

HV-100E, HV-100G, HVH-100E AND HVH-100G INSTALLATION - OPERATION - MAINTENANCE



BLODGETT OVEN COMPANY

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PN 52424 Rev V (5/16)

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Your Service Agency's Address:

Model

Serial number

Oven installed by

Installation checked by

IMPORTANT

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

INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE USER SMELLS GAS MUST BE POSTED IN A PROMINENT LOCATION. This information may be obtained by contacting your local gas supplier.

FOR YOUR SAFETY

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

The information contained in this manual is important for the proper installation, use, and maintenance of this oven. Adherence to these procedures and instructions will result in satisfactory baking results and long, trouble free service. Please read this manual carefully and retain it for future reference.

ERRORS: Descriptive, typographic or pictorial errors are subject to correction. Specifications are subject to change without notice.

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Installation

Oven Description & Specifications

ABOUT THE HYDROVECTION

Blodgett Hydrovection ovens are quality produced using high-grade stainless steel with first class workmanship.

The multiple speed fan, which is guarded against accidental finger contact, is driven by a quiet and powerful motor. The condenser draws out excess moisture from the appliance. Condensation and waste water, which result during hydro cooking and cleaning, are continuously drained.

The use of high quality insulation impedes excessive heat radiation and saves energy.

The Hydrovection has optional adjustable legs which adapt easily to slightly uneven surfaces and optional floor stands which are designed for use with all of the table models.

The practical oven doors, with viewing windows, have a wide swing radius and handle which can be operated easily, even with wet or greasy hands.

Ease of operation is guaranteed through the simple arrangement of the controls. Graphic symbols make the appliance easy for even inexperienced kitchen staff to operate. A third function, the Cool Down mode, allows the oven cavity to cool down rapidly with the door opened.

Cleaning is kept to a minimum. The interior is sprayed with a self-acting cleaning solution which interacts with humidity to easily remove crusts and stains. The oven is designed for easy care and is welded water tight so that the internal cooking cavity may be rinsed with a hose after the cleaning process.

PLUMBING SPECIFICATIONS

WATER

Water pressure	30 PSI (207 kPa) minimum 50 PSI (345 kPa) maximum
Water connection	3/4" garden hose - Cold water only
Water pressure regulator setting	Preset to 30 PSI (207 kPa)
Minimum requirements	TDS: 40-125 ppm Hardness: 35-100 ppm Chlorides: <25 ppm Silica: <13 ppm Chlorine: <0.2 ppm Chloramine: <0.2 ppm pH: 7.0-8.5

DRAINAGE

Drain type	Atmospheric Vented Drain
Drain connection	1" NPT Male
Maximum water drain temperature	140°F (60°C)

Oven Description & Specifications

RATINGS - HV-100G & HVH-100G					
TYPE OF GAS	GAS INPUT	VOLTAGE	PHASE	AMPS	MOTOR
Natural	60,000 BTU/Hr	115	1	10	3/4 HP 208-240VAC, 3 phase, 50/60 Hz
		208/240	1	5	
Propane	60,000 BTU/Hr	115	1	10	3/4 HP 208-240VAC, 3 phase, 50/60 Hz
		208/240	1	5	
3/4" NPT connector for all U.S. and Canadian installations					

RATINGS- HV-100E & HVH-100E							
VOLTAGE	HZ	KW	PHASE	MAX LOAD (AMPS)			MOTOR
				L1	L2	L2	
208	60	15	3	38	38	38	3/4 HP 208-240VAC, 50/60 Hz
240	60	15	3	34	34	34	3/4 HP 208-240VAC, 50/60 Hz
440*	60	15	3	20	18	18	3/4 HP 208-240VAC, 50/60 Hz
480	60	15	3	18	17	17	3/4 HP 208-240VAC, 50/60 Hz

* HV-100E model only



Installation

Utility Connections - Standards and Codes

THE INSTALLATION INSTRUCTIONS CONTAINED HEREIN ARE FOR THE USE OF QUALIFIED INSTALLATION AND SERVICE PERSONNEL ONLY. INSTALLATION OR SERVICE BY OTHER THAN QUALIFIED PERSONNEL MAY RESULT IN DAMAGE TO THE OVEN AND/OR INJURY TO THE OPERATOR.

Qualified installation personnel are individuals, a firm, a corporation, or a company which either in person or through a representative are engaged in, and are responsible for:

- The installation or replacement of gas piping. The connection, installation, repair or servicing of equipment.
- The installation of electrical wiring from the electric meter, main control box or service outlet to the electric appliance.

Qualified installation personnel must be experienced in such work, be familiar with all precautions required and have complied with all requirements of state or local authorities having jurisdiction.

U.S. and Canadian Installations

Installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, NFPA54/ANSI Z223.1-Latest Edition, the Natural Gas Installation Code CAN/CGA-B149.1 or the Propane Installation Code, CAN/CGA-B149.2 as applicable.

Reference: National Electrical Code, ANSI/NFPA 70-Latest Edition and/or Canadian Electrical Code CSA C22.1 as applicable.

This equipment is to be installed in compliance with the Basic Plumbing Code of the Building Officials and Code Administrators International Inc. (BOCA) and the Food Service Sanitation Manual of the Food and Drug Administration (FDA).

Appliance is to be installed with backflow prevention in accordance with applicable federal, province and local codes.

General Export Installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation and/or operation of your appliance, please contact your local distributor. If you do not have a local distributor, please call Blodgett at 0011-802-658-6600.





Oven Location and Ventilation

OWNER'S RESPONSIBILITIES

Installation responsibilities prior to service startup inspection

You are entitled to a free start-up inspection service by our factory ASAP. Before a factory representative arrives to perform a startup procedure, the owner must already have satisfied the following requirements.

1. Oven(s) are uncrated, stacked (if applies) and put in place.

NOTE: Please refer to Leg Attachment and Stacking.

Maximum shelf loading - 60 lbs (27.3 Kg)

OVEN LOCATION

The well planned and proper placement of your oven will result in long term operator convenience and satisfactory performance.

Certain minimum clearances must be maintained between the oven and any combustible or non-combustible construction. See the table below.

In addition, the following clearances are recommended for servicing.

- Oven body sides - 12" (30cm)
- Oven body back - 12" (30cm)

OVEN MODEL	MINIMUM REQUIRED CLEARANCES		
	Right Side	Left Side	Back
HV-100E & HVH-100E	0" (0mm)	0" (0mm)	6" (152.4mm)
HV-100G & HVH-100G	0" (0mm)	0" (0mm)	6" (152.4mm)

VENTILATION

The necessity for a properly designed and installed ventilation system cannot be over emphasized. The ventilation system will allow the unit to function properly while removing unwanted vapors and products of combustion from the operating area.

The appliance must be vented with a properly designed mechanically driven exhaust hood. The hood should be sized to completely cover the equipment plus an overhang of at least 6" (15 cm) on all sides not adjacent to a wall. The capacity of the hood should be sized appropriately and provisions made for adequate makeup air.



WARNING!!

Failure to properly vent the oven can be hazardous to the health of the operator; and will result in operational problems, unsatisfactory baking, and possible damage to the equipment. Damage sustained as a direct result of improper ventilation will not be covered by the Manufacturer's warranty.

When installed in the Commonwealth of Massachusetts, this appliance must be interlocked with the hood exhaust system so that the appliance may be operated only when the hood exhaust system is running.

U.S. and Canadian Installations

Refer to your local ventilation codes. In the absence of local codes, refer to the National ventilation code titled, "Standard for the Installation of Equipment for the Removal of Smoke and Grease Laden Vapors from Commercial Cooking Equipment", NFPA-96- Latest Edition.

General Export Installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation and/or operation of your unit, please contact your local distributor. If you do not have a local distributor, please call Blodgett at 0011-802-658-6600.



Installation

Leg Attachment

LEG OPTIONS

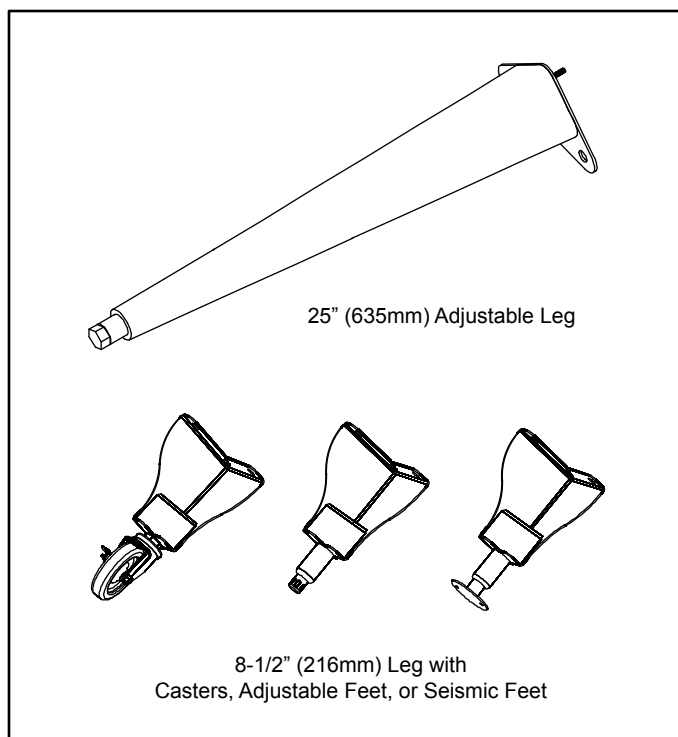


Figure 1

ATTACHMENT

1. Align the threaded stud on one of the front legs to the bolt hole located in the bottom corner of the appliance. Turn the leg clockwise and tighten to the nearest full turn.
2. Align the leg plate holes with the bolt holes. Secure with the two 1/2" bolts provided.
3. Repeat the above steps with the other front leg. If casters are used, install them with the locking casters in the front of the oven. The rear casters do not lock. Ensure that the locks are set on the front casters.
4. Tip the oven up on the newly installed front legs. If casters are used, check that the locks are set on the front casters. Repeat the above steps for the rear legs.
5. Level the oven by screwing the adjustable feet in or out as necessary.

