Multimedia Enhanced

JENN-AIR

TECHNICAL EDUCATION

27 & 30” Microwave Combination Wall Ovens

FORWARD

This Jenn-Air Job Aid, 27 & 30” Microwave Combination Wall Ovens (Part No. W10813197), provides the In-Home Service Professional with information on the installation, operation, and service of the “Microwave Combination Wall Ovens. For specific operating information on the model being serviced, refer to the “Tech Sheet” provided with the Appliance

GOALS AND OBJECTIVES

The goal of this Job Aid is to provide information that will enable the In-Home Service Professional to properly diagnose malfunctions and repair the "Jenn-Air Built-In Wall Ovens. The objectives of this Job Aid are to:

- Understand and follow proper safety precautions.
- Successfully troubleshoot and diagnose malfunctions.
- Successfully perform necessary repairs.
- Successfully return the Oven to its proper operational status.

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Microwave Combination Wall Ovens

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This section provides general Oven Safety & Service information, Sales Specifications and some Installation guidelines used for servicing the Microwave Combination Wall Oven

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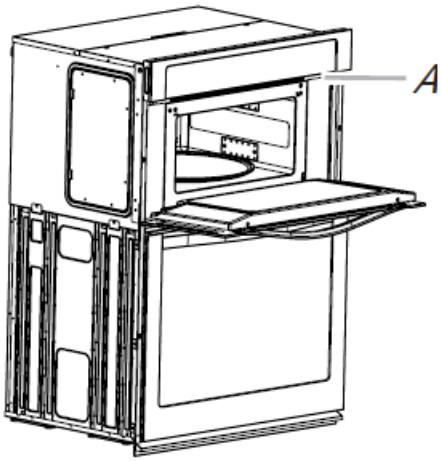
- Serial Number Breakdown
- Sales Specifications
- Electrical Requirements

Jenn-Air Model Numbering System

BRAND	FUEL	PRODUCT TYPE	FEATURE PACKAGE				YEAR OF INTRO - DUCTION	COLOR
			1st Digit	2nd Digit	3rd Digit	4th Digit Size		
J = Jenn-Air	J = Electric	W = Wall Oven	1 = VFD Control / Knobs	3 = Single Non-Convect	2	7	D = 2014	B = Black
	G = Gas	C = Micro Convect	2 = 4.3" Menu Driven LCD	4 = Single Convect	3	0	E = 2015	W = White
	M = Micro Combo		3 = 7" Touch Control	5 = Double Non Convect			F = 2016	S = Stainless
				6 = Double Gemini Oven				P = Pro
				7 = Double Upper Convect				
				8 = Double Both Convect				

J	M	W	3	4	3	0	D	S

30" Jenn-Air Stainless Built-In Microwave Combination Wall Oven w/Convection & 7" Touch Control - Introduced in 2014



A. Model/serial/rating plate

Serial Numbering System

SERIAL NUMBER	D	5	41	01002

DIVISION RESPONSIBILITY
D= Cleveland

YEAR OF PRODUCTION
5 = 2015 6 = 2016 7 = 2017

WEEK OF PRODUCTION
41 = 41st week

PRODUCT SEQUENCE NUMBER

Sales Specifications

Jenn-Air Model Number System

BRAND	FUEL	PRODUCT TYPE	FEATURE PACKAGE				YEAR OF INTRO - DUCTION	COLOR
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J	M	W	3	4	3	0	D	S

30" Jenn-Air Stainless Built-In Microwave Combination Wall Oven w/Convection & 7" Touch Control - Introduced in 2014

Electrical Requirements

If codes permit and a separate ground wire is used, it is recommended that a qualified electrical installer determine that the ground path and wire gauge are in accordance with local codes.

Check with a qualified electrical installer if you are not sure the oven is properly grounded.

This oven must be connected to a grounded metal, permanent wiring system.

Be sure that the electrical connection and wire size are adequate and in conformance with the National Electrical Code, ANSI/NFPA 70 – latest edition or CSA Standards C22.1-94, Canadian Electrical Code, Part 1 and C22.2 No. O-M91 – latest edition, and all local codes and ordinances.

A copy of the above code standards can be obtained from:

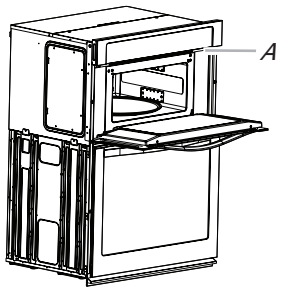
National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471

CSA International
8501 East Pleasant Valley Road
Cleveland, OH 44131-5575

Electrical Connection

To properly install your oven, you must determine the type of electrical connection you will be using and follow the instructions provided for it here.

- Oven must be connected to the proper electrical voltage, amperage, and frequency as specified on the model/serial/rating plate. See the following illustration.



A. Model/serial/rating plate

- Models rated from 7.3 to 9.6 kW at 240 volts (5.4 to 7.4 kW at 208 volts) require a separate 40-amp circuit.
- A circuit breaker is recommended.
- Connect directly to the fused disconnect (or circuit breaker box) through flexible, armored or nonmetallic sheathed, copper cable (with grounding wire). See “Make Electrical Connection” section.
- Flexible conduit from the oven should be connected directly to the junction box.
- Do not cut the conduit. The length of conduit provided is for serviceability of the oven.
- A UL listed or CSA approved conduit connector must be provided.
- If the house has aluminum wiring, follow the procedure below:

  1. Connect a section of solid copper wire to the ends of the flexible conduit leads.
  2. Connect the aluminum wiring to the added section of copper wire using special connectors and/or tools designed and UL listed for joining copper to aluminum.

  Follow the electrical connector manufacturer's recommended procedure. Aluminum/copper connection must conform with local codes and industry-accepted wiring practices.

For power requirements, refer to the following table:

Model	Voltage	Amperage (L1)*	Amperage (L2)*	Rating (W)
JMW2430D	208	30	28	6507
JMW2427D				
JMW3430D		31	28	6492
JMW2430D	240	32	30	7503
JMW2427D				
JMW3430D		33	30	7491

*Amperage values noted above are for information purposes only: The units are rated in watts.

Section 2: Operation

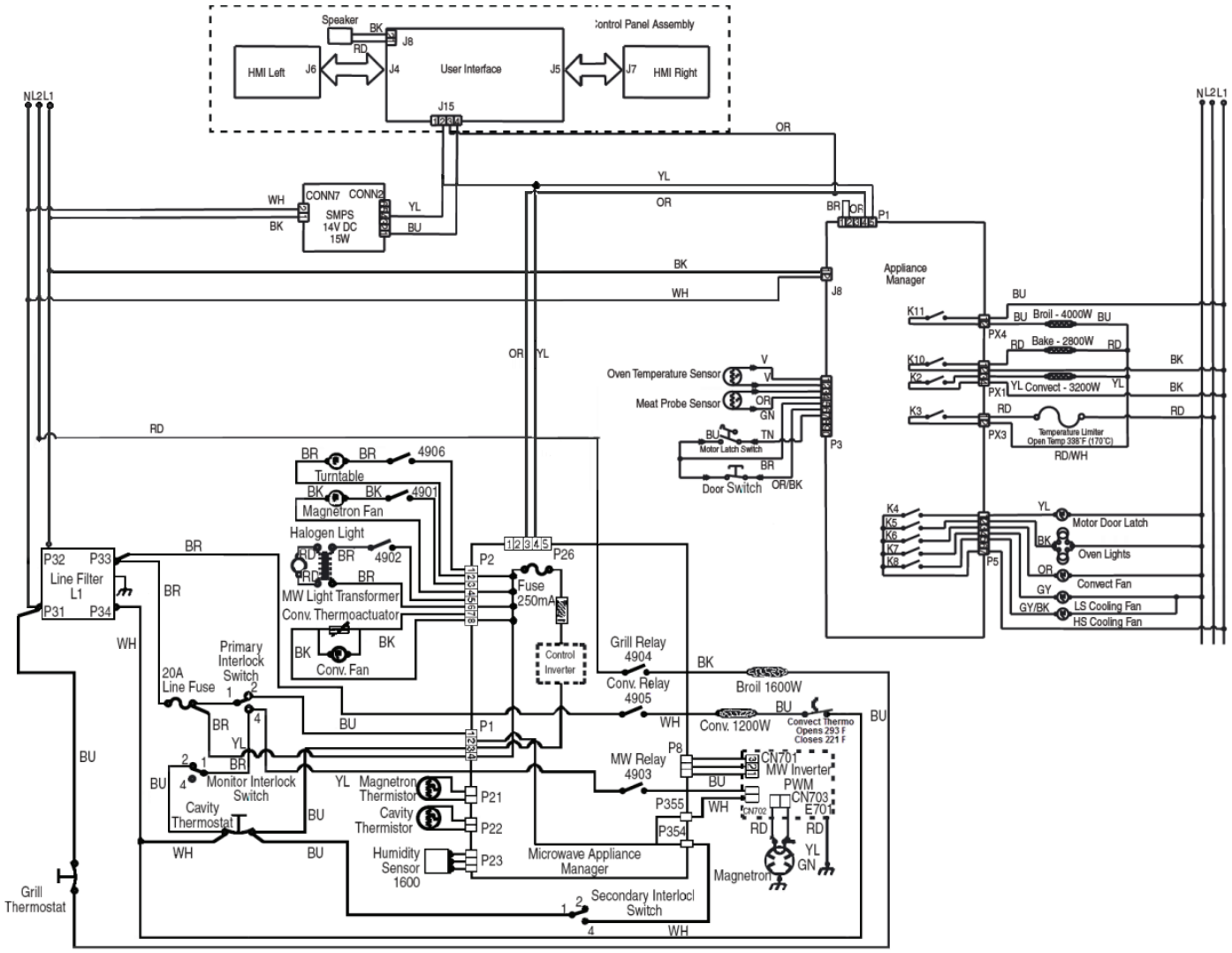
This section provides a breakdown of all electrical circuits on the wiring diagram. It also shows all electrical power operations of each circuit.

- How the Oven Works
- Wiring Diagram and LOGIC circuits
- The Main Oven 120 VAC Section
- The Main Oven 240 VAC section
- Wiring Diagram - Microwave Oven
- Safety System & LOGIC Circuits - Microwave Oven
- Receiving and Distributing Electricity
  - The Electronic Control Board
  - User Interface
  - Main Oven Appliance Manager
  - Main Oven Appliance Manager Connector Test Pins
  - Microwave Oven Appliance Manager
  - Main Oven Appliance Manager Test Chart
  - SMPS (Switch Mode Power Supply)
  - Microwave Inverter Board

How this Oven works.

Complete Wiring Diagram for the Microwave Combination Oven

We will start talking about the electrical system, the microwave safety circuits and other support information the Jenn-Air Combination Wall Oven requires before it can operate. We will be working through the wiring diagram and looking at each of the electronic boards to see how they receive electrical power and how electricity is distributed throughout the system. We can look at the Wiring Diagram to see how electricity flows and what information is required by the control board to make everything work and make the consumer's cooking time more enjoyable. We'll talk about error codes and see how they can make your job a lot easier and less time consuming. All information we talk about is in the TECH SHEET which is located behind the Control Panel in every oven Jenn-Air produces.



Both Ovens in stand-by mode, main oven door closed. MW door open.

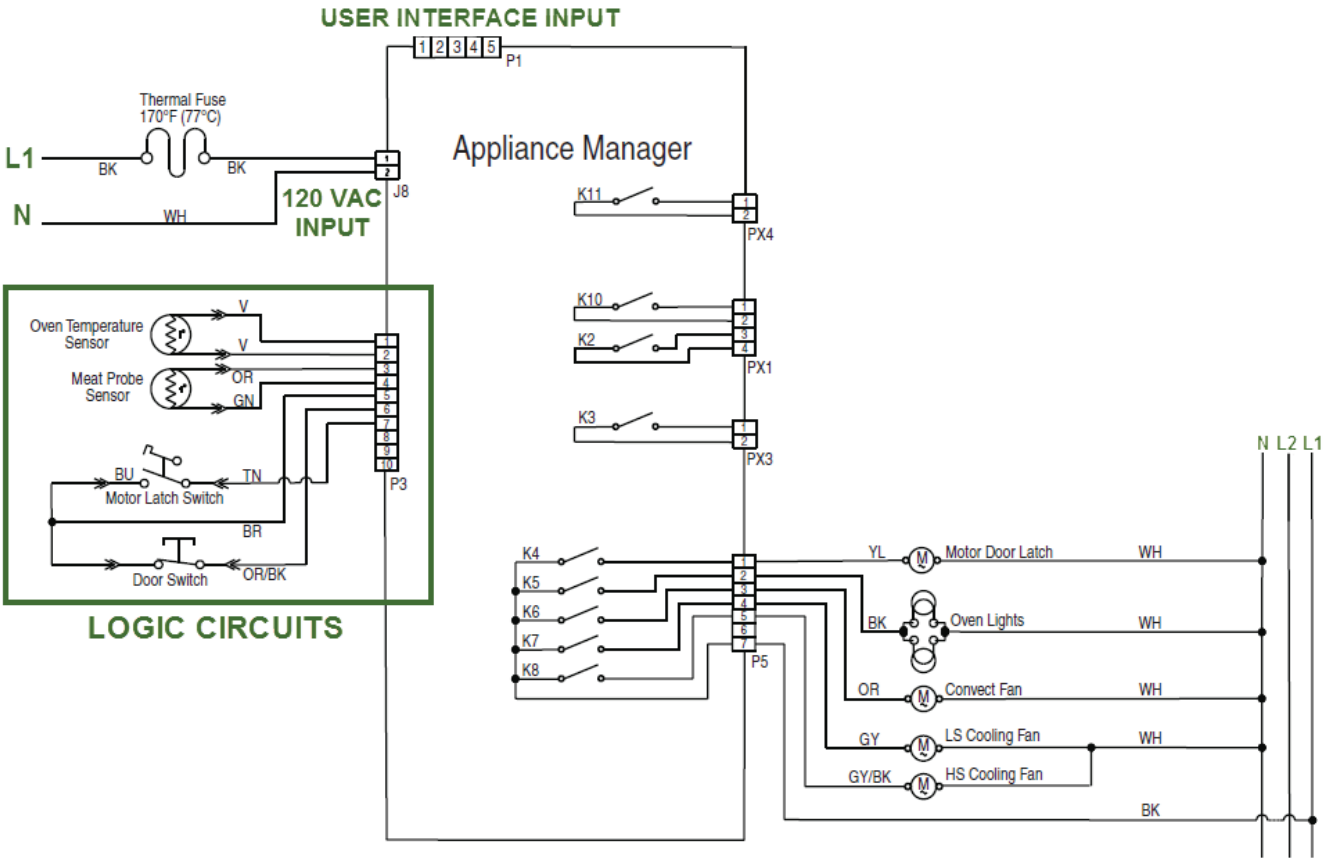
Wiring Diagram & LOGIC Circuits - Main Oven

The wiring diagram shown, on the previous page, is for a Microwave Combination Oven with Convection cooking in both ovens. Let's look at the main oven first and point out a couple of interesting circuits that could easily catch a seasoned tech off guard. Check out the NOTE at the bottom of the diagram about the position of the door. Oven Doors Closed - means the oven light is off. Now take a look at the door switch on the main oven wiring diagram. Switch is shown closed. So, lets talk about how I would interpret this. Normally a closed door switch would tell me that the oven light is on - closed light circuit = bright light. In this case, the closed light switch is telling the Appliance Manager that the light should be off. Not a lot of techs would think much different. What's really happening is that the closed light switch is telling the AM the light should be off and the AM converts the information to open the K5 relay. The light switch is not turning the oven light on or Off, it just provides the necessary LOGIC to the board and the AM operates the light.

Same thing with the oven LOGIC circuits to the AM. The LOGIC circuits supplies information to the board - open or closed switches (Infinite or Zero resistance), oven temperature(OHMs resistance), and meat probe temperature (OHMs Resistance), then the AM reacts to the information being supplied and operates the required relays. Now, don't think that if the oven light doesn't work we need to change the AM board, we need to verify that the board is receiving the correct information from the light switch LOGIC circuit, and in this case if we want the light on, the light switch should be open.

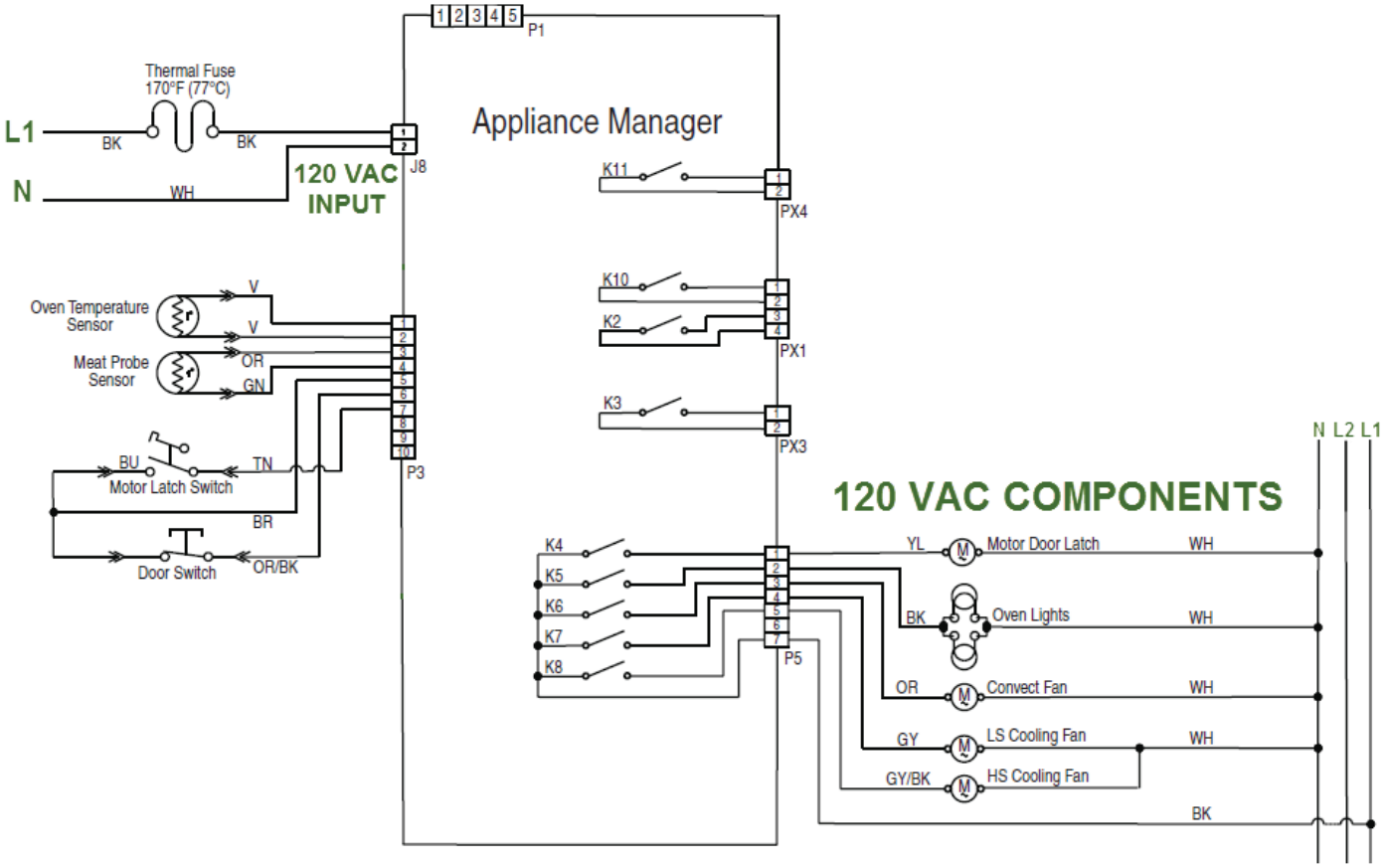
In the diagram below we show the LOGIC circuits available on the conventional oven and the components they have an input for. The door switch helps the board control the Oven Lights. The Motor Latch Switch contributes information to the AM which in turn operates the Self-Clean Door Latch Motor. The Oven Temperature Sensor and the Meat Probe Sensor LOGIC circuits have a great deal of input as to how the Bake and Broil elements operate.

