



**INSTALLATION AND OPERATION INSTRUCTIONS  
FOR  
“THE KFC-GARLAND” HALF-SIZE  
GAS CONVECTION OVEN**



<b>FOR YOUR SAFETY</b>	<b>WARNING:</b>
<b>DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.</b>	<b>IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.</b>

**PLEASE READ ALL SECTIONS OF THIS MANUAL AND RETAIN FOR FUTURE REFERENCE**

**THIS PRODUCT HAS BEEN CERTIFIED AS COMMERCIAL COOKING EQUIPMENT AND MUST BE INSTALLED BY PROFESSIONAL PERSONNEL AS SPECIFIED.**

**WE SUGGEST INSTALLATION, MAINTENANCE AND REPAIRS SHOULD BE PERFORMED BY YOUR LOCAL MAINTENANCE AND REPAIR CENTER, LISTED IN YOUR INFORMATION MANUAL PAMPHLET.**

**FACTORY SPECIFIED REPLACEMENT PARTS MUST BE USED TO MAINTAIN CERTIFICATION. USE OF “GENERIC” REPLACEMENT PARTS MAY CREATE A HAZARD AND VOID CERTIFICATION.**

<b>FOR YOUR SAFETY:</b>	<b>Post in a prominent location, instructions to be followed in the event the user smells gas. This information shall be obtained by consulting your local gas supplier.</b>
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Continuous product improvement is a Garland policy, therefore design and specifications are subject to change without notice.

In the event that you have questions about the installation, use, care or service of this product, please contact our customer service department at:

**MANUFACTURED BY:**

**GARLAND COMMERCIAL IND., INC.**  
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**Part #1844088 (5/99)**

*CONGRATULATIONS!* You have just purchased the finest commercial cooking equipment available anywhere.

Like any other fine, precision built appliance, it should be given regular care and maintenance. Periodic inspections by your dealer or a qualified service agency is recommended. When corresponding with the factory or your local authorized factory service center regarding service problems or replacement parts, be sure to refer to the particular unit by the correct model number (including the prefix and suffix letters and numbers) and the warranty serial number. The rating plate affixed to the unit contains this information.

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**WARNING:**  
This product contains chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm. Installation and servicing of this product could expose you to airborne particles of glass wool/ceramic fibers. Inhalation of airborne particles of glass wool/ceramic fibers is known to the State of California to cause cancer. Operation of this product could expose you to carbon monoxide if not adjusted properly. Inhalation of carbon monoxide is known to the State of California to cause birth defects or other reproductive harm.

***KEEP APPLIANCE AREA FREE AND CLEAR FROM COMBUSTIBLES!***

## MOTOR CARE

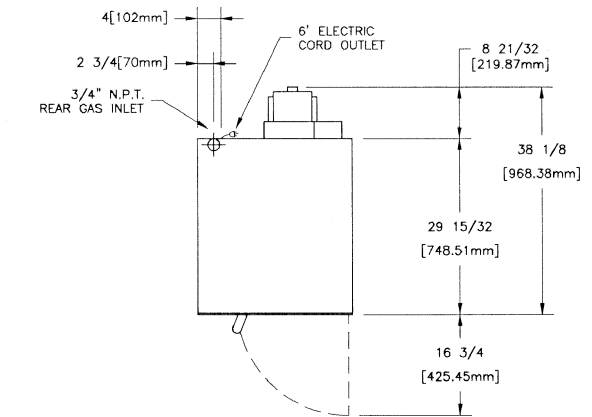
The motor on your convection oven is maintenance free since it is constructed with self-lubricating sealed ball bearings. It is designed to provide durable service when treated with ordinary care. We have a few suggestions to follow on the care of your motor. When the motor is operating, it cools itself internally by air entering at the rear of the motor case, provided proper clearance has been allowed.

Since the blower wheel is in the oven cavity it is at the same temperature as the oven. If the motor is stopped while the oven is hot, the heat from the

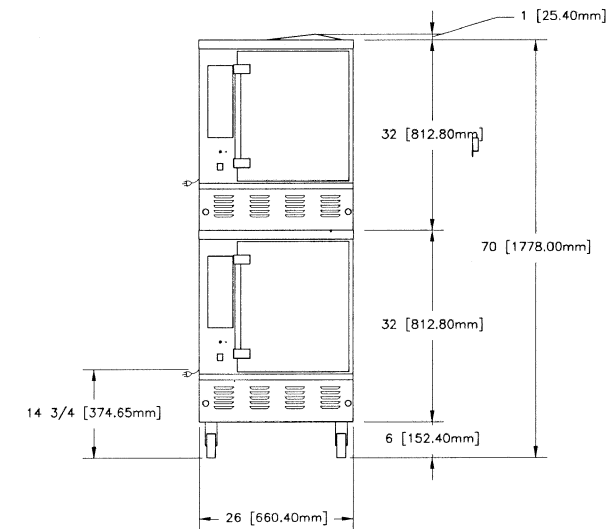
blower wheel is conducted down the shaft and into the armature of the motor. This action could shorten the life of the motor.

