



## INSTALLATION AND OPERATION MANUAL

# AIR DECK™ ELECTRIC BAKE AND PIZZA OVENS



**FOR YOUR SAFETY:**  
DO NOT STORE OR USE GASOLINE  
OR OTHER FLAMMABLE VAPORS OR  
LIQUIDS IN THE VICINITY OF  
THIS OR ANY OTHER  
APPLIANCE

**WARNING:**  
IMPROPER INSTALLATION, ADJUSTMENT,  
ALTERATION, SERVICE OR MAINTENANCE  
CAN CAUSE PROPERTY DAMAGE, INJURY,  
OR DEATH. READ THE INSTALLATION,  
OPERATING AND MAINTENANCE  
INSTRUCTIONS THOROUGHLY  
BEFORE INSTALLING OR  
SERVICING THIS EQUIPMENT

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.

INSTALLATION AND ELECTRICAL CONNECTION  
MUST COMPLY WITH CURRENT CODES:  
IN CANADA - THE CANADIAN ELECTRICAL  
CODE PART 1 AND / OR LOCAL CODES.  
IN USA - THE NATIONAL ELECTRICAL CODE  
ANSI / NFPA - CURRENT EDITION.

ENSURE ELECTRICAL SUPPLY CONFORMS WITH  
ELECTRICAL CHARACTERISTICS SHOWN ON  
THE RATING PLATE.

Users are cautioned that maintenance and repairs must be performed by a Garland authorized service agent using genuine Garland replacement parts. Garland will have no obligation with respect to any product that has been improperly installed, adjusted, operated or not maintained in accordance with national and local codes or installation instructions provided with the product, or any product that has its serial number defaced, obliterated or removed, or which has been modified or repaired using unauthorized parts or by unauthorized service agents. For a list of authorized service agents, please refer to the Garland web site at <http://www.garland-group.com>. The information contained herein, (including design and parts specifications), may be superseded and is subject to change without notice.

GARLAND COMMERCIAL INDUSTRIES  
185 East South Street  
Freeland, Pennsylvania 18224  
Phone: (570) 636-1000  
Fax: (570) 636-3903

GARLAND COMMERCIAL RANGES, LTD.  
1177 Kamato Road, Mississauga, Ontario L4W 1X4  
CANADA  
Phone: 905-624-0260  
Fax: 905-624-5669

Enodis UK LTD.  
Swallowfield Way, Hayes, Middlesex UB3 1DQ ENGLAND  
Telephone: 081-561-0433  
Fax: 081-848-0041

