

MANUFACTURING COMPANY

-SINCE 1961-



LT1800BH LITTLE TORO PRESS OPERATIONS & SAFETY MANUAL



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Cautions

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A CAUTION:

DO NOT OPERATE, CLEAN, OR SERVICE THIS MACHINE BEFORE YOU READ THIS MANUAL AND ARE FAMILIAR WITH THE SAFETY INSTRUCTIONS IN THIS MANUAL AND THOSE ON THE LABELS ON THE MACHINE. KEEP THIS MANUAL AND OTHER MATERIALS DELIVERED WITH THE MACHINE ACCESSIBLE TO THE OPERATORS FOR EASY REFERENCE DURING USE.

NOTE: PICTURES AND DIAGRAMS MAY BE 3D REPRESENTATIONS AND MAY NOT DIRECTLY REPRESENT YOUR MACHINE.

Owners Responsibility



NOTE:

THE PARTS AND EQUIPMENT DESCRIBED IN THIS MANUAL MAY BE COVERED BY ONE OR MORE U.S. AND FOREIGN PENDING PATENTS.

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INC

- FOLLOW ALL INSTALLATION INSTRUCTIONS.
- MAKE SURE INSTALLATION CONFORMS TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES, RULES, AND REGULATIONS SUCH AS STATE AND FEDERAL OSHA REGULATIONS AND ELECTRICAL CODES.
- CAREFULLY CHECK THE UNIT FOR CORRECT INITIAL FUNCTION.
- READ AND FOLLOW THE SAFETY INSTRUCTIONS. KEEP THEM READILY AVAILABLE FOR MACHINE OPERATORS.
- MAKE CERTAIN ALL OPERATORS ARE PROPERLY TRAINED, AND THAT THEY KNOW HOW TO OPERATE
 THE UNIT AND ARE PROPERLY SUPERVISED SAFELY AND CORRECTLY.
- ALLOW UNIT OPERATION ONLY WITH ALL PARTS INCLUDING SAFETY EQUIPMENT, IN PLACE AND OPERATING SAFELY.
- CAREFULLY INSPECT THE UNIT ON A REGULAR BASIS AND PERFORMALL MAINTENANCE AS REQUIRED.
- SERVICE AND MAINTAIN THE UNIT ONLY WITH AUTHORIZED OR APPROVED REPLACEMENT PARTS.
- KEEP ALL INSTRUCTIONS PERMANENTLY WITH THE UNIT ALONG WITH ALL DECALS AND WARNING LABELS ON THE UNIT CLEAN AND VISIBLE.

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Introduction

READ AND FAMILIARIZE YOURSELF WITH THIS MANUAL BEFORE OPERATING THIS MACHINE.

FOLLOW ALL THE INSTRUCTIONS BEFORE USE.

The Little Toro Pizza/Tortilla press, Model LT1800BH, delivers high-production quality and consistency in a small, affordable unit. By utilizing a heated molding process and custom press dies, this device can form nearly any size and style crust (including raised-edge varieties) that will fit on its 20" circular work surface. The Little Toro can also be equipped with a Tortilla Setup to produce consistent tortillas. In addition, the little toro is fitted with custom "quick release" clamps that allow the user to remove one press die and replace it with another in a matter of minutes.

A CAUTION:

 ALL OPERATORS MUST BE FULLY TRAINED AND INSTRUCTED IN SAFETY PROCEDURES BEFORE BEGINNING PRODUCTION.

IMPORTANT:

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DIAGRAMS AND FIGURES WITHIN THIS MANUAL ARE OFTEN 3D REPRESENTATIONS AND MAY NOT REPRESENT YOUR MACHINE IN IT'S ENTIRETY.

ONLY USE FACTORY SUPPLIED REPLACEMENT PARTS TO MAINTAIN MACHINE SAFETY, PERFORMANCE AND SANITARY CONDITIONS. USE OF NON-APPROVED PARTS MAY VOID MANUFACTURERS WARRANTY.

KNOW YOUR UNIT. COMPARE DIAGRAMS IN THIS MANUAL WITH THE UNIT BEFORE STARTING SERVICE TO OBTAIN MAXIMUM SAFETY AND PERFORMANCE.

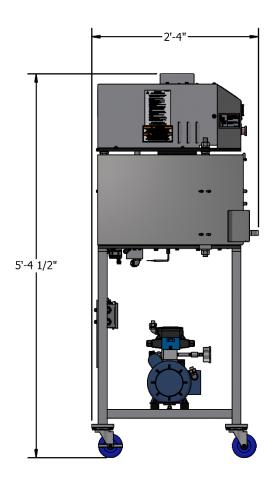
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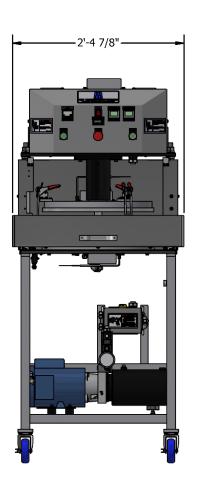
THIS MANUAL CONTAINS CRITICAL SAFETY INSTRUCTIONS. READ AND FOLLOW THEM CAREFULLY. FAILURE TO FOLLOW WARNINGS AND INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY. THE OWNER IS RESPONSIBLE FOR MAINTAINING THE UNIT, ITS INSTRUCTIONS, AND DECALS FOR OPERATION REFERENCE. FOR ADDITIONAL COPIES CONTACT AM MANUFACTURING: (800) 342-6744

Specifications

All dimensions below are approximate.

HEIGHT	5' - 4-1/2"
LENGTH	2' – 4"
WIDTH	2' – 4-7/8"
PRESS FORCE	UP TO 1000 PSI (ADJUSTABLE)
TEMPERATURE RANGE	AMBIENT – 500 DEG F





ELECTRICAL SPECIFICATIONS

• VOLTAGES: Consult the serial tag on your machine for electrical specifications.

Safety Rules



- READ AND FOLLOW THESE SAFETY RULES. THEY ARE FOR YOUR PROTECTION AND THE PROTECTION OF THOSE WORKING WITH YOU.
- DO NOT OPERATE THIS MACHINE BEFORE YOU HAVE READ AND UNDERSTOOD THE OPERATIONS AND SAFETY MANUAL.
- FOLLOW ALL INSTRUCTIONS DURING USE OF THIS MACHINE.
- LEAVE ALL GUARDS IN PLACE. INSTALL ALL GUARDS IF THEY WERE REMOVED FOR CLEANING, MAINTENANCE, REPAIR OR OTHER REASONS.
- NEVER OPERATE THE MACHINE IF YOU HAVE NOT BEEN TRAINED TO OPERATE THE MACHINE PROPERLY.
- NEVER OPERATE THE MACHINE IF YOU ARE TIRED, ILL, ON MEDICATION, OR UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.
- WEAR TIGHT-FITTING CLOTHES. MAKE SURE THAT LONG HAIR, JEWELRY, OR LOOSE PERSONAL ITEMS ARE SECURED SO THEY CANNOT GET CAUGHT IN THE MACHINE. THIS CAN LEAD TO SERIOUS INJURIES.
- MAKE SURE YOU CAN EASILY REACH ALL CONTROLS. IF NOT, A STABLE AND SAFE ELEVATED PLATFORM OR OTHER WORK-AID MUST BE PROVIDED.
- ALWAYS DISCONNECT THE MAIN ELECTRICAL POWER SOURCE AND TURN THE MACHINE SWITCH TO THE OFF POSITION BEFORE CLEANING, IF MAINTENANCE OR SERVICE IS PERFORMED, OR IF THE MACHINE IS OUT OF SERVICE.
- NEVER LEAVE THIS MACHINE RUNNING UNATTENDED.

IMPORTANT:

IF YOU HAVE ANY QUESTIONS ABOUT THESE SAFETY RULES, SEE YOUR SUPERVISOR OR CALL AM MANUFACTURING CO. TOLL FREE: (800) 342-6744

Safety Signal Words

THIS MACHINE IS DESIGNED TO PROVIDE FOR SAFE OPERATION IF NORMAL OPERATING PROCEDURES AND SAFETY MESSAGES LOCATED ON THE MACHINE AND IN THIS MANUAL ARE FOLLOWED.



THIS IS A SAFETY ALERT SYMBOL. YOU WILL FIND IT ON VARIOUS SAFETY LABELS ON THE MACHINE AND IT WILL ALSO APPEAR IN THIS MANUAL WHEREVER SAFETY MESSAGES ARE GIVEN.

