

Multi-position Hotplate Stirrer

Cat. No. BT1016

Thank you for choosing BT Lab Systems' Multi-position Hotplate Stirrer. This operation manual describes the function and operation of the instrument. In order to use the instrument properly, please read this manual carefully.

Please check the instrument with the packing list when you first open the packing case. If items do not match the packing list, please contact BT Lab Systems.

IMPORTANT SAFETY INFORMATION

Users should understand how to use the instrument properly before operating it. Please read this operation manual carefully before using the instrument.

The operation, maintenance and repair of the instrument should comply with the basic guidelines and warning below. Ignoring these instructions will affect the life of the Instrument and safety precautions.

- This product is an indoor Instrument which conforms to Standard B style- I type- GB9706.1.
- These units are designed for laboratory use by persons knowledgeable in safe laboratory practices.
- The operator should never open or repair the instrument. Opening or repairing the instrument will void the guarantee and can cause accidents.
- The power plug should safeguard against an electric shock. Make sure the power supply voltage matches the voltage that the instrument needs. . If the power line is broken, it must be replaced with the same line of same type and specification. Don't put anything else on the line. Don't put it where people walk. Insert and pull plug when plugging and unplugging. Don't pull the line.
- The instrument should be used in an area with low temperature, little dust, no water, no sunshine or hard light and with good air circulation. Do not use where there is corrosive gas or a strong magnetic field. Keep far away from central heating, camp stove and other hot sources. Do not put the instrument in a wet and dusty area. The vent on the instrument is designed for aeration. Do not wall up or cover the vent.
- Power off when not in use. If the instrument will not be used for a long period, unplug, and cover with a piece of cloth to protect it from dust.
- In case of the following, unplug the instrument at once and contact BT Lab Systems.
 - The instrument comes into contact with liquid
 - The instrument gets soaked or burned
 - The instrument emits an abnormal sound or smell
 - The instrument is dropped or the outer shell damaged
 - The instrument functions abnormally.

MAINTENANCE

The instrument and the accessories should be cleaned with a cloth dampened by alcohol. If there are smudges on the instrument, clean it with a dry cloth.

INTRODUCTION

The Multi-position Hotplate Stirrer is equipped with a sheet metal cover, which is high impact, high temperature resistant and anticorrosion. The platen is covered with silicone which is anti-skid and resistant to corrosion. It has 8 stirring points and makes good use of lab space. The heating plate can reach temperatures up to 120°C. The instrument is used in industries of medical science, biochemistry, biology, and chemistry.

KEY FEATURES

- The stainless steel platen is covered with silicone that is anti-skid and resistant to corrosion.
- It has 8 stirring points, makes good use of lab space and is highly efficient.
- Digital panel displays stirring speed, stirring bars provide uniform agitation
- The instrument has independent safe circuits. It stops heating once temperature is over 120°C
- When platen temperature is over 70°C, high heat light flickers to ensure user safety.
- Two display windows. High precision measurement
- Useful for heating and stirring standard/non-standard reaction flasks from 50ml to 1000ml.
- DC brushless motor makes stable operation, low noise and long service life
- Metal plate shell, durable, and anti-corrosion.
- The control panel is designed at a 30° slope for convenient operation.
- Magnetic stirring technology, steady operation at low speed, powerful operation at high speed.

NORMAL OPERATING CONDITIONS

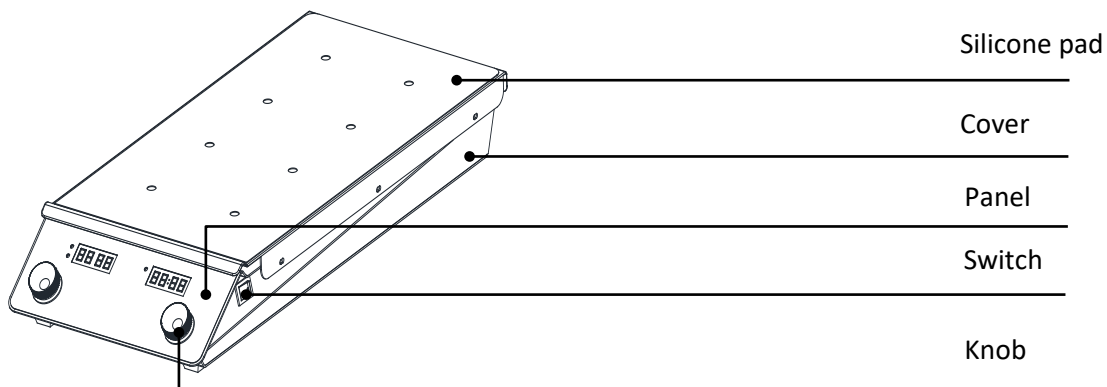
- Ambient Temperature: 4°C ~45°C
- Relative Humidity: ≤70%
- Power: AC110V~ 10A

