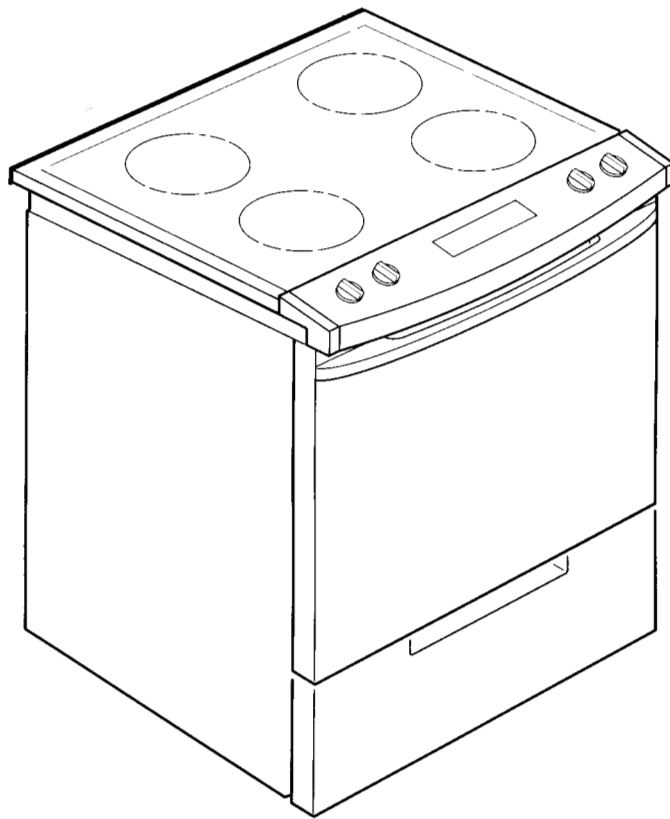


# WHIRLPOOL SELF-CLEANING SLIDE-IN ELECTRIC RANGES



JOB AID  
Part No. 4322525

## FORWARD

This Job Aid, "Self-Cleaning Slide-In Electric Ranges," (Part No. 4322525), provides the technician with information on the installation, operation, and service of Whirlpool Self-Cleaning Slide-In Electric Ranges. It is to be used as a training Job Aid and Service Manual. For specific information on the model being serviced, refer to the "Use and Care Guide," or "Tech Sheet" provided with the range.

The Wiring Diagrams and Strip Circuits used in this Job Aid are typical and should be used for training purposes only. Always use the Wiring Diagram supplied with the product when servicing the unit.

## GOALS AND OBJECTIVES

The goal of this Job Aid is to provide detailed information that will enable the service technician to properly diagnose malfunctions and repair Self-Cleaning Slide-In Electric Ranges.

The objectives of this Job Aid are to:

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

**WHIRLPOOL CORPORATION assumes no responsibility for any repair made on our products by anyone other than Authorized Factory Service Technicians.**

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# WHIRLPOOL MODEL & SERIAL NUMBER DESIGNATIONS

## MODEL NUMBER

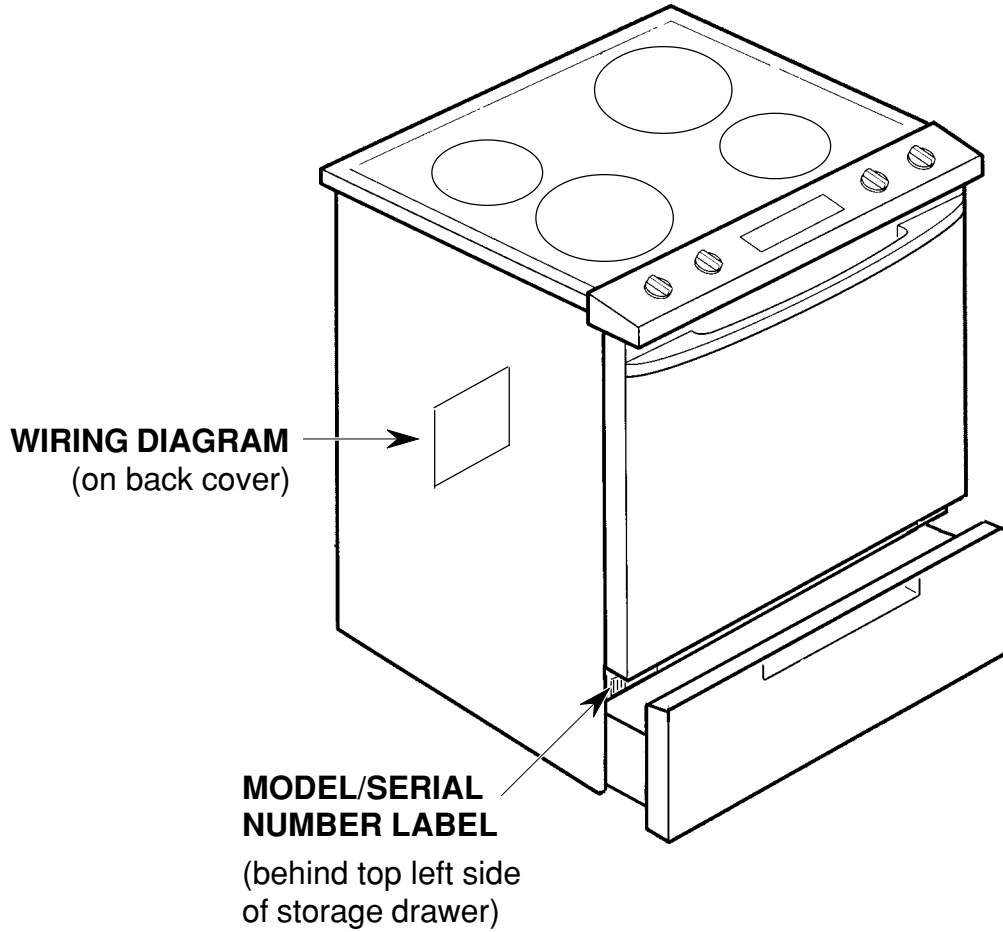
<b>MODEL NUMBER</b> INTERNATIONAL SALES IND. OR MARKETING CHANNEL IF PRESENT	<b>G</b>	<b>Y</b>	<b>3</b>	<b>9</b>	<b>6</b>	<b>L</b>	<b>X</b>	<b>G</b>	<b>Q</b>
<b>PRODUCT GROUP:</b> R = ELECTRIC RANGES S = GAS RANGES G = WHIRLPOOL GOLD RANGE									
<b>PRODUCT IDENTIFICATION:</b> A = ACCESSORY      K = KITS B = BUILT-IN        M = MV COMBO C = COOKTOP        S = SET-IN E = EYE-LEVEL      W = SLIDE-IN GAS F = FREESTANDING   Y = SLIDE-IN ELECTRIC H = HOODS									
<b>MODEL SIZE:</b> 3 = 30" SLIDE-IN 4 = 40" SLIDE-IN 5 = 36" SLIDE-IN 6 = 30" SET-IN RANGES									
<b>OVEN TYPE:</b> 0 THRU 3 = STANDARD PORCELAIN 4 THRU 9 = PYROLYTIC SELF-CLEAN									
<b>FEATURE / VARIATIONS:</b> <i>ELECTRIC</i> 0, 1, 2, 5, 7 = COIL ELEMENTS 4 = STANDARD PATTERN CERAMIC 6, 8, 9 = DELUXE PATTERN CERAMIC <i>GAS</i> 0, 1, 2, 3, 4, 6 = OPEN BURNER 5 & 7 = SEALED BURNER									
<b>DOOR TYPE:</b> B = SOLID BLACK GLASS L = LARGE WINDOW O = METAL OVEN DOOR P = STANDARD WINDOW GLASS									
<b>FEATURE CODE:</b> E = ELECTRONIC IGNITION (GAS ONLY) S = STANDING IGNITION (GAS ONLY) C = COLOR COORDINATED GLASS (BEFORE 1998) X = NOT DEFINED									
<b>YEAR OF INTRODUCTION:</b> G = 1998    H = 1999    J = 2000									
<b>COLOR CODE:</b> B = BLACK                      W = WHITE N = ALMOND                  Z = ALMOND ON ALMOND Q = WHITE ON WHITE									

## SERIAL NUMBER

SERIAL NUMBER		<b>X</b>	<b>H</b>	<b>0</b>	<b>7</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
OXFORD										
<b>YEAR OF INTRODUCTION</b> H = 1998, J = 1999, K = 2000										
<b>WEEK OF PRODUCTION (7th WEEK)</b>										
<b>PRODUCT SEQUENCE NUMBER</b>										

# MODEL & SERIAL NUMBER LABEL AND WIRING DIAGRAM LOCATIONS

The Model/Serial Number label and Wiring Diagram locations are shown below.



## IMPORTANT SAFETY INFORMATION

### Your safety and the safety of others is very important.

Important safety messages have been provided in this Job Aid. Always read and obey all safety messages.



This is the safety alert symbol.

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

All safety messages will be preceded by the safety alert symbol and the word **“WARNING.”**

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

# SPECIFICATIONS

Brand	Whirlpool	Whirlpool ( Gold)	Whirlpool ( Gold)
US ELECTRIC MODEL #	RS310PXG W/N	GY395LXG Q/Z/B	GY396LXG Q/Z/B
CANADIAN ELECTRIC MODEL #	---	YGY395LXG Q/Z	YGY396LXG Q/B
<b>GENERAL INFORMATION</b>			
Cleaning System	Std. Clean	Self Clean	Self Clean
Burner Type	Coil	Coil	Radiant
Drip Pans or Glass Pattern	Chrome	Porcelain	Q Style
Oven Controls	TOD/Timer	EZ300	EZ300
<b>DIMENSIONS</b>			
Height to Maintop	36"	36"	36"
Depth - Overall	24.5"	24.5"	24.5"
Door Swing	21.75"	21.75"	21.75"
Depth with Handle	26.75"	26.75"	26.75"
Approx Shipping Weight	180 lbs	180 lbs	180 lbs
<b>CONTROL PANEL FEATURES</b>			
Control Panel Glass Color	Blk - Glass	Wht/Alm/Blk - Glass	Wht/Alm/Blk - Glass
Control Panel Color	Black	Wht/Alm/Blk	Wht/Alm/Blk
Panel Construction/Shape	Glass-square	Glass-square	Glass-square
Oven Control Location	Center	Center	Center
Oven Controls	TOD/Timer	EZ 300	EZ 300
Oven Light US	Yes-manual rocker	Yes-in control	Yes-in control
Oven Light CND	Yes-manual rocker	Yes-manual rocker	Yes-manual rocker
Oven Heating Indicator Light	Mini-Red (1)	in Oven Control	in Oven Control
Surface Unit Indicator Light	Mini Red (2)	Mini Red (2)	Mini Red (2)
Surface Unit Controls	Inf Detent Hi/Off	Inf Detent Hi/Off	Inf Detent Hi/Off
<b>COOKTOP FEATURES</b>			
Cooktop Type	Porcelain	Porcelain	Ceran
Drip pans	Chrome	Porcelain	Q Style
Burner Type	Coil	Coil	Radiant
Burner Configuration	#REF!	#REF!	4 Radiant
R. Front (240V)	6"-1500W	6"-1500W	7" - 1700W
L. Front (240V)	8"-2400W	8"-2600W	9" - 2400W
R. Rear (240V)	6"-1500W	6"-1100W	8" - 2100W
L. Rear (240V)	8"-2400W	8"-2600W	6" - 1400W
Hot Surface Indicator	None	None	4
<b>OVEN FEATURES</b>			
Oven Type	Std. Clean	Self Clean	Self Clean
Broil Element	2500W- 4 pass	3000W 6 pass	3000W 6 pass
Bake Element	2500w	2500w	2500w
Top Heat	No	Yes	Yes
Accubake System	No	Yes	Yes
Broil Pan - Storage Rails	No	Yes	Yes
Auto Oven Light	No	Yes	Yes
Manual Oven Light	Yes-manual rocker	Auto	Auto
Lower Storage Drawer	Yes	Yes	Yes
<b>LITERATURE</b>			
Tech Sheets/Wiring Diagrams	Yes	Yes	Yes
<b>OTHER SPECIFICATIONS</b>			
UL/CSA approval	Yes	Yes	Yes
Anti-Tip Device w/ Unit	Floor Bracket	Floor Bracket	Floor Bracket

— NOTES —



# INSTALLATION HIGHLIGHTS

## ELECTRICAL REQUIREMENTS

### **WARNING**



#### Electrical Shock Hazard

Turn power supply off before connecting wires.

Use 8-gauge solid copper wire.

Electrically ground the range.

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

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

**Do not ground to a gas pipe.**

**Check with a qualified electrician if you are not sure whether the range is properly grounded.**

**Do not have a fuse in the neutral or ground circuit.**

**The range must be connected with copper wire only.**

Wiring diagrams are provided in Section 7 of this Job Aid.

A four-wire or three-wire, single-phase, 120/240-volt, 60-Hz; 50-amp, AC-only, electrical supply (or four-wire or three-wire 120/208-volt if specified on the model/serial rating plate) is required on a separate 50-ampere circuit, fused on both sides of the line. A time-delay fuse or circuit breaker is recommended. The model/serial rating plate is located on the oven frame behind the storage drawer panel (see page v).

Wire sizes and connections must conform to the requirements of the National Electrical Code, ANSI/NFPA 70—latest edition\*, and all local codes and ordinances for the kilowatt rating of the range.

This range should be connected directly to the fused disconnect or circuit breaker box through flexible, armored or nonmetallic sheathed, copper cable (with ground wire). Locate the junction box to allow two to three feet of slack in the line so that the range can be moved if servicing is ever necessary. Do Not cut the conduit. A U.L.-listed conduit connector **must** be provided at each end of the power supply cable (at the range and at the junction box).

This range is manufactured with a white (neutral) power wire and a cabinet-connected bare ground wire twisted together.

Remove the junction box cover.

Connect the range cable to the junction box through a U.L.-listed conduit connector. Complete the electrical connection according to local codes and ordinances.

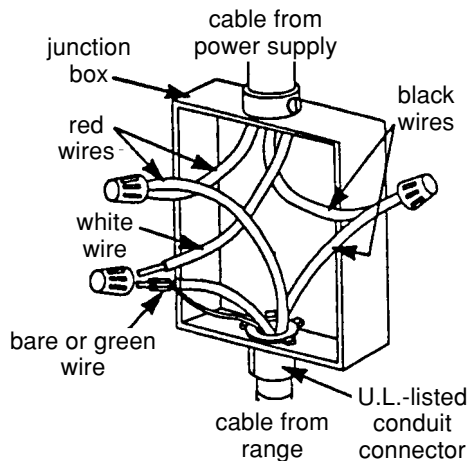
\* National Fire Protection Association  
Batterymarch Park  
Quincy, Massachusetts 02269

**If connecting to a four wire electrical system, do not connect the cabinet-ground conductor to the white (neutral) junction box wire (see Figure 2-2).**

1. Disconnect the power supply.
2. Separate the green, (or bare), and the white appliance cable wires.
3. Connect the white range cable wire to the white (neutral) wire in the junction box.
4. Connect the two black wires together with a twist-on connector.
5. Connect the two red wires together with a twist-on connector.
6. Connect the green range wire to the green ground wire in the junction box.
7. Replace the junction box cover.

**Where local codes permit connecting the cabinet-ground conductor to the white (neutral) junction box wire (Figure 2-1):**

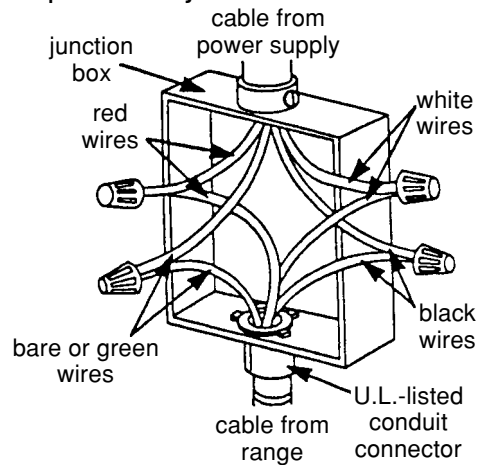
1. Disconnect the power supply.
2. Remove the junction box cover.
3. Connect the green and white range cable wires and the white (neutral) wire in the junction box together with a twist-on connector.
4. Connect the two black wires together with a twist-on connector.
5. Connect the two red wires together with a twist-on connector.
6. Replace the junction box cover.



**Figure 2-1**

**Where local codes do not permit connecting the cabinet-ground conductor to the white (neutral) junction box wire (Figure 2-2):**

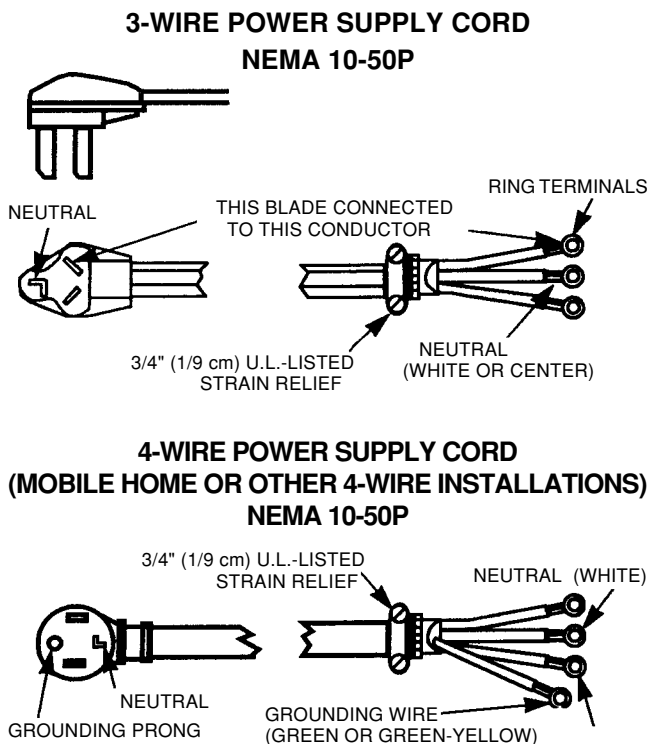
1. Disconnect the power supply.
2. Separate the green and white appliance cable wires.
3. Connect the white range cable wire to the white (neutral) wire in the junction box with a twist-on connector.
4. Connect the two black wires together with a twist-on connector.
5. Connect the two red wires together with a twist-on connector.
6. Connect the green or bare ground wire from the range cable to a ground wire in the junction box.
7. Replace the junction box cover.



**Figure 2-2**

# CONNECTING THE RANGE TO AN ELECTRICAL SUPPLY

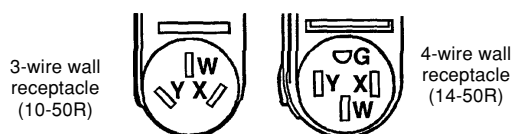
**IMPORTANT:** Use a new 40-ampere power supply cord. Local codes may permit the use of a U.L.-listed, 250-volt, 40-ampere range power supply cord (pigtail). The power supply cord should be Type SRD or SRDT, and be at least 4-feet long. The wires that connect to the range must end with ring terminals. A  $\frac{3}{4}$ " (1.9 cm), U.L.-listed strain relief must be installed where the power supply cord connects to the range (see Figure 2-3).



**Figure 2-3**

*Power Supply Cords*

The power supply cord must have three No.-10 copper wires to match a 3-wire receptacle of NEMA Type 10-50R. (See Figure 2-4).



**Figure 2-4**

*AC Receptacles*

This range is manufactured with ground connected to cabinet for mobile home, or other 4-wire installations. **The ground must be revised** so the green grounding wire of the four-wire power cord is connected to the cabinet.

For a 4-wire receptacle (NEMA Type 14-50R, shown in Figure 2-4), a matching U.L.-listed, 4-wire, 250-volt, 40-ampere, range power supply cord (pigtail) must be used. This cord contains four copper conductors with ring terminals on the appliance end, and terminates in a NEMA Type 14-50P plug on the supply end. The fourth (grounding) conductor must be identified by a green, or green/yellow cover, and the neutral conductor by a white cover. The cord should be Type SRD or SRDT with a U.L.-listed strain relief, and be at least 4-feet long.

The **MINIMUM** conductor sizes for the copper 4-wire power supply cord are:

- 40-ampere circuit
- 2) #8 conductors
- 1) #10 white neutral
- 1) #8 green grounding

The range can also be connected directly to a fused disconnect, or to a circuit breaker box, through flexible, armored or nonmetallic sheathed, copper cable (with a grounding wire). Do not use 2-wire cable with a bare grounding wire. All current-carrying wires must be insulated. A U.L.-listed conduit connector must be provided at each end of the power supply cord (at the appliance and at the junction box). **USE ONLY 8-GAUGE SOLID COPPER WIRE. DO NOT USE ALUMINUM WIRE.** Allow 2- or 3-feet of slack in the line so the range can be moved if servicing is ever necessary.

