



## i-Spin 10k+ Mini Centrifuge E20011

User Guide and Operating Manual

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# User / Owner Responsibility

Thank you for purchasing an i-Labware product. We appreciate having you as a customer and wish you many years of safe and satisfied use of your equipment.

## **PLEASE READ THIS MANUAL BEFORE OPERATING THE EQUIPMENT**

The i-Spin 10K+ Mini Centrifugue is for laboratory use only and is designed to function as specified when operated and maintained in accordance with the instructions supplied in this manual.

This equipment must be periodically checked, calibrated, maintained and/or, components repaired and replaced when necessary for equipment to operate reliably. Parts that have failed in whole or in part, exhibit excessive wear, are contaminated or are otherwise unfit for use, should be immediately discarded and replaced. To maintain the warranty, replacement parts must be installed or supplied by i-Labware Pte Ltd. Equipment that is not functioning correctly must not be used. This equipment must not be modified by unauthorized personnel or with unauthorized components.

Please keep this manual in a convenient place for future reference.

# Receiving

1. Examine shipping carton for signs of external damage.
2. Unpack all items. Retain and store original shipping cartons and materials for use in the event the equipment must be shipped.
3. Inspect the equipment and accessories for any sign of damage that may have occurred during shipping. If damage is discovered, immediately file a damage claim with the carrier. Notify i-Labware or your local i-Labware distributor of the claim, and we will do all we can to assist you.
4. Compare quantities received to quantities shown on the packing list. Report any discrepancies to i-Labware or your local i-Labware distributor immediately.
5. Complete the following information:

Rec'd by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

Serial number verified: \_\_\_\_\_

## Contact Us

i-Labware Pte Ltd  
enquiry@i-labware.com  
www.i-labware.com

# Warnings and Cautions

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Do not install, maintain, or operate this equipment without reading, understanding and following the proper i-Labware Pte Ltd instructions. Otherwise, injury or damage or both may result.

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This product is meant for use in the laboratory and should be used in accordance with safe laboratory practices.

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Repairing or tampering of the equipment components by the user or unauthorized personnel voids all warranties and specifications. The prevention of tampering with the equipment is the sole responsibility of the user or owner. i-Labware assumes no liability for any malfunction, failure, damage or loss to either equipment or life.

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Never open the case of the equipment or attempt to modify the product in any way since this can result in damage to the unit.

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Do not plug the equipment power cables into an electrical outlet if the power cable is damaged. To prevent electric shock, the 3-pin plug supplied with the equipment's power cable should be plugged into properly grounded electrical outlets. Be sure to grasp the plug, not the cable, when disconnecting equipment from an electric socket.

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# Warnings and Cautions

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Hot surfaces. The equipment may have very hot surfaces. If an operator contacts a hot surface, injury may occur. Use protective clothing to prevent injury. If other equipment comes in contact with a hot surface, damage to the equipment may occur. Ensure the area around this equipment is kept clear to prevent damage from occurring.

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Cap the tubes before placing in the blocks. Liquids may spill out if the tube is open when heated. This could result in damage to the block or the equipment.

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Check the voltage rating before you connect the equipment to an electrical outlet to ensure that the required voltage and frequency match the available power source.

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To prevent the risk of fire, electrical shock or malfunction, avoid using the equipment where it will be exposed to:

- Extreme temperatures
- Heat sources such as radiators or stoves
- Corrosive gases or strong magnetic field
- High humidity or moisture
- Excessive dust or sand
- Excessive vibration or shock

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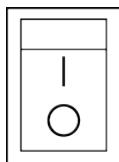
# Warnings and Cautions

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The vent on the equipment is designed for aeration. Do not cover the vent or place the equipment in a closed-in wall unit. Leave a 10.2 cm (4 in) minimum of clearance on all vented sides of the equipment to permit the airflow required for proper ventilation. Restricting airflow can damage the equipment or cause a fire. Do not stack equipment or place equipment so close together that it is subject to re-circulated or preheated air.

