

OPERATOR MANUAL

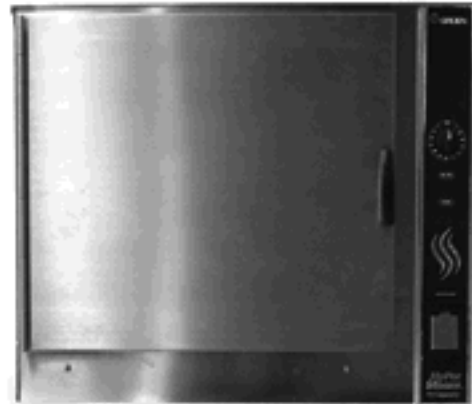
Part Number 142253 Rev. C

OM-HY-12G/24G

DOMESTIC

Model: HY-12GF, HY-24GF
HyCapacity HyPerSteam™
Atmospheric Convection
Steamer

Self-Contained
Gas Heated



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.

POST IN A PROMINENT LOCATION

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT USER SMELLS GAS. THIS INFORMATION SHALL BE OBTAINED BY CONSULTING YOUR LOCAL GAS SUPPLIER. AS A MINIMUM, TURN OFF THE GAS AND CALL YOUR GAS COMPANY AND YOUR AUTHORIZED SERVICE AGENT. EVACUATE ALL PERSONNEL FROM THE AREA.

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.



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:** 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, 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 FLOOR 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.
- WARNING:** DO NOT CONNECT THE DRAIN DIRECTLY TO A BUILDING DRAIN.
- CAUTION:** DO NOT USE PLASTIC PIPE. DRAIN MUST BE RATED FOR BOILING WATER.
- 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.
- 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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References

AMERICAN NATIONAL STANDARDS INSTITUTE
 1403 Broadway
 New York, New York 10018

Z21.30 Installation of Gas Appliances & Piping
 Z223.1 1984 National Fuel Gas Code

AMERICAN GAS ASSOCIATION LABORATORIES
 8501 East Pleasant Valley Road
 Cleveland, Ohio 44131

NATIONAL FIRE PROTECTION ASSOCIATION
 60 Battery March Park
 Quincy, Massachusetts 02269

NFPA/54 Installation of Gas Appliances & Piping
 NFPA/70 The National Electric Code

NSF INTERNATIONAL
 789 N. Dixboro Rd.
 P.O. Box 130140
 Ann Arbor, Michigan 48113-0140

ZEP MANUFACTURING
 1390 Lunt Avenue
 Elk Grove Village, Illinois 60007

OM-HY-12G/24G

Equipment Description

Your Groen HY-12GF HyCapacity HyPerSteam is designed to give years of service. It consists of a stainless steel cavity (cooking chamber) which is served by an electrically-heated atmospheric steam generator. The HY-24GF has two cavities and two generators. Two powerful blowers circulate the steam in each cavity to increase heating efficiency.

A dual position pan rack on the left side of the cavity can be quickly changed to allow for the use of either 12" x 20" steamer pans, or 18" x 26" bake pans. The following table lists pan capacities:

Pan Size/Type	Number of Pans	
	HY-12GF	HY-24GF
12 x 20 x 2½" (steamer)	12	24
12 x 20 x 4" (steamer)	8	16
13 x 18" (half-size bake)	24	48
18 x 26" (bake)	12	24

A stainless steel cabinet encases the cavity, steam generator and a control compartment which houses electrical components. Access to the control compartment is gained by removing the right side louvered panel. Door hinges are reversible so that the door may be opened to the left or right. Operating controls are on the front panel.

Newer model HY-12GF and HY-24GF steamers (manufactured since November 1999) are equipped with fully electronic controls and a button-activated pre-programmed CLEAN cycle.

These units are readily identified by their unique control panels. Touch pad controls, and the distinctive symbol for steam is integrated into the panel design. The new models also have fewer panel louvers on the right side and rear.

The drain system for each cavity includes a spray condenser, which helps keep steam from coming out of the unit drain or entering the building drain.



