

# Technical Service Guide

August 2024

## 2020 30-in. Profile Smart Dual Fuel Slide-In Range

**P2S930YP1FS**

**P2S930YP2FS**

**P2S930YP3FS**

**P2S930YP4FS**

**P2S930YP5FS**

**P2S930YP6FS**

**P2S930YP7FS**

**P2S930YP8FS**



# Safety Information



## 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.

# Warranty

For Warranty Information:

1. Go to <http://geappliances.com>
2. Search the model number.
3. Click on the "Owner Support" tab.
4. Click on "Use and Care Manual."
5. Locate the Warranty page.

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# Table of Contents

<b>Safety Information</b>	2
<b>Warranty</b>	2
<b>Table of Contents</b>	3
<b>Safety Requirements</b>	6
<b>Nomenclature</b>	7
<b>Common Icons and Terminology</b>	8
Icons	8
Terms / Measurements	8
Common Tools	8
<b>Specifications</b>	9
Electrical Specifications	9
Gas Specifications	9
Product Specifications	9
<b>Controls</b>	11
Settings	12
Surface Burners	14
Griddle	14
<b>Front View</b>	15
Oven Door	16
Door Liner Weld Assembly	17
Oven Gasket	17
Window Frame Assembly	17
Door Hinge	18
Oven Door Handle	18
Drawer Assembly	18
Manifold Panel	19
Glass Touch Board	19

<b>Top View</b>	<b>21</b>
External Components	21
Internal Components	21
Cooktop	22
Spark Electrode	22
Multi-Ring Spark Electrode	23
Dual Oval Spark Electrode	24
Spark Module	24
Burner Injet and Orifice Holder	25
Multi-Ring Burner	26
Dual Oval Burner	26
Left and Right Manifold Pipe	26
Burner Valve	27
Harness Switch	27
Rotary Switch	28
<b>Front View (Interior Components)</b>	<b>29</b>
Automatic Latch	30
Plunger Switch	31
Probe Receptacle	32
<b>Rear View (Exterior)</b>	<b>33</b>
Back Cover	34
Motor Cover	34
Control Cover	34
Side Panel	35
<b>Rear View (Internal Components)</b>	<b>36</b>
Broil Element	37

Oven Sensor.....	38
Convection Heat Element.....	39
Capacitor Motor.....	40
Convection Fan Motor.....	40
Bake Element.....	42
Oven Lamp Assembly.....	43
Terminal Block Assembly.....	45
Tangential Blower.....	45
Board Sensor.....	46
Machine Control Relay Board.....	47
<b>Service Mode</b> .....	48
<b>Oven Temperature Calibration</b> .....	49
Oven Sensor Ohmmeter Test.....	49
Cooling Blower Test.....	49
<b>Quality of Flames</b> .....	50
Quality of Flames.....	50
<b>Gas Leak Tests</b> .....	51
Bubble Leak Test.....	51
Gas Leak Detector Test.....	51
<b>Fault Codes</b> .....	52
<b>Wiring Diagram</b> .....	56
<b>Main Control Board</b> .....	57
<b>Schematic</b> .....	58
<b>Index</b> .....	59

# Safety Requirements

GE Appliance Factory Service Employees are **REQUIRED** to use safety glasses with side shields, safety gloves and safety shoes for all repairs.



**Plano-type Safety Glasses**



**Prescription  
Safety Glasses**

Must be ANSI Z87.1-2003  
compliant



**Cut-resistant Gloves**



**Cut-resistant Sleeves**



**Electrically Rated Gloves and  
Cut-resistant Gloves**



**Composite or Steel-toed  
Work Shoe**



Prior to disassembly  
of the appliance and  
to access components,  
GE Appliance Factory Service  
Technicians are **REQUIRED**  
to follow this Lockout/Tagout  
(LOTO)  
six-step process:

**Step 1:** Plan and prepare

**Step 2:** Shut down the appliance

**Step 3:** Isolate the appliance

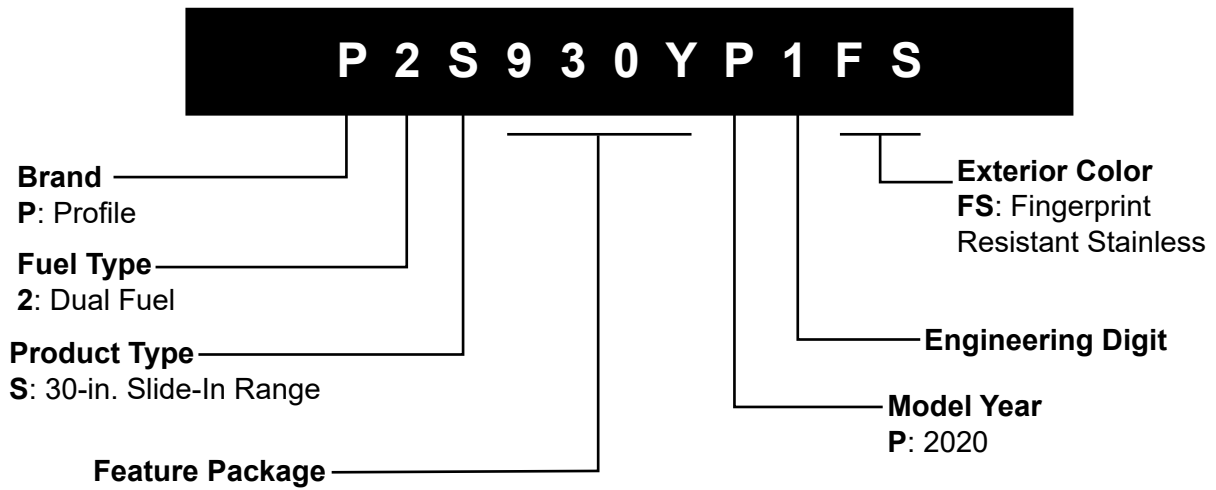
**Step 4:** Apply LOTO device and lock

**Step 5:** Control (discharge) stored energy

**Step 6:** Verify the appliance is locked out

# Nomenclature

## Model Number



Model number nomenclature can be used to determine features and specifications of the appliance.

## Serial Number

First two characters of serial number identify month and year of manufacture. Letter designating year repeats every 12 years.

**Example:** LR123456S = June 2020

A: JAN 2024: Z  
D: FEB 2023: V  
F: MAR 2022: T  
G: APR 2021: S  
H: MAY 2020: R  
L: JUN 2019: M  
M: JUL 2018: L  
R: AUG 2017: H  
S: SEP 2016: G  
T: OCT 2015: F  
V: NOV 2014: D

The Model Serial ID Tag is located on the oven frame, with oven drawer is open.



The Mini Manual is located on the back of the range.



# Common Icons and Terminology

## Icons

### Diagnosis:



### Removal:



### WARNING:



**HIGHLY  
FLAMMABLE**

## Terms / Measurements

**VAC:** Volts Alternating Current (ex: 120-VAC)

**VDC:** Volts Direct Current (ex: 12.5-VDC)

**Ohm ( $\Omega$ ):** Unit of electrical resistance (ex: 16- $\Omega$ )

**k $\Omega$ :** Kilo-ohm (ex: 0.41-k $\Omega$ )

**mm:** Millimeters (180-mm.)

**in.:** Inches (12-in.)

**°F:** Degrees Fahrenheit (ex: 170°F)

**°C:** Degrees Celsius (ex: 80°C)

**CW:** Clockwise

**CCW:** Counter-clockwise

**N.O.:** Normally Open (N.O.)

**N.C.:** Normally Closed (N.C.)

## Common Tools

**Multimeter:** Used to test voltage, current, and resistance of electrical components or circuits; also called an **ohmmeter**.

**Phillips-head:** Type of screw head, driver, or bit with four points in a cross-shaped pattern.

**Flat-head:** Type of screw head, driver, or bit with one straight, flat side; also known as **flat-blade** or **slotted**.

**Hex-head:** Type of screw head, driver, bolt, or bit with a six-point hexagon pattern.

**Torx:** Type of screw head, driver, or bit with six points instead of flat sides; also called a **star bit**.

**Hex-key:** Used to remove or tighten specific types of bolts; also called an **Allen-Wrench** (brand name).

**Tongue-and-Groove pliers:** Type of plumbing pliers with an adjustable pivot; also called **water pump pliers**, **multi-grips**, or **Channellocks** (brand name).



# Specifications

## ⚠ WARNING



## Electrical Shock Hazard

Death or serious injury can result from failure to follow these instructions:

- **Service on this appliance must be conducted by a qualified GE Appliance Service Technician only.**
- Disconnect power before servicing this appliance.
- Reconnect all grounding devices after servicing this appliance.
- Replace all parts and panels before operating this appliance.

## Electrical Specifications

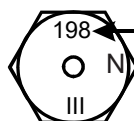
- 120-VAC, 60-Hz, 15-A

## Product Specifications

Color Appearance	Fingerprint Resistant Stainless
Control Location	Front Controls
Ignition Type	Electronic
Fuel Type	Natural Gas
Cooktop Type	Standard Grates
Cooktop Surface	Edge-to-Edge Grates
Total Capacity	5.70-cu. ft.
Dimensions	H: 36 1/2-in. W: 30-in. D: 29 1/2-in.
Net Weight	256-lb.

## Gas Specifications

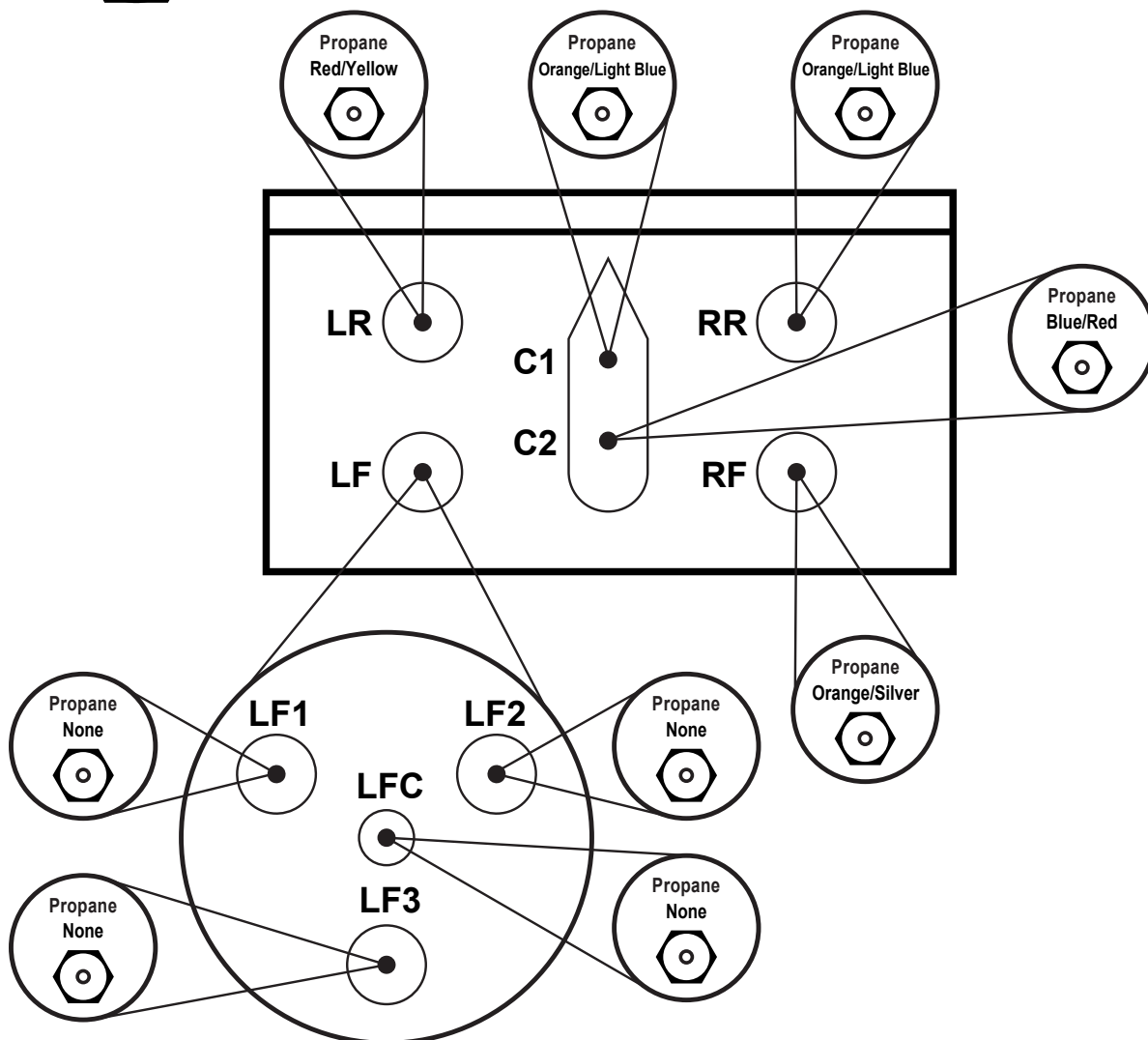
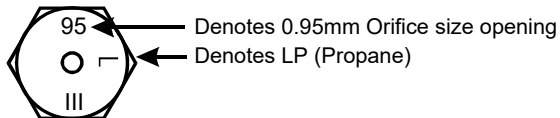
Burner Output Ratings: BTU/Hr.				
NG (Natural) Gas, 5-in. WCP				
Burner	BTU Rate	Orifice Size	Color	Marking
Left Front	21,000			
Left Front 1	N/A	0.045-mm	None	114N
Left Front 2	N/A	0.045-mm	None	114N
Left Front 3	N/A	0.045-mm	None	114N
Left Front Center	N/A	0.025-mm	None	63N
Left Rear	5,000	0.040-mm	White/Purple	101N
Right Front	15,000	0.070-mm	Brown	178N
Right Rear	9,500	0.0555-mm	Yellow	141N
Center	8,000			
Center 1	9,500	0.0555-mm	Yellow	141N
Center 2	6,800	0.047-mm	None	119N



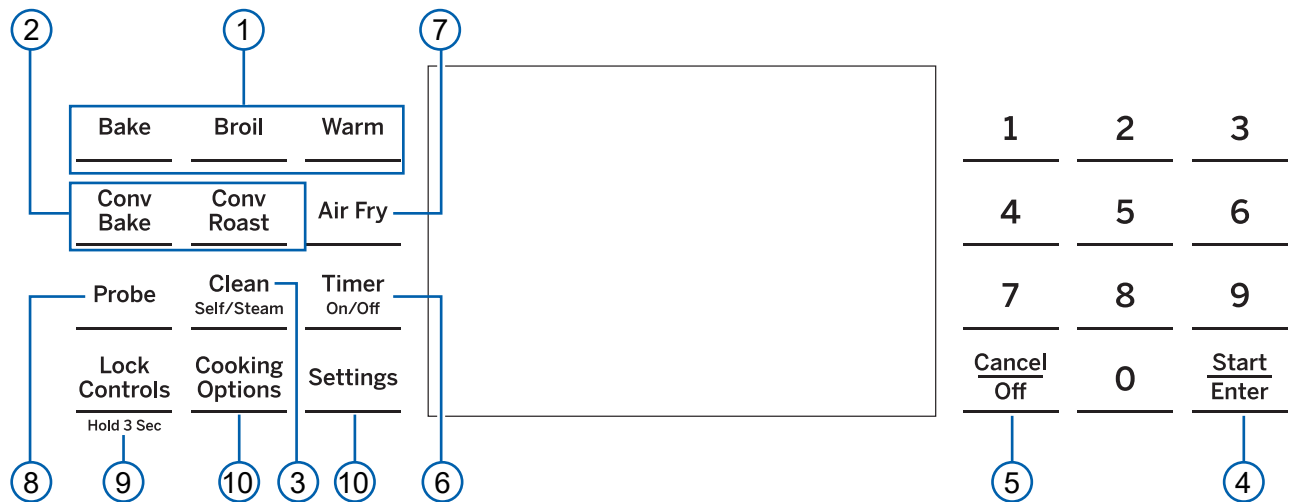
Denotes 1.98mm Orifice size opening

Denotes Natural Gas

Burner Output Ratings: BTU/Hr.				
LP (Propane) Gas, 10-in. WCP				
Burner	BTU Rate	Orifice Size	Color	Marking
Left Front	18,000			
Left Front 1	N/A	0.027-mm	None	69L
Left Front 2	N/A	0.027-mm	None	69L
Left Front 3	N/A	0.027-mm	None	69L
Left Front Center	N/A	0.016-mm	None	69L
Left Rear	5,000	0.026-mm	Red/Yellow	66L
Right Front	15,000	0.045-mm	Orange/Silver	114L
Right Rear	9,500	0.0365-mm	Orange/Light Blue	92L
Center	8,000			
Center 1	9,500	0.0365-mm	Orange Light Blue	92L
Center 2	6,800	0.030-mm	Blue/Red	76L



# Controls



1. **Traditional Cooking Modes:** This oven has the following traditional cooking modes: **Bake**, **Broil**, and **Warm**.
2. **Convection Cooking Modes:** Convection cooking mode uses increased air circulation to improve performance.
3. **Clean:** The oven has two cleaning modes: **Self Clean** and **Steam Clean**.
4. **Start/Enter:** Must be pressed to start any cooking, cleaning, or timed function.  
  
**NOTE:** If the display and keys dim, opening the oven door or pressing any key will wake and illuminate the control.
5. **Cancel/Off:** Cancels all oven operations except the clock and timer.
6. **Timer:** Works as a countdown timer. Press the **Timer** pad and use the number pads to program the time in hours and minutes. Press the **Start/Enter** pad. The oven will continue to operate when the timer countdown is complete. To turn the timer off, press the **Timer** pad.
7. **Air Fry:** Air Fry cooking mode is designed to produce foods with a crispier exterior than traditional oven cooking.
8. **Oven Probe:** Monitors internal food temperature and turns the oven off when the food reaches the programmed temperature. Insert the probe, press the desired cooking mode, and program the probe temperature. The probe can only be used with **Bake**, **Convection Bake**, and **Convection Roast**.
9. **Lock Controls:** Locks out the control so that pressing the pads does not activate the controls. Press and hold the **Lock Controls** pad for 3-seconds to lock or unlock the control. **Cancel/Off** is always active, even when the control is locked.
10. **Cooking Options and Settings:** The **Cooking Options** and **Settings** pads open up more detailed menus in the display that allow access to additional functions and cooking modes. For each mode, select the function in the display using the associated number pad. Exit at any time by pressing the **Cooking Options** or **Settings** pad again.

## Settings

The **Cooking Options** and **Settings** pads open up more detailed menus in the display that allow access to additional functions. Select the function in the display using the associated number pad. To exit at any time, press the **Cooking Options** or **Settings** pad again.

### Wi-Fi Connect and Remote Enable

This oven is designed to provide a two-way communication between the appliance and smart device. The Wi-Fi Connect features can be used to control essential oven operations such as temperature settings, timers, and cooking modes using a smartphone or tablet.

