A Geno Technology, Inc. (USA) brand name

Digital Magnetic Stirrer

Cat. No. BT1011

1-800-628-7730 ♦ 1-314-991-6034 ♦ info@BTLabSystems.com

Thanks for choosing BT Lab Systems' BT1011 Digital Magnetic Stirrer. 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

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. The 3-pin plug supplied with the instrument should be matched with a suitable grounded socket.
- 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 digital magnetic stirrer is designed with stir technology using a stirrer bar. It is used in medical science, bioengineering, chemistry, medicine, foodstuff, etc. It is a laboratory Instrument for stirring and mixing of various reagents, solutions, and chemical substances

KEY FEATURES

- For stirring standard/non-standard reaction flasks between 50ml and 1000ml.
- DC brushless motor, stable operation, low noise, with no sparking.
- Metal plate shell is durable, has stable temperature and is corrosion resistant
- Digital display. The control panel designed on a 30° slopes for convenient operation.
- Magnetic stirring technology. Steady operation at low speed, powerful operation at high speed

NORMAL OPERATING CONDITIONS

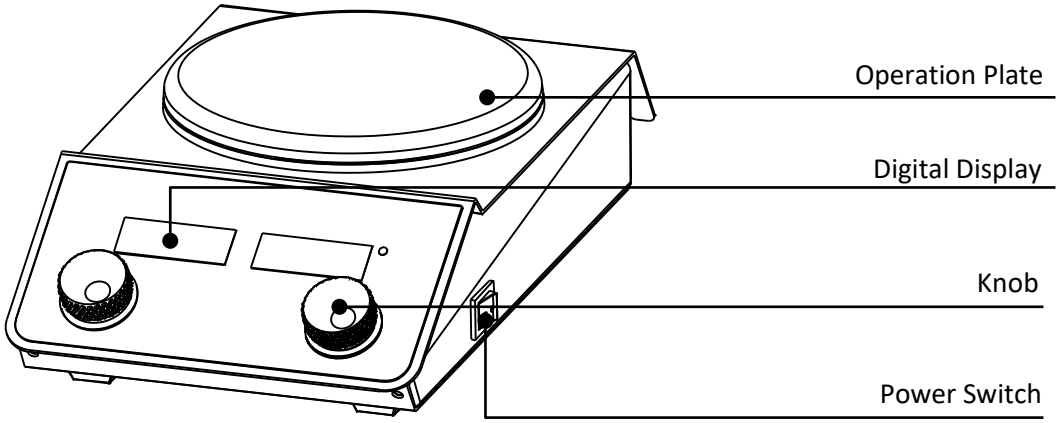
- Ambient Temperature: 5°C ~40°C
- Relative Humidity: ≤70%
- Power: AC100-230V~ 1.5A

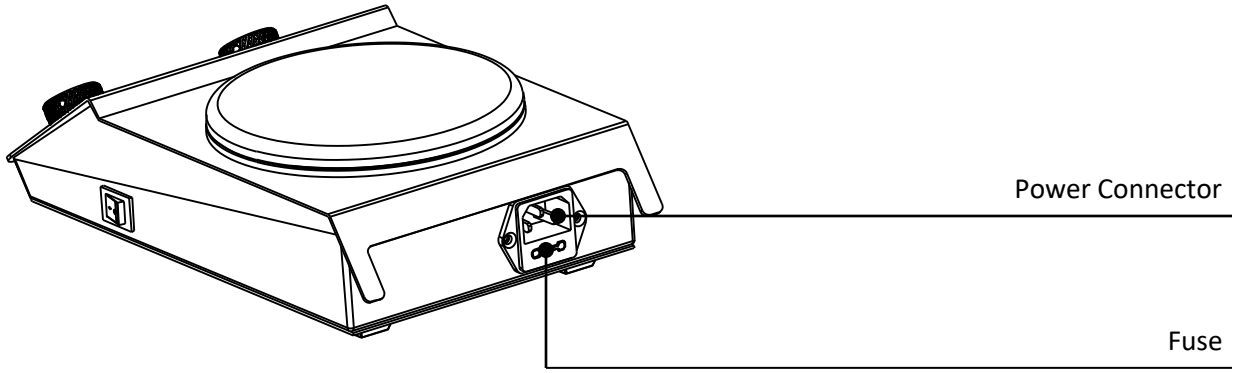
TECHNICAL SPECIFICATIONS

Operation Plate Size: 154 x 163mm
Speed Range: 300-1200 rpm*
Operation Plate Material: Silicone pad
Motor Type: DC Brushless Motor
Power Input: 30W
Voltage: 100 ~230 V AC
Frequency: 50/60 Hz
Quantity of Stirrer Point: 1 point
Max. Stirrer Capacity (H_2O): 20L
Max. Length of Stirrer Bar: 80 mm
Dimension (WxDxH): 270x156x70 mm
Net Weight: 2.6kgs
Environment Temperature(°C): 5-40°C
Relative Humidity: 70%

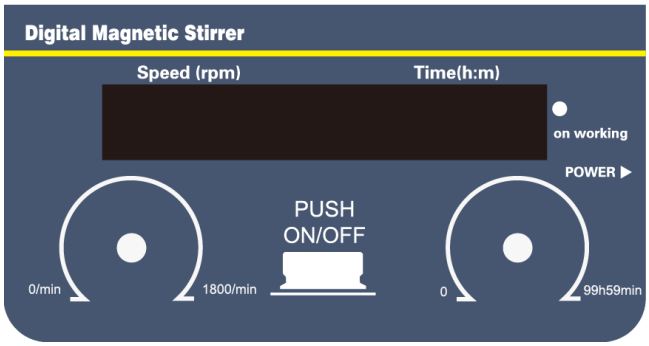
**For large volumes or viscous solutions, the maximum speed may not be achievable. For >10L aqueous solutions, we recommend using the supplied stir bar and a maximum speed of 800rpm.*

EQUIPMENT OVERVIEW





KEYBOARD AND DISPLAY PANEL



OPERATION

Rotate the left knob clockwise to increase speed. Rotate the knob counterclockwise to decrease speed. Press the knob to start operation.

Rotate the right knob clockwise to increase time setting per minute. Rotate the knob counterclockwise to decrease time setting per minute. Press the knob the cursor of the time window starts moving.

OPERATION GUIDE

Setting Speed and Timing

1. Switch on the instrument, all digital of LED display 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 time LED displays the last time setting. Rotate the time knob clockwise to increase the timing value. Rotate the time knob counterclockwise to decrease the timing value.
    a. To increase the timing unit, press the time knob. Press the time knob once to change from 1 minute to 10 minutes, the digit will flicker. To change to 1 hour press the time knob again, the digit will flicker. When the digit flickers rotate the time knob to change the value.

       NOTICE: When the timing value displays 00:00 this means running timing is ∞.

Stop / Start

1. Press the speed knob to start or stop the instrument.
2. When the time is up the instrument stops running and sounds an alert.
3. When the program ends, the instrument returns to start screen. Rotate the speed knob or time knob to reset speed and timing. Press speed knob to start operation.
4. To run the program again with the same settings, press the speed knob without adjusting the speed or timing.
5. Press speed knob to stop the instrument. Press speed knob again to restart the instrument.

TROUBLE SHOOTING

Issue	**Possible Causes**	**Solution**
No signal display when the power is on.	No power	Check the power
	Broken switch	Exchange the switch
	Broken fuse	Exchange the fuse
	Other	Contact BT Lab Systems
Shaking heavily	Samples placed out of balance	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

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