

**BLODGETT**® **BLODGETT**® **BLODGETT**® **BLODGETT**®

**BLODGETT**® **BLODGETT**® **BLODGETT**®

**BLODGETT**® **BLODGETT**® **BLODGETT**® **BLODGETT**®

**BLODGETT**®

**BC-20E AND BC-20G  
COMBINATION OVEN STEAMER  
INSTALLATION - OPERATION - MAINTENANCE**



**BLODGETT OVEN COMPANY**

[www.blodgett.com](http://www.blodgett.com)

44 Lakeside Avenue, Burlington, Vermont 05401 USA Telephone: (802) 658-6600 Fax: (802)864-0183

PN 53455 Rev L (5/15)

© 2015 - G.S. Blodgett Corporation

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.

# TABLE OF CONTENTS

## INSTALLATION

|                                                 |    |
|-------------------------------------------------|----|
| The Blodgett Combi-Oven/Steamer .....           | 4  |
| Description of the Combi-Oven/Steamer .....     | 5  |
| Owner's Responsibilities .....                  | 2  |
| Location and Ventilation .....                  | 4  |
| Utility Connections - Standards and Codes ..... | 5  |
| Plumbing Connections .....                      | 6  |
| Electrical Connections .....                    | 7  |
| Gas Connection .....                            | 8  |
| Final Check and Adjustments .....               | 10 |
| Final Check Lists .....                         | 11 |

## OPERATION

|                           |    |
|---------------------------|----|
| Safety Information .....  | 12 |
| Manual Control .....      | 13 |
| MenuSelect™ Control ..... | 15 |

## MAINTENANCE

|                                           |    |
|-------------------------------------------|----|
| Spray Bottle Operating Procedure .....    | 20 |
| Cleaning and Preventive Maintenance ..... | 21 |
| Flushing the Boiler .....                 | 22 |
| Deliming .....                            | 23 |



# Installation

## The Blodgett Combi-Oven/Steamer

The Blodgett Combi-Oven/Steamer offers a completely new method of cooking. With the Oven/Steamer you have the choice of two cooking processes: Steam and Hot Air, either...

- Separately
- Combined, or
- In Sequence

And for easy operation you can choose from three modes:



In the **Steam mode** you can:

|         |          |              |
|---------|----------|--------------|
| steam   | reheat   | reconstitute |
| stew    | thaw     | simmer       |
| blanche | preserve | braise       |
| poach   |          |              |

In the **Hot Air** mode you can:

|           |       |       |
|-----------|-------|-------|
| roast     | bake  | grill |
| gratinate | broil |       |

In the **Combination Steam and Hot Air** mode you can:

|         |       |              |
|---------|-------|--------------|
| defrost | roast | rethermalize |
| reheat  | bake  | forced steam |

You can also use two or three functions in sequence during one cooking process. We call this:

- combi-steaming
- combi-roasting
- combi-baking

The combination of circulating hot air and steam in the space saving, high performance Combi-Oven/Steamer leads to improvements in the following areas:

- increased productivity in the kitchen
- a reduction in capital expenditures for multiple equipment replacement
- a wider range of menu choices
- a simplified cleaning process

The work process is simplified since products are prepared on or in steam table pans and trays. Food can be cooked, stored, and transported with the same pans. Small amounts of product can be processed efficiently; pre-cooked and convenience foods can be reheated within minutes. Many frozen foods can be processed without pre-thawing. This flexibility in preparation reduces the need for kettles and steam tables since there is no need for large amounts of food to be kept warm for long periods of time.

Today the improvement of food quality is more important than ever. Vegetables are cooked in the Blodgett Combi-Oven/Steamer without water at the optimal temperature of just under 100°C (212°F), maintaining valuable vitamins, minerals, nutrients and trace elements. Cooking meat in the Combi results in less shrinkage and a firmer, juicier product. The Blodgett Combi-Oven/Steamer is being used more and more for baking. Steam and Hot Air modes make it a general purpose baking appliance.



---

## Description of the Combi-Oven/Steamer

### ABOUT THE OVEN/STEAMER

Blodgett Combi-Oven/Steamers are quality produced using high-grade stainless steel with first class workmanship.

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

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

The high performance fresh steam generator with its control system makes it possible to enjoy all of the advantages of a high quality steamer at the flick of a switch. Fresh steam enters the oven cavity without pressure and is circulated at high speed. This process enables quick and gentle cooking and ensures high quality food while providing convenient working methods. The steam generator is completely automatic and protected from running dry.

### OVEN/STEAMER OPERATION

The practical oven door, with a viewing window, has 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. Steam, Hot Air and Combi modes can be selected with one switch. The Steam On Demand feature allows the operator to add steam at any time for up to 8 minutes while operating in either the hot air or Combi modes. This feature is excellent for baking as well as roasting operations. A fourth function on the mode selection switch, the Cool Down mode, allows the oven cavity to cool down rapidly with the door opened.

The steam on demand function allows the operator the ability to introduce steam into the cooking process at any time.

Cleaning is kept to a minimum. The interior is sprayed with a self-acting cleaning solution which interacts with steam 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 steam cleaning process.



# Installation

## Owner's Responsibilities

1. Oven(s) are uncrated and put in place.
2. The owner/operator must have the following plumbing, gas and electrical requirements met and installed.

*NOTE: Refer to the Utility Connection information provided.*



### WARNING!!

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

### PLUMBING SPECIFICATIONS - BC-20E & BC-20G

| WATER                            |                                                                                                                                               |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Water pressure                   | 40 PSI min/116 PSI max                                                                                                                        |
| Water connection                 | 3/4" Hose Fitting, 3/8" ID hose minimum                                                                                                       |
| Water pressure regulator setting | 35 PSI Preset                                                                                                                                 |
| Minimum requirements             | TDS: 40-125 ppm<br>Hardness: 35-100 ppm<br>Chlorides: <25 ppm<br>Silica: <13 ppm<br>Chlorine: <0.2 ppm<br>Chloramine: <0.2 ppm<br>pH: 7.0-8.5 |
| DRAINAGE                         |                                                                                                                                               |
| Drain type                       | Atmospheric Vented Drain                                                                                                                      |
| Drain connection                 | 2" O.D.                                                                                                                                       |
| Maximum water drain temperature  | 140°F (60°C)                                                                                                                                  |

### GAS RATINGS - BC-20G

| Gas Input                                                        |                           |
|------------------------------------------------------------------|---------------------------|
| Steam                                                            | 90,000 BTU/HR             |
| Hot Air                                                          | 125,000 BTU/HR            |
| Inlet Pressure to the Unit                                       |                           |
| Natural Gas                                                      | 5-14" WC (1.24-3.48 kPa)  |
| Propane                                                          | 11-14" WC (2.73-3.48 kPa) |
| Pressure at the Manifold                                         |                           |
| Natural Gas                                                      | 3.5" WC (.87 kPa)         |
| Propane                                                          | 10" WC (2.49 kPa)         |
| <i>3/4" MNPT connector for all US and Canadian installations</i> |                           |

