

OPERATOR MANUAL

IMPORTANT INFORMATION, KEEP FOR OPERATOR

This manual provides information for:

HY-6E **HYPERSTEAM™** **ATMOSPHERIC CONVECTION** **STEAMER**

- Self Contained
- Electric Heated
- Capacity: 6 Steamer Pans
(12" x 20" x 2 1/2")



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

WARNING / FOR YOUR SAFETY

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

WARNING

Improper installation, adjustment, alteration, service
or maintenance can cause property damage, injury or
death. Read the installation, operating and maintenance
instructions thoroughly before installing or servicing this
equipment.

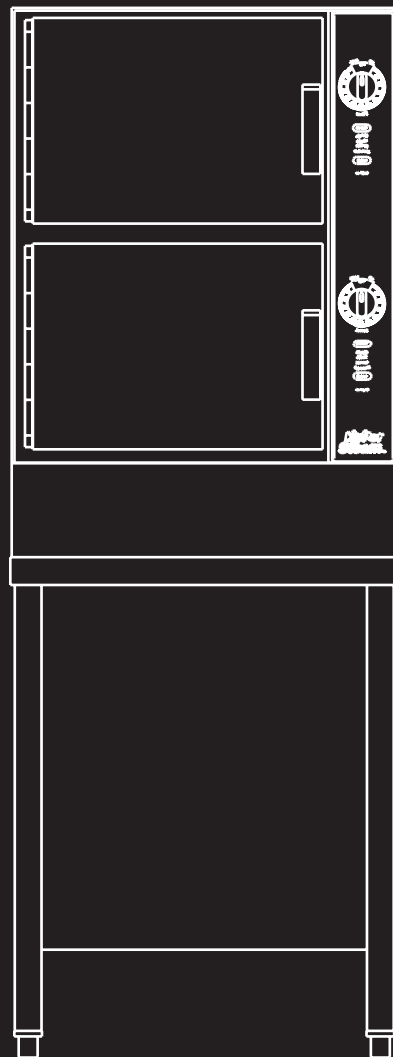
NOTIFY CARRIER OF DAMAGE AT ONCE

It is the responsibility of the consignee to inspect the container upon receipt of
same and to determine the possibility of any damage, including concealed dam-
age. Unified Brands 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.

Manufacture Service/Questions 888-994-7636.

Information contained in this document is known to be current and accurate at the time
of printing/creation. Unified Brands recommends referencing our product line websites,
unifiedbrands.net, for the most updated product information and specifications.

PART NUMBER 148668, REV G (03/16)



1055 Mendell Davis Drive
Jackson, MS 39272
888-994-7636, fax 888-864-7636
unifiedbrands.net

IMPORTANT - READ FIRST - IMPORTANT

- WARNING:** THE UNIT MUST BE INSTALLED BY PERSONNEL 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:** SHIPPING STRAPS ARE UNDER TENSION AND CAN SNAP BACK WHEN CUT.
- CAUTION:** DO NOT INSTALL THE UNIT IN ANY WAY WHICH WILL BLOCK THE RIGHT SIDE VENTS, OR WITHIN 12 INCHES OF A HEAT SOURCE SUCH AS A BRAISING PAN, DEEP FRYER, CHARBROILER OR KETTLE.
- CAUTION:** LEVEL THE UNIT FRONT TO BACK, OR PITCH IT SLIGHTLY TO THE REAR, TO AVOID DRAINAGE PROBLEMS.
- WARNING:** TO AVOID DAMAGE OR INJURY, FOLLOW THE WIRING DIAGRAM EXACTLY WHEN CONNECTING A UNIT.
- CAUTION:** DO NOT USE PLASTIC PIPE. DRAIN MUST BE RATED FOR BOILING WATER.
- WARNING:** DO NOT CONNECT THE DRAIN DIRECTLY TO A BUILDING DRAIN.
- WARNING:** BLOCKING THE DRAIN IS HAZARDOUS.
- IMPORTANT:** IMPROPER DRAIN CONNECTION WILL VOID WARRANTY.
- IMPORTANT:** DO NOT ALLOW ANY WATER TRAPS IN THE DRAIN LINE. A TRAP CAN CAUSE PRESSURE TO BUILD UP INSIDE THE CAVITY DURING STEAMING, WHICH WILL MAKE THE DOOR GASKET LEAK.
- WARNING:** 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 ELECTRIC POWER SUPPLY. KEEP WATER AND CLEANING SOLUTIONS OUT OF CONTROLS AND ELECTRICAL COMPONENTS. NEVER HOSE OR STEAM CLEAN ANY PART OF THE UNIT.
- WARNING:** ALLOW COOKING CHAMBER TO COOL BEFORE CLEANING.
- WARNING:** CAREFULLY READ THE WARNINGS AND FOLLOW THE DIRECTIONS ON THE LABEL OF EACH CLEANING AGENT. USE SAFETY GLASSES AND RUBBER GLOVES AS RECOMMENDED BY DE-LIMING AGENT MANUFACTURER.
- WARNING:** DO NOT MIX DE-LIMING AGENTS (ACID) AND DE-GREASERS (ALKALI).
- WARNING:** DO NOT PUT HANDS OR TOOLS INTO THE COOKING CHAMBER UNTIL THE FAN HAS STOPPED TURNING.
- WARNING:** DO NOT OPERATE THE UNIT UNLESS THE REMOVABLE LEFT AND RIGHT SIDE PANELS HAVE BEEN RETURNED TO THEIR PROPER LOCATIONS.
- NOTICE:** DO NOT USE A CLEANING OR DE-LIMING AGENT THAT CONTAINS ANY SULFAMIC ACID OR ANY CHLORIDE, INCLUDING HYDROCHLORIC ACID. IF THE CHLORIDE CONTENT OF ANY PRODUCT IS UNCLEAR, CONSULT THE MANUFACTURER.

IMPORTANT - READ FIRST - IMPORTANT

- NOTICE:** DO NOT USE ANY DE-GREASER THAT CONTAINS POTASSIUM HYDROXIDE OR SODIUM HYDROXIDE OR THAT IS ALKALINE.
- WARNING:** USE OF ANY REPLACEMENT PARTS OTHER THAN THOSE SUPPLIED BY GROEN 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 BEFORE SERVICING. FAILURE TO DO SO CAN RESULT IN SERIOUS INJURY OR DEATH.

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References

UNDERWRITERS LABORATORIES, INC.
333 Pfingsten Road
Northbrook, IL 60062

NSF INTERNATIONAL
P.O Box 130140
789 N. Dixboro Road
Ann Arbor, MI 48105, USA

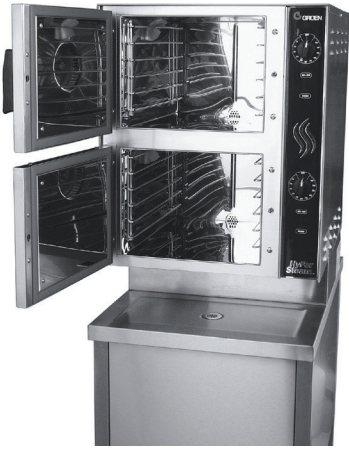
NFPA – NATIONAL FIRE PROTECTION ASSOCIATION
1 Batterymarch Park
Quincy, MA 02169

ANSI – AMERICAN NATIONAL STANDARDS INSTITUTE
1899 L Street, NW, 11th Floor
Washington, DC 20036

CSA INTERNATIONAL
178 Rexdale Blvd.
Toronto, ON
Canada M9W 1R3

ICC – INTERNATIONAL CODE COUNCIL
500 New Jersey Avenue, NW
6th Floor, Washington, DC 20001

Equipment Description



The HY-6E has two independent cavities, each with its own base-mounted steam generator.

Your Groen HY-6E HyPerSteam Convection Steamer is designed to give years of service. It has two stainless steel cavities (cooking chambers) which are served by twin, independent atmospheric steam generators which are electrically heated. A powerful blower circulates the steam in each cavity to increase heating efficiency.

Each cavity holds up to three steam table pans (12" x 20" x 2½"). An 18 gauge stainless steel case encloses the cavities, the steam generators and the control compartment that houses electrical components. Door hinges are reversible (the doors may be set to open from the left or right). Operating Controls are on the front panel.

HY-6E steamers are equipped with fully electronic controls and a button-activated, preprogrammed CLEAN cycle. The On-Off switch is a touch pad control, and the distinctive symbol for steam is integrated into the panel design.

The drain system includes a spray condenser, which helps keep steam from escaping down the condensate drain.

Inspection & Unpacking

CAUTION
SHIPPING STRAPS ARE UNDER TENSION
AND CAN SNAP BACK WHEN CUT.

CAUTION
THIS UNIT WEIGHS 550 POUNDS. GET HELP
AS NEEDED AND USE MATERIAL HANDLING
EQUIPMENT TO MOVE IT.

The HY-6E will be delivered completely assembled in a heavy crate attached to a skid. On receipt, inspect the crate carefully for exterior damage.

Carefully cut the straps around the crate and detach the crate from the skid. Be careful to avoid personal injury or equipment damage from staples which might be left in the crating.

Write down the model number, serial number and installation date. Keep this information for reference. Space for these entries is provided at the top of the Service Log in the back of this manual.

When starting installation, lift the unit straight up off the skid. Check packing materials to make sure loose parts such as the condensate drip tray are not discarded with the packing material.

Water Quality & Treatment

REDUCE SCALE PROBLEMS BY USING AND MAINTAINING A WATER SOFTENER FOR YOUR STEAMER!



It is essential that the steam generator be supplied with water that will not form scale at an unacceptable rate. The boiler was engineered to minimize scale, but its formation depends on water hardness and how much the unit is used.

In some areas of the United States the water is low enough in mineral content to avoid scale build-up. However, most water supplies carry heavy loads of minerals. This will form scale in the steam generator, reduce its steam output, and possibly cause premature component failure.

Your water utility or local water quality dealer can tell you about the minerals in your water. The water going to the steam generator should have:

1. Between 1 and 30 ppm total dissolved solids (TDS)
2. A pH (acidity rating) of 7.0 - 8.0
3. Total alkalinity less than 120 ppm
4. Silica less than 13 ppm
5. Chlorides less than 30 ppm
6. Sulfates less than 40 ppm
7. Chlorine less than 10 ppm

Please follow these simple precautions:

1. Do not rely on unproven water treatment equipment which is sold for scale prevention or scale removal. They frequently don't work. The best way to prevent scale is to supply the purest possible water.
2. If your water contains scale-forming minerals, as most water does, use a well maintained water treatment system. Whether an exchangeable softener cartridge or a regenerating system is chosen, a regular exchange system is essential.
3. Installing a water meter on supply line to the steamer will provide an accurate gauge of water use, and will help determine when to exchange cartridges or regenerate the softener. Using treated water will provide longer generator life, higher steam capacity, and reduce maintenance requirements.
4. If you notice a slowdown in steam production, check the steam generator for scale build-up. Heavy scale reduces the unit's ability to boil water, and can even cause heating elements in the steam generator to overheat and burn out.
5. Steamers are available with two separate water intakes:

one for the steam generator (treated water)
one for the spray condenser (untreated water).

The steam generator only uses 14 to 31% of a steamer's water. Since water treatment systems are typically sized by total GPH (gallons per hour), the second intake could reduce treatment requirements by up to 80%, resulting in significant savings.

