



BakeMax BMSM Series Spiral Mixer Operations Manual



Questions? Contact Us:
Toll Free: 1-800-565-2253
Email: Info@BakeMax.com
www.BakeMax.com

Please fully read this manual before installing machine or attempting to use. Failure to do so may result in injury and may also void all warranty!



WARNING: PLEASE READ AND FOLLOW THE INSTRUCTIONS BELOW BEFORE OPERATING PRODUCT

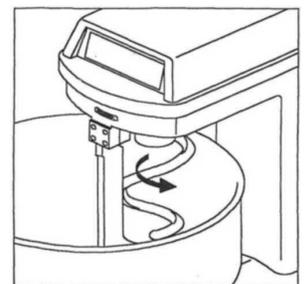
- When using the machine, please confirm that you have read all the instructions within this manual.
- Beware of any child/children or any other persons who are near the machine before operating.
- Do not put hand near moving parts.
- Remove all obstacles, which may interfere with machine functions.
- Keep work area clean and clear of clutter.
- Do not sit or stand on machine
- Do not wear loose cloth or jewellery when operating machine as it may get caught in moving parts and cause injury
- When the machine is abnormal or broken, you should stop using and check it or have it checked by a professional.
- Disconnect from power source before performing maintenance on the machine.
- When machine is not in use, please clean and store properly.
- Do not place any electrical parts or plug/cord in water.
- The cord should be away from the heat.
- Don't hang out the cord on the desk or cabinet.
- Machine may have sharp or pointed edges, use caution when cleaning.
- This machine should only be operated by personnel who can read, understand and respect warnings and instructions regarding this machine and the manual.
- Keep this manual in a safe place for further and regular reference and ordering parts.
- Please write model serial and date of purchase of your machine in the space provided in case you will need to order parts in the future.
- Always work by security code of your country, state, province, city or committee of your work place.

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FEATURES

- Heavy-duty, stainless steel spiral agitator and bowl, designed to Baking Industry Sanitation Standards.
- Instant termination of operation if safety guard is lifted. Operation is possible only when a safety guard is in place.
- Minimal-Maintenance, high-power motor. Speed is altered without shifting gear.
- High-efficiency, 2-speed mixing is achieved through blending ingredients to achieve desired results consistently within 7-10 minutes.
- Accurate timers automatically control mixing time. The machine is still operational even if the timer is interrupted.
- New, dual-direction mixing technology, speed is synchronized with reverse-rotating bowl to mix ingredients and blend dough hydraulically downward. This keeps dough cooler and achieves desired results more efficiently.
- Powerful spiral mixing increase water absorption by dough, thus, increasing volume and assuring uniform texture.
- Instant-response servo-limit switch for safety.
- Bowl may be set to rotate either forward or backward.



NOTE

The Hook / Agitator should be turning in the same direction as the ARROW (Counterclockwise) just above the Hook and Bowl on the frame of the Mixer. Bowl should turn in SAME direction as Hook while mixing, opposite direction of either Hook / Agitator or Bowl may cause Dough to rise Hook / Agitator.

SAFETY PRECAUTIONS

WHEN USING THIS MACHINE, ALWAYS MAKE SURE THE FOLLOWING CONDITIONS OR OPERATIONS ARE IN EFFECT. FAILURE TO DO SO MAY CAUSE ACCIDENTS.

- **KEEP HAND, CLOTHING & RIGID OBJECTS AWAY FROM 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 SERVICE SPECIFIED ON ITS NAMEPLATE.**
- **DISCONNECT THE MACHINE FROM ITS POWER SOURCE BEFORE CARRYING OUT ANY MAINTENANCE.**
- **DO NOT DISABLE OR REMOVE THE SAFETY MECHANISMS INCLUDED WITH THE MACHINE.**
- **DO NOT LEAVE THE MACHINE IN OPERATION UNATTENDED.**
- **OBSERVE MAINTENANCE AND SAFETY INSPECTION SCHEDULES.**

Note: The machine must be installed on a horizontally-level floor. It should be placed in a location that is convenient for both operation and maintenance. The machine's safety features make it possible to stand close to the machine during operation.

SPECIFICATIONS

MOTOR - Three phase motor. Bowl and spiral agitator are driven by separate motors

ELECTRICAL

- 200V/60HZ, three phase.
- 220V/60HZ, three phase.

