



Service Manual For Built-in Oven (EU Series electric oven)

Model list:

EB8005ED, EB8010ED, EB8013ED,
EB8015ED, EB8015W, EB8016ED

Warnings:

- This service manual is not available to the general users, but only applies to professional technicians with relevant qualifications. Any incorrect maintenance may result in other dangers!
- The power (and gas) supply must be cut off before maintenance!
- A new power cord which meets the relevant technical requirements must be used once possible hidden malfunctions are found with the current power cord (refer to this Manual)!
- Please read carefully all safety warnings in this Manual before maintenance!
- The product is prohibited from using until test is conducted as per relevant regulations after maintenance!
- This service manual applies to many models, so the specific operations please prevail in kind!

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1. Precaution

1.1 Safety Precaution

1. To prevent injury to the user or other people and property damage, the following instructions must be followed.
2. Incorrect operation due to ignoring instructions will cause harm or damage.
3. Before maintenance, please read carefully the following instructions at first.

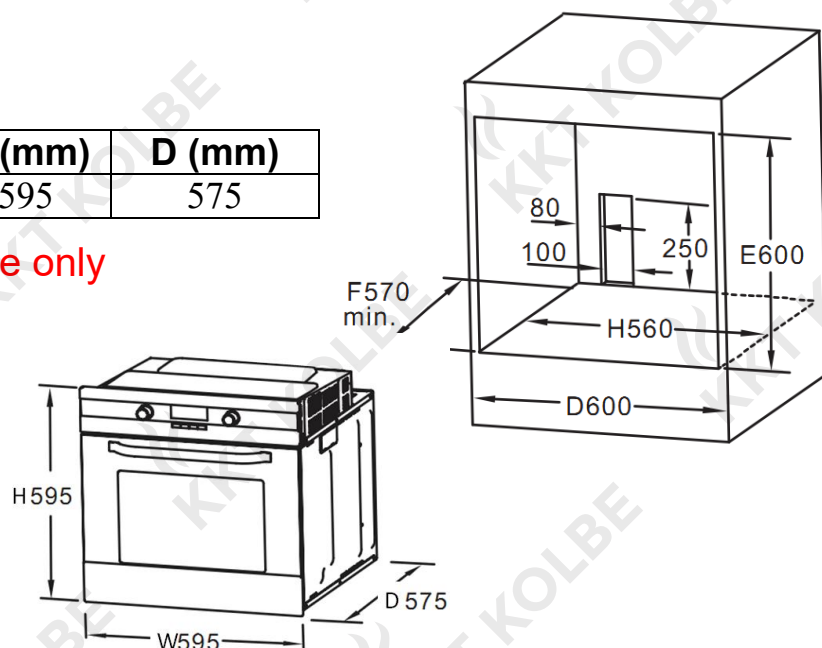
1.2 Warning

1. The power cord shall be replaced with **the original power cord**, specifications for an insulation power line which is no less than AWG8*2 +AWG10*1 and resists temperature of greater than 60°C.
2. All apparatus within a radius of 50mm from this product must resist temperature of greater than 75°C, otherwise, deformations are easily to be caused during the application process of this product.
3. When the wrapping materials are removed, keep such materials like metal sheet, packing bag, foam and screws out of reach of children's reach to avoid potential dangers. For example, the children may suffocate as a result of swallowing tiny components or playing with packing bag.

2. Dimension

Model	W (mm)	H (mm)	D (mm)
65L All the models	595	595	575

Note: Dimensions for reference only



3. Function

3.1 Function adjustment



Rotate the knob to the related function position.
(Model: EB8005ED, EB8010ED)



Rotate the knob and watch the display, rotate it to the related function icon.
(Model: EB8013ED)



Select the related function by touching control buttons.
(Model: EB8015ED, EB8015W, EB8016ED)

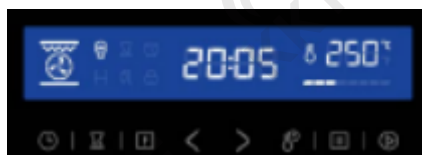
3.2 Temperature adjustment



Rotate the knob to the expected temperature position.
(Model: EB8005ED, EB8010ED)



Rotate the knob and watch the display, rotate it to the related function icon.
(Model: EB8013ED)



Select the related function by touching control buttons.
(Model: EB8015ED, EB8015W, EB8016ED)

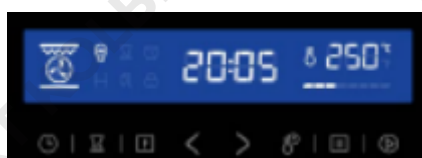
3.3 Timer function



Set the timer by the buttons.
(Model: EB8005ED, EB8010ED)

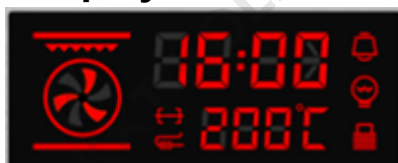


Set the timer by the buttons.
(Model: EB8013ED)



Set the time by the touching control buttons
(Model: EB8015ED, EB8015W, EB8016ED)

3.4 Display introduction



(Model: EB8013ED)



Heating functional combination icon



Time display and error code display



Temperature display



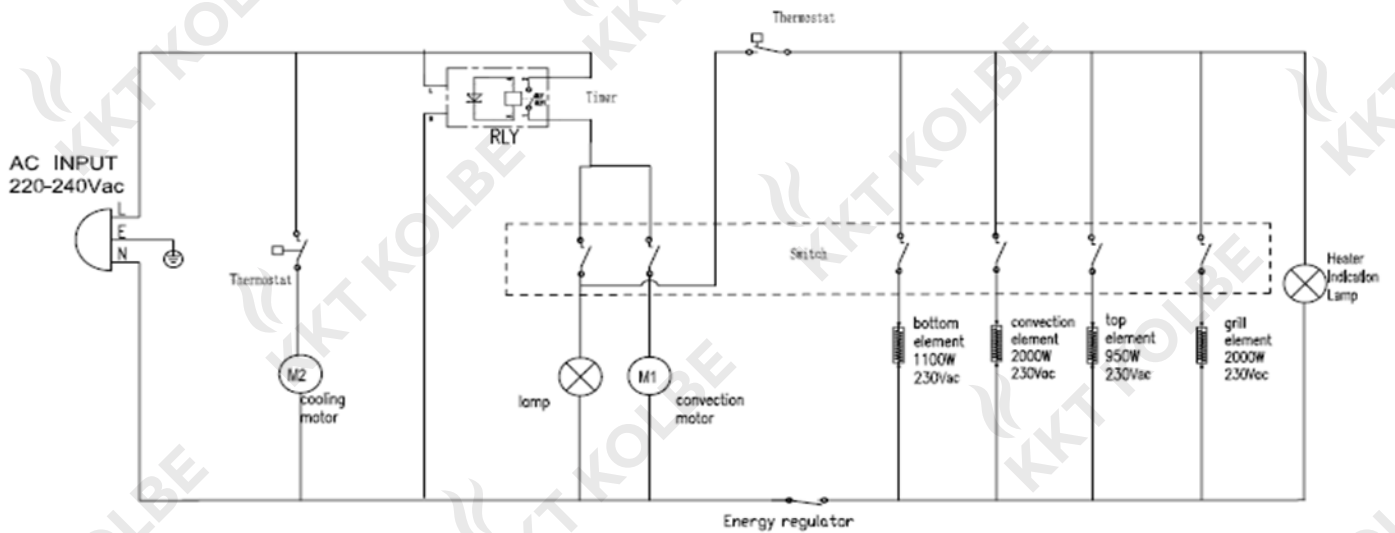
Rotary grill function display
Meat probe function display