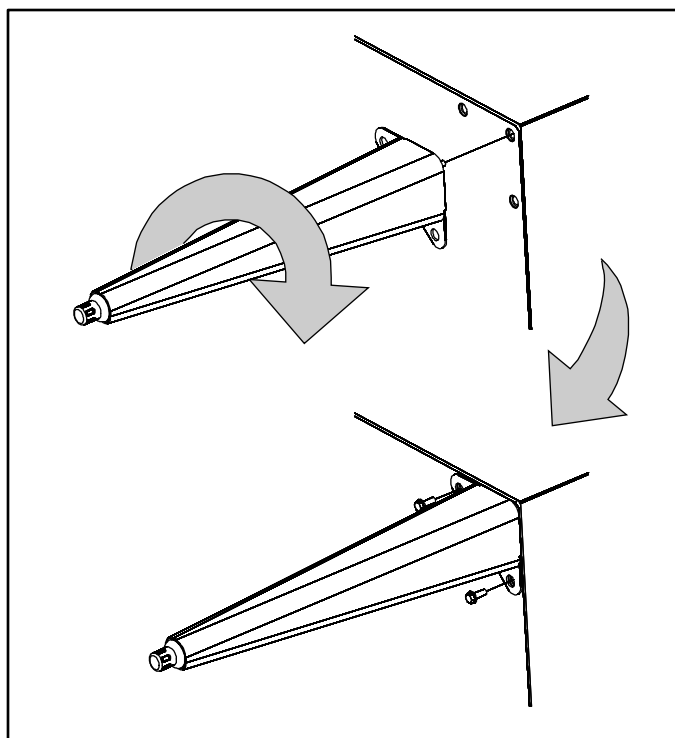


Figure 2



Caster Attachment

CASTERS FOR SINGLE OVENS

1. Attach the legs as described.
2. Pry the adjustable feet out of the legs.
3. Insert one caster into each leg as shown. Tighten the lock nuts to secure the casters.

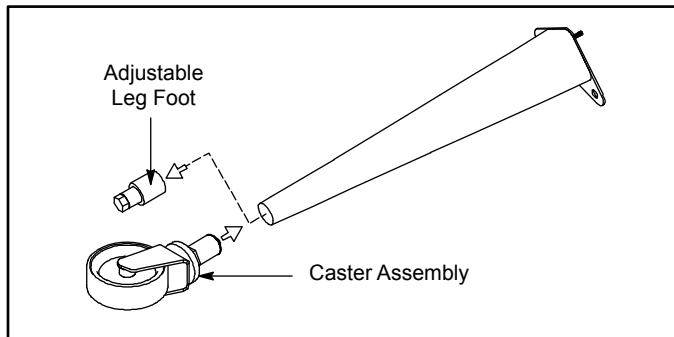


Figure 3

PROFILE CASTERS FOR DOUBLE STACK OVENS

1. Place a level on the floor where the casters are to rest.
2. Place shims under the low side until it is level.
3. Mount the shims between the casters and the oven as follows:
 - a. Align the shims and caster holes with the bolt holes.
 - b. Secure with the 1/2" bolts provided.

NOTE: Install them with the locking casters in the front of the oven. The rear casters do not lock. Ensure that the locks are set on the front casters.

4. Tip the oven up on the newly installed casters.

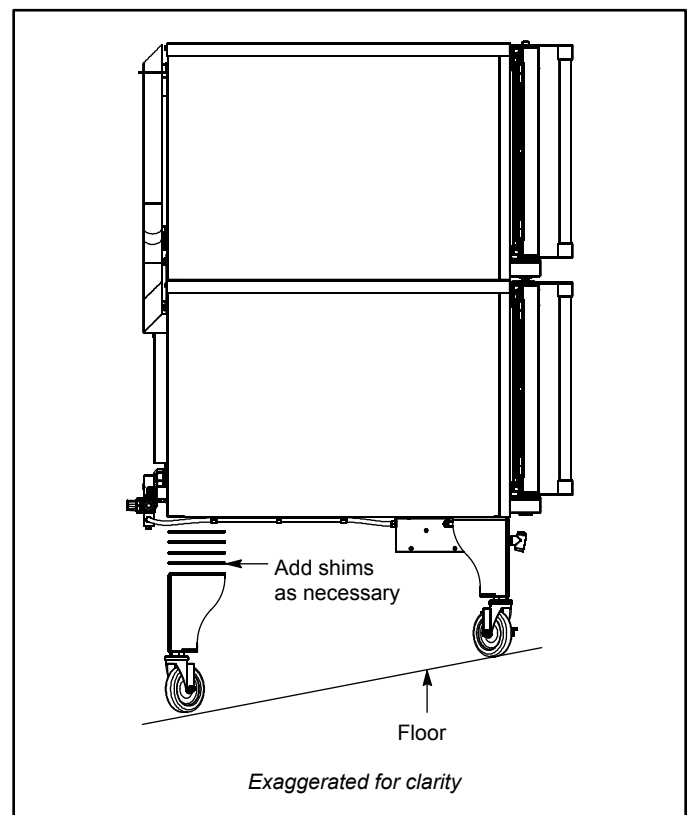


Figure 4



Installation

Stacking



WARNING!!

Stacking should be performed by qualified installation personnel only. The ovens are heavy. Take care to use proper tools and techniques when lifting and stacking units.

1. Attach the legs or casters to the bottom oven.
2. Place the top oven on the bottom oven. Be sure all four sides are flush.
3. Bolt the two ovens together from behind using the stacking brackets.

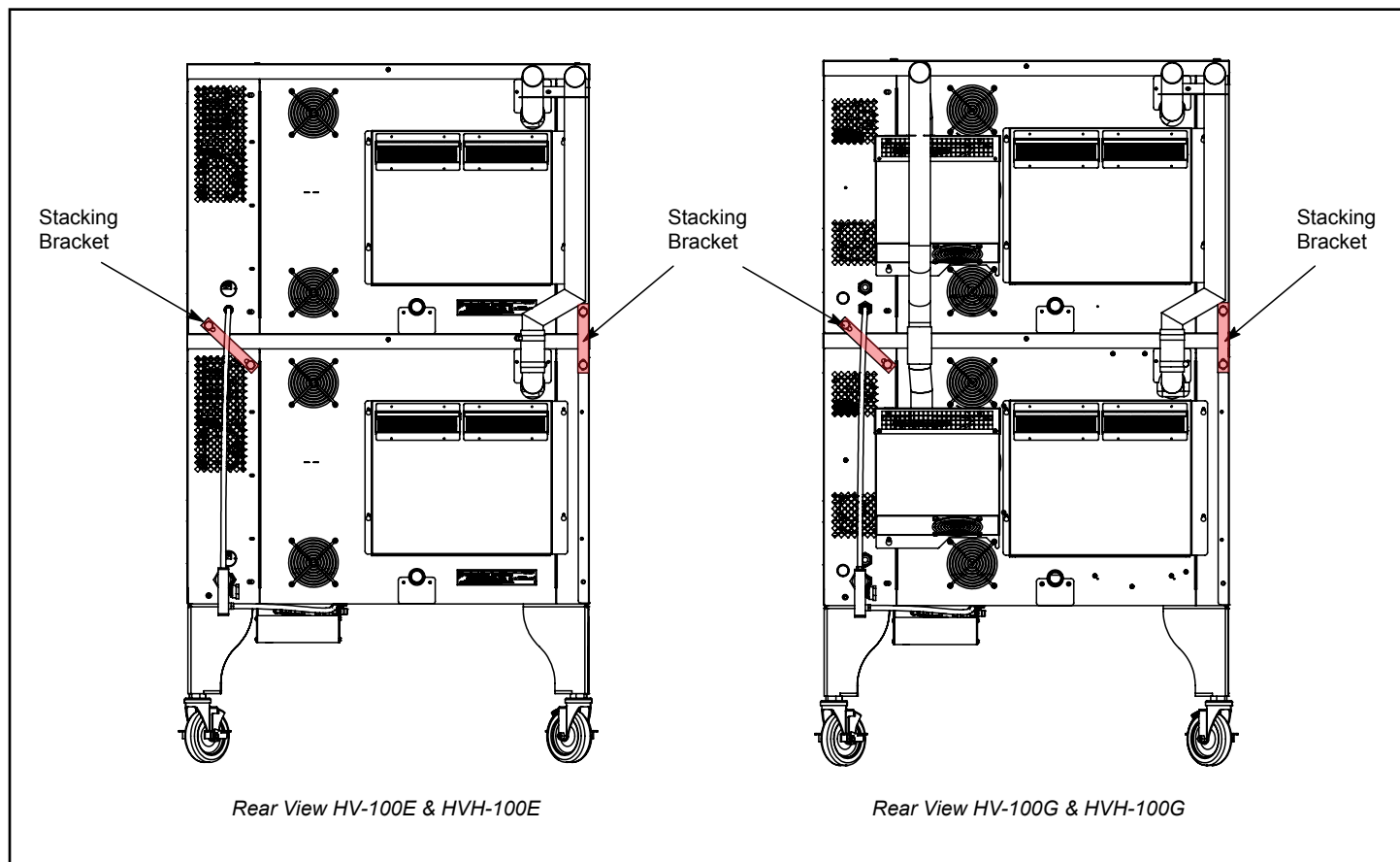


Figure 5



Plumbing Connections

WATER CONNECTION

NOTE: Must use **COLD WATER ONLY**.

