

PowerMix™

Automatic Impression Material Dispenser

Operating Guide



CLINICIAN'S
CHOICE®
DENTAL PRODUCTS INC.

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Safety Instructions

- Use these operating instructions as a starting point. Instruct all operators of the unit with regard to the area of application, the possible hazards during operation, and the proper operation of the unit.
- Observe the information on risks and hazards on page 10.

Introduction

- PowerMix is an automatic mixing unit for the preparation of impression materials.
- The PowerMix is capable of working with 1:1 120mL cartridges. The 1:1 120mL cartridge has been specifically designed for this unit. This is the only form of packaging which can be used with the PowerMix.
- The mixer spindle allows the use of dynamic mixing tips with a hexagonal connection.
- When the cartridge lock lever is in the upright or unlocked position, the plunger can be pushed all the way back to the start position.
- Please have these operating instructions readily available for the operators.
- Additional information can be found in the Section, "Information for Operators", at the end of these instructions.

Installation

PowerMix is designed to be used as a portable device, but it can also be used as a tabletop unit while sitting on the stand.

Recommendations

Operate the unit at room temperature 18 - 24°C (64 - 75.2°F). When setting up the unit, please note the following:

- Do not place the unit under a heat source.
- Do not place the unit in front of open windows.
- Do not set the unit up where it will be subjected to direct sunlight.
- Do not subject the unit to high humidity.

Charging

Please note that PowerMix has been shipped in a low charge condition to prevent possible problems. Therefore, you should charge it at least 6 hours prior to use (Fig 1).

- Charge only with the adapter provided and make sure to keep adapter away from water and avoid extreme temperatures.
- PowerMix contains one 2200mah lithium-ion battery. When fully charged, it can support the use of over 8 fully loaded 120mL cartridges before needing a re-charge.



LED Power Display During Charging

Capacity	<20%	20%-75%	75%-99%	100%
LED Display	Blinking red	Blinking orange	Blinking green	Solid green

LED Power Display During Use

Capacity	<2%	2%-40%	41%-100%
LED Display	Blinking red plus 2 beeping sounds every 30 seconds for one hour	Blinking orange plus 2 beeping sounds every 30 seconds for one hour	Green



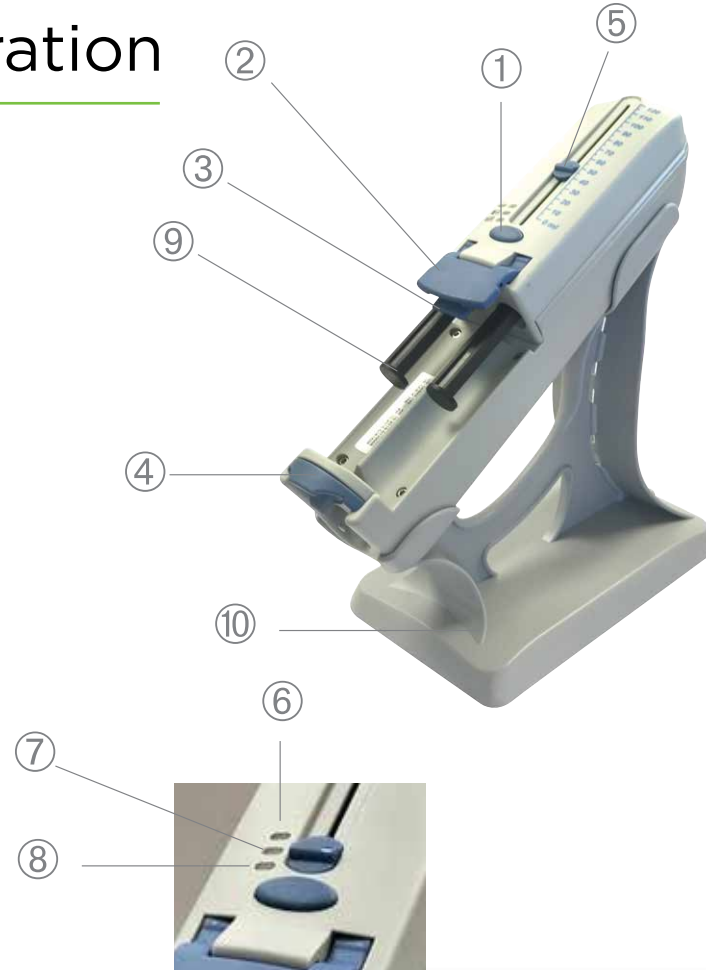
It is recommended that the unit be plugged in at the end of each day of use. The orange light is the first reminder that it's time to charge the unit. The BLINKING ORANGE LIGHT and the 2 BEEPING SOUNDS every 30 seconds is the first reminder that it's time to charge the unit. The BLINKING RED LIGHT and the 2 BEEPING SOUNDS every 30 seconds for an hour indicates that the power level is low and you must charge the unit IMMEDIATELY. It is harmful to the battery to let the power drain down completely.

