

SAMSUNG

Built in electric wall oven

BASIC: NV51K6650D*

MODEL: NV51K7770D*

MODEL CODE: NV51K7770D*

SERVICE *Manual*

Built in electric wall oven

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3. Disassembly and Reassembly
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5. PCB Diagrams
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Refer to the service manual in the GSPN(see rear cover) for the more information.

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1. Precaution

1-1 Forward

This SAMSUNG Service Manual, "Built in electric wall oven" provides the technician with information on the operation and service of the built in electric wall oven.. 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 electric wall oven.

1-2 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 a SAMSUNG 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 trim door.
- The power supply of the appliance should be turned off when it is being repaired.



WARNING

- To avoid risk of severe personal injury or death, disconnect power before working/servicing on appliance to avoid electrical shock.
- When the oven operates, the interior parts will be very hot.

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

1. Precaution

1-3 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 oven. This guide doesn't cover all possible conditions that may occur.

For further assistance contact your service agent or manufacturer.



WARNING

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

- 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 TOUCH HEATING ELEMENTS OR INTERIOR SURFACES OF OVEN** – Heating elements 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 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

To avoid risk of electrical shock, personal injury, or death, make sure your range has been properly grounded and always disconnect it from main power supply before any servicing.

1. Precaution

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 in the front above the oven door and under the cook top. This area could become hot during oven use. Never block this vent and never place plastic or heat sensitive items near the 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.

DEEP FAT FRYERS:

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

1. Precaution

1-4 Model & Serial Number Label and Tech Sheet Locations

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



**Model & Serial
Number Location**



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

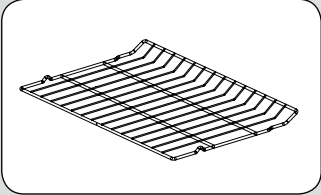

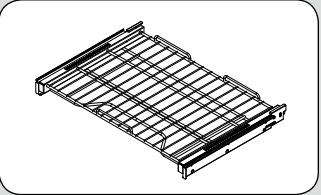

2. Specifications

2-1 Table of Specifications

ITEMS		BASIC MODEL	NEW MODEL
Model Name		NV51K6650DS	NV51K7770DS
Category		Double wall oven	Double wall oven
Overall	Width	30"	30"
	Installation type	Built-In	Built-In
	Color availability	STS	STS
Control	Oven	Touch	KNOB+LCD
	Display	LED	LCD
	Electronic clock	Yes	Yes
	Control lock capability	Yes	Yes
	Audible preheat signal	Yes	Yes
Upper Oven	Capacity (cu.ft)	5.1	5.1
	Broil element	4,400 watts	4,400 watts
	Bake element	3,000 watt	3,000 watt
	Convection system	Yes	Yes
	Convection element	1,300 watt	1,300 watt
	Steam element	500 watt / 120V	500 watt / 120V
	# of Racks	3	4
	Interior oven light	2 halogen, 2 door led	2 halogen, 2 door led
	Cleaning	Self-clean & Hybrid-clean	Self-clean & Hybrid-clean
Lower Oven	Capacity (cu.ft)	5.1	5.1
	Broil element	4,400 watts	4,400 watts
	Bake element	3,000 watt	3,000 watt
	Convection system	Yes	Yes
	Convection element	1,300 watt	1,300 watt
	Steam element	-	-
	# of Racks	2	3
	Interior oven light	2 halogen, 2 door led	2 halogen, 2 door led
	Cleaning	Self-clean & Hybrid-clean	Self-clean & Hybrid-clean
Dimensions	Outside (W*D*H)	28 1/3 * 23 1/6 * 49 5/7 (720*588.2*1262.5)	28 1/3 * 23 1/6 * 49 5/7 (720*588.2*1262.5)
	Cutout (W*D*H)	28 1/2 * 23 1/2 * 50 1/4 (724*597*1276)	28 1/2 * 23 1/2 * 50 1/4 (724*597*1276)
	Shipping (W*D*H)	33 1/2 * 29 4/5 * 55 4/5 (850*757*1417)	33 1/2 * 29 4/5 * 55 4/5 (850*757*1417)
	Net weight (kg)	123.6	135.6
Power	Rating (240V 60Hz)	9,300W	10,600W

2. Specifications

2-3 Accessory

Item	Description	Code No.	Q'ty
	RACK WIRE	DG67-00124A	4
	SENSOR-PROBE	DG32-00013A	1
	ASSY WIRE RACK	DG94-01486A	2
	ASSY-PARTITION FLEX	DG94-01643A	1

3. Disassembly and Reassembly







WARNING

ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

3-1 Preparing remove the Assy-Frame Wall oven


Item	How to use	Pictures
Screw driver	Use for assembly and disassembly of all screws	
Tubing Wrench	Use for assembly and disassembly of tubing to the burner cup	
7mm Vox Driver	Use for assembly and disassembly of injector nozzles. (Cooktop/Broil/Bake burner)	
9mm Vox Driver	Use for assembly and disassembly of injector nozzles. (Convection Fan)	

3-2 Removing Cover-Back Main Wire



PRECAUTION

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

Parts	Explanation Photo	Explanation
Cover-Back Main wire		<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven. 2. Pull the oven away from the wall so that you can access the rear panel. 3. Remove 29(Upper back 16, Lower back 14) screws from the Cover-Back Main Wire and remove the panel.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-3 Removing PCB-Main

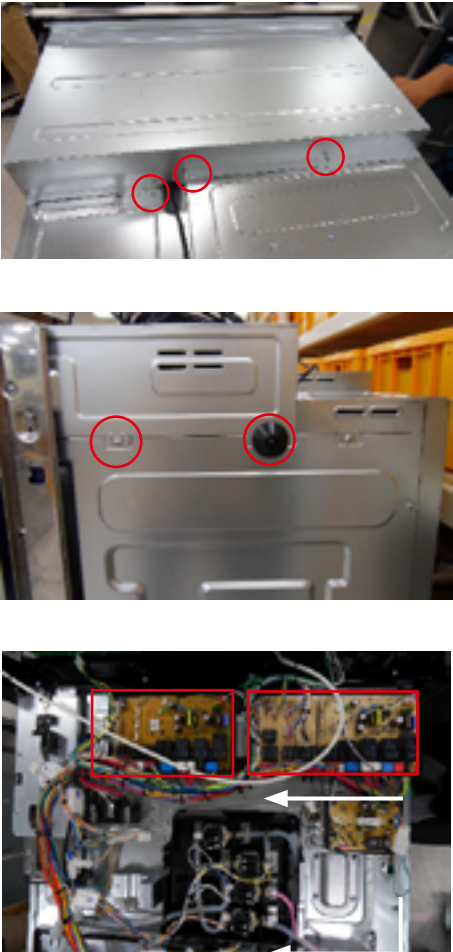
WARNING

ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

PRECAUTION

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

Parts	Explanation Photo	Explanation
PCB Main (ASSY PCB MAIN; DE92-03960E, DE92-04045B)		<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven. 2. Pull the oven away from the wall so that you can access the upper panel. 3. To remove upper cover <ol style="list-style-type: none"> a) remove each 2 screws from upper cover of left and right side b) remove 3 screws from upper cover of upside 4. There is 2 main PCB (printed circuit board) on the top of the oven.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-4 Removing SMPS PCB



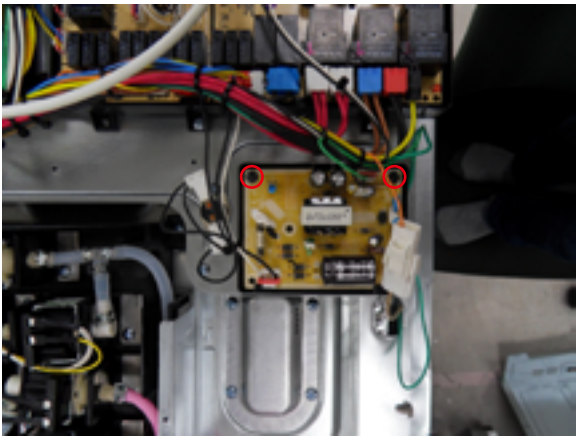
WARNING

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.



PRECAUTION

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

Parts	Explanation Photo	Explanation
SMPS PCB (ASSY MODULE; DA92-00675A)		<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven. 2. Pull the oven away from the wall so that you can access the upper panel. 3. To remove upper cover (See step 3 on 3-3) <ol style="list-style-type: none"> a) remove 2 screws from upper cover on the left and right side b) remove 3 screws from from the back of upper cover. 4. There is 1 SMPS PCB (printed circuit board) on the top of the oven.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-5 Removing control box




WARNING

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.



PRECAUTION

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

Parts	Explanation Photo	Explanation
Removing control box		<ol style="list-style-type: none"> 1. Unplug the cord or disconnect power. 2. Open the oven door. 3. Remove 4 screws under the control box. 4. Disconnect all of the wire harness connectors.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-6 Removing Sub PCB



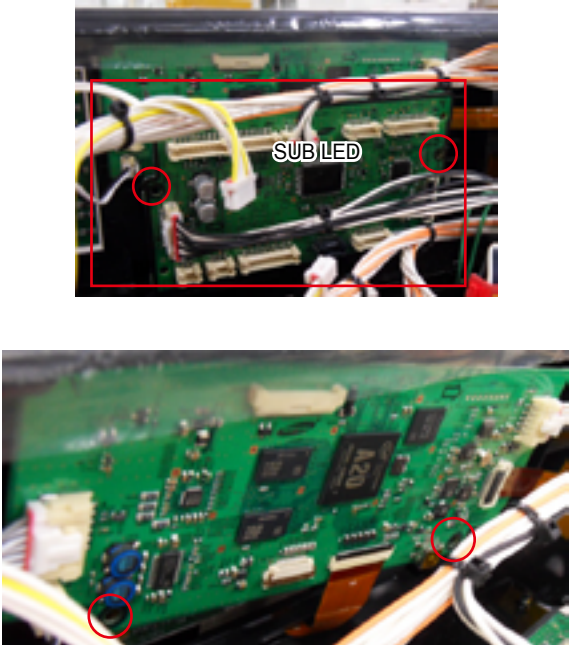
WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.



PRECAUTION

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

Parts	Explanation Photo	Explanation
Sub PCB (ASSY PCB EEPROM; DE94-03894B)		<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven. 2. Remove 4 screws under the control box. (See step 1 and 2 on page 14) 3. Remove 2 screws and connector on SUB LED module. 4. Remove 2 screws and connector on LED module.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

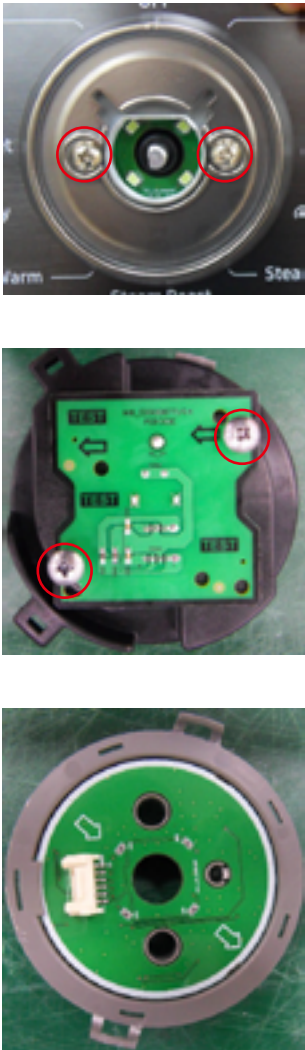
3-7 Removing Knob lighting module

WARNING

Disconnect power before servicing the range. Replace all panels before operating range. Failure to do so can result in death or electrical shock.

PRECAUTION

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

Parts	Explanation Photo	Explanation
Premium Plus Knob Removal		<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven. 2. Pull-out the Knob from the control panel. 3. Remove 2 screws under the knob. 4. Remove control panel from oven. (See step 1~4 on 3-5) 5. Remove knob controller from control panel and disconnect wire harness 6. Remove 2 screws on the knob holder. 7. Take off knob holder and knob lighting module.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-8 Removing The Latch-Door & Switch-Door Plunger



WARNING



ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.



CAUTION

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

Parts	Explanation Photo	Explanation
 <p>Latch-Door & Switch-Door Plunger</p>		<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven. 2. Open the oven door. 3. Remove 2 screws from the front of cavity and remove the latch door & bracket. 4. Remove 2 screws from the bracket and remove the latch door:

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly




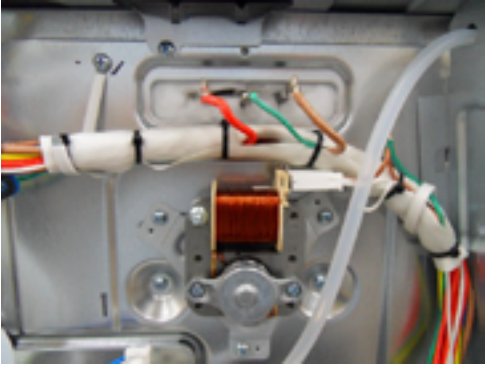
3-9 Removing Heater-Broil

WARNING

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

CAUTION


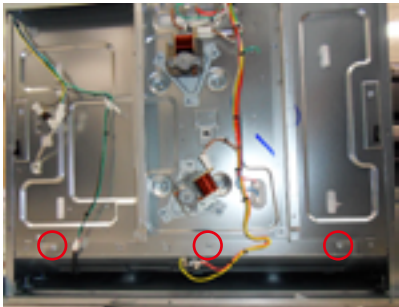
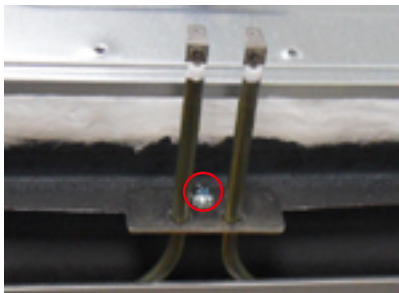
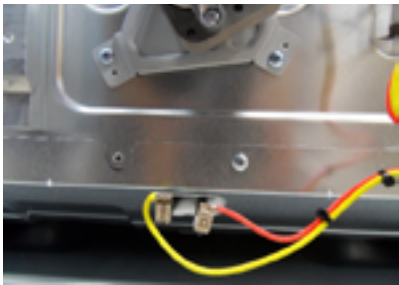
When you work on the electric oven, be careful when handling the sheet metal parts. Sharp edges may be present, and you can cut yourself if you are not careful.