Connect the appliance to quality water via a pressure hose with 3/4" GHT (19mm) couplings. See Figure 6 for connections. A shut off valve is to be provided adjacent to the oven.



WARNING!!

Operating the appliance without a water pressure regulator installed will invalidate your warranty.

This product must be installed by a licensed Plumber or Gas Fitter when installed within the Commonwealth of Massachusetts.

DRAIN CONNECTION

The drain should be run to an open floor drain avoiding flexible hose that could sag and allow trapped water to accumulate. The customer must supply the piping from the oven to the drain.

Specific water/drain connection for City of Los Angeles

1. Each drain line from the appliance shall be routed without dips or sags to terminate above the flood level rim of an approved indirect waste receptor.
2. The appliance shall be installed in accordance with the manufacturer's printed instructions and the LAPC and LAMC, 1999 editions.
3. A backflow protection device may be required by local codes. If so, install on the potable water system directly ahead of the appliance. The backflow protection device shall be any of the following: an approved pressure type vacuum breaker installed at least 12" above the highest point of use, a double check valve backflow preventer or a reduced pressure principal backflow preventer.

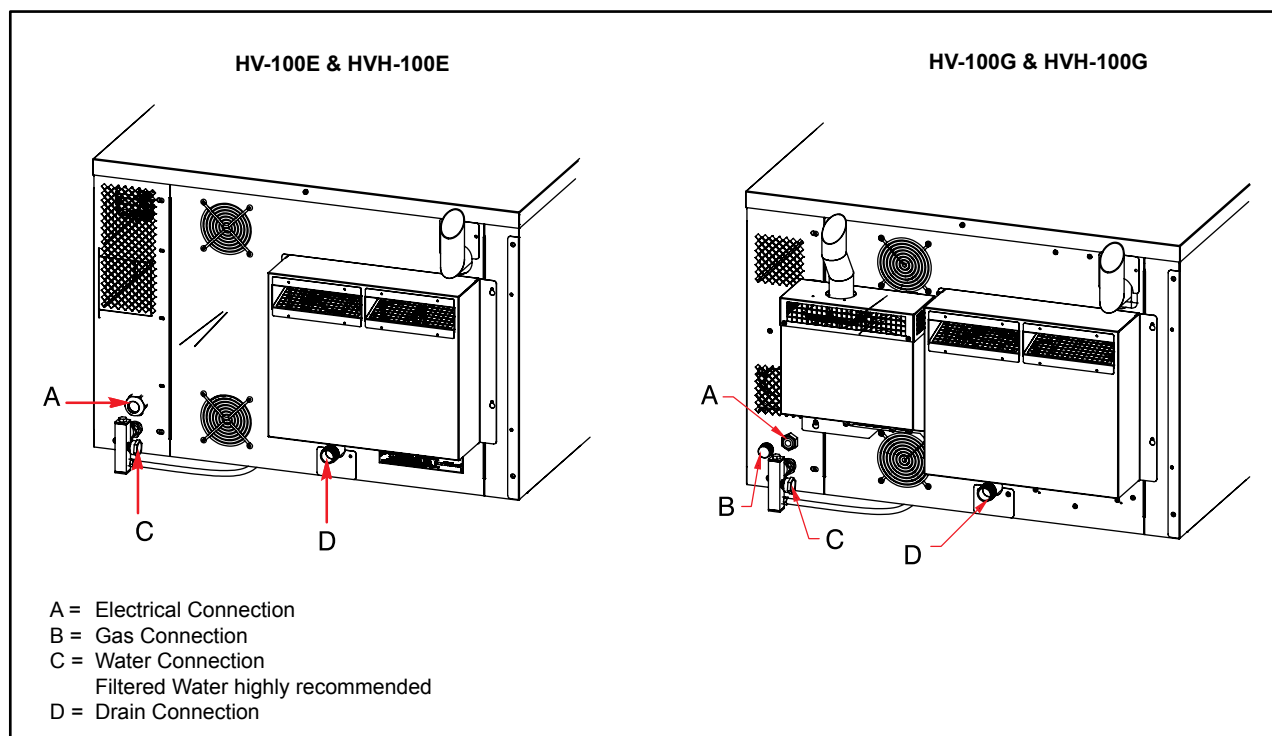


Figure 6



Installation

Electrical Connections

ALL MODELS

NOTE: Electrical connections must be performed by a qualified installer only.

Before making any electrical connections to these appliances, check that the power supply is adequate for the voltage, amperage, and phase requirements stated on the rating name plate mounted on the appliance.

The circuit breaker that is used to provide power to this appliance must have a minimum of .076" (3mm) contact spacing. The circuit breaker must meet all Local and National installation standards.

All appliances must be installed in accordance with Local or National Electrical codes.

A wiring schematic is located on the inside of the removable side panel.

NOTE: Disconnect the power supply to the appliance before servicing.



WARNING!!

Improper installation may invalidate your warranty.

Electric Models

A strain relief for the power supply cord is provided. The installer must supply a cord that meets all Local and National installation standards.

Gas Models

U.S. and Canadian Installations

A power cord (115V units only) is supplied with a plug attached. Plug the power cord into the desired receptacle.

This oven model uses a variable frequency inverter drive. Appliances that use variable frequency inverter drives produce high frequency noise and require filters and shielded motor cabling. This causes higher leakage current toward Earth Ground. Especially, at the moment of switching ON this can cause an inadvertent trip of the appliance's ground fault interrupter (GFCI). Some GFCIs are more sensitive than others. Blodgett has qualified the Pass and Seymour brand, part number 2095, 20 A, 125 VAC, 60 Hz, specification grade GFCI duplex receptacle as being immune to the variable frequency inverter drive's noise. Blodgett recommends using this specific GFCI for this model oven.



WARNING!!

If the supply cord is damaged, it must be replaced by a special cord or assembly available from the manufacturer or its service agent.



Gas Connection

GAS PIPING

A properly sized gas supply system is essential for maximum oven performance. Piping should be sized to provide a supply of gas sufficient to meet the maximum demand of all appliances on the line without loss of pressure at the equipment.

Example:

NOTE: BTU values in the following example are for natural gas.

You purchase the HV-100G to add to your existing cook line.

1. Add the BTU rating of your current appliances.

Pitco Fryer	120,000 BTU
6 Burner Range	60,000 BTU
Deck Oven	50,000 BTU
Total	230,000 BTU

2. Add the BTU rating of the new oven to the total.

Previous Total	230,000 BTU
HV-100G	60,000 BTU
New Total	290,000 BTU

3. Measure the distance from the gas meter to the cook line. This is the pipe length. Let's say the pipe length is 40' (12.2 m) and the pipe size is 1" (2.54 cm).
4. Use the appropriate table to determine the total capacity of your current gas piping.

The total capacity for this example is 375,000 BTU. Since the total required gas pressure, 290,000 BTU is less than 375,000 BTU, the current gas piping will not have to be increased.

NOTE: The BTU capacities given in the tables are for straight pipe lengths only. Any elbows or other fittings will decrease pipe capacities. Contact your local gas supplier if you have any questions.

Maximum Capacity of Iron Pipe in Cubic Feet of Natural Gas Per Hour

(Pressure drop of 0.5 Inch W.C.)

PIPE LENGTH (FT)	NOMINAL SIZE, INCHES				
	3/4"	1"	1-1/4"	1-1/2"	2"
10	360	680	1400	2100	3950
20	250	465	950	1460	2750
30	200	375	770	1180	2200
40	170	320	660	990	1900
50	151	285	580	900	1680
60	138	260	530	810	1520
70	125	240	490	750	1400
80	118	220	460	690	1300
90	110	205	430	650	1220
100	103	195	400	620	1150

From the National Fuel Gas Code Part 10 Table 10-2

Maximum Capacity of Pipe in Thousands of BTU/hr of Undiluted L.P. Gas at 11" W.C.

(Pressure drop of 0.5 Inch W.C.)

PIPE LENGTH (FT)	OUTSIDE DIAMETER, INCHES		
	3/4"	1"	1-1/2"
10	608	1146	3525
20	418	788	2423
30	336	632	1946
40	287	541	1665
50	255	480	1476
60	231	435	1337
70	215	404	1241
80	198	372	1144
90	187	351	1079
100	175	330	1014

From the National Fuel Gas Code Part 10 Table 10-15



Installation

Gas Connection

PRESSURE REGULATION AND TESTING

The gas pressure to the appliance must be rated for each appliance while the burners are on. A sufficient gas pressure must be present at the inlet to satisfy these conditions. Refer to the table below for correct gas pressure.

Each appliance has been adjusted at the factory to operate with the type of gas specified on the rating plate.

Each oven is supplied with a regulator to maintain the proper gas pressure. The regulator is essential to the proper operation of the oven and should not be removed.

DO NOT INSTALL AN ADDITIONAL REGULATOR WHERE THE UNIT CONNECTS TO THE GAS SUPPLY UNLESS THE INLET PRESSURE IS GREATER THAN 14" W.C. (1/2 PSI) (37mbar).