Installation & Start-Up

WARNING

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

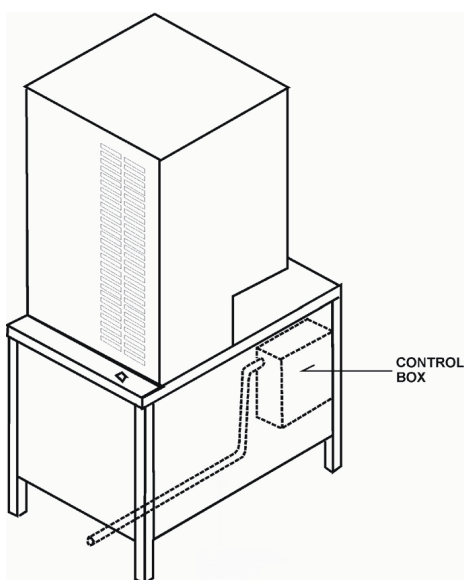
DO NOT INSTALL THE UNIT WITH THE RIGHT OR LEFT SIDE VENTS BLOCKED OR WITHIN 12 INCHES OF A HEAT SOURCE (SUCH AS A BRAISING PAN, DEEP FRYER, CHAR BROILER OR KETTLE). TO AVOID DRAINAGE PROBLEMS, LEVEL THE UNIT FRONT TO BACK.

CAUTION

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

WARNING

TO AVOID DAMAGE OR PERSONAL INJURY, FOLLOW THE ELECTRICAL SCHEMATIC EXACTLY WHEN CONNECTING THE UNIT.



ELECTRICAL SUPPLY CONNECTION

1. Panel Removal

Open the wiring and control panel by removing the screws on the right side panel. Slide the panel forward, and set it aside.

2. Supply Voltage

The unit must be operated at the rated nameplate voltage.

3. Phase Selection

Refer to heater schematics (Page 28) for wiring information.

4. Terminal Block

The terminal block for incoming power is located at the back of the control compartment. The ground terminal is located in the wiring compartment near the terminal block. The unit must have a separate ground wire for safe operation. Minimum size for the ground wire is 10 AWG.

5. Supply Wire

To determine the type of wire you need for the power supply, find the operating voltage and number of phases on the unit data plate. Refer to the table below or to the label on the unit's back for correct wire size and temperature rating. The equipment grounding wire must comply with the National Electrical Code (NEC) requirements. The schematic on the inside of the unit's right side cover gives directions for proper connection of the terminal block jumpers. The specified wire must be used, or the unit will not meet Underwriters Laboratories and NEC requirements. The knockout hole is sized for a 1 inch conduit fitting. Pass the wire up the back through this knockout hole to the front. Make the connections from the front.

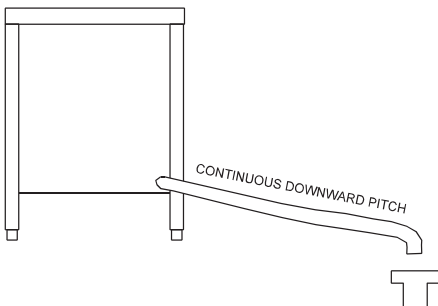
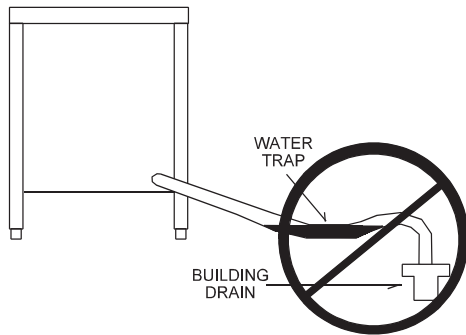
FIELD WIRING TABLE - USE COPPER WIRE ONLY - INSULATION RATING THHN (90°C)

VOLTAGE	WIRING REQUIRED	MAXIMUM CURRENT	POWER
208 1 PHASE	#2 AWG COPPER ONLY, AT LEAST 75°C #3 AWG COPPER ONLY, AT LEAST 90°C	92 AMP	19 KW
208 3 PHASE	#4 AWG COPPER ONLY, AT LEAST 75°C #6 AWG COPPER ONLY, AT LEAST 90°C	53 AMP	19 KW
240 1 PHASE	#3 AWG COPPER ONLY, AT LEAST 75°C #4 AWG COPPER ONLY, AT LEAST 90°C	80 AMP	19 KW
240 3 PHASE	#6 AWG COPPER ONLY, AT LEAST 75°C #8 AWG COPPER ONLY, AT LEAST 90°C	46 AMP	19 KW
480 3 PHASE	#10 AWG COPPER ONLY, AT LEAST 75°C #10 AWG COPPER ONLY, AT LEAST 90°C	23 AMP	19 KW
480 1 PHASE	#10 AWG COPPER ONLY, AT LEAST 75°C #10 AWG COPPER ONLY, AT LEAST 90°C	40 AMP	19 KW

Installation & Start-Up

WARNING
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 VERY HOT WATER.



Don't allow water traps in the hose.

6. Branch Circuit Protection

Each conductor must have over-current protection. Refer to the label on the back of the unit for the proper wire type and size. Connections to the unit must be watertight. We strongly recommend that the HY-6E Steamer have its own branch circuit protection. Current and power demands for the different units are as follows:

WATER CONNECTION(S)

Install a check valve to prevent back flow in the incoming cold water line, as required by local plumbing codes. Water pressure in the line should be between 30 and 60 PSIG and must deliver a flow rate of 1.5 to 3.0 gallons per minute. If pressure is above 60 PSIG, a pressure regulator will be needed.

A $\frac{3}{4}$ inch female NH connector (garden hose type) is used to attach the water supply to the inlet valve. Minimum inside diameter of the water feed line is $\frac{1}{2}$ inch. Use a washer in the hose connection. Do not allow the connection to leak, no matter how slowly. If you have the dual water connection option, put the treated water (softened) to the right intake (looking from the rear of the unit), and untreated water to the left. Connections for both are made as described above.

DRAIN CONNECTION

The HY-6E Steamer must be leveled front to back. A $1\frac{1}{2}$ inch (38mm) ID hose may be attached to the drain pipe by means of a hose.

Do NOT use plastic pipe. The drain must withstand boiling water.

Install the drain line with a constant downward pitch. Do not allow any water traps in the line. A trap can cause pressure to build up inside the cavity during steaming, which will make the door gasket leak. **IMPROPER CONNECTION OF THE DRAIN WILL VOID YOUR WARRANTY**

Operation

WARNING

ANY POTENTIAL USER OF THE EQUIPMENT
SHOULD BE TRAINED IN SAFE AND CORRECT
OPERATING PROCEDURES.

WARNING

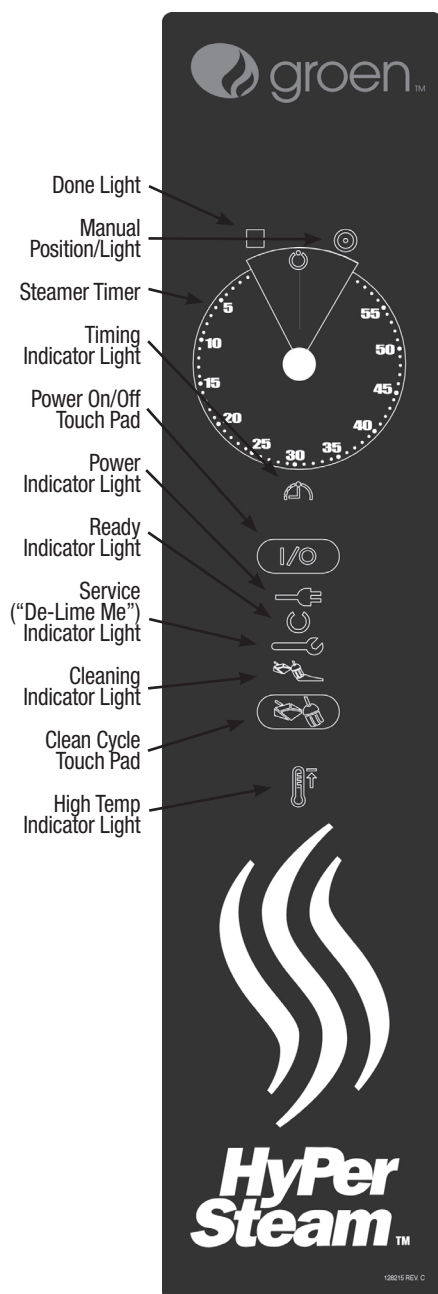
WHEN YOU OPEN THE DOOR, STAY AWAY
FROM THE STEAM COMING OUT OF THE
UNIT. THE STEAM CAN CAUSE BURNS.

CONTROLS

Operator controls are on the front right of the unit. The control panel has the following touch pads and indicator lights:

The timer is used in three ways:

1. The ON/OFF touch pad gets the HyPerSteam ready for use, or shuts it off.
2. The READY indicator light shows that the steam generator is at standby temperature and the cavity is hot enough to begin steaming.
3. When one probe is covered with lime scale or fails, the DELIME light flashes briefly every few seconds, but the unit will continue to operate. Delime the unit as soon as possible. The DELIME light will flash until power is removed from the unit, or the unit goes through a clean cycle.
4. If the problem continues, both probes may fail. Then the steamer stops working, and the SERVICE light is lit. If DELIMING/CLEANING does not correct, turn off the power and contact an Authorized Groen Service Representative for repair.
5. The DELIME indicator light is lit when the unit is operating in the cleaning mode.
6. The HI TEMP indicator light comes on when the steam generator is too hot. The unit will automatically shut off, and cannot be turned on again until the steam generator cools and the HI TEMP indicator light goes out.
7. The TIMING indicator light stays on when the timer is running.
8. The CLEAN touch pad is used to start the automatic 50 minute deliming cycle.
9. The timer is used in three ways:
 - a. In the OFF position the steam generator stays at a low boil or "holding" temperature.
 - b. When a cook time is set, the unit steams until the timer runs down to OFF. At that time steaming stops, a red light comes on and a beeper sounds.
 - c. With the timer turned to the ON position, the unit steams continuously. The green light stays lit. The steamer will not time down.



Operation

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



OPERATING PROCEDURE

1. Press the ON switch/pad for the steamer. The steam generator will fill, and heat until the READY light comes on. (About 10 minutes.)
2. Load food into pans in uniform layers. Pans should be filled to about the same levels, and be even on top.
3. Open the door and slide the pans onto the supports. If you will only be steaming one pan, put it in the middle position.
4. Close the door. With the READY indicator lit, take one of the following steps:
 - 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 then turn it off. A red light will come on and a beeper will sound. Steam production stops.
 - To steam continuously, turn the timer to the manual ON position. A green light will come on. The unit will continue steaming until you stop it by turning the timer to OFF. When steaming continuously **YOU MUST CONTROL STEAMING TIME.**
5. Open the door. Remove the pans from the steamer, using hot pads or oven mitts to protect your hands from the hot pans.
6. To shut down the unit, press the ON/OFF touch pad to OFF. The steam generator will automatically drain.

Cleaning

WARNING

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

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

DON'T MIX DE-LIMING AGENTS (ACID) WITH DE-GREASERS (ALKALI) ANYWHERE IN THE UNIT.