NOTE: When the blinking red lighting is on, the unit will stop working and only a long beeping sound will be heard when pressing the ON button.

Dispenser Operation

Operating Elements

1	Start / Stop
2	Cartridge lock
3	Cartridge release
4	Locking ring
5	Plunger indicator
6	LED (Red - Battery indicator)
7	LED (White - Cartridge low volume)
8	LED (Blue - Cartridge emptied)
9	Plunger
10	Stand



Inserting the Cartridge

- Make sure the mixing tip is NOT attached. Lift the cartridge release lever (Fig 2) using the index and middle fingers.
- Make sure the plungers indicator is all the way back at the start position (Fig 11).
- Remove cartridge cap and dispose.
- Insert the cartridge into the cartridge bed (Fig 4).
- Push the cartridge lock down with your fingers (Fig 5).
- Attach a new mixing tip prior to mixing (see Attaching the Mixing Tip below).
- Push the plunger indicator manually forward until it is stopped by the back of the cartridge (Fig 8). The mixing process will not start until the plungers are touching the back of the cartridge.

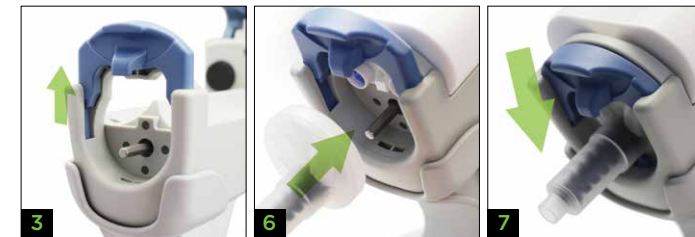
NOTE: The plunger indicator can only move forward in the locked position. In order to move the plunger indicator all the way back, the cartridge release lever must be in the upright position.



Attaching the Mixing Tip

- Pull the locking ring upwards until it clicks (Fig 3).
- Line up the metal mixing shaft of PowerMix with the corresponding part (in black) of the mixing tip (Fig 6). Push in lightly.
- Turn the mixing tip slightly and continue pushing until the 2 circular recesses on the back of the mixing tip line up with the corresponding outflow openings of the cartridge. Push in firmly until it bottoms out.
- Press down the locking ring firmly to ensure that the mixing tip and the cartridge are fully engaged (Fig 7).

NOTE: The locking ring cannot be pushed down fully until the mixing tip and cartridge are fully engaged.



CAUTION:

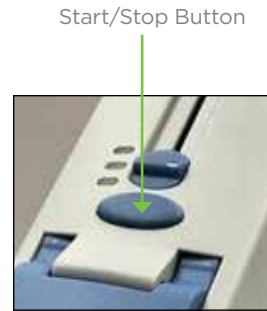
The mixing tip locking ring must be in the DOWN and LOCKED position before turning the machine ON. Failure to do so will result in 5 beeping sounds and unit will not work.

Always attach a NEW mixing tip and ensure that it is fully seated before pushing the 'Start' Button.

After mixing, leave the mixing tip on the cartridge as a seal. Do not remove the mixing tip before the impression material fully sets.

Loading the Impression Tray

- Press the “Start/Stop” button at the top. The unit extrudes paste only when the “Start” button is held down. When the “Start/Stop” button is released, the motor audibly continues to run briefly. This movement relieves the pressure on the cartridge to minimize the after-flow of the pastes.
- Extrude 1/4” of material on to a mixing pad prior to the first use to ensure base and catalyst are even.
- Tilt the tray to load it. Fill the tray continually from one side to the other, keeping the opening of the mixing tip immersed in the paste. If necessary, use a spatula or the mixing tip to smooth the impression material surface.
- When filling a quadrant dual-arch impression tray, the user may chose to fill one side first, release the “Start/Stop” button briefly to stop the machine, turn the tray over, then start it again to fill the other side.
- A mixing tip may be used as long as the mixing shaft inside the mixer rotates smoothly. If the mixing process is interrupted for more than 30 seconds, the material inside the mixing tip will begin to set, and a new mixing tip must be used (see Attaching the Mixing Tip on page 5).