## **IMPORTANT INFORMATION**

**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.**

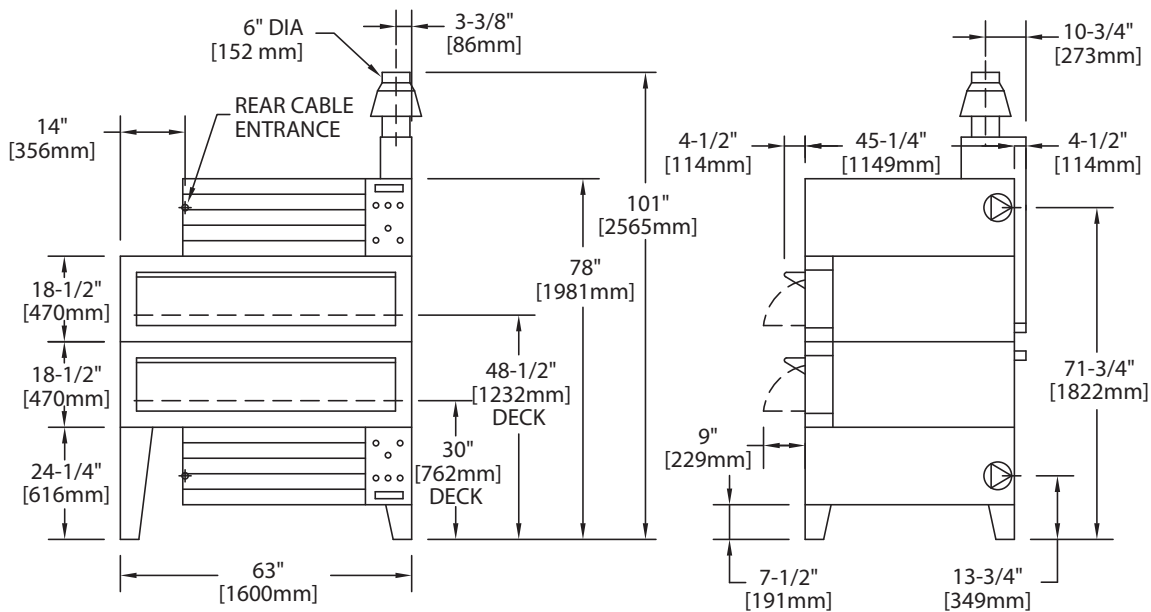
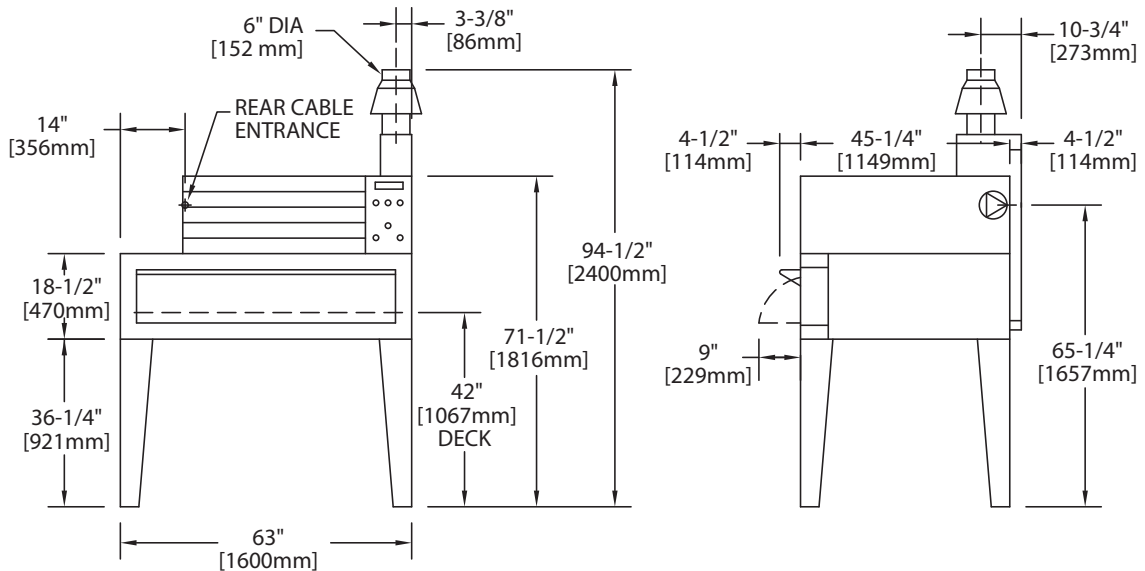
# TABLE OF CONTENTS

<b>IMPORTANT INFORMATION</b> .....	<b>2</b>
<b>DIMENSIONS AND SPECIFICATIONS</b> .....	<b>4</b>
Model Number Interpretation .....	5
<b>INTRODUCTION</b> .....	<b>5</b>
Rating Plate.....	5
<b>INSTALLATION</b> .....	<b>6</b>
Delivery and Inspection .....	6
Clearances.....	6
Location of the Oven.....	6
Leg Installation – All Models.....	6
Assembly of Double Unit.....	6
Electrical Connections .....	6
Circuit Breaker/Fuses.....	7
<b>CONCEPT OF AIR IMPINGEMENT COOKING</b> .....	<b>7</b>
<b>OPERATION</b> .....	<b>8</b>
Air Shutter Adjustments.....	8
Possible Settings.....	9
Application Trouble Shooting .....	9
<b>ADJUSTMENTS</b> .....	<b>10</b>
Oven Door .....	10
Thermostat Calibration.....	10
<b>MAINTENANCE AND CLEANING</b> .....	<b>11</b>
Oven Exterior.....	11
Oven Interior .....	11
Bottom Jet Plate Installation.....	11
<b>WARMING RACK – OPTION</b> .....	<b>12</b>
Assembly Instructions.....	12
Installation Of Warming Rack To Oven .....	13
<b>PARTS LIST</b> .....	<b>13</b>

