

Service Manual

Commercial Microwave Convection Oven

Model No. **NE-SCV3BPQ**

Model No. **NE-SCV3EUG**

Product Colour : Silver

Destination : United Kingdom

Destination : Continental Europe Countries



⚠ WARNING

This service manual is strictly meant to be used by experienced professional repair technicians only and is not designed for use by the general public. Products powered by electricity should be serviced and repaired only by experienced professional repair technicians ("Professionals"). Any attempt to service or repair the product by anyone else could result in serious injury and even death. Panasonic shall not be responsible, to the extent permitted by applicable law, for any damages, losses, costs, expenses, death, injury, claims, decree, proceedings, and/or judgment, arising out of, in connection with, or relating to, any use and/or misuse of this service manual by users other than Professionals.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

•The specifications and the parts of this product are subject to change without notice for performance improvement or other purposes.

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1 Safety Precautions

WARNING

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WARNING

- * This product should be serviced only by trained, qualified personnel.
- This service manual covers products for following markets.
When troubleshooting or replacing parts, please refer to the country identifications shown below for your applicable product specification.

BPQ ... For United Kingdom EUG ... For Continental Europe Countries

WARNING

Be careful about receiving an electric shock from the high voltage parts.

- Never touch any circuit wiring with your hand nor with an insulated tool during operation.

DO NOT measure the voltage in high voltage circuit including filament voltage of magnetron.

- It is neither necessary nor advisable to attempt measurement of the high voltage.

WARNING

Be careful about receiving an electric shock.

- When doing electric connection service such as voltage measurement, please be careful enough about receiving an electric shock at electric charging parts and cable terminal parts.

Pull out electric plug when doing repair work.

- Disassembling and assembling and replacing parts should be done after pulling out electric plug. Receiving an electric shock or getting an injury may occur.

Please discharge high voltage capacitor.

For 30 seconds after the oven is turned off, an electric charge remains in the high voltage capacitor.

- Process of discharge the high voltage capacitor.
 1. Unplug the oven from its power source and leave it for 30 sec.
 2. Touch chassis side first then short to the high voltage capacitor terminal.

Do not touch any rotating object with hand unless it stops completely.

- Slow rotation may also roll on your hands and cause injure.

Be sure wiring routing structure of cables should be its forme state after doing repair work.

- Do not touch rotating part and high temperature part of lead wires, high voltage part and surface of parts.
It may be the cause of failure, smoke, ignition or receiving an electric shock.

CAUTION

Please wear gloves when disassembling, replacing and assembling.

- Always wear gloves to prevent an injury by the metal end face or an electric shock at the time of the electricity service.

2 Specifications

Outside Dimensions (W x D x H)		474 mm x 565 mm x 412 mm
Cavity Effective Dimensions (W x D x H)		270 mm x 330 mm x 110 mm
Cavity Capacity		10 L (approx.)
Net Weight		39 kg (including accessories)
Shipping	Dimensions (W x D x H)	584 mm x 712 mm x 579 mm
	Gross Weight	46 kg (approx.)
Length of Power Cord		1500 mm (approx.)

Model	NE-SCV3 BPQ	NE-SCV3 EUG
Rated Voltage	230-240 V, Single phase	230 V, Single phase
Rated Frequency	50 Hz	
Rated Power Consumption	3600 W	
Rated High-Frequency Output	1050 W	
Rated Oscillation Frequency	2450 MHz	
Microwave	Power Consumption	2240 W
	High-Frequency Output	1050 W / 900 W / 800 W / 700 W / 600 W / 500 W / 400 W / 300 W / 0 W
Convection	Power Consumption	1465 W (100% Fan Speed)
	Heater Output	1350 W
Grill (High) *1	Power Consumption	1915 W (100% Fan Speed)
	Heater Output	1800 W
Grill (Low) *1	Power Consumption	1265 W (100% Fan Speed)
	Heater Output	1150 W
Convection + Grill (High) *1	Power Consumption	3265 W (100% Fan Speed)
	Heater Output	Grill : 1800 W / Convection : 1350 W
Convection + Grill (Low) *1	Power Consumption	2615 W (100% Fan Speed)
	Heater Output	Grill : 1150 W / Convection : 1350 W
Convection + Microwave	Power Consumption	3180 W (100% Fan Speed)
	Heater Output	1350 W
	High-Frequency Output	800 W
Grill (High) + Microwave *1	Power Consumption	3600 W (100% Fan Speed)
	Heater Output	1800 W
	High-Frequency Output	800 W
Grill (Low) + Microwave *1	Power Consumption	3480 W (100% Fan Speed)
	Heater Output	1150 W
	High-Frequency Output	1050 W

*1 : The power consumption during grilling, etc. indicates a value measured with the oven pre-heated.

- The power consumption indicates a value measured after the rotation of the cooling fan.
- The power consumption of the oven with the power plug plugged into an outlet and its display turned off is approx. 2.5 W. (Approx. 4 W when the oven has the initial screen displayed on its display)

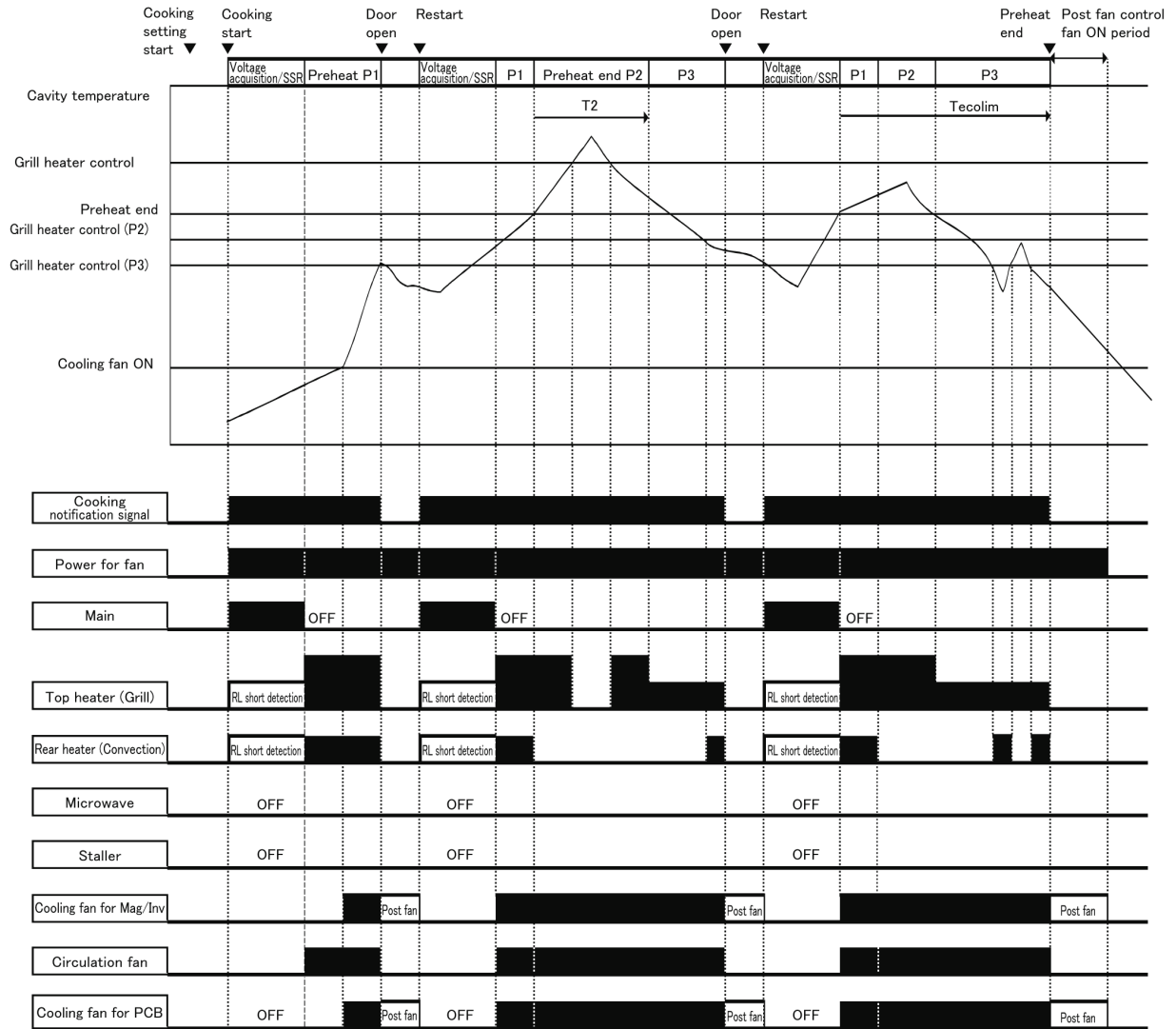
Menu	Function	Maximum cooking time
Preheating	Heating (180 ~ 280 °C)	
Convection	Heating (180 ~ 280 °C) • Fan Speed (30 ~ 100%)	30 min
Grill (High / Low)	Heating • Fan Speed (30 ~ 100%)	30 min
Convection + Grill (High / Low)	Heating (180 ~ 280 °C) • Fan Speed (30 ~ 100%)	30 min
Microwave	Microwave heating It is not possible to set one-step cooking with the microwave only. (The step 2 and step 3 settings can be set for microwave only. Refer to the 'Cooking in Steps' on this table)	-
Convection + Microwave	Heating (180 ~ 280 °C) + Microwave (~ Max 800 W) • Fan Speed (30 ~ 100%)	5 min
Grill (High) + Microwave	Heating + Microwave (~ Max 800 W) • Fan Speed (30 ~ 100%)	5 min
Grill (Low) + Microwave	Heating + Microwave (~ Max 1050 W) • Fan Speed (30 ~ 100%)	5 min
Cooking in Steps	Each step's maximum microwave output and maximum set time (Microwave only)	
	Step1 : Setting unavailable	5 min
	Step2 : 1050 W	5 min
	Step3 : 600 W	10 min
	Each step's maximum microwave output and maximum set time (Convection-and-Microwave / Grill-and-Microwave)	
	Step1 : Max 800 W (In case Grill (Low), Max 1050 W)	5 min
	Step2 : Same as Step1	5 min
Step3 : 600 W	10 min	
Memory Cooking Heating with a Saved Cooking Programme.	Heating with a Saved Cooking Programme.	-
Cooling	The inside of the oven can be cooled after convection cooking or grilling.	45 min

3 Technical Descriptions

3.1. Operation description

3.1.1. Manual cooking operation

3.1.1.1. Preheating



Notes : ON Duty OFF

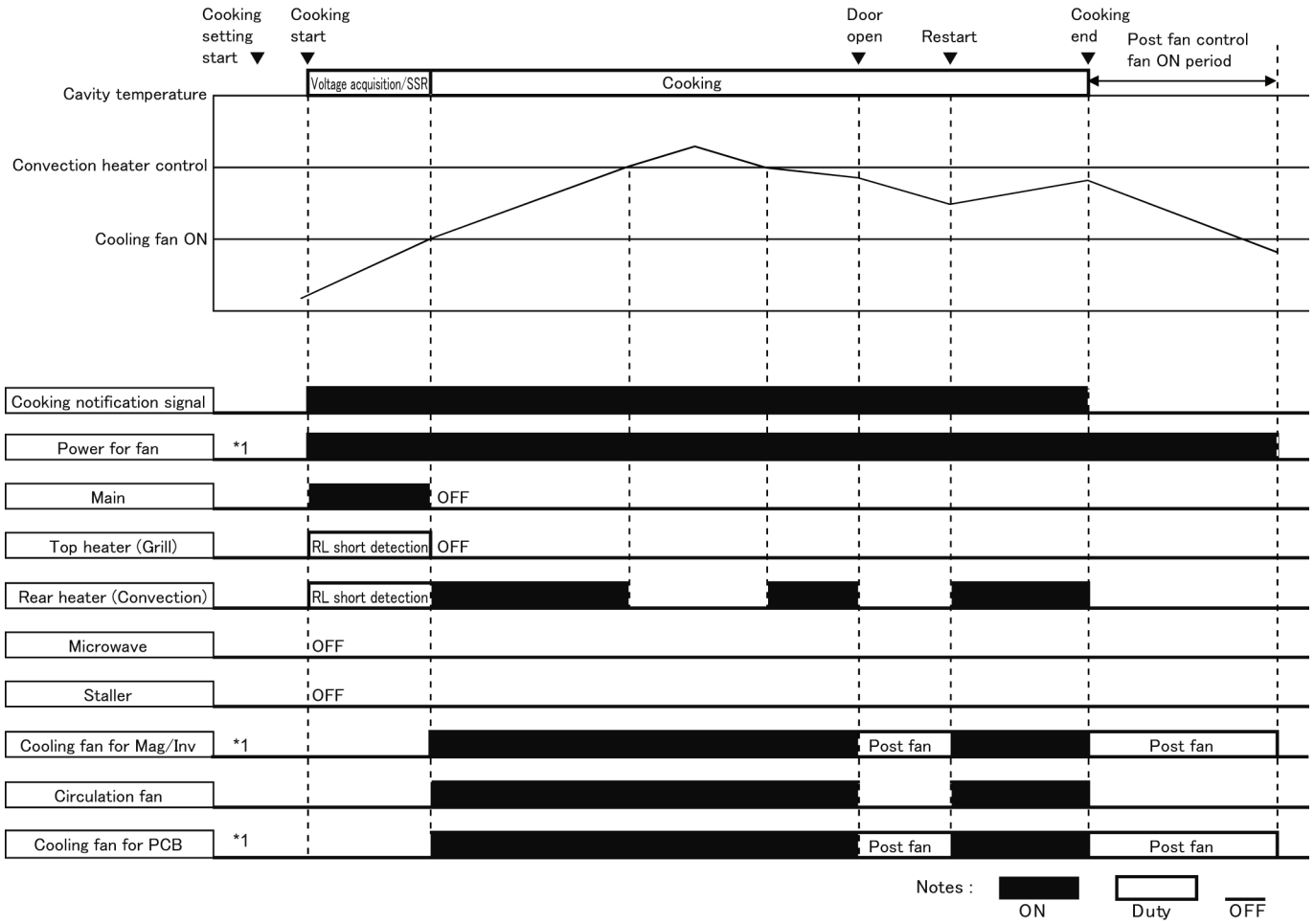
- At preheating start
Power voltage is detected for approx. 1 second.
RL short detection for the control signal of the upper and rear heater is executed at the same time.

- Top heater (Grill) output
Oven temperature at preheating start (Low / Medium / High) and top heater output

Preheating setting temperature	Oven temperature	Stage		
		Preheating P1	Preheating end P2	Preheating end P3
180°C - 190°C	Low	450W		250W
	Medium	450W		250W
	High	450W		250W
200°C - 220°C	Low	850W		250W
	Medium	850W	450W	250W
	High	850W	450W	250W
230°C - 280°C	Low	1350W	850W	450W
	Medium	850W	450W	
	High	850W	450W	

- Post fan
Stay ON until temperature is approx. 170°C or less (Medium rotation)
Turn OFF when the temperature drops to approx. 170°C or less.

3.1.1.2. Convection Cooking



*1: ON while post fan is ON

■ At cooking start

Power voltage is detected for approx. 1 second.

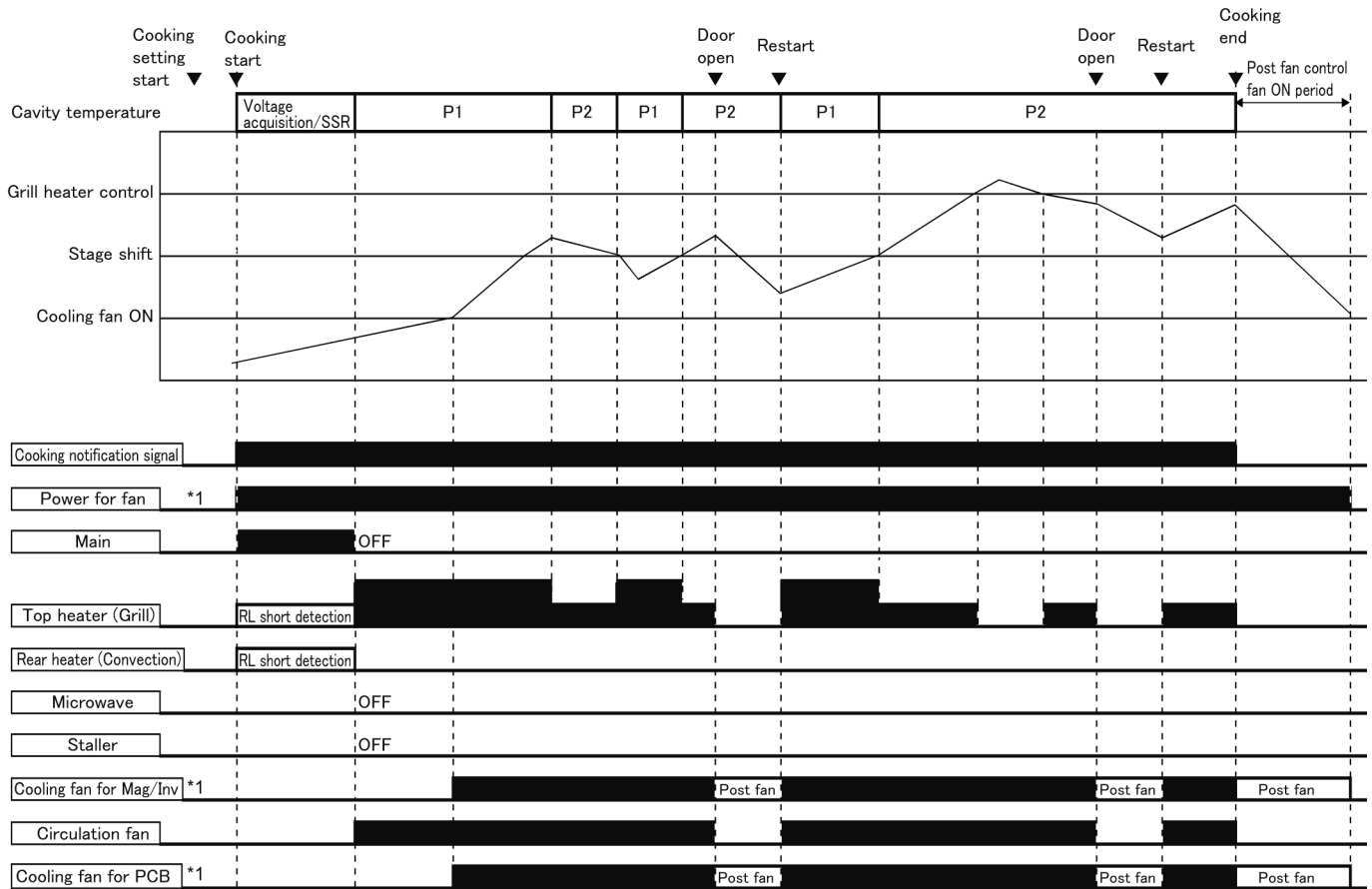
RL short detection for the control signal of the top and rear heater is executed at the same time.

■ Post fan

Stay ON until temperature is approx. 170°C or less (Medium rotation)

Turn OFF when the temperature drops to approx. 170°C or less.

3.1.1.3. Grill Cooking

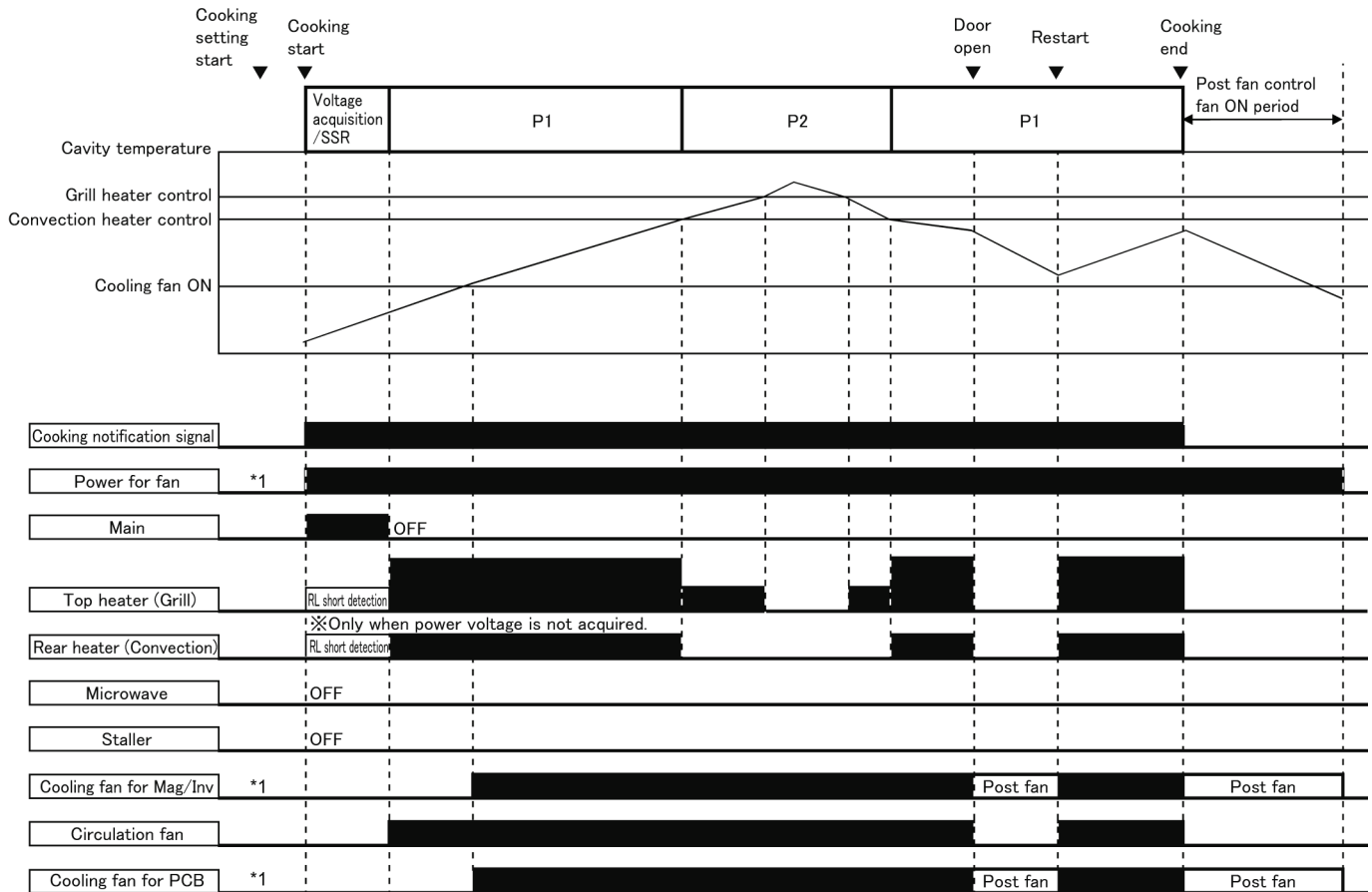


Notes : ON Duty OFF

*1: ON while post fan is ON

- At cooking start
Power voltage is detected for approx. 1 second.
RL short detection for the control signal of the top and rear heater is executed at the same time.
- Top heater (Grill) output
Without preheating and with the grill set to high: 1350 W (P1 stage), 550 W (P2 stage)
With preheating and with the grill set to high: 1800 W (P1 stage), 550 W (P2 stage)
With / Without preheating and with the grill set to low: 1150 W (P1 stage), 550 W (P2 stage)
- Post fan
Stay ON until temperature is approx. 170°C or less (Medium rotation)
Turn OFF when the temperature drops to approx. 170°C or less.

3.1.1.4. Convection-and-Grill Cooking

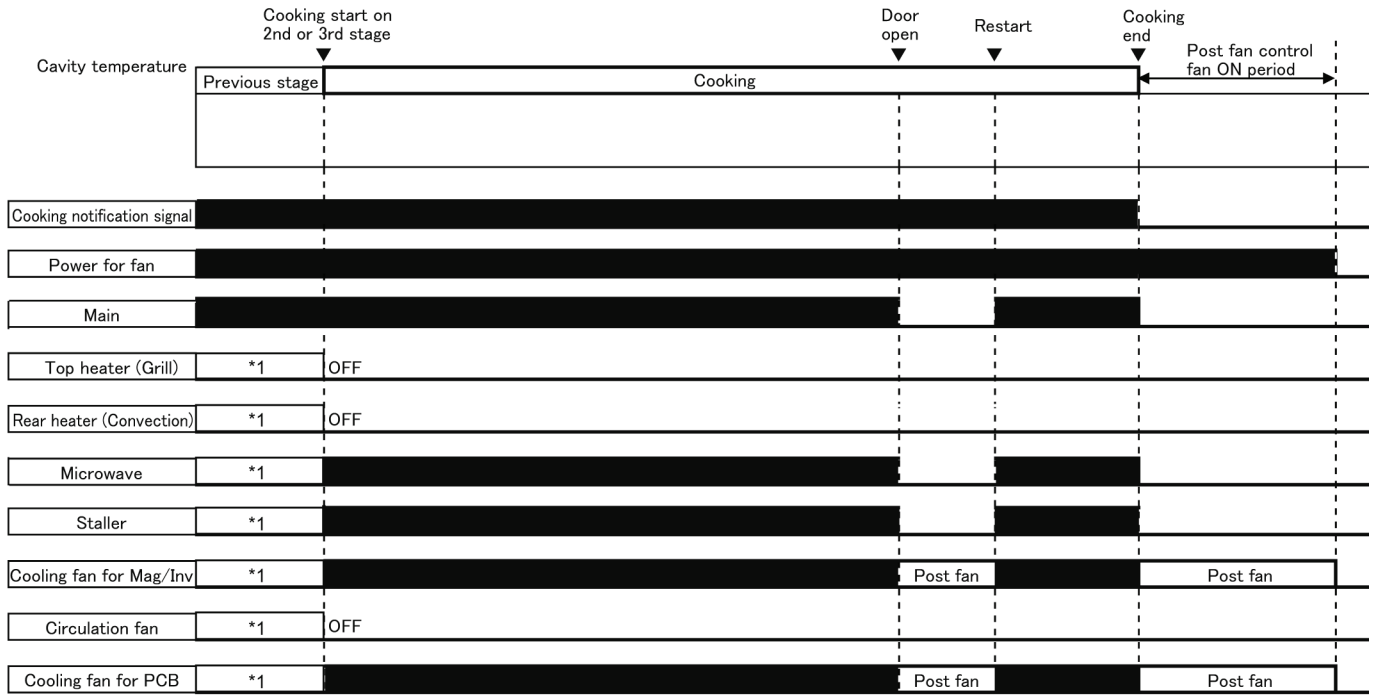


*1: ON while post fan is ON

Notes :  ON  Duty  OFF

- At cooking start
Power voltage is detected for approx. 1 second.
RL short detection for the control signal of the top and rear heater is executed at the same time.
- Top heater (Grill) output
Without preheating and with the grill set to high: 1350 W (P1 stage), 350 W (P2 stage)
With preheating and with the grill set to high: 1800 W (P1 stage), 350 W (P2 stage)
With / Without preheating and with the grill set to low: 1150 W (P1 stage), 350 W (P2 stage)
- Post fan
Stay ON until temperature is approx. 170°C or less (Medium rotation)
Turn OFF when the temperature drops to approx. 170°C or less.

3.1.1.5. Microwave Cooking



Notes : ON Duty OFF

*1: It depends on the previous stage settings

■ Post fan

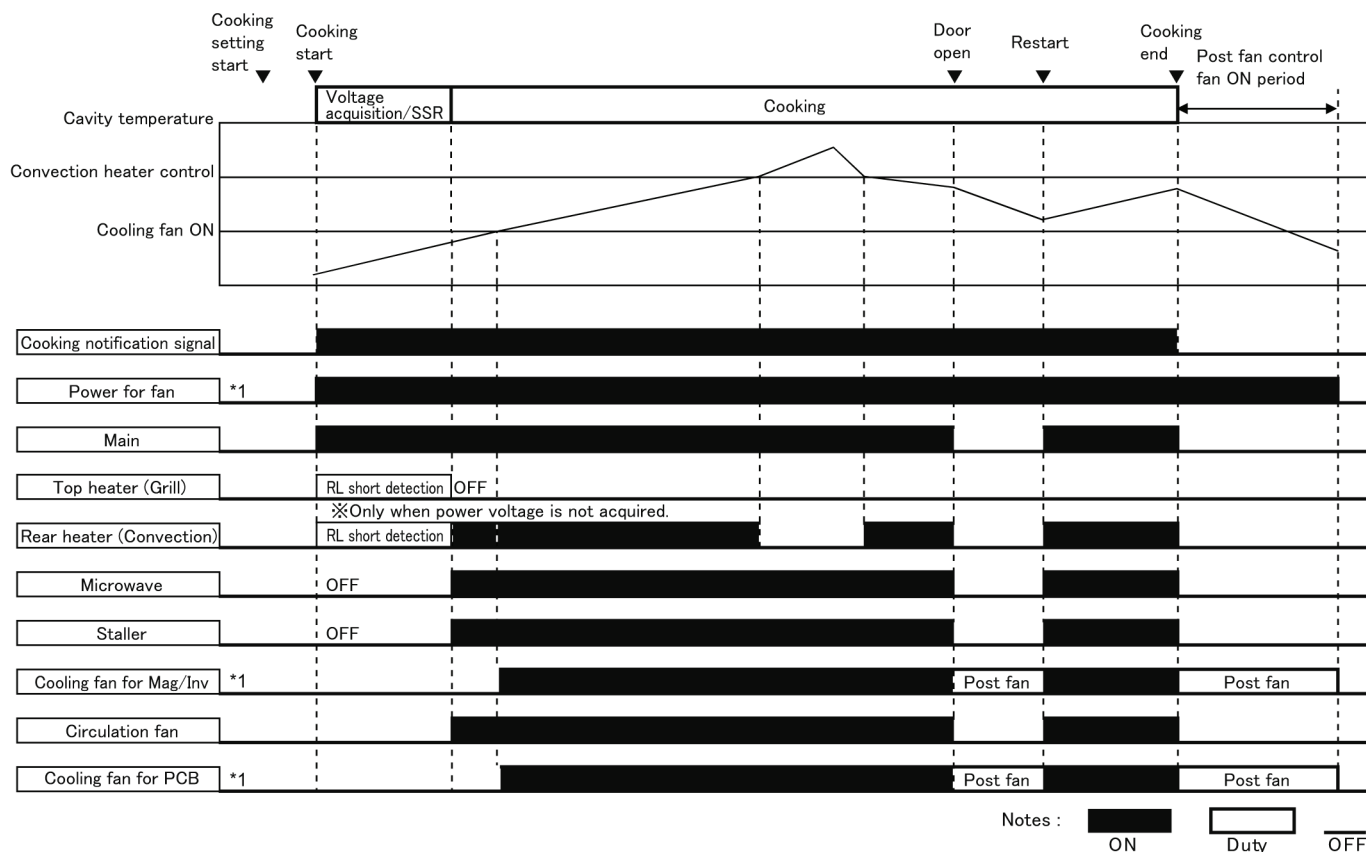
Stay ON until temperature is approx. 170°C or less (Strong rotation for the first minute, then medium rotation)
Turn OFF when the temperature drops to approx. 170°C or less.

■ Each step's maximum microwave output and maximum set time

	Microwave		Convection-and-Microwave/ Grill-and-Microwave		Convection/Grill/ Convection-and-Grill
	Maximum microwave power	Maximum cooking time	Maximum microwave power	Maximum cooking time	Maximum cooking time
Step 1	Setting unavailable	Setting unavailable	800 W*	5 min.	30 min.
Step 2	1050 W	5 min.	800 W*	5 min.	
Step 3	600 W	10 min.	600 W	10 min.	

* A maximum of 1050 W when the grill is set to low

3.1.1.6. Convection-and-Microwave Cooking



*1: ON while post fan is ON

■ At cooking start

Power voltage is detected for approx. 1 second.

RL short detection for the control signal of the top and rear heater is executed at the same time.

■ Post fan

Stay ON until temperature is approx. 170°C or less (Strong rotation for the first minute, then medium rotation)

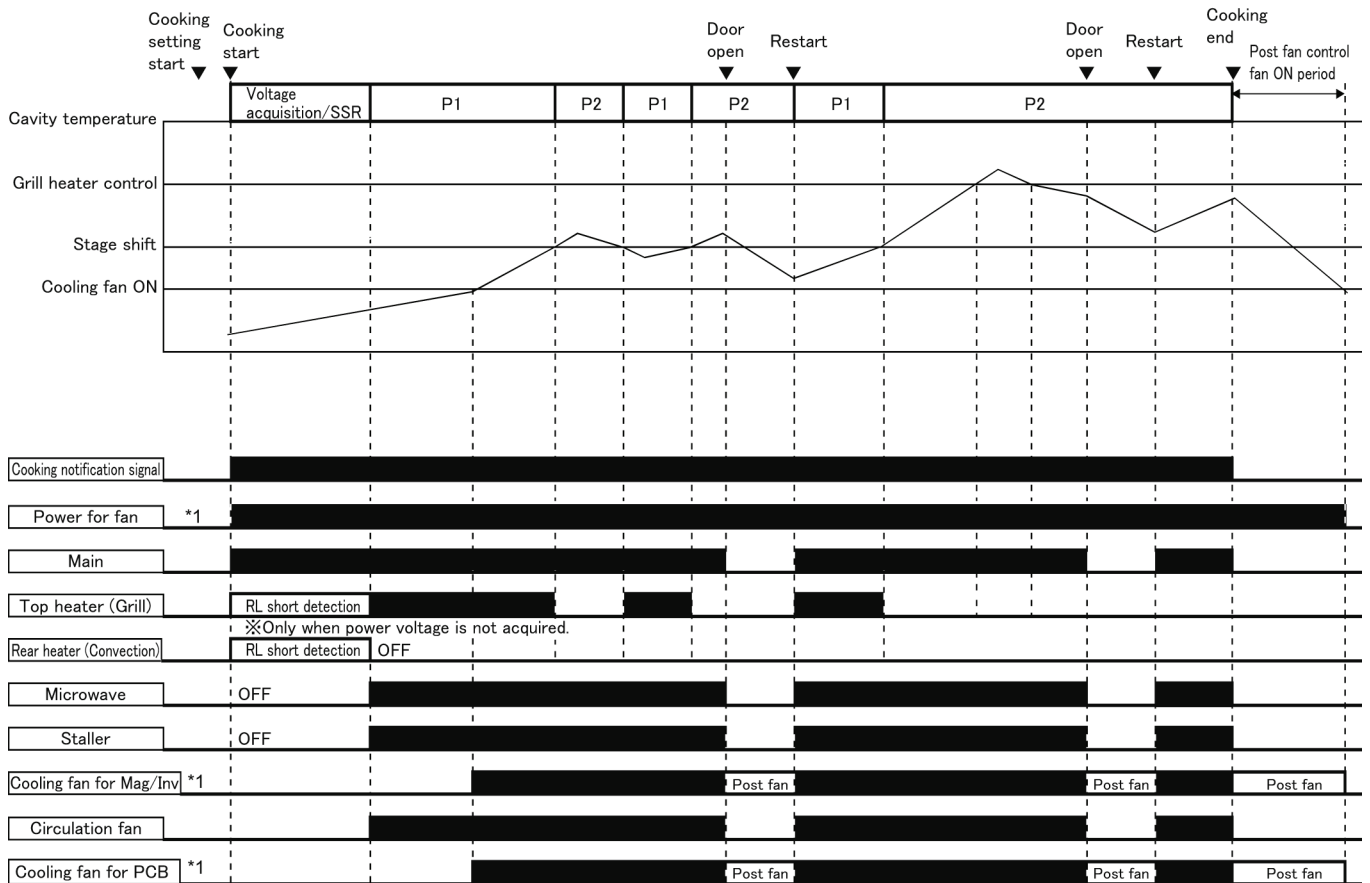
Turn OFF when the temperature drops to approx. 170°C or less.

■ Each step's maximum microwave output and maximum set time

	Microwave		Convection-and-Microwave/ Grill-and-Microwave		Convection/Grill/ Convection-and-Grill
	Maximum microwave power	Maximum cooking time	Maximum microwave power	Maximum cooking time	Maximum cooking time
Step 1	Setting unavailable	Setting unavailable	800 W*	5 min.	30 min.
Step 2	1050 W	5 min.	800 W*	5 min.	
Step 3	600 W	10 min.	600 W	10 min.	

* A maximum of 1050 W when the grill is set to low

3.1.1.7. Grill-and-Microwave Cooking



Notes : ON Duty OFF

*1: ON while post fan is ON

■ At cooking start

Power voltage is detected for approx. 1 second.

RL short detection for the control signal of the top and rear heater is executed at the same time.

■ Top heater (Grill) output

Without preheating and with the grill set to high: 1350 W (P1 stage), OFF (P2 stage)

With preheating and with the grill set to high: 1800 W (P1 stage), OFF (P2 stage)

With / Without preheating and with the grill set to low: 1150 W (P1 stage), OFF (P2 stage)

■ Post fan

Stay ON until temperature is approx. 170°C or less (Strong rotation for the first minute, then medium rotation)

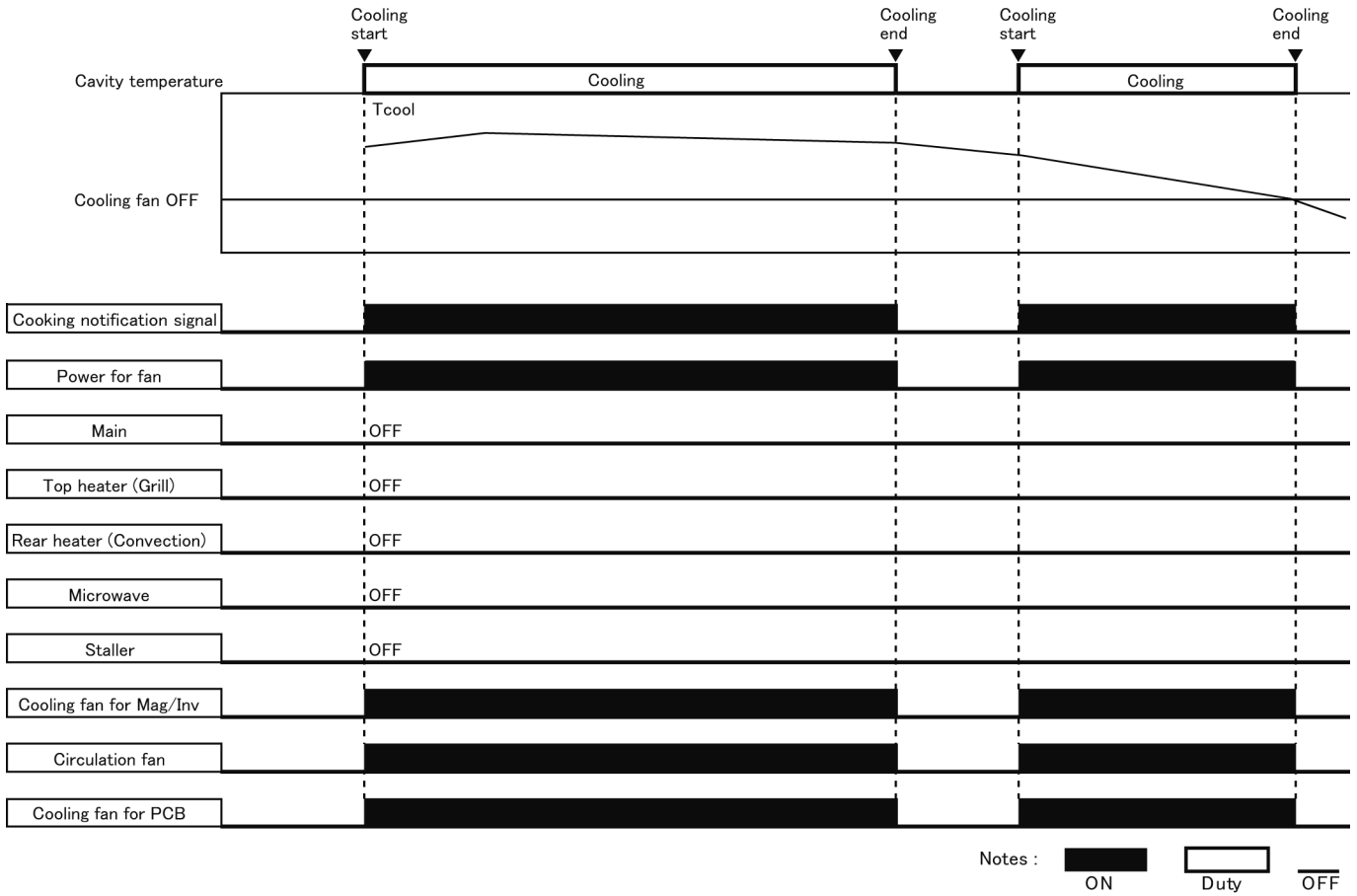
Turn OFF when the temperature drops to approx. 170°C or less.

■ Each step's maximum microwave output and maximum set time

	Microwave		Convection-and-Microwave/ Grill-and-Microwave		Convection/Grill/ Convection-and-Grill
	Maximum microwave power	Maximum cooking time	Maximum microwave power	Maximum cooking time	Maximum cooking time
Step 1	Setting unavailable	Setting unavailable	800 W*	5 min.	30 min.
Step 2	1050 W	5 min.	800 W*	5 min.	
Step 3	600 W	10 min.	600 W	10 min.	

* A maximum of 1050 W when the grill is set to low

3.1.1.8. Cooling



■ Regardless of whether the door is opened or closed, cooling will be performed.

4 Location of Controls and Components

Front

Upper Heater

Door Handle

Door

Opening this while cooking will stop the operation.

Intake Vent

Drip Tray

Collects food residues and water.

● The bottom surface of the oven interior is made from ceramic to allow electromagnetic waves to pass through.

USB Memory Port

Oil Tray

Collects oil from inside the oven.

Air Filter

It is set inside the front cover.

Front Cover

● How to remove the front cover, drip tray, air filter and oil tray.

Notes

Always install the air filter, drip tray and front cover before using the oven. Continuous use of the oven without these parts will result in malfunction.

Back

LAN Cable Port

When using the LAN cable port, remove the cover.

Exhaust Vent

Catalyst

The oil smoke that circulates inside the oven cavity is decomposed and purified by going through the catalyst converter.

● The catalyst reaction will lower when the cooking temperature is low (approximately 240°C or lower).

⚠ An external equipotential bonding conductor is provided at the back side of the oven and it is marked by this symbol.

Power Supply Plug

Please plug in only outlet compatible with Blue 16 Amp Plug to IEC 60309 (EN60309). Equipment is dedicated to single phase power supply.

Power Supply Cord (BPQ)

Power Supply Plug

Power Supply Cord (EUG)

● Illustrations may differ to the actual items. Caution labels are affixed to the actual oven.

EARTHING

IMPORTANT: FOR PERSONAL SAFETY, THIS OVEN MUST BE PROPERLY EARTHED.

When an outlet is not earthed, it is personal responsibility and obligation of the customer to have it replaced with a properly earthed outlet.

Control Panel (home screen)

Preheating Setting

- “Preheat temp.” and “Cooling” are available.

Preheating State Indication Bar

- Displays the progress of the preheating.

Touch Screen (display)

- Tap on the screen directly to use the controls.
- Displays the menu list, cooking temperature and cooking time, the beep sound, etc.
- Do not touch the screen with a sharp object. Doing so will cause damage.

Stop/Reset Pad

- Press once to temporarily stop the cooking process. To resume cooking, press the Start pad.
- Press twice to clear your instructions (returns to the home screen) or cancel cooking.



Tools

Menu List

- You can switch between the picture list screen and the menu number select screen.

Back Pad

- Returns to the previous control screen so that settings can be changed.
- Unavailable after cooking has started

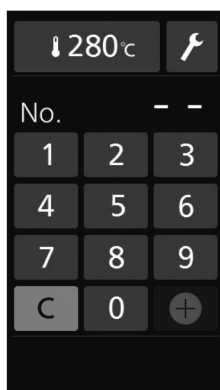
Start Pad

- After setting preheating or cooling, press this pad.
- If you press this button when the lamp is flashing, the preheating or cooking starts.

Lamp

- When the power plug is inserted, the lamp flashes, but this is not a malfunction.

■ The home screen during “Menu number select” “Home setting”



■ Display Off Function

The home screen of the display turns blank if it is not used for 5 minutes. While the display off function is in effect, if the door is opened, the screen is displayed.

Notes

When the cooking is finished, the fans are operated to ventilate the oven interior and cool the mechanical parts. Therefore, do not remove the power plug or trip the circuit breaker.

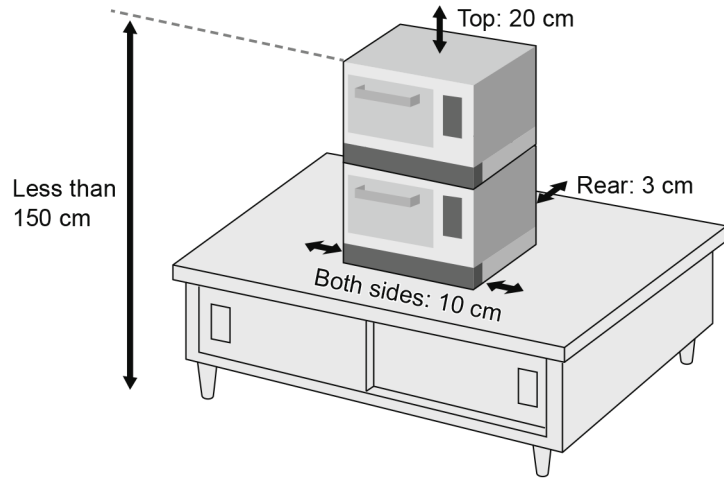
5 Installation Instructions

Keep the following proper distances between the outer surfaces of the oven and walls.

- Otherwise, overheating can cause damage to the walls, etc., such as burn, deformation or ignition.

To ensure the safe use of the oven, keep distances greater than the ones indicated in the table below between its outer surfaces and the walls.

	Top	Left-side	Right-side	Front	Rear	Hight
Separation distance (cm)	20	10 (Leave either the right-side or left-side surface open)		Open	3	Less than 150

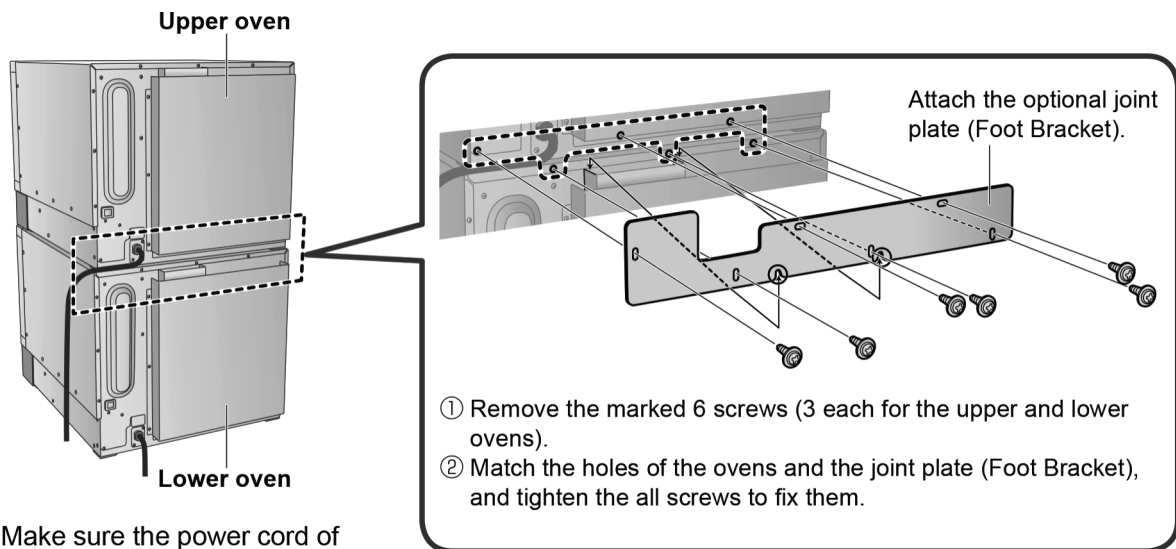


⚠ WARNING
 Do not install the oven at 150 cm or more above the floor. Doing so may result in danger of burns. Only a combination of same models are allowed when stacking.

⚠ CAUTION
 Disconnect the power cord from the wall outlet before installation and be sure the oven cavity is empty. It may cause electric shock or injury.

