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Model FMS10
Model FMS20

ML-141018
ML-141040
ML-141057
ML-134327

**OWNER/OPERATOR
MANUAL**



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TABLE OF CONTENTS

GENERAL	3
INSTALLATION	3
Unpacking.....	3
Location.....	3
Electrical Connections.....	3
OPERATION	4
Controls.....	5
Non-Timed Mixing.....	5
MIXING	6
Bowl.....	6
Agitator.....	6
Wire Cage.....	7
Remove Wire Cage/Bowl Guard.....	7
Install Wire Cage/Bowl Guar.....	7
CLEANING	7
MIXING BOWL CAPACITY CHART	8
Agitators and Accessories.....	9
MAINTENANCE	9
Motor.....	9
Bowl Lift Slideways.....	9
SERVICE	10
WARRANTY	11
NOTES	12

Installation, Operation, and Care of BERKEL FMS10 & 20 Quart MIXER

SAVE THESE INSTRUCTIONS

GENERAL

The 10 quart mixer has a DC electric motor and motor control. A 10 quart bowl, bowl guard, B-Flat beater, spiral dough hook, D wire whip and ingredient chute are shipped as standard equipment. A 0-15 minute timer and four plastic foot pads are standard.

The 20 quart mixer has a DC electric motor and motor control. A 20 quart bowl, bowl guard, B-flat beater, spiral dough hook, D wire whip and ingredient chute are shipped as standard equipment. A 0 - 15 minute timer and four plastic foot pads are standard. A #12 attachment hub is standard. A variety of attachments are available. A 10 quart bowl and its associated accessories are optional.

INSTALLATION

UNPACKING

Immediately after unpacking the mixer, check for possible shipping damage. If the mixer is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Prior to installation, test the electrical service to assure that it agrees with the specifications on the machine data plate.

LOCATION

Remove hex head shipping bolts with a 3/8" wrench (or crescent wrench), that attaches the four legs to the base-frame of the carton.

Place the mixer on a suitable sturdy level surface. There should be adequate space around the mixer for the user to operate the controls and install and remove bowls.

ELECTRICAL CONNECTIONS (Cord Connected Mixers)

⚠ WARNING The electrical cord on this machine is equipped with a three-pronged grounding plug which must be connected to a properly grounded receptacle. If the receptacle is not the proper grounding type, contact an electrician. Do not remove the grounding prong from the plug.

OPERATION

⚠ WARNING Moving beater in bowl. Keep hands, clothing, and utensils out while in operation. Do not use without interlocked guard.

