

GE Consumer & Industrial

# Technical Service Guide

JUNE 2006

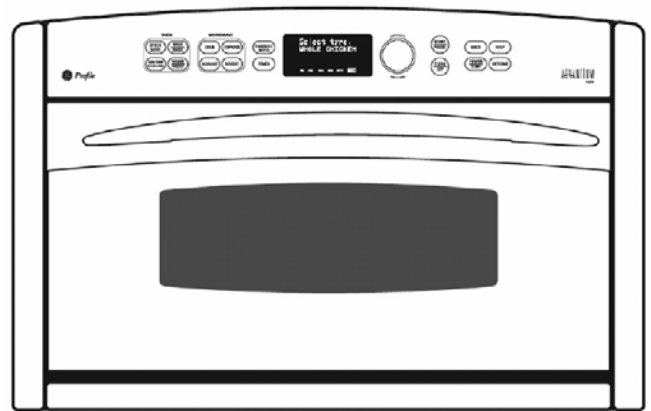
## Advantium 120

SCB 1000

SCB 1001

ZSC 1000

ZSC 1001



31-9141



GE Appliances  
General Electric Company  
Louisville, Kentucky 40225



## **IMPORTANT SAFETY NOTICE**

The information in this service guide is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

### **WARNING**

To avoid personal injury, disconnect power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks.

### **RECONNECT ALL GROUNDING DEVICES**

If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

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*Technical Service Guide*

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**PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY.**

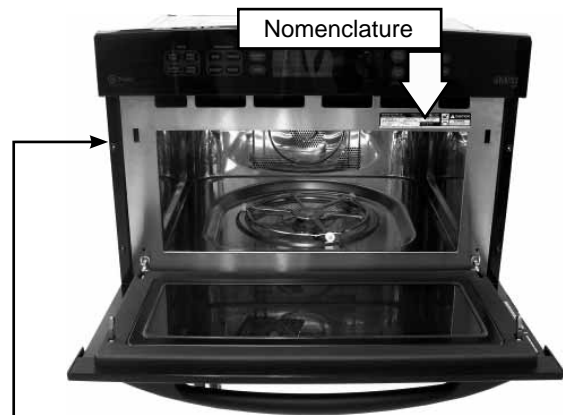
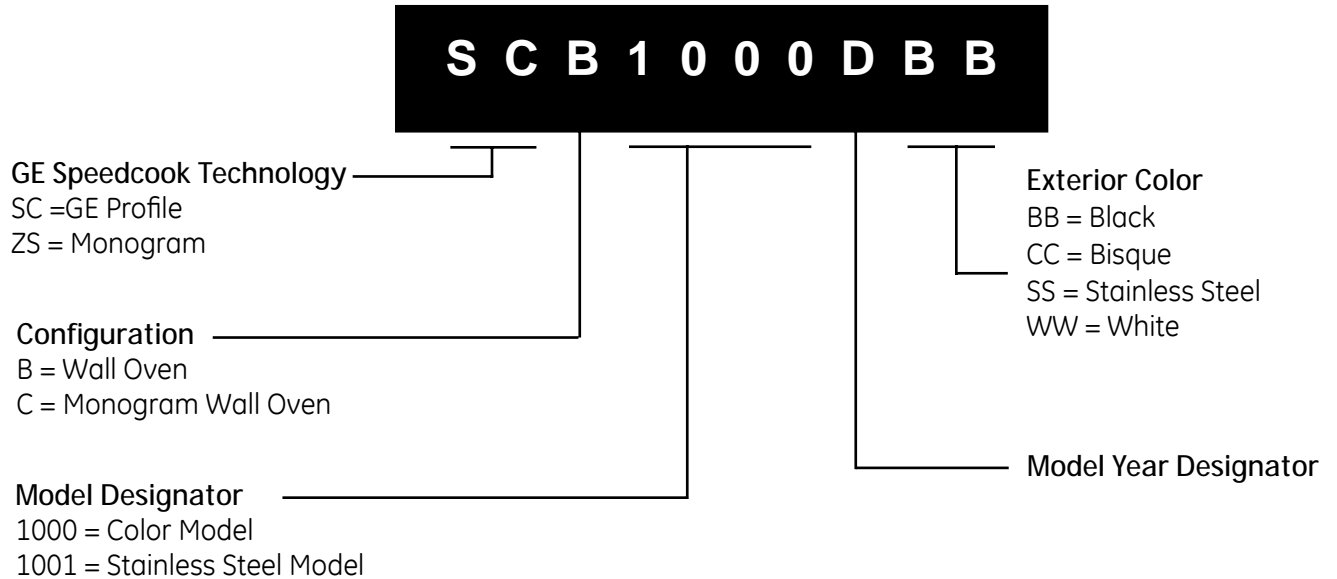
- A. DO NOT OPERATE OR ALLOW THE OVEN TO BE OPERATED WITH THE DOOR OPEN.
- B. IF THE OVEN OPERATES WITH THE DOOR OPEN, INSTRUCT THE USER NOT TO OPERATE THE OVEN AND CONTACT THE MANUFACTURER IMMEDIATELY.
- C. MAKE THE FOLLOWING SAFETY CHECKS ON ALL OVENS TO BE SERVICED BEFORE ACTIVATING THE MAGNETRON OR OTHER MICROWAVE SOURCE, AND MAKE REPAIRS AS NECESSARY:
  - 1. INTERLOCK OPERATION.
  - 2. PROPER DOOR CLOSING.
  - 3. SEAL AND SEALING SURFACES (ARCING, WEAR AND OTHER DAMAGE).
  - 4. DAMAGE TO OR LOOSENING OF HINGES AND LATCHES.
  - 5. EVIDENCE OF DROPPING OR ABUSE.
- D. BEFORE TURNING ON MICROWAVE POWER FOR ANY TEST OR INSPECTION WITHIN THE MICROWAVE GENERATING COMPARTMENTS, CHECK THE MAGNETRON, WAVE GUIDE OR TRANSMISSION LINE AND CAVITY FOR PROPER ALIGNMENT, INTEGRITY AND CONNECTIONS.
- E. ANY DEFECTIVE OR MISADJUSTED COMPONENTS IN THE INTERLOCK MONITOR, DOOR SEAL AND MICROWAVE GENERATION AND TRANSMISSION SYSTEMS SHALL BE REPAIRED, REPLACED OR ADJUSTED BY PROCEDURE DESCRIBED IN THIS MANUAL BEFORE THE OVEN IS RELEASED TO THE OWNER.
- F. A MICROWAVE LEAKAGE CHECK TO VERIFY COMPLIANCE WITH THE FEDERAL PERFORMANCE STANDARD SHOULD BE PERFORMED ON EACH OVEN PRIOR TO RELEASE TO THE OWNER.

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# Nomenclature

## Model Number



The nomenclature plate is located on the inside door frame.

The mini-manual is located behind the small access panel on the left side of the oven.

## Serial Number

The first two characters of the serial number identify the month and year of manufacture.

Example: **AL**123456S = January, 2006

A - JAN	2006 - L
D - FEB	2005 - H
F - MAR	2004 - G
G - APR	2003 - F
H - MAY	2002 - D
L - JUN	2001 - A
M - JUL	2000 - Z
R - AUG	1999 - V
S - SEP	1998 - T
T - OCT	1997 - S
V - NOV	1996 - R
Z - DEC	1995 - M

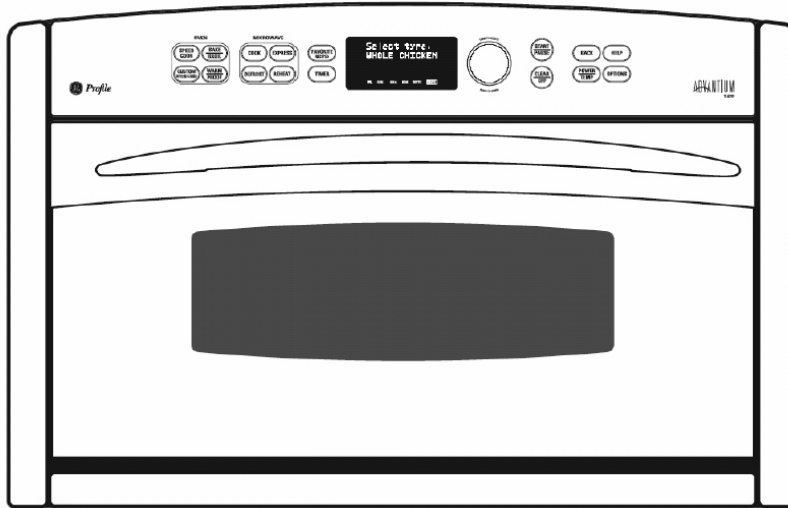
The letter designating the year repeats every 12 years.

Example:

T - 1974  
 T - 1986  
 T - 1998

# Introduction

The new Advantium oven uses breakthrough Speedcook technology to harness the power of light. The Advantium oven cooks the outside of foods much like conventional radiant heat, while also penetrating the surface so the inside cooks simultaneously. While halogen light is the primary source of power, a "microwave boost" is added with certain foods. Foods cook evenly and fast, retaining their natural moisture.



## Features and Benefits

**Speedcook Oven** - Delivers oven quality food up to four times faster than a conventional oven. No preheating required.

**True European Convection Oven** - 1500 watt convection oven mode bakes and roasts at temperatures ranging from 80 to 450°F.

**Sensor Microwave Oven** - 975 watt sensor microwave oven mode automatically delivers perfect cooking results.

**Warming Oven** - Keeps prepared foods warm and fresh, and retains perfect moistness and crispness.

**Proof Feature** - Specialized mode allows dough to rise quickly.

**16-in. Turntable** - Removable metal and glass trays easily handle large casserole dishes.

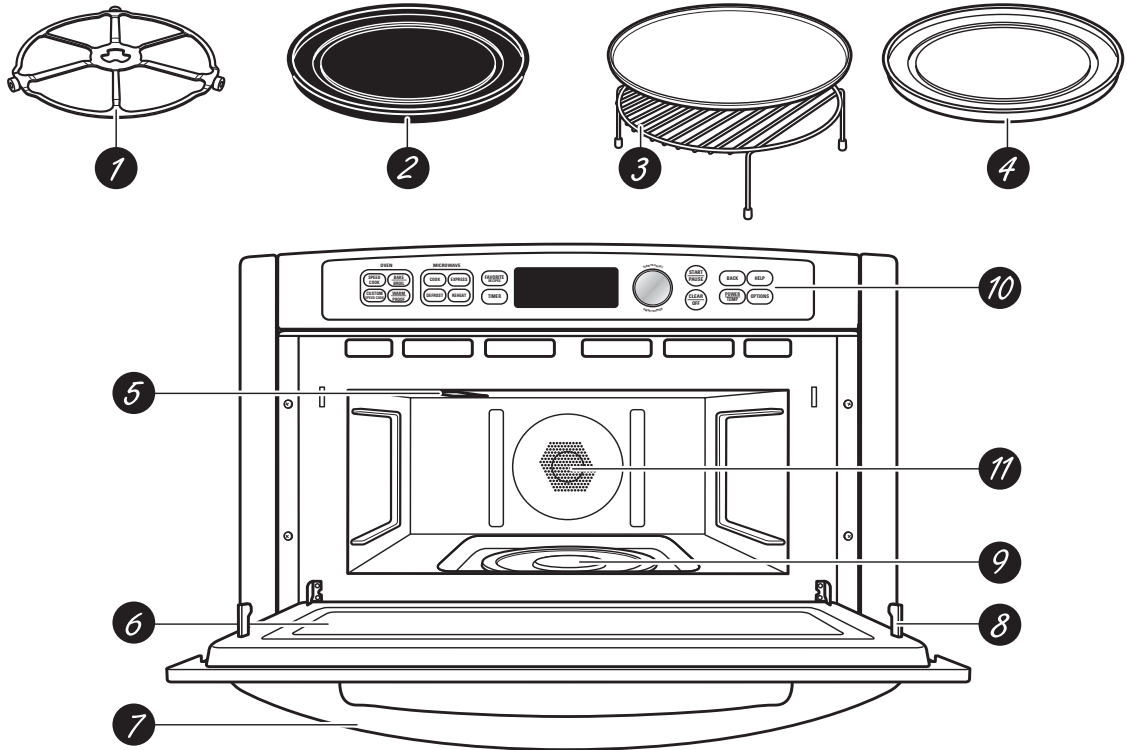
**Rounded Rear Wall** - Allows complete turntable rotation of 9-in. x 13-in. casserole dish for even cooking.

**Installation Flexibility** - Fits either a 27-in. x 30-in. wall oven cabinet (installation kit included).

**Pre-programmed Recipes** - Provide quick and easy programming of over 175 speedcook food selections.

**Multi-Level Cooking** - Removable rack allows cooking of multiple dishes at once.

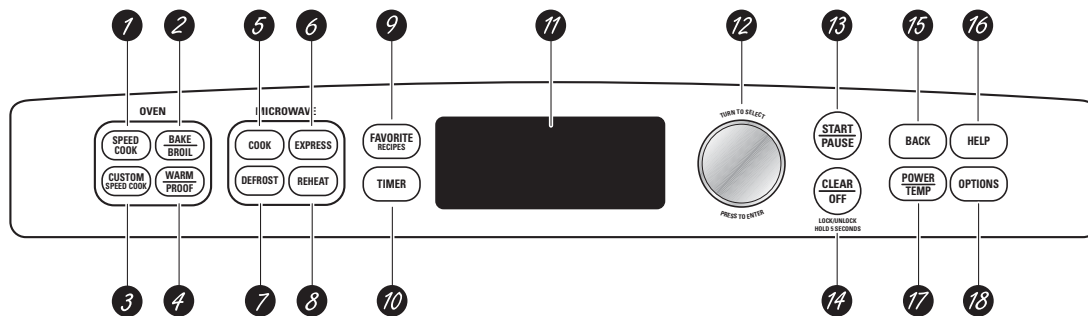
**Non-Stick Cooling Tray** - 16-in. Speedcook tray cleans up easily.



- 1** *Turntable*  
The turntable must always be in place, on the oven floor, for all cooking. Be sure the turntable is seated securely over the spindle in the center of the oven.
- 2** *Non-stick Metal Tray*  
Put food directly on the non-stick metal tray and place on the turntable when using the speedcook and bake features.
- 3** *Wire Oven Rack and Aluminum Baking Sheet*  
Put food directly on the aluminum baking sheet on the wire oven rack, and place them on the non-stick metal tray, when baking on two levels, broiling or toasting foods.
- 4** *Clear Glass Tray*  
Place on the turntable when using the microwave features. Place food or microwave-safe cookware directly on the tray.
- 5** *Upper Halogen Lamp/Ceramic Heater*  
Operates when using speedcook or broil.
- 6** *Window*  
Allows cooking to be viewed while keeping microwaves confined in the oven.
- 7** *Door Handle*  
Pull to open the door. The door must be securely latched for the oven to operate.
- 8** *Door Latches*
- 9** *Lower Ceramic Heater*  
Operates when using speedcook.
- 10** *Control Panel*  
The pads used to operate the oven are located on the control panel.
- 11** *Rear Convection Heat Element*  
Operates when using bake.

# Control Features

With your Advantium oven, you can cook with high-intensity halogen lights, ceramic heaters and convection heating element, and/or conventional microwave energy.



- 1** **SPEEDCOOK/Repeat Last**  
Press this pad to access the pre-set speedcook menu. Press and hold for 3 seconds to repeat the last cooking selection.
- 2** **BAKE/BROIL**  
Press this pad to bake, broil or toast.
- 3** **CUSTOM SPEEDCOOK**  
Press this pad to set your own speedcook program.
- 4** **WARM/PROOF**  
Select WARM to keep hot, cooked foods at serving temperature.  
Select PROOF to set for a warm environment useful for rising yeast-leavened products.
- 5** **COOK (Microwave)**  
Press this pad to microwave food that is not in the FAVORITE RECIPES section.
- 6** **EXPRESS (Microwave)**  
Press for 30 seconds of microwave cooking time. Each time the pad is pressed adds an additional 30 seconds to the remaining cooking time. The oven starts immediately.
- 7** **DEFROST (Microwave)**  
Press this pad to defrost, soften or melt frozen foods.
- 8** **REHEAT (Microwave)**  
Press this pad to reheat servings of previously cooked foods or a plate of leftovers.
- 9** **FAVORITE RECIPES**  
Press this pad to add, edit (change) or remove a recipe from the memory.
- 10** **TIMER**  
Press this pad to set the minute timer.

- 11** **Display**  
Shows and instructs the use of all features on the oven.
- 12** **SELECTOR DIAL—Turn to select, Press to enter**  
First turn, then press the dial to make option, food power level or temperature selections. Also use the dial to increase (turn clockwise) or decrease (turn counterclockwise) cooking times.
- 13** **START/PAUSE**  
Press this pad to start or pause any cooking function.
- 14** **CLEAR/OFF**  
Press this pad to cancel **ALL** oven programs except the clock and timer.
- 15** **BACK**  
Press this pad to step back one or more levels in the program process, such as when entering custom recipes.
- 16** **HELP**  
Press this pad to find out more about your oven's features.
- 17** **POWER/TEMP**  
During cooking, press this pad and turn/press the selector dial to change the microwave power level, the convection bake temperature or the speedcook temperature by adjusting the upper and lower lamp and heater settings.
- 18** **OPTIONS**  
Press this pad to set the *Clock* and access the *Beeper Volume, Clock Display ON/OFF, Display Scroll Speed, Delay Start* and *Reminder* features.



## ***Cooking Times***

- When speedcooking preprogrammed foods, you may see *OPTIMIZING COOK TIME* in the display several seconds after you press START/PAUSE. The oven automatically senses the electrical voltage level in your home and adjusts the cooking time up or down for proper cooking.

## ***Fan/Vent***

- The fan will be on during cooking. At the end of cooking, the automatic fan may continue to run for a short time, and the display will read *Oven is Cooling*. The fan will automatically shut off when the internal parts of the oven have cooled.
- The oven vent will emit warm air while the oven is on.

## ***Lights***

- When the oven is on, light may be visible around the door or outer case.
- The halogen lights will dim and cycle on and off during a speedcook cycle, sometimes even at full power levels. This is normal. The oven senses the heat level and adjusts automatically.