6 Instruction for Stacking

Up to two ovens can be stacked by fixing with the Panasonic joint plate. The joint plate is an optional item. Contact the dealer or a service agent. Request the installation to an electric constructor. (The construction cost is not included in the price of the oven.)



Make sure the power cord of the upper oven will not block the exhaust vent of the lower one.

Contact information for the dealer or service agent

For inquiry of the joint plate (Foot Bracket), please contact the below.

Panasonic Corporation

Living Appliances and Solutions Company Kitchen Appliances Business Division

Cooking Business Unit Foodservice Equipment Small BU

Global Sales representative

7 Important Safety Instructions

INSTALLATION

EXAMINE YOUR OVEN

Unpack the oven, remove all packing material, and examine the oven for any damage such as dents, broken door latches or cracks in the door. Notify the dealer immediately if the unit is damaged. DO NOT install it if the unit is damaged.

ATTACH CAUTION LABEL.

If a caution label is enclosed with your oven, please attach it to the top of the appliance before using.

EARTHING

IMPORTANT: FOR PERSONAL SAFETY, THIS APPLIANCE MUST BE PROPERLY EARTHED. When an outlet is not earthed, it is personal responsibility and obligation of the customer to have it replaced with a properly earthed outlet.

VOLTAGE AND POWER WARNING

The voltage used must be the same as specified on the microwave oven. Using a higher voltage than that which is specified is dangerous, and may result in a fire or other type of accident causing damage. Do not plug your oven in via an extension cable as this can be dangerous. It is important to plug the oven directly into a wall socket. The back of the appliance heats up during use. Do not allow the cord to be in contact with the back of the appliance or cabinet surface.

GUARANTEE CARD

Fill out and post the pre-addressed guarantee card.

PLACEMENT OF THE OVEN

Locate the oven on a surface which is flat and stable. The oven is freestanding type and shall not be placed in a cabinet. Do not place the oven in a hot or damp place; e.g. near a gas or electric range. Do not operate the oven when the room temperature is higher than 40°C and/or the humidity is more than 85%. Free airflow around the oven is important. There is a possibility of a small amount of interference with weak broadcast signals if the oven is too close to a radio or TV. For safe and efficient operation, the oven must

have sufficient air flow to the air vents i.e. at least 10 cm at both sides, 3 cm at the rear and 20 cm at the top. The front side must not be blocked. Do not install the oven at 150 cm or more above the floor. Doing so may result in danger of burns. Only a combination of same models are allowed when stacking. Oven must be placed for easy access to control panel and door and also, for disconnect power or shut off power by fuse or circuit breaker.



An external equipotential bonding conductor is provided at the back side of the oven and it is marked by this symbol.

WARNING

1. If the door or door seals are damaged, the oven must not be operated until it has been repaired by a competent person.
2. The contents of feeding bottles and baby food jars shall be stirred or shaken and the temperature checked before consumption, in order to avoid burns.
3. Liquids and other foods must not be heated in sealed containers since they are liable to explode.
4. Microwave heating of beverages can result in delayed eruptive boiling, therefore care must be taken when handling the container.
5. It is hazardous for anyone other than a competent person to carry out any service or repair operation that involves the removal of a cover which gives protection against exposure to microwave energy.
6. Floor at adjacent to the appliance may be slippery, care should be taken.
7. Appliances must be disconnected from their power supply during cleaning or maintenance and when replacing parts.
8. To avoid scalding, do not use loaded containers with liquids or cooking goods which becomes fluid by heating in higher levels than those which can be easily observed.
9. Accesible parts may become hot during use. Young children should be kept away.

CAUTION

1. To reduce the risk of burns, electric shock, fire, injury to persons or excessive microwave energy, read all instructions before using oven.
2. In order to maintain the high quality of the magnetron tubes and other components, you are requested not to turn the oven on with no food inside.
3. High voltages are present inside the cabinet. Repairs and adjustments should be done only by qualified service personnel.
4. This oven requires free airflow in the back and front for maximum cooling efficiency. You should keep the air vents clear while cooking.
5. Do not dry clothes in the oven since there is a possibility of the clothes burning if left in the oven for too long of a time.
6. Use this oven only for its intended use as described in this manual.
7. Do not use this oven or accessories, if they are not working properly, or if they have been damaged or dropped.
8. Do not use outdoors.
9. Do not immerse cord or plug in water.
10. Keep cord away from heated surfaces.
11. Do not let cord hang over edge of table or counter.
12. To reduce the risk of fire in the oven cavity:
 - a) Do not overcook food. Carefully attend oven if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
 - b) Remove wire twist-ties from bags before placing bag in oven.
 - c) If materials inside the oven should ignite, keep oven door closed, unplug the oven, or shut off power at the fuse or circuit breaker panel.
 - Always follow “Types of Container to Use”.
13. Do not store flammable materials next to, on top of, or in the oven. It could be a fire hazard.
14. Do not overturn or drop this oven or accessories. Doing so may cause injury, electric shock, or microwave leakage.
15. Do NOT use this oven to heat chemicals or other non-food products. Do NOT clean this oven with any product that is labelled as containing corrosive chemicals. The heating of corrosive chemicals in this oven may cause microwave radiation leaks.
16. Do not use your oven for home canning or the heating of any closed jar. Pressure will build up and the jar may explode. In addition, the oven cannot maintain the food at the correct canning temperature. Improperly canned food may spoil and be dangerous to consume.
17. Do not attempt to deep fat fry in your oven.

18. Potatoes, apples, egg yolks, whole squash and sausages are examples of foods with nonporous skins. This type of food must be pierced before cooking, to prevent bursting.
19. When reheating babies bottles always remove top and teat. Liquid at the top of the bottle will be much hotter than at the bottom and must be shaken thoroughly before checking the temperature. The lid must also be removed from babies food jars, the contents must also be stirred or shaken before the temperature is checked.
 - Always follow “Types of Container to Use”.
20. The door seals and door seal areas should be cleaned with a damp cloth.
21. If smoke is observed, turn off or unplug the oven and keep the door closed in order to stifle any flames.
22. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
23. Before use, the user should check that utensils are suitable for use in the oven.
24. When heating liquids, e.g. soup, sauces and beverages in your oven, overheating the liquid beyond boiling point can occur without evidence of bubbling. This could result in a sudden boil over the hot liquid. To prevent this possibility the following steps should be taken:
 - a) Avoid using straight-sided containers with narrow necks.
 - b) Do not overheat.
 - c) Stir the liquid before placing the container in the oven and again halfway through cooking time.
 - d) After heating, allow to stand in the oven for a short time, stirring again before carefully removing the container.
25. When heating food in plastic or paper containers, keep an eye on the oven due to the possibility of ignition.
 - Always follow “Types of Container to Use”.
26. The oven is intended for heating food and beverages. Drying of food or clothing and heating of warming pads, slippers, sponges, damp cloth and similar may lead to risk of Injury, ignition or fire.
27. Eggs in their shell and whole hard-boiled eggs should not be heated in ovens since they may explode, even after microwave heating has ended.
28. This oven can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the oven in a safe way and understand the hazards involved. Children shall not play with the oven. Cleaning and user maintenance shall not be made by children without supervision.
29. The oven should not be cleaned with a water jet.
30. The oven should not be cleaned with a steam cleaner.

31. Electromagnetic fields can present a possible danger. We would recommend that people using a heart pacemaker avoid proximity to these fields.
32. When the oven is not in use, it is recommended that items are removed. If left inside and the switch is accidentally activated, there is potential for damage to occur.
33. During service and/or replacement of parts, the oven should be disconnected from the power supply. Once the plug is removed, it should remain visible to the service operator to avoid inadvertent reconnection.
34. The oven should be cleaned regularly and any food deposits removed.
35. Do not heat with oil from the leftover food or the food left in the accessories in the oven cavity. Doing so may generate sparks and cause fire or smoking.
36. Failure to maintain the oven in a clean condition could lead to deterioration of the surface that could adversely affect the life of the appliance and possibly result in a hazardous situation.
37. Do not use metalware, ceramics trimmed with gold or silver, or any container with a metal content when cooking with the microwave.
38. It is recommended to use personal protection equipment in case of spreading hot food stuff.
39. Exterior oven surfaces, including air vents on the cabinet and the oven door will get hot during use. Take care when opening or closing door and when inserting or removing food and accessories.
The oven has heaters situated in the top and back of the oven.
After use, the roof, walls and floor will be very hot.
40. Take caution when removing the hot accessories after cooking. It may cause burn. Use oven gloves.
41. Take caution when rapidly cooling the hot accessories after cooking. It may cause burn with steam or airborne droplets. It may also cause injury by the accessories breaking.
42. When removing food from the oven, take care that a cooking sheet or similar does not make contact with the upper heater. There is a danger of fire or smoke.
When using a cooking sheet or similar:
 - a) Observe the heatproof temperature stated on the package.
 - b) Use a sheet size that matches the quantity of the food.
 - c) Take care that the sheet does not touch the upper surface of the oven interior.
43. It is essential reheated food is served "piping hot". Always check before serving and if in doubt return food to oven for further heating.
All temperatures provided are for guidance only. Local legislation of food temperature requirements should be applied, to ensure a safe temperature has been reached before serving any food.
44. The standing time is essential for foods cooked or reheated by CONVECTION-AND-MICROWAVE, or GRILL-AND-MICROWAVE. During the standing time, heat will continue to conduct to the centre to cook the food completely.
The denser the food, the longer the standing time. Reheated foods also require a standing time.

45. Follow specific instructions in this guide for proper use of oven accessories and cookware. Failure to do so could damage the oven. Take care when removing food and/or accessories from the oven.
46. When the oven has finished operating, the fan motor will continue to rotate in order to cool the electric components. This is normal and food can still be removed from the oven during this cooling period. Do not remove the plug or turn off the breaker.

USING YOUR OVEN

1. This oven is intended for commercial use and is not intended for continuous mass production of food.
2. Do not store any objects inside the oven in case it is accidentally turned on. In case of electronic failure, the oven can be turned off at wall outlet.

MAINTENANCE OF YOUR OVEN

(BPQ)

If your oven should require a service, please contact +44 344 844 3899 (UK) / +353 012 898 333 (IR) and we will provide details of an appropriate service agent. Do not attempt to make any adjustments or repairs to any part of the oven. (Phone numbers are subject to change without notice.)

(EUG)

When your oven requires a service call your local Panasonic engineer. Do not attempt to make any adjustments or repairs to any part of the oven.

WARRANTY

(Only BPQ)

12 months on-site warranty for the United Kingdom is included in the purchase price of this product.

WHEN THE HEATER IS TURNED ON FOR THE FIRST TIME

You may detect smoke or a harsh odour. This is normal and is caused by the burning off of the oil that is used to protect the oven cavity.

You may prefer to perform a blank baking as described below if you find this unpleasant;

1. Set the cooking plate included as an accessory inside the oven.
2. Operate for approximately 20 minutes at the 280°C preheating setting.
 - After heating up the oven empty, when you want to end the preheating, press the Stop/Reset pad.
 - Always ventilate when performing a blank baking.
 - There is no food sanitation issues even if you use the oven without performing a blank baking first.

8 Types of Container to Use

CONVECTION-AND-MICROWAVE/ GRILL-AND-MICROWAVE/MICROWAVE

As these programmes use microwaves and heat (CONVECTION or GRILL), you must choose the container carefully.

DO USE: Ceramics, Heat Resistant glass eg. Pyrex®

DO NOT USE:

Plastics, Cling film, Metal, Metal skewers, Aluminum foils, Silicon, Lacquerware, Glass without heat resistance, Paper, Wood, Wicker

CONVECTION/GRILL/CONVECTION-AND-GRILL

DO USE: Ceramics, Heat Resistant glass eg. Pyrex®, Metal, Metal skewers, Aluminum foil

DO NOT USE:

Plastics, Cling film, Silicon, Lacquerware, Glass without heat resistance, Paper, Wood, Wicker

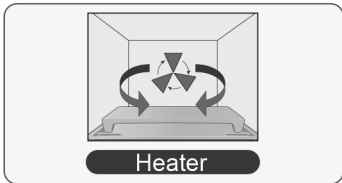
● Silicon containers specified for use with the grill can be used with convection.

Please use the container at or below the heatproof temperature stated on it.

● Please observe the heatproof temperature described in the package when using heat-resistant cooking sheet or parchment paper, etc.

Cooking Modes

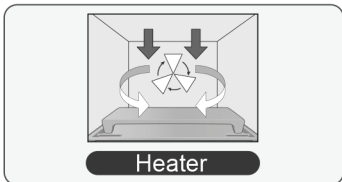
Convection



How it works

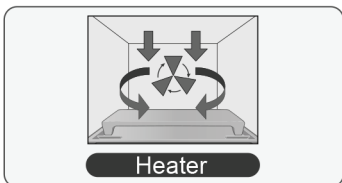
A convection heater (circulation fan heater) circulates heat throughout the oven cavity and cooks food fully while controlling the set temperature.

Grill



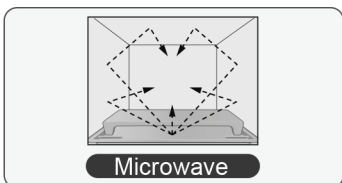
A grill heater provides heat and a circulation fan operates to distribute the heat throughout the oven cavity. Every surface of the food is well-cooked.

Convection-and-Grill



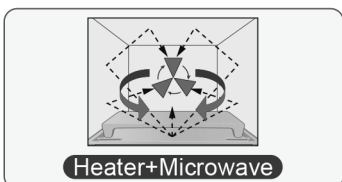
Both convection heater (circulation fan heater) and grill heater circulate heat in the oven cavity while controlling the temperature. Cooks the food throughout while browning on the surface.

Microwave



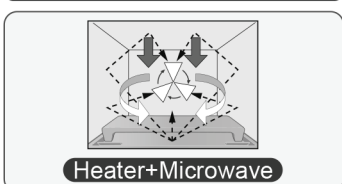
● **You can set microwave-only cooking at Step 2 or Step 3 only of Cooking in Steps.**
Applies microwaves to the food causing the molecules in the food to strongly collide and give rise to heating by friction. As a result, the food is heated about the same on the surface and inside.

Convection-and-Microwave



Combined cooking with convection heater (circulation fan heater) and microwave.
A convection heater circulates heat throughout the oven cavity with controlling the set temperature while the microwave heats the food fully. The cooking time is reduced.

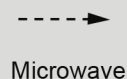
Grill-and-Microwave



Combined cooking with grill heater and microwave.
A grill heater adds heat while a microwave heats the food, and additionally a circulation fan operates to give the entire surface a crisp finish. The cooking time is reduced.

● Illustrations are images. The accessories to be used differ depending on the cooking mode.

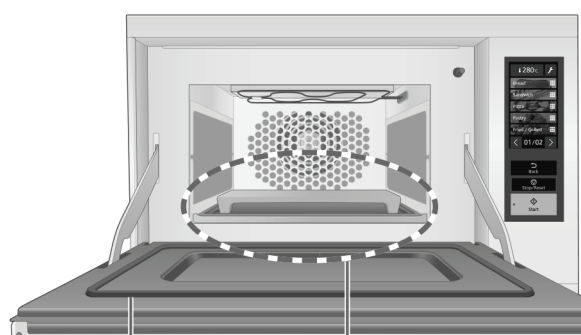
About the arrows in the illustration



9 Operating Instructions

9.1. Accessories

- To purchase accessories, please contact the dealer or a service agent.
Take care when handling the cooking plate as it is breakable. If it is damaged, stop using it and contact the dealer or a service agent.



Please note, there is a seam in the door – this is intentional.

⚠ CAUTION

The oven shall not be operated by microwave without food in the oven.

Doing so may cause the oven to become abnormally hot due to sparks and the red-hot inner bottom surface. This may cause a risk of burns.

- Also, do not operate the oven only with containers, and the provided accessories.
- Take care not to burn yourself when removing any accessories from the oven after cooking. Use oven gloves.

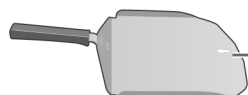


Oven Sheet (3 colours)
Place on the cooking plate.
Place food on the oven sheet.

- It is recommended to replace it every 3 to 6 months depending on the stain level.



Cooking Plate



Paddle
Use when removing oven sheet or foods.
Do not maintain contact with acidic or alkaline foods for a long time.

- Illustrations may differ to the actual items.

9.2. Connecting a USB Memory

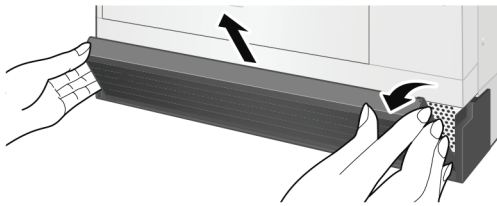
- Use a Type-A USB memory stick compliant with USB 2.0 or later and formatted with FAT32.
- No USB memory stick is included as an accessory. Use a commercially available USB memory stick.
- We do not guarantee the behaviour of all commercially available USB memory sticks.

How to Insert and Remove

- The USB memory port is below the operation area.
- Do not leave the USB memory stick inserted as it is not then possible to install the front cover or the drip tray.
- While data are being read from or written to the USB memory stick, do not insert or remove it. Doing so may destroy the data.

How to Insert

- ① After pulling the front cover down toward you, lift it diagonally upward to remove it

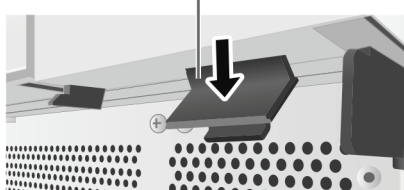


- ② Pull the drip tray toward you to remove it

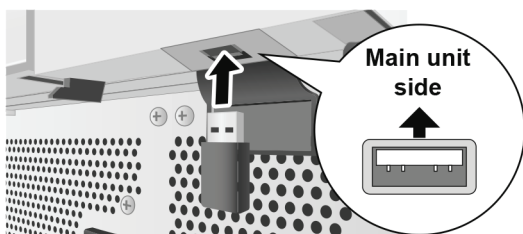


- ③ Pull down the USB memory port cover to open it

USB Memory Port Cover

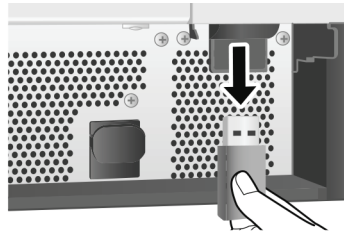


- ④ Insert the USB memory stick
Be careful about the orientation of the USB memory stick and insert it.



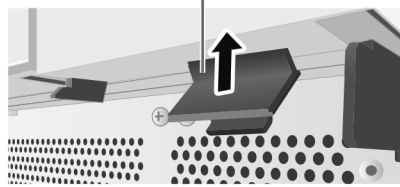
How to Remove

- ① Remove the USB memory stick

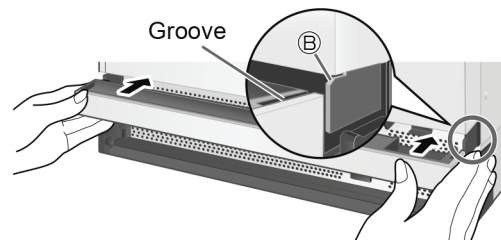


- ② Close the USB memory port cover

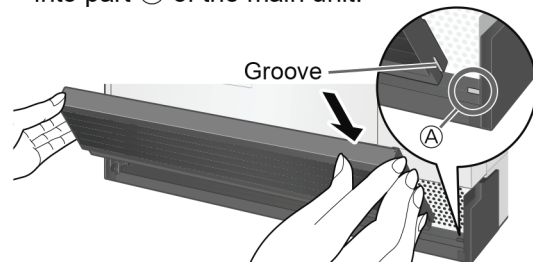
USB Memory Port Cover



- ③ Attach the drip tray
Install the drip tray so that its groove slots into part ② of the main unit.



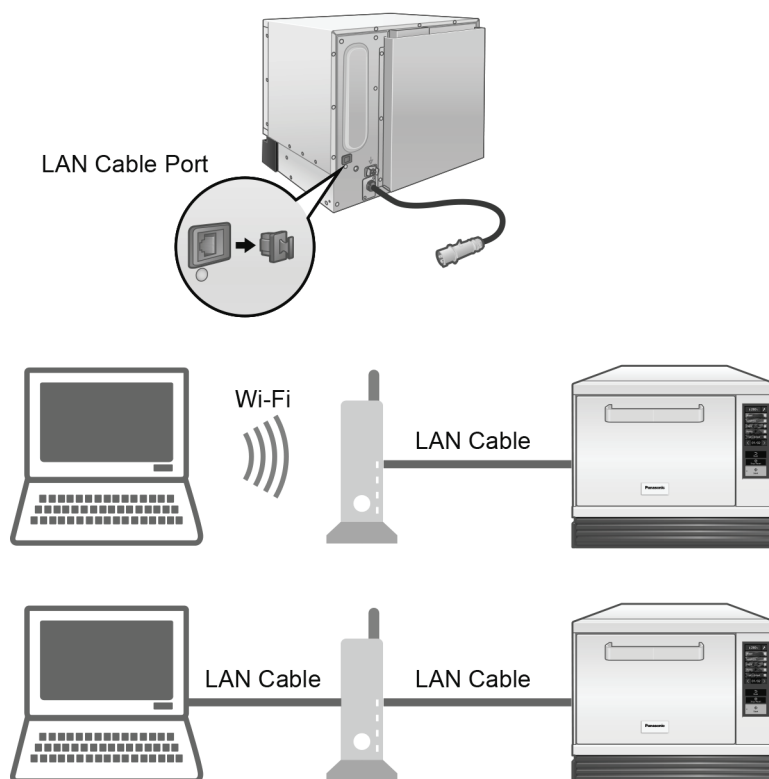
- ④ Attach the front cover
Install the front cover so that its groove slots into part ① of the main unit.



9.3. Connecting to your Personal Computer

Connecting to your personal computer enables you to read into the main unit the menu list and the device settings created with the setting support tool, or send the device's menu list to the setting support tool.

When sending or reading in data, connect the device and router with a LAN cable.



■ When Connecting to a Network

- Depending on the surrounding environment, use a heatproof cable for the LAN cable. In addition, be careful to lay it so that it does not come into contact with the hot parts of the main unit.
- To guarantee normal operation, use Microsoft Windows 10 or later as the OS for the personal computer. (as of November 2023)
- The network connection settings vary depending on the environment used.
- When configuring the IP address and DNS settings for the network connection, refer to **Network settings**.
- If a communication error occurs or a stable connection cannot be achieved, re-configure the settings according to prompts such as the messages displayed by the setting support tool.
- Microsoft Windows is a registered trademark of the US Microsoft Corporation in the US and other countries.

Setting support tool

The setting support tool is an application that enables creation and editing of menus, menu lists, and device settings on your personal computer.

- For details, consult the setting support tool operating instructions.

The tool can be installed from the following website.

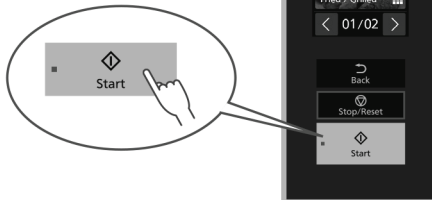
- The contents, screens, etc., of the setting support tool may be altered without notice due to a tool upgrade, for example. The contents of the URL and QR codes may be changed or deleted without notice.
https://fs.panasonic.com/download/setting_support_tool_en.html

9.4. Preheating

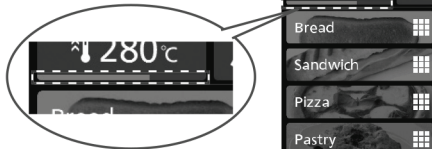
Starting Preheating

To start cooking, make sure you perform preheating. Before cooking, you can also perform preheating only.

1 Press the Start pad



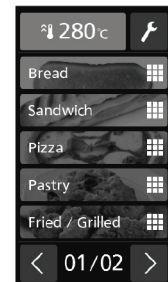
2 Start preheating



- During preheating, the preheating state indication bar displays the progress of the preheating. (When the preheating state indication bar reaches the right edge and the preheating temperature display lights up, the preheating is complete.)
- If the door is opened or closed during preheating, the preheating stops.
- After closing the door, the preheating re-starts automatically after approximately 10 seconds. If it does not re-start, press the Start pad.

3 Preheating has been completed

- Approximate preheating time; 280 °C: 7 min.



- The default setting is that the beep sounds after preheating is complete.
- If the door is left open after the preheating is complete, you will be notified by a beep sounding.
- You can turn off the beep.
“To select ON or OFF for the preheated beep”
“To select ON or OFF for the door alarm”
- After the preheating is complete, if the oven interior temperature falls below the lowest cooking temperature, the preheating automatically re-starts, and the oven interior temperature is maintained at the set preheating temperature. If no operation is performed for 4 hours after the preheating is complete, the preheating is not re-started, and the screen enters the display off state.
- If the door is left open for 1 minute or longer after the preheating is complete, the preheating will not re-start even if the door is closed. Press the Start pad.

■ To cancel preheating

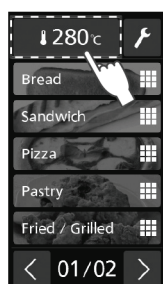
Press the Stop/Reset pad once.

Setting the Required temp. / Lowest cooking temp.*

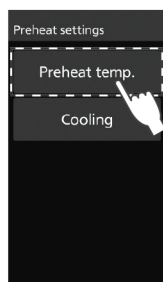
The temperature of the preheating performed before cooking and the temperature at which the cooking can start are set.

(ex.: Required temp. **280°C**, Lowest cooking temp. **250°C**)

1 Tap the preheating setting (**280°C**)

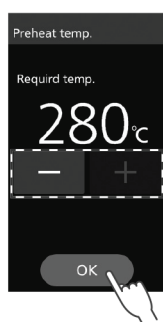


2 Select **Preheat temp.**



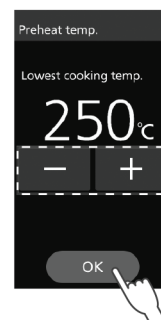
3 Set the required temperature, and tap **OK**

- From 180°C to 280°C (Default setting: 280°C)



4 Set the lowest cooking temperature*, and tap **OK**

- From 180°C to 280°C (Default setting: 250°C)
- After the setting information has been displayed for 3 seconds, the panel returns to the home screen.



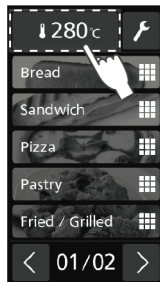
* Cooking can be started before the preheating is complete by setting the lowest cooking temperature below the required temperature. If the lowest cooking temperature is set to a low temperature, it may affect the results of the cooking.

9.5. Cooling

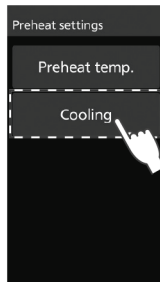
Cooling the Oven Interior

After cooking, you can cool down the oven interior if you are carrying out maintenance, etc.

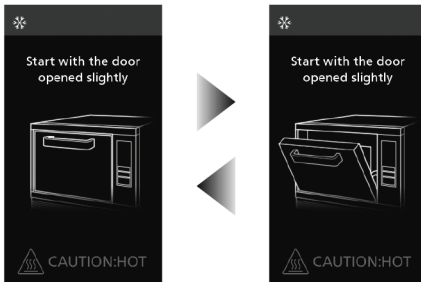
1 Tap the preheating setting (280 c)



2 Select Cooling



3 Open the door a little, and start



- Open the door slightly to lock it in place. (Keep your face away.)

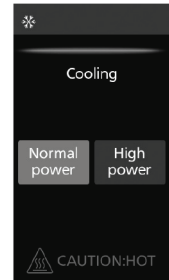


CAUTION

Take care of hot air when opening the door.

4 Starting cooling

- While cooling, the cooling mode can be switched between **Normal power** and **High power**.



5 Tap OK



- This screen is only displayed when the "Call for cavity cleaning" is "ON". (Default setting: ON)



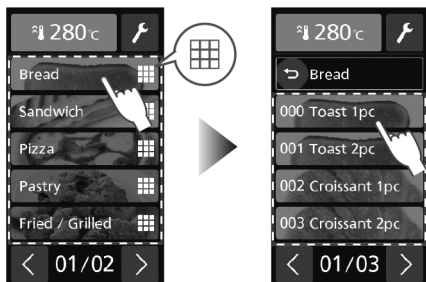
- Press the Stop/Reset pad to return to the home screen.
- The cooling time depends on the temperature inside the oven. (up to 45 minutes)



9.6. Cooking

Cooking with a Saved Cooking Menu


Select a cooking menu from the menu list, and start cooking.
Perform preheating before starting cooking.

1 After the preheating is complete, select a cooking menu from the menu list

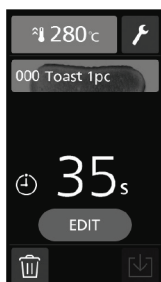


- The items with  displayed on the right are categories. Select the category to display the menus within the category. If you select an item with no  displayed on the right, the process advances to **2**.
- If "Menu number select" is set in "Home setting", input a number.
(Default setting: Picture list)

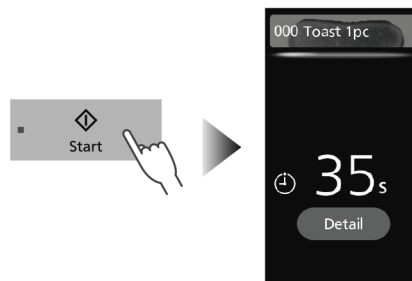
2 Check the menu's cooking settings

- You can check and edit the menu's cooking settings with **EDIT**.
- You can delete the menu with .

Put the food into the oven and close the door



3 Press the Start pad (Cooking will start.)



- After starting cooking, the current step's cooking settings can be checked with **Detail**. "Cooking Menu Set-up Screen"

- After the cooking is complete, a beep sounds. The beep stops when you open the door.

Notes

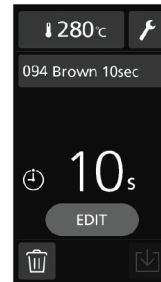
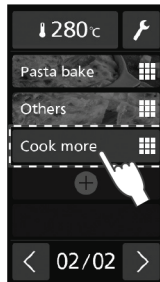
The cooking menu can be newly created or edited. In addition, it is possible to exchange data with the oven using the USB memory stick and your personal computer.

- Connecting to your personal computer
- Creating a cooking menu
- Editing a cooking menu
- Using a USB memory stick

Cook more

After cooking, you can brown the food or raise the food's internal temperature.

- 1** After the cooking is finished, select **Cook more**



Put the food into the oven and close the door

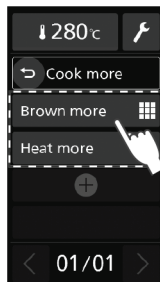
- 2** Select **Brown more** or **Heat more**

Brown more :

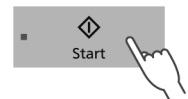
heat with the grill set to high and the fan speed at 100%.

Heat more :

heat with the convection at 280°C, the microwave at 600 W, and the fan speed at 30%.

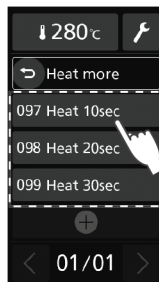
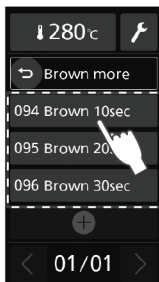


- 4** Press the Start pad
(Cooking will start.)



- After starting cooking, the current step's cooking settings can be checked with **Detail**. "Cooking Menu Set-up Screen"

- 3** Select the heating time menu



■ "Brown more" menu

■ "Heat more" menu

- If "Menu number select" is set in "Home setting", input a number.

094: Brown 10sec
095: Brown 20sec
096: Brown 30sec
097: Heat 10sec
098: Heat 20sec
099: Heat 30sec

Notes

- When editing with the setting support tool, if the menu numbers from 094 to 099 are deleted, **Cook more** is deleted from the menus displayed.

9.7. Creating a Cooking Menu and Registering in Memory

Cooking Menu Set-up Screen

You can set or edit the cooking menu contents in the cooking menu set-up screen.

● This feature cannot be used when memory lock is ON. Please cancel memory lock.

■ To display the cooking menu set-up screen

When newly creating a cooking menu; perform step **1** of “Convection Cooking”

When editing a cooking menu; perform steps **1** to **2** of “Editing a Cooking Menu”

The screenshot shows the following settings and callouts:

- 000 Toast 1pc**: Menu name
- 35s**: Total cooking time (Callout: Displays the total cooking time.)
- Step number**: 1, 2, 3 (Callout: Step number)
- 00m 35s**: Each step's set time (Callout: Each step's set time)
- Beep icon**: Beep/no beep setting (Callout: You can set a beep / no beep for when each step ends.)
- Grill**: High (Callout: Grill)
- Microwave**: 0W (Callout: Microwave)
- Convection**: OFF (Callout: Convection)
- Fan speed**: 100% (Callout: Fan speed)
- Assist cooking settings**: Chef icon (Callout: Assist cooking settings)
- OK**: Confirm button (Callout: Confirm the setting contents.)

● This can only be used when editing a menu already registered in memory.

Notes

- While setting or editing the cooking menu, when adjusting the temperature, fan speed, and time, if you keep the button pressed down it will fast-forward.
- In the main unit's screen operation, you cannot set or edit the cooking menu name, the category name, the menu arrangement, or the background image.
To set or edit, use the setting support tool.

Fan Speed

- The fan circulates the heat of the heater throughout the entire oven to brown food and give a crisp finish to the surface.
- The fan speed can be set from 30% to 100% when cooking on modes other than microwave. Adjust it depending on the food.

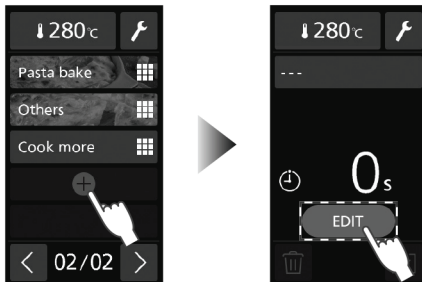
■ Fan speed guide

Fan Speed (%)	Effect
30% - 50%	Bake gently
80% - 100%	Dries the food quickly and makes the surface crispy
60% - 100%	Gives the surface a crispy finish

Convection Cooking

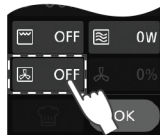
● This feature cannot be used when memory lock is ON. Please cancel memory lock.
(ex.: One-step cooking, Convection 280°C, Fan Speed 100%, 2 min)

1 Tap **+**, and tap **EDIT**



- **+** is displayed at the end of the menu list, or in the place where the cooking menu was deleted.

2 Tap **CONVECTION** (convection)



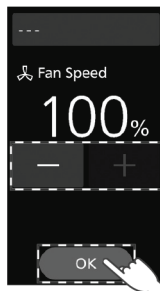
3 Set the oven temperature, and tap **OK**

- From 180°C to 280°C
- Tap **OFF** to cancel the already selected cooking process.



4 Set **Fan Speed**, and tap **OK**

- From 30% to 100%
- "Fan Speed"



5 Tap the time setting



6 Set the cooking time, and tap **OK**

- Maximum set time
30 minutes for each step



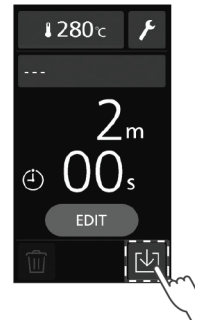
7 Tap **OK**

- Tap **2** when setting Step 2. "Cooking in Steps"
- **OK** is displayed at the upper right of the function button that has been set.



8 Tap **MEMORY** (memory registration)

- Tap **EDIT** to display the cooking menu set-up screen.
- Press the Start pad to start cooking.
You can also register the cooking menu in memory by pressing **MEMORY** after the cooking.



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.
- The cooking menu is automatically named as the maximum number in the menu list and stored in memory.

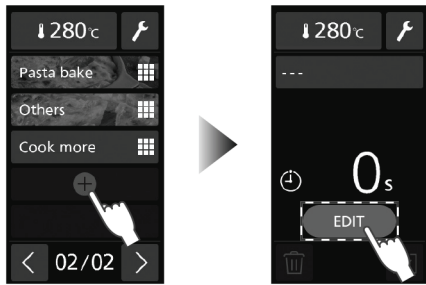
Notes

- Until you tap **OK** in step 7, you can change the respective settings by tapping **CONVECTION** (convection) and **FAN SPEED** (fan speed).

Grill Cooking

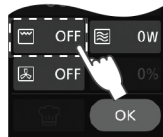
● This feature cannot be used when memory lock is ON. Please cancel memory lock.
(ex.: One-step cooking, Grill High, Fan Speed 100%, 2 min)

1 Tap **+**, and tap **EDIT**



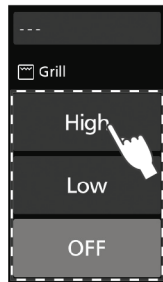
- **+** is displayed at the end of the menu list, or in the place where the cooking menu was deleted.

2 Tap **Grill** (grill)



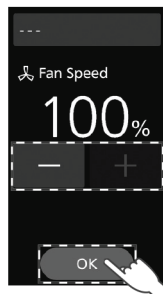
3 Select **High**

- Tap **OFF** to cancel the already selected cooking process.

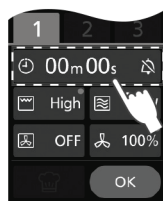


4 Set **Fan Speed**, and tap **OK**

- From 30% to 100%
- "Fan Speed"

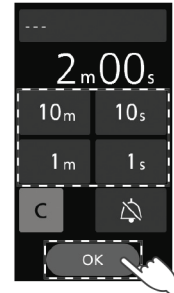


5 Tap the time setting



6 Set the cooking time, and tap **OK**

- Maximum set time
30 minutes for each step



7 Tap **OK**

- Tap **2** when setting Step 2. "Cooking in Steps"
- **OK** is displayed at the upper right of the function button that has been set.



8 Tap **Memory registration**

- Tap **EDIT** to display the cooking menu set-up screen.
- Press the Start pad to start cooking.
You can also register the cooking menu in memory by pressing **Memory registration** after the cooking.



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.
- The cooking menu is automatically named as the maximum number in the menu list and stored in memory.

Notes

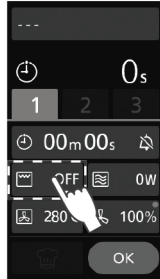
- Until you tap **OK** in step 7, you can change the respective settings by tapping **Grill** (grill) and **Fan Speed** (fan speed).

Convection-and-Grill Cooking

- This feature cannot be used when memory lock is ON. Please cancel memory lock. (ex.: One-step cooking, Convection 280°C, Fan Speed 100%, Grill High, 2 min)

Perform steps 1 to 4 of
“Convection Cooking”

5 Tap (grill)

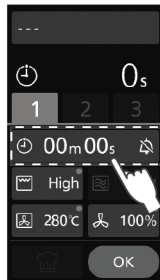


6 Select **High**

- Tap **OFF** to cancel the already selected cooking process.



7 Tap the time setting




8 Set the cooking time, and tap **OK**

- Maximum set time 30 minutes for each step




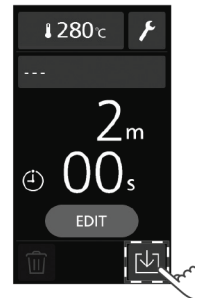
9 Tap **OK**

- Tap **2** when setting Step 2. “Cooking in Steps”
-  is displayed at the upper right of the function button that has been set.



10 Tap (memory registration)




- Tap **EDIT** to display the cooking menu set-up screen.
- Press the Start pad to start cooking. You can also register the cooking menu in memory by pressing  after the cooking.



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.
- The cooking menu is automatically named as the maximum number in the menu list and stored in memory.

Notes

- Until you tap **OK** in step 9, you can change the respective settings by tapping  (convection),  (grill), and  (fan speed).

Microwave Cooking

● This feature cannot be used when memory lock is ON. Please cancel memory lock.
It is not possible to set one-step cooking with the microwave only. (The second step and third step settings can be set for microwave only.)

(ex.: Two-step cooking, **Step 1** [Convection 280°C, Fan Speed 100%, Microwave 800 W, 2 min] → **Step 2** [Microwave 1050 W, 2 min])

Set Step 1

1 Tap [2]

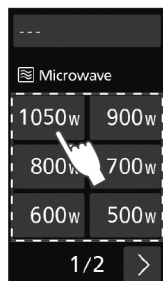


2 Tap [microwave]

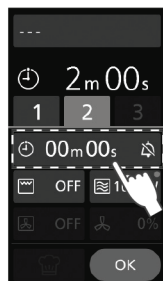


3 Select the microwave power

- During step 2
From 0 W to 1050 W
- During step 3
From 0 W to 600 W

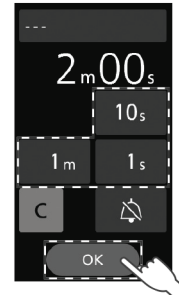


4 Tap the time setting



5 Set the cooking time, and tap [OK]

- During step 2
Maximum set time of 5 minutes
- During step 3
Maximum set time of 10 minutes



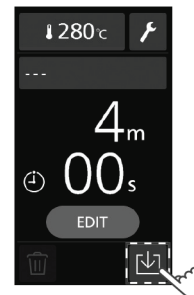
6 Tap [OK]

- Tap [3] when setting Step 3. "Cooking in Steps"
- [] is displayed at the upper right of the function button that has been set.



7 Tap [] (memory registration)

- Tap [EDIT] to display the cooking menu set-up screen.
- Press the Start pad to start cooking. You can also register the cooking menu in memory by pressing [] after the cooking.



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.
- The cooking menu is automatically named as the maximum number in the menu list and stored in memory.

Notes

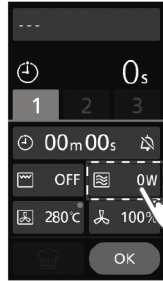
- Until you tap [OK] in step 6, you can change the setting by tapping [microwave].

Convection-and-Microwave Cooking

● This feature cannot be used when memory lock is ON. Please cancel memory lock.
(ex.: One-step cooking, Convection 280°C, Fan Speed 100%, Microwave 800 W, 2 min)

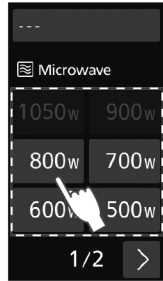
Perform steps 1 to 4 of
“Convection Cooking”

5 Tap (microwave)

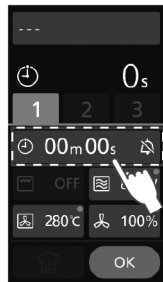


6 Select the microwave power

- From 0 W to 800 W

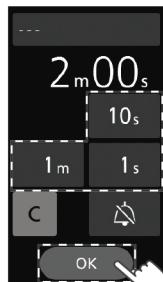


7 Tap the time setting




8 Set the cooking time, and tap **OK**

- During steps 1, 2
Maximum set time of 5 minutes
- During step 3
Maximum set time of 10 minutes




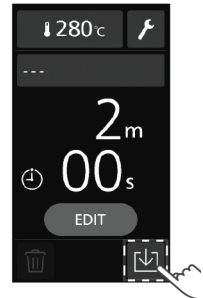
9 Tap **OK**

- Tap **2** when setting Step 2. “Cooking in Steps”
-  is displayed at the upper right of the function button that has been set.



10 Tap (memory registration)




- Tap **EDIT** to display the cooking menu set-up screen.
- Press the Start pad to start cooking. You can also register the cooking menu in memory by pressing  after the cooking.



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.
- The cooking menu is automatically named as the maximum number in the menu list and stored in memory.

Notes

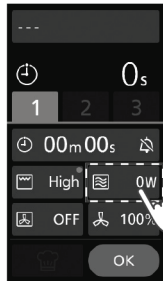
- Until you tap **OK** in step 9, you can change the respective settings by tapping  (convection),  (microwave), and  (fan speed).

Grill-and-Microwave Cooking

● This feature cannot be used when memory lock is ON. Please cancel memory lock.
(ex.: One-step cooking, Grill High, Fan Speed 100%, Microwave 800 W, 2 min)

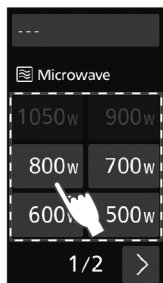
Perform steps 1 to 4 of
"Grill Cooking"

5 Tap (microwave)

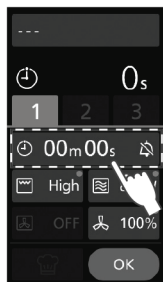


6 Select the microwave power

- When the grill is set to high
From 0 W to 800 W
- When the grill is set to low
From 0 W to 1050 W



7 Tap the time setting




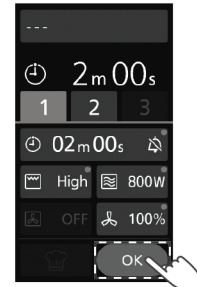
8 Set the cooking time, and tap **OK**

- During steps 1, 2
Maximum set time of 5 minutes
- During step 3
Maximum set time of 10 minutes




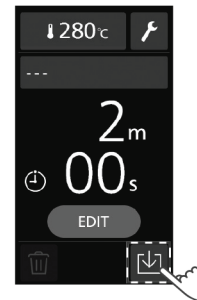
9 Tap **OK**

- Tap **2** when setting Step 2.
"Cooking in Steps"
-  is displayed at the upper right of the function button that has been set.



10 Tap (memory registration)




- Tap **EDIT** to display the cooking menu set-up screen.
- Press the Start pad to start cooking.
You can also register the cooking menu in memory by pressing  after the cooking.



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.
- The cooking menu is automatically named as the maximum number in the menu list and stored in memory.

Notes

- Until you tap **OK** in step 9, you can change the respective settings by tapping  (grill),  (microwave), and  (fan speed).

Cooking in Steps

Use Convection, Grill and Microwave functions to suit your recipe.

The microwave power, temperature, cooking time or other can be set for up to three continuous steps.










● This feature cannot be used when memory lock is ON. Please cancel memory lock.


ex.: **Step 1** [Convection 280°C, Fan Speed 100%, Microwave 800 W, 2 min] →


Step 2 [Convection 280°C, Fan Speed 100%, 2 min] →

Step 3 [Grill High, Fan Speed 100%, 30 sec]

Step 1

- 1 Tap **
- 2 Tap **
- 3 Tap  (convection)**
- 4 Set the oven temperature, and tap **
- 5 Set  Fan Speed, and tap **
- 6 Tap  (microwave) to select the output**
- 7 Tap the time setting**
- 8 Set the cooking time, and tap **
- 9 Tap **

●  is displayed at the end of the menu list, or in the place where the cooking menu was deleted.

● Tap , and you can set a beep (beep icon) or no beep (no beep icon) for when each step ends.

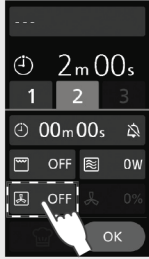
■ Each step's maximum microwave output and maximum set time

	Microwave		Convection-and-Microwave/ Grill-and-Microwave		Convection/Grill/ Convection-and-Grill
	Maximum microwave power	Maximum cooking time	Maximum microwave power	Maximum cooking time	Maximum cooking time
Step 1	Setting unavailable	Setting unavailable	800 W*	5 min.	30 min.
Step 2	1050 W	5 min.	800 W*	5 min.	
Step 3	600 W	10 min.	600 W	10 min.	

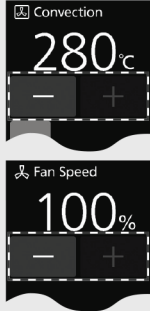
* A maximum of 1050 W when the grill is set to low

Step 2

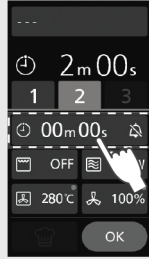
1 Tap  (convection)



2 Set the temperature and fan speed



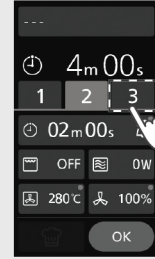
3 Tap the time setting






4 Set the cooking time, and tap **OK**



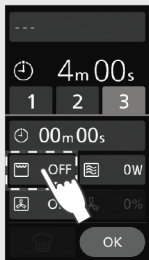
5 Tap **3**



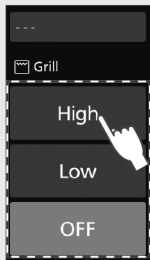
- Tap , and you can set a beep () or no beep () for when each step ends.