The LOGIC circuits provide information to the AM and the AM reacts accordingly.



The Main Oven 120 VAC section.

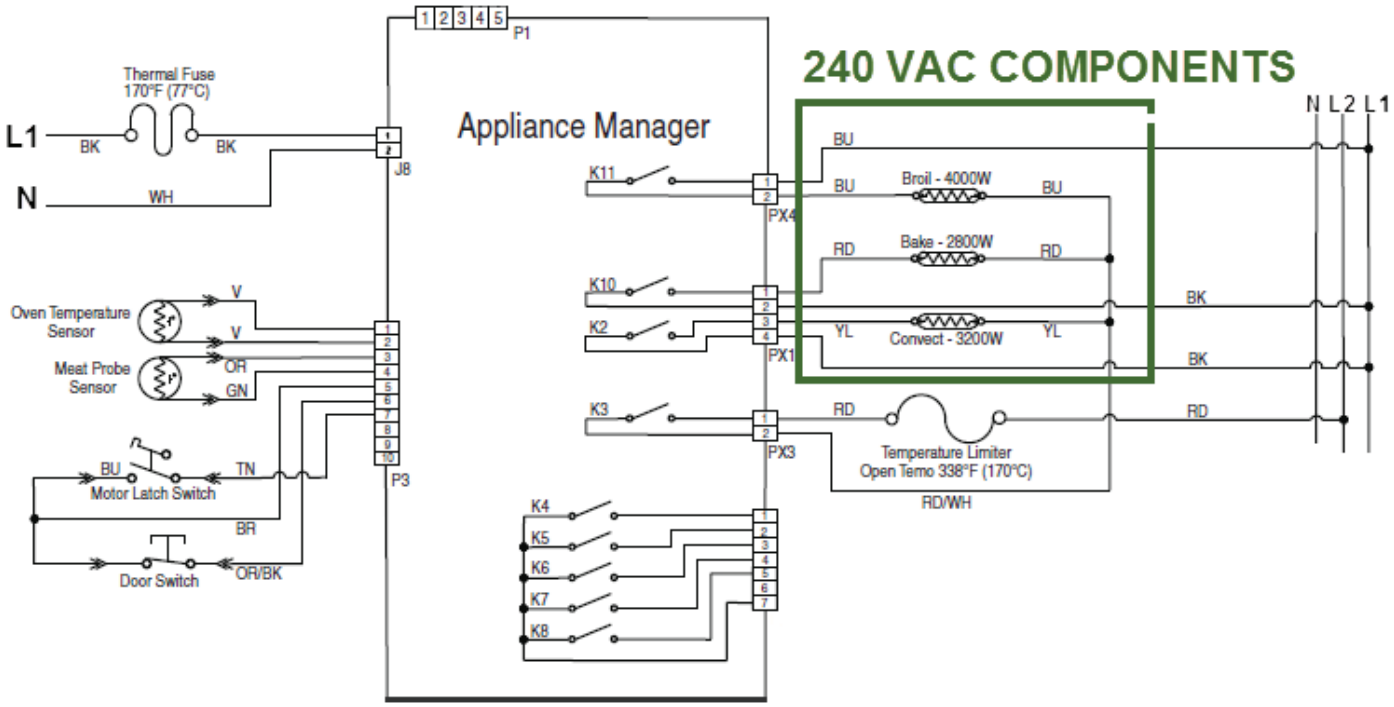
With the Appliance Manager powered up and the connection between the Appliance Manager connector P1 and the User Interface connector J15, the two electronic controls are able to communicate with each other. Information the consumer inputs into the Control Panel Assembly/User Interface is transferred to the Appliance Manager so that the necessary relays on the board open and close. The Appliance Manager is also interpreting information from the LOGIC Circuits about the oven. The Appliance Manager needs everything about the oven to be correct before it will proceed with the customer's request. If the LOGIC circuits are not right, the control will produce an error code. The circuit below shows how the power supply is delivered.



The L1 circuit provides all the components with power through the P5-7 connection. Once a relay closes (K4-K8) it completes a circuit through the component to the Neutral side of the line.

The Main Oven 240 VAC section

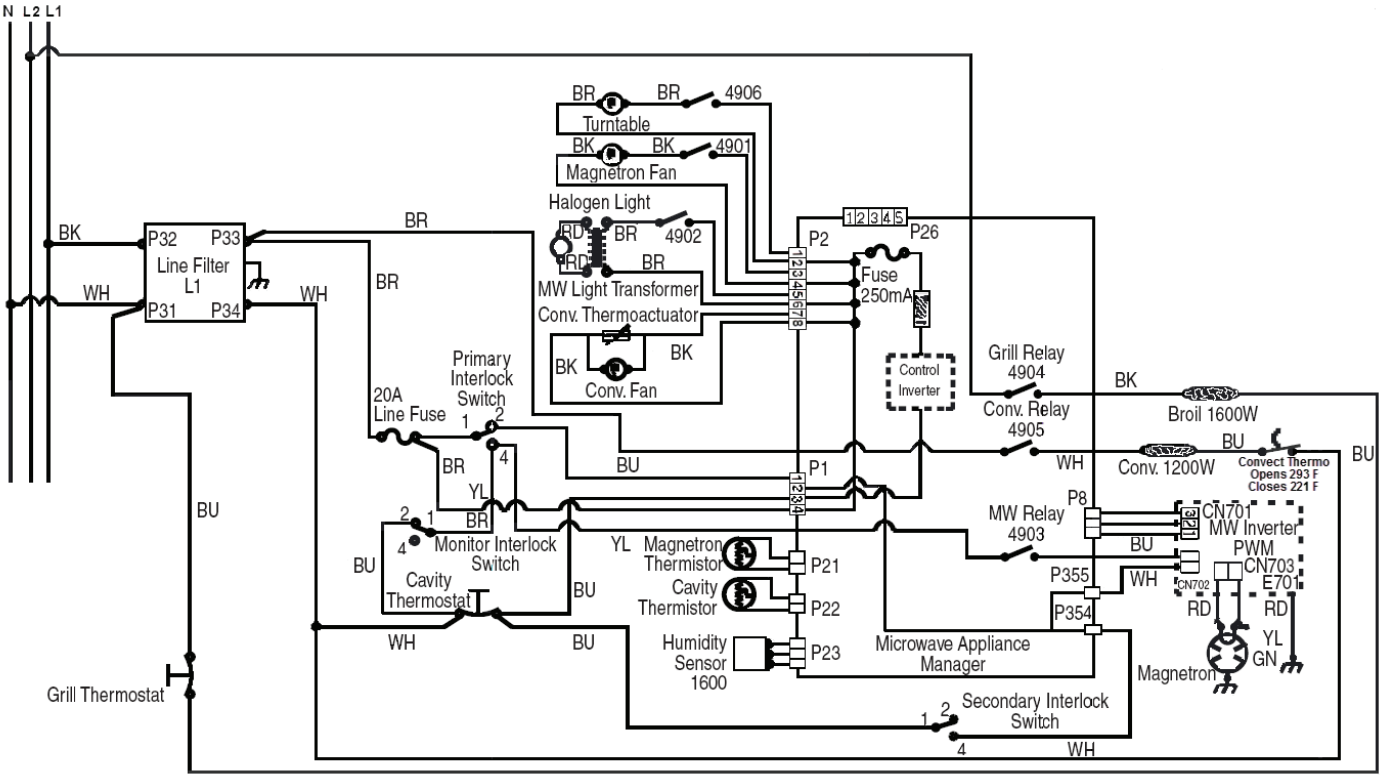
This diagram shows the 240 VAC components. All the cooking elements are included in this section. Notice all of these components go through the Temperature Limiter to the L2 side of the circuit. The operation of all these components are controlled by the Temperature Limiter (Safety), the Oven and Meat Probe Sensors (Cooking results) and the User Interface (Customer's request).



Here again only one path to the L2 side of the line to complete a circuit for all the heating elements. If the Temperature Limiter in this oven opens, all 240 VAC components loose the circuit to the L2 line and will fail to operate.

Wiring Diagram - Microwave Oven

This diagram is just the microwave oven section. It's broken out of the complete wiring diagram so that we can take a closer look at the diagram without the clutter of the main oven. Everything in the microwave operates at 120 VAC. You will notice the broil element's is connected to the L2 side of the circuit but the broil circuit finishes at Neutral to create the 120 VAC circuit. This is done so that the oven can operate the broil (Grill) function when other cooking energy is operating (convection, microwave).

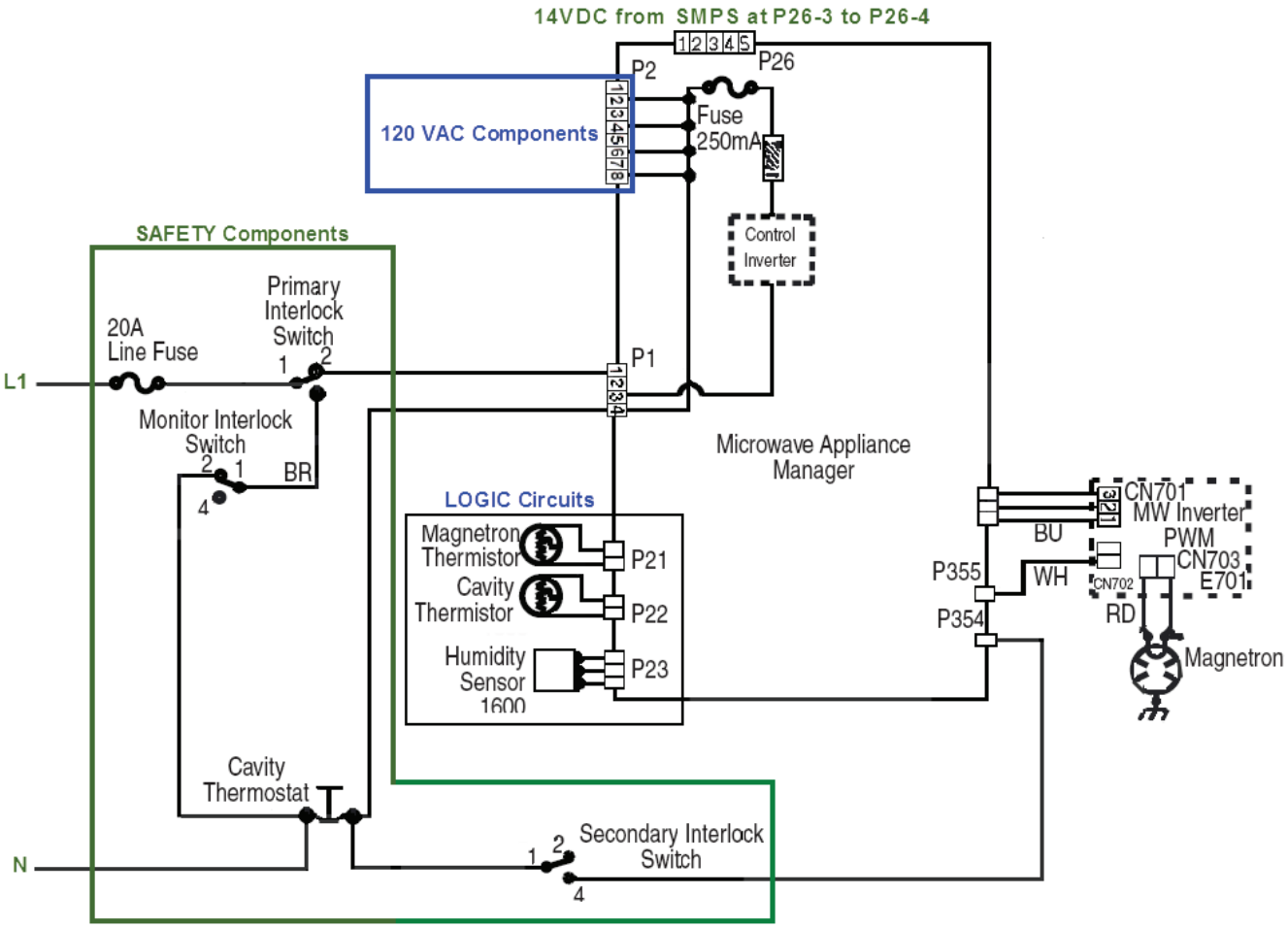


Safety System & LOGIC Circuits - Microwave Oven

The first thing we need to do when discussing the microwave oven is tallk about the built in safety system. Because of the microwave energy being produced by this oven, we need to be sure the oven safety system is in place and operating correctly. The microwave needs to know whenever the door is open or closed. To do this, there is a series of door switches that operate in unison and control the operation of the high voltage system. This diagram shows the MW door closed and the safety switches (Primary, Monitor and Secondary) operating as designed. Outlined in the diagram, the Primary Interlock switch provides a circuit(contacts 1-2 closed) to the Appliance Manager any time the door is closed. This circuit informs the AM that the door is open and the oven light should be on. The Monitor Interlock Switch is your safety switch that will open contacts 1 to 2 when the door is open. If contacts 1 to 2 don't open when the door is open, you would have a direct short through the Monitor switch to the Neutral side of the line. The Secondary Interlock switch isolates the Neutral line from the L1 side. When the door closes, the Secondary switch contacts 1 to 4 close and provide a complete circuit to the Neutral side of the line. So the door switch circuit has to operate correctly before the microwave will operate.

Just like the main oven, there are LOGIC circuits in a microwave oven. The LOGIC circuits provide the Appliance Manager with information (in this case all three circuits OHMs resistance) from the Magnetron and Cavity Thermistors and the Humidity Sensor. The Microwave Inverter also provides a LOGIC circuit to the Appliance Manager but we will take a closer look at that later.

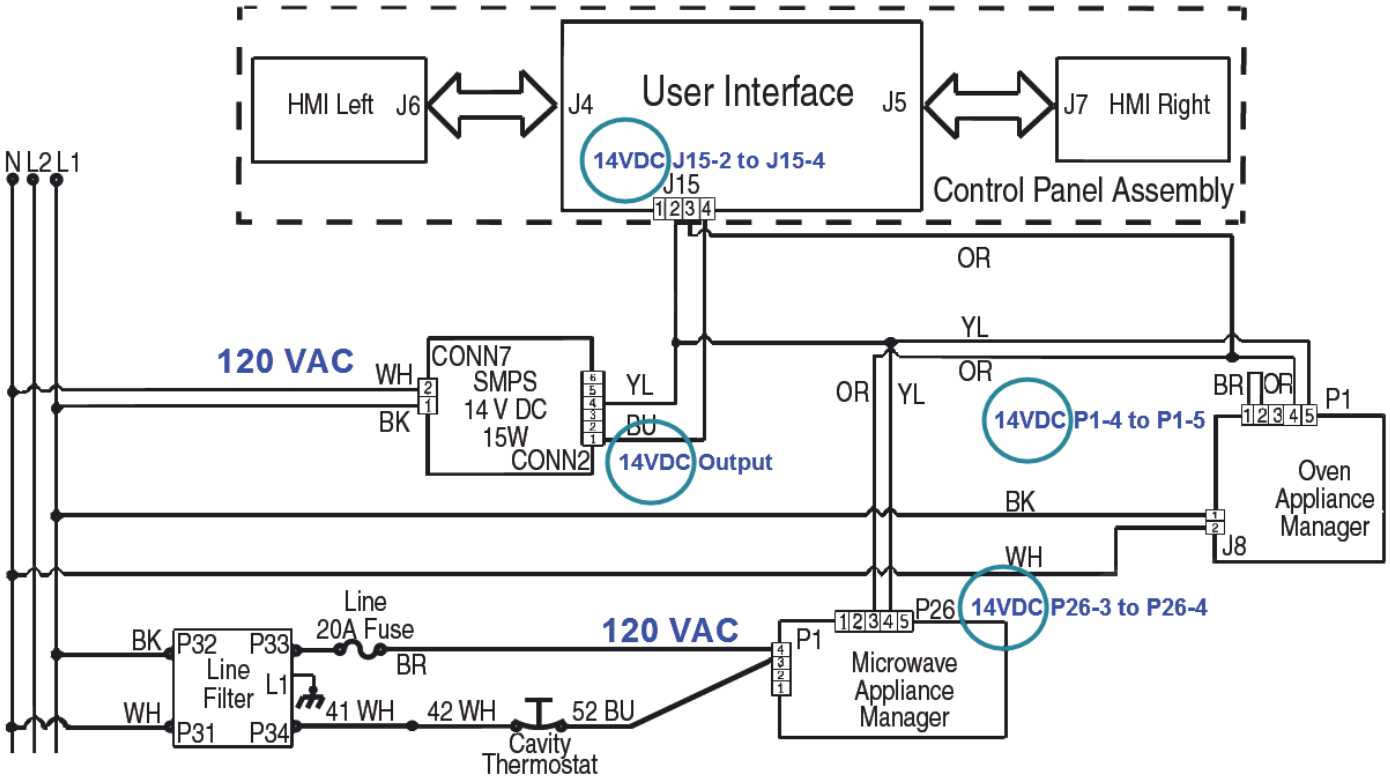
The main reason for this portion of the microwave oven diagram is to show you that certain things need to be operating correctly before the Appliance Manager will even start a cooking mode.