TRANSMISSION Pulley drive to special fiber belt
TIMER Standard 30-minute time.
SAFETY GUARD Stainless steel safety guard is standard. Instant termination of operation to protect operator if safety guard is lifted

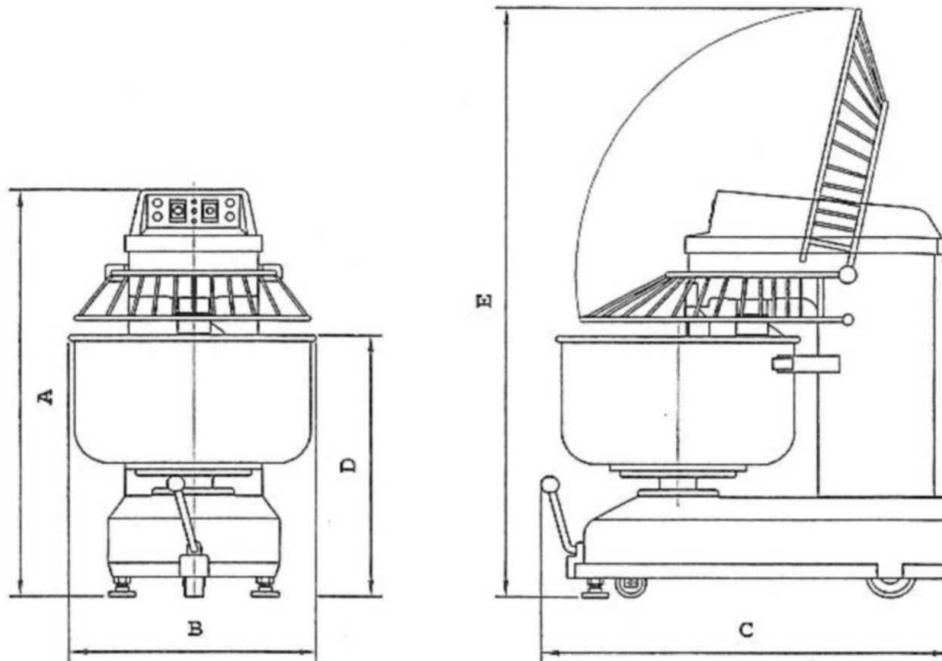
SPEED	60 Hz RPM	
	Low	High
Model No.		
BMSM30	131	262
BMSM40	131	262
BMSM50	131	262
BMSM70	131	262
BMSM80	131	262
BMSM120	131	262

Model No.	Flour (kg)	Dough (Kg)	Bowl (Liter)	Packing Size (cm)	Net Weight (Kg)	Gross Weight (kg)	Motor (HP)	
							Agitator	Bowl
BMSM30	15	30	50	95*60*120	150	200	2	0.5
BMSM40	25	40	70	100*65*130	180	230	2.5	0.5
BMSM50	30	50	80	121*70*138	400	500	3	1
BMSM70	45	70	100	114*55*104	450	550	4	1.5
BMSM80	50	80	120	133*88*152	520	620	5	2
BMSM120	80	120	180	140*97*159	550	650	8.5	3

***When mixing bagel dough and other stiffer doughs, you will need to reduce your capacity by 30% and only use the 1st speed. Max mixing time of 15 minutes with a 15-minute break between batches.**

For softer dough, max mixing time of 30 minute with a 15-minute break between batches. This ensures the longevity of your spiral mixer.

4. INSTALLATION DIAGRAM (CM)



Model	A	B	C	D	E
BMSM30	99	54	88	57	134
BMSM40	105	54	88	67	140
BMSM50	114	55	104	78	147
BMSM70	114	66	104	81	152
BMSM80	120	71	114	81	170
BMSM120	130	81	122	86	180

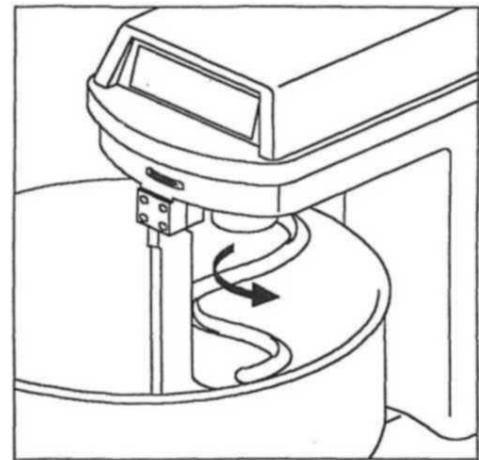
CLEANING

WARNING - UNPLUG MACHINE BEFORE CLEANING OR SERVICING.

- After each day's use, wash the mixer bowl and agitator thoroughly with hot water and a mild soap solution and rinse with either a mild soda or vinegar solution, rinse thoroughly with a clean damp cloth.
- Clean under machine occasionally. Disconnect power cord, raise stabilizing feet and move machine.

