

OPERATOR MANUAL

IMPORTANT INFORMATION, KEEP FOR OPERATOR

This manual provides information for:

Steamer

MODEL: ST-4E/6E



THIS MANUAL MUST BE RETAINED FOR FUTURE REFERENCE. READ, UNDERSTAND AND FOLLOW THE INSTRUCTIONS AND WARNINGS CONTAINED IN THIS MANUAL.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

NOTIFY CARRIER OF DAMAGE AT ONCE

It is the responsibility of the consignee to inspect the container upon receipt and to determine the possibility of any damage, including concealed damage. LoLo Commercial Foodservice Equipment suggests that if you are suspicious of damage to make a notation on the delivery receipt. It will be the responsibility of the consignee to file a claim with the carrier. We recommend that you do so at once.

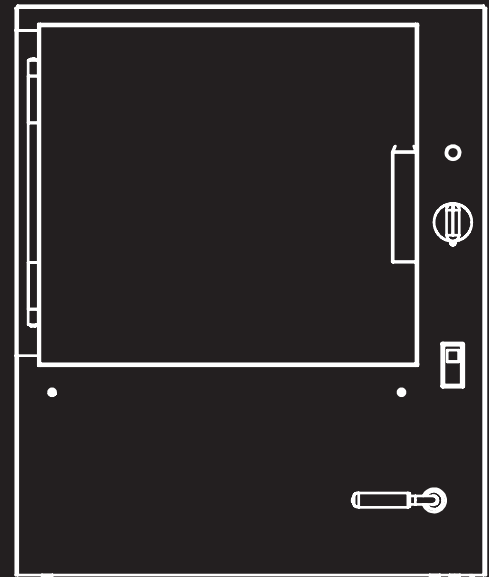
Manufacturer's Service/Questions 877-246-5656

Information contained in this document is known to be current and accurate at the time of printing/creation. LoLo Commercial Foodservice Equipment recommends referencing our product line website, www.getLoLo.com, for current product information and specifications.

PART NUMBER 162326 REV E (12/14)



COMMERCIAL FOODSERVICE
EQUIPMENT



IMPORTANT - READ FIRST - IMPORTANT

- WARNING:** THE UNIT MUST BE INSTALLED BY PERSONNEL QUALIFIED TO WORK WITH ELECTRICITY/GAS AND PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT. THE UNIT MUST BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES.
- CAUTION:** SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.
- CAUTION:** DO NOT INSTALL THE UNIT IN ANY WAY WHICH WILL BLOCK THE REAR VENTS, OR WITHIN 2 INCHES OF A HEAT SOURCE SUCH AS A BRAISING PAN, DEEP FRYER, CHAR BROILER OR KETTLE.
- CAUTION:** LEVEL THE UNIT LEFT-TO-RIGHT, AND PITCH IT SLIGHTLY TO THE FRONT, TO AVOID DRAINAGE PROBLEMS.
- WARNING:** FOLLOW THE WIRING DIAGRAM EXACTLY WHEN CONNECTING A UNIT TO AVOID DAMAGE OR INJURY. WIRING DIAGRAM IS LOCATED ON THE INSIDE OF THE RIGHT PANEL.
- CAUTION:** DO NOT USE PLASTIC PIPE. DRAIN MUST BE RATED FOR BOILING WATER.
- CAUTION:** DO NOT CONNECT THE DRAIN DIRECTLY TO A BUILDING DRAIN.
- CAUTION:** BLOCKING THE DRAIN IS HAZARDOUS.
- IMPORTANT:** IMPROPER DRAIN CONNECTION WILL VOID WARRANTY.
- CAUTION:** WHEN YOU OPEN THE DOOR, STAY AWAY FROM STEAM COMING OUT OF THE UNIT. STEAM CAN CAUSE BURNS.
- WARNING:** BEFORE CLEANING THE OUTSIDE OF THE STEAMER, DISCONNECT THE POWER SUPPLY. KEEP WATER AND CLEANING SOLUTIONS OUT OF CONTROLS AND COMPONENTS. NEVER HOSE OR STEAM CLEAN ANY PART OF THE UNIT.
- CAUTION:** ALLOW COOKING CHAMBER TO COOL COMPLETELY BEFORE CLEANING.
- CAUTION:** USE MILD CLEANING AGENTS ONLY. CAREFULLY READ THE WARNINGS AND FOLLOW THE DIRECTIONS ON THE LABEL OF EACH CLEANING AGENT. USE SAFETY GLASSES AND RUBBER GLOVES AS RECOMMENDED BY CLEANING AGENT MANUFACTURER.
- CAUTION:** DO NOT OPERATE THE UNIT UNLESS THE REMOVABLE RIGHT SIDE PANEL HAS BEEN RETURNED TO ITS PROPER LOCATION.
- IMPORTANT:** DO NOT USE A CLEANING AGENT THAT CONTAINS ANY SULFURIC ACID, OR ANY CHLORIDE, INCLUDING HYDROCHLORIC ACID. IF THE CHLORIDE CONTENT OF ANY PRODUCT IS UNCLEAR, CONSULT THE MANUFACTURER. DO NOT USE A CLEANING OR DELIMING AGENT THAT CONTAINS MORE THAN 30% PHOSPHORIC ACID.
- IMPORTANT:** DO NOT USE ANY DEGREASER THAT CONTAINS POTASSIUM HYDROXIDE OR SODIUM HYDROXIDE OR THAT IS ALKALINE.
- IMPORTANT:** USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LOLO COMMERCIAL FOODSERVICE EQUIPMENT OR THEIR AUTHORIZED DISTRIBUTOR VOIDS ALL WARRANTIES AND CAN RESULT IN BODILY INJURY TO THE OPERATOR AND DAMAGE THE EQUIPMENT. SERVICE BY OTHER THAN FACTORY-AUTHORIZED PERSONNEL WILL VOID ALL WARRANTIES.
- WARNING:** HIGH VOLTAGE EXISTS INSIDE CONTROL COMPARTMENTS. DISCONNECT FROM BRANCH CIRCUIT BEFORE SERVICING. FAILURE TO DO SO CAN RESULT IN INJURY OR DEATH.

IMPORTANT - READ FIRST - IMPORTANT

SAFETY PRECAUTIONS

Before installing and operating this equipment be sure everyone involved in its operation are fully trained and are aware of all precautions. Accidents and problems can result from a failure to follow fundamental procedures and precautions.

The following words and symbols, found in this manual, alert you to potential hazards to the operator, service personnel or the equipment. The words are defined as follows:

 **DANGER**

DANGER: This symbol warns of an imminent hazard which will result in serious injury or death.

 **WARNING**

WARNING: This symbol refers to a potential hazard or unsafe practice, which could result in serious injury or death.

 **CAUTION**

CAUTION: This symbol refers to a potential hazard or unsafe practice, which could result in minor or moderate injury, or product or property damage.

NOTICE

NOTICE: This symbol refers to information that needs special attention or must be fully understood even though not dangerous.

NOTICE This product is intended for commercial use only. Not for household use.

NOTICE Local codes regarding installation vary greatly from one area to another. The National Fire Protection Association, Inc., states in its NFPA96 latest edition that local codes are "Authority Having Jurisdiction" when it comes to requirements for installation of equipment. Therefore, installation should comply with all local codes.

IMPORTANT FOR FUTURE REFERENCE

Please record this information and retain this manual for the life of the equipment. For Warranty Service and/or parts, this information is required.

Model Number

Serial Number

Date Purchased

Table of Contents

Important Warnings & Safety Precautions	2-3
References.....	4
Equipment Description.....	5
Inspect for Shipping Damage	6
Uncrating	6
Installation Instructions	7-9
Initial Start-Up.....	10
Operation – General Steamer Use	11-12
Cleaning.....	13-14
Maintenance.....	15
User Troubleshooting Guide.....	16
Parts Lists & Diagrams.....	17-24
Wiring Diagram.....	25

References

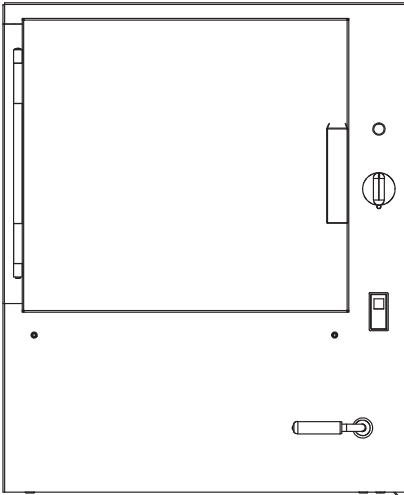
NATIONAL FIRE PROTECTION ASSOCIATION
60 Batterymarch Park
Quincy, Massachusetts 02269

NFPA/70
The National Electrical Code

NSF INTERNATIONAL
789 N. Dixboro Rd.
Ann Arbor, Michigan 48113-0140

INTERTEK (ETL)
1950 Evergreen Blvd, Suite 100
Duluth, GA 30096

Equipment Description



Congratulations on your purchase of LoLo commercial cooking equipment. LoLo takes pride in the design and quality of our products. When used as intended and with proper care and maintenance, you will experience years of reliable operation from this equipment. To ensure best results, it is important that you read and follow the instructions in this manual carefully.