HY-24GF - New Model

Water Conditioning

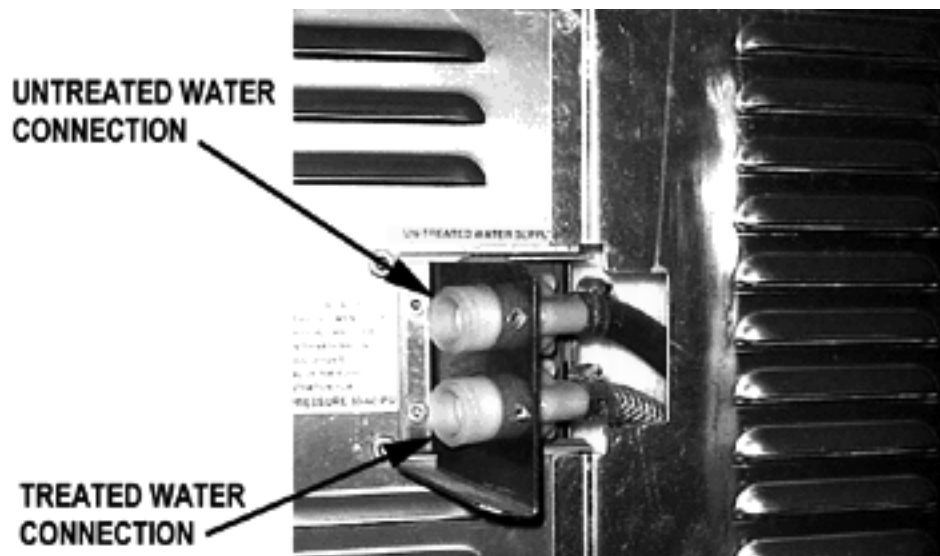
It is essential to supply the steam generator with water that will not form scale. Although the steam generators are engineered to minimize scale, the hardness of your water and number of hours the equipment operates influence scale build-up.

In some areas of the country, water is low enough in minerals to avoid scale formation. But most water supplies are full of minerals which form scale. It is this scale which could lead to an early component

failure. Your water utility or treatment specialists can test and tell you about the minerals in your water. Water to the steam generator should have between 10 and 30 parts per million (ppm) total dissolved solids (TDS) and should have a pH (acidity rating) of 7.0 or higher.

Please follow these simple precautions:

1. The best way to prevent scale is to use a Groen PureSteem™ Water Treatment System which has been specifically designed for Groen steamers and combination ovens. **Do not rely on unproven water treatment systems** sold for scale prevention and removal. **They are not specifically designed to work with Groen steamers and combination ovens.**
2. A well-maintained water treatment system and a regular cartridge replacement schedule is essential.
3. Using a Groen PureSteem™ Water Treatment System will provide longer steam generator/boiler life, higher steam capacity, and reduce maintenance requirements.
4. If you notice a slowdown in steam production or an increase in deliming, have the steamer checked for scale build-up. This could be an indication that the water treatment cartridges need replacing. Heavy scale reduces the unit's ability to boil water, and can even cause component failure.



The optional separate water intake could significantly reduce treated water requirements.

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 WITH THE RIGHT SIDE VENTS BLOCKED OR WITHIN 12 INCHES OF A HEAT SOURCE (BRAISING PAN, DEEP FRYER, CHAR BROILER, OR KETTLE).

TO AVOID DRAINAGE PROBLEMS, LEVEL THE UNIT FRONT TO BACK.

HY-12GF

UTILITY CONNECTIONS:

1. Electrical connection 1/2" (13 mm) conduit fitting.
2. Cold water supply connection 3/4" (19 mm) hose
3. Drain connection 2 1/2" (64 mm) hose connection
4. Gas connection 3/4" (19 mm) NPT

HY-24GF

UTILITY CONNECTIONS:

1. Electrical connections (**each cavity**) 1/2" (13 mm) conduit fitting.
2. Cold water supply connection (**each cavity**) 3/4" (19 mm) hose
3. Drain connection 2 1/2" (64 mm) hose connection
4. Gas connection (**each cavity**) 3/4" (19 mm) NPT

BURNER FIRING RATES PER CAVITY			ELECTRICAL SPECIFICATIONS
	Natural Gas @ 3.1" WC	L.P. Gas at 10" WC	Voltage: 108-126V 1 Phase 50/60 Hz
BTU/hr HY-12G	160,000	150,000	Current per cavity 2.5 AMPS ± 10%

A. Installation

When the steamer is received, immediately inspect the unit thoroughly for external and internal damage. Report any damage to the carrier.

After the inspection, keep the unit in its shipping container until it is installed.

The HY-12GF steamer is suitable for installation in combustible and noncombustible locations. The flooring in all installations must be noncombustible material. Minimum installation clearances are:

Right Side	Two inches (50 mm)
Left Side	Zero inches
Rear of flue	Six inches (300 mm)

CAUTION
THE HY-12G STEAMER REQUIRES 24 INCHES (610 MM) CLEARANCE ON THE RIGHT SIDE FOR PROPER SERVICE.

The unit must be installed in an adequately ventilated room with provision for adequate air supply. It must be installed under a ventilation hood, since flue products exit the appliance. Items which might obstruct or restrict air flow for combustion and ventilation must be removed. Do not obstruct the flue cover or any vents after installation. Areas around the unit must be cleared of combustible material.

The installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1-latest edition, including:

“The appliance and its individual shutoff valve must be **disconnected** from the gas supply piping system during any pressure testing of that system at pressures **in excess of** ½ PSI (3.45 kPa). The appliance must be **isolated** from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at pressures **equal to or less than** ½ PSI (3.45 kPa).

CAUTION
MAKING ANY ELECTRICAL OR MECHANICAL CHANGE IN THE UNIT WITHOUT PRIOR APPROVAL FROM THE GROEN FOOD SERVICE ENGINEERING DEPARTMENT MAY VOID ALL WARRANTIES.

1. Electrical Supply Connection

Provide 115 VAC, 60 HZ, 1 PH, 15 AMP service. Bring conduit in through open frame on under side of cabinet. Local codes and/or the National Electrical Code should be observed in accordance with ANSI/NFPA 70-1987 (or latest edition). **AN ELECTRICAL GROUND IS REQUIRED.** The electrical schematic is located in the service compartment and in this manual. Maximum load is 2 1/2 amps. In Canada, provide electrical service in accordance with the Canadian Electrical Code, CSA C22.1 Part 1 and/or local codes.



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

2. Gas Supply Connection

Connection to the gas supply can be completed with ¾" NPT pipe or approved equivalent. Although the immediate connection to the appliance is ¾" NPT, gas supply piping must be large enough to provide 160,000 BTU/hr. Supply pressure must be at least 5" W.C. (maximum 14" W.C.) for natural gas or 11" W.C. (maximum 14" W.C.) for LP gas. In Canada, the installation must conform to the Canadian Gas Code, CAN 1-B149, Installation Codes for Gas Burning Appliances and Equipment and/or local codes.

After the unit has been connected to the gas supply, all gas joints must be checked for leaks. **No flame should be used** when checking for leaks. A thick soap solution or other suitable leak detector should be used. **The unit must have a separate ground wire for safe operation.** This wire must be at least 8 AWG for 208/240V, or 10 AWG for 480V.

3. 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 PSI (210 and 420 kPa). If pressure is above 60 PSI, a pressure

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regulator will be needed. A ¾ inch R connector (garden hose type) is used to attach the water supply to the water inlet valve. The minimum water feed line diameter is ½ inch (13mm). Use a washer in the hose connection. Do not allow the connection to leak, no matter how slowly.

3. Drain Connection

Your HY-12GF/24GF Steamer must be leveled front to back or pitched slightly to the rear by adjustment of the bullet feet on the cabinet base.

All units are shipped from the factory with a drain box and vent pipe. The drain box and vent pipe provide the necessary air gap when properly installed. The illustrations below show proper installation of drain lines from the drain box, and for tabletop installation, without a drain box.

CAUTION
DO NOT CONNECT THE HOSE DIRECTLY TO A BUILDING DRAIN. BLOCKING THE DRAIN COULD BE DANGEROUS.

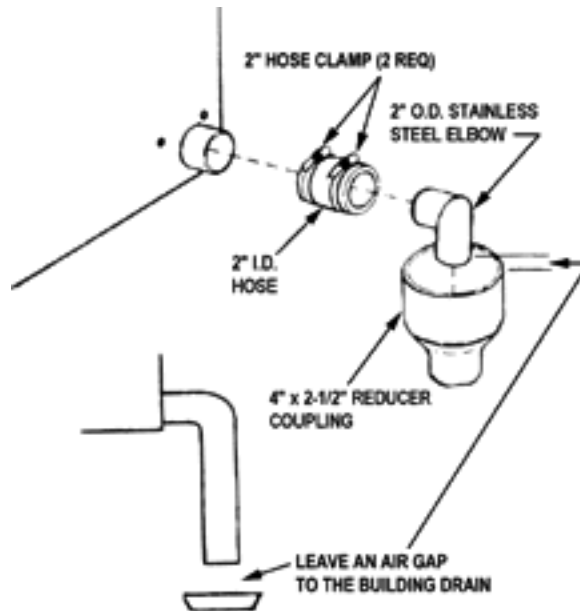
Do not create any water traps in the drain line. A trap would cause pressure to build up inside the cavity during steaming and make the door gasket leak.

NOTE: Improper drain connection will void the warranty.

INSTALLATION OPTION ONE: From stainless steel elbow (P/N 092273) to nearby floor drain, use Radiator Hose (rated for at least 212°F) and one additional hose clamp (P/N 013616).

INSTALLATION OPTION TWO: Using the hose (P/N 080688) and two hose clamps (P/N 013616), connect two inch copper tube to floor **drain**. **NOTE:** Drain lines must be pitched downward at approximately ½ inch per foot. No water traps should be allowed in the drain line.

IMPORTANT: Leave two inches free air gap to building drain.



Installation of drain line without drain box .