GET FAMILIAR WITH SIGNAL WORDS:

- CAUTION:
 - INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO BE USED TO ALERT AGAINST UNSAFE PRACTICES.
- WARNING:
 - o INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.
- DANGER
 - INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY. THIS SIGNAL WORD IS TO BE LIMITED TO THE MOST EXTREME SITUATIONS.
- NOTE:
 - o A NOTE PROVIDES KEY INFORMATION TO MAKE PROCEDURES EASIER AND CLEARER.

Warning Labels Typically Found on the Docker

1) AMTAG10ASF:

ELECTRICAL BOX DOOR



4) AMTAG11SF:

BOTH SIDES OF LOWER PANELS



2) TAG9AS:

PRESS GUARD PANELS



3) TAG21S:

TOP HOOD, EACH SIDE



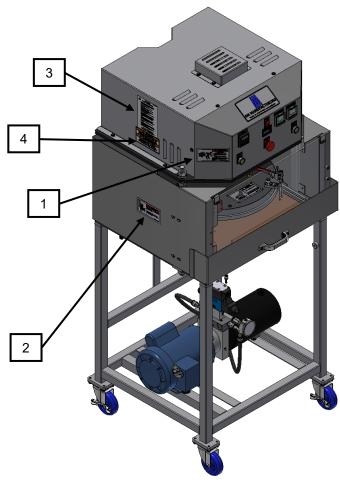


Figure 1: Warning Label Locations

Installation Instructions for Location

Select the location for your Little Toro carefully. The equipment should be placed to provide the operator with enough space to comfortably move the drawer in and out of the press area. The floor beneath the machine should be free of oil, grease, and debris. Ensure that the installation area has access that allows for easy cleaning. Avoid areas where bystanders and customers may be present. Your Little Toro will arrive with all guarding in place and the die securely clamped to the heater plate. Remove all packing material from the machine and roll it carefully to the desired location.

⚠ CAUTION:

- PROPER UNIT INSTALLATION IS NECESSARY FOR SAFE AND EFFICIENT OPERATION. PROPER INSTALLATION ALSO HELPS PROTECT THE UNIT FROM DAMAGE AND MAKES SERVICE EASIER.
- ONCE THE MACHINE IS IN PLACE, INSPECT IT FOR ANY DAMAGE. IF THE HOOD OR GUARDS CONTAIN ANY DENTS – OR IF ANY COMPONENTS ARE MARRED OR BROKEN, CONTACT AM MANUFACTURING IMMEDIATELY.

Overview of the Little Toro

THE LITTLE TORO LT1800BH PRESS CAN BE BROKEN DOWN INTO 6 GENERAL REGIONS:

- 1. The Machine's Frame
- 2. Hydraulic Power Unit
- 3. The Teflon Belt Drawer
- 4. The Press Mechanism
- 5. The Press Guarding
- 6. The Machine Hood

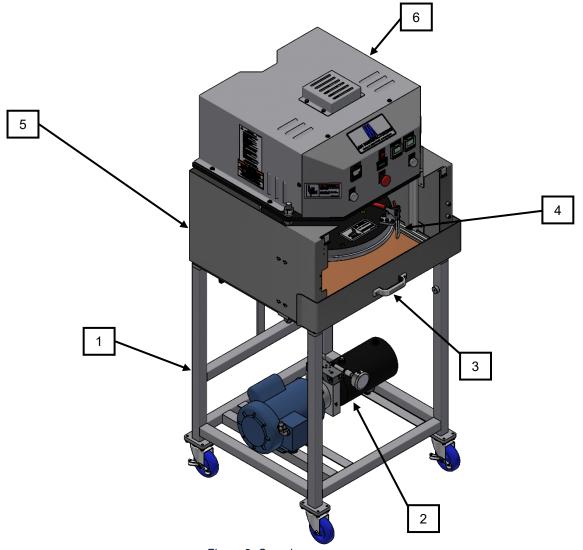


Figure 2: Overview

Some of these areas (the press guarding, for example) are self-explanatory and need little additional description. Others, however, contain specific components that the operator must understand and utilize on a regular basis. The following section illustrates these 5 machine regions and, if necessary, gives a more detailed account of the components that exist there.

The Machine Frame

• The frame of the Little Toro houses the hydraulic power unit. The tubular open-frame design ensures natural air flow to keep the unit sufficiently cooled during operation. Locking casters on the base allow the unit to be moved with ease when necessary.

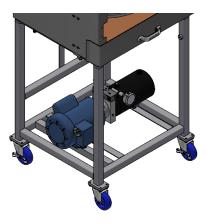


Figure 3: Machine Frame

<u>⚠ CAUTION:</u> MAKE CERTAIN TO LOCK THE CASTERS IN PLACE ONCE THE MACHINE HAS BEEN ROLLED TO ITS OPERATING POSITION.

The Hydraulic Power Unit

NOTE: The Little Toro should arrive from the factory with the pressure already adjusted. Only do the following steps if having to service or readjust the pressure.

- On the front of the hydraulic unit is a pressure gauge (Figure) that indicates the amount of pressure the unit is producing. Although the dial can read up to 2000 psi, the device has been pre-set so the maximum pressure cannot exceed 1000.
 - The gauge only indicates the correct pressure while the die/plate is pressing onto the lower platen. For this reason, the pressure can only be set during the press dwell time.

Setting the Press Pressure

To set the Press Pressure:

- 1. Set the Dwell Timer to 20 seconds.
 - a. This will allow for enough time to make any adjustments.
- 2. With the machine on and all the guarding in place, depress the two green start buttons.
 - a. This will activate the press mechanism. When the die/plate is all the way down and pressing on the belt, the pressure gauge of the hydraulic unit will show the amount of pressure being applied.
- 3. Use the black adjustment knob (Figure) opposite of the gauge. Turning this knob clockwise increases the pressure, while counterclockwise movement decreases it.

Note: If the 20 second time elapses before the adjustments are completed, simply depress the two green buttons a second time to begin another cycle.

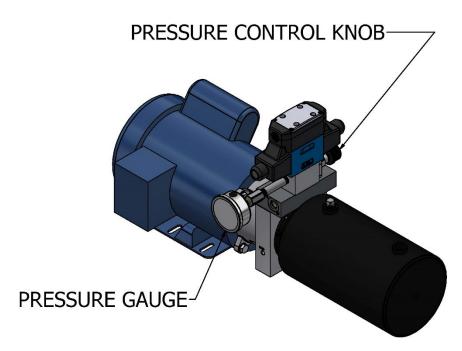
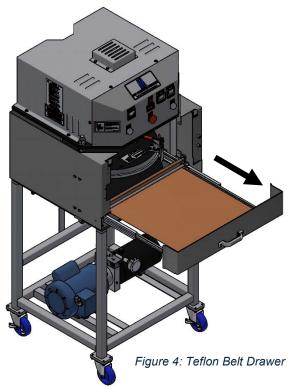


Figure 3: Pressure Control Knob and Gauge

The Teflon Belt Drawer

- During production, the operator will grasp the handle of the Teflon belt drawer and pull outward until he or she can easily rest a dough ball upon its center. The drawer will then be returned to its original position, where the press mechanism will descend and form the dough ball into a crust or tortilla.
- When the mechanism completes its cycle, the operator will once again open the drawer so the crust/tortilla can be removed (with a spatula or other manual device) and another dough ball added.
- The surface of the drawer utilizes a piece of stretched Teflon belting which ensures an easy transfer of the product.



NOTE: An electronic sensor at the rear of the machine is triggered when the drawer is fully closed. If the drawer is not fully closed when the operator pushes the press buttons, the press head will not descend.

The Press Mechanism

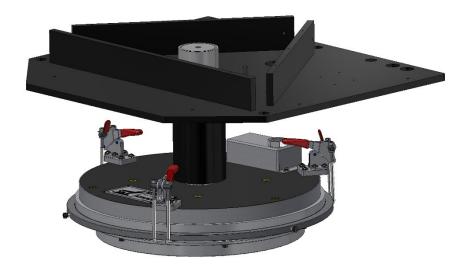


Figure 5: The Press Head Mechanism

The Press Mechanism utilizes a hydraulic cylinder to force the die, or die plate, against the dough ball – forming it into a crust or tortilla. After the press is completed, the cylinder then raises the die safely out of the way so the crust can be removed and a new dough ball put in its place. Several components make up the complete press mechanism but only two are used by the operator on a regular basis.

The Press Die

- The Die is an item that touches the dough during production. Custom-machined to accommodate the
 customer's desires and coated to ensure that even soft doughs will be released easily, the die with proper
 care and maintenance will produce consistent, quality product time after time.
 - If your machine is equipped with a Tortilla Set up, your machine will use a free form die plate with a Teflon belt instead of a pizza crust die.

Quick-Release Clamps

- The press die or die plate is clamped against the machine's heating element by a set of three quickrelease clamps.
 - After allowing the machine to cool, the die plate can be easily removed simply by pulling up on the red handles of these devices, then lift the U-bolts of the clamps from the bolts on the die plate.
 - o Once removed, the die can be re-installed (or replaced by a second die) just as easily.