The oven and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.45kPa).

The oven must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas piping system at test pressures equal or less than 1/2 psig (3.45kPa).

Prior to connecting the appliance, gas lines should be thoroughly purged of all metal filings, shavings, pipe dope, and other debris. After connection, the appliance must be checked for correct gas pressure.

U.S. and Canadian Installations

Installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, NFPA54/ANSI Z223.1-Latest Edition, the Natural Gas Installation Code CAN/CGA-B149.1 or the Propane Installation Code, CAN/CGA-B149.2 as applicable.

General Export Installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation and/or operation of your appliance, please contact your local distributor. If you do not have a local distributor, please call Blodgett Combi at 0011-802-658-6600.

GAS PRESSURE - HV-100G

Gas Type	Inlet Pressure	Orifice Size at Sea Level	Manifold Pressure
Natural	7" W.C.	.085" dia	3.5" W.C.
Propane	14" W.C.	.063" dia	10" W.C.



Gas Hose Restraint

If the appliance is mounted on casters, a commercial flexible connector with a minimum of 3/4" (1.9 cm) inside diameter must be used along with a quick connect device.

A restraint must be used to limit the movement of the appliance so that no strain is placed upon the flexible connector. The restraint should be fastened to the base frame of the oven as close to the flexible connector as possible. It should be short enough to prevent any strain on the connector. With the restraint fully stretched the connector should be easy to install and quick connect.

The restraint (ie: heavy gauge cable) should be attached without damaging the building. DO NOT use the gas piping or electrical conduit for the attachment of the permanent end of the restraint! Use anchor bolts in concrete or cement block. On wooden walls, drive hi test wood lag screws into the studs of the wall.



WARNING!!

If the restraint is disconnected for any reason it must be reconnected when the appliance is returned to its original position.

U.S. and Canadian installations

The connector must comply with the Standard for Connectors for Movable Gas Appliances, ANSI Z21.69 or Connectors For Moveable Gas Appliances CAN/CGA-6.16 and a quick disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI Z21.41 or Quick Disconnect For Use With Gas Fuel CAN 1-6.9. Adequate means must be provided to limit the movement of the appliance without depending on the connection and the quick disconnect device or its associated piping.

A drip leg must be used at each appliance. Refer to NFPA54/ANSI Z223.1 - Latest Edition (National Fuel Gas Code) for proper drip leg installation.

General export installations

Installation must conform with Local and National installation standards. Local installation codes and/or requirements may vary. If you have any questions regarding the proper installation and/or operation of your appliance, please contact your local distributor. If you do not have a local distributor, please call Blodgett Combi at 0011-802-658-6600.

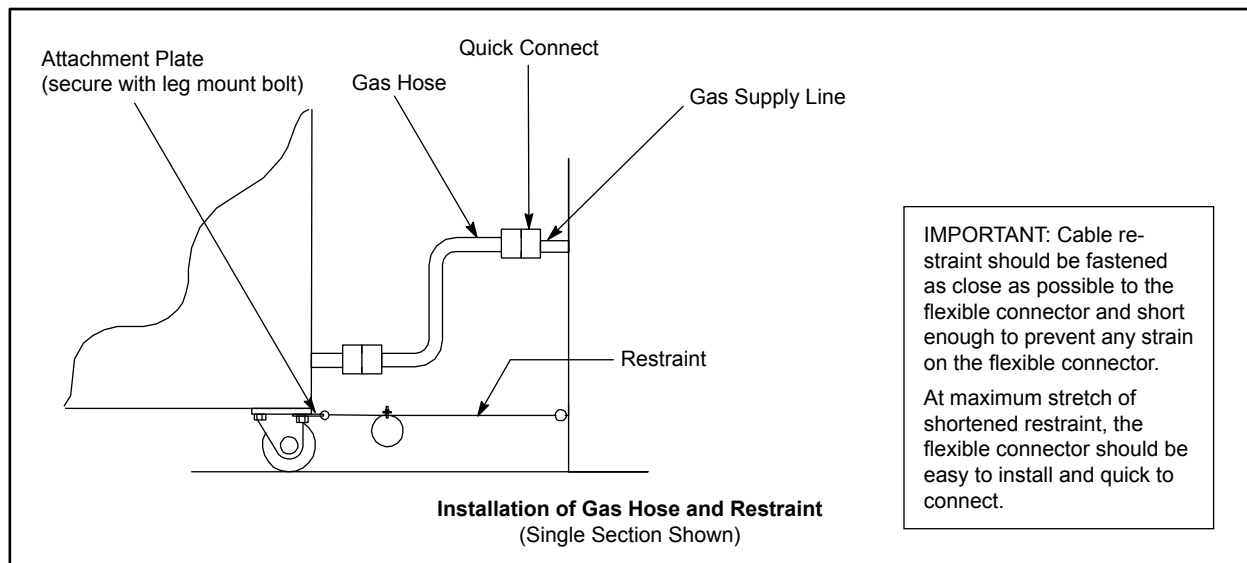


Figure 7



Operation

Safety Information

The information contained in this section is provided for the use of qualified operating personnel. Qualified operating personnel are those who have carefully read the information contained in this manual, are familiar with the functions of the oven and/or have had previous experience with the operation of the equipment described. Adherence to the procedures recommended herein will assure the achievement of optimum performance and long, trouble-free service.

Please take the time to read the following safety and operating instructions. They are the key to the successful operation of your Blodgett oven.



SAFETY TIPS

For your safety read before operating

What to do if you smell gas:

- DO NOT try to light any appliance.
- DO NOT touch any electrical switches.
- Use an exterior phone to call your gas supplier immediately.
- If you cannot reach your gas supplier, call the fire department.

What to do in the event of a power failure:

- Turn all switches to off.
- DO NOT attempt to operate the appliance until the power is restored.

NOTE: In the event of a shut-down of any kind, allow a five (5) minute shut off period before attempting to restart the oven.

General safety tips:

- DO NOT use tools to turn off the gas control. If the gas cannot be turned off manually do not try to repair it. Call a qualified service technician.
- If the oven needs to be moved for any reason, the gas must be turned off and disconnected from the appliance before removing the restraint cable. Reconnect the restraint after the oven has been returned to its original location.
- DO NOT remove the control panel cover unless the oven is unplugged.

Standard Control

NOTE: Not available on HVH-100E and HVH-100G.

CONTROLS IDENTIFICATION

1. MODE SELECTOR SWITCH - turns power to the oven on or off. Allows selection of Hydro, Hydro Max, Hot Air, or Cool Down Modes.
2. DISPLAY - displays time and temperature information.
3. TEMPERATURE DIAL - used to set desired cooking temperature.
4. HEAT LAMP - lights when the oven is calling for heat
5. TIMER LED - lights when the cook time is displayed
6. PROBE ACTUAL LED - lights when the actual probe temperature is displayed
7. PROBE SETPOINT LED - lights when the core set-point temperature is displayed
8. TIMER/PROBE KNOB - use to select and set either cook time or probe temperature
9. LIGHTS KEY - press to turn the oven lights on and off
10. FAN SPEED KEY - used to select fan speed.
11. CAVITY VENT KEY - used to open or close vent to release humidity from cavity.
12. PROBE CONNECTION - used to connect the core temperature probe to the control.
13. CIRCUIT BREAKER - Used to turn power to the unit on or off.
14. HEAT CUTOFF - used to turn gas on or off (HV-100G & HVH-100G only)

