

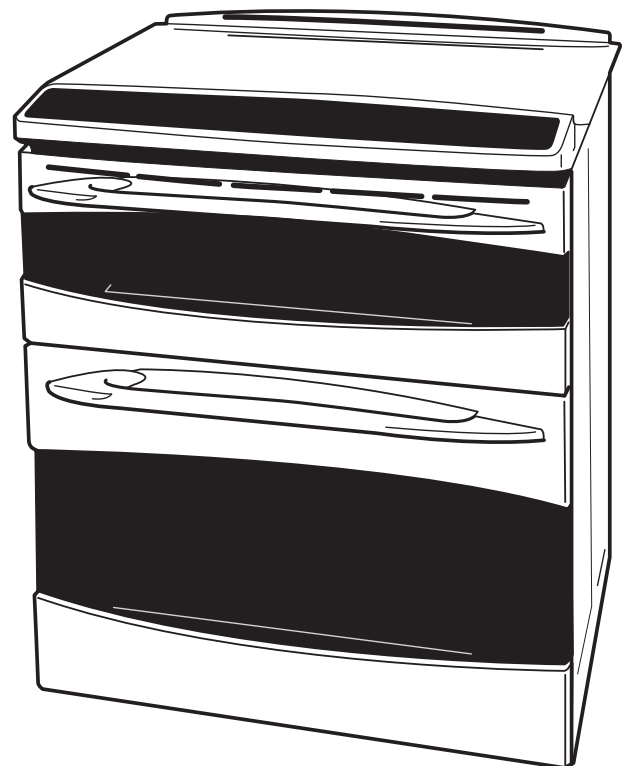
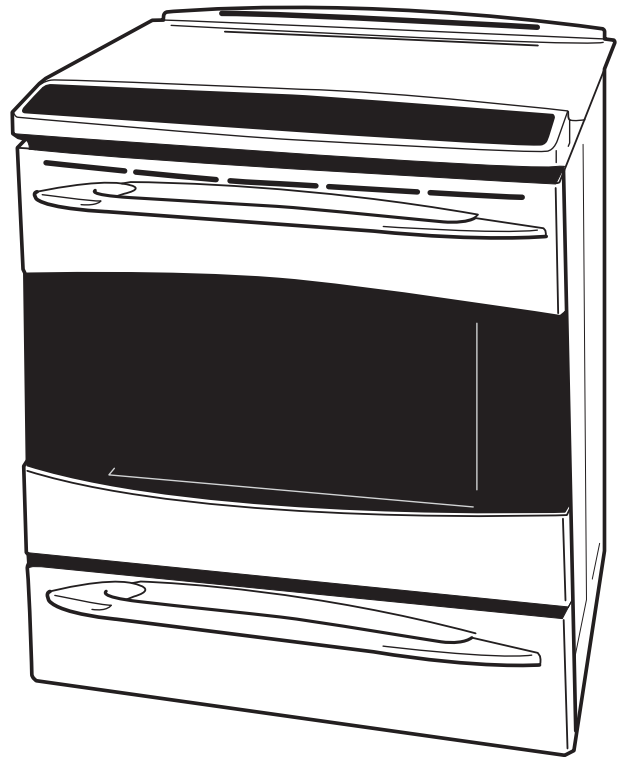
GE Appliances

# Technical Service Guide

December 2011

## Profile 30-in. Slide-in Induction and Radiant Ranges

PHS925ST1SS  
PS978ST1SS



31-9219



GE Appliances  
General Electric Company  
Louisville, Kentucky 40225



### **IMPORTANT SAFETY NOTICE**

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

### **WARNING**

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

### **RECONNECT ALL GROUNDING DEVICES**

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

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# Introduction

## Model PHS925

The Profile 30-in. Slide-In Induction Range with convection oven and warming drawer features electronic oven and induction element controls. The induction elements provide unmatched cooking performance and flexibility. Induction technology heats only the pan and its contents and offers energy efficiency by reducing wasted heat when compared to radiant and gas cooktops.

The Profile 30-in. Slide-in Induction Range has the following new features:

- **Innovative technology**—delivers the responsiveness of a gas cooktop.
- **Superior performance**—induction technology heats only the pan and its contents, providing an incredibly fast boil time.
- **Remarkable versatility**—this induction cooktop offers the choice of 19 different power levels, including a 3700-watt, 11" element for large cookware, warming capability, and a low-heat simmer setting for delicate sauces.
- **Cooler cooktop surface**—since there is not a traditional thermal heating element, the induction cooktop stays cooler than conventional radiant cooktops.
- **Below cooktop venting**—dissipates heat, permitting less depth to the burner box.
- **Easy cleanability**—cooktop cleaning is easier since spills and splatters do not burn on the cooktop.
- **Electronically controlled oven heating elements**—provide precise cooking control with fast preheating.
- **Convection mode uses reverse-air convection technology**—a bidirectional fan that works with a dedicated third heating element to promote even heat circulation.
- **Performance compensation for 208-volt installation**—boosts power as needed in multifamily dwellings.
- **Cooktop locked out during self clean**
- **Hidden oven bake element**—concealed beneath the oven floor, allows quick and easy ash removal following the self-clean cycle.
- **Two nickel-plated sliding extension racks**



## Model PS785

GE's Profile 30-in. Slide-In Radiant Range utilizes 2 ovens with convection cooking in the lower oven. This range features electronic oven and surface unit controls that combine modern digital technology with ease of operation. The superior style and performance parallel many commercial ranges.

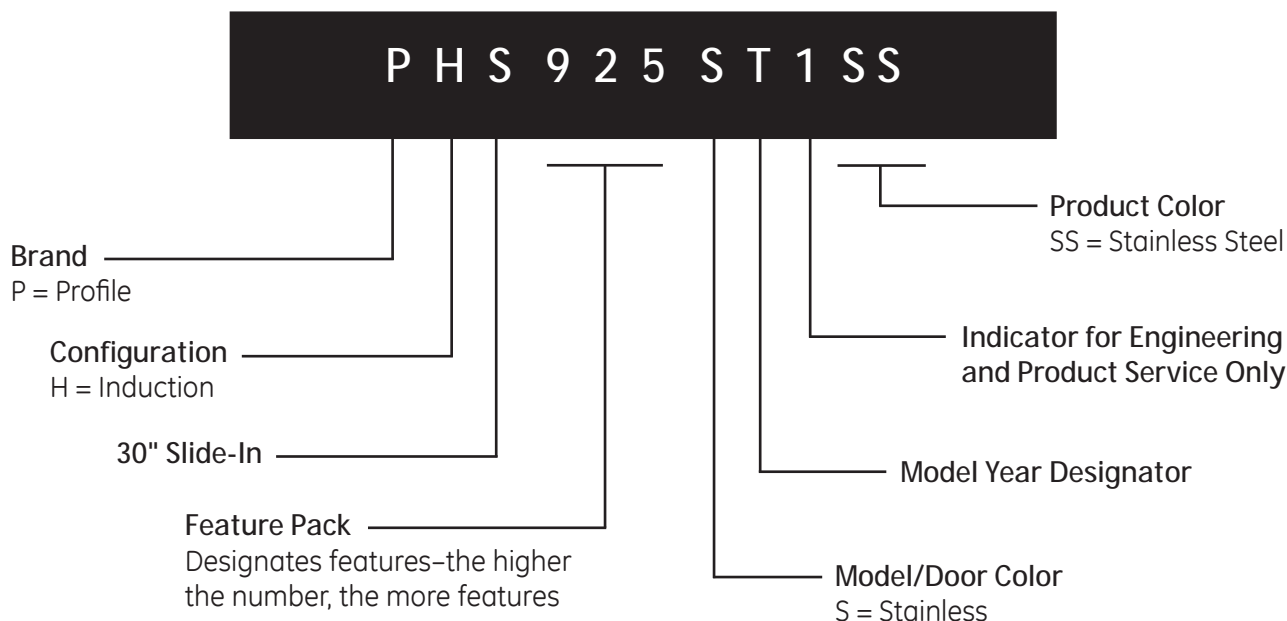
The Profile 30-in. Slide-in Radiant Range has the following new features:

- **Electronically controlled oven heating elements**—provide precise cooking control with fast preheating.
- **Convection mode uses reverse-air convection technology**—a bidirectional fan that works with a dedicated third heating element to promote even heat circulation.
- **Performance compensation for 208-volt installation**—boosts power as needed in multifamily dwellings.
- **6.6 cu. ft. total capacity**
- **Cooktop locked out during self-clean**
- **New motorized self-clean door latch**
- **Recessed convection, low-profile broil elements, and hidden upper and lower oven bake elements**
- **Full-extension racks**



# Nomenclature

## Model Number



The nomenclature plate is located behind the warming drawer panel on PHS925, and behind the lower oven door on PS978.

The mini-manual is taped to the left rear corner of the left body side panel.

## Serial Number

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

*Example:* **ZV 123456S** = December, 2011

Z - DEC	2011 - V
A - JAN	2010 - T
D - FEB	2009 - S
F - MAR	2008 - R
G - APR	2007 - M
H - MAY	2006 - L
L - JUN	2005 - H
M - JUL	2004 - G
R - AUG	2003 - F
S - SEP	2002 - D
T - OCT	2001 - A
V - NOV	2000 - Z

The letter designating the year repeats every 12 years.

*Example:*

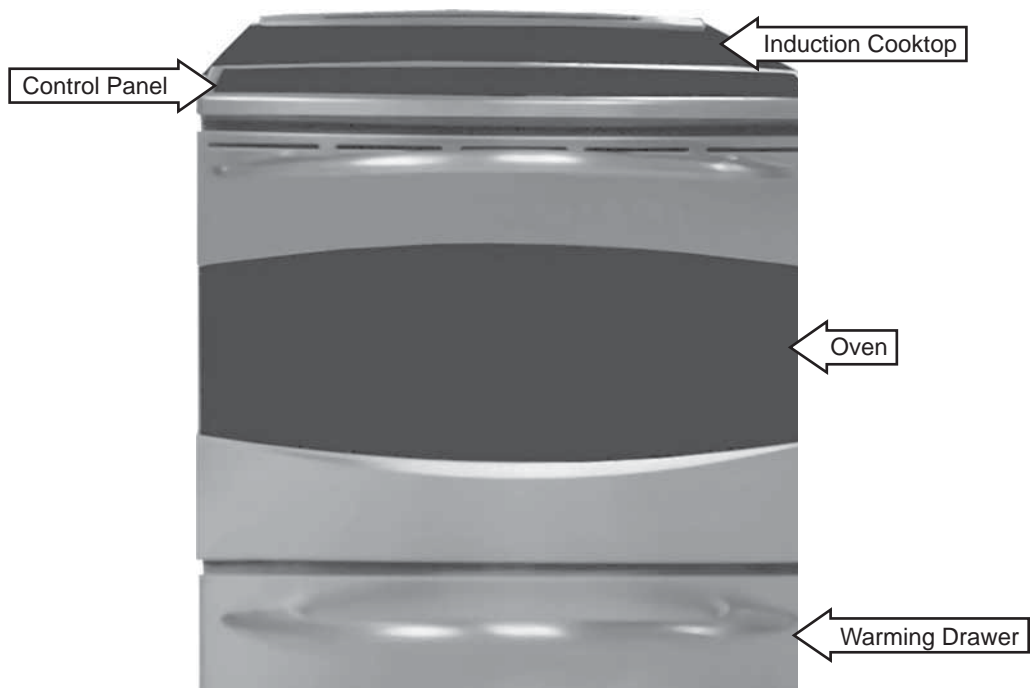
V - 2011

V - 1999

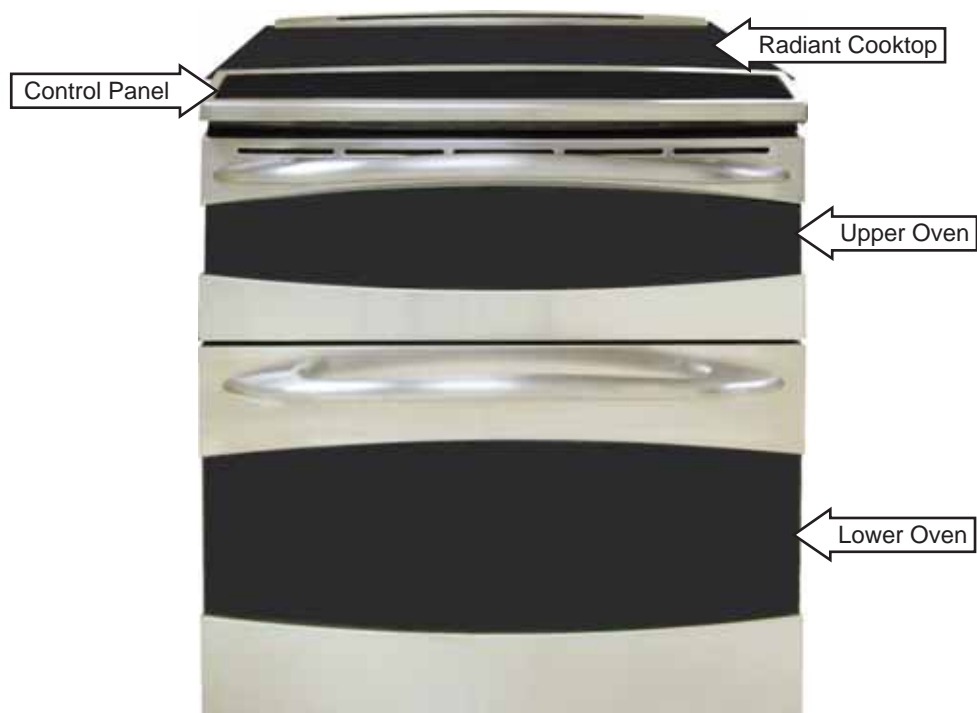
V - 1987

## Component Locator Views

Front View - PHS925

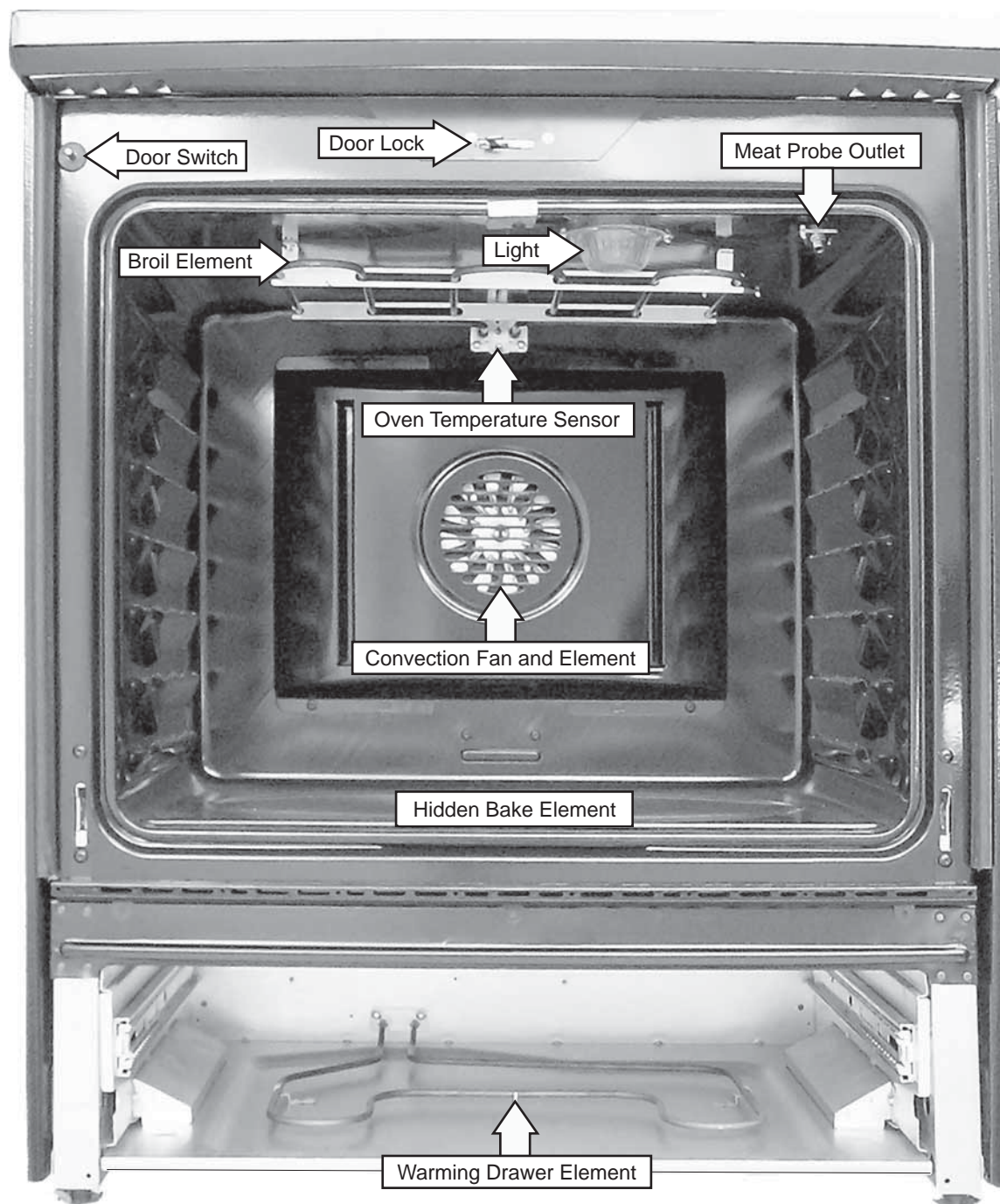


Front View - PS978





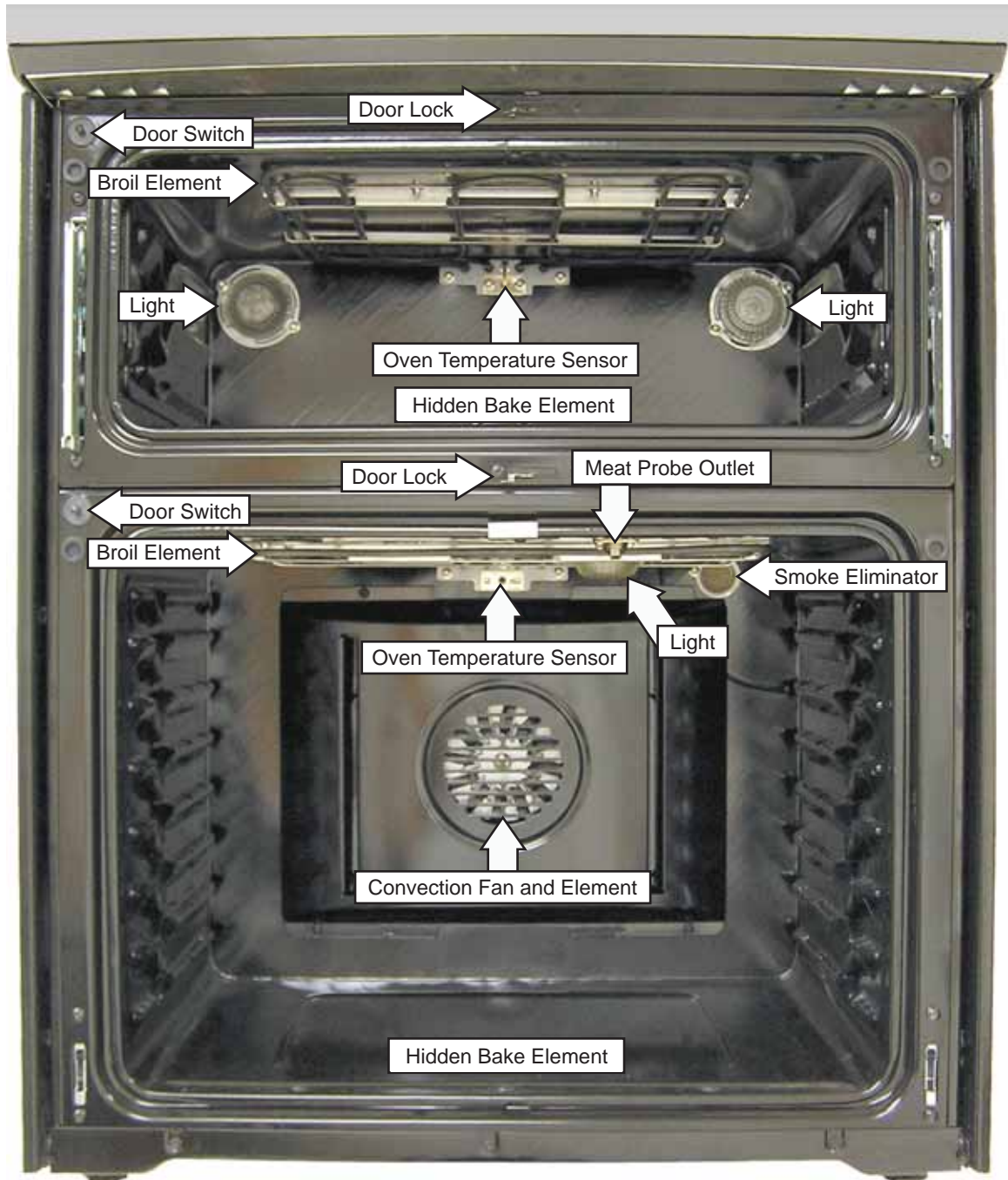
## Oven and Warming Drawer - Front View - PHS925



