

FastPrep-96™ Pro



Cat. No.: 116014500

Content Version: April 2026

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1. Product Introduction

MP Biomedicals' FastPrep-96™ Pro is a versatile, high-speed homogenizer for high-throughput sample preparation. Using rapid linear motion, even tough samples are thoroughly homogenized within seconds. When paired with specialized Lysing Matrix beads, this system saves time and delivers high yields of intact DNA, RNA, proteins, and other metabolites.

Visit www.mpbio.com to explore additional products to support your research.

1.1 Features

- Excellent reproducibility
- True linear vertical motion
- Wide range of accessories
- LED indicator for machine status
- Power supply rating suitable for worldwide usage
- Digital display for speed, time, cycle and pause time
- Progress bar showing elapsed time
- Quick acceleration to top speed.
- High throughput, high-performance bead beating lysis system
- User-friendly graphical interface for an enhanced experience
- Enclosures resistant to heat, corrosion, impact, and chemicals

1.2 Technical Specifications

FastPrep-96™ Pro (Cat. No. 116014500)	
Motion	Vertical linear
Sample Capacity	Up to 192
Adapters	Interchangeable
Sample Holder Compatibility	2 mL, 4.5 mL, 15 mL, 50 mL, 250 mL, 96-well plate
Interface	Touch screen / industrial buttons
Time	360 seconds per cycle
Cycles	1 - 10
Min speed	800 revolutions per minute (RPM)
Max Speed	1800 revolutions per minute (RPM)
Increment Speed	50 revolutions per minute (RPM)
Acceleration	< 10 seconds to maximum speed
Deceleration	< 2 seconds to stop
Dimensions	400 mm x 660 mm x 540 mm (W x L x H)
Net Weight	31.5 kg (69 lbs)
Noise Level	< 80 dB
Power Requirements	110V AC / 60Hz, 11A; 220 V AC / 50Hz, 15A
110 / 230V Switch	Automatic AC Power Switch
Environmental Conditions (indoor use only)	
Temperature	2 - 48°C
Altitude	≤ 2000 m
Humidity	30 - 55%
Storage Conditions	
Temperature	0 - 60°C
Altitude	≤ 2000 m
Humidity	20 - 90%; non-condensing

2. Packing List

2.1 FastPrep-96™ Pro Item List

- Before unpacking the unit, inspect the packaging for any signs of damage.
- After unpacking, verify that all parts and accessories are present as listed below.

Items	Quantity	Cat. No.
FastPrep-96™ Pro	1	116014500
Metal QuickFlex™ Adapter 96 x 2 mL tubes	1	116010575
Blue Clickmaster, Ratchet Nut	1	116004525
Power Cord with Universal Plug	1	-
Quick Reference Guide	1	-

Note: For any damage or missing components, contact our authorized agent or MP Biomedicals directly for assistance.

3. Safety Precautions

Please read the entire instruction manual before operating the FastPrep-96™Pro.

1. Keep this manual for reference.
2. Professionals are required to operate the instrument.
3. Use the instrument only with the original power adapter.
4. When operating the instrument, the operator must wear appropriate protective gear to shield their body, hair, and clothing from toxic liquids and solids that may be ejected.
5. If the instrument exhibits abnormal behavior or increased vibration, immediately reduce the speed or turn off the power.
6. Ensure that the accessories and tubes are installed correctly.
7. Check that the instrument and accessories are in good condition before each operation.
8. Be careful of the risks that may arise from flammable and fragile substances.
9. Unplug the power before installing the accessories.
10. Carefully manage the instrument to avoid any collision or impact.

WARNING: DO NOT use the FastPrep-96™ Pro in hazardous environments or with materials for which it is not intended. Using accessories not provided or recommended by the manufacturer, or using them in ways not specified, may compromise the equipment's safety and protection.

CAUTION: To avoid electrical shock, disconnect the power cord from the unit or unplug it from the wall outlet to completely cut off power. Always disconnect the unit from the power supply before performing maintenance or service. Clean up any spills immediately, using approved liquids for biohazard spills. Solvent spills present a fire hazard—stop the unit immediately and do not operate it until the area is cleaned and vapors have dissipated. Do not immerse the unit for cleaning, and do not operate it if there are signs of electrical or mechanical damage.