We recommend, at the end of the bake or roasting period, when the oven will be idle for any period of time or before shutting down completely, that the doors be left open, and by use of the cool-down position of the fan switch, the fan continues to run at least five minutes. The fan should never be turned "OFF" when the oven is hot.

## DIMENSIONS AND SPECIFICATIONS



SX99-030



MODEL #	INTERIOR DIMENSIONS (per oven)			EXTERIOR DIMENSIONS			SHIP WT.
	W	H	D	W	H (w/legs)	D	Lbs/Kg
MCO-G-5RK Single Deck	14-1/4" (362mm)	20" (508mm)	20-3/4" (527mm)	26" (660mm)	38-13/16" (965mm)	38-1/8" (968mm)	350/158
MCO-G-25RK Double Deck	14-1/4" (362mm)	20" (508mm)	20-3/4" (527mm)	26" (660mm)	71" (1803mm)	38-1/8" (968mm)	720/326

MODEL	GAS CHARACTERISTICS				ELECTRICAL CHARACTERISTICS
	BTU / HR.	kW EQUIVALENT	NATURAL GAS 4.0" W.C.*	PROPANE GAS 10.0" W.C.*	120V / SINGLE PHASE
Single Deck	60,000	17.6	Orifice #37 DMS	Orifice #52 DMS	One @ 6.0 Amps
Double Deck	120,000	35.2	Orifice #37 DMS	Orifice #52 DMS	Two @ 6.0 Amps Each

- Note:
1. Standard Electrical Specifications include motor requirements.
  2. 120V units--115V, 1/3 H.P., 2 Speed Motor, 1725/1140 RPM, 60/50Hz.
  3. A 6 ft. line cord is provided for each 120V Deck with a plug (NEMA #5-15P).

\*Gas pressure measured at manifold with unit operating.

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## INSTALLATION

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### INSTALLATION NOTES:

Combustible and Non-Combustible Wall Clearance:

Side: 1.0" (25 mm)  
Rear: 1.0" (25 mm)

The importance of the proper installation of Commercial Gas Cooking Equipment cannot be overstressed. Proper performance of the equipment is dependent, in great part, on the compliance of the installation with the manufacturer's specifications. Installation must conform to local codes or, in the absence of local codes, with the *National Fuel Code, ANSI Z223.1, Natural Gas Installation Code, CAN/CGA-B149.1*, or the *Propane Installation Code, CAN/CGA-B149.2*, as applicable.

Before assembly and connection, check gas supply.

- A. The type of gas for which the unit is equipped is stamped on the data plate located behind lower front panel. Connect a unit stamped "NAT" only to natural gas; connect those stamped "PRO" only to propane gas.
- B. If it is a new installation, have gas authorities check meter size and piping to assure that the unit is supplied with sufficient amount of gas pressure required to operate the unit.
- C. If it is additional or replacement equipment, have gas authorities check pressure to make certain that existing meter and piping will supply fuel at the unit with not more than 1/2" water column pressure drop.

**NOTE:** When checking pressure be sure that all other equipment on the same gas line is on. A pressure regulator is supplied with GARLAND Convection Ovens. Regulator is preset to deliver gas at pressure shown on the rating plate.

The appliance and its individual shut-off 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 psi (3.45 kPa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply

piping system at test pressures equal to or less than 1/2 psi (3.45 kPa).

**NOTE:** Adequate clearance must be provided for servicing and proper operation.

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### GAS CONNECTION

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A readily accessible gas shutoff valve of an approved type must be installed in the gas supply line upstream of the unit's pressure regulator. A pipe joint compound resistant to liquefied petroleum gases should be used on all pipe joints.

The American National Standards Institute mandates the use of a pressure regulator on all commercial cooking equipment. Garland provides an approved pressure regulator with each unit.

When piping the gas supply for a double stack unit, note that the supply inlet is 1" NPT. An undersized gas supply line may restrict the flow of gas and affect the performance of the appliance. If there are other gas appliances supplied by the same supply line, the line must be sized to carry the combined volume without suffering a pressure drop of more than 1/2" water column at the manifold of each appliance on the line at full rate.

### OVENS EQUIPPED WITH CASTERS

- A. For an appliance equipped with casters, the installation shall be made with a connector that complies with the Standard for *Connectors for Movable 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 Devices for Use with Gas Fuel, CAN/CGA-6.9*, and adequate means must be provided to limit the movement of the appliance without depending on the connector and the quick-disconnect device or its associated piping to limit the appliance movement and the location(s) where the restraining means may be attached to the appliance shall be specified.

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## CLEANING

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**NOTE:** Disconnect line cord from power supply before cleaning or servicing.

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### BREAK-IN PERIOD

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When oven is new, operate it for one hour at 450°F before you begin your normal cooking operation. After cooling, wipe the interior, including the racks, with a clean damp cloth.

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### EXTERIOR CLEANING

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Establish a regular schedule. Any spills should be wiped off immediately.