## ***Oven Heat***

- No preheating time is required during Speedcook cycles. The oven begins cooking immediately.
- The door and inside of the oven will be very hot. Use caution when opening the door and removing food.
- Do not use cookware or coverings made of paper, plastic, or foil when cooking during a speedcook cycle.
- When cooking for an extended period of time, the oven may automatically reduce the power levels to maintain the appropriate level of oven heat.\*

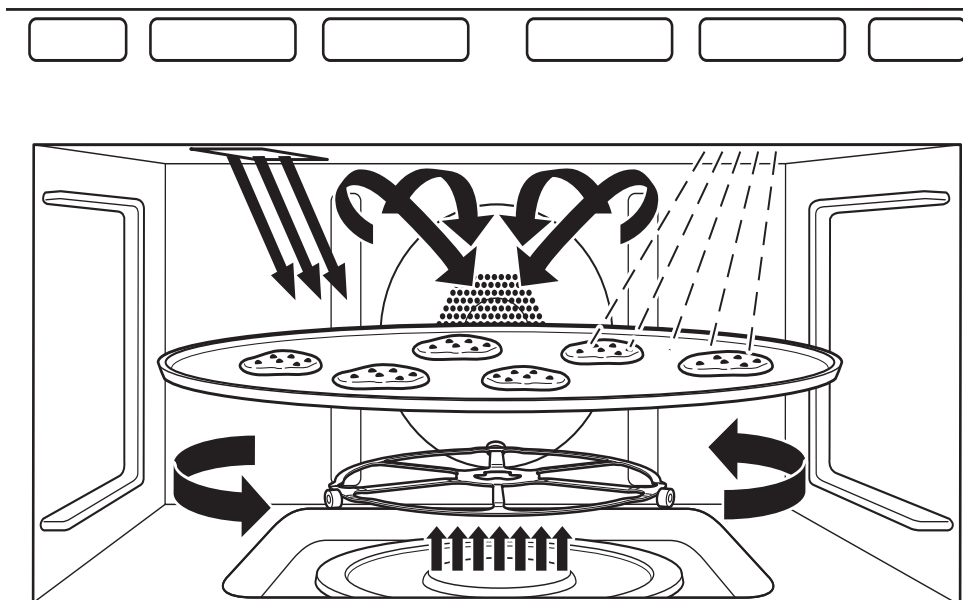
## ***Sounds***

- Clicks and a fan blowing are normal sounds during cooking. The relay board is turning components on and off.

\* This occurs during speed cook only when the cavity temperature approaches 425°F.

To remind you that you have food in the oven, the oven will display COOK TIME COMPLETED and beep once a minute until you either open the oven door or press the CLEAR/OFF pad.





#### Halogen Lamp and Ceramic Heaters

- One 500 watt halogen bulb and one 700 watt ceramic heater cook food from above.
- One 375 watt ceramic heater cooks food from below.

#### Rear Convection Heat Element

- Operates when using bake.

#### Microwave

- A microwave “boost” is automatically added with certain foods.
- The oven can also be used as a 975 watt microwave oven

## Speedcook Power Levels

Advantium uses power from a high-intensity halogen light, ceramic heaters, and microwaves to cook food from the top, bottom, and interior simultaneously, sealing in moisture and flavor.

When using preset Speedcook recipes on the food menu, power levels are preselected. However, these power levels can be adjusted before or during cooking. Also, the manual cook feature allows you to speed cook items not on the preset food menu by selecting your own cook time and power level settings.

Each power level alternates heater power and microwave energy throughout the cook time. Percentage times of each power source vary, dependant upon which power level has been selected. The halogen light and ceramic heaters will cycle on and off during a speedcook cycle, even when full power has been selected.

UPPER POWER (U) controls both the upper heating assembly and microwave power. A higher UPPER POWER setting will utilize more upper heater power, browning food faster on top. A lower UPPER POWER setting utilizes more microwave power, causing food to cook more evenly throughout. Select a higher setting for such foods as pizza and baked goods. Select a lower setting for foods such as casseroles, meats, and fish.

LOWER POWER (L) controls the lower heater. Select a higher setting to brown foods more on the bottom. Select a lower setting for less browning on the bottom.

Refer to the Speedcook Power Level Chart in this chapter for specific power source operating percentages.

### Upper Heaters

The upper heating assembly consists of a 500 watt halogen heater and a 700 watt ceramic heater. The halogen and ceramic heaters provide radiant heat, which browns the outside of the food while sealing in moisture and flavor. These heaters only operate in the speedcook mode and always cycle on and cycle off at the same time.

The convection heater, located at the rear of the oven, operates when using bake mode.

### Lower Heater

The lower heater is a 375 watt ceramic heater. It operates in speedcook, oven/bake, and warm modes. The lower heater assists in browning foods on the bottom.

### Microwave Energy

**Caution:** When cooking in Microwave mode, always use the glass tray.

The Advantium 120 provides 975 watts of microwave power, which is delivered directly into the oven cavity to work independently, or in conjunction with other cooking cycles. As the food rotates on the oven turntable, microwave energy is evenly distributed to all portions of the food.

### Sensor Cooking

Advantium's Microwave mode features sensor cooking, which automatically selects cook times and power levels. A humidity sensor detects the increasing humidity released during cooking, senses when the food is done, and shuts the oven off at the appropriate time. Sensor cooking is not available for 5 minutes immediately following Speedcook.

### Voltage Compensation

**Note:** Voltage compensation only occurs when using a preselected menu item in Speedcook. These items require compensation for accurate and consistent cooking results.

Voltage fluctuations in the power supply can cause inconsistencies in cooking. The main PCB measures line voltage at the start of each Speedcooking selection and adjusts the cooking time to achieve consistent results. Optimal line voltage, where no voltage compensation occurs, is 120 VAC. Above 120 VAC, time is subtracted from the recipe. Below 120 VAC, time is added to the recipe. The amount of voltage compensation required is dependent upon the incoming voltage at the start of the cooking cycle and the particular speedcooking selection that is chosen.

The following chart shows the predicted compensation times based on a 12-minute speedcook selection (such as Biscuits, Refr; Large).

**Voltage Compensation Chart**

Voltage	Time Change (Seconds)
108	+180
110	+150
112	+120
114	+90
116	+60
118	+30
120	0
122	-21
124	-42
126	-63
128	-84
130	-105
132	-126

**Note:** Voltage compensation should be within 20 seconds of values in table.

Voltage compensation occurs after approximately 5 seconds of cooking operation. The display will show OPTIMIZING COOK TIME. The time will flash and then display the new adjusted time, based on the amount of voltage compensation required.

Voltage compensation only occurs during Speedcook operation and only occurs once during the cooking cycle (at initial start of Speedcook operation).

**Thermal Protection**

Thermal protection is a safety feature built into the Advantium’s software. In the event that the internal oven temperature reaches 500°F, the thermistor will communicate this information to the main PCB and thermal protection will be initiated. While in thermal protection mode, cooking cycles will be maintained; however, heaters will not be utilized until the oven reaches the proper operating temperature.

**Thermal Compensation**

**Note:** Thermal compensation only occurs when using a preselect menu item in Speedcook. These items require compensation for accurate and consistent cooking results.

When cooking several food items consecutively, the temperature in the oven may become very high. When Speedcooking, the Advantium automatically compensates for the increased temperature by reducing the amount of time the upper and lower heaters are on during each 32-second duty cycle.

At the start of each new Speedcooking operation, the cavity thermistor reads the oven temperature and sends this information to the main PCB board. If the oven temperature is 150°F or higher, the main PCB board will initiate thermal compensation. Thermal compensation will reduce the amount of time the heaters are on in each 32-second duty cycle. The reduction in heater time is based on the oven temperature at the start of Speedcook. The higher the initial cavity temperature, the less time the heaters will be on per duty cycle.

Thermal compensation occurs only once, at the beginning of a Speedcook cycle. In the following thermal compensation chart, the first column lists the initial cavity temperature, the second and third columns list the number of minutes and seconds the unit will have thermal compensation active.

**Thermal Compensation Chart**

Initial Cavity Temperature	Compensation Time Minutes	Compensation Time Seconds
150°F	2	7
175°F	2	33
200°F	3	0
225°F	3	27
250°F	3	53
275°F	4	20
300°F	4	47
325°F	5	13
350°F	5	40
375°F	6	7
400°F	6	33
425°F	7	0
450°F	7	27

*(Continued Next Page)*

Speedcook Power Level Chart

Upper Power Level	Lower Power Level	Upper Heater On Time	Lower Heater On Time	Microwave On Time
Hi	Hi	100%	100%	0%
	Lo	100%	80%	0%
Medium Hi	Hi	100%	70%	0%
	Lo	100%	65%	0%
Med	Hi	90%	90%	10%
	Lo	90%	65%	10%
Med Lo	Hi	80%	70%	20%
	Lo	70%	70%	30%
Lo	Hi	60%	60%	40%
	Lo	30%	30%	70%

# Installation

## Advance Planning

- These ovens may be installed directly into a 27-in. or 30-in. wide oven cabinet.
- The front surface of the oven will be nearly flush with surrounding cabinet doors.
- This oven can be installed over any GE or Monogram single electric built-in oven, or a warming drawer or both.
- Color matched side trim pieces are provided for installation into a 30-in. wide space. Use the side trim when installing the oven above a 30" wide wall oven or warming drawer. Discard the side trim pieces if you are installing over a 27-in. wide oven.
- Cutout dimensions are the same for both 27-in. or 30-in. wide cabinet installations.

**IMPORTANT:** This oven is not approved for use above another built-in Speedcook oven, a side by side installation or below a countertop.

- For personal safety, this oven cannot be installed in a cabinet arrangement such as an island or peninsula.
- The oven must be installed at least 36 <sup>3</sup>/<sub>4</sub> in. above the floor.
- Allow for clearance to adjacent corners, walls, drawers, etc.
- Cabinets installed adjacent to wall ovens must have an adhesion spec of at least 194°F temperature rating.
- The oven must be securely installed in a cabinet that is firmly attached to the house structure. Weight on the oven door could cause the oven to tip and result in injury. Never allow anyone to climb, sit, stand or hang on the oven door.

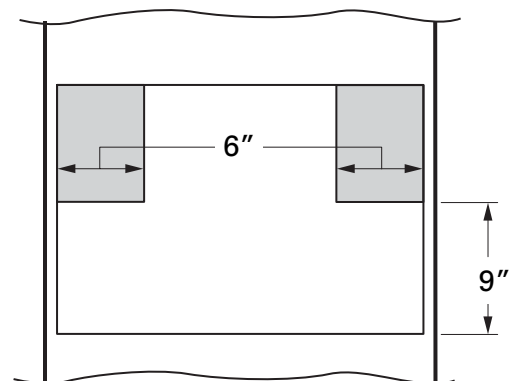
## Electrical Requirements

### Single Advantium 120 Installation

This product requires a 120 volt, 60 Hz, 15 amp circuit and draws 1.8 kilowatts. This product must be connected to a supply circuit of the proper voltage and frequency.

- Wire size must conform to the requirements of the National Electrical Code or the prevailing local code for this kilowatt rating.
- The power supply cord and plug should be brought to a separate 15 or 20 ampere branch circuit single grounded receptacle. The outlet box should be located within reach of the 48-in. power cord.

### Electrical Location



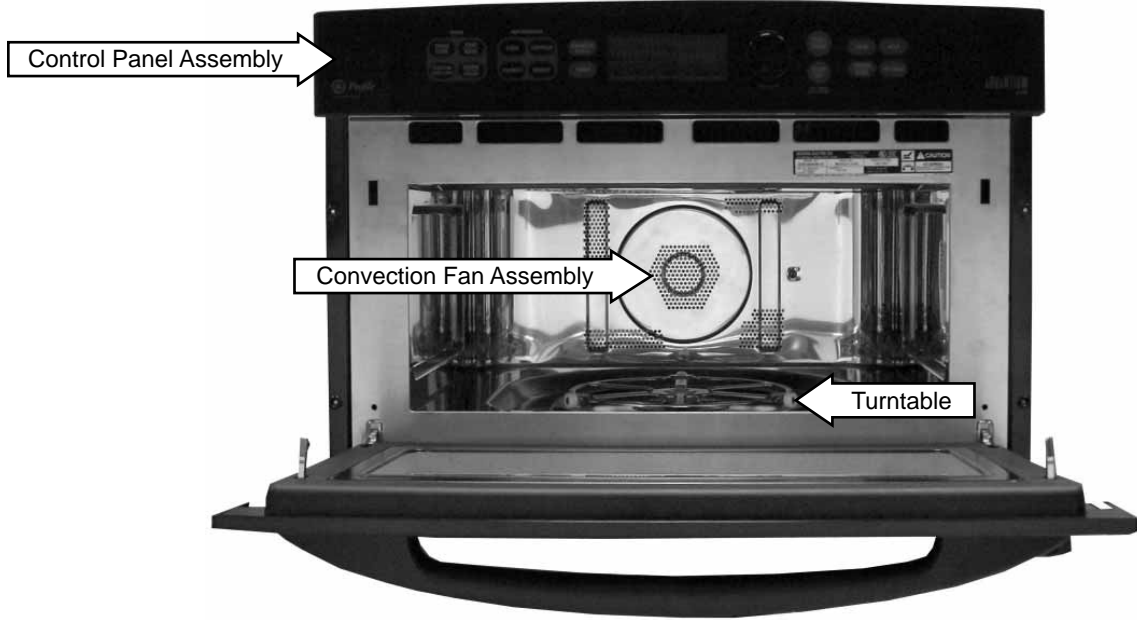
Locate outlet box in the shaded area

**IMPORTANT:** (Please read carefully). The power cord of this appliance is equipped with a three-prong (grounding) plug that mates with a standard three-prong grounding wall receptacle to minimize the possibility of electric shock. The customer should have the wall receptacle and circuit checked by a qualified electrician to make sure the receptacle is properly grounded and has the correct polarity.

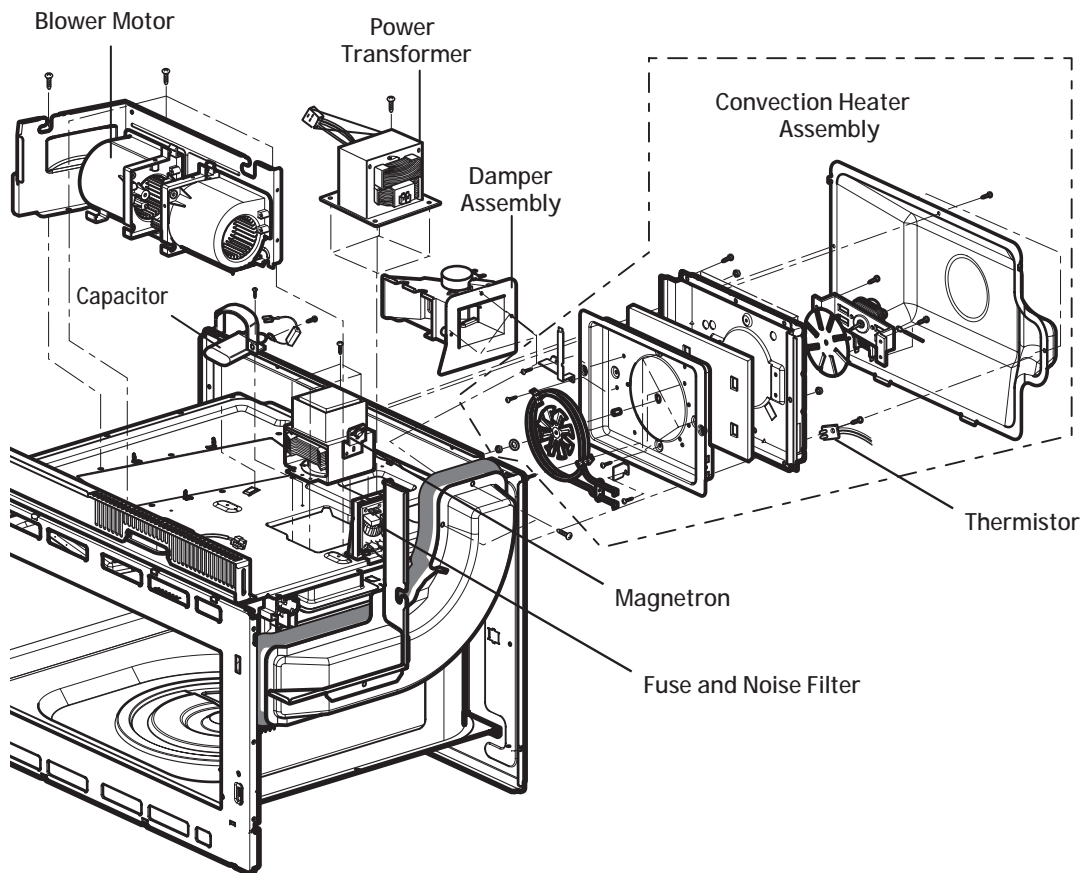
Where a standard two-prong wall receptacle is encountered, it is the personal responsibility and obligation of the customer to have it replaced with a properly grounded three-prong wall receptacle. Do not, under any circumstances, cut or remove the third (ground) prong from the power cord. **DO NOT USE AN EXTENSION CORD.**