# Installation



## Owner's Responsibilities

| ELECTRICAL RATINGS - BC-20G |       |      |                                                                                                                                                            |
|-----------------------------|-------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VOLTAGE                     | PHASE | AMPS | RECEPTACLE                                                                                                                                                 |
| 115                         | 1     | 20   | Nema 5-20R dedicated receptacle<br>Blodgett recommends a Pass & Seymore, model 2095, CFCI for this oven model due to the use of a variable frequency drive |
| 208/240V                    | 1     | 15   | Nema 6-15 dedicated receptacle                                                                                                                             |

| ELECTRICAL RATINGS - BC-20E |         |               |         |        |
|-----------------------------|---------|---------------|---------|--------|
| Total KW                    | Voltage | Amps/Line Max |         | Motor  |
|                             |         | 3 Phase       | 1 Phase |        |
| 61                          | 208     | 170           | n/a     | 3/4 hp |
| 61                          | 240     | 147           | n/a     | 3/4 hp |
| 61                          | 480     | 74            | n/a     | 3/4 hp |
| kW by Mode                  |         |               |         |        |
| Steam                       | 45 kW   |               |         |        |
| Hot Air                     | 60 kW   |               |         |        |
| Combi                       | 60 kW   |               |         |        |



# Installation

---

## Location and Ventilation

### LOCATION

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

The following clearances must be maintained between the unit and any combustible or non-combustible construction.

#### BC-20G

- Right side of unit - 6" (15 cm)
- Left side of unit - 6" (15 cm)
- Back of unit - 6" (15 cm)

#### BC-20E

- Right side of unit - 1" (2.5 cm)
- Left side of unit - 4" (10 cm)
- Back of unit - 6" (15 cm)

The following clearances are recommended, but not required, for servicing.

#### All Models

- Left side of unit - 12" (30 cm)
- Back of unit - 12" (30 cm)

Place the unit in an area which is free of drafts and accessible for proper operation and servicing.

Keep the operating area free and clear of all combustibles such as paper, cardboard, and flammable liquids and solvents.

DO NOT place the unit on a curb base or seal to the wall; either condition will prevent proper ventilation to the blower motors. Slight unevenness can be corrected with the adjustable legs.

All motor bearings are permanently lubricated by the manufacturer; there is no need for additional lubrication during the operational lifetime of the motors.

### 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 Combi at 0011-802-658-6600.

## 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 responsible for:

- the installation or replacement of gas piping and 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, familiar with all precautions required, and have complied with all requirements of state or local authorities having jurisdiction.

### U.S. and Canadian installations

The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B149.1, as applicable.

Installation must conform with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-Latest Edition and/or Canadian National Electric Code C22.1 as applicable.

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

### Australia and 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 Blodgett oven, please contact your local distributor. If you do not have a local distributor, please call the Blodgett Oven Company at 0011-802-658-6600.





# Installation

## Plumbing Connections

### WATER CONNECTION

**NOTE:** Hot water maximizes steam production but is not required. Cold water may be supplied to both inlets if hot water is not available.

Connect the appliance to quality cold water via a pressure hose with 3/4" (1/9 cm) couplings. Cold water is connected to the left solenoid/pressure regulator as viewed from the rear of the oven. Hot water connection, right solenoid/pressure regulator, to the boiler is recommended. A shut off valve must be provided adjacent to the oven.

**NOTE:** Hot water must not be applied to the cold water inlet.

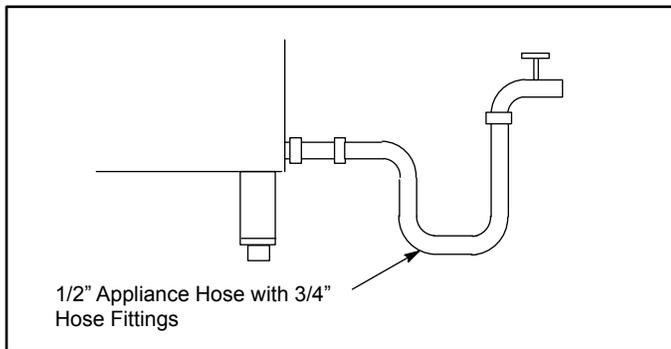


Figure 1



### WARNING!!

**The use of poor quality water 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

A 2" (5 cm) copper pipe with standard drain pitch must be run to an open drain or connected to a standpipe equipped with a vent.

**NOTE:** The waste water can also be directed to a nearby floor drain. Flexible hose which allows trapped water to accumulate in sagged runs must be avoided.

1. Find the drain connection on the lower rear of the unit.
2. Loosen the coupling clamps. Attach a 2" (5 cm) copper drain pipe to the drain connection. Retighten the coupling clamps.

**NOTE:** The open end of the drain should be installed facing the floor. Copper line, used for installation to an open drain or floor sink, must be supplied by the installer. **Use of a trap inline will cause drain backup.**

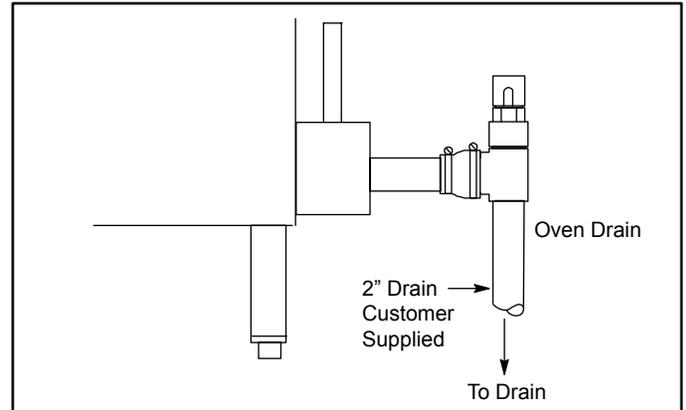


Figure 2

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.



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

Wiring diagrams are located on the inside of the removable side panel.

*NOTE: Disconnect the Power Supply to the unit Before Servicing!*

### U.S. and Canadian installation

All units, when installed, must be electrically grounded in accordance with local codes or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70-Latest Edition and/or Canadian Electrical Code CSA C22.1 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 unit, please contact your local distributor. If you do not have a local distributor, please call Blodgett Combi at 0011-802-658-6600.



### **WARNING!!**

**Improper electrical installation will invalidate your warranty.**

### BC-20G only

#### U.S. and Canadian Installations

A power cord (115V or 230V) 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.**



# Installation

## 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 a BC-20G 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 |
| BC-20G         | 125,000 BTU |
| New Total      | 355,000 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 20' (6m) 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 465,000 BTU. Since the total required gas pressure, 355,000 BTU is less than 465,000 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*

## 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 attached to the right side of the appliance.

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 and Propane Installation Code CAN/CSA-B149.1.