# DIMENSIONS AND SPECIFICATIONS

Model	Total Loading	Nominal Amperes Per Line								Shipping Weight
		208V	240V	208V/3Ph			240V/3Ph			
		1Ph	1Ph	X	Y	Z	X	Y	Z	Lbs./ Kg
<b>E56PB</b>	15 kW	72	63	43	39	43	38	36	38	1050/477
<b>E56PT</b>	15 kW	72	63	43	39	43	38	36	38	1050/477
<b>E56T/B</b>	30 kW	(2) 72	(2) 43	(2) 43	(2) 39	(2) 43	(2) 38	(2) 36	(2) 38	2100/954

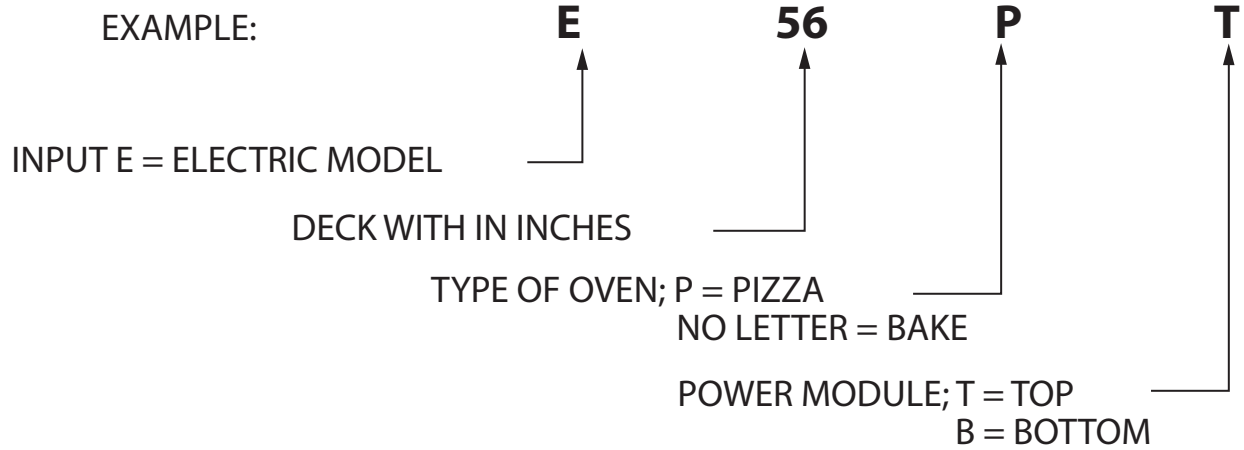
Model	No. Decks	Deck Area	Pizza Capacity
<b>E56PB</b>	1	14 Sq. Ft.	6(18")
<b>E56PT</b>	1	14 Sq. Ft.	6(18")
<b>E56T/B</b>	2	28 Sq. Ft.	12 (18")



# DIMENSIONS AND SPECIFICATIONS, Continued

## Model Number Interpretation

The typical numbering system identifies the basic construction, power input, deck size, power module location



## INTRODUCTION

### Rating Plate

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.

In the event you have any questions concerning the installation, use, care or service of the product, write or call our Product Service Department.

This product has been certified as commercial cooking equipment and must be installed by professional personnel as specified.

# INSTALLATION

The importance of proper installation of commercial electric cooking equipment cannot be overstressed. Proper performance of the equipment is dependent, in great part, on the compliance of the installation with the manufacture's specifications.

We suggest installation, maintenance and repairs should be performed by your local authorized service agency listed in your information manual pamphlet.

## Delivery and Inspection

Upon delivery of your GARLAND electric Air Deck: Inspect the carton for external damage. Uncrate oven and check for concealed damage. Any evidence of damage should be noted on the delivery receipt which must be signed by the driver.

