



**BCT & BLCT  
COMBI OVENS  
INSTALLATION - OPERATION - MAINTENANCE**



**BLODGETT OVEN COMPANY**

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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

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## 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.



## 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

There are four additional specialized modes to help you make the most of your time:

**Retherm** - for perfect reheating

**Proofing** - Proof and bake all in the same oven

**Preheat** - in this mode the oven will preheat to 575°F (300°C) for 15 minutes. The oven will then automatically lower to 480°F (249°C) to protect the advanced electronic components.

**Cool Down** - allows the oven cavity to cool down rapidly with the door opened

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 212°F (100°C), 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.



# Installation

## Description of the Combi-Oven/Steamer

### ABOUT THE OVEN/STEAMER

Blodgett Combis 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 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.

Fresh steam enters the oven cavity without pressure and circulates at high speed. This process enables quick and gentle cooking and ensures high quality food while pro-

viding 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 to use control. With graphical symbols and storage for 50 product recipes the BCT/BLCT is easy for even inexperienced kitchen staff to operate.

Cleaning is kept to a minimum thanks to the automatic Combi Wash system.

### PLUMBING SPECIFICATIONS

WATER	
Water pressure	36.26 PSI (250 kPa, 2.5 bar) during Combi Wash 21.76 PSI (150 kPa, 1.5 bar) when Combi Wash is not active 40(min)-50(max) PSI supply pressure
Water connection	3/4" garden hose cold water
Water quality 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	2.00" (50.8mm) Copper 1.57" (40mm) Copper - mini combi ovens
Maximum water drain temperature	140°F (60°C)

### RATINGS - GAS OVENS

Model	Gas Type	Input	Voltage	Phase	Amps
BLCT-61G	Natural	58,000 BTU	115	1	9
	Propane	58,000 BTU	115	1	9
BLCT-101G	Natural	87,000 BTU	115	1	9
	Propane	87,000 BTU	115	1	9
BLCT-102G	Natural	95,500 BTU	115	1	9
	Propane	95,500 BTU	115	1	9
BLCT-62G	Natural	81,800 BTU	115	1	9
	Propane	81,800 BTU	115	1	9
BLCT-202G	Natural	190,000 BTU	115	1	17
	Propane	190,000 BTU	115	1	17

## Utility Specifications

ELECTRICAL RATINGS					
Model	Voltage	kW	Hz	Phase	Max Load (amps)
BLCT-23E Mini Combi	208/230/240	2.7/3.3/3.6	50/60	1NAC	15
		2.7/3.3/3.6	50/60	2AC	15
		5.4/6.6/7.2	50/60	3AC	30
	400/415	6.6/7.2	50/60	2NAC	15
		5.4/5.8	50/60	2AC	15
		440/480	5.4/6.5	50/60	2AC
BLCT-6E Mini Combi	208	4.6	50/60	1	23
	240	6.1	50/60	1	26
	208	6.9	50/60	3	20
	240	9.2	50/60	3	23
BLCT-10E Mini Combi	208/230/240	10.4/12.7/13.8	50/60	3AC	34
		10.4/12.7/13.8	50/60	3NAC	34
	400/415	12.7/13.8	50/60	3NAC	20
		12.7/13.8	50/60	3AC	20
	440/480	10.4/12.4	50/60	3AC	18
BCT-61E BLCT-61E	208	9	60	3	25
	240	9	60	3	22
	480	9	60	3	11
BCT-101E BLCT-101E	208	18	60	3	50
	240	18	60	3	44
	480	18	60	3	22
BCT-102E BLCT-102E	208	27	60	3	75
	240	27	60	3	65
	480	27	60	3	33
BCT-62E BLCT-62E	208	21	60	3	59
	240	21	60	3	51
	480	21	60	3	26
BCT-202E BLCT-202E	208	60	60	3	167
	240	60	60	3	145
	480	60	60	3	73



# Installation

## Oven Assembly to Stand

Your Blodgett COMBI oven has been shipped with black plastic caps on the corners of its base. In order to mount your oven to its stand, please do the following:

1. Remove the stand from the packaging. Install the casters or feet into the base of the stand. If inserting casters ensure that the locking casters are at the front of the stand, see figure. Place the stand upright in an area readily available.
2. Remove all packaging from the oven, so that the oven can be picked up.
3. Remove the black plastic caps on each corner by removing the two screws holding them on. Do NOT discard these screws; they will be used to mount the oven to the stand.
4. Position the oven over the stand and align the corner brackets on the stand with the holes on the oven.
5. Use the screws from the plastics caps to mount the oven to the stand.
6. The oven has now been properly fastened to the stand.

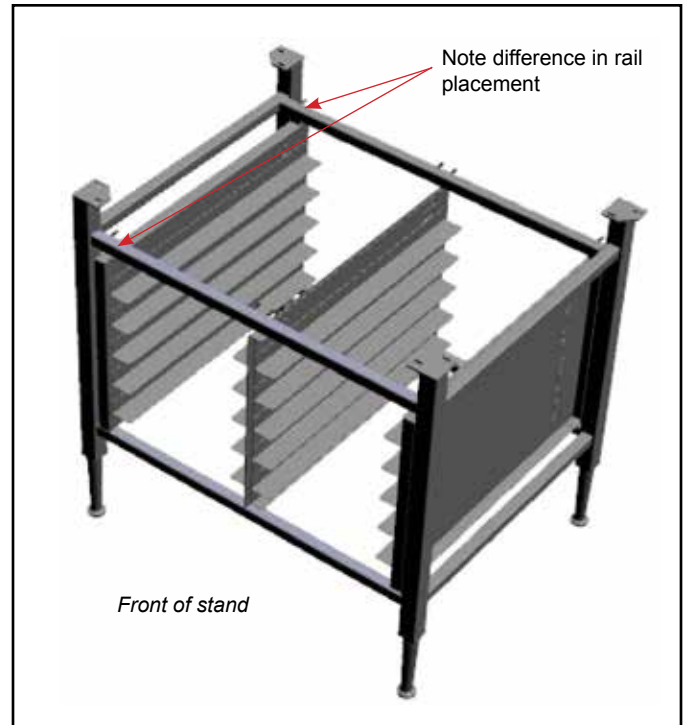


Figure 1

## Oven Location and Leveling

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.

MINIMUM REQUIRED CLEARANCES			
Size	Left	Right	Back
<b>Electric Ovens</b>			
61, 101, 102 & 202	2.75" (70mm)	2.75" (70mm)	2" (50mm)
62	0" (0mm)	4" (102mm)	2" (50mm)
<b>Gas Ovens</b>			
61, 101, 102 & 202	2.75" (70mm)	2.75" (70mm)	2" (50mm)
62	0" (0mm)	4" (102mm)	2" (50mm)

Strong sources of heat such as hotplates, tilting frying pans, deep fat fryers, etc. should not be placed near the oven, especially near its right side. An optional side heat shield is available.

In addition, the following clearances are recommended for servicing.

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

To ensure that the oven functions correctly when installed, it should be placed upright and level (horizontally). This is measured at the front and side edge of the roof. The oven can be levelled using the adjusting screws on the stand or on the legs of table models. The height of the oven should also be adjusted to fit the trolley for rack.

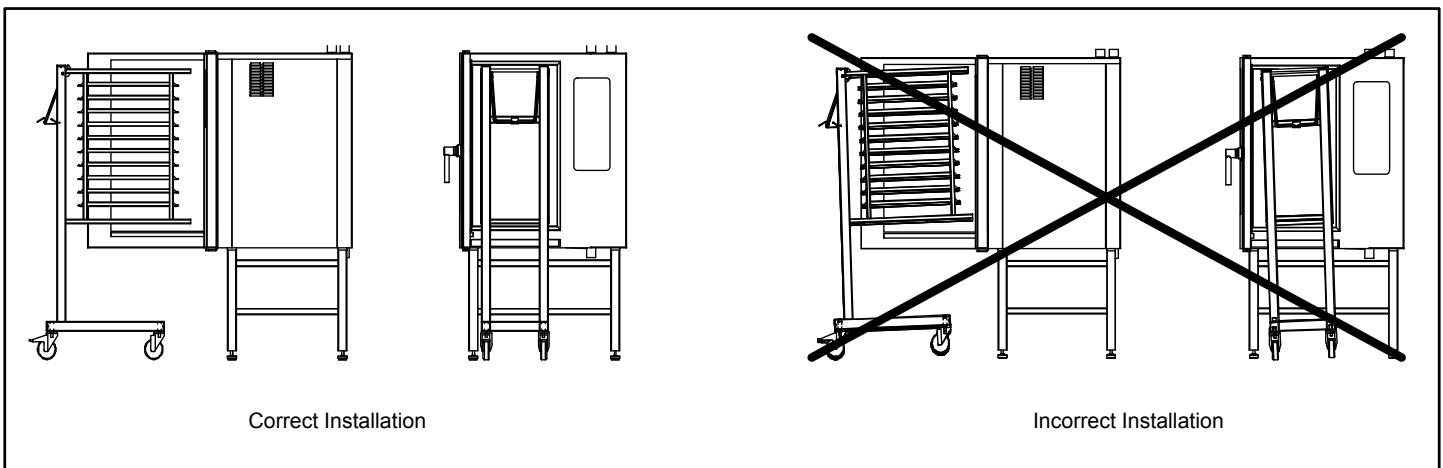


Figure 2



# Installation

## Plumbing Connections

### WATER CONNECTION

Blodgett BCT/BLCT ovens have two water connections. Both are located at the back of the unit.

#### BCT/BLCT-61, 62, 101, 102 and 202 models

- 1 connection for raw water for the condensation jet.
- 1 connection for steam generation and the Combi Wash jet in the oven chamber. Must meet the requirements applying to water supplied to household appliances.

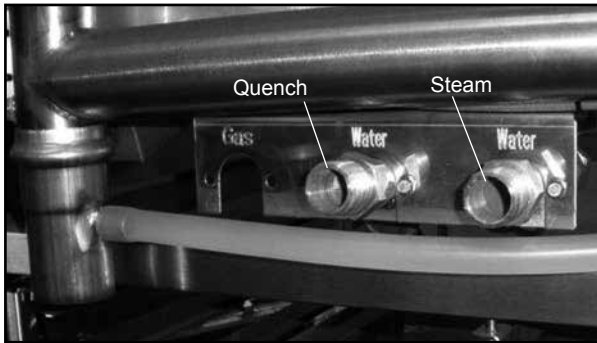


Figure 3

#### BLCT-23, 6 and 10 Mini Combi models

- 1 water connection. Must meet the requirements applying to water supplied to household appliances.



Figure 4

### ! WARNING!!

If the water temperature exceeds 70°F (21°C), problems with regard to Combi Optima calibration and cooling of the oven may occur.

The water connection must be carried out by an authorized plumber in accordance with existing local codes.

Clogged up water filters and dirt in the solenoid valves are not covered by the warranty.

To facilitate cleaning and servicing, the oven should be connected with an approved flexible 3/4" hose. Permanent installations should be fitted with a stop-tap and a non-return valve.

Before connecting the oven to water, flush the tubes thoroughly. Connect the oven.

### DRAIN CONNECTION

Blodgett ovens are equipped with a drain system that removes surplus water from the oven chamber. This may be condensed water from the products, or it may occur when the oven chamber is cooled down with cold water, or when the oven chamber is cleaned.

### ! WARNING!!

Connection must be carried out by an authorised plumber, to an open or closed drain. The drain must never end directly beneath the oven.

The drain must be of stainless steel or an equally temperature-resistant material, have a fall of at least 3° or 5%. See page 4 for drain diameter.





### CLEANING & DELIMING CHEMICAL

1. BCT/BLCT-61, 62, 101, 102 and 202 ovens only. The oven is supplied with a chemical bottle holder. The holder can be affixed to either side of the oven. Place it on the stand crossmember.



Figure 5

2. Connect the supplied detergent tubes (red and blue) to the underside of the oven near the rear. Connect the blue hose to the fitting with the blue sticker and the red hose to the fitting with the red sticker.

