

**TRUFROST & BUTLER**

# **USER MANUAL**

**Planetary Mixers**

**PM-10 Premia**

**PM-20 Premia**

**PM-30 Premia**

**PM-40 Premia**

**PM-60 Premia**



## - IMPORTANT SAFETY NOTICE -

This manual contains important safety instructions which must be strictly followed when using this equipment.

**Maintain and use this manual as a reference for training.**

**Planetary Mixers: PM-10 Premia, PM-20 Premia, PM-30 Premia, PM-40 Premia, PM-60 Premia**

## Attention Owners and Operators

Equipment provides safe and efficient food processing as long as the equipment is used in accordance with the instructions in this manual and is properly maintained. Serious injury may occur unless operating personnel are adequately trained and supervised. The owner of this equipment is responsible for ensuring that this equipment is used correctly and safely and that it strictly follows all instructions in this manual and local, state and/or federal legal requirements.

The owner should not allow anyone to have access to this equipment unless they are 18 years of age or older, have been properly trained and supervised, and have read and understood this manual. Owners should also ensure that no customers, visitors, or other unauthorized persons come into contact with this equipment. Please keep in mind that cannot predict the conditions or circumstances in which its equipment will be operated. It is the owner and operator's responsibility to be alert to any hazards presented by the function of this equipment. If you are in doubt about a task or the proper way to operate this equipment, ask your supervisor.

This manual contains precautions to help promote the safe use of this equipment. Throughout the manual, you will see additional warnings to help alert you to potential hazards.



**Warnings label affecting your personal safety are indicated by:**

**or**

**Warnings label related to possible damage to the equipment are indicated by:**



Puts several warning labels in English on its mixers. If warning labels and/or manuals are misplaced, damaged or illegible, or if you need additional copies, please contact your nearest representative or dealer directly to request these items free of charge.

Remember that neither a manual nor a warning label can replace the need to be vigilant, to properly train and supervise operators, and to use common sense when using this equipment.

## Specification

Model	Transmission	Bowl Capacity (L)	Maximum Kneading Capacity (KG)	Maximum Flour (KG)	Power (KW)	Voltage (V)	Frequency (HZ)	Picture
PM-10 Premia	belt+VFD	10	3.75	2.5	0.75	220	50/60	
PM-20 Premia	belt+VFD	20	7.5	5	1	220	50/60	
PM-30 Premia	belt+VFD	30	10.5	7	1.1	220	50/60	
PM-40 Premia	belt+VFD	40	13.5	9	1.5	220	50/60	
PM-60 Premia	belt+VFD	60	37.5	25	2.5	220/380	50/60	

\*VFD: Variable Frequency Drive

# Key Components of the Mixer



### Main Switch:



PM-10/PM-20/PM-30



PM-40



PM-60

### Bowl Lift Lever:



PM-10 / PM-20 / PM-40



PM-60

# Installation

## UNPACK

Unpack the blender as soon as you receive it. If you find that the machine is damaged, please save the packing materials, and contact the carrier within fifteen (15) days of delivery. Contact your equipment source now.



### To avoid serious personal injury.

- **Always** install the equipment in a work area with adequate light and space.
- **Only** operate the mixer only on a solid, flat, non-slip, non-flammable surface.
- **Never** bypass, alter or modify the original condition of this device in any way. Doing so is dangerous and will void the warranty.
- **Never** operate the mixer without all warnings installed.
- **DO NOT** attempt to lift the mixer by itself.

## INSTALLATION

1. Read this manual carefully before installation and operation. If you have questions or do not understand everything in this manual, do not proceed with the installation and operation. Contact your local representative.
2. Remove the straps from the box and remove the corrugated box from the chute. NOTE: The PM-10, PM-20, PM-30, PM-40 and PM-60 are shipped in wooden box; only the bolts on the bottom of the box (all four sides) need to be removed.
3. Carefully remove the mixer from the chute using an 11/16" or 3/4" wrench.
4. Choose a location for the mixer, keeping in mind the following.
  - The floor or counter must be level.
  - Easy access for maintenance and repair.
  - Clearance for operating controls, mounting and removing the mixer, bowl or accessories.
  - Sufficient space for adding ingredients during mixing.
  - Ensure that the rear vent of the mixer is not blocked.
5. At least two people are required to tilt the unit and install rubber feet.
6. Check the mixer to ensure that all parts are provided (i.e. bowl, mixer, stirrer and dough hook).
7. Read the electrical information on the nameplate on the back of the machine. The input power must match the rating on the nameplate.

