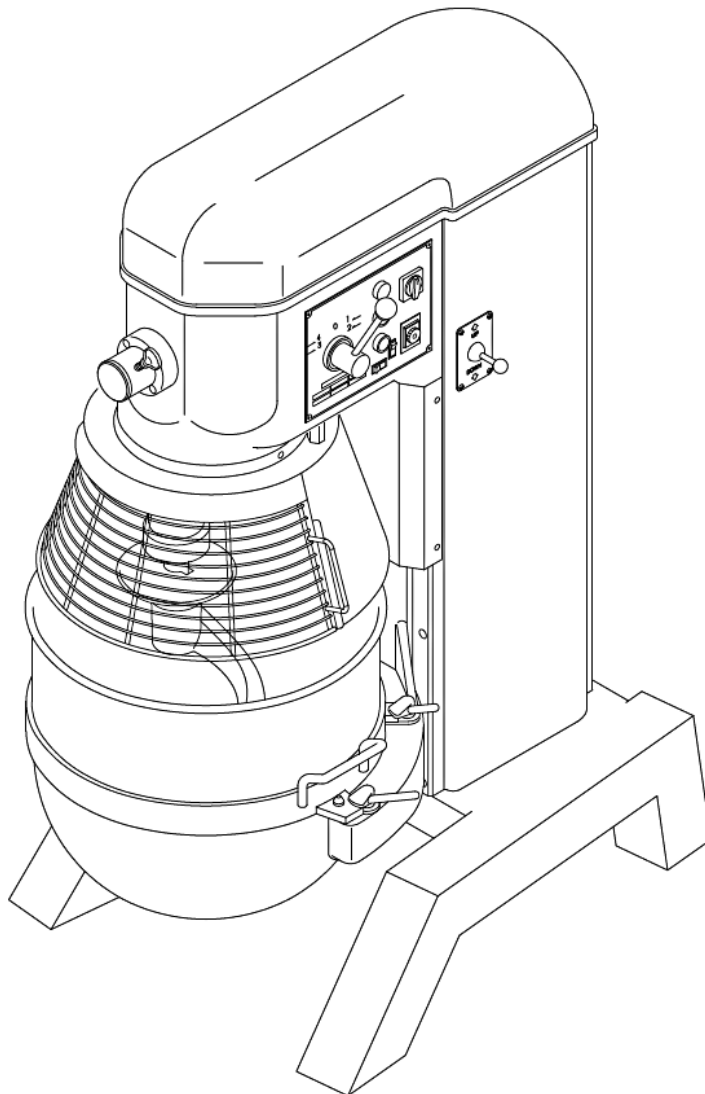

PERRELLI **MOLINI**[®]

**INSTALLATION / OPERATION
MANUAL**

BM80 Planetary Mixer



MANUFACTURED BY

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Date Purchased	Serial No.....
Dealer.....	
Service Agent	

Introduction

Introduction

We are confident that you will be delighted with your PARAMOUNT MIXER, and it will become a most valued appliance in your commercial kitchen.

A new mixer can seem very complex and confusing at first glance. To ensure you receive the utmost benefit from your new Paramount Mixer, there are two important things you can do:-

Firstly

Please read the instruction book carefully and follow the directions given. The time taken will be well spent.

Secondly

If you are unsure of any aspect of the installation, instructions or performance of your appliance, contact your Paramount dealer promptly. In many cases a phone call could answer your question.

The Paramount BM80 is a dependable mixer for kneading and mixing all kinds of dough. The mixer has 4 speed selections and an electronic timer. The mixer comes with various style attachments which can be used to obtain the best results. These are made of alloy aluminum or of a food hygiene standard material.

This model Mixer is equipped with a powerful 3HP, 2 speed motor and a 2 speed gear drive design which is driven through 'Vee' drive belts. The constant mesh helical gears are made of hardened alloy steel and are continually oil lubricated. The oil level can be monitored through an easy view sight glass.

A stainless steel safety guard is optional and is fitted with a limit switch to turn 'Off' power when the guard is in the 'Open' position.

With proper operation and maintenance this mixer will give you years of service, and obtain the best results.