Receiving and Distributing Electricity

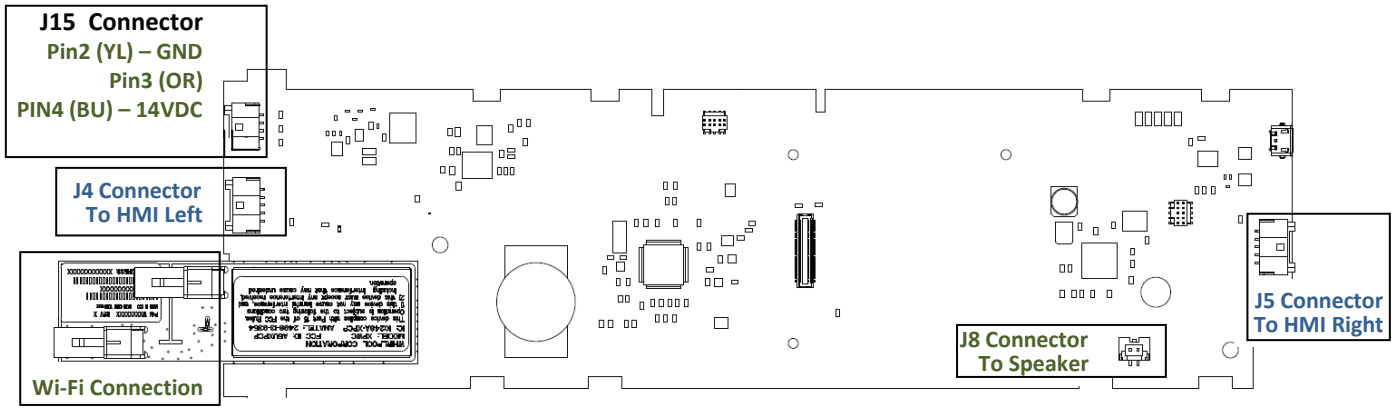
The Electronic Control Boards

Anytime the Combination Oven is powered up 120 VAC is available to the SMPS power supply which provides 14 VDC to the Main Oven Appliance Manager and the Microwave Appliance Manager. 120 VAC is also available to both Appliance Managers. The diagram below provides the voltage information and the terminal pins where proper voltages can be confirmed. So anytime the oven is plugged in the Control Panel Assembly/User Interface and both Appliance Managers are communicating with each other. All LOGIC circuits are constantly supplying information to the Appliance Managers.



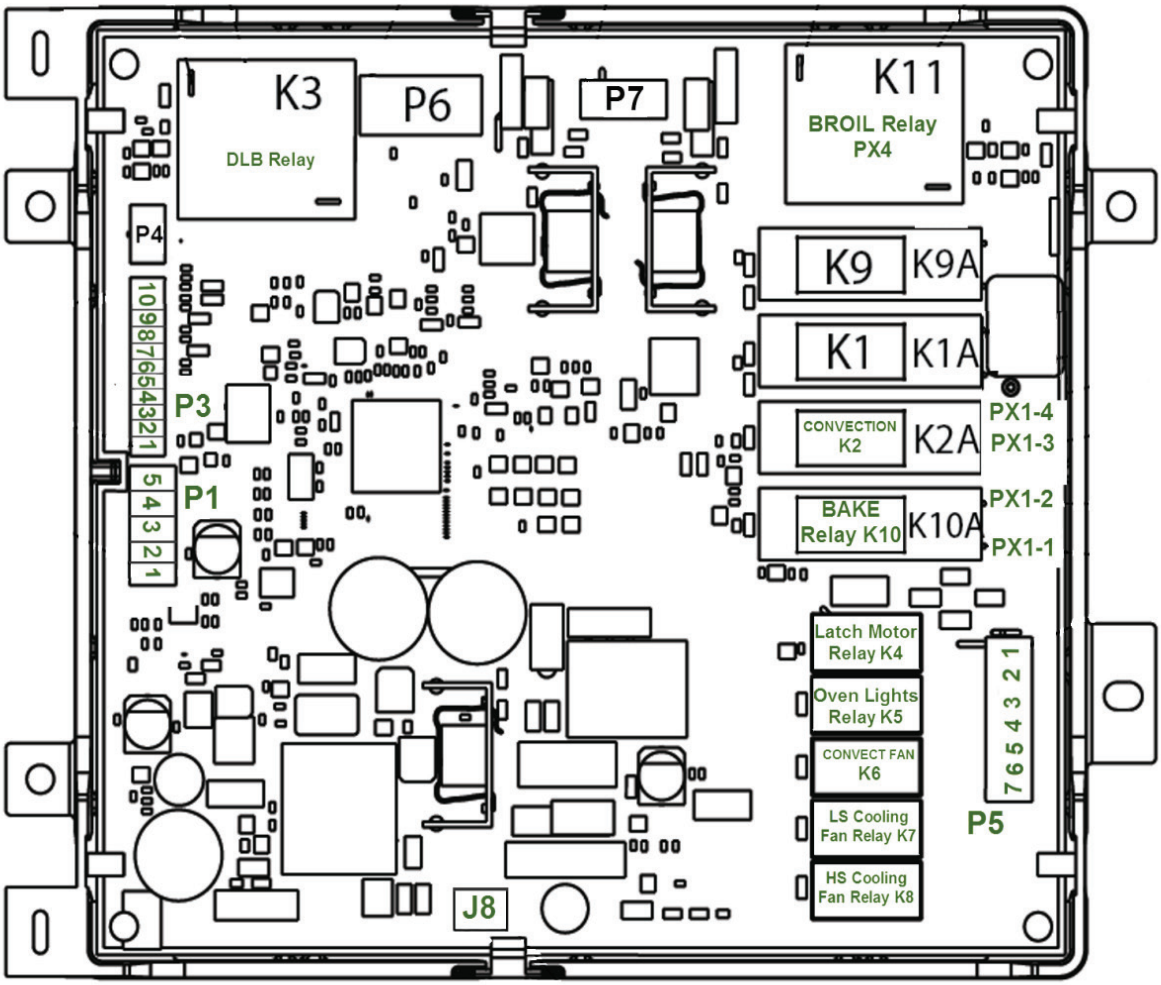
User Interface

The User Interface will be serviced two ways. It will be part of the Control Panel Assembly and will be available as a single part. Below we point out the 5 connections to and from the User Interface. The J15 connector is important because it receives 14 VDC from the SMPS board across pins J15-2 and J15-4. The J8 connection is for the speaker which is mounted off the board and available as a separate part. The J4 and J5 connections provide electrical service to the left and right HMI boards. On Wi-Fi capable ovens, there is a Wi-Fi connection at the lower left side of the UI. Note: There are 2 Wi-Fi connections. One is located on the board as shown, and the other end of the wire is mounted on the back of the oven cabinet.



Main Oven Appliance Manager

Below is the Appliance Manager board for the Main Oven. It provides Connector locations with pin callouts. It also shows actual relays being used on the oven we are discussing (note at bottom of the diagram). Compare the Appliance Manager with the main oven wiring diagram. The three multi-connectors (P1, P3 and P5) are shown on the next page with test points.



- P1 Terminal - connection from the User Interface Assembly
- P3 Terminal - LOGIC Circuits to the Appliance Manager
- P5 Terminal - 120 VAC circuits that operate through the K4 - K8 relays
- J8 Terminal - 120 VAC power source into board from house power supply
- P4, P6 and P7 terminals not used on this oven
- K1 and K9 - relays not used on this oven

Main Oven Appliance Manager Connector Test Pins

P1 WIDE AND POWER	
Pin #	FUNCTION
P1-1	Wide Ground (Brown Wire)
P1-2	
P1-3	
P1-4	-14 VDC Power In (Orange Wire)
P1-5	+14 VDC Power Out (Yellow Wire)

The P1 Connector provides communications between the User Interface.

P3 - SENSOR & SWITCHES		Test Results
Pin #	FUNCTION	
P3-1	RDT 1 +	1075Ω at 70°
P3-2	RDT 1 -	
P3-3	MEAT PROBE +	10kΩ
P3-4	MEAT PROBE -	
P3-5	COMMON FOR DOOR AND LATCH SWITCH	
P3-6	DOOR SWITCH INPUT	0 Resistance w/Door Closed
P3-7	DOOR LATCH SWITCH INPUT	Open Circuit
P3-8		
P3-9		
P3-10		

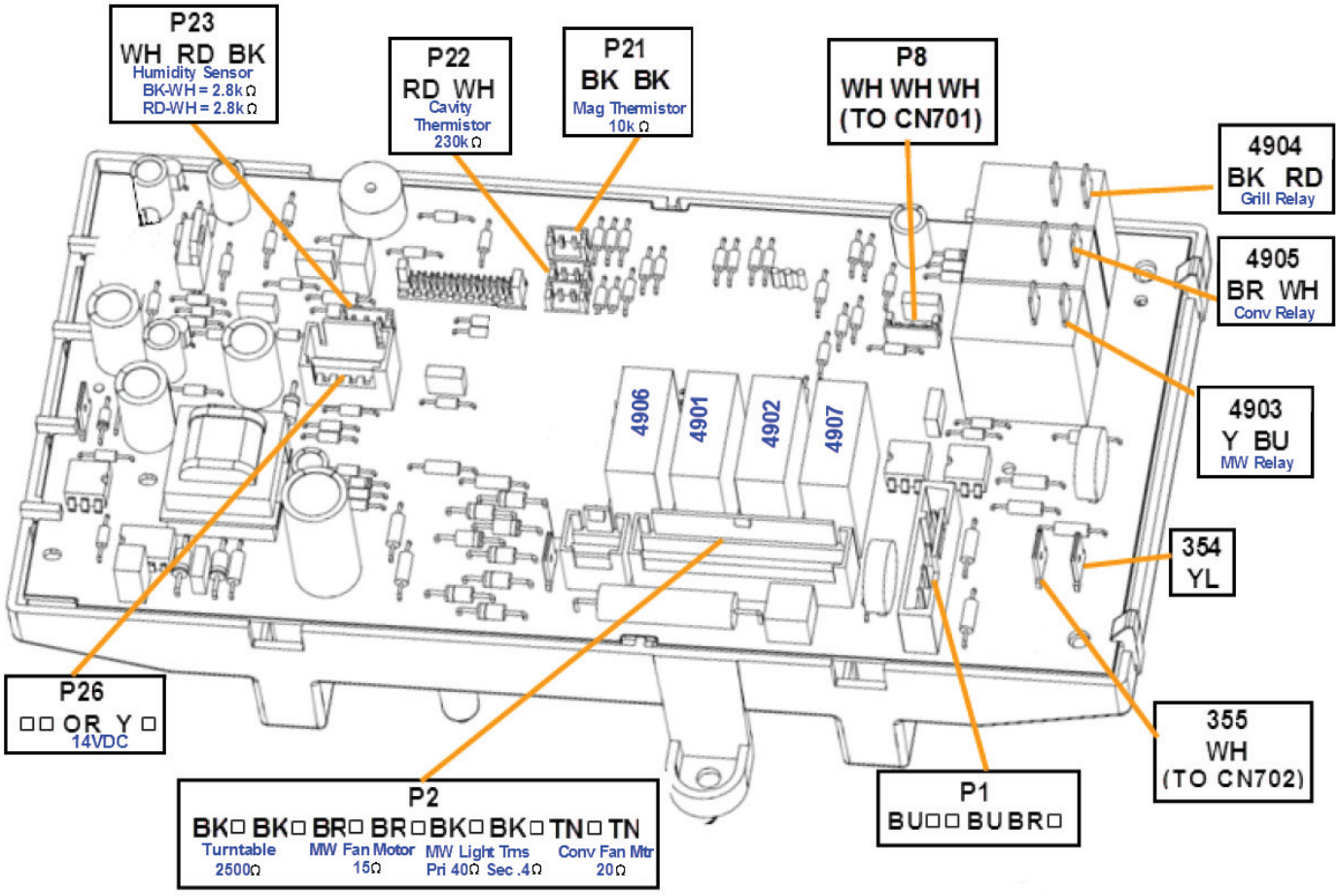
Logic circuits to the Lower Oven Appliance manager

P5 LOW CURRENT RELAY OUTPUT	
PIN #	FUNCTION
P5-1	K4 - Door Lock Motor
P5-2	K5 - Oven Lights
P5-3	
P5-4	K7 - LS Convection Fan
P5-5	K8 - HS Convection Fan
P5-6	
P5-7	L1

The P5 connection controls the 120 VAC output to the listed components

Microwave Oven Appliance Manager

This is the layout of the Microwave Oven Appliance Manager. It shows wire colors, test results at each connector and the component each of the connectors control. The chart on the next page provide the same information in an easier to read format.

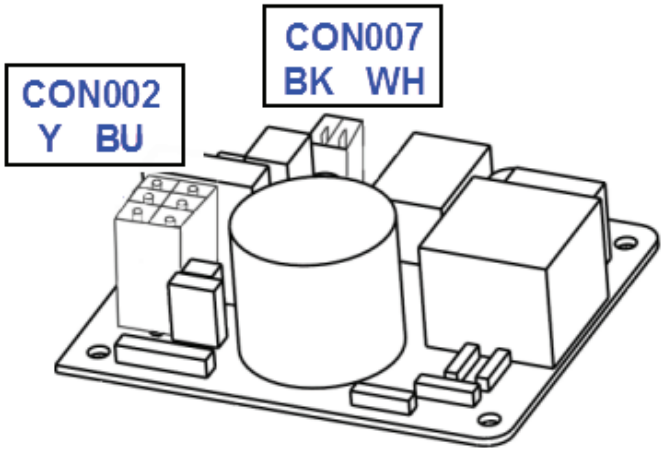


Main Oven Appliance Manager Test Chart

Connector	Pin #	Wire Color	Component	Test Results
P1				
P2	P2-1 to P2-2	BK -BK	Turntable	2500 Ω
	P2-3 to P2-4	BR - BR	MW Fan Motor	15 Ω
	P2-5 to P2-6	BK -BK	MW light Trans	Primary 40 Ω
				Secondary .4 Ω
	P2-7 to P2-8	TN -TN	Conv Fan Motor	20 Ω
P8	P8-1, P8-2, P8-3	WH WH WH	To Inverter CN701	No Measurment
P21	P21-1 to P21-2	BK -BK	Mag Thermister	10 k Ω
P22	P22-1 to P22-2	RD - WH	Cavity Thermister	230 k Ω
P23	P23-1 to P23-3	BK -WH	Humidity Sensor	2.8 k Ω
	P23-2 to P23-3	RD - WH	Humidity Sensor	2.8 k Ω
P26	P26-3 to P26-4	OR- YL	14 VDC Input	
354		YL	Neutral	
355		WH	To Inverter CN702	
Relays				
4903		YL - BU	MW Relay	N.O.
4904		BK - RD	Grill Relay	N.O.
4905		BR - WH	Convection Relay	N.O.

SMPS Low Voltage Power Supply

The SMPS (Switch Mode Power Supply) is not available on all ovens. On this Microwave Combination ovens it is. It is mounted behind the control panel next to the microwave appliance manager. This board is supplied with 120 VAC and reduced the output voltage to 14 VDC. The CON007 two terminal connector receives 120 VAC input from the L1 and Neutral lines and provides 14 VDC output to the appliance managers through the 6 position COON002 connector COON002-1 and COON002-4. See the Connector charts for additional output options.

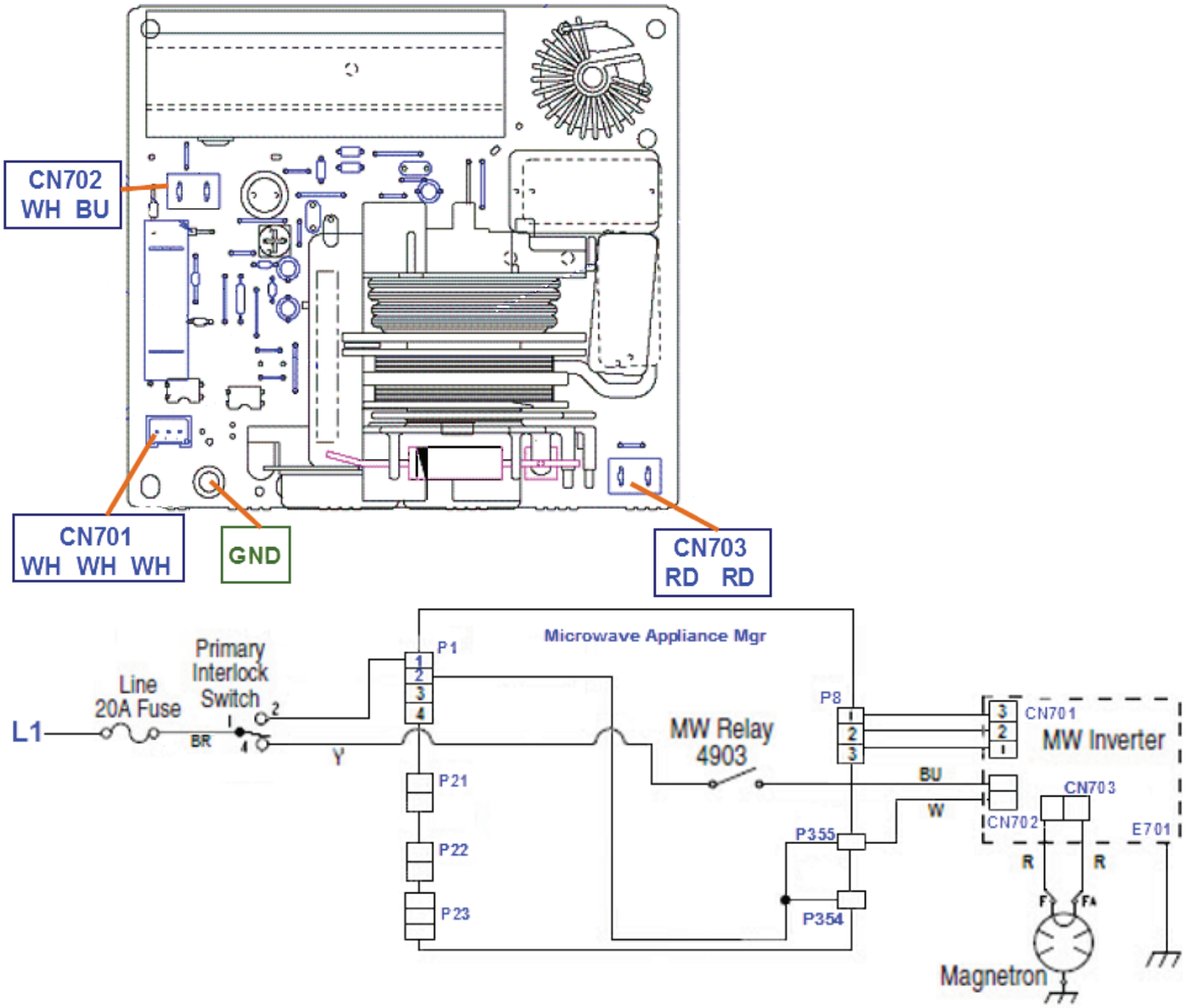


CONNECTOR CON007			
PURPOSE	AC INPUT		
PIN-OUT (2 PINS)	PIN	NAME	TYPE
	CON007-1	L	IN
	CON007-2	N	IN

CONNECTOR CON002			
PURPOSE	DC OUTPUT		
PIN-OUT (6 PINS)	PIN	NAME	TYPE
	CON002-1	14 VDC	OUT
	CON002-2	14 VDC	OUT
	CON002-3	14 VDC	OUT
	CON002-4	GND	OUT
	CON002-5	GND	OUT
	CON002-6	GND	OUT

Microwave Inverter Board

The microwave inverter board replaces the capacitor, diode and transformer of the high voltage system. The main feature of this inverter system is that it provides constant microwave energy and doesn't cycle on and off to produce the constant supply. When testing this board, you just check the 4 connection points (CN701, CN702, CN703 and the ground lug). No voltage or continuity testing on this board. The diagram below shows how 120 VAC is supplied to the inverter through the Line Fuse, the primary interlock switch (door closed position) and the 4903 relay mounted on the Appliance Manager.