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The Press Guarding

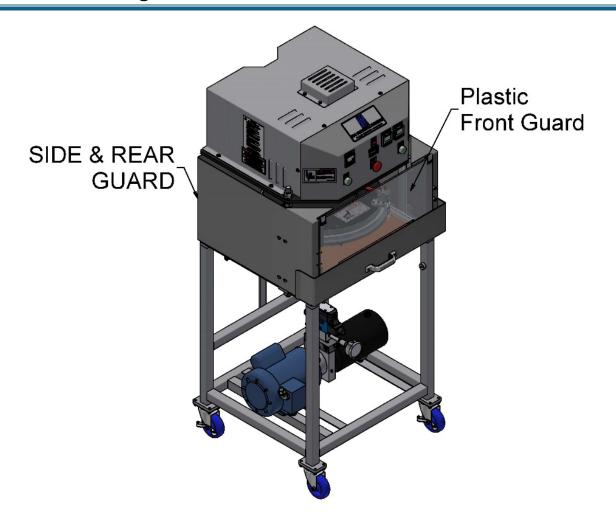
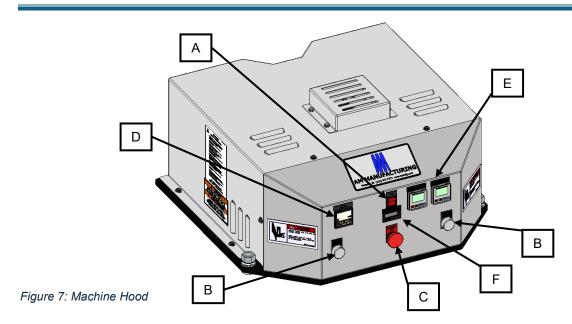


Figure 6: Press Guarding

- To ensure the safety of the operator during production, the press area has been surrounded with guarding.
 - The side/rear guard is made of polished stainless steel and is securely fastened with multiple bolts.
- To make cleaning and maintenance more convenient, the front plastic guard can be removed by merely lifting it up and out of the way.
- To ensure the guard is not improperly removed or discarded; it has been fitted with a position sensor that must align with a mating piece on the side/rear guard. The machine will not function unless both guards are properly in place.

The Machine Hood



In addition to housing the hydraulic press cylinder and electrical components, the press hood also contains many devices that activate or control machine performance. The next section will go over the operation of the Little Toro and will explain what the functions of the various buttons are above.

Initial Curing of the Press Die

After the machine has been installed, it is important that the press die be properly broken in before beginning general production. This process – called die "curing" – ensures that any microscopic pores on the die face are filled – thus preventing any possibility of poor product release.

To cure the die, follow the instructions below.

- 1) After making certain that the press area guards are securely in place, plug the machine's power cord into an approved electrical outlet.
- 2) Activate the machine's power by depressing the red on/off switch (Figure 7, A) upward. When activated, this switch will illuminate.
- 3) Set the temperatures of both the upper and lower press platens (Figure 7, E) to 250 °F and allow the press to heat up to that temperature.
- 4) While the machine is heating up, set the dwell timer (Figure 7, D) to 5 seconds and the pressure regulator to 300 PSI.
- 5) Once the machine temperature has reached 250 degrees, pull the drawer out from under the press area and place a generous coating of vegetable oil across the Teflon belt (at least where the die and ring will impact it).
- 6) Close the drawer to the pressing position and depress the two green start buttons (Figure 7, B). The hydraulic cylinder will activate, and the die will descend to the lower platen.

NOTE: If the drawer is not pushed in all the way, the cylinder will not be activated.

- 7) After 5 seconds, the press die will return to its "up" position. When it has completed its travel, pull the drawer out again and coat its surface with another layer of oil.
- 8) Close the drawer to the pressing position and press the oiled belt a second time.
- 9) Repeat this procedure of oil coating and pressing another 4 times.
- 10) Cover 10 dough balls with a generous supply of oil. Take one of the balls and place it on the center of the Teflon belt on the drawer.
- 11) Return the drawer to the press area and press the ball into a crust or tortilla (do not worry if the crust is not formed according to your specifications these 10 dough balls only serve to cure the die.
- 12) Press two more well-oiled dough balls into crusts following the same procedures.
- 13) Increase the temperature to 350°F and press out three more dough balls. Then, increase the temperature again to 450 °F and press the final four.

Operating the Little Toro

The following procedure addresses how to operate the Little Toro.

- 1. Turning the Little Toro on with the On/Off Switch (Figure 7, A.)
 - o After the power cord has been plugged into an approved electrical outlet, the machine's power is activated by pressing this switch to the on position (upward).
 - o The entire switch illuminates when power is activated.
 - o To de-activate the machine's power, simply flip the switch downward to its off position.

▲ WARNING: If an emergency arises and something becomes trapped beneath the die while the machine is pressing, do not de-activate the machine's power! Doing so will "freeze" the die in position and the object beneath the die will remain trapped. Instead, depress the emergency raise button (Figure 7, C) and the platen will immediately rise safely out of the way.



Figure 8: Dwell Timer

- 2. Setting the Dwell Time
 - The dwell time is the amount of time the press head will stay pressed before rising back up.
 - The duration of that "dwell time" is set on the Dwell Timer (Figure 8).
 - To set the dwell timer, use the 4 buttons (MD, <<, and the up and down arrow buttons) beneath the numerical display.
 - Pressing << allows the user to toggle through 0.01 seconds, 0.10 seconds, and 1.00 seconds.
 - Use the up and down arrows to change the value as needed.
 - The recommended starting dwell time is 5 seconds, but the operator may need to experiment with different times depending on the product.
 - When finished, press the MD button to apply the settings.
- 3. The Platen Start Buttons (Figure 7, B.)
 - During production, the press mechanism is activated by pressing these buttons simultaneously.
 - When both buttons are depressed, the hydraulic press mechanism will be activated and press the die against the dough atop the lower platen.
 - As soon as the die begins its descent, the press dwell timer (Figure 7, D) will begin counting.
- 4. The Emergency Raise Button (Figure 7, C.)
 - To ensure operator safety and to protect the press die and other machine components, the press area has been shielded with guarding.
 - o If some object should somehow get passed this guarding and become trapped beneath the die, this emergency device has been added to immediately raise the press to a safe location.

The Temperature Controllers

The Little Toro 1800BH press has upper and lower heating plates that can be set up to 450° Fahrenheit (232° Celsius). The temperatures are set with temperature controllers which are regulated by precision thermocouples that measure the temperature of the forming plates.

To set the press temperature:

- 1. Press the SET button on the far left.
- 2. Press either the ↑ or ↓ button to raise or lower the temperature, respectively.
- 3. The heating elements will either activate or de-activate to adjust to the new set temperature and the actual temperature reading will slowly change until the set temperature is met.

The Counter

To assist the operator in keeping track of production rates – and to alert personnel of maintenance requirements - the little toro has been equipped with an electronic counter.

- This counter registers every downstroke made by the press mechanism
- As soon as both start buttons are pressed and the press begins its descent, the number shown on the screen will increase by one.

Guidelines for General Production

The crust or tortilla that is formed by the Little Toro is influenced by the die, platen temperature, pressure and time set to press. To optimize these settings for your product, it will be necessary to set time aside for experimentation. A good starting point for LT1800BH pizza crusts is a 6 second dwell time with the lower platen at 325°F, the upper press plate at 275°F, and the pressure switch set at 400 PSI. A suggested starting point for tortillas is a 2.5 second dwell time with the lower platen set at 375°F, the press plate at 25°F, and the pressure dial set at 400 PSI. Beyond that, this manual can only offer the following general guidelines:

- Increasing the press temperatures causes a more defined "skin" atop the crust or tortilla. A greater percentage of active ingredients will become inactive, but the shape of the crust will be more consistent. The amount of shrinkage that occurs after the press is completed will also be decreased.
- Decreasing the press temperature produces a less defined shape but a greater percentage of active ingredients in the dough remain active. Shrinkage will be increased.
- Increasing the press dwell time decreases the overall rate of production of the machine, but it produces the same effects of raising the press temperature with less drastic searing of the dough's surface.
- Decreasing the press dwell time will increase the machine's rate of production, but the crust will have a
 greater tendency to shrink and will be less defined.
- Increasing the pressure that the press mechanism applies will help fill the die ring mold. If there is a
 remaining area unfilled when the pressure is set to 100%, a longer dwell time and/or larger dough ball
 must be used. Doing this may cause a greater percentage of active gases within the dough ball will be
 released. Shrinking will be reduced.
- Decreasing the pressure will decrease the percentage of gases lost, but there will be greater shrinking. If the pressure is too low, the crust will not fully form.

