

Model YR0141  
Low Speed Centrifuge  
**Instruction Manual**

Thank you very much for purchasing our Model YR0141 Low Speed Centrifuge.

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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## CONTENT

### For users:

The Instruction Book will guide you how to install, test, use and maintain the Centrifuge. Please read the Instruction Book first.



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- ◇ 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

YR0141 Tabletop Low Speed Centrifuge

## USE

It is widely used in the field of bionology and medicament.

## Technical Specification

Max Speed	6000r/min
Max RCF	5120×g
Max Capacity	10ml×24
Timer Range	0-99 min
Power Supply	AC 220V 50Hz/60Hz
Dimensions	410×490×310mm
Weight	22kg

Rotor's specification refer to Table I

Table I

Rotor's No.	Volume (ml × tube)	Max Speed (r/min)	Max RCF (×g)
1 Angle rotor	15ml×12	6000	5120
2 Swing rotor	15ml×12/16	4200	2760
Swing rotor	5ml×24	4200	2760
Swing rotor	10ml×24	4200	2760
Swing rotor	50ml×4	4200	2760

## Brief introduction

The instrument has microcomputer control, DC brushless motor, real-time change of SPEED and RCF and Instantaneous centrifugation. In addition, it is allocated various

rotors for users to select.

### Requirement of the installment

- 1、 The lab table shall be stable. The four rubber feet of the instrument should touch the table completely.
- 2、 Single phase alternating current, with earth wire. Don't use Zero line replace earth wire. Use the attached power line.
- 3、 There shouldn't be electric dust and caustic air. Please note that the humidity should be no more than 85%.
- 4、 The distance should be more than 150mm between the instrument and its surroundings.

### Operation

Before your use, please check the Rotor No. and rotor's Max. Speed.

1. Description of keystroke

Table II



SET:	Setup
SHORT:	Instantaneous centrifugation
OPEN:	Open lid
START:	Start



STOP:	Stop
▲:	Up
▼:	Down

#### Description of Display window

ROTOR:	Rotor No.
SPEED/RCF:	Speed or RCF value
TIME:	Time

a、 The display of rotor No.: only one bit display, “1” refers to 15ml×12, “2” refers to 15ml×12/16, 5ml×24, 10ml×24 and 50ml×4.

b、



c、 The display of time: Two bits display. The time will count down when the machine reach the speed you set.

d、 If it shows error numbers, please refer to Table **III**. It means the machine breaks down.

## 2、 Rotor Install

a、 Check the rotor, if it have any flaw or eroded spot.

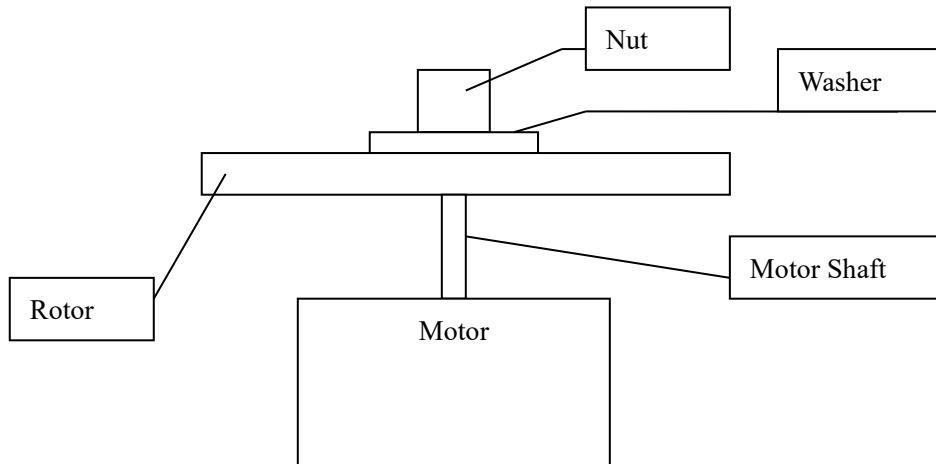
b、 Put some lubricating oil on spindle, install the rotor, screw the nut.

c、 The tubes shall be place in symmetry with balance. The error must be less than



1.5g.

d、Screw up the nut cap.



3、lock the door.

4、Plug in

Before plug in, check the machine carefully. For the explanation of keypad, please refer to Table II. When power is “On”, the machine starts to work. Pleas setup the parameter. For example:

Rotor	Speed	Time
1	4000	30min

a、Set up ROTOR:

Press SET key, the cursor shall be blinked in the digital displayer where under “ROTOR”, press “▲” or “▼”, when it shows 1, press Enter key.

b、Set up SPEED:

Press Enter key, the cursor will blink under SPEED/RCF, press “▲” or “▼”, when it shows 1, press Enter key.

c、Set up TIME:

Press Enter key, set the time at 30min





5. If press the “START”, machine is working.

6. Stop working

When the speed gets down to “0”, the machine will stop automatically. Please open the door and put out the tubes.

### Fault analysis

1、 Failure

Table III

Failure	Imbalance	Over speed	Gate lid	Electronic plate	Motor	Setup
Display	E1	E2	E3	E4	E5	E8

E1、 Imbalance:

- (1) The weight of sample in each tubes have great difference. Weight error is more than 1.5g.
- (2) Rotor is out of shape.
- (3) The spindle of motor bend.

E2、 Over speed

- (1) Rotor number is wrong.
- (2) The real voltage don't meet the demands of machine. Power supply isn't stabilized.
- (3) Speed sensor is in trouble

E3、 Gate lid

- (1) Gate aren't closed completely.



(2) The gate lid protection devices don't work.

#### E4、 Electronic plate failure

(1) Check out whether the plug is in good condition.

(2) replace electronic plate.

#### E5、 Motor failure

(1) The connecting line between motor and electronic plate is loosen.

(2) Motor is broken.

(3) Electronic elements of electronic plate are damaged.

#### E6、 Setup failure

Reset the parameter.

#### 2、 No display

Fuse blowout

replace it

### **Maintenance**

- 1、 Spread some butter or Vaseline on the spindle.
- 2、 Clean the rotor's hole, if the solution drop into the hole of rotor.
- 3、 Check the rotor before use.
- 4、 Replace the tube in time.
- 5、 Clean the rotor and locate it in drafty room if it is not use for a long time.
- 6、 Please plug off if machine does not work for a long time.

### **Guarantee**

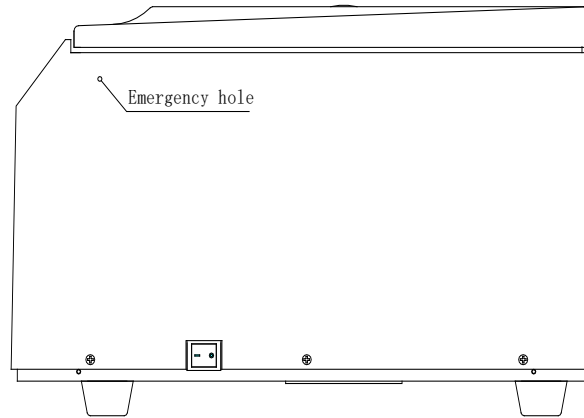
The guarantee period is twelve months after ex-work. We shall provide the best service in guarantee period.

### **Note**

Centrifuge has electronic lock. If power failure occurs when Centrifuge is working, or



for any other reasons, the lid can not be opened, please insert the attached pole (in the cartoon) into the hole on the right side to open the lid.



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