AVOID CONTACT WITH ANY CLEANERS, DE-LIMING AGENT OR DE-GREASER AS RECOMMENDED BY THE SUPPLIER. MANY ARE HARMFUL. READ THE WARNINGS AND FOLLOW THE DIRECTIONS!

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

DON'T OPERATE THE UNIT UNLESS THE TWO REMOVABLE INTERIOR PARTITIONS HAVE BEEN PUT BACK IN THEIR PROPER LOCATIONS.

DON'T USE ANY CLEANING OR DELIMING AGENT THAT CONTAINS ANY SULFAMIC 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 IMPLEMENT (SUCH AS A SPOON, SCRAPER OR WIRE BRUSH) THAT MIGHT SCRATCH THE SURFACE. SCRATCHES MAKE THE SURFACE HARD TO CLEAN AND PROVIDE PLACES FOR BACTERIA TO GROW. DO NOT USE STEEL WOOL, WHICH MAY LEAVE PARTICLES IMBEDDED IN THE SURFACE WHICH COULD EVENTUALLY CAUSE CORROSION AND PITTING.



To keep your HY-6E Steamer in proper working condition, use the following procedure to clean the unit. This regular cleaning will reduce the effort required to clean the steam generator and cavity.

SUGGESTED TOOLS

1. Mild detergent
2. Stainless steel exterior cleaner such as Zepper®
3. Steam generator de-liming agent, such as Groen Delimer Descaler. A liquid de-liming agent will be easier to use than crystals or powders. See the warning about chlorides.
4. De-greaser
5. Cloth or sponge
6. Plastic wool or a brush with soft bristles
7. Spray bottle
8. Measuring cup
9. Nylon pad
10. Towels
11. Plastic disposable gloves
12. Funnel

PROCEDURE

1. Outside

- a. Prepare a warm solution of the 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 open louver.
- b. To remove material which may be stuck to the unit, use plastic wool, 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 such as Zepper®.

2. Steam Generator and Cooking Chamber

The steamer cavity and steam generator may be cleaned separately. Regular de-liming, depending on your steamer usage and local water quality, must be done to enhance performance and prolong the life of your HyPerSteam™ convection steamer. Steamer must be turned off after every use to prevent lime scale buildup - do not run steamer continuously. When cleaning is scheduled, or the SERVICE light is on, follow the simple deliming instructions on the next page.

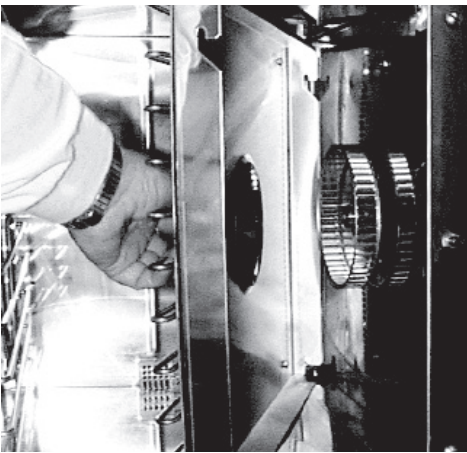
NOTE: ALWAYS USE HOT PADS OR MITTS WHEN HANDLING HOT STEAMER PANELS OR RACKS. DON'T ALLOW DE-LIMING AGENTS TO MIX WITH DEGREASERS.

RECOMMENDED TOOLS & CLEANERS:

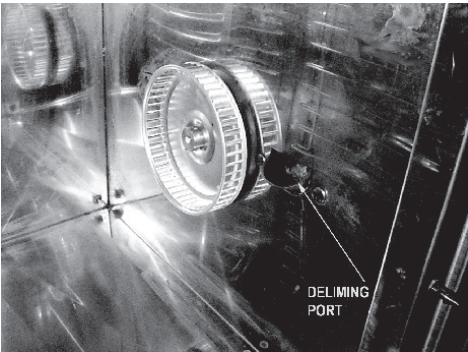
- Groen Delimer/Descaler (Part Number 114800). Do NOT use any product containing chlorides or sulfamic acid, including hydrochloric acid.
- Nylon scrub pad, cloth and/or sponge.

Cleaning

CAUTION
NEVER LEAVE A CHLORINE SANITIZER IN
CONTACT WITH STAINLESS STEEL
SURFACES FOR LONGER THAN 30
MINUTES. LONGER CONTACT CAN
CAUSE CORROSION.



Once the cavity has cooled, reach in and remove the fan baffle partition by lifting it upward and drawing it toward the center of the cavity.



Pour two cups of Groen de-liming solution into the de-liming port.

DELIMING STEPS (Use Touch Pad)

STEP 1

Press ON/OFF to turn steamer off. Open door.

STEP 2

Let cavity cool for 5 minutes or longer. While cool, wipe out cavity. Close door.

STEP 3

Press and hold CLEAN while also turning steamer on by pressing ON/OFF, until only DELIME and POWER lights remain on (all lights will turn on, then off, except DELIME and POWER).

STEP 4

After 5 minutes, beeper will beep rapidly, signaling you to add Groen Delimer/ Descaler. Door(s) must remain closed for entire delime cycle.

STEP 5

Pour 1 pint (2 cups) of delimer PER CAVITY into upper and /or lower deliming port(s) and then close port(s). Press CLEAN. Double-stacked unit cavities may be delimed together or separately.

STEP 6

Delime cycle will start, taking about 30 minutes. When delime cycle is complete, DELIME light will appear, DONE light will flash and beeper will beep.

STEP 7

Press ON/OFF to turn steamer off. Let cavity cool for 5 minutes or longer. Open door, wipe out inside of cavity and wipe door gasket. Close door.

STEP 8

To use steamer, press ON/OFF. When READY light appears, steamer is ready to use.

NOTES:

- If DELIME light flashes rapidly (5 times per second), press DELIME to restart delime cycle.
- If power outage occurs during deliming, delime cycle must be restarted. Press DELIME.
- For best performance, do not interrupt delime cycle. If delime cycle must be stopped, press ON/OFF to turn on. Set timer for 5 minutes. After beeper beeps, press ON/OFF to turn off. Let cavity cool for 5 minutes or longer, carefully open door(s) and wipe out cavity completely.

Maintenance

NOTE
THE UNIT CONTAINS NO FUSES THAT SHOULD BE REPLACED BY THE OPERATOR.

HY-6E Steamers are 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 Groen personnel or authorized Groen representatives should perform the work. Always supply water with a low mineral count that meets the standards outlined in the Water Conditioning section of this manual.

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

1. Check the door gasket. Replace if it is cracked or split.
2. Inspect the cooking chamber drain to be sure it is not blocked.
3. Adjust the latch pin to allow for changes that might occur as the gasket ages.
 - a. Loosen the lock nut at the base of the latch pin. Turn the latch pin ¼ turn clockwise, and re-tighten the lock nut.
 - b. After adjustment, run the unit to test for further steam leakage.
 - c. If there is still leakage, repeat the adjustment.
 - d. Continue adjusting the pin clockwise until the door fits tightly enough to prevent leakage.

Troubleshooting

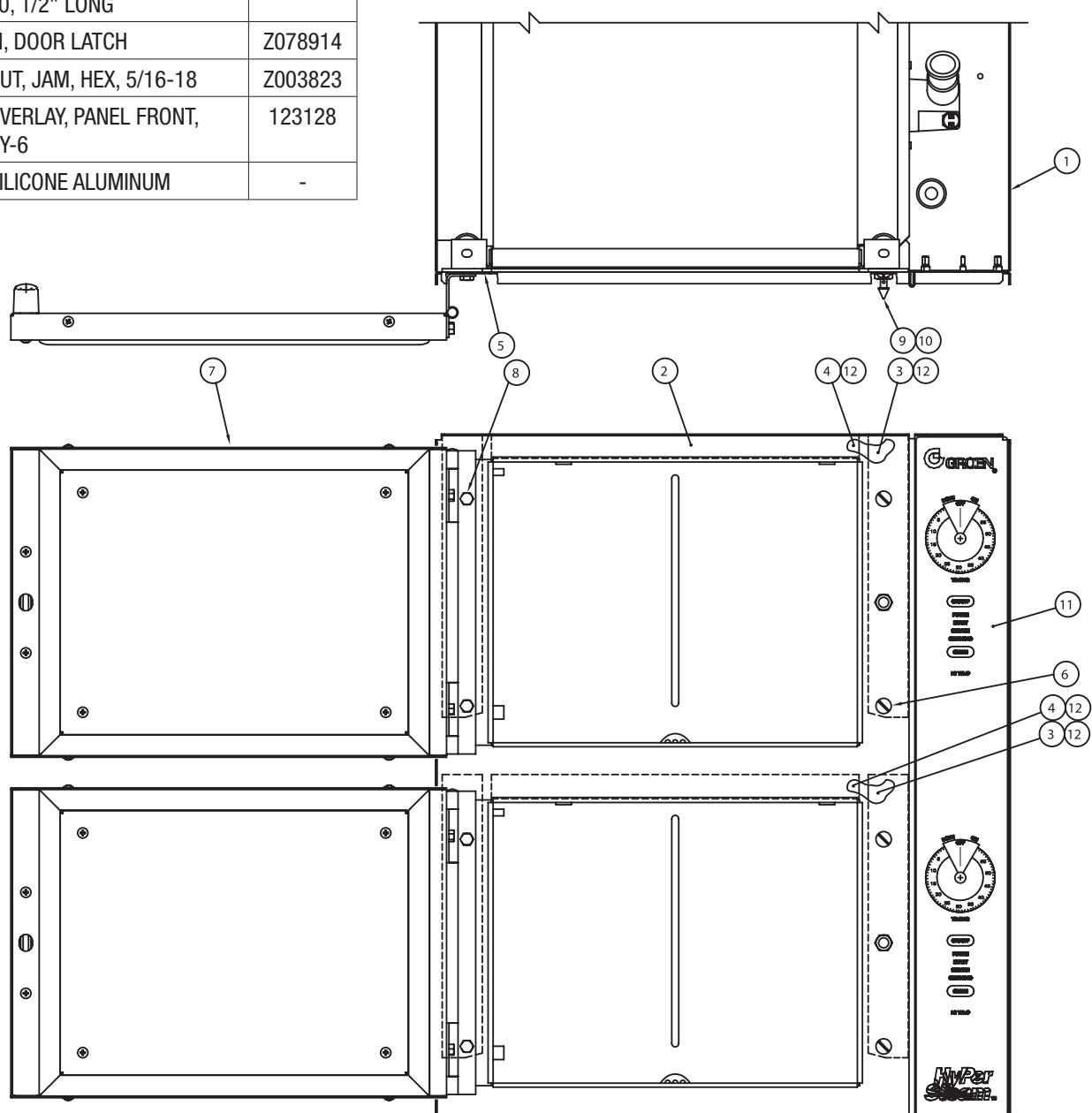
This Groen Steamer is designed to operate smoothly and efficiently if properly maintained. However, the following is a list of checks to make in the event of a problem. Wiring diagrams are furnished inside the service panel. If an item on the check list is marked with (X), it means that the work should be done by a factory-authorized service representative.