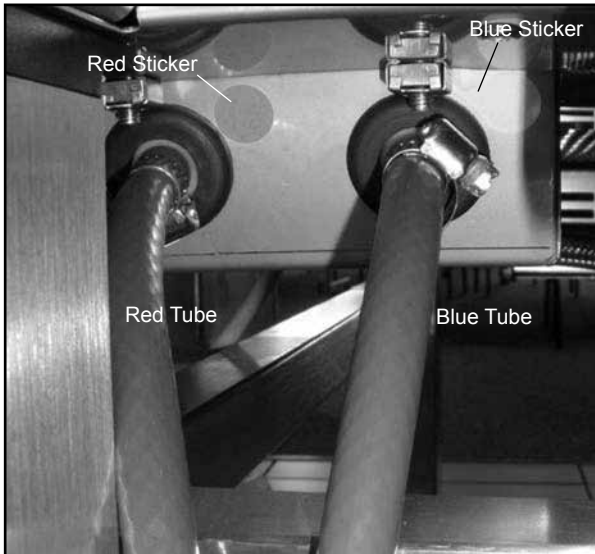


Figure 6

3. Insert the blue and red hoses into the proper bottles. Red is for detergent, blue is for rinse aid.
4. BCT only - The last line is for the delimer. This is the tan colored tube protruding from the bottom of the oven. Cut the tubing to the proper length, if needed, and place the tubing into the delime bottle.

*NOTE: If the tube is cut to length, remove the stainless steel weight from the end of the tube and reinsert.*



# Installation

## Electrical Connection and Ventilation

### ELECTRICAL CONNECTION

*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.

1. The rating plate is located on the right side of the oven.

An approved plug outlet or a safety cutout must be located close to the oven so that the oven can be disconnected during installation and repair. The safety cutout must be able to cut off all poles with a total distance of break of at least 3 mm.

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

The wiring diagram is located in the motor compartment.

*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.

*NOTE: The BLCT-202G must be hard wired.*

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.**

### VENTILATION

Blodgett BCT/BLCT ovens are equipped with an open/direct exhaust system that removes surplus humidity from the oven chamber. The exhaust system has an electrically operated damper.

The ventilation motor can be controlled directly from the oven. This means that the ventilation starts when a program is started and runs for 10 minutes after the program is completed.

BCT/BLCT-61, 62, 101, 102 and 202 ovens only. The exhaust tube can be connected to a ventilation system. In that case, a special extraction funnel is fitted to avoid suction directly from the oven chamber. This extraction funnel can be ordered from Blodgett.

If an extraction hood is installed in the ceiling above the oven, it should project 20" (50 cm) over the front of the oven.

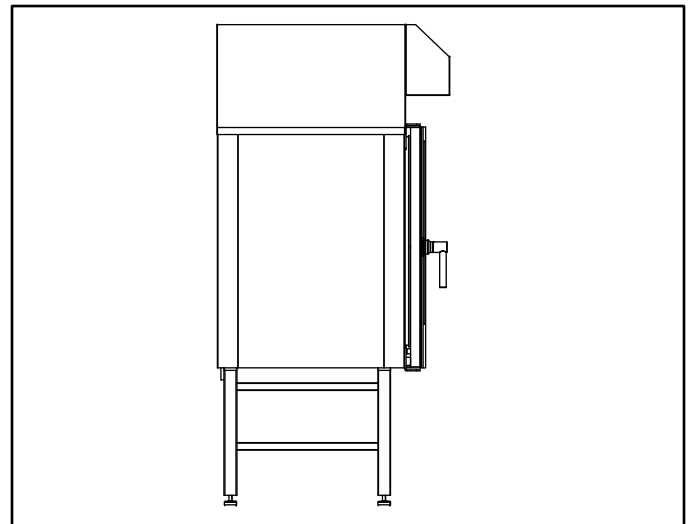


Figure 7

## 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 BLCT-61G 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
BLCT-61G	40,900 BTU
New Total	270,900 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 375,00 BTU. Since the total required gas pressure, 270,900 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		
Model	Gas Type	Inlet Pressure
BLCT-61G	Natural	3.2-8.0" W.C.
	Propane	5.2-14" W.C.
BLCT-101G	Natural	3.2-8.0" W.C.
	Propane	5.2-14" W.C.
BLCT-102G	Natural	3.2-8.0" W.C.
	Propane	5.2-14" W.C.
BLCT-62G	Natural	3.2-8.0" W.C.
	Propane	5.2-14" W.C.
BLCT-202G	Natural	3.2-8.0" W.C.
	Propane	5.2-14" 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.

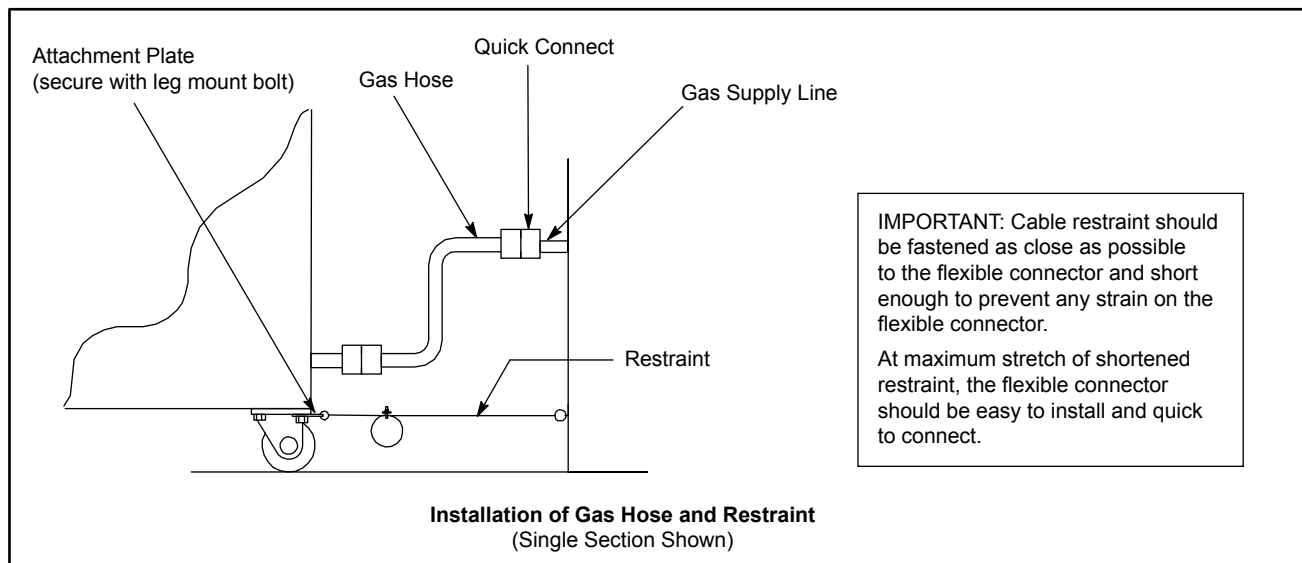


Figure 8



# Installation

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## Final Check Lists



### **WARNING!!**

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

### **OVEN EXTERIOR**

1. Check that the oven has not been damaged in transit (dents, scratches, etc.)
2. Check/adjust the height and check that the oven is placed level (horizontally)
3. Check/adjust oven door

### **CONNECTIONS**

1. Check for correct water connection
2. Turn on water supply
3. Check for leaks
4. Turn off water supply
5. Check and clean dirt filter
6. Turn on water supply again
7. Check hand shower
8. Check for correct electrical connection
9. Check for correct gas connection (if applicable)
10. Check connection to drip tray
11. Check for correct mounting of drip tray
12. Check for correct fall of hose from drip tray, and check for leaks
13. Check for correct exhaust and drain connection
14. Clean the oven
15. Apply steel oil

### **OVEN INTERIOR**

1. Check that filter housing is mounted correctly
2. Check interior light
3. Clean the oven

### **CONTROL**

1. Check and adjust, if necessary, each of the preset values
2. Heat up the oven at 480°F (249°C) for approximately 5 minutes.

## Safety Information for Gas Ovens

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.



# Operation

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## BCT Touchscreen Control Description

The BCT/BLCT ovens include the versatile Blodgett Combi Touchscreen control. The control features:

- Multiple cooking modes include Hot Air, CombiSmart, CombiOptima, Retherm, Steam, Proofing, Cool Down, and PreHeat.
- CombiOptima automatically measures and controls the humidity level in the oven, helping to retain the appearance and juiciness of the product. (*not available on mini ovens*)
- Easy to use touch panel display
- Stores up to 1000 recipe programs with multiple cooking stages. Recipes can be grouped into categories (beef, chicken, cookies, etc.) for easy retrieval. Includes a favorites category for the recipes you use the most.
- External core temperature probe with 3 measuring points.
- Low temperature roast & hold and Delta-T cooking
- Reversible 9 speed fan for optimum baking and roasting results
- The Rack Timer function enables you to set timers for each individual rack.
- Advanced Rack Timer allows you to create groups of recipes with similar characteristics (cook temperature, humidity level, etc.) then manage multiple recipes of the same group simultaneously on separate oven racks.
- USB port for data, software and recipe transfer
- HACCP quality control enables you to control and document production. Includes production time, production duration, preparation temperature, and core temperature.
- Programmable time delay start
- Automatic service diagnosis

## BASIC OPERATIONS

- To select an item, touch the button on the screen
- To scroll through a list, drag your finger up or down. The item centered on the “wheel” will be selected.
- To return to the previous display, push the left arrow key ◀ in the upper left corner of the screen.
- To change the cook function while the oven is operating, push the down arrow key ▼ in the upper right corner of the screen.
- To save the current settings and move on to the next step, push the right arrow key ▶ in the upper right corner of the screen.

### MAIN MENU DESCRIPTION

1. **KEY ICON** - Press this key, then enter the code to change type of user. Choices include user, super user or technician. The super user code is 87 64 12.
2. **GEAR ICON** - Press to access the service and super user menus.
3. **RECIPES** - Press to cook using programmed recipes or to create a new recipe.
4. **FAVORITES** - Press to access the favorites category. This category can be used to store the recipes you use the most. The favorites category can store both factory programmed and your own recipes.
5. **MANUAL** - Press to cook manually using Steam, Hot Air, CombiSmart, CombiOptima, or Retherm modes. Also press to access CombiWash.
6. **ADVANCED** - Press to access Preheat, Cool Down, Advanced Rack Timer and Proofing modes. Also provides access to USB, HAACP and timed cook start.