**IMPORTANT:** The metal chassis of the range must be earth-grounded so that the control panel will operate. If the chassis is not earth-grounded, none of the keypads will operate. Check with a qualified electrician if you are in doubt as to whether the range is earth-grounded.

# **⚠️ WARNING**

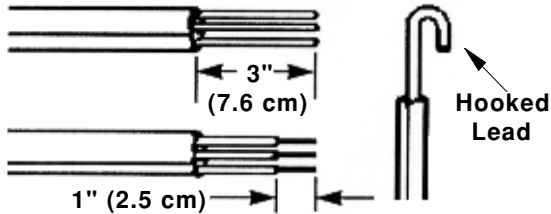
## **Electric Shock Hazard**

Do not use 2-wire cable with a bare grounding wire. All current-carrying wires must be insulated.

Failure to follow these instructions could result in fire, electrical shock, or death.

To install the power supply cord to the terminal block screws on the back of the range, perform the following steps.

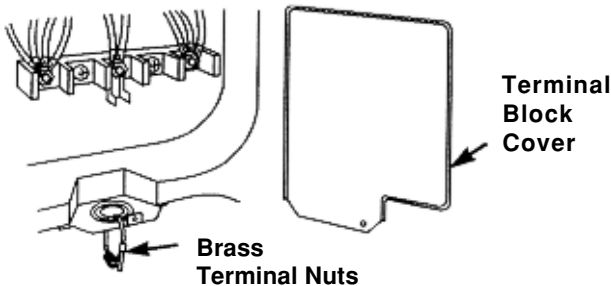
1. Turn off the power supply.
2. If the power supply cord does not have eyelets installed on the leads, prepare the leads, as shown in Figure 2-5.



**Figure 2-5**

*Preparing The Lead Ends*

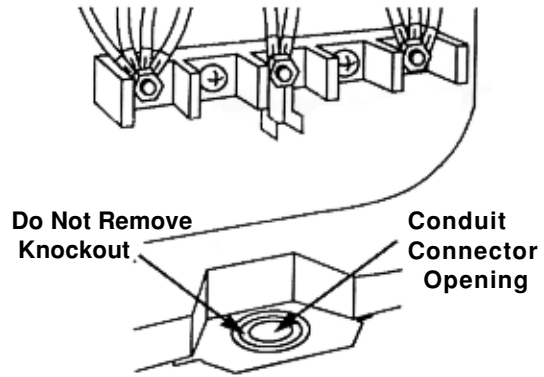
3. Remove the terminal block cover from the back of the range, and the brass terminal nuts that are attached to the knockout (see Figure 2-6).



**Figure 2-6**

*Removing The Terminal Block Cover & Nuts*

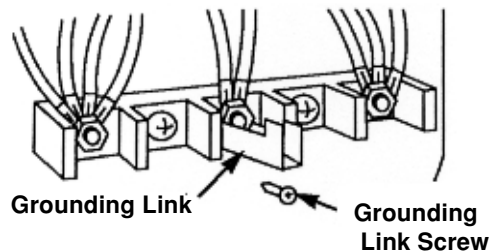
4. Attach a U.L.-listed conduit connector to the knockout opening, but do not remove the knockout (see Figure 2-7).



**Figure 2-7**

*Mounting The Conduit Connector*

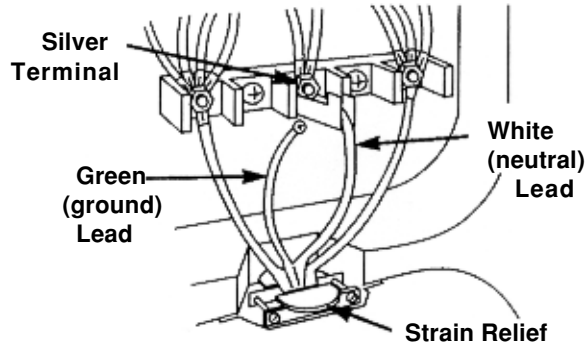
5. Slide the lead end of the power supply cord through the conduit connector and tighten the strain relief clamp. Make sure that you allow enough slack in the cord so you can easily connect the lead ends to the terminal block screws (see Figure 2-8).
6. Remove the grounding link screw from the range frame (see Figure 2-8).



**Figure 2-8**

*Removing The Grounding Link Screw*

7. Mount the green ground lead from the power cord to the grounding link with the grounding link screw you just removed (see Figure 2-9). **This lead must be attached first and must not contact any of the other terminals.**



**Figure 2-9**

*Connecting The Leads*

8. Using the brass terminal nuts you removed in step 3, connect the power supply cord lead ends to the terminal screws as follows (see Figure 2-9):
  - a) White (neutral) lead to the center (silver) terminal screw. **This lead must be connected to the center terminal.**
  - b) Remaining two leads to the outer screw terminals.
9. Make sure that the conduit strain relief is tight, then mount the terminal block cover to the range with the hardware you removed in step 3.

## MOVING THE RANGE

### **! WARNING**



#### **Tip-Over Hazard**

A child or adult can tip the range and be killed.

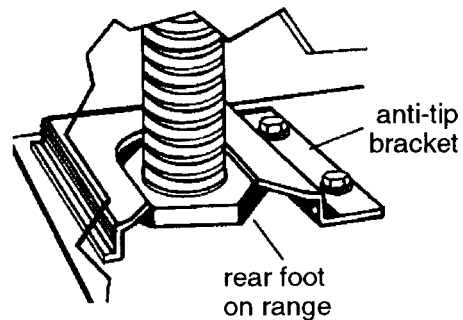
Connect anti-tip bracket to rear range foot.

Reconnect the anti-tip bracket, if the range is moved.

Failure to follow these instructions can result in death or serious burns to children and adults.

Before moving the range, slide it onto a piece of cardboard, or hardboard, to prevent damaging the floor covering, and perform the following steps:

1. Disconnect the electrical supply.
2. Slide the range forward and disengage the foot with the anti-tip bracket. **IMPORTANT:** Make sure the anti-tip bracket is securely attached to floor.



3. Slide range back so the rear foot engages in the anti-tip bracket.
4. Check to see that the range is level.
5. Reconnect the electrical supply cord.

# PRODUCT OPERATION

## AIR FLOW — REAR PANEL

The electric range needs sufficient air to properly cool the oven. In addition, proper air flow through the electric range also keeps the front control panel from becoming too hot while the elements are operating, and causing operational problems.

To help provide the proper air flow along the back of the range, the rear panel of the range has a spacer on each side toward the bottom

(see Figure 3-1). When the range is installed, these spacers should just come in contact with the surface of the wall. If they are accidentally bent in, proper spacing will be lost, and the oven will not heat properly. Also, the front control panel may become overly warm, and cause the bimetal switches to trip, shutting down the operation. If any of these problems occur, it is most likely because of air flow restrictions.

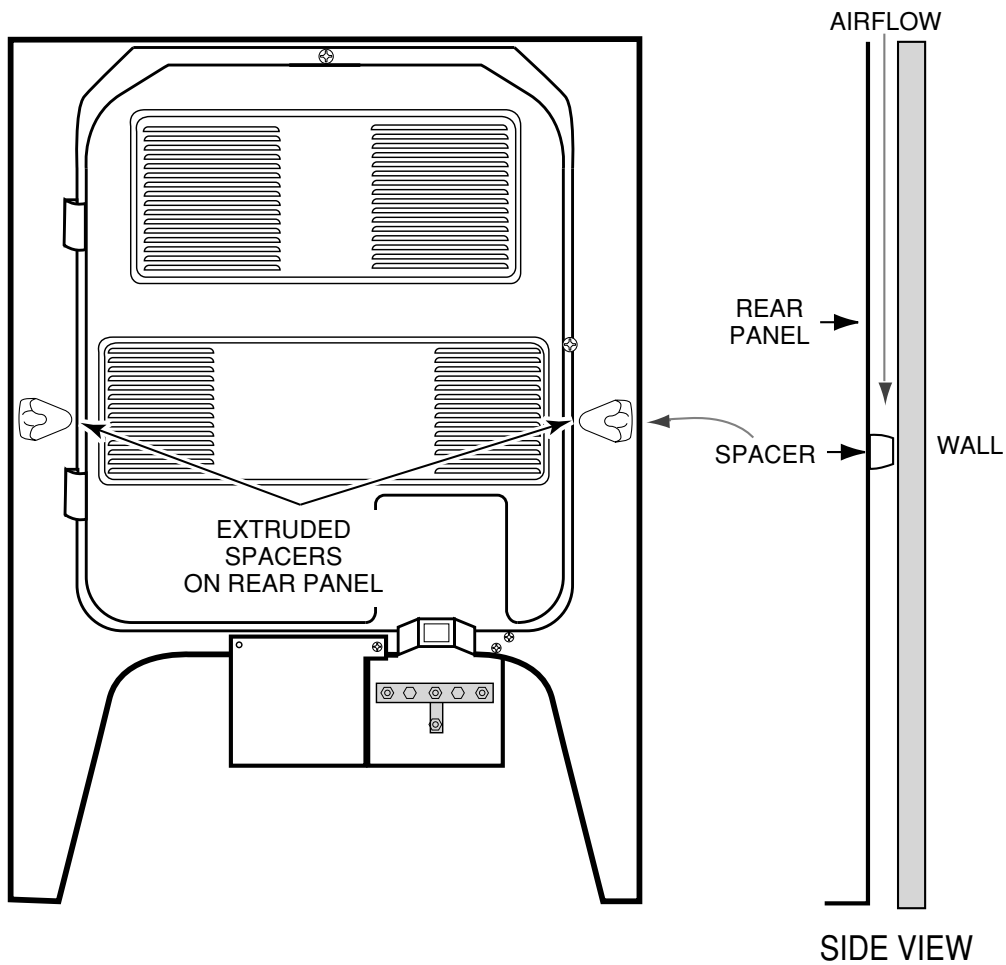


Figure 3-1

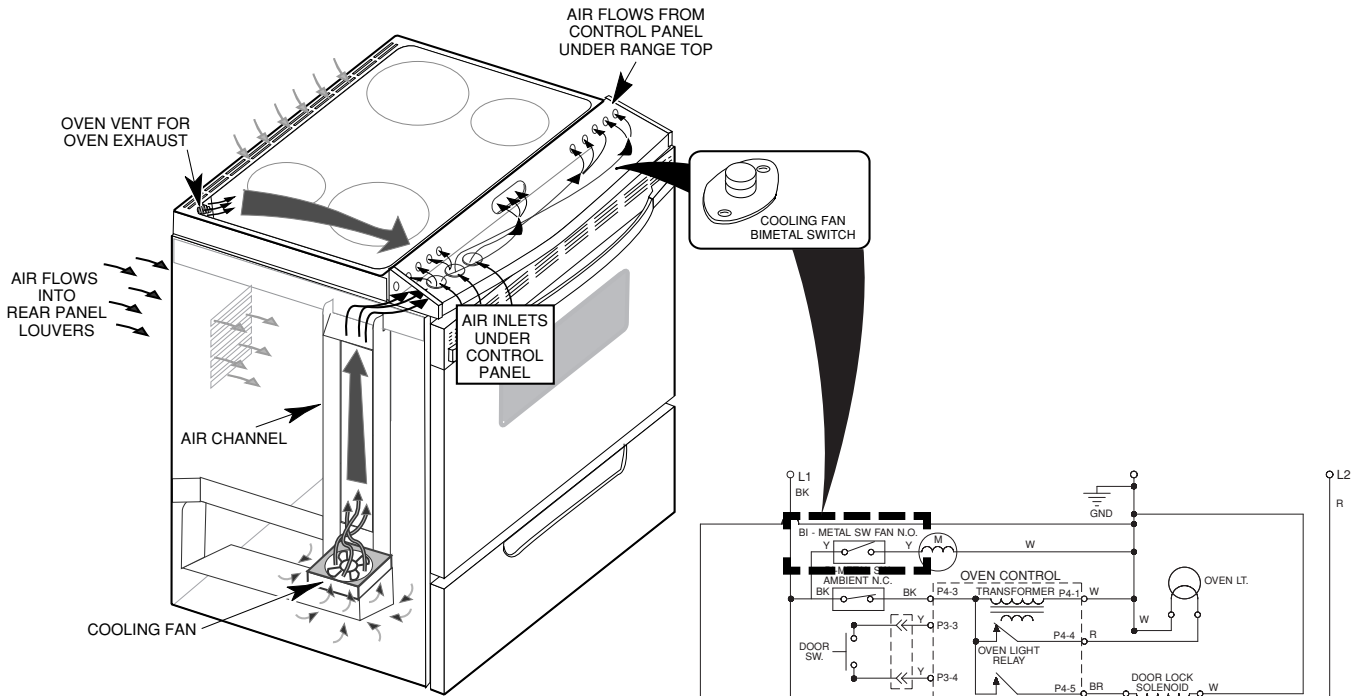
# COOLING FAN AIR FLOW

Refer to Figure 3-2 while you read this description.

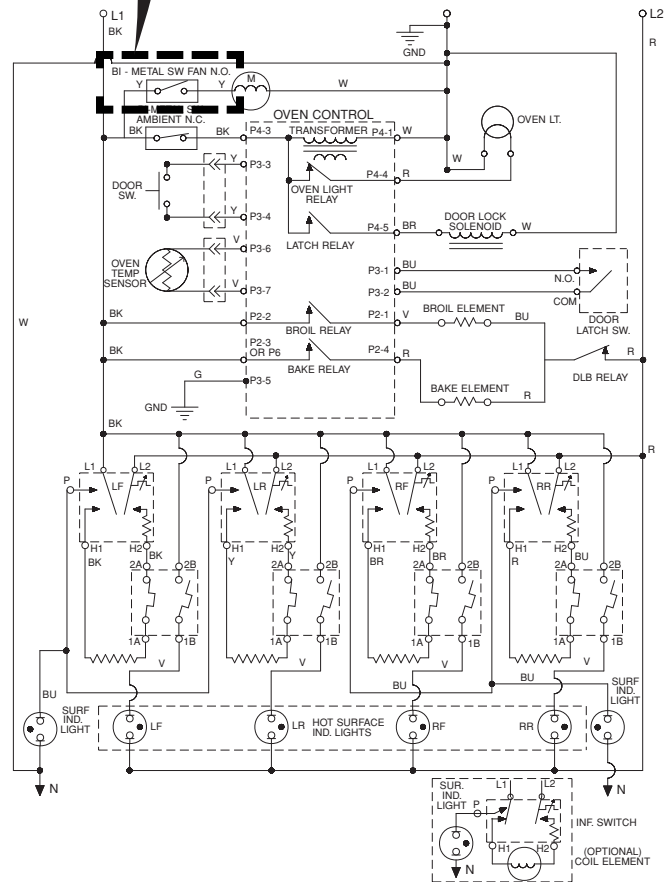
The cooling fan is in series with the cooling fan bimetal switch, which is located under the right side of the control panel. When the temperature of the chassis reaches 40°C (104°F), the bimetal switch closes, and turns on the cooling fan.

The cooling fan draws air from inside the base of the cabinet. It forces the air up the air chan-

nel, which is located under the left side panel, to the opening at the end of the control panel. Air then flows across the chassis below the control panel, and cools it. Air enters through the series of holes in front of the range top, flows beneath it, and exits to the outside through slots in the rear panel. When the control panel chassis temperature drops below 40°C (104°F), the bimetal switch opens, and turns the cooling fan off.



**Figure 3-2**





# THE BIMETAL SWITCHES

There are two bimetal switches on the electric range. The switches operate as follows:

- **Ambient Bimetal Switch (N.C.)** (Inset #1) —This switch is located under the left side of the control console. It opens the L1 circuit to the electronic control board if the console temperature reaches 95°C/203°F.

- **Cooling Fan Bimetal Switch (N.O.)** (Inset #2) —This switch is located under the right side of the control console. It turns the cooling fan on if the console temperature reaches 40°C/104°F.

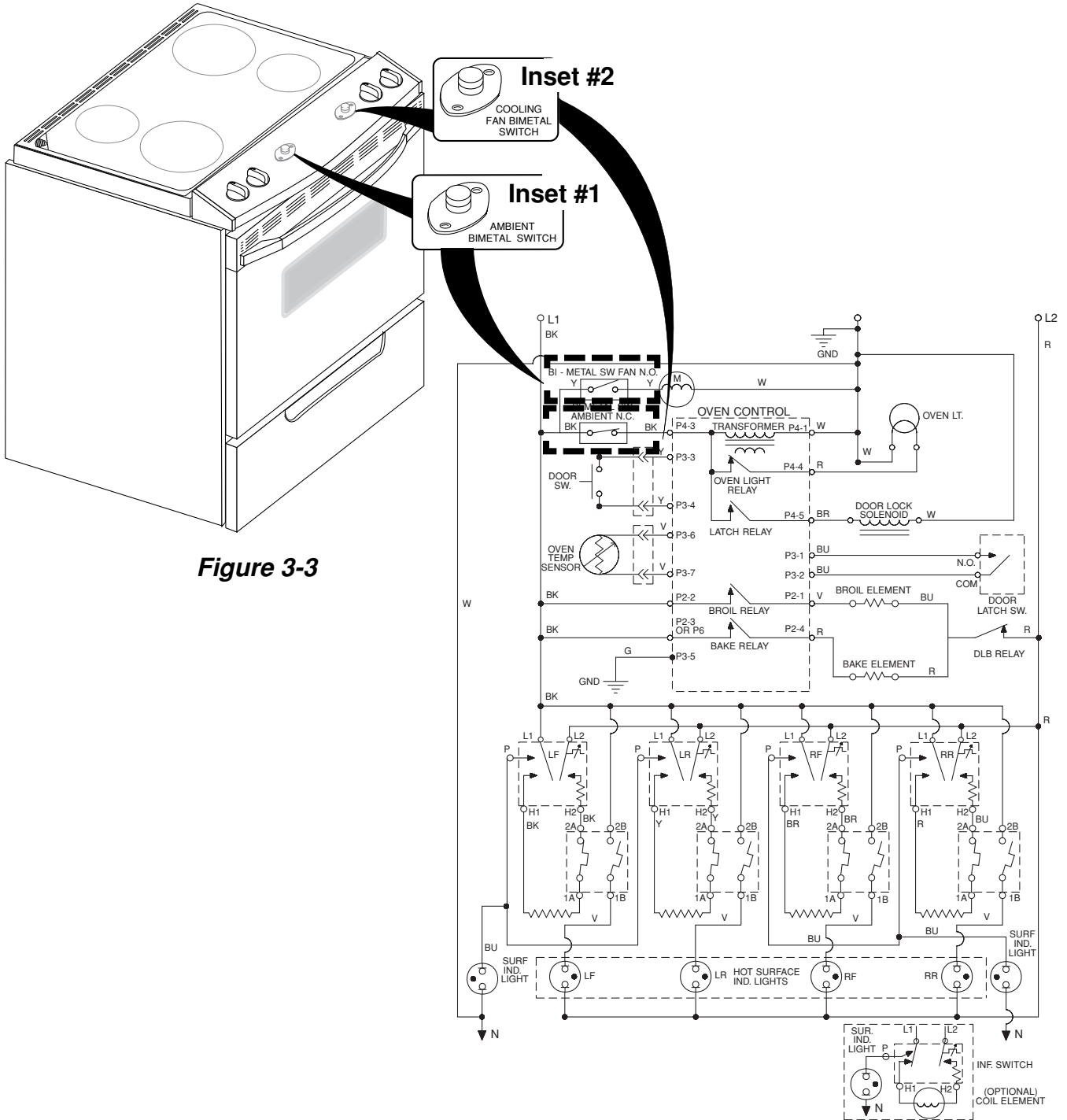


Figure 3-3

# THE SURFACE ELEMENT LIMITER

The surface element limiter is a safety device that is mounted in the surface element circuit (see Figure 3-4).

The limiter monitors the temperature of the cooktop glass in two ways (see Figure 3-5):

- Circuit 1A to 2A, which is a normally-closed (N.C.) switch, opens at 1025°F and protects the ceran glass from heat damage.
- Circuit 1B to 2B, which is a normally-open switch (N.O.) switch, closes and turns on the hot surface indicator lights if the temperature of the cooktop is greater than 150°F. This switch will remain closed until the ceran glass is warm enough to touch.

