

# Lincoln Aperion 24 Impinger<sup>®</sup> Conveyor Oven

## Installation, Operation and Maintenance Manual

FOR 60 HZ



Original Instructions

## Safety Notices

### DEFINITIONS

#### **DANGER**

Indicates a hazardous situation that, if not avoided, will result in death or serious injury. This applies to the most extreme situations.

#### **Warning**

Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

#### **Caution**

Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

#### **Notice**

Indicates information considered important, but not hazard-related (e.g. messages relating to property damage).

NOTE: Indicates useful, extra information about the procedure you are performing.

### Read These Before Proceeding:

#### **DANGER**

Do not install or operate equipment that has been misused, abused, neglected, damaged, or altered/modified from that of original manufactured specifications.

#### **Important**

Read these instructions for use carefully so as to familiarize yourself with the appliance before connecting it to its gas container. Keep these instructions for future reference.

#### **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.

#### **Warning**

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

#### **Warning**

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision concerning use of the appliance by a person responsible for their safety. Do not allow children to play with this appliance.

#### **Warning**

This equipment is intended for indoor use only. Do not install or operate this equipment in outdoor areas.

#### **Warning**

Do not use electrical appliances or accessories other than those supplied by the manufacturer.

#### 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**

Never use a high-pressure water jet for cleaning or hose down or flood interior or exterior of units with water. Do not use power cleaning equipment, steel wool, scrapers or wire brushes on stainless steel or painted surfaces.

#### **Caution**

Maintenance and servicing work other than cleaning as described in this manual must be done by authorized service personnel.

#### **Caution**

Improper cleaning of oven could damage catalyst(s) in ventless models and will void unit warranty.

NOTE: Proper installation, care and maintenance are essential for maximum performance and trouble-free operation of your equipment. Visit our website [www.wbtkitchenware.com](http://www.wbtkitchenware.com) for manual updates, translations, or contact information for service agents in your area.

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# Section 1

## General Information

### Purchaser's Responsibility

It is the responsibility of the purchaser:

1. To see that the gas and electric services for the oven are installed on site in accordance with the manufacturer's specification.
2. To unload, uncrate, and install the oven in its proper location; in accordance with this installation/operation manual.
3. To see that the gas and electric services are connected properly by a qualified installer of your choice. For installation in the State of Massachusetts: Installation of this oven must be performed by a licensed plumber or gas fitter. All such connections must be in accordance with applicable code requirements. Refer to "Installation Requirements" section for specific information.
4. To arrange for inspection and operation check-out by an Authorized Service Technician as described below:

Do not attempt to operate the oven until connection of utility service has been fully inspected by a Factory Authorized Servicer or a Lincoln Foodservice Products, LLC Service Representative. This service is required by Lincoln Foodservice Products, LLC in order to assist the purchaser in proper start-up of the oven on site. Please note the specific details on the Warranty Policy and make sure that all connections are made to the proper utility services.

The warranty shall not apply if the oven(s) are started up and operated prior to the utilities and oven being inspected and check-out made by a Factory Authorized Servicer or a Lincoln Foodservice Products, LLC Service Representative.

### ADDITIONAL REQUIREMENTS

- Obtain from your local gas provider and post in a prominent location instructions to be followed in the event gas odors are detected.
- It is required that the oven be placed under a ventilation hood to provide for adequate air supply and ventilation.
- Minimum clearances must be maintained from all walls and combustible materials. See "Spacing Requirements" section for more information.
- Keep the oven free and clear of combustible material.
- Adequate clearance for air openings to the combustion control chamber on the right side of the oven is required.
- Do not obstruct the ventilation holes in the control panels, as these provide the combustion air for the burner and cooling air for the controls.
- The oven is to be operated only on the type of gas and/or electricity as shown on the specification plate.
- The power burner will not operate and gas will not flow through the burner without electrical power.
- This manual should be retained for future reference.
- The electrical wiring diagram is located under the control box covers.

IN AUSTRALIA: Refer to Standard AS 5601. This standard specifies the requirements for piping, flues, ventilation and appliance installation associated with use of or intended use of fuel gases. The requirements of AS 5601 are to be used in conjunction with, but do not take precedence over, any statutory regulations that may apply in any area.

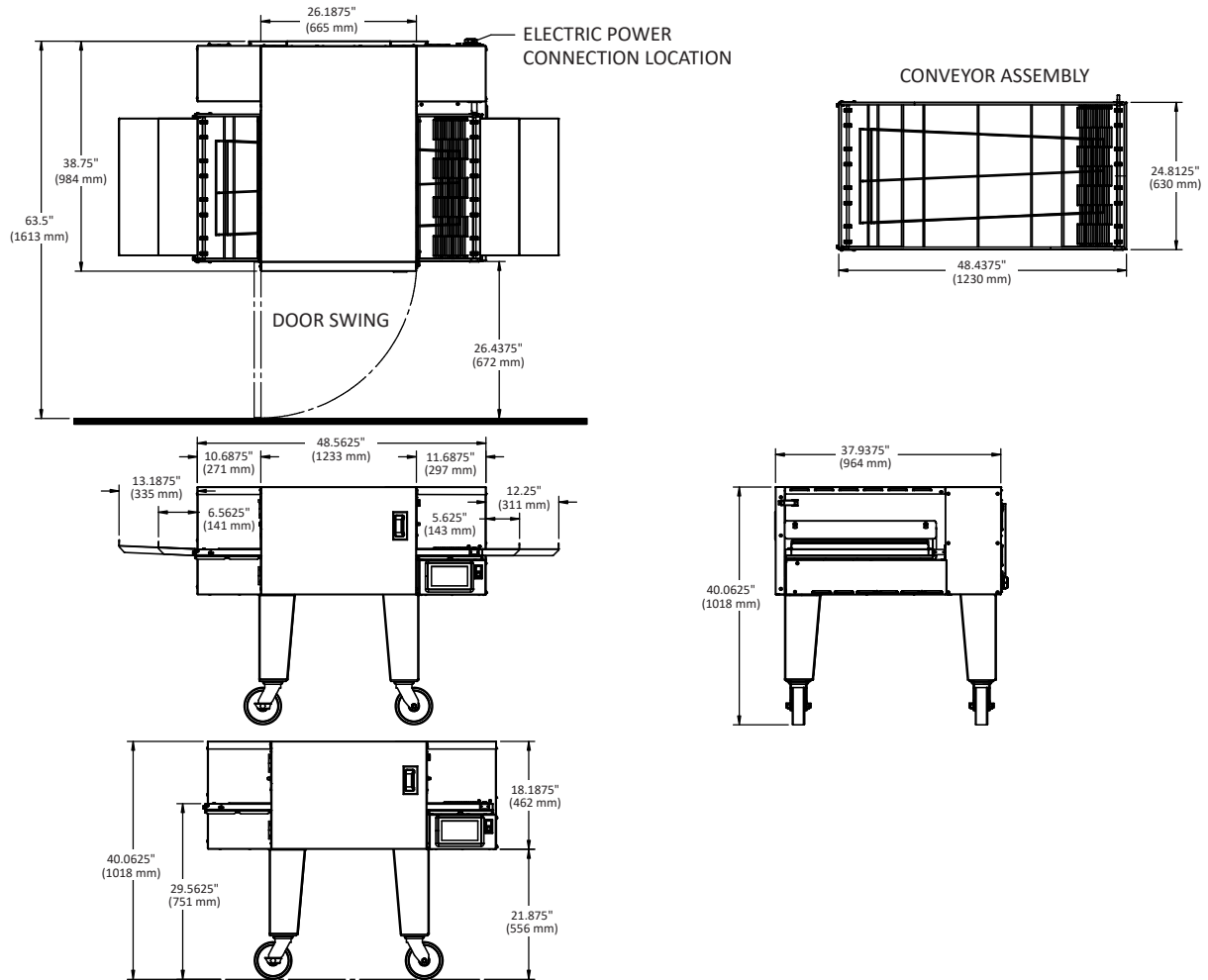
All ovens require separate service and dedicated neutral.

### Gas Pressure Conversion

Inches of Water Column	kPa	m-Bar	Millimeters of Water Column
3.5	0.87	8.70	88.9
4.5	1.12	11.2	114.3
7	1.74	17.40	177.8
8	1.99	19.90	203.2
9.2	2.29	22.90	233.7
10	2.48	24.87	254.0
10.5	2.61	26.11	266.7
11	2.73	27.36	279.4
14	3.48	34.81	355.6
14.5	3.61	36.05	368.3

# Section 2 Installation

## Exterior Dimensions



<b>BODY:</b>	Stainless steel. Easy open front for simple cleaning.	
<b>POWER:</b>	Electric, or Gas and Electric	
<b>CONVEYOR:</b>	Stainless steel construction with flexible stainless steel belt, travel distances of 48 inches (1220 mm) with 24 inches (610 mm) in the baking area. Conveyor belt width is 24 inches (610 mm). Speed range: 20 seconds – 30 minutes.	
<b>DB LEVEL:</b>	≤ 70dba	
<b>OPERATING TEMPERATURE RANGE:</b>	Gas 250° - 600°F (121° - 316°C)	Electric 250° - 600°F (121° - 316°C)

NOTE: Specifications are subject to change. Above data should be used for estimating purposes only.