1. The oven should always be allowed to cool sufficiently before any cleaning is attempted.
2. Wipe exposed, cleanable surface when cool with a mild detergent and hot water. Stubborn residue spots may be removed with a lightweight non-metallic scouring pad. Dry thoroughly with a clean cloth.
3. Painted surfaces should be cleaned using a mild soap and warm water solution on a sponge or soft Cloth. Dry thoroughly.
4. Stainless Steel surfaces can often be cleaned adequately with the same method. Stubborn stains may be removed by using a non-metallic abrasive pad, rubbing in the direction of the metal's grain. If necessary, for particularly heavy deposits, you may mix a thin paste of water and scouring powder, and apply it with a sponge. Be careful to apply light pressure and remember to rub only in the direction of the grain in the metal.
5. The control panel surface is easily cleaned with hot water, soap and a soft cloth. Do not use hard abrasives, solvent type materials or metallic scouring pads since these will scratch or cloud the surface.

6. Never spray the perforated areas or control panel with steam or water as this will allow moisture into the control cavity, which could damage electrical components.

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### INTERIOR CLEANING

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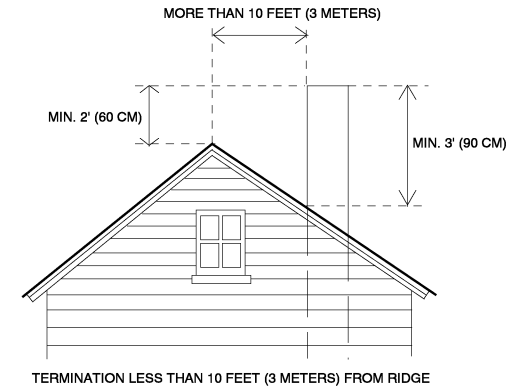
Establish a regular cleaning schedule or wipe off on the same day when spillovers occur.

1. Cool down oven.
2. Remove oven racks.
3. Lift rack guides on either side of oven off of holders, pull the top away from the cavity wall, when it's cleared the clips push down and remove. Racks and guides may be run through dishwasher while oven cavity is being cleaned.
4. Clean with soap and water using a non-metallic scouring pad, if necessary. If dirt and grease have accumulated, a mild ammonia solution or commercial oven cleaner such as Easy-Off or Dow may be used.
5. To reinstall, reverse procedure. Place the bottom of the rack guide against the cavity wall. Keeping the top pulled away from the wall lift up. Push the top of the rack guide against the wall and push down locking it into place.

## PROBLEMS/SOLUTIONS

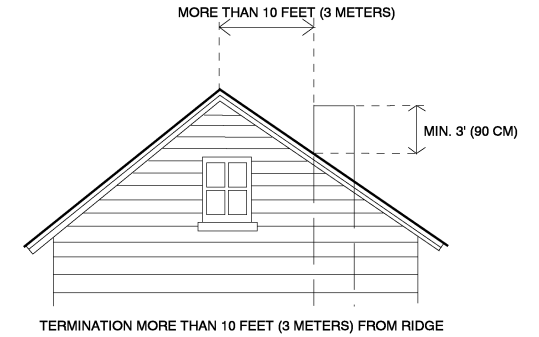
<u>Problem</u>	<u>Solution</u>
If cakes are dark on the sides and not done in the center.....	Lower oven temperature.
If cakes edges are too brown.....	Reduce number of pans or lower oven temperature.
If cakes have light outer color.....	Raise temperature.
If cake settles slightly in the center.....	Bake longer or raise oven temperature slightly. Do not open doors too often or for long periods.
If cake ripples.....	Overloading pans or batter is too thin.
If cakes are too coarse.....	Lower oven temperature.
If pies have uneven color.....	Reduce number of pies per rack or eliminate use of bake pans.
If cupcakes crack on top.....	Lower oven temperature.
If meats are browned and not done in center	Lower temperature and roast longer.
If meats are well done and browned.....	Reduce time. Limit amount of moisture.
If meats develop hard crust.....	Reduce temperature or place pan of water in oven.
If rolls have uneven color.....	Reduce number or size of pans.

- B. The front casters of the unit are equipped with brakes to limit the movement of the oven without depending on the connector and any quick-disconnect device or its associated piping to limit the appliance movement.
- C. The restraint can be attached to the unit near the gas inlet. If the restraint is disconnected, be sure to reconnect the restraint after the oven has been returned to its originally installed position.



## ELECTRICAL CONNECTION

A separate 15-amp service must be provided for each oven section. For 115V usage, a cord and plug is provided. The appliance, 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*, or the *Canadian Electrical Code, CSA C22.2*, as applicable.



The appliance is equipped with a three-prong (grounding) plug for your protection against shock hazard and should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug.

A wiring diagram is attached to the rear of each oven.

## VENTILATION AND AIR SUPPLY

The appliance must be installed in a location in which the facilities for ventilation permit satisfactory combustion of gas and proper circulation of air within the available space. If confining conditions do not allow for normal infiltration of necessary air, outside air must be introduced.