Safety Precautions



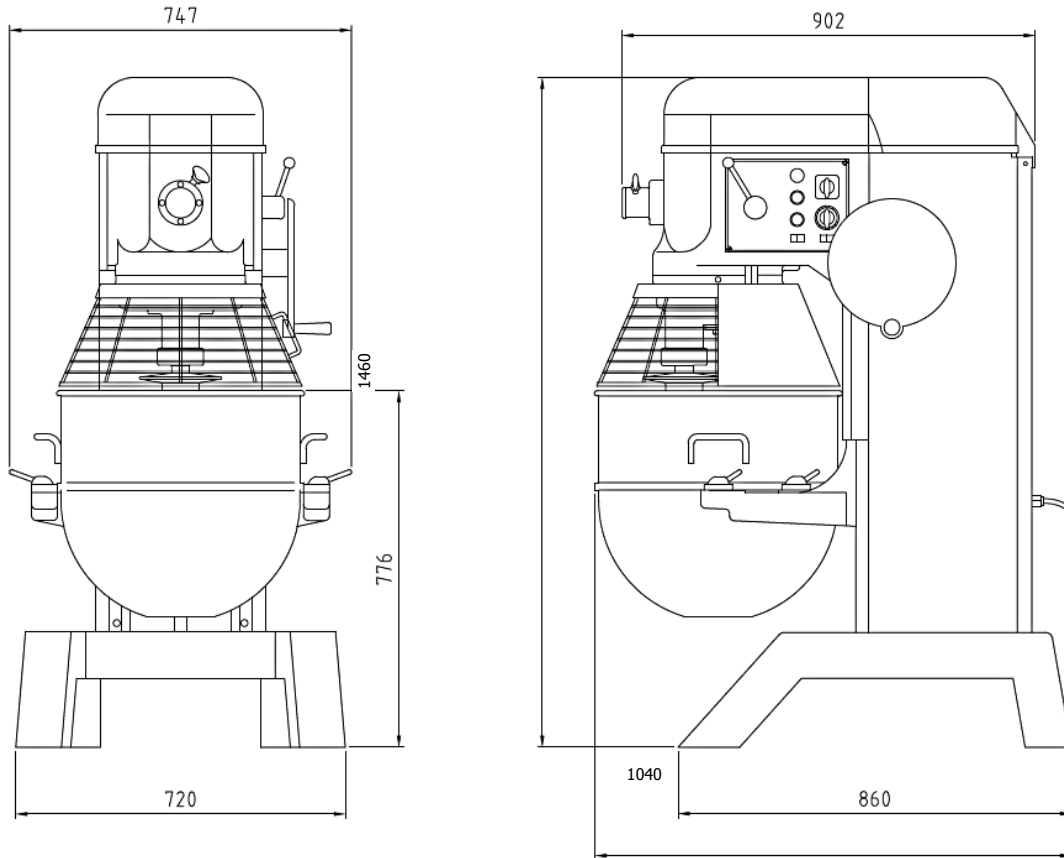
Caution

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. Failure to do so may result in serious injury or damage.

- Keep hands and clothing away from the bowl and hub attachments when in operation.
- Keep rigid objects away from the bowl and hub attachments when in operation.
- Do not use this machine for any applications other than food processing.
- Use the machine only with the electrical supply specified on the rating plate.
- Disconnect the machine from its power source before carrying out any maintenance.
- Do not disable or remove any of the safety mechanisms included with this machine.
- Do not leave the machine in operation unattended.
- Observe all maintenance and safety inspection schedules.
- Ensure the appliance and any accessories / attachments are in a stable, upright position before operating.
- Ensure all safety features of the machine are fitted and operate correctly within the safety requirements and procedures before operating the appliance.

Dimensions



Model - BM80 (80 litre Mixer)
Motor Power - 3.0 HP
Net Weight (approx.) - 580 Kg

Mixing Capacity, Flour, Dough	Packing Size L x W x H (mm)	Machine Weight (approx)	Stainless Steel Bowl (mm)
34kgs / 60 kgs	1210 x 900 x 1710	580 kgs	φ52 x 48 (80 qt)

Agitator Speed (RPM)	First	93
	Second	140
	Third	220
	Fourth	330

Motor

Two Speed, 3 HP powerful motor, available only in 3 phase.

Electrical Supply

400-415 Volts AC, 50Hz, 3P+E.

