



Internal Use Only



Website <http://biz.lgservice.com>

# 30" Freestanding Electric Range **SERVICE MANUAL**

**MODEL: LDE3017ST  
LDE3017SB  
LDE3017SW**

## **CAUTION**

BEFORE SERVICING THE UNIT, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

P/NO : MFL37118315

July, 2010  
Printed in Korea

# FORWARD

This LG Service Manual, “ 30” Freestanding Self-Cleaning Electric Range,” provides the technician with information on the operation and service of the Freestanding Self-Cleaning Electric Range. It is to be used as a training Service Manual. For specific information on the model being serviced, refer to the “Owner’s Manual” or “Tech Sheet” provided with the electric range.

## SAFETY PRECAUTIONS

- Repairs of the appliance should be carried out by a licensed technician only. Incorrect repairs may result in dangerous situations. If you need repairs, contact an LG Service Center or your dealer.
- If the power cord is defective, it must be replaced by a qualified service agent with a UL listed range cord.
- Electrical leads and cables should not be allowed to touch the oven.
- Rating plate is located on the left side of warming drawer.
- The power supply of the appliance should be turned off when it is being repaired.

### **WARNING**

- **DISCONNECT power supply cord from the outlet before servicing.**
- **Replace all panels and parts before operating.**
- **RECONNECT all grounding devices.**
  - Failure to do so can result in severe personal injury, death or electrical shock.
- **DO NOT Touch when the oven operates.**
  - The interior parts will be very hot.

LG Electronics assumes no responsibility for any repairs made on our products by anyone other than Authorized Service Technicians.

# TABLE OF CONTENTS

	(PAGE)
<b>GENERAL</b> .....	<b>1-1 ~ 1-5</b>
• Important safety instructions .....	1-1 ~ 1-3
• Model & Serial number label and tech sheet locations .....	1-4
• Specifications .....	1-5
<b>USING YOUR RANGE</b> .....	<b>2-1 ~ 2-6</b>
• General information .....	2-1
• Control panel features .....	2-2 ~ 2-6
- To turn on a SINGLE surface unit (Left Rear, Right Rear)	
- To turn on a DOUBLE surface unit ( Left Front, Right Front)	
- To turn on a Warming zone (Center)	
- Setting the Clock	
- Start, Clean/Off and On/Off pad	
- To turn On/Off the oven light	
- Timer On/Off	
- Setting Pad : 6 types of category	
1) Convection auto conversion	
2) Thermostat Adjustment	
3) Language selection (English, Spanish, French )	
4) Preheating alarm light On/Off	
5) Beeper volume	
6) Temperature unit (°F or °C)	
7) Hour mode on clock	
- Timed Cook, Delayed Timed Cook	
- Broil	
- Convection Bake	
- Convection Roast	
- Favorites	
- Warm	
- Proof	
- Kids Meal	
- Sabbath mode	
- LockOut	
- Self Clean	
<b>COMPONENT ACCESS</b> .....	<b>3-1 ~ 3-24</b>
• Component Locations .....	3-1
• Removing the Back, Control cover and Key membrane Assembly .....	3-2
• Removing the Control Power Supply and Power Control Board (PCB) .....	3-3
• Removing the Surface Element and the Ceramic Glass Cooktop .....	3-4
• Removing the Door Lath and Upper Door Switch.....	3-5
• Removing the Door Lath and Lower Door Switch.....	3-6 ~ 3-7
• Removing the BROIL element .....	3-8 ~ 3-10
• Removing the Exposed BAKE element.....	3-11
• Removing the Hidden BAKE element.....	3-12
• Removing the CONVECTION element, Fan blade and Fan motor .....	3-13
• Removing the Oven light & Socket assembly .....	3-14
• Removing the latch drive assembly .....	3-15
- Door locking mechanism .....	3-15
• Removing the Oven temperature Sensor .....	3-16
• Removing & Replacing the Lift-off Oven Door .....	3-17 ~ 3-18
• Removing the Upper Oven Door Handle & Glass .....	3-19 ~ 3-20

- Removing the Oven Door Handle & Glass..... 3-21 ~ 3-22
- Removing the Oven Door Gasket ..... 3-23
- Removing a Side Panel ..... 3-24

**COMPONENT TEST ..... 4-1 ~ 4-8**

- Convection Motor ..... 4-1
- Door locking Motor ..... 4-2
- Micro Switch..... 4-2
- Oven Sensor ..... 4-2
- Door switch ..... 4-3
- Oven lamp ..... 4-3
- Upper oven Broil heater ..... 4-3
- Upper oven Bake heater ..... 4-4
- Lower oven Broil heater ..... 4-4
- Lower oven Conv. heater ..... 4-4
- Lower oven Bake heater ..... 4-4
- Appliance outlet..... 4-5
- Appliance outlet circuit breaker ..... 4-5
- Single surface unit(LR, RR) ..... 4-6
- Dual surface unit(LF) ..... 4-7
- Dual surface unit(RF) ..... 4-8
- Center Rear(CR) Element: Warming Zone (Plane Heater) ..... 4-9

**COMPOSITION OF CONTROL ..... 5-1 ~ 5-4**

- Oven system PCB.....5-1
- Cooktop system PCB.....5-1
- Oven relay PCB .....5-2
- SMPS PCB .....5-2
- Cooktop display .....5-3
- Oven display (VFD) .....5-3

**DIAGNOSIS THROUGH SCHEMATIC ..... 6-1**

**CHECK THE FAILURE CODE (F-CODE) ..... 7-1**

**SAFETY CAUTION & ERROR CODE SUMMARY ..... 8-1**

**CHECKING FLOW CHART BY FAILURE ..... 9-1 ~ 9-25**

- No display (No Power) .....9-1 ~ 9-4
- Oven does not heat .....9-5 ~ 9-9
- Cook-top does not heat.....9-10 ~ 9-13
- Door lock system error.....9-14 ~ 9-17
- Oven sensing error.....9-18 ~ 9-20
- Oven hot error.....9-21 ~ 9- 23
- No key input.....9-24
- F-11 error (communication error).....9-25

**TROUBLE SHOOTING ..... 10-1 ~ 10-3**

**SCHEMATIC DIAGRAM ..... 11-1**

- STRIP CIRCUITS ..... 11-2 ~ 11-6

**EXPLODED VIEW ..... 12-1 ~ 12-10**

**REPLACEMENT PARTS LIST ..... 13-1 ~ 13-3**

# GENERAL

## IMPORTANT SAFETY INSTRUCTIONS

Read and follow all instructions before using your oven to prevent the risk of fire, electric shock, injury to person, or damage when using the range. This guide don't cover all possible conditions that may occur. For further assistance contact your service agent or manufacturer.



This is the safety alert symbol. This symbol alerts you to potential hazards that can kill or hurt you and others. All safety messages will follow the safety alert symbol and either the word "WARNING" or "CAUTION". These word means :



### WARNING

This symbol will alert you to hazards or unsafe practices which could cause serious bodily harm or death.



### CAUTION

This symbol will alert you to hazards or unsafe practices which could cause bodily injury or property damage.



### WARNING

- **DO NOT step or sit on the door and install the Anti-Tip Bracket packed with range.**
  - The range could be tipped and injury might result from spilled hot liquid, food, or the range itself.
- **DISCONNECT power supply cord from the outlet before servicing.**
- **Replace all panels and parts before operating.**
- **RECONNECT all grounding devices.**
  - Failure to do so can result in severe personal injury, death or electrical shock.
- **DO NOT touch heating elements or interior surfaces of oven.**
  - Heating element may be hot even though they are dark in color.
  - Interior surfaces of an oven become hot enough to cause burns.
- **During and after use, do not touch, or let clothing or other flammable materials contact heating elements or interior surfaces of oven until they have had sufficient time to cool.**
  - Other surfaces of the appliance may become hot enough to cause burns among these surfaces are oven vent openings and surfaces near these openings, oven doors, and windows of oven doors.
- **DO NOT store items of interest to children in cabinets above a range or on the back guard of a range.**
  - Children climbing on the range to reach items could be seriously injured.



### CAUTION

- **Always use Pot Holders or oven mitts when removing food from the Warming Drawer.**
  - You can be burned as cookware and plates will be hot.
- **Be careful when you work on the electric range handling the sheet metal part.**
  - Sharp edge may be present and you can cut yourself.
- **Be careful not to bend the fan blade**
  - Failure to do so can result in vibration, noise, and poor performance of convection when operating.
- **Be careful not to scratch or chip the oven liner paint when you remove the oven light socket in the next step.**
- **Turn power OFF before removing the Warming Drawer.**
- **Be careful when removing and lifting the door.**
- **DO NOT lift the door by the handle.**
  - Failure to do so can result in personal injury as the door is very heavy.

# GENERAL

## IMPORTANT SAFETY INSTRUCTIONS

- Be sure your appliance is properly installed and grounded by a qualified technician.
- Do not repair or replace any part of the appliance unless specifically recommended in the manual. All other servicing should be referred to a qualified technician.
- Always disconnect power to appliance before servicing by removing the fuse or switching off the circuit breaker

### **WARNING**



- **DO NOT step or sit on the door and install the Anti-Tip Bracket packed with range.**



- The range could be tipped and injury might result from spilled hot liquid, food, or the range itself.

To reduce the risk of tipping of the range, the range must be secured by properly installed anti-tip devices. To check if the bracket is installed properly,

- **Warming drawer** : grasp the top rear edge of the Range and carefully attempt to tilt it forward. verify that the anti-tip devices are engaged.
- **Storage drawer** : Remove drawer and verify leveling leg is inserted into and fully secured by the anti-tip devices.

Refer to the installation manual for proper anti-tip bracket installation.

### **WARNING**

- **DO NOT touch heating elements or interior surfaces of oven.**

- Heating element may be hot even though they are dark in color.
- Interior surfaces of an oven become hot enough to cause burns.

- **During and after use, do not touch, or let clothing or other flammable materials contact heating elements or interior surfaces of oven until they have had sufficient time to cool.**

- Other surfaces of the appliance may become hot enough to cause burns among these surfaces are oven vent openings and surfaces near these openings, oven doors, and windows of oven doors.

### **WARNING**

- **DO NOT store items of interest to children in cabinets above a range or on the back guard of a range.**

- Children climbing on the range to reach items could be seriously injured.

# GENERAL

## IMPORTANT SAFETY INSTRUCTIONS

- **Do Not Leave Children Alone** - Children should not be left alone or unattended in area where appliance is in use. They should never be allowed to sit or stand on any part of the appliance.
- **Never Use Your Appliance for Warming or Heating the Room.**
- **Storage in or on Appliance** – Flammable materials should not be stored in an oven or near surface units. Be sure all packing materials are removed from the appliance before operating it. Keep plastics, clothes and paper away from parts of the appliance that may become hot
- **Wear Proper Apparel** – Loose-fitting or hanging garments should never be worn while using the appliance.
- **Do Not Use Water on Grease Fires** – Turn off oven to avoid spreading the flame. Smother the fire or flame by closing the door or use dry chemical, baking soda or foam- type extinguisher.
- **Use Only Dry Potholders** – Moist or damp potholders on hot surfaces may result in burns from steam.  
Do not let potholder touch hot heating elements. Do not use a towel or other bulky cloth.

### **WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace all panels and parts before operating.**
- **RECONNECT** all grounding devices.  
- Failure to do so can result in severe personal injury, death or electrical shock.

## SURFACE COOKING UNITS

- **Use Proper Pan Size** – This appliance is equipped with one or more surface units of different sizes. Select utensils having flat bottoms large enough to cover the surface unit heating element. The use of undersized utensils will expose a portion of the heating element to direct contact and may result in ignition of clothing. Proper relationship of utensil to burner will also improve efficiency.
- **Never Leave Surface Units Unattended at High Heat Settings** – Boil overs may cause smoking and greasy spillovers may ignite.
- **Make Sure Reflector Pans or Drip Bowls Are in Place** – Absence of these pans or bowls during cooking may subject wiring or components underneath to damage.
- **Protective Liners** – Do not use aluminum foil to line surface unit drip bowls or oven bottoms, except as suggested in the manual. Improper installation of these liners may result in a risk of electric shock, or fire.
- **Glazed Cooking Utensils** – Only certain types of glass, glass/ceramic, ceramic, earthenware, or other glazed utensils are suitable for range-top service without breaking due to the sudden change in temperature.
- **Utensil Handles Should Be Turned Inward and Not Extend Over Adjacent Surface Units** – To reduce the risk of burns, ignition of flammable materials, and spillage due to unintentional contact with the utensil, the handle of a utensil should be positioned so that it is turned inward, and does not extend over adjacent surface units.
- **Do Not Soak Removable Heating Elements** – Heating elements should never be immersed in water.
- Be sure you know which control pads operate each surface unit. Make sure you turned on the correct surface unit.

LGE Internal Use Only

## SELF-CLEAN OVENS

- **Do Not Clean Door Gasket** – The door gasket is essential for a good seal. Care should be taken not to rub, damage, or move the gasket.
- **Do Not Use Oven Cleaners** – No commercial oven cleaner or oven liner protective coating of any kind should be used in or around any part of the oven.
- **Clean in the self-clean cycle only parts listed in this manual.** Before self-cleaning the oven, remove the broiler pan and any utensils from the oven.
- **Never keep pet birds in the kitchen** – the health of birds is extremely sensitive to the fumes released during an oven self-clean cycle. Fumes may be harmful or fatal to birds. Move birds to well-ventilated room.
- **Important Instruction** – In the event the self-clean mode “F” code goes on, or three long beeps sound, oven is malfunctioning in the self-clean mode. Turn off or disconnect appliance from power supply and have serviced by a qualified technician.

## VENTILATING HOODS:

- **Clean Ventilating Hoods Frequently** – Grease should not be allowed to accumulate on hood or filter.
- **When flaming foods under the hood, turn the fan on.**

## OVEN

- **Use Care When Opening Door** – Let hot air or steam escape before you remove or replace food in the oven
- **Do Not Heat Unopened Food Containers** – Build-up of pressure may cause container to burst and result in injury.
- **Keep Oven Vent Ducts Unobstructed** – the oven vent is located above the left rear surface unit. this area could become hot during oven use. Never block this vent and never place plastic or heat-sensitive items on vent
- **Placement of Oven Racks** – Always place oven racks in desired location while oven is cool. If rack must be moved while oven is hot, do not let potholder contact hot heating element in oven.
- **Do Not** allow aluminum foil or meat probe to contact heating elements.

## GLASS/CERAMIC COOKING SURFACES

- **Do Not Cook on Broken Cook-Top** – If cook-top should break, cleaning solutions and spillovers may penetrate the broken cook-top and create a risk of electric shock. Contact a qualified technician immediately.
- **Clean Cook-Top With Caution** – If a wet sponge or cloth is used to wipe spills on a hot cooking area, be careful to avoid steam burn. Some cleaners can produce noxious fumes if applied to a hot surface.

## DEEP FAT FRYERS:

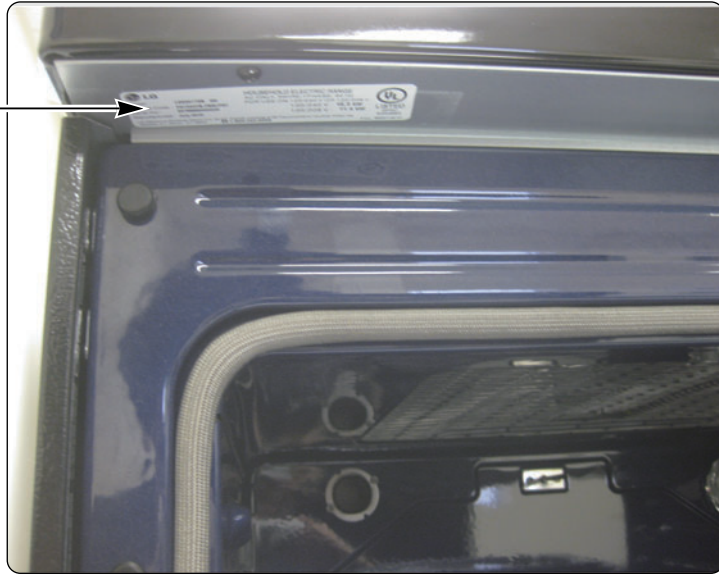
- Use extreme caution when moving the grease kettle or disposing of hot grease.

# GENERAL

## MODEL & SERIAL NUMBER LABEL AND TECH SHEET LOCATIONS

The Model/Serial Number label and Tech Sheet locations are shown below.

**Model & Serial  
Number Location**



**Tech Sheet Location  
(On Low Rear Cover)**





# GENERAL

## SPECIFICATIONS

Model Number		LDE3017ST / LDE3017SB / LDE3017SW
Category		Double oven range
<b>Overall</b>	Width	30"
	Installation type	Freestanding
	Color availability	STS
<b>Control</b>	Oven	Glass touch
	Cooktop	Glass touch
	Display	Scroll VFD
	Electronic clock & timer	Yes
	Control lock capability	Yes
	Audible preheat signal	Yes
	Special function	Setting(7 categories) 1. Convection auto conversion On/Off 2. Thermostat Adjustment 3. Select Language 4. Preheating alarm light ON/OFF 5. Adjust beeper volume 6. Select fahrenheit or celsius temperature 7. Change hour mode on Clock
<b>Cooktop</b>	Material	Ceramic glass
	# of element	5
<b>Power</b>	LR	6"-1200W
	RR	6"-1200W
	CR	7"-100W
	LF	9"/6"-3000W/1400W
	RF	12"/9"-2700W/1700W
<b>Oven</b>	Capacity(cu.ft)	2.32(Upper)/4.38(Lower)
	Broil element	3200W(1600W*2, Upper)/3800W(Lower)
	Bake element	2100W(Upper)/2500W(Lower)
	Convection system	No(Upper)/Yes(Lower)
	Convection element	2000W(Lower)
	# of Racks	1(upper)/2(Lower)
	Interior oven light	1(upper)/2(Lower)
	Proof	Yes(Lower)
	Warm	Yes(Upper)/Yes(Lower)
	Favorites	Yes(Lower) 1.Bread 2.Meat 3.Chicken
	Broiler pan	No
	Kids meal	Yes(upper)/No(Lower)
	Sabbath mode	Yes
<b>Dimensions (inch)</b>	Upper oven Interior(WxHxD)	24 1/2 x 8 11/16 x 18 15/16
	Lower oven Interior(WxHxD)	24 1/2 x 16 5/16 x 18 15/16
	Exterior-Width	29 7/8
	Exterior-Height	36 (cooktop), 47 7/16 (Back Guard)
	Exterior-Depth	25 13/16 (Door), 28 3/16 (Handle)
	Net weight:Lbs(kg)	219.8(99.7)
<b>Power</b>	Rating	15.3KW(120/240V AC)/11.4KW(120/240V AC)

# USING YOUR RANGE

## GENERAL INFORMATION

### Rating Label

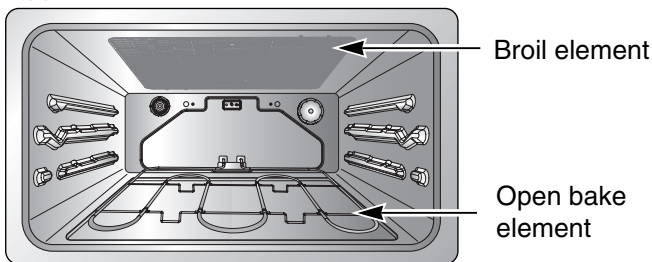
Model numbers are recorded on the rating label. Rating label is located on the upper front left corner of the upper oven frame. It can be seen by opening the upper oven door. Before ordering parts, write down the correct model and serial number from rating label. This avoids incorrect shipments and delays. Please refer to parts reference material when ordering replacement parts.

### Functional Operation

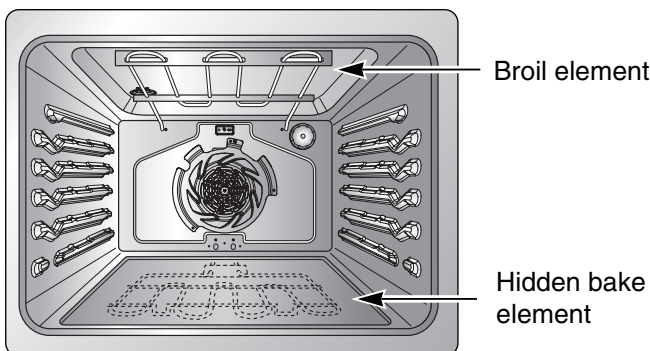
#### Bake Mode (For both the Upper & Lower oven)

Top and hidden bottom elements operate during bake. Bake can be used to cook foods which are normally baked. Oven must be preheated.

#### Upper oven



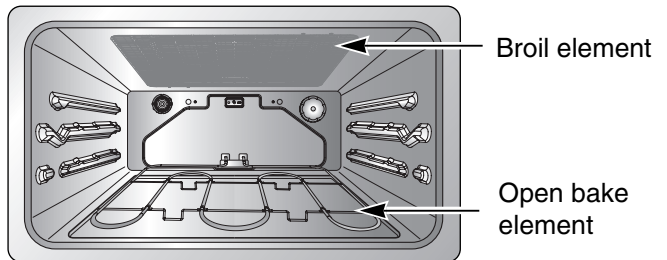
#### Low oven



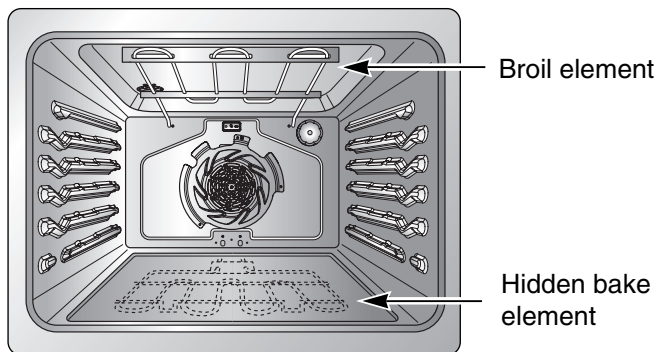
#### Broil Mode (For both the Upper & Lower oven)

Top element operates during broil. Broil can be used to cook foods which are normally broiled. Preheating is not required when using broil. All foods should be turned at least once except fish, which does not need to be turned.

#### Upper oven

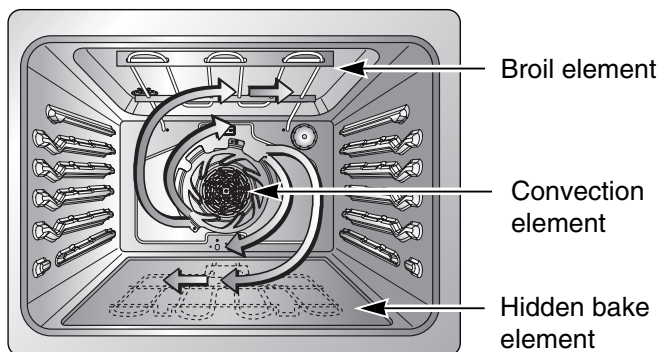


#### Low oven



#### Convection Bake / Roast Mode (For the Lower oven only)

Upper element, lower element, Rear element and fan operate during convection bake. Convection bake should be used for cooking casseroles and roasting meats. Oven should be preheated for best results when using convection bake. Pans do not need to be staggered. Cooks approximately 25% quicker than bake.

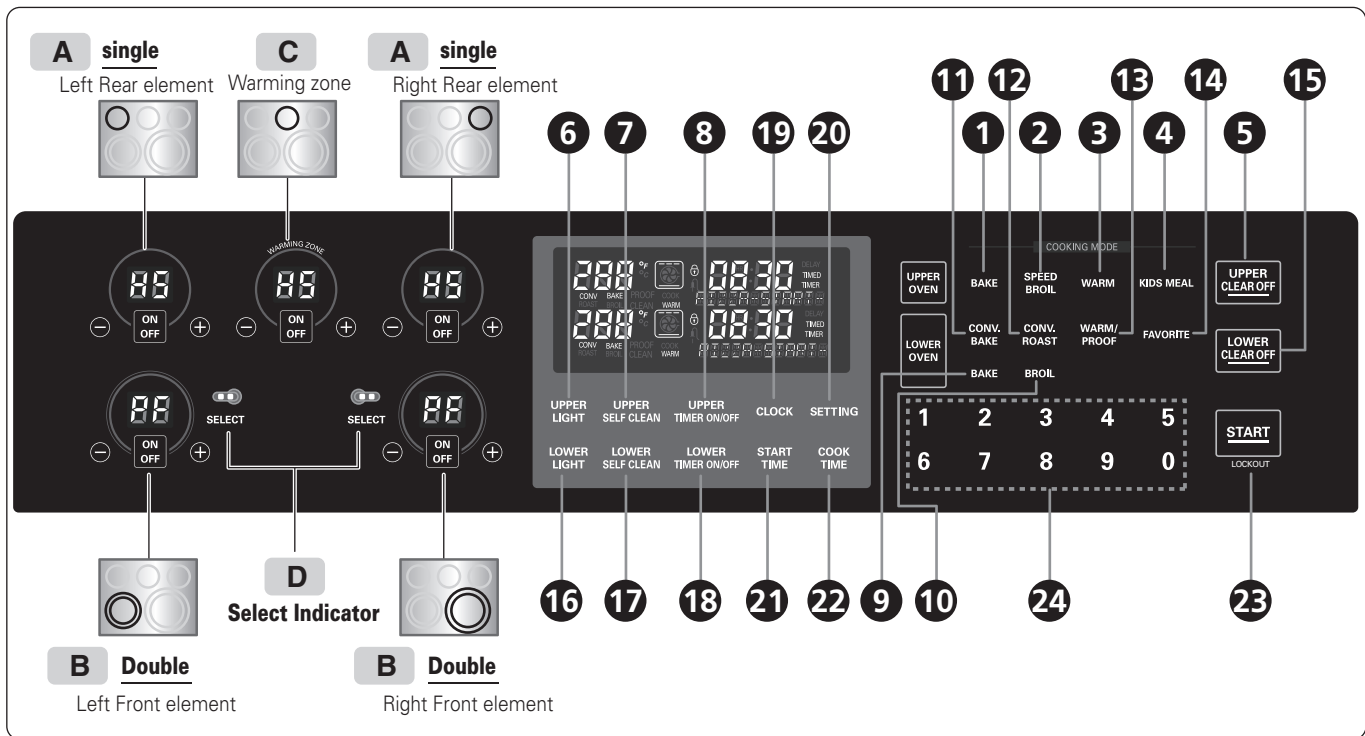


#### Cooking Guide

Refer to the owners manual for recommendations of times and temperatures. Times, rack position, and temperatures may vary depending on conditions and food type. For best results, always check food at minimum time. When roasting, choose rack position based on size of food item.

# USING YOUR RANGE

## CONTROL PANEL FEATURES



### UPPER OVEN

- ① **BAKE** : Use to select the Bake function of the upper oven.
- ② **SPEED BROIL** : Use to select the Speed Broil function of the upper oven.
- ③ **WARM** : Use to select the Warm function of the upper oven.
- ④ **KIDS MEAL** : Use to select the Kids meal function of the upper oven.
- ⑤ **UPPER CLEAR OFF** : Use to stop cooking, cancel settings of the upper oven.
- ⑥ **UPPER LIGHT** : Use to turn the Oven lights of the upper oven on and off.
- ⑦ **UPPER SELF CLEAN**: Use to select the Self Clean of the upper oven.
- ⑧ **UPPER TIMER ON/OFF**: Use to set or cancel the timer of the upper oven.

### LOWER OVEN

- ⑨ **BAKE** : Use to select the Bake function of the lower oven.
- ⑩ **BROIL** : Use to select the Broil function of the lower oven.
- ⑪ **CONV. BAKE** : Use to select the Conv. bake function of the lower oven.
- ⑫ **CONV. ROAST** : Use to select the Conv. roast function of the lower oven.
- ⑬ **WARM/PROOF** : Use to select the Warm/Proof function of the lower oven.
- ⑭ **FAVORITE** : Use to select the Favorite function of the lower oven.
- ⑮ **LOWER CLEAR OFF** : Use to stop cooking, cancel settings of the lower oven.
- ⑯ **LOWER LIGHT** : Use to turn the Oven lights of the lower oven on and off.
- ⑰ **LOWER SELF CLEAN** : Use to select the Self Clean of the lower oven.
- ⑱ **LOWER TIMER ON/OFF** : Use to set or cancel the timer of the lower oven.

# USING YOUR RANGE

## CONTROL PANEL FEATURES

### COMMON FUNCTION

- ⑱ **CLOCK** : Use to set the time of day.
- ⑲ **SETTING** : Use to set the time of day.
- ⑳ **START TIME** : Use to set delay time. (Bake, Conv. Bake/Roast, Self clean only)
- ㉑ **COOK TIME** : Use to set the length of the cook time. (Bake, Conv. Bake/Roast only)
- ㉒ **START** : Use to START all functions in the oven. To activate LOCKOUT press and hold for 3 seconds.
- ㉓ **NUMER PADS** : Use to enter a temperature and all times.

- A Single element**  
: Left Rear, Right Rear Indicator
- B Double element**  
: Left Front, Right Front Indicator
- C Warming Zone** : Center Rear

# USING YOUR RANGE

## A To turn on a SINGLE surface unit (Left Rear, Right Rear)



1. Press ON/OFF pad for the desired element position.
2. Use (⊖/⊕) pad to choose the desired power setting. (⊖/⊕) is continuously accessible.

## B To turn on a DOUBLE surface unit (Left Front, Right Front)



1. Press ON/OFF pad for the desired element position.
2. Press SELECT for double or single element function.
3. Use (⊖/⊕) pad to choose the desired power setting. (⊖/⊕) is continuously accessible.

### NOTE:

- Each time a pad is touch a beep will sound.
- The power level decreases or increases by 0.5 from 9.0 through 3.0. (by 0.2 from 3.0 through 1.0)
- Lo is the lowest power level available.
- “HS” will appear when the unit is hot to touch

## C To turn on a Warming zone. (Center)

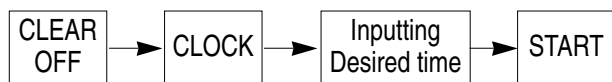


1. Press ON/OFF pad at the Warming zone control position.
2. Use (⊖/⊕) pad to choose the desired power setting. (⊖/⊕) is continuously accessible.

### NOTE:

- Each time a pad is touch a beep will sound.
- The controls for the warming zone allow for 5 different heat settings : Lo~Hi
- “HS” will appear when the unit is hot to touch.

## 1. SETTING THE CLOCK



## 2. START, CLEAN OFF AND ON/OFF PAD (FOR BOTH THE UPPER & LOWER OVEN)

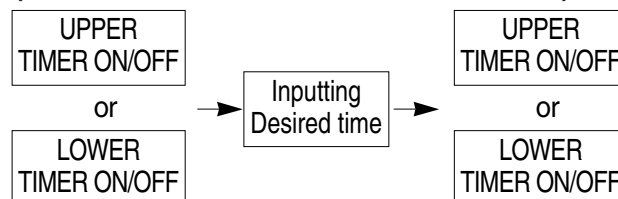
1. Touch **START** pad to start oven.
2. Touch **UPPER or LOWER CLEAR OFF** pad to cancel a program during cooking or Erase during programming.
3. Touch **ON/OFF** pad to start or cancel the surface unit.

## 3. TO TURN ON/OFF THE OVEN LIGHT (For both the Upper & Lower oven)

The oven light automatically turns ON when the door is opened. The oven light may also be manually turned ON or OFF by pressing the **UPPER or LOWER LIGHT** pad

**NOTE:** The oven light cannot be turned on if self-clean feature is activated.

## 4. TIMER ON/OFF (FOR BOTH THE UPPER & LOWER OVEN)



To cancel timer at any time, touch **UPPER or LOWER TIMER ON/OFF** pad.

### NOTE:

1. If you press **UPPER or LOWER TIMER ON/OFF** pad once, this allows you to select "seconds" (for example: if you press “5” and “6”, it means 56 seconds)
2. If you press **UPPER or LOWER TIMER ON/OFF** pad twice, this allows you to select "minutes" (for example: if you press “5” and “6”, it means 56 minutes)

## 5. SETTING PAD: 6 types of category

### 1) CONVECTION AUTO CONVERSION

1. Press **SETTING** pad once
2. Press “1” pad for ENABLE or “2” pad for DISABLE
3. Press **START** pad.

### 2) THERMOSTAT ADJUSTMENT

The oven temperature can be adjusted from -35°F (-19°C) to 35°F (19°C).

**NOTE:** The thermostat adjustments made with this feature will just change Bake, Convection Bake and Convection Roast temperature.

### To increase the oven temperature

For the Lower oven temperature adjustment.

1. Press **SETTING** pad 2 times for the lower oven, “L-Aj” will appear in the display.
2. Press **the desired temperature.**
3. Press **START** pad.

For the Upper oven temperature adjustment.

1. Press **SETTING** pad 3 times for the upper oven, “U-Aj” will appear in the display.
2. Press **the desired temperature.**
3. Press **START** pad.

# USING YOUR RANGE

## To decrease the oven temperature

For the Lower oven temperature adjustment.

1. Press **SETTING** pad 2 times for the lower oven, "L-Aj" will appear in the display.
2. Press the desired temperature.
3. Press **SETTING** pad once to change the temperature into (-) value.
4. Press **START** pad.

For the Upper oven temperature adjustment.

1. Press **SETTING** pad 3 times for the upper oven, "U-Aj" will appear in the display.
2. Press **the desired temperature.**
3. Press **SETTING** pad once to change the temperature into (-) value.
4. Press **START** pad.

## 3) LANGUAGE SELECTION

(English, Spanish, French )

1. Press **SETTING** pad 4 times
2. Press "2" pad for **SPANISH**  
Press "3" pad for **FRENCH**
3. Press **START** pad

## 4) PREHEATING ALARM LIGHT ON/OFF

1. Press **SETTING** pad 5 times
2. Press "1" pad for **ON**  
or "2" pad for **OFF**
3. Press **START** pad

## 5) BEEPER VOLUME

1. Press **SETTING** pad 6 times
2. Press "1" pad for **loud** level,  
"2" pad for **normal** level,  
"3" pad for **low** level,  
"4" pad for **mute** level,
3. Press **START** pad

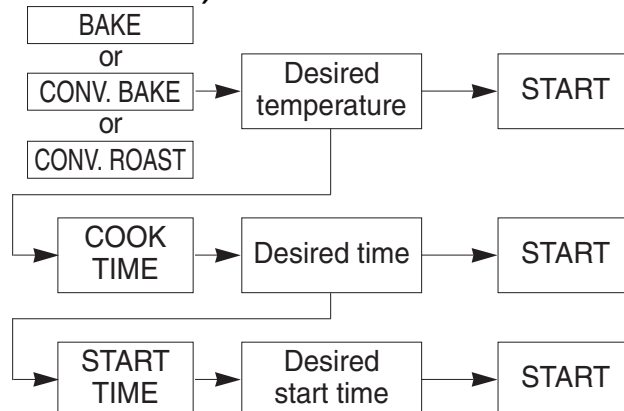
## 6) TEMPERATURE UNIT (°F or °C)

1. Press **SETTING** pad 7 times
2. Press "1" pad for **°F**  
or "2" pad for **°C**
3. Press **START** pad

## 7) HOUR MODE ON CLOCK(12HR or 24HR)

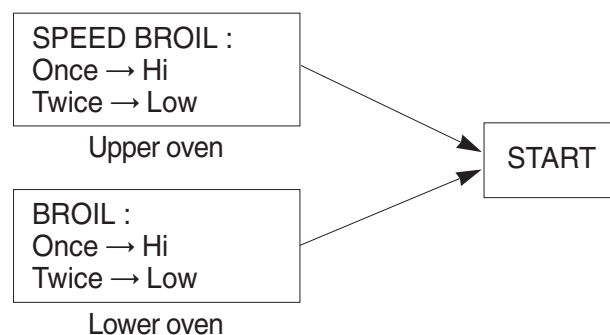
1. Press **SETTING** pad 8 times.
2. Press "1" pad for **12 Hr**  
or "2" pad for **24 Hr.**
3. Press **START** pad.