All gas burners and pilots need sufficient air to operate. Large objects placed in front of the unit may inhibit the flow of air into the front of the oven and result in poor performance.

A good ventilation system is necessary for proper performance. All Garland Convection Ovens must be vented by installation under a powered vent canopy, or by connection to a properly configured direct flue.

The flue opening is located at the top rear of the oven. Care should be taken to avoid blockage of this opening.

When the installation of a canopy type exhaust hood is impossible the oven may be direct vented. Before direct venting check your local codes on ventilation.

It is recommended that a downdraft diverter be installed in the direct flue. The parts necessary for proper installation of direct flueing are available from Garland.

If a horizontal run must be used it should rise no less than 1/4" (6.25mm) for each linear foot of run. The flue should rise 2' (60cm) to 3' (90cm) above the roof line or 2' (60cm) to 3' (90cm) above any portion of a building within a horizontal distance of 10 feet, (3 meters).

## ASSEMBLY

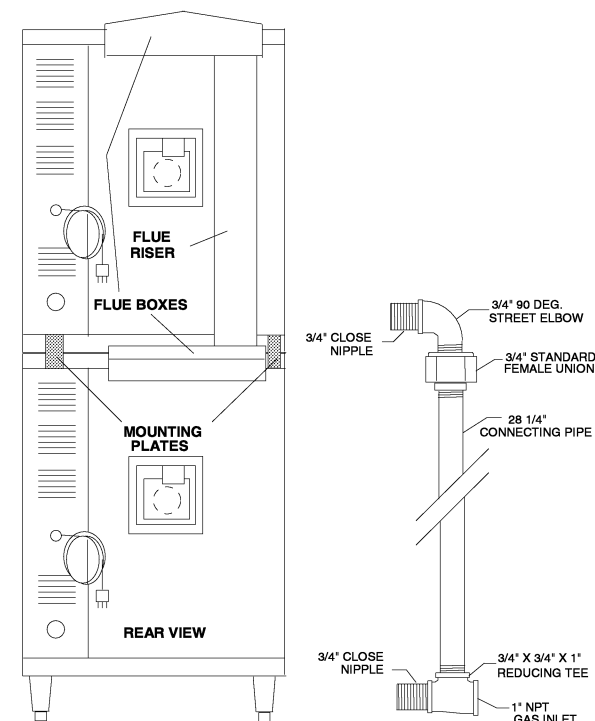
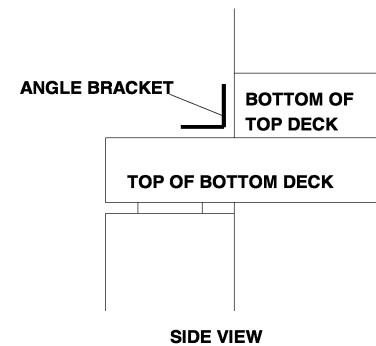
All units are equipped with N.S.F. approved legs. These legs must be installed to provide a minimum 6" (153mm) clearance between the floor and the bottom of the unit in order to meet National Sanitation Foundation requirements.

- To install the legs, raise the front of the unit and block it. Insert the two front legs into the conical leg retainers. Repeat at the rear.
- Level the unit by placing a carpenter's-type level on one of the oven racks, and adjust each leg by turning its "foot" to raise or lower the height of the leg. The bottom of each "foot" is hexagonal in shape so that a wrench may be used.

### DOUBLE DECK UNITS

- Install legs as above to the bottom unit.
- Remove the combustion chamber from the top unit and raise it into place. Align the body sides and backs of the two units.
- Using the angle bracket provided, fasten the bottom front of the top unit to the main top of the bottom unit, near the center, as shown in top illustration.
- Replace the combustion chamber on the top unit, and fasten the two units together at the rear with the mounting plates and screws provided.
- Install the two flue boxes and the flue riser to the rear of the stack as shown.
- Assemble the interconnecting gas piping as shown in the illustration.
- Start by threading the two tailpipes. Be sure to use a pipe thread compound that is suitable for use on gas fittings.
- Next install the 90° street elbow on the nipple of the top unit, and then install the female part of the union on the street elbow.
- Install the 3/4" x 3/4" x 1" tee on the nipple of the bottom unit.

- Install the 28-1/4" connecting pipe to the second 3/4" inlet on the tee, then install the male part of the union to the other end of the connecting pipe. Be sure to slide the union's hex-shaped fastening ring over the connecting pipe before installing the male half.
- Connect the top and bottom units' piping with the union as shown.



**CAUTION:**  
Disconnect both units from electrical supply before servicing.

## PROGRAMMING THE CONTROLLER, (continued)

### Exiting System Programming Mode:

Press:



Display:



One of these displays will appear:



THE  
CONTROLLER  
IS NOW IN  
OPERATING  
STANDBY  
MODE

## PERFORMANCE RECOMMENDATIONS

Your GARLAND Convection Oven will give you the best quality product and service if you familiarize yourself with the following operation suggestions and information.