# Component Locator Views

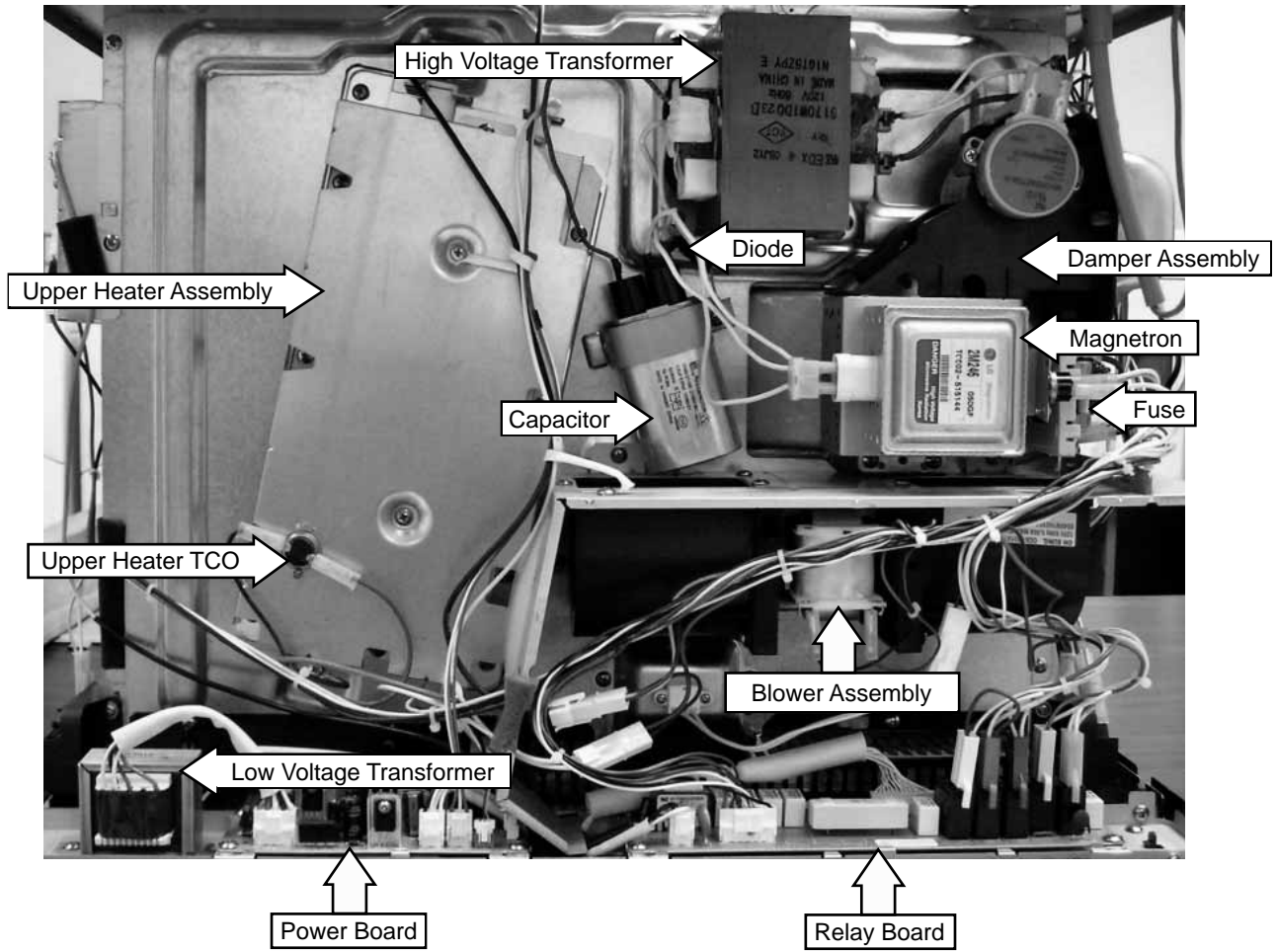
## Front View



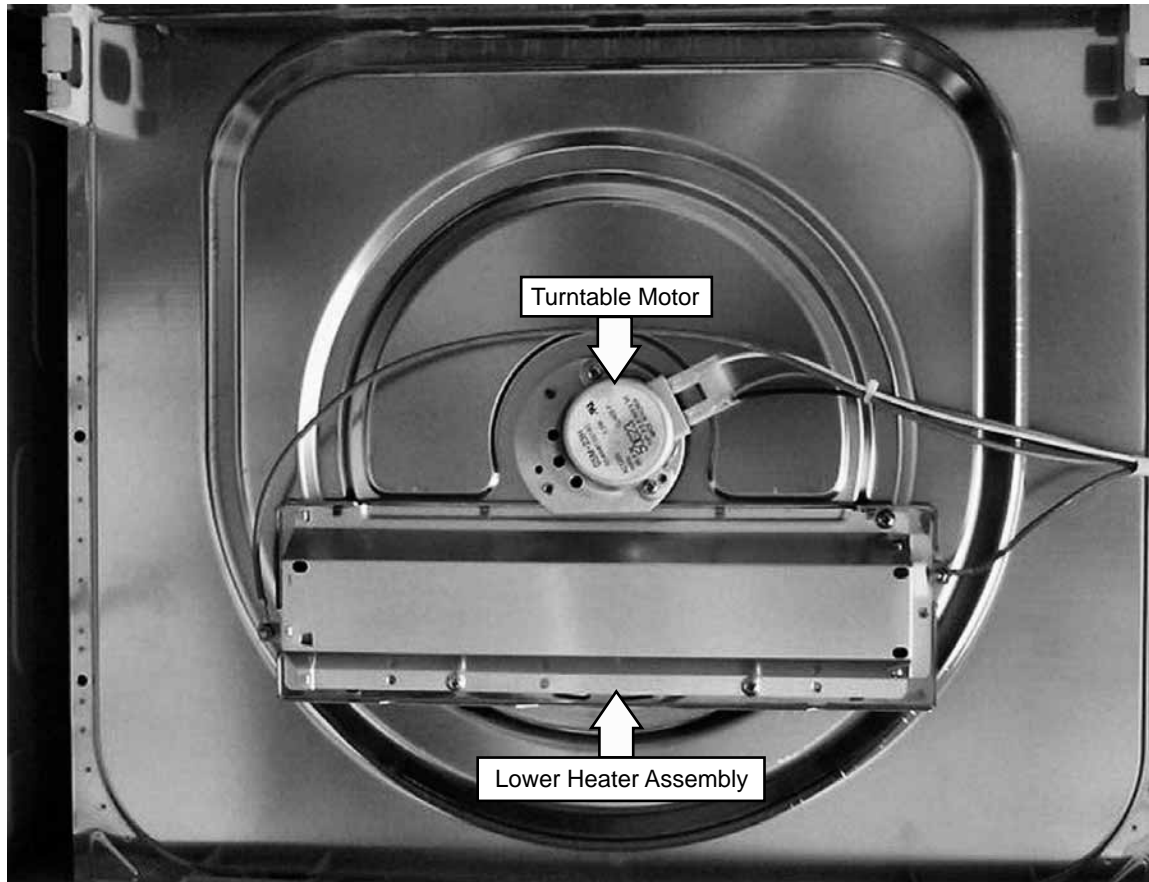
## Main Component Locator View



Top View

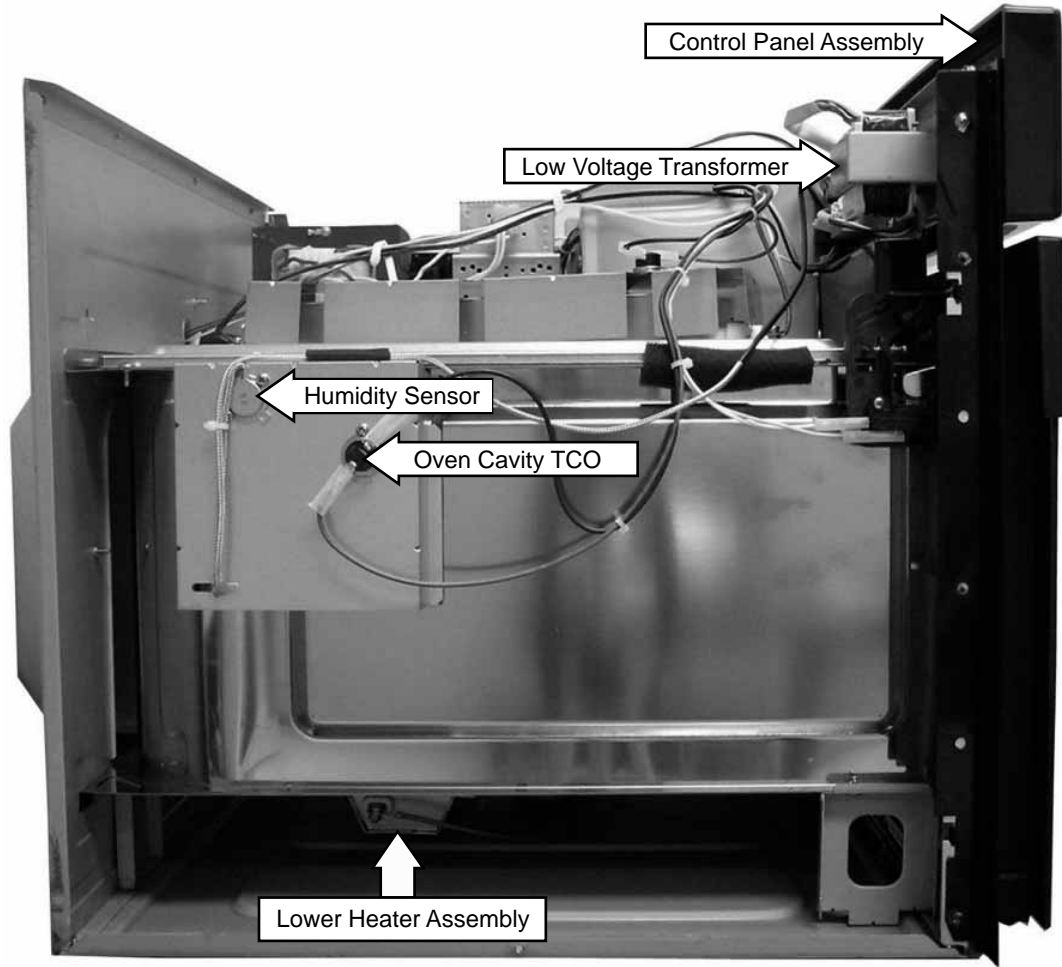


Bottom View

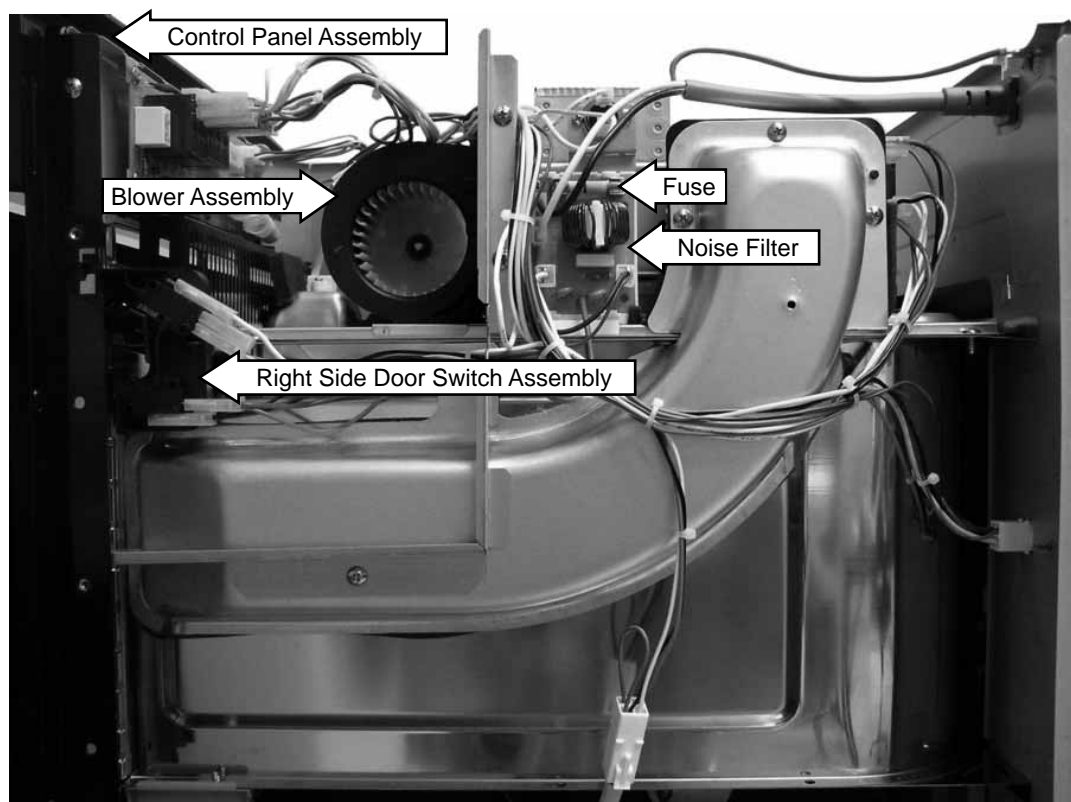




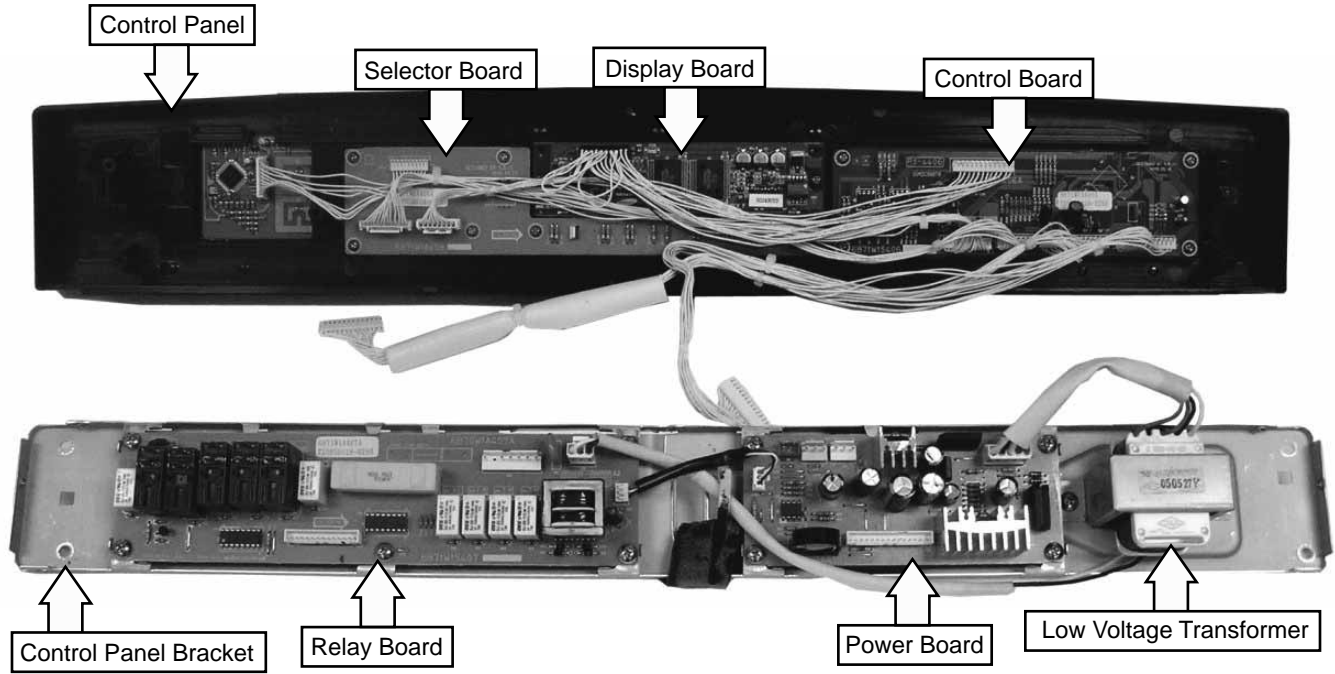
Left Side View



Right Side View

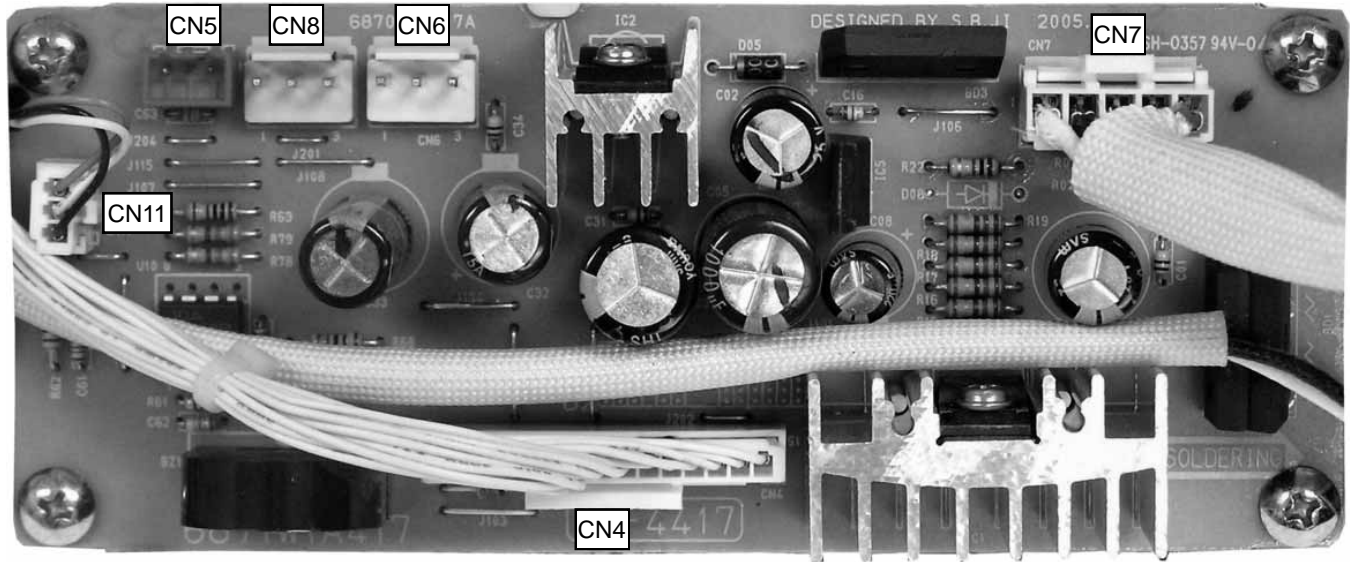


Control Panel Assembly (Shown separated)



# Control Boards and Panel Connections

## Power Board



CN4 - Control Board

CN5 - Humidity Sensor

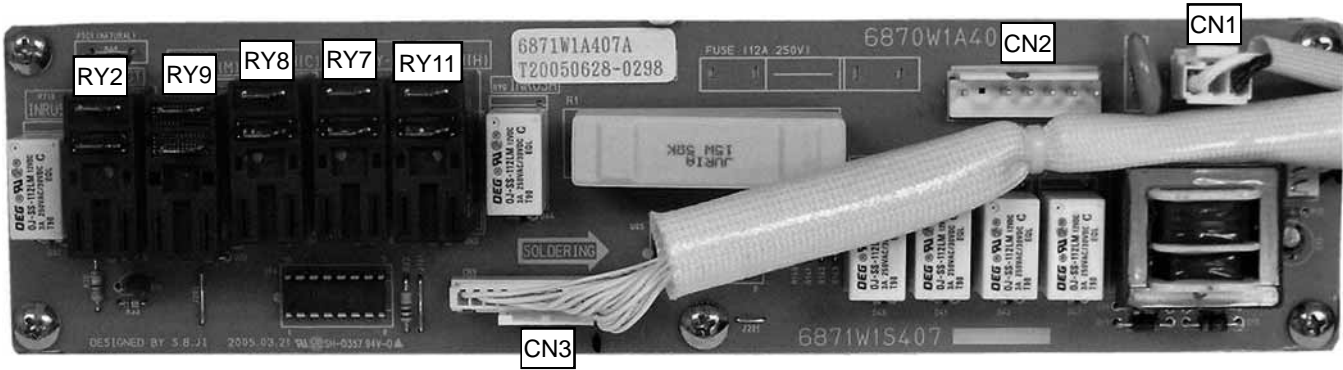
CN6 - Door Secondary Sensing Switch and Damper Door Sensing Switch

CN7 - Low Voltage Transformer (Secondary Windings)

CN8 - Thermistor

CN11 - Relay Board

## Relay Board



CN1 - Low Voltage Transformer (Primary Winding)