4. Installation

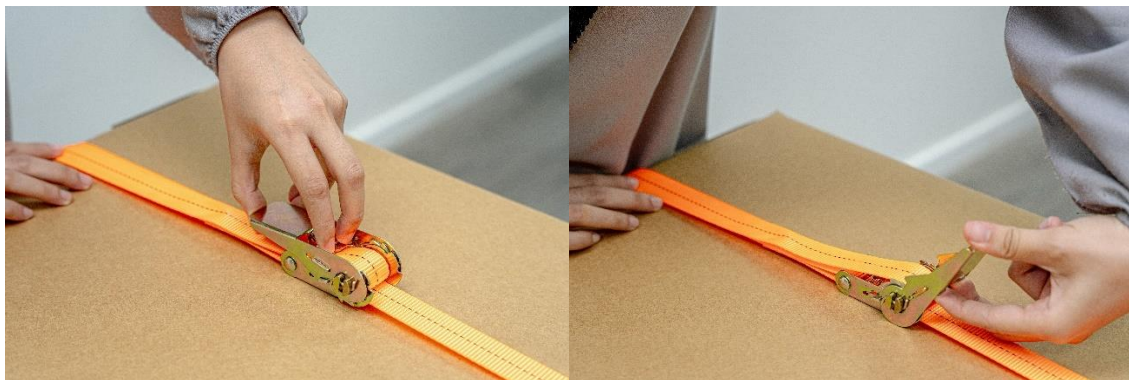
4.1 Unlocking the Ratchet Strap

Carefully remove the FastPrep-96™ Pro from the shipping crate by following these steps:

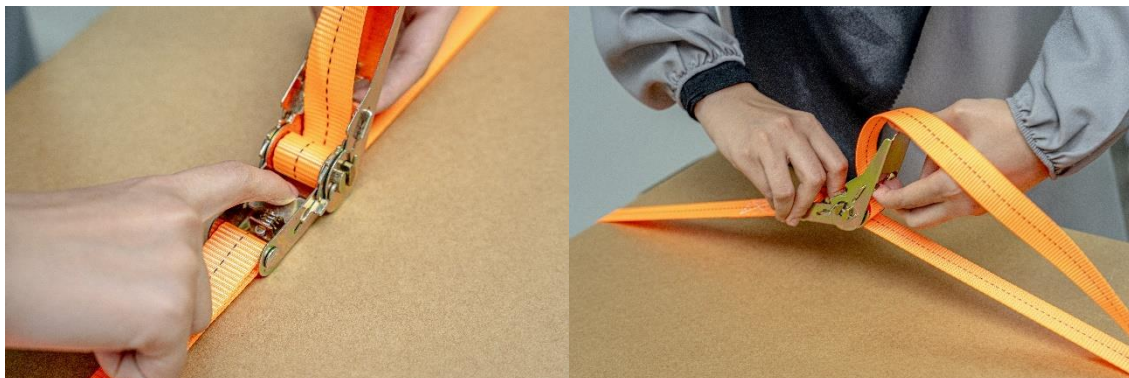
1. Set the packaging box on a flat surface. Inspect for any damages around the box.



2. Pull and release the lever to unlock the ratchet strap.



3. Push down the tab with one hand while lifting the handle up with another to release the tension on the strap.



- Slide the loose end of the strap out of the ratchet assembly. Unwrap and remove the strap from the instrument.