Specifications

'Emergency Stop' Button

The Emergency Stop Button should only be used in cases of emergency and **SHOULD NOT** be used as the standard OPERATING method of stopping the mixer.

The Emergency Stop Button is located on the Control Panel, on the right hand side of the machine. Pressing this button will stop all movement of the machine.

Safety Guard

Stainless steel safety guard smoothly rotates open and is fitted with a limit switch to shut off power immediately to protect the operator.

Transmission

The two speed transmission provides an excellent range of beater speeds, with gears that are in constant mesh in a special lubricant (85W/140 Oil) assuring long life; transmission gears are of heat treated alloy steel and of high accuracy construction. All bearings are either ball or roller bearings. Positive fibre V-belt drive eliminates slip and speed variation.

Timer

The mixer is equipped with a 30 minute timer which will stop the mixer automatically when the pre-set time has elapsed.

Attachment Hub

The mixer is fitted with an attachment hub which allows the operator to use any of the standard attachments that are available for this model of mixer.

Unpacking

Immediately after unpacking mixer, check for possible shipping damage. If this machine is found to be damaged, save packaging material and contact the carrier within one day of delivery.

Remove all packaging and transit protection including all protective plastic coating from the exterior stainless steel panels.

Check Mixer and supplied parts for damage. If this machine is found to be damaged after unpacking, save packaging material and report any damage immediately to carrier and distributor.

Important:

- **Before installing the mixer, check that the available electrical supply matches that of the mixer as stated on the mixer's rating plate.**

Location

Important:

- **Installation shall comply with local electrical, health and safety requirements.**
- **It is most important that this mixer is installed correctly and that mixer operation is correct before use.**
- **If you have any questions regarding the proper installation and / or operation of this appliance, please contact your local Paramount distributor.**

Place mixer in its operating location, on a sturdy level surface. There should be adequate space around mixer for the user to operate the controls and to install and remove the bowl.

Holes are provided in the base to permanently secure the mixer to the floor, although this not necessary in normal installations.

Floor models must be levelled front to back and from side to side by sliding shims under legs as required.

Electrical Connection

Electrical connection should be made by a qualified person in accordance with applicable codes and regulations.

Prior to installation, check that the available electrical supply is correct to as shown on the Technical Data Plate located on the rear side of the pedestal.

Permissible voltage fluctuation is $\pm 10\%$ of nominal voltage.

NOTE: Phase rotation direction to follow direction of arrow shown on front of mixer.

Components having adjustments protected (e.g. paint sealed) by the manufacturer, are only to be adjusted by an authorised service agent.

Lubrication

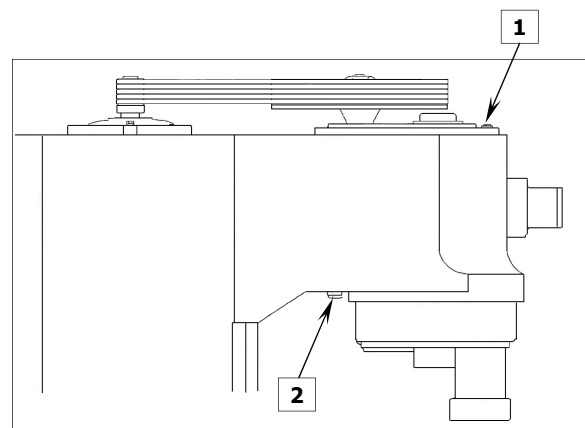
NOTE: #1 Grade Oil (85W/140) is recommended for transmission gears. This mixer is already filled with enough oil when leaving the factory.

Transmission gears are already filled with enough #1 Grade Oil (85W/140).

If oil level falls below gauge line, add more oil.

Remove Oil Fill Plug '1' fitted on transmission case cover and insert tubing, add oil up to fill mark.

Refit and tighten the oil fill plug.