B. Initial Start-Up

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

1. Remove all literature and packing materials from the interior and exterior of the unit.
2. Make sure the water supply line is open.
3. Make sure that the gas supply line is open and that the manual knob on the main gas valve is turned to the "on" position. This valve is located behind the access panel on the right side of the unit.



GAS VALVE

4. Turn on electrical service to the unit. The unit will not operate without electrical power. Do not operate during a power failure.
5. The steamer will not operate until the pilot burner has been ignited. To light the pilot burner, activate the pilot switch located next to the main gas valve. When the pilot ignition sequence has been successfully completed, a green light - on the pilot switch - and on the electrical panel (new models) will glow.
6. The "trial for ignition" period is roughly 90 seconds. If the pilot burner does not light within about 90 seconds after the switch is activated, the ignition system automatically stops gas flow to the pilot burner and stops the ignition trial. If this happens, turn off the pilot switch and repeat the trial for ignition. During the initial start-up, the pilot may require several trials for ignition until all the air is bled from the gas piping. Subsequent start-ups should require only about 5 seconds to achieve pilot ignition.

NOTE: See Automatic Operation of Pilot at the end of this section.

7. Once the pilot burner flame has been established (the green light on the pilot switch or electrical panel (new models) is on), press the "ON" switch for the desired steamer cavity. The steam generator will fill with water.

NOTE: The door **MUST** be closed for the main burner to work.

8. When the steam generator has filled with water, the main burner will ignite automatically. Within 6-8 minutes the READY light will come on, indicating that the water has reached its standby temperature. When the READY light is displayed, you may take any one of the following steps:
 - a. Set the timer to the desired time for timed steaming.
 - b. Turn the timer knob to the manual ON position for continuous steam.
 - c. Let the unit stay at standby temperature.



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

9. To shut down the unit, press the ON switch into the off position. The steam generator will then drain. You may also switch off the pilot switch to conserve energy.
10. If the HY-12/24G Steamer behaves as described, the unit is functioning correctly and ready for use.

Automatic Operation of Pilot

Once the pilot burner is lit, it essentially functions as a standing pilot. In this state, if the pilot is accidentally extinguished (by a very strong gust of wind for example), it will re-ignite automatically. The unit will completely shut down for a few seconds while the pilot is re-ignited. Then the unit will come back on and resume operation in the mode and with the (running) timer value existing just prior to shutdown. The pilot switch may be turned off during "off hours" to conserve energy.

After the unit has been running, if the pilot burner ever fails to re-ignite automatically within 90

OM-HY-12G/24G

seconds, wait 5 minutes before you attempt to reactivate it. In the unlikely event that ignition problems persist, contact your authorized Groen Service Agency.

NOTE: For operation at high altitudes (2000 feet and above) please consult the Groen Food Service Engineering Department.

Operation

WARNING

ALL POTENTIAL USERS OF THE EQUIPMENT SHOULD BE TRAINED IN SAFE AND CORRECT OPERATING PROCEDURES.

NO ATTEMPT SHOULD BE MADE TO OPERATE THIS EQUIPMENT DURING A POWER FAILURE.

NOTE: Before the steamer can be operated as described in this section, the pilot burner flame must be established. For details see the Initial Start-Up section and the Automatic Operation of Pilot, above.

A. Controls (See Illustration)

Operator controls are on the front right of the unit.

The control panel on **new models** 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 is not working, the SERVICE light flashes briefly every few seconds. If both probes fail, the light flashes continuously and the beeper will sound.

- ! The HI TEMP indicator light comes on when the steam generator is too hot.