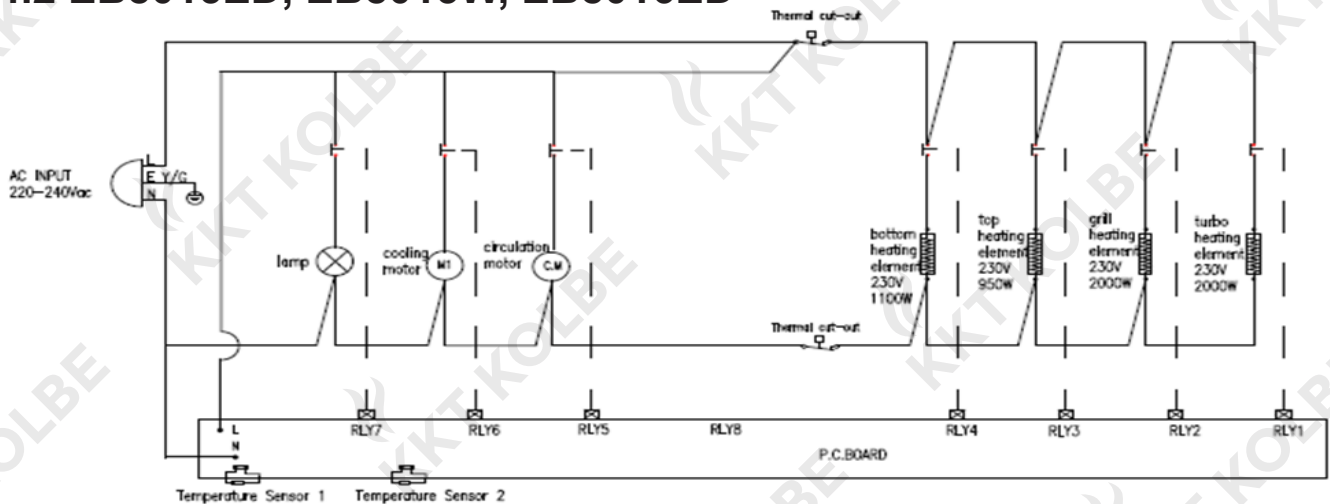
Booking function display
Lamp function display
Child lock function display

4. Circuit diagramm

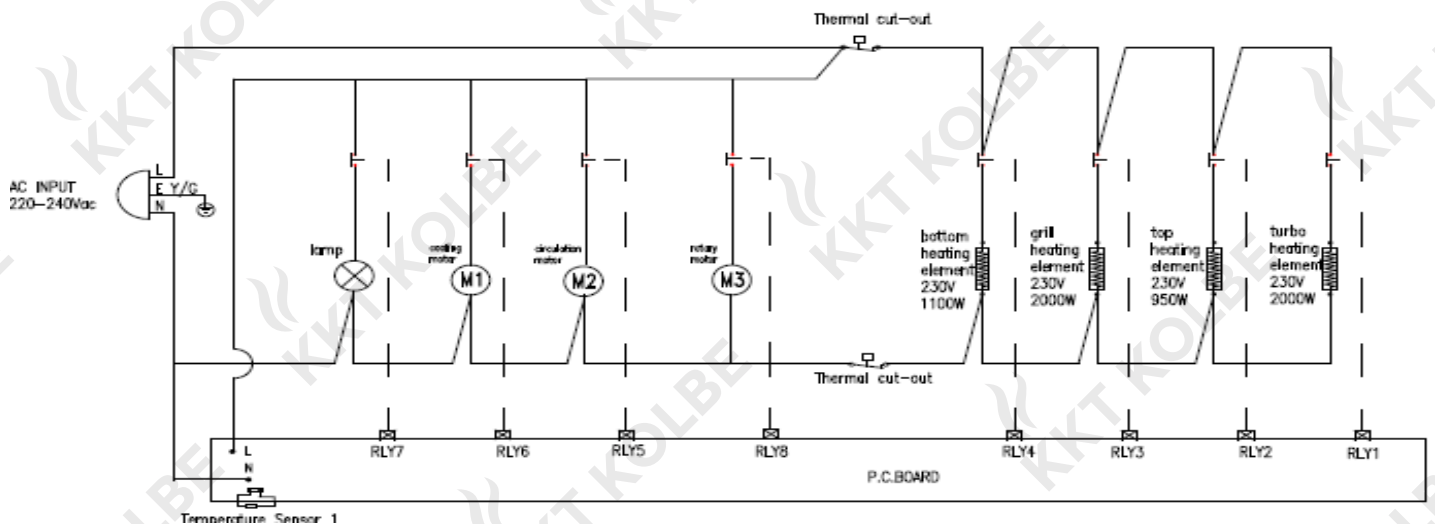
4.1 EB8005ED, EB8010ED



4.2 EB8015ED, EB8015W, EB8016ED



4.3 EB8013ED



5. Installation

5.1 Preparation before installation

- 1 Assembly shall be referred to the measurements in the following specification after the package is removed. (The packing material shall be handled properly.)
- 2 Please use the handle boxes on the sides if the oven is required to be lifted or moved. **It is prohibited from using door handle directly to lift the oven.** (See the following figure).
- 3 All inflammable, combustible and non-heat resistant articles shall be kept away from the surrounding of the oven.
- 4 The ground shall be maintained flat enough for placing the oven to ensure sufficient stability of the product.