- Preheat oven thoroughly (approx. 20 minutes) before use.
- As a general rule, temperature should be reduced 25° to 50° from that used in a standard/conventional oven. Cooking time may also be shorter, so we suggest closely checking the first batch of each product prepared.
- Use the chart of suggested times and temperatures as a guide. These will vary depending upon such factors as size of load, temperature and mixture of product (particularly moisture) and density of product.
- Keep a record of the times, temperature and load sizes you establish for various products. Once you have determined these, they will be similar for succeeding loads.
- When practical, start cooking the lowest temperature product first and gradually work up to higher temperatures.
- If you find that your previous temperature setting is more than 10° higher than needed for succeeding loads, press the **COOL DOWN**




key to reach the desired temperature before setting a new cooking temperature.





- When loading oven, work as quickly as possible to prevent loss of heat.
- Oven will continue to heat even though the timer goes off. Product should be removed from the oven as soon as possible to avoid over cooking.
- Center pans on racks and load each shelf evenly to allow for proper air circulation within the cavity.
- When baking, weigh or measure the product in each pan to assure even cooking.
- When re-thermalizing frozen casseroles, preheat the oven 100° over the suggested temperature. Return to cooking temperature when the oven is loaded. This will help compensate for the introduction of a large frozen mass into the cavity.
- Never place anything directly on the bottom of the oven cavity. This obstructs the airflow and will cause uneven results.

**NOTE:** Moisture will escape around the doors when baking products with heavy moisture content, such as: chicken, potatoes, and etc.

**PROGRAMMING THE CONTROLLER, (continued)**



**Programming Shelf ID:**




Press:   

Display:    

CURRENTLY PROGRAMMED NUMBER OF SHELVES IS DISPLAYED | TO CLEAR NUMBER OF SHELVES | ENTER NUMBER OF SHELVES IN OVEN | TO KEEP NUMBER OF SHELVES AND ADVANCE TO NEXT FUNCTION





**Programming Temperature Mode, (Fahrenheit or Celsius):**



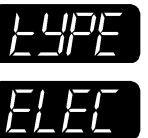


Press:  

Display:   

CURRENTLY PROGRAMMED TEMPERATURE MODE IS DISPLAYED | TO TOGGLE BETWEEN CHOICES | TO KEEP TEMPERATURE MODE AND ADVANCE TO NEXT FUNCTION

**Programming Appliance and Type:**

Press:    

Display:     

CURRENTLY PROGRAMMED APPLIANCE IS DISPLAYED | TO TOGGLE BETWEEN CHOICES | CURRENTLY PROGRAMMED APPLIANCE TYPE IS DISPLAYED | TO TOGGLE BETWEEN CHOICES | TO KEEP APPLIANCE TYPE AND ADVANCE TO EXITING SYSTEM PROGRAMMING MODE

**TESTING AND LIGHTING INSTRUCTIONS**

1. Turn on main gas valve. Remove the lower front cover service panel. Drop the control panel and leak test all fittings and connections upstream from the service valve located on the redundant combination gas valve. Should any gas leaks be detected, turn "OFF" main gas valve, correct the problem and retest.
2. Open shutoff valve located on the redundant combination gas valve. Turn electrical supply on. Press the **ON/OFF** switch. The display will show "LO" and the oven will automatically set the temperature to the factory default temperature (325°F/160°C). The pilot and burner are now ignited. Check all fittings again and correct any leaks and recheck.

**NOTE:** All electronic ignition systems are supplied with a redundant gas valve. Therefore, the unit is not supplied with an external pressure regulator.

**NOTE:** During installation there will be air in the gas line, this air will have to bleed off before ignition can be established. The electronic ignition system has a ninety-second lockout as a safety device on all units. Therefore, several attempts may be required before pilot ignition is established, wait five minutes after each attempt.

**FOR YOUR SAFETY: KEEP YOUR APPLIANCE AREA FREE FROM COMBUSTIBLES.**

## OPERATING INSTRUCTIONS

### CONTROLLER FEATURES

#### Recovery Time

From a cool start-up, (below 140°), the controller will time how long the oven takes to heat from 150° to 300°F. Access this feature by pressing the **ENTER** key. If over 10 minutes, the controller will show **HEAT ERR**, indicating a possible problem with the system that should be checked by a technician. Pressing the **TOGGLE/CLEAR** key will clear the display.

#### Fahrenheit or Celsius Temperature Display

The operator will have the ability to configure the controller to display temperatures in degrees F or degrees C, from the System Programming Mode.

#### Hold

The operator will have the ability to set an auto hold in System Programming Mode. Time, (9 hrs. max), temperature, (140° - 210°F), and fan speed, (low or high), are programmable.

#### Programmable Times

The operator will have the ability to program the cook times for each product key. The controller is programmable in hours, (up to 18), minutes, (up to 59), and second, (up to 59).

#### Programmable Temperatures

The operator will have the ability to program cook temperatures for each product key. The valid temperature range is ambient to 450°F, (232°C).