Step 3

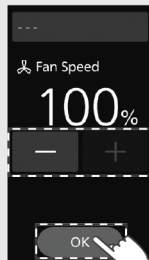
1 Tap  (grill)



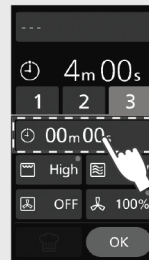
2 Select **High**



3 Set **Fan Speed**, and tap **OK**



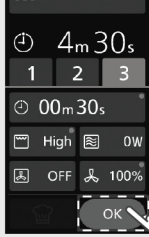
4 Tap the time setting




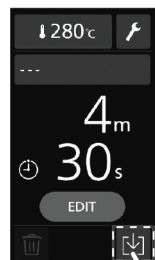
5 Set the cooking time, and tap **OK**




6 Tap **OK**



Tap  (memory registration)



Memory registration complete

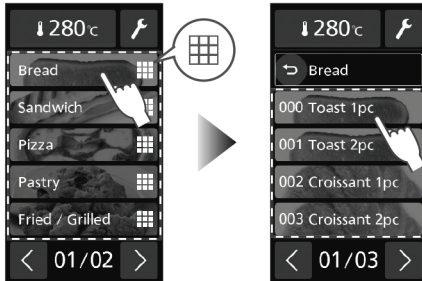
- Press the Stop/Reset pad to return to the home screen.
- The cooking menu is automatically named as the maximum number in the menu list and stored in memory.
- Displays the total time for all the steps.
- Tap **EDIT** to display the cooking menu set-up screen.
- Press the Start pad to start cooking. You can also register the cooking menu in memory by pressing  after the cooking.


9.8. Editing a Cooking Menu

Deleting a Cooking Menu

- This feature cannot be used when memory lock is ON. Please cancel memory lock.

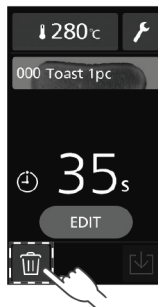
1 Select the menu to be deleted



- The items with  displayed on the right are categories.
- If "Menu number select" is set in "Home setting", input a number.

2 Tap

- You can check and edit the menu's cooking settings with **EDIT**.




3 Tap **Yes**

- After the deletion confirmation screen has been displayed for 3 seconds, the panel returns to the home screen.
- If you tap **No**, the UI returns to the step 2 screen.



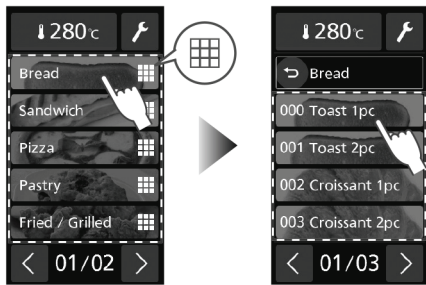
Notes


- The menu number remains even after deleting the cooking menu.  is displayed at the deleted menu number.

Editing a Cooking Menu

● This feature cannot be used when memory lock is ON. Please cancel memory lock.

1 Select the menu to be edited

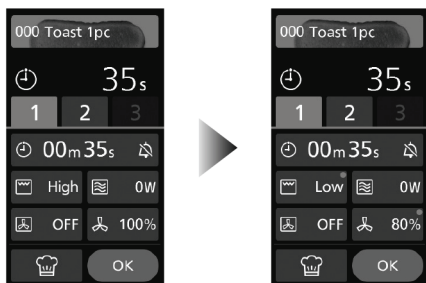




- The items with  displayed on the right are categories.
- If "Menu number select" is set in "Home setting", input a number.

2 Tap **EDIT**



3 Select the item you want to edit and change it



-  is displayed at the upper right of the button for the item that has been changed.
- To edit the menu, tap , and you can use the assist cooking settings feature.

4 Tap **OK**



5 Tap (memory registration)



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.

Using the Assist Cooking Settings Feature



When editing the menu contents, you can use the assist cooking settings feature. In the assist cooking settings feature, check the state of the food cooked, and when next cooking, you can adjust the programme to your preferred state of the food temperature and the way of browning.

Perform steps 1 to 2 of
“Editing a Cooking Menu”

3 Tap



4 Tap / to adjust the food temperature and browning

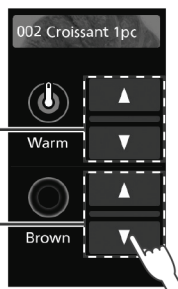
Adjust the food temperature with /

- Adjust the food temperature based on the microwave output changes.



Adjust the browning with /

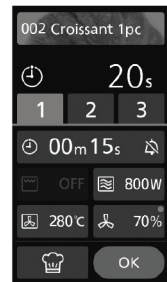
- Adjust the browning based on the fan speed and the grill output changes.

- When a message is displayed, check the contents, and perform the required corrections.
- In a menu that does not use the microwave, the food temperature cannot be set.



5 Check the altered programme

-  is displayed at the upper right of the button for the item that has been changed.
- If you want to make further adjustments, tap  again, and make the adjustments.



6 Tap



7 Tap (memory registration)



Memory registration complete

- Press the Stop/Reset pad to return to the home screen.

9.9. Backup and Restore with the USB Memory Stick



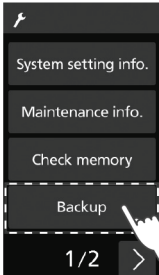
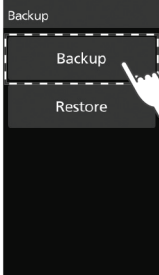
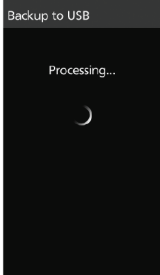


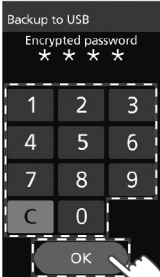
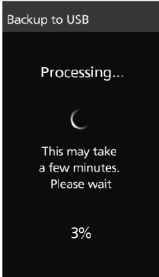
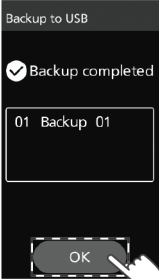

It is possible to backup the menu list to the USB memory stick, edit on your personal computer with the setting support tool, and restore the menu list and device settings created with the setting support tool from the USB memory stick to the main unit.

- Restoring refers to reverting to previously backed up data or importing data.

Backup to the USB Memory Stick

- This feature cannot be used when memory lock is ON. Please cancel memory lock.

Insert the USB memory stick

- 1 Tap  (tools)**

- 2 Select **Backup****

- 3 Tap **Backup****


- 4 Select the slot to be saved**
 - There are 10 slots from "00" to "09".
 - The backup cannot be performed in the "00 Import" slot. The "00 Import" slot is used when restoring the data created in the setting support tool.
- 5 Tap **Start****
 - If there is a menu list in a slot that has been backed up, it is overwritten.
- 6 Set a 4-digit password, and tap **OK****


 - The set password is required when restoring the backed up menu list to the main unit.
 - Do not forget the password.
- 7 Tap **OK****

 - The UI returns to the screen displayed before  was tapped.

Notes

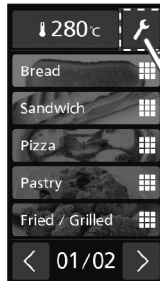
 - "Backup 01" to "Backup 09" is displayed in the backed up slot depending on the slot number.

Performing a Restore from the USB Memory Stick

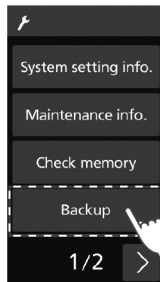
- This feature cannot be used when memory lock is ON. Please cancel memory lock.

Insert the USB memory stick

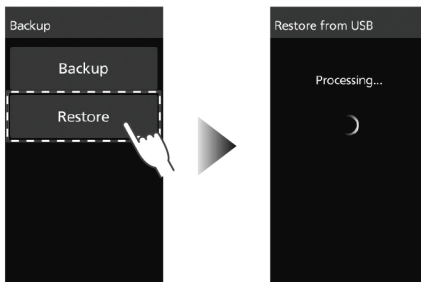
1 Tap  (tools)



2 Select **Backup**

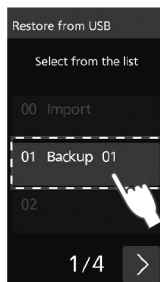


3 Tap **Restore**



4 Select the data to be restored

- In the slots with data, “00 Import”, “Backup 01” to “Backup 09” are displayed.
- When restoring data that were created with the setting support tool, select “00 Import”.

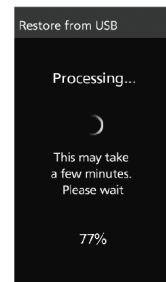
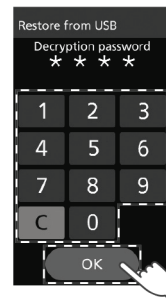


5 Tap **Start**

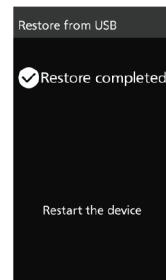
- If the restore is performed, the menu list and device settings registered in the main unit are overwritten.



6 Input the 4-digit password, and tap **OK**



- Input the password set when the backup was performed or set with the setting support tool.



- When the restore is complete, the main unit reboots.

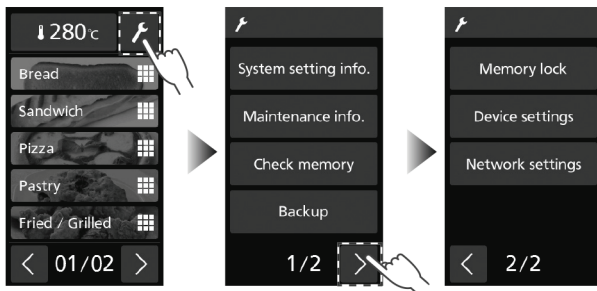
Notes

- For details of the setting support tool, consult the setting support tool operating instructions.

9.10. Various Settings

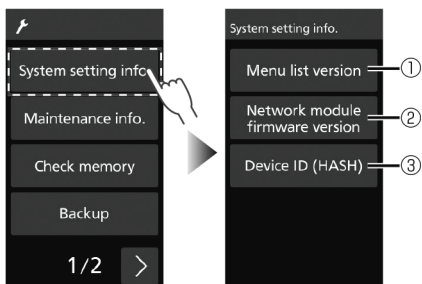
Tools

You can change and confirm various settings such as screen and beep settings, and network-related settings.



- While the memory lock is ON, **Backup**, **Device settings**, and **Network settings** cannot be selected.

System setting info.

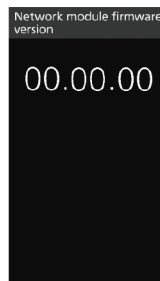


Tap ① to confirm the menu list version.



- After 3 seconds, the UI returns to the screen displayed before was tapped.
- The menu list version can also be confirmed from the setting support tool.

Tap ② to confirm the network module firmware version.



- After 3 seconds, the UI returns to the screen displayed before was tapped.

Tap ③ to confirm the device ID (HASH).



- Tap **OK** to return to the screen displayed before was tapped.

Maintenance info.

■ To review the all cooking hours (including preheating)

The process starts from the 'Maintenance info.' menu, where 'All cooking hours' is selected. This leads to a screen displaying '4560 hours'.

Notes

- The highest figure of the counter is 999999 hours. It returns to "0" the next time it is used.
- A total of all cooking hours is rounded down to the nearest hour.

ex.)

All cooking hours	Display
59 min	0
1 hr 59 min	1

● After 3 seconds, the UI returns to the screen displayed before was tapped.

■ To review the number of cycles (including preheating)

The process starts from the 'Maintenance info.' menu, where 'Number of cycles' is selected. This leads to a screen displaying '1234500 times'.

Notes

- The highest figure of the counter is 3999999 times. It returns to "0" the next time it is used.
- If you start cooking again after a pause in the middle, it also counts as a new cycle.
- The last two figures of the total number of cycles are rounded down.

ex.)

Number of cycles	Display
99 times	0
101 times	100
1100 times	1100

● After 3 seconds, the UI returns to the screen displayed before was tapped.

Check memory

The information registered in memory and the beep settings, memory lock settings, and maintenance guidelines are displayed every 3 seconds.

- In order to call up a particular menu number to confirm, press the Stop/Reset pad while the display is changing, then tap **Change number**, enter the menu number and tap **OK**. Press the Start pad to display the memory contents in order starting with the memory contents for the number called up.

Cooking menu contents

Three screens showing cooking menu contents: 000 Toast 1pc (35s), 001 Toast 2pc (45s), and 002 Croissant 1pc (20s). Each screen includes settings for power, temperature, and other options.

Beep settings

Two screens showing beep settings: Loudness (Level 3), Length of beep (Type 3), Pitch of beep (High), Preheated beep (OFF), and Door alarm (OFF).

Memory lock

Memory lock screen showing 'ON'.

Maintenance guidelines

Two screens showing maintenance guidelines: Magnetron interval (120000 times) and Maintenance interval (17500 hours).

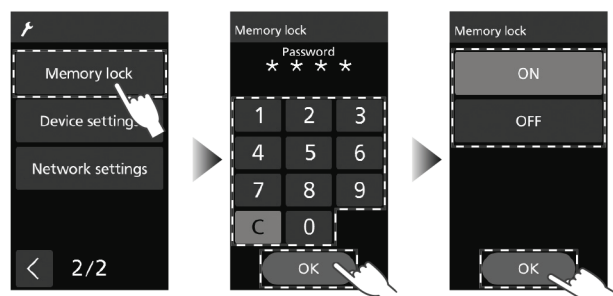
● The UI returns to the screen displayed before was tapped.

Backup


Tools

Memory lock You can choose memory lock ON or OFF.

- To configure the memory lock settings, it is necessary to set the password beforehand.




(Default setting: OFF)

- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before  was tapped.

- Input the password set in "Password", and tap **OK**.
- Select **ON** or **OFF**, and tap **OK**.

Notes

■ When the memory lock is ON

- If the cooking menu is selected, the cooking starts even if the Start pad is not pressed.
- The service tool's **Backup**, **Device settings**, and **Network settings** cannot be selected. In addition, the menu cannot be confirmed, edited, deleted, and so on, either.
- While the memory lock is ON, the service tool icon displayed is .

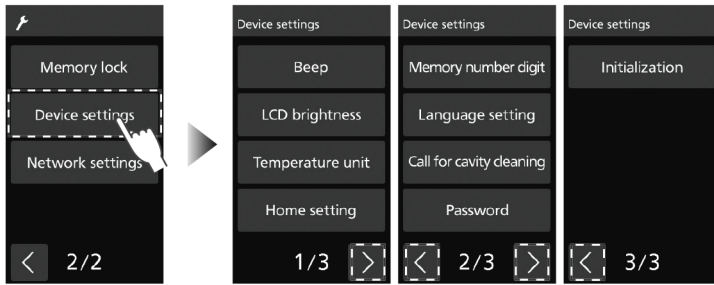
■ When the memory lock is OFF

- Press the Start pad to start cooking.

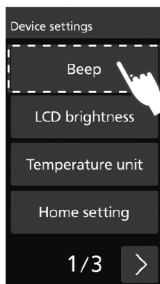
Device settings

- It is not displayed while the memory lock is ON. Perform the operation after unlocking the memory lock.

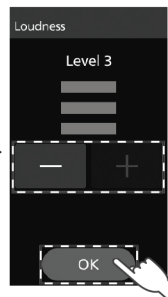
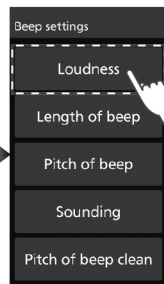
The device's various settings can be changed.



Beep



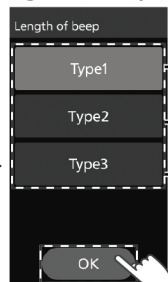
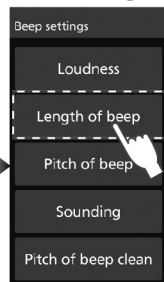
■ To change the loudness



(Default setting: Level 3)

- Select the loudness with **+** or **-**, and tap **OK**.

■ To change the length of beep at the end of programme



(Default setting: Type1)

— Type1 — Beeps in three short pulses every 15 seconds

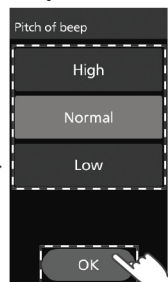
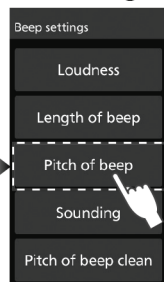
— Type2 — Beeps in longer pulses continuously

— Type3 — Beeps in one long pulse then beeps in three longer pulses every 30 seconds

- The beep stops when you open the door.

- Select the length of beep and tap **OK**.

■ To change the tone pitch of the beep at the end of programme



(Default setting: Normal)

- Select the tone pitch and tap **OK**.

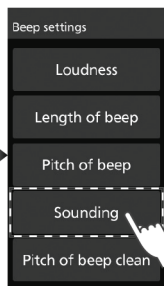
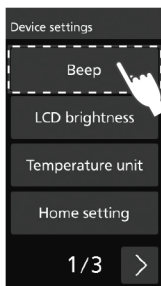
- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before **Beep** was tapped.

Tools

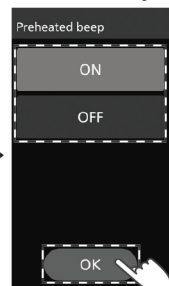
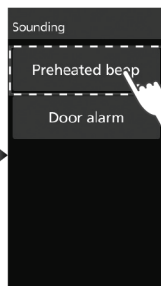
Device settings

- It is not displayed while the memory lock is ON. Perform the operation after unlocking the memory lock.

Beep (continued)



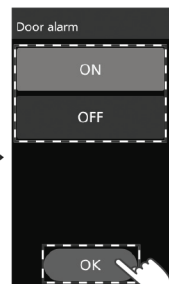
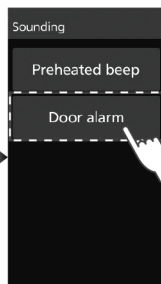
■ To select ON or OFF for the preheated beep



(Default setting: ON)

- Select **ON** or **OFF**, and tap **OK**.

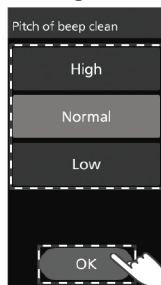
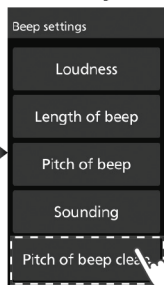
■ To select ON or OFF for the door alarm



(Default setting: ON)

- Select **ON** or **OFF**, and tap **OK**.

■ When you want to change the tone of the beep when informing you of cleaning

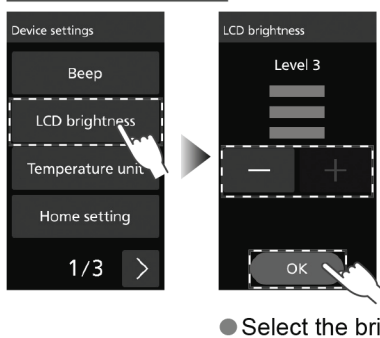


(Default setting: Normal)

- Select the pitch of the sound, and tap **OK**.


- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before **OK** was tapped.




LCD brightness You can choose the brightness of the touch screen.



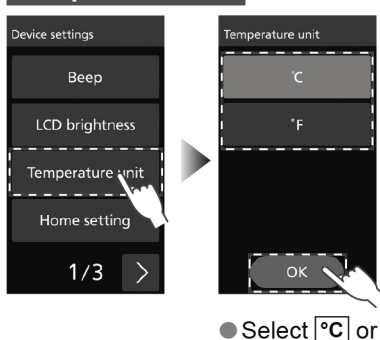
(Default setting: Level 3)

Bright ↑
↓ Dark


- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before  was tapped.




● Select the brightness with  or  , and tap .

Temperature unit You can select the unit of temperature displayed.

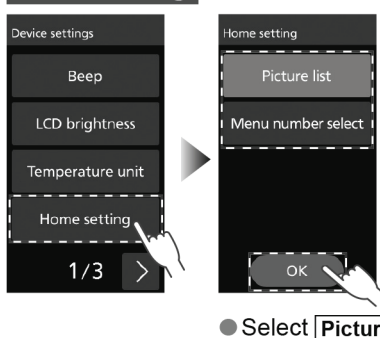


(Default setting: °C)


- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before  was tapped.


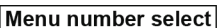

● Select  or  , and tap .

Home setting You can select from two types of home screen.

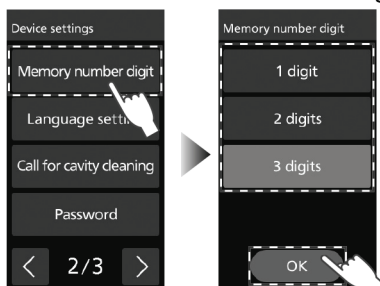


(Default setting: Picture list)


- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before  was tapped.

● Select  or  , and tap .

Memory number digit The number of figures, which should be entered on the home screen when “Home setting” is set to “Menu number select”, can be changed.



The number of figures for the menu number is set to double as default setting (100 kinds: 00–99). You can also set single-figure (10 kinds: 0–9) or triple figures (1000 kinds: 000–999).

- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before  was tapped.

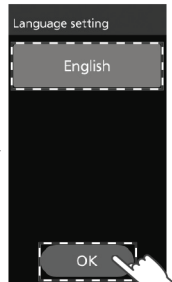
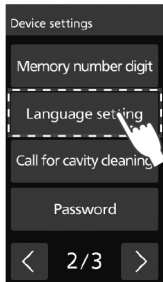
Tools

Device settings

- It is not displayed while the memory lock is ON. Perform the operation after unlocking the memory lock.

Language setting

You can select the display language.



(Default setting: English)

- After the setting information has been displayed for 3 seconds, the UI reboots.

Notes

- Up to 2 languages can be set as display languages on this device. Set the desired display language when you import a menu list from the setting support tool.

- Select the language to display, and tap **OK**.

About the device language setting

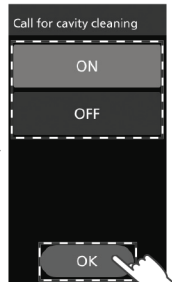
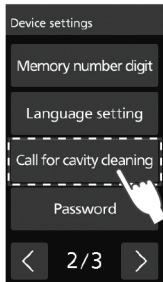
The display language's factory setting is "English". When setting the display language to another language, set the device's display language in the setting support tool, then import a menu list to this device.

For details of the setting support tool, refer to the setting support tool operating instructions.

- The setting support tool, setting support tool operating instructions, and menu list data set in the factory settings contains menu and category name in each language can be downloaded from the following website.
https://fs.panasonic.com/download/setting_support_tool_en.html

Call for cavity cleaning

You can configure the settings to display or not display a notification to perform cleaning during start-up or after cooling.



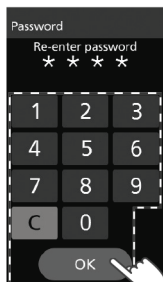
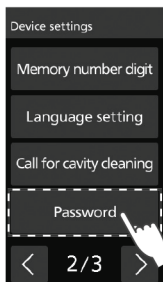
(Default setting: ON)

- After the setting information has been displayed for 3 seconds, the panel returns to the screen displayed before **OK** was tapped.

- Select **ON** or **OFF**, and tap **OK**.

Password

You can set or change the password for the memory lock settings.



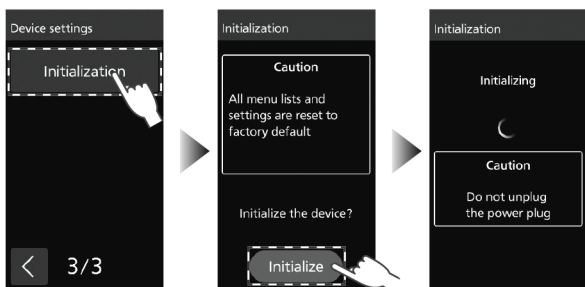
- The UI returns to the screen displayed before **OK** was tapped.

- Input the password, and tap **OK**.

- Input the password again, and tap **OK**.
- Do not forget the password.

Initialization

Initialises the main unit's settings.



Notes

- The changed settings all return to the factory settings.
- The registered menu is deleted, so if required, make sure you back up the menu list before performing the initialisation.
- When the initialisation is complete, the UI automatically reboots.
- Initialisation takes approximately 1 to 2 minutes.

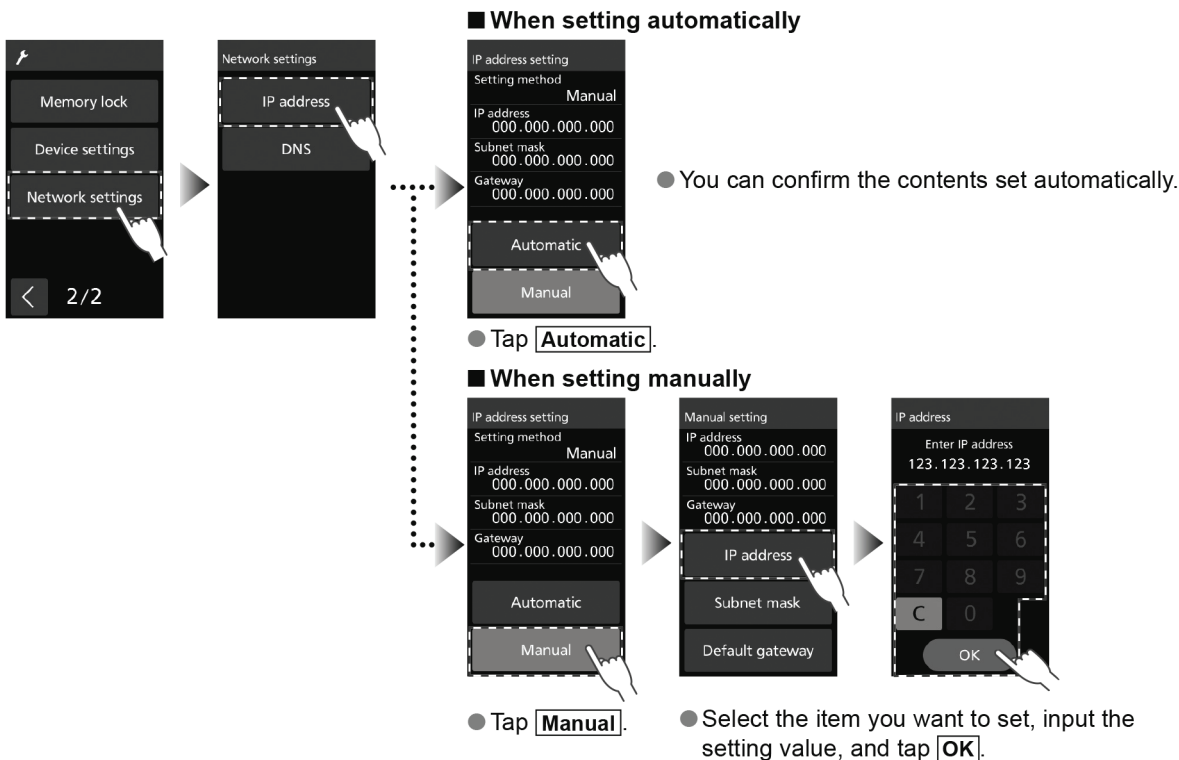
- Tap **Initialize** to start the initialisation.

Network settings

- It is not displayed while the memory lock is ON. Perform the operation after unlocking the memory lock.

IP address

You can set the IP address used when connecting to the network.



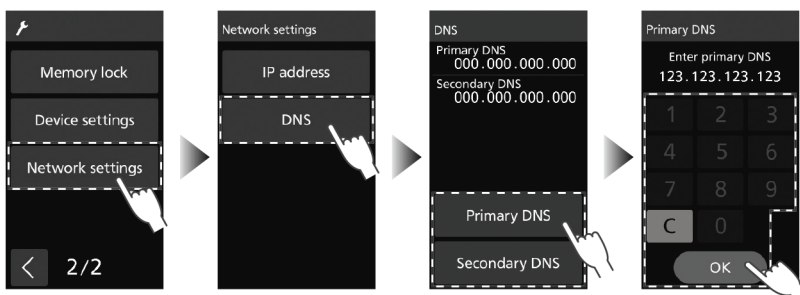
- Tap **Automatic**.

- Tap **Manual**.

- Select the item you want to set, input the setting value, and tap **OK**.

DNS

You can set the DNS used when connecting to the network.



- Select the item you want to set, input the setting value, and tap **OK**.

9.11. Care of your Oven

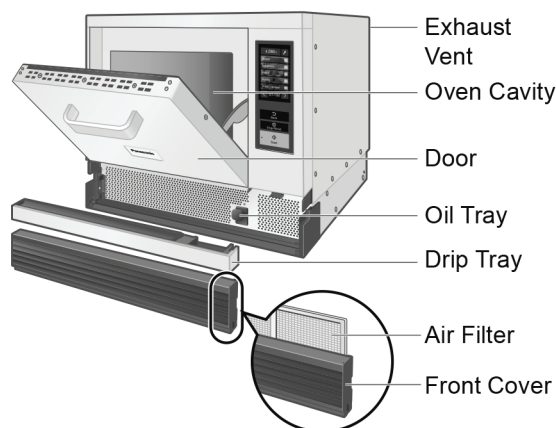
It is essential that you follow these points to get the maximum use from your oven. Microwaves attract moisture and grease: therefore a dirty oven does not cook EFFICIENTLY.

Failure to maintain the oven in a clean condition could lead to deterioration of the surface that could adversely affect the life of the appliance and possibly result in a hazardous situation.

- This oven requires regular maintenance.

⚠ WARNING

- **Pull out the power plug before maintenance.**
If not, this may result in electric shock.
- **Wait for the oven cavity to cool down first before cleaning.**
If not, this may result in burns and injuries.



■ Before Cleaning

- Do not clean this oven with a water jet or steam cleaner.
- Do not pour detergent and leftover food into the gap and punching holes. This will result in a malfunction.
- If the oven becomes damaged in any way, contact the dealer or a service agent before continuing use.
- Do not use thinner, benzene, cleanser, or bleach. There is a danger of damage or deformation.

Clean these parts Every Day.

■ Oven Cavity • Door Inner Side • Door Seal

Wipe with a damp cloth

Thoroughly wipe away water, oil and leftover food stains frequently to prolong the use of the oven. Failure to remove burnt food remains and dust may cause rust.

If the stains are bad, wipe away with a cloth soaked in a neutral kitchen detergent.

- If left in a stained condition, the stain becomes difficult to remove, so that the food scraps burn, and the smell of the food persists.
- Take good care in particular of the area where the main unit and door contact and the surroundings.
- Do not scrape the parts other than the metal part inside the door (door seal area etc.) with a hard scrubber, which may cause damage of the door seal and malfunction of the oven. Be sure to use only a soft scrubber.
- Do not splash detergent directly onto the top and rear surfaces of oven cavity. This will result in a malfunction.

■ Outer Areas

Wipe with a damp cloth

Wipe away oil and food stains immediately.

- Do not use thinner, benzene, abrasive cleanser, bleaching agent, alkaline residential or household synthetic detergent.

If the stains are bad, wipe away with a cloth soaked in a neutral kitchen detergent. Take care not to allow the kitchen detergent to enter the exhaust vent and gaps.

- Outer side of the door • handle area
After wiping with a wet cloth, wipe the areas with soft, dry cloth.

■Cooking Plate • Oven Sheet • Paddle

Wash with a sponge scrubbing brush with (neutral) detergent for use in the kitchen applied to it.

If you are concerned about stains, clean the equipment every time you use it.

- Do not wash the equipment in a dishwasher.

● If you are concerned about bad oil stains or the like

Use alkaline detergent. When using alkaline detergent, use after thoroughly reading the detergent's usage cautions. After performing the maintenance, make sure you wipe the equipment with a damp cloth so no detergent remains.

However, you cannot use this on the inside of the door as the resin parts will deteriorate. If by chance the detergent should get on the resin parts, wipe them with a damp cloth immediately.

Disassemble and clean this part Every Day.

■Drip Tray



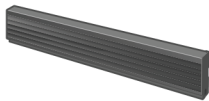
Wipe with a damp cloth

- Refer to "How to remove/attach parts".

Disassemble and clean these parts Once a Week.

- Refer to "How to remove/attach parts".
- Do not wash the equipment in a dishwasher.

■Front Cover

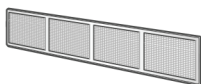


Wipe with a damp cloth

Wipe away oil and food stains immediately.

If the stains are bad, wipe away with a cloth soaked in a neutral kitchen detergent.

■Air Filter



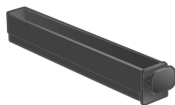
Dry after washing with water

Clean it after every use if the stains are bad.

The filter may lose its effect if the stains are left behind.

The temperature of the internal parts may also rise, resulting in a malfunction.

■Oil Tray



Wipe away oil stains with a soft cloth or paper towel

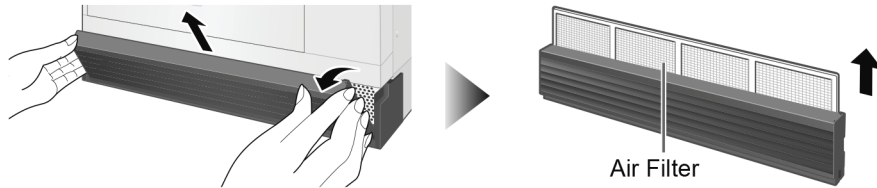
If the stains are bad, clean the area with a soft scrubber dipped in a neutral kitchen detergent and dry.

■ How to remove/attach parts

Front Cover/Air Filter

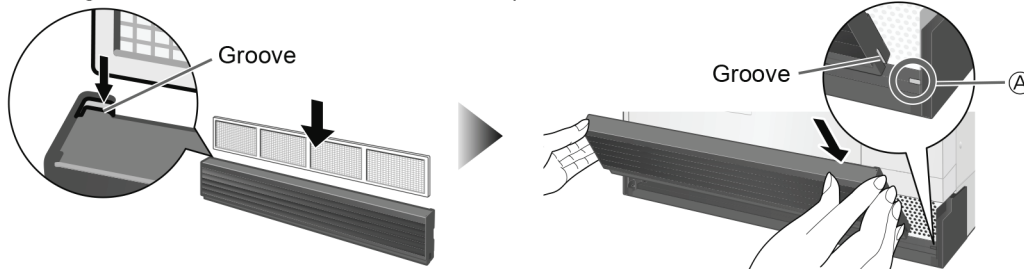
● Removing

After pulling the front cover down toward you, lift it diagonally upward to remove it. Remove the air filter by pulling it out of the front cover.



● Attaching

Insert the air filter into the groove of the front cover, and after firmly inserting it all the way in, install it so that the groove of the front cover is inserted into part ① of the main unit.

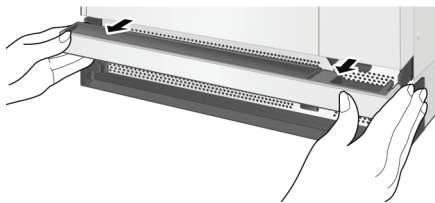


■ If the air filter is not set, the front cover will not close.

Drip Tray

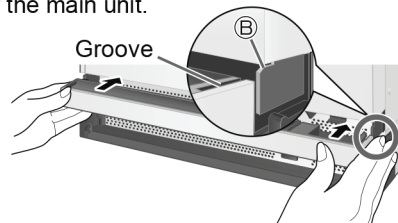
● Removing

Pull the drip tray toward you to remove it.



● Attaching

Install the drip tray so that its groove slots into part ② of the main unit.



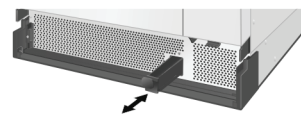
Oil Tray

● Removing

Remove the front cover first, and take out the oil tray.

● Attaching

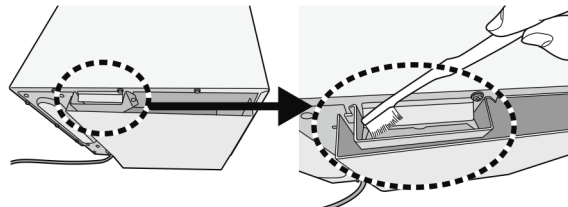
Follow the reverse procedure to install the oil tray.



Clean this part once a month.

■ Exhaust Vent

Clean the rear exhaust vent with a toothbrush and a towel



9.12. Regular Maintenance

When one of the following is displayed, oven maintenance is required. Continuing to use the oven may cause failure.

Please contact the dealer or a service agent promptly.

- Displays until maintenance is done when the power plug is removed and reinserted or when there has been no operation for a while. In addition, the oven will beep 6 times after completing cooking regardless of the settings.

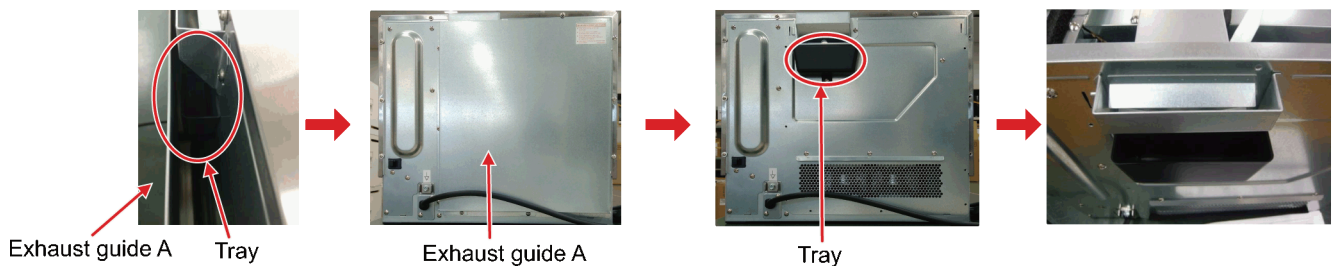
Display	Cause
It is time to perform regular maintenance.	● Displays when the oven has been used for 17,500 hours. Please contact the dealer or a service agent to replace the parts.
It is time to replace the Magnetrons in this oven.	● Displays when the magnetron has been used 120,000 times. Please contact the dealer or a service agent to replace the parts.

- The above time and number of operations is not a guarantee.

■ Check inside of the Tray

When an engineer provide service, please remove the oil inside of the tray.

When you remove the oil, firstly remove the cabinet and exhaust guide A and wipe away the oil with a soft cloth or paper towel from the tray.



9.13. Troubleshooting

Troubleshoot following the next procedure when there is a problem.

Symptom	Cause
It does not operate at all	<ul style="list-style-type: none"> ● Is there a power outage? ● Is the breaker in the power distribution board tripped, or the power supply plug unplugged? ● Is the home screen displayed in the control panel? If the auto display off function is in operation, perform the operation after the home screen is displayed by opening the door.
It does not cook correctly	<ul style="list-style-type: none"> ● Is the cook setting, accessory, or the cook time incorrect? ● Has the oven been sufficiently preheated?
When cooking in the microwave, the food does not warm up	<ul style="list-style-type: none"> ● Are you using items that reflect electromagnetic waves such as a metal container or aluminium foil?
There is a sound	<ul style="list-style-type: none"> ● There will be a sound of cooking starting and the fan will sound.
There is smoke or harsh odour	<ul style="list-style-type: none"> ● A smoke or harsh odour may occur due to burning of the oil for oven cavity protection when the heater is turned on for the first time. Always ventilate and perform a blank baking if it concerns you.
There are sparks during cooking	<ul style="list-style-type: none"> ● A metal container can only be used in the oven when not using microwave power. ● Is a container containing gold or silver particles used? ● Is any metal (aluminium foil, metallic skewer, etc.) touching the wall of the oven cavity? ● Is the oven cavity rusted? A rust may cause sparks.
The buzzer does not beep	<ul style="list-style-type: none"> ● Is the loudness of the beep set to OFF? The buzzer will not beep when it is set to OFF.
There is an odour or smoke	<ul style="list-style-type: none"> ● This is not a malfunction. The catalyst reaction will lower when the cooking temperature is low (approximately 240°C or lower). Also, it may exceed the processing ability when the amount of oil smoke generated during cooking is high.
There is a sour odour	<ul style="list-style-type: none"> ● Depending on the food, a sour odour may occur during cooking, but this is caused by the catalyst reaction and it is not abnormal.
Foods “explode” during heating	<ul style="list-style-type: none"> ● Microwave power level is too high. Reduce power level. ● Skins of foods i.e potatoes, chicken are not pierced. Pierce skins on foods to release pressure build up during heating. NEVER try to boil eggs in shells.

Symptom	Cause
<p>Smoke appears around the door when grilling</p>	<ul style="list-style-type: none"> ● Fat from foods is splashing on to the grill elements and burning. Stop the oven and drain away all excess fat and juices. Watch the food carefully as it grills. Ensure the cavity ceiling and all accessories are cleaned regularly.
<p>The cooking result of a certain memory cooking is different from that of the previous time</p>	<ul style="list-style-type: none"> ● Did the preheat temperature or cooking mode that were set into memory change?
<p>There are drops of water in the oven interior and on the door.</p>	<ul style="list-style-type: none"> ● As it is a tightly sealed design, water drops may appear in the oven interior or on the door due to microwave cooking, etc. Wipe up the water with a dish cloth or similar after the oven interior has cooled down.

9.14. Self Diagnostics Failure Code

If a “U” or “F” Appears In The Display

Start all over again after checking the contents when the following display appears. Display disappears when Stop/Reset pad is pressed.

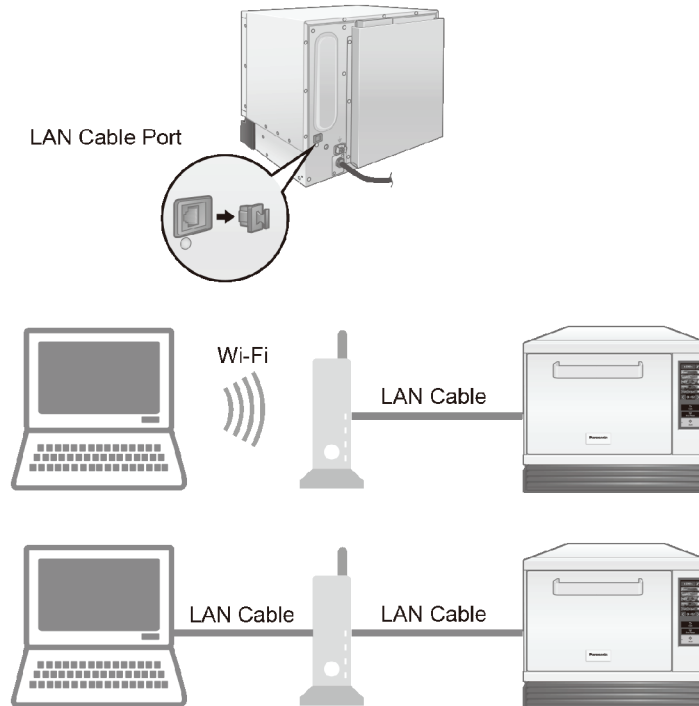
Display	Cause
U40 U41 U43	<p>Displayed when the temperature of the electrical components is high.</p> <ul style="list-style-type: none">● Are you heating the oven without any food in it?● Are you heating a small amount of food or an amount outside that specified? <p>Increase the amount of food and heat it.</p>
U140	<p>Displayed while exchanging data with the USB memory stick, when the USB memory stick has not been inserted, or the main unit has not recognized the USB memory stick.</p> <ul style="list-style-type: none">● Insert the USB memory stick.<ul style="list-style-type: none">• Are you using an unsupported file system (e.g. NTFS)? Use a USB memory stick formatted with FAT32.• Are you connecting to the main unit via a relay/conversion adapter such as a USB hub? Insert the USB memory stick directly in the USB port.
U141	<p>Displayed when the data have not been written to the USB memory stick.</p> <ul style="list-style-type: none">● Check the USB memory stick.<ul style="list-style-type: none">• Is the USB memory stick configured as read-only or password-locked?
U142	<p>Displayed when the data have not been written to the USB memory stick due to insufficient storage space.</p> <ul style="list-style-type: none">● Use a USB memory stick with free storage space.
U143	<p>Displayed when the data have not been read from the USB memory stick.</p> <ul style="list-style-type: none">● Check the USB memory stick.<ul style="list-style-type: none">• Is the USB memory stick password-locked?
U88	<p>The touch screen is touched for a while.</p> <ul style="list-style-type: none">● Has the screen been touched for 25 seconds or more?● Is there any dirt stuck on the screen?
F code e.g. F30 etc.	<p>If the “F” code does not disappear even after pressing the Stop/Reset pad, pull out the plug and then plug it in again after 5 seconds.</p> <p>The oven is faulty if the “F” code still appears. Contact the dealer or a service agent.</p>

● We do not guarantee the behaviour of all commercially available USB memory sticks.

9.15. Setting Support Tool

Connecting to your Personal Computer

Connecting to your personal computer enables you to read into the main unit the menu list and the device settings created with the setting support tool, or send the device's menu list to the setting support tool. When sending or reading in data, connect the device and router with a LAN cable.



■ When Connecting to a Network

- Depending on the surrounding environment, use a heatproof cable for the LAN cable. In addition, be careful to lay it so that it does not come into contact with the hot parts of the main unit (equipment).
- The network connection settings vary depending on the environment used.
- When configuring the IP address and DNS settings for the network connection, refer to the NE-SCV3 Operating Instructions **Network settings** in "9.10. Various Settings".
- If a communication error occurs or a stable connection cannot be achieved, re-configure the settings according to prompts such as the messages displayed by the setting support tool.

Personal Computer Environment

Restrictions

- To guarantee normal operation, use Microsoft Windows 10 or later as the OS for the personal computer. (as of December 2023)

Cautions

- The UI, messages, and so on displayed by the personal computer may not necessarily match this manual depending on your environment (for example, the version of the OS). Check the personal computer instruction manual on how to use the computer and for other information about the computer.

Trademarks and Permissions

- Microsoft Windows is a registered trademark of the US Microsoft Corporation in the US and other countries.
- All other names, company names, product names, etc., stated in these operating instructions are the relevant companies' trademarks or registered trademarks.

Please follow these steps to install the setting support tool:

1. Save "SettingSupportTool_vxx.zip" file to your desktop
2. Extract and create "SettingSupportTool_vxx" folder on desktop
3. Open "xxxxxxx.msi" to start installation

Initial Settings

When the setting support tool is first started up, the initial settings screen is displayed.

Set each initial setting item.

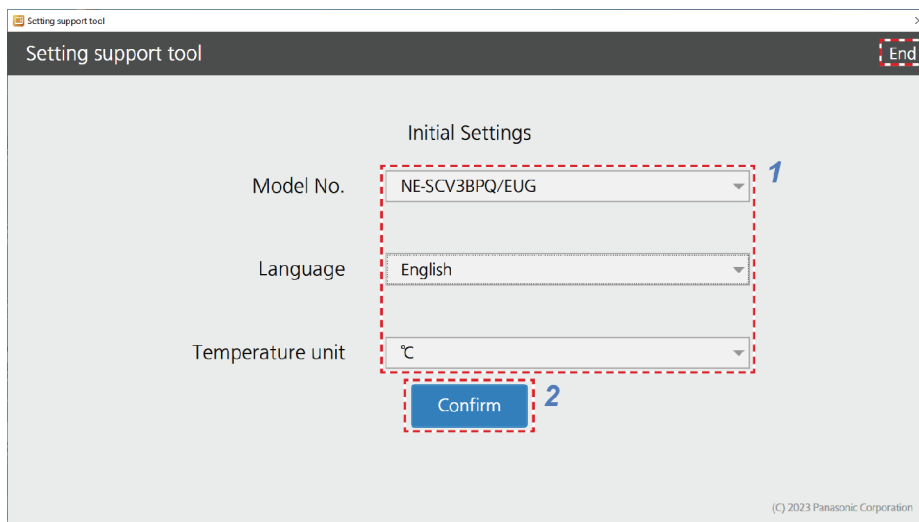
- The initial settings screen is not displayed on a personal computer on which the setting support tool has been installed even once.

1 Set each of the settings

- Model No.: Select the target device. (Select NE-SCV3BPQ/EUG for UK and EU model.)
Language: Select the display language.
Temperature unit: Select the unit of temperature displayed from °C (Celsius) or °F (Fahrenheit).

