

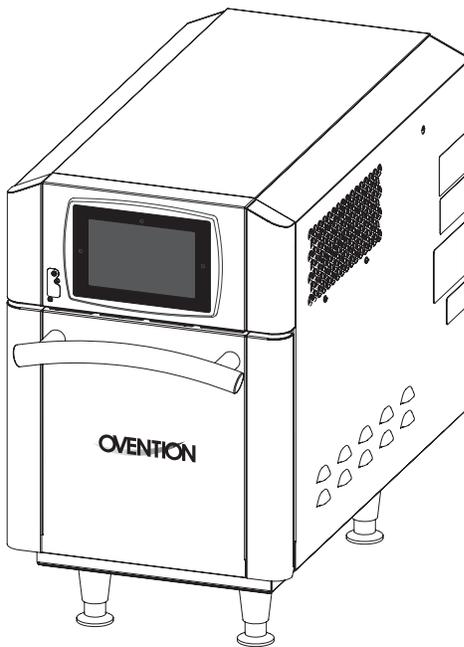
# OVENTION<sup>®</sup>

THE ESSENCE OF COOKING<sup>™</sup>

## MiSA<sup>™</sup>

### Microwave Speed-Assist Oven

#### Model MiSA-a12



## Installation and Operating Manual

### **⚠ WARNING**

Do not operate this equipment unless you have read and understood the contents of this manual! Failure to follow the instructions contained in this manual may result in serious injury or death. This manual contains important safety information concerning the maintenance, use, and operation of this product. If you're unable to understand the contents of this manual, please bring it to the attention of your supervisor. Keep this manual in a safe location for future reference.

### **⚠ ADVERTENCIA**

No opere este equipo al menos que haya leído y comprendido el contenido de este manual! Cualquier falla en el seguimiento de las instrucciones contenidas en este manual puede resultar en un serio lesión o muerte. Este manual contiene importante información sobre seguridad concerniente al mantenimiento, uso y operación de este producto. Si usted no puede entender el contenido de este manual por favor pregunte a su supervisor. Almacenar este manual en una localización segura para la referencia futura.

### **⚠ AVERTISSEMENT**

Ne pas utiliser cet équipement sans avoir lu et compris le contenu de ce manuel ! Le non-respect des instructions contenues dans ce manuel peut entraîner de graves blessures ou la mort. Ce manuel contient des informations importantes concernant l'entretien, l'utilisation et le fonctionnement de ce produit. Si vous ne comprenez pas le contenu de ce manuel, veuillez le signaler à votre supérieur. Conservez ce manuel dans un endroit sûr pour pouvoir vous y référer plus tard.

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## IMPORTANT OWNER INFORMATION

Record the model number, serial number, voltage, and purchase date of the unit in the spaces below (specification label located on the right side of the unit). Please have this information available when calling Ovention® for service assistance.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Voltage \_\_\_\_\_

Date of Purchase \_\_\_\_\_

### Business

Hours: 7:00 AM to 5:00 PM Monday–Friday,  
Central Time (CT)  
(Summer Hours — June to September:  
7:00 AM to 5:00 PM Monday–Thursday  
7:00 AM to 4:00 PM Friday)

Telephone: 855-298-6836 (Ovention Hotline)

E-mail: [partsandservice@oventionovens.com](mailto:partsandservice@oventionovens.com)

Additional information can be found by visiting our web site at [www.oventionovens.com](http://www.oventionovens.com).

## INTRODUCTION

Ovention MiSA™ Microwave Speed-Assist Ovens set a new standard in cooking quality, speed, flexibility, and efficiency. A new discovery in air handling not only speeds the cooking process, but “scrubs” and recirculates the air through the oven—eliminating the need for a hood system in most installations. Using an icon-driven touchscreen, operators can use, edit, and develop over 4000 custom recipes. Recipes can be developed to include up to three cooking stages—each with varying heat profiles, air velocity settings, timing, and microwave power percentages.

Ovention MiSA ovens are products of extensive research and field testing. The materials used were selected for maximum durability, attractive appearance, and optimum performance. Every unit is inspected and tested thoroughly prior to shipment.

This manual provides the installation, safety, and operating instructions for Ovention MiSA ovens. Ovention recommends all installation, operating, and safety instructions appearing in this manual be read prior to installation or operation of the oven.

Safety information that appears in this manual is identified by the following signal word panels:



**DANGER** indicates a hazardous situation which, if not avoided, will result in death or serious injury.



**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.



**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



**NOTICE** is used to address practices not related to personal injury.

# IMPORTANT SAFETY INFORMATION



Read the following important safety information before using this equipment to avoid serious injury or death and to avoid damage to equipment or property.

## WARNING

### ELECTRIC SHOCK HAZARD:

- Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. If plug and receptacle do not match, contact a qualified electrician to determine and install proper voltage and size electrical receptacle.
- Unit must be grounded properly. Failure to ground unit properly could result in serious personal injury or death.
- Place unit in standby, allow unit to cool, turn OFF power switch, and unplug unit before performing any cleaning, adjustments, or maintenance.
- DO NOT submerge or saturate with water. Unit is not waterproof. Do not operate if unit has been submerged or saturated with water.
- Unit is not weatherproof. Locate unit indoors where ambient air temperature is a minimum of 70°F (21°C).
- Do not steam clean or use excessive water on unit.
- This unit is not “jet-proof” construction. Do not use jet-clean spray to clean this unit.
- Do not clean unit when it is energized or hot.
- Do not clean unit with metal scouring pads. Metal pieces can break off pad and touch electrical components, creating risk of electric shock.
- Do not pull unit by power cord.
- Keep power cord away from heated surfaces.
- Do not allow power cord to hang over edge of counter.
- Discontinue use if power cord is frayed or worn.
- Do not attempt to repair or replace a damaged power cord. Cord must be replaced by an Authorized Ovention Service Agent or a person with similar qualifications.
- This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock, burn, or possible exposure to microwave energy.
- Use only Genuine Ovention Replacement Parts when service is required. Failure to use Genuine Ovention Replacement Parts will void all warranties and may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn. Genuine Ovention Replacement Parts are specified to operate safely in the environments in which they are used. Some after-market or generic replacement parts do not have the characteristics that will allow them to operate safely in Ovention equipment.

Liquids such as water, coffee, or tea are able to be overheated beyond boiling point without appearing to be boiling. Visible bubbling or boiling when container is removed from microwave oven is not always present. **THIS COULD RESULT IN VERY HOT LIQUID SUDDENLY BOILING OVER WHEN CONTAINER IS DISTURBED OR A UTENSIL IS INSERTED INTO THE LIQUID.**

## WARNING

### MICROWAVE EXPOSURE HAZARD:

- Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- Do not operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the: (1) Door (bent), (2) hinges and latches (broken or loosened), (3) door seals and sealing surfaces.
- Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
- The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

### FIRE HAZARD:

- Install with a minimum of 1” (25 mm) of space from rear of unit to any surface. If safe distances are not maintained, discoloration or combustion could occur.
- Do not block or cover any cabinet venting.
- Do not use an extension cord. If power cord is too short, contact a qualified electrician to determine and install proper voltage and size electrical receptacle near unit.
- Do not overcook food. Carefully attend to oven if paper, plastic, or other combustibles items are placed inside oven to facilitate cooking.
- Remove twist-ties from bags before placing in oven.

### IMPORTANT NOTE

If materials inside oven chamber ignite:

- Keep oven door closed.
- Turn OFF power switch.
- Unplug unit/disconnect power at circuit breaker.

**EXPLOSION HAZARD:** Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

Install unit in accordance with installation instructions in this manual.

This oven is designed specifically to heat or cook—NOT for industrial or laboratory use.

Do not heat baby bottles in oven. Uneven heating of liquids may cause burns. Always shake or stir liquids prior to consumption.

Do not heat sealed containers or products such as whole eggs in oven. These items may explode.

In the event of emergency, unplug unit.

Unit may be located adjacent to a slippery floor.

Make sure all operators have been instructed on the safe and proper use of the unit.

# IMPORTANT SAFETY INFORMATION

## **⚠ WARNING**

This unit is not intended for use by children or persons with reduced physical, sensory, or mental capabilities. Ensure proper supervision of children and keep them away from the unit.

This unit has no “user-serviceable” parts. If service is required on this unit, contact an Authorized Ovention Service Agent or contact the Ovention Hotline at 855-298-6836.

## **⚠ CAUTION**

### **BURN HAZARD:**

- Use caution when removing hot items. Do not allow children to use microwave. Failure to follow these instructions can result in severe burns.
- Some exterior surfaces on unit will get hot. Avoid unnecessary contact with unit.
- Pan/tray will be very hot upon removal—use oven mitt, pan gripper, or other utensil to remove.

Do not use metal utensils OR aluminum foil in oven. Use only utensils and materials approved for use in microwave ovens.

Do not turn off power switch or unplug unit immediately after use. Internal fans must cool oven to avoid damage to electrical components.

Locate unit at proper counter height in an area that is convenient for use. Location should be level to prevent unit or its contents from falling accidentally and strong enough to support the weight of the unit and contents.

**DO NOT** lift unit by door handle on front of oven. Door handle is not designed to support weight of unit. Lift from underneath unit only.

Do not move or relocate unit for cleaning. Unit is bulky and heavy.

Do not place anything on top of unit; doing so may subject personnel to injury or could damage unit.

Do not store any materials or items inside oven chamber when not in use.

Never use steel pads, wire brushes, or scrapers to clean unit.

## **NOTICE**

Do not locate unit in an area subject to ambient temperatures above 100°F (38°C). Doing so will damage unit and void warranty.

Improper cleaning of oven could damage catalyst and will void unit warranty.

Wear protective rubber gloves and protective eye wear when cleaning unit.

Do not cover any part of oven with metal foil. Airflow restriction will cause oven to overheat.

Do not lay unit on its side in any direction. Damage to unit could occur.

Use non-abrasive cleaners and cloths only. Abrasive cleaners and cloths could scratch finish of unit, marring its appearance and making it susceptible to soil accumulation.

Clean unit daily to avoid malfunctions and maintain sanitary operation.

This unit is intended for commercial use only—NOT for household use.

### **FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT (U.S.A. ONLY)**

This equipment generates and uses ISM frequency energy and if not installed and used properly, that is in strict accordance with the manufacturer’s instructions, may cause interference to radio and television reception. It has been type tested and found to comply with limits for ISM Equipment pursuant to part 18 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following:

- Reorient the receiving antenna of the radio or television.
- Relocate the Microwave Oven with respect to the receiver.
- Move the microwave oven away from the receiver.
- Plug the microwave oven into a different outlet so that the microwave oven and the receiver are on different branch circuits.

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this microwave oven. It is the responsibility of the user to correct such interference.

# MODEL DESCRIPTION

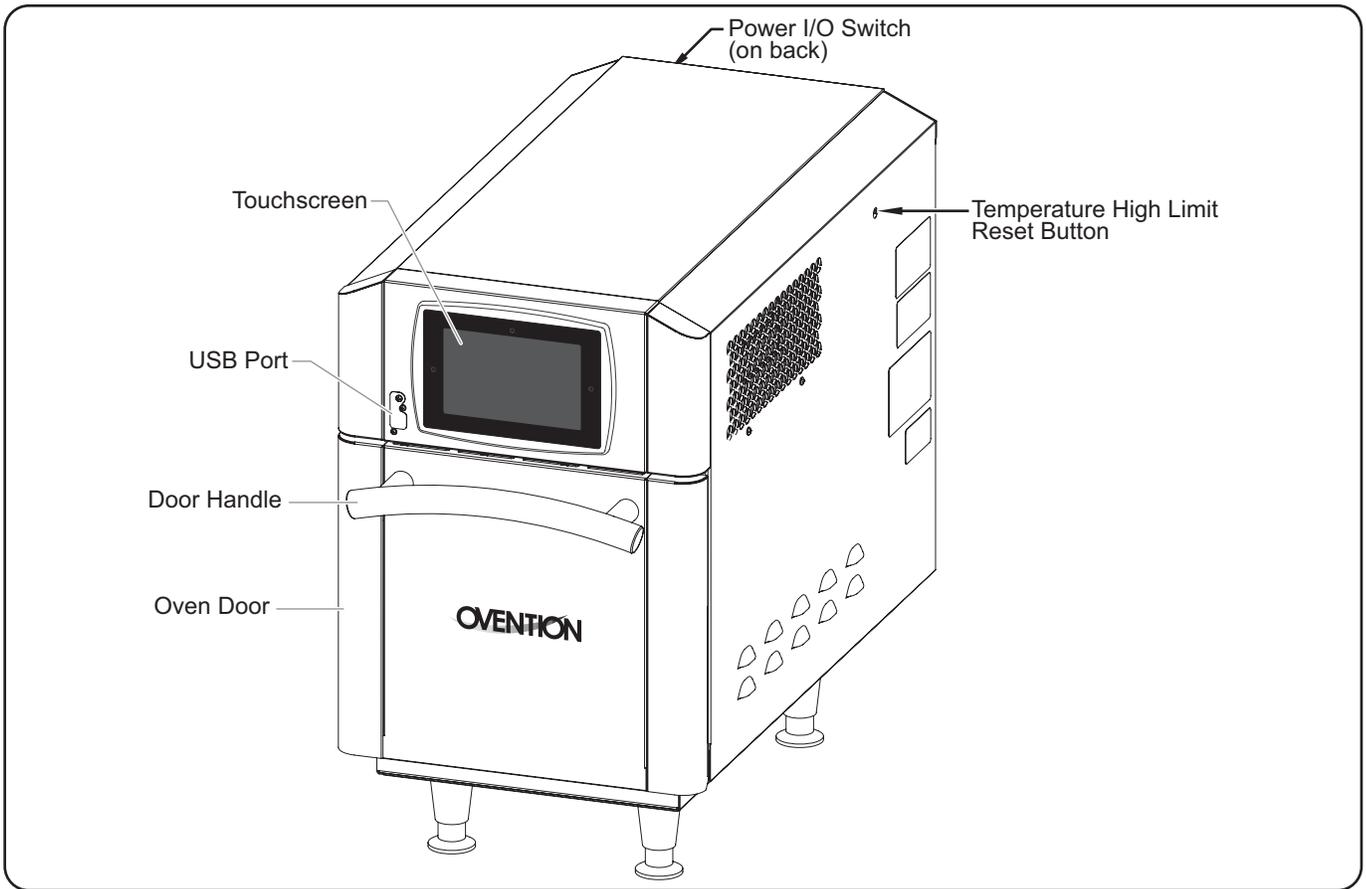
## All Models

Ovention MiSA™ Microwave Speed-Assist Ovens are designed to provide unequalled speed and flexibility in both kitchen and front-of-the-house installations. The variety of menu options, small footprint, low heat escape, and hood-less installation make the MiSA™ oven a single solution alternative to multiple pieces of cooking equipment.

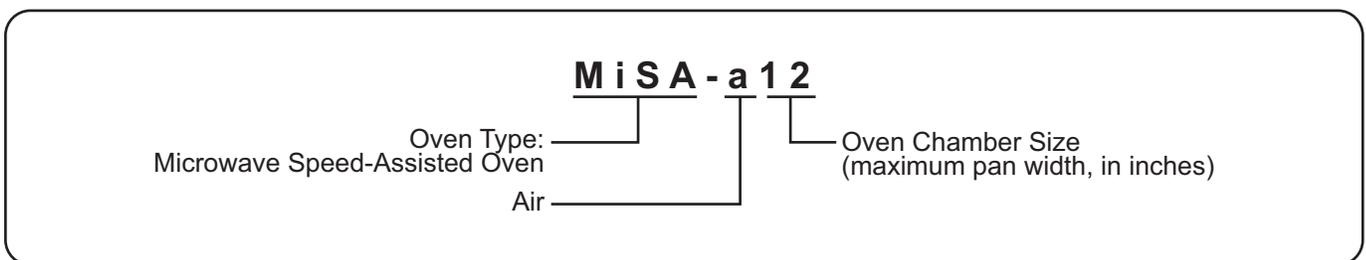
MiSA ovens are equipped with two top-mounted microwave units and a convected air blower. The microwave units provide precise and powerful, high-speed heating of the food product. The convected air blower directs heated air throughout the inside of the oven chamber for traditional, even cooking and finishing. Microwave heating is adjustable in intensity and duration; and convected air heating is adjustable in temperature, intensity, and duration by developing/using programmed recipes on the touchscreen.