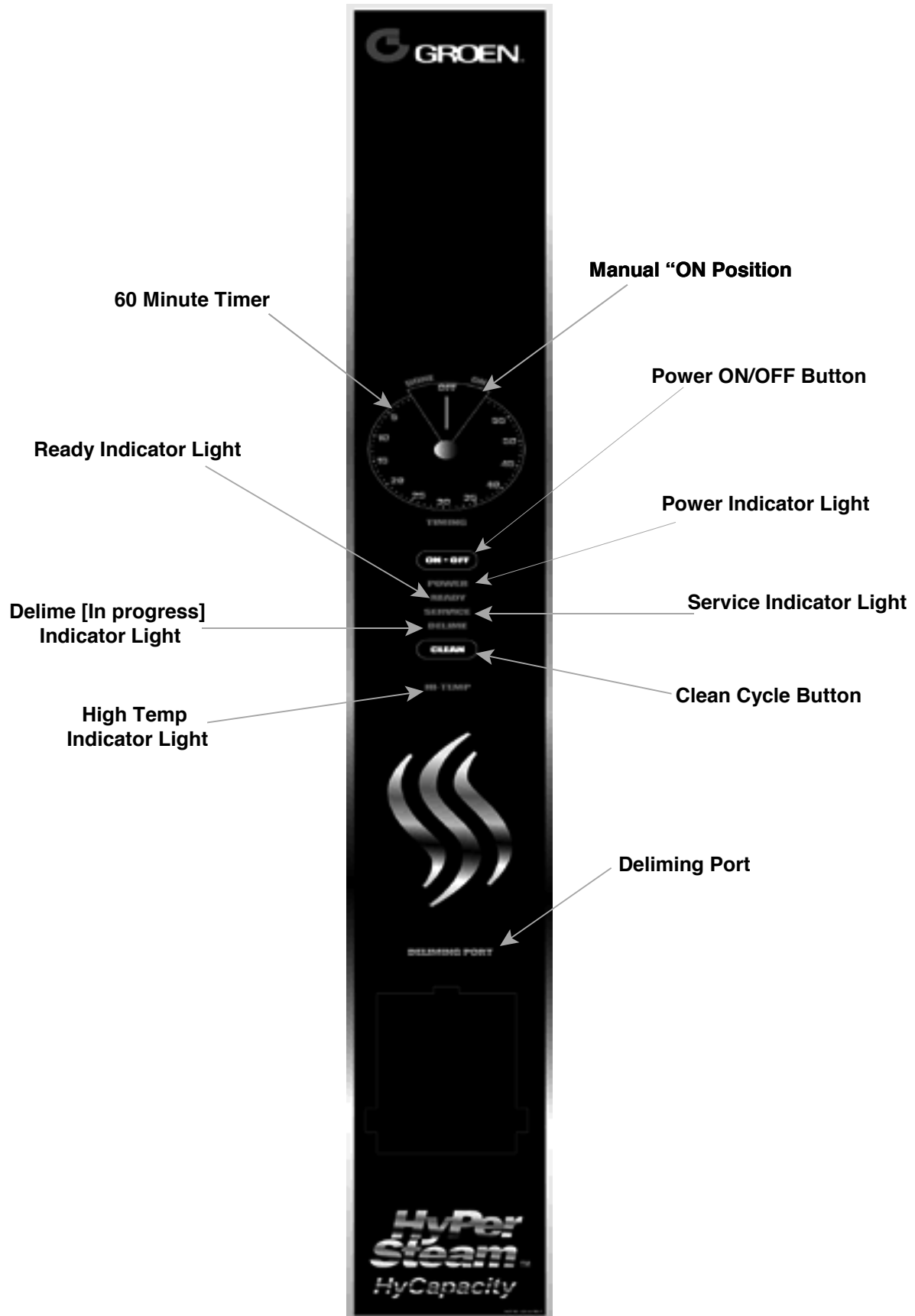
The unit will automatically shut off, and cannot be turned on again until the steam generator cools and the HI TEMP indicator light goes out.

- ! The TIMING indicator light stays on when the timer is running.
- ! The CLEAN touch pad is used to start the automatic 30 minute cleaning cycle.

The timer is used in three ways:

- 1 In the OFF position the steam generator stays at a "holding" temperature.
- 2 When a cook time is set, the unit steams until the timer runs down to OFF. Steaming stops, the DONE light comes on and a beeper sounds.

HY-12G Control Panel



OM-HY-12G/24G

- 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

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 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 switch/pad to OFF. The steam generator will automatically drain.

Cleaning

To keep your steamer in proper working condition, clean it periodically by the following procedure. Regularly scheduled cleaning will reduce the effort required in cleaning the steam generators and cavities.

A. Suggested Supplies

1. Mild detergent
2. Stainless steel exterior cleaner, like Zepper from Zep Manufacturing Company.
3. Groen Delimer p/n114800, Lime-A-Way (from Ecolab) or equivalent de-liming agent. De-liming agent should contain phosphoric acid, not to exceed 30% total volume. **See warning about chlorides and sulfamic acid below.**
4. Groen Spray Degreaser p/n140830.
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. Unit Exterior
 - 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 flue, exhaust outlet, controls, control panel, any electrical part, or any open louver.
 - b. To remove materials stuck to the unit, use plastic wool, a fiber brush, or a plastic or rubber scraper with detergent solution. Do **not** use any metal material (such as metal sponges) or metal implements (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 and cause corrosion and pitting.



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.

DO NOT MIX DE-LIMING AGENTS (ACID) AND DE-GREASERS (ALKALI) ANYWHERE IN THE UNIT.

TAKE PRECAUTIONS TO AVOID CONTACT WITH ANY CLEANERS, DE-LIMING AGENT, OR DE-GREASER, AS RECOMMENDED BY THE SUPPLIER. MANY CLEANERS ARE HARMFUL TO THE SKIN, EYES, MUCOUS MEMBRANES, AND CLOTHING. CAREFULLY READ THE WARNINGS AND FOLLOW THE DIRECTIONS ON THE LABEL OF EACH CLEANING AGENT.