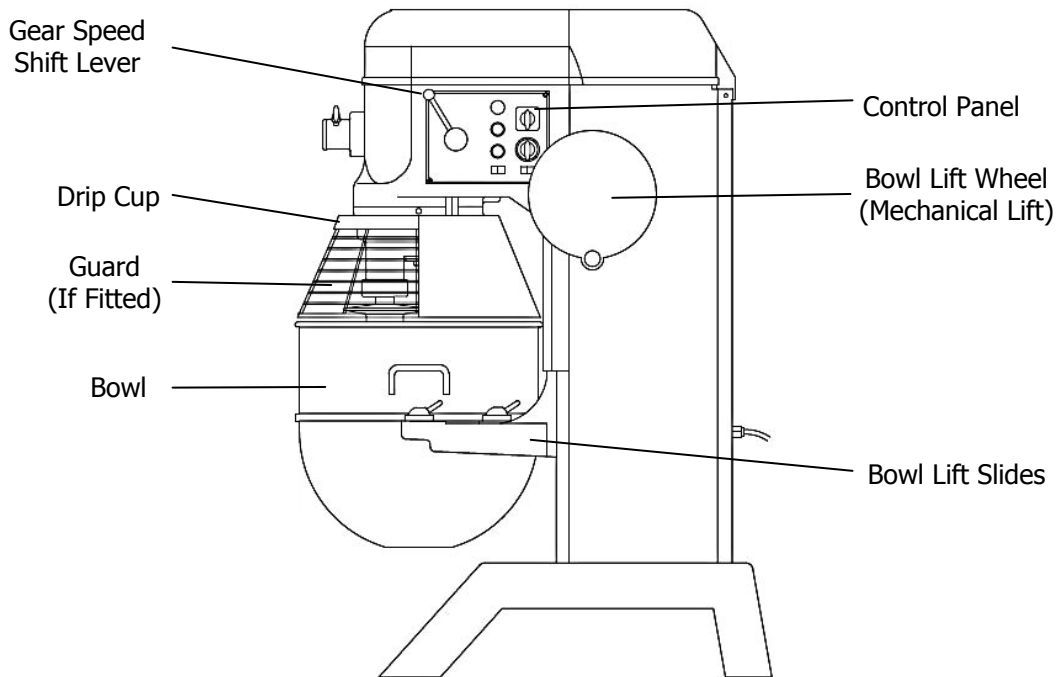
Operation

 **Caution**

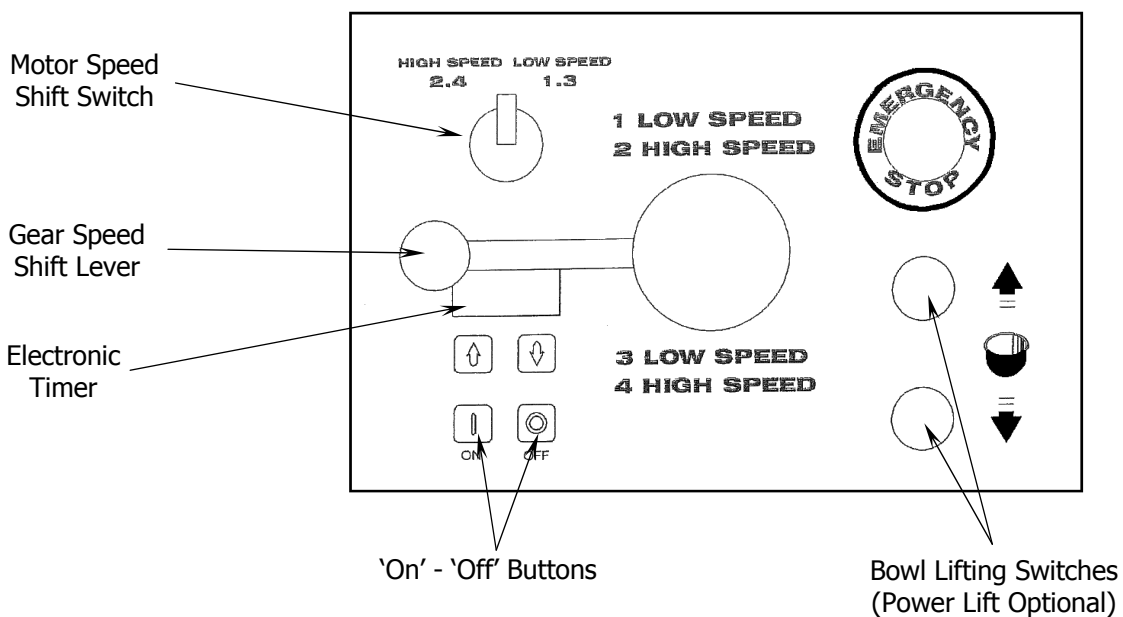
- **Keep hands, clothing and utensils out of the bowl whilst the machine is in operation.**
- **Failure to follow the operation instructions or improper use of the mixer may result in damage to the mixer, or cause injury to the operator.**

Important:

Great care must be taken to minimise dust emission when handling dry ingredients such as flour. Bags should be opened in the lower part of the bowl and poured from as close to the base of the bowl as possible. It is recommended that ingredients suppliers' hazard data sheets are consulted prior to use. The use of respiratory protective equipment may be required during bowl loading.