Operator controls for the oven consist of a touchscreen and a Power I/O (on/off) switch. A USB port allows the uploading of pre-programmed recipes, installation of software updates, and the opportunity for service diagnostics. A 6' (1829 mm) cord and plug set is standard.

Any oven and microwave-safe pan can be used in the oven chamber of the MiSA oven. The oven chamber has a capacity of a standard 1/4 sheet pan or up to a 12" pizza.



## MODEL DESIGNATION



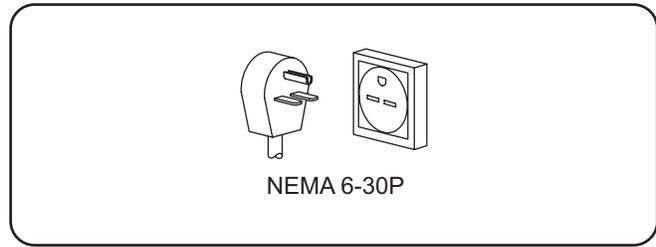
# SPECIFICATIONS

## Plug Configurations

Units are equipped with an electrical cord and plug appropriate for the electrical rating of the unit. Unit must be connected to a dedicated circuit.



**ELECTRIC SHOCK HAZARD:** Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. If plug and receptacle do not match, contact a qualified electrician to determine and install proper voltage and size electrical receptacle.



NEMA 6-30P

Plug Configurations

NOTE: Receptacle not supplied by Ovention.

## Electrical Rating Chart

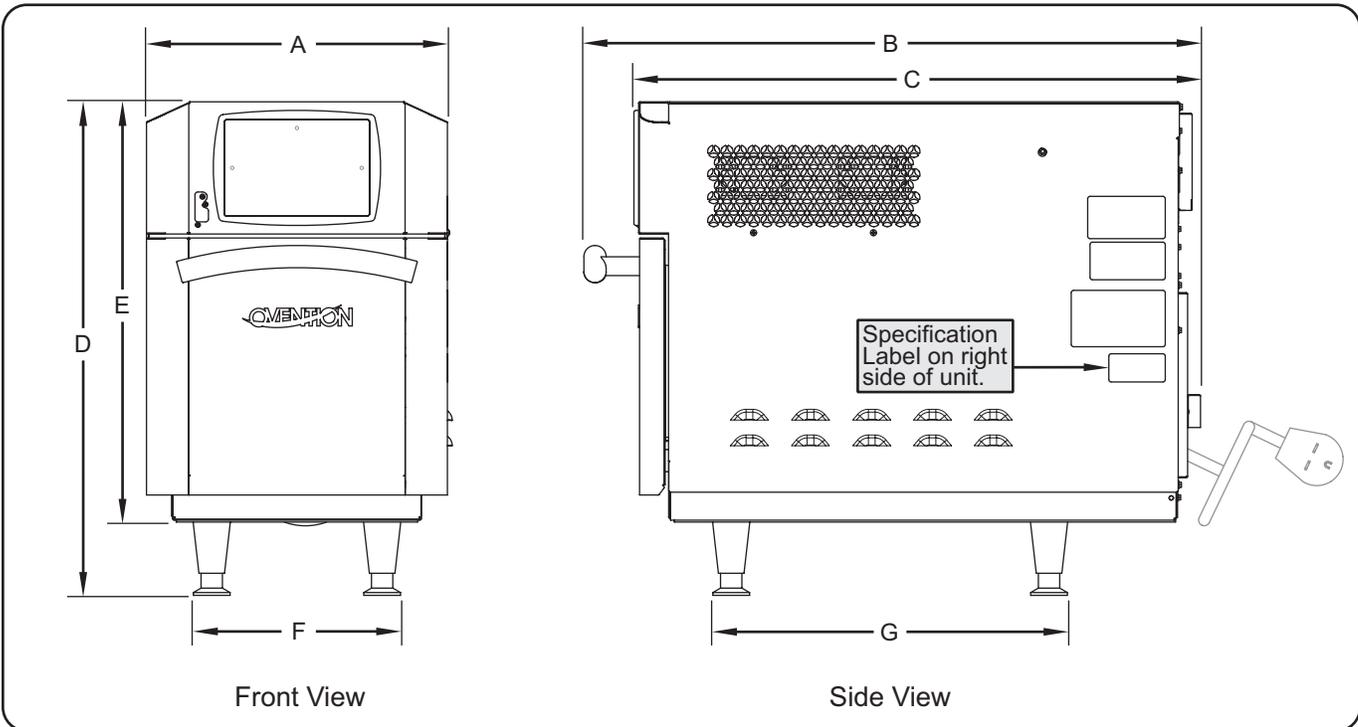
Model	Voltage	Watts	Amps	Phase	Hertz	Plug Configuration	Unit Weight
MiSA-a12	208–240	5658–6600	27.2–27.5	1	60	NEMA 6-30P	163 lbs. (74 kg)

NOTE: Ovention MiSA ovens are designed to accept 208 VAC through 240 VAC. The oven will adjust automatically to the input voltage.

NOTE: The specification label is located on the right side of the unit. See the label for the serial number and verification of unit electrical information.

## Dimensions

Model	Width (A)	Overall Depth (B)	Oven Depth (C)	Overall Height (D)	Oven Height (E)	Footprint Width (F)	Footprint Depth (G)
MiSA-a12	16" (406 mm)	32-13/16" (833 mm)	29-11/16" (754 mm)	26-5/16" (668 mm)	22-3/8" (568 mm)	11-1/16" (662 mm)	18-7/8" (479 mm)



## Temperature Range

The operating temperature range of the oven is 200°–525°F (93°–274°C).

**Oven Chamber Dimensions**  
**Model MiSA-a12**  
 12-7/8" W x 13-1/2" D x 5-1/2" to 7-7/8" H  
 (327 x 343 x 138 to 200 mm)

## General

Ovention® MiSA™ ovens are shipped with most components pre-assembled. Care should be taken when unpacking the shipping carton to avoid damage to the unit and components enclosed.



### ELECTRIC SHOCK HAZARD:

- Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. If plug and receptacle do not match, contact a qualified electrician to determine and install proper voltage and size electrical receptacle.
- Unit is not weatherproof. Locate unit indoors where ambient air temperature is a minimum of 70°F (21°C).

### FIRE HAZARD:

- Install with a minimum of 1" (25 mm) of space from rear of unit to any surface. If safe distances are not maintained, discoloration or combustion could occur.
- Do not block or cover any cabinet venting.
- Do not use an extension cord. If power cord is too short, contact a qualified electrician to determine and install proper voltage and size electrical receptacle near unit.



Locate unit at proper counter height in an area that is convenient for use. Location should be level to prevent unit or its contents from falling accidentally and strong enough to support the weight of the unit and contents.

### NOTICE

Do not locate unit in an area subject to ambient temperatures above 100°F (38°C). Doing so will damage unit and void warranty.

Do not lay unit on its side in any direction. Damage to unit could occur.

*NOTE: Due to the size and weight of the oven, use the proper number of people for installation based on the weight of the oven.*

1. Inspect the shipping container for obvious signs of transit damage. If damaged, inform the freight company immediately. **CAUTION! Stop! Do not attempt to use a damaged oven. Contact Ovention for assistance.**
2. Cut and remove the shipping bands from around the oven packaging.
3. Remove tape and protective packaging from all surfaces of the unit.
4. Open the oven door, and remove the included Ovention Oven Cleaner, cook plate, and all packaging from the oven chamber.
5. Inspect the oven for freight damage such as dents in the housing or inside the oven chambers. If damaged, inform the freight company immediately.



**DO NOT** lift unit by door handle on front of oven. Door handle is not designed to support weight of unit. Lift from underneath unit only.

6. Place the unit in the desired location. Make sure to lift from underneath the oven only.

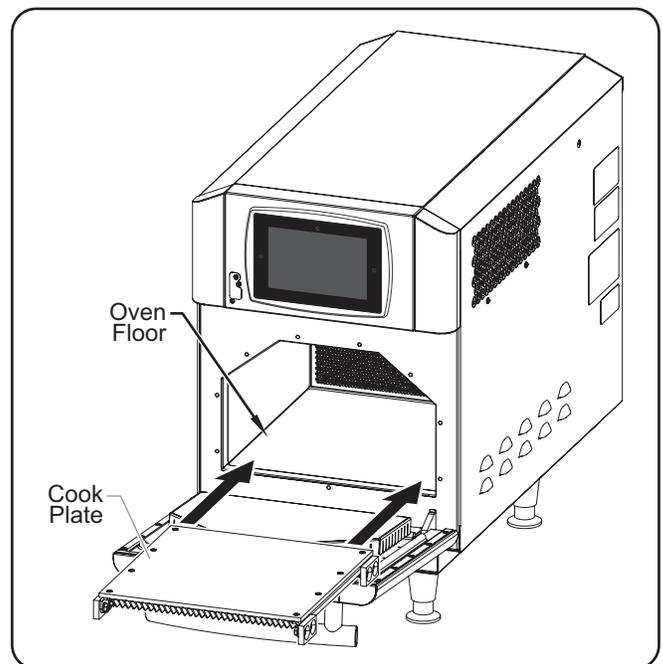
- Locate the unit in an area where the ambient air temperature is constant and a minimum of 70° F (21° C).
- Make sure the unit is at the proper counter height in an area convenient for use.
- Make sure the countertop/table is level and strong enough to support the weight of the unit and food product.
- Position with a minimum of 1" (25 mm) of space from the rear of the unit to any surface.

*NOTE: The above dimensions are minimum spacing requirements. Placing the unit with enough space to allow access to the Power I/O (on/off) switch, air filter, and temperature high limit reset button on the back/side of the unit is advisable.*

- Make sure all the feet on the bottom of the unit are positioned securely on the countertop/table.

7. Install the cook plate into the oven chamber, if necessary. To install the plate:

- a. Open the oven door.
- b. Slide the cook plate into the position on the floor of the oven chamber.



Installing the Cook Plate

8. Plug the unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. See the SPECIFICATIONS section for details.

*NOTE: The oven is suitable for 208 VAC through 240 VAC and will adjust automatically to the voltage being supplied.*

# OPERATION

## General

Use the following information and procedures to operate an Ovention® MiSA™ oven.



Read all safety messages in the **IMPORTANT SAFETY INFORMATION** section before operating this equipment.

### MICROWAVE EXPOSURE HAZARD:

- Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- Do not operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the: (1) Door (bent), (2) hinges and latches (broken or loosened), (3) door seals and sealing surfaces.
- Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.

### FIRE HAZARD:

- Do not overcook food. Carefully attend to oven if paper, plastic, or other combustibles items are placed inside oven to facilitate cooking.
- Remove twist-ties from bags before placing in oven.

Liquids such as water, coffee, or tea are able to be overheated beyond boiling point without appearing to be boiling. Visible bubbling or boiling when container is removed from microwave oven is not always present. **THIS COULD RESULT IN VERY HOT LIQUID SUDDENLY BOILING OVER WHEN CONTAINER IS DISTURBED OR A UTENSIL IS INSERTED INTO THE LIQUID.**

Do not heat baby bottles in oven. Uneven heating of liquids may cause burns. Always shake or stir liquids prior to consumption.

Do not heat sealed containers or products such as whole eggs in oven. These items may explode.

In the event of emergency, unplug unit.



### BURN HAZARD:

- Some exterior surfaces on unit will get hot. Avoid unnecessary contact with unit.
- Pan/tray will be very hot upon removal—use oven mitt, pan gripper, or other utensil to remove.

Do not use metal utensils OR aluminum foil in oven. Use only utensils and materials approved for use in microwave ovens.

## Recipe Information

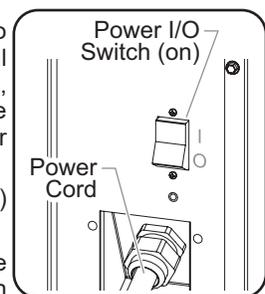
MiSA ovens are designed to provide unequalled quality, speed, flexibility, and efficiency. The touchscreen controller has the capability of storing over 4000 custom recipes. Recipes are organized into categories that group together similar items, such as lunch recipes or different varieties of pizza.

At initial startup, the Categories screen will show an “Uncategorized” category and either a sample category or customer-specific, preloaded categories. If the Categories screen shows a sample category with recipes, these recipes can be used to help develop specific recipes appropriate for the installation. Refer to the “Programming Categories/Recipes” procedure in this section for instructions on creating recipes and categories.

## Startup

Use the following procedure to start up the oven.

1. Make sure the unit is plugged into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. See the SPECIFICATIONS section for details.
2. Make sure the Power I/O (on/off) switch is in the I (On) position.
  - The touchscreen will energize and show the logo screen followed by a progress circle.
  - After the software loads, the Hello screen will appear.



Touch to access About This Oven screen.

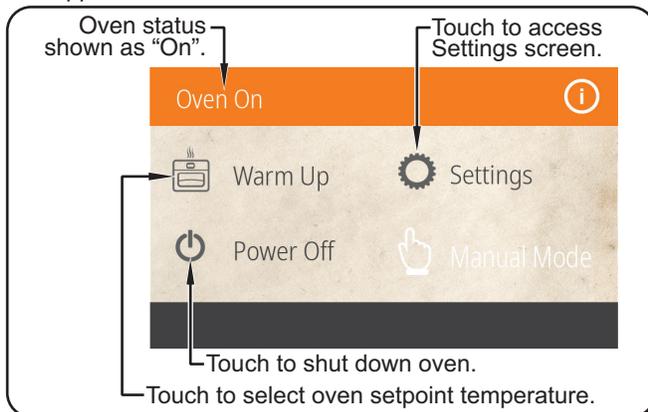


Touch to access Settings screen.

Touch to access Startup screen and prepare oven for cooking.

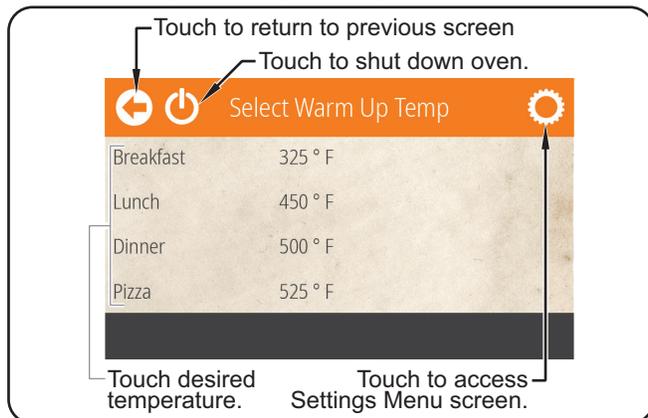
Hello Screen

- Touch GET STARTED COOKING on the Hello screen to prepare the oven for cooking. The Startup screen will appear.