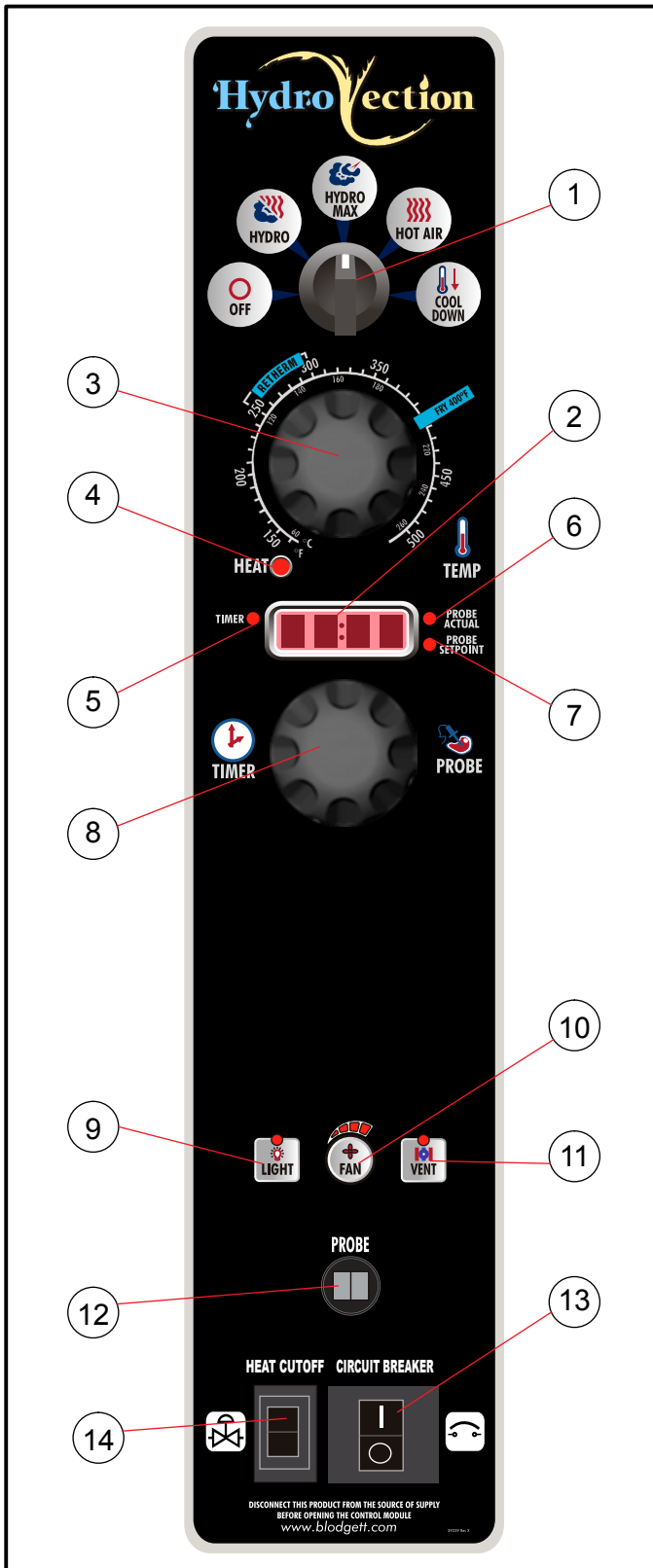


Figure 8



Operation

Standard Control

TIMER COOKING

1. Press the TIMER/PROBE KNOB (8) to select the timer mode. The TIMER LED lights.
2. Turn the MODE SELECTOR Switch (1) to the desired function.
3. Set the TEMPERATURE DIAL (3) to the desired cook temperature.
4. When the oven has reached the cook temperature, load the product.
5. Rotate knob to enter the desired cook time in the display. You can clear the display by rotating counter clockwise. The timer begins on its own.
6. The temperature, time, and mode can be altered at any time during the cooking process.
7. When the timer reaches 00:00, the buzzer sounds. Press or rotate the TIMER/PROBE KNOB (8) counter clockwise to silence the buzzer. Remove the product.

PROBE COOKING

1. Press the TIMER/PROBE knob (8) to select the probe setpoint mode. The PROBE SETPOINT LED (7) lights.
2. Rotate the knob to enter the desired final cook temperature in the display.
3. Insert the core probe into the product. Load product into the oven and close the door. Be sure that the terminal end of the core probe is outside of the oven and clear of the door.
4. Connect the core probe to the PROBE CONNECTION (12) at the bottom of the control.
5. The display gives the actual core probe temperature by pressing the TIMER/PROBE knob (8) again.
6. When the product reaches the final cook temperature the buzzer sounds.

COOL DOWN

NOTE: The unit can be cooled down rapidly.

1. To cool down the oven cavity, open the door and select Cool Down on the MODE SELECTOR Switch (1).



SmartTouch Touchscreen Control

CONTROL DESCRIPTION

1. DISPLAY - displays information related to oven function and/or programming.
2. USB Port and COVER - Use to transfer recipes and data to/from the control
3. CORE PROBE CONNECTION - plug core temperature probe in here when using probe cooking
4. HEAT CUTOFF - used to turn gas on or off (HV-100G & HVH-100G only)
5. CIRCUIT BREAKER - Used to turn power to the unit on or off.

MANUAL MODE COOKING

1. Select the POWER button to turn on the oven and proceed to the manual screen.
2. Set the desired cook settings.

Temperature - Press the temperature text and enter the desired oven temperature on the keypad provided. Press SAVE & EXIT key to return to this screen.

Cook Time - Press the time text and enter the desired cook time on the keypad provided. Press SAVE & EXIT to return to this screen.

Core Probe Cooking - To use the core probe cooking feature, press the PROBE COOK icon. Press the temperature text that appears and enter the desired product core temperature on the keypad provided. Press SAVE & EXIT key to return to the manual cook screen. Insert a product probe in the probe outlet on the control panel. To use the HOLD option, press the HOLD key. Once activated, key will be blue. To escape from probe cooking press the time icon.

Cavity Moisture - Press the HOT AIR icon to reduce the cavity moisture content in 10% increments. At 0% the oven is in the Hot Air mode. Press the HYDRO icon to increase the cavity moisture content in 10% increments. Press % text to set the exact percentage with the keypad. Press the SAVE & EXIT key to return to the manual cook screen. Press and hold the HOT AIR icon for 1 second to set humidity to 0% quickly. Press and hold the HYDRO icon for 1 second to set the humidity to 100% quickly.

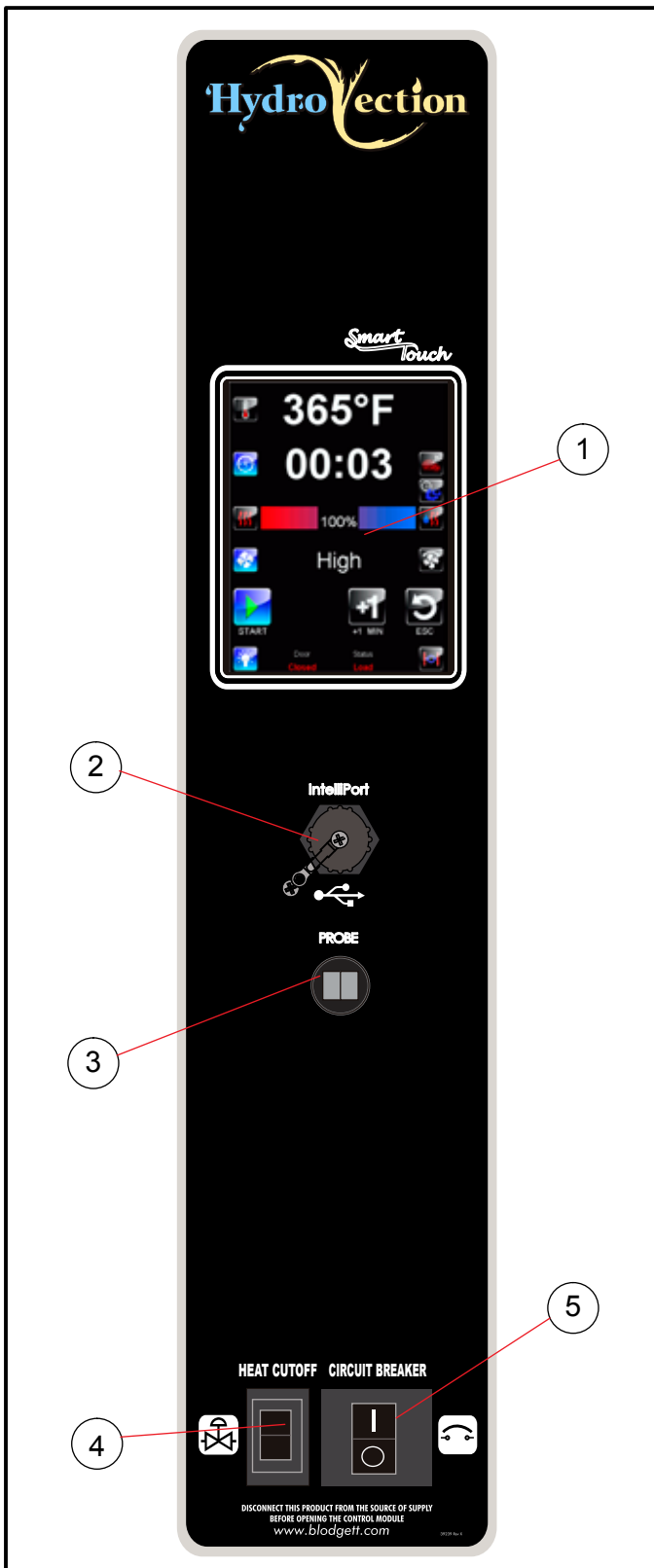


Figure 9



Operation

SmartTouch Touchscreen Control

Fan Speed - With the FAN icon highlighted, press the fan speed text (Gentle, Low, High or Turbo). When Turbo is displayed, press the text again to reduce the fans speed to Gentle.

Fan Reversal Interval - To adjust the fan reversal time, press the FAN REVERSAL icon. Then press the time text and enter the desired reversal interval on the keypad provided. Press SAVE & EXIT key to return to this screen.

Vent Position - At any time the vent can be opened or closed by toggling the VENT icon. When the icon is highlighted the vent is open.

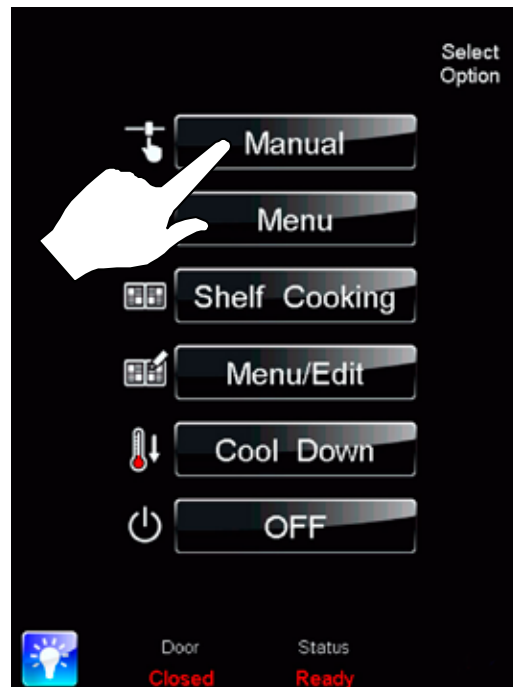
NOTE: When vent is opened on HVH models, air is actively forced through the system. This allows for the rapid evacuation of moisture from the cavity.