Service Test

Close the m/w door, check the m/w am board 4903 relay for 120vac on yellow wire. No voltage then check door switch.

If you have 120vac at yellow 4903 with door closed then change the inverter. Verify that the magnatron when removed is not damaged, shake the mag tube to make sure it does not rattle

If it does then change inverter and magnatron at sametime.

Section 3: Electronic Control Diagnostic Mode and other Component Testing

This section provides a look at using the Diagnostic Mode and Failure/Error Codes. The Relay Logic and Component Testing Chart can be very helpful.

- Safety
- Using the Diagnostic Mode

- Failure/Error Codes
- Relay Logic Chart
- Component Testing Chart - Main Oven
- Component Testing Chart - Microwave Oven

Safety

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word “DANGER” or “WARNING.” These words mean:

⚠ DANGER — **You can be killed or seriously injured if you don't immediately follow instructions.**

⚠ WARNING — **You can be killed or seriously injured if you don't follow instructions.**

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

⚠ DANGER

Electrical Shock Hazard

Only authorized technicians should perform diagnostic voltage measurements.

After performing voltage measurements, disconnect power before servicing.

Failure to follow these instructions can result in death or electrical shock.

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Voltage Measurement Safety Information

When performing live voltage measurements, you must do the following:

- **Verify the controls are in the off position so that the appliance does not start when energized.**
- **Allow enough space to perform the voltage measurements without obstructions.**
- **Keep other people a safe distance away from the appliance to prevent potential injury.**
- **Always use the proper testing equipment.**
- **After voltage measurements, always disconnect power before servicing.**

Safety

IMPORTANT: Electrostatic Discharge (ESD) Sensitive Electronics

ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an antistatic wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance

  -OR-

  Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the antistatic bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in antistatic bag, observe above instructions.

Using the Diagnostic Mode

The Jenn-Air Ovens provide a Diagnostic program that can help diagnose concerns with the oven. The diagnostic program will need to be accessed anytime the User Interface or Control Panel Assembly is replace because the Oven Cavity size (27 or 30") needs to be programmed into the control.

The Diagnostic Mode will provide Error Code information, and the ability to clear error codes from the control memory. It can help activate the Appliance Manager relays for diagnostic help and, as mentioned before, provide the process for selecting the oven cavity size anytime the User Interface or Control Panel Assembly is replaced.

To Enter the Diagnostics Mode:

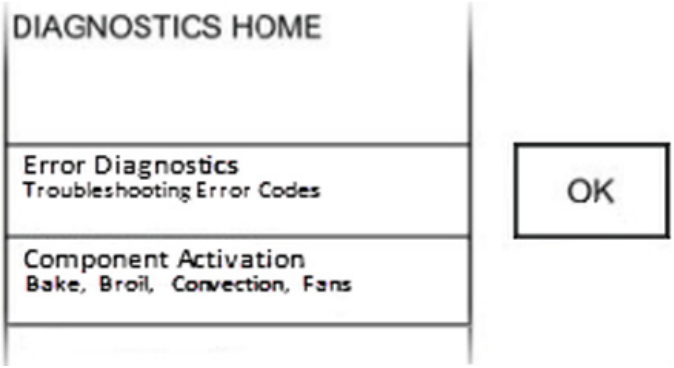
1. Press **LOWER OVEN > LOWER LIGHT > LOWER CANCEL (repeat two more times)**

   TIP: You can also swipe your finger from left to right over the buttons 3 times.

   NOTE: You do not need to wait for any audible or visual feedback from the control between keypad presses.

2. If control does not enter Diagnostics, continue repeating the keypad sequence from Step 1.

This is the first screen you will see as you enter Diagnostics (Diagnostics Home)



3. From the Diagnostic Menu, scroll to the desired selection using the touch screen.

   Line up the desired selection with the "OK" button and press OK.

Available Selections:

Error Diagnostics: View and clear the failure history.

Component Activation: Manually activate each relay, fans, motors etc.

Sensor & Switches: View the traditional oven cavity temperatures and door/latch switch status.

System Information: View the model number, serial number, software versions, Number of times Diagnostic Mode has been entered.

Wi-Fi: Signal strength, IP address, SAID#

Exit Diagnostics

General Procedure: Model Selection

NOTE: When a new User Interface or Control Panel Assembly is installed, you will be prompted to select a new model number upon power up.

To change the model number on an existing UI, follow the steps below.

1. Plug in oven or connect power.
2. Enter Diagnostics Mode.
3. Touch or scroll to "System Information" in the Diagnostics menu, and then touch "OK."
4. Touch or scroll to "Model Number," and then touch "OK."
5. Touch or scroll to the correct model number in the list, and then touch "Select."

Failure/Error Codes

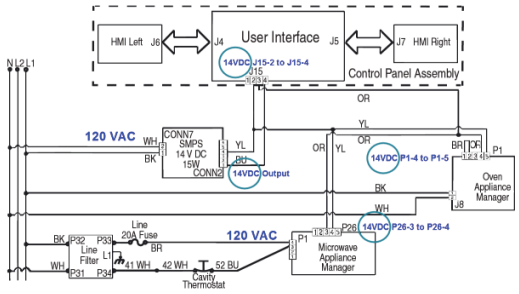
The following five pages contain information about error codes and what to look for when you encounter a specific condition. This information is a portion of the information that is in the Tech Sheet, but provides a more direct picture of the repair. Always reference the Tech Sheet when diagnosing error codes. Follow all safety warnings

When measuring resistance, always disconnect power.

When measuring live voltage, complete the following steps:

1. **Disconnect power.**
2. **Connect voltage measurement equipment to proper connectors.**
3. **Reconnect power and confirm voltage.**
4. **Disconnect power and reassemble all parts and panels before operating.**

No Display - control is blank	Switch Mode Power Supply (SMPS), Control Panel Assembly

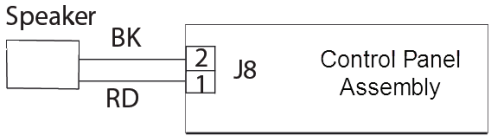


No Display - Control is blank
Suspected Component - SMPS & Control Panel Assembly
Check 120 VAC input voltage to SMPS
Check 14 VDC output from SMPS
Check 14 VDC at User Interface J15 connector

User Interface not reacting to touch	Control Panel Assembly

Error - User Interface not reacting to touch
Suspected Component - Control Panel Assembly
Unplug oven or disconnect power, wait 10 seconds and reconnect power. If no response, replace Control Panel Assembly

No Sound	Speaker, Control Panel Assembly



Error - No Sound
Suspected Component - Speaker & Control Panel Assembly
Verify "sound" is enabled. Touch the "TOOLS" keypad and scroll to the "Sound" menu. Make sure Speaker connection (J8) is good

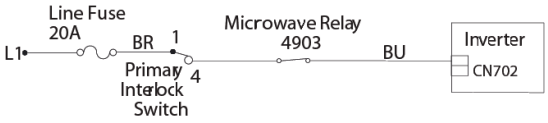
FAILURE	ERROR	LIKELY FAILURE
F1 Internal	**E0**	Control Panel Assembly

Error Code - F1 E0
Suspected Component - Control Panel Assembly
Verify Error Code, go to Diagnostic Mode (CANCEL > CANCEL > START)
Make sure Control Panel connection to ground is good

FAILURE	ERROR	LIKELY FAILURE
F1	**E1**	Internal Oven AM

Error Code F1 E1
Suspected Component - Appliance Manager
Verify Error by entering Diagnostic Mode (CANCEL >CANCEL > START)
Replace Appliance Manager

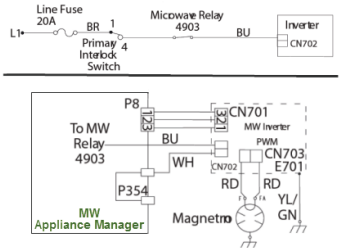
FAILURE	ERROR	LIKELY FAILURE
F1	**E4**	Microwave AM



Error Code - F1 E4
Suspected Component - Microwave Appliance Manager
Unplug Oven, wait 10 seconds, Turn power back on
Start a microwave cooking cycle and verify error returns.
Verify circuit shown above.

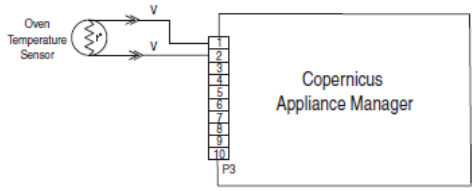
Failure/Error Codes

FAILURE	ERROR	LIKELY FAILURE
F1	E5	Microwave Inverter



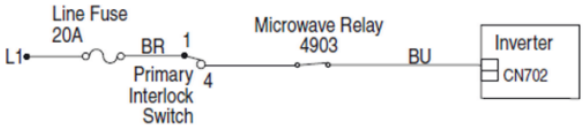
Error Code - F1 E5
Suspected Component - MW Inverter Board
Remove power from oven, wait 10 seconds, Turn power on
Start a microwave cook cycle and verify error returns.
Verify 120 VAC is available at Relay 4903
Check connections at P8 and Relay 4903 on AM
Check connections CN701, CN702, CN703 on Inverter Board
If all checks are good, replace inverter board
If error returns, replace Magnetron

FAILURE	ERROR	LIKELY FAILURE
F3 Sensors	E0	Main oven sensor open or shorted



Error Code - F3 E0
Suspected Component - Oven Temperature Sensor
Check circuit shown for 1000 - 1200 Ohms
If check is not good - replace Oven Sensor

FAILURE	ERROR	LIKELY FAILURE
F1	E6	Microwave Generation Error



Error Code - F1 E6
Suspected Component - Door Switches, MW Relay 4903, Inverter, Magnetron
Check the circuit shown - If good replace magnetron. If error still exists - replace inverter board. If error still exists - replace Microwave AM

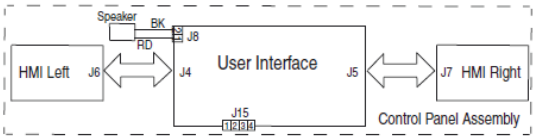
FAILURE	ERROR	LIKELY FAI
F3	E3	Meat Probe Connector Meat Probe Shorted

Error Code F3 E3
Suspected Components – Meat Probe Jack or Meat Probe

First thing you should do is verify the error code by entering the Diagnost (CANCEL CANCEL START) and scrolling to the Faults Code screen.

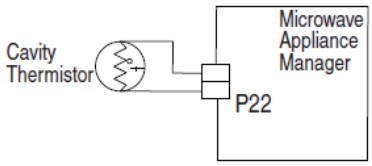
Check resistence of Probe Jack, if it is not 0 Ohms replace it.
Check the Meat Probe for 50K Ohms resistence at room temperatur check for Short or Open Circuit

FAILURE	ERROR	LIKELY FAILURE
F2 Keypad	E0	Keypad disconnected
	E1	Stuck/shorted key



Error Code - F2 E0, F2 E1
Suspected Component - Keypad disconnected, Stuck/Shorted key
Check the circuit shown, if all connections are good - replace Control Panel Assembly

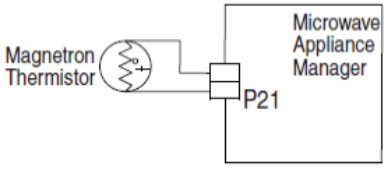
FAILURE	ERROR	LIKELY FAILURE
F4	E1	Microwave Cavity Temperature Sensor Error



Error Code - E4 E1
Suspected Component - Cavity temperature Sensor, AM
Disconnect connector P22 and test for 230K Ohms at room temperature. If test is good, replace Microwave Appliance

Failure/Error Codes

FAILURE	ERROR	LIKELY FAILURE
F4	E2	Magnetron Thermistor Error



Error Code - F4 E2
Suspected Component - Magnetron Thermister, AM. Disconnect P21 connector and check for 10K Ohms at room temperature. Also test Thermistor for Short to ground. If tests are not good, replace thermister. If test are good, replace MW Appliance Manager

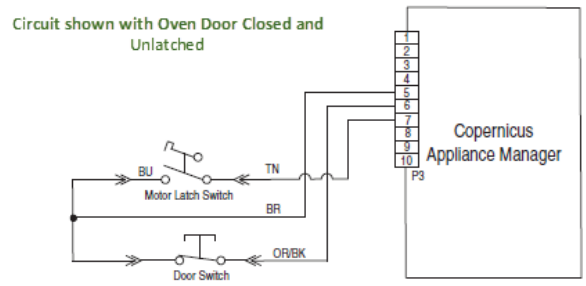
FAILURE	ERROR	LIKELY FAILURE
F4	E8	Inverter Over Temperature

Error Code - F4 E8
Suspected Component - Cooling Fan, Inverter
Check cooling fan for loose connection. Check Oven Installation and remove any air blockage. Start MW and verify fan is running. If it is not, replace fan. It the fan is running, replace the inverter

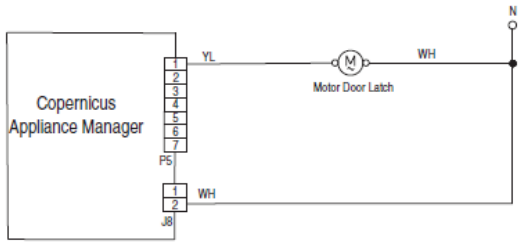
FAILURE	ERROR	LIKELY FAILURE
F4	E9	Inverter and Magnetron Over Temperature

Error Code - F4 E
Suspected Component - Cooling Fan, Inverter, Mag
Check cooling fan for loose connection. Check Oven Installation and remove any air blockage. Start MW and verify fan is running. If it is not, replace fan. It the fan is running, replace the Inverter and Magnetron

FAILURE	ERROR	LIKELY FAILURE
F5 Inputs	E0	Door and latch switch do not agree
	E1	Latch not operating



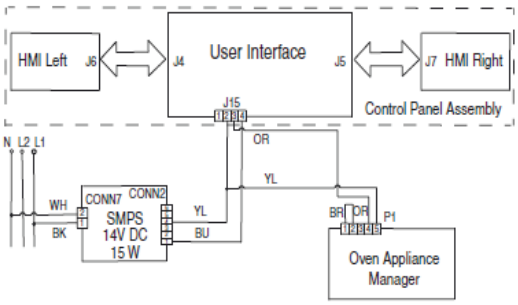
Error Code - F5 E0
Suspected Component - Door Latch Assembly, AM. With oven door closed, and unlocked check Door Switch for continuity at P3-5 to P3-6, - Door Open = Infinite resistance. Check Door Latch Switch for Infinite Resistance at P3-5 to P3-7. If test results are bad,



If switches are good, and the oven door does not lock at beginning of a Self-Clean cycle, test the Door Latch Motor for 500 to 3000 Ohms between J8-2 to P5-1. If motor test is bad, replace motor. If motor test is good, replace Appliance Manager

Failure/Error Codes

FAILURE	ERROR	LIKELY FAILURE
F6	E0	Oven user interface - lost communication
	E6	Oven appliance manager - lost communication

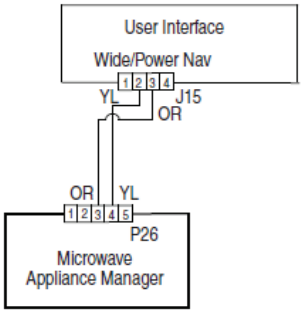


Error Code - F6E0, F6E6
Suspected Component - Oven Appliance Manager, User Interface. Check continuity of wiring between P1-4 to J15-3, and P1-5 to J15-2. Check for continuity from P1-1 to P1-2. If all checks are good, replace the Oven Appliance Manager. Retest oven, if error persists, replace the User Interface

FAILURE	ERROR	LIKELY FAILURE
F6	E4	User Interface Appliance Manager state status mismatch

Error Code - F6E4
Suspected Component - Oven Appliance Manager, User Interface. Verify Error Code, if error code still exists, replace the Oven Appliance Manager. Retest Oven, if error persists, replace the User Interface.