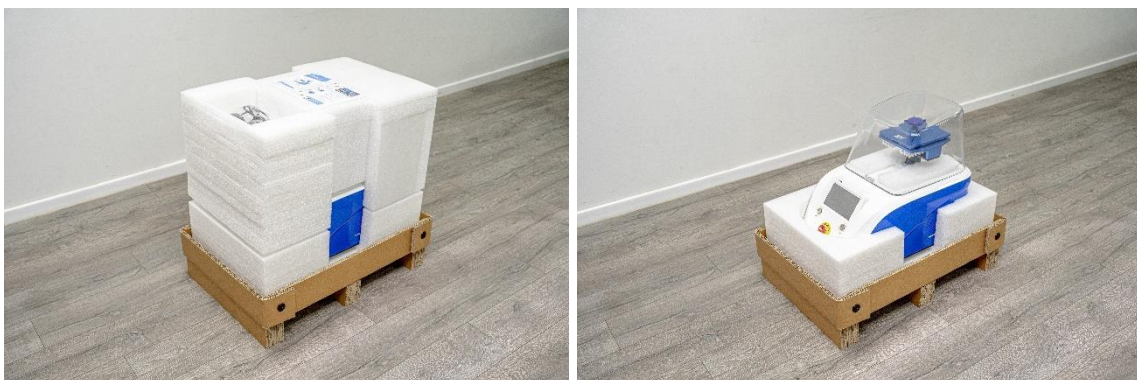


4.2 Unpacking

- Remove the top cover of the packaging box.



- Remove the side sleeve and the foam of the packaging box.







- 3. With two people, each should place their hands on opposite sides of the machine, positioning one hand at the bottom and the other at the side. Lift together carefully and place the machine on a stable, clean table. Ensure proper communication during lifting to avoid injury.



4.2 Power Connections

Select and assemble the appropriate base and plug type based on your country's requirements.



<p>UK / SG / MY / HK</p> 	<p>AU / NZ / CN</p> 	<p>US / JP / CA / PH / TH</p> 	<p>EU / KR / RU / IN</p> 
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5. Power and User Interface

5.1 Power on/off



Ensure that the machine power is off when not in use.

Power Switch Instructions

1. Ensure the machine is placed on a clean stable flat surface before connecting the power plug.
2. Locate the power switch at the back of the machine.
3. Connect the power cord to the AC receptacle on the back of the instrument.
4. Ensure the power switch is in the "O" position before connecting the power cord.
5. Plug the other end of the power cord into the appropriate electrical outlet.
6. Turn on the power switch to initiate operation. A red light on the switch will indicate that the machine is powered on.

Power Switch Positions

- **Position "I":** The instrument power is on.
- **Position "O":** The instrument power is off.

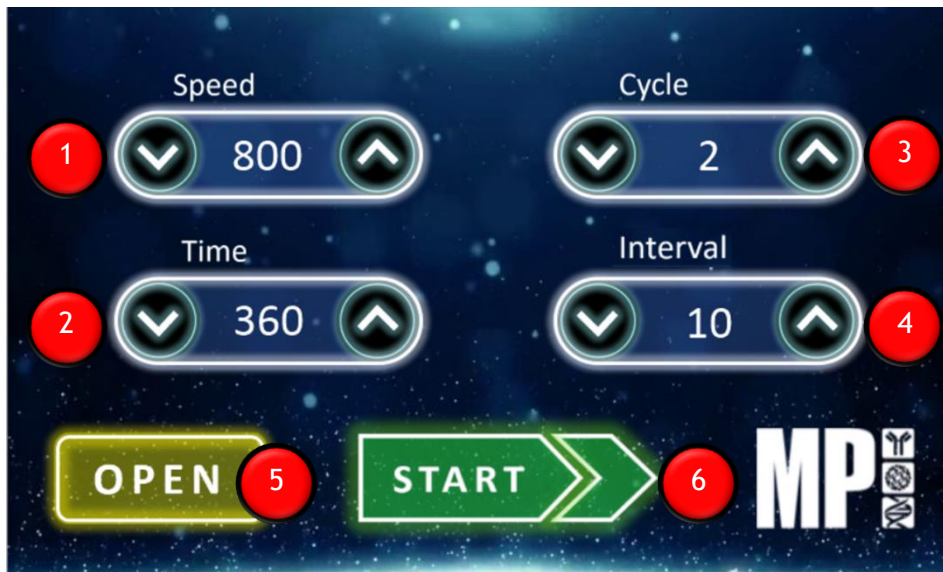


Front Power Button: Ensure the back panel power switch is turned on before pressing the machine's "Power" button.