Shown with oven door and warming drawer removed

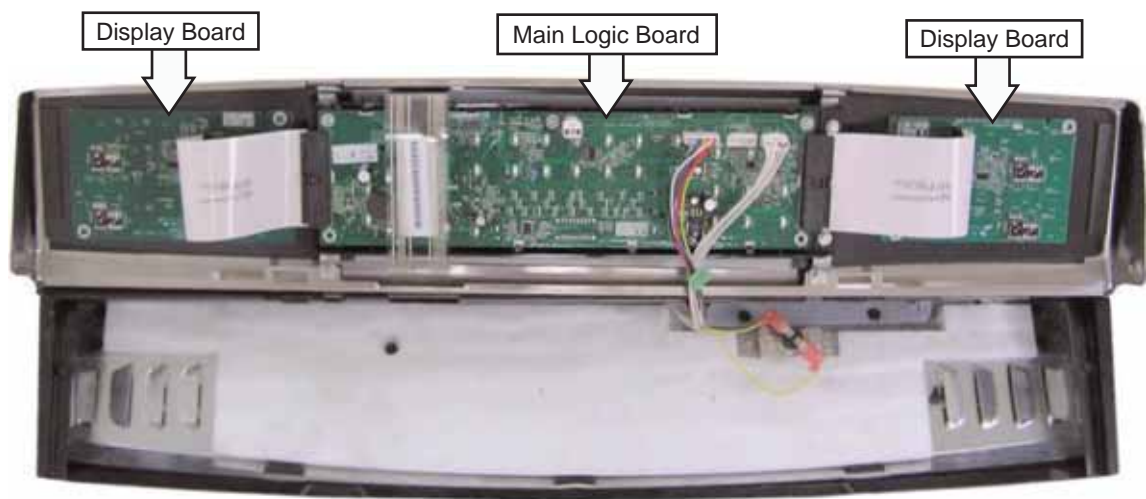


## Upper and Lower Oven - Front View - PS978

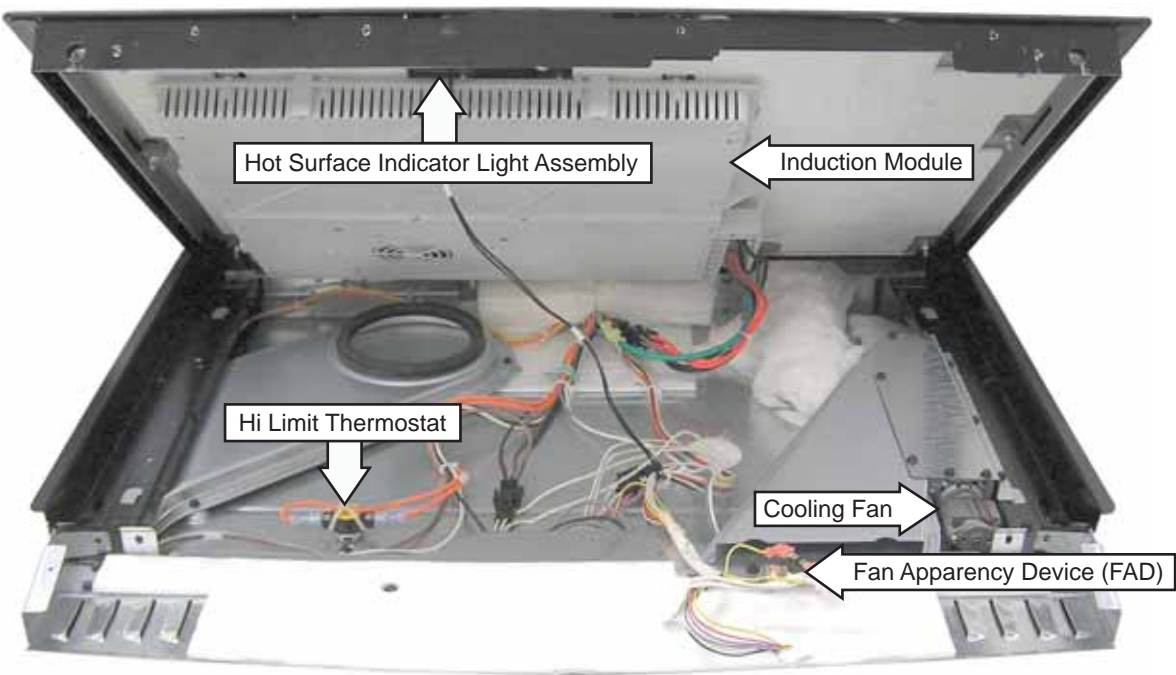


Shown with oven doors removed

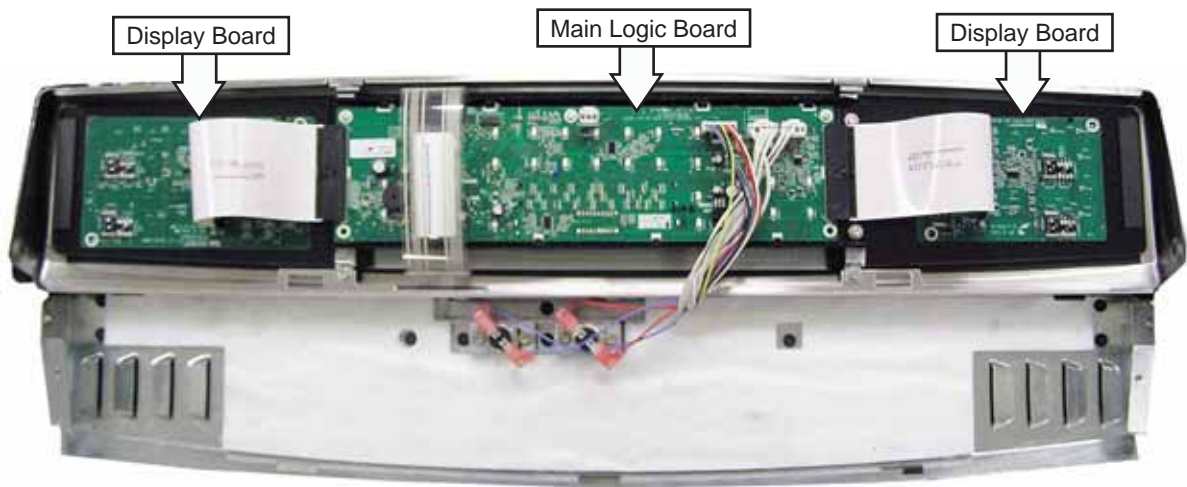
Control Panel - PHS925



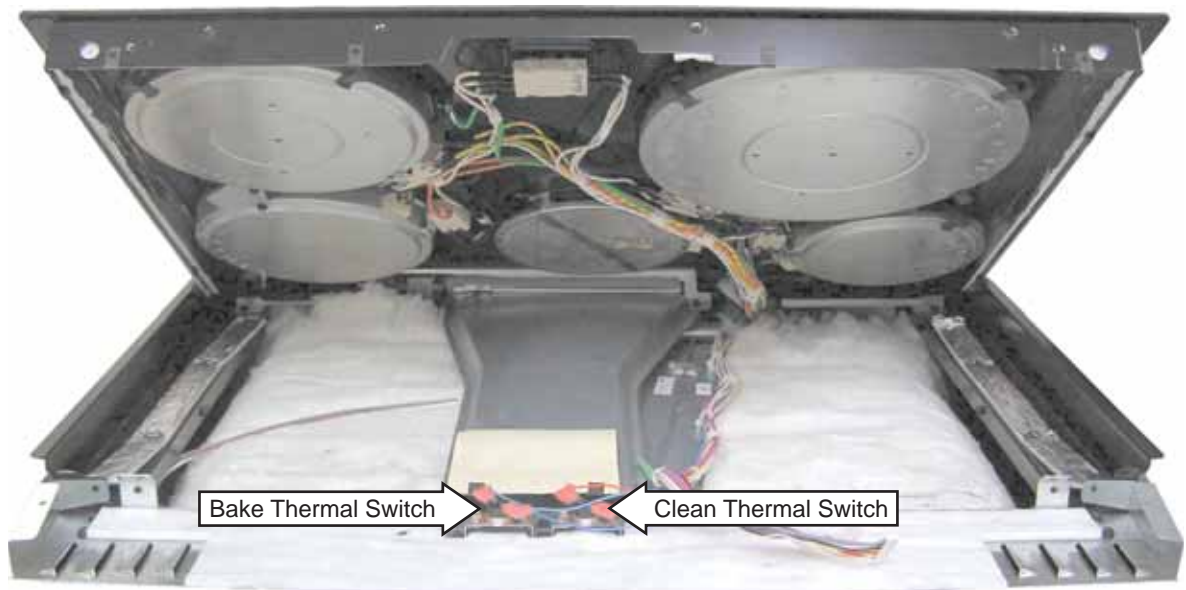
Main Top - PHS 925



## Control Panel - PS978

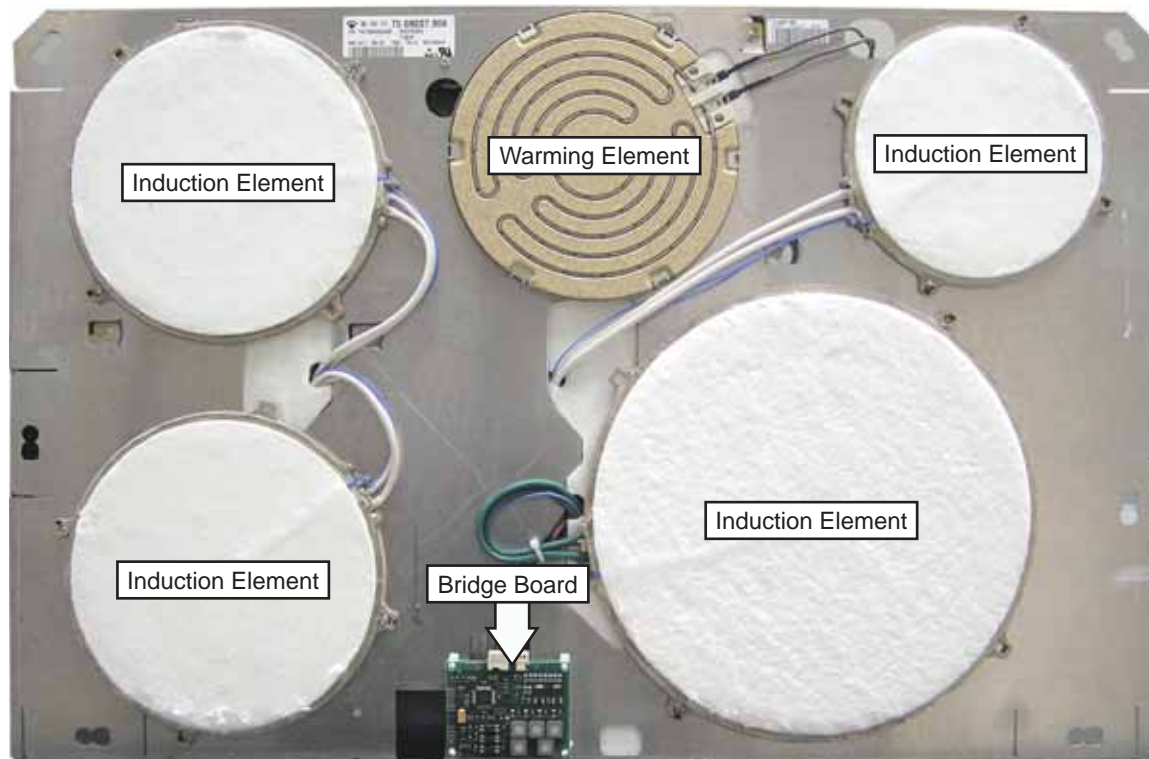


## Main Top - PS978

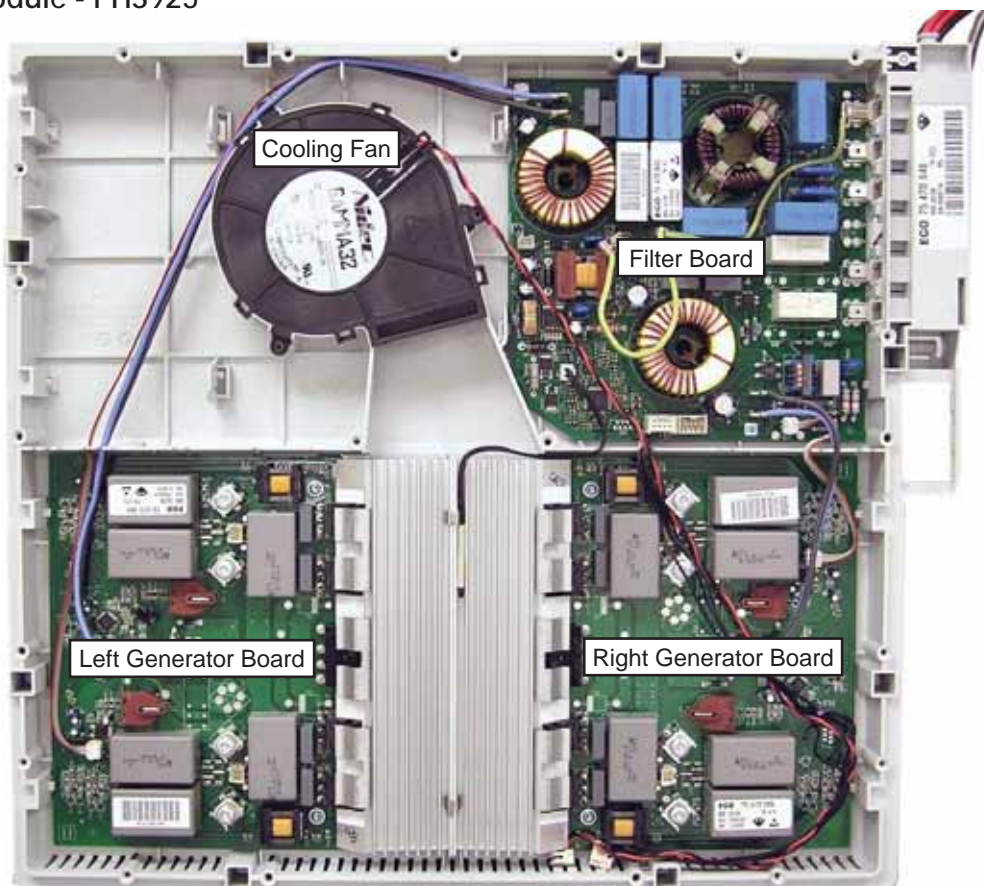




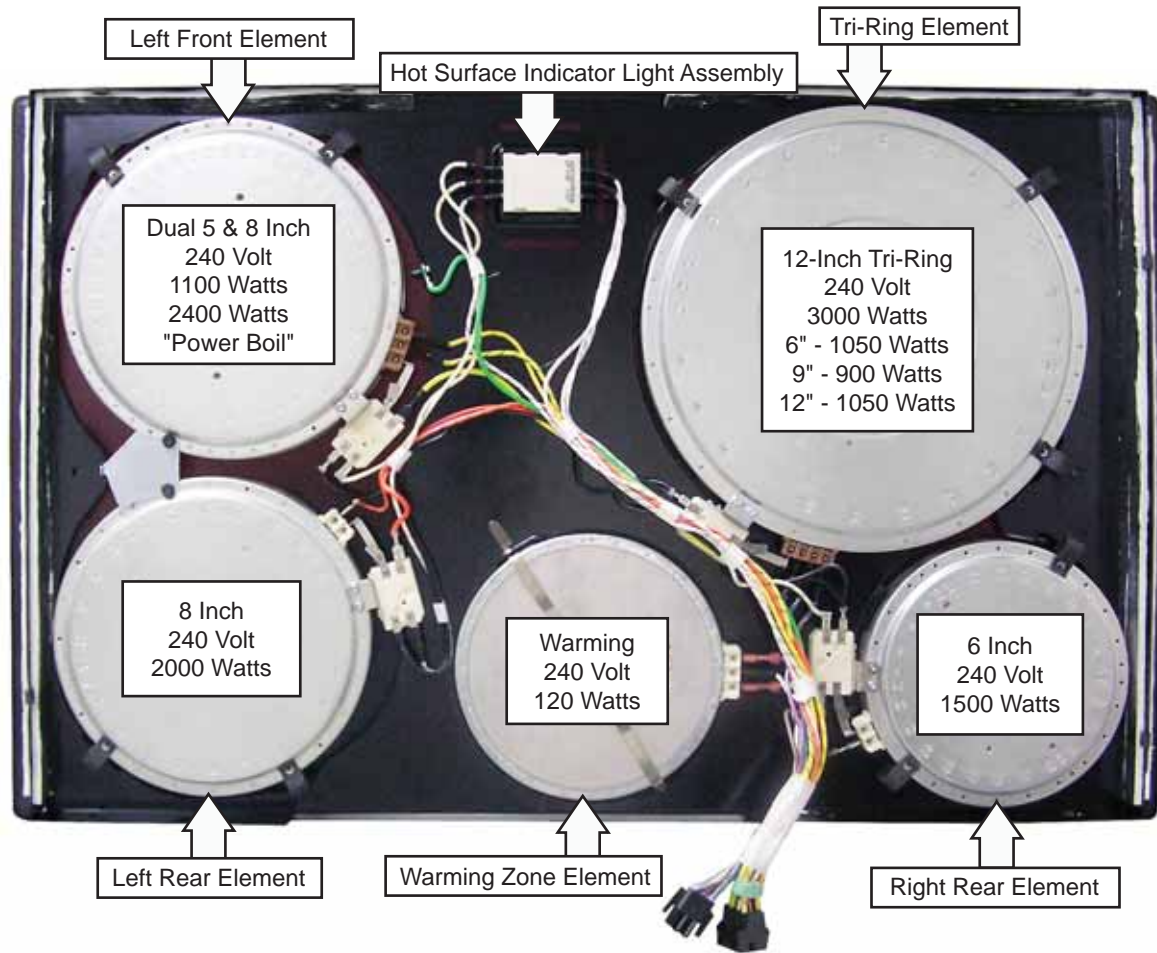
## Cooktop Induction Elements - PHS925

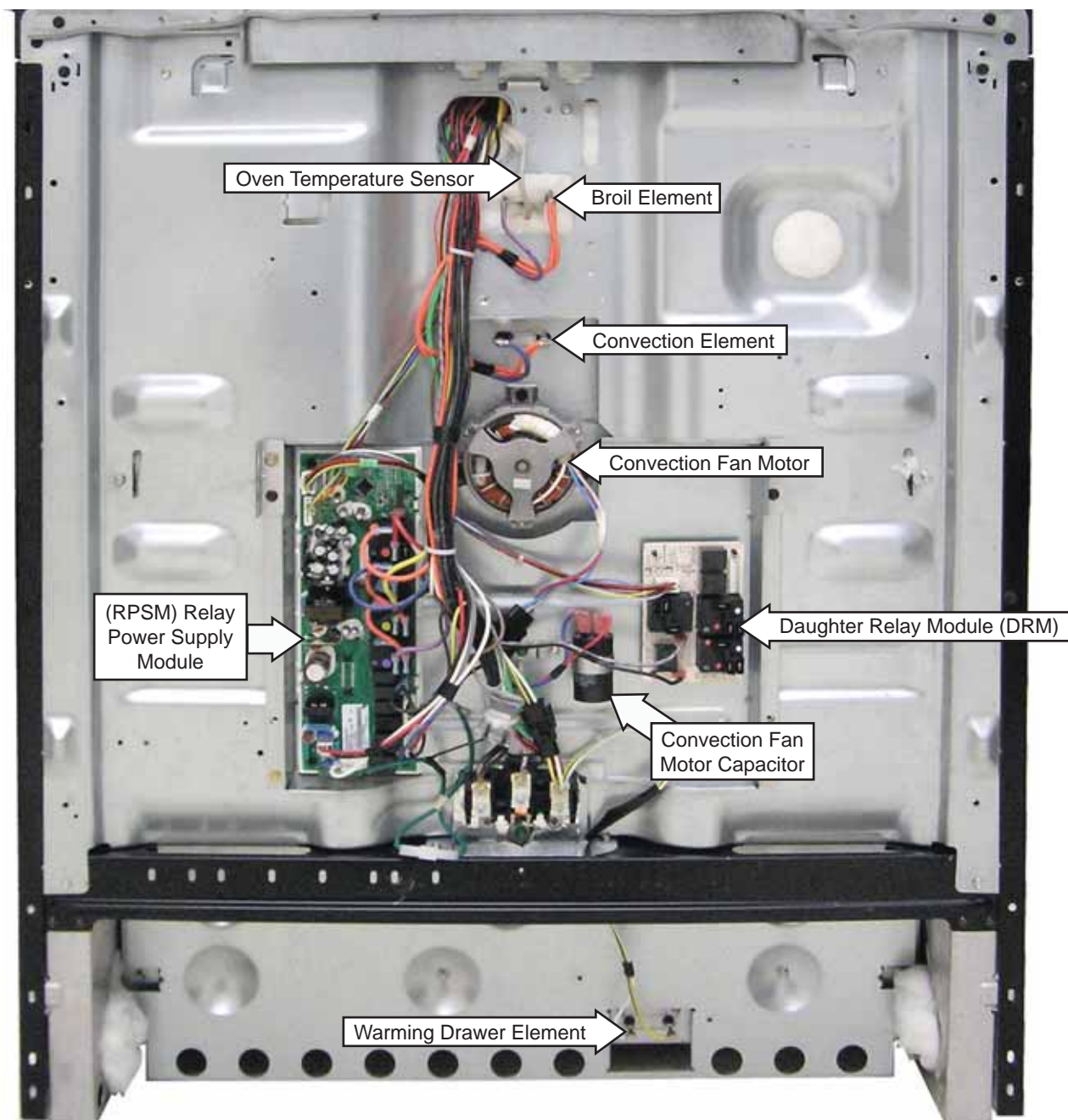


## Induction Module - PHS925



## Cooktop Radiant Elements - PS978

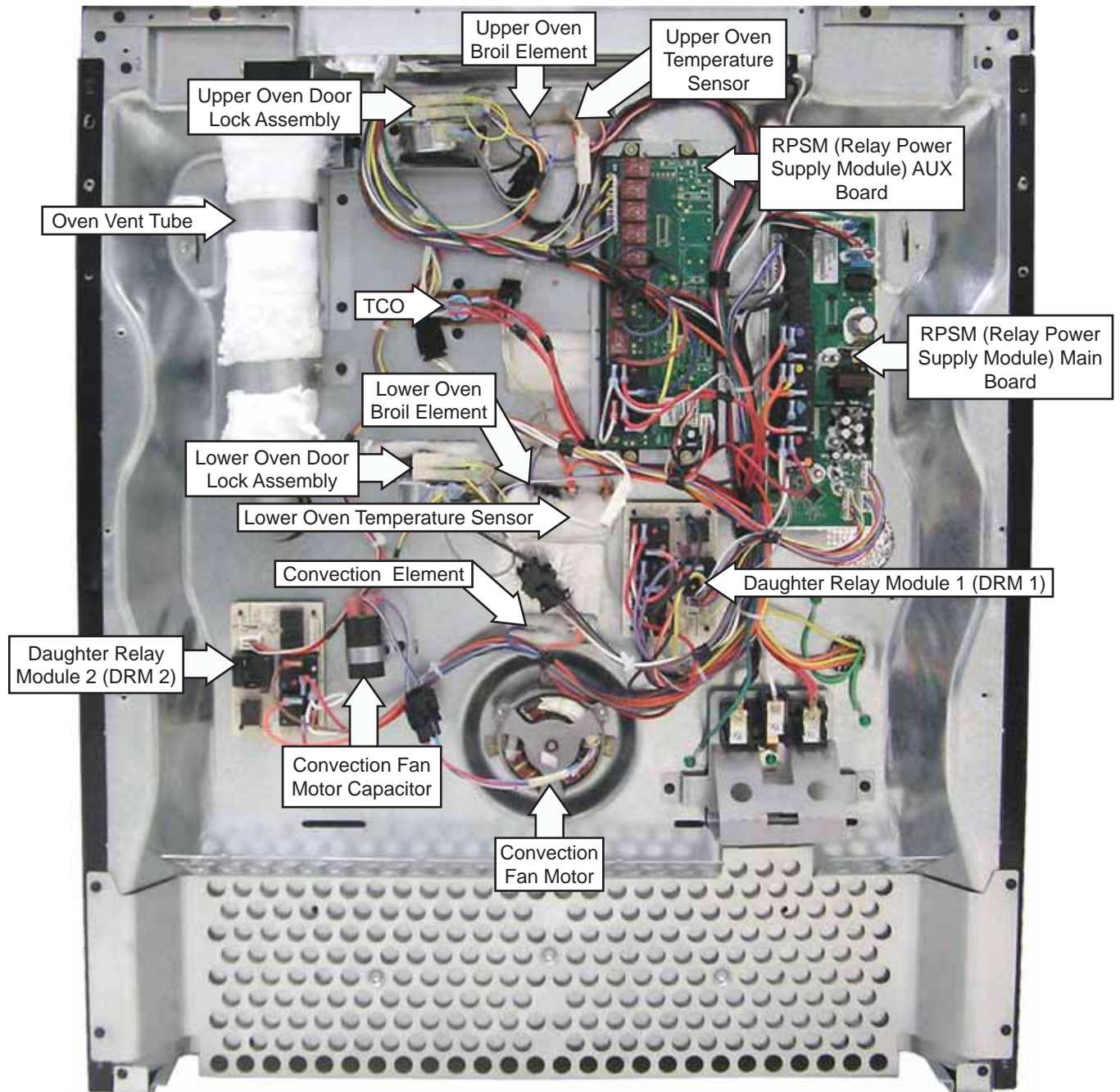




Note: The oven bake element terminals are located behind the left side panel.



## Rear View - PS978

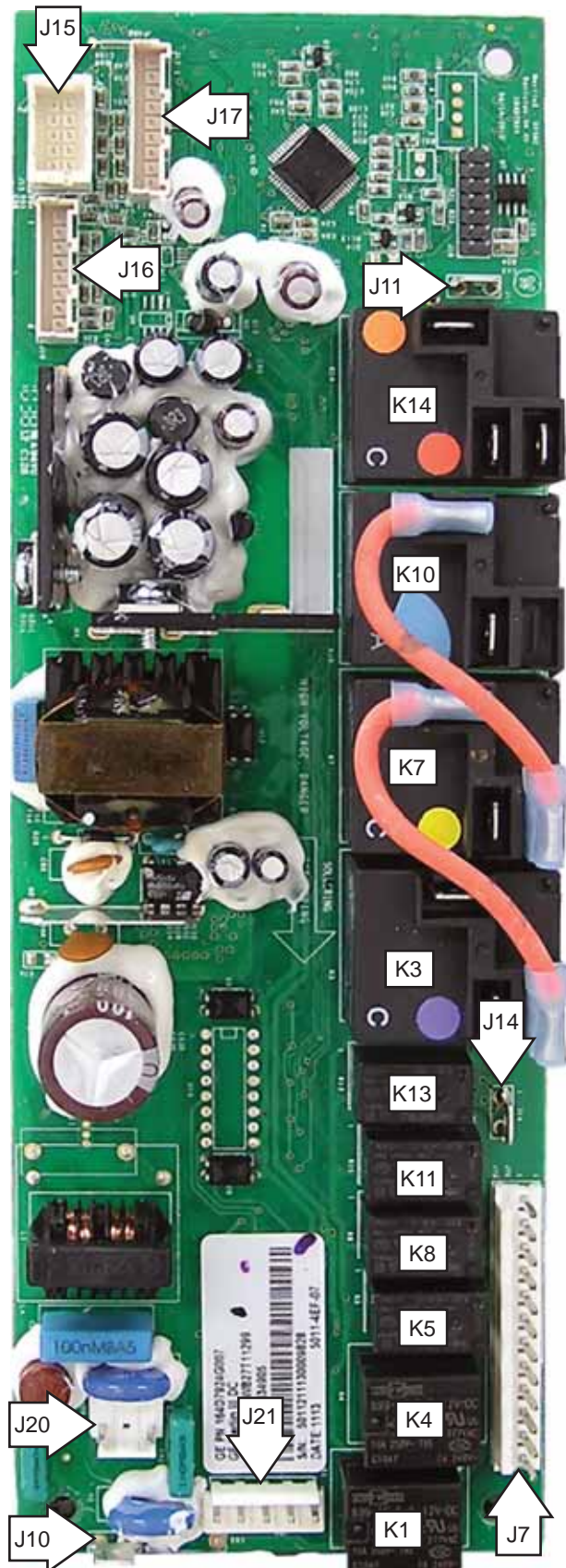


Note: The upper and lower oven bake element terminals are located behind the left side panel.



# Circuit Boards Connector Locator Views

## Relay Power Supply Module - PHS925



J7 - Door Lock Motor, Cooling Fan, Jumper Wire K8 to K1, Warming Drawer Element, Neutral, Oven Light, Convection Fan Motor Direction

J10 - Ground

J11 - Neutral Standby

J14 - L1

J15 - RPSM to DRM Communication

J16 - Oven Lock Switch, Oven Unlock Switch, FAD

J17 - Communication Cable (LINbus)

J20 - 240 VAC

J21 - Bad Line Monitor

K1 - Convection Fan Motor Direction

K3 - Broil/Bake Element Selector Relay

K4 - Oven Light

K5 - Cooling Fan

K7 - Bake/Convection Element Selector Relay

K8 - Convection Fan Motor

K10 - Convection Element Relay

K11 - Warming Drawer Element

K13 - Door Lock Motor

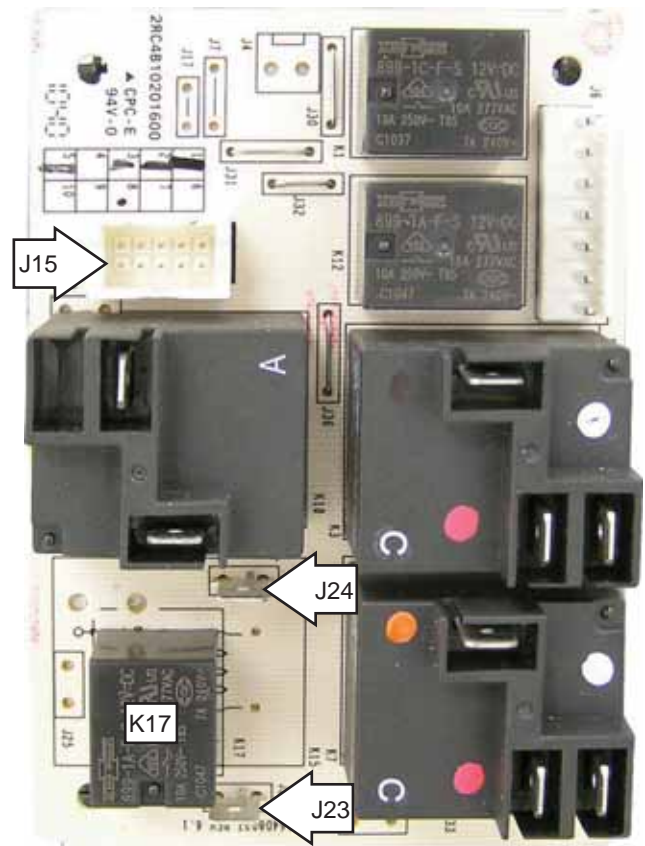
K14 - Double Line Break Relay

## Daughter Relay Module - PHS925

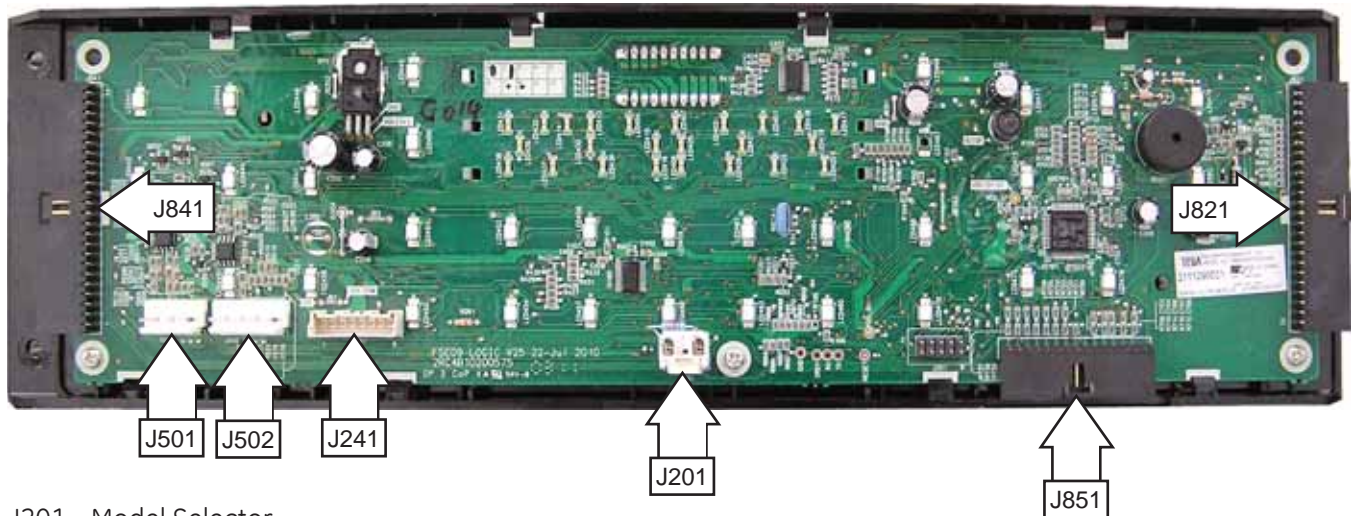
J15 - RPSM to DRM Communication

J23 and J24 - Warming Zone Connections

K17 - Warming Zone



## Main Logic Board - PHS925 and PS978



J201 - Model Selector

J241 - LINbus

J501 - Oven Sensor, Meat Probe (PHS925), Upper Oven Sensor (PS978)

J502 - Lower Oven Temperature Sensor, Meat Probe (PS978)

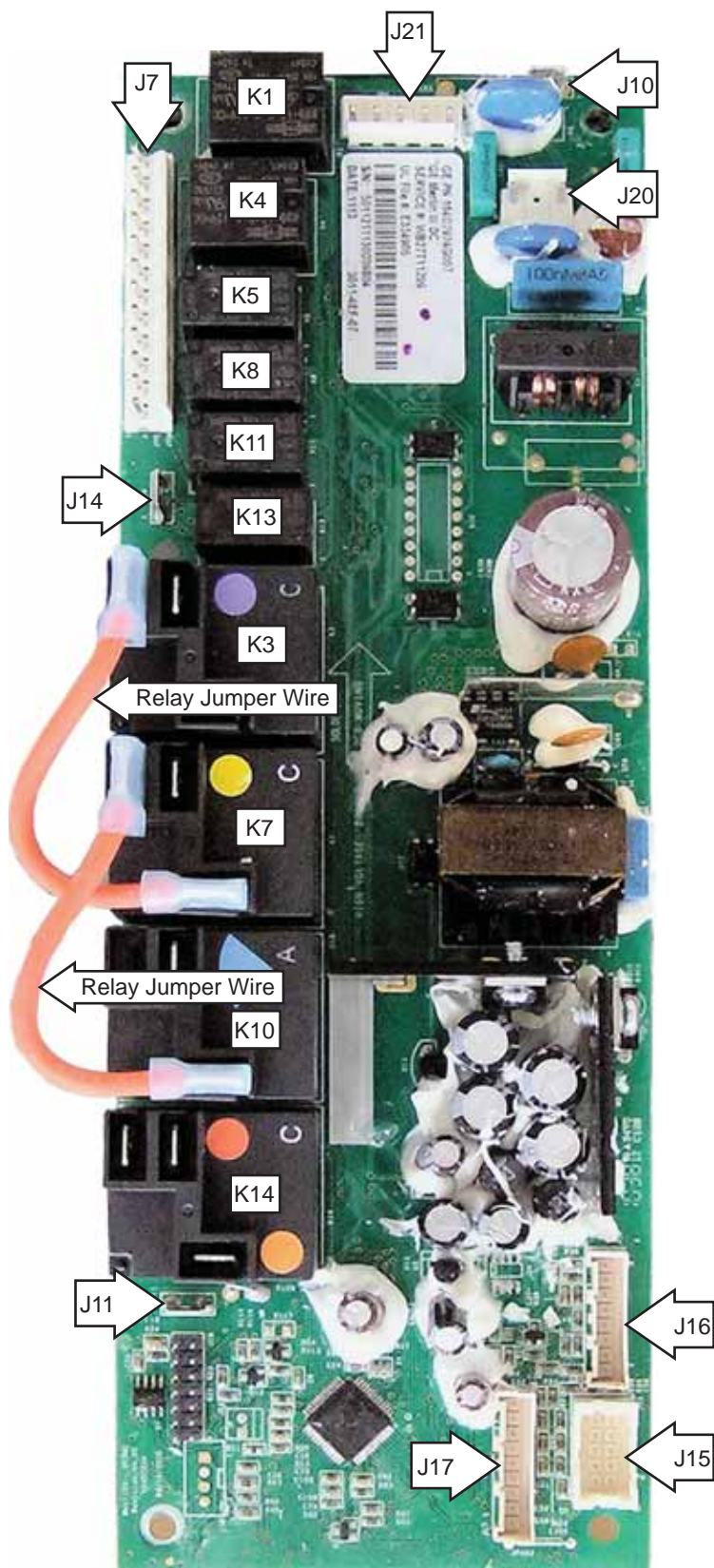
J851 - Oven Touch Panel Board

J821 - Left Side Touch Panel Board

J841 - Right Side Touch Panel Board



## Relay Power Supply Module MAIN - PS978



J7 - Blower, Convection Fan, Door Lock Motor (Upper), Oven Lights, Door Switches

J10 - Cabinet Ground

J11 - Neutral

J14 - L1

J15 - Communications

J16 - Lock Switches

J17 - Communications

J20 - L1 and L2

J21 - Neutral

K1 - Convection Fan Motor Direction

K3 - Lower Broil, Lower Bake, and Convection Elements

K4 - Both Oven Lights

K5 - Blower

K7 - Lower Bake and Convection Elements

K8 - Convection Fan Motor Power

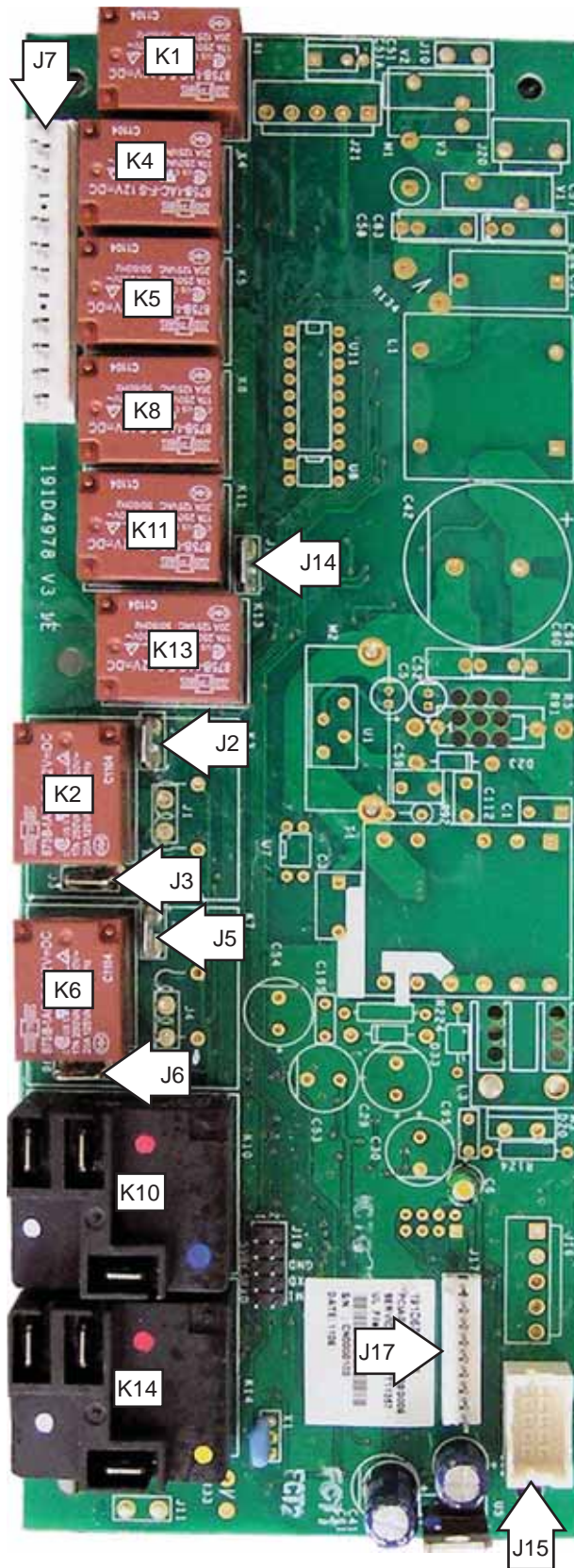
K10 - Convection Element

K11 - Not Used

K13 - Upper Door Lock Motor

K14 - Double Line Break for Lower Bake, Lower Broil, Convection, and Lower Broil Boost Elements.

## Relay Power Supply Module AUX - PS978



J2 - RF Inner Element

J3 - L1

J5 - LR Element

J6 - L1

J7 - RF Center, RF Outer, CR, LF Inner, and LF Outer Elements

J14 - L1

J15 - Communications

J17 - Communications

K1 - LF Inner Element

K2 - RF Inner Element

K4 - LF Outer Element

K5 - CR Element

K6 - LR Element

K8 - RF Center Element

K10 - Double Line Break for RF Element

K11 - RR Element

K13 - RF Outer Element

K14 - Double Line Break for LF Element



## Daughter Relay Module 1 - PS978

J6 - Convection Fan, L1, and Lower Door Lock Motor

J15 - Communications

J23 - L1

J24 - Convection Fan

K1 - Outer Broil (Lower)

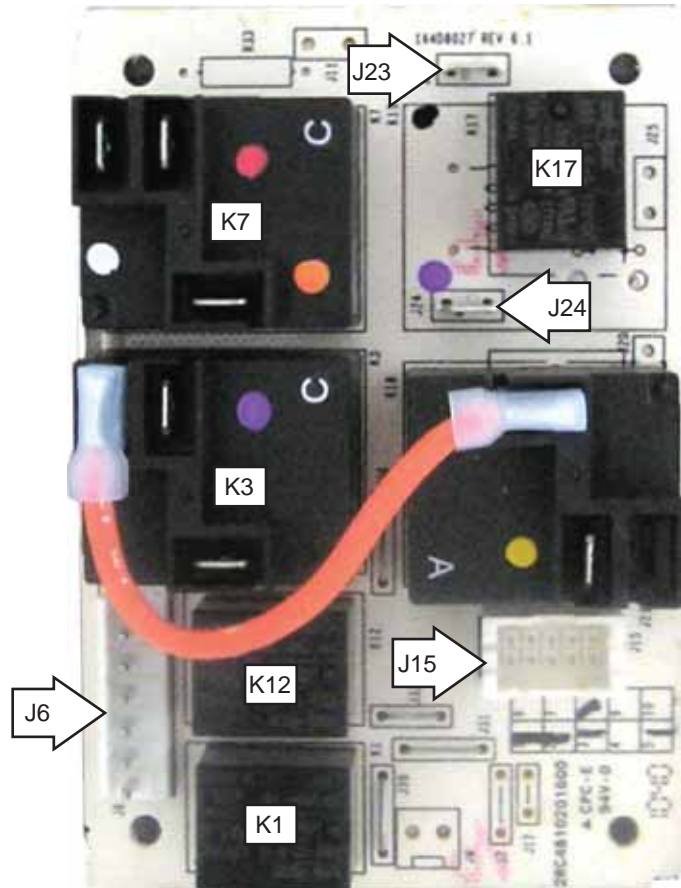
K3 - Upper Bake and Upper Broil Elements

K7 - Double Line Break for Upper Bake, Upper Broil, and Upper Broil Boost Elements

K12 - Lower Door Lock Motor

K17 - Outer Broil (Upper)

K18 - Upper Bake Element

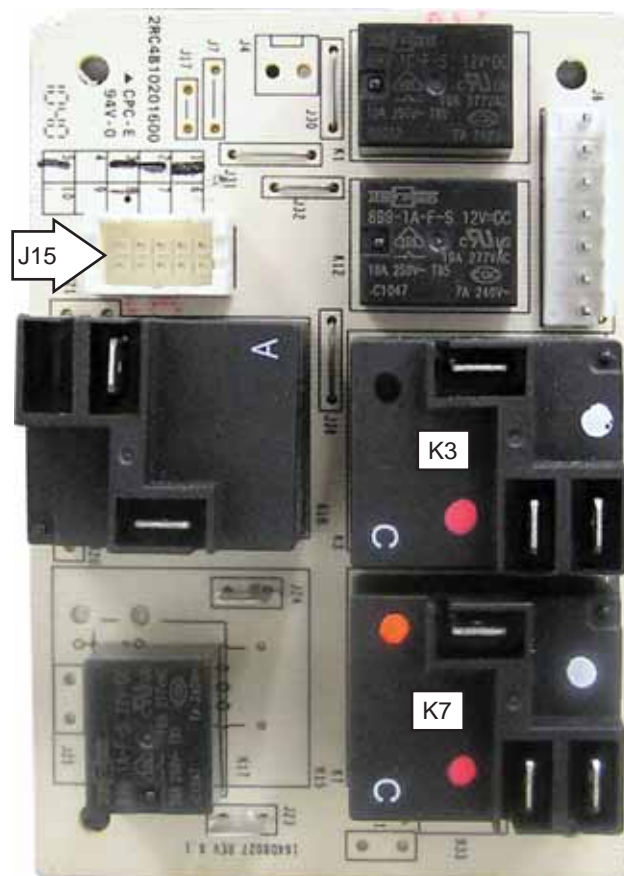


## Daughter Relay Module 2 - PS978

J15 - Communications

K3 - Double Line Break - RR

K7 - Double Line Break - LR



# Range Components

**WARNING:** Sharp edges may be exposed when servicing. Use caution to avoid injury. Wear Kevlar gloves or equivalent protection.

**Note:** Combined Phillips-head/square-drive recess screws may be utilized on this appliance. Either Phillips or square-drive screwdrivers can be used to extract or install these screws.

## Oven Door Assembly

The oven door can be separated into 2 assemblies. The outer assembly consists of the outer door frame, outer glass, heat deflector, top and bottom trims, and a replaceable door handle. The inner assembly is made up of the inner panel, inner glass assembly, heat barrier, door gasket, and replaceable door hinge assemblies.

**Caution:** The door is very heavy. Use the correct lifting procedure. Do not lift the door by the handle.

**Note:** The procedures to remove and replace the oven door on PHS925 and the lower oven door on PS978 are similar.

### To remove the oven door assembly:

1. Open the door fully.
2. Pull the hinge locks from the locked position down toward the door frame, to the unlocked position.



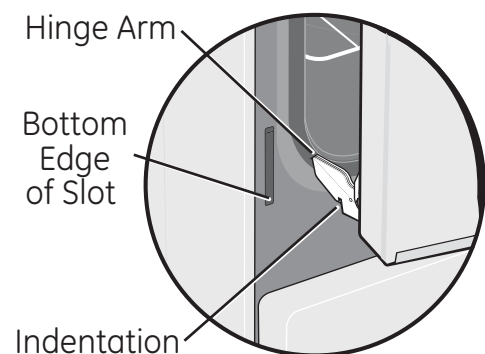
3. Firmly grasp both sides of the door at the top.
4. Close door to the door removal position.

5. Lift door up until the hinge arms are clear of the slots.



### To replace the oven door assembly:

1. Firmly grasp both sides of the door at the top. With the door at the same angle as the removal position, seat the indentation of each hinge arm into the bottom edge of the hinge slot.



2. Fully open the door.
3. Push the hinge locks up against the front frame of the oven cavity, to the locked position.
4. Close the oven door.

*(Continued next page)*

### To remove the inner door assembly:

1. Remove the door. See previous page.
2. Place the door assembly, gasket side up, on a protective surface.
3. On PHS925, remove the three 1/4-in. hex-head screws from the bottom of the door assembly.



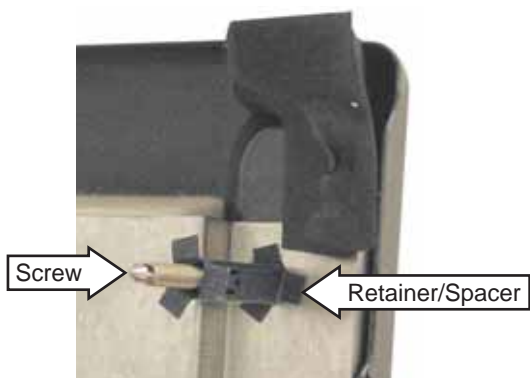
4. On PS978, remove the four T-20 Torx screws from the bottom of the door assembly.



5. On PHS925 remove the 2 Phillips-head screws from the top of the inner door assembly.



**Note:** When installing the inner door assembly, first capture each top screw using the retainer/spacer.

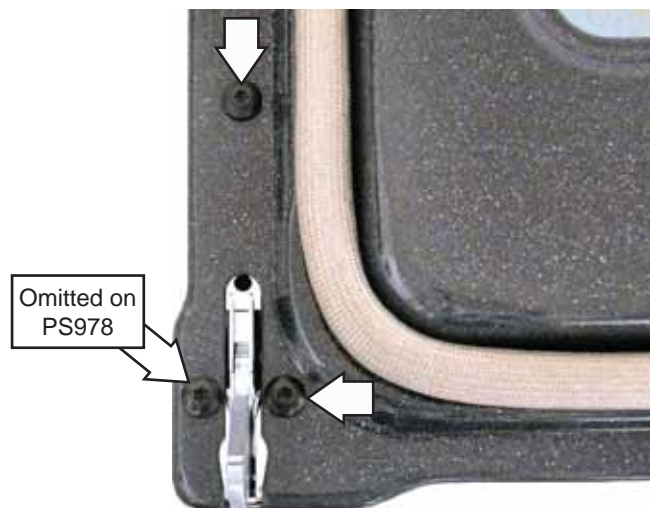


**Note:** The inner door assembly is heavier than the outer door assembly.

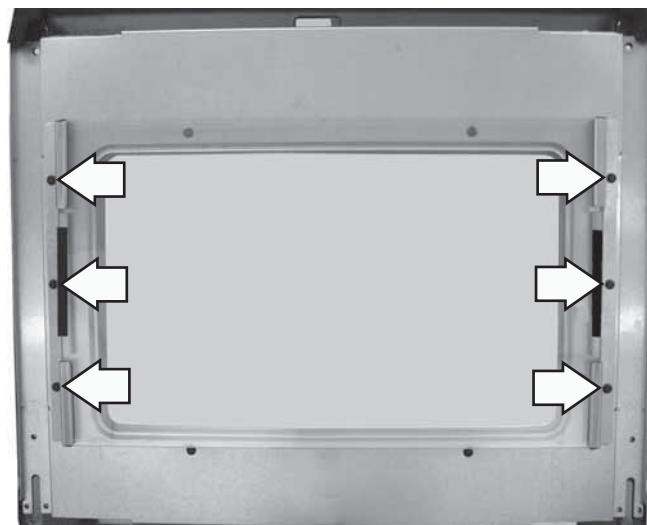
6. Separate the inner door assembly from the outer door assembly.

### To replace the inner door assembly:

1. Remove the inner door assembly. (See **To remove the inner door assembly**, this section.)
2. Remove the T-20 Torx screws (3 on each side PHS925, 2 on each side PS978), that attach each door hinge to the inner door. Carefully turn the door over and remove both door hinges.



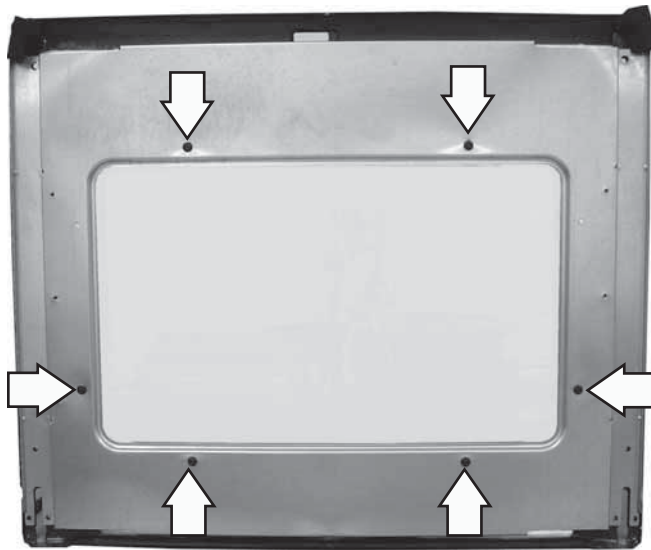
3. Remove the six 1/4-in. hex-head screws that attach the inner window glass assembly to the heat barrier.



*(Continued next page)*



4. Remove the six 1/4-in. hex-head screws that attach the heat barrier to the inner door. Remove the heat barrier.



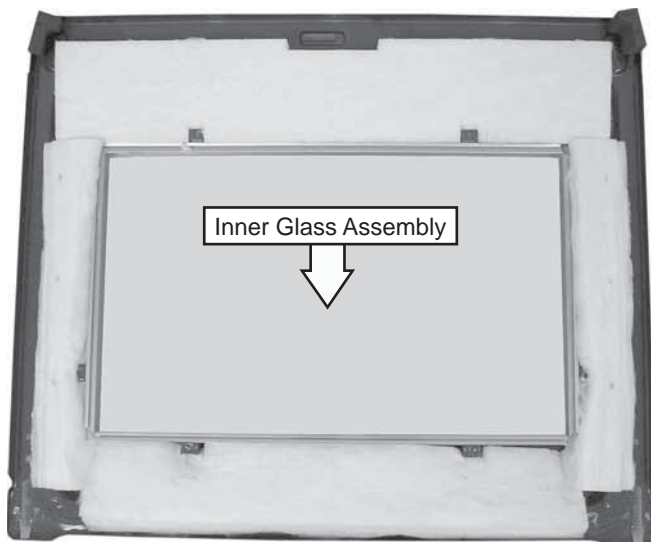
Air enters the door assembly through large slots in the bottom and flows upward between the inner and outer assemblies, exhausting through slots in the top of the door. DO NOT INSULATE THIS AIR CHANNEL.

Arrows on the top of the inner glass assembly indicate the direction that the inner oven door glass is installed. The arrows should be pointing toward the oven cavity.

▽ OVEN ▽



5. Remove the insulation and the inner glass assembly from the inner door.



### Door Gasket

The door gasket forms a seal around the front edge of the oven liner and the inner door panel. The door gasket is attached to the inner door panel by spring clips. When removing the gasket, place a finger under the gasket beside each clip and pull straight up.

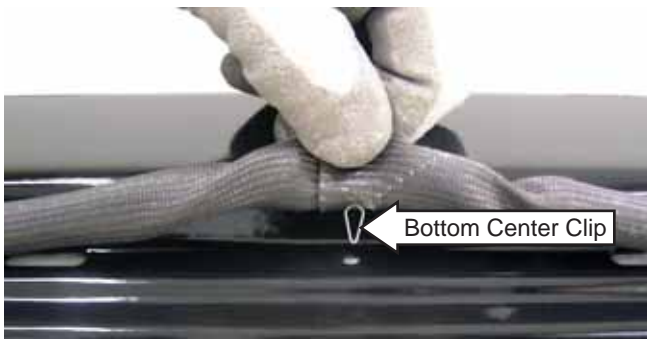
When installing the door gasket, it is helpful to fold the gasket in half and locate the top center clip. Insert the clip at the top of the door and work your way around the door.