Once the proper temperature, pressure, and dwell settings are found, crusts can be made continuously following the same basic pressing procedures described in the die curing section.

Cleaning and Maintenance

<u>MARNING</u>: Before attempting to clean or maintain the machine, make certain that the machine has been properly powered down. Failure to do so could result in serious injury.

Die Cleaning

Machine dies should be cleaned once a week using soap and water or a mild caustic agent. Do not use a scraper, abrasive pads, or harsh chemicals to clean the dies. Below are the steps to clean the die.

- 1. STOP THE MACHINE AND DISCONNECT POWER.
- 2. Allow the die set to cool to a workable temperature.
- 3. Remove the die plate, instructions can be found in the next section.
- 4. Using an approved die cleaning agent, wipe or pressure wash the die set.
 - Do not use a scraper or an abrasive pad to clean the die or die rings as harsh scrubbing may scratch or chip the coating.
- 5. Make certain that all the cleaning agents are completely rinsed from the die and ring. Dry the parts completely.
- 6. Reinstall the die plate according to the instructions in the following section.

Removal of the Die Plate

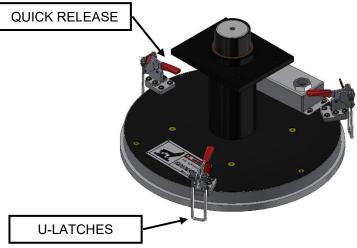


Figure 9: Quick Release

The red-handled "quick release" clamps of the little toro allow the operator to remove the press die plate swiftly and easily according to the following procedure.

<u>MARNING</u>: Before preforming maintenance or cleaning on your machine, make certain that the machine has been properly powered down. Failure to do so could result in serious injury.

The following instructions explain the removal of the die plate.

- 1. If the machine has been in operation, set the upper and lower heater controllers to 70 F and allow the press die to cool.
- 2. Make certain the machine is turned on, all guarding is in place, and functions are working properly.
- 3. With the drawer closed, press the two green start buttons.
- 4. When the press has descended to about ½" above the drawers belt surface, turn the machine's power switch to the off position.
 - o The die will remain in position just above the belt.
- 5. Unplug the power cord from the wall to ensure operator safety while working in the press area.
- 6. Lift the plastic guard off the front of the machine.
- 7. Lift the 3 red handles of the clamps (Figure 9)
 - The die will descend and rest on the surface of the belt.
- 8. Remove the U-Latches from the bolts on the die plate (Figure 9, U-Latches).
- 9. Ensure the U-Latches are free from the bolts on the die plate.
- 10. Reinstall the front plastic guard.
- 11. Restore power to the Machine.
- 12. After restoring power, the press mechanism will rise, leaving the die resting on the belt.
- 13. Flip the power off and unplug the cord from the wall to ensure operator safety.
- 14. Lift the plastic guard off the front of the machine and slowly pull the drawer halfway out.
 - o DO NOT PULL THE DRAWER OUT FURTHER THAN THE LOWER PLATEN'S SURFACE!
- 15. Lift the die free of the machine.

Replacement of the Die Plate

<u>MARNING</u>: Before preforming maintenance or cleaning on your machine, make certain that the machine has been properly powered down. Failure to do so could result in serious injury.

The following instructions explain the installation of the die plate.

- 1. Ensure the machine has been properly powered down and the cord unplugged from the wall
- 2. Remove the front plastic guard.
- 3. Push the drawer in about halfway.
- Place the die on the surface of the belt so its weight is supported by the lower platen.
- 5. Push the drawer all the way in so the die rests directly under the press
- 6. Rotate the die so the bolts in the die plate line up with the red-handled clamps.
- 7. Reinstall the front plastic guard.
- 8. Restore power to the machine.
- 9. Ensure the latches of the red-handled clamps are safely out of the way.
- 10. Press the two green start buttons to lower the press mechanism.
- 11. When the press head is $\frac{1}{2}$ inch above the die plate, turn the power off the machine.
 - o The press mechanism will freeze in position.
- 12. Unplug the power cord from the wall.
- 13. Remove the plastic guard off the front of the machine.
- 14. Secure the U-latches around the three bolts.
- 15. Snap the latches closed to pull up on and lock in the die plate.
- 16. After ensuring the latches are secure, replace the plastic front guard and restore power.
 - o The press mechanism will rise, lifting the die from the drawer surface.

Raising of the Little Toro Press Assembly

Your little toro was adjusted so the upper press plate would descend all the way down during pressing. In some instances, however, it may be necessary to raise the press assembly so the upper plate will stop before it reaches the bottom. This may occur if a thicker product is required.

<u>MARNING</u>: Before preforming maintenance or cleaning on your machine, make certain that the machine has been properly powered down and the press areas have been allowed to cool. Failure to do so could result in serious injury.

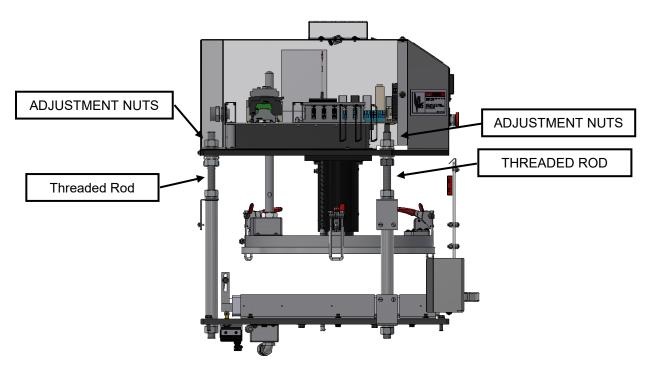
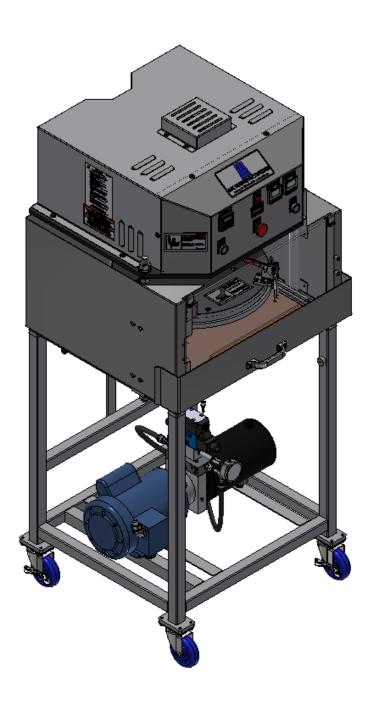


Figure 10: Press Raising

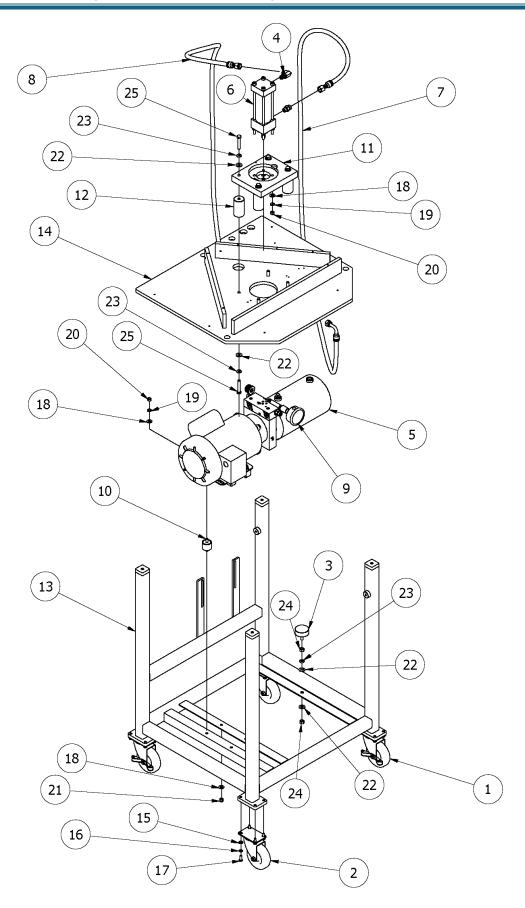
Perform the following steps to raise the Press Assembly:

- 1. Turn off the machine and remove the power cord from the wall.
- 2. Remove the cover from the top of the machine.
- 3. Lift the clear plastic guard from the front of the machine.
- 4. The press assembly is supported by three threaded rods (Figure 10).
 - To raise the assembly, loosen the nuts on top of the upper support plate, then raise the nuts beneath the plate. The nuts will lift the plate as they are raised.
- 5. Raise until the desired distance is achieved.
- 6. When you have finished raising the assembly, make certain that the platens are level with one another.
 - Use a measuring tape to measure the distance between the top and bottom plate at three different points.
- 7. Tighten the upper nuts (Figure 10).
- 8. Reinstall the hood and the plastic front guard.
- 9. Restore power to the machine and press the two green buttons.
- 10. Visually confirm that the distance the press descends to is the distance desired.
- 11. Reset the heater temperatures and dwell timer to the desired settings.