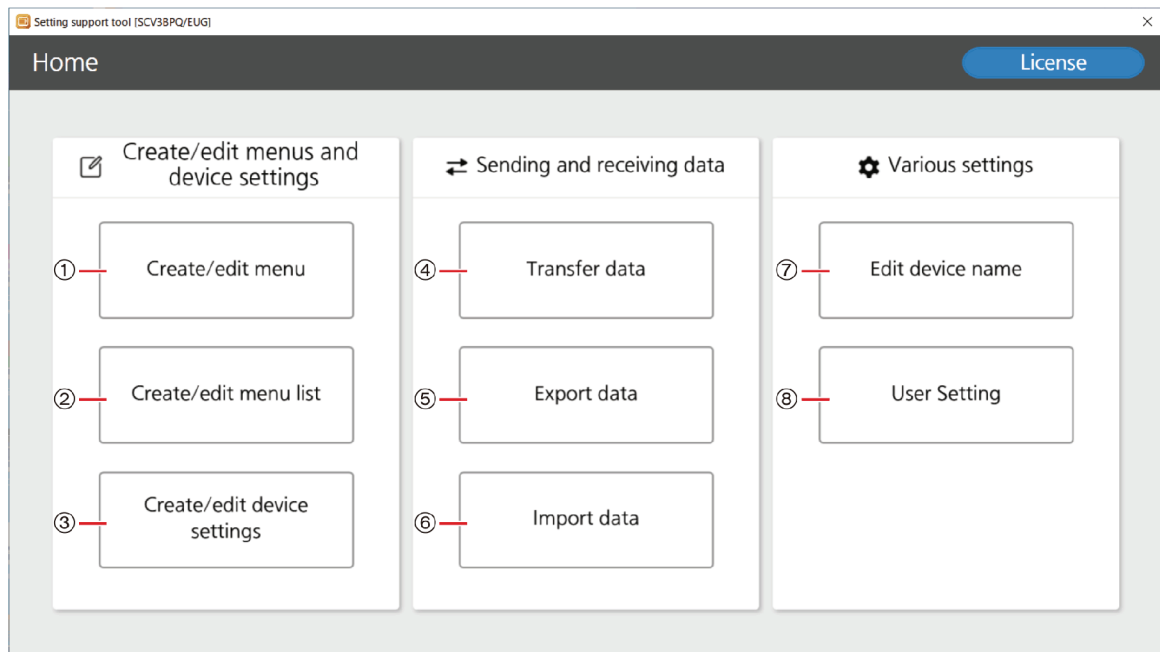
2 Click "Confirm"

The UI advances to the home screen.



End — Closes down "Setting support tool".

Home Screen



- ① **Create or edit a menu.** (pp.64-69)
- ② **Create or edit a menu list.** (pp.70-73)
- ③ **Create or edit a file containing the device settings such as the buzzer sound, the unit of temperature, and the LCD brightness.** (pp.74-75)
- ④ **Transfer a menu list and the device settings file to the device connected to the personal computer.** (p.76)
- ⑤ **Export a menu list and the device settings file data to a USB memory stick.** (pp.77-78)
- ⑥ **Import a menu list from a USB memory stick or from a device connected to the personal computer.** (pp.79-80)
- ⑦ **Edit the device name.** (p.81)
- ⑧ **Change the display language, the unit of temperature, etc., in the setting support tool.** (p.82)

Menu: A cooking programme combining the heating method, time, etc.

Menu List: The menu list consists of several menus and categories.

The menu list can be transferred to each device and can be imported from a device.

The menu list contents are displayed as the device's control screen.

■ The Device's Display Language Setting

To change the device's display language, set the display language in ④ "Transfer data" or ⑤ "Export data", and import to the device a menu list.

The menu list data set in the factory settings, "SCV3_presetmenulist_BPQ_EUG_vxx.recipeset", can be downloaded along with the setting support tool from the following website.

The menu list data set in the factory settings contains the menu and category names in each languages.

https://fs.panasonic.com/download/setting_support_tool_en.html

Creating or Editing a Menu

You can create or edit a menu.

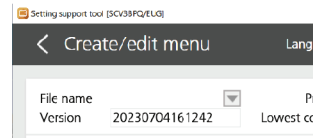
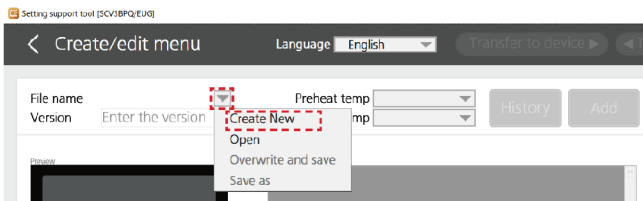
A list of the menus created can be saved as a menu file.

- A menu list can be created using menus from a menu file.
- The menu list data set in the factory settings, “SCV3_presetmenulist_BPQ_EUG_vxx.recipeset”, can be downloaded along with the setting support tool from the following website.
https://fs.panasonic.com/download/setting_support_tool_en.html

1 Click “Create/edit menu” on the home screen

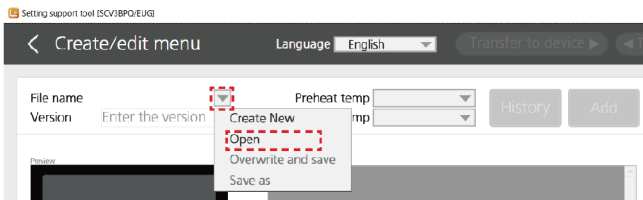
2 Open the menu file

Create a new menu file...Select “Create New” from the drop-down menu

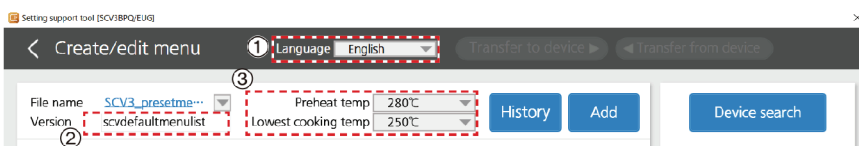


Open an existing menu file or menu list...Select “Open” from the drop-down menu

- Open the data from the location where the menu file or menu list is saved.
- The category of the menu list is not displayed.



3 Set the language, version name, preheat temperature, and the lowest cooking temperature



① Switch the display language of the menu name and category.

To register the menu name in each language, after switching to display in the language, register the display language's menu name in the edit screen in step 4.

② The version name is displayed in the “Menu list version” of the “System setting info.” of the device, and is useful for confirmation when revising or updating the list, and so on.

When a new item is created, the date and time are automatically entered. The name can be changed using up to 32 single-byte alphanumeric symbols.

③ Set the preheat temperature and the lowest cooking temperature.

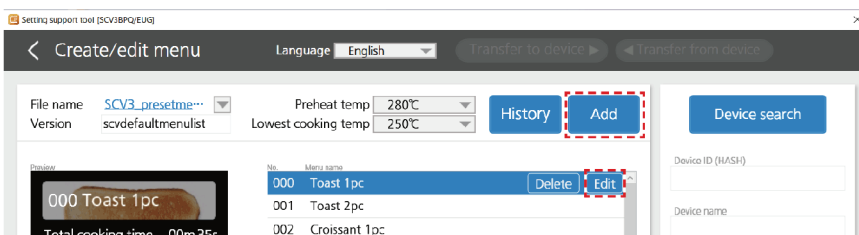
Cooking can be started before the preheating is complete by setting the lowest cooking temperature below the preheating temperature.

If the lowest cooking temperature is set to a low temperature, it may affect the results of the cooking.

4 Display the edit screen

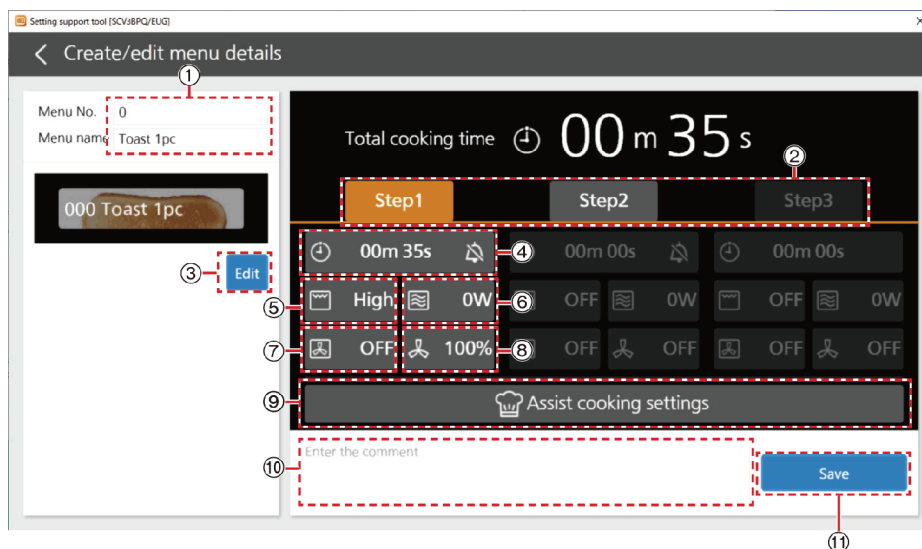
Add a new menu...Click “Add”

Edit an existing menu...Select the menu and click “Edit”.



Creating or Editing a Menu (continued)

5 Create or edit the details of a menu



● Areas with a darkened display cannot be selected.

① **Display the menu number and the menu name.**

It is possible to enter a maximum of 3 digits for the menu number and a maximum of 32 characters for the menu name.

② **Create the settings for each step.**

③ **Edit the colour of the letters, the background image, and so on of the menu.**

(“Editing the Colour of the Letters and the Background of the Menu” on the next page)

④ **Set the cooking time for each step.**

Click and it is possible to set the end of each step to be accompanied with a beep () or with no beep ().

⑤ **Configure the grill heat setting.** (OFF/Low/High)

⑥ **Configure the microwave power setting.** (0 W – 1050 W)

It is not possible to set one-step cooking with the microwave only. (The second step and third step settings can be set for microwave only.)

⑦ **Configure the convection temperature setting.** (OFF/180 °C – 280 °C)

⑧ **Set the fan speed.** (30% – 100%)

⑨ **Set the menu using the assist cooking settings feature.**

When creating a new menu, the assist cooking settings feature is not available. Refer to “Assist Cooking Settings Feature” on the next page.

⑩ **A comment (memo) can be entered about the menu.**

The comment entered is displayed on the creating or editing the menu list screen.

⑪ **Confirm the menu details and return to the previous screen.**

The data are not saved in the personal computer until the save in the drop-down menu in step 6 on the next page is performed.

● If “Save” is clicked, it is recorded in the history.

● **Each step’s maximum microwave output and maximum set time**

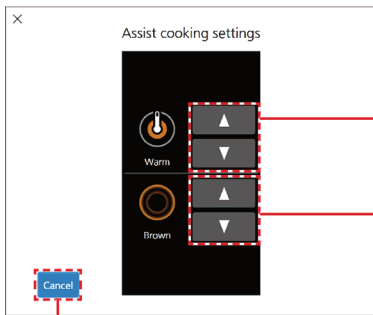
	Microwave		Convection-and-Microwave/ Grill-and-Microwave		Convection/Grill/ Convection-and-Grill
	Maximum microwave power	Maximum cooking time	Maximum microwave power	Maximum cooking time	Maximum cooking time
Step 1	Setting unavailable	Setting unavailable	800 W*	5 min.	30 min.
Step 2	1050 W	5 min.	800 W*	5 min.	
Step 3	600 W	10 min.	600 W	10 min.	

* A maximum of 1050 W when the grill is set to low

Creating or Editing a Menu (continued)

Assist Cooking Settings Feature

The programme is automatically adjusted to achieve the desired temperature and browning of the food.

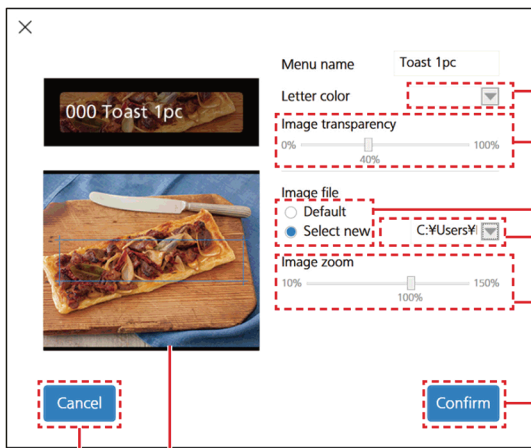


- Adjust the food temperature with ▲/▼
 - Adjust the food temperature based on the microwave output changes.
 - In a menu that does not use the microwave, the food temperature cannot be set.
- Adjust the browning with ▲/▼
 - Adjust the browning based on the fan speed and the grill output changes.

Close the screen without using the assist cooking settings feature.

Editing the Colour of the Letters and the Background of the Menu

- Save the image to be used for the background on the personal computer in advance.



- Adjust the colour of the letters in the menu name displayed on the device home screen
 - The colour of the characters in the menu number cannot be changed.
- Adjust the transparency of the background image
- Select no background image (Default) or with a background image (Select new)
- Select the background image
- Adjust the image zoom factor
- Confirm the settings and return to the previous screen

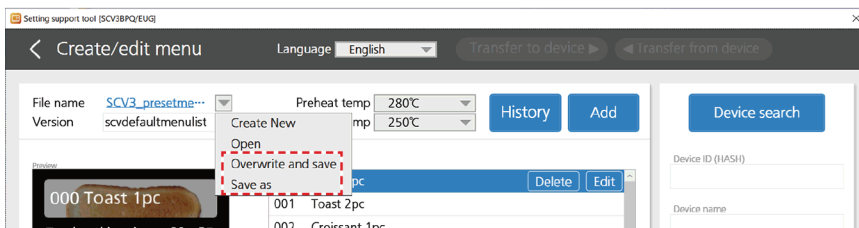
Adjust the position of the image by dragging
Cancel the edit and return to the previous screen

Click "Save" when creating or editing the menu is finished.
Return to the previous screen.

- To edit another menu or add more menus, return to step 4

6 When creating or editing the menu file is finished, select "Overwrite and save" or "Save as" from the drop-down menu and save

- When saving a newly created menu file, select "Save as", add a file name and save.
- The "MenuListFile" folder in the "MicroWaveApp" folder may be displayed as the menu file save destination.
- The menu file is saved with the ".recipset" extension.

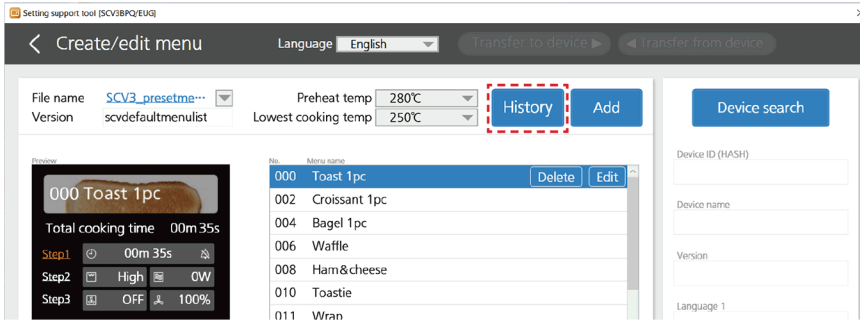


Creating or Editing a Menu (continued)

Editing the Menu File by Using the History

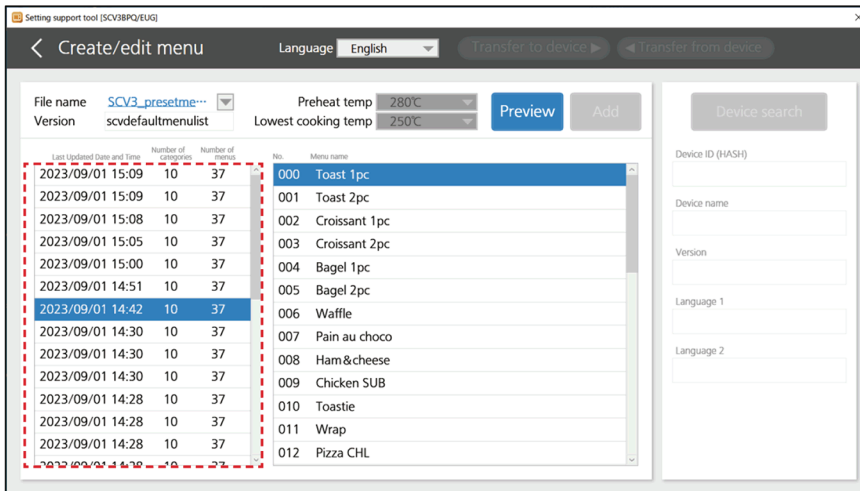
1 Click "History"

- Displays the updated history of the opened menu file.



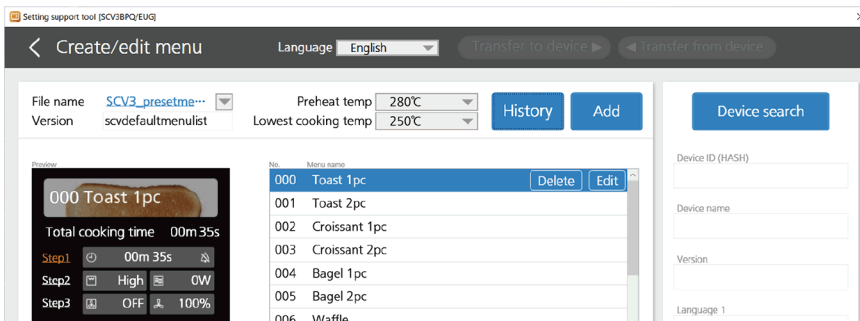
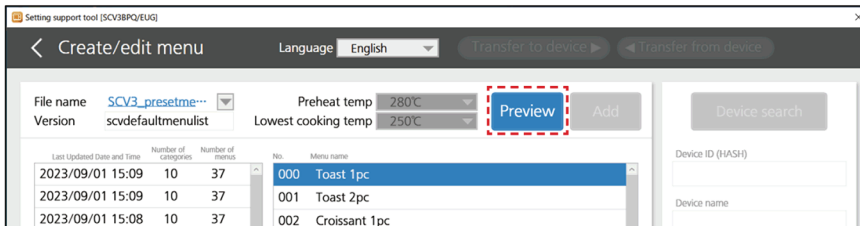
2 Select the history to be edited

- The contents of the programme of the displayed menu file are those saved at the selected time and date.
- A maximum of 30 items are saved to the history. If 30 items are exceeded, the items are deleted in order from the oldest.



3 Click "Preview"

- The menu file with the selected date and time can be edited.



Creating or Editing a Menu (continued)

Passing the menu file between the PC and the device

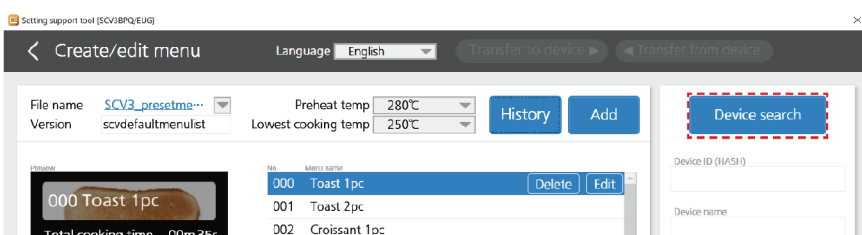
If a menu file is transferred to the device during creation, the cooking programme can be adjusted while cooking is actually taking place in the device.

After adjustment, the menu file can be re-imported into the personal computer.

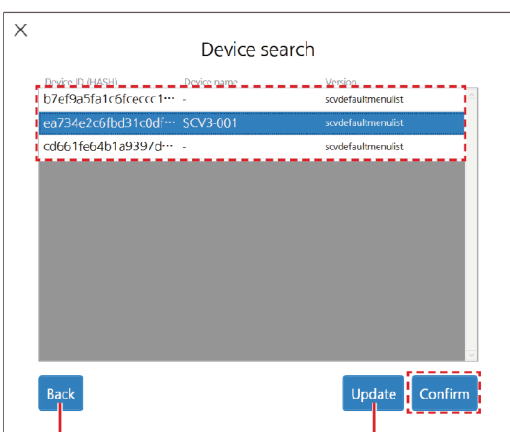
Even before saving the menu file on the personal computer, it can be passed between the computer and the device.

- Please confirm that the personal computer and the device are connected. (“Connecting to your Personal Computer”)
- If the device display is off, the menu file cannot be transferred. Open and close the door to display the home screen.
- If the menu file is transferred during preheating, the preheating is interrupted and the menu file transfer is started.

1 Click “Device search” with the menu file opened



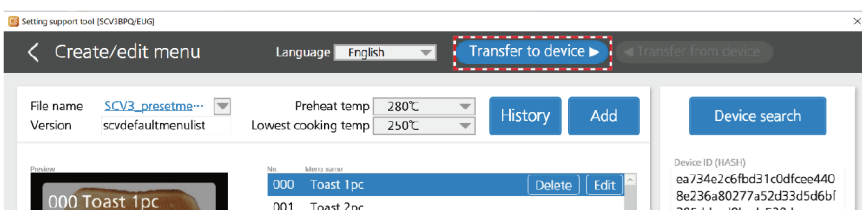
2 Select the device that the menu file is to be transferred to and click “Confirm”



Return to the previous screen

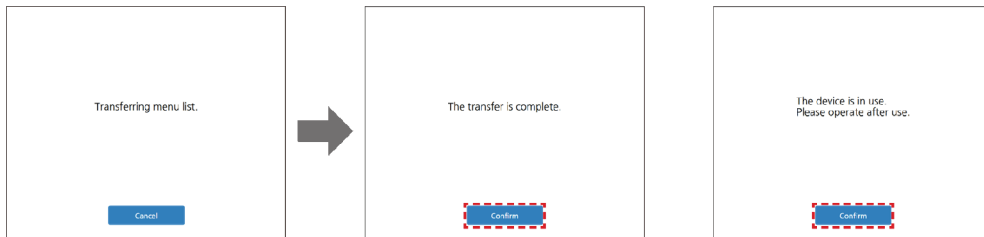
Update the device information

3 Click “Transfer to device ►”



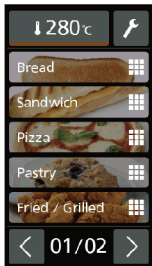
Creating or Editing a Menu (continued)

4 When the transfer is complete, confirm the transfer complete display and then click “Confirm”

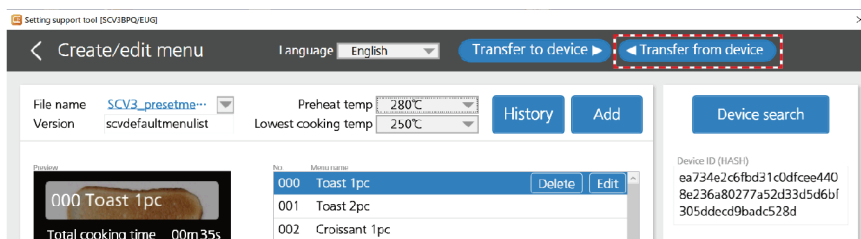


- If the home screen is not displayed on the device or cooking is in progress, the data cannot be imported. Click “Confirm” and after the display is cleared, re-do step 3 after moving the device display to the home screen.

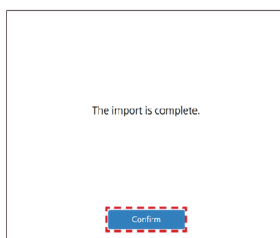
- After re-starting up the device, the menu file is displayed on the device to which it was transferred.



5 After adjusting the menu file on the device, click “◀ Transfer from device”



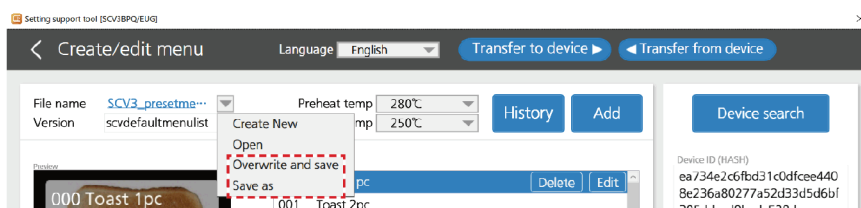
6 When the import is complete, confirm the import complete display and then click “Confirm”



- The menu file that was adjusted on the device is displayed on the computer screen.

7 When creating or editing the menu file is finished, select “Overwrite and save” or “Save as” from the drop-down menu and save

- When saving a newly created menu file, select “Save as”, add a file name and save.
- The “MenuListFile” folder in the “MicroWaveApp” folder may be displayed as the menu file save destination.
- The menu file is saved with the “.recipaset” extension.



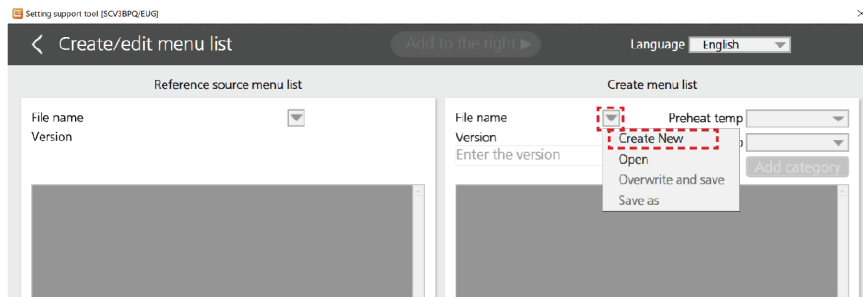
Creating or Editing a Menu List

- The menu list data set in the factory settings, “SCV3_presetmenulist_BPQ_EUG_vxx.recipeset”, can be downloaded along with the setting support tool from the following website.
https://fs.panasonic.com/download/setting_support_tool_en.html

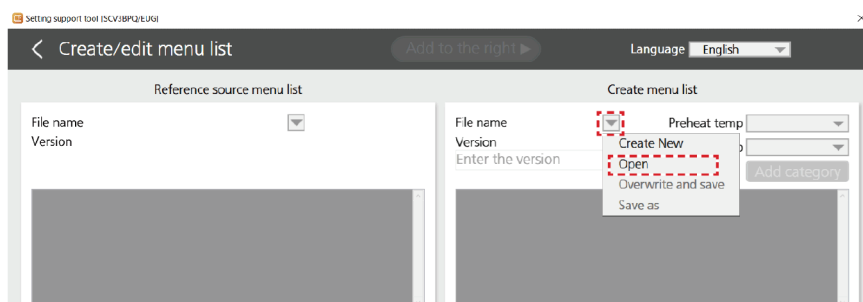
1 Click “Create/edit menu list” on the home screen

2 Open the menu list

Create a new menu list...Select “Create New” from the create menu list drop-down menu

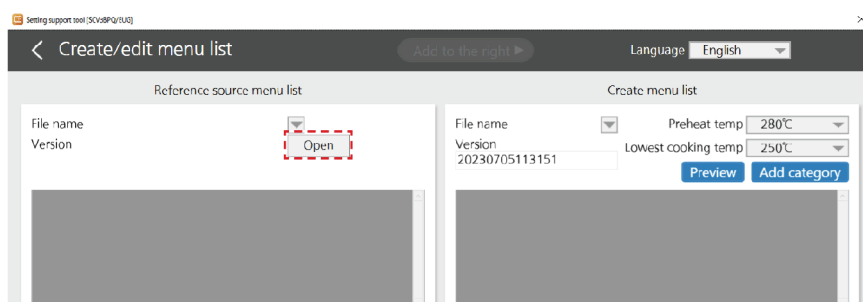


Edit an existing menu list...Select “Open” from the create menu list drop-down menu and open the menu list



3 Open the reference menu list

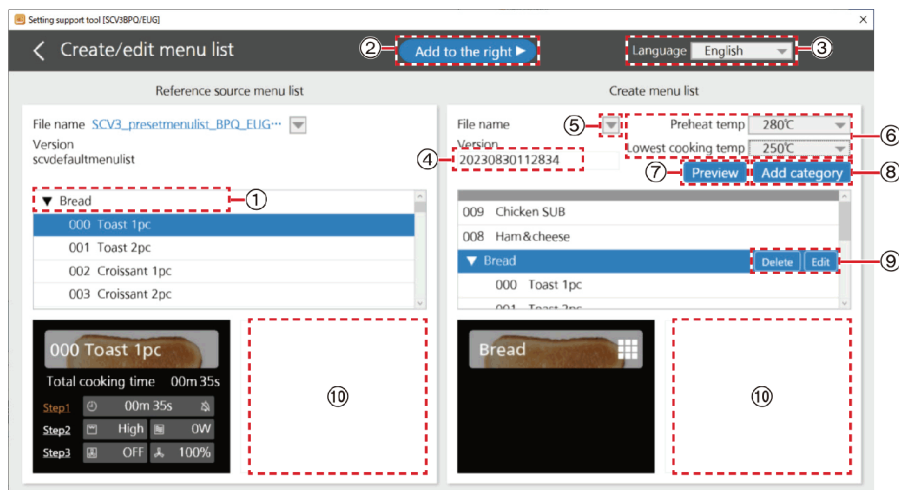
Select “Open” from the reference source menu list drop-down menu, and open the reference menu file or menu list



Creating or Editing a Menu List (continued)

4 Edit the menu list displayed in the create menu list

- Select the menu or the category of the “Reference source menu list”, and drag and drop it, or if you click “Add to the right ►”, it is possible to add the menu to the menu list of the “Create menu list”.
- The order of the menus in the “Create menu list” can be altered using drag and drop.
- If a category in the “Reference source menu list” is added to the create menu list, then all the menus in that category are added.



① Categories

- Menus of the same classification can be collected into a category and saved.
The categories are displayed on the device, and if a category is pressed, the respective menus within the category are displayed.

② Add the menu or category selected in the reference source menu list to the create menu list.

③ Switch the display language of the menu name and category.

④ Display the menu list version.

- If the text box is clicked, then the version can be edited.
Only single-byte alphanumeric characters can be entered.

⑤ The file operation menu (Create New / Open / Overwrite and save / Save as) is displayed.

⑥ Set the preheat temperature and the lowest cooking temperature.

⑦ The menu display on the device can be confirmed.

⑧ The category addition or editing is performed in the selected position.

- Click and select the desired position in which the category is to be added, and if “Add category” is clicked, the category edit screen is displayed.
- To register the category name in each language, after switching to display in the language in ③, register in the category edit screen.

⑨ Delete or edit the selected category.

- If “Edit” is clicked, the category edit screen is displayed.
- If a menu is selected, only “Delete” is displayed.

⑩ The comment on the selected category or menu is displayed.

- The comment can be entered in the edit screen of the category or menu.

Creating or Editing a Menu List (continued)

Category Edit Screen

Adding a Category

Editing a Category

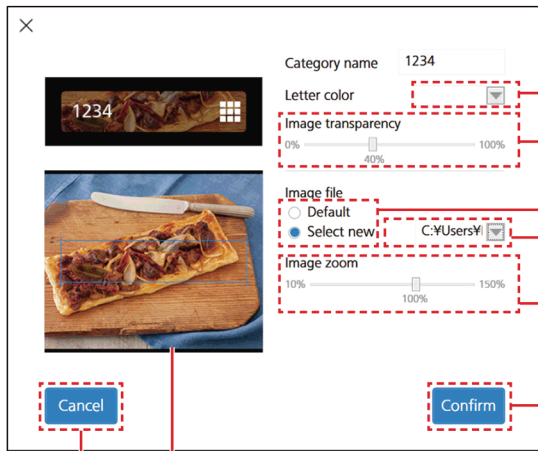
- ① Return to the creating or editing the menu list screen.
 - The edited contents of the category are not saved.
- ② The text box for entering the category name
- ③ Edit the colour of the letters, the background image, and so on of the category. ("Edit the colour of the letters, the background image, and so on of the category")
- ④ Enter a comment about the category.
 - The comment entered is displayed on the creating or editing the menu list screen.
- ⑤ Save the edited contents of the category, and return to the creating or editing the menu list screen.

When the category "1234" is added

Creating or Editing a Menu List (continued)

Edit the colour of the letters, the background image, and so on of the category

- Save the image to be used for the background on the personal computer in advance.



Adjust the colour of the letters of the category name

Adjust the transparency of the background image

Select no background image (Default) or with a background image (Select new)

Select the background image

Adjust the image zoom factor

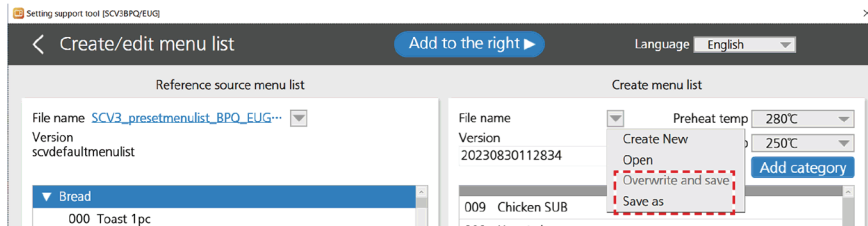
Confirm the settings and return to the previous screen

Adjust the position of the image by dragging

Cancel the edit and return to the previous screen

5 When creating or editing the menu list is finished, select “Overwrite and save” or “Save as” from the create menu list drop-down menu and save

- When saving a newly created menu list, select “Save as”, add a file name and save.



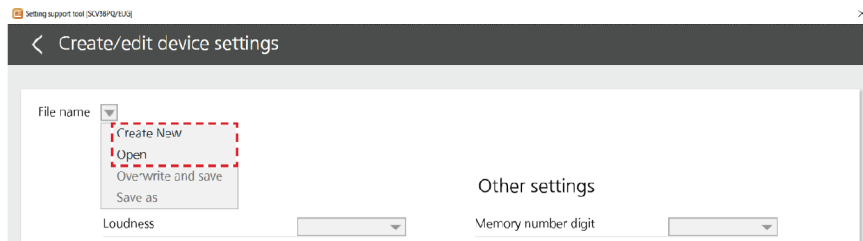
Creating or Editing the Device Settings

A device settings file can be created and the device settings can be saved or edited.

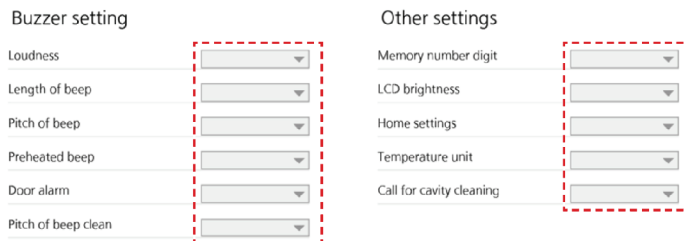
1 Click “Create/edit device settings” on the home screen

2 Open the device settings file

Create a device settings file...Select “Create New” from the drop-down menu
Open an existing device settings file...Select “Open” from the drop-down menu



3 Set each of the settings

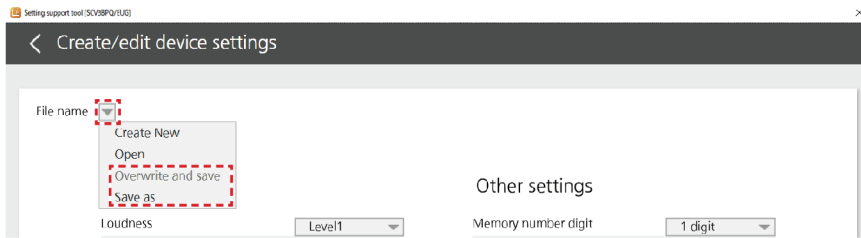


	Setting name	Setting value	Setting contents
Buzzer setting	Loudness	Silent/Level1/Level2/Level3	Set the beep volume.
	Length of beep	Type1/Type2/Type3	Set the length of beep at the end of a programme. Type1: Beeps in three short pulses every 15 seconds Type2: Beeps in longer pulses continuously Type3: Beeps in one long pulse then beeps in three longer pulses every 30 seconds
	Pitch of beep	Low/Normal/High	Set the tone pitch of the beep at the end of a programme.
	Preheated beep	OFF/ON	Set ON or OFF for the preheated beep.
	Door alarm	OFF/ON	Set ON or OFF for the door alarm.
	Pitch of beep clean	Low/Normal/High	Set the tone of the beep when informing you of cleaning.
Other settings	Memory number digit	1 digit/2 digits/3 digits	Set the number of digits in the menu number display.
	LCD brightness	Level1/Level2/Level3	Set the brightness of the LCD screen. Dark (Level1) → Bright (Level3)
	Home settings	Picture list/ Menu number select	Configure the home screen settings.
	Temperature unit	°C/°F	Set the unit of temperature displayed.
	Call for cavity cleaning	OFF/ON	Set to display or not display a notification to perform cleaning during start-up or after cooling the inside of the oven.

Creating or Editing the Device Settings (continued)

4 Select “Overwrite and save” or “Save as” from the drop-down menu and save

- If all the settings are not selected, the device settings file cannot be saved.
- When saving a newly created device settings file, select “Save as”, add a file name and save.
- The “DeviceSettingsFile” folder in the “MicroWaveApp” folder may be displayed as the device settings file save destination.
- The device settings file is saved with the “.systemdata” extension.



Transferring Data

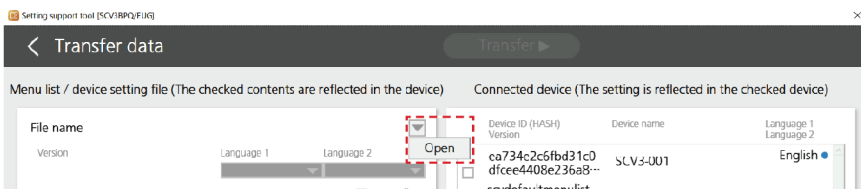
The menu list and device settings file can be transferred to the connected device.

Please confirm that the personal computer and the device are connected. ("Connecting to your Personal Computer")

● If the device display is off, they cannot be transferred. Open and close the door to display the home screen.

1 Click "Transfer data" on the home screen

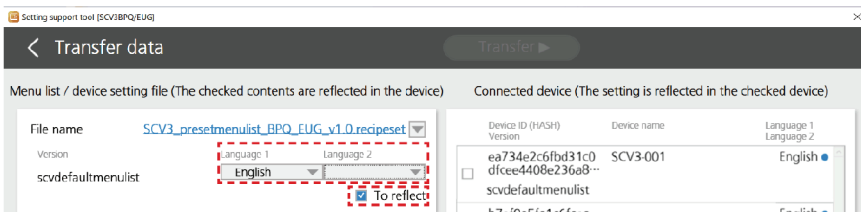
2 Click "Open" from the drop-down menu and select the menu list to be transferred to the device



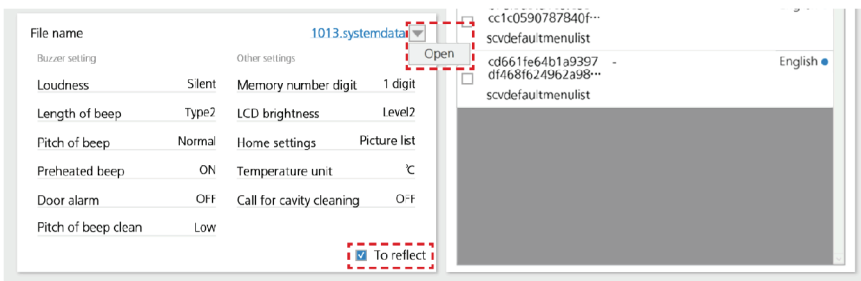
3 Select "Language 1" and "Language 2", and tick "To reflect"

● Two languages can be set as the device's display languages. The language selected for "Language 1" is displayed on the device.

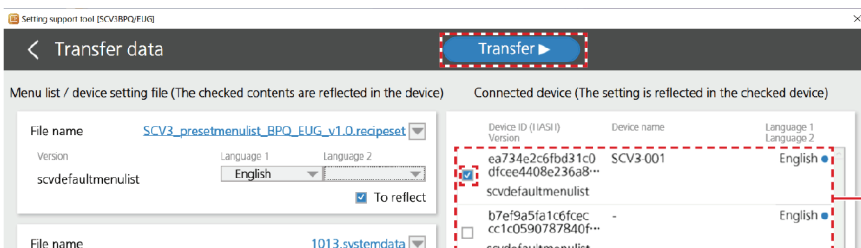
It is possible to switch language to "Language 2" in the device [Language setting].



4 Click "Open" from the drop-down menu, select the device settings file to be transferred to the device, and tick "To reflect"



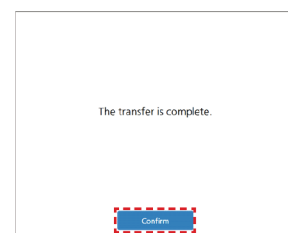
5 Tick the check box of the device to which the menu list and device settings file are to be transferred from among the devices displayed in the "Connected device", and click "Transfer ►"



Double-click to display detailed information about the device

6 When the transfer is complete, confirm the transfer complete display and then click "Confirm"

● After re-starting up the device, the transferred menu list is displayed on the device.



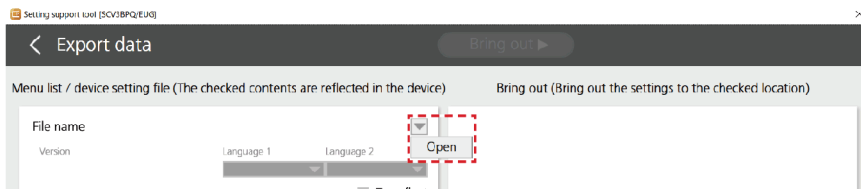
Exporting Data

The menu list and device settings file can be exported to a USB memory stick.

- Connect the USB memory stick to the personal computer being used.

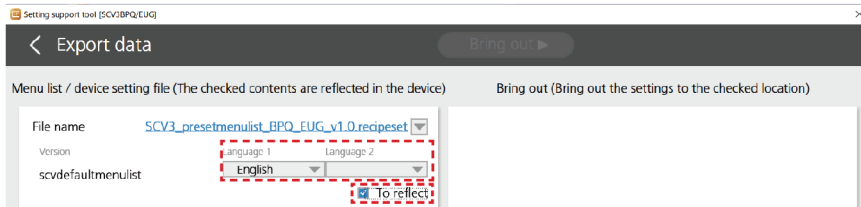
1 Click “Export data” on the home screen

2 Click “Open” from the drop-down menu and select the menu list to be exported

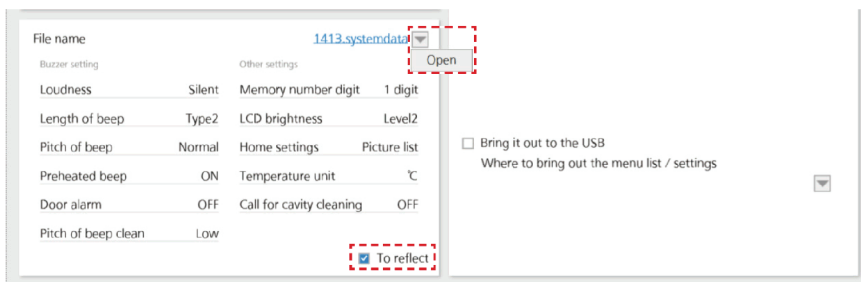


3 Select “Language 1” and “Language 2”, and tick “To reflect”

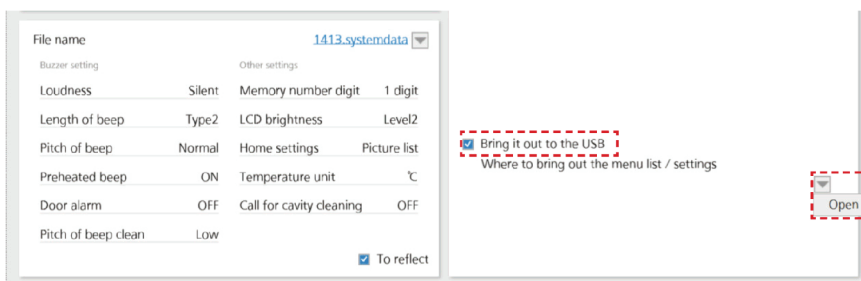
- Two languages can be set as the device’s display languages. The language selected for “Language 1” is displayed on the device.
It is possible to switch language to “Language 2” in the device [Language setting].



4 Click “Open” from the drop-down menu, select the device settings file to be exported, and tick “To reflect”

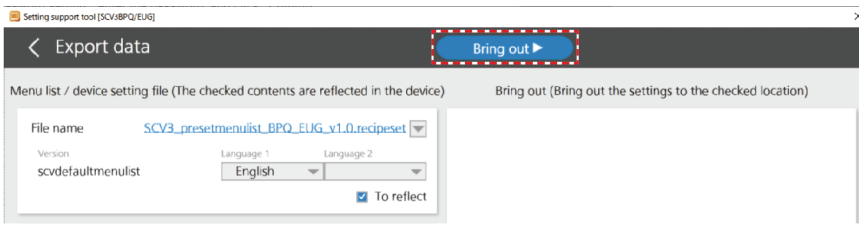


5 Select “Open” from the drop-down menu, select the USB memory stick location, and tick “Bring it out to the USB”



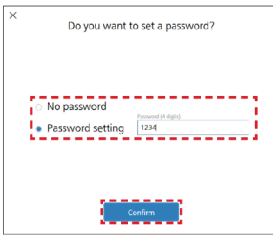
Exporting Data (continued)

6 Click “Bring out ►”

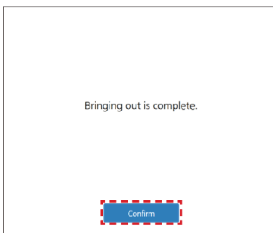


7 Select “Password setting”, enter the password, and click “Confirm”

- If not setting the password, select “No password”.



8 When the export is complete, confirm the export complete display and then click “Confirm”



- The exported data can be restored to the device.
Refer to “9.9. Backup and Restore with the USB Memory Stick” on the p.44.

Importing Data

A menu list can be imported from a USB memory stick or from a connected device.

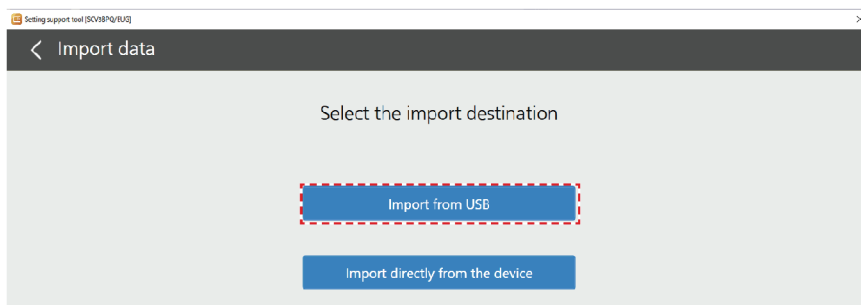
- Please confirm that the personal computer and the device are connected. (“Connecting to your Personal Computer”)
- When importing from the USB memory stick, connect the USB memory stick containing the menu list data to the personal computer.
- The menu names and background images in the menu list and the device settings cannot be imported. The menu names are displayed by number.

Importing from a USB Memory Stick

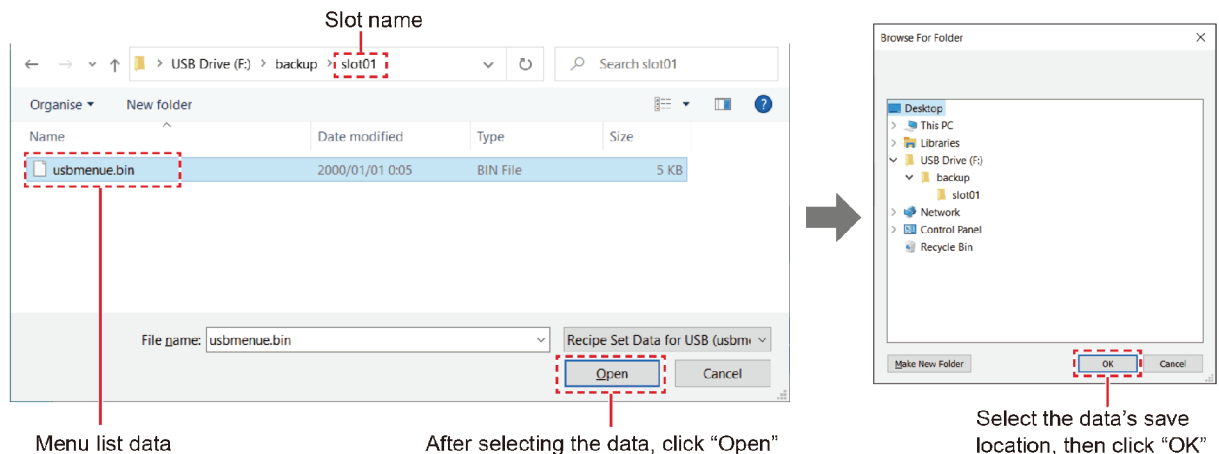
- Backup to the USB memory stick the menu list on the device in advance.
Refer to “9.9. Backup and Restore with the USB Memory Stick” on the p.44.

1 Click “Import data” on the home screen

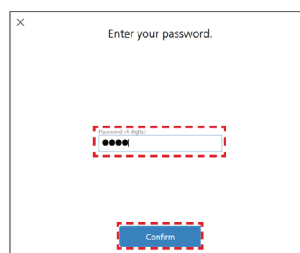
2 Click “Import from USB”, then select the menu list data stored on the USB memory stick and the save destination on the personal computer



- The menu list data backed up from the device is saved in the folder with the saved slot name in the “backup” folder.