# Installation

 **WARNING!**

## **CONNECTING THE POWER SUPPLY**

Electrical connection device: While the machine is equipped with a three-phase, The receptacle to which this plug is connected must be properly grounded. If the receptacle has an incorrect type of grounding, contact an electrician. Do not under any circumstances cut or remove the third grounding pin on the power cord or use the adapter plug. Do not use extension cords. Low power may damage the mixer and/or cause a fire.

If the equipment needs to be hardwired, have a licensed electrician connect the equipment to the power source.

8.Clean the mixer before use. Refer to the Cleaning Instructions section of this manual.

NOTE: It is normal for the factory to apply a large amount of grease to the inside of the machine and to the machine. Excess grease (brown) will be applied to all metal surfaces (i.e. top of drum guard, speed control, locking drum, drum lift will and accessory wheel hub wing screws). Excess High Pressure

Grease Excess high pressure grease (brown-black) can also be found on the planetary shafts and some droplets can be found in the bucket.

# Operating Instructions

## **⚠ WARNING!**

To avoid serious personal injury.

- Do not operate the mixer until you have first read the instruction manual.
- Always disconnect or unplug power before cleaning, servicing or adjusting parts or accessories
- Always keep hands, hair and clothing away from moving parts.

## **ABOUT THE BOWL GUARD**

NOTE: The mixer will not operate when the bowl guard is open or not properly installed.

NOTE: Rotate the bowl guard clockwise (open) and counterclockwise (closed) to attach the mixer .

### **Open/rotating bowl guard.**

Rotate the bowl guard clockwise (open) and counterclockwise (close) to allow the operator to easily add ingredients and properly remove the mixer and bucket from the mixer.

1. When the separate handles are aligned and firmly pushed to the right side of the mixer, the bowl guard is in the locked position and ready for operation (Figure 7- 1)

2. To rotate the bowl cover to its open position, grasp the separate handles on the bowl cover and bring them together, moving clockwise to open/rotate the bowl cover. To close the bowl cover, grasp the separate handles and move them together as a unit, moving counterclockwise to close/rotate the bowl cover back to the locked position.



Fig. 7-1

## **ATTACHING THE BOWL TO THE MIXER**

NOTE: Install the bowl before attaching the mixer.

1. Lift the bowl by the bowl handle and:
  - a. Slowly position the locking pin (located at the rear of the bowl) into the hole in the middle rear of the holder (Fig. 7-2).



Fig. 7-2

b. Lower the bowl onto the pins located on the sides of the bowl holder.

2. After placing the bowl on the stand, pull each bowl clip forward to secure the bowl until the bowl locks into place (Fig. 7-3)



Fig. 7-3

**ATTACH AGITATOR TO MIXER (i.e., Beater, Hook, Whip)**

**NOTE:** It is easier to install the mixer before adding the ingredients to the bowl. 1. Turn the bowl cover to the left so that it stays in the open position (Fig. 8-1).

**⚠ CAUTION**

Excessive force to open and close the bowl hood may damage the The spring lock and bowl cover microswitch will void the warranty.



Fig. 8.1

2. Slowly slide the mixer upwards onto the planetary shaft and insert the shaft pin through the slot in the agitator (Fig. 8-2).



Fig. 8.2

3. Turn the agitator clockwise to secure it to the planetary shaft.

**MIXING INGREDIENTS**

**⚠ CAUTION**

Agitators of PM-10, PM-20, PM-30, PM-40, PM-60 must always rotate in clockwise direction around the bowl.

If the agitator of PM-10, PM-20, PM-30, PM-40, PM-60 moves counterclockwise, contact a licensed electrician immediately to remedy incorrect wiring.