## Utility Specifications

### Electric Ovens

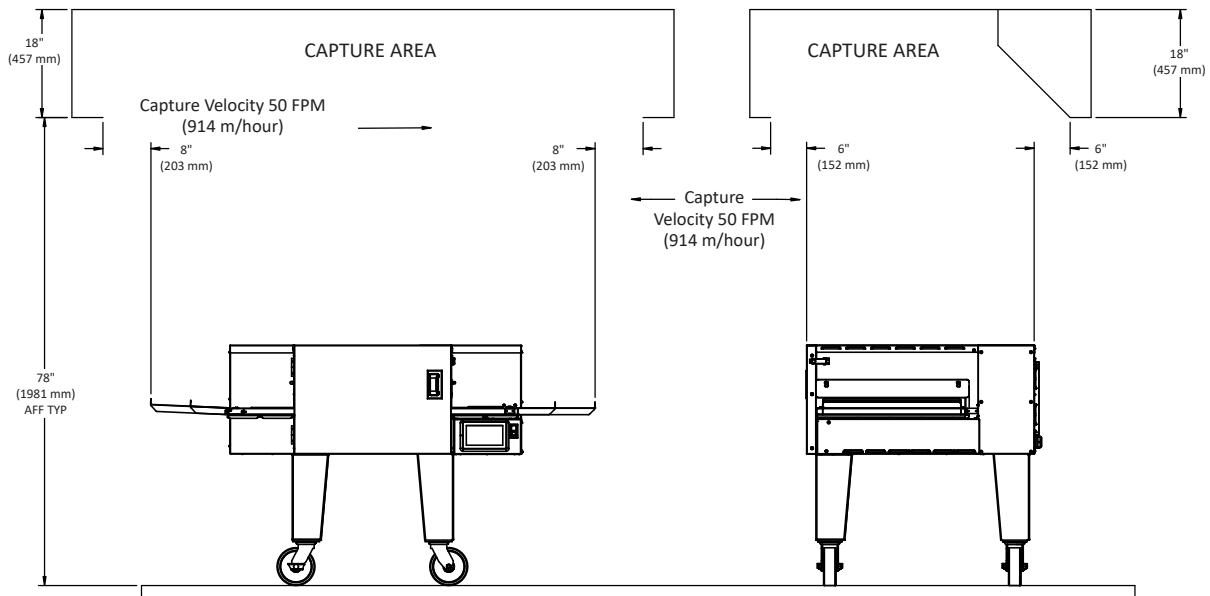
Model	Energy	Power	Voltage	Current	Phase	Hz	Recommended Electrical Specification
2424E	Electric	13 kW	208-240 VAC	48A	3	60	4 Wires, 3 Line +G

All ovens require separate service and dedicated neutral.

#### Notice

Do not install the (these) oven(s) in any area with an ambient temperature in excess of 95°F / 35°C. Doing so will cause damage to the unit.

### Canopy Ventilation Recommendations



AFF = Above Finished Floor

NOTE: The drawing shown is a typical installation and is intended to be a guideline. Hood dimensions and the positioning of the hood over the oven will vary with hood manufacturers.

NOTE: Lincoln can provide oven spec sheets that show the dimensions of the oven, kW or BTU ratings and other information that will be useful to both the ventilation hood supplier and the HVAC contractor.

A smoke candle test is performed at Start-Up Checkout to verify proper hood operation. Refer to page 16.

## Installation Requirements

### DANGER

All utility connections and fixtures must be maintained in accordance with local and national codes.

## GAS CODE REQUIREMENTS

### Warning

A manual shut-off valve must be installed in the gas supply (service) line upstream of this appliance so that the test plug is on the oven side of the valve.

Safe and satisfactory operation of this oven depends to a great extent upon its proper installation, and it should be installed, as applicable in accordance with the National Fuel Gas Codes, ANSI Z223.1/NFPA 54, latest version, manufacturers' installation instructions, local municipal building codes, and ISO 203-1.

1. The oven 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 psig (3.45 kPa).
2. 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 supply system at test pressures equal to or less than 1/2 psig (3.45 kPa).

IN MASSACHUSETTS: The minimum length of a flexible gas supply hose is thirty-six (36") inches.

IN CANADA: The installation of these appliances is to be in accordance with CSA B.149.1 latest version – Natural Gas and Propane Installation Code – and/or local codes.

IN AUSTRALIA: To be installed in accordance with AS 5601-2004 and 4563-2004 Gas Installation Code.

## ELECTRICAL CODE REQUIREMENTS

### Warning

This appliance must be properly grounded at time of installation. Failure to ensure that this equipment is properly grounded can result in electrocution, dismemberment or fatal injury.

When installed, this appliance must be electrically grounded and its installation must comply with the National Electric Code, ANSI-NFPA 70, latest edition, the manufacturers' installation instructions, and applicable local municipal building codes.

IN CANADA: All electrical connections are to be made in accordance with CSA C22.2 latest version – Canadian Electrical Code and/or local codes.

ALL OTHER COUNTRIES: Local gas and/or electrical codes will prevail.

1. Strain Relief is provided with each oven. International Dealer/Distributors provide applicable power cord/plug for each customer.
2. All pole disconnection switch must have 3 mm open contact distance.
3. To prevent electrical shock, an equal potential bonding ground lug is provided in the back. This allows the oven to be connected to an external bonding system.
4. If used as double stack or triple stack<sup>1</sup> and each oven has its own disconnection switch, all switches should be close together.

<sup>1</sup> 2424 ventless ovens equipped with a catalyst(s) are approved for single oven ventless operation.

## SPACING REQUIREMENTS

 **Caution**

Oven must be operated on an approved base only.

The oven must have a minimum of 8 inches (203 mm) of clearance from all surfaces. In case other equipment is located on the right side of oven, a minimum clearance of 24 inches (609 mm) is required from that equipment.

FOR ALL OVENS: A 24-inch (609 mm) clearance at the rear of the oven must be obtainable for service access.

FOR PERMANENTLY INSTALLED OVENS: A permanently installed (unmovable) oven requires a minimum of 4' (1219 mm) clearance on the right hand side to allow for conveyor removal, cleaning, and servicing.

NOTE: Do not install this (these) oven(s) in any area with an ambient temperature in excess of 95°F/35°C. Doing so will cause damage to the unit.

## VENTILATION REQUIREMENTS

A VENT IS REQUIRED: Local codes prevail. These are the “authority having jurisdiction” as stated by the NATIONAL FIRE PROTECTION ASSOCIATION, INC. in NFPA 96 latest edition. In addition, to be in compliance with the NFPA 54 Section 10.3.5.2, this unit must be installed with a ventilation hood interlock that prevents the unit from operating when the ventilation hood is off. For further ventilation information, see Ventilation Guidelines.

## Ventilation Guidelines

For standard ovens, a ventilation hood is required to remove heat and cooking odors. Alternatively, optional electric “ventless” models are available which incorporate a catalyst to limit the emission of grease laden air to below 5mg/m<sup>3</sup>. Ventless ovens have been tested in accordance with UL710B & EPA-202 and are listed by UL to the KNLZ category. Ventless ovens should only be used for reheating purposes and should not be used to cook raw animal proteins, doing so may cause the appliance to exceed allowable grease laden air limits and/or cause damage to the catalyst. Ventless oven models can be identified by the “-V-” suffix as part of their model number, refer to the spec sheet for more details. When permitted by local code(s) and used with appropriate food products, Lincoln “ventless” ovens are not required to be installed under a ventilation hood. For gas ovens, a ventilation hood is also required to remove the products of combustion. The hood and HVAC installation must meet local codes to gain approval by the authority having jurisdiction. Requirements may vary throughout the country depending on the location by city, county, and state. Obtain information from the authority having jurisdiction to determine the requirements for your installation. Obtain information and review copies of codes or documents that will be used to inspect and approve your installation. Your ventilation hood supplier and HVAC contractor should be contacted to provide guidance. A properly engineered and installed ventilation hood and HVAC system will expedite approval and reduce oven maintenance costs. Proper ventilation is the oven owner’s responsibility.

The ventilation hood must operate in harmony with the building HVAC system. It typically requires between 750 and 2500 CFM (1274 and 4248 m<sup>3</sup>/hour) exhaust. (The “Efficiency” of various hood designs makes it necessary to specify such a wide range of ventilator flow.) Make up air must be supplied by either a hood design or the HVAC system. This will vary with hoods from various manufacturers.

**Notice**

Prevent airflow through the cooking tunnel. Air must NOT be directed onto the oven front or at side of cooking area or rear of oven.

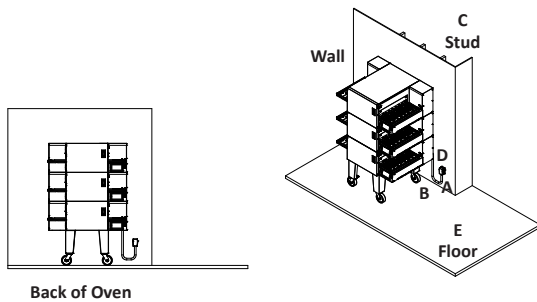
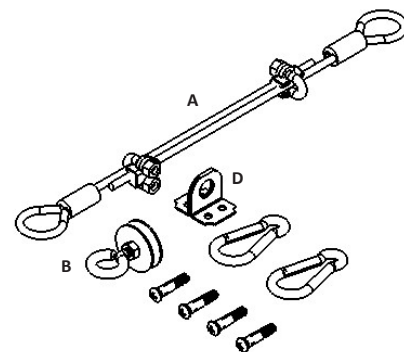
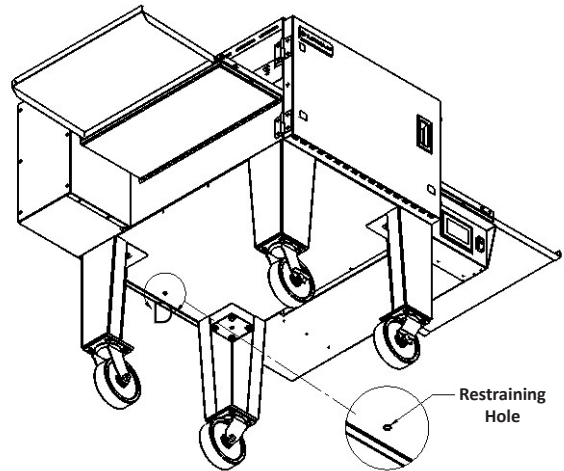
**RESTRAINT REQUIREMENT – OVEN(S) ON CASTERS**

- The installation shall be made with a gas connector that complies with the local codes for Connectors for Movable Gas Appliances, ANSI Z21.69 • CSA 6.16 latest version, and a quick disconnect device that complies with the local codes for Quick Disconnect Devices for Use with Gas Fuel, ANSI Z21.41 • CSA 6.9 latest version.
- The installation of the restraint must limit the movement of the oven(s) without depending on the connector, the quick disconnect device or its associated piping to limit the oven movement.
- If the restraint must be disconnected during maintenance or cleaning, it must be reconnected after the oven has been returned to its originally installed position.