Lights - At any time the lights can be turned on or off by toggling the LIGHT icon.

3. Press START Icon to begin cooking. Press Cancel key to stop cooking. Press +1 MIN to add 1 minute to the cook time.



Power Screen



Mode Selection Screen

Figure 10

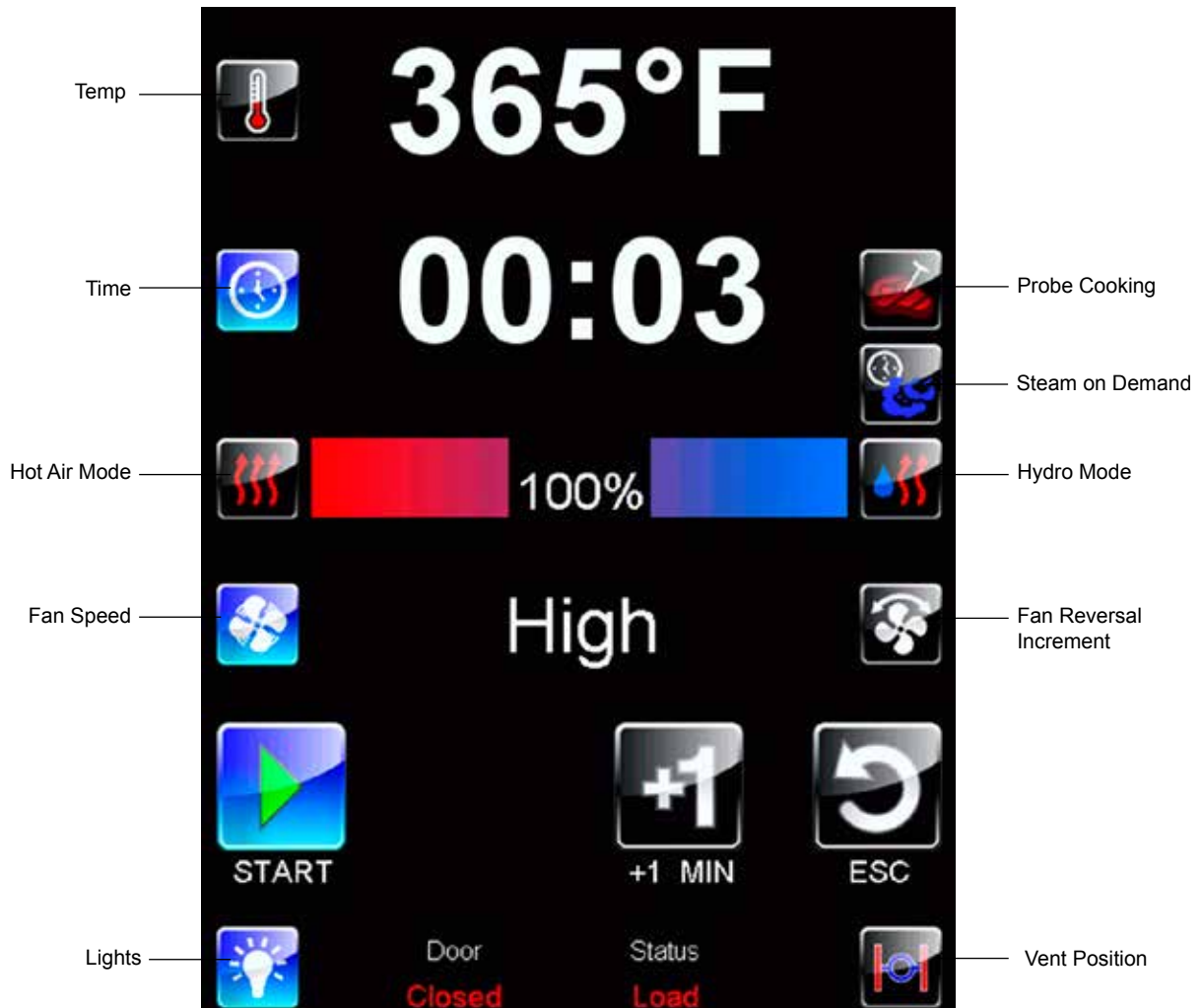


Figure 11



Operation

SmartTouch Touchscreen Control

MENU MODE COOKING

1. On a manual screen, press the ESC key to exit the screen.
2. Select the MENU key to cook using the pre-programmed menu items.



Figure 12

3. Select the desired food category for your product.



Figure 13

4. Within the food category, select the desired product you wish to cook.



Figure 14

5. Once selected the control returns to the Menu Cooking screen. Press the START KEY to begin the cook cycle.



Figure 15

SmartTouch Touchscreen Control

SHELF COOKING

1. Select the SHELF COOKING key.

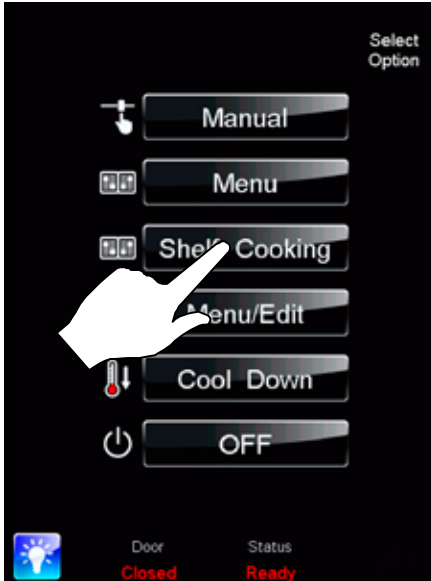


Figure 16

2. Select which shelves you intend to place the selected food item on. Press selected item icon in the upper right corner of the screen to add different items that share the same cook temperature but may have different cook times.

Once preheated, start icons will appear. You can choose start all or start individual shelves.



Figure 17

3. During the cook cycle, individual shelf cook timers will count down as the product is cooked. If you wish to cancel the bake, you can press the STOP ALL key, or you can stop individual shelves.

To add time, select +1 MIN key for individual shelves or +1 MIN ALL key to add time to all shelves. Each time the key is pressed, 1 minute of cook time is added.

Press STOP again to reset to the original values. CLEAR ALL to clear all products from all shelves. All Shelves must be cleared to escape the screen.

Once the bake is complete the beeper will sound.



Figure 18



Operation

SmartTouch Touchscreen Control

EDITING A MENU

1. Select the MENU/EDIT icon to edit the recipes in the menu mode.

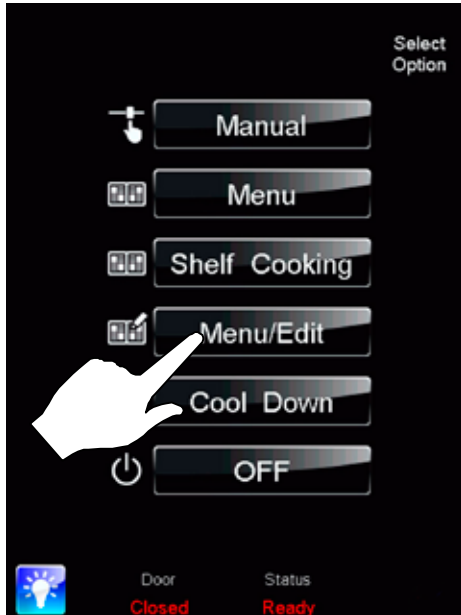


Figure 19

2. Select the EDIT ITEMS icon to edit the menu items.

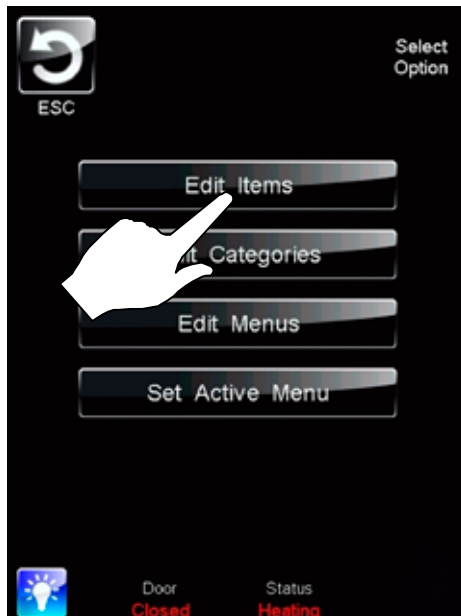


Figure 20

3. To edit an existing item, select the item while the EDIT ITEMS key is highlighted.

To delete an Item, select the item while the DELETE key is highlighted.

To create a new item, select the NEW ? icon while the EDIT key is highlighted.



Figure 21



SmartTouch Touchscreen Control

4. Each recipe is made up of steps containing seven settings - temperature, time, fan, etc. A new step is needed when you desire a different setting within a step.

To edit a setting within a particular step, press the icon for that setting. A keypad will appear for you to input your value.

To add a step, press the + key icon.

To edit a step, press the arrow keys on the bottom left hand corner of the screen to highlight the step you wish to edit. Follow the instructions above to edit the settings.

To delete a step, use the arrow keys on the bottom left hand corner of the screen to highlight the step you wish to delete. Press the red X icon to delete the highlighted step.

Once you are finished, press the DISK icon to save the changes.