Select **Settings** and then **Wi-Fi**, then follow the instructions on the oven display and phone app. It is necessary to turn on Wi-Fi before using the Remote Enable feature.

### Connecting Wi-Fi Connect Enabled Oven

The GE Appliances oven uses the existing home Wi-Fi network to communicate between the appliance and the smart device.

1. Each GE Appliances oven has a connected appliance information label that includes an Appliance UPD ID. This is an important detail that will be needed to connect to the appliance. The label is typically located inside the door of the oven or drawer. See sample label below.
2. Have a smart phone or tablet ready with the ability to access the internet and download apps.
3. The password for the home Wi-Fi router will be needed. Have this password ready while setting up Wi-Fi connect.

#### Connected Appliance Information

Contains FCCID: ZKJ-WCATA009	UPD ID: XX-XX-XX-XX-XX-XX
Contains IC: 10229A-WCATA009	
MAC ID: D8-28-C9-XXXXXXX	PT. NO. XXXXXXXXXXXXX






### Connecting GE Appliances oven


1. Using smart phone or tablet, visit [GEAppliances.com/connect](http://GEAppliances.com/connect) to learn more about connected appliance features and to download the appropriate app.

2. Follow the app onscreen instructions to connect the GE Appliances oven.
3. Once the process is complete, the connection light located on the GE Appliances oven display will stay on solid and the app will confirm it has connected.
4. If the connection light does not turn on or is blinking, follow the instructions on the app to reconnect. If issues continue, please call the Connected Call Center 1.866.626.2000 and ask for assistance regarding oven wireless connectivity.
5. To connect additional smart devices, repeat steps 1 and 2.

**NOTE:** Any changes or modifications to the remote enable device installed on this oven that are not expressly approved by the manufacturer could void the user's authority to operate the equipment.

### Remote Starting Oven

To be able to start the oven remotely once connected to Wi-Fi, press the **Remote Enable** pad and the  icon will turn on in the display. The oven can now be remotely started with a connected device. Opening an oven door or turning off the oven will turn off the  icon. The  icon must be lit to start the oven remotely. The  icon is not required to change the oven temperature while it is running, set a timer or to turn the oven off from the phone app while the  icon shows it is Wi-Fi Connected.

After using the oven, remember to verify that the  icon is lit to start the oven remotely in the future.

**NOTE:** Foods that spoil easily, such as milk, eggs, fish, stuffings, poultry and pork; should not be allowed to sit for more than 1-hour before or after cooking. Room temperature promotes the growth of harmful bacteria. Be sure that the oven light is off because heat from the bulb will speed harmful bacteria growth.

## Clock

This setting sets the oven clock time. Press the **Settings** pad and select **Clock**. Select **Set Clock** and follow the instructions to set the clock. This feature also specifies how the time of day will be displayed. A standard 12-hour clock (12H), 24-hour military time display (24H), or no clock displayed (Off) can be selected. Press the **Settings** pad, select **Set Clock** and select either **12/24 hr.** or **On/Off**.

## Bluetooth®: Chef Connect

This is a pairing feature for use with other compatible **Chef Connect** enabled products like an over-the-range microwave oven or range hood. To pair those products to the range, press the **Settings** pad and select **Bluetooth®**. Select **Pair** and follow the corresponding instructions included with the mating **Chef Connect** enabled product. The range will cancel pairing mode after 2-minutes if no mating device is detected. Select **Remove** to confirm product is paired or to un-pair from range. The Precision Cooking Probe can also be paired using the Bluetooth® feature.

## Auto Conv (Auto Conversion)

When using Convection Bake and Convection Roast cooking, Auto Recipe Conversion will automatically convert the regular baking temperatures entered to convection bake cooking temperatures when turned on. Note that this option does not convert convection bake cooking times, it only converts temperatures. This feature may be turned On or Off. Auto Conversion is fifth option and shows up on first display of settings, and **Auto Conversion** then follow the prompts to turn this feature on or off.

## Auto Off

This feature shuts the oven down after 12-hours of continuous operation. It may be enabled or disabled. Select **Settings**, **More**, and **Auto Off** to turn this feature on or off.

## Sound

To adjust the volume and type of alert appliance uses. Select **Settings**, **More**, and **Sound**. Follow prompts for making volume adjustments or for changing between continuous and single alert tones. A continuous setting will continue to sound a tone until a button on the control is pressed. The oven tone volume can be adjusted. The control will sound the oven tone at the new volume level each time the sound level is changed.

## °F/°C (Fahrenheit or Celsius)

The oven control is set to use Fahrenheit temperatures (°F), this can be changed to use Celsius temperatures (°C). Select **Settings**, **More**, and **F/C** to alter between temperature scales displayed.

## Adjust the Oven Temperature

This feature allows the oven baking and convection baking temperature to be adjusted up to 35°F hotter or down to 35°F cooler. Use this feature if the oven temperature is too hot or too cold and wish to change it. This adjustment affects **Bake** and **Convection Bake** modes but does not change Proof or Cleaning modes. Select **Settings** and **Oven Adjust** to add **More Heat** or **Less Heat** and then press **Save**.

## Oven Info

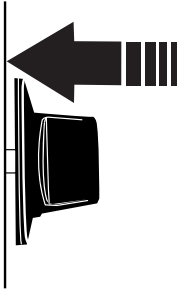
Select **Settings**, **More**, and **Oven Info** to turn this feature on or off. This setting displays Model Number and Software Version.

## Surface Burners

Surface burners should be operated only when covered by cookware. Burner flames not covered by cookware present a risk of fire.

### Lighting Surface Burner

1. Select a burner.
2. Push knob in and turn it to LITE position.



3. Once gas has ignited, turn knob to adjust flame size.

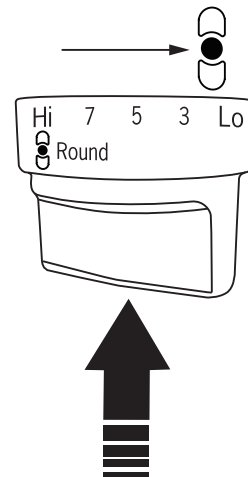
**NOTE:** There will be a clicking noise, which is the spark igniting the burner. When one burner is turned to **LITE**, all burners will spark. Sparking will continue as long as the knob remains at **LITE**. Once gas is ignited, turn the knob to adjust the flame size.

## Griddle

The griddle provides an extra-large cooking surface. The griddle can only be used over the center burners. The center burner has a fully functional round burner, with additional sections at the front and back of the burner to make an oval burner for the griddle.

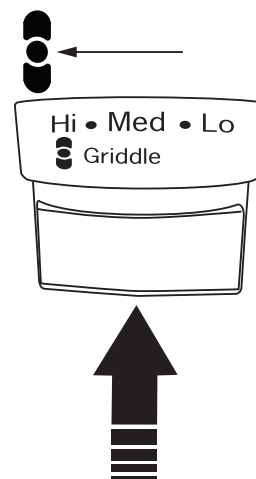
### Lighting Griddle Burner

1. Remove center grate (if present) and replace it with griddle.
2. Push in and turn knob clockwise to lite round burners.



**NOTE:** The round burner must be lit first.

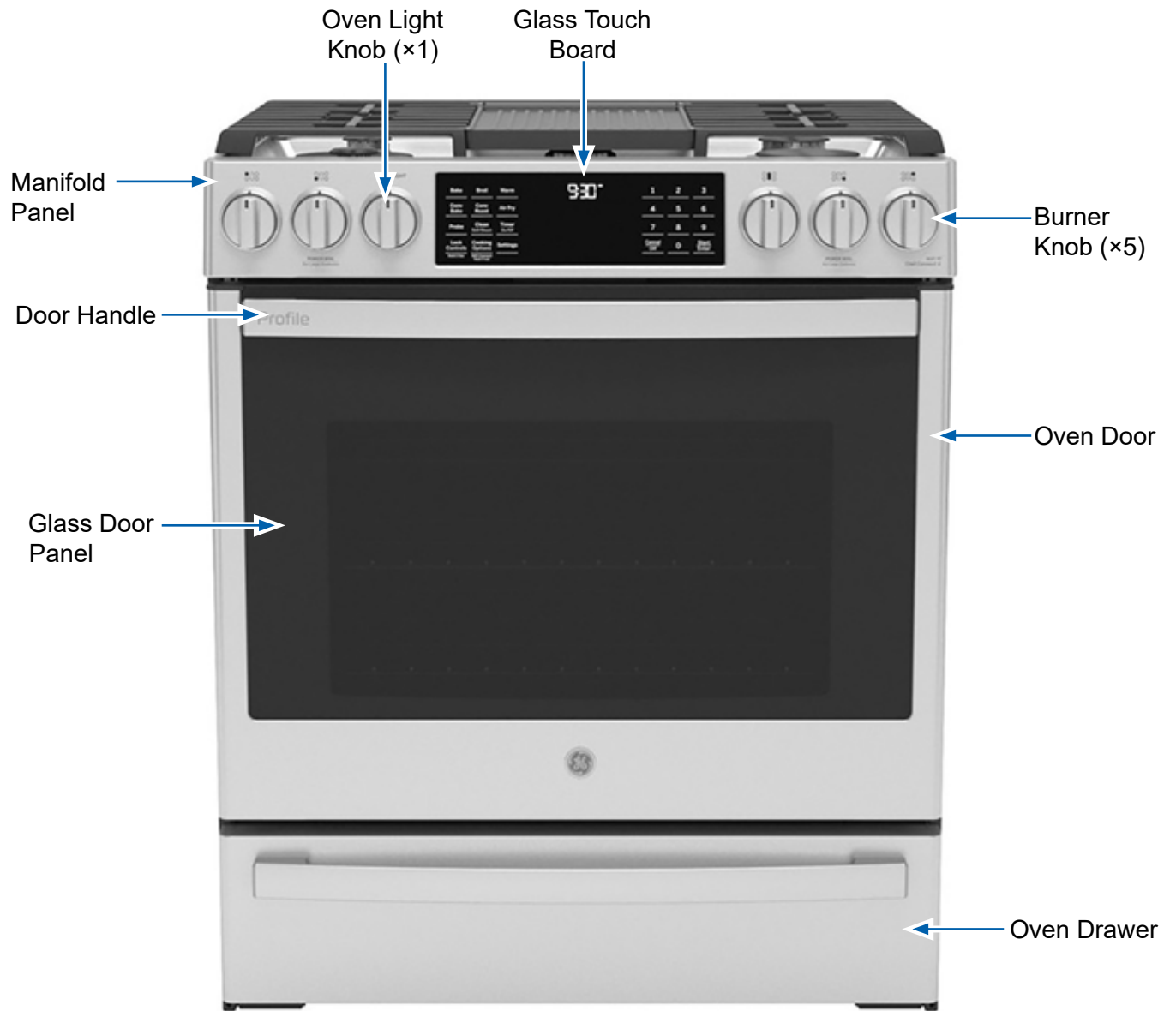
3. After round burners have lit, push knob in again and turn knob counter-clockwise (CCW) to **Griddle** to lite end sections.



**NOTE:** If knob is not pushed in again before turning to griddle, end sections will not lite.

4. Once burners have ignited allow griddle to preheat before using.

## Front View

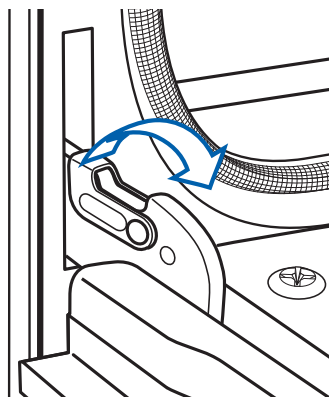


## Oven Door

**NOTE:** The oven door assembly is very heavy. Be careful when removing and lifting the door. Do not lift the door by the handle.

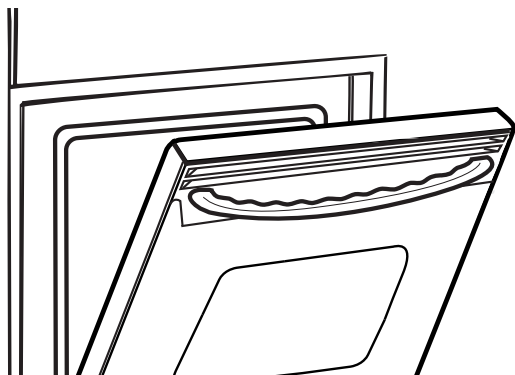
### Oven Door Removal

1. Fully open oven door.
2. Pull hinge locks up and away from range frame to unlock position.



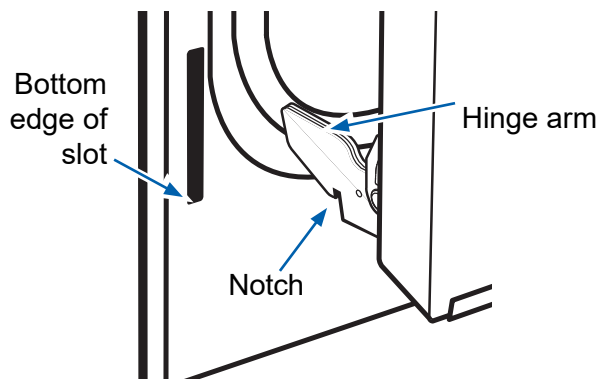
Pull hinge locks up to unlock

3. Close door until top of door is approximately 6-in. from range frame.



Removal Position

4. Lift door up and away from range until both hinge arms are clear of slots in range frame.

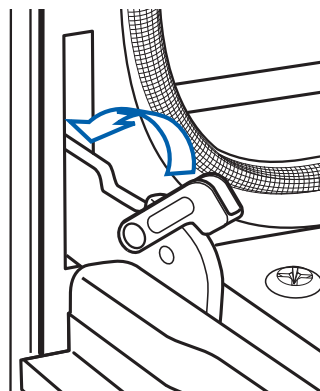


5. Reverse procedure to reinstall oven door.

**NOTE:** During reassembly, rest the door hinge notch on the bottom edge of the slot.

**NOTE:** The notch in the hinge arm must be fully seated into the bottom of the slot. If the door will not fully open, the notches in the bottoms of the hinge arms have not seated correctly in the bottom edge of the slot.

**NOTE:** Ensure the hinge locks are in the locked position before closing the door.



Push hinge locks down to lock



## Door Liner Weld Assembly

### Door Liner Weld Assembly Removal

1. Remove oven door (see [Oven Door Removal](#)).
2. With oven door on flat surface, remove four 1/4-in. hex-head screws and door guard from oven door.



3. Remove one 1/4-in. Phillips-head screw and two 1/2-in. Phillips-head screws and remove inner door panel from outer door panel.



## Oven Gasket

### Oven Gasket Removal

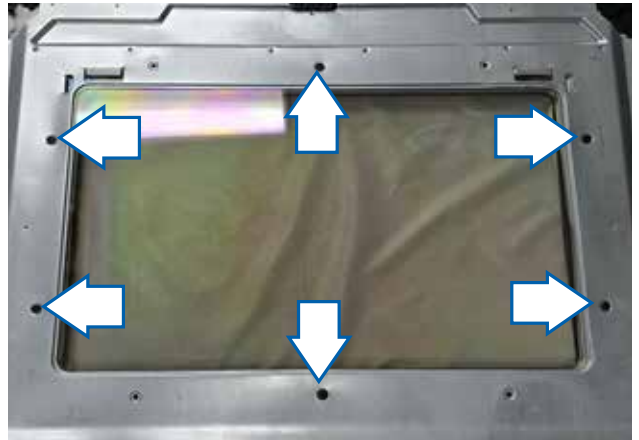
1. Remove oven door (see [Oven Door Removal](#)).
2. Pull clips in oven gasket from range frame.



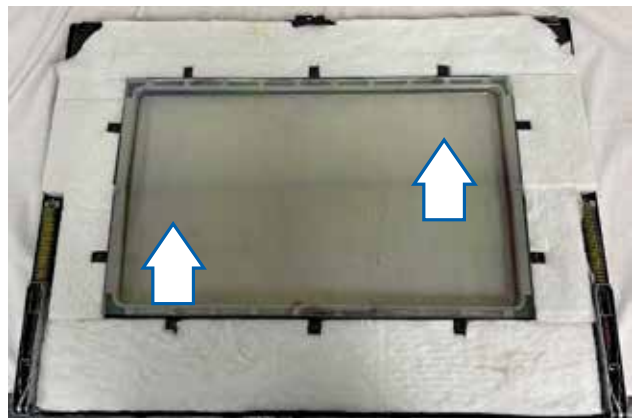
## Window Frame Assembly

### Window Frame Assembly Removal

1. Separate door liner weld and door guard (see [Door Liner Weld Assembly Removal](#)).
2. Remove six 1/4-in. hex-head screws and door guard from panel.



3. Grasp both sides of window frame assembly and lift it out of inner door weld.



## Door Hinge

### Door Hinge Removal

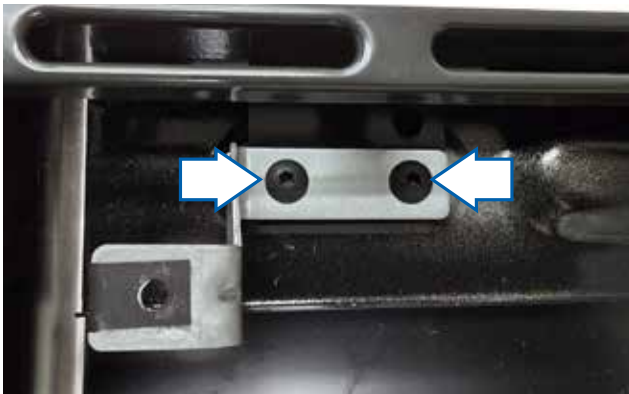
1. Separate door liner weld and door guard (see [Door Liner Weld Assembly Removal](#)).
2. Remove two T-20 Torx-head screws from inner door panel and remove door hinge from oven door (one hinge on each side of door).



## Oven Door Handle

### Oven Door Handle Removal

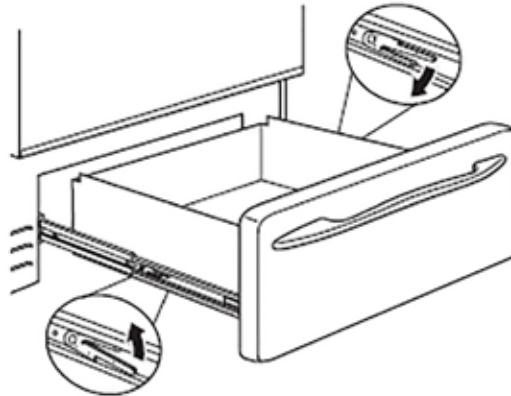
1. Separate door liner weld and door guard (see [Door Liner Weld Assembly Removal](#)).
2. Place glass door panel handle-side down on flat work surface.
3. Remove four T-20 Torx-head screws and remove door handle (two Torx-head screws on each side).