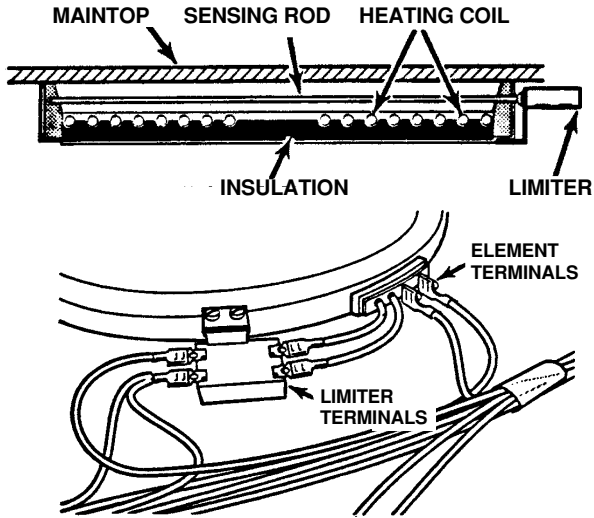


Figure 3-4

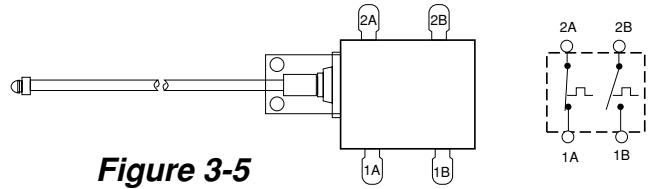
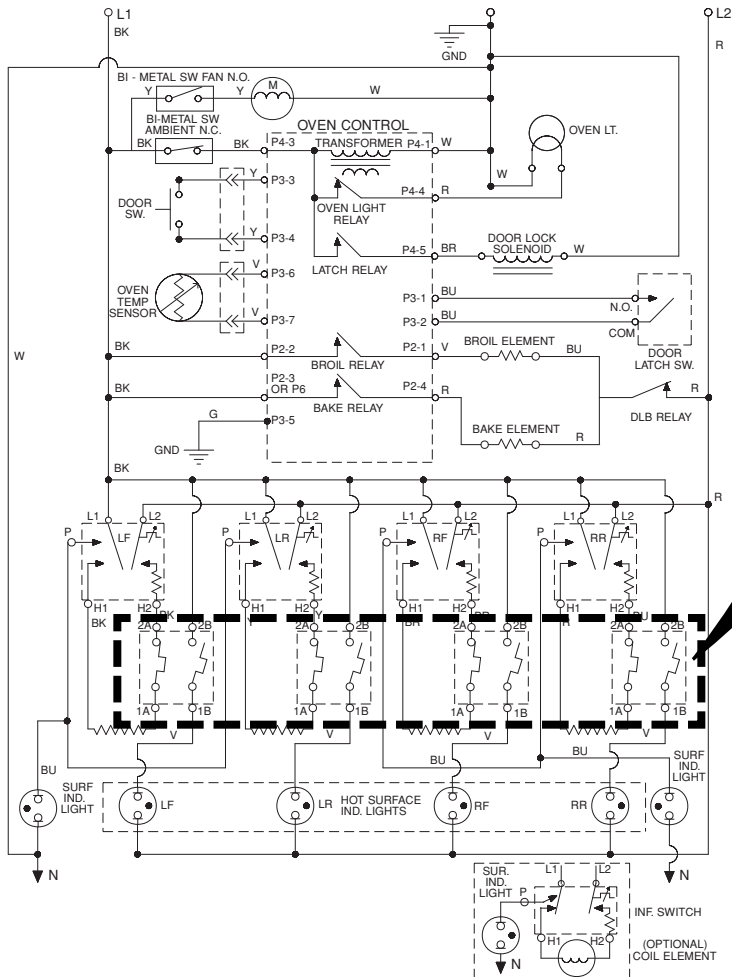


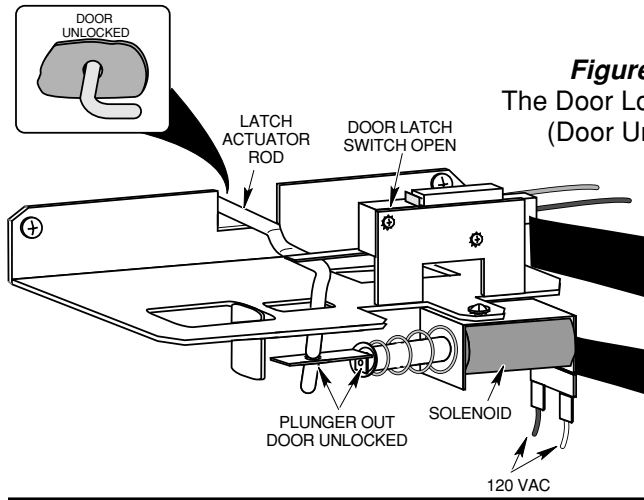
Figure 3-5



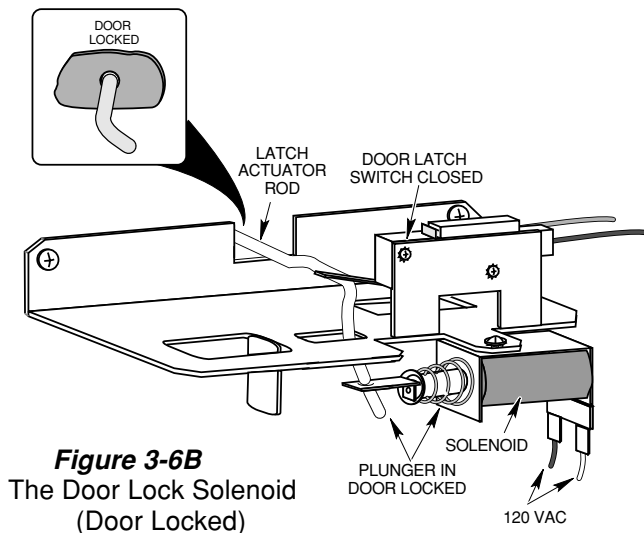
# THE DOOR LOCK SOLENOID & DOOR LATCH SWITCH

The door lock solenoid operates on a 120-volt pulse from the electronic control board. When the door is in the unlocked position, (Figure 3-6A), the plunger is extended. When the door latch switch is open, the control senses that the door is unlocked. When the door latch switch closes, the control senses that the door is locked. The door latch switch, mounted on the solenoid bracket, is in the N.O. (normally-

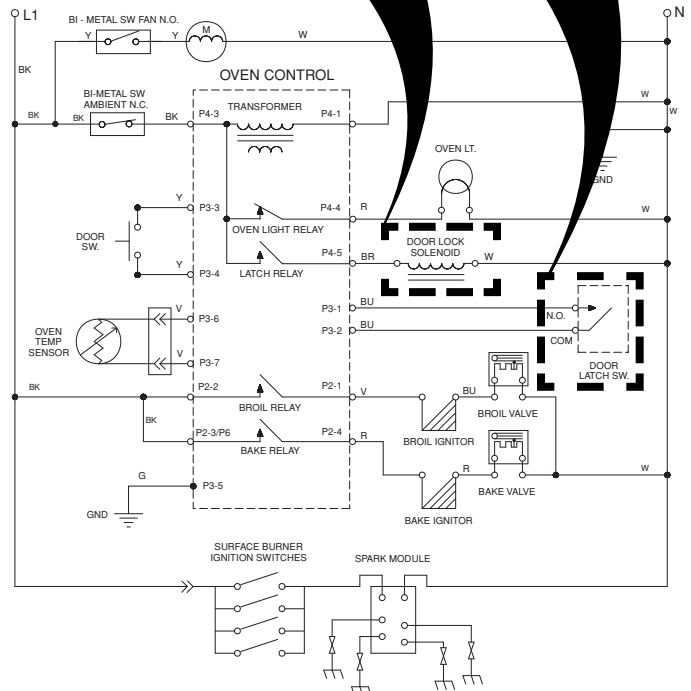
open) position. During the self-clean cycle, the control board sends a 120-volt pulse to the solenoid windings, which pulls the plunger in, and moves the latch actuator rod to lock the oven door (Figure 3-6B). The movement of the rod also actuates the door latch switch and closes it. When the self-clean cycle is over, the control board sends a 120-volt pulse to the solenoid, the plunger is pushed out, the latch actuator rod releases the door, and the door latch switch opens.



**Figure 3-6A**  
The Door Lock Solenoid  
(Door Unlocked)

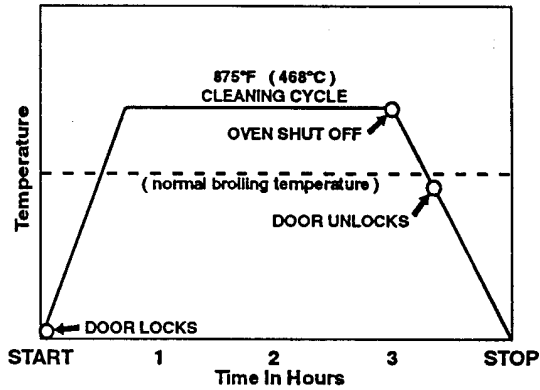


**Figure 3-6B**  
The Door Lock Solenoid  
(Door Locked)



# HOW THE SELF-CLEAN CYCLE WORKS

The Self-Clean cycle uses high heat to burn away soil and grease from inside the oven. During this cycle, the oven will get much hotter than it does under normal baking and broiling conditions (see the following chart).



The oven is preset for a 3-1/2 hour Self-Clean cycle. However, you can adjust this cycle time to between 2-1/2 and 4-1/2 hours. The chart shows a normal 3-1/2 hour Self-Clean cycle. Note that although the heating turns off after 3-hours, the door will remain locked for an additional 1/2 hour so the oven can cool sufficiently.

During the Self-Clean cycle, the bake element is on all the time (see Figure 3-7). If the door latch switch is not activated during the clean operation, the cycle is terminated and the display will show "close door."

## AFTER 30-MINUTES OF CLEAN

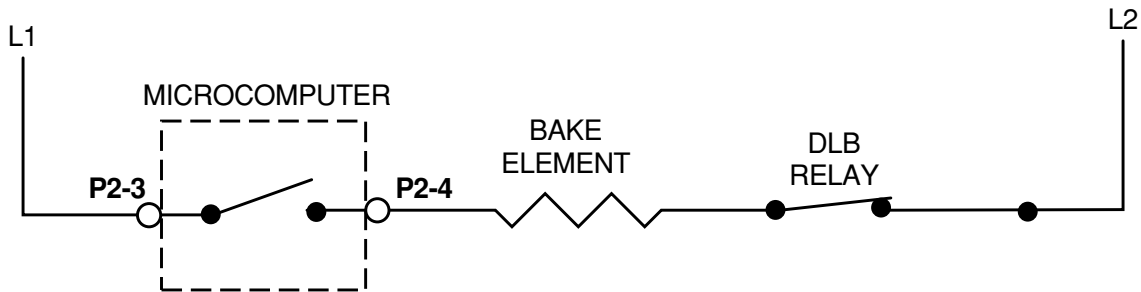


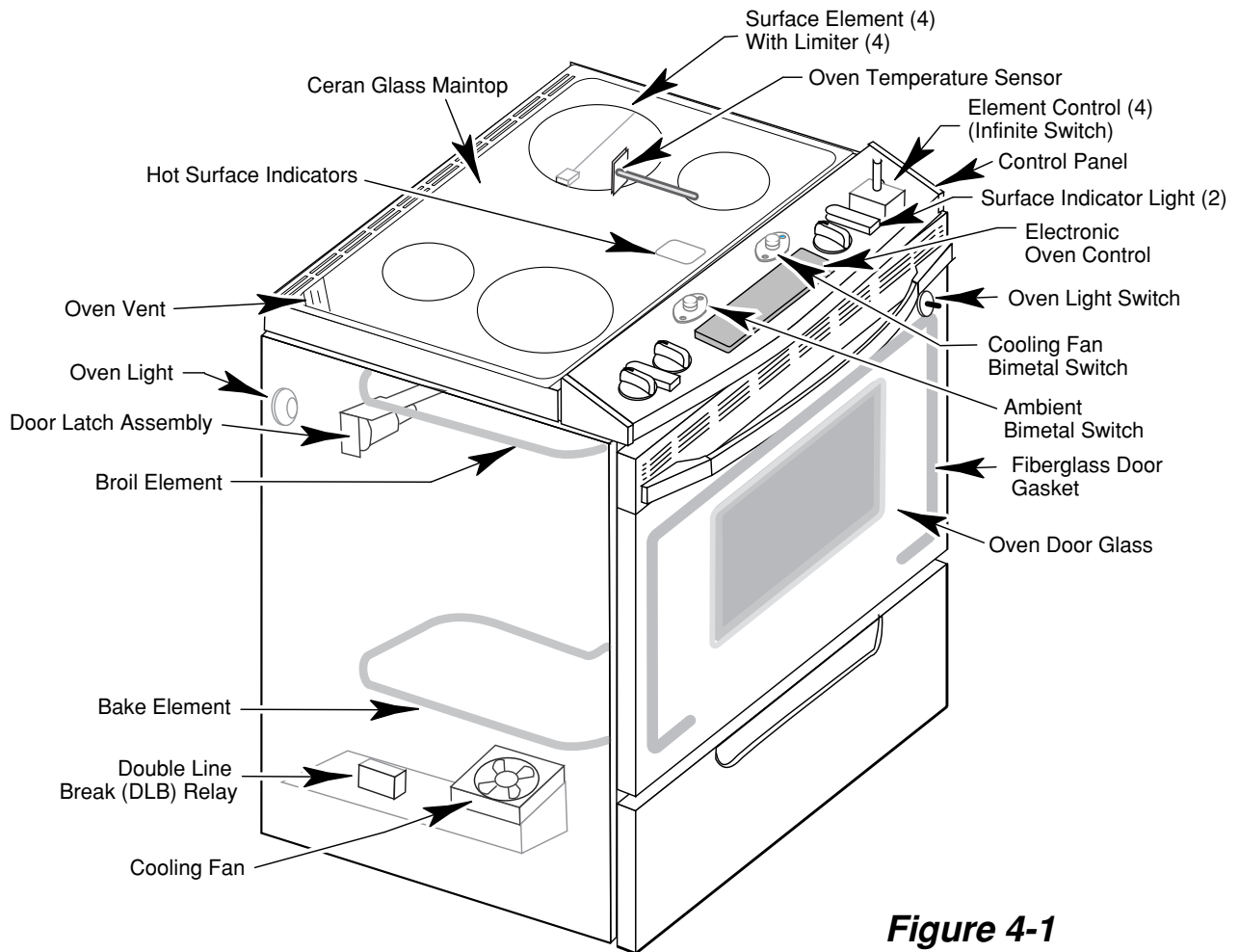
Figure 3-7

# COMPONENT ACCESS

## COMPONENT LOCATIONS

This section instructs you on how to service each component inside the self-cleaning slide-in electric ranges. The components and their locations are shown in Figure 4-1.

NOTE: The Whirlpool Model GY396LX range is shown below. The other slide-in range components are identical, and are serviced in the same manner.



**Figure 4-1**

# REMOVING THE ELECTRONIC OVEN CONTROL & THE CONTROL PANEL

## **WARNING**

### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
2. Remove the knobs from the controls.

Refer to Figure 4-2 for the following steps.

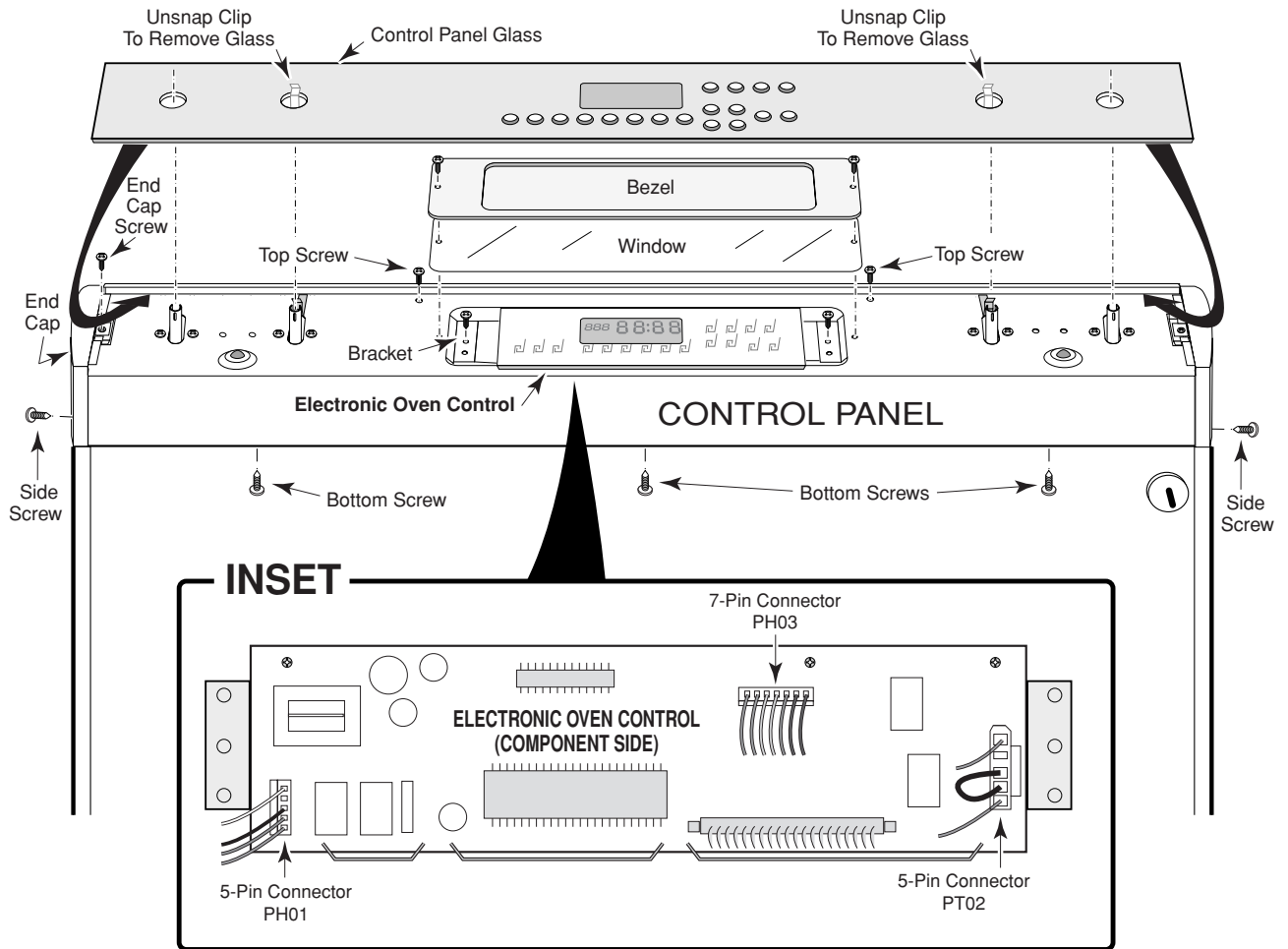
3. Unsnap the two clips at the inner control locations and lift the front edge of the control panel glass, then slide the top edge of the glass out of the control panel flange, and remove it.

### 4. To remove the electronic oven control:

- a) Remove the two screws from the bezel and window and remove them from the control panel.
- b) Remove the two screws from the bracket, lift the electronic oven control assembly off the control panel, and rotate it back so you can access the connectors.
- c) Disconnect the three connectors from the electronic oven control (see the inset).

### 5. To remove the control panel:

- a) Remove the two top screws and the two side screws in the end caps from the control panel.
- b) Open the oven door and remove the three bottom screws.
- c) Remove the control panel from the range by pulling it forward and lifting it at the front.
- d) To remove an end cap, remove the two mounting screws (1 top & 1 bottom).



**Figure 4-2**

## REMOVING AN ELEMENT CONTROL (INFINITE SWITCH) & A SURFACE INDICATOR LIGHT

### **WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
2. Remove the control panel (see page 4-2 for the removal procedure). **NOTE:** You do not have to remove the electronic oven control from the panel.

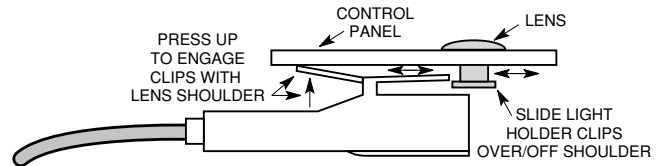
Refer to Figure 4-4 for the following steps.

#### 3. **To remove an element control:**

- a) Remove the two mounting screws from the element control.
- b) Rotate the control panel back on top of the maintop so you can access the element control wiring.
- c) Disconnect the wires from the terminals on the element control and reconnect them to the identically-marked terminals of the new control (see the inset).