CN2 - Connection to Door Switch, Heater, and Turntable Motor

CN3 - Control Board

RY2 - High Voltage Transformer

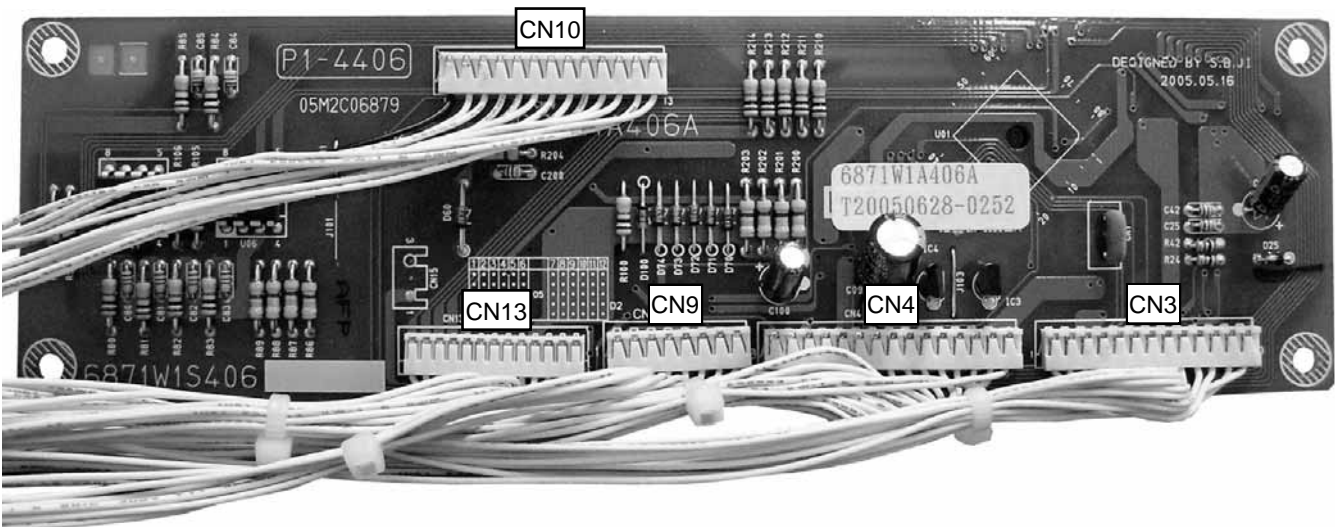
RY7 - Convection Heater

RY8 - Upper Heater (Ceramic)

RY9 - Lower Heater

RY11 - Upper Heater (Halogen)

## Control Board



CN3 - Relay Board

CN4 - Power Board

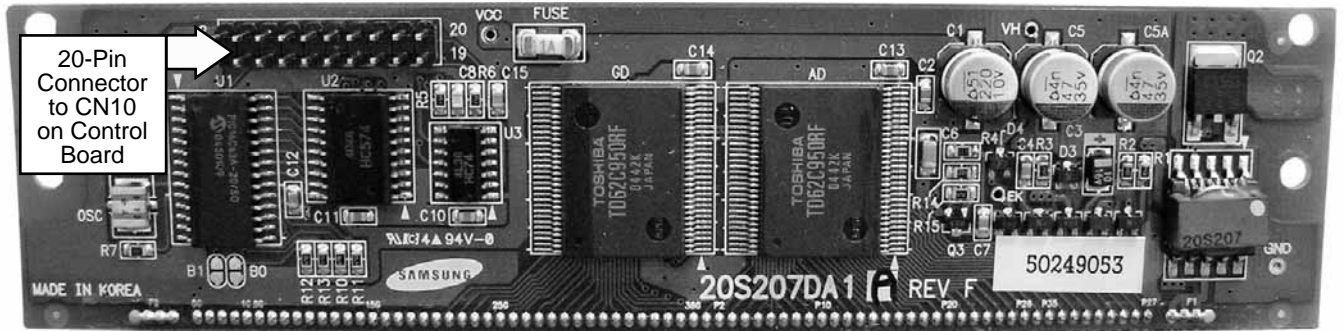
CN9 - Selector Board

CN10 - Display Board 20-Pin Connector

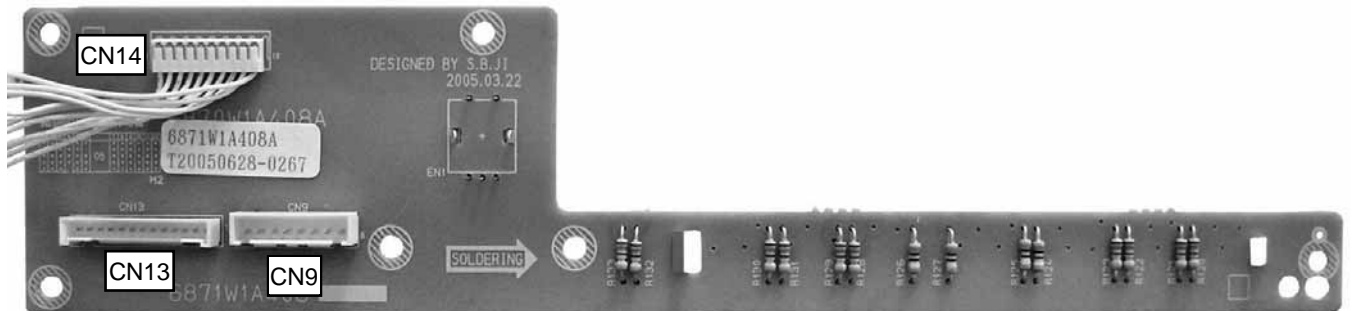
CN13 - Selector Board

*(Continued next page)*

## Display Board



## Selector Board



CN9 - Control Board

CN13 - Control Board

CN14 - Control Panel

## Control Panel



# Components

## Component Access Chart

### WARNING:

- The oven is heavy and requires two people to remove from the cabinet or wall opening. Care should be taken when removing and installing.
- Sharp edges may be exposed when servicing. Use caution to avoid injury. Wear Kevlar gloves or equivalent protection.

	Serviceability - Unit Installed	Serviceability - Unit Partially Removed	Serviceability - Unit Removed
Blower Assembly			●
Capacitor and Diode		●	
Cavity Light		●	
Cavity TCO			●
Control Panel Assembly		●	
Convection Fan Motor			●
Convection Heater Assembly			●
Damper Assembly			●
Door	●		
Door Assembly	●		
Fuse		●	
High Voltage Transformer			●
Humidity Sensor			●
Left and Right Door Switch Assemblies		●	
Lower Heater Assembly			●
Low Voltage Transformer		●	
Magnetron and Magnetron Thermostat			●
Noise Filter		●	
Thermistor			●
Turntable Motor			●
Turntable Support	●		
Upper Heater Assembly			●
Upper Heater TCO			●

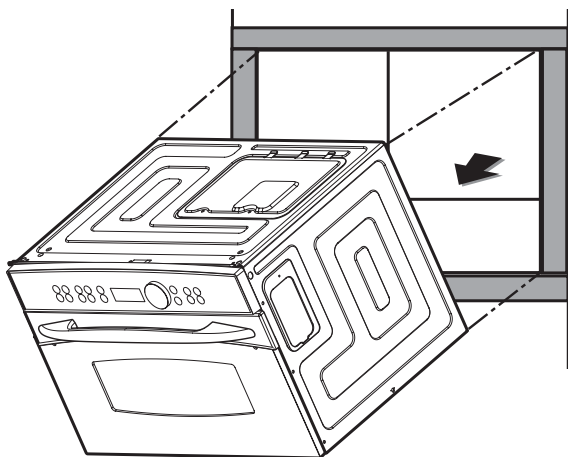
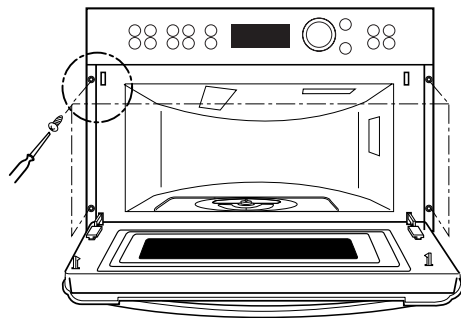
## Oven Removal / Partial Removal

To remove the oven from cabinet or wall opening:

**WARNING:** This oven requires 2 people for complete oven removal. Grasp the bottom of the oven at the front and rear on each side.

**Caution:** Do not use the oven handle to lift or lower the oven. Damage will occur.

1. Open the door and remove the wire rack, aluminum baking sheet, glass tray, metal tray, and turntable.
2. Remove 4 screws from the side trims
3. Slide the oven forward approximately 11 inches to access some components, or remove it completely from the cabinet or wall opening.

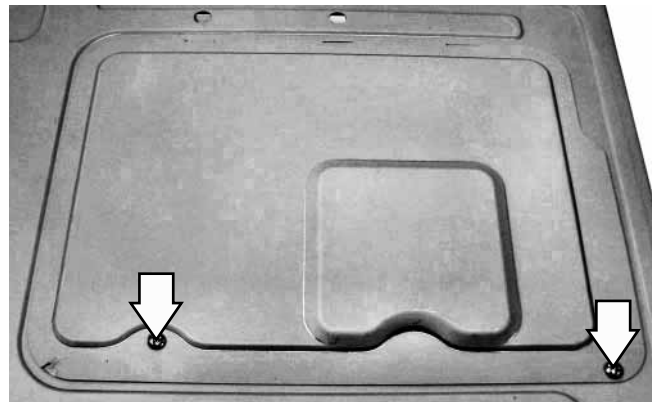


4. Unplug the power cord, and lower the oven onto a protected surface.

## Access Cover

To remove the access cover, the oven must be at least partially removed from the installation.

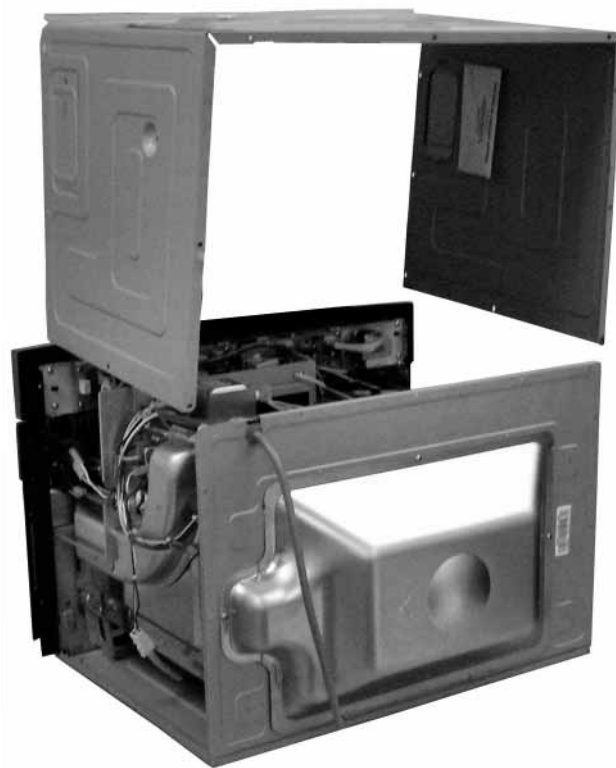
The access cover is attached to the outer cover by 2 Phillips-head screws.



## Outer Cover

To remove the outer cover, the oven must be removed from the installation.

The outer cover is held in place by 21 Phillips-head screws.





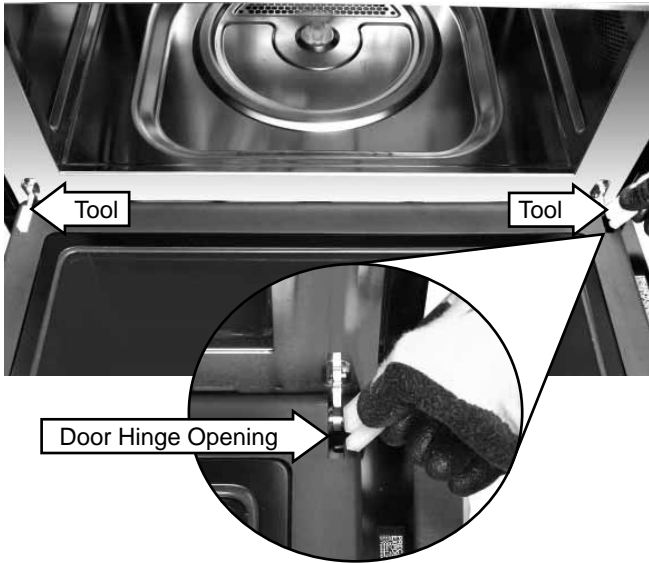
## Door Assembly

**WARNING:** A microwave leakage test must be performed any time a door is removed, replaced, or adjusted for any reason. (See Diagnostic and Service Information.)

### Door Removal

**Caution:** Do not close the door beyond the door removal position. Damage to the inner door panel will occur.

To remove the door, open the door fully and insert a door removal tool (Part # WB01X10318) in each door hinge opening. The door can then be slowly closed a few inches to the door-removal position and lifted from the oven.



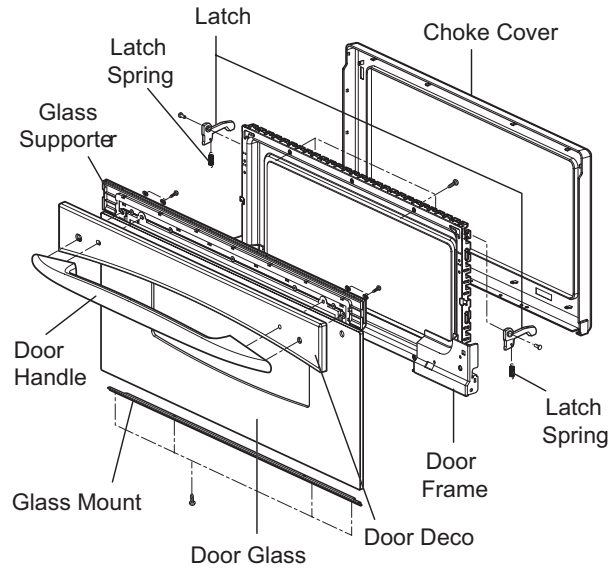
### Door-Removal Position



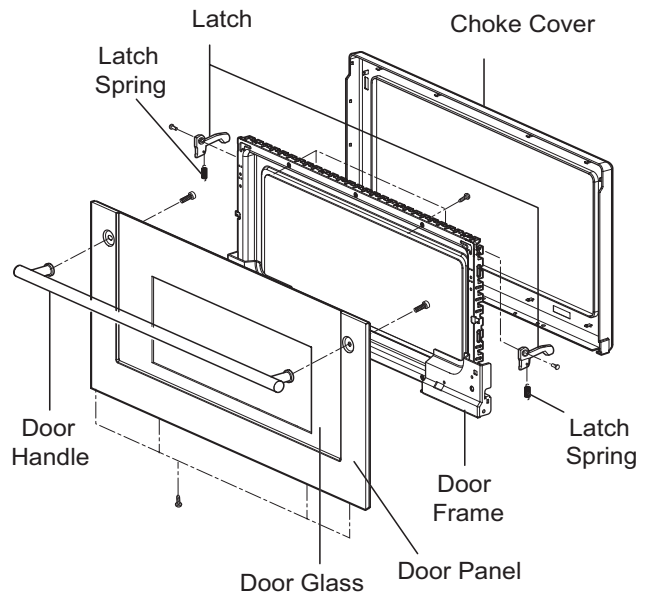
### To disassemble the door:

1. Remove the 4 screws from the glass mount.
2. Remove the choke cover.
3. Remove the 4 screws from the door frame, and remove door frame from the glass supporter.
4. Remove the 4 screws from the glass supporter, and remove the door handle and vent trim from the glass supporter.

#### SCB1000K and SCB1001K



#### ZSC1000K and ZSC1001K





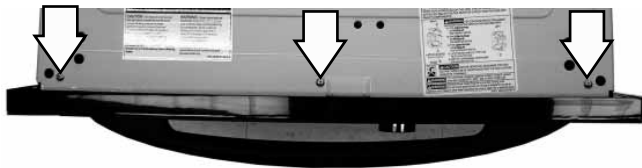
## Control Panel Assembly

The control panel assembly consists of an outer control panel and an inner control panel bracket. The outer control panel contains the control, display, and selector circuit boards. The power and relay circuit boards, and the low voltage transformer are attached to the control panel bracket. Removing the control panel allows access to the oven lamp.

The control panel is held in place with 7 Phillips-head screws and 4 tabs. Two of the screws are recessed from the top of the outer cover. Access holes are provided. A magnetic screwdriver is necessary to capture these screws.

### To remove the control panel assembly:

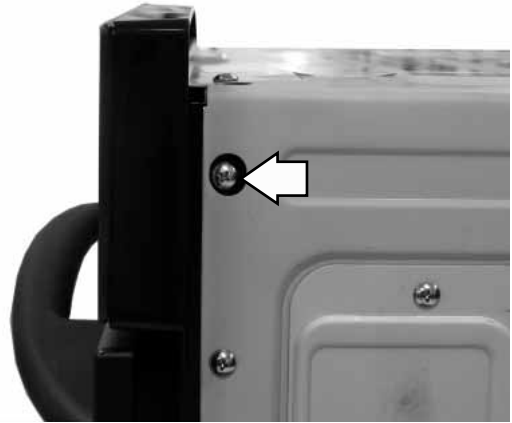
1. Place the oven in a partially removed position. (See *Oven Removal / Partial Removal*.)
2. Remove the 3 Phillips-head screws from the top front of the outer cover.



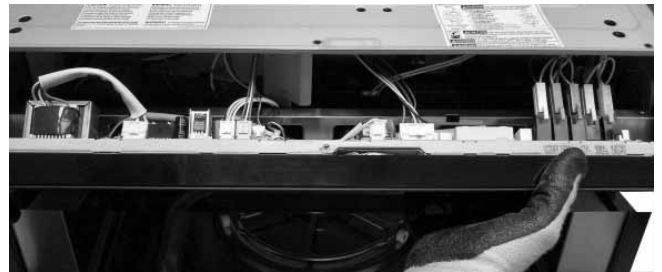
3. Remove the 2 recessed Phillips-head screws that attach the control panel assembly to the top of the frame.