5.2 Graphical User Interface

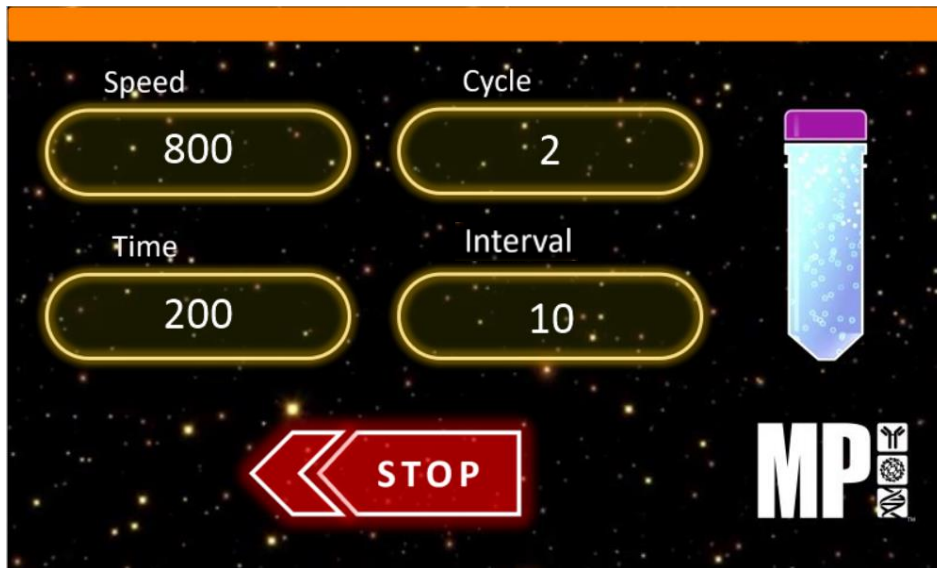
The FastPrep-96™ Pro uses two screens during operation: Program Screen and Run Screen.



Program Screen

The Program Screen displays when the machine is at rest. In this mode, the graphical user interface (GUI) allows the user to program the instrument in the following manner:

1. **Speed buttons & display:** Press the **Speed Up** or **Speed Down** arrow to adjust the speed. The updated speed will be displayed on the graphical user interface (GUI) in RPM.
2. **Time buttons & display:** Press the **Time Up** or **Time Down** arrow to adjust the time. The updated time will be displayed on the GUI in seconds.
3. **Cycle buttons & display:** Press the **Cycle Up** or **Cycle Down** arrow to adjust the number of cycles. The updated count will be displayed on the GUI.
4. **Interval buttons & display:** Press the **Interval Up** or **Interval Down** arrow to adjust the interval between cycles. The updated interval will be displayed on the GUI in seconds.
5. **Open Button:** Press the open button to unlock the dome.
6. **Start button:** Press the start button to begin operating the instrument.