Parts	Explanation Photo	Explanation
 <p>Broil</p>	  	<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven. 2. Open the oven door and remove the racks from inside the oven. 3. Remove oven from its mounting location and remove the rear cover. 4. Remove 3 wires from the broil element and 2 nut with cutting insulation. 5. Remove 1 screw that are securing the broil element to the cavity. 6. Remove the broil element.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly


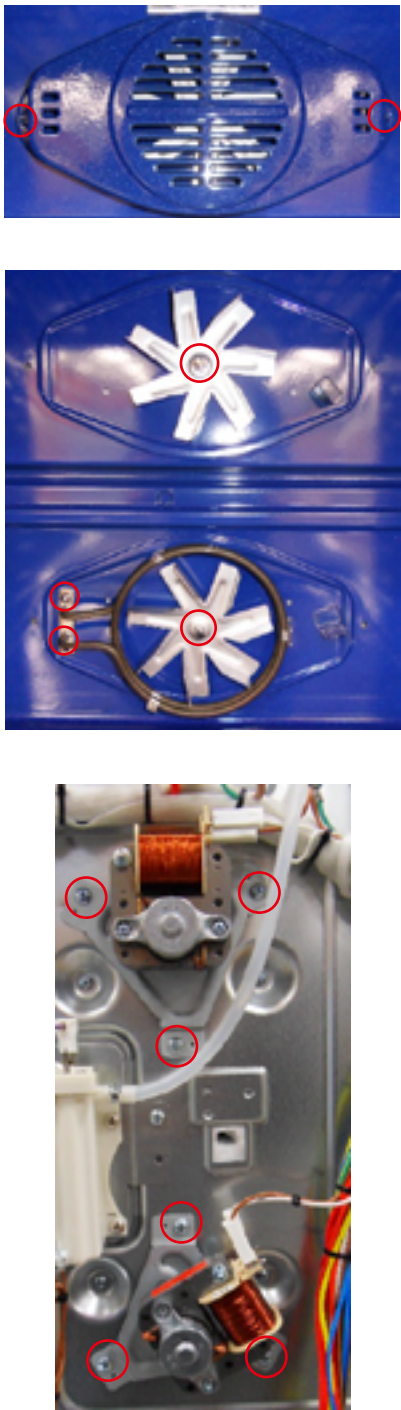
3-10 Removing Heater-Bake

Parts	Explanation Photo	Explanation
 <p>Heater-Bake</p>	  	<ol style="list-style-type: none"> 1. Disconnect power and remove oven racks. 2. Pull the oven out of its mounting location so that you can access the rear of the unit. 3. Remove Cover-Back Main Wire from the unit. (See step 3-2) 4. Remove oven door. 5. Unscrew 2 screws and remove Cover-Casing. 6. Unscrew 2 screws and remove Bracket-Convection Heater. 7. Unscrew nut of Fan-Convection, and 2 Fan-Convection. 8. Unscrew 3 screws and disconnect a Motor-Convection wire and Heater-Convection-wire.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-11 Removing Convection Element, Fan-Convection and Motor-Convection

Parts	Explanation Photo	Explanation
 <p>Convection Element, Fan-Convection, Motor-Convection</p>		<ol style="list-style-type: none"> 1. Disconnect power and remove oven racks. 2. Pull the oven out of its mounting location so that you can access the rear of the unit. 3. Remove Cover-Back Main Wire from the unit. (See step 3 on page 10 for procedure) 4. Remove oven door. (See Page 29 on page for procedure) 5. Unscrew 2 screws and remove Cover-Casing. 6. Unscrew 2 screws and remove Bracket-Convection Heater to remove Heater-Convection. 7. Unscrew nut of Fan-Convection, and 2 Fan-Convection. 8. Unscrew 3 points and disconnect a Motor-Convection wire and disconnect Heater-Convection wire.

* Reassembly of All part is the reverse order of disassembly.



CAUTION

Be careful not to bend the Fan-Convection(Blade)

3. Disassembly and Reassembly





3-12 Removing Lamp

WARNING

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

CAUTION

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

Parts	Explanation Photo	Explanation
 <p>Lamp</p>	  	<ol style="list-style-type: none"> 1. Disconnect power. 2. Remove oven door. 3. Remove Heater broil. 4. Pull-out the glass cover in the oven. 5. Unscrew cover lamp. 6. Pull-out the bulb.

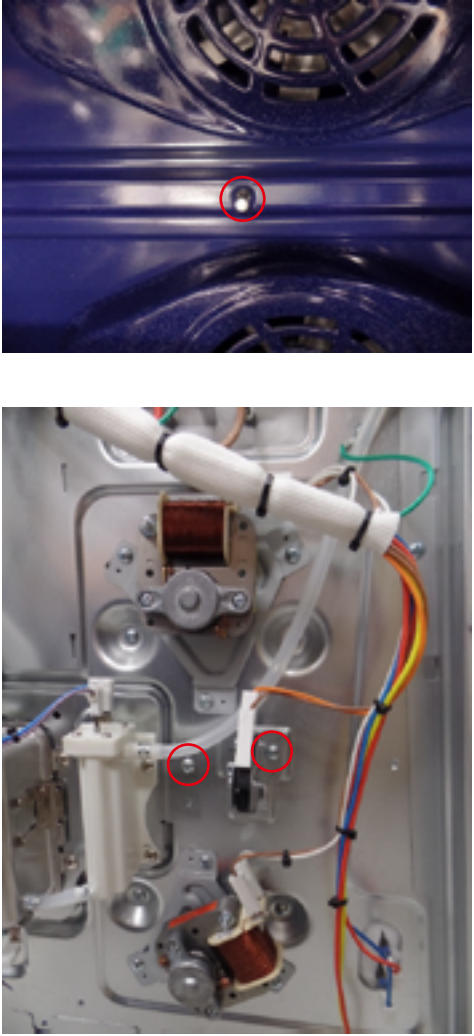
* Reassembly of All part is the reverse order of disassembly.

CAUTION

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

3. Disassembly and Reassembly

3-13 Removing Assy-partition switch

Parts	Explanation Photo	Explanation
Assy-partition switch		<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the range and pull the oven from its mounting location. 2. Remove cover-back-main-wire (See on 3-2) and disconnect the wires from Assy-partition switch. 3. Remove 2 screws. 4. Replace the Assy-partition switch.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-14 Removing Sensor-Thermistor



WARNING




ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.



PRECAUTION

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

Parts	Explanation Photo	Explanation
 <p>Sensor-Thermistor</p>	 	<ol style="list-style-type: none"> 1. Turn off the electrical supply going to the oven and remove the oven from its mounting location. 2. Remove oven door and racks from inside the oven. 3. Unscrew Sensor-Thermistor. 4. Remove Cover-Back Main Wire and disconnect a wire from Sensor-Thermistor. 5. Replace the Sensor-Thermistor.

* Reassembly of All part is the reverse order of disassembly.

3. Disassembly and Reassembly

3-15 Oven Door

WARNING


Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

WARNING

The door is very heavy. Be careful when removing door. Do not lift door by the door handle.


CAUTION

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

Parts	Explanation Photo	Explanation
Oven Door		<p>To remove Oven Door</p> <ol style="list-style-type: none"> 1. Disconnect wire harness 1. Fully open the door with pressing the lever. 2. Pull the hinge locks downward 3. Firmly grasp both side of the door at the top. 4. Close door to the door removal position, which is approximately 5 degrees. Lift the door up and out until the hinge arm are clear of the slot.

3. Disassembly and Reassembly

3-16 Oven Door

Parts	Explanation Photo	Explanation
Oven Door		<p>To replace door</p> <ol style="list-style-type: none">1. Firmly grasp both sides of the door at the top.2. Fully open the door.<input checked="" type="checkbox"/> Note. If the door will not fully open, it means that the indentation is not seated correctly in the bottom edge of the slot. Push the hinge locks up to the locked position.)3. Close the oven door.4. Connect wire harness.

3. Disassembly and Reassembly

3-17 Handle-Door, Glass Inner

WARNING

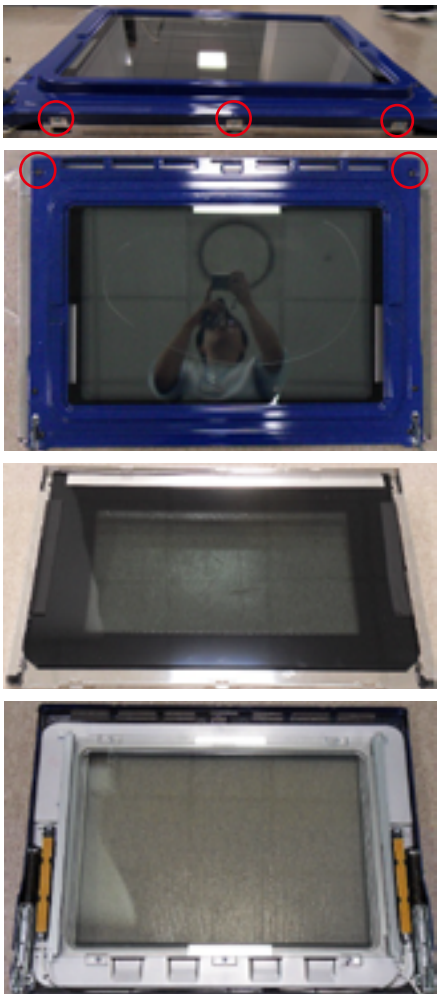
Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

WARNING


The door is very heavy. Be careful when removing door. Do not lift door by the door handle.

CAUTION

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

Parts	Explanation Photo	Explanation
HANDLE-DOOR, GLASS INNER		<p>To remove the HANDLE DOOR and GLASS INNER (Prepare Step)</p> <ol style="list-style-type: none"> 1. Remove the oven door from the oven. 2. Place the oven door on a padded work surface with the front glass facing down. 3. Remove 3 bottom screws from the door. 4. Remove 2 Handle-screws from the door. 5. Separate the door by lifting rear door assembly off of front door assembly and set it aside.

3. Disassembly and Reassembly

Parts	Explanation Photo	Explanation
HANDLE-DOOR, GLASS INNER		<p>To remove Handle-door</p> <p>6. Remove 2 rubber pads and 4 screws</p> <p>7. Remove 3 screws to remove handle-door.</p> <p>To remove Glass-Inner</p> <p>1. Remove 4 screws to remove the Glass inner sub.</p> <p>2. Remove 4 screws to remove LED assy and 2 sub glasses.</p> <p>3. Remove 10 screws to remove Baffle-door and take out the Glass inner assembly.</p>

3. Disassembly and Reassembly

3-18 Removing Gasket-Door


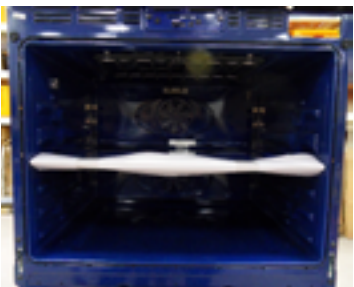



WARNING

ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

PRECAUTION

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

Parts	Explanation Photo	Explanation
 <p>Gasket door</p>	  	<ol style="list-style-type: none"> 1. Open the oven door to its fully down position. 2. Pull the ends of the gasket out of the liner holes. 3. Pull the oven door gasket clips out of the holes until all of the clips are removed. <p> 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.</p>

* Reassembly of All part is the reverse order of disassembly.

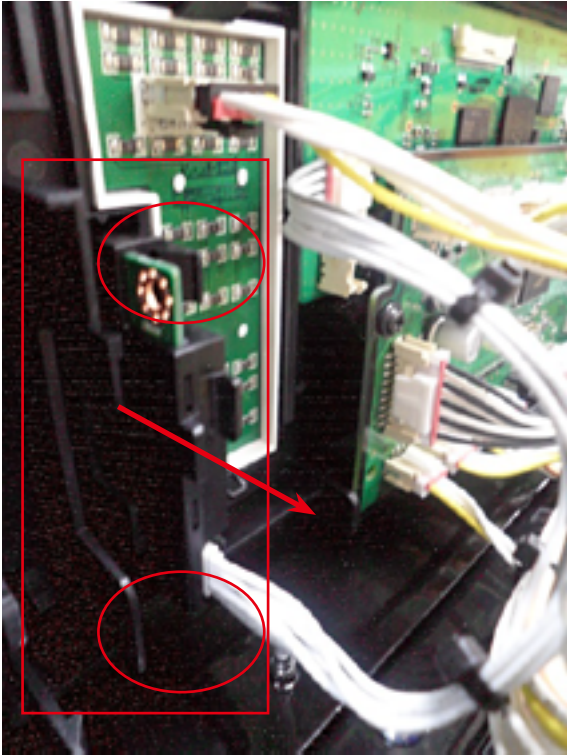

3. Disassembly and Reassembly

3-19 Removing the Wi-Fi module

WARNING

ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

Parts	Explanation Photo	Explanation
WI-FI MODULE		<ol style="list-style-type: none">1. Turn off the electrical supply.2. Remove Cover-top-front. (See step 3 on 3-3)3. Disconnect wire harness.4. Pull out the Wi-Fi module and remove connector. <p> Note. Use caution when releasing tabs</p>

3. Disassembly and Reassembly

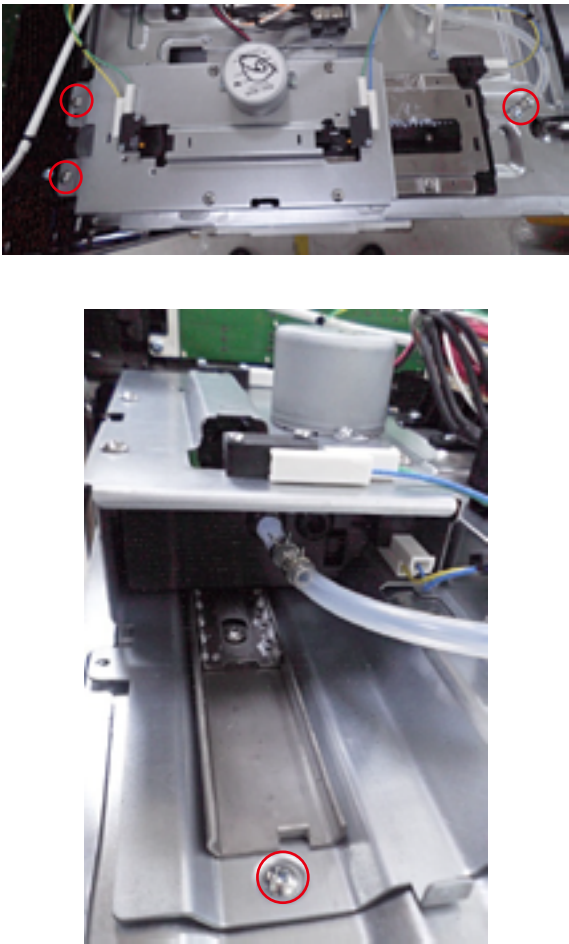
3-20 Removing the steam set



WARNING

ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

Parts	Explanation Photo	Explanation
Remove the steam set		<ol style="list-style-type: none"> 1. Turn off the electrical supply. 2. Pull the oven away from the wall so that you can access the upper panel. 3. To remove upper cover (See step 3 on 3-3) <ol style="list-style-type: none"> a) remove each 2 screws from upper cover of left and right side b) remove 3 screws from upper cover of upside 4. Disconnect wire harness. 5. Remove 3 screws and hose connections.

3. Disassembly and Reassembly

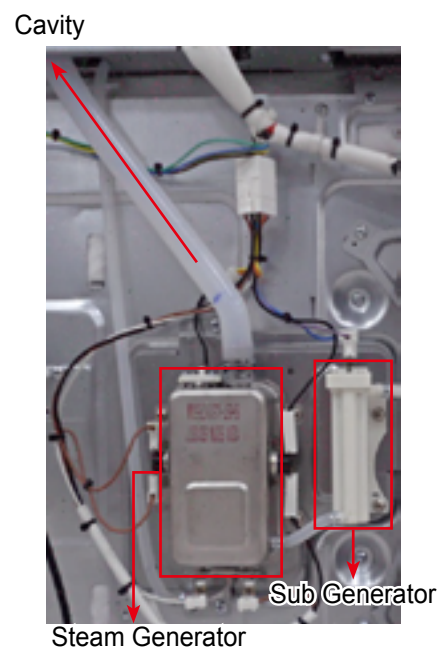
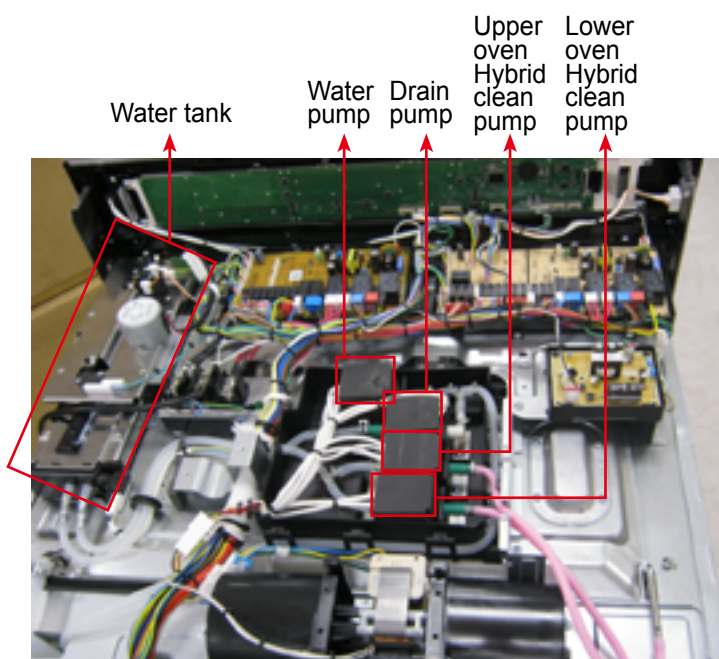
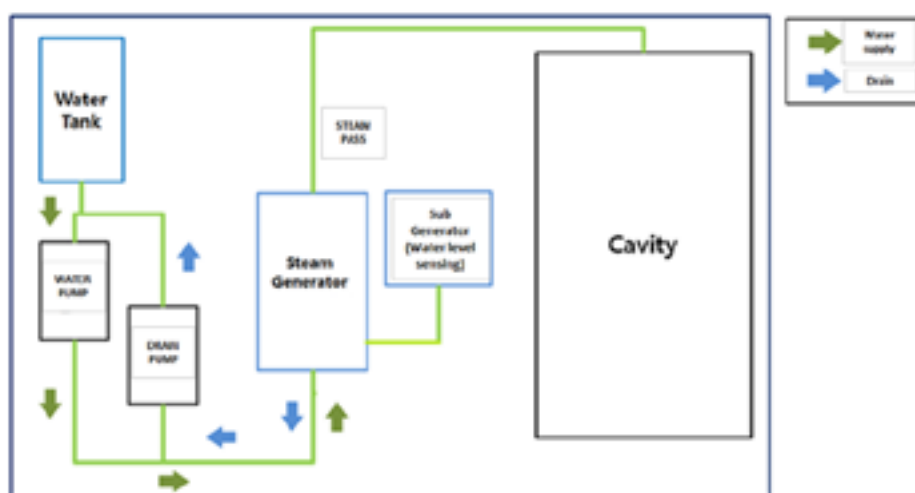
3-21 Assy Steamer

