

# Service Manual Built-in Wall Oven





# **Electrolux**

318 202 117 (0711)

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To avoid personal injury and/or property damage, it is important that **Safe Servicing Practices** be observed. The following are some limited examples of safe practices:

- 1. **DO NOT** attempt a product repair if you doubt your ability to complete it in a safe and satisfactory manner.
- 2. Before servicing or moving an appliance:
  - Remove power cord from electrical outlet, trip circuit breaker to the OFF position, or remove fuse.
  - Turn off gas supply
  - Turn off water supply
- 3. Never interfere with the proper operation of any safety device.
- 4. Use The Correct Replacement Parts Cataloged For This Appliance. Substitutions May Defeat Compliance With Safety Standards Set For Home Appliances.
- GROUNDING: The standard color code for safety ground wires is GREEN, or GREEN with YELLOW STRIPES. DO NOT use ground leads as current carrying conductors. It is EXTREMELY important that the service technician reestablish all safety grounds prior to completion of service. Failure to do so will create a hazard.
- 6. Prior to returning the product to service, ensure that:
  - All electrical connections are correct and secure.
  - All electrical leads are properly dressed and secured away from sharp edges, high-temperature components, and moving parts
  - All non-insulated electrical terminals, connectors, heaters, etc. are adequately spaced away from all metal parts and panels
  - All safety grounds (both internal and external) are correctly and securely connected
  - All panels are properly and securely reassembled

## **▲ WARNING**

This service manual is intented for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. Electrolux Home Products cannot be responsible, nor assume any liability, for injury or damage of any kind arising from the use of this manual.

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Product Features



# Product Features 3



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# Wiring Diagram for Single Wall Oven



# Wiring Diagram for Double Wall Oven



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#### INSTALLATION AND SERVICE MUST BE PERFORMED BY A QUALIFIED INSTALLER. IMPORTANT: SAVE FOR LOCAL ELECTRICAL INSPECTOR'S USE. READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE.

**WARNING** FOR YOUR SAFETY: Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

Your new wall oven has been designed to fit a limited variety of cutout sizes to make the job of installing easier. The first step of your installation should be to measure your current cutout dimensions and compare them to the cutout dimensions chart below for your model. You may find little or no cabinet work being necessary.

**WARNING** Do not remove spacers (if equipped) on the side walls and/or on the back of the built-in oven. These spacers center the oven in the space provided. The oven must be centered to prevent excess heat buildup that may result in heat damage or fire.

#### NOTES:



\* Suggested distance from floor is 31" (78.7 cm). Minimum required distance is 4 ½" (11.4 cm).



PRODUCT DIMENSIONS							
MODEL		4	В	C	2	D	
27" (68.6 cm) Wall Oven	27 (6	58.6)	29 (73.7)	24 <sup>5</sup> / <sub>8</sub> (	(62.5)	241⁄2 (62.2)	
30" (76.2 cm) Wall Oven	30 (76.2)		29 (73.7)	28¼ (71.8)		241⁄2 (62.2)	
	CUTOUT DIMENSIONS AND CABINET WIDTH						
MODEL	MODEL Min. F Max. G (Min.) Min. H Max. I						
27" (68.6 cm) Wall Oven	247/8 (63.2)	25¼ (64.1)	23½ (59.7)	27¼ (69.2)	28 <sup>5</sup> / <sub>8</sub> (72.7)	27 <sup>1</sup> / <sub>8</sub> (68.9) Min	
30" (76.2 cm) Wall Oven	281⁄2 (72.4)	29 (73.7)	23½ (59.7)	27¼ (69.2)	285/8 (72.7)	30 <sup>1</sup> / <sub>8</sub> (76.5) Min	

**WARNING** Do not remove spacers (if equipped) on the side walls and/or on the back of the built-in oven. These spacers center the oven in the space provided. The oven must be centered to prevent excess heat buildup that may result in heat damage or fire.



#### NOTES:

- 1. Base must be capable of supporting 300 pounds (136 kg) for 27 " models and 375 pounds (170 kg) for 30 " models.
- **2.** Allow at least 21" (53.3 cm) clearance in front of oven for door depth when it is open.
- Dimension G (cutout depth) is critical to the proper installation of the built-in oven. If the oven decorative trim does not butt against the cabinet, or if noise is heard on convection models, verify dimension G to assure it is according to the required dimension.
- **4.** For a cutout height greater than **49**<sup>3</sup>/**s**" **(125.4 cm)** add a 2" (5 cm) wide wood shim of appropriate height to each side of the opening under the appliance side rails.
- 5. For a cutout height (H) greater than 49<sup>7</sup>/<sub>8</sub>" (126.7 cm) you can order a larger inferior trim through your Service Center.

Figure 2					
27" AND 30"	DOUBLE OVENS (Single Ovens see Figure 1)				

PRODUCT DIMENSIONS							
MODEL A		ВС		D			
27" (68.6 cm) Wall Oven	27 (6	58.6)	50 <sup>7</sup> / <sub>16</sub> (128.1)	24 <sup>5</sup> /8	(62.5)	24½ (62.2)	
30" (76.2 cm) Wall Oven	30 (76.2)		50 <sup>7</sup> / <sub>16</sub> (128.1)	28¼ (71.8)		241⁄2 (62.2)	
CUTOUT DIMENSIONS AND CABINET WIDTH							
MODEL	MODEL Min. F Max. G (Min.) Min. H Max. I						
27" (68.6 cm) Wall Oven	24 <sup>7</sup> / <sub>8</sub> (63.2)	25¼ (64.1)	231⁄2 (59.7)	48 <sup>7</sup> / <sub>8</sub> (124.1)	49 <sup>7</sup> / <sub>8</sub> (126.7)	271/8 (68.9) Min	
30" (76.2 cm) Wall Oven	28½ (72.4)	29 (73.7)	23½ (59.7)	48 <sup>7</sup> / <sub>8</sub> (124.1)	49 <sup>7</sup> / <sub>8</sub> (126.7)	30 <sup>1</sup> / <sub>8</sub> (76.5) Min	
All dimensions are in inches (cm)							

#### Important Notes to the Installer

- 1. Read all instructions contained in these installation instructions before installing the wall oven.
- 2. Remove all packing material from the oven compartments before connecting the electrical supply to the wall oven.
- 3. Observe all governing codes and ordinances.
- 4. Be sure to leave these instructions with the consumer.
- 5. Oven door may be removed to facilitate installation.
- 6. THESE OVENS ARE NOT APPROVED FOR STACKABLE OR SIDE-BY-SIDE INSTALLATION.

#### Important Note to the Consumer

Keep these instructions with your Owner's Guide for future reference.

# IMPORTANT SAFETY INSTRUCTIONS

- Be sure your wall oven is installed and grounded properly by a qualified installer or service technician.
- This wall oven must be electrically grounded in accordance with local codes or, in their absence, with the National Electrical Code ANSI/NFPA No.70- latest edition in United Sates, or with CSA Standard C22.1, Canadian Electrical Code, Part 1, in Canada.

**WARNING** Stepping, leaning or sitting on the door of this wall oven can result in serious injuries and can also cause damage to the wall oven.

• Never use your wall oven for warming or heating the room. Prolonged use of the wall oven without adequate ventilation can be dangerous.

**WARNING** The electrical power to the oven must be shut off while line connections are being made. Failure to do so could result in serious injury or death.

### 1. Carpentry

Refer to figure 1 or 2 for the dimensions applicable to your appliance, and the space necessary to receive the oven. The oven support surface may be solid plywood or similar material, however the surface must be level from side to side and from front to rear.

### 2. Electrical Requirements

This appliance must be supplied with the proper voltage and frequency, and connected to an individual, properly grounded branch circuit, protected by a circuit breaker or fuse. To know the circuit breaker or fuse required by your model, see the serial plate to find the wattage consumption and refer to table A to get the circuit breaker or fuse amperage.

Appliance	Protection	Appliance	Protection
Rating Watts	Circuit	Rating Watts	Circuit
240V	recommended	208V	recommended
less than 4800W	20A	Less than 4100W	20A
4800W - 7200W	30A	4100W - 6200W	30A
7200W - 9600W	40A	6200W - 8300W	40A
9600W and +	50A	8300W and +	50A

#### Table A

#### Observe all governing codes and local ordinances

1.A 3-wire or 4-wire single phase 120/240 or 120/208 Volt, 60 Hz AC only electrical supply is required on a separate circuit fused on both sides of the line (red and black wires). A time-delay fuse or circuit breaker is recommended. DO NOT fuse neutral (white wire). Only certain cooktop models may be installed over certain built-in electric oven models. Approved cooktops and built-in ovens are listed by the MFG ID number (see the insert sheet included in the literature package).

**NOTE:** Wire sizes and connections must conform with the fuse size and rating of the appliance in accordance with the American National Electrical Code ANSI/NFPA No. 70-latest edition, or with Canadian CSA Standard C22.1, Canadian Electrical Code, Part 1, and local codes and ordinances.

WARNING An extension cord should not be used with this appliance. Such use may result in a fire, electrical shock, or other personal injury. If you need a longer power cord you can purchase a 10' (3 m) power cord kit #903056-9010 by calling the Service Center.

- 2. These appliances should be connected to the fused disconnect (or circuit breaker) box through flexible armored or nonmetallic sheathed cable. The flexible armored cable extending from the appliance should be connected directly to the junction box. The junction box should be located as shown in Figure 1 or Figure 2 and with as much slack as possible remaining in the cable between the box and the appliance, so it can be moved if servicing is ever necessary.
- 3. A suitable strain relief must be provided to attach the flexible armored cable to the junction box.

# 

**Electrical Shock Hazard** 

- Electrical ground is required on this appliance.
- Do not connect to the electrical supply until appliance is permanently grounded.
- Disconnect power to the junction box before making the electrical connection.
- This appliance must be connected to a grounded, metallic, permanent wiring system, or a grounding connector should be connected to the grounding terminal or wire lead on the appliance.
- Do not use a gas supply line for grounding the appliance.

Failure to do any of the above could result in a fire, personal injury or electrical shock.

**CAUTION** In cold weather shipping and storage conditions, make sure that oven is in final location at least three (3) hours before switching on power. Switching on power while oven is still cold may damage the oven controls.

### 3. Adjusting Oven Height

Oven height can be adjusted with 2" (5 cm) wide wood shims when needed to fit into an existing cabinet cutout opening, when cutout height exceeds **28<sup>1</sup>/<sub>8</sub>" (71.4 cm)** for the single wall oven or **49½" (125.7 cm)** for the double wall oven (see Figure 1 or 2). Place shims of appropriate height beneath the oven side rails.

### 4. Electrical connection

It is the responsibility and obligation of the consumer to contact a qualified installer to assure that the electrical installation is adequate and is in conformance with the National Electrical Code ANSI/NFPA No. 70-latest edition, or with CSA Standard C22.1, Canadian Electrical Code, Part 1, and local codes and ordinances.

#### Electrical ground is required on this appliance.

These appliances are equipped with a copper conductor flexible cable. If connection is made to aluminum house wiring, use only special connectors which are approved for joining copper and aluminum wires in accordance with National Electrical Code and local codes and ordinances.

These appliances are manufactured with a white neutral power supply wire and a frame connected green or bare copper grounding wire.

#### Where local codes permit connecting the appliancegrounding conductor to the neutral (white) wire (US Only) (see figure 3):

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- 1. Disconnect the power supply.
- 2. In the circuit breaker, fuse box or junction box: connect appliance and power supply cable wires as shown in Figure 3.



**WARNING** Improper connection of aluminum house wiring to copper leads can result in a short circuit or fire. Use only connectors designed for joining copper to aluminum, and follow the manufacturer's recommended procedure closely.

**WARNING** You may not ground the oven through the neutral (white) wire if oven is used in a new branch circuit installation (1996 NEC), mobile home, recreational vehicle, or where local codes do not permit grounding through the neutral (white) wire. When grounding through the neutral (white) wire is prohibited, you must use a 4-wire power supply cable. See Figure 4. Failure to heed this warning may result in electrocution or other serious personal injury.

#### If oven is used in a new branch circuit installation (1996 NEC), mobile home, recreational vehicle, or where local codes DO NOT permit grounding through the neutral (white) wire (see figure 4):

- 1. Disconnect the power supply.
- 2. Separate the green (or bare copper) and white appliance cable wires.
- 3. In the circuit breaker, fuse box or junction box: connect appliance and power supply cable wires as shown in Figure 4.



DO NOT ground to a gas supply pipe. DO NOT connect to electrical power supply until appliance is permanently grounded. Connect the ground wire before turning on the power (Figure 4).

# **CAUTION** If connecting to a 4-wire electrical system (mobile homes), the appliance frame MUST NOT be connected to the neutral wire of the 4-wire electrical system.

**NOTE TO ELECTRICIAN:** The armored cable leads supplied with the appliance are UL-recognized for connection to larger gauge household wiring. The insulation of the leads is rated at temperatures much higher than temperature rating of household wiring. The current carrying capacity of the conductor is governed by the temperature rating of the insulation around the wire, rather than the wire gauge alone.

### WARNING

#### Heavy Weight Hazard

- Use 2 or more people to move and install wall oven.
- Failure to follow this instruction can result in injury or damage to the unit.

#### Model and Serial Number Location

The serial plate is located along the interior side trim of the oven and visible when the door is opened.

When ordering parts for or making inquires about your oven, always be sure to include the model and serial numbers and a lot number or letter from the serial plate on your oven.



Single Wall Oven Serial Plate Location



Double Wall Oven Serial Plate Location

### 5. Cabinet Installation

#### IMPORTANT Do not lift the oven by the door handle.

- 1. Unpack the wall oven. Remove the bottom trim taped on the oven side panel.
- 2. Find the 2 anti-tip mounting screws included in the literature package.
- 3. Insert the oven into the cabinet opening. Slide oven inward leaving 1½" (3.8 cm) clearance between the oven and front of cabinet (see Figure 5).
- 4. Pull the armored cable through the hole for it in the cabinet and toward the junction box while moving the appliance inward.
- 5. Push the oven in and against the cabinet.



#### 6. Install the Anti-tip Mounting Screws

**WARNING** The wall oven can tip when the door is open. The anti-tip mounting screws supplied with the wall oven must be installed to prevent tipping of the wall oven and injury to persons.

- A. The mounting holes in the side trims may be used as a template to locate the appliance mounting screw holes (see figure 6).
- B. Use the two screws supplied to fix the appliance to the cabinet.



#### 7.Install the Bottom Trim

Place the top of the bottom trim over the side trim tabs on each side of the oven below the oven door and fix it using the 2 screws supplied in the mounting holes located on each side trim below the oven frame (see Figure 7).



For typical under counter installation of an electric built-in oven see Figure below.



#### Figure 8- TYPICAL UNDER COUNTER INSTALLATION OF A SINGLE ELECTRIC BUILT-IN OVEN WITH AN ELECTRIC COOKTOP MOUNTED ABOVE



### 6. Leveling the Wall Oven

- 1. Install an oven rack in the center of the upper oven (see Figure 10).
- 2. Place a level on the rack. Take 2 readings with the level placed diagonally in one direction and then the other. Use wood shims under the wall oven to level if necessary.
- 3. Repeat in the lower oven if you have a double cavity wall oven. If the level indicates that the rack is not level, use wood shims to reach a compromise 2. Turn on the power to the oven (Refer to your Use & for both ovens.



Figure 10

#### **IMPORTANT NOTE**

A cooling fan inside the upper rear part above the oven (some models) provides cooling of the oven electrical and electronic components. If the oven has been operating at high temperatures, the fan will continue to run after the oven is turned off.

### 7. Checking Operation

Your model is equipped with an **Electronic Oven Control**. Each of the functions has been factory checked before shipping. However, it is suggested that you verify the operation of the electronic oven controls once more. Refer to the Use and Care Guide or the Timer Guide for operation.

- 1. Remove all items from the inside of the oven.
- Care Guide.)
- 3. Verify the operation of the electronic oven controls: **Bake**– Verify that this function makes the oven hot. 20 seconds after turning oven on, open the door and you should feel heat coming from the oven.

**Broil**– When the oven is set to BROIL, the upper element in the oven should become red.

**Convection (some models)**–When the oven is set for a convection baking or roasting, both elements cycle on and off alternately and the convection fan will run. The convection fan will stop running when the oven door is opened.

#### Before You Call for Service

Read the "Before You Call for Service Checklist" and the "Operating Instructions" in your **Use and Care Guide**. It may save you time and expense. The list includes common occurrences that are not the result of defective workmanship or materials in this appliance.

Refer to your Use and Care Guide for service phone numbers.

### **CONTROL PAD FUNCTIONS**



- 1 Light Pad- Used to turn the oven light on and off.
- 2 Bake Pad- Used to enter the normal baking mode temperature.
- **3** Broil Pad- Used to select the variable broil mode.
- 4 Convection Bake Pad- Used to select the convection baking mode.
- **5 Convection Roast Pad** Used to select the convection roasting mode.
- 6 Convection Broil Pad- Used to select the convection broil mode.
- 7 Control Lock Pad- Used to disable all oven function.
- 8 Perfect Turkey Pad- Used to select the perfect turkey cooking mode.
- 9 Defrost Pad- Used to select the defrost mode.
- 10 Dehydrate Pad- Used to select the dehydrate mode.
- **11** Bread Proof Pad- Used to select the bread proof mode.
- **12** My Favorite 1 Pad- Used to save or recall the favorite 1 cooking mode.
- **13** Multi Stage Pad- Used to enter up to three subsequent modes.
- **14 Cook Options Pad** Used to light up the cooking options pads.
- **15** Cook Time Pad- Used to set a cooking duration time.
- **16** End Time Pad- Used to select the time at which the cooking will end.
- **17 Probe Pad-** Used to activate the meat probe mode.