### 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.

| <b>GAS PRESSURE</b>                    |                       |                                  |                |                          |           |
|----------------------------------------|-----------------------|----------------------------------|----------------|--------------------------|-----------|
| <b>Gas Type</b>                        | <b>Inlet Pressure</b> | <b>Orifice Size at Sea Level</b> |                | <b>Manifold Pressure</b> |           |
|                                        |                       | Hot Air                          | Steam          | Hot Air                  | Steam     |
| <b>U.S. and Canadian Installations</b> |                       |                                  |                |                          |           |
| Natural                                | 5-14" W.C.            | 1/16"(.0625") dia                | #58 .042" dia  | 3.5" W.C.                | 3.5" W.C. |
| Propane                                | 11-14" W.C.           | #62 .0380" dia                   | #70 .0280" dia | 10" W.C.                 | 10" W.C.  |



# Installation

## Final Check and Adjustments

### BEFORE SWITCHING THE APPLIANCE ON

Before applying power to the unit for the first time, check for the following conditions:

- The unit is level.
- All electrical safety provisions have been adhered to and the electrical connections are correct.
- Water is connected, turned on and all of the connections are water tight.
- Grease filters are in their proper positions
- The transport cart is inserted into the cooking cavity. When the cart is not inserted into the unit, water can spill onto the floor causing it to become slippery. If the door will not close properly, use the following adjustment procedure.
- BC-20G only - Check gas fittings with leak detection solution.

### DOOR ADJUSTMENT

The hinges may be adjusted using the following procedure:

1. Adjust the top hinge plate by loosening the three mounting bolts on the top right corner of the unit.
2. Adjust the bottom hinge pin by loosening the mounting bolt located under the bottom hinge plate on the lower right corner of the oven.
3. Adjust the hinges so that the door back and the unit face are parallel.
4. Tighten the bolts so that there is no further movement.
5. The adjustment is correct when the door closes firmly and no steam leaks from the gasket.

### The hinges can also be adjusted as follows:

1. Adjust the door catch by loosening the four mounting screws located on the inside surface of the oven door.
2. The adjustment is correct when no steam leaks from the gasket. DO NOT over compress the door gasket. When closed the door should slightly compress the door gasket.

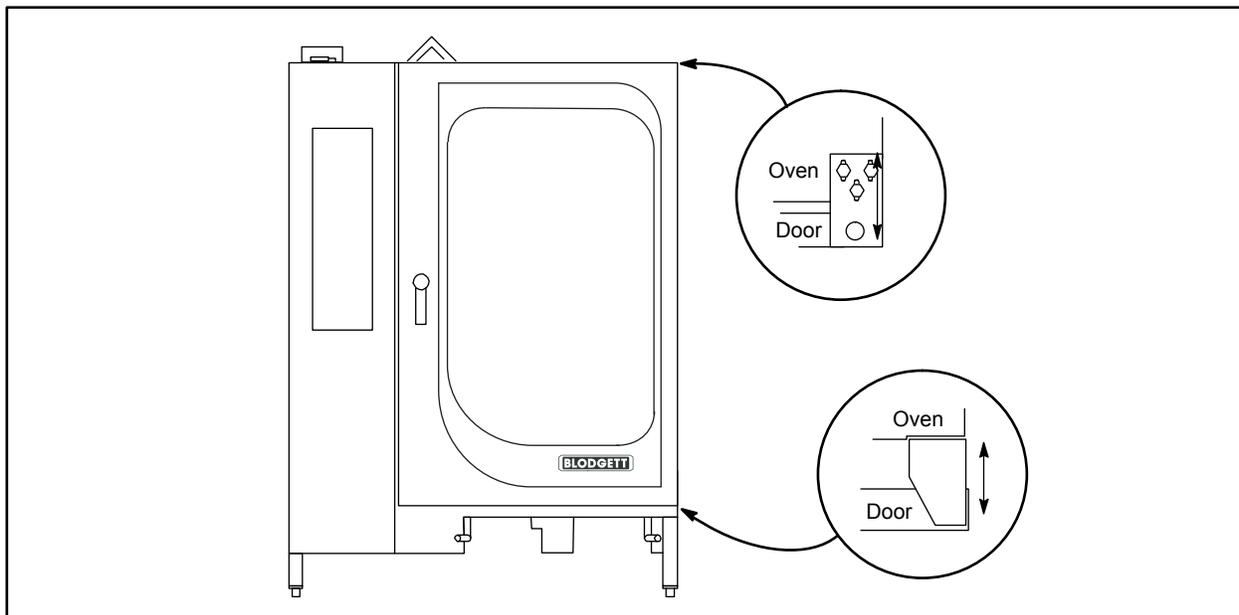


Figure 3

## Final Check Lists



### WARNING!!

Final check list must be performed by a qualified installer only.

### ELECTRICAL CONTROL COMPARTMENT

- Voltage to appliance matches rating plate

### PLUMBING FINAL CHECK

- Incoming water pressure within appliance specification.
- Atmospheric vented drain in place.
- Water solenoid properly bracketed and not leaking.
- Water feed lines intact without leaks.
- Ensure proper clearance.
- Delime system has been primed.
- Optional Spray Hose connected properly. Connect the optional spray hose to the fill solenoid as shown.

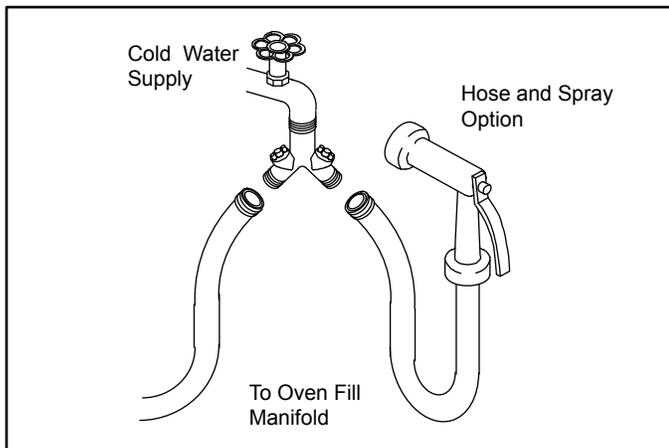


Figure 4

### OVEN OPERATIONAL TESTS

*NOTE: Checks to be made by customer or authorized service agent.*

#### Cool Down Mode

- Check that the fan runs with the door open.

#### Steam Mode

Place in STEAM mode and set thermostat to 212°F (100°C). Verify the following:

- Heat demand lamp is on.
- Heat demand lamp shuts off at approximately 212°F (100°C).
- Set timer for 1 minute. Be sure the buzzer sounds when the time expires.
- Unit produces steam, window fogs, door seal does not leak.

#### Combi Mode

Place in COMBI mode, set thermostat to 350°F (177°C) and verify:

- Heat demand lamp is on (manual and digital controls only).
- Oven is heating.
- Heat demand lamp shuts off at 350°F (177°C) and oven maintains 350°F (177°C) (manual and digital controls only).
- Fan shuts off with door open.

#### Hot Air Mode

Place in HOT AIR mode and set thermostat to 400°F (204°C) and verify:

- Heat demand lamp is on.
- Oven is heating.
- Heat demand lamp shuts off at 400°F (204°C) and oven maintains 400°F (204°C).
- Fan shuts off with door open.

#### Steam On Demand Mode

Place in Hot Air mode. Set Steam On Demand for 1 minute. Press the Steam On Demand button and verify:

- Steam demand lamp is on.
- Steam demand lamp shuts off after approximately 1 minute.

#### Fan Speed

- Ensure both fan speeds work.



# 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 oven 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 unit 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.

