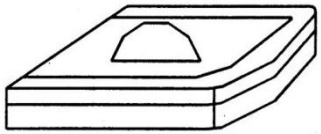
8.5 Power should be cut off as soon as abnormal noise is heard.

8.6 Don’t remove the machine while it is running.

8.7 Don’t put any goods on the machine cover.



X

8.8 If the sample density is more than 1.2 g/cm^3, you must calculate Max. speed(N) in the following formula:

$$N=N_{max}\sqrt{1.2/\rho}$$

N_{max}-------- the limit speed

ρ -------- sample density

9. WARRANTY: 1 year

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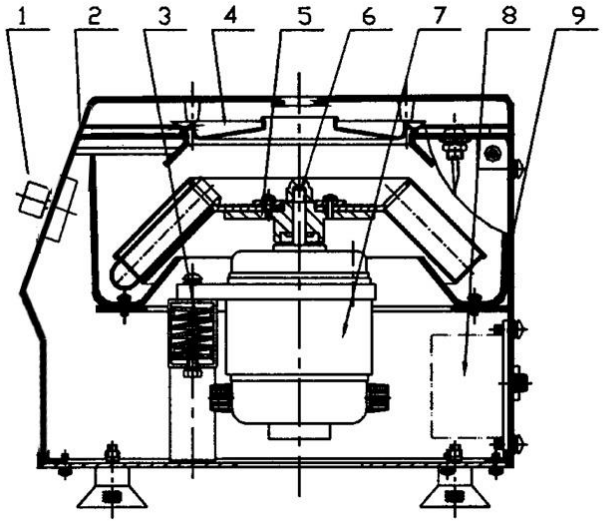
Date: 2022.08.02 10:17:16 EEST
Reason: MoldSign Signature
Location: Moldova

5. PARTS IDENTIFICATION



1. Control panel 2. Framework 3. Damping system

4. Cover 5. Rotor 6.Nut 7. Motor

8. Electric controlling system 9.Centrifugal chamber

6. USING CONDITIONS

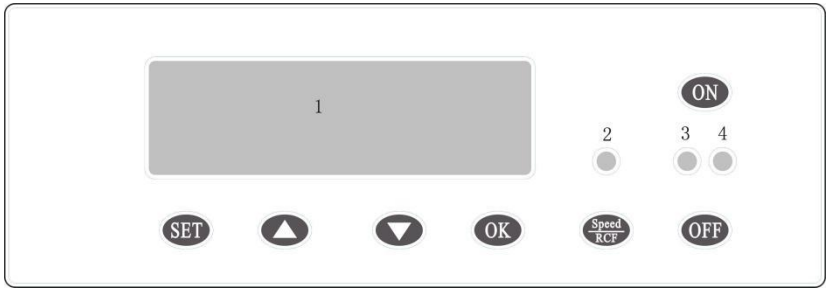
6.1 Ambient temperature: 0~30℃

6.2 Relative moisture: <80%

6.3 No electro conductive dust, explosive and corrosive gas in the surrounding air.

7. OPERATION PROCEDURE

7.1 Control panel (see the following fig)



1. speed and time display 2. RCF indicator

3. RUN indicator 4. STOP indicator

7.2 Preparation

◯,1 Place the centrifuge on a steady table, the centrifuge must be 10cm distance from the wall.

7.3 Operation Steps:

◯,1 Shut the cover, connect the power. Press the power button on the back first, then press “set” key to set your needed speed; press “set ” key to set your needed time, press OK then save you data.

◯,2 press ON , the machine starts to run. The time starts when the speed setting is set; once the time is up, the machine will stop running. You can press SPEED/RCF to check the RCF , and the indicator will light. Press OFF to stop working.

*If the machine is working, do not open the cover. If you open the door ,it will stop immediately.

◯,3 Turn off power on the back , press the safety lock and take out test tubes.

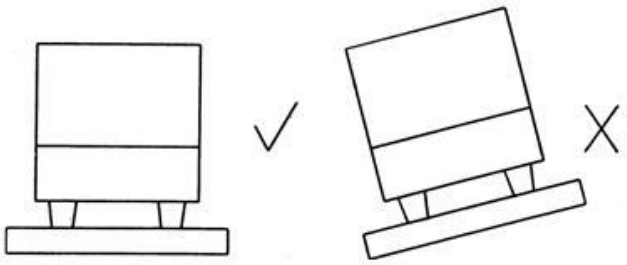
8. MAINTENANCE

8.1 Please read the manual book before operation.

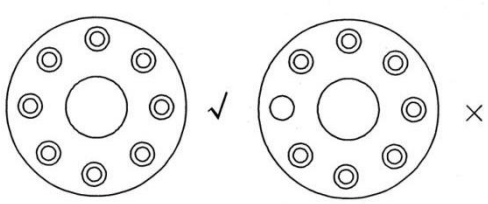
8.2 If you found test tubes were aging or corroded before using it, please replace them in a timely manner.

8.3 The power should have reliable grounding.

8.4 The test tube must be set with sample that can be balance and put into the rotor symmetrically to keep balance.



○,2 Place tubes with sample(s) in a symmetrical order, so rotor can be balanced.



