#### IMPORTANTINFORMATION KEEP FOR OPERATOR **IMPORTANT INFORMATION**

# **OPERATOR MANUAL**

Part Number 148668 Rev. E

OM-HY-6E DOMESTIC

Model: HY-6E **HyPerSteam**<sup>™</sup> **Atmospheric Convection** Steamer (Re-Designed)

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





groen

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.

	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.
NOTICE:	DO NOT BLOCK THE RIGHT SIDE VENTS, AND DO NOT INSTALL WITHIN 12 INCHES OF A HEAT SOURCE SUCH AS A BRAISING PAN, DEEP FRYER, CHAR BROILER OR KETTLE.
NOTICE:	LEVEL THE UNIT FRONT TO BACK, OR PITCH IT SLIGHTLY TO THE REAR, TO AVOID DRAINAGE PROBLEMS.
CAUTION:	DO NOT LOCATE THE CABINET DIRECTLY OVER A FLOOR DRAIN OR SINK. HUMIDITY OR WATER FROM A DRAIN WILL DAMAGE ELECTRICAL PARTS OF A UNIT.
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 STEAM GENERATOR OR CAVITY DRAIN SCREEN MAY BE HAZARDOUS.
IMPORTANT:	IMPROPER DRAIN CONNECTION WILL VOID WARRANTY.
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 CHAMBERS 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 DELIMING AGENT MANUFACTURER.
WARNING:	DO NOT MIX DE-LIMING AGENTS (ACID) AND DE-GREASERS (ALKALI) IN THE STEAM GENERATOR OR ON THE COOKING CHAMBER WALLS.
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 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.
NOTICE:	USE NO 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 CAUSE BODILY INJURY TO THE OPERATOR AND DAMAGE THE EQUIPMENT. SERVICE PERFORMED 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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# **Equipment Description**

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  $2\frac{1}{2}$ "). 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.



The HY-6E has two independent cavities, each with its own base-mounted steam generator. (New model shown)

# Water Conditioning

It is essential to supply the steam generator with water that will not form scale or cause corrosion. Even though the steam generator is engineered to minimize scale formation and the effects of corrosion, their development depends on the quality of your water and the number of hours per day you operate the equipment.

Most water supplies are full of minerals and chemicals which are not suitable for use in a steam generator.

Water quality varies from state to state and city to city. It is necessary that you know and understand the quality of the water you are using. Your water utility can tell you about the minerals and chemicals in your water. The water going to the steam generator should be within these guidelines

Water Pressure	30-60 psi
PH	7 to 9
Hardness	less than 60 ppm
TDS	30 to 60 ppm
Chlorine and Chloramine	less than 0.1 ppm
Total Chloride	less than 30 ppm
Silica	less than 12 ppm
Undissolved Solids	less than 5 microns

- Do not rely on unproven water treatments which are sold for scale prevention or scale removal. They don't always work. The best way to prevent scale is to supply the purest possible water (30 - 60 ppm TDS).
- 2. If your water contains scale-forming minerals, as most water does, use a well-maintained water softener. Whether an exchangeable softener cartridge or a regenerating system is chosen, a regular exchange schedule is essential.
- Installing a water meter between the softener and the steamer will provide an accurate gauge of water use, and will help determine when to exchange cartridges or regenerate the softener. Using a water softener will provide longer generator life, higher steam capacity, and reduce maintenance requirements.
- 4. If you notice a slowdown in steam production, have the unit checked 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.



# **Inspection and Unpacking**

Your HY-6E HyPerSteam will be delivered completely assembled in a heavy shipping carton and attached to a skid. On receipt, inspect the carton carefully for exterior damage.

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

Carefully cut the straps around the carton and detach the sides of the carton from the skid. Be careful to avoid personal injury. Strap edges may be very sharp, particularly where cut.

Write down the model number, serial number and installation date. Space for these entries is provided in the Service Log at the back of this manual. Keep the manual near the equipment for reference and update as needed.

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

When installing, use material handling equipment to lift the unit straight up from the skid. Check packing materials for any loose parts.



# Installation and 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 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.

#### 1. Electrical Supply Connection

A. Access for Connection

Panel Removal

Open the wiring and control panel by removing screws from the front panel. Lift the panel, and swing its bottom toward you. Set the panel aside.