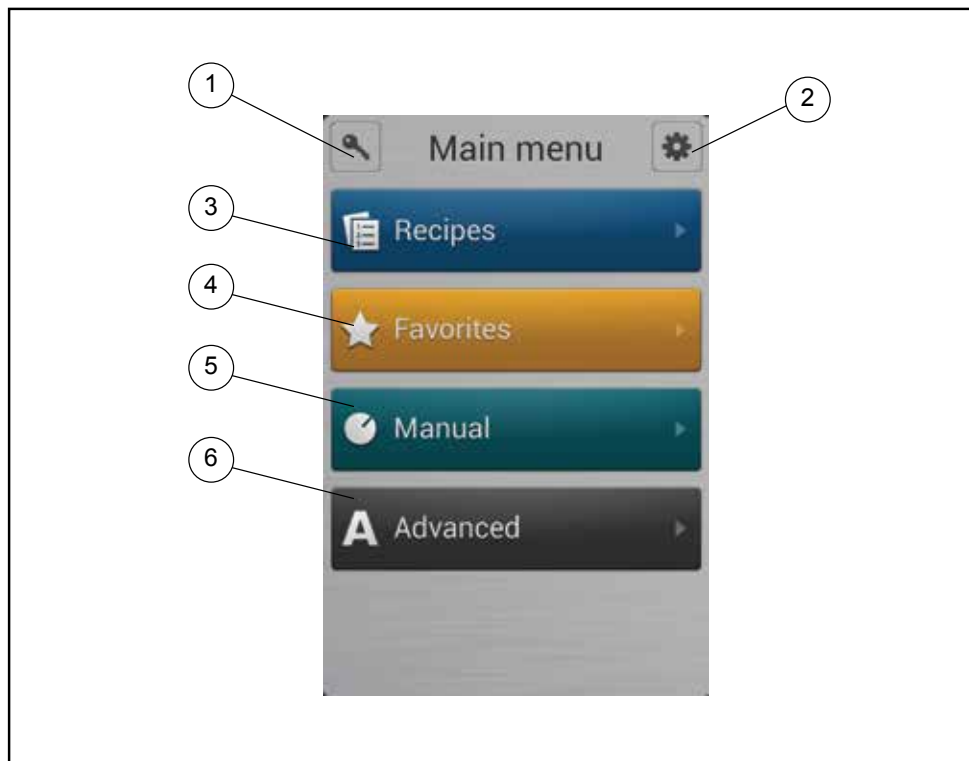


Figure 9



# Operation

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## Hot Air Mode

### Entering the Hot Air Mode

1. From the MAIN MENU, press the MANUAL key.
2. Select the HOT AIR mode.

### Setting the Cook Time and Temperature

1. In the TEMPERATURE list, drag your finger up or down to select the desired cook temperature.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

*NOTE: To return to the scroll wheel, swipe the upper portion of keypad icon box from left to right. The control defaults to the last entry method used.*

2. In the HOUR & MINUTES lists, drag your finger up or down to set the desired cook time.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TIMER scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired cook time in hours and minutes. Press OK at the bottom of the screen to set the timer.

3. When the cook time expires, the oven automatically shuts off. Press the CONT. key if you want the oven to continue operating after the set time has elapsed.
4. The oven starts automatically three seconds after the cook time and temperature have been selected.

### Steam Injection

The BCT control enables steam injection during hot air cooking. Steam injection may be set either before or during the cook cycle.

For timed steam injection:

1. Touch the Steam button to set the steam timer.
2. Drag your finger up or down the steam timer dial to set the steam time from 0 to 99 seconds.
3. Click OK to set the steam interval and return to the main Hot Air display.

For instant steam injection:

1. Press and hold the STEAM key to distribute humidity throughout the oven cabinet. The steam stops when the steam key is released.

### Setting the Fan Speed

The BCT has 9 fan speeds to choose from. You can set the fan speed before or during the cook cycle.

1. To set the fan speed, press the FAN SPEED key in the lower right corner of the screen.
2. Drag your finger up or down to set the fan speed in increments of 10% (From 20-100%).
3. Press OK to save the fan speed.

### Vent Position

The vent may be opened or closed at any time during the hot air cook cycle. Blodgett recommends setting the vent to open for bread, pastry, roasting meat or grilling.

1. Press the VENT key at the bottom of the screen to open or close the vent.

### At the End of the Cook Cycle

1. When the cook time expires, an alarm sounds and the display reads "Recipe Done!".

Press EXIT to end the cook cycle.

Press RESTART to continue the cook cycle.

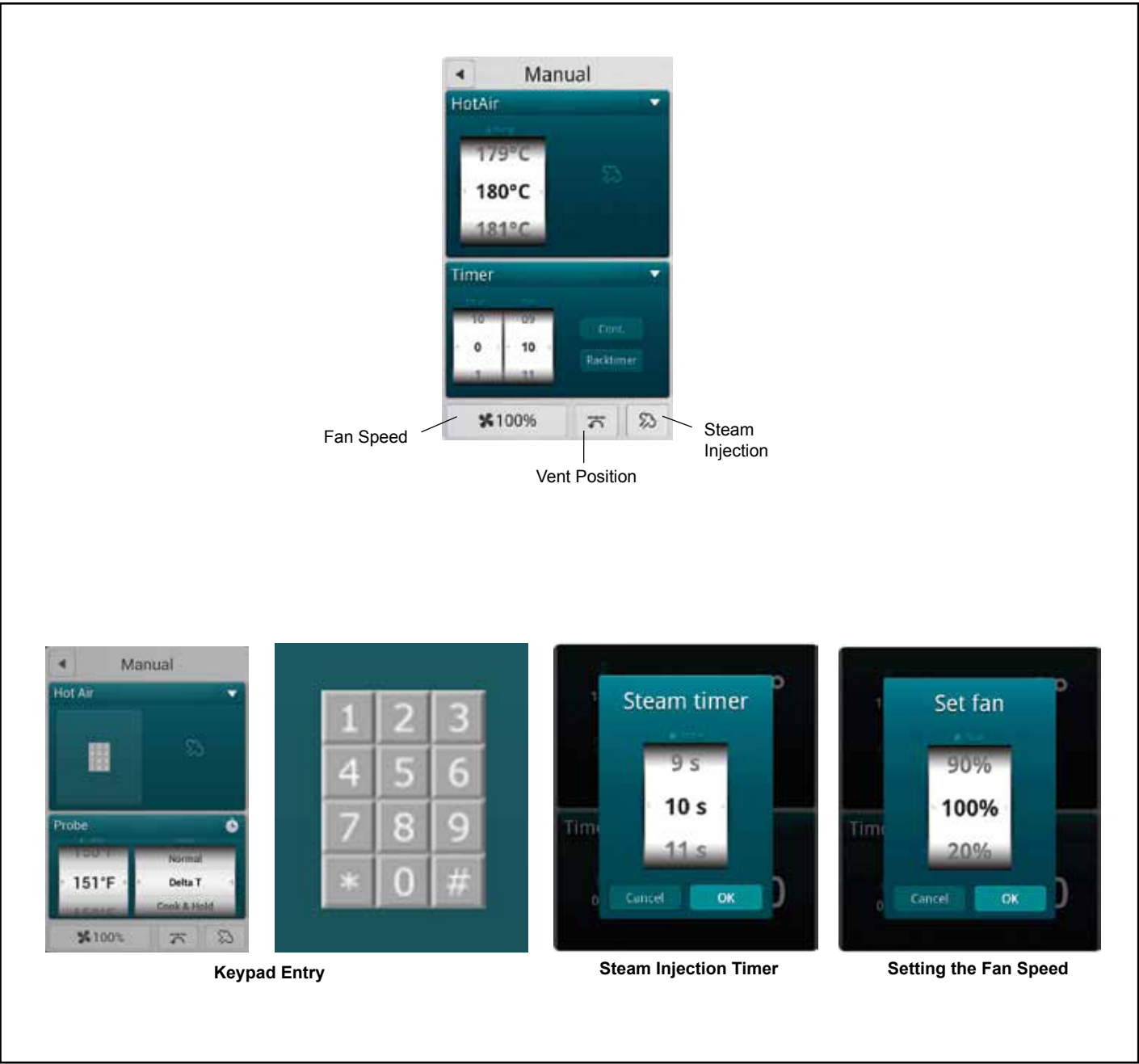


Figure 10



# Operation

## Steam Mode

Steaming is the ideal cooking mode for foods that can be cooked in water.

*NOTE: The temperature of the water in the steam generator is checked automatically. For sanitary reasons, if the water temperature is below 149°F (65°C) the tank is emptied, refilled and reheated.*

### Tips for Using the Steam Mode

- Prior to steaming, cool the oven to 175°F (80°C). To lower the temperature quickly, use the Cool Down mode and open the door.
- We recommend that you start the steaming process 8 minutes before loading the oven. For food safety, the oven monitors the water in the steam generator. If the water temperature is below 150°F (65°C), the tank is emptied, refilled and the water is heated.

### Entering the Steam Mode

1. From the MAIN MENU, press the MANUAL key.
2. Select the STEAM mode.

### Setting the Cook Time and Temperature

1. In the TEMPERATURE list, drag your finger up or down to select the desired cook temperature. Refer to table below for steaming temperature recommendations.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

*NOTE: To return to the scroll wheel, swipe the upper portion of keypad icon box from left to right. The control defaults to the last entry method used.*

2. In the HOUR & MINUTES lists, drag your finger up or down to set the desired cook time.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TIMER scroll dial. Select the keypad icon from the center of the box

to bring up the keypad. Enter the desired cook time in hours and minutes. Press OK at the bottom of the screen to set the timer.

3. When the cook time expires, the oven automatically shuts off. Press the CONT. key if you want the oven to continue operating after the set time has elapsed.
4. The oven starts automatically three seconds after the cook time and temperature have been selected.

### Setting the Fan Speed

The BCT has 9 fan speeds to choose from. You can set the fan before or during the cook cycle.

1. To set the fan speed, press the FAN SPEED key in the lower right corner of the screen.
2. Drag your finger up or down to set the fan speed in increments of 10% (From 20-100%).
3. Press OK to save the fan speed.

### Vent Position

The vent position is set automatically in the steam mode.

### At the End of the Cook Cycle

1. When the cook time expires, an alarm sounds and the display reads "Recipe Done!".

Press EXIT to end the cook cycle.

Press RESTART to continue the cook cycle.



Figure 11

FUNCTION	STEAM TEMPERATURE	PRODUCTS
Low Temperature Steaming	149-194°F (65-90°C)	Fish and small vegetables. Steam small vegetables at 80°C for 5-10 minutes to keep their colour and crispness.
Traditional Steaming	208-212°F (98-100°C)	Meat, pasta, potatoes, rice and root vegetables.
Forced Steaming	248°F (120°C)	Vegetables that require further processing and for faster processing of hard root and frozen vegetables, pasta and rice. Exercise caution when you use this function.

## Retherm Mode

Retherm allows you to gently reheat previously prepared products. During operation a carefully calculated amount of humidity is added. This process helps maintain the appearance and flavor of the product.

### Tips for Successful Retherming

- For faster retherming, leave the product uncovered during the reheating process.
- To reach the perfect end temperature, use the core temperature probe. Refer to page 24 for information on using the core probe.
- For retherm of sous-vide or similar products, follow the supplier's recommendations.

### Entering the Retherm Mode

1. From the MAIN MENU, press the MANUAL key.
2. Select the RETHERM mode.

### Setting the Retherm Time and Temperature

1. In the TEMPERATURE list, drag your finger up or down to select the desired cook temperature.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

*NOTE: To return to the scroll wheel, swipe the upper portion of keypad icon box from left to right. The control defaults to the last entry method used.*

2. In the HOUR & MINUTES lists, drag your finger up or down to set the desired cook time.

**To switch to keypad entry** - Swipe you finger from right to left across the upper portion of TIMER scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired cook time in hours and minutes. Press OK at the bottom of the screen to set the timer.

3. When the cook time expires, the oven automatically shuts off. Press the CONT. key if you want the oven to continue operating after the set time has elapsed.

4. The oven starts automatically three seconds after the cook time and temperature have been selected.

### Setting the Fan Speed

The BCT has 9 fan speeds to choose from. You can set the fan before or during the cook cycle.

1. To set the fan speed, press the FAN SPEED key in the lower right corner of the screen.
2. Drag your finger up or down to set the fan speed in increments of 10% (From 20-100%).
3. Press OK to save the fan speed.

### Vent Position

The vent position is set automatically in the retherm mode.

### At the End of the Cook Cycle

1. When the cook time expires, an alarm sounds and the display reads "Recipe Done!".

Press EXIT to end the cook cycle.

Press RESTART to continue the cook cycle.



Figure 12

PRODUCTS	RETHERM TEMPERATURE	TIME
Rice, meat, and vegetables on a plate	284°F (140°C)	8-12 minutes
Whole roasts, stews, and sauces	248-384°F (120-140°C)	40-60 minutes
Pasta, rice, and similar	248°F (120°C)	20-30 minutes



# Operation

## CombiSmart Mode

The CombiSmart mode allows you to set an oven temperature and select a preset humidity level. The oven produces a consistent level of humidity. There is no compensation for the moisture naturally found in the product.