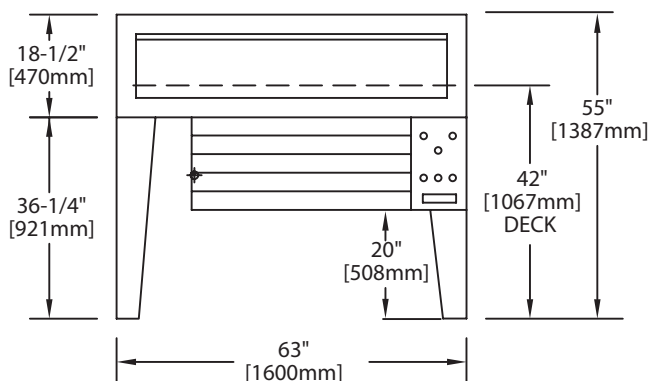
## Clearances

NOTE: Unit must be installed with no less than 6" (152mm) clearance from Combustible construction at rear and sides.

## Location of the Oven

Appliances shall be installed in a location in which the facilities for proper venting. Appliances shall be located so as not to interfere with proper circulation of air within the confined space. For further information please refer to NFPA 96.

## Leg Installation – All Models



1. Oven is crated and shipped on its base. When uncrating, the bottom of unit is exposed to facilitate leg installation. Position the legs inside front and rear corners from frame. Start each bolt, threading them into the weld nuts on the base frame. Four (4) bolts with washers must be used to secure each leg in place. Tighten the bolts evenly and securely. The legs are interchangeable front to back, for models "B", – longer legs for left side – shorter legs for mounting to Power Module section.

## Assembly of Double Unit

1. Install legs on bottom unit. Then place in position desired.
2. Place 2 x 4's on top of the lower section – about six inches from each side, running front to rear.
3. Raise the top section and position it on the 2 x 4's so that the front, rear and sides of top section with the lower oven section. Carefully remove the 2 x 4's lowering the upper oven into place. It is not necessary to bolt the sections together.

## Electrical Connections

Installation of the wiring must be made in accordance with UL 197 commercial Electrical Cooking Appliance Standards, local and/or National electrical Code.

- A. Switch Panel Size
- B. Overload Protection
- C. Wire Type
- D. Wire Size
- E. Temperature Limitations
- F. Method of connection (Cable, Conduit, Etc.)

Note: Incoming cable can be either wired to the terminal block (which is mounted to the main bottom at the Power Module near the front left corner) by entering through the knock out plate on the main back.

## Input Voltage and Phasing Must Match the Units voltage and Phasing!

Wiring diagram is attached to main back of unit.

Visually check all electrical connections.

Energize electric service to units.

## INSTALLATION Continued

The oven is wired as ordered from factory. If it is necessary to change phase, please refer to wiring diagram. Service and unit voltage must agree. Unit rating plate is located behind lower front panel.

### Circuit Breaker/Fuses

Heavy duty circuit breakers and fuses are provided to assure you many years of trouble free operation. They are located behind the front panel of the Power Module.

## CONCEPT OF AIR IMPINGEMENT COOKING

The "AIR DECK" Oven produced by GARLAND COMMERCIAL INDUSTRIES, INC., utilizes a revolutionary cooking concept, called "AIR IMPINGEMENT". It provides exceptional baked food product quality in far less time than conventional devices on the market. The "AIR IMPINGEMENT" system directs a high velocity stream of heated air at the food product being baked. This blast effect penetrates the boundary layer of air encircling the product and heats the food more efficiently, because the air concentrates heat on the food product. Greater heat transfer rates, which results in products baking two to four times faster than conventional means, are possible with "AIR IMPINGEMENT".

The AIR IMPINGEMENT" process develops the high velocity air stream with a specially designed fan that draws super-heated air from a heat source (either gas or electric). This air is directed through a plenum chamber to patented "JET PLATES" which have hundreds of focused jet ports that "impinge" the heated air onto the food product surface. The heated air is re-cycled to the heat source after striking the food product, thus reducing energy consumption.

The "AIR IMPINGEMENT" process is tolerant enough for sensitive food products and effects proper crispening and even browning of such products as they pass through the oven, because air is the medium which heats the food product. The adjustable air controls for top and bottom jet plates allow further enhancement of cooking.

# OPERATION

Once the equipment has been installed and tested by qualified professional personnel, the oven is ready for operation.

Many of the parts used in the oven have a thin protective oil covering. This oil should be burned off before the oven is used for the production of food products. It is normal for the unit to smoke while burning off excess oil. Washing the deck of the oven with a damp clean cloth and mild soap solution will remove some of the protective oil coating.

To start the oven, switch the power to on. Set oven temperature dial to 400 degrees and let oven heat and operate at this temperature for at least one hour.