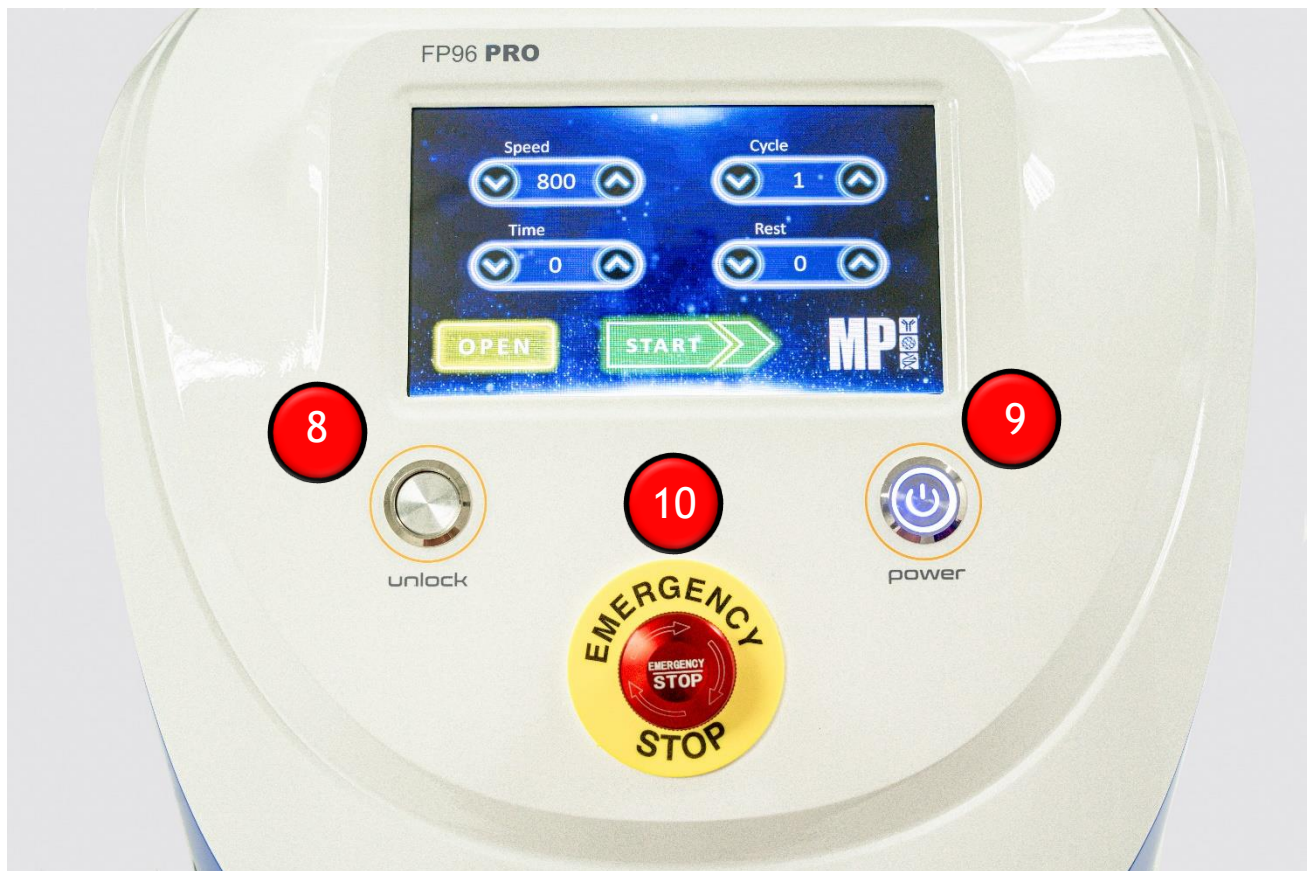


Running Screen

The Running Screen displays when the machine is actively homogenizing the samples. In addition to displaying real-time information about the run's status, the GUI allows for the following interaction:

7. **Stop button:** Press the "STOP" button to abort the operation at any time, whether the FastPrep-96™ Pro is actively shaking or at rest between cycles.

5.3 Machine Interface



8. **Unlock Button:** The mechanical manual unlock button is used to open the dome in the event of power failure.
9. **Power Button:** The machine's power button can only be switched on after the rear power switch is turned on.
10. **Emergency Stop Button:** In case of an emergency, press the 'Emergency Stop' button to immediately halt machine operations.

6. Safety Features

6.1 Emergency Stop Button

The emergency stop button is a critical safety feature designed to immediately halt the machine's operation in case of an emergency. It helps prevent accidents, injuries, and equipment damage.



Pressing the emergency stop button will immediately cut the power to the machine's motor driver systems, halting all motion and operations. The screen below will be showing until the emergency stop button is disengaged.



After activation, the button must be manually reset before normal operation can resume. To reset it, turn the button clockwise (90 degrees) until it clicks into place.

6.2 Dome Safety

The dome opening mechanism serves as a safety feature to automatically stop the motor and halt machine operations, ensuring operator safety and preventing accidents.

- **Before Operation:** The machine will function only when the dome is securely closed and locked.
- **During Operation:** If the dome opens while the machine is running, a sensor activates to immediately stop the motor. This ensures the machine halts whenever the dome is not securely closed.

The following screen appears if the dome is not closed before an operation begins or if it accidentally opens during an operation:



Safety Compliance: Never operate the machine if the dome is not properly closed. Always ensure the dome is fully closed before starting or restarting the machine.



Do not open the dome more than 90 Degrees.