### Entering the CombiSmart Mode

1. From the MAIN MENU, press the MANUAL key.
2. Select the COMBI SMART mode.

### Setting the Cook Time, Temperature and Humidity

*NOTE: To ensure that the oven has reached the correct humidity level, preheat the oven for 5 minutes at the preferred humidity level.*

1. In the TEMPERATURE list, drag your finger up or down to select the desired cook temperature.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

*NOTE: To return to the scroll wheel, swipe the upper portion of keypad icon box from left to right. The control defaults to the last entry method used.*

2. In the STEAM list, drag your finger up or down to select the desired level of humidity. CombiSmart provides 10 different humidity levels. Refer to table below for humidity level recommendations.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of STEAM scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired humidity level. Press OK at the bottom of the screen to set the humidity.

*NOTE: Humidity level must be entered in multiples of 10 (10, 20, 30, etc).*

3. In the HOUR & MINUTES lists, drag your finger up or down to set the desired cook time.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TIMER scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired cook time

in hours and minutes. Press OK at the bottom of the screen to set the timer.

4. When the cook time expires, the oven automatically shuts off. Press the CONT. key if you want the oven to continue operating after the set time has elapsed.
5. The oven starts automatically three seconds after the cook time, temperature and humidity have been selected.

### Setting the Fan Speed

The BCT has 9 fan speeds to choose from. You can set the fan before or during the cook cycle.

1. To set the fan speed, press the FAN SPEED key in the lower right corner of the screen.
2. Drag your finger up or down to set the fan speed in increments of 10% (From 20-100%).
3. Press OK to save the fan speed.

### Vent Position

The vent position is set automatically in the CombiSmart mode.

### At the End of the Cook Cycle

1. When the cook time expires, an alarm sounds and the display reads "Recipe Done!".

Press EXIT to end the cook cycle.

Press RESTART to continue the cook cycle.



Figure 13

PRODUCTS	HUMIDITY LEVEL	TEMPERATURE
Dry air grilling	0	392-482°F (200-250°C)
Gravy production during braising of meat	70-80	293-329°F (145-165°C)
Poaching fish, poultry, and crispy vegetables	90-100	158-248°F (70-120°C)
Steaming potatoes, rice, pasta, meat, and more.	100	212°F (100°C) or steaming mode



## CombiOptima Mode

*NOTE: Not available on mini ovens.*

CombiOptima allows you to set an oven temperature and add a specific percentage of humidity. Many products contain a large amount of water, increasing the humidity level during cooking. In the CombiOptima mode the oven automatically regulates the humidity to maintain the desired level.

### Tips for setting the humidity level

- To make gravy when braising meat, apply 70 to 80% humidity at 300-325°F (145-65°C).
- For poaching fish, poultry and crispy vegetables, apply 70 to 95% humidity at 150-250°F (70-120°C).
- For short cook times and products, such as herb-marinated cuts of meat and fresh vegetables, use 70% humidity at 375°F (190°C).

### Entering the CombiOptima Mode

1. From the MAIN MENU, press the MANUAL key.
2. Select the COMBI OPTIMA mode.

### Setting the Cook Time, Temperature and Humidity

*NOTE: To ensure that the oven has reached the correct humidity level, preheat the oven for 5 minutes at the preferred humidity level.*

1. In the TEMPERATURE list, drag your finger up or down to select the desired cook temperature.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

*NOTE: To return to the scroll wheel, swipe the upper portion of keypad icon box from left to right. The control defaults to the last entry method used.*

2. In the STEAM list, drag your finger up or down to select the desired percentage of humidity.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of STEAM scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired humidity level. Press OK at the bottom of the screen to set the humidity.

*NOTE: Humidity level must be entered in multiples of 10 (10, 20, 30, etc).*

3. In the HOUR & MINUTES lists, drag your finger up or down to set the desired cook time.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TIMER scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired cook time in hours and minutes. Press OK at the bottom of the screen to set the timer.

4. When the cook time expires, the oven automatically shuts off. Press the CONT. key if you want the oven to continue operating after the set time has elapsed.
5. The oven starts automatically three seconds after the cook time, temperature and humidity have been selected.

### Setting the Fan Speed

The fan speed is set automatically in the CombiOptima mode.

### Vent Position

The vent position is set automatically in the CombiOptima mode.

### At the End of the Cook Cycle

1. When the cook time expires, an alarm sounds and the display reads "Recipe Done!".

Press EXIT to end the cook cycle.

Press RESTART to continue the cook cycle.



Figure 14



# Operation

## Using the Core Probe

All Blodgett BCT/BLCT ovens come standard with one core temperature probe. It is possible to run two core probes at the same time. An additional probe may be purchased from your Blodgett dealer.

**The core temperature sensor offers three cooking modes.**

- Normal
- Delta-T
- Cook & Hold

### CORE PROBE MODES

**Follow this procedure for all three core probe cooking modes.**

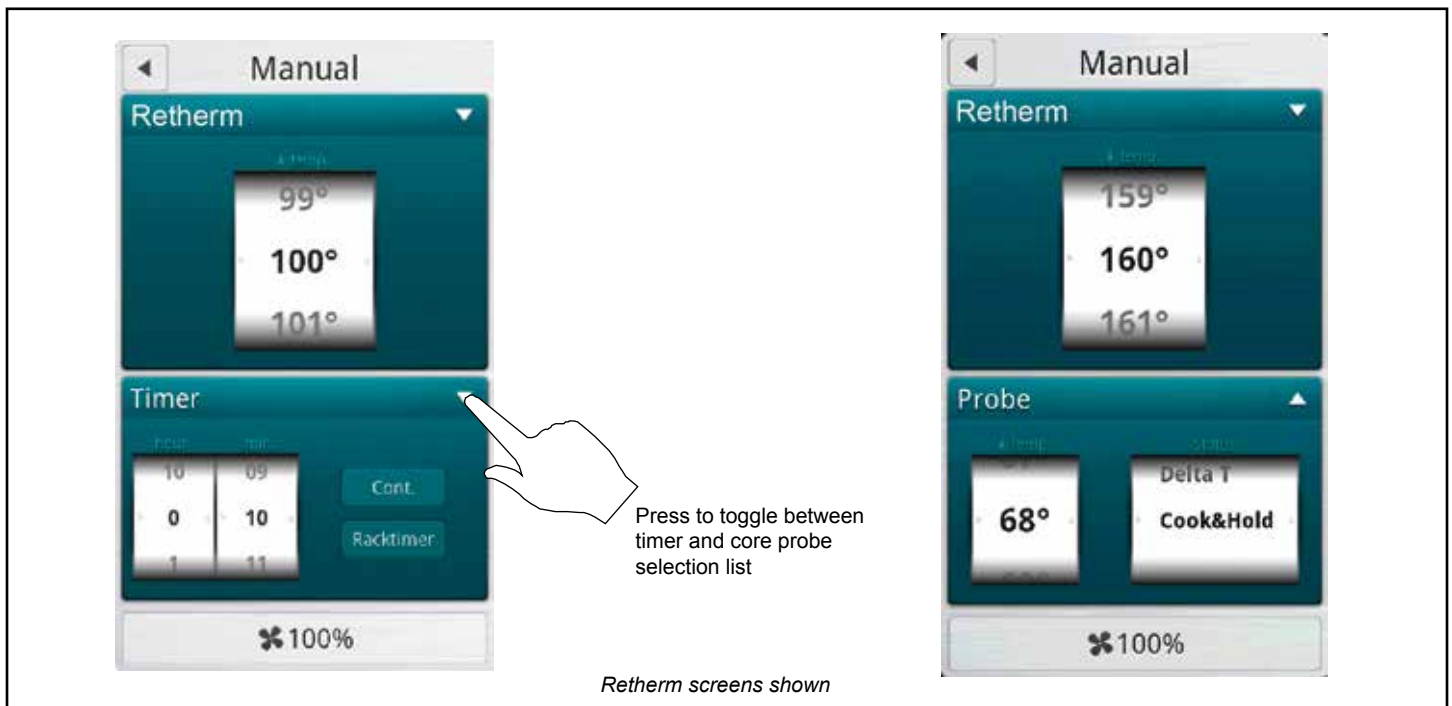
*NOTE: The core probe must be set up prior to activating a cook cycle.*

1. Select the desired cooking mode. Refer to instructions on setting the cooking mode.
2. Set the desired fan speed if applicable. Refer to instructions on setting the fan speed.

3. Set the vent position if applicable. Refer to instructions on setting the vent position.
4. Insert the core probe into the center of the product. Then plug the probe into the oven at the connector located in the upper corner of the right side panel.

*NOTE: Meat probes on mini combi models are internal and do not need to be plugged into the oven.*

5. Press the ▼ key at the top of the timer list to display the probe selection list.
6. Drag your finger up or down the Temp list to select the desired core probe temperature.
7. Drag your finger up or down the Status list to select the desired mode.
8. The oven starts automatically three seconds after the core probe temperature and mode have been selected.



**Figure 15**

### NORMAL CORE PROBE COOKING

In the normal mode, the core probe will notify you when the product has reached the desired pull temperature. The cook temperature is constant in the normal mode.

1. Follow steps 1-8 on page 24 to start a normal core probe cook cycle.
2. The oven sounds an alarm, and turns off when the specified core temperature has been reached.

Unplug the core probe and remove the product.

### DELTA T

When you use Delta-T, the oven maintains a constant difference in temperature between the core temperature and the oven temperature. The temperature of the oven rises slowly as the core temperature rises. Delta-T provides gentle cooking resulting in a tender, juicy product. Cooking with Delta-T reduces shrinkage by up to 20% compared to traditional modes of cooking.

1. Follow steps 1-8 on page 24 to start a Delta T cook cycle.
2. The oven sounds an alarm, and turns off when the specified core temperature has been reached.
3. Unplug the core probe and remove the product.

### Tips for Delta-T Cooking

- For best results start with an oven temperature of 85-100°F (30-40°C).
- HOT AIR mode is recommended for very fatty and small roasts. STEAM mode is recommended for large hams with bones. RETHERM mode is recommended for poultry and other lean pieces of meat.

### Recommended Core Temperatures

- Rare 125-135°F (52-57°C)
- Medium 140-145°F (59-62°C)
- Well Done 160-185°F (72-85°C)

### COOK & HOLD

Cook & Hold is an extension of Delta-T cooking. The oven temperature adjusts relative to the actual core temperature of the product. When the desired core temperature is reached, the oven adjusts the cavity to maintain the core temperature, acting as a warming mode. Cook & hold is suitable for roasting over night when the staff is off duty.

1. Follow steps 1-8 on page 24 to start a Cook & Hold cycle.
2. When the product has reached the desired core temperature the display will read HOLD???, and the oven will adjust the cavity temperature to maintain the core probe temperature.
3. Unplug the core probe and remove the product when ready to serve.

### Tips for Using Cook & Hold

- Recommended holding temperature is 140-150°F (60-65°C). At higher temperatures a gradual dehydration of proteins takes place, the weight of the meat is reduced and the meat becomes less juicy.
- With a hold temperature of 140-150°F (60-65°C), the meat can be taken out immediately before carving.
- After being held for 5-6 hours shrinkage increases.



# Operation

## SmartChef Automatic Cooking

The SmartChef function provides a number of preset cooking functions for a variety of products.

### Entering the SmartChef Mode

1. From the MAIN MENU, press the MANUAL key.
2. Select the SMART CHEF mode.

### Using the SmartChef Mode

1. Press the name of the type of product you are going to cook.



Figure 16

2. The control displays the cooking modes programmed for your product. Press the mode you want to use. See table for list of available cooking modes.



Figure 17

3. The control displays COOKING ADJUSTMENT SLIDERS. Make any adjustments you wish to achieve the desired results.
  - a. **Grilling** - Slide the button to the left for rare meat and to the right for well-done meat.  
  
Slide the button to the left for a lighter result and to the right for a darker result.
  - b. **Steaming** - Slide the button to the left for rare meat and to the right for well-done meat.  
  