LoLo ST-4E and ST-6E electric-heated pressureless and boilerless steamers are designed to be simple to use, steam foods quickly and provide years of trouble-free service. These steamers have a boilerless steam system that uses electric heating elements that are mounted to the bottom of the cooking compartment, to heat clean water inside that compartment. It is provided with an auto-fill water system with simple high and low water level sensors; and a free-venting drain, which allows cooking compartment access at any time.

LoLo Steamers come standard with a rugged solid door with a continuous piano hinge and easy-open hands-free latch; and a removable condensate drip pan mounted below the door.

Simple operating controls include: a Power-ON/OFF switch; a Steam Level Switch that allows the operator to select: Hi Performance mode for a la carte cooking, Energy Saving mode for batch cooking or Standby mode for energy savings and instant Ready status; a (steamer) READY light; and 60-minute mechanical timer that initiates steaming, with a continuous-steaming non-timed (ON) position.

A simple valve/handle drains water from the reservoir at day's end. Hidden door-OPEN steam cutoff switch, upper and lower water fill-level fill valves and a high-limit switch ensure safe and trouble-free operation.

The ST-4E model will hold up to four 2-1/2" deep steamer pans or two 4" deep pans. The ST-6E model will hold up to six 2-1/2" deep steamer pans or three 4" deep pans.

KEY UNIT DIMENSIONS

Dimension	US/metric		Water & Drain Requirements	
	Model ST-4E	Model ST-6E	Water connection via:	3/4" NH (hose)
Unit Width	20.4" 518 mm	20.4" 518 mm	Min. Water Pressure	30 PSI
Height	24.6" 625 mm	31.5" 800 mm	Max. Water Pressure	60 PSI
Unit Depth	27.9" 709 mm	27.9" 709 mm	Volume Minimum	2.0 gallon/min.
Ship. Weight	220 lbs 100 kg	275 lbs 125 kg	Drain connection via	1.5" (38 mm) ID

ELECTRIC REQUIREMENTS

	ST-4E Models				ST-6E Models			
	208 / 240*		208 / 240*		208 / 240*		208 / 240*	
Voltage	208 / 240		208 / 240*		208 / 240*		208 / 240*	
kW	9	12	9	12	10.8	14.4	10.8	14.4
*Phase	1	1	3	3	1	1	3	3
Hz/Cycles	60	60	60	60	60	60	60	60
Amps	43.3	50	25	28.9	52	60	30	34.7

* Ships dual voltage, field convertible to single phase by qualified electrician.

Inspect for Shipping Damage

All containers should be examined for damage before and during unloading. The freight carrier has assumed responsibility for its safe transit and delivery. If the equipment is received damaged, either apparent or concealed, a claim must be made with the delivering carrier.

1. Apparent damage or loss must be noted on the freight bill at the time of delivery. It must then be signed by the carrier representative (driver). If this is not done, the carrier may reject the claim. The carrier can supply the necessary claim forms.
2. Concealed damage or loss if not apparent until after the equipment is uncrated, can also be claimed. However, a request for inspection must be made to the carrier within 15 days. The carrier should arrange an inspection. Be certain to retain all contents and packaging material.

Uncrating

⚠ CAUTION

USE CAUTION WHEN UNCRATING LOLO EQUIPMENT. METAL AND PLASTIC BANDING IS UNDER TENSION AND CAN SNAP BACK WHEN CUT. WOOD PALLETS OR SKIDS CAN CONTAIN SPLINTERS AND NAILS. SHIPPING CARTONS CAN CONTAIN LARGE STAPLES. WEAR GLOVES AND PROTECTIVE EYEWEAR WHEN OPENING, MOVING AND DISPOSING OF SHIPPING CONTAINERS.

⚠ CAUTION

THE LOLO STEAMERS ARE HEAVY, WEIGHING 220 OR 275 POUNDS (100-125 KG), DEPENDING ON MODEL. OBTAIN HELP OR USE APPROPRIATE MATERIALS-HANDLING EQUIPMENT; AND USE CAUTION WHEN REMOVING THE STEAMER FROM THE WOOD PALLET.

1. Cut strapping or banding that closes the top of the cardboard shipping carton and secures it to the wood pallet.
2. Lift carton straight up and off the steamer. Obtain help if needed.
3. Remove any Styrofoam blocking or wood bracing that protects unit from shipping damage.
4. Cut strapping or banding that secures steamer to the wood pallet or skid.
5. Obtain help as needed, or use materials handling equipment, to lift the steamer off and clear of wood pallet.
6. Remove any banding or tape used to secure the compartment door.
7. Pull off any grey/white plastic from stainless steel surfaces. This adhesive-backed plastic protects surfaces for scratches during fabrication and shipping.
8. Dispose of cardboard carton, Styrofoam and wood pallet/skid by recycling.

Installation Instructions

⚠ CAUTION

THE UNIT MUST BE INSTALLED BY PERSONNEL WHO ARE QUALIFIED TO WORK WITH ELECTRICITY AND PLUMBING. IMPROPER INSTALLATION CAN CAUSE INJURY TO PERSONNEL AND/OR DAMAGE TO THE EQUIPMENT. THE UNIT MUST BE INSTALLED IN ACCORDANCE WITH APPLICABLE CODES.

⚠ CAUTION

DO NOT INSTALL THE UNIT WITH THE REAR VENTS BLOCKED OR WITHIN 2 INCHES OF A HEAT SOURCE SUCH AS A BRAISING PAN, DEEP FAT FRYER, CHARBROILER OR KETTLE.

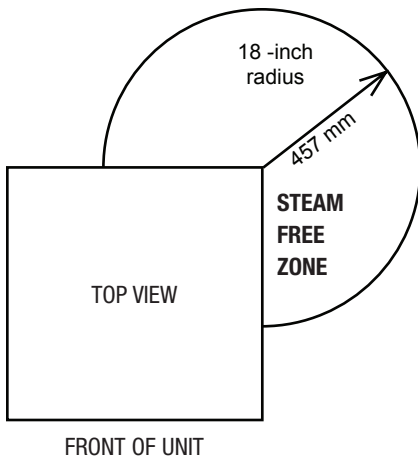


Diagram 7-1

⚠ CAUTION

EACH UNIT MUST HAVE A SEPARATE GROUND WIRE FOR SAFE OPERATION.

⚠ WARNING

TO AVOID DAMAGE OR PERSONAL INJURY, FOLLOW THE WIRING DIAGRAM EXACTLY.



Install the steamers in a well-ventilated room positioned under a Type I or Type II ventilation hood. Consult and follow local codes for use of an electric heated steamer (which doesn't produce smoke, grease laden vapors or gas combustion byproducts) without a ventilation hood.

MINIMUM CLEARANCES

LoLo steamer requires the following minimum clearances to any surface, combustible or non-combustible:

- 2" (51 mm) on both sides
- 6" (152 mm) in rear/back

Steam Free Zone: The steamer can be damaged by steam from external sources. Do not install the steamer over a steam venting drain. Ensure that steam is not present in an area bounded by the footprint of the steamer and a circle 18 inches in radius around the right rear corner of the steamer (See Diagram 7-1 at left).

ELECTRICAL SUPPLY CONNECTION

Provide service per local codes and/or the National Electrical Code should be observed in accordance with ANSI/NFPA 70. **AN ELECTRICAL GROUND IS REQUIRED.** The wiring diagram is located in the service compartment and in this manual. In Canada, provide electrical service in accordance with the Canadian Electrical Code, CSA C22.2 Part 1 and/or local codes.

Electric current and power demands for each unit are as listed below.

Model	Rated Current Demand Per Cavity			
	208/3 - AMP/KW	208/1 - AMP/KW	240/1 - AMP/KW	208/3 - AMP/KW
ST-4E	25.0/9	43.3/9	50/12	28.8/12
ST-6E	30/10.8	52/10.8	60/14	36.6/14

1. **Panel Removal - Right Side**
Open the wiring and control panel by removing the screws from the right side panel. Remove and set aside. Save all screws.
2. **Supply Voltage**
The unit must be operated at the rated name plate voltage. The name plate sticker can be found on the rear of the unit.
3. **Phase Selection**
Refer to steamer wiring diagram and element wiring on page 25 for wiring information.
4. **Terminal Block**
The terminal block for incoming power is located at the back of the

Installation Instructions

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⚠ CAUTION

DO NOT INSTALL THE UNIT WITH THE REAR VENTS BLOCKED OR WITHIN 2 INCHES OF A HEAT SOURCE SUCH AS A BRAISING PAN, DEEP FAT FRYER, CHARBROILER OR KETTLE.

control compartment. The ground terminal is located in the wiring compartment near the terminal block.

5. **Supply Wire**

The equipment grounding wire must comply with the National Electrical Code (NEC) requirements. The wiring diagram on the inside of the unit's right side service access panel gives directions for proper connection to the terminal block. The specified wire must be used or the unit will not meet Underwriters Laboratories and NEC requirements. **The electric hole is sized for a one-inch conduit fitting.**

6. **Branch Circuit Protection**

Each LoLo steamer, including individual stand-stacked units, should have its own branch circuit protection and ground wire.

WATER CONNECTION

Install a check valve to prevent back flow into the incoming cold water line, as required by local plumbing codes. Water pressure in the line should be between 30 and 60 PSI. If pressure is above 60 PSI, a pressure regulator should be installed. These pressures must provide a delivery rate of 2 gallons per minute for proper steamer operation.