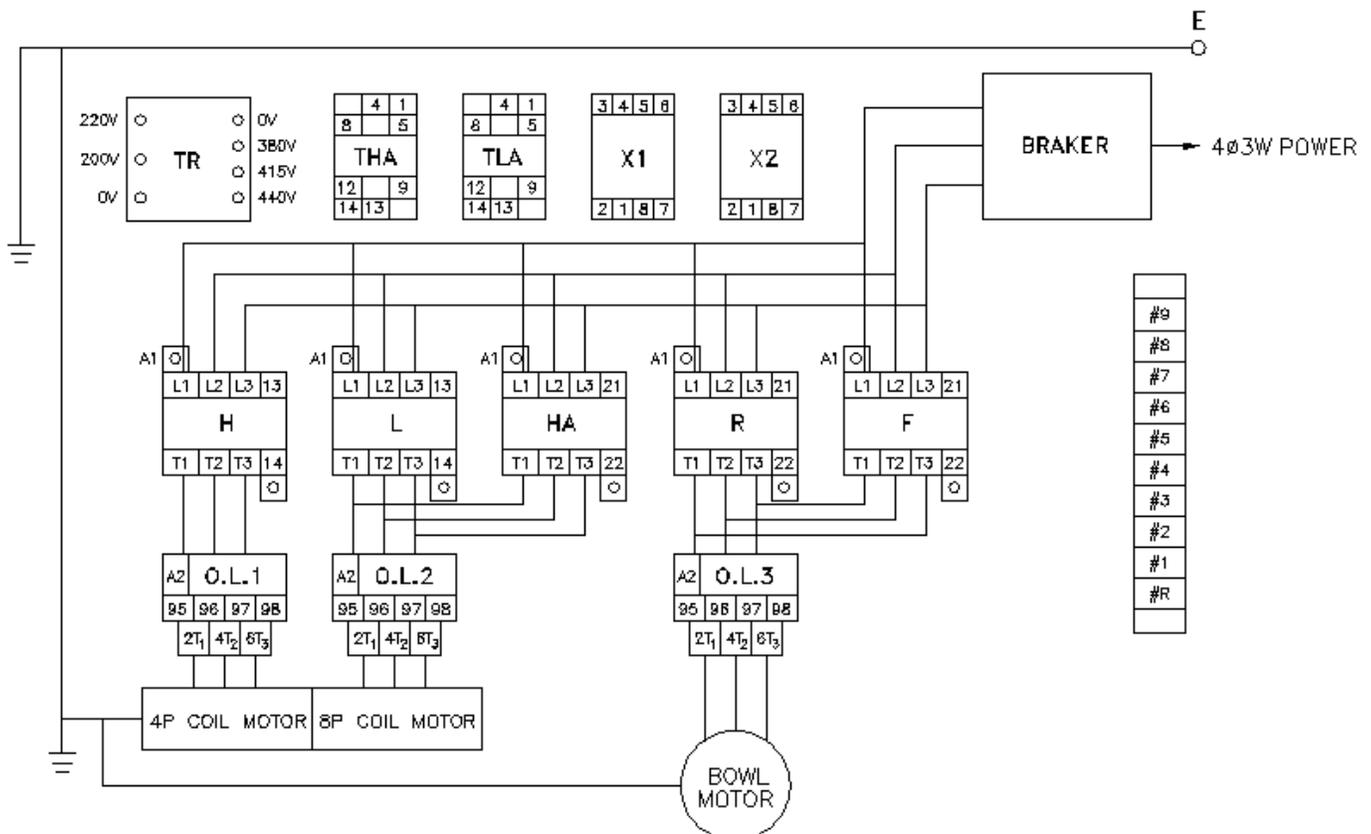
ELECTRICAL CONNECTIONS

WARNING: BEFORE CONNECTING YOUR MACHINE TO ANY SOURCE OF ELECTRICAL POWER, READ THE SPECIFICATIONS ON THE MACHINES NAME PLATE CAREFULLY AND BE SURE THEY COINCIDE WITH THOSE OF YOUR POWER SOURCE.



- Electrical connections should be made by qualified personnel in accordance with applicable codes and regulations.
- An appropriate fuse must be installed to provide adequate protection in case of a short circuit.
- Special attention should be given to making the correct electrical connection regarding the direction of rotation of the spiral agitator. The direction of rotation is indicated by an arrow on the front of mixer. It should be rotating counterclockwise.

