



A Geno Technology, Inc. (USA) brand name

Vertical Rotating Mixer

**Cat. No. BT913,
Accessories: BT913-A, BT913-B, BT913-C**

Please read the manual thoroughly before operating the shaker.

SAFETY WARNINGS & GUIDELINES

The operation, maintenance and repair of the instrument should comply with the basic guidelines and the remarked warning below. If you don't comply with them, it will have effect on the scheduled using life of the instrument and the protection provided.

- This product is an indoor Instrument which conforms to Standard B style-1 type- GB9706.1.
- Before operation, read the Manual carefully. These units are designed for use in laboratory environments by persons knowledgeable in safe laboratory practices.
- The operator should not open or repair the Instrument by himself, which will result in invalidation of the warranty.
- A.C. power's grounding should be reliable to safeguard against an electric shock. The 3-pin plug supplied with shaker's power cable is a safety device that 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. [START HERE](#)

EQUIPMENT MAINTENANCE

The instrument and the accessories should be cleaned with a soft cloth and rubbing alcohol.

INTRODUCTION

BT913 Vertical Rotating Mixer has a compact appearance, adopts the brushless DC motor technology and microcomputer control technology. The mixer can be applicable in different laboratory applications.

Features

- Smart appearance, solid structure, simple operation. LED display time and speed.
- DC brushless motor, stable performance, low noise.
- 360° vertical circulation rotation, operating smooth and steady.
- Optional different tube holder frames available.

OPERATING CONDITIONS

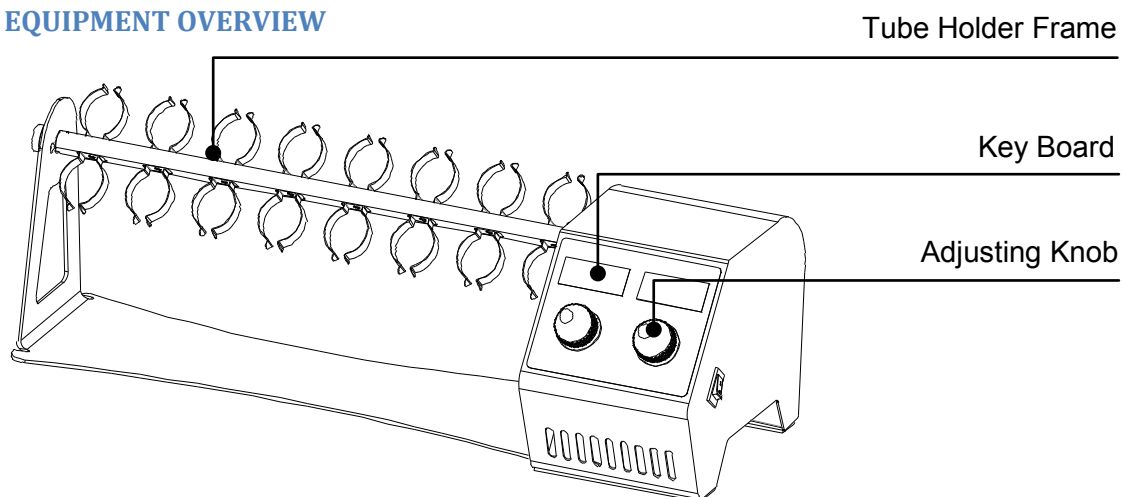
Normal operating conditions are:

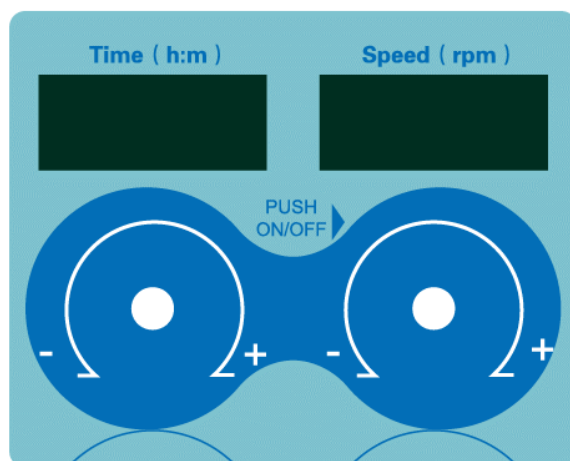
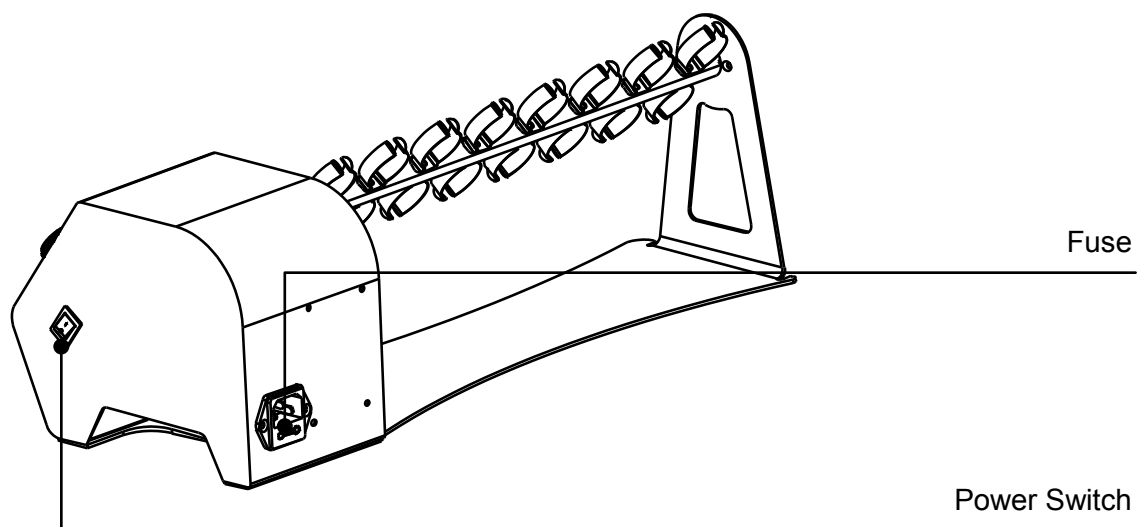
- Ambient temperature: 4°C- 45°C
- The relative humidity: <70%
- Power supply: AC100-240V, 50/60Hz