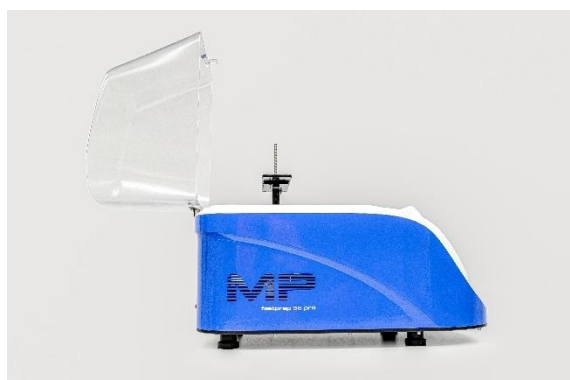
7. Step-by-Step Operating Instructions

Read this manual carefully and follow the safety guidelines before operating the instrument.

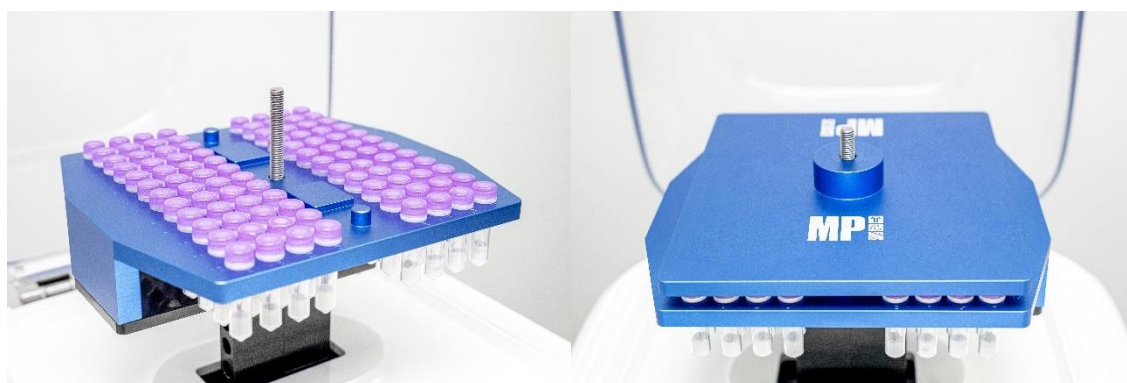
1. Press the “OPEN” button on the touch screen to unlock the dome.



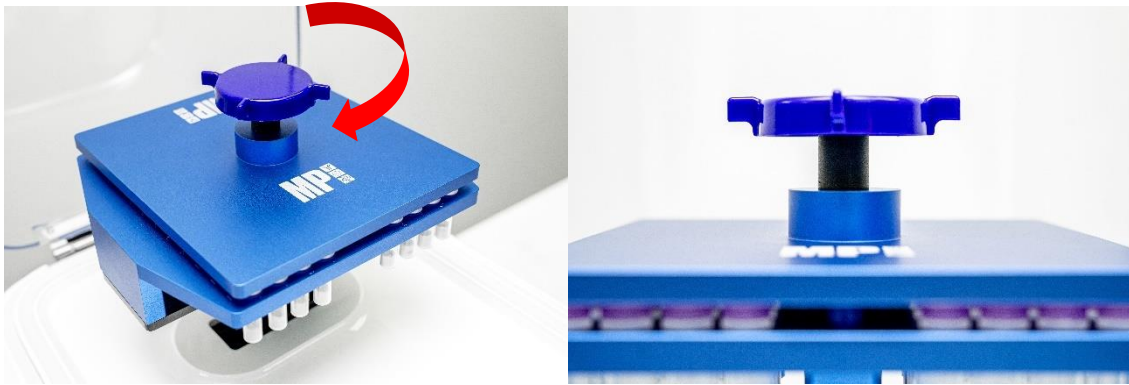
2. Gently lift the dome to the open position.



3. Load 2 mL tubes into the Metal QuickPrep™ adapter.



4. Engage the Blue Clickmaster onto the adapter rod and turn it clockwise until “Ka Ka Ka” sound is heard. Turn an additional full rotation to secure the adapter.



5. Close the dome down slowly until the electromechanical lock clicks, securing the dome in place. **DO NOT SLAM** the dome onto the machine!