## CONTROL PAD FUNCTIONS (CONTINUED)



0

hi

lo

CANCEL

START

**18 Keep Warm Pad-** Used to select the keep warm mode.

user

pref

- **19** Slow Cook Pad- Used to select the slow cook mode.
- 20 Clean Pad- Used to select the self-cleaning mode.

>> rapid

conv

preheat convert

- 21 My Favorite 2 Pad- Used to save or recall the favorite 2 cooking mode.
- 22 My Favorite 3 Pad- Used to save or recall the favorite 3 cooking mode.
- 23 Upper Oven Pad- Used to activate the upper oven for cooking operation.
- 24 Lite Pad- Used to start a 2 hours self-clean cycle.
- **25** Med Pad- Used to start a 3 hours self-clean cycle.
- 26 Heavy Pad- Used to start a 4 hours self-clean cycle.
- 27 Rapid Preheat Pad- Used to preheat the oven to the desired temperature.
- **28 Conv. Convert Pad** Used to convert a standard temperature to a convection temperature.
- **29** Lower Oven Pad- Used to activate the lower oven for cooking operation. \* This pad is only available on the double wall oven.
- **30** User Preference Pad- Used to bring the user preference menu in the display.
- **31 Timer Pad** Used to set or cancel the minute timer. The minute timer does not start or stop cooking.
- **32 Cancel Pad** Used to cancel any function previously entered except the time of day and minute timer. Push **Cancel pad** to stop cooking.
- 33 Start Pad- Used to start all oven functions.
- 34 0 Thru 9 Number Pads- Used to enter temperature and times.
- 35 Io Pad- Used to lower the temperature and times.
- **36** + hi Pad- Used to raise the temperature and times.
- **Timer Pad** Used to set or cancel the minute timer. The minute timer does not
- 37 start or stop cooking. \*This timer is only available on the double wall oven.

# **16** Section B - Electronic Controls

## SETTING CLOCK AT POWER UP

When the unit is first plugged in, or when the power supply to the range has been interrupted, the timer in the display will flash with **"12:00"**. The clock cannot be set when the oven is on. If an invalid time of day is entered, the control will triple beep to prompt you to re-enter a valid time of day.

#### To set the clock (example for 1:30):

- 1. Press 130 pads to set the time of day to 1:30. The pads  $_{hi}^{+}$  or  $_{lo}^{-}$  can also be pressed to raise or lower the actual time displayed.
- 2. Press **START** (1) to accept the changes or **CANCEL** (2) to start with a time of 12:00.

# CONTROL PANEL DISPLAY MODES

#### Sleep Mode:

Your control will remain in a sleep mode when not in use. Only the clock will display during this mode. You will need to wake the control to begin any function.



#### Wake Mode:

To wake the control, touch within the display panel. After 2 minutes without activity the control will beep and go back into sleep mode.

To start a cooking feature you must select either the upper oven or the lower oven. User preferences will be available during this mode as well as timers, oven light and the control lock.

# TEMPERATURE VISUAL DISPLAY

Your oven is equipped with a temperature visual display for each oven. When a cooking mode is set, the actual temperature will be shown in the display and will rise as the unit preheats. When the unit has reached its target temperature, a chime will sound to remind you to place the food in the oven. This feature will be active with some cooking modes; bake, convection bake, convection roast and perfect turkey. The cooking modes which does not feature the temperature visual display will be noted in their descriptions.

NOTE: The lowest temperature that can be displayed is 100°F.

# **OVEN LIGHT**

Your appliance includes "theater" style oven lighting feature that gradually lights both the upper and lower oven interiors to full brightness. Each oven is equipped with 2 halogen lights. The oven lights will turn on automatically when the oven door is opened. The oven light may be turned on when the door is closed by using the oven light pad located on the control panel. The oven light key will toggle the lights in both ovens at the same time.

### To toggle the Oven Lights ON and OFF:

1. Press OVEN LIGHT  $\Omega$ .

# **CONTROL LOCK**

The Control Lock feature automatically locks the oven door and the control panel. The Control Lock is only allowed when the oven is turned OFF (not active). The Control Lock feature will lock both oven at the same time. DOOR LOCK will flash in the display for 20 seconds or until the door has finished locking. Once the door has been locked, DOOR LOCK will remain static. Do not attempt to open to oven door while DOOR LOCK is flashing.

#### To toggle the Control Lock ON and OFF:

1. Keep **CONTROL LOCK** pressed for 3 seconds.

# SETTING THE KITCHEN TIMER

This unit is equipped with 2 Kitchen Timers which serves as extra timers in the kitchen that will beep when the set time has run out. It does not start or stop cooking. The Timer feature can be used during any of the other oven control functions and cooking modes.

#### To set the Timer (example for 5 minutes):

- 2. Press (5) pad to set the timer to 5 minutes. The pads  $_{hi}^+$  or  $_{lo}^-$  can also be pressed to raise or lower the actual time displayed.
- 3. Press again **TIMER** (1) to accept and start the countdown.
- 4. When the set time has run out, "**00:00**" will be displayed and the **TIMER** () pad will flash. The clock will sound a chime that will be repeated at regular intervals until the **TIMER** () pad is pressed.

#### To cancel the Timer before the set time has run out:

Press **TIMER** (.). The display will return to the time of day.

### BAKING



This mode is best used for your standard recipes. The hidden bake element is used to heat the air and maintain temperature. The temperature probe can be used in this cooking mode. The oven can be programmed to bake at any temperature from  $170^{\circ}$ F to  $550^{\circ}$ F with a default temperature of  $350^{\circ}$ F.

### **Baking Tips:**

- Always preheat your oven before using the bake mode.
- During preheat, the 3 elements and the convection fan are used in cycle to quickly heat the oven.
- Use only one rack and center the pans as much as possible.
- If using two racks, place the oven racks in positions 2 and 6.
- Allow 2" to 4" (5,1 to 10,2cm) around the utensil(s) for proper air circulation.
- Be sure the pans do not touch each other, the door, sides or back of the oven.



#### To set a Bake Temperature of 350°F:

- 1. Arrange interior oven racks.
- 2. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 3. Press BAKE
- 4. Press START (). The oven display shows PRE-HEATING.
- 5. Place food in the oven when the chime signals and temperature display shows that the oven has reached the set target temperature and the **PRE-HEATING** message disappear.
- 6. The Temperature Probe, Cook Time, Timer, End Time and Rapid Preheat features can be set to control your cooking time (read their sections for directions).
- 7. Remove food. Always use oven mitts when removing hot pans from the oven.
- 8. Press CANCEL 🗇 to stop or cancel the Bake feature at any time.

#### To change to a Bake Temperature of 425°F:

- 1. Select the active oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 2. Press the **HI**  $_{bi}^+$  or **LO**  $_{lo}^-$  pads to get to the desired temperature.
- 3. Press **START** ().

#### **Baking Problems**

Refer to the Baking Problems Table in the Solutions to Common Problems section of this manual.

# COOK TIME

Cook Time allows the oven to be set to cook for a set length of time and shut off automatically. The time remaining will always be shown in the timer section of the display. The oven will shut off and will beep when the countdown is finished. This feature can be used with Bake. Convection Bake, Convection Roast, Slow Cook, Keep Warm, Defrost, Bread Proof, Dehydrate and Perfect Turkey cooking modes. It can also be part of a Multi-Stage sequence.

To set a timed cooking (example is a 450°F Bake for 30 minutes):

- Select oven by pressing either UPPER OVEN UPPER or LOWER OVEN OVEN.
- 2. Press **BAKE** . The temperature numbers will blink in the display.
- 3. Enter temperature needed; (4)(5)(0).
- 4. Press COOK OPTIONS (V) to bring up the cook options items.
- 5. Press COOK TIME
- 6. Enter time needed; (3)(0).
- 7. Press **START** (). The oven will start heating. The cook time will start counting down for the set time.

8. Press **CANCEL** (1) to stop the audible alarm or to cancel the cook time at anytime.

# FND TIMF

End Time allows the oven to be set to shut off automatically at a set time of day. The oven control will calculate the remaining time by itself. The time remaining will always be shown in the timer section of the display. The oven will shut off and will beep when the countdown is finished. This feature can be used with Bake, Convection Bake, Convection Roast, Slow Cook, Keep Warm, Defrost, Dehydrate, Clean and Bread Proof cooking modes. This oven can be programmed with Cook Time and End Time to start and stop by itself at the right time.

To set a delayed timed cooking (example is a 450°F Bake for 30 minutes which will end at 6:00PM):

- 1. Select oven by pressing either UPPER OVEN OVEN or LOWER OVEN OVEN.
- Press **BAKE** . The temperature numbers will blink in the display. 2.
- 3. Enter temperature needed; (4)(5)(0).
- 4. Press COOK OPTIONS () to bring up the cook options items.
- 5. Press COOK TIME
- 6. Enter time needed; (3)(0).
- 7. Press END TIME
- 8. Enter time of day needed; (6)(0)(0).
- 9. Press **START** (). The time remaining will be shown in the display.
- 10. Press **CANCEL**  $\bigcirc$  to stop the audible alarm or to cancel the end time at anytime.

A CAUTION Use caution with the COOK TIME or END TIME features. Use the automatic timer when cooking cured or frozen meats and most fruits and vegetables. Foods that can easily spoil such as milk, eggs, fish, meat or poultry, should be chilled in the refrigerator first. Even when chilled, they should not stand in the oven for more than 1 hour before cooking begins, and should be removed promptly when cooking is completed. Eating spoiled food can result in sickness from food poisoning.





### **BROILING**



This mode is best for meats, fish and poultry up to 1" thick. Broiling is a method of cooking tender cuts of meat by direct heat under the broil element of the oven. The high heat cooks quickly and gives a rich, brown outer appearance. The temperature probe cannot be used with this mode. The oven can be programmed to broil at any temperature from 300°F to 550°F with a default temperature of 550°F.

#### **Broiling Tips:**

- For optimum browning, preheat the broil element for 2 minutes.
- Broil one side until the food is browned; turn and cook on the second side. Season and serve.
- Always pull the rack out to the "stop" position before turning or removing food.
- Always use the broiler pan and its grid when broiling. It allows the dripping grease to be kept away from the high heat of the broil element (see Figure 1).
- For best broiling results, broil with the oven door slightly open.
- DO NOT use the broil pan without the insert. DO NOT cover the broil pan insert with foil. The exposed grease could catch fire. DO NOT use the roasting rack when broiling.

#### To set a Broil Temperature of 550°F:

- 1. Arrange interior oven racks.
- 2. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 3. Press BROIL
- 4. Press START ().
- 5. Place food in the oven after 2 minutes.
- 6. Turn food when the top side is browned and cook on the second side.
- 7. Remove food. Always use oven mitts when removing hot pans from the oven.
- Press CANCEL to stop or cancel the Broil feature at any time.



#### **Broiling Times**

Electric Wall Oven Broiling Table Recommendations						
Food	Rack	Temp	Cook Ti	me		
Item	Position	Setting	1st side	2nd side	Doneness	
Steak 1" thick	7	550° F	6:00	4:00	Rare	
	7	550° F	7:00	5:00	Medium	
Pork Chops 3/4" thick	7	550° F	8:00	6:00	Well	
Chicken - Bone In	5	450° F	20:00	10:00	Well	
Chicken - Boneless	7	450° F	8:00	6:00	Well	
Fish	7	500° F	13:00	0:00	Well	
Shrimp	5	550° F	5:00	0:00	Well	
Hamburger 1" thick	7	550° F	9:00	7:00	Medium	
	5	550° F	10:00	8:00	Well	

**WARNING** Should an oven fire occur, close the oven door and turn off the oven. If the fire continues, throw baking soda on the fire or use a fire extinguisher. **DO NOT** put water or flour on the fire. Flour may be explosive and water can cause a grease fire to spread and cause personal injury.

## **CONVECTION BAKING**

This mode of cooking enables you to obtain the best culinary results when baking with multiple pans and racks. Multiple rack baking may slightly increase cook time for some foods but the overall result is time saved. Most foods cooked in a standard oven will cook faster and more evenly with Convection Bake. Convection baking uses the three elements and a fan to circulate the oven's heat evenly and continuously within the oven. The temperature probe can be used in this cooking mode. The oven can be programmed for Convection baking at any temperature between 170°F to 550°F with a default temperature of 350°F.



### **Convection Baking Tips:**

- Always preheat your oven before using the Convection Bake mode.
- If your recipe cooking temperature has already been converted for convection baking there is no need to reduce your oven temperature. If your recipe has not had the temperature converted for convection baking you can easily reduce using the Convection Convert feature. Please see Convection Convert section on next page for further instruction on temperature conversion.
- Use tested recipes with times adjusted for convection baking when using this mode. With single rack convection baking the some foods may have as much as a 25% reduction in cook time, check food at minimum time. Time reductions will vary depending on the amount and type of food to be cooked.
- When using Convection Bake with a single rack, place oven rack in position 3 or 4. If cooking on multiple racks, place the oven racks in positions 2 and 6 or 1, 4 and 7.
- Most bakeries (except cakes) should be baked on pans with no sides or very low sides to allow heated air to circulate around the food.
- Food baked on pans with a dark finish will cook faster.

### To set a Convection Bake Temperature of 350°F:

- 1. Arrange interior oven racks.
- 2. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 3. Press CONVECTION BAKE Y.
- 4. Press **START** (). The oven display shows **PRE-HEATING**.
- 5. Place food in the oven when the chime signals and temperature display shows that the oven has reached the set target temperature and the **PRE-HEATING** message disappear.
- 6. The Temperature Probe, Cook Time, Timer, End Time and Rapid Preheat features can be set to control your cooking time (read their sections for directions).
- 7. Remove food. Always use oven mitts when removing hot pans from the oven.
- 8. Press **CANCEL** (v) to stop or cancel the Convection Bake feature at any time.



# **22** Section B - Electronic Controls

# CONVECTION CONVER



The Convection Convert pad is used to automatically convert a standard baking recipe for convection baking. When set properly, this feature is designed to display the actual converted (reduced) temperature in the display. Convection Convert may ONLY be used with a Convection Bake cooking mode. It can be used with the features End Time and Cook Time (see their sections for directions). If convection conversion is used with the cook time and end time features, "**CF**" (check food) will be displayed when 75% of the bake time complete. At this time the oven control will sound 3 long beeps at regular intervals until baking had finished. When the bake time has completely finished the control will beep at regular interval until the **CANCEL** pad is pressed. **NOTE**: To use this feature with the **COOK TIME** option, the **COOK TIME** pad must be pressed before the **CONVECTION CONVERT** of pad.

#### Changing from a normal bake temperature to a convection bake temperature:

- 1. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 2. Press CONVECTION BAKE
- 3. Press COOK OPTIONS (V). The cook options items will light up.
- 4. Press **CONVECTION CONVERT** SY. The temperature displayed will be 25°F lower than what it used to be.
- 5. Press **START** (1) to begin the convection baking (see Convection Baking section for more informations).

# **RAPID PREHEAT**

The Preheat feature will bring the oven up to temperature faster than a regular preheat and then indicate when to place the food in the oven. Preheating is not necessary when roasting or cooking casseroles. The oven can be programmed to preheat at any temperature between 170°F to 550°F with some of the cooking modes; Bake, Convection Bake and Convection Roast.

**IMPORTANT:** The rapid preheat feature is for single rack ONLY. The heat distribution with multiple rack will be uneven.

**To set a rapid preheat** (example is for a 350°F Bake):

- 1. Select oven by pressing either **UPPER OVEN** OVEN OVEN OVEN OVEN.
- 2. Press BAKE
- 3. Press **COOK OPTIONS** (V). The cook options items will light up.
- 4. Press **RAPID PREHEAT** >> .
- 5. Press **START** () to begin the baking with the rapid preheat feature enabled.
- 6. Place food in the oven when the chime signals and PRE-HEATING message disappears indicating that the oven has reached the set target temperature.

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## **CONVECTION ROASTING**

This mode is best for cooking tender cuts of beef, lamb, park and poultry. Use this mode when cooking speed is desired. The Convection Roasting gently browns the exterior and seals in the juices. Convection roasting uses the hidden bake element, the hidden convection element, the broil element and a fan to circulate the oven's heat evenly and continuously within the oven. The temperature probe can be used in this cooking mode. The oven can be programmed for Convection Roasting at any temperature between 170°F to 550°F with a default temperature of 350°F.

### **Convection Roasting Tips:**

- Use the broiler pan and grid, and the roasting rack (Figure 1). The broiler pan will catch grease spills and the grid will help prevent spatters. The roasting rack will hold the meat.
- Place an oven rack on rack position 2 (next-bottom).
- Make sure the roasting rack is securely seated on the grid in the broiler pan. The roasting rack fits on the grid allowing the heated air to circulate under the food for even cooking and helps to increase browning on the underside.
- There is no need to reduce the convection temperature or to use the Convection Convert feature with this cooking mode.
- **DO NOT** use the broiler pan without the grid or cover the grid with aluminum foil.
- Always pull the rack out to the stop position before removing food.
- Position food (fat side up) on the roasting rack.

#### To set a Convection Roast Temperature of 350°F:

- 1. Arrange interior oven racks.
- 2. Select oven by pressing either **UPPER OVEN** OVEN or **LOWER OVEN** OVEN.
- 3. Press CONVECTION ROAST
- 4. Press **START** ().
- 5. The Temperature Probe, Cook Time, Timer, End Time and Rapid Preheat features can be set to control your cooking time (read their sections for directions).
- 6. Remove food. Always use oven mitts when removing hot pans from the oven.
- 7. Press **CANCEL** to stop or cancel the Convection Roast feature at any time.

