

i-Labware

more than just equipment



i-Mix 3D Rotating Mixer E30010

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-Mix 3D Rotating Mixer 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



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.



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



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.



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.



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.

Warnings and Cautions



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.



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.



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.



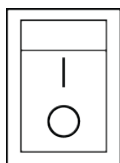
To prevent the risk of fire, electrical shock or malfunction, avoid using the equipment where it will be exposed to:

- 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

Warnings and Cautions



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.



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.



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.



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.



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.

General Description

The i-Mix 3D Rotating Mixer is uniquely designed with an adjustable tube holder for you to mix samples of various tube sizes at any angle. With its compact size, it can be moved from benchtop to refrigerator or incubator. The shell and rotating panel of this instrument adopt a special design, making it very easy to clean and decontaminate.

Product Features:

1. Can be operated in variety of rotation modes by horizontal, vertical or any angled rotation
2. Compact size. Easily moved from benchtop to refrigerator or incubator
3. Includes 3 different rotation frames:
 - 1) 1. 5 x 10ml /15 ml (Φ 15 mm- Φ 16 mm) centrifuge tubes +
6 x 5ml /7 ml (Φ 12 mm- Φ 13 mm) centrifuge tubes
 - 2) 3 x 50 ml centrifuge tubes + 18 x 0.5 ml centrifuge tubes
 - 3) 18 x 1.5/2 ml centrifuge tubes

Specifications

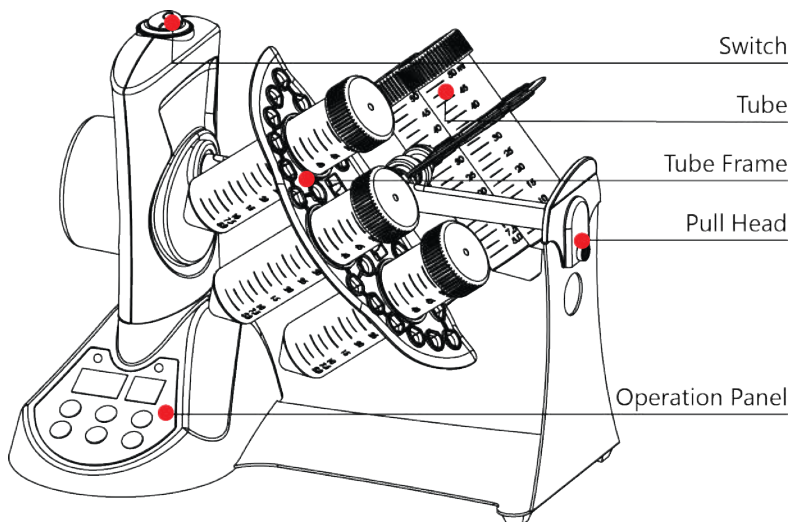
Equipment Specifications

Time Range	R.T.+5°C - 150°C
Reciprocating Rotation Degree	20° - 99°
Power	AC100/230V, 50/60Hz, ≤4W
Fuse	0.5A /1.0A
Speed	10-40rpm
Dimension	240x145x210 mm

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-Mix 3D rotating Mixer for the first time.

Structure Description



Component Identification

Keyboard and Display Panel



Key Function



Time and speed setting buttons.
Hold for faster toggling.
Time range : 1s-999min. Speed range: 10 - 40 rpm

Start / Stop

After toggling to desired time settings, press Start/Stop key to start operation. Press Start/Stop key to stop operation at any time.

Loop

Reciprocating rotation mode. Press LOOP to enter reciprocating rotation mode. Press LOOP again to exit Reciprocating rotation mode.

Operation Guide

Usage

Before operation, flip the switch to "0" and insert the tubes into the tube frame. Flip the switch to "1" to start operation. Flip the switch back to "0" to stop operation.