PARTS CATALOGUE



Support Frame & Hydraulic Assembly Breakdown



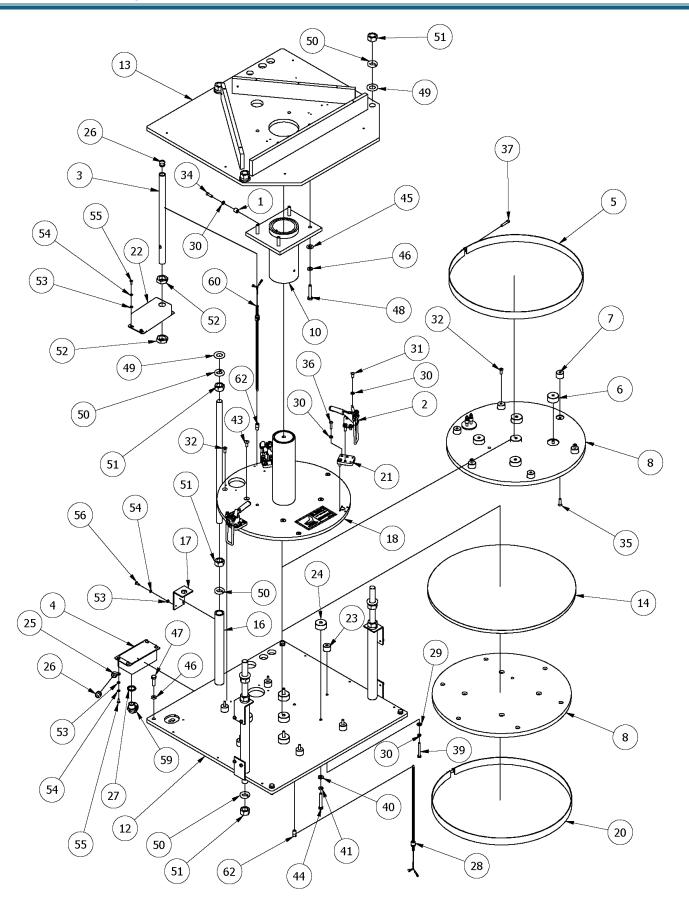
Support Frame and Hydraulic Assembly Breakdown List

ITEM	PART NO	DESCRIPTION	QTY
1	621CA1	CASTER, LOCKING 4" DIA	2
2	621CA2	CASTER, SWIVEL 4" DIA	2
3	11665	VIBRATION ISOLATING MOUNT	1
4	11815	#6 ORS X #6 SAE ELBOW	1
5	11817	SEE NOTE BELOW	1
6	11812	HYDRAULIC CYLINDER	1
7	11813	HOSE-PRESS VALVE TO GAUGE - 84 INCH	1
8	11814	78" HYDRAULIC HOSE ASSEMBLY	1
9	11852	PRESSURE GUAGE - 0~3000 PSI	1
10	11822	HYDRAULIC UNIT SUPPORT PAD (ISOLATOR, VIBRATION PAD)	4
11	11846	HYDRAULIC CYLINDER MOUNTING PLATE	1
12	11861	STAND-OFF - 1-1/2 OD X 2-3/4 LG X 3/8-16 D&T W/ 1-1/8 DP., SS	4
13	12417	MACHINE SUPPORT FRAME	1
14	12422	UPPER MOUNT / SUPPORT PLATE ASSEMBLY	1
15	F0400FW	FLAT WASHER, 1/4"	17
16	F0400LW	LOCK WASHER, 1/4"	17
17	F0403HHCS	HEX HEAD CAP SCREW 1/4-20 X 3/4"	17
18	F0500FW	FLAT WASHER, 5/16"	12
19	F0500LW	LOCK WASHER, 5/16"	8
20	F0500NC	NUT COURSE, 5/16-18	8
21	F0500NLN	NUT, NYLOCK 5/16"	4
22	F0600FW	FLAT WASHER 3/8"	10
23	F0600LW	LOCK WASHER 3/8"	9
24	F0600NC	3/8-16 HEX NUT	2
25	F0608HHCS	HEX HEAD CAP SCREW 3/8-16 X 2" LG	8
26	F0800JNF	NUT 1/2-20 UNF RH FINE THREAD	1

NOTE:

- For 208-240V machines, AM Manufacturing Part Number 11817 is used. For 380V machines, AM Manufacturing Part Number 26373 is used.

Press Assembly Breakdown



Press Assembly Breakdown List

<u>ITEM</u>	PART NO	DESCRIPTION	QTY
1	642SC	SPACER - 1/2 OD X 1/2 LG X 9/32 ID	1
2	10046	DE-STACO DIE CLAMP	3
3	11784	11784 HEATER WIRE CONDUIT TUBE	
4	11788	HEATER TERMINAL COVER	1
5	11790	UPPER HEATER EDGE	1
6	11801	STAND OFF - 1-1/2 ODX3/4 LGX5/16-18	5
7	11802	SO-10DX3/4LGX1/4-20D&T THRU, SS	6
8	11806	SEE NOTE BELOW	2
9	11864	OUTER SLEEVE ASSEMBLY	1
10	12421	MACHINE BASE PLATE	1
11	12422	UPPER MOUNT / SUPPORT PLATE ASSEMBLY	1
12	12423	MACHINE PRESS PLATE	1
13	12434	MACHINE SUPPORT ROD	3
14	12435	MACHINE PIVOT SUPPORT POST SLEEVE	3
15	12678	BACK GUARD SUPPORT ANGLE	5
16	12740	UPPER PRESS FLANGE ASSEMBLY	1
17	12937 LOWER HEATER EDGE		1
18	13056	DIE CLAMP EXTENSION PAD	3
19	17924	HEATER TERMINAL COVER (UPPER PLATEN)	1
20	18244	SPACER - 1 OD X 3/4 LG X 9/32 ID, SS	6
21	19182	SPACER-1-1/20DX3/4LGX11/32ID, SS	5
22	400028	CLAMP	1
23	400040	GROMMET, RUBBER 3/8" HOLE/ 3/4" DIA	2
24	EL-0118	LIQUIDTIGHT FITTING SEAL (1/2")	1
25	EL-1193	TYPE J THERMOCOUPLE ASSEMBLY	1
26	F0400FW	FLAT WASHER, 1/4"	7
27	F0400LW	LOCK WASHER, 1/4"	26
28	F0402.5SB	BUTTON HEAD, SOCKET 1/4-20 X 5/8" L	6
29	F0403FSH	FLAT SOCKET HEAD 1/4-20 X 3/4" LG.	6