#### Programmable (FASTFLEX.)™ Timing Mode

The operator will have the ability to program the timing mode, (flex, straight or sensitivity), for each product key. If a product is configured for flex time, the controller will use (FASTFLEX.)™ to adjust the actual cook time, taking into account the temperature variation due to load size, initial product temperature, product moisture content and other factors affecting the cook cycle, to ensure the controller provide consistent, high quality product. In straight time mode, the controller will cook only for the specified time without adjusting for variations. Sensitivity time allows the operator to set a level, (0 - 9), which will adjust the actual cook time based on temperature curve.

#### Shelf ID

The operator will have the ability to set the number of shelves the oven has, (up to 5).

#### Setback

A feature that cools the oven to a programmed temperature after a predetermined amount of time. The operator will have the ability to program the setback time frame, (59 min., 59 sec., max), and setback temperature, (140° 0 300°F).

## PROGRAMMING THE CONTROLLER, *(continued)*

### Programming Fan Mode:

Press:



Display:



CURRENTLY PROGRAMMED FAN MODE IS DISPLAYED



TO TOGGLE BETWEEN CHOICES



TO KEEP NEW FAN MODE AND ADVANCE TO NEXT FUNCTION

### Programming Setback Mode:

IF YOU CHOOSE NO:

Press:



Display:



CURRENTLY PROGRAMMED SETBACK MODE IS DISPLAYED



TO TOGGLE BETWEEN CHOICES



TO DISABLE SETBACK MODE AND ADVANCE TO NEXT FUNCTION

IF YOU CHOOSE YES:

Press:



Display:



TO TOGGLE BETWEEN CHOICES



CURRENTLY PROGRAMMED SETBACK TIME IS DISPLAYED



TO CLEAR TIME

YES, *(continued)*

Press:



Display:



ENTER NEW SETBACK TIME



CURRENTLY PROGRAMMED SETBACK TEMP IS DISPLAYED



TO CLEAR TEMP



ENTER NEW SETBACK TEMP



TO KEEP NEW SETBACK TEMP AND ADVANCE TO NEXT FUNCTION



**PROGRAMMING THE CONTROLLER, (continued)**

**Checking All Settings, (SEE):**

Press:      









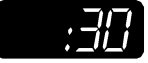


Display:      

\*Time, temperature, fan mode and timing mode will be displayed in sequential order.

**VIEW Mode:**









The “VIEW” feature is used to view the controller’s software identification number in the display window.

Press:     









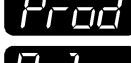
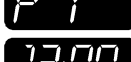
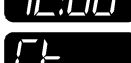


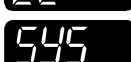












Display:        
      
 CURRENT HOLD DISPLAY MODE IS DISPLAYED    TOGGLE BETWEEN CHOICES    CURRENT HOLD DISPLAY MODE TIME IS DISPLAYED    TO CHANGE TIME    ENTER NEW TIME (MAX 9 HRS.)

**Entering Temperature Offset Mode:**

Press:    | 

Display:    |   
   |   
 TO KEEP NEW HOLD TIME CURRENT HOLD DISPLAY MODE TEMP IS DISPLAYED    TO CHANGE TEMPERATURE    ENTER NEW TEMPERATURE (MAX 210 DEG. F)    TO KEEP NEW HOLD TEMP AND ADVANCE TO NEXT FUNCTION

**CONTROLLER DISPLAY DESCRIPTIONS**

-  The controller is in the Operating Mode. The actual oven temperature is more than ten (10) degrees below the programmed temperature for the active key.
-  The controller is in the Operating Mode. The actual oven temperature is within the proper cooking temperature range. The oven is ready to start a cook cycle.
-  The controller is in the Operating Mode. The actual oven temperature is more than forty (40) degrees above the programmed temperature for the active key. An audible alarm sounds simultaneously.
-  The actual oven temperature is above 570°F. An audible alarm sounds simultaneously.
-  The controller probe is either open or shorted; accompanied by an audible alarm if shorted. Check or replace the probe.
-  The controller is in Operating Mode and a cook cycle is in progress.
-  The controller is in Operating Mode and a cook cycle has been completed.
-  The controller is waiting for a pass code to be entered.
-  The controller is in Product Key Programming Standby Mode.
-  A cook time is displayed.
-  A cook time is displayed.
-  A cook temperature is displayed.
-  A cook temperature is displayed.
-  A timing mode, (flex, straight or sensitivity), is displayed.
-  The controller is in System Programming Standby Mode.
-  The controller is in Fahrenheit or Celsius Programming Mode.
-  The controller is in Appliance Type Programming Mode.
-  A fan mode is displayed, (high or low).
-  A fan cycle, (heat, full or pulse).
-  Shelf ID mode is displayed.
-  The controller is in Hold Programming Mode.
-  The controller is in Setback Programming Mode.
-  The controller is in Appliance Mode.
-  The controller is in Appliance Version.
-  The controller is in Recovery Count Mode.
-  The controller will scroll through all settings for a particular product key.

## PROFILE BAKING

The FASTRON Convection Oven Controller provides one-touch control of the entire baking process by allowing each product bake cycle to be divided into ten (10) distinct stages or “profiles.” Each profile can be programmed for time, temperature, fan speed, controller-compensated time or straight-time countdown mode.