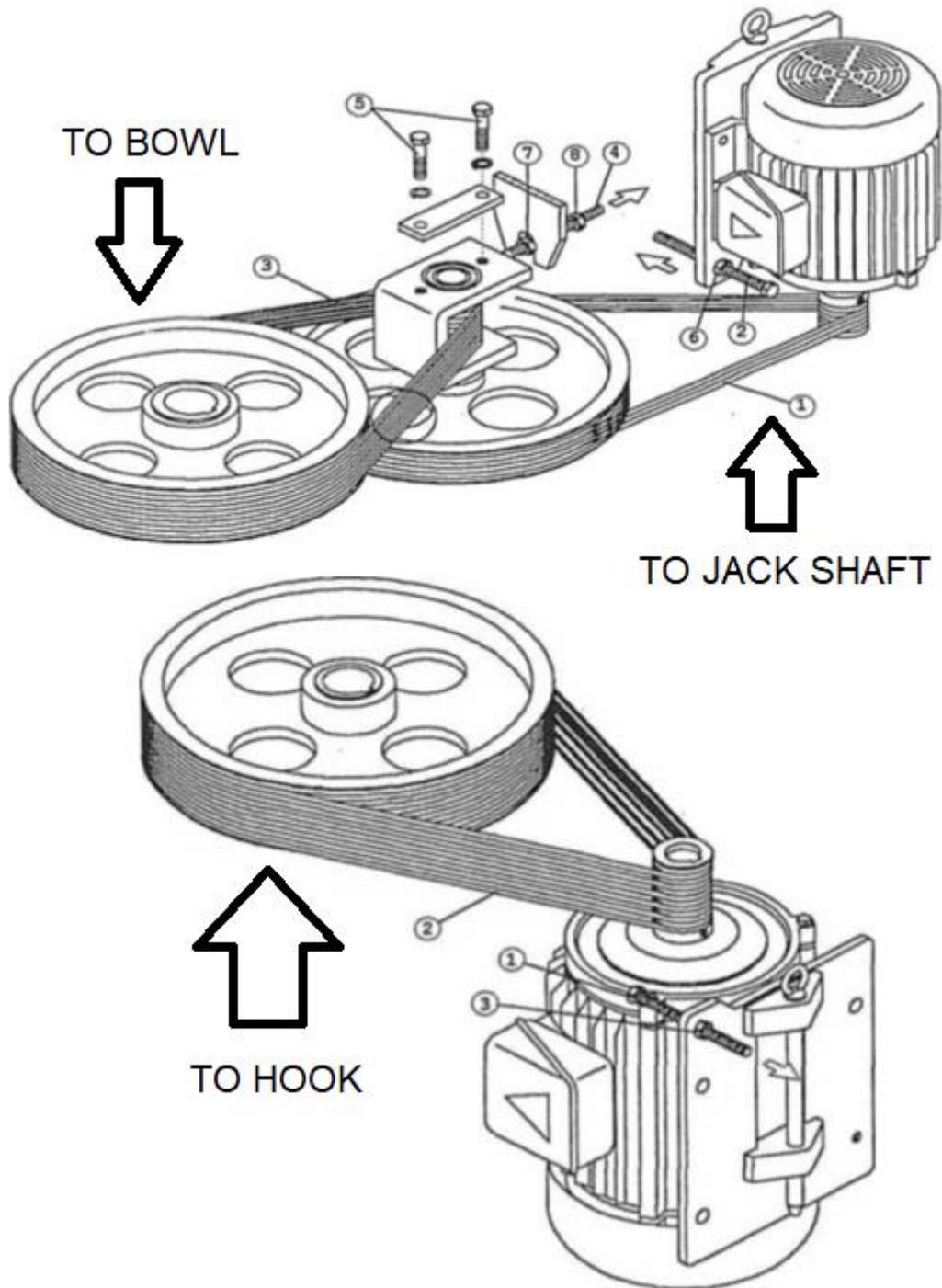
ELECTRIC PARTS DIAGRAM & MAIN CIRCUIT



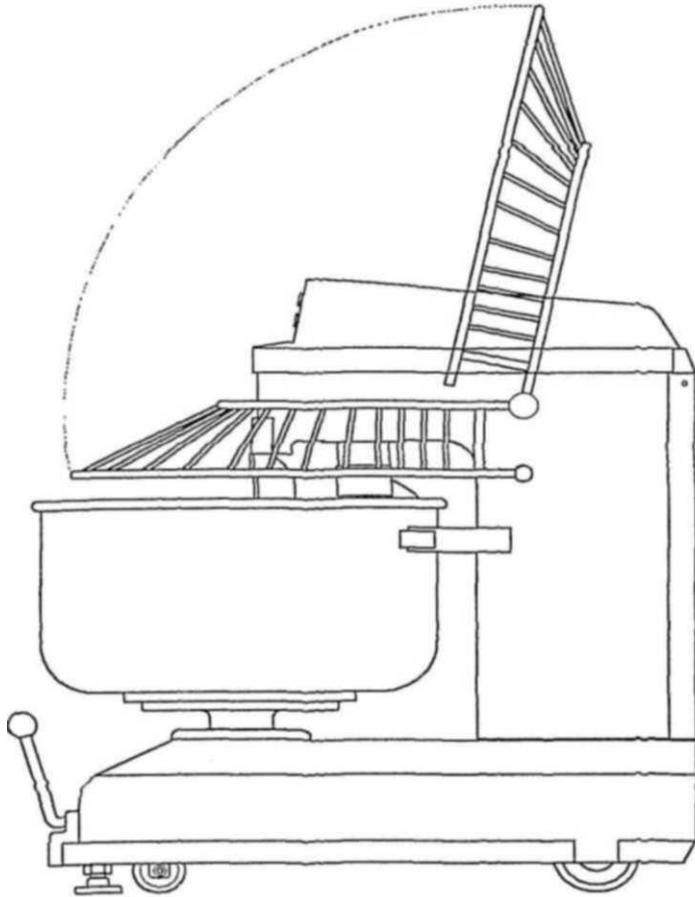
TECHNICAL NOTES

DRIVEN BELT

- The drive belt should be installed with sufficient tension to avoid excessive slack.
- Agitator drive belts may be adjusted by means of a screw No. 1 on motor support plate.
- Bowl drive belts may be adjusted by adjusting the screw nut No. 7 & 8.
- Drive belts for the bowl drive motor may be adjusted by means of the screw No. 2 on lower motor support plate.