## 6. TIMED COOK, DELAYED TIMED COOK (For the Upper & Lower Bake, Lower CONV. Bake & Roast)



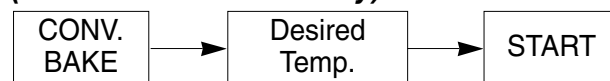
## 7. BROIL

(For both the Upper & Lower oven)



## 8. CONVECTION BAKE

(For the Lower oven only)



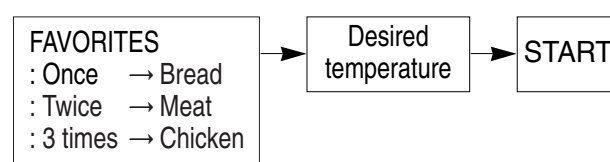
## 9. CONVECTION ROAST

(For the Lower oven only)



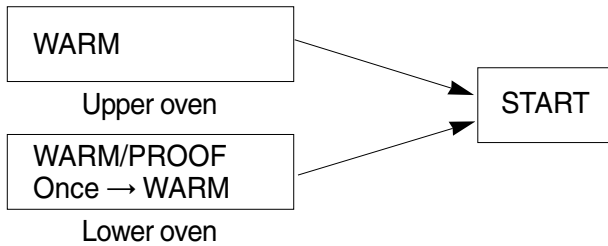
## 10. FAVORITES

(For the Lower oven only)

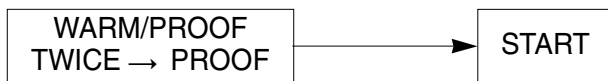


# USING YOUR RANGE

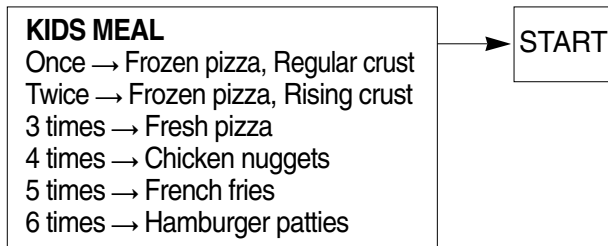
## 11. WARM (For both the Upper & Lower oven)



## 12. PROOF (For the Lower oven only)



## 13. KIDS MEAL (For the Upper oven only)



## 14 SABBATH MODE

(For both the Upper & Lower oven)

Press and hold the **START** pad 3 seconds  
(In order to activate or deactivate SABBATH MODE)

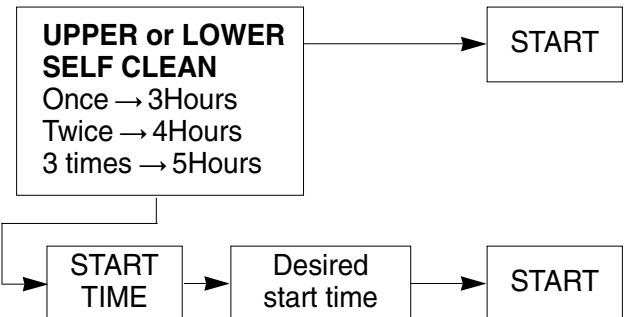
## 15. LOCKOUT

(For the Upper & Lower Door lock,  
Oven & Cooktop control lock)

Press and hold the **START** pad 3 seconds  
(In order to activate or deactivate LOCKOUT)

## 16. SELF CLEAN

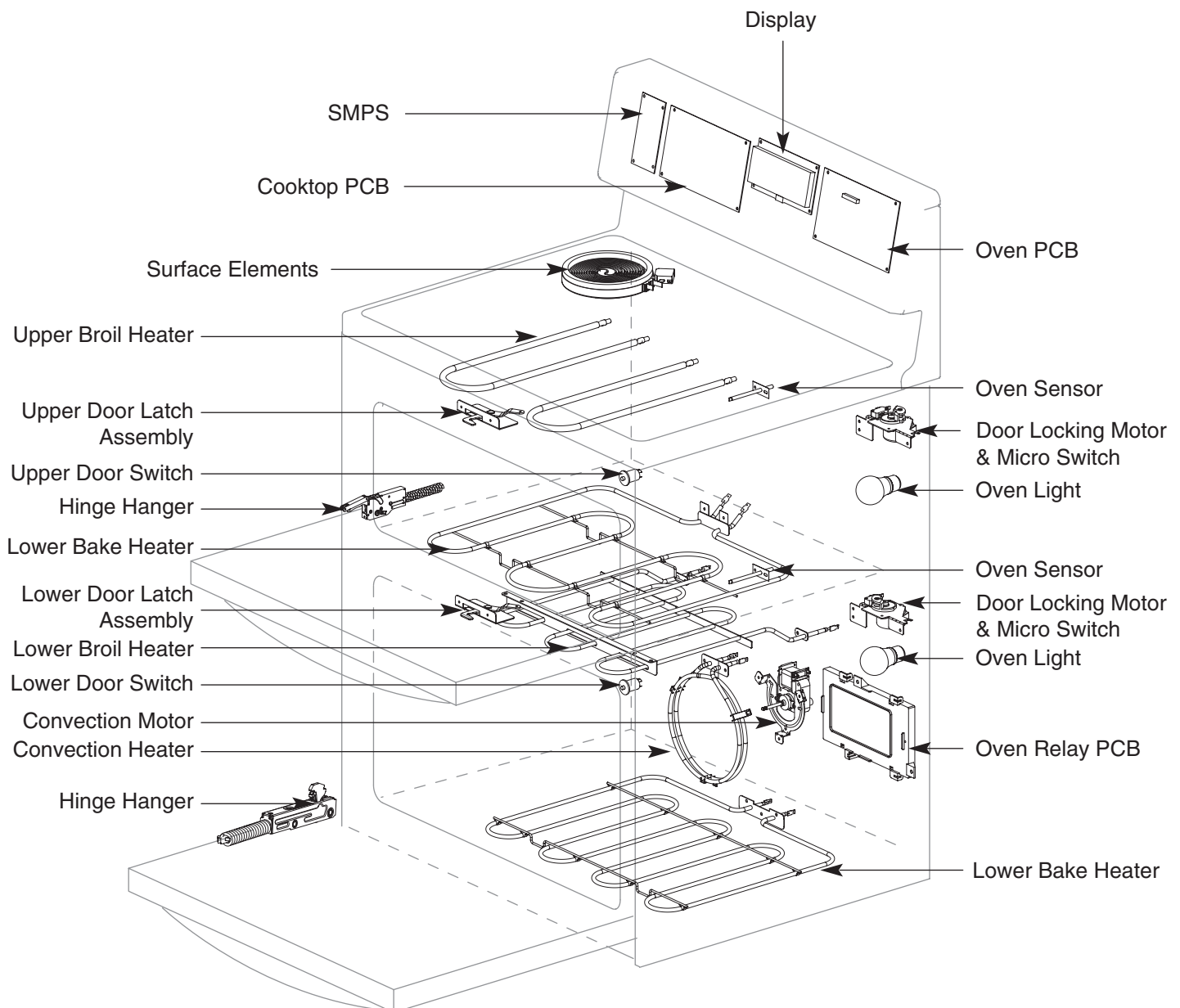
(For the Upper & Lower oven)



# COMPONENT ACCESS

This section instructs you on how to service each component inside the range. The components and their locations are shown below.

## COMPONENT LOCATIONS





# COMPONENT ACCESS

## REMOVING THE BACK, CONTROL COVER AND KEY MEMBRANE ASSEMBLY

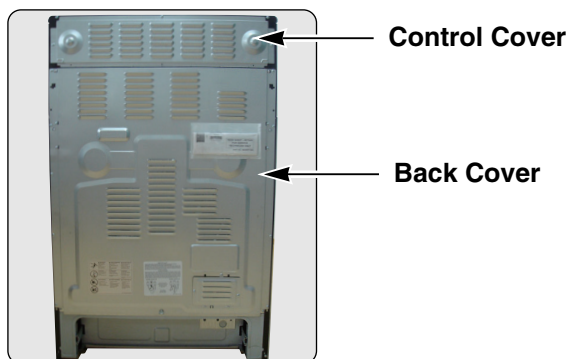
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

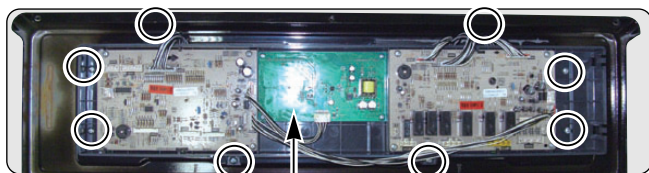
### **⚠ CAUTION**

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

1. Turn off the electrical supply going to the range.
2. Pull the range away from the wall so that you can access the rear panel.
3. Remove the 3 screws from the rear control cover and remove the cover.
4. Remove the 18 screws from the rear back cover and remove the cover.

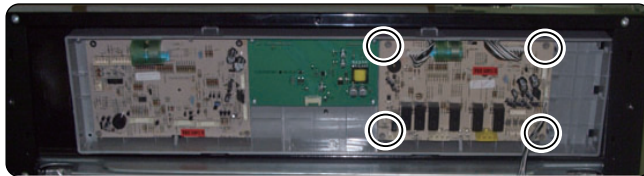


5. Remove the 8 screws of PCB assembly and the 1 Ground screw after unplugging the connectors.

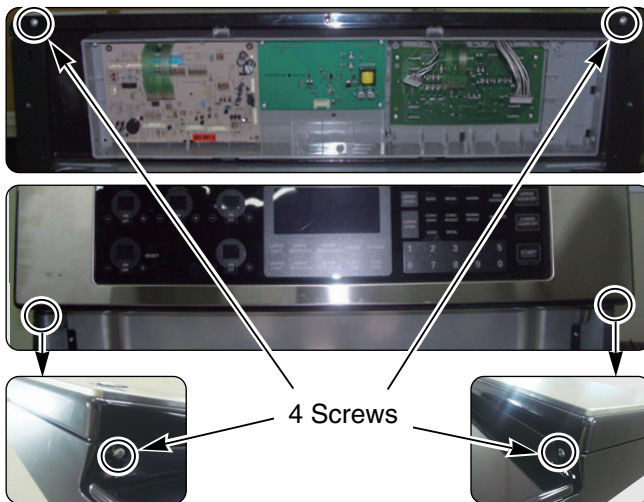


PCB Assembly

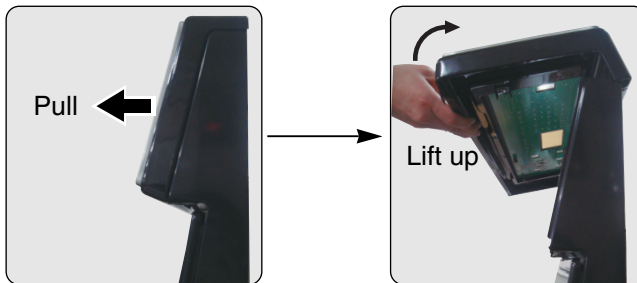
6. Remove the 4 screws of the cook-top display PCB from the controller sub assembly.



7. Remove the 4 screws of the controller sub assembly.



8. Pull the controller sub assembly and lift it up from the supporters.



9. For servicing the KEY Membrane, the controller sub assembly should be separated in whole.



# COMPONENT ACCESS

## REMOVING THE CONTROL POWER SUPPLY AND POWER CONTROL BOARD (PCB)

### **WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

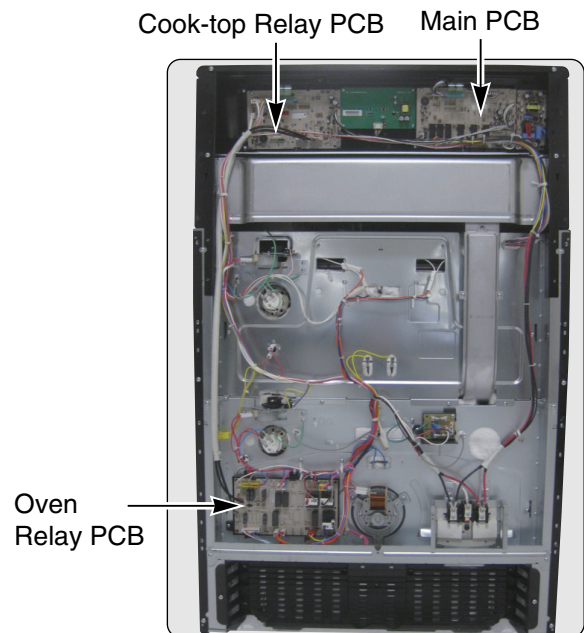
### **CAUTION**

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

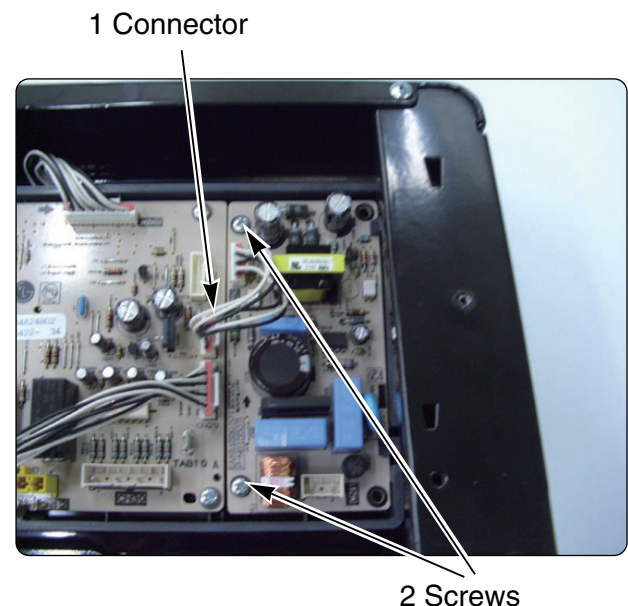
1. Turn off the electrical supply going to the range.
2. Pull the range away from the wall so that you can access the rear panel.
3. Remove back cover & control cover (See step 3~4 on page 3-2)

4. There are 3 PCB's (power control board). When you check PCB, check the proper pcb in default mode and check main pcb.

**NOTE:** Refer to the page 5-1~5-4 for composition of control board



5. **To remove the control power supply:**
  - a) Disconnect 1 connector.
  - b) Remove the 2 screws.



# COMPONENT ACCESS

## REMOVING THE SURFACE ELEMENTS AND THE CERAMIC GLASS COOKTOP

### WARNING

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

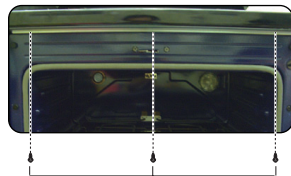
### CERAMIC GLASS COOKTOP REMOVAL

#### Step. 1

Unplug the cord or disconnect power

#### Step. 2

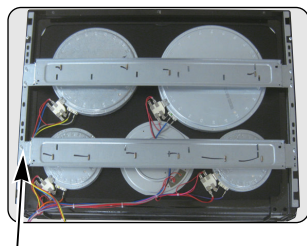
Open oven door and remove the 3 screws located at the front of the cook-top, then close the door.



3 Screws

#### Step. 3

Lift up the cooktop front and Remove the ground screw securing ground wire



Ground Screws

#### Step. 4

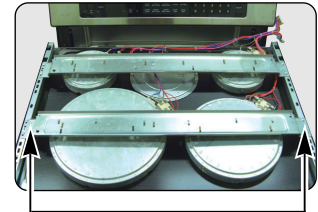
Slightly lift up and pull up the cook-top and then unplug the 2 connectors at the back by squeezing side tabs



2 Connectors

#### Step. 5

Protect the cooktop surface and turn the assembly over.

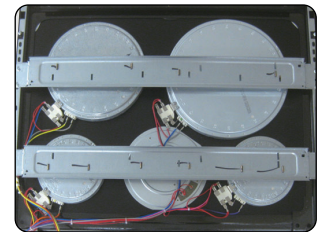


Bracket screws

#### Step. 6

To remove the surface elements

- Remove the wires from the element and limiter terminals.
- Remove the element bracket screw (shown above) for the element you are servicing.
- Carefully lift the bottom of the bracket just far enough to remove the element.



**REASSEMBLY NOTE:** When you reinstall the element make sure that the wires are inserted into the correct tap then reinstall the bracket screw to secure it to the cooktop.

# COMPONENT ACCESS

## REMOVING THE DOOR LATCH & UPPER DOOR SWITCH (For the Upper oven only)

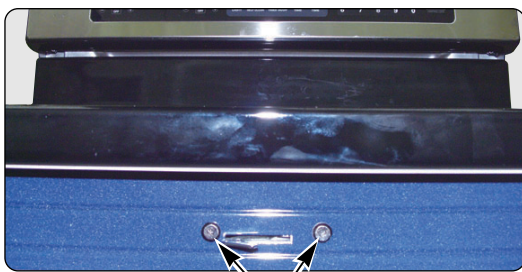
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

### **⚠ CAUTION**

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

1. Turn off the electrical supply going to the range.
2. Open the upper oven door.
3. Raise the cooktop (see page 3-4 for the procedure).
4. To remove the upper door latch:
  - a) Remove the two screws from the upper door latch and remove the latch.



2 Screws

- b) Remove the door latch from the burner box and unhook the actuating rod.



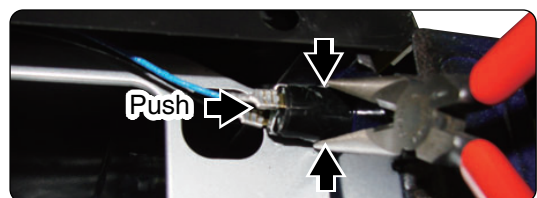
Unhook  
Actuating  
Rod

5. To remove the upper door switch:
  - a) If not already done, raise the cooktop (see page 3-4 for the procedure).
  - b) Remove the Upper side brackets by loosening the screws.

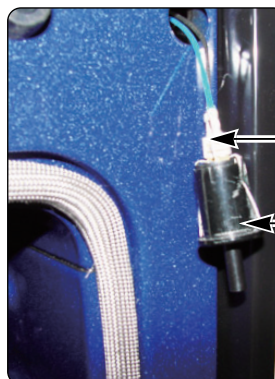


Upper side bracket

- c) Remove the upper door switch from the range. To do this, squeeze tabs and use a ratchet extension or a small socket, and tap it out of the hole with a hammer.



- d) Disconnect the wires from the terminals.



Wires

Door  
Switch

# COMPONENT ACCESS

## REMOVING THE DOOR LATCH & LOWER DOOR SWITCH (For the Lower oven only)

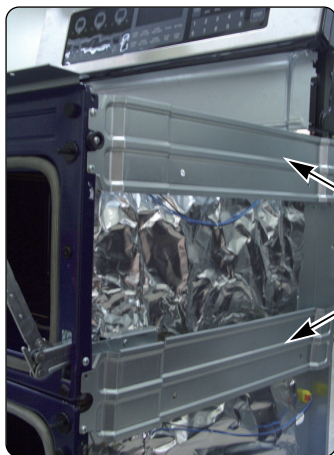
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

### **⚠ CAUTION**

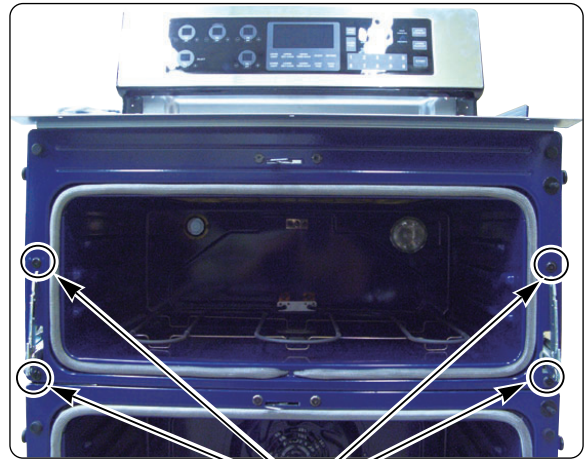
- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

1. Turn off the electrical supply going to the range.
2. Remove the Upper & Lower door.  
(See page 3-17, 3-18 for the procedure).
3. Remove the Side panels.  
(See page 3-21 for the procedure.)
4. To remove the Lower door latch.
  - a) Remove the Lower side brackets(left&right) by loosening up the screws.



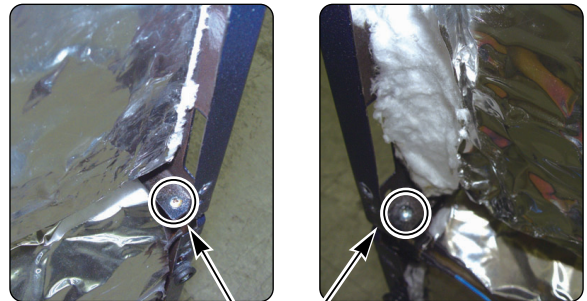
Side  
Bracket

- b) Remove 4 screws to detach 2 hinge supporters.



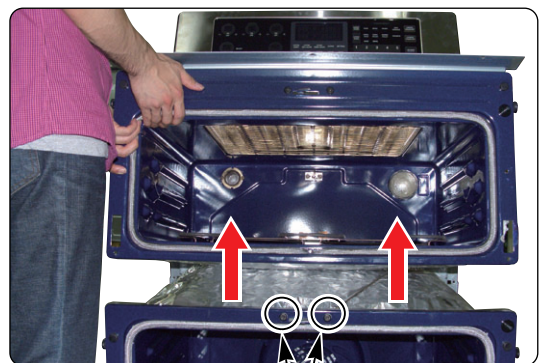
4 screws

- c) Remove 2 screws to widen the space between Upper & Lower cavities.



2 screws

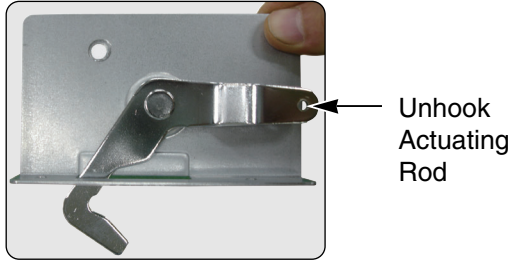
- d) Tilt the Upper cavity cautiously, make sure that the controller does not fall down the floor.
- e) Remove 2 screws to replace the lower latch.



2 screws

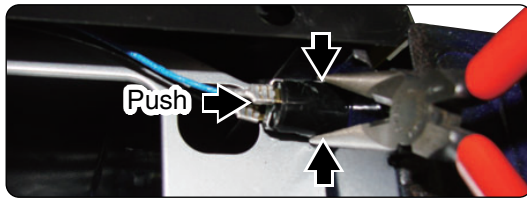
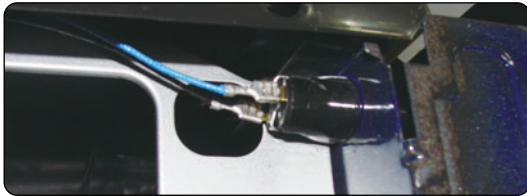
# COMPONENT ACCESS

f) Pull out the Lower latch from the bar.

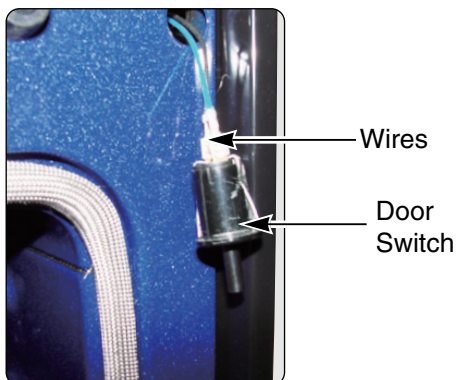


5. To remove the lower door switch:

- a) If not already done, raise the cooktop (see page 3-4 for the procedure).
- b) Remove the lower door switch from the range. To do this, squeeze tabs and use a ratchet extension or a small socket, and tap it out of the hole with a hammer.



c) Disconnect the wires from the terminals.



# COMPONENT ACCESS

## REMOVING THE BROIL ELEMENT

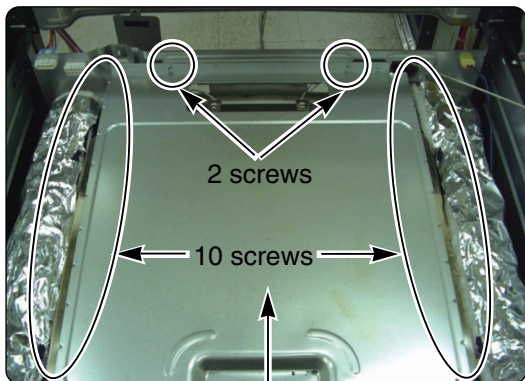
### ⚠ WARNING

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

### ⚠ CAUTION

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

1. Turn off the electrical supply going to the range.
2. Remove the cooktop (See page 3-4 for the procedure).
3. Remove 12 screws to detach the Insulator cover & Ceramic fiber.

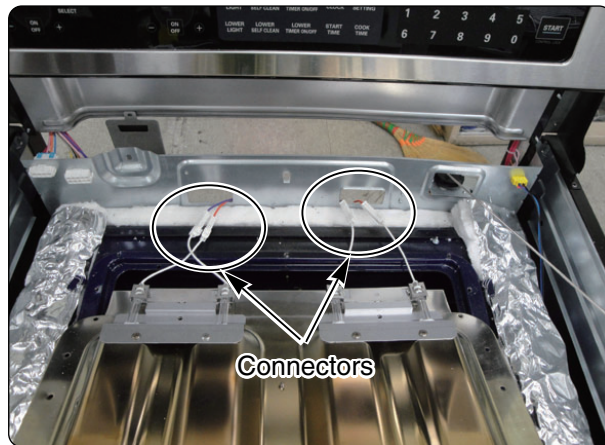
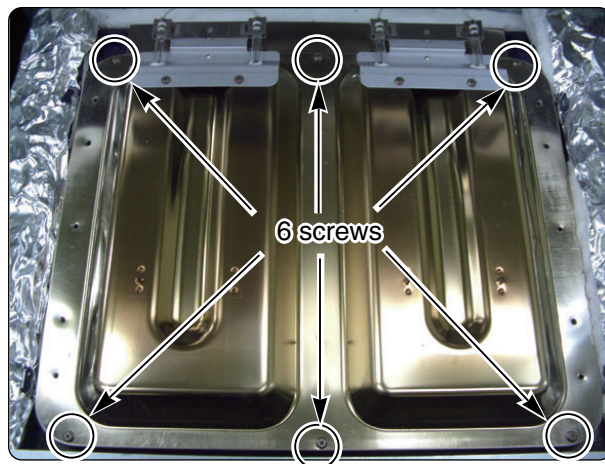


Insulator cover

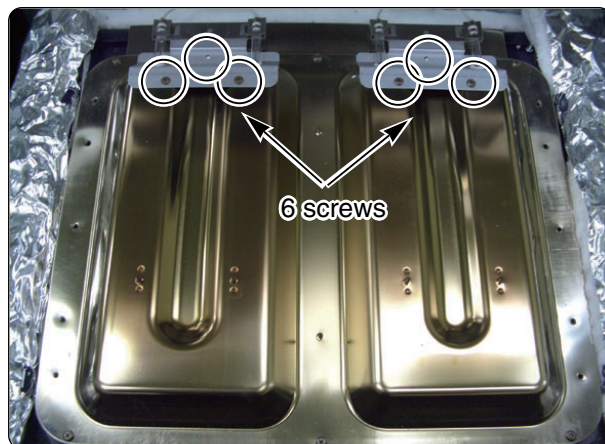


Ceramic fiber

4. Remove 6 screws.  
Pull the Upper broil element assembly forward so that you can access connectors and disconnect wires.

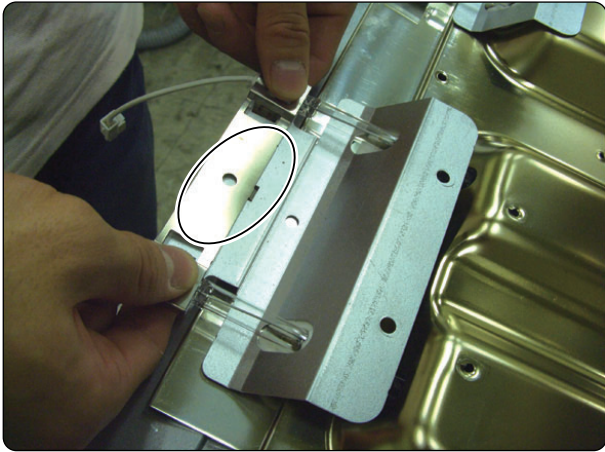


5. Remove 6 screws to detach the holder assembly.

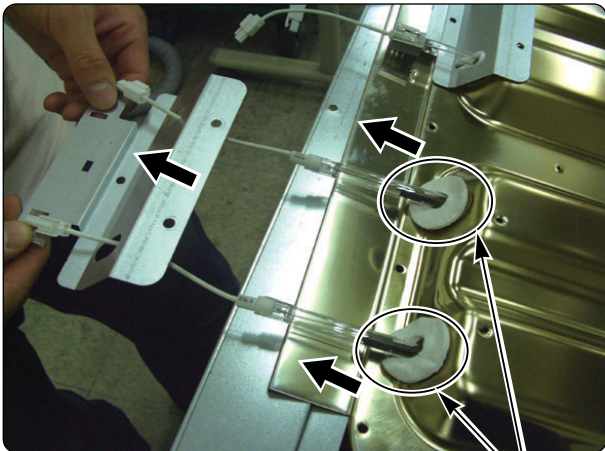


# COMPONENT ACCESS

6. Remove the glass tube holder by pushing aside both side tabs.



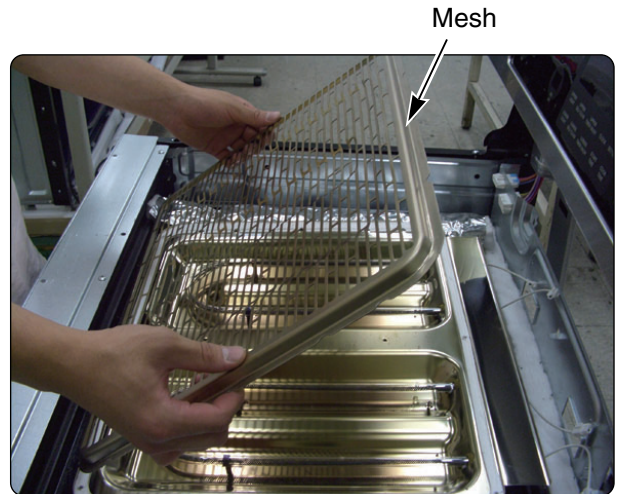
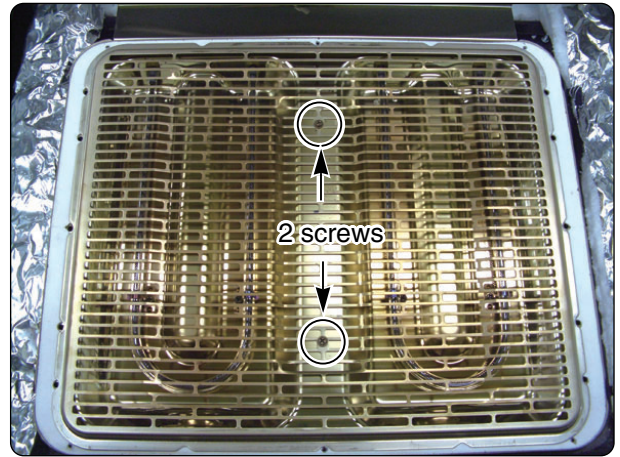
7. Remove the holder bracket, glass fiber & brass sheet in order.



Holder bracket

Ceramic fiber & Brass sheet

8. Turn the element assembly upside down. Remove 2 screws to detach the mesh.



9. Pull up the broil elements and remove from the assembly.





# COMPONENT ACCESS

## REMOVING THE BROIL ELEMENT (For the Lower oven)

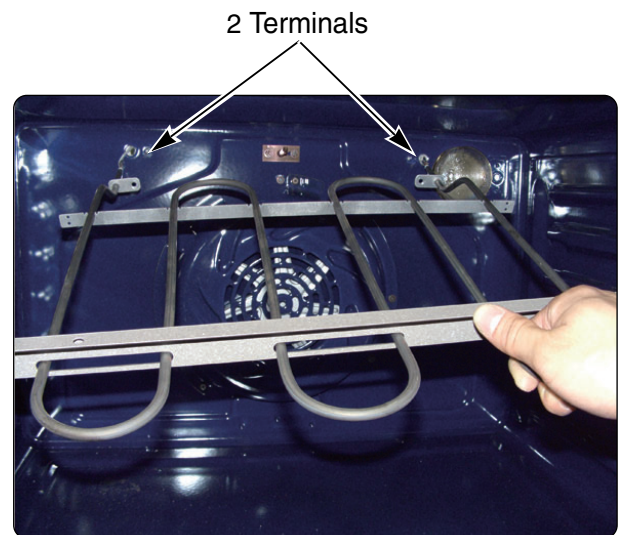
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

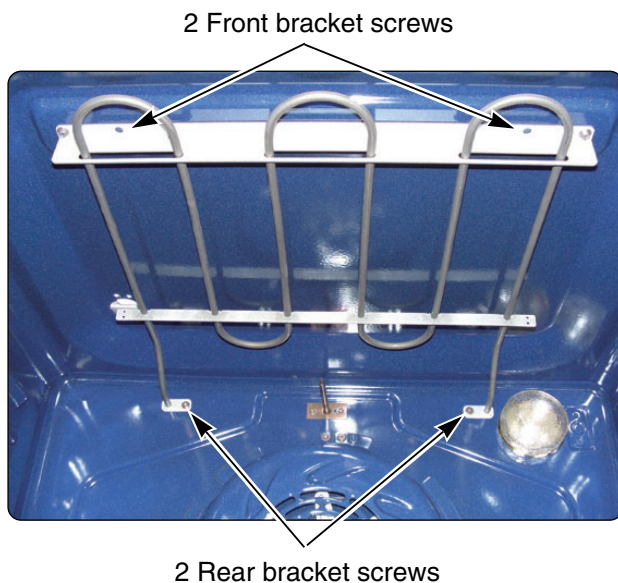
### **⚠ CAUTION**

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

- b) Pull the element forward so that you can access the terminals and disconnect the wires.



1. Turn off the electrical supply going to the range.
2. Open the oven door and remove the racks from inside the oven.
3. **To remove the broil element:**
  - a) Remove the 4 screws from the front and rear brackets.



# COMPONENT ACCESS

## REMOVING THE EXPOSED BAKE ELEMENT (For the Upper oven only)

### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

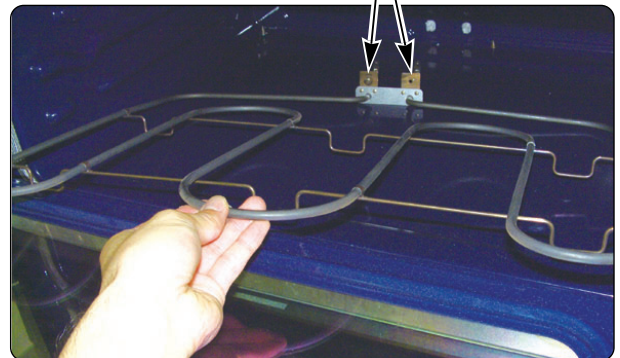
### **⚠ CAUTION**

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

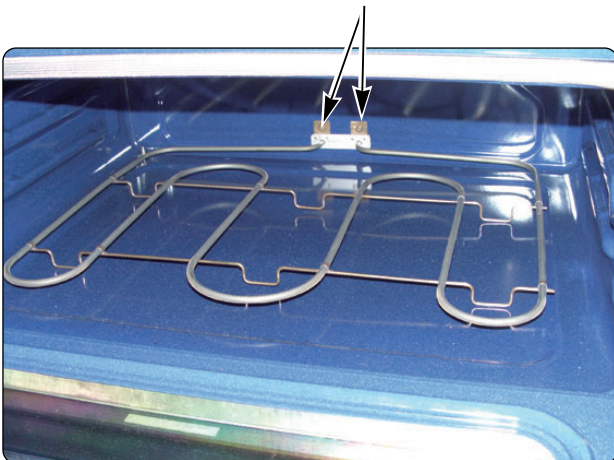
1. Turn off the electrical supply going to the range.
2. Open the oven door and remove the racks from inside the oven.
3. **To remove the Upper bake element:**
  - a) Remove the 2 screws from the rear bracket.