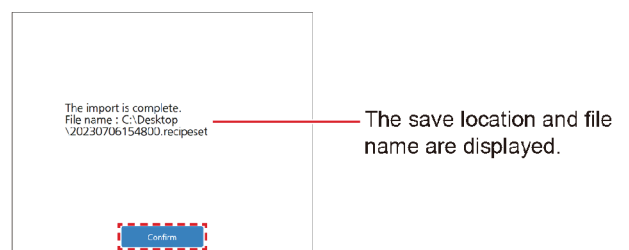


- Enter the password that the file is configured with, then click “Confirm”.



3 Confirm the data's save location and file name, then click “Confirm”

- The imported file's extension is “.recipeset”.
- Importing a menu list from the USB memory stick takes a maximum of around five minutes.

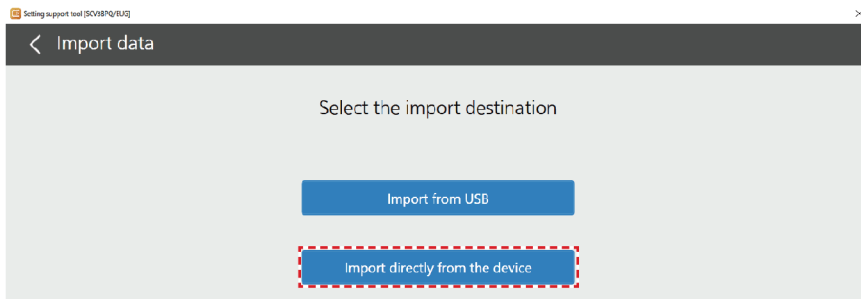


Importing Data (continued)

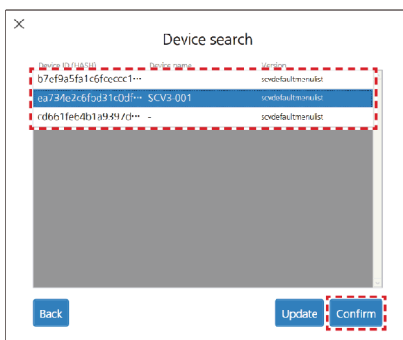
Importing directly from the device

1 Click “Import data” on the home screen

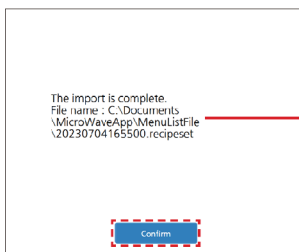
2 Click “Import directly from the device”



● When the device search screen is displayed, select the device from which the menu list is to be imported, and click “Confirm”.

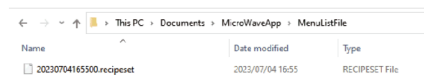


3 Confirm the data's save location and file name, then click “Confirm”

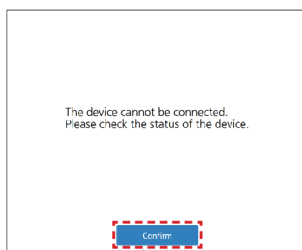


The save location and file name are displayed.

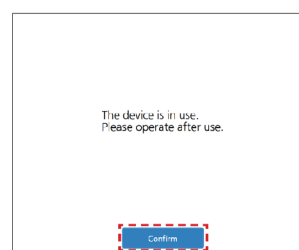
● The imported data are saved with the extension “.recipeset” in the folder “MenuListFile” in the folder “MicroWaveApp”.



● If the device's display off function is operating, it is not possible to import data. Click “Confirm” and after the display is cleared, open the device's door, turn on the power, and re-do from step 1.



● If the home screen is not displayed on the device or cooking is in progress the data cannot be imported. Click “Confirm” and after the display is cleared, re-do from step 1 after moving the device display to the home screen.



Editing the Device Name

When connecting to multiple devices, for example, it is convenient to edit the names of the devices so that they can be easily distinguished.

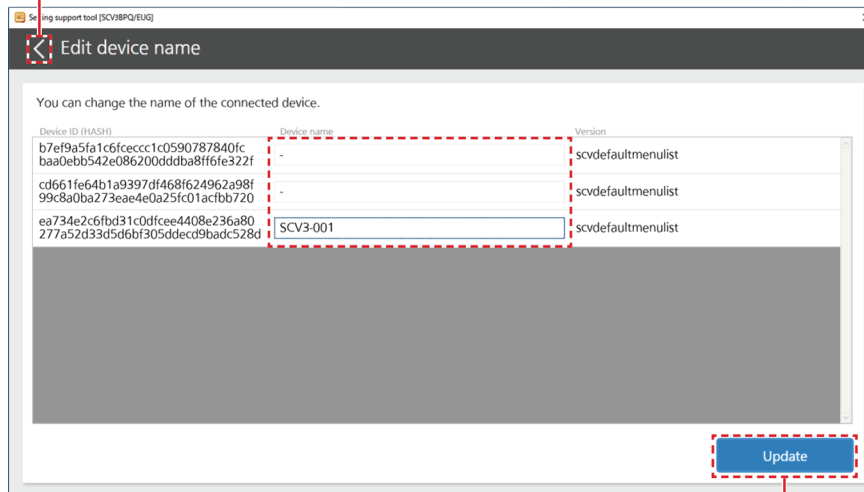
- The edited device name is only displayed on the personal computer on which the edit was performed.

1 Click “Edit device name” on the home screen

- The information about the device connected to the personal computer is displayed.

2 Click the device name area of the device to be changed, and change the device name

Return to the home screen



Update the name of the connected device

User Settings

The language and the temperature notation displayed in the setting support tool can be configured.

1 Click “User Setting” on the home screen

2 Set each of the settings

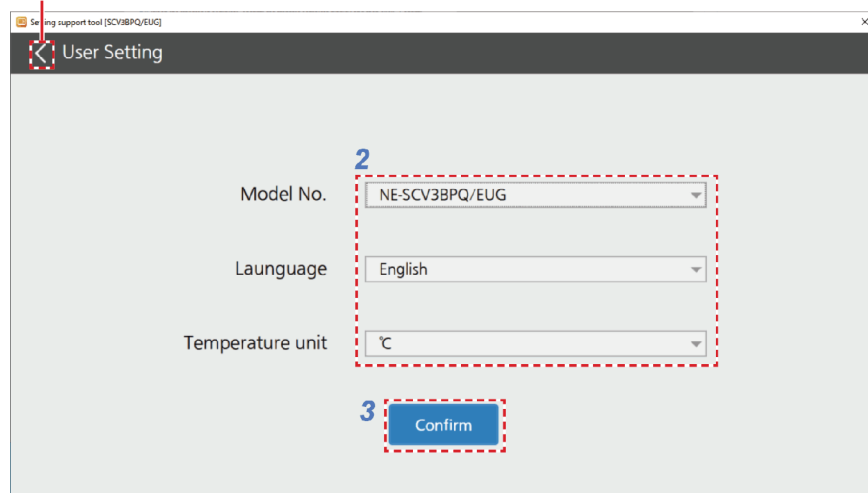
Model No.: Select the target device. (Select NE-SCV3BPQ/EUG for UK and EU model.)

Language: Select the language displayed in the setting support tool.

Temperature unit: The unit of temperature displayed in the setting support tool can be selected from °C (Celsius) or °F (Fahrenheit).

3 Click “Confirm”

Return to the home screen



10 Service Mode

To prevent accidents during repair and ensure your safety after the repair, be sure to read or refer to “Safety Precautions” describing precautions that you must observe when repairing.

CAUTION

1. Check grounding before checking for trouble.
2. Be careful of the high voltage circuit.
3. Discharge high voltage capacitor.
4. When checking the continuity of the switches or the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.

When disconnecting a plastic connector from a terminal, you must hold the plastic connector instead of the lead wire and then disconnect it, otherwise lead wire may be open or the connector cannot be removed.

5. Be sure to ground any static electric charge built up in your body, before handling the circuit parts.

10.1. Failure code function

In the event of a failure, a failure code is displayed to stop the operation.

- If an “F18”, “F19”, “F97”, “F98”, “FE7” or “FE8” code failure occurs for the first time, or if the failure occurs a second time, you are taken back to the initial display screen. If the failure occurs a third time, the corresponding failure code is displayed.
- If an “F98” or “FE8” code failure occurs for the first time, you are taken back to the initial display screen. If the failure occurs a second time, the corresponding failure code is displayed.
- Once displayed, the failure code “F18”, “F19”, “F97”, “F98”, “FE7” or “FE8” is stored in memory, which prevents the oven from operating even if any part is replaced, and it remains displayed until the stored failure code is erased. Erase the stored failure code before conducting an operation test.
- Even if displayed, the failure code “F00” cannot be stored.

10.1.1. Failure code list

F □□: Device failure

DISPLAY		CONDITIONS	RESET	CAUSES / REMEDIES
Left circuit	Right circuit			
F00		• Communication error between the microcomputer and the memory IC.	• Press Stop/Reset pad to return to the initial display screen.	• PC Board
F03		• Upon detection of a voltage of 300 V or higher for 10 seconds. • Displayed only when the failure code is called up.	---	• Check the power source voltage. • PC Board
F08		• Communication error between the display microcomputer and the microcomputer.	---	• PC Board • Display Board • Disconnection or loose connection of CN3 on PC Board or CN9 on Display Board. • Lead wire harness CU
F09		• Power frequency error if 55 Hz or more.	---	• Check the power source frequency. • PC Board
F18	F19	• Error in detection of the secondary current.	• Press Stop/Reset pad to return to the initial display screen.	1. Check the ground connection • Is the ground connection screw on the Inverter PCB securely fixed ? • Is the ground lead wire from the connector on PC Board securely fixed to the chassis ? 2. Check if the lead wire of Inverter PCB and PC Board is securely fixed. 3. Inverter PCB 4. PC Board
F30		• Open- or short-circuit in the oven thermistor.	---	• Oven thermistor • CN41 disconnection or loose connection
F33		• Open- or short-circuit in the sub oven thermistor.	---	• Sub oven thermistor • CN40 disconnection or loose connection

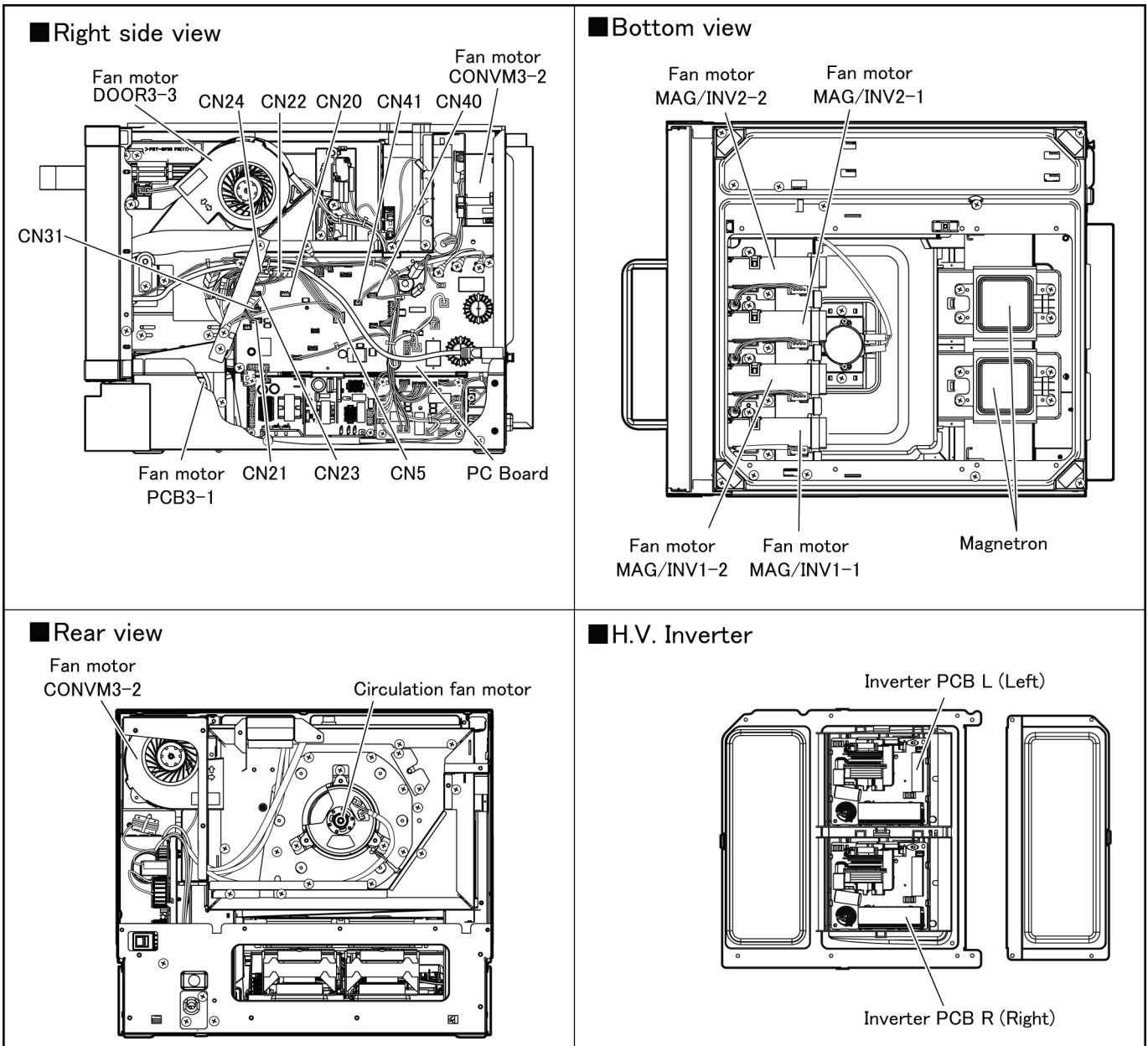
DISPLAY		CONDITIONS	RESET	CAUSES / REMEDIES
Left circuit	Right circuit			
F35		<ul style="list-style-type: none"> Sub oven thermistor failure. 	---	<ul style="list-style-type: none"> Sub oven thermistor Mounting condition of Sub oven thermistor. Check if it is securely mounted. CN40 disconnection or loose connection
F41		<ul style="list-style-type: none"> Abnormal rise in the oven temperature (about 315°C or higher.) (Overheating and ignition of food in the oven) 	<ul style="list-style-type: none"> Unplug the unit. (Turn off the power) Reset when the temperature in the oven drops to about 38°C or less. The buzzer stops when Stop/Reset pad is pressed or when the door is opened. 	<ul style="list-style-type: none"> Clean the inside of the oven, the Circulation fan case U, especially the Catalytic in it. Replace Oven sheet when damages on the edge of the sheet found. Oven thermistor Cooking with alcohol. Remedies: Do not cook with alcohol. Exhaust vent is clogged. Note: Exhaust vent is the perforated metal at the back of oven cavity. Remedies: Remove objects clogging the exhaust vent. PC Board
F44		<ul style="list-style-type: none"> With a continued press of the same pad for 2 minutes. (Short-circuited keyboard) 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> Keyboard
F76		<ul style="list-style-type: none"> Detection locked fan of the circulation fan motor or abnormal rotations. 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> Circulation fan motor or DC voltage (24V) PC Board Power supply PCB Disconnection or loose connection of CN21 on PC Board or the 3P connector at Circulation fan motor. Lead wire harness AU
F77		<ul style="list-style-type: none"> Detection locked fan of the cooling fan motor (If even one of the seven cooling fan motors is locked.) 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> DC fan motor or DC voltage (24V) or PC Board. Power supply PCB Disconnection or loose connection of CN20, CN22, CN23, CN24, CN31 on PC Board or the connector at each DC fan motor. Lead wire harness AU, DU, GU
F90	FE0	<ul style="list-style-type: none"> Abnormal temperature in IGBT of the inverter. 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> Insufficient cooling of H.V. Inverter (Fan Motor / fan motor drive circuit)
F91		<ul style="list-style-type: none"> Display board EEPROM communication error 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> Display Board
F92	FE2	<ul style="list-style-type: none"> Magnetron failure(Detection of A-K short circuit.) 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> Magnetron
F93		<ul style="list-style-type: none"> Display board Flash ROM communication error 	---	<ul style="list-style-type: none"> Display Board
F95	FE5	<ul style="list-style-type: none"> Inverter actuation signal failure (At startup of the inverter, actuation signal has not yet been input.) 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> Inverter connector disconnection Latch adjustment failure
F96	FE6	<ul style="list-style-type: none"> Inverter actuation signal failure. (During non-actuation of the inverter, the actuation signal is Lo.) 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> H.V. Inverter PC Board
F97	FE7	<ul style="list-style-type: none"> Inverter actuation signal failure. (During actuation of the inverter, the actuation signal is Hi) (At startup of the inverter, the actuation signal is Hi.) 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> Absence of any inverter AC input (Door switch / relay circuit/ relay connector / CN702 disconnection, etc.) Magnetron H.V. Inverter
F98	FE8	<ul style="list-style-type: none"> Inverter actuation signal failure. (At startup of the inverter, the actuation signal is Lo) 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> Magnetron (break in heater wire, etc.) H.V. Inverter Disconnection or loose connection of Magnetron's Lead wire.
F99	FE9	<ul style="list-style-type: none"> If actuation (inverter ON) signal is input to the microcomputer at the time of non-actuation of the inverter during operation. 	<ul style="list-style-type: none"> Press Stop/Reset pad to return to the initial display screen. 	<ul style="list-style-type: none"> PC Board
F120		<ul style="list-style-type: none"> Abnormal AU micon. 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> PC Board Sheath heater A / B (Top / Rear heater) Power source noise

DISPLAY		CONDITIONS	RESET	CAUSES / REMEDIES
Left circuit	Right circuit			
F121		<ul style="list-style-type: none"> Abnormal BU micon. 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> PC Board Disconnection or loose connection of CN21 on PC Board or the 3P connector at Circulation fan motor. Sheath heater A / B (Top / Rear heater) Lead wire harness AU Power source noise
F122		<ul style="list-style-type: none"> SSR1 is short-circuited. 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> Wrong wiring connection SSR1 Relay Board Sheath heater A (Top heater) Lead wire harness BU
F123		<ul style="list-style-type: none"> SSR2 is short-circuited. 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> Wrong wiring connection SSR2 Relay Board Sheath heater B (Rear heater) Lead wire harness BU
F124		<ul style="list-style-type: none"> RL1, RL4 (for Top heater) is short-circuited. 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> Relay Board Wrong wiring connection Sheath heater A (Top heater) Lead wire harness AU, BU Power source noise
F125		<ul style="list-style-type: none"> RL2, RL5 (for Rear heater) is short-circuited. 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> Relay Board Wrong wiring connection Sheath heater B (Rear heater) Lead wire harness AU, BU Power source noise
F126		<ul style="list-style-type: none"> SSR1, SSR2, RL1, RL4, RL2, RL5 opens Faulty wiring detection of SSR1 and SSR2 (When repairing) 	<ul style="list-style-type: none"> Re-insert the power plug. 	<ul style="list-style-type: none"> Wrong wiring connection SSR1 / SSR2 Relay Board Lead wire harness AU, BU Sheath heater A / B (Top / Rear heater)
F135		<ul style="list-style-type: none"> Communication error between display board and IoT module 	---	<ul style="list-style-type: none"> Display Board Wired LAN module

10.1.2. Remedy when a Fan motor or H.V. Inverter related failure code is displayed

Location and part name of Fan motor and H.V. inverter

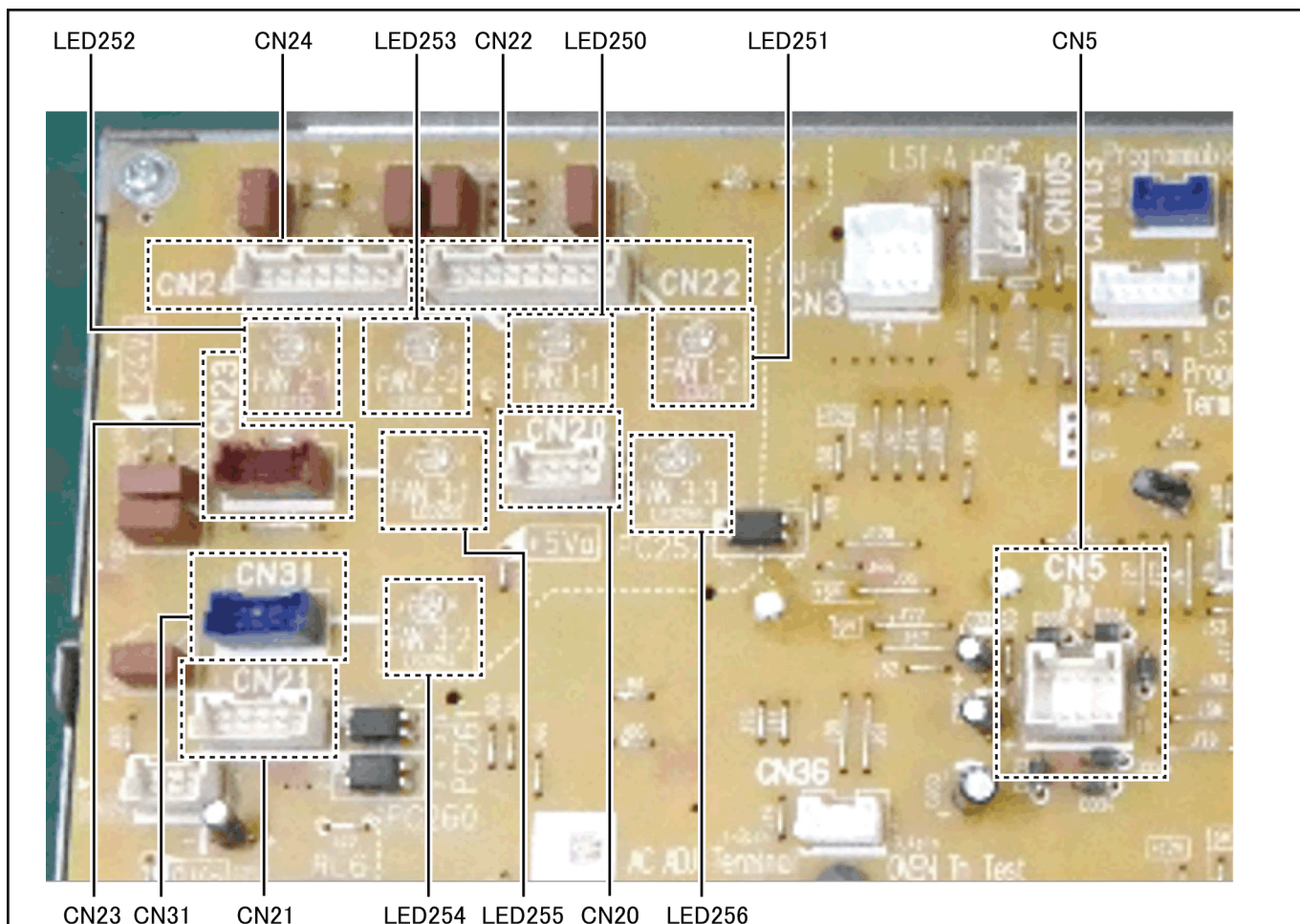
Please refer to the table on the next page for each fan motor identification label.



■ Identification label and connector on PC Board

Failure code	Part name	Identification label	Connector on PC Board	LED sign
F77	Fan motor	MAG/INV1-1	CN22 (pin ① - ④)	FAN1-1 (LED250)
	Fan motor	MAG/INV1-2	CN22 (pin ⑤ - ⑧)	FAN1-2 (LED251)
	Fan motor	MAG/INV2-1	CN24 (pin ① - ④)	FAN2-1 (LED252)
	Fan motor	MAG/INV2-2	CN24 (pin ⑤ - ⑧)	FAN2-2 (LED253)
	Fan motor	PCB3-1	CN23 (Red)	FAN3-1 (LED255)
	Fan motor	CONVM3-2	CN31 (Blue)	FAN3-2 (LED254)
	Fan motor	DOOR3-3	CN20 (pin ① - ④)	FAN3-3 (LED256)
F76	Circulation fan motor	-	CN21	-
F19/FE □	Inverter PCB	R (right)	CN5 (pin ②④⑥⑧⑩)	-
F18/F9 □	Inverter PCB	L (Left)	CN5 (pin ①③⑤⑦⑩)	-

■ Connector on PC Board / LED location



■ When the failure code “F77” is displayed

“F77” is displayed when even one of the seven fan motors is locked.
 Turn on the power with the cabinet removed and check the LED light on the PC Board.
 A fan motor with the corresponding LED-off has failure.
 Please refer to the above table for the corresponding LED.


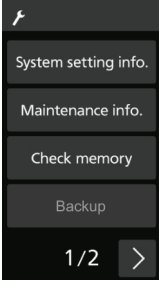
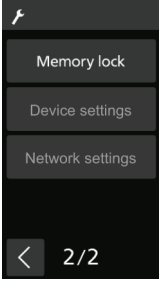
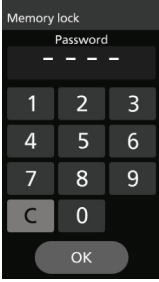
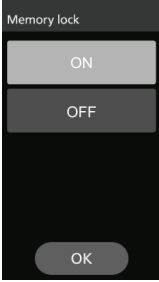
10.2. Procedure for showing the failure code


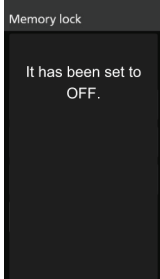
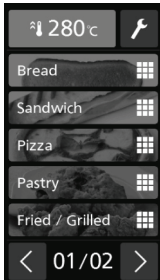
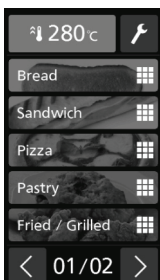
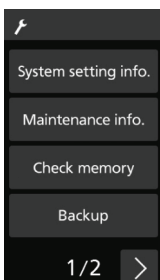
10.2.1. How to check and change the memory lock

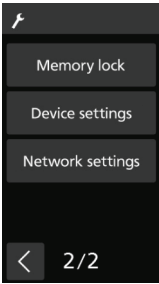
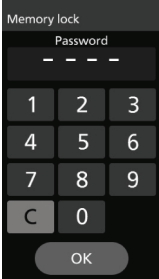
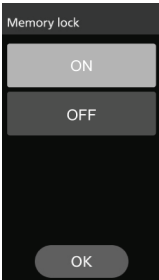
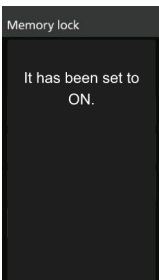

When the memory lock is ON, the failure code (self-diagnosis) display cannot be erased.

Operate the self-diagnosis display while the memory is OFF.

After each operation is completed, return the memory lock to the ON or OFF state before performing the service work.

STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open. Select the service tool key at the upper right corner of the screen. • Buzzer : 1 time		The initial screen is displayed.
2	Tap ">" at the lower right corner of the screen. • Buzzer : 1 time		
3	Select "Memory lock". • Buzzer : 1 time		Password inputting screen is displayed. (STEP 4) * If no password has been set, password setting screen is displayed.
4	Enter a password and tap "OK". • Buzzer : 1 time (After tapping each numeric key or "OK")		Memory lock screen is displayed. (STEP 5) * Make sure to remember the Memory lock status before service work.
5	Check if memory lock is ON or OFF. • If it is ON, proceed to STEP 6. • If it is OFF, proceed to STEP 7.		Memory lock screen is displayed. * Make sure to remember the Memory lock status before service work.

STEP	Operation	LCD Display	Remark
6	Tap "OFF". • Buzzer : 1 time Tap "OK". • Buzzer : 1 time		The OFF message appears. (STEP 7)
7			The OFF message appears.
8	After 3 seconds, it automatically returns to the initial screen.		The memory lock gets to be "OFF" and each operation will be available. The initial screen is displayed.
Following is the procedure to return the memory lock to before the service work.			
9	Select the service tool key at the upper right corner of the screen. • Buzzer : 1 time		The initial screen of the service tool is displayed. * "Memory lock" is Initially disabled.
10	Tap ">" at the lower right corner of the screen. • Buzzer : 1 time		

STEP	Operation	LCD Display	Remark
11	Select "Memory lock". • Buzzer : 1 time		Password inputting screen is displayed. (STEP 12) * If no password has been set, password setting screen is displayed.
12	Enter a password and tap "OK". • Buzzer : 1 time (After tapping each numeric key or "OK")		Memory lock screen is displayed. (STEP 13)
13	Select "ON" or "OFF" that was checked at the STEP 5 before the service work. • Buzzer : 1 time Tap "OK". • Buzzer : 1 time		Memory lock screen is displayed. * Return to the memory lock status checked at STEP 5. * This example is "ON" status at the STEP 5. The ON message appears. (STEP 14)
14			The ON message appears.
15	After 3 seconds, it automatically returns to the initial screen.		The memory lock gets to be "OFF" and each operation will be available. The initial screen is displayed.

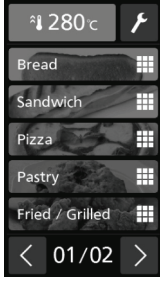
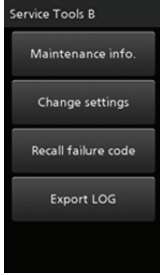
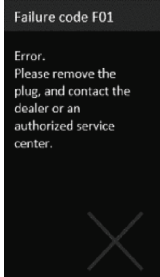
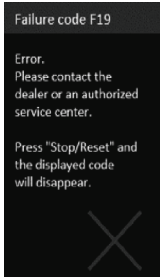
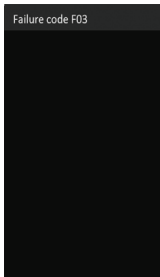
10.2.2. How to call up or erase the memory

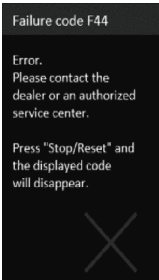
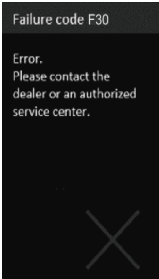
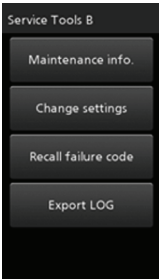

Follow the steps below to call up failure codes.

- If you call up a failure code that is not stored in memory, no failure code appears.
- 5 failure codes can be stored.
- Failure codes are stored in PC board.

(a) "U" failure codes except for "U65" and "U67" are not displayed because they are not memorized.

(b) "F00" is not displayed because that is not memorized.


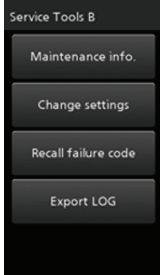

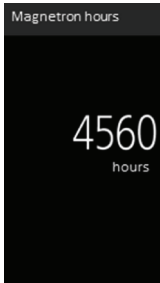
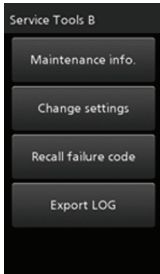
STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Recall failure code". • Buzzer: 1 time		Latest failure code is displayed. (STEP 4)
4	Press "Start" pad. • Buzzer : 1 time		2nd failure code is displayed. (STEP 5)
5	Press "Start" pad. • Buzzer : 1 time		3rd failure code is displayed. (STEP 6).
6	Press "Start" pad. • Buzzer : 1 time		4th failure code is displayed. (STEP 7)


STEP	Operation	LCD Display	Remark
7	Press "Start" pad. • Buzzer : 1 time		5th failure code is displayed. (STEP 8)
8	[In the case of NOT erasing the memorized failure code] Press "Stop/Reset" pad. • Buzzer : 1 time Proceed to STEP 9		The failure code is NOT erased from EEPROM. Back to the display of "Service Tools B". (STEP 9)
	[In the case of erasing the memorized failure code] Press "Stop/Reset" pad for 2 seconds. • Buzzer : 3 times Proceed to STEP 10		The failure code is erased from EEPROM. Back to the display of initial screen display. (STEP 10)
9	Press the "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed. (STEP 10)
10			The initial screen is displayed.

10.3. Procedure for showing the maintenance information

10.3.1. Magnetron Usage Time and Rest

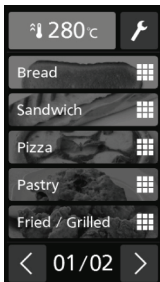
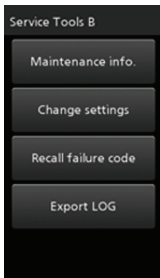


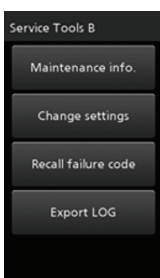
10.3.1.1. Display of Magnetron Usage Time


STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Select "Magnetron hours" • Buzzer : 1 time		The screen of "Magnetron hours" is displayed. (STEP 5)
5			After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 6)
6	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed. (STEP 7)

STEP	Operation	LCD Display	Remark
7		 <p>The LCD display shows a temperature of 280°C at the top right. Below it is a list of food items: Bread, Sandwich, Pizza, Pastry, and Fried / Grilled. At the bottom, there is a page indicator showing 01/02 with left and right navigation arrows.</p>	The initial screen is displayed.

10.3.2. Display of Number of Times Magnetron has been used and Reset

10.3.2.1. Display of Number of Times Magnetron has been used


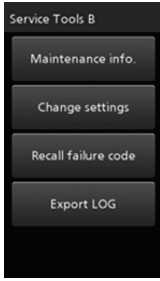


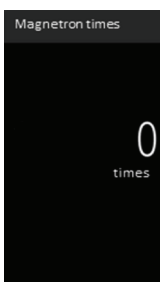
STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Select "Magnetron times" • Buzzer : 1 time		The screen of "Magnetron times" is displayed. (STEP 5)
5			Number of times magnetron has been used is displayed. * Number of times of use is rounded down if it is less than 100 times. After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 6)
6	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed. (STEP 7)

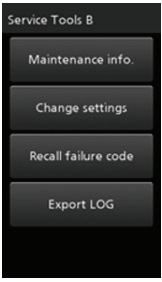
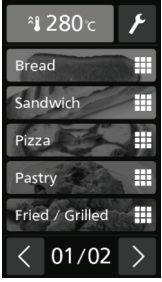
STEP	Operation	LCD Display	Remark
7			The Initial screen is displayed.

10.3.2.2. Reset of Number of Times Magnetron has been used


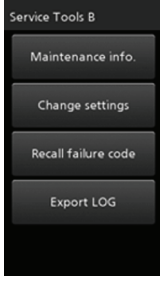
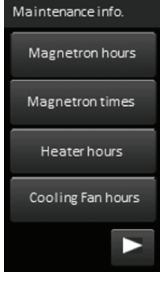
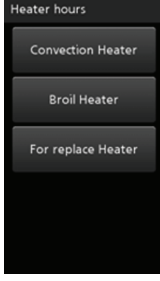
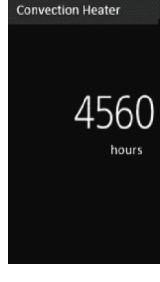
If error code such as “F92”, “FE2”, “H97”, “FE7”, “F98”, “FE8” is displayed and the magnetron is replaced, it is necessary to reset the number of times magnetron has been used.

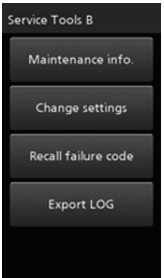

Follow the procedure below to reset the number of times the magnetron has been used.

STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Select "Magnetron times" • Buzzer : 1 time		The screen of "Magnetron times" is displayed. (STEP 5)
5	Press "Stop/Reset" pad while "Magnetron times" is displayed for 3 seconds.		Number of times magnetron has been used is displayed. * Number of times of use is rounded down if it is less than 100 times. After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 6)
6			Reset of number of times magnetron has been used is completed. After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 7)


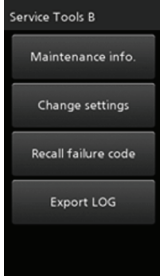

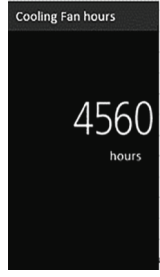
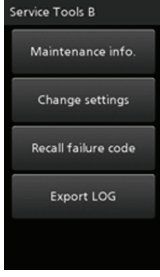
STEP	Operation	LCD Display	Remark
7	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed. (STEP 8)
8			The initial screen is displayed.


10.3.3. Display of Heater Hours (Heater energization Time)

STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Select "Heater hours" • Buzzer : 1 time		The screen of "Heater hours" is displayed. (STEP 5)
5	Select "Convection Heater", "Broil Heater" or "For replace Heater" which you want to check. • Buzzer : 1 time		When "Convection Heater" is selected, the screen of "Convection Heater" is displayed. (STEP 6)
6			Example: When "Convection Heater" is selected. After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 7)


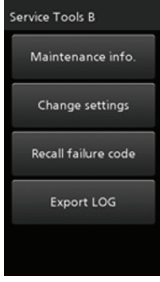
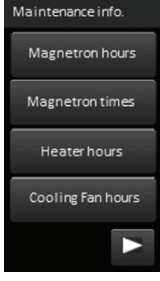
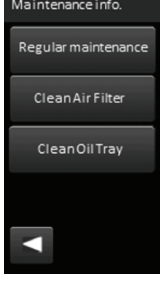
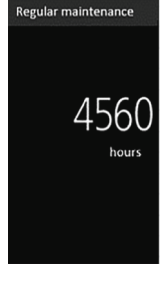
STEP	Operation	LCD Display	Remark
7	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed. (STEP 8)
8			The initial screen is displayed.

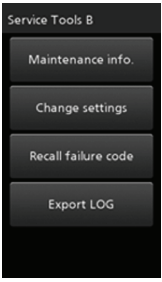

10.3.4. Display of Cooling Fan Hours (Fan operation time)

STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Select "Cooling Fan hours" • Buzzer : 1 time		The screen of "Cooling fan hours" is displayed. (STEP 5)
5			After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 6)
6	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed. (STEP 7)

STEP	Operation	LCD Display	Remark
7			The initial screen is displayed.


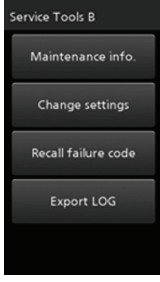

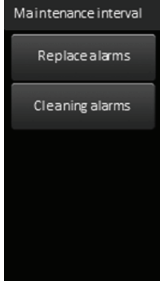
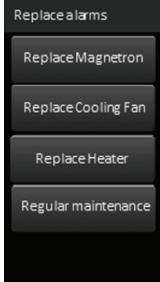
10.3.5. Display of Regular Maintenance

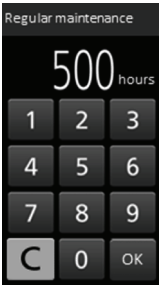
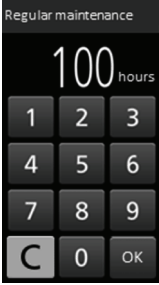
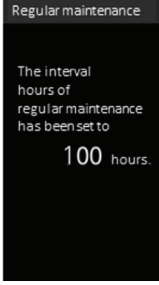

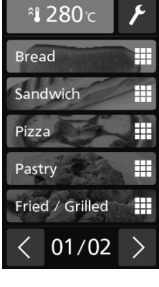
STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Tap "▶" at the right key of the screen. • Buzzer : 1 time		
5	Select "Regular maintenance" • Buzzer : 1 time		The screen of "Regular maintenance" is displayed. (STEP 6)
6			After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 7)

STEP	Operation	LCD Display	Remark
7	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed. (STEP 8)
8			The initial screen is displayed.


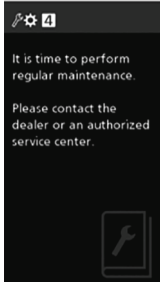
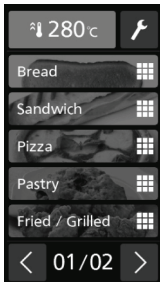
10.3.6. How to Operate the Regular Maintenance Display

10.3.6.1. Setting of regular maintenance notification time


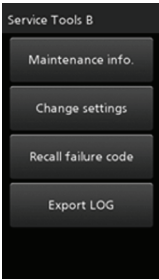

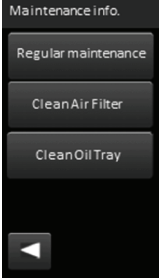
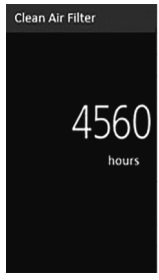
STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer: 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Change settings" • Buzzer : 1 time		The screen of "Change settings" is displayed. (STEP 4)
4	Select "Maintenance interval" • Buzzer : 1 time		The screen of "Maintenance interval" is displayed. (STEP 5)
5	Select "Replace alarms" • Buzzer : 1 time		The screen of "Replace alarms" is displayed. (STEP 6)
6	Select "Regular maintenance" • Buzzer : 1 time		Current set time of regular maintenance is displayed. (STEP 7)

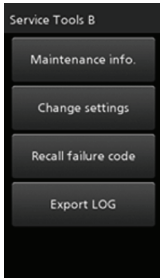

STEP	Operation	LCD Display	Remark
7			Current set time of regular maintenance is displayed.
8	Input the regular maintenance time. • Buzzer: 1 time (After tapping each numeric key or "OK")		<ul style="list-style-type: none"> • Every time you press the number key, it can be set in hourly units that shift from the lower digit to the upper digit. • Maximum set time is 65535 hours. • When "C" is tapped, the display value is cleared to 0.
9			<p>A message appears. Sample: 100 hours setting</p> <p>After 3 seconds, it automatically returns to the screen of "Service Tools B" (STEP 10)</p>
10	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The Initial screen is displayed. (STEP 11)
11			The initial screen is displayed.

10.3.6.2. How to Reset Operating Time Count


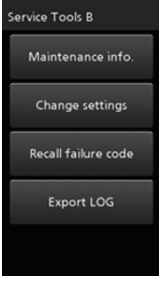

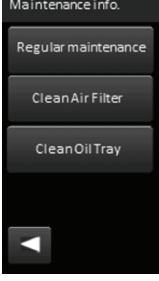
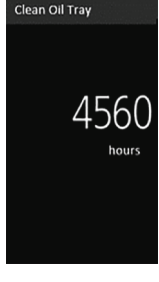
STEP	Operation	LCD Display	Remark
1	Close the door and keep the door close. • Do not operate for 5 minutes.		The initial screen is displayed. • When the regular maintenance time has not been reached, the initial screen of the display automatically turns off.
2	(When the maintenance notification is displayed) [Reset Operating Time Count] Press "Start " and "Back" pads for 2 seconds.		(Example) Regular maintenance notification • When the maintenance notification is displayed, oven maintenance is required. (See "9.7. Regular Maintenance") • Magnetron usage time and number of times magnetron has been used cannot be reset.
3	Keep pressing "Stop/Reset" pad for 2 seconds. • Buzzer : 2 times		The initial screen is displayed.

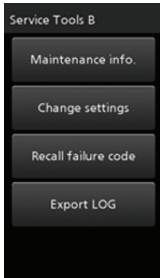

10.3.7. Display of Clean Air Filter (Air filter cleaning notification)

STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Tap "▶" at the right key of the screen. • Buzzer : 1 time		
5	Select "Clean Air Filter" • Buzzer : 1 time		The screen of "Clean Air Filter" is displayed. (STEP 6)
6			After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 7)

STEP	Operation	LCD Display	Remark
7	Keep pressing "Stop/Reset" pad for 2 seconds. <ul style="list-style-type: none"> • Buzzer : 2 times 		The initial screen is displayed. (STEP 8)
8			The initial screen is displayed.

10.3.8. Display of Clean Oil Tray (Tray cleaning notification)

STEP	Operation	LCD Display	Remark
1	Open the door and keep the door open.		The initial screen is displayed.
2	Press "Start" pad for 2 seconds. • Buzzer : 1 time Press "Stop/Reset" pad 3 times. • Buzzer : 1 time		The Initial screen of Service Tools B is displayed. (STEP 3)
3	Select "Maintenance info." • Buzzer : 1 time		The screen of "Maintenance info." is displayed. (STEP 4)
4	Tap "▶" at the right key of the screen. • Buzzer : 1 time		
5	Select "Clean Oil Tray" • Buzzer : 1 time		The screen of "Clean Oil Tray" is displayed. (STEP 6)
6	Select "Clear Air Filter" • Buzzer : 1 time		After 3 seconds, it automatically returns to the screen of "Service Tools B". (STEP 7)

STEP	Operation	LCD Display	Remark
7	Keep pressing "Stop/Reset" pad for 2 seconds. <ul style="list-style-type: none"> • Buzzer : 2 times 	 <p>The LCD display shows a menu titled "Service Tools: B" with the following options: "Maintenance info.", "Change settings", "Recall failure code", and "Export LOG".</p>	The initial screen is displayed. (STEP 8)
8		 <p>The LCD display shows a temperature of "280 c" with a wrench icon. Below it is a menu with options: "Bread", "Sandwich", "Pizza", "Pastry", and "Fried / Grilled". At the bottom, it shows "< 01 / 02 >".</p>	The initial screen is displayed.

11 Troubleshooting Guide

CAUTION

About lead free solder (PbF)

Distinction of PbF PCB :

PCB (manufactured) using lead free solder will have a PbF stamp on the PCB.

Caution

Pb free solder has a higher melting point than standard solder; Typically the melting point is 50 - 70°F (30 - 40°C) higher.

Please use a high temperature solder iron and set it to 700 ±20°F (370 ±10°C).

Pb free solder will tend to splash when heated too high (about 1100°F / 600°C).

11.1. Precautions when repairing

To prevent accidents during repair and ensure your safety after the repair, be sure to read or refer to "Safety Precautions" describing precautions that you must observe when repairing.

11.2. Before repair

Unlike many other appliances, the microwave oven is high-voltage, high-current equipment. Though it is free from danger in ordinary use, extreme care should be taken during repair.

CAUTION

Servicemen should remove their watches whenever working close to or replacing the magnetron.

11.2.1. Removal of Oil Tray

If you vertically flip the oven with Oil Tray attached, the oil in Oil Tray will leak into the oven.

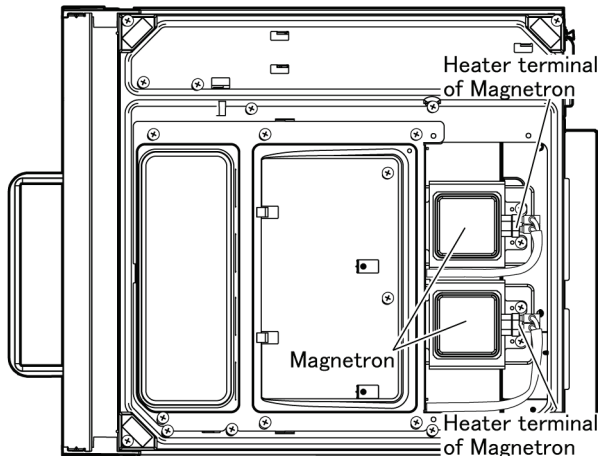
Remove Oil Tray in advance.

(See 9.11. "Care of your Oven")

11.2.2. High voltage capacitor discharging

If you have to inspect a part of the oven being energized, be sure to unplug Power Supply Plug to discharge the high voltage capacitor of H.V. Inverter.

- How to discharge the capacitor: Use a tool such as needle-nose plier to get the heater terminal of Magnetron shorted with the oven.



WARNING

There is high-voltage present, with high-current capabilities in the circuits of the high voltage winding and filament winding of the high voltage transformer. It is extremely dangerous to work on or near these circuits with oven energized.

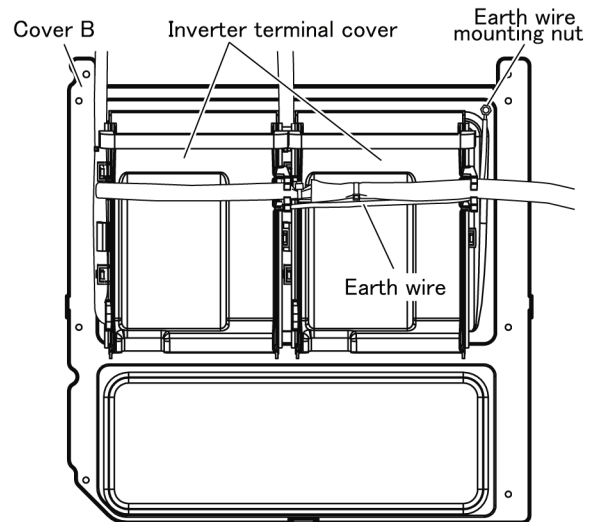
DO NOT measure the voltage in the high voltage circuit including filament voltage of magnetron.

WARNING

Never touch any circuit wiring with your hand nor with an insulated tool during operation.