#### 4. **To remove a surface indicator light:**

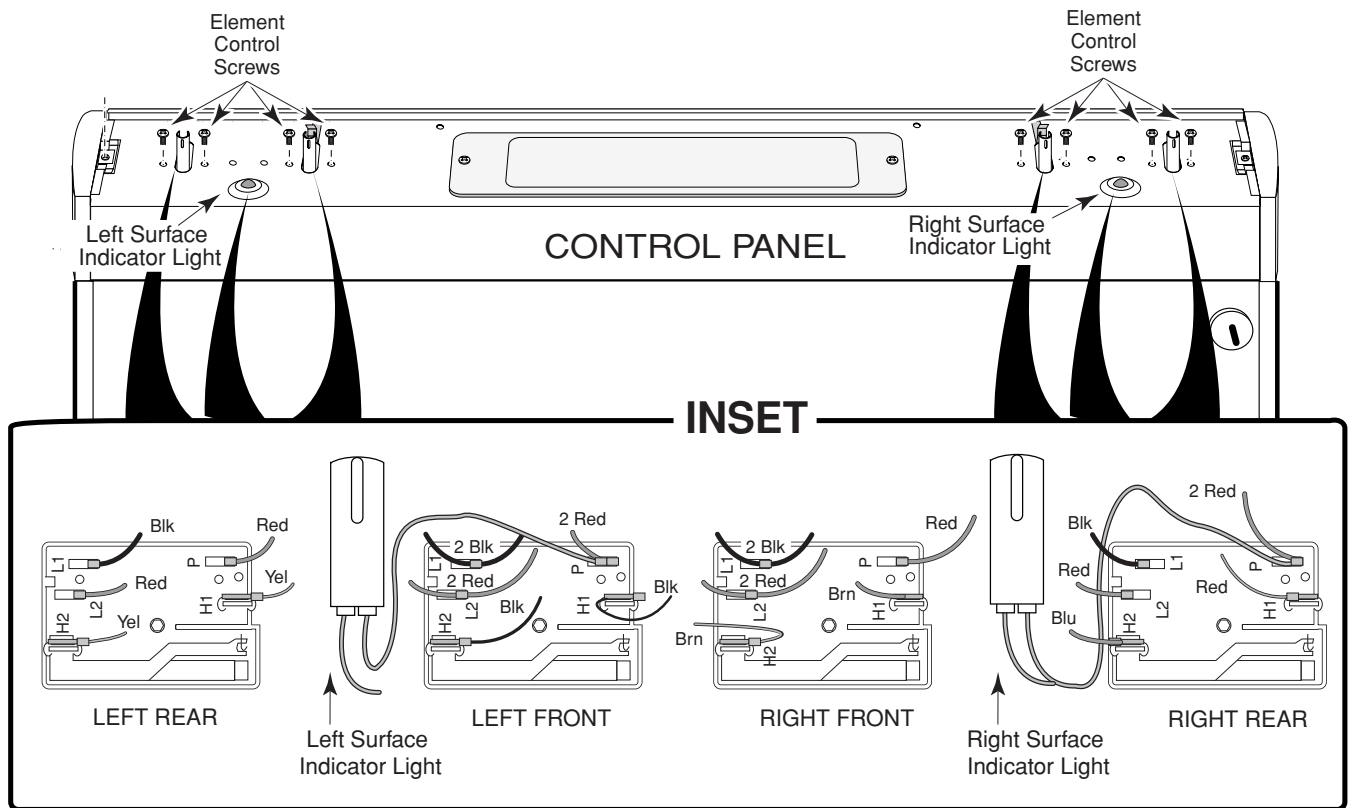
- a) Hold the lens in place with one hand and unclip the indicator light from the lens (see Figure 4-3).



**Figure 4-3**

- b) Disconnect the one indicator light lead from the element control terminal, and cut the other lead near the indicator light body.
- c) Connect the lug on the lead of the new indicator light to the element control terminal.
- d) Remove 3/8" of insulation from the cut wire ends and splice them together using a twist-on nut.





**Figure 4-4**

## REMOVING A BIMETAL SWITCH

### **! WARNING**

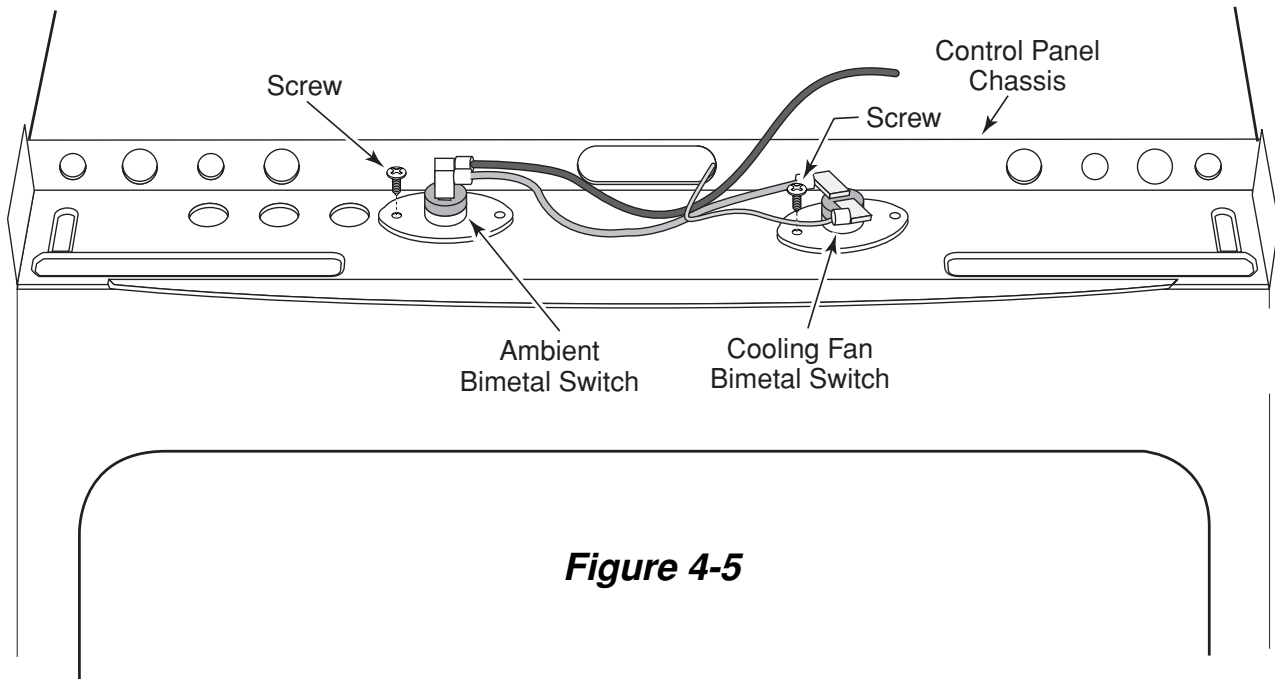
#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
2. Remove the control panel and rotate it back on top of the maintop so it is out of the way (see page 4-2 for the removal procedure). **NOTE:** You do not have to remove the electronic oven control from the panel.
3. To remove a bimetal switch, remove the mounting screw and disconnect the wires from the terminals (see Figure 4-5).



**Figure 4-5**

## REMOVING THE CERAN GLASS MAINTOP

### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.

2. Remove the control panel and rotate it back on top of the maintop so it is out of the way (see page 4-2 for the removal procedure). NOTE: You do not have to remove the electronic oven control from the panel.

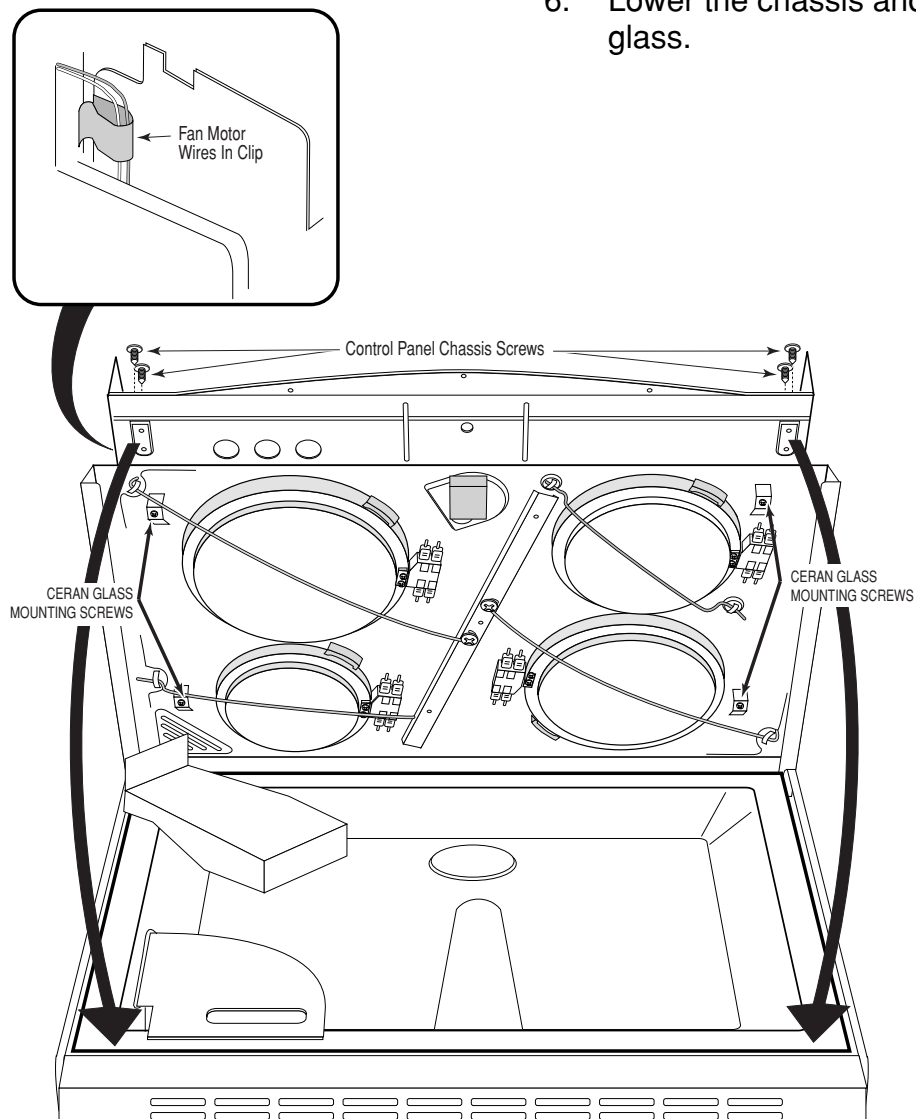
Refer to Figure 4-6 for the following steps.

3. Remove the four chassis screws (two on each side) from the control panel chassis.

4. Lift the front of the chassis at the center and prop it up with a board. NOTE: You may have to unclip the two cooling fan motor wires to raise the chassis high enough to access the screws.

5. Remove the four mounting screws from the ceran glass brackets.

6. Lower the chassis and remove the ceran glass.



**Figure 4-6**

## REMOVING A SURFACE ELEMENT & HOT SURFACE INDICATOR LIGHT ASSEMBLY

### **WARNING**

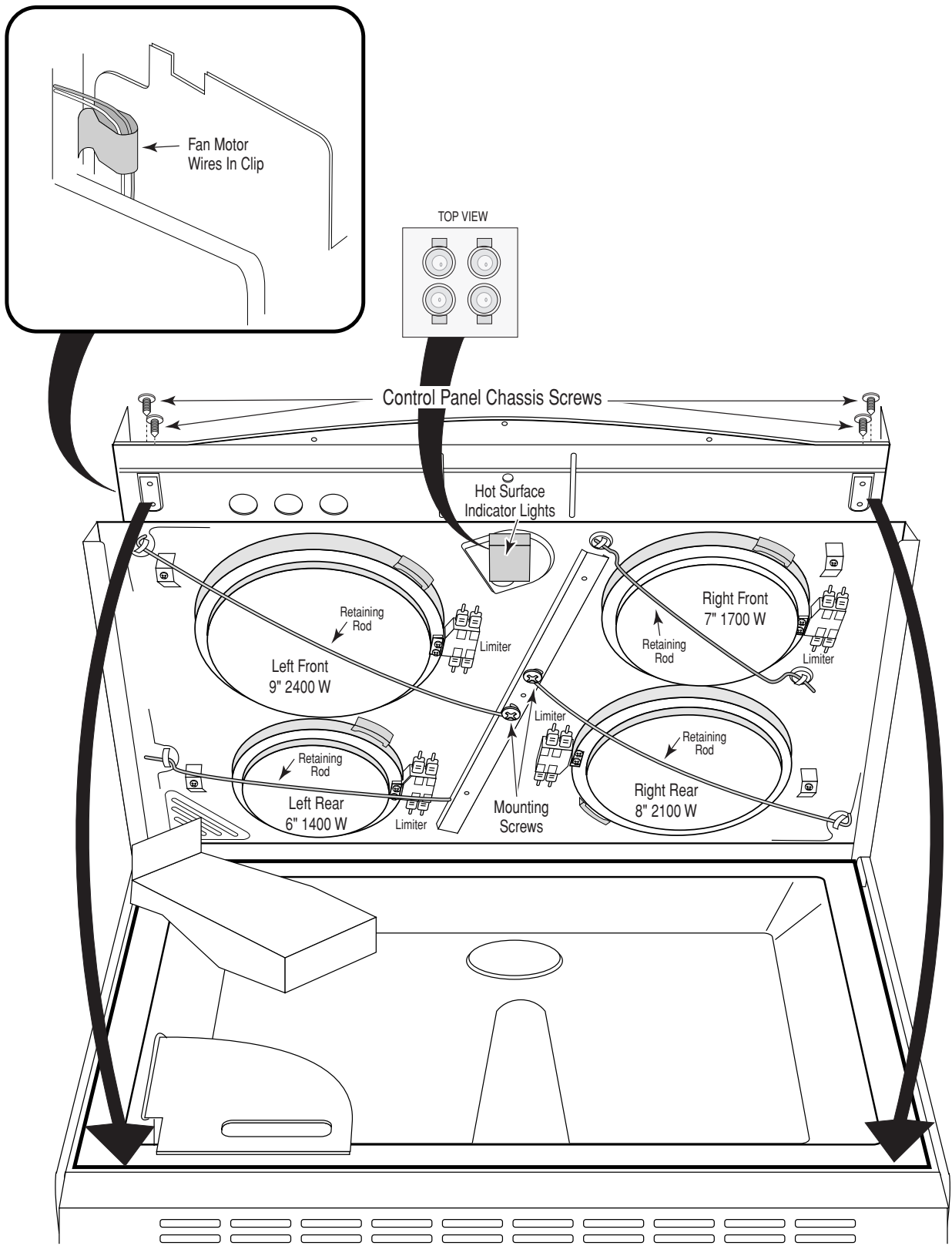
#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
2. Remove the control panel and rotate it back on top of the maintop so it is out of the way (see page 4-2 for the removal procedure). NOTE: You do not have to remove the electronic oven control from the panel. Refer to Figure 4-7 for the following steps.
3. Remove the four chassis screws (two on each side) from the control panel chassis.
4. Lift the front of the chassis at the center and prop it up with a board. NOTE: You may have to unclip the two cooling fan motor wires at the left front corner to raise the chassis high enough to access the screws.
5. **To remove the left front or right rear element:**
  - a) Remove the screw from the retaining rod.
  - b) Disconnect the wires from the terminals of the element and limiter.
6. **To remove the left rear or right front elements,**
  - a) Pull the ends of the rod out from the brackets.
  - b) Disconnect the wires from the terminals of the element and limiter.
7. **To remove the hot surface indicator light assembly:**
  - a) Pull down firmly on the indicator assembly body to unfasten the four clips from the edge of the chassis.
  - b) Disconnect the leads from the terminals of the limiters.



**Figure 4-7**

## REMOVING THE OVEN BAKE & BROIL ELEMENTS

### **WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

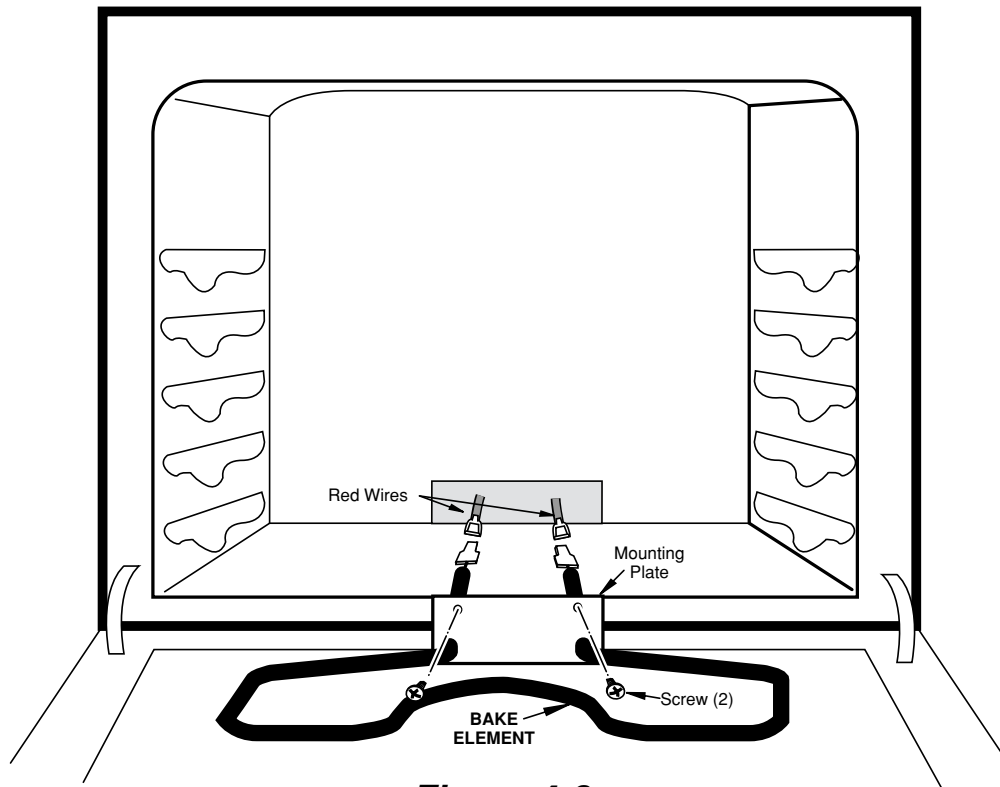
1. Turn off the electrical power to the range.

Refer to Figure 4-8 for the following steps.

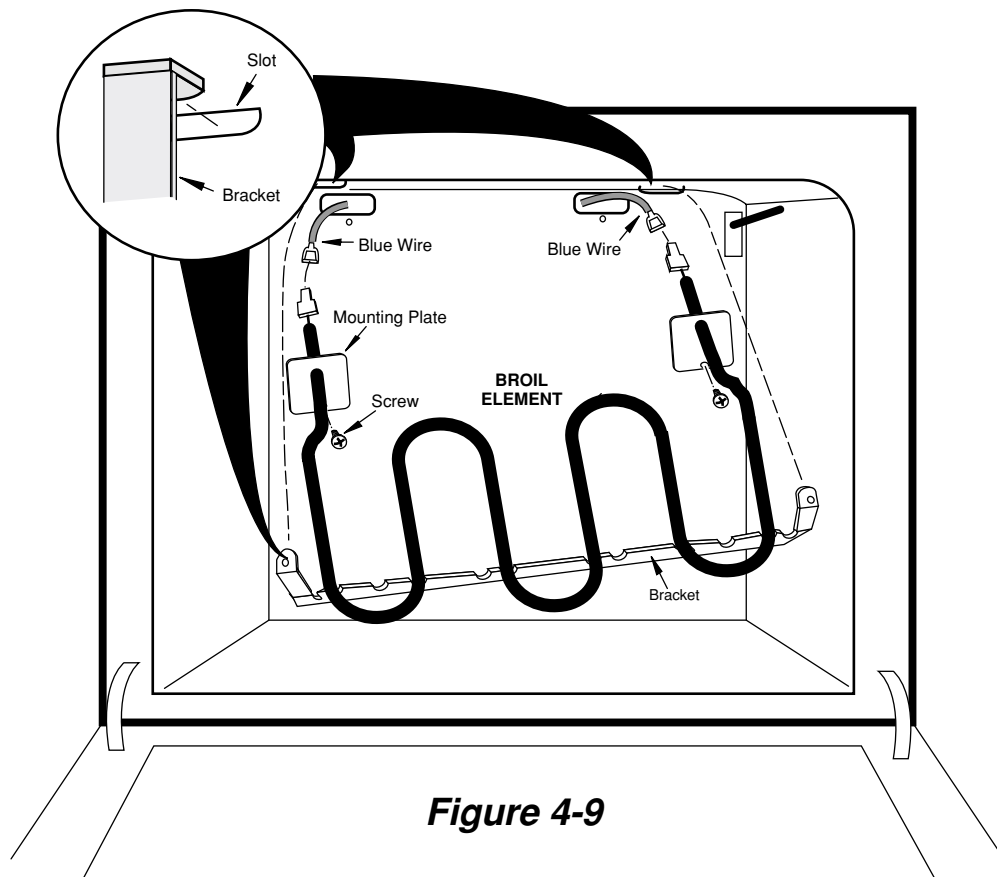
2. **To remove the bake element:**
  - a) Remove the two screws from the mounting plate and pull the element forward as far as the wires will allow.
  - b) Disconnect the wires from the bake element terminals and remove the element.