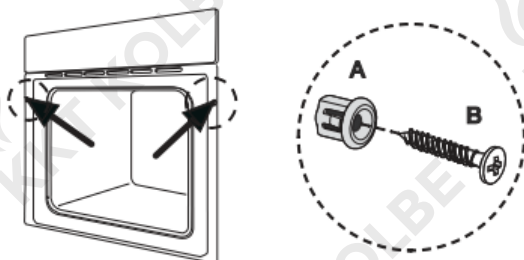
5.2 Install the oven to the cabinet

Step 1: Fit the oven into the cabinet recess.

Step 2: Open the oven door and remove the rubber cap of two screws, which on the front sides of oven frame.

Step 3: Secure the oven to the kitchen cabinet with two plastic holders "A" which fit the holes in the oven frame and two screws "B". (See the following figure)

Step 4: After fit the oven into cabinet, assemble the rubber cap back.



6. Disassembly

6.1 Tools

Most of the tools that you might need are shown below. Some are optional.

ELECTRICAL PLIERS or STRIPPERS : For cutting and stripping small electrical wire.

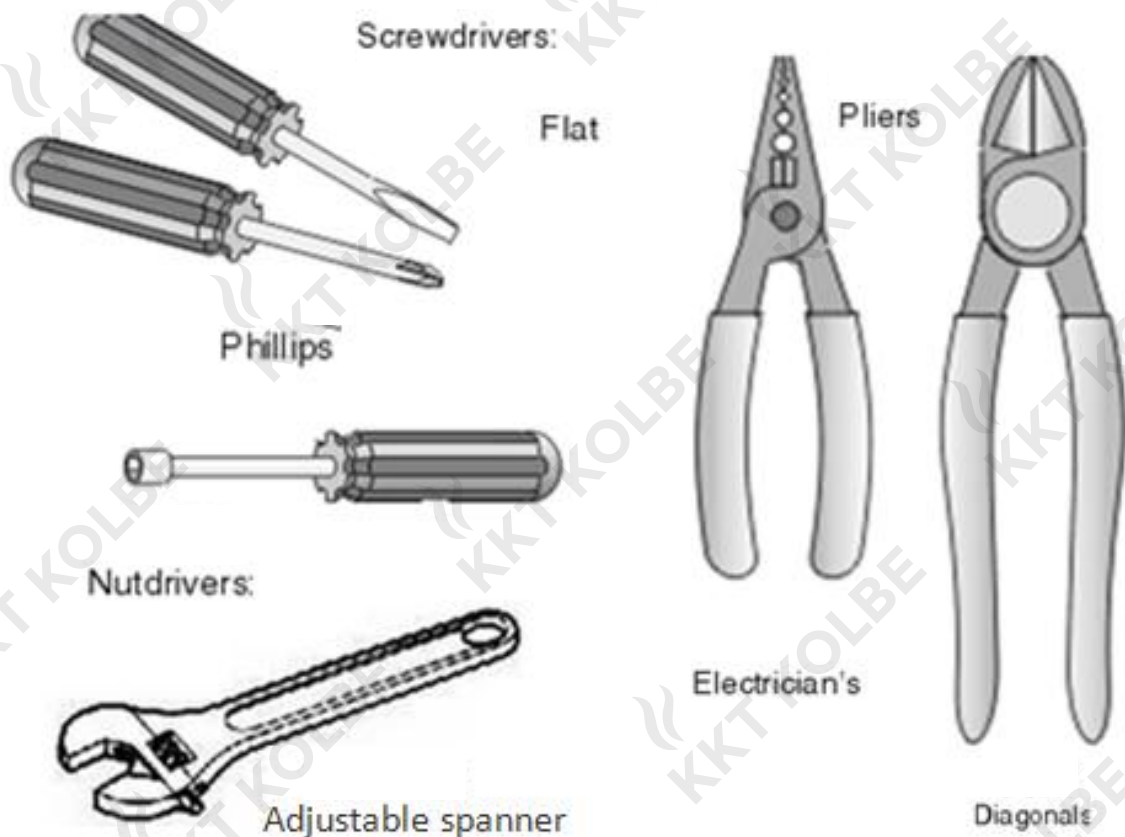
VOM (VOLT-OHM METER): For testing electrical circuits. If you do not have one, please get one. An inexpensive one will suffice, as long as it has both "AC Voltage" and "Resistance" (i.e. Rx1, Rx10) settings on the dial. It will do for our purposes.

BUTT CONNECTORS, CRIMPERS, WIRE NUTS and ELECTRICAL TAPE: For splicing small wire. When splicing wire on ovens, you must make sure you use high-temp connections, such as porcelain wire nuts, high-temp terminals and fiberglass insulated wire.

ALLIGATOR JUMPERS (sometimes called a "CHEATER" or "CHEATER WIRE"): Available at your local electronics store.

SCREW-DRIVERS: Both flat and Phillips head; two or three sizes of each. It's best to have at least a stubby, 4-inch and 6-inch sizes.

NUT-DRIVERS, WRENCHES: You will need a 1/4 to 1/2 inch size.



6.2 Remove the oven from the cabinet

WARNING:

1 Use a trolley to move the oven when installing it or removing it from the cabinet for service. Use a trolley will minimize the risk of personal injury as a result of the oven tipping.

2 Hold the oven steady when removing it from the cabinet. Otherwise, the oven will have a tendency to tip forward, increasing the risk of personal injury.

3 Do not use door handle to lift or move the oven, which may result in personal injury.

NOTE:

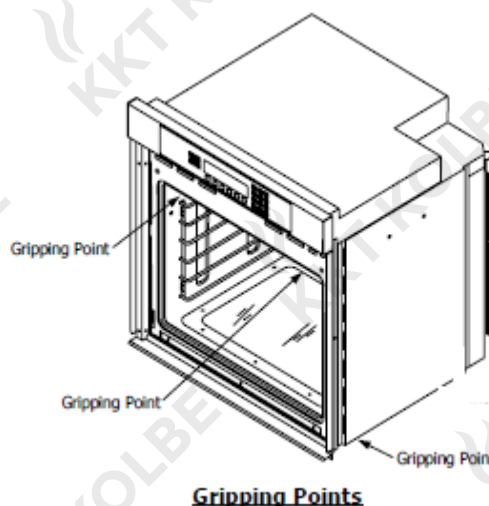
Not all service procedures require that the oven be removed from the cabinet. See the appropriate procedures to determine if removal from the cabinet is necessary.

Step 1: Remove the oven door. Due to the weight of this appliance, removing the oven door will significantly reduce the lifting load. Removing the oven door will also provide the technician a place to grip the oven when removing it from the wall.

Step 2: Remove the bake rack and bake tray from the oven.