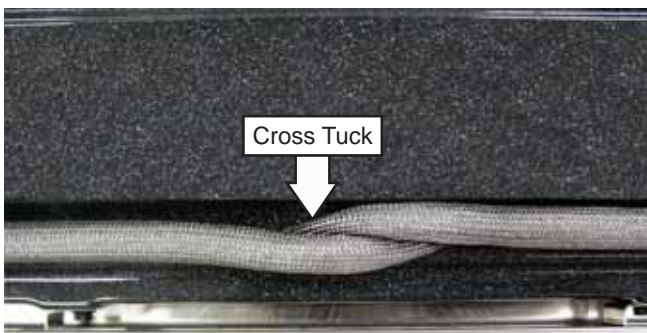
### Assembly Notes

When assembling, make sure the hinges are parallel to each other and perpendicular to the door liner. If not, the hinge may bind on the receiving channel of the door. If the new hinge is not in the cocked and locked position after installing, place the bottom of the door against a firm, protected surface and push the hinge arm down to the cocked position. Pull the hinge lock back against the door liner surface to lock the hinge in this position.

On PHS925, the bottom center clip joins both ends of the gasket to form a continuous seal. Make sure this clip is inserted into the bottom center hole in the inner door panel.

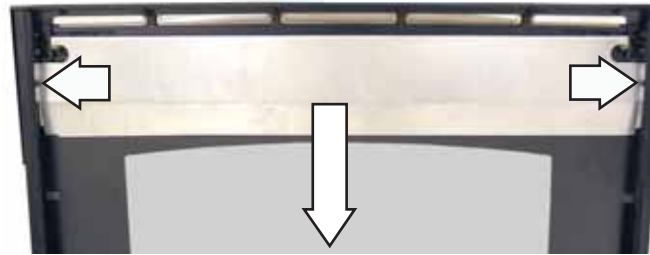


On PS978, make sure the gasket is cross tucked in the bottom slots of the inner door panel. Use a small screwdriver to tuck the loose ends of the gasket into the slots. The overlap is required to ensure a proper door seal.



#### To replace the outer door assembly on PHS925:

1. Remove the inner door assembly. (See **To remove the inner door assembly**, this section.)
2. Remove the two 1/4-in. hex-head screws from the heat deflector.
3. Lower the heat deflector to fully expose the 2 screws that attach the handle and top trim to the outer door frame.

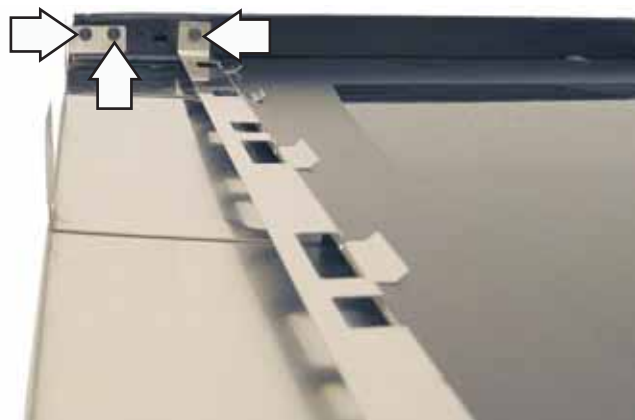


4. Remove the two 1/4-in. hex-head screws that attach the handle and top trim.

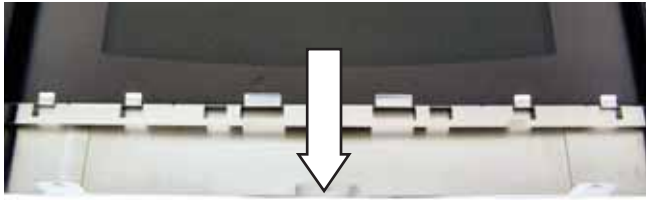


**Note:** When installing the door handle, make sure the handle is level with the top of the door before attaching the heat deflector. An enlarged hole for the right side screw has been provided for this adjustment.

5. Remove the three 1/4-in. hex-head screws (3 from each side) that attach the bottom trim to the outer door frame.



6. Slide the bottom trim and the glass out of the outer door frame.



**Note:** Two arrows on the glass indicate the correct orientation of the glass when it is installed. The side with the arrows is to be placed facing the outside of the frame with arrows pointing toward the top.



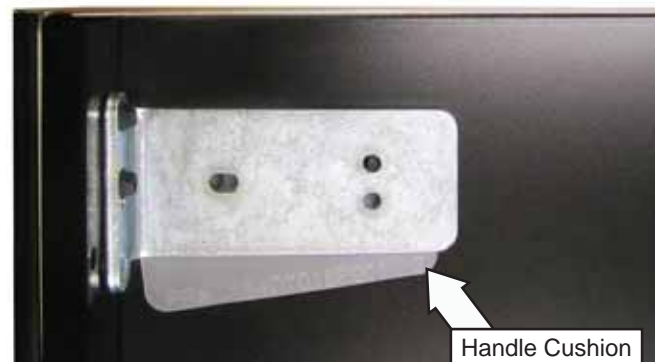
#### To replace the outer door assembly on PS978:

Remove the four 1/4-in. hex-head screws that hold the inner heat shield and door handle to the outer door assembly.



#### Caution:

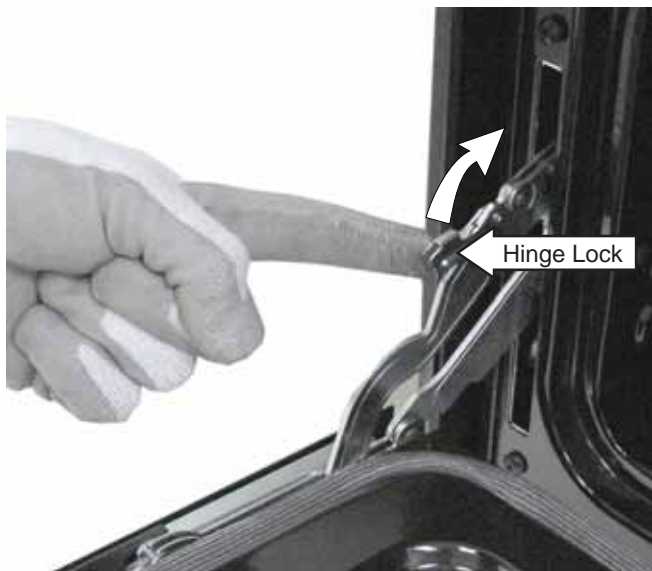
- Care must be taken if reinstalling the door handle. Be sure that each handle cushion is placed between the glass and the bracket.
- Overtightening screws can damage handle/glass. Hand-tighten screws and make sure handle fits snugly to door panel. (Do not use electric driver.)



**To remove the upper oven door assembly on PS978:**

**Caution:** The door is heavy. Use the correct lifting procedure. Do not lift the door by the handle.

1. Open the door fully.
2. Lift each hinge lock towards the oven frame until it stops.



3. Close the door to the stop position. The hinge locks will contact the oven frame.
4. Simultaneously press down on each release button located on the top of both hinges.



5. Lift the door up until it is clear of the door hinges.
6. Pull on the hinge arms lightly to relieve pressure on the locking tabs.
7. Push the hinge locks down onto the hinge.
8. Push the hinges in toward the unit so they are closed.

**To replace the upper oven door assembly on PS978:**

1. Pull the hinges down away from the oven frame to the fully open position.
2. Lift up on the hinge locks and rotate toward the oven frame until they stop.
3. The hinges will release to the 45-degree position. The hinge locks will contact the oven frame.
4. Slide the door back onto the hinges. Make sure the buttons pop back out.
5. Fully open the door.
6. Rotate the hinge locks back toward the door and onto the hinge.
7. Close the oven door.

**To remove the outer door assembly of the upper oven door on PS978:**

1. Remove the door. (See **To remove the upper oven door assembly on PS978**, this section.)
2. Place the door assembly gasket side down on a protective surface.
3. Remove the two T-15 Torx screws that attach the bottom of the outer door assembly to the outer door.



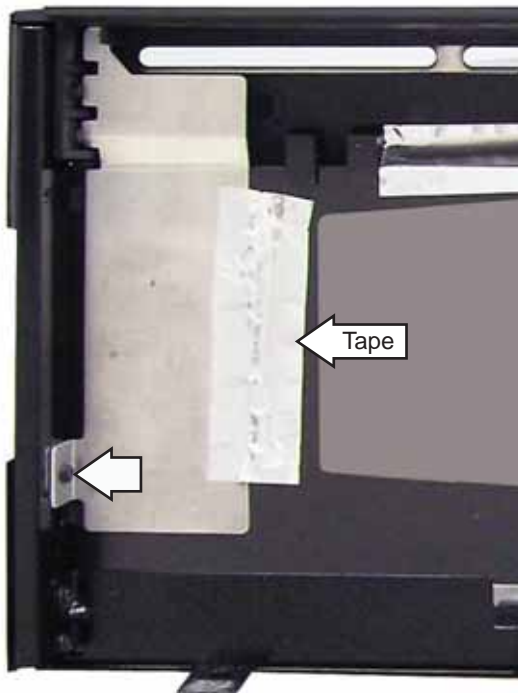
4. Remove the T-15 Torx screw from each side of the outer door panel.



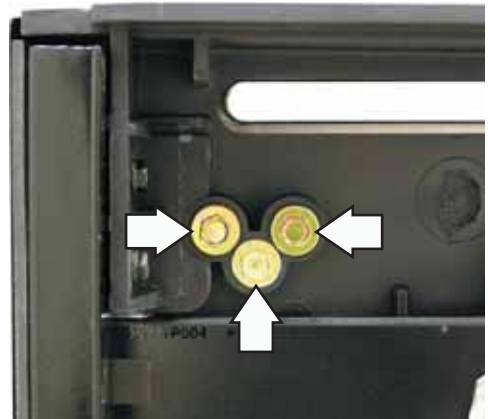
5. Separate the outer door assembly from the inner door.

**To replace the outer door assembly of the upper oven door on PS978:**

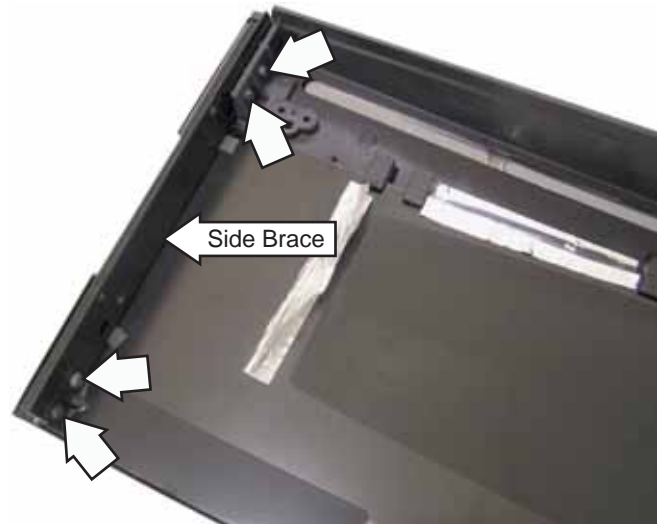
1. Separate the outer door assembly from the inner door. (See **To remove the outer door assembly of the upper oven door on PS978**, this section.)
2. Place the outer door assembly handle side down on a protective surface.
3. Peel back the reflective tape that is attached to the heat shield.
4. Remove the 1/4-in. hex-head screw and the heat shield from the outer door assembly.



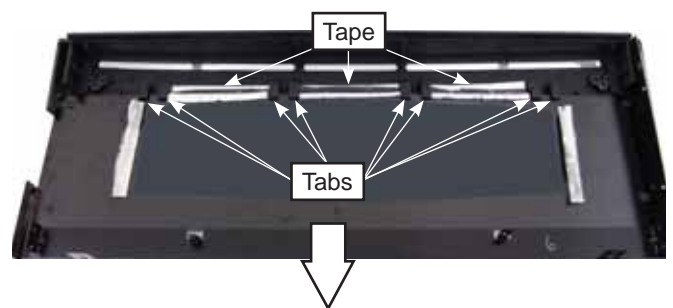
5. Remove the six 1/4-in. hex-head screws (3 from each side) that attach the handle to the outer door assembly.



6. Remove four 1/4-in. hex-head screws that attach each side brace to the outer door panel.



7. Peel back the reflective tape and slide the outer door glass down to clear the 8 retaining tabs.



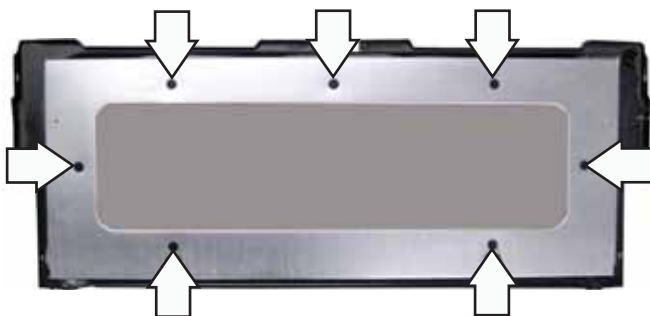


**To replace the inner door assembly of the upper oven door on PS978:**

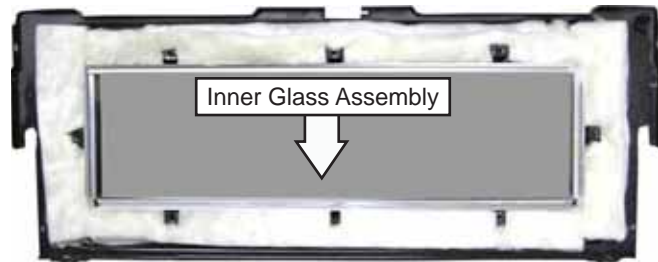
1. Remove the upper oven door outer door assembly. (See **To remove the outer door assembly of the upper oven door on PS978**, this section.)
2. Remove the four T-20 Torx screws (2 on each side) that attach each door hinge receiver to the inner door.



3. Place the inner door panel gasket side down.
4. Remove the seven 1/4-in. hex-head screws that hold the heat barrier to the inner door panel.

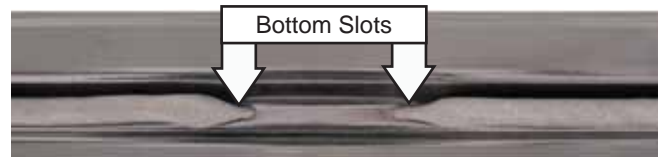


5. Remove the insulation and the inner glass assembly from the inner door.



When installing the door gasket, it is helpful to fold the gasket in half and locate the center clip. Insert the clip at the top of the door and work your way around the door.

Make sure the gasket is tucked in the bottom slots of the inner door panel. Use a small screwdriver to tuck the loose ends of the gasket into the slots.



### Warming Drawer Assembly

**To remove and replace the warming drawer assembly:**

1. Pull the drawer out until it stops. Lift the tab on the left side and push the tab down on the right side while pulling the drawer out.
2. To replace the warming drawer, place the drawer rail in the guides and push the drawer in until it stops.

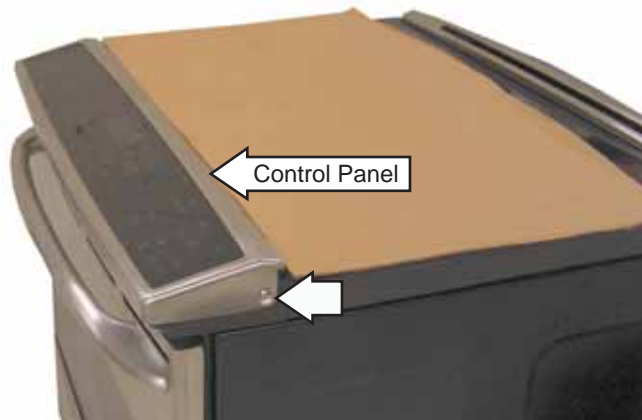


## Control Panel

The control panel contains the main logic board and the glass touch controls.

### To remove the control panel:

1. Place a protective cover on the main top.
2. Remove the two T-15 Torx screws, (1 on each side), that attach the control panel to the range.

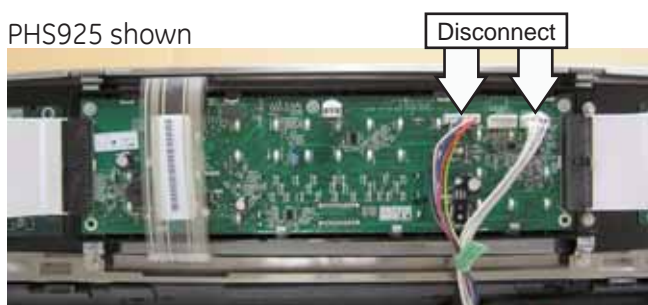


3. Lift and rotate the control panel towards the front of the range.



4. Disconnect the 2 (PHS925) or 3 (PS978) range wire harnesses from the main logic board and place the control panel face down on the protective surface.

PHS925 shown

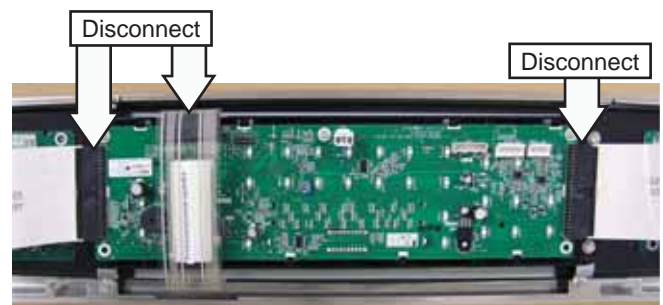


## Main Logic Board

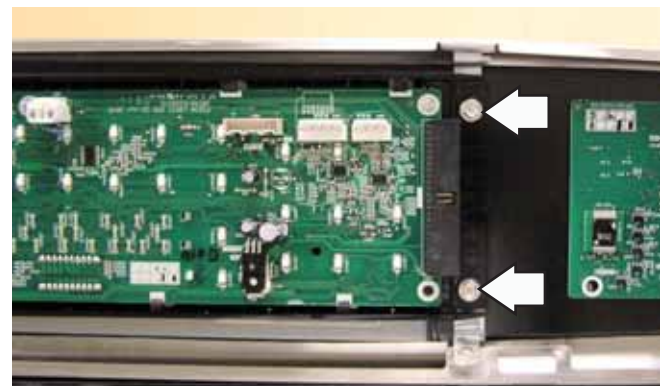
The main logic board is located inside the control panel. The main logic board is held to the control panel with two 1/4-in. hex-head screws on the right side and 2 tabs on the left side. The glass touch panel assembly plugs into the main logic board.

### To remove the main logic board assembly:

1. Remove the control panel. (See *Control Panel*.)
2. Disconnect the touch panel ribbon connectors from the main logic board assembly.



3. Remove the two 1/4-in. hex-head screws that attach the right side of the main logic board to the control panel.



4. Slide the main logic board to the right.

**Note:** Before connecting power to the replacement main logic board, transfer the model selector, located at J201, to the replacement main logic board. (See *Circuit Boards Connector Locator Views*.)



## Glass Touch Panel

The glass touch panel is attached to the control panel with two 1/4-in. hex-head screws at the bottom and 2 tabs located at the top.

To remove the glass touch panel:

1. Remove the main logic board. (See *Main Logic Board*.)
2. Remove the two 1/4-in. hex-head screws that attach the glass touch panel to the control panel.
3. Disengage glass touch panel tabs from slots in control panel.

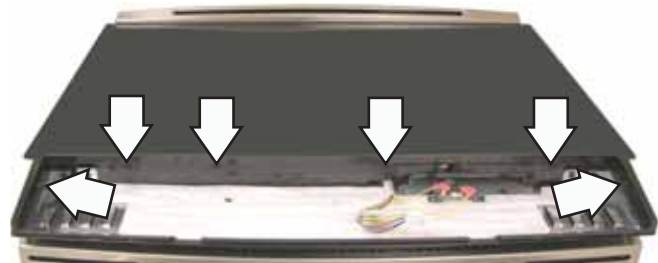


Glass Touch Panel Removed

## Cooktop Assembly

To remove the cooktop assembly on PHS925:

1. Disconnect power to the range.
2. Remove the control panel. (See *Control Panel*.)
3. Remove the six 1/4-in. hex-head screws that attach the control panel frame



4. Slide the control panel frame off the front of the range.



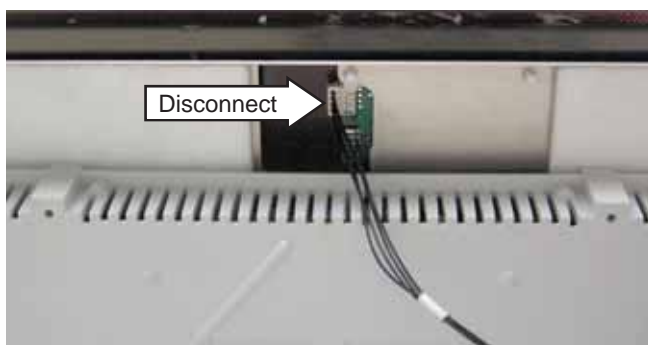
5. Remove the four 1/4-in. hex-head screws (2 on each side) that attach the front of the cooktop frame to the range.



6. Lift the front of the cooktop frame.

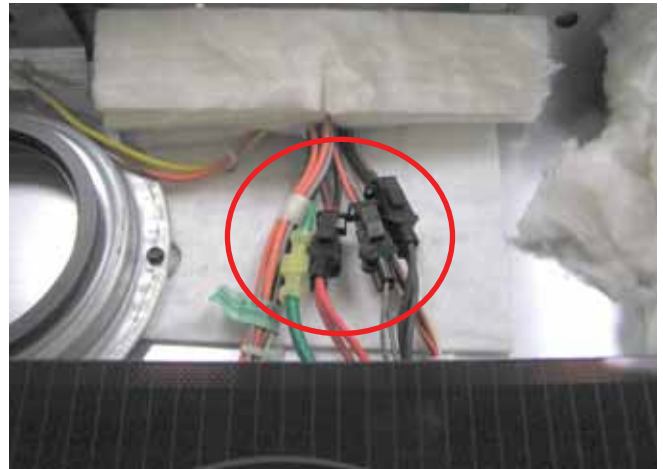


7. Disconnect the bridge board wire harness.



8. Lower and slide the cooktop assembly forward to access cooktop wiring.

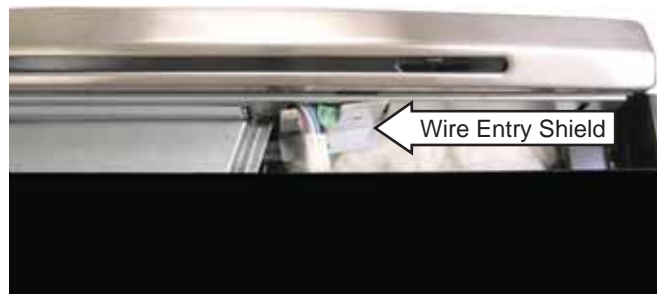
9. Disconnect the 3 wire harnesses and ground wire that connect the induction module to the range wiring.



10. Lift the cooktop assembly and place it on a protective surface.

To remove the cooktop assembly on PS978:

1. See To remove the cooktop assembly on PHS925: Follow steps 1 thru 6.
2. Lower and slide the cooktop assembly forward to access and remove the wire entry shield.



3. Pull the cooktop wiring thru the wire entry and disconnect the 2 wire harnesses that connect the cooktop assembly to the range.

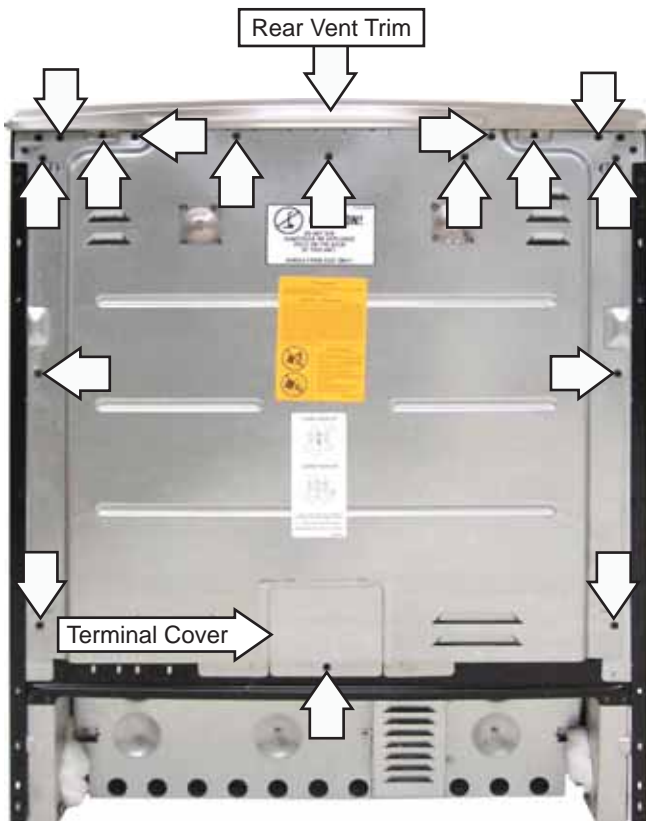


4. Lift the cooktop assembly and place it on a protective surface.

## Rear Cover

### To remove the rear cover on PHS925:

1. Disconnect power to the range.
2. Pull the range out from its installation.
3. Remove the two 1/4-in. hex-head screws and the rear vent trim.
4. Remove the 1/4-in. hex-head screw and terminal cover.
5. Remove thirteen 1/4-in. hex-head screws that attach the rear cover to the range.

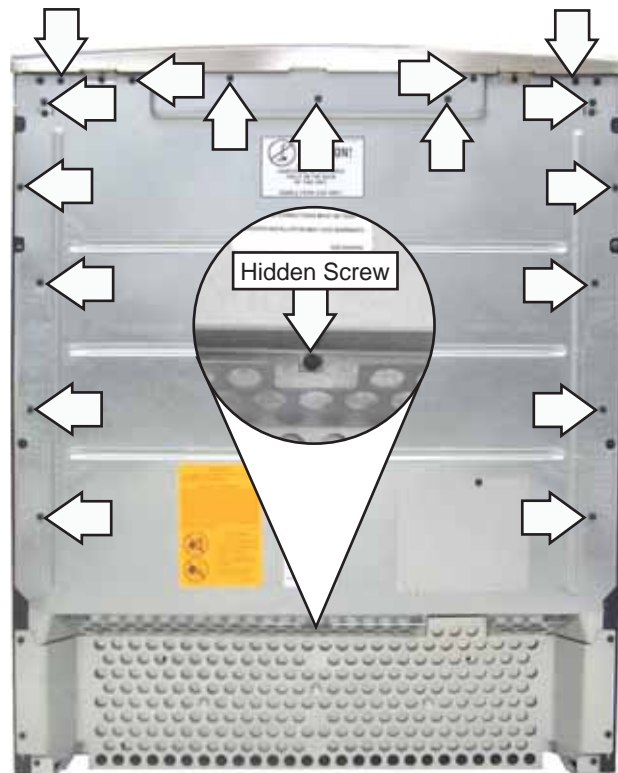


**Note:** A vent barrier gasket is located behind the rear cover and attached to the back of the range. When installing the rear cover, make sure the vent barrier gasket is attached in its original position, as shown in the photo below.

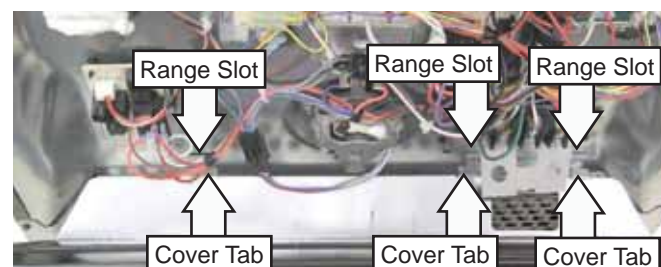


### To remove the rear cover on PS978:

1. Disconnect power to the range.
2. Pull the range out from its installation.
3. Remove the hidden screw from the bottom of the rear cover.
4. Remove seventeen 1/4-in. hex-head screws that attach the rear cover to the range.



5. Pull the top of the cover away from the range and disengage the 3 cover tabs from the slots near the bottom of the range.



## Left Side Panel

It is necessary to remove the left side panel to replace the bake element, hinge receiver, and upper oven liner.

To remove the left side panel on PHS925:

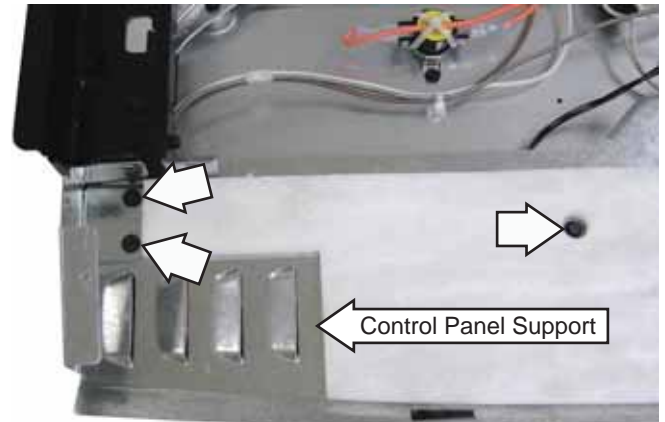
1. Disconnect power to the range.
2. Remove the oven door and warming drawer. (See *Oven Door Assembly, Warming Drawer Assembly*.)
3. Remove the range from its installation.
4. Remove the cooktop. (See *Cooktop Assembly*.)
5. Remove the rear cover. (See *Rear Cover*.)
6. Remove the 1/4-in. hex-head hidden screw located in the recess near the front leveling leg.



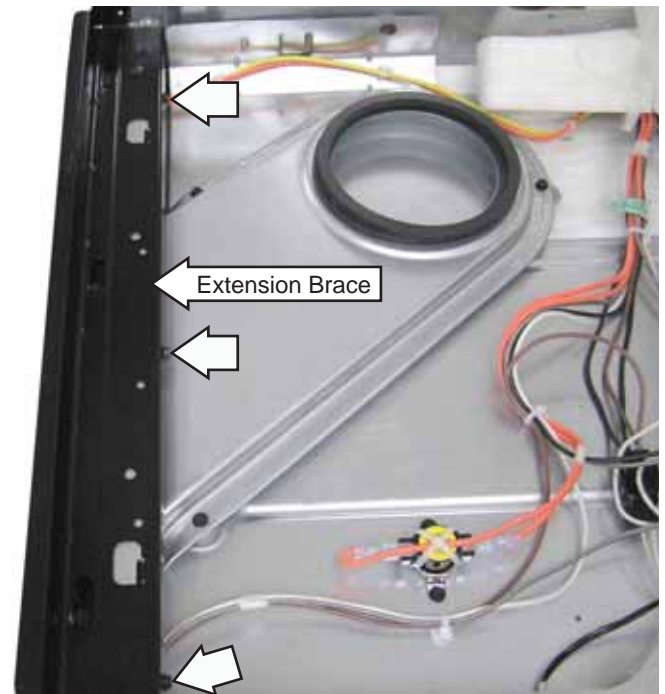
7. Remove the five 1/4-in. hex-head screws (3 at the rear and 2 on top) that attach the rear vent to the range. Lift and remove the rear vent.



8. Remove the three 1/4-in hex-head screws from the top front of the control panel support.



9. Remove the three 1/4-in. hex-head screws from the extension brace.





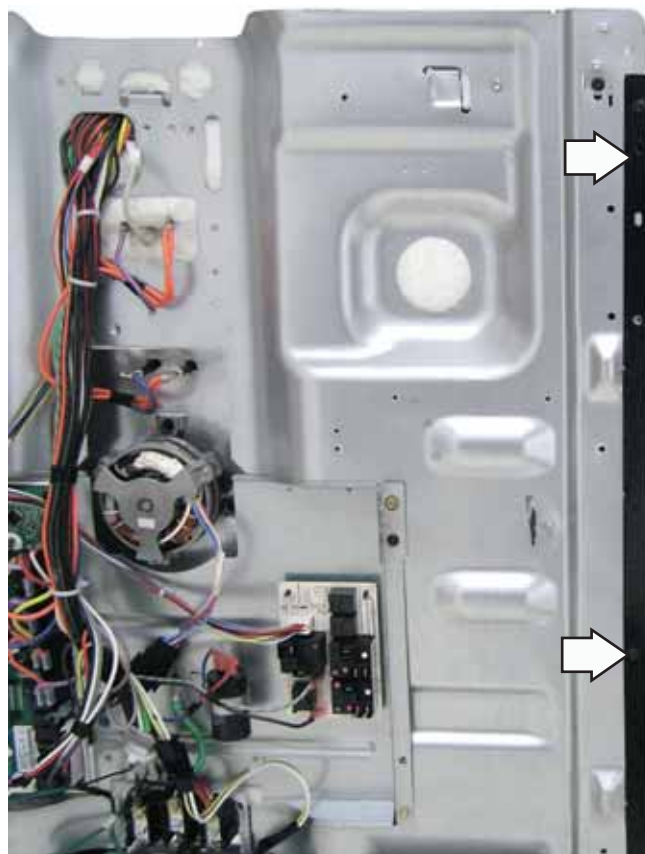
10. Remove 1/4-in hex-head screw that attaches the back of the extension brace to the range.



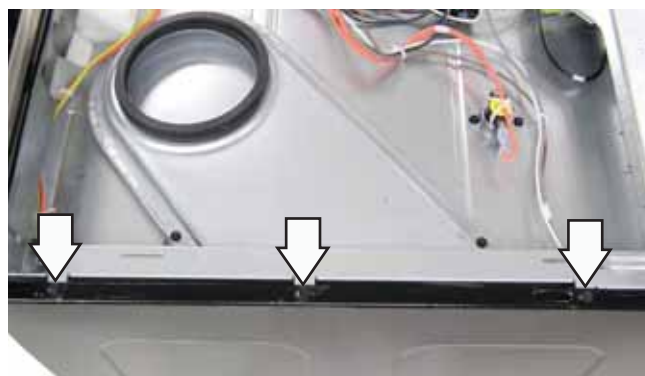
11. Carefully lift the left side of the control panel support, slide the extension brace forward and remove the extension brace from the range.



12. Remove the two 1/4-in hex-head screws from the back of the side panel.

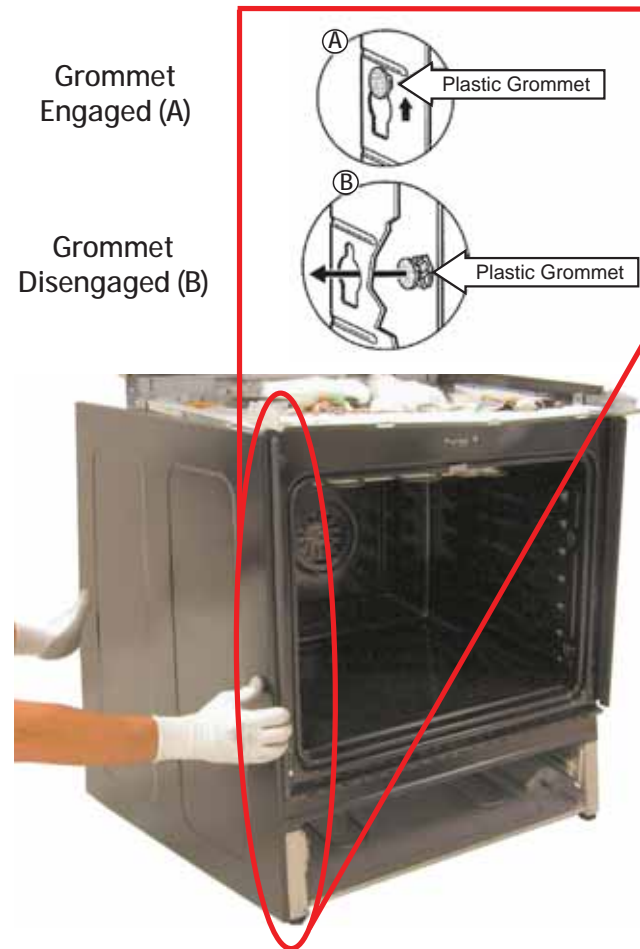


13. Remove the three 1/4-in hex-head screws from the top of the side panel.



**Note:** The front of the panel is held to the range frame by 3 plastic grommets that engage 3 keyhole slots placed along the inside front flange of the panel.

14. Grasp the front and rear portion of the side panel. Lift the side panel up and pull it towards you, and then disengage the 3 plastic grommets.



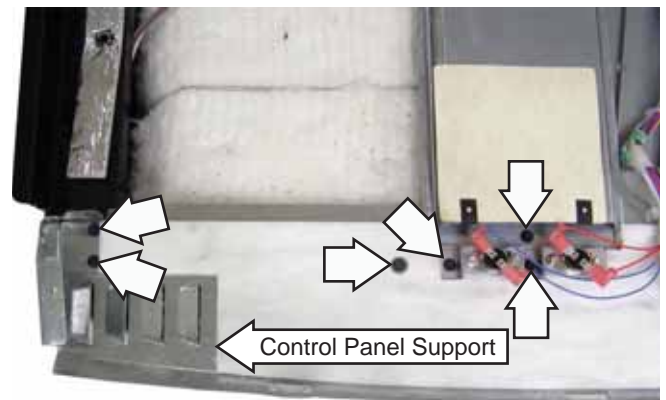
#### To remove the left side panel on PS978:

It is necessary to remove the left side panel to replace the bake element, hinge receiver, and upper oven liner.

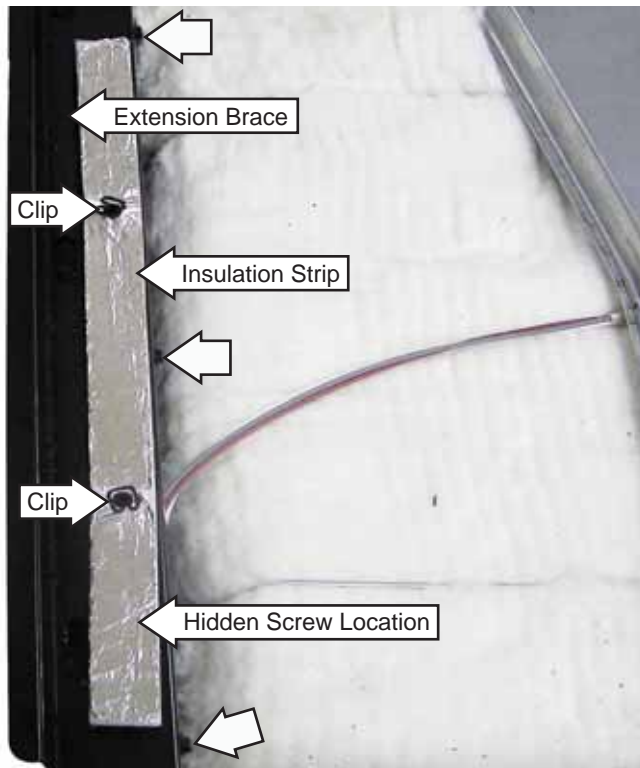
1. Remove the blower assembly. (See *Blower Assembly*, follow steps 1-6.)
2. Remove the 1/4-in. hex-head screw located near the front leveling leg.