**Procedure**

1. Secure anchor wall/floor mount bracket “D” to wall stud “C” or floor “E”.
2. Secure eye bolt “B” into threaded hole located in the oven bottom (See drawing below).
3. Attach restraint cable “A” with supplied carabiners to both the eye bolt “B” and wall/floor bracket “D”.
4. Adjust/shorten restraint cable to limit oven movement.

NOTE: Installation point is the same for single, double, or triple-stacked ovens.



**Installation**

The instructions that follow are intended as a guide for preparing for the installation of the Lincoln Aperia Impinger® oven. First and foremost, each crate should be examined before signing the Bill of Lading to report any visible damage by the trucker in transit, and to account for the proper number of crates.

**IF THERE IS APPARENT DAMAGE:**

UNITED STATES AND CANADA: Arrangements should be made to file a claim against the carrier, as Interstate Commerce Regulations require that the consignee initiate a claim.

ALL SHIPMENTS TO OTHER COUNTRIES: Freight terms will be developed and extended on an individual basis.

Proper and secure storage facilities should be arranged for the oven(s). If necessary, protect it from outdoor or damp conditions at all times before installation.

**PACKING AND WEIGHTS**

All uncrated components of the Lincoln Aperia Impinger® oven will pass through a 30" (762 mm) wide door. The Impinger® Conveyor Oven consists of:

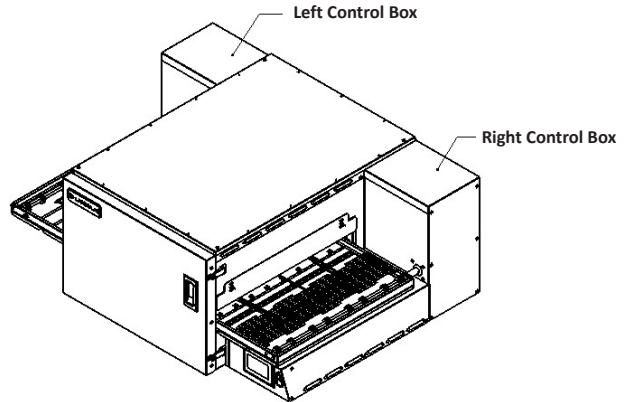
Cartons	Weight of Each	Dimensions of Each
1 – oven (domestic)	430 lbs. (195 kgs)	41" x 59" x 18.75" (1042 x 1499 x 476 mm)

**UNCRATING**

When you have all the crates unloaded, open the crates and remove the plastic covers. Inspect at once for concealed damage. If anything appears to be damaged, contact the appropriate persons immediately to file a damage claim. After completing this inspection, finish unpacking the oven and all other components. Be sure to remove the packing cardboard from the plenum shroud. Move all components inside near the area where they will be assembled in the order in which they will be assembled.

**Installation of 2424 Oven**

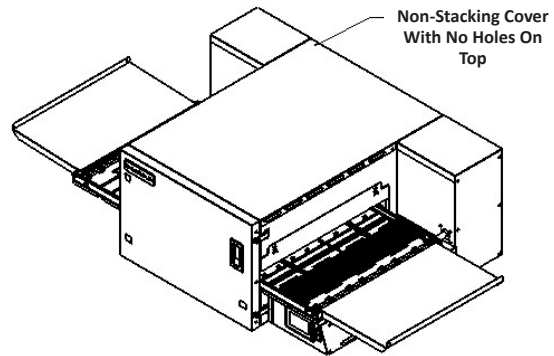
1. Using multiple people, a crane, or forklift remove the oven from the crate carefully. (Caution) Do not lift from the Left and Right Control Boxes.

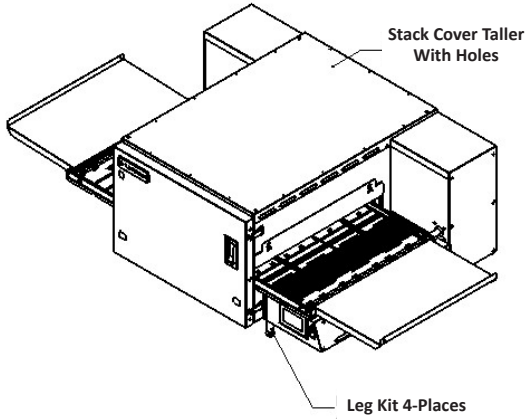


2. Remove Front Door, Upper and Lower Fingers and Conveyor Assembly from the Top Unit. Removal of these items will make the installation of the Top Unit on the Bottom Unit easier to place.
3. Place the oven on temporary blocks

**For Countertop Installation**

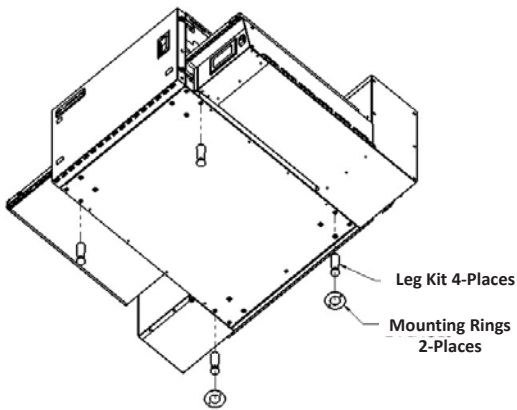
1. If oven is being placed on a countertop, use the Leg Kit with Mounting Rings on the Rear Legs of the Unit.
2. If Stacking Option is being used, ensure the Leg Kits are on the Bottom unit. The Bottom Unit will have the Stack Top Cover Option installed.



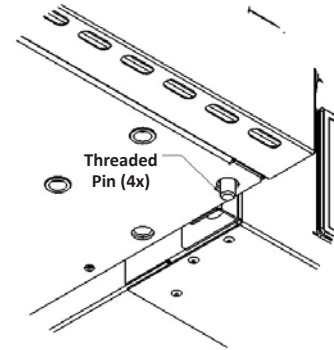


- Position the oven on the countertop and carefully mark the position of the Rear Legs. Remove the oven from the countertop and position the mounting rings so that the large (center) hole is where the legs of the oven were marked. Mark the position of the two small holes and remove the mounting rings.

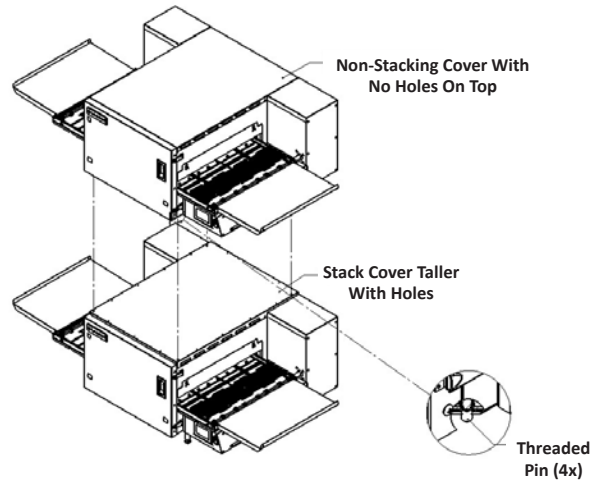
When installing on a heavy stainless steel or wood countertop, use appropriate rivets or screws for your installation. Use a 0.218" diameter drill (7/32") and drill at least 1/2" into a wood countertop or all the way through a steel countertop. Install the Mounting Rings to locate, so that the rear legs are in the large holes in the Mounting Ring.



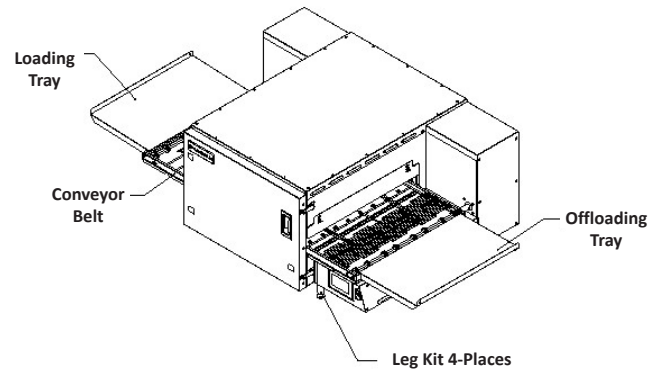
- To add a Top Unit to the Stack Assembly. Ensure that the Threaded Pins are installed at the corners of the bottom of the Top Unit.