4. Remove the 2 Phillips-head screws that attach the control panel assembly to the side of the frame.

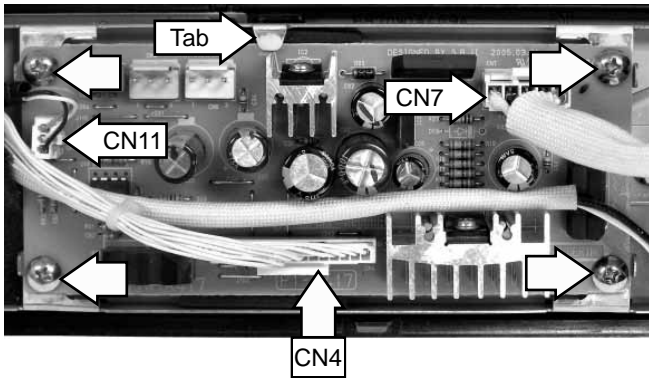


5. Open the oven door.
6. Grasp the bottom of the control panel assembly and lift to release the 4 tabs that hold the bottom of the control panel assembly to the oven frame.
7. Disconnect wire harnesses from the power board at locations CN5, CN6, and CN8.
8. Disconnect wire harnesses from the relay board at locations RY2, RY7, RY8, RY9, RY11, and CN2.



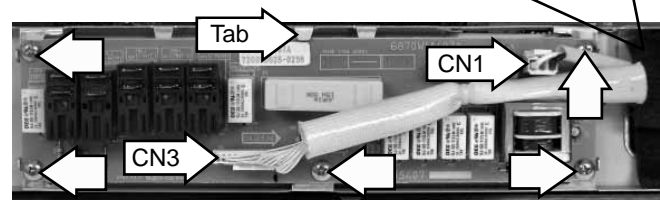
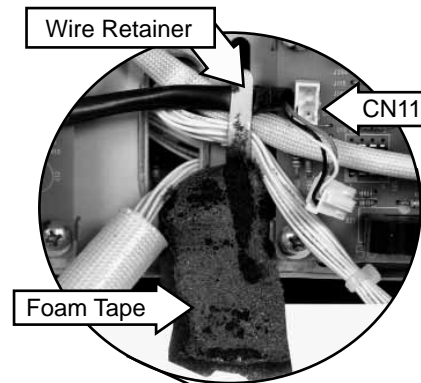
### To remove the power board:

1. Remove the control panel assembly. (See *Control Panel Assembly*.)
2. Disconnect wire harnesses from the power board at locations CN4, CN7, and CN11.
3. Remove the 4 Phillips-head screws that attach the power board to the control panel bracket.
4. Lift the power board to clear the retaining tab.



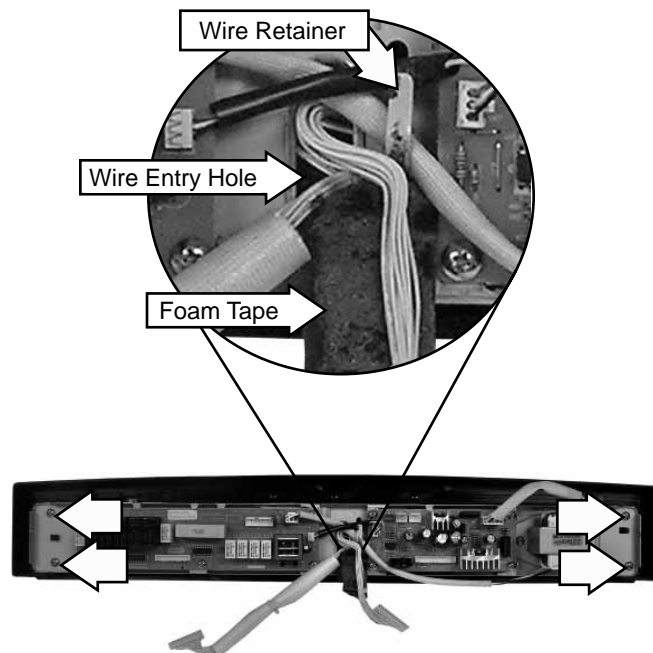
### To remove the relay board:

1. Remove the control panel. (See *Control Panel Assembly*.)
2. Peel back the foam tape.
3. Disconnect the wire harness from the power board at location CN11 and release the harness from the wire retainer.
4. Disconnect wire harnesses from the relay board at locations CN1 and CN3.
5. Remove the 5 Phillips-head screws that attach the relay board to the control panel bracket.
6. Lift the relay board to clear the retaining tab.



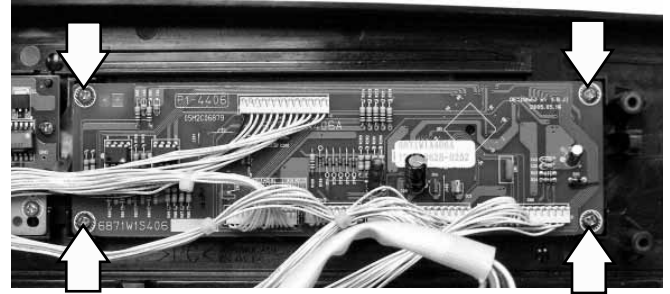
### To remove the control panel bracket:

1. Remove the control panel. (See *Control Panel Assembly*.)
2. Disconnect wire harnesses from the relay board at location CN3 and from the power board at location CN4.
3. Peel back the foam tape and release the wire harness to CN4 from the wire retainer.
4. Remove the 4 Phillips-head screws (2 on each side) from the control panel bracket.
5. Slide the control panel bracket to the right then lift the control panel bracket from the control panel.
6. Guide the disconnected harnesses through the wire entry hole in the control panel bracket.



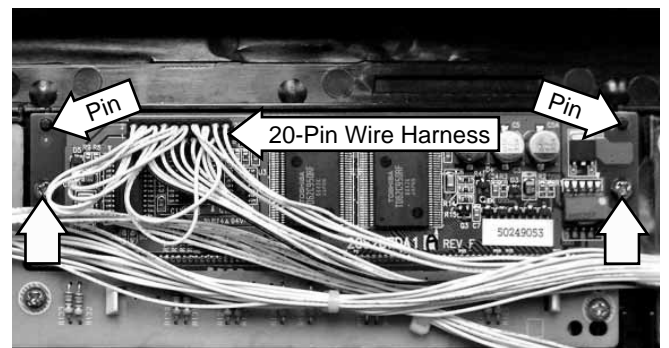
### To remove the control board:

1. Remove the control panel bracket. (See *Control Panel Assembly*.)
2. Disconnect the 20-pin harness connector from the display board.
3. Disconnect the wire harnesses from the selector board at locations CN9 and CN13.
4. Remove the 4 Phillips-head screws that hold the control board to the control panel.



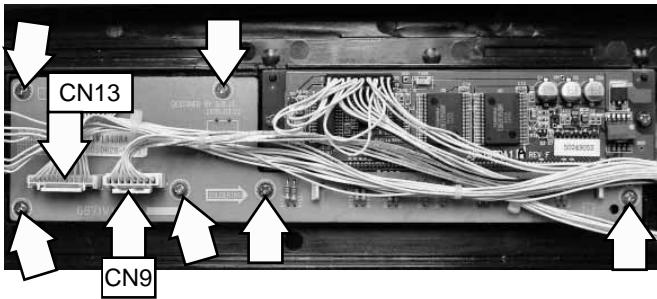
### To remove the display board:

The display board is attached to the control panel by 2 Phillips-head screws and positioned by 2 pins. The display board connects to the control board with a 20-pin wire harness. To access the display board it is necessary to remove the control panel bracket. (See *Control Panel Assembly*.)



### To remove the selector board:

1. Remove the control panel bracket. (See *Control Panel Assembly*.)
2. Pull the dial straight out from the control panel.
3. Disconnect wire harnesses from the selector board at locations CN9 and CN13.
4. Disconnect the wire harness from the control panel at location CN14.
5. Remove the 6 Phillips-head screws that attach the selector board to the control panel.



### To remove the control panel:

To access the control panel it is necessary to remove the control panel bracket, control, display, and selector boards. (See *Control Panel Assembly*.)



### Low Voltage Transformer

The low voltage transformer is held in place by 2 Phillips-head screws.

The control panel must be removed to access the low voltage transformer. (See *Control Panel Assembly*.)

The low voltage transformer is connected to the power board at location CN7 and on the relay board at location CN1.



### Resistance Check

1. Disconnect the harness from the relay board at location CN1.
2. Check the primary winding for approximate resistance value between the white and black wires of 23.2  $\Omega$ .
3. Disconnect the harness from the power board at location CN7.
4. Check the secondary windings for approximate resistance value between:
  - Yellow to black - 1.5  $\Omega$
  - Black to white - 5.2  $\Omega$
  - Red to brown - 1.1  $\Omega$

**Note:** Voltage check for the transformer is:

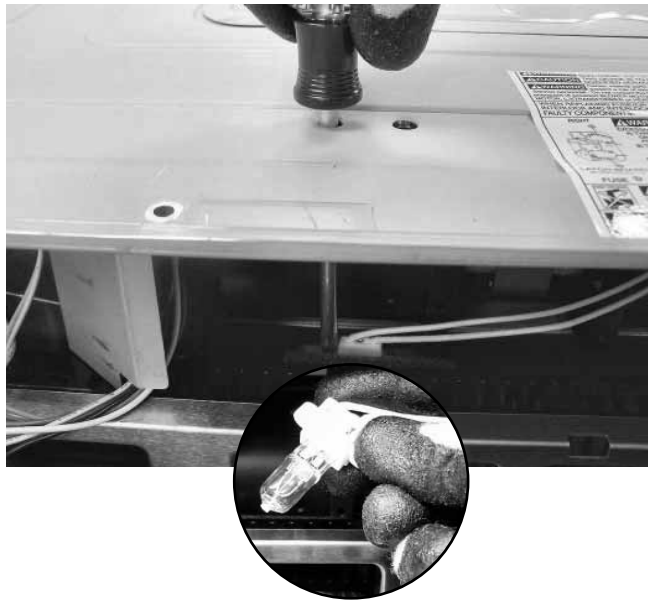
- Yellow to black - 13 VAC
- Black to white - 20 VAC
- Red to brown - 8 VAC

## Cavity Light

The oven lamp is inserted in a socket that is attached to the lamp housing with 2 Phillips-head screws. The screws are recessed from the top of the outer cover. Access holes are provided. A magnetic screwdriver is necessary to capture these screws.

It is necessary to remove the control panel to access the oven lamp. (See *Control Panel Assembly*.)

The oven cavity light will come on during a microwave cooking cycle.



**Caution:** Do not twist the lamp.

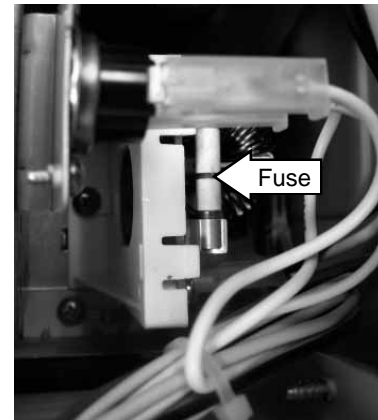
The oven lamp is a 130-VAC, 20-watt lamp (Part # WB08X10050). It is a plug-in type lamp.

## Fuse

**Important Note:** The primary interlock, monitor interlock, door sensing (secondary interlock) switches, and the relay board must all be replaced when the 20 amp fuse opens due to operation of the monitor interlock switch.

The unit is equipped with a 20 amp fuse (Part # WB27X10388).

The fuse is located in a receptacle near the top of the noise filter and is common to all functions and door switches.



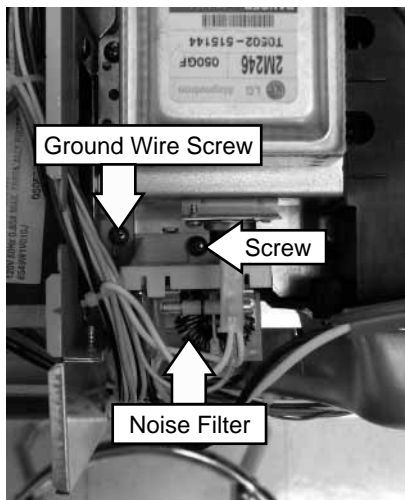
**Note:** If the fuse opens, it will disable all oven functions including the display. The oven must be partially removed to access the fuse. (See *Oven Removal / Partial Removal*.)

## Noise Filter

The noise filter is located behind the blower assembly on the right side of the oven. The noise filter is held in place by a single Phillips-head screw. The filter ground wire is attached to the oven chassis near the noise filter by a single Phillips-head screw. The outer cover must be removed to access the noise filter. (See *Oven Removal / Partial Removal*.)

**Note:** When installing the noise filter, ensure all filter wiring is connected to the correct terminals.

Top View of Noise Filter



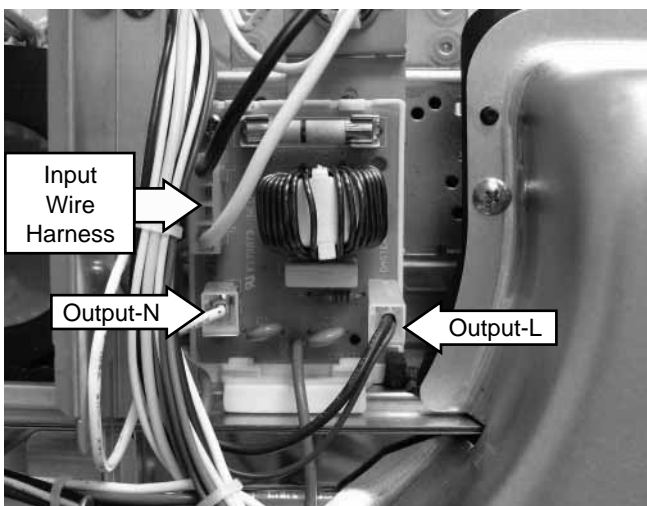
Check to make sure the fuse is good. Check the noise filter for approximate resistance value at the following locations:

White (neutral input) to white (neutral output) - 0  $\Omega$

Black (line input) to black/brown (line output) - 0  $\Omega$

White (neutral input) to black (line input) - 23  $\Omega$

Front View of Noise Filter

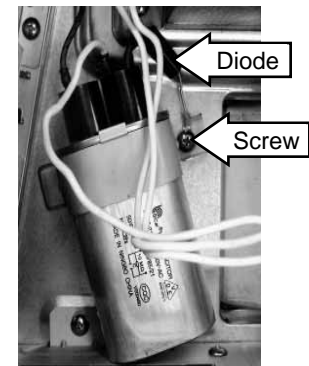


## Capacitor and Diode

**WARNING:** Always be certain the capacitor is discharged before servicing. Mechanically discharge by placing an insulated handle screwdriver between the diode connection of the capacitor and the oven chassis ground.

**Note:** The capacitor has an internal discharge resistor that automatically discharges the capacitor when the oven turns OFF. Under normal operation, capacitor should fully discharge within 30 seconds.

The oven must be partially removed to access the capacitor. (See *Oven Removal / Partial Removal*.) The capacitor is located behind the top access cover and is held in place by 2 Phillips-head screws. A single Phillips-head screw attaches the capacitor and diode to the oven chassis.



**Note:** When disconnecting the wires and diode from the capacitor, note wire and diode locations.

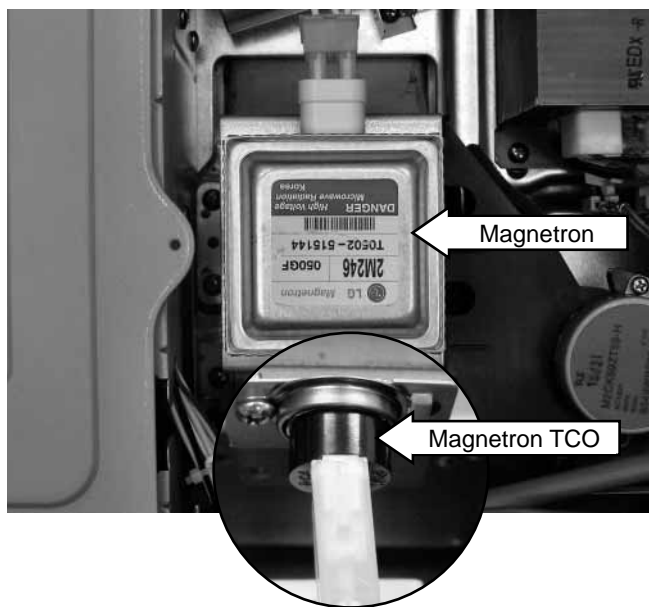
The capacitor wires have locking tabs. Remove the capacitor, capacitor bracket, and diode as one assembly.

## Magnetron and Magnetron TCO

**WARNING:** Always be certain the capacitor is discharged before servicing. (See *Capacitor and Diode*.) Mechanically discharge by placing an insulated handle screwdriver between the diode connection of the capacitor and the oven chassis ground.

**Note:** The capacitor has an internal discharge resistor that automatically discharges the capacitor when the oven turns OFF. Under normal operation, the capacitor should fully discharge within 30 seconds.

The oven must be removed to access the magnetron. (See *Oven Removal / Partial Removal*.) The magnetron is located behind the top access cover. The top access cover is held in place by 2 Phillips-head screws. The magnetron is held in place by 4 Phillips-head screws. The magnetron thermostat must be disconnected before removing the magnetron.



### Magnetron TCO

The magnetron TCO is attached to a bracket mounted to the magnetron. The magnetron bracket is held in place by a single Phillips-head screw.

This position of the magnetron TCO allows it to sense the temperature of the magnetron.

The magnetron TCO opens at 302°F and cannot be reset. If the magnetron TCO opens, it will disable all oven functions including the display.

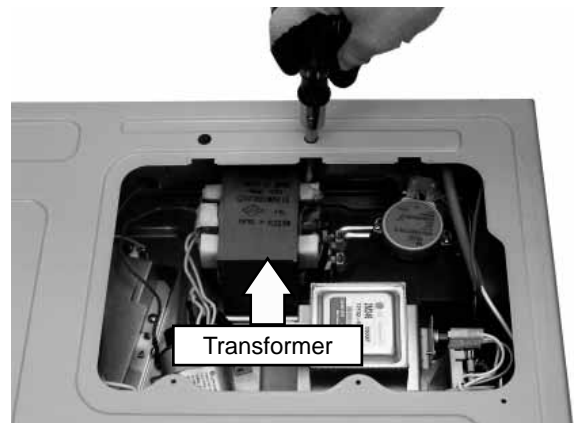
## High Voltage Transformer

**WARNING:** Always be certain the capacitor is discharged before servicing. (See *Capacitor and Diode*.) Mechanically discharge by placing an insulated handle screwdriver between the diode connection of the capacitor and the oven chassis ground.

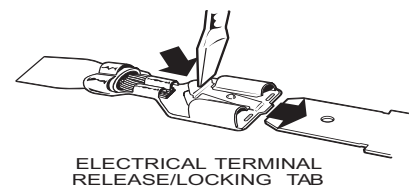
**Note:** The capacitor has an internal discharge resistor that automatically discharges the capacitor when the oven turns OFF. Under normal operation, the capacitor should fully discharge within 30 seconds.