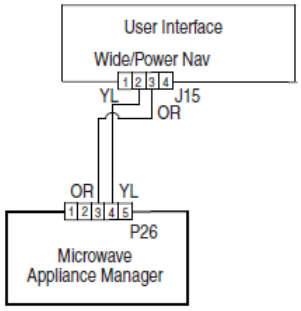
FAILURE	ERROR	LIKELY FAILURE
F6	E8	Lost communications with Microwave Oven Appliance Manager



Error Code - F6E8
Suspected Component - MW Appliance Manager, User Interface. Check all connections at User Interface J15 connector and MW Appliance Manager P26 connector. If all connections are good, replace the MW Appliance Manager. Retest Oven, if error reappears, replace the User Interface

Failure/Error Codes

FAILURE	ERROR	LIKELY FAILURE
F6	E8	Lost communications with Microwave Oven Appliance Manager



Error Code - F6E8
Suspected Component - MW Appliance Manager, User Interface. Check all connections at User Interface J15 connector and MW Appliance Manager P26 connector. If all connections are good, replace the MW Appliance Manager. Retest Oven, if error reappears, replace the User Interface

FAILURE	ERROR	LIKELY FAILURE
F9	E0	Product not wired correctly

Error Code - F9E0
Suspected Component - Wiring from House Power to Oven. Check house wiring to see if the Neutral connection is switched with L1 or L2.

Relay Logic Chart

The next chart provides information about how the relays react in any cooking mode. The Legend at the bottom of the chart shows what each symbol means. During each of the convection modes the convection fan and convection element cycle on and off to maintain proper heat - no big surprise there. Remember that the fan will cycle OFF whenever the oven door is opened. This chart is available in the Tech Sheet that is provided with every oven Jenn-Air produces.

	Oven High Speed Blower (Main/Upper or Lower)	Oven Low Speed Blower (Main/Upper or Lower)
Oven Cooking - Cold	-	O
Oven Cooking - Warm	-	O
Oven Cooking - Hot	O	-
Oven Self-Clean	O	-

LEGEND

Cold	Cavity Temperature is less than 212°F (100°C)
Warm	Cavity Temperature is between 212°F and 599°F (100°C and 315°C)
Hot	Cavity Temperature is greater than 599°F (315°C)

Mode	Bake	Broil	Convect Ring	Convect Fan
Convect Frzn. Pizza	C	C	C	C
Convect Pastry	C	C	C	C
Convect Slow Roast 12hrs	C	C	C	C
Convect Slow Roast 8hrs	C	C	C	C
Convect Slow Roast 4hrs	C	C	C	C
Convect Roast	C	C	C	C
Convect Broil	-	O	-	-
Convect Bake	C	C	C	C
Convect Bake - Rapid Preheat	C	C	C	C
Bake	C	C	NA	NA
Broil	-	O	-	-
Keep Warm	C	-	-	C
Rapid Proof	C	-	-	-
Rapid Proof - Preheat	C	C	-	-
Proof	C	-	-	-
Proof - Preheat	C	C	-	-
Self Clean	C	C	-	-

LEGEND

Relay Off	Relay Cycles	Relay On	Not Available
-	C	O	NA

Component Testing

The following charts provide pin locations and Voltage/Resistance values for all components used in the oven and microwave. These charts should be used to confirm that a component is operating properly. All this testing information is also available in the Tech Sheet that is provided with every oven Jenn-Air produces.

Component Testing Chart - Main Oven

Primary Interlock Switch	Top	Test 1: **1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Primary Interlock Switch. **3.** Check from the common terminal (brown wire) to the normally open terminal (yellow wire). **4.** Reconnect the wires at the Primary Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power. Test 2: **1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Primary Interlock Switch. **3.** Check from the common terminal (brown wire) to the normally closed terminal (blue wire). **4.** Reconnect the wires at the Primary Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Test 1: Door Open = Infinite. Door Closed = Continuity. Test 2: Door Open = Continuity. Door Closed = Infinite	N
Secondary Interlock Switch	Top	**1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Secondary Interlock Switch. **3.** Check from the common terminal (blue wire) to the normally open terminal (white wire). **4.** Reconnect the wires at the Secondary Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Door Open = Continuity. Door Closed = Infinite	I
Monitor Interlock Switch	Top	**1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Monitor Interlock Switch. **3.** Check from the common terminal (yellow wire) to the normally closed terminal (blue wire). **4.** Reconnect the wires at the Monitor Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Door Open = Continuity. Door Closed = Infinite	O
Halogen Light	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = approximately 3Ω Abnormal = Infinite	M

Component Testing Chart - Microwave Oven

Component	Serviceable Side	Procedure	Results - Resistance	Component Location
Appliance Manager	Top	Check wiring to MW microwave appliance manager: **1.** Unplug the microwave oven or disconnect power. **2.** Visually inspect connectors on the microwave appliance manager, P1, P2, P8, P21, P22, P23, P26, P354, P355 and the top connectors (relays 4903, 4904 and 4905) to see whether there are signs of overheating or any signs of failure due to loose wires, bad crimping, etc. **3.** Reassemble all parts and panels before operating. **4.** Plug in microwave oven or reconnect power.		G
Cavity Thermostat	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = Continuity Abnormal = Infinite	V
Magnetron Fan Motor	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance (ohmmeter scale: Rx1). **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = 15Ω Abnormal = Infinite	F
Turntable Motor	Bottom	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance (ohmmeter scale: Rx1). **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal =2500Ω (approximately) Abnormal = Infinite	J
Monitor Fuse	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = Continuity Abnormal = Infinite	Not shown
MW Light Transformer	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance (ohmmeter scale: Rx1). **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Primary Winding = 40Ω (approximately) Secondary Winding = 0.4Ω (approximately)	R
Line Fuse	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = Continuity Abnormal = Infinite	Not shown

Component Testing Chart - Microwave Oven

Component	Serviceable Side	Procedure	Results - Resistance	Component Location
Primary Interlock Switch	Top	Test 1: **1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Primary Interlock Switch. **3.** Check from the common terminal (brown wire) to the normally open terminal (yellow wire). **4.** Reconnect the wires at the Primary Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power. Test 2: **1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Primary Interlock Switch. **3.** Check from the common terminal (brown wire) to the normally closed terminal (blue wire). **4.** Reconnect the wires at the Primary Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Test 1: Door Open = Infinite. Door Closed = Continuity. Test 2: Door Open = Continuity. Door Closed = Infinite	N
Secondary Interlock Switch	Top	**1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Secondary Interlock Switch. **3.** Check from the common terminal (blue wire) to the normally open terminal (white wire). **4.** Reconnect the wires at the Secondary Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Door Open = Continuity. Door Closed = Infinite	I
Monitor Interlock Switch	Top	**1.** Unplug microwave oven or disconnect power. **2.** Disconnect the wires at the Monitor Interlock Switch. **3.** Check from the common terminal (yellow wire) to the normally closed terminal (blue wire). **4.** Reconnect the wires at the Monitor Interlock Switch. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Door Open = Continuity. Door Closed = Infinite	O
Halogen Light	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = approximately 3Ω Abnormal = Infinite	M

Component Testing Chart - Microwave Oven

Component	Serviceable Side	Procedure	Results - Resistance	Component Location
Inverter	Top	Check wiring to MW inverter: **1.** Unplug the microwave oven or disconnect power. **2.** Visually inspect 4 connectors on the MW inverter boards, CN701, CN702, CN703 and E701 to see whether there are signs of overheating or any signs of failure due to loose wires, bad crimping, etc. **3.** Reassemble all parts and panels before operating. **4.** Plug in microwave oven or reconnect power.		S
Magnetron	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. Check that the seal is in good condition. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Filament Terminals Normal = <1Ω Filament to Chassis Normal = Infinite	Q
Line Filter	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	P31 to P32, P33 to P34 Normal >/= 300kΩ Abnormal </= 100kΩ P31 to P34, P32 to P33 Normal = 0Ω Abnormal >/= 100kΩ	D
Humidity Sensor	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove the 3-pin connector from MW Appliance Manager. **3.** Measure resistance across pins 1 and 3 and across pins 2 and 3. **4.** Replace the 3-pin connector from MW Appliance Manager. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = 2.8kΩ (approximately) at 77°F +/- 10°F (25°C +/- 10°C) Abnormal = Infinite.	E
Magnetron Thermistor		**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = 10kΩ (approximately) at 77°F +/- 10°F (25°C +/-10°C) Abnormal = Infinite.	P
Grill Thermostat	Top	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = Continuity Abnormal = Infinite	U
Convect Thermostat	Rear	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = Continuity Abnormal = Infinite	B

Component Testing Chart - Microwave Oven

Component	Serviceable Side	Procedure	Results - Resistance	Component Location
Broil Element	Rear	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = 9Ω Abnormal = Infinite	K
Convect Element	Rear	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = 12Ω Abnormal = Infinite	C
Cavity Temp Sensor	Rear	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = 230KΩ (approximately) at 77°F ±10°F (25°C ±10°C) Abnormal = Infinite	T
Convect Fan Motor	Rear	**1.** Unplug microwave oven or disconnect power. **2.** Remove wire leads. **3.** Measure resistance. **4.** Replace wire leads. **5.** Reassemble all parts and panels before operating. **6.** Plug in microwave oven or reconnect power.	Normal = 48Ω Abnormal = Infinite	A

NOTES

Multimedia Enhanced

Section 4: Component Access

This section provides service parts access, removal, and replacement instructions for the “Jenn-Air Microwave Combination Oven.

How to remove the:

- Control Panel
- Microwave Appliance Manager Board
- Other components accessible from the top of the oven
- Lower Oven Appliance Manager Board

Accessing components at the back of the Main Oven

- Exhaust Blower Motor and Fan Assembly
- Oven Shutdown Thermal Fuse,
- Hidden Bake Element

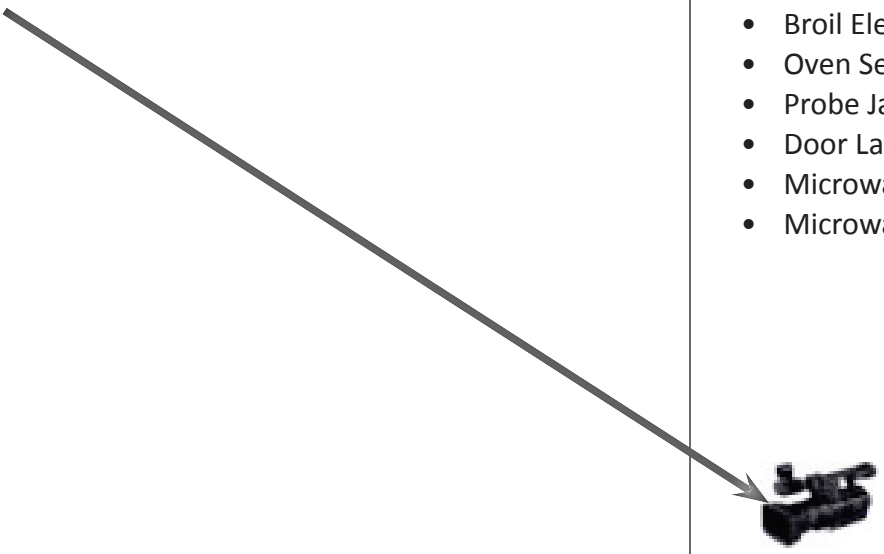
Main Oven Convection Components

- Convection Fan Blade
- Convection Heating Element
- Convection Motor

Inside the Main Oven

- Oven Door
- Interior Oven Light Assemblies
- Broil Element
- Oven Sensor
- Probe Jack Assembly
- Door Latch and Oven Light Switch Assembly
- Microwave Convection parts
- Microwave Humidity Sensor

Whenever coming across the Camera icon throughout Section 4, click on the ICON and a video will play pertaining to the subject directly below it

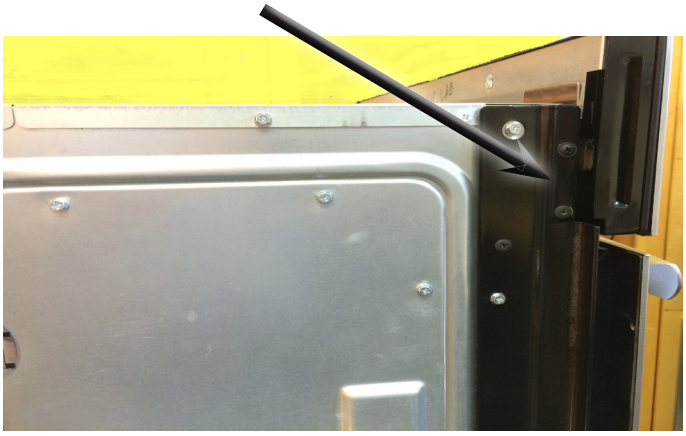


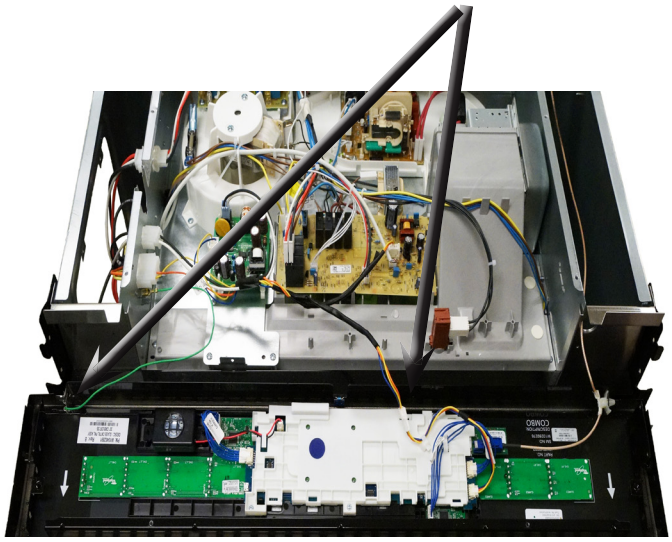
REMOVING THE CONTROL PANEL

⚠ WARNING

Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

Pull oven out of the cabinet approximately 4” to expose 4 mounting screws (2 on each side). Remove the screws and pull the control panel and User Interface board out. Remove electrical connections.



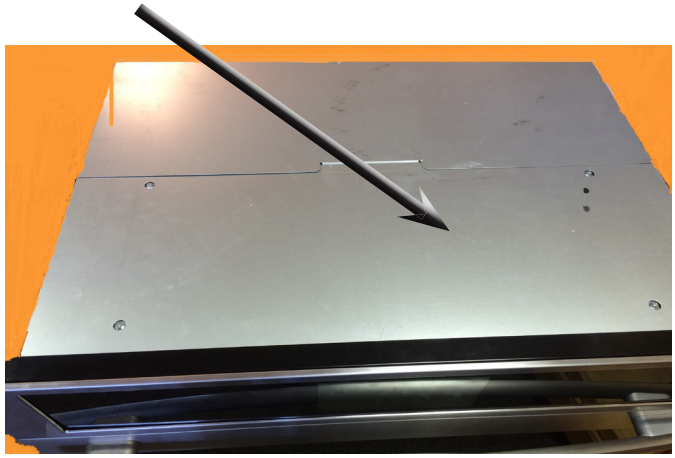


REMOVING THE MICROWAVE APPLIANCE MANAGER BOARD

⚠ WARNING

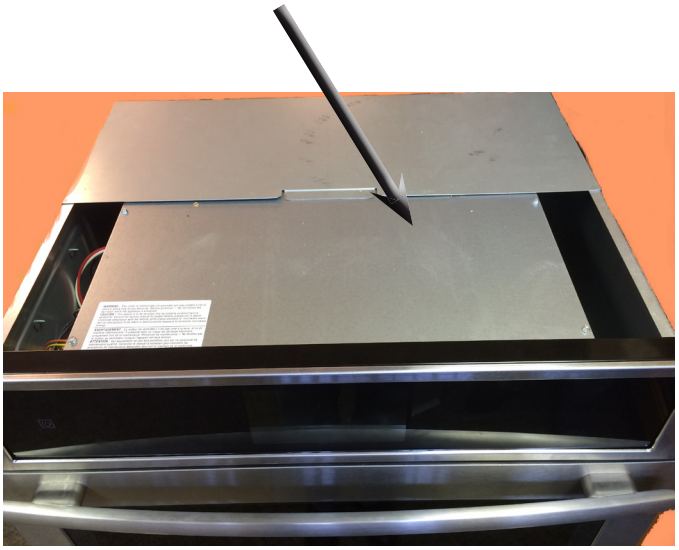
Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

Pull oven out of the cabinet approximately 14” to expose the top control service cover. Remove mounting screws and lift service cover up.

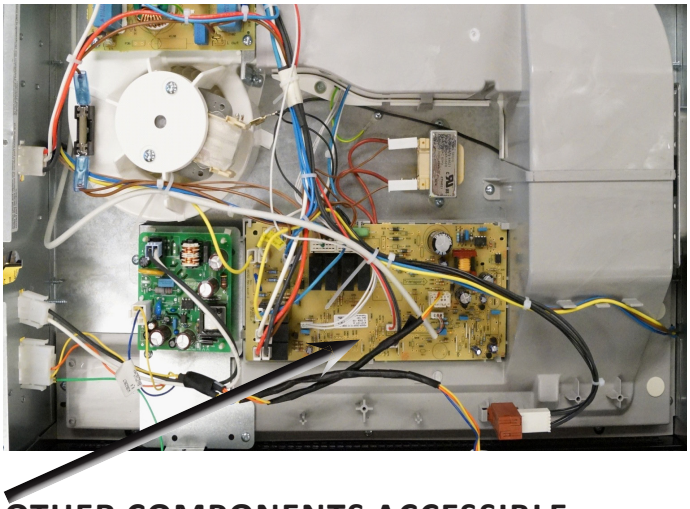


With the Top Control Service Cover removed, the Microwave service compartment panel is exposed. Remove the mounting screws from the panel. Lift the front of the panel and slide the panel toward the front of the oven and remove it.