Figure 22



Operation

SmartTouch Touchscreen Control

EDITING A CATEGORY

1. Select the MENU/EDIT icon to edit the recipes in the menu mode.

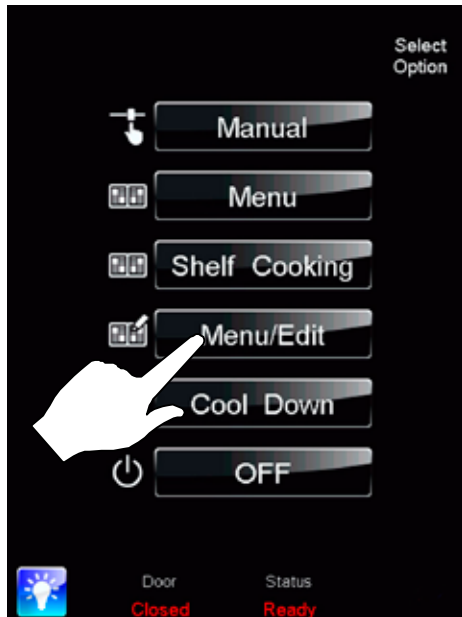


Figure 23

2. Select the EDIT CATEGORIES icon to select which items are in each category.

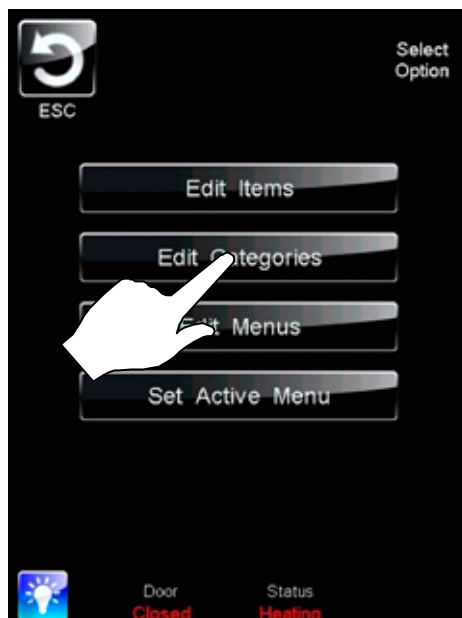


Figure 24

3. To edit an existing category, select the category while the EDIT key is highlighted.

To delete a category, select the category while the DELETE key is highlighted.

To create a new category, select the NEW ? icon while the EDIT key is highlighted.



Figure 25

4. Select what you would like to edit.

To edit the name, press the EDIT NAME key. A keyboard will appear, enter the desired name and press ENTER to return to this menu.



Figure 26

SmartTouch Touchscreen Control

5. To edit the category icon, press the category icon displayed in the category edit screen. The Select Icon screen is displayed. Select the desired icon. To view more icon options, press the arrow key.

Once the category icon is selected, the category edit screen is displayed. Press the DISK icon to save your changes.



Figure 27

6. To edit items within a category, press the SELECT ITEMS key on the edit category screen.

Select the items you would like to appear within the category. When complete, press ESC key to return to the previous menu. Press the DISK icon to save your changes.



Figure 28



Operation

SmartTouch Touchscreen Control

CREATING NEW MENU ITEMS

1. Select the EDIT ITEMS key.

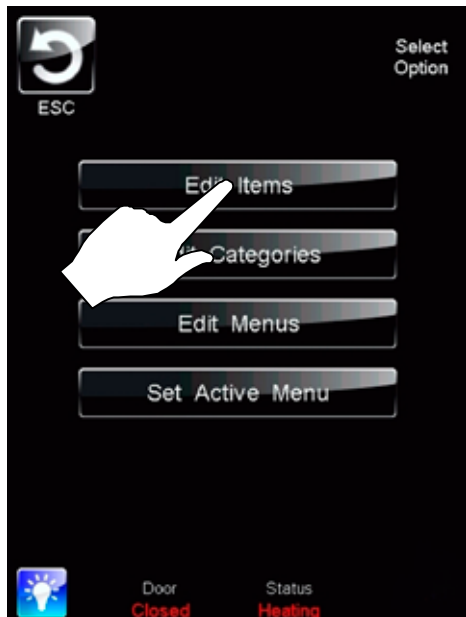


Figure 29

2. Select New?
3. Select the food icon to be displayed. Use the arrow keys to page through the available icons. Press the desired icon to select and return to the previous screen.
4. Name the item. Press the blank shelf below the icon to name the recipe. A keyboard will appear. Enter the desired name. Press ENTER when finished to return to the previous screen.

5. **Program the recipe steps** - Each recipe is made up of steps containing seven settings - temperature, time, fan, etc. A new step is needed when you desire a different setting within a step.

To edit a setting within a particular step, press the icon for that setting. A keypad will appear for you to input your value.

To add a step, press the + key icon.

To edit a step, press the arrow keys on the bottom left hand corner of the screen to highlight the step you wish to edit. Follow the instructions above to edit the settings.

To delete a step, use the arrow keys on the bottom left hand corner of the screen to highlight the step you wish to delete. Press the red X icon to delete the highlighted step.

Once you are finished, press the DISK icon to save the changes.

6. To file recipe under an existing category, press the EDIT CATEGORIES key. Select the desired category. Press the SELECT ITEMS key. Highlight the new item. Press the ESC key. The disk will be displayed, press to save your changes.



SmartTouch Touchscreen Control

CREATING NEW CATEGORIES

1. Select the EDIT CATEGORIES key.

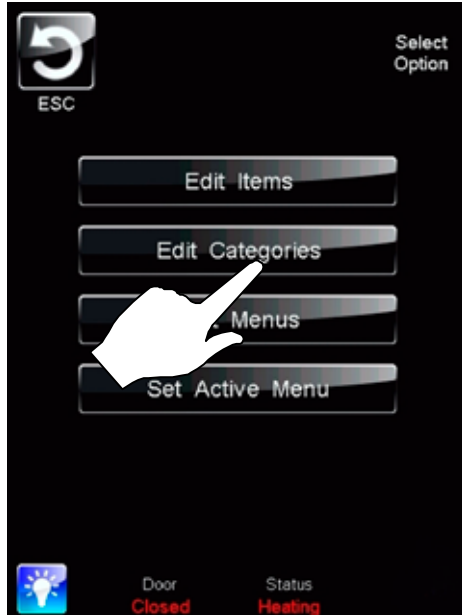


Figure 30

2. Select New?
3. Select the category icon to be displayed. Use the arrow keys to page through the available icons. Press the desired icon to select and return to the previous screen.

4. Press EDIT NAME. A keyboard will appear. Enter the desired name. Press ENTER when finished to return to the previous screen.
5. Press SELECT ITEMS. Select items to be filed in the new category. Items will be highlighted as they are selected. Press ESC key to return to the previous screen. The disk will be displayed, press to save your changes.
6. To display the category, it must be added to the default menu as follows:

Press the EDIT MENUS key. Select the DEFAULT key. Select the CATEGORIES key. Highlight the new category. Press the ESC key to return to the previous screen. The disk will be displayed, press to save your changes.



Operation

SmartTouch Touchscreen Control

TRANSFERRING RECIPES USING THE USB

1. Return to the power screen.

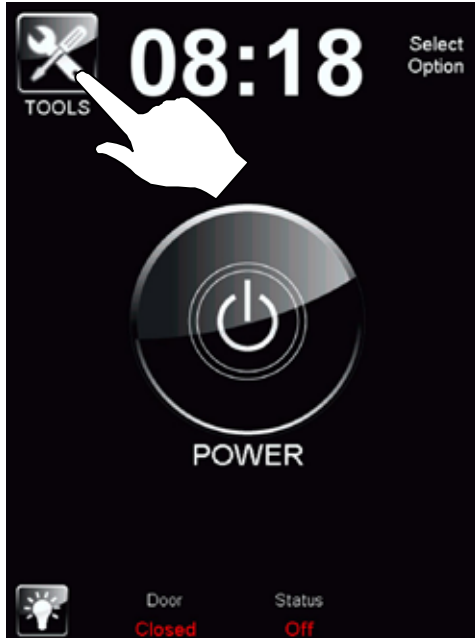


Figure 31

2. Press the TOOLS key. Enter the code 6647 on the keypad.



Figure 32

3. Press the MANAGE MENU DATA key. Insert the USB drive into the Intelliport.

To Store Menu Data to a USB

1. Press the STORE MENU DATA to USB key to transfer recipes to the USB.

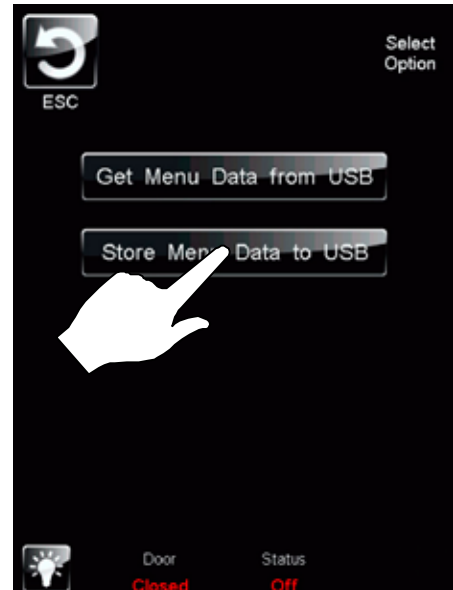


Figure 33

2. The keyboard screen is displayed. Use to enter desired file name. Press the ENTER key when finished.



Figure 34



SmartTouch Touchscreen Control

- The status screen appears to display the download status. The display returns to the previous screen when download is complete.



Figure 35

- Press the ESC key to exit USB screen.

To Retrieve Menu Data from USB

- Press the GET MENU DATA from USB key to transfer recipes from the USB.