The oven must be removed to access the high voltage transformer. (See *Oven Removal / Partial Removal*.) The high voltage transformer is located behind the top access cover. The top access cover is held in place by 2 Phillips-head screws.

The transformer is held in place with 4 Phillips-head screws. Two of the screws are recessed from the top of the outer cover. Access holes are provided. A magnetic screwdriver is necessary to capture these screws.



When disconnecting the primary and secondary wire connections, note the wire locations. The wire connectors use releasing locking tabs.



Check the high voltage transformer windings for approximate resistance value between:

Red to white (primary) - .5  $\Omega$

Red/Black to chassis ground (secondary) - 87  $\Omega$

Magnetron harness (filament high voltage) - .2  $\Omega$

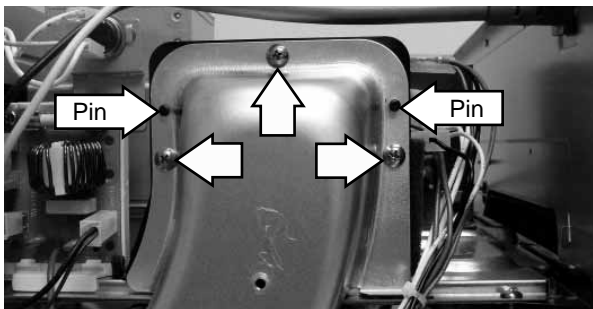


## Damper Assembly

The damper assembly is on the top right side of the oven cavity. When the damper door is closed, moisture is retained in the oven cavity. When the damper door is open, moisture is released, allowing food to be more crisp.

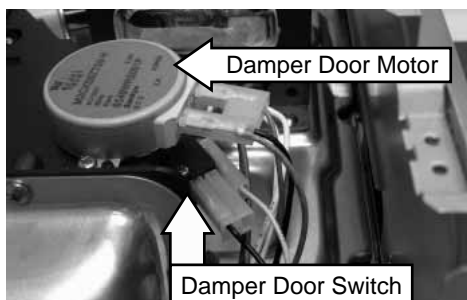
The outer cover must be removed to access or observe operation of the damper assembly. (See *Oven Removal / Partial Removal*.)

The damper assembly is held in place by 2 pins and 3 Phillips-head screws that attach the damper assembly to the oven chassis. When removing, move the damper assembly inward to disengage the 2 pins from the vent tube.



## Damper Door Switch

The damper door sensing switch is mounted to the damper assembly. The switch monitors the damper door position and provides this information to the main PCB, which controls the operation of the damper door motor. When the damper door is closed, the switch is open. The motor will run until the switch sends the door closed signal. If the damper door sensing switch circuit shorts (or opens), the damper motor will run continually. The damper motor has an approximate resistance value of 3.36 K  $\Omega$ .



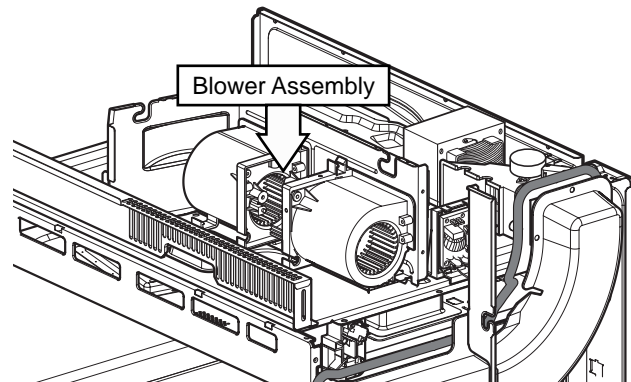
## Damper Door Operating Modes

Cooking Mode	Damper Position	Switch Plunger Position	Switch Contacts
Microwave	Open	Not Depressed	Closed
Speedcook	Closed	Depressed	Open

## Blower Assembly

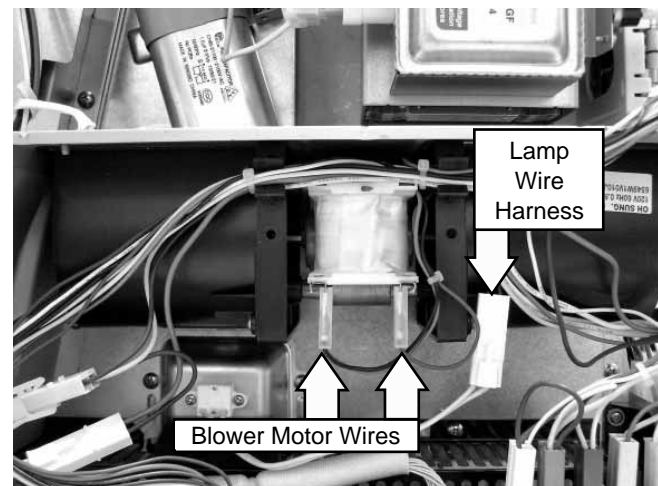
A blower protects the oven from too much heat inside the oven cavity. It automatically turns on at low speed if it senses too much heat. The blower will automatically turn off when the internal parts are cool. It may stay on for 30 minutes or more after the oven control is turned off.

The blower motor has an approximate resistance value of 14  $\Omega$ .



To remove the blower assembly:

1. Remove the oven from cabinet or wall opening and remove the outer cover. (See *Oven Removal / Partial Removal*.)
2. Disconnect the blower motor wiring and the oven lamp wire harness.

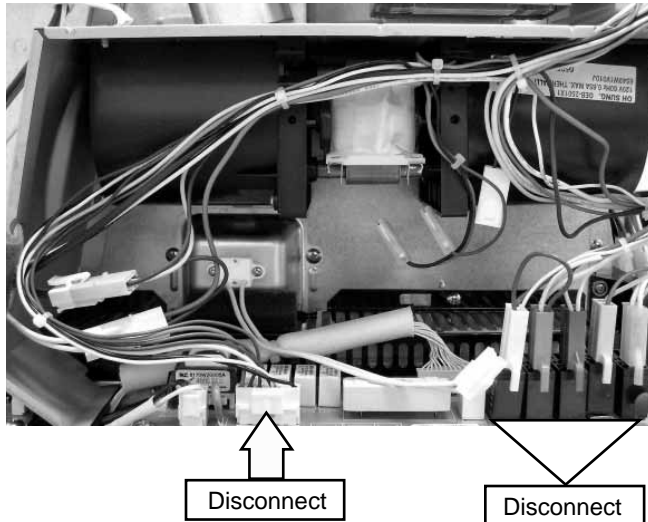


3. Remove the foam seal from the blower bracket.
4. Remove wiring from the guides in the blower bracket and from the retainers on the blower housing.

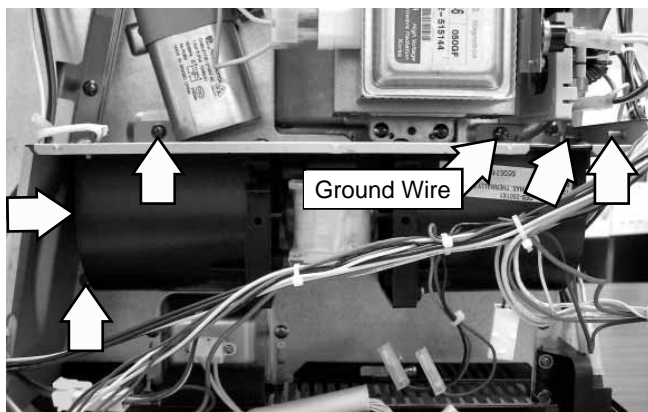
(Continued Next Page)



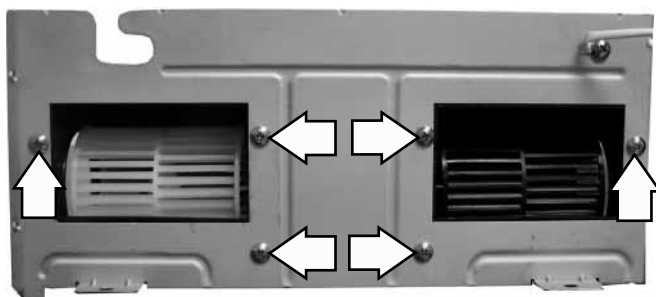
- Disconnect wire harnesses on the relay board at locations CN2, RY2, RY7, RY8, RY9, and RY11.



- Remove the single Phillips-head screw that attaches the filter ground wire to the oven chassis.
- Remove the 5 Phillips-head screws that attach the blower bracket to the oven chassis.



- Carefully lift the blower assembly from the oven chassis.
- Remove the 6 Phillips-head screws that hold the blower housing to the bracket.



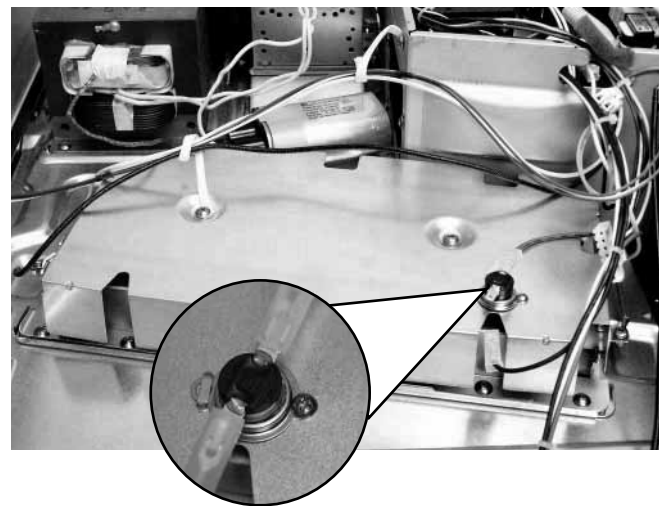
**Note:** When installing the blower assembly, ensure that the filter ground wire is secured to the oven chassis.

## Upper Heater and Oven Cavity TCOs

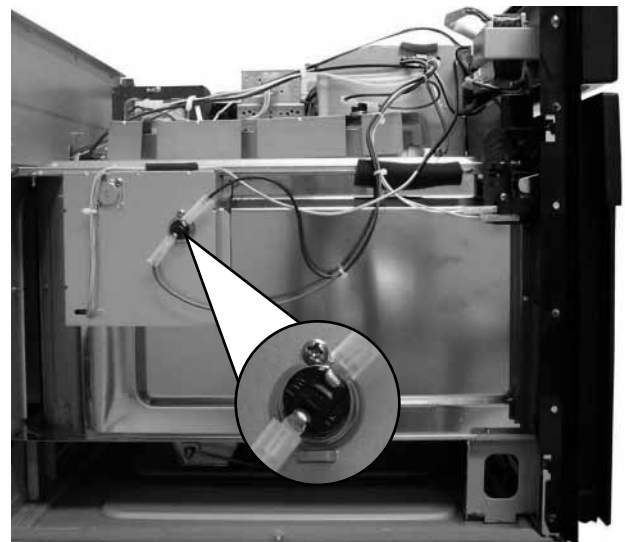
The TCOs automatically shut off the oven in the event of excessive temperatures. When replacing, be sure to determine the cause of failure. If a TCO opens, it will disable all oven functions except the oven light. The outer cover must be removed to access the TCOs. (See *Oven Removal / Partial Removal*.)

- The upper heater TCO is mounted on the heat shield above the upper heater assembly.
- The oven cavity TCO is mounted to the exhaust duct on the left side of the oven.
- Both TCOs are held in place by a single Phillips-head screw.
- Both TCOs open at 293°F and cannot be reset.

### Upper Heater TCO



### Oven Cavity TCO



## Upper Heater Assembly

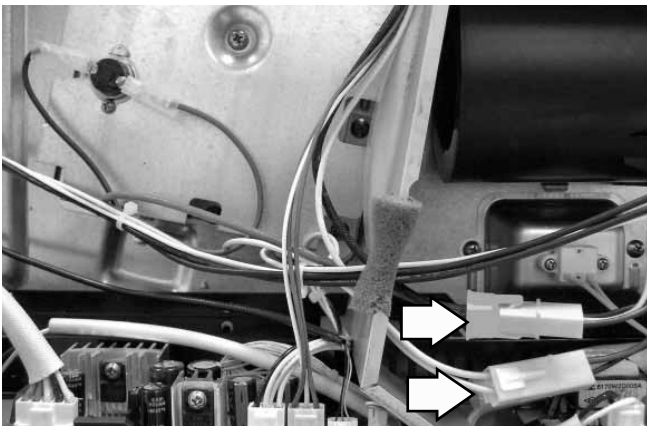
The halogen heater has an approximate resistance value of 1.8 to 3.7  $\Omega$ . It is connected using a white wire harness.

The ceramic heater has an approximate resistance value of 15 to 25  $\Omega$ . It is connected using a yellow wire harness.

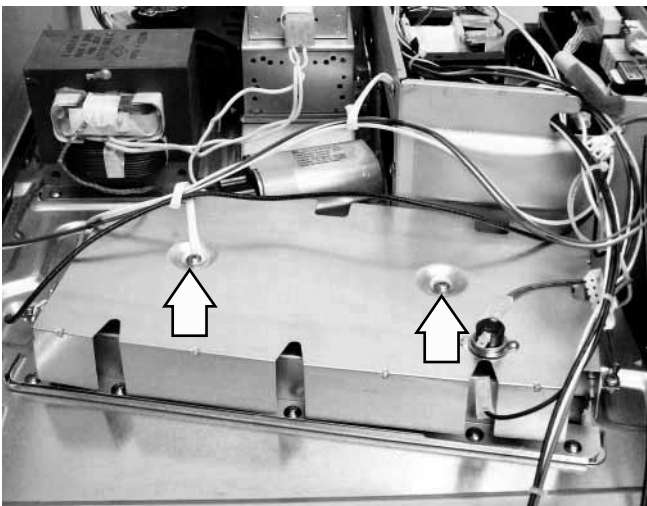
To remove the upper heater assembly:

**Caution:** Mark each of the wire harnesses before disconnecting. The connectors could be interchanged, causing an adverse effect in cooking performance.

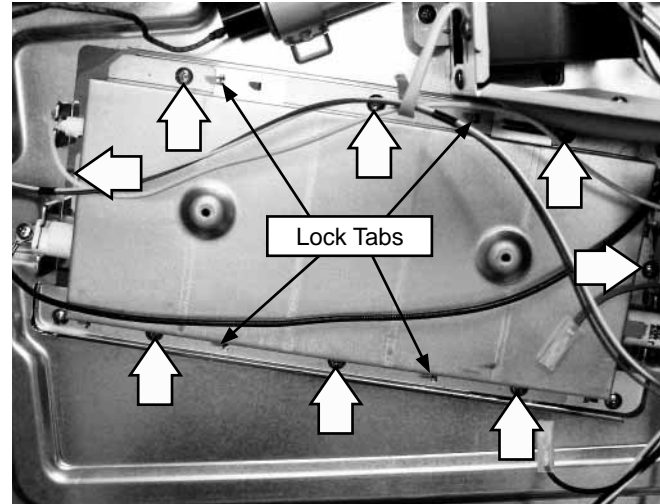
1. Remove the oven from cabinet or wall opening and remove the outer cover. (See *Oven Removal / Partial Removal*.)
2. Disconnect the heater assembly wire harnesses and pull them through the wire guide.
3. Disconnect wires from the upper heater TCO.



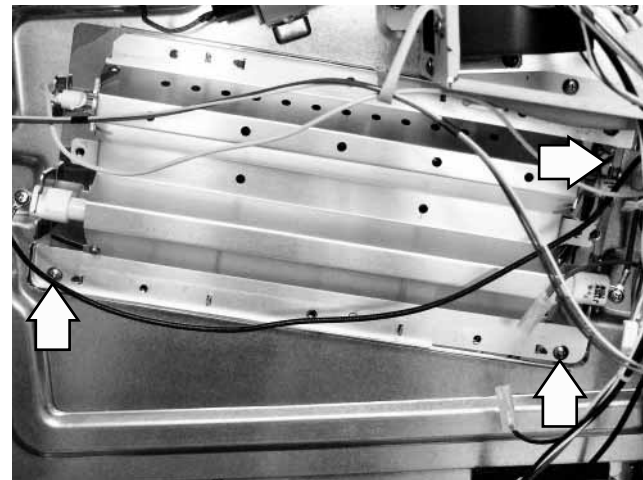
4. Remove the 2 Phillips-head screws, wire retainer, and the heater shield from the heater assembly.



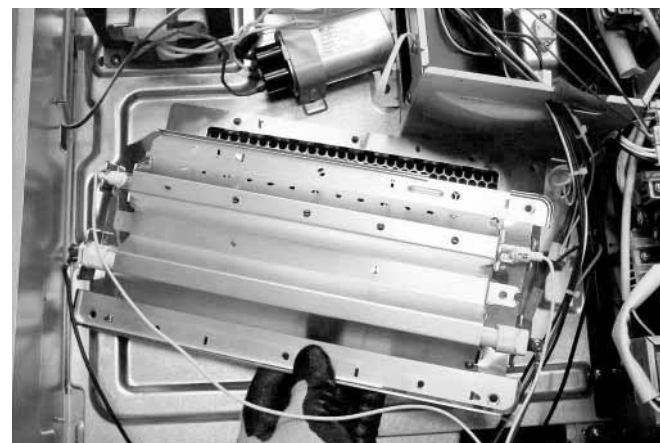
5. Straighten the 4 folded lock tabs.
6. Remove the 8 Phillips-head screws that attach the heater cover. Lift off the cover.



7. Remove the 3 Phillips-head screws that attach the heater assembly to the oven chassis.



8. Carefully lift the heater assembly from the oven chassis.

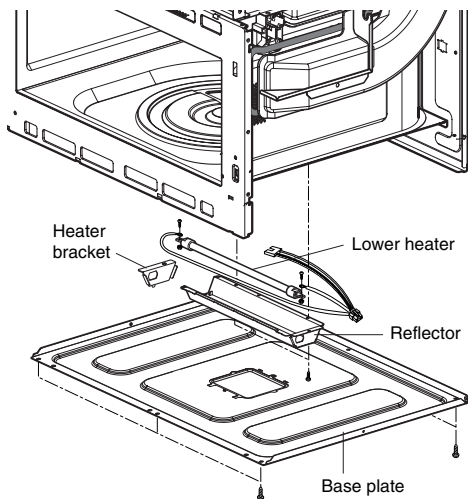


## Lower Heater Assembly

The lower ceramic heater has an approximate resistance value of 32 to 42  $\Omega$ .

