

## Centrifuge



# Model XC-2000 Operating Manual

Before using this product, please read this manual carefully to learn about the available features to obtain the best results of this equipment.

**Warning:** To prevent fire or shock hazard, do not expose this unit to rain or moisture. Unless labeled otherwise, this equipment should be used with AC 110V 60Hz in the USA or Canada.

220V 50Hz available as Model No. XC-2000-220

Caution: No user-serviceable parts inside. Refer servicing to qualified service personnel

# 1.1 Table of Contents

#### Section

• Table of Contents	Page 1
• Safety	Page 2
• Contents/Accessories	Page 3
• Specifications	Page 4
<ul> <li>Notes of Operations</li> </ul>	Page 5
Control Panel/Setup	Page 6
<ul> <li>Operations</li> </ul>	Page 7
<ul> <li>Warranty</li> </ul>	Page 8



## 2.1 Safety

Before using the centrifuge, please read this instruction manual carefully. Incorrect or inappropriate use may result in equipment damage or personal injury!

This centrifuge is designed for clinical medicine, biology, genetic engineering, immunology, etc. The density of the separated sample cannot exceed 1.2g/cm³ under the maximum speed, when the density of the sample exceeds 1.2g/cm³, the maximum speed of the rotor must be reduced accordingly.

When the centrifuge is running (rotor is spinning), Please keep an area of about 12 inches around the centrifuge clear while operating it and ensure nothing is blocking the vents.

To avoid injury to personnel and or separated samples inside the unit; do not use the following materials in the centrifuge:

- Flammable and explosive materials
- Strong chemical materials
- Toxic or radioactive materials

#### 3.1 Contents

Number	Name	Qty	Note
1	Centrifuge	1set	
2	Rotor (included) Capacity = $< 10-15$ mL x 6 tube holders	12pc	(six included inside unit & six extra)
3	Black silicone tube cushions	6рс	
4	Fuse	1pc	4 AMP
5	Operating manual	1pc	



Upon receipt, please examine the package, if there's anything wrong, please kindly contact your dealer promptly.

### 3.2 Accessories

If you need optional auxiliary parts, please contact our company or authorized dealers.

Item #01	Description	Number of Pieces	Image
XC-06	Replacement tube holders	Set of 6 pcs	

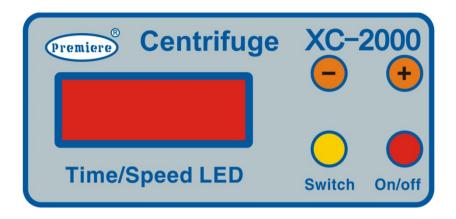
# 4.1 Specifications

Function/ Parameter	Technical Data
Environment of use	<ul> <li>Clean, dry and flat surface</li> <li>Stable work surface</li> <li>Altitude:</li> <li>Relative humidity:≤80%</li> </ul>
Ambient Temperature	• +5°C~-40°C
Applicable Voltage	<ul> <li>AC110V 60Hz (or 220V 50Hz-220 Model Only)</li> </ul>
Setting Time Range	• 1~60min
Maximum RPM	• 4000 r/min
Maximum relative centrifugal force (RCF)	<ul> <li>1000 rpm- 112 RCF</li> <li>1500 rpm- 252 RCF</li> <li>2000 rpm- 447 RCF</li> <li>2500 rpm- 699 RCF</li> <li>3000 rpm- 1006 RCF</li> <li>3500 rpm- 1370 RCF</li> <li>4000 rpm- 1790 RCF</li> </ul>
Rotor length	• 5 cm
Radius	• 10 cm
Maximum capacity	• 15mL x 6
Noise (maximum speed)	• ≤70dB
Dimensions (machine)	• 11 x 11.5 x 10 in. (28 x 29 x 25 cm.)
Net Weight	• 9 lbs
Dimensions (package)	• 12 x 12 x 11 in. (32 x 32 x 28 cm.)
Gross Weight	• 11 lbs

## **5.1 Notes of Operation**

- Ensure the rotor is tightened before running the centrifuge.
- Do not open the lid while the rotor is spinning. Allow centrifuge to come to a complete stop before attempting to open lid and remove specimen tubes.
- Use only with accessories provided or parts designed specifically for use with this model.
- Do not use centrifuge when the door is open.
- Make sure the specimen tubes are equal and balanced. (Unbalanced tubes will cause the machine to shake and not produce a smooth spinning motion).
- Before use check rotor. Cease use if there is obvious corrosion or damage signs on the rotor.

#### **6.1 Control Panel**



Control Panel

Time LED: Time in min

+ - : increase/decrease time/rpm's

Switch: alternate display between time/speed

On/Off: run/stop

## 6.2 Setup

- 1. Open box and remove centrifuge from packaging
- 2. Place centrifuge onto flat surface
- 3. Open lid and remove foam packaging inside
- 4. Plug Power cord from back of unit into power supply, unit will power up and your centrifuge is ready for use.

#### 7.1 Operations

#### Time Adjustment

1. Press "Switch" to alternate to time setting. Push the "+" or "-" button to adjust the time setting. To increase the run time push the "+" button until desired time reached or maximum of 60 minutes. (See section 6.1). To decrease the run time push the "-" button until desired time reached or minimum of 1 min. (See section 6.1). If the numbers above "TIME LED" are not Lit, make sure AC power cord is completely plugged into socket.

#### Speed Adjustment

- 1. Push the "SWITCH" button one time to adjust the speed setting. The 4 digit number beside the word "TIME/SPEED LED" should change to rpm's. (See section 6.1). If the numbers above "TIME/SPEED LED" do not change to rpm's, then continue to push the "SWITCH" button until this happens.
- 2. This centrifuge default setting for speed is in RPM's. Please select desired speed (shown in RPM's) by using the "+" or "-" arrow buttons until the display panel reads your desired settings.

#### Spinning Centrifuge

2. Insert the centrifuge tubes in a manner that will balance the specimen tubes' weight. Always insert an even number of tubes on opposite sides of the rotor with approximately the same amount of specimen in each tube.

Now that the desired time is selected, you can now run your samples.

- 1. Make sure lid is closed and locked.
- 2. Press the "On/Off" button, and centrifuge will begin spinning.
- 3. After the centrifuge has run for the programmed amount of time unit will begin to decelerate and come to a complete stop. Please note that the lid should never be opened until centrifuge has come to a complete stop.

#### Note

This centrifuge lid is designed to automatically stop when the lid is open. If you have any problems operating the centrifuge; Please contact your dealer or authorized provider.