Power Lift Control Panel (Optional)



Emergency 'Stop' Button

The Emergency Stop Button should only be used in cases of emergency and **SHOULD NOT** be used as the normal OPERATING method of stopping the mixer.

Located on the Control Panel on the right hand side of the machine. Pressing this button will stop all movement of the machine. ONLY ATTEMPT TO RE-START AFTER THE FAULT IS CORRECTED.

The machine can not be re-started until the Emergency Stop Button is pulled up to release.

NOTE: To start the motor, push the 'On' button, a gear speed must be selected using the Gear Speed Shift Lever. The Gear Speed Shift Lever should not be left in the neutral position.

Speed Selection

Speed selection is made using the 'Motor Speed Shift Switch' and the 'Gear Speed Shift Lever'.

- Speed 1 -** Set '*Motor Speed Shift Switch*' to '*Low Speed*', and set '**Gear Speed Shift Lever**' to '**1 Low Speed**'.
- Speed 2 -** Set '*Motor Speed Shift Switch*' to '*High Speed*', and set '**Gear Speed Shift Lever**' to '**2 High Speed**'.
- Speed 3 -** Set '*Motor Speed Shift Switch*' to '*Low Speed*', and set '**Gear Speed Shift Lever**' to '**3 Low Speed**'.
- Speed 4 -** Set '*Motor Speed Shift Switch*' to '*High Speed*', and set '**Gear Speed Shift Lever**' to '**4 High Speed**'.

NOTE: To change the speed of the mixer, the following information should be strictly followed:-

- Turn 'Off' the motor by turning the 'Motor Speed Shift Switch' to the central position, between the two speed settings.
- Select the speed required using the 'Gear Speed Shift Lever'.
- Turn the 'Motor Speed Shift Switch' to the speed setting required.

Speed Control

- Speed 1 (Low) -** For heavy mixtures like dough, heavy batters and potatoes.
- Speed 2 (Medium-Low) -** For mixing cake batters, mashing potatoes and for developing dough.
- Speed 3 (Medium-High) -** For mixing maximum amount of air into light batches. The wire whip is used for whipping cream, beating egg whites, mixing light icings, meringues etc.
- Speed 4 (High) -** For accelerated mixing maximum amount of air into light batches similar to 'Speed 3'.

Bowl

The stainless steel bowl is a sanitary open rim design to meet today's exacting requirements.

The regular bowl for this mixer has a capacity of 80 quarts (76 litres).

Operation

Power Bowl Lift (Optional)

The bowl, on mixers with power bowl lift, can be raised and lowered through contact buttons located on the control panel. If the 'Up' button is pressed, the bowl will raise to the top. If the 'Down' button is pressed, the bowl will lower to the bottom. Auto lift is an option.

Mixers without power bowl lift have a hand wheel on the right hand side of the mixer to raise and lower the bowl.

Agitators

When placing an agitator on the agitator shaft, lower the bowl, push the agitator up onto the shaft and turn the agitator until the drive pin on the shaft reaches L-shaped slot in the agitator shank.

Dough Arm

It is frequently used for heavy bread dough, and preferable used at low speed.

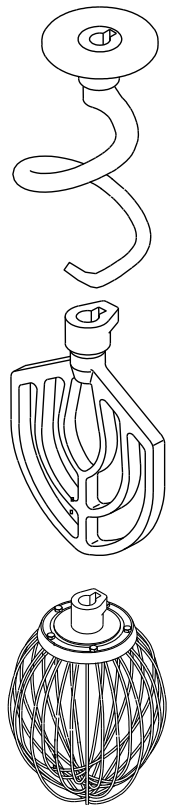
The moisture content of heavy dough is a critical factor when selecting proper mixing speed. Never use 'Speed 2' when mixing heavy dough.