Conve	ction Roasting Chart				
Meat		Weight	Oven Temp	Internal Temp	Min per lb.
Beef	Standing rib roast	4 to 6 lbs.	350° F	*	25-30
	Rib eye roast	4 to 6 lbs.	350° F	*	25-30
	Tenderloin roast	2 to 3 lbs.	400° F	*	15-25
Poultry	Turkey, whole**	12 to 16 lbs.	325° F	180° F	8-10
	Turkey, whole**	16 to 20 lbs.	325° F	180° F	10-15
	Turkey, whole**	20 to 24 lbs.	325° F	180° F	12-16
	Chicken	3 to 4 lbs.	350-375° F	180° F	12-16
Pork	Ham roast, fresh	4 to 6 lbs.	325° F	160° F	30-40
	Shoulder blade roast	4 to 6 lbs.	325° F	160° F	20-30
	Loin	3 to 4 lbs.	325° F	160° F	20-25
	Pre-cooked ham	5 to 7 lbs.	325° F	160° F	30-40

\* For beef: med rare 145°F, med 160°F, well done 170°F

\*\* Stuffed turkey requires additional roasting time. Shield legs and breast with foil to prevent overbrowning and dying of the skin.





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## **CONVECTION BROILING**

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Use this mode for thicker cuts of meat, fish and poultry. The Convection Broiling gently browns the exterior and seals in the juices. Convection broiling uses the broil element and a fan to circulate the oven's heat evenly and continuously within the oven. The temperature probe cannot be used in this cooking mode. The oven can be programmed for Convection Broiling at any temperature between 300°F to 550°F with a default temperature of 550°F.

### **Convection Broiling Tips:**

- For optimum browning, preheat the broil element for 2 minutes.
- Broil one side until the food is browned; turn and cook on the second side. Season and serve.
- Always pull the rack out to the "stop" position before turning or removing food.
- Always use the broiler pan and its grid when broiling. It allows the dripping grease to be kept away from the high heat of the broil element (see Figure 1).
- DO NOT use the broil pan without the insert. DO NOT cover the broil pan insert with foil. The exposed grease could catch fire. DO NOT use the roasting rack when broiling.
- Convection broiling is generally faster than conventional broiling. Check for doneness at the minimum recommended time.

**IMPORTANT:** Always use this cooking mode with the oven door closed or the fan will not turn on.



#### To set a Convection Broil Temperature of 550°F:

- 1. Arrange interior oven racks.
- 2. Select oven by pressing either UPPER OVEN UPPER OVEN OVEN OVEN OVEN.
- 3. Press CONVECTION BROIL 😵.
- 4. Press **START**  $\langle I \rangle$ .
- 5. Place food in the oven after 2 minutes.
- 6. Turn food when the top side is browned and cook on the second side.
- 7. Remove food. Always use oven mitts when removing hot pans from the oven.
- 8. Press **CANCEL** to stop or cancel the Convection Broil feature at any time.

**WARNING** Should an oven fire occur, leave the oven door closed and turn off the oven. If the fire continues, throw baking soda on the fire or use a fire extinguisher. **DO NOT** put water or flour on the fire. Flour may be explosive and water can cause a grease fire to spread and cause personal injury.

# **KEEP WARM**

This mode is best for keeping oven baked foods warm for serving after cooking has finished. The Keep Warm feature uses the hidden bake element to maintain the temperature within the oven. The Keep Warm feature may be used with Multi-Stage (refer to its section for directions) if you wish to have the Keep Warm feature turn ON automatically when cooking has finished. The oven can be programmed for Keep Warm at any temperature between 150°F to 190°F with a default temperature of 170°F.

#### Keep Warm Tips:

- Always start with hot food.
- Do not use the Keep Warm feature to heat cold food.
- Food in heat-safe glass and glass ceramic containers may need higher temperature settings compared to food in regular containers.
- Avoid repeated openings of the oven, it will allow hot air to escape and the food to cool.
- Aluminum foil may be used to cover food to increase moisture content.

#### To set a Warm Keep Temperature of 170°F:

- 1. Arrange interior oven racks.
- 2. Select oven by pressing either **UPPER OVEN** OVEN OVEN OVEN OVEN.
- 3. Press **KEEP WARM 5**.
- 4. Press **START** ().
- 5. The Multi-Stage, Cook Time, Timer and End Time features can be set to control your warming time (read their sections for directions).
- 6. Remove food. Always use oven mitts when removing hot pans from the oven.
- 7. Press **CANCEL** to stop or cancel the Keep Warm feature at any time.



### **SLOW COOK**

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This mode may be used to cook foods more slowly, at lower oven temperatures and provide cooking results much the same way as a Slow Cooker or Crock-Pot. The Slow Cook feature is ideal for roasting beef, pork & poultry. Slow Cooking meats may result in the exterior of meats becoming dark but not burnt. This is normal. The Slow Cook mode uses the hidden bake element to maintain a low temperature in the oven. The temperature probe cannot be used in this cooking mode. There are 2 settings available, high (HI) or low (LO). The maximum cook time for the Slow Cook feature is 12 hours unless the oven control has been changed to the Continuous Bake mode.

#### **Slow Cook Tips:**

- Completely thaw all frozen foods before cooking with the Slow Cook feature.
- When using a single rack, position it in the center of the oven.
- Position multiple racks to accommodate size of cooking utensils when cooking multiple food items.
- Do not open the oven door often or leave the door open when checking foods. If the oven heat escapes often, the Slow Cook time may need to be extended.
- Cover the foods to keep them moist or use a loose or vented type cover to allow foods to turn crisp or brown.
- Cook times will vary; depending on the weight, fat content, bone & the shape of the meat.
- Use the recipe's recommended food temperature and a food thermometer to determine when the food is done.
- Preheating the oven will not be necessary when using the Slow Cook feature.
- Add any cream or cheese sauces during the last hour of cooking.

#### To set a Slow Cook:

- 1. Arrange interior oven racks and place food in the oven.
- 2. Select oven by pressing either UPPER OVEN OVEN or LOWER OVEN OVEN.
- 3. Press SLOW COOK 1.
- 4. Press  $_{\text{bi}}^{+}$  for high (**HI**) setting or  $_{\text{lo}}^{-}$  low (**Lo**) setting.
- 5. Press **START**  $\langle I \rangle$ .
- 6. The Cook Time, Timer and End Time features can be set to control your Slow Cook time (read their sections for directions).
- 7. Remove food. Always use oven mitts when removing hot pans from the oven.
- 8. Press **CANCEL** to stop or cancel the Slow Cook feature at any time.

# DEHYDRATING

This mode dries foods with heat from the bake and the convection element. The heat is circulated throughout the oven by the convection fan. Dehydrating is used to dry and/or preserve foods such as fruits, meats, vegetables and herbs. This mode holds an optimum low temperature while circulating the heated air to slowly remove moisture. The oven can be programmed for Dehydrating at any temperature between 100°F to 225°F with a default temperature of 120°F.

### **Dehydrating Tips:**

- Do not preheat the oven.
- Multiple racks can be used simultaneously.
- Drying times vary depending on the moisture and sugar content of the food, the size of the pieces, the amount being dried and the humidity in the air.
- Check food at the minimum drying time.
- Treat fruits with antioxidants to avoid discoloration.
- Consult a food preservation book or a library for additional information.

#### To set a Dehydrate Temperature of 120°F:

- 1. Arrange interior oven racks and place food.
- 2. Select oven by pressing either UPPER OVEN  $_{\rm OVEN}^{\rm UPPER}$  or LOWER OVEN  $_{\rm OVEN}^{\rm LOWER}$  .
- 3. Press **DEHYDRATE**
- 4. Press **START** (1) to begin dehydrating.
- 5. Remove food. Always use oven mitts when removing hot pans from the oven.
- 6. Press CANCEL () to stop or cancel the Dehydrate feature at any time.

# DEFROSTING

This mode uses a fan controlled defrosting to quickly warm your food at the room's temperature. Suitable for delicate items such as cream cakes, this light defrost circulates room temperature air around the food slowly, defrosting it hygienically in less time!

### **Defrosting Tips:**

• Place an oven rack on next-bottom rack position.

#### To set a Defrost:

- 1. Arrange interior oven racks and place food in the oven.
- 2. Select oven by pressing either UPPER OVEN OVEN or LOWER OVEN OVEN.
- 3. Press **DEFROST** 🔆.
- 4. Press **START** (1) to start the defrosting. A "dEF" message is displayed when active.
- 5. The Cook Time, End Time and Timer features can be set to control your Defrost time (read their sections for directions).
- 6. Remove food.
- 7. Press **CANCEL** to stop or cancel the Defrost feature at any time.

**A CAUTION** It is not recommended to use food that can spoil due to bacteria growth. Defrost only items which are recommended for countertop thawing.





# **28** Section B - Electronic Controls

# **BREAD PROOFING**

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Proofing bread prepares the dough for baking by activating the yeast. This feature is ideal for proofing, or rising bread dough. The oven can be programmed for Bread Proofing at any temperature between 85°F to 100°F with a default temperature of 100°F.

### **Bread Proofing Tips:**

- No need to preheat for this feature.
- Proof bread until dough has doubled in bulk.
- For best results, place a shallow pan with 1 to 3 cups of boiling hot water on the lowest
  rack position to keep the air moist inside the oven cavity.
- Allow at least 1" between edge of pan and walls of the oven.
- Limit frequent door openings to prevent losing heat and lengthening proofing time.

#### To set a Bread Proof temperature of 100°F:

- 1. Arrange interior oven racks and place bread dough in the oven.
- 2. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 3. Press BREAD PROOF \_\_\_\_\_.
- 4. Press **START** (1) to begin the bread proofing.
- 5. The Cook Time, Timer and End Time features can be set to control your Bread Proof time (read their sections for directions).
- 6. Remove food.
- 7. Press **CANCEL** (v) to stop or cancel the Bread Proof feature at any time.

#### To change a Bread Proof temperature while the function is active:

- 1. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN OVEN
- 2. Press the **HI**  $_{bi}^+$  or **LO**  $_{lo}^-$  pads to get to the desired temperature.
- 3. Press **START** () to continue the bread proofing with the new setting.

# PERFECT TURKEY

This mode uses the temperature probe to control precisely the cooking of a perfect turkey. The convection system gently browns the turkey's exterior and seals in the juices. The temperature probe is **required** with this cooking mode (read its section on next page for more details). The oven can be programmed for Perfect Turkey at any temperature between 170°F to 550°F with a default temperature of 325°F. The probe default temperature for the perfect turkey feature is 180°F.

#### **Perfect Turkey Tips:**

- Thaw the turkey in the refrigerator at least 24 hours per 5 lbs before cooking the bird.
- Do not preheat your oven before using the Perfect Turkey mode.
- Use the broiler pan and grid, and the roasting rack. The broiler pan will catch grease spills and the grid will help prevent spatters. The roasting rack will hold the turkey.
- Place an oven rack on rack position 2 (next-bottom).
- Make sure the roasting rack is securely seated on the grid in the broiler pan. The roasting rack fits on the grid allowing the heated air to circulate under the food for even cooking and helps to increase browning on the underside.

#### To set a Perfect Turkey:

- 1. Arrange interior oven racks and place food in the oven.
- 2. Insert the meat probe into the bird and connect it in the oven (read the probe section on next page for more details).
- 3. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 4. Press **PERFECT TURKEY (**). A temperature can be entered if another value than the default is needed.

Optional: Press **PROBE** *P* if you wish to change the probe target temperature (see PROBE section).

- 5. Press **START** ().
- 6. Remove food from the oven when the probe chime signals that the bird internal temperature has reached its target temperature.
- 7. Press **CANCEL**  $\bigcirc$  to stop or cancel the Perfect Turkey feature at any time.

Perfec	<u>t Turkey Chart</u>				
		Weight	Oven Temp	Internal Temp	Min per lb.
Poultry	Turkey, whole*	12 to 16 lbs.	325° F	180° F	8-10
	Turkey, whole*	16 to 20 lbs.	325° F	180° F	10-15
	Turkey, whole*	20 to 24 lbs.	325° F	180° F	12-16
	Chicken	3 to 4 lbs.	350-375° F	180° F	12-16

\* Stuffed turkey requires additional roasting time. Shield legs and breast with foil to prevent overbrowning and dying of the skin.



# TEMPERATURE PROBE



For many foods, especially roasts and poultry, testing the internal temperature is the best method to insure properly cooked food. The Temperature Probe gets the exact temperature you desire without having to guess. This feature can be used with Bake, Convection Bake, Convection Roast and Perfect Turkey cooking modes. The oven can be programmed for Probe at any temperature between 130°F to 210°F with a default temperature of 170°F. This unit is equipped with one temperature probe entry in each oven.

#### **IMPORTANT:**

- Use only the probe supplied with your appliance; any other may result in damage to the probe 1 or the appliance.
- 2. Handle the Temperature Probe carefully when inserting and removing it from the food and outlet.
- 3. Do not use tongs to pull the cable when inserting or removing the Probe. It could damage the Probe.
- Defrost your food completely before inserting the Probe to avoid breaking it. 4.
- Never leave or store the Temperature Probe inside the oven when not in use. 5.
- 6. To prevent the possibility of burns, carefully unplug the Temperature Probe using hot pads.

#### **Proper Temperature Probe Placement:**

- 1. Always insert the probe so that the tip rests in the center of the thickest part of the meat. Do not allow probe to touch bone, fat, gristle or pan.
- 2. For bone-in ham or lamb, insert the Probe into the center of the lowest large muscle or joint. For dishes such as meat loaf or casseroles, insert the Probe into the center of the food. When cooking fish, insert the Probe from just above the gill into the meatiest area, parallel to the backbone.

Figure 1

3. For whole poultry (chicken, turkey, etc.), insert the probe into the thickest part of the inner thigh from below and parallel to the leg (see figure 1).

#### Setting the Oven when using the Temperature Probe:

- Insert the Temperature Probe into the food (see Proper Temperature Probe Placement above). 1.
- 2. Plug the Temperature Probe into its outlet in the oven. (The outlet is located on the top left hand side of the cavity wall, near front of the oven). Always insert the probe into a cool oven. Make sure it is pushed all the way into the outlet. Close the oven door.
- 3. Select oven by pressing either UPPER OVEN OVEN or LOWER OVEN OVEN.
- 4. Select a cooking mode. A target temperature must be set to trigger the buzzer when the food reaches the set temperature. Press **COOK OPTIONS** ( $\sqrt{}$ ) to bring up the cook options items and press **PROBE** *P* pad to enter the temperature. Adjust temperature to the desired setting using the numeric pads or just press **START**  $\langle I \rangle$  to use the default target temperature of 170°F. The pads  $_{hi}^+$  or  $_{lo}^-$  can also be pressed to raise or lower the temperature. The target temperature setting will be accepted after the **START**  $\bigcirc$  pad is pressed.
- 5. At any time during the cooking, the **PROBE** / pad can be pressed once to display the actual meat temperature or pressed twice to display the target temperature. When on the target temperature display, a new temperature can be entered. After 5-8 seconds, the display will go back to showing the oven temperature.
- When the food reach the target temperature, the oven will go into a KEEP WARM mode until you press CANCEL ().

The probe can be damaged by very high temperature. To protect the probe against this damage, the oven control will not allow you to start a self-clean, broil or convection broil while the probe is connected.

# MULTI STAGE

This feature enables you to perform sequential cooking at the touch of a button. Its purpose is to program a queue of up to three cooking modes with individual cooking time and temperatures in a sequence. This feature can be used with most cooking modes; Baking, Broiling, Convection Baking, Convection Roasting, Convection Broiling, Keep Warm and Bread Proof. A Cook Time can be programmed with your cooking mode and then queued. No Auto-Suggest default temperature is provided with this feature. Any stage programmed with Broil or Convection Broil cannot last longer than 10 minutes. A proper cook time and a set temperature are required for every stage programming. At least two stages must be programmed before a Multi-Stage cooking operation starts.

To set a Multi Stage sequence (Timed Convection Bake, Timed Broil, Keep Warm):

- 1. Arrange interior oven racks and place food.
- 2. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 3. Press MULTI STAGE 12.

Stage 1

- 4. Press **CONVECTION BAKE** . "000" will flash in the display prompting to enter a temperature.
- 5. Enter a temperature using the numeric pads  $\bigcirc$  to  $\bigcirc$ .
- 6. Press **START** (). "**00:00**" will start flashing in the display prompting to enter a cook time.
- 7. Enter a cook time using the numeric pads  $\bigcirc$  to  $\bigcirc$ .
- Press START (). The Multi-Stage indicator will now display the 2nd stage.
   Stage 2

- 10. Enter a temperature using the numeric pads 0 to 9.
- 11. Press **START** (). "**00:00**" will start flashing in the display prompting to enter a cook time.
- 12. Enter a cook time using the numeric pads (0) to (9).
- 13. Press START (). The Multi-Stage indicator will now display the 3rd stage. If a third stage is not needed, press START () a second time. This will start the cooking sequence.
  Stage 3
- 15. Enter a temperature using the numeric pads 0 to 9.
- 16. Press **START** (). "**00:00**" will start flashing in the display prompting to enter a cook time.
- 17. Enter a cook time using the numeric pads (0) to (9).
- 18. Press **START** () twice. The cooking sequence will begin.
  - \_\_\_\_\_ Canceling
- 19. At the end of the sequence, the display will show "End" and a chime will sound.
- 20. Remove food.
- 21. Press **CANCEL** To stop or cancel the Multi-Stage sequence at any time.

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### **MULTI STAGE** (CONTINUED)

#### To review and edit a Multi Stage sequence:

Once the first and second stages have been programmed, the control displays a Review Screen. During this mode, the temperature display is cleared, the stage numbers are lit and the numeric pads corresponding to the programmed stages are lit.

**To review a programmed stage** cooking mode, press the corresponding numeric pad. The temperature and cook time pads will light up and the control will display the programmed values.

**To edit a programmed stage** cooking mode being reviewed, press **CANCEL**  $\bigcirc$ . This will bring you back to the programming steps explained in the previous page. The third stage cannot be edited but can be deleted by pressing **CANCEL**  $\bigcirc$  on the review screen. To return to the review screen from the programming screen, at any time press **MULTI STAGE**  $\frac{1}{3}^2$ .