WARNING

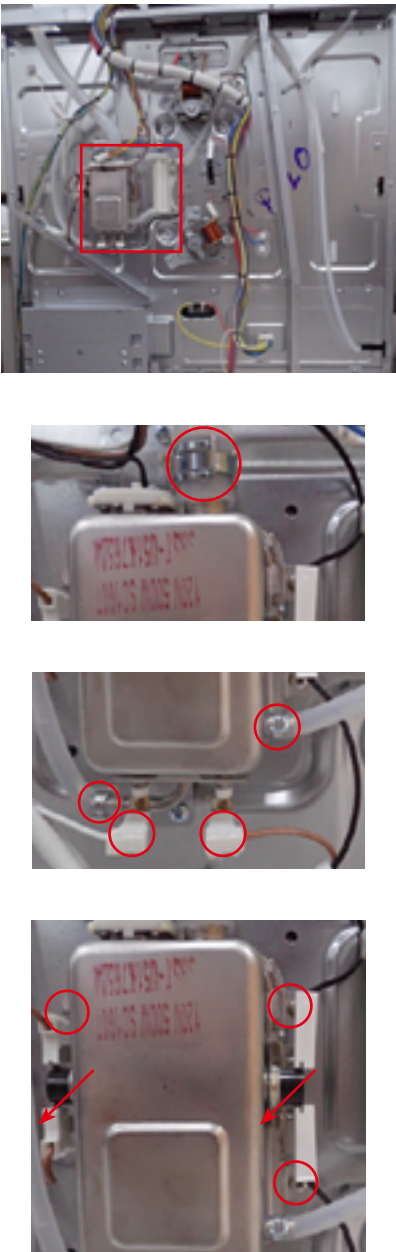
ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

Schematic Diagram & Structure



3. Disassembly and Reassembly

Parts	Explanation Photo	Explanation
Assy Steamer		<ol style="list-style-type: none"> 1. Remove clamp steam tube. 2. Remove 2 connectors and 2 tube clamps. 3. Remove 3 screws. 4. Pull 2 TCO forward to separate.

3. Disassembly and Reassembly


3-22 Assy Generator Sub



WARNING

ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

Parts	Explanation Photo	Explanation
Assy Generator Sub		<ol style="list-style-type: none">1. Remove Connector.2. Remove 2 Holder tube and 2 screws.

3. Disassembly and Reassembly

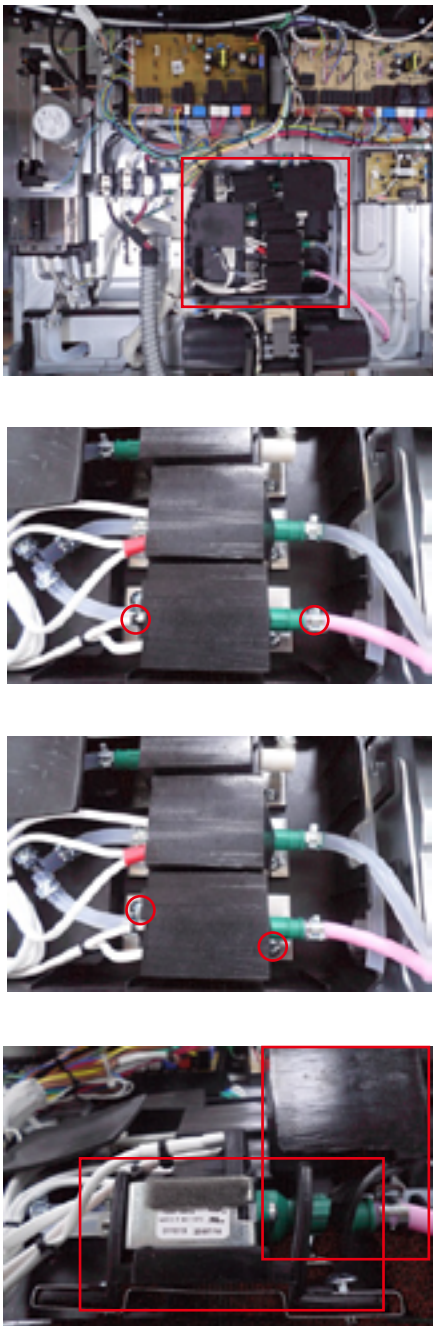
3-23 Motor AC Pump



WARNING

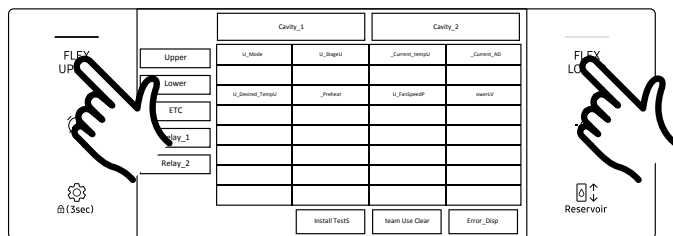
ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the oven. Replace all panels before operating oven. Failure to do so can result in death or electrical shock.

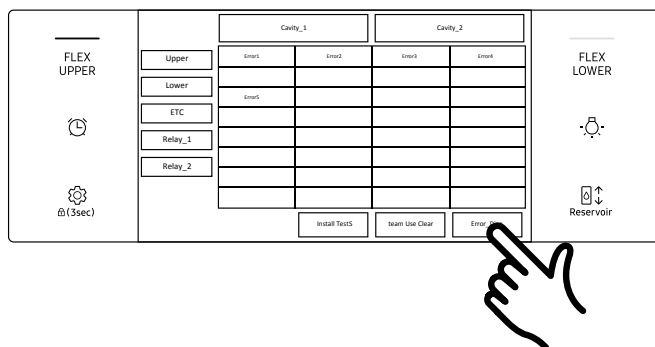
Parts	Explanation Photo	Explanation
Motor AC Pump		<ol style="list-style-type: none"> 1. Remove 2 holder tube. 2. Remove 2 screws. 3. Remove 2 rubber covers. 4. Remove the other side in the same way.

4. Troubleshooting

4-1 Failure Display Codes



1. Touch **FLEX UPPER** and **FLEX LOWER** for 5 seconds.
Information is displayed on screen.



2. Touch **Error_Dis**.
The latest 5 check codes can be checked on display.
3. Touch **FLEX UPPER** and **FLEX LOWER** for 5 seconds
to return to normal display mode.

Check code

Failure code	CAUSE	SOLUTION
C-d0	This code occurs if the keys are shorted.	<ol style="list-style-type: none"> 1. Check whether keypad cable is inserted into connector on sub pcb. 2. Check for shorts between Sub PCB and the connector, or the keypad and the cable. 3. If no faults are found with Sub PCB connector and the keypad cable replace the Sub PCB.
C-d1	This code occurs if the door lock is mispositioned.	<ol style="list-style-type: none"> 1. Disconnect power. Check whether harness has been connected with door lock switch and motor. 2. Confirm whether resistance value of door lock motor is correct. Normal value should be 1600 ~ 2200 Ω at the room temperature. 3. Operate door lock, measure voltage at the plug supplying power to the door lock motor. (normal voltage : AC 120V) 4. Check whether door locking switch is working normally.
C-F0	This code occurs if communication between the Main and Sub PCB is interrupted.	<ol style="list-style-type: none"> 1. Check whether connector on main pcb has been inserted correctly. 2. Check whether connector on sub pcb has been inserted correctly. 3. If no issue with connector on Main and Sub PCBs has been detected replace Main PCB.

4. Troubleshooting

4-1 Failure Display Codes

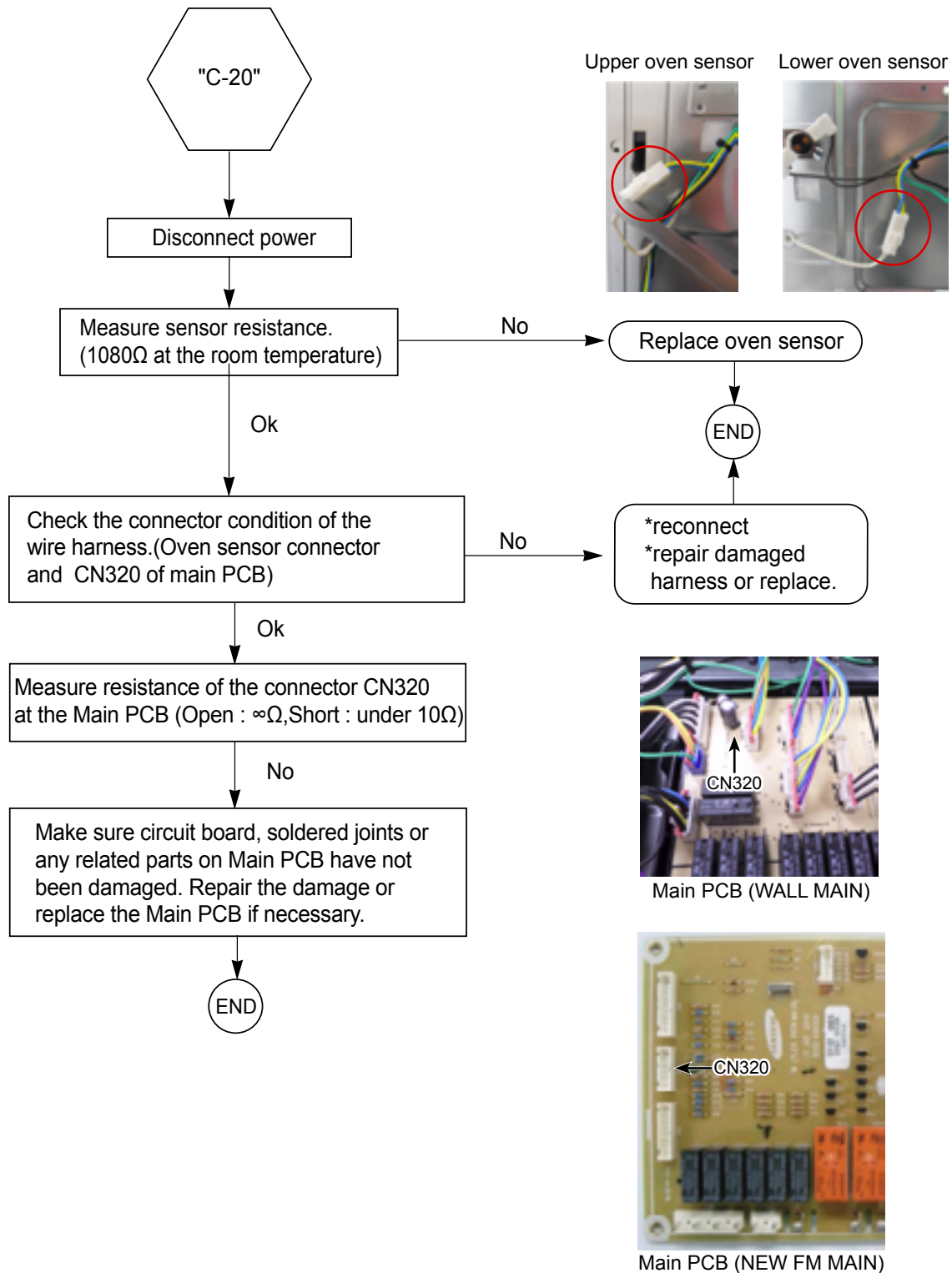
Failure code	CAUSE	SOLUTION
C-F2	This code occurs if communication between the Main and Touch PCB is interrupted.	<ol style="list-style-type: none"> 1. Check whether connector of sub pcb has been inserted. 2. If no issue with connector on Sub PCB has been detected replace Sub PCB 3. If the problem has not been solved after replacing Sub PCB replace control PCB.
C-20	The oven sensor is open when the oven is operating.	<ol style="list-style-type: none"> 1. check whether connector at the main pcb has been inserted. 2. Check whether connector at the sensor has been inserted. 3. If connectors at the Main PCB and the sensor are inserted correctly,replace the temperature sensor. 4. If the problem is still not solved, replace the Main PCB.
	The oven sensor is short when the oven is operating.	
C-21	This code occurs if the internal temperature rises abnormally high.	<ol style="list-style-type: none"> 1. Disconnect power. Disconnect sensor harness from sensor. Measure sensor resistance : 1080Ω at the room temperature. -> If there are any problems, replace oven sensor. 2. Check the resistance of broil, bake and convection heater. 3. Check whether DLB, broil, bake and convection relays on the Main PCB are working normally. 4. Check whether any part of a wire harness on Main PCB is disconnected. 5. Check the resistance of oven sensor connector on main pcb. (Normal : 2850Ω) 6. Unit will display "C-21" after beeping 10 times if temperature is higher then the specified during operation. 7. Please follow diagnostics steps 4-1 on page 30.
C-23	The temp probe sensor is shorted when oven is operating.	<ol style="list-style-type: none"> 1. Disconnect power. Disconnect Probe harness from control board. Measure probe resistance : 50kΩ at the room temperature -> If there are any problems, replace meat probe. 2. If there are problems found with the meat probe, Please check wire harness and connector terminals for damage. 3. Check resistance of meat probe connector on main PCB (Normal:10kΩ ~ 11kΩ)
C-30	The PCB temp sensor is open when the oven is operating.	<ol style="list-style-type: none"> 1. Disconnect power. Open back cover. 2. Replace the main pcb.
C-30	The PCB temp sensor is shorted when the oven is operating.	
C-31	This code occurs if the PCB temperature rises abnormally high.	

4. Troubleshooting

Failure code	CAUSE	SOLUTION
-dC-	This code appears if the partition is inserted or removed while the oven is operating.	Make sure the partition is inserted properly, and restart the oven. If the problem persists, disconnect all power to the range for at least 30 seconds and then reconnect the power. If this does not solve the problem, call for service.
C-70	The steam sensor is open when the steam mode is on.	<ol style="list-style-type: none"> 1. Check whether connector at the main pcb has been inserted. 2. Check whether connector at the sensor has been inserted. 3. If connector at the Main PCB and the sensor are inserted correctly, replace the temperature sensor. 4. If the problem is still not solved, replace the Main PCB
	The steam sensor is shorted when the steam mode is on.	
C-72	The drain system-related problem. Occurs when water level sensor senses water remaining after maximum draining time.	<ol style="list-style-type: none"> 1. Check the ground wire on the steam generator. 2. Check the pump motor operation and wire connection. 3. If the problem is still not solved, replace the Main PCB.
C-A2	Cooling motor is operating abnormally.	<ol style="list-style-type: none"> 1. check whether connector at the main pcb has been inserted. 2. Check whether connector at the motor has been inserted. 3. If the problem is still not solved, replace the cooling motor.