SYMPTOM	WHO	WHAT TO CHECK
Steam generator 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. Check for low water pressure (less than 30 PSI or 210 kPa) OR low water flow (less than 5.7 liters (1.5 gallons) per minute). e. Is the screen at the water connection clogged? f. Has the steam generator been delimed?
No steam.	User	a. Is the ON switch depressed? b. Is the water supply connected? c. Is the water turned on? d. Are steamer doors open? e. Is the steam generator limed up?
Service light comes on after four minutes.	User	a. Is the water supply connected? b. Is the water turned on? c. Has the unit been delimed? (Refer to Cleaning Section)
Excessive steam escaping from rear of unit.	User	a. Is the water spray hose kinked or obstructed?
	Authorized Service Rep Only	b. Is the water spray solenoid connected? X c. Is the drain properly vented? X
High Limit Indicator Light is "ON."	Authorized Service Rep Only	Reset the high limit thermostat after checking the cause of high temperature and correcting it. (X) (See Service Section)

Parts List

FRONT PANEL & DOOR ASSEMBLY

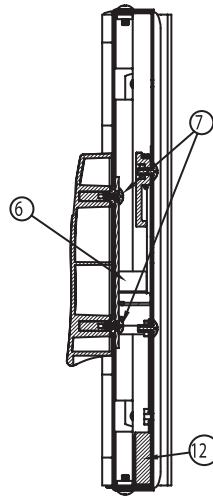
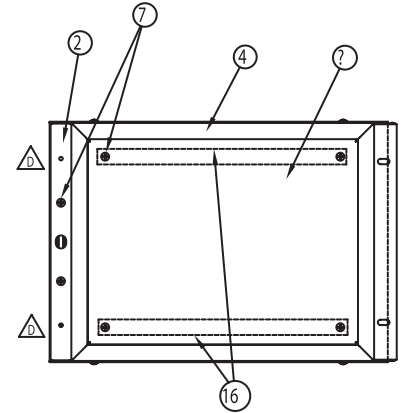
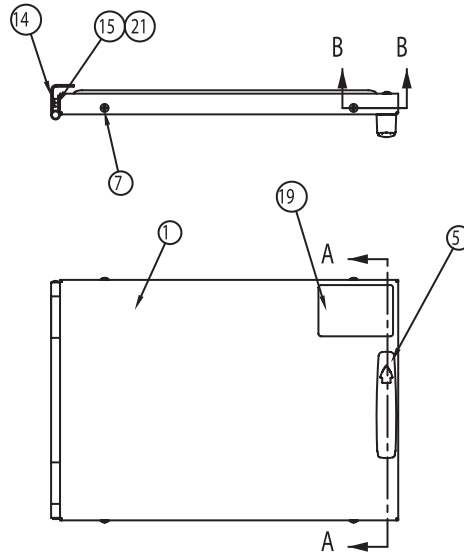
Key	Description	Part #
2	PANEL ASSEMBLY, FRONT AND RIGHT, HY-6	119803
3	INSULATION, FRONT, LEFT AND RIGHT, HY-6	Z096845
4	INSULATION, TOP, HY-6	Z096846
5	PANEL, FRONT, LEFT SIDE	Z094139
6	SCREW, TRUSS HEAD, 1/4-20, 1/2" LONG	Z012700
7	DOOR ASSEMBLY, HY-6	130858
8	SCREW, HEX HEAD CAP, 1/4-20, 1/2" LONG	Z005608
9	PI, DOOR LATCH	Z078914
10	NUT, JAM, HEX, 5/16-18	Z003823
11	OVERLAY, PANEL FRONT, HY-6	123128
12	SILICONE ALUMINUM	-



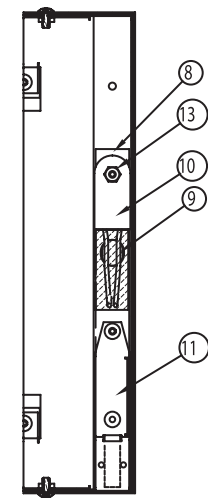
Parts List

DOOR ASSEMBLY

Key	Description	Part #
1	WELDMENT, FRONT PANEL, DOOR, 3-PAN	130859
2	WELDMENT, INSIDE PANEL, DOOR, 3-PAN	130861
3	PANEL, GASKET RETENTION	130863
4	GASKET, DOOR, 3-PAN	124849
5	HANDLE, DOOR	129723
6	CAM, DOOR UNLATCH LIFT	Z074252
7	SCREW, PHILLIPS HEAD, 8-32, 3/8" LONG	129732
8	SPACER, DOOR LATCH	130865
9	SPRING	Z078911
10	MANDREL, SPRING	130864
11	WELDMENT, MAGNET RETENTION	130866
12	MAGNET, DOOR	Z069754
13	NUT, HEX, 8-32	Z002632
14	HINGE, DOOR, 3-PAN	130868
15	SCREW, HEX HEAD CAP, 1/4-20, 1/2" LONG	Z005608
16	TAPE, SPACER	138320
17	COMPOUND, LUBRICATING	-
18	SEALANT, RED RTV #159	-
20	SILICONE, ALUMINUM	-
21	LOCTITE, #242 ANTI-VIBRATION	-



SECTION A-A
SCALE 1:2

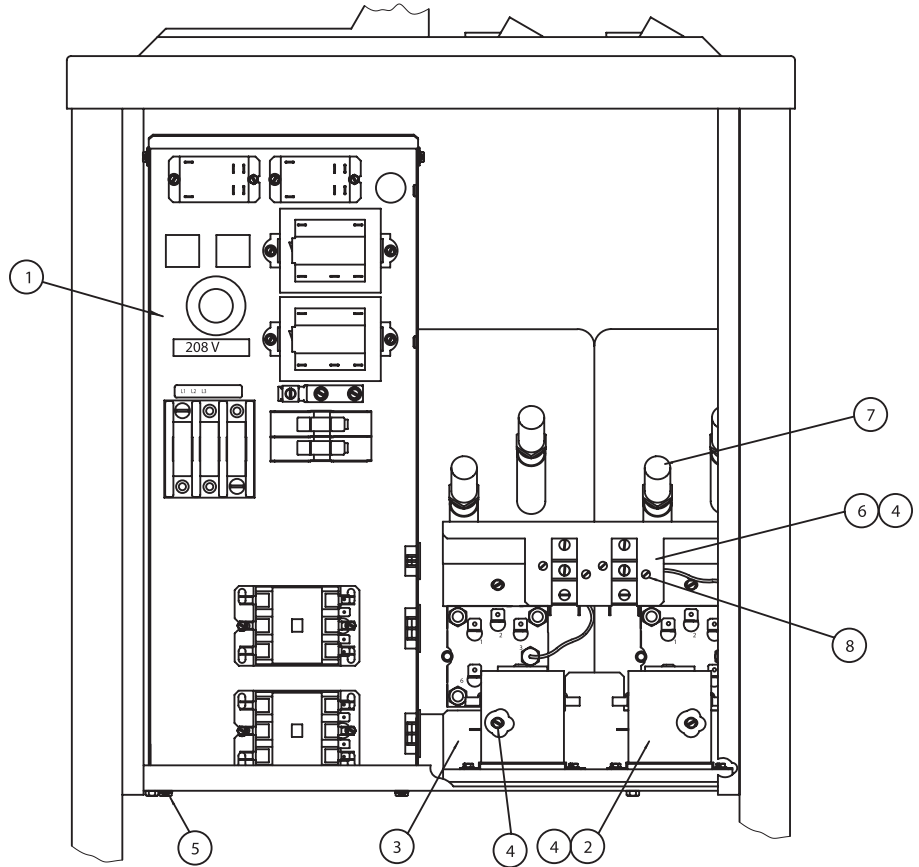


SECTION B-B
SCALE 1:2

Parts List

LOWER ELECTRICAL ASSEMBLY

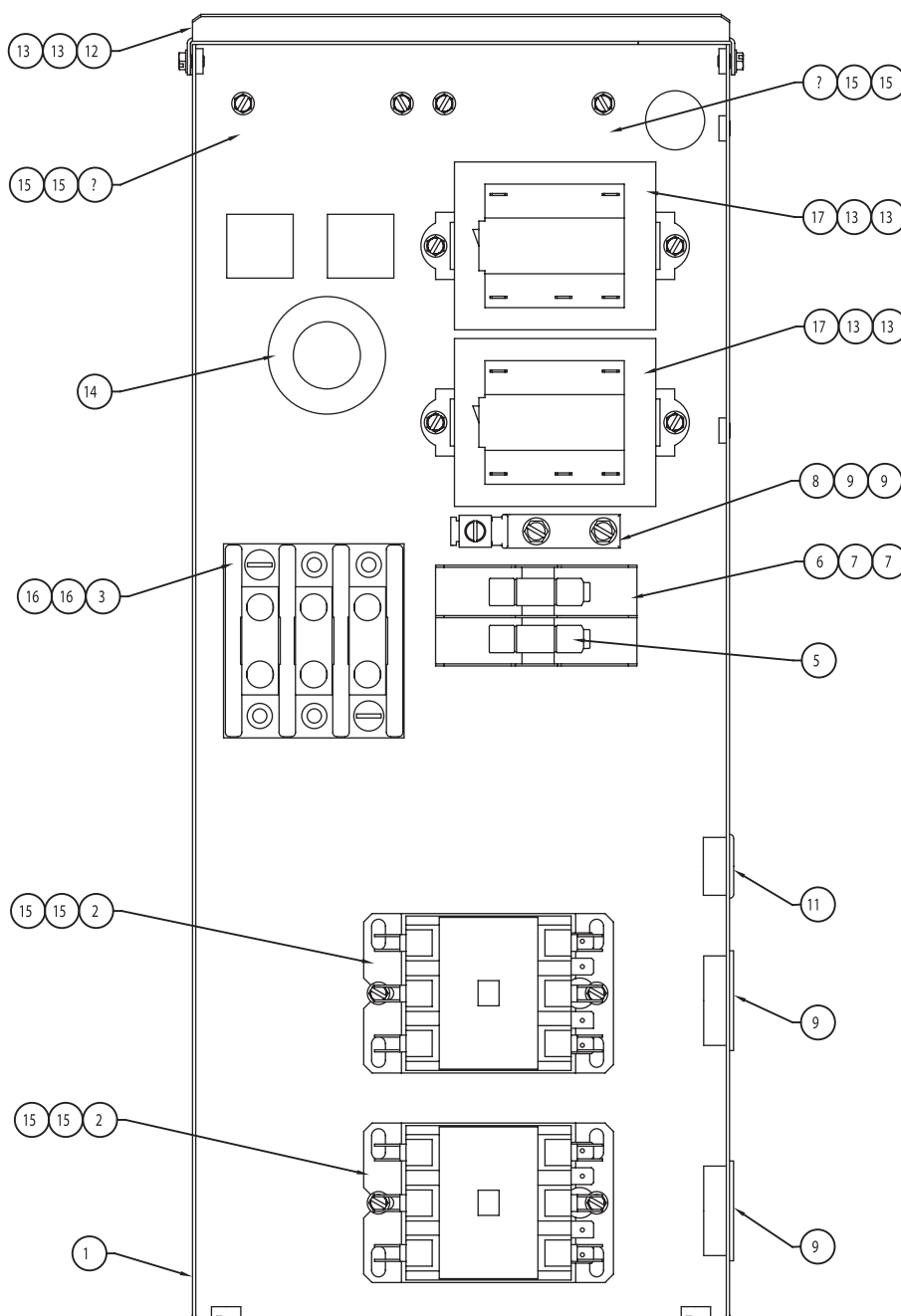
Key	Description	Part #
1	CHASSIS ASSEMBLY, ELECTRICAL, HY-6E	148577
2	CONTACTOR, 3 POLE, 24VAC, 30FLA	148102
3	BRACKET, CONTACTOR, HY-6E	148578
4	SCREW, SLOTTED, WASHER HEAD HEX CAP, 8-32, 1/4" LONG	Z074242
5	SCREW, SLOTTED, WASHER HEAD HEX CAP, 10-32, 3/8" LONG	Z069773
6	BRACKET	119894
7	BOOT, PLASTISOL	101143
8	SCREW, SELF TAPPING, PHILLIPS, 4-24, 1/4" LONG	Z072108
9	CLIP, LATCHING, WIRE FASTENER	100991