B. Supply Voltage

The unit must be operated at the rated nameplate voltage. A temporary fluctuation of plus or minus 10 percent is acceptable.

C. Phase Selection

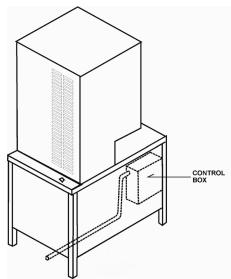
Refer to the steamer schematic (at the back of this manual) for wiring information.

D. 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 next to the terminal block. The unit must have a separate ground wire for safe operation. Minimum size for the ground wire is 10 AWG.

E. 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 provided on the next page or to the label on the unit's back for the correct wire size and insulation temperature rating. The "Electrical Supply Connection" label inside the unit gives directions for proper connection of the terminal block jumpers. The wire specified has to be used, or the unit will not meet Underwriters Laboratories and National Electrical Code requirements.



The knockout hole is sized for a one inch conduit fitting. Pass the wire up the back through this knockout hole to the front. Make the connections from the front.



#### WARNING

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

	ELECTRICAL SUPPLY CONNECTIONS				
Volt age	Phase	Wiring Required	Maximum Current	Power	
208	1	#2 AWG copper only, at least 75℃ #3 AWG copper only, at least 90℃	92 AMP	19 Kw	
208	3	#4 AWG copper only, at least 75°C #6 AWG copper only, at least 90°C	53 AMP	19 Kw	
240	1	#3 AWG copper only, at least 75°C #4 AWG copper only, at least 90°C	80 AMP	19 Kw	
240	3	#6 AWG copper only, at least 75°C #8 AWG copper only, at least 90°C	46 AMP	19 Kw	
480	3	#10 AWG copper only, at least 75°C #10 AWG copper only, at least 90°C	23 AMP	19 Kw	
480	1	#10 AWG copper only, at least 75°C #10 AWG copper only, at least 90°C	40 AMP	19 Kw	

#### F. 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:

#### 2. 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 (210 and 420 kPa). If pressure is above 60 PSIG, a pressure regulator will be needed.

A <sup>3</sup>/<sub>4</sub> inch NH connector (garden hose type) is used to attach the water supply to the water inlet valve. The minimum water feed line diameter is <sup>1</sup>/<sub>2</sub> inch (13mm). Use a washer in the hose connection. Do not allow the connection to leak, no matter how slow it may be.

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.

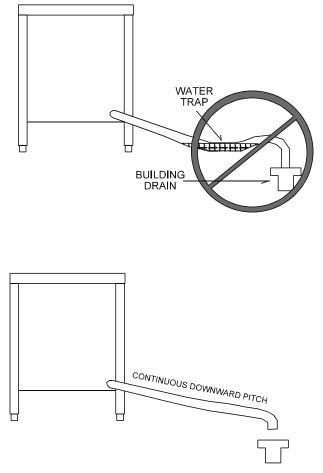
#### **Drain Connection**

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



Don't allow water traps in the hose.

# Operation

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

### A. Controls

Operator controls are on the front right of the unit.

The HY-6E and HY-3E control panels has the following touch pads and indicator lights:

- ! The ON/OFF touch pad gets the HyPerSteam ready for use, or shuts it off.
- ! The READY indicator light shows that the steam generator is at standby temperature and the cavity is hot enough to begin steaming.
- ! The DELIME indicator light is lit when the unit is operating in the cleaning mode.
- ! The SERVICE indicator light shows when the water level probes have stopped working, and need to be cleaned (normally an indication of lime deposits).

When one probe fails, the SERVICE light flashes briefly every few seconds, but the unit will continue to operate. De-lime the unit as soon as possible.

If the problem continues, both probes may fail. Then the steamer stops working, the light will flash repeatedly and the beeper will sound. At this point you must turn off the power and contact an Authorized Groen Service Representative for repair.

! 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.

- ! The TIMING indicator light stays on when the timer is running.
- ! The CLEAN touch pad is used to start the automatic 50 minute cleaning cycle.

The ON/OFF pad readies the HyPerSteam for use or shuts it off. The READY light shows the steam generator is at standby temperature and the cavity is

hot enough to start steaming.