- b) Pull the element forward so that you can access the terminals and disconnect the wires.

2 Terminals



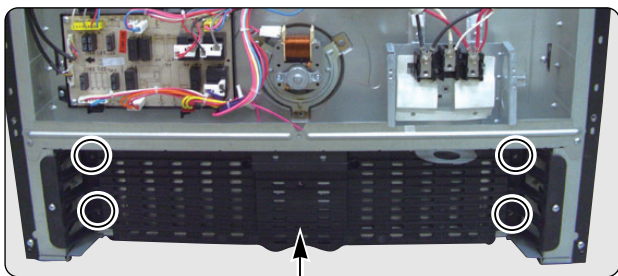
2 Screws



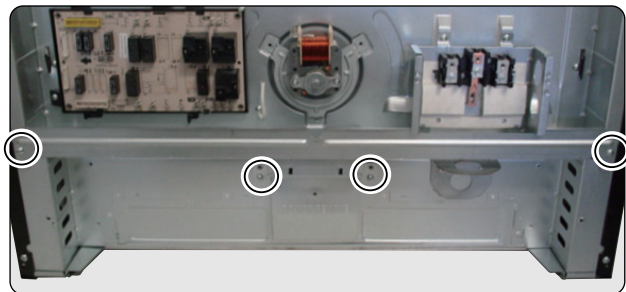
# COMPONENT ACCESS

## REMOVING THE HIDDEN BAKE ELEMENT (For the Lower oven only)

1. Unplug range or disconnect power.
2. Pull the range out of its mounting location so that you can access the rear of the unit.
3. Remove the rear panel from the unit.  
(See step 3 on page 3-2 for procedure)
4. Remove the 4 screws to detach the Powercord protection cover from the body.

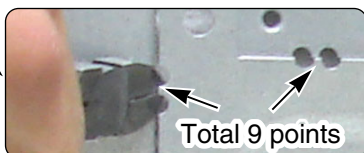


Powercord protection cover

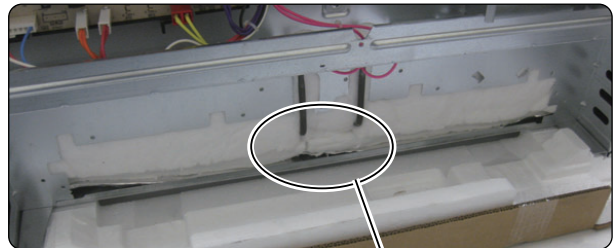


Remove the 4 screw to detach the bake heater cover and barrier

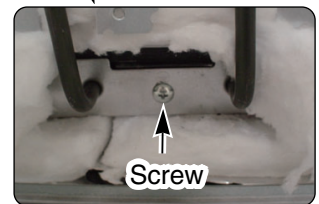
5. Set the Powercord protection cover aside.
6. Cut the 9 points of flange and remove the bake heater cover.



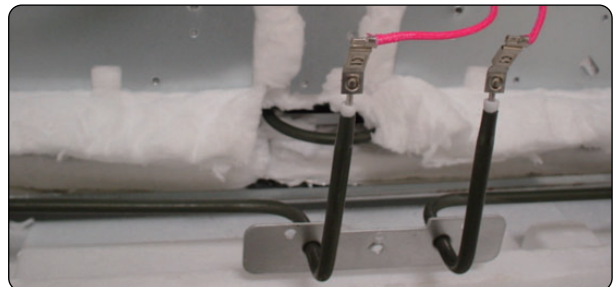
7. Bend the insulation glass fiber up.



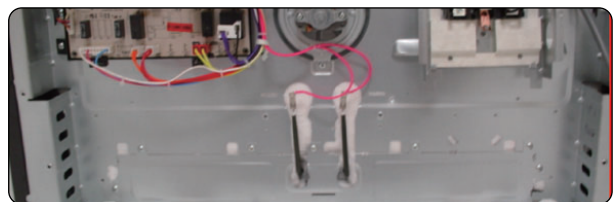
8. Remove one screws



9. Carefully pull the hidden bake element and its mounting bracket out of the range.



## REPLACING THE MOUNTING BRACKET

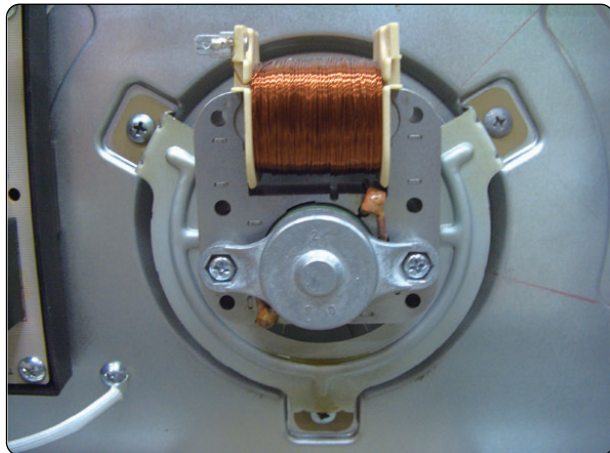


1. Drive the two screws

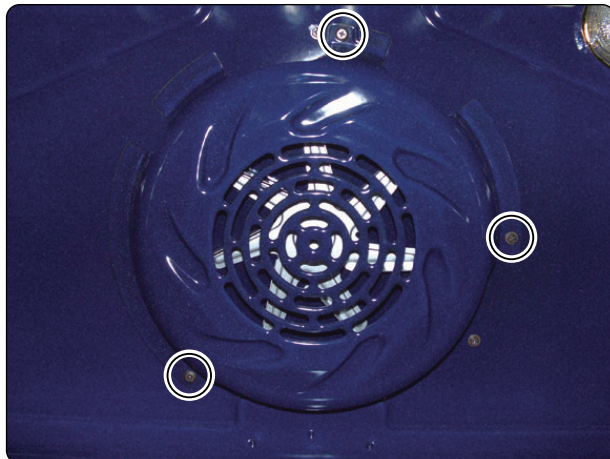
# COMPONENT ACCESS

## REMOVING THE CONVECTION ELEMENT, FAN BLADE AND FAN MOTOR (For the Lower oven only)

1. Disconnect power and remove oven racks.
2. Pull the range out of its mounting location so that you can access the rear of the unit.
3. Remove the rear panel from the unit.  
(See step 3~4 on page 3-2 for procedure)
4. Disconnect the wire connection.



5. Remove the four Fan cover screws and set the fan cover aside.



6. Remove the two convection element screws and pull the element forward.

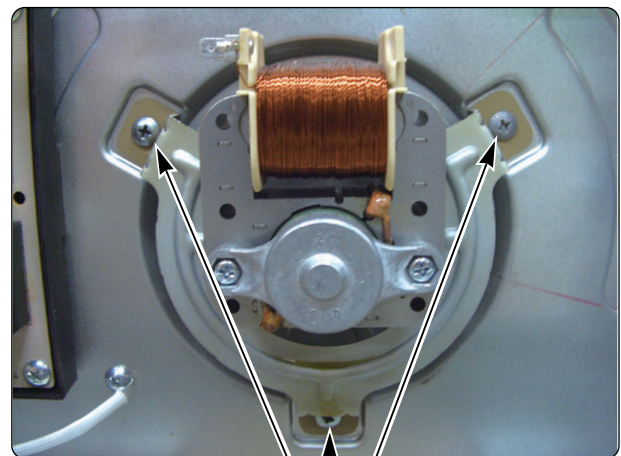


7. To remove Fan blade, remove Nut by screwing clockwise. Fan blade can be replaced from inside oven.

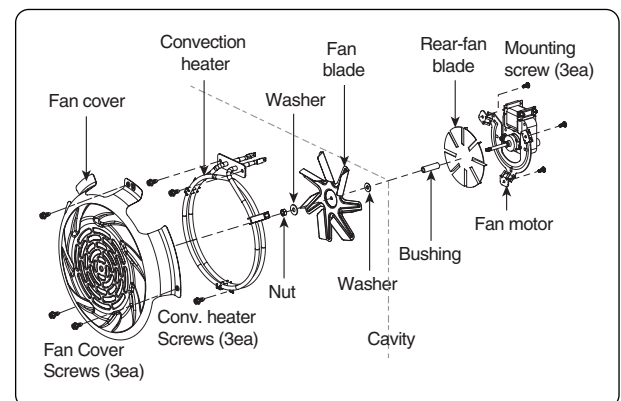
### CAUTION

- **Be careful not to bend the fan blade**  
- Failure to do so can result in vibration, noise, and poor performance of convection when operating.

8. To remove Fan motor assembly, disconnect wire connection and remove the three bracket screws
9. Pull the fan motor assembly forward.



Screws



# COMPONENT ACCESS

## REMOVING THE OVEN LIGHT & SOCKET ASSEMBLY (For both the Upper & Lower oven)

### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

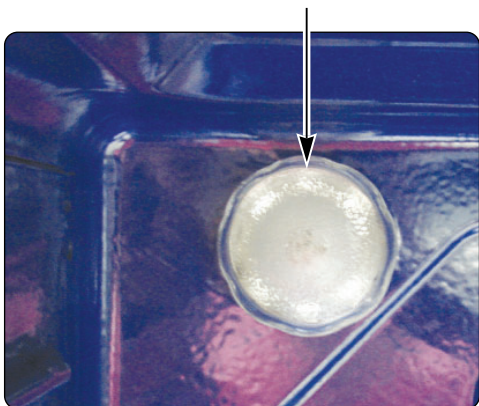
### **⚠ CAUTION**

- **Be careful when you work on the electric range handling the sheet metal part.**
  - Sharp edge may be present and you can cut yourself.

#### To replace:

1. Unplug range or disconnect power.
2. Turn the glass bulb cover in the back of the oven counterclockwise to remove.
3. Turn bulb counterclockwise to remove from socket.
4. Replace bulb and bulb cover by turning clockwise.

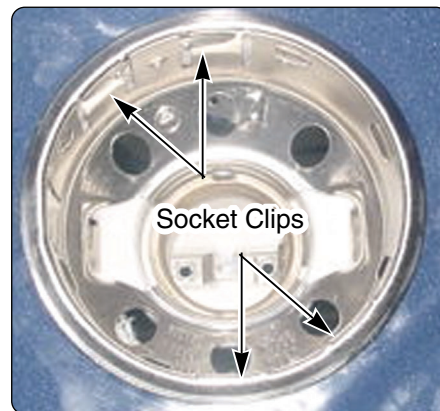
Glass cover & Bulb



### **⚠ CAUTION**

- **Be careful not to scratch or chip the oven liner paint when you remove the oven light socket in the next step.**

5. Use a screwdriver and bend the clips on the oven light socket away from the edges of the liner hole, and pull the socket out of the liner.  
**NOTE:** If it is too difficult to remove the socket from the front of the oven, you will have to push the socket out from the back of the unit.



5. Disconnect the wires from the socket terminals.



<Viewed From Rear Panel>

# COMPONENT ACCESS

## REMOVING THE LATCH DRIVE ASSEMBLY (For both the Upper & Lower oven)

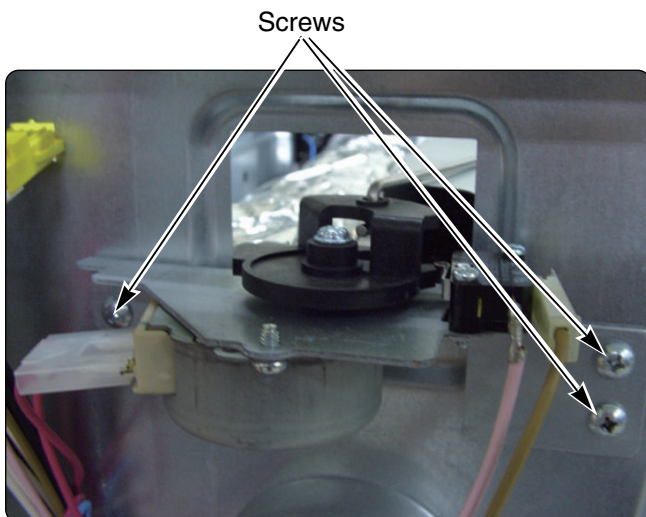
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

### **⚠ CAUTION**

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

1. Turn off the electrical supply going to the range.
2. Pull the range away from the wall so that you can access the rear panel.
3. Remove the back cover & control cover (see step 3~4 on page 3-2).
4. Disconnect the wires from the latch drive motor and switch.
5. Remove the 3 mounting screws from the latch drive.



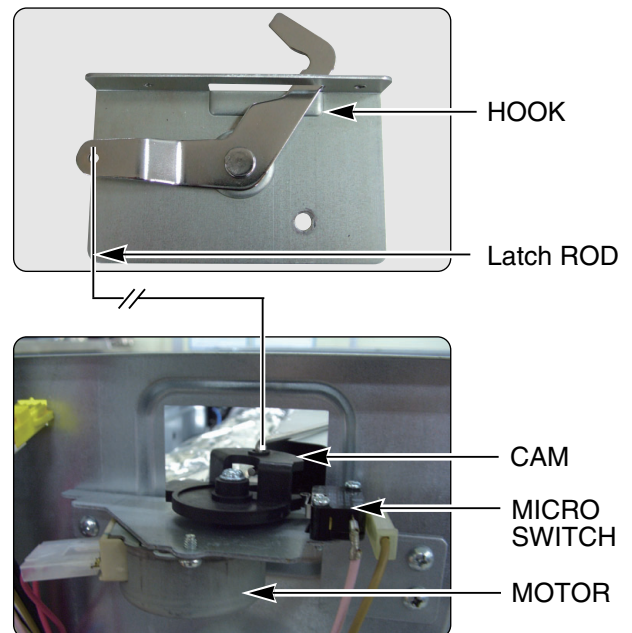
6. Unhook the Latch rod from the cam.

### DOOR LOCKING MECHANISM

The door lock assembly is located at the back side of range.

The structural elements are as below.

1. When the oven control is programmed and started for the Self clean and Lock out mode, PCB (Power control board) chip operates the motor.



2. The cam moves the door hook connected to latch rod from unlocked position to locked position (from locked Position to unlocked position)
3. The cam activates the micro switch that causes the motor to stop.
4. The locked status remains until the range temperature drops to approximately 500F after end of the self clean or lock out feature is reactivated. The motor operates to unlock door at that time.

# COMPONENT ACCESS

## REMOVING THE OVEN TEMPERATURE SENSORS (For both the Upper & Lower oven temperature sensor)

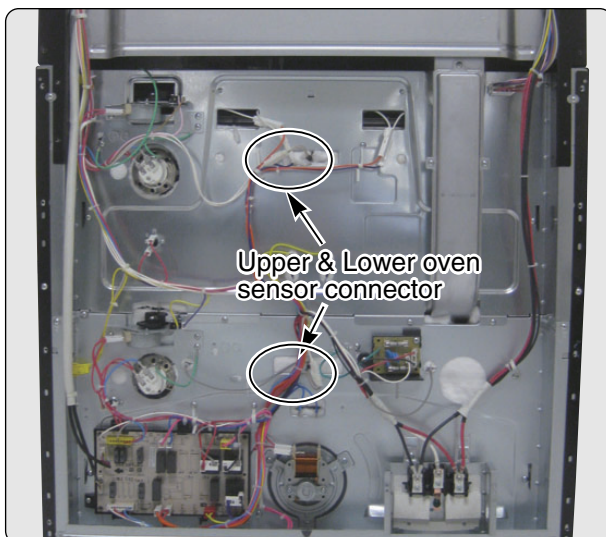
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

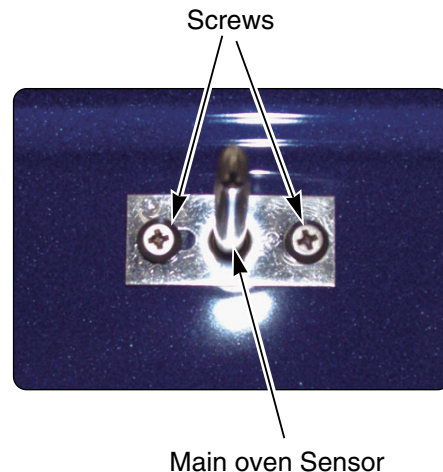
### **⚠ CAUTION**

- **Be careful** when you work on the electric range handling the sheet metal part.
  - Sharp edge may be present and you can cut yourself.

1. Turn off the electrical supply going to the range.
2. Open the oven door and remove the racks from the oven.
3. Pull the range away from the wall so that you can access the rear panel.
4. Remove the 18 screws from the rear panel and remove the panel (see step 3 on page 3-2).



5. To remove an oven temperature sensor, disconnect the connector from the main harness and remove the two mounting screws in oven cavity.



# COMPONENT ACCESS

## REMOVING & REPLACING THE LIFT-OFF OVEN DOOR (For the Upper door)

### CAUTION

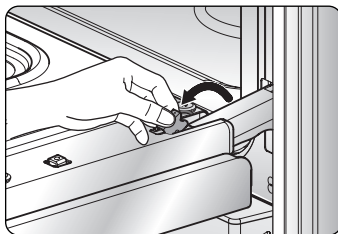
- Be careful when removing and lifting the door.
- DO NOT lift the door by the handle.
  - The door is very heavy.

### UPPER OVEN

To remove the door:

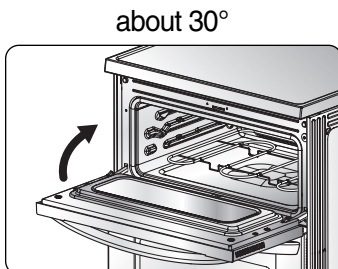
#### Step. 1

Fully open the door.



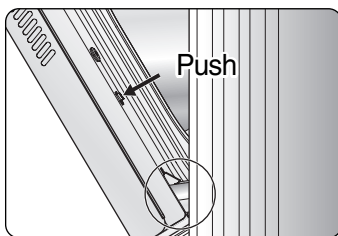
#### Step. 2

Lift up on the hinge lock toward the oven frame until they stop.



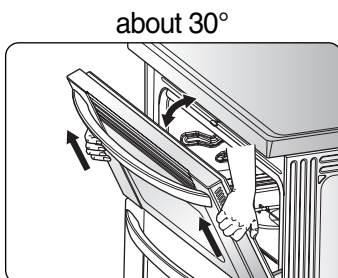
#### Step. 3

Close the door to 30 degrees (you will feel the door stop). The hinge lock will contact the oven frame.



#### Step. 4

On both sides of the door, press down on the release buttons on each hinge.



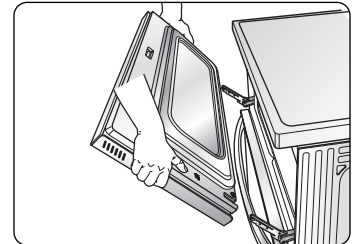
#### Step. 5

Lift door up until it is clear of the hinge.

To replace the door:

#### Step. 1

Be sure both hinges are in a 30 degree position.



#### Step. 2

Slide the door back onto the hinges until you hear a solid click and the release buttons have engaged.

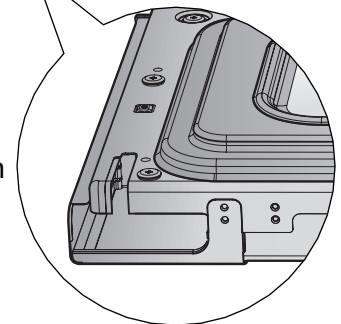


#### Step. 3

Fully open the door.

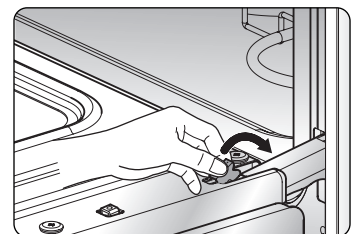
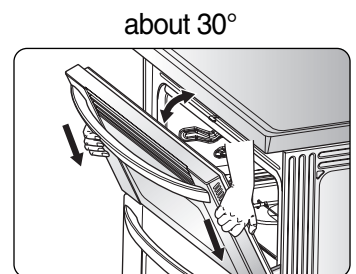
#### Step. 4

Push the hinge locks down onto the hinge.



#### Step. 5

Close the oven door.





# COMPONENT ACCESS

## REMOVING & REPLACING THE LIFT-OFF OVEN DOOR (For the Lower door)

### CAUTION

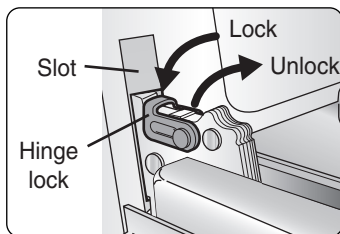
- Be careful when removing and lifting the door.
- DO NOT lift the door by the handle.
  - Failure to do so can result in personal injury as the door is very heavy.

### LOWER OVEN

To remove the door:

#### Step. 1

Fully open the door.



#### Step. 2

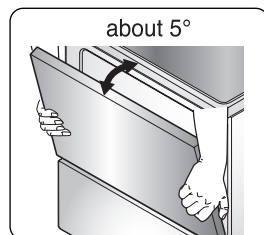
Pull the hinge locks up toward the door frame to the unlocked position.

#### Step. 3

Firmly grasp both sides of the door at the top.

#### Step. 4

Close door to the door removal position, which is approximately 5 degrees.



#### Step. 5

Lift door up and out until the hinge arm is clear of the slot.

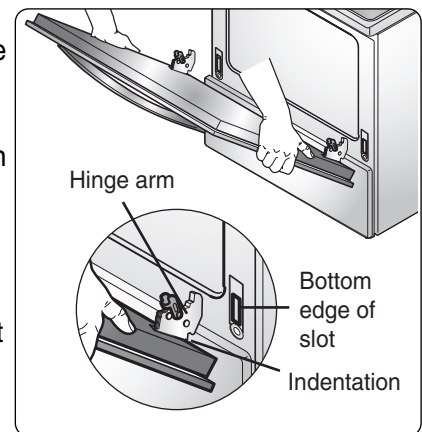
To replace the door:

#### Step. 1

Firmly grasp both sides of the door at the top.

#### Step. 2

With the door at the same angle as the removal position, seat the indentation of the hinge arm into the bottom edge of the hinge slot. The notch in the hinge arm must be fully seated into the bottom edge of the slot.

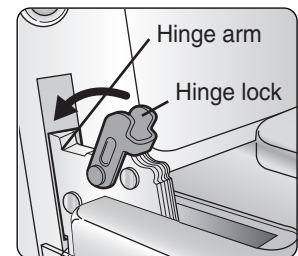


#### Step. 3

Open the door fully. If the door will not open fully, the indentation is not seated correctly in the bottom edge of the slot.

#### Step. 4

Push the hinge locks down against the front frame of the oven cavity to the locked position.



#### Step. 5

Close the oven door.

# COMPONENT ACCESS

## REMOVING THE UPPER OVEN DOOR HANDLE & GLASS (For the Upper door)

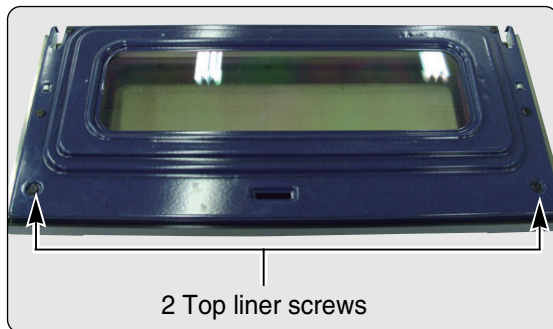
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace all panels and parts before operating.**
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

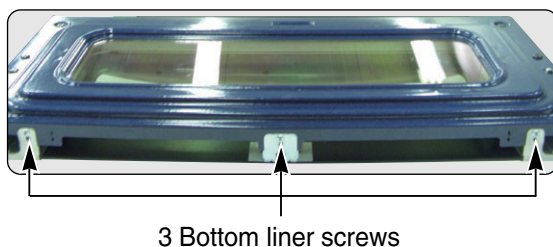
### **⚠ CAUTION**

- **Be careful when you work on the electric range handling the sheet metal part.**
  - Sharp edge may be present and you can cut yourself.

1. Remove the oven door from the range (see page 3-17 for the procedure).
2. Place the upper oven door on a padded work surface with the front glass facing down.
3. Remove the 2 top door screws.

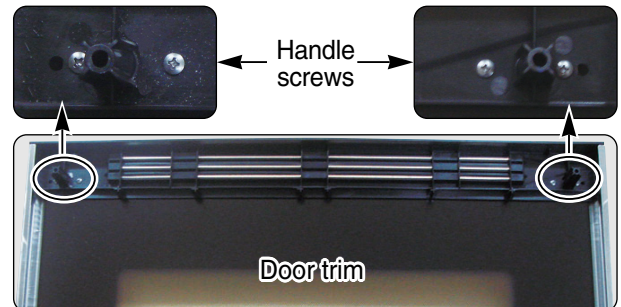


4. Remove the three bottom screws from the door liner.



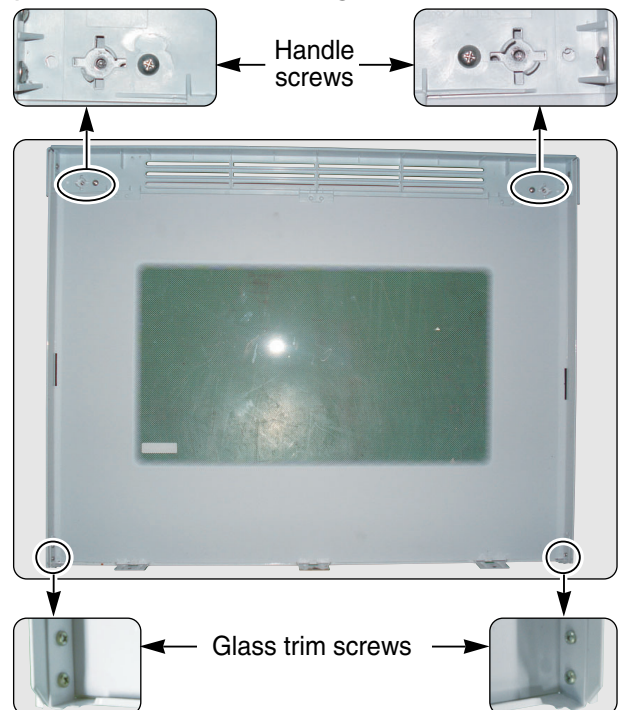
5. Lift the liner assembly off the front glass and set it aside.

6. To remove the door handle & trim (for Stainless model)
  - a) Remove the 4 door handle screws and lift the door handle off door trim and slide up the door trim.

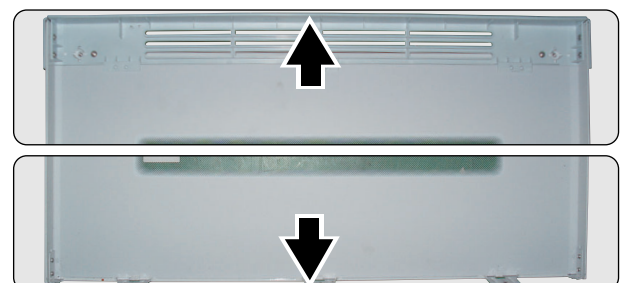


6. To remove the door handle trim & glass (for White / Black model)

- a) Remove the handle and glass trim screws



- b) Lift the door handle off door trim

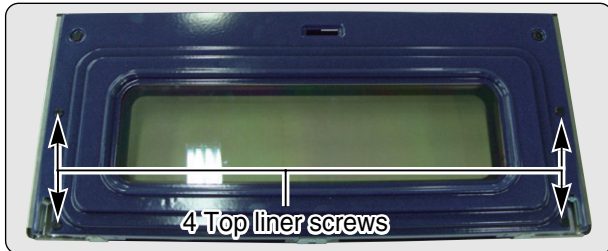


- c) Slide up the door trim and pull the glass trim forward

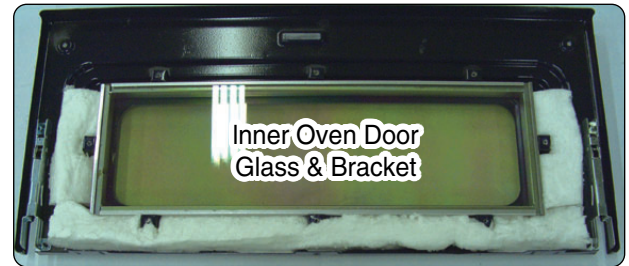
# COMPONENT ACCESS

## 7. To remove a hinge receptacle assembly:

- Remove the 4 top liner screws  
(See step 3 on page 3-19)
- Place the door liner assembly on a padded work surface with the hinge receptacles over the edge.
- Lift the hinge receptacle out of the door liner slot.



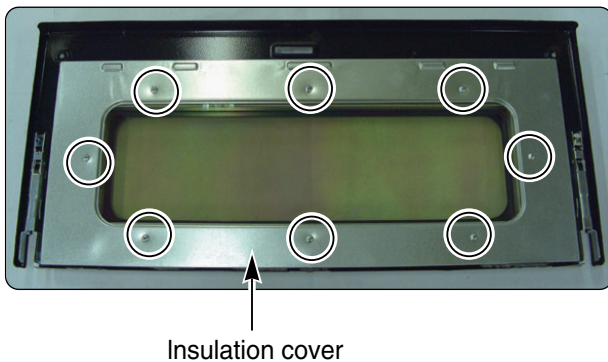
- Lift the inner oven door glass and bracket assembly out of the door liner.



**REASSEMBLY NOTE:** When you reinstall the insulation around the oven door glass, make sure that the insulation is not visible in the glass after the door is reassembled.

## 8. To remove the oven door glass assembly:

- Remove the 8 screws.
- Lift the insulation cover off the door liner.



# COMPONENT ACCESS

## REMOVING THE OVEN DOOR HANDLE & GLASS (For the Lower door)

### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace all panels and parts before operating.**
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

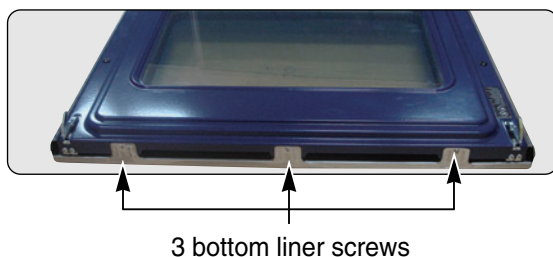
### **⚠ CAUTION**

- **Be careful when you work on the electric range handling the sheet metal part.**
  - Sharp edge may be present and you can cut yourself.

1. Remove the oven door from the range (see page 3-17 for the procedure).
2. Place the oven door on a padded work surface with the front glass facing down.
3. Remove the 4 top door screws.

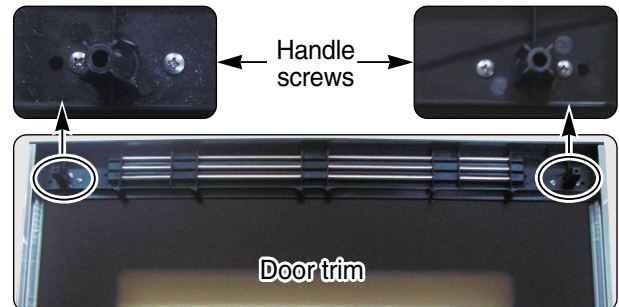


4. Remove the three bottom screws from the door liner.



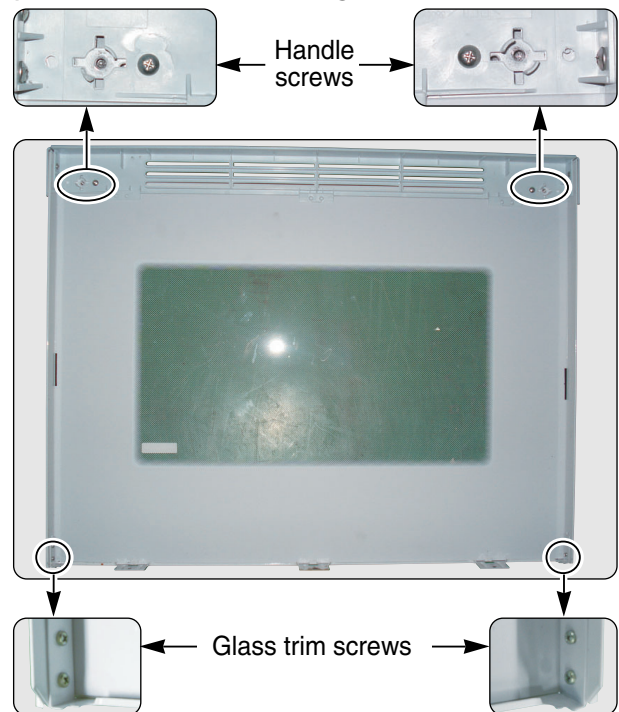
5. Lift the liner assembly off the front glass and set it aside.

6. To remove the door handle & trim (for Stainless model)
  - a) Remove the 4 door handle screws and lift the door handle off door trim and slide up the door trim.

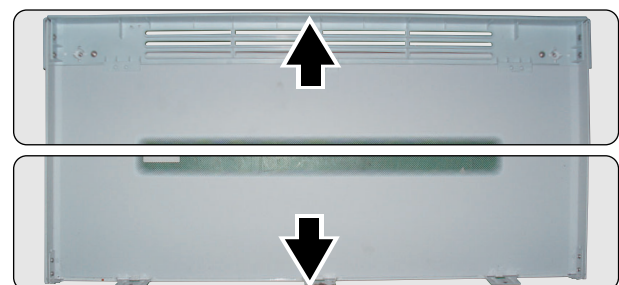


6. To remove the door handle trim & glass (for White / Black model)

- a) Remove the handle and glass trim screws



- b) Lift the door handle off door trim

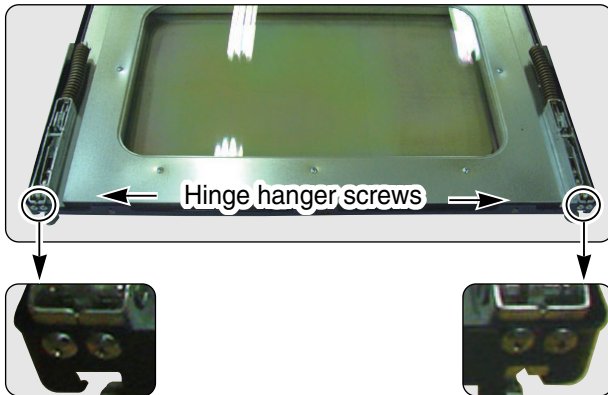


- c) Slide up the door trim and pull the glass trim forward

# COMPONENT ACCESS

## 7. To remove a hinge hanger assembly:

- Remove the 2 top liner screws  
(See step 3 on page 3-14)
- Place the door liner assembly on a padded work surface with the hinge hangers over the edge.
- Remove the two bottom screws.
- Lift the hinge hanger out of the door liner slot.



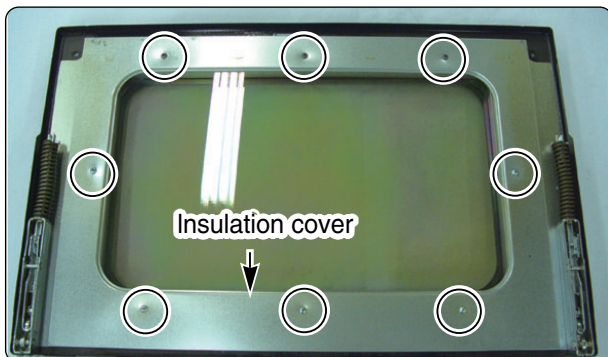
- Lift the inner oven door glass and bracket assembly out of the door liner.



**REASSEMBLY NOTE:** When you reinstall the insulation around the oven door glass, make sure that the insulation is not visible in the glass after the door is reassembled.

## 8. To remove the oven door glass assembly:

- Remove both hinge hangers (see step 8).
- Remove the 6 screws.
- Lift the insulation cover off the door liner.