To begin the cooking sequence from the review screen, simply press START  $\bigcirc$ .
### **USER PREFERENCES**

The user preferences menu includes all user defined options. This feature enables you to control the various options of the electronic controls. This menu features the Time of Day, Celsius or Fahrenheit display mode, Continuous Bake or 12 Hour Energy Saving modes, Clock display or No-Clock display, 12 Hours Time of Day or 24 Hours Time of Day, Audio Control and Adjusting the oven temperature. The User Preferences menu is only available when the oven is not being used (not cooking).

#### To browse through the User Preferences menu:

- 1. Press **USER PREF** *(S)* to bring up the User Preferences menu.
- 2. Press **USER PREF** again to browse through the menu pages.
- 3. Press  $\frac{1}{10}$  or  $\frac{1}{10}$  to toggle between the available options.
- 4. Press **START** () while the chosen option is on display to change.
- 5. Press **CANCEL** when finished to get back to the standard oven display.

#### User Preferences menu items:

- CLO 12:00; Setting the clock.
- CLO on; Clock on/off.
- CLO 12hr; 12/24 hour time of day display.
- **UPO**; Adjusting oven temperature.
- F-C F; Fahrenheit / Celcius display.
- AUd; Audio on/off and volume.
- **E S on**; 12 hour Energy Saving on/off.
- **rSt** ; Reset to default factory settings.

### SETTING THE CLOCK - TIME OF DAY

The clock may be set for 12 or 24 hour time of day operation (see advanced settings section). The clock has been preset at the factory for the 12 hour operation. When the range is first plugged in, or when the power supply to the range has been interrupted, the display will show **"CLO 12:00"**. The clock must be set before the oven can be used.

When power to the unit has been interrupted, to set the Clock, skip step 1 in the example below and follow steps 2 and 3.

#### To set the clock (example for 1:30):

- 1. Press USER PREF 🔊 until you get to the CLO 12:00 menu page.
- 2. Press (130) pads to set the time of day to 1:30. The pads  $_{hi}^+$  or  $_{lo}^-$  can also be pressed to raise or lower the actual time displayed.
- 3. Press **START** (1) to accept the changes and go back to user preferences menu display.



### USER PREFERENCES (CONTINUED)



### SETTING CLOCK DISPLAY — ON OR OFF

The oven control can be programmed to display the time of day or not. The oven has been preset at the factory to display the time of day.

#### Changing clock display between ON and OFF:

- 1. Press USER PREF 🔊 until you get to the CLO on menu page.
- 2. Press  $\frac{1}{10}$  or  $\frac{1}{10}$  to toggle between displaying or hiding the clock.
- 3. Press **START** (1) to accept the changes and go back to user preferences menu display.

### SETTING TIME OF DAY DISPLAY - 12 OR 24 HOURS

The oven control can be programmed to display time of day in 12 hours or 24 hours mode. The oven has been preset at the factory to display in 12 hours mode.

#### Changing between 12 or 24 hour time of day display:

- 1. Press USER PREF 😥 until you get to the CLO 12hr menu page.
- 2 Press  $\frac{1}{10}$  or  $\frac{1}{10}$  to toggle the display of the clock in 12 or 24 hours.
- 3. Press **START** () to accept the changes and go back to user preferences menu display.
- 4. Remember to set your clock after changing the time of day display mode.

### **ADJUSTING OVEN TEMPERATURE**

The temperature in the oven has been pre-set at the factory. When first using the oven, be sure to follow recipe times and temperatures. If you think the oven is too hot or too cool, the temperature in the oven can be adjusted. Before adjusting, test a recipe by using a temperature setting that is higher or lower than the recommended temperature. The baking results should help you to decide how much of an adjustment is needed. Each oven can be individually adjusted.

#### To adjust the oven temperature:

- 1. Press **USER PREFERENCES** Duntil you get to the **UPO** menu page.
- 2. If youwant to adjust the temperature in the lower oven, press **USER PREFERENCES** 3 again. UPO will appear in the lower display.
- 3. Enter the temperature by pressing the  $\frac{1}{h_i}$  or  $\frac{1}{l_o}$  pads. The temperature can only be adjusted by ± 35°F.
- 4. Press **START** (1) to accept the changes and go back to user preferences menu display.

### USER PREFERENCES (CONTINUED)

### SETTING TEMPERATURE DISPLAY — FAHRENHEIT OR CELSIUS

The oven control can be programmed to display temperatures in Fahrenheit or Celsius. The oven has been preset at the factory to display in Fahrenheit.

### To change display from Fahrenheit to Celsius or Celsius to Fahrenheit:

- 1. Press USER PREF 😥 until you get to the F-C F menu page.
- 2. Press  $\frac{1}{b_i}$  or  $\frac{1}{b_i}$  to toggle between the °C and °F display options.
- 3. Press **START** () to accept the changes and go back to user preferences menu display.

### **AUDIO CONTROL**

The Audio Control feature allows the oven control to be operated without sounds or beeps whenever necessary. If desired the control can be programmed for silent operation and later returned to operating with all the default sounds and beeps. The volume of the beeps can also be adjusted.

#### To change the audio mode or audio volume:

- 1. Press USER PREF 🔊 until you get to the AUd menu page.
- 2. Press  $_{hi}^{+}$  or  $_{lo}^{-}$  to toggle between the available volume settings. **AUd 5** for the highest volume setting to **AUd 1** for the lowest volume. **AUd OFF** to disable the beeps.
- 3. Press **START** (1) to accept the changes and go back to user preferences menu display.

### SETTING CONTINUOUS BAKE OR 12 HOUR ENERGY SAVING

The oven control has a factory preset built-in 12 Hour Energy Saving feature that will shut off the oven if the oven control is left on for more than 11 hours and 59 minutes. The oven can be programmed to override this feature for Continuous Baking.

### Changing between 12 hour energy saving and continuous bake:

- 1. Press **USER PREF** D until you get to the **E S** menu page.
- 2. Press  $\frac{1}{b_i}$  or  $\frac{1}{b_i}$  to toggle the energy saving setting on and off.
- 3. Press **START** () to accept the changes and go back to user preferences menu display.

### **RESETING TO DEFAULT FACTORY SETTINGS**

The oven control can be set to return to its original factory settings. This includes: Setting the Clock ON/OFF to ON, Setting the clock display mode to 12h, Display mode to Fahrenheit, Setting the oven temperature adjustment to zero, Setting audio level to 5 and Enabling the 12h energy saving mode. Reseting the control also erase the My Favorite recipes.

#### To reset the oven control to its original settings:

- 1. Press USER PREF 🔊 until you get to the rSt no menu page.
- 2. Press  $\frac{1}{10}$  or  $\frac{1}{10}$  to select **YES**.
- 3. Press **START** () to reset to default factory settings.



### **MY FAVORITES**

2

# The Favorites settings allows you to save your most frequently used or most complex cooking sequences. This feature will save the cooking mode, the target temperature and the cooktime (if any). The oven can recall up to six cooking sequences from its internal memory, three for each oven, which are easily accessible from a one touch button. These functions can be used with all cooking modes and features.

**To save a Favorite** (example is a 450°F Bake for 30 minutes):

- Saving a Favorite can only be done for an oven which is currently in operation.

- 1. Select oven by pressing either **UPPER OVEN** OVEN OVEN OVEN OVEN.
- 2. Press **BAKE**. The default temperature will appear in the display.
- 3. Enter temperature needed; (4)(5)(0).
- 4. Press **COOK OPTIONS**  $\bigotimes$  to bring up the cook options items.
- 5. Press COOK TIME (1). The time numbers will blink in the display.
- 6. Enter time needed; 30.
- 7. Press **START** ().
- 8. Press and hold for 3 seconds any **MY FAVORITE**  $\bigcirc$  pad. Notice that the red indicator above the key will light up.

### To recall a Favorite:

- Recalling a Favorite can only be done for an oven which is not currently in operation.

- 1. Select oven by pressing either UPPER OVEN OVEN or LOWER OVEN OVEN.
- 2. Press any **MY FAVORITE**  $\bigcirc$  pad which is currently lighted up.
- 3. Press **START** ().

### To overwrite a Favorite:

1. To overwrite a My Favorite simply start a new cooking sequence and save it into the same My Favorite location (1, 2 or 3) for the selected oven as shown in example above. The new My Favorite settings will overwrite the old ones.

### To delete a Favorite:

- 1. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN OVEN
- 2. Press the currently lighted up **MY FAVORITE**  $\bigcirc$  pad you wish to delete for **3 seconds**.

### SABBATH FEATURE

### (FOR USE ON THE JEWISH SABBATH & HOLIDAYS)

The  $HI_{hi}^{+}$  and  $LO_{lo}^{-}$  pads are used to set the Sabbath feature. The Sabbath feature may only be used with the **BAKE** pad. The oven temperature may be set higher or lower after setting the Sabbath feature (the oven temperature adjustment feature should be used only during Jewish Holidays), however the display will not visibly show or provide any audible tones indicating whether the change occurred correctly. Once the oven is properly set using Bake with the Sabbath feature active, the oven will remain continuously ON until cancelled. This will override the factory preset 12-Hour Energy Saving feature.

If the oven light will be needed during the Sabbath, press **OVEN LIGHT**  $\Omega$  before activating the Sabbath feature. Once the oven light is turned ON and the Sabbath feature is active, the oven light will remain ON until the Sabbath feature is turned OFF. If the oven light needs to be OFF, be sure to turn the oven light OFF before activating the Sabbath feature.

**IMPORTANT NOTES:** It is not advised to attempt to activate any other program feature other than **BAKE** while the Sabbath feature is active. ONLY the following key pads will function after setting the Sabbath feature; (1) to (9), **BAKE**, **START**, **CANCEL**, **HI**,  $_{hi}^{+}$  and **LO**  $_{lo}^{-}$ . **ALL OTHER KEYPADS** will not function once the Sabbath feature is properly activated.

### To Program the Upper Oven to Begin Baking Immediately & Activate the Sabbath feature (example: baking at 350°F)

- 1. Place the food in the oven.
- 2. Select oven by pressing either UPPER OVEN OVEN or LOWER OVEN OVEN.
- 3. Press BAKE
- 4. If you desire to set the oven control for a **COOK TIME** do so at this time. If not, skip this step and continue to step 5. Refer to their section for complete instructions. Remember the oven will shut down after using **COOK TIME** and therefore may only be used once during the Sabbath/Jewish Holidays.
- 5. Press START ().
- 6. The oven will turn ON and begin heating immediately.
- Press and hold both the HI <sup>+</sup><sub>hi</sub> and LO <sup>-</sup><sub>lo</sub> pads for at least 3 seconds. SAb will appear in the oven display. Once SAb appears in the display the oven control will no longer beep or display any further changes and the oven is properly set for the Sabbath feature.



### SABBATH FEATURE (CONTINUED)



**Note:** You may change the oven temperature once baking has started. Press **UPPER OVEN**  $_{OVEN}^{UPPER}$ , **BAKE**, the numeric key pads for the temperature you want (example for 425°F press (4), (2), (5)) and then press **START** (1) **TWICE** (for Jewish Holidays only). Remember that **the oven control will no longer beep or display any further changes** once the oven is set for the Sabbath feature.

8. The oven may be turned OFF at any time by pressing **CANCEL**  $\bigcirc$  pad (this will turn the oven OFF only). To turn OFF the Sabbath feature press and hold both the **HI**  $_{hi}^+$  and **LO**  $_{lo}^-$  pads for at least 3 seconds. **SAb** will disappear from the display.

Should you experience a power failure or interruption, the oven will shut off. When power is returned the oven will not turn back on automatically. **SF** (Sabbath Failure) will be displayed in the oven control display. The oven will remember that it is set for the Sabbath and the food may be safely removed from the oven while still in the Sabbath feature, however the oven cannot be turned back on until after the Sabbath. After the Sabbath observance turn OFF the Sabbath

feature. Press and hold both the HI  $_{hi}^+$  and LO  $_{lo}^-$  pads for at least 3 seconds. SAb will disappear from the display and the oven may be used with all normal functions. For further assistance, guidelines for proper usage, and a complete list of models with the Sabbath feature, please visit the web at http://www.star-k.org.

### **USING THE SELF-CLEAN FEATURE**

#### Adhere to the Following Cleaning Precautions:

- Allow the oven to cool before cleaning.
- Wear rubber gloves when cleaning any exterior parts of the oven manually.

During the self-cleaning cycle, the outside of the oven can become very hot to the touch. DO NOT leave small children unattended near the appliance.

Before cleaning any part of the oven, be sure the oven is turned off or else push **CANCEL** pad. Wait until the oven is cool.

**DO NOT** use commercial oven cleaners or oven protective coatings in or around any part of the self-cleaning oven. DO NOT clean the oven door gasket. The gasket on the oven door is essential for a good seal. Care should be taken not to rub, damage or move the gasket. DO NOT use any cleaning materials on the gasket. Doing so could damage it. DO NOT use aluminum foil to line the oven bottom. This may affect cooking or foil could melt and damage the oven surface.

#### Preparing the Oven for Self-Cleaning:

- Remove any excess spillovers in the oven cavity before starting the self-cleaning cycle. To clean, use hot soapy water and a cloth. Large spillovers can cause smoke or a fire when subjected to high temperatures. DO NOT allow food spills with a high sugar or acid content (such as tomatoes, sauerkraut, fruit juices or pie filling) to remain on the surface as they may leave a dull spot even after cleaning.
- 2. Clean any soil from the oven frame and the door liner (see illustration). These areas heat sufficiently during a self-clean to burn soil on. Clean with hot soapy water.
- 3. Remove the broiler pan and insert, all utensils and any foil. These items can not withstand high cleaning temperatures.
- 4. Oven racks and oven rack supports must be removed. If they are not removed the selfcleaning cycle can not start and Remove Racks will appear in the display indicating that you must remove the racks and racks



supports. When the cycle has finished and the door can be opened replace the oven rack supports and oven racks.

**CAUTION** The health of some birds is extremely sensitive to the fumes given off during the self-clean cycle of any wall oven. Move birds to another well ventilated room.



### STARTING SELF-CLEAN CYCLE

A self-cleaning oven cleans itself with high temperatures (well above cooking temperatures) which eliminate soil completely or reduce it to a fine powdered ash you can whisk away with damp cloth. If you are planning to use the oven directly after a self-clean cycle remember to allow time for the oven to cool down and the oven door to unlock. This normally takes about one hour.

### To set the controls for a Self-Cleaning cycle:

- 1. Remove the oven racks and the racks supports.
- 2. Be sure the clock is set with the correct time of day and the oven door is closed.
- 3. Select oven by pressing either UPPER OVEN OVEN OVEN OVEN OVEN.
- 4. Press CLEAN .
- 5. Press LITE for a 2 hour self-clean, or press MEDIUM • for 3 hours, or press HEAVY ••• for 4 hours.
- 6. Press START (). The "DOOR 🕤 " icon will flash.
- 7. As soon as the control is set, the motor driven oven door lock will begin to close automatically. Once the door has been locked the "**DOOR**  $rac{1}$  " indicator light will stop flashing and remain on.

Note: Allow about 15 seconds for the oven door lock to close.

#### To set the controls for a delayed Self-Cleaning cycle:

- 1. Follow the instructions above.
- 2. Press **COOK OPTIONS** ( $\checkmark$ ) to bring up the cook options items.
- 3. Press END TIME
- 4. Enter time of day needed for the end of the cycle (example for "6:00"; (6)(0)(0)).
- 5. Press **START** ().

#### When the Self-Clean Cycle is Completed:

- 1. The time of day and "DOOR 🗇 " will remain ON.
- 2. The display will show an "Hot" message while the oven is still too hot to open door.
- 3. Once the oven has cooled down for 1 HOUR, and the "**DOOR** : " icon is no longer displayed, the oven door can then be opened.

#### Stopping or Interrupting a Self-Cleaning Cycle:

If it becomes necessary to stop or interrupt a self-cleaning cycle due to excessive smoke:

- 1. Press CANCEL ().
- 2. Once the oven has cooled down for approximately 1 HOUR and the "**DOOR** : icon is no longer displayed, the oven door can then be opened.

**WARNING** During the self-cleaning cycle, the outside of the wall oven can become very hot to the touch. **DO NOT** leave small children unattended near the appliance; they may be burned if they touch the hot oven door surfaces.

**A** CAUTION DO NOT force the oven door open. This can damage the automatic door locking system. Use care when opening the oven door after the self-cleaning cycle. Stand to the side of the oven when opening the door to allow hot air or steam to escape. The oven may still be VERY HOT.



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### **ELECTRONIC OVEN CONTROL**

- 1. This self-cleaning controller offers Bake, Broil, Convection Bake, Convection Roasting and Convection Broil modes, Dehydrating, Defrosting, Temperature Probe, Perfect Turkey (some models), Bread Proof, Keep Warm and Cleaning functions.
- 2. Convection operates with an element and a fan dedicated to convection.
- 3. This controller includes a display board, a relay board, and a convection fan and oven light control board.



**NOTE:** The controllers are not field repairable. Only temperature settings can be changed. See oven calibration.

### ELECTRONIC OVEN DISPLAY BOARD FOR DOUBLE WALL OVEN



#### **Connector Legend:**

- P1 Upper Oven Probe Input
- P2 Communication with Convection Fan and Oven Light Control Board
- P3 Keyboard (touch panel)
- P6 Microprocessor Programming (not used)
- P7 Touch Panel LEDs
- P8 Power Supply Input for Touch Panel LEDs
- P9 Relay Control Output (heating elements, DLB, motor door latch) for Upper Oven
- P10 Switches Input (motor door latch switch, door switch, rack switch) for Upper Oven
- P11 Relay Control Output (heating elements, DLB, motor door latch) for Lower Oven
- P12 Switches Input (motor door latch switch, door switch, rack switch) for Lower Oven
- P13 Relay Control Output (cooling fans) for Upper and Lower Ovens
- P16 DC Power Supply Input
- P18 Upper and Lower Oven Meat Probe Input
- P20 Lower Oven Probe Input

### ELECTRONIC OVEN RELAY BOARD FOR DOUBLE WA



This relay board serves to energize the upper and lower oven heating elements, door lock motor and cooling fan.