- Using caution, lower the Top Unit using a portable crane or forklift, onto the Bottom Unit by lining up the Threaded Pins to the holes on the Bottom Unit.

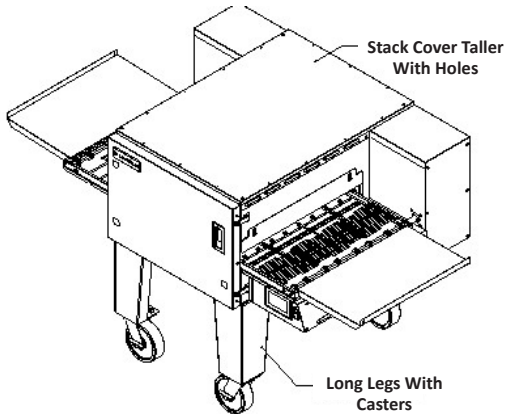
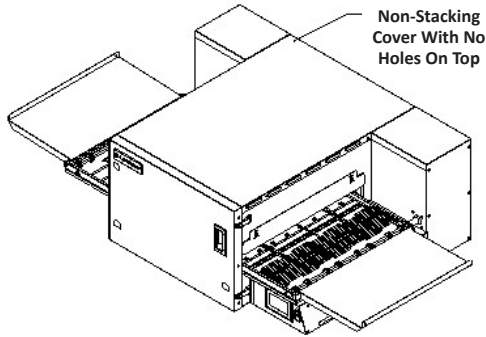


- Once the units are in place, re-install the Finger Assemblies.
- Install the Conveyor Belt assembly.
- Install Front Door.
- Install Loading and Offloading Trays (Loading Tray Marked with I, Offloading Tray Marked II).



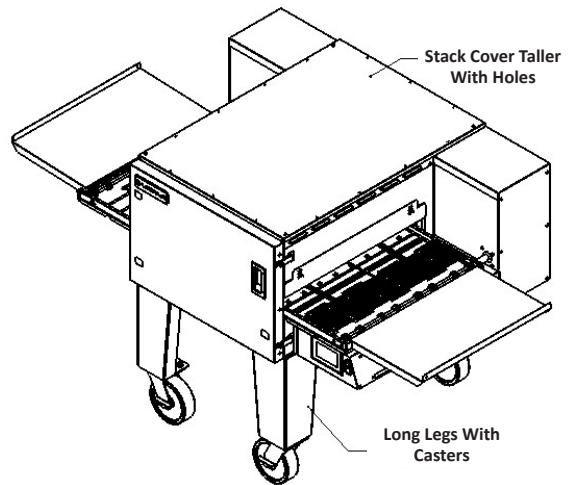
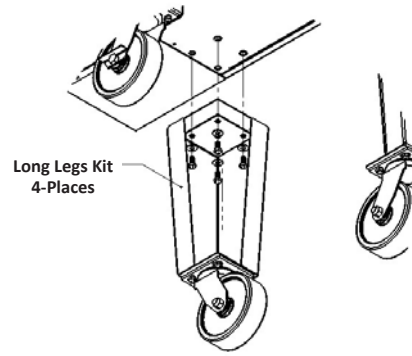
**For Floor Installation**

1. When placing the Oven on the floor, use the Long Leg Kit with Casters on the Bottom Unit. If Stacking Option is being used, ensure the Long Leg Kits are on the Bottom unit. The Bottom Unit will have the Stack Top Cover Option installed.

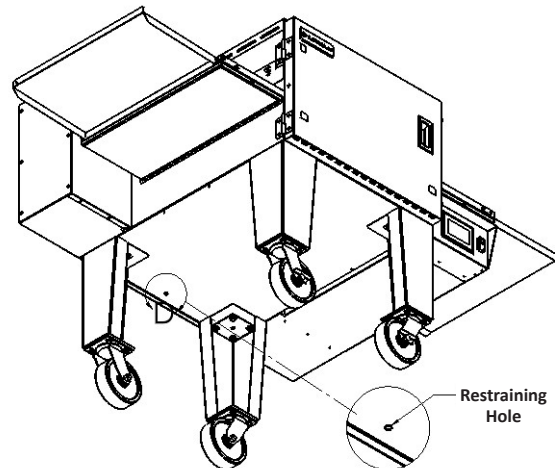


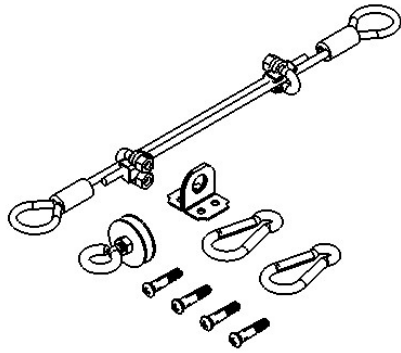
2. Remove Front Door, Upper and Lower Fingers and Conveyor Assembly from the Top and Bottom Units. The removal of these items will make the installation of the Top Unit on the Bottom Unit easier to place.

3. With the Bottom Unit on blocks, connect the Long Leg Kit to the bottom of the Bottom Unit in 4 places.

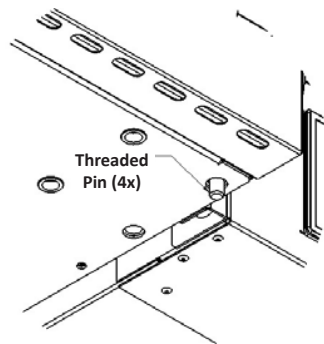


4. When using the Long Legs, the Unit must be restrained. Adjust and trim the Adjustable Restraining Cable Kit to secure the Unit to the wall or floor. Ensure that the Cable is short enough to limit the Oven Unit movement.

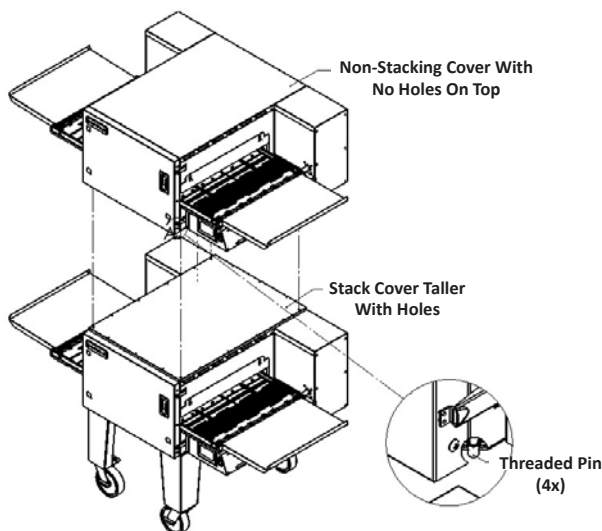




- To add a Top Unit to the Stack Assembly. The Threaded Pins are pre-installed at the corners of the bottom of the Top Unit.

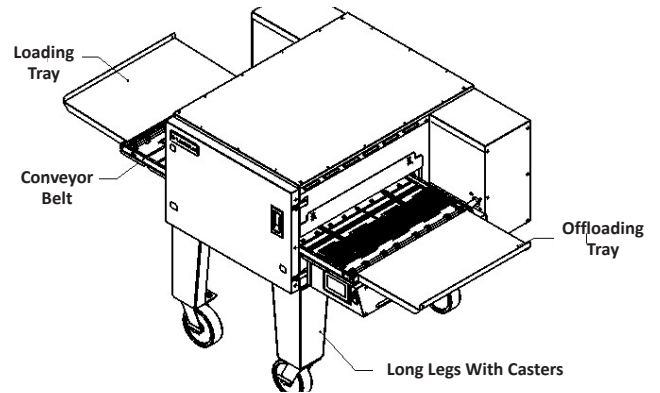


- Using Caution, lower the Top Unit using a portable crane or forklift, onto the Bottom Unit by lining up the Threaded Pins to the holes on the Bottom Unit.



- Once the units are in place, re-install the Finger Assemblies.
- Install the Conveyor Belt assembly.
- Install Front Door.

- Install Loading and Offloading Trays (Loading Tray Marked with I, Offloading Tray Marked II).



### Start-Up Checkout

You are now ready for the services to be connected. This should be done by a qualified plumber, electrician, or installer of your choice. For installation in the state of Massachusetts: installation of this oven must be performed by a licensed plumber or gas fitter. Refer to Utility Specifications and Installation Requirements sections for additional information.

#### Important

The manual shut-off valve must be installed so that the test plug is on the oven side of the valve.

## Start-Up Procedures

### SMOKE CANDLE TEST – VENTILATION SYSTEM VERIFICATION

Performance will be evaluated during Start-up Checkout by conducting a smoke candle test. The hood must capture all smoke from the oven. This is required to assure proper performance of the oven and to eliminate additional service calls that occur when ambient temperatures are too high. In all cases, the ambient temperature around the oven must be less than 95°F/35°C when the oven is operating. In certain localities, other chemical or gaseous methods of detecting adequate capture will be the requirement to meet the local code authority.

#### Oven Setup for this Test:

- This test is to be done on the bottom oven of a multiple oven system, or a single oven.
- The conveyor must be off.
- The oven temperature must be set and operating at 550°F/288°C.

#### Test Procedure:

NOTE: Use Lincoln Smoke Candle #369361 (in Australia, an alternate method of coloring the air may be used).

1. Wear heat resistant gloves to prevent burns to your hands.
2. Put the smoke candle in a cake pan approximately 8 inches (200 mm) x 8 inches (200 mm) x 2 inches (50 mm) deep or equivalent.
3. Light the fuse of the smoke candle and immediately put the pan and candle into the center of the oven cavity, on the conveyor belt. (Close the access window or door.)
4. Observe the smoke pattern coming out of the oven openings and the collection of this smoke by the ventilation system.
5. The ventilation system must capture all the smoke from the oven.