The timer is used in three ways:

- 1 In the OFF position the steam generator stays at a low boil or "holding" temperature.
- 2 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.
- 3 With the timer turned to the ON position, the unit steams continuously. The green light stays lit. The steamer will **not** time down.

### B. Operating Procedure

- Press the ON/OFF touch pad for the steamer. The steam generator will fill, and heat until the READY light comes on. (Aprox. 10 minutes.)
- Load food into pans in uniform layers. Pans should be filled to about the same levels, and should 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.
  - If you want 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.



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

- 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

VOLTAGE

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

#### A. Suggested Tools

- 1. Mild detergent
- 2. Stainless steel exterior cleaner such as Zepper®
- Steam generator de-liming agent, such as Groen Delimer Descaler (P/N 114800), or an equivalent. A liquid de-liming agent will be easier to use than crystals or powders. See the warning about chlorides, below
- 4. De-greaser, such as EncompasS®, Malone 34®, Puritan Puribrute®, or Con-Lie®
- 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
- B. 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®.





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 FAN BAFFLE PARTITIONS HAVE BEEN PUT BACK IN THEIR PROPER LOCATIONS.

DON'T USE ANY CLEANING OR DE-LIMING AGENT THAT CONTAINS ANY SULFAMIC AGENT OR ANY CHLORIDE, INCLUDING HYDROCHLORIC ACID (HCI). 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.

#### 2. Steam Generator and Cooking Chamber

Regular deliming, depending on your steamer usage and local water quality, must be done to enhance performance and prolong the life of your HyPerSteam<sup>™</sup> convection steamer. Steamer must be turned off after every use to prevent lime scale buildup - do not run steamer continuously.

#### ALWAYS USE HOT PADS OR MITTS WHEN HANDLING HOT STEAMER PANELS OR RACKS.

#### **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

#### DELIMING STEPS HY-6E (Use Touch Pad):

- 1. Press ON/OFF to turn off. Open door(s).
- Let cavity cool for 5 minutes or longer. While cool, wipe out cavity. Drain holes at rear of cavity must be clear of debris. Close door(s).
- 3. Press and hold CLEAN while turning steamer on pressing ON/OFF, until only DELIME and POWER light remain on (all lights will turn on, then off, except DELIME and POWER.
- After 5 minutes, beeper will beep rapidly, signaling you to add Groen Delimer/Descaler. Door(s) must remain closed for entire delime cycle.
- Pour 1 pint (2 cups) of delimer per cavity into upper and/or lower delimer ports(s). Press CLEAN. Double -stacked unit cavities may be delimed together or separately.

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







Deliming Port

# Maintenance

The HY-6E 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 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:

- a, Check the door gasket. Replace if it is cracked or split.
- b. Inspect the cooking chamber drain to be sure it is not blocked.

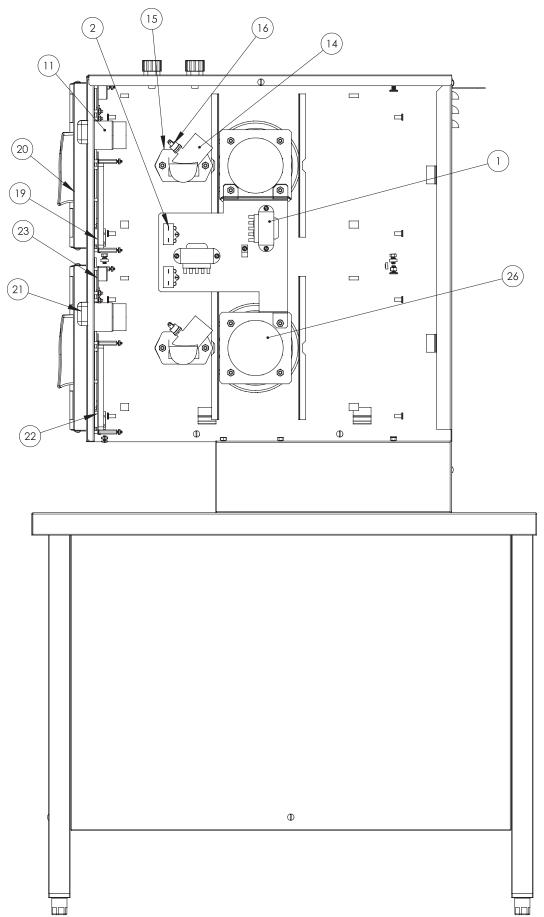
- c. Adjust the door latch pin to allow for changes that might occur as the gasket ages.
  - ! Loosen the lock nut at the base of the latch pin. Turn the latch pin ¼ turn clockwise, and re-tighten the lock nut.
  - ! After adjustment, run the unit to test for further steam leakage.
  - ! If there is still leakage, repeat the adjustment.
  - ! Continue adjusting the pin clockwise until the door fits tightly enough to prevent leakage.