# COMPONENT ACCESS

## REMOVING THE OVEN DOOR GASKET (For the Upper & Lower door gaskets)

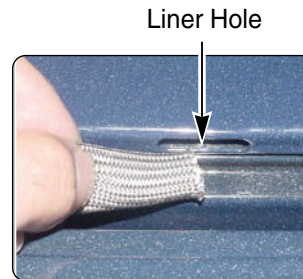
### **⚠ WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace** all panels and parts before operating.
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

### **⚠ CAUTION**

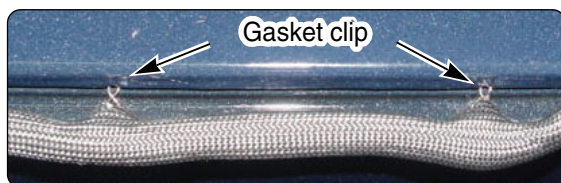
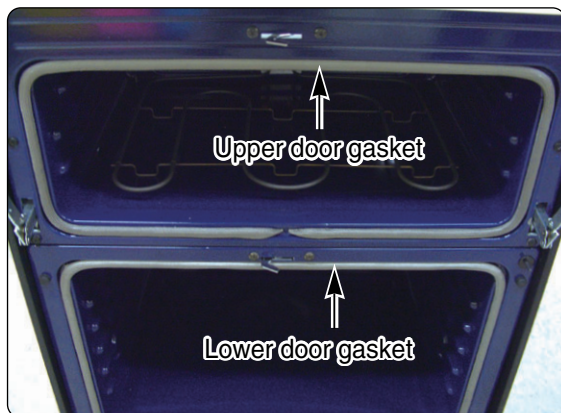
- **Be careful when you work on the electric range handling the sheet metal part.**
  - Sharp edge may be present and you can cut yourself.

3. Pull the ends of the gasket out of the liner holes.



**REASSEMBLY NOTE:** When you install the new gasket, make sure that all of the clips are seated in their liner holes, and that the ends of the gasket are pushed fully into their holes. Use the pointed end of a pencil to push the gasket ends into the holes.

1. Open the oven door to its fully down position.
2. Pull the oven door gasket clips out of the liner holes until all of the clips are removed.



# COMPONENT ACCESS

## REMOVING A SIDE PANEL

### **WARNING**

- **DISCONNECT** power supply cord from the outlet before servicing.
- **Replace all panels and parts before operating.**
- **RECONNECT** all grounding devices.
  - Failure to do so can result in severe personal injury, death or electrical shock.

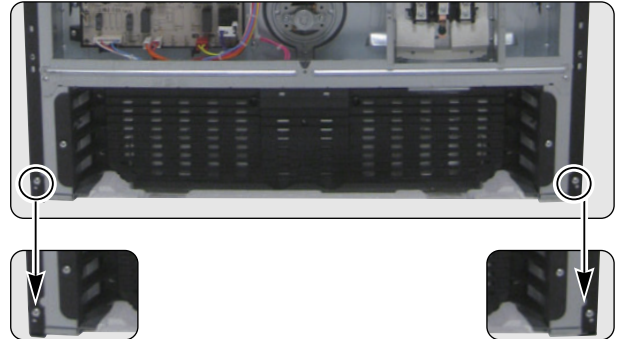
### **CAUTION**

- **Be careful when you work on the electric range handling the sheet metal part.**
  - Sharp edge may be present and you can cut yourself.

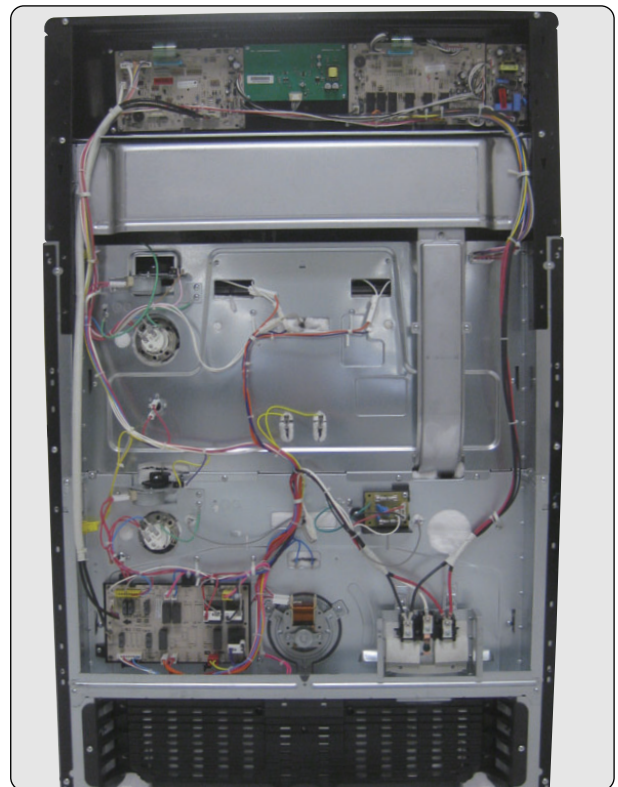
1. Turn off the electrical supply going to the range.
2. Remove the oven door from the range (see page 3-17 for the procedure).
3. Pull the range away from the wall so you can access the back of the unit.
4. Remove the 18 screws from the rear panel and remove the panel (see step 3~4 on page 3-2).
5. Raise the cooktop (see page 3-4 for the procedure). **NOTE:** Position the side of the cooktop so that it does not rest on the side panel that you are removing.
6. Remove the two screws from the top rear of the side panel.



7. Remove the two screws from the left or right side panel.



8. Pull the back of the side panel out from the range approximately 10°.



9. Push forward and remove the side panel.

# COMPONENT TEST

Before testing any of components, perform the following checks:

**NOTE:**

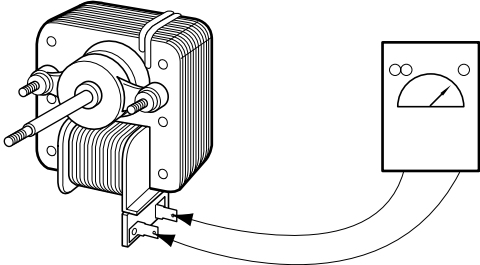
1. The most common cause for control failure is corrosion on connectors.  
Therefore, disconnecting and reconnecting wires will be necessary throughout test procedures
2. ALL units in the first few days of use should be checked for mis-wiring or loose connections

1. All/tests/checks should be made with a VOM or DVM having a sensitivity of 20,000 ohms per-volt DC, or greater.
2. Check all connections before replacing components, looking for broken or loose wires, Failed terminals, or wires not pressed into connectors far enough.
3. Resistance checks must be made with power cord unplugged from outlet, and with wiring harness or connectors disconnected.

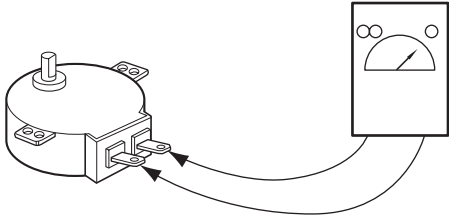
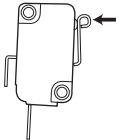
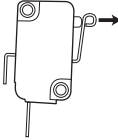
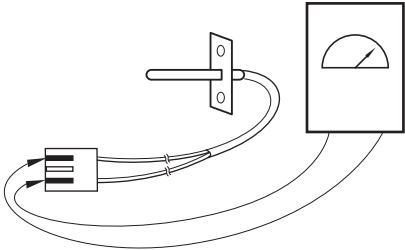
**! WARNING**

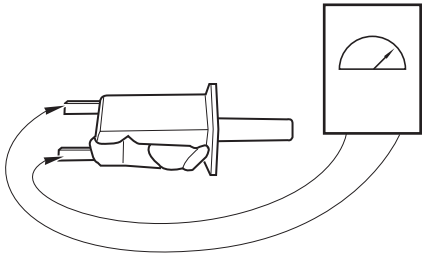


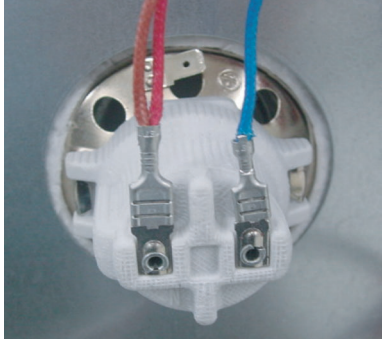
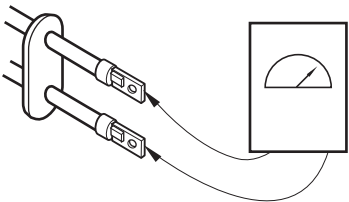
- Disconnect power supply cord from the outlet before servicing
- Replace all panels and parts before operating
- Reconnect all grounding devices after servicing
- Failure to do so can result in death or electrical shock

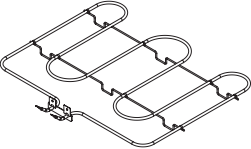
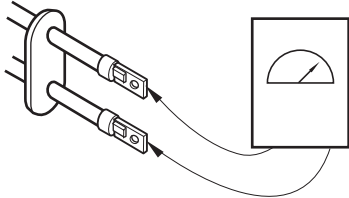
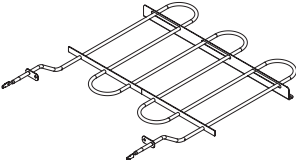
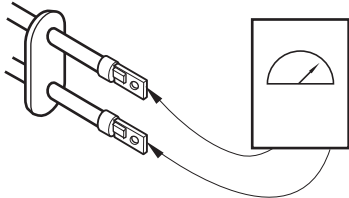
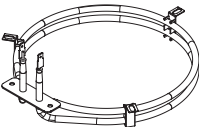
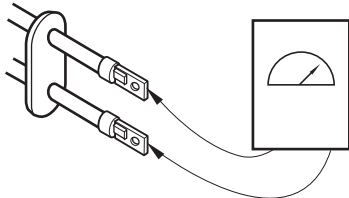
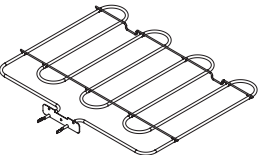
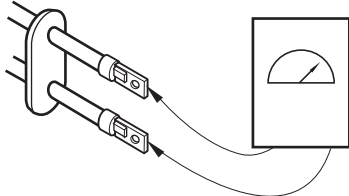
**NOTE: Below  $\Omega$  value were tested at room temperature (77F/25°C)**

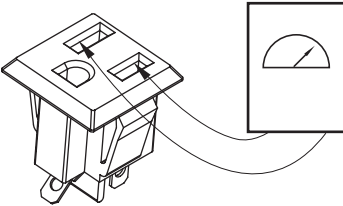
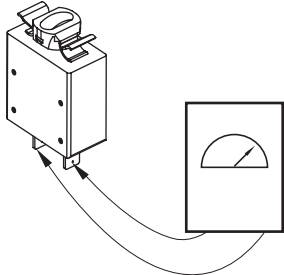
Components	Test procedures	Results
Convection Motor	<ol style="list-style-type: none"> <li>1. Refer to page 3-13 for the servicing procedure</li> <li>2. Measure the resistance (Multiple meter scale: R x 1)</li> </ol> 	<p>Normal: Approximately 17 <math>\Omega</math> If not replace</p> <p>Abnormal: Infinite (open) below 5<math>\Omega</math> (shorted)</p>

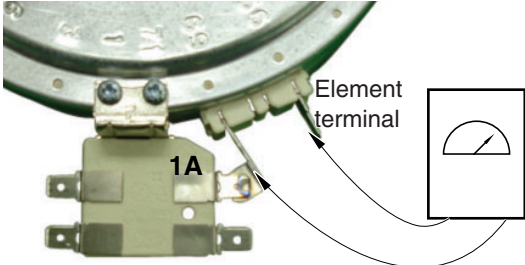
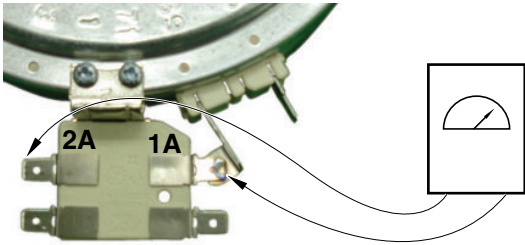
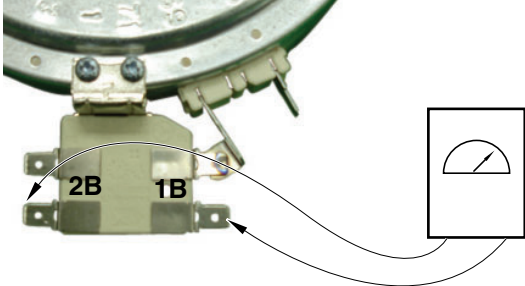


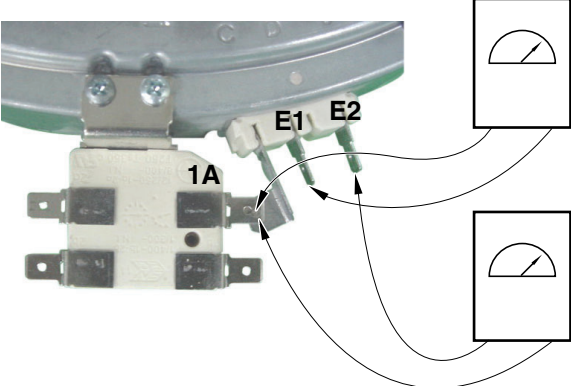
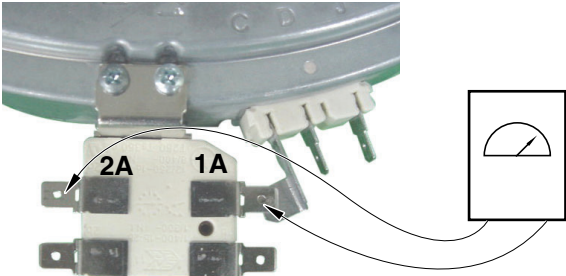
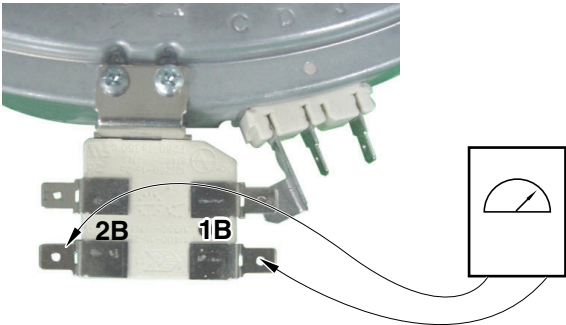
Components	Test procedures	Results
Door locking Motor	<p>1. Refer to page 3-15 for the servicing procedure</p> <p>2. Measure the resistance (Multiple meter scale: R x 1000)</p> 	<p>Normal: Approximately 2.6 kΩ ± 10% If not replace</p> <p>Abnormal: Infinite(open) below 5Ω (shorted)</p>
Micro Switch	<p>ON position (Unlock position)      OFF position (Lock position)</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Normal : below 2Ω</p> </div> <div style="text-align: center;">  <p>Normal : Infinite</p> </div> </div> <p><b>NOTE:</b> The Micro switch will be held for 13 seconds during lock or unlock.</p>	
Oven Sensor	<p>1. Refer to page 3-16 for the servicing procedure</p> <p>2. Measure the resistance after cooling down (Multiple meter scale: R x 1000)</p> 	<p>Normal: Approximately 1.09 kΩ ± 10% If not replace</p> <div style="background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> <p><b>NOTE:</b> Ω Value was tested at room temperature (77F/25°C)</p> </div>


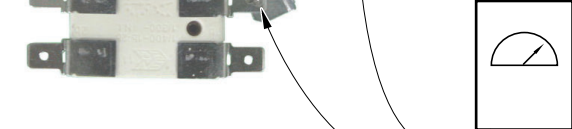
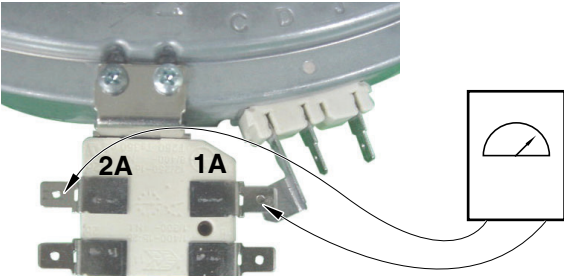
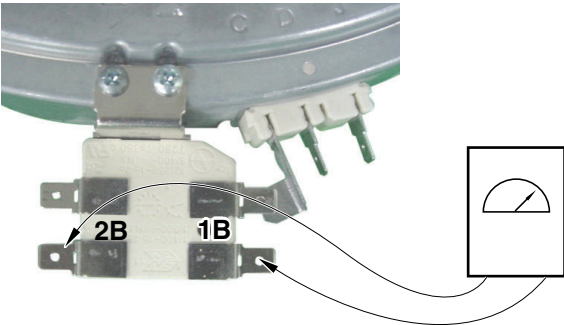
Components	Test procedures	Results	
Door switch	<p>1. Refer to page 3-5 for the servicing procedure</p> <p>2. Measure the resistance after cooling down (Multiple meter scale: R x 1)</p> 	Door open	Door closed
		 Continuity	 Infinite
Oven lamp	<p>1. Measure the resistance after cooling down (Multiple meter scale: R x 1)</p> 	<p>Normal: Below 5 <math>\Omega</math>. If not replace</p>	
Upper oven Broil heater	<p>1. Remove wire leads</p> <p>2. Measure resistance after cooling down</p> 	<p>Normal : Approximately 50<math>\Omega</math> Abnormal : Infinite(opened)</p> <p><b>NOTE:</b> <math>\Omega</math> Value was tested at room temperature (77F/25°C) Be careful the element is sensitive to temperature.</p>	

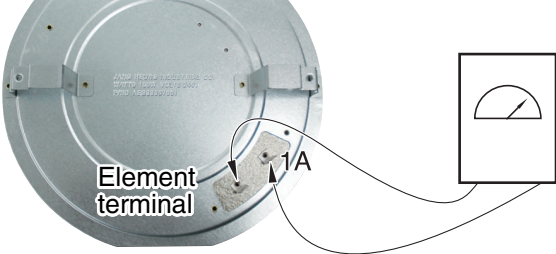
Components	Test procedures	Results
<p>Upper oven Bake heater</p> 	<p>1. Remove wire leads 2. Measure resistance after cooling down</p> 	<p>Normal : Approximately 26.6Ω Abnormal : Infinite(opened)</p> <p><b>NOTE:</b> Ω Value was tested at room temperature (77F/25°C) Be careful the element is sensitive to temperature.</p>
<p>Lower oven Broil heater</p> 	<p>1. Remove wire leads 2. Measure resistance after cooling down</p> 	<p>Normal : Approximately 14.7Ω Abnormal : Infinite(opened)</p> <p><b>NOTE:</b> Ω Value was tested at room temperature (77F/25°C) Be careful the element is sensitive to temperature.</p>
<p>Lower oven Conv. heater</p> 	<p>1. Remove wire leads 2. Measure resistance after cooling down</p> 	<p>Normal : Approximately 27.9Ω Abnormal : Infinite(opened)</p> <p><b>NOTE:</b> Ω Value was tested at room temperature (77F/25°C) Be careful the element is sensitive to temperature.</p>
<p>Lower oven Bake heater</p> 	<p>1. Remove wire leads 2. Measure resistance after cooling down</p> 	<p>Normal : Approximately 22.5Ω Abnormal : Infinite(opened)</p> <p><b>NOTE:</b> Ω Value was tested at room temperature (77F/25°C) Be careful the element is sensitive to temperature.</p>

Components	Test procedures	Results
Appliance outlet	<p>1. Test for voltage</p>  <p>2. If no voltage is present at outlet, Press the switch of located on the control console</p> <p><b>NOTE:</b> The circuit breaker for the appliance outlet is rated for 15A, That may trip if the appliance plugged into it exceeds 15amps. To reset the circuit breaker, press the circuit breaker switch.</p>	Normal: Approximately 120V
Appliance outlet circuit breaker	<p>1. If no voltage is present at outlet,</p> <ol style="list-style-type: none"> <li>1) Unplug the cord or disconnect power</li> <li>2) Remove the back cover (refer to the page 3-2)</li> <li>3) Test the circuit breaker resistance</li> </ol> 	Normal: Below 1 Ω. If not replace

Components	Test procedures	Results
<p><b>Single surface units:</b>            Left Rear(LR)            Right Rear(RR)            Element</p>	<p>1. Refer to page 3-4 for the servicing procedure</p> <p>2. Set the Multiple meter scale to the R x 1</p> <p>3. Disconnect wires from cook-top elements</p> <p>4. Touch the ohmmeter test leads to the element terminal and 1A.            The meter should indicate <math>46 \Omega \pm 10\%</math></p>  <p>5. Touch the ohmmeter test leads to limiter terminals 1A and 2A. The meter should indicate continuity.(<math>0\Omega</math>)</p>  <p>6. Touch the ohmmeter test leads to limiter terminals 1B and 2B.            With the temperature below <math>150^{\circ}\text{F}</math>, the meter should indicate an open circuit(infinite).            With the temperature above <math>150^{\circ}\text{F}</math>, the meter should indicate continuity (<math>0\Omega</math>).</p> 	<p>Normal: Approximately <math>46 \Omega</math>,            If not replace</p> <p>Normal: continuity            (below <math>0.5 \Omega</math>)            If not replace</p> <p>Below <math>150^{\circ}\text{F}</math>            → open circuit(infinite).</p> <p>Above <math>150^{\circ}\text{F}</math>            → continuity (<math>0 \Omega</math>)</p>

Components	Test procedures	Results
<p><b>Dual surface unit:</b> Left Front(LF) Element</p>	<p>1. Refer to page 3-4 for the servicing procedure</p> <p>2. Set the Multiple meter scale to the R x1</p> <p>3. Disconnect wires from cook-top elements</p> <p>4. Touch the ohmmeter test leads to the (E1 &amp; 1A) and (E2 &amp; 1A) the meter should indicate :</p> <ul style="list-style-type: none"> <li>- (E1 &amp; 1A) → 40 Ω ± 10%</li> <li>- (E2 &amp; 1A) → 35 Ω ± 10%</li> </ul>  <p>5. Touch the ohmmeter test leads to limiter terminals 1A and 2A.the meter should indicate continuity (0 Ω)</p>  <p>6. Touch the ohmmeter test leads to limiter terminals 1B and 2B. With the temperature below 150°F, the meter should indicate an open circuit(infinite). With the temperature above 150°F, the meter should indicate continuity (0 Ω).</p> 	<p>Normal: Approximately 40 Ω</p> <p>Normal: Approximately 35 Ω</p> <p>Normal: continuity (below 0.5 Ω) If not replace</p> <p>Below 150°F → open circuit(infinite).</p> <p>Above 150°F → continuity (0 Ω)</p>

Components	Test procedures	Results
<b>Dual surface unit:</b> Right Front(RF) Element	<ol style="list-style-type: none"> <li>Refer to page 3-4 for the servicing procedure</li> <li>Set the Multiple meter scale to the R x1</li> <li>Disconnect wires from cook-top elements</li> <li>Touch the ohmmeter test leads to the (E1 &amp; 1A) and (E2 &amp; 1A) the meter should indicate :               <ul style="list-style-type: none"> <li>- (E1 &amp; 1A) → <math>32 \Omega \pm 10\%</math></li> <li>- (E1 &amp; 1A) → <math>55 \Omega \pm 10\%</math></li> </ul> </li> </ol>   <ol style="list-style-type: none"> <li>Touch the ohmmeter test leads to limiter terminals 1A and 2A.the meter should indicate continuity (0 <math>\Omega</math>)                </li> <li>Touch the ohmmeter test leads to limiter terminals 1B and 2B.               <p>With the temperature below 150°F, the meter should indicate an open circuit(infinite).</p> <p>With the temperature above 150°F, the meter should indicate continuity (0 <math>\Omega</math>).</p>  </li> </ol>	<p>Normal: Approximately 32 <math>\Omega</math></p> <p>Normal: Approximately 55 <math>\Omega</math></p> <p>Normal: continuity (below 0.5 <math>\Omega</math>) If not replace</p> <p>Below 150°F → open circuit(infinite).</p> <p>Above 150°F → continuity (0 <math>\Omega</math>)</p>

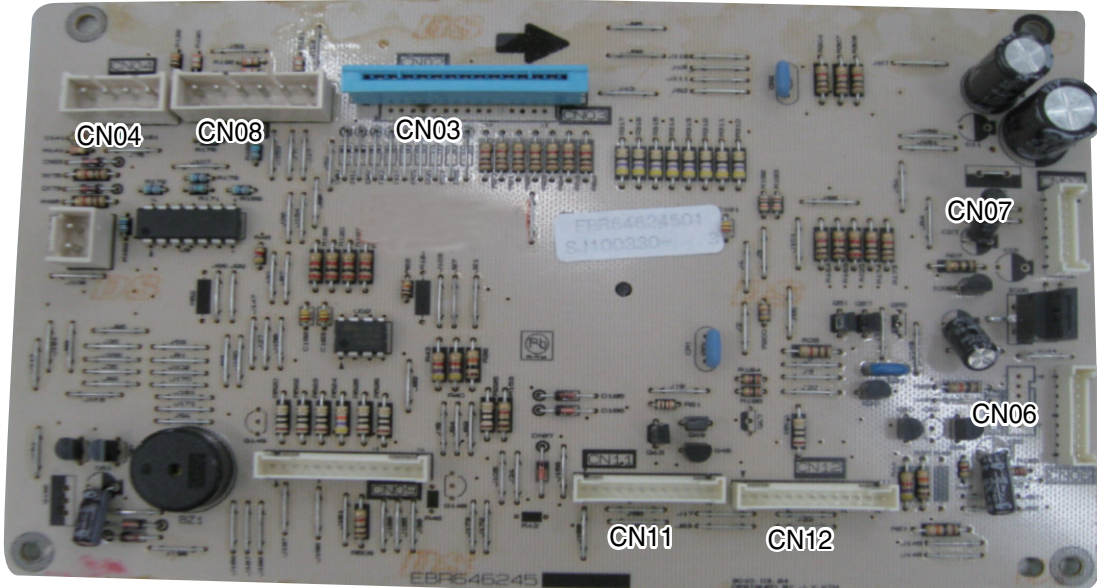
Components	Test procedures	Results
<p>Center Rear(CR) Element : Warming Zone (Plane Heater)</p>	<ol style="list-style-type: none"> <li>1. Refer to page 3-4 for the servicing procedure</li> <li>2. Set the Multiple meter scale to the R x 1</li> <li>3. Disconnect wires from CR elements</li> <li>4. Touch the ohmmeter test leads to the between element terminal.</li> </ol> <p>The meter should indicate <math>571 \Omega \pm 10\%</math></p> 	<p>Normal: Approximately <math>571 \Omega</math>, If not replace</p>



# COMPOSITION OF CONTROL

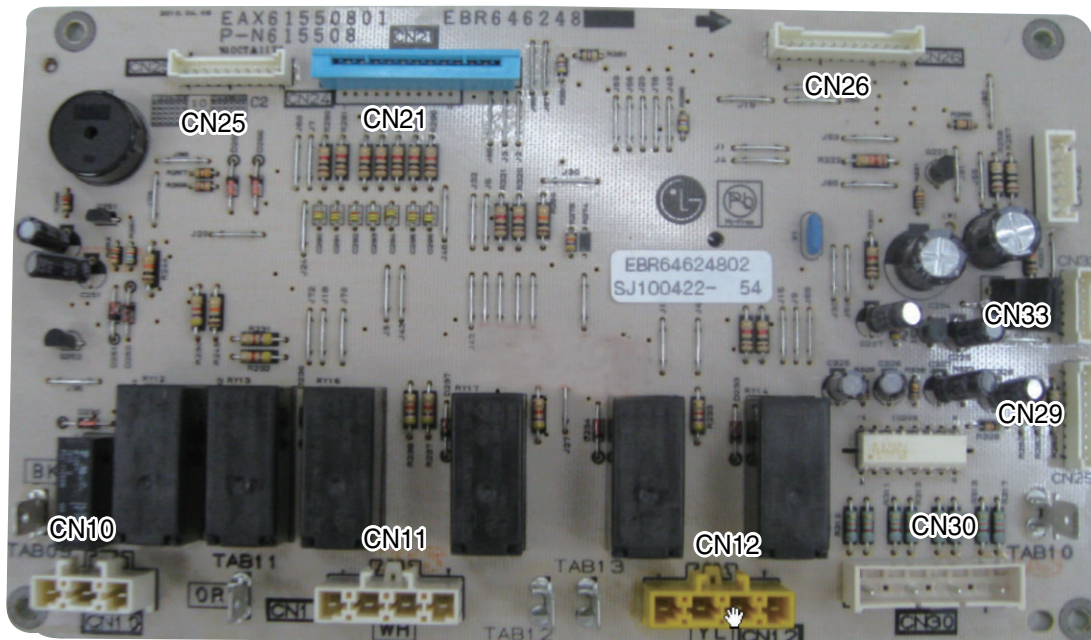
## Oven system PCB

P/N : EBR64624502



## Cooktop system PCB

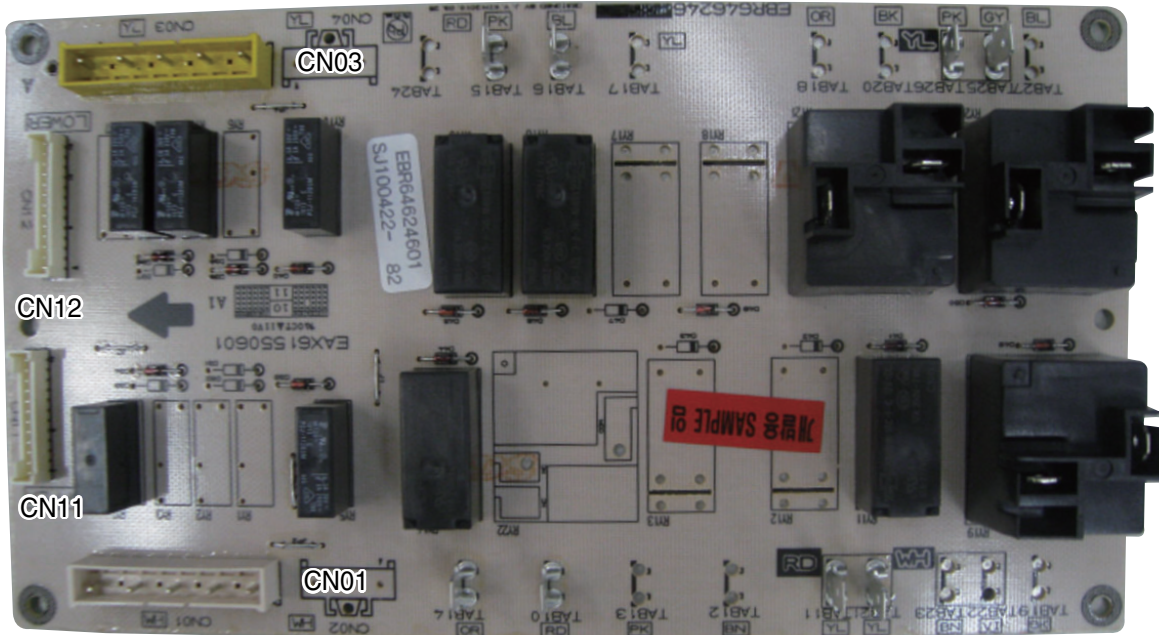
P/N : EBR64624802



# COMPOSITION OF CONTROL

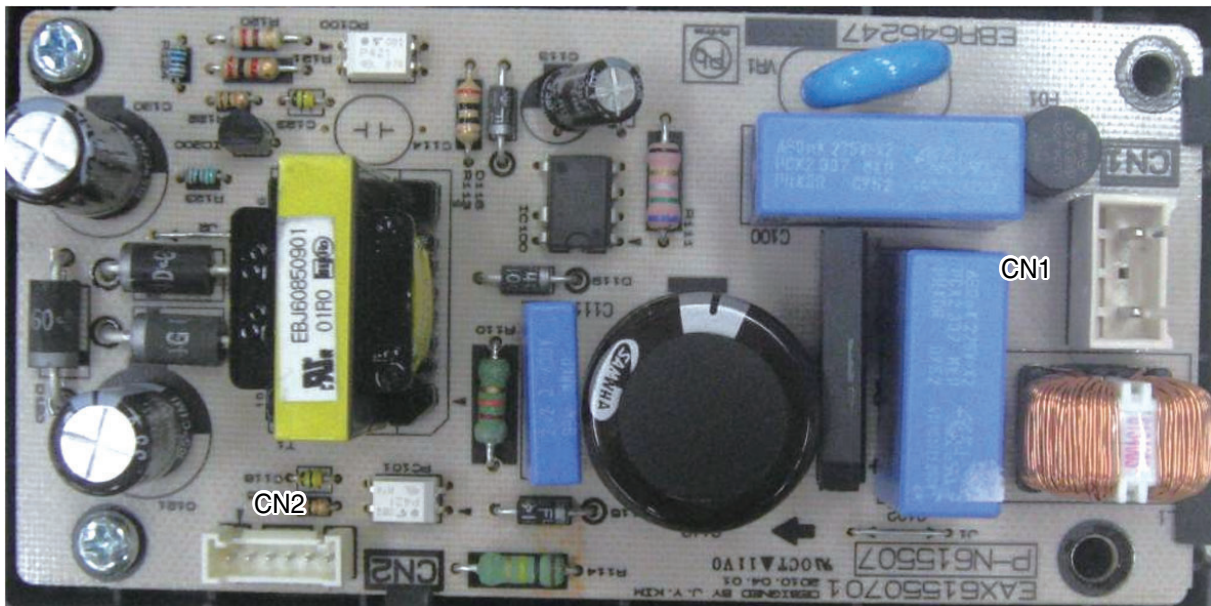
## Oven relay PCB

P/N : EBR64624601



## SMPS PCB

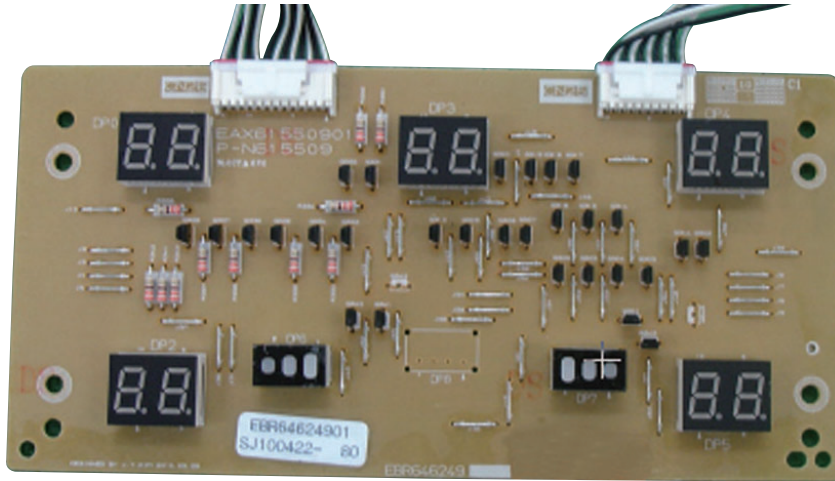
P/N : EBR64624701



# COMPOSITION OF CONTROL

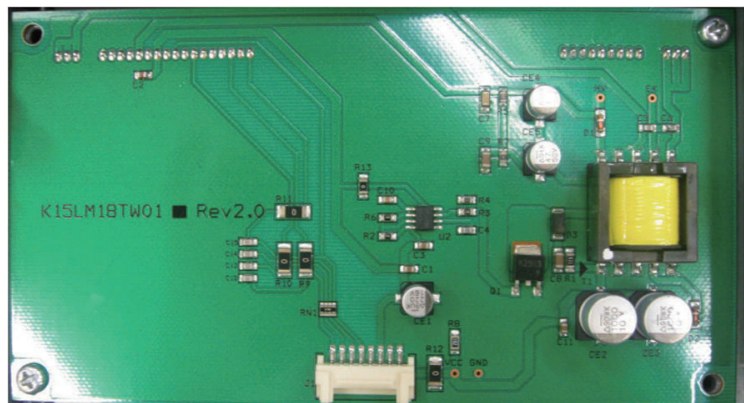
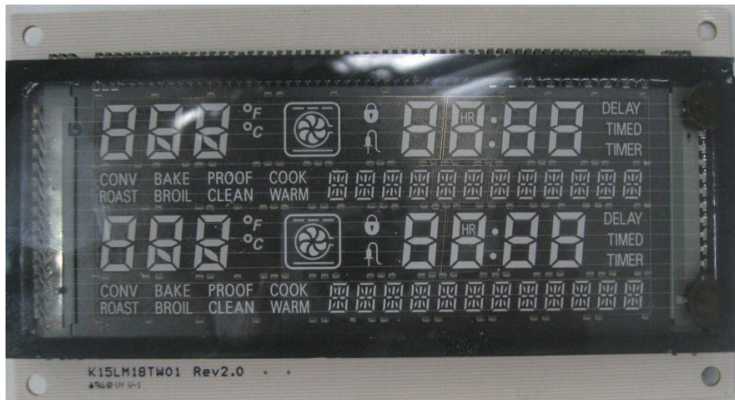
## Cooktop display