Using profile baking with muffins, for example, yields excellent results. Below is an example of a typical controller bake cycle for an oven load of muffins:

**Profile 1:** Begin at 400°F for five (5) minutes with the fan on.

**Profile 2:** After five (5) minutes, when the muffin batter has risen to the tops of the cups, program the fan OFF for the next ten (10) minutes to allow the muffins to rise high and evenly.

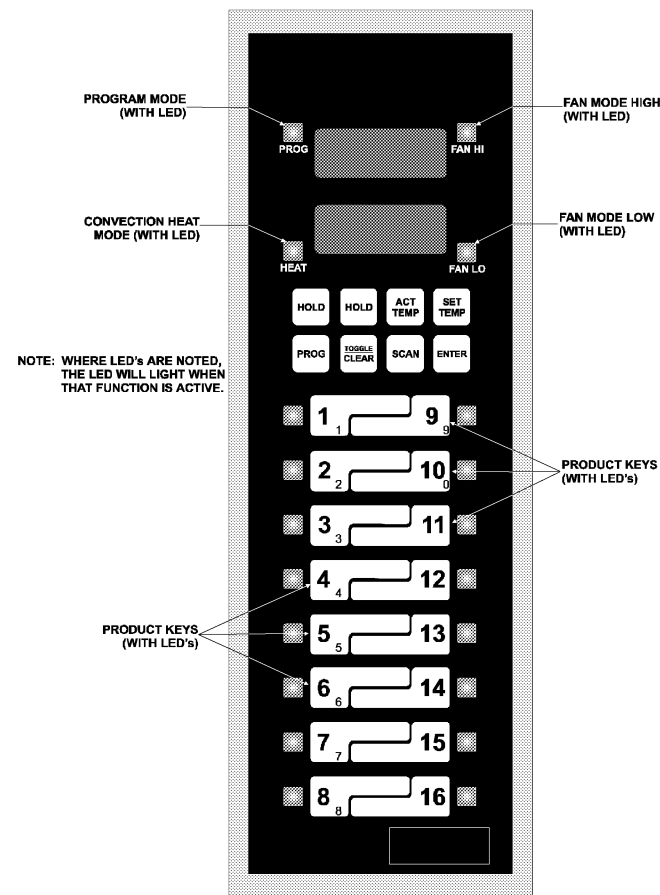
**Profile 3:** Now, turn the fan back on and set the oven temperature to 375°F for the next five (5) minutes, permitting even bake through the center of the product.

**Profile 4:** During the last five (5) minutes of the bake cycle, set the muffin peaks and finish them to a golden color by increasing the temperature to 400°F.

## OPERATING THE CONTROLLER

1. Activate the rocker switch on the control panel to turn the oven power on.
2. Select a product key. Press the key once to heat the oven to the proper cook temperature for the selected product, (the LED will light).
3. When the correct temperature is reached, the display will show “rEdY” accompanied by a self-canceling audible signal.
4. Load the oven and press the product key to start the cook cycle countdown.
 

If you are using the Shelf ID feature, “SHLF” will appear in the top display. Press the number (product) key to indicate the oven shelf location and countdown will begin.
5. At the end of the cook cycle, press and hold the product key for one (1) second to cancel the alarm, and remove the product from the oven.
6. To cancel the cook cycle before completion, press and hold the active product key for three (3) seconds.
7. To cancel the cook cycle before completion when using Shelf ID, press the **TOGGLE/CLEAR** key, then the shelf number you wish to cancel.



**NOTE:** You may add simultaneous or subsequent trays of the same or different product to the oven if the corresponding LED is lit. Product using more than one profile cannot use staggered loading or Shelf ID.

## PROGRAMMING THE CONTROLLER, (continued)

**Checking All Settings, (SEE):**

Press: \*

Display:

PRESS ANY PRODUCT KEY

\*Time, temperature, fan mode and timing mode will be displayed in sequential order.

**VIEW Mode:**

The “VIEW” feature is used to view the controller’s software identification number in the display window.

Press:

Display:

The controller will display the software identification number, then return to displaying the temperature.

**Entering Temperature Offset Mode:**

Press:

Display:

**Programming Temperature Offset:**

Press:

Display:

CURRENT OFFSET IS DISPLAYED IN FAHRENHEIT

TOGGLE BETWEEN POSITIVE AND NEGATIVE

ENTER NEW OFFSET

NOTE: MAX OFFSET IS +/- 20 DEG. F

TO KEEP NEW OFFSET AND EXIT PROGRAMMING

**PROGRAMMING THE CONTROLLER, (continued)**

**Programming Timing Mode:**

Press:

Display:

CURRENTLY PROGRAMMED TIMING MODE IS DISPLAYED | TO CHANGE FAN CYCLE | ADVANCE TO NEXT FUNCTION (SHELF ID) | TO TOGGLE BETWEEN CHOICES | CURRENTLY PROGRAMMED SENSITIVITY IS DISPLAYED | ENTER NEW SENSITIVITY LEVEL | ADVANCE TO NEXT FUNCTION (SHELF ID)

\*To program additional profiles, press **ENTER**. After all profiles have been programmed, press **SCAN** to advance to the next function.