Parts List

ELECTRICAL CHASSIS ASSEMBLY

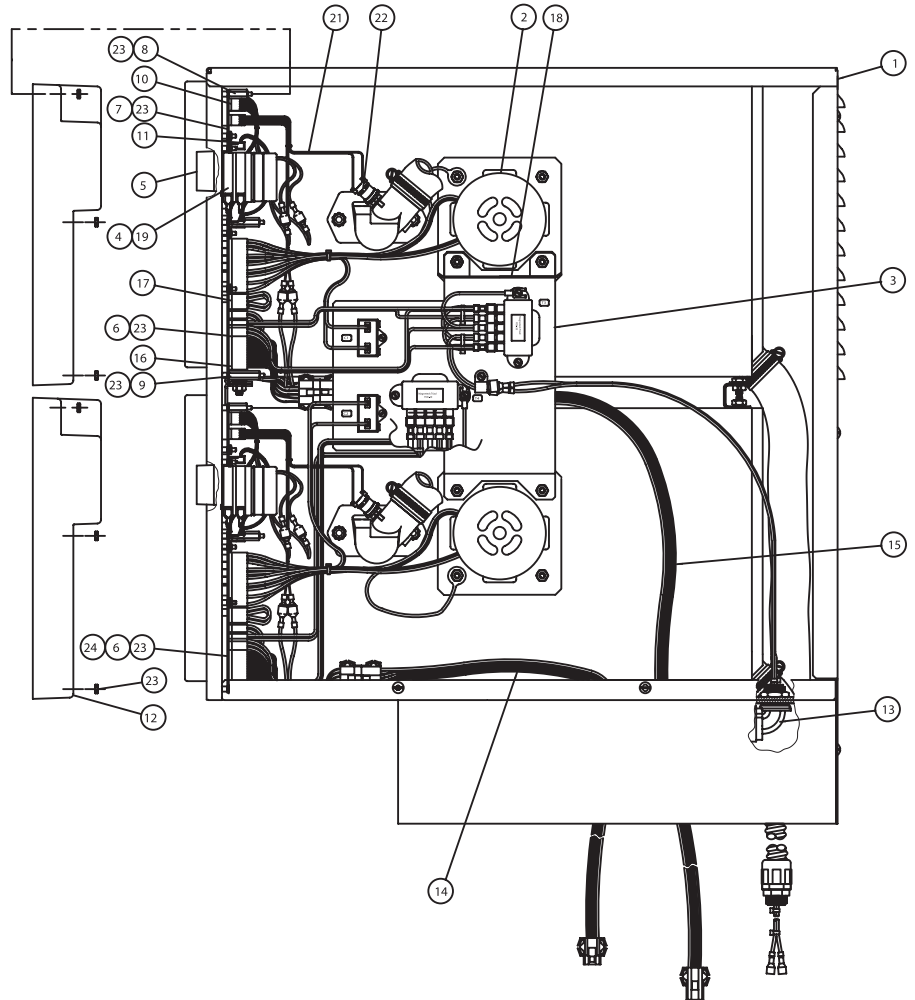
Key	Description	Part #
1	HOUSING, ELECTRONIC, HY-6E	148576
2	CONTACTOR, 3 POLE, 24VAC, 30FLA	148102
3	TERMINAL BLOCK, 3-POLE, 175A	Z002577
5	FUSE, 20AMP, BUSS KTKR20	Z071489
6	FUSE BLOCK, 2 POLE, CLASS CC	Z096809
7	SCREW, MACHINE, ROUND HEAD, 8-32, 1/2" LONG	Z009696
8	LUG, GROUND, 2 TO 8 AWG	106412
9	SCREW, SLOTTED, WASHER HEAD HEX CAP, 10-32, 1/4" LONG	Z072104
10	BUSHING, SNAP 1" ID	Z097015
11	BUSHING, SNAP, 11/16" ID	Z012864
12	LID, CHASSIS	119896
13	SCREW, SLOTTED, WASHER HEAD HEX CAP, 8-32, 1/4" LONG	Z074242
14	GROMMET, 1" ID, 1-3/8" OPENING	Z099985
15	SCREW, SLOTTED, WASHER HEAD HEX CAP, 8-32, 3/8" LONG	Z069789
16	SCREW, MACHINE, TRUSS HEAD, 10-32, 3/4" LONG	116100
18	RELAY, 12 VDC	119813
19	HARNESS, CONTACTOR BOX, HY-6E	148117
20	HARNESS, POWER, HY-6E	148118
21	HARNESS, AC, HY-6E	140560
21	LOCTITE, #242 ANTI-VIBRATION	-



Parts List

UPPER ELECTRICAL ASSEMBLY

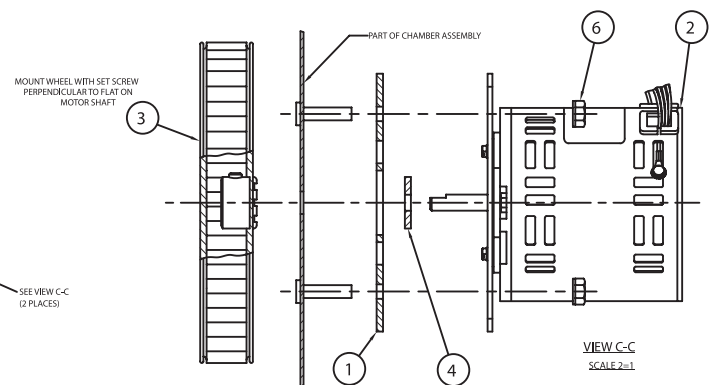
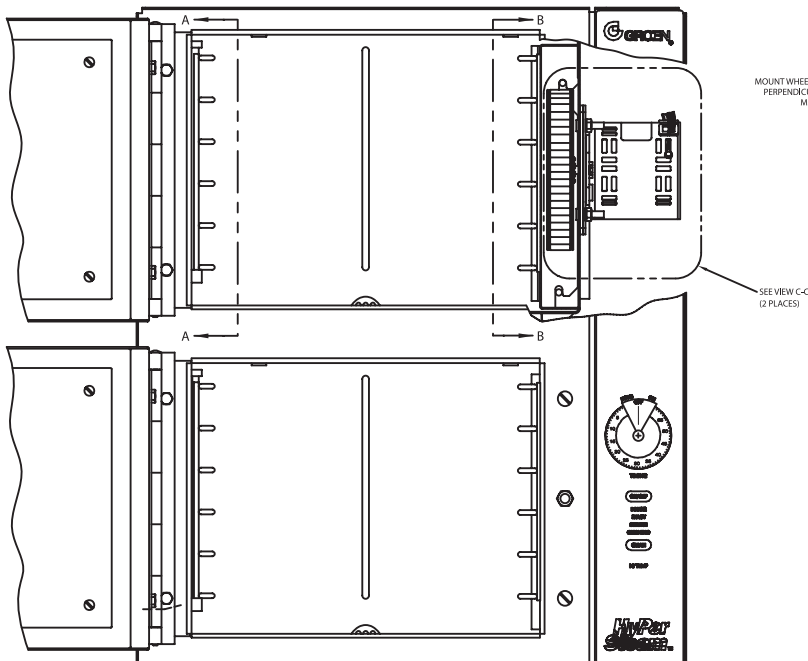
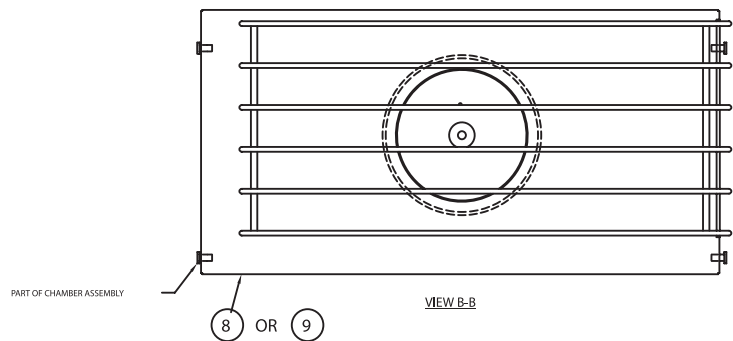
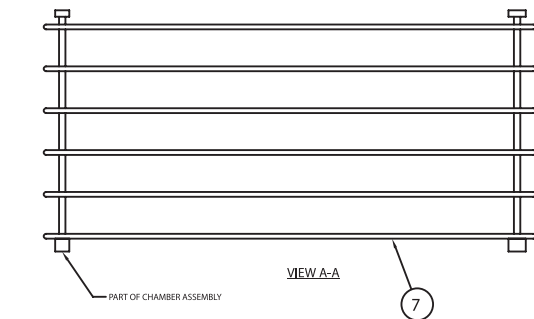
Key	Description	Part #
3	ASSEMBLY, TRANSFORMER/ CAPACITOR	141479
5	KNOB, TIMER	123100
6	ASSEMBLY, STEAMER CON- TROL BOARD	141082
7	ASSEMBLY, LIGHT & TIMER PC BOARD	137233
8	STANDOFF, 6-32, 3/4" LONG	119826
9	STANDOFF, 6-32, 1-1/4" LONG	119827
10	HARNESS, TIMER MOTOR	123120
11	HARNESS, JUMPER CON- TROL TO RIBBON CABLE	123122
12	COVER, CONTROL PANEL	143255
13	ASSEMBLY, CONDUIT, AC SUPPLY, HY-6E	140882
14	HARNESS, CONTROL, LOWER CAVITY	140562
15	HARNESS, CONTROL, UPPER CAVITY	140563
16	HARNESS, CONTROL BOARD	141084
17	HARNESS, JUMPER, VOLT- AGE SELECT	123124
18	DRIP SHIELD, MOTOR	119844
19	NUT, ROTARY SHAFT SEAL, 3/8-32	101145
21	HARNESS, DOOR SWITCH/ THERMOSTAT	119868
23	NUT, LOCK, NYLON INSERT, 6-32	119855



Parts List

BLOWER MOTOR & COVER ASSEMBLY

Key	Description	Part #
1	INSULATOR, MOTOR	Z094135
2	ASSEMBLY, MOTOR, BLOWER	146880
3	ASSEMBLY, WHEEL, BLOWER	Z096790
4	SEAL, MOTOR	Z096868
5	LUBRICANT, SHAFT SEAL	-
6	WIREFORM	NT1869
7	ASSEMBLY, BLOWER COVER	162905