Refer to Figure 4-9 for the following steps.

3. **To remove the broil element:**
  - a) Remove the two screws from the broil element mounting plates.
  - b) Pull the broil element forward and unhook the bracket tabs from the slots.
  - c) Pull the broil element forward as far as the wires will allow, disconnect the wires from the broil element terminals, and remove the element.



**Figure 4-8**



**Figure 4-9**

## REMOVING THE OVEN LIGHT ASSEMBLY

### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

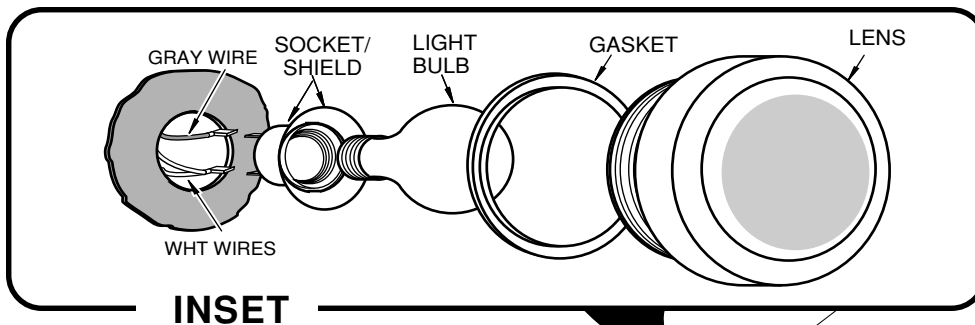
Failure to do so could result in death or electrical shock.

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

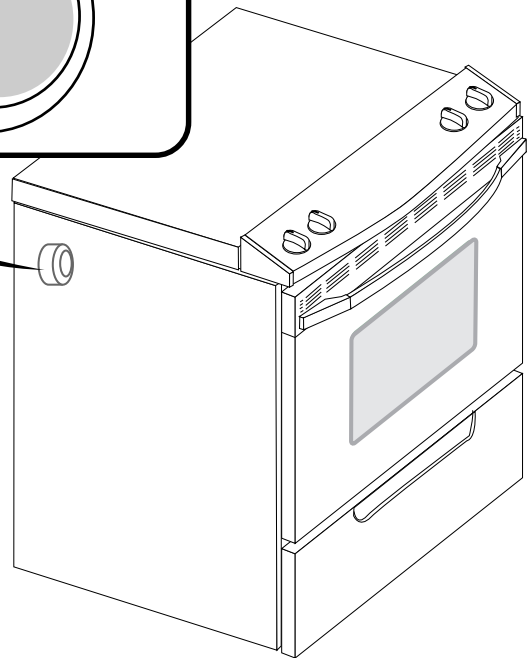
1. Turn off the electrical power to the range.
2. Open the oven door and remove the oven racks.

Refer to Figure 4-10 for the following steps.

3. Unscrew the oven light lens and remove the lens and the gasket.
4. Unscrew the light bulb and set it aside.
5. Use a screwdriver blade and pry the old light socket assembly out of the oven opening and pull it forward as far as the wiring will allow.
6. Remove the wires from the light socket terminals.
7. Connect the wires to the new light socket terminals and then press the socket assembly into the opening until it snaps into place.



**Figure 4-10**





## REMOVING THE OVEN DOOR GASKET

### **! WARNING**

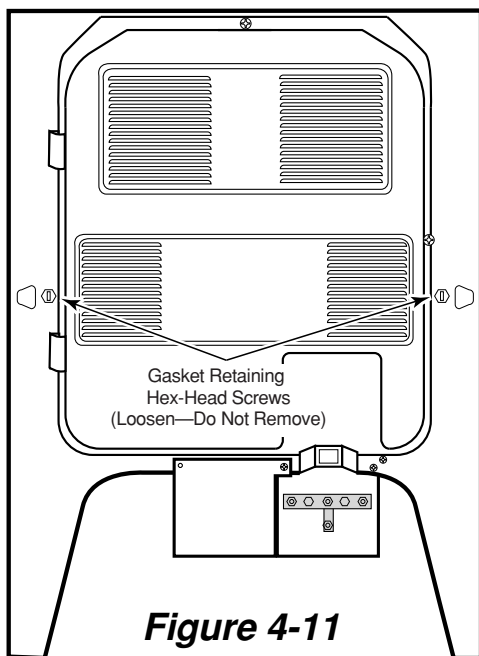
#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
2. Pull the range out from the cabinet far enough to access the back panel.
3. Loosen (do not remove) the two gasket retaining screws (see Figure 4-11) so they extend approximately 1" from the rear panel.

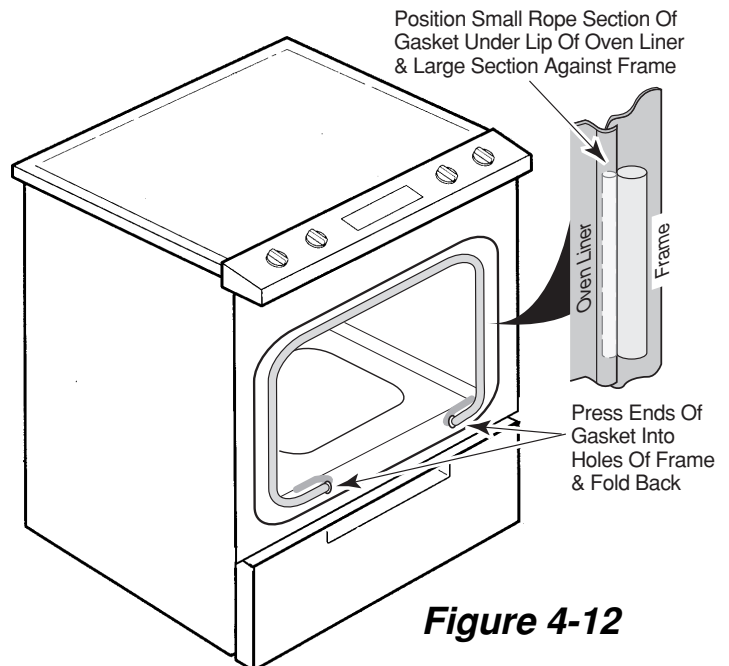


Refer to Figure 4-12 for the following steps.

4. Pull the oven liner forward as far as possible so that the gap in the track for the door gasket is open.
5. Pull the old door gasket out of the track and remove the ends from the two holes in the front.

**NOTE:** The door gasket is divided into two segments along its length. The smaller segment has a piece of rope inside it, and the larger segment is hollow. Install the smaller segment with the rope into the track in the next step.

6. Use a screwdriver blade and insert 5" at one end of the new gasket into either hole in the front of the oven. Work the smaller segment of the gasket into the track around the three sides of the door. When you are finished, insert the remaining gasket into the front hole. Make sure that the gasket is evenly installed all the way around the door, otherwise a poor seal could result.
7. Tighten the two hex-head screws at the rear of the range to secure the gasket.



## REMOVING THE OVEN LIGHT SWITCH

### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

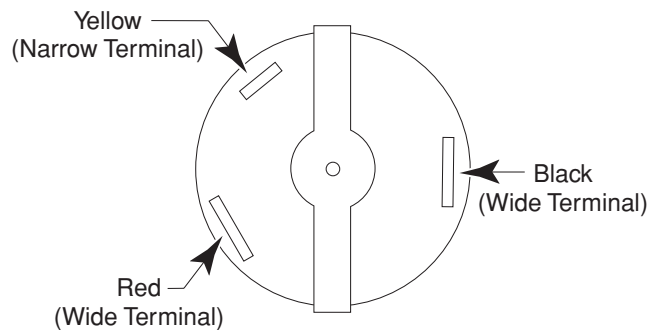
Failure to do so could result in death or electrical shock.

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
2. Pull the range out from the cabinet far enough to access the back panel.

Refer to Figure 4-14 for the following steps.

3. Remove the right side panel as follows (see inset #1). NOTE: The inset shows installation of the left side panel, however, the right side panel mounts to the range in the same manner:
  - a) Remove the two screws from the rear panel mounting tabs for the right side panel.
  - b) From the back, push the side panel forward as far as it will go and unhook it from the screw at the top front corner.
  - c) Pull the top away from the range several inches, then lift the panel free of the retaining clips at the bottom.
4. Press in on the locking arms while you push out on the body of the oven light switch, and remove the switch (see inset #2).
5. Unplug the three wires from the terminals of the oven light switch. The wire locators are shown in Figure 4-13.



**Figure 4-13**

# INSET #1

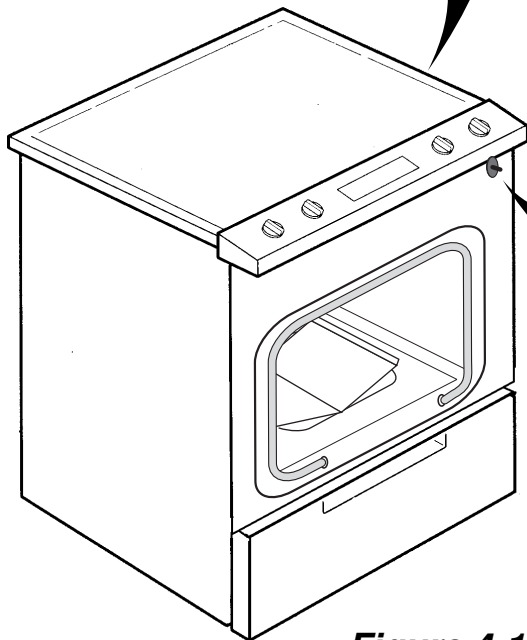
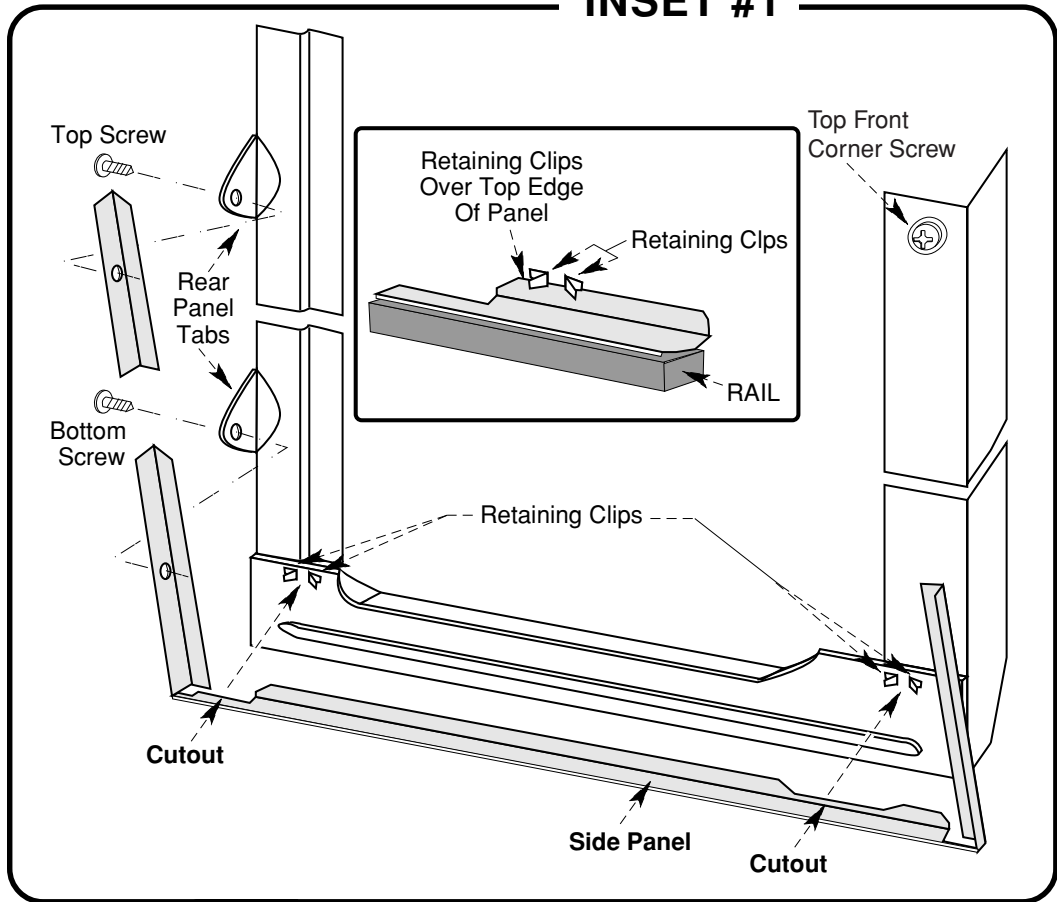
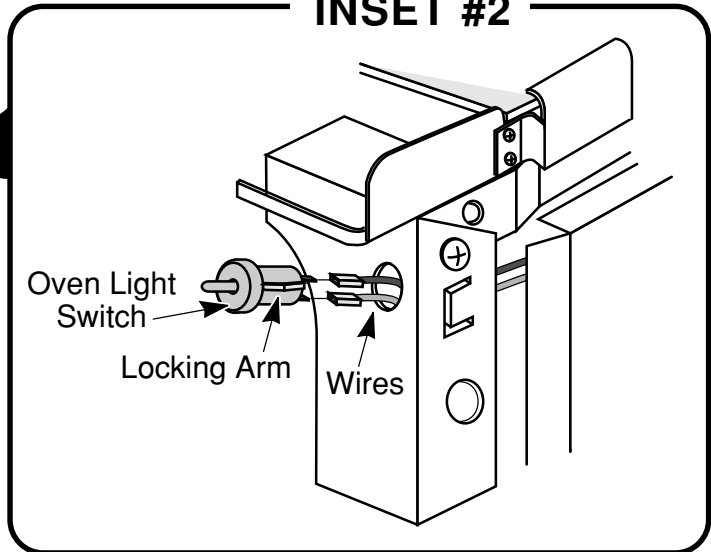


Figure 4-14

# INSET #2



## REMOVING THE COOLING FAN

### **WARNING**

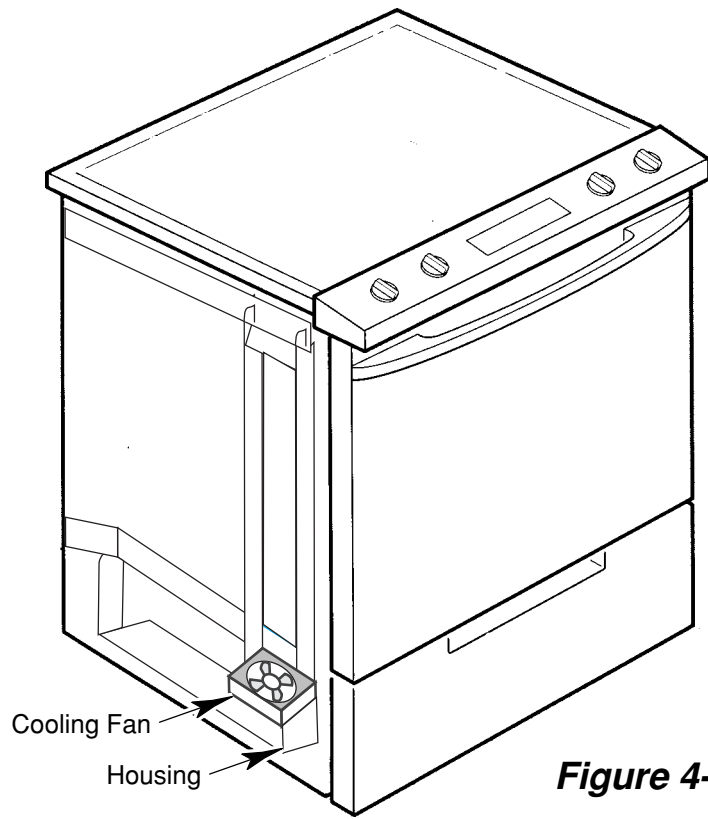
#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

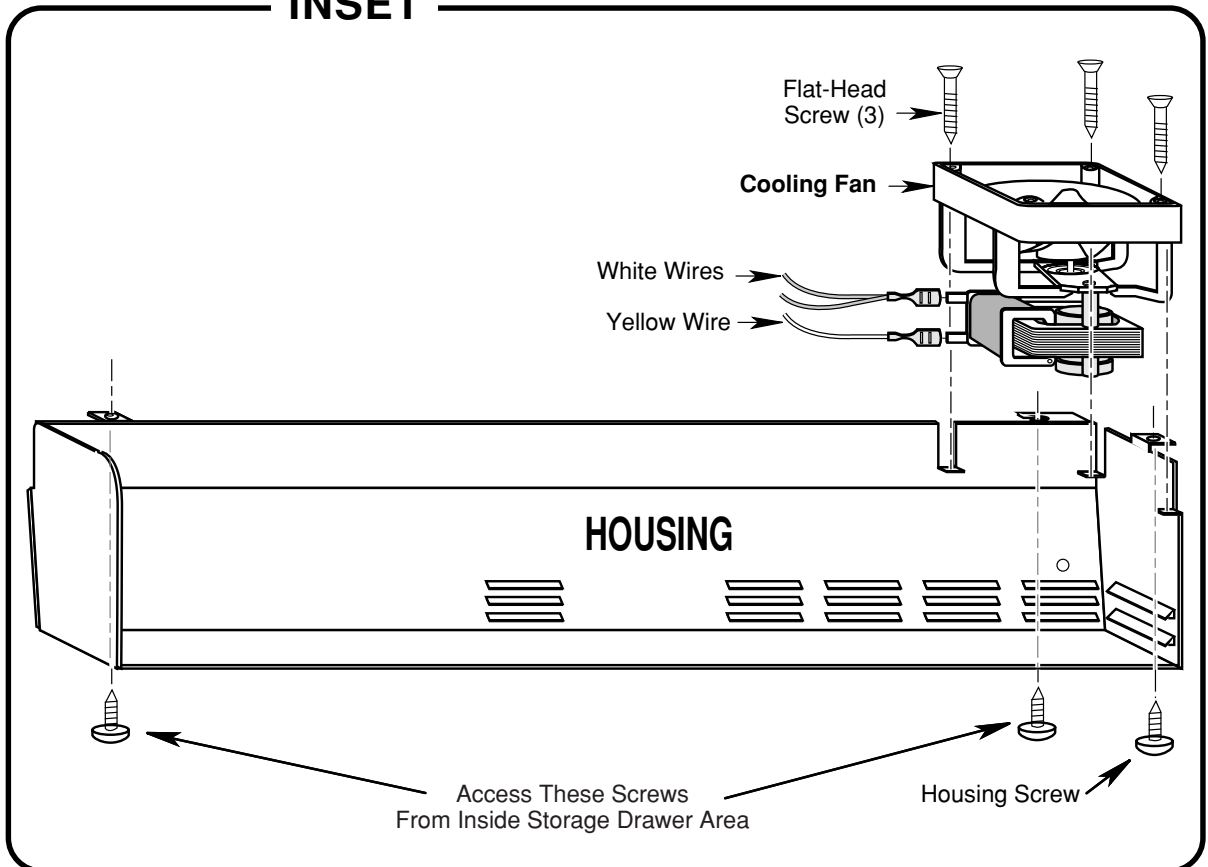
**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
  2. Pull the range out from the cabinet far enough to access the back panel.
  3. Remove the left side panel from the range (see step 3 on page 4-14 for the procedure).
- Refer to Figure 4-15 for the following steps.
4. Remove the storage drawer from the range and set it aside.
  5. From inside the storage drawer area, remove the screw from the front of the housing.
  6. From outside the range, remove the remaining screw from the front of the housing, and lower the housing so you can access the cooling fan mounting screws.
  7. Unplug the wires from the terminals of the cooling fan.
  8. Remove the three flat-head screws from the cooling fan and remove the fan from the housing.