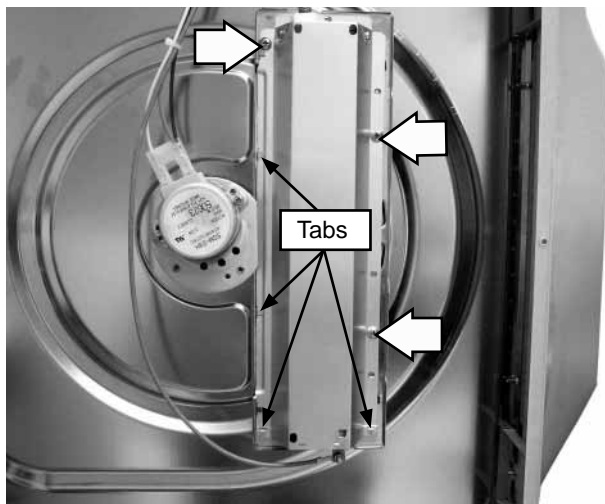
To remove the lower heater assembly:

1. Remove the oven from cabinet or wall opening. (See *Oven Removal / Partial Removal*.)
2. Remove the 2 Phillips-head screws from the bottom of each side of the outer cover.
3. Remove the 6 Phillips-head screws that attach the bottom to the oven.



4. Disconnect the bottom heater and turntable wire harnesses.
5. Straighten the 4 folded tabs and remove the 3 Phillips-head screws that hold the heater assembly to the oven chassis.

Bottom View with Baseplate Removed

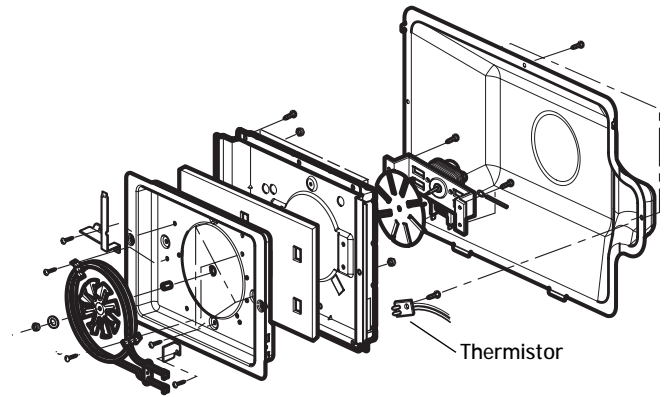


## Convection Heater Assembly and Thermistor

The oven must be removed from the cabinet or wall opening to access the convection heater assembly. (See *Oven Removal / Partial Removal*.)

The convection heater assembly is composed of an inner and outer fan blade, motor, heating element, and thermistor.

Remove the rear cover. Three Phillips-head screws hold the cover in place.

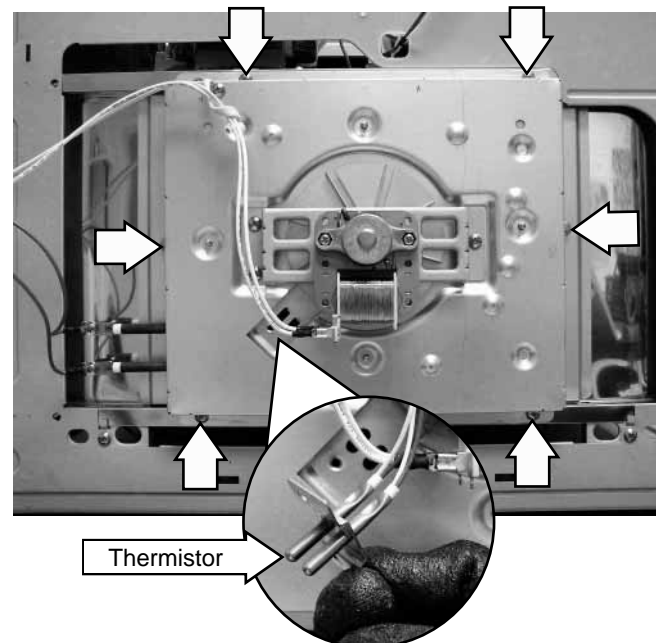


### Thermistor

The thermistor must be removed before removing the convection heater assembly. The thermistor is attached to the convection heater assembly by a single Phillips-head screw.

The thermistor is connected to the power board at location CN8. The approximate values at room temperature are: Red - Blue = 400K  $\Omega$ ; Red - White = 290K  $\Omega$ ; Blue - White = 110K  $\Omega$ .

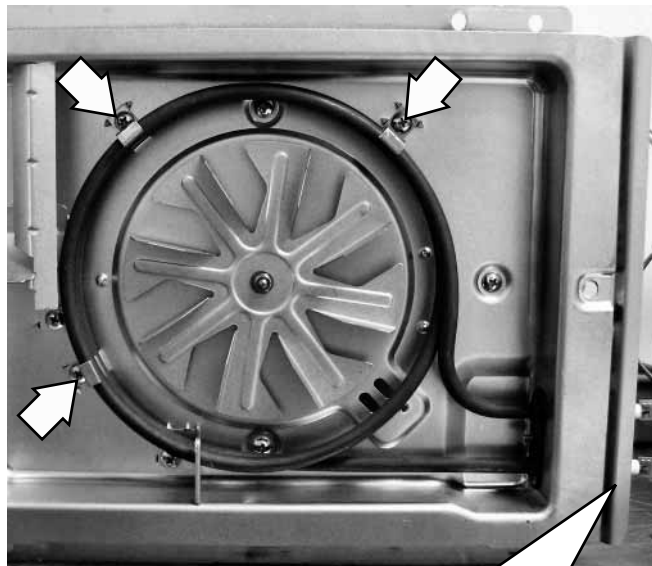
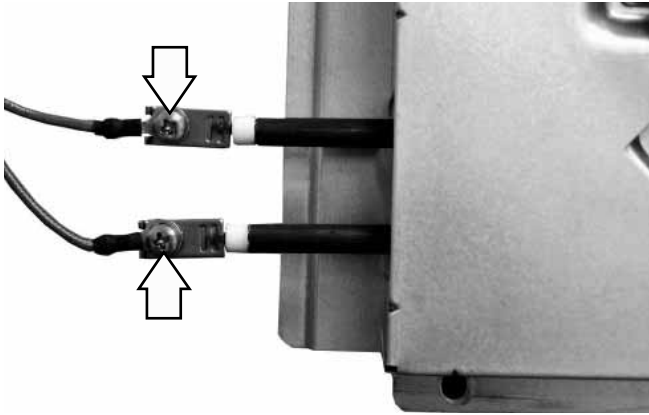
Convection Heater Assembly Shown with Rear Cover Removed



(Continued Next Page)

## Convection Heater Element

The convection heater assembly is held in place by two 7-mm hex-nuts and 4 Phillips-head screws. The convection heater element has an approximate resistance value of  $9.5 \Omega$ . Two Phillips-head screws connect the power wires to the element terminals.



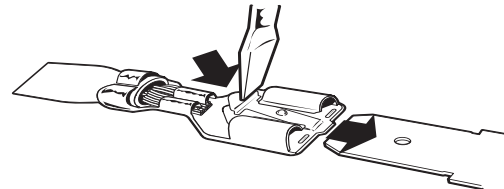
The convection heater element is held in place by 4 Phillips-head screws. (Three screws on the front, and 1 screw on the end.)



End View of Element

## Convection Fan Motor

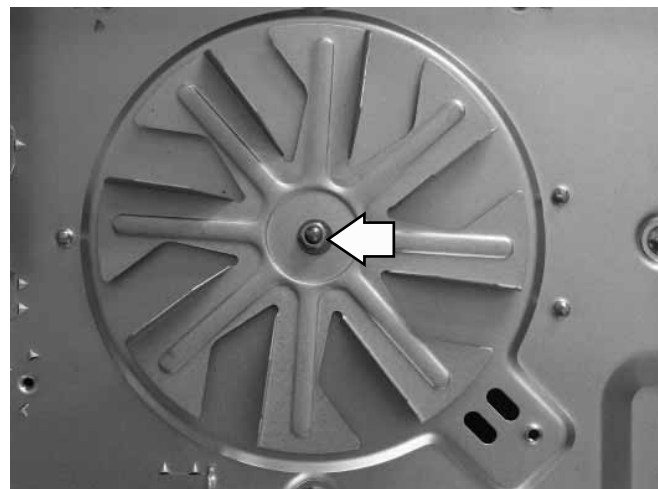
The convection fan motor wire leads have locking tabs that must be depressed to be disconnected. To remove each wire from the fan motor, depress the clip using a small blade screwdriver and pull the wire off the terminal as shown.



ELECTRICAL TERMINAL  
RELEASE/LOCKING TAB

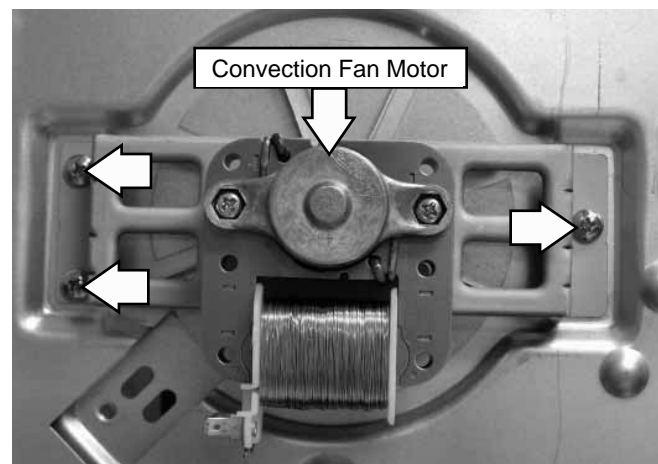
The outer convection fan must be removed before removing the motor. The outer convection fan is held in place by a 7-mm nut, lockwasher, spacer and flat washer.

Front View of Outer Convection Fan



The convection fan motor is held in place by 3 Phillips-head screws.

Rear View of Convection Fan

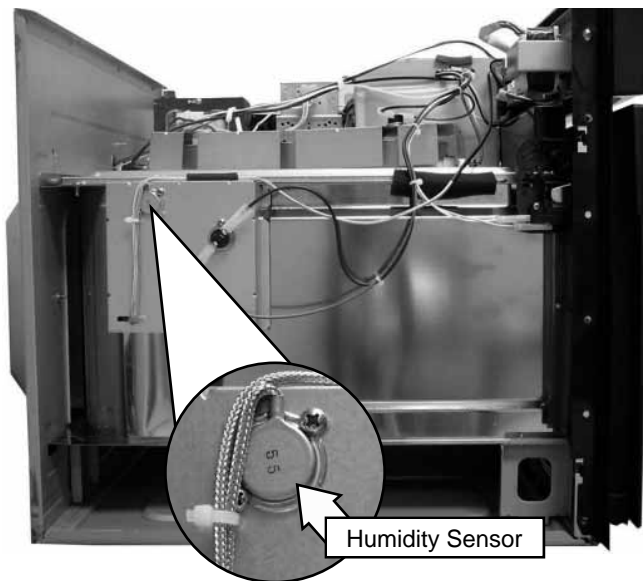




## Humidity Sensor

The humidity sensor is mounted to the exhaust duct on the left side of the oven. The outer cover must be removed to access the humidity sensor. (See *Oven Removal / Partial Removal*.) The humidity sensor is connected to the power board at location CN5. The humidity sensor is held in place by 2 Phillips-head screws.

The humidity sensor detects the increasing humidity released during cooking. The oven automatically adjusts the cooking time to various types and amounts of food.



## Humidity Sensor Test

### Note:

- The oven should be plugged in at least 5 minutes before test.
- Room temperature should not exceed 95°F.
- Be sure the interior of the oven is dry.
- No sensor cooking is available for 5 minutes immediately after speedcook.

Access the control panel.

Disconnect the humidity sensor wire harness from the power board at location CN5.

On the humidity sensor wire harness check for approximate resistance values between:

- Black-Red = 6.5 k  $\Omega$
- Red-White = 3.25 k  $\Omega$
- Black-White = 3.25 k  $\Omega$

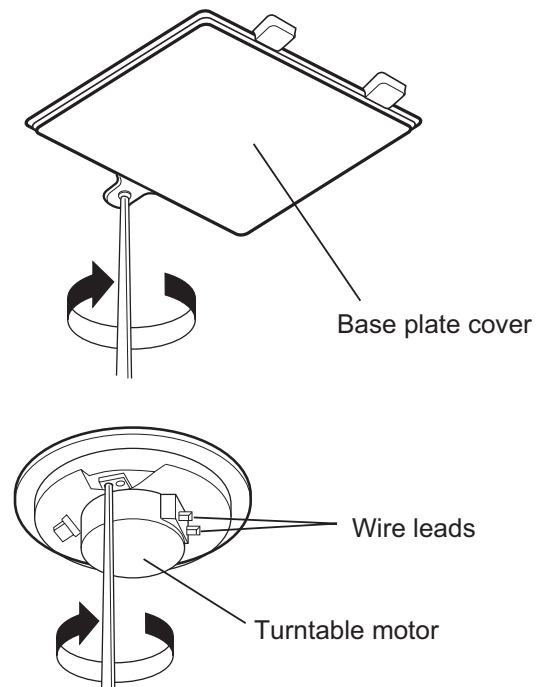
## Turntable Motor

The turntable motor is held in place with 2 Phillips-head screws. To replace it requires removing the turntable, turntable support, and the oven from the cabinet or wall opening. (See *Oven Removal / Partial Removal*.) A single Phillips-head screw attaches an access panel to the bottom of the oven. A single wire harness is connected to the turntable motor.

**Note:** When replacing the turntable support, ensure it is fully seated into the "D" shaped shaft of the turntable motor and is flush with the oven floor.

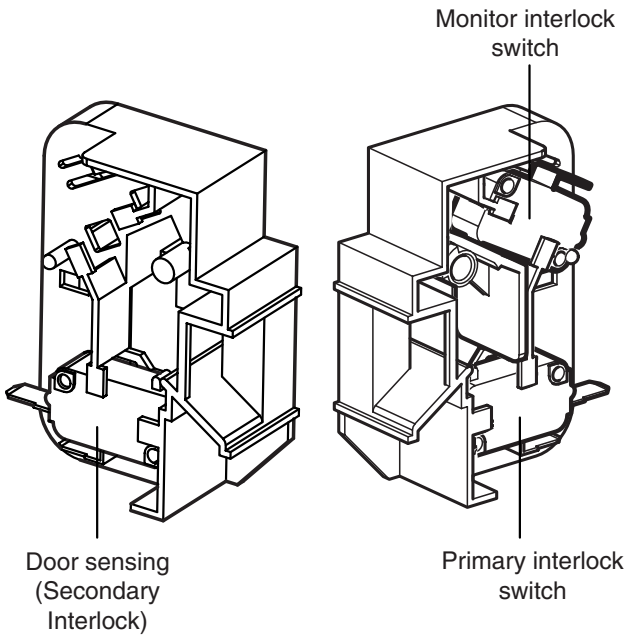


The turntable motor has an approximate resistance value of 2.6 K  $\Omega$ .

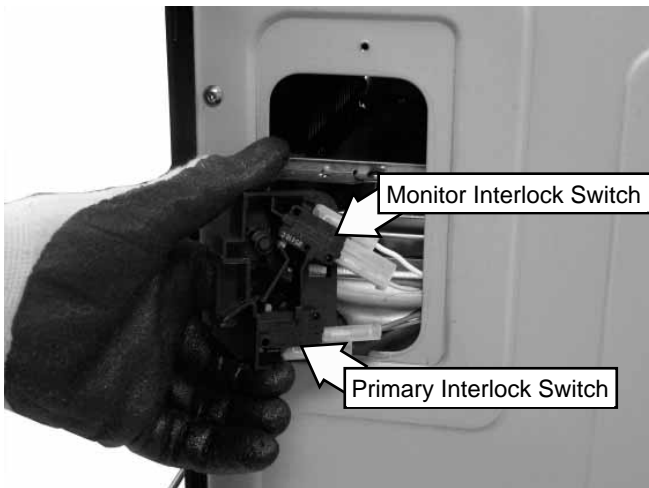


## Left and Right Door Switch Assemblies

The primary interlock, monitor interlock, and door sensing (secondary interlock) switches are mounted on plastic latch boards. The latch boards are attached to the left and right side of the oven cavity. The left side latch board contains the door sensing (secondary interlock) switch. The right side latch board contains the primary interlock and the monitor interlock switches.



Right side Latch Board Shown



### How to Test Primary Interlock and Door Sensing Switches:

1. Disconnect power and partially remove the oven from its installation. (See *Oven Removal / Partial Removal*.)

2. Remove the single Phillips-head screw that holds each door switch access cover to the outer cover.
3. Remove the primary interlock and door sensing switch leads to isolate each switch.
4. Check continuity of each switch with door open and door closed. Normal readings are as follows:
  - Door Closed: 0  $\Omega$
  - Door Open: Infinity

### How to Test the Monitor Switch:

**Note:** The right side latch pawl pushes horizontally and actuates the lever of the monitor interlock, opening the switch.

1. Disconnect power and partially remove the oven from its installation. (See *Oven Removal / Partial Removal*.)
2. Remove the single Phillips-head screw that holds the right side door switch access cover to the outer cover.
3. Remove the monitor switch leads to isolate the switch.
4. Check continuity of the switch with door open and door closed. Normal readings are as follows:
  - Door Closed: Infinity
  - Door Open: 0  $\Omega$

### How to Test Interlock System:

1. Disconnect power, remove the outer cover (See *Oven Removal / Partial Removal*) and discharge capacitor.
2. Check 20 amp fuse for continuity and proper size. Do not use any other fuse or size except 20 amp.
3. Remove monitor switch leads to isolate switch. Check continuity of switch with door open and door closed.
  - Door Closed: Infinity  $\Omega$
  - Door Open: 0  $\Omega$
4. Reconnect switch wiring.

## 5. Test Circuit Operation.

- a. Connect temporary jumper leads across relay contacts, primary interlock and door sensing switches to simulate shorted switch contacts. Locate convenient connections in circuit to be certain COM and NO terminals are used.
- b. Connect ohmmeter (Rx1) across the line terminals of the appliance cord. Continuity must show the following:
  - Door Closed : Some  $\Omega$
  - Door Open :  $.3 \Omega$
- c. Remove 20 amp fuse. Circuit must open (infinity  $\Omega$ ). If not, check wiring of monitor and interlock circuits.

**WARNING:** After test, remove temporary jumper leads from interlock and relay.

**WARNING:** Primary interlock, door sensing switch, monitor switch, and relay board must be replaced when the 20 amp fuse is blown due to operation of monitor switch.

**Note:** Perform microwave leakage test when replacing or adjusting interlock switches or latch board.

### How to Adjust the Interlocks:

The latch board is adjustable for proper door closure and switch operation.