# Troubleshooting

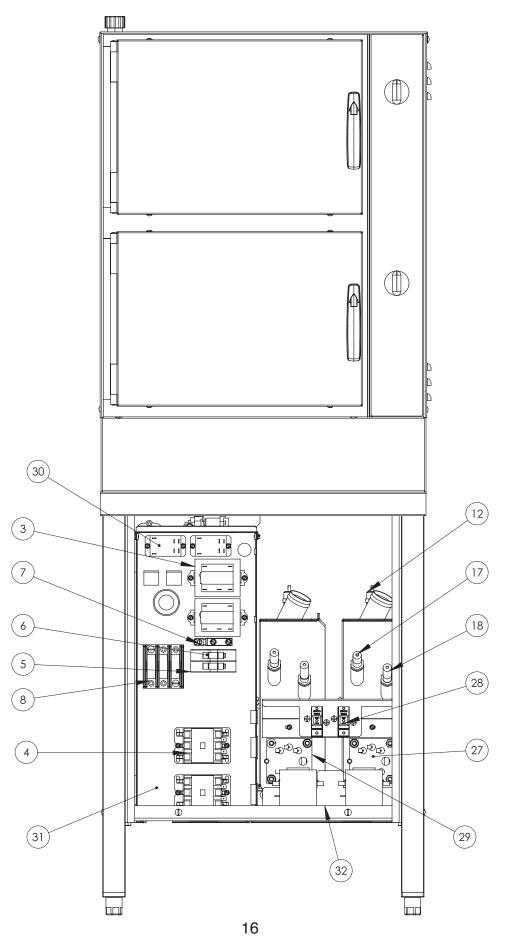
This Groen Steamer is designed to operate smoothly and efficiently if properly maintained. However, the following is a list of checks to make in the event of a problem. Wiring diagrams are furnished inside the service panel. If an item on the check list is marked with (X), it means that the work should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

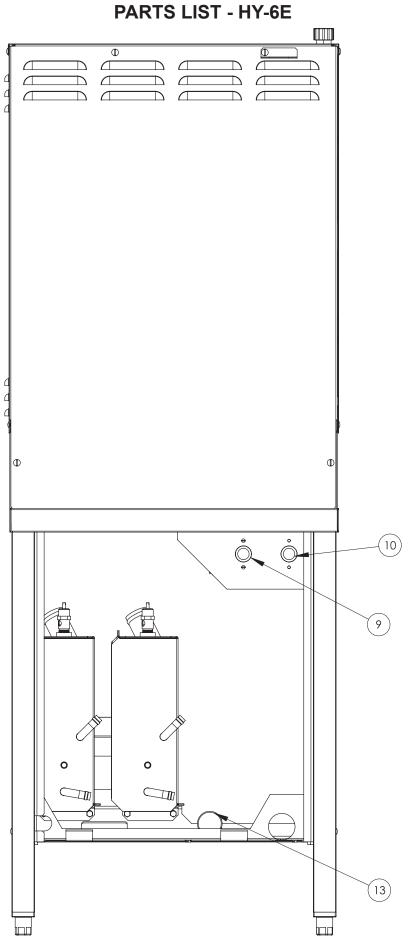
	SYMPTOM	WHO	WHAT TO CHECK
ļ	Steam generator does not fill with water.	User	<ul> <li>a. Is the ON switch depressed?</li> <li>b. Is the water supply connected?</li> <li>c. Is the water turned on?</li> <li>d. Check for low water pressure (less than 30 PSI or 210 kPa).</li> <li>e. Is the screen at the water connection clogged?</li> <li>f. Has the steam generator been de-limed?</li> </ul>
ļ	No steam.	User	<ul><li>a. Is the ON switch depressed?</li><li>b. Is the water supply connected?</li><li>c. Is the water turned on?</li><li>d. Are steamer doors open?</li><li>e. Is the steam generator limed up?</li></ul>
ļ	SERVICE indicator light comes on after four minutes.	User	<ul><li>a. Is the water supply connected?</li><li>b. Is the water turned on?</li><li>c. Has the unit been de-limed? (Refer to Cleaning Section)</li></ul>
i	Excessive steam escaping from rear of unit	User	a. Is the condensate spray hose kinked or obstructed?
		Auth Service Rep Only	<ul> <li>b. Is the water spray solenoid connected?(X)</li> <li>c. Is the drain properly vented? (X)</li> </ul>