Important Warnings:

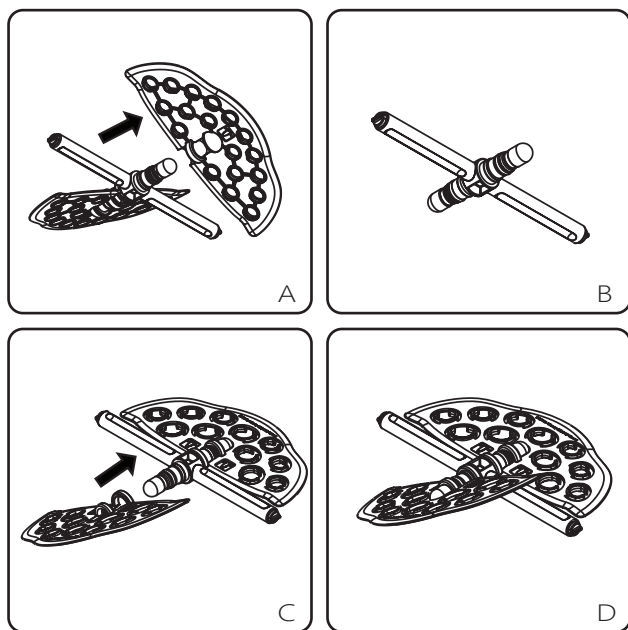
1. The tube frames on both sides of the cross bar should be of the same type to ensure reduce imbalance.
2. Do not touch the tube frames when the instrument is operating.
3. Turn off the instrument when there is excessive noise and/ or shaking.

Time and Speed Settings

1. Switch rotating mixer on. It will enter initialization mode with a 'beep' and the screen will display "88888".
2. After 2 seconds, the screen will display the last speed setting in rpm. For eg., 17 indicates 17 rpm.
3. Toggle time settings with ▲ or ▼. Hold ▲ or ▼ for quicker toggling.
4. Toggle speed settings with ▲ or ▼. Hold ▲ or ▼ for quicker toggling.
5. Hold ▲ or ▼ of the time buttons simultaneously for approximately 6s to toggle between seconds and minutes. When the unit is minutes, the minute indicator will light up. If not, the unit will be seconds.
6. Press LOOP to enter reciprocating rotation mode. The LOOP indicator on the top right will light up. The 3 digits on the right of the screen indicate the degree of reciprocating rotation, which ranges from 20-99°. Rotating speed is fixed at 20 rpm. Press LOOP again to exit reciprocating rotation mode.
7. When the time display reads 000, it indicates ∞.

Operation Guide

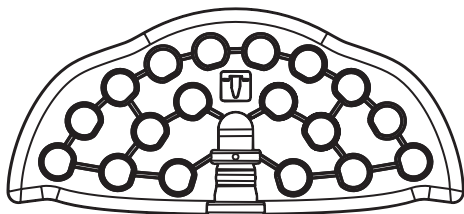
Tube Frame Replacement



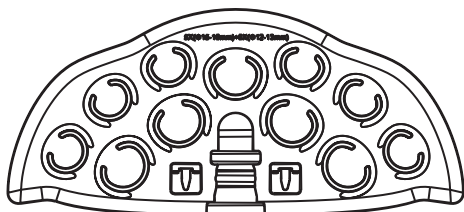
Insert the unoccupied pole of the cross bar into the tube frame as shown in Figure C. Fix the assembled tube frame and pole (Figure D) into the rotating mixer. Removal is done the same way.

Operation Guide

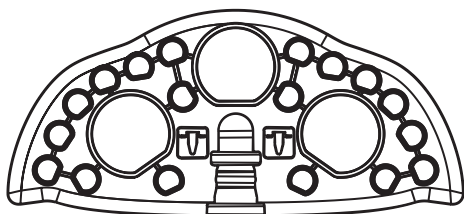
Available Tube Frames



A) For 1.5 or 2.0 ml tubes



B) Fits tubes with an outer diameter of
15-16 mm and 12-13 mm



C) Fits 0.5 and 50 ml tubes

Troubleshooting

No.	Issue	Possible Cause	Solution
1	Rotor not working when power is switched on	Power line problem	Check the power line
		Broken switch	Change the switch
		Others	Contact your local i-Labware distributor
2	Display speed is different from actual speed	Broken controller	Contact your local i-Labware distributor
3	"ERR" on the display panel	Speed is out of control	Contact your local i-Labware distributor
4	Tube frame cannot be fixed onto cross bar	Wear and tear of rubber ring	Replace rubber ring
5	Vibrates heavily when operating. Non-uniform rotating speed.	Imbalance resulting from using different types of tube frames on each side.	Keep weight balanced on each side by using the same type of tube frames.

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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