damaged.

Maintenance

The Mini Vortexer is a maintenance free product. There are no user serviceable parts inside, only the rubber vortexing cap is replaceable. Clean unit as often as is deemed necessary. Clean unit only when it is not plugged into an electrical outlet. The unit can be completely wiped using a damp cloth and a mild, non-corrosive detergent. Do not use any solvent on the unit that may attack plastic or rubber.

Ensure all parts are thoroughly dry prior to operation.

Do not immerse the unit or the power adapter.

Trouble Shooting

Trouble	Possible Cause	Solution
Unit does not operate	<ul style="list-style-type: none">– Not properly plugged in– Pressure switch not being activated with enough force	<ul style="list-style-type: none">– Plug in unit– Verify correct position of tube, and press down hard enough to activate
Fluid in tube is not forming a visible vortex	<ul style="list-style-type: none">– Too much fluid in tube	<ul style="list-style-type: none">– Leave a minimum of 25% of open space in the vortex container
Flexible vortexing cover comes off	<ul style="list-style-type: none">– Cover not properly installed– Cover is damaged	<ul style="list-style-type: none">– Snap cover back on– Check cover for damage. Replace with spare cover

Return for Repair

Important:

Transporting hazardous materials without a permit is a violation of federal law.

Heathrow Scientific LLC will not accept any return that has not been appropriately cleaned and decontaminated.

In the unlikely event of a return, or when damage to the unit necessitates return, contact Heathrow Scientific LLC and obtain return authorization before sending your piece of equipment for service. Product must be decontaminated before transport.

Warranty

IN NO EVENT WILL HEATHROW SCIENTIFIC® LLC'S OBLIGATION UNDER THIS WARRANTY EXCEED THE PRICE OF THE PRODUCT.

Limited Warranty

Heathrow Scientific® LLC warrants that this Mini Vortexer will be free from defects in workmanship and material for 5 years from the date of purchase.

If you believe that there is a defect in the product, you must, during the warranty period, notify Heathrow Scientific® LLC, provide proof of purchase, and return the product to Heathrow Scientific® LLC with a Return Authorization form. To obtain a Return Authorization form, please call 1-847-816-5070.

If Heathrow Scientific® LLC is properly notified and, after inspection, confirms that there is a defect and the warranty period has not expired, Heathrow Scientific® LLC will repair, modify, or replace the product, at its sole option, at no charge.

OTHER THAN THIS LIMITED WARRANTY, HEATHROW SCIENTIFIC® LLC MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE QUALITY OR PERFORMANCE OF THE PRODUCT, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE WHICH ARE HEREBY DISCLAIMED AND EXCLUDED. HEATHROW SCIENTIFIC® LLC WILL IN NO EVENT BE LIABLE FOR ANY LOSS OF USE, LOSS OF PROFITS, CONSEQUENTIAL, SPECIAL, EXEMPLARY OR PUNITIVE DAMAGES.

THIS WARRANTY DOES NOT COVER:

- ANY DEFECT OR DAMAGE CAUSED BY IMPROPER OR UNREASONABLE USE OF THE PRODUCT. THIS PIECE OF EQUIPMENT IS DESIGNED FOR USE ONLY BY TRAINED LABORATORY TECHNICIANS. USE BY ANYONE ELSE WILL VOID THIS WARRANTY.)
- ANY PRODUCT THAT HAS BEEN, IN HEATHROW SCIENTIFIC® LLC'S SOLE JUDGEMENT, TAMPERED WITH, ALTERED, OR REPAIRED BY ANYONE OTHER THAN HEATHROW SCIENTIFIC® LLC.
- ANY PRODUCT THAT IS INOPERATIVE BECAUSE OF: (a) WEAR OCCASIONED BY USE, (b) NEGLIGENCE, (c) ACCIDENT, (d) INCORRECT MAINTENANCE, OR (e) USE UNDER ABNORMAL CONDITIONS OF TEMPERATURE, DIRT OR CORROSION, OR USE WITH ABRASIVE OR CORROSIVE MATERIALS.
- ACCESSORY PARTS, SUCH AS RUBBER PARTS, THAT ARE DAMAGED BY LIQUIDS OR MISUSE.