4. Troubleshooting

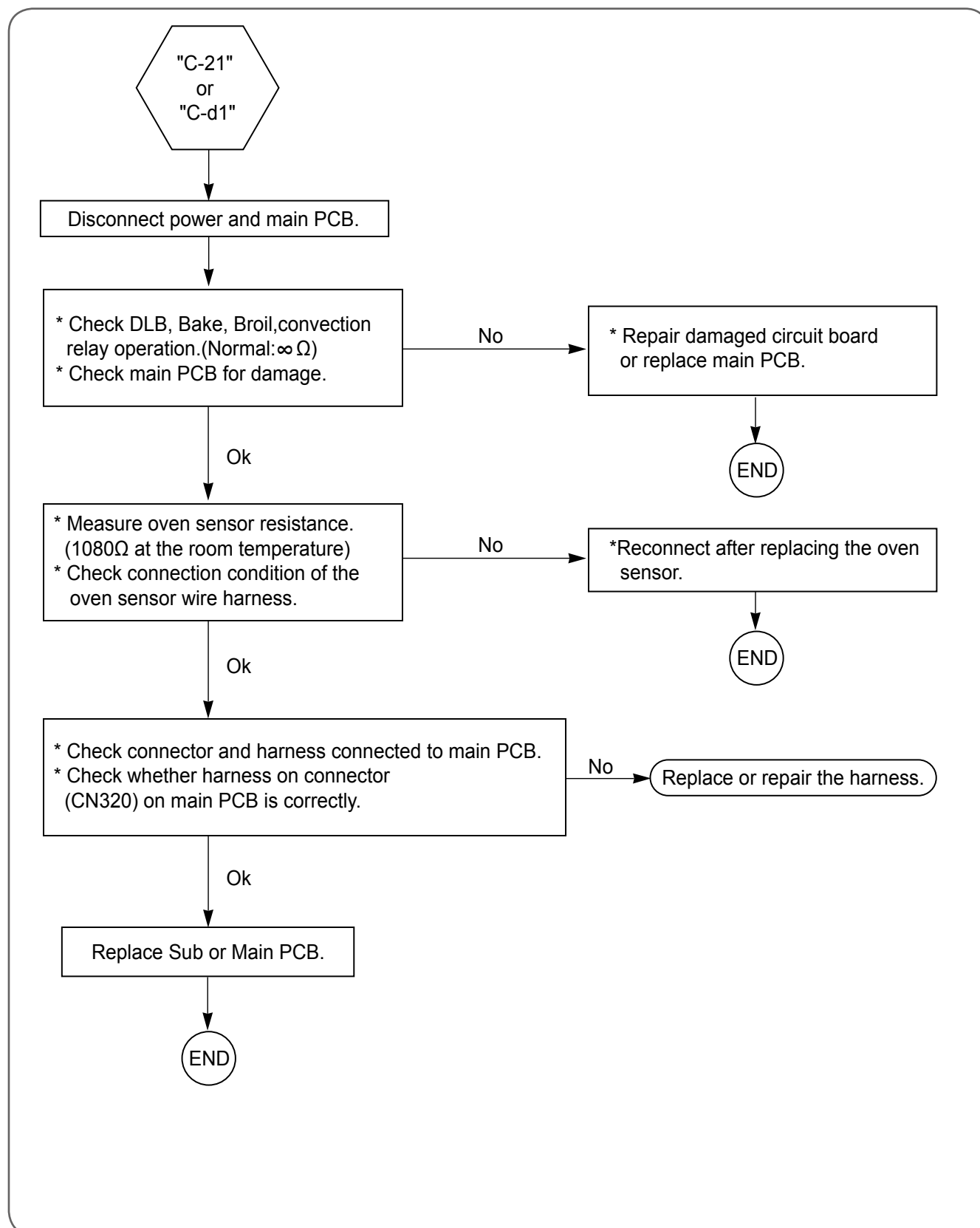
4-1 Failure Display Codes



4. Troubleshooting

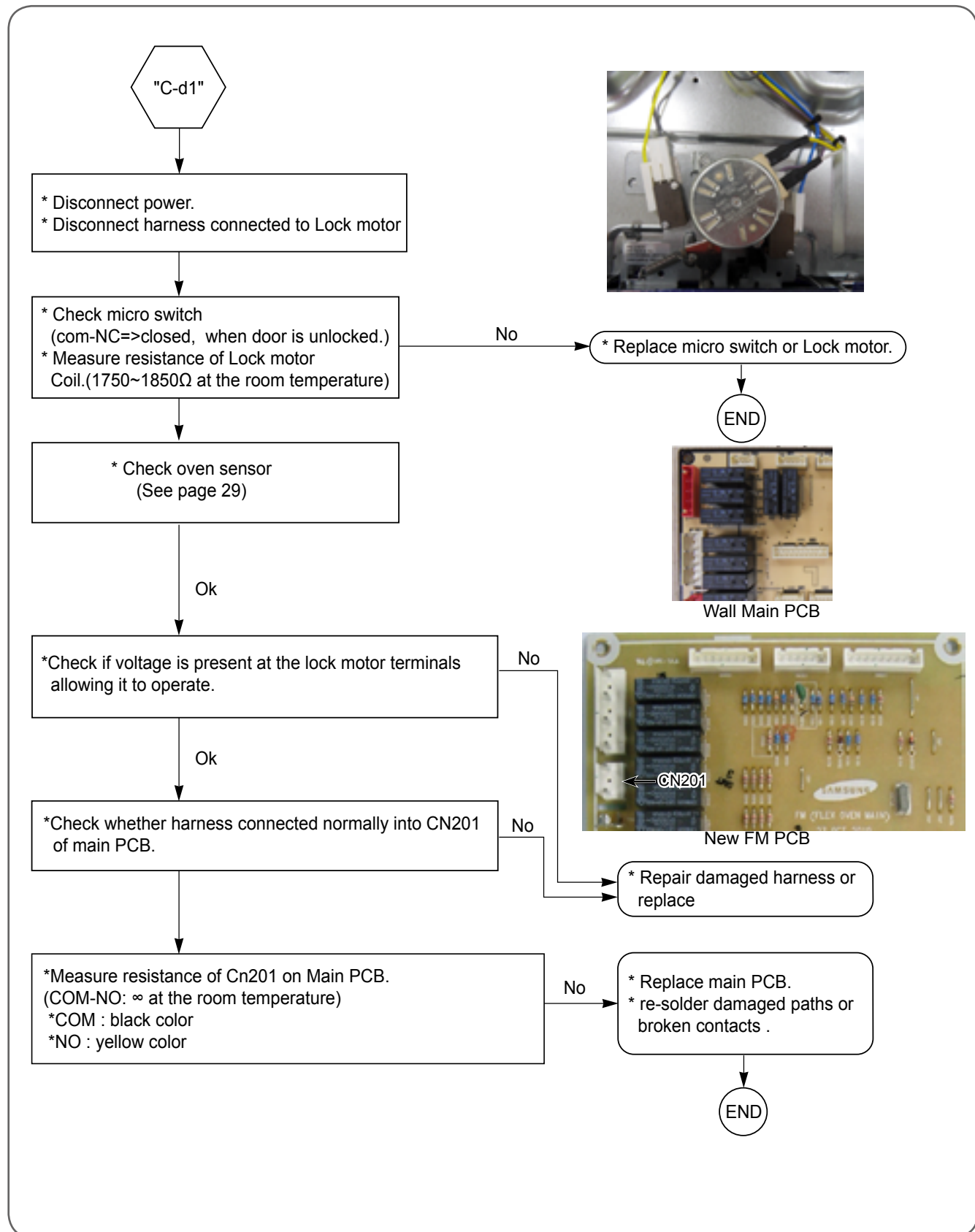
4-1 Failure Display Codes

Safety error



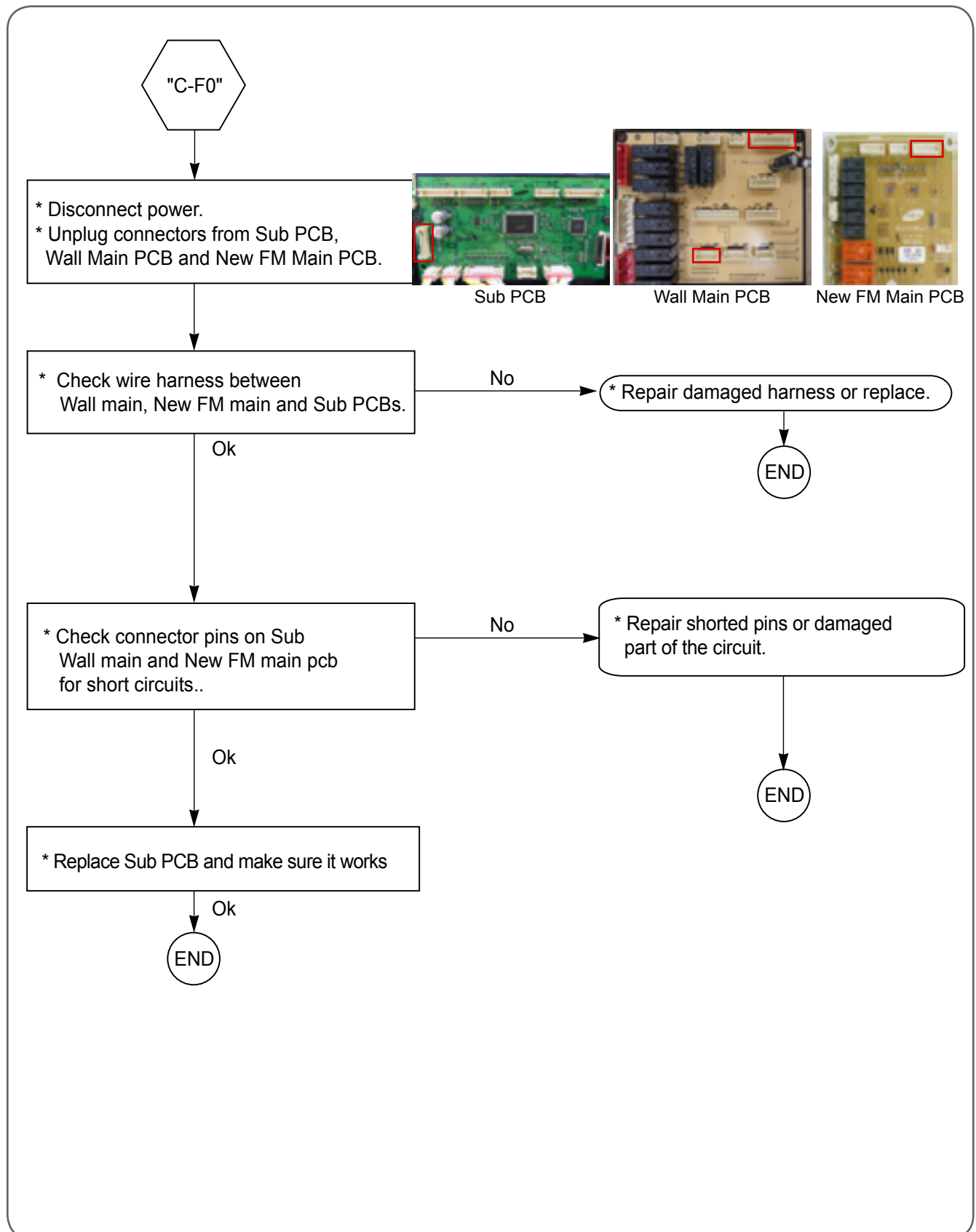
4. Troubleshooting

4-1 Failure Display Codes



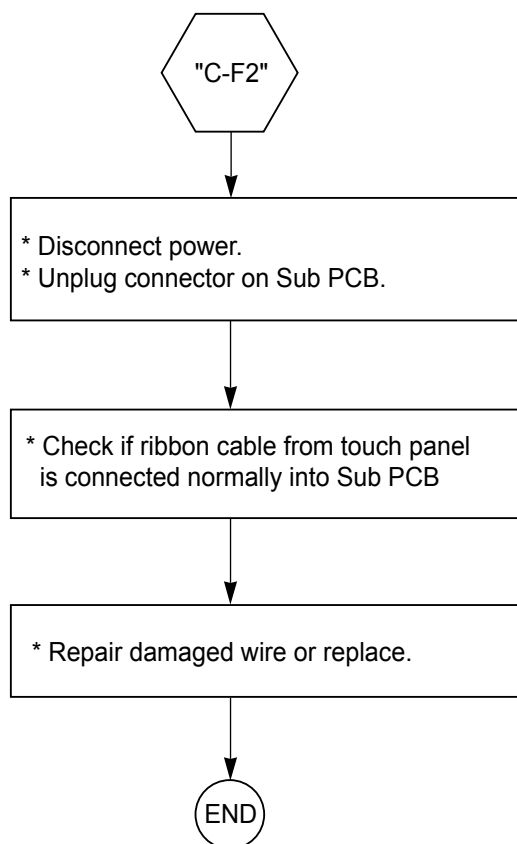
4. Troubleshooting

4-1 Failure Display Codes



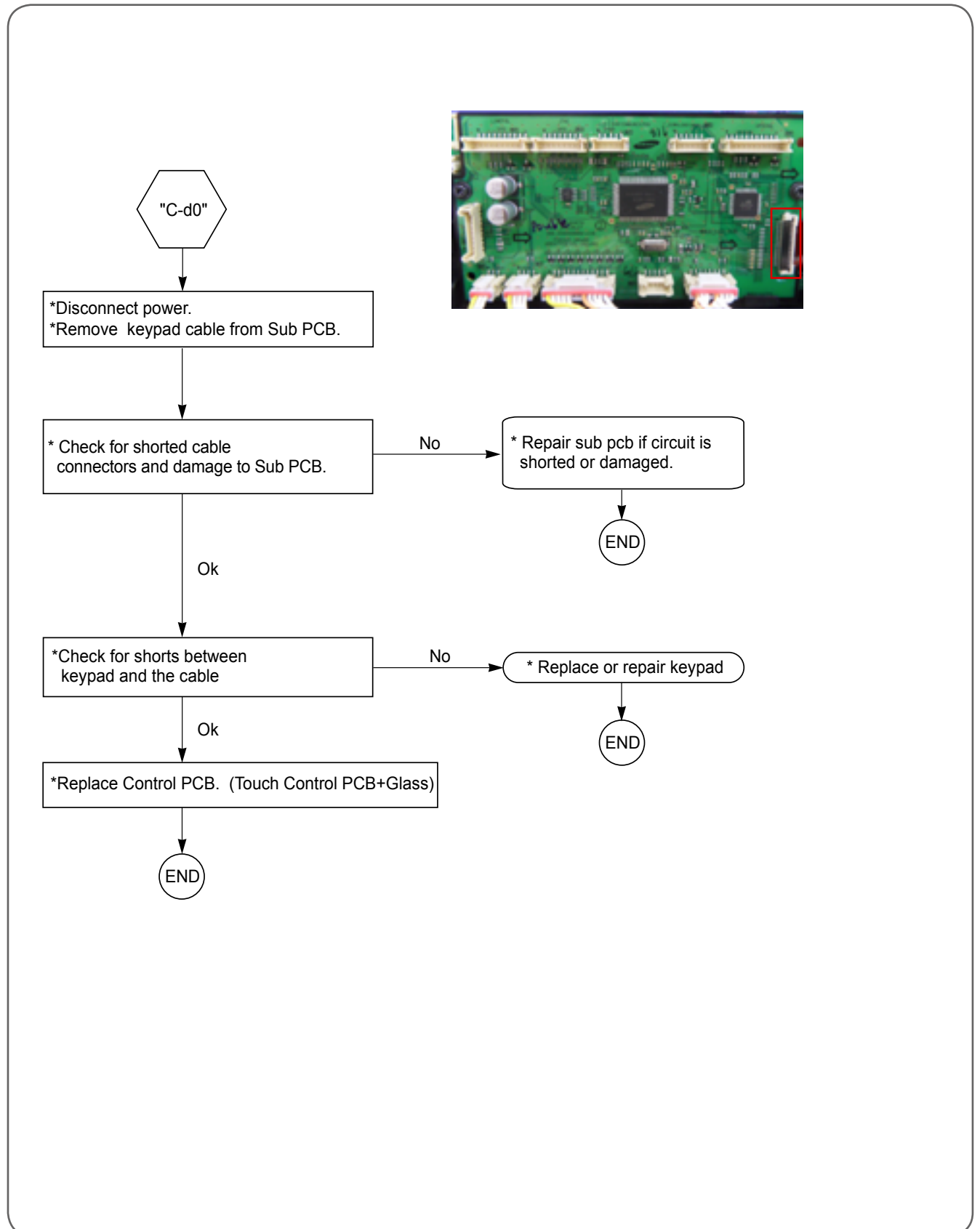
4. Troubleshooting

4-1 Failure Display Codes



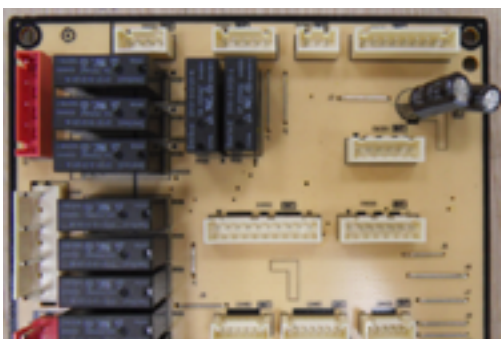
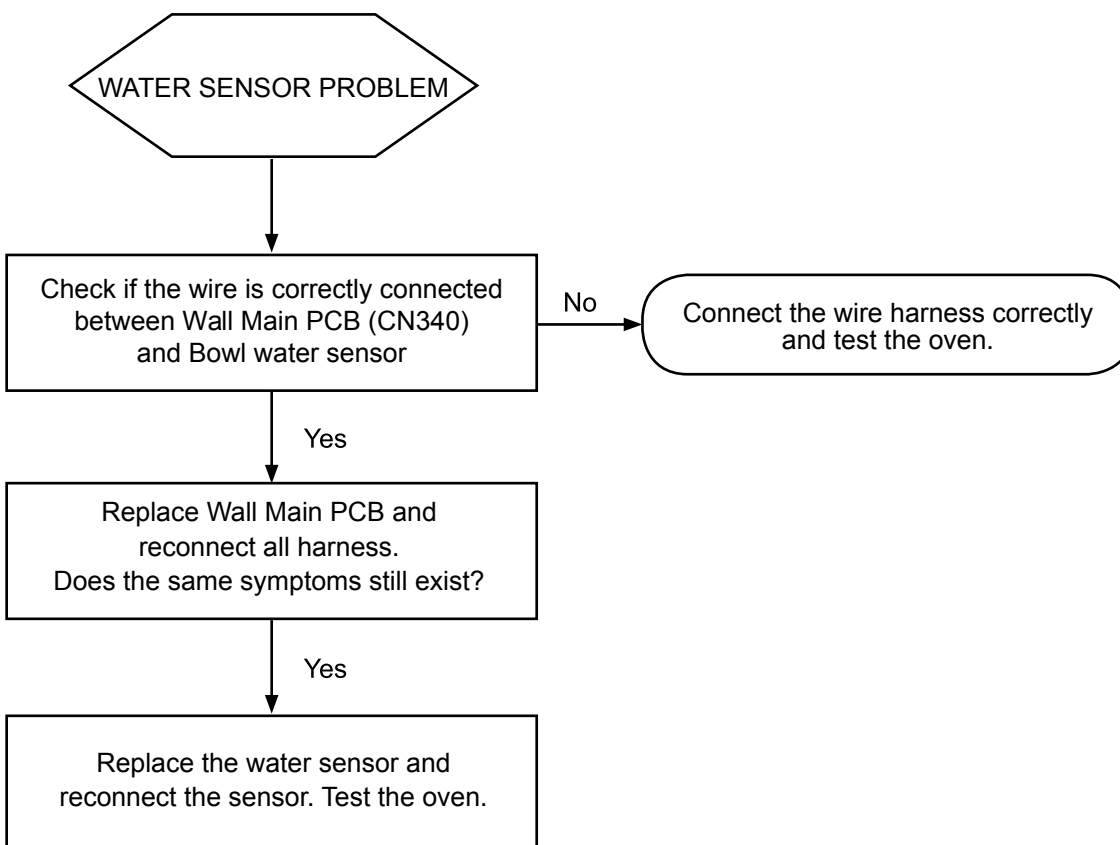
4. Troubleshooting

4-1 Failure Display Codes



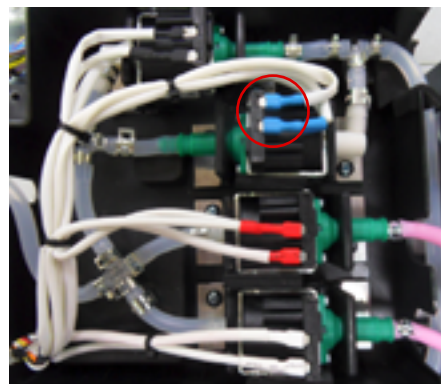
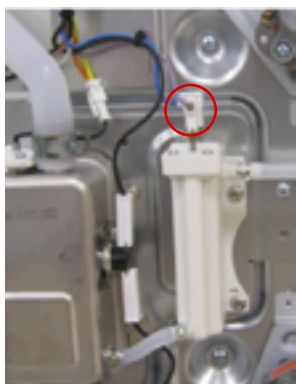
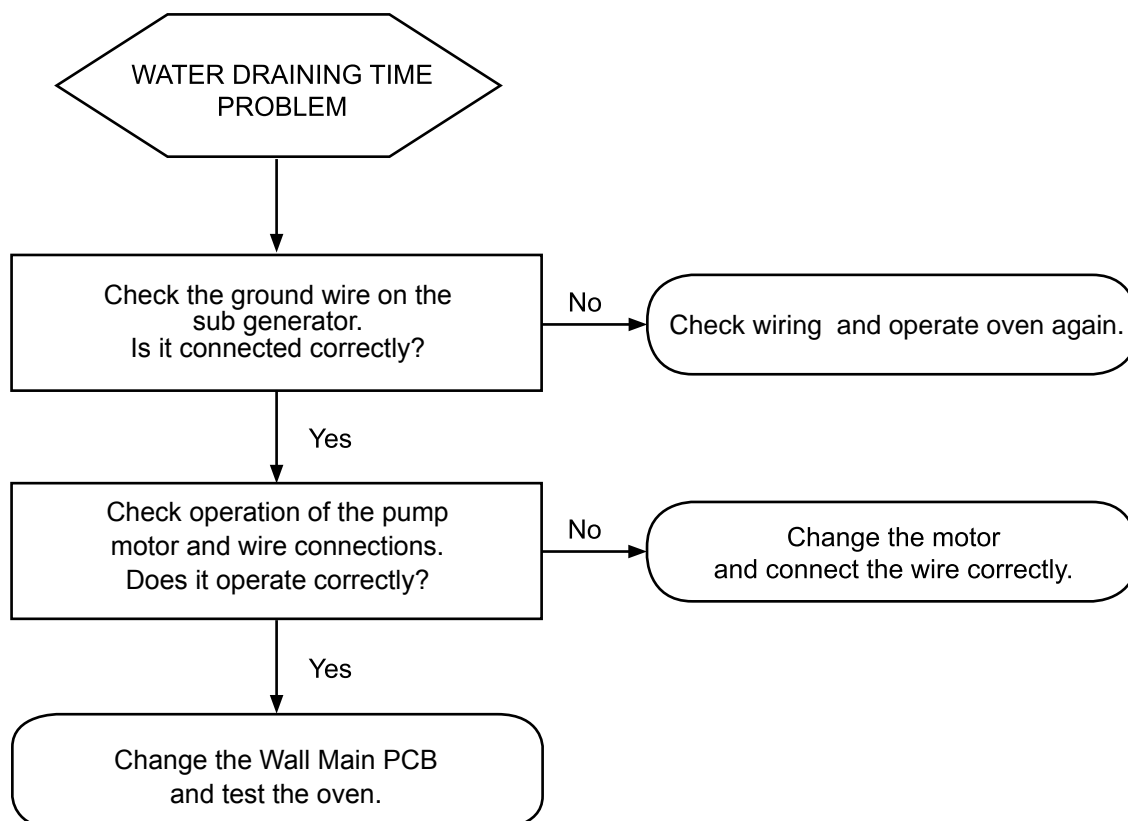
4. Troubleshooting

4-1 Failure Display Codes



4. Troubleshooting

4-1 Failure Display Codes

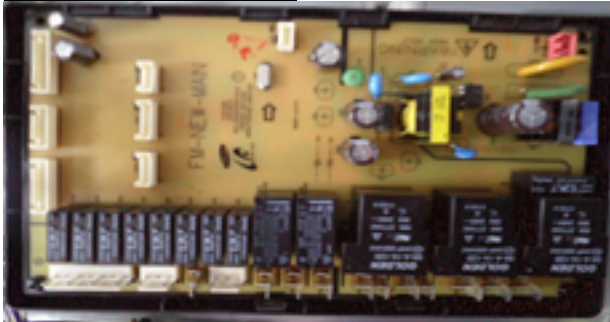


4. Troubleshooting

Control PCB Operation

Sort of Control PCB

New FM Main PCB



Wall Main PCB



Sub PCB



LCD PBA



4. Troubleshooting

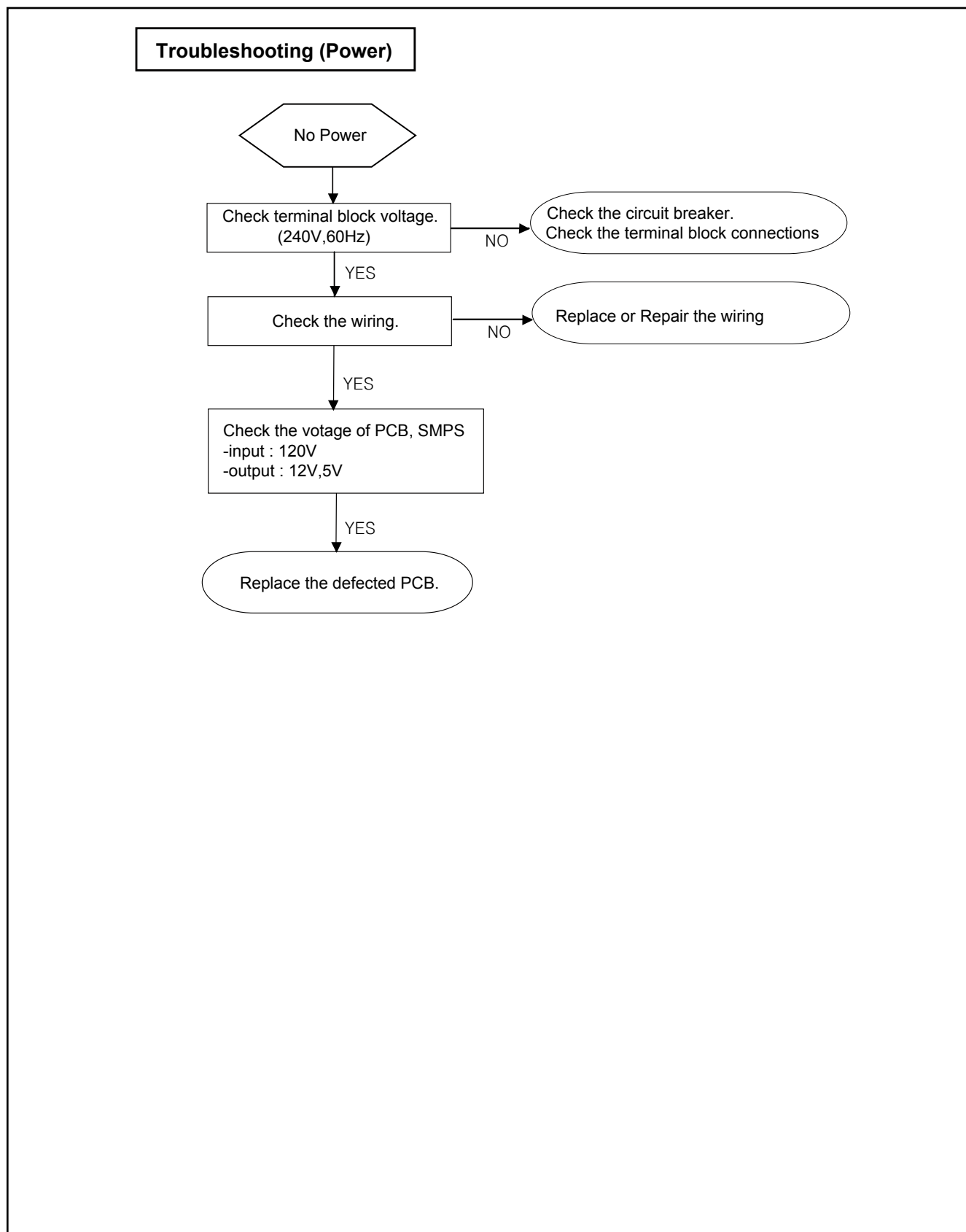
SYMPTOM	DIAGNOSIS	REMEDY
Oven not working (No power, No display)	<ul style="list-style-type: none"> * Measure an input voltage. (240/120V or 208/120V) * Measure an input voltage of terminal block. 	<ul style="list-style-type: none"> * Check circuit breaker. * Check state of a wire connected to Terminal Block
	<ul style="list-style-type: none"> * Measure supplied voltage at the connector on main PCB L1~N : 120V 	<ul style="list-style-type: none"> * Replace or repair harness if loose or disconnected.
	<ul style="list-style-type: none"> * Make sure that the relay on Sub PCB is working normally * Check whether connector between sub , Wall Main PCB and New FM Main PCB have been loose or disconnected. 	<ul style="list-style-type: none"> * Replace sub PCB if relay has been damaged or Sub PCB has been cracked. * Repair harness connecting to Wall Main, New FM Main and Sub PCBs * Make sure the wire harness is connected to the relay on Sub PCB
	<ul style="list-style-type: none"> * Measure resistance of thermostat terminals: (normal : 0 ohms) * Check whether harness connected to terminal of a thermostat is loose or disconnected. * Measure voltage regulator on main PCB. - IC02 : 7812(DC 12V) - IC03 : 7805(DC 5V) 	<ul style="list-style-type: none"> * Replace the thermostat. * Replace or repair harness. * Replace or repair after check PCB.
Oven temperature rises slowly.	<ul style="list-style-type: none"> * Make sure wire harness connected to broil, bake and convection heaters is not loose or disconnected. 	<ul style="list-style-type: none"> * Repair and replace harness. * Disconnect terminals for each heater and measure resistance, replace any heaters with abnormal resistance. .