PARTS LIST - HY-6E



**PARTS LIST - HY-6E** 





# 17

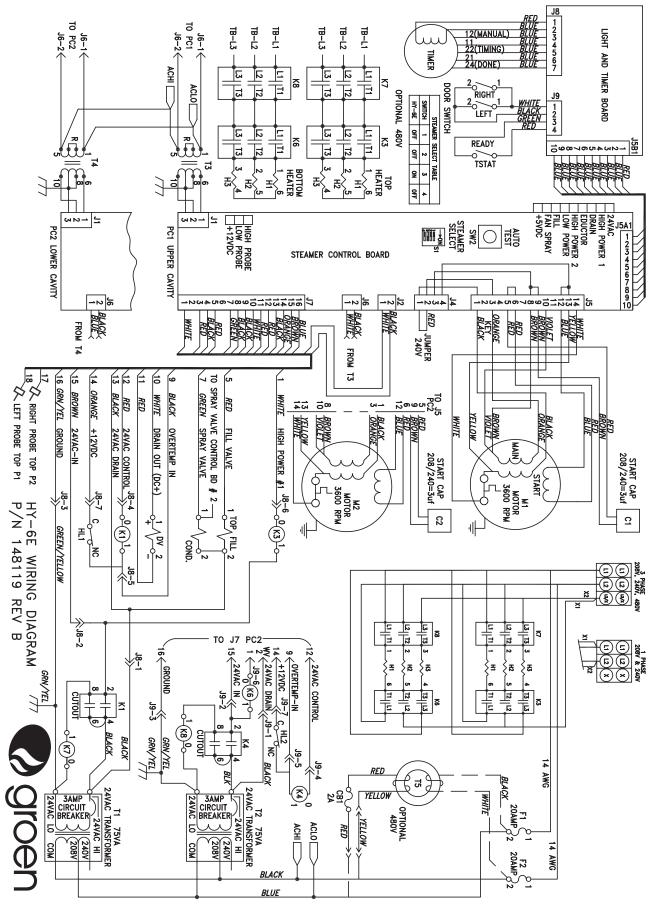
# PARTS LIST - HY-6E

To order parts, contact your Groen Authorized Service Agent. Supply the model designation, serial number, part description, part number, quantity, and when applicable, voltage and phase.