**Programming Shelf ID:**

Press: NOTE: Shelf ID is not available when using multiple profiles.

Display:

CURRENTLY PROGRAMMED SHELF ID IS DISPLAYED | TO CHANGE SHELF ID MODE; YES = ON NO = OFF

**Exiting Programming Mode:**

Press:

Press **PROG** when any of these functions are displayed.

Display:

**PROGRAMMING THE CONTROLLER**

**Notes:**

The controller is equipped with two displays that show a full line of information, for example:   
 Pressing **ENTER** advances the controller to the next profile setting for the current function. Up to ten (10) profiles can be programmed. Pressing **SCAN** completes programming for the current function and advances to the next function.

**Entering Programming Mode:**

Press:

Display:

The controller is now in Product Key Programming Standby Mode.

**Programming a Product Key Cook Time:**

Press:

Display:

SELECT ANY PRODUCT KEY | CURRENTLY PROGRAMMED TIME IS DISPLAYED (PROFILE 1) | TO CHANGE COOK TIME | ENTER NEW PRODUCT COOK TIME | CURRENTLY PROGRAMMED TIME IS DISPLAYED (PROFILE 2) TO CONTINUE THROUGH PROFILES, REPEAT FROM TOGGLE/CLEAR STEP | ADVANCE TO NEXT FUNCTION (PRODUCT COOK TEMP)

**PROGRAMMING THE CONTROLLER, (continued)**

**Programming a Product Key Cook Temperature:**

Press: TOGGLE CLEAR **3 7 5** ENTER | SCAN

Display: **Ct-1** **Ct-1** **Ct-1** **Ct-2** **SPd1**  
**350F** **OF** **375F** **350F** **H1**

CURRENTLY PROGRAMMED TEMPERATURE IS DISPLAYED (PROFILE 1) | TO CHANGE COOK TEMPERATURE | ENTER NEW PRODUCT COOK TEMPERATURE | CURRENTLY PROGRAMMED TEMPERATURE IS DISPLAYED (PROFILE 2) TO CONTINUE THROUGH PROFILES, REPEAT FROM TOGGLE/CLEAR STEP | ADVANCE TO NEXT FUNCTION (FAN SPEED)

**Programming Fan Speed:**

Press: TOGGLE CLEAR ENTER | SCAN

Display: **SPd1** **SPd1** **SPd2** **CYC1**  
**H1** **Lo** **H1** **FULL**

CURRENTLY PROGRAMMED FAN SPEED IS DISPLAYED (PROFILE 1) | TO CHANGE FAN SPEED | CURRENTLY PROGRAMMED FAN SPEED IS DISPLAYED (PROFILE 2) TO CONTINUE THROUGH PROFILES, REPEAT FROM TOGGLE/CLEAR STEP | ADVANCE TO NEXT FUNCTION (FAN CYCLE)

**PROGRAMMING THE CONTROLLER, (continued)**

**Programming Fan Cycle Time:**

IF YOU CHOOSE PULSE:

Press: TOGGLE CLEAR SCAN TOGGLE CLEAR **4 5** SCAN TOGGLE CLEAR

Display: **CYC1** **CYC1** **on-1** **on-1** **on-1** **of-1** **of-1**  
**FULL** **PULS** **:30** **:0** **:45** **:30** **:0**

CURRENTLY PROGRAMMED FAN CYCLE IS DISPLAYED (PROFILE 1) | TO CHANGE FAN CYCLE | CURRENTLY PROGRAMMED "ON" TIME IS DISPLAYED | TO CLEAR FAN "ON" TIME | ENTER NEW FAN "ON" TIME | CURRENTLY PROGRAMMED "OFF" TIME IS DISPLAYED | TO CLEAR FAN "OFF" TIME

PULSE, (continued):	IF YOU CHOOSE FULL:	IF YOU CHOOSE HEAT:
<b>2 5</b> <span>SCAN</span>	<span>TOGGLE CLEAR</span> <span>SCAN</span> *	<span>TOGGLE CLEAR</span> <span>SCAN</span> *
<b>of-1</b> <b>EC</b> <b>:25</b> <b>SENS</b>	<b>CYC1</b> <b>EC</b> <b>FULL</b> <b>SENS</b>	<b>CYC1</b> <b>EC</b> <b>HEAT</b> <b>SENS</b>
ENTER NEW FAN "OFF" TIME	ADVANCE TO NEXT FUNCTION (TIMING MODE)   TO CHANGE FAN CYCLE   ADVANCE TO NEXT FUNCTION (TIMING MODE)	TO CHANGE FAN CYCLE   ADVANCE TO NEXT FUNCTION (TIMING MODE)

\*To program additional profiles, press **ENTER**. After all profiles have been programmed, press **SCAN** to advance to the next function.