



Operations Manual Item: HCS-50L, HCS-150L

Benchmark High Capacity Magnetic Stirrers



Introduction:

Benchmark's High Capacity Magnetic Stirrers are designed to stir large volumes of solution. The plates are made from stainless steel with ceramic coating to resist chemical corrosion. The stirrers feature a built-in timer, with settings ranging from 1 second up to 9 hours, including a continuous operation setting.

I. Specifications:

Speed:

- HCS-50L: 150 RPM to 1500 RPM
- HCS-150L: 150 RPM to 1500 RPM

Timer: 1 sec. to 9 hours or Continuous

Capacity: HCS-50L: 50 Liters, HCS-150L: 150 Liters

Dimensions (WxDxH):

- HCS-50L: 42 x 30 x 8 cm
- HCS-150L: 62 x 50 x 8 cm

Stir bar max length:

- HCS-50L: 100 mm (16 mmD)
- HCS-150L: 150 mm (24 mmD)

IP rating: IP 56

Weight: HCS-50L: 5 kg; HCS-150L: 14kg;

Electrical: 100 to 240VAC, 50-60Hz

Power consumption:

- HCS-50L: 30W
- HCS-150L: 80 W

Operating environment: 4°C (cold room) to 60°C

Warranty: 2 years

II. Product Set-Up:

Place the stirrer on a clean, flat, level, and stable surface. Plug the stirrer into a properly grounded outlet.

III. Product Operation:



Push the knob to show the minimum speed.

Setting the Speed: Press and hold the "Mode" key until the small red LED under "RPM Mode" is illuminated. By default, the RPM mode is illuminated. Then adjust the speed from 50 to 1500 (HCS-150L) or 1500 (HCS-50L) RPM with the control knob.

Setting the Time: Press and hold the "Mode" key until the small red LED under "Time Mode" is illuminated. Then adjust the time from 1 second up to 9 hours. NOTE: The time can also be set to continuous by setting the time to "-- --".

Set the Direction: Press the "Mode" key until "C" or "A" appears. The "C" indicates clockwise, "A" anticlockwise. Turn the knob to toggle the value from "C" to "A" or vice versa. Press the "MODE" key to enter the command for direction changes at the time interval and showing the "- " on the LED display. The time interval ranges from 1 minute to 15 minutes. The direction will change when reaching the time interval setting.

Note: Some older builds may not have such functions.

Running the Machine: Press the "Start/Stop" button to begin stirring. The "On" LED should be illuminated during the operation. To stop operation, press the "Start/Stop" button. The RPM setting will be stored. The machine can also be stopped by pressing the control knob. In this case, the RPM and timer value will be set back to default settings.

IV. Care and Maintenance:

No routine maintenance is required other than to keep the unit clean. Cleaning can be done with a damp cloth. Avoid the use of solvents as they may damage the product housing.

Service and Contact:

In the event that service or technical support is required, please contact **Benchmark** by phone at **1-908-769-5555** or by email at info@benchmarkscientific.com.