TECHNICAL SPECIFICATIONS

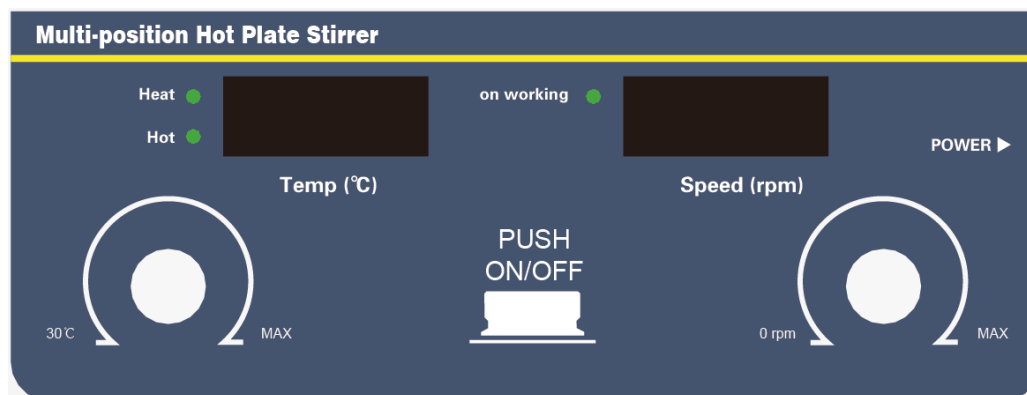
- Operation Plate Material: stainless steel with silicone rubber film
- Motor Type: DC Brushless
- Power Input [W]: 20W
- Speed Range [rpm]: 200-1200
- Temperature Range: ambient. - 120 °C
- Quantity of Stirrer Points: 8
- Max. Stirrer Capacity (H₂O) [ml]: 500
- Max. Length of Stirrer Bar[mm]: 40
- Heating Power Output: 600 W
- Min. Temperature @ safe circuit: 30 °C
- Max. Temperature @ safe circuit: 120 °C
- Speed & Temperature (Time) Display: Digital Display
- Dimension (WxDxH) [mm]: 214 × 480 × 75
- Net Weight (kg): 4.2
- Voltage (VAC): 110AC
- Frequency (Hz): 50/60
- Allowed Ambient Temperature(°C): 5-40
- Allowed Relative Humidity: 80%

EQUIPMENT OVERVIEW

This section mainly describes the instrument's mechanical structure, the keyboard and functions of each key. Please learn this section well before the unit is to be operated for the first time.



KEYBOARD AND DISPLAY PANEL



Key Function

1. Rotate the right knob clockwise to increase speed, rotate the knob counterclockwise to decrease speed. Press the knob to start.
2. Rotate the left knob clockwise to increase temperature, rotate the knob counterclockwise to decrease temperature. Press the knob to start.

OPERATION

Speed/Timing and Temperature Setting

1. Switch on the instrument, LED displays all 8. The instrument will beep.
2. The speed LED displays the last running speed. Rotate the speed knob clockwise to increase the speed. Rotate the speed knob counterclockwise to decrease the speed.
3. The temperature LED displays the last setting temperature. Rotate the knob clockwise to increase the temperature value, rotate the knob counterclockwise to decrease the temperature value.
4. Set the values while operating without pressing “stop” key.
5. When panel temperature is over 50°C, and the switch is turned off the display screen is still on, which warns user it is still on high temperature condition and “hot” light is on. When unit is controlling temperature, “heat” light flickers. When unit is keeping constant temperature, “heat” is on. When unit is stirring, “on working” is on.

Stop/Start

1. Press “speed” knob one time, the current program starts. Press again, it stops and buzzer sounds.
2. Press “temp” knob one time, the current program starts. Press again, it stops and buzzer sounds.

TROUBLE SHOOTING

Issue	Possible Causes	Solution
No signal display when power is on.	No power	Check the power
	Broken switch	Exchange the switch
	Other	Contact BT Lab Systems
Shaking heavily	Unbalanced samples	Place the samples evenly
Actual speed and displayed speed are not matching	Broken controller	Contact BT Lab Systems
“Err” displays	Speed out of control	Contact BT Lab Systems
Heating plate not heating	Temperature sensor and heater strip broken	Contact BT Lab Systems
Knob doesn't work	Knob Broken	Contact BT Lab Systems

WARRANTY

The instrument is warranted against defects in materials and workmanship for 1 year. If any defects occur in the instrument or accessories during this warranty period, BT Lab Systems will repair or replace the defective parts at its discretion without charge.

For any inquiry or request for repair service, contact your local BT Lab Systems office. Inform BT Lab Systems of the model and serial number of your instrument.

TECHNICAL SUPPORT

BT Lab Systems offers technical support for all of its products. If you have any questions about the product's use or, operation, please contact BT Lab Systems at the following:

E-Mail: info@BTLabSystems.com