### CONTROLS IDENTIFICATION

1. MODE SELECTOR SWITCH - turns power to the oven on or off. Allows selection of Steam, Hot Air, Combi 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 setpoint temperature is displayed
8. TIMER/PROBE KNOB - use to select and set either cook time or probe temperature
9. STEAM ON DEMAND DISPLAY - displays the steam on demand time
10. STEAM ON DEMAND LAMP - lights when steam on demand is activated.
11. STEAM ON DEMAND KNOB - use to set duration for steam on demand
12. FAN SPEED KEY - used to select fan speed.
13. DELIME LAMP - Flashes when steam generator deliming is needed. Remains steady when deliming process is active.
14. FILL LAMP - illuminated until the steam generator is filled with water.
15. PROBE CONNECTION - used to connect the core temperature probe to the control.
16. GAS/HEAT CONTROL SWITCH - used to turn gas or heat on or off.

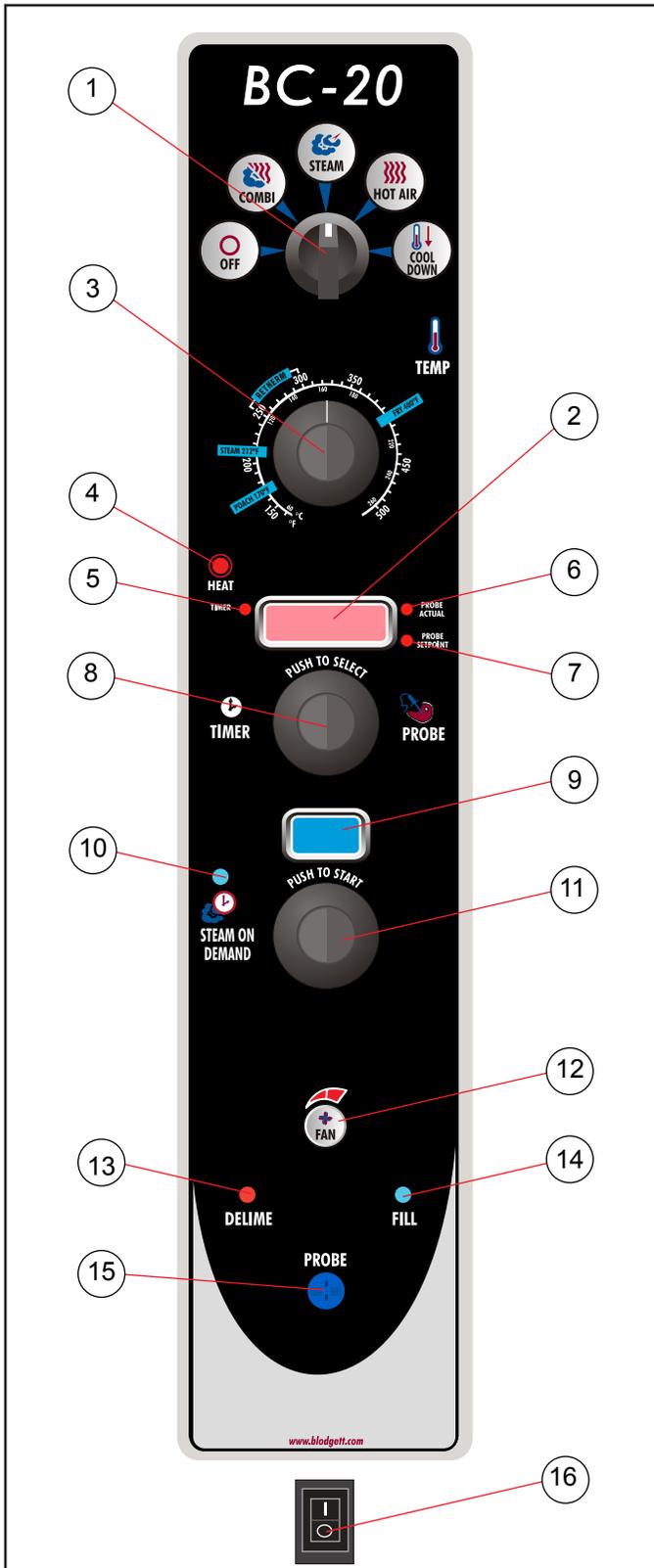


Figure 5



# Operation

---

## Manual 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.

For Steam mode, set the temperature no higher than 212°F (100°C).

For poaching, turn the temperature dial to the POACH position, 180°F (82°C).

The optimum temperature for Combi mode is 300-350°F (149-177°C).

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 (15) 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 for steaming, cleaning, etc.*

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

### STEAM ON DEMAND

#### How to set the Steam On Demand feature:

While in the Hot Air or Combi mode, the unit can be set to steam for a timed period. At the end of the timed cycle the unit reverts back to the original setting. Steam On Demand can be used at any time during the cook cycle.

*NOTE: Steam On Demand is not available in steam mode.*

1. Turn the STEAM ON DEMAND KNOB (11) to set the desired length of time. The time is displayed in the STEAM ON DEMAND DISPLAY (9).
2. Press the STEAM ON DEMAND KNOB (11). The STEAM ON DEMAND LAMP (10) lights.

#### Uses for Steam On Demand:

Most of the ideas came from our creative customers. Experiment with this feature on your own and let us know of any new uses.

- Add a minute or two at the beginning when baking bread for a shiny crust.
- Kick start large loads such as 20 or more chickens. By starting large loads with 5 to 8 minutes of steam you help the oven recover and cut the cooking time by more than 10%.
- Bake bagels without boiling. By starting raw bagels with 1 to 2 minutes of steam you can achieve a beautiful crust.
- Cream caramel is great at 230°F to 250°F in the Combi mode using 2 minutes of on demand steam.
- When cooking chicken wings, try setting the oven in the Combi mode at 375°F and use 3 minutes of Steam On Demand. This method will stop the tips from burning. Total cooking time is approximately 12 minutes.
- Pork ribs tend to pull off the bone better when using 5 to 8 minutes of Steam On Demand. Try ribs in the Combi mode at 350°F.

## MenuSelect™ Control

### CONTROL DESCRIPTION

1. START/STOP KEY - press to start, cancel or pause the bake
2. COOL DOWN KEY - initiates oven cool down cycle
3. BAKE MORE KEY - press at the end of a bake cycle to add additional bake time in one minute increments.
4. DISPLAY - displays time or temperature and other information related to oven function and/or programming.
5. DIAL - used to enter set points, time, and programmable settings. Also used to select the programmed product.
6. TEMP KEY - used to set or change the bake temperature
7. TIME KEY - used to set or change the bake time.
8. COMBI KEY - press to enter combi mode
9. STEAM KEY - press to enter steam mode
10. HOT AIR KEY - press to enter hot air mode
11. RETHERM KEY - press to enter retherm mode, this mode uses steam to reheat frozen or precooked product. Retherm has a temperature limit of 250-300°F.
12. STEAM ON DEMAND KEY - used to initiate steam injection cycle
13. PROBE KEY - press to use core probe cooking
14. FAN KEY - press to select the fan speed
15. PROGRAM KEY - press to enter product programming and save programmed settings.
16. ESCAPE KEY - press to back up one step during programming
17. MAINTENANCE KEY - press to enter manager programming and save programmed settings
18. ALPHA/NUMERIC KEYPAD - used to program recipes.
19. POWER KEY - used to place control in and out of standby mode.
20. OPTIONAL USB PORT - used to upload/download product recipes
21. CORE PROBE CONNECTION - plug core temperature probe in here when using probe cooking
22. GAS/HEAT CONTROL SWITCH - used to turn gas or heat on or off.