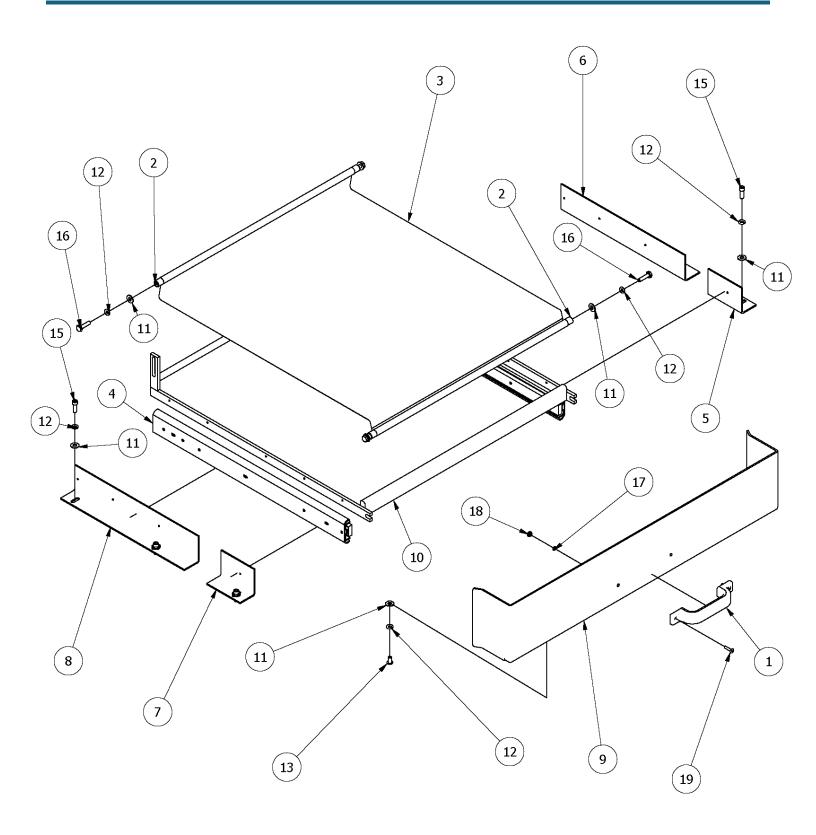
ITEM	PART NO	DESCRIPTION	QTY
30	F0403HHCS	HEX HEAD CAP SCREW 1/4-20 X 3/4"	1
31	F0403SH	SCREW, SOCKET HEAD 1/4-20 X 3/4"LG	1
32	F0404FSH	FLAT SOCKET HEAD 1/4-20 X 1" LG.	6
33	F0404SB	BUTTON HEAD, SOCKET 1/4-20 X 1" LG	12
34	F0405SH	SOCKET HEAD, 1/4-20 X 1-1/4" LG	1
35	F0406SH	SOCKET HEAD, 1/4-20 X 1-1/2" LG	1
36	F0408.5HHCS	HEX HEAD CAP SCREW 1/4-20 X 2- 1/8"	6
37	F0500FW	FLAT WASHER, 5/16"	4
38	F0500LW	LOCK WASHER, 5/16"	4
39	F0503.5FSH	FLAT SOCKET HEAD 5/16-18 X 7/8" LG.	4
40	F0503FSH	FLAT SOCKET HEAD 5/16 X 3/4" LG.	4
41	F0509HHCS	HEX HEAD CAP SCREW 5/16-18 X 2-1/4"	4
42	F0600FW	F0600FW FLAT WASHER 3/8"	
43	F0600LW LOCK WASHER 3/8"		8
44	F0605HHCS	HEX HEAD CAP SCREW 3/8-16 X 1-1/4"	4
45	F0608HHCS	HEX HEAD CAP SCREW 3/8-16 X 2" LG	4
46	F1200FW FLAT WASHER 3/4"		6
47	F1200LW	LOCK WASHER, 3/4"	12
48	F1200NC	3/4" HEX NUT	12
49	F1300JNF	JAM NUT FINE, 7/8-14	2
50	F9900FW	FLAT WASHER, #10	19
51	F9900LW	LOCK WASHER, #10	18
52	F9902BH	BUTTON HEAD SOCKET, 10-32 UNF X 1/2" LG	8
53	F9902TH	10-32 X 1/2" LONG TRUSS HEAD	10
54	SS106	1/2" LIQUIDTIGHT FITTING-90 DEG	1
55	SS310	TYPE J THERMOCOUPLE ASSEMBLY	1
56	TAG54M	HOT SURFACE TAG	1
57	TC29PA	TYPE J THERMOCOUPLE ADAPTER	2

MODEL: LT1800BH

NOTE:

- For 208-240V machines, AM Manufacturing Part Number 11806 is used.
- For 380V machines, AM Manufacturing Part Number 22458 is used.
- The Little Toro uses Insulation on the upper and lower platen and is not pictured. This can be ordered by AM Manufacturing Part Number: 11862

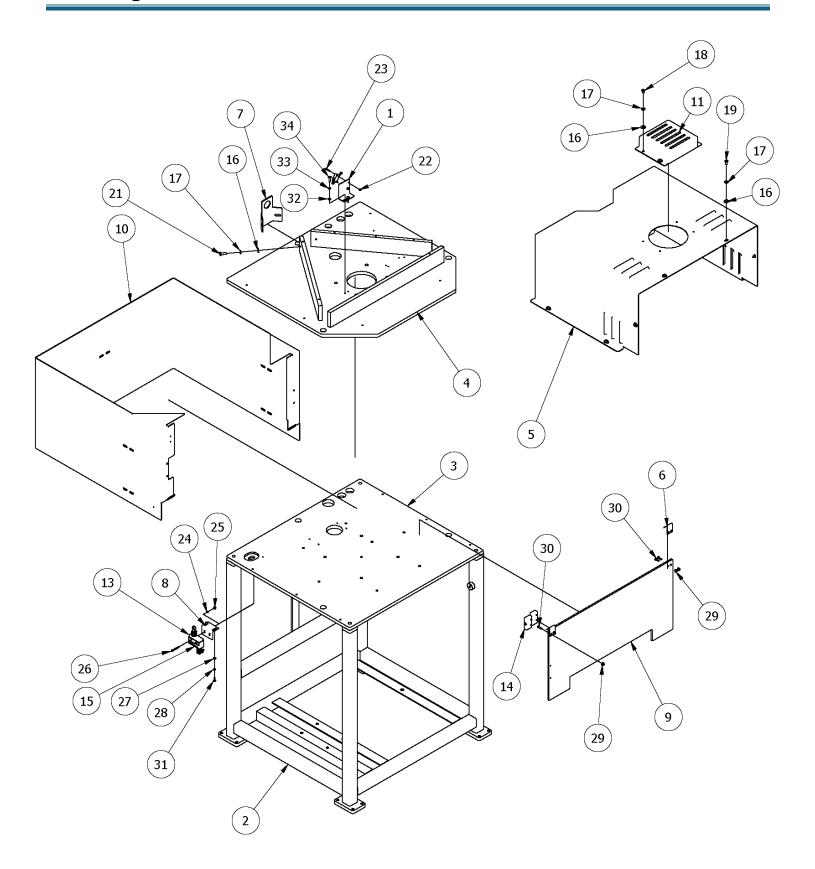
Drawer Assembly Breakdown



Drawer Assembly Breakdown List

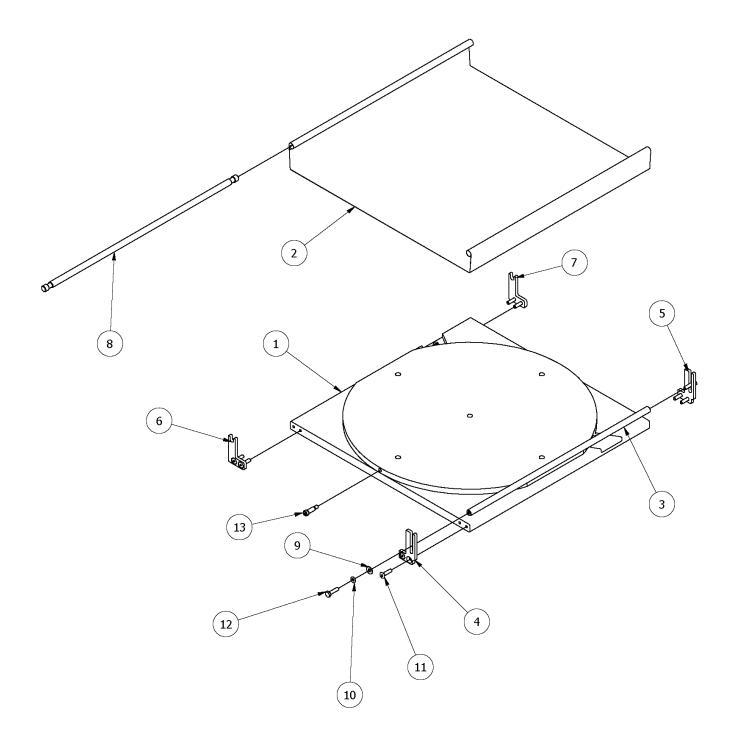
<u>ITEM</u>	PART NO	DESCRIPTION	QTY
1	11627	PULL HANDLE, w/ NEOPRENE GRIP, S.S.	1
2	12427	TEFLON BELT DRAWER - BELT BAR	2
3	12431	UPPER PLATEN & TEFLON DRAWER - BELTING	1
4	14244	DRAWER SLIDE w/ LOCK-OUT POSITION	1
5	14292	DRAWER SLIDE SUPPORT BRACKET - FRONT (R.H.)	1
6	14293	DRAWER SLIDE SUPPORT BRACKET - REAR (R.H.)	1
7	14294	DRAWER SLIDE SUPPORT BRACKET - FRONT (L.H.)	1
8	14295	DRAWER SLIDE SUPPORT BRACKET - REAR (L.H.)	1
9	27152	TEFLON DRAWER GUARD PANEL	1
10	29392	TEFLON DRAWER FRAME	1
11	F0400FW	FLAT WASHER, 1/4"	14
12	F0400LW	LOCK WASHER, 1/4"	14
13	F0402SB	BUTTON HEAD, SOCKET 1/4-20 X 1/2" L	3
14	F0403HHCS	HEX HEAD CAP SCREW 1/4-20 X 3/4"	1
15	F0403SH	SCREW, SOCKET HEAD 1/4-20 X 3/4"LG	6
16	F0404HHCS	HEX HEAD CAP SCREW 1/4-20 X 1"	4
17	F9700LW	LOCK WASHER #8	2
18	F9700NC	NUT, COURSE 8-32 HEX	2
19	F9703FSH	8-32 X 3/4" LONG FLAT SOCKET HEAD	2