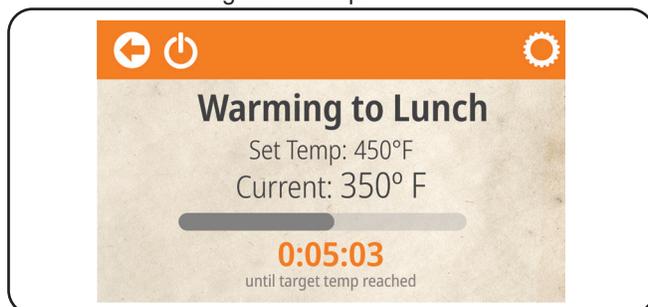
Startup Screen

- Touch WARM UP on the Startup screen. The Warm Up Temp screen will appear.
  - Several pre-set setpoint temperatures are available.



Warm Up Temp Screen

- Touch the desired setpoint temperature on the touchscreen.
  - Air blowers, and cooling fans will start up. Allow approximately 10 minutes for the oven to reach setpoint temperature.
  - The touchscreen shows the selected setpoint temperature, the current chamber temperature, and the time remaining for warmup.



Warmup Status Screen

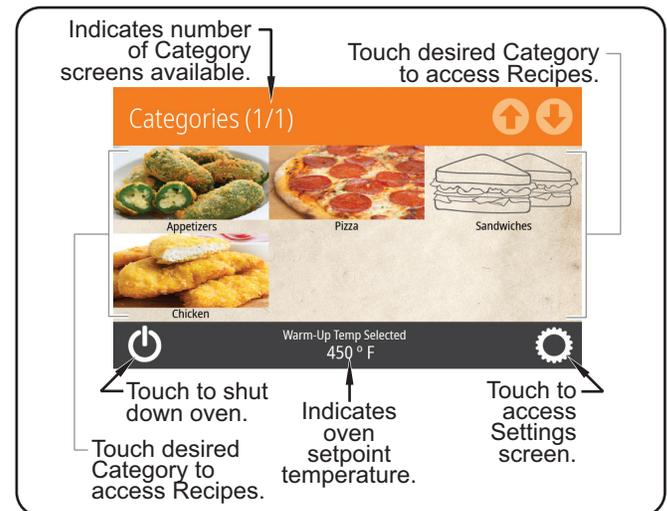
When the oven reaches setpoint temperature, the Categories screen appears on the touchscreen. The oven is now ready for cooking.

## Cooking

Use the following procedures to cook food product in the MiSA oven.

**NOTE:** If the oven door is left open for more than 15 seconds during a cooking sequence, a "Close Door" pop up will appear on the touchscreen.

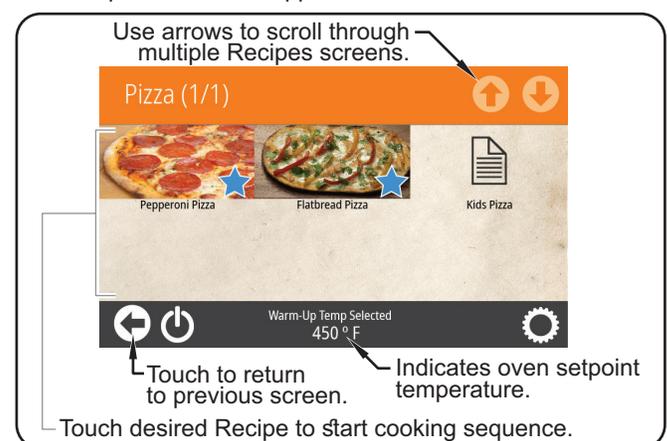
- Make sure the oven chamber has reached setpoint temperature. The Categories screen will appear on the touchscreen.



Categories Screen

**NOTE:** The Categories and Recipes shown are for example only. Depending on the configuration of the oven, these screens will show either sample items or customer-specific, preloaded items.

- Open the oven door, and place the pan/tray with food product into the oven chamber. **CAUTION! BURN HAZARD—Always use a paddle, pan gripper, or other utensil to load and unload food product.**
- Touch the desired category on the touchscreen. The Recipes screen will appear.

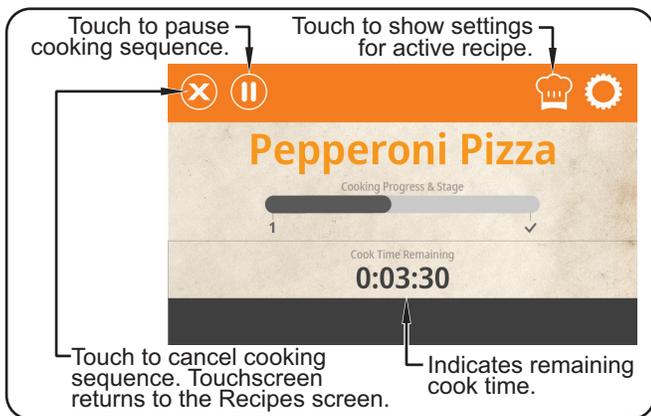


Recipes Screen

- Touch the desired recipe on the touchscreen.
  - The cooking sequence begins.
  - The touchscreen changes to the Cooking screen and shows the remaining cook time for the selected recipe.

*continued...*

# OPERATION



Cooking Screen

- If the selected recipe contains any Cook Events, the Cooking screen will change to show the name of the recipe cooking as well as a countdown to the Cook Event. When the Cook Event occurs, the cooking sequence pauses and the Cook Event screen will appear on the touchscreen. Open the oven door, remove the pan/tray with food product, complete the action on the food product, place the pan/tray with food product back into the oven chamber, close the oven door, and touch  on the Cook Event screen to continue the cooking sequence. See “Programming a Cook Event” in this section for a detailed description of Cook Events.
  - To pause a cooking sequence, touch . The touchscreen will show “COOKING PAUSED”. Touch  to resume the cooking sequence.
  - When the cooking sequence is finished, the touchscreen shows “[Recipe] DONE” and an audible alert sounds.
5. Open the oven door. Using a paddle, pan gripper, or other utensil, remove the cooked food product and close the oven door. **CAUTION! BURN HAZARD—Always use a paddle, pan gripper, or other utensil to load and unload food product.**
- The touchscreen will return to the Recipes screen.

**NOTE:** Touch  on the “DONE” screen to return to the Recipes screen without opening the oven door.

## Standby Shutdown

Use the following procedure to put the oven into standby shutdown during extended periods of non-use.

1. Touch  on the touchscreen to shut down operation and put the oven in standby.
  - The element will shut off, and the Cooling screen will appear on the touchscreen,
  - The air blower and cooling fans will continue to operate until the oven chamber temperature drops below 140°F (60°C).
  - After the chamber is cool, the oven status will read “Oven Off”. After a period of time, the touchscreen will darken to a screen saver.

## Shutdown

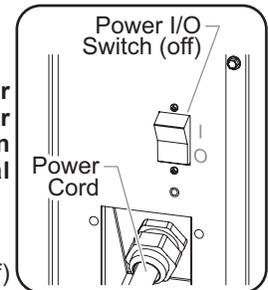
Use the following procedure to disconnect the oven from power for cleaning and maintenance as well as long term shutdown.

1. Touch  on the touchscreen to shut down operation and put the oven in standby. Cooling fans will operate until the oven chamber temperature drops below 140°F (60°C).

### CAUTION

**Do not turn off power switch or unplug unit immediately after use. Internal fans must cool oven to avoid damage to electrical components.**

2. After the cooling fans shut off:
  - a. Move the Power I/O (on/off) switch to the **O** (Off) position.
  - b. Unplug the power cord.

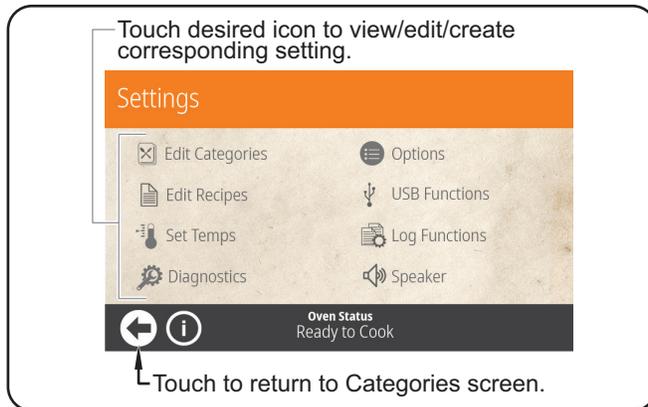


## Programming Categories/Recipes

Use the following procedures to edit, create, or delete categories and recipes. These procedures require access to password-protected screens and should be performed by authorized personnel only.

**NOTE:** The USB port allows the uploading of pre-programmed recipes from an external USB drive. Refer to the "Uploading from a USB Drive" procedure in this section for details.

- From the Categories screen, touch .
  - A password keypad will appear on the touchscreen.
- Input the password "12345", and touch .
  - The Settings screen will appear on the touchscreen.



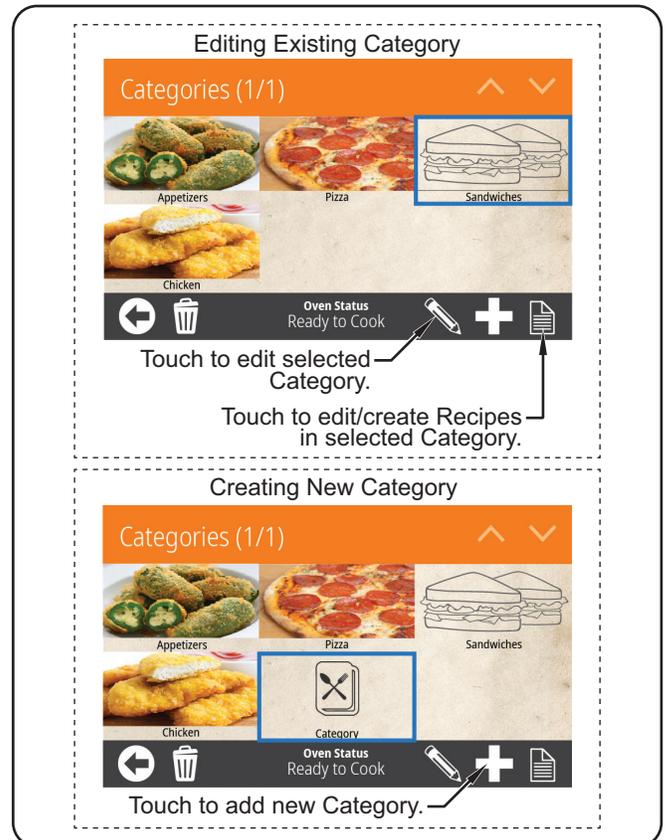
Settings Screen

- Touch either EDIT CATEGORIES or EDIT RECIPES on the Settings screen, depending on the desired function. Then, refer to the appropriate procedure in this section.

## Editing/Creating Categories

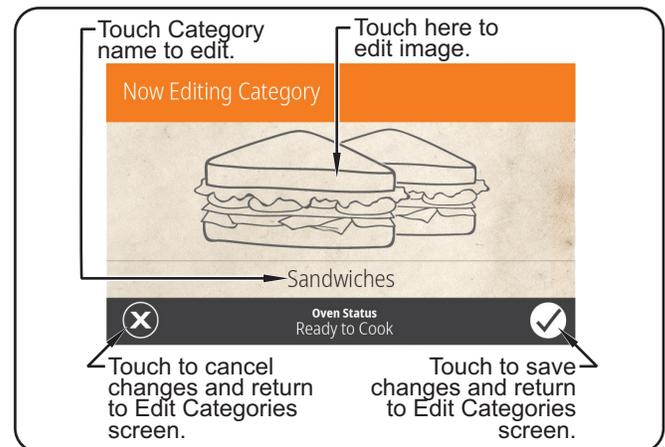
After touching EDIT CATEGORIES on the Settings screen, the Edit Categories screen will appear. This screen will look similar to the Categories Screen.

- Touch an existing category to edit the category, or touch  to create a new category.
  - For existing categories**, a blue box will highlight the category.
  - For new categories**, a new category will appear highlighted by a blue box.



Edit Categories Screen

- Touch  to edit/create the category. The Now Editing Category screen appears.



Now Editing Category Screen

continued...

# OPERATION

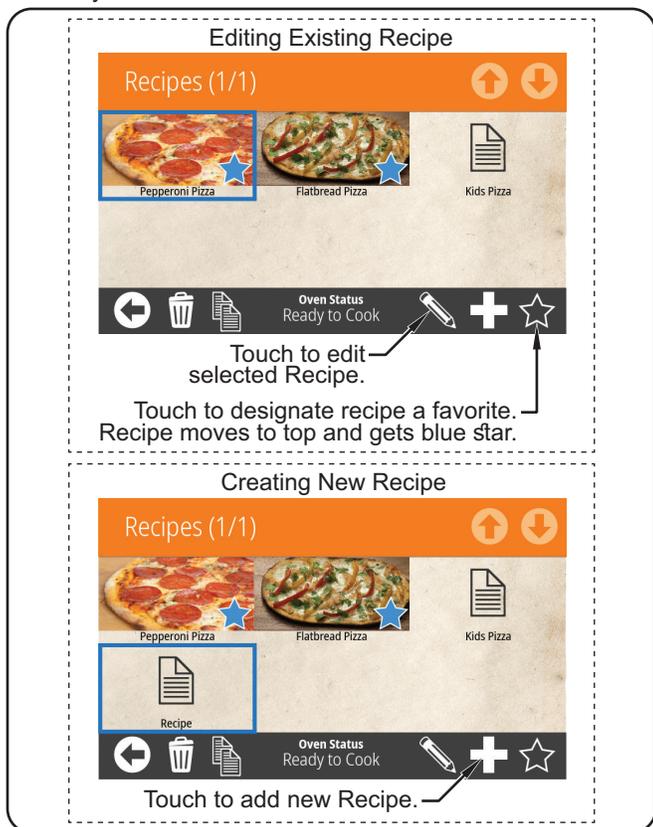
3. Touch the category image to select the icon or photo used for the category. The Select Image screen appears and shows two tabs—one for icons and one for photos.
  - a. Use the arrows to scroll through the desired tab.
    - When using icons, the background color can be changed. Touch the desired color in the color strip below the tabs.
  - b. Touch the desired image to select, then touch to save and return to the Now Editing screen.
4. Touch the category name to edit.
  - a. Use the keypad that appears to edit the name. Names can have up to 20 characters.
  - b. Touch to save and return to the Now Editing screen.
5. When category editing is complete, touch twice to return to the Categories screen.

**NOTE:** Recipes related to a category can be edited/created from the Edit Categories screen. With the category highlighted, touch the icon to access the Edit Recipes screen. Refer to “Editing/Creating Recipes” in this section for details.

## Editing/Creating Recipes

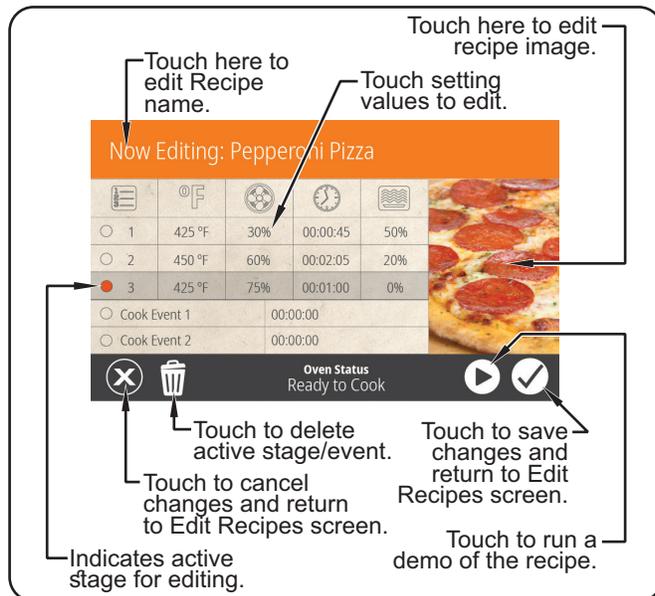
After touching EDIT RECIPES on the Settings screen, the Edit Recipes screen will appear. This screen will look similar to the Recipes Screen.