A 3/4 inch female NH connector (garden hose type) is used to attach the water supply to the inlet valve. The minimum inside diameter of the water feed line is 1/2 inch. Use a rubber washer in the hose connection. Do not allow the connection to leak, no matter how slowly. **IMPORTANT:** Do not over-tighten hose connections.

Installation of this equipment must comply with the basic plumbing code of the Building Officials and Code Administrators International, Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).

Installation Instructions

⚠ CAUTION

DO NOT CONNECT THE DRAIN DIRECTLY TO A BUILDING DRAIN. BLOCKING THE DRAIN IS HAZARDOUS.

⚠ CAUTION

DO NOT USE PLASTIC PIPE. DRAIN MUST BE RATED FOR BOILING WATER.



Diagram 9-1

Improper Drain Line Connection

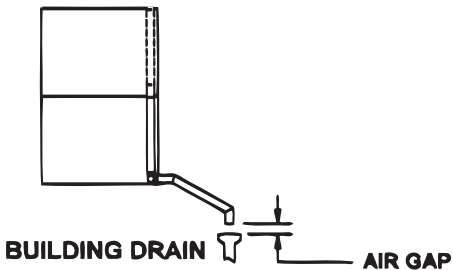


Diagram 9-2

⚠ CAUTION

DO NOT PLACE A LOLO STEAMER ON A CONVENTIONAL UNDERCOUNTER REFRIGERATOR. THEY ARE NOT DESIGNED TO SUPPORT THE WEIGHT OR INSULATED AGAINST THE HEAT PRODUCED BY THE STEAMER. FAILURE TO USE A PURPOSE-BUILT REFRIGERATED EQUIPMENT STAND COULD RESULT IN REFRIGERATOR FAILURE, UNSAFE OR SPOILED FOOD AND EVEN MELTED PLASTIC COMPONENTS IN THE REFRIGERATOR.

DRAIN CONNECTION

Model	Drain ID Hose Size Required
ST-4E	1.5"
ST-6E	1.5"

Level the steamer left-to-right, and pitch it slightly to the front (maximum 1/4 inch) by adjusting the optional legs or the bullet feet on the optional stand.

There must be a free air gap between the end of the drain hose and the building drain. The free air gap should be as close as possible to the unit drain. There must also be no other elbows or other restrictions between the unit drain and the free air gap.

Install the drain line with a constant downward pitch (see Diagram 9-1 and 9-2 at left). **IMPORTANT: Do not allow water traps in the line. A trap can cause pressure build-up in the cooking compartment, which may cause the door gasket to leak.**

For a proper drain line connection, the drain line must have a constant downward pitch of at least 1/4" per foot. Observe local code regarding air gap spacing and drain connections.

COUNTER-MOUNTED UNITS

This section is applicable when the steamer will be flush-mounted to a counter. All four edges of the bottom of the steamer must be sealed with RTV silicone sealant to the counter **if optional 4 inch legs are not used**. Counter must be made of a non-combustible material such as metal or tile.

STAND STACKED UNITS

This section is only applicable if you are installing two steamers on the optional support stand. The steamers are positioned on the top and bottom shelf that are standard with LoLo Steamer Stands.

1. Water Connections

Separate water supply connections must be provided for each unit. At each water inlet valve a 3/4" NH connection (garden hose type) is used to supply water at the pressure and delivery rate specified on page 5 and 8.

2. Electrical Supply Connections

Separate electrical connections are required for each steamer on the stand. **NOTE:** Each steamer must have its own branch circuit protection.

3. Drain Connections

Both steamers must be leveled left-to-right; and pitched to the front (maximum of 1/4") by adjusting the bullet feet or casters on the steamer stand. Make sure both steamer drain connections are free-venting and slope continuously to the floor drain.

REFRIGERATED STAND MOUNTED STEAMERS

IMPORTANT: Do not mount a LoLo Steamer on a conventional undercounter refrigerator. Steamers must be placed on a refrigerated equipment stand, such as the LoLo LRES Series, which are specifically designed to support the weight of heavy cooking equipment; and heavily insulated to resist the heat generated by a working steamer.

Initial Start-Up

⚠ CAUTION

WHEN YOU OPEN THE DOOR, STAY AWAY FROM STEAM COMING OUT OF THE UNIT. STEAM CAN CAUSE BURNS.



Photo 10-1

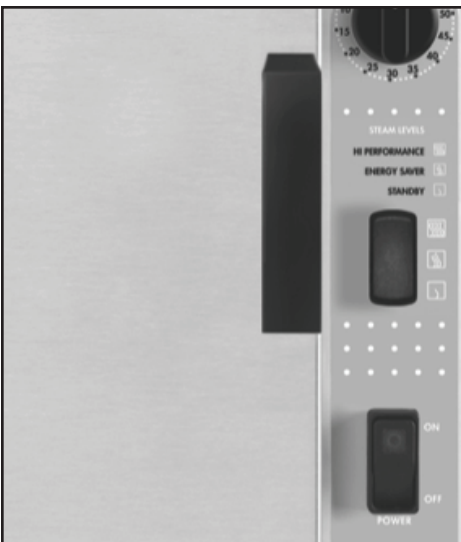


Photo 10-2

From top to bottom: Timer, STEAM LEVEL switch & POWER ON/OFF switch

After the LoLo steamer has been installed, test it to ensure that the unit is operating correctly.

1. Remove all literature and packing materials from the interior of the unit.
2. Make sure the water supply line is open and the drain valve handle is in the closed position (6:00 o'clock). (See Photo 10-1)
3. Turn on electrical service to the unit. The steamer will not operate without electrical power. **IMPORTANT:** Do not attempt to operate the unit during a power failure.

NOTE: The door **MUST** be closed for the elements to operate.

4. To turn unit on, toggle POWER ON/OFF switch to the ON position and rotate timer knob to ON position. The green light on the switch will come on.

NOTE: For normal operation, the POWER ON/OFF switch may be left in the ON position. Use the timer knob to turn unit steaming ON and OFF during the day.

5. Make sure three position STEAM LEVEL switch is in HIGH PERFORMANCE or ENERGY SAVER position.
6. When the steam generating reservoir has filled with water, the heaters will begin heating **only when the timer is in the ON or TIMING position**. Within 15 minutes or less the READY light will come on, indicating that the water has reached its standby temperature. When the READY light comes on, you may take any of the following steps:
 - Set the timer knob to the desired steaming time.
 - Leave timer knob in the ON position for continuous steaming.
 - Set the timer knob to the OFF position to put the steamer into the idle mode.
7. To shut down the unit, toggle the ON/OFF switch to the OFF position. Wait 30 minutes and rotate the drain valve to open position (9:00 o'clock) to drain the water reservoir.
8. If the steamer operates as described, the unit is functioning correctly and ready for use.

Operation – General Steamer Use

CAUTION

WHEN YOU OPEN THE DOOR, STAY AWAY FROM STEAM COMING OUT OF THE UNIT. STEAM CAN CAUSE BURNS.

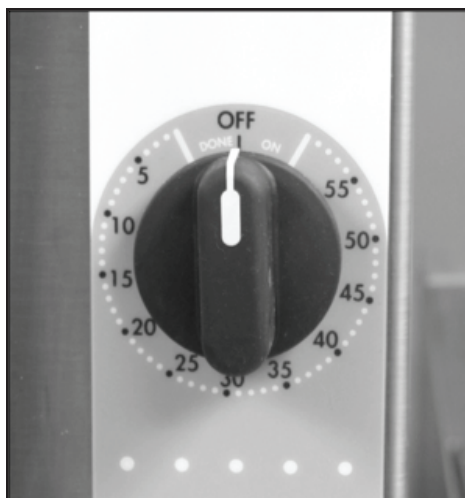


Photo 12-1

CONTROLS

Operator controls are on the unit front just right of the compartment door. From top-to-bottom they include:

1. Steamer READY indicator light – Indicates the steam generator reservoir is at temperature and the cavity is hot enough to begin steaming.
2. 60 minute Timer Control with continuous ON position – See Timer Functions below.
3. STEAM LEVEL 3-way Toggle Switch – Providing the following options:
 - HI PERFORMANCE – For maximum power and fastest cook times (a la carte cooking);
 - ENERGY SAVER – For batch production, with slower cook times but energy savings; or
 - STANDBY – for Ready Mode, with even more energy savings.
4. POWER - ON/OFF Switch
5. Water Reservoir DRAIN VALVE Handle –
 - OPEN when at 9:00 o'clock position – Allows water to drain from reservoir.
 - CLOSED when at 6:00 o'clock position – Allows water to fill reservoir when Power switch is ON and Timer is set or in (manual) ON position.

The Timer can be used in three ways:

1. In the OFF position, the steamer stays ready for start-up.
2. When a cook time is set, the unit steams until the timer runs down to DONE. At that time, steaming stops and a beeper sounds until the user turns the knob to another position.
3. With the timer turned to the ON position, the unit steams continuously.

OPERATING PROCEDURES

1. Make sure Water Reservoir Drain Handle is in “CLOSE” position.
2. Press the ON/OFF switch located on the control panel to ON. The steam generating reservoir will fill.
3. Rotate timer knob to the ON position.
4. Choose STEAM LEVEL: HIGH PERFORMANCE or ENERGY SAVER. In approximately 10-15 minutes the READY light will come on.
5. Load food into pans in uniform layers. Pans should be filled to about the same levels and should be level on top. This will ensure pan-to-pan cooking consistency.
6. Open the door and slide the pans onto the supports. **TIP:** If you will only be steaming one pan, put it in the middle position.