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

DO NOT OPERATE THE UNIT UNLESS THE TWO REMOVABLE INTERIOR PARTITIONS HAVE BEEN RETURNED TO THEIR PROPER LOCATIONS.

DO NOT USE A CLEANING OR DE-LIMING AGENT THAT CONTAINS ANY SULFAMIC ACID OR ANY CHLORIDE, INCLUDING HYDROCHLORIC ACID (HCl). TO CHECK FOR CONTENT OF THESE SUBSTANCES, REFER TO THE "MATERIAL SAFETY DATA" SHEET 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) WHICH 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.

c. Stainless steel surfaces on the outside of the

unit may be polished with a recognized

OM-HY-12G/24G

stainless steel cleaner (Zepper, etc.).

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™ 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 (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.
- STEP 3 Pour 2 pints (4 cups) of delimer into delimiting port before delime cycle is started and then close port. Double-stacked unit cavities must be delimed separately. Select which cavity to delime first.
- STEP 4 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 5 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 6 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 7 To use steamer, press ON/OFF. When READY light appears, steamer is ready To use.
- STEP 8 **HY12E/HY12G DOUBLE STACK ONLY:** Double-stacked unit cavities must be delimed separately. Repeat Step

1 through Step 8 to delime other cavity.

NOTES:

- If DELIME light flashes rapidly (5 times per second), press DELIME to restart delime cycle.
- If power outage occurs during delimiting, 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

The HY-12G 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 content 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 it if it is cracked or split.
2. Inspect the cooking chamber drain to be sure it is not blocked.

3. Adjust the door 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, then turn the latch pin ¼ turn clockwise, and 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.



Adjust the door latch pin to allow for changes that might occur as the gasket ages

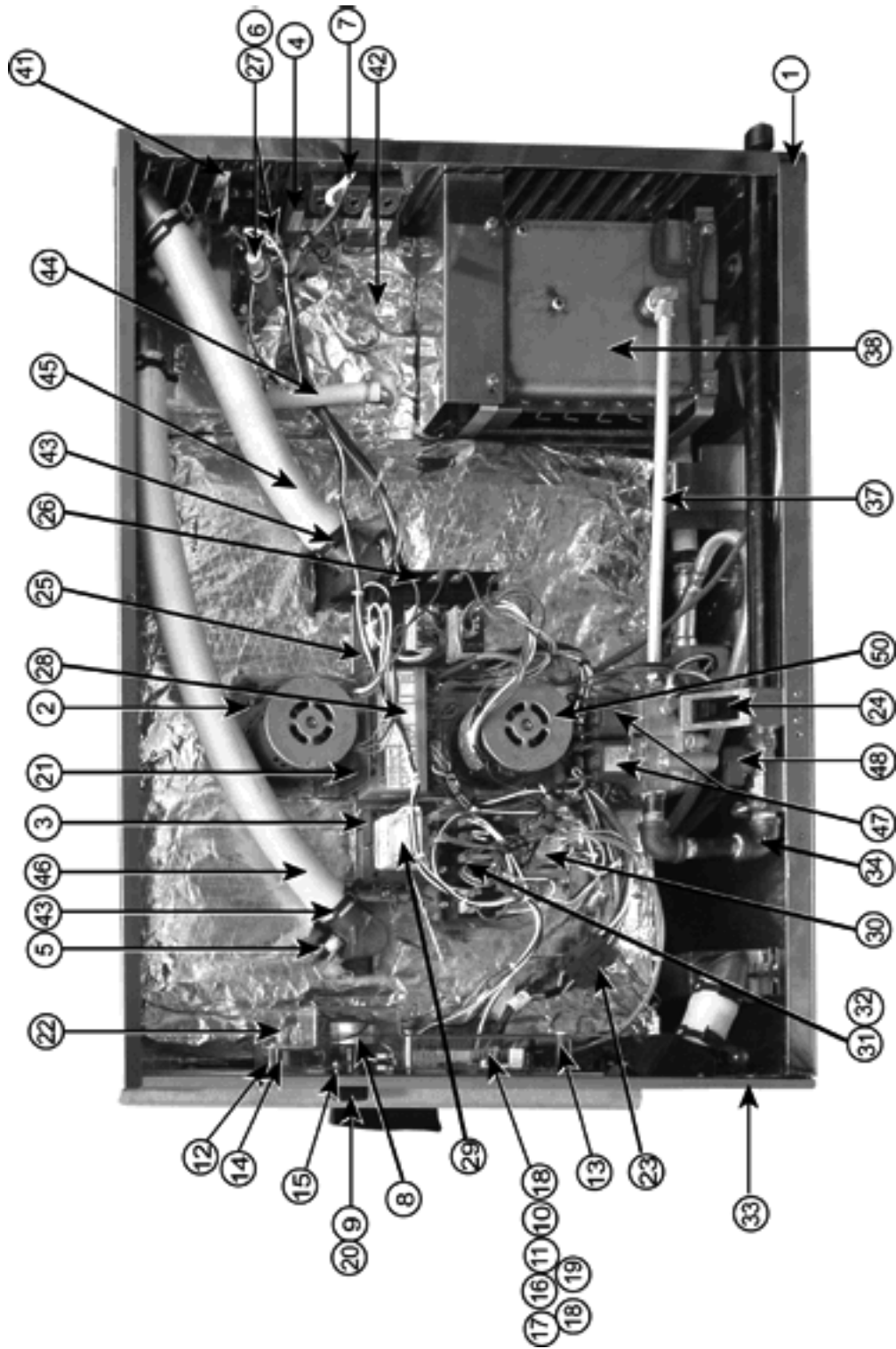
NOTE: It is important that the flue outlet be checked regularly. Debris covering the flue outlet can cause a potentially hazardous condition. Remove any foreign material before using this equipment.