1. Touch an existing recipe to edit the recipe, or touch to create a new recipe.
  - **For existing recipes**, a blue box will highlight the recipe.
  - **For new recipes**, a new recipe will appear highlighted by a blue box.



Edit Recipes Screen

2. Touch to edit/create the recipe. The Now Editing screen appears.



Now Editing Screen

3. Touch the recipe name to edit.
  - a. Use the keypad that appears to edit the name. Names can have up to 20 characters.
  - b. Touch to save and return to the Now Editing screen.
4. Touch the recipe image to select the icon or photo used for the recipe. The Select Image screen appears and shows two tabs—one for icons and one for photos.
  - a. Use the arrows to scroll through the desired tab.
  - b. Touch the desired image to select, then touch to save and return to the Now Editing screen.
5. Touch each setting on the Now Editing screen to edit the corresponding setting. The Settings include:

- = Stage
- = Cook Temperature
- = Blower Percentage
- = Cook Duration
- = Microwave Percentage

- Touching number 1, 2, or 3 under the icon will make that stage active for editing. The radio button will glow and the entire row will be highlighted. Each recipe can be programmed to have up to three stages, depending on the food product. Stages are programmed with unique settings to create a customized cooking sequence for the recipe.

**NOTE:** It is not necessary to create stages for a recipe if it is not required by the food product. If unique stages are not required, leave settings for stages 2 and 3 blank.

- Touching the setting value for , , , or will bring up a keypad specific to the setting. Enter the desired value using the keypad, then touch to return to the Now Editing screen.

6. Touch  to save the recipe settings and return to the Edit Recipes screen.
7. When all recipe editing is complete, touch  twice to return to the Categories screen.

## Deleting Categories/Recipes

The procedure for deleting categories and recipes is the same. After touching EDIT CATEGORIES or EDIT RECIPES on the Settings screen, the corresponding “Editing” screen will appear.

1. Touch a category/recipe to select. A blue box will highlight the category/recipe.
2. Touch  to delete the category/recipe.
3. When deleting is complete, touch  twice to return to the Categories screen.

## Programming a Cook Event

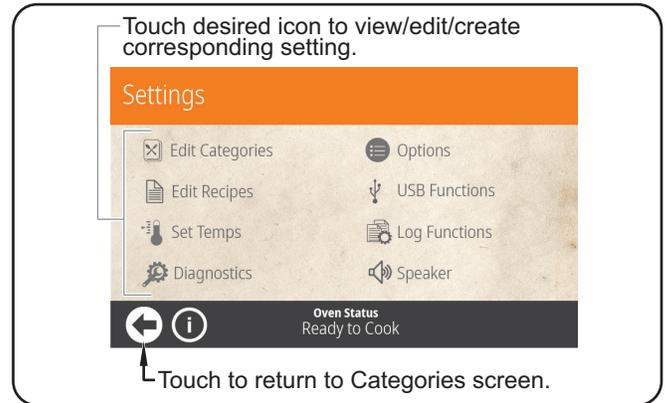
A Cook Event is a feature that can be programmed into recipes that allows an action to be taken on a food product during a cooking sequence (example: ADD CHEESE). A Cook Event pauses an in-progress cooking sequence and signals the operator to open the oven door and move the food product out of the oven chamber. After the action is taken on the food product, the operator puts the product back into the oven chamber, closes the oven door, and touches  on the Cook Event screen. The cooking sequence resumes. Up to two Cook Events can be programmed into a recipe. Use the following procedure to program a Cook Event.

1. Follow the procedure for creating or editing a recipe described earlier in this section.
2. After programming the settings for the desired number of stages on the Now Editing screen, touch the Cook Event 1 row, to make that cook event active for editing. The radio button will glow, “Cook Event 1” will appear in the left-side box, and the entire row will be highlighted.
3. Touch “Cook Event 1” in the left-side box of the active cook event row to name the cook event.
  - a. Use the keypad that appears to edit the name. Names can have up to 20 characters.
  - b. Touch  to save and return to the Now Editing screen.
4. Touch setting value in the right-side box of the active cook event row. This value sets the time into the cooking sequence when the cook event should occur.
  - a. Use the keypad that appears to enter the value.
  - b. Touch  to save and return to the Now Editing screen.
5. If a second Cook Event is required, touch the Cook Event 2 row to make that cook event active for editing. Repeat steps 3 and 4.
6. Touch  to save the recipe settings and return to the Edit Recipes screen.

## Editing/Creating Setpoint Temperatures

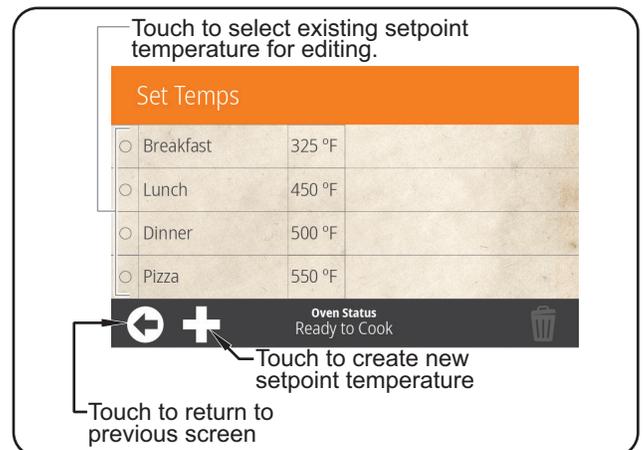
Use the following procedure to edit or create the setpoint temperature(s) available at oven startup. This procedure requires access to password-protected screens and should be performed by authorized personnel only.

1. From the Categories screen, touch .
  - A password keypad will appear on the touchscreen.
2. Input the password “12345”, and touch .
  - The Settings screen will appear on the touchscreen.



Settings Screen

3. Touch SET TEMPS on the Settings screen. The Set Temps screen appears.
  - The oven can store up to eight setpoint temperatures.



Set Temps Screen

*continued...*

# OPERATION

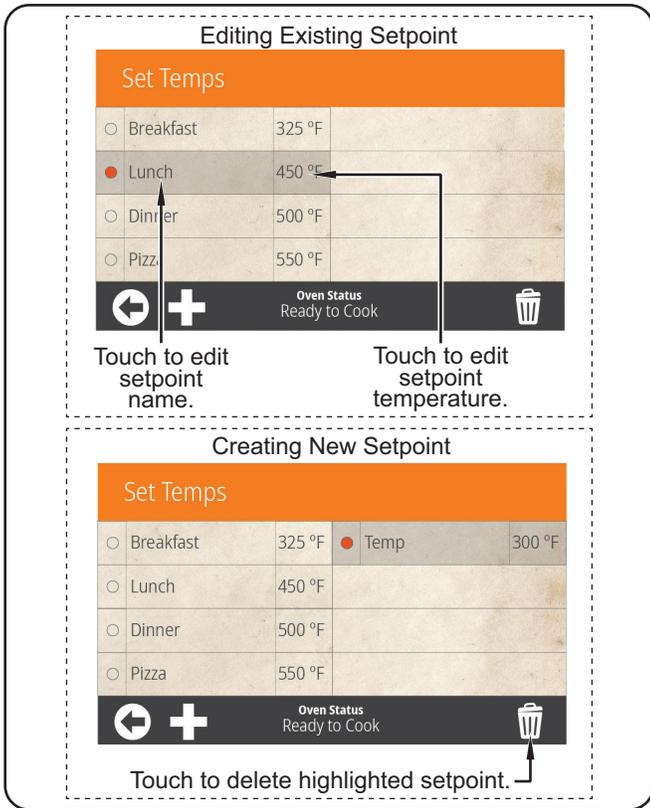
4. Edit/create the desired setpoint temperature.

**To edit an existing setpoint:**

- Touch the desired setpoint to edit. The setpoint will be highlighted.
- Touch the name to edit the setpoint name using the keypad that appears, then touch . The Set Temps screen reappears.
- Touch the temperature to edit the setpoint temperature using the keypad that appears, then touch . The Set Temps screen reappears.

**To create a new setpoint:**

- Touch the  icon. A new temperature setpoint named "Temp" will appear and remain highlighted.
- Touch the name to edit the setpoint name using the keypad that appears, then touch . The Set Temps screen reappears.
- Touch the temperature to edit the setpoint temperature using the keypad that appears, then touch . The Set Temps screen reappears.



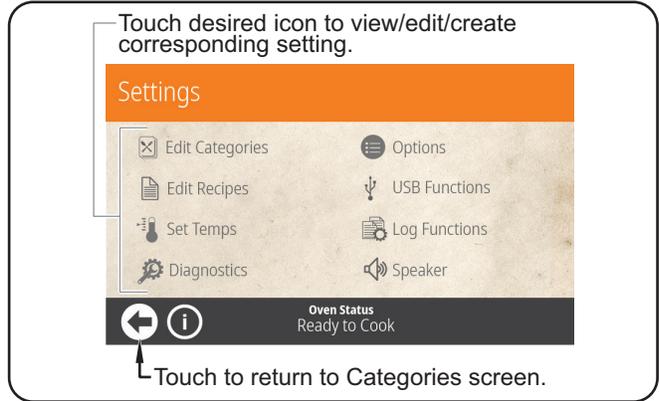
Edit Setpoint Screen

- Repeat step 4 to edit/create additional setpoint temperatures.
- When setpoint temperature changes are complete, touch  twice to return to the Categories screen.

## Changing Temperature Unit of Measure

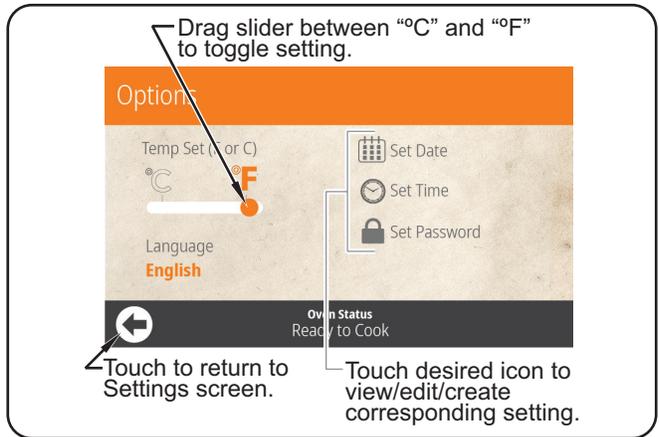
Use the following procedure to change the temperature unit of measure between Fahrenheit and Celsius. This procedure requires access to password-protected screens and should be performed by authorized personnel only.

- From the Categories screen, touch .
  - A password keypad will appear on the touchscreen.
- Input the password "12345", and touch .
  - The Settings screen will appear on the touchscreen.



Settings Screen

- Touch OPTIONS on the Settings screen. The Options screen appears.
- Touch and drag the slider below the "°F" and "°C" on the Options screen to toggle the unit of measure between Fahrenheit and Celsius.



Options Screen

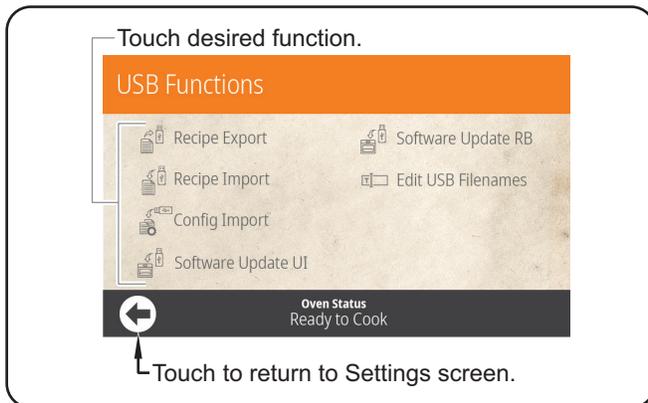
- When finished changing the unit of measure, touch  twice to return to the Categories screen.

## Importing from a USB Drive

Use the following procedure to import pre-programmed recipes or firmware updates from an external USB drive. This procedure requires access to password-protected screens and should be performed by authorized personnel only.

**NOTE:** USB drive must have a capacity of 64 GB or less.

1. Slide the cover away from the USB port next to the touchscreen, and insert the USB drive into the port.
2. From any screen, touch .
  - A password keypad will appear on the touchscreen.
3. Input the password “12345”, and touch .
  - The Settings screen will appear on the touchscreen.
4. Touch USB FUNCTIONS on the Settings screen. The USB Functions screen appears.



USB Functions Screen

### IMPORTANT NOTE:

For the following USB functions, the oven must be cool and in an idle state: CONFIG IMPORT, SOFTWARE UPDATE UI, and SOFTWARE UPDATE RB.

5. Touch the desired function to begin the corresponding import.
  - Select the import file from the list that appears.
  - A screen will appear to indicate that the import is in progress.
6. When the import is complete:
  - For USB functions RECIPE EXPORT, RECIPE IMPORT, and CONFIG IMPORT—The touch screen will return to the USB Functions screen. Remove the USB drive from the USB port, and slide the USB cover over the port.
  - For USB functions SOFTWARE UPDATE UI and SOFTWARE UPDATE RB—The oven will restart. Do not remove the USB drive from the USB port until the touchscreen reads “Remove the USB.” Slide the USB cover over the port.

# MAINTENANCE

## General

Ovention® MiSA™ ovens are designed for maximum durability and performance with minimum maintenance.

### **⚠ WARNING**

#### ELECTRIC SHOCK HAZARD:

- Place unit in standby, allow unit to cool, turn OFF power switch, and unplug unit before performing any cleaning, adjustments, or maintenance.
- DO NOT submerge or saturate with water. Unit is not waterproof. Do not operate if unit has been submerged or saturated with water.
- Do not steam clean or use excessive water on unit.
- This unit is not “jet-proof” construction. Do not use jet-clean spray to clean this unit.
- Do not clean unit when it is energized or hot.
- Do not clean unit with metal scouring pads. Metal pieces can break off pad and touch electrical components, creating risk of electric shock.
- This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock, burn, or possible exposure to microwave energy.
- Use only Genuine Ovention Replacement Parts when service is required. Failure to use Genuine Ovention Replacement Parts will void all warranties and may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn. Genuine Ovention Replacement Parts are specified to operate safely in the environments in which they are used. Some after-market or generic replacement parts do not have the characteristics that will allow them to operate safely in Ovention equipment.

This unit has no “user-serviceable” parts. If service is required on this unit, contact an Authorized Ovention Service Agent or contact the Ovention Hotline at 855-298-6836.

### **⚠ CAUTION**

Do not move or relocate unit for cleaning. Unit is bulky and heavy.

Never use steel pads, wire brushes, or scrapers to clean unit.

Oven must be inspected annually by an Authorized Service Agent.

### **NOTICE**

Wear protective rubber gloves and protective eye wear when cleaning unit.

Improper cleaning of oven could damage catalyst and will void unit warranty.

#### IMPORTANT NOTE:

Use of cleaning chemicals not approved by Ovention when cleaning the oven chamber will void the warranty.

## Daily Cleaning

To maintain performance and preserve the finish of the Ovention MiSA oven, clean the unit daily.

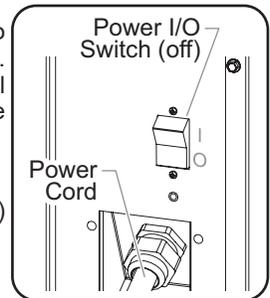
### **⚠ CAUTION**

Do not turn off power switch or unplug unit immediately after use. Internal fans must cool oven to avoid damage to electrical components.