Operation – General Steamer Use

CAUTION

WHEN YOU OPEN THE DOOR, STAY AWAY FROM STEAM COMING OUT OF THE UNIT. STEAM CAN CAUSE BURNS.

7. Close the door. With the READY indicator lit, you can initiate:
 - TIMED STEAMING:** If you want to steam the food for a certain length of time, set the timer for that period. The timer will automatically run the steamer for the set time and a beeper will sound when the cook time is complete. Steam production stops when the timer is turned to OFF.
 - CONTINUOUS STEAMING:** If you want to steam continuously, turn the timer to the ON position. The unit will continue steaming until you stop it by turning the timer to OFF. **IMPORTANT:** When steaming continuously, YOU MUST CONTROL STEAMING TIME.
8. At the end of the cook time, open the door. Remove the pans from the steamer, using hot pads or oven mitts to protect your hands from the hot pans.
 - NOTE:** You can open the door at any time to check progress, stir or season food. When the compartment door is opened, a switch will cut power to the heating elements, but steam will still roll out of the compartment. **IMPORTANT:** Open the door a crack and allow steam to vent before fully opening the compartment door.
9. To shut down the unit, press the POWER ON/OFF switch to OFF.
 - NOTE:** The steamer was designed to drain only when the manual drain is opened.
10. At end of day or if the steamer will not be needed, open the steamer drain valve handle to the 9:00 o'clock position, to drain the water from the steam generator. (See Page 13 for CLEANING INSTRUCTIONS)

Cleaning

⚠ WARNING

DISCONNECT THE POWER SUPPLY BEFORE CLEANING THE OUTSIDE OF THE STEAMER.

⚠ WARNING

KEEP WATER AND CLEANING SOLUTIONS OUT OF CONTROLS AND ELECTRICAL COMPONENTS. NEVER HOSE OR STEAM CLEAN ANY PART OF THE UNIT.

⚠ CAUTION

AVOID CONTACT WITH ANY CLEANERS, DELIMING AGENT OR DEGREASER AS RECOMMENDED BY THE SUPPLIER. MANY ARE HARMFUL. READ THE WARNINGS AND FOLLOW THE DIRECTIONS!

⚠ CAUTION

EVEN WHEN THE UNIT HAS BEEN SHUT OFF, DON'T PUT HANDS OR TOOLS INTO THE COOKING CHAMBER UNTIL IT HAS COOLED.

IMPORTANT

DON'T USE ANY CLEANING AGENT THAT CONTAINS ANY SULFURIC AGENT OR ANY CHLORIDE, INCLUDING HYDROCHLORIC ACID (HCL). TO CHECK FOR CHLORIDE CONTENT SEE ANY MATERIAL SAFETY DATA SHEETS PROVIDED BY THE CLEANING AGENT MANUFACTURER.

IMPORTANT

DO NOT USE ANY METAL MATERIAL (SUCH AS METAL SPONGES) OR METAL IMPLEMENTS (SUCH AS A SPOON, SCRAPER OR WIRE BRUSH) THAT MIGHT SCRATCH ANY STAINLESS STEEL SURFACE. SCRATCHES CAN MAKE THE SURFACE HARDER TO CLEAN AND PROVIDES PLACES FOR BACTERIA TO GROW. DO NOT USE STEEL WOOL, WHICH MAY LEAVE PARTICLES EMBEDDED IN THE SURFACE, WHICH COULD EVENTUALLY CAUSE CORROSION AND PITTING.



⚠ WARNING

FAILURE TO CLEAN THE STEAMER AS SPECIFIED COULD RESULT IN BODILY HARM (FROM SCALDING WATER OVERFLOW) AND DEGRADE THE PERFORMANCE OF THE STEAMER.

To keep your steamer in proper working condition, use the following procedures to clean the unit. This regular cleaning will reduce the effort required to clean the steam generator and cavity.

SUGGESTED CLEANING SUPPLIES

1. Mild detergent
2. Stainless steel exterior cleaner Spray DeGreaser
3. Cloth or sponge
4. Brush with soft bristles
5. Spray bottle
6. Measuring cup
7. Nylon pad
8. Towels
9. Plastic disposable gloves
10. Funnel

CLEANING PROCEDURES

1. **Exterior Cleaning**
 - a. Prepare a warm solution of mild detergent as instructed by the supplier. Wet a cloth with this solution and wring it out. Use the moist cloth to clean the outside of the unit. Do not allow freely running liquid to touch the controls, the control panel, any electrical part, or any louver on the rear panels.
 - b. To remove material which may be stuck to the unit, use a fiber brush or a plastic or rubber scraper with a detergent solution.
 - c. Stainless steel surfaces may be polished with a recognized stainless steel cleaner.
2. **Cooking Compartment Cleaning**

Daily cleaning must be done in order to reduce the risk of bodily harm, enhance performance, and prolong the life of your steamer.

 - a. Press POWER switch to turn steamer OFF and open steamer door.
IMPORTANT: Allow the steamer to cool completely before cleaning.
 - b. Remove optional water grate, if used. It can be washed in a dish machine.
 - c. Remove left and right pan supports by lifting rack up and pulling away from cavity wall. They can be washed in a dish machine.
 - d. Use a mild detergent to wipe down the entire steamer cavity to remove food and water scale particles. Carefully clean float probes if food residue or loose scale is present. **NOTE:** A thin layer of tightly bound scale is normal and will not affect steamer performance. If scale is excessive, then refer to deliming instructions that follow.
 - e. Clean right front drain opening, right front drain cover, and right rear overflow drain opening thoroughly to remove any build-up of debris and make sure the drain is free flowing without blockage. Ensure probes are free moving and that build-ups have not limited movement.
 - f. Replace pan supports and water grate, if used. Steamer is now cleaned and ready to use.

Cleaning

CAUTION

ALLOW THE STEAMER TO COOL COMPLETELY BEFORE CLEANING. HOT SURFACES CAN CAUSE SEVERE BURNS.

IMPORTANT

FAILURE TO CLEAN THE STEAMER AS SPECIFIED COULD DEGRADE THE PERFORMANCE OF THE STEAMER.

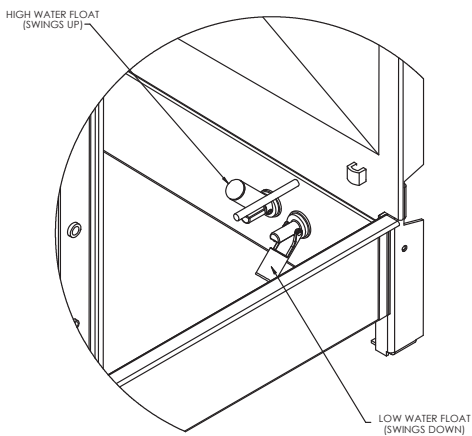


Diagram 14-1

NOTE: Inside view of steamer cavity with no water present. High level float probe swings up.

3. **Cooking Compartment Deliming**

When using a Water Treatment System use vinegar as a deliming agent. LoLo Commercial Foodservice Equipment approved delimer may be used to remove excessive scale build-up.

- a. Follow all cleaning steps A through E on page 13, turn steamer on and allow water to enter steamer compartment.
- b. Pour 1 cup of white vinegar or delimer into steamer compartment and shut door.
- c. Set timer to 30 minutes and allow steam cleaning to occur.
- d. After the 30 minute cleaning cycle is complete, turn OFF steamer and allow it to cool completely.
- e. Open steamer door and wipe down the entire steamer cavity to remove loose scale particles. Carefully clean float probes if loose scale is present. (See Diagram 14-1 at left)
- f. Replace pan supports and water grate. Steamer is now descaled and ready to use.

Maintenance

CAUTION

USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LOLO COMMERCIAL FOODSERVICE EQUIPMENT OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.

IMPORTANT

SERVICE PERFORMED BY OTHER THAN FACTORY-AUTHORIZED PERSONNEL WILL VOID ALL WARRANTIES.

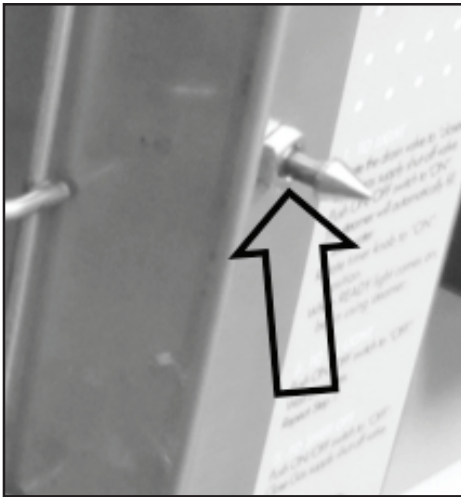


Photo 15-1

Latch pin is threaded to change depth. Lock nut secures it at that depth.

The LoLo steamer is designed for minimum maintenance and no user adjustments should be necessary. Certain parts may need replacement after prolonged use. If there is a need for service, only LoLo Authorized Service Agents should perform the work.