## Drawer Assembly

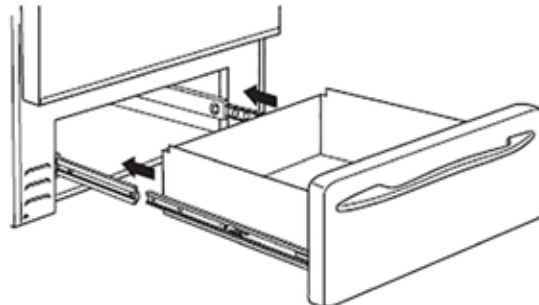
### Drawer Assembly Removal

1. Pull drawer straight out until it stops.
2. Press left rail release up and press right rail release down, while pulling drawer forward and free.



### To Replace the Drawer:

3. Place left drawer rail around inner left rail guide and slide it in slightly to hook it.
4. Place the right drawer rail around inner right rail guide and slide it in slightly to hook it.
5. Slide drawer in until closed.



## Manifold Panel

### Manifold Panel Removal

1. Remove cooktop (see [Cooktop Removal](#)).
2. Remove oven door (see [Oven Door Removal](#)).
3. Remove burner knobs from control panel.
4. Remove two screws from each burner valve location.



5. Remove two Phillips-head screws and gently pull manifold panel forward until it comes off of range (one Phillips-head screw on both sides of manifold panel).



## Glass Touch Board

The glass touchboard controls all oven functions and display oven temperature, clock, and fault codes when a failure occurs.

**NOTE:** When replacing the glass touch board, take a picture, or transfer wiring one at a time to the replacement board.

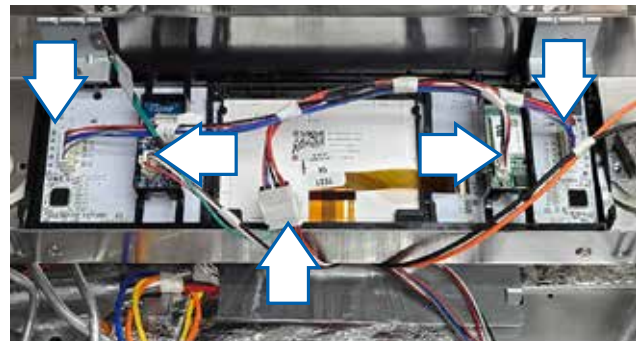
### Manifold Panel Diagnosis

#### Machine Control Relay Board, J801 14-Pin Connector

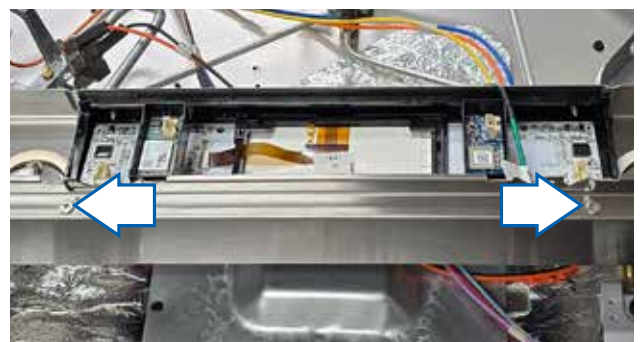
- J801 Pin 6 (orange) to J801 Pin 12 (black): 9-VDC
- J801 Pin 14 (red) to J801 Pin 13 (white): 5-VDC
- J801 Pin 14 (red) to J801 Pin 12 (black): 5-VDC.

### Glass Touch Board Removal

1. Remove manifold panel (see [Manifold Panel Removal](#)).
2. Disconnect all wiring from touch board.



3. Remove two Phillips-head screws from top of glass touch board retaining brackets.



4. Remove four Phillips-head screws and touch board retaining brackets.



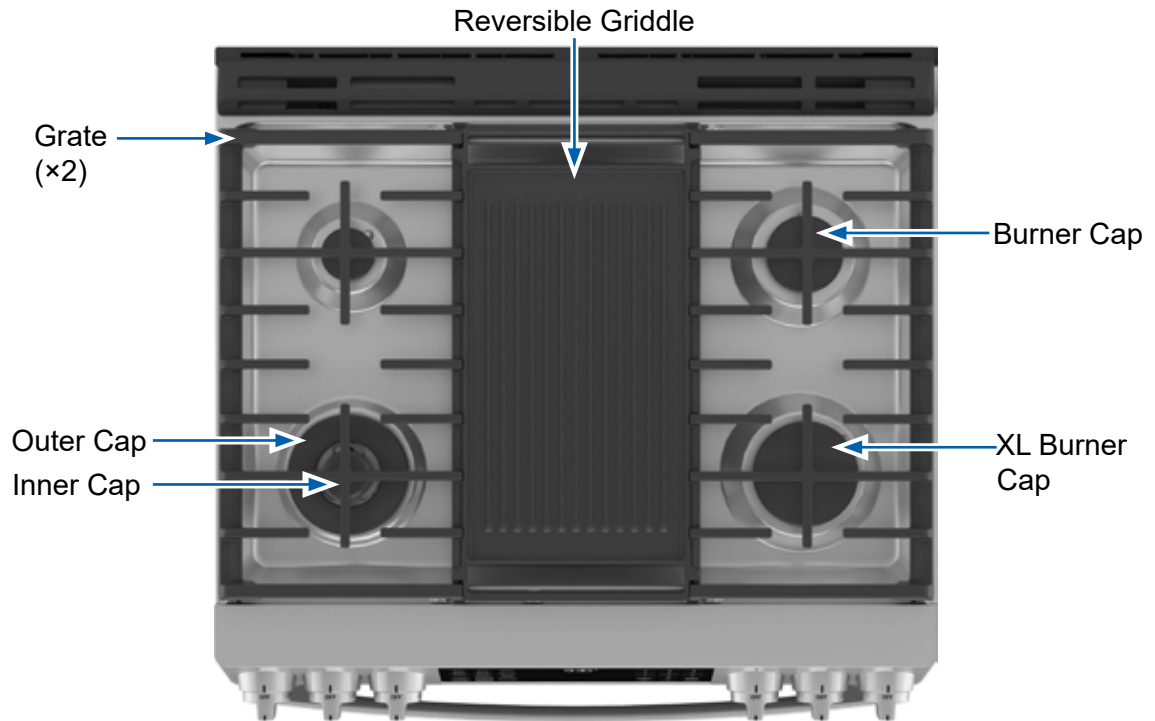
5. Grasp glass touch board on both sides and lift to remove glass touch board from manifold panel.



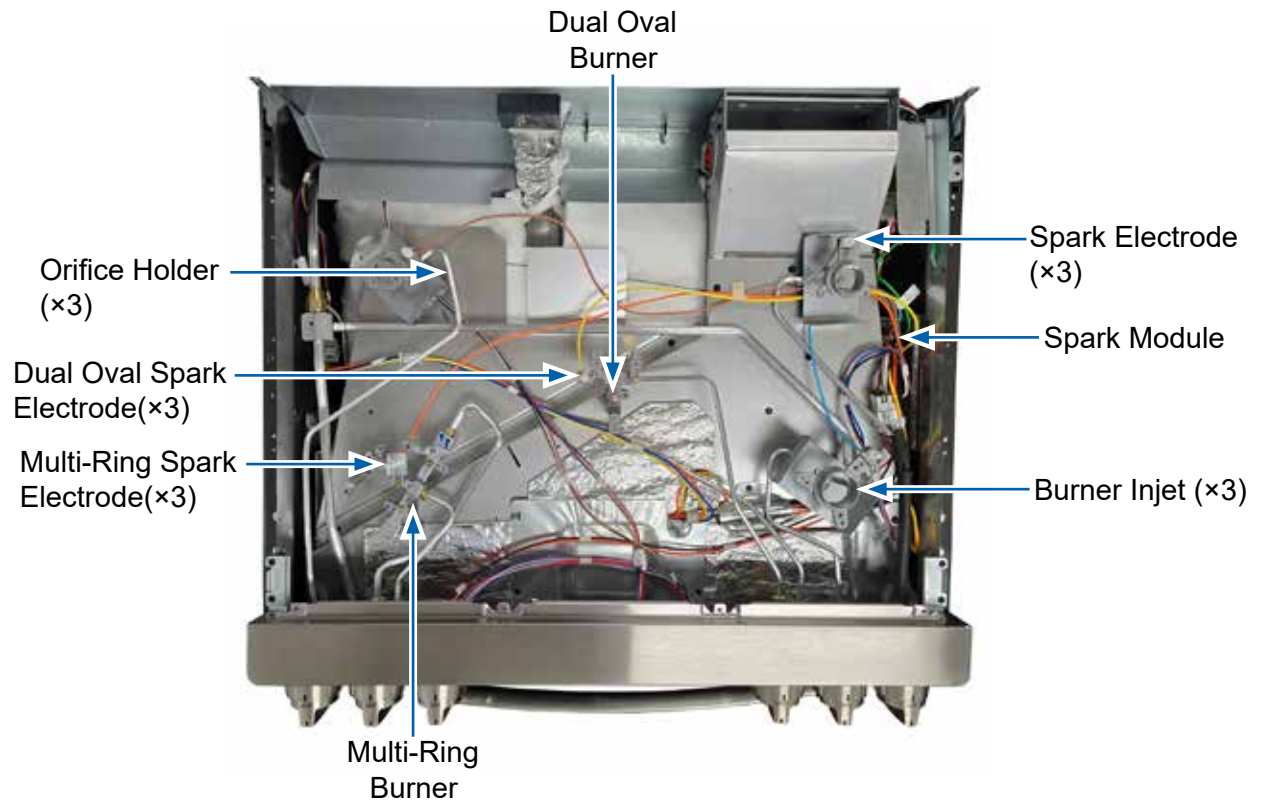


## Top View

### External Components



### Internal Components



## Cooktop

### Cooktop Removal

1. Remove cooktop grates, reversible griddle, and burner caps.
2. Remove three T-15 Torx-head screws from each of five burner assemblies.



3. Remove four T-15 Torx-head screws securing front of cooktop (two on each side).



4. Remove four 1/4-in. hex-head screws securing rear corners of cooktop (two on both rear corners).



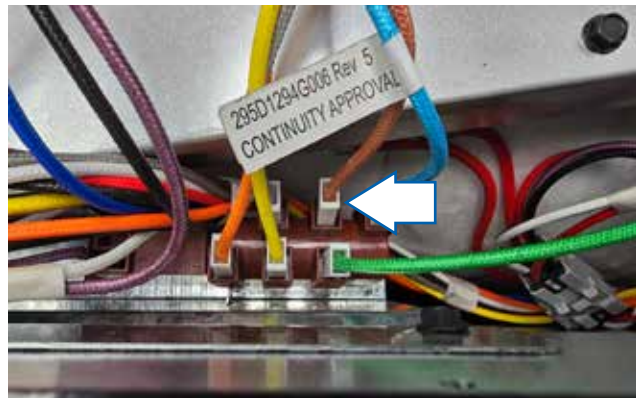
5. Lift up and remove cooktop from range.

## Spark Electrode

### Spark Electrode Diagnosis

**NOTE:** Turn off gas supply valve and relieve any residual gas from lines before attempting to diagnose spark module or any ignition components.

1. Remove cooktop (see [Cooktop Removal](#)).
2. Disconnect colored wire connector that corresponds with spark electrode from spark module.



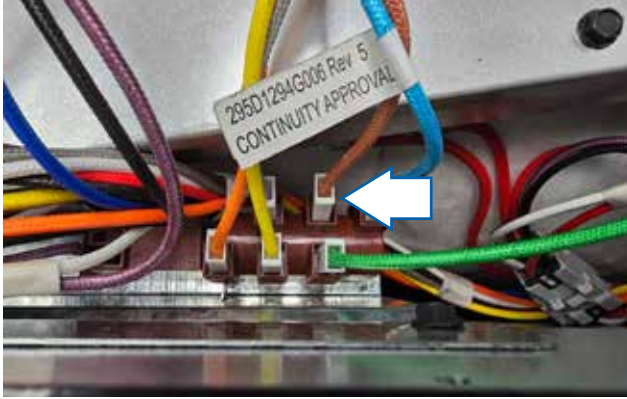
3. Set multimeter to read continuity.
4. Insert one meter lead into spark igniter connector and touch other meter lead to spark electrode. Meter should indicate continuity.



5. If continuity is not present, replace spark igniter (see [Spark Electrode Removal](#)).

## Spark Electrode Removal

1. Remove cooktop (see [Cooktop Removal](#)).
2. Disconnect colored wire connector that corresponds with spark electrode from spark module.



3. Pinch and pull to remove spark electrode retaining clip.



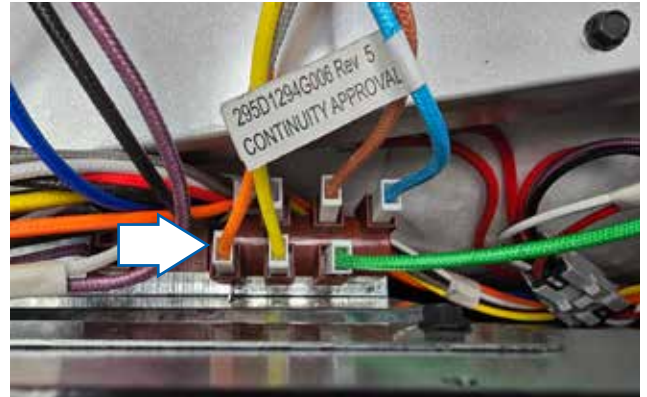
4. Remove spark electrode from orifice holder.



## Multi-Ring Spark Electrode

### Multi-Ring Spark Electrode Removal

1. Remove cooktop (see [Cooktop Removal](#)).
2. Disconnect colored wire connector that corresponds with spark electrode from spark module.



3. Remove one T-15 Torx-head screw and spark electrode from multi-ring burner.

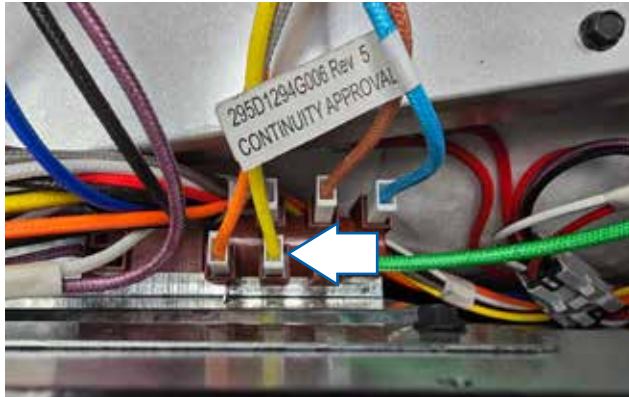




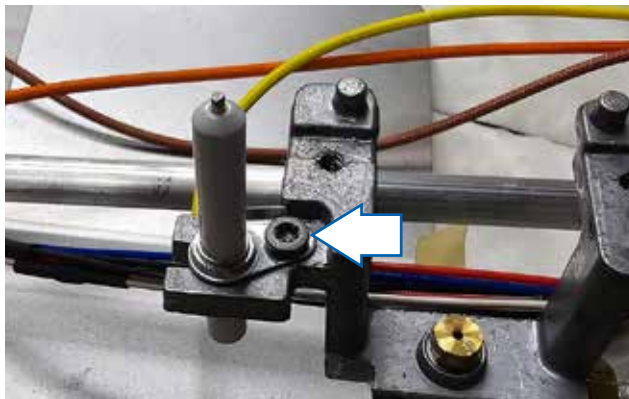
## Dual Oval Spark Electrode

### Dual Oval Spark Electrode Removal

1. Remove cooktop (see [Cooktop Removal](#)).
2. Disconnect colored wire connector that corresponds with spark electrode from spark module.



3. Remove one T-15 Torx-head screw and spark electrode from multi-ring burner.



## Spark Module

### Spark Module Diagnosis

**NOTE:** Turn off gas supply valve and relieve any residual gas from lines before attempting to diagnose spark module or any ignition components.

1. Plug range in to 120-VAC outlet.
2. Set multimeter to read VAC.
3. Turn any burner knob to **LITE** position.
4. Insert one meter lead into rear of harness switch connector corresponding with V (**purple**), and one meter lead into rear of terminal connector corresponding with G (**green**). Meter should read around 120-VAC.



5. If there is no reading, test harness switch before replacing spark module (see [Harness Switch Diagnosis](#)).
6. If harness switch is functioning correctly, replace spark module (see [Spark Module Removal](#)).



## Spark Module Removal

**NOTE:** If replacing spark module, move one wire at a time to ensure wiring is in proper location.

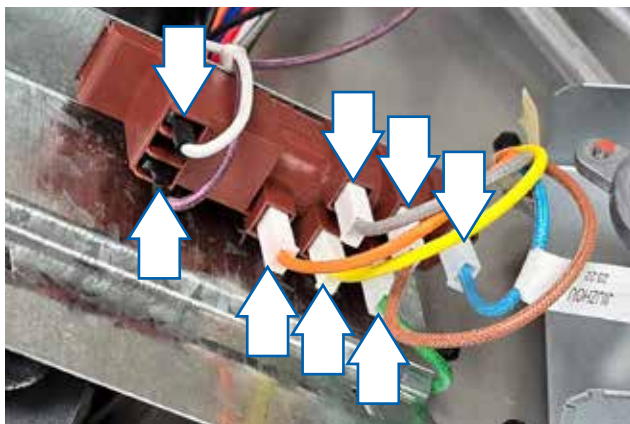
1. Remove cooktop (see [Cooktop Removal](#)).
2. Remove two 1/4-in. hex-head screws from spark module bracket.



3. Lift spark module and bracket out through top of range.



4. Disconnect all wiring from spark module.



## Burner Injet and Orifice Holder

### Burner Injet Removal

**NOTE:** Removal of small, medium, and extra large injets all follow the same procedure.

**NOTE:** Before servicing gas components, a gas leak test should be performed (see [Gas Leak Tests](#)).

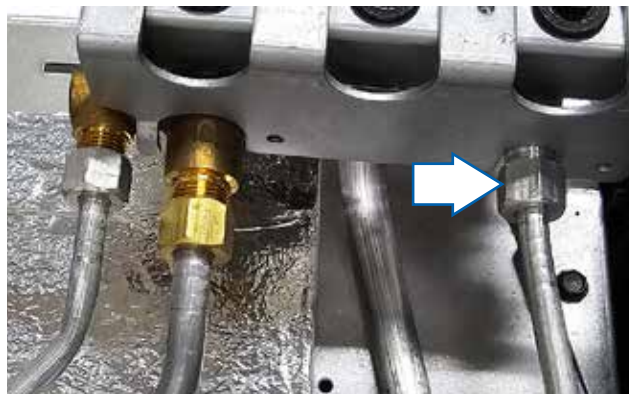
1. Remove spark electrode (see [Spark Electrode Removal](#)).
2. Remove 5/8-in. nut and burner injet from orifice holder.