	<ul style="list-style-type: none"> * Make sure relays are operating normally and PCB is not shorted. 	<ul style="list-style-type: none"> * Replace or repair Wall Main PCB and New FM Main PCB.
Oven temperature rises too fast	<ul style="list-style-type: none"> * Check if oven temperature rises over 400°F within 10 minutes in room temperature. 	<ul style="list-style-type: none"> * Repair or replays shorted relays on Wall Main, New FM Main or SUBs PCBs
	<ul style="list-style-type: none"> * Check if oven harness has been connected incorrectly or is shorted 	<ul style="list-style-type: none"> * Replace or repair harness.
	<ul style="list-style-type: none"> * Make sure resistance of each heater is within normal range. 	<ul style="list-style-type: none"> * Replace heater with abnormal resistance range.

4. Troubleshooting

SYMPTOM	DIAGNOSIS	REMEDY
Keypad is not working correctly.	Make sure the keypad cable is connected correctly.	* Replace pcb if keypad cable is connected correctly.
	Check whether connector on pcb is shorted or damaged.	* Replace or repair after confirming that keypad cable has not been loose or disconnected.
	Check whether touch control PCB has been damaged.	* Replace touch control assembly. (PCB + Glass touch)
Oven lamp is not working.	* Check the oven lamp relay on Wall Main PCB, New FM Main PCB and connector.	* Replace or repair if harness has been loose or disconnected. * Replace oven lamp relay or Ry-source relay. * Replace Wall Main PCB and New FM Main PCB.
	Measure the resistance value of both ends of lamp terminal.	* Replace lamp.
Convection fan is not spinning	Check whether convection fan relay on Wall Main PCB, New FM Main PCB and connector is working normally.	* Replace or repair Relay. * Replace or repair connector.
	Make sure harness between Sub PCB, Wall Main PCB and New FM Main PCB has been connected correctly	* Replace or repair harness. * Replace or repair connector. * Replace Wall Main PCB and New FM Main PCB.
Smell or smoke during initial use	This is in normal state.	* Smell or smoke from the oven during initial cycle is coming from dirt and grime from manufacturing process and is normal * Make sure the room is well ventilated during self-clean cycle
LED Display is partially or fully dim	* LED display is defective.	* Replace sub PCB
Touch tone not active when keypad buttons are selected	Check the state of buzzer on sub PCB and whether PCB pattern have a short circuit or has been open.	* Replace or repair main PCB.
Oven door is locked	Circuit breaker tripped or power failure during the door lock operating.	* Check the power source to the oven.