11.2.3. Cover B grounding

Make sure that the earth wire is properly secured to Cover B. Otherwise, an electric shock may occur.



11.3. Checking of energization after repair

After repair, follow the steps below to perform an energization check.

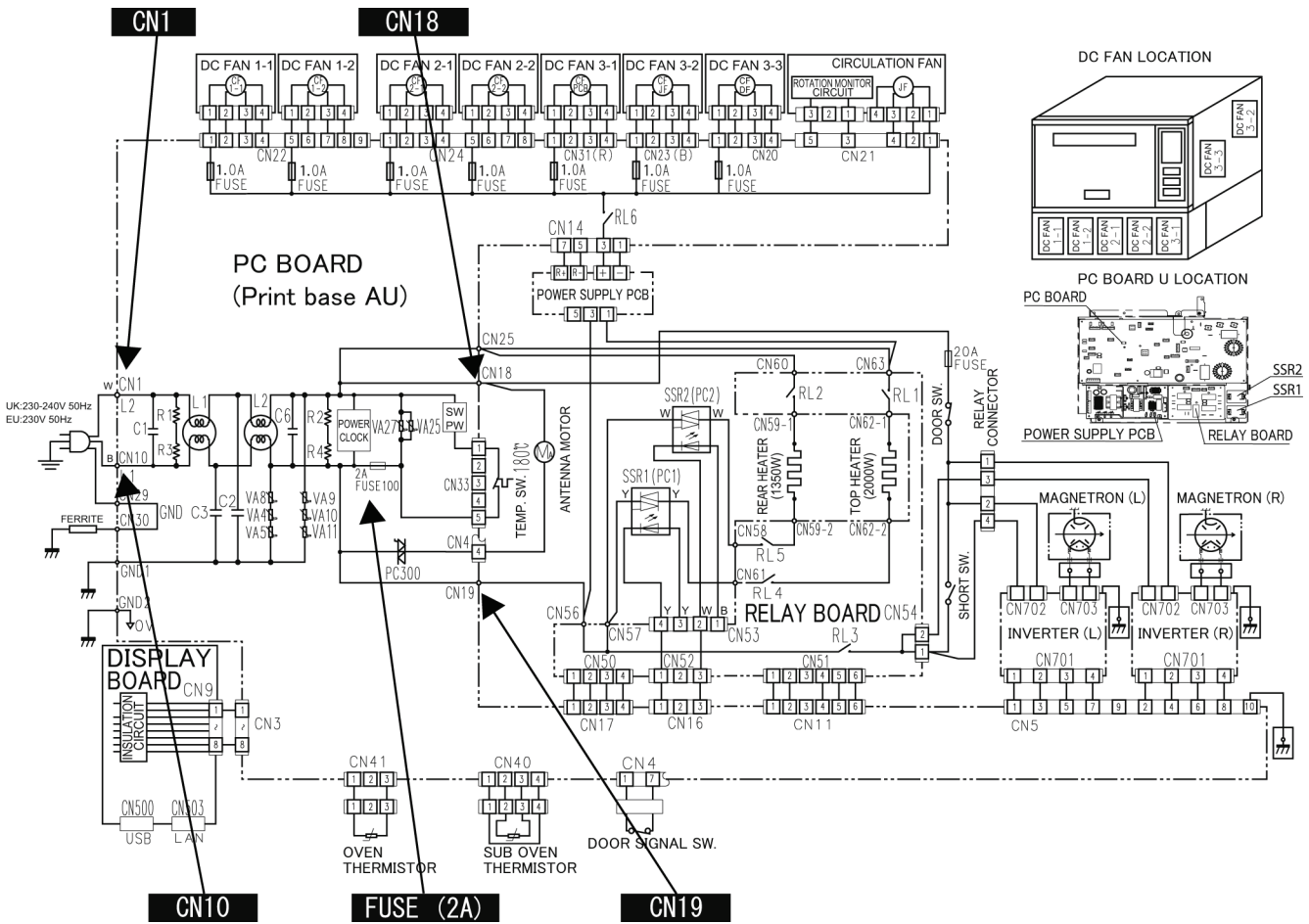
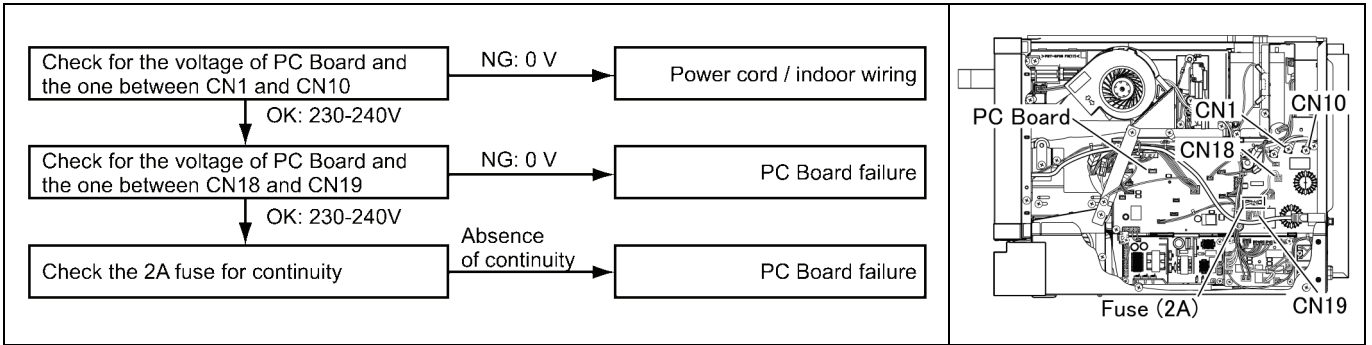
1. Connect the disconnected connector.
2. Temporarily attach Covers.
3. Perform an energization check.

CAUTION MICROWAVE RADIATION

DO NOT BECOME EXPOSED TO RADIATION FROM THE MICROWAVE GENERATOR OR OTHER PARTS CONDUCTING MICROWAVE ENERGY.

11.4. Power failure

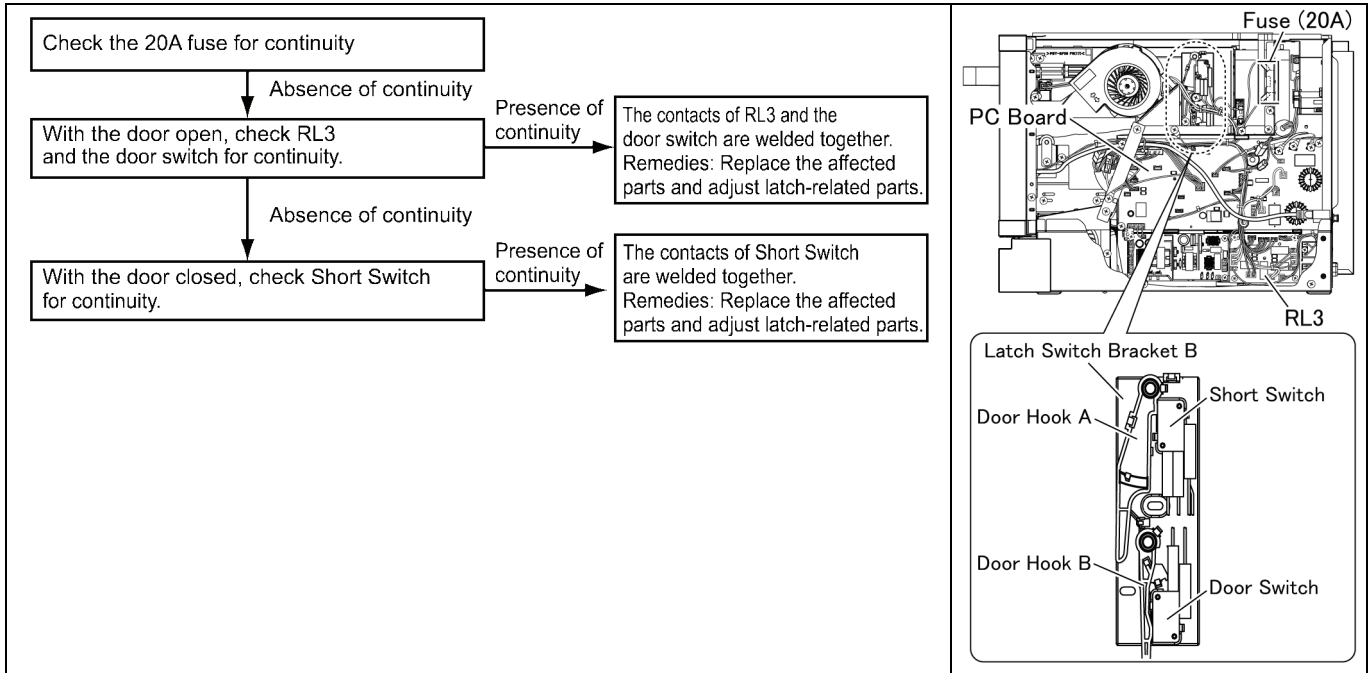
(Failure to energize the oven: The initial screen cannot be displayed even if the door has been opened. Nor can any key be operated.)



11.5. 20A fuse blowout

Short circuit was formed, allowing a short-circuit current to flow through and blow the fuse.

(Designed such that the 2A fuse will be blown when a short circuit is formed to cause short-circuit current to flow through it)

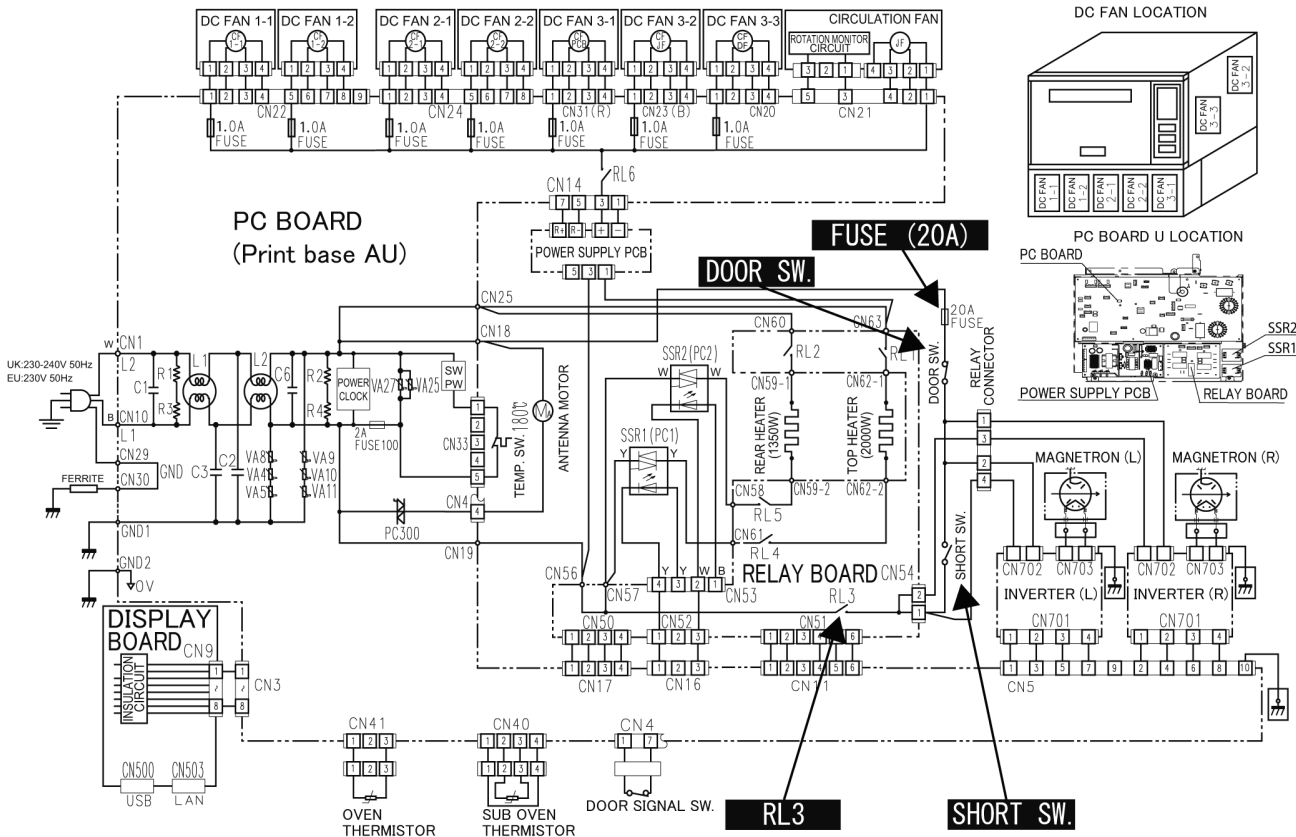


11.6. When the 20A fuse is blown due to the malfunction of the short switch:

⚠WARNING

When the 20A 250V fuse is blown due to the malfunction of the short switch, you must replace components (Door switch, short switch and power relay RL3). Also replace the door signal switch when the continuity check reads shorted contacts.

1. This is mandatory. Refer to "13 Measurements and Adjustments" for the location of these switches.
2. When replacing the fuse, confirm that it has the appropriate rating for these models.
3. When replacing faulty switches, be sure the mounting tabs are not bent, broken or deficient in their ability to hold the switches.

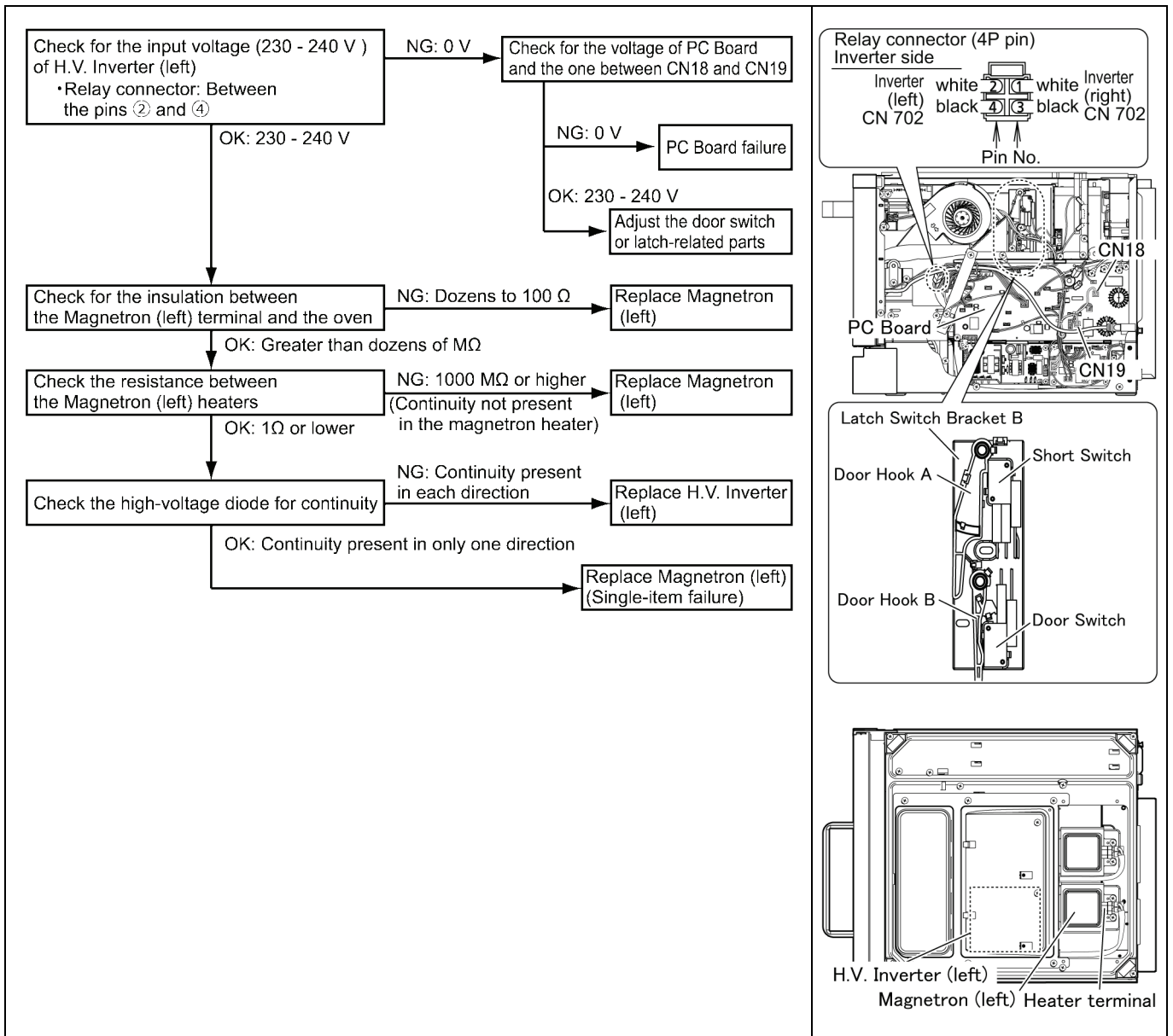


11.7. The oven does not heat up

"FE2", "F92", "FE5", "F95", "FE7", "F97", "FE8" or "F98" is displayed to stop the operation.

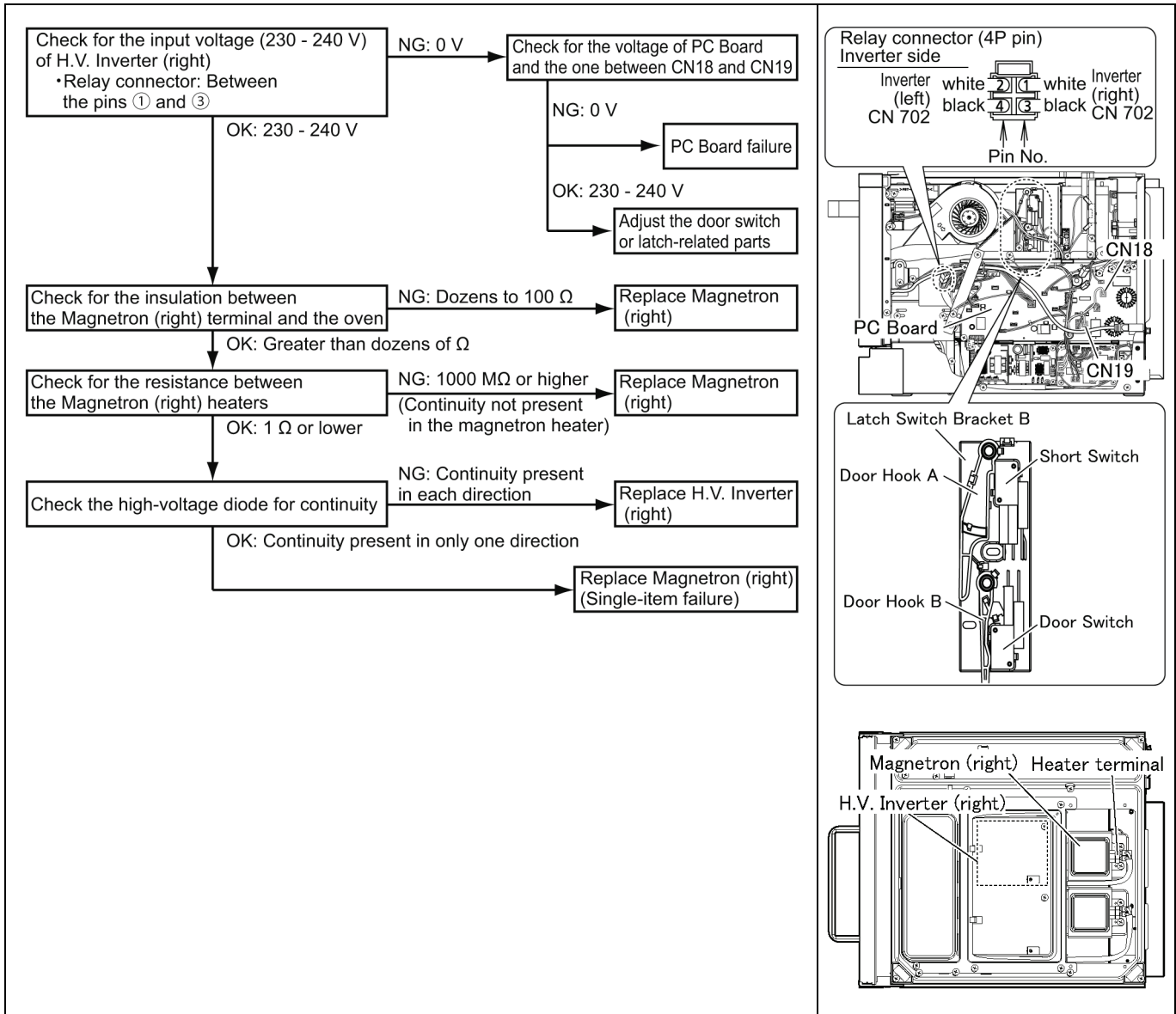
11.7.1. "F92", "F95", "F97" or "F98" is displayed to stop the operation.

(For those parts subject to "F92", "F95", "F97" or "F98" see the figure below.)



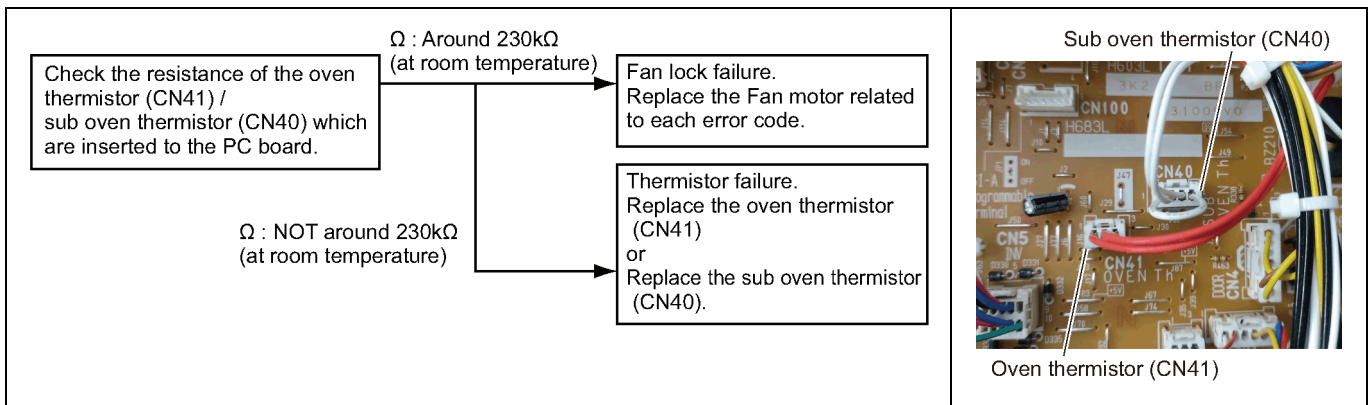
11.7.2. "FE2", "FE5", "FE7" or "FE8" is displayed to stop the operation.

(For those parts subject to "FE2", "FE5", "FE7" or "FE8" see the figure below.)



11.8. Fan lock failure or Oven / Sub oven thermistor failure

"F76" or "F77" is displayed within 1 minute after operation.



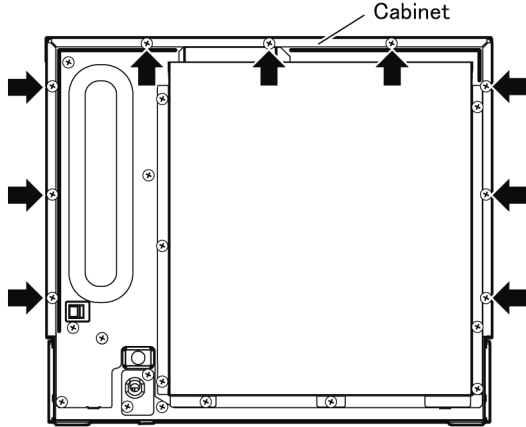
12 Disassembly and Assembly Instructions

* Before disassembly, remove the Front Cover, Air Filter, Drip Tray and the Oil Tray. (See "9.11. Care of your OVEN")

* When laying or turning over the product, remove liquid in the Tray beforehand. (See "12.2. Back Plate")

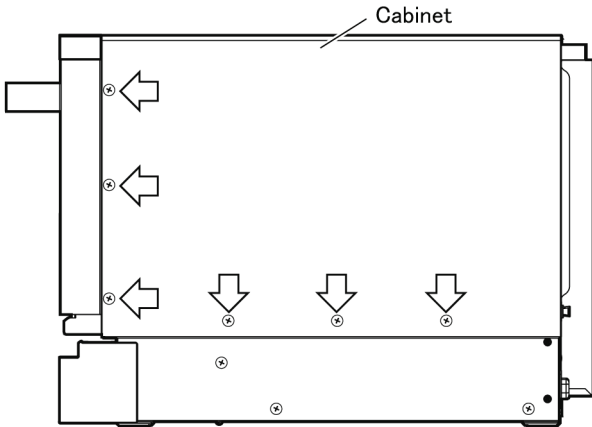
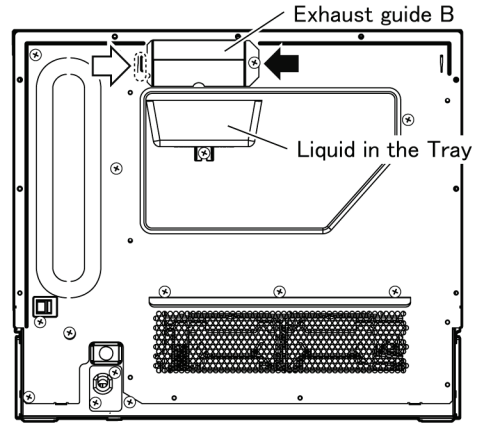
12.1. Cabinet

1. Remove the Cabinet. (Black arrows: 9 screws; White arrows: 6 screws on each side)

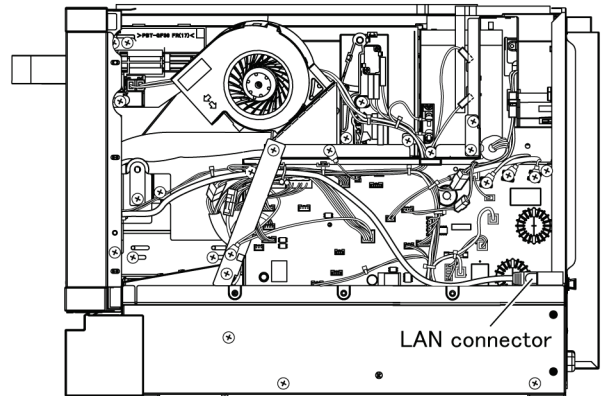


3. Remove the Exhaust guide B. (Black arrow: 1 screw; White arrow: 1 tab)

* When laying or turning over the product, remove liquid in the Tray beforehand.



4. Remove the LAN connector.



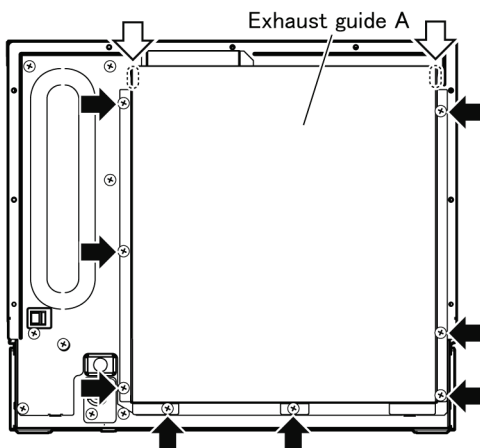
12.2. Back Plate

1. Remove the Cabinet. (See "12.1 Cabinet")

2. Remove the Exhaust guide A.

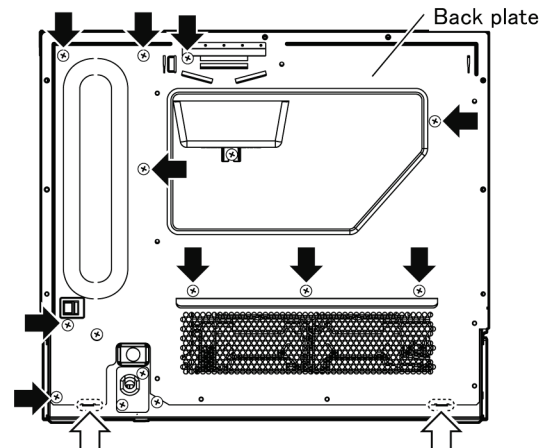
(Black arrows: 8 screws; White arrows: 2 tabs)

- Slide the Exhaust guide A upward to remove.



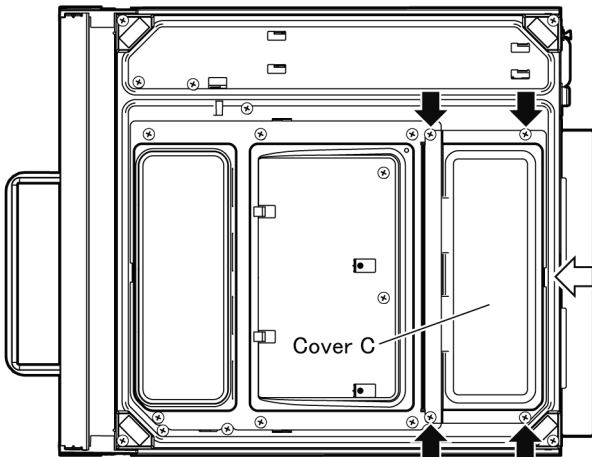
5. Remove the Back plate.

(Black arrows: 10 screws; White arrows: 2 tabs)

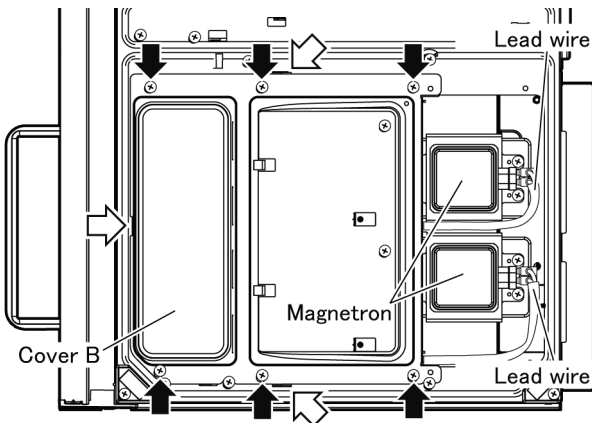


12.3. Cover C / Cover B

1. Turn over the product.
2. Remove the Cover C.
(Black arrows: 4 screws; White arrow: 1 tab)

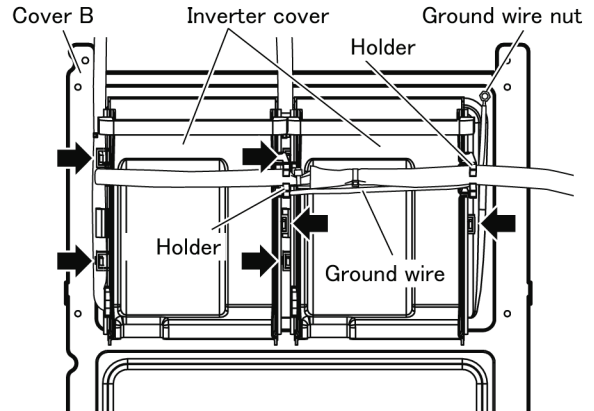


3. Disconnect the 2 lead wires from the connector of each Magnetron.
4. Remove the Cover B.
(Black arrows: 6 screws; White arrows: 3 tabs)
 - Slide the Cover B towards the rear of the oven, and raise it to remove.
 - Turn over the Cover B while disengaging the lead wires from the Inverter cover holders.

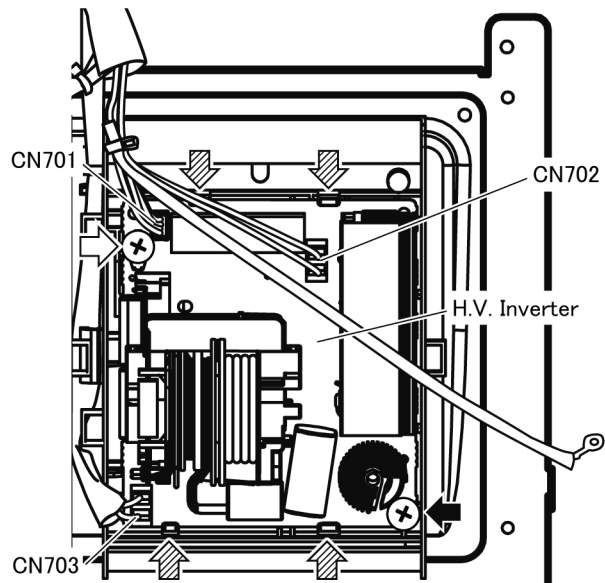


12.4. H.V. Inverter

1. Remove the Cover B. (See 12.3 "Cover C / Cover B")
2. Undo the ground wire nut to remove the ground wire.
* During assembly, be sure to secure the ground wire to Cover B.
3. Disengage the lead wires from the holders.
4. Remove the Inverter cover. (Black arrows: 3 tabs each)

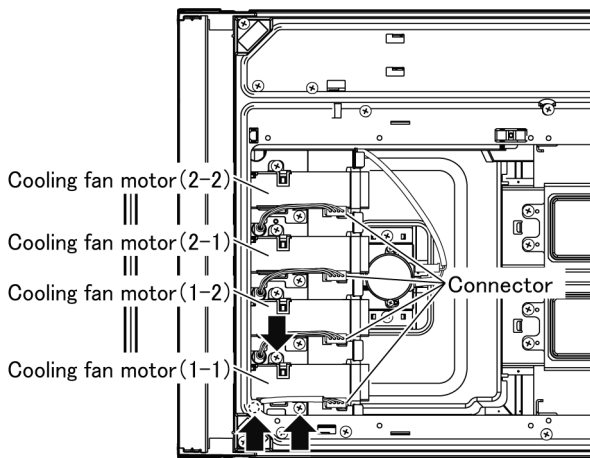


5. Disconnect the connectors (CN701, CN702, CN703).
(3 places each)
6. Remove the H.V. Inverter.
(Black arrow: 1 fixing nut each; White arrow: 1 grounding screw each; Diagonally shaded arrows: 4 tabs each)



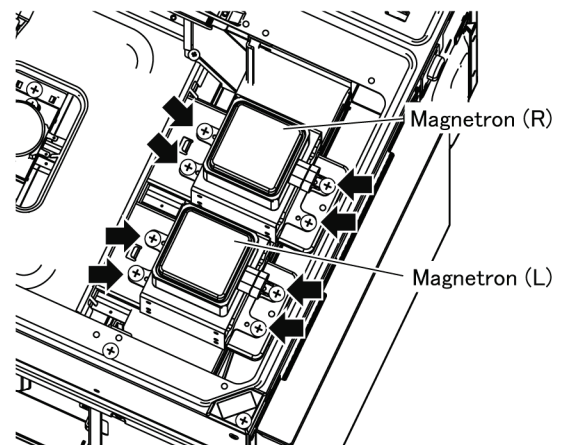
12.5. Cooling Fan Motors for MAG/INV

1. Remove the Cover B. (See 12.3 "Cover C / Cover B")
2. Disconnect the connector. (1 connector each)
3. Remove the Cooling fan motors. (3 screws each)



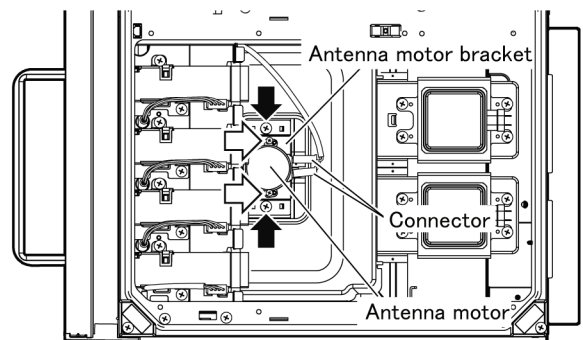
12.6. Magnetron

1. Remove the Cover B. (See 12.3 "Cover C / Cover B")
2. Remove each Magnetron. (4 screws each)



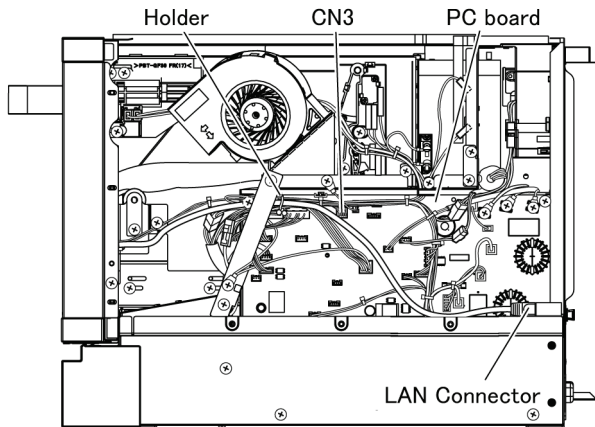
12.7. Antenna Motor

1. Remove Cover B. (See 12.3 "Cover C / Cover B")
2. Disconnect the connector.
3. Remove the Antenna Motor Bracket.
(Black arrows: 2 screws)
4. Remove the Antenna Motor. (White arrows: 2 screws)

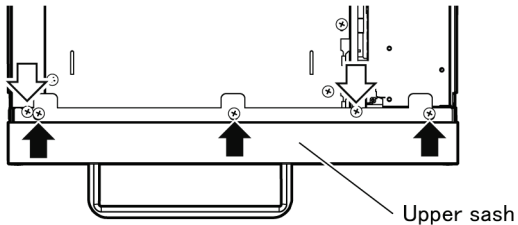


12.8. Operation Panel U

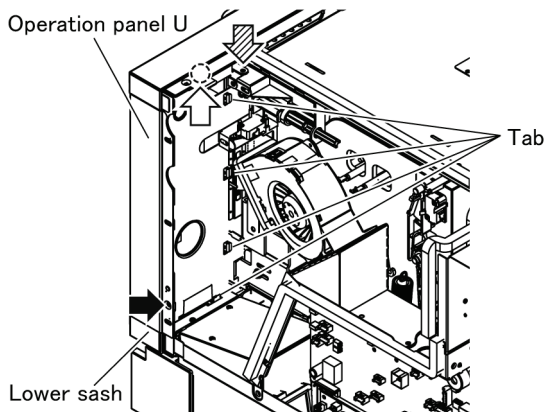
1. Remove the Cabinet. (See "12.1 Cabinet")
2. Disconnect the connector (CN3) for the PC board and LAN connector.
3. Disengage the cables from the Holder.



4. Remove the Upper sash.
(Black arrows: 3 screws; White arrows: 2 screws)

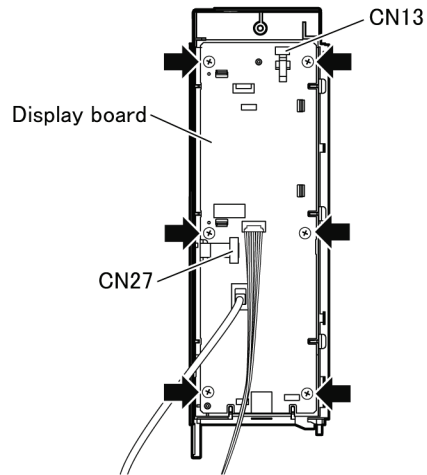


5. Remove the Lower sash (Drip Tray). (See p.56)
6. Remove the Operation panel U.
(Black arrow: 1 screw; White arrow: 1 screw; Diagonally shaded arrow: 1 screw; 3 tabs)
 - Slide Operation panel U to the right and remove it.
 - Remove the USB cover at the lower of the Operation panel U at the same time.



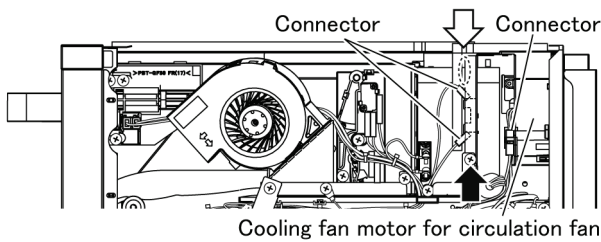
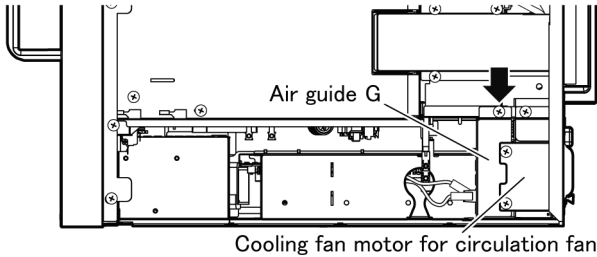
12.9. Display Board

1. Remove the Operation panel U.
(See 12.8. "Operation Panel U")
2. Disconnect the connectors (CN13, CN27).
3. Remove the Display board. (Black arrows: 6 screws)

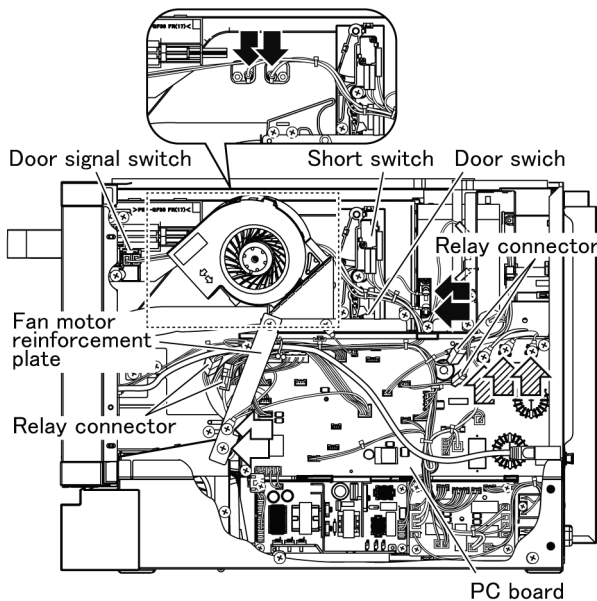


12.10. PC Board U (PC Board / Power Supply PCB / Relay Board)

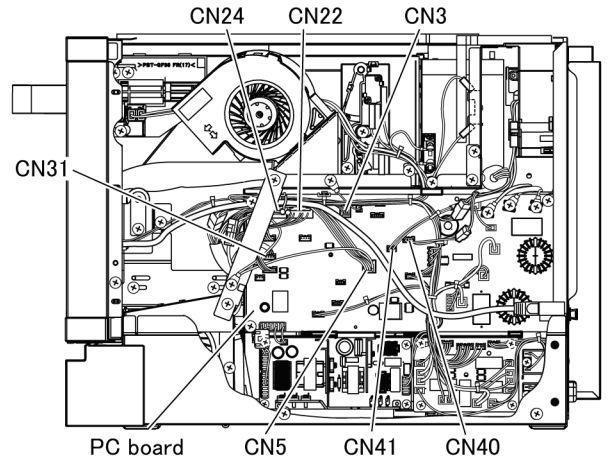
1. Remove the Back plate. (See "12.2 Back Plate")
2. Disconnect the connectors. (3 places)
 - Before removing the connector for the cooling fan motor for circulation fan, remove the cooling fan motor. (See "12.22 Cooling Fan Motor for Circulation Fan")
3. Remove the Air guide G. (Black arrows: 2 screws; White arrow: 1 tab)



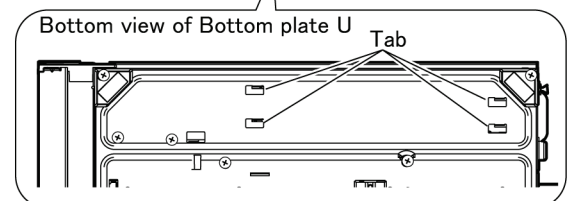
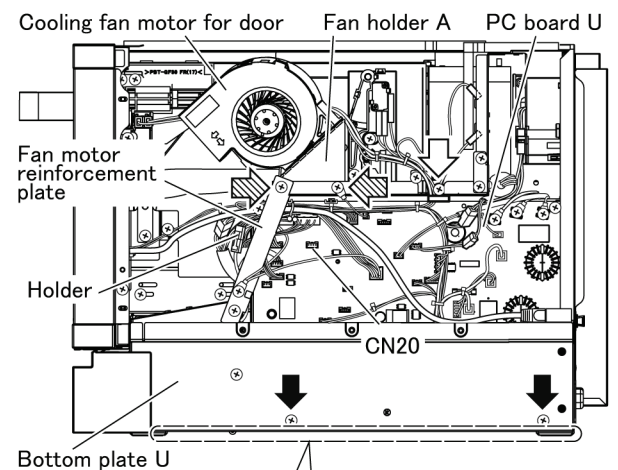
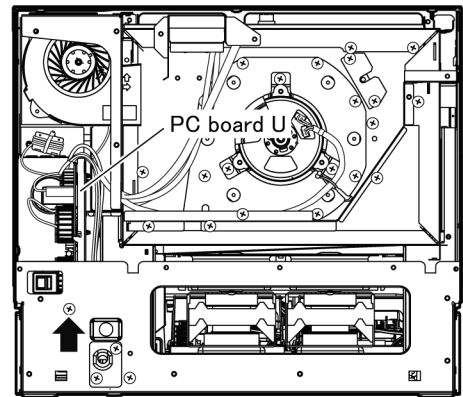
4. Remove each screw.
 - Lead wire screws for Top and Rear heater (Black arrows: 2 screws each)
 - Screws on Fan motor reinforcement plate (White arrows: 2 screws)
 - Screws for Power code (Diagonally shaded arrows: 3 screws)
5. Disconnect the relay connectors (4 places) and each connector for the Door signal switch, Short switch, Door switch.