1. Add the appropriate mixing ingredients to the bowl.

2. Rotate bowl guard to the right until it locks into the closed position (Fig. 8-3). You will hear it ‘di’ into place.

**NOTE:** Mixer will not start if bowl guard is open or bowl is in the lowered position.



Fig. 8.3

## **SETTING and CHANGING SPEED BY DIGITAL CONTROL PANEL**

1. Select the appropriate speed setting by rotating speed button, clockwise to raise speed, counterclockwise to lower speed.

**NOTE: ALL Model has 10 variable speeds under each agitator.**

Agitator: Product Type/Ingredient recommendation:

Hook: Raised Donut Dough(65% AR), Pasta, Basic Egg Noodle, Heavy Bread Dough(55% AR), Bread and Roll Dough(60% AR), Pizza Dough(40% AR)

Flat Beater: Waffle or Hotcake Batter, Mashed Potatoes, Fondant Icing, Cake Flat, Pie Dough

Wire WhipLight: whipping cream, egg whites, meringue

2. Press the green START button to begin mixing.

3. To change the speed while mixing, NO STOP or PAUSE button, by rotating speed button, clockwise to raise speed, counterclockwise to lower speed.

4. When the ingredients have been thoroughly mixed, press the red STOP button to stop the mixer. **NOTE:** If the timer was used, mixer will automatically stop when time has expired.

5. Lower bowl by pulling bowl lift lever forward and down to its resting position. For models PM-10, PM-20, PM-30 and PM-40 rotate bowl lift wheel counterclockwise until it stops.

6. Rotate bowl guard to the left so it is in the open position.

7. Remove the agitator from the planetary shaft by lifting it upwards, then rotating it counterclockwise until it is unlocked. Lower the agitator and remove from the planetary shaft.

8. Push each bowl clamp backwards to unlock the bowl from the bowl cradle.

9. Lift up slightly on bowl so it clears pins on the bowl cradle.

## **PRESET SPEED BY DIGITAL CONTROL PANEL**

**NOTE:** Each agitator is available to preset speed.

### **Preset Speed Operation:**

Speed on mixer can be set from 1 to 10. Before preset speed operating mode, verify that bowl guard and bowl lift are closed and locked into position.

1. Set desired speed. Press and continuously hold the speed button 3 seconds, The display will illuminate a small dot of light in the lower right-hand corner of the seconds speed display. After 3 seconds, no small dot is displayed.

**NOTE:** Press and continuously hold the SPEED buttons to counterclockwise and clockwise the desired

minutes.

2. Once the desired speed is set, check that bowl guard and bowl lift are closed and locked into position, and then press START.

### **Unpreset Speed Operation:**

For simple on/off mixing operation in an unpreset speed operating mode, verify that bowl guard and bowl lift are closed and locked into position.

1. The display should read 00:00 to operate in each agitator. Rotating the SPEED button rotate to

counterclockwise until speed back to zero, press and continuously hold the speed button 3 seconds, until no flash dot.

2. Press START button to begin mixing. The display will scroll zeros across the display from left to right

while mixing.

**NOTE:** To change the speed while mixing, NO STOP or PAUSE button, by rotating speed button, clockwise to raise speed, counterclockwise to lower speed.

## **USING MIXER'S DIGITAL CONTROLS AND TIMER**

**Read through this section and continue for further operating instructions for use of the digital controls on your mixer.**

Mixer is equipped with a digital timer display, minutes and speed buttons (to adjust the timed operations) and Start / Pause and Stop buttons. Mixer can function in either timed operation or untimed operation.

**Untimed Operation:** For simple on/off mixing operation in an untimed operating mode, verify that bowl guard and bowl lift are closed and locked into position.

1. The display should read 00:00 to operate in untimed mode. Pressing the SPEED button rotate to counterclockwise until timer back to zero.

2. Press START button to begin mixing. The display will scroll zeros across the display from left to right while mixing. Press STOP button once the desired mixing is complete.

**Timed Operation:** Timer on mixer can be set from 1 minute to 99 minutes.

1. Set desired time. Minutes advance by one and seconds advance by fives before rolling over to zero. **NOTE:** Press and continuously hold the SPEED buttons to counterclockwise and clockwise the desired minutes.