Flat Beater

It is commonly used for thin batters, cake and mashing potatoes, like stuffing and preferable to be used at middle speeds.

Wire Whip

It is best for whipping cream and beating eggs and preferable to be used at high speed.



Light

This mixer is fitted with a pilot lamp which illuminates the inner bowl area.

Attachment Hub

The attachment hub is designed to accommodate attachments such as a meat chopper, food chopper and a food slicer / shredder. The machine should not be used for mixing whilst the hub attachments are installed. **Do not use the attachment hub whilst mixing.**

Attachments - Optional

To install an attachment, loosen the thumb screw on the attachment hub and remove the plug. Insert the attachment into the attachment hub making certain that the square shank of the attachment is in the square driver of the mixer. Secure the attachment by tightening the thumb screw.

Move the gear shift lever to the desired speed and start the mixer to operate the attachment.

The meat and food chopper attachment should be operated in second or third speed. If material in the cylinder stalls the mixer, stop the mixer at once. DO NOT attempt to restart the mixer in a lower speed - remove the adjusting ring, knife, plate, and worm and clear the obstruction.

Mixing Heavy Dough

The moisture content of heavy dough is a critical factor when selecting proper mixing speed. Do NOT use 2nd speed when mixing heavy dough with an Absorption Ratio (AR) of 60% or less. To determine the Absorption Ratio (AR) of a product, the water weight divide by the flour weight.

Example: Calculate the Absorption Ratio of a mixture containing 2 kg of water and 4 kg of flour.

$$AR = \frac{2}{4} = 0.50 = 50 \%$$

Maximum Capacity Loading (BM80)

Product	Agitator	Max Load BM80
Egg Whites	Whip	4 ltrs
Mashed Potatoes	Beater	27 kg
Mayonnaise (Litres Oil)	Beater	30 ltrs
Meringue (Litres Water)	Whip	3 ltr
Waffle / Pancake Batter	Beater	30 ltrs
Whipped Cream	Whip	15 ltrs
Cup / Layer Cake	Whip	40 kg
Sponge Cake (with flour & butter)	Whip	36 kg
Sugar Cookie	Beater	27 kg
Bread or Roll Dough (Light / Medium, 60% AR)†	Hook *	Flour 35 kg
Bread or Roll Dough (Heavy, 55% AR)†	Hook *	Flour 30 kg
Thin Pizza Dough, Pasta, Basic Egg Noodle (40% AR†, 5 minutes max mix time)	Hook *	Flour 25 kg
Medium Pizza Dough (50% AR)†	Hook *	Flour 25 kg
Thick Pizza Dough (60% AR)†	Hook *	Flour 35 kg
Raised Donut Dough (65% AR)	Hook *	Flour 25 kg
Whole Wheat Dough (70% AR)	Hook *	Flour 35 kg

* 1st speed only.

** 1st speed & 2nd speed only.

† If high gluten flour is used, reduce above dough batch size by 10 %.

Cleaning and Maintenance

Cleaning Guidelines



Caution

Always turn off electrical power at the mains supply before commencing cleaning.

This appliance is not water proof. Do not use water jet spray to clean interior or exterior of the appliance.

The mixer should be thoroughly cleaned daily with a clean damp cloth and plastic scraper (metallic implements are not recommended).

Never use a metal or stiff brush to clean the mixer. Never clean the mixer with a water hose or any fluid pressure.

Bowls and agitators should be removed from the mixer and cleaned in a sink. The bowl guard should be removed periodically and wiped clean.

Maintenance Guidelines



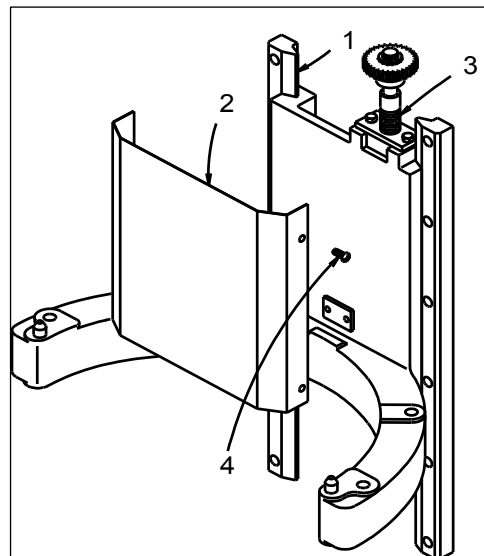
Caution

Only authorised service persons are to carry out maintenance or servicing operations on this appliance.