Step 3: Remove the fixed screws that located inside the front frame on both sides of the oven. (See the following figure).

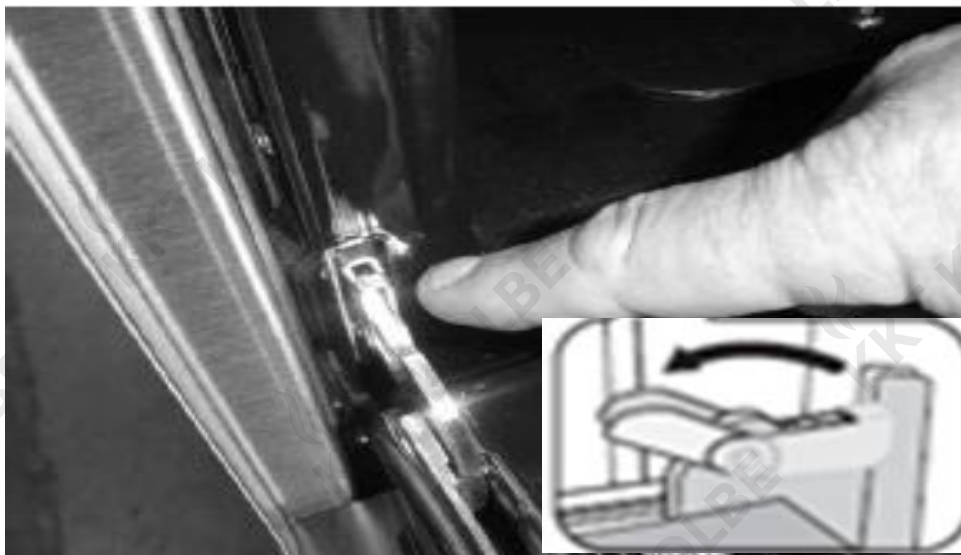
Step 4: Pull the oven out of the cabinet toward you, using the gripping points and the handle boxes on the sides. Hold the oven steady as you pull it out. Service procedures require that the oven be pulled completely out of the cabinet.



6.3 Disassembly of oven door

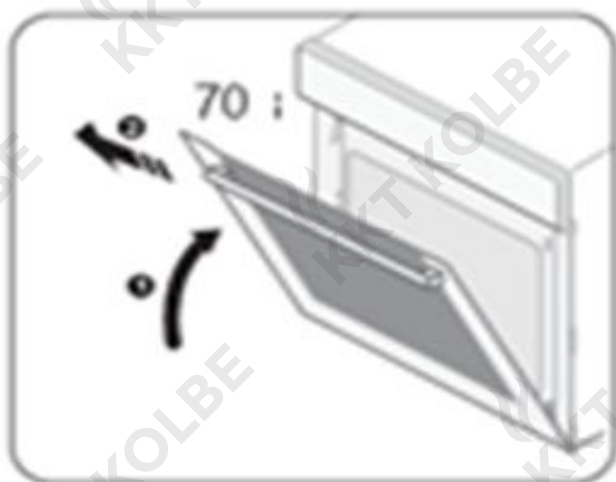
6.3.1 Remove the door from oven

Step 1: Open the door to the maximum angle and then pull backward the movable buckle of door hinge (as indicated in Fig) to the other side (position as indicated in Fig).



Hinge Lock

Step 2: Hold the oven door and lift up (open the door 30° angle), then slowly and obliquely drag the door backward.



Warning: The door body is prohibited from dragging forcibly and shall be prevented glass smashing during the disassembly process.

6.3.2 Disassembly of enamel door

(Type: 2 layers of glass or 4 layers of glass)

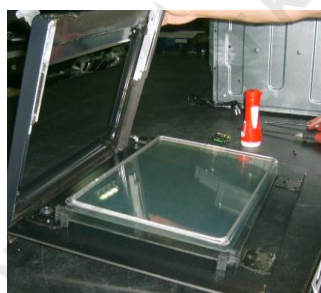
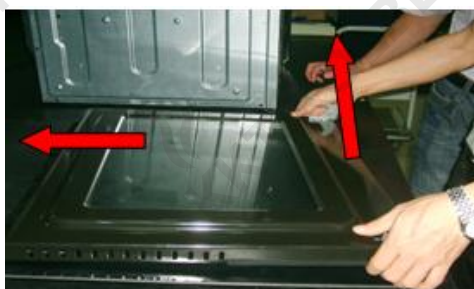
Step 1: Remove the door from oven (please refer to Point 6.3.1), and put it horizontally on the table.



Step 2: Use a screwdriver to remove two screws on the bottom of the oven door.



Step 3: Hold the bottom of the door by one hand on each side, lift it up until the door frame bottom edge releases from the door frame brackets. Then push the door front until it releases from the top brackets.



Step 4: Use a screwdriver to remove the screws fixed the door handle, and disassemble the door handle.



Step 5: Use a screwdriver to remove the screws fixed the hinges, and disassemble the hinges.



Warning: Don't try to use hard stuff forcibly to pull the hinges out, and shall be prevented glass smashing during the disassembly process.

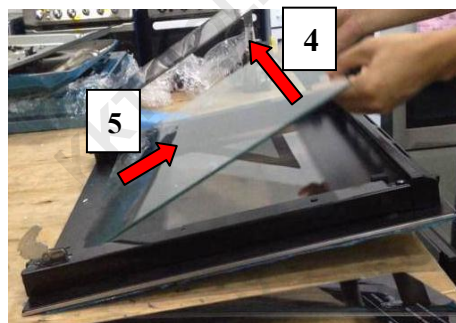
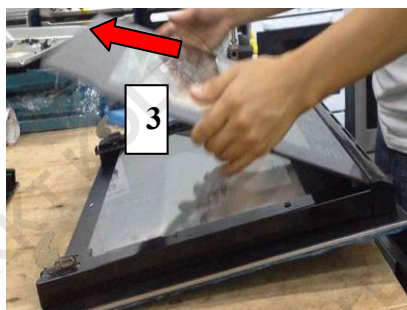
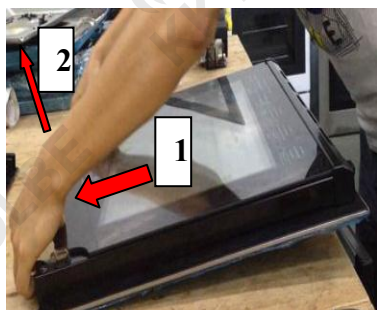
6.3.3 Disassembly of flat door

(Type: 2 layers of glass, 3 layers of glass or 4 layers of glass)

Step 1: Remove the door from oven (please refer to Point 6.3.1), and put it horizontally on the table.