MOVING THE MIXER



To move the mixer, push down the ball-knob lever until the front wheel touches the front so that the mixer may be moved.

To retract the front wheel once the mixer has been moved, push the ball-knob lever up until the front of the mixer rests on the front foot plate.

**NOTE:
BMSM50
BMSM70
BMSM80 &
BMSM120
ONLY**



www.BakeMax.com

Warehouses:

50 Caribou St, Moncton, NB E1H 0P3
5705 Valley Belt Rd, Independence, OH 44131
1201 E 27th Terrace, Pittsburg, KS 66762

Mixing Dough & Capacity Information

The moisture content of heavy dough is a critical factor when selecting proper mixing speed. You should never use 2nd speed when mixing heavy dough with an Absorption Ratio (AR) of 50% or less. To determine the Absorption Ratio (AR) of a product, divide the water weight by the flour weight.

Example: Calculate the Absorption Ratio of a mixture containing 10lbs. of Flour and 5lbs. of Water.
5lbs. of Water / 10lbs. of Flour = 0.50 = 50% AR

Product	BMSM020	BMSM030	BMSM040	BMSM050	BMSM070	BMSM080	BMSM120
Flour (Kg)	12	15	25	30	45	50	80
Dough (Kg)	20	30	40	50	70	80	120
Bowl (Liters)	40	50	70	80	100	120	180
Bagel Dough (55-65% AR)	31 lbs.*	46 lbs.*	62 lbs.*	77 lbs.*	108 lbs.*	123 lbs.*	185 lbs.*
Bread or Roll Dough (Light / Medium, 60% AR)	44 lbs.	66 lbs.	88 lbs.	110 lbs.	154 lbs.	176 lbs.	264 lbs.
Bread or Roll Dough (Heavy, 55% AR)	40 lbs.	60 lbs.	80 lbs.	100 lbs.	139 lbs.	160 lbs.	238 lbs.
Thin Pizza Dough, Pasta, Basic Egg Noodle (40% AR, Max 5 Minutes of Mixing Time)	18 lbs.*	22lbs.*	29lbs.*	37 lbs.*	51 lbs.*	60lbs.*	110lbs.*
Soft Sandwich or Crusty Artisan Bread Dough (Light, 65% AR)	44 lbs.	66 lbs.	88 lbs.	110 lbs.	154 lbs.	176lbs.	264 lbs.
Medium Pizza Dough (50% AR)	38 lbs.	56 lbs.	75 lbs.	94 lbs.	131 lbs.	150 lbs.	225 lbs.
Thick Pizza Dough (60% AR)	44 lbs.	66 lbs.	88 lbs.	110 lbs.	154 lbs.	176 lbs.	264 lbs.
Raised Donut Dough (65% AR)	42 lbs.	63 lbs.	84 lbs.	105 lbs.	147 lbs.	168 lbs.	252 lbs.
Whole Wheat Dough (70% AR)	39 lbs.	59 lbs.	78 lbs.	98 lbs.	137 lbs.	156 lbs.	234 lbs.

Speeds:

- *1st Speed Only

Notes:

- When mixing bagel dough and other stiffer doughs, you will need to reduce your capacity by 30% and only use 1st speed. Max mixing time of 15 minutes with 15-minute breaks between batches.
- For softer dough, max mixing time of 30 minutes with a 15-minute break between batches, this ensures the longevity of your spiral mixer
- If using high gluten or rice flour, please reduce capacity by 10%
- If using water colder than 70°F, ice or chilled flour, please reduce capacity by 10%
- Mixer should be powered off when changing speeds

Capacity Conversion:

- 1 Gallon of Water Weighs 8.33lbs.
- 1 Liter of Water Weighs 1Kg or 2.2lbs.
- 1lbs. = 0.454Kg
- 1Kg = 2.2lbs.
- 1 US Liquid Quart = 0.946 Liters