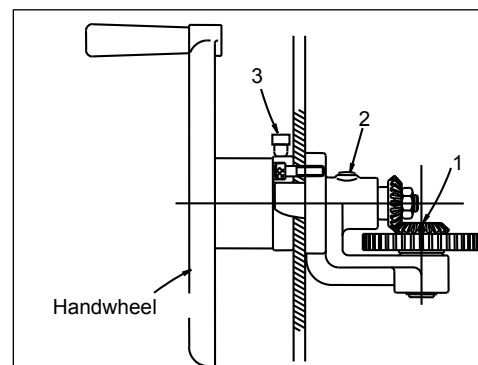
The **Transmission Case** and **Planetary Mechanism** should be inspected weekly for leaks, damage, etc. Should it become necessary to repack the ball bearings, an authorized service technician or the manufacturer should be contacted. Use of non-recommended grease or lubricants may lead to damage and void the unit's warranty.

The **Bowl Lift Slides** [1], should be lubricated every six months, or more often under heavy usage.

Remove the Bowl Support Apron (2) by loosening the Screws (4), then lubricate the Lift Screw (3).



Add machine oil to the oil cup in the Clamping Ring [3], of the bowl lift unit.



Machine Based Faults

Fault	Possible Cause	Remedy
The mixer does not operate / start.	<p>Not plugged in to the socket at main switch.</p> <p>The mains isolating switch on the wall, circuit breaker or fuses are 'Off' at the power board.</p> <p>The bowl safety guard is in the 'Up' position.</p> <p>Stop button is still locked in the down position.</p> <p>The mixer overload has been activated.</p> <p>The mixer electronic timer is set to '0'.</p>	<p>Plug in and switch on.</p> <p>Turn 'On'.</p> <p>Lower the bowl safety guard.</p> <p>Release by rotating and pulling.</p> <p>Reset the mixer overload.</p> <p>Set time setting, or set electronic timer to '0' to allow manual operation.</p>
Mixer stops during operation.	Mixer overload tripped. (Ensure that mixer is not being overloaded).	Call service.
The mixer starts and then stops.	<p>Timer has completed cycle.</p> <p>The mixer overload has been activated.</p> <p>Fuse overload at the power board.</p>	<p>Reset cycle time on timer to continue operation.</p> <p>Reset the mixer overload. If overload occurs repeatedly contact supervisor / Service agent.</p> <p>Contact supervisor / Service agent.</p>
The mixer labours under load.	<p>Dough too stiff / tight.</p> <p>Mechanical malfunction.</p>	<p>Review and adjust dough consistency, eg add more liquid.</p> <p>Contact supervisor / Service agent.</p>
The mixer moves or rocks during operation.	Floor not level or mixer has been moved from original position.	Re-adjust level and stabilise by means of shims under feet.
Excessive flour dust coming from mixer.	First speed timer set too short.	Extend first speed mix / blending cycle.
The mixer does not stop.	Electrical / mechanical malfunction.	<p>Switch 'Off' power at main switch.</p> <p>Isolate mixer by removing wall plug.</p> <p>Attach danger tag to machine.</p> <p>Contact service agent.</p>