**Figure 4-15**

**INSET**



# REMOVING THE OVEN TEMPERATURE SENSOR & THE DOOR LATCH ASSEMBLY COMPONENTS

## **! WARNING**

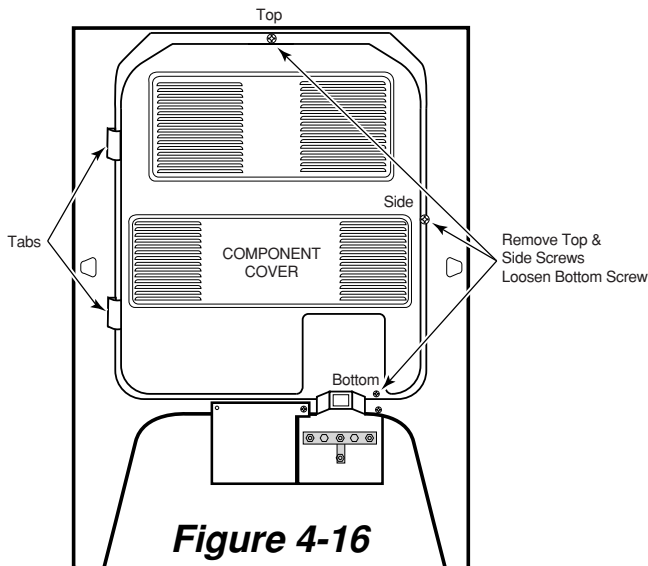
### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

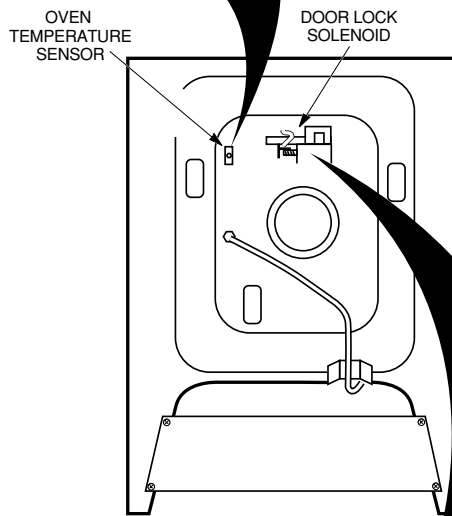
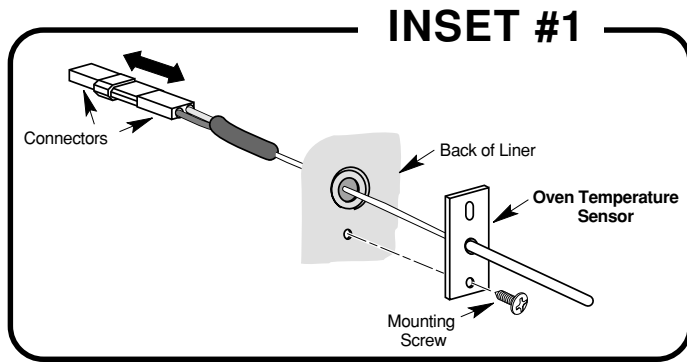
**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

1. Turn off the electrical power to the range.
2. Pull the range out from the cabinet far enough to access the back panel.
3. Remove the top and side screws from the component cover on the rear panel and loosen the bottom screw, then remove the cover (see Figure 4-16).

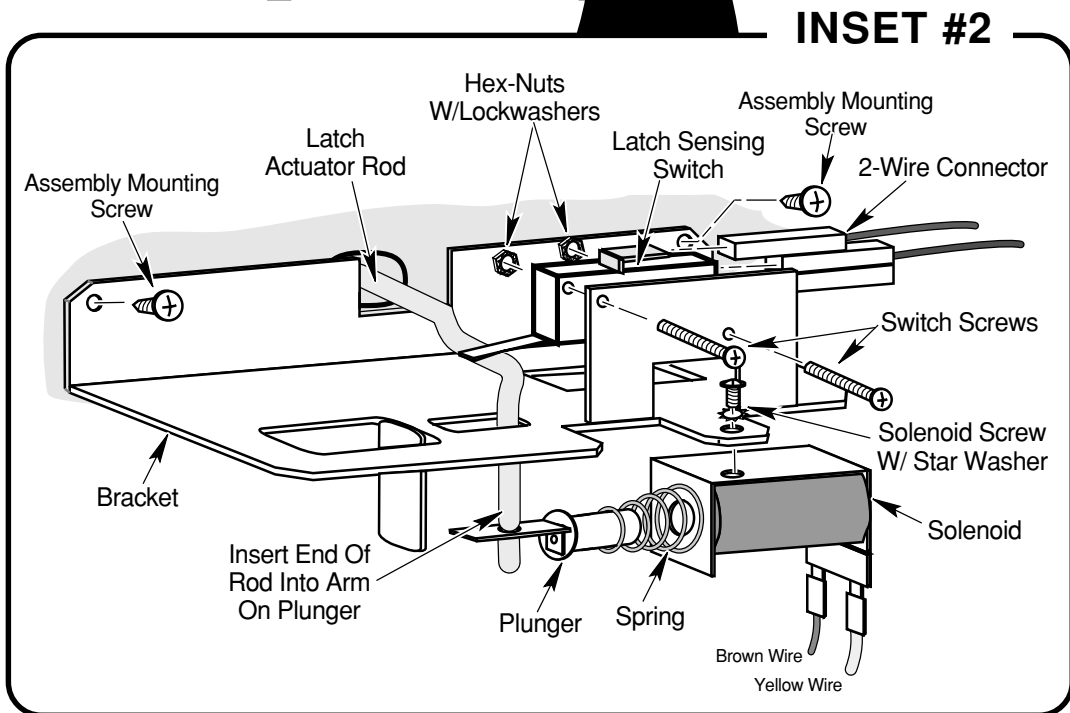


Refer to Figure 4-17 for the following steps.

4. **To remove the oven temperature sensor (Inset #1):**
  - a) From inside the oven, remove the mounting screw and pull the sensor forward as far as the wires allow.
  - b) From behind the range, unplug the connectors from the sensor harness and the main harness, and push the wires and connector through the access hole.
5. **To remove the door latch switch from the door latch assembly (Inset #2):**
  - a) Remove the 2-wire connector from the door latch switch terminals.
  - b) Remove the two screws and hex nuts with lockwashers from the body of the door latch switch and remove the switch from the bracket.
6. **To remove the solenoid from the door latch assembly (Inset #2):**
  - a) Remove the screw and star washer from the solenoid, then unhook and remove it from the bracket. **NOTE:** The plunger and spring are separate from the solenoid. Remove them from the old solenoid, and install them on the new one.
  - b) Disconnect the wires from the terminals of the solenoid.



**Figure 4-17**



## REMOVING THE OVEN DOOR GLASS

### **! WARNING**

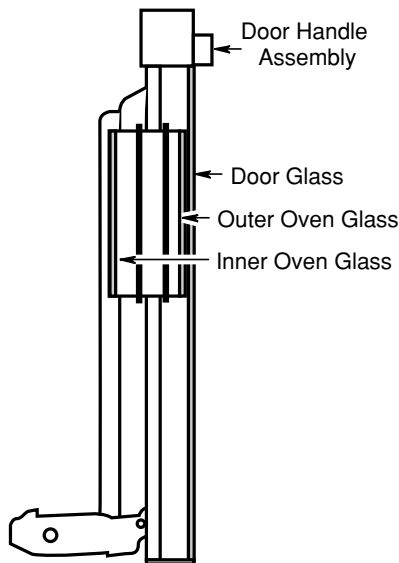
#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

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

**CAUTION:** When you work on the range, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

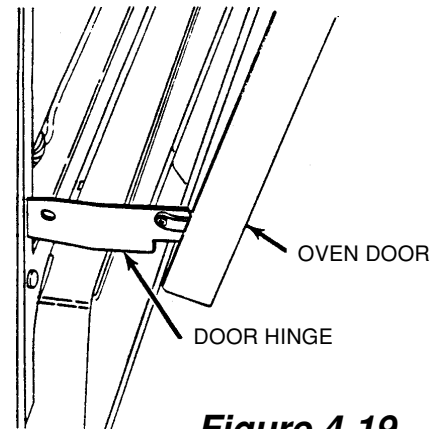
**NOTE:** The oven door has three glass panels (see Figure 4-18). To replace the oven glass panels inside the door, you must first remove the door glass. To replace the inner oven glass, you have to first remove the door glass and the outer oven glass panels. Refer to the section(s), as necessary.



**Figure 4-18**

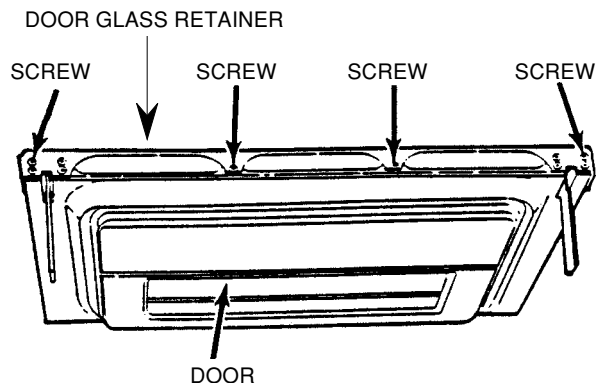
Refer to Figure 4-19 for the following steps.

1. Open the oven door to the first (broil) stop.
2. Grasp the oven door on both sides. Simultaneously lift straight up and pull out on the door approximately 2-inches to release the hinge brackets from their stop.



**Figure 4-19**

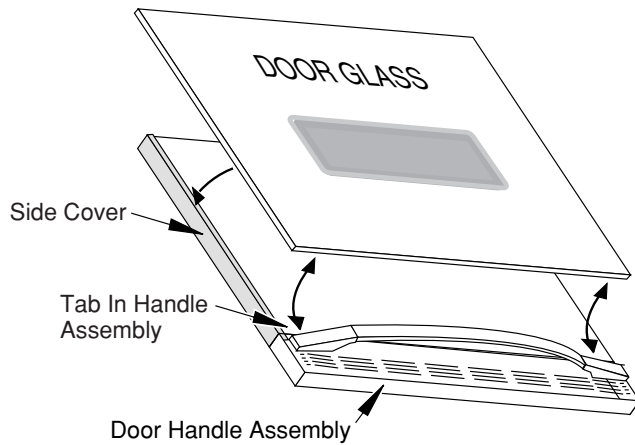
3. Close the door completely so it is perpendicular to the floor, then pull the door out of the oven tracks, and place it on a clean padded surface.
4. Position the door upside down so that it rests on the top of the handle assembly, (see Figure 4-20), and remove the four screws from the door glass retainer.



**Figure 4-20**



5. Lift the bottom of the door glass and slide the top out from under the two tabs in the door handle assembly (see Figure 4-21).



**Figure 4-21**

6. Install the new door glass and the retainer. **NOTE:** Make sure that the glass is over the front edges of the side covers and not under them.
7. Reinstall the oven door on the range as follows:
  - a) Grasp the door by the sides, and slide the two door hinges into the tracks in the range slots as far as the stop.
  - b) Pull the oven door open to the first (broil) stop.
  - c) Lift the door straight up, and push in until the hinges are over the stop and are fully in place.
  - d) Close the oven door.

## REMOVING THE OUTER OVEN GLASS

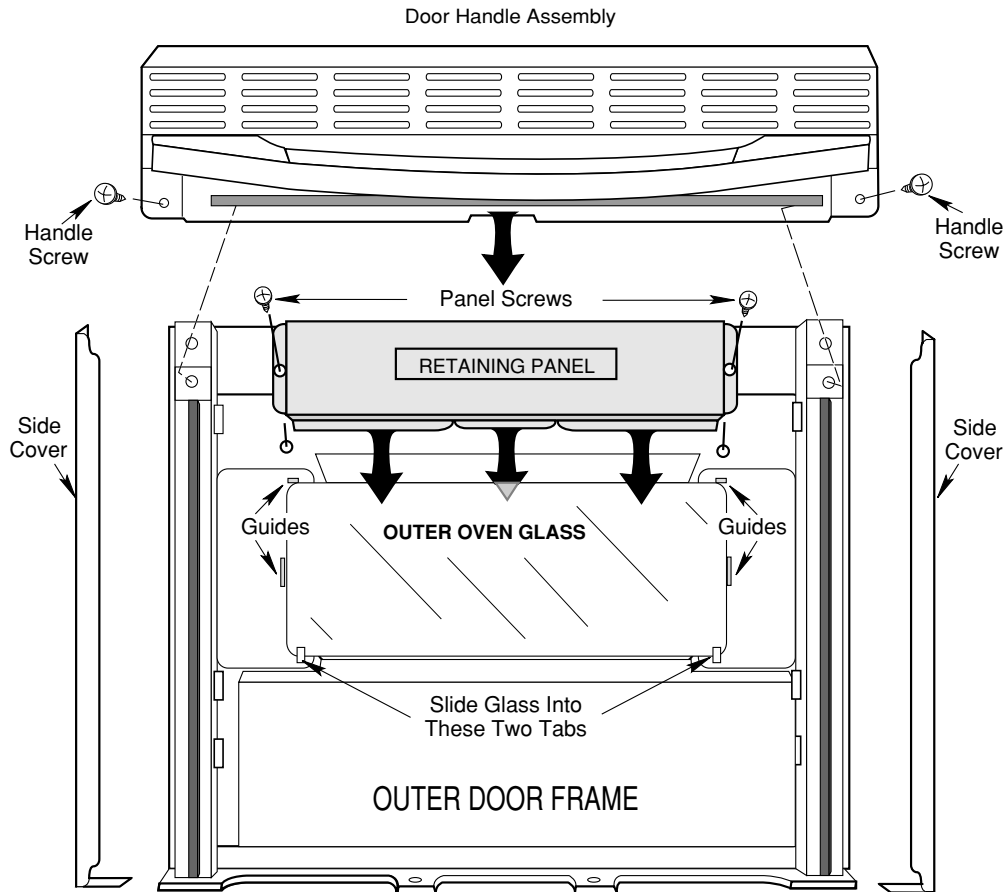
1. Refer to "Removing The Oven Door Glass" on page 4-20 and remove the door glass, then proceed with the following steps.

Refer to Figure 4-22 for the following steps.

2. Position the oven door as shown in the illustration.
3. Remove the two screws from the door handle assembly and remove the assembly.
4. Remove the two side covers.
5. Remove the two screws from the retaining panel, then unhook the panel from the outer oven glass and remove it.
6. Unhook the glass from the door tabs and

remove it.

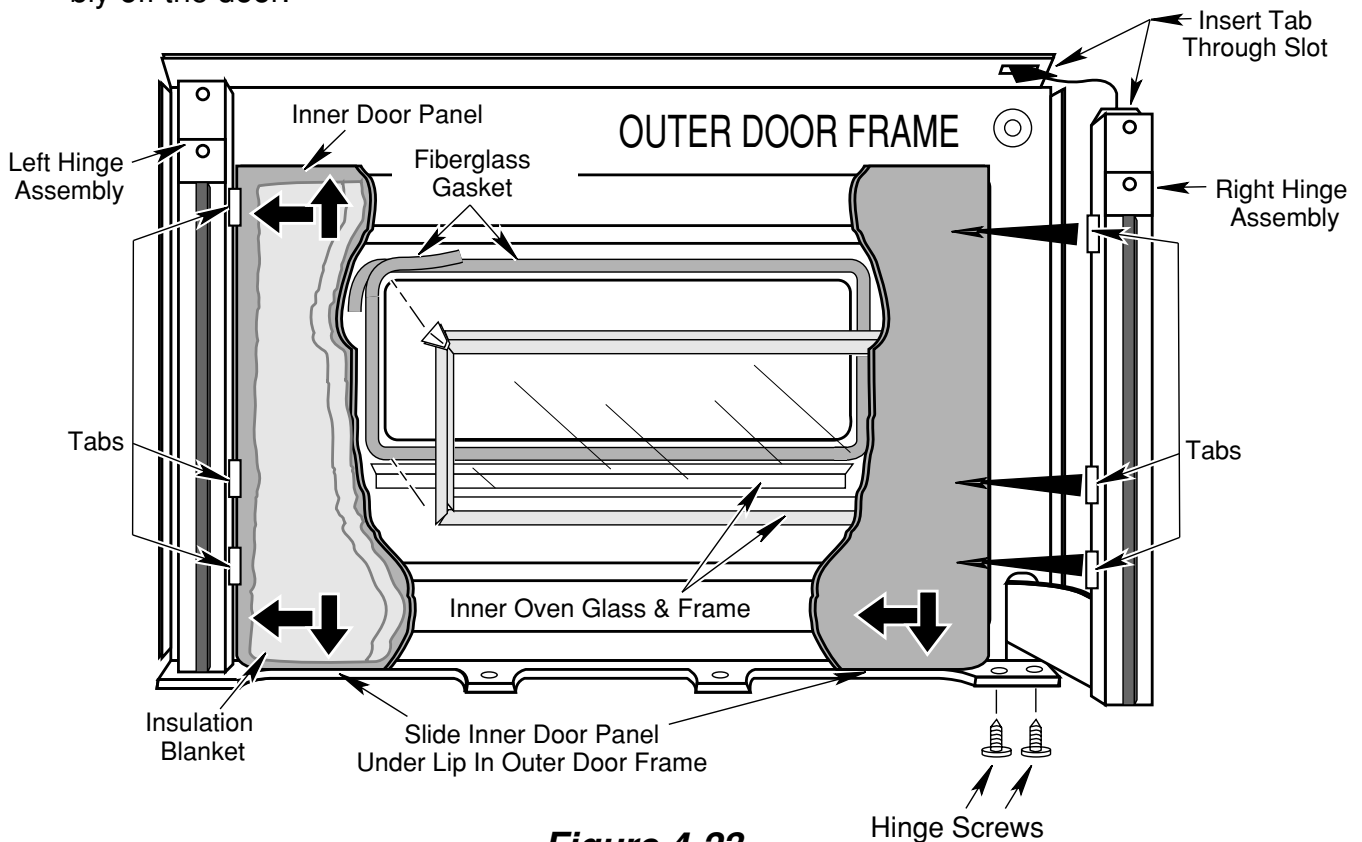
7. Install the new outer oven glass in the door.
8. Reassemble the oven door.
9. Reinstall the oven door on the range as follows:
  - a) Grasp the door by the sides, and slide the two door hinges into the tracks in the range slots as far as the stop.
  - b) Pull the oven door open to the first (broil) stop.
  - c) Lift the door straight up, and push in until the hinges are over the stop and are fully in place.
  - d) Close the oven door.



**Figure 4-22**

## REMOVING THE INNER OVEN GLASS

1. Remove the door glass and the outer oven glass, as instructed on pages 4-20 through 4-22, then proceed with the following steps.
2. Position the oven door with the inner oven glass facing up.
3. Remove the two bottom screws from the right hinge, then lift the bottom of the hinge assembly and unhook the top tab from the slot in the panel, and remove the hinge.
4. Lift the right side of the inner door panel. Slide the panel out from under the lip at the bottom of the door, and from under the three tabs on the left hinge assembly, and remove the panel.
5. Remove the door insulation blanket.
6. Lift the inner oven glass and frame assembly off the door.
7. If you are replacing the fiberglass gasket from around the window opening in the door, remove and replace it at this time.
8. Install the new inner oven glass over the fiberglass gasket.
9. Reassemble the oven door.
10. Reinstall the oven door on the range as follows:
  - a) Grasp the door by the sides, and slide the two door hinges into the tracks in the range slots as far as the stop.
  - b) Pull the oven door open to the first (broil) stop.
  - c) Lift the door straight up, and push in until the hinges are over the stop and are fully in place.
  - d) Close the oven door.

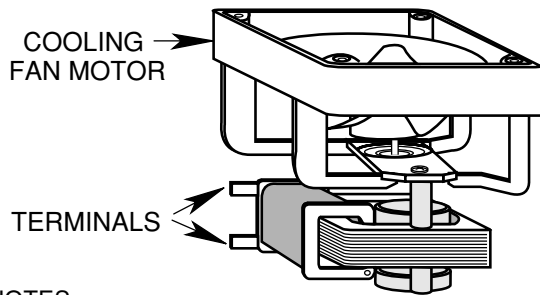


**Figure 4-23**

— NOTES —

# COMPONENT TESTING

## COOLING FAN MOTOR



### NOTES:

1. FAN RATING IS 120 VAC, 60 HZ, 2.5-WATTS.

## **! WARNING**

### Electrical Shock Hazard

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

## Test Procedure

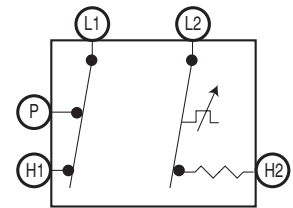
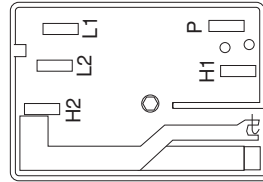
Refer to page 4-16 for the location of the cooling fan motor and the procedure for servicing it.

To test the cooling fan motor windings, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, touch the leads of the ohmmeter to the terminals of the fan motor (you do not have to remove the wires from the terminals). You should obtain a reading of between 55  $\Omega$  and 80  $\Omega$ .

If the reading is not within the range shown, the motor is defective and should be replaced.

## ELEMENT CONTROL (INFINITE SWITCH)



## **! WARNING**

### Electrical Shock Hazard

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

## Test Procedure

Refer to page 4-4 for the location of the element controls and the procedure for servicing them.