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The main switch is on the rear of the equipment. Switch to "I" to power on the device, and switch to "O" to power off the device.

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Power off when the operation is completed. If the equipment is not in use for extended periods, unplug the device from the electrical source and cover the equipment to protect from dust.

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If your equipment does not operate normally - in particular, if there are any unusual sounds or smells coming from it - unplug it immediately and contact i-Labware or your local distributor.

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Power off when cleaning the instrument. Use a soft, dry cloth to clean the equipment. If necessary, slightly moisten the cloth. Do not use abrasive cleansers, wax, or solvents (such as paint thinner or cleansing alcohol), since these may dull the finish or damage the surface of the equipment. The wells in the heating block should be cleaned periodically with alcohol to ensure good heat transfer between the block and tubes.

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# General Description

The i-Spin 10k+ Mini Centrifuge is suitable for usage in the laboratory for differential centrifugation, extraction of supernatant from a variety of samples, separation of trace blood cells and many others.

## **Product Features:**

1. Fits 8 tubes compared to the usual 6, allowing for 1.5x greater centrifugal force at the same speed
2. Convenient interchangeable rotors with easy clip-on fix
3. Includes rotor accessories and tube adaptors.

## **Equipped with two rotor types:**

1. 8 x 1.5ml rotor (suitable for 8 x 1.5ml / 2.0ml tubes with additional 0.2ml & 0.5ml tube adapters)
2. 8 x 0.2ml x 2-strip rotor (suitable for 8 x 0.2ml PCR tubes)

# Specifications

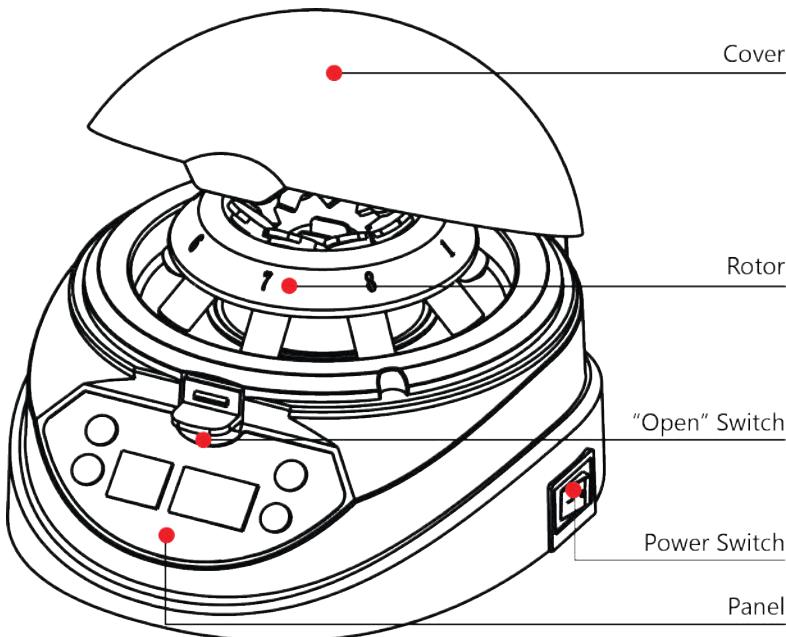
## Equipment Specifications

Speed	3000 - 10 000 rpm
Centrifugal force	1000 - 7500 g
Time Range	1s - 999 mins
Noise	≤55 dB
Power	AC110/220V, 50/60Hz, ≤45W
Fuse	0.5A /1.0A
Dimension	176 x 156 x 121 mm
Net Weight	1.5 kg

# Component Identification

This chapter describes the instrument's mechanical structure, the keyboard and functions of each key, as well as preparations before powering the system. Please read this chapter well before operating the i-Cube Dry Bath Incubator for the first time.