Slide the button to the left for steaming at low temperature  
Slide the button to the right for forced steaming.
  - c. **Braising** - Slide the button to the left for rare meat and to the right for well-done meat.  
  
Slide the button to the left for a slow result and to the right for a fast result.  
Touch the Tender box if you want the oven to keep the core temperature for 2 hours.
  - d. **Browning** - Slide the button to the left for shorter cooking time and to the right for longer cooking time.  
  
Slide the button to the left for a lighter result and to the right for a darker result.
  - e. **Breaded** - Slide the button to the left for rare meat and to the right for well-done meat.  
  
Slide the button to the left for thick breaded products and to the right for thin breaded products.
4. Press the START key when you have adjusted the results. The oven begins the preheating process and sounds an alarm, when the oven is ready.

## SmartChef Automatic Cooking

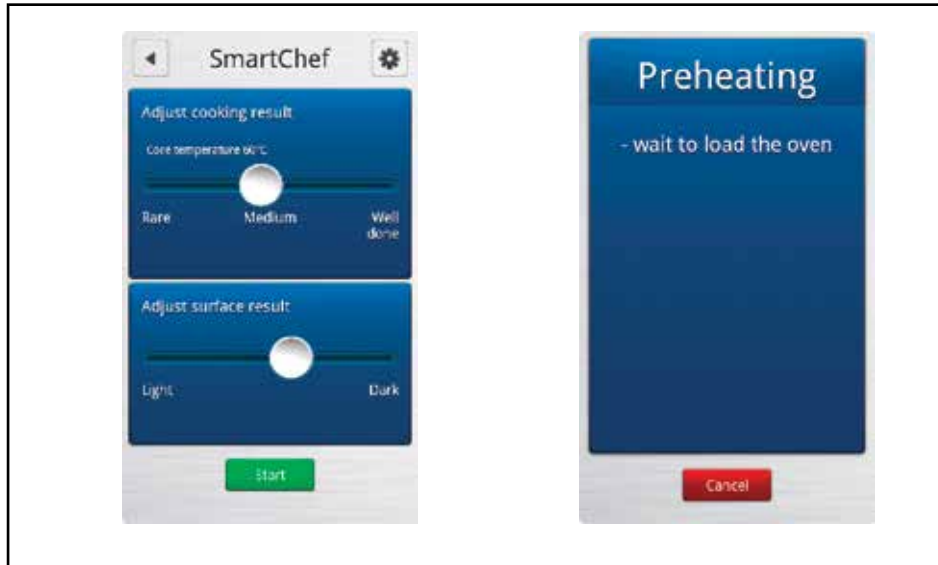


Figure 18

	BEEF	PORK	POULTRY	LAMB	VENISON	FISH	BREAD
<b>AVAILABLE ADJUSTMENTS</b>	Grilling	Grilling	Grilling	Grilling	Grilling	Grilling	Baking
	Roasting	Roasting	Roasting	Roasting	Roasting	Roasting	Baking Small Size
	Steaming	Steaming	Steaming	Steaming	Steaming	Steaming	Baking with Steam
	Breaded	Breaded	Breaded	Breaded	Breaded	Breaded	Puff Pastry
	Browning	Browning	Browning - Small Pieces	Browning	Browning		
	Braising	Braising	Braising	Braising	Braising		
		Crispy Skin	Dark Poultry				



# Operation

## Using Rack Timing

The rack timing function enables you to set one or more timers for each individual rack. This way you can cook different products on the same rack or on different racks as long as they can use the same cooking mode. The rack timer can be used in Hot Air, Combi, CombiOptima, Retherm and Steam modes.

### TO COOK USING RACK TIMING

1. From the MAIN MENU, press the MANUAL key.
2. Select the desired cooking mode. Set the cook temperature and humidity level if applicable.
3. Press the RACK TIMER key.
4. In the RACK SETUP list, drag your finger up or down to select the number of racks you want to associate with the timer. You can choose between 1-10 racks.
5. In the TIMERS PER RACK list, drag your finger up or down to select the number of timers you want to associate with the rack(s).
6. Push the arrow button in the upper right corner to continue.
7. Push the ACTIVATE TIMER key for the rack timer you wish to start.
8. In the HOUR & MINUTES lists, drag your finger up or down to set the desired cook time.
9. Push the RIGHT ARROW key ► in the upper right corner to start the timer.

Blue buttons display the active timer settings and the remaining time. The timer counts down to zero.

Yellow buttons display the active timer settings of the timers that have reached the final minute of the countdown.

Green buttons and an alarm indicate that a rack timer has finished its countdown. The display counts up the time that has elapsed since the timer timed out.

10. Push the GREEN KEY to silence the alarm.
11. Push FINISH to end the timer.



Figure 19

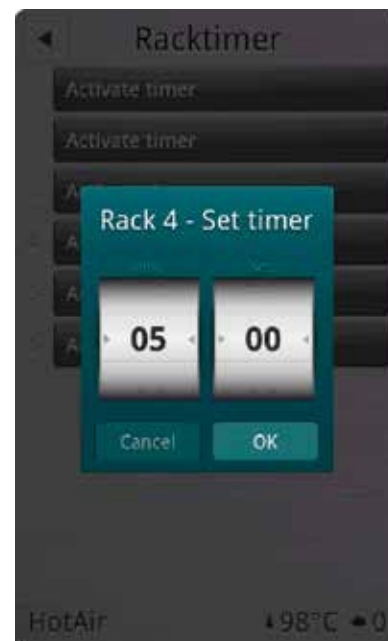


Figure 20



## Using Advanced Rack Timing

The Advanced Rack Timer allows you to create groups of recipes with similar characteristics (cook temperature, humidity level, etc.). The advanced rack timer cook screen lets you manage multiple recipes of the same group simultaneously on separate racks of the oven.

### Entering rack timer menus

1. From the MAIN MENU, press ADVANCED.
2. Select RACK TIMER.

### SETTING UP GROUPS & RECIPES

#### Creating a Recipe Group

*NOTE: Up to 18 recipes can be assigned to a single group. In order for recipes to be grouped together they must have the same cook mode, and similar temperature settings.*

1. To create a recipe group select the + key at the bottom of the screen. This will bring you to the SETUP GROUP screen.
2. Select NAME BAR to edit the group name. Use the keypad to enter a group name. Press the right arrow ► key in the upper right hand corner of the screen to save and return to the SETUP GROUP screen.
3. Select the camera icon in the IMAGE BAR to associate a picture with the group. Press OK to save the selection and return to the SETUP GROUP screen.
4. Under RECIPES you can select existing recipes to add to the group. Once a recipe has been selected a green check mark will appear to the right indicating it is part of the group. To remove a recipe, select it again and the check mark will be removed. To add a new recipe, see Creating a Recipe.

*NOTE: The first selected recipe will define the settings for the group. Recipes that have settings incompatible with the group's settings will be grayed out.*

5. When all desired recipes have been selected, press the right arrow ► key in the top right corner to save the group and return to the RACK TIMER MENU.

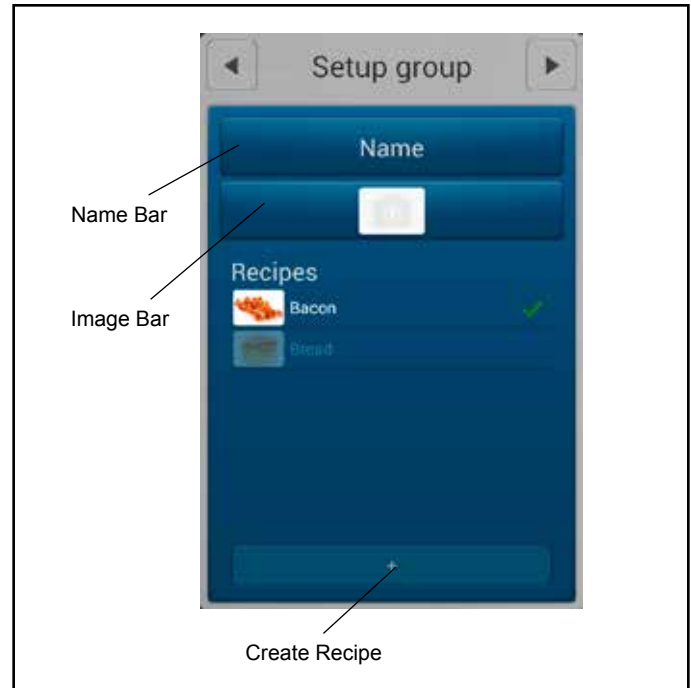


Figure 21

#### Editing a Group

1. In RACK TIMER MENU screen, press and hold the group's icon. A box will appear allowing you to edit or delete the group.



# Operation

## Using Advanced Rack Timing

### Creating a Recipe

1. Select the + key from the bottom of the SETUP GROUP screen.
2. Select the NAME BAR to edit the group name. Use the keypad to enter a recipe name. Press the right arrow ► key in the upper right hand corner of the screen to save and return to the SETUP RECIPE screen.
3. Select the COLOR BAR to associate a color with the recipe. Press OK to save the selection and return to the SETUP RECIPE screen.
4. Select the camera icon in the IMAGE BAR to associate a picture with the recip. Press OK to save the selection and return to the SETUP RECIPE screen.

Select the SETTINGS BAR below the image bar to edit the temperature, cook mode, fan speed, vent state, and cook time of the recipe. Press the right arrow ► key in the upper right hand corner of the screen to save the recipe settings and return to the SETUP RECIPE screen.

### Editing a Recipe

In SETUP GROUP screen, press and hold the recipes' icon. A box will appear allowing you to edit or delete the recipe.

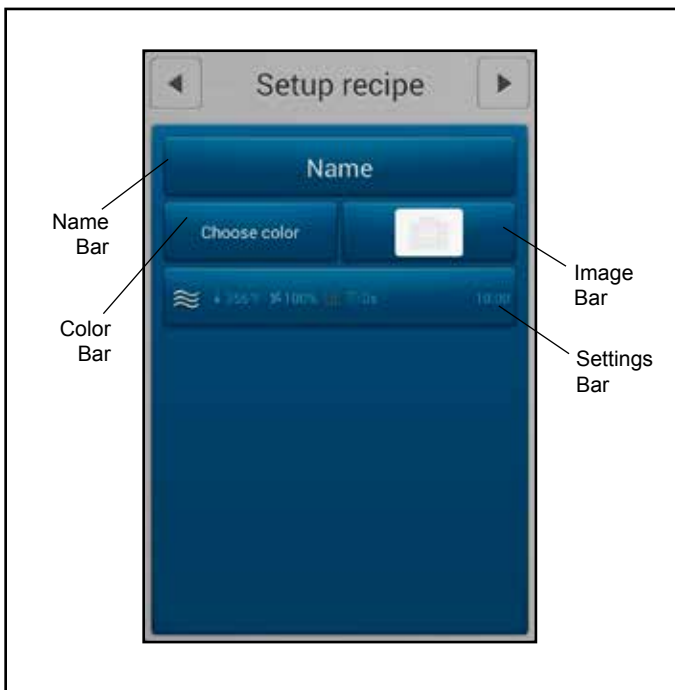


Figure 22

### Selecting a Group

1. From the RACK TIMER MENU screen, select the number of racks you'd like to use and the group with recipes you wish to use. Then select the right arrow ► key in the upper right hand corner to enter the RACK TIMER COOK screen.
2. To select a new group, return to the RACK TIMER MENU screen from the RACK TIMER COOK screen by selecting the left arrow ◀ key in the top left of the screen.

## Using Advanced Rack Timing

### COOKING WITH RACK TIMER

*NOTE: The top portion of the RACK TIMER COOK screen contains the recipes in your group. If there are more than 6 recipes in your group you can browse the other recipes by swiping the screen from right to left in this portion of the screen. To return to the previous 6 recipes simply swipe in the reverse direction. The highlighted circle below the recipes indicates what page (of up to 3) you are currently on.*

### Assigning a Recipe – Click

1. Select the blue timer box associated with the rack number you'd like to place a recipe on, it will become highlighted.
2. Select the recipe icon from the top of the screen associated with the recipe you'd like to place on the selected rack, it will become highlighted.
3. Reselect the highlighted timer box to assign the recipe to the rack.

