



## Tabletop Low Speed Centrifuge

YR137-1

## Instruction Manual

Thank you very much for purchasing our Tabletop Low Speed Centrifuge YR137-1.

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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## For users:

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



### 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 YR137-1

## Technical Specification

Max. Speed	5800r/min
Max. RCF	5060×g
Max. Capacity	750ml×4
Timer	0-99min
Power	AC220V 50HZ 10A
Noise	<70db(A)

Rotor's specification refer to Table I

Table I

	Capacity	Max. Speed (r/min)	Max. RCF (×g)
NO.1 Angle Rotor	50ml×6	5800	5060
NO.2 Microplate Rotor	4x2x96well	4000	3040
	500mlx4	4000	3040
NO.3 Microplate Rotor	8x96well	4000	2200
NO.4 Swing Rotor	750mlx4	4000	3780



NO.5 Swing Rotor	250mlx6	4200	3500
NO.6 Swing Rotor	250mlx4	4300	3852

## 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、 There should be more than 150mm distance between the instrument and its surroundings.

## Operation

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

1. Description of keypad





PROG:	Programme you had ever set on the machine
SET:	Setup
START:	Start
STOP:	Stop
▲:	Up
▼:	Down

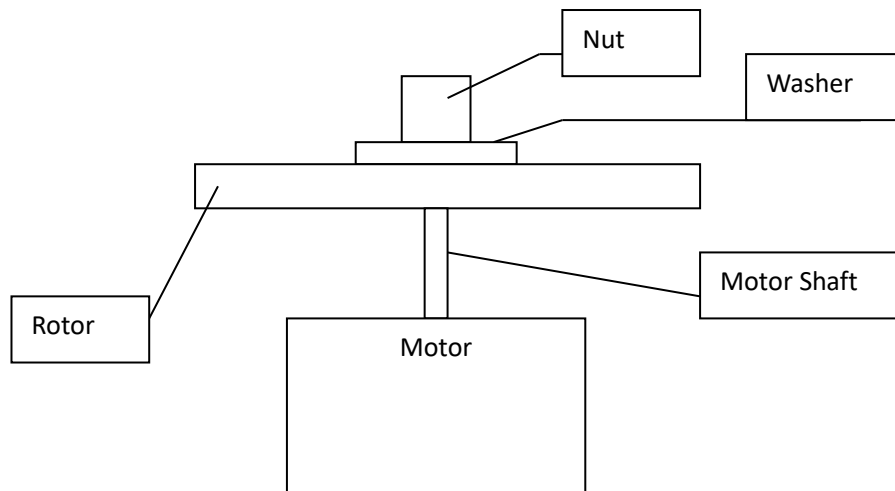
#### Description of Display window

Acc.:	Acceleration (Stage 1~9, stage 1 is the slowest, Stage 9 is the fastest.)
Dec:	Deceleration (Stage 1~9, stage 1 is the slowest, Stage 9 is the fastest.)
SPEED/RCF:	Speed or RCF value
TIME:	Time in hour: minutes

- a、 The display of time: Two bits display. The time will count down when the machine reach the speed you set.
- b、 if it shows error codes, 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. 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 “▼”, set the speed you need, 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 time 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	Motor	setup	Electronic board or Control panel
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、 Lid

- (1) lid isn't closed completely.
- (2) The gate lid protection devices don't work.

E4、 Motor failure

- (1) Motor breaks down.





(2) The wire between the motor and control panel is loosen.

E5、 Setup failure

E8、 Electronic board or Control panel

(1) Electronic board or Control panel damage.

(2) The wire between Electronic board and control panel is loosen.

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.

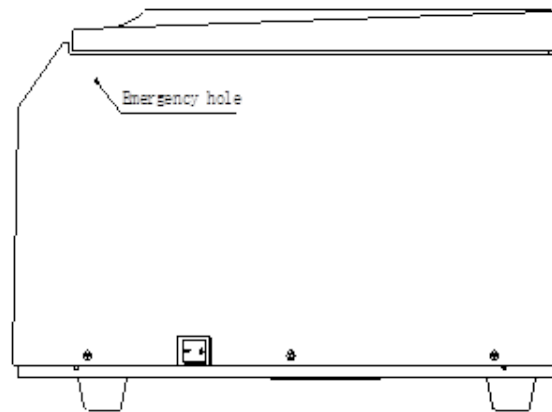
6、 Please plug off if machine does not work for a long time.

## 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 electricity supply fails when Centrifuge is working, or for any other reasons, the lid can not be opened, please insert the attached pole (in the package) into the hole on the side and open the lid.



The symbol on the product or on its packaging indicates that this product may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. For more detailed information about recycling of this product, please search <http://www.hp.com/go/recycle>.



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