2. Once the desired time is set, check that bowl guard and bowl lift are closed and locked into position, and then press START.

3. Wait for the timed cycle to end or press PAUSE to pause the mixing cycle.

a) Pressing the PUASE button stops the mixer and pauses the timer during operation.

b) Pressing the STOP button once while the mixer is not in operation will reset the timer to zero (00:00). **NOTE:** If a cycle is interrupted by the bowl guard being opened or by lowering the bowl lift lever, the mixer will stop. After bowl guard and bowl lift are closed and locked into position, START button can be pressed to continue the programmed time.

To add additional minutes or seconds to a mix time, PAUSE mixer and adjust the cycle mixing time.

4. Once a timed cycle ends, mixer will beep for 20 seconds and indicating the timed cycle is complete

### Preset speed mode instructions and controls.

**NOTE:** Make sure bowl is up and bowl guard is closed. Mixer will not start if bowl and bowl guard are not in the proper operating position.



Set the speed control to the desired speed by rotating speed button clockwise to raise speed, counterclockwise to lower speed.

### Preset Speed Operation MODE

1. To begin operation of mixer in preset speed, select appropriate agitator, set the desired speed, press and hold speed button. The display will illuminate a small dot of light in the lower right-hand corner of the speed speed display. After 3 seconds, the desired speed will be illuminated on the display.

**NOTE:** Mixer will not start if bowl is not all the way up. Additionally, the bowl guard must be completely closed.

2. Press START button to begin mixing. Press PAUSE to discontinue mixing.

**NOTE:** Under preset speed mode, each start time of agitator will begin from the desired speed. Preset speed always reset back the desired speed no Whether if power is lost or stop to mixer.

### Unpreset Speed Operation MODE

1. To cancel preset speed operation mode, select preset speed agitator,

2. Rotating the SPEED button rotate to counterclockwise until speed back to zero, press and

continuously hold the speed button 3 seconds, until small dot of right no flash.

The display should read 00:00 to operate in each agitator.



## DIGITAL CONTROL INSTRUCTIONS

### Untimed / Manual Mode instructions and controls.

Mixer must be OFF before installing attachments. Do NOT use attachments while mixing.

**NOTE:** Make sure bowl is up and bowl guard is closed. Mixer will not start if bowl and bowl guard are not in the proper operating position.

Press BOWL "Up" arrow to activate the power bowl lift. Set the speed control to the desired speed.

### UNTIMED - MANUAL MODE

1. To begin operation of mixer in Manual Mode, press and Hold SPEED button counterclockwise until timer back to zero. The display will illuminate a small dot of light in the lower right-hand corner of the seconds timer display.

**NOTE:** Mixer will not start if bowl is not all the way up. Additionally, the bowl guard must be completely closed.

2. Press START button to begin mixing. Press PAUSE to discontinue mixing.

**NOTE:** The timer does not work in Manual Mode. To use the timer feature, follow the Timer Mode instructions.

### TIMER MODE

1. To begin operating the mixer in TIMER mode, press and hold SPEED button
2. Press and continuously hold the SPEED buttons to counterclockwise and clockwise the desired minutes.
3. Once the desired mix time has been set on the timer, press the START button to begin mixing.
4. Once the START button is pressed, mixer timer numbers will begin to descend.



The timer and mixer can be interrupted at any time by pressing the PAUSE OR STOP button. If the timer cycle is interrupted and the mixer has not yet finished its set mixing time, the mixing cycle can be continued from where it left off by pressing the START button.

**NOTE:** If a cycle is interrupted by the bowl guard being opened or the speed of the mixer being changed, mixer will stop. After bowl guard and bowl lift are closed and locked into position, START button can be pressed to continue the programmed time.

To add additional minutes to a mix time, PAUSE mixer, press and continuously hold the SPEED buttons to counterclockwise and clockwise adjust the cycle mixing time. Press START button to begin mixing once again.




5. At the end of a timed mixing cycle the timer will count down to "00" minutes, mixer will stop, and the timer will return to displaying the last mix cycle time that was entered.