CONTROLS

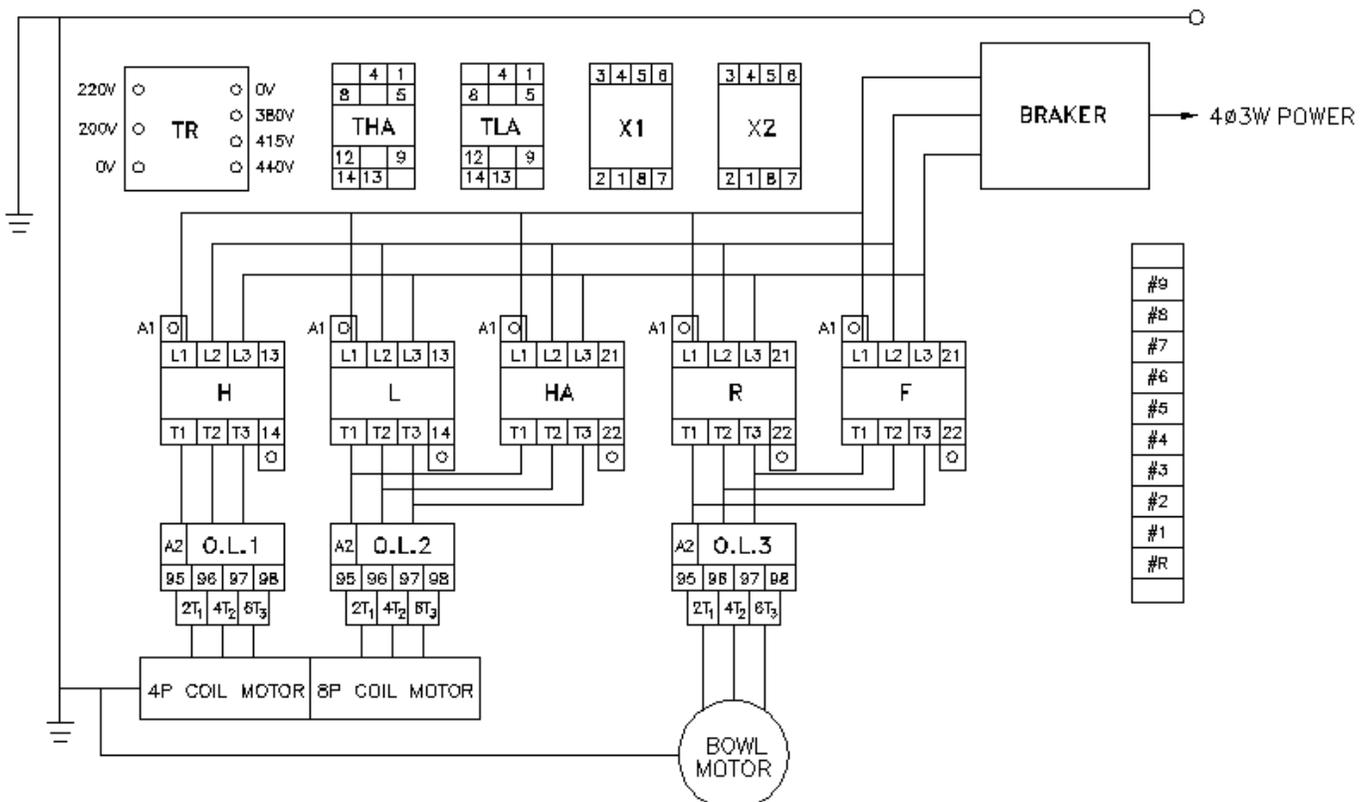
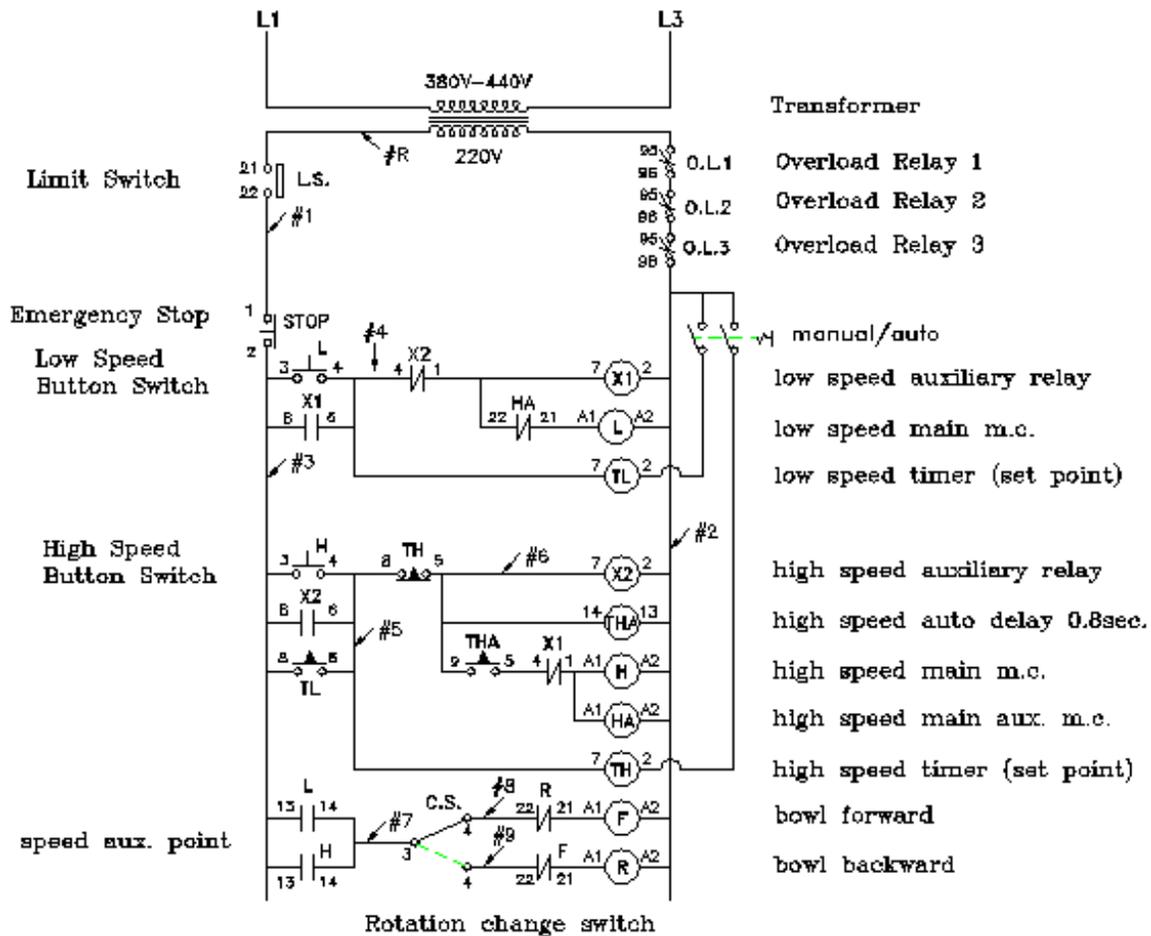