P/N : EBR64624901

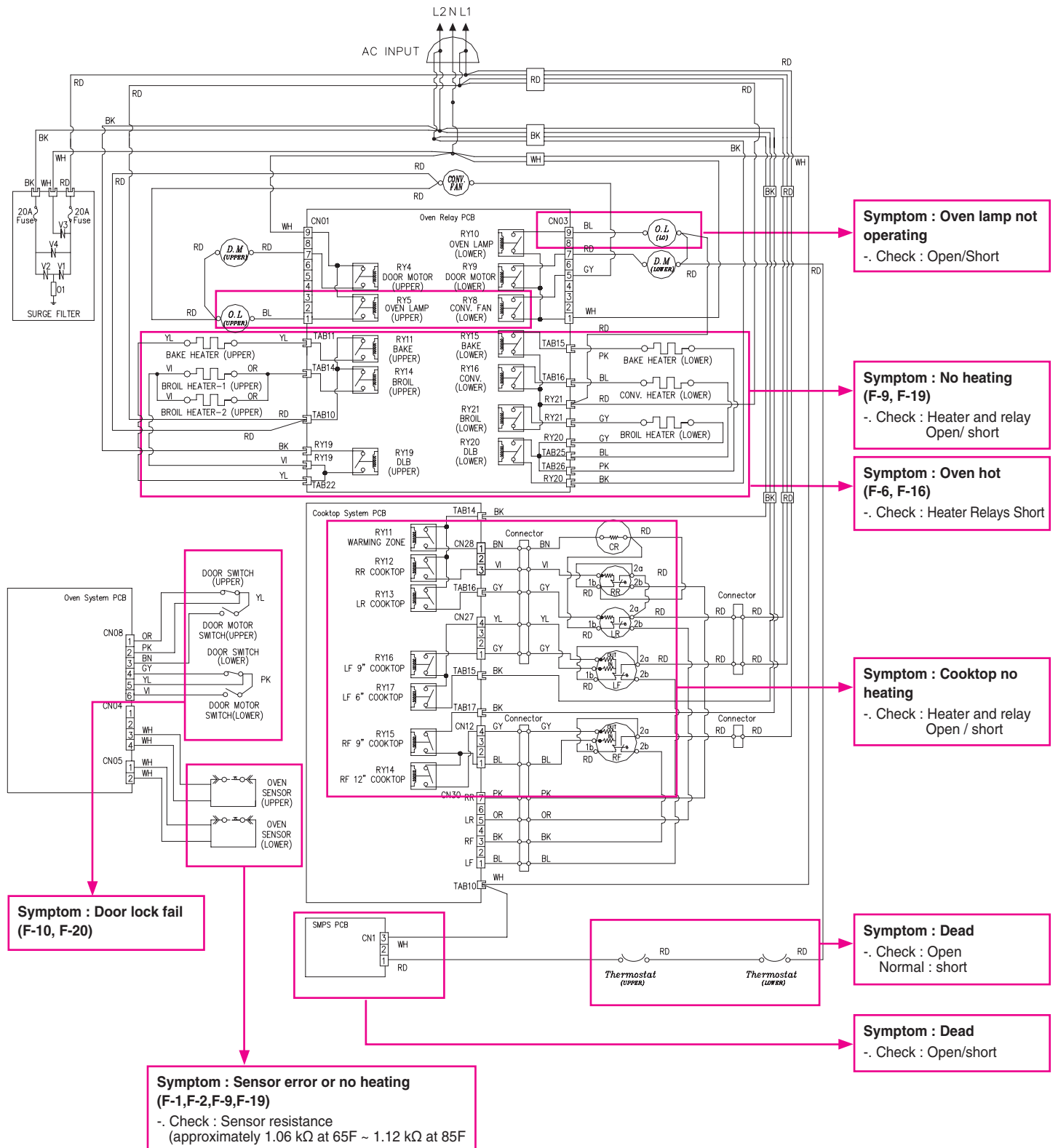


## Oven display (VFD)

P/N : EAJ61309901



# DIAGNOSIS THROUGH SCHEMATIC



# CHECK THE FAILURE CODE (F-code)

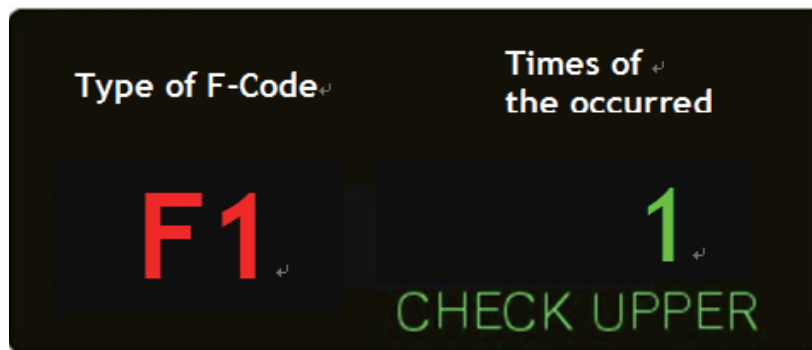
## ■ When the oven has some failure on cooking

- Oven may stop operating and F-code will display in display window.
- Some F-codes display immediately(F-3,F-9,F-19), but other codes will store in EEPROM memory and not displayed

## ■ F-codes can only be viewed by following the below Step

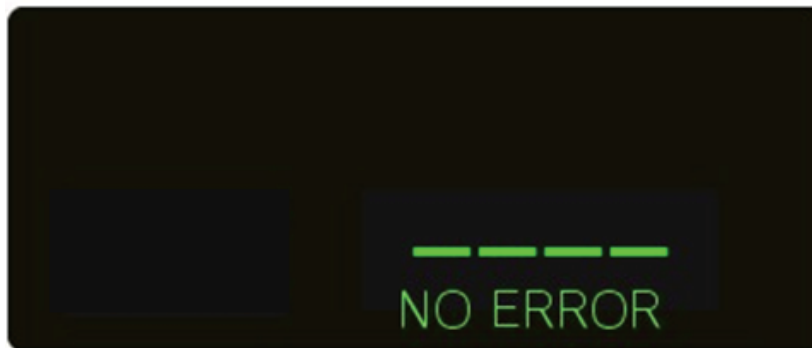
1. press the “clear” key
2. Press and Hold “LOWER BAKE” and “LOWER BROIL” key for 3 seconds

If the oven has some failure, the oven will show the failure code, like FIG. 1  
It shows the type of F-code and times of occurred failure



< FIG. 1 >

If the oven does not have any failure, the oven will display like FIG. 2



< FIG. 1 >

### NOTE:

After checking the failure code, press the “CLEAR” key

# SAFETY CAUTION & ERROR CODE SUMMARY

## 1.1 Safety Caution

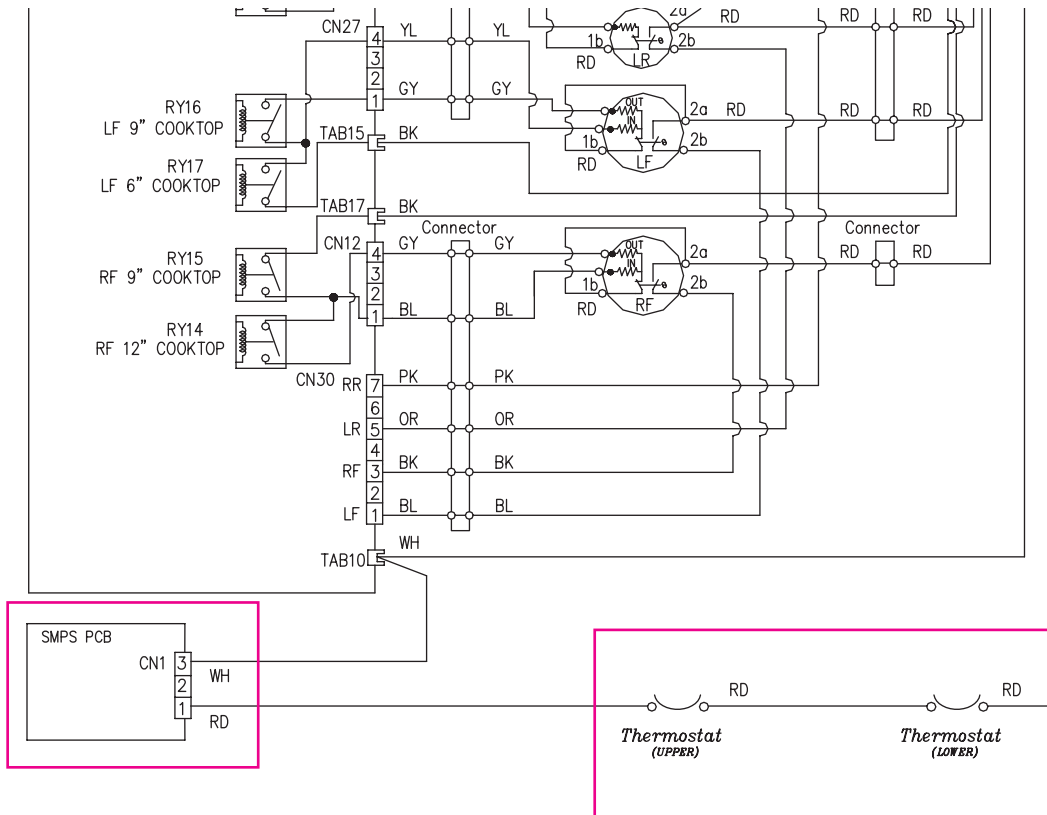
- Unless SVC manual indicate that 'power is on', normal state is power off.

## 1.2 Error Code Summary

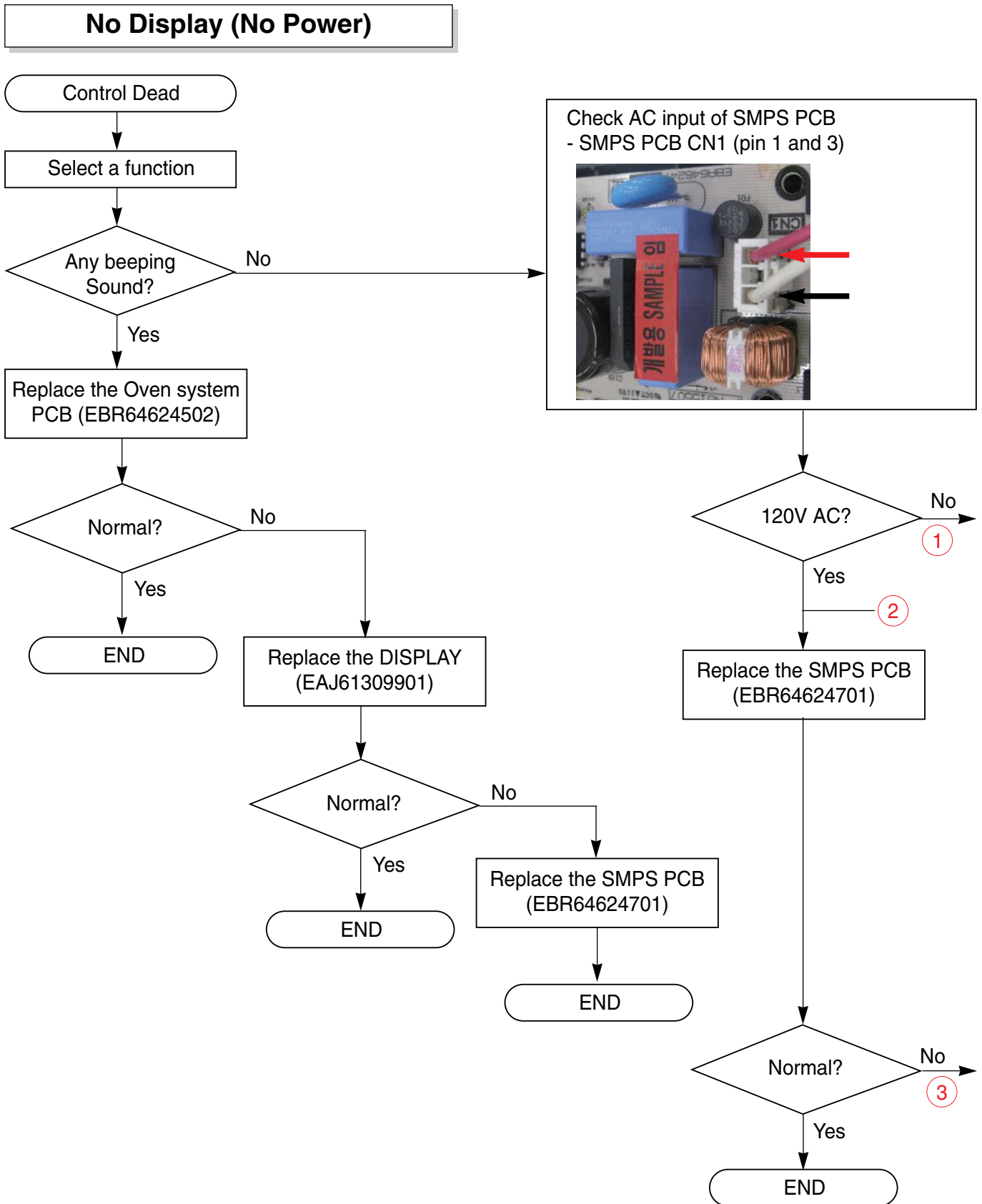
Code	Description	Operation
F-1	<b>Opened Sensor</b>	Upper Oven Thermistor remains open for over 1 min, after cook starts during cooking.
F-2	<b>Shorted Sensor</b>	Upper Oven Thermistor is short for over 1 min after cook starts during cooking.
F-3	<b>Key short Error</b>	When some key is continuously short for $\geq 60$ seconds. (except oven temp $\geq 500$ )
F-4	<b>Opened Sensor</b>	Lower Oven Thermistor remains open for over 1 min, after cook starts during cooking.
F-5	<b>Shorted Sensor</b>	Lower Oven Thermistor is short for over 1 min after cook starts during cooking.
F-6	<b>Oven hot</b>	Upper oven temperature is over 650°F continuously during 2 minutes on cooking except self cleaning.
F-8	<b>Shorted Sensor</b>	Upper Temp Probe Thermistor is shorted over 1 minute after cook starts.
F-9	<b>No heating</b>	If current upper oven temperature does not exceed 150°F or is lower than the start temperature over 5 minutes after preheating where door is closed. (EXCEPT PROOF and WARM)
F-10	<b>Door Lock Fail</b>	In case of upper oven Door Lock Failure in operating Lock motor
F-11	<b>Comm Error</b>	The communication error happened between Cook Top PCB and Oven PCB over 10 seconds in the self clean mode.
F-16	<b>Oven hot</b>	Lower oven temperature is over 650°F continuously during 2 minutes on cooking.
F-18	<b>Probe shorted sensor</b>	Probe Thermistor is short for over 1 min after cook starts during cooking.
F-19	<b>No heating</b>	If current lower oven temperature does not exceed 150°F or is lower than start temperature over 5 minutes on preheating where door is closed. (EXCEPT PROOF and WARM)
F-20	<b>Door Lock Fail</b>	In case of Lower Door Lock Failure in operating Lock motor

# CHECKING FLOW CHART BY FAIRURE

Symptom	Check Point
<b>1. Power Failure (Dead)</b> <b>2. No Display</b>	1. Check Electric Wiring 2. Check the thermostat 3. Check the SMPS PCB



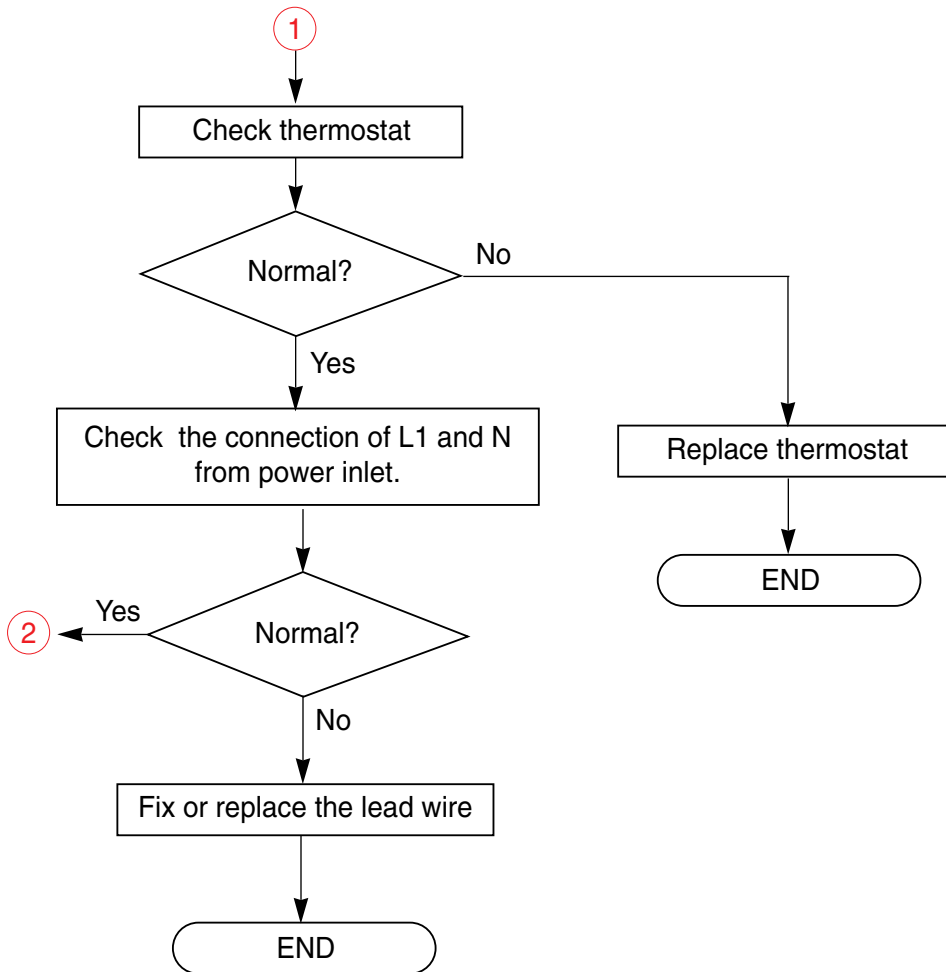
# CHECKING FLOW CHART BY FAIRURE





# CHECKING FLOW CHART BY FAIRURE

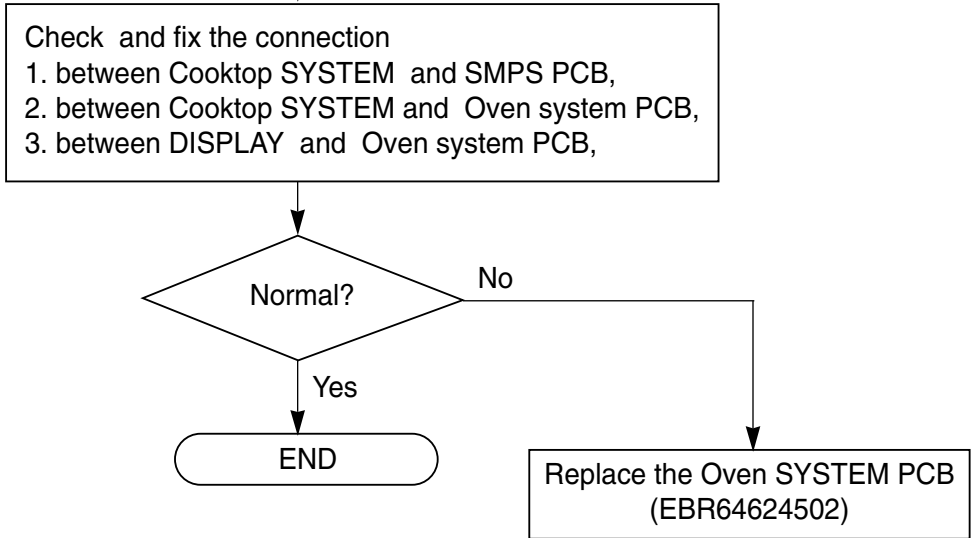
## No Display (No Power)



# CHECKING FLOW CHART BY FAIRURE

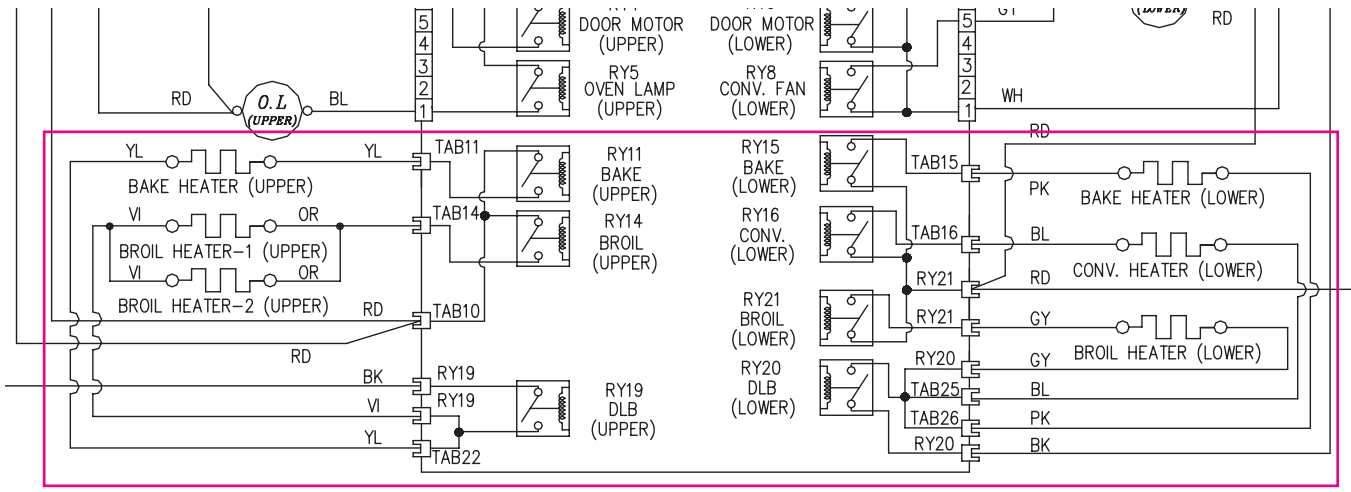
## No Display (No Power)

3

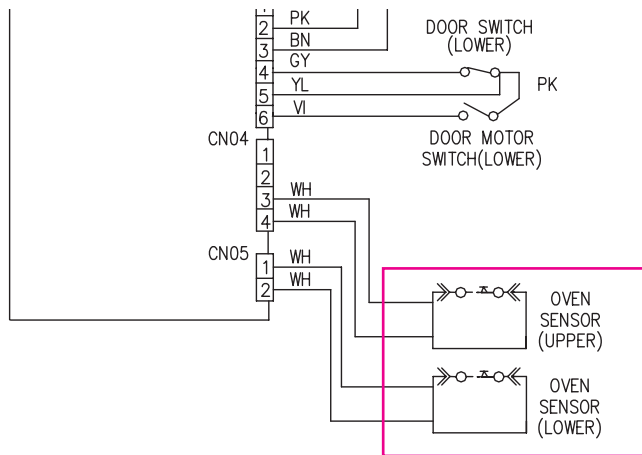


# CHECKING FLOW CHART BY FAIRURE

Symptom	Check Point
<b>1. No heating</b> <b>2. F-9</b> <b>3. F-19</b>	1. Check Electric Wiring 2. The Heater's Resistance. 3. Check the Sensor (thermistor).



Heater resistor



Check the sensor

# CHECKING FLOW CHART BY FAIRURE

## Oven does not heat (including F-9, F-19 Error)

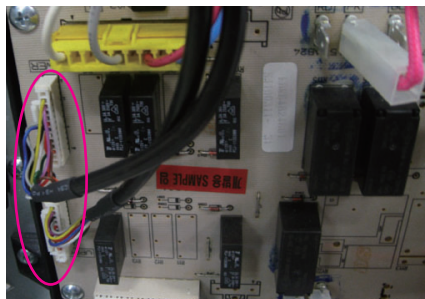
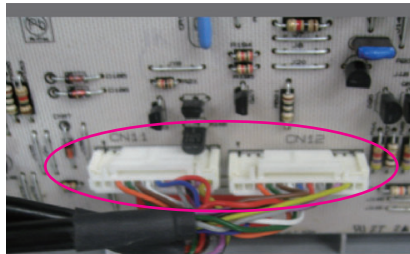
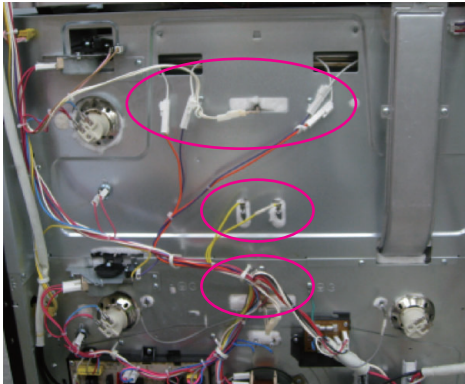
No heating

Disconnect power

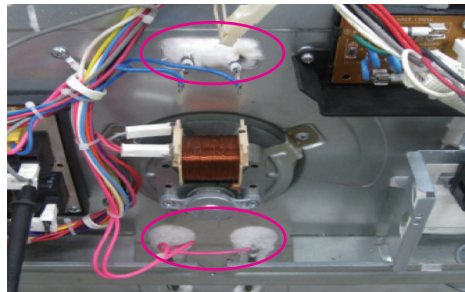
Check the electric wiring

1. Harness of Relay connection.
2. Each heater's connection.
3. System and Relay PCB connection(CN11, CN12)

UPPER



LOWER



Harness connection check

Normal?

No

Fix or replace the lead wire

Yes

END

1

# CHECKING FLOW CHART BY FAIRURE

## Oven does not heat (including F-9, F-19 Error)

①

Measure the Resistor of each heater Between the DLB Relay's L2 and each heater Relay's Harness point of Figure 1

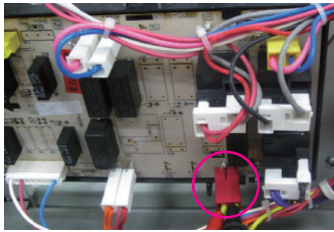
(①, ②, ③ and ⑤)

(measure the resistance after cooling down)

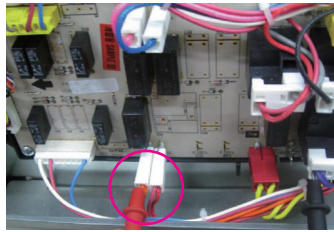
Normal

Resistor	Min	Max
upper Bake	22.0	29.0
upper broil	45.0	55.0
lower conv.	25.0	32.0
lower bake	20.0	25.0
lower broil	12.0	17.0

### UPPER

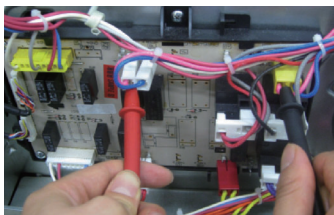


Bake

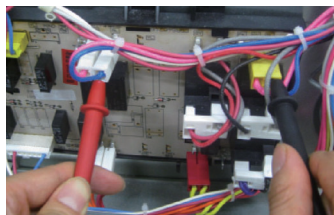


Broil

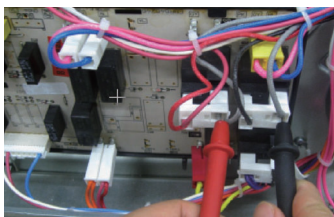
### LOWER



Bake

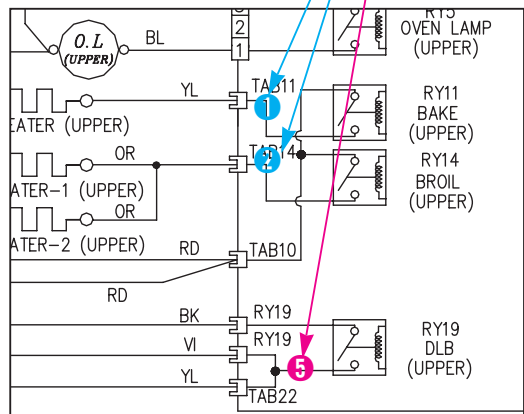


Conv.

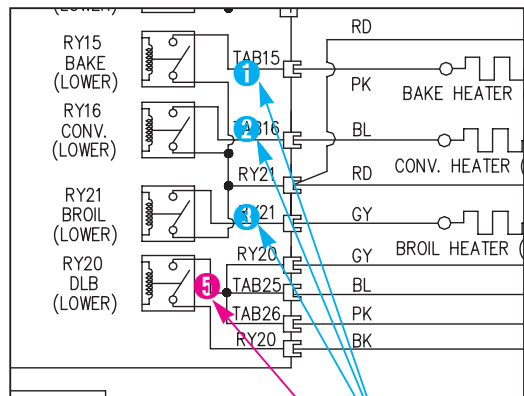


Broil

### UPPER



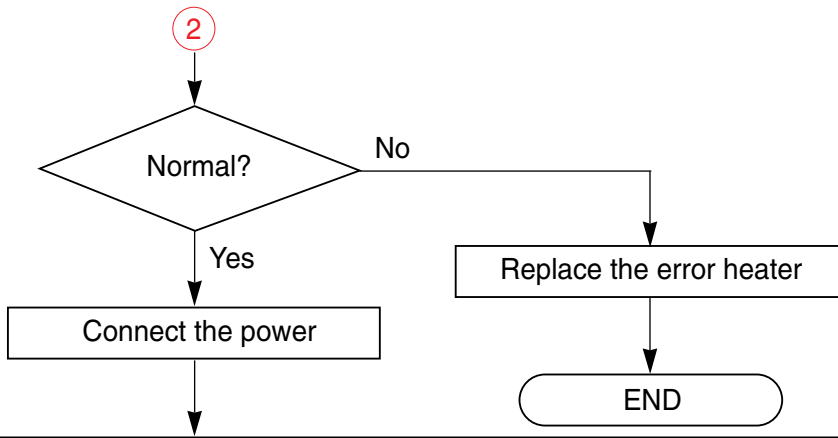
### LOWER



②

# CHECKING FLOW CHART BY FAIRURE

## Oven does not heat (including F-9, F-19 Error)



Check the value of thermistor by using the test mode

• To enter the testmode, follow these steps:

1. press the “clear” key
2. press the “LOWER BAKE”, “LOWER BROIL” key at the same time for one second



3. press the “LOWER BAKE”, “LOWER BROIL” key at the same time again.



4. press the NUM “3” key

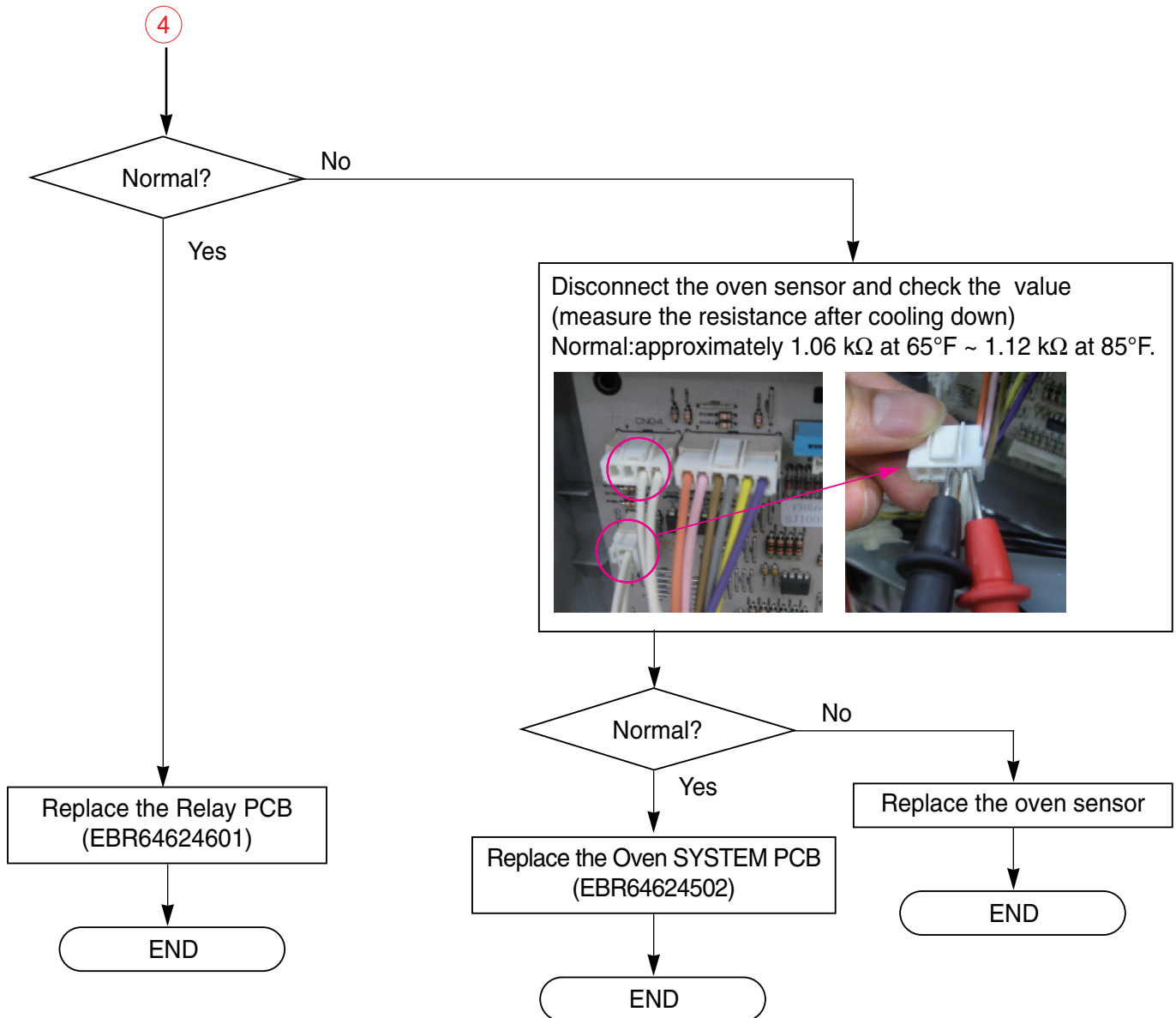


Normal : The sensor value is from 70°F to 90°F at 25°C.