Fault Finding

Product Based Faults

Fault	Possible Cause	Remedy
Bread dough too soft.	<p>Excessive water used in dough.</p> <p>Incorrectly metered / measured through water meter (equipment error).</p> <p>Over-mixed dough.</p>	<p>Review recipe and adjust dough consistency.</p> <p>Contact authorised maintenance.</p> <p>Review/check/change mix cycle.</p>
Final dough temperature too hot.	<p>Water temperature too warm.</p> <p>Dough mixed too long.</p>	<p>Reduce water temperature.</p> <p>Shorten mix cycle.</p>
Final dough temperature too cold.	<p>Water temperature too cold.</p> <p>Dough mix too short.</p>	<p>Increase water temperature.</p> <p>Lengthen mix time.</p>
Foreign matter found/seen in dough.	<p>Mixer not cleaned as per cleaning instructions.</p> <p>Poor ingredient quality.</p> <p>Poor personal / bakery hygiene.</p>	<p>Thoroughly scrape and check between dough. Review cleaning instructions.</p> <p>Contact ingredient supplier.</p> <p>Review and reinforce correct procedures.</p>
Dough is difficult to remove from the mixing bowl.	<p>Dough left in bowl too long.</p> <p>Dough too soft.</p> <p>Dough over-mixed.</p>	<p>Remove from bowl earlier.</p> <p>Refer - dough too soft.</p> <p>Run food grade oil between dough and bowl at end of mix cycle to stop dough sticking.</p>

Guide Sheets for Staff Training

The pages in the following section of this manual should be copied and used when training staff to operate the Paramount mixers. It is suggested that the competency assessment checklists be completed, signed, and a copy kept in the personnel files for future reference.

Supervisors to Ensure

- Competency check lists are copied and completed as part of the training of staff.
- Correct training of staff to the required competency expectations.
- The verification section of the competency check list is signed off.
- A copy of the completed and signed competency check list is placed in personnel records as evidence of operator competence.

Operations Competency Checklist

Paramount Planetary Mixer

Element: Implement Safe Work Procedures



Assessment Criteria



"Can the Operator"

Identify the purpose and use of:

- Equipment guards.
- Warning signs.
- Safety features.

Related to this equipment?



Identify:

- Machine-related health and safety risks of this equipment?
- Emergency procedures to be used with this equipment?



Operate this equipment correctly in normal and emergency situations?



Identify:

- OH&S reporting procedures related to hazard reporting for this machine?

Comments:

To gain competency in the use of the **PARAMOUNT PLANETARY MIXER**, the assessor must be satisfied that the operator has consistently applied the knowledge and skills in all of the above elements.

This form should be signed off only when the assessor is satisfied that the employee / trainee is competent to carry out all of the tasks described above.

Applicant's signature: _____ Date: / /

Assessor's signature: _____ Date: / /

PARA
MOUNT®

SUGGESTION — Use this form to train staff, and place a copy in personnel files.

Paramount Planetary Mixer

Element: Implement Essential Hygiene and Sanitation Procedures



Assessment Criteria

"Can the Operator"



Maintain sound personal hygiene at all times when working with the **PARAMOUNT MIXER**?



Use appropriate protective and work clothing while working with the **PARAMOUNT MIXER**?



Identify:

- Product handling requirements during production process?
- Critical points in the process where contamination can be introduced?
- Why it is important to monitor hygiene and sanitation performance?
- The effect of poorly maintained equipment on the control of contamination and spoilage?
- Company policies and procedures regarding hygiene and sanitation?
- Actual and potential contamination and spoilage hazards?
- Solutions to rectify contamination and spoilage problems?



Use work practices and methods that reduce the risk of product contamination?



Remove contamination where appropriate in accordance with:

- Workplace hygiene and sanitation procedures?
- Procedures specific to the **PARAMOUNT MIXER**?

Comments:

To gain competency in the use of the **PARAMOUNT PLANETARY MIXER**, the assessor must be satisfied that the operator has consistently applied the knowledge and skills in all of the above elements.

This form should be signed off only when the assessor is satisfied that the employee / trainee is competent to carry out all of the tasks described above.

Applicant's signature: _____ Date: / /

Assessor's signature: _____ Date: / /



SUGGESTION — Use this form to train staff, and place a copy in personnel files.

Replacement Parts List

IMPORTANT:

Only genuine authorized replacement parts should be used for the servicing and repair of this appliance. The instructions supplied with the parts should be followed when replacing components.

For further information and servicing instructions, contact your nearest authorized service branch (contact details are as shown on the reverse of the front cover of this manual).

When ordering replacement parts, please quote the part number and the description as listed below. If the part required is not listed below, request the part by description and quote model number and serial number which is shown on the Rating Plate located on the front lower corner of the right hand side panel.

Part No.	Description
11100-12-001	Stainless Steel Bowl.
11100-12-003	Spiral Dough Hook.
11100-12-004	Stainless Steel Wire Whip.
11100-12-002	Batter Beater.