Parts List

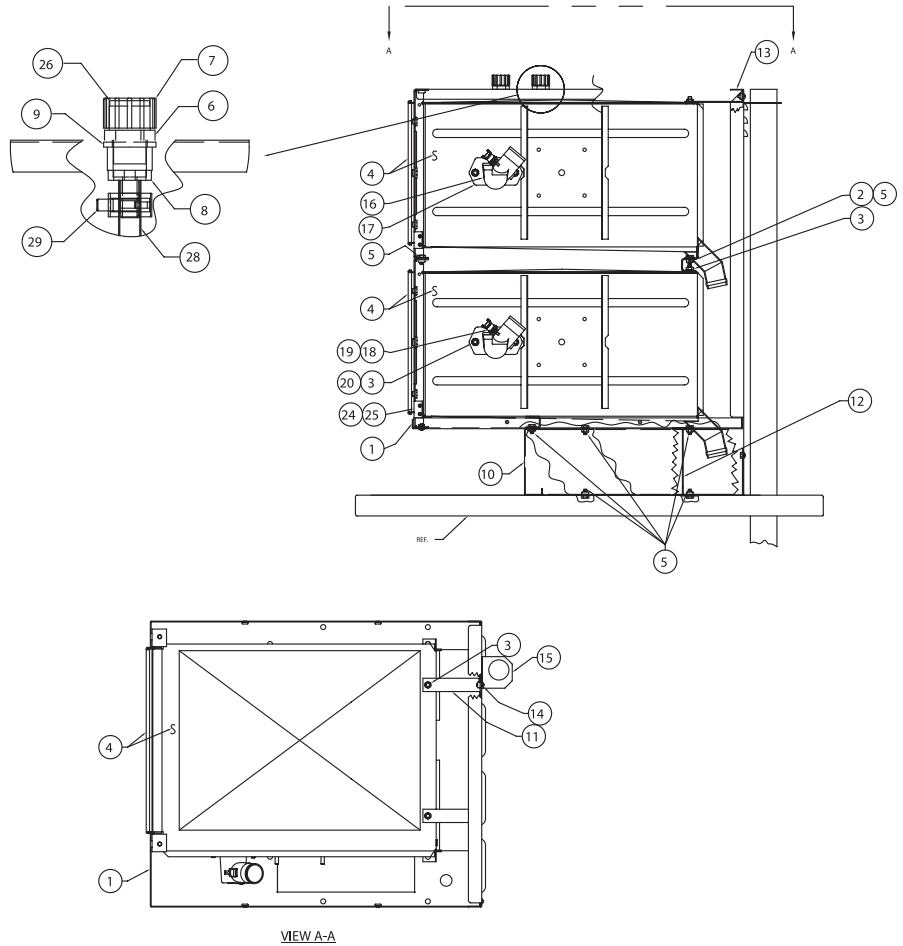
LOWER CABINET & STEAM GENERATOR ASSEMBLY

Key	Description	Part #
1	WELDMENT, CABINET, HY-6	125727
2	ASSEMBLY, STEAM GENERATOR	141481
3	TOP, CABINET	Z094198
-	RAIL, LOWER CENTER	Z094171
-	RAIL, LOWER REAR	Z094172
-	SCREW, HEX HEAD CAP, 1/4-20, 1/2" LONG	Z005608

Parts List

UPPER PLATFORM ASSEMBLY

Key	Description	Part #
1	BASE, STEAMER	Z094187
2	BRACKET, CAVITY SPACER, HY-6	126091
3	NUT, HEX SERRATED, 1/4-20	NT1101
4	WELDMENT, CAVITY ASSEMBLY, HY-6	Z096832
5	SCREW, HEX HEAD CAP, 1/4-20, 1/2" LONG	Z005608
6	ADAPTER, DELIME	142431
7	CAP, DELIME	142432
8	ADAPTER, 1/2" NPT TO 1/2" HOSE	142433
9	WASHER, 1" HOSE	142297
10	CRADLE, STEAMER	Z094185
11	BRACKET, SUPPORT, REAR COVER	Z094137
12	BRACE, BACK	Z094186
13	WELDMENT, REAR COVER	139940
14	SCREW, TRUSS HEAD, 10-32, 3/8" LONG	Z004173
15	BRACKET, VENT PIPE	Z096786
16	PORT, STEAM INLET	141336
17	GASKET, STEAM-IN MANIFOLD	Z099250
18	THERMOSTAT	Z088865
19	HEAT SINK COMPOUND	-
20	LOCTITE 222	-
21	INSULATION, CHAMBER	Z096738
22	TAPE, DUCT, 3" WIDE	Z042359
23	NUT, HEX KEPS, 10-32	Z071256
24	SWITCH, DOOR	Z096857
25	SCREW, SLOTTED, WASHER HEAD HEX CAP, 4-40, 1/4" LONG	Z096841
26	WASHER HOSE, 3/4"	122143
27	HOSE, FRONT DELIME PORT	143118
28	HOSE, BACK DELIME PORT	143119
29	CLAMP, CONSTANT TENSION, CTB-19	126095



Parts List

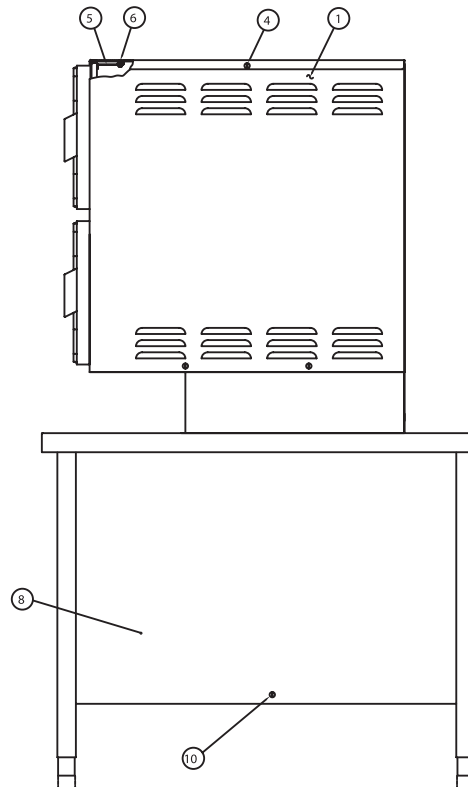
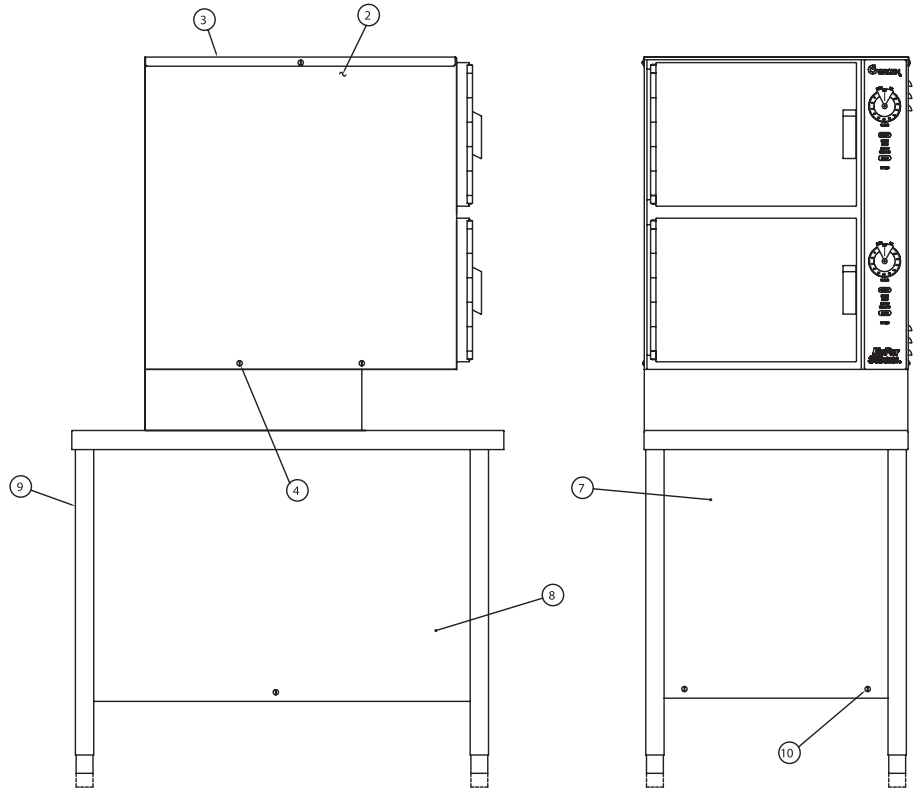
PLUMBING ASSEMBLY

Description	Part #
CLAMP, HOSE, WORM DRIVE	Z093482
CLAMP, CONSTANT TENSION, CTB-17	127523
CLAMP, CONSTANT TENSION, CTB-19	126095
CLAMP, CONSTANT TENSION, CTB-35	127525
CLAMP, CONSTANT TENSION, CTB-47	127526
CLAMP, HOSE, DOUBLE WIRE, DW-9.5	127527
ASSEMBLY, DRAIN FITTING	Z099943
HOSE, DRAIN, CLEAR PVC, 1/2 ID, 14" LONG	141465
ASSEMBLY, DRAIN MANIFOLD	140859
TUBE, DRAIN	Z092272
ELBOW, 1/2 NPT TO 1/2 BARB	100988
GASKET, TABLE DRAIN	Z099940
HOSE, CLEAR PVC, 3/8 ID, 27" LONG	Z099915
HOSE, CROSS OVER, RUBBER, BLACK, 3/8 ID, 4" LONG	141464
HOSE, CLEAR, PVC, REINFORCED, 3/8 ID, 21" LONG	Z096773
HOSE, CAVITY DRAIN, SANTOPRENE, 1-1/2 ID, 25-1/2" LONG	141456
HOSE, CAVITY DRAIN, SANTOPRENE, 1-1/2 ID, 35" LONG	141490
HOSE, EXTENSION, SANTOPRENE, 1-1/2 ID, 4" LONG	141455
NUT, FLANGED, 1 NPT	Z099939
REDUCER, WATER FLOW (0.125 ID)	112719
SCREW, HEX HEAD CAP, 1/4-20, 1/2" LONG	Z005608
SCREW, SLOTTED, WASHER HEAD HEX CAP, 10-32, 3/8" LONG	Z069773
SCREW, SLOTTED, WASHER HEAD HEX CAP, 8-32, 3/8" LONG	Z069789
HOSE, STEAM INLET, SANTOPRENE, 1-1/2 ID, 34" LONG	141492
HOSE, STEAM INLET, SANTOPRENE, 1-1/2 ID, 23" LONG	141493
TEE, 1/2 X 1/2 X 3/8 NPT	141426
TEE, 3/8 HOSE BARB	138432
HOSE, RUBBER, REINFORCED, 3/8 ID, 14 -1/4" LONG	Z096771
TUBE, STEAM, 90 DEG "L", 1-1/2" OD	106247
TUBING, CLEAR, SILICONE, 1/2 ID, 12" LONG	Z099911
TUBING, CLEAR, SILICONE, 1/2 ID, 8" LONG	Z099912
VALVE, SOLENOID, DRAIN, 1/2 ID TUBE	Z071234
PIPE, VENT	141346