### Assigning a Recipe – Drag and Drop

1. Press and hold the desired recipes' icon for approximately 2 seconds.
2. Drag recipe to desired rack location.

### Starting a recipe

1. Once a recipe has been added to a rack the unit will begin preheating to the required temperature. Preheating is indicated by a red thermometer icon to the right side of the screen. Once preheated the icon will change to an orange "load" icon.
2. The recipe timer will automatically start when the oven has preheated and the product has been loaded into the oven (door opened/closed).

### Remove Recipes – Drag and drop

1. Press and hold the recipe bar on a rack until a trash can appears to the right.
2. Drag the recipe to the trash can.



Figure 23



# Operation

## PreHeat, Cool Down and Proofing

The Advanced Menu gives you access to the PreHeat, CoolDown and Proofing functions.

### PREHEAT

Use PreHeat to preheat the oven prior to cooking.

1. From the MAIN MENU, press the ADVANCED key.
2. Select the PREHEAT mode.
3. The PreHeat temperature list is displayed. Drag your finger up or down to set the desired temperature.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

*NOTE: To return to the scroll wheel, swipe the upper portion of keypad icon box from left to right. The control defaults to the last entry method used.*

4. The oven begins preheating automatically three seconds after the temperature has been selected.

### COOL DOWN

Use this function to quickly cool the oven cavity. For the best results, set the cool down temperature 68°F (20°C) lower than the desired cooking temperature.

1. From the MAIN MENU, press the ADVANCED key.
2. Select the COOL DOWN mode.
3. The Cool Down temperature list is displayed. Drag your finger up or down to set the desired cool down temperature.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

4. The oven begins cooling down automatically three seconds after the temperature has been selected.



Figure 24



## PreHeat, Cool Down and Proofing

### PROOFING

*NOTE: Prebaked products do not need proofing.*

1. From the MAIN MENU, press the Advanced key.
2. Select the PROOFING mode.
3. The PROOFING TEMPERATURE list and timer are displayed. Drag your finger up or down to set the desired proofing temperature.

**To switch to keypad entry** - Swipe your finger from right to left across the upper portion of TEMPERATURE scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired temperature. Press OK at the bottom of the screen to set the temperature.

4. In the HOUR & MINUTES lists, drag your finger up or down to set the proofing time.

**To switch to keypad entry** - Swipe you finger from right to left across the upper portion of TIMER scroll dial. Select the keypad icon from the center of the box to bring up the keypad. Enter the desired cook time in hours and minutes. Press OK at the bottom of the screen to set the timer.

5. When the cook time expires, the oven automatically shuts off. Press the CONT. key if you want the oven to continue operating after the set time has elapsed.
6. The oven starts automatically three seconds after the cook time, temperature and humidity have been selected.



Figure 25

### Setting the Fan Speed

The BCT has 9 fan speeds to choose from. You can set the fan before or during the cook cycle.

1. To set the fan speed, press the FAN SPEED key in the lower right corner of the screen.
2. Drag your finger up or down to set the fan speed in increments of 10% (From 20-100%).
3. Press OK to save the fan speed.

### At the End of the Proof Cycle

1. When the proof time expires, an alarm sounds and the display reads "Recipe Done!".

Press EXIT to end the proof cycle.

Press RESTART to continue the proof cycle.



# Maintenance

## Cook to Perfection

The cook to perfection function helps recipes compensate for temperature fluctuations. These can occur when transitioning between recipes with different temperatures, opening the door, or adding frozen products. The system makes real time adjustments to cook time ensuring quality cooking.

### CTP threshold (%)

CTP threshold accounts for when the cavity temperature is below the recipe set temperature. Time will be added to the recipe as long as the cavity temperature remains below the CTP threshold percent of temperature.

EXAMPLE: The oven preheats to a recipe's set temperature of 350°F and a frozen product is loaded. The temperature of the frozen product and opening the door causes the cavity temperature to drop to 230°F. The CTP will begin extending the total recipe time as long as the cavity temperature remains below the programmed threshold value, at 80% this equates to 285°F. This compensates for the time it takes the oven to recover to the 350°F called for in the recipe.

### CTP tolerance (°)

The CTP tolerance value is a temperature range. If the oven's measured temperature is outside the range of the desired temperature, the unit will adjust cook times. Unlike the threshold value, the tolerance compensates when the oven is too high above set point as well as below set point by adding or subtracting time as needed.

EXAMPLE: Using the same example of 350°F, a 15° tolerance means that time will be added to the recipe as long as the cavity is lower than 335°F and subtract if cavity achieves temperatures above 365°F. This may be the case if you go from a recipe with a higher set temperature to a lower temperature without allowing the oven to cool.

### To set up Cook To Perfection (CTP)

1. From the MAIN MENU select the GEAR ICON.
2. Select SUPER USER from the SETTINGS MENU.
3. Select SETTINGS from the SUPER USER MENU.
4. Select COOK TO PERFECTION and set to YES to enable.
5. Select CTP THRESHOLD. Enter the percentage of set temperature you would like CTP to use for a temperature threshold.
6. Select CTP TOLERANCE. Enter the temperature you would like CTP to use for a temperature tolerance.



Figure 26

Programmed cooking is simple in the Blodgett BCT Combi. Choose from one of a wide variety of pre-programmed recipes or create your own.

### Use an Existing Program Recipe

1. From the MAIN MENU, press the RECIPES key. The CATEGORIES menu is displayed.
2. Press the desired product category.
3. Press the desired product. The programming details for the selected product are listed. If you want to adjust the recipe, press the gear wheel icon in the top right corner of the screen. Follow the steps described in Adding New Recipe Program (page 36).
4. Press START to initiate the cook cycle.

### At the End of the Cook Cycle

1. When the cook time expires, an alarm sounds and the display reads "Recipe Done!".

Press EXIT to end the cook cycle.

Press RESTART to continue the cook cycle.

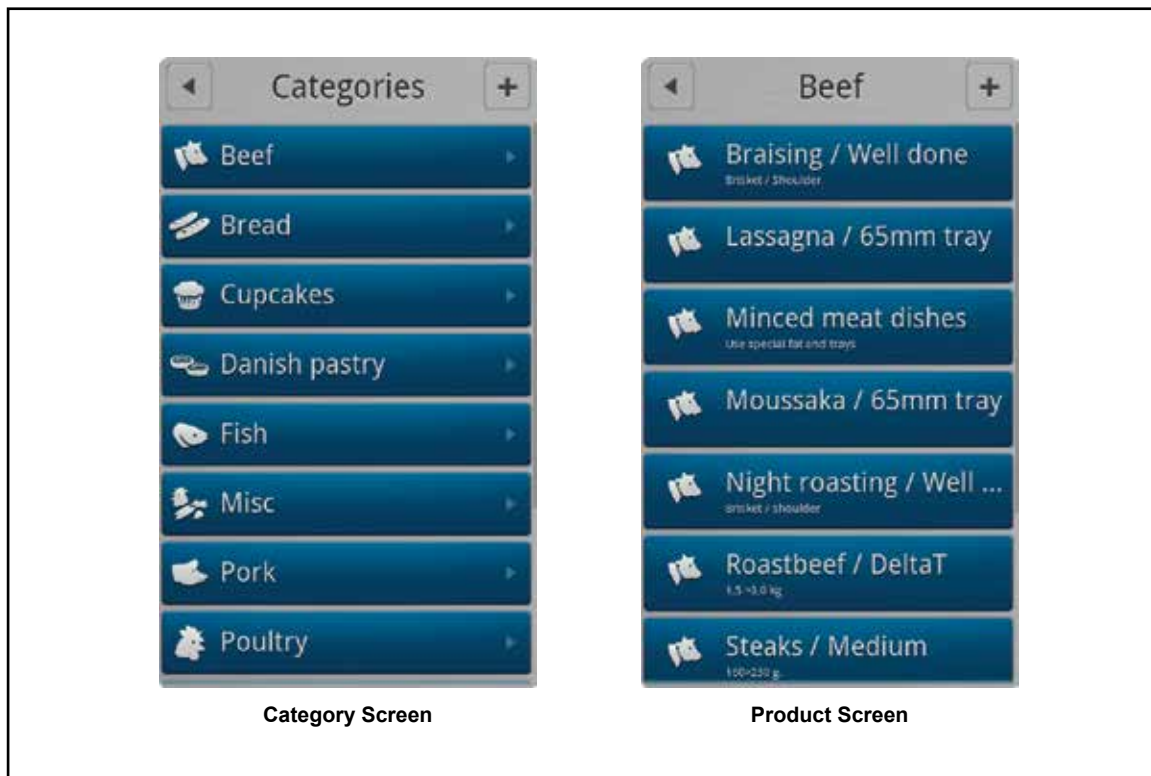


Figure 27



# Operation

## Adding a New Recipe Program

1. From the MAIN MENU, press the RECIPES key. The CATEGORIES menu is displayed.
2. To add a new recipe, press the + in the upper right corner of the screen.
3. The CHOOSE CATEGORY screen is displayed. Drag your finger up or down to select the desired product category. Press the right arrow key ► to save and advance to the next screen.
4. To name the new recipe, press right arrow key ► in the TITLE/DESCRIPTION BOX. Use the keyboard to enter a name and a description of the new recipe. Press the right arrow key ► to save and advance to the next screen.
5. Touch the FAVORITE key if you want to add the recipe to your list of favorites.
6. Press the ADD STEP key to add the first step of the cooking process.
7. In the SELECT STEP TYPE list drag your finger up or down to select the desired cooking mode. Press the right arrow key ► to save and advance to the next screen.
8. Choose the desired cook settings for the step. Press the right arrow key ► to save your settings.
9. Add as many steps as needed.

### More Functions

- If you want to change the recipe category, press the MORE FUNCTION key at the bottom of the screen. Then press CHANGE CATEGORY. You can then choose a different category.
- To make a copy of the recipe, press the MORE FUNCTION key at the bottom of the screen. Then press DUPLICATE RECIPE. The Copying Recipe message appears. You can then edit the copy.
- To delete the recipe, , press the MORE FUNCTION key at the bottom of the screen. Then press DELETE RECIPE. Press Yes to delete the recipe.