STEAM LEAK-DOOR ADJUSTMENT

If steam or condensate is seen leaking from around the door, take the following steps:

1. Check the door gasket. Replace it if it is cracked or split.
2. Inspect the cooking chamber drain to be sure it is not blocked.
3. Check drain line to ensure it is free-venting, not clogged, kinked or restricted in any way.
4. Adjust the door latch pin to allow for changes that might occur as the gasket ages.
 - Loosen the lock nut at the base of the latch pin, then turn the latch pin 1/4 turn clockwise, and tighten the lock nut.
 - After adjustment, run the unit to test for steam leakage.
 - If there is still leakage, repeat the adjustment.
 - Continue adjusting the pin clockwise until the door fits tightly enough to prevent leakage. **NOTE:** The door hinge may also be adjusted.

User Troubleshooting Guide

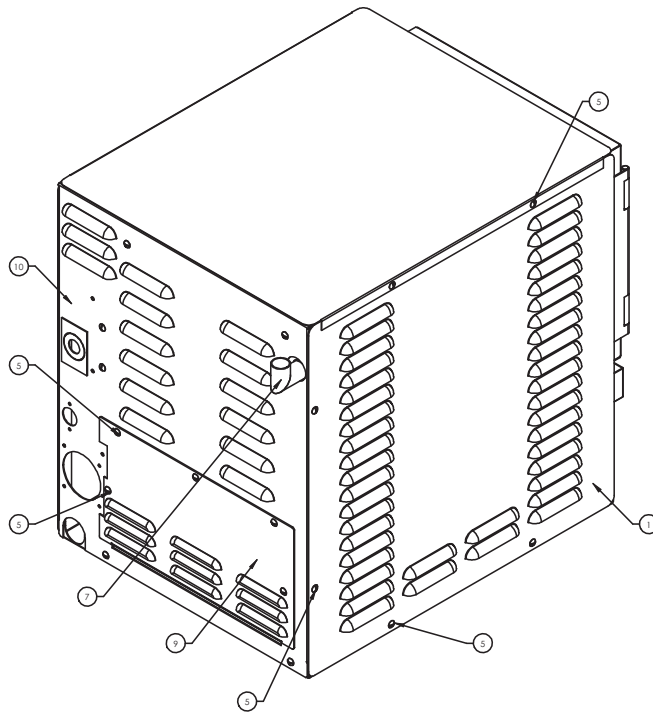
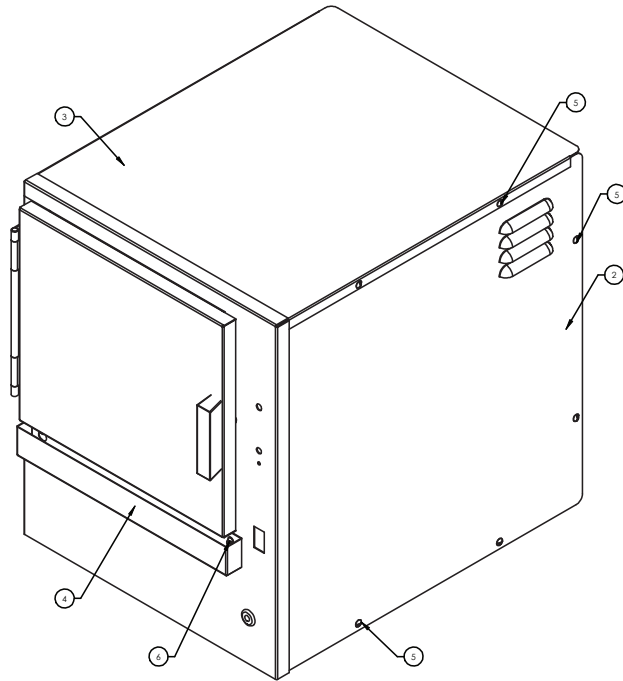
Your LoLo steamer is designed to operate smoothly and efficiently if properly maintained. However, the following is a list of checks to make in the event of a problem. Wiring diagrams are furnished inside the right side service access panel. If an item on the check list is marked with and (X), it means that the work should be done by an a LoLo Authorized Service Agent. **CAUTION: USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY LOLO COMMERCIAL FOODSERVICE EQUIPMENT OR THEIR AUTHORIZED DISTRIBUTORS CAN CAUSE INJURY TO THE OPERATOR AND DAMAGE TO THE EQUIPMENT AND WILL VOID ALL WARRANTIES.**

SYMPTOM	WHO	WHAT TO CHECK or DO
No power.	User	a. Check wall outlet circuit breaker. b. Disconnect power, then check fuses inside steamer. X c. Call service technician.
Unit overfills with water at start-up.	User	a. Clean probes in unit. b. Check float probe orientation. c. Clean drain strainer. d. Call service technician.
Steamer does not fill with water.	User	a. Is the ON switch depressed? b. Is the water supply connected? c. Is the water turned on? d. Is the water supply hose kinked or obstructed? e. Check for low water pressure (less than 30 PSI) or low water flow (less than 2 gpm). X f. Is the screen at the water connection clogged?
No steam.	User	a. Is the ON switch depressed? b. Is the STEAM LEVEL switch in HIGH PERFORMANCE or ENERGY SAVER? c. Is the water supply connected? d. Is the water turned on? e. Is steamer door completely closed? f. Is timer set to either ON position or TIMING position?
Any unusual operation.	User	a. Press ON/OFF switch to turn steamer off. Momentarily turn circuit breaker off and then turn unit back on.
Door pops open.	User	a. Ensure drain and vent are not plugged. No more than two units should be attached to a single drain line. b. Check door pin adjustment. The door pin is threaded and can be backed out to catch latch. (See Maintenance Section on page 15) c. Call service technician.

Parts List & Diagram

4-Pan Cabinet Assembly

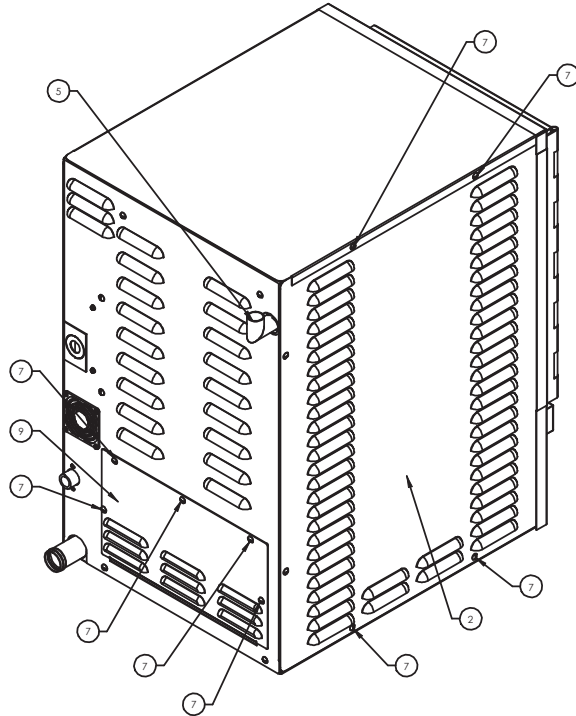
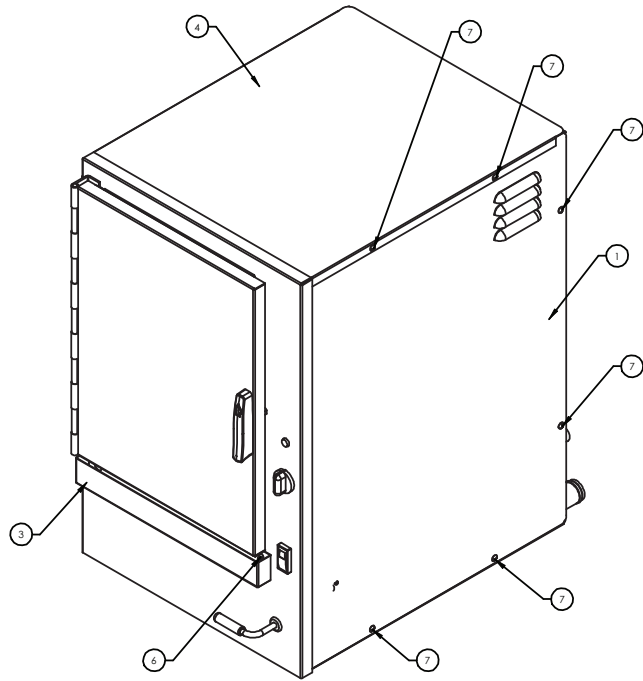
Item no.	Description	Part number
1	PANEL, LEFT SIDE WELDMENT	156503
2	PANEL, RIGHT SIDE WELDMENT	156502
3	WELDMENT, TOP COVER	156396
4	TRAY DRIP	094151
5	SCREW, TRS HEAD 10-32 x 3/8 (QTY 17)	004173
6	SHOULDER SCREW - DRIP TRAY (QTY 2)	070467
7	WELDMENT, CAVITY VENT	145297
9	ACCESS PANEL	156488
10	REAR COVER ASSY ELECTRIC	156332