6. Set the run parameters as described in section 5.2 Graphical User Interface.
7. Once all the parameters are selected, press “START” to begin the operation.
8. The machine will complete the operation once the preset time has elapsed.

Note: If more than one cycle is programmed, the system will enter a “rest” period between each cycle. During this time, the motor halts, and a countdown timer appears on the display.

8. Maintenance & Cleaning

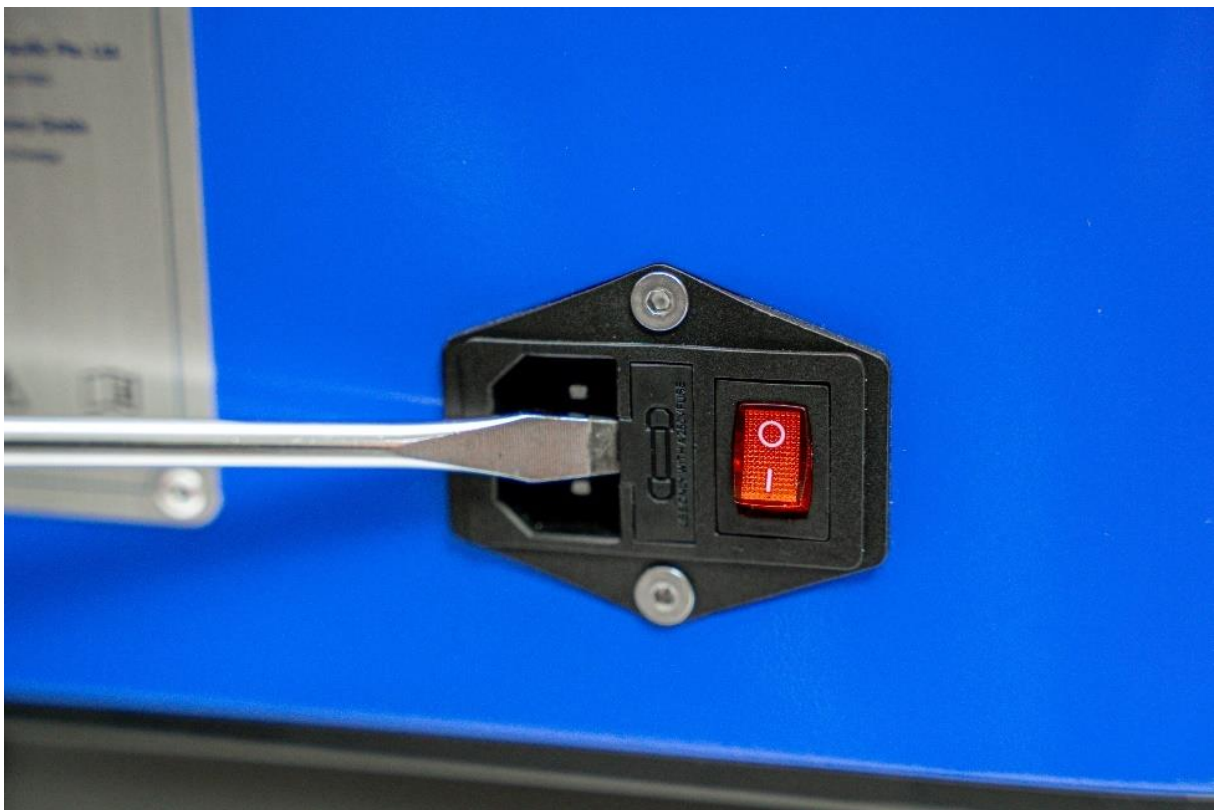
Maintenance: To ensure the longest lasting performance, an onsite maintenance package may be purchased from MP Biomedicals.

Fuse Replacement:

⚠ Caution:

Disconnect the power supply before replacing the fuse. To maintain fire protection, replace the fuse only with the specified type and rating: 10 Amp (T10AL250V). Two extra fuses are provided with the accessories. If a fuse fails, follow these steps for replacement:

1. Ensure that the power supply is disconnected before replacing the fuse.
2. Use a screwdriver to remove the fuse holder from the AC receptacle located at the back of the instrument (see figure below). A spare fuse is provided in the fuse holder. Replace the faulty fuse with a new one.
3. Carefully reinsert the fuse holder back into the AC receptacle.
4. Reconnect the power cord to the instrument, plug it into a compatible outlet, and turn on the power switch.