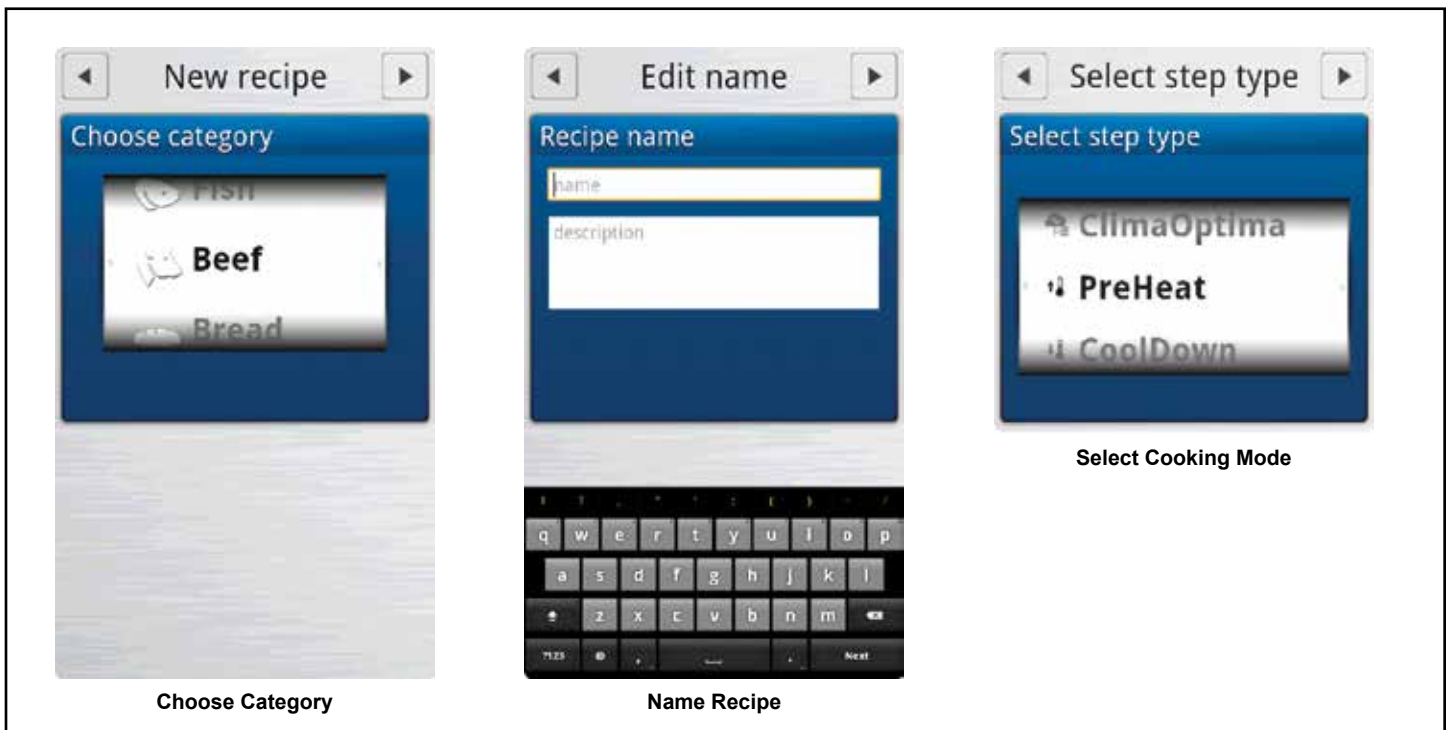


Figure 28

### Using Favorites

1. From the MAIN MENU, press the FAVORITES key.
2. Press the desired recipe. The recipes are listed in alphabetical order. All the steps of the recipe, and the total cooking time are displayed.
3. Touch the START key, to start the oven. The oven starts the preheating process, and displays “load the oven”, when the oven is ready.

### Adding a Recipe to Favorites

1. From the MAIN MENU, press the RECIPES key.
2. Select the category for the recipe you wish to add to the favorites list.
3. Press the name of the recipe you wish to add to the favorites list.
4. Press the gear wheel icon in the upper right corner of the screen.
5. Press the FAVORITE key so that it changes to YES.
6. Press the right arrow ► key in the upper right corner to save your recipe to the favorites list.

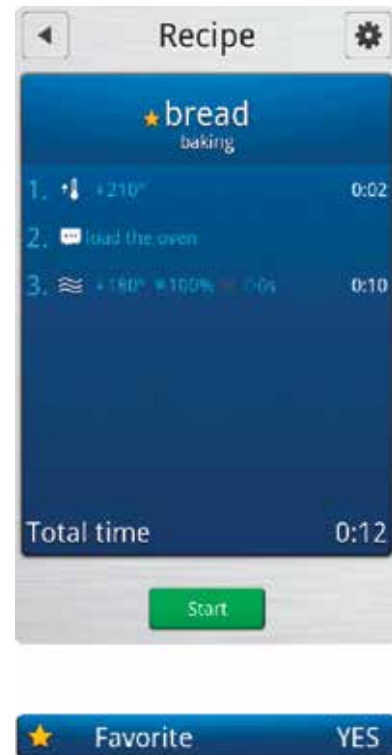


Figure 29



# Operation

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## USB

The Blodgett BCT/BLCT comes standard with a USB port located underneath the control compartment. The USB will enable upload and download of product recipes as well as HACCP data.

### To Access USB Menu

1. Insert the USB card into the slot below the control compartment.
2. From the MAIN MENU, press the ADVANCED key.
3. Press the USB key. The control displays the following options:
  - Import Recipes - from USB to Oven
  - Export Recipes - from Oven to USB

### To Import Recipes from the USB to the Oven

1. Press Import Recipes.
2. All recipe files currently on the USB drive will be displayed. Select the desired recipe file.
3. Select either All Recipes or the appropriate product category. Select the recipes you wish to upload to the oven.

If All Recipes is selected, you may choose any or all of the recipes on the USB drive.

If a category is selected, you may choose any or all of the recipes in that category.

4. Press the USB icon in the upper right corner of the screen.
5. If you are overwriting a file currently on the oven, a screen is displayed requesting you acknowledge the overwrite.
6. Next the uploading screen appears. When the upload is complete, a green success screen is displayed. Press Finish.
7. The control returns to the USB screen.

### To Export Recipes from the Oven to the USB

1. Press Export Recipes.
2. Select either All Recipes or the appropriate product category. Select the recipes you wish to upload to the oven.

If All Recipes is selected, you may choose any or all of the recipes on the USB drive.

If a category is selected, you may choose any or all of the recipes in that category.

3. Press the USB icon in the upper right corner of the screen.
4. The Enter Filename screen is displayed. Use the keyboard to name the file. Press the Done key at the bottom of the keyboard to save the filename.
5. Press the right arrow key ► in the top right corner. The upload begins automatically.
6. The green success box is displayed. Press Finish.
7. The control returns to the USB screen.

### To Import and Export Groups and Recipe Files in Advance Rack Timer

*NOTE: Importing - you will be given the option to select the desired recipe file on the USB drive. Once a recipe set has been selected you will be given the option to overwrite the existing recipe file with those on the USB or append them to the current recipe library.*

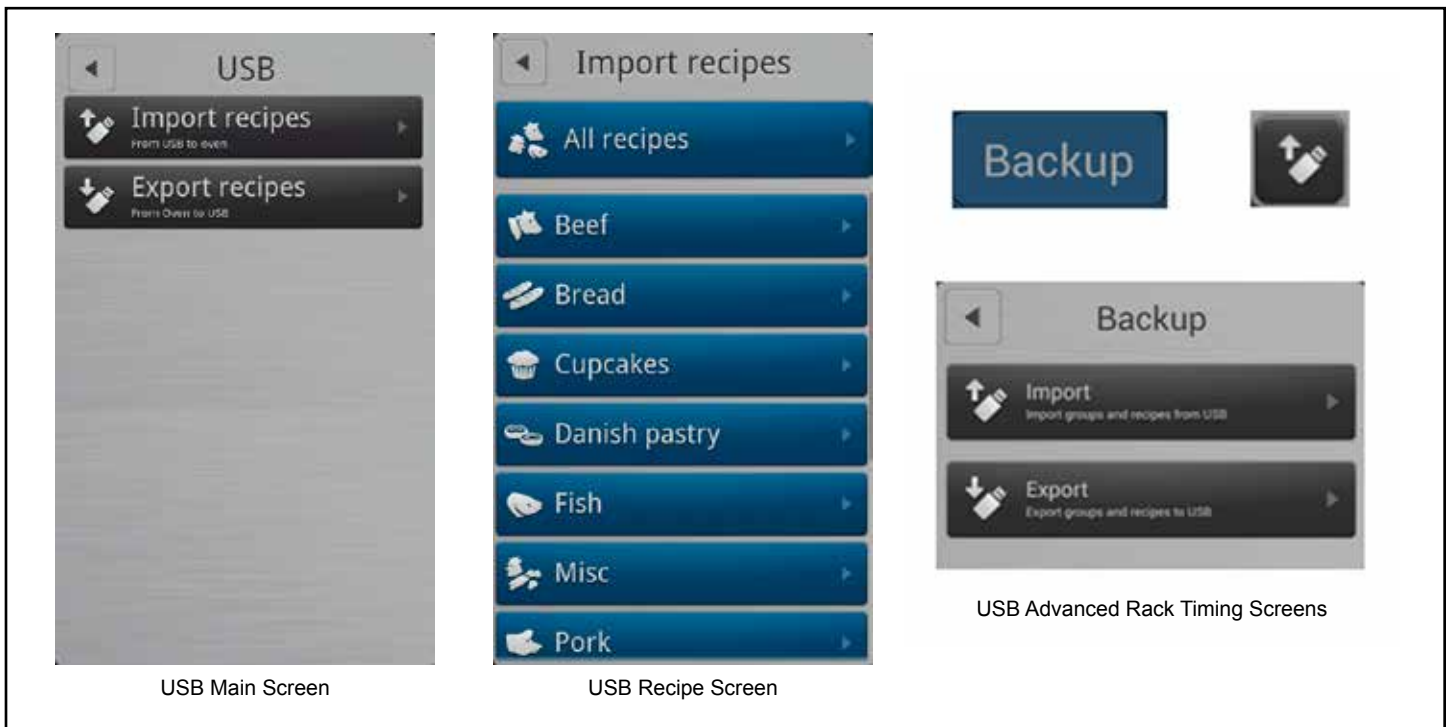
*Exporting – you will be prompted to name the recipe library being exported.*

1. From the MAIN MENU, press ADVANCED.
2. Select RACK TIMER.

3. In the RACK TIMER MENU screen select the BACK-UP key from the bottom left hand corner of the screen.
4. Insert the USB drive you wish to copy the files to or from into the port located at the front of the unit.
5. Select whether you would like to import or export the recipes.

*NOTE: Importing will overwrite any existing groups and recipes.*

6. Follow onscreen prompts to complete import or export of recipe files.
7. A notification will appear when file transfer is complete. Select “Finish” to exit the pop-up screen.



**Figure 30**



# Operation

## Timed Start

Timed Start makes it possible to start the oven using any programmed recipe before staff arrives. This way, the oven will be hot when you come in in the morning.

1. From the MAIN MENU, press the ADVANCED key.
2. Press the TIMED START key. The control displays the current timed start.
3. Press the TIMED START box.
4. Drag your finger up or down to select the desired timed start. Choose from:
  - Non-Active - no timed start
  - Single Timer - use for a single occurrence timed start
  - Weekly Timer - use to set a timed start for each day of the week.

### Programming a Single Timed Start

1. Select Single Timer and press OK.
2. Enter the desired start time. Press OK.
3. The control displays the category list. Select the appropriate product category.

4. Select the desired product recipe.
5. The display shows Single Timer with the recipe name in the top box and the start time in the second box.

You may edit either start time or recipe by touching either box.
6. Push the left arrow key ◀ to return to the advanced menu.

### Programming a Weekly Timed Start

1. Select Weekly Timer and press OK.
2. Enter the desired start time. Press OK.
3. The control displays the category list. Select the appropriate product category.
4. Select the desired product recipe.
5. The display shows Week Timer with the recipe name in the top box, followed by seven boxes, one for each day of the week with the start time.

You may edit the start time for each day individually by touching the box for that day.
6. Push the left arrow key ◀ to return to the advanced menu.