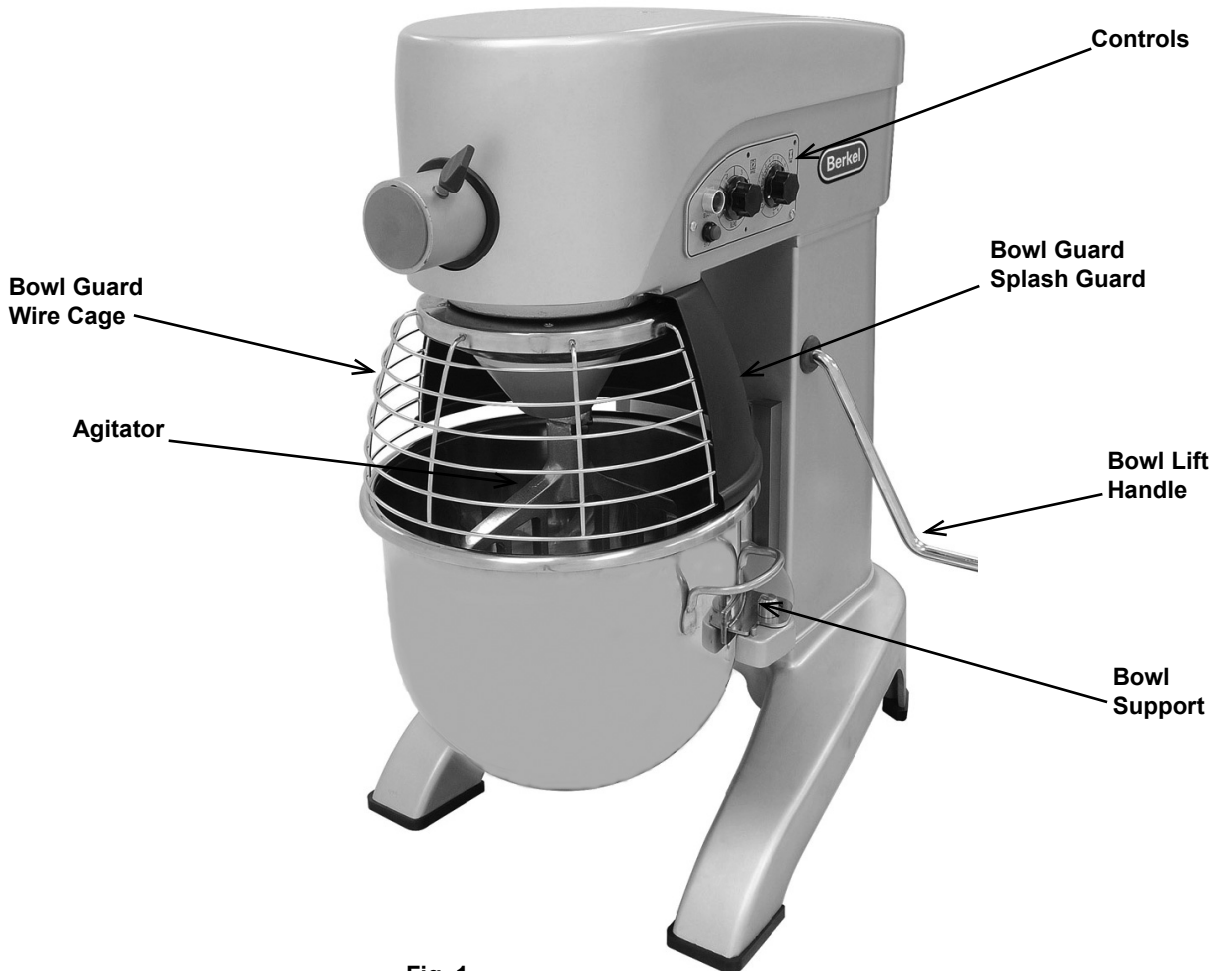


Fig. 1

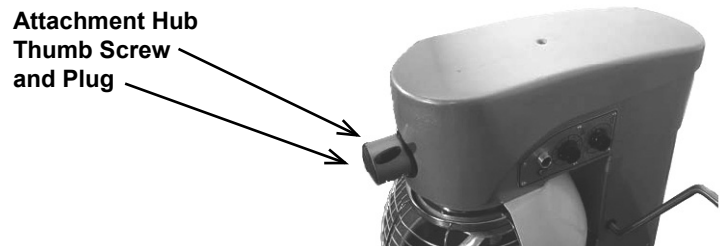


Fig. 1A (20 Quart Mixer)

CONTROLS (FIG. 2)