## Installation Checklist

### DANGER

Check all wiring connections, including factory terminals, before operation. Connections can become loose during shipment and installation.

### Warning

On completion of any installation or service work, test for gas leaks before returning the equipment into service. Never use matches, candles, or any other ignition source to check for leaks. If gas odors are detected, shut off the gas supply to the appliance at the main shut-off valve and immediately contact the local gas company or an authorized service agency for service.

DO NOT ATTEMPT TO OPERATE THE OVEN until connection of utility service and installation has been fully inspected (START-UP CHECKOUT) by a Factory Authorized Servicer or a Lincoln Foodservice Products, LLC Service Representative. This service is required by Lincoln Foodservice Products, LLC in order to insure the oven(s) is properly installed and in working order. The warranty becomes effective upon verification of proper installation.

The warranty shall not apply if the oven is started up and operated prior to the “START-UP CHECKOUT” being performed by a Factory Authorized Servicer or a Lincoln Foodservice Products, LLC Service Representative.

**CHECKLIST**

- Are the correct clearances maintained?
- Does the ventilation system meet the requirements?
- Are the legs and caster securely fastened?
- Is the unit level?
- Has the restraint been installed to prevent uncontrolled movement?
- Have all electrical connections been made and the unit is grounded?
- Does each oven have a separate disconnect switch?
- Have all wiring connections including the factory connections been checked?
- Has the supply voltage been tested and verified it matches the name plate voltage?
- Has a shutoff valve been installed in the gas line ahead of the unit?
- Has the manifold gas pressure been set to match the rating on the nameplate?
- Have all gas connections been tested for leaks?
- Are the retaining brackets and finger assemblies correctly installed and positioned?
- Is the belt tension correct?
- Have access panels been installed and secured?
- Has a smoke candle test been performed?
- Has the unit been tested for correct operation?
- Has the owner been instructed in the correct operation of the unit?
- Has this manual been given to the store owner?

## Section 3

# Operation and Programming



### Introduction

This section will guide you on the operation of the easyTouch controls on your new Lincoln Aperion Impinger® oven.

### Startup

1. Ensure that your oven is connected to an electrical supply. Move the On/Off switch to the ON position
  - The display screen will energize and show the Lincoln oven model number and current software version. (Figure 1) This screen will transition after a few seconds to the Home Screen.



Figure 1

NOTE: The oven will not start pre-heating until you have selected a recipe.

2. The **Home screen** displays 4 buttons: **Press & Go**, which takes you to the Recipes screen; **Manual mode**; the **Settings** screen; and the **Diagnostics** button, which provides basic information about your oven. (Figure 2)

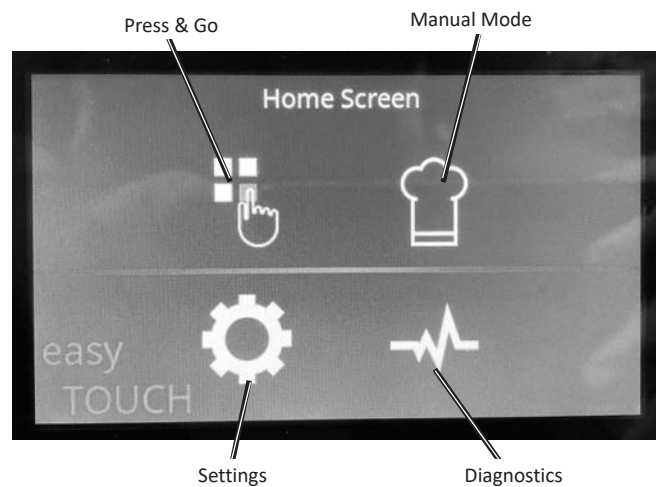


Figure 2

### RECIPE SELECTION (PRESS & GO BUTTON)

1. Touch the Press & Go button to display the 8 pre-set recipes. Press any of the 8 numbered buttons to select the recipe. (Figure 3 and Figure 4)
  - A. The display screen will change to show the settings for the recipe selected.

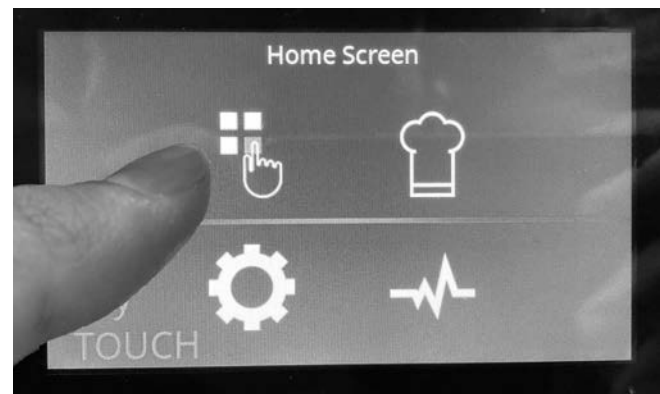


Figure 3



Figure 4



Figure 6

2. The oven is now in pre-heat mode and the oven heaters will start-up. The temperature settings appear on the screen. You will see the temperature of the oven and the temperature increasing up to the set-point. **The conveyor does not move in pre-heat mode.**
  - A. To exit pre-heat mode, press and hold the “X” button until the screen returns to Home Screen.



Figure 5

- B. **When the oven reaches the set-point temperature, the conveyor belt will start to move.** The display will show the selected set-point temperature, fan speeds, and belt speed (cook time).
3. Oven Soak – allow the oven cavity to soak for an additional 5-10 minutes before loading food
4. Load Food – The oven is now ready for cooking. Please use the proper equipment to load and unload food from the conveyor. The conveyor will be hot to the touch. Pans or trays exiting the oven will be VERY HOT and are a burn hazard. Please use an oven mitt, pan gripper or other utensil to remove.

**ECO MODE** 

Eco mode allows the operator to save energy by stopping the conveyor belt from moving during less busy operating times.

1. Press the Leaf button on upper left side of the Recipe - Ready screen (Figure 7). The screen will change to Eco Mode (see Figure 8). The conveyor will stop moving while the temperature in the cavity should remain unchanged.
2. To re-start the conveyor, press the X button on the Eco Mode screen and the Recipe screen will re-appear.



Figure 7



Figure 8

**MANUAL MODE** 

Manual mode allows the operator to change the temperature, upper and lower fan speeds, and cook time to revise or create a new recipe.

**CHANGING TEMPERATURE AND COOK TIME (BELT SPEED)**

1. Press the Chef's Hat or Manual mode button on the Home screen. (Figure 9 and Figure 10)

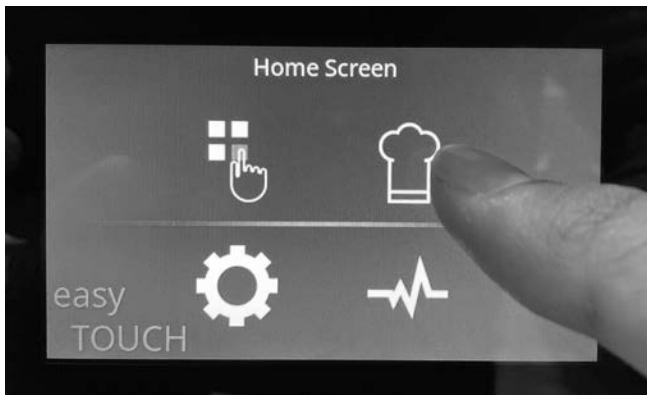


Figure 9

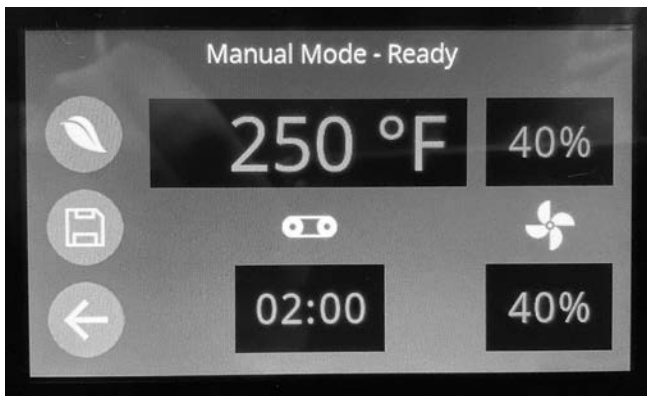


Figure 10

2. **Set Temperature:** Press the temperature button to change temperature. Touch the numbers to correspond to the temperature required. Press 2-5-0 for 250 degrees and then touch the check mark to save the new temperature or X to return to the original setting. (Figure 11 and Figure 12)



Figure 11



Figure 12

3. **Set Cook Time:** Press the cook time button (looks like a conveyor belt) to change cook time. Touch the numbers to correspond to the cook time required. Press 0-2-0-0 for 2 minutes and then touch the check mark to save the new cook time or X to return to the original setting. (Figure 13 and Figure 14)
4. You can return to the Home screen at any time by pressing the Back button or arrow on the lower left of the screen.



Figure 13



Figure 14


- 5. **Set Fan Speeds:** Press the top fan button to set the upper fan speed. Press 5-0 for 50% fan speed and then touch the check mark to save the new upper fan speed or X to return to the original setting. Press the lower fan button to set the lower fan speed. Press 8-0 for 80% fan speed and then touch the check mark to save the new lower fan speed or X to return to the original setting. (Figure 15 and Figure 16)



Figure 15



Figure 16

- 6. **Save Recipe:** Press the Save icon  in the Manual Mode screen (Figure 16). The screen will transition to a numbered screen (Figure 17). Select the Recipe number and press the check mark. The icon and border color can be changed by selecting the Change Icon and/or Change Color buttons (Figure 18). Press the check mark to save the recipe. The screen will transition to Figure 19.