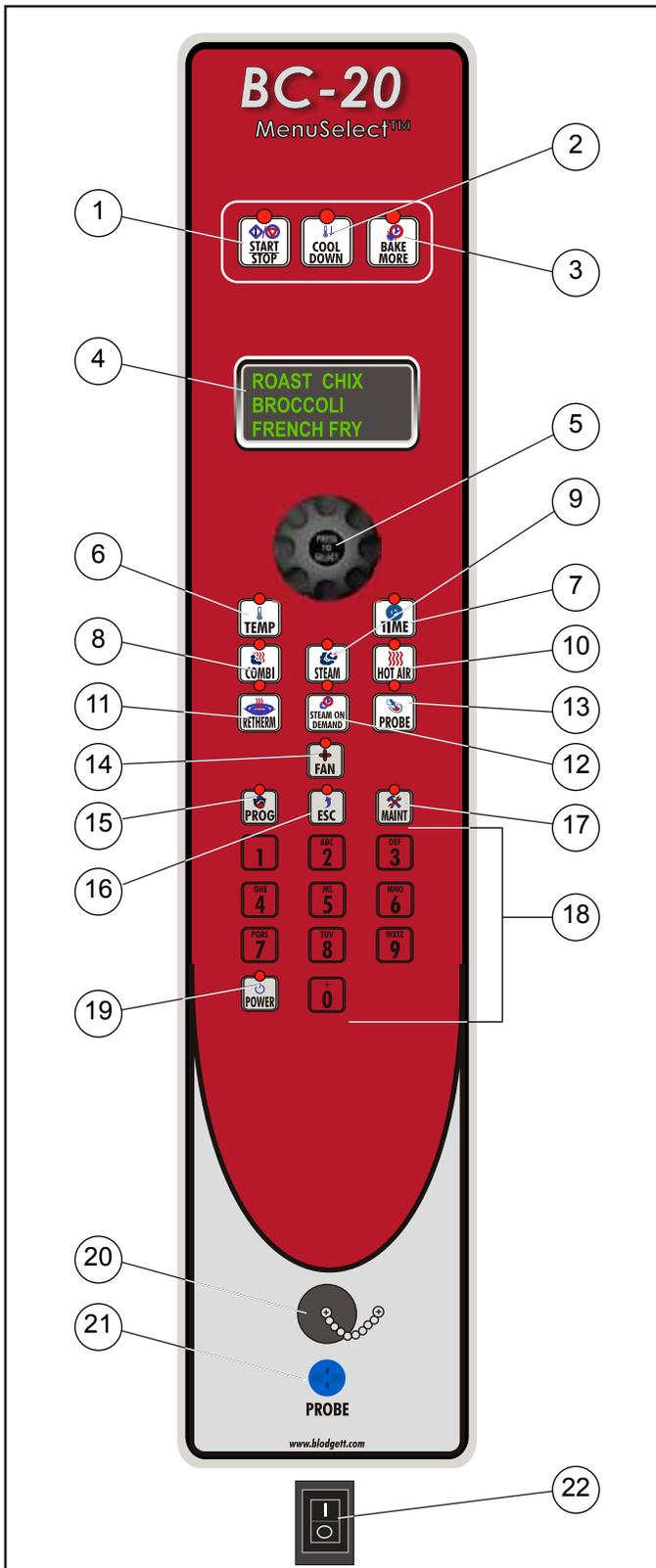


Figure 6



# Operation

## MenuSelect™ Control

### OVEN STARTUP

1. Be sure the gas shutoff switch or circuit breaker switch below the control panel are in the on position. The display flashes OFF PRESS POWER KEY TO START.

*NOTE: If the real time clock and auto wake up functions are enabled the display reads PRESS POWER KEY TO START AUTO START.*

2. Press the POWER KEY (19). The display reads PREHEAT and the oven heats to the last manual set temperature in the hot air mode. The display flashes READY / IDLE and the alarm beeps 5 times when the oven is at temperature and ready to bake.

### MANUAL COOKING

1. Turn the DIAL (5) until the display reads MANUAL.
2. Press the TIME KEY (7). Rotate the dial, or use the alpha/numeric keypad to enter the desired bake time. Press the center of the dial to set the bake time.

*NOTE: Time is set in one minute increments using the dial. To set time in less than one minute increments use the alpha/numeric keypad.*

3. Press the TEMP KEY (6). Rotate the dial, or use the alpha/numeric keypad to enter the desired bake temperature. Press the center of the dial to set the bake temperature. The oven preheats to the new temperature.

*NOTE: Temperature is set in 5 degree increments using the dial. To set time in less than 5 degree increments use the alpha/numeric keypad.*

4. Press the desired mode key, combi, steam, hot air or retherm.

If Combi or Retherm are selected, rotate the dial, or use the alpha/numeric keypad to enter the desired percentage of steam.

*NOTE: Retherm has a temperature limit of 250-300°F.*

5. When the display flashes READY / IDLE, open the door. Load the product.
6. Press the START/STOP KEY (1) to begin the bake cycle. The timer counts down and the display alternates between the cooking mode and the name of the product.

### PROGRAMMED COOKING

1. Turn the DIAL (1) until the name of the product is highlighted. Press the center of the dial to select. The oven preheats to the programmed temperature in the correct cooking mode. The display flashes READY / IDLE and the alarm beeps 5 times when the oven is at temperature and ready to bake.
2. Open the door. Load the product.
3. Press the START/STOP KEY (1) to begin the bake cycle. The timer counts down and the display alternates between the cooking mode and the name of the product.

### PROBE COOKING

1. Press the PROBE key (13) to select the probe mode. The display reads CORE PROBE COOK & HOLD. Turn the dial to select either YES or NO. Press the center of the dial to select.

If YES is selected, Cook & Hold has been enabled. In the Cook & Hold mode, the oven cavity lowers to the product pull temperature as the product cooks.

If NO is selected, Cook & Hold has not been enabled the cavity maintains the cook temperature.

2. Turn the DIAL to enter the desired product pull temperature in the display. Press the center of the dial to save the pull temperature.
3. Press the TEMP KEY (6). Rotate the dial, or use the alpha/numeric keypad to enter the desired bake temperature. Press the center of the dial to set the bake temperature. The oven preheats to the new temperature.

*NOTE: Temperature is set in 5 degree increments using the dial. To set time in less than 5 degree increments use the alpha/numeric keypad.*

4. Press the desired mode key, combi, steam, hot air or retherm.

If Combi or Retherm are selected, rotate the dial, or use the alpha/numeric keypad to enter the desired percentage of steam.

*NOTE: Retherm has a temperature limit of 250-300°F.*

5. 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.

6. Connect the core probe to the PROBE CONNECTION (21) at the bottom of the control.

*NOTE: Do not connect the probe before the cook mode has been selected.*

7. The display gives the actual core probe temperature as well as the oven set temperature.
8. When the product reaches the pull temperature the buzzer sounds.
9. Press the START/STOP KEY (1) to silence the buzzer.