REMOVING THE MICROWAVE APPLIANCE MANAGER BOARD CON'T

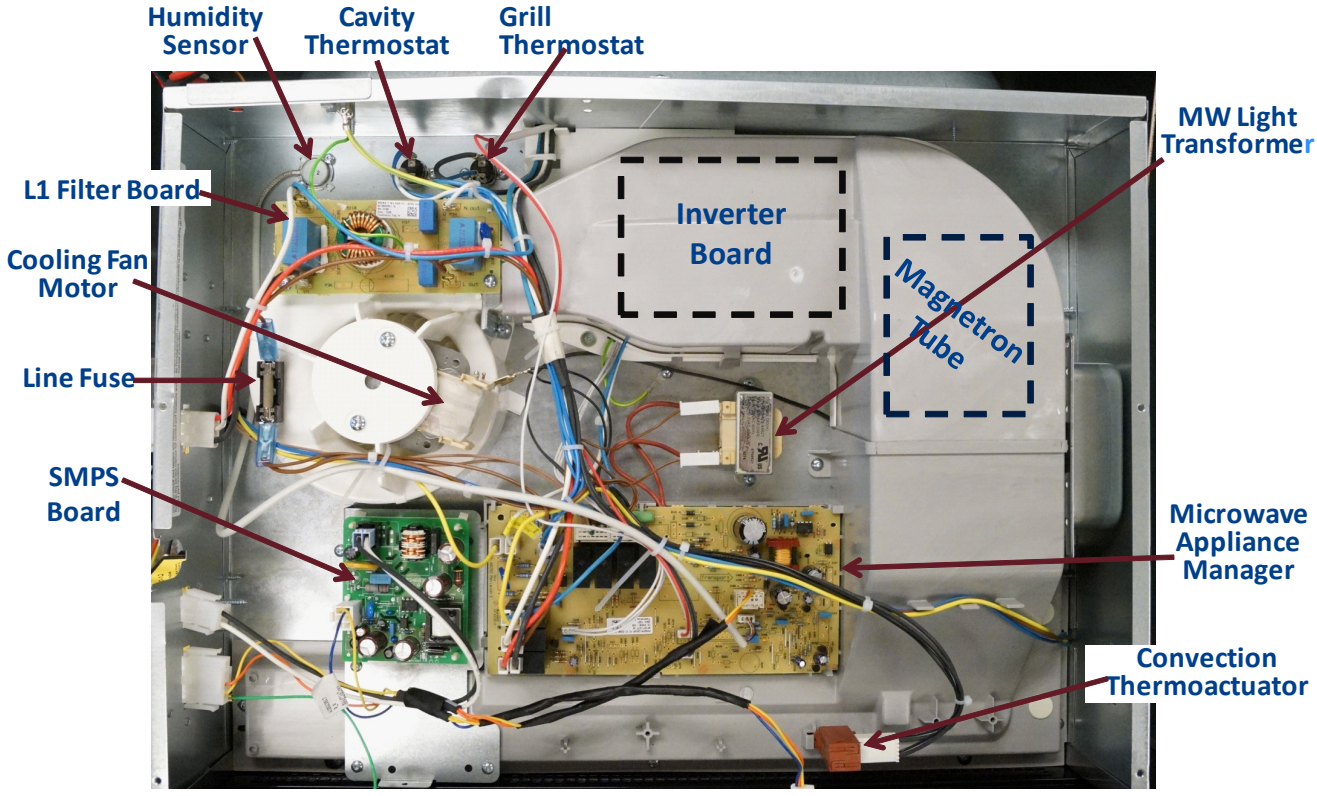


After sliding the cover panel out, access to the Microwave Oven Appliance Manager board is available. Remove the Appliance Manager mounting screws and electrical connections and remove the board.



OTHER COMPONENTS ACCESSIBLE WHEN THE TOP SERVICE COVERS ARE REMOVED:

Cavity Thermostat
Convection Thermoactuator
Cooling Fan Motor — Filter Board
Grille Thermostat — Humidity Sensor
Inverter Board — Line Fuse
Magnetron Tube — MW Light Transformer
Switch Mode Power Supply (SMPS) Board



REMOVING THE LOWER OVEN APPLIANCE MANAGER BOARD

⚠ WARNING

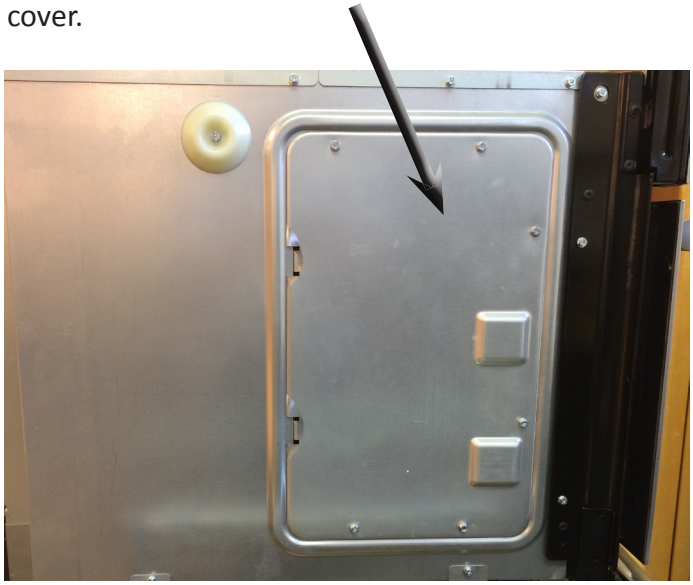
Electrical Shock Hazard

Disconnect power before servicing.

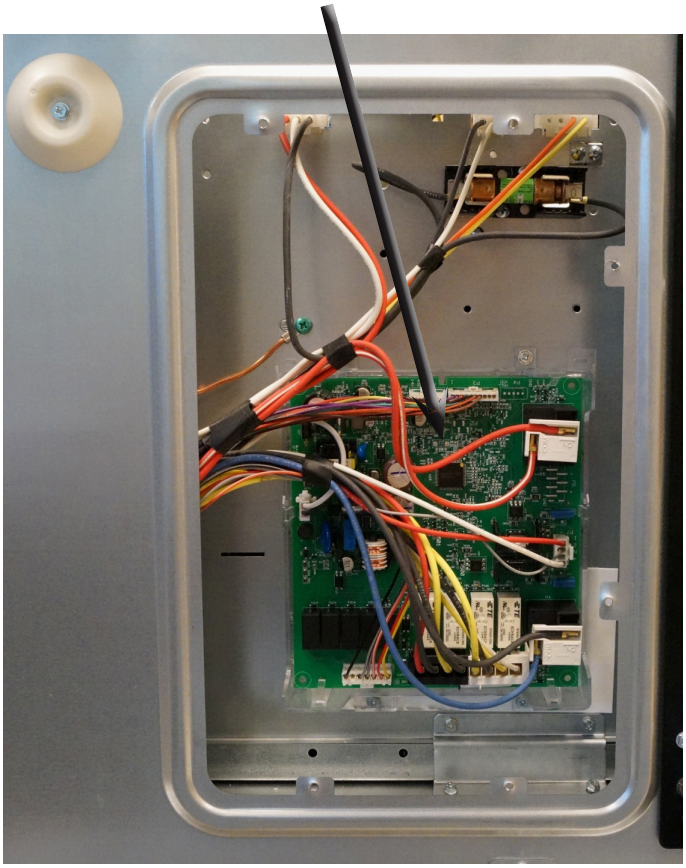
Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

Pull oven out of the cabinet approximately 14” to expose the Lower Oven Appliance Manager Access cover on the left side of the oven cabinet. Remove 6 mounting screws from the cover and remove the cover.



Under the cover is the Lower Oven Appliance Manager and the 20 amp line fuse. Remove the electrical connections and 4 mounting screws securing the Appliance Manager Board, remove Board



COMPONENTS SERVICED FROM THE BACK OF THE MAIN OVEN

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

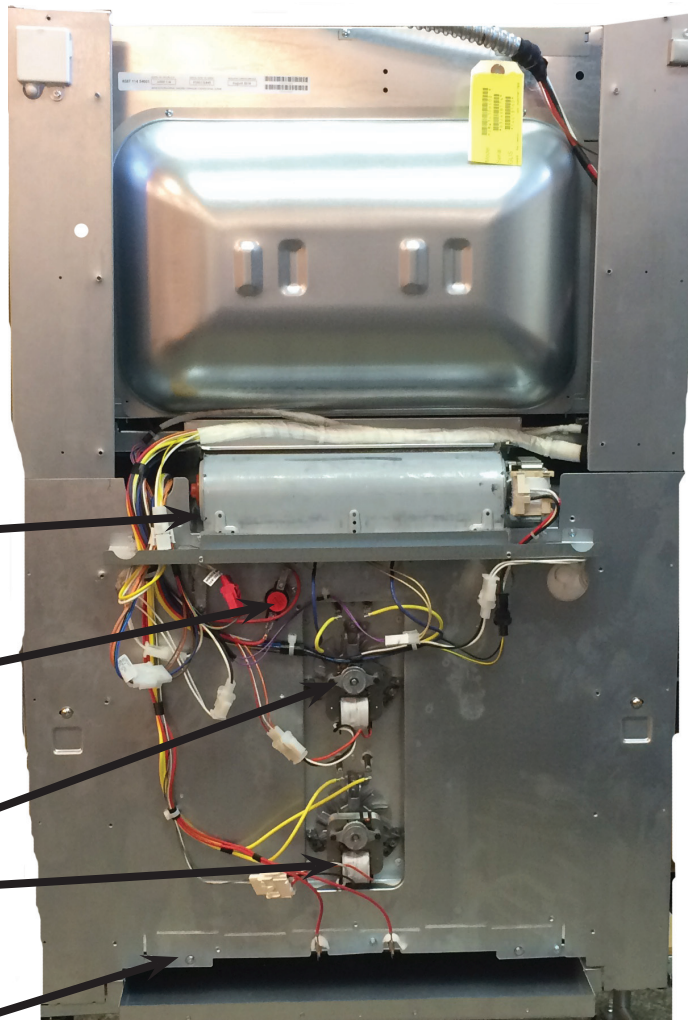
⚠ WARNING

Excessive Weight Hazard

Use two or more people to move and install oven.

Failure to do so can result in back or other injury.

The oven will need to be completely removed from the cabinet.



REMOVING THE EXHAUST BLOWER MOTOR AND FAN ASSEMBLY

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

⚠ WARNING

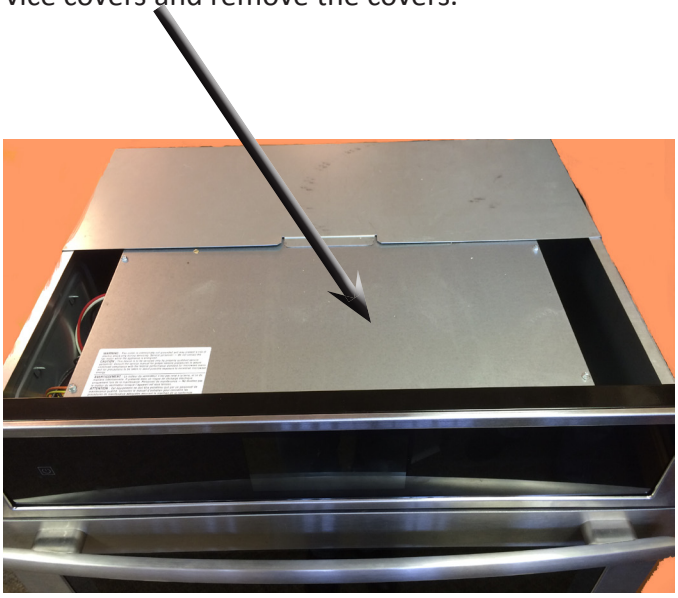
Excessive Weight Hazard

Use two or more people to move and install oven.

Failure to do so can result in back or other injury.

The oven will need to be completely removed from the cabinet.

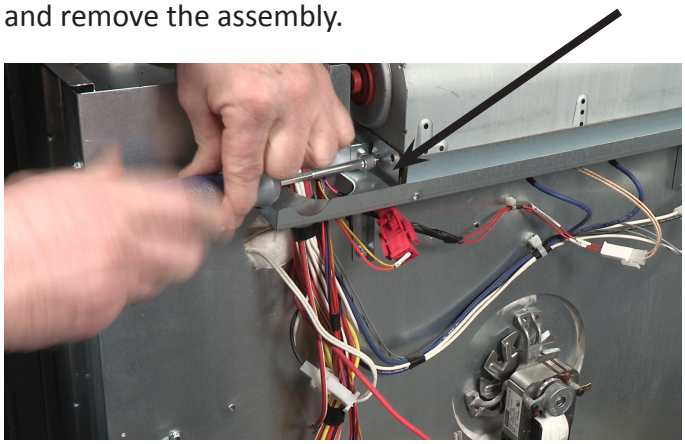
Remove the screws that mount the top three service covers and remove the covers.



The 2 back service covers (behind the oven) will need to be removed. Locate the mounting screws and remove both covers.

The 2 back service covers (behind the oven).

The blower motor and fan assembly is now completely exposed. Remove the electrical connection to the motor. Remove two Blower Assembly mounting screws from each side of the assembly and remove the assembly.



REMOVING THE OVEN SHUTDOWN THERMAL FUSE FROM THE MAIN OVEN

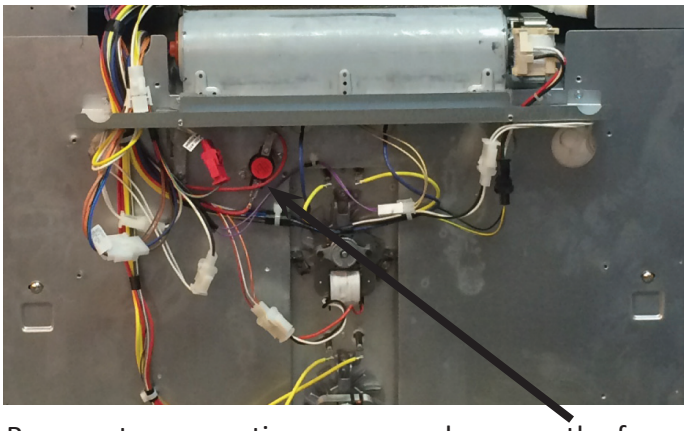
⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.



Remove two mounting screws and remove the fuse. Note: Before replacing this fuse make sure you know what condition made this fuse fail and correct it.

REMOVING THE HIDDEN BAKE ELEMENT

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

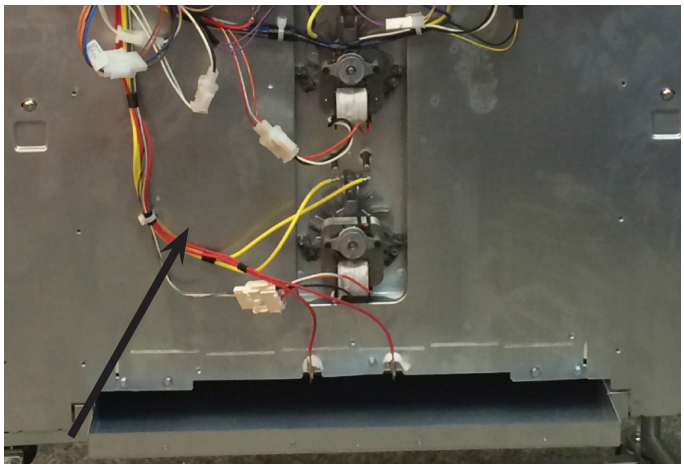
⚠ WARNING

Excessive Weight Hazard

Use two or more people to move and install oven.

Failure to do so can result in back or other injury.

At the back of the oven remove the lower oven back service panel. Locate the bake element terminals near the bottom of the oven (Red Wires). Remove the two electrical connections from the element.



A perforated cover is mounted in place with three screws. Remove the screws and bend the cover upward

Under the cover you will locate and remove two bake element mounting screws.

Between the bake element terminals is a rectangular clip (location pointed out by arrow) that needs to be bent upward far enough to free the element from the housing.

Note: when pulling the element out, there will be some resistance because of the element coils. Lift the coils upward to free the element.

REMOVING MAIN OVEN CONVECTION COMPONENTS

⚠ WARNING

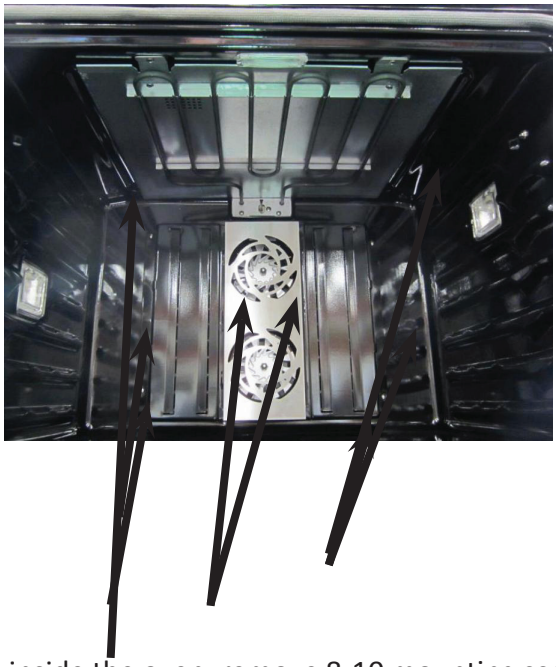
Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

REMOVING THE MAIN OVEN CONVECTION FAN BLADE

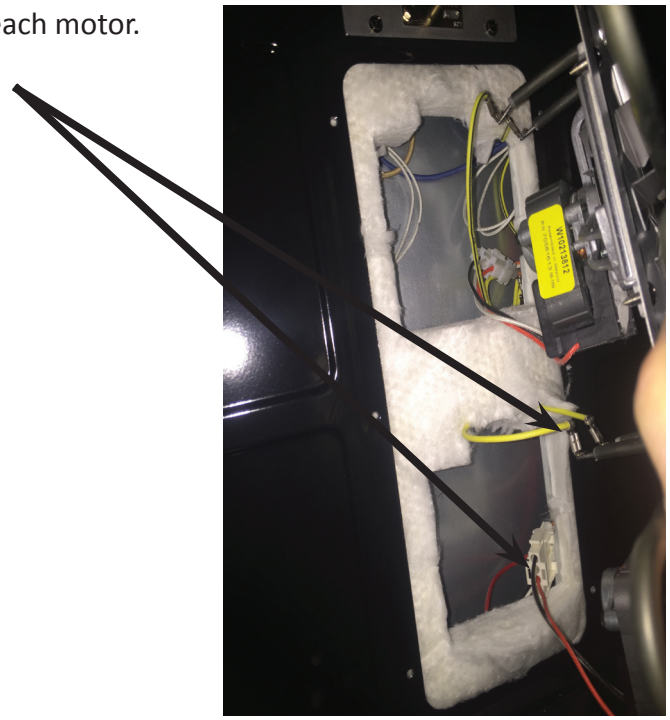


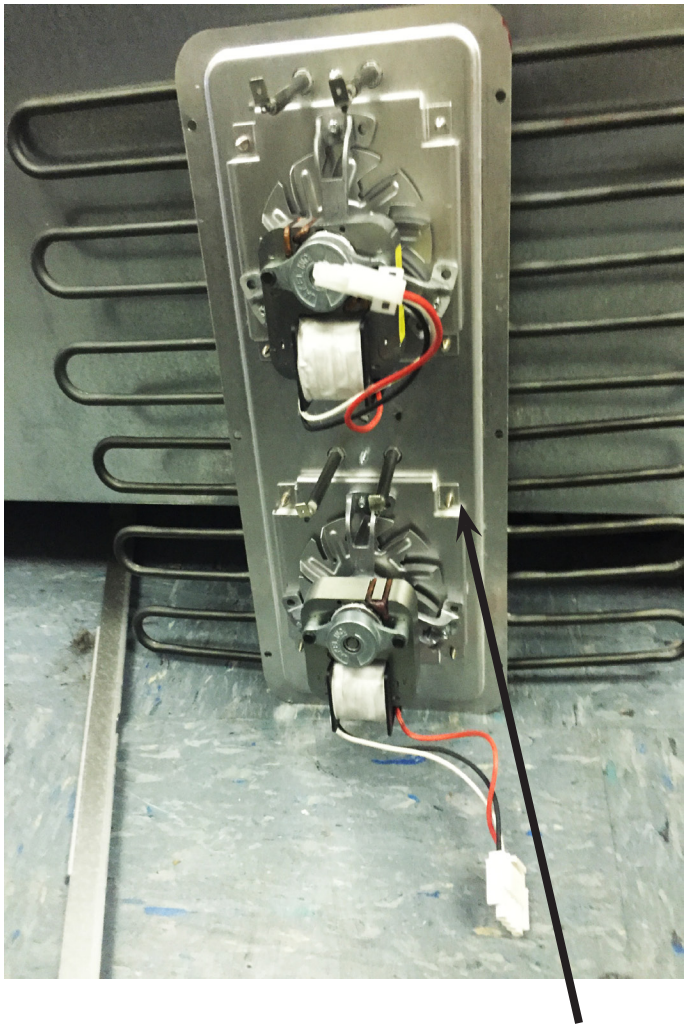
From inside the oven, remove 8-10 mounting screws around the Convection cover.