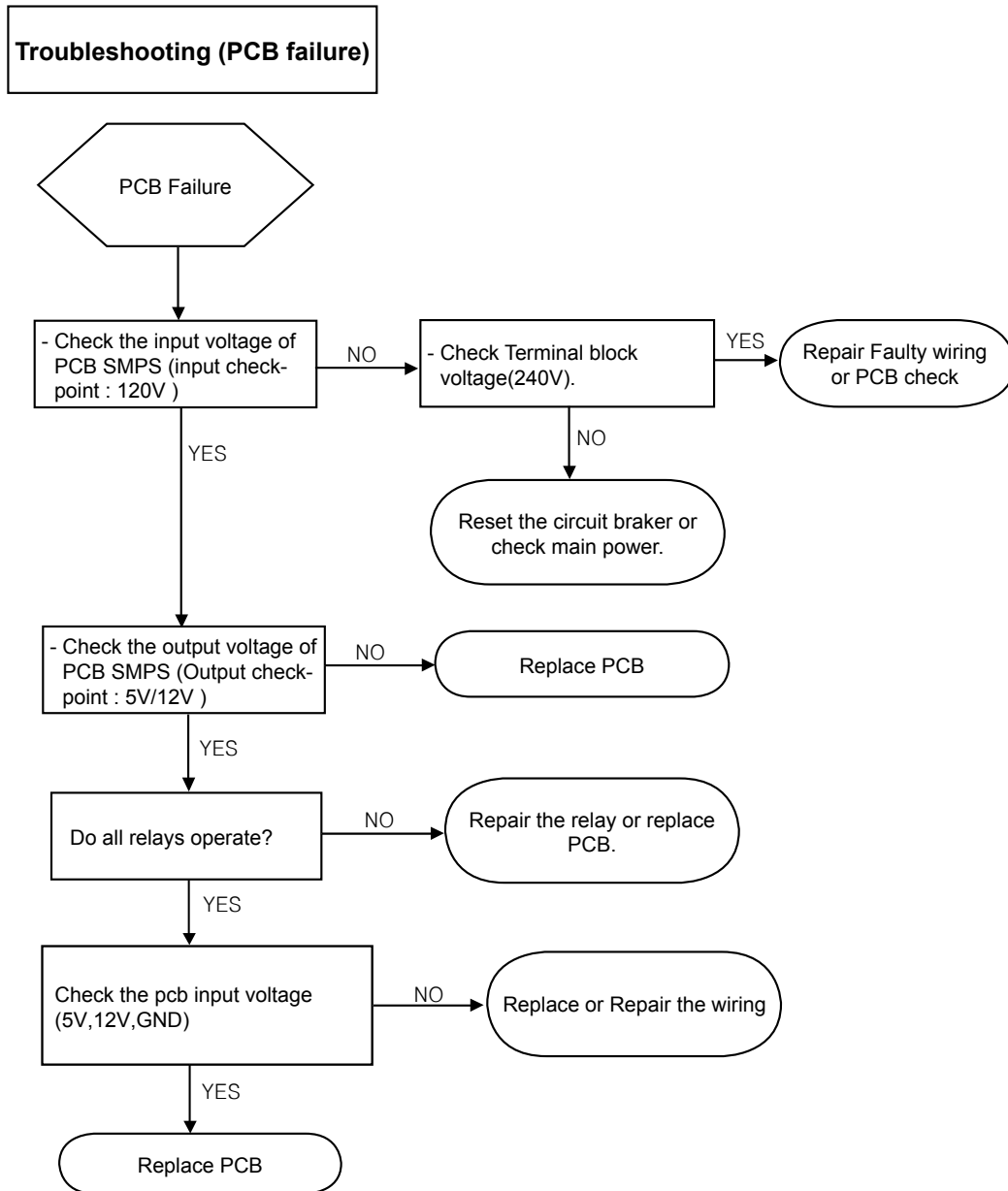
4. Troubleshooting

4-2 Electrical Malfunction



4. Troubleshooting

4-2 Electrical Malfunction




4. Troubleshooting

4-2 Electrical Malfunction

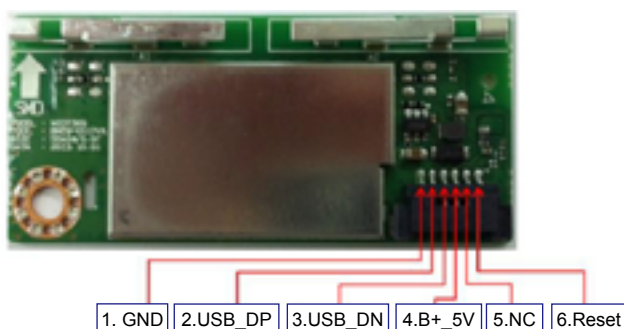
Troubleshooting (Wi-Fi connection)

Step 1.

- Check whether display is showing 
 - If display is showing Wi-Fi icon, check to 'Samsung Smart Home' app.
Delete and re-install the app. And then, try again
(Follow manual instruction for samsung smart home app).
 - If display does not show icon, check home network.
 - If home network is ok, follow step 2.
 - If home network has a problem, contact home network service center.

Step 2.

- Check communication between wi-fi module and sub pcb
 - a) Press Setting and Lamp at the same time.
Display will show pJt name, main pcb version, sub pcb version and network version.
 - If network version is shown normally, try to use smart control feature again.
 - If network version is missing, check the wi-fi module. (2-b)
 - b) Remove the wi-fi module (see page 3-21 removing the wi-fi module for the procedure).
Check input voltage on wi-fi module. (5V)
 - If input voltage is ok, replace wi-fi module.
 - If input voltage is not present, check the the wire harness, the connector and Sub PCB. (2-c)



- c) Remove the top cover.
(see page 3-3 removing PCB MAIN for the procedure).
 - If connection of wire is ok, check to next step (2-d)
 - If wire connection is a problem, re-connect and try smart control feature again.
- d) Remove the sub pcb (see page 3-4 removing sub pcb for the procedure).
Check if wire harness connector is fully and correctly inserted. (CN703)
Then, check input voltage on sub pcb. (5V)
 - If input voltage is ok, replace wi-fi module.
 - If input voltage is not present, replace sub pcb.

Pin 1 : GND
Pin 4 : 5VDC

4. Troubleshooting

4-2 Electrical Malfunction

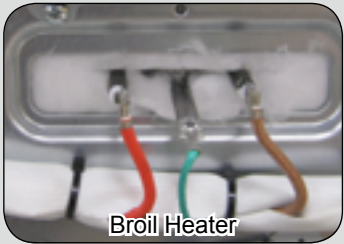
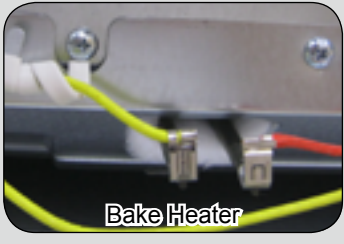
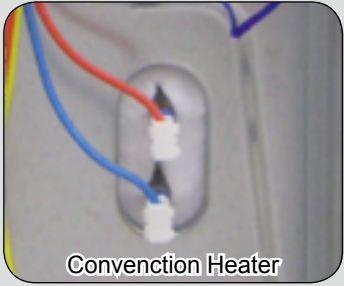

Component testing procedures



WARNING

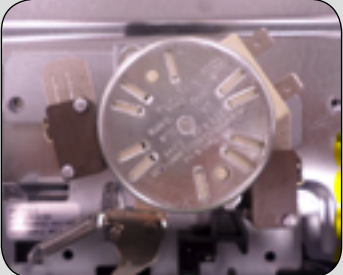
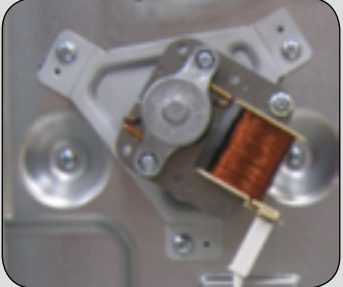
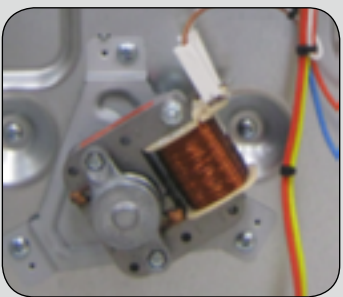

ELECTRICAL SHOCK HAZARD

Disconnect power before servicing the range. Replace all panels before operating range.
Failure to do so can result in death or electrical shock.

FIGURE	TESTS MEASURE	RESULTS
 <p>Broil Heater</p>	<ul style="list-style-type: none"> * Measure resistance value of the heater terminals after removing connectors from the heater. * Measure voltage of heater terminals after selecting broil. 	<ul style="list-style-type: none"> * Approx : 11~15Ω (at the room temperature) * Terminal voltage of Broil heater : AC 240V * Replace or repair harness * Replace or repair main PCB of each oven. (Upper oven : Wall main PCB, Lower oven : New FM PCB.)
 <p>Bake Heater</p>	<ul style="list-style-type: none"> * Measure resistance value of the heater terminals after removing connectors from the heater. * Measure voltage of heater terminals after selecting bake. (Make sure that voltage is measured for more than 1 minute because heater element will cycle On and Off.) 	<ul style="list-style-type: none"> * Approx : 18~21Ω (at the room temperature) * Terminal voltage of bake heater : AC 240V * Replace or repair harness * Replace or repair main PCB of each oven. (Upper oven : Wall main PCB, Lower oven : New FM PCB.)
 <p>Convection Heater</p>	<ul style="list-style-type: none"> * Measure resistance value of the heater terminals after removing connectors from the heater. * Measure voltage of heater terminals after selecting convection bake. (Make sure that voltage is measured for more than 1 minute because heater element will cycle On and Off.) 	<ul style="list-style-type: none"> * Approx : 40~46Ω(at the room temperature) * Terminal voltage of convection heater : AC 240V * Replace or repair harness * Replace or repair main PCB of each oven. (Upper oven : Wall main PCB, Lower oven : New FM PCB.)
 <p>Steam Heater</p>	<ul style="list-style-type: none"> * Measure resistance value of the heater terminals after removing connectors from the heater. * Measure voltage of heater terminals after selecting steam bake. (Make sure that voltage is measured for more than 1 minute because heater element will cycle On and Off.) 	<ul style="list-style-type: none"> * Approx : 26~30Ω (at the room temperature) * Terminal voltage of Drawer heater : AC 120V * Replace or repaire harness * Replace or repaire Wall Main PCB

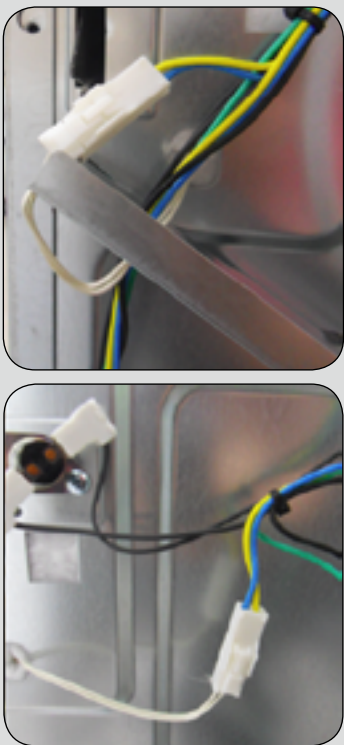
4. Troubleshooting

4-2 Electrical Malfunction

FIGURE	TESTS MEASURE	RESULTS
	<ul style="list-style-type: none"> * Measure operation of the micro switch and the motor after removing wire harness from terminals. * Check if lock works normally by pressing Control Lock for 3 seconds. 	<ul style="list-style-type: none"> * Lock motor Resistance : 1600~2200Ω (at the room temperature) voltage : 120V * Micro switch com-NC=>closed, when door is unlocked * Replace or repair if harness is lose or disconnected.
 <p>Lower Convection Fan</p> 	<ul style="list-style-type: none"> * Measure resistance value of a motor after removing wire harness off the terminals. * Measure Input voltage to the motor after selecting convection bake on the key pad. (Make sure to measure voltage for more then one minute as fan will normally cycle on and off) 	<p>Approx</p> <ul style="list-style-type: none"> * Convection Fan : 20 ~ 30Ω * Terminal Voltage of Convection Fan : 120V * Replace or repair harness * Replace or repair main PCB of each oven. (Upper oven : Wall main PCB, Lower oven : New FM PCB.)
	<ul style="list-style-type: none"> * Measure the state of partition switch after taking off harness 	<ul style="list-style-type: none"> * Partition Switch Resistance : 1750 ~ 1850Ω * Replace or repair if harness has been loosen or disconnected

4. Troubleshooting

4-2 Electrical Malfunction

FIGURE	TESTS MEASURE	RESULTS
	<ul style="list-style-type: none">* Measure resistance value of the oven temperature sensor.* Check if wire harness is loose or disconnected.	<p>Approx. at the room temperature :1080Ω</p>

4. Troubleshooting

4-2 Electrical Malfunction

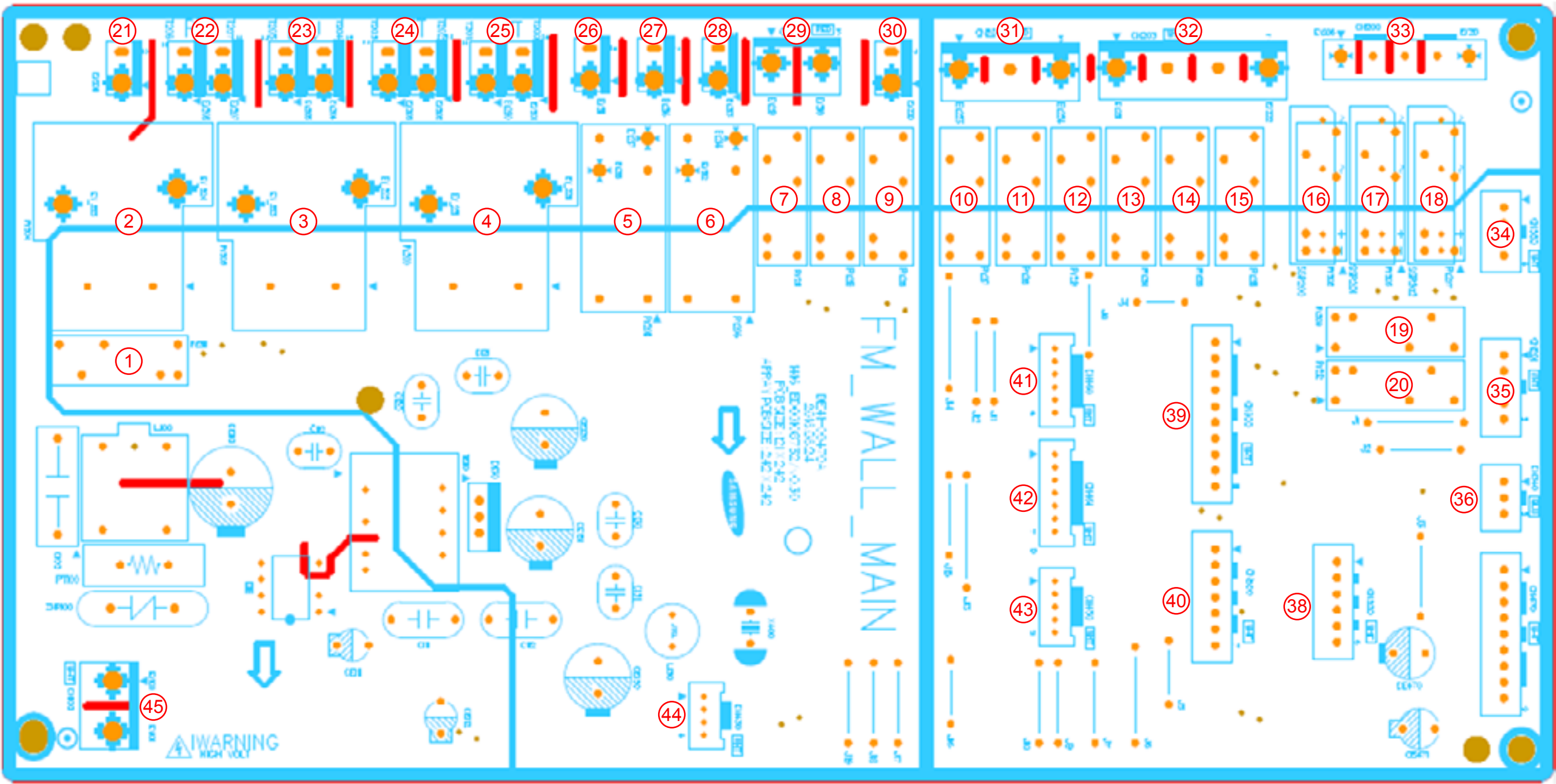
Oven sensor resistance (Temperature vs. Sensor resistance)

