



Planetary Floor Mixer

Models: _____

#177MX60H 60 Qt. • 220-240V • 3 Phase • 2 1/2 HP

Warning:

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

For Your Safety:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

Note:

Please read and keep these instructions. Indoor use only.

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Specifications

Model		177MX60H
Voltage		240V
Wattage		1750W
Phase		3
Horsepower		2 1/2 HP
Max. Flour Capacity		50 lb.
Mixing Speed	Whip	550 RPM
	Flat Beater	265 RPM
	Dough Hook	137 RPM
	Hub Attachment	53/101/210 RPM



CONFORMS TO NSF STD. 8
CONFORMS TO UL STD. 763
CONFORMS TO CSA STD. C22.2 NO 195

The following steps must be completed and checked by a licensed and insured food service technician or electrician. The answer to each step below should be “Yes.” If not, adjust the unit so that it meets the requirements. For additional instructions, see the Installation Test section.

- Is the unit level?
- Is the unit connected to 220-240V?
- Is the unit connected to 3 phase?
- If wired for **3 phase**, confirm the following: Does the planetary spin in a counterclockwise direction, matching the arrow's direction on mixer guard? If it rotates in a clockwise direction, immediately stop, disconnect the power, and switch any two incoming connections (L1-L3). This is crucial to correct the phase alignment and prevent mechanical damage.