If using Cook & Hold - The cavity temperature continues to drop to the product pull temperature and the display counts up, telling the operator long the product has been held. Disconnect the core probe and remove the product when ready.

If not using Cook & Hold - The cavity remains at the cook temperature. The display does not count up. Disconnect the core probe and remove the product when the buzzer sounds.

### DURING ANY COOK CYCLE

#### Steam On Demand

While in the Hot Air, Combi or retherm modes, the unit can be set to steam for a timed period of up to 20 minutes. At the end of the timed cycle the unit reverts back to the original setting. Steam On Demand can be used at any time during the cook cycle.

1. Press the STEAM ON DEMAND KEY (12).
2. Rotate the dial, or use the alpha/numeric keypad to enter the desired steam on demand time. Press the center of the dial to initiate Steam on Demand cycle.

*NOTE: Steam on Demand time is set in one minute increments using the dial. To set time in less than one minute increments use the alpha/numeric keypad.*

3. The Steam on Demand LED flashes until the steam time has expired.

#### Pause a Bake Cycle

1. To pause a cook cycle, press the START/STOP KEY (1). The LED on the start/stop key flashes. The bake cycle will pause until the key is pressed again.

#### Cancel a Cook Cycle

1. To cancel the cook cycle, press and hold the START/STOP KEY (1).

### AT THE END OF ANY COOK CYCLE

1. An alarm sounds, the display reads DONE.
2. If more bake time is desired, press the BAKE MORE KEY (3). This will add an additional one minute of time for each press of the key.
3. When you are satisfied with the bake, press the START/STOP KEY (1) to silence the alarm. Open the door to remove the product.

### OVEN SHUTDOWN

1. Press the COOL DOWN KEY (2). The display reads AUTO COOL DOWN ACTUAL TEMP. To speed up the cool down process, open the door.
2. When the oven has cooled down, the display reads OFF PRESS POWER KEY TO START.



# Operation

## MenuSelect™ Control

### PRODUCT PROGRAMMING

#### Entering the Program Mode

1. Press the PROGRAM KEY (15). If the control is password protected, the display reads ENTER CODE. Use the alpha/numeric keypad to enter the manager passcode 3124, then press the center of the dial to enter the program mode.

#### Naming a Product Recipe

*NOTE: Use the following procedure to name a new product or edit the name of an existing product.*

1. For a new recipe, turn the dial to the first open product. Press the center of the dial to select.

To edit an existing name, rotate the dial to the name to be changed. Press the center of the dial to select.

2. Use the dial to scroll down to Edit Name. Press the center of the dial to enter the edit name menu.
3. Turn the dial or use the alpha/numeric keypad to select the first character. Press the center of the dial to advance to the next character. Repeat for all remaining characters.

*NOTE: Product names may be up to 10 characters long and can contain spaces. Use the #1 key to insert spaces in a recipe name.*

*NOTE: To select letters using the keypad, press the appropriate key once if you need the first letter on the key, twice for the second and three times for the third. For example to enter the letter L press the #5 key three times.*

4. Press the PROG KEY (15). With SAVE highlighted, press the dial to save the product name.

#### Programming a Product Recipe

*NOTE: The control can hold 99 recipes. Each recipe may have up to 6 cooking stages.*

1. Turn the dial to highlight the name of the product to be programmed. Press the center of the dial to select the product.
2. The display reads PRODUCT NAME: STAGE 1. Press the center of the dial to select the stage.
3. Rotate the dial, or use the alpha/numeric keypad to enter the desired bake time. Press the center of the dial to set the bake time.

*NOTE: Time is set in one minute increments using the dial. To set time in less than one minute increments use the alpha/numeric keypad.*

4. Rotate the dial to select the desired cooking mode. Choose from combi, steam, hot air or retherm. Press the center of the dial to set the cook mode.

If Combi or Retherm are selected, rotate the dial, or use the alpha/numeric keypad to enter the desired percentage of steam.

5. Rotate the dial, or use the alpha/numeric keypad to enter the desired cook temperature. Press the center of the dial to set the bake temperature.

*NOTE: Temperature is set in 5 degree increments using the dial. To set time in less than 5 degree increments use the alpha/numeric keypad.*

*NOTE: Retherm has a temperature limit of 250-300°F.*

6. Rotate the dial to select the desired fan speed. Choose from, low, high. Press the center of the dial to set the fan speed.
7. Use the dial to scroll down to PRODUCT NAME: STAGE 2. Press the center of the dial to select stage 2.
8. Repeat steps 2-7 for all remaining stages.
9. When all stages have been programmed, press the PROGRAM KEY (15). To save the programming, use the dial to scroll to YES. Press the center of the dial. The control exits the program mode.

### USING THE USB PORT

1. With the power on, remove the cover of the USB port (20) and insert the USB drive.
2. Press the MAINTENANCE KEY (17).
3. Turn the dial to highlight MANAGER PROGRAM. Press the center of the dial to select.
4. Turn the dial to highlight either COPY RECIPE FROM USB or COPY RECIPE TO USB, then press the center of the dial to select.
5. When the transfer is complete, press any key to return to the menu.
6. Turn the dial to highlight EXIT. Press the center of the dial to select. The display returns to the previous menu.
7. Turn the dial to highlight EXIT. Press the center of the dial to select.

### MANAGER PROGRAMMING

#### Entering the Manager Program Mode

1. Press the MAINTENANCE KEY (17). If the control is password protected, the display reads ENTER CODE. Use the alpha/numeric keypad to enter the manager passcode 3124, then press the center of the dial to enter the program mode.
2. Turn the dial to highlight OVEN SETUP. Press the center of the dial to select the product.

#### Programming Auto Start

*NOTE: The Auto Start function enables the oven to turn on at a programmed time of day and preheat to a programmed temperature.*

1. Turn the dial to highlight AUTO START. Press the center of the dial to select.
2. Turn the dial to select either ON or OFF. Press the center of the dial to select.

If ON is selected, the display reads AUTO START 24 HOUR TIME 00:00. Turn the dial to enter the time you would like the oven to begin preheating. Press the center of the dial to select.

The display reads AUTO START TEMP XXX. Turn the dial to enter the desired preheat temperature. Press the center of the dial to select.

#### Programming Oven Setup

These menus allow the manager to set up basic oven functions

1. Turn the dial to highlight OVEN SETUP. Press the center of the dial to select.
2. Turn the dial to highlight MANAGER PROGRAM. Press the center of the dial to select.
3. Turn the dial to highlight the oven function you wish to change. Press the center of the dial to select. Choose from the following functions:

**Recipe Password** - Select YES or NO to enable password protection on recipe programming. If YES is selected the passcode 3124 must be entered to change recipe programming.

**Temp Unit** - Select either degrees F or C.

**Cool Down Temp** - Select the set temperature for the oven to achieve in Cool Down mode

**Temp Disp Rate** - Set the rate, in seconds, at which the display switches between actual and setpoint temperature

**Input Rsp Time** - Set the length of time allowed to input each variable when programming recipes before control automatically exits out

**Setback Time** - When not used for a period of time, the oven temperature will automatically reduce to conserve energy. This variable sets the length of time the oven remains at the idle temperature before being lowered.