Parts List & Diagram

6-Pan Cabinet Assembly

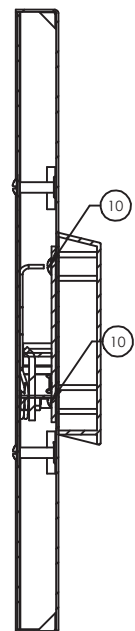
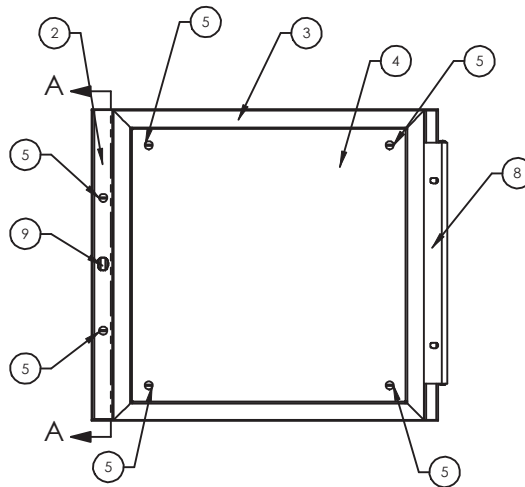
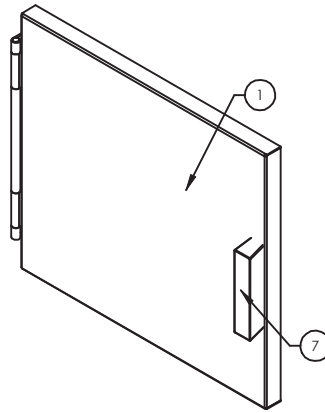
Item no.	Description	Part number
1	PANEL, SIDE RIGHT ASSY	156151
2	PANEL, SIDE LEFT ASSY	156152
3	TRAY DRIP	094151
4	WELDMENT, TOP COVER	156396
5	WELDMENT, CAVITY VENT NO VACUUM	145297
6	SHOULDER SCREW - DRIP TRAY (QTY 2)	070467
7	SCREW, TRS HEAD 10-32 x 3/8 (QTY 17)	004173
9	ACCESS PANEL	156507



Parts List & Diagram

4-Pan Door Assembly

Item no.	Description	Part number
1	PANEL FRONT DOOR ASSEMBLY	156392
2	LATCH ASSEMBLY	156390
3	GASKET, DOOR SILICONE	156388
4	PANEL, DOOR INSIDE	156387
5	SCREW TRUSS HEAD MACHINE (QTY 6)	005764
6	SCREW, HEX HEAD CAP, 1/4" - 20 (QTY 2)	005608
7	HANDLE ASSY DOOR	070123
8	HINGE, DOOR	130868
9	CAM DOOR UNLATCH LIFT	074252
10	SCREW 8-32 x .375 LG PHILLIPS (QTY 2)	129732

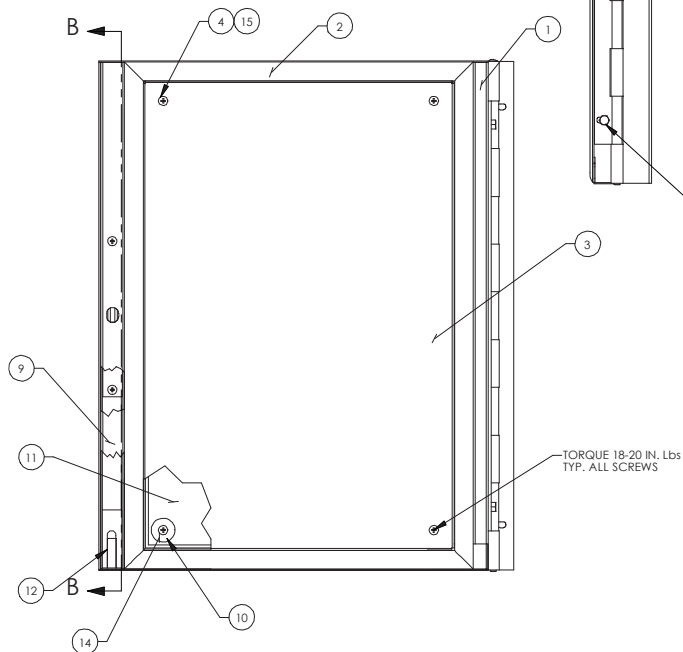
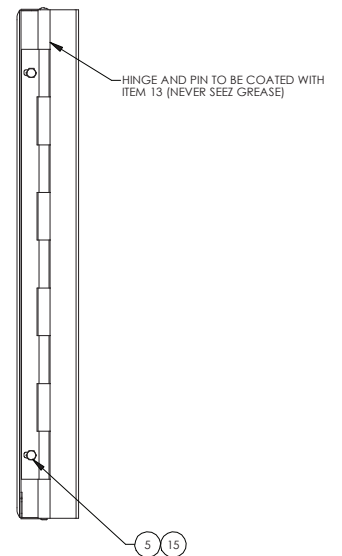
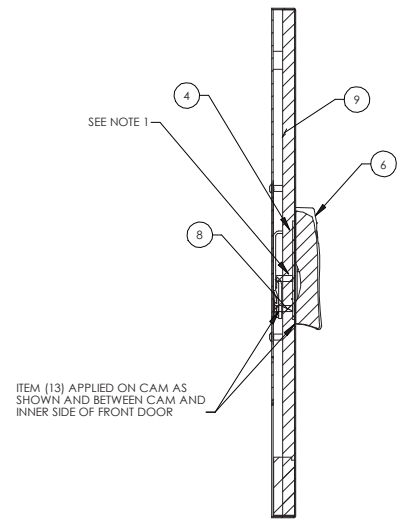
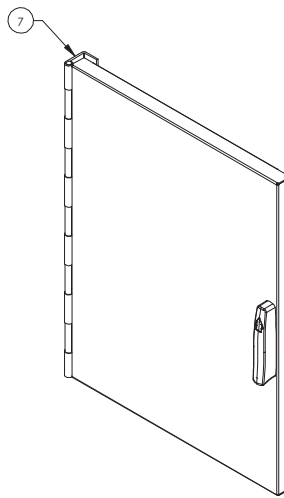


SECTION A-A
SCALE 1 : 2

Parts List & Diagram

6-Pan Door Assembly

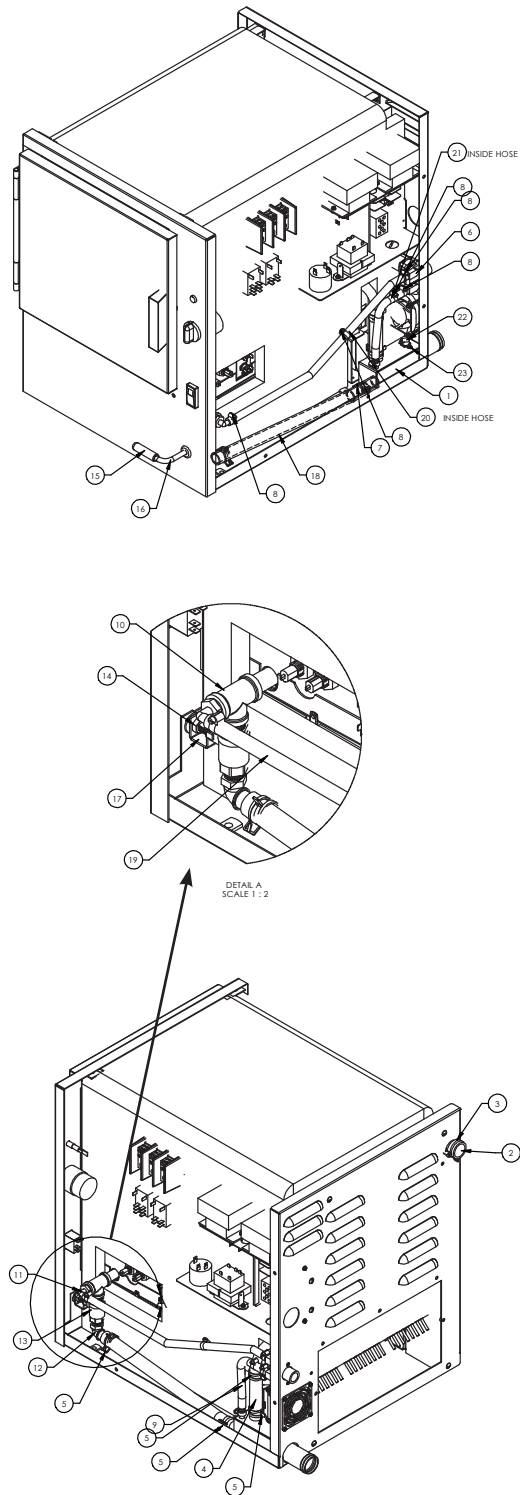
Item no.	Description	Part number
1	PANEL, FRONT DOOR ASSEMBLY	140750
2	GASKET	140748
3	PANEL, DOOR INSIDE	140751
4	SCREW, 8-32 X 3/8" PHIL HEAD (QTY 8)	127179
5	SCREW, HEX HEAD CAP, 1/4"-20 (QTY 2)	005608
6	HANDLE	129723
7	HINGE, DOOR	140755
8	CAM, DOOR UNLATCH LIFT	074252
9	LATCH ASSEMBLY	140752
10	SPACER FOR DOOR (QTY 4)	071206
11	INSULATOR BOARD	140754
12	BLOCK AND MAGNET ASSEMBLY	069762