### **NOTICE**

Use non-abrasive cleaners and cloths only. Abrasive cleaners and cloths could scratch finish of unit, marring its appearance and making it susceptible to soil accumulation.

1. Touch  on the touchscreen to shut down and allow oven to cool. Cooling fans will operate until the oven chamber temperature drops below 140°F (60°C).
2. After the cooling fans shut off:
  - a. Move the Power I/O (on/off) switch to the **O** (Off) position.
  - b. Unplug the power cord.



3. Remove and discard any remaining food product.
4. Remove and clean the cook plate using a damp non-abrasive cloth or nylon scouring pad (a non-abrasive cleaner may be used for difficult stains).
5. Remove any spillages inside the oven chamber using damp paper towel or a non-abrasive cloth.
6. Wipe down all surfaces inside the oven chamber using a clean non-abrasive, damp cloth or nylon scouring pad.
9. Wipe dry the oven chamber using a dry, non-abrasive cloth.
8. Wipe down all exterior surfaces using a non-abrasive, damp cloth (a non-abrasive cleaner may be used for difficult stains).
9. Wipe dry all exterior surfaces using a dry, non-abrasive cloth.
10. Polish the exterior surfaces of the oven using a good quality stainless steel cleaner.
11. Reinstall the cook plate (See INSTALLATION section).

## Weekly Cleaning

1. Touch  on the touchscreen to shut down and allow oven to cool. Cooling fans will operate until the oven chamber temperature drops below 140°F (60°C).
2. After the cooling fans shut off:
  - a. Move the Power I/O (on/off) switch to the **O** (Off) position.
  - b. Unplug the power cord.
3. Remove and discard any remaining food product.
4. Remove and clean the cook plate using a damp non-abrasive cloth or nylon scouring pad (a non-abrasive cleaner may be used for difficult stains).
5. Remove any spillages inside the oven chamber using damp paper towel or a non-abrasive cloth.

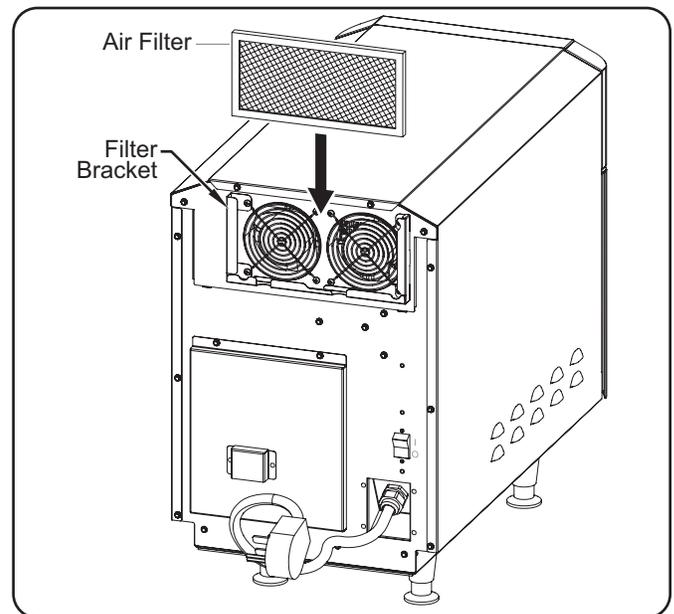
### IMPORTANT NOTE:

Use of cleaning chemicals not approved by Ovention® when cleaning the oven chamber will void the warranty.

6. Carefully spray Ovention Oven Cleaner onto a non-abrasive nylon scouring pad.

**NOTE:** Do not spray cleaner directly into the oven chamber or into the fan opening at the rear inside of the oven chamber.

7. Using the non-abrasive nylon scouring pad, clean the interior surfaces and the inside of the oven door of the oven chamber. Clean any other visible area affected by the grease from cooking as well.
  - Reapply Ovention Oven Cleaner onto the nylon scouring pad as needed.
8. Wipe all surfaces clean inside the oven chamber using a damp, non-abrasive cloth.
9. Wipe dry the oven chamber using a dry, non-abrasive cloth.
10. Wipe down all exterior surfaces using a non-abrasive, damp cloth (a non-abrasive cleaner may be used for difficult stains).
11. Wipe dry all exterior surfaces using a dry, non-abrasive cloth.
12. Polish the exterior surfaces of the oven using a good quality stainless steel cleaner.
13. Reinstall the cook plate (See INSTALLATION section for details).
14. Remove and clean the air filter on the back of the oven. To remove and clean the filter:
  - a. Slide the filter straight up and out of the filter bracket.
  - b. Spray the filter with water and/or soak in soap and water.
  - c. Rinse clean and allow the filter to air dry.
  - d. When the filter is dry, reinstall the filter into the filter bracket.



Cleaning the Air Filter

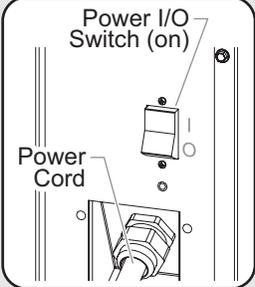
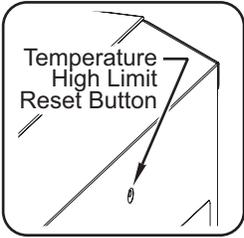
# TROUBLESHOOTING GUIDE



This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock, burn, or possible exposure to microwave energy.



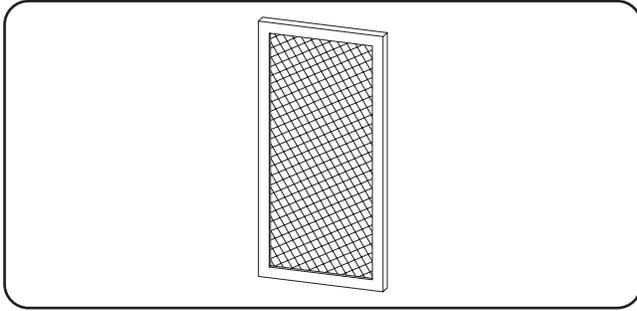
**ELECTRIC SHOCK HAZARD:** Place unit in standby, allow unit to cool, turn OFF power switch, and unplug unit before performing any cleaning, adjustments, or maintenance.

Symptom	Probable Cause	Corrective Action
Oven does not operate (blank touchscreen).	Unit unplugged.	Make sure unit is plugged in.
	Power I/O (on/off) switch in <b>O</b> (Off) position.	Move Power I/O switch to the <b>I</b> (On) position. 
	Unit connected to incorrect power supply.	Refer to SPECIFICATIONS section for unit electrical specifications. Contact a qualified electrician to determine and install proper voltage and size electrical receptacle.
Oven does not operate (touchscreen active).	Oven door not closed.	Close oven door. Unit will not operate with door open.
	Oven door damaged or not sealing properly.	DO NOT attempt to use oven. Contact Authorized Service Agent or Ovention Hotline for assistance.
Improper cooking of food.	Incorrect setpoint temperature or recipe selection.	Verify desired setpoint temperature and recipe selection. Change to proper settings, if necessary (refer to OPERATION section).
Oven not heating.	Power I/O (on/off) switch in <b>O</b> (Off) position.	Move Power I/O switch to the <b>I</b> (On) position.
	Temperature High Limit switch has tripped.	Using a pen, screwdriver, or other similar device, press the Temperature High Limit Reset Button located on the right side of the oven near the top. If switch continues to trip, contact Authorized Service Agent or Ovention Hotline for assistance. 

**NOTE:** To locate an Authorized Ovention® Service Agent, access the Ovention website at [www.ovationovens.com](http://www.ovationovens.com) and select the Service & Support tab, or call the Ovention Hotline at 855-298-OVEN(6836).

## Miscellaneous

**OVNTN-FIL** .....Replacement Air Filter, Large



### IMPORTANT NOTE

Additional accessories are available for Ovention Ovens. Contact the Ovention Hotline at 855-298-OVEN(6836) for information.

**OVNTN-CLNR** .....Oven Cleaner, case of six bottles

*NOTE: Use Oven Cleaner to clean cooking grease and residue safely from the oven chamber.*

**OV-HTG-MISA12** .....Hotdog Tray, 12" x 11-1/2"

**OV-WRM-MISA12** .....Warming Tray, 13-1/4" x 12-11/16"

**OV-CRSP-MISA12** .....Crisping Tray, 13-1/4" x 12-11/16"

# SERVICE PROCEDURES



To avoid serious injury or death, read all **IMPORTANT SAFETY INFORMATION** at the front of this manual.

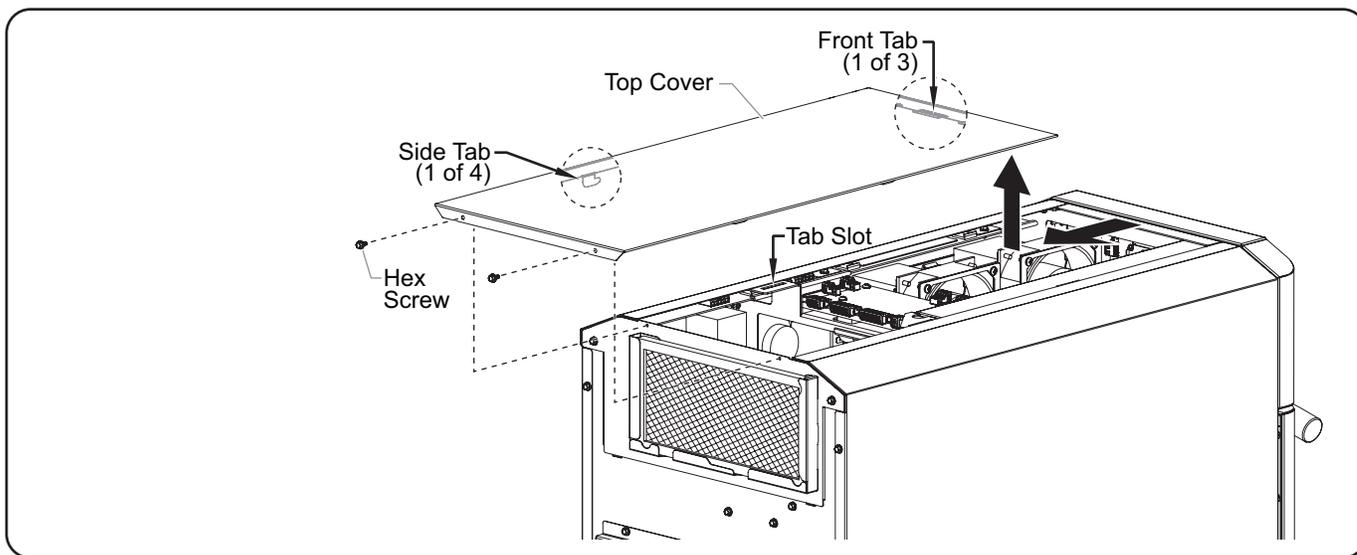
## IMPORTANT NOTE

Many of the service procedures in this section require removal of insulation to access the parts. All illustrations are shown with insulation removed for clarity.

## Removing the Top Panel

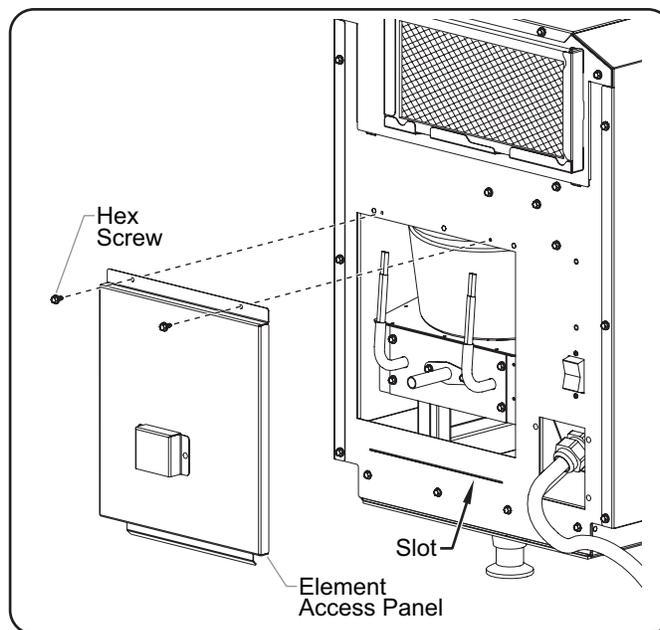
**WARNING!** Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove two (2) 1/4” hex screws that secure the top panel to the rear frame.
3. Slide the top panel toward the rear of the oven to release the front and side tabs, then lift panel off the oven.



## Removing the Element Access Panel

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove two (2) 1/4” hex screws that secure the element access panel to the rear frame.
3. Tilt the panel back, and lift out of the slot on the oven frame.

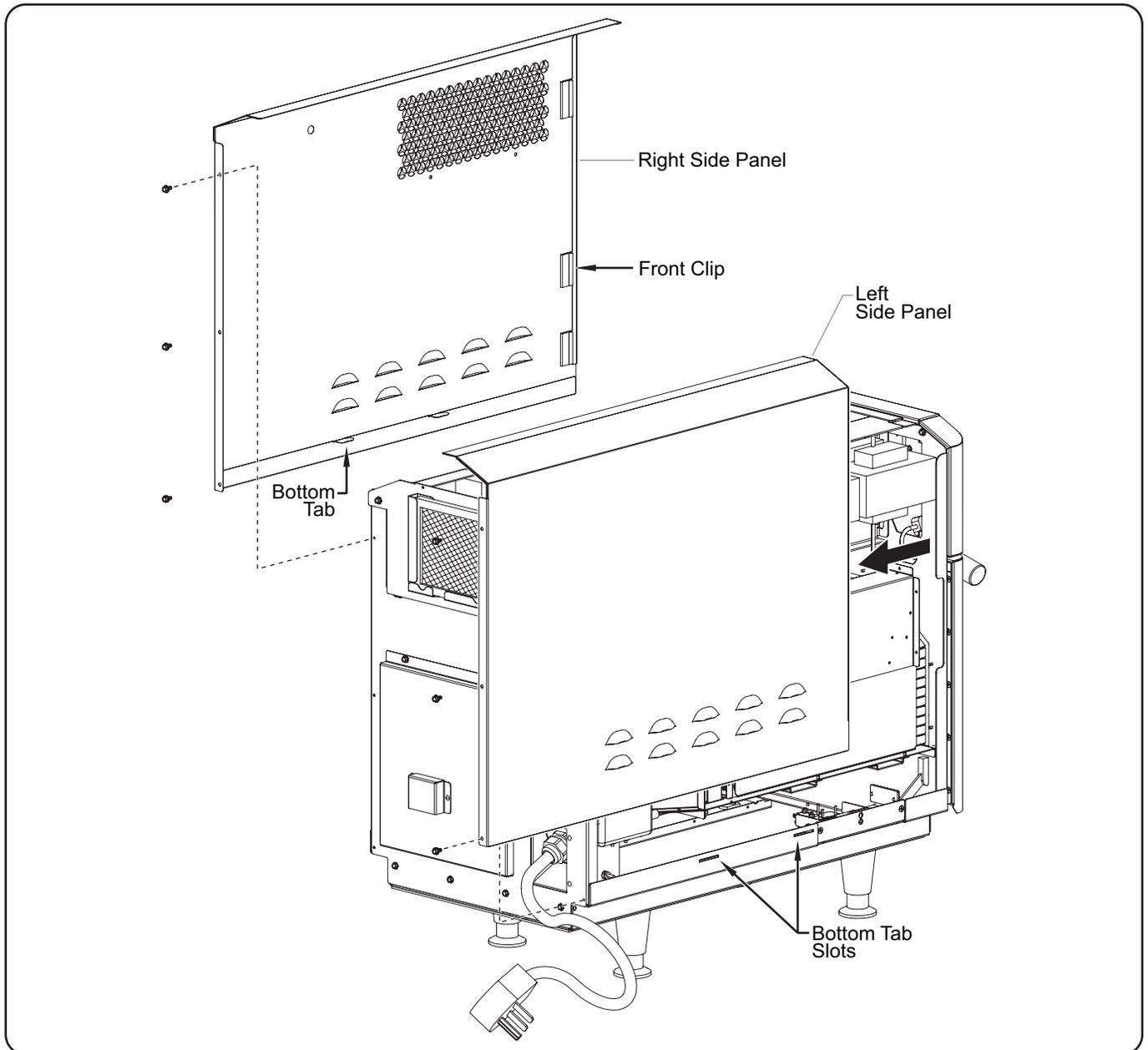


## Removing the Side Panels

Use the following procedure to remove the left and/or right side panels from the oven.