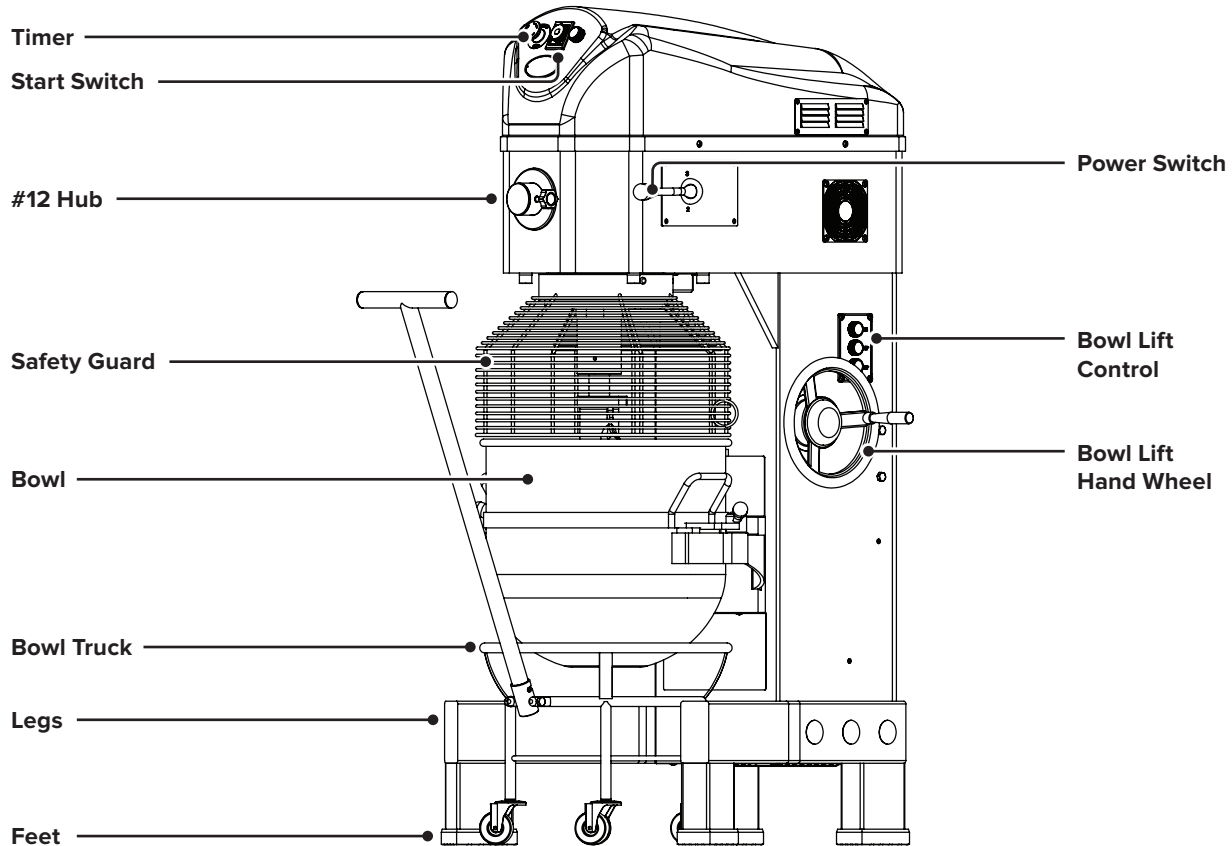
Safety Precautions

WARNING

- Read all instructions carefully and completely.
- For commercial use only.
- Protect against electrical shock by keeping all cords, plugs, and other electrical components away from water or other liquids.
- Unplug this unit when not in use and before cleaning.
- DO NOT operate this unit or any appliance with a damaged electrical cord or plug.
- DO NOT operate this or any appliance after it has malfunctioned or has been damaged in any way.
- DO NOT use outdoors.
- Disconnect the unit by removing the electrical plug from the wall outlet.
- DO NOT use appliance for any application other than its intended use.
- DO NOT store any item on top of this unit when in operation.
- DO NOT allow this unit to touch or to be covered by flammable material such as curtains, draperies, walls, etc. when in operation.
- DO NOT clean with metal scouring pads, as pieces can break off and touch electrical components, heightening the risk of electrical shock.
- Avoid scratching the surface or nicking the edges of this unit.
- Turn off the appliance by removing the plug from wall outlet.
- Note that the use of accessories not recommended by the manufacturer may result in injury.
- Children should be supervised to ensure that they DO NOT play with the unit.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge, unless a person responsible for their safety has given them supervision or instruction concerning use of the appliance.

Save these instructions for future reference.

Parts Identification



Installation

WARNING

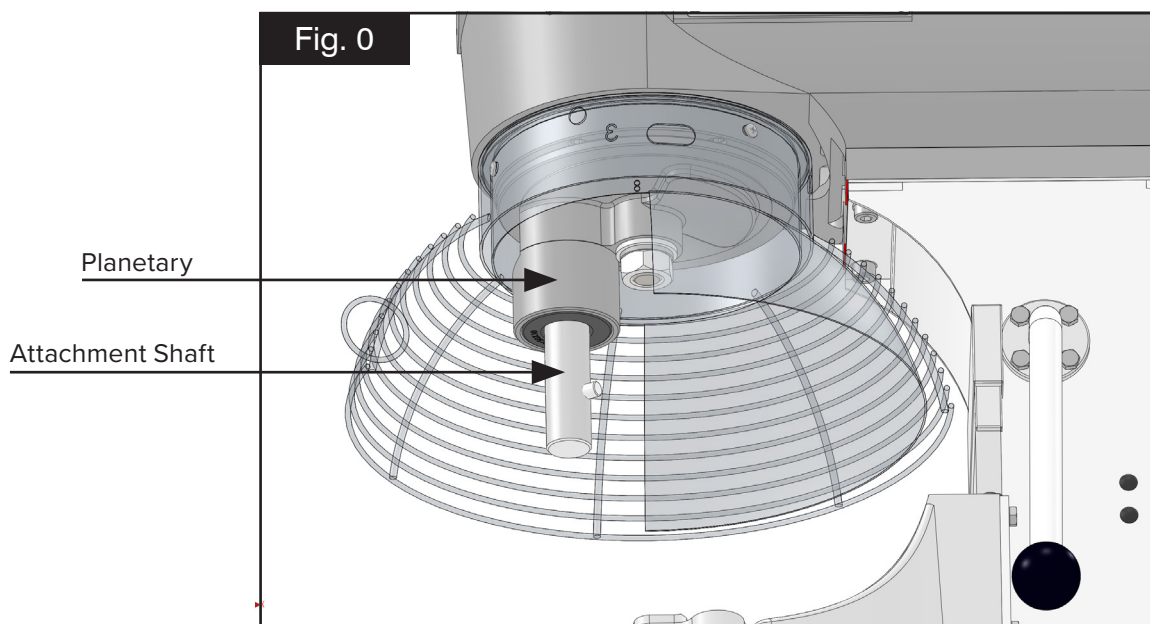
- This mixer **DOES NOT** come with a plug and must be hard wired into a 220-240V, 3 phase connection. Consult a professional electrician for installation.
- If the phase sequence is incorrect, the motor will rotate in the **WRONG DIRECTION**, leading to equipment damage, failure, or even injury.
- Electrical and grounding connections must comply with the applicable portion of the National Electrical Code and/or other local electrical codes.