Key	Description	Part No.	Key	Description	Part No.
1	Transformer 20VA	119815	Х	Top Panel	143116
2	Capacitor, 3MF	096813	Х	Front Panel Overlay	123128
3	Transformer 208/240v Primary/	121716	Х	Door Latch Pin	078914
	24v secondary, 75VA		Х	Door Pin Lock Nut	003823
4	Contactor	148102	Х	Cavity Fan	096790
5	Fuseholder	096809	Х	Generator Assembly	141481
6	Fuse	071489	Х	Left Pan Rack	094148
7	Ground Terminal	106412	Х	Door Handle	129723
8	Terminal Block	002577	Х	Door Gasket	124849
9	Water Valve, Condensate	100934	Х	Motor Shaft Seal	096868
10	Water Valve, Fill	071235	Х	Blower Cover	096788
11	Timer	096826	Х	Right Pan Rack	094191
12	Pressure Relief Valve	140867	Х	Left Side Panel	139942
13	Drain Valve	071234	Х	Right Side Panel	139941
14	Steam Inlet Port	141336	Х	Lower Side Panels	139943
15	Gasket, Steam Inlet Port	099250	Х	Lower Front Panel	139944
16	Ready Thermostat	088865	Х	Lower Rear Panel	141290
17	Water Level Probe Left	141424	Х	Flow Reducer, Condensate	112719
18	Water Level Probe Right	141285	Х	Harness, Door Switch/Tstat	119868
19	Door Switch	096857	Х	Harness, Cavity Lower Control	140562
20	Door Assembly, Complete	130858	Х	Harness, Cavity Upper Control	140563
21	Knob	123100	Х	Harness, Control Board	141084
22	Control Board	141082	Х	Harness, Transformer	119862
23	Light & Timer Board	137233	Х	Harness, Transformer 2	119871
24	Control Board Cover	143255	Х	Harness, Timer	123120
25	Torroid (480V only)	119833	Х	Harness, Control Board to Timer Board	123122
26	Motor Assembly	146880	Х	Jumper, Voltage Select	123124
27	Element 208v 9KW	141186	Х	Harness, Power 24VAC	125853
	Element 240v 9KW	141187	Х	Conduit Assembly, AC Supply	140882
	Element 480v 9KW	141188	Х	Harness, AC, HY-6E	140560
28	Thermostat Assembly	094161	х	Harness, Contactor Box	148117
29	Gasket, Element	042366	х	Harness, Power	148118
30	Relay, 12VDC	119813	х	Harness, Lower Heater	148565
31	Electrical Panel Assembly	148576	х	Harness, Upper Heater	148566
32	Contactor Bracket	119894			

x - Item not depicted/called out in drawing or photograph.

WIRING DIAGRAM - HY-6E



## Service Log

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

Date	Maintenance Performed	Performed by
<u> </u>		

# References

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

NFPA/70 The National Electrical Code

NSF INTERNATIONAL 789 N. Dixboro Rd. P.O. Box 130140 Ann Arbor, Michigan 48113-0140 NATIONAL FIRE PROTECTION ASSOCIATION 60 Battery March Park Quincy, Massachusetts 02269

#### LIMITED WARRANTY TO COMMERCIAL PURCHASERS\*

#### (Continental U.S. and Canadian Sales Only)

Groen Foodservice Equipment (iGroen Equipmentî) has been skillfully manufactured, carefully inspected, and packaged to meet rigid standards of excellence. Groen warrants its Equipment to be free from defects in material and workmanship for (12) twelve months with the following conditions an subject to the following limitations.

- I. This parts and labor warranty is limited to Groen Equipment sold to the original commercial purchaser/users (but not original equipment manufacturers {O.E.M.}), at its original place of installation in the continental United States, Hawaii and Canada.
- II. Damage during shipment is to be reported to the carrier, is not covered under this warranty, and is the sole responsibility of the purchaser/user.
- III. Groen,, or an authorized service representative, will repair or replace, at Groenís sole election, any Groen equipment, including but not limited to, drawoff valves, safety valves, gas and electric components, found to be defective during the warranty period. As to warranty service in the territory described above, Groen will absorb labor and portal to portal transportation costs (time and mileage) for the first twelve (12) months from date of installation or fifteen (15) months from date of shipment from Groen.
- IV. This warranty does not cover boiler maintenance, calibration, periodic adjustments as specified in operating instructions or manuals, and consumable parts such as scraper blades, gaskets, packing, etc., or labor costs incurred for removal of adjacent equipment or objects to gain access to Groen Equipment. This warranty does not cover defects caused by improper installation, abuse, careless operation, or improper maintenance of equipment. This warranty does not cover damage caused by poor water quality or improper boiler maintenance.
- V. THIS WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EACH OF WHICH IS HEREBY EXPRESSLY DISCLAIMED. THE REMEDIES DESCRIBED ABOVE ARE EXCLUSIVE AND IN NO EVENT SHALL GROEN BE LIABLE FOR SPECIAL, CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR THE BREACH OR DELAY IN PERFORMANCE OF THIS WARRANTY.
- VI. Groen Equipment is for commercial use only. If sold as a component of another (O.E.M.) Manufacturerís equipment, or if used as a consumer product, such Equipment is sold AS IS and without any warranty.

#### \*(Covers all Foodservice Equipment Ordered after October 1, 1995)

NOTES





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