3

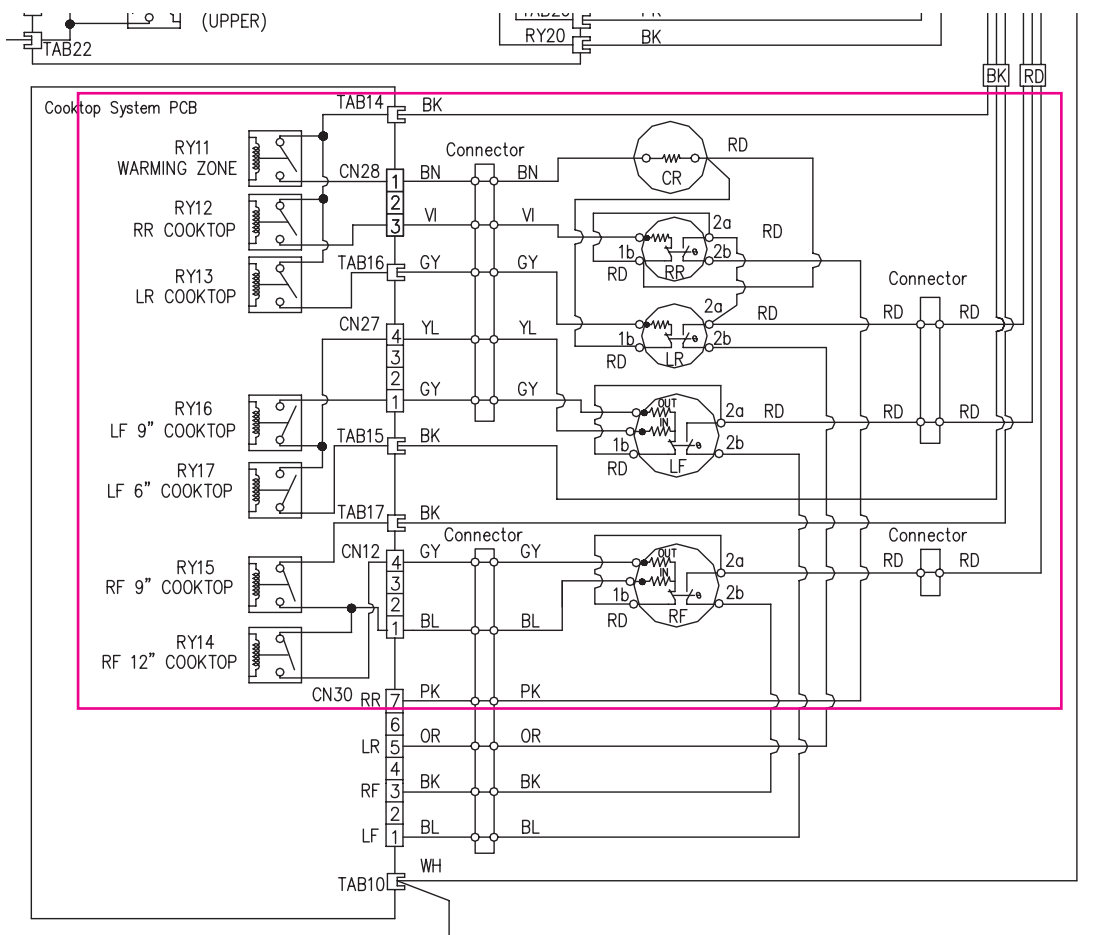
# CHECKING FLOW CHART BY FAIRURE

## Oven does not heat (including F-9, F-19 Error)



# CHECKING FLOW CHART BY FAIRURE

Symptom	Check Point
<b>1. Cooktop Not working</b>	1. Check Electric Wiring 2. Check the Heater resistance





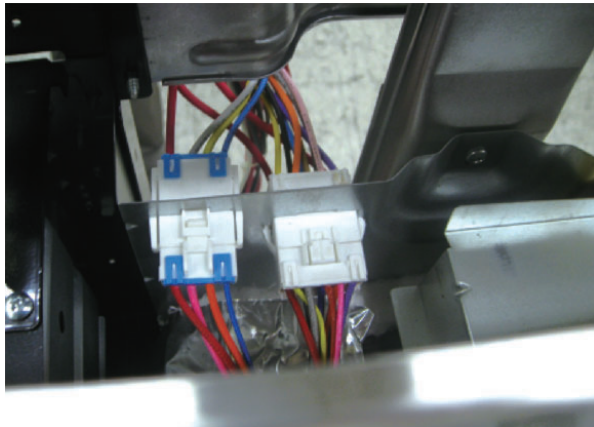
# CHECKING FLOW CHART BY FAIRURE

## Cook-top does not heat

No heating  
(All or a part of cook-top heaters)

Disconnect power

Check the loose connection cook-top heater and harness



Normal?

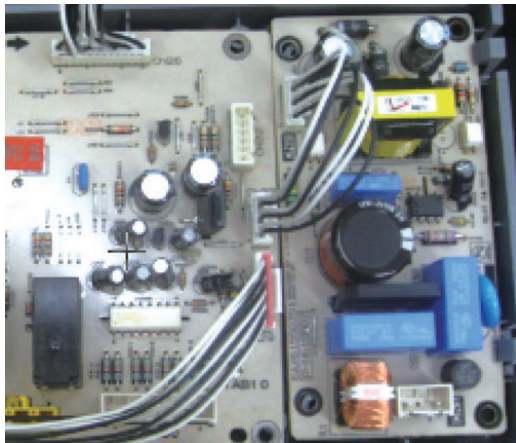
No

Yes

Reconnect.  
If defective harness, replace or fix

END

Check the loose connector (SMPS PCB and Cooktop PCB)



Normal?

No

Reconnect.

Yes

1

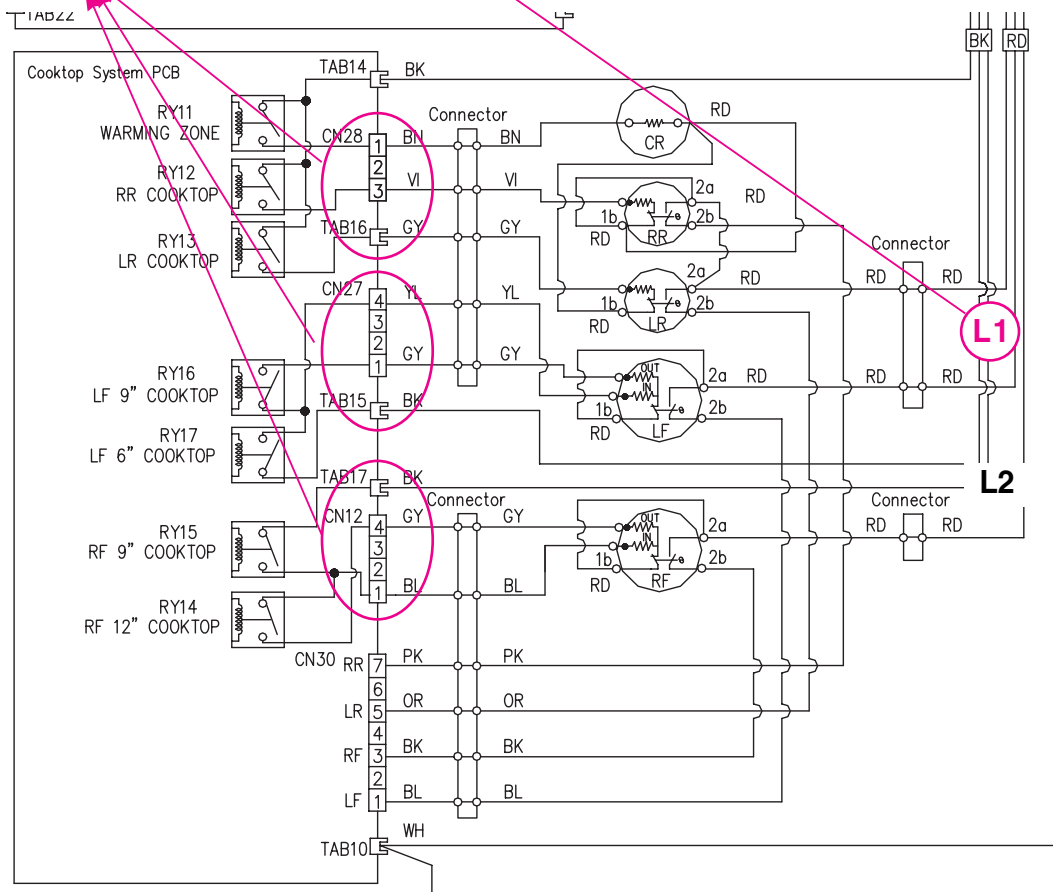
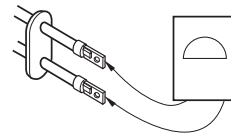
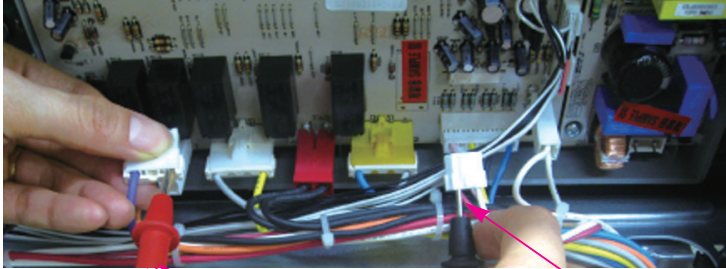
# CHECKING FLOW CHART BY FAIRURE

## Cook-top does not heat

1

### Check the cook-top heaters

(measure the resistance between CN10, CN11, CN12, TAB11, TAB09 and SMPS CN1 pin 3)

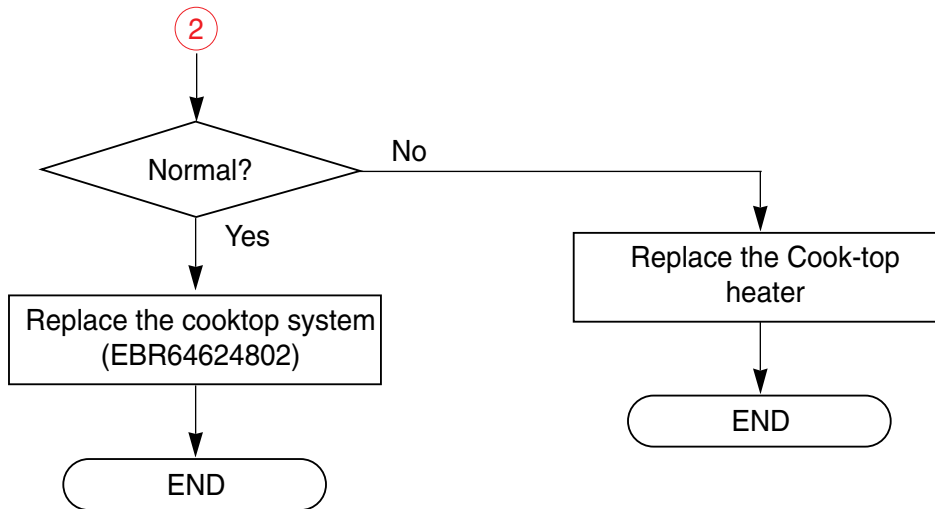


Normal : approximately 100Ω

2

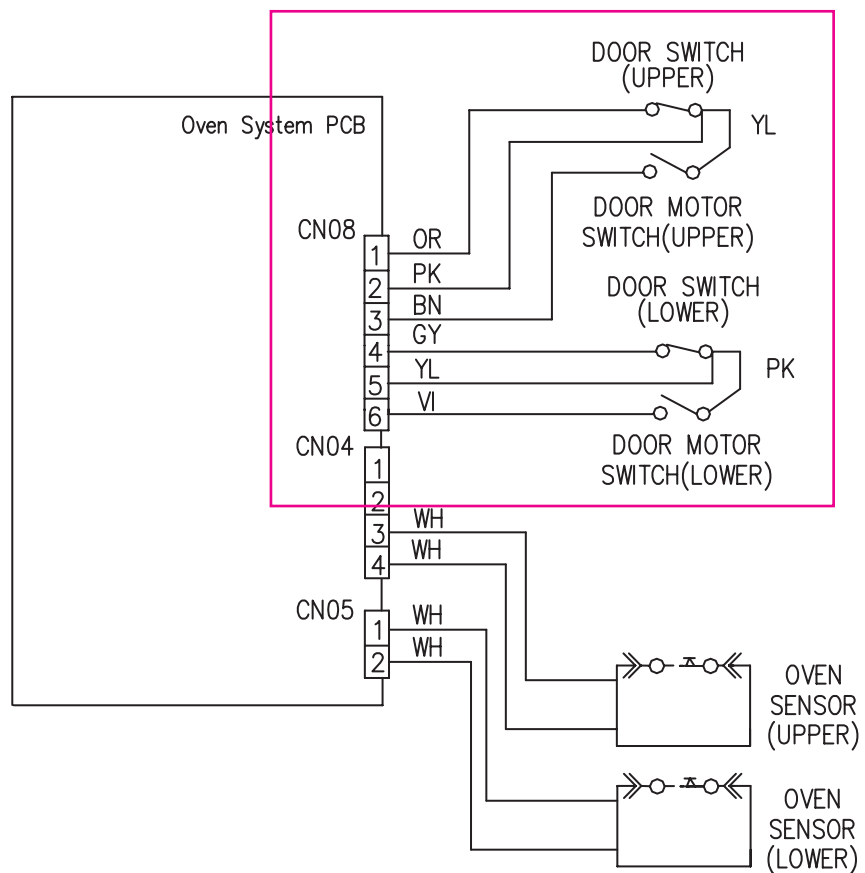
# CHECKING FLOW CHART BY FAIRURE

Cook-top does not heat



# CHECKING FLOW CHART BY FAIRURE

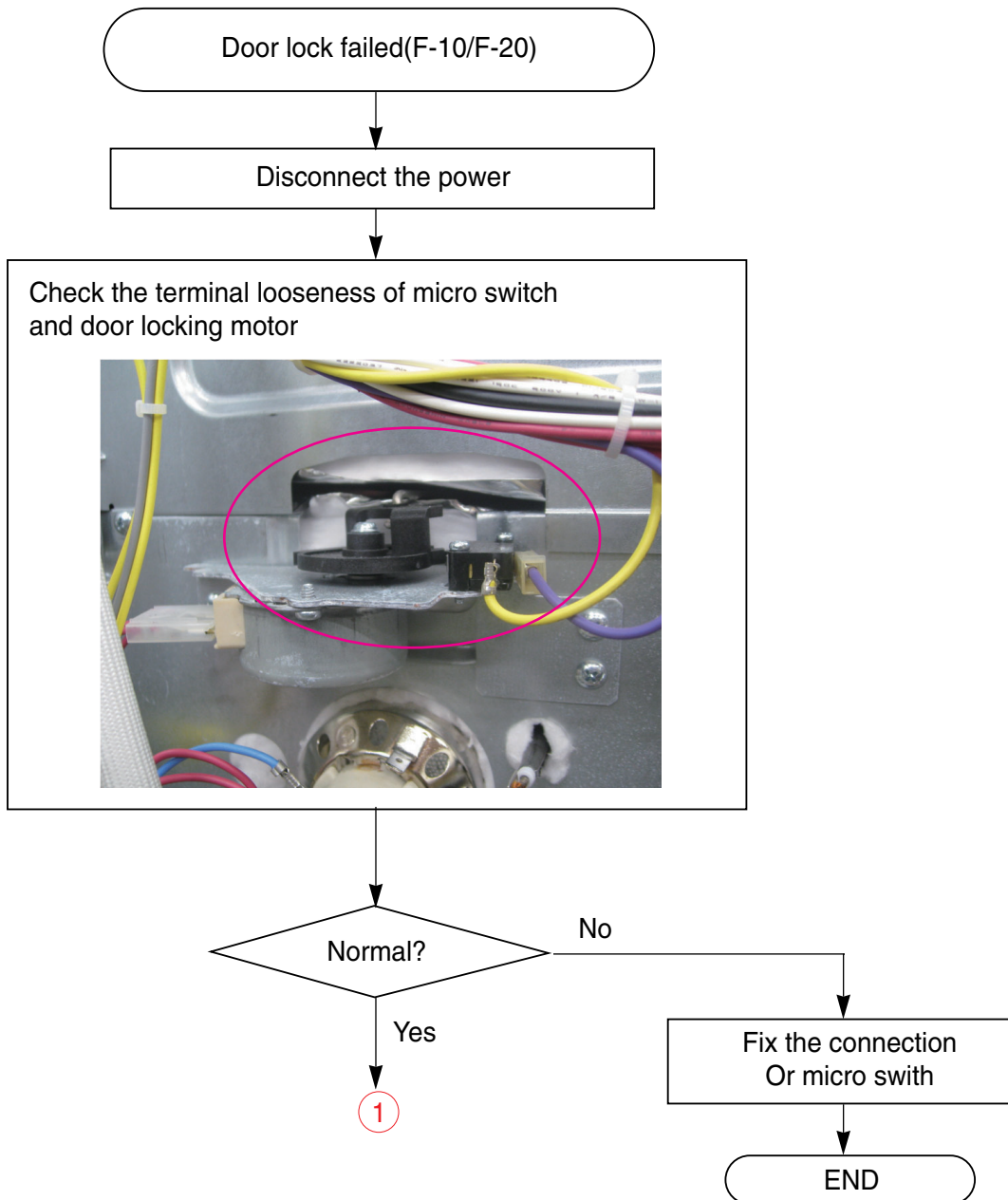
Symptom	Check Point
<b>1. Door Lock System Failure</b> <b>2. F-10, F-20</b>	1. Check the Electric wiring 2. Check the Motor's Resistance



# CHECKING FLOW CHART BY FAIRURE

## Door lock system error → F-10, F-20 Error

Just after self-clean start, the door lock motor starts to rotate. During that time if the door lock switch does not operate properly after rotating twice, then supervising circuit detects a Door Lock failure and the F-10, F-20 error code appears.

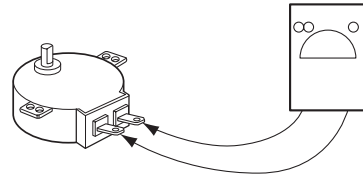


# CHECKING FLOW CHART BY FAIRURE

Door lock system error → F-10, F-20 Error

①

Check the door locking motor (measure the resistance)  
normal: approximately 2.6 kΩ  
abnormal: infinite or below 5 Ω



Normal?

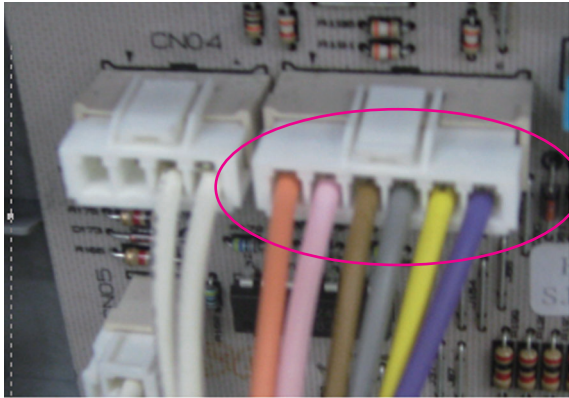
No

Yes

Replace the door  
locking motor

END

Check the looseness of CN08



Normal?

No

Yes

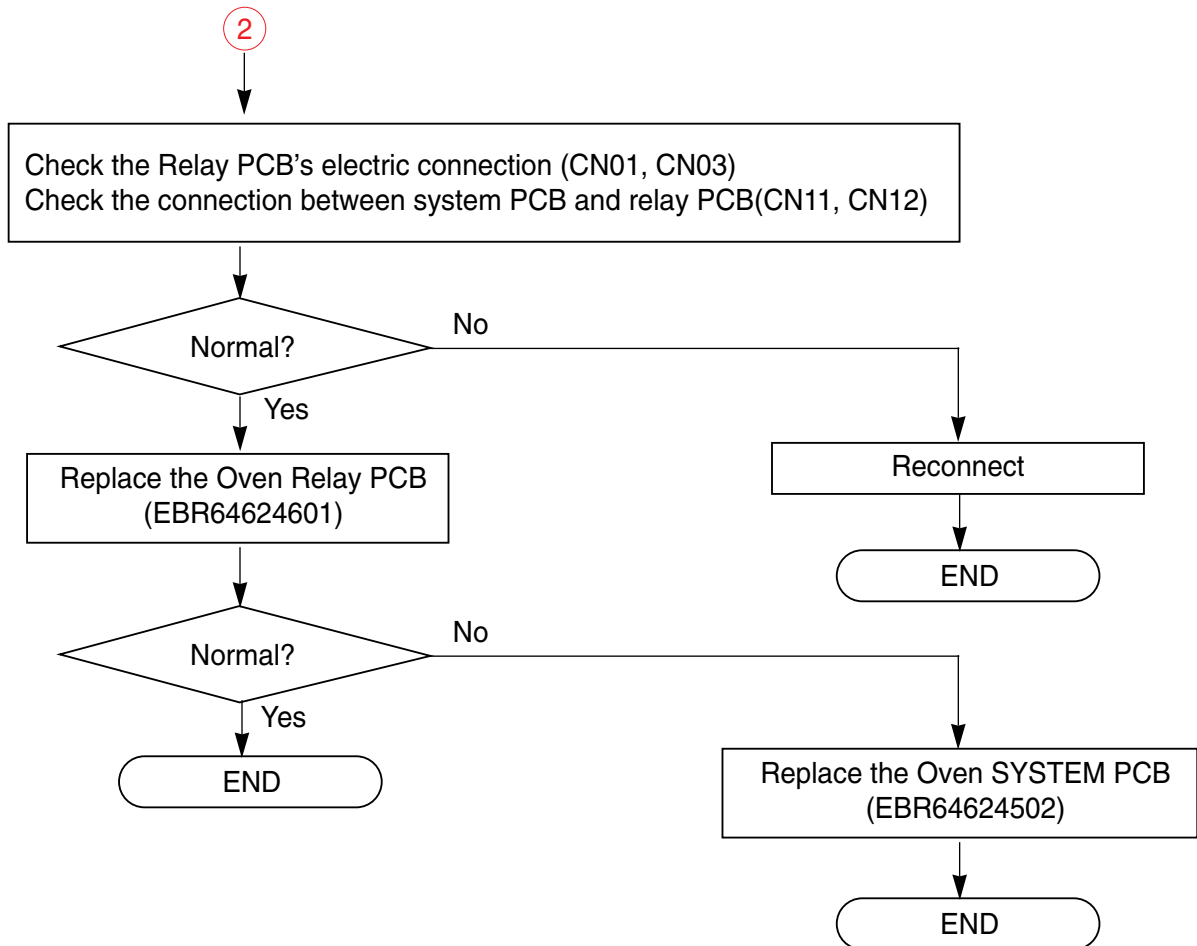
Reconnect

END

②

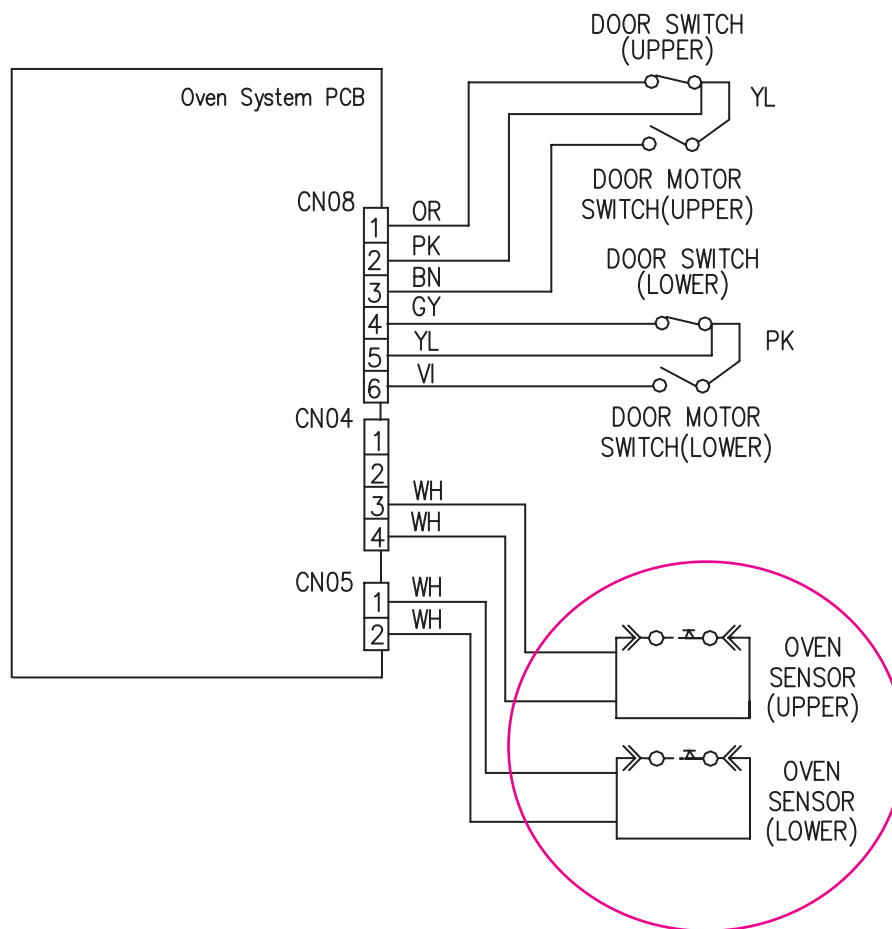
# CHECKING FLOW CHART BY FAIRURE

Door lock system error → F-10, F-20 Error



# CHECKING FLOW CHART BY FAIRURE

Symptom	Check Point
<b>1. Sensing Fail</b> <b>2. F-1</b> <b>3. F-2</b> <b>4. F-4</b> <b>5. F-5</b>	1. Check the electric wiring 2. Check the test Mode 3. Check the sensor(thermistor) resistance (approximately 1.06 kΩ at 65°F ~ 1.12 kΩ at 85°F.)





# CHECKING FLOW CHART BY FAIRURE

Oven sensing error → F-1, F-2, F-4, F-5 error

Main oven sensing failed

Connect the power

Check the value of thermistor by using the test mode

• To enter the testmode, follow these steps:

1. press the "clear" key
2. press the "LOWER BAKE", "LOWER BROIL" key at the same time for one second



3. press the "LOWER BAKE", "LOWER BROIL" key at the same time again.



4. press the NUM "3" key

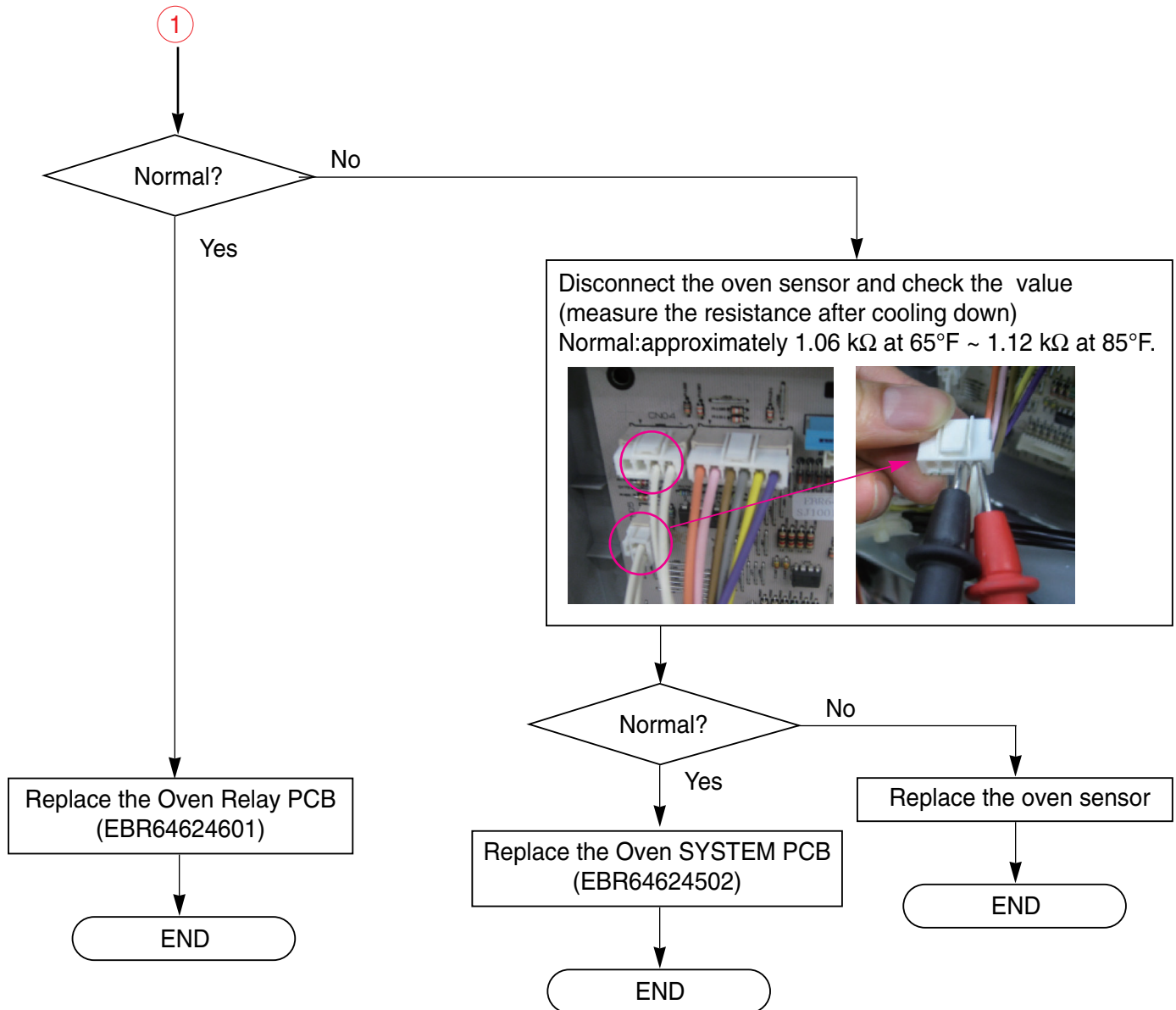


Normal : The sensor value is from 70°F to 90°F at 25°C.

1

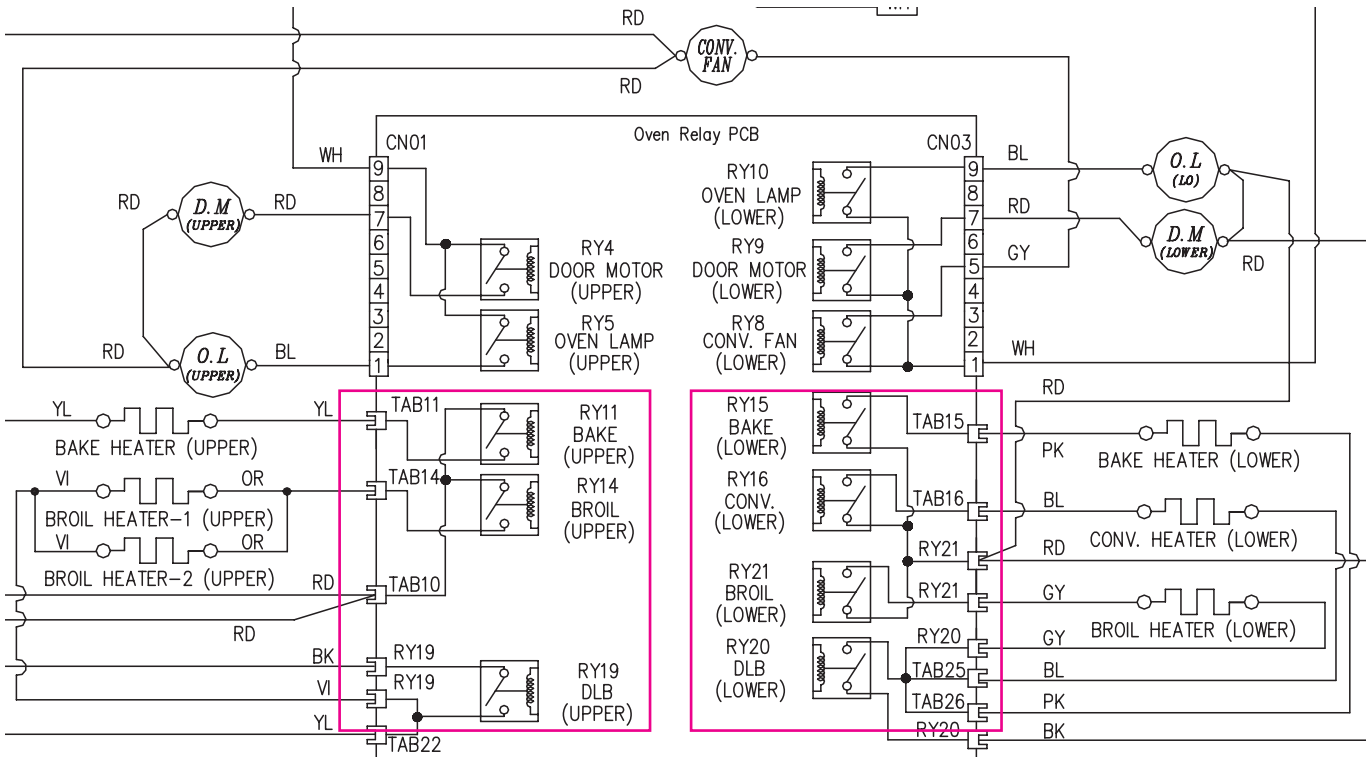
# CHECKING FLOW CHART BY FAIRURE

Oven sensing error → F-1, F-2, F-4, F-5 error



# CHECKING FLOW CHART BY FAIRURE

Symptom	Check Point
<b>1. Oven hot</b> <b>2. F-6</b> <b>3. F-16</b>	1. Check the Resistance of the Relay.



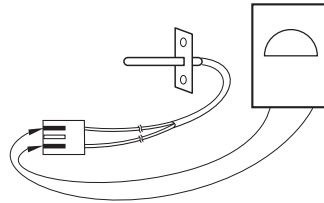
Check the resistance of relays

# CHECKING FLOW CHART BY FAIRURE

Oven hot error → F-6, F-16 error

Oven is hot (F-6, F-16)

Disconnect the power and oven sensor.  
 Check the oven sensor value  
 (measure the resistance after cooling down)  
 Normal: approximately 1.06 kΩ at 65°F ~ 1.12 kΩ at 85°F



Normal?

No

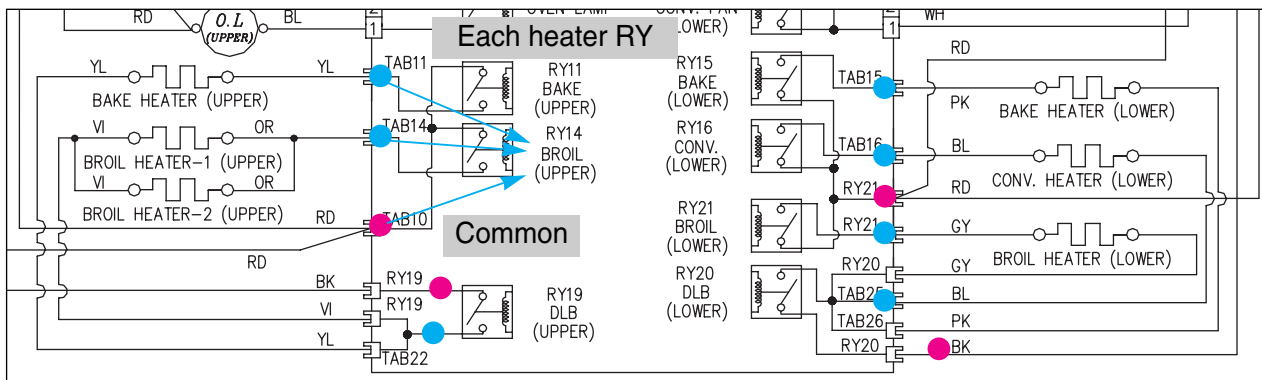
Yes

Replace the oven sensor

Remove the relay PCB harness

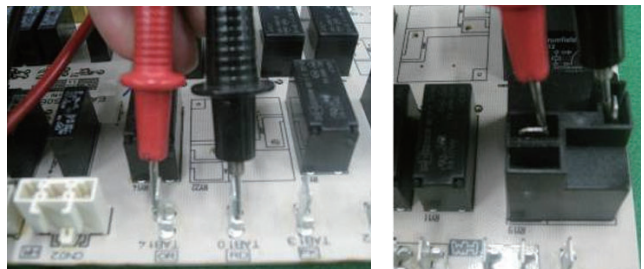
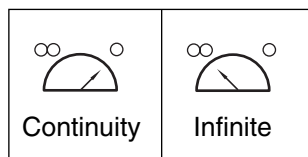
END

Check the all the heater relay welded or not. (AND measure the resistance)  
 Each relay's TAB and L1.  
 DLB Relay is measured L2 and TAB.



