

**TISCH**  
S c i e n t i f i c



Mini Centrifuge - TS-SS-MC-1-7K

User Manual



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# 1. Getting Started

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## Packing list

In this box you should find the following items:

1x Mini Centrifuge

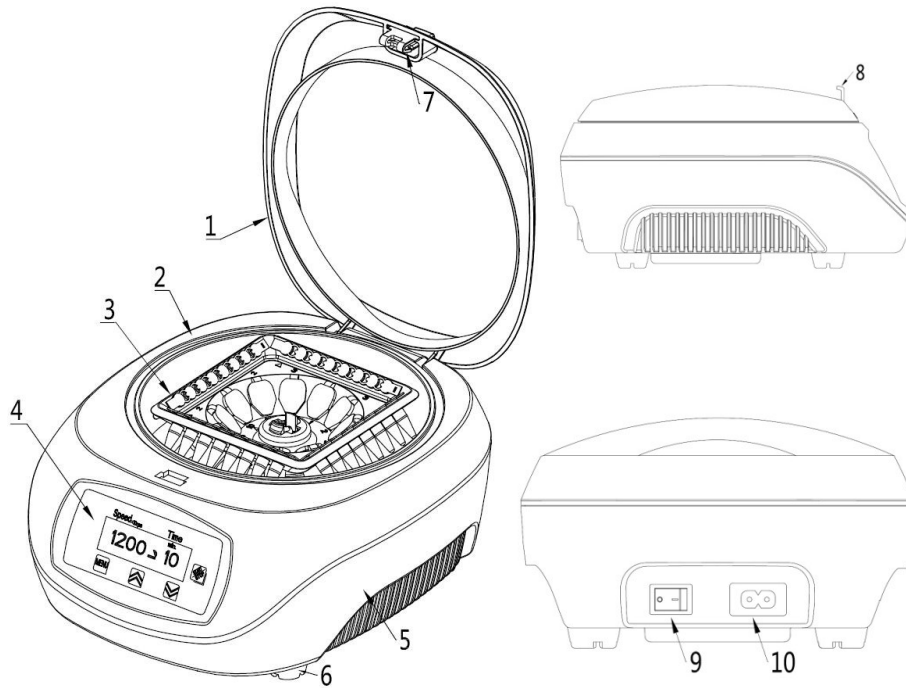
1x Rotor

1x Centrifuge tube adapter

1x Rotor lid

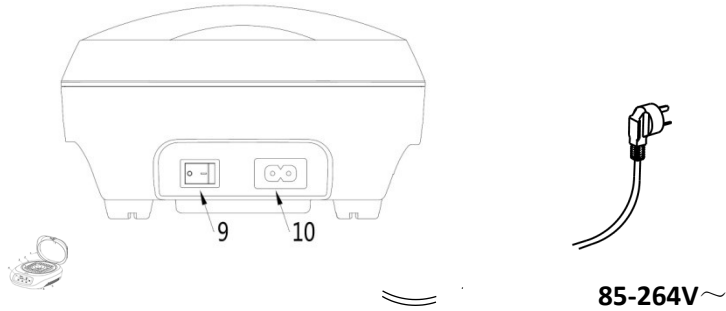
1x Manual

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## Diagram

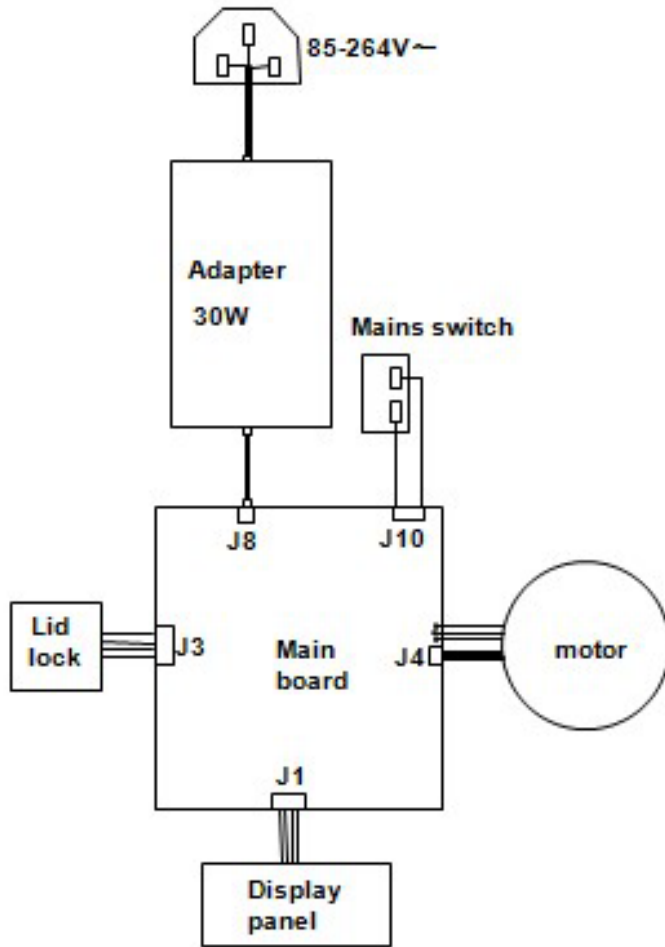
1. Transparent Lid
2. Upper Base
3. Rotor
4. Control Panel
5. Bottom Base
6. Anti-slip Foot Pad
7. Lock
8. Lid Bar
9. Power Switch
10. AC85-264V Power Plug