You will find that cooking with the "Air Deck" oven will be much faster than the standard Bake/Roast and Pizza Ovens. You will have to experiment with your recipes to become accustomed to this new method. For example the warm-up time is shorter than standard ovens. The oven can be warmed and ready for use in a little as twenty (20) minutes. A large pizza can be ready to serve in as little as five (5) minutes. These are "ideal conditions" times and will vary with ventilation and use.

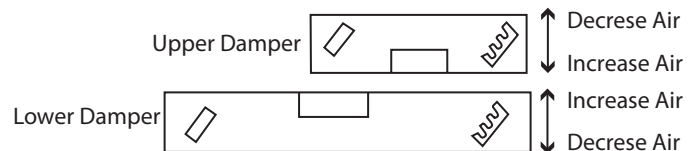
Heat control vent shutters (2), are located on the right side of the oven cavity. These shutters must be adjusted to provide the air flow top and bottom that you desire for your cooking needs. Adjusting these shutters will provide you with many cooking variations.

If unit fails to operate, it is recommended that only qualified service personnel perform the repairs on this unit. A troubleshooting chart is provided in this manual to assist qualified service personnel in repair of the unit. However, before you call a service technician you may want to make a few simple checks. Make sure electricity is available to the oven prior to calling a Service Technician.

**CAUTION:** Disconnect Power Supply Before Attempting to Clean Or Service.

## Air Shutter Adjustments

To adjust the dampers, loosen wing nut holding damper position, with deck and damper tool provided, insert the damper end of the tool into the receptacle on the damper, and raise the damper to disengage the damper from the notched position, slide the damper at a 45 degree angle to engage the next position, retighten wing nut.



To increase Top Air, adjust upper damper "down". Position in notch, and tighten wing nut.

To increase bottom Air, adjust lower damper "up". Position damper in notch, and tighten wing nut.



# OPERATION Continued

## Possible Settings

PIZZA PRODUCT	TIME	TEMP F	TEMP C	UPPER	LOWER
Fresh Dough Cheese Pizza	6:00-7:00	450-575	234-250	Fully Closed	Fully Open
Fresh Dough with Toppings	7:30-8:30	450-475	234-250	1/2 Open	Fully Open
Pre-Baked Dough Cheese Pizza	5:00-6:00	450-475	234-250	1/2 Open	Fully Open
Pre-Baked Dough with Toppings	5:30-6:30	450-475	234-250	1/2 Open	Fully Closed
Pre-Cooked Black Porcelain Pan	10:00-12:00	475-500	250-260	Fully Closed	Fully Open
Deep Pan Pizza	8:30-9:30	475-500	250-260	Fully Closed	Fully Open
Pre-Baked Party Pizza	16:00-20:00	475-500	250-260	Fully Closed	Fully Open

## Application Trouble Shooting

Dark Pizza Top	1	Decrease top air by adjusting upper damper "up"
	2	Decrease cooking time
	3	Decrease temperature.
Pizza Top Too Light	1	Increase top air by adjusting upper damper "down".
	2	Increase cooking time
	3	Increase temperature.
Pizza Bottom too Dark	1	Decrease bottom air by adjusting lower damper "down"
	2	Decrease cooking time
	3	Decrease temperature
Pizza Bottom and Top Too Light	1	Increase cooking time
	2	Increase temperature
Pizza bottom and Top Too Dark	1	Decrease cooking time
	2	Decrease temperature
Pizza Bottom Too Dark and Top too Light	1	Increase top air by adjusting top damper "down"
	2	Decrease bottom air by adjusting bottom damper "down"
	3	Lower cooking temperature and decrease bottom air by adjusting bottom damper "down"
	4	Lower cooking temperature and increase top air by adjusting top damper "down"
Pizza Bottom Too Light and Top Too Dark	1	Decrease top air by adjusting top damper "up"
	2	Increase bottom air by adjusting bottom damper "up"
	3	Increase cooking temperature and decrease top air by adjusting upper damper "up".

# ADJUSTMENTS

## Oven Door

The "AIR DECK" oven door has adjustability as a design feature. Although it is factory set, the tension can be adjusted to suit the operator's preference. In addition, after a long period of hard use, the tension can be readjusted as required.