Step 2: Hold the door by hand on the bottom side of the inner glass, push the inner glass down and pull the inner glass upward (See No.1, No.2 indicated in Fig), take the inner glass out (See No.3 indicated in Fig). And then take the middle glass out (See No.4, No.5 indicated in Fig).



Step 3: Use a screwdriver to remove the screws fixed the door frame up cover, and pull it out (See the following left figure). Please pay attention to the buckles between the up cover and the brackets (See the following right figure).



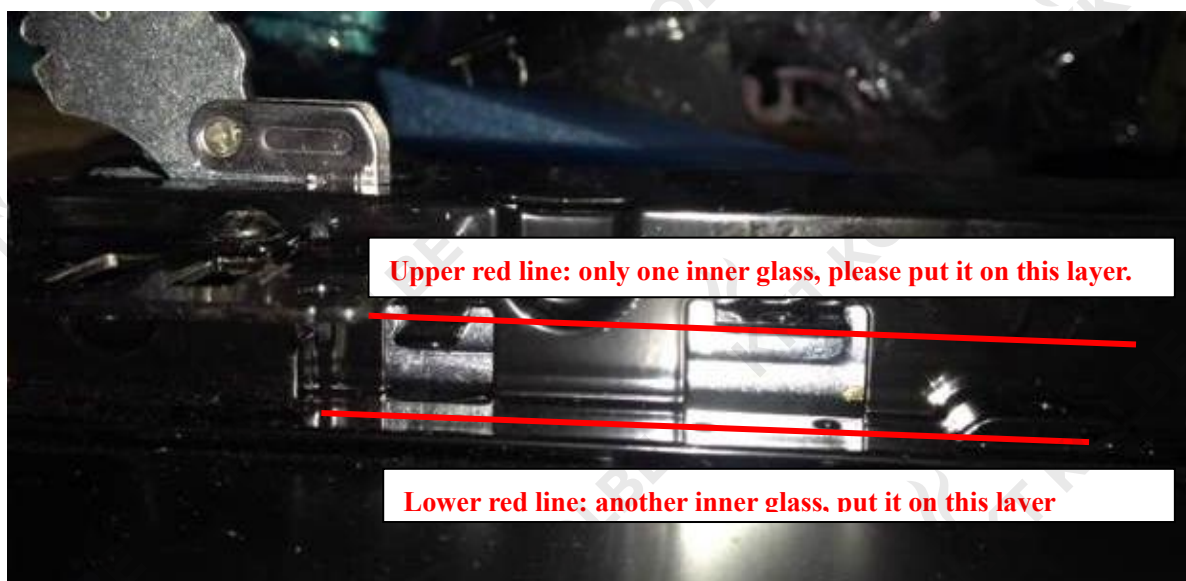
Step 4: Use a screwdriver to remove the screws fixed the door handle, and disassemble the door handle.



Step 5: Use a screwdriver to remove the screws fixed the hinges, and disassemble the hinges.



Note: When assemble the middle glass, please make sure the glass is put in the right place (See the following figure).



6.4 Disassembly of control panel

6.4.1 Remove the control panel from oven

WARNING:

1 Turn off the electrical power supply to the appliance prior to servicing it. Failure to disconnect the power supply during service may result in an electrical shock or fire hazard.

2 Access the control panel requires that oven's control panel cover and control panel back cover were removed. When the covers were removed, the oven's printed circuit assemblies are exposed. The printed circuit assemblies contain electronic components that are sensitive to electro-static discharge (ESD). So you must wear a properly grounded antistatic wrist strap when touching or servicing the control panel.

Step 1: Disassemble the control panel cover and the control panel back cover by removing the fixed screws.

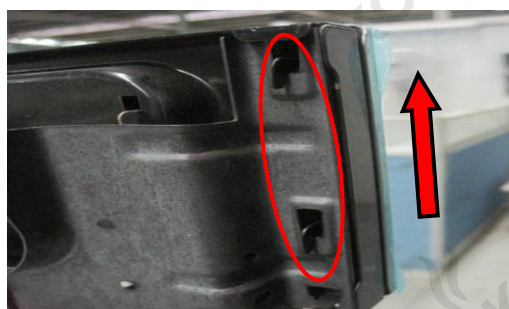


Step 2: Disconnect the wires from the back of the control panel printed circuit board assembly. For the sake of reassembly convenience, please mark the connection positions before moving the wires.

If some models that there is an energy controller inside the product, it's necessary to remove it from the probe bracket, and pull it out of the cavity hole. (Model: EB8005ED, EB8010ED)



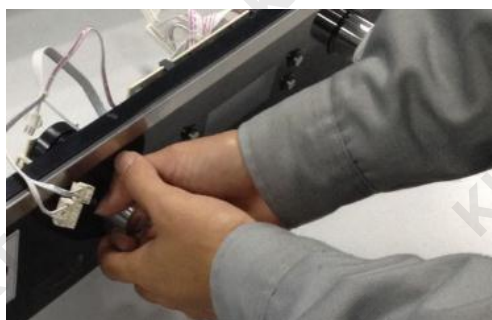
Step 3: Grab the sides of control panel with both hands with a gentle rocking motion, lift it upward and pull it forward until it comes loose from the front of the oven buckles. (Please see the illustrated pictures below.)



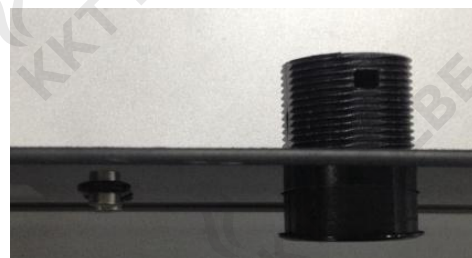
6.4.2 Disassembly parts of Control panel

Step 1: Remove the control panel from oven (please refer to Point 6.4.1), and put it horizontally on the table.

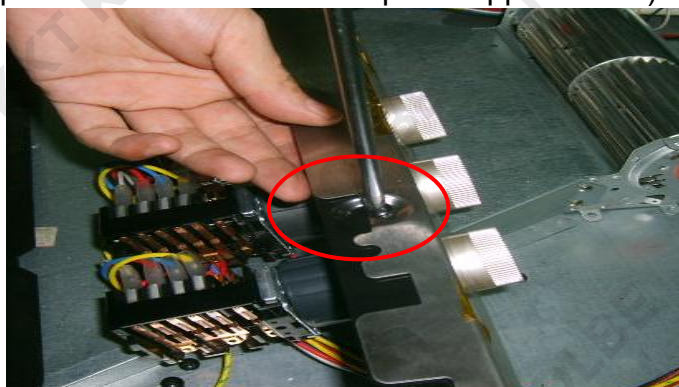
Step 2: Pull the **knobs** out of the control panel assembly by hands.