## Structure Description



# Component Identification

## Keyboard and Display Panel



# Operation Guide

## Time and Speed settings

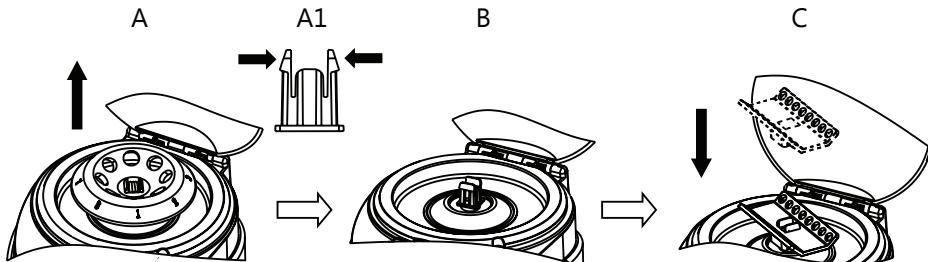
- a) Switch on the device. The LCD display should light up together with a beep sound.
- b) After 2 seconds, the LCD will display the time and speed settings of the last operation.
- c) Press  $\blacktriangle$  or  $\blacktriangledown$  to adjust the timing & speed. Repeated pressing increases the adjustment speed.
- d) Hold the Time buttons ( $\blacktriangle$  and  $\blacktriangledown$ ) for around 6 seconds to change the time unit. The "Minute" indicator will be lit when the time unit is minutes. When not lit, the time unit is seconds.

## Usage

Flip the switch to "I", set the time and speed accordingly. Close the cover tightly to begin operation. Upon completion, press the open button after the rotor has fully stopped. To stop operation halfway, flip the switch to "O".

## Rotor Replacement

Flip the switch to "I", set the time and speed accordingly. Close the cover tightly to begin operation. Upon completion, press the open button after the rotor has fully stopped. To stop operation halfway, flip the switch to "O".



1. Pick up the rotor. Push both sides of the clip towards the middle (Fig. A1). With your other hand, pick up the rotor.
2. Fasten the middle hole of the rotor onto the clip. Push until the rotor is firmly clipped on (Fig. C)

# Troubleshooting

No.	Issue	Possible Cause	Solution
1	Rotor not working with power on	Power line problems	Check the power line
		No power	Check power sources
		Broken switch	Replace switch
		Cover is not closed well	Check that cover is closed tightly
		Fuse blowout	Contact your local i-Labware distributor
2	Excessive noise and vibration when running	Device is not on a level and stable surface	Put device on a level and stable surface
		Rotor is not properly installed	Re-install the rotor
		Tubes are not balanced	Check that tubes are placed in a balanced position
		Sample volumes are too different between each tube	Ensure that each tube has the same volume of samples
		Tube lid is not tightly capped on, resulting in spillage.	Ensure that tube lids are capped on tightly and do not exceed the recommended volume
		Rotor wear & tear / defects	Contact your local i-Labware distributor
		Different types of tubes being used	Use the same type of tubes
		Rotor cover deformed or cracked	Contact your local i-Labware distributor

# i-Labware Warranty

i-Labware warrants products manufactured and supplied by it against defects in materials and workmanship when used normally for a period of 12 months after delivery. This warranty does not apply: (a) to consumable parts, such as protective coatings that are designed to diminish over time, unless failure has occurred due to a defect in materials or workmanship; (b) to cosmetic damage, including but not limited to scratches, dents and broken plastic on ports (c) to damage caused by use with another product (d) to damage caused by accident, abuse, misuse, fire, earthquake or other external cause (e) to damage caused by improper use of the i-Labware product, operating in inappropriate conditions (f) to damage caused by refitting without authorization (g) to an i-Labware product that has been modified to alter functionality or capability without the written permission of i-Labware (h) to defects caused by normal wear and tear or otherwise due to the normal aging of the i-Labware product, or (i) if any serial number has been removed or defaced from the i-Labware product.

## Contact Us

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[www.i-labware.com](http://www.i-labware.com)