**⚠ WARNING! Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.**

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove three (3) 1/4" hex screws that secure the side panel to the rear frame.
3. Slide the side panel toward the rear of the oven to release the front clips and bottom tabs from the frame, then lift the panel off the oven.



# SERVICE PROCEDURES



To avoid serious injury or death, read all **IMPORTANT SAFETY INFORMATION** at the front of this manual.

## IMPORTANT NOTE

Many of the service procedures in this section require removal of insulation to access the parts. All illustrations are shown with insulation removed for clarity.

## Vent Tube

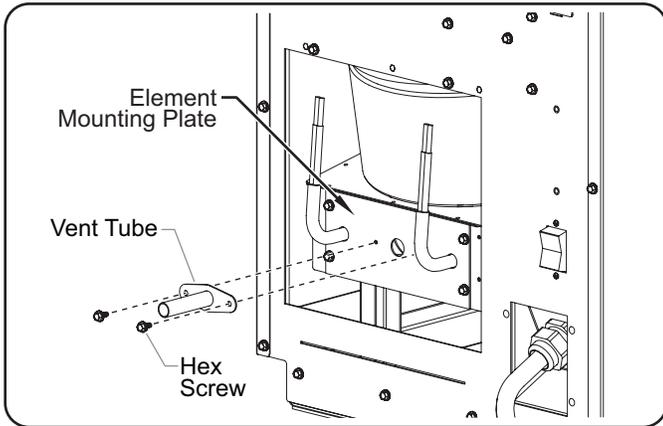
### Testing/Troubleshooting

**WARNING!** Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.

- Inspect the vent tube. If the vent tube or its mounting screws are damaged or broken, replace as necessary.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the element access panel. Refer to the “Removing the Element Access Panel” procedure in this section.
3. Cut away the insulation from around the vent tube.
4. Remove two (2) 1/4” hex screws that secure the vent tube to the element mounting plate, and remove the vent tube.
5. Install the new vent tube by reversing the steps above.



## Heating Element

### Test Procedure

- Navigate to the Diagnostics screen and touch “Check Components”. Toggle on each heater independently to verify that each heater turns on and pulls amperage.

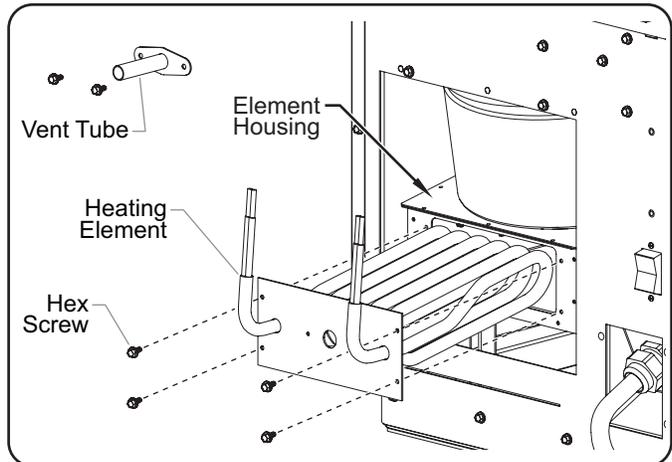


**DANGER!** Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.

- Disconnect both lead terminals, and check for resistance. The ohm reading should be between 23 and 26 ohms.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the element access panel. Refer to the “Removing the Element Access Panel” procedure in this section.
3. Cut away the insulation from around the element mounting plate.
4. Remove two (2) 1/4” hex screws that secure the vent tube to the element mounting plate, and remove the vent tube.
5. Follow the element wires to the relay and terminal block lever nuts, and remove the wires.
6. Remove four (4) 1/4” hex screws that secure the element mounting plate to the element housing.
7. Carefully pull the heating element straight out of the element housing.
8. Install the new heating element by reversing the steps above. Make sure to install the vent tube on the new element.



## Blower Motor

### Testing/Troubleshooting

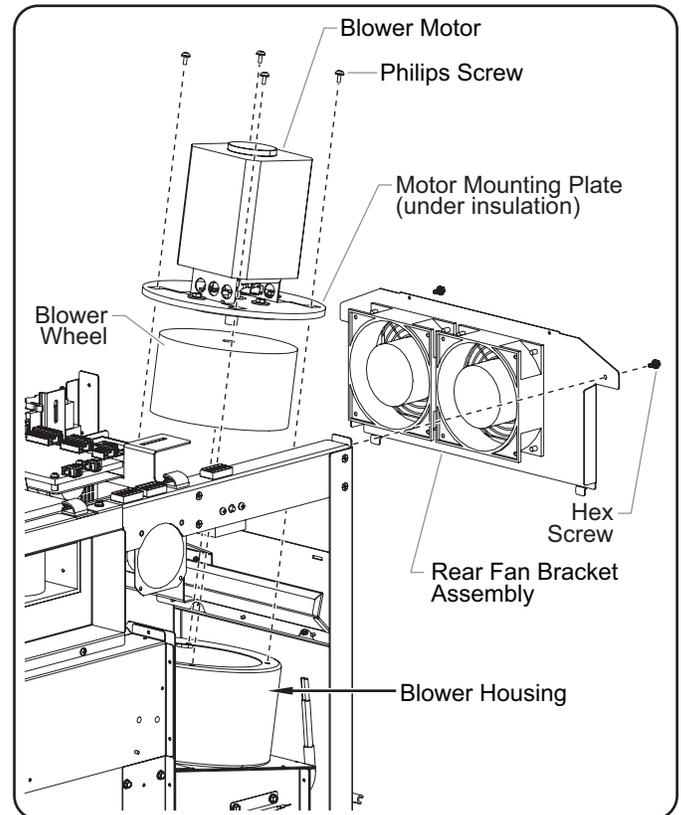
- Navigate to the Diagnostics screen and touch “Check Components”. Toggle on the blower, then use the arrow key to set the blower to over 50%. Open the oven door, then listen and feel for airflow in the oven chamber.
- Verify that the supply voltage is 208/240 V going into L1 and L2 of the variable frequency drive (VFD).
- Check the VFD for fault codes.

**⚠ DANGER! Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.**

- With the oven off and unplugged, verify that the motor cooling fan spins freely.
  - a. If it does not, the blower motor is seized. Remove blower motor and inspect the blower wheel. If the blower wheel is seizing against the blower housing, replace the blower wheel.
  - b. If it does, make sure all wires are connected and secure. If all wires are secure, replace the blower motor.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the top panel and both side panels. Refer to the appropriate procedures in this section.
3. Disconnect the fan lead wires on both rear cooling fans from the lever nuts.
4. Remove two (2) 1/4” hex screws that secure the rear fan bracket assembly to the rear frame, and remove the rear fan bracket assembly.
5. Follow the blower motor lead wires to the VFD, and remove the wires.
6. Remove four (4) Philips screws that secure the motor mounting plate to the blower housing.
7. Carefully lift the blower motor assembly with blower wheel up and out of the top of the oven.
8. Loosen the set screw on the blower wheel, and remove the wheel from the blower motor shaft.
9. Install the new blower motor and/or blower wheel by reversing the steps above.
  - Make sure to use the spacer included with the blower wheel when installing the new wheel on the motor shaft.



# SERVICE PROCEDURES



To avoid serious injury or death, read all **IMPORTANT SAFETY INFORMATION** at the front of this manual.

## IMPORTANT NOTE

Many of the service procedures in this section require removal of insulation to access the parts. All illustrations are shown with insulation removed for clarity.

## Blower Housing

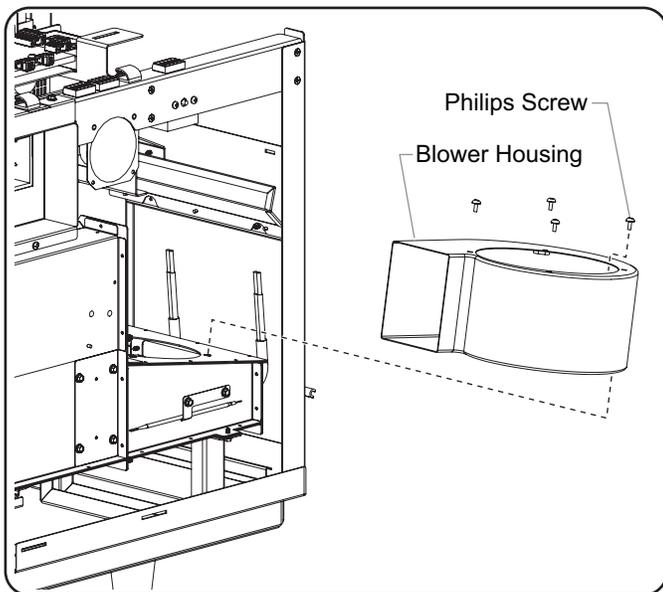
### Testing/Troubleshooting

**! DANGER!** Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.

- If the blower is making a loud noise, remove the blower motor and blower wheel to check the blower housing.
- If the blower housing is cracked or broken, replace the housing.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the top panel and both side panels. Refer to the appropriate procedures in this section.
3. Remove the blower motor. Refer to the procedure in this section.
4. Cut away the insulation from around the blower housing.
5. Pull the blower wheel up and out of the blower housing.
6. Remove the four (4) Philips-head screws inside the blower housing that secure the housing to the element housing.
7. Carefully slide the blower housing out the right side of the unit.
8. Install the new blower housing by reversing the steps above.



## Thermocouple

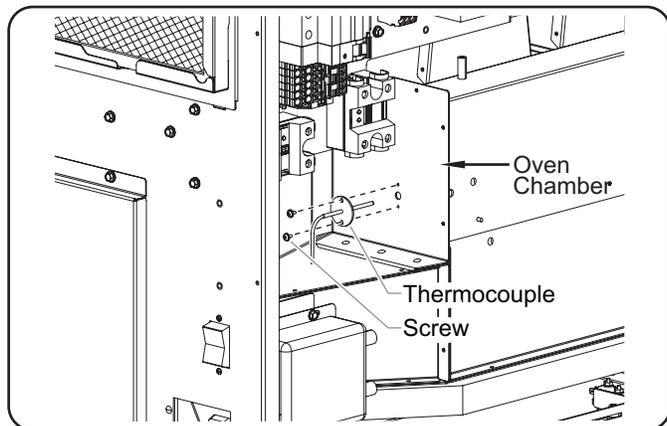
### Testing/Troubleshooting

**! WARNING!** Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.

- Check the thermocouple for continuity. If there is no continuity, the thermocouple is bad and needs to be replaced.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the left side panel. Refer to the “Removing the Side Panels” procedure in this section.
3. Cut away the insulation from around the thermocouple.
4. Remove the two Philips-head thermocouple screws, and remove the thermocouple from the oven chamber.
5. Follow the thermocouple wires to the control board, and remove their connector from the board (location P6).
6. Install the new thermocouple by reversing the steps above.



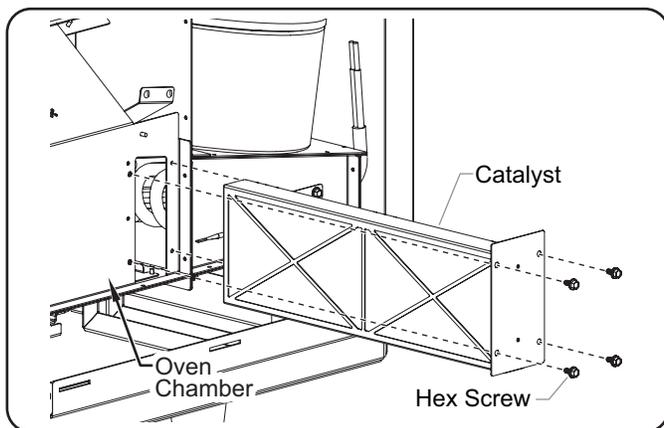
## Catalyst

### Testing/Troubleshooting

- If the oven is smoking, open the oven door and check the catalyst at the rear of the oven chamber for food debris blockage.
- If the oven is smoking as a result of the oven chamber being cleaned using a caustic cleaner, replace the catalyst.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the right side panel. Refer to the "Removing the Side Panels" procedure in this section.
3. Cut away the insulation from around the catalyst mounting plate.
4. Remove four (4) 1/4" hex screws that secure the catalyst to the oven chamber.
5. Carefully pull the catalyst straight out of the oven chamber.
6. Install the new catalyst by reversing the steps above.



## Waveguide Motor

### Testing/Troubleshooting

- Verify that the supply voltage is 208/240 V going into the motor.

**⚠ WARNING! Completely shut down and unplug oven before proceeding. Refer to "Shutdown" procedure.**

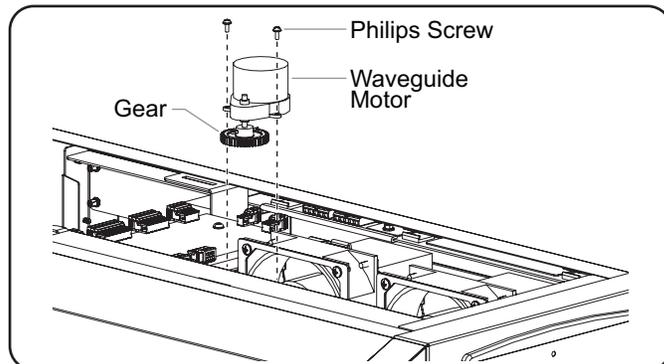
- Verify all gears are mated together and that all gears are tightened. The waveguide motors are on only when the magnetrons are on.

*NOTE: The waveguide motors are on only when the magnetrons are on.*

- Verify that the motor spins freely by hand (motor spins clockwise, when looking down at installed motor). If the motor is not seized, verify that the antenna moves freely.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the top panel. Refer to the "Removing the Top Panel" procedure in this section.
3. Disconnect the waveguide motor lead wires from the lever nuts.
4. Remove the two Philips-head motor mounting screws, and carefully lift the waveguide motor with attached gear up and out of the oven.
5. Install the new waveguide motor with attached gear by reversing the steps above.



# SERVICE PROCEDURES



To avoid serious injury or death, read all **IMPORTANT SAFETY INFORMATION** at the front of this manual.

## IMPORTANT NOTE

Many of the service procedures in this section require removal of insulation to access the parts. All illustrations are shown with insulation removed for clarity.