6. Remove the connectors for the PC board. (CN3, CN5, CN22, CN24, CN31, CN40, CN41)

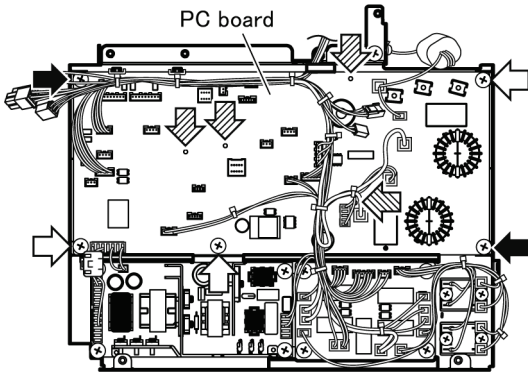


7. Disengage the disconnected lead wire, etc. from the Holder.
8. Remove the PC board U. (Black arrows: 3 screws of Bottom plate U; White arrow: 1 screw; 4 tabs)
 - Slide the PC board U towards the door and raise it to remove.
9. If necessary, disconnect the connector (CN20) for the PC board and remove the Fan holder A together with the DC fan motor for door and Fan motor reinforcement plate. (Diagonally shaded arrows: 2 screws)



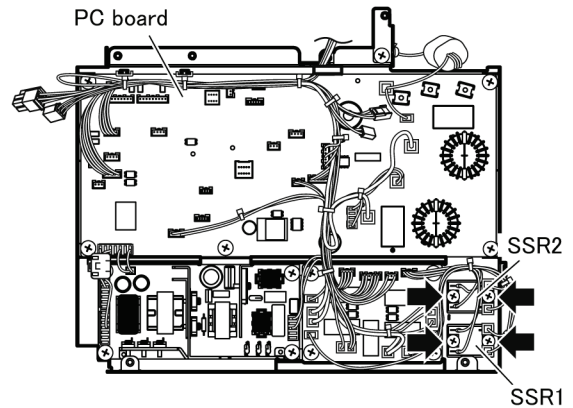
12.11. PC Board

1. Remove the PC board U. (See "12.10 PC Board U")
2. Disconnect the connectors for the PC board.
3. Remove the PC board. (Black arrows: 2 screws; White arrows: 3 screws; Diagonally shaded arrows: 4 fixing pins)



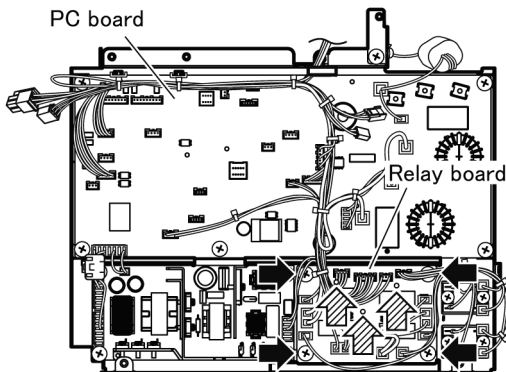
12.13. SSR1, SSR2

1. Remove the PC board U. (See "12.10 PC Board U")
2. Disconnect the connectors for the SSR1, SSR2. (4 places for each SSR)
3. Remove the SSR1, SSR2. (Black arrows: 2 screws for each SSR)



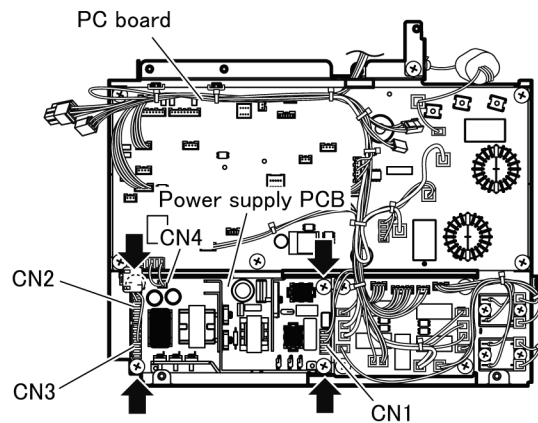
12.12. Relay Board

1. Remove the PC board U. (See "12.10 PC Board U")
2. Disconnect the connectors for the Relay board.
3. Remove the Relay board. (Black arrows: 4 screws; Diagonally shaded arrows: 3 fixing pins)



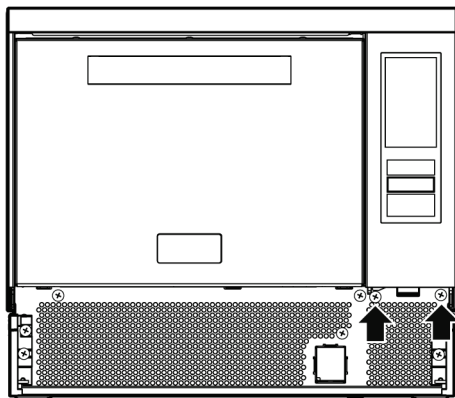
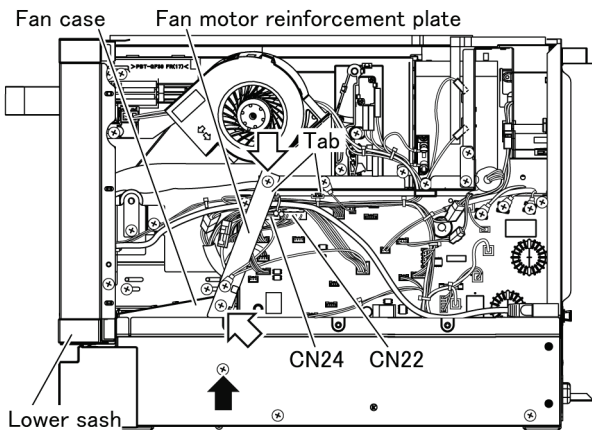
12.14. Power Supply PCB

1. Remove the PC board U. (See "12.10 PC Board U")
2. Disconnect the connectors for the Power supply PCB. (CN1, CN2, CN3, CN4, 4 places for each SSR)
3. Remove the Power supply PCB. (Black arrows: 4 screws)

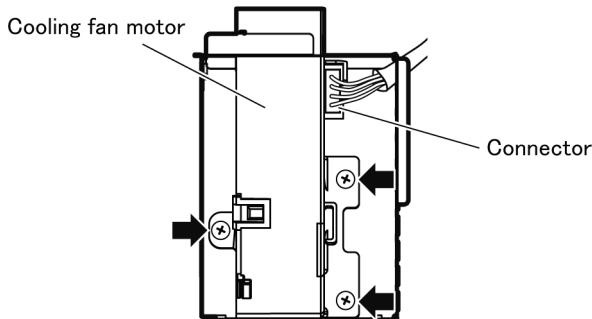


12.15. Cooling Fan Motor for PCB

1. Remove the Cabinet. (See "12.1 Cabinet")
2. Remove the Lower sash (Drip Tray). (See p.56)
3. Disconnect the connector (CN22, CN24) for the PC board.
*To avoid interference of the lead wires when removing the Fan case.
4. Remove the Fan case.
(Black arrows: 3 screws; White arrows: 2 screws)
• Pull the Fan case upwards while avoiding interference of the lead wires and Fan motor reinforcement plate.

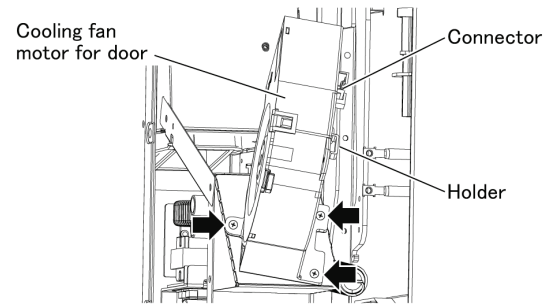
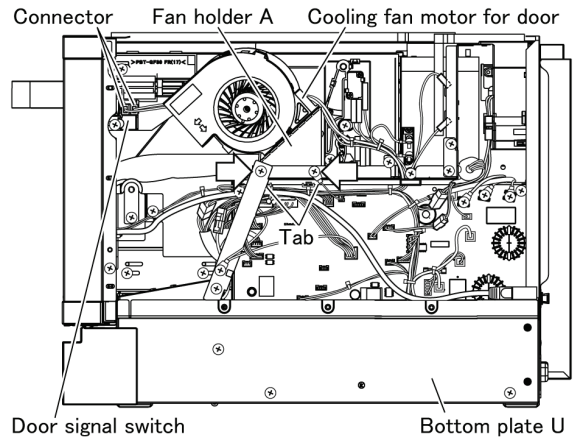


5. Remove the Cooling fan motor. (3 screws)
6. Disconnect the connector.



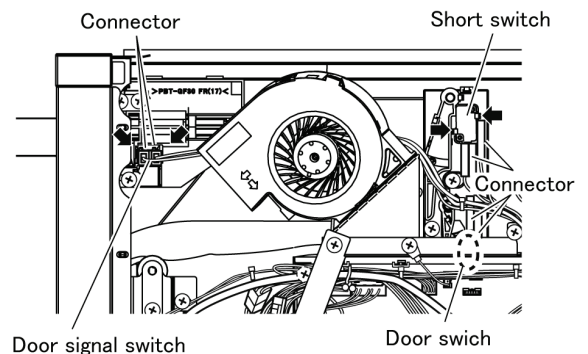
12.16. Cooling Fan Motor for Door

1. Remove the Cabinet. (See "12.1 Cabinet")
2. Remove the Fan holder A together with the Cooling fan motor for door. (White arrows: 2 screws; 2 tabs)
*To avoid dropping the screws for the Cooling fan motor into the Bottom plate U when removing them.
3. Disconnect the connectors (Cooling fan motor, Door signal switch) and disengage the lead wires from the holder of the Cooling fan motor.
4. Remove the Cooling fan motor. (Black arrows: 3 screws)



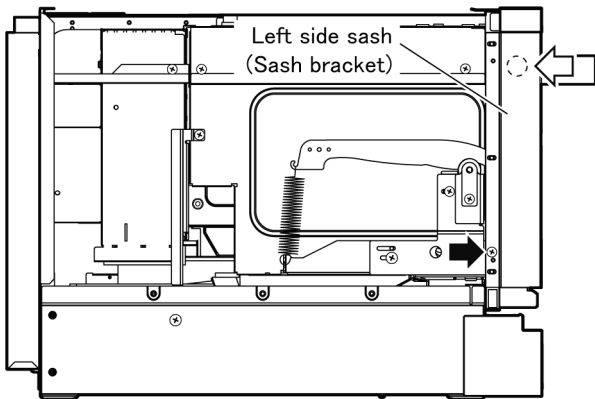
12.17. Door Switch / Short Switch / Door Signal Switch

1. Remove the Cabinet. (See "12.1 Cabinet")
2. Open the door.
3. Disconnect each connector.
4. Remove the Cooling fan motor for door.
(See "12.16. Cooling Fan Motor for Door")
5. Remove the switches from the mounting plate.
(Black arrows: 2 tabs each)
• Be careful not to bend the tabs too much as they can break.
• The Door switch is located on the back side of the PC board U. If it is difficult to remove the Door switch, remove the PC board U first. (See "12.10 PC Board U")

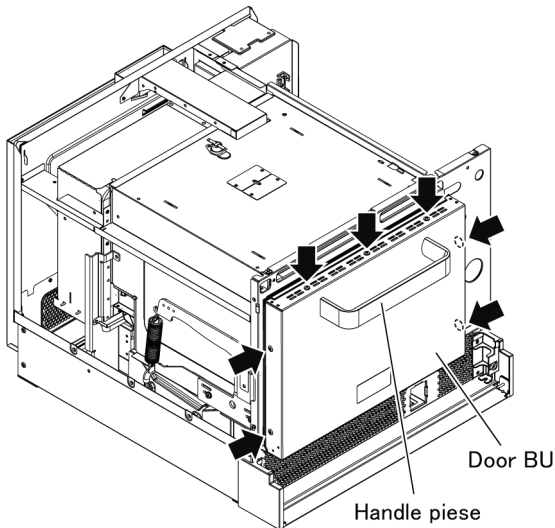


12.18. Door BU / Door A

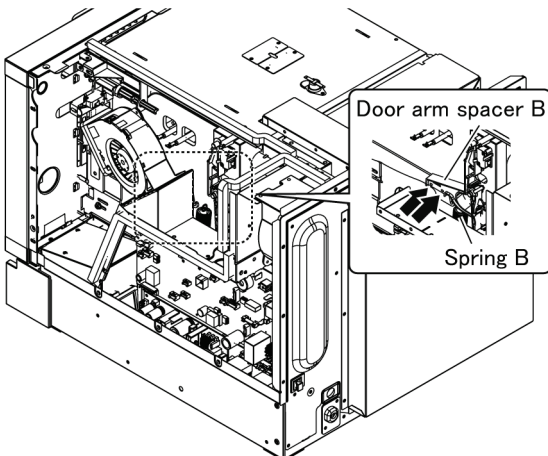
1. Remove the Operation panel U.
(See 12.8. "Operation Panel U")
2. Remove the Left side sash and the Sash bracket.
(Black arrow: 1 screw; White arrow: 1 tab)
• Slide the Left side sash (Sash bracket) upward to remove.



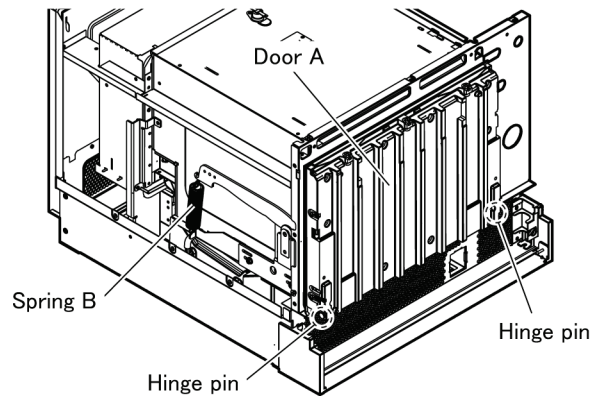
3. Remove the Door BU. (7 screws)
• Unscrew the top screws last.
• Leave the door closed, and hold the Handle piece to remove.



4. Leave the door half-open.
5. Remove the Door arm spacer B. (2 screws)
6. Remove the Spring B.
• When removing the Spring B, be careful not to drop it into the Bottom plate U (between the PC board U and the oven U).

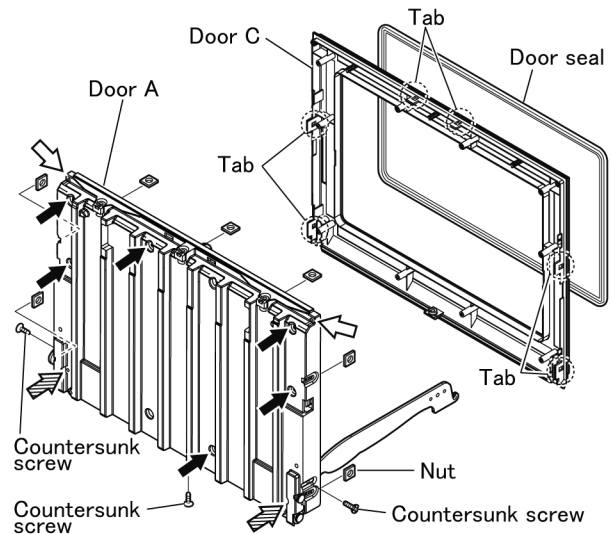


7. Remove the Hinge pins. (1 piece on each side)
• Pull out each pin outward to remove.
8. Remove the Spring B, and pull out the Door A towards you to remove.



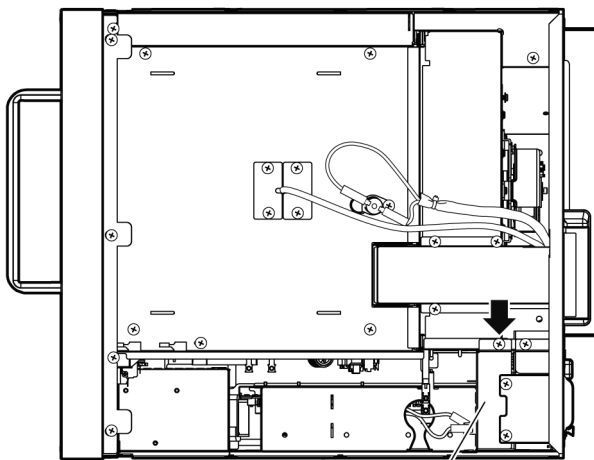
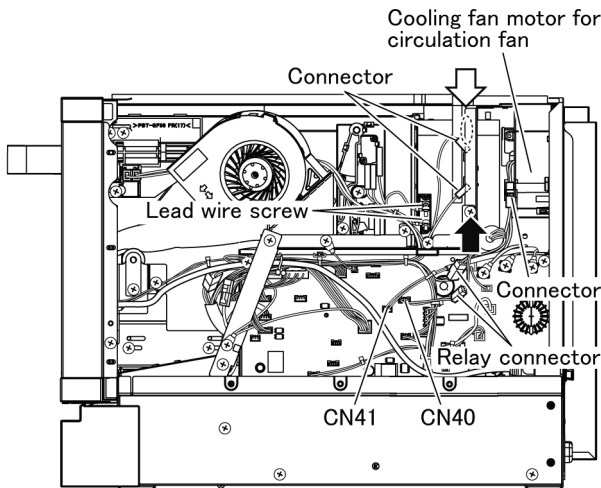
12.19. Door C / Door Seal

1. Remove the Door A. (See 12.18. "Door BU / Door A")
2. Remove the Door C. (Black arrows: 6 screws; White arrows: 2 screws; Diagonally shaded arrows: 2 screws; 3 countersunk screws; 6 tabs)
• Use tools such as slotted head screwdriver and remove the Door C while creating gap between the Door A and Door C.
* When removing the Door C, keep the Door C upward not to drop the fixing nuts.
3. Remove the Door seal.



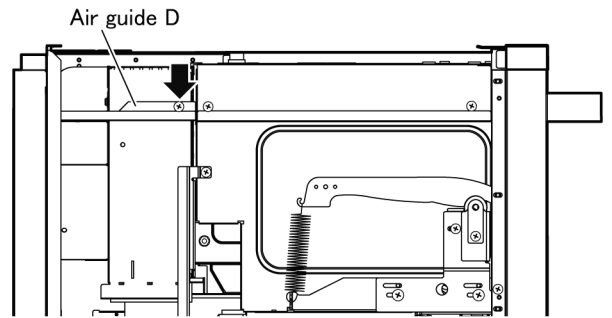
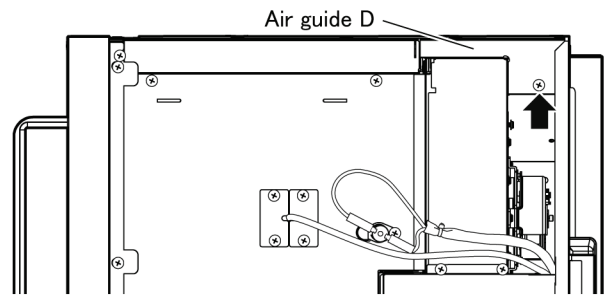
12.20. Circulation Fan Case U

1. Remove the Back plate. (See 12.2. "Back Plate")
2. Disconnect the connectors (3 places), the relay connectors (2 places) and the connectors for CN40, CN41.
 - Before removing the connector for the cooling fan motor for circulation fan, remove the cooling fan motor. (See "12.22 Cooling Fan Motor for Circulation Fan")
3. Remove the Lead wire screws for the Rear heater. (2 places)
4. Remove the Air guide G. (Black arrows: 2 screws; White arrow: 1 tab)

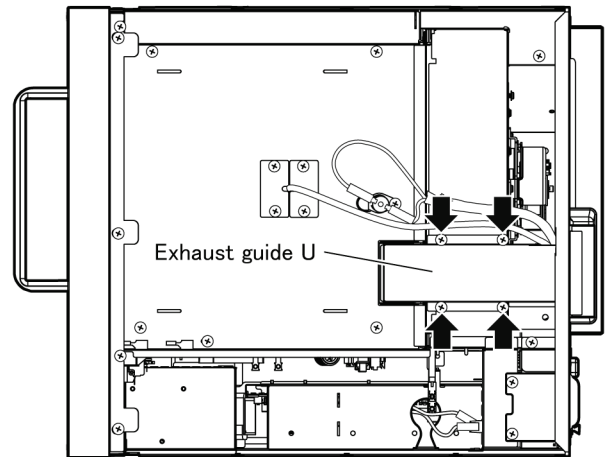


Air guide G

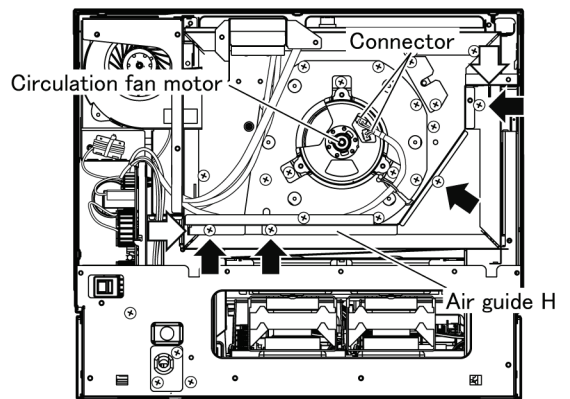
5. Remove the Air guide D. (2 screws)



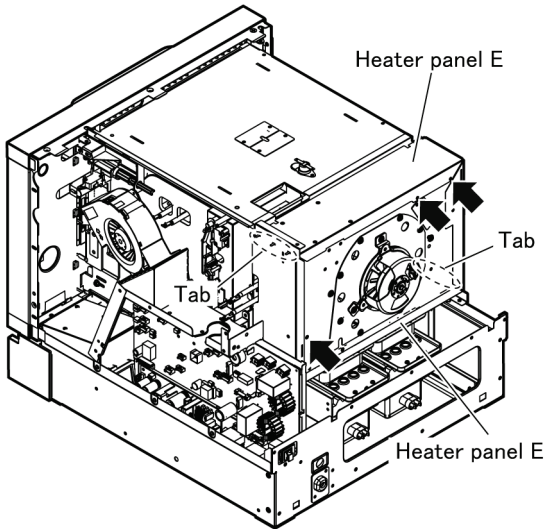
6. Remove the Exhaust guide U. (4 screws)



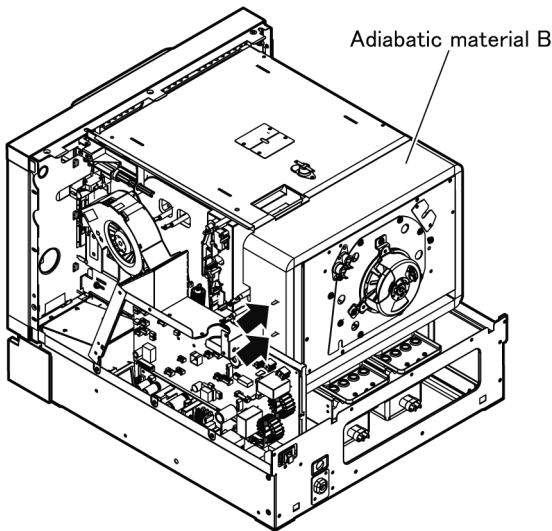
7. Remove the connectors for the circulation fan motor. (2 places)
8. Remove the Air guide H. (Black arrows: 4 screws; White arrows: 2 tabs)



9. Remove each Heater panel E (3 screws).
 *Heater panel E is an Adiabatic plate.
 • If they are hard to remove, remove them separately by unhooking the tabs (3 tabs on each side).

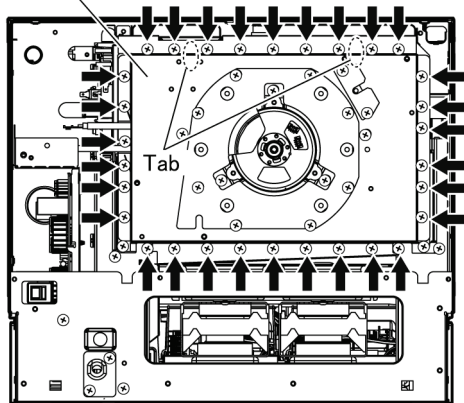


10. Remove the Adiabatic material B. (Black arrows: 2 tabs)
 • Raise the tabs with a tool like a flathead screwdriver.



11. Remove the Circulation fan case U.
 (Black arrows: 30 screws; 2 tabs)
 • Slide the Circulation fan case U upward to remove.

Circulation fan case U

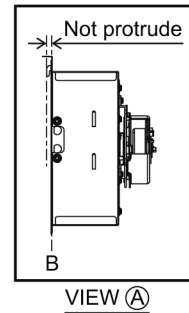
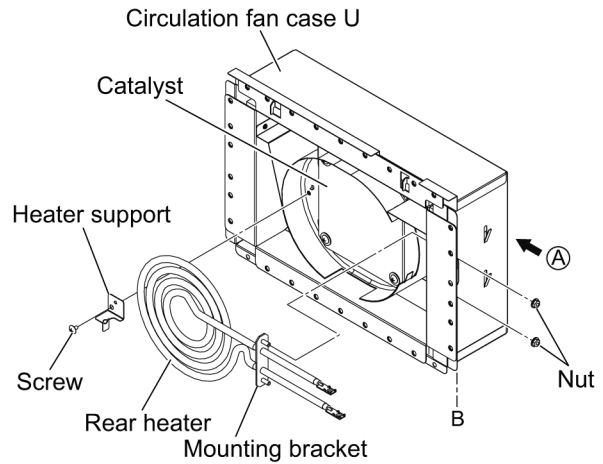


12.21. Rear Heater

1. Remove the Circulation fan case U.
 (See 12.19. "Circulation Fan Case U")
2. Remove the Heater support. (1 screw)
3. Remove the Rear heater. (Nuts: 2 pieces)
 * When assembly, install the Rear heater so that its terminal tabs point towards the top surface of the oven.

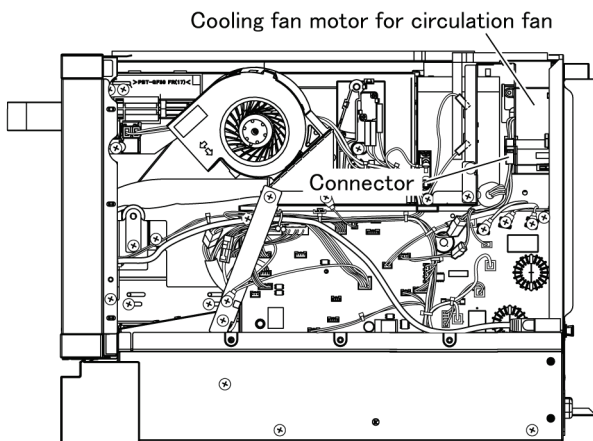
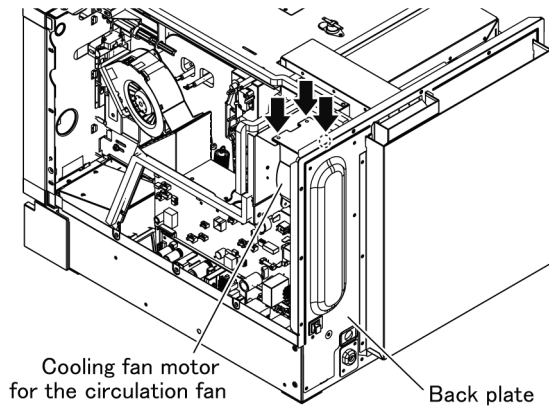
NOTE:

When attaching the Rear heater during assembly, make sure that the Mounting bracket of the Rear heater do not protrude from the Circulation fan case U end face B. (To prevent microwave leakage)



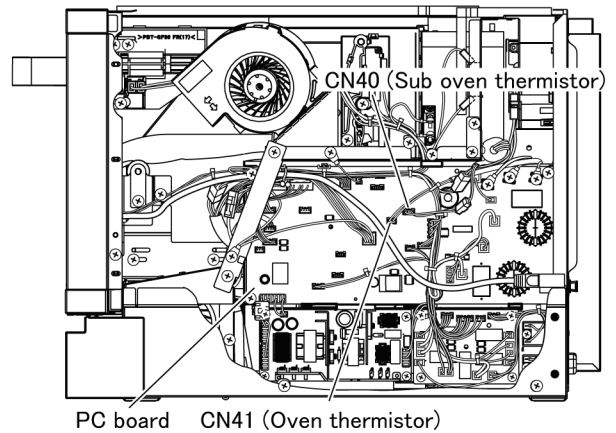
12.22. Cooling Fan Motor for Circulation Fan

1. Remove the Back plate. (See 12.2. "Back Plate")
2. Remove the Cooling fan motor for circulation fan. (3 screws)
3. Disconnect the connector for the Cooling fan motor.

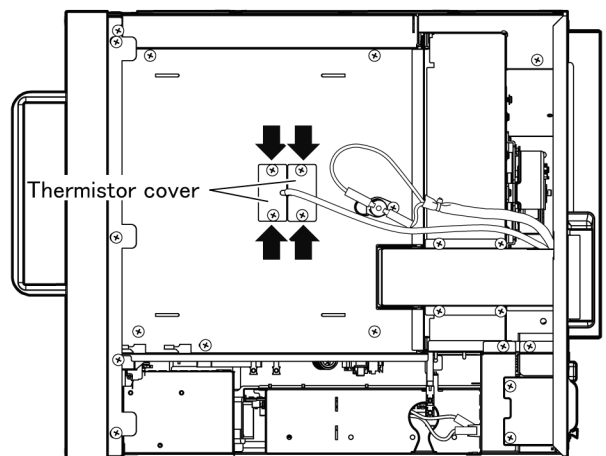


12.23. Oven Thermistor / Sub Oven Thermistor

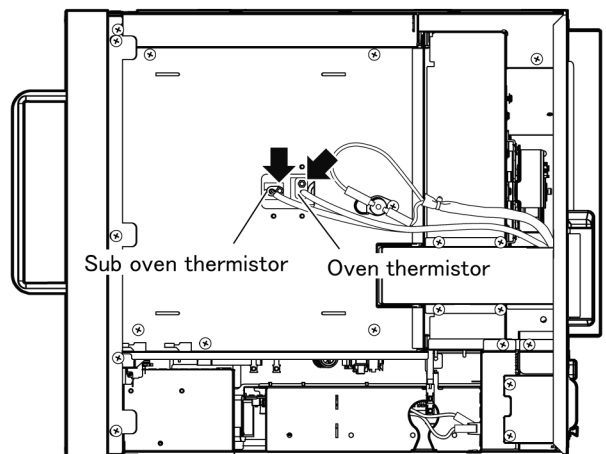
1. Remove the Back plate. (See "12.2 Back Plate")
2. Disconnect the connectors (CN40, CN41) on the PC board.
 - Disengage the lead wires of the removed connectors from each holder.



3. Remove the Thermistor covers. (2 screws for each cover)

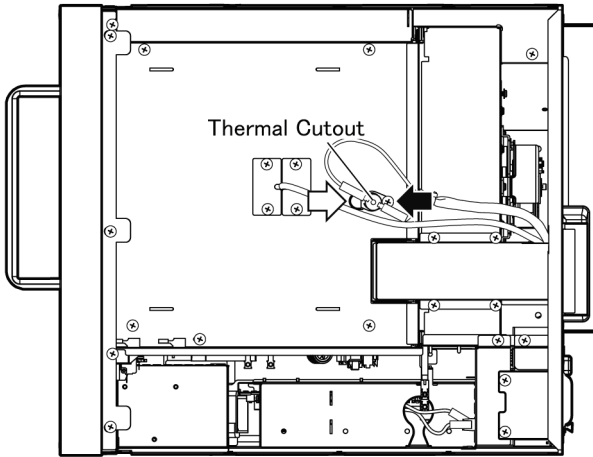


4. Remove the Oven thermistor, Sub oven thermistor. (1 screw each)



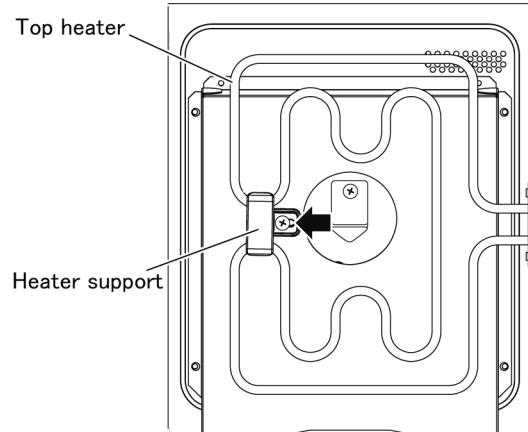
12.24. Thermal Cutout (for Top Heater)

1. Remove the Cabinet. (See "12.1 Cabinet")
2. Disconnect the connectors from the Thermal cutout.
3. Remove the Thermal cutout.
(Black arrow: 1 screw each; White arrow: 1 tab each)

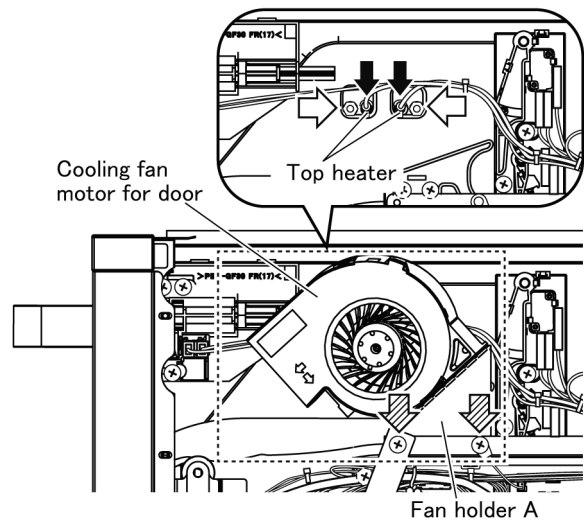


12.25. Top Heater

1. Remove the Cabinet. (See "12.1 Cabinet")
2. Open the door.
3. Remove the Heater support from the top interior surface of the oven. (1 screw)
 - As the screw is removed, the Heater support drops. Be careful when removing it.

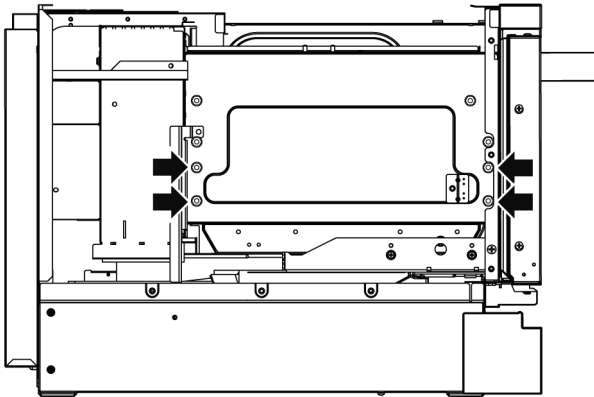


4. Remove the Fan holder A together with the Cooling fan motor for door. (Diagonally shaded arrows: 2 screws)
(See "12.16. Cooling Fan Motor for Door")
5. Remove the Top heater.
(Black arrows: 2 screws; White arrows: 2 nuts)
 - * When assembly, install the Top heater so that its terminal tabs point towards the top surface of the oven.

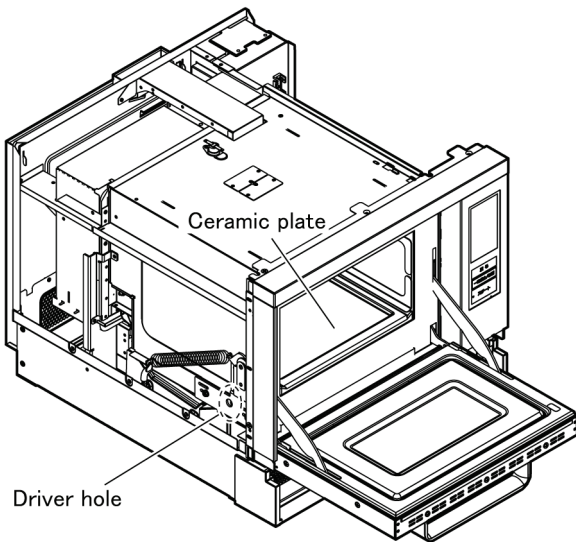


12.26. Antenna U / Spacer

1. Remove the Cover C and Cover B.
(See "12.3. Cover C / Cover B")
2. Remove the Door BU and Door A.
(See "12.18. Door BU / Door A")
3. Remove the Circulation fan case U.
(See "12.20. Circulation Fan Case U")
4. Remove each part below.
 - Latch switch bracket
 - Heater panel (Upper and left side, adiabatic plate)
 - Hinge B
 - Bracket (Left side of the oven)
5. Remove the Nuts (4 pieces).

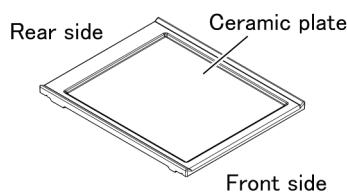


6. Open the door.
 - Insert a driver into the driver hole on the left side of the oven, and push the driver tip up to raise the tray.
(Hole diameter: Approx. 8mm)

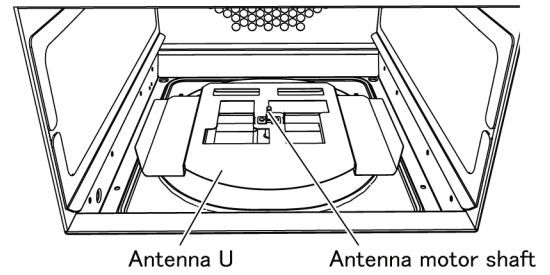


■ Caution during assembly

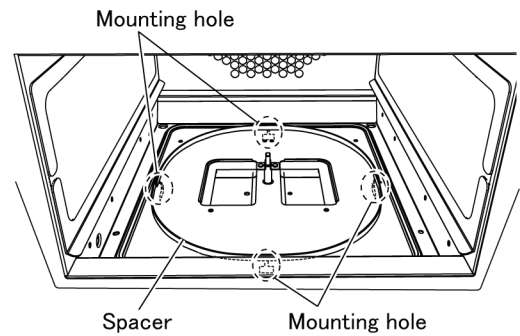
- * Be careful of the mounting direction of the Ceramic plate.



7. Remove the Antenna U from the Antenna motor shaft.



8. Remove the Spacer.
 - Align the hooks on Spacer to the respective mounting holes to remove. (4 places)



13 Measurements and Adjustments

13.1. Oven output measurement

If we heat 1 L of water in the oven 900W for one minute and we let T_1 °C be the water temperature before heating and let T_2 °C be the one after heating, the output (W) is obtained from the following equation.

$$\text{Output (W)} = (T_2 - T_1) \times 70 = T \times 70$$

Load	Measurement time	Output tolerance (W)	Water temperature rise value (°C)
1 L of water	1 minute	810 to 1035	11.5 to 14.8

13.2. Adjustment of hinge and latch

Check the operation for each switch after disassembly, assembly and replacement of parts for door and latch switch.

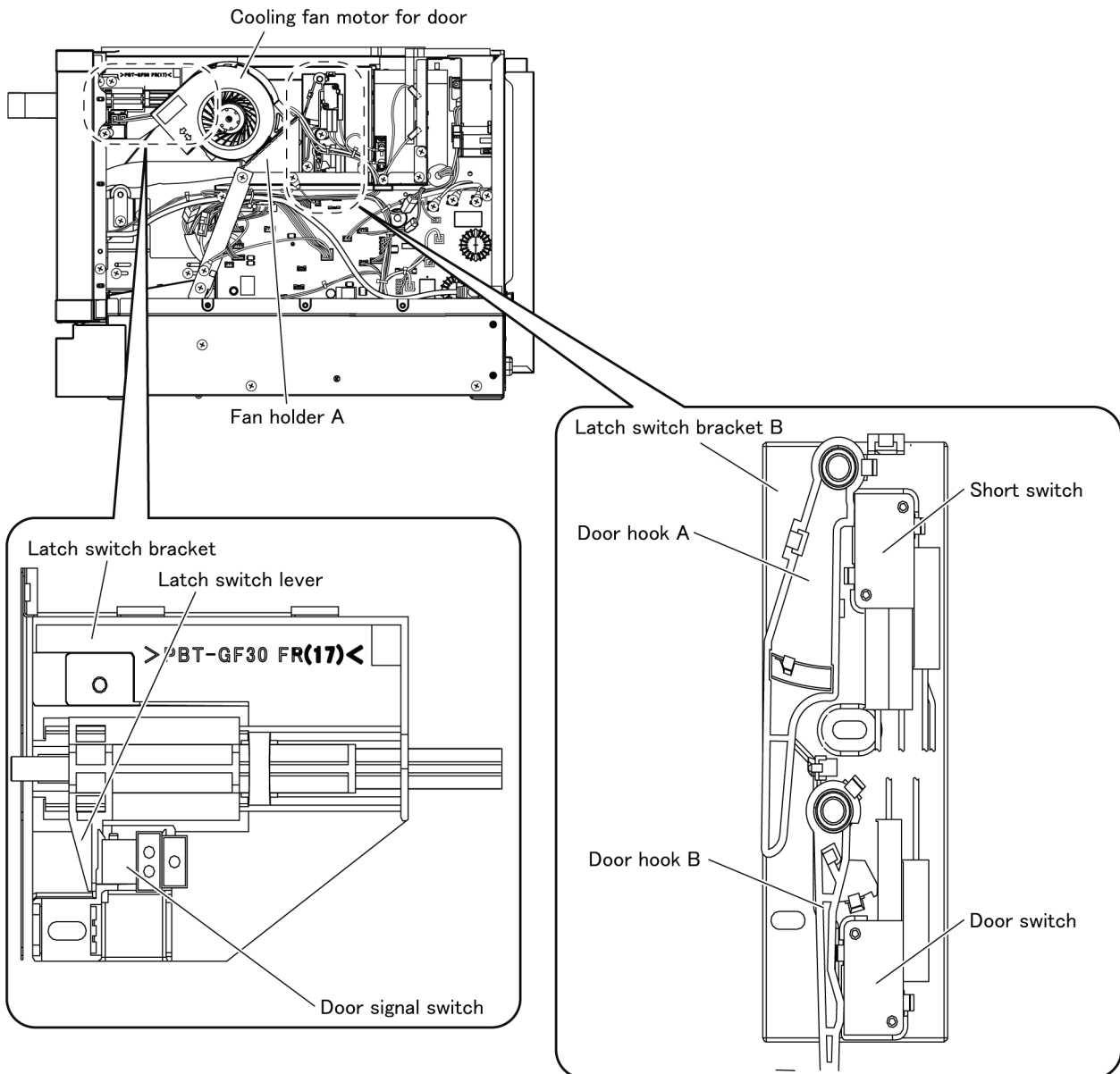
- If an operational failure occurs on door switch, door signal switch and short switch, perform the adjustment outlined below.

1. Adjustment of hinge

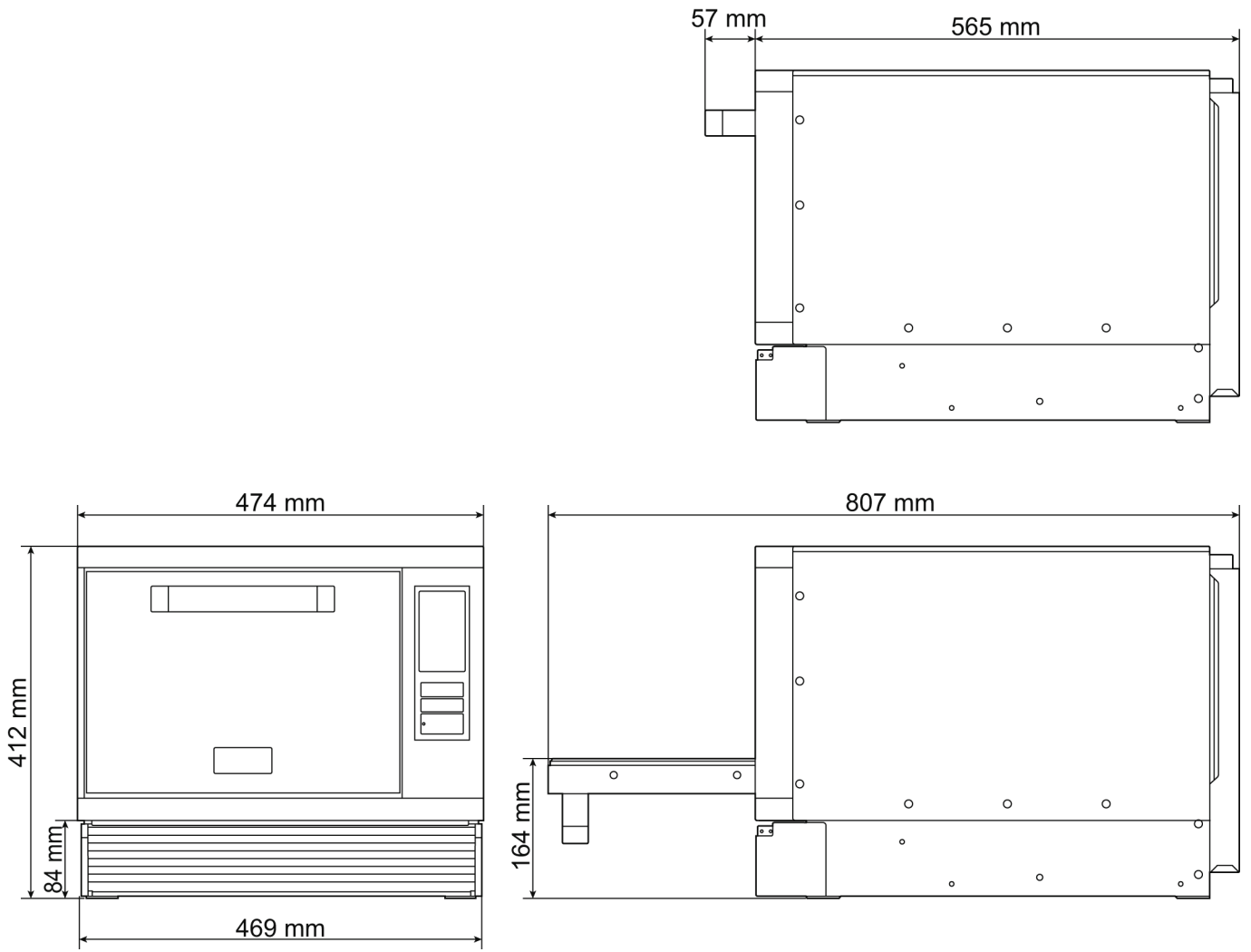
Close the door, fit the hinge on the front of oven and tighten the hinge attachment screw.

2. Adjustment of latch switch bracket

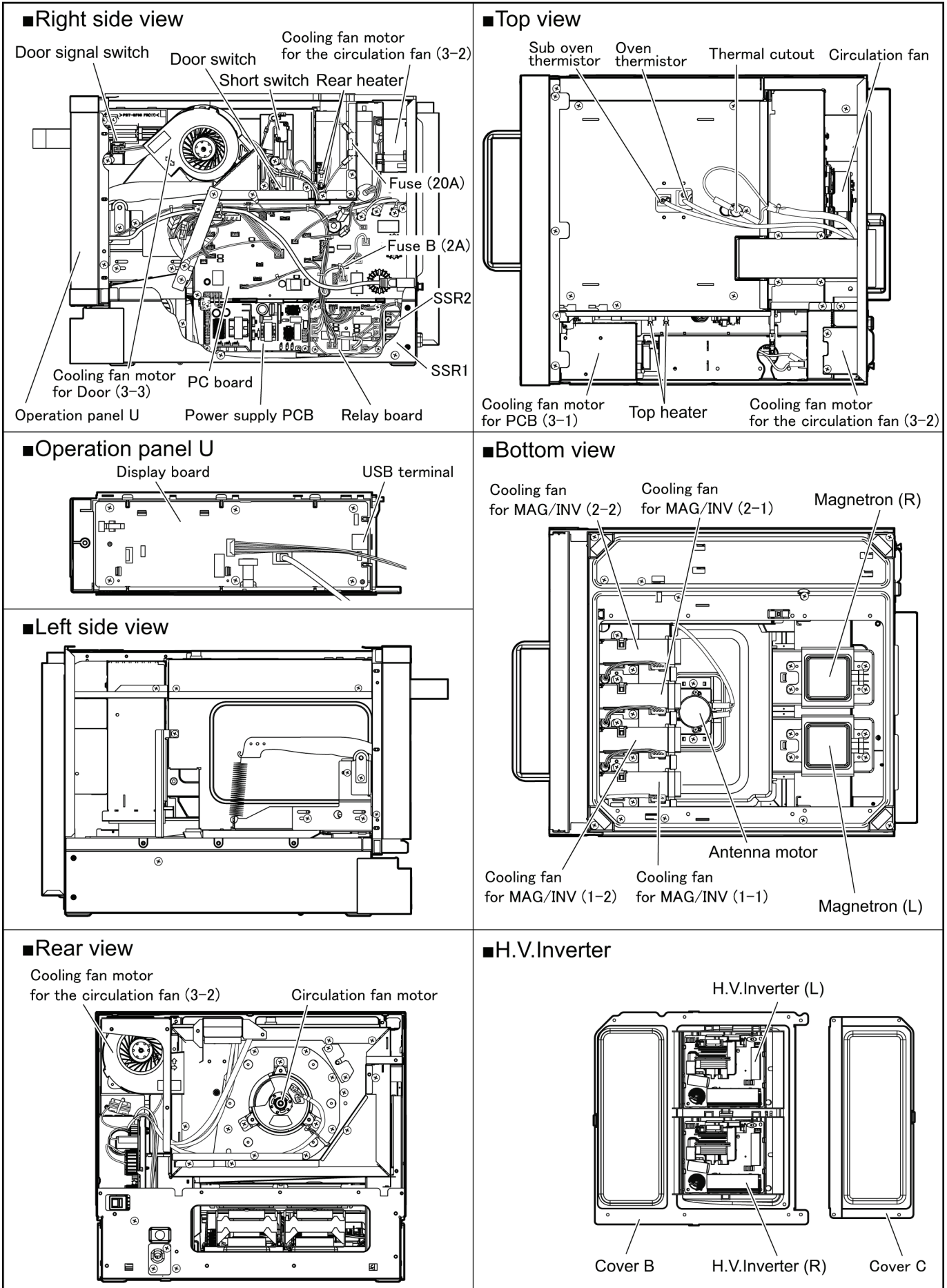
- Remove the Fan holder A together with the Cooling fan motor for door to secure space for adjustment.
(See "12.16. Cooling Fan Motor for Door")
- Close the door, loosen the attachment screw for each latch switch bracket, slide the bracket back and forth to adjust latch switch lever and door hook A/B as pressing against the actuator of each switch.
- Check the operation for door opening and closing and each switch.