Welded

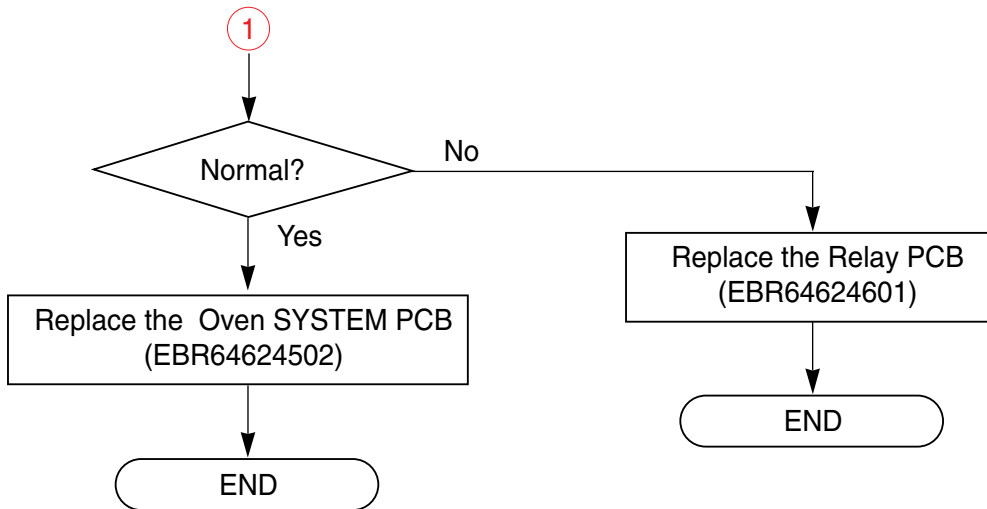
Normal



1

# CHECKING FLOW CHART BY FAIRURE

Oven hot error → F-6, F-16 error



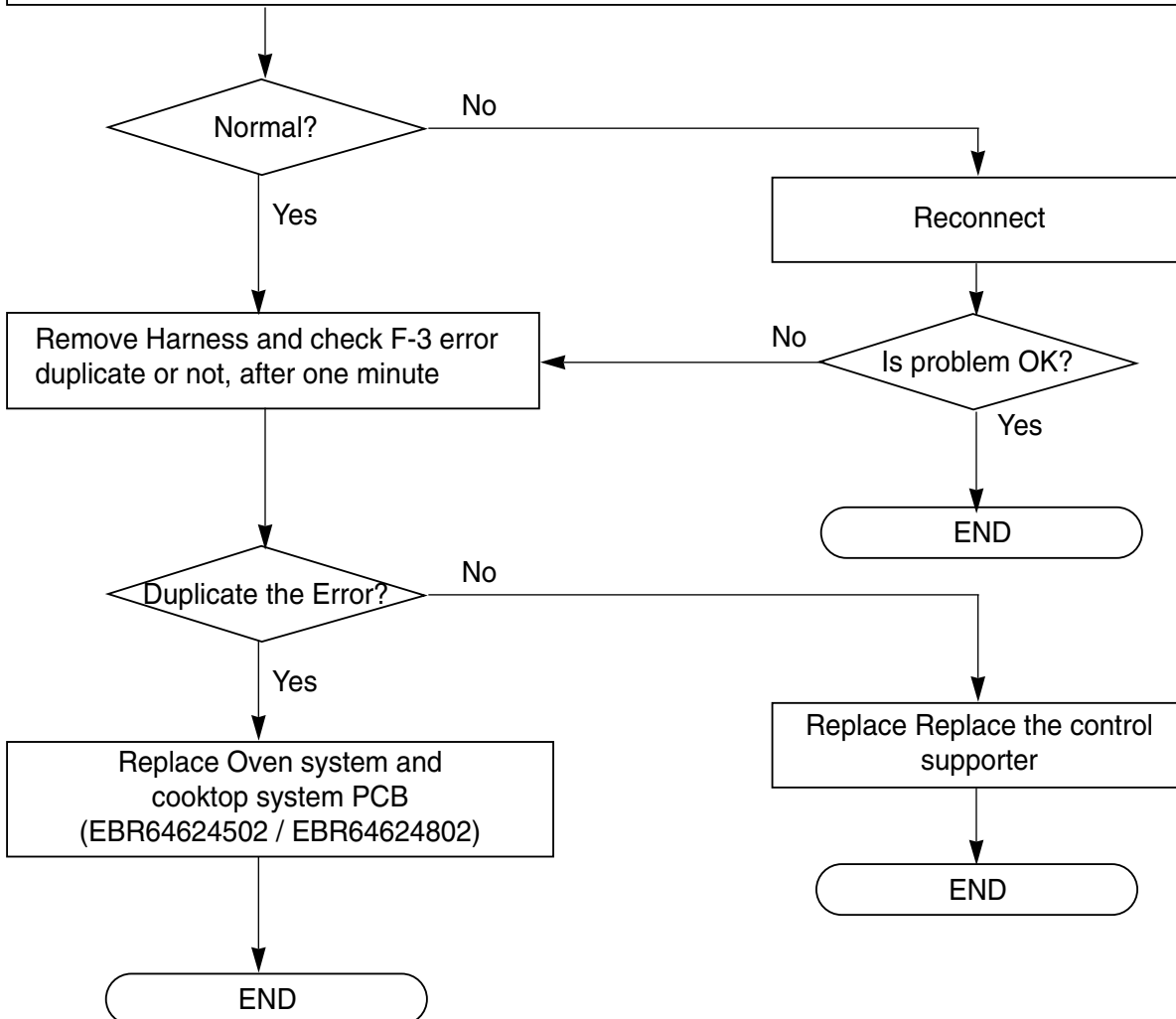
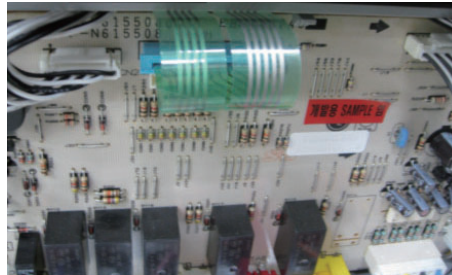
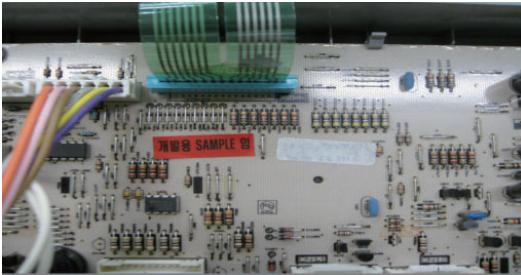
# CHECKING FLOW CHART BY FAIRURE

## No key input Or F-3

Key does not input(including F-3)

If the key error occurred in the oven VFD,  
check the oven system.  
If the problem happened the cooktop LED,  
Check the cooktop system.

Check the connection between Oven system PCB'S CN03,cooktop systme PCB's CN21

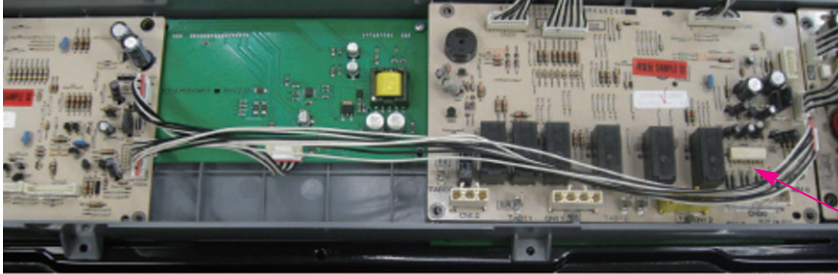


# CHECKING FLOW CHART BY FAIRURE

## F-11 error (communication error)

F-11 error

Check the connection between MAIN PCB'S CN06 and SYSTEM PCB'S CN13



This Harness

Normal?

No

Yes

Reconnect

Replace the Oven SYSTEM PCB  
(EBR43296802)

Reset failure log and Check the F-code.

1. press the "clear" key
2. Press and Hold "LOWER BAKE" and "LOWER BROIL" key for 3 seconds



3. In Order to reset failure log, press CLEAR pad
4. Press and Hold "LOWER BAKE" and "LOWER BROIL" key for 3 seconds again.

Normal?

No

Yes

Replace the Cooktop system PCB  
(EBR64624802)

END

# TROUBLE SHOOTING

PROBLEMS	POSSIBLE CAUSES & FAULTS	SOLUTIONS
Oven not operating.	<ul style="list-style-type: none"> <li>• Bad power control board (PCB)</li> <li>• Power outage</li> </ul>	<ul style="list-style-type: none"> <li>• Test and/or replace PCB → Refer to the page 6-1~6-4</li> <li>• Verify power is present at unit.</li> <li>• Verify that the circuit breaker is not tripped</li> <li>• Replace household fuse capacity</li> </ul>
Oven element does not heat.	<ul style="list-style-type: none"> <li>• No line voltage</li> <li>• Loose or bad wiring.</li> <li>• Defective element.</li> <li>• Bad Power control board(PCB)</li> </ul>	<ul style="list-style-type: none"> <li>• Check circuit breaker.</li> <li>• Repair or replace wiring (see wiring diagrams).</li> <li>• Test and/or replace element.</li> <li>• Test and/or replace PCB → Refer to the page 6-5~6-7</li> </ul>
Surface element barely heats  Surface element will not heat Higher than low-medium	<ul style="list-style-type: none"> <li>• Loose or bad wiring connection at element or terminal block.</li> <li>• Defective Surface units control PCB</li> <li>• Defective Surface element.</li> <li>• Low line voltage</li> </ul>	<ul style="list-style-type: none"> <li>• Verify all connections are clean and tight, replace broken wires</li> <li>• Test and/or replace cook-top PCB → Refer to the page 6-8~6-9</li> <li>• Test and/or replace element.</li> <li>• Line voltage should be minimum 240-volts. Of necessary, electrician should repair cause for low line voltage</li> </ul>
Frequent cycling of surface Element or warming zone	<ul style="list-style-type: none"> <li>• This is normal</li> </ul>	<ul style="list-style-type: none"> <li>• The element will cycle on and off to maintain the heat setting</li> </ul>
“HS” (Hot surface)Warning message does not light up	<ul style="list-style-type: none"> <li>• Defective cook-top control PCB</li> </ul>	<ul style="list-style-type: none"> <li>• Test and/or replace cook-top PCB</li> </ul>
Oven light fails to operate. (Refer to the page 6-10)	<ul style="list-style-type: none"> <li>• Failed oven lamp.</li> <li>• Circuit breaker or fuse is open</li> <li>• Loose or bad wiring</li> <li>• Defective light socket.</li> <li>• Defective door switch</li> </ul>	<ul style="list-style-type: none"> <li>• Check lamp and Replace is necessary</li> <li>• Check circuit breaker or replace fuse.</li> <li>• Repair or replace wiring</li> <li>• Check light socket for continuity.</li> <li>• Test and/or replace door switch</li> </ul>
Oven does not begin clean cycle  Oven stop for Self clean cycle	<ul style="list-style-type: none"> <li>• Bad wiring</li> <li>• Bad latch system</li> <li>• Programming error</li> <li>• Defective a point of contact with door switch</li> </ul>	<ul style="list-style-type: none"> <li>• Repair or replace wiring</li> <li>• Check door locking motor and micro switch</li> <li>• Shut off power to oven for five minutes by switching off circuit breaker. Reset circuit breaker and try oven again.</li> <li>• Test door switch and check the point of contact between door and door switch</li> </ul>



# TROUBLE SHOOTING

PROBLEMS	POSSIBLE CAUSES & FAULTS	SOLUTIONS
Electronic timer will not accept Programming.	<ul style="list-style-type: none"> <li>Failed main power control board</li> </ul>	<ul style="list-style-type: none"> <li>Replace power control board(PCB)</li> </ul>
Electronic timer will not accept Programming.	<ul style="list-style-type: none"> <li>Failed main power control board</li> </ul>	<ul style="list-style-type: none"> <li>Replace power control board(PCB)</li> </ul>
Clock and timer not working	<ul style="list-style-type: none"> <li>Power outage</li> </ul>	<ul style="list-style-type: none"> <li>Verify power is present at unit.</li> <li>Verify that the circuit breaker is not tripped</li> <li>Replace household fuse, but do not fuse capacity</li> <li>Refer to Owner's manual instructions</li> </ul>
Oven does not bake (Selection is set for to BAKE or TIMED BAKE)	<ul style="list-style-type: none"> <li>Loose or bad wiring</li> <li>Defective BAKE element</li> <li>Defective electronic clock</li> <li>Door switch sensing error</li> </ul>	<ul style="list-style-type: none"> <li>Verify all connections are clean and tight, replace broken wire</li> <li>Test and/or replace BAKE element.</li> <li>Replace power control board(PCB)</li> <li>Test door switch and check the point of contact between door and door switch</li> </ul>
Oven does not Broil	<ul style="list-style-type: none"> <li>Loose or bad wiring</li> <li>Defective BROIL element</li> <li>Defective Power Control Board</li> </ul>	<ul style="list-style-type: none"> <li>Verify all connections are clean and tight, replace broken wire</li> <li>Test and/or replace BAKE element.</li> <li>Replace power control board(PCB)</li> </ul>
Overheating or "runaway" oven	<ul style="list-style-type: none"> <li>Loose or bad wiring to latch system</li> <li>Defective Oven Sensor</li> <li>Bad Power Control Board(PCB)</li> </ul>	<ul style="list-style-type: none"> <li>Repair or replace wiring</li> <li>Test and/or replace Oven Sensor</li> <li>Test and/or replace PCB</li> </ul>
Oven door will not open or latch.	<ul style="list-style-type: none"> <li>Defective latch mechanism.</li> <li>Defective(bent)door latch lever.</li> <li>Oven is still hot. Cool-down period after self-clean cycle not complete</li> </ul>	<ul style="list-style-type: none"> <li>Replace door latch system.</li> <li>Replace latch lever</li> <li>This is normal. Wait until LOCK icon goes out.</li> </ul>
Premature burnout of bake element	<ul style="list-style-type: none"> <li>Improper use of oven(e.g. being used to heat the home)</li> </ul>	<ul style="list-style-type: none"> <li>Use oven for baking only</li> </ul>
Oven door difficult to open	<ul style="list-style-type: none"> <li>Worn or broken broil stop roller.</li> </ul>	<ul style="list-style-type: none"> <li>Replace oven door hinge</li> </ul>

# TROUBLE SHOOTING

PROBLEMS	POSSIBLE CAUSES & FAULTS	SOLUTIONS
Oven door sagging on one side	<ul style="list-style-type: none"> <li>• Hinge loose or out of position to oven liner</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust hinges or replace hinges</li> </ul>
Door does not close completely at top	<ul style="list-style-type: none"> <li>• Broken or misadjusted door spring</li> <li>• Door fits too tight at bottom.</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust or replace hinges</li> <li>• Adjust hinges outward.</li> </ul>
Door glass breaks.	<ul style="list-style-type: none"> <li>• Oven racks covered with foil.</li> <li>• Glass installed backward.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not cover racks with foil.</li> <li>• Install tempered glass toward the heat.</li> </ul>
Damaged oven door gasket.	<ul style="list-style-type: none"> <li>• Improper Self clean</li> </ul>	<ul style="list-style-type: none"> <li>• Do not use harsh abrasives or scouring pads. See Owner's manual instructions</li> </ul>
Oven racks fit too tight.	<ul style="list-style-type: none"> <li>• Racks were cleaned in self clean cycle</li> <li>• Tolerance buildup in oven liner.</li> </ul>	<ul style="list-style-type: none"> <li>• Apply a small amount of vegetable oil to a paper towel and wipe the edges of the oven racks with the paper towel. Do not spray with pam or other lubricant sprays.</li> <li>• Notify customer Assurance department.</li> </ul>
Oven smokes/odor first few times of usage	<ul style="list-style-type: none"> <li>• This is normal</li> </ul>	<ul style="list-style-type: none"> <li>• Minor smoking or odor is normal for the first few times of oven usage</li> <li>• Ventilate area well and perform self clean cycle</li> </ul>
Excessive smoking during a Self clean cycle	<ul style="list-style-type: none"> <li>• Excessive soil</li> </ul>	<ul style="list-style-type: none"> <li>• Press the CLEAR/OFF pad. Open the windows to rid the room of smoke. Wait until the Self Clean cycle is cancelled. Wipe up the excess soil and reset the clean</li> </ul>
Convection fan make a noise	<ul style="list-style-type: none"> <li>• A convection fan may automatically turn on and off. Low level noise is normal</li> <li>• Loose nut of convection fan</li> <li>• Deformed convection fan</li> </ul>	<ul style="list-style-type: none"> <li>• Low level noise is normal</li> <li>• Re-fasten the nut</li> <li>• Replace the convection fan.</li> </ul>
Failures Codes	<ul style="list-style-type: none"> <li>• Electronically controlled</li> </ul>	<ul style="list-style-type: none"> <li>• Refer to "Failure codes" parts (page 7-0~7-10)</li> </ul>
Oven temperature too hot or too cold	<ul style="list-style-type: none"> <li>• Oven sensor needs to be adjusted</li> </ul>	<ul style="list-style-type: none"> <li>• See "the adjusting your oven temperature" in owners manual</li> </ul>

# SCHEMATIC DIAGRAM

## ⚠ WARNING

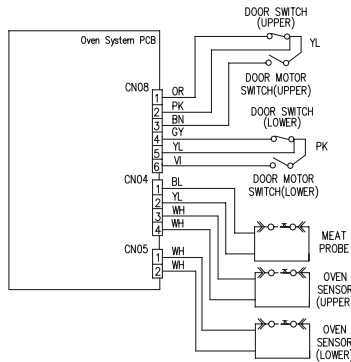
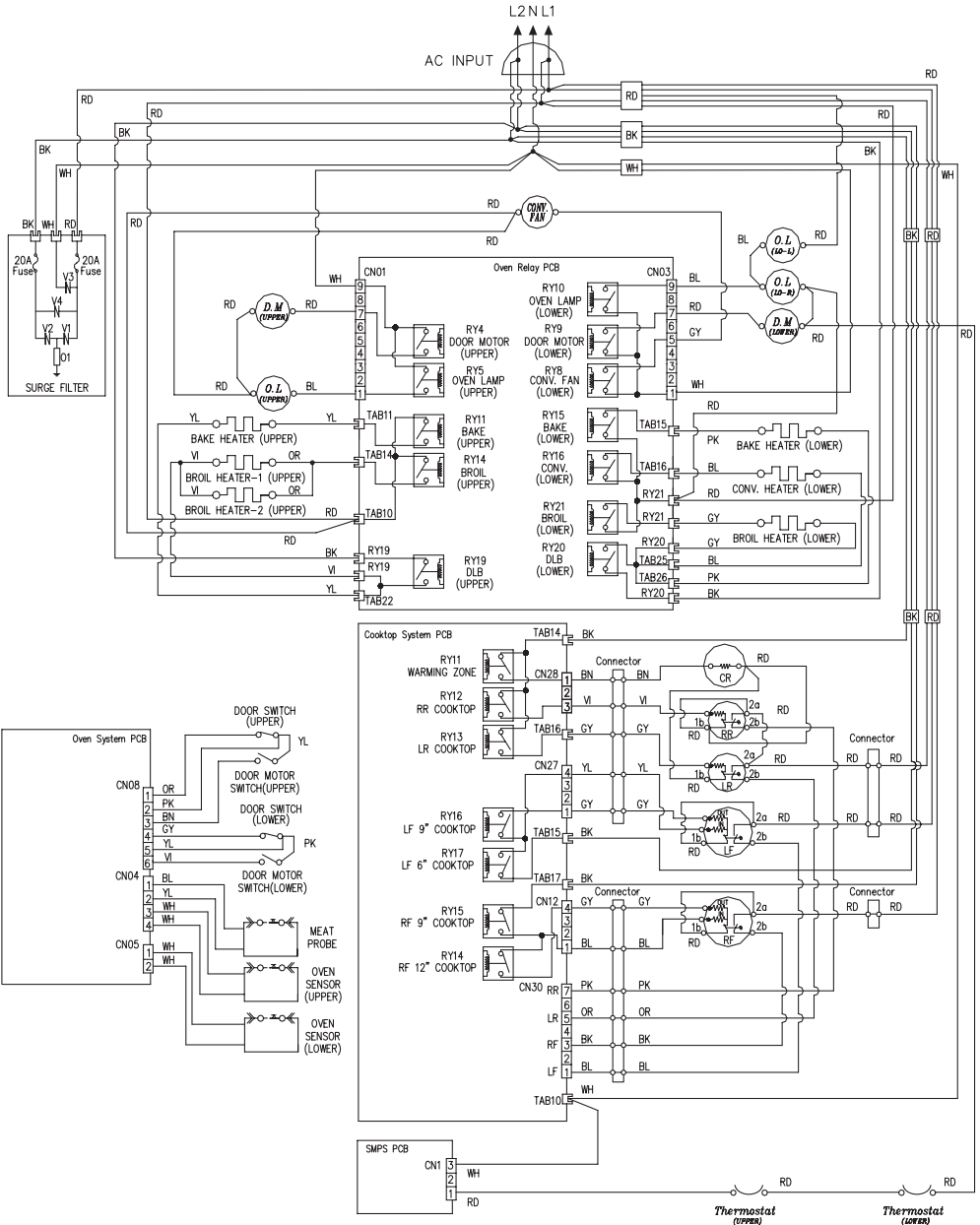
- **DISCONNECT** power supply cord from the outlet before servicing.
  - **Replace all panels and parts before operating.**
  - **RECONNECT all grounding devices.**
- Failure to do so can result in severe personal injury, death or electrical shock.

## ※ RADIANT COOK-TOP

Wattage	
RR:1200W	approx.47
LR:1200W	approx.47
RF:	
1700W(inner)	approx.32
2700W(Dual)	approx.56
LF:	
1400W(inner)	approx.41
3000W(Dual)	approx.19
CR:100W	approx.570

## WIRE COLORS

SYMBOL	COLOR
WH	WHITE
BK	BLACK
RD	RED
YL	YELLOW
PK	PINK
BL	BLUE
BN	BROWN
GN	GREEN
GY	GRAY



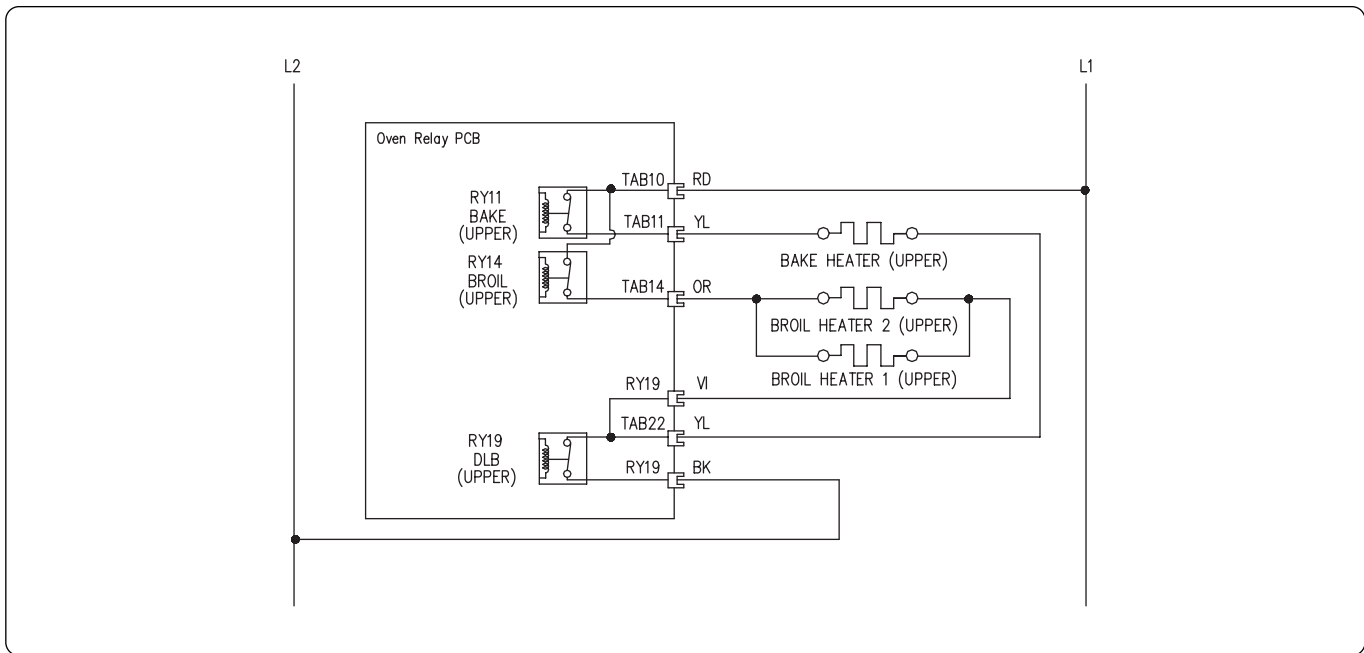
# STRIP CIRCUITS

Complete the following steps before checking electric oven circuit :

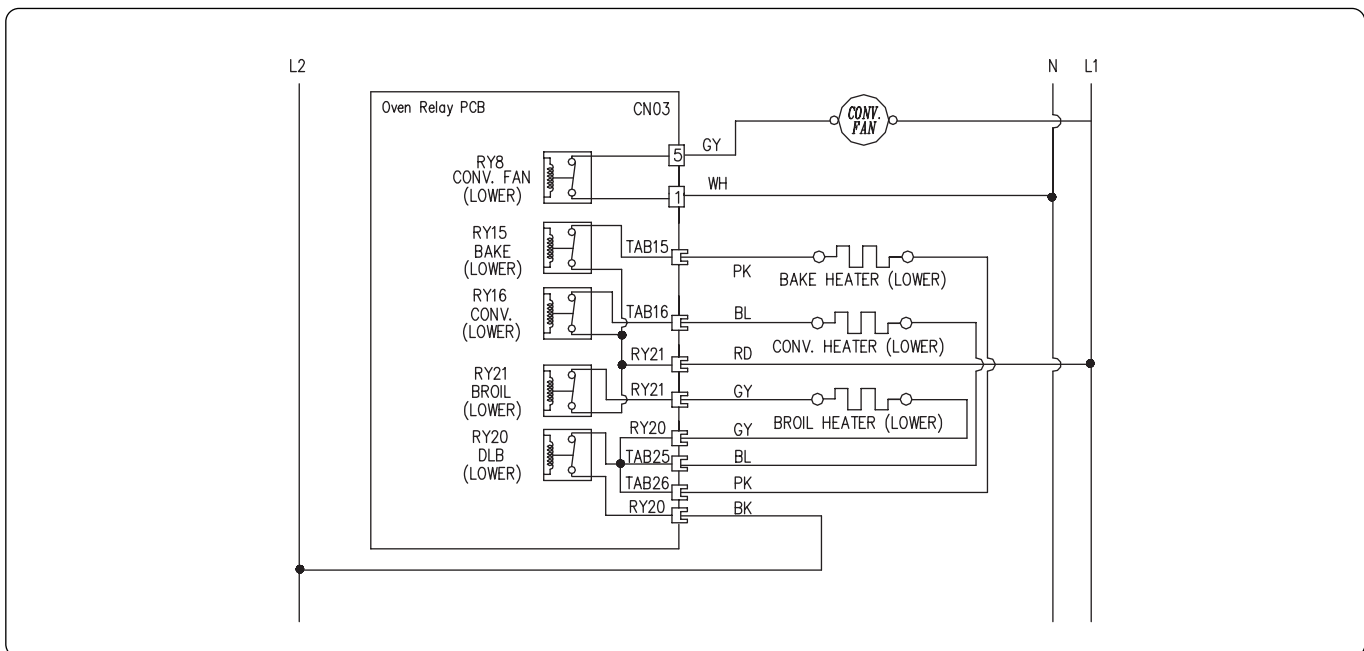
1. Check the line voltage, household fuse or circuit breaker.
2. Check for loose wiring or mis-wiring within electric range.