3. Remove the six 1/4-in hex-head screws from the top front of the control panel support.



4. Remove the 2 clips and insulation strip from the top of the extension brace.
5. Remove the four 1/4-in. hex-head screws from the extension brace. (1 screw hidden under insulation strip.)



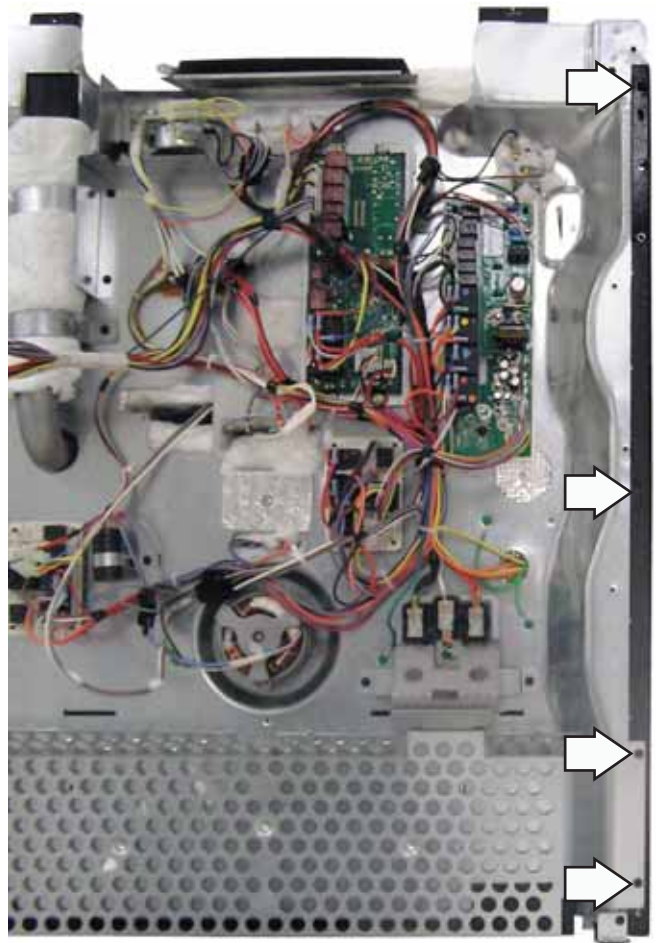
6. Remove 1/4-in hex-head screw that attaches the back of the extension brace to the range.



7. Carefully lift the left side of the control panel support, slide the extension brace forward, and remove the extension brace from the range.

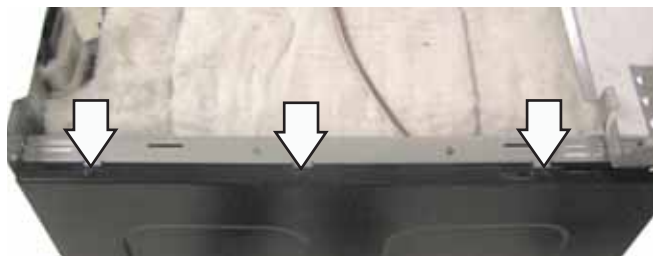


8. Remove the four 1/4-in hex-head screws from the back of the side panel.



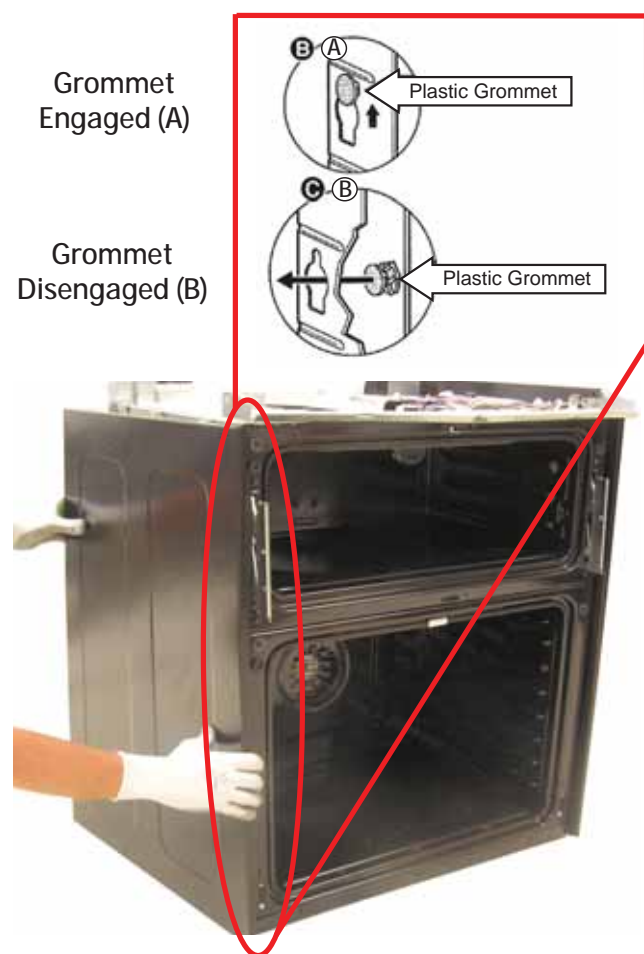


9. Remove the three 1/4-in hex-head screws from the top of the side panel.



**Note:** The front of the panel is held to the range frame by 3 plastic grommets that engage 3 keyhole slots placed along the inside front flange of the panel.

10. Grasp the front and rear portion of the side panel. Lift the side panel up and pull it towards you, and then disengage the 3 plastic grommets.



## Right Side Panel

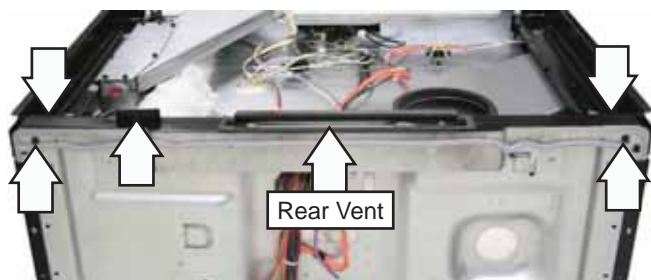
It is necessary to remove the right side panel to replace the hinge receiver and upper oven liner.

**To remove the right side panel on PSH925:**

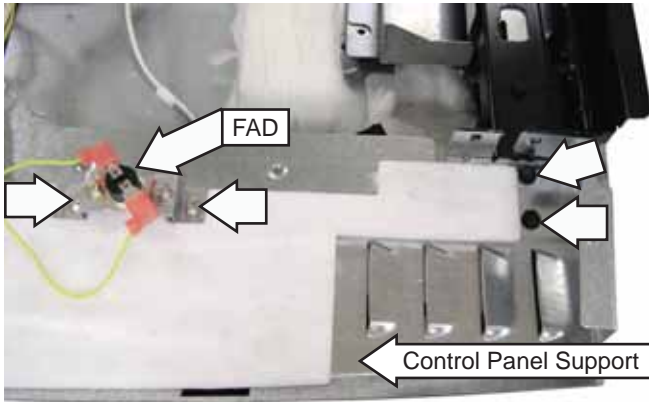
1. Disconnect power to the range.
2. Remove the oven door and warming drawer. (See *Oven Door Assembly, Warming Drawer Assembly*.)
3. Remove the range from its installation.
4. Remove the cooktop. (See *Cooktop Assembly*.)
5. Remove the rear cover. (See *Rear Cover*.)
6. Remove the 1/4-in. hex-head hidden screw located in the recess near the front leveling leg.



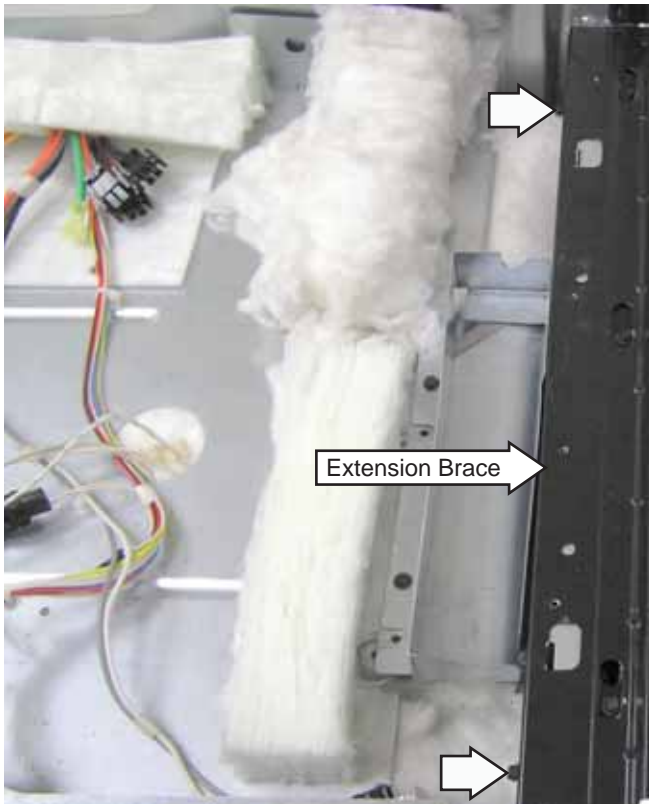
7. Remove the five 1/4-in. hex-head screws (3 at the rear and 2 on top) that attach the rear vent to the range. Lift and remove the rear vent.



8. Remove the cooling blower. (See *Cooling Fan and FAD (Fan Appearance Device)*.)
9. Remove the two 1/4-in hex-head screws from the top front of the control panel support.
10. Remove the two 1/4-in hex-head screws that attach the FAD to the top of the control panel support.



11. Remove the two 1/4-in. hex-head screws from the extension brace.



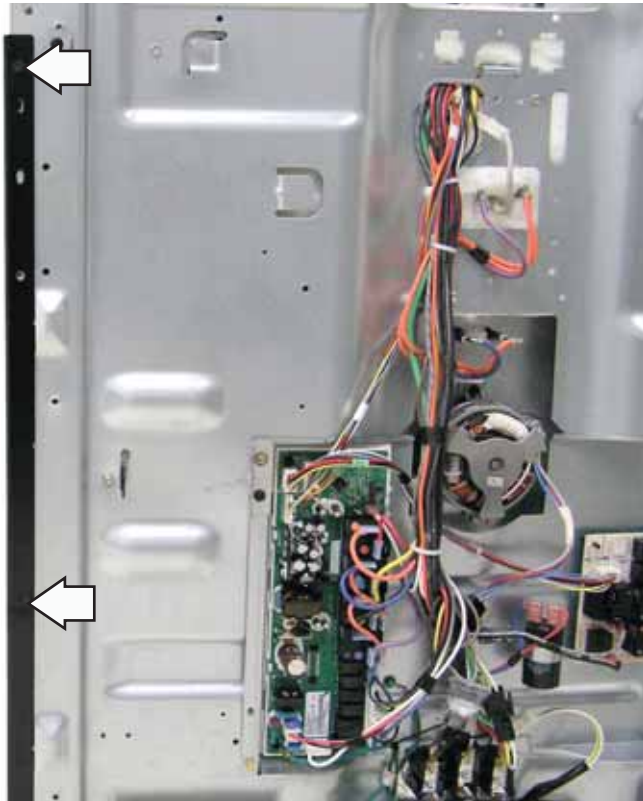
12. Remove 1/4-in hex-head screw that attaches the back of the extension brace to the range.



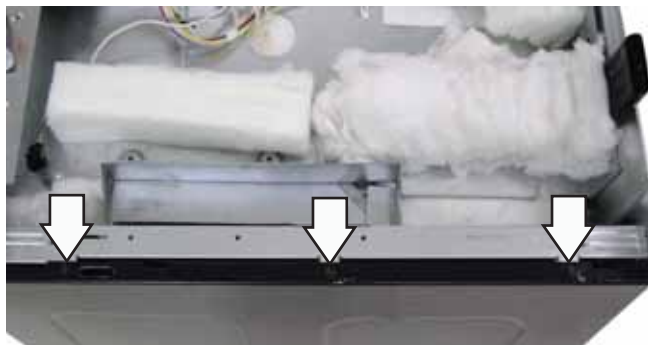
13. Carefully lift the right side of the control panel support, slide the extension brace forward and remove the extension brace from the range.



14. Remove the two 1/4-in hex-head screws from the back of the side panel.

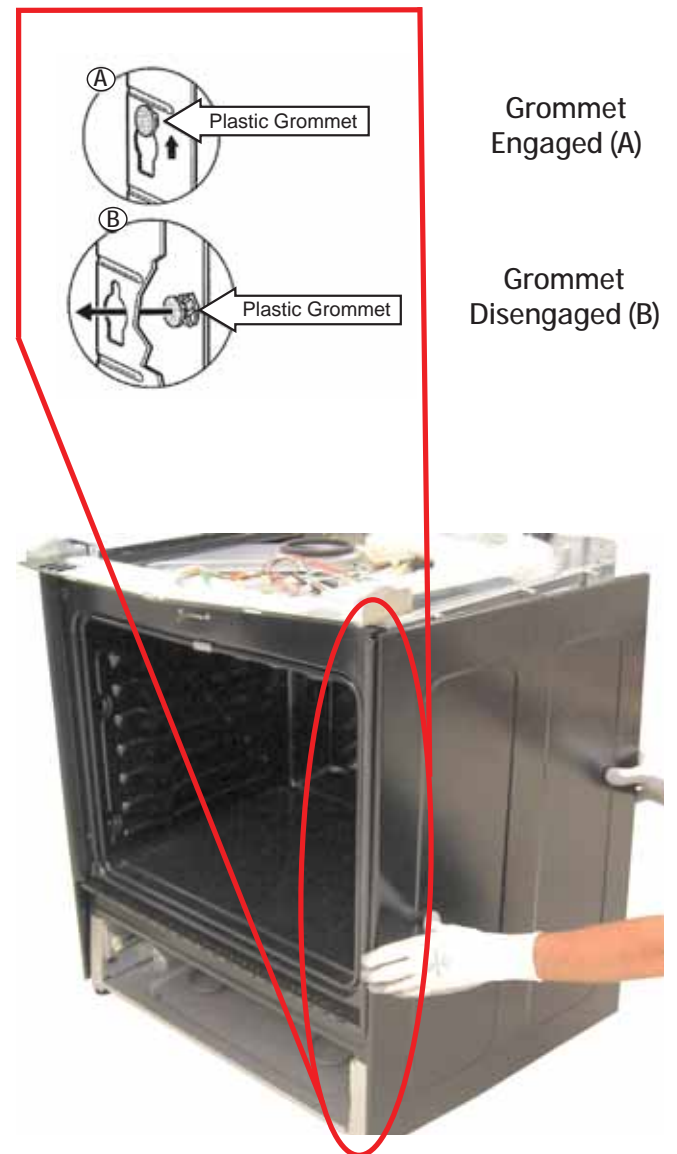


15. Remove the three 1/4-in hex-head screws from the top of the side panel.



**Note:** The front of the panel is held to the range frame by 3 plastic grommets that engage 3 keyhole slots placed along the inside front flange of the panel.

16. Grasp the front and rear portion of the side panel. Lift the side panel up and pull it towards you, and then disengage the 3 plastic grommets.



**To remove the right side panel on PS978:**

It is necessary to remove the right side panel to replace the hinge receiver and upper oven liner.

**Note:** The procedure to remove the right side panel on PS978 is similar to removing the left side panel. (See *Left Side Panel*.)

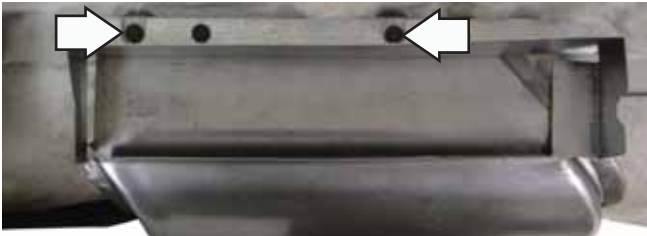
## Oven Door Hinge Receiver

To remove the hinge receiver on PHS925:

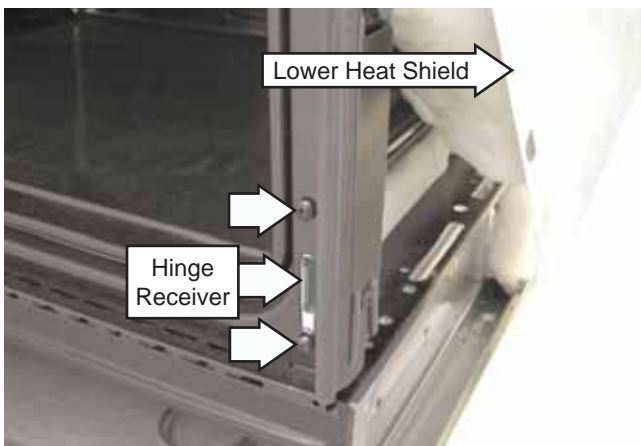
1. Remove the side panel. (See *Left Side Panel* or *Right Side Panel*.)

**Note:** In the following step, the procedures to remove the top brace from the left side or right side of the range are similar.

2. Remove the top brace. (See *Bake Element*, follow steps 3-10.)
3. Remove the induction module air inlet vent, (left side only). (See *Bake Element*.)
4. Remove the cooling fan (right side only). (See *Cooling Fan and FAD (Fan Appearance Device)*.)
5. Remove the two 1/4-in. hex-head screws and the cooling blower support, (right side only).



6. Lift and separate the induction module air inlet vent (left side) or the cooling blower support (right side) from the air tunnel. Unhook the bottom of the air tunnel from the range frame.
7. Move the lower heat shield to the back of the range, tuck the insulation, and then remove the two T-20 screws that attach the hinge receiver to the frame.



Right side hinge receiver shown

**Note:** Upon reassembly, ensure displaced insulation around oven and components is returned to its original position.

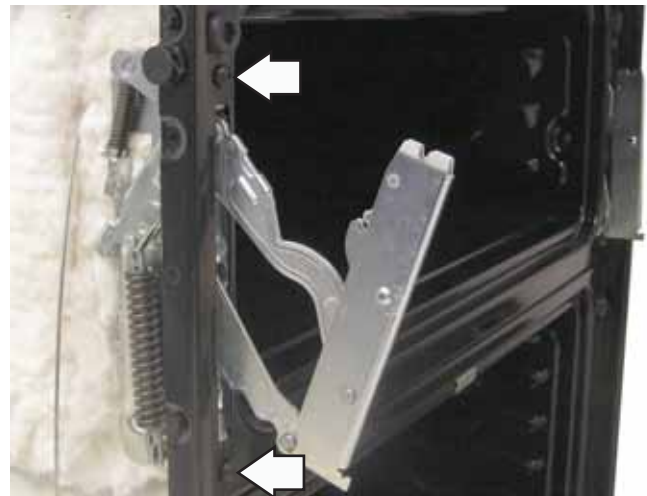
To remove the lower oven door hinge receiver on PS978:

1. Remove the side panel. (See *Left Side Panel* or *Right Side Panel*.)
2. Remove the two T-15 torx screws that attach the hinge receiver to the frame.



To remove the upper oven door hinge receiver on PS978:

1. Remove the side panel. (See *Left Side Panel* or *Right Side Panel*.)
2. Extend hinge as shown below and remove the two T-15 torx screws that attach the hinge receiver to the frame.
3. Pull hinge receiver toward the back of the range.





# Oven Components

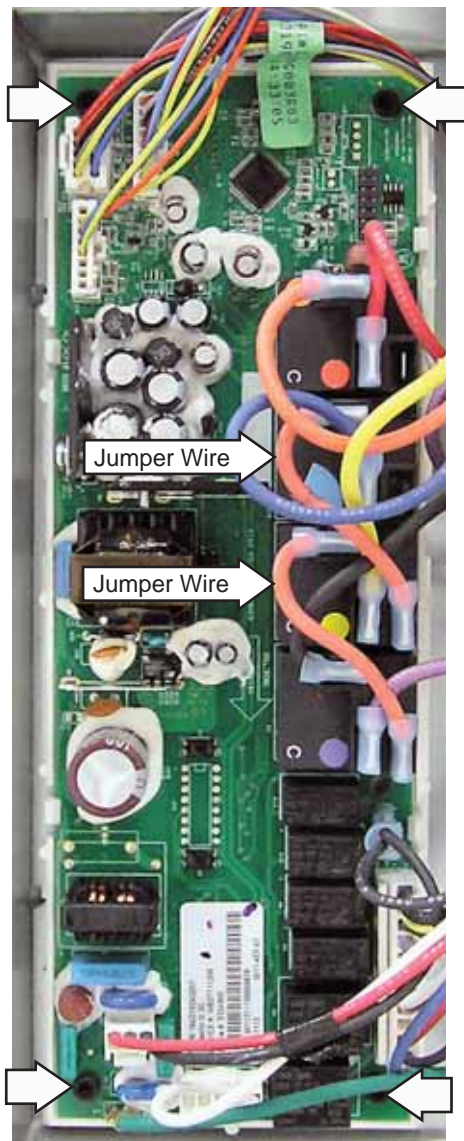
## Relay Power Supply Module (RPSM)

To remove the RPSM on PHS925:

1. Remove the rear cover. (See *Rear Cover*.)

**Note:** In the following step, do not remove the orange relay jumper wires.

2. Disconnect the wire harnesses and mark and disconnect wires that connect the RPSM to the range.
3. Remove the four T-25 Torx screws that attach the RPSM to the relay board frame.
4. Transfer the relay jumper wires to the replacement RPSM.

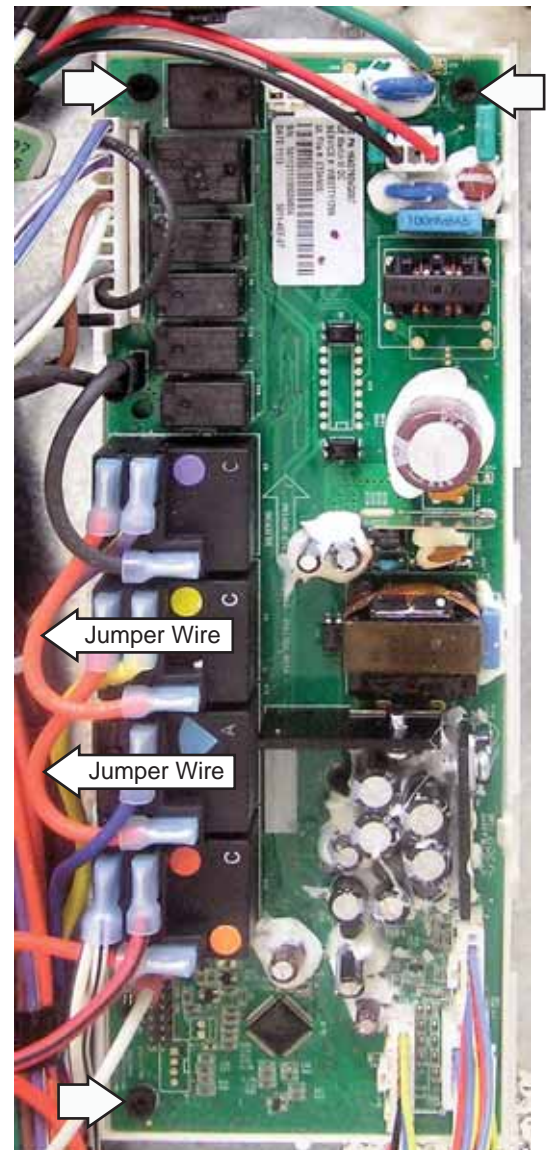


To remove the RPSM Main Board on PS978:

1. Remove the rear cover. (See *Rear Cover*.)

**Note:** In the following step, do not remove the orange relay jumper wires.

2. Disconnect the wire harnesses and mark and disconnect wires that connect the RPSM Main Board to the range.
3. Remove the three T-25 Torx screws that attach the RPSM to the relay board frame.
4. Transfer the relay jumper wires to the replacement RPSM.



### To remove the RPSM AUX Board on PS978:

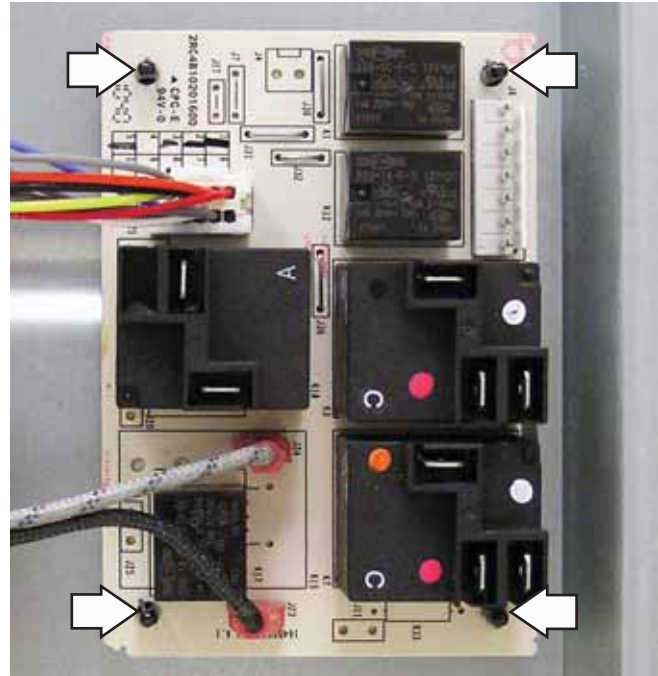
1. Remove the rear cover. (See *Rear Cover*.)
2. Disconnect the wire harnesses and mark and disconnect wires that connect the RPSM AUX Board to the range.
3. Remove the 4 Phillips-head screws that attach the RPSM AUX Board to the RPSM AUX Board frame.



### Daughter Relay Module (DRM)

#### To remove the DRM on PSH925:

1. Remove the rear cover. (See *Rear Cover*.)
2. Disconnect the wire harness and mark and disconnect wires that connect the DRM to the range.
3. Compress the tab on each of the 4 compression pins that attach the DRM to the range.



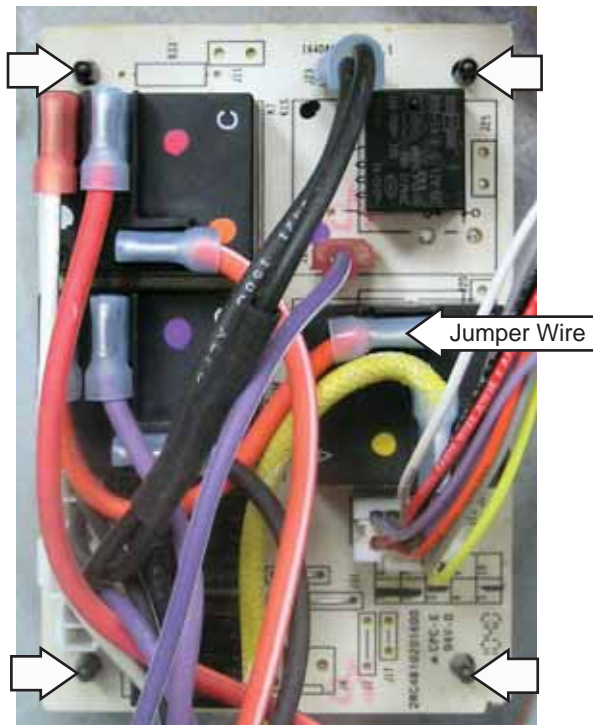


#### To remove the DRM 1 on PS978:

1. Remove the rear cover. (See *Rear Cover*.)

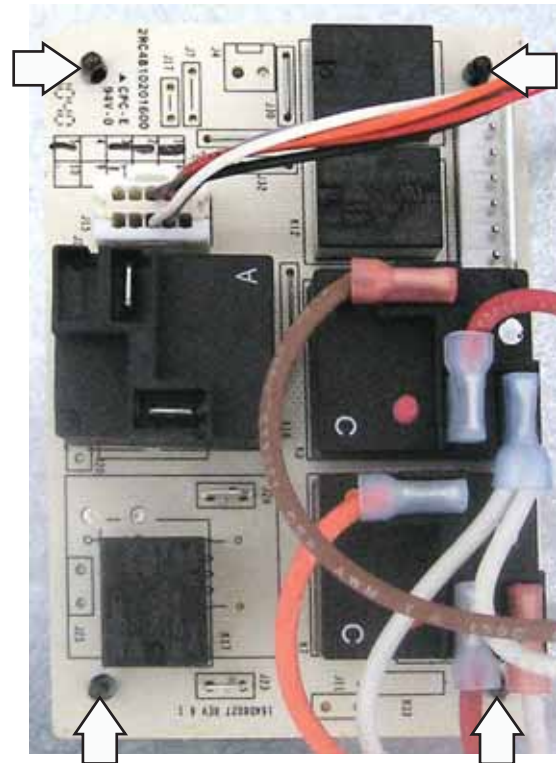
**Note:** In the following step, do not remove the orange relay jumper wire.

2. Disconnect the wire harnesses and mark and disconnect wires that connect DRM 1 to the range.
3. Compress the tab on each of the 4 compression pins that attach DRM 1 to the range.
4. Transfer the relay jumper wires to the replacement DRM 1.



#### To remove the DRM 2 on PS978:

1. Remove the rear cover. (See *Rear Cover*.)
2. Disconnect the wire harness and mark and disconnect wires that connect DRM 2 to the range.
3. Compress the tab on each of the 4 compression pins that attach DRM 2 to the range.



## Oven Temperature Sensor

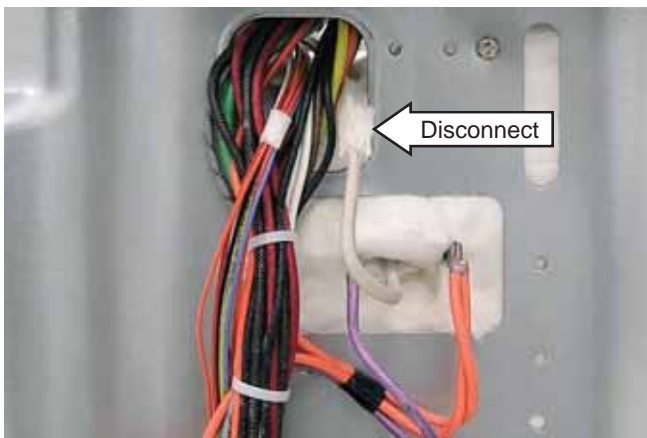
The oven sensor is located on the back wall of each oven cavity and attached to the broil element bracket. The oven temperature sensor is connected to the main logic board at location J501 and at location J502 for PS978. The oven temperature sensor has an approximate resistance of:

- 1080  $\Omega$  at room temperature
- 1654  $\Omega$  at 350°F
- 2650  $\Omega$  at 865°F (Clean temperature)

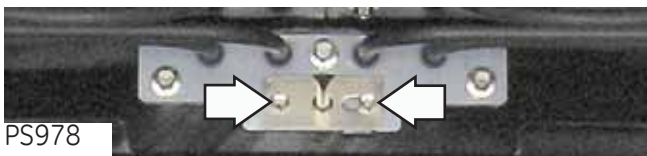
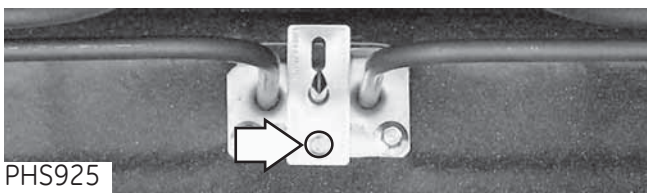
The oven temperature sensor has a resistance change rate of 2  $\Omega$  per °F.

### To remove the oven temperature sensor:

1. Disconnect power.
2. Remove rear cover. (See *Rear Cover*.)
3. Disconnect the sensor wire harness.



4. Remove the 1/4-in. hex-head screw (PHS925), or the two 1/4-in. hex-head screws (PS978), that attach the sensor to the broiler element bracket.



5. Carefully pull the sensor and sensor wiring harness from the oven liner.

**Note:** When reinstalling the sensor, use a small flat-blade screwdriver to push and guide the sensor wire harness into the oven liner.



**Note:** Upon reassembly, ensure displaced insulation around oven and components is returned to its original position.

## Broil Element

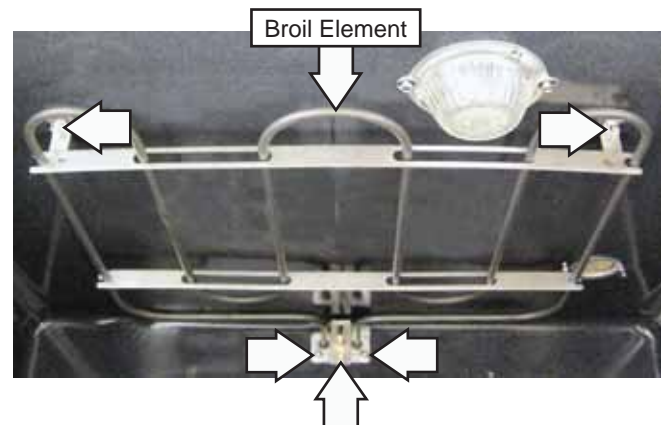
### Broil Element PSH925

- The broil element will not work if the meat probe is plugged in.
- The broil element is located at the top of the oven cavity. The oven sensor must be removed to access the broil element.

The broil element is rated at 3800 watts and has an approximate resistance value of 15  $\Omega$ . When energized, the broil element will draw approximately 15 amps.

### To remove the broil element:

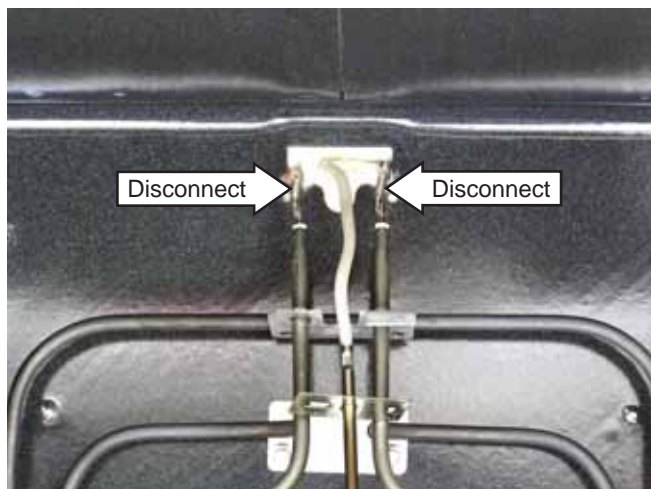
1. Remove the 1/4-in. hex-head screw that attaches the sensor to the back of the oven cavity. (See *Oven Temperature Sensor*.)
2. Remove the four 1/4-in. hex-head screws that attach the broil element to the oven cavity.



(Continued next page)



- Carefully pull, then lower the broiler element towards the front of the oven.
- Disconnect the wires from the broiler element.



**Note:** Upon reassembly, ensure displaced insulation around oven and components is returned to its original position.

#### Broil Element PS978

- The broil element on PS978 is composed of an inner and an outer (broil boost) element. It is replaced as 1 unit.
- The outer (broil boost) element will be energized when BROIL is selected and less than 3 surface units are in operation. Once the third surface unit is turned on, broil boost will be deenergized.
- The broil elements will not work if the meat probe is plugged in.
- The broil element is located on the back wall of the oven. The oven sensor must be removed to access the broil element.

Broiler Element Ratings*			
Element	Wattage	Resistance	Amps
Upper oven outer element	500	115.2 $\Omega$	2.1
Upper oven inner element	2500	23 $\Omega$	10
Lower oven outer element	950	60.6 $\Omega$	3.75
Lower oven inner element	2650	21.7 $\Omega$	10.5

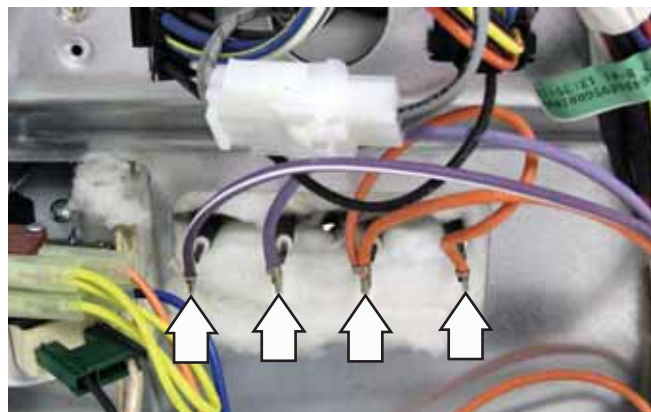
\*Ratings are approximate.

#### To remove the broil element :

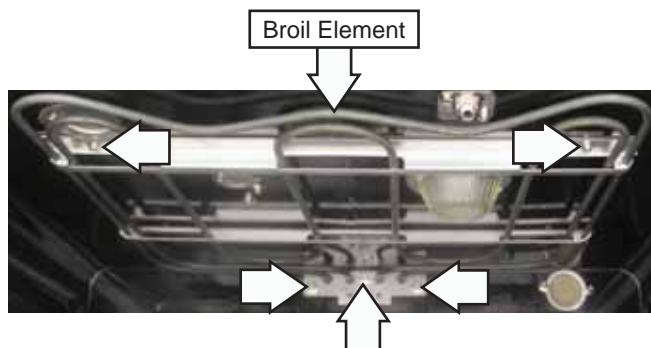
- Remove the oven temperature sensor. (See *Oven Temperature Sensor*.)

**IMPORTANT:** The lower wattage outer element utilizes 3/16-in. terminal connections. The higher wattage inner element utilizes 1/4-in. terminal connections.

- Disconnect the wires from the broiler element.



- Remove the five 1/4-in. hex-head screws that attach the broil element to the oven cavity.



## Convection Fan Cover

The convection fan cover is attached to the back wall of the oven with four T-20 Torx screws. It is necessary to remove the oven racks, and it is helpful to remove the oven door (See *Oven Door Assembly*.) when removing the convection fan cover.

**Note:** On PHS925, do not remove the two T-20 Torx screws located near the bottom of the oven cavity back wall.



## To remove the convection bake element:

1. Remove the convection fan cover. (See *Convection Fan Cover*.)
2. Remove the four 1/4-in. hex-head screws that hold the convection element to the back wall of the oven cavity.