Pre-Installation Requirements

1. Prior to installation, the electrical supply to the unit must be checked to ensure it complies to the electrical rating of the machine as detailed on the serial plate.
2. The unit must be positioned on a sturdy, level surface.
3. The unit must be positioned so that there is sufficient space to operate the controls and to raise and lower the mixing bowl without obstruction.

Installation and Rotation Check

1. **Do not use the up and down buttons for the bowl lift initially.** Pressing these buttons prematurely can damage the mixer. Instead, a manual bowl lift hand wheel will be used upon initial installation.
2. **Install the empty bowl in the correct position on the lifter arm with the bowl tab towards the rear of the unit.**
3. **Use the left and right bowl locks to secure bowl to the lifting arm.**
4. Remove the hand wheel cover found on the side of the mixer to expose the hand wheel attachment hub.
5. Attach the bowl lift hand wheel to the hand wheel attachment hub and turn it clockwise. Keep turning until the bowl is completely raised to its highest position and the hand wheel no longer turns. Make sure the bowl is all the way up before proceeding to step 6.
6. Remove the hand wheel and replace the cover.
7. **Verify incoming voltage matches the serial plate.**
8. Connect lines in the supplied power cord to L1, L2, and L3 inside a junction box or electrical disconnect.
NOTE: The green wire is meant for ground only.
9. Locate the speed control on the front, upper portion of the machine. Set the speed selector to position "1." Only use the "1" position at this time to avoid damaging the mixer.
10. **Ensure Bowl guard is closed completely.**
NOTE: All safety switches must be closed for the mixer to operate. (The bowl should be in place, the lift arm completely up, and the bowl safety guard closed.)
11. Next, set countdown timer to a setting greater than 0.
NOTE: The timer requires a valid setting greater than 0 for the mixer to operate.



12. Press the start button and observe the direction the planetary (FIG. 0) rotates. The planetary is located directly above the attachment shaft. The planetary's rotational direction should align with the arrow on the mixer guard (rotating counterclockwise). Simultaneously, the attachment shaft should spin clockwise if the unit is wired correctly. Press the stop button immediately once you confirm the direction.

NOTE: If the planetary is rotating in the opposite direction of the red arrow, this is the incorrect direction. The direction must be changed or damage will occur. See "Planetary Rotation Change Procedure" below.

If the mixer doesn't start, check again to make sure the bowl is fully raised and all safety switches NOTED in step 10 are in place.

Planetary Rotation Change Procedure:

1. Remove power and verify with an electric meter that there is no electricity at the wires in the junction box or electrical disconnect where the unit receives power. Disconnect wires L1 and L2. Reinstall L1 where L2 was originally connected, reinstall L2 where L1 was originally connected. By switching these two wires the rotation of the planetary will change direction.
2. Reconnect the power and repeat steps 1-12 to ensure everything is set up correctly.