Parts List

SHEET METAL ASSEMBLY

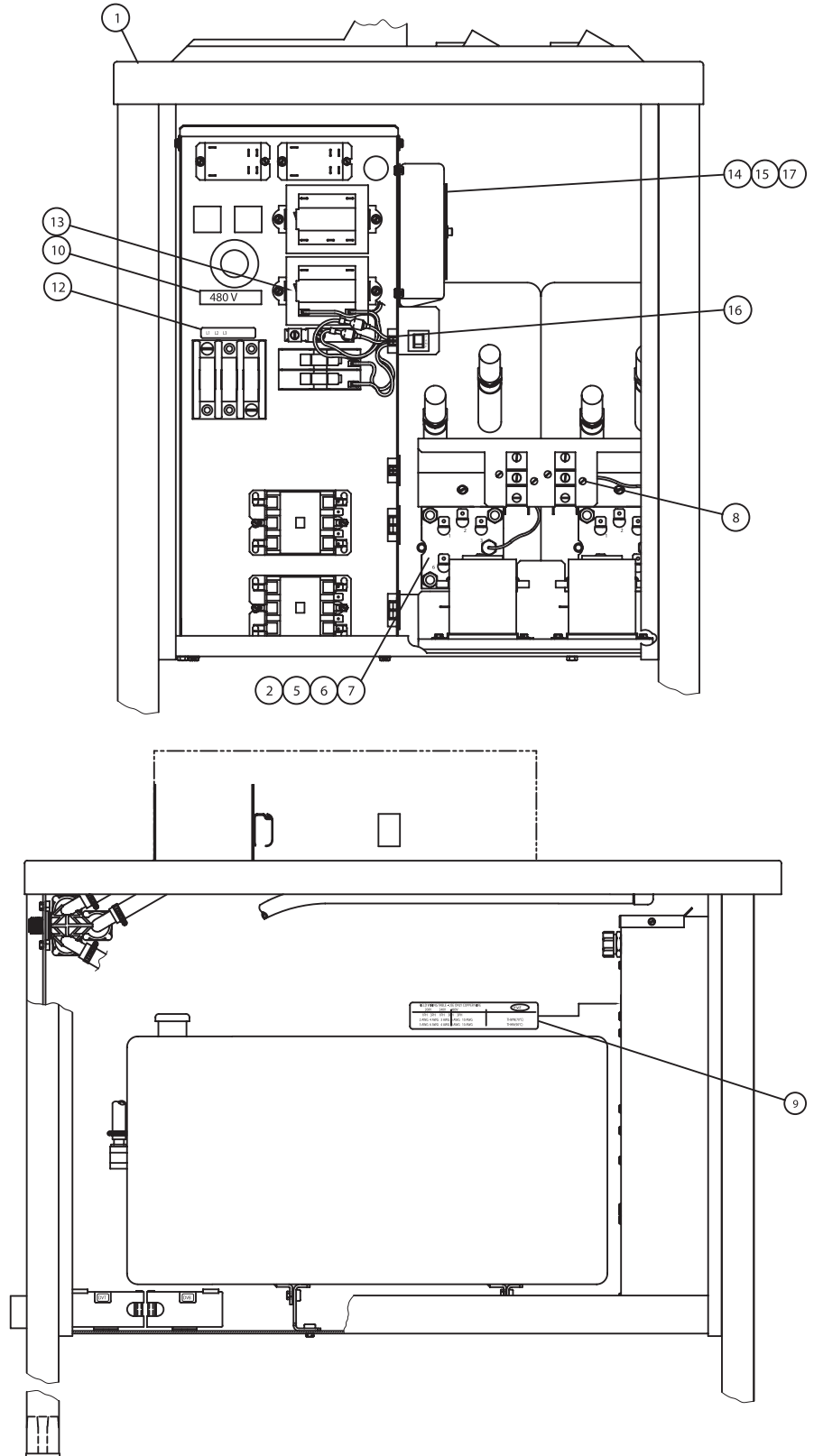
Key	Description	Part #
1	WELDMENT, RIGHT SIDE COVER	139941
2	WELDMENT, LEFT SIDE COVER	139942
3	ASSEMBLY, COVER, TOP, HY-6	143116
4	SCREW, TRUSS HEAD, 10-32, 3/8" LONG	Z004173
5	BRKT, TOP RETAINER	123156
6	SCREW, SLOTTED, WASHER HEAD HEX CAP, 8-32, 3/8" LONG	Z069789
7	WELDMENT, LOWER FRONT PANEL	139944
8	WELDMENT, LOWER SIDE PANEL	139943
9	WELDMENT, CABINET BACK COVER	141290
10	SCREW, MACHINE, ROUND HEAD, 10-32, 1" LONG	Z011031



Parts List

HEATER ASSEMBLIES

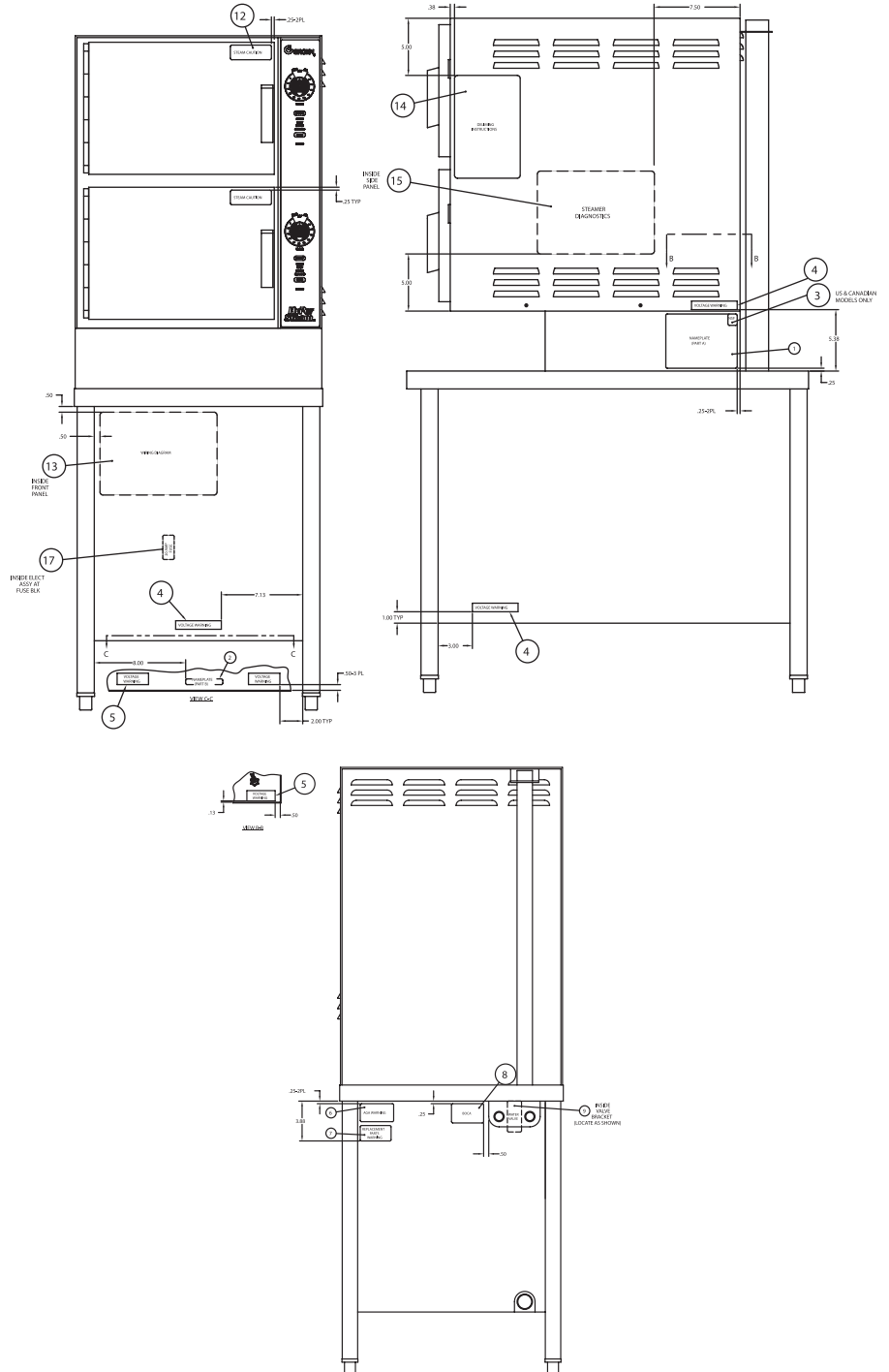
Key	Description	Part #
2	ASSEMBLY, HEATER ELEMENT, 208V	141496
2	ASSEMBLY, HEATER ELEMENT, 408V	141606
2	ASSEMBLY, HEATER ELEMENT, 480V	141607
5	GASKET, HEATER ELEMENT	Z042366
6	NUT, HEX, 5/16-18	Z005602
7	WASHER, LOCK, 5/16	Z005656
8	SCREW, SELF TAPPING, PHILLIPS, 4-24, 1/4" LONG	Z072108
9	LABEL, FIELD WIRING, HY-6E	100927
10	LABEL, 208 VOLT	Z008118D
10	LABEL, 240 VOLT	Z008118G
10	LABEL, 480 VOLT	Z008118J
11	TIMER, STEAMER	Z096826
12	LABEL, L1 L2 L3, THREE PHASE	Z008450M1
12	LABEL, THREE PHASE	Z008118L
13	TRANSFORMER, 75VAC, 208/240V/24	121716
13	TRANSFORMER, 75VA, 480V/24V	121717
14	ASSEMBLY, TORROID	119889
15	SCREW, SLOTTED, WASHER HEAD HEX CAP, 8-32, 1/4" LONG	Z074242
16	BUSHING, SNAP, 11/16 ID	Z012864
17	HARNESS, JUMPER, HY-6E	126036
-	HARNESS, LOWER HEATER, HY-6E	148565
-	HARNESS, UPPER HEATER, HY-6E	148566