- P1 L2 Out, Upper Oven
- P2 L2 Out, Lower Oven
- P3 L2 In, Upper Oven
- P4 Not Used
- P5 L1, Upper Oven
- P6 L1, Lower Oven
- P7 Broil, Upper Oven
- P8 Broil, Lower Oven
- P9 Bake, Upper Oven
- P10 Bake, Lower Oven
- P11 Convection Element, Upper Oven
- P12 Convection Element, Lower Oven
- P17 Not Used

 $\bigcirc$ 

P1

0 0 0

P18 - L2 In, Lower Oven

#### Relay Board Legend:

- K1. Double Line Break Upper Oven
- K2. Double Line Break Lower Oven
- K3. Broil Relay Upper Oven
- K4. Broil Relay Lower Oven
- K5. Bake Relay Upper Oven K6. Bake Relay Lower Oven
- K7. Convection Element Relay Upper Oven
- K8. Convection Element Relay Lower Oven
- K11.Motor Door Latch Upper Oven K12.Motor Door Latch Relay - Lower Oven
  - K15. Cooling Fan Relay Low Speed -Lower Oven
  - K16. Cooling Fan Relay Low Speed -Upper Oven
  - K17. Cooling Fan Relay High Speed -Lower Oven
- K18. Cooling Fan Relay High Speed -
- J2 DC Power Output To DR Bard
- J3 AC Power Output (motor door latch, cooling fan) For Upper Oven
- J4 AC Power Output (motor door latch, cooling fan) For Lower Oven and Power Input (L1, Neutral)
- J5 Relay Control Inputs (bake and broil elements, motor door latch, DLB) For Upper Oven
- J6 Relay Control Inputs (cooling fan, conv element) For Both Ovens
- J7 Relay Control Inputs (bake and broil elements, motor door latch, DLB) For Lower Oven

### POWER SUPPLY BOARD FOR SINGLE AND DOUBLE WALL OVEN

P2

þ  This board provides power to the oven control display.

P1 - AC Power Input (L2 and Neutral)

P2 - DC Power Output

### **CONVECTION FAN AND OVEN LIGHTS CONTROL BOARD**



This board control the power output of the convection fan and oven lights. The double wall oven is equipped with 2 of these variable convection boards. One for each oven.

- P1 Communication with display board and power supply input
- P2 AC power output for convection fan and oven lights, power inputs (L1, neutral)
- P3 Microprocessor programming (not used)

### ELECTRONIC OVEN CONTROL RELAY BOARD FOR SINGLE WALL OVEN



This relay board serves to energize the oven heating elements, door lock motor and cooling fan.

P11 - Convection Element

#### **Relay Board Legend:**

- K1. Double Line Break
- K3. Broil Relay
- K5. Bake Relay
- K7. Convection Element Relay
- K11.Motor Door Latch
- K16. Cooling Fan Relay Low Speed
- K18. Cooling Fan Relay High Speed
- J2 DC Power Output To Display Control Board
- J3 AC Power Output (motor door latch, light, cooling fan)
- J4 Power Input (L1, Neutral)
- J5 Relay Control Inputs (bake and broil elements, motor door latch, DLB)
- J6 Relay Control Inputs (cooling fan, conv element)



The convection oven uses the addition of a fan and an element to heat and to move the air already in the oven. Moving the heated air helps to destratify the heat and cause uniform heat distribution. The air is drawn in through a fan shroud and the element located on the rear wall of the oven. It is then discharged around the outer edges of this shroud. The air circulates around the food and then enters the shroud again. As with conventional electric wall ovens, there is still an oven vent which discharges above the door. In preheat of non-convection cooking modes, the convection fan will be operating until the oven has reached the target temperature.

To set the control in convection mode, follow these steps:

- 1. On a double wall oven: Select oven by pressing either **UPPER OVEN** OVEN or **LOWER OVEN**
- 2. Press CONVECTION BAKE 🝸 or CONVECTION ROAST 🗑 or CONVECTION BROIL 🐺.
- 3. Press **START** (1). The oven will automatically start and the fan will begin to run.
- 4. Press **CANCEL**  $\bigcirc$  to stop or cancel the Convection feature at any time.
- **NOTE:** The fan runs continuously while in the convection mode. The fan will stop if the door is opened while convection baking/roasting/broiling. The convection element will stop operating if the door is opened. The speed of the convection fan will vary depending on which cooking function is used. Convection Roast uses a fast fan speed, while convection bake uses a slower fan speed.

### **CONVECTION FAN MOTOR**

The 120V fan motor is located on the outside of the rear of the oven.

The fan motor runs continuously while in convection mode unless the door is opened.

It is normal to see the fan speed changing depending on the cooking function that is used. This appliance uses the optimum fan speed for each convection function.

It is the Convection Fan and Oven Lights Control Board that modulates the speed of the convection fan. It uses the fan speed information communicated by the display board.

On a double wall oven there are two Convection Fan and Oven Lights Control Boards, one for each cavity.

If the fan does not operate, check the following:

- The oven control display will give you an indication on when the convection fan should be on: rotating fan blades in the display means the fan should be ON. No rotating blades mean the convection fan is purposely not used.

- Verify proper operation of the door switch. If the control thinks the door is opened the convection fan will not work. If the oven light turns on when the door is opened and turn off when the door is closed then it's a good indication the door switch is good.

- If you are getting an F23 or F24 error code it means the display board is not able to communicate with the Convection Fan and Oven Lights Control Board, thus the convection fan will not operate. Check connections between the display board and the Convection Fan and Oven Lights Control Board. Refer to the fault code section for corrective actions.

- Check connections on the Convection Fan and Oven Lights Control Board. On connector P2: pin 3 should be Neutral, pin 5 should be L1 (120VAC) and pin 7 should go to the convection fan motor. The other terminal of the convection fan motor should be connected to Neutral.

- Fan motor coil resistance should be 15.0 ohm +/- 10%

- When the fan is ON you should see between 20 and 120VAC on the motor, depending on the fan speed.

- If there is no error code, the wiring is good and the fan coil is good then replace the Convection Fan and Oven Lights Control Board.

### **OVEN CALIBRATION**

Set the electronic oven control for normal baking at 350°F. Obtain an average oven temperature after a minimum of 5 cycles.

The oven calibration can be modified using the oven control display. Please refer to the Owner's Guide manual.

Note: Changing calibration affects all the cooking modes but not the clean and the broil modes.

### FIRST RISE

It is normal to see a temperature overshoot in the first rise of all modes when you monitor the temperature.



## ELECTRONIC OVEN CONTROL (FAULT CODES)

	ELECTRONIC OVEN CONTROL	EOC) FAULT CODE DESCRIPTIONS
Note	<b>e:</b> Generally speaking "F1X" implies a control failure, "F	3X" an oven probe problem, and "F9X" a latch motor problem.
Failu	are Code/Condition/Cause	Suggested Corrective Action
F10	Control has sensed a potential runaway oven condition. Control may have shorted relay, RTD sensor probe may have a gone bad.	<ul> <li>Check RTD sensor probe and replace if necessary. If oven i overheating, disconnect power. If oven continues to overhea when power is reapplied, replace relay board and/or displa board.</li> </ul>
F11	Shorted Key: a key has been detected as pressed for a long period and will be considered a shorted key alarm and will terminate all oven activity.	<ul> <li>Press any key to clear the error.</li> <li>If fault returns, replace the keyboard (touch panel).</li> <li>If the problem persists, replace the display board.</li> </ul>
F13	Control's internal checksum may have become corrupted.	<ul> <li>Press any key to clear the error.</li> <li>Disconnect power, wait 30 seconds and reapply power. If faulreturns upon power-up, replace display board.</li> </ul>
F14	Misconnected keyboard cable	<ul> <li>Verify connection between display board and touch panel ( ribbon cables). Make sure the cables are well connected at bot ends.</li> <li>If the cables are good, replace the touch panel.</li> </ul>
F15	Controller self check failed.	= Replace the display board.
F23	The controller failed to communicate with the (upper) convection fan and oven lights control board.	<ul> <li>Verify wiring between P2 on the display board and P2 on the convection fan and oven lights control board.</li> <li>If wiring is good, replace convection fan and oven lights boarc</li> <li>If the problem persists, replace the display board.</li> </ul>
F24	The controller failed to communicate with the lower convection fan and oven lights control board. (On double wall oven)	<ul> <li>Verify wiring between P2 on the display board and P2 on the convection fan and oven lights control board.</li> <li>If wiring is good, replace convection fan and oven lights boarc</li> <li>If the problem persists, replace the display board.</li> </ul>
F25	No zero cross signal detected on the upper or lower convection fan and oven lights control board.	<ul> <li>Make sure L1 and Neutral are connected to the convection fail and oven lights control board on connector P2 (P2 pin 3= neutral / P2 pin 5 = L1).</li> <li>If problem persists, replace the upper and/or lower over convection fan and oven lights control board.</li> </ul>
F26	Missing lower oven select signal on the lower oven convection fan and oven lights control board (double wall oven only).	<ul> <li>The lower oven conv. fan and oven lights board is supposed to receive 5V on pin 5 of connector P1. This voltage originate from the display board (connector P2 pin 4), check wiring.</li> <li>If problem persists, replace the con. fan and oven lights control board.</li> </ul>
<b>F30</b> <b>F31</b> Note:	Open RTD sensor probe/ wiring problem. Note: EOC may initially display an "F10", thinking a runaway condition exists. Shorted RTD sensor probe / wiring problem. <b>F30</b> or <b>F31</b> is displayed when oven is in active mode or an attempt to enter an active mode is made.	<ul> <li>Check wiring in probe circuit for possible open condition.</li> <li>Check RTD resistance at room temperature (compare to prob resistance chart). If resistance does not match the chart, replac the RTD sensor probe.</li> <li>Let the oven cool down and restart the function.</li> <li>If the problem persists, replace the display board.</li> </ul>
F90	Door motor mechanism failure.	<ul> <li>Press any key to clear the error.</li> <li>If it does not eliminate the problem, turn off power for 30 seconds, then turn on power.</li> <li>Check wiring of Lock Motor, Lock Switch and Door Switch circuits.</li> <li>Unplug the lock motor from the board and apply power (L1 directly to the Lock Motor. If the motor does not rotate, replace Lock Motor Assembly.</li> <li>Check Lock Switch for proper operation (do they open and close, check with ohmmeter). The Lock Motor may be powered as in above step to open and close Lock Switch. If the Lock Switch is defective, replace Motor Lock Assembly.</li> <li>If all above steps fail to correct situation, replace the display board and/or the relay board in the event of a motor that doe not rotate.</li> <li>If all the above steps fail to correct the situation, replace the display board in the event of a motor that rotates endlessly.</li> </ul>

### OVEN CIRCUIT ANALYSIS MATRIX

	SI	NGL	E W	ALL C	VEN	/ UPPER OVE		UBLE	WALL		
i	1	0 D	L. D.	OVER			S MAI KI	Κ			
		On Ke	ау во тс	ard Door	Oven	Lights Control Board	Board		On Relay	Board Cooling Fan	
	Bake	Broil	Conv.	Motor	Light Convection Fan		Door Switch		Cooling	High speed	
	P9	P7	P13	J3-5	P2-1	P2-7	P2-7 P8-3 / P8-5		speed J3-	7	
Bake	X	Х	Х*			X*		X	X		
Keep Warm	m <b>x</b>						X	X			
Broil	X						X		X		
Conv. Bake	Х	Х	Х			Х		X	X		
Conv. Roast	t <b>x x x</b>				Х		X	X			
Conv. Broil	oil XX				Х		X	X			
Clean	X	X	X**		X**			X	X	X	
Locking				Х							
Locked											
Unlocking				Х							
Unlocked											
Light					X		X				
Door Open					X		X				
Door Closed											
Bread Proof	X							X	X		
LOV	VER	OVE	N OP		UBLE			NAL	SIS MA	TRIX	
	On Relay Board		On Convection Fan and		On Display On Relay Board			oard			
	EL	EMEN	TS	Door	Oven Lights Control Board		Board DLB		Cooling	Cooling Fan	
	Bake	Broil	Conv.	Motor	Light	Convection Fan	Door Switch	L2 out	Fan Low	High speed	
Dalia	P10	P8	P16	J4-6	P2-1	P2-7	P10-3 / P10-6	P2	speed J4-8	J4-9	
Bake	X	X	X*			X*		X	X		
Reep vvarm	X							X	X	X	
BIOII	X	X				X		X		X	
CONV. Bake	X	X	X			X		X	X		
CONV. ROdst	×	X	X			A V		X	X		
	v	X	X			A Net		X	X	V	
Locking	^	X	X**			X**		<b>^</b>	X	Ā	
Lockad											
Luckeu				v							
Unlocking				<b>^</b>							
Light											
Door Open							y y				
Door Charact									~		
RIGGICHADOCT	X							X	X		
									C 11 C 1		

Relay will operate in this condition only

Convection element and fan are used for the first rise of temperature.

\*\* Convection element & fan are used during the cleaning.

### **RTD SCALE & ELECTRICAL RATING**

	RTD SCA	LE	
Temp. °F	Temp. °C	Resistance (ohms)	<sub>N</sub>
32 ± 1.9	0.0 ± 1.1	$1000 \pm 4.0$	2/
75 ± 2.5	23.9 ± 1.4	1091 ± 5.3	25
250 ± 4.4	121.1 ± 2.4	1453 ± 8.9	
350 ± 5.4	176.7 ± 3.0	1654 ± 10.8	E
450 ± 6.9	232.2 ± 3.8	1852 ± 13.5	V
550 ± 8.2	287.8 ± 4.6	2047 ± 15.8	
650 ± 9.6	343.3 ± 5.3	2237 ± 18.5	
900 ± 13.6	482.2 ± 7.6	2697 ± 24.4	

	ELECTRICAL RATING								
Kw Rating 240/208V	See Nameplate	Bake Element Wattage	2200W/1653W						
Broil Element Wattage	27" Models 3400W/2554W 30" Models 4000W/3004W	Convection Element Wattage	Electrolux models 2500W/1879W Electrolux/ICON Models 1600W/1202W						
OVEN TEMPERAT	URE SENSOR		Te la						

### MEAT PROBE RESISTANCE

Meat Pro	Meat Probe Temperature VS Resistance Table								
Temp. Celsius	Temp. Fahrenheit	Probe Resistance							
25°C	77°F	49.478 Kohm +/- 7%							
50°C	122°F	17.737 Kohm +/- 4.9%							
80°C	176°F	6.107 Kohm +/- 3.3%							
100°C	212°F	3.264 Kohm +/- 4.6%							



### OVEN DOOR REMOVAL AND REPLACEMENT

#### To Remove and Replace Oven Door

- 1. Open the door to the fully opened position.
- 2. Pull up the lock located on each hinge support toward front of range. You may have to apply a little upward pressure on the lock to pull it up.
- 3. Grasp the door by the sides, pull the bottom of the door up and toward you to disengage the hinge supports. Keep pulling the bottom of the door toward you while rotating the top of the door toward the appliance to completely disengage the hinge levers.
- 4. Proceed in reverse to re-install the door. Make sure the hinge supports are fully engaged before unlocking



Lock in normal position



Lock engaged for door removal



HINGE SLOT - Door removed from the appliance

### EXPLODED VIEW OF CONVECTION SYSTEM



The fan blade is mounted in the rear of the unit and has a "D" shaped mounting hole. Only minimum clearance exists between the oven back, fan blade, and fan shroud. Be careful not to bend blade when removing or installing.

Access to the fan blade is gained by removing the fan shroud, held in place by three screws, from the inside of the oven.

The fan blade is held in place with a <u>hex nut that has **left handed** threads</u>. When removing this nut, gently hold the fan blade, and turn the nut clockwise. If one of the blades becomes deformed, it may be bent back into shape using a flat surface as a reference.

A flat washer is located on the motor shaft between the snap ring on the shaft and the fan blade.

**NOTE:** If the fan blade is bent and motor vibrations increase, the noise made by the fan will be greater.

### **MOUNTING PLATE OVEN**

The fan motor on the rear of the unit is mounted to the main back (with three screws). There is a mounting plate held in place between the main back (with 2 screws) and the rear oven wall (with 2 screws). Should it be necessary to replace the oven cavity, you must remove the 2 screws located inside the unit at the rear of the oven cavity.

## COOLING FAN MOTOR

The 120 volt fan motor is located on the outside of the rear of the oven. The cooling fan has 2 speed options, which are driven by the oven controller. The high speed mode is used on self-clean when the temperature gets over 575F. The high speed is also used anytime the broil function is used. The cooling fan may remain at high speed after the broil function is cancelled to allow better cooling of the oven. On double wall ovens, the blower in both ovens will start when using one of the ovens in self-clean mode.

Screw

Service Panel

### TRUE HIDDEN BAKE ELEMENT REMOVAL

Follow the steps below in order to replace the through hidden bake element on a single wall oven and the lower through hidden bake element of a double wall oven.

- 1. Remove the lower decorative trim (2 screws).
- 2. Using a pair of long nose pliers, remove the cutter pins and the screw which are holding the true hidden bake element service panel in place (under the oven liner).
- 3. Disconnect the two bake element wires.
- 4. Slide the true hidden bake service panel and element out of its operational emplacement.

### The steps below are to follow in order to replace a double wall oven's upper true hidden bake element only.

- 5. Remove the center trim. You may use a flat screwdriver in order to pull the center trim out.
- 6. Remove the door lock assembly.
- 7. Follow the same steps as for the single wall oven (2-4 above).