Operation

CAUTION

- All new mixer bowls and accessories, including whips, beaters, and dough hooks, should be properly washed before use.
 - **ALWAYS** turn off the machine before changing speeds. Failure to do so may damage the gearbox and void the warranty.
 - **ALWAYS** make sure the bowl is securely attached and in the fully lifted position and the safety guard is closed before operation.
 - **DO NOT** run the mixer with hub accessory and agitator at the same time.
 - Bowl lift handle is supplied loose and can be used to raise and lower the bowl in the event of a power failure. **THIS HANDLE MUST NOT BE FITTED IN NORMAL OPERATION.**
1. Open the safety guard and lower the bowl using the bowl lift handle.
 2. Affix the appropriate attachment to the agitator by raising it onto the mixing axle and rotating clockwise on the shaft until it locks into place. To remove, raise the agitator on the shaft until it clears the lock and then rotate counterclockwise and lower. (See Attachment Guide on page 8-9.)
 3. Load product into the bowl, being careful to not overload. (See Mixer Capacity Chart on Page 8.)
 4. Raise the bowl into position using the bowl lift controls.
 5. Close the safety guard.
NOTE: The machine will not operate if the guard and bowl are in incorrect/lowered positions.
 6. Set the timer to desired operating time between 1-30 minutes.
NOTE: The timer does not require adjustment for every cycle and will default to pre-set time until changed by the operator.
 7. Set the desired mixing speed using the handle suitable for the attachment fitted and product being processed. (See Mixer Capacity Chart on Page 8.)
 - Low Speed: Position 1, knob facing forwards.
 - Medium Speed: Position 2, knob facing up.
 - High Speed: Position 3, knob facing down.
 8. After time and speed have been set, press the ON button. The unit will run for the time period set and then switch OFF automatically.
 9. The speed should **ONLY** be adjusted when the mixer is off. Adjusting the speed while in motion can lead to damage.
 10. The red emergency STOP button will shut down the machine at any time during the cycle.

Using the Attachment Hub

1. Turn the mixer OFF and remove any agitator attachment.
2. Loosen the hub mounting screw and remove the attachment hub cover.
3. Insert and align the attachment shaft into the attachment hub and ensure the attachment is fully inserted.
4. Tighten the hub mounting screw.
5. Operate according to directions above, starting with step 4.

Mixer Capacity Chart

Product	Absorption Ratio	Agitator	Speed	Maximum Bowl Capacity
Bread & Roll Dough	60% AR	Dough Hook	1	50 lb.
Heavy Bread Dough	55% AR	Dough Hook	1	40 lb.
Pizza Dough, Thin	40% AR	Not Recommended*	-	25 lb.
Pizza Dough, Medium	50% AR	Not Recommended*	-	35 lb.
Pizza Dough, Thick	60% AR	Not Recommended*	-	40 lb.
Raised Donut Dough	65% AR	Dough Hook	1	25 lb.
Mashed Potatoes	-	Flat Beater	1 / 2 / 3	35 lb.
Waffle or Pancake Batter	-	Flat Beater	1 / 2 / 3	20 qt.
Egg Whites	-	Wire Whip	1 / 2 / 3	2 qt.
Whipped Cream	-	Wire Whip	1 / 2 / 3	6 qt.
Cake Batter	-	Flat Beater	1 / 2 / 3	35 lb.

*The motor of this unit is not designed to handle large batches of pizza dough.

- Absorption ratio (AR) is found by dividing water weight by flour weight.
EXAMPLE: If a recipe calls for 5 lb. of water and 10 lb. of flour, the AR would be 50% ($5 \div 10 = 0.50$).
- Above capacities are based on 12% flour moisture at 70°F water temperature.
- If high-gluten flour is used, reduce above dough batch size by 10%.
- 2nd and 3rd speeds should NEVER be used on mixtures with less than 50% AR.
- Helpful conversions when calculating which mixer is appropriate for your usage:
 - 1 Gallon of Water = 8.3 lb.
 - 1 Quart of Water = 2.08 lb.