FUNCTION DESIRED	INSTRUCTION	RESULT
Manual (Continuous) Mixing	Turn TOGGLE SWITCH Manual Press LOW SPEED BUTTON or Press HIGH SPEED BUTTON Press STOP to PAUSE	Manual control Starts low speed mixing. Starts high speed mixing. Mixing paused.
Timed Mixing at Low Speed	1. Turn TOGGLE SWITCH Auto 2. Set Timer (LEFT) to desired time 3. Set Timer (RIGHT) to ZERO 4. Press LOW SPEED BUTTON 5. Press STOP to PAUSE	Will automatically mix at low speed until timer reaches zero. STOP will pause mixing. To continue mixing, reset timer and press LOW SPEED.
Timed Mixing at High Speed	1. Turn TOGGLE SWITCH Auto 2. Set Timer (RIGHT) to desired time. 3. Set Timer (LEFT) to ZERO 4. Press HIGH SPEED BUTTON. 5. Press STOP to PAUSE	Will automatically mix at high speed until timer reaches zero. STOP will pause mixing. To continue mixing, reset timer and press HIGH SPEED.
Timed Mixing at Two speed	1. Turn TOGGLE SWITCH to Auto 2. Set both timers LOW SPEED (left) and HIGH SPEED (right) to desired timer. 3. Press LOW SPEED BUTTON. 4. Press STOP to PAUSE	Will mix at low speed until timer reaches zero, will switch to high speed until high speed timer reaches zero and stops. STOP will pause mixing.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE
Mixer keeps running and does not shut off	Manual/Auto Toggle Switch in Manual position Faulty Timer Contactor Points Stuck Shut, Replace contactor.
Dough Rising on Dough Hook	The hook is turning in the wrong direction, reverse the direction of the hook by changing two wires.
Mixer doesn't start or will start in one speed or the other	Main Power switch shut off or Faulty No power to unit, check Plug if applicable, check Breaker or fuse in Power Supply Box/Panel Bowl Guard up or Bowl Guard Switch faulty Bad contactor or relay on main board Internal Breaker tripped Fuse on Front Panel Blown or faulty Faulty timer, if one speed works and other doesn't , try interchanging timers to see if that speed works Faulty Motor IS GREEN LIGHT ON? PROBLEM MOST LIKELY INSIDE , CHECK POWER BOARD OR BOWL GUARD SWITCH Faulty start switch (Green Button)
Bowl or agitator/hook starts and stops during Mixing	Belts may need to be tightened - Belts may be worn and need to be replaced Not likely but could have faulty motor or wiring connections may have come loose Faulty Guard Switch or Switch out of Position or Guard switch loose
LAMP is not on,	Check electric supply at breaker (fuse), check electric cord to see if it is plugged into receptacle. Check electrical box.
Thumping noise from mixer	Belts badly worn with possible parts of belt missing Bearings in Bowl Guide support Rollers may need to be replaced
Grinding or squealing noise	Bad bearings either in motor or pulleys or shafts that support either the bowl or agitator/hook. Shut bowl of to check agitator/hook; shut agitator of to check bowl Check for belt slippage on pulleys
Mixer works and does not work	Check to see if unit has proper Power to Mixer Check the Power Wire Connection/s to the Control Panel where the Contactors and Relays are Check for any loose connections on Front Control Panel Check also for any loose Connections on Power Panel inside unit. Check Main Power Disconnect Switch on side of unit for loose connections
Spots of What looks like Grease dropping in Dough Mix	Water and Flour splashing and Mixing on / around where Hook attaches / Bolts to Upper Drive Shaft Take caution when adding Water and Flour when Mixer is operating, add slowly so as not to splash up Clean and wipe where Hook attaches to Upper Drive Shaft Do Not Spray Water to wash down Spiral Mixer-just wipe with Damp Cloth or Rag.

13. ELECTRICAL WIRING DIAGRAM



Warranty & Service

BakeMax provides a 1-Year Limited Parts and Labor warranty on most items, there are select items which carry a Limited 2-Year Warranty. Extended Warranty is available on some products. Please contact us for details. The Warranty is not transferable and is limited to original installation of equipment sold by BakeMax for the original user.