Remove the Convection cover and pull out of the oven.

After you remove the convection cover from the back of the oven, You can see that the heating element and fan blades are accessable. Remove 4 screws from around the silver panel and pull the heating element and silver panel out toward you. The assembly will not move to far until you disconnect the 6 electrical connections. One quick disconnect plug from each motor and 2 spade terminal connections for the heating element. Once these are removed the assembly can be removed grom the oven.

Quick Disconnect Plug and 2 Heating element connections - each motor.





REMOVING THE CONVECTION MOTOR

Once the heating element and motor are disconnected, pull the assembly out of the oven cavity. At the back of the assembly you will see your convection motors. The motors are mounted from the front of the silver panel and the fan blade.

REMOVING THE OVEN DOOR

It may be easier servicing the next few components with the oven door and oven racks removed.

Open the oven door.
At the two door hinge locations will be a hinge lock retainer. Lift the hinge retainers all the way to the stop position.
Grasp the door at each side and close the door until it stops.

Once it stops, push the upper portion of the door toward the oven cavity and the hinges will release

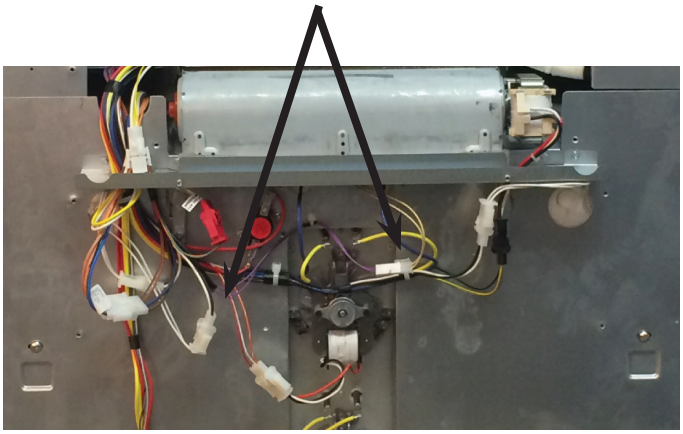
Set the door aside.

REMOVING THE OVEN LIGHT ASSEMBLY (ONE ON EACH SIDE OF OVEN)

⚠ WARNING

Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

Remove the electrical quick disconnect plug (3) at the back of the oven



From the inside of the oven cavity unsnap the light lens and light bulb (3 interior lights) and snap the light assemble out. Pull (fish) the wire harness from the back.

REMOVING THE BROIL ELEMENT.

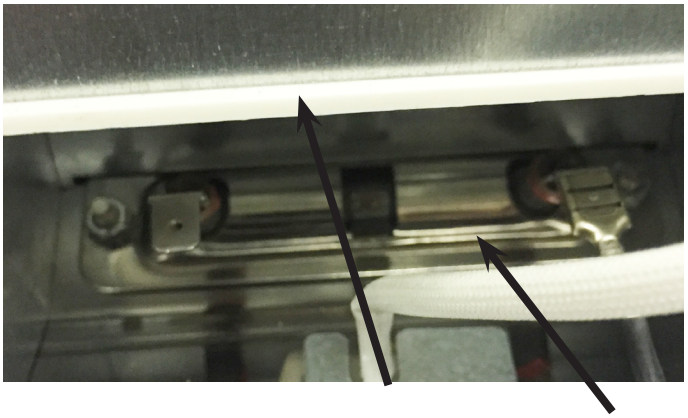
⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.



At the front of the broil element is a broil guard mounted with two screws. Remove the guard (the front of the element will drop down a few inches).

From the back of the oven, remove two broil element mounting screws.

Pull the element into the oven to get the wiring harness connections to enter the oven from the back.

Remove the electrical connections but make sure the harness does not exit the oven cavity.

REMOVING THE OVEN SENSOR

The Broil Element will need to be removed to access the Sensor mounting bracket.

Remove the screw mounting the oven sensor and pull the sensor into the oven far enough that the sensor quick disconnect plug enters the oven cavity. Remove the electrical connection but make sure the connector does not exit the oven cavity.

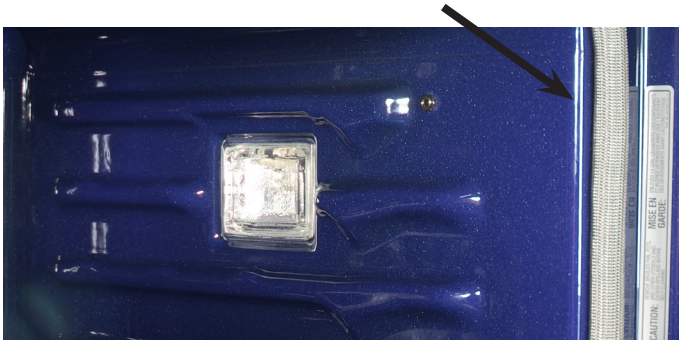
Oven Sensor mounting bracket (Broil element removed).

REMOVING THE PROBE JACK ASSEMBLY

⚠ WARNING

Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

From inside the oven (right side wall) remove a nut that mounts the jack in place.

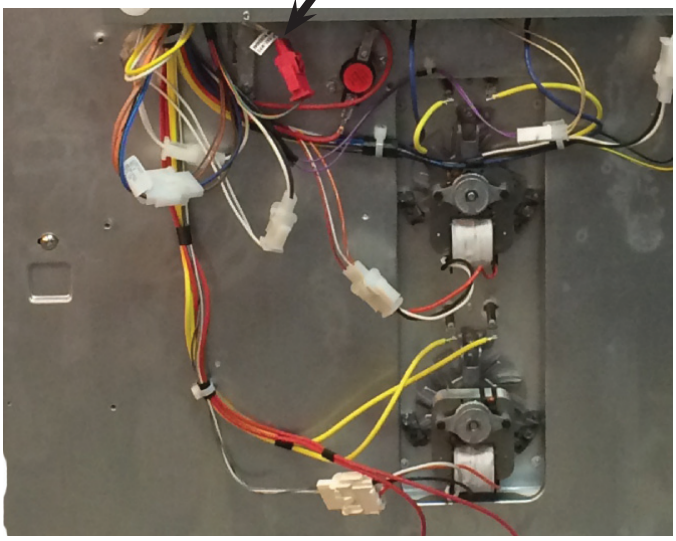


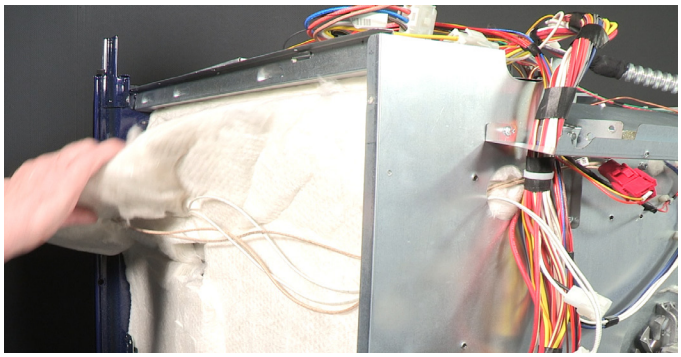
From behind the oven remove the back service panel and disconnect the probe electrical connection.

⚠ WARNING

Excessive Weight Hazard
Use two or more people to move and Install oven.
Failure to do so can result in back or other injury.

From the right side of the oven remove the side insulation cover (top front and rear service covers are also removed).





Back of Oven with the rear service panel and the right side Insulation Cover panel removed

Pull the insulation back to expose the jack assembly and pull (fish) the jack wiring harness out.

REMOVING THE DOOR LATCH AND OVEN LIGHT SWITCH ASSEMBLY

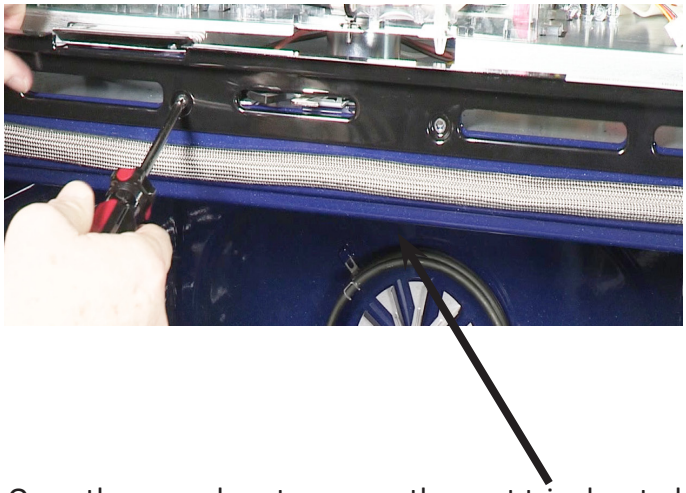
⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.



Open the oven door to expose the vent trim located above the oven door opening.

Remove four mounting screws and remove the vent.

Locate and remove two Latch Assembly mounting screws at the front of the assembly.

Picture shown with the Appliance Manager mounting support removed for clarity

Must clear mounting tab

Push the Latch Assembly back and up to release it from a mounting tab at the back.

Once removed from the tab, pull the assembly out the front.

REMOVING MICROWAVE OVEN CONVECTION PARTS

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

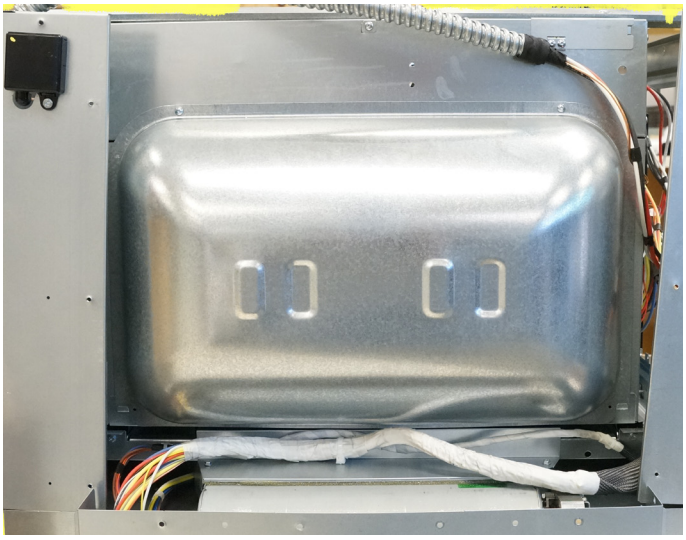
Failure to do so can result in death or electrical shock.

⚠ WARNING

Excessive Weight Hazard

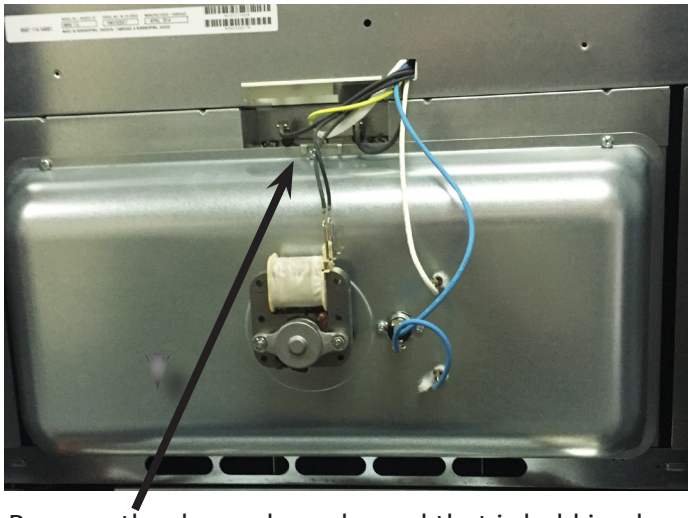
Use two or more people to move and Install oven.

Failure to do so can result in back or other injury.



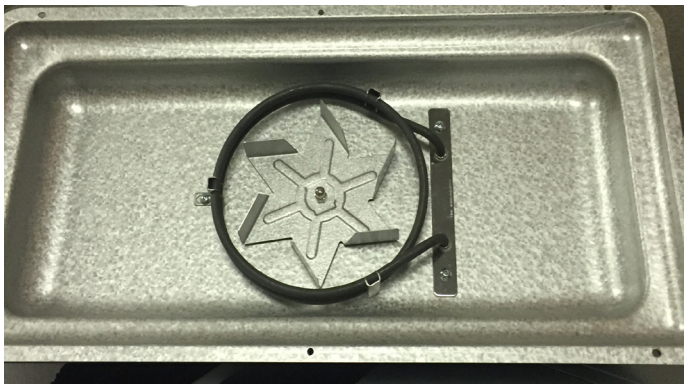
All components are accessed from the back of the oven. To gain access to the Microwave Convection parts, the Oven will need to be removed from the installation.

Remove the top access panel and the rear access panel to uncover the dome shaped panel that contains all the convection parts.



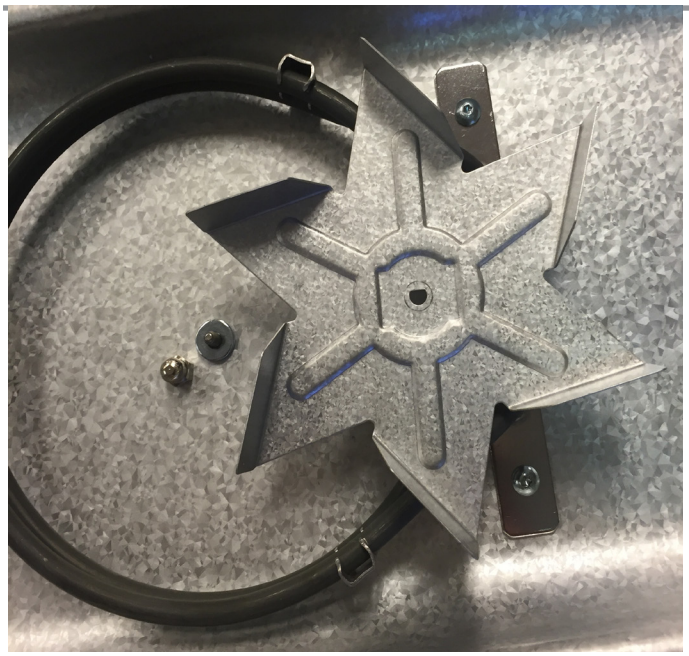
Remove the dome shaped panel that is held in place with two T10 Torx screws at the top of the panel and two tabs at the bottom.

The motor mounting panel has the fan motor, and the Convection Thermo parts showing with all the wire connections for the convection parts available. You are able to access and remove the convection Thermo disc, but the second dome shaped panel will need to be remove to gain access to the remaining parts. Remove six T-20 mounting screws and a retainer clip (location shown by the arrow) to remove the motor mounting panel



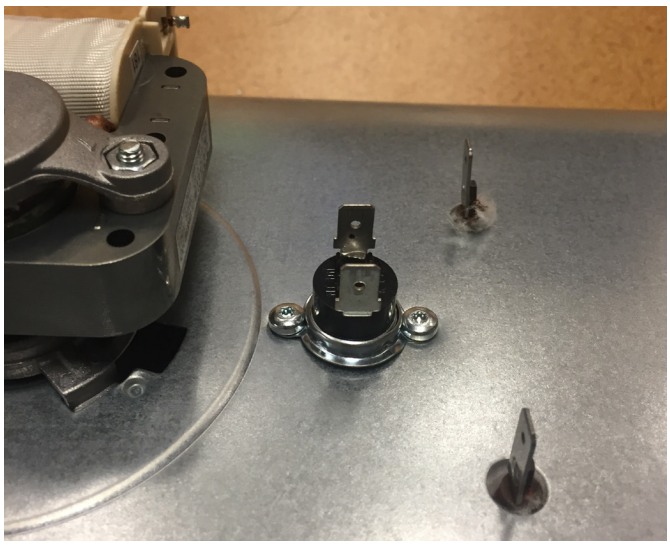
With the mounting panel removed, turn the panel over to view the Convection Fan and Convection burner element.