Attachment Guide

Standard Attachments



	Whisk	Flat Beater	Dough Hook
Item #	177MX60WHISK	177MX60BEAT	177MX60HOOK
Usage	Liquids and soft ingredients	Dry ingredients	Dough
Speeds	1 / 2 / 3	1 / 2 ONLY	1 ONLY
Notes	DO NOT run more than 15 minutes.	DO NOT use in high speed. DO NOT run more than 15 minutes.	DO NOT use in med/high speed. DO NOT run more than 20 minutes. AR must be > 50%.

Optional Attachments



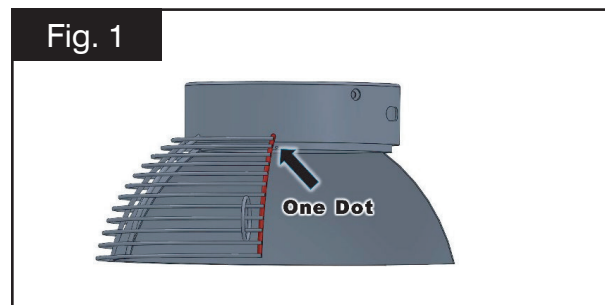
	Bowl Truck (Included)	Ingredient Chute (Sold Separately)
Item #	177PMX60CART	177MX60CHUTE
Usage	Provides easy transportation for your mixer bowl.	Adding ingredients while mixer is in use.
Speeds	-	1 / 2 / 3
Notes	Reduces risk of injury while moving large, heavy bowl.	Attaches to the unit's safety guard. Prevents spills while adding ingredients.

#12 Hub Attachments (Sold Separately)

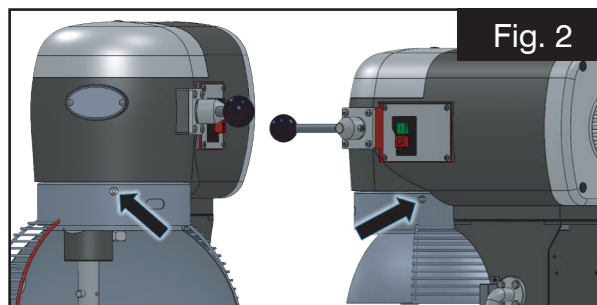


	Meat Grinder	Shredder	Slicer	Shredder/Slicer
Item #	177MX20GRNDR	177MX20SHRDR	177MX20SLICR	177MX20SHSL
Usage	Grinding meat	Shredding fruits and vegetables	Slicing fruits and vegetables	Shredding or slicing fruits and vegetables

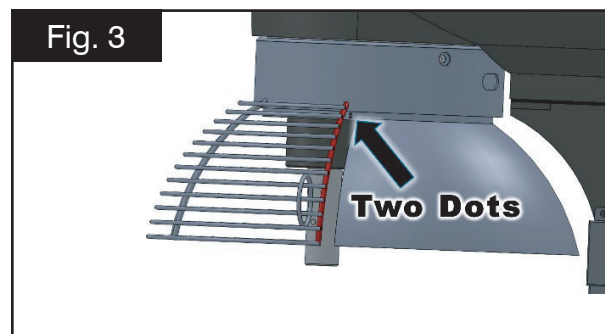
Safety Guard Removal



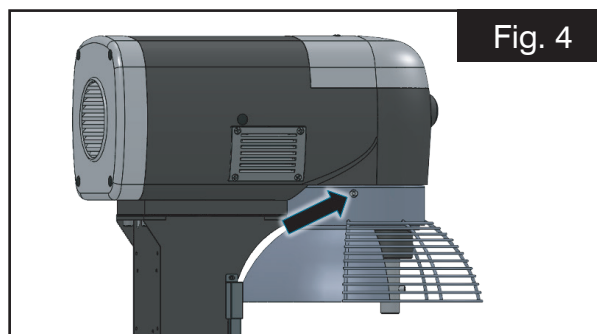
1. To remove the wire guard, adjust the position to align the edge of the wire guard with the single indentation marker on the fixed rear guard. (Fig. 1)