**Ready Beep** - Select either ON or OFF. This is the audible alarm that sounds when the oven has reached the set temperature.

**Cook Done Beep** - Select either ON or OFF. This is the audible alarm that sounds when the product cook time has expired.

**Cook Cool Fan** - Select either YES or NO. This function allows the control to display OPEN OVEN DOOR when you are attempting to lower the set temperature of the oven.

**Restore Manual SE** - Select either YES or NO. This variable enables the oven to remember the last settings used for manual cooking.

**Boiler Set Temp Preheat** - Select the temperature in the boiler when it is in stand by

**Boiler Set Temp Cook** - Select the temperature in the boiler when steam is being produced

**Delime Fill Time** - Set the length of time the boiler continues to fill with deliming solution beyond the standard water level in order to ensure all of the scale present in the boiler is removed.

**Delime Interval** - Set the length of time between deliming intervals

**Delime Time** - Set the time during the day when the display alerts the user to delime

**Flush Interval** - Set the length of time between boiler flushes

**Flush Time** - Set the time during the day when the display alerts the user to flush the boiler

4. After editing a function, press the center of the dial to save.
5. When all desired functions have been edited, turn the dial to highlight EXIT. Press the center of the dial to exit the manager programming mode.



# Maintenance

## 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.



Figure 7

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.



Figure 8

3. To spray, depress the trigger with your thumb.



Figure 9

4. Adjust spray nozzle for a wide spray pattern.
5. After a period of spraying, the pressure will drop. Restore 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 and deliming agents.**

To order additional bottles or spray heads use the following part numbers:

Complete Spray Bottle - P/N R0006

Spray Head Repair Kit - P/N R6332



## Cleaning and Preventive Maintenance

### DAILY CLEANING

#### Cleaning the Interior

Daily cleaning of the oven 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. Open the oven door. Place the oven in cool down mode. Let the oven cool to below 140°F (60°C).
2. Fill the spray bottle with a mild oven detergent. **DO NOT use abrasive cleaners on your Blodgett Combi. Be sure to follow the MSDS or safety instructions on the bottle of your oven cleaner.** We recommend the following cleaners:

Greasecutter Plus by Ecolab

EZ Clean by Cellow

Advance Oven Cleaner by Diversey-Lever

3. Pump the bottle twenty times to build up pressure. The higher the pressure, the finer the spray. Spray the oven interior. Turn the nozzle to adjust the spray pattern.
4. Close the door. Place the oven in steam mode for 10 minutes.
5. When finished steaming, open the door and rinse the interior with the attached spray hose.



Figure 10

6. Leave the door open overnight to vent the oven. If the oven will not be used for an extended period of time, place the oven in hot air mode to dry.

#### 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 oven 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.**

Clean the air intake / cooling fan behind the oven so that it is free of all lint, grease or other inhibitors of air flow. Keeping this area free of obstruction will extend the life of the components.

#### PREVENTIVE MAINTENANCE

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



# Maintenance

---

## Flushing the Boiler

### STANDARD CONTROL

A flush of the boiler is required every 24 hours and happens either automatically or can be initiated at any time.

*NOTE: In order to flush the oven, the water and gas supply must be left on.*

- If the mode switch is in the OFF position and a flush is required, the flush will automatically run.
- If the boiler is too hot to drain, the flush will begin when the boiler water temperature drops below 140°F (60°C).

### To manually initiate a flush sequence

1. If the oven is hot, place it in the Cool Down mode with the door open until the cavity is below 140°F (60°C).
2. Close the door, turn the mode switch to the Cool Down position. Push and hold the timer knob until the flush begins.

*NOTE: If the boiler water temperature is too high, the flush will start automatically when the water temperature drops below 140°F (60°C).*

3. The flush completes in about 25 minutes. When complete, the oven shuts off automatically.

### To cancel a flush sequence

1. Push and hold the Steam on Demand knob. The display reads “FLUSH ABORT NO”.
2. Rotate the timer knob until the display reads “FLUSH ABORT YES”. Push in the timer knob to cancel the flush.

If the flush was required and tries to start again, push and hold the timer knob until 24:00 appears in the display. Rotate the knob to enter the amount of time (HH:MM) desired before the next automatic flush sequence.

### MENUSELECT™ CONTROL

A flush of the boiler is required every 24 hours and happens either automatically or can be initiated at any time.

*NOTE: In order to flush the oven, the water and gas supply must be left on.*

- If the oven is off (the display reads “OFF - PRESS POWER KEY TO START”) and a flush is required, the flush will automatically run.
- If the boiler is too hot to drain, the flush will begin when the boiler water temperature drops below 140°F (60°C).

### To manually initiate a flush sequence

1. If the oven is hot, place it in the Cool Down mode with the door open until the cavity is below 100°F (38°C).
2. Close the door, press the MAINT key, turn the knob until “FLUSH” is highlighted. Push the knob to select.
3. Scroll to “START FLUSH”. Push the knob to select.
4. The display reads “FLUSH PROGRAMMING - START FLUSH - NO”. Rotate the knob until the display reads “FLUSH PROGRAMMING - START FLUSH - YES”. Push the knob to select.
5. The flush completes in about 25 minutes. When complete, the oven shuts off automatically.

### To cancel a flush sequence

1. Press the ESC key. The display reads “NEXT FLUSH TIME - HH:MM 24:00”. Rotate the knob or use the keypad to enter the amount of time (HH:MM) desired before the next automatic flush sequence.



Deliming of the steam generator is the single most important preventative maintenance task. Lime will build up inside the steam generator, reducing efficiency and causing damage to the boiler.

**WARNING!!**

**Problems caused by insufficient deliming are not covered by the warranty.**

**WARNING!!**

**Deliming solutions are hazardous and can cause burns to the skin and eyes. Wear protective clothing and eyewear.**

**WARNING!!**

**DO NOT cook while deliming.**

1. Be sure the container delivering the delimiting agent to the appliance is full. **Be sure to follow the MSDS or safety instructions on your delimiting agent.** Use a non-diluted delimiting agent.



**Figure 11**

2. Ensure that the delimiting pump has been primed. Refer to the Delimiting System Connection & Priming if you are uncertain.

### BC WITH STANDARD CONTROL

This control comes equipped with a delime lamp to indicate when the steam generator needs to be delimed. The delime lamp will flash when the steam generator has been run for the preset interval. This is a warning only, the oven can be used all day before deliming. The delime sequence can be run at anytime regardless of the flashing delime indicator.



**Figure 12**

*NOTE: Once the delimiting process has been started, the oven cannot be used until delimiting is complete, approximately 45 minutes.*

### Delimiting the Boiler with the Standard Control

1. If the oven is hot, place in the Cool Down mode with the door open until the cavity is below 140°F (60°C).
2. With the mode switch in Cool Down, push and hold the Steam on Demand knob until the delime lamp flashes faster. Then release the knob. The display reads "TO START DELIME TURN MODE SWITCH TO OFF".



**Figure 13**

3. Close the oven door. Turn the oven to the Off mode. The display reads "DELIME STEP 1 OF 14".

The remainder of the process is automatic. The delime lamp stays lit until delimiting is completed.