### Orifice Holder Removal

**NOTE:** Before servicing gas components, a gas leak test should be performed (see [Gas Leak Tests](#)).

1. Remove burner injet (see [Burner Injet Removal](#)).
2. Loosen 1/2-in. nut, and disconnect orifice tube from corresponding manifold pipe.

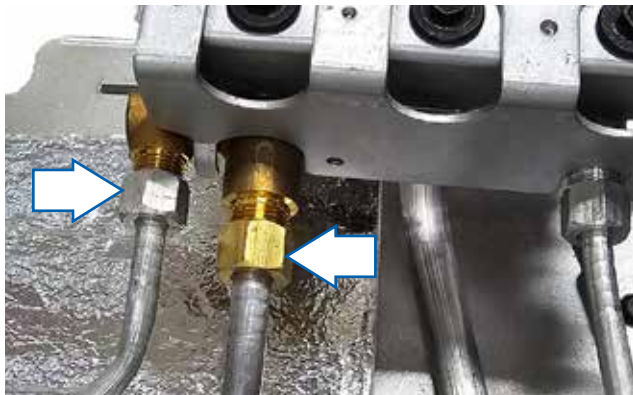


## Multi-Ring Burner

### Multi-Ring Burner Removal

**NOTE:** Before servicing gas components, a gas leak test should be performed (see [Gas Leak Tests](#)).

1. Remove multi-ring spark electrode (see [Multi-Ring Spark Electrode Removal](#)).
2. Loosen one 1/2-in. nut and one 9/16-in. nut securing tubing to burner valve and remove multi-ring burner from range.

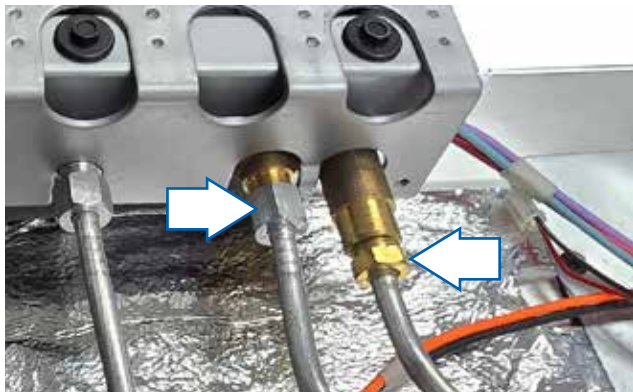


## Dual Oval Burner

### Dual Oval Burner Removal

**NOTE:** Before servicing gas components, a gas leak test should be performed (see [Gas Leak Tests](#)).

1. Remove dual oval spark electrode (see [Dual Oval Spark Electrode Removal](#)).
2. Loosen one 1/2-in. nut and one 9/16-in. nut securing tubing to burner valve and remove dual oval burner from range.



## Left and Right Manifold Pipe

The manifold pipes supply the cooktop burners with gas.

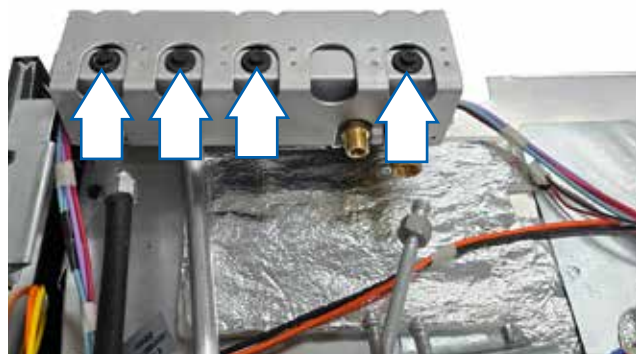
### Left and Right Manifold Pipe Removal

**NOTE:** Before servicing gas components, a gas leak test should be performed (see [Gas Leak Tests](#)).

1. Remove all orifice holders (see [Orifice Holder Removal](#)).
2. Remove multi-ring burner (see [Multi-Ring Burner Removal](#)).
3. Remove dual oval burner (see [Dual Oval Burner Removal](#)).
4. Remove manifold panel (see [Manifold Panel Removal](#)).
5. Remove three 1/4-in. hex-head bolts from top of left manifold pipes.



6. Remove four 1/4-in. hex-head bolts from top of right manifold pipes.



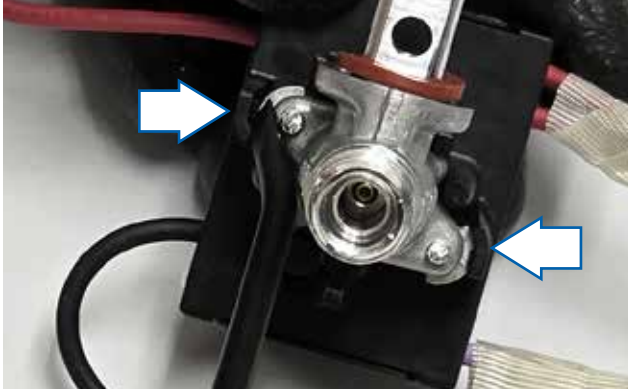
7. Remove all five burner valves from manifold pipes, and set them aside.



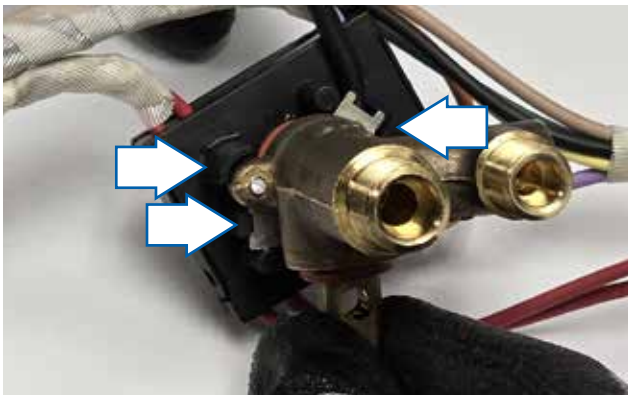
## Burner Valve

### Burner Valve Removal

1. Remove left and right manifold pipes (see [Left and Right Manifold Pipe Removal](#)).
2. For regular burner valves, gently disconnect two plastic retaining tabs and remove valve from harness switch.



3. For multi-ring and dual oval burner valves, gently disconnect three plastic retaining tabs and remove valve from harness switch.

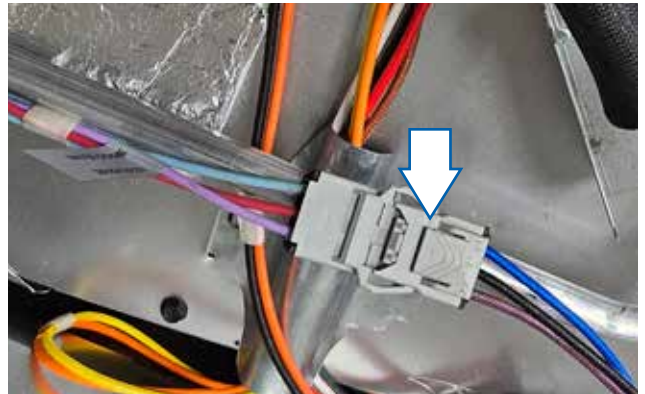


4. Set harness switch aside.

## Harness Switch

### Harness Switch Diagnosis

1. Disconnect harness switch wiring.



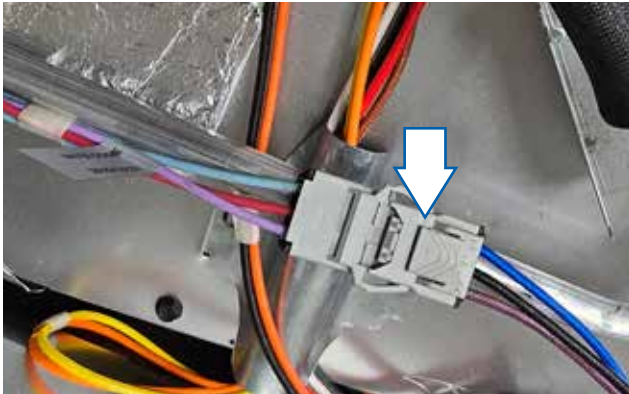
2. Set multimeter to read continuity.
3. With all burner knobs in **Off** position, insert one meter lead into harness switch connector terminal for **V (purple)** wire, and other meter lead into harness switch connector for **N (blue)** wire. Meter should not indicate continuity.



4. Cycle each burner knob into any on position, and then back off one at a time, with meter leads inserted into harness switch connectors for **V**, and **N**. When knobs are cycled into any on position, meter should indicate continuity.
5. If any knob fails to allow for continuity, replace harness switch (see [Harness Switch Removal](#)).

## Harness Switch Removal

1. Remove burner valves from harness switch (see [Burner Valve Removal](#)).
2. Disconnect harness switch wiring.



## Rotary Switch

### Rotary Switch Diagnosis

1. Remove cooktop (see [Cooktop Removal](#)).
2. Remove rotary switch (see [Rotary Switch Removal](#)).
3. Set multimeter to read continuity.
4. Put oven light knob back onto rotary switch in **Off** position and connect meter leads to rotary switch terminals. Meter should not indicate continuity.



5. Cycle knob to On position. Meter should indicate continuity.



6. If either test fails, replace rotary knob.

## Rotary Switch Removal

1. Set oven light knob to **Off** position and remove oven light knob.
2. Remove two Phillips-head screws securing rotary switch to manifold panel.



3. Remove rotary switch from rear of manifold panel and disconnect wiring from rotary switch.



## Front View (Interior Components)





## Automatic Latch

### Automatic Latch Diagnosis



1. Remove automatic latch (see [Automatic Latch Removal](#)).
2. Set multimeter to read continuity.
3. With automatic latch on flat surface, touch meter leads to both terminals corresponding with switch portion of latch. Meter should not indicate continuity.



4. Use small, flat-head screw-driver to depress latch.



5. Touch leads to switch terminals again. Meter should indicate continuity.



6. Test automatic latch motor by touching leads to each motor terminal. Meter should indicate continuity.

## Automatic Latch Removal

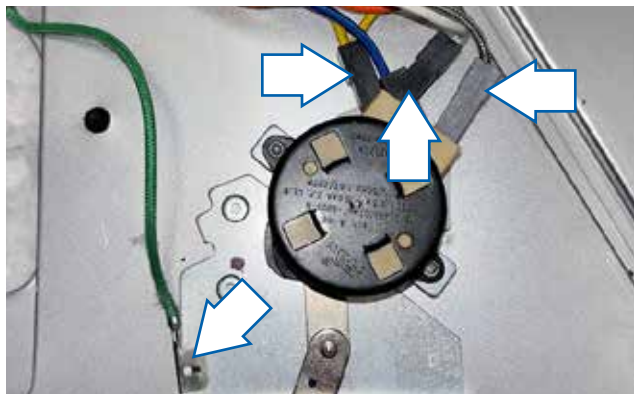
1. Remove oven door (see [Oven Door Removal](#)).
2. Remove cooktop (see [Cooktop Removal](#)).
3. Remove two Phillips-head screws and automatic latch cover.



4. Remove two T-15 Torx screws from front of range.



5. Remove wiring from latch and remove latch from range.



## Plunger Switch

### Plunger Switch Diagnosis



**NOTE:** To test component from the control board, removal of control cover is necessary (see [Control Cover Removal](#)).

### Machine Control Relay Board, J401 7-Pin Connector

- J401 Pin 1 (yellow) to Pin 3 (orange)
1. Remove plunger switch (see [Plunger Switch Removal](#)).
  2. Set multimeter to read continuity.
  3. Touch one meter lead to each terminal. Meter should not indicate continuity.



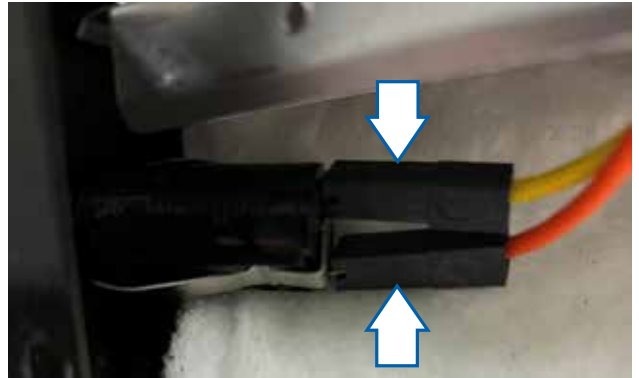
4. Depress plunger with leads on terminals. Meter should indicate continuity.



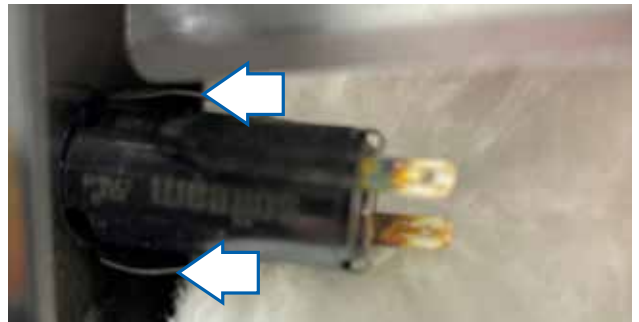
5. If meter does not indicate continuity when plunger is depressed, replace switch.

## Plunger Switch Removal

1. Remove oven door (see [Oven Door Removal](#)).
2. Remove side panel (see [Side Panel Removal](#)).
3. Disconnect wiring from plunger switch.



4. Pinch clips and remove plunger switch from range.



## Probe Receptacle

Meat probe mode monitors the internal food temperature and turns the oven off when the internal food temperature reaches the programmed temperature. After the meat probe is inserted into the food, it is then connected to the meat probe receptacle inside the oven. The probe temperature can be set between 100°F and 200°F.

### Probe Receptacle Diagnosis 🔍

#### Machine Control Relay Board, J401 11-Pin Connector, J801 14-Pin Connector

- J401 Pin 6 (red) to J801 Pin 3 (blue): 5-VDC

1. Remove oven door (see [Oven Door Removal](#)).
2. Remove side panel (see [Side Panel Removal](#)).
3. Remove two Phillips-head screws securing probe to oven cavity.



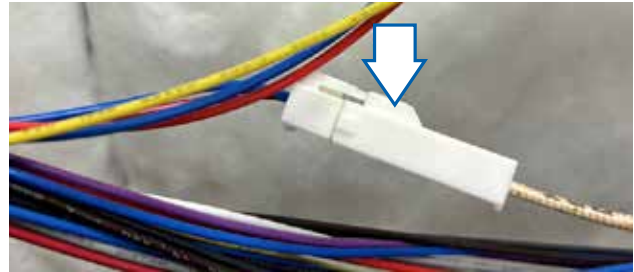
4. Set multimeter to read resistance.
5. Touch one meter lead to side of probe receptacle and one meter lead to center pin. Meter should not have a reading.



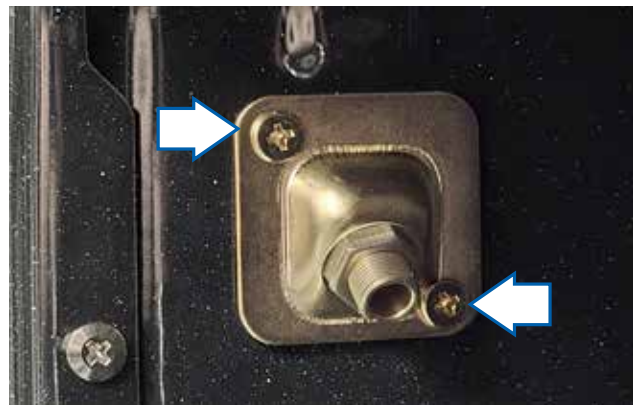
6. Plug probe into probe receptacle, and test again. Meter should now have a fluctuating resistance reading (reading will fluctuate due to changes in ambient air temperature read by probe).

## Meat Probe Receptacle Removal 🔧

1. Remove oven door (see [Oven Door Removal](#)).
2. Remove side panel (see [Side Panel Removal](#)).
3. Disconnect probe receptacle connector from harness by pressing release tab on wire connector.



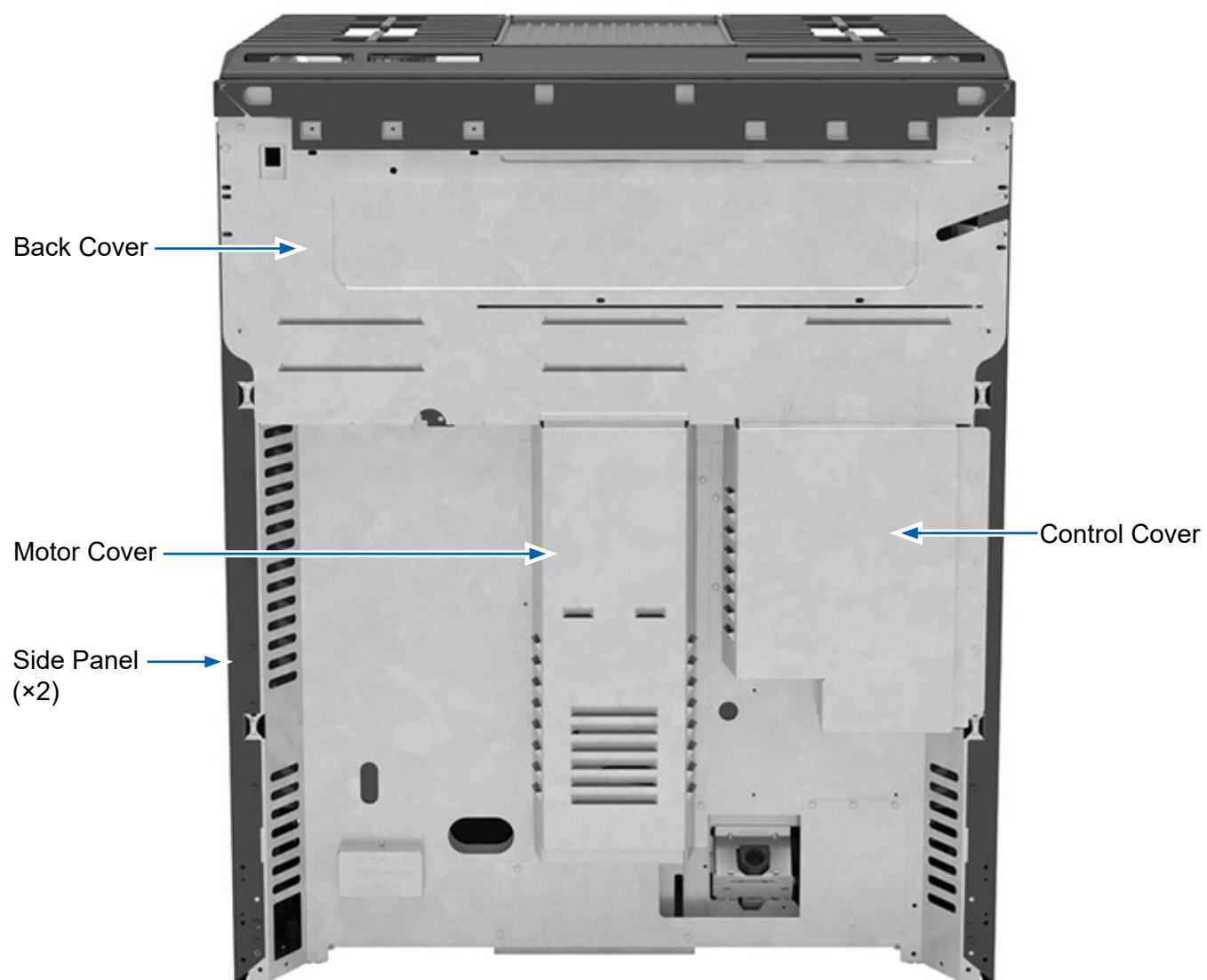
4. Remove two Phillips-head screws securing probe to oven cavity.