To adjust door tension it is necessary to remove left and right front corners of unit by the two sheet metal screws. This exposes the door hinge and spring assembly. The spring hook passed through a bracket. A 1/4" x 20 nut is on the spring hook forward of the bracket. If it is available, use a 7/16" deep socket and ratchet to turn the nut clockwise to increase spring tension or counter-clockwise to relieve spring tension. Make sure to adjust both sides equally.

The oven door is properly adjusted if the door remains fully open and it the spring tension carries the door to the full closed position from the half-closed position. Replace the corner and fasten with screws.

## Thermostat Calibration

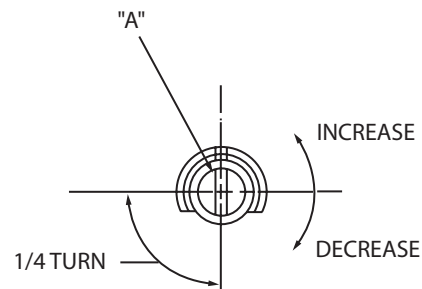
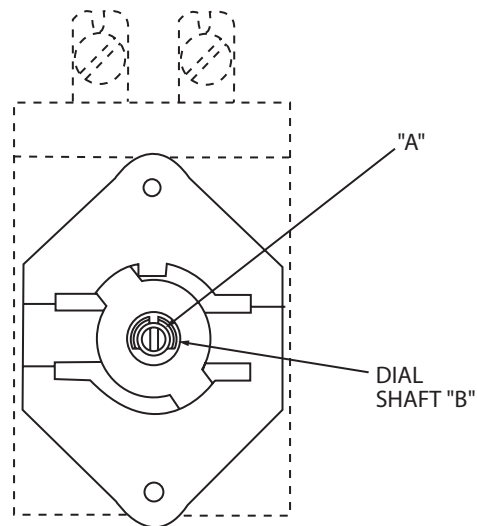
All electric ovens are equipped with snap action thermostats. Field calibration is seldom necessary and should not be resorted to unless experience with cooking results definitely proves that the control is not maintaining the temperature to which the dial is set. To check oven temperature when calibration, use only a reliable mercury thermometer or preferably an oven pyrometer.

1. Place the thermocouple of the test instrument or reliable mercury thermometer in center of the oven.
2. Turn oven temperature control dial to 400 degrees F (204 degrees C.). In order to allow the oven temperature to stabilize, the oven control must be allowed to cycle twice before taking a test reading.
3. Check temperature reading when control just cycles "OFF", record that temperature, also record the temperature when the oven cycles "ON", as indicated by the cycling indicator light on the front control panel. Average the two readings, if the average temperature is not within  $\pm 20$  degrees of the dial setting, recalibrate as follows:

4. Carefully remove the thermostat dial, not disturbing dial setting.
5. Hold dial shaft ("A") steady and with a screw driver, turn calibration screw ("B"), located inside the dial shaft, clockwise to decrease and counter-clockwise to increase the temperature.

EX: 1/4 turn = 25 degrees.

6. Replace thermostat dial and repeat steps 1 through 3 to verify adjustment has been made.



# MAINTENANCE AND CLEANING

**CAUTION:** Disconnect Power Supply Before Attempting Cleaning or Servicing

## Oven Exterior

**Painted Surfaces** should be cleaned when cool using a mild soap and warm water solution on a sponge or soft clean cloth. Rinse and dry thoroughly with a soft clean cloth.

**Stainless Steel Surfaces** usually respond to cleaning as noted above. Stubborn stains or heat tint may require the use of a commercial type cleaner, such as Penny-Brite or Copper-Brite, rubbed in with a dry cloth or Paste Nu-Steel, Dabois Temp or Tarnite, rubbed with a cloth or Stainless Steel pad. Always rub in the direction of the polished lines. Rinse thoroughly with fresh water and wipe dry.

## Oven Interior

Aluminized Steel Surfaces should be cleaned with a damp soft cloth and mild household detergent.

The oven deck and bottoms (Jet Plates) are removable. The deck should be kept as clean as possible. Heavy spills and carbon deposits, that are not easily removed with a soap and water solution, should be scraped loose and removed.

