

Model YR0132

Tabletop Low Speed Centrifuge

Instruction Manual

Thank you very much for purchasing our Tabletop Low Speed Centrifuge Model YR0132.

Please read the “Operating Instructions” and “Warranty” before operating this unit to assure proper operation. After reading these documents, be sure to store them securely together with the “Warranty” at a hand place for future reference.



Warning: Before operating the unit, be sure to read carefully and fully understand important warnings in the operating instructions.



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The manual will guide you how to install, commissioning, use and maintain the centrifuge. Please read through the manual carefully and follow the instructions before starting to use the centrifuge, so as to prevent the maloperation and win an expectant experimental result.



Caution!

- ◇ The Centrifuge should be operated by the technical staff and maintained by professional engineer.
- ◇ Don't use and maintain the centrifuge before you read the Instruction Book.
- ◇ Please use the corresponding socket, and make sure its in a good condition.
- ◇ When you move the machine, please keep the four corner of the base bear homogeneous power.

Notice:

- * Before your operation, please read the Instruction Book carefully.
- * Only professional engineer have the right to maintain the centrifuge.
- * The centrifuge should be controlled by the technical staff and maintained by professional engineer.
- * The weight of sample in tube should be approximate; weight error is no more than 1.5g. For angle rotor, the sample volume should be less than 80% of the single tube volume. As for swing rotor, the sample capacity will be no more than 90% of the single tube volume.



* Don't use the following material:

- Flammable and explosive material;
- Poisonous and radioactive material.

Explanation of the logo



Please pay more attention to the content with this sign above.



High-voltage danger !





Model

Tabletop Low Speed Centrifuge YR0132

Intended USE

It's mainly used in the field of biochemistry and immunology. The instrument is mainly use in lab and hospital.

Technical Specification

Max Speed	4000r/min
Max RCF	2500×g
Timer Range	0-99 min
Power Supply	AC220V 50Hz
Dimensions	510x420x370mm(LxWxH)
Weight	15kg

Allocated Rotor's Specification Refer to Table I

Table I

Rotor's No.	Rotor capacity (mlxtube)	Max Speed (r/min)	Max RCF (×g)
1 Angle Rotor	7 mlx12/18/24	4000	2220
	10 ml/15ml/20mlx12	4000	2220
	10 mlx18/24	4000	2220
	50 mlx4/6	4000	2220
2 Swing Rotor	15 mlx8	4000	2220
3 Swing Rotor	50 mlx4	4000	2500

Brief Introduction

The Product is controlled by microcomputer and equipped with motor of no brush. It can be operated by programming. Moreover, there are many kinds of protection functions to ensure safely running. Concerning explanation of key please refer to

Table II.

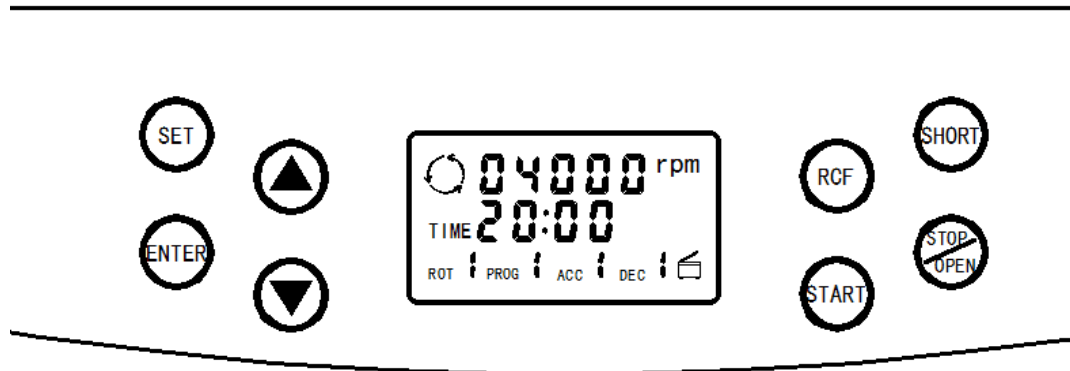


Table II

Functions of key:

SET: Set up specification

ENTER: Ok / Confirmation

▲ : Increase

▼ : Decrease

RCF: Centrifugal Force

Generally the window shows speed data normally. Please press the **RCF** button, it will show the RCF data. Press **RCF** button again, you will see speed data.

SHORT: Instantaneous centrifugation. (Close the lid, press the button, the machine starts working. It will stop once you release the **SHORT** button. It is mainly used in short-time centrifugation

START: Start to run

STOP/OPEN: Stop running & Lid open

TIME: Time input. The time will count down when it reaches the speed you set. The unit is Minutes: Seconds.

ROT: Rotor number



Prog: It refer to program number. It is fixed.

Acc: Acceleration ranges from 1 to 9. Level 1 is the slowest, level 9 is the fastest.

Dec: Deceleration ranges from 1 to 9. Level 1 is the slowest, level 9 is the fastest.