To test a control, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, touch the leads of the ohmmeter to the indicated terminals of the element control (infinite switch). You should obtain the following readings:

### Control OFF:

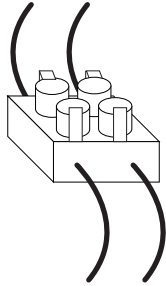
- L1 to P = no continuity
- L1 to H1 = no continuity
- P to H1 = no continuity
- L2 to H2 = continuity

### Control to HI:

- L1 to P = continuity
- L1 to H1 = continuity
- P to H1 = continuity
- L2 to H2 = continuity

If the readings are not as shown, the control is defective and should be replaced.

## HOT SURFACE INDICATOR LIGHTS



### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

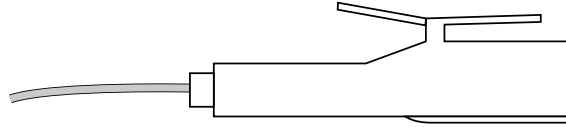
### **Test Procedure**

Refer to page 4-8 for the location of the hot surface indicator lights and the procedure for servicing them.

To test the hot surface indicator lights, perform the following steps:

1. Use a voltmeter and set it to read 120-volts AC.
2. With power applied, measure across the light terminals. If the reading is 0-volts, check the wiring. If the meter reads 120-volts AC, replace the hot surface indicator light assembly.

## SURFACE INDICATOR LIGHT



### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

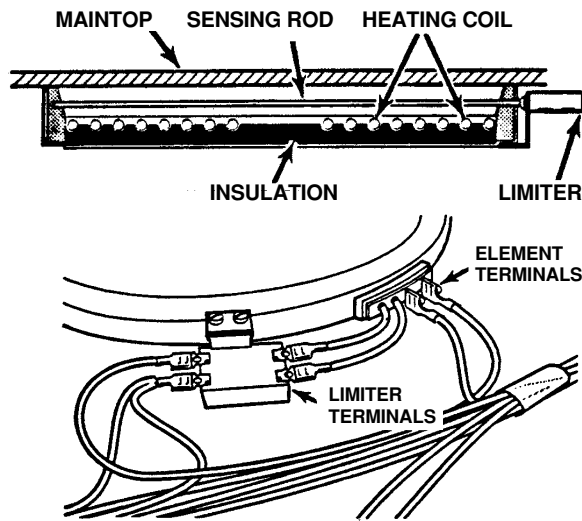
### **Test Procedure**

Refer to page 4-4 for the location of the surface indicator lights and the procedure for servicing them.

To test a surface indicator light, perform the following steps:

1. Use a voltmeter and set it to read 120-volts AC.
2. With power applied, measure across the light terminals. If the reading is 0-volts, check the wiring. If the meter reads 120-volts AC, replace the indicator light.

## SURFACE ELEMENTS



## ! WARNING

### Electrical Shock Hazard

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### Test Procedure

Refer to page 4-8 for the location of the surface elements and the procedure for servicing them.

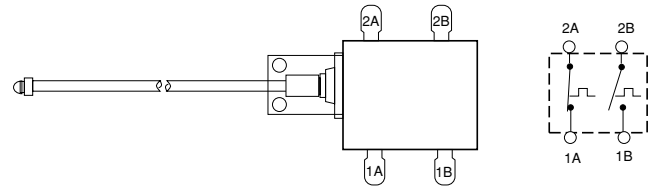
To test a surface element, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, disconnect one wire from the element terminals.
3. Touch the ohmmeter leads to the element terminals. You should obtain the following readings for the indicated element:

Element Location	Resistance	Power
Left Front	22 $\Omega$ $\pm$ 5	2400 Watts
Left Rear	38 $\Omega$ $\pm$ 5	1400 Watts
Right Front	32 $\Omega$ $\pm$ 5	1700 Watts
Right Rear	26 $\Omega$ $\pm$ 5	2100 Watts

If the resistance reading is not within the range shown, the element is defective and should be replaced.

## LIMITER



## ! WARNING

### Electrical Shock Hazard

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### Test Procedure

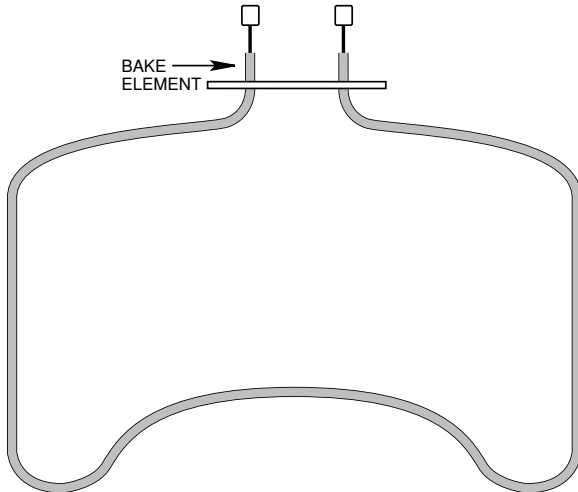
Refer to page 4-8 for the location of the limiters.

To test a limiter, perform the following steps:

1. Use an ohmmeter and set the range to R x 1.
2. With no power applied, touch the ohmmeter leads to the following terminals. You should obtain the following readings:
  - 1A and 2A are closed.
  - 1B and 2B are open.

If the readings are not within the range shown, the limiter is defective and should be replaced.

## BAKE ELEMENT



### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### **Test Procedure**

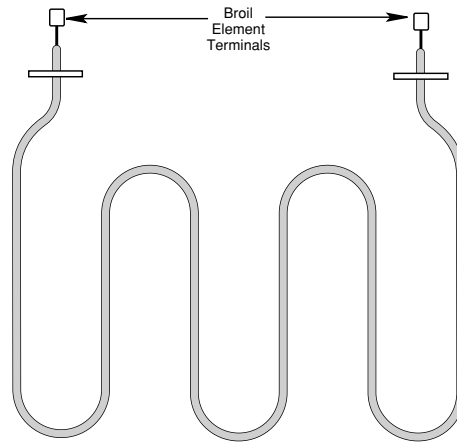
Refer to page 4-10 for the location of the element and the procedure for servicing it.

To test the bake element, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, disconnect one wire from the element terminals. You should obtain a reading of between 19  $\Omega$  and 28  $\Omega$ .

If the reading is not within the range shown, the element is defective, and should be replaced.

## BROIL ELEMENT



### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### **Test Procedure**

Refer to page 4-10 for the location of the element and the procedure for servicing it.

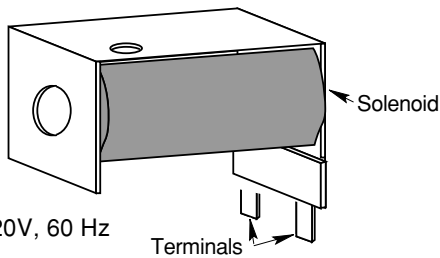
To test the broil element, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, disconnect one wire from the element terminals. You should obtain a reading of between 17  $\Omega$  and 26  $\Omega$ .

If the reading is not within the range shown, the element is defective, and should be replaced.



## DOOR LOCK SOLENOID



Rating: 120V, 60 Hz

### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### **Test Procedure**

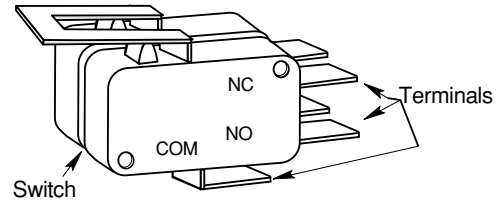
Refer to page 4-18 for the location of the door lock solenoid and the procedure for servicing it.

To test the solenoid windings, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, remove the wire from either solenoid terminal.
3. Touch the leads of the ohmmeter to the terminals of the solenoid. You should obtain a reading of between 40  $\Omega$  and 65  $\Omega$ .

If the reading is not within the range shown, the solenoid is defective and should be replaced.

## DOOR LATCH SWITCH



### **! WARNING**

#### **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### **Test Procedure**

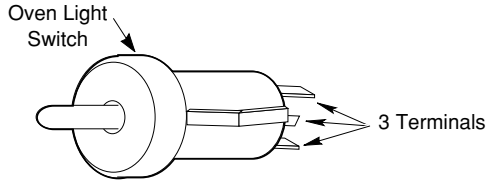
Refer to page 4-18 for the location of the door latch switch and the procedure for servicing it.

To test the switch, perform the following steps:

1. With no power applied, remove the wires from the door latch switch terminals.
2. Touch one of the ohmmeter leads to the COM terminal and leave it there for steps 3 and 4.
3. Touch the other ohmmeter lead to the NO terminal. The meter should indicate an open (infinite  $\infty$ ) circuit. Close the switch and the ohmmeter should indicate 0  $\Omega$  (closed circuit).
4. Touch the ohmmeter lead to the NC terminal. You should obtain a meter reading of 0  $\Omega$ . Close the switch and the meter should indicate an open (infinite  $\infty$ ) circuit.

If the above results are not obtained, the switch is defective and should be replaced.

## OVEN LIGHT SWITCH



# ! WARNING

### Electrical Shock Hazard

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### Test Procedure

Refer to page 4-14 for the location of the oven light switch and the procedure for servicing it.

To test the oven light switch, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, remove the wires from the switch terminals.
3. Touch the leads of the ohmmeter to the following terminal wires of the switch. NOTE: A closed circuit = continuity (0  $\Omega$ ), an open circuit = infinite ( $\infty$ ):

Black & Red:

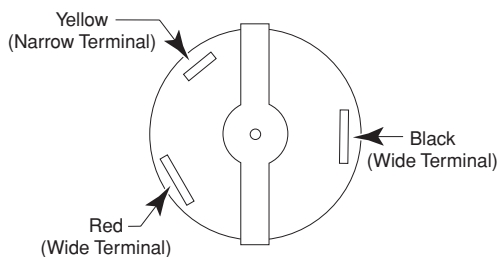
Door Closed = infinite.

Door Open = continuity.

Black & Yellow:

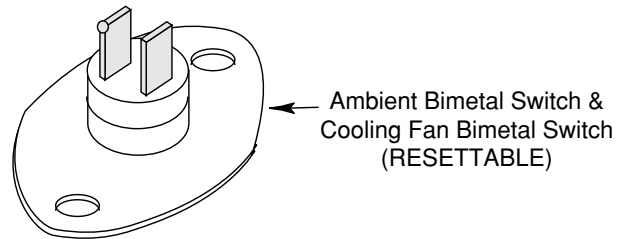
Door Closed = continuity.

Door Open = infinite.



If the above results are not obtained, the switch is defective and should be replaced.

## BIMETAL SWITCH



# ! WARNING

### Electrical Shock Hazard

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

### Test Procedure

Refer to page 4-6 for the location of the bimetal switches and the procedure for servicing them.

To test the two bimetal switches, perform the following steps:

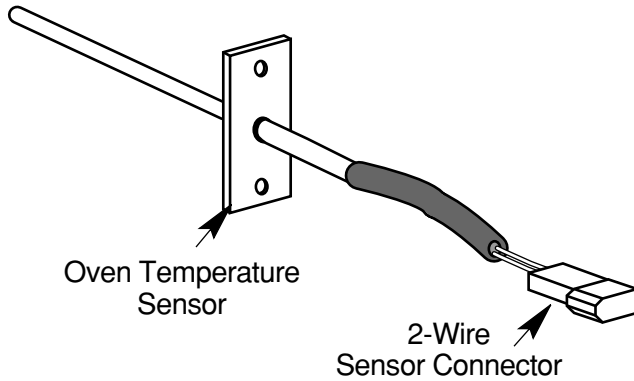
1. Use an ohmmeter and set the range switch to R x 1.
2. With no power applied, touch the ohmmeter leads to the switch terminals as follows. You should obtain the following readings at the indicated temperatures:

*Ambient Bimetal Switch* = continuity below the trip temperature of 203°F.

*Cooling Fan Bimetal Switch* = open below the trip temperature of 104°F.

If the reading is not within the range shown, the switch is defective and should be replaced.

## OVEN TEMPERATURE SENSOR



# **! WARNING**

## **Electrical Shock Hazard**

Disconnect from electrical supply before servicing unit.

Failure to do so could result in electrical shock or other personal injury.

## Test Procedure

Refer to page 4-18 for the location of the oven temperature sensor and the procedure for servicing it.

To test the oven temperature sensor, perform the following steps:

1. Use an ohmmeter and set the range switch to R x 10.
2. With no power applied, touch the leads of the ohmmeter to the connector pins of the sensor (you do not have to separate the connectors). Depending upon the oven temperature, you should obtain the corresponding reading:

Temperature (°F)	Resistance (Ω)
32 ± 1.9	1000 ± 4.0
75 ± 2.5	1091 ± 5.3
250 ± 4.4	1453 ± 8.9
350 ± 5.4	1654 ± 10.8
450 ± 6.9	1853 ± 13.5
550 ± 8.2	2047 ± 15.8
650 ± 8.6	2237 ± 18.5
800 ± 13.6	2667 ± 24.4

If the reading is not within the range shown, the sensor is defective and should be replaced.

— NOTES —

# DIAGNOSIS & TROUBLESHOOTING

## TROUBLESHOOTING CHART

### **WARNING**

#### **Electrical Shock Hazard**

Certain procedures in this section require electrical tests or measurements while power is applied to the range. Exercise extreme caution at all times. If test points are not easily accessible, disconnect power, attach test equipment, and reapply power to test.

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Clock display does not display 4 number eights after power-on test.	Loose or bad wiring.  Burned out or missing segment in clock display.  Broken or missing terminal on microcomputer.	Repair or replace wiring (see wiring diagrams).  Make sure clock display is properly seated.  Replace microcomputer board.
Oven cooks but display does not count down in cooking cycle.	Loose or bad wiring to harness.  Failed microcomputer board.	Repair or replace wiring (see wiring diagrams).  Replace microcomputer board.
Oven element emits black smoke when first turned on.	This is normal on a new range. The factory-applied protective coating is burning off.  Substance (e.g. food or other material) has spilled onto the element.	Protective coating will burn off in several minutes. Fumes are non-toxic.  Let element cool then clean according to Use & Care instructions.
Oven element does not heat.	No line voltage.  Loose or bad wiring.  Defective element.	Check circuit breaker.  Repair or replace wiring (see wiring diagrams).  Test and/or replace element.
Cooktop element barely heats.	Low line voltage.  Loose or bad wiring connection at element or terminal block.  Defective cooktop control switch.	Line voltage should be minimum 240-volts. If necessary, electrician should repair cause for low line voltage.  Repair or replace wiring (see wiring diagrams).  Test and/or replace switch.

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Cooktop element will not heat higher than low-medium.	Low line voltage.  Defective cooktop element.	Line voltage should be minimum 240-volts. Electrician should repair cause for low line voltage.  Test and/or replace element.
Cooktop element heats up normally, but drops to lower setting automatically.	Customer using improper cookware. Defective cooktop control switch.	Evaluate suitability of cookware. Test and/or replace switch.
Indicator light does not light up.	Loose or bad wiring to indicator light. Defective indicator light. Defective cooktop control switch.	Repair or replace wiring (see wiring diagrams). Replace indicator light. Test and/or replace switch.
Hot surface indicator light does not work.	Loose or defective light. Loose or bad wiring to indicator light assembly.	Replace indicator light. Replace indicator light assembly and wiring.
Oven light fails to operate.	Bulb burned out. Circuit breaker or fuse is open.  Defective switch.	Replace bulb. Check circuit breaker or replace fuse.  Check continuity and/or replace switch.
Door locks but indicator lights do not light. Oven does not begin clean cycle.	Defective indicator light. Defective latch safety switch.	Replace indicator light. Replace switch.
Electronic timer will not accept programming.	Failed electronic board.	Replace timer.
Timer relay(s) do not close.	Loose or bad wiring to timer.  Failed electronic board.	Repair or replace wiring (see wiring diagrams).  Replace timer.
Oven will not bake (selection is set for to BAKE).	If indicator light lights up bake element is defective. Defective latch safety switch.  Loose or bad wiring.	Check and/or replace bake element. Check continuity and/or replace switch.  Repair or replace wiring (see wiring diagrams).
Oven will not bake (selection is set for TIMED BAKE).	Defective electronic clock.	Check continuity and/or replace clock (see wiring diagrams).

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
Oven does not broil.	If indicator light lights up broil element is defective. Defective latch safety switch. Loose or bad wiring.	Check and/or replace broil element. Check continuity and/or replace switch. Repair or replace wiring (see wiring diagrams).
Oven door will not open or latch.	Defective latch mechanism. Defective (bent) door latch lever. Cool-down period after self-clean cycle not complete.	Replace mechanism. Replace lever. Wait until LOCK light goes out.
Overheating or “runaway” oven.	Loose or bad wiring to latch safety switch. Thermostat sensor bulb missing.	Repair or replace wiring (see wiring diagrams). Replace bulb.
Premature burnout of bake element.	Improper use of oven (e.g. being used to heat the home).	Use oven for baking only.
Oven door difficult to open.	Worn or broken broil stop rollers.	Replace rollers.
Door sagging on one side.	Hinge loose or out of position to oven liner.	Adjust hinges.
Door does not close completely at top.	Broken or misadjusted door spring. Door fits too tight at bottom.	Adjust or replace spring. Adjust hinges outward.
Door glass breaks.	Broiling with door closed. Oven racks covered with foil. Glass installed backward.	Open door to broil stop position. Do not cover racks with foil. Install tempered glass toward the heat.
Damaged oven door gasket.	Improper cleaning.	Do not use harsh abrasives or scouring pads. See Use & Care instructions.
Chipped oven liner.	Damaged in shipping.	Repair or replace liner. To repair smooth porcelain bronzetone, order P/N 242756.
Oven racks fit too tight.	Tolerance buildup in oven liner.	Notify Customer Assurance Department.

## OVEN TEMPERATURE CALIBRATION

1. Press and hold the BAKE keypad for five (5) seconds. The current offset, if any, will be shown in the 3-digit display. CAL is shown in the 4-digit display (3 digits on right).
2. Pressing the TEMP keypad ▲ up arrow adjusts the temperature in 10°F increments in the following sequence: 0°, 10°, 20°, 30°, -30°, -20°, -10°, 0°, and so on.
3. Press the START/ENTER keypad to activate the desired temperature adjustment. If the START/ENTER keypad is not pressed within 5 minutes, the adjustment is ignored.

NOTE: The BAKE temperature adjustment cannot result in operating temperatures higher than 525°F, or lower than 170°F, as measured at oven cavity center. Once the BAKE temperature has been adjusted, BROIL temperatures are automatically offset to the same degree.

The CLEAN temperature is also offset automatically when the BAKE temperature is adjusted. If the BAKE temperature has been raised, the CLEAN temperature is offset by +5°F. If the BAKE temperature has been lowered, the CLEAN temperature is offset to -5°F.



# OVEN CIRCUIT DIAGNOSIS CHART

## NOTES:

1. All diagnoses of this range must begin with normal check of line voltage, blown fuses, and failed components.
2. All units that have failed during the first few days of use should be checked for loose connections or miswiring.
3. All checks should be made with a meter having a sensitivity of 20,000 ohms-per-volt or greater.