# Maintenance

## Deliming

- When the delime lamp goes out, the oven can be used normally.

### To Cancel the Deliming Process

- To cancel the deliming process, push and hold the Steam on Demand knob. The display reads “DELIME ABORT NO”.
- Rotate the timer knob until the display reads “DELIME ABORT YES”. Push the timer knob.

If the delime process was not required or chemical has not been pumped into the boiler yet, the delime is immediately cancelled.

If chemical is in the boiler, the delime process will advance to step 9 of the process in order to flush the chemical from the boiler.

### BC WITH MENSELECT™ CONTROL

When it is time to delime your BCX, the display reads “DELIME REQUIRED START DELIME YES”. To postpone the delime, turn the knob until the display reads “DELIME REQUIRED START DELIME NO”. Push the knob.



Figure 14

The message will return until the unit is delimed. This is a warning only, the oven can be used all day before deliming. The delime sequence can be run at anytime.

*NOTE: Once the deliming process has been started, the oven cannot be used until deliming is complete, approximately 45 minutes.*

### Deliming the Boiler with the MenuSelect™ Control

- If the oven is hot, place in the Cool Down mode with the door open until the cavity is below 140°F (60°C).

- After the cool down the unit will automatically turn itself off. Close the door. Press the maintenance key.

If a delime is required when the power key is pressed, the display reads “DELIME REQUIRED START DELIMING YES”. In this case, skip to step 5.

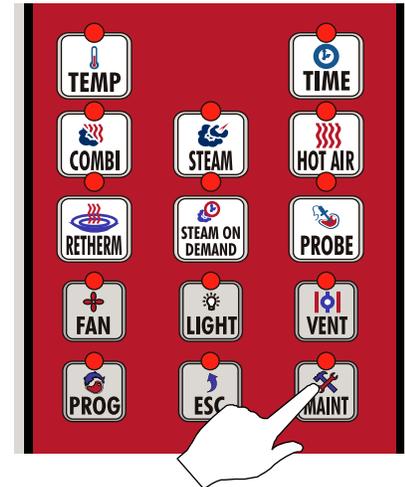


Figure 15

- Turn the dial to highlight “DELIME”. Press the center of the dial to select.



Figure 16



## Deliming

- Turn the dial to highlight "START DELIME". Press the center of the dial to select.



Figure 17

- When the deliming process is complete, the control will turn itself off. The oven can now be used normally.



Figure 19

- Turn the dial to highlight YES, this confirms that you want to begin the deliming process. Press the center of the dial to select. The remainder of the process is automatic. The display shows the step number and progress by %.



Figure 18

### To Cancel the Deliming Process

- To cancel the deliming process, push and hold the ESC key. The display reads "DELIME ABORT? NO".
- Rotate the knob until the display reads "DELIME ABORT? YES". Press the knob to select.
- The control returns to the Off mode.



# Maintenance

## Deliming

### DELIMING INTERVAL SETTING

Refer to figure to determine the correct delimiting interval for your appliance. Find your location and the corresponding potentiometer setting. These values are general and are guidelines only. Your specific water quality may be harder or softer. Adjust the delimiting interval to your specific water quality.

*NOTE: If you have the oven connected to a filter system, the water hardness may be reduced. Check with filter supplier for details.*

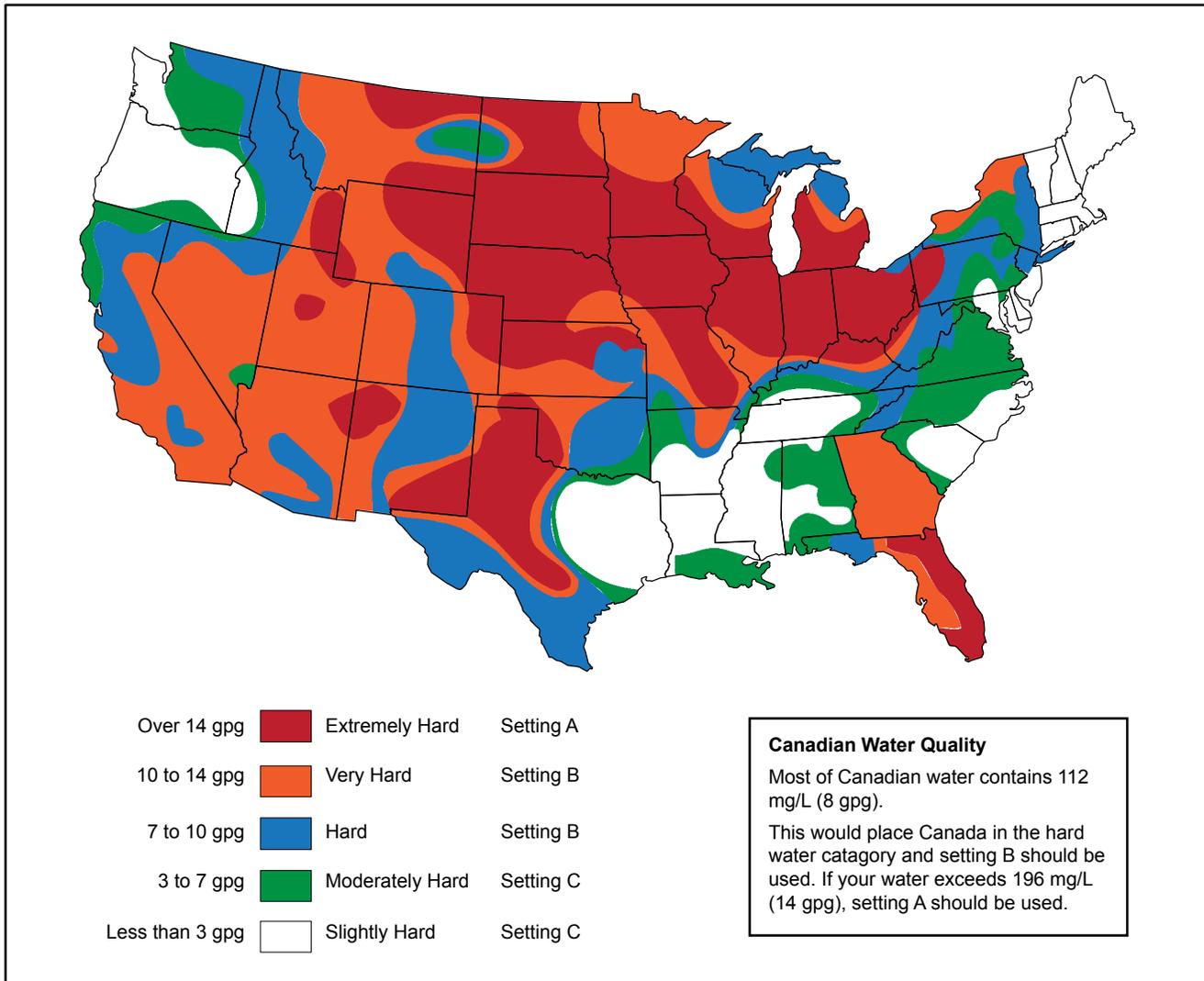


Figure 20