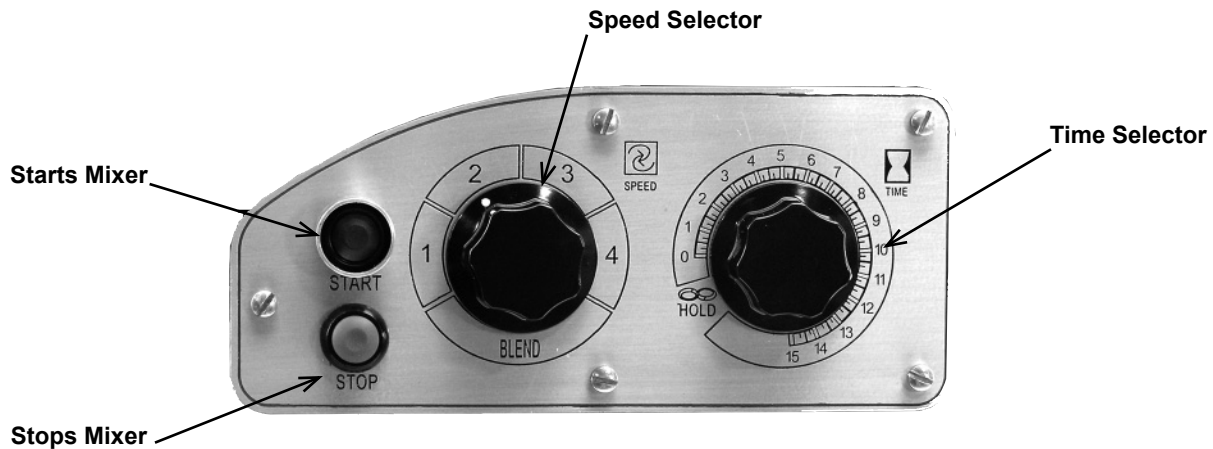


Fig. 2

Push-button Start and Stop buttons control power to the mixer.

The Bowl Guard must be in place and closed or the mixer will not operate.

If the Bowl Support is not all the way up, the mixer will not operate.

The TIMER is used in conjunction with the Start button for timed mixing operations and will stop the mixer when the desired time has elapsed.

NON-TIMED MIXING -- Set the timer on Hold and use the Stop button to turn the mixer off.

The Speed Selector (Fig. 2) is used to change speeds. To change speeds, turn the Speed Selector to the desired speed. Speed can be set when mixer is on or off.

Blend -- The slowest speed to incorporate ingredients.

Speed 1 (Low) -- For light dough, heavy batters, or potatoes.

Speed 2 (Medium) -- For cake batters or some whipping operations.

Speed 3 (Medium-High) -- For light work, such as whipping cream, beating eggs, or mixing thin batters.

Speed 4 (High) -- This speed is for maximum and accelerated air incorporation into light batches.

The Bowl Lift Handle (Fig. 1, page 4) is used to raise and lower the bowl.

For the FMS10 (QUART) Mixer, to raise the bowl, rotate the handle upward; rotating the handle downward lowers the bowl.

For the FMS20 (20 QUART) Mixer, rotate the handle downward; rotating the handle upward lowers the bowl.

MIXING

This section explains operation of the mixer and how to install bowls and agitators.

BOWL

New mixer bowls and agitators (beaters, whips, spiral dough hook, ingredient chute and splash cover) should be thoroughly washed with hot water and a mild soap solution, rinsed with either a mild soda or vinegar solution, and thoroughly rinsed with clear water before being put into service. This cleaning procedure should also be followed for bowls and agitators before whipping egg whites or whole eggs.



Fig. 3

The bowl must be installed before the agitator. To install the bowl, fully lower the bowl support (Fig. 3). Position the bowl so two large holes on bowl tabs are above the bowl pins on the bowl support, then turn the bowl until the bowl pins stop in two small holes.

10 quart Mixer - Lower the bowl onto the bowl pins then turn clockwise until stopped in locked position.

20 quart Mixer with Twist-Lock Feature- Lower the bowl onto the bowl pins then turn counter-clockwise until stopped in locked position.

20 quart Mixer with Auto-Lock Feature - Position the bowl so two holes on bowl tabs are above the bowl pins on the bowl support. Lower the bowl onto the bowl pins. Then lower the bowl lift arm to raise the bowl. Bowl will be locked when it is raised to mix position.

AGITATOR

To install an agitator (Fig. 4), the bowl must be installed and fully lowered.

10 Quart Mixer Place the agitator in the bowl, push it up on the agitator shaft, and turn it counter clockwise to seat the shaft pin in the slot of the agitator shank.

20 Quart Mixer Place the agitator in the bowl, push it up on the agitator shaft, and turn it clockwise to seat the shaft pin in the slot of the agitator shank.



Fig. 4

BOWL GUARD / WIRE CAGE

Wire cage must be in position and closed in order to mix. If wire cage is opened during the mixing, mixer will stop.