## Thermal Disc

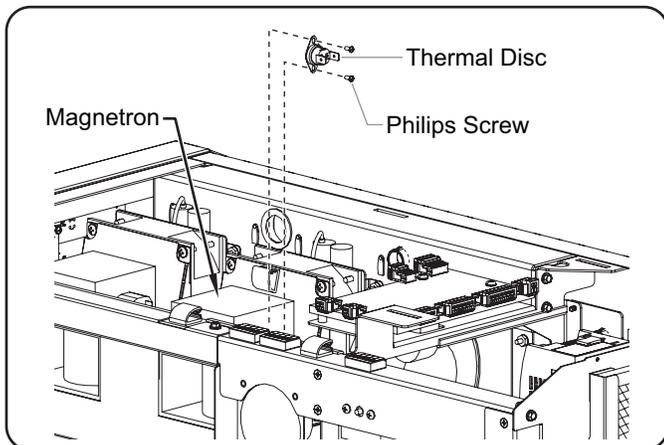
### Testing/Troubleshooting

**WARNING!** Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.

- Verify the thermal disc has continuity between both leads when the mounted surface temperature is below 200°F (93°C).
- If the disc will not close when the temperature is below 200°F, replace the thermal disc.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the top panel and right side panel. Refer to the appropriate procedures in this section.
3. Disconnect the lead wires from the thermal disc.
4. Remove two (2) Philips screws that secure the thermal disc to the magnetron, and remove the thermal disc.
5. Install the new thermal disc by reversing the steps above.



## Magnetron Cooling Fan

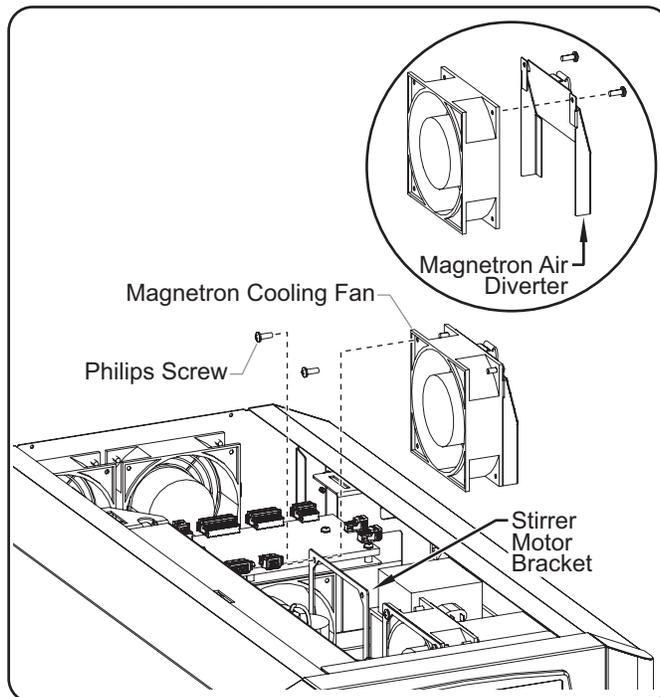
### Testing/Troubleshooting

*NOTE:* Magnetron cooling fans are on only when magnetrons are on and for two minutes after magnetrons turn off.

- Verify that supply voltage of 24 VDC is going into the fan. If there is voltage and the fan is not running, replace the fan.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the top panel. Refer to the “Removing the Top Panel” procedure in this section.
3. Disconnect the fan lead wires from the lever nuts.
4. Remove the two Philips-head fan mounting screws that secure the fan to the stirrer motor bracket.
5. Carefully lift the fan with the attached magnetron air diverter up and out of the oven.
6. Remove the magnetron air diverter from the old fan, and install on the new fan.
7. Install the new fan with the attached magnetron air diverter by reversing the steps above.



## Rear Cooling Fan

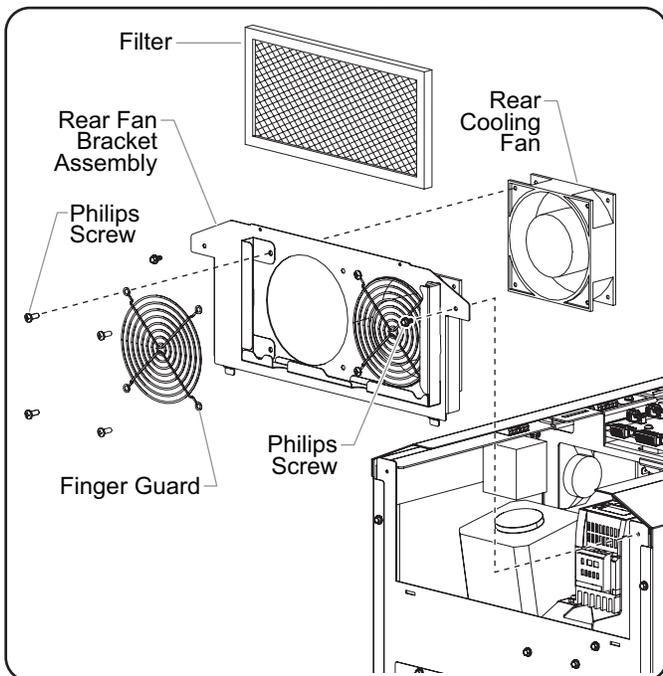
### Testing/Troubleshooting

*NOTE: The rear cooling fans are on when the temperature of the oven chamber is above 140°F (60°C).*

- Verify that supply voltage of 24 VDC is going into the fan. If there is voltage and the fan is not running, replace the fan.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the top panel and right side panel. Refer to the "Removing the Top Panel" procedure in this section.
3. Disconnect the fan lead wires on both rear cooling fans from the lever nuts.
4. Remove two (2) 1/4" hex screws that secure the rear fan bracket assembly to the rear frame, and remove the rear fan bracket assembly.
5. Remove the air filter.
6. Remove the four Philips-head fan mounting screws that secure the finger guard and the fan to the rear fan bracket assembly. Remove the finger guard and fan.
7. Install the new fan with the finger guard onto the rear fan bracket assembly. Then, reinstall the rear fan bracket assembly onto the rear frame by reversing the steps above.



## Central Cooling Fan

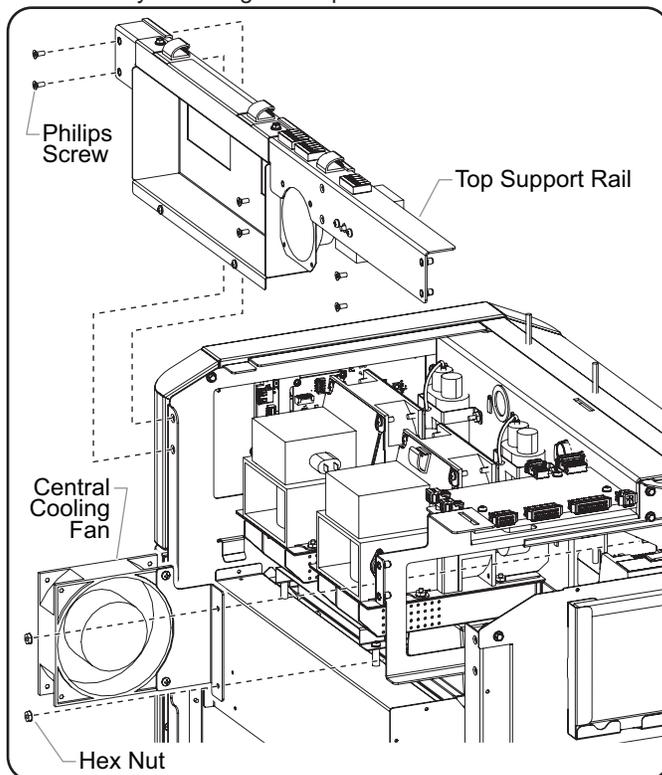
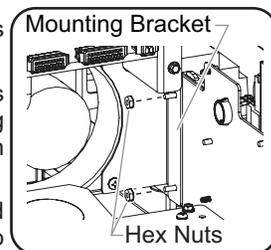
### Testing/Troubleshooting

*NOTE: Central cooling fan is on only when magnetrons are on and for two minutes after magnetrons turn off.*

- Verify that supply voltage of 24 VDC is going into the fan. If there is voltage and the fan is not running, replace the fan.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the top panel and right side panel. Refer to the appropriate procedures in this section.
3. Disconnect the fan lead wires from the lever nuts.
4. Remove two (2) 1/4" hex nuts that secure the central cooling fan mounting bracket to the oven frame.
5. Remove the six Philips-head screws that secure the top support rail to the oven frame.
6. Carefully lift up on the top support rail with one hand while guiding the central cooling fan out of the right side of the unit with the other hand.
7. Remove the two Philips-head screws that secure the central cooling fan to the fan mounting bracket. Remove the fan.
8. Install the new central cooling fan onto the fan mounting bracket. Then, reinstall the fan into position on the oven frame by reversing the steps above.



# SERVICE PROCEDURES



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## IMPORTANT NOTE

Many of the service procedures in this section require removal of insulation to access the parts. All illustrations are shown with insulation removed for clarity.

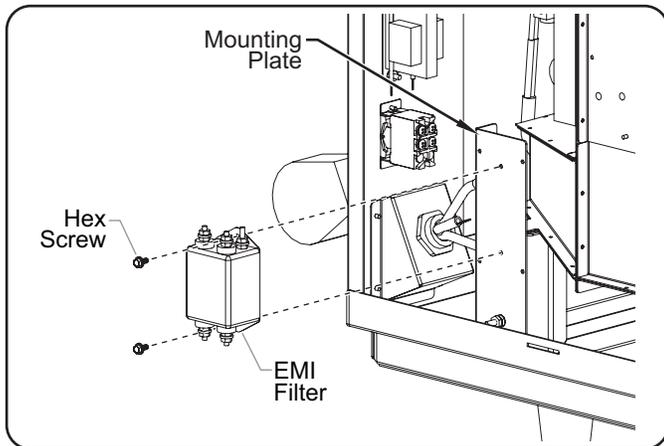
## EMI Filter

### Testing/Troubleshooting

- Check the input and output voltage of the EMI filter. If the voltages are not equal, replace the EMI filter.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the left side panel. Refer to the “Removing the Side Panels” procedure in this section.
3. Disconnect the lead wires from the EMI filter.
4. Remove four (2) 1/4” hex screws that secure the EMI filter to its mounting plate, and remove the filter.
5. Install the new EMI filter by reversing the steps above.



## Solid State Relay

There are two solid state relays (SSR) in the unit. Perform the “Testing/Troubleshooting” on both, and replace as necessary.

### Testing/Troubleshooting

- Navigate to the Diagnostics screen and touch “Check Components”. Turn on both the magnetrons and the heaters. Verify that both the magnetrons and the heaters are showing an amperage draw. If any are showing “0” amperage draw, verify that the LEDs on the corresponding solid state relay are lit. If not, replace the appropriate SSR.

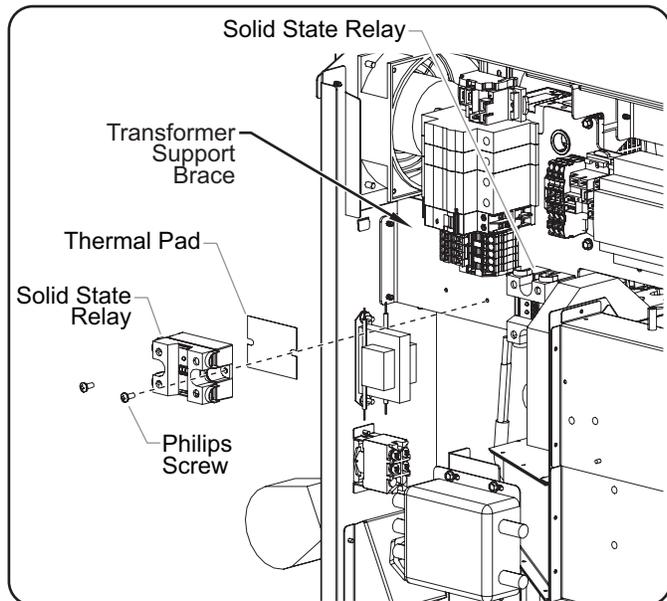


**DANGER! Completely shut down and unplug oven before proceeding. Refer to “Shutdown” procedure.**

- Disconnect the DC lead wires into the SSR. Carefully re-energize the unit. Navigate to the Diagnostics screen and touch “Check Components”. If there is any amperage draw, the SSR is stuck closed and needs to be replaced.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the “Shutdown” procedure in the OPERATION section.
2. Remove the left side panel. Refer to the “Removing the Side Panels” procedure in this section.
3. Disconnect the four (4) lead wires and the 4-pin connector from the solid state relay.
4. Remove the two (2) Philips screws that secure the solid state relay to the transformer support brace. Remove the relay and the thermal pad.
5. Install the new solid state relay and thermal pad by reversing the steps above.



## Electromechanical Relay

There are two electromechanical relays in the unit. Perform the "Testing/Troubleshooting" on both, and replace as necessary.

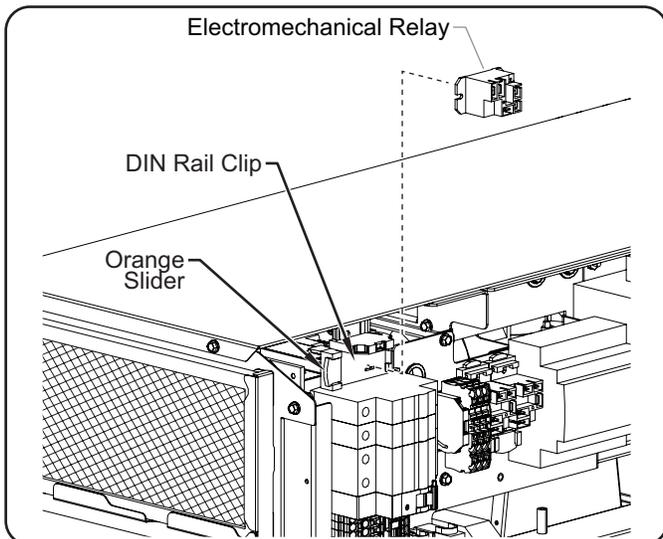
### Testing/Troubleshooting

**⚠ DANGER! Completely shut down and unplug oven before proceeding. Refer to "Shutdown" procedure.**

- Check for continuity across the COM and NC terminals. If the continuity is incorrect, replace the relay.
- Check for continuity across the COM and NO terminals. If the continuity is incorrect, replace the relay.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the left side panel. Refer to the "Removing the Side Panels" procedure in this section.
3. Disconnect all lead wires from the electromechanical relay.
4. Remove the electromechanical relay from the DIN rail clip.
  - a. For horizontally mounted relays, pull out on the large, orange slider on the DIN rail clip to release the electromechanical relay from the clip.
  - b. For vertically mounted relays, pull down on the large, orange slider on the DIN rail clip to release the electromechanical relay from the clip.
5. Install the new electromechanical relay by reversing the steps above.



## Thermal Cutoff Switch

### Testing/Troubleshooting

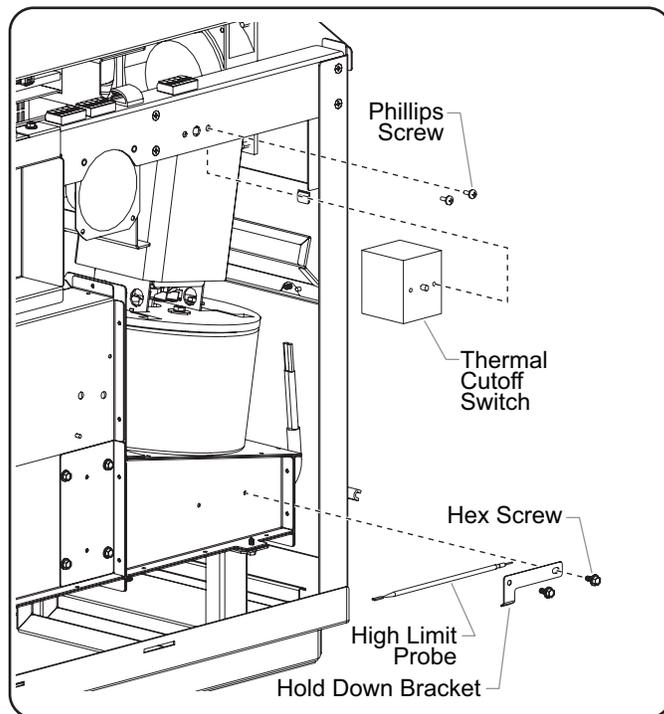
- If the temperature of the oven is below 300°F and the thermal cutoff switch will not reset when the button is pressed, replace the thermal cutoff switch.