**NOTE:** The following individual circuits are for use in diagnosis, and are shown in the ON position.

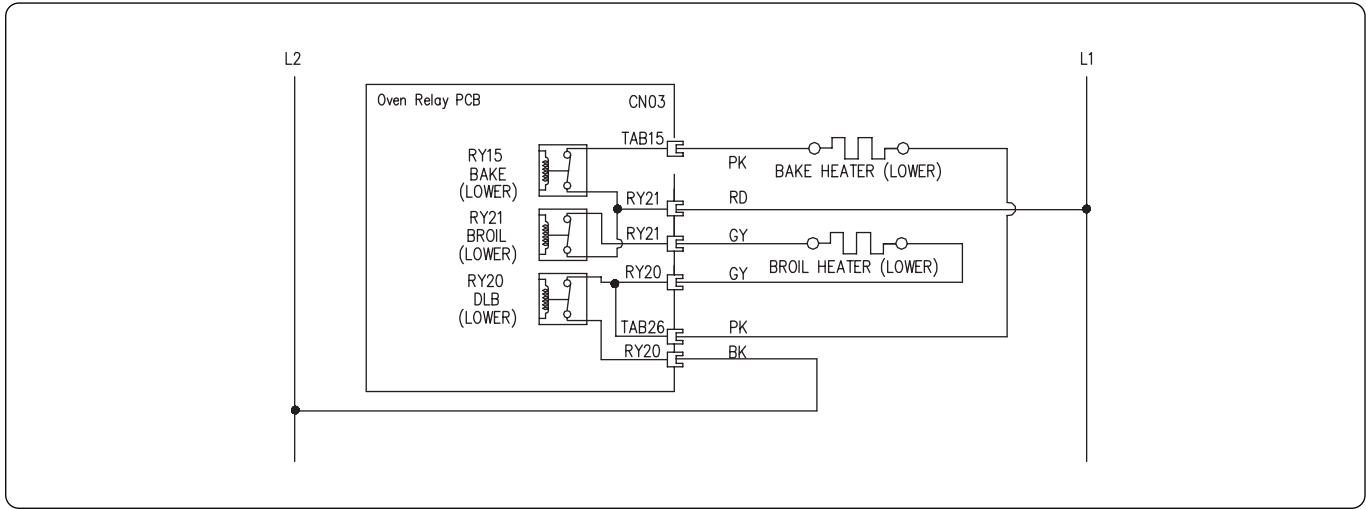
## UPPER BAKE/WARM



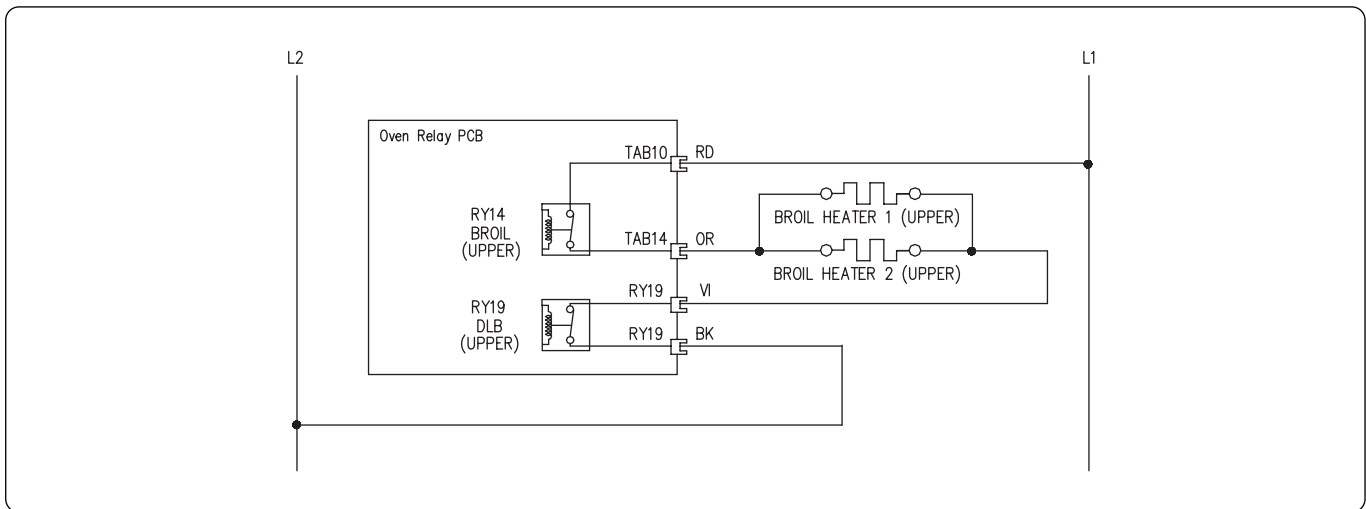
## LOWER BAKE/CONV BAKE/CONV ROAST



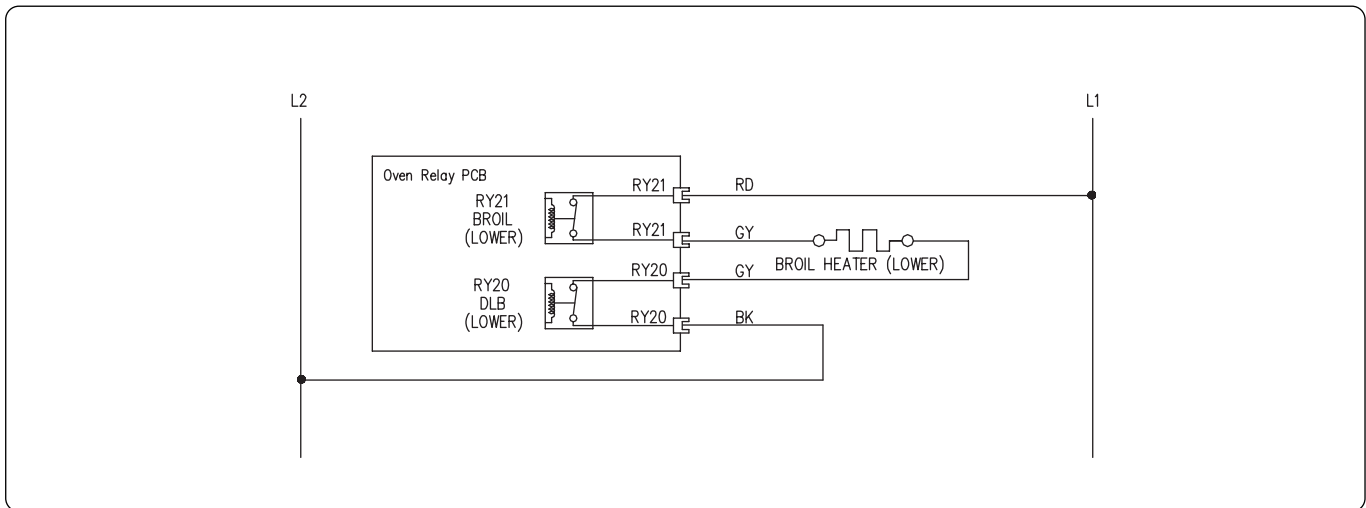
## LOWER WARM/PROOF



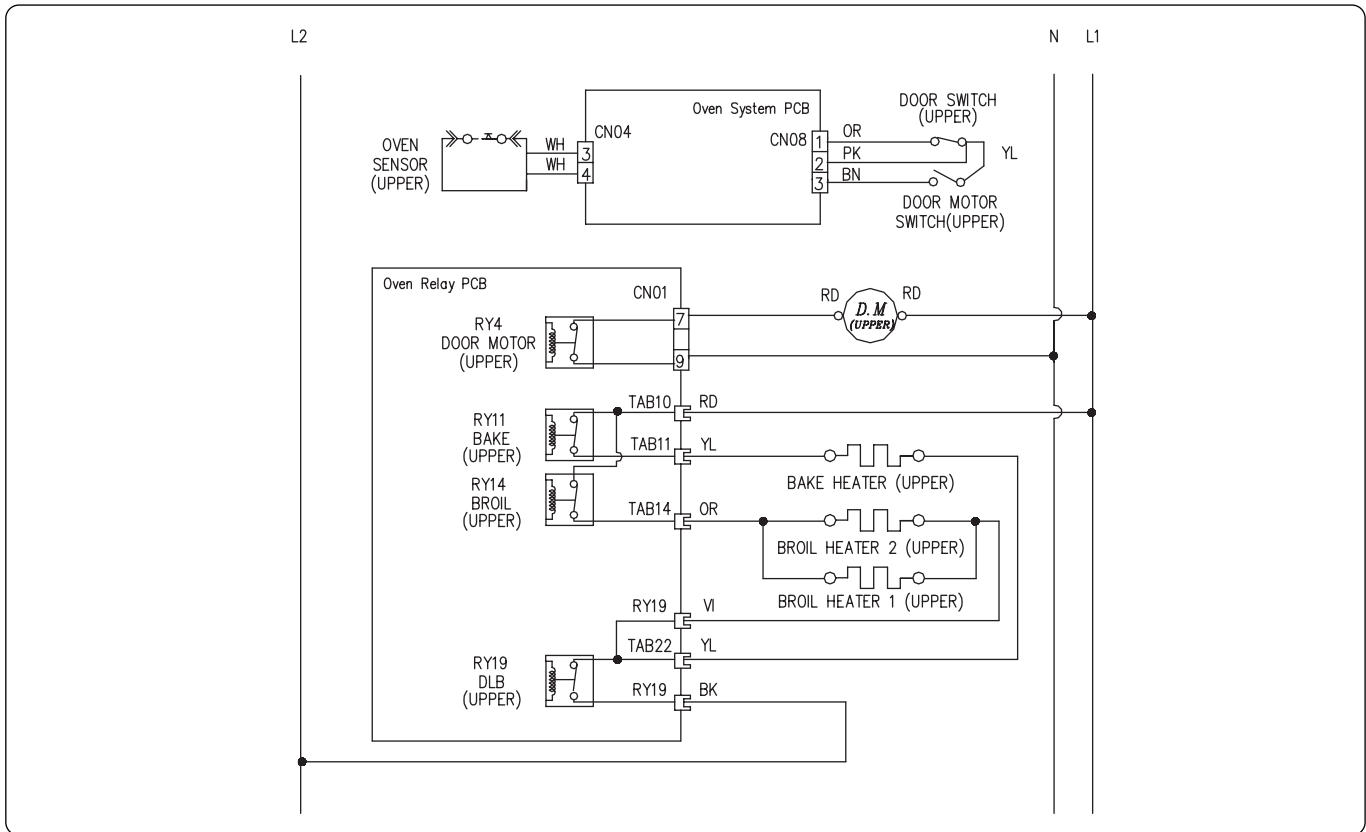
## UPPER BROIL



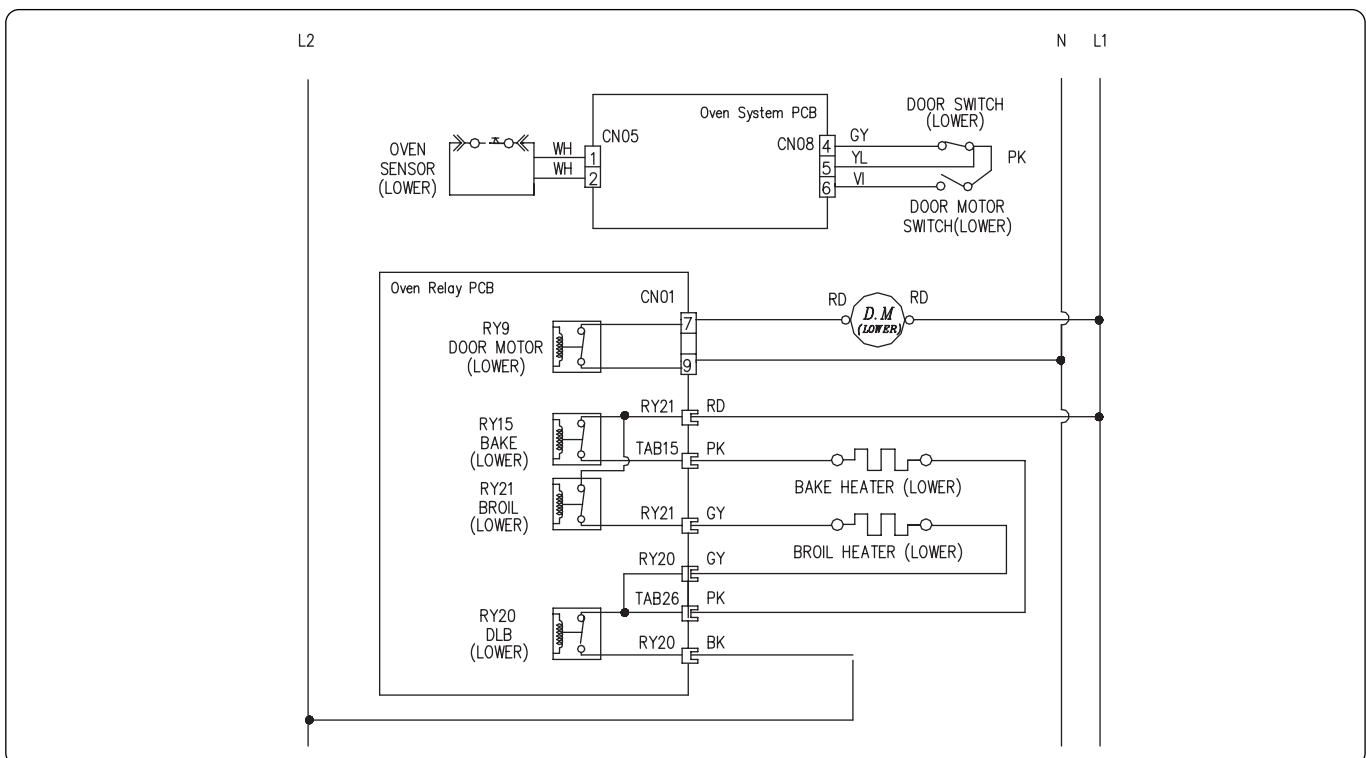
## LOWER BROIL



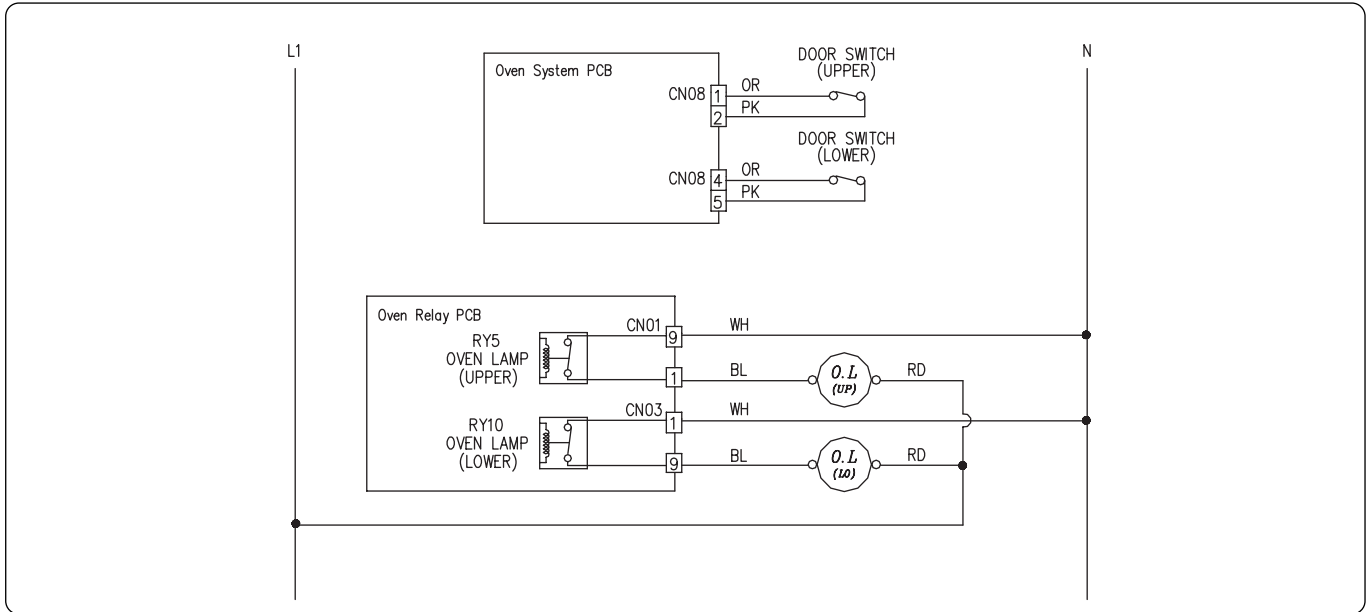
## UPPER SELFCLEAN



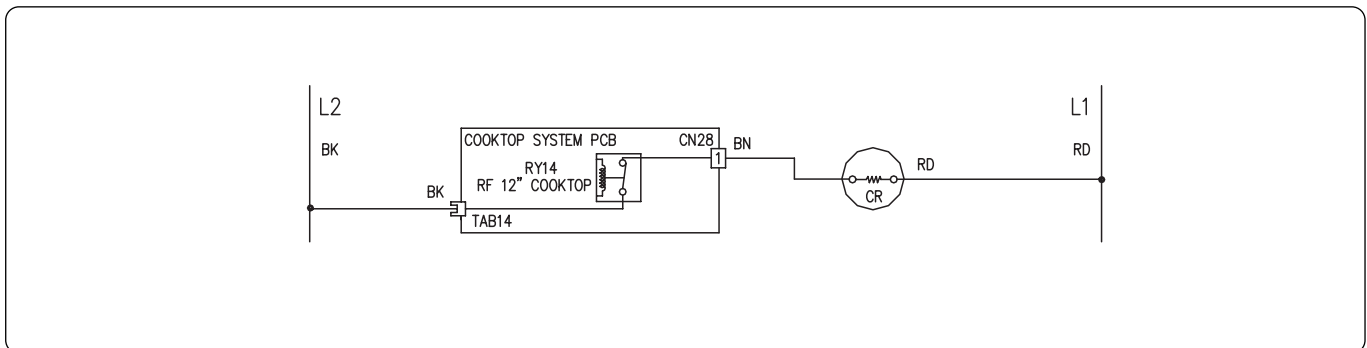
## LOWER SELFCLEAN



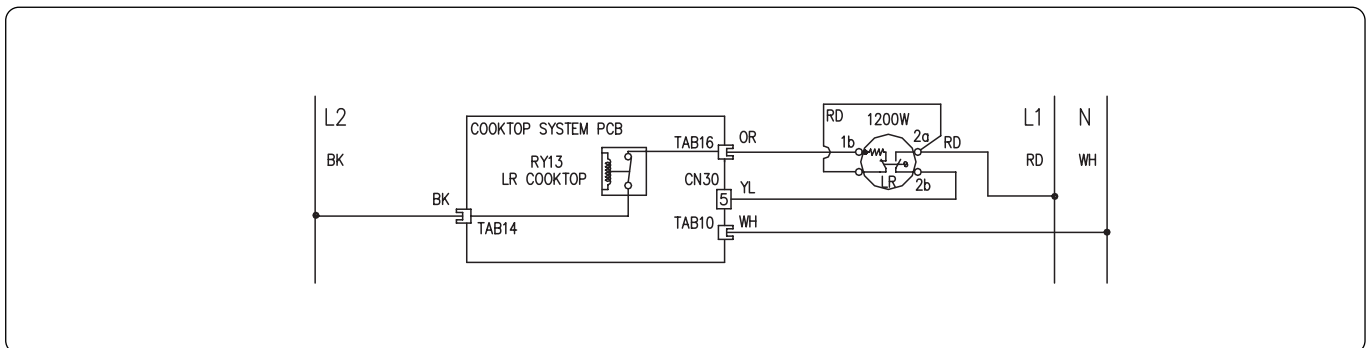
## OVEN LAMP



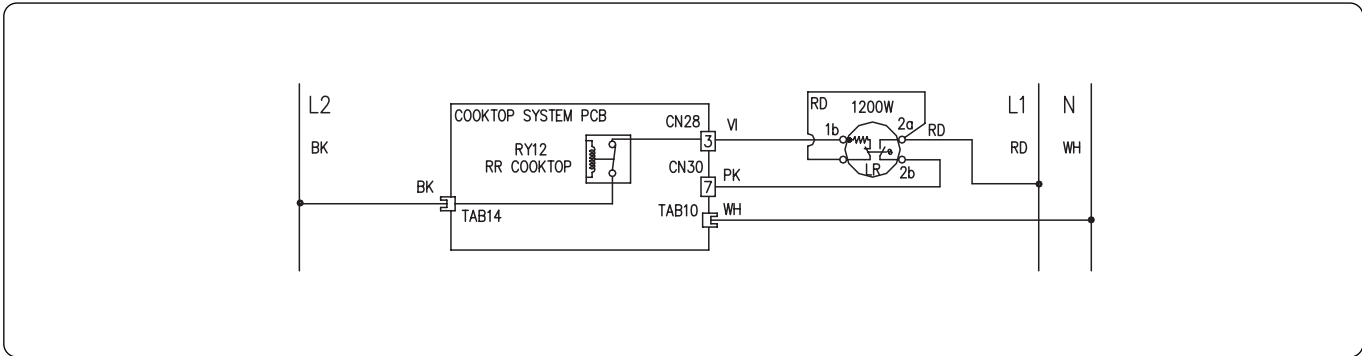
## CR (Cooktop element)



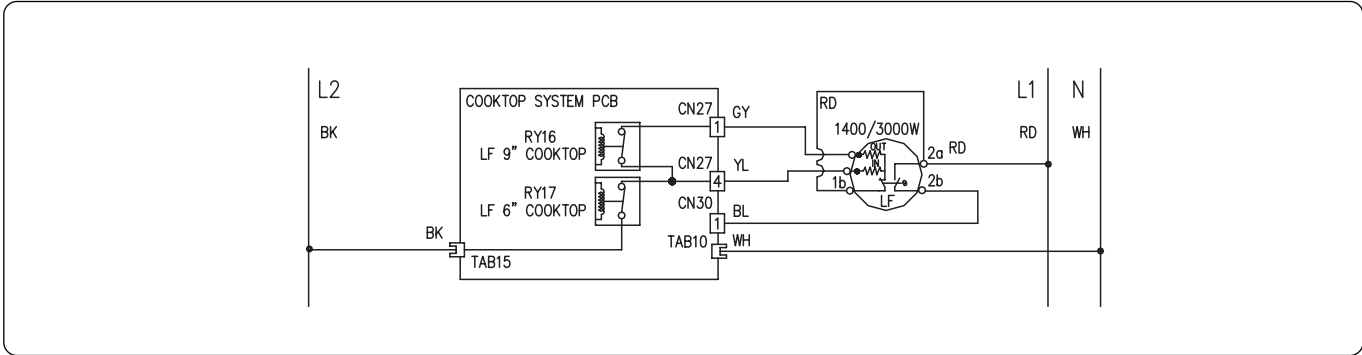
## LR (Cooktop element)



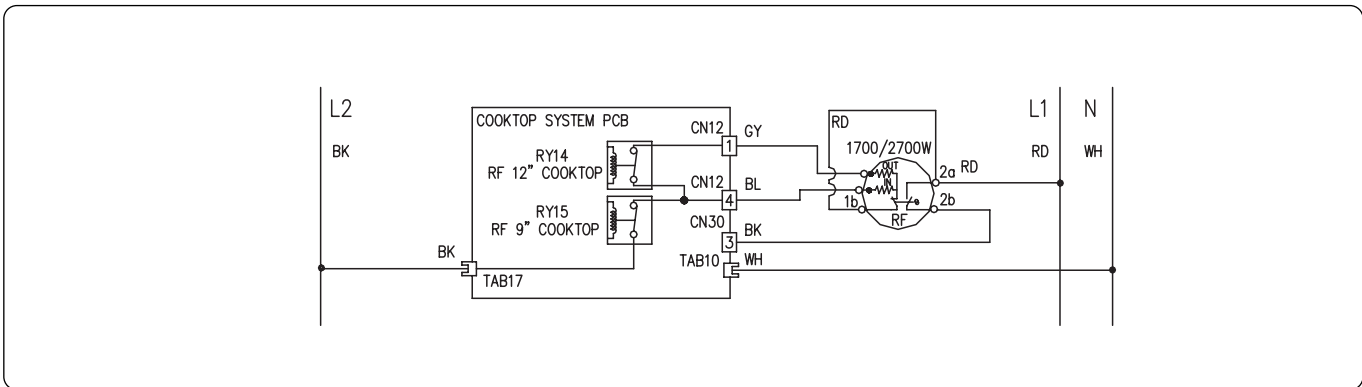
### RR (Cooktop element)



### LF (Cooktop element)



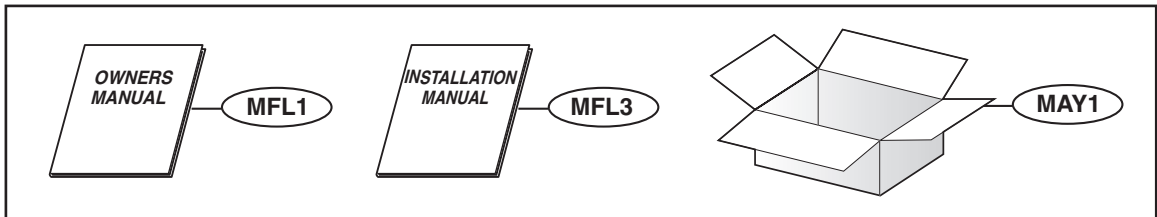
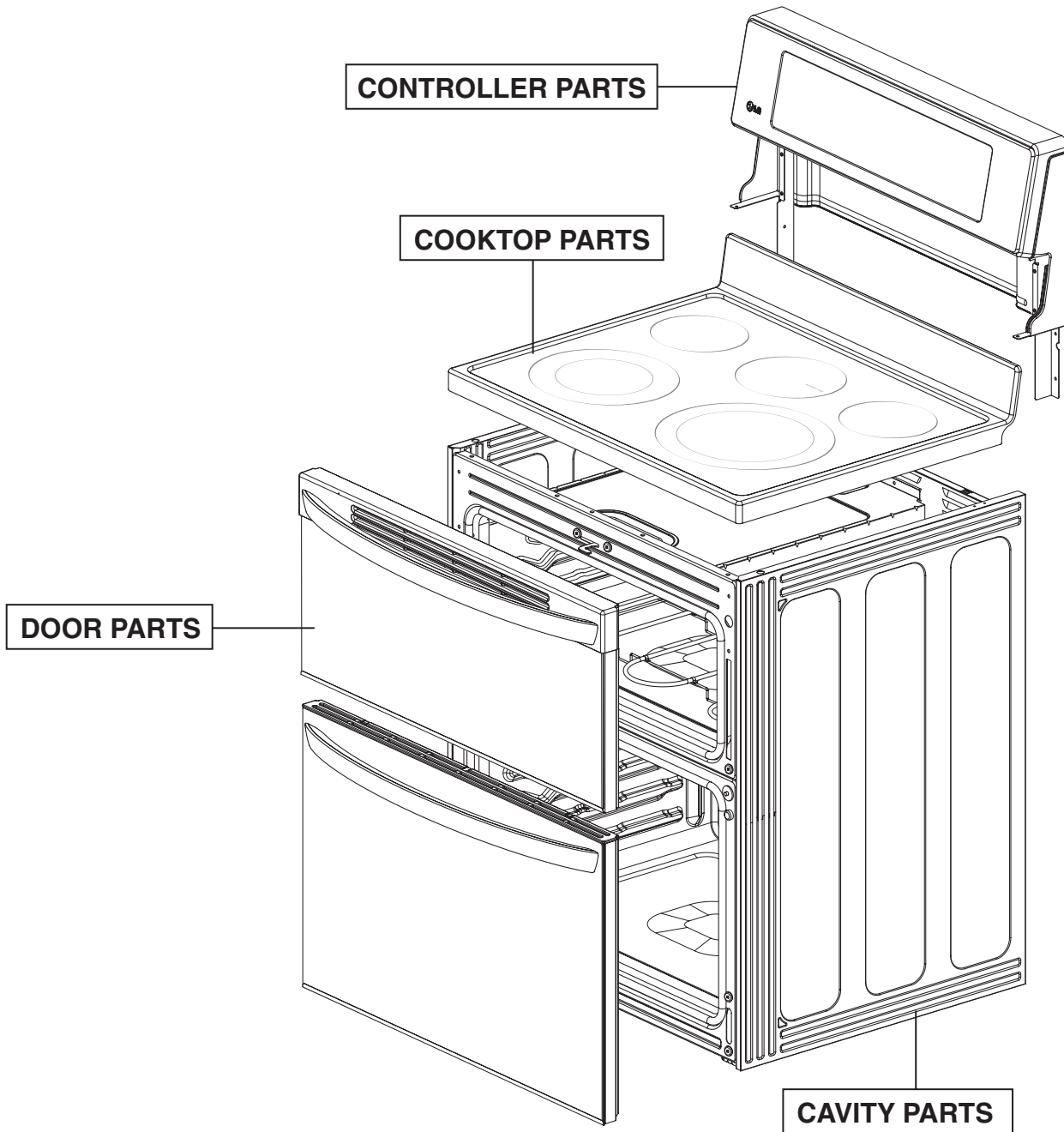
### RF (Cooktop element)





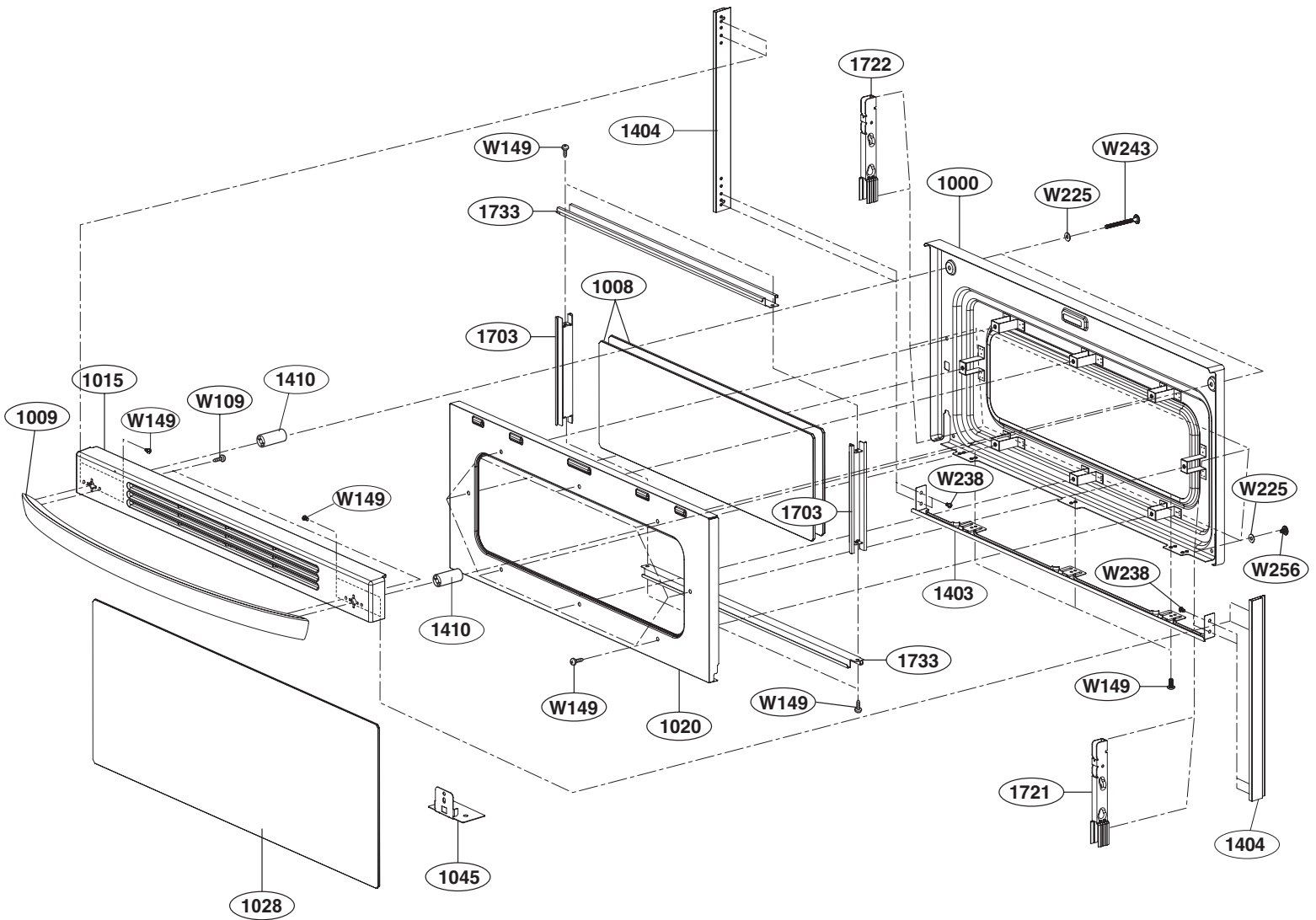
# INTRODUCTION (II)

For Model: LDE3017SB  
LDE3017SW



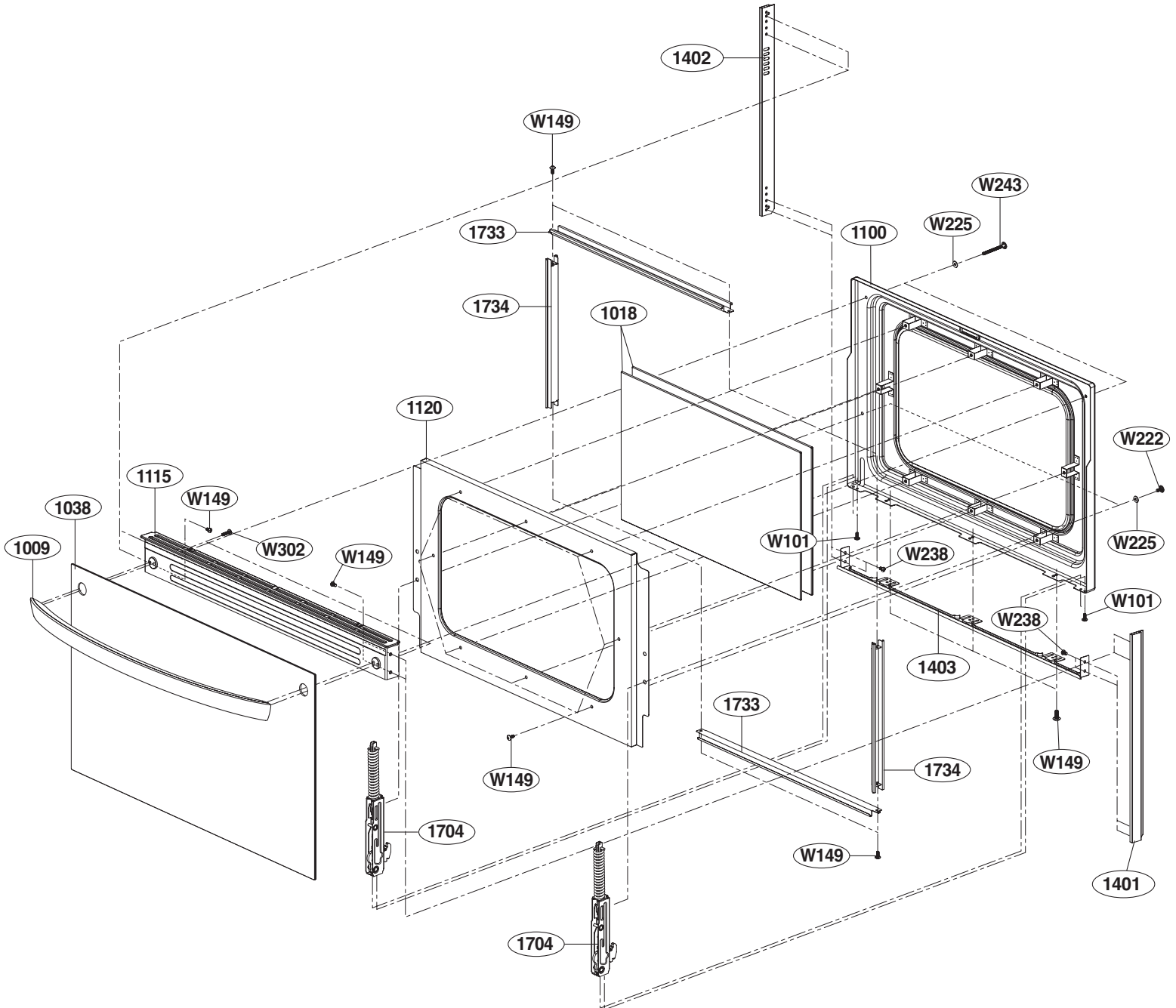
# UPPER DOOR PARTS (II)

For Model: LDE3017SB  
LDE3017SW

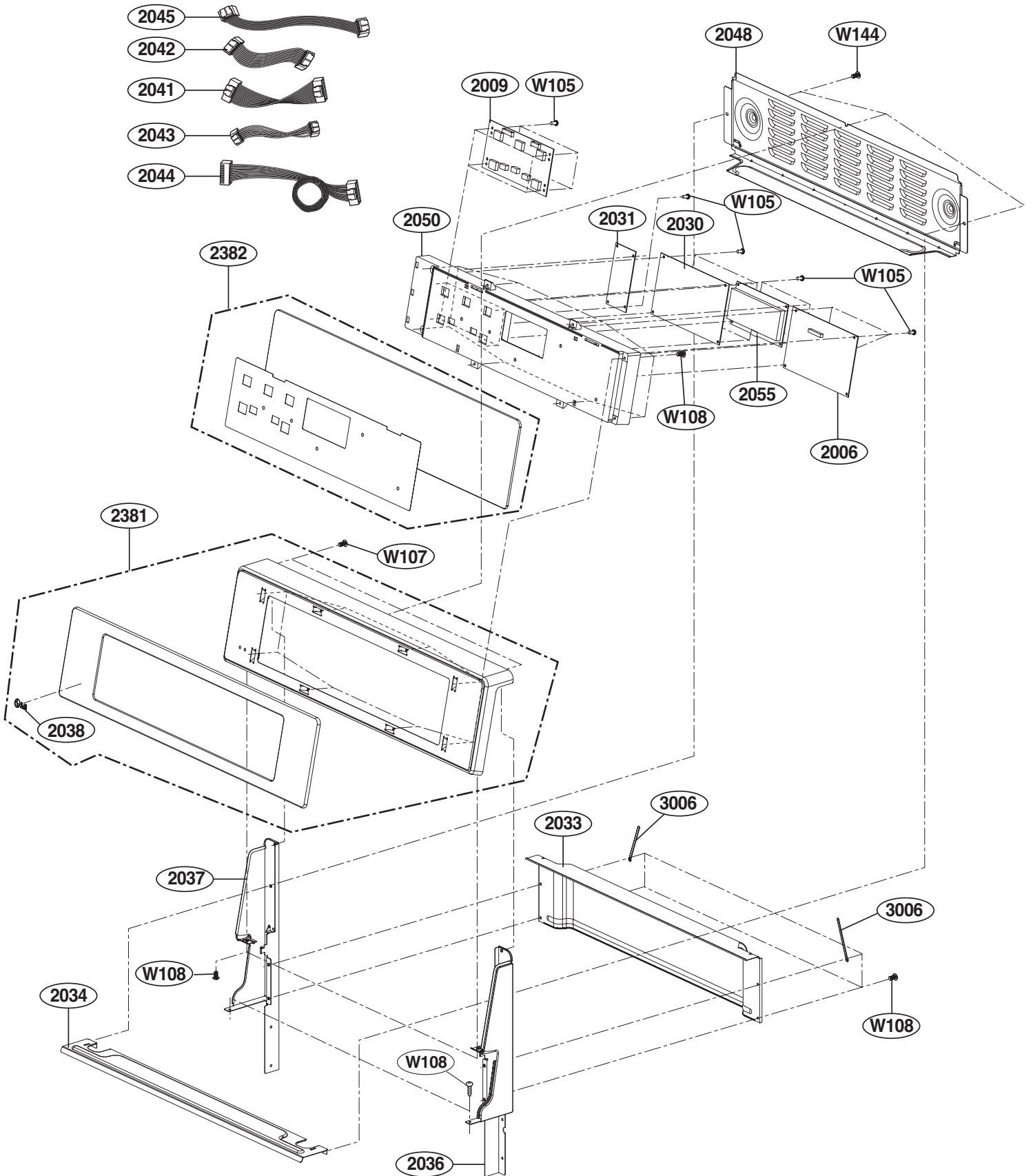


# LOWER DOOR PARTS (II)

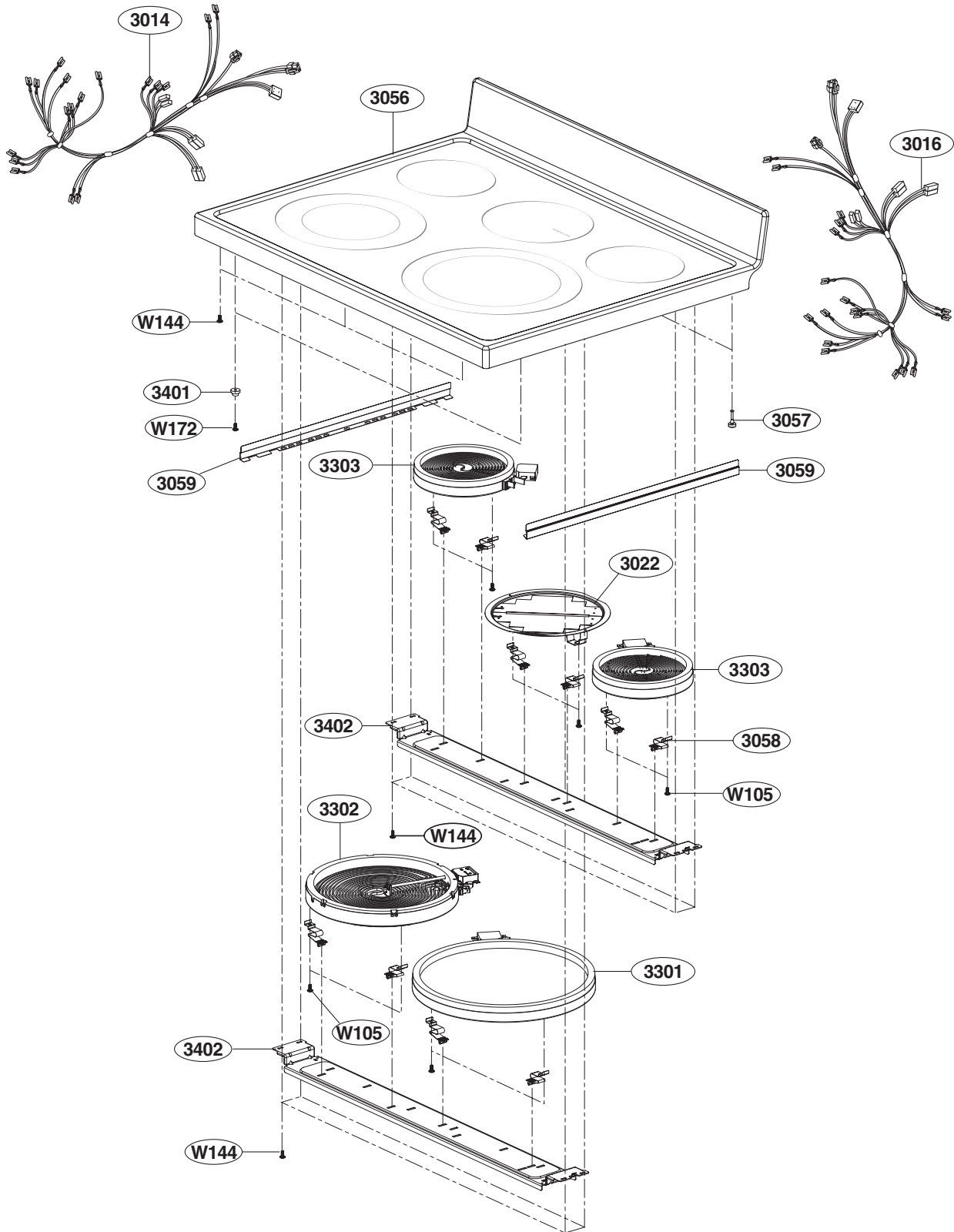
For Model: LDE3017SB  
LDE3017SW



# CONTROLLER PARTS



# COOKTOP PARTS



# UPPER CAVITY PARTS