Parts List & Diagram

Common Water System Components

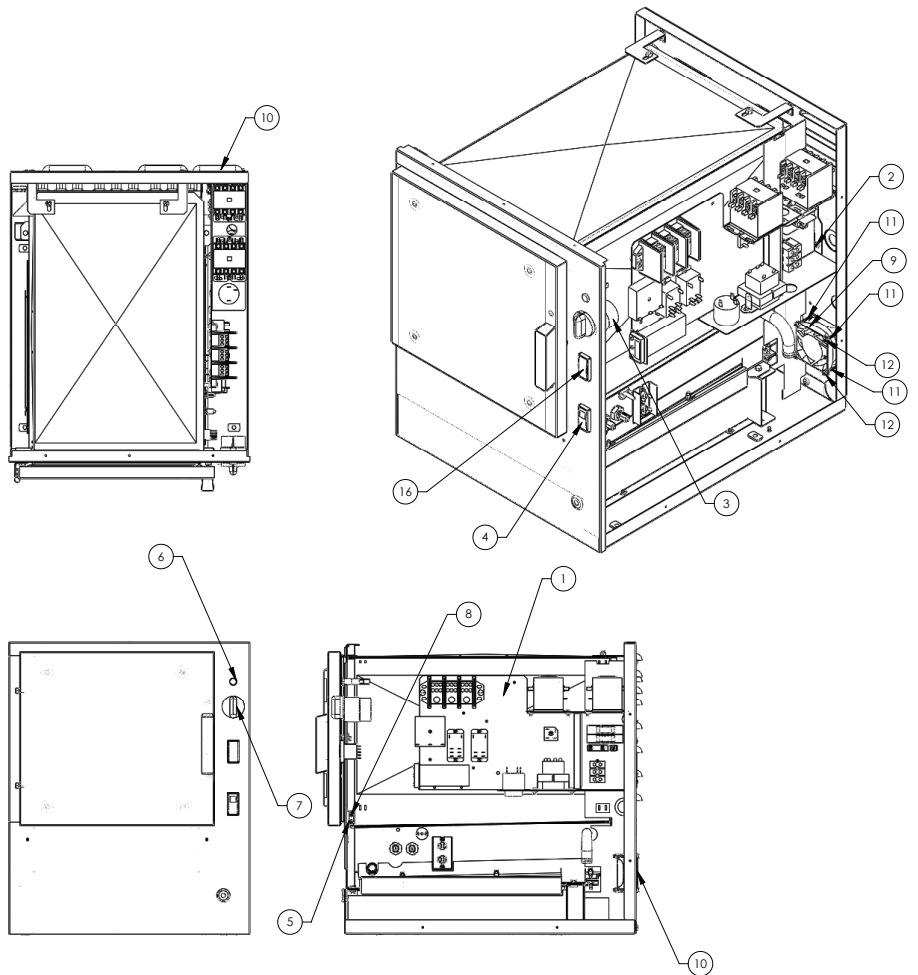
Item no.	Description	Part number
1	WELDMENT, DRAIN MANIFOLD ASSY	156483
2	HOSE, SHORT VENT	147566
3	CLAMP, HOSE, CONSTANT TENSION (QTY 2)	127525
4	HOSE, SHORT STEAM INLET	140164
5	CLAMP, HOSE, CONSTANT TENSION CTB-27 (QTY 4)	138457
6	VALVE-WATER FEED 3/4R	071235
7	NUT HEXHEAD KEPS 10-32	071256
8	CLAMP HOSE, LOW PRESSURE (QTY 6)	093482
9	HOSE, BLACK RUBBER 3/8" ID X 10" LG	505090
10	TEE, 1/2" NPT - BRASS	013650
11	ELBOW, 90 DEG 1/2 MPT X 3/8	139126
12	ELBOW 1/2" NPT TO 3/4 HOSE BARB 90 DEG	142548
13	MPT TO FPT BRASS BALL VALVE 1/2" NPT	156478
14	NUT, HEXAGON 3/8-24	012809
15	HANDLE, SHAFT	141668
16	SHAFT, DRAIN ACTUATOR	156479
17	BRACKET, DRAIN VALVE CONNECTION	GVR-0002
18	HOSE, STEAM UNIT 18" LONG	125954
19	CLEAR 3/8" HOSE	092124
20	REDUCER, WATER FLOW, .110 ID	144481
21	REDUCER, FLOW	147371
22	DRAIN THERMOSTAT	156487
23	NUT HEXAGON KEPS 4-40 (QTY 2)	071297



Parts List & Diagram

Common Electrical System Components

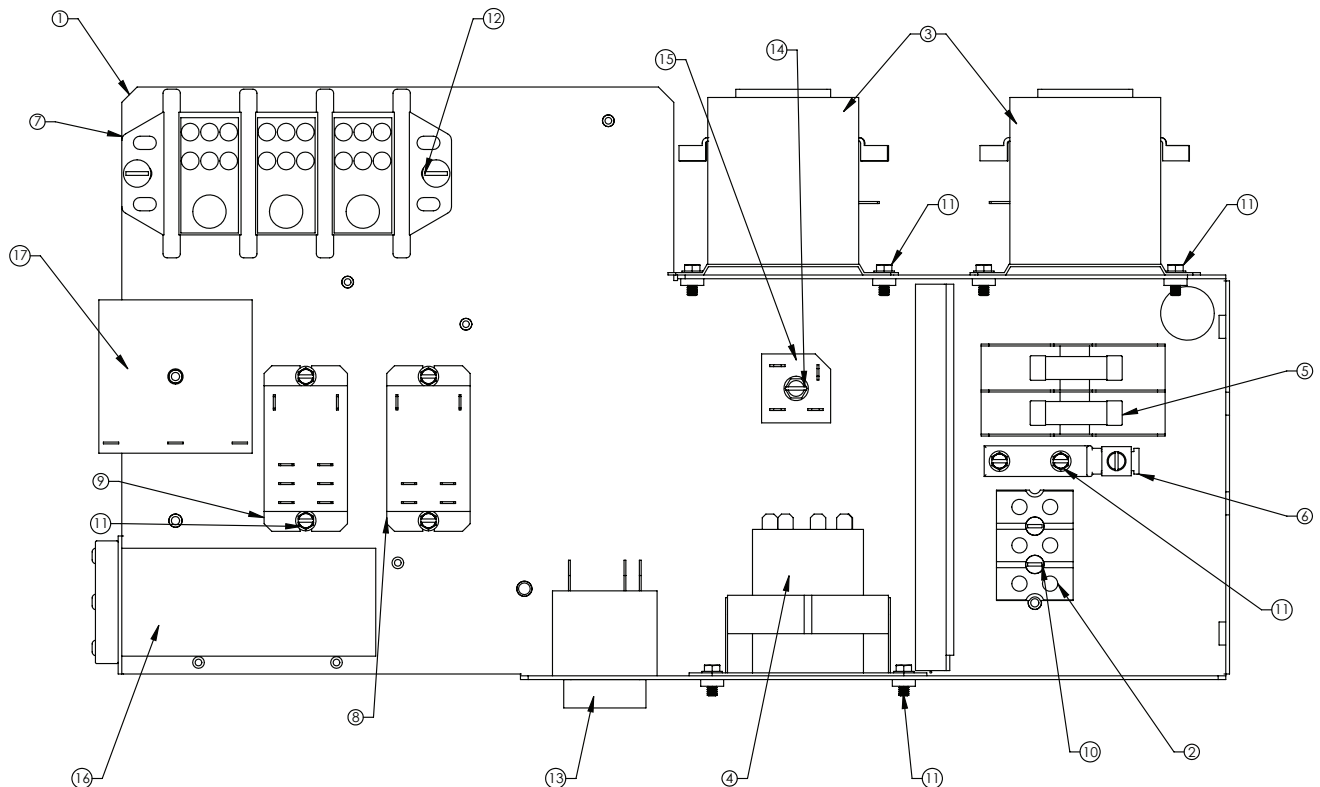
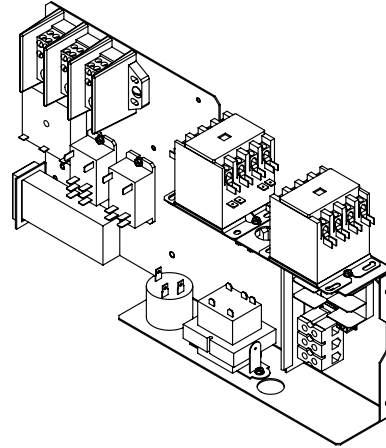
Item no.	Description	Part number
1	CONTROL PANEL ASSEMBLY ELECTRIC	162322
2	SCREW HEX SLOTTED HD W/WASHER #8-32 X 3/8" (QTY 2)	069789
3	TIMER STEAMER	096826
4	POWER SWITCH, WITH GREEN INDICATOR LIGHT	155548
5	SWITCH, DOOR	096857
6	LIGHT, INDICATOR AMBER	116384
7	KNOB, TIMER	123100
8	SCREW #4-40 X 1/4" HEX MS (QTY 2)	096841
9	FAN, 24VDC MUFFIN 80MM	153505
10	GUARD, 80MM FAN, PLASTIC	143664
11	SCREW, 6-32 X 2 LG HEX HD SLOT (QTY 4)	140182
12	NUT, 6-32 LOCK INSERT (QTY 4)	119855
13	FLOAT 24 VAC HARNESS	155508
14	HARNESS, STEAMER HIGH VOLTAGE	160874
15	BASE & CAVITY ASSEMBLY, 4 PAN ELE	162338
16	SWITCH, THREE WAY	162344
17	HARNESS, LOLO E-SAVING MOD	162429