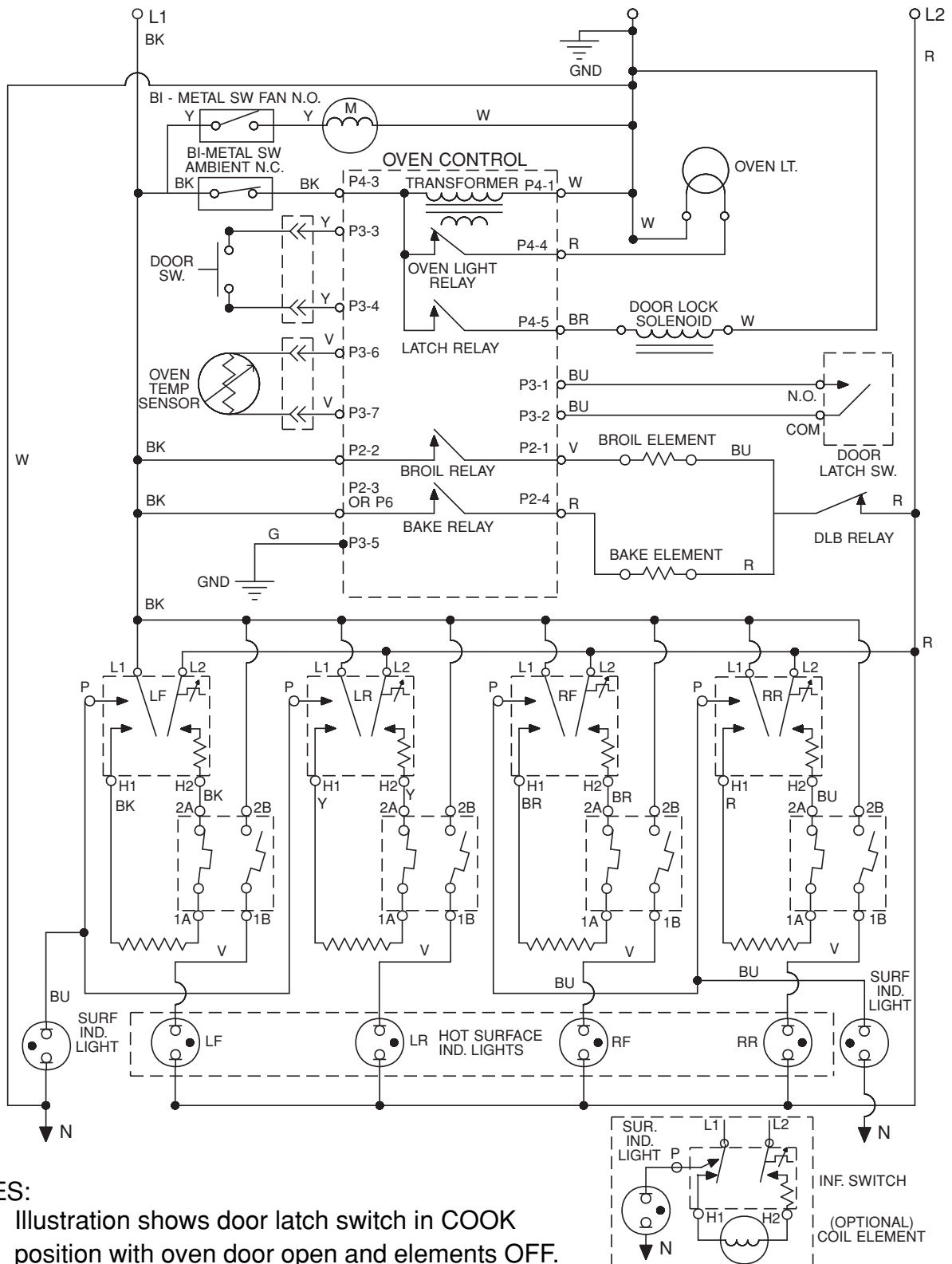
## FAILURE / ERROR DISPLAY CODES

4-DIGIT DISPLAY	3-DIGIT DISPLAY	LIKELY FAILURE CONDITION	SUGGESTED CORRECTIVE ACTION PROCEDURE
<b>F1</b>	<i>E0</i>	EEPROM communications	<ol style="list-style-type: none"> <li>1. Verify failure if not displayed, using CANCEL/OFF key. Press key for 5 seconds until last error code is displayed</li> <li>2. Disconnect power from oven for longer than 30 seconds.</li> <li>3. Reapply power and observe for longer than 1 minute.</li> <li>4. If failure remains, disconnect power, replace control, then go back to step 3.</li> </ol>
	<i>E1</i>	EEPROM checksum failure	
	<i>E2</i>	UL A/D error(s)	
<b>F2</b>	<i>E0</i>	Shorted key	<ol style="list-style-type: none"> <li>1. Verify failure if not displayed, using CANCEL/OFF key.</li> <li>2. Disconnect power.</li> <li>3. If applicable, insure membrane tail seated in connector on back of control.</li> <li>4. Reapply power and observe for longer than 1 minute.</li> <li>5. If failure remains, disconnect power, replace control, then go back to step 4..</li> </ol>
	<i>E1</i>	Keytail unplugged	
<b>F3</b>	<i>E0</i>	Oven sensor opened	<ol style="list-style-type: none"> <li>1. Measure sensor value (between connector pins) between 1000 Ω @ 32° F and 2697 Ω @ 900° F (approximately 1080 Ω @ room temperature). If measurement does not correlate to real temperature, disconnect power, replace sensor and refer to steps 3-5. Also measure from sensor connector to sensor casing for possible short.</li> <li>2. Trace wires and connectors to sensor, from control, then from sensor back to control. If all connections made and no wire damage, refer to step 3.</li> <li>3. Disconnect power for longer than 30 seconds.</li> <li>4. Reapply power and observe for longer than 1 minute.</li> <li>5. If failure remains, disconnect power, replace control, then go back to step 4.</li> </ol>
	<i>E1</i>	Oven sensor shorted	
	<i>E2</i>	Bake range over temp	
	<i>E3</i>	Clean range over temp	
<b>F5</b>	<i>E0</i>	Door and latch switches do not agree	<ol style="list-style-type: none"> <li>1. If door <b>latched</b>:               <ol style="list-style-type: none"> <li>A) Disconnect power from unit.</li> <li>B) Check wires and connectors from control to door switch, then from door switch to control. If no damage to wires and all connectors okay, proceed to step C.</li> <li>C) Replace door switch.</li> <li>D) Reapply power.</li> <li>E) Press and hold any key down for 1 minute to clear -F5- failure code from memory. -F2- will appear. Press CANCEL and observe for 1 minute to ensure operation is correct.</li> </ol> </li> <li>2. If door <b>not latched</b>:               <ol style="list-style-type: none"> <li>A) Disconnect power from unit.</li> <li>B) Check wires and connectors from control to latch switch, then from latch switch to control. If no damage to wires and all connectors okay, proceed to step C.</li> <li>C) Repeat steps A) and B) for door switch.</li> </ol> </li> <li>3. Measure door switch (door open = switch open small low voltage terminals).</li> <li>4. Measure latch switch (unlatch = switch open, <i>CAUTION</i> - oven light contacts are closed).</li> <li>5. If corrections are made in any step, reconnect power to control. Press and hold any key for 1 minute to clear -F- failure code from memory. -F2- will appear. Press CANCEL and observe for 1 minute to ensure operation is correct.</li> <li>6. If failure remains, disconnect power, replace control.</li> </ol>
	<i>E1</i>	Solenoid not operating or latch switch failure	
	<i>E2</i>	Latch during <b>CLEAN</b> error	

— NOTES —

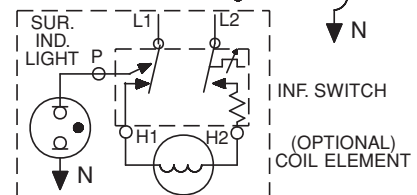
# WIRING DIAGRAMS & STRIP CIRCUITS

## WIRING DIAGRAM



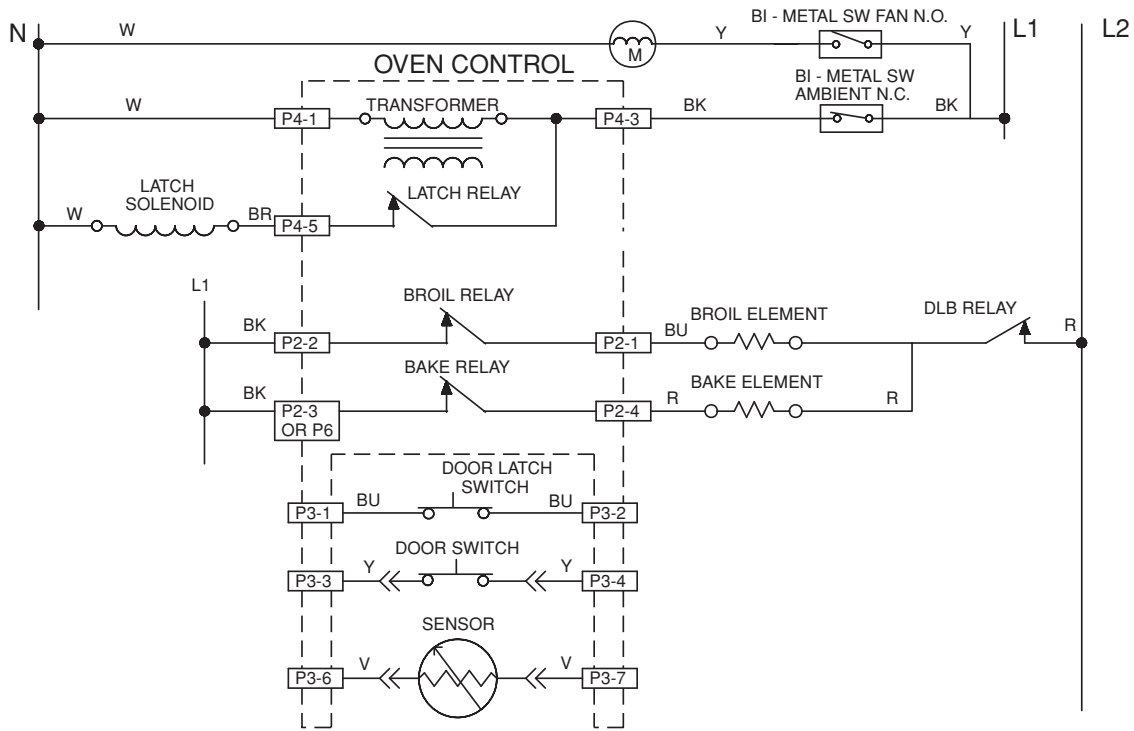
### NOTES:

- 1.) Illustration shows door latch switch in COOK position with oven door open and elements OFF.
- 2.) Diagram shows Ceran models.

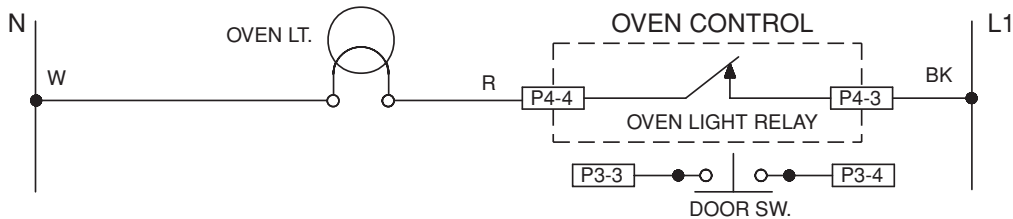


# STRIP CIRCUITS

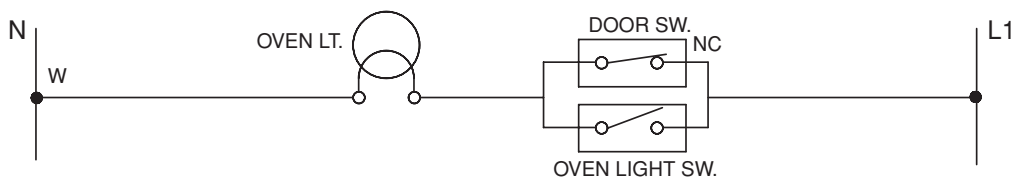
## CLEAN (BAKE & BROIL RELAYS CYCLE)



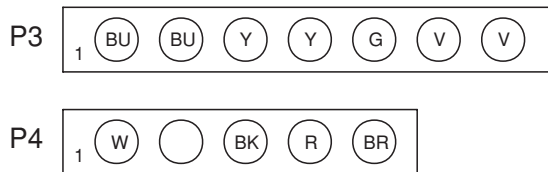
## OVEN LIGHT (U.S. MODELS)



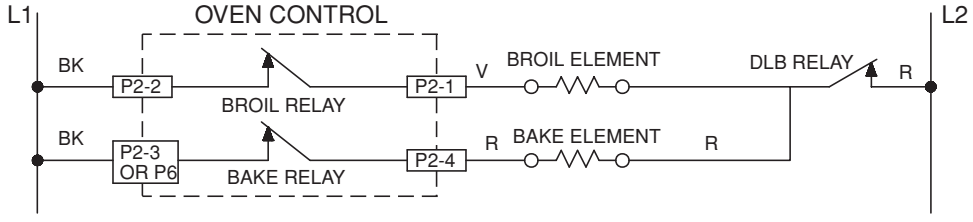
## OVEN LIGHT (CANADIAN MODELS)



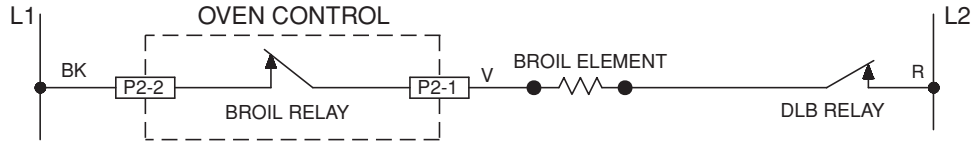
## QUICK DISCONNECT PLUGS



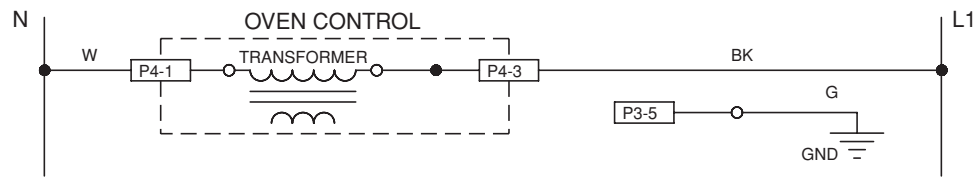
# BAKE



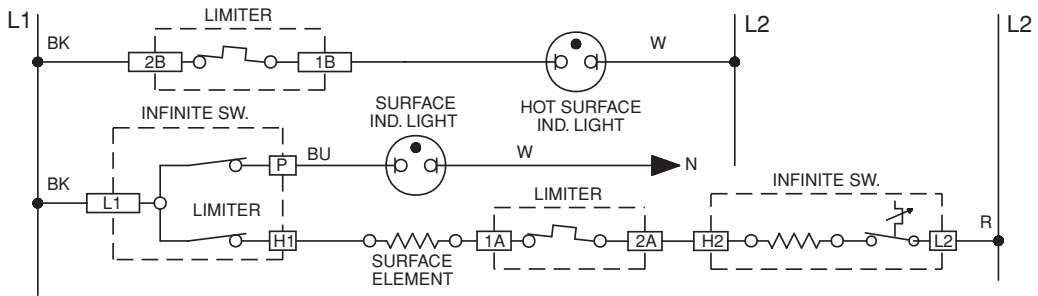
# BROIL



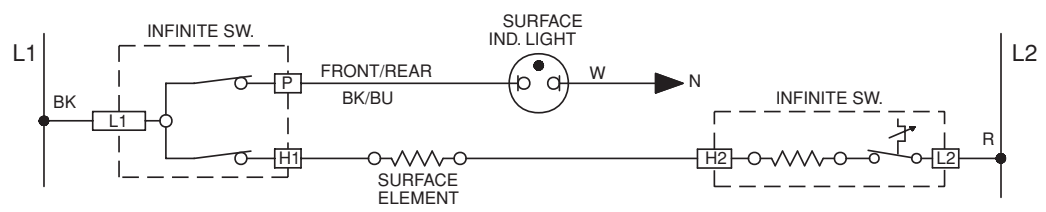
# CLOCK DISPLAY ON



# CERAMIC COOKTOP SURFACE UNIT (IF EQUIPPED)



# COIL COOKTOP SURFACE UNIT (IF EQUIPPED)



— NOTES —

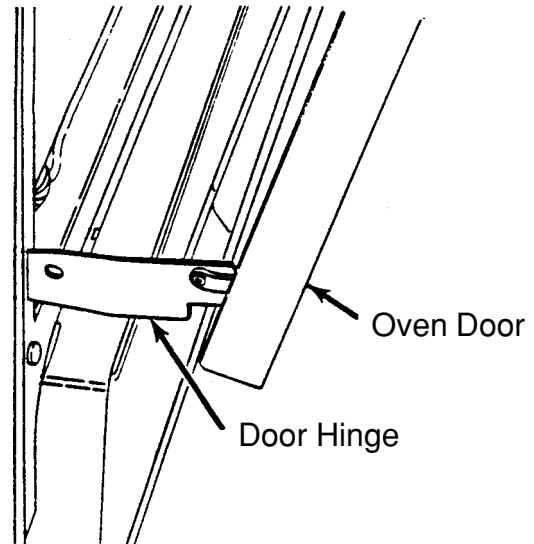
# TECH TIPS

## REMOVING THE OVEN DOOR

Refer to the illustration for the following steps.

1. Open the oven door to the first (broil) stop.
2. Grasp the oven door on both sides. Simultaneously lift straight up and pull out on the door for approximately two inches to release the hinge brackets from the hinge stops.

3. Close the door completely so it is perpendicular to the floor, then pull the door out of the oven tracks.



## REQUESTING ASSISTANCE OR SERVICE

To avoid unnecessary service calls, please check the “Troubleshooting” section of your Use and Care Guide. It may save you the cost of a service call. If you still need help, follow the instructions below.

**1. If the problem is not due to one of the items listed in the “Troubleshooting” section of your Use and Care Guide\*:**

Call the Whirlpool or Inglis Limited Consumer Assistance Center telephone number. Dial toll-free from anywhere:

**In the U.S.A.** — Call 1-800-253-1301

**In Canada** — Call 1-800-461-5681  
8:30 a.m. - 6:00 p.m. (EST)

One of our trained consultants can instruct you in how to obtain satisfactory operation from your appliance or, if service is necessary, recommend a qualified service company in your area.

If you prefer, write to:

**In the U.S.A.** — Whirlpool Brand Home Appliances Consumer Assistance Center

c/o Correspondence Department  
2000 North M-63  
Benton Harbor, MI 49022-2692

**In Canada** — Consumer Relations Department  
Inglis Limited  
1901 Minnesota Court  
Mississauga, Ontario L5N 3A7

Please include a daytime phone number in your correspondence.

**2a. If you need service in the U.S.A.\*:**

Whirlpool has a nationwide network of designated Whirlpool service companies. Whirlpool designated service technicians are trained to fulfill the product warranty and

provide after-warranty service, anywhere in the United States. To locate the designated Whirlpool service company in your area, call our Consumer Assistance Center telephone number (see Step 1) or look in your telephone directory Yellow Pages under:

- APPLIANCE-HOUSEHOLD MAJOR, SERVICE & REPAIR (See “Whirlpool Appliances or Authorized Whirlpool Service—Example: *XYZ Service Co.*.)
- WASHING MACHINES & DRYERS, SERVICE & REPAIR (See “Whirlpool Appliances or Authorized Whirlpool Service—Example: *XYZ Service Co.*.)

**2b. If you need service in Canada\*:**

Contact “Inglis Limited Appliance Service” from anywhere in Canada at — **1-800-807-6777**.

**3. If you need FSP® replacement parts:**

FSP® is a registered trademark of Whirlpool Corporation for quality parts. Look for this symbol of quality whenever you need a replacement part for your whirlpool appliance. FSP replacement parts will fit right and work right because they are made to the same exacting specifications used to build every new Whirlpool appliance.

To locate FSP replacement parts in your area, refer to Step 2 or call the Consumer Assistance Center number (see Step 1).

\* When asking for help or service: Please provide a detailed description of the problem, your appliance’s complete model and serial numbers, and the purchase date. (See the “A Note to You” section of your Use and Care Guide.) This information will help us respond properly to your request.



# WHIRLPOOL ELECTRIC RANGE WARRANTY

LENGTH OF WARRANTY:	WHIRLPOOL WILL PAY FOR:	WHIRLPOOL WILL NOT PAY FOR:
<p><b>ONE-YEAR FULL WARRANTY FROM DATE OF PURCHASE.</b></p>	<p>FSP® replacement parts and repair labor costs to correct defects in materials or workmanship. Service must be provided by an authorized Whirlpool service company.</p>	<p>A. Service calls to:</p> <ol style="list-style-type: none"> <li>1. Correct the installation of the range.</li> <li>2. Instruct you how to use the range.</li> <li>3. Replace house fuses or correct house wiring.</li> <li>4. Replace owner-accessible light bulbs.</li> <li>5. Correct house plumbing.</li> </ol> <p>B. Repairs when the range is used in other than normal, single-family household use.</p> <p>C. Pickup and delivery. The range is designed to be repaired in the home.</p> <p>D. Damage to the range caused by accident, alteration, misuse, abuse, fire, flood, acts of God, or use of products not approved by Whirlpool.</p> <p>E. Repairs to parts or systems resulting from unauthorized modifications made to the appliance.</p> <p>F. In Canada, travel or transportation expenses for customers who reside in remote areas.</p> <p>G. Replacement parts or repair labor costs for units operated outside the United States and Canada.</p>

**WHIRLPOOL CORPORATION AND INGLIS LIMITED SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.** Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so this exclusion or limitation may not apply to you. This warranty gives specific legal rights and you may also have other rights which vary from state to state or province to province.

**Outside the United States and Canada, a different warranty may apply. For details, please contact your authorized Whirlpool dealer.**

If you need service, refer to the “Requesting Assistance or Service” section on the previous page. After checking “Requesting Assistance or Service,” additional help can be found by calling the Whirlpool Consumer Assistance Center telephone number, **1-800-253-1301**, from anywhere in the U.S.A. In Canada, contact your authorized Inglis Limited Appliance Service company, **1-800-807-6777**.

— NOTES —