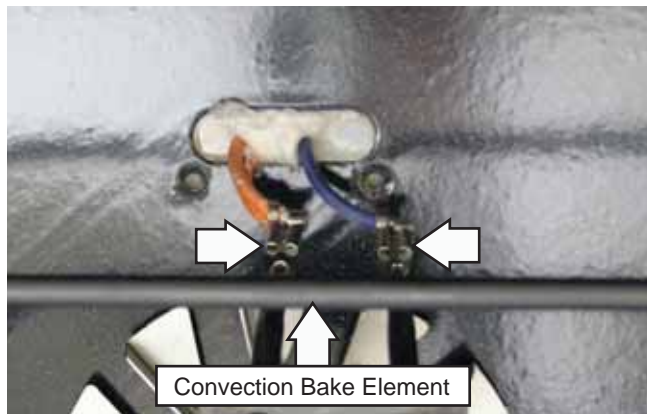
## Convection Element

- The element is rated at 2500 watts, has an approximate resistance value of 23  $\Omega$ , and draws approximately 10 amps.
- The convection bake element is located on the back wall of the oven and can be removed from inside the oven cavity.

The convection element operates during the following modes:

- Preheat
- Convection Bake
- Convection Roast
- Clean

3. Carefully pull the convection element towards the front of the oven until the element terminals are accessible.



4. Disconnect the wires from the convection element.

**Note:** Upon reassembly, ensure displaced insulation around oven and components is returned to its original position.

## Convection Fan Assembly

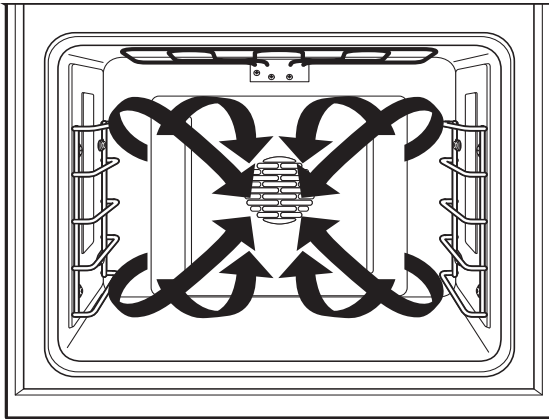
The convection fan assembly is located on the back wall of the oven cavity and consists of the convection cover, fan blade, and motor. The fan motor utilizes a capacitor that can be accessed from the back of the range. (See *Component Locator Views*.) The convection fan assembly can be removed from the back of the range.

The convection fan operates during the following modes:

- Preheat
- Convection Bake
- Convection Roast

The convection fan will turn on (after a short delay). The fan may cycle on and off, and change direction in any of these modes to best distribute hot air in the oven. The convection fan shuts off when the door is opened.

Convection Airflow



The convection fan motor has approximate resistance values between the following wires:

- Red and Blue: 174  $\Omega$
- Red and Gray: 78  $\Omega$
- Blue and Gray: 96  $\Omega$

**To remove the convection fan and motor assembly:**

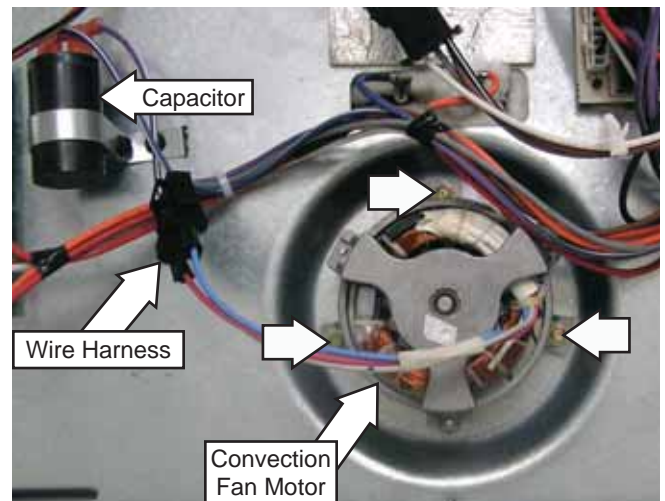
1. Remove the convection fan cover. (See *Convection Fan Cover*.)

**Note:** The convection fan blade is attached to the "D" shaped motor shaft with a left-hand thread 1/2-in. hex-nut. Turn the nut clockwise to remove.

2. Remove the fan blade nut.



3. Pull the fan blade off the "D" shaped motor shaft.
4. Remove the rear cover. (See *Rear Cover*.)
5. Disconnect the fan motor wire harness.
6. Remove the three 1/4-in. hex-head screws that hold the convection fan motor to the range.

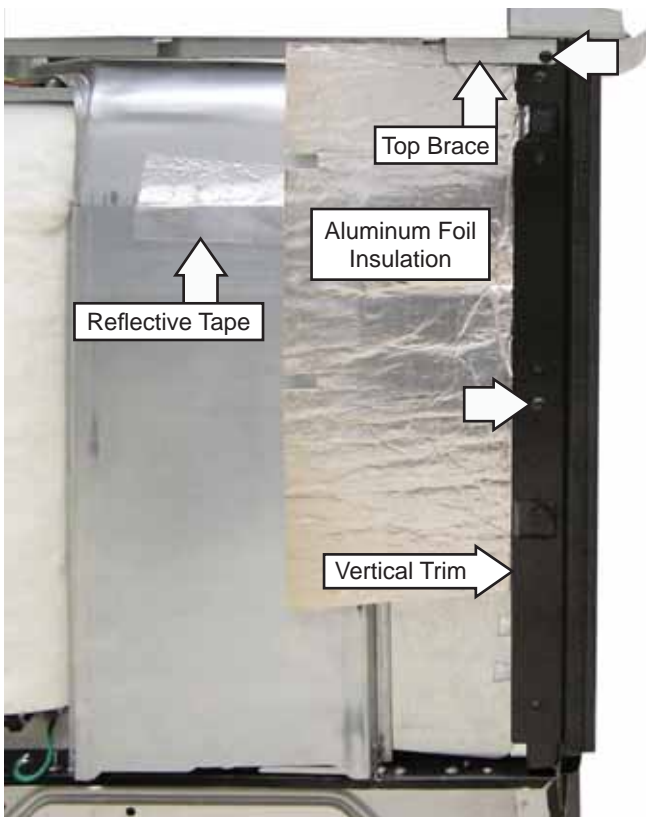


## Bake Element

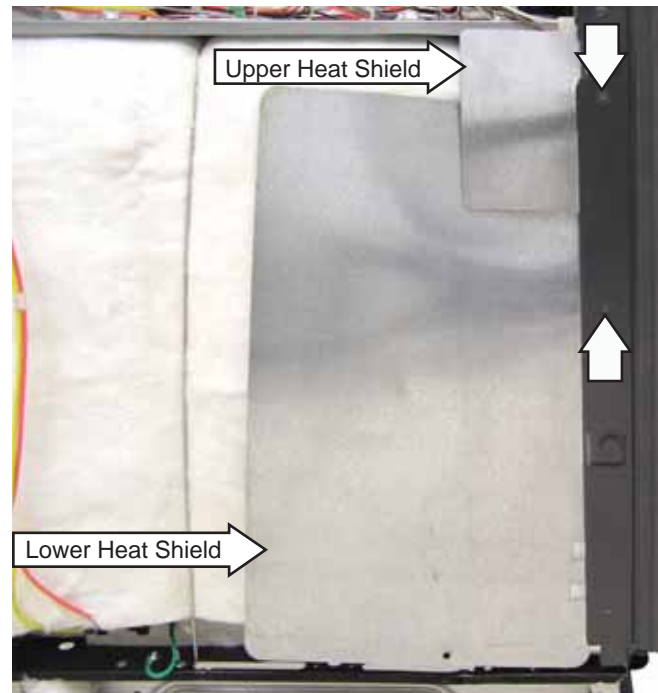
- The element is rated at 2850 watts, has an approximate resistance value of 20  $\Omega$ , and draws approximately 12 amps.
- The bake element is located under the oven liner floor. The bake element terminals are located behind the left side panel.

### To remove the bake element on PHS925:

1. Disconnect power to the range.
2. Remove the range from the installation, and then remove the left side panel. (See *Left Side Panel*.)
3. Remove the center T-15 Torx screw from the vertical trim.
4. Slide the aluminum foil insulation out from the vertical trim.
5. Carefully peel the reflective tape from the induction module air inlet vent.
6. Remove the T-15 Torx screw from the front side of the top brace.



7. Remove the 1/4-in. hex-head screw and the upper heat shield.
8. Remove the 1/4-in. hex-head screw that attaches the lower heat shield to the range frame.



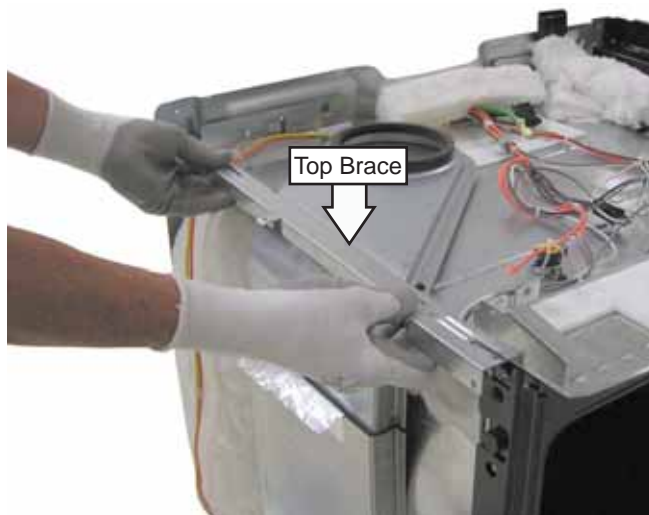
9. Remove the 1/4-in. hex-head screw from the back of the top brace.

**Note:** Rear of top brace has a tab that is inserted in a slot in back of range.

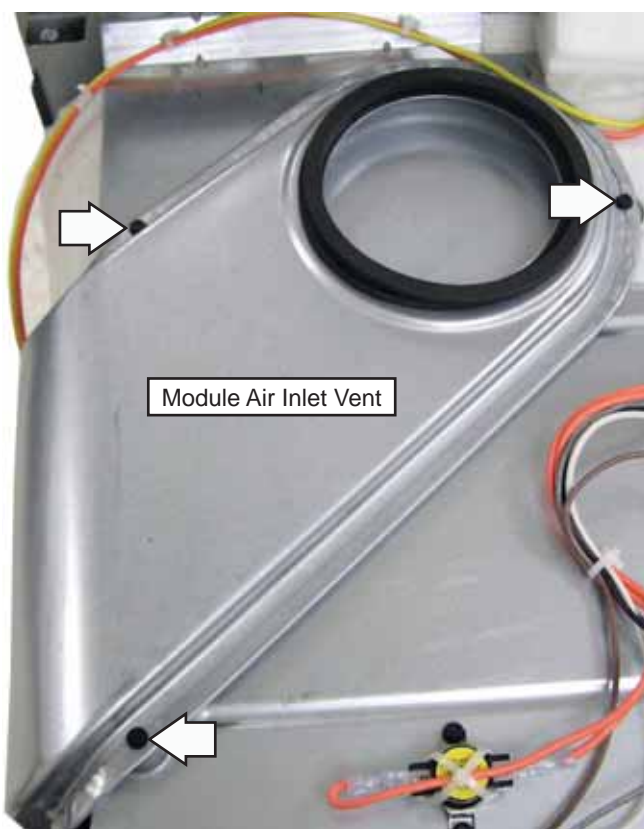




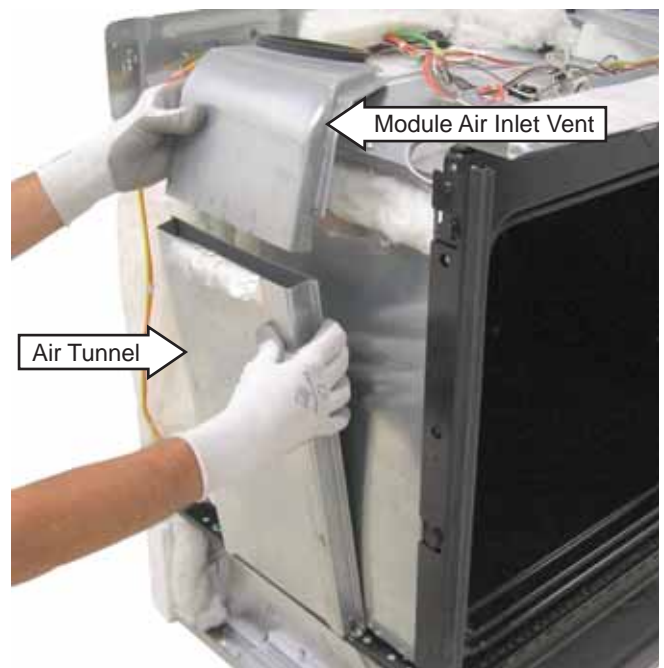
10. Remove the top brace from the range.



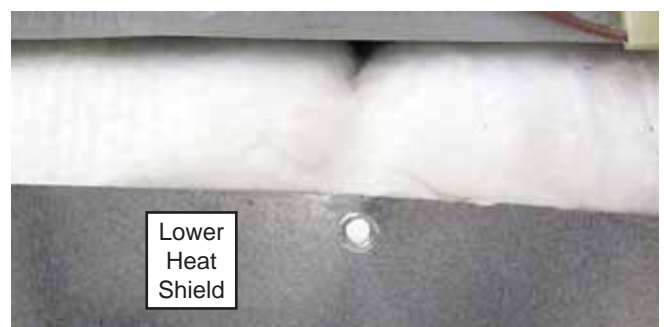
11. Remove the three 1/4-in. hex-head screws from the induction module air inlet vent.



12. Lift and separate the induction module air inlet vent from the air tunnel and unhook the bottom of the air tunnel from the range frame.

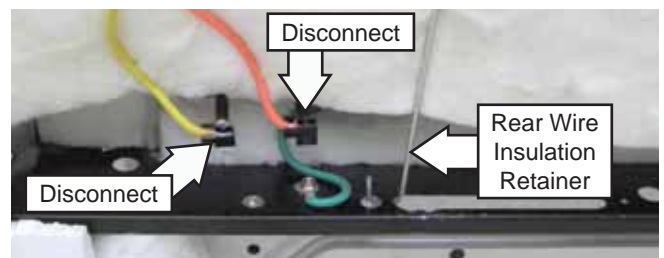


13. Remove the lower heat shield from the range.

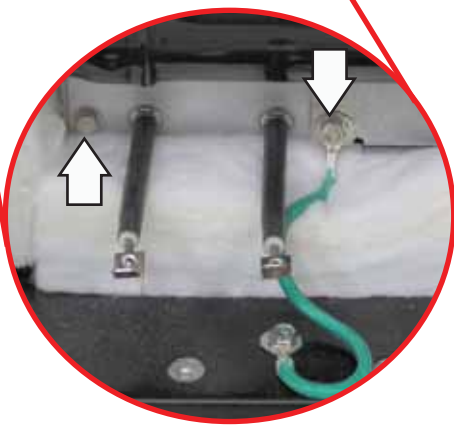
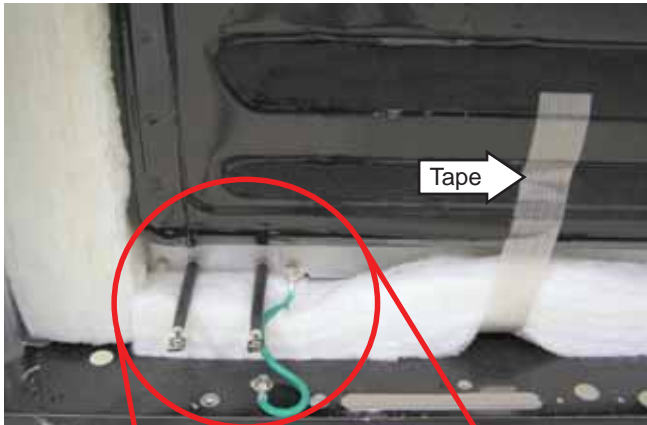


14. Disengage the hook of the rear wire insulation retainer from the frame of the range.

15. Disconnect the 2 wires from the bake element.



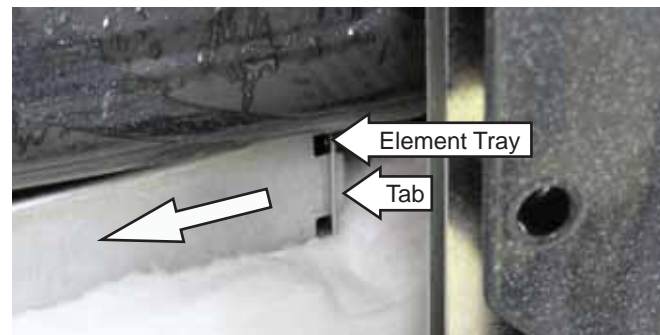
16. Using rubber gloves to protect your hands, carefully grasp the bottom of the insulation, that covers the side of the range, and tuck the insulation up under the left side wire insulation retainer.
17. Remove the 1/4-in. hex-head screw and the ground wire from the bake element.
18. Remove the 1/4-in. hex-head screw from the left side of the bake element.
19. Peel back the tape from the oven liner.



20. Using a small flat blade screwdriver, pry the left side of the retainer away from the element.



21. Pull the retainer to the left, and disengage the tab from the slot in the element tray.



22. Grasp the bake element on both sides and gently pull it toward you as you remove it from the element tray.



**Note:**

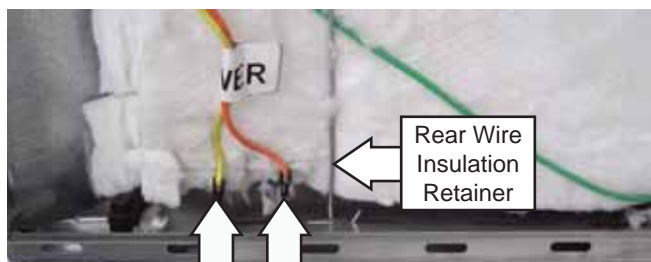
- When installing the air tunnel, make sure the 2 bottom legs are hooked into the slots in the range frame.
- Upon reassembly, ensure displaced insulation around oven and components is returned to its original position.

*(Continued next page)*

### To remove the bake element on PS978:

**Note:** The procedure to remove the upper oven or the lower oven bake element is similar.

1. Disconnect power to the range.
2. Remove the range from the installation, and then remove the left side panel. (See *Left Side Panel*.)
3. Disengage the hook of the 2 wire insulation retainers from the frame of the range.
4. Disconnect the 2 wires from the bake element.



5. Using rubber gloves to protect your hands, carefully grasp the bottom of the insulation, that covers the side of the range, and tuck the insulation up under the 2 wire insulation retainers.
6. Remove the 1/4-in. hex-head screw and the ground wire from the bake element.
7. Remove the 1/4-in. hex-head screw from the left side of the bake element.



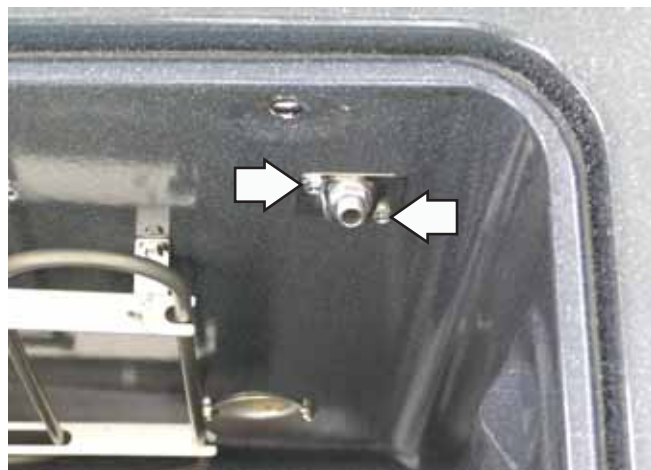
8. Grasp the bake element on both sides and gently pull it toward you as you remove it from the element tray.



### Meat Probe and Outlet

The oven is equipped with a meat probe outlet. The meat probe outlet is connected to the main logic board. The meat probe has a resistance value of 30K-50K  $\Omega$  at room temperature.

The probe outlet is held in place with two 1/4-in. hex-head screws.



After removing the two 1/4-in. hex-head screws, the outlet and wiring can then be pulled down from the oven wall approximately 3 inches.

**Note:** When replacing the meat probe outlet, cut the probe wires and splice the new probe using approved heat resistant connectors.



**Note:** Upon reassembly, ensure displaced insulation around oven and components is returned to its original position.

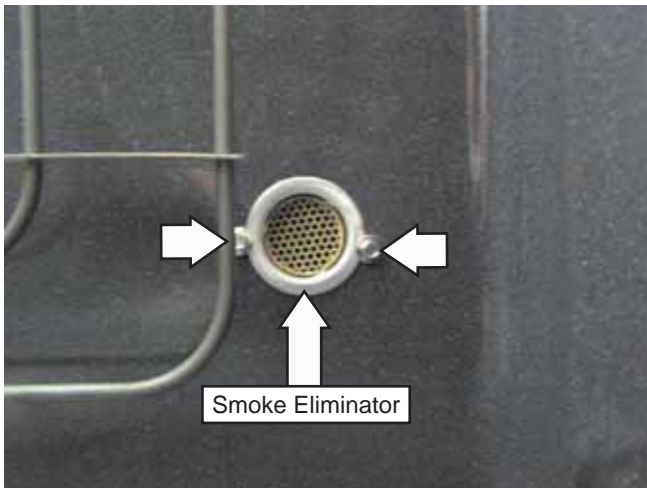


## Smoke Eliminator/Vent Tube

The oven is equipped with a smoke eliminator and an oven vent tube. The smoke eliminator and vent tube are located near the right, rear, top corner of the oven cavity. Air vented from the oven cavity will pass through the catalyst and then enter the vent tube to be exhausted from the vent located at the vent trim.

### To remove the smoke eliminator and oven vent tube on PHS925:

1. Remove the oven door. (See *Oven Door Assembly*.)
2. Remove the two 1/4-in. hex-head screws and the smoke eliminator from the ceiling of the oven cavity.



**Caution:** To prevent damage to the control panel and cooktop, care should be taken when positioning the cooktop on top of the range body.

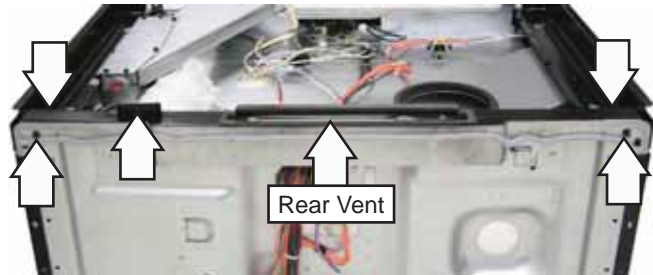
3. Lift the front of the cooktop panel (See *Cooktop Assembly*, follow steps 1-6.), and place it on top of the range as shown.



4. Remove the two 1/4-in. hex-head screws that attach the rear vent trim to the range. Lift and remove the rear vent trim.

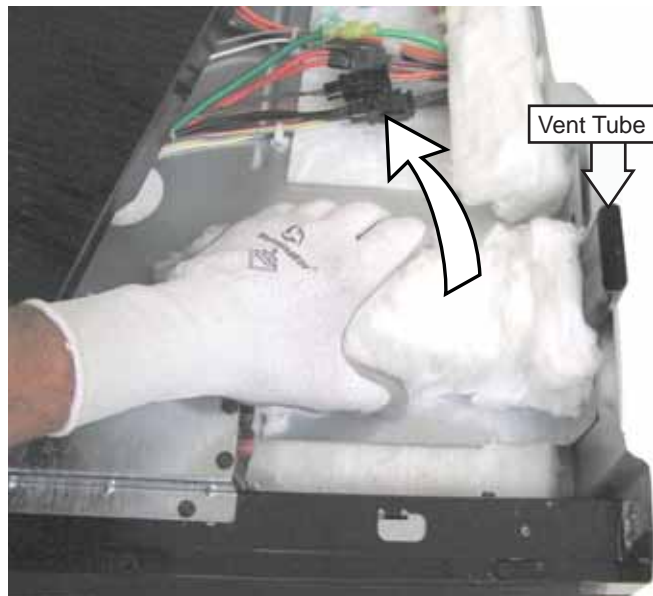


5. Remove the five 1/4-in. hex-head screws (3 at the rear and 2 on top) that attach the rear vent to the range. Lift and remove the rear vent.



**Note:** Insulation is wrapped around and under the vent tube.

6. Grasp the vent tube and its insulation and lift it from the range.



### Caution:

1. When installing the vent tube, make sure the inside of the vent tube is free of insulation.
2. Upon reassembly, ensure displaced insulation around the oven vent tube is returned to its original position.

(Continued next page)



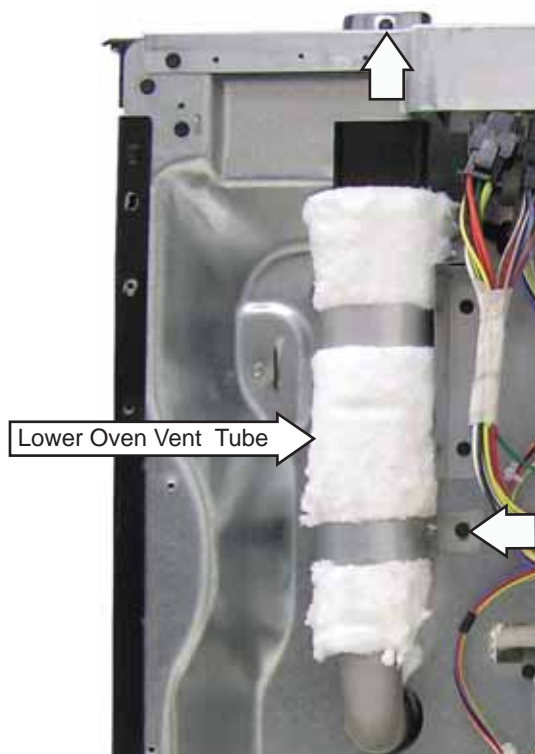
To remove the lower oven smoke eliminator and oven vent tube on PS978:

**Note:** The smoke eliminator and vent tube are located near the right, rear, top corner of the oven cavity.

1. Remove the oven door. (See *Oven Door Assembly*.)
2. Remove the two 1/4-in. hex-head screws and the smoke eliminator from the back wall of the oven cavity.



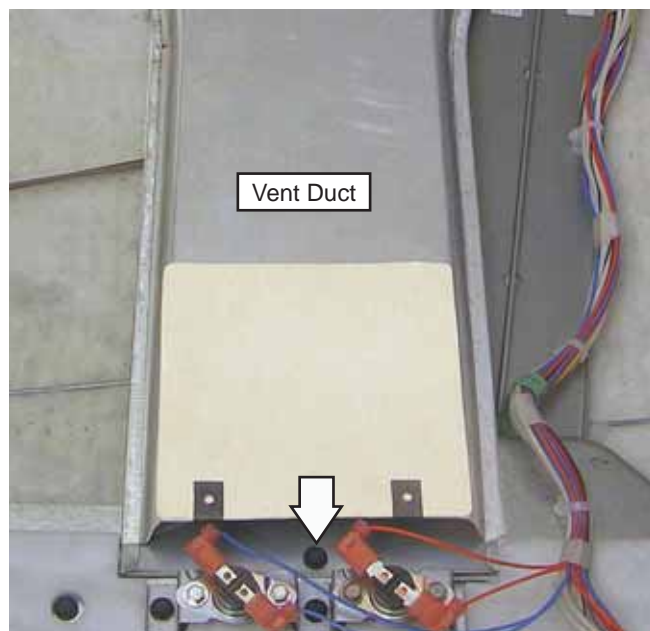
3. Remove the rear vent trim and rear cover. (See *Rear Cover*.)
4. Remove the 1/4-in. hex-head screw that attaches the vent tube to the range.
5. Pull the vent tube out and down from the range.



To remove the upper oven vent tube and smoke eliminator on PS978:

The vent tube and smoke eliminator for the upper oven are located above the broiler element near the top, left, rear, corner of the oven cavity.

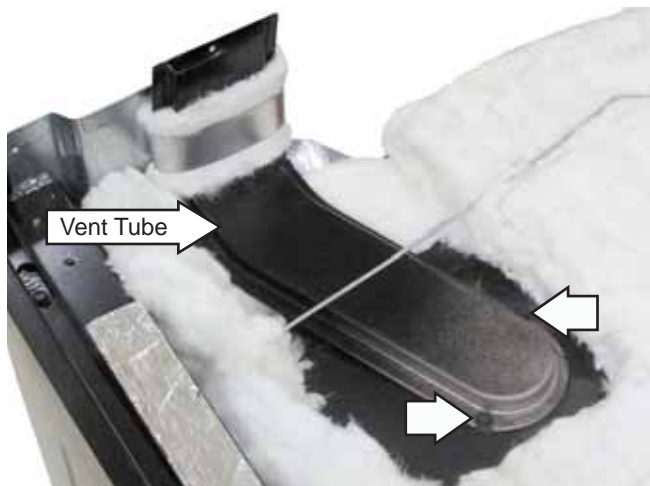
1. Remove the upper oven broil element. (See *Broil Element*.)
2. Remove the blower assembly. (See *Blower Assembly*, follow steps 1 thru 6.)
3. Remove the 1/4-in. hex-head screw from the front of the vent duct and lift off the vent duct.



4. Carefully cut, and then remove the insulation that covers the upper oven vent tube.



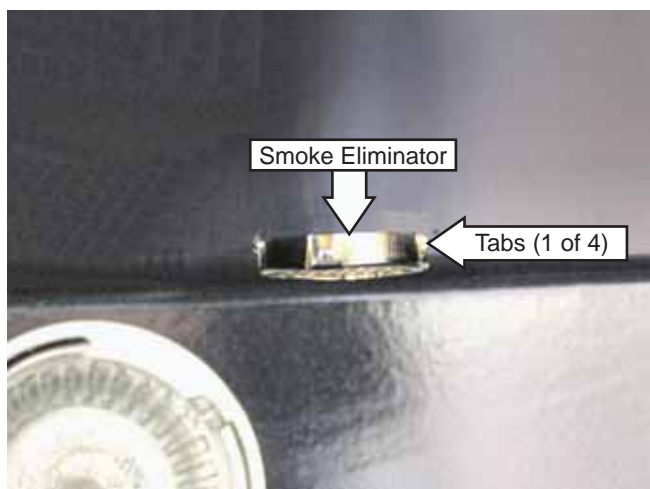
5. Remove the 2 hex-head screws that attach the vent tube to the top of the oven liner.



6. Grasp and carefully remove the vent tube from under the rear wire insulation retainer.



7. Compress and push up the 4 tabs that lock the smoke eliminator to the top of the oven cavity.



## Oven Light Assembly

The oven is equipped with a halogen light assembly. The oven door switch monitors the position of the oven door and provides this information to the control board. The control board operates the light relay located on the control board. The light comes on when the door is opened or when the oven is in a cooking cycle. The oven light does not come on during self-cleaning.

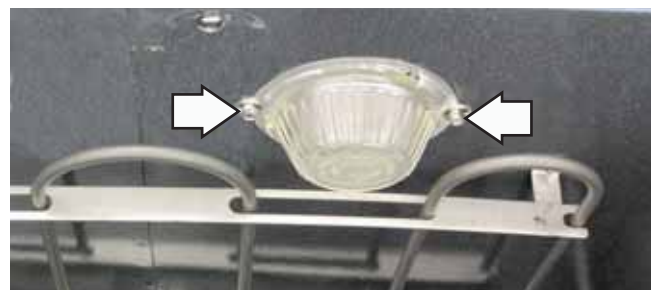
The light assembly consists of a removable light cover, a light lens with halogen bulb, and socket located on the ceiling of the oven.

### Oven Light Assembly PHS925

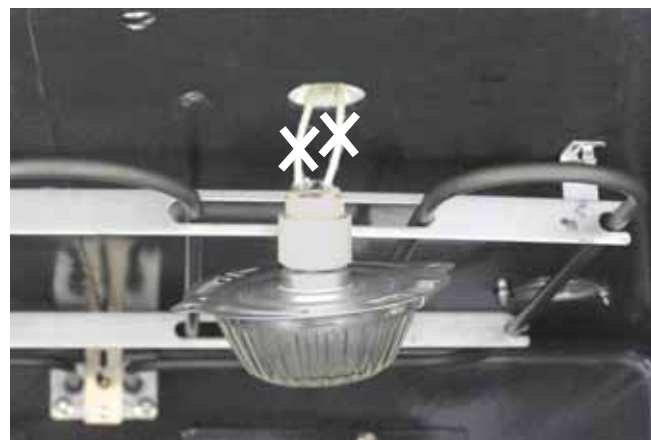
### Lower Oven Light Assembly PS978

To remove the light assembly:

1. Disconnect power and remove the two 1/4-in. hex-head screws that attach the light assembly to the oven ceiling.



2. Pull the light assembly and wiring down from the oven ceiling approximately 2 inches.
3. Cut the wires and splice the new light assembly using approved heat resistant connectors.



**Note:** Upon reassembly, ensure displaced insulation around the wiring entry hole is returned to its original position.

*(Continued next page)*

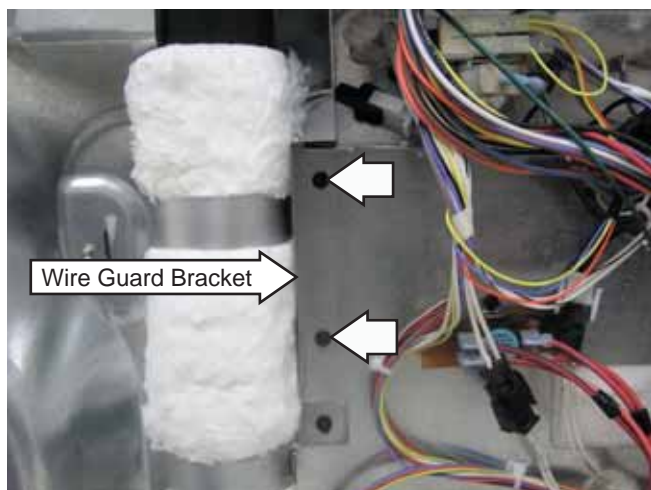
## Oven Light Assembly PS978

The upper oven, right-side, light assembly is located on the back wall of the oven cavity and utilizes a halogen bulb. Operating characteristics are similar to the ceiling light assemblies in the PHS925 and PS978.

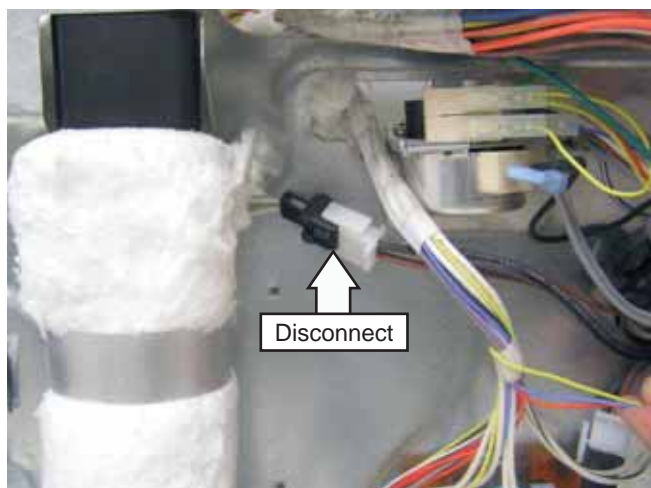
The upper oven, left-side, light assembly is located on the back wall of the oven cavity and utilizes a 40-watt incandescent bulb.

### To remove the upper oven, right-side, light assembly:

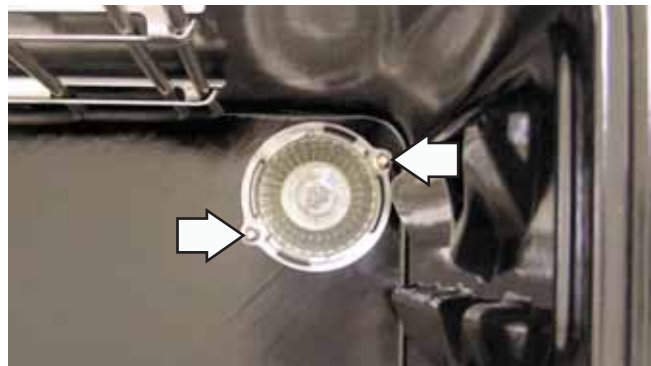
1. Disconnect power.
2. Remove the rear cover. (See *Rear Cover*.)
3. Remove the two 1/4-in. hex-head screws and the wire guard bracket from the back of the range.



4. Disconnect the light assembly wire harness.



5. Remove the two 1/4-in. hex-head screws that attach the light assembly to the oven cavity back wall.
6. Pull the light assembly and wire harness from the oven cavity.

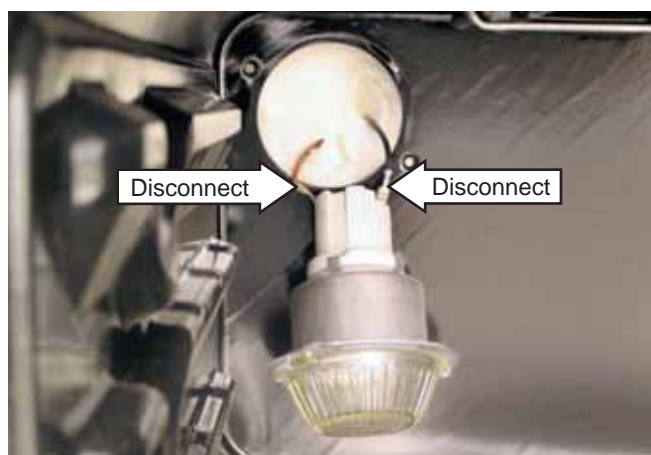


### To remove the upper oven, left-side, light assembly:

1. Disconnect power.
2. Remove the two 1/4-in. hex-head screws that attach the light assembly to the oven cavity.



3. Pull the light assembly from the oven cavity.
4. Disconnect wires from the light socket.





## Door Switch

The oven utilizes a door switch located on the left side of the door frame that is accessible from the front. The oven door switch monitors the position of the oven door and provides this information to the oven's control board.

### To remove the door switch:

1. Disconnect power to the range.
2. Pull the switch forward to locate the ends of 2 spring clips (1 on each side).



3. Insert a small flat-blade screwdriver on 1 of 2 spring clips and depress the spring clip while pulling the switch from the door frame.
4. Insert the small flat-blade screwdriver on the other spring clip, depress the spring clip, and continue pulling the switch from the door frame.
5. Disconnect the door switch wire harness.