Parts List & Diagram

Electric Control Panel Assembly

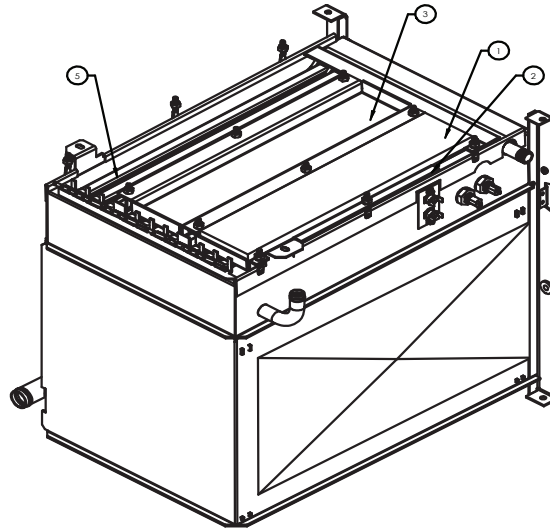
Item no.	Description	Part number
1	PANEL, HIGH VOLTAGE ASSEMBLY	156402
2	TERMINAL BLOCK 3-POLE	003888
3	CONTACTOR, 4 POLE 40FLA (QTY 2)	119811
4	TRANSFORMER, 40VA, 208-240/60/3	137441
5	FUSE BLOCK ASSY	160919
6	MECHANICAL LUG, GROUND, #2-#8	106412
7	TERMINAL BLOCK	070185
8	RELAY, 24 VAC DPST	119814
9	RELAY, 24 VAC DPDT	121733
10	SCREW ROUND HEAD 8-32 1-1/4" (QTY 2)	005056
11	SCREW HEX SLOTTED HD W/WASHER #8-32 x 3/8" (QTY 12)	069789
12	SCREW, #10-32 x .75 (QTY 2)	116100
13	BEEPER	156486
14	SCREW HEX SLOTTED	071485
15	RECTIFIER, BRIDGE-COMBO	071487
16	TEMP CONTROLLER	26057-2
17	REPEAT CYCLE TIMER	162189



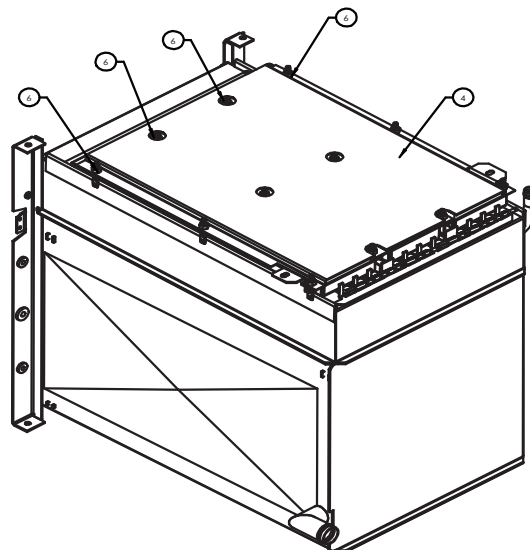
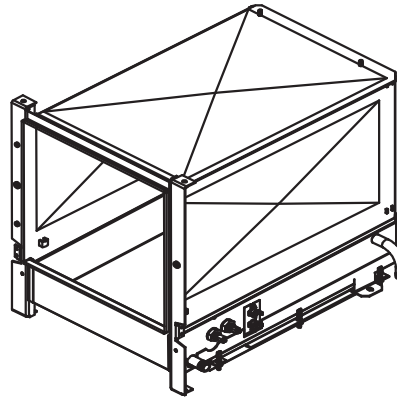
Parts List & Diagram

Electric Heating Elements

Item no.	Description	Part number
1	INSULATION (QTY 3)	156320
2	BRACKET, ELEMENT HOLD-DOWN, LEFT & RIGHT SIDE (QTY 2)	069789
3	BRACKET,ELEMENT HOLD-DOWN, MIDDLE	144110
4	PANEL, INSULATION HOLD-DOWN	096857
5a	ELEMENT, 240V 1.6KW (QTY 9 FOR 6-PAN)	096841
5b	ELEMENT, 240V 1.3KW (QTY 9 FOR 4-PAN)	156501
6	NUT, HEX KEPS 1/4"-20 (QTY 12)	143559

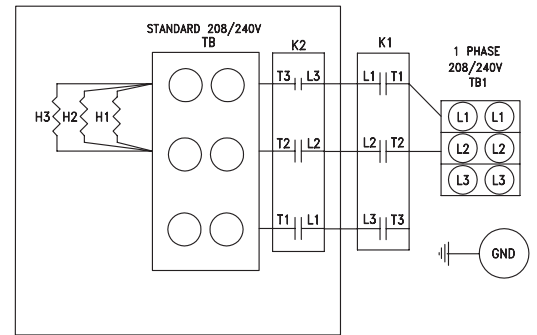
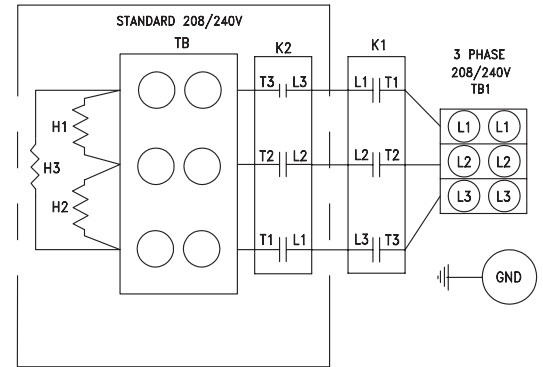
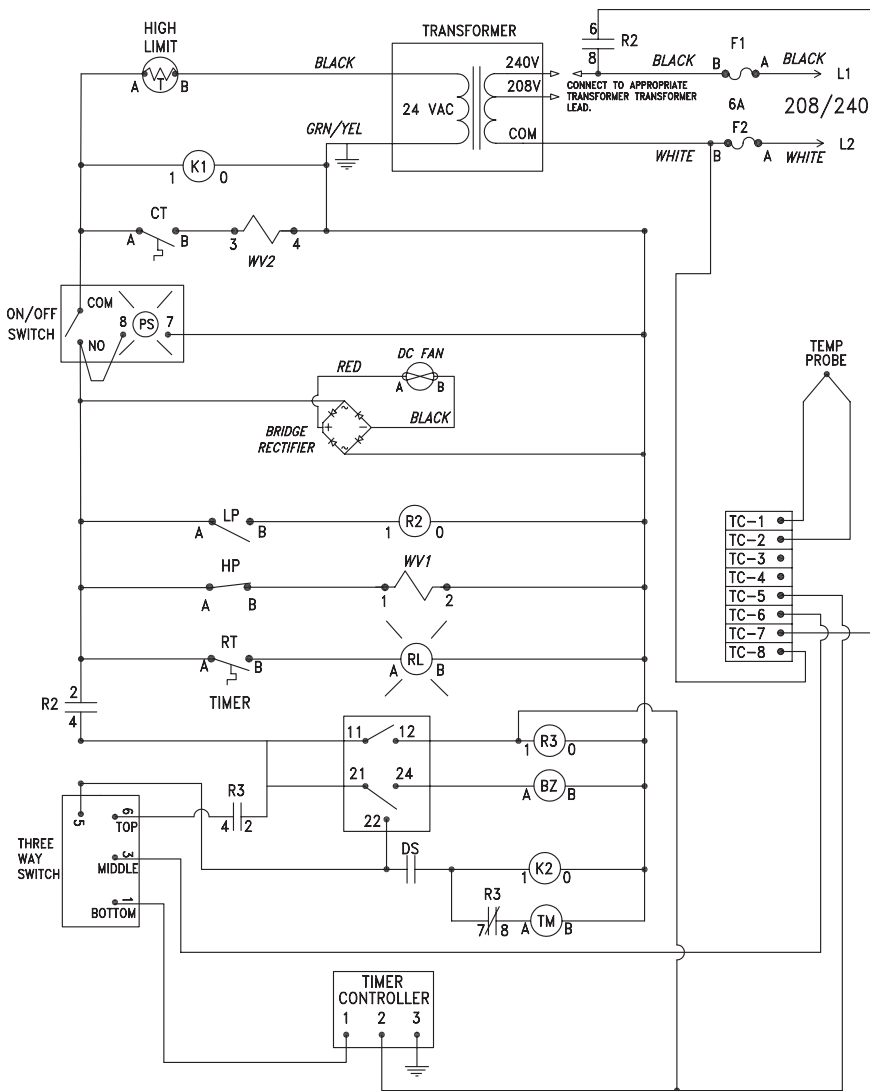


UP-SIDE DOWN WITHOUT INSULATION HOLD DOWN PANEL



UP-SIDE DOWN WITH INSULATION HOLD DOWN PANEL

Wiring Diagram



LOLO MODELS: ST-4E AND ST-6E
162334 WIRING DIAGRAM REV B



COMMERCIAL FOODSERVICE
EQUIPMENT

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