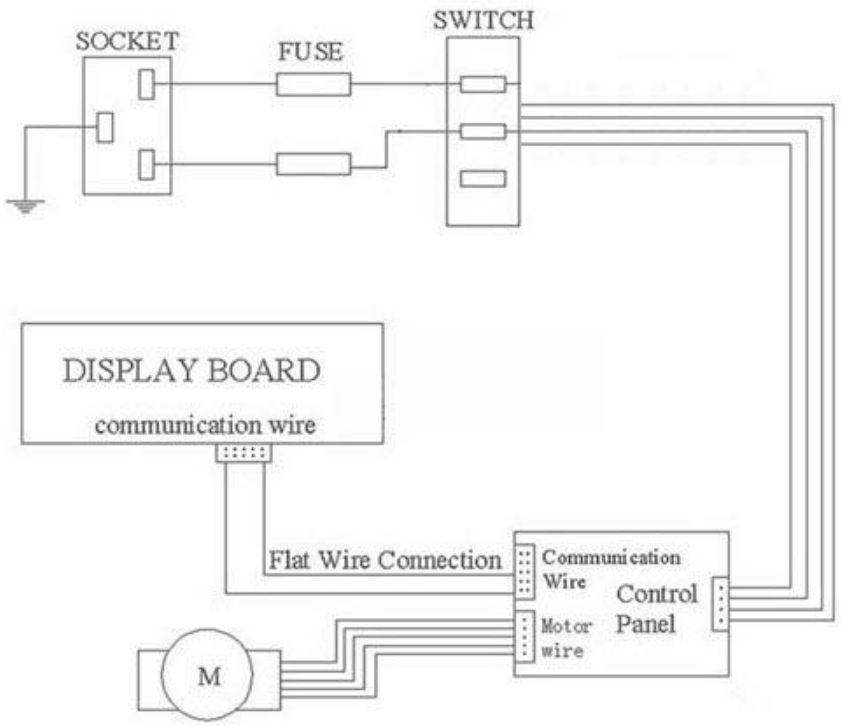
LC-04C plus

LOW SPEED CENTRIFUGE

OPERATION MANUAL

MAINTENANCE INSTRUCTIONS

11. CIRCUIT DIAGRAM



1. GENERAL

The frame of this instrument is made of high strength plastic. This beautiful model, has the advantages of being compact light weight with a large capacity: low noise levels and highly efficient, the centrifuge can be used in hospitals and biochemical laboratories for quantitate analysis of serum, urea and plasma.

2. DESIGN FEATURES

2.1 Rotor imbalance protection device.

2.2 Gradually accelerate to desired Speed

2.3 Door switch and mechanical safety lock.

3. PRINCIPLE OF OPERATION

Put tubes with sample in the angled rotor, place tubes symmetrically so that rotor is balanced and will spin on its axis, once the machine is on. The relative centrifuge force (RFC) rotates and separates heavier more dense solutions to the bottom of the tube and less dense solutions to the top: The formula of calculating RCF is as follows:

$$RCF=1.118\times10^{-5}n^2r$$

n-------- rotating speed

r-------- radius of rotating

The formula of calculating separation time is as follows:

$$\frac{27.4(\log_e Rmax-\log_e Rmin)\mu}{} \quad (min)$$

8

$$n^2r^2(Q-\rho)$$

ρ-------- density of mixed liquid (g/cm^3)

μ-------- glutinousness of mixed liquid (p)

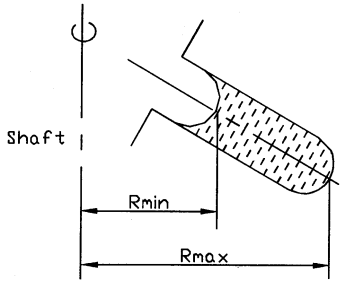
n-------- rotating speed

r-------- radius of particle (cm)

Q------- density of particle (g/cm^3)

Rmax-------- The horizontal distance from the bottom of solution to the center of the rotating axis (cm)

Rmin-------- The horizontal distance from the surface of the solution to the center of the rotating axis (cm)



4. SPECIFICATION

Max. speed: 4000r/min

Max. RCF: 2325×g

Capacity: 12×20ml

Time range: 0-99 min

Power source: 100-240V 50-60HZ

Power supply: 135W

10. COMMON ISSUES & RESOLUTION

No.	Common issue		Reason	Solution
1	Power turns on, but the indicator and nixie tube don't light up		No power	Check the power
			Blown fuse	Replace
			Power switch doesn't turn on	Turn on power switch
2	Odd noise coming from machine		Tubes are not symmetrical or rotor nut is loosen	Place the tubes symmetrically, Tighten up the nut
3	Machine didn't work according to adjusted value		Press Ok key to confirm	Reset value you needed and press Ok key to confirm
4	Error in time display	E2	Over the max speed of rotor	Restart
		E3	Door open	Close the door and restart
		E4	Door open during running	Close the door
		E7	Zero speed fault	whether the motor connector is loose or the rotor is stuck
		E8	Communication fault	restart
		E9	IPM fault	restart
		EA	Over current fault	Restart
		Eb	Over voltage fault	Restart when the voltage is OK

Dimension: 320×340×280 (L*W*H)mm

Net weight: 6Kg

Noise: <70dB

		EC	Under voltage Fault	Restart when the voltage is OK

TABLE OF CONTENTS