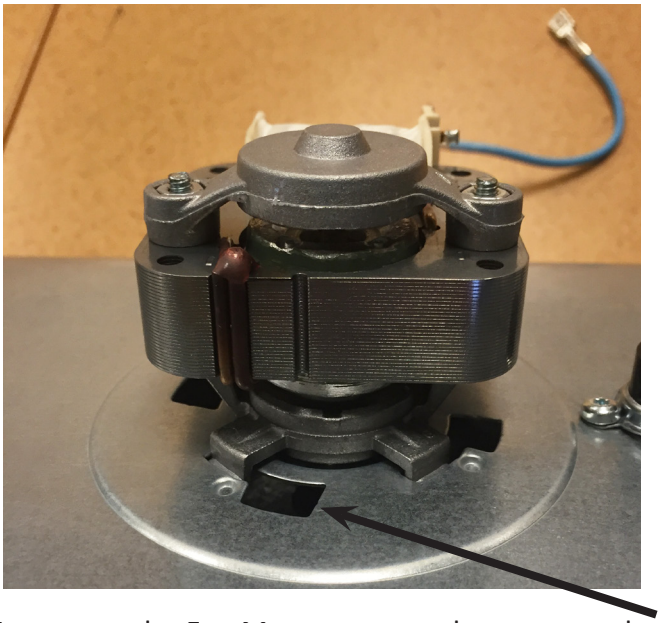
The Fan is held in place by a 5/16 cap nut. Note: This nut has reverse threads. Under the fan is a spacer that needs to be in place when re-assembling the assembly. The convection element is held in place by three mounting screws



Convection Element, Fan, Cap Nut and spacer

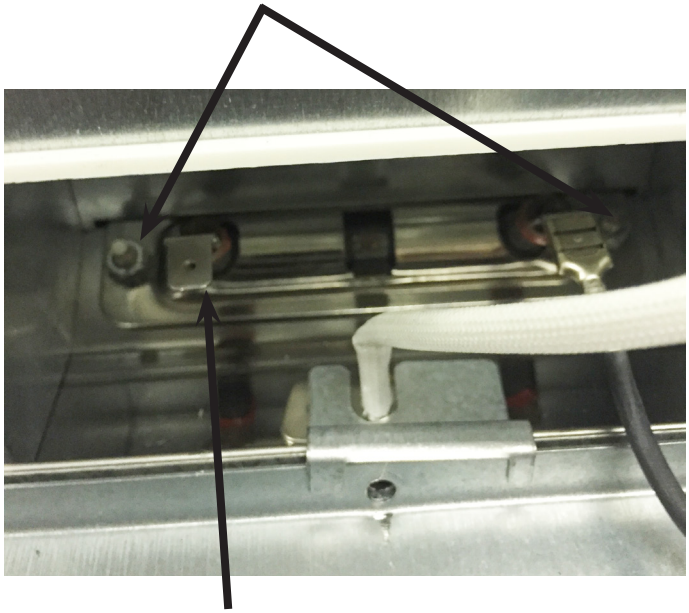
The electrical component terminals for the Fan Motor, Convection Thermo and element are shown





To remove the Fan Motor, you need to remove the Fan Blade (the fan blade has a “D” shaft cutout on the fan blade for easy re-assembly).

The motor is held in place by the fan Blade cap nut and three retainer clips that fit into the motor tab cutout in the mounting panel. Drop the fan clips into the mounting holes and turn until all three motor clamps are in place.



The broil element located inside the oven cavity is held in place by two retainer nuts (shown by arrows). The Broil electrical terminals can be seen right next to the mounting screws.

REMOVING THE HUMIDITY SENSOR

⚠ WARNING

Electrical Shock Hazard

Disconnect power before servicing.

Replace all parts and panels before operating.

Failure to do so can result in death or electrical shock.

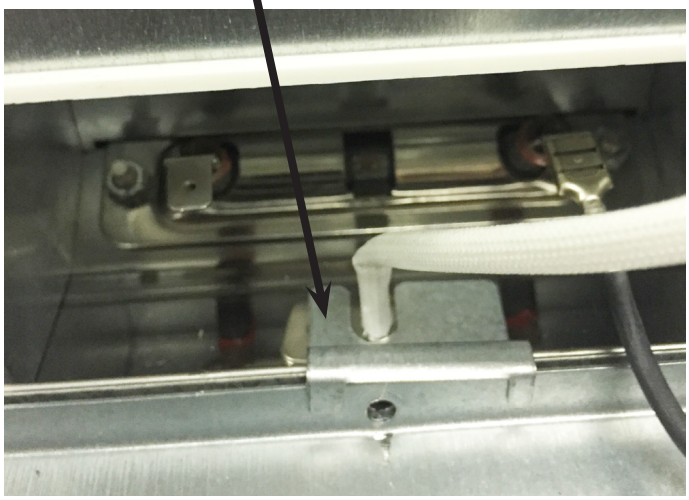
⚠ WARNING

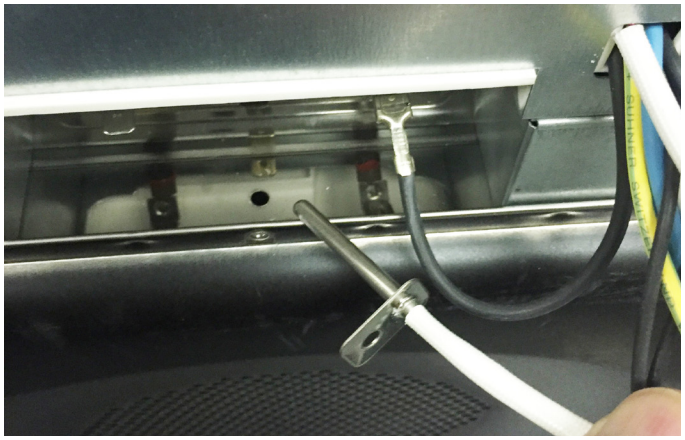
Excessive Weight Hazard

Use two or more people to move and install oven.

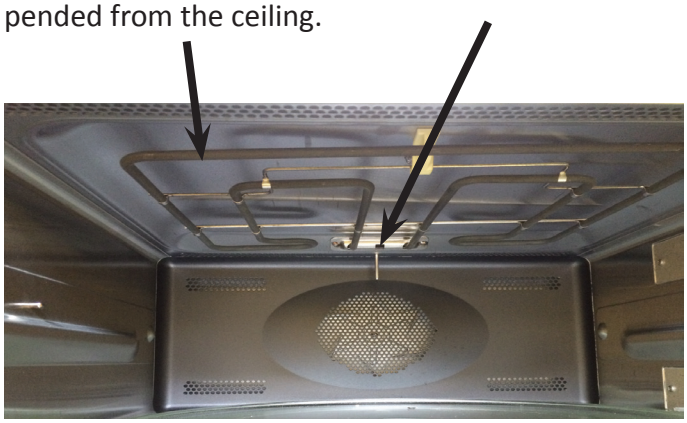
Failure to do so can result in back or other injury.

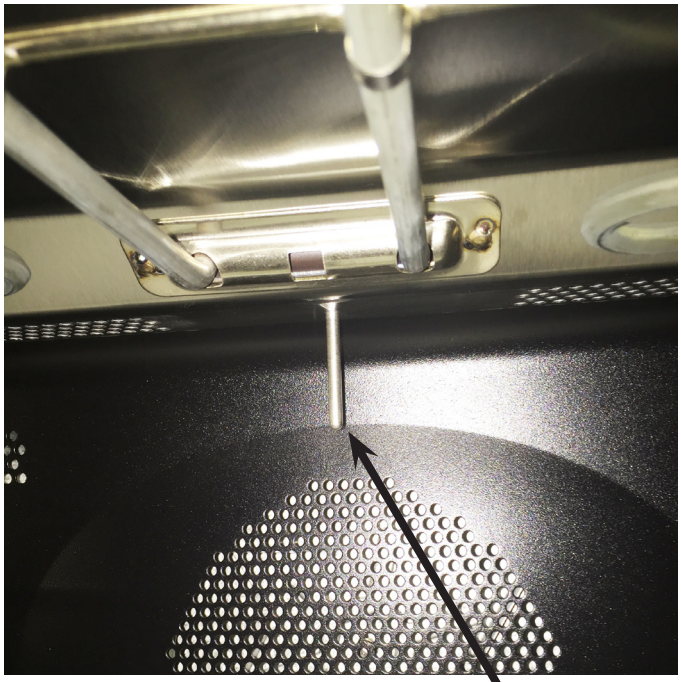
Shown below is the Humidity sensor mounting. Too remove the sensor, remove the retainer clip and pull the sensor out.





Below, from inside the oven cavity. The Broil element is shown at the top of the cavity and the Humidity sensor is shown at the back of the oven suspended from the ceiling.





Close up of Humidity sensor (middle of picture). And Broil element mounting

Section 5: Wiring Diagrams

- This section provides a look at the 2 Wiring Diagrams being used for the Jenn-Aire Microwave Combination Ovens

27” and 30” Electric Convection Self-Clean Combination Ovens (W10767736)

30” Electric Convection Self-Clean Microwave Combination Oven with WI-FI capabilities (W10767738)

FOR SERVICE TECHNICIAN'S USE ONLY

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. 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

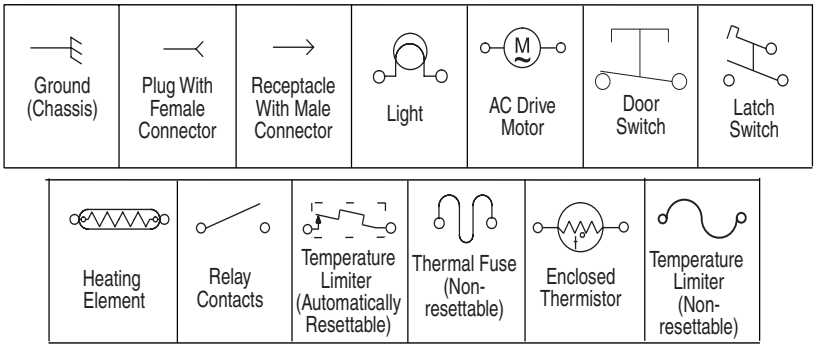
c. Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, waveguide or transmission line, and cavity for proper alignment, integrity and connections.

d. Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in service manual before the oven is released to the owner.

e. A microwave leakage check to verify compliance with the CSA should be performed on each oven prior to release to the owner.

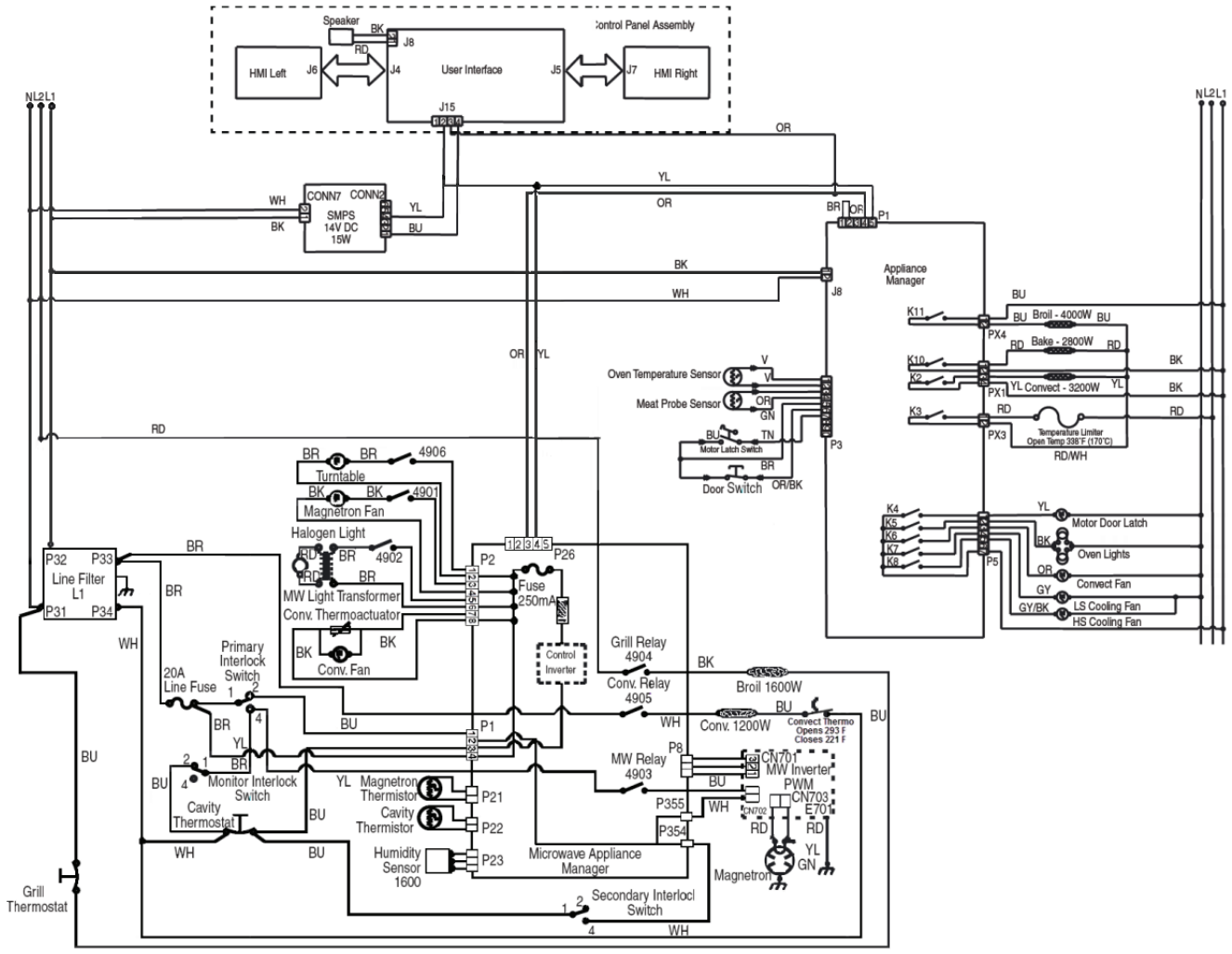
f. Do not attempt to operate the oven if the door glass is broken.

LEGEND



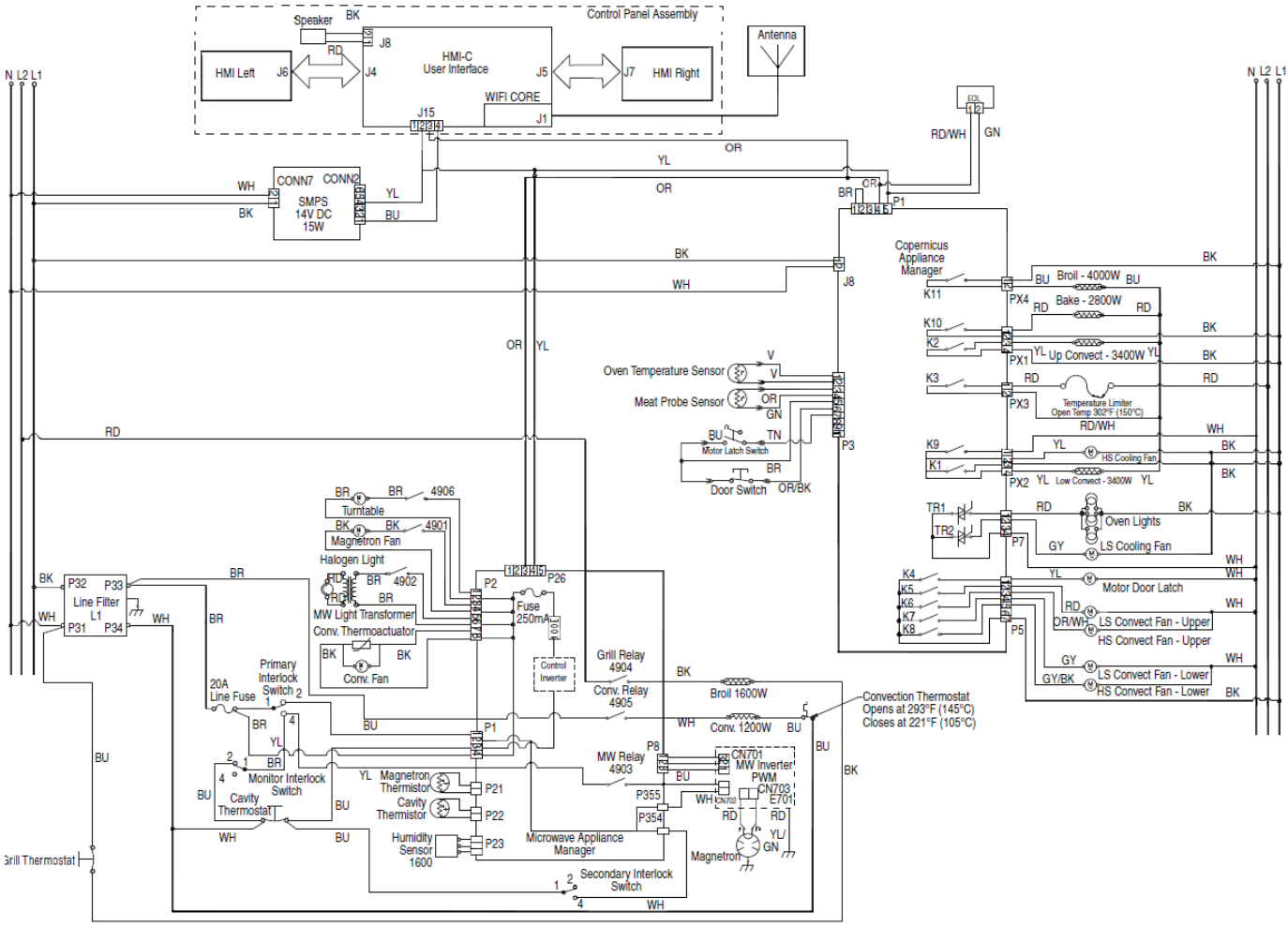
■ Models:

■ JMW2430DB-0 JMW2430DS-0 JMW2430DP-0 JMW2427DB-0 JMW2427DS



■ Models:

■ JMW3430DB-0 JMW3430DS-0 JMW3430DP-0



PRODUCT SPECIFICATIONS & WARRANTY INFORMATION SOURCES

IN THE UNITED STATES:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL:

FOR WHIRLPOOL PRODUCTS:	**1-800-253-1301**
FOR KITCHENAID PRODUCTS:	**1-800-422-1230**
FOR ROPER PRODUCTS:	**1-800-447-6737**

FOR TECHNICAL ASSISTANCE WHILE AT THE CUSTOMER'S HOME CALL:

THE TECHNICAL ASSISTANCE LINE: 1-800-832-7174

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FOR LITERATURE ORDERS:

PHONE: 1-800-851-4605

FOR TECHNICAL INFORMATION AND SERVICE POINTERS:

www.servicematters.com

IN CANADA:

FOR PRODUCT SPECIFICATIONS AND WARRANTY INFORMATION CALL

1-800-461-5681

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