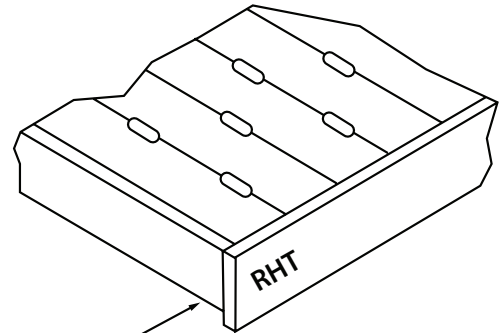
Periodic removal of the deck and "Jet Plates" is strongly recommended. This will enable you to remove any build-up of deposits on the "Jet Plates", and access the oven bottoms. Particles may drop through the openings in the "Jet Plates". The entire oven bottom should be cleaned at least once a year and more often under heavy usage conditions.

**WARNING:** Failure to Clean Oven Perforated Deck Surface and "Jet Plate" Will Degrade Baking Performance.

## Bottom Jet Plate Installation

After periodic jet plate cleaning, they should be reinstalled in the following manner.

Plate marked "R or RHT" should be placed into unit on right hand side.



**NOTE:** THE SHORT SIDED END OF THE JET PLATE SHOWN SHOULD BE INSTALLED IN THE CENTER OF THE UNIT. WITH THE SHORT END DOWN (TOWARD BOTTOM OF UNIT).

The jet plate marked "L or LFT" should be placed on the left side in the same manner as right plate (See Note).

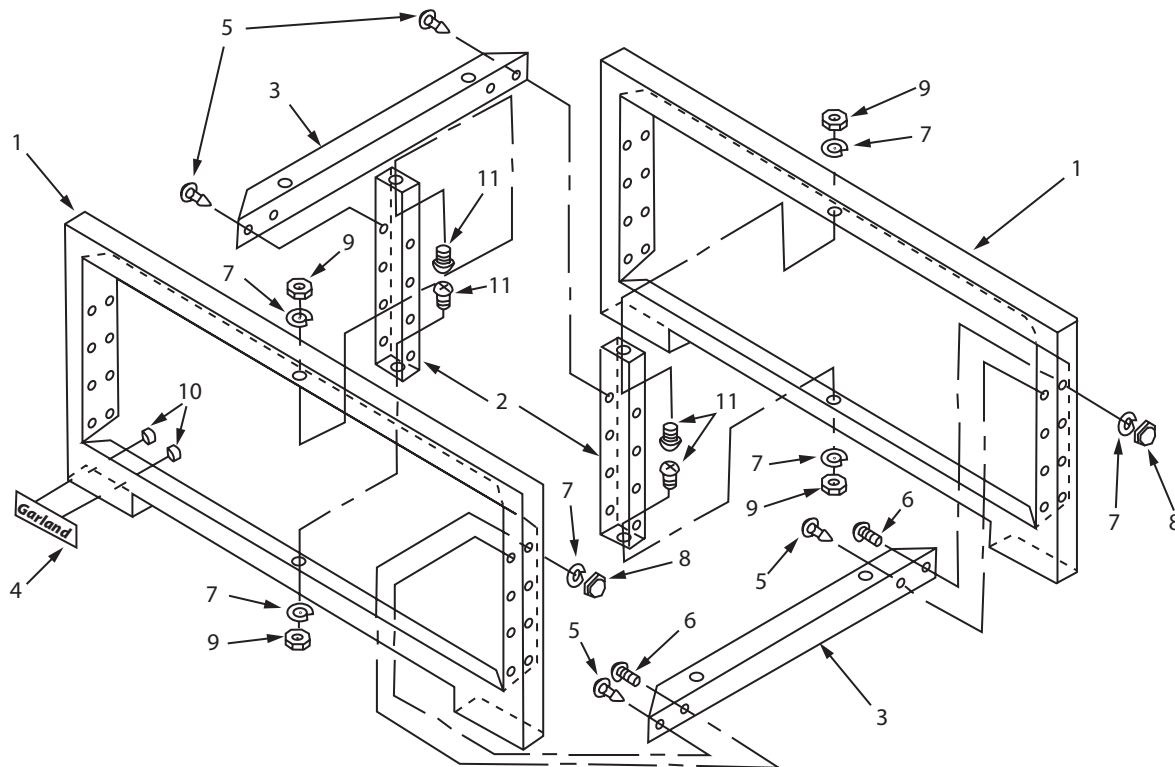
# WARMING RACK – OPTION

## Assembly Instructions

Parts Required:

REF.#	PART #	DESCRIPTION	QTY
1	1708301	Frame ftr/rr	2
2	1708303	Center Supt.	2
3	1708302	Rack supt.	16
4	9004500	GARLAND Logo	1
5	8002107	#10 Sheet Screw	40
6	8003103	#10-24x3/8 Bolt	12
7	8000203	Lock Washer	16
8	8001301	#10-24 Acorn nut	12
9	8001204	#10-24 Nut	4
10	1019800	Pal Nut	
11	8003123	#10-24x5/8 Bolt	4

1. Attach GARLAND Logo to one of the frames (1) using pal nuts (#10).
2. Attach center supports (2) to frame ftr/rr (1) using #10-24x5/8 bolts (11) nuts (9), and lock washers (7).
3. Attach eight rack supports (3) as shown to frame ftr/rr (1) using #10-24x3/8" bolts (6), acorn nut (8), lockwashers (7), and #10 sheet screws (5).
5. Place racks on rack support and assembly is complete.



# WARMING RACK – OPTION Continued

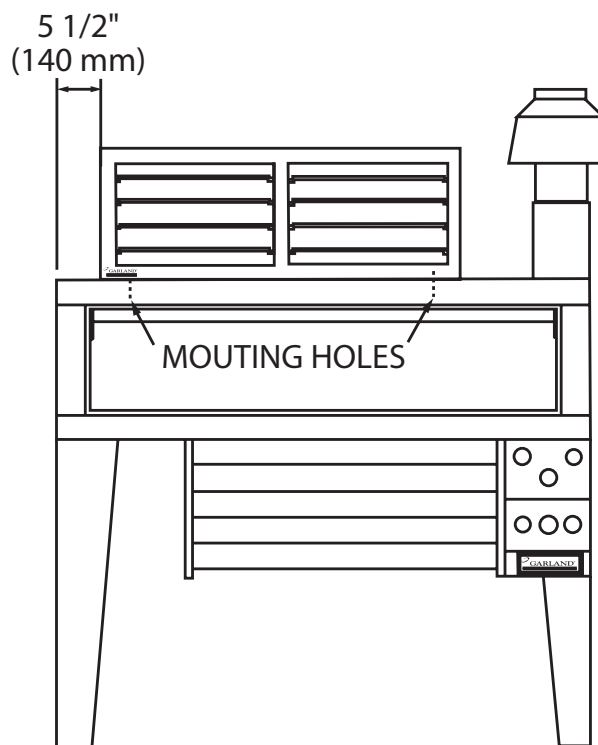
## Installation Of Warming Rack To Oven

NOTE: Model shown is a G56PB. The same instructions apply to the following models also: E56PB, and E56PT.

Attach Warming Rack as Follows:

1. Align front edge of warming rack with front edge of oven and left edge of warming rack 5-1/2" from left edge of oven.
2. Mark mounting holes in the top of the oven by using the four (4) mounting holes in the warming rack.
3. Remove warming rack and drill four (4) 5/32" DIA. Holes.
4. Replace warming rack and fasten with four (4) #10 sheet metal screws.

Installation Diagram



## PARTS LIST

PART #	DESCRIPTION	QUANTITY PER UNIT
1615003	Motor	1
1613900	Blower Wheel Upper Unit	1
1613901	Blower Wheel Lower Unit	1
1619400	Bracket, Thermostat Bulb	1
1101402	Thermostat Bulb Clip	2
1611299	Door Liner Assy.	1
1611300	Door Panel Assy.	1
1613099	Door Handle	1
1612299	Right Door Hinge Assy.	1
1612298	Left Door Hinge Assy.	1

PART #	DESCRIPTION	QUANTITY PER UNIT
1611599	Trunion Support Assy	2
1021100	Door chain	2
1021200	Connecting Link	2
6004701	Adjusting Hook	2
1019700	Roller Pin	2
1054325	Door Shaft Finger	2
1005804	S/S Door Spring	2
1611900	Thermostat	1
1314001	Thermostat Dial	1
1314117	Dial Insert	1





 **Garland**<sup>®</sup>