Troubleshooting

The 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 and at the back of this manual. 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 <small>X indicates items which must be performed by an authorized technician.</small>
Pilot will not light	User	a. Are electrical connections made with a ground? b. Is gas supply connection made? c. Is pilot ignition switch activated? d. Is gas valve turned on? e. Are building fuses or circuit breakers all right? f. Are there drafts which might blow out the pilot?
	Auth Service Rep Only	g. Is spark ignition cable connected to pilot module?X
Steam generator does not fill with water.	User	a. Is the ON switch depressed? b. Is electric supply connected? c. Is the water supply connected? d. Low water pressure (below 30 PSI or 210 kPa)? e. Is the screen at the water connection clogged? f. Has the steam generator been delimed?
Pilot will light, but main burners will not light.	User	a. Is "ON" switch depressed? b. Is water supply connected? c. Are steamer doors open? d. Is water screen or filter clogged?
Pilot will light, but no panel lamp comes on	Call your authorized Groen Service Agency.	
Service Light flashes. (New Models). (See Cleaning Section)	User	a. Is the water supply connected? b. Is water supply hose kinked? c. Is water screen or filter clogged? d. Has the steam generator been delimed? (Refer to Cleaning Section)
Excessive steam escaping from rear of unit	User	a. Is the water spray hose kinked or obstructed?
	Auth Service Rep Only	b. Is the water spray solenoid connected?X