Caution: If PowerMix is accidentally operated when a used mixing tip has not been replaced with a new one, the unit will beep 5 times and will automatically turn itself off to prevent damage to the motor.

Replacing a Cartridge

- Pull the mixing tip locking ring all the way up and remove the mixing tip by using a slight rocking motion while pulling (Fig 9).
- Flip the cartridge release lever upwards (Fig 10).
- Push the plunger indicator all the way back to the start position (Fig 11).
- Remove the cartridge from the unit by lightly lifting the back end first.



A white LED warning light (see image at right) will appear as well as a beeping sound when there is only a small amount of material left in the cartridge. We recommend replacing with a new cartridge at this point. (NOTE: Save all the almost-empty cartridges and use the PowerMix Connector to transfer unused material from as many of these partially-filled cartridges as needed to refill one of them. See appendix.) If the cartridge is totally empty during use, a blue LED light as well as a beeping sound will go on, and a new cartridge must be placed.

Alternatively, continue extruding material until the cartridge is totally empty (when blue LED is on), then follow instructions to quickly replace the empty cartridge with a new one. Since this process takes only 10 seconds, it should not interfere with normal use and saves you the trouble of having to deal with residual material in multiple cartridges.

Disposal of Consumable Materials

Dispose of used mixing tips and empty cartridges properly. Be sure to comply with local waste disposal regulations.



Maintenance and Cleaning

Cleaning

- Clean all components with a soft cloth. Solvents or abrasive cleaners may not be used at any time, as they can damage the plastic components. Alcohol or disinfectants are ok to use.
- With the pistons fully retracted, the cartridge bed is easily accessible for cleaning.
- To disinfect all components, spray the disinfectant on a towel and use it to disinfect the unit. Do NOT spray the disinfectant directly on the device.
- Disinfectant agents must NOT be allowed to enter the unit.
- Dry residual disinfectants on the device with a soft and fluff-free cloth as pooling may damage the plastic components.

Never use superheated steam for disinfection!

Maintenance and Repair

- No components inside the unit require servicing or repair by the user.
- Do NOT attempt to replace the battery yourself—you may damage the battery as well as cause overheating and injury. The lithium-ion battery in PowerMix should be replaced ONLY by an authorized service provider and recycled or disposed of separately from household waste according to local regulations. Do NOT incinerate battery.

Troubleshooting

Error	Error	Corrective Action
The unit does not start, LEDs do not light	Battery completely drained	Charge immediately. NOTE: It may take an hour for the blinking red LED charging light to come on when the battery is completely drained
The unit does not start, LED blinks in red	Low battery capacity	Charge immediately
Unit starts, but no material extruded	The cartridge lock is not pressed all the way down	Press the cartridge lock all the way down until a click is felt
	Plungers have not yet engaged with the cartridge	Move the plunger indicator forward until it is stopped by the back of the cartridge
Unit starts, but no material extruded, LED is blue, beep 1 time and stops	Impression material temperature too low. Material temperature too low or material is too thick	Allow the cartridge to warm to room temperature (minimum 18°C/ 65°F)
Unit starts, beeps 5 times and stops	Material has hardened in the mixing tip	Install a new mixing tip
	Locking ring not fully locked	Press the locking ring down all the way
Cartridge cannot be removed / cannot be installed	Plungers are not fully retracted back to the start position	Press the plunger indicator to retract the plungers all the way back to the start position
LED does not light during charging	The unit is not properly connected to the charger	Make sure unit and charger are properly connected

Customer Information

The following information is intended to assist you, in safely working with PowerMix in your office. Please have these operating instructions readily available for the operators.

APPLICATION AREA

Proper Use

PowerMix is an automatic mixing unit for the delivery of impression materials. PowerMix is capable of working with a 1:1 ratio 120mL cartridges. The 1:1 ratio 120mL cartridge has been specifically designed for this unit. This is the only form of packaging which can be used in the PowerMix.

Always comply with all safety and processing instructions provided by the manufacturer. Impression materials are to be processed in accordance with the manufacturer's instructions. Only the mixing tips specified by the manufacturer may be employed.