1. Disconnect power and partially remove the oven from it's installation. (See *Oven Removal / Partial Removal*.)

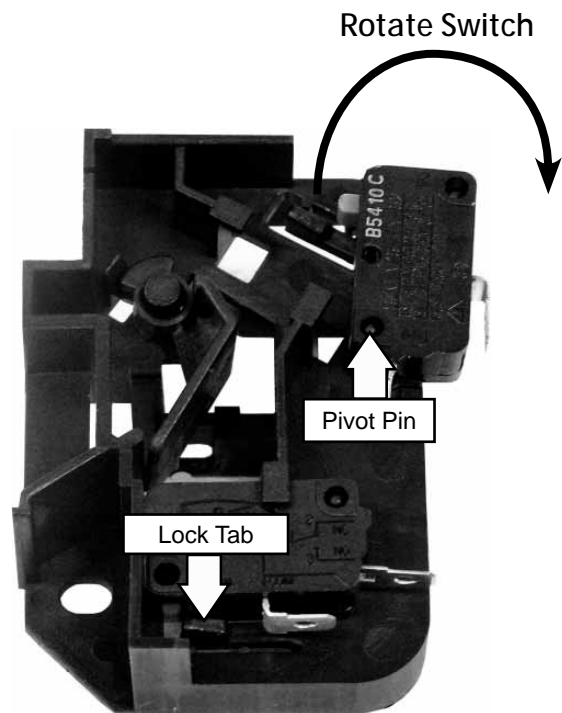
**Note:** Each latch board is held in place and adjusted with 2 Phillips-head screws. The screws are recessed from the top of the outer cover. Access holes are provided.

2. Loosen the 2 Phillips-head screws that attach the latch board to the oven chassis.
3. Adjust each latch-board for proper door closure and switch operation, retighten screws.

**Note:** Perform microwave leakage test when replacing or adjusting interlock switches or latch boards.

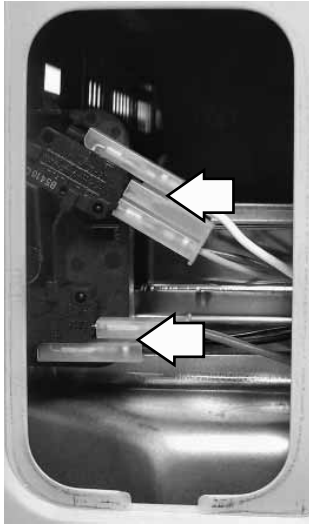
### To replace the door switches:

1. Place the oven in a partially removed position. (See *Oven Removal / Partial Removal*.)
2. Open the oven door.
3. Remove the single Phillips-head screw that holds the door switch access cover to the outer cover.
4. Disconnect the switch wiring.
5. Using a flat blade screwdriver, carefully press the lock tab until flush with the surrounding area of the latch board.
6. Using the mounting pin as a pivot, carefully rotate the switch past the lock tab and Remove the switch from the mounting pin.



To replace the latch boards:

1. Place the oven in a partially removed position.  
(See *Oven Removal / Partial Removal*.)
2. Open the oven door.
3. Remove the single Phillips-head screw that holds the door switch access cover to the outer cover.
4. Disconnect the switch wiring.



**Note:** Each latch board is held in place with 2 Phillips-head screws. The screws are recessed from the top of the outer cover. Access holes are provided. A magnetic screwdriver is necessary to capture these screws.

5. Remove the 2 Phillips-head screws that attach the latch board to the oven chassis.

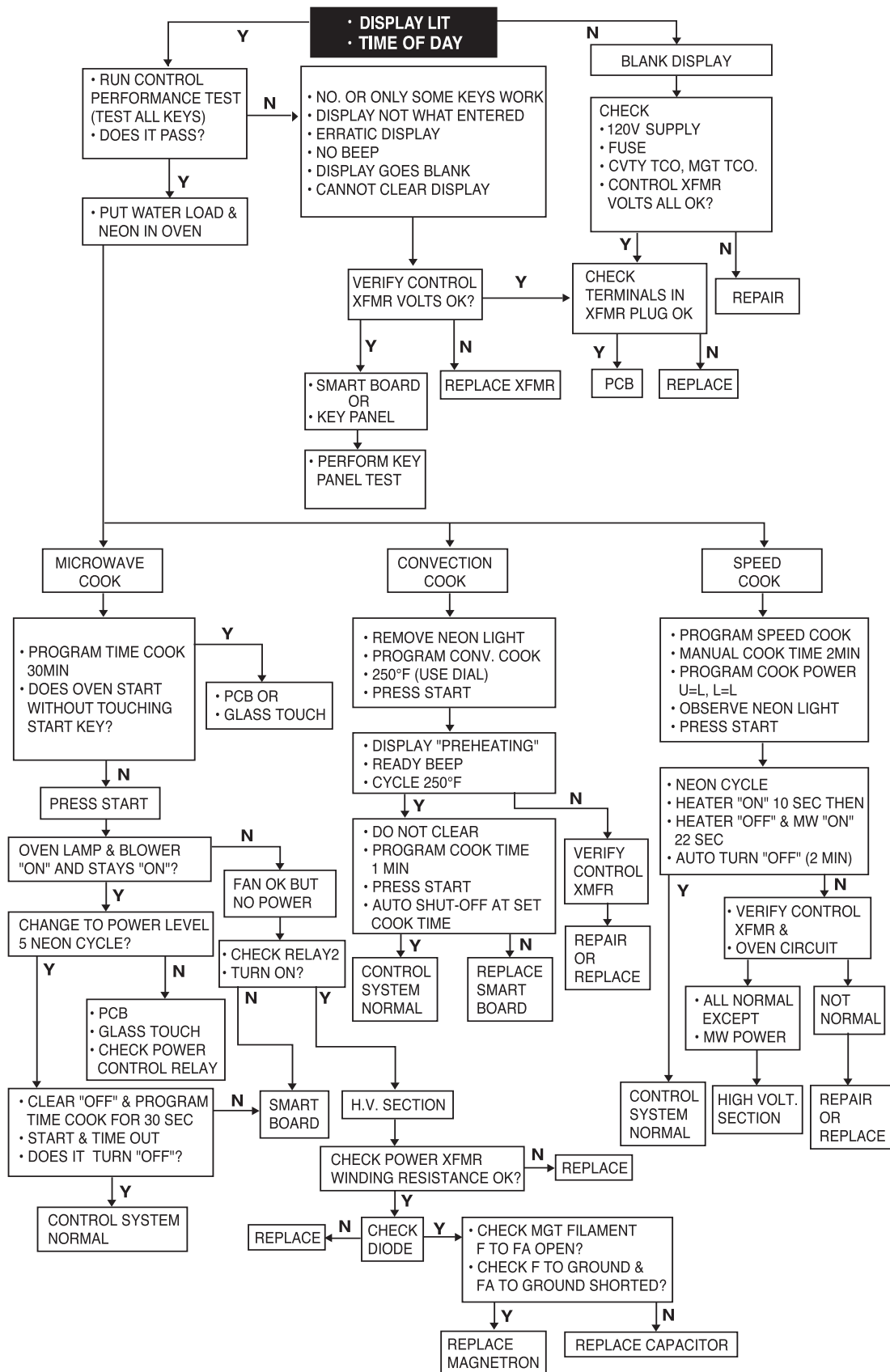


6. Remove the door switches from the latch board.



# Diagnostics and Service Information

USE ONLY HEAT AND MICROWAVE RESISTIVE GLASS BOWL



## Demo Mode

The Sales Demo mode will allow dealers to demonstrate all oven functionality with one exception: No power is ever applied to any of the halogen lamps, heaters, mag HVT or inrush relays while the control is in sales mode.

The sales mode will be initiated by holding the "POWER / TEMP" and "START" pads down at the same time for a full 3 seconds. This mode can **only** be entered during the initial "SELECT TIME" display that occurs when the unit powers up after a long (>60 seconds) power outage. When sales mode is initiated, a 2 short-beep signal is sounded and all oven functions will operate with the following exceptions;

1. No power shall ever be applied to any the heaters, Halogen lamps, magnetron HVT or Inrush control relays. The control relays for any of these loads shall not be switched during sales mode.
2. The DEMO icon will be lit whenever the unit is in sales mode regardless of settings or the feature being selected.

The sales mode is cleared by holding the "POWER / TEMP" and "START" pads down at same time for a full 3 seconds. The sales mode can **only** be cleared during the same initial "SELECT TIME" display that occurs when the unit powers up after a long (>60 seconds) power outage. After 5 seconds elapse, all functions of the oven will return to normal operation.

When power-up occurs, software will check the special sales demo identifier code. If the code is set, then the oven will stay in the sales demo mode. This will prevent the unit from powering back up to a normal mode if power to the salesroom had gone off .

## Standard Test Load

The standard test load is one liter (1000 ml) water with starting temperature of 59°F ~ 75°F in a 1000 ml beaker. (DO NOT USE ANY OTHER LOAD OR DISH AS RESULTS WILL VARY FROM STANDARD.)

### PERFORMANCE TEST FOR MICROWAVE

1. Use Clear Glass Tray and the beaker. (Part # WB64x0073)
2. Record initial water temperature.
3. Run at high power for 2:03.
4. Record end water temperature. The minimum difference between the initial and ending temperature should be: 32°F @ 120V.

## Fault Codes

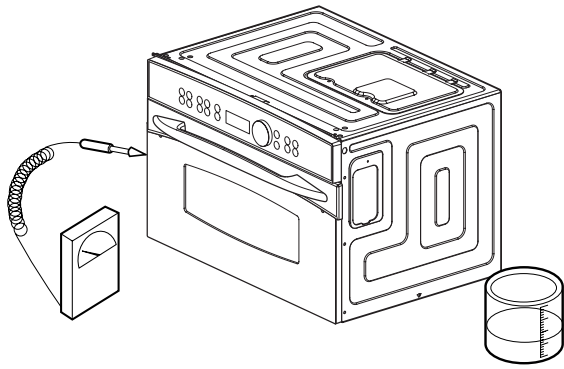
The smart board monitors various operations and can detect certain failure modes. In the event of specific failures, cooking will be terminated, a four beep signal will be heard, and a fault code will be displayed.

Pressing the CLEAR pad will remove the fault code display, unless the failure is a shorted keypad switch. Detection of a failed sensor will have no effect on features that do not use that sensor.

F4 (open or shorted humidity sensor) and F6 (high cavity temperature during microwave cooking) codes apply only to microwave cooking. The chart below indicates failure modes which can be detected and displayed.

Display	Failure Detected
F1	Oven cavity thermistor open
F2	Open cavity thermistor shorted
F3	Key panel shorted (> 60 seconds)
F4	Humidity sensor open or shorted
F6	High cavity temperature detected during microwave oven cooking

## Microwave Leak Test



1. Place 275 ml water in 600 ml beaker. (Part # WB64x5010)
2. Place beaker in center of Clear Glass Tray.
3. Set meter to 2450 MHz scale.
4. Turn "ON" for 5 minute test.
5. Hold probe perpendicular to surface being tested. Scan surfaces at the rate of one inch per second. Scan entire perimeter of door, control panel, viewing surface of door window, and exhaust vents.
6. Maximum leakage is 4 MW/CM<sup>2</sup>.
7. Record data on service invoice and microwave leakage report.

### Note:

- Maximum allowable leakage is 5 MW/CM<sup>2</sup>. Four MW/CM<sup>2</sup> is used to allow for measurement and meter accuracy.
- Inform the manufacturer of any oven found to have emission in excess of 5 MW/CM<sup>2</sup>. Make repairs to bring the unit into compliance at no cost to owner and try to determine cause. Instruct owner not to use oven until it has been brought into compliance.

## Proof Feature

To test the performance of the proof feature, press the WARM/PROOF pad, then turn the dial to PROOF BREAD and press the dial to start. The following will occur:

- The convection fan and interior lamp come on immediately, and stay on.
- There is an immediate start-up burst (about 1.5 second duration at 75°F ambient) of heat from the convection heater.
- The convection fan and interior lamp continue to operate and, if needed, the convection heater will cycle on.

**Note:** Oven proof temperatures range from 75-95°F. At ambient temperatures above 75°F, heat generated by the interior lamp may be sufficient to maintain proof temperatures, and the heater may not cycle again after start-up.

If an inoperative convection heater in the proof mode is suspected:

1. Disconnect power.
2. Remove the rear access cover.
3. Remove the thermistor from the convection heater assembly.
4. Lower the thermistor temperature by placing a chilled or frozen item against the thermistor.
5. Connect power and enter proof mode.
6. Check for approximately 120 VAC (12.3 Amps) at the convection heater.

# Schematics and Wiring Diagrams

WARNING: POWER MUST BE DISCONNECTED BEFORE SERVICING THIS APPLIANCE

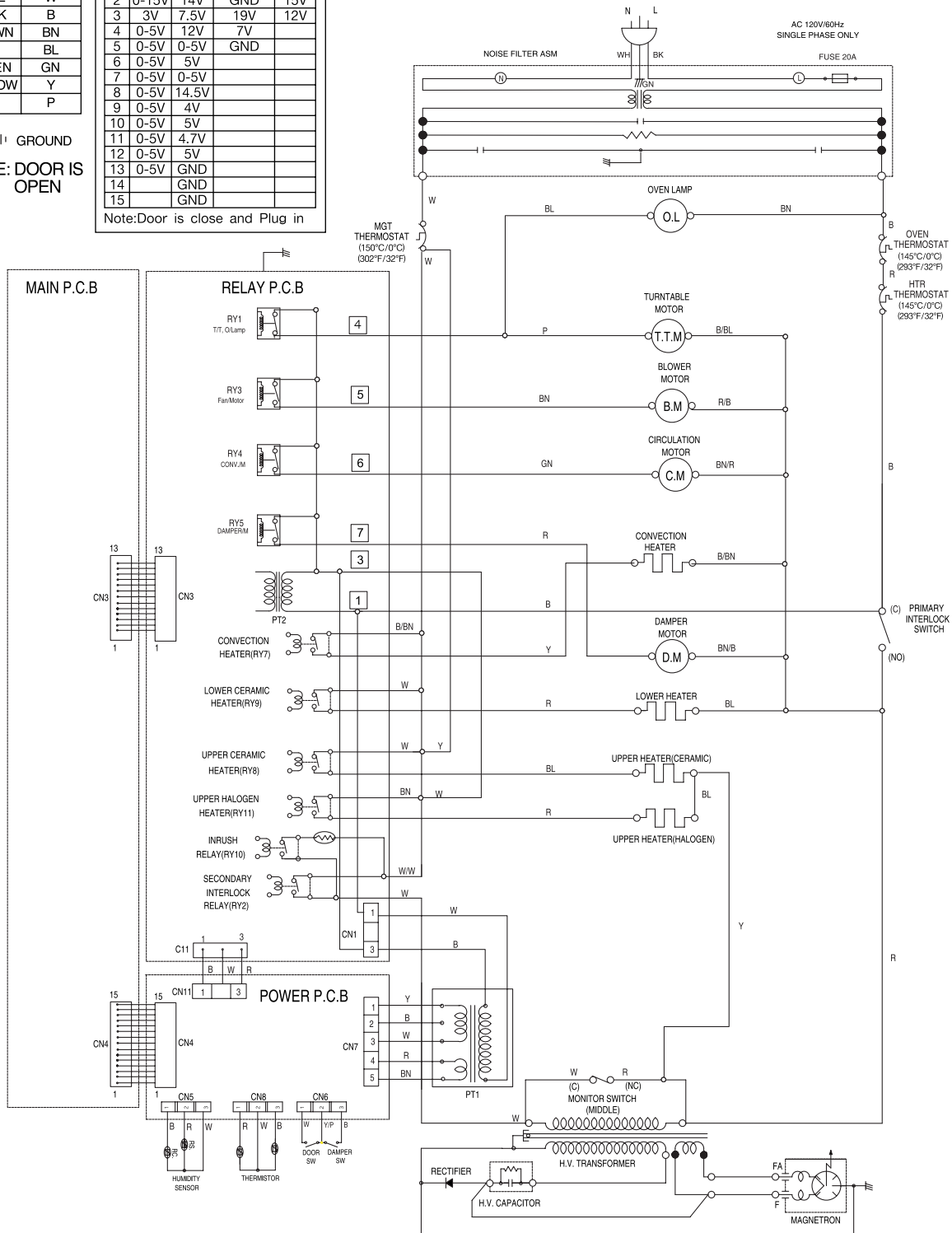
MODEL NAME	
SCB 1000K	
SCB 1001K	
ZSC 1000K	
ZSC 1001K	

COLOR	SYMBOL
RED	R
WHITE	W
BLACK	B
BROWN	BN
BLUE	BL
GREEN	GN
YELLOW	Y
PINK	P

—|—| GROUND  
NOTE: DOOR IS OPEN

Pin	CN3	CN4	CN7(LVT)	CN11
1	0-15V	5V	12V	GND
2	0-15V	14V	GND	15V
3	3V	7.5V	19V	12V
4	0-5V	12V	7V	
5	0-5V	0-5V	GND	
6	0-5V	5V		
7	0-5V	0-5V		
8	0-5V	14.5V		
9	0-5V	4V		
10	0-5V	5V		
11	0-5V	4.7V		
12	0-5V	5V		
13	0-5V	GND		
14	GND			
15	GND			

Note: Door is close and Plug in



(Continued Next Page)



# Warranty

For The Period Of:	GE Will Replace:
<b>One Year</b> <i>From the date of the original purchase</i>	<i>Any part</i> of the oven which fails due to a defect in materials or workmanship. During this <b>full one-year warranty</b> , GE will also provide, <b>free of charge</b> , all labor and in-home service to replace the defective part.
<b>Three Years</b> <i>From the second through the third year from the date of original purchase</i>	<b>The heating system</b> , if any heater or lamp fails due to a defect in materials or workmanship. During this <b>full three-year warranty</b> , GE will also provide, <b>free of charge</b> , all labor and related service costs to replace the defective part.
<b>Ten Years</b> <i>From the second through the tenth year from the date of original purchase</i>	<b>The magnetron tube</b> , if the magnetron tube fails due to a defect in materials or workmanship. During this additional <b>nine-year limited warranty</b> , you will be responsible for any labor or in-home service costs.

## What GE Will Not Cover:

- Service trips to your home to teach you how to use the product.
- Replacement of house fuses or resetting of circuit breakers.
- Improper installation, delivery or maintenance.
- Damage to the product caused by accident, fire, floods or acts of God.
- Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.
- Incidental or consequential damage caused by possible defects with this appliance.
- Damage caused after delivery.

*This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. In Alaska, the warranty excludes the cost of shipping or service calls to your home. Proof of the original purchase date is needed to obtain service under the warranty.*

*Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.*

**Warrantor: General Electric Company. Louisville, KY 40225**