

Lab Hot Plate and Magnetic Stirrer

CE-HOTSTIR

General Information

This hot plate includes an integrated magnetic stirrer, ideal for light duty use in a laboratory. The dual controls allow you to set heat output and stirring speed independently. The hot plate reaches a temperature of over 250°C (480°F) with an output of 180 watts. The magnetic stirrer is adjustable from 0 to up to about 1400 rpm and suitable for mixing up to 500ml of solution in a container of 5" diameter or less.

Components

The following items are included:

- Base with power switch, two control knobs, and LED indicators
- Teflon-coated magnetic stir bar (1 inch length)
- Power cord
- Support stand (2-piece support rod, right angle clamp, and thermometer holder)



Operation

To set up the support stand:

Screw the two rods together, creating one support rod. Make sure they fit tightly. Insert the slotted end of the rod into the plastic holder on the back of the base. Slip the right angle clamp onto the support rod and tighten the knob. Slide in the thermometer holder and tighten the other knob. The height of the thermometer holder can be adjusted by moving the clamp up or down on the support.

To use the hot plate:

1. Make sure the knobs are turned off. The white mark on each knob should be pointing down.
2. Connect the power cord to the back of the base. The base should be set on a hard surface, like a countertop or table.
3. Plug the other end of the power cord in to a standard outlet. Make sure the outlet is safe, and the power cord is not twisted.
4. Place the beaker, flask or other vessel containing material to be heated on the hot plate.

WARNING: Do not operate the hot plate without a liquid filled vessel on it and do not let the vessel boil dry. Use without a heat sink will cause the heating element to fail and void your warranty.

5. Flip the power switch on the right side of the base. The line (–) indicates on, and the circle (o) indicates off.

WARNING: Be careful with the hot plate turned on. Do NOT touch the heating surface, or other parts of the unit except the control knobs, as it will result in a burn.

WARNING: Unit is not sealed. Avoid spilling liquid on the base as it will damage the unit. Avoid using the unit near flammable vapors or to heat flammable liquid as it may result in fire or explosion. Disconnect from power before replacing fuse or trouble-shooting.

6. Rotate the right knob in a clockwise direction. At maximum power the hot plate will take around 20-30 minutes to boil a large beaker of water. The plate surface temperature can reach over 250°C when the knob is turned to maximum power.

WARNING: Do not use the unit for more than 4 hours on maximum heat. Do not use the unit for more than 8 hours heating continuously. If the unit malfunctions, let it cool completely, then begin operation again.

7. Adjust the knob to keep the desired heat input, using a thermometer to check the temperature of the solution.
8. To turn off the hot plate, rotate the knob counter-clockwise until you hear a click and the white mark is pointing down.

9. Make sure both knobs are off and turn off the power switch.

To use the magnetic stirrer:

1. Drop the stir bar into the solution and let it settle.
2. Turn on the magnetic stirrer by flipping the power switch on (–), then rotating the left knob in a clockwise direction.
3. The farther you rotate the knob, the faster it will spin to stir your solution. You can control the stirring speed between about 120 and 1400 rpm. The magnetic stirrer can be used with or without the hot plate on.
4. To turn off the magnetic stirrer, rotate the knob counter-clockwise until you hear a click and the white mark is pointing down. Flip the power switch off. Unplug the device.
5. Remove the stir bar with a metal utensil. The stir bar will stick to it, so you can lift it out easily.

WARNING: Do not use the unit continuously at maximum speed for more than 4 hours or at half-speed for more than 8 hours. If the unit malfunctions, let it cool completely, then begin operation again.

Specifications

- Heating power: 180 watts
- Heating plate temperature: exceeds 250°C/480°F on maximum heat setting, exceeds 190°C/370°F on minimum heat setting
- Stirrer motor power: 10 watts
- Stirring speed: 0-1400 rpm
- Stirring capacity: 500ml maximum liquid volume
- Maximum continuous use: 4 hours on maximum heat, 8 hours on low heat, 8 hours on half-speed stirring, 4 hours on full speed stirring, 4 hours maximum heat and maximum stirring
- Maximum vessel diameter: 5 inches/12.7 cm
- Heating plate dimensions: 118mm x 118mm (4.6" x 4.6")
- Heating plate material: anodized aluminum
- Overall base dimensions (LxWxH): 200mm x 120mm x 90mm
- Height with support stand: about 350mm (14")
- On/off power switch
- Heating power variable control with LED indicator
- Magnetic stirrer variable control with LED indicator

Limited Warranty

Home Training Tools warrants this product against defects in materials and workmanship for 1 year from the date of purchase. During the warranty period we will repair or replace, at our option, any defective component(s) at no charge. This warranty does not cover damage due to misuse, abuse, alterations, or accident. You will need to return your hot plate, freight prepaid, to Home Science Tools for warranty service. Please call 1-800-860-6272 for details.



665 Carbon Street
Billings, MT 59102
800.860.6272
www.homesciencetools.com