1. Inspect the outer condition of the instrument prior to use. Check for any outer signs of damage.
2. Inspect the transparent lid bar to ensure that it is not loose.
3. Ensure that the power supply is securely fastened to the instrument.

## 2. Technical Specifications

<b>Power Supply</b>	85-264V ~ 50-60Hz
<b>Input Power</b>	45w
<b>Max Speed</b>	500-12000 RPM 500-7000 RPM
<b>Max Centrifugal Force</b>	9660 RCF
<b>Motor</b>	DC24V/DC PM Motor
<b>Timer</b>	1-99min / 1-59sec
<b>Max Load</b>	6/8 x 15/5ml Tubes
<b>Max Permitted Density</b>	1.2g/ml
<b>Acceleration Time to Max Speed</b>	≤12s
<b>Braking Time to Max Speed</b>	≤16s
<b>Ambient Temperature</b>	5°C ~ 40°C/80%
<b>Device Dimensions (LxWxH)</b>	194mmx229mmx120mm
<b>Weight (with Rotor)</b>	4.4lbs



**Angler Rotor:**



Holds 0.2/0.5/1.5/2ml micro tube\*12 and 0.2ml 8 PCR strip

### 3.Safety Precautions

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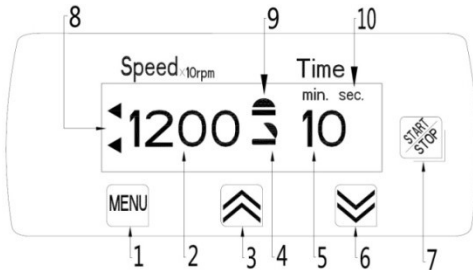


**Please read these thoroughly before operation:**

- Do not unplug the power connector while the device is working.
- Do not unplug power supply while your hands have liquid on them.
- Do not clean or perform maintenance on the machine while it is powered on and plugged in.
- Do not use the device on and unsteady or unlevel work surface.
- Do not load the device unevenly or load it with vials of varying weights. This can cause excessive vibration that can lead to machine damage or even injury.

## 4. Operation Guide

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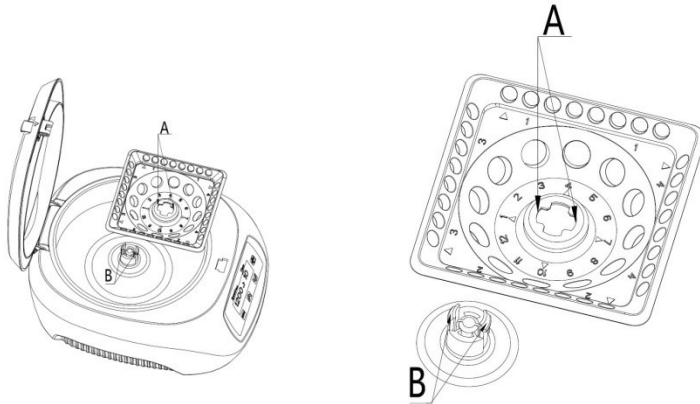


1-Menu Button ; 2-Speed Display ; 3-Increment Button; 4-Lid Open Display ; 5-Time Display ; 6-Depression Button ; 7-Start/Stop Button ; 8-Operation Button ; 9-Lid Close Display ; 10-(MIN/SEC) Display

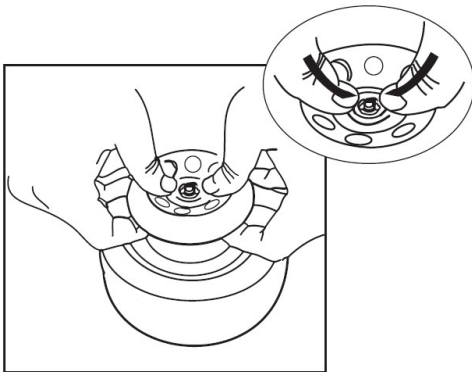
1. Set up on a steady and level work surface.
2. Plug the device in.
3. Press the “OPEN” key to open the lid.
4. Place tubes in the rotor evenly and ensure they are as close to the same weight as possible (fill spots with water filled tubes to make the load symmetrical).
5. Press the “MENU” key to switch between parameters that you wish to set.
6. Use the control arrows to set the parameters.
7. Press the “START/STOP” Button to start the run and end it abruptly if need be. The instrument will stop operating when the countdown is finished. An alarm will sound once operation is complete.
8. Press the “START/STOP” Button to stop the instrument, then open the transparent lid and remove the sample.
9. Switch the power to OFF. Once the instrument is no longer in use, please close the lid cover.