For all Warranty Claims, Proof of Purchase and/or Serial Number is required. Once the machine is approved, BakeMax will provide our customers with on-site Warranty Coverage on all equipment more than 100lbs. BakeMax assumes no responsibility for down time or loss of product. Repairs must be Pre-Authorized by BakeMax and have a Service Authorization Number issued prior to commencing Warranty Service.

Warranty begins 10-Days after shipping from warehouse; delays in installation which would extend the Warranty must be Approved. All equipment must be installed and connected by Qualified Professionals in accordance with the Manual Specification. Products shipped are to be inspected at time of delivery, the receiver is responsible for inspection.

Any abuse or improper use of the equipment will void the warranty. This includes failure to follow all cleaning instructions, improper installation, improper maintenance, failure to follow capacity charts, improperly wired electrical connections. The Warranty does not apply to abuse, willful or accidental damage, or to products used for other than their intended purpose. Normal wear parts such as Accessories, Attachments, or Electrical Components such as Fuses, Bulbs, Elements, and Switches carry a 90-Day Warranty only.

Bench Warranty (Machines Weighing 100 lb. or less)

Once the machine is Approved for Warranty Service, if the machine requires Warranty work in less than 30 days of purchase date, BakeMax will pay all shipping charges. Once the machine is received and repaired it will be returned to the user at BakeMax expense. Freight Damages during return shipping is the responsibility of the owner of the machine.

The following is not covered under the BakeMax Warranty:

1. Overtime Labor Rates are not covered by BakeMax.
2. All parts will be shipped via Ground Courier only; If Express Shipping is required, it will be the responsibility of the Customer or Dealer.
3. Travel for Warranty Service is covered up to 100 Miles /160 Km Roundtrip, any further mileage will be the responsibility of the Customer or Dealer.
4. There is no on-site Warranty Service for Residential Addresses or addresses outside of the contiguous United States (*Lower 48*) or Canada.

***BakeMax machines sold outside of the contiguous United States (Lower 48), or Canada will carry 1-Year Parts Warranty only.*

Terms & Conditions

Terms

Net 15 days subject to Credit Approval. All past due Accounts are subject to 2% per month Service Charge as per Credit Application. We accept Visa, MasterCard, and Discover Credit Cards. We also accept E-Transfer & Wire Transfer, additional fees may apply.

Pricing

All prices are subject to change without notice. All prices are Sales Tax Extra, should you be claiming Tax Exemption, Tax Exempt Forms must accompany your Purchase Order. BakeMax products are sold in Canadian and US Dollars. BakeMax is not responsible for specifications errors or printing errors.

Shipping

Free shipping to Canada and the U.S. Minimum order \$6,000 for BakeMax and \$10,000 for BakeMax America Cooking Line. Tailgate Delivery is \$90.00 minimum. All checks made Payable to Titan Ventures International Inc. BakeMax is not responsible for goods damaged during shipping. BakeMax is not responsible for any delays in delivery once product has left our Warehouse and is in the carrier's possession. Products shipped are to be inspected at time of delivery, the receiver is responsible for inspection. Damaged Freight Claims are to be claimed with the carrier. BakeMax assumes no responsibility for Damaged Freight. Shipping Insurance available by request. By signing your name on the delivery receipt without noting any damages, you are stating that you have received your shipment in Acceptable Condition.

Return Policy

Returns will not be Approved unless in Writing. Returns must be made within 30-Days of Purchase and must have a Return Authorization Number issued before returning. The purchase order number, reason for return, and the serial number(s) of the unit are required for the Return Authorization Number. Minimum return amount of \$100.00.

Returns are subject to a minimum restocking fee of 30%. The cost of any repairs or re-crating required will be charged back to the dealer. If there is a manufacturer's defect BakeMax® will pay standard freight returned and prepaid shipping back to the customer.

Special Order Items, Clearance / Discontinued Equipment, Parts, Refurbished/Demo Equipment, or Non-Standard items are not Returnable.

Ordering Information

Send purchase orders to BakeMax via e-mail orderdesk@bakemax.com or Fax (506-859-6929). Use Model or Part number when ordering including Voltage Requirements, and Product Description. Please include the Dealer, Name, Address, terms, special delivery, or instructions required or attention names to be applied to packaging. Please notify BakeMax should you need order confirmation or tracking numbers, by calling 1-800-565-2253 or email orderdesk@bakemax.com.

Special Terms and Conditions

BakeMax reserves the right to make improvements or equipment changes without prior permission. Setup and Installation are the end user's Responsibility. Failure to properly Install or Maintain Equipment may Void Warranty.

Catalog, Spec Sheets and Website

BakeMax is not liable for incorrect information found in our Catalog, Spec Sheets or Website. Please contact us to confirm specifications. Pictures and specifications are for general purposes only. Product may not be exactly as shown. Prices and availability may change at any time without notice. Dimensions shown may change at any time without notice.