Step 3: Use a screwdriver to remove the screws on control panel holder (on the back of knob decoration ring), remove the **knob assembly** by screwing it off the control panel holder. Pull the knob out of the knob assembly by hands, and then you can disassemble the function knob and telescopic button. (Model: EB8005ED, EB8010ED, EB8013ED)



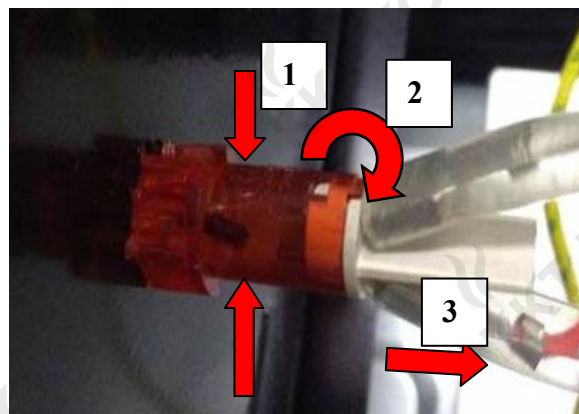
Step 4: Use a screwdriver to remove the screws on the bottom of the control panel assembly. (Type: full sheet metal control panel appearance.)



Step 5: Use a screwdriver to remove the screws on the back of the control panel assembly.
(Type: glass control pane appearance.)



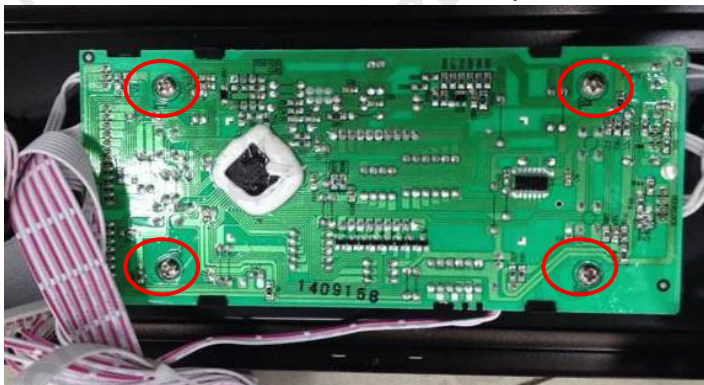
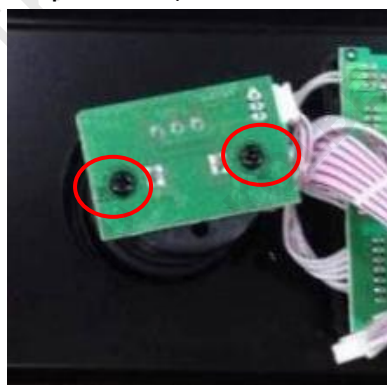
Step 6: Press the clips on both sides of the **indicator**, meanwhile rotate the indicator to the aligned position with the hole on the control panel holder, and pull the indicator out of it
(Model: EB8005ED, EB8010ED)



Step 7: Use a screwdriver to remove the screws which fixed the **electric components** on the control panel.
(Model: EB8005ED, EB8010ED)



Step 8: Use a screwdriver to remove the screws which fixed the **electric components** on the control panel. (Model: EB8013ED, EB8015ED, EB8015W, EB8016ED)

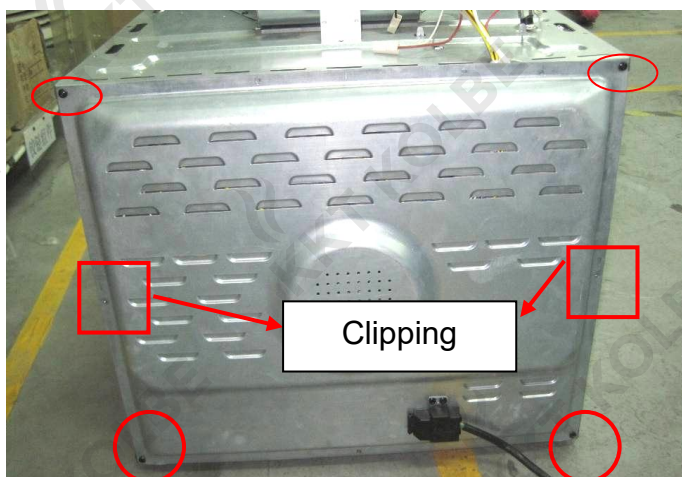


6.5 Disassembly of back cover

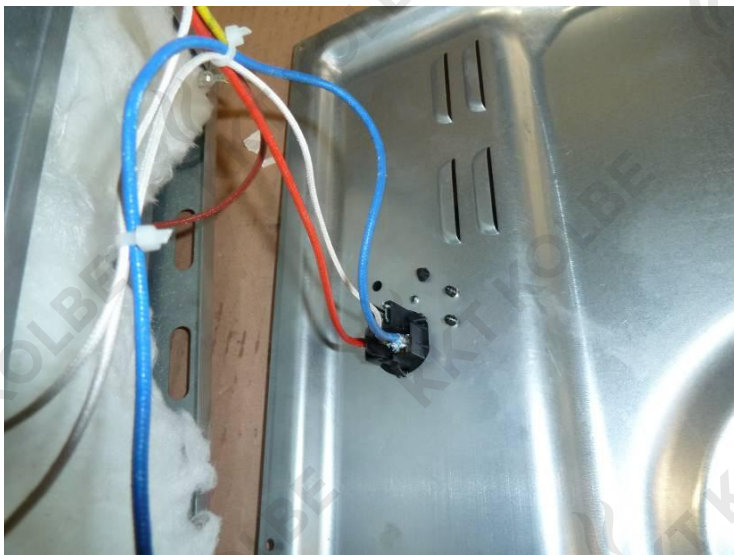
WARNING: Turn off the electrical power supply to the appliance prior to servicing it. Failure to disconnect the power supply during service may result in an electrical shock or fire hazard.

Step 1: Disassemble the control panel cover and control panel back cover (please refer to Point 6.4.1 step 1).

Step 2: Use a screwdriver to disassemble the screws on back cover, and take the back cover out from the clipping hole.



Step 3: Disconnect the wires on the back cover. For the sake of reassembly convenience, please mark the connection positions before moving the wires.