Technical Data

Cartridges:	Suitable for use with PowerMix Dimensions: 35 x 65 x 110 mm
Housing:	All parts of the housing are made of impact resistant plastic (polycarbonate, ABS)
Adapter:	Input: 100V - 240V , 50/60 Hz, AC Output: 12V , 1A , DC
Ambient temperatures:	18°C/64°F 40°C/104°F
Rel. humidity:	20% 80%
Classification:	Hazard Class I
Dimensions:	PowerMix: 59 x 82.5 x 270 mm, PowerMix on stand: L 275 mm x W 120 mm x H 256mm
Mixer Weight:	765g (empty, stand not included)
Storage and transport:	-20°C to + 60°C / -4°F to + 140°F Maximum rel. humidity 80%
Continuous sound pressure level:	>70 dB(A)

Hazard and Warning Information

- The unit may be used only in strict accordance with these written instructions. We accept no liability for any damage arising from any other or improper use of this unit.
- It is only intended for indoor use. The unit is only designed for dry applications and may not be operated or stored outdoors or under wet conditions.
- If the unit is moved from a cold into a warm environment, condensation can result in a hazardous situation. Never begin operating the unit until it has reached the ambient temperature.
- To avoid electrical shock, do not insert any objects into the unit.
- Keep solvents, flammable liquids, and powerful heat sources away from the unit as they may damage the plastic housing.
- Do not allow any cleaning agents to enter the unit during cleaning as they could cause an electrical short or a dangerous malfunction.
- Only a properly trained, authorized technician may open the unit housing and repair the unit.
- Note any hazard or warning information provided by the material manufacturer.
- Do not operate in an explosion-prone area.

Authorized Individuals

- Only properly trained individuals may operate and service the unit.
- Any repairs not specifically described in these operating instructions may only be performed by a qualified electrician/technician.

Maintenance / Repair

- No components inside the unit require servicing or repair by the user.
- Repairs may only be performed by qualified electricians or authorized dealers.

Disposal Information

Disposing of Consumables

- Empty cartridges and used mixing tips must be disposed of in accordance with local recycling regulations.

Instrument Disposal

- The machine must be disposed of by a specialist facility. This specialist facility must be informed of any hazardous residue in the machine.

Meaning of the Symbols

- The EU Directive prohibits the disposal of any electric or electronic devices marked with these symbols in combination with household waste.

Liability Exclusion

CLINICIAN'S CHOICE Dental Products, Inc. shall be absolved from all claims for damages or warranty if:

- The product is employed for any purposes other than those cited in the operating instructions;
- The product is altered in any way other than those alterations described in the operating instructions;
- The product is opened or repaired by anyone other than an authorized facility or if components not authorized by CLINICIAN'S CHOICE Dental Products, Inc. are employed;
- The product continues to be employed, despite obvious safety faults or damage;
- The product is subjected to mechanical impacts or is dropped.

Warranty

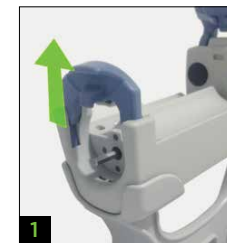
CLINICIAN'S CHOICE Dental Products, Inc. warrants this product to be free from defects in material and manufacture. CLINICIAN'S CHOICE Dental Products, Inc. MAKES NO OTHER WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Provided the unit is properly used, CLINICIAN'S CHOICE Dental Products, Inc. warrants all components of PowerMix for a period of 1 year.

User is responsible for determining the suitability of the product for user's application. If this product is defective within the warranty period, your exclusive remedy and CLINICIAN'S CHOICE Dental Products, Inc. sole obligation shall be to repair or replace the CLINICIAN'S CHOICE Dental Products, Inc. product.

Appendix

Optional Accessory

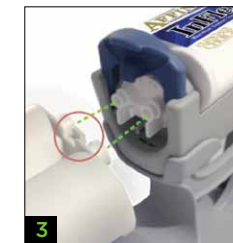
Use the PowerMix Connector to transfer unused material from as many partially-filled cartridges as needed to refill one of them.



1 Pull the locking ring up as shown until it clicks.



2 Fully insert the connector onto the head of the cartridge as shown. Make sure the correct end is facing outwards (see arrow).



3 Making sure the hook (see red circle) is on top, connect a second cartridge to the connector as shown.



4 Press the locking ring down firmly to ensure that the locking ring and cartridge are fully engaged.




5 Push the cartridge indicator forward until it engages the back of the cartridge (see arrow).




6 Press the Start/Stop button to start the transfer until empty. Repeat until the cartridge is full.

CAUTION

AVOID OVER-FILLING. Under NO circumstances should the pistons protrude beyond the end of the cartridge (see pictures).



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See Instructions for Use at clinicianschoice-ifu.com

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