$R_0 = 1000 \text{ Ohms}$ (0°C), $R_P = 2757 \text{ Ohms}$, $U_p = 5\text{V}$, $a = 0.00375$

degree F	degree C	ohms	degree F	degree C	ohms
0	-17.8	932.12	113	45	1170.17
14	-10	961.86	122	50	1188.93
23	-5	980.95	212	100	1374.93
32	0	1000.00	302	150	1558.01
41	5	1019.02	392	200	1738.06
50	10	1038.02	482	250	1915.39
59	15	1056.99	572	300	2089.69
68	20	1075.92	662	350	2261.07
77	25	1094.83	752	400	2429.52
86	30	1113.71	842	450	2595.05
95	35	1132.56	932	500	2757.65
104	40	1151.38	1000	538	2878.57

5. PCB Diagrams

5-1 PCB Diagrams (Upper oven)



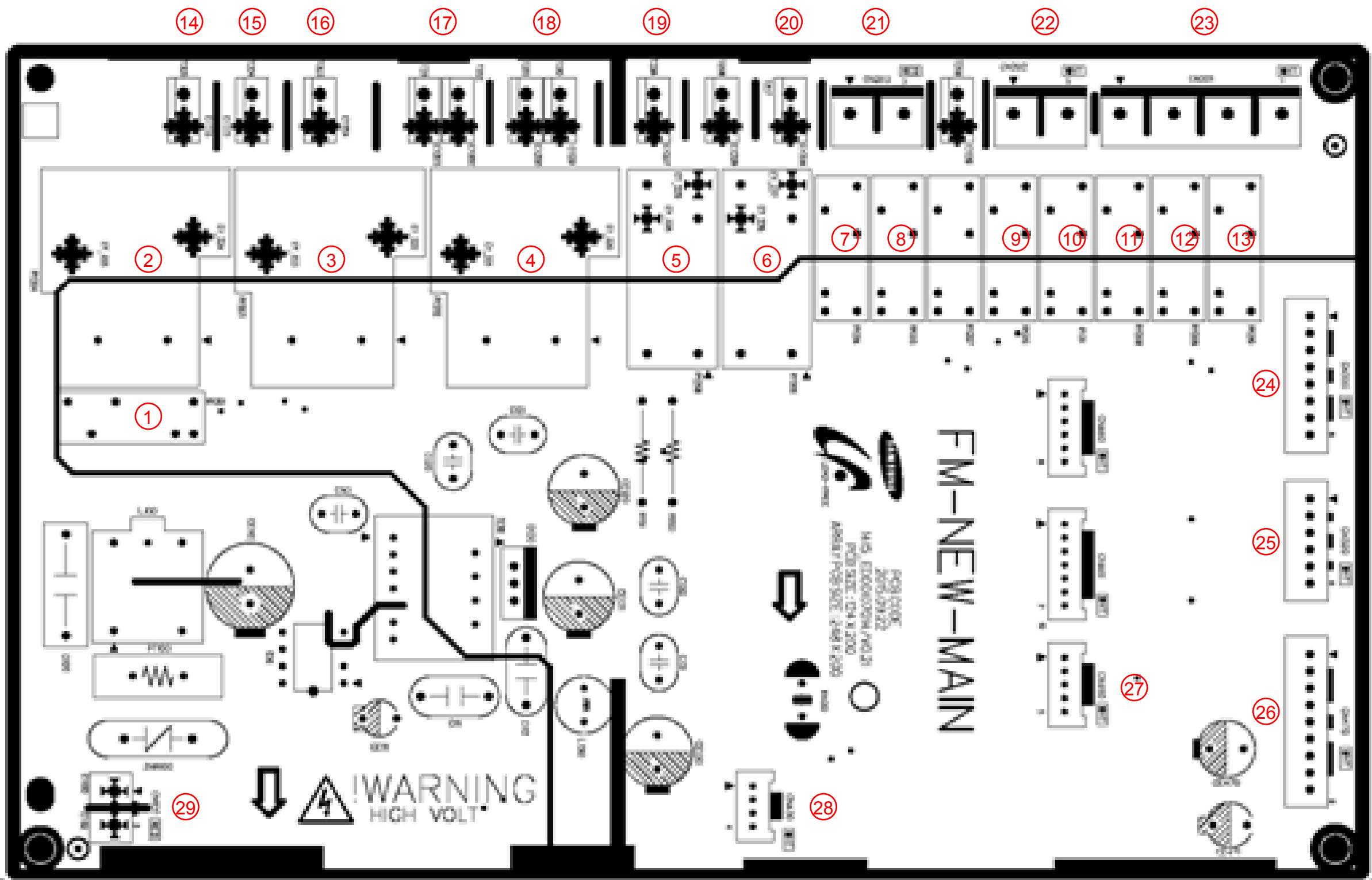
No.	Parts Number	Part Name	Function and Rule
1	RY201	RY-Source Relay	This is relay which control source of DLB, Bake, Broil, Warming Drawer relay.
2	RY204	Bake-Heater Relay	"Broil relay(RY203), Bake relay(RY204), convection relay(RY206) is turned ON/OFF by mi-com signal after DLB relay has been engaged. (Broil relay : Reversing position of the Brown wire will not cause a problem) (Bake relay : Reversing position of the Blue wire will not cause a problem)
3	RY203	Broil-Heater Relay	"Broil relay(RY203), Bake relay(RY204), convection relay(RY206) is turned ON/OFF by mi-com signal after DLB relay has been engaged. (Broil relay : Reversing position of the Brown wire will not cause a problem) (Bake relay : Reversing position of the Blue wire will not cause a problem)
4	RY200	DLB Relay	Circuit is designed to have broil, bake relay or convection relay working after DLB relay is working by Double line break. (Reversing position of the Red wire will not cause a problem)
5	RY208	Steam-Heater Relay	This is relay to control steam heater.
6	RY206	Convection Relay	"Broil relay(RY203), Bake relay(RY204), convection relay(RY206) is turned ON/OFF by mi-com signal after DLB relay has been engaged. (Broil relay : Reversing position of the Brown wire will not cause a problem) (Bake relay : Reversing position of the Blue wire will not cause a problem)
7	RY211	Cooling Motor High Relay	This is relay to control Cooling Motor which is in upper cavity.
8	RY210	Cooling Motor Lower Relay	This is relay to control Cooling Motor which is in lower cavity.
9	RY213	Pyro-free Pump1 Relay	This is relay which is connected with Pyro-free pump upper side.
10	RY217	Conv-Fan-L Relay	This is relay which is connected with Conv-Fan-Low.
11	RY218	Water Pump Relay	This is relay which is connected with Water Pump.
12	RY219	Drain Pump Relay	This is relay which is connected with Drain Pump.
13	RY214	Conv-Fan-U Relay	This is relay which is connected with Conv-Fan-Upper.
14	RY215	Oven Lamp Relay	This is relay which is connected with Oven Lamp.
15	RY216	Door Lock Motor Relay	This is relay which is connected with Door Lock Motor.
16	RY202	Water Tank Motor-CW Relay	This is relay to control Water tank motor to turn in clockwise direction.
17	RY205	Water Tank Motor-CCW Relay	This is relay to control Water tank motor to turn in counter clockwise direction.
18	RY207	Pyro-free Pump2 Relay	This is relay which is connected with Pyro-free pump lower side.
19	RY209	Door LED-U Relay	This is relay which is connected with Door LED-Upper.
20	RY212	Door LED-L Relay	This is relay which is connected with Door LED-Lower.
21	T208	Bake Terminal	This is terminal to connect harness with Bake relay.

5. PCB Diagrams

No.	Parts Number	Part Name	Function and Rule
22	T206	Bake Broil Common Terminal	This is terminal to common connect bake and broil heater.
	T207		
23	T205	Broil Terminal	This is terminal to connect harness with Broil relay.
	T204		
24	T203	DLB Terminal	This is terminal to connect harness with DLB relay.
	T202		
25	T201		
	T200		
26	T209	Common Terminal	This is terminal is a common connection for convection, steam, and cooling motors.
27	T211	Steam Heater	This is connector which is connected with Steam Heater.
28	T210	Convection Heater	This is connector which is connected with Convection Heater.
29	CN202	COOK TOP UART	This is connector which is connected with Cooling Motor.
30	T212	Pyro-free Pump1	This is connector which is connected with Pyro-free Pump1.
31	CN204	Relay Connector	CONV FAN L, WATER PUMP, DRAIN PUMP
32	CN203	Relay Connector	CONV FAN U, OVEN LAMP U, DOOR LOCK, AC120V_LINE
33	CN200	Relay Connector	WATER TANK MOTOR-CW, WATER TANK MOTOR-CCW, PYROFREE-PUMP2, LIVE
34	CN550	Water Tank Sensing Connector	This connector which is connected with Water Tank sensor.
35	CN201	Relay Connector	DOOR LED-U, DOOR LED-L
36	CN340	Steam Temp	This connector which is connected with Steam temp sensor.
37	CN470	Sub Communication Connector	This is connector which is connected with Sub PCB to communicate.
38	CN320	Oven Sensing Connector	This connector which is connected with oven sensor.
39	CN300	Door Lock, Divider Connector	This is connector which is connected with Door plunger switch and Door lock switch, divider switch.
40	CN500	Water & Steam Sensing Connector	This connector which is connected with water&steam sensor.
41	CN460	Cooktop UART 1	This connector is for communication with main PBA of lower oven for double oven. (N/A for single oven)
42	CN461	Cooktop UART 2	This connector is for communication with PBA of cooktop (N/A for this model)
43	CN450	HASS Connector	It is connector for HASS (Smart Test).
44	CN430	Micom Writing Connector	This is connector for writing Micom.
45	CN100	Power Connector	This is to supply power with SMPS.

5. PCB Diagrams

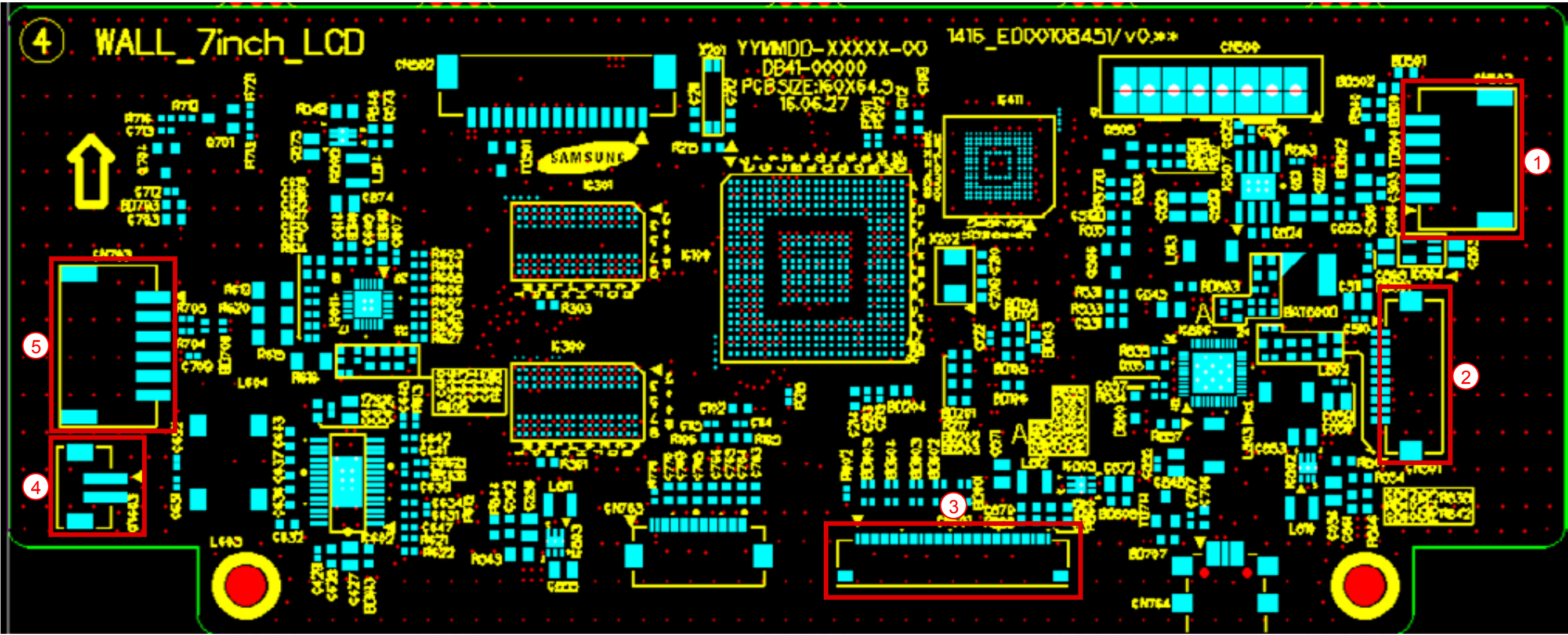
5-2 PCB Diagrams (Lower oven)



No.	Parts Number	Part Name	Function and Rule
1	RY201	RY-Source Relay	This is relay which control source of DLB, BAKE, BROIL, W/Drawer
2	RY204	Bake-Heater Relay	Broil relay(Ry203), Bake relay(Ry204), convection relay(Ry205) is turned ON/OFF by mi-com signal after DLB relay has been engaged. (Broil relay : Reversing position of the Brown wire will not cause a problem) (Bake relay : Reversing position of the Blue wire will not cause a problem)
3	RY203	Broil-Heater Relay	Broil relay(Ry203), Bake relay(Ry204), convection relay(Ry205) is turned ON/OFF by mi-com signal after DLB relay has been engaged. (Broil relay : Reversing position of the Brown wire will not cause a problem) (Bake relay : Reversing position of the Blue wire will not cause a problem)
4	RY202	DLB Relay	Circuit is designed to have broil relay or convection relay working after DLB relay is working by Double line break. (Reversing position of the Red wire will not cause a problem)
5	RY206	Warming Drawer Heater Relay	This is Relay to control Warming Drawer-Heater.
6	RY205	Convection Relay	Broil relay(Ry203), Bake relay(Ry204), convection relay(Ry205) turned ON/OFF by mi-com signal after DLB relay has been engaged. (Broil relay : Reversing position of the Brown wire will not cause a problem) (Bake relay : IReversing position of the Blue wire will not cause a problem)
7	RY214	OPTION (Cooling Fan)	This is a spare relay. (This relay is connected with Cooling fan Lo in this model)
8	RY213	OPTION (Cooling Fan)	This is a spare relay. (This relay is connected with Cooling fan Hi in this model)
9	RY212	Oven-Lamp-L Relay	This is relay which is connected with Oven-Lamp-Low.
10	RY211	Oven-Fan-L Relay	This is relay which is connected with Oven-Fan-Low.
11	RY208	Conv-Fan-U Relay	This is relay which is connected with Conv. Fan.
12	RY209	Conv-Lamp-U Relay	This is relay which is connected with Conv-Lamp-Upper
13	RY210	Door Lock Relay	This is relay which is connected with door lock motor.
14	T205	Bake Terminal	This is terminal to connect harness with Bake relay.
15	T204	DLB Terminal	This is terminal to connect harness with DLB relay.
16	T203		
17	T211		
	T202		
18	T201	Convection-Heater Terminal	This is terminal to connect harness with convection-heater relay.
	T210		
19	T206	Convection-Heater Terminal	This is terminal to connect harness with convection-heater relay.
20	T207		
21	CN203	spare connector	This is for spare relays (RY213, RY214). (This connector is connected with Cooling fan in this model.)
22	CN202	Relay Connector	OVEN FAN L, OVEN LAMP L
23	CN201	Relay Connector	CONV FAN U, OVEN LAMP U, DOOR LOCK, AC120V_LINE
24	CN300	Door Lock, Divider Connector	This is connector which is connected with Door plunger switch and Door lock switch, divider switch.
25	CN320	Oven Sensing Connector	This connector which is connected with oven sensor.
26	CN470	Sub Communication Connector	This is connector which is connected with Sub PCB to communicate.
27	CN450	HASS	This is to connect HASS.
28	CN430	On Board Writing Connector	When do micom revision, connect to micom writer. And this connector which is connected with Touch PCB to communicate.
29	CN100	Power Connector	This is to supply power to SMPS.