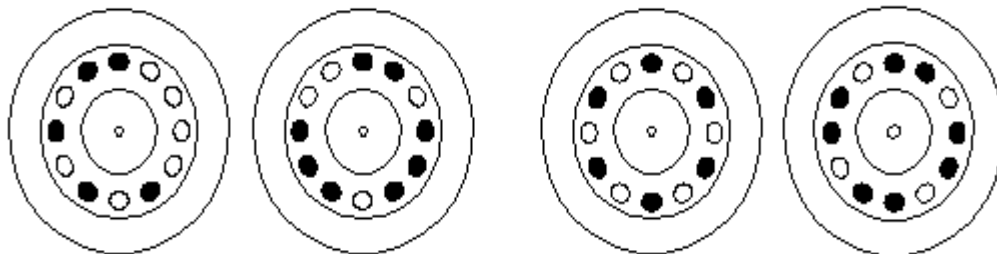
Error: Once the machine breaks down, it will show Error code on the display. Please refer to the following table III.

Requirement of the Instrument Install

- 1、The table shall be stable and solid. The instrument should keep a distance of 10cm from the surrounding.
- 2、The power shall be three phase with separate Earth wire without creepage.
- 3、The instrument shall be located at a place of non-disturb of magnetic field and caustic gas.

Operating principle

- 1、**Open the lid.** Press the OPEN buttons for three seconds by hand.
- 2、**Install the rotor, fill the tubes with test sample, and then put the tube in rotor, finally close the lid.** Please note that the sample value should be less than the 90% of tube volume. The tubes shall be placed in symmetry with balance.



Wrong Installment

Right Installment

- 3、**Setup the Rotor Number, the speed, the RCF and Time.**

For example:



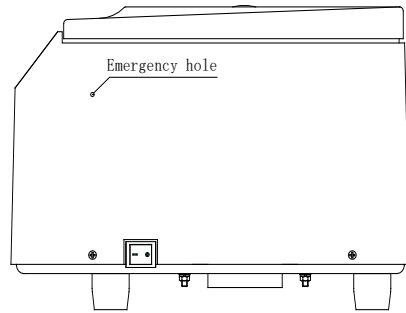
Speed(r/min)	min
4000	20

Steps of setup:

1. Setup the Speed: Press “SET” →press “▲” or “▼”, the cursor shall be blinked where under “SPEED”→Set “5000”→press ENTER
2. Setup the time: Press “SET” →Press “SET” →press “▲” or “▼”, the cursor shall be blinked following“TIME” →set “20:00”Setup the rotor No.: Press “SET” → press “▲” or “▼”, chose No. 1→press ENTER
3. Setup Acc/Dec: Press “SET” →Press “SET” →press “▲” or “▼”, the cursor shall be blinked following“TIME” →set “20:00”Setup the rotor No.: Press “SET” → press “▲” or “▼”, chose No. 3→press ENTER
* Kindly note 9 is the fastest, 0 is the slowest.
4. SHORT. If you need instantaneous centrifuges, press “SHORT”.
5. If press the “START”, Centrifuge shall be working. (If you need stop the centrifuge when it is working, please press the “STOP”.) Centrifuge shall auto stop working when program is over. When speed is 0, you can open the lid and take out the sample, then turn power off.

Notice

1. Centrifuge has build-in electronic lock. Without plugged in, the lid could not be opened. If power is off while Centrifuge is working, or the lid can not be open for any reasons, please note the emergency lid release is available. It is on the right side of the model. Please find the Emergency pole we pack together with machine, please insert Emergency pole into the hole, the lid will be open.



2. No moving the machine when it is working.
3. Clean the rotor and locate it in drafty room if it hasn't been used for a long time.
4. Motor shaft should be coated with Albany grease or Vaseline, in order to avoid rustiness and it is easy to take out the rotor.
5. After finished, wipe the chamber and rotor; make sure they are in the state of dryness.

Error code

Failure	Imbalance	Over speed	Lid	Motor or PCB	Communication	System
Display	E1	E2	E3	E7	E8	E9

Table III

E1、Imbalance:

- (1) The weight of sample in each tubes may have great difference. Kindly note the weight differences of each tube (with load) should be less than 2g.
- (2) Rotor is out of shape.
- (3) The spindle of motor bends.

E2、Over speed

- (1) Rotor number is wrong.



(2) The real voltage don't meet the demands of machine. Power supply isn't stable.

(3) Speed sensor is in trouble

E3、Lid

(1) Lid is not closed completely.

(2) The lid safety device doesn't work.

(3) Replace lid

E7、Motor or PCB

(1) The connectors between motor and PCB is loosen. Please re-connect it.

(2) Spin the rotor by hand, and check if the speed on display changes. If not it is the problem of Motor. Please contact supplier to replace it.

(3) If you spin the rotor by hand, the speed on the display changes, it is the problem of PCB, please contact supplier to replace it.

E8、Communication

The connectors between motor and PCB is loosen. Please re-connect it.

E9、Systems

The low voltage may cause this problem.

Guarantee Certificate

We guarantee the goods for 12~14 months after shipment. If the machine breaks down, please check the Error code first, and then contact supplier for maintenance service.

If you have any problems about centrifuges, please contact the supplier freely. We are always at your service.