5. Pull probe receptacle and harness out through oven cavity.



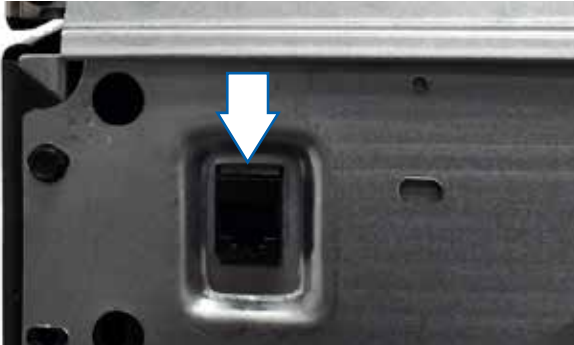
## Rear View (Exterior)



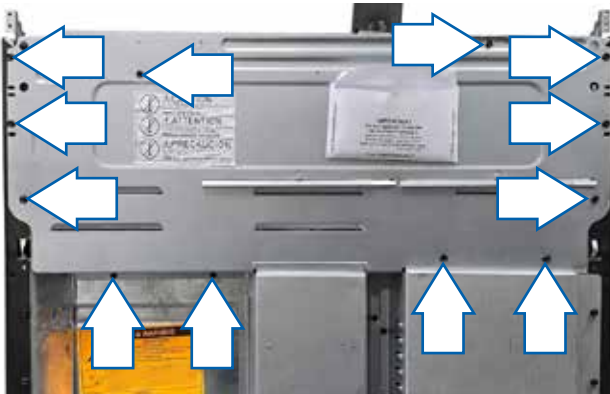
## Back Cover

### Back Cover Removal

1. Press retaining tab on top of RJ45 connection and insert it into hole in back cover.



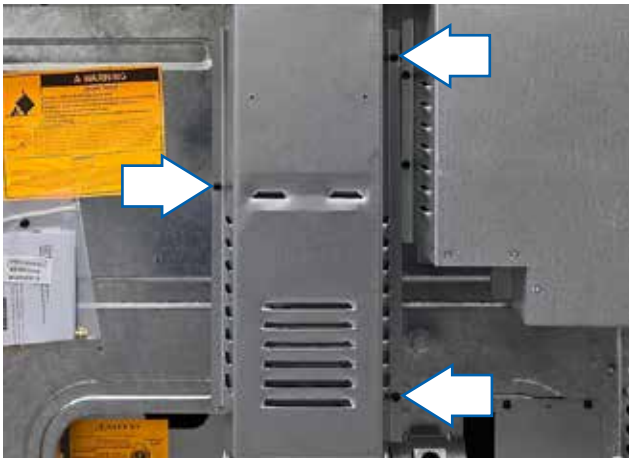
2. Remove twelve 1/4-in. hex-head screws and back cover from range.



## Motor Cover

### Motor Cover Removal

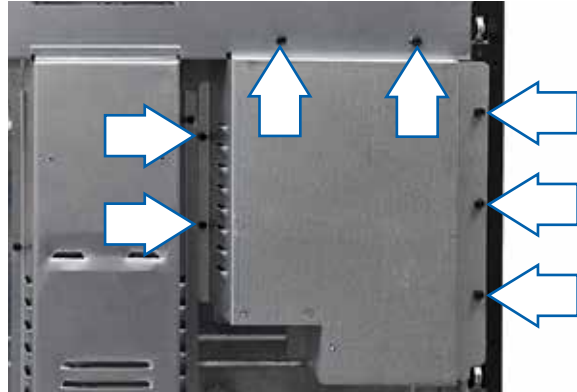
1. Remove three 1/4-in. hex-head screws and motor cover.



## Control Cover

### Control Cover Removal

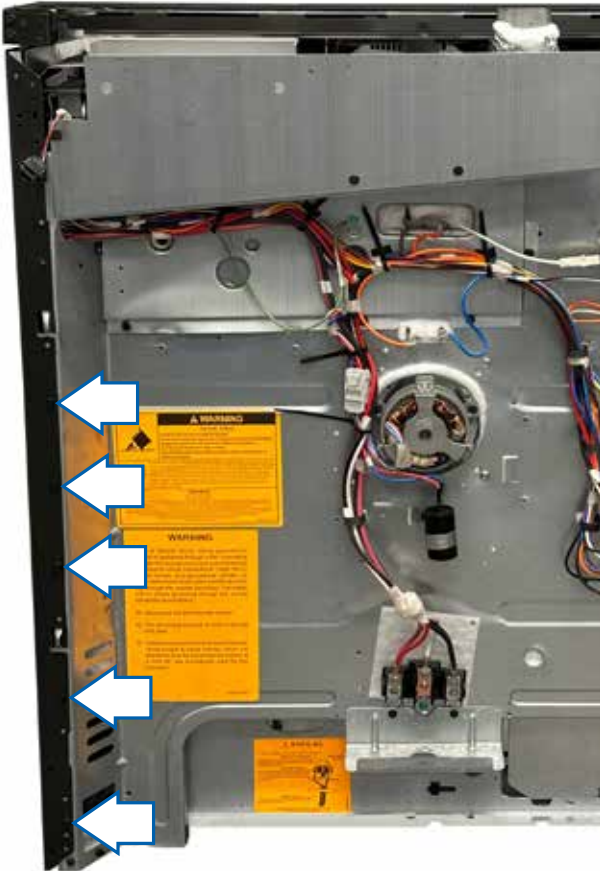
1. Remove seven 1/4-in. hex-head screws and control motor cover.



## Side Panel

### Side Panel Removal

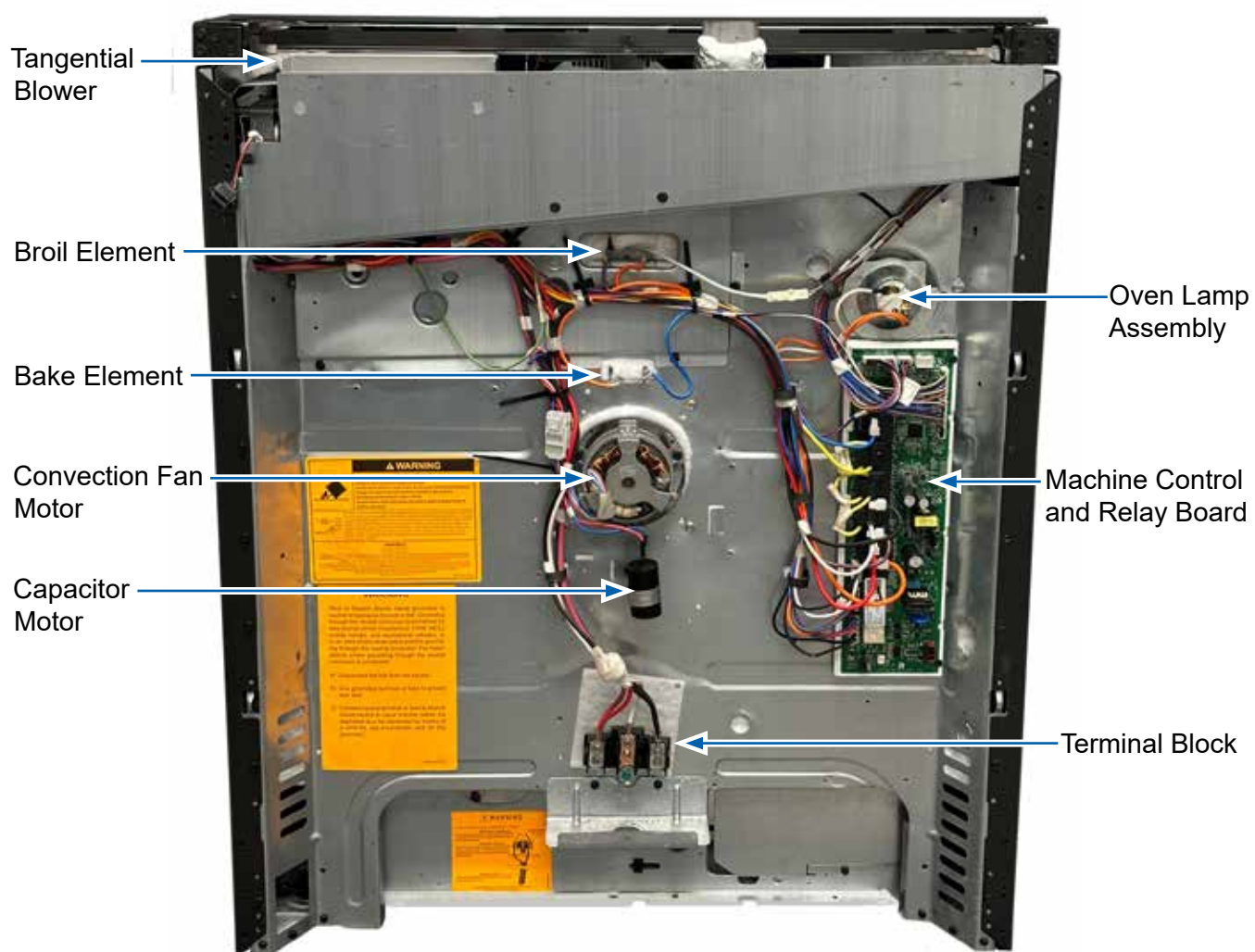
1. Remove cooktop (see [Cooktop Removal](#)).
2. Remove back cover. (see [Back Cover Removal](#)).
3. Remove five 1/4-in. hex-head screws from back of range.



4. Remove manifold panel (see [Manifold Panel Removal](#)).
5. Remove one 1/4-in. hex-head screw from front of range behind manifold panel.



## Rear View (Internal Components)





## Broil Element

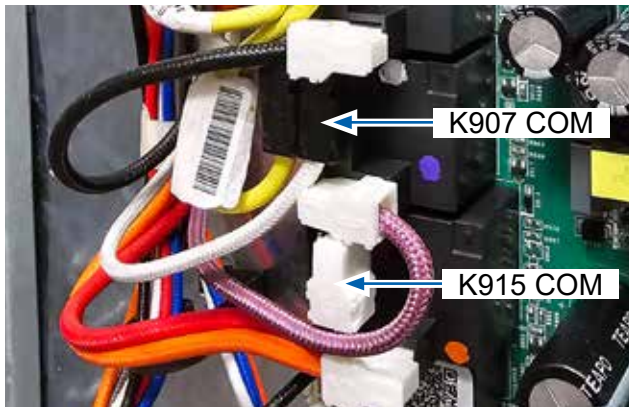
### Broil Element Diagnosis



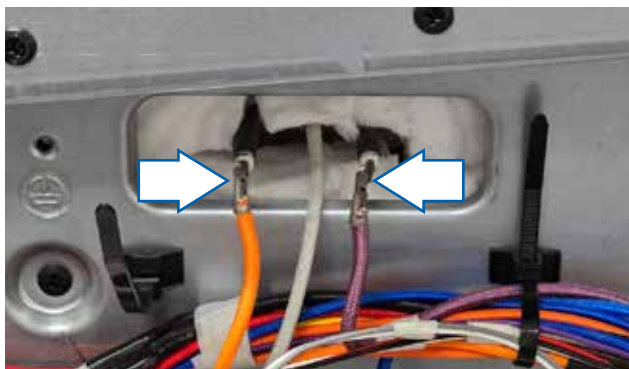
**NOTE:** To test component from the machine control and relay board, removal of control cover is necessary (see [Control Cover Removal](#)).

#### Machine Control Relay Board, K907 Relay, and K915 Relay.

- K907 COM (purple), K915 COM (orange): Energized Circuit 240-VAC.
- K907 COM (purple), K915 COM (orange): Resistance reading 14.36-Ω



1. Remove back cover (see [Back Cover Removal](#)).
2. Disconnect wiring from broil element.
3. Set multimeter to read resistance.



4. Touch one meter lead to each broil element terminal. Resistance reading should be approximately 14.39-Ω.

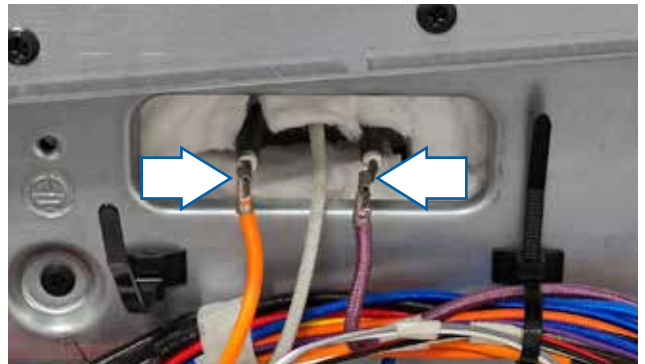


5. If resistance is not present, replace broil element (see [Broil Element Removal](#)).

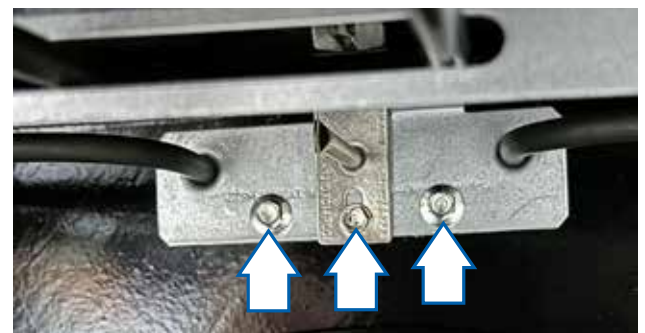
### Broil Element Removal



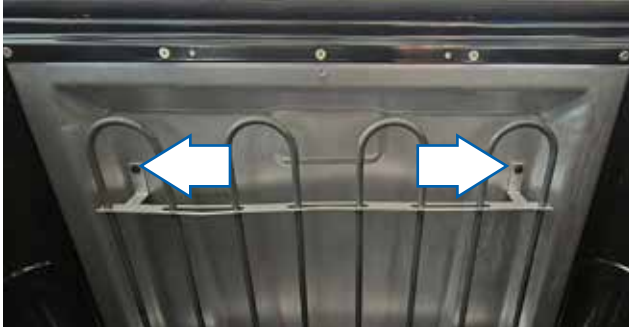
1. Remove back cover (see [Back Cover Removal](#)).
2. Disconnect wiring from broil element.



3. Remove oven door (see [Oven Door Removal](#)).
4. Remove three 1/4-in. hex-head screws securing convection heat element and oven sensor to back wall of oven cavity.



- Remove two 1/4-in. hex-head screws and broil element from oven cavity.



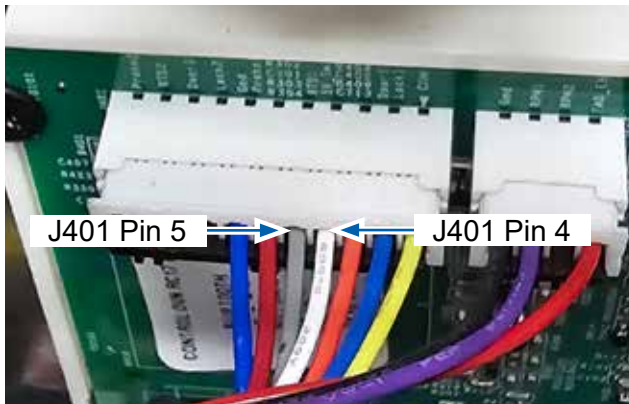
## Oven Sensor

### Oven Sensor Diagnosis 🔍

**NOTE:** To test component from the machine control and relay board, removal of control cover is necessary (see [Control Cover Removal](#)).

### Machine Control Relay Board, J401 11-Pin connector.

- J401 Pin 4 (white) to J401 Pin 5 (grey): Resistance Reading 1080-Ω (at room temperature)



- Remove back cover (see [Back Cover Removal](#)).
- Disconnect oven sensor wiring.



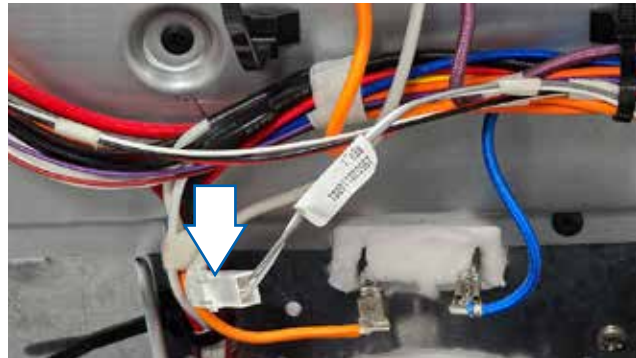
- Set multimeter to read resistance.
- Insert one meter lead into back of both oven sensor connector Pin locations. Resistance reading should be approximately 1080-Ω.



- If resistance is not present, replace oven sensor (see [Oven Sensor Removal](#)).

### Oven Sensor Removal 🔧

- Remove back cover (see [Back Cover Removal](#)).
- Disconnect oven sensor wiring.



- Remove oven door (see [Oven Door Removal](#)).
- Remove baking racks from oven cavity.
- Remove one 1/4-in. hex-head screw and oven sensor through back wall of oven cavity.