5. PCB Diagrams

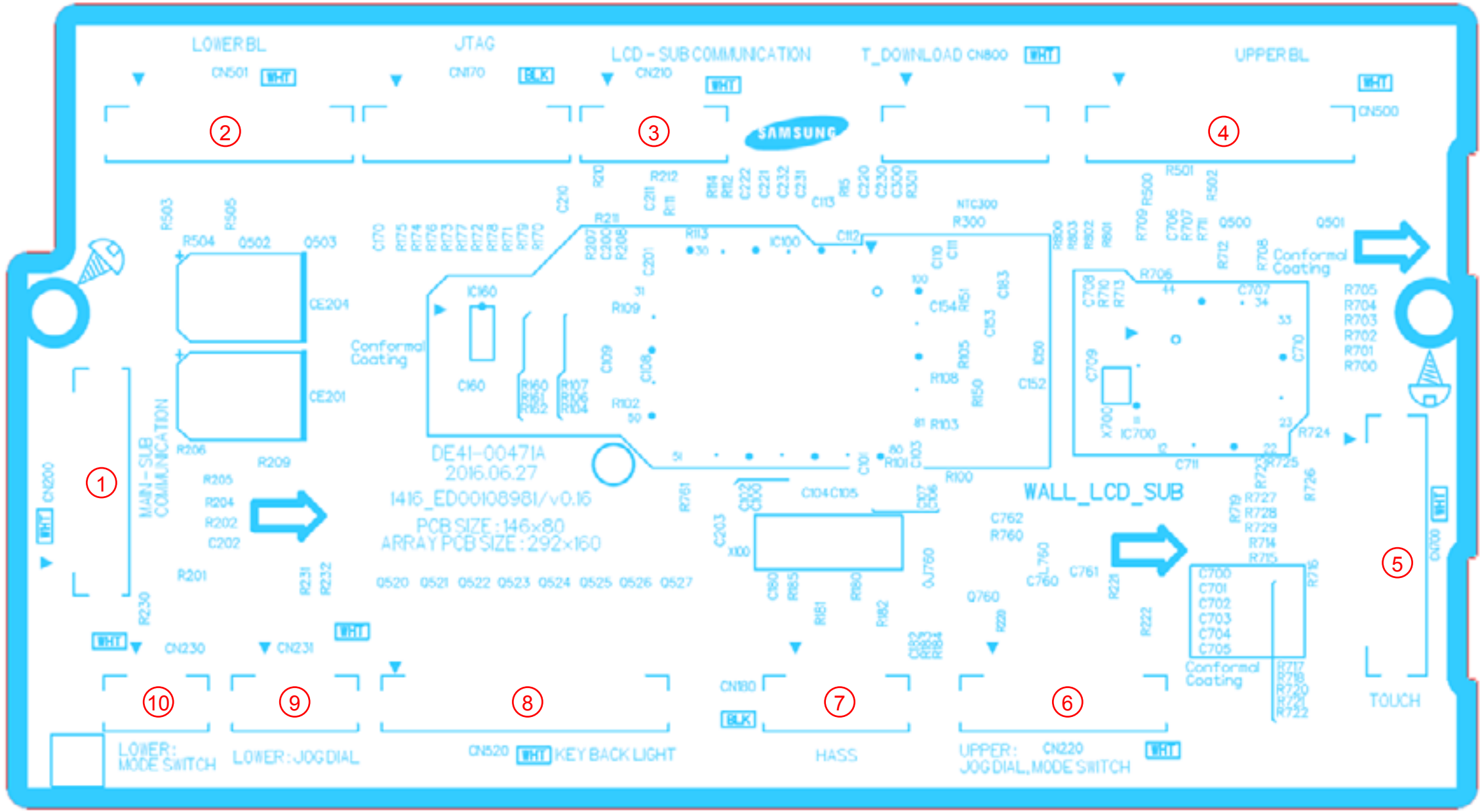
5-3 PCB Diagrams (LCD PBA)



No.	Parts Number	Part Name	Function and Rule
1	CN503	Sub Board Connector	This is connected with sub board.
2	CN501	Touch Connector	This is connected with touch panel.
3	CN601	LCD Connector	This is connected with 7.0" LCD.
4	CN603	Speaker Connector	This is connected with speaker.
5	CN703	Wi-Fi Connector	This is connected with Wi-Fi module.

5. PCB Diagrams

5-4 PCB Diagrams (SUB PBA)



No.	Parts Number	Part Name	Function and Rule
1	CN200	Main Communication Connector	This is connector which is connected with Main PCB to communicate.
2	CN501	Lower Oven Knob Backlight Connector	This is connector which is connected with lower oven knob backlight circuit. (N/A for Single model)
3	CN210	LCD Communication Connector	This is connector which is connected with LCD PBA to communicate.
4	CN500	Upper Oven Knob Backlight Connector	This is connector which is connected with lower oven knob backlight circuit.
5	CN700	Touch Film Connector	This is connector which is connected touch film.
6	CN220	Upper Oven Dial Connector	This is connector which is connected upper oven dial(Jog Dial, Mode Dial).
7	CN180	HASS Connector	This is connector which is HASS.
8	CN520	Key Backlight Connector	This is connector which is connected with lower oven knob backlight circuit.
9	CN231	Lower Jog Dial Connector	This is connector which is connected lower oven jog dial
10	CN230	Lower Mode Dial Connector	This is connector which is connected lower oven mode dial

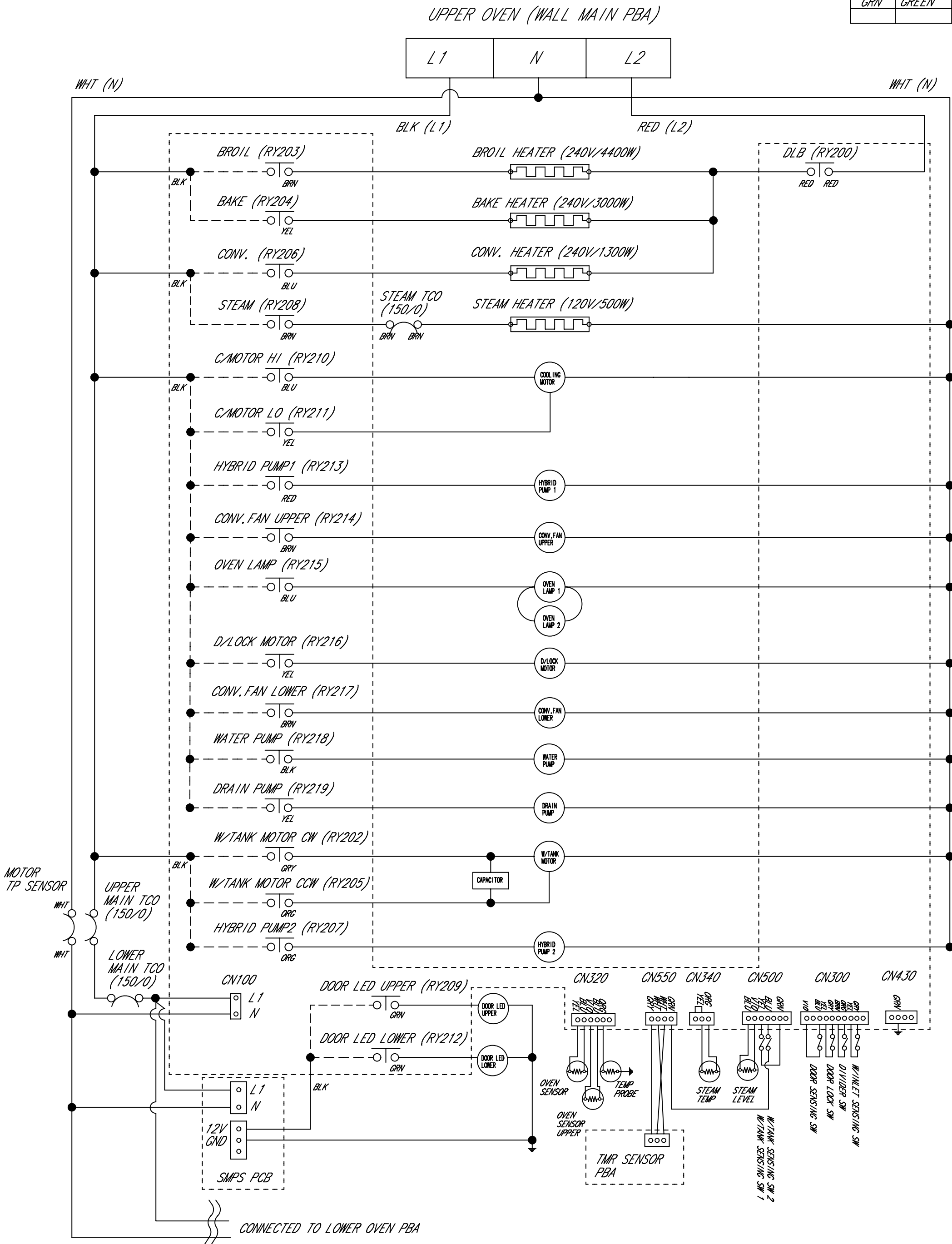
6. Wiring diagram

6-1 Schematic diagram (Upper oven)

NOTE
1) CIRCUIT SHOWN WITH ALL CONTROLS SET TO OFF
2) OVEN DOOR OPENED AND UNLOCKED
3) WATER RESERVOIR INPUTTED AND LOCATED INSIDE

SCHEMATIC DIAGRAM
MODEL : NV51K7770D*

COLOR	
RED	RED
BLK	BLACK
WHT	WHITE
BRN	BROWN
YEL	YELLOW
BLU	BLUE
ORG	ORANGE
VIO	VIOLET
GRN	GREEN



HEATING ELEMENTS (UPPER)			HEATING ELEMENTS (LOWER)		
COMPONENTS	INPUT	WATTAGE	COMPONENTS	INPUT	WATTAGE
BROIL HEATER	240V	4400	BROIL HEATER	240V	4400
BAKE HEATER	240V	3000	BAKE HEATER	240V	3000
CONVECTION HEATER	240V	1300	CONVECTION HEATER	240V	1300
STEAM HEATER	120V	500			

6. Wiring diagram

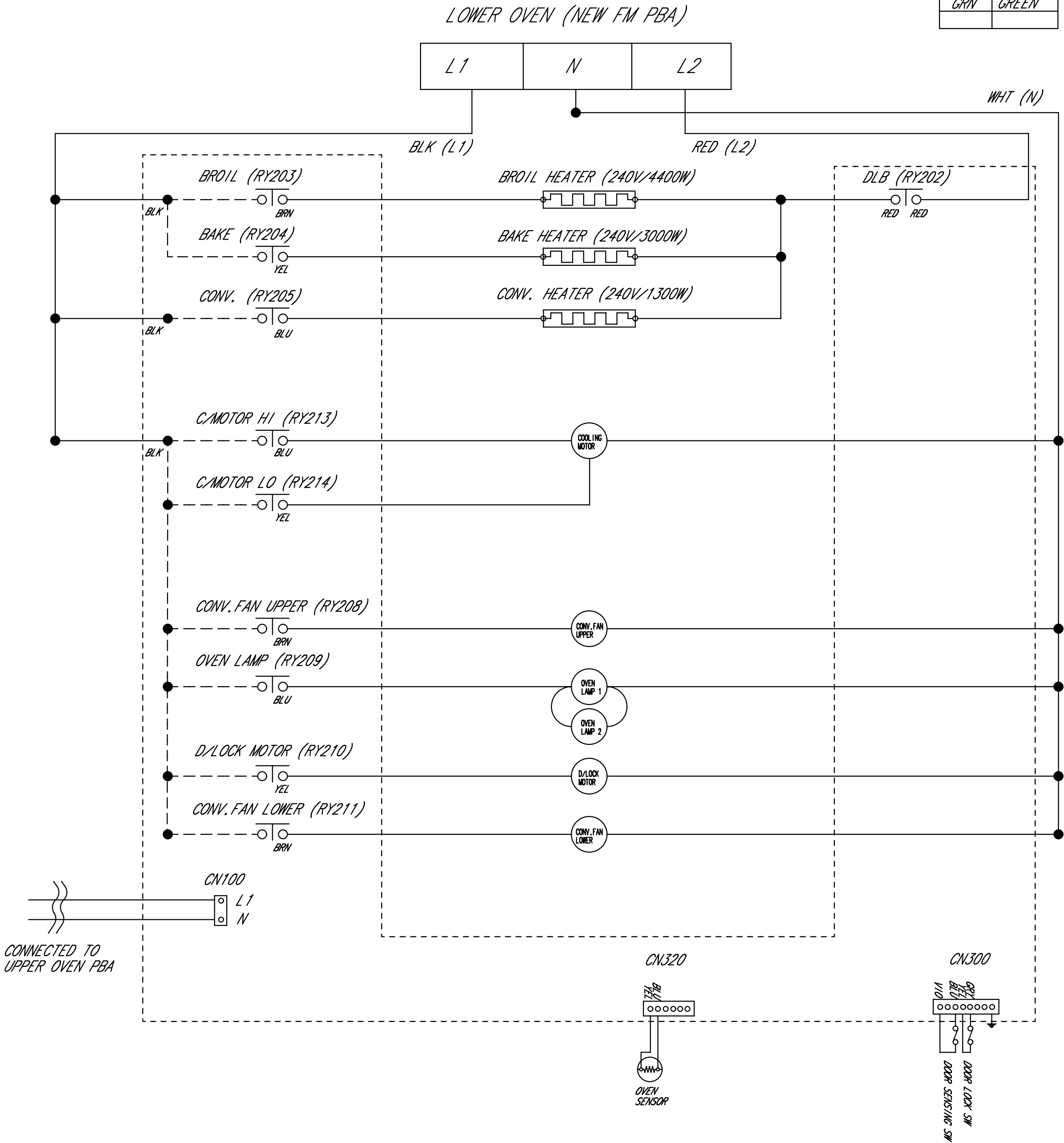
6-2 Schematic diagram (Lower oven)

NOTE

- 1) CIRCUIT SHOWN WITH ALL CONTROLS SET TO OFF
- 2) OVEN DOOR OPENED AND UNLOCKED
- 3) WATER RESERVOIR INPUTTED AND LOCATED INSIDE

SCHEMATIC DIAGRAM
MODEL : NV51K7770D*

COLOR	
RED	RED
BLK	BLACK
WHT	WHITE
BRN	BROWN
YEL	YELLOW
BLU	BLUE
ORG	ORANGE
VIO	VIOLET
GRN	GREEN



HEATING ELEMENTS (UPPER)			HEATING ELEMENTS (LOWER)		
COMPONENTS	INPUT	WATTAGE	COMPONENTS	INPUT	WATTAGE
BROIL HEATER	240V	4400	BROIL HEATER	240V	4400
BAKE HEATER	240V	3000	BAKE HEATER	240V	3000
CONVECTION HEATER	240V	1300	CONVECTION HEATER	240V	1300
STEAM HEATER	120V	500			



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