6. To begin another mix cycle with the same set time as the previous mix, press the START button.

If the mix cycle time needs to be adjusted, set the new desired time and then press START button to begin mixing.

If power is lost to mixer, the mixing time will need to be reset to the desired time.


## Speed Data Table


	Model	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
	PM-10	52	71	90	113	135	155	177	197	219	242
	PM-20	60	73	93	113	137	157	177	197	220	240
	PM-30	52	70	91	112	131	152	170	192	213	231
	PM-40	52	70	91	112	131	152	170	192	213	231
	PM-60	54	82	100	118	132	150	168	186	200	218
	Model	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
	PM-10	52	94	126	152	181	210	239	265	294	323
	PM-20	60	90	120	147	177	207	237	267	293	320
	PM-30	55	85	116	143	170	201	228	255	283	310
	PM-40	55	85	116	143	170	201	228	255	283	310
	PM-60	54	96	121	146	171	200	225	250	271	300
	Model	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
	PM-10	52	103	152	203	252	303	352	400	452	500
	PM-20	60	103	153	203	253	303	353	403	453	503
	PM-30	55	94	143	192	240	286	334	383	432	480
	PM-40	55	94	143	192	240	286	334	383	432	480
	PM-60	54	125	154	193	232	271	311	343	382	421

## Cleaning Instructions

### CAUTION

- a) Dilute detergent according to the supplier's instruction.
- b) DO NOT hose down or pressure wash the mixer.
- c) NEVER use a scrubber pad, steel wool, or abrasive material to clean the mixer.
- d) NEVER use bleach (sodium hypochlorite) or bleach-based cleaner.
- e) ALWAYS remove the agitator after each batch as the agitator can become stuck on the shaft and become difficult to remove.

 The entire mixer, including removable parts, must be thoroughly cleaned and sanitized using the procedures identified by your local health department and the ServSafe Essentials published by the National Restaurant Association Educational Foundation (NRAEF). Visit [www.servsafe.com](http://www.servsafe.com) for more details.

 It is extremely important to sanitize mixer and to follow the instructions on the quaternary sanitizer container to make sure proper sanitation is achieved.

 ALWAYS DISCONNECT OR UNPLUG ELECTRICAL POWER FROM THE MIXER BEFORE CLEANING.

### **RECOMMENDED CLEANING**

PART	REQUIRED ACTION	FREQUENCY
Agitators	Hand-wash using mild soap and water; rinse, dry and sanitize.	Clean after each use.
Bowl Guard	Hand-wash using mild soap and water; rinse, dry and sanitize.	Clean after each use.
Bowl	Using a sponge or cloth, mild soap and water, apply pressure to make sure the bowl is clean; rinse, dry, and sanitize. The bowl can also be placed in a dishwasher.	Clean after each use.
Rear Splash Guard	Hand-wash using mild soap and water; rinse, dry and sanitize.	Clean after each use.
Bowl Cradle	Hand-wash using mild soap and water; rinse, dry and sanitize.	Daily
Planetary Shaft	Wipe with clean damp cloth; dry and sanitize.	Clean after each use.
Exterior	Hand-wash using mild soap and water; rinse, dry, and sanitize. DO NOT use a water hose.	Daily
Hub Interior	Wipe with clean damp cloth; dry, and sanitize.	Daily

## Important Points

### **DUST HAZARD**

- When mixing ingredients care must be taken to avoid the inhalation of dust particles e.g. flour
- Ingredients such as flour must be added carefully to minimize air-borne dust particles.
- Carefully slit the bag while holding it in the lower part of the bowl. When mixing dry ingredients use the lowest speed and a splash cover to minimize dust emission. Mix the ingredients in the bowl using the lowest speed until the risk of producing any dust is eliminated. Fit suitable dust extraction equipment.

### **MAINTENANCE**

PART	REQUITED ACTION	FREQUENCY
Bowl Slide Rods	Apply mineral oil on bowl slide rods. Raise and lower bowl to distribute the oil onto the rods.	If bowl becomes difficult to raise or lower.