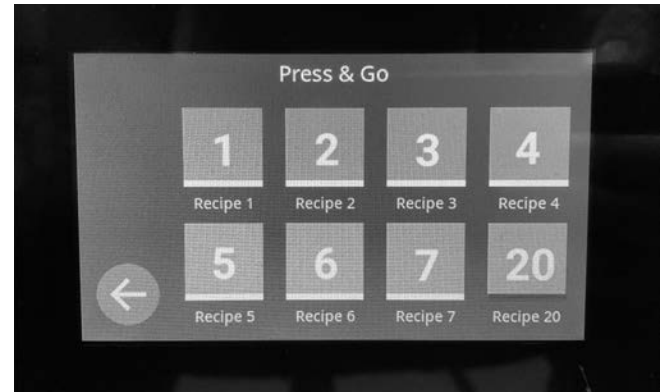


Figure 17



Figure 18

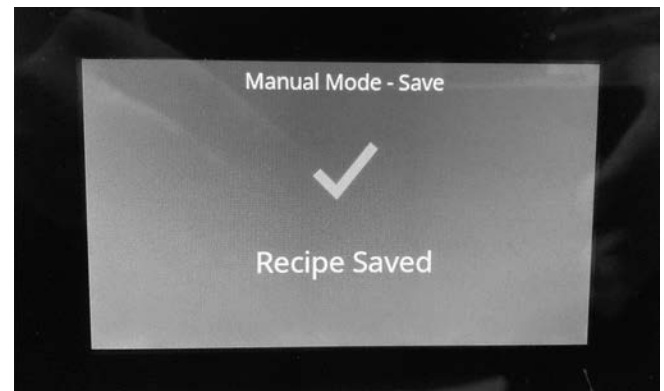


Figure 19

**SETTINGS MODE** 

Settings mode allows the operator to change the oven settings such as Temperature unit of measure or Belt direction. The factory temperature unit of measure is Fahrenheit.

1. Press the Cog or Settings mode button on the Home screen. (Figure 20 and Figure 21)

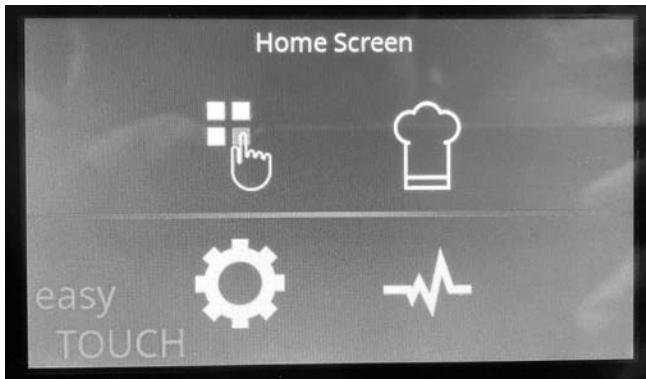


Figure 20

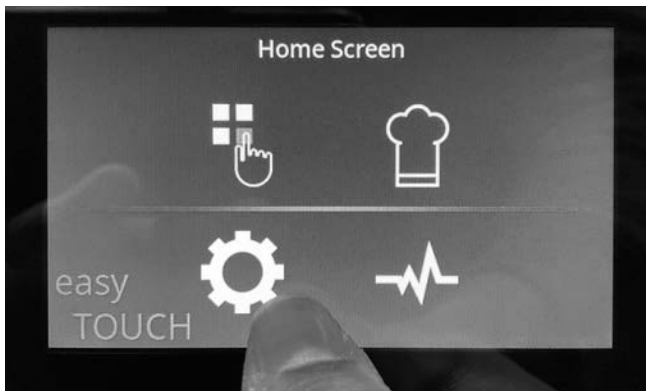


Figure 21

2. Enter the password by touching the numbers on the password screen. The password is: 6-7-8-5-3-5. This password is pre-set at the factory and is not changeable. (Figure 22)

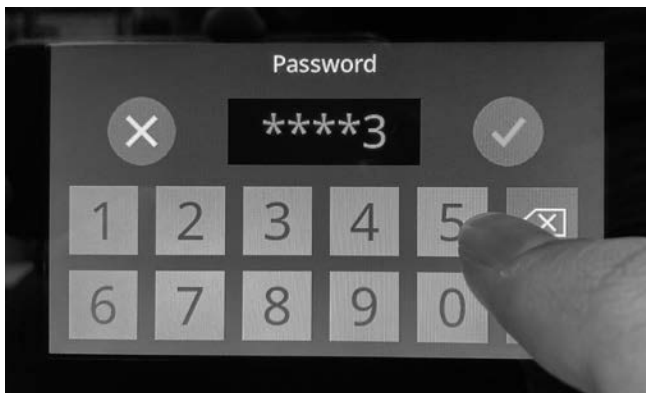


Figure 22

3. Temperature Unit of Measure - Touch the white circle in the oval button on the Settings display that shows the temperature measure. The Fahrenheit or Celsius symbol will change to correspond to the desired temperature unit of measure. (Figure 23)

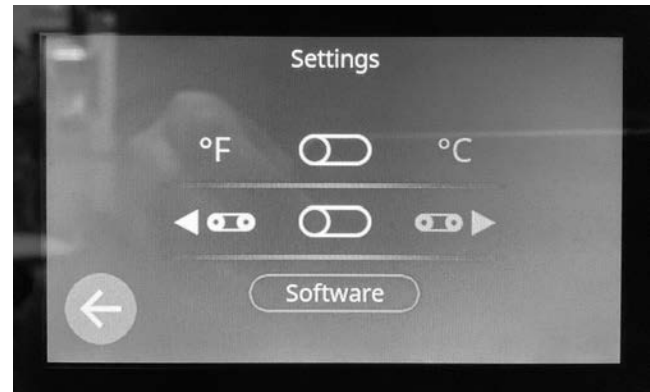


Figure 23

4. Belt Direction - Touch the white circle in the oval button on the Settings display that looks like a mini conveyor. The mini conveyor will change to correspond to the desired belt direction. The new belt direction is now set.

**DIAGNOSTICS MODE** 

Diagnostics mode allows the operator to view basic information about your oven including software revisions and temperature offsets.

1. Press the Diagnostics button on the Home screen to access this mode. (Figure 24)

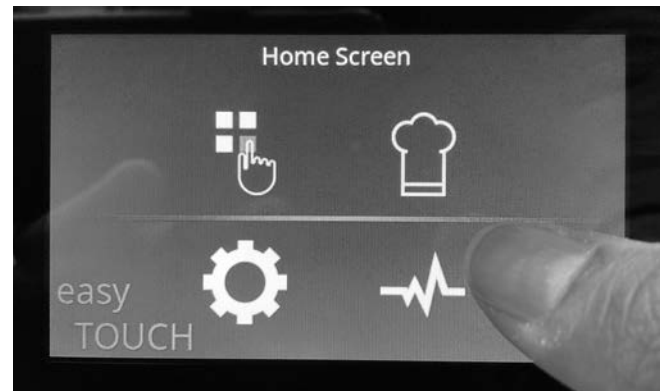


Figure 24

2. Press the Back button or arrow to return to the Home screen. (Figure 25)

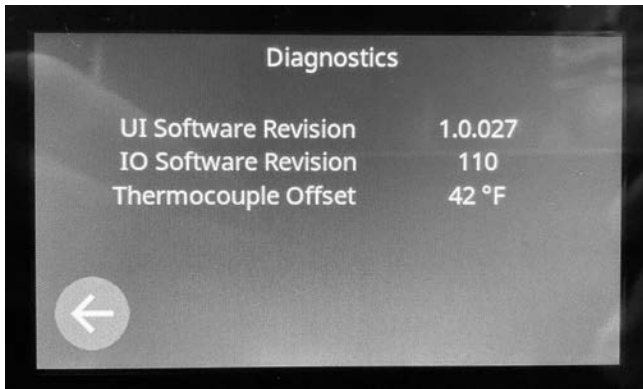


Figure 25

### OVEN SHUT DOWN

1. To shut down your oven, press the Back Button to return to the Home screen. The conveyor should stop moving; however, the cooling fan will continue to run if the oven is hot. (Figure 26)

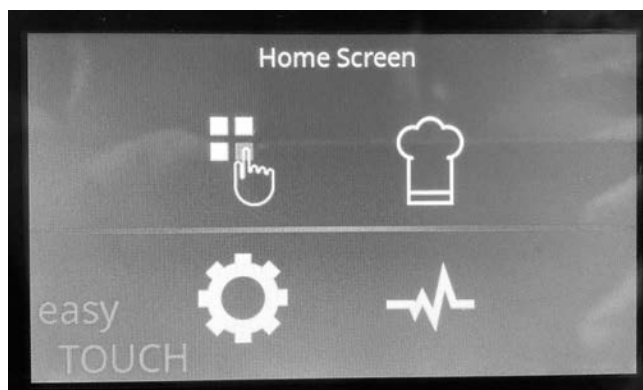


Figure 26

2. Turn OFF the On/Off switch. (Figure 27)
  - A. Your oven is now turned off. Please keep the oven connected to an electrical source to enable the cooling fans to continue to operate to cool down the oven. The fans could run for up to an hour after turning off the oven to cool the oven and protect critical components.