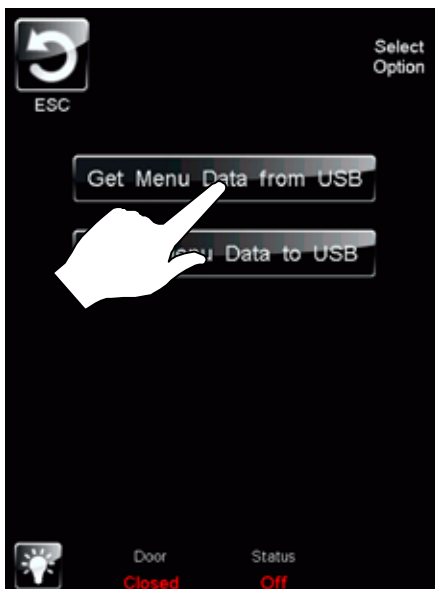


Figure 36

- The control displays all menu (.MNU) files on the USB drive. Select the desired file.

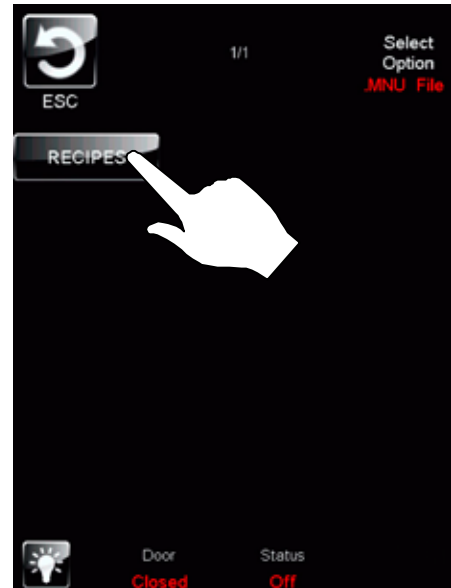


Figure 37

- The overwrite warning screen appears. Press YES to continue

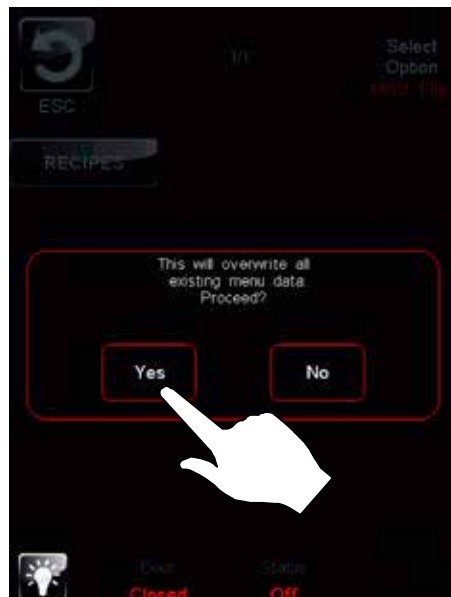


Figure 38

- The status screen appears to display the upload status. The display returns to the previous screen when upload is complete.
- Press the ESC key to exit USB screen.



Operation

SmartTouch Touchscreen Control

COOL DOWN

1. To cool down the unit, press the COOL DOWN icon.



Figure 39

2. The oven will toggle between cooling and open door in yellow until the oven is cool. Once cool, the oven will go to standby.

NOTE: If the oven is shut down with the circuit breaker switch at the bottom of the front panel, the display will return to the power screen. Select your option to begin.

NOTE: On HVH model, the vent will automatically engage during cooldown to assist in lowering cavity temperature. Main fan and vent will disengage when oven has cooled.



Figure 40



Spray Bottle Operating Procedure

NOTE: Only use a commercial oven cleaner/degreaser with the spray bottle. DO NOT use chemicals that are not intended as oven cleaners. See chemical manufacturer's information for intended use.

1. Unscrew the sprayer head and fill the container to the MAX mark. Screw the head assembly on firmly to ensure an airtight seal. The liquid must be clean and free from foreign matter. Do not overfill - space must be left for compressing air.
2. To build up pressure, pump approximately 20 full strokes when the container is filled with liquid. The higher the pressure, the finer the spray. If the container is only partially filled, then more pumping is required to compress the additional air space.
3. To spray, depress the trigger with your thumb.
4. Adjust spray nozzle for a wide spray pattern.
5. After a period of spraying, the pressure will drop. Re-store the pressure by operating the air pump.
6. Release pressure after use by inverting the spray head and depressing the trigger or by slowly unscrewing the spray head assembly which will allow air to escape from around the filling aperture.
7. After use, rinse the spray bottle with clean water and check that the hole in the nozzle is perfectly clean and clear. Warm water (not hot) used with a household detergent is a useful cleaning agent for this purpose.

NOTE: Further information can be found in the instruction leaflet supplied with your spray bottle.



WARNING!!

Protective clothing and eyewear should be worn while using cleaning agents.

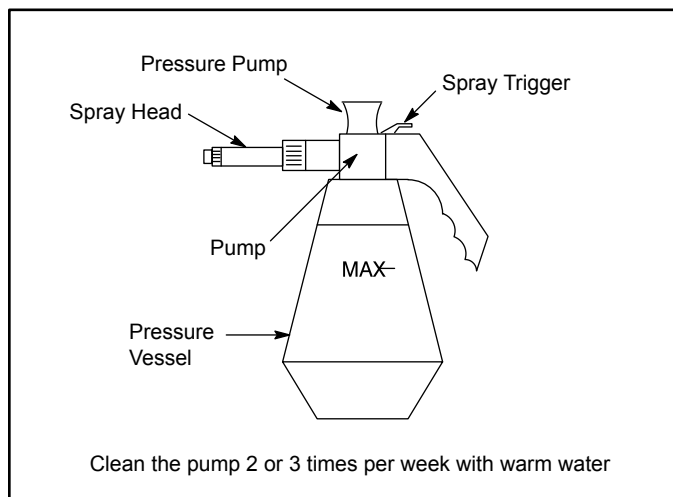


Figure 41

Complete Spray Bottle - P/N R0006

Spray Head Repair Kit - P/N R6332



Maintenance

Cleaning and Preventive Maintenance

CLEANING THE INTERIOR

Daily Cleaning

Daily cleaning of the appliance is essential for sanitation, and to ensure against operational difficulties. The stainless steel cavity may corrode with improper cleaning of the oven. Use an oven cleaning detergent in conjunction with the supplied spray bottle.

For difficult cleaning, allow the spray-on oven cleaner to work longer before rinsing.

1. Cool the appliance down to 140°F (60°C) or, if the oven has been idle, turn the Hydro mode on for 3 to 4 minutes in order to warm the cavity surfaces.
2. Fill the spray bottle and pump air into the container with the pressure pump.
3. Spray the interior of the oven with a cleaning solution. Be certain to spray cleaner through the fan guard to cover all surfaces.

NOTE: Never spray water into the appliance when the temperature is above 212°F (100°C).

4. Let the cleaner work the time recommended by the cleaning solution manufacturer. For difficult, baked on grease, etc. allow to work over night.
5. Set the timer for 15 to 20 minutes.
6. Run the oven at 225°F (107°C) in the Hydro mode with 100% humidity. This will soften all burned on residue.
7. Rinse the appliance interior with water (a hose is supplied, but take care that only the interior cavity is sprayed with water). Wipe the interior dry after rinsing.
8. The door should be kept slightly open after cleaning. This will allow the oven to vent and increase the life of the door gasket.

On stainless interiors, deposits of baked on splatter, oil, grease or light discoloration may be removed with a good non toxic industrial stainless steel cleaner. Apply cleaners when the oven is cold and always rub with the grain of the metal. The racks, rack supports and the blower wheel may be cleaned in the oven or by removing them from the oven and soaking them in a solution of ammonia and water.

NOTE: DO NOT use corrosive cleaners not intended for oven cleaning on your Hydrovection oven.

Recommended cleaners:

- ECOLAB Greasecutter Plus
- CELLO EZ Clean
- Diversey-Lever Advance Oven Cleaner



WARNING!!

Be sure to read and follow the MSDS or safety instructions on the bottle for your oven cleaner.



Cleaning and Preventive Maintenance

Oven Weekly Cleaning

In addition to the daily cleaning, it is necessary to clean behind the fan guard of this oven on a weekly basis. This is necessary for proper functioning of the oven. Scale will build up on the fan and heat source leading to a less efficient oven.

1. Turn off the oven. Make sure that the oven is cooled down to under 140°F (60°C).
2. Remove the rack guides.
3. Rotate the two screws on the left side of the fan guard.



Figure 42

4. Remove the fan guard.



Figure 43

5. Thoroughly spray cleaner onto the fan and heat source. Close the door to allow the cleaner to work.
6. After ten minutes, rinse the cleaner off. Return the fan guard to the closed position. Rotate the two screws to secure the fan guard.

Remove and clean the blower wheel every 6 months.

CLEANING THE EXTERIOR

The exterior of the appliance may be cleaned and kept in good condition with a light oil. Saturate a cloth and wipe the appliance when it is cold; wipe dry with a clean cloth.



WARNING!!

DO NOT spray the outside of the appliance with water or clean with a water jet. Cleaning with a water jet can impregnate chlorides into the stainless steel, causing the onset of corrosion.

PREVENTIVE MAINTENANCE

The best preventive maintenance measures are the proper initial installation of the equipment and a program for cleaning the appliance routinely. The Hydrovection requires no lubrication. Contact the factory, the factory representative or a local Blodgett service company to perform maintenance and repairs should they be required.