## Convection Heat Element

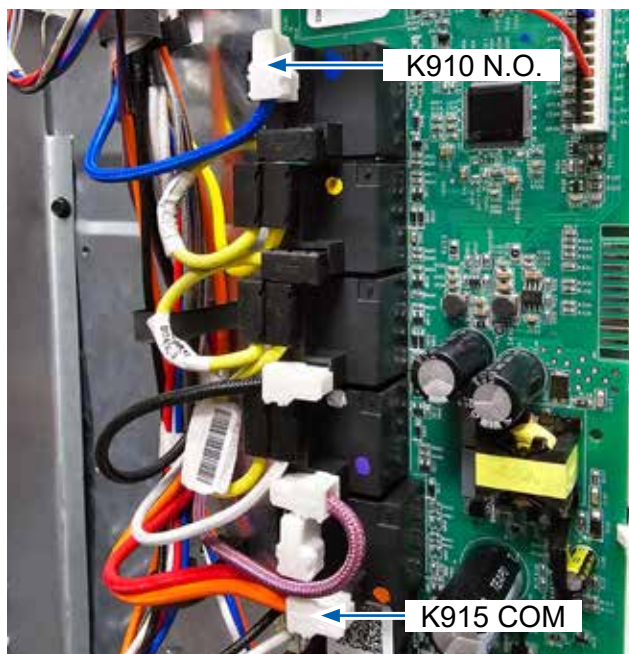
### Convection Heat Element

#### Diagnosis

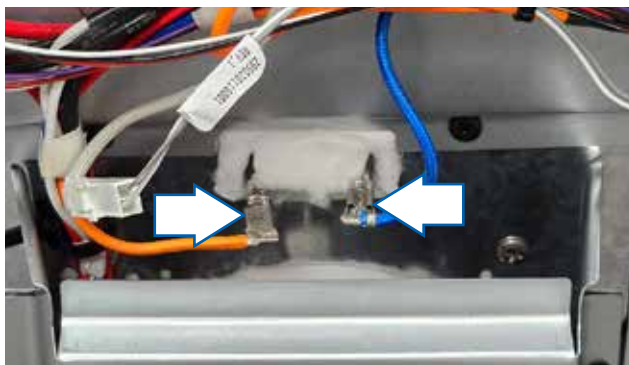
**NOTE:** To test component from the machine control and relay board, removal of control cover is necessary (see [Control Cover Removal](#)).

#### Machine Control Relay Board, K910 Relay, and K915 Relay.

- K910 N.O. (blue), K915 COM (orange): Energized Circuit 240-VAC
- K910 N.O. (blue), K915 COM (orange): Resistance reading 20.21-Ω



1. Remove back cover (see [Back Cover Removal](#)).
2. Disconnect wiring from convection heat element.



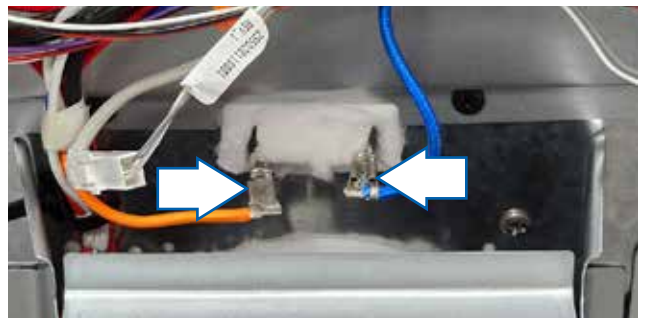
3. Set multimeter to read resistance.
4. Touch one meter lead to each convection heat element terminal. Resistance reading should be approximately 20.21-Ω.



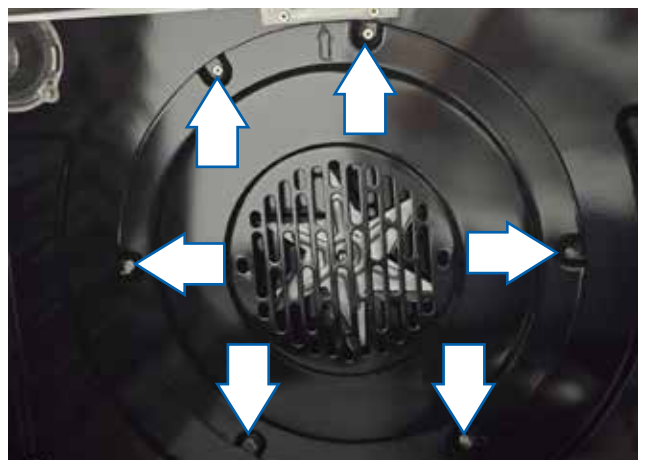
5. If resistance is not present, replace convection heat element (see [Convection Heat Element Removal](#)).

#### Convection Heat Element Removal

1. Remove back cover (see [Back Cover Removal](#)).
2. Disconnect wiring from broil element.

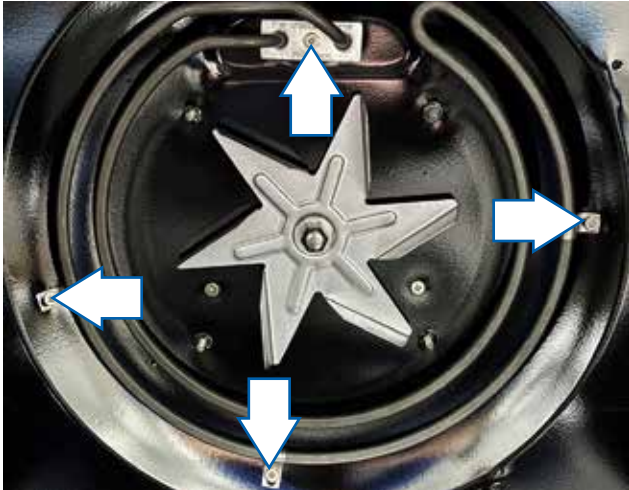


3. Remove oven door (see [Oven Door Removal](#)).
4. Remove six Phillips-head screws and convection fan cover from rear of oven cavity.



(Continued next page)

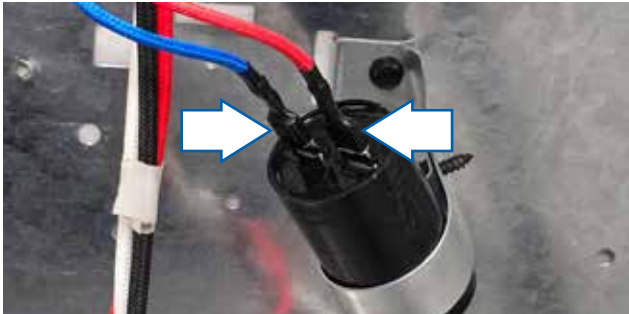
- Remove four Phillips-head screws and convection heat element through back wall of oven cavity.



### Capacitor Motor

#### Capacitor Motor Diagnosis 🔍

- Remove motor cover (see [Motor Cover Removal](#)).
- Disconnect capacitor motor wiring.



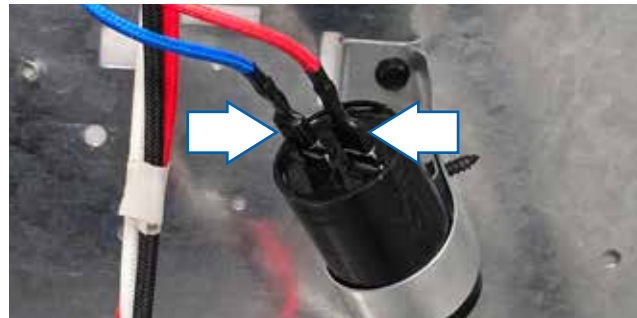
- Set multimeter to read capacitance.
- Touch one meter lead to both capacitor motor terminals. Capacitance reading should be approximately 2.4-μf.



- If capacitance reading is not approximately 2.4-μf, replace capacitor motor (see [Capacitor Motor Removal](#)).

#### Capacitor Motor Removal 🔧

- Remove motor cover (see [Motor Cover Removal](#)).
- Disconnect capacitor motor wiring and gently pull capacitor motor out of its holder to remove.



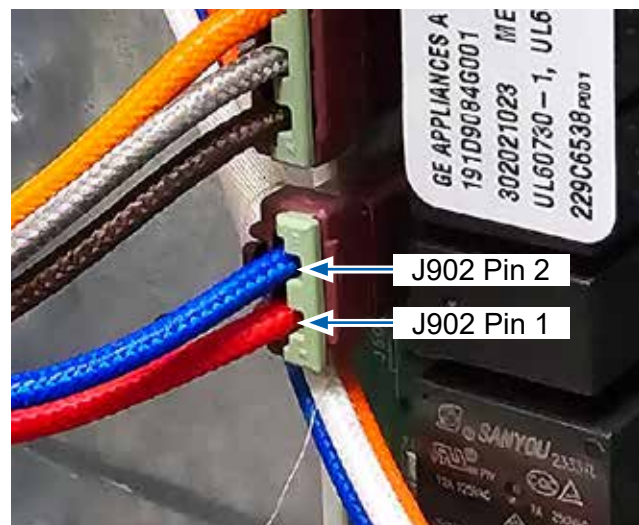
### Convection Fan Motor

#### Convection Fan Motor Diagnosis 🔍

**Note:** To test component from the machine control and relay board, removal of control cover is necessary (see [Control Cover Removal](#)).

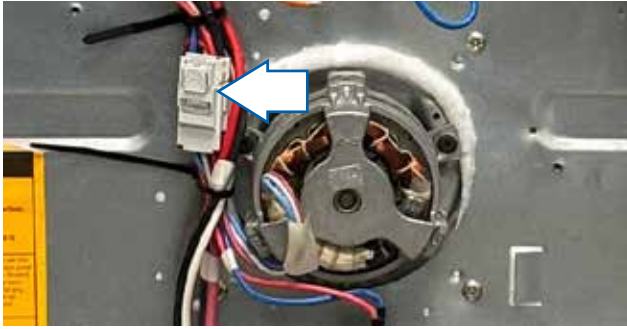
#### Machine Control Relay Board, J902 2-Pin Connector.

- J902 Pin 1 (red), J902 Pin 2 (blue): Energized Circuit 240-VAC
- J902 Pin 1 (red), J902 Pin 2 (blue): Resistance reading 400-Ω





1. Remove motor cover (see [Motor Cover Removal](#)).
2. Disconnect convection fan motor harness connector.



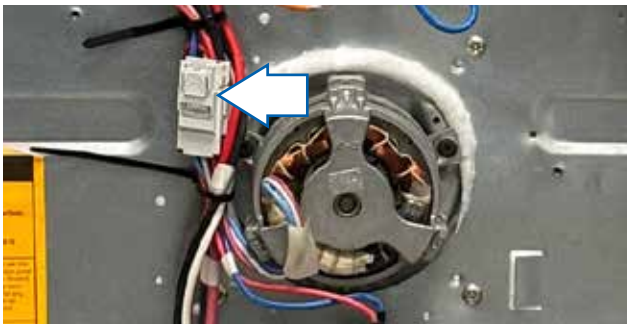
3. Set multimeter to read resistance.
4. Insert one meter lead into convection fan motor harness connection corresponding to **R** (red wire), and one meter lead into harness connection corresponding to **N** (blue wire). Resistance reading should be approximately 400-Ω.



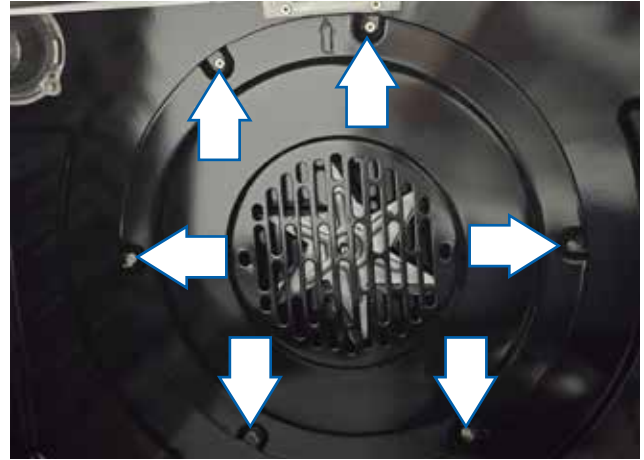
5. If resistance is not present, replace convection fan motor (see [Convection Fan Motor Removal](#)).

### Convection Fan Motor Removal

1. Remove motor cover (see [Motor Cover Removal](#)).
2. Disconnect convection fan motor harness connector.



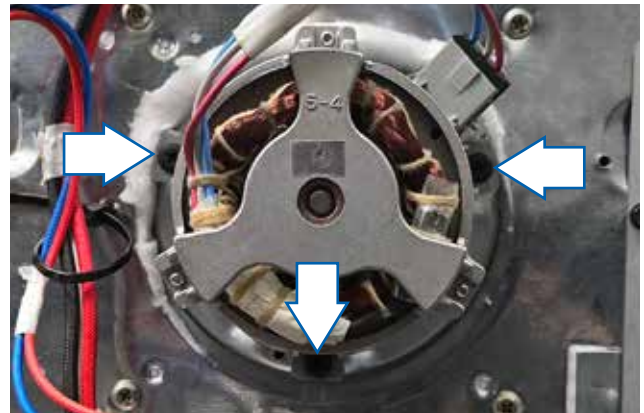
3. Remove oven door (see [Oven Door Removal](#)).
4. Remove six Phillips-head screws and convection fan cover from rear of oven cavity.



5. Remove 1/2-in. nut securing fan blade to convection fan motor.



6. Remove three Phillips-head screws and convection fan motor from rear of range.



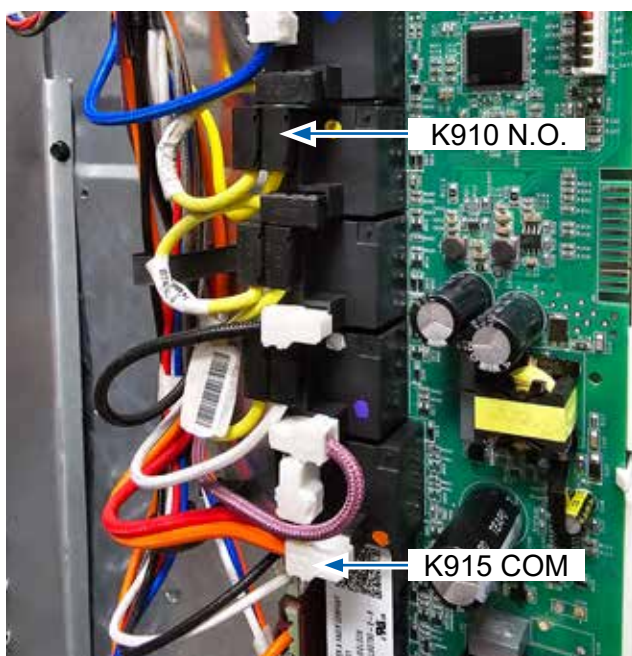
## Bake Element

### Bake Element Diagnosis 🔍

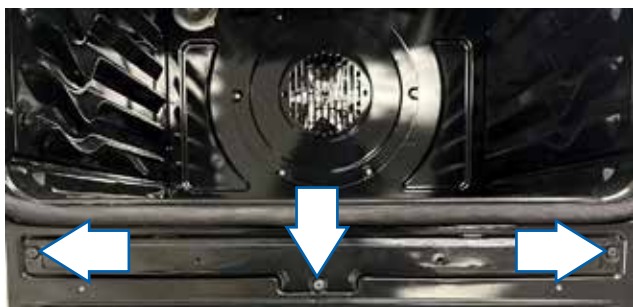
**NOTE:** To test component from the machine control and relay board, removal of control cover is necessary (see [Control Cover Removal](#)).

#### Machine Control Relay Board, K910 Relay, and K915 Relay.

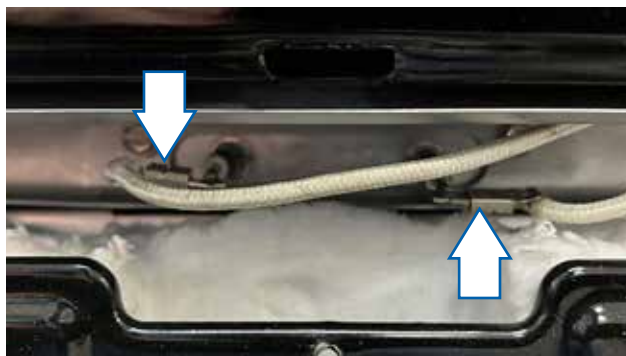
- K909 N.O. (yellow), K915 COM (orange): Energized Circuit 240-VAC
- K909 N.O. (yellow), K915 COM (orange): Resistance reading 20.21-Ω



1. Remove oven door (see [Oven Door Removal](#)).
2. Remove drawer assembly (see [Drawer Assembly Removal](#)).
3. Remove three Phillips-head screws from front reflector.



4. Disconnect wiring from bake element terminals.



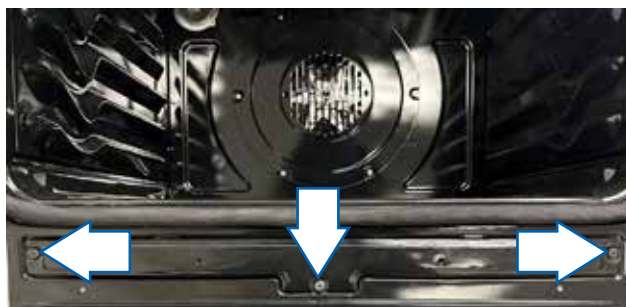
5. Set multimeter to read resistance.
6. Touch one meter lead to each bake element terminal. Resistance reading should be approximately 20.21-Ω.



7. If resistance reading is not present, replace bake element (see [Bake Element Removal](#)).

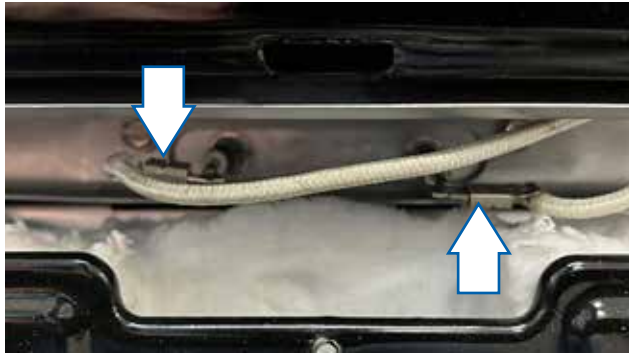
### Bake Element Removal 🔧

1. Remove oven door (see [Oven Door Removal](#)).
2. Remove drawer assembly (see [Drawer Assembly Removal](#)).
3. Remove three Phillips-head screws from front reflector.





4. Disconnect wiring from bake element terminals.



5. Remove two 1/4-in. hex-head screws.



6. Grasp bake element terminals and pull bake element out through front of range frame.

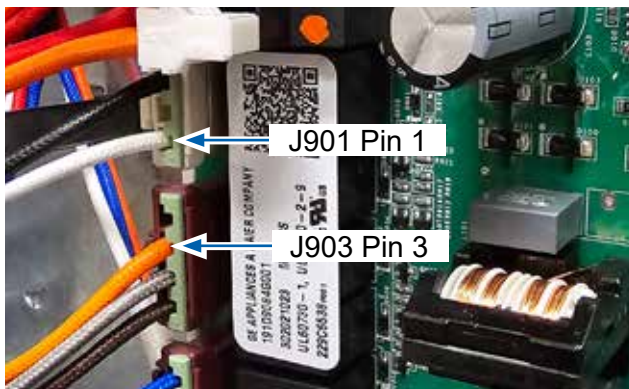
## Oven Lamp Assembly

### Oven Lamp Assembly Diagnosis 🔍

**NOTE:** To test component from the machine control and relay board, removal of control cover is necessary (see [Control Cover Removal](#)).