Figure 27

## Section 4 Maintenance

### Operator Maintenance

#### **DANGER**

Disconnect power supply before servicing or cleaning this oven. Safeguard power so it cannot be accidentally restored. Failure to do so could result in dismemberment, electrocution, or fatal injury.

This Lincoln oven was designed and engineered for maximum durability and performance with minimum maintenance. There is no lubrication required.

However, to achieve the maximum efficiency of the oven, it is necessary to keep it clean. For cleaning instructions, see below. The frequency listed is only the factory's minimum recommendations. Your use and type of products should be used to guide the frequency of cleaning.

If the oven fails to operate, check the circuit breaker and gas valve (for Natural Gas and LP Gas models) to be sure they are turned on. Also, check the On/Off switch and fuses in the control box prior to calling the Factory Authorized Servicer. The name and phone number of the Factory Authorized Servicer should be on the oven or contact Lincoln Technical Support at 1-844-724-2273 for the name of the nearest Factory Authorized Service provider.

### CLEANING INSTRUCTIONS

The Lincoln Aperion Impinger® oven contains electrical components. Before cleaning the oven, switch off and disconnect the oven from the electrical supply.

NOTE: Ensure that the oven is cool before disconnecting power supply for cleaning. Pre-opening is an ideal time to inspect and clean your oven.

No electrical components should be subjected to moisture. It is, therefore, important that the oven is wiped down carefully. NEVER throw buckets of water over or into the oven cavity or subject it to pressure washing from a hose or pressure spray. If water or other liquid is spilled in the oven, make sure that none has entered the plenum or control box area before turning the oven on. If in doubt, call your service provider.

#### **Caution**

Oven must be cool. Do not use power cleaning equipment, steel wool, or wire brushes on stainless steel surfaces.

#### **Notice**

Do not use caustic or alkaline cleaners on interior of units or on catalyst(s) of ventless ovens. These cleaners can damage the finished surfaces of the unit interior and exterior. Lincoln Oven Cleaner and Protector has been developed specifically for use on this oven and is recommended for daily and weekly cleaning.

### Daily Cleaning

1. Clean exterior surfaces of the oven by wiping down with Lincoln Oven Cleaner or a mild detergent and clean water, or a commercial stainless cleaner.
2. Remove and clean crumb pans from below conveyor assembly and conveyor end stops or optional entry/exit shelves with Lincoln oven cleaner and rinse with clean water.
3. Clean the interior by sweeping up loose particles, then wipe with Lincoln oven cleaner and rinse with clean water.
4. Clean the conveyor belt by wiping with a clean cloth or nylon bristle brush (ensure oven belt is cool to touch if using a brush to avoid melting bristles).

#### **Caution**

Do not spray chemicals or cleaning liquids directly on catalyst(s) in ventless ovens. Clean catalyst(s) with a water-dampened clean cloth only. The catalyst(s) must be kept clean and unobstructed to be effective.

#### **Warning**

When using cleaning solutions, be sure they meet local and national health standards.

## Weekly Cleaning

1. Remove oven door by unfastening the latching mechanism on the right side of door (facing oven). Hold door from bottom and right side and lift carefully to disengage the hinges. Clean all exterior surfaces of door and pass through window (available option on future models) with Lincoln Oven Cleaner and rinse with clean water.
2. Remove conveyor, disassemble and clean with Lincoln Oven Cleaner. Rinse with clean water and allow to dry before reinstalling.
3. Remove fingers, disassemble and clean with Lincoln Oven Cleaner. Rinse with clean water and allow to dry. Do not allow housings to soak in water for a prolonged time.
4. Clean fan air intakes at rear of oven and in control box with damp cloth to remove dust and any grease build-up.

NOTE: Be sure to clean and inspect your kitchen ventilation hood (if equipped), in accordance with the ventilation hood manufacturer's specifications.

## Conveyor Removal

1. Remove oven door by unfastening the latching mechanism on the right side of door (facing oven). Hold door from bottom and right side and lift carefully to disengage the hinges. Set aside for cleaning.
2. Pull conveyor out from baking chamber by lifting upward and then forward.
3. Set on table or 3 compartment sink for cleaning.
4. Re-install in reverse order.

## Finger Removal

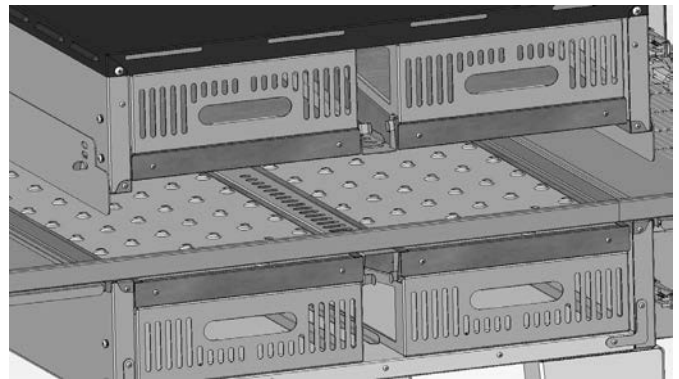
### ⚠ Caution

Oven must be cool to prevent burns. Use protective gloves to avoid cuts from edges.

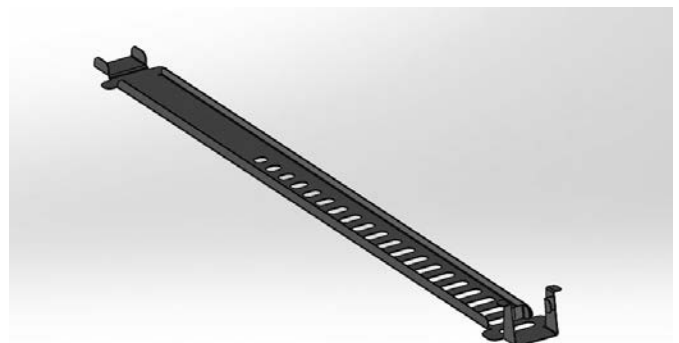
The Lincoln Aperion Impinger® oven comes with 4 identical finger assemblies comprising a housing and cover and 2 identical baffles that are located between the top and bottom housings. Housings, covers and baffles are interchangeable. There are 2 top and 2 bottom housings – see diagrams below.

1. Open Door.

NOTE: Door may be removed by lifting from hinges – see instructions under weekly cleaning.

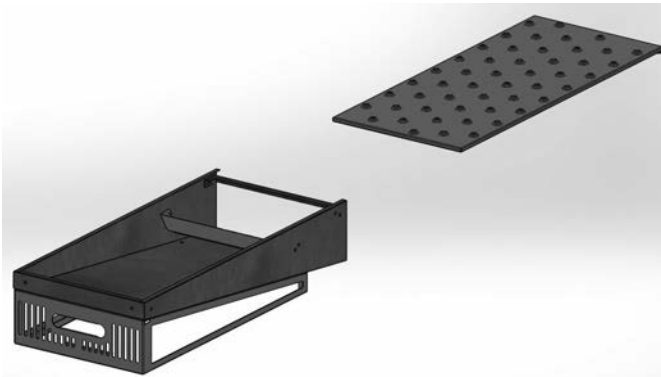


2. Remove top and bottom air return baffles by pinching the retaining arms slightly together and pulling down (top baffle) or up (bottom baffle).



Air Return Baffle x 2

3. Remove top 2 housings first, then bottom 2 housings.



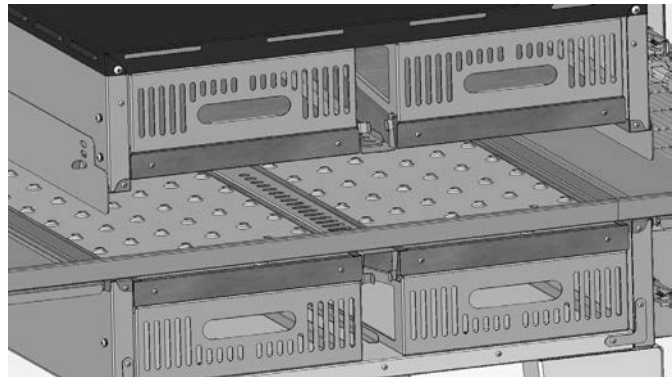
**Bottom Finger Assembly**

4. Disassemble fingers by sliding cover off the housing.  
NOTE: Components are tight fitting. Use gloves to protect your hands when disassembling fingers.



**Finger Housing x 4**

5. Re-assemble and re-install in reverse order. Ensure return air baffles are installed between top and bottom finger assemblies.



### Preventive Maintenance

Although this oven has been designed to be as trouble-free as possible, periodic preventive maintenance is essential to maintain peak performance. It is necessary to keep the motors, fans, and electronic controls free of dirt, dust and grease build-up to ensure proper cooling. Overheating is detrimental to the life of all components mentioned. The periodic intervals for preventive cleaning may vary greatly depending on the environment in which the oven is operating. You must discuss the need for preventive maintenance with your Factory Authorized Servicer to establish a proper program. If there are any questions that the service agency cannot answer, please contact the KitchenCare Technical Service Department at 1-844-724-2273.