### DOOR LOCK MECHANISM

The appliance is equipped with an electronic oven control and has an auto locking door latch feature. When the self clean cycle is programmed, the door is locked by a motor operated latch system. The interior of oven doesn't need to heat up to 500°F/260°C before the door locks. However, until the temperature inside oven reaches 500°F/260°C, the self-clean program can be canceled and door will unlock immediately. After oven reaches temperatures over 500°F/260°C, the door will not unlock until temperature drops below 500°F/260°C.

If a problem appears and the door stays locked it is possible for the **servicer** to unlock the door without removing the appliance from its place. Follow the steps below:

- 1. Trip the circuit breaker to **OFF** position.
- 2. Remove the 2 screws, which are fixing the oven door latch, located between the control panel and the oven door.
- 3. When the screws are removed it is possible to unlock the latch with a flat screwdriver, or one of the tools supplied with the wall oven which are used to take off the oven from the cabinet. Insert the tool tip through the slot on top of the oven door. During this step it's important to take care to not damage the appliance.
- 4. As soon as the latch is in the unlock position, you can open the door.
- 5. Replace the motor latch:

Upper Oven:

- 1. To have access to the door latch assembly, remove the 3 screws under the control panel which are fixing it.
- 2. Remove the electronic plate located on the access plate.
- 3. Remove the access plate located on the upper air channel by removing the screw.
- 4. Replace the motor latch with a new one and reassemble in opposite order and manner of removal.

#### Lower Oven:

- 1. Pull out the appliance approximately 4" from the cabinet.
- 2. Remove the 4 screws which are fixing the center trim and remove the center trim by pulling it from both extremities.
- 3. Replace the motor latch by a new one and reassemble in opposite order and manner of removal.



Insulation Lower Shield

> Insulation Service Panel

Hidden Bake Element

- Locking Pin

### **OVEN LIGHTS**

This applicance is equipped with electronics that control the intensity of the oven lights. This is done with the Convection Fan and Oven Lights Control Board that modulates the AC voltage going to the 120V halogen lamps. When the light key is pressed or when the oven door is opened the display board communicates with the Convection Fan and Oven Lights Control Board to specify the required light intensity. The Convection Fan and Oven Lights Control Board a "theater-like" effect on the light: the light intensity is gradually ramp-up or ramp-down as the light is turned on or off.

On a double wall oven there are two Convection Fan and Oven Lights Control Boards, one for each cavity. The upper and lower cavity lights will turn ON and OFF at the same time. That is, if the light key is pressed, the light of both ovens will turn ON.

If the oven lights do not operate, check the following:

- If you are getting an F23 or F24 error code it means the display board is not able to communicate with the Convection Fan and Oven Lights Control Board, thus the oven light will not operate. Check connections between the display board and the Convection Fan and Oven Lights Control Board. Refer to the fault code section for corrective actions.

- If the lights are always ON (even with the door closed), it could be because the control mistakenly thinks the door is opened. Verify door switch and its wiring.

- Check connections on the Convection Fan and Oven Lights Control Board. On connector P2: pin 3 should be Neutral, pin 5 should be L1 (120VAC) and pin 1 should go to the oven lights. The other terminal of the light should be connected to Neutral.

- Verify is light bulbs need to be replaced.

- If there is no error code, the wiring is good and still the oven lights are not working then replace the Convection Fan and Oven Lights Control Board.

### BLOCK DIAGRAM AND SYSTEM INTERCONNECTIONS

#### Block Diagram and System Interconnections

Double wall oven is illustrated. For single oven simply omit lower oven components and connections.