<b>Troubleshooting</b>			
<b>Digital code</b>	<b>Code Explanation</b>	<b>Possible Causes</b>	<b>Action Required</b>
E1	Bowl guard switch off	Bowl guard not in closed position.	Rotate guard to the right until fully closed.
		Switch loosened.	Tighten the switch in the right position.
E2	Bowl lift switch off	Bowl not raised	Raise bowl to highest position.
		Switch loosened	Tighten the switch in the right position.
E3	Bowl lock switch off	Bowl not seated correctly or clamps not in place.	Make sure bowl is seated into bowl cradle correctly and bowl clamps are locked into place.
		Bowl not seated correctly or clamps not in place.	Tighten the switch in the right position.
E4	Emergency stop switch is on	Emergency stop switch is on	Rotate the button to switch it off
E7	Motor Failure	Motor Failure	Contact a technician to replace part.
E8	Motor temperature is too high	Exceeded Maximum Mixing Load	Reduce the batch size by 30%.
		Mixing time is too long	Wait 10 minutes. then press START to restart mixer.
		Damaged or broken mechanical parts.	Rotate the motor blade to check whether it can easily turn, If it can't, contact after-sales service
E9	Machine is overloaded	Exceeded Maximum Mixing Load	Reduce the batch size by 30%.
			Wait 10 minutes. then press START to restart mixer.
	NO Display	No power to unit	Check power.

<b>Troubleshooting</b>		
<b>Problem</b>	<b>Possible Causes</b>	<b>Action Required</b>
Mixer is noisy	Mixer is not installed on level surface.	Adjust surface or relocate mixer. Make sure rubber feet are installed.
	Bowl not seated correctly or clamps not in place.	Make sure bowl is seated into bowl cradle correctly and bowl clamps are locked into place
	Agitator not fitted properly.	Remove and attach agitator into position properly.
	Overloading bowl.	Reduce batch size. Refer to Capacity Chart section.
	Damaged or worn part.	Contact a technician to replace part.
Safety guard seized (will not move freely).	Clean & lubricate slide sheath.	Technician must drop down planetary assembly to access mat & sheath.
		Contact technician.
Agitators won't go onto the planetary shaft easily.	Lack of lubrication and/or cleaning of the planetary shaft.	Wipe planetary shaft with a clean damp cloth and lubricate the shaft with mineral oil or food quality grease.
Mixing time is too long	Batch size too small	Increase batch size or use smaller bowl adapter kit. (Contact dealer for purchase)
	Incorrect recipe portions or temperatures	Follow portions and temperatures per recipe instructions
Bowl lift sticking or not operational	Lack of lubrication on bowl slides	Lubricate bowl slides with mineral oil or food quality grease.
		sticking, technician must clean bowl- lift mechanism
Mixer will not mix medium or heavy loads.	Belt slipping	Tighten the belt.
		Technician to replace belt
Motor is running, but agitator don't run	Belt broken	Technician to replace belt
Agitators touching bottom or sides of bowl	Defective or dented bowl	Remove dents or replace bowl
	Defective agitator	Replace agitator
Broken whip wires	Batch size too large for mixer. Adjust recipe.	Reduce batch size. Refer to Capacity Chart section. Mixture too firm, speed too high. Reduce speed
	Hand utensil dropped into bowl while mixing	Stop mixer
Broken flat beater	Ingredients too cold or too large (e.g. frozen butter, cream cheese cut in chunks)	Wait for ingredients to reach room temperature before mixing. Reduce chunk size
Broken dough hook	Batch size too large for mixer	Reduce batch size. Refer to Capacity Chart section. Adjust recipe
	Ingredients too cold or too large	Wait for ingredients to reach room temperature before mixing. Reduce chunk size

*Marketed globally by:*

**TRUFROST AND BUTLER PRIVATE LIMITED**

1215, 12th Floor, Tower B, Emaar Digital Greens, Golf Course Extn. Road,

Sector 61, Gurugram – 122011

T. +91-7303166766 [info@trufrost.com](mailto:info@trufrost.com)

[www.trufrost.com](http://www.trufrost.com)