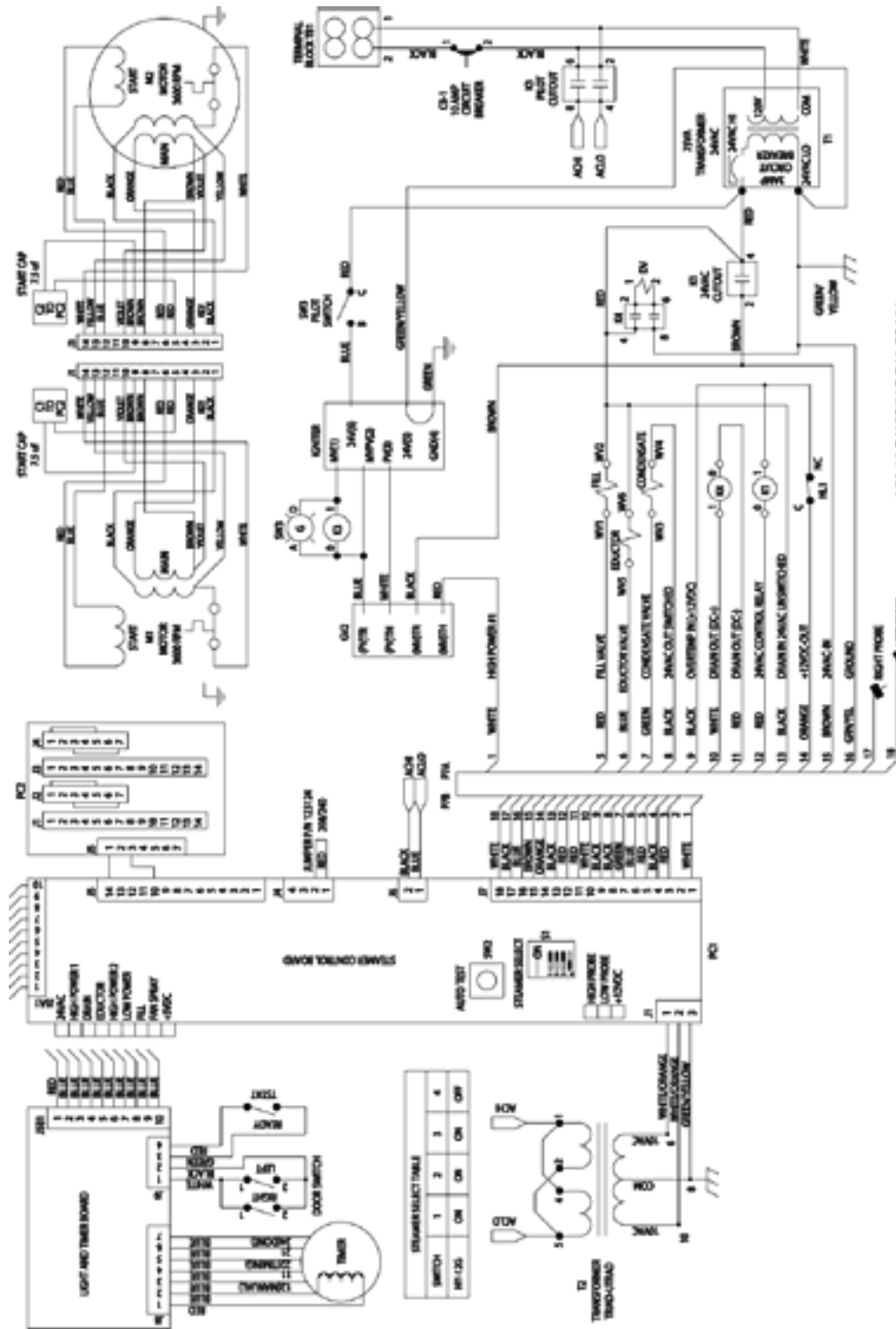
Parts List



Parts List

Key	Description	Part No.	Key	Description	Part No.	Key	Description	Part No.
1	Platform Assembly	141691	19	Screw, slotted, hex 8-32 x 1/4	074242	37	Tube, Manifold 1/2" O.D.	141707
2	Motor Assembly	146880	20	Nut, Rotary shaft seal	101145	38	Manifold Assembly	141708
3	Electronic Control Assembly	141699	21	Drip Shield, Motor	119844	39	Clamp, Double Wire	127662
4	Line Connection Assembly	119873	22	Harness, Ready/Door Switch	119878	40	Clamp, Hose	093482
5	Universal Thermostat	099947	23	Harness, Control Board Extension	141084	41	Reducer, Water Flow	106445
6	Plastisol Boot	101143	24	Switch, Rocker w/LED	119858	42	Boiler Assembly	141683
7	Valve, Water Inlet 2 way, triple	090827	25	Circuit Board Assembly	119875	43	Clamp, Constant Pressure	126011
8	Timer, Steamer, 60 Hz	096826	26	Capacitor, 7.5 µF	106271	44	Hose, Steam Inlet 1/2" dia 5-3/8 I.	106581
9	Knob, Timer	123100	27	Probe, Water (Short)	141285	45	Hose, Steam Inlet 1-1/2 I.D. x 13"	106578
10	Steamer Control PC Board Assy	141802	27	Probe, Water (Long)	141284	46	Hose, Steam Inlet 1-1/2 I.D. x 22" I.	106579
11	Light & Timer PC Board Assy	137233	28	Ignition Module	085153	47	Gas Valve, Natural Gas	098443
12	Standoff Hex, 6-32 x 3/4	119826	29	Transformer, 75 Amp, 24 VAC	106233	47	Gas Valve, Propane Gas	098444
13	Standoff Hex, 6-32 x 1-1/4	119827	30	Transformer, 20 VAC	119815	48	Valve, Gas, Manual 1/2" NPT	098458
14	Harness, Timer Motor	123120	31	Relay, 12 VDC Coil	119813	49	Not Shown	
15	Jumper, Control Bd. To Display Bd.	123122	32	Relay, 24 VDC Coil	119814	50	Motor, Fan	096739
16	Cover, Control Panel	143255	33	Panel Overlay, Mylar	123131			
17	Nut, Keps, 6-32	071289	34	Gas Valve Piping, Natural Gas	142380			
18	Nut, lock, nylon insert 6-32	119855	34	Gas Valve Piping, Propane Gas	142381			

Schematic & Wiring Diagrams



HY-12G WIRING DIAGRAM
P/N 141703 REV C

Service Log

Model No. _____

Purchased From _____

Serial No. _____

Location _____

Date Purchased _____

Date Installed _____

Purchase Order No. _____

For Service Call _____

Date	Maintenance Performed	Performed by

OM-HY-12G/24G

LIMITED WARRANTY TO COMMERCIAL PURCHASERS*

Continental U.S., Hawaii and Canadian Sales Only

Groen Foodservice Equipment ("Groen Equipment") 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 and 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 Groen's 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.) Manufacturer's 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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OM-HY-12G/24G

Part Number 142253 Rev. C