ATTACHMENTS (OPTIONAL FEATURE FOR 20 QUART MIXER)

To install an attachment, loosen the thumb screw on the attachment hub (Fig.1A, page 4) 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.

Close wire cage/bowl guard and raise bowl support to mix position, move the speed select knob to the desired speed and start the mixer to operate the attachment.

REMOVE BOWL GUARD / WIRE CAGE

Lower the bowl support and remove agitator before removing wire cage. Hold wire cage with both hands and pull downward gently to release from retainer (Fig. 5).

INSTALL BOWL GUARD / WIRE CAGE

Hold wire cage with both hands and gently push upward until wire cage is latched on the retainer and can be rotated freely (Fig. 5).



Fig. 5

CLEANING

⚠ WARNING Unplug machine power cord before beginning any cleaning procedures.

The mixer should be thoroughly cleaned daily.

Bowls and agitators should be removed from the mixer and cleaned in a sink.

DO NOT use a hose to clean the mixer — it should be washed with a clean damp cloth.

Clean the Wire Cage/bowl guard by wiping with a cloth or sponge and warm soapy water.

MIXING BOWL CAPACITY CHART

Capacity of Bowl (Qts. Liquid)	Agitators Suitable for Operation	10-Quart	20-Quart
Model		FMS10	FMS20
Motor (HP)		1/2	1
Overall Space Required (Bench Space)		13 ³ / ₄ " W X 17 ¹ / ₂ " D X 25 ³ / ₄ "H	17 ³ / ₄ "W X 23 ¹ / ₄ "D X 31 ¹ / ₂ "H

Kitchen Materials Capacity Chart (Finished Materials)			
Egg Whites (pt.)	D	1 pt.	2 pts.
Mashed Potatoes (lbs.)	B	8 lbs.	15 lbs.
Mayonnaise (Qts. of Oil)	B or D	4 qts.	9 qts.
Meringue (Qty. of Water)	D	3/4 pt.	1 1/2 pts.
Waffle or Hot Cake Batter (qt.)	B	4 qts.	8 qts.
Whipped Cream (qt.)	D	2 qts.	4 qts.

Bake Shop Materials			
Cake, Angel Food (8-10 oz. cake) (lb.)	B	7 1/2 lbs.	15 lbs.
Cake, Box or Slab or Layer (lb.)	B	10 lbs.	20 lbs.
Cake, Cup (doz.)	B	18 lbs.	30 lbs.
Cake, Pound (lb.)	B	15 lbs.	21 lbs.
Cake, Sponge (lb.)	B	6 lbs.	12 lbs.
Cookies, Sugar (lbs.)	B	9 lbs.	15 lbs.
Dough, Bread or Roll (Lt-Med) 60% AR § (lb.)	ED	12 lbs. **	25 lbs. **
Dough, Heavy Bread 55% AR § (lb.)	ED	5 lbs. **	10 lbs. **
Dough, Pie (lb.)	B	12 lbs.	18 lbs.
Dough, Thin Pizza 40% AR (max mix time 5 min.) §	ED	4 lbs.**	9 lbs. **
Dough, Medium Pizza 50% AR §	ED	5 lbs. **	10 lbs. **
Dough, Thick Pizza 60% AR §	ED	8 lbs. **	20 lbs. **
Dough, Raised Donut 65% AR (lb.)	ED	4 1/2 lbs. +	9 lbs. +
Dough, Whole Wheat 70% AR	ED	8 lbs. **	20 lbs. **
Eggs & Sugar for Sponge Cake (lb.)	B	4 lbs.	8 lbs.
Icing, Fondant (lb.)	B	6 lbs.	12 lbs.
Icing, Marshmallow (lb.)	B	1 lb.	2 lbs.
Shortening & Sugar, Creamed (lb.)	B	8 lbs.	16 lbs.
Pasta, Basic Egg Noodle (max mix time 5 min.) (lb.)	ED	3 lbs.	5 lbs.