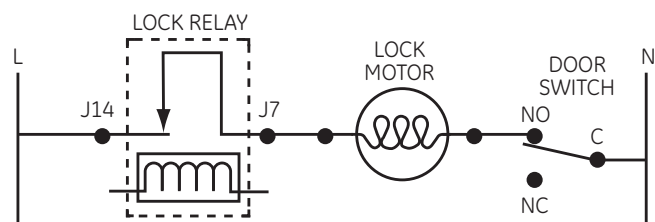


## Door Lock Assembly

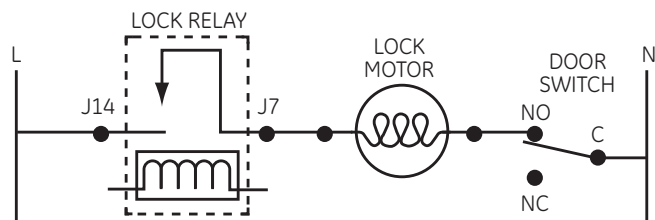
A motorized door lock assembly is located above each oven. The assembly consists of a lock motor cam and switch assembly, lock hook, and mounting plate.

The lock motor is energized when the control is set for clean and clean time selected. The lock relay contacts will close and complete the circuit that supplies the voltage to the lock motor. On PHS925 models, the oven latch is controlled by the RPSM. On PS978 models, the upper oven latch is controlled by the RPSM and the lower oven latch is controlled by the DRM.

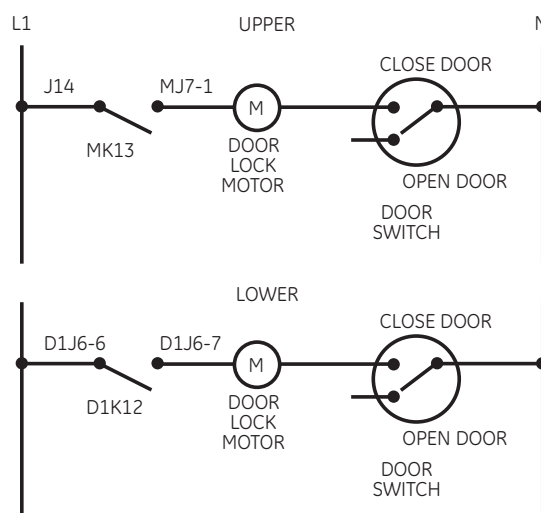
### Door Locking/Unlocking Strip Circuit-PSH925



### All Other Modes With Door Closed



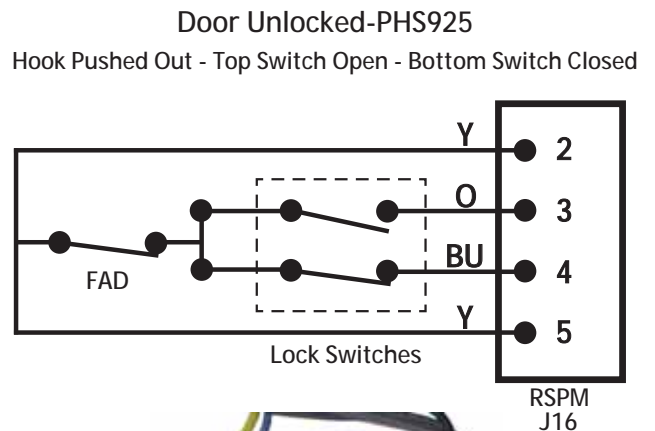
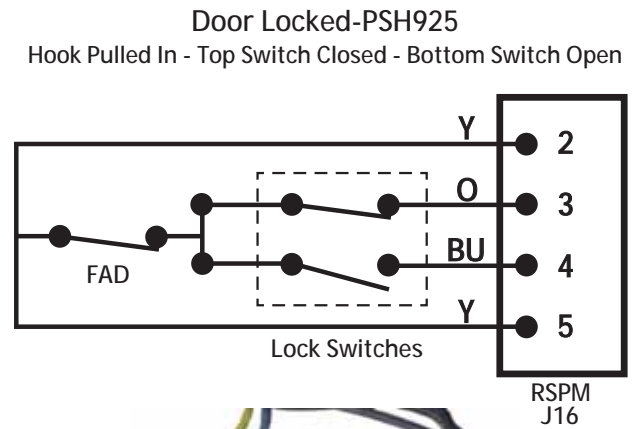
### Door Locking/Unlocking Strip Circuit-PS978





The display will flash “DOOR 🔒” if the lock switches are not set to satisfy present lock or unlock request. The motor relay will be energized.

- When the lock assembly is in the Lock-Home position to operate a Clean cycle, “DOOR 🔒” remains lit.
- CAM – The cam on the motor performs 2 functions:
  1. Positions the lock hook in the door to prevent opening during Clean operation.
  2. Operates the lock switches that tell the control if the door is unlocked or locked and ready for Clean operation.
- When the door is either being locked or unlocked, both the lock and unlock switches will temporarily be in the open position.
- The LOCK relays require a signal to be at 0–1.5 VDC (low) called CLN\_TEMP found on the Main Logic Board J241-6 (upper) and J241-7 (lower). If these pins are at ~5VDC with respect to J241-5 (gnd), the motor relays will not operate.
- The door lock motor has an approximate resistance value of 1.97K  $\Omega$ .
- Test the lock switches on the relay power supply module at location J16.



To remove the oven door lock assembly on PSH925:

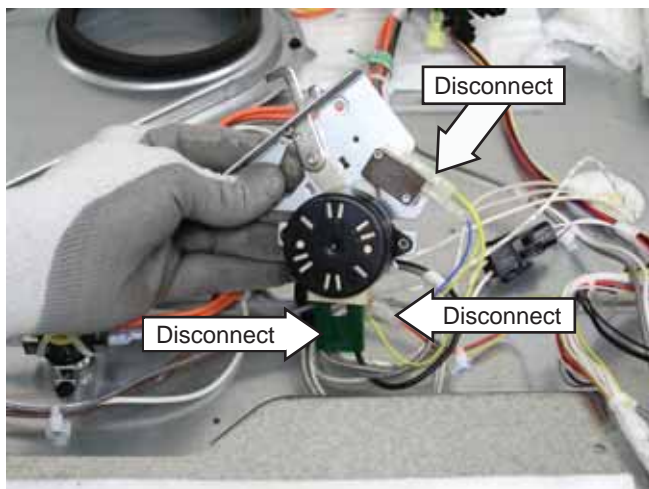
1. Disconnect power to the range.
2. Open the oven door. (See *Oven Door Assembly*.)
3. Remove the cooktop. (See *Cooktop Assembly*.)
4. Remove the two 1/4-in. hex-head screws that attach the oven door lock assembly to the front of the mounting plate.



5. Pull the oven door lock assembly toward the rear of the range.

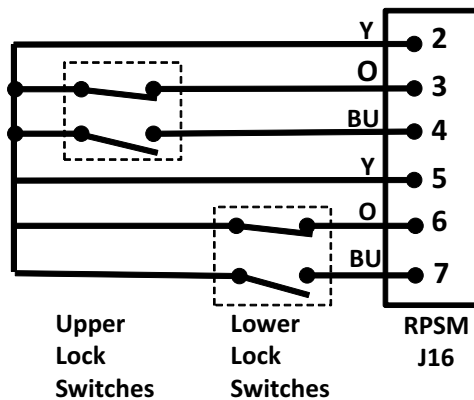
**Caution:** It is possible to reconnect the switch wiring incorrectly to the lock assembly. In the following step, when disconnecting the wiring, make a note of how the wires are connected.

6. Remove the 3 wire harnesses from the oven door lock assembly.



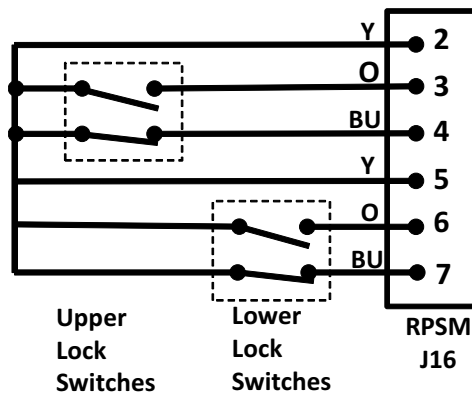
## Door Locked-PS978

Hook Pulled In - Top Switch Closed - Bottom Switch Open



## Door Unlocked-PS978

Hook Pushed Out - Top Switch Open - Bottom Switch Closed



(Continued next page)

## Upper Oven Door Lock Assembly on PS978

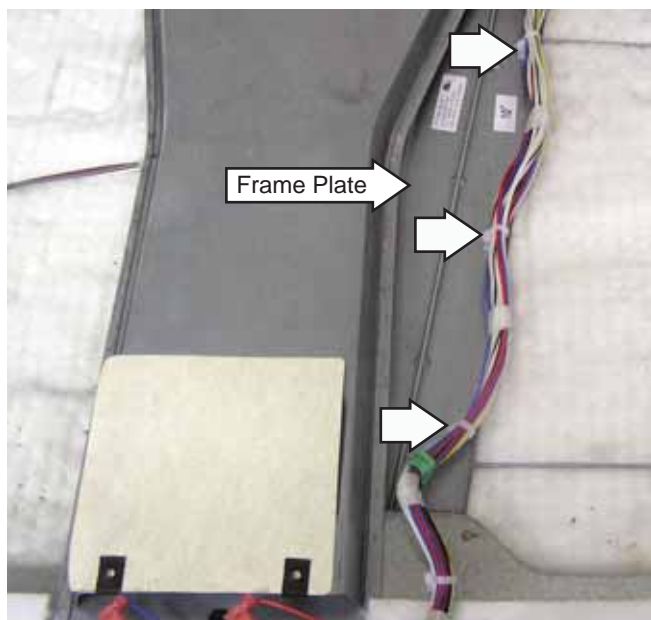
**Note:** If only the lock motor and switch assembly and/or cam has failed, it may not be necessary to remove the door lock assembly from the range. It is advisable to transfer these parts from a new door lock assembly. Verify proper operation of the lock assembly after transferring these parts.

The lock motor and switch assembly is attached to the frame plate with 2 Phillips-head screws. The cam is attached to the motor shaft with a Phillips-head screw. It is necessary to remove the rear cover to access the lock motor and switch assembly and the cam. (See *Rear Cover*.)



To remove the upper oven door lock assembly:

1. Remove the rear cover. (See *Rear Cover*.)
2. Remove the cooktop. (See *Cooktop*.)
3. Remove the 3 wire retainers from the frame plate.

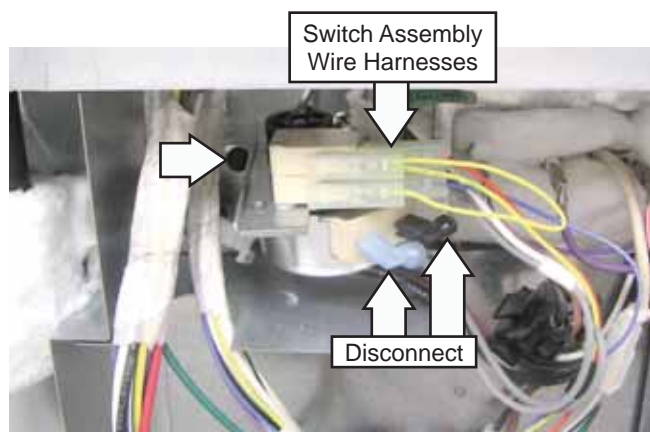


4. Remove the two T-15 Torx screws that attach the front of the lock frame plate to the frame.

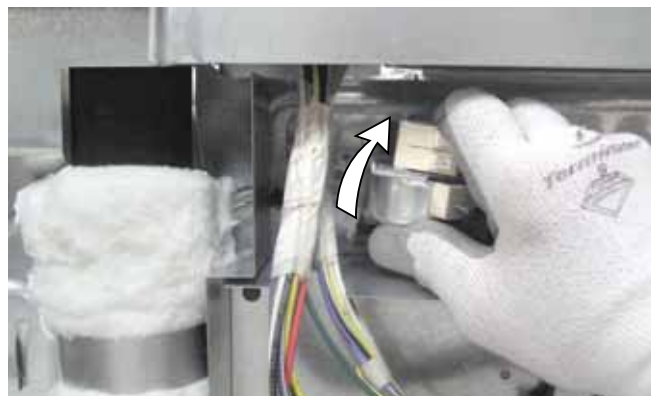


**Caution:** It is possible to reconnect the switch wiring incorrectly to the lock assembly. In the following step, when disconnecting the wiring, make a note of how the wires are connected.

5. Disconnect the lock motor wires and disconnect the switch assembly wire harnesses.
6. Remove the 1/4-in. hex-head screw that attaches the lock assembly to the rear of the range.



7. Grasp the rear of the lock assembly. Lift and rotate it approximately 40 degrees clockwise and pull it out approximately 2 inches.



(Continued next page)

8. Remove the door switch wire retainer from the top of the mounting plate, and then pull the lock assembly out from the range.



Door Lock Assembly

### Lower Oven Door Lock Assembly

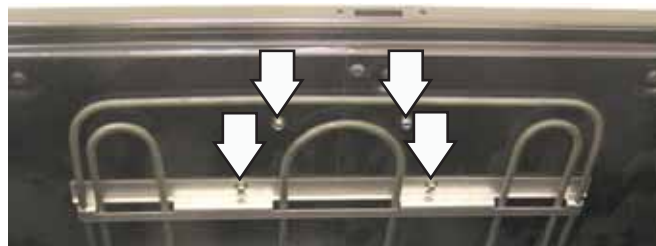
#### Note:

1. If only the lock motor and switch assembly and/or cam has failed, it may not be necessary to remove the door lock assembly from the range. It is advisable to transfer these parts from a new door lock assembly. Verify proper operation of the lock assembly after transferring these parts.
2. The frame plate of the lower oven door lock assembly is surrounded by insulation that will block installation of the replacement door lock assembly. Before extracting the lower oven door lock assembly, it is necessary to create a path for installing the replacement lock assembly by inserting stiff cardboard or thin slats of wood above and below the frame plate.
3. If insulation blocks installation of the lower oven door lock assembly, it may be necessary to remove the upper oven liner to replace the lower oven door lock assembly. (See *Upper Oven Liner*.)

### Upper Oven Liner

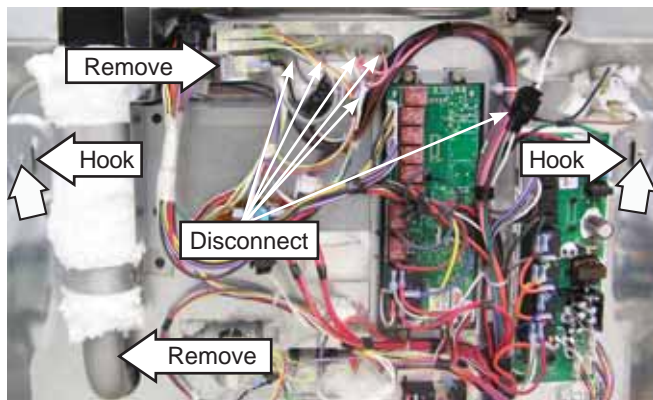
To remove the upper oven liner on PS978:

1. Disconnect power to the range.
2. Remove the range from its installation.
3. Remove the blower Assembly. (See *Blower Assembly*.)
4. Remove the remaining 1/4-in. hex-head screw and the vent duct.
5. Remove the eight 1/4-in. hex-head screws and the wire retainer from the control panel support. Remove the support.
6. Remove the left and right side panels. (See *Left Side Panel*, *Right Side Panel*.)
7. Disconnect the wire harness from the upper oven door switch.
8. Remove the upper oven lock assembly. (See *Door Lock Assembly*.)
9. Remove the lower oven vent tube. (See *Smoke Eliminator/Vent Tube*.)
10. Disconnect the wiring connected to the upper oven lights. (See *Oven Light Assembly*.)
11. Disconnect the sensor wire harness.
12. Remove wires from the upper oven broil element.
13. Remove the 2 insulation wire retainers.
14. Using rubber gloves to protect your hands, carefully remove the top insulation.
15. Remove the upper oven vent tube. (See *Smoke Eliminator/Vent Tube*.)
16. Remove the four 1/4-in. hex-head screws from the top of the oven liner.





17. Remove the six T-20 Torx screws that attach the front of the oven liner to the oven frame.
18. Remove the two T-20 Torx screws that attach the back of the oven liner to the range.
19. Using a flat-blade screwdriver, push upwards while pushing forward on the 2 metal hooks and disengage them from the back wall of the range.



20. Carefully pull the liner out from the range.



**Note:** If removing upper oven liner to access the lower oven door lock assembly, continue to the following steps.

21. Disconnect the 2 wires from the bake element.
22. Remove the 1/4-in. hex-head screw and the ground wire from the bake element.
23. Remove the 1/4-in. hex-head screw from the left side of the bake element.
24. Grasp and lift the back of the bake element pan and remove it from the tabs located at the front of the range.



Door lock assembly shown below with liner removed



## High Limit Thermostat

### Model PHS925

In the event of an over-heat condition under the cooktop, the high limit thermostat will open at 350°F. and disconnect L2 voltage from the bake, broil, and convection elements. The thermostat is non-resettable.

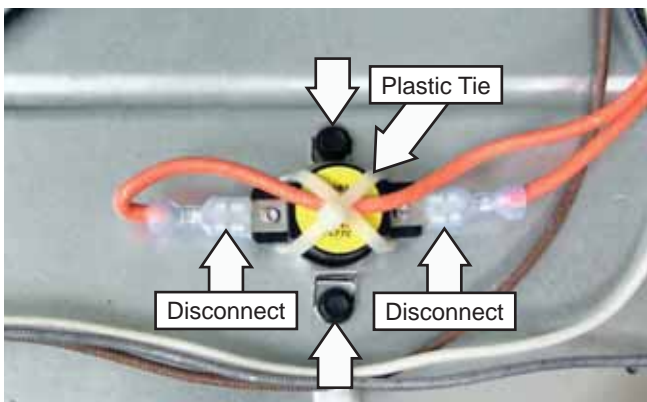
To replace the high limit thermostat:

1. Raise the front of the cooktop (See *Cooktop Assembly*, follow steps 1 through 6.), and then support the cooktop.



2. Cut off the plastic wire tie.
3. Disconnect the 2 wires.
4. Remove the two 1/4-in. hex-head screws that attach the thermostat to the range.

**Note:** When installing the high limit thermostat, be sure to secure the wires to the thermostat with a new plastic tie.



## Cooling Fan and FAD (Fan Apparency Device)

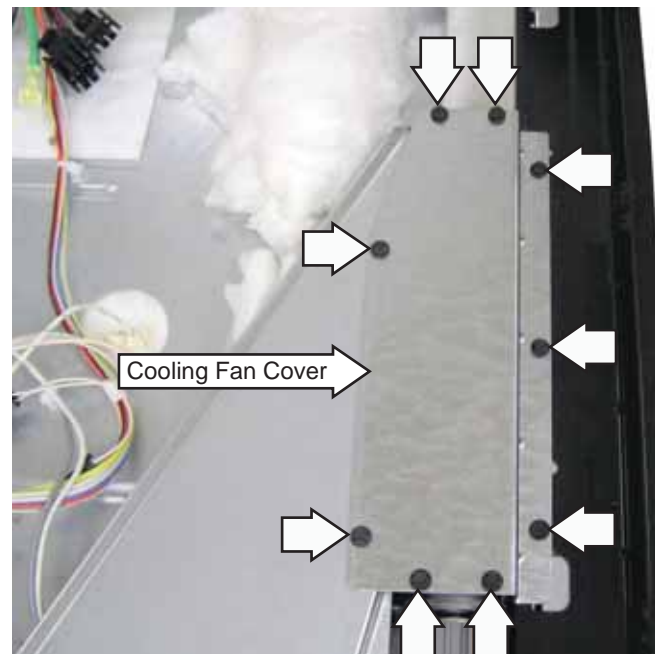
### Model PHS925

The oven is equipped with a cooling fan located under the cooktop and above the right side panel.

- The cooling fan comes on instantaneously when any oven function is started.
- The cooling fan motor operates on 115 VAC and has an approximate resistance value of 58  $\Omega$ .

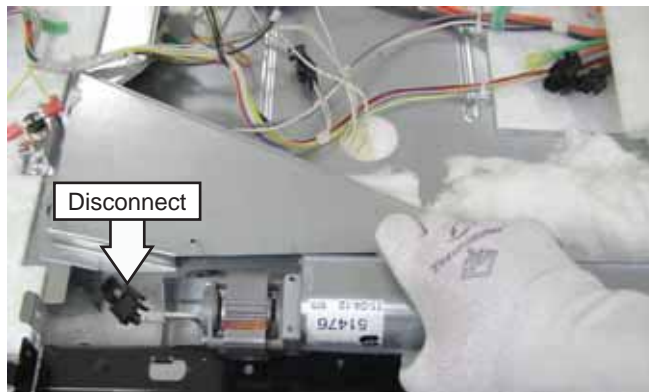
To replace the cooling fan:

1. Raise the front of the cooktop (See *Cooktop Assembly*, follow steps 1 through 6.), and then support the cooktop.
2. Remove the nine 1/4-in. hex-head screws and the cooling fan cover.

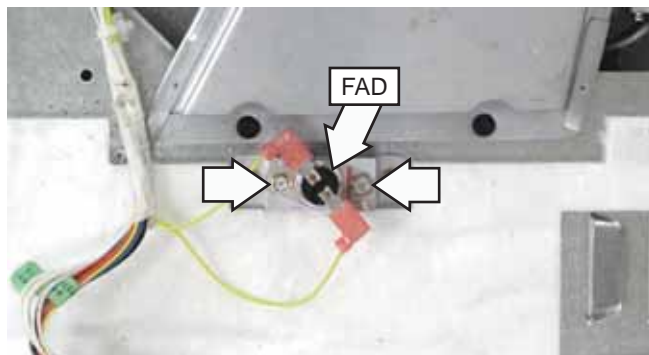


(Continued next page)

3. Lift the cooling fan and disconnect the wire harness.



The FAD is a low voltage thermal switch. It is attached with two 1/4-in. hex-head screws to a bracket that is attached to the control panel support. The FAD disconnects the common (yellow) of the lock logic circuit when the control compartment area gets too hot or the cooling fan fails. The FAD will open at 230°F and is resettable. The FAD is active during all operations.



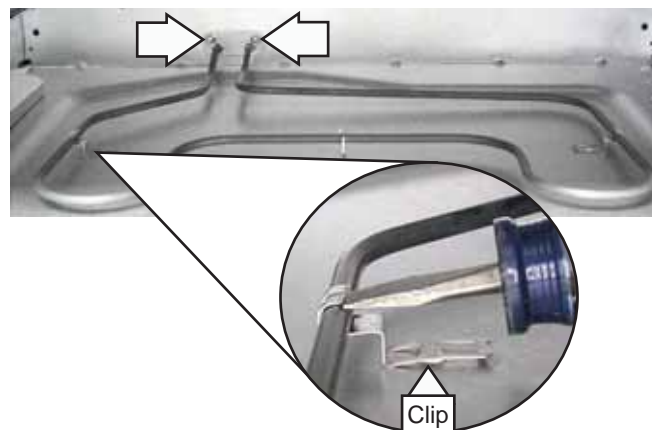
## Warming Drawer Element

### Model PHS925

- The warming drawer element is rated at 400 watts, has an approximate resistance value of 36  $\Omega$ , and draws approximately 3.3 amps.
- The element is located on the floor of the warming drawer compartment. The element terminals are located behind the back wall.

### To remove the warming drawer element:

1. Disconnect power to the range.
2. Remove the two 1/4-in. hex-head screws that attach the element to the back wall.
3. Using a flat blade screwdriver, lift the tabs on each of the 2 clips and remove the element from the clips.



3. Carefully pull the warming drawer element towards the front of the oven.
4. Disconnect the wires from the warming drawer element.

### Warming Drawer Temperature Characteristics

Warming drawer temperatures are controlled by duty cycling algorithms.

Low Temperature = 165° +/- 25°F.

Standard Temperature = 175° +/- 25°F.

High Temperature = 180° +/- 25°F.

Hi	Warmer On Time	100 seconds
	Warmer Off Time	35 seconds
	100% First Rise On Time	900 seconds
Standard	Warmer On Time	80 seconds
	Warmer Off Time	50 seconds
	100% First Rise On Time	850 seconds
Lo	Warmer On Time	100 seconds
	Warmer Off Time	142 seconds
	100% First Rise On Time	800 seconds

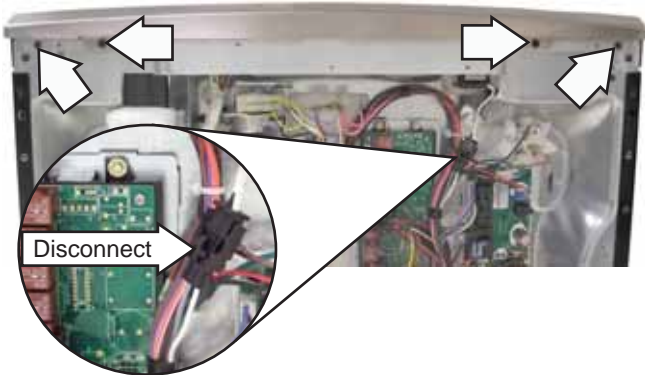
## Blower Assembly

### Model PS978

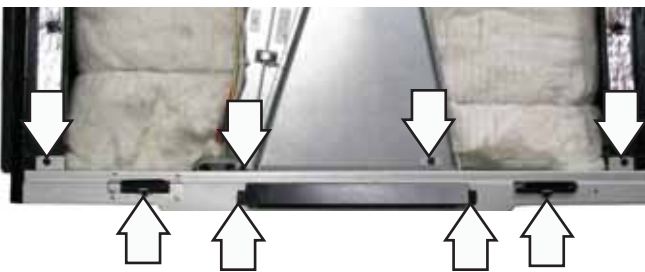
A blower assembly is located under the cooktop at the back of the range. The blower motor operates on 120 VAC and has an approximate resistance value of 58  $\Omega$ .

#### To remove the blower assembly:

1. Remove the rear cover. (See *Rear Cover*.)
2. Remove the cooktop. (See *Cooktop Assembly*.)
3. Disconnect the blower motor wire harness.
4. Remove the two 1/4-in. hex-head screws and the rear vent trim.
5. Remove the two 1/4-in. hex-head screws from the back of the rear vent.



6. Remove the eight 1/4-in. hex-head screws from the rear vent. Lift and remove the rear vent.



7. Remove the four 1/4-in. hex-head screws that attach the blower assembly to the rear vent.



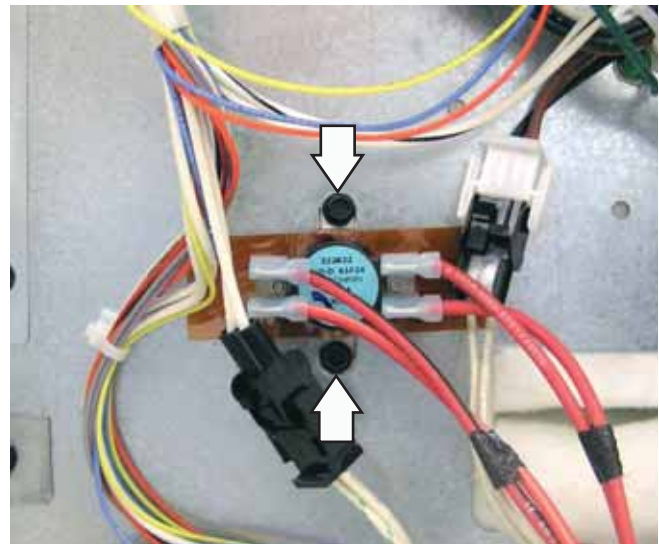
## Thermal Cut Out (TCO) Switch

### Model PS978

In the event of an over-heat condition, the thermal cut out switch will open at 302°F and disconnect L2 voltage from the bake, broil, and convection elements. The switch is non-resettable.

The thermal cut out switch is located to the left of the RPSM and attached to the back of the range frame with two 1/4-in. hex-head screws. (See *Component Locator Views*.) It is necessary to remove the rear cover to access the thermal cut out switch. (See *Rear Cover*.)

**Note:** Before replacing the thermal cut out switch, it is important to mark the location of the 4 wires that are attached.



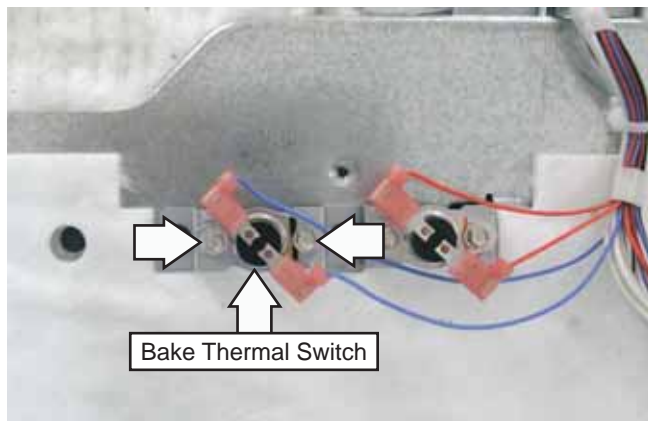


## Bake Thermal Switch

### Model PS978

In the event of an over-heat condition under the cooktop, the bake thermal switch will open at 230°F. The switch is resettable.

The bake thermal switch is located to the left of the clean thermal switch and attached to the thermal switch bracket with two 1/4-in. hex-head screws. It is necessary to remove the control panel to access the switch bracket. (See *Control Panel*.)

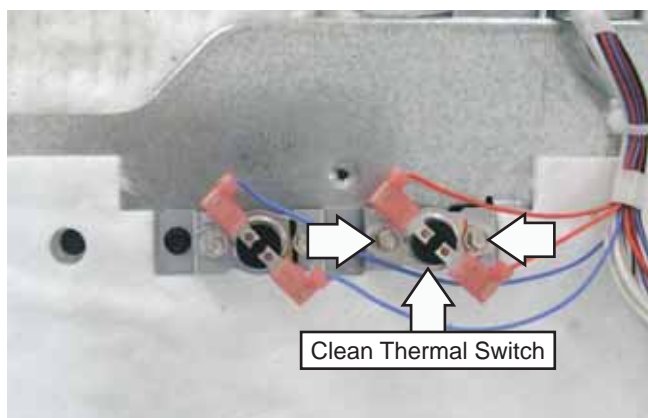


## Clean Thermal Switch

### Model PS978

In the event of an over-heat condition under the cooktop, the clean thermal switch will open at 250°F. The switch is resettable.

The clean thermal switch is located to the right of the bake thermal switch and attached to the thermal switch bracket with two 1/4-in. hex-head screws. It is necessary to remove the control panel to access the switch bracket. (See *Control Panel*.)

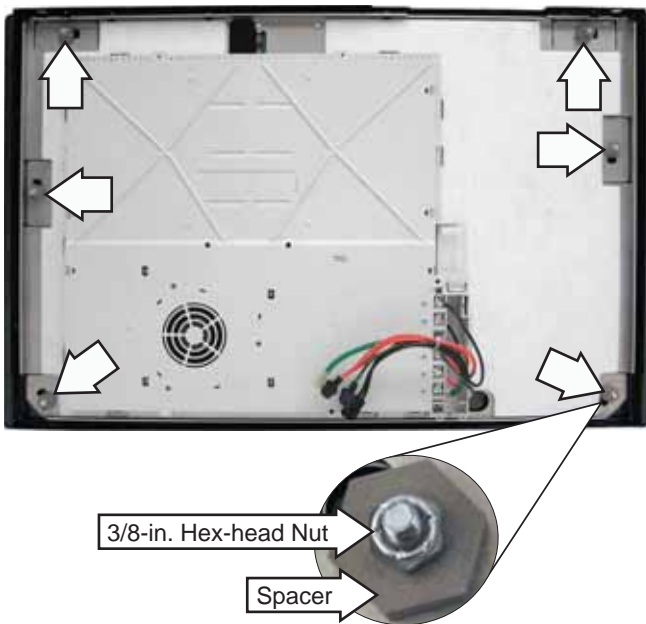


# Cooktop Components - PSH925

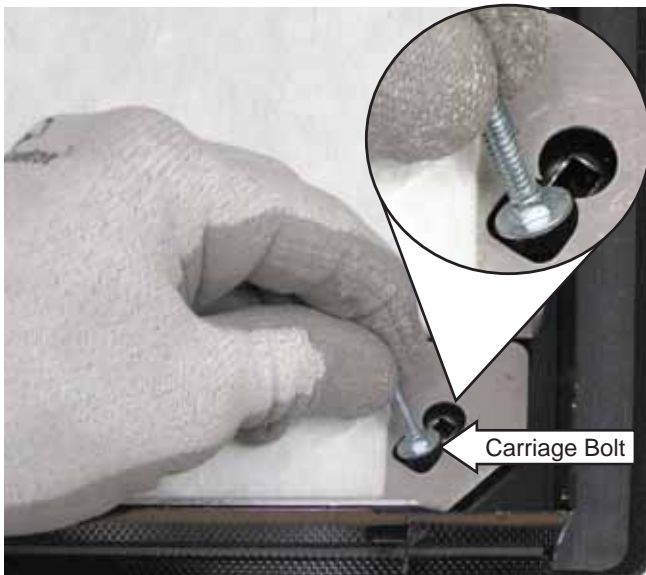
## Aluminum Plate

To remove the aluminum plate:

1. Remove the cooktop assembly. (See *Cooktop Assembly*.)
2. Place the cooktop topside down on a protective surface.
3. Remove the six 3/8-in. hex-head nuts and spacers.



4. Slide the 6 carriage bolts out of the keyed slots in the cooktop.



5. Lift the aluminum plate from the cooktop.

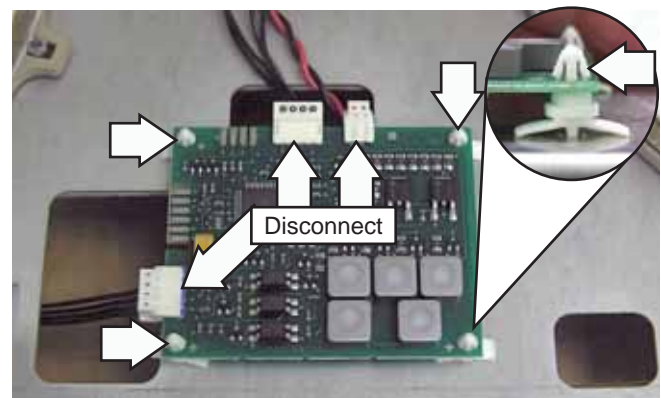


**Note:** When installing the aluminum plate to the cooktop, be sure to install spacers with the shoulder toward cooktop.



## Bridge Board

The bridge board is located under the cooktop and attached to the aluminum plate with 4 compression pins. Three wire harnesses are connected to the board. It is necessary to remove the aluminum plate to access the bridge board. (See *Aluminum Plate*.)



**Note:** The hot surface indicator LEDs are located on the bridge board. The LED will be turned on when the cooktop element is turned on and will remain on as long as the glass temperature exceeds 150°F.

## Cooktop Elements

### Induction Elements

Each induction element consists of a coil and a sensor. The resistance value of the coil is less than  $1\ \Omega$  at room temperature. The resistance value of the sensor is  $1000\ \Omega$  at room temp (+ or -10%). The sensor has a positive coefficient. As the temperature increases, the sensor's resistance increases. The sensor and coil are replaced as a complete assembly. Each element has 4 guides, 2 of which are held in place with a split pin that is permanently attached to the aluminum plate.

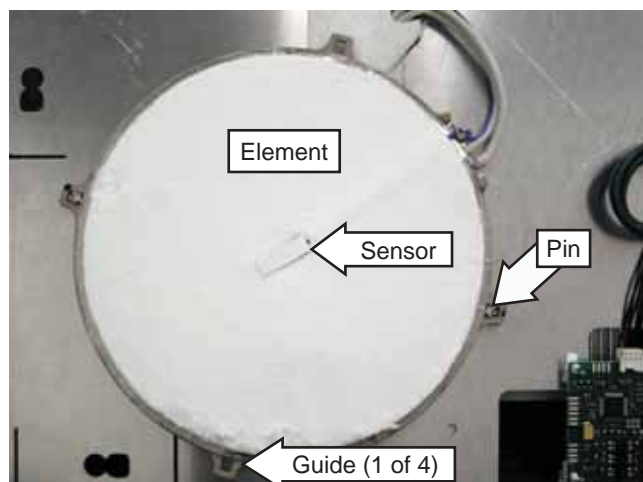
#### To remove induction elements:

1. Remove the aluminum plate. (See *Aluminum Plate*.)
2. Place the aluminum plate element side up on a protective surface.
3. Mark the alignment pins and guides for correct replacement.

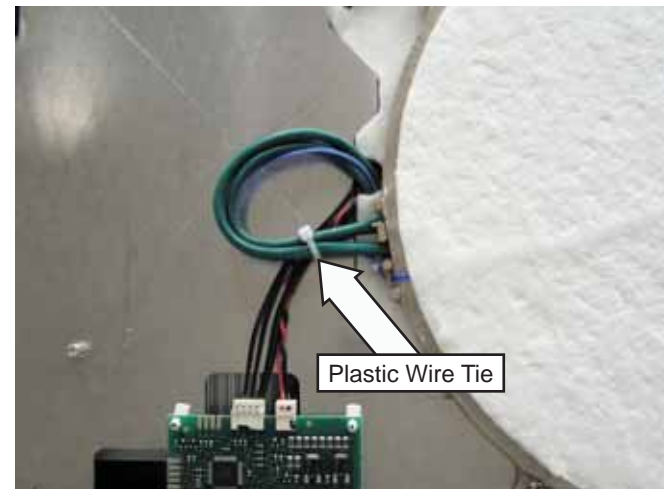
**Caution:** To prevent damage to element insulation, care should be taken when handling an element.

**Note:** If some insulation should separate from the element, it can be placed back on the element in its original position. Do not use any adhesives.

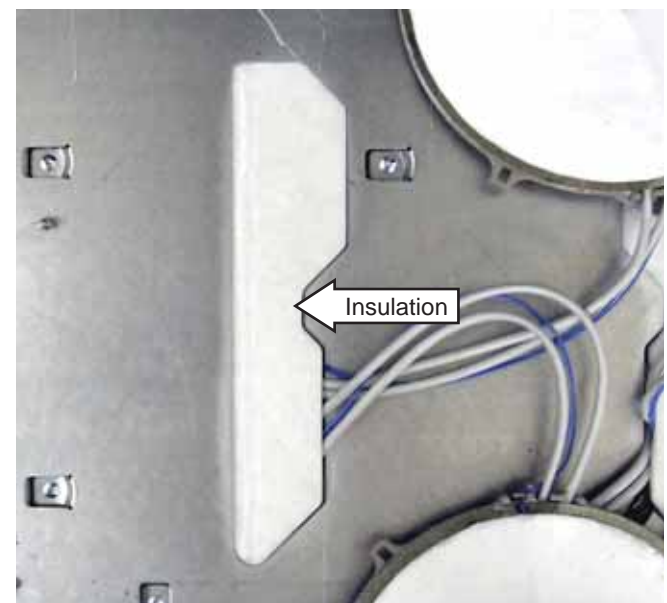
4. Carefully place a flat blade screwdriver under a guide that is captured by a pin.
5. Slowly pry upward and release the element off the pin.
6. Lift the released side of the element vertically until disengaged from the opposite pin.