SPECIFICATIONS

- Speed range:10-80rpm
- Orbit: 360°
- Digital timer: 1min to 99h59mins
- PowerInput: 16W
- Dimensions: 470 x 190 x 160mm
- Weight: 2.8kg

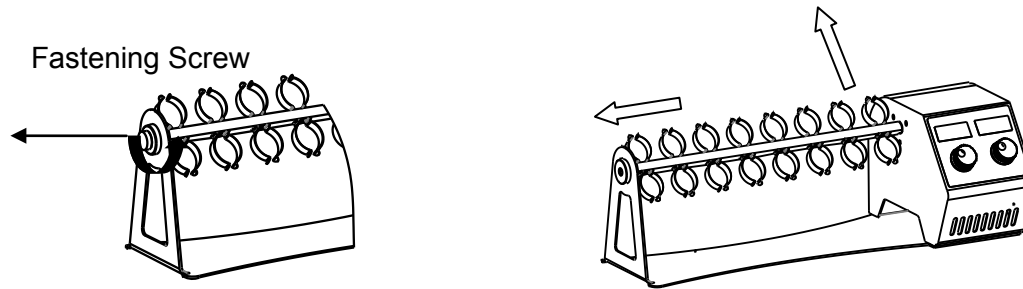
EQUIPMENT OVERVIEW



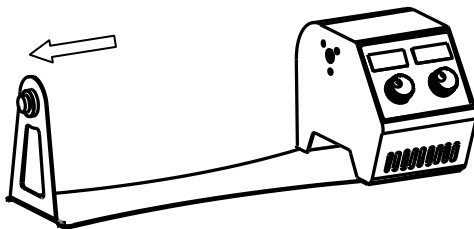


TUBE HOLDER ACCESSORIES & INSTALLATION

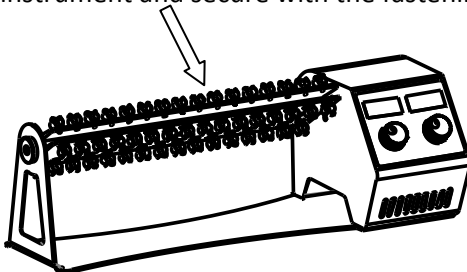
- BT913-A: 64 x 1.5/2ml tubes
 - BT913-B: 22 x 15ml tubes
 - BT913-C 16 x 50ml tubes
1. Hold the tube holder frame, anticlockwise rotate the fastening screw (see below) until the screw can be completely removed from the instrument.
 2. Take out the tube holder frame according to arrow direction (see below).



3. Push the instrument frame as shown below, put the needed tube holder frame to the instrument.



4. Put the tube holder in the frame as the arrow direction to fix the tube holder frame to the instrument and secure with the fastening screw.




OPERATION

The knob under "Speed" controls the mixers speed.. Clockwise rotate the knob to increase speed, anticlockwise rotate the knob to decrease speed. Press the knob to start operation.


The knob under “Time” controls the timer function. Clockwise rotate the knob to increase time setting per min, anticlockwise rotate the knob to decrease time setting per min. Press the knob to change the adjusting unit from 1 minute to 10 minutes to 1 hour to 10 hours.

Place the instrument on a horizontal and even working table and connect power. Voltage should be between 100V and 240V.

Speed and Timer Setting

All digital LED display  when instrument is powered on. The instrument enters into the initial program with a beep sound.

Rotate the dial under the speed display to adjust the displayed speed setting, the last displayed speed. Continuously pressing leads the value to increase or decrease from unit digit, tens digit to hundreds digit.

Rotate the dial under the time display to adjust the displayed time setting, the last displayed time. When display reads  the running time is constant. To change the timing value fast, press the time knob to change the adjusting unit. Press the time knob once, the flicker digit will change from 1 minute to 10 minutes. Press the time knob again; the flicker digit will change to 1 hour. When the flickering digit is the demand, rotate the time knob to change the value.

When the timed run is finished the instrument will beep.

Press the speed knob to start or stop operation.

TROUBLESHOOTING

Issue	Possible Causes	Solution
No signal display when power on.	No power	Check the power
	Broken switch	Exchange the switch
	Others	Contact with the seller
Rotating speed not stable	Sample positioning causes an imbalance	Place the samples evenly
Actual speed and displayed speed are not matching	Broken controller	Contact with the seller
Display ERR	Speed out of control	Contact with the seller

WARRANTY

The company will be responsible for replacement due to fault caused by the materials and manufacturing up to 1 month from the date of delivery. The company will provide 12 month free warranty due to fault caused by the materials and manufacturing from the date of delivery. In the warranty period, the company will provide free repair service or replacement for those machines which are proved as defective apparatus selectively.

Improper use or use under abnormal condition, damage caused by repair or modification without authority etc will invalidate the warranty.

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 info.

E-Mail: info@BTLabSystems.com