** 1st Speed + 2nd Speed § If high gluten flour is used, reduce above dough batch size by 10%.

NOTE: % AR (% Absorption Ratio) = Water weight divided by flour weight X 100%. Capacity depends on moisture content of dough. Above capacity based on 12% flour moisture and 70°F water temperature.

ABBREVIATIONS - AGITATORS SUITABLE FOR OPERATION

B - Flat Beater

D - Wire Whip

ED - Spiral Dough Hook

AGITATORS AND ACCESSORIES



B Flat Beater



D Wire Whip



S Spiral Dough Hook



Ingredient Chute



Splash Cover

MAINTENANCE

⚠ WARNING Unplug machine power cord before beginning any maintenance procedure.

MOTOR

The motor has sealed ball bearings which require no lubrication maintenance.

BOWL LIFT SLIDEWAYS

The bowl lift slideways (Fig. 6) should be lubricated once each month. Apply a light coat of a "Food Grade" grease to both sides of the slideways.

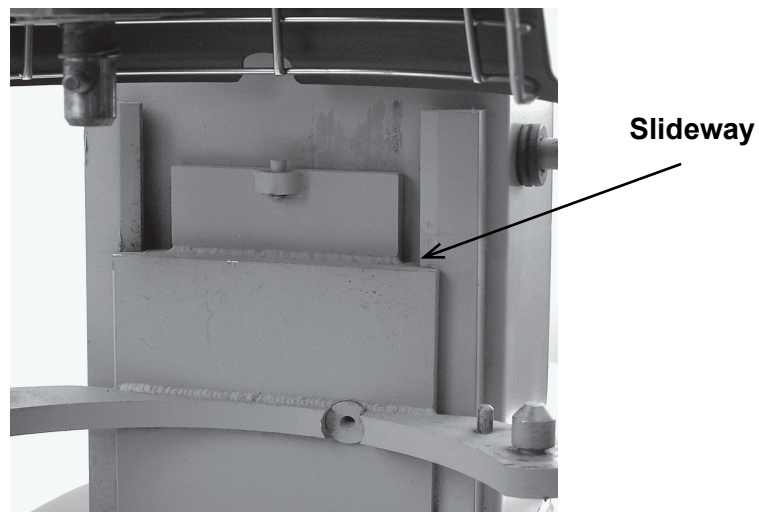


Fig. 6

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning the FMS10 & FMS20, you have two options:

1. You can contact the local Designated Berkel Service Location (DBSL). To locate the nearest DBSL, please visit www.berkel.com. Additional information may be obtained by dialing (800-348-0251).
2. You can contact the local Hobart office in your area, or call 1-888-4HOBART. You can also find the nearest Hobart office by visiting www.hobartservice.com.

Berkel Company
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Warranty

Effective: February 14, 2002

Berkel Company ("Berkel") warrants to the Buyer of new equipment that said equipment, when installed in accordance with our instructions and subjected to normal use, is free from defects in material or workmanship for a period of one (1) year from the date of sale.

BERKEL SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF MERCHANTABILITY OR EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Berkel's obligation and liability under this warranty is expressly limited to repairing or replacing equipment that proves to be defective in material or workmanship within the applicable warranty period. Berkel or a Designated Berkel Service Location will perform all repairs pursuant to this warranty. Berkel expressly excludes responsibility for incidental or consequential damages to buyer or any third party, including, without limitation, damages arising from personal injuries, lost profits, loss of business opportunity, loss of property, economic losses, or statutory or exemplary damages, whether in negligence, warranty, strict liability or otherwise.

This warranty does not apply to: periodic maintenance of equipment including but not limited to lubrication, replacement of worn blades, knives, stones, knobs, accessories, and miscellaneous expendable supply items, and other adjustments required due to installation set-up or normal wear.

These warranties are given only to the first purchaser from a Berkel Authorized Channel of Distribution. No warranty is given to subsequent transferees.

The foregoing warranty provisions are a complete and exclusive statement of the warranty between the buyer and seller. Berkel neither assumes nor authorizes any persons to assume any other obligation or liability connection with said equipment. This warranty supersedes any and all prior warranties to the subject hereof.

Notes