**Note:** Replacing the 11-in. element will require cutting off and replacing the plastic wire tie joining bridge board wiring and element wiring.



7. Lift and fold back the insulation from the wire entry in the aluminum plate.



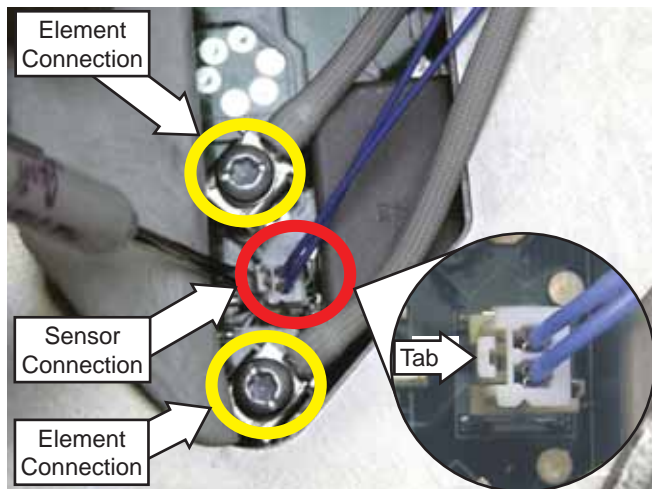
8. Note the routing of the element wires, and loosen the 2 slotted T-25 Torx screws holding the element wires to the generator board.

#### Note

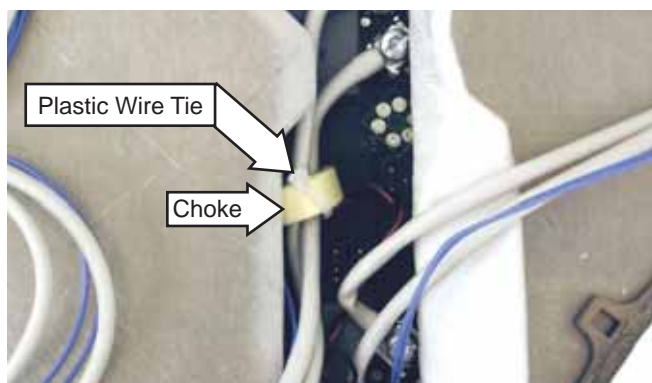
- The element wire terminals are forked and can be removed without completely removing the screws.
- The individual wires from each element have no polarity and can be connected to either of the screw posts for that specific element.

(Continued next page)

9. Use a flat blade screwdriver to press the lock tab inward, and then lift the element sensor connector from the generator board.
10. Extract the element wiring from the wire entry in the aluminum plate.



**Note:** On the 11-in. element, the choke must be removed and transferred to the replacement element. The choke must be attached at the same location on the wires and secured with a plastic wire tie.



### Warming Zone Element

- The warming zone element operates on 240 VAC.
- The element is rated at 100 watts, has an approximate resistance value of 550  $\Omega$ , and draws approximately 0.43 amps.
- Warming zone element operation is controlled by RPSM duty cycling algorithms. See table below.

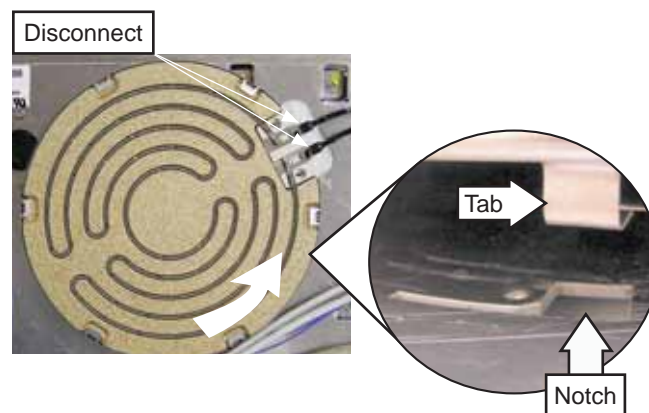
SETTING	TIME VOLTAGE APPLIED
Hi	79%
Medium	54%
Lo	30%

### To remove the warming zone element:

1. Remove the aluminum plate. (See *Aluminum Plate*.)
2. Place the aluminum plate element side up on a protective surface.
3. Disconnect the wires from the warming zone element.

**Note:** The warming zone element is locked into cutouts in the aluminum plate using 2 tabs. To remove the element, it is necessary to first position the tab, located at the 3 o'clock position, into the release notch.

4. Carefully grasp the outer portion of the element and rotate it counterclockwise 1 inch until it reaches the stop position, and then lift the element from the aluminum plate.



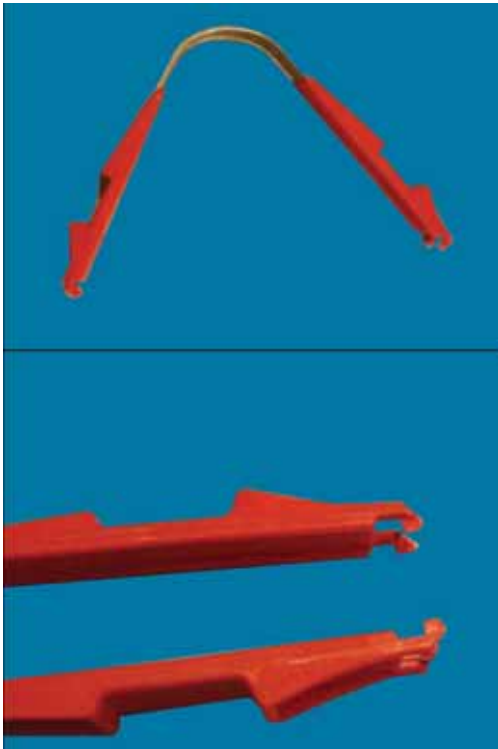


## LINbus Connectors

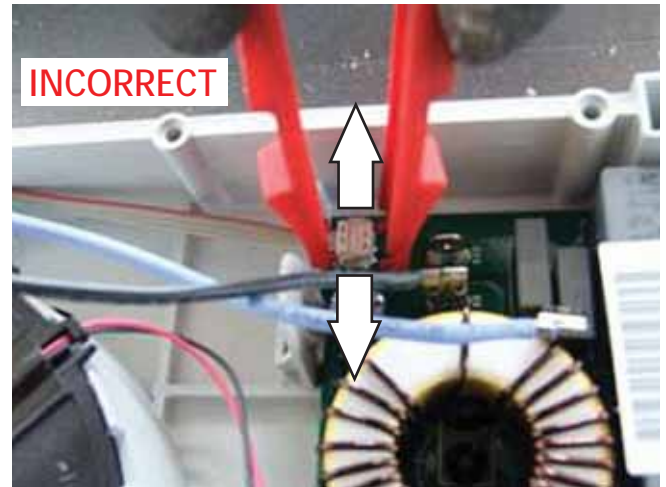
**Caution:** To prevent damage to LINbus (Local Interconnect Network bus) connections, properly use (as shown below) a Molex 69008-1070 tool when removing LINbus connectors.

**Note:** A Molex 69008-1070 tool will be provided with any part that requires the LINbus connectors to be removed.

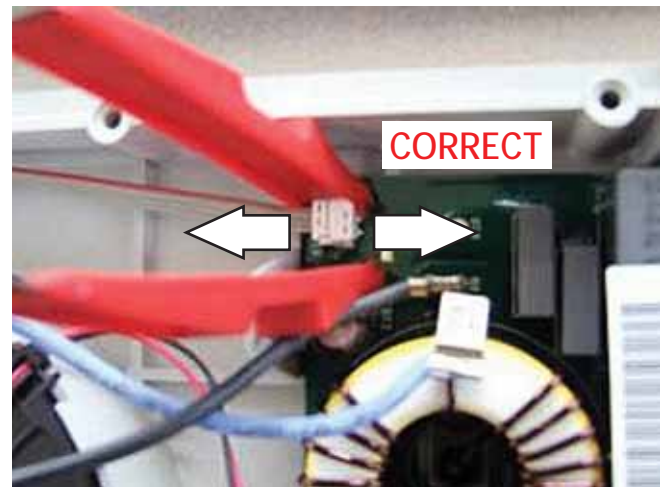
Molex 69008-1070 Tool



Do not use front-to-back motion to remove LINbus connector.



**Correct way:** Use side-to-side motion to remove the LINbus connector.



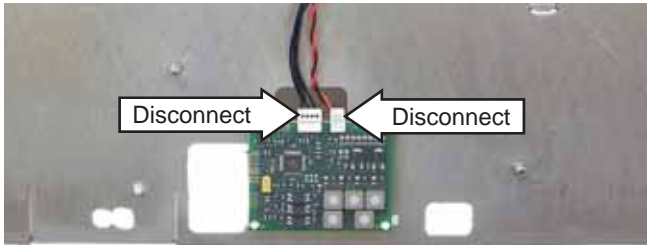
### Note

- LINbus is a communication network comprised of a LIN master and 1 or more LIN slaves. The main logic board acts as the LIN master while the RPSM, bridge, filter, and generator boards are the LIN slaves.
- All of these components receive a signal to perform a specific task, but only the appropriate component will act on the message and respond accordingly. The component that acts on the specific task is based on programming. Since the LINbus signal is a digital control signal, special equipment, such as an oscilloscope, is required to measure it.

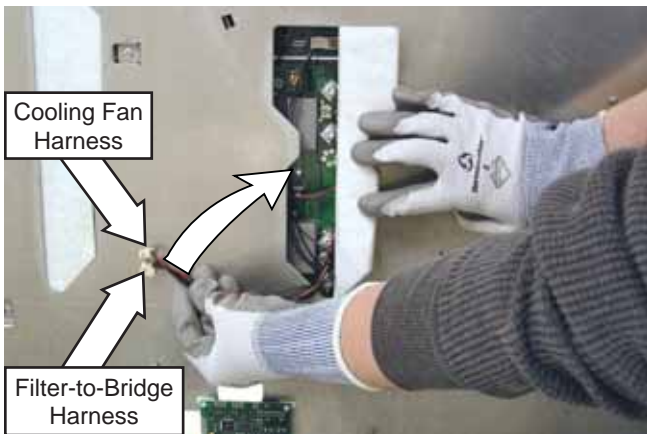
## Induction Module

To remove the induction module:

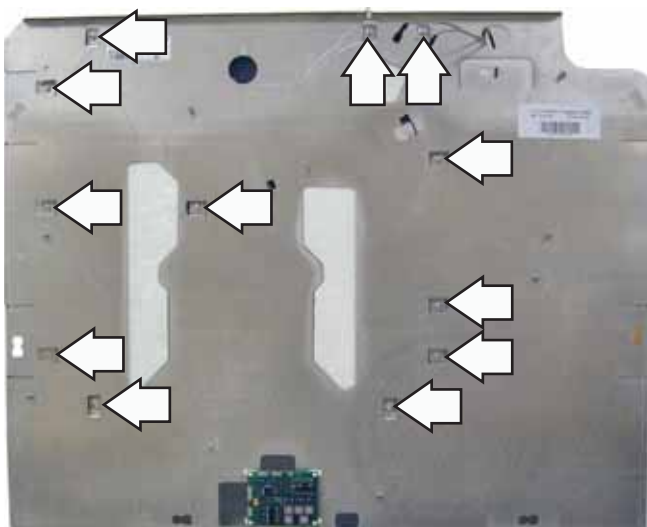
1. Remove the cooktop elements. (See *Cooktop Elements*.)
2. Mark and disconnect the 2 wire harnesses from the bridge board.
3. Remove the plastic wire tie from the aluminum plate.



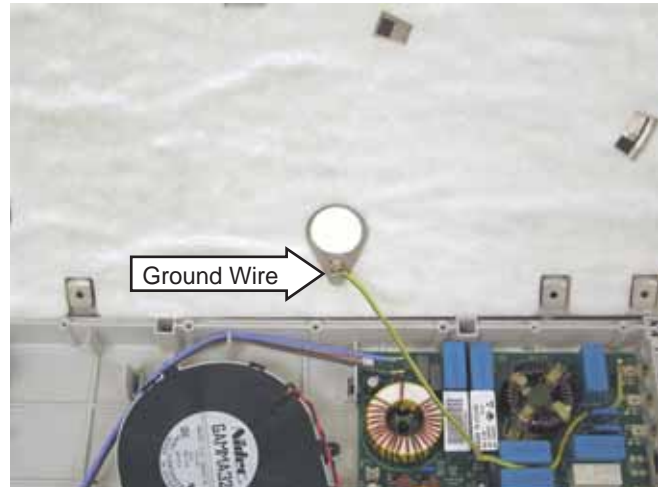
4. Fold back insulation and place the filter-to-bridge board and cooling fan harnesses inside the module.



5. Remove the 12 Phillips-head screws that attach the module to the aluminum plate.



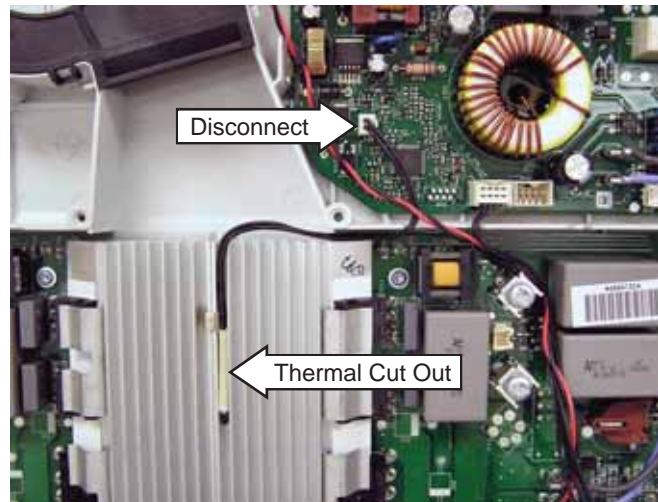
6. Lift the front of the aluminum plate up and disconnect the ground wire.



## Thermal Cut Out

The thermal cut out is located between the fins of each generator board heat sink and is connected to the filter board with a wire harness. The location of the thermal cut out allows it to sense an over-temperature condition of the generator board.

The thermal cut out has a resistance value of less than  $1\ \Omega$  and opens at approximately  $250^{\circ}\text{F}$ . An open thermal cut out will stop operation of the cooktop. If the thermal cut out is open, check for proper operation of the fan and possible vent obstructions.



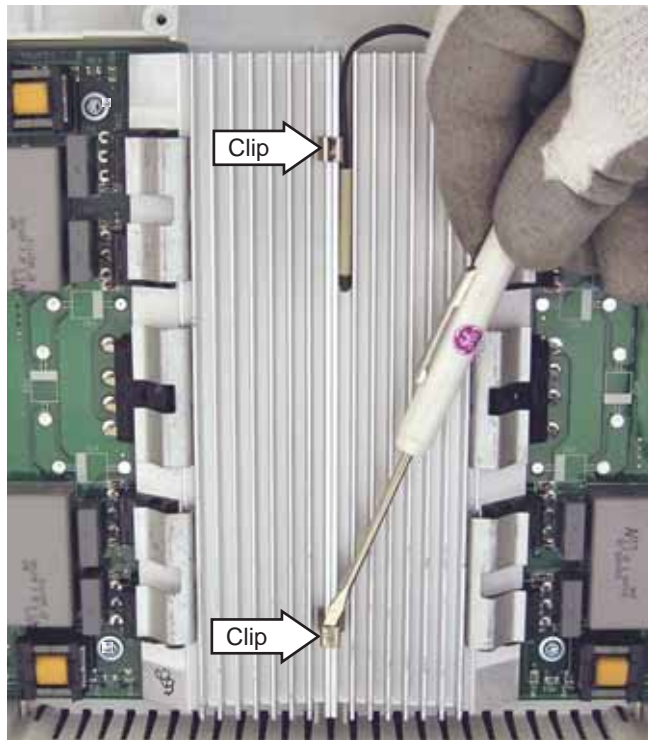
## Generator Boards

To remove the generator boards:

1. Remove the induction module. (See *Induction Module*.)

**Note:** The heat sinks on the right and left generator boards are joined together with 2 metal clips. The clips must be removed to replace either generator board.

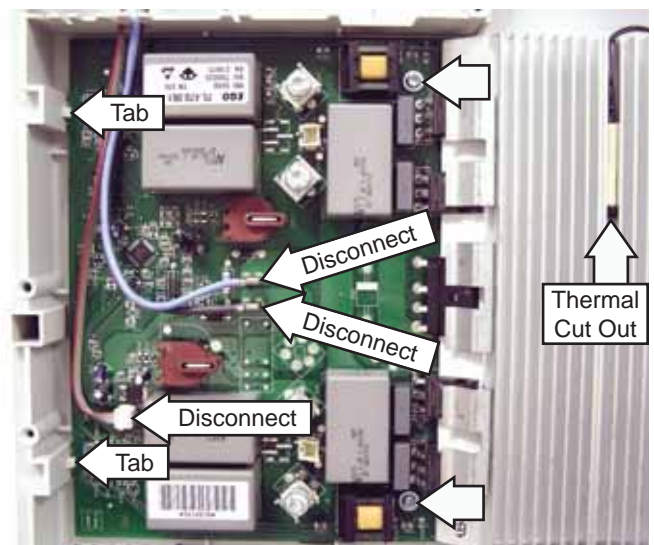
2. If applicable, use a small flat blade screwdriver to pry up and remove the 2 heat sink clips.



3. Mark the location of the black L1 and the blue L2 wires and disconnect both from the generator board.

**Note:** When replacing the L1 and L2 wiring connecting the filter board to the generator board, connect that wiring in a matching configuration. For example, if the L1 output is connected to the bottom terminal on the filter board, it must be connected to the bottom terminal on the generator board.

4. Disconnect the LINbus connector. (See *LINbus Connectors*.)
5. Note the position of the thermal cut out and pull it out of the heat sink fins.
6. Remove the two T-15 Torx screws that hold the generator to the module base.
7. Lift the heat sink side and slide the generator board away from the 2 tabs on the module base.

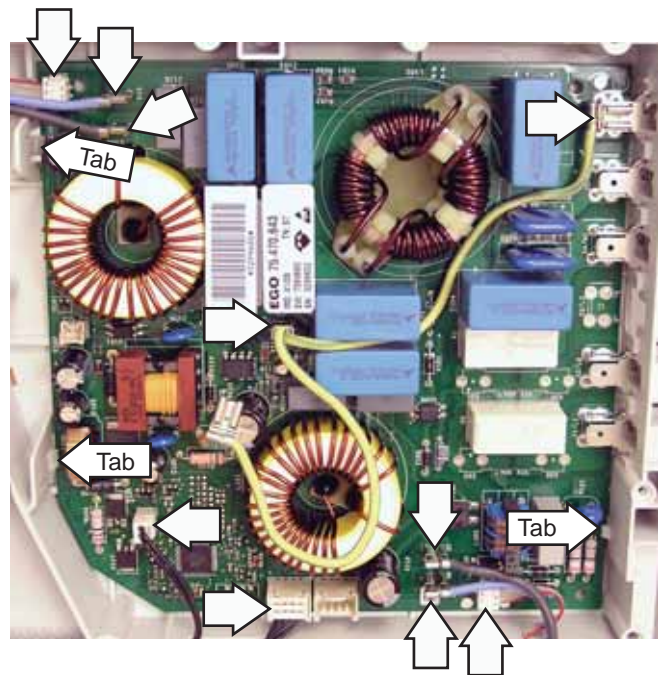
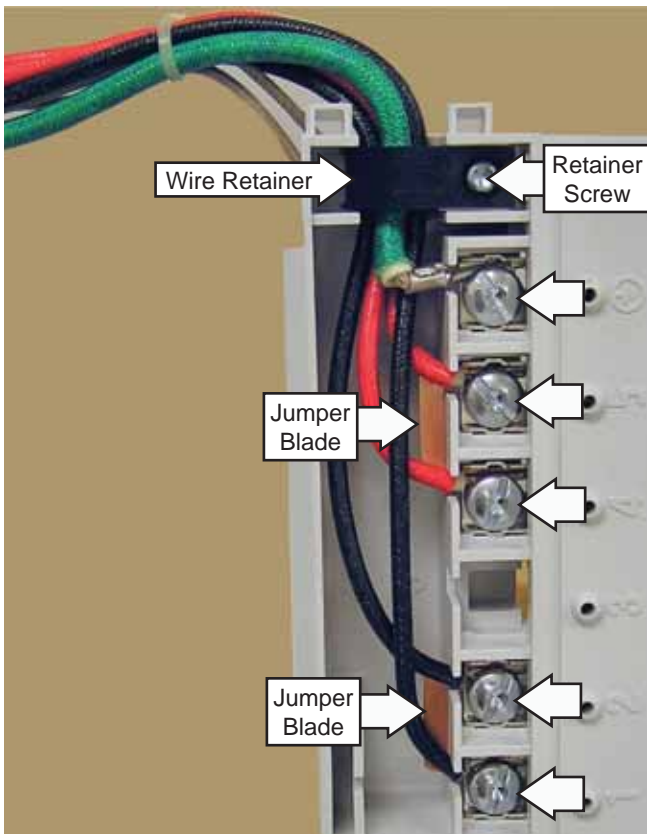




## Filter Board

To remove the main filter board:

1. Remove the induction module. (See *Induction Module*.)
2. Place the module component side down on a protective surface.
3. Note the location of the black, red, and green wires and the 2 jumper blades connected to the filter board power terminals.
4. Remove the T-20 Torx screw and the wire retainer from the module.
5. Using a T-20 Torx or a flat blade screwdriver, loosen the 5 terminal screws, and then remove the black, red, and green wires, and the 2 jumper blades.
6. Tighten the terminal screws.
8. Mark the location, and then disconnect the black L1, blue L2, and ground wire connections on the filter board.
9. Disconnect the thermal cut out and filter-to-bridge wire harnesses.
10. Disconnect the LINbus connectors. (See *LINbus Connectors*.)
11. Using a flat blade screwdriver, carefully press the 2 left side large tabs away from the filter board. Lift the filter board and pull the filter board away from the smaller tab on the right side of the module base.



Arrows indicate disconnect locations

7. Place the module component side up on a protective surface.



# Cooktop Components - PS978

## Radiant Heating Elements

The radiant heating elements consist of spiral-wound resistance wire attached to micro porous insulation with molded ceramic fiber walls in a corrosion protected metal tray. A thermal limiter is attached to the tray.

The thermal limiter is a temperature limit/hot light switch attached to the heating element tray. The glass tube and metal rod extend across the center of the element. The rod's expansion and contraction operate the contacts inside the switch.

The temperature limit/hot light switch performs 2 functions:

1. Turns on the HOT LIGHT when the glass tube and metal rod temperature exceeds 150°F. The hot light will remain on until the glass tube and metal rod temperature has cooled below 150°F (even after the surface unit switch has been turned off).
2. Detects when the glass temperature above a unit has exceeded its limit of approximately 1031°F and disconnects power to that unit. When the glass temperature cools below 1031°F, the unit will turn back on. The temperature limit/hot light switch cannot be calibrated.

The heating elements operate using 240 VAC and come in various sizes:

- 6 inch
- 8 inch
- 5 inch and 8 inch Dual
- Tri-ring (Triple 6 inch, 9 inch, and 12 inch)
- Warming Zone

### Surface Element Ratings\* - Model PS978

Element	Wattage	Resistance
RR	1500	38.4 $\Omega$
Tri-ring	3000	19.2 $\Omega$
Tri-ring-6"	1050	54.9 $\Omega$
Tri-ring-9"	900	64 $\Omega$
Tri-ring-12"	1050	54.9 $\Omega$
LF-5 inch	1100	52.3 $\Omega$
LF- 5 and 8 inch	2400	24 $\Omega$
LR	2000	28 $\Omega$
Warmer	120	480 $\Omega$

\*Ratings are approximate.

## To remove a radiant heating element:

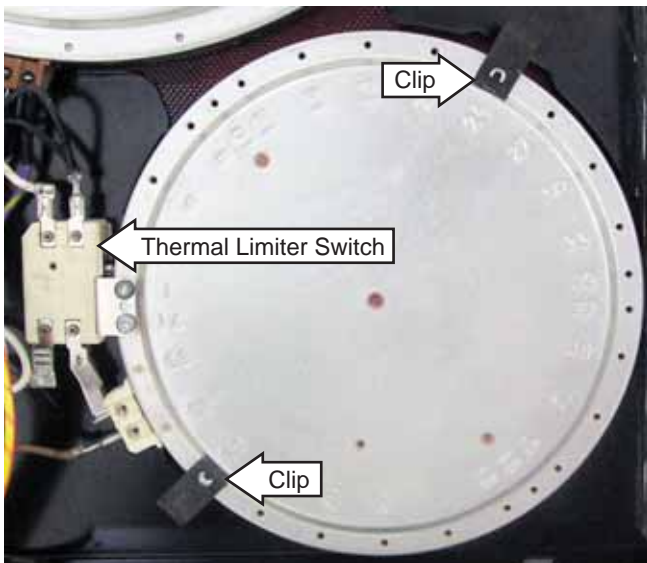
1. Remove the cooktop assembly. (See *Cooktop Assembly*.) Place the cooktop upsidedown on a protective surface.

**Caution:** Routing of the wires is extremely critical. Care must be taken to ensure the wires are routed exactly the way they were originally.

2. Mark and remove the wires to the element.

Note the location and orientation of the element to its target location on the cooktop. Mark the location of the retention springs where they attach to the element.

3. Release the retention springs that hold the element to the cooktop.



**Note:** When installing a radiant element, make sure the element is firmly pressed against the glass and aligned in the target area.

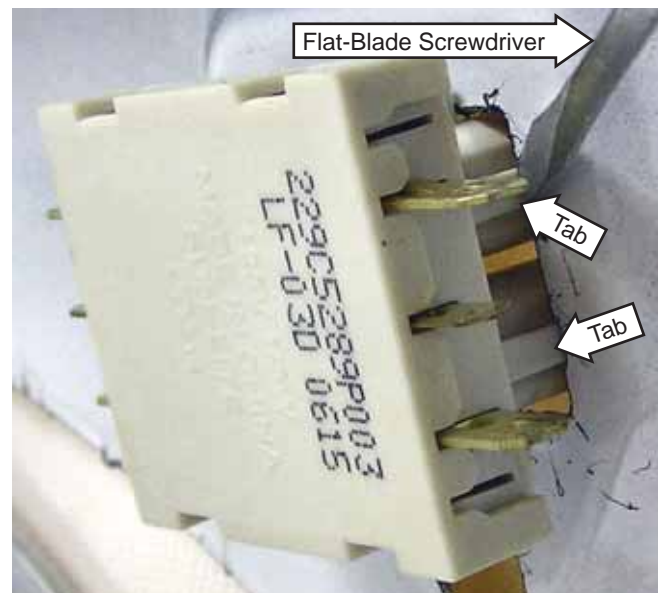
## Hot Surface Indicator Light Assembly

The hot surface indicator lights are contained in an assembly located under the cooktop.

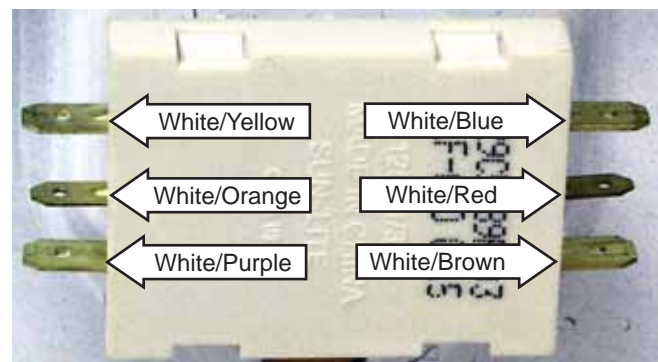
Each hot surface indicator light is controlled by the thermal limiter attached to the radiant element. (See *Radiant Heating Elements*.)

The hot surface indicator light assembly is held to the underside of the cooktop with 2 notches on the left side and 2 tabs on the right side of the assembly.

To remove the hot surface indicator light assembly, it is necessary to raise and support the cooktop (See *Cooktop Assembly*.), and to mark and disconnect the wiring from the assembly. The assembly can then be released by using a small flat-blade screwdriver to press the 2 tabs towards the center of the assembly while lifting the right side of the assembly out of the cooktop.



## Wire to Terminal Location



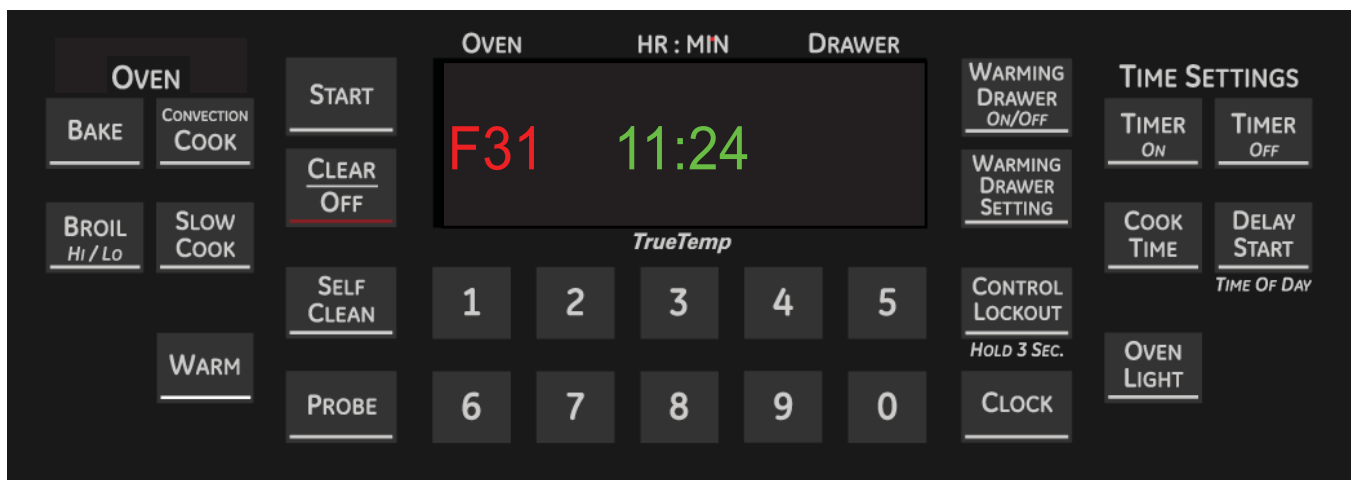
# Diagnostics and Service Information

## Failure Codes

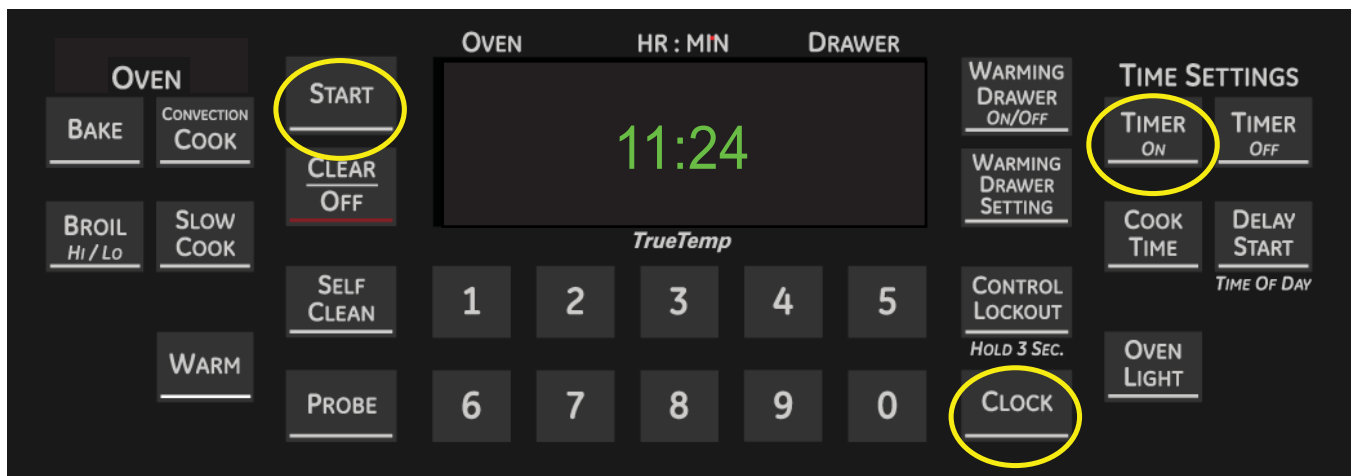
The main logic board has error (F) codes that can be utilized by the service technician in order to quickly identify failed or improper operation of certain range components. F-codes are not shown on the display when they occur; they are stored in EEprom and can be retrieved.

### Note:

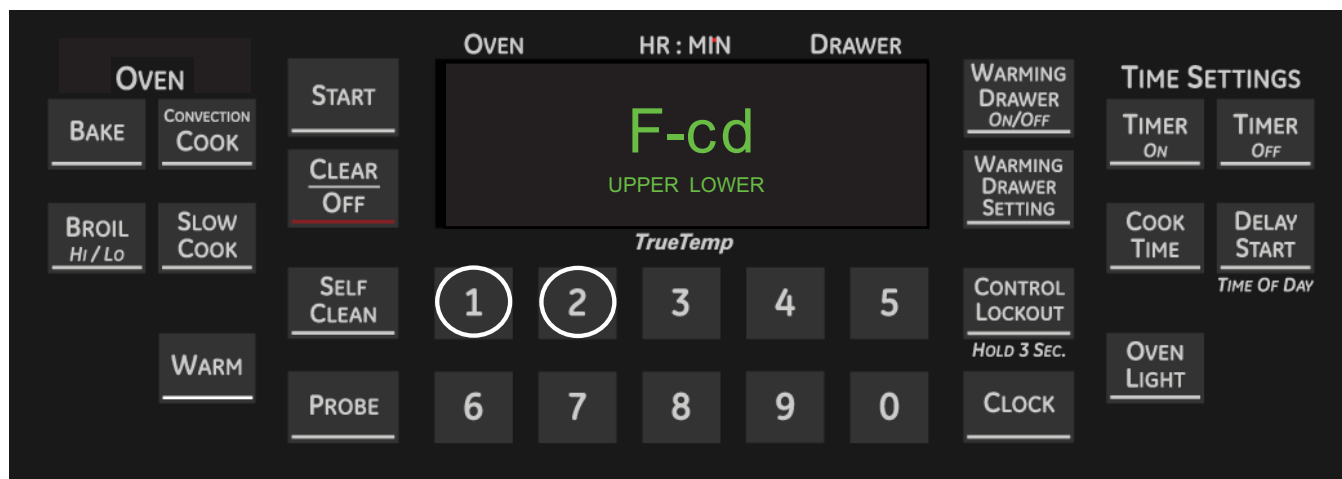
- The oven controls shown below may vary from your model, but the procedures to access failure codes for PHS925 and PS978 are similar.
- For the first 3 minutes after power up, the F-codes will show on the display.



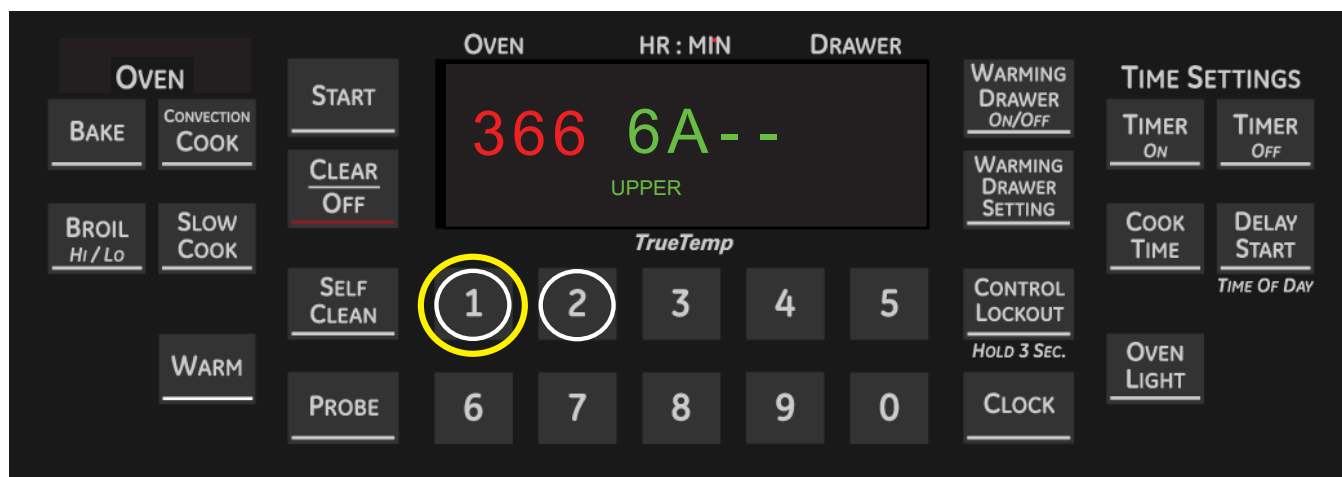
Retrieve failure codes by pressing TIMER ON, CLOCK, and START.



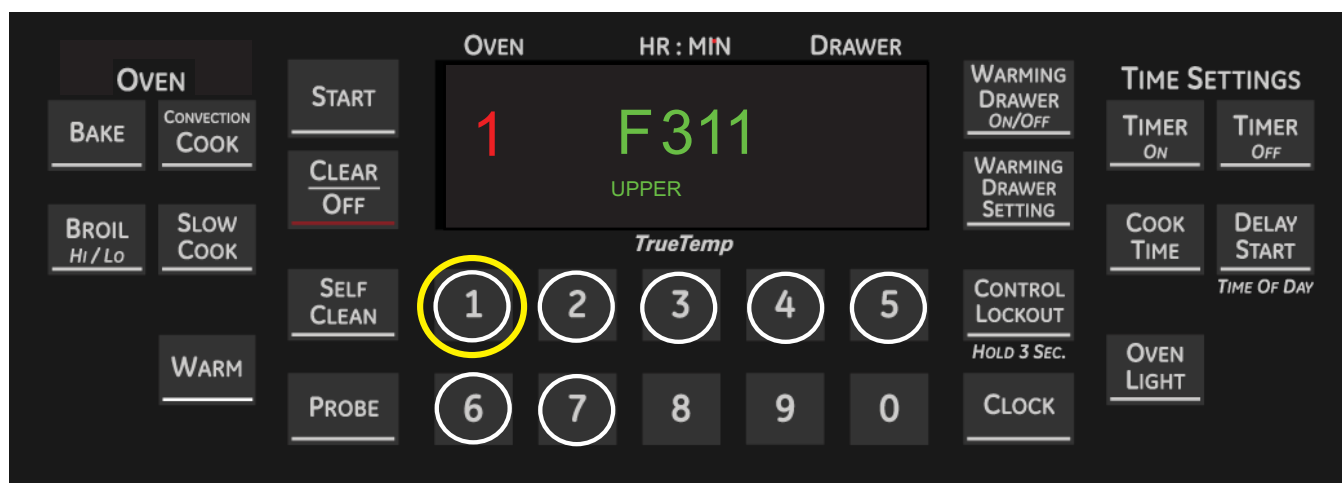
The display then shows F-cd and prompts for an UPPER or LOWER selection. Press 1 for the Oven.