Parts List

LABEL ASSEMBLY

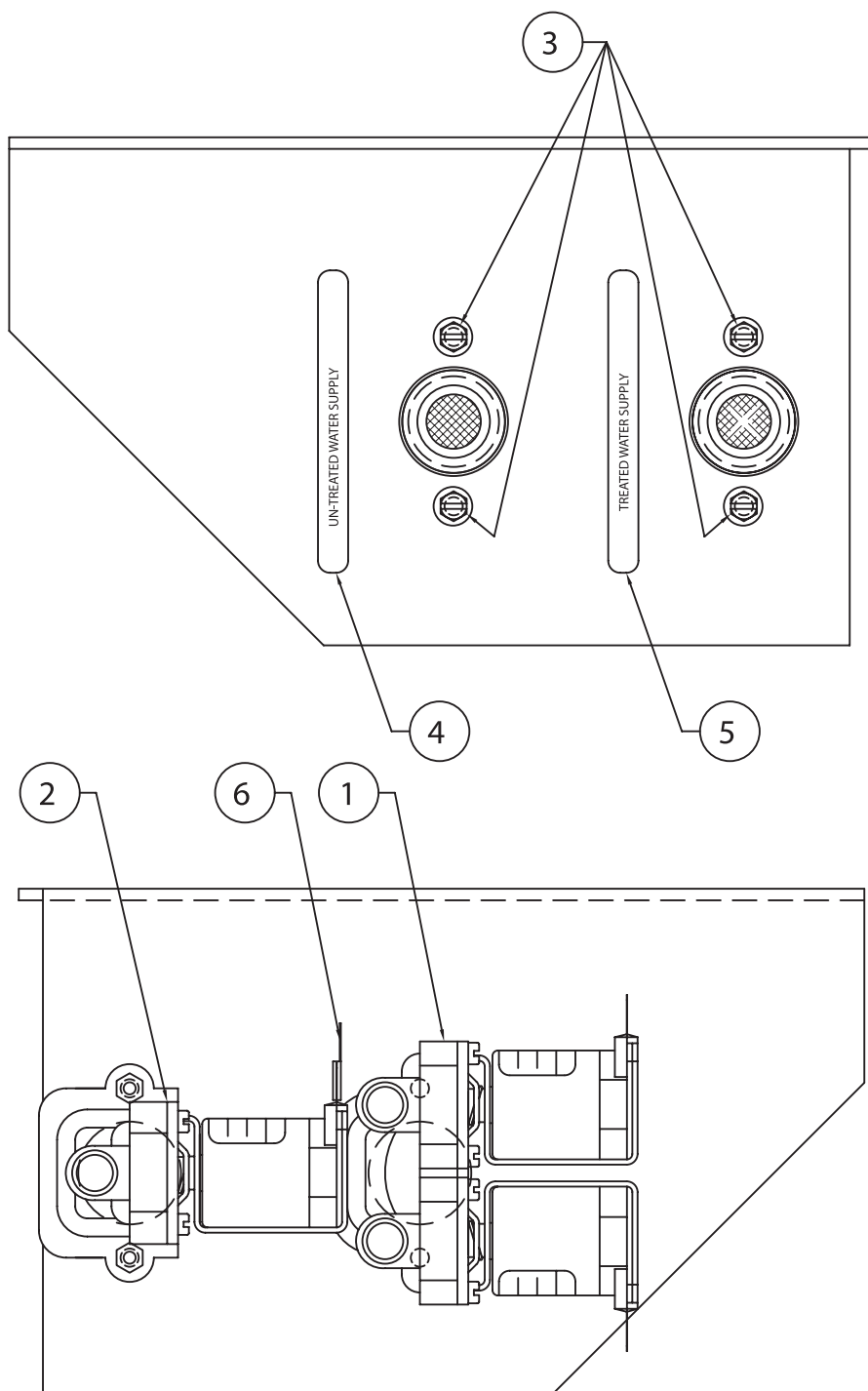
Key	Description	Part #
1	NAMEPLATE HY-6E STEAMER	Z094175
3	LABEL, NSF	Z066735
4	LABEL, HIGH VOLTAGE WARNING	Z072141
5	LABEL, WARNING, HIGH VOLTAGE	Z072140
6	LABEL, WARNING, IMPROPER INSTALLATION	Z099961
7	LABEL, WARRANTIES VOID	Z074816
8	LABEL, PLUMBING CODE ADVISORY	Z072118
9	LABEL, LOCATION, WATER VALVES	100985
-	LABLE, DELIME HOSE, BOTTOM	Z090782
-	LABEL, DELIME HOSE, TOP	Z090781
12	LABEL, CAUTION, HOTSURFACE/ESCAPING STEAM	122838
13	LABEL, WIRING DIAGRAM, HY-6E	148119
14	LABEL, DELIME INSTRUCTIONS	141612
15	LABEL, DIAGNOSTIC	141616
16	LABEL, DELIME PORT LOCATION	142423
17	LABEL, 20 AMP FUSE	100929



Parts List

DUAL WATER ASSEMBLY

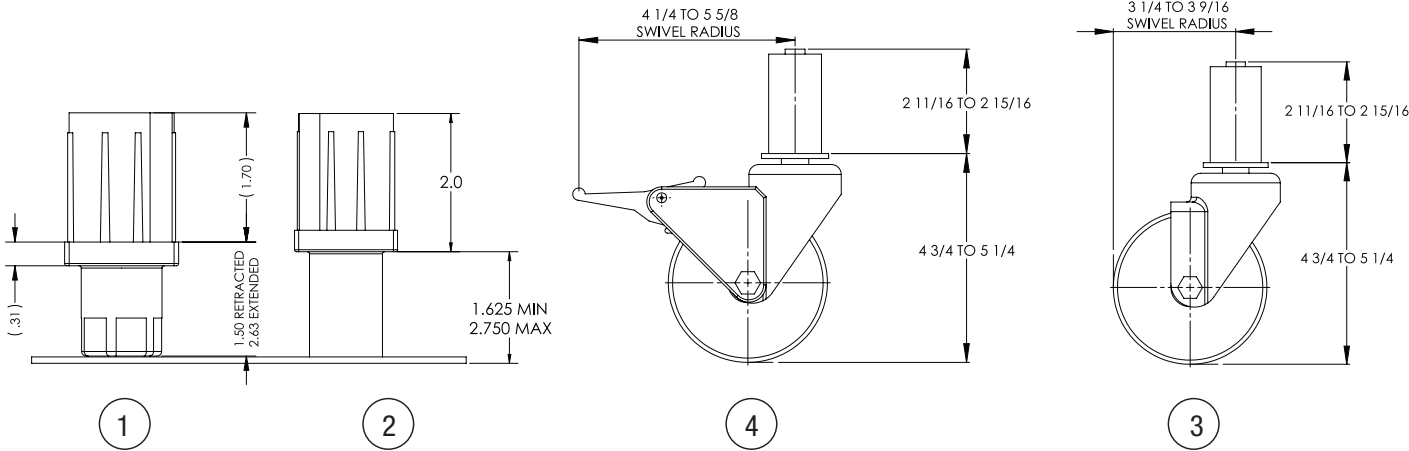
Key	Description	Part #
1	VALVE, WATER, 3/4 INLET, 3/8 HOSE DUAL OUTLET, 24V	Z071235
2	VALVE, WATER, 3/4 INLET, 3/8 HOSE SINGLE OUTLET, 24V	100934
3	SCREW, SLOTTED, WASHER HEAD HEX CAP, 8-32, 3/8" LONG	Z069789
4	LABEL, UN-TREATED WATER SUPPLY	Z095652
5	LABEL TREATED WATER SUPPLY	Z095651
6	ADAPTER, ELECTRICAL, 1/4 SPADE, SINGLE TO TWIN	Z006814



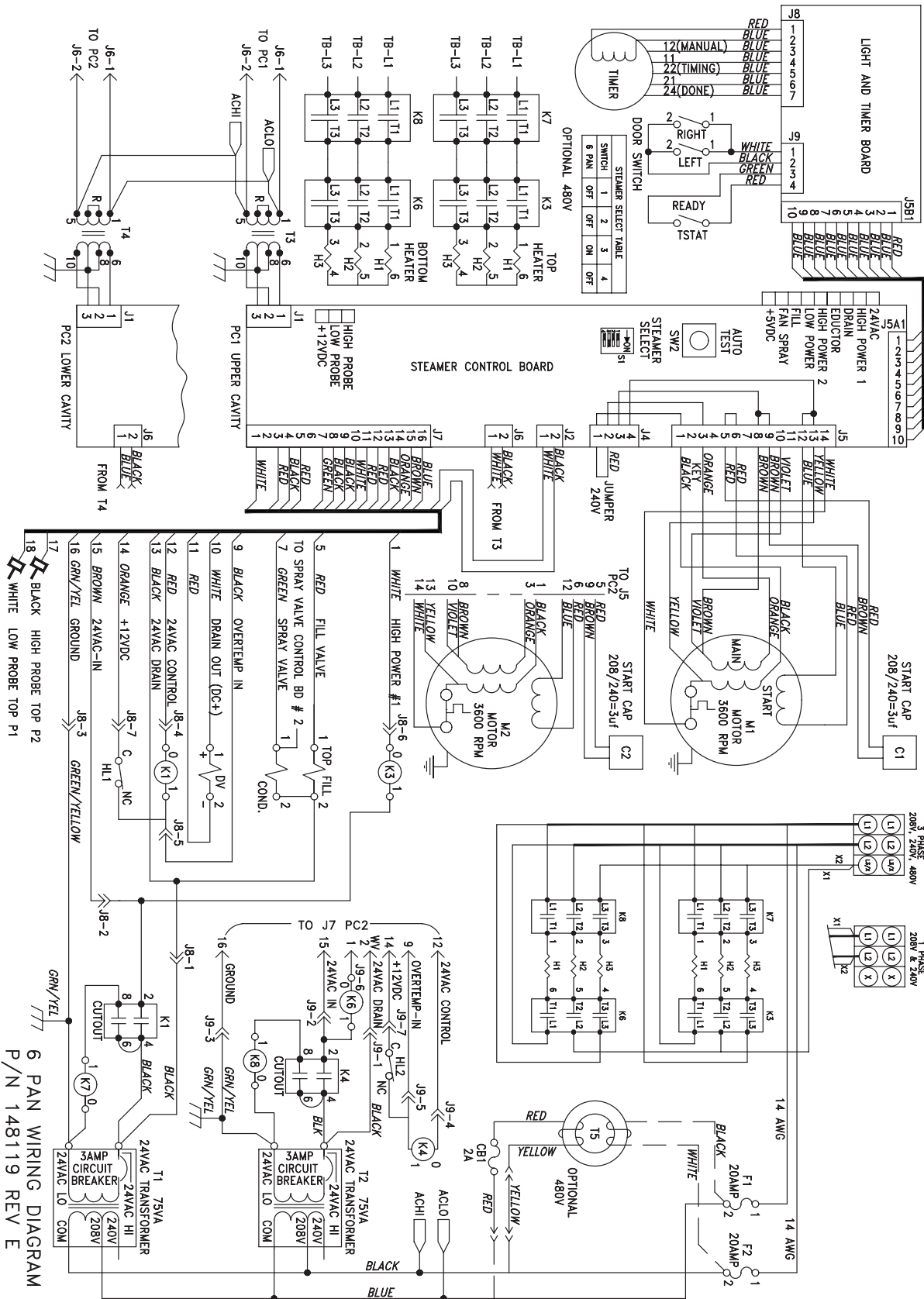
Parts List

FOOT & CASTER COMPONENTS

Key	Description	Part #
1	INSERT, FOOT, BULLET	Z042505
2	INCERT, FOOT, FLANGED	Z097615
3	INSERT, CASTER, 4" WHEEL, NON-LOCKING	140116
4	INSERT, CASTER, 4" WHEEL, LOCKING	140115
-	KIT, CASTER RESTRAINING, 72" CABLE	150518



Electrical Schematic



Service Log

Model No:	Purchased From:
Serial No:	Location:
Date Purchased:	Date Installed:
Purchase Order No:	For Service Call:

Date	Maintenance Performed	Performed By



1055 Mendell Davis Drive • Jackson MS 39272
888-994-7636 • 601-372-3903 • Fax 888-864-7636
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