## Section 5 Troubleshooting

### General Issues

Problem	Cause	Correction
UI blank	Oven not plugged in, panel breaker tripped	Check panel breaker and plug
	Fuses failed	Replace fuses on back panel
	Component failure	Call for service
UI screen locked up, frozen, nonresponsive to touch	Software issue	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
	Damaged or cracked touchscreen	Call for service
Conveyor does not move	Temperature set point has not been reached	If using the Press & Go menu recipes, wait until UI displays the "Ready" status message
	Coupling loose or disconnected	Tighten set screw on coupling. If the condition persists call for service.
	Belt link loose or disconnected	Call for service
	Conveyor has stretched from use	Use thumb screws to tighten belt. If the condition persists call for service.
	Incorrectly installed	Verify conveyor belt orientation. Shaft should be inserted into motor coupling
	Software issue	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
Unable to reach or maintain temperature	Circuit breaker at the back of the oven tripped Contactor disengaged	Reset circuit breaker at the back of the oven. If the condition persists call for service.
	Component high limit thermostat tripped (in left tower or right tower) Contactor disengaged	Turn the power switch OFF and wait for the machine to cooldown (this may take upwards of one hour). Turn the power switch ON and select a recipe. If condition persists call for service.
	Oven high limit capillary thermostat tripped (heating element area) Contactor disengaged	Turn the power switch OFF and wait for the machine to cooldown (this may take upwards of one hour). Reset the high limit capillary thermostat located on the machine rear panel. Turn the power switch ON. If the condition persists call for service.
	Blower motors not running (no air noise)	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
	Incorrect model selected in UI	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. The model displayed in the UI initialization screen should be 2424. If it isn't call for service.
	Defective thermocouple/ thermocouple wiring	Call for service
	Kitchen ventilation affecting temperatures	Check make up air from ventilation hood or air conditioning vents are directed away from the oven
	Possible incorrect temperature calibration	Call for service
Uneven heating	Fingers incorrectly installed	Make sure fingers are installed correctly
	Door not closed or does not seal properly	Verify door is closed correctly. Check latches and hinges. Check if there is excessive gap between door and cavity
	Air return bracket missing or unseated	Verify if air return bracket is present and installed correctly
Overcooked or undercooked product	Incorrect temperature setting	Make sure correct recipe is selected
	Incorrect upper and/or lower fan speed	Make sure correct recipe is selected
	Incorrect conveyor speed	Make sure correct recipe is selected
	Defective thermocouple/ thermocouple wiring	Call for service

**UI Alarm Messages**

UI Alarm Message	Cause	Correction
“TC#1 and TC#2 Error” --OR-- “TC#1 Error” --OR-- “TC#2 Error” -- OR -- “Err” in the set point temperature field (manual or recipe mode)	One or two thermocouples disconnected	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
“Upper Blower SC: 0x01” --OR-- “Lower Blower SC: 0x01”	Upper or lower motor phase to phase short circuit	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
“Upper Blower OC: 0x02 (Warning)” --OR-- “Lower Blower OC: 0x02 (Warning)”	Upper or lower motor current overload	Check door is closed correctly. Check latches and hinges
		Make sure fingers are installed correctly Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
“Upper Blower OC: 0x03” --OR-- “Lower Blower OC: 0x03”	Upper or lower motor current overload	Check door is closed correctly. Check latches and hinges
		Make sure fingers are installed correctly Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
“Upper Blower UV: 0x04” --OR-- “Lower Blower UV: 0x04”	Upper or lower drive undervoltage (line voltage less than 151VAC)	Facility may be experiencing brownout, wait for it to pass.
		Contact electrician if the condition persists
“Upper Blower OV: 0x06” --OR-- “Lower Blower OV: 0x06”	Upper or lower drive overvoltage (line voltage greater than 283VAC)	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
“Upper Blower Communication Error” --OR-- “Lower Blower Communication Error”	Modbus communication error	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
“Upper Blower Motor Phase loss (0 RPM)” --OR-- “Lower Blower Motor Phase loss (0 RPM)”	Upper or lower motor phase disconnected	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.
“Upper Blower Motor Failure (Low RPM)” --OR-- “Lower Blower Motor Failure (Low RPM)”	Upper or lower motor not moving	Turn OFF the unit using the power switch, turn the unit back ON after 20 seconds. If the condition persists call for service.

**Thermal Cut-Out Switch for Control Box Components**

The Lincoln Aperia Impinger® oven includes 3 safety thermal cut-out switches for your protection. The oven High Limit capillary thermostat is located in the heating chamber and is manually resettable from the oven rear panel. The Component High Limit thermostats (2) are located in the control towers on each side of the oven cavity. They are automatic reset switches that will trip if temperatures in the component areas are too high. In the unlikely event that the oven would exceed the specified operating temperature range, the safety thermal cut-out switches will block power to the heating elements. The UI and oven will continue to be ON, but the heat to the oven will be disabled.

**How to Obtain Service**

The name and phone number of the Factory Authorized Servicer should be located on the oven or contact KitchenCare Technical Service Department at (844) 724-2273 for the name of the nearest agency.

## LIMITED WARRANTY, TERMS AND CONDITIONS

### LINCOLN EQUIPMENT LIMITED WARRANTY

Lincoln Foodservice ("Lincoln") warrants this product to be free from defects in material and workmanship as follows:

- 2424 Electric, Electric Ventless and Gas ovens for a period of two (2) years from date of purchase
- Equipment must be installed within 12 months from date of manufacture.

**Note:** Warranty terms may vary based on agreement at time of purchase.

During the warranty period, Lincoln shall repair or, at Lincoln's option, replace parts determined by Lincoln to be defective in material or workmanship, and with respect to services, shall re-perform any defective portion of said services. The foregoing shall be the sole obligation of Lincoln under this Limited Warranty with respect to the equipment, products and services. With respect to equipment, materials, parts and accessories manufactured by others, Lincoln's sole obligation shall be to use reasonable efforts to obtain the full benefit of the manufacturers' warranties. Lincoln shall have no liability, whether in contract, tort, negligence, or otherwise, with respect to non-Lincoln manufactured products.

### WHO IS COVERED

This Limited Warranty is available only to the original purchaser of the product and is not transferable.

### EXCLUSIONS FROM COVERAGE

- Repair or replacement of parts required because of misuse, improper care or storage, negligence, alteration, accident, use of incompatible supplies or lack of specified maintenance shall be excluded.
- Normal maintenance items, including but not limited to, fuses, conveyor belt, conveyor bearings, interior and exterior finishes, lubrication, oven pass-through glass door, door hinges, etc.
- Adjustments and calibration of temperatures, speed and air flows.
- Failures caused by erratic voltages or gas supplies.
- Any travel costs beyond 100 miles roundtrip or 2 hours travel other than overland, overtime, holiday charge, and any special arrangement.
- Any travel costs above actual time (One-way travel ONLY paid).
- Any charges additional to the SRT (Standard Repair Times) will be authorized and paid at the discretion of Lincoln.
- Improper or unauthorized repair.
- This Limited Warranty will not apply to any parts subject to damage beyond the control of Lincoln, or to equipment which has been subject to alteration, misuse or improper installation, accidents, damage in shipment, fire, floods, power changes, other hazards or acts of God that are beyond the control of Lincoln.
- This Limited Warranty does not apply and shall not cover any products or equipment manufactured or sold by Lincoln when such products or commercial equipment is installed or used in a residential or non-commercial application. Installations not within the applicable building or fire codes render this Limited Warranty and any responsibility or obligations associated therein null and void. This includes any damage, costs or legal actions resulting from the installation of any Lincoln manufactured commercial cooking or warming equipment in a non-commercial application or installation, where the equipment is being used for applications other than those approved for by Lincoln.
- With respect to equipment, materials, parts and accessories manufactured by others, Lincoln's sole obligation shall be to use reasonable efforts to obtain the full benefit of the manufacturers' warranties. Lincoln shall have no liability, whether in contract, tort, negligence, or otherwise, with respect to non-Lincoln manufactured products.

### LIMITATIONS OF LIABILITY

The preceding paragraphs set forth the exclusive remedy for all claims based on failure of, or defect in, products or services sold hereunder, whether the failure or defect arises before or during the warranty period, and whether a claim, however instituted, is based on contract, indemnity, warranty, tort (including negligence), strict liability, implied by statute, common-law or otherwise. Lincoln, its servants and agents shall not be liable for any claims for personal injuries or consequential damages or loss, howsoever caused. Upon the expiration of the warranty period, all such liability shall terminate. THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, IMPLIED OR STATUTORY. NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE SHALL APPLY. LINCOLN DOES NOT WARRANT ANY PRODUCTS OR SERVICES OF OTHERS.

### REMEDIES

- The liability of Lincoln for breach of any warranty obligation hereunder is limited to: (i) the repair or replacement of the equipment on which the liability is based, or with respect to services, re-performance of the services; or (ii) at Lincoln's option, the refund of the amount paid for said equipment or services.
- Any breach by Lincoln with respect to any item or unit of equipment or services shall be deemed a breach with respect to that item or unit or service only.

### WARRANTY CLAIM PROCEDURE

- Immediately advise the Dealer or Lincoln's Factory Authorized Servicer of the equipment serial number and the nature of the problem.
- Verify the problem is a factory responsibility. Improper installation or misuse of equipment are not covered under this Limited Warranty.
- Cooperate with the Service Agency so that warranty service may be completed during normal working hours.

### GOVERNING LAW

Limited Warranty shall be governed by the laws of the state of Delaware, USA, excluding their conflicts of law principles. The United Nations Convention on Contracts for the International Sale of Goods is hereby excluded in its entirety from application to this Limited Warranty.



LINCOLN  
11200 AIRPORT NORTH OFFICE PARK STE. A&B, FORT WAYNE, IN 46825

844-724-2273  
WWW.LINCOLNFP.COM



Welbilt offers fully-integrated kitchen systems and our products are backed by KitchenCare® aftermarket parts and service. Welbilt's portfolio of award-winning brands includes Cleveland™, Convotherm®, Crem®, Delfield®, fitkitchen®, Frymaster®, Garland®, Kolpak®, Lincoln®, Manitowoc®, Merco®, Merrychef® and Multiplex®.

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