10. In the event of a power issue, there is a manual lid release on the bottom of the machine in the shape of a pull cord. Simply pull to release the lid so long as the machine is not running.



**Loading the Rotor** - As demonstrated in the image above, ensure that the positioning between Point A and Point B is the same. Then with both hands, place the rotor down onto the base until you hear a clicking sound. This means that the rotor is secured in place.



**Disassembling the Rotor** - As demonstrated in the image above, push down with both thumbs and slowly raise the rotor up from the base.

-Failure to remove the rotor using this method only may result in damage to the rotor and/or the instrument.



-When installing the rotor, ensure that the side with the Digital Number displayed is facing the front of the instrument. Installing the rotor backwards may result in damage to the rotor and/or the instrument.



### **Correct Method for Tube Placement (Left to Right)**

12 tubes ; 8 tubes ; 6 tubes ; 4 tubes ; 2 tubes

## **5. Maintenance & Cleaning**



The rotor and exterior of the instrument should be cleaned regularly with a moist cloth. Only neutral agents may be used for cleaning the rotor and instrument.

1. Disconnect the centrifuge from the main power supply.
2. Remove the rotor and clean that component separately.

Check the rotor and the rotor bores regularly for deposits or signs of damage, then reinsert the rotor and tighten it.

## 6. Troubleshooting



Error	Cause	Solution
Device won't start	Power Supply is disconnected or loose	Connect/tighten the power supply or contact the manufacturer
Device suddenly stops	<ol style="list-style-type: none"> <li>1. Power Supply is disconnected or loose</li> <li>2. Motor is overheated (observe a burning odor)</li> </ol>	<ol style="list-style-type: none"> <li>1. Connect/tighten the power supply</li> <li>2. Power off and wait 10-20 minutes before restarting</li> <li>3. Contact the manufacturer</li> </ol>
Lid can't be opened	<ol style="list-style-type: none"> <li>1. An obstruction beneath pressing plate</li> <li>2. Lid bar pressing plate is damaged</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove the obstruction</li> <li>2. Replace the transparent lid</li> <li>3. Contact the Manufacturer</li> </ol>
Loud noise	<ol style="list-style-type: none"> <li>1. The rotor is locked</li> <li>2. The load is not symmetrically balanced</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect the rotor</li> <li>2. Re-load the device to ensure symmetrical balance</li> <li>3. Contact the manufacturer</li> </ol>
LCD Window isn't lighting	Power supply is disconnected or loose	Connect/tighten the power supply or contact the manufacturer
E3 Code	<ol style="list-style-type: none"> <li>1. Lid was uncovered</li> <li>2. Lock automatically unlatches</li> </ol>	<ol style="list-style-type: none"> <li>1. Cover the lid</li> <li>2. Contact the manufacturer</li> </ol>



**Please read these thoroughly before operation:**

-The rotor and the rotor lid must always be securely fastened. If the instrument makes unusual noises when powered on, the rotor or rotor lid is not fastened correctly. Switch the instrument OFF immediately by pressing the “START/STOP” button.

-Do not use damaged rotors.

-Do not move the instrument during operation.

1. Place the tubes.
2. A liquid density of 1.2g/ml must not be exceeded at the max speed.
3. Damaged tubes cannot be centrifuged. In addition to sample loss, broken tubes can cause damage to the instrument.
4. Close tubes with lids before centrifuging. Open tubes can be displaced during centrifuging and damage the instrument.
5. The tubes must be loaded symmetrically.
6. Regularly inspect and maintain the rotor.
7. Even slight scratches and tears in the rotor can lead to serious internal damage to the instrument.
8. Avoid damage caused by aggressive chemicals including but not limited to: strong and weak alkali, strong acids.
9. In the event of contamination caused by aggressive agents, the rotor must be cleaned immediately using a neutral agent.

## 7. Warranty Info

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Tisch Environmental Inc. (dba: Tisch Scientific) conditionally warrants this instrument when used for its intended purpose for a 1-year period after the date of purchase.

The warranty coverage is limited to manufacturing defects or product performance defects.

The subject warranty shall be voided under the following conditions but not limited to issues being caused by misuse or abuse of the product or customer tampering with the instrument or both.

Valid warranty claims as determined by Tisch Scientific will be dispositioned by replacement or repair.

**Do not attempt to repair on your own.**

Please contact us at 513-467-0222 or [support@tisch-env.com](mailto:support@tisch-env.com) for RMA info.

**See the below QR code to visit this product's webpage.**