Oven Con												
	trol 3165165xx		Power supply board 3	165352xx			]					
P8	pin 1 = gnd pin 2 = gnd	•	−pin 1 = gnd −pin 2 = and	P2	P1	pin 1 = 120VAC in pin 2 not used	•	.2				
power supply	pin 3 not used		pin 3 not used	power supply	line voltage	pin 3 not used						
board LED display	pin 4 = V_LED2 (8.5 VDC ±2.5VDC)	*	pin 4 = V_LED2 (8.5 VDC ±2.5VDC)	output	input	pin 4 = neutral	•	Neutral				
	pins=v_ccbr (0.546c11546c)	1	pm5=v_ccb2 (0546c11546c)									
			Conv Fan and Light Control	upper oven 3165192xx								
						pin 1 = Oven light(s)	control		Upper Ov	en light	→ Neutral	
	pin 1 not used		pin 1 not used			pin 2 not used						
P2 Communication	pin 2 = communication (0-SVDC) JUL pin 3 = qnd		pin 2 = communication (0 - svDC) JUL pin 3 = ond	P1	P2 Triac	pin 3 = Neutral pin 4 not used	1		_ Neutral			
	pin 4 = power (5VDC ±1VDC)		pin 4 = power (5VDC ±1VDC)	Comm and power input	output	pin 5 = L1	-		-L1			
			pin 5 not used don't connect			pin 6 not used	n control		Lippor Co	ny fan	Noutral	
			pinonocuseu			pin / = convection la	il contaol		opper co	ilv iaii	- Neudai	
			Conv Fan and Light Control lowe	r oven 3165192xx		pin 1 = Oven light(s) c	ontrol		Lower Ove	an light	→ Neutral	
			pin 1 not used			pin 2 not used						
			pin 2 = Communication	P1	P2 Triac	pin 3 = Neutral	-	•	– Neutral			
			pin 5 = gnd pin 4 = power	Comm and	output	pin 5 = L1			-L1			
		,	pin 5 = 5V to indicate lower oven	powerinput		pin 6 not used						
			pin 6 not used			pin 7 = convection fa	n control		Lower Co	.nv fan	Neutral	
				_								
P1	pin 1 = upper oven probe		<ul> <li>Upper oven probe</li> </ul>									
Upper Oven				-								
riobe	pin 2= upper oven probe	-		-								
		L	I auror a construction	7								
P20	pin 1 = lower oven probe		Lower oven probe	J-1								
Probe	pin 2 = lower oven probe	•										
	pin 3 not used	4										
	pin 1 = upper meat probe	·	<ul> <li>Upper meat probe</li> </ul>	1_								
P18	pin 2 = upper meat probe	•		<u></u>								
Meat Probes	pin 3 = lower meat probe		<ul> <li>Lower meat probe</li> </ul>	]								
	pin 4 = lower meat probe	4										
	pip 1 = MDL switch		Inner MDL switch									
P10	pin 2 = rack sense $\Lambda\Lambda$		Upper rack sense switch									
Switch sense	pin 3 = door switch $\Pi \Pi$		Upper door switch	<u>}</u>								
upper oven	pin 4 = not used											
	pin 5 = sense return (common) 101	.*										
	pin 1 = MDL switch	·	Lower MDL switch									
P12	pin 2 = rack sense $\Pi \Pi$		Lower rack sense switch									
Switch sense	pin 4 not used		Lower door switch									
lower over	pin 5 not used											
	pin 6 = sense return (common) 101	1										
			Oven Relay Board 31644	39xx								
			í í					Fast-on				
	nin 1 - and		nin 1 - and					Connector s				
P16	pin 1 = gnu pin 2 not used	•	pin 2 not used	JZ				P9			Upper Bake element	_
Power supply input for control	pin 3 = V_UR (16 VDC ±5VDC)	•	pin 3 = V_UR (16 VDC ±5VDC)	Power supply				P7			Upper Broil element	_
board	pin 4 not used	•	pin 4 not used	output								5 C C C C C C C C C C C C C C C C C C C
	pin 5 = sync signal							P11			Upper Conv element	-
		.•	pin 5 = sync signal ∏∏				(L2 in ) (L2 out)	P11 P3 P1	•		Upper Conv element L2	
			pin 5 = sync signal ①①				(L2 in ) (L2 out)	P11 P3 P1			Upper Conv element L2	
	pin 1 not used		pin 1 not used				(L2 in ) (L2 out)	P11 P3 P1 P6	•		Upper Conv element	
P9	pin 1 not used pin 2 = Upper MDL relay pin 3 = pot used		pin 5 = sync signal <u>∏</u> pin 1 not used pin 2 = Upper MDL pin 3 = pot used				(L2 in ) (L2 out)	P11 P3 P1 P6 P10 P9	•		Upper Conv element L2 L1 Lower Bake element	
P9 Relay control	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB	-	pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB	J5 Pelau costrol			(L2 in ) (L2 out)	P11 P3 P1 P6 P10 P8 P12	← ←		Upper Conv element L2 L1 Lower Bake element Lower Broil element Lower Conv element	
P9 Relay control output to relay board - Upper	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Conv element relay	-	pin 5 = sync signal pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper Conv element relay	J5 Relay control input - Upper			(L2 in ) (L2 out) L2 in )	P11 P3 P1 P6 P10 P8 P12 P18	<		Upper Conv element L2 L1 Lower Bake element Lower Broil element Lower Conv element 2	
P9 Relay control output to relay board - Upper oven	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Conv element relay pin 6 = Upper Bake element relay		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper Cavelement relay pin 6 = Upper Bake element relay	J5 Relay control input - Upper oven			(L2 in ) (L2 out) L2 in ) (L2 out	P11 P3 P1 P6 P10 P8 P12 P18 P2	•		Upper Conv element L2 L1 Lower Bake element Lower Broil element Lower Conv element L2	
P9 Relay control output to relay board - Upper oven	pin 1 notused pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Convelement relay pin 6 = Upper Bake element relay pin 7 = Upper Broll element relay pin 8 not used	-	pin 5 = sync signal <u>J</u> <u>M</u> pin 1 notused pin 2 = Upper MDL pin 3 = notused pin 4 = upper DLB pin 5 = Upper Zorw element relay pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 8 notused	15 Relay control input - Upper oven			(L2 in ) (L2 out) L2 in ) (L2 out	P11 P3 P1 P6 P10 P8 P12 P18 P2	۰ ۰		Upper Conv element L2 L1 Lower Bake element Lower Broil element Lower Conv element L2	
P9 Relay control output to relay board - Upper oven	$ \begin{array}{l} pin 1 not used \\ pin 2 = Upper MDL relay \\ pin 3 = not used \\ pin 4 = Upper DL8 \\ pin 5 = Upper Convelement relay \\ pin 6 = Upper Broll element relay \\ pin 7 = Upper Broll element relay \\ pin 8 = wiggler stimulus \\ pin 9 = wiggler stimulus \\ pin 9 = wiggler stimulus \\ \end{array} $		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DL8 pin 5 = Upper Conv element relay pin 6 = Upper Bake element relay pin 8 not used pin 9 = wiggler stimulus <u>M</u>	15 Relay control input - Upper oven			(L2 in ) (L2 out) L2 in ) (L2 out	P11 P3 P1 P6 P10 P8 P12 P18 P2	۰ ۰		Upper Conv element L2 L1 Lower Bake element Lower Broil element Lower Conv element L2	
P9 Relay control output to relay board - Upper oven all rela y control:	$ \begin{array}{l} \begin{array}{l} \begin{array}{l} pin \ 1 \ not used \\ pin \ 2 = \ Upper \ MDL \ relay \\ pin \ 3 = \ not used \\ pin \ 4 = \ Upper \ DL \ 8 \\ pin \ 5 = \ Upper \ DL \ 8 \\ pin \ 5 = \ Upper \ C \ owelenent \ relay \\ pin \ 5 = \ Upper \ To \ lement \ relay \\ pin \ 7 = \ Upper \ To \ lement \ relay \\ pin \ 5 = \ upger \ To \ lement \ relay \\ pin \ 5 = \ upger \ State \ MDL \ State \ $		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper Bake element relay pin 6 = Upper Bake element relay pin 8 not used pin 9 = wiggler stimulus <u>M</u>	IS Relay control input - Upper oven			(L2 in ) (L2 out) L2 in ) (L2 out	P11 P3 P1 P6 P10 P8 P12 P18 P2	•		Upper Conv element L2 L1 Lower Bake element Lower Broil element Lower Conv element L2	
P9 Relay control output to relay board - Upper oven all rela y control:	pin 1 not used       pin 2 = Upper MDL relay       pin 3 = not used       pin 4 = Upper DLB       pin 5 = Upper Convelement relay       pin 7 = Upper Toil element relay       pin 7 = Upper Toil element relay       pin 9 = wiggler stimulus       JNOC = relay doecd. 0/l = relay open       pin 1 not used		pin 5 = sync signal ∬∬ pin 1 notused pin 2 = Upper MDL pin 3 = notused pin 4 = upper DLB pin 5 = Upper Convelement relay pin 5 = Upper Broil element relay pin 7 = Upper Broil element relay pin 8 notused pin 9 = wiggler stimulus ∬∬ pin 1 notused	J5 Relay control input - Upper oven		[	(L2 in ) (L2 out) (L2 in ) (L2 out	P11 P3 P1 P6 P10 P8 P12 P18 P2	+ + +		Upper Conv element 12 L1 Lower Bake element Lower Conv element 12 Veutral	
P9 Relay control output to relay board - Upper oven all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DL8 pin 5 = Upper Conv element relay pin 6 = Upper Brol element relay pin 8 = wigger stimulus <u>ML</u> a 3VDC - relay doed 0V = relay open pin 1 not used pin 1 not used pin 1 not used pin 1 not used relation for a kink + the		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = upper MDL pin 4 = upper Conv element relay pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 9 = wiggler stimulus <u>M</u> pin 1 not used pin 3 = utoused pin 3 = utoused	15 Relay.control input - Upper oven			(L2 in) (L2 out) L2 in) (L2 out) (L2 out) pin 1 = Neutral pin 2 not used	P11 P3 P1 P6 P10 P8 P12 P18 P2	+ + +		Upper Convelement 12 L1 Lower Bake element Lower Convelement 12 Neutral	
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to	pin 1 not used pin 2 = Upper MDL relay pin 3 = Upper OL8 pin 4 = Upper Conv element relay pin 5 = Upper Conv element relay pin 7 = Upper Toil element relay pin 8 not used pin 9 = wiggler stimulus		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper Bake element relay pin 6 = Upper Bake element relay pin 8 not used pin 9 = wiggler stimulus <u>M</u> pin 1 not used pin 1 not used pin 2 upper Cooling fan high relay pin 4 = Upper Cooling fan high relay	IS Relay control input - Upper oven J6 Relay control		J3 120VAC output for	(L2 in) (L2 out) L2 in) (L2 out) pin 1 = Neutral pin 2 not used pin 4 not used	P11 P3 P1 P6 P10 P8 P12 P18 P2	• • •		Upper Convelement L2 L1 Lower Bake element Lower Convelement L2 Neutral	
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board ered for	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Cow element relay pin 6 = Upper Toil element relay pin 8 not used pin 9 = wiggler stimulus <u>MM</u> 3.3VDC = relay dosed. 0V = relay open pin 1 not used pin 2 not used pin 2 not used pin 3 = utpper Cooling fan high relay pin 4 = Upper Cooling fan high relay		pin 5 = sync signal <u>J</u> <u></u> <u>I</u> <u>I</u> pin 1 notused pin 4 = Upper MDL pin 5 = notused pin 4 = upper DLB pin 5 = Upper Bake element relay pin 7 = Upper Bake element relay pin 7 = Upper Bake element relay pin 8 notused pin 1 notused pin 1 notused pin 1 = Upper Cooling fan high relay pin 5 = Upper Cooling fan high relay pin 5 = Upper Cooling fan high relay pin 5 = Loper Cooling fan high relay	J5 Relay.control input - Upper oven		J3 120VAC output for MDL and cooling fan	(L2 in ) (L2 out) (L2 out)	P11 P3 P1 P6 P10 P8 P12 P18 P2	• • •		Upper Convelement L2 L1 Lower Bake element Lower Convelement L2 Neutral L1 Upper MDL	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DL8 pin 5 = Upper Convelement relay pin 6 = Upper Rol element relay pin 7 = Upper Rol element relay pin 8 not used pin 9 = wiggler stimulus 3.3VDC = relay closed. 0V = relay open pin 1 = 0.0pper Coling fan high relay pin 4 = Upper Coling fan high relay pin 5 = Lower Coling fan high relay pin 5 = Lower Coling fan how relay pin 7 = tuset		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper DLB pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 9 = wiggler stimulus <u>M</u> pin 1 not used pin 3 = Upper coling fan high relay pin 4 upper coling fan high relay pin 5 = Lower Coling fan high relay pin 5 = Lower Coling fan low relay pin 7 ot used	J5 Relay control input - Upper oven J6 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven	(L2 in ) (L2 ox) L2 in ) (L2 out pin 1 = Neutral pin 2 ot used pin 3 = L1 pin 4 not used pin 5 = Upper MDL pin 6 not used	P11 P3 P1 P6 P10 P8 P12 P18 P2	• •		Upper Cooline far a	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans	pin 1 not used pin 2 = Upper MDL relay pin 3 = upper MDL relay pin 5 = Upper DL8 pin 5 = Upper DL8 pin 7 = Upper Bake element relay pin 8 not used pin 9 = wigger stimulus 3.3VDC = relay doed 0V = relay open pin 1 not used pin 1 not used pin 1 not used pin 4 = Upper Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 7 not used pin 8 = PUW relays		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper Bake element relay pin 6 = Upper Bake element relay pin 8 not used pin 9 = wiggler stimulus <u>M</u> pin 1 not used pin 1 not used pin 3 = upper Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 7 not used	J5 Relay control input - Upper oven J6 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven	(L2 in ) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out pin 1 = Neutral pin 4 not used pin 5 = Upper MDL pin 6 not used pin 7 = Cooling fan high	P11 P3 P1 P6 P10 P8 P12 P18 P2	• • •		Upper Convelement L2 L0wer Bolke element Lower Groil element Lower Convelement L2 Neutral L1 Upper MDL Upper Cooling fan	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: Relay output to relay board - cooling fans all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = upper DLB pin 5 = Upper DLB pin 6 = Upper Convelement relay pin 6 = Upper Cave element relay pin 7 = Upper Colement relay pin 9 = wiggler stimulus		pin 5 = sync signal <u>J</u> <u>M</u> pin 1 not used pin 4 = Upper MDL pin 3 = not used pin 4 = upper DL8 pin 5 = Upper Bate element relay pin 5 = Upper Bate element relay pin 7 = Upper Bate element relay pin 3 not used pin 1 not used pin 1 not used pin 4 = Upper Cooling fan high relay pin 5 = Luper Cooling fan high relay pin 5 = Luper Cooling fan high relay pin 5 = Dever Cooling fan high relay pin 6 = Dever Cooling fan high relay pin 7 to used pin 7 to used	J5 Relay control input - Upper oven J6 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven	(L2 in ) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out) pin 1 = Neutral pin 2 not used pin 4 not used pin 4 not used pin 4 not used pin 6 not used pin 7 = Cooling fan lwy pin 8 = Cooling fan lwy	P11 P1 P1 P6 P10 P8 P12 P18 P2 P2			Upper Convelement L2 L1 Lower Boake element Lower Convelement L2 Neutral L1 Upper MDL J Upper Cooling fan	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DL8 pin 5 = Upper Convelement relay pin 6 = Upper Rol element relay pin 7 = Upper Rol element relay pin 8 not used pin 9 = wiggler stimulus not used pin 1 = not used pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 6 = Upper Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 8 = PWM relays 33VDC = relay dosed. (W = relay open Din 1 = Lower Brol element relav		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper DLB pin 5 = Upper Bake element relay pin 7 = Upper Broil element relay pin 9 = wiggler stimulus <u>M</u> pin 1 not used pin 3 = Upper Cooling fan high relay pin 4 Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan low relay pin 7 not used pin 5 = Dwert Cooling fan low relay pin 6 = Upper <u>Cooling fan low relay</u> pin 7 = WMR relays <u>M</u>	J5 Relay control input - Upper oven Paly control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven	(L2 In) (L2 ox) L2 in) (L2 out) pin 1 = Neutral pin 2 = L1 pin 4 out used pin 5 = Upper MDL pin 6 = coling fan high pin 1 = Neutral	P11 P3 P1 P6 P10 P8 P12 P18 P12 P2			Upper Cooling fan Lucural Lower Broil element Lower fooi element Lower Gooi element Lower Coor element L2 Neutral L1 Upper MDL Upper Cooling fan Neutral	
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = Upper MDL relay pin 4 = Upper DL8 pin 5 = Upper DL8 pin 5 = Upper Convelement relay pin 6 = Upper Cole kement relay pin 8 = wiggler stimulus <u>ML</u> savoc relay doesd. 0V = relay open pin 1 = not used pin 1 = not used pin 3 = upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = PMW relays <u>ML</u> 3.3VOC relay doesd. 0V = relay open pin 1 = Lower Bole element relay pin 2 = Lower Bake element relay		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = upper DLB pin 5 = Upper Bake element relay pin 8 not used pin 9 = wiggler stimulus <u>M</u> pin 1 not used pin 9 = wiggler stimulus <u>M</u> pin 1 not used pin 3 = upper Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 7 a Upper Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 7 a Upper Cooling fan high relay pin 7 a Upwer Cooling fan high relay pin 7 a Upwer Cooling fan high relay pin 7 a UWM relays <u>M</u> pin 1 = Lower Broil element relay pin 2 = Lower Broil element relay	15 Relay control input - Upper oven J6 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven	(L2 in ) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out pin 1 = Neutral pin 4 not used pin 5 = Upper MDL pin 6 not used pin 7 = Cooling fan low pin 8 = Cooling fan low pin 8 = Cooling fan low pin 8 = Cooling fan low pin 9 = Neutral pin 1 = Neutral pin 1 = Neutral	P11 P3 P1 P6 P10 P8 P12 P12 P12 P2			Upper Convelement L2 Lower Bake element Lower Groil element Lower Groil element L2 Neutral L1 Upper MDL Upper Cooling fan Neutral	Neutral
P9 Relay: control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control P11 Relay control p11	pin 1 not used pin 2 = Upper MDL relay pin 3 = upper Conv element relay pin 5 = Upper Conv element relay pin 6 = Upper Conv element relay pin 7 = Upper Toil element relay pin 8 = wiggler stimulus		pin 5 = sync signal <u>Π</u> Ω pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DL8 pin 5 = Upper Cave element relay pin 7 = Upper Bake element relay pin 7 = Upper Bake element relay pin 7 = upper Bake element relay pin 7 = upper Cooling fan high relay pin 1 = not used pin 3 = utused pin 4 = Upper Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan how relay pin 6 = Lower Bake element relay pin 1 = Lower Brol element relay pin 4 = Lower Dir Coling Con Upper Cooling fan how relay pin 2 = Lower Bake element relay	J5 Relay control input - Upper oven B6 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven	(L2 in) (L2 out) (L2	P11 P3 P1 P6 P10 P8 P12 P18 P2			Upper Convelement L2 L1 Lower Bold element Lower Convelement L2 Neutral L1 Upper MDL Upper MDL L L1	Neutral
Pg Relay control output to relay board - Upper oven all rela y control: P13 Relay control: erelay board - cooling fans all rela y control: P11 Relay control: P11 Relay control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Convelement relay pin 6 = Upper Role lement relay pin 7 = Upper Role lement relay pin 8 not used pin 1 not used pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 6 = Upper Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 7 not used pin 8 = Upper Cooling fan high relay pin 6 = Lower Broil element relay pin 3 = Lower Broil element relay pin 3 = Lower Broil element relay pin 3 = Lower DLB relay pin 4 = Lower DLB relay pin 5 = Lower G_m		pin 5 = sync signal <u>J</u> <u>M</u> pin 1 notused pin 4 = upper MDL pin 3 = notused pin 4 = upper DLB pin 5 = Upper Conv element relay pin 7 = Upper Broil element relay pin 7 = Upper Broil element relay pin 7 = upper Broil element relay pin 1 not used pin 1 not used pin 3 = Upper Coling fan high relay pin 4 = Upper Coling fan high relay pin 5 = Lower Coling fan how relay pin 7 not used pin 8 = Lower Coling fan how relay pin 4 = Upper Coling fan how relay pin 5 = Lower Cove element relay pin 4 = Lower Broil element relay pin 3 = Lower Broil element relay pin 4 = Lower Broil element relay pin 4 = Lower DLB relay	J5 Relay.control input - Upper oven Belay.control input - cooling fans J7 Relay.control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven 120VAC output for MDL and cooling fan MDL and cooling fan	(L2 In) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out pin 3 = L1 pin 4 not used pin 5 = Upper MDL pin 6 = Out used pin 7 = Cooling fan lwigh pin 1 = Neutral pin 3 = L1 pin 4 not used pin 3 = L1 pin 4 not used	P11 P3 P1 P6 P10 P8 P12 P12 P18 P2			Upper Convelement L2 L1 Lower Boale dement Lower Tool element Lower Convelement L2 Upper MDL Upper MDL Upper Cooling fan Neutral L1	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay control cooling fans all rela y control: P11 Relay control: P11 Relay control: output to relay beard - Lower oven	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DL8 pin 5 = Upper Cl8 pin 5 = Upper Brol element relay pin 6 = Upper Brol element relay pin 7 = Upper Brol element relay pin 8 = wigger stimulus <u>ML</u> 3 xWC = relay doed 0V = relay open pin 1 not used pin 1 = not used pin 3 = upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 7 = Lower Cooling fan high relay pin 1 = Lower Brol element relay pin 3 = Lower Dia element relay pin 3 = Lower Dia element relay pin 3 = Lower MDL relay		pin 5 = sync signal <u>I</u> <u>I</u> <u>I</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper Corv element relay pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 9 = wiggler stimulus <u>I</u> <u>I</u> pin 1 not used pin 3 = Upper Coling fan high relay pin 4 = Upper Coling fan high relay pin 4 = Upper Coling fan high relay pin 5 = Lower Coling fan high relay pin 5 = Lower Coling fan low relay pin 6 = Upper <u>Coling fan low</u> relay pin 6 = Lower Coling fan low relay pin 7 = Lower Broil element relay pin 1 = Lower Broil element relay pin 3 = Lower Broil element relay pin 4 = Lower DLB relay pin 5 = Lower CDLB relay pin 5 = Lower MDL relay	15 Relay control input - Upper oven Belay control input - cooling fans 17 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven J4 120VAC output for MDL and cooling fan Lower oven	(L2 in ) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out) pin 1 = Neutral pin 4 not used pin 5 = L0 upper MDL pin 6 not used pin 7 = Cooling fan low pin 8 = Cooling fan low pin 8 = L0 used pin 3 = L1 pin 1 = Neutral pin 4 not used pin 5 = L1 pin 4 not used pin 5 = L1 pin 6 = L1 used pin 7 = L1 used pin 6 = L1 used pin	P11 P3 P1 P6 P10 P8 P12 P12 P18 P2			Upper Convelement L2 Lower Balke element Lower Gold element Lower Gold element L2 Neutral L1 Upper MDL Upper Cooling fan Neutral L1 Lower MDL	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control: P11 Relay control output to relay board - Lower oven all rela y control	pin 1 not used pin 2 = Upper MDL relay pin 3 = Upper Conv element relay pin 5 = Upper Conv element relay pin 5 = Upper Conv element relay pin 6 = Upper Conv element relay pin 7 = Upper Colement relay pin 8 = wigger stimulus 10 1 = used pin 1 = used Coling fan high relay pin 2 not used pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 8 = PUW relays 10 1 = Lower Cooling fan low relay pin 7 = Lower Cooling fan low relay pin 7 = Lower Boil element relay pin 3 = Lower Conv element relay pin 4 = Lower DL Relay pin 5 = Lower MDL relay pin 5 = Lower MDL relay pin 7 ot used		pin 5 = sync signal <u>Π</u> Ω pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DL8 pin 5 = Upper Bake element relay pin 6 = Upper Bake element relay pin 7 = Upper Bake element relay pin 7 not used pin 1 = not used pin 2 = utgger stimulus <u>Π</u> Ω pin 1 = not used pin 3 = upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 6 = Lower Cooling fan how relay pin 7 = not used pin 8 = DWM relays <u>Π</u> Ω pin 1 = Lower Brol element relay pin 2 = Lower Cooling fan how relay pin 3 = Lower Cooling fan how relay pin 6 = Lower Cooling fan how relay pin 6 = Lower Cooling fan how relay pin 3 = Lower Brol element relay pin 3 = Lower DRe leavement relay pin 4 = Lower DRe leavement relay pin 4 = Lower DR relay pin 5 = Lower MDL relay pin 5 = not used	J5 Relay control input - Upper oven B6 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven 120VAC output for MDL and cooling fan Lower oven	(L2 in) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out pin 1 = Neutral pin 4 not used pin 5 = L0pper MDL pin 6 not used pin 7 = Cooling fan holw pin 8 = Cooling fan holw pin 8 = L0 out used pin 3 = L1 pin 1 = Neutral pin 3 = L1 pin 4 not used pin 5 = L1 pin 4 not used pin 6 = Lover MDL pin 6 = Lover MDL pin 6 = Lover MDL pin 8 = Cooling fan low	P11 P3 P1 P6 P10 P8 P12 P12 P12 P12 P2			Upper Convelement L2 L0 L0 L0 L0 L0 L2 L0 L0 L0 L0 L2 L0	Neutral
Pg Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control: P11 Relay control: P11 all rela y control: all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Convelement relay pin 6 = Upper Rale element relay pin 7 a Upper Roll element relay pin 7 not used pin 1 not used pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 7 not used pin 7 not used pin 8 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 7 not used pin 1 = Lower Broll element relay pin 3 = Lower DLB relay pin 4 = Lower DLB relay pin 5 = Lower MDL relay pin 7 not used pin 7 not used		pin 5 = sync signal <u>JN</u> pin 1 notused pin 4 = upper MDL pin 3 = notused pin 4 = upper DLB pin 5 = Upper Conv element relay pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 7 notused pin 1 notused pin 1 notused pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan how relay pin 7 notused pin 1 = Lower Broil element relay pin 2 = Lower Cooling fan high relay pin 2 = Lower Cooling fan high relay pin 3 = Lower Cooling fan high relay pin 3 = Lower Cooling fan high relay pin 4 = Lower Broil element relay pin 3 = Lower Conv element relay pin 4 = Lower DLB relay pin 5 notused	J5 Relay control input - Upper oven Relay control input - cooling fans 17 Relay control input - Lower oven		J3 120VAC output for MDL and cooling fan Upper oven 120VAC output for MDL and cooling fan Lower oven	(L2 in ) (L2 out) (L2 ou	P11 P3 P1 P6 P10 P8 P12 P12 P18 P2			Upper Convelement L2 L0wer Bake dement Lower Cool element Lower Cool element L2 Upper MDL Upper MDL L1 L0wer MDL L1 L0wer MDL L1 L0wer MDL L1 L0wer MDL L0wer MDL L1 L0wer MDL L	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay control: cooling fans all rela y control: P11 Relay control: all rela y control: all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper CDB pin 5 = Upper Conv element relay pin 6 = Upper Bale element relay pin 7 = Upper Broil element relay pin 9 = wiggler stimulus <u>M</u> 3.3VOC - relay doed 0V = relay open pin 1 not used pin 3 = Upper Coling fan high relay pin 4 = Upper Coling fan high relay pin 4 = Upper Coling fan high relay pin 4 = Upper Coling fan high relay pin 5 = Lower Coling fan high relay pin 5 = Lower Coling fan high relay pin 6 = Lower Coling fan high relay pin 6 = Lower Coling fan high relay pin 6 = Lower Coling fan low relay pin 6 = Lower Broil element relay pin 1 = Lower Broil element relay pin 4 = Lower DLB relay pin 4 = Lower DLB relay pin 5 = Lower CMDL relay pin 6 = Lower MDL relay pin 7 not used 3.3VDC = relay dosed.0V = relay open		pin 5 = sync signal <u>I</u> <u>I</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DLB pin 5 = Upper Conv element relay pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 7 = upper Broil element relay pin 3 = Upper Coling fan high relay pin 3 = Upper Coling fan high relay pin 4 = Upper Coling fan high relay pin 5 = Lower Coling fan high relay pin 5 = Lower Coling fan low relay pin 6 = Upper Coling fan low relay pin 6 = Lower Coling fan low relay pin 6 = Lower Coling fan low relay pin 7 = Lower Broil element relay pin 1 = Lower Broil element relay pin 3 = Lower Broil element relay pin 4 = Lower Broil element relay pin 4 = Lower MDL relay pin 5 = Lower Alak element relay pin 5 = Lower Conv element relay pin 4 = Lower MDL relay pin 7 not used	15 Relay control input - Upper oven Belay control input - cooling fans 17 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven J4 120VAC output for MDL and cooling fan Lower oven	(L2 in ) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out) pin 1 = Neutral pin 4 not used pin 5 = L0uper MDL pin 6 not used pin 7 = Cooling fan low pin 8 = Cooling fan low pin 4 not used pin 9 = not used pin 4 not used pin 6 not used pin 7 not used pin 9 = Cooling fan low	P11 P3 P1 P6 P10 P8 P12 P12 P18 P2			Upper Convelement L2 Lower Balke element Lower Gold element Lower Gold element Lower Gold element La Upper MDL Upper MDL Upper Cooling fan Lu Lower MDL Lower MDL	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control: P11 Relay control output to relay board - Lower output to relay board - Lower output to relay board - Lower output to relay	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DL8 pin 5 = Upper DL8 pin 5 = Upper DL8 pin 7 = Upper Brol element relay pin 8 - used pin 9 = widger stimulus <u>M</u> 3.3VDC = relay doeed 0V = relay open pin 1 not used pin 1 = not used pin 3 = Upper Cooling fan high relay pin 4 = Lower Cooling fan high relay pin 4 = Lower Cooling fan high relay pin 3 = PUW relays <u>M</u> 3.3VDC = relay doeed 0V = relay open pin 4 = Lower DL8 relay pin 5 = Lower MDL relay pin 5 = not used pin 6 = Lower MDL relay pin 7 not used		pin 5 = sync signal <u>M</u> pin 1 not used pin 2 = Upper MDL pin 3 = not used pin 4 = upper DL8 pin 6 = Upper Bake element relay pin 6 = Upper Broil element relay pin 7 = Upper Broil element relay pin 7 = Upper Groil gin for the signal pin 1 = not used pin 2 = not used pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 6 = Lower Cooling fan how relay pin 7 = not used pin 5 = Lower Cooling fan how relay pin 6 = Lower Cooling fan how relay pin 7 = not used pin 1 = Lower Broil element relay pin 3 = Lower Cow element relay pin 3 = Lower Cow Cow element relay pin 4 = Upper Lower Dis Relay pin 5 not used pin 4 = Lower Dis Relay pin 5 not used pin 6 = Lower MDL relay pin 7 not used	J5 Relay control input - Upper oven Belay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven 14 120VAC output for MDL and cooling fan Lower oven	(L2 In) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out) (L2 out pin 1 = Neutral pin 4 not used pin 5 = L0 used pin 6 not used pin 6 not used pin 7 = Cooling fan low pin 8 = Cooling fan low pin 8 = L0 tued pin 1 = Neutral pin 4 not used pin 4 not used pin 6 = Lover MDL pin 6 = Lover MDL pin 7 = Cooling fan low pin 8 = Cooling fan low pin 9 = Cooling fan low	P11 P3 P1 P6 P10 P8 P12 P12 P12 P12 P2			Upper Convelement L2 L0wer Bake element Lower Knoll element Lower Knoll element L2 Neutral L1 Upper MDL Upper Cooling fan Neutral L1 L0wer MDL L L0wer MDL } Lower MDL }	Neutral
Pg Raly control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control: P11 Relay control output to relay board - Lover oven all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Convelement relay pin 6 = Upper Rale element relay pin 7 = Upper Rale element relay pin 7 a Upper Standuss III 3.3VDC = relay closed. OV = relay open jin 1 = not used pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 7 = not used pin 1 = Lower Broll element relay pin 3 = Lower Broll element relay pin 3 = Lower Broll element relay pin 3 = Lower DLB relay pin 4 = Lower MDL relay pin 5 = Lower MDL relay pin 7 rot used pin 7 rot used P3 (20 pins) Keyboard		pin 5 = sync signal <u>JII</u> pin 1 not used pin 4 = upper DLB pin 5 = upper Cour element relay pin 6 = Upper Bake element relay pin 7 = Upper Bake element relay pin 7 = Upper Bake element relay pin 7 not used pin 1 not used pin 1 not used pin 2 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 5 = Lower Cooling fan how relay pin 7 = Upper Cooling fan how relay pin 6 = Lower Cooling fan how relay pin 7 = Lower Broil element relay pin 2 = Lower Broil element relay pin 3 = Lower DLB relay pin 5 = Lower NDL relay pin 5 = Lower NDL relay pin 7 not used	J5 Relay control input - Upper oven J6 Relay control input - cooling fans J7 Relay control input - Lower oven		J3 120VAC output for MDL and cooling fan Upper oven 120VAC output for MDL and cooling fan Lower oven	(L2 in ) (L2 out) (L2 out) L2 in ) (L2 out) pin 1 = Neutral pin 3 = to tused pin 4 not used pin 4 not used pin 6 not used pin 8 = Cooling fan high Pin 1 = Neutral pin 9 = L1 pin 4 not used pin 6 = Lower MDL pin 7 not used pin 6 = Cooling fan high	P11 P3 P1 P6 P10 P8 P12 P18 P2			Upper Convelement L2 L0wer Bold element Lower Bold element Lower Convelement L2 Upper MOL Upper MOL Upper MOL L L L L Lower MOL L L Lower MOL L L Lower MOL L	Neutral
P9 Relay control output to relay board - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control: P11 Relay control: P11 Relay control: all rela y control: all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Convelement relay pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 7 = Upper Broil element relay pin 7 = not used pin 2 = not used pin 3 = Upper Colling fan high relay pin 4 = Upper Colling fan high relay pin 4 = Upper Colling fan high relay pin 4 = Upper Colling fan high relay pin 5 = Lower Colling fan high relay pin 5 = Lower Colling fan high relay pin 6 = Upper Colling fan high relay pin 6 = Lower Colling fan high relay pin 6 = Lower Broil element relay pin 1 = Lower Broil element relay pin 4 = Lower Broil element relay pin 5 = Lower MDL relay pin 5 = Lower MDL relay pin 5 = Lower JOB relay pin 5 = Lower JOB relay Broid 7 = Droid Come Server JOB relay Broid 7 = Droid Come		pin 5 = sync signal <u>JII</u> pin 1 notused pin 2 = Upper MDL pin 3 = notused pin 5 = Upper Conv element relay pin 6 = Upper Bake element relay pin 7 = Upper Broil element relay pin 7 = Upper Broil element relay pin 7 = tused pin 3 = Upper Cooling fan high relay pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 6 = Upper Cooling fan low relay pin 6 = Lower Cooling fan low relay pin 6 = Lower Cooling fan low relay pin 7 = Lower Broil element relay pin 1 = Lower Broil element relay pin 2 = Lower Broil element relay pin 4 = Lower Broil element relay pin 4 = Lower MDL relay pin 5 = Lower Conv element relay pin 6 = Lower MDL relay pin 7 notused Glass Touch pane	15 Relay control input - Upper oven J6 Relay control input - cooling fans J7 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven J4 120VAC output for MDL and cooling fan Lower oven	(L2 in ) (L2 out) L2 out) pin 1 = Neutral pin 2 not used pin 3 = L1 pin 4 not used pin 5 = Upper MDL pin 6 not used pin 1 = Neutral pin 3 = L0 pin 1 = Neutral pin 5 not used pin 5 = Lover MDL pin 6 = Cooling fan high	P11 P3 P1 P6 P10 P8 P12 P12 P18 P2			Upper Convelement L2 Lower Bake element Lower Goale element Lower Goale element Lower Goale element La Upper MDL Upper MDL Upper Cooling fan L0 Lower MDL L0 Lower Cooling fan	Neutral
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Pg Rely control output to relay bond - Upper oven all rela y control: P13 Relay output to relay board - cooling fans all rela y control: P11 Relay control output to relay board - Lover oven all rela y control:	pin 1 not used pin 2 = Upper MDL relay pin 3 = not used pin 4 = Upper DLB pin 5 = Upper Convelement relay pin 6 = Upper Rale element relay pin 7 = Upper Rale element relay pin 7 a Upper Stale (MC = relay open 3.3VDC = relay dosed. VC = relay open pin 3 = Upper Cooling fan high relay pin 4 = Upper Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 8 = Lower Broll element relay pin 1 = Lower Broll element relay pin 3 = Lower Broll element relay pin 3 = Lower DLB relay pin 4 = Lower MDL relay pin 7 not used pin 7 not used pin 7 not used pin 7 not used pin 8 = Lower Cow element relay pin 3 = Lower Cow element relay pin 3 = Lower MDL relay pin 4 = Lower MDL relay pin 7 not used pin 7 not used pin 7 not used pin 7 (30 pins) Touch panel LEDs		pin 5 = sync signal <u>JII</u> pin 1 not used pin 4 = upper DLB pin 5 = upper Cour element relay pin 5 = Upper Fault element relay pin 7 = Upper Fault element relay pin 7 = Upper Fault element relay pin 7 = upper Fault element relay pin 1 not used pin 1 not used pin 1 not used pin 2 = Upper Cooling fan high relay pin 4 = Lower Cooling fan high relay pin 4 = Lower Cooling fan high relay pin 3 = Lower Cooling fan high relay pin 4 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay pin 6 = Lower Cooling fan high relay pin 5 = Lower Cooling fan high relay Glass Touch pane	J5 Relay control input - Upper oven Relay control input - cooling fans I7 Relay control input - cooling fans		J3 120VAC output for MDL and cooling fan Upper oven 120VAC output for MDL and cooling fan Lower oven	$\begin{array}{c} (L2\ in)\\ (L2\ out)\\ \\ L2\ out\\ \\ L2\ out\\ \\ \\ L2\ out\\ \\ \\ L2\ out\\ \\ \\ \\ pn\ 1 = Neutral\\ pn\ 3 = L1\\ pn\ 4 \ out\ used\\ pn\ 3 = L0\ ing\ fan\ low\\ pn\ 8 = Cooling\ fan\ low\\ pn\ 3 = L1\\ pn\ 3 = L1$ pn\ 3 = L1\\ pn\ 3 = L1\\ pn\ 3 = L1 pn\ 3 = L1\\ pn\ 3 = L1 pn\ 3 = L1 pn\ 3 = L1 pn\ 3 = L1\\ pn\ 3 = L1 p	P11 P3 P1 P6 P10 P8 P12 P18 P2			Upper Convelement L2 L0	Neutral