After selecting 1 for the oven, a log is shown.



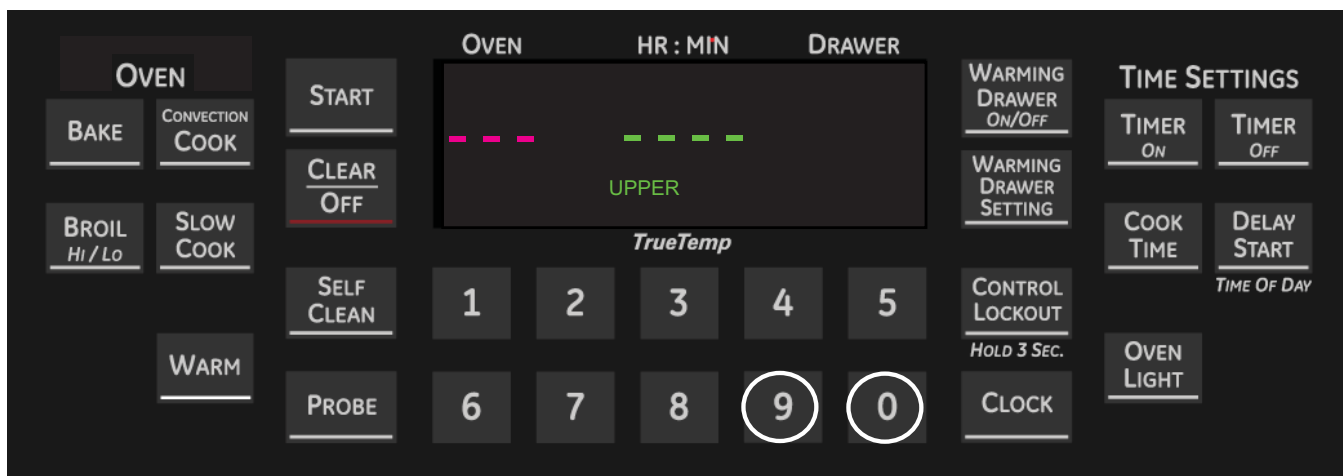
Details of any 1 of up to 7 stored codes can be recalled by pressing a numbered key.



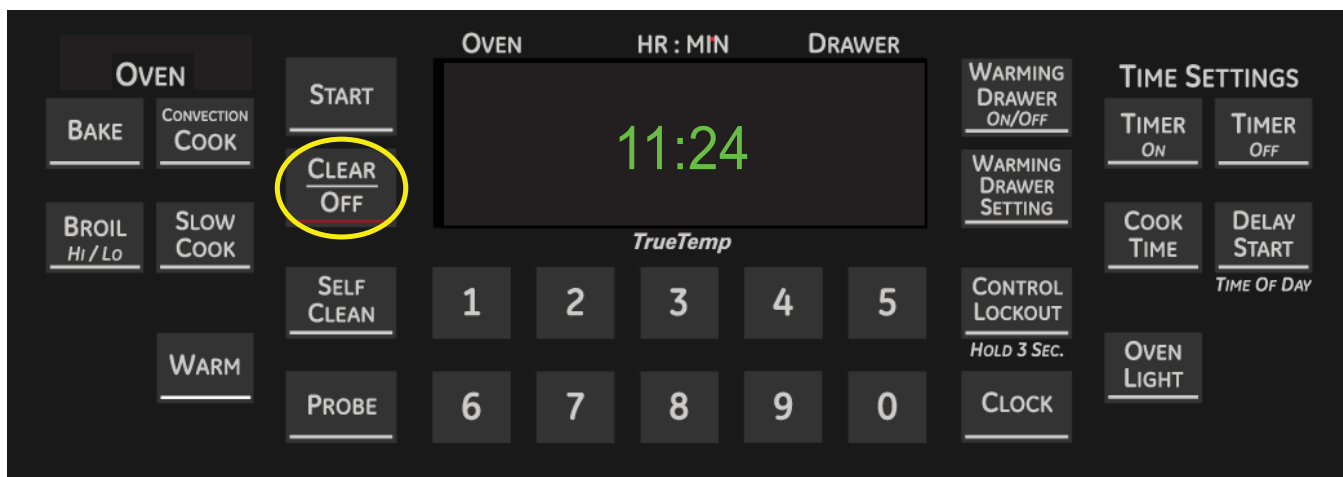


The F-Code log can be erased by pressing 9 and 0 together while the log is being displayed.

Note: Only the log displayed is erased/cleared.

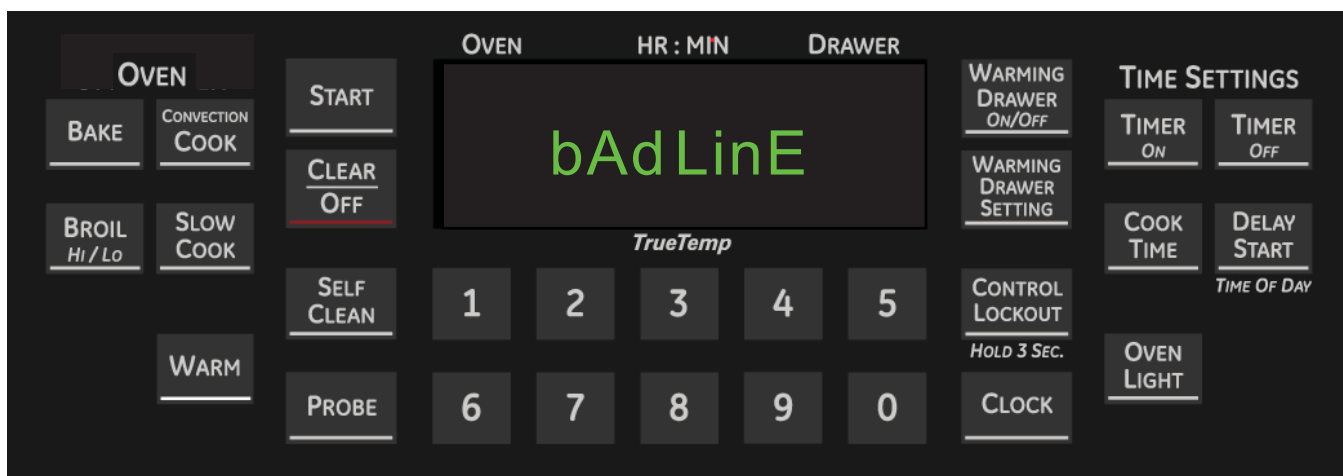


Press CLEAR/OFF to exit the F-Code mode and return to the time of day display.



### Bad Line Display

A **bAd LinE** will be displayed to signal a terminal block cord miswire. It will appear if 120 VAC is not present between J21-5 and J20-3. It will also appear if there is less than 200 VAC between J20-1 and J20-3. J20 and J21 are both located on the RPSM Board.



## Oven Failure Codes

X=1 is Upper/X=2 is Lower

F-Code	Meaning	Correction
F100	LED error on Burner Touch Board (when equipped)	LEDs on Burner Touch Board operating properly. Harness /header pins to Burner Touch Board.
F20x	Temperature inside oven cavity exceeds 600°F with door unlocked	a) Welded relay contacts. b) High resistance in sensor connectors, especially at sensor in rear.
F21x	Temperature inside oven cavity exceeds 900°F with door locked	
F30x	Shorted oven sensor (under 950 ohms)	a) Disconnect sensor harness from control. Measure resistance. Should be ~1100 ohms at room temperature with 2 ohms per degree change. b) Look for damaged harness terminals/pins if resistance is OK.
F31x	Open oven sensor (over 2950 ohms)	
F32x	Temperature measurement circuit redundancy check within Main Logic Board bad	Replace board.
F33x		
F40x	Meat probe or jack shorted	a) Probe should be ~10K ohms at room temp. b) Disconnect jack harness from control. Check for shorted jack or harness. Center pin may be touching insulation retainer.
F600	LIN comm error within Main Logic Board	a) Check for shorted J241 pin 2. b) Replace board.
F610	LIN comm error to slaves such as RPSM	a) Check LIN wire in harness. b) Replace RPSM Board.
F611	LIN comm error to slaves such as RPSM	a) Check LIN wire in harness. b) Replace RPSM Board. c) Replace Main Logic Board.
F612	Line power error detected by RPSM	a) Check power line for dropouts. b) Replace RPSM.
F620	LIN comm error to/from RPSM AUX Board (when equipped)	Replace AUX Board, especially if MAIN Board relays still function.
F621	LIN comm error to/from RPSM AUX Board (when equipped)	Replace AUX Board, especially if MAIN Board relays still function.
F622	Line power error detected by RPSM	a) Check power line for dropouts. b) Replace RPSM.
F70x	CLEAR/OFF touch key error	a) Touch film has a short. b) Main Logic Board fault.
F710	Any other Touch Key error	a) Touch film has a short. b) Main Logic Board fault.
F720	Main Logic Board internal touch key chip signal error	Replace Main Logic Board.
F730		
F740		
F750		
F760		
F770		
F780	60 Hz square wave not getting to Touch Key chip on Main Logic Board	a) Harness to J241 pin 4 open. b) Replace Main Logic Board if voltage is OK to J241 pin 4. OR c) Replace Main RPSM Board if no voltage at RPSM J17 pin 9.

(Continued next page)

F790	Main Logic Board internal touch key chip signal error	Replace Main Logic Board.
F7A0	Main Logic Board internal touch key chip memory error	Replace Main Logic Board.
F7B0	Main Logic Board internal touch key chip memory error	Replace Main Logic Board.
F800	Main Logic Board memory error	Replace Main Logic Board.
F810	Main Logic Board memory error	Replace Main Logic Board.
F820	Main Logic Board EEPROM memory error	Replace Main Logic Board.
F90x	Door Lock Unlock-Home signal became untrue during cooking	a) Lock motor cam switch faulty/loose. b) Harness from lock motor to RPSM J16 open. NOTE: Control will open/close relay several times trying to "jog" the motor. c) FAD tripped. Check cooling fan.
F91x	Door Lock Lock-Home signal became untrue during clean	
F92x	Both the Lock-Home and Unlock-Home switches are closed simultaneously	a) Lock motor cam switch is stuck closed. Replace assembly. b) Replace RPSM Main Board.

## Induction Failure Codes

Induction Element Locations: 0= Left Front, 1= Left Rear, 2= Right Front, 3= Right Rear

<b>FA00</b>	Device not found within Induction Cooktop module	a) Fix open signal harness within cooktop. b) Replace filter, bridge or generator board.
<b>FA10</b>	Induction cooktop – bridge board error	Replace induction bridge board.
<b>FA30</b>	Induction cooktop – fan error	a) Replace cooktop fan. b) Replace cooktop bridge board.
<b>FA40</b>	Induction cooktop – generator board error	Replace both cooktop generator boards.
<b>FA47</b>	Enable signal not getting from Main Logic Board J241 pin 8 to Cooktop Bridge Board X200 pin 3	a) Check harness connection. b) Replace bridge board. c) Replace Main Logic Board.
<b>FA5x</b>	Induction cooktop burner sensor too hot (F-code not logged)	a) Transient error – wait for cooldown. b) Replace cooktop coil sensor.
<b>FA6x</b>	Induction cooktop – filter board error	a) Check power connections on filter board. b) L1 or L2 from line is faulty. c) Replace cooktop filter board.
<b>FA7x</b>	Induction cooktop generator board temperature sensor open or DC problem	Replace cooktop generator board.
<b>FA8x</b>	Induction cooktop – comm error from cooktop filter to other cooktop boards	a) Check signal harness in cooktop module. b) Replace filter board.
<b>FA9x</b>	Induction cooktop – coil temperature sensor break	a) Coil sensor harness. b) Replace cooktop coil sensor. c) Generator board.
<b>FAAx</b>	Induction cooktop – unsuitable pot size	a) Transient error – use correct pot size. b) Coil fell away from glass.

## Test Mode

To enter the test mode, disconnect power to the range for 5 seconds, reconnect power, and then press keys 1 and 5. The display will show **tEst**. A test feature is selected by pressing certain individual keys. When selected, each test feature will remain displayed for 10 seconds, and then the display will return to **tEst**. To exit the test mode, touch the **Clear Off** pad. The test mode will automatically time out in 10 minutes.

Key	Displayed for 10 Seconds	Test Performed
START	tEst	Convection Fan ON (CW)
Bake	tEst	Bake Element On With DLB
Conv	tEst	Convection Element On With DLB
Probe	Probe Temperature (when plugged in)	Probe Temperature
Broil	tEst	Broil Element On With DLB
Clean	Door Status	Locks, then Unlocks The Door
Cook Time	Oven Sensor Temperature and ROM Version	
Delay Start	Model ID and EEPROM Checksum	Convection Fan On (CCW)
Oven Light	tEst	Oven Light On
Clock	All Wing-L and Wing-R LEDs ON	Operates All Wing-L and Wing-R LEDs
Timer ON	10 digits and all LEDs In Display	
Timer Off	All white key LEDs (except Clear/Off)	
10 KEY 3	AC Input Voltage from RPSM J20	L1 to L2 Voltage at RPSM J20 Shown
10 KEY 5	Beep Volume Level Hi-Std-Lo	Sounds Beep Volume Levels
RF ON/OFF	RF - segment	- Segment, Element ON, Hot Cooktop RF LED ON
RF -	RF - L	L Digit ON
RF +	RF - H	H Digit ON
RF Power Boil *	½ segment	½ segment ON
RR ON/OFF	RR -	- Segment ON
RR -	RR - L	L Digit ON, Hot Cooktop RR LED ON
RR +	RR - H	H Digit ON
LF ON/OFF	LF - segment	- Segment ON, Hot Cooktop LF LED ON
LF -	LF - L	L Digit ON
LF +	LF - H	H Digit ON
LF Simmer *	½ segment in LF digit	½ segment ON
LR ON/OFF	LR - segment	- Segment ON
LR -	LR - L	L Digit ON, Hot Cooktop LR LED ON
LR +	LR - H	H Digit ON, 4 Hot Cooktop LEDs ON
LR Simmer **	½ segment in LR digit	½ segment ON
RR Melt	½ segment in RR digit	½ segment ON
WZ ON/OFF	WZ .. segment in WZ digit	WZ .. segment ON
WZ Select	M in WZ digit	M Digit ON
10 Key 7	tEst	Blower ON

\* Burner Size on PS978

\*\* Melt on PS978



## Convection Fan Troubleshooting Table

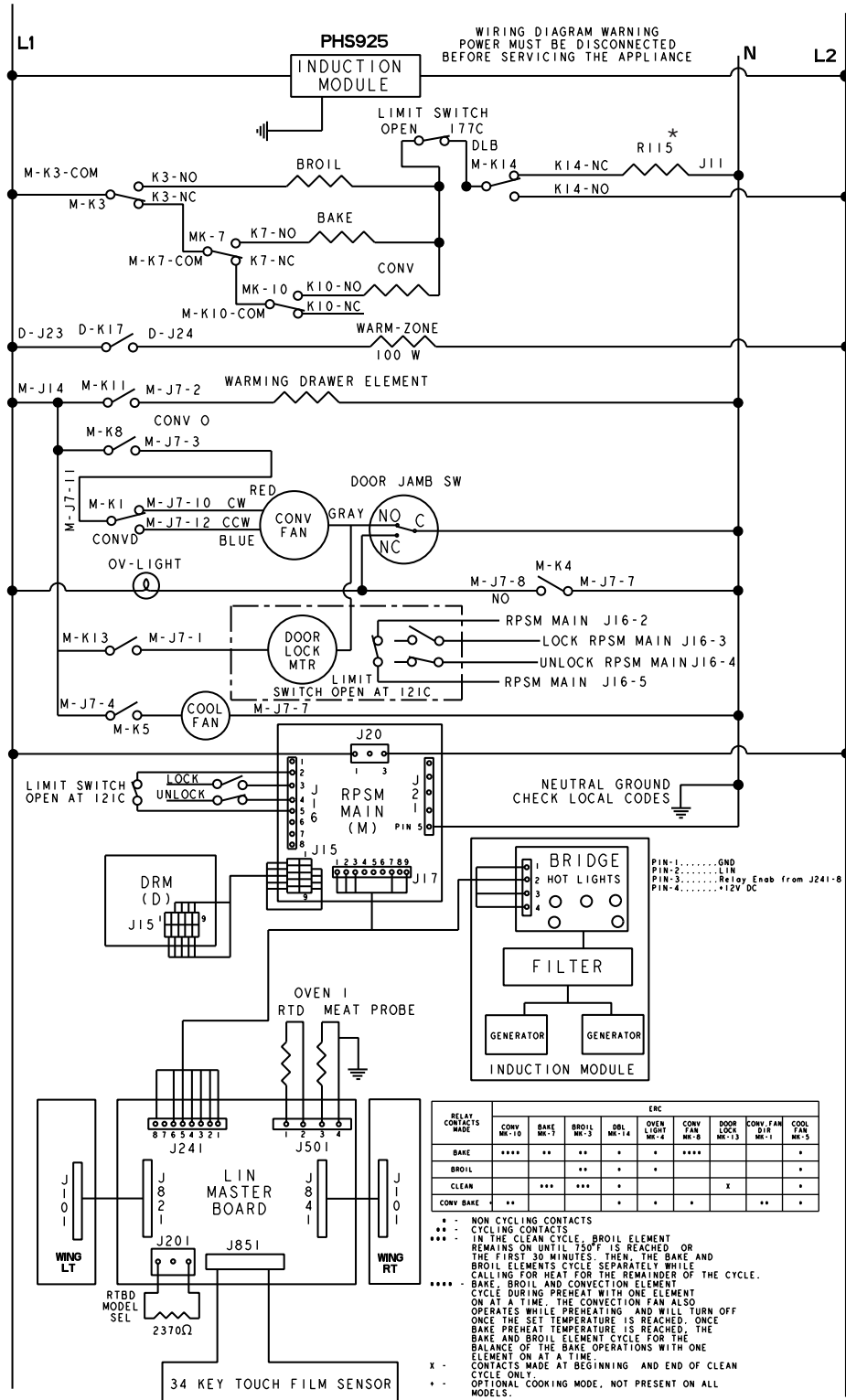
Symptom	Possibility	Correction
<b>Fan motor buzzes</b>	Open capacitor	Harness, terminals or bad capacitor.
<b>No fan operation</b>	Open winding as indicated by ohm check red to gray and blue to gray (approx. 60 ohms each)	Replace motor.
<b>Fan loud</b>	Loose shaft nut	Tighten shaft nut. Do not bend blade.
<b>Fan loud</b>	Convect cover screws or cavity screws loose	Tighten. Use larger screw if stripped.
<b>No fan operation</b>	Check voltage blue to gray when fan is counterclockwise – should read 120VAC. Also, red to gray when clockwise – should read 120 VAC.	<ul style="list-style-type: none"> <li>• Check RPSM MAIN.</li> <li>• If voltages OK, check harness or winding resistance.</li> </ul>
<b>No fan operation</b>	Shaft or blade rubbing on oven liner	Loosen screws/readjust position/tighten.
<b>No fan operation</b>	Jamb switch NO to C is open	Replace jamb switch or check harness.

# Schematics and Wiring Diagrams

**WARNING:** Disconnect electrical power before servicing.

**Caution:** Label all wires prior to disconnection. Wiring errors can cause improper and dangerous operation. Verify operation after servicing.

## Schematic - PHS925ST1SS



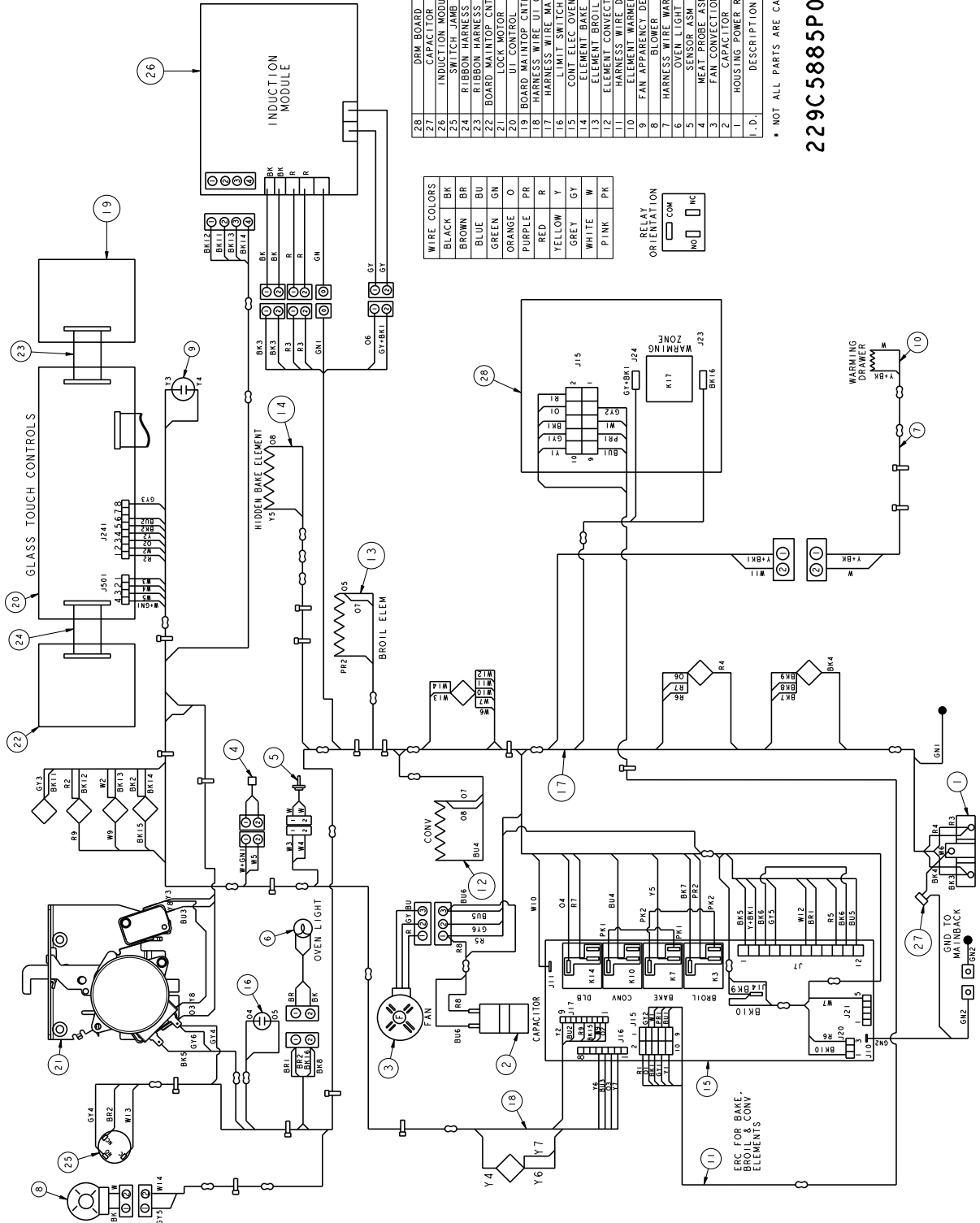
Note: All relays designated M are located on the RPSM.

\* Used only in factory test.

(Continued Next Page)

# Wiring Diagram - PHS925ST1SS

FUNCTION	MAIN P.I.N.#	DRM P.I.N.#	IND WOOD P.I.N.#
LINE	J241-1	J15-1	P1N2
LINE	J241-2	J15-2	P1N2
LINE	J241-3	J15-3	P1N2
LINE	J241-4	J15-4	P1N2
LINE	J241-5	J15-5	P1N2
LINE	J241-6	J15-6	P1N2
LINE	J241-7	J15-7	P1N2
LINE	J241-8	J15-8	P1N2
LINE	J241-9	J15-9	P1N2
LINE	J241-10	J15-10	P1N2

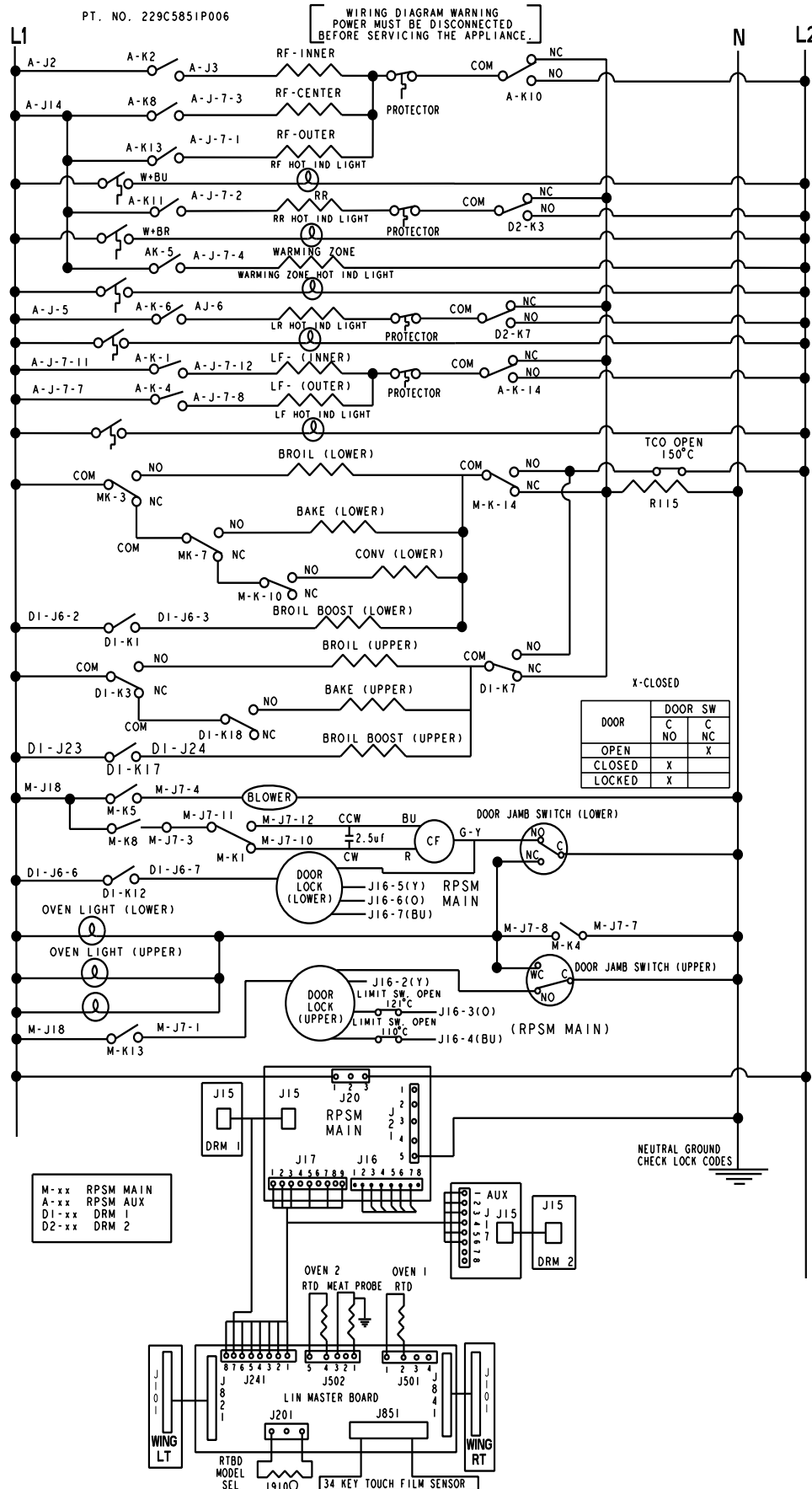


QTY	DESCRIPTION	I.D.
1	HOUSING POWER RING	1
1	CAPACITOR	2
1	FAN CONVECTION	3
1	MEAT PROBE ASM	4
1	SENSOR ASM	5
1	OVEN LIGHT	6
1	BLOWER	7
1	FAN APPARENTY DEVICE	8
1	ELEMENT WARMER	9
1	ELEMENT CONVECTION	10
1	ELEMENT BROIL	11
1	CONT ELEC OVEN	12
1	LIMIT SWITCH	13
1	HARNES WIRE MAIN	14
1	BOARD MAINTOP CNTL LT	15
1	UI CONTROL	16
1	BOARD LOCK MOTOR	17
1	RIBBON HARNES RT	18
1	RIBBON HARNES LT	19
1	SWITCH JAMB	20
1	INDUCTION MODULE	21
1	DRM BOARD	22

\* NOT ALL PARTS ARE CATALOGUED

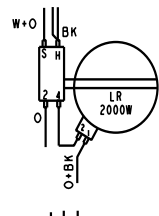
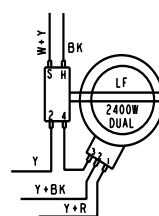
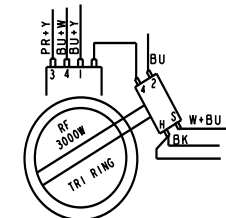
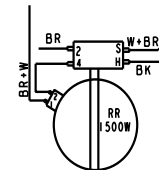
229C5885P002

# Schematic - PS978ST1SS



SURFACE ELEMENTS	
WATTAGE	RESISTANCE
1500W RR	38.4Ω
3000W RF TRI-RING	19.2Ω
1050W (INNER ELEM)	54.9Ω
900W (CENTER)	64.0Ω
1050W (OUTER ELEM)	54.9Ω
2400W LF (DUAL)	24Ω
1000W (INNER ELEM)	57.6Ω
1400W (OUTER ELEM)	41.1Ω
2000W LR	28.8Ω
120W WARMER	479.1Ω

OVEN HEATING ELEMENTS	
WATTAGE	RESISTANCE
LOWER BROIL OUTER 950W	60.6Ω
LOWER BAKE 2650W	21.7Ω
LOWER BROIL INNER 2650W	21.7Ω
CONVECTION LOWER 2500W	23.0Ω
UPPER BROIL OUTER 500W	115.2Ω
UPPER BAKE 2650W	21.7Ω
UPPER BROIL INNER 2500W	23.0Ω



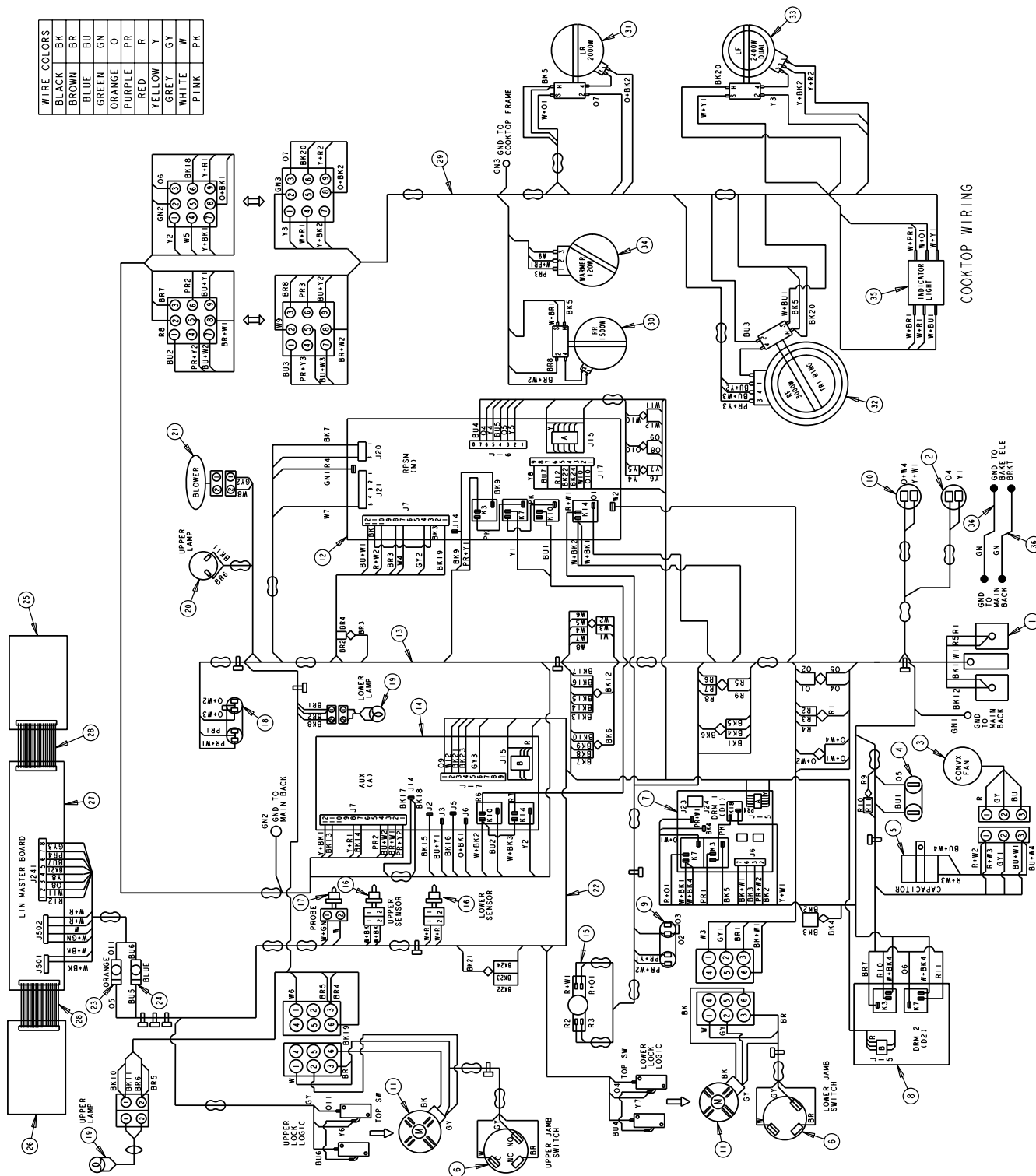
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## Wiring Diagram - PS978ST1SS

36	GROUND, HIDDEN BAKE	2
35	MODULE LIGHT INDICATOR	1
34	ELEMENT WARMER	1
33	ELEMENT SURFACE LF	1
32	ELEMENT SURFACE RF	1
31	ELEMENT SURFACE LR	1
30	ELEMENT SURFACE RR	1
29	HARNES WIRE COOTOP	1
28	HARNES WIRE INF	2
27	BOARD UI CONTROL	1
26	BOARD MAINTOP CNTRL (RT)	1
25	BOARD MAINTOP CNTRL (LT)	1
24	BAKE THERMAL SWITCH	1
23	CLEAN THERMAL SWITCH	1
22	HARNES WIRE UI	1
21	BLOWER ASM	1
20	LAMP INCANDESCENT	1
19	LAMP HALOGEN	2
18	ELEMENT BROIL UPPER	1
17	PROBE MEAT ASM	1
16	SENSOR ASM	2
15	THERMAL CUTOUT SWITCH	1
14	AUX BOARD	1
13	HARNES WIRE MAIN	1
12	RPSM MAIN BOARD	1
11	LOCK MOTOR	2
10	ELEMENT HIDDEN BAKE (UPPER)	1
9	ELEMENT BROIL LOWER	1
8	DRM 2 BOARD	1
7	DRM 1 BOARD	1
6	SWITCH JAMB	2
5	CONVX CAPACITOR	1
4	ELEMENT CONVX	1
3	CONVX FAN	1
2	ELEMENT HIDDEN BAKE (LOWER)	1
1	HOUSING POWER RING	1
1	DESCRIPTION	QTY

WIRE COLORS	
BLACK	BK
BROWN	BR
BLUE	BU
GREEN	GN
ORANGE	O
PURPLE	PR
RED	R
YELLOW	Y
GREY	GY
WHITE	W
PINK	PK



F/N	MAIN PIN #	MASTER PIN #	MAIN PIN #	PHONE PIN #	DOM 1 PIN #	DOM 2 PIN #
7, 8, 9, 10	2241-2	2241-2	2241-2	217-1	217-2	
120	2241-3	2241-1	217-1	217-1		
60, 81	2241-4	217-9			215-2, 217-6	
UNCLIPPED	2241-6	217-7				
UNCLIPPED-LOWER	2241-7				215-1	
UNCLIPPED-UPPER	2241-8				217-6	
		215-2	217-6		215-2	
		215-4			215-4	
		215-5			215-5	
		215-6			215-6	
		215-7			215-7	
		215-8			215-8	
		215-9			215-9	
		215-10			215-10	
					215-2	
					215-4	
					215-5	
					215-5	

# Warranty

## GE Electric Range Warranty.



All warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. To schedule service, visit us on-line at [GEAppliances.com](http://GEAppliances.com), or call 800.GE.CARES (800.432.2737). Please have serial number and model number available when calling for service.

Staple your receipt here.  
Proof of the original purchase date is needed to obtain service under the warranty.

For The Period Of:	GE Will Provide:
<b>One Year</b> From the date of the original purchase	<b>Any part</b> of the range which fails due to a defect in materials or workmanship. During this <b>limited one-year warranty</b> , GE will also provide, <b>free of charge</b> , all labor and in-home service to replace the defective part.

### What GE Will Not Cover:

- |   |  |
|---|--|
| ■ Service trips to your home to teach you how to use the product.   | ■ Replacement of house fuses or resetting of circuit breakers.                       |
| ■ Improper installation, delivery or maintenance.   | ■ Damage to the product caused by accident, fire, floods or acts of God.             |
| ■ Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.  | ■ Incidental or consequential damage caused by possible defects with this appliance. |
| ■ Damage to the glass cooktop caused by use of cleaners other than the recommended cleaning creams and pads.  | ■ Damage caused after delivery.  |
| ■ Damage to the glass cooktop caused by hardened spills of sugary materials or melted plastic that are not cleaned according to the directions in the Owner's Manual. | ■ Product not accessible to provide required service.                                |

**EXCLUSION OF IMPLIED WARRANTIES**—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. If the product is located in an area where service by a GE Authorized Servicer is not available, you may be responsible for a trip charge or you may be required to bring the product to an Authorized GE Service location for service. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

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

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