**⚠ DANGER! Completely shut down and unplug oven before proceeding. Refer to "Shutdown" procedure.**

- Verify that all legs of power are passing through the thermal cutoff switch by checking for continuity from line side to load side on each leg. If there is no continuity, replace the thermal cutoff switch.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the right side panel. Refer to the "Removing the Side Panels" procedure in this section.
3. Disconnect the lead wires from the thermal cutoff switch.
4. Cut away the insulation from around the high limit probe that is mounted to the side of the element housing.
5. Remove two (2) 1/4" hex screws that secure the high-limit probe to the element housing. Remove the hold down bracket and probe.
6. Remove the two (2) Phillips-head screws that secure the thermal cutoff switch to the top support rail on the oven frame. Remove the thermal cutoff switch.
7. Install the new thermal cutoff switch and high limit probe by reversing the steps above.



# SERVICE PROCEDURES



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## IMPORTANT NOTE

Many of the service procedures in this section require removal of insulation to access the parts. All illustrations are shown with insulation removed for clarity.

## Capacitor

There are two capacitors in the unit. Perform the "Testing/Troubleshooting" on both, and replace as necessary.

### Testing/Troubleshooting

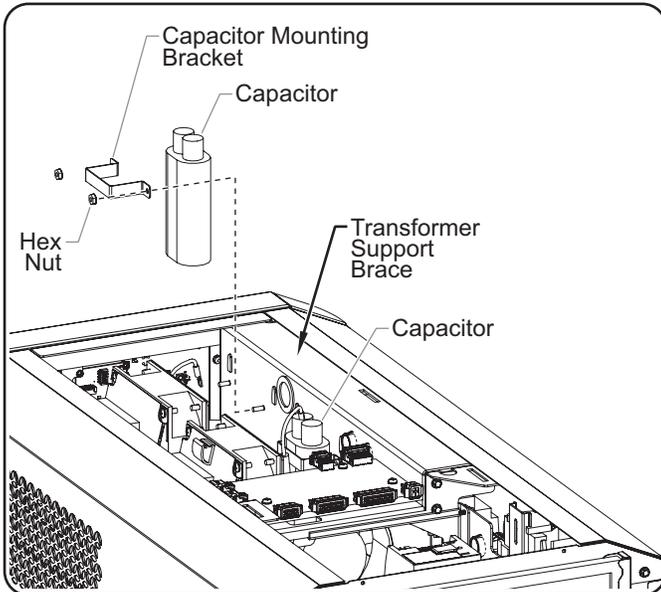
**!** **DANGER!** Completely shut down and unplug oven before proceeding. Refer to "Shutdown" procedure.

**DANGER!** Capacitors must be discharged before proceeding.

- Disconnect all wires from the capacitor, and measure the capacitance with DMM ( $0.97\mu\text{F} \pm 3\%$ ). If the measurement is not within tolerance, replace the capacitor.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the top panel. Refer to the "Removing the Top Panel" procedure in this section.
3. Discharge both capacitors. **DANGER! Capacitors must be discharged before proceeding.**
4. Disconnect all lead wires from the capacitor.
5. Remove the two (2) hex nuts that secure the capacitor mounting bracket and the capacitor to the transformer support brace. Remove the mounting bracket and capacitor.
6. Install the new capacitor by reversing the steps above.



## Transformer

There are two transformers in the unit. Perform the "Testing/Troubleshooting" on both, and replace as necessary.

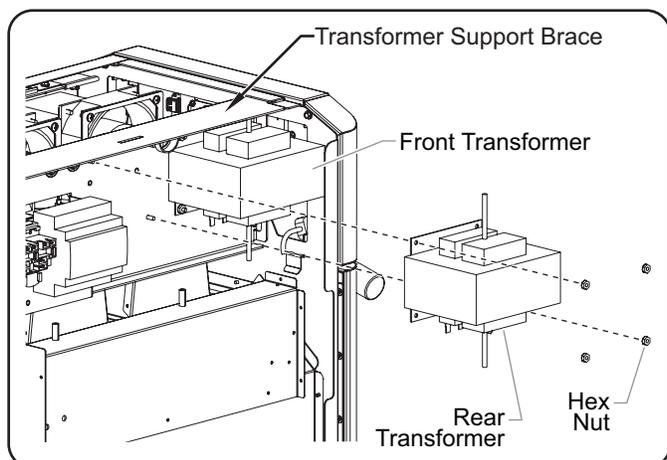
### Testing/Troubleshooting

**!** **DANGER!** Completely shut down and unplug oven before proceeding. Refer to "Shutdown" procedure.

- Measure the resistance of the transformer using an ohmmeter. If the resistance measurements are not within range, replace the transformer.
  - a. Disconnect all lead wires from the transformer.
  - b. Discharge both capacitors. **DANGER! Capacitors must be discharged before proceeding.**
  - c. Measure the resistance using an ohmmeter:
    - 0 to 208 =  $0.55 \text{ ohms} \pm 20\%$
    - 0 to 230 =  $0.65 \text{ ohms} \pm 20\%$
    - High voltage =  $57.5 \text{ ohms} \pm 20\%$
    - 0 to ground = open
    - 208 to ground = open
    - 230 to ground = open
    - Filaments to ground = open

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
  2. Remove the top panel and left side panel. Refer to the appropriate procedures in this section.
  3. Discharge both capacitors. **DANGER! Capacitors must be discharged before proceeding.**
  4. Disconnect all lead wires from the transformer.
  5. Remove the four (4) hex nuts that secure the transformer to the transformer support brace.
- NOTE: When replacing the front transformer, the rear transformer will need to be removed to provide clearance.*
6. Install the new transformer by reversing the steps above.



## Magnetron

There are two magnetrons in the unit. Perform the "Testing/Troubleshooting" on both, and replace as necessary.

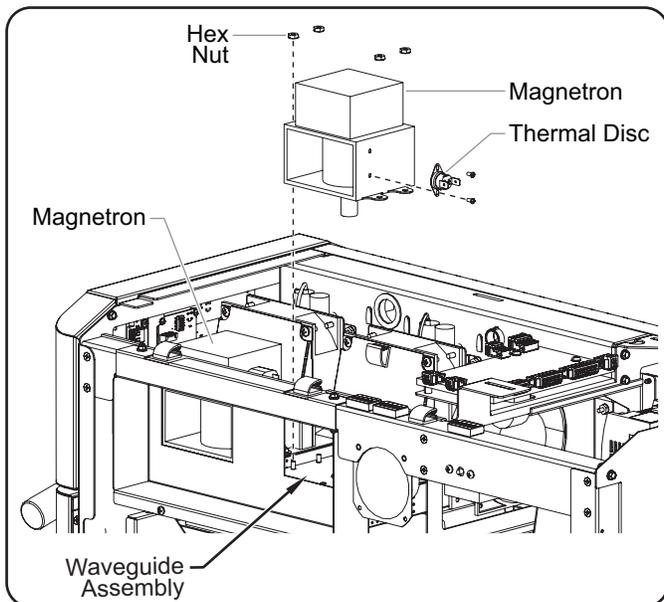
### Testing/Troubleshooting

**⚠ DANGER! Completely shut down and unplug oven before proceeding. Refer to "Shutdown" procedure.**

- Measure the resistance of the magnetron using an ohmmeter.
  - a. Disconnect all lead wires from the magnetron.
  - b. Discharge both capacitors.
  - c. Measure the resistance using an ohmmeter:
    - Terminal to terminal = <1 ohm
    - Terminal to magnetron chassis = open (infinite resistance)
- If the resistance measurement is not within range, replace the magnetron.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the top panel and right side panel. Refer to the appropriate procedures in this section.
3. Discharge both capacitors. **DANGER! Capacitors must be discharged before proceeding.**
4. Disconnect all lead wires from the magnetron.
5. Disconnect the lead wires from the thermal disc that is mounted to the magnetron.
6. Remove the four (4) hex nuts that secure the magnetron to the waveguide assembly. Remove the magnetron.
7. Remove the thermal disc from the old magnetron, and install onto the magnetron. Refer to the procedure in this section for details, if necessary.
8. Install the new magnetron by reversing the steps above.



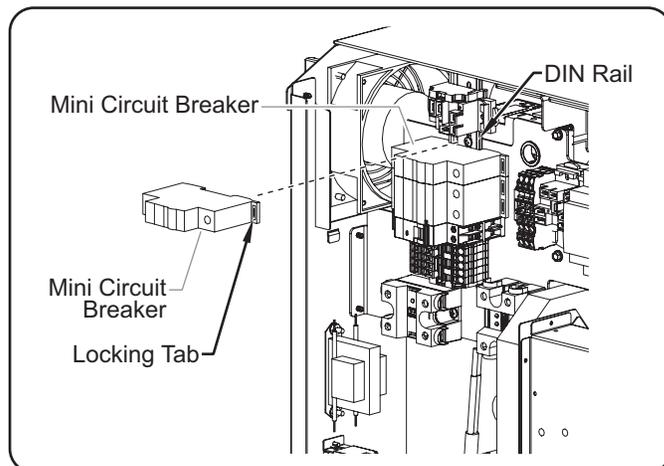
## Mini Circuit Breaker, 15A

### Testing/Troubleshooting

- Verify that supply voltage is passing through the mini circuit breaker.
  - If voltage is not present on the line side of the breaker, check for supply voltage at the electrical receptacle.
  - If voltage is present on line side of the breaker, but not on the load side, reset the breaker. If voltage is still not present on the load side, replace the breaker.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the left side panel. Refer to the "Removing the Side Panels" procedure in this section.
3. Disconnect two (2) lead wires from the mini circuit breaker.
4. Insert a flat blade screwdriver into the green locking tab on the mini circuit breaker to release the breaker from the DIN rail.
5. Install the new mini circuit breaker by reversing the steps above.



# SERVICE PROCEDURES



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## IMPORTANT NOTE

Many of the service procedures in this section require removal of insulation to access the parts. All illustrations are shown with insulation removed for clarity.

## Double Mini Circuit Breaker, 15A

### Testing/Troubleshooting

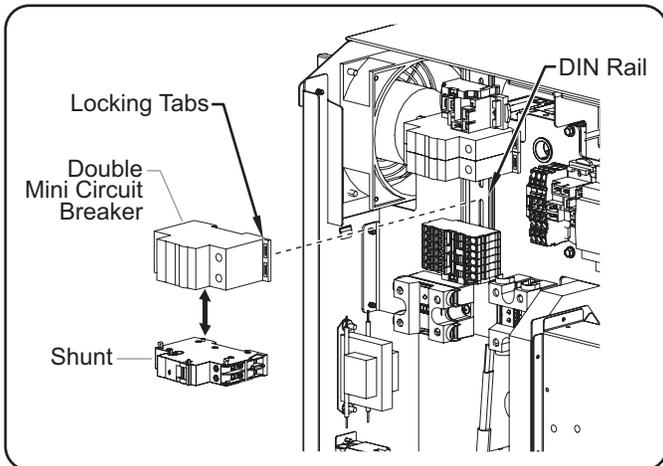
- Verify that supply voltage is passing through the double mini circuit breaker.
  - If voltage is not present on the line side of the breaker, check for supply voltage at the electrical receptacle.
  - If voltage is present on line side of the breaker, but not on the load side, reset the breaker. If voltage is still not present on the load side, replace the breaker.

### Replacement Procedure

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the left side panel. Refer to the "Removing the Side Panels" procedure in this section.
3. Disconnect two (2) lead wires from the double mini circuit breaker and three (3) lead wires from the shunt next to the breaker.
4. Insert a flat blade screwdriver into the green locking tabs on the double mini circuit breaker to release the breaker and the shunt from the DIN rail.

**NOTE:** The double mini circuit breaker and the shunt must be removed from the DIN rail together. Once they are off the DIN rail, they can be separated.

5. Install the new double mini circuit breaker by reversing the steps above.



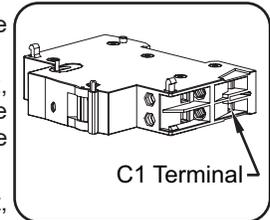
## Shunt

### Testing/Troubleshooting



**DANGER!** Completely shut down and unplug oven before proceeding. Refer to "Shutdown" procedure.

- If the lever on shunt is in the tripped position, reset the shunt.
  - If the shunt will not reset, remove the lead wire from the C1 terminal and try to reset the shunt.
  - If the shunt still will not reset, replace the shunt.



### Replacement Procedure

**NOTE:** Refer to the illustration in the "Double Mini Circuit Breaker" service procedure.

1. Completely shut down and unplug the oven. Refer to the "Shutdown" procedure in the OPERATION section.
2. Remove the left side panel. Refer to the "Removing the Side Panels" procedure in this section.
3. Disconnect two (2) lead wires from the double mini circuit breaker and three (3) lead wires from the shunt next to the breaker.
4. Insert a flat blade screwdriver into the green locking tabs on the double mini circuit breaker to release the breaker and the shunt from the DIN rail.

**NOTE:** The double mini circuit breaker and the shunt must be removed from the DIN rail together. Once they are off the DIN rail, they can be separated.

5. Install the new shunt by reversing the steps above.



# LIMITED WARRANTY

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## 1. PRODUCT WARRANTY

Ovention®, Inc. (“Ovention”) warrants the products that it manufactures (the “Products”) to be free from defects in materials and workmanship, under normal use and service, for a period of one (1) year from the date of purchase when installed and maintained in accordance with Ovention’s written instructions or 18 months from the date of shipment from Ovention. Buyer must establish the product’s purchase date with Ovention sales representative or by other means satisfactory to Ovention in its sole discretion.

Ovention warrants the following Product components to be free from defects in materials and workmanship from the date of purchase (subject to the foregoing conditions) for the period(s) of time and on the conditions listed below:

- **Ninety (90) Day Parts-Only Warranty:**  
Replacement Parts

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT INFRINGEMENT. Without limiting the generality of the foregoing, SUCH WARRANTIES DO NOT COVER: Damage to touchscreens or glass from abuse or impact; Wear items such as air filters, door gaskets, and conveyor belts; Damage to catalyst from use of non-approved cleaning products; Product misuse, tampering or misapplication; improper installation; lack of or improper cleaning; or application of improper voltage.

## 2. LIMITATION OF REMEDIES AND DAMAGES

Ovention’s liability and Buyer’s exclusive remedy hereunder will be limited solely, at Ovention’s option, to repair or replacement by an Ovention-authorized service agency (other than where Buyer is located outside of the United States, Canada, United Kingdom or Australia, in which case Ovention’s liability and Buyer’s exclusive remedy hereunder will be limited solely to replacement of part under warranty) with respect to any claim made within the applicable warranty period referred to above. Ovention reserves the right to accept or reject any such claim in whole or part. Ovention will not accept the return of any Product without prior written approval from Ovention, and all approved returns shall be made at Buyer’s sole expense. OVENTION WILL NOT BE LIABLE, UNDER ANY CIRCUMSTANCES, FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO LABOR COSTS OR LOST PROFITS RESULTING FROM THE USE OF OR INABILITY TO USE THE PRODUCTS OR FROM THE PRODUCTS BEING INCORPORATED IN OR BECOMING A COMPONENT OF ANY OTHER PRODUCT OR GOODS.

