

Instruction Manual

High Volume Stirrer



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PACKAGE CONTENTS

High Volume Stirrer
92" (234cm) detachable power cord
Spin bar
Instruction manual
Warranty card

WARRANTY

Manufacturer warrants this product to be free from defects in material and workmanship when used under normal conditions for two (2) years. Please complete and return the enclosed warranty card. For your reference, make a note of the serial number, date of purchase and supplier here.

Serial No.: _____ Date of Purchase: _____

Supplier: _____

INSTALLATION

Upon receiving the Thomas Scientific High Volume Stirrer, check to ensure that no damage has occurred in shipment. It is important that any damage that occurred in transport is detected at the time of unpacking. If you do find such damage the carrier must be notified immediately.

After unpacking, place the High Volume Stirrer on a level bench or table, away from explosive vapors. Ensure that the surface on which the unit is placed will withstand typical heat produced by the unit and place the unit a minimum of six (6) inches from vertical surfaces. Always place the unit on a sturdy work surface.

The High Volume Stirrer is supplied with a power cord that is inserted into the IEC connector on the back of the unit first, then it can be plugged into a properly grounded outlet. The 120V unit plugs into a 120 volt, 50/60 Hz source. The 230V unit plugs into a 230 volt, 50/60 Hz source.

MAINTENANCE & SERVICING

The High Volume Stirrer is built for long, trouble-free, dependable service. No lubrication or other technical user maintenance is required. It needs no user maintenance beyond keeping the surfaces clean. The unit should be given the care normally required for any electrical appliance. Avoid wetting or unnecessary exposure to fumes. Spills should be removed promptly. Do not use a cleaning agent or solvent on the front panel or top plate which is abrasive or harmful to plastics, nor one which is flammable. Always ensure the power is disconnected from the unit prior to any cleaning. If the unit ever requires service, contact your Thomas Scientific representative.

ENVIRONMENTAL CONDITIONS

Operating Conditions: Indoor use only.

Temperature: 5 to 40°C (41 to 104°F)

Humidity: 20% to 80% relative humidity, non-condensing

Altitude: 0 to 6,562 ft (2000 M) above sea level

Non-Operating Storage:

Temperature: -20 to 65°C (-4 to 149°F)

Humidity: 20% to 80% relative humidity, non-condensing

Installation Category II and Pollution Degree 2 in accordance with IEC 664.

STANDARDS & REGULATIONS

Henry Troemner LLC hereby declares under its sole responsibility that the construction of this product conforms in accordance with the following standards:

Safety standards:

- IEC 61010-1 Safety requirements for electrical equipment for measurement, control and laboratory use. Part I: General Requirements.
- IEC 61010-2-051 Part II: Particular requirements for laboratory equipment for mixing and stirring.
- UL Std. No. 61010-1

EMC standards:

- | | |
|-------------------|--------------------------|
| EN61326-1 Class A | FCC-B |
| EN61000-3-2/3-3 | EN55011 Group 1, Class A |
| EN61000-4-2 | EN61000-4-3 |
| EN61000-4-4 | EN61000-4-5 |
| EN61000-4-6 | EN61000-4-8 |
| EN61000-4-11 | |

Associated EU guidelines:

- EMC directive 2004/108/EC
LVD directive 73/23/EEC

SAFETY INSTRUCTIONS

Please read the entire instruction manual before operating the High Volume Stirrer.



WARNING! DO NOT use the High Volume Stirrer in a hazardous atmosphere or with hazardous materials for which the unit was not designed. Also, the user should be aware that the protection provided by the equipment may be impaired if used with accessories not provided or recommended by the manufacturer, or used in a manner not specified by the manufacturer.

Always operate unit on a level surface for best performance and maximum safety.

DO NOT lift unit by the top plate.

Heavy walled glass or polypropylene container recommended when stirring at high speeds. If spin bar de-couples at higher speeds, thin walled glass containers may break.



CAUTION! To avoid electrical shock, completely cut off power to the unit by disconnecting the power cord from the unit or unplug from the wall outlet. Disconnect unit from the power supply prior to maintenance and servicing.

Spills should be removed promptly. **DO NOT** immerse the unit for cleaning.

DO NOT operate the unit if it shows signs of electrical or mechanical damage.



Earth Ground - Protective Conductor Terminal



Alternating Current

HIGH VOLUME STIRRER SPECIFICATIONS

Overall dimensions (L x W x H): 17 x 11 x 4"
(43.2 x 27.9 x 10.2cm)

Top plate dimensions (L x W): 12.5 x 11"
(31.8 x 27.9cm)

Top plate material: glass filled nylon

Electrical (50/60 Hz): 120 volts, 1.3 amps, 75 watts
230 volts, .65 amps, 75 watts

Usage rating: continuous

Fuses: 5mm x 20mm, 5 amp quick acting

Speed range: 60 to 1400rpm

Stability: +/-2%

Maximum capacity (H2O): 25L

Controls: stir knob, 1 to 10 dial markings

Ship weight: 14.6lbs (6.6kg)

HIGH VOLUME STIRRER OPERATING INSTRUCTIONS

High Volume Stirrers are used for general laboratory stirring needs.

1. Getting ready:

- a. The stir knob has a built in on-off switch at its extreme counter-clockwise position. Turn the stir knob to the off position. Plug power cord into a properly grounded outlet.
- b. Place a spin bar into the vessel to be stirred.
- c. Place the vessel to be stirred, with the contents, onto the center of stirring position on the top plate. This is important for stirring because the spin bar will be well within the magnetic field.

2. Turning unit on:

- a. From the off position, turn the stir knob clockwise until a click is heard, then continue turning until the desired speed is obtained. The microprocessor speed control slowly brings sample(s) to set speed to avoid splashing. The maximum speed is at the extreme clockwise position of the knob.

3. Setting speed:

- a. When stirring has begun, the desired speed may be obtained by carefully turning the knob clockwise or counter-clockwise until reaching the desired speed. The microprocessor also monitors and regulates the stirring speed, sensing your requirements whether stirring an aqueous, viscous or semi-solid solution.

4. Turning unit off:

- a. To stop stirring function, turn the stir knob to the extreme counter-clockwise position. The stirrer should be kept in the off position when not in use. To completely cut off power to the unit, disconnect the power cord from the unit or un-plug from the wall outlet.



NOTE: Avoid cold starts: The stirrers maximum speed will be limited until the unit warms up. **EXAMPLE:** Leaving the unit in a cold room and starting it at a later point will be a cold start.

OPERATING TIPS

The stirrer increases speed at a steady rate until the set-point is reached, if the spin bar is too large or the liquid is too viscous, the stirrer may not reach its set-point. The set-point speed needs to be reduced. Use spin bar supplied with the unit for optimal performance.

MANUFACTURED BY:

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