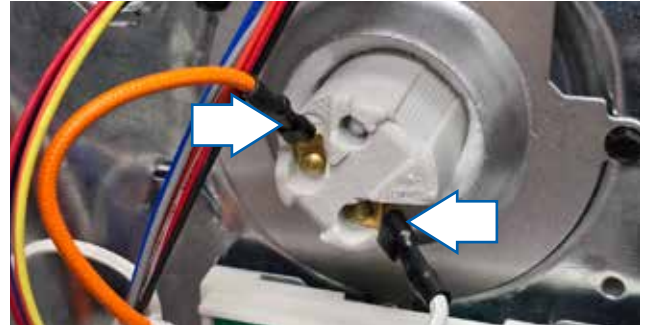
### Machine Control Relay Board, J901 2-Pin, and J903 4-Pin connector

- J901 Pin 1 (white) to J903 Pin 3 (orange): Energized circuit 120-VAC



**NOTE:** To change the bulb only, turn the lens CCW to remove the lens. Pull bulb straight out to remove bulb.

1. Remove back cover (see [Back Cover Removal](#)).
2. Disconnect wiring from oven lamp assembly.



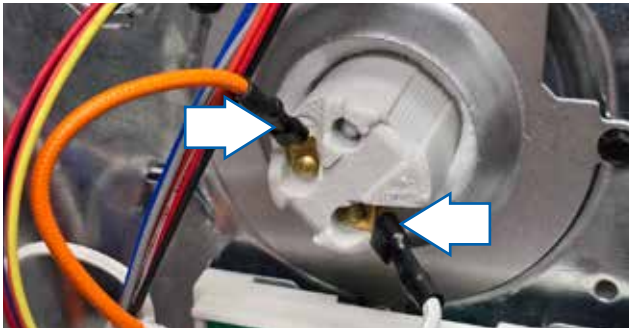
3. Set multimeter to read continuity.
4. Touch multimeter leads to each terminal. Multimeter should emit sound signifying continuity.



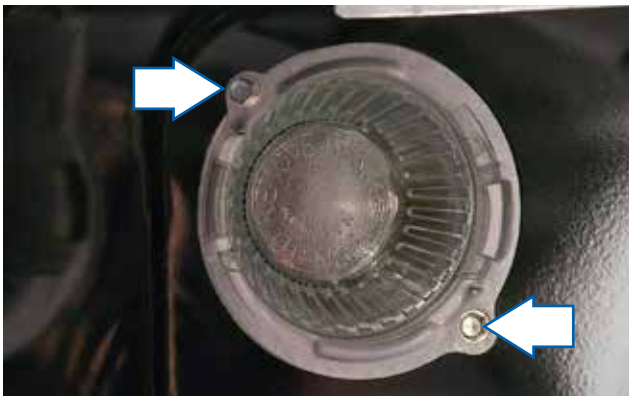
5. If continuity is not present, replace oven lamp assembly (see [Oven Lamp Assembly Removal](#)).

## Oven Lamp Assembly Removal

1. Remove back cover (see [Back Cover Removal](#)).
2. Disconnect wiring from oven lamp assembly.



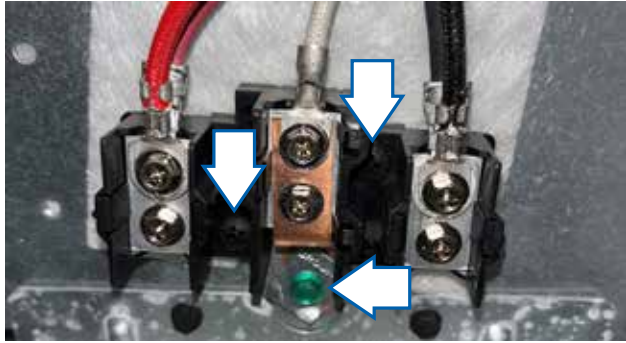
3. Remove oven door (see [Oven Door Removal](#)).
4. Remove two 1/4-in. hex-head screws and oven lamp assembly from oven cavity.



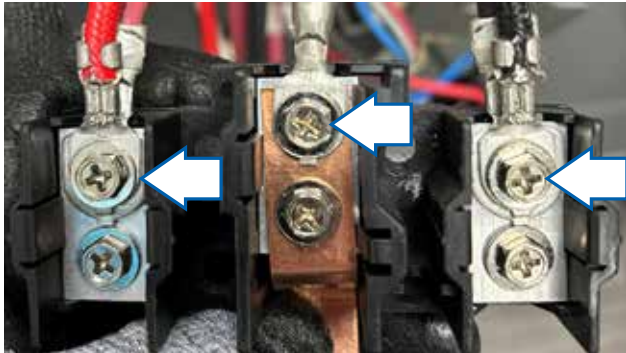
## Terminal Block Assembly

### Terminal Block Assembly Removal

1. Remove motor cover (see [Motor Cover Removal](#)).
2. Remove two 1-in. Phillips-head screws, ground screw, and terminal block from terminal block bracket.



3. Remove three 1/4-in. Phillips-head screws and wiring from terminal block.

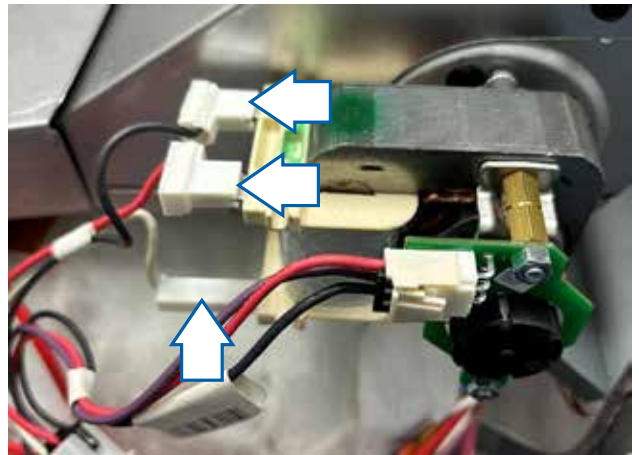


## Tangential Blower

Blower tangential is located on the outside of the oven body. It protects components from the effects of high temperatures.

### Tangential Blower Diagnosis

1. Remove cooktop (see [Cooktop Removal](#)).
2. Remove side panel (see [Side Panel Removal](#)).
3. Disconnect wiring from tangential blower.



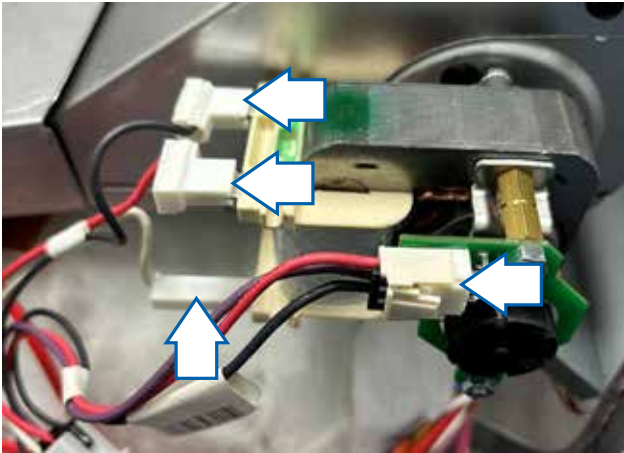
4. Set multimeter to read continuity.
5. Touch one meter lead to each terminal. Meter should emit a sound indicating continuity.



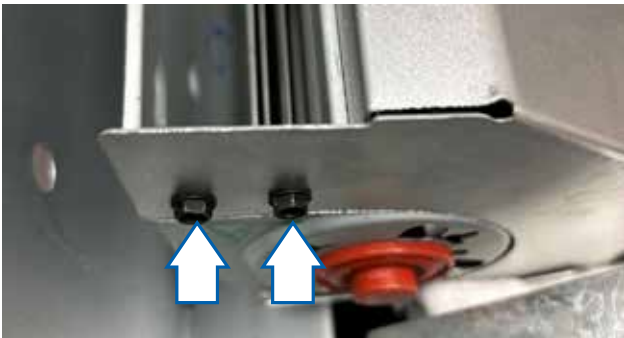


## Tangential Blower Removal

1. Remove cooktop (see [Cooktop Removal](#)).
2. Remove side panel (see [Side Panel Removal](#)).
3. Disconnect wiring from tangential blower motor.



4. Remove four 1/4-in. hex-head screws securing blower to fan support.
5. Remove two hex-head screws on each side of blower (right side shown).



6. Remove blower from range.

## Board Sensor

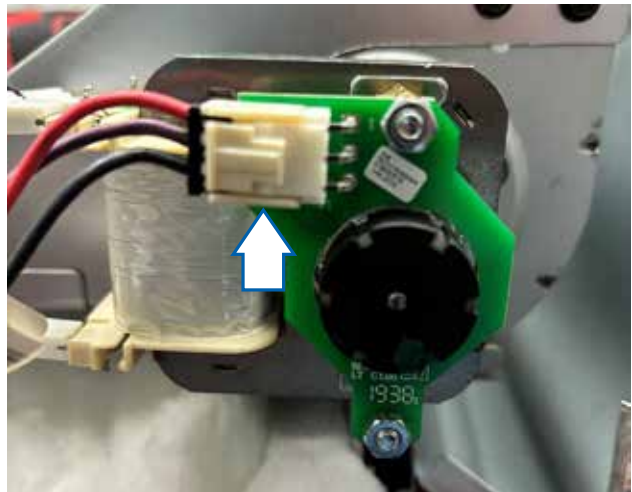
### Board Sensor Diagnosis

#### Machine Control Relay Board, J502 4-Pin Connector

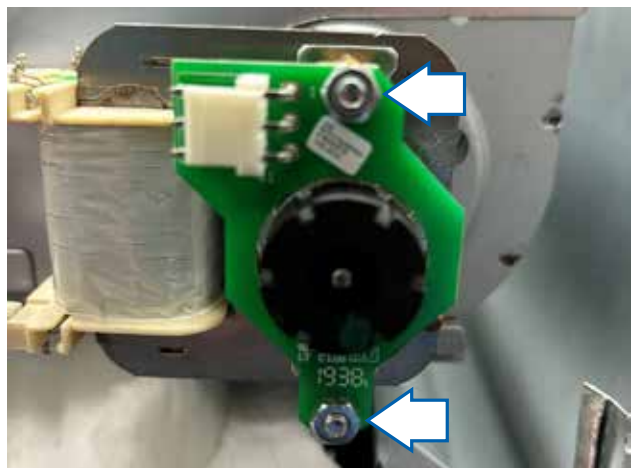
- J502 Pin 1 (red) to J502 Pin 4 (black): Energized Circuit 240-VAC.

### Board Sensor Removal

1. Remove cooktop (see [Cooktop Removal](#)).
2. Remove side panel (see [Side Panel Removal](#)).
3. Remove wire connector from board sensor.



4. Remove two 9/32-in. nuts from board sensor and remove sensor from blower motor.



## Machine Control Relay Board

### Machine Control Relay Board Removal

**NOTE:** It is recommended to take pictures of the wire locations or transfer harness connectors and wires one at a time to the replacement board. This will help ensure wires and/or connectors are not misplaced.

1. Remove control cover (see [Control Cover Removal](#)).
2. Remove all harness connectors and wires.



3. Remove three Phillips-head screws and control board from range.



## Service Mode

Service Mode must be entered within 30-minutes of a power cycle. To enter Service Mode:

**For Single Ovens:** Press and hold **1** and **Broil** simultaneously for 3-seconds.

**For Double Ovens:** Press and hold **1** and **Bake** simultaneously for 3-seconds.

Entering into Service Mode will turn off all other active modes. Service Mode will appear in the top line of the display and will stay there until Service Mode is exited. Each key will turn on the associated load and each load will turn off when one of the following conditions is met:

- 15-seconds has passed after the key has been released
- The same key is pressed again
- Another key is pressed

Once the load is disabled, the screen will also update to remove the load information. Sensor temperature for single/upper cavity will always appear in the upper left corner of the display. Sensor temperature for the lower cavity will always appear in the lower left corner of the display. Probe temperature for single/upper cavity will always appear in the upper right corner of the display. Probe temperature for the lower cavity will always appear in the lower right corner of the display. If no probe is inserted, then "000" will appear in the probe temperature display. Cancel/Off key will turn off all loads and exit Service Mode. 2-minutes of inactivity will exit Service Mode.

Software versions and fault information can be viewed in Fault Retrieval Mode (see [Fault Codes](#)).

KEY	OVEN FUNCTION
Bake	Energize Bake Element
Broil	Energize Broil Element
Clean	Cycle Door Lock Position
Settings	Energize Quarter Top Heat (1/4W of Broil Element)
Convection Bake	Energize Convection Bake Element
Warming Drawer	Energize Warming Drawer Element
Cancel/Off	Exit Service Mode
1	Energize Convection Fan CCW
2	Energize Convection Fan CW
3	Turn on Cooling Fan
0	All display VFD Segments Illuminate
Oven Light	Energize Oven Light



# Oven Temperature Calibration

The bake temperature can be adjusted from its factory calibration (+ or -) 35°F in 1° increments.

1. Press **Settings** key to display the special features menu.
2. Press **5** key for Oven Adj.
3. Press **1** key for more heat and press the **2** key for less heat.
4. Once the desired option is displayed, press the **9** key to save the setting and **0** key to exit the menu.

## Oven Sensor Ohmmeter Test

CIRCUIT	TERMINALS	OHMS	CONDITION
Oven Sensor (RTD1)	J401 Pin 4 to 5	1,080 $\Omega$	Room temperature
		2,650 $\Omega$	Self-clean temperature

## Cooling Blower Test

1. Blower can be manually tested. Power down the range for 10-seconds, and then power up.

**For Single Ovens:** Press and hold **1** and **Broil** simultaneously for 3-seconds until the Service Mode info appears on display.

**For Double Ovens:** Press and hold **1** and **Bake** simultaneously for 3-seconds until the Service Mode info appears on display.

Press **3** to operate the blower on low speed for 10-seconds. It should reach a speed of at least 700 on the display. Cycle blower several times. If it does not get to 700, oven will shut down.

2. If the blower fails to turn at all, lift cooktop and check for 120-volts between the LOW speed tab (**black** wire) and the neutral tab (**white** wire).
3. Ensure nothing is pushing against the red hub on the end of the blower.

**NOTE:** The blower's shaft is just behind that red cap and pressure on it will keep the blower wheel from starting.

4. Check electrical connections at the sensing board on the fan and Main Control board on the back of unit.

# Quality of Flames

## Quality of Flames

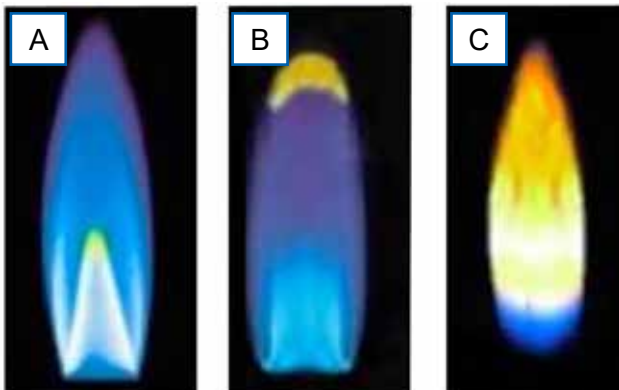
When all gas and electrical connections have been made and the burners, caps, and grates are in position, it is important to test and inspect the flame quality at the surface burners.

Push and turn a knob to the LITE position. A clicking sound indicates proper operation of the ignition system. When lighting any burner, sparks will appear at all burners but gas flows only from the one selected. The spark can be seen between the electrode and the burner cap of each burner.



Once air is purged from the supply tube, the burner should lite. This normally occurs within about 4-seconds. After burner lights, rotate the knob out of the LITE position. Try each burner in succession until all burners have been checked.

Determining the quality of flames at each burner is done by visual check. Normal burner flames should look like (A) natural gas or (B) propane gas. Abnormal burner flame may look like (C).



Normal flames may show signs of an orange tint when well heated or signs of flickering orange due to particles/impurities in the gas or air. With natural gas, yellow color should only be visible at the tip of the inner vertical cone.

If burner flames appear like (C) or are completely yellow, there may be a gas leak. The range will need to be tested for a gas leak (see [Gas Leak Tests](#)).

# Gas Leak Tests

## Bubble Leak Test

Any time a gas component is serviced, or a gas leak is suspected, it is imperative to test for a gas leak prior to usage.

### Bubble Leak Detector Test (Mandatory)

This mandatory bubble leak test requires Big Blu Micro Leak Detector (WX05X10507) and Leak Check Packet (WX15X10001) or equivalent, which is applied to the joints and suspected leak areas. If a leak is present, the gas will produce bubbles in the solution. If no leak is present, there will be no bubbles.

1. Disconnect appliance from power.
2. Turn on gas.
3. Apply liquid leak solution to joints and suspected leak areas.

**NOTE:** To "block" gas flow for testing, put a gloved finger over the orifice(s) to stop the gas from escaping. This allows enough pressure in the tube being tested to build and create soap bubbles if there are any leaks.



WX05X10507

WX15X10001



## Gas Leak Detector Test

An electronic leak detector can be used to help locate small gas leaks. Follow the electronic gas leak detector's manufacturer instructions. **NOTE:** On High setting, the Inficon Combustible Gas Detector (WX5X24492) is sensitive enough to pick up a "gas leak" at the regulator; however, this does NOT necessarily indicate a problem. ANSI regulations allow 200-cc of gas per hour to "seep" through the vent of a regulator.

**NOTE:** After finding and repairing any leak, or after the repair of any gas-related component, it is mandatory to confirm no leak is present using the bubble leak test method.