Guarding and Sensors Breakdown



Guarding and Sensors Breakdown List

<u>ITEM</u>	PART NO	DESCRIPTION	<u>QTY</u>
1	11844	UPPER LIMIT SWITCH BRACKET	1
2	12417	MACHINE SUPPORT FRAME	1
3	12421	MACHINE BASE PLATE	1
4	12422	UPPER MOUNT / SUPPORT PLATE ASSEMBLY	1
5	12696	TOP COVER - HYDRAULIC EDITION	1
6	12811	FRONT GUARD HANGER CLIP	2
7	12865	POWER CORD SUPPORT BRACKET	1
8	14485	DRAWER LIMIT SWITCH BRACKET	1
9	22863	MACHINE FRONT GUARD	1
10	22864	MACHINE REAR/SIDE GUARD	1
11	27151	CYLINDER COVER	1
12	EL-0429	PLATEN POSITION SWITCH	1
13	EL-0430	ROLLER PLUNGER SWITCH	1
14	EL-1308	SAFETY SWITCH	1
15	EL-1882	LIMIT SWITCH COVER	1
16	F0400FW	FLAT WASHER, 1/4"	17
17	F0400LW	LOCK WASHER, 1/4"	17
18	F0401.5SB	BUTTON HEAD, SOCKET-1/4-20X3/8LG	5
19	F0402SB	BUTTON HEAD, SOCKET 1/4-20 X 1/2" L	9
20	F0403HHCS	HEX HEAD CAP SCREW 1/4-20 X 3/4"	1
21	F0403SB	BUTTON HEAD, SOCKET 1/4-20 X 3/4" L	2
22	F9500NLN	#4/40 NYLOCK NUT (S.S.)	2
23	F9503PN	4/40 X 3/4" LONG PAN HEAD (S.S.)	2
24	F9600FW	6-32 FLAT WASHER	2
25	F9600NLN	6-32 NYLOCK NUT	2
26	F9605FH	Pan Head, Slotted, 6-32 UNC x 1.25	2
27	F9700FW	8-32 FLAT WASHER	2
28	F9700LW	LOCK WASHER #8	2
29	F9700NLN	NUT, NYLOCK # 8-32	4
30	F9702.5FSH	8-32 X 5/8" LONG FLAT SOCKET HEAD	4
31	F9702TH	8-32 X 1/2" LONG TRUSS HEAD	2
32	F9900FW	FLAT WASHER, # 10	2
33	F9900LW	LOCK WASHER, #10	2
34	F9903TH	10-32 X 3/4" LONG TRUSS HEAD	2

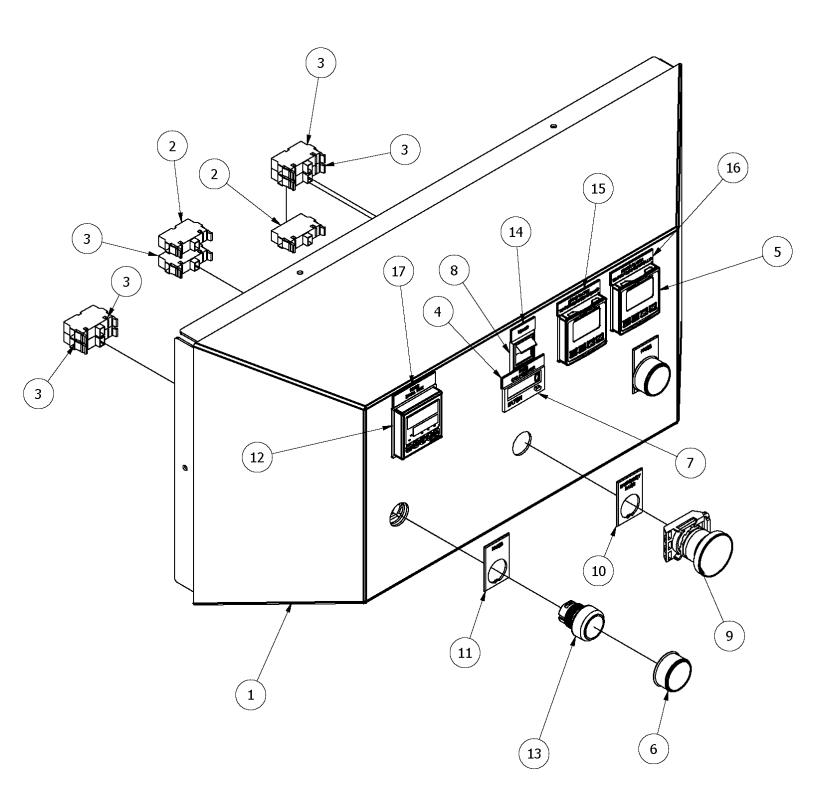


Tortilla Setup Components Breakdown List

<u>ITEM</u>	PART NO	DESCRIPTION	QTY
1	20D-03	FREE FORM DIE (TORTILLA)	1
2	12431	UPPER PLATEN & TEFLON LOWER TEFLON DRAWER BELT	1
3	14289	TEFLON BELT UPPER PLATEN - BELT BAR	1
4	21195	TEFLON BELT TAKE-UP PLATE - LEFT SIDE	1
5	21196	TEFLON BELT TAKE-UP PLATE - RIGHT SIDE	1
6	21197	TEFLON BELT STATIONARY SIDE MOUNT PLATE - LEFT SIDE	1
7	21198	TEFLON BELT STATIONARY SIDE MOUNT PLATE - RIGHT SIDE	1
8	21199	TEFLON BELT UPPER PLATEN BELT BAR - STATIONARY SIDE	1
9	F0400FW	FLAT WASHER, 1/4"	2
10	F0400LW	LOCK WASHER, 1/4"	2
11	F0404FSH	FLAT SOCKET HEAD 1/4-20 X 1" LG.	8
12	F0404HHCS	HEX HEAD CAP SCREW 1/4-20 X 1"	2
13	F0503SHSB	SOCKET HEAD SHOULDER BOLT,5/16"DIA SHOULDERX3/4"LG, 1/4-20 STD THREADS	3

NOTE: The parts list above is for machines that already have a Tortilla Set-up. If the need arises to swap from a Pizza Die and Ring setup to a Tortilla setup, a kit can be ordered to do so. Call AM Manufacturing's Parts department at the number provided on Page 41 of this manual. The kit part number to provide is 22862.

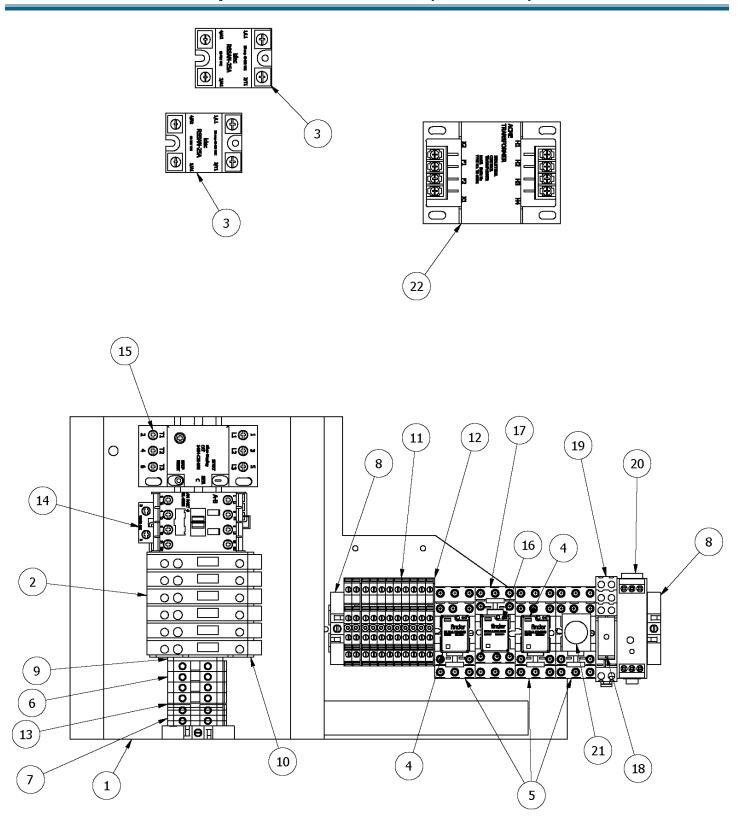
Faceplate Electrical Components Breakdown