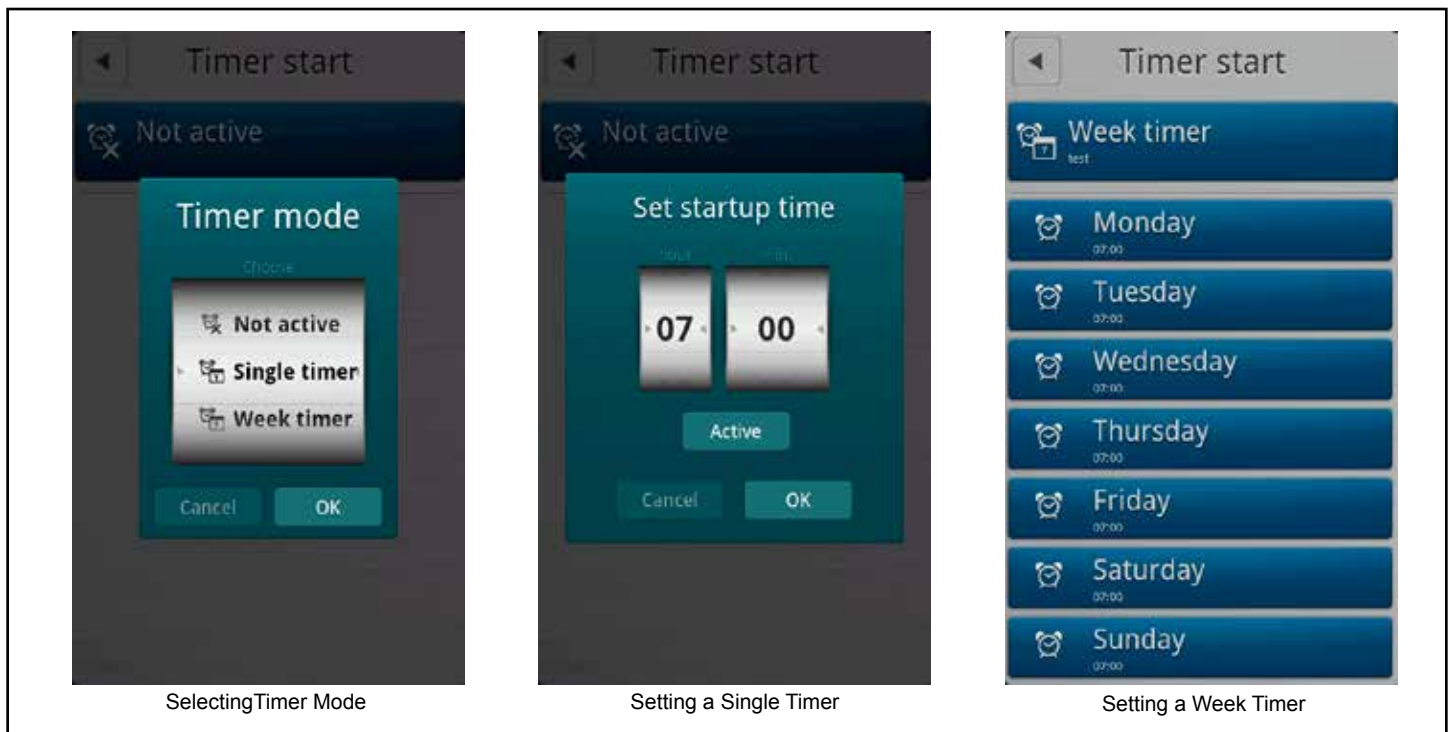


Figure 31



## HACCP Library

The Blodgett BCP/BLCP comes standard with HACCP data recording. HACCP enables you to control and document production. Data recorded includes production time, production duration, preparation temperature and core temperature.

The HACCP library can hold approximately 1000 log files. You will be notified when the memory is full so that you can empty the memory with the USB. If nothing is done, the computer will automatically start to overwrite the oldest files.

### To Activate HACCP Data Recording

*NOTE: HACCP data is stored under product recipe names. Therefore, HACCP is not available for manual cooking.*

#### **HACCP must be activated to record data.**

1. From the MAIN MENU, press the GEAR key.
2. Press the SUPER USER key.
3. Press the SETTINGS key.
4. Press the HACCP LOGGING key.
5. Drag your finger up or down to select YES. Press OK to enable HACCP recording.

### To View HACCP Data

1. From the MAIN MENU, press the ADVANCED key.
2. Press the HACCP key.
3. From the HACCP menu, press the key labelled either Show HACCP from Oven or Show HACCP from USB.
4. A list of HACCP log files is displayed. The files are logged by year, month, date and product name. Use the UP and DOWN ARROW keys to scroll through the list until the desired HACCP file is highlighted.
5. Press the OK key in the upper right of the control to display the HACCP chart.
6. Press the RETURN key at the top left of the screen to return to the HACCP screen.

### To Backup HACCP Data

1. From the HACCP menu, press the key labelled Archive on USB.
2. The display reads SAVING HACCP.
3. When the data is saved to the USB the control returns to the HACCP screen.

*NOTE: The HACCP data on the USB can be located in the folder with the serial number.*

### To Delete HACCP Data from the Oven

1. From the HACCP menu, press the key labelled Delete HACCP Data from Oven.
2. The screen will ask you to confirm that you want to delete all HACCP files. Press the key next to Accept to delete the files. Press the key next to Regret to cancel.
3. The control returns to the HACCP screen.



# Maintenance

## Cleaning & Preventative Maintenance

### DAILY CLEANING

Daily cleaning of your Combi oven is essential for sanitation, and to ensure against operational difficulties.

#### Cleaning the Exterior

1. 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.**

### Cleaning the Interior

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

Blodgett recommends the following products for cleaning and rinsing of your Blodgett Combi oven. If you choose to use products other than what Blodgett recommends, please have your supplier send us the MSDS sheet on the proposed alternate so we can ensure it meets our standards. Non approved products can cause harm to your unit and can potentially void your warranty.

1. Open the oven door.
2. Use the attached spray hose, located beneath the control, to clean the front drip tray. Water will run to the drain in the oven cavity.

### RECOMMENDED OVEN CLEANERS

VENDOR	PRODUCT NAME
1st AYD Corporation	Kombi-Klean Oven, Grill & Fryer Cleaner
Alco Chemical	350 Ultra Cycle
Daley International	Oven & Grill Cleaner
Ecolab	Keystone Oven Cleaner
	Oven Cleaner Power
	Grease Cutter Plus
	Specialty Oven Cleaner
	Ecotemp Ultra Kleene
Proforce Oven Grill & Fryer Cleaner	
Johnson Diversey	Suma Grill D9
Kay Chemical	Empire Inside/Outside Degreaser
Parkside Pro Products	Vestec 550
PDQ Manufacturing	Comi-Clean
Performance Food Group	First Mark All Temp Dish Machine Detergent
U.S. Chemical	Heavy Duty Oven & Grill Cleaner

### RECOMMENDED RINSE AIDS

VENDOR	PRODUCT NAME
Alco Chemical	320 Rapid Rinse
Ecolab	Keystone Liquid Rinse Additive
	Oven Rinse Power
	Esteem Dry-All
	Eco Temp Ultra Dry
	Specialty Oven Rinse RTU
Specialty Oven Rinse	
Johnson Diversey	Suma Maro A8.8
	Suma Nova L6
Parkside Pro Products	Vestec 510
PDQ Manufacturing	Combi-Rinse
Performance Food Group	First Mark Kleer Kwick Plus Quick Dry Rinse Aid
U.S. Chemical	Heavy Duty Rinse Agent





## Cleaning & Preventative Maintenance

### Run the CombiWash automatic cleaning cycle as follows:

1. Check the level of detergent and rinse aid in the containers. The red tube is for detergent and the blue tube is for rinse aid.

Check that the oven temperature is below 80°C. If the oven is too hot, use the CoolDown function (see page 32).

2. On the MAIN MENU press the MANUAL key.
3. Press the COMBI WASH key.
4. Touch the desired cleaning mode. You can choose between the following cleaning cycles.
  - **Flush:** Use this before starting the other cleaning programs.
  - **Light:** Use this after steaming and roasting at low temperatures.
  - **Medium:** Use this after steaming and roasting at medium temperatures.
  - **Heavy:** Use this after roasting at temperatures higher than 180°C.
  - **Intensive:** Use this after roasting very greasy products.
5. Press Start to initiate CombiWash.

*Note: If the cleaning cycle is interrupted before it has been completed, for example because of a power outage, the oven automatically performs a safety flush to remove any detergent remnants.*



Figure 32

### WEEKLY CLEANING

In addition to the daily cleaning, it is necessary to clean the control filter and behind the fan guard 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.

#### Cleaning the Control Filter

*NOTE: Not applicable on mini combi ovens.*

The control filter is located below the control compartment, in front of the spray hose.

1. To remove, pull down on the black knob on the left of the filter.
2. Clean the filter with soap and water.
3. Reinstall the filter. Press up on the filter until the back of the knob is inserted into the hole in the bottom of the oven.
4. Push up on the center of the knob to expand the back of the knob securing the filter.

#### Cleaning Behind the Fan Guard

1. Loosen the two screws and on the fan guard (or baffle).
2. Swing the baffle forward.
3. Thoroughly spray cleaner onto the fan and heat source. Place the oven in the steam mode for approximately 10 minutes.
4. After ten minutes, rinse the cleaner off. Return the fan guard to the closed position. Rotate the two screws to secure the fan guard.

### 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

## Deliming - BCT only

The control keeps track of boiler usage between delimiting. When the oven has reached 95% of the time the control warns the operator that the oven needs to be delimited. This is a warning only, the oven can be used all day before delimiting.

### Delimiting the Oven

1. Be sure the container delivering the delimiting agent to the appliance is full. Be sure to use a non-diluted delimiting agent.

VENDOR	PRODUCT NAME
Ecolab	Keystone Lime-a-way scale remover
	Calibre
Parkside Pro Products	Vestec 691

2. From the MAIN Menu, press the GEAR ICON.
3. The control displays the SETTINGS menu. Press the SUPER USER key.
4. The control display the Super User screen. Press the DELIME PROGRAM key.
5. The control displays the Delime screen. Press the DELIME key. The control asks if the oven is empty.

Press YES to start the delimiting process or NO to empty the oven. If NO is pressed, the control returns to the previous screen.

6. The remainder of the process is automatic. The control displays the delimiting steps as they occur.

To stop the delimiting process, press the STOP key. The control returns to the Super User screen.

*NOTE: The oven can be delimited at any time.*

7. When the final delime stage is complete the control displays DELIME DONE. Press OK to return to the Super User screen.

### Flushing the Boiler

The boiler may be flushed to ensure there is no descaling agent is present.

1. From the MAIN Menu, press the GEAR ICON.
2. The control displays the SETTINGS menu. Press the SUPER USER key.
3. The control display the Super User screen. Press the DELIME PROGRAM key.
4. The control displays the Delime screen. Press the DELIME FLUSH key. The control asks if the oven is empty.

Press YES to flush the boiler or NO to empty the oven. If NO is pressed, the control returns to the previous screen.

5. The remainder of the process is automatic. The control displays the delimiting flush steps as they occur.

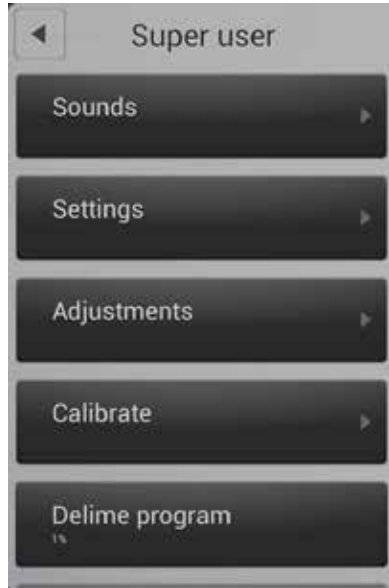
To stop the delimiting process, press the STOP key. The control returns to the Super User screen.

*NOTE: The oven can be delimited at any time.*

6. When the final delime stage is complete the control displays DELIME DONE. Press OK to return to the Super User screen.



Settings Menu



Super User Screen



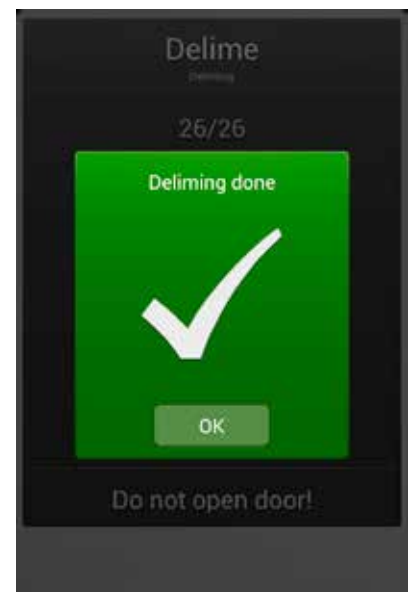
Delime Screen



Confirm the oven is empty



Delime running screen



Delime done screen

Figure 33