Cleaning: The following instructions are provided to ensure user safety during instrument cleaning.

- Unplug the power cord before cleaning.
- Wipe the instrument with a soft, damp cloth using a non-corrosive cleaning agent.
- DO NOT spray cleaning solutions directly onto the instrument.
- Ensure the instrument is completely dry before operation.
- Wear gloves while cleaning.

Warning: Avoid dripping detergent or water into the instrument during cleaning.

Spill Cleanup Procedure: In the event of accidental liquid spillage on the instrument's surface, shut down the instrument and clean up the liquid immediately. If the liquid has spilled inside the unit, first disconnect the power supply and then clean up any liquid on the surface. Allow the instrument to dry in a ventilated area for 24 hours before attempting to reuse it. If the instrument does not function properly after this drying period, please contact MP Biomedicals for assistance.

Warning: Operators must not use tools to access any parts that may pose a hazard during normal operation.

9. Troubleshooting

Refer to the table below for troubleshooting any malfunctions. If the issue persists, please contact MP Biomedicals or your sales representative for assistance.

Error	Causes	Solution
Not working Properly	Power is disconnected.	Remove the power cord from the AC receptacle and reconnect it.
	Power switch is off.	Switch on the power.
Loud Noise Vibration Large Abnormal Noise	The instrument is not stable.	Place the instrument on a stable, level surface.
	The sample in the test tube is imbalance.	Ensure an equivalent amount of sample is present in each test tube.
	Contact with other objects of the instrument.	Move the machine to a more spacious environment.
The unit does not turn on	Power failure or circuit breaker has tripped.	Turn off the switch, then turn it back on once the power is back.
	Printed Circuit Board (PCB) damaged by reagents.	Request service.
Bumping sound from inside	Something may be loose inside.	Request service.

10. Accessories & Spare Parts

Description	Cat. No.
Blue Clickmaster, Ratchet Nut for FastPrep	116004525
Metal QuickFlex adapter for 96 x 2 mL tubes for FastPrep-96	116010575
Metal Dual Plate Holder Assembly for FastPrep-96	119696169
Metal LargeFlex adapter 2 x 250 mL tube holder for FastPrep-96	116010680
Metal BigFlex adapter for 8 x 50 mL tube holder for FastPrep-96	116010670
Metal TallFlex adapter for 48 x 5 mL tube holder for FastPrep-96	116010685
Metal TeenFlex adapter for 12 x 15 mL tube holder for FastPrep-96	116010675

11. Warranty

MP BIOMEDICALS STANDARD PRODUCT WARRANTY

The warranty period begins two weeks from the date your instrument is shipped from our facility, ensuring coverage starts when the instrument is delivered. This warranty protection extends to any subsequent owner during the first year.

WARRANTY COVERAGE

For the first year, component parts proven to be non-conforming in materials or workmanship will be repaired or replaced at MP Biomedicals' expense, including labor. Installation and calibration are not covered. Contact MP Biomedicals for warranty determination and directions before any repairs. Expendable items, rubber, and gaskets are excluded.

LIMITATIONS

Replacement or repair of components or equipment under this warranty does not extend the warranty for the component parts. Prior approval from MP Biomedicals is required for returning any components or equipment. Non-conforming parts must be returned to MP Biomedicals postage paid, and replacement parts will be shipped FOB destination.

EXCLUSIVITY OF WARRANTY

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, OR IMPLIED. NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL APPLY.

MP Biomedicals will not be liable for any indirect or consequential damages, including but not limited to lost profits or loss of products. Your MP Biomedicals Sales Office can assist with comprehensive site preparation information before equipment arrival. Printed instruction manuals provide detailed guidance on equipment installation, operation, and preventive maintenance.

For service inquiries, contact the Technical Services Department or MP Biomedicals. We are available to answer questions regarding warranty, operation, maintenance, service, and special applications. Outside the USA, please reach out to our local MP Biomedicals Technical Services Department or distributor for warranty information.

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