Faceplate Electrical Components Breakdown List

ITEM	PART NO	DESCRIPTION	QTY
1	12866	CONTROL PANEL	1
2	400038	CONTACT BLOCKS, 1 N.C.	2
3	400039	CONTACT BLOCK 1 N.O.	5
4	AMTAG67	PRESS CYCLE COUNTER(AMTAG67)	1
5	EL-0355	TEMP CONTROLLER	2
6	EL-0420	BOOT COVER, 22mm PUSHBUTTON (CLEAR)	2
7	EL-0425	COUNTER	1
8	EL-0433	ROCKER SWITCH	1
9	EL-0435	MOMENTARY MUSHROOM E-STOP BUTTON	1
10	EL-0444	EMERGENCY RAISE NAMEPLATE (22MM PUSH BUTTON)	1
11	EL-0445	PRESS NAMEPLATE (22MM PUSH BUTTON)	2
12	EL-0726	TIMER, DIGITAL RANGE:0-999.99	1
13	SS184	START BUTTON, GREEN	2
14	TAG55	PRESS DWELL TIME(TAG55)	1
15	TAG61	UPPER PLATEN TEMP CONTROLLER(TAG61)	1
16	TAG62	LOWER PLATEN TEMP CONTROLLER(TAG62)	1
17	TAG63	PRESS DWELL TIME(TAG63)	1

Electrical Panel Components Breakdown (208-230V)



Electrical Panel Components Breakdown List

<u>ITEM</u>	PART NO	DESCRIPTION	<u>QTY</u>
1	12839	ELECTRICAL PANEL	1
2	EL-0384	FUSED TERMINAL BLOCK	6
3	EL-0244	SOLID STATE RELAY	2
4	EL-0331	RELAY, 3 POLE, 10 AMP, 120VAC	2
5	EL-0332	SOCKET, 4 POLE/RELAY	3
6	EL-0393	TERMINAL BLOCK (TYPE MA2.5/5)	4
7	EL-0394	GROUNDING TERMINAL BLOCK	2
8	EL-0396	TERMINAL BLOCK END ANCHOR	3
9	EL-0397	END BARRIER (GRAY)	1
10	EL-0419	Fused Terminal Block End Section (FEM 13U)	1
11	EL-0426	TERMINAL BLOCK (DOUBLE DECK, SCREW CLAMP TERMINALS)	11
12	EL-0427	DOUBLE DECK TERMINAL BLOCK END BARRIER	2
13	EL-0436	END BARRIERS FOR GND BLOCKS	1
14	EL-0853	IEC MOTOR CONTACTOR (9 AMP)	1
15	EL-0856	MANUAL MOTOR STARTER (6.3 - 10 AMPS	1
16	EL-1458	RELAY, 4 POLE, 120VAC	1
17	EL-1459	SOCKET, 4 POLE/RELAY	1
18	EL-1541	SAFETY CONTROL RELAY	1
19	EL-1542	SAFETY CONTROL RELAY SOCKET	1
20	EL-1543	POWER SUPPLY (24VDC/15WATTS)	1
21	EL-1552	TIMER, (.1SEC TO 100HR)	1
22	SS176	100VA TRANSFORMER	1

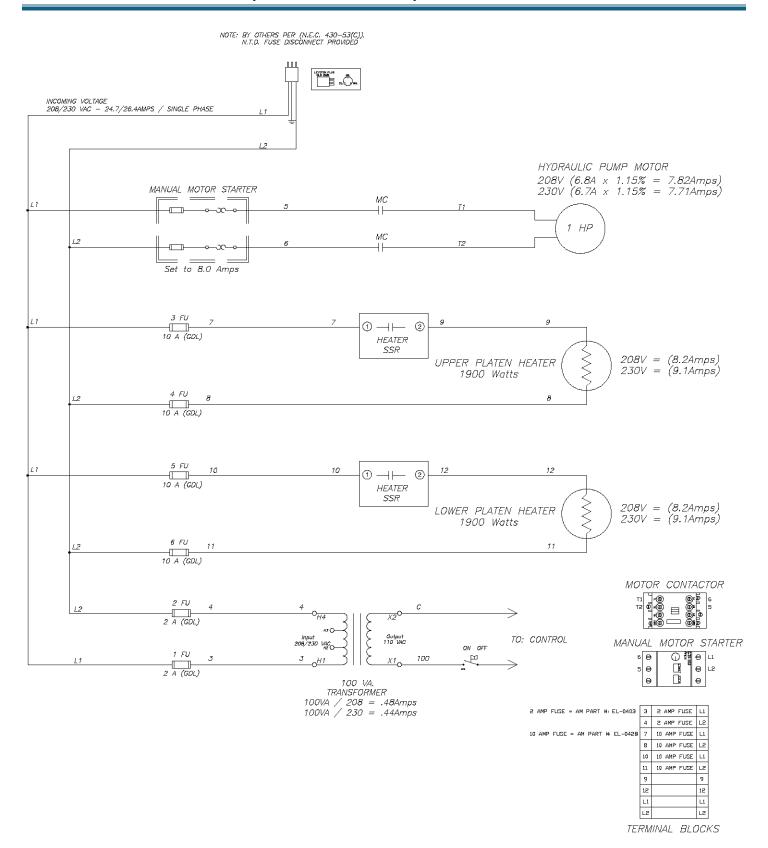
NOTE:

The 208-230 V machine gets 6 fuses inside of the 6 EL-0384's in the list above.

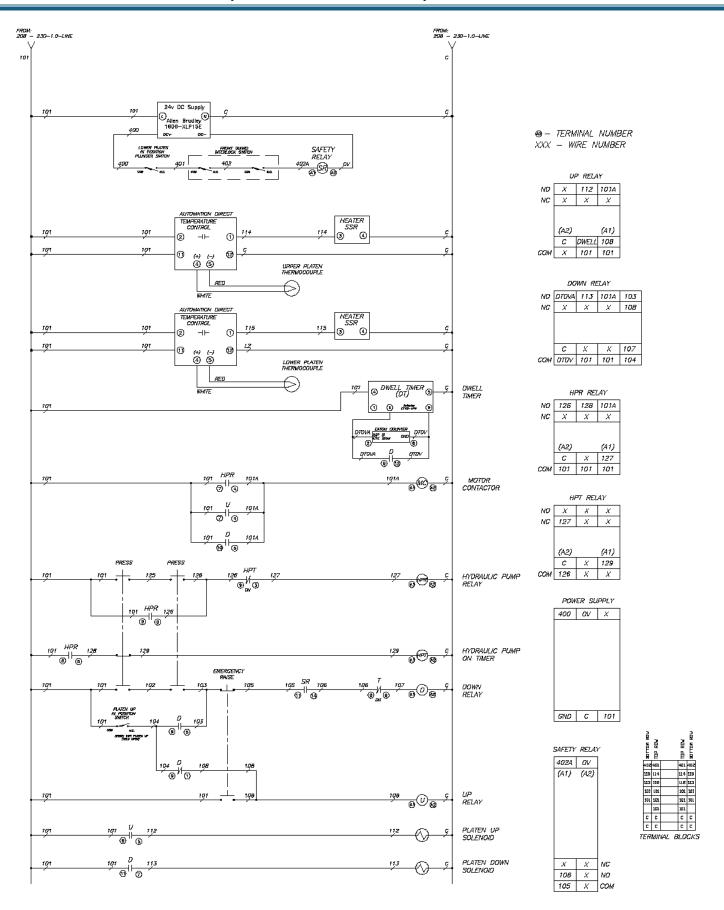
In order from top to bottom:

- 1. EL-0403 FUSE, 2A
- 2. EL-0403 FUSE, 2A
- EL-0428 FUSE, 10A
 EL-0428 FUSE, 10A
- 5. EL-0428 FUSE, 10A
- 6. EL-0428 FUSE, 10A

Electrical Schematics (Line Schematic) 208-230V



Electrical Schematics (Control Schematic) 208-230V



Ordering replacement parts

IMPORTANT:

Only use factory supplied replacement parts to maintain machine safety, performance, and sanitary conditions.

Use of non-approved parts may void manufacturer's warranty.

TO ORDER REPLACEMENT PARTS ALWAYS:

- 1. Check the machine to identify missing, damaged, or non-functional parts including guards, warning labels, and instructions.
- 2. Compare the list with the parts diagrams supplied.
- 3. Record the complete model and serial number of the unit.
- 4. Call A.M. manufacturing (219) 472-7273 and provide all the information noted above to expedite order processing and help reduce shipping costs.
- 5. Provide complete details for (ship to) and (bill to) information. To assist prompt delivery, specify the type of carrier speed for shipment.

AM Manufacturing accepts Visa, Mastercard, and American Express.

NOTES

DATE	ACTIVITY