WX5X24492



## Fault Codes

FAULT CODE	AFFECTED AREA	MEANING	CORRECTION
100	All	Mis-wire condition detected on 240-VAC (electric models). Monitoring for this condition happens continuously, not just at startup.	a) Check for house mis-wire condition b) Check L2 coming into the main oven control (red dot on relay)
200	Single or Upper (Double) Oven Cavity	Cavity 1 temperature exceeds 615°F while the door is unlocked.	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Check airflow to rear of unit d) Check for high resistance in oven sensor leads/connectors (especially at sensor in rear)
210	Single or Upper (Double) Oven Cavity	Cavity 1 temperature exceeds 930°F with the door locked (i.e. during self clean).	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Check airflow to rear of unit d) Check for high resistance in oven sensor leads/connectors (especially at sensor in rear)
220	Lower (Double) Oven Cavity	Cavity 2 temperature exceeds 615°F while the door is unlocked.	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Check airflow to rear of unit d) Check for high resistance in oven sensor leads/connectors (especially at sensor in rear)
230	Lower (Double) Oven Cavity	Cavity 2 temperature exceeds 930°F with the door locked (i.e., during self clean).	a) Check for mis-wire condition of connections going into the relays b) Check RTD readings are correct c) Check airflow to rear of unit d) Check for high resistance in oven sensor leads/connectors (especially at sensor in rear)
300	Single or Lower (Double)	RTD1 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control

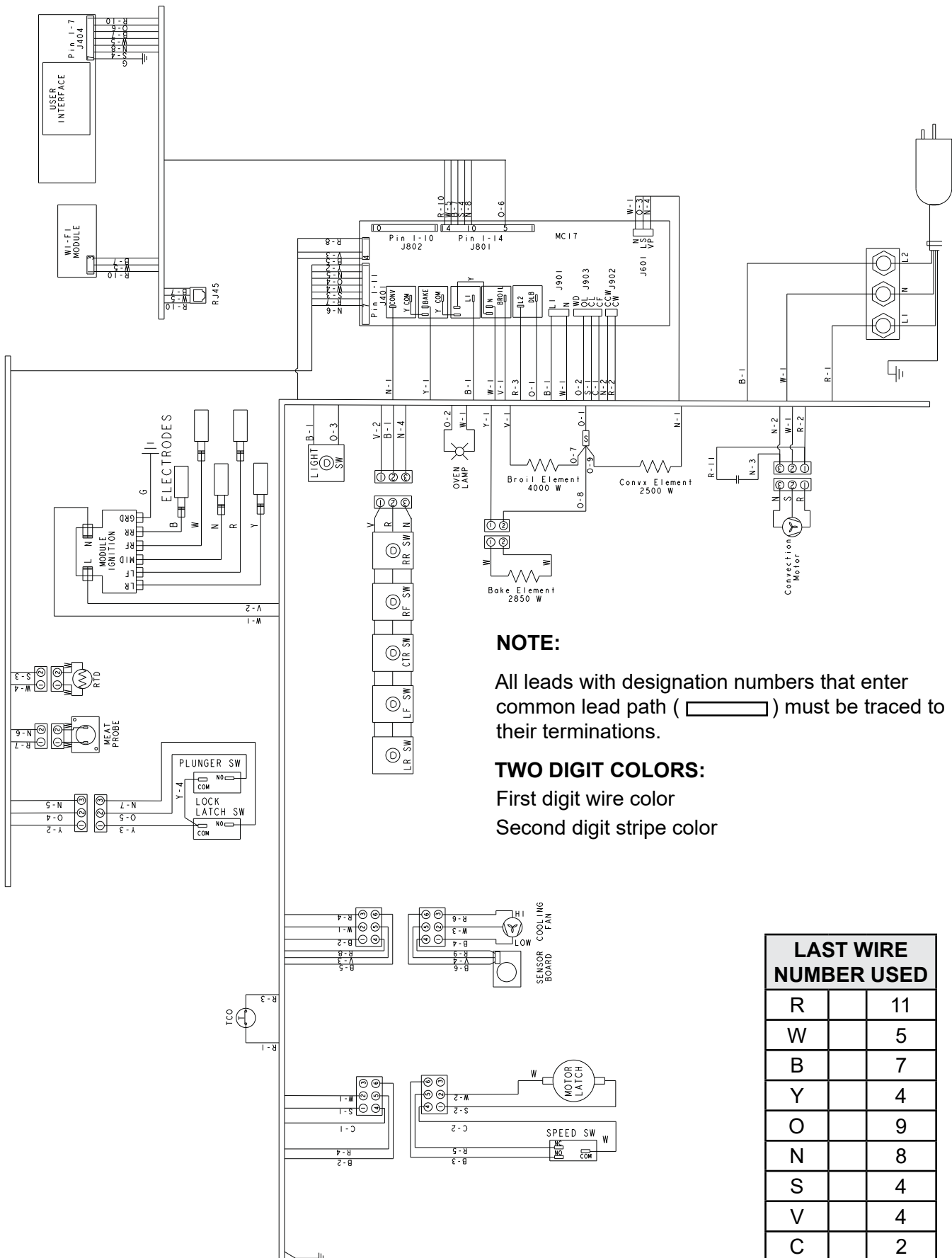
FAULT CODE	AFFECTED AREA	MEANING	CORRECTION
310	Single or Lower (Double)	RTD1 sensor open-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
320	Upper (Double) Oven Cavity	RTD2 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
330	Upper (Double) Oven Cavity	RTD2 sensor open-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
340	Single or Lower (Double)	MEAT PROBE1 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
342	Upper (Double) Oven Cavity	MEAT PROBE2 sensor short-circuit detected on the oven control.	a) Check RTD readings are correct b) Check connection of J401 on main oven control
350	All	Cooling fan is requested to be on, but the speed falls below 200 RPM for 30 consecutive seconds.	a) Fan is running with fault, check connection of FAD board to the main oven control b) Fan is not running with fault; check for obstruction of fan motor and check motor is getting 120-VAC
351	All	Cooling fan speed is non-zero for 30-seconds when it is not requested to be on.	a) Check cooling fan motor is getting 120-VAC b) Check relay K904 on main oven control; J903 Pin 1 to Neutral should be approximately ~0-VAC if 120-VAC relay is damaged
352	All	Cooling fan is between 3,540-3,660 RPM (59Hz-61Hz) for 25 consecutive seconds. Locked motor condition.	a) Check for obstruction in fan motor that will not allow it to run when requested
683	Oven User Interface (UI)	Oven user interface (UI) communication missing to the oven machine control	a) Check connection from user interface (UI) control to main oven control b) Replace control
700	Single or Upper (Double) Oven Cavity	Oven cavity 1 does not stop cooking within 10 milliseconds of pressing the cavity 1 cancel key.	a) Power cycle the unit b) If fault persists, replace oven user interface (UI)
701	Lower (Double) Oven Cavity	Oven cavity 2 does not stop cooking within 10 milliseconds of pressing the cavity 1 cancel key.	a) Power cycle the unit b) If fault persists, replace oven user interface (UI)



<b>FAULT CODE</b>	<b>AFFECTED AREA</b>	<b>MEANING</b>	<b>CORRECTION</b>
721	Oven User Interface (UI)	Any oven user interface (UI) cancel key is stuck for 30-seconds.	a) Wipe conducted material off key: grease, cleaner, water, etc. b) Replace oven user interface (UI) control
722	Oven User Interface (UI)	Any key other than cancel keys is stuck for 30-seconds.	a) Wipe conducted material off key: grease, cleaner, water, etc. b) Replace oven user interface (UI) control
783	Oven User Interface (UI)	Low level self-checks failed on Oven user interface (UI) board.	Replace oven user interface (UI) control
800	Oven User Interface (UI)	Self clean started in cavity 1 without two key inputs.	Replace main oven control
801	Oven User Interface (UI)	Self clean started in cavity 2 without two key inputs.	Replace main oven control
810	Single or Upper (Double) Oven Cavity	Any heating elements in cavity 1 turn on when the oven cavity is not running.	Replace main oven control
811	Lower (Double) Oven Cavity	Any heating elements in cavity 2 turn on when the oven cavity is not running.	Replace main oven control
830	All	Self clean is running in cavity 1 and any cook mode is running in the other.	Power cycle unit
840	All	Internal ADC diagnostic test fails.	Replace main oven control
900	Single or Upper (Double) Oven Cavity	The door lock status for cavity 1 changed unexpectedly.	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional
910	Single or Upper (Double) Oven Cavity	Door lock for cavity 1 did not change to the desired state.	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional
920	Lower (Double) Oven Cavity	Door lock status for cavity 2 changed unexpectedly.	a) Check connection from door lock motor to main oven control. b) Check door lock motor is functional
930	Lower (Double) Oven Cavity	Door lock for cavity 2 did not change to the desired state.	a) Check connection from door lock motor to main oven control b) Check door lock motor is functional

FAULT CODE	AFFECTED AREA	MEANING	CORRECTION
940	Single or Upper (Double) Oven Cavity	Cavity 1 door detected as open when locked.	<p>a) Check connection from plunger switch to main oven control</p> <p>b) Check door lock motor interaction with door to make sure door is able to close and lock</p> <p>c) Check plunger microswitch is closed when compressed and open when not compressed</p>
950	Lower (Double) Oven Cavity	Cavity 2 door detected as open when locked.	<p>a) Check connection from plunger switch to main oven control</p> <p>b) Check door lock motor interaction with door to make sure door is able to close and lock</p> <p>c) Check plunger microswitch is closed when compressed and open when not compressed</p>
960	Single or Upper (Double) Oven Cavity	Cavity 1 door lock is in unknown state.	<p>a) Check connection from door lock motor to main oven control</p> <p>b) Check door lock motor is functional and getting 120-VAC when requested</p>
970	Lower (Double) Oven Cavity	Cavity 2 door lock is in unknown state.	<p>a) Check connection from door lock motor to main oven control</p> <p>b) Check door lock motor is functional and getting 120-VAC when requested</p>

# Wiring Diagram



## NOTE:

All leads with designation numbers that enter common lead path (  ) must be traced to their terminations.

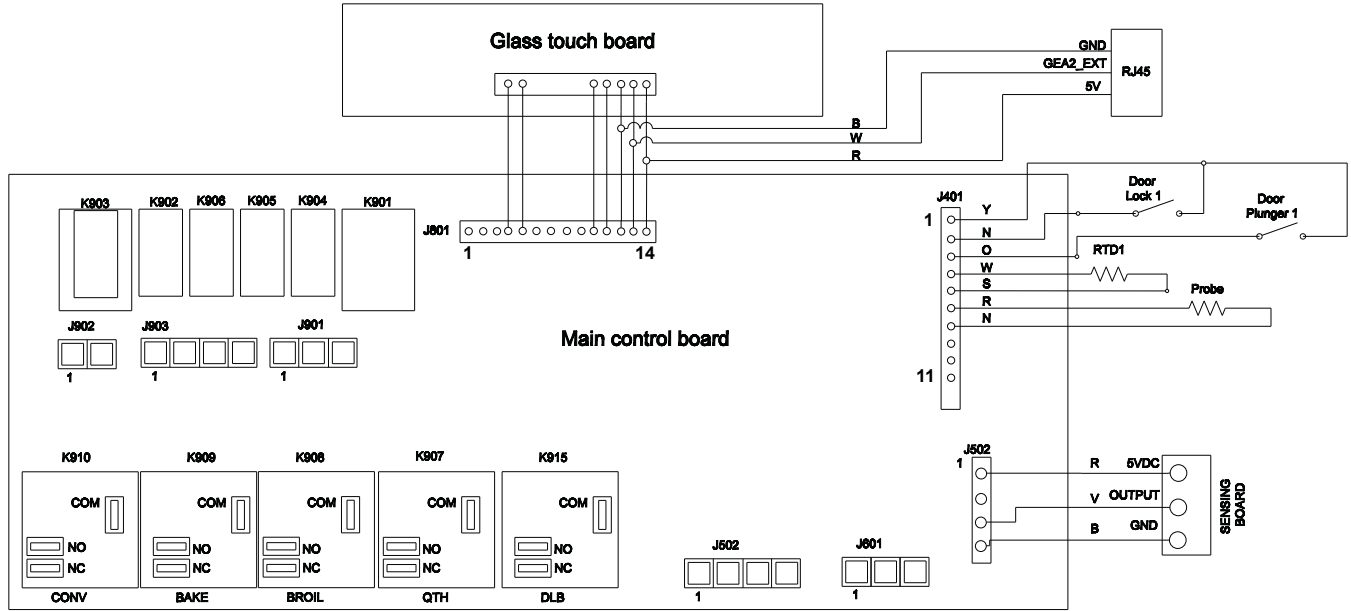
## TWO DIGIT COLORS:

First digit wire color

Second digit stripe color

LAST WIRE NUMBER USED		
R		11
W		5
B		7
Y		4
O		9
N		8
S		4
V		4
C		2

# Main Control Board



J801 PINS 1 - 14	
1	RX LEFT ENCODER
2	M_TX_LEFT_ENCODER
3	GROUND
4	9V
5	14V
6	TOUCH_RESET
7	TX_RIGHT_ENCODER
8	RX_RIGHT_ENCODER
9	GROUND
10	TX_GT_UI
11	RX_GT_UI
12	GROUND
13	GEA2_E
14	5V

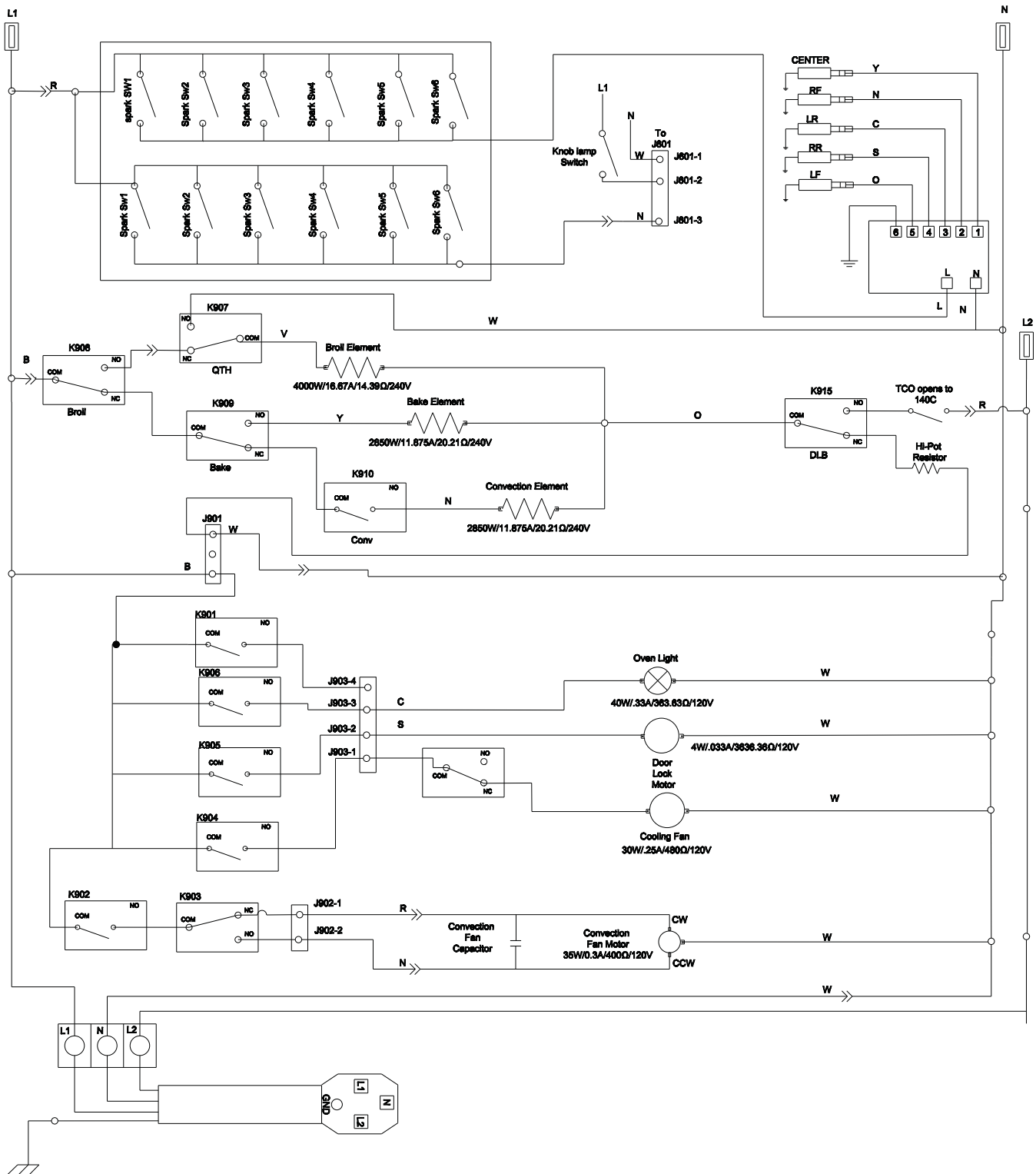
J401 PINS 1 - 11	
1	M_COM
2	M_LOWER_DOOR_LOCK
3	M_LOWER_DOOR_STATE
4	5V_RTD_SW
5	RTD1
6	PROBE1
7	GROUND
8	M_UPPER_DOOR_LOCK
9	M_UPPER_STATE
10	RTD2
11	PROBE2

COLOR	SYMBOL
RED	R
WHITE	W
ORANGE	O
YELLOW	Y
VIOLET	V
BLUE	N
GRAY	S
BROWN	C
BLACK	B
GREEN	G

## NOTES:

All leads with designation numbers that enter common leads path ( ) must be traced to their terminations.

# Schematic





# Index

## A

Automatic Latch 30

## B

Bake Element 48

Blower 36, 45, 46

Blower Tangential 45

Bluetooth® 13

Board 31, 37, 38, 39, 40, 42, 43, 46, 47, 53, 54

Broil Element 48

Burner 9, 10, 27

## C

Capacitor 36, 40

Celsius 8, 13

Clean 11

Code 52

Control 6, 9, 19, 31, 32, 33, 34, 36, 37, 38, 39, 40, 42, 43, 46, 47, 57

Convection 11, 13, 36, 39, 40, 41, 45

Cooktop 57

Cover 30, 31, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47

## D

Diagram 56

Door 16

Drawer Assembly 18, 19

Dual Oval 26, 27

## E

Electrode 22, 23, 24, 25, 26

Element 36, 37, 39, 42

## F

Fahrenheit 8, 13

Fault 52

Fault Codes 52

Flames 50

## G

Gas 14, 22, 24, 50, 51

Griddle 14

## H

Handle 18

Harness 24, 27, 28

Hinge 16, 18

## I

Injet 25

## L

Lamp 36, 43, 44

Latch 30

Leak 50, 51

Lock 11

## M

Main Control Board 57

Manifold 15, 19, 26, 27, 35

Model Number 7

Motor 33, 34, 36, 40, 41, 45

Multi-Ring 26

## O

Orifice 9, 10, 25, 26

Oval 24, 26

Oven Temperature Calibration 49

## P

Probe 11, 13, 29, 32

## R

Receptacle 29, 32

Relay 19, 31, 32, 36, 37, 38, 39, 40, 42, 43, 46, 47

## S

Schematic 58

Sensor 37, 38, 46, 48, 49, 52, 53

Service Mode 48

Settings 11, 12, 13

Sound 13

Spark 22, 23, 24, 25, 26

Surface Burner 14

Switch 24, 27, 28, 29, 31

## T

Terminal 24, 27, 30, 31, 37, 39, 42, 43, 45

## V

Valve 27, 28

View 1, 15, 21, 29, 33, 36

## W

Warranty 2

Wi-Fi 12

Window 17

Wiring Diagram 56