6.6 Disassembly of convection motor, turbo heating element

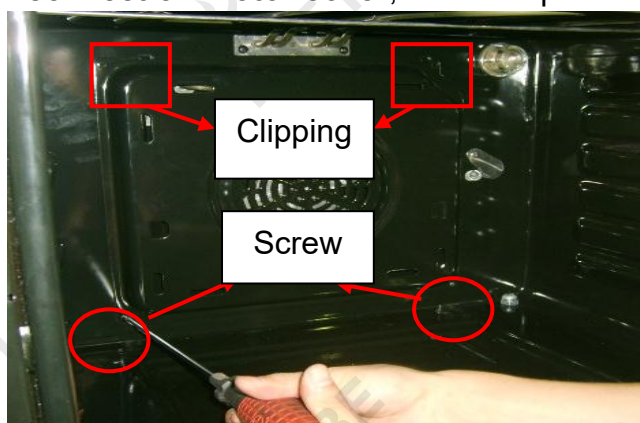
WARNING: Turn off the electrical power supply to the appliance prior to servicing it. Failure to disconnect the power supply during service may result in an electrical shock or fire hazard.

Step 1: Remove the door from oven (please refer to Point 6.3.1), and put it horizontally on the table.

Step 2: Disassemble the control panel cover and control panel back cover (please refer to Point 6.4.1 step 1).

Step 3: Disassemble the back cover (please refer to Point 6.5).

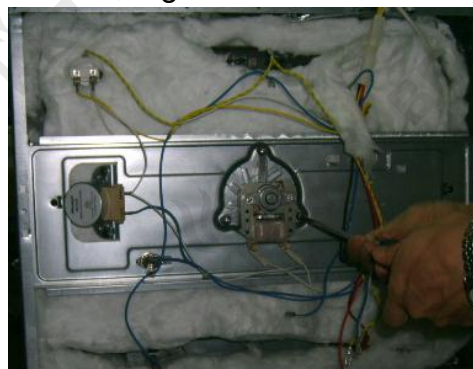
Step 4: Use a screwdriver to remove the screws on the back of the cavity inside to disassemble the **convection motor cover**, and then pull it out from the clipping hole.



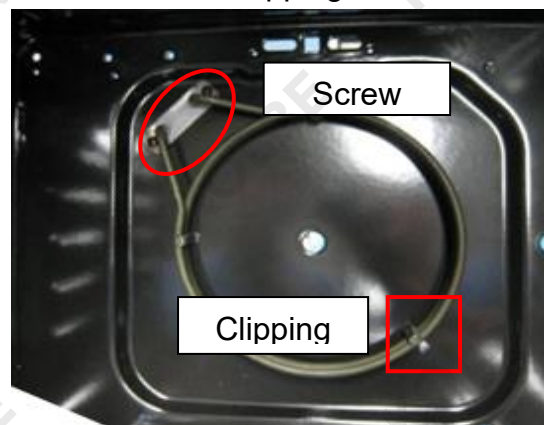
Step 5: Use a spanner or a nut-driver to rotate the nut on the convection motor clockwise so that the nut be taking out, and then take the **fan blade** and washer out of the convection motor.



Step 6: Disconnect the wires on the **convection motor**. For the sake of reassembly convenience, please mark the connection positions before moving the wires. Remove the screws fixed the convection motor.



Step 7: Disconnect the wires from the **turbo heating element**. For the sake of reassembly convenience, please mark the connection positions before moving the wires. Remove the screws on the turbo heating element, and then take it out of from clipping hole.



6.7 Disassembly of top, bottom heating element

Step1: Remove the door from oven (please refer to Point 6.3.1), and put it horizontally on the table.

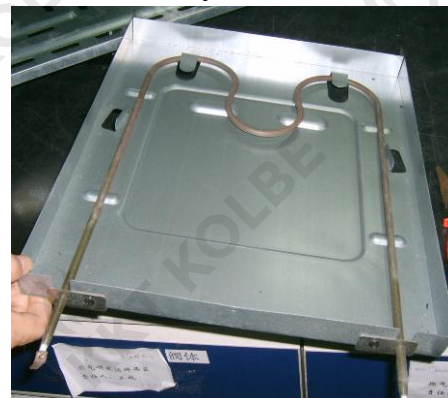
Step2: Disassemble the control panel cover and control panel back cover (please refer to Point 6.4.1 step 1).

Step 3: Disassemble the back cover (please refer to Point 6.5).

Step 4: Disconnect the wires on the **top heating element**. For the sake of reassembly convenience, please mark the connection positions before moving the wires. Remove the screws on the top heating element inside the cavity, and then pull it out of the cavity ribs.



Step 5: Disconnect the wires on the **bottom heating element**. For the sake of reassembly convenience, please mark the connection positions before moving the wires. Remove the screws from the bottom heater cover, and then pull the bottom heater assembly out from the bottom.



6.8 Disassembly of cooling fan motor

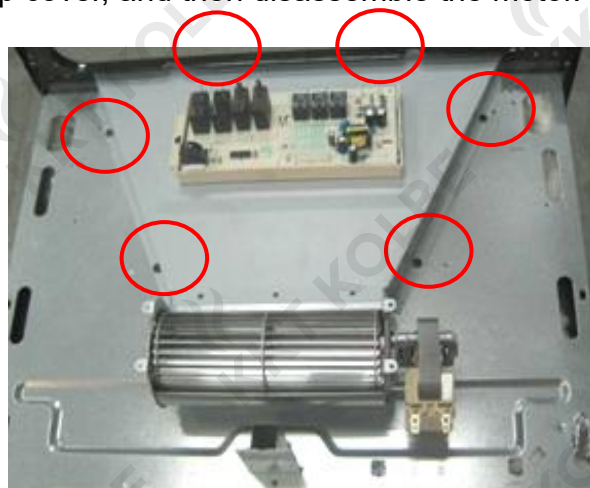
WARNING:

1 Turn off the electrical power supply to the appliance prior to servicing it. Failure to disconnect the power supply during service may result in an electrical shock or fire hazard.

2 Access the cooling fan motor requires that oven's control panel cover and control panel back cover were removed. When the covers were removed, the oven's printed circuit assemblies are exposed. The printed circuit assemblies contain electronic components that are sensitive to electro-static discharge (ESD). So you must wear a properly grounded antistatic wrist strap when touching or servicing the cooling fan motor.

Step1: Disassemble the control panel cover and control panel back cover (please refer to Point 6.4.1 step 1).

Step2: Disconnect wires on the power board and cooling motor. For the sake of reassembly convenience, please mark the connection positions before moving the wires. Remove the screws connected the exhaust slot and the top cover, and then disassemble the motor.



