



# INSTRUCTION MANUAL



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# Operation Manual for MH-1/2,3,4,6,2x2,3x2 MultiMagnetic Stirrers



**PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATION**

## **INSTRUCTIONS for use MULTIMAGNETIC STIRRER W/ HEATING**

Individually controlled stirring and heating positions – per form several applications at one time.

<b>Model MH-I / 4</b>	230V / 50 Hz,	4 x 450 W	4 stirring positions
<b>Model MH-I / 2X2</b>	230V / 50 Hz	4 x 450 W	4 stirring positions
<b>Model MH-I / 6</b>	230V / 50 Hz,	6 x 450 W	6 stirring positions
<b>Model MH-I / 3X2</b>	230V / 50 Hz,	6 x 450 W	6 stirring positions

### **IMPORTANT SAFETY INSTRUCTIONS**

#### **WARNING**

1. Do not heat any substances above temperature which will cause hazards of explosion, implosion or release of toxic or flammable gases arising from the materials being heated.
2. Do not use in the presence of flammable or combustible materials or explosive gases.  
Do not use in the presence of pressurized or sealed containers.  
Fire or explosion may result, causing severe injury or death.
3. To avoid electrical shock, always use a properly grounded electrical outlet of correct voltage and current handling capacity.
5. The user has the responsibility for carrying out appropriate decontamination, if hazardous material is split on or inside the equipment.
5. The user shall be aware that, if the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
6. The instrument should be placed so, that handy operation of the ON-OFF Switch is possible.
7. Service only by a qualified service engineer.
8. Always disconnect from power supply prior to maintenance and servicing.
9. The instrument may be hot to touch, even when the pilot light is off.
10. Connect the instrument to a ground mains outlet, after ensuring that the Voltage is the same as given on the name plate. The Instrument must be connected to an earthen (grounded) supply.

#### **Operation instructions:**

The Magnetic Stirrer is meant to stir liquids with or without heating.

#### **Stirring mechanism:**

- 1) Assure that the Magnetic Stirrer Speed Control is in OFF position.
- 2) Insert a magnetic stirring bar in center of container, containing the liquid to be stirred (the bar should preferably be with a pivot ring, to avoid friction).
- 3) Place vessel in center of plate.
- 4) The stirring speed should be raised gradually (by turning the speed control knob slowly).

If the magnetic stirring bar is thrown to the borders of container, this is mainly due to one of the following reasons:

- a. A too rapid rise in the Stirring Speed.
- b. Bottom of vessel is not straight, or liquid is viscous.

#### **Heating System :**

**Warning:** The hotplate may be hot to touch, even when the pilot lamp is off.

The hotplate is actuated by the Temperature Control Knob on the front of the instrument, which regulates heat of top plate from slight ambient temperature up to 300°C. The pilot lamp indicates the thermostat's operation.

#### **Cleaning:**

1. The plate can be kept clean by covering it with Aluminum Foils. If so, cover the plate only, **and not the radiation shields underneath the plate.**
2. The plate coated against corrosion, may be cleaned with cloth  
Do not use detergent powder for washing machines containing Caustic Soda.