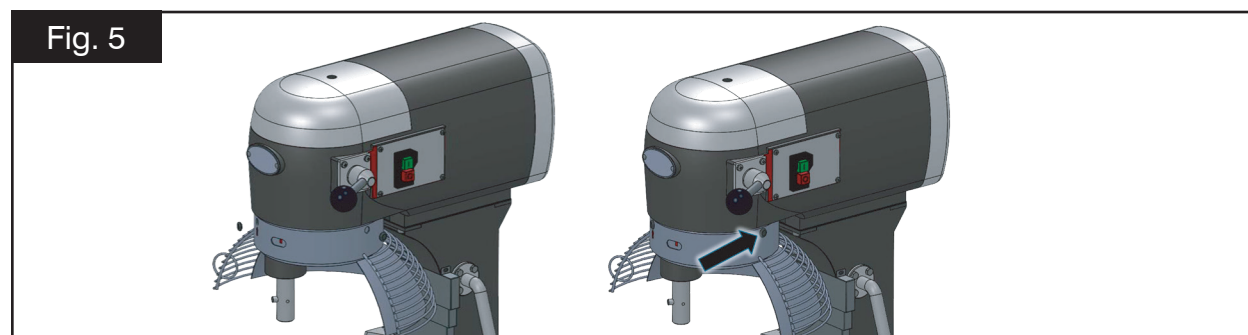
2. Remove the rubber closing caps from the mounting screws at noted locations. Then remove the screws. (Fig. 2)



3. Turn the wire guard until the edge of the wire aligns with the two indentation markers on the fixed rear guard. (Fig. 3)



4. Remove the cap and mounting screw at noted location. (Fig. 4)



5. Ensure that all rubber caps are fitted properly into the screw heads. (Fig. 5)
6. To reinstall the wire guard after cleaning, reverse the steps above.

Cleaning & Maintenance



WARNING

DISCONNECT THE MACHINE FROM THE POWER SOURCE BEFORE CLEANING

- All new mixer bowls and accessories, including whips, beaters, and dough hooks, should be properly washed before use.
- If the unit has not been used for some time, it is recommended that the procedure above is followed before mixer use.
- It is important that the rear bowl lift guides are greased every three months to prevent corrosion.
- The bowl guard is easily removable for cleaning. (See Safety Guard Removal on page 10.)
- It is highly recommended this cleaning procedure is followed for bowls and accessories prior to whipping egg whites or whole eggs.

Cleaning

1. Clean the bowl and accessories with hot water and mild soap.
2. Rinse with a mild vinegar or soda solution.
3. Rinse with clean water and allow to dry.
4. Clean the outside of the unit with a clean, damp cloth.

Troubleshooting

Problem	Possible Cause	Solution
Nothing happens when unit is turned ON.	Unit unplugged.	Ensure the plug is securely set in the outlet.
	Improper voltage.	Check that the outlet matches the units power requirements.
	Safety guard, bowl, or bowl lift handle are out of position.	Ensure all parts are securely placed in position according to operation instructions before hitting ON switch.
Oil leaking from unit.	Sealing washer is damaged.	Replace the washer.
Motor overheating and running slower than it should.	Insufficient voltage.	Check that the outlet matches the units power requirements.
	Incorrect speed selected.	Select a lower speed as the product you are mixing may be too dense for higher speeds. (See Mixer Capacity Chart on Page 8.)
Unit is noisy and overheating.	Poor lubrication.	Add or change lubrication.
Mixer accessory is touching bowl during operation.	The mixing accessory or bowl may be deformed.	Repair or replace the deformed piece.
Mixing stops before timer is up.	The motor is close to overheating and the thermal overload switch has been activated.	Allow unit to cool down for 30-60 minutes, reduce batch size if problem persists.
Motor running but attachments not moving.	Loose belt.	Contact a licensed and insured technician to perform belt maintenance.
Mixer running intermittently (stops and starts while mixing product).	Belt slipping.	Contact a licensed and insured technician to perform belt maintenance.