6.9 Disassembly of lamp

Step: Open the door to the maximum angle. Remove the bulb by screwing the lamp cover off the cavity only if the bulb is required to be replaced.



6.10 Disassembly of rotary motor

Step1: Disassemble the control panel cover and control panel back cover (please refer to Point 6.4.1 step 1).

Step 2: Disassemble the back cover (please refer to Point 6.5).

Step3: Disconnect wires on the rotary motor. For the sake of reassembly convenience, please mark the connection positions before moving the wires. Remove the screws connected the motor and insulation cover, and then disassemble the motor.



6.11 Disassembly of temperature sensor

(Model: EB8013ED, EB8015ED, EB8015W, EB8016ED)

Step1: Disassemble the control panel cover and control panel back cover (please refer to Point 6.4.1 step 1).

Step 2: Disassemble the back cover (please refer to Point 6.5).

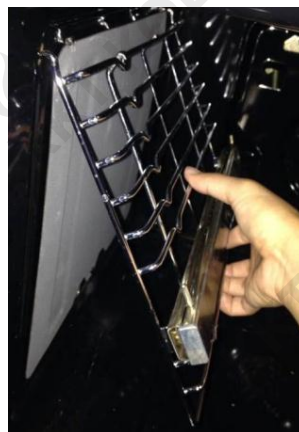
Step 3: Disconnect wires connected the temperature sensor and the power board. For the sake of reassembly convenience, please mark the connection positions before moving the wires. Rotate the temperature sensor, and take it out from the lock position.



6.12 Disassembly of rail bracket, slider, automatic clean fender

Step1: Remove the door from oven (please refer to Point 6.3.1), and put it horizontally on the table.

Step2: Remove the screws connected the **rail bracket** and the cavity, and take it out from the clipping hole.



Step3: Remove the screws connected the **slider** and the rail bracket, and then disassemble the slider.



Step4: Remove the screws connected the **automatic clean fender** and the cavity, and then disassemble the fender.



7. Troubleshooting

OPERATIONAL DIFFICULTIES AND POSSIBLE CAUSES				
Symptom	Cause / Source	Troubleshooting Checks	Solution	User Actions / Solutions
Oven will not heat.	Oven is set for delay timed cooking	Oven will turn on automatically at preset time. Press CANCEL to return to normal operation.	Oven will turn on automatically at preset time. Press CANCEL to return to normal operation.	Oven will turn on automatically at preset time. Press CANCEL to return to normal operation.
	Not open heating element	Check elements at harness connection point.	Replace elements or replace harness if needed.	Call for service.
	Door not shut tightly. Or oven is in BROIL mode.	Check for obstructions, and close door tightly. Check cooking mode.	Check for obstructions, and close door tightly. Check cooking mode.	Check for obstructions, and close door tightly. Check cooking mode.
No time is displayed or the time is incorrect.	Time of day is not set.	Set clock.	Set clock.	Set clock by reference of user manual
Oven does not self-clean	Door not shut tightly.	Check for obstructions, and close door tightly	Check for obstructions, and close door tightly	Check for obstructions, and close door tightly
	Error code displayed.	Check the error codes list to find the cause, and clear error code.	Check the error codes list to find the cause, and clear error code.	Check the error codes list to find the cause, and clear error code.
	Oven set for delay timed cleaning.	Oven will start to self-clean at preset time. Press CANCEL to return to normal operation.	Oven will start to self-clean at preset time. Press CANCEL to return to normal operation.	Oven will start to self-clean at preset time. Press CANCEL to return to normal operation.
Oven lamp will not work.	Oven is in the SELF-CLEAN cycle.	Wait for completion of self-clean cycle.	Wait for completion of self-clean cycle.	Wait for completion of self-clean cycle.
	Light bulb was burned out.	Replace light bulb.	Replace light bulb.	Replace light bulb.
Door will not open.	Oven is in SELF-CLEAN, or self-clean cycle has ended and oven is cooling.	Check display. If display indicates PYA, wait for completion of self-clean cycle. When self-clean cycle has ended, please wait 10 minutes to cool down.	Check display. If display indicates PYA, wait for completion of self-clean cycle. When self-clean cycle has ended, please wait 10 minutes to cool down.	Check display. If display indicates PYA, wait for completion of self-clean cycle. When self-clean cycle has ended, please wait 10 minutes to cool down.
Door Outer Glass Broken.	Damaged after shipping.	Check packaging condition	Replace door glass.	Call for service.
Door Inner Glass Broken.	Damaged after shipping.	Question for incident details.	Replace door glass	Call for service.
	Cold item placed on hot glass	Question for incident details.	Replace door glass	Call for service.
	Item dropped on window pack	Question for incident details.	Replace door glass	Call for service.
Food is burnt or oven bakes uneven.	Food placed in oven during Pre-heat	Check the food is not in oven before Pre-heat	Educate customer not to put food into oven during pre-heat	Verify the food is not in oven before Pre-heat
	Use of BROIL mode	Check cooking mode.	Educate customer to verify cooking mode.	Verify cooking mode
	Food may be too close to the heating element.	Check position of bake rack or bake tray	Educate the customer on right position of bake rack or bake tray by reference of user manual	Put the bake rack or bake tray on right position
	Temperature setting too high for recipe or quantity of food	Check temperature setting. Verify temperature setting against recipe.	Educate customer on right setting temperature	Check temperature setting. Verify temperature setting against recipe

8. Error codes

Displayed Error code	Description / Failure Criteria	Software Logic Description	Solution
Er-1	Temperature sensor open circuit	All load stopped working	(1) Turn off the power, 1 minute later, turn on the power, checked whether display error code or not. (2) Turn off the power, open the oven to check whether the wire connection is good or not, and reconnect them well. (3) Change the sensor or PCB display board.
Er-2	Temperature sensor short circuit	All load stopped working	
Er-3	Meat probe short circuit	All load stopped working	
Er-4	Oven center temperature is higher than 300℃.	Cooking mode canceled and return to Standby mode, the door lock activated, cooling fan working in high speed, then cooling fan change to low speed and stopped.	(1) Press the CANCEL button to see whether display error code or not. (2) Close the oven door, wait about 10 minutes to cool down oven center temperature, and then press the CANCEL button.
Er-5	While in Pyrolytic mode, 10 minutes after oven center temperature reached 200℃, if the temperature is still lower than 270℃, then return to standby mode with Er-5 displayed.		
Er-6	While in Pyrolytic mode, within 2 minutes, the relay for the door lock will started and door will be locked. After the door is locked, the relay will be off. If the door lock still haven't been locked in case oven center temperature is higher than 300℃, all the heating element will be stopped, the relay will stop working.		