



Palm centrifuge

LB-54PHC

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1. Safety Measures

- Do not run the instrument without turning the head.
- It is forbidden to add samples to the centrifugal pipe installed in the rotating head to avoid corrosion of the rotating head, etc.
- It is forbidden to move the instrument during centrifugation.
- The machine shall be placed on a horizontal and firm working platform.

2. Introduction

Palm centrifuge LB-54PHC is a palm-sized centrifuge with a speed range of 4000 rpm ~ 12000 and quick spin options for micro filtration, facilitating easy handling. It quickly reaches the maximum speed, making it ideal for spinning down fluids from tube caps and walls. Encased is a user-friendly control panel for adjusting speed and time. Automated lid opening system at the end of the process avoids over spinning of samples and damage caused due to overheating

3. Features

- 1) Max speed of 1200 rpm
- 2) Easy to use control panel with LED display to view and adjust time / speed
- 3) Ideal for quick spin down and micro filtration
- 4) Clearly to view sample processing
- 5) Sample accelerates and decelerates in seconds
- 6) Stable running with high speed accuracy
- 7) Easy replaceable router

4. Specifications

Model	LB-54PHC
Speed range	4000 rpm ~ 12000 rpm
Maximum RCF	7000 × g
Speed accuracy	100 rpm
Time range	1 to 99 minutes
Max. capacity	8×1.5 ml / 2.0 ml
	4 × 8 × 0.2 ml
Speed increment	1000 rpm
Maximum RCF increment	1000 rpm
Power supply	AC 85 V ~ 245 V, 50 Hz
Noise level	≤ 48 db
Dimensions	200 mm × 180 mm × 125 mm
Weight	3.5 kgs

5. Applications

Used for microbial sample processing pcr analysis for pelleting of DNA and RNA samples and serum separation processes.

6. Operations

6.1 Speed and time setting

- 1) Connect the power cord, turn on the power switch to the "I" position, and the display screen will light up to display the parameters of the last operation.
- 2) Set the $\square$ key once, and the cursor flashes in the display speed window. Then press the increase $\square$ key or decrease $\square$ key to achieve the target speed value (4000-12000 RPM) in steps of 1000 rpm. For example, "10" means 10×1000 rpm, i.e. 10000 rpm, and then press the set $\square$ key once, The cursor flashes in the display time window, then press the increase $\square$ key or decrease $\square$ key to reach the target time value (1-99 minutes), step 1 minute, and enter the confirmation state automatically after 3 seconds.

6.2 Instrument Operation

- 1) After ensuring that the cover is completely closed, press the start $\square$ key. The instrument starts to run smoothly, and the instrument starts to stop running when the set time is 0, and the buzzer gives an alarm, indicating the end of centrifugation. Centrifugation, time countdown, the last minute in seconds to time.
- 2) During the operation of the instrument, the speed value can be modified at any time, and the operation of the instrument can be stopped by pressing the stop $\square$ key or the door cover switch halfway.

Warning:

- Do not open the centrifugal cover before the rotating head stops completely.
- The centrifugal pipe shall be placed symmetrically in equal quantity, and the weight of each centrifugal pipe shall not exceed 3.0g.
- If the noise is too loud or there is an abnormal sound after starting the machine, stop the machine immediately and check the cause.
- When using 8×1.5 ml rotating head, it is not allowed to mix 1.5ml, 0.5ml, 0.2ml and other test tubes of various specifications.

7. Maintenance

Clean the surface of the instrument with a dry cloth and a non corrosive detergent with $\text{pH} = 7 \pm 1$. Ensure that all parts of the instrument are completely dry before operating the instrument. Do not immerse the instrument in liquid or wet the instrument with liquid.

8. Troubleshooting

Fault phenomenon	Cause analysis	Resolvent
The rotor does not operate after startup	The power cord is not plugged in	Plug in the power cord
	No power supply for power cord socket	Make sure the power supply is working properly
	The power switch is not on	Turn on the power switch
	The centrifugal cover is not closed and locked	Press down on the centrifugal cover
	The fuse is burnt	Please replace or consult the supplier's technical personnel
Large noise, violent vibration, or abnormal noise after startup	The instrument is not placed on a horizontal and solid platform	Place the instrument on a level, solid platform
	The swivel not installed horizontally or in place	Refitting the Rotor
	Asymmetric distribution of tubes	Place the test tube symmetrically and equally
	Unequal liquid level in tube	Place the test tube with a constant liquid level
	The test tube cover is not covered well, and some samples are thrown out, resulting in the imbalance of the rotating head	Add sample balance

9. Rotor selections

Rotor type	Max .speed	Capacity	Max.RCF
Standard			
Round rotor	12000 rpm	1.5 ml × 8	7500 × g
	12000 rpm	2 ml × 8	7500 × g
PCR rotor	12000 rpm	0.2 ml × 32	7500 × g
	12000 rpm	0.2 ml × 4 PCR 8 strips	7500 × g
Optional			
Swing bucket rotor	12000 rpm	1.5 ml × 2 (2 place)	7500 × g
Gene chip round rotor	12000 rpm	2 gene chips (2 place)	7500 × g



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