### 1. HOW TO ACCESS THE CONTROL PANEL AREA (SINGLE AND DOUBLE)

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.

**Note:** It is suggested to always remove the oven door prior to working on the unit. This will lighten the unit and prevent damaging the unit and the oven door assembly.

**1.1** Fully open the oven door and locate hinge lock lever.



**1.2** After locating the hinge lock lever, pull it to the lock position as shown.



**1.3** Pull the oven door up at roughly 45° as shown; this will lock the oven door hinges, and pull the oven door out of its hinge receptacles and away from the unit.



**1.4** Remove the 3 screws from under the control panel.

1.5 Lift the control panel up and out of its anchorage points.

**1.6** Rear view of the anchorage point.

**1.7** Unplug the 2 quick connections from the power supply (1& 2) and the 2 Molex connectors (A & B).

### 2. CONTROL PANEL AREA (SINGLE AND DOUBLE) ELECTRONIC OVEN CONTROL, POWER SUPPLY AND RELAY BOARD

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.

2.1 Electronic oven control.











2

2.2 Power supply board.

**2.3** Gently pull on the automated door light switch and remove from the unit.

**2.4** In order to replace the relay board and access the door lock assembly, you may need to pull the unit out roughly 8 inches in order to remove the front cover.

**2.5** Remove the 4 screws from the front top cover.

**2.6** Remove the 2 screws and 4 plastic supports in order to remove the relay board.

### 3. DOOR LOCK ASSEMBLY (SINGLE AND UPPER OVEN)

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.

#### With the oven door locked

**3.1** Remove the right hand side screw.

**3.2** Loosen the left hand side screw and with the screwdriver still in the left hand side screw, slide the door lock assembly to the left.

#### With the oven door unlocked.

**3.3** Follow steps **1.1** through **1.7** then section **2.4** through **2.6** in order to have access to the door lock assembly service panel.

3.4 Remove the 1 screw that holds the service panel in place.

**3.5** Remove the 1 shoulder screw that holds the door lock assembly in place.

**3.6** Remove the door lock assembly; unplug all wires and quick connector in order to replace the door lock assembly....











#### 3.1 DOOR LOCK ASSEMBLY (LOWER OVEN)

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.



**3.11** Unlock the unit from its mounting brackets and pull the unit out of its cutouts roughly two inches.

**3.12** Remove the two screws from each side which holds the center trim in place.



**3.13** Remove the two screws which holds the door lock assembly to the center trim.



**3.14** You may use a flat screwdriver in order to release the center trim from between the two oven liners.



**3.15** Remove the door lock assembly from between the two oven liners and unplug all wires.

**3.16** Screw the lower door lock assembly to the center trim before installing the center trim back on the unit.

### 4. HALOGEN LIGHT SOCKET, HINGE RECEPTACLE AND OVEN RACK SENSOR

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.

**4.1** Remove the oven door and the decorative side panel as shown in section **1.1** through **1.3** 

**4.2** Pull the unit out of its cutouts.

**4.3** Remove the 9 screws which hold the left or right hand side panel.

**4.4** Pull the insulation up and locate the right hand side halogen light socket.

**4.5** Press the push-pins in, in order to remove the halogen light socket .

**4.6** Pull the insulation up and locate the left hand side halogen light socket and the oven rack sensor.

4.7 Gently pull the 2 wires off the oven rack sensor.











**4.8** Remove the 1 screw that holds the oven rack sensor to the outer side of the oven liner.

**4.9** Remove oven and ladder rack as shown in section **5.1** through **5.42** 

**NOTE:** This screw is located on the rear of the upper ladder rack bracket; inner side of the oven liner.



**4.11** Locate hinge receptacle from the side and remove from the back of the front frame.



**4.12** Push the insulation back into its original emplacement making sure that it's properly tucked in behind the lower panels.



**4.13** Upon replacing the side panel, make sure that it will be inserted between the frame and the upper side panel as shown.

**4.14** Gently pull on the automated door light switch and remove from the unit.

### 5. OVEN RACKS, LADDER RACKS AND HALOGEN LIGHT COVER AND LENS

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.

- 5.1 Remove the oven door as shown in section 1.1 through 1.3
- 5.2 Pull the oven rack all the way out.

**5.3** Lift the oven rack up from both sides in order to free the glide from the ladder racks.

**Note:** There is another "L" shape bracket at the back of the glide that needs to be lifted upwards...

**5.41** To remove the ladder rack from the oven liner, push the ladder racks up in order to free them from their holders.

View of the ladder rack in its holder.











**5.42** View of the ladder rack out and ready to be removed from its holder.

**IMPORTANT**: Oven and ladder racks have to be removed from the oven in self-clean mode.



**5.5** Gently pull on the light cover in order to have access to the halogen lamp.



**5.6** Gently pull on the halogen lamp in order to remove it from its socket.

#### **IMPORTANT**

Upon installing a new halogen lamp into its socket, the halogen lamp manufacturer suggests not to touch the lamp with your bare hands.

### 6. MEAT PROBE

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.



**6.1** Unscrew the two screws which hold the meat probe receptacle to the upper portion of the oven liner.

**NOTE**: In order to facilitate the removal of the meat probe receptacle, you may remove the oven racks.

**6.2** Gently pull the meat probe receptacle down and remove the two wires from the meat probe receptacle.

**Note:** There is long enough wire in order to replace the meat probe receptacle without removing the unit from its cutouts.

**6.3** Unscrew the nut which hold the meat probe receptacle to its mounting panel.



### 7. OVEN TEMPERATURE SENSOR

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.

**7.1** Remove the 2 screws which hold the oven temperature sensor to the oven liner.

**NOTE**: In order to facilitate the removal of the oven temperature sensor, you may remove the oven racks.

7.2 Gently pull the oven temperature sensor out.

**NOTE:** There is long enough wire in order to replace the oven temperature sensor without removing the unit from its cutouts.









### 8. BROIL ELEMENT

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.



8.1 Remove the 4 screws from the broil element

**NOTE**: In order to facilitate the removal of the broil element, you may remove the oven racks.



8.2 Pull the broil element out and unplug the two blue wires.

**NOTE**: There is long enough wire in order to service by the front without having to move the unit out of its cutouts.

**IMPORTANT:** Gently push the broil element back in place taking care not to pinch the wires between the oven cavity and the broil element.

### 9. CONVECTION ELEMENT, MOTOR AND COOLING FAN

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit

from the wall outlet before working on the unit.



**9.1** Remove the 3 screws that hold the convection fan cover to the back of the oven liner

**NOTE**: In order to facilitate the removal of the convection fan cover, you may remove the oven racks.

**9.2** Remove the 3 screws which hold the convection element to the back of the oven liner.

**9.3** Pull the convection element out and unplug the two orange wires.

**NOTE**: There is long enough wire in order to service by the front without having to move the unit out of its cutouts.

**IMPORTANT:** Gently push the convection element back in place taking care not to pinch the wires between the oven cavity and the convection element.

9.4 Remove the convection fan cover as shown in section 9.1.

**9.5** Hold the convection fan with one hand and unscrew the nut with a pair of pliers.(clockwise).

9.6 Remove the convection fan.

**Note:** Be careful, there is a small washer on the shaft behind the fan.

DO NOT REMOVE THE 2 SCREWS ON THE LEFT AND RIGHT HAND SIDE OF THE CONVECTION SHAFT.

**9.7** Remove the 4 screws from the convection motor and remove from the unit.

**Important:** the #4 screw holds the convection motor mounting plate.













**9.8** Remove the rubber washer from the convection shaft.

**9.9** Properly align the mounting holes from the mounting plate and the convection motor. From the front side of the convection motor...



...and from the back side of the convection motor.



**9.10** Make sure that the rubber washer is properly installed; laying flat on the convection motor mounting plate.



**9.11** Pull the unit out and remove the back cover.

9.12 Remove the 2 screws which hold the cooling fan in place.

**9.13** Pull the cooling fan away from the unit and remove the 3 wires.



### **10. UNITS BACK VIEW AND COMPONENTS**

- 1(a) Cooling fan
- 2(a) Broil element
- **3(a)** Safety thermostat
- 4(a) Oven temperature sensor
- 5(a) Convection motor
- 6(a) Triac
- 7(a) Convection element
- 8a Terminal block
- 9a Armed cable assembly

(a) = lower oven



### 11. UPPER OVEN HIDDEN BAKE ELEMENT (DOUBLE WALL OVEN ONLY)

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.



11.1 Remove the oven door as shown in section 1.1 through 1.3

**11.2** Refer to section 4 in order to remove the center trim and door lock assembly.

**11.3** Locate and remove the 2 cutter pins which hold the hidden bake cover in place.



**11.4** Using a pair of long nose pliers, remove the 2 hidden bake wires.



**11.5** Remove the hidden bake element from between the upper and lower oven frames.



**11.6** Remove the 4 screws that hold the hidden bake element to its service panel.

**Important:** Make sure that the square metal center of the element is in place.
#### 12. LOWER OVEN AND SINGLE WALL OVEN HIDDEN BAKE ELEMENT

**NOTE**: Always turn the house breaker or fuses to the off position, or unplug the unit from the wall outlet before working on the unit.

12.1 Remove the oven door as shown in section 1.1 through 1.3

12.2 Pull the unit out roughly 7 inches.

11.1 Remove the oven door as shown in section 1.1 through 1.3

**11.2** Refer to section 4 in order to remove the center trim and door lock assembly.

**11.3** Locate and remove the 2 cutter pins which hold the hidden bake cover in place.

11.1 Remove the oven door as shown in section 1.1 through 1.3

**11.2** Refer to section 4 in order to remove the center trim and door lock assembly.

**11.3** Locate and remove the 2 cutter pins which hold the hidden bake cover in place.





#### 13. MAIN OVEN DOOR ASSEMBLY



13.1 Remove the oven door as shown in section 1.1 through 1.3

**13.2** Remove the 2 screws that hold the oven door handle.



**13.3** Remove the center screw of the lower trim; the one closest from the oven door glass.



**13.4** Remove the 10 screws that hold the front decorative glass assembly; 4 at the top and 3 on each of the left and right hand side.

**IMPORTANT:** Upon installing the decorative glass assembly back on the door, remember that the smallest screw goes on the lower left and ring hand side through the side and lower trim as well as into the hinge assembly.



13.5 Pull the decorative glass assembly off of the oven door.

**13.6** Remove the 3 screws that hold the lower trim.

**13.7** The side screw being already removed, remove the 1 screw left on the lower hinge.

**13.8** Turn the oven door upside down and remove the screw that holds the oven door hinge to the inner door liner.

**13.9** Remove the 9 screws that hold the inner door baffle.

**13.10** Once the inner baffle has been removed, remove the 4 screws that hold the inner door glass pack assembly in place.





**13.11** Remove the glass holders and insulation.

13.12 Remove the  $2^{nd}$  inner glass from the glass pack assembly.

13.13 Remove the inner glass pack frame.



13.14 Remove the first inner door glass.

**13.15** In order to remove the oven door gasket, refer to section **13.8** 

Refer to section **13.9** in order to properly install the oven door handle screw spacer.

**13.16** Apply pressure (squeeze) on the spring clip of the oven door gasket in order to remove it.

#### Notes

# **Electrolux**