

## Magnetic Stirrer Hot Plate with Color Display

Cat. No. BT1023



*Shown with a Temperature Probe and Stand (which is not the part of the equipment)*

Thanks for choosing BT Lab Systems' BT1023 Magnetic Stirrer Hot Plate with Color Display. This operation manual describes the function and operation of the instrument. In order to use the instrument properly, please read this manual carefully.

### **IMPORTANT SAFETY INFORMATION**

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.
- The instrument should be used in an area with low temperature, little dust, no water, no direct 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 and other hot sources.
- 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

BT1023 Magnetic Stirrer Hot Plate with Color Display is a ceramic enamel plate heating technology with a temperature that reaches up to 340°C. This control paneled operation and design can meet a variety of heating and stirring experimental requirements.

## KEY FEATURES

- Special enamel plate heating surface, anti-corrosive and easy to clean
- Maximum heating temperature of 340°C
- The stirring function can be used to heat and stir 50ml to 20L standard or non-standard reaction bottles
- Brushless DC motor, stable performance, low noise, long life, without spark
- Aluminum alloy shell, high strength, fast heat dissipation, corrosion resistance
- 30° slope control panel for seated and standing point of view
- Magnetic stirring technology, smooth at low speed, powerful at high speed
- 4.3 inches color screen display, convenient and intuitive

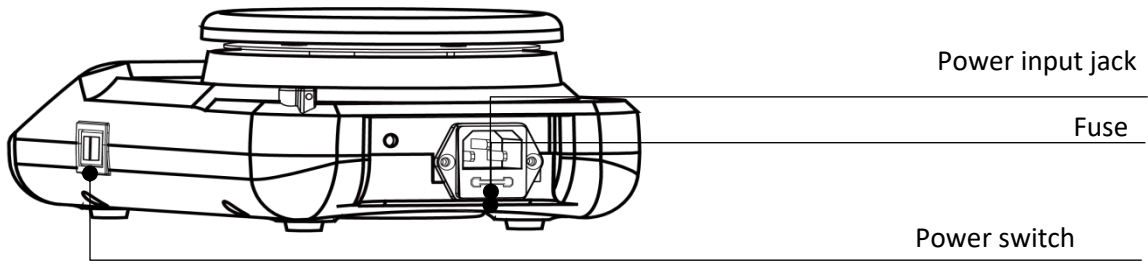
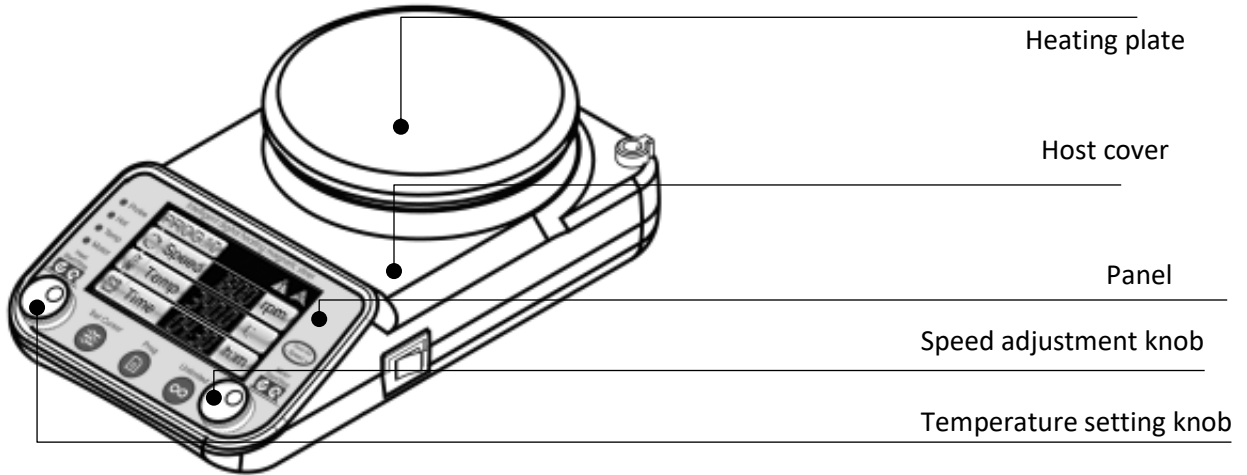
## NORMAL OPERATING CONDITIONS

- Ambient Temperature: 4-45°C
- Relative Humidity: ≤70%
- Power: AC220V/AC110V,50/60Hz

## TECHNICAL SPECIFICATIONS

Type	BT1023
Diameter of Heating Plate	Φ137mm
Heating Plate Material	Ceramic
Speed Range	200-1200rpm
Temp control range	Ambient +5-340°C
Temp setting range	30-340°C
Temp stability	±3°C
Timing range	1min-99h59min. 0 means infinite length
Number of stir point	1
Max. Stir Capacity (H2O)	20L
Max length of stirrer	80mm
External temperature sensor interface	BT1009-A
Minimum adjustable safety temperature loop	50°C
Max adjustable safety temperature loop	350°C
Supply power	AC220V/AC110V, 50/60Hz
Power	600W
Fuse	250V, 4A/8A,Φ5x20
Dimension (W x D x H)	W.160xD.270×H.90mm
Net weight(kg)	2.3kgs

## EQUIPMENT OVERVIEW



## KEYBOARD AND DISPLAY PANEL



- Probe light indicates an external sensor is in use (Cat # BT1009-A)
- Hot light indicates the device is hot
- Temp is the heating running indicator light
- Motor light indicates the stir plate is stirring
- Set Cursor allows user to set Temp and Time
- Prog means one key to invoke built-in program
- Unlimited means one key to run for long time.

## OPERATION GUIDE

### ***Speed, Timing and Temperature Setting***

1. Turn on the power switch, the screen displays the main interface, with the sound of "di."



2. The right knob is used to set the speed, clockwise to increase, while anticlockwise to decrease
3. The left knob is used to adjust the temperature or time. While default condition, it adjust temperature. The user can switch the temperature or time through the Set Cursor key, clockwise to increase while counterclockwise to decrease
4. In the process of operation, the instrument can also adjust the temperature and speed for convenient operation.
5. When the temperature of the disk surface is above 50 degrees, the user turns off the instrument switch, and the instrument display screen does not close to remind the user that the instrument is still in a high temperature state with Hot light on.

- Temp lamp flashes when the instrument is heating to required temperature and is on when at temperature. Motor lamp is on when the motor is running.
- When the instrument is in standby state, click the Prog key can invoke 10 built-in fixed programs, which contain different speed, temperature and time parameters

**Stop / Start**

- Press knob for speed to start mixing. Press it again to stop mixing with beep alarm.
- Press knob for temp. to start heating. Press it again to stop heating with beep alarm.

**TROUBLE SHOOTING**

Issue	Possible Causes	Solution
No display	No power	Check the power cord
	Power Switch Failure	Exchange power switch
	Other	Contact BT Lab systems
Plate shakes heavily	Mix samples are placed asymmetrically	Place mix samples symmetrically
The speed is different from the displayed speed	Failure in control board	Contact BT Lab Systems
“ERR” in the display	Motor or sensor malfunction	Contact BT Lab Systems
Heating plate does not heat	Temperature sensor breakdown	Contact BT Systems
	Heat block damage	
Press invalid	Press-key failure	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](mailto:info@BTLabSystems.com)