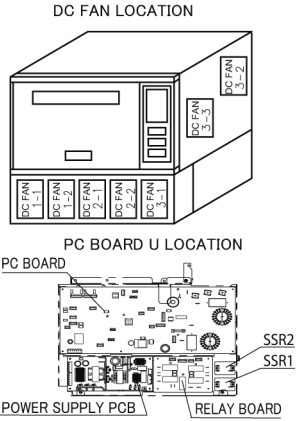
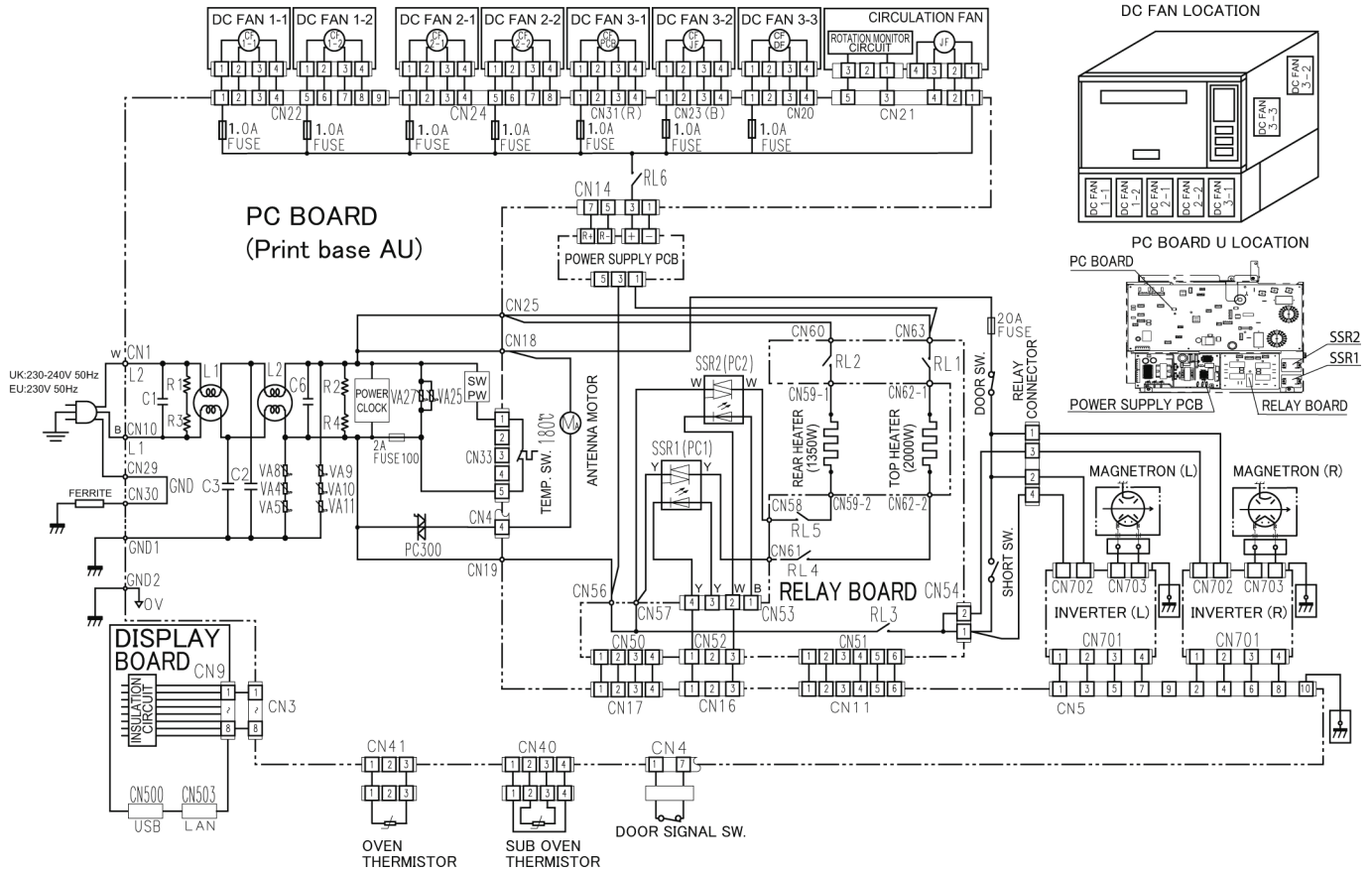
14 Dimensions



15 Block Diagram

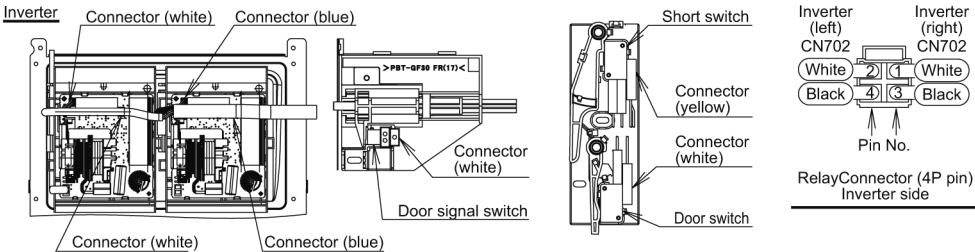


16 Wiring Connection Diagram



Connection diagram

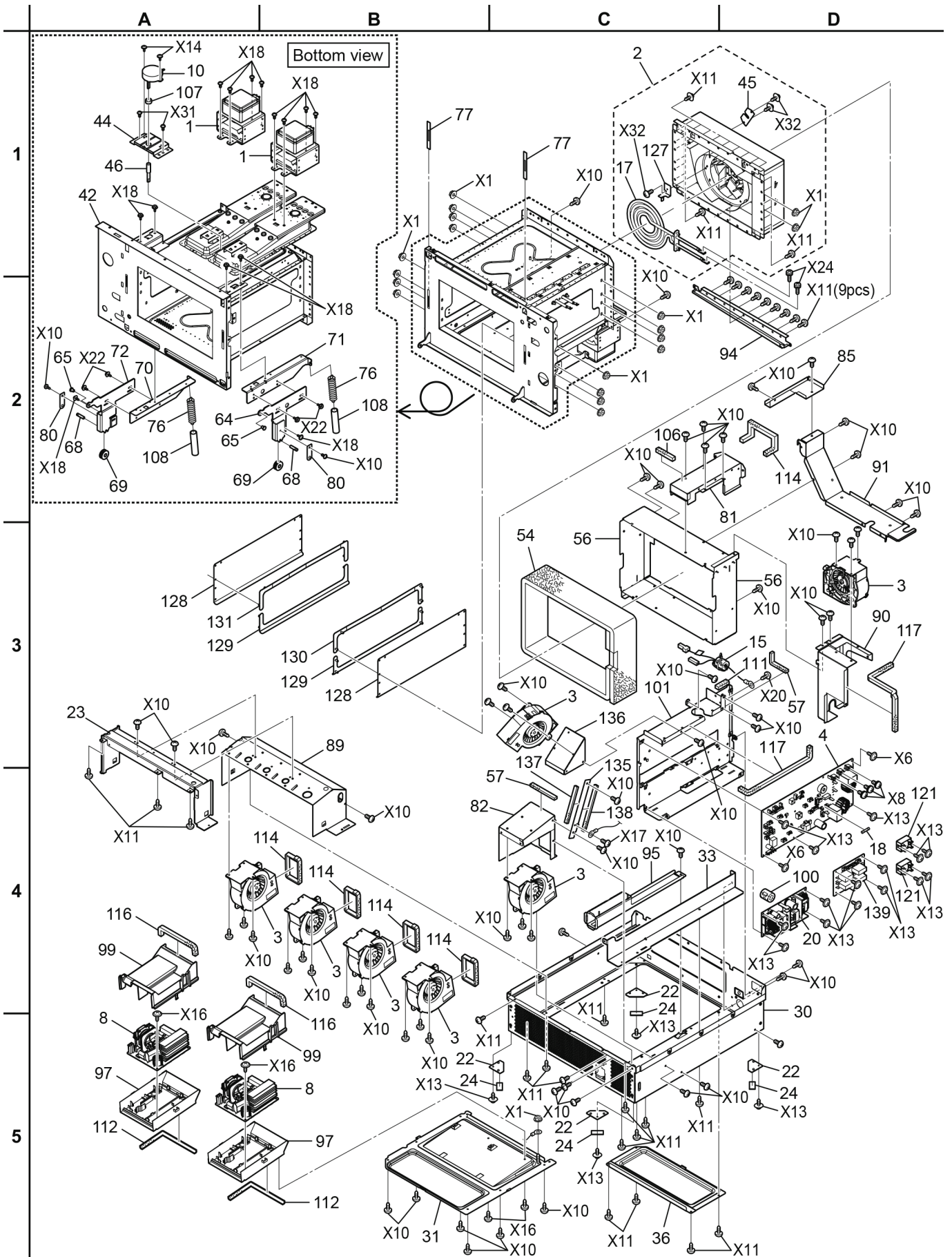
Colors within parentheses indicate housing colors

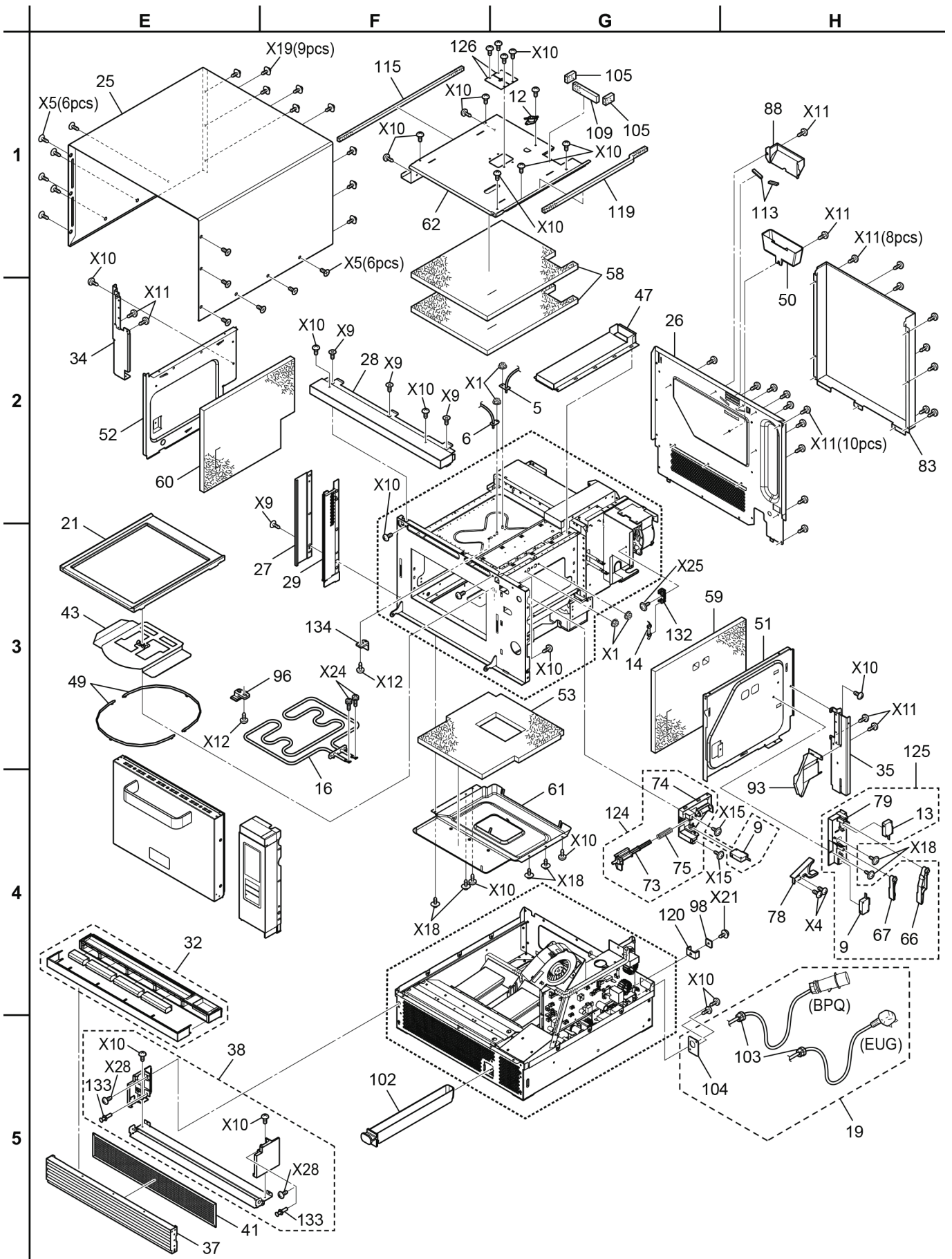


Major self-diagnosis displays (Right / Left are based on Magnetrons)	
Right	Left
F19	F18
FE2	F92
FE0	F90
FE5	F95
FE6	F96
FE7	F97
FE8	F98
FE9	F99

17 Exploded View and Replacement Parts List

17.1. Exploded view and parts list





PARTS LIST

NOTE 1: When ordering replacement part(s), please use part number(s) shown in this parts list.

Do not use description of the part.

2: Important safety notice:

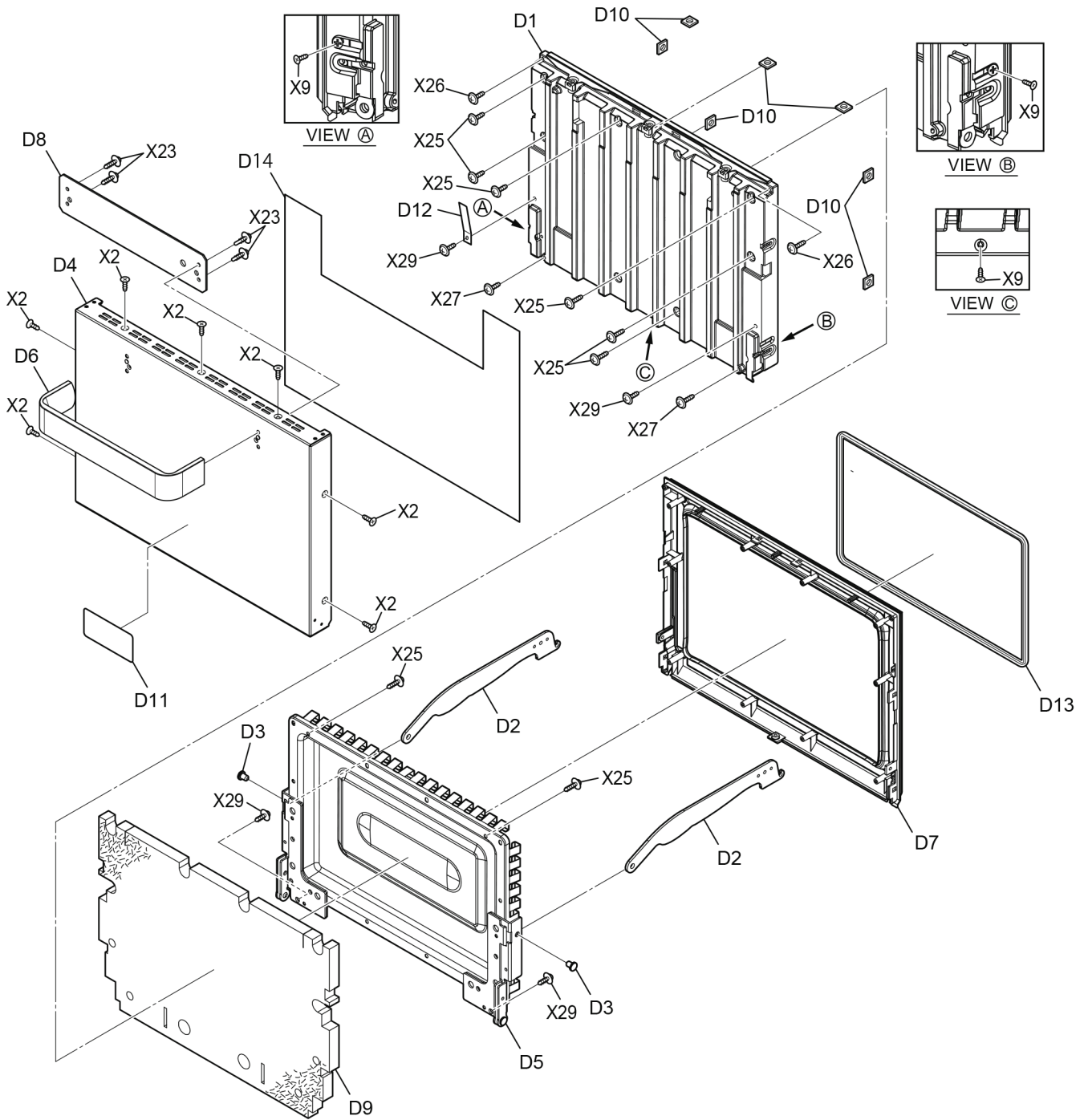
Components identified by \triangle mark have special characteristics important for safety.

When replacing any of these components, use only manufacturer's specified parts.

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	1	2M261-M32J1Y-VP	MAGNETRON	2	
	2	H203M3K20BP	CIRCULATION FAN CASE U	1	INCLUDING WATERPROOF CUSHION, HEAT INSULATING PLATE BACK, HEATER PANEL F(Ref. No.45), HEAT INSULATOR G, AIR GUIDE CU, CIRCULATION FAN MOTOR U, CATALYST, SCREW(Ref. No.X32), FAN HEATER U, SHEATH HEATER B, HEATER FIXING BRACKET(Ref. No.127), NUT(Ref. No.X1), SCREW(Ref. No.18), SCREW, WASHER / NOT INCLUDING SCREW(Ref No.X11)
\triangle	3	J400A-3K20	DC FAN MOTOR	7	(13.2W) COOLING FAN MOTOR
\triangle	4	H603L3K21BP	PCB W/ COMPONENTS	1	PC BOARD
	5	A605A-3K20	TEMP. THERMISTOR	1	OVEN THERMISTOR
	6	A605Y-3K20	TEMP. THERMISTOR	1	SUB OVEN THERMISTOR
\triangle	8	F606Y3G70BPA	H.V. INVERTER	2	
\triangle	9	A61424T00AP	MICRO SWITCH	2	(V-16G-3C25-M) DOOR SWITCH, DOOR SIGNAL SWITCH
\triangle	10	A6144-1T60	AC MOTOR	1	(SINGLE, 3W) ANTENNA MOTOR
\triangle	12	A61458020BP	THERMAL CUTOUT	1	(180°C) FOR TOP HEATER
	13	ANE61784L0AG	MICRO SWITCH	1	(V-16G-2C25) SHORT SWITCH
	14	K5D203YYA136	FUSE	1	(20A)
	15	A621A-3K20	FILTER COIL	1	Please order EARTH LABEL together.
	16	F64133K20BP	SHEATH HEATER A	1	TOP HEATER
	17	A64143G61WT	SHEATH HEATER B	1	REAR HEATER
	18	K5D202BNA005	FUSE B	1	(2A)
	19	A900C3K20BPS	POWER CORD W/ PLUG U	1	BPQ
	19	A900C3K20EUS	POWER CORD W/ PLUG U	1	EUG
	20	N0AE1GJ00030	POWER SUPPLY PCB	1	
	21	A0601-3K21	CERAMIC PLATE	1	
	22	A1007-3280	FOOT	4	
	23	H1007-3G60	FOOT A	1	
	24	A1008-3280	RUBBER FOOT	4	
	25	H1009-3G60	CABINET	1	
	26	H100Q-3K20	BACK PLATE	1	
	27	H1013-3G60	SASH, LEFT	1	LEFT SIDE SASH
	28	H1015-3G60	SASH, UPPER	1	UPPER SASH
	29	H1018-3G60	SASH BRACKET	1	
	30	H101S-3G60	BOTTOM PLATE U	1	
	31	H101A-3G80	COVER B	1	
	32	H102E-3K20	SASH, BOTTOM	1	LOWER SASH, INCLUDING MAGNET
	33	H1040-3G60	REINFORCING PLATE	1	
	34	H1148-3G60	BRACKET, OVEN, LEFT	1	
	35	H1149-3G60	BRACKET, OVEN, RIGHT	1	
	36	H1154-3G60	COVER C	1	Please order CAUTION LABEL together.
	37	H160A-3K20	FRONT COVER	1	
	38	H1601-3K20S	FRONT SIDE COVER U	1	INCLUDING MAGNET
	41	H400B-3G80	MESH FILTER	1	
	42	H200A-3K20	OVEN U	1	NOT INCLUDING ANTENNA MOTOR BRACKET
	43	H202K-3K20	ANTENNA U	1	
	44	H2027-3G60	BRACKET, MOTOR	1	ANTENNA MOTOR BRACKET
	45	H2257-3G90	HEATER PANEL F	1	ADIABATIC PLATE
	46	A2080-3G60	ANTENNA SHAFT	1	
	47	H20883G80AP	AIR GUIDE FIXING	1	
	49	A2133-3G60	SPACER	2	
	50	H48843G60WT	TRAY	1	
	51	H2236-3G60	HEATER PANEL, RIGHT	1	ADIABATIC PLATE
	52	H2237-3G60	HEATER PANEL, LEFT	1	ADIABATIC PLATE
	53	A2242-3G60	ADIABATIC MATERIAL A	1	
	54	A2243-3G60	ADIABATIC MATERIAL B	1	
	56	H2256-3G60	HEATER PANEL E	1	ADIABATIC PLATE
	57	H0920000AU	CUSHION RUBBER C	2	
	58	A2259-3G60	ADIABATIC MATERIAL D	2	
	59	A2260-3G60	ADIABATIC MATERIAL E	1	

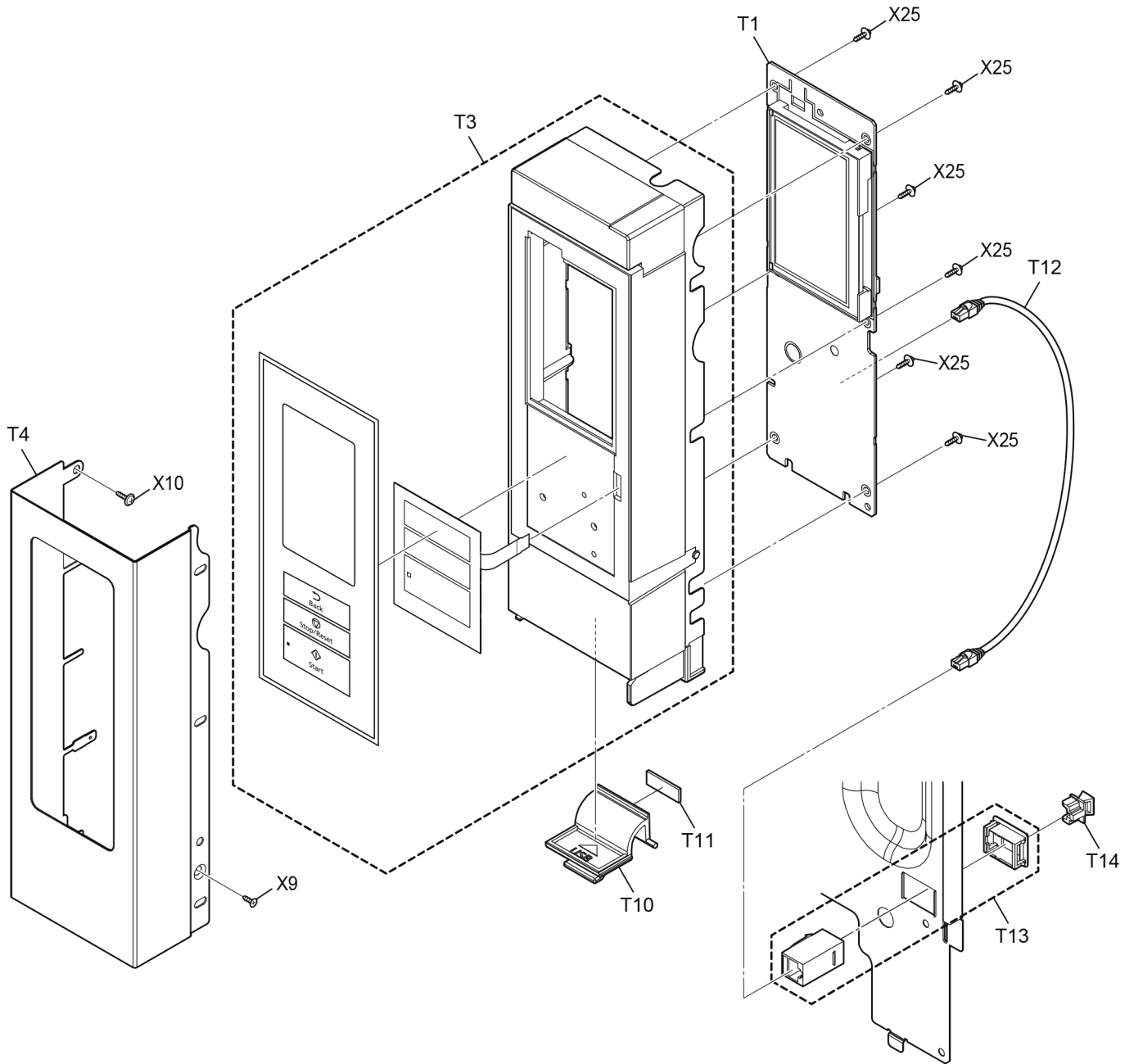
Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	60	A2261-3G60	ADIABATIC MATERIAL F	1	
	61	H2277-3G60	HEATER PANEL, BOTTOM	1	ADIABATIC PLATE
	62	H2278-3K20	HEATER PANEL, UPPER	1	ADIABATIC PLATE
	64	H3007-3G60	HINGE B	1	
	65	A3008-3G60	HINGE PIN	2	
	66	H3020-3G60	DOOR HOOK A	1	
	67	H3030-3G60	DOOR HOOK B	1	
	68	H3033-560	DOOR GUIDE ROLLER PIN	2	
	69	ANE3034-560	DOOR GUIDE ROLLER	2	
	70	H30603G80BP	SPACER B, DOOR HINGE	1	
	71	H30813G80BP	SPACER, DOOR HINGE	1	
	72	H3092-3G60	HINGE C	1	
	73	H3102-3G60	LEVER, LATCH SWITCH	1	
	74	H3103-3G60	BRACKET, LATCH SW	1	LATCH SWITCH BRACKET
	75	H3155-610	SPRING	1	
	76	H32303G80BP	SPRING B	2	
	77	A3252-3G60	SPACER, DOOR ARM	2	DOOR ARM SPACER
	78	H3264-3G60	SPACER B, DOOR ARM	1	DOOR ARM SPACER B
	79	H3291-3G60	BRACKET, LATCH SW	1	LATCH SWITCH BRACKET B
	80	H3379-3G60	BRACKET, GUIDE ROLER	2	
	81	H400K-3G60	EXHAUST GUIDE U	1	
	82	H4021-3G60	COVER, FAN CASE	1	
	83	H4024-3G60	EXHAUST GUIDE A	1	Please order WARNING LABEL together.
	85	H4030-3G60	AIR GUIDE D	1	
	88	A41073980AP	EXHAUST GUIDE B	1	
	89	H4118-3G60	AIR GUIDE	1	
	90	H4209-3G60	AIR GUIDE G	1	
	91	H4211-3G90	AIR GUIDE H	1	
	93	H4880-3G60	DRAIN PLATE	1	
	94	H4881-3G60	DRAIN PLATE B	1	
	95	H4885-3G60	BRACKET WATER SEALING	1	
	96	J6417-3K20	HEATER SUPPORT	1	
	97	H6585-3G60	BRACKET, INVERTER PCB	2	
	98	H66623170GP	BRACKET	1	
	99	H6720-3G60	COVER, INVERTER PCB	2	INVERTER COVER
	100	JOKG00000177	FERRITE CORE	1	FOR LEAD WIRE HARNESS IU
	101	H6793-3K21	BRACKET, PCB	1	Please order SPACER A and SPACER B together.
	102	H8023-3G61	OIL TRAY	1	
	103	ANE9027510RN	CORD BUSHING	1	
	104	H90353060GP	CORD BRACKET	1	
	105	H0920-3G60	CUSHION RUBBER	2	
	106	H0937-3G60	CUSHION RUBBER	1	
	107	A0938-3G60	TUBE	1	
	108	A0941-3G60	TUBE	2	
	109	H0984-3G60	CUSHION RUBBER	1	
	111	H0920000CQ	CUSHION RUBBER C	1	
	112	H0961000AM	CUSHION RUBBER D	2	
	113	H0962000AE	CUSHION RUBBER D	2	
	114	H0962000AN	CUSHION RUBBER D	5	
	115	H0962000AW	CUSHION RUBBER D	1	
	116	H0963000AK	CUSHION RUBBER D	2	
	117	H0963000AR	CUSHION RUBBER D	2	
	119	H0963000AU	CUSHION RUBBER D	1	
	120	XWNANE65GV	WASHER	1	
	121	K6H1AYY00009	SOLID STATE RELAY	2	SSR1, SSR2
	124	H300W-3G60	LATCH SWITCH AU	1	
	125	H300X-3G60	LATCH SWITCH BU	1	
	126	A6557-3K20	THERMISTOR COVER	2	
	127	H67853G80BP	HEATER FIXING BRACKET	1	
	128	A1596-3K20	SIDE COVER	2	
	129	H310A-3K20	RAIL U	2	
	130	H311T-3K20	RAIL A RIGHT U	1	
	131	H311U-3K20	RAIL A LEFT U	1	
	132	A6231-3K20	FUSE HOLDER	1	
	133	A4602-3K20	RIVET PIN	2	
	134	A3254-3K20	DIELECTRIC MATERIAL	1	
	135	H4032-3K20	FAN MOTOR REINFORCEMENT PLATE	1	
	136	H4157-3K21	FAN HOLDER A	1	
	137	H0961000BH	CUSHION RUBBER D	1	
	138	H0961000BO	CUSHION RUBBER D	1	
	139	H603Y3K20BP	RELAY BOARD	1	

DOOR ASSEMBLY



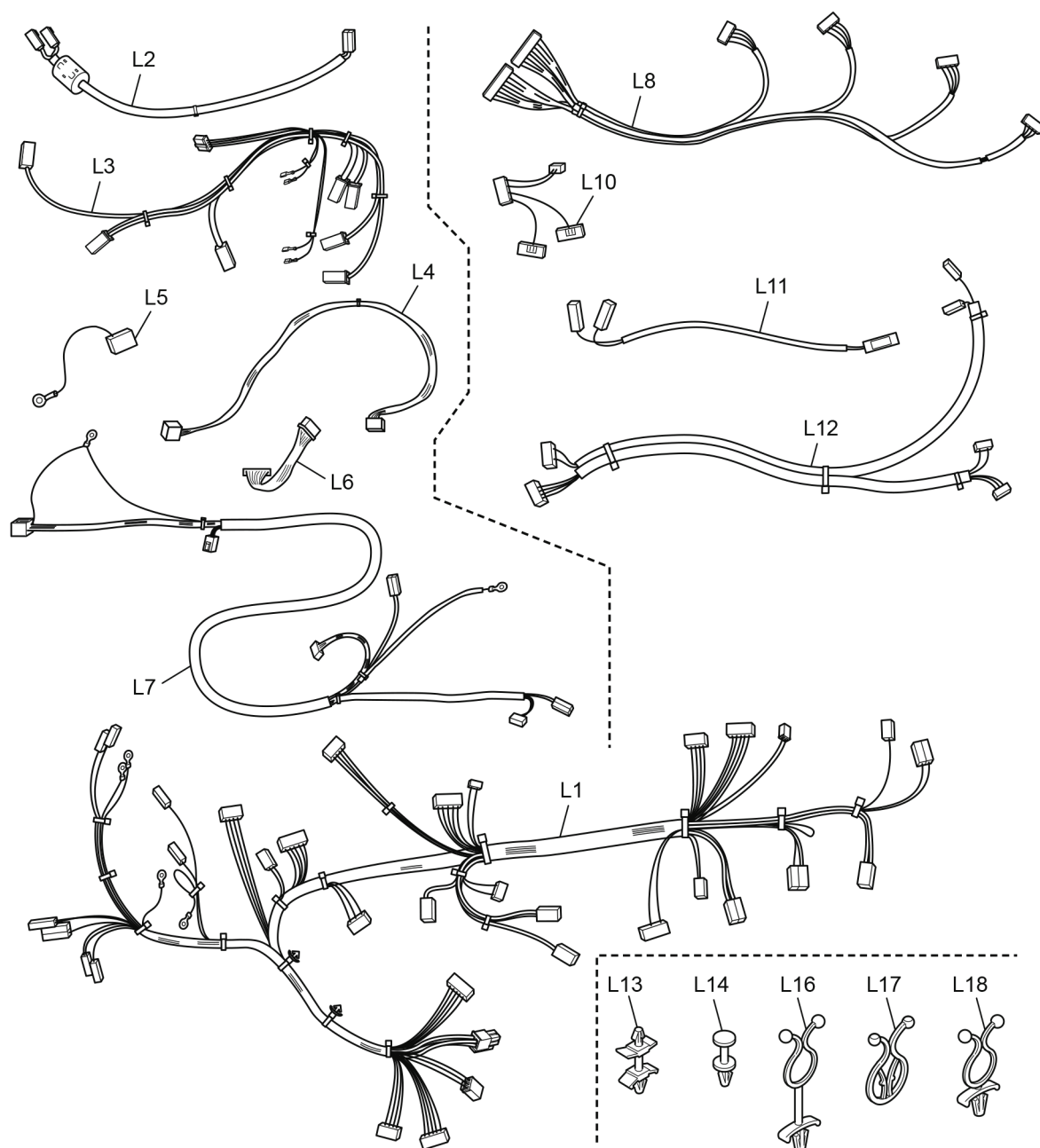
Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	D1	H3001-3G60	DOOR A	1	
	D2	H3004-3G60	DOOR ARM	2	
	D3	A3008-3G60	HINGE PIN	2	
	D4	H300A-3G60	DOOR BU	1	
	D5	A301Q3G80AP	DOOR EU	1	
	D6	A3070-3G60	HANDLE PIECE	1	
	D7	H30853G81BP	DOOR C	1	
	D8	H3181-3G60	BRACKET, HANDLE	1	
	D9	A2385-3G60	ADIABATIC MATERIAL H	1	
	D10	A4892-3G60	NUT	7	(M4)
	D11	H3186-3K21	DOOR PANEL	1	
	D12	H90093G60WT	TAB	1	
	D13	A33343G80BP	DOOR SEAL	1	
	D14	H22173G80BP	ADIABATIC PLATE A	1	

ESCUTCHEON BASE ASSEMBLY



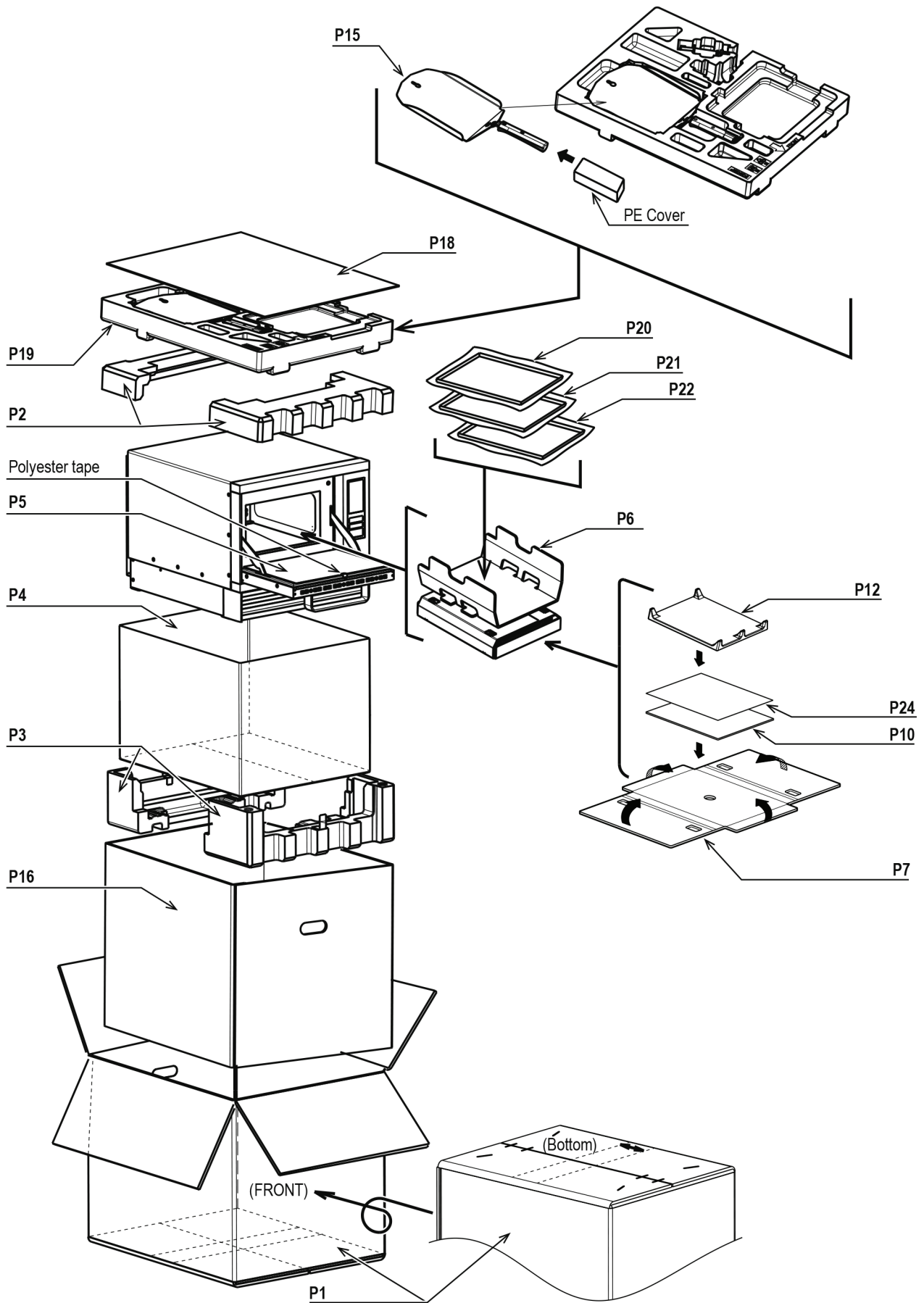
Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	T1	H605Q3K20BPS	DISPLAY BOARD	1	
	T3	H800L3K20BPS	ESCUTCHEON BASE U	1	
	T4	H8058-3G60	ESCUTCHEON	1	
	T10	H8038-3K20	USB COVER	1	
	T11	H1017-3K20	COVER SPACER	1	
	T12	A8203-3K20	LAN CABLE	1	
	T13	A8204-3K20	MODULAR JACK B	1	
	T14	A8205-3K21	LAN CONNECTOR COVER B	1	

WIRING MATERIAL

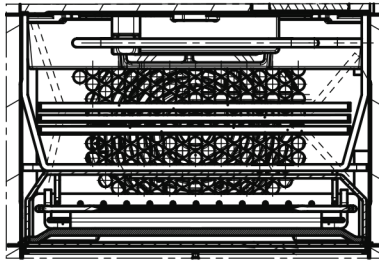


Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
⚠	L1	F030A3K20BP	LEAD WIRE HARNESS AU	1	
⚠	L2	A030E3G60WT	LEAD WIRE U	2	FOR MAGNETRON
⚠	L3	A030F-3K20	LEAD WIRE HARNESS BU	1	FOR SOLID STATE RELAY
⚠	L4	A030H-3G60	LEAD WIRE HARNESS CU	1	FOR DISPLAY BOARD
	L5	H03593K20BP	LEAD WIRE U	1	FOR PC BOARD
	L6	A031F-3K20	LEAD WIRE HARNESS DU	1	FOR DC FAN MOTOR (PC BOARD)
	L7	A031H-3G60	LEAD WIRE HARNESS FU	1	FOR H.V. INVERTER
	L8	A031K-3G60	LEAD WIRE HARNESS GU	1	FOR DC FAN MOTOR (MAGNETRON, H.V. INVERTER)
	L10	A031M-3K20	LEAD WIRE HARNESS IU	1	FOR POWER SUPPLY PCB
	L11	A031N3G80AP	LEAD WIRE HARNESS JU	1	FOR ANTENNA MOTOR
	L12	A031P-3K20	LEAD WIRE HARNESS KU	1	FOR CIRCULATION FAN CASE U
	L13	A6544-3G60	SPACER A	7	FOR BRACKET, PCB
	L14	A6545-3G60	SPACER B	3	FOR BRACKET, PCB
	L16	ANE9072-400	LEAD WIRE HOLDER C	1	FOR AIR GUIDE H
	L17	ANE9073-900	LEAD WIRE HOLDER D	1	FOR LAN CABLE, etc.
	L18	ANE9123-5D0	LEAD WIRE HOLDER P	1	FOR BRACKET, PCB

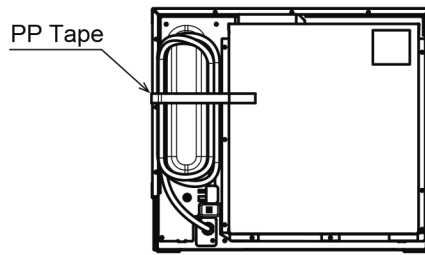
PACKING AND ACCESSORIES



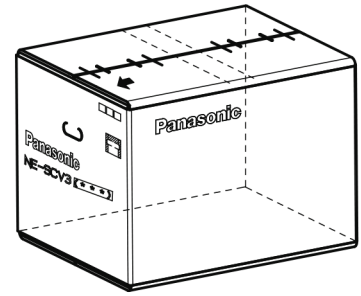
Inside of oven cavity



Fixing method for cable



Complete packaging view



Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	P1	H01023K20BPS	PACKING CASE, PAPAER	1	BPQ
	P1	H01023K20EUS	PACKING CASE, PAPAER	1	EUG
	P2	H0104-3G60	UPPER FILLER	1	
	P3	H0105-3G60	LOWER FILLER	1	
	P4	H01063040AP	VINYL COVER	1	
	P5	H0107-3G60	DOOR SHEET	1	BPQ
	P5	H0107-3G60S	DOOR SHEET	1	EUG, WITH RECYCLING LABEL
	P6	H0108-3G90	TRAY PACKING	1	BPQ
	P6	H0108-3G90S	TRAY PACKING	1	EUG, WITH RECYCLING LABEL
	P7	H0117-3G61	TRAY PACKING B	1	BPQ
	P7	H0117-3G61S	TRAY PACKING B	1	EUG, WITH RECYCLING LABEL
⚠	P10	H05063K20BP	INSTRUCTION BOOK	1	BPQ
⚠	P10	H05063K20EU	INSTRUCTION BOOK	1	EUG
	P12	A0749-3K21	CERAMIC PLATE	1	
	P15	H011H3G80BP	PADDLE	1	BPQ
	P15	H011H3G80BPS	PADDLE	1	EUG, WITH RECYCLING LABEL
	P16	H01033G80BP	INNER PACKING BOX	1	BPQ
	P16	H01033G80BPS	INNER PACKING BOX	1	EUG, WITH RECYCLING LABEL
	P18	H01263G80BP	UPPER PACKING	1	BPQ
	P18	H01263G80BPS	UPPER PACKING	1	EUG, WITH RECYCLING LABEL
	P19	H01143G80BP	UPPER FILLER B	1	
	P20	A063A3G81KBP	OVEN SHEET, BLACK, PTFE	1	BPQ
	P20	A063A3G81KBPS	OVEN SHEET, BLACK, PTFE	1	EUG, WITH RECYCLING LABEL
	P21	A063B3G80ZBP	OVEN SHEET, GREEN, PTFE	1	BPQ
	P21	A063B3G80ZBPS	OVEN SHEET, GREEN, PTFE	1	EUG, WITH RECYCLING LABEL
	P22	A063C3G80XBP	OVEN SHEET, BLUE, PTFE	1	BPQ
	P22	A063C3G80XBPS	OVEN SHEET, BLUE, PTFE	1	EUG, WITH RECYCLING LABEL
	P24	H01723F90EU	CAUTION LABEL	1	

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
⚠		H0005-2601	EARTH LABEL	1	FOR FILTER COIL
		H00064080BP	WARNING LABEL	1	FOR EXHAUST GUIDE A
⚠		H01573K20BP	NAME PLATE	1	BPQ, Please order PROTECTIVE SHEET together.
⚠		H01573K20EU	NAME PLATE	1	EUG
		H02393A80BP	CORD LABEL	1	
⚠		H02673G80BP	SERVICE NOTICE	1	FOR COVER B
⚠		H05283G80BP	CAUTION LABEL	1	FOR COVER C
		H63843F90BP	PROTECTIVE SHEET	1	BPQ, FOR NAME PLATE

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks
	X1	XNW4EFN	NUT		23 (M4) FOR SHEATH HEATER Ax2, SIDE COVERx16, TEMP. THERMISTOR(Ref.No.5,6)x2, LEAD WIRE HARNESS FUx1, CIRCULATION FAN CASE Ux2
	X2	XSS4+10UM	SCREW		7 (4X10) FOR DOOR BU
	X4	XST4+6FN	TERMINAL SCREW		4 (4X6) FOR DOOR ARM SPACERx2, OVEN U(WAVEGUIDE)x2
	X5	XTC4+10BC	SCREW		12 (4X10) FOR CABINET
	X6	XYC3+FJ8FJ	SCREW		3 (3X8) FOR PC BOARD
	X8	XYN4+C8FN	SCREW		3 (4X8) FOR POWER CORD W/ PLUG
	X9	XTS4+10JJ	SCREW		8 (4X10) FOR ESCUTCHEONx1, SASH, LEFTx1, SASH, UPPERx3, DOOR Ax3
	X10	XTT4+8RDN	SCREW		90 (4X8) FOR HEATER PANEL, BOTTOMx2, BRACKET, OVEN, RIGHTx1, BRACKET, OVEN, LEFTx1, BOTTOM PLATE Ux1, COVER Bx6, HEATER PANEL, UPPERx8, THERMISTOR COVERx4, THERMAL CUTOOUTx1, BRACKET, GUIDE ROLERx2, LATCH SWITCH AUx1, CORD BRACKETx2, HEATER PANEL Ex3, AIR GUIDE Hx4, EXHAUST GUIDE Ux4, AIR GUIDE Dx2, AIR GUIDE Gx6, DC FAN MOTORx3, FAN HOLDER Ax1, ESCUTCHEON BASE ASSYx2, FAN MOTOR REINFORCEMENT PLATEx2, SASH, UPPERx2, FRONT SIDE COVER Ux2, BRACKET WATER SEALINGx1, BOTTOM PLATE Ux2, AIR GUIDEx10, FOOTx6, COVER, FAN CASEx6, BRACKET, PCBx5
	X11	XTTANE4+12BN	TAPPING SCREW		73 (4X12) FOR BRACKET, OVEN, RIGHTx2, BRACKET, OVEN, LEFTx2, BOTTOM PLATE Ux6, COVER Cx4, CIRCULATION FAN CASE Ux30, TRAYx1, BACK PLATEx10, EXHAUST GUIDE Bx1, EXHAUST GUIDE Ax8, FRONT SIDE COVER Ux2, AIR GUIDEx7
	X12	XTTANE4+12SX	SCREW		2 (4X12) FOR HEATER SUPPORTx1, DIELECTRIC MATERIALx1
	X13	XTW3+10EFJ	SCREW		18 (3X10) FOR FOOT Ax4, PC BOARDx2, RELAY BOARDx4, POWER SUPPLY PCBx4, SOLID STATE RELAYx4
	X14	XTW3+6EFJ	SCREW		2 (3X6) FOR AC MOTOR
	X15	XTW4+12TJV1	SCREW		2 (4X12) FOR LATCH SWITCH AU
	X16	XTW4+8PFJ	SCREW		4 (4X8) FOR COVER Bx2, COVER, INVERTER PCBx2
	X17	XTWA4+8CFJ	SCREW		1 (4X8) FOR LEAD WIRE HARNESS FU
	X18	XTW4+8LHJ	SCREW		24 (4X8) FOR SPACER B, DOOR HINGEx2, SPACER, DOOR HINGEx2, HEATER PANEL, BOTTOMx4, MAGNETRONx8, HINGE Bx1, HINGE Cx1, LATCH SWITCH BUx2, H.V.INVERTERx2
	X19	XTWANE4+12DN	TAPPING SCREW		9 (4X12) FOR CABINET
	X20	XYD4+EE12FJ	SCREW		1 (4X12) FOR FILTER COIL
	X21	XYE6+F20FJ	SCREW		1 (6X20) FOR BRACKET
	X22	XYF4+AF8J	TAPPING SCREW W/ WASHER		4 (4X8) FOR HINGE Bx2, HINGE Cx2
	X23	XYN4+F18SJ	TERMINAL SCREW W/ WASHER		4 (4X18) FOR BRACKET, HANDLEx4

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/set	Remarks	
	X24	XYNA35+C7US	TERMINAL SCREW W/ WASHER		4	(3X8) FOR SHEATH HEATER Ax2, SHEATH HEATER Bx2
	X25	XTW3+10PFJ	TAPPING SCREW		15	(3X10) FOR DOOR EU (DOOR A)x2, DOOR A (DOOR C)x6, DISPLAY BOARDx6, FUSE HOLDERx1
	X26	XTNA3+10GJ	SCREW		2	(3X10) FOR DOOR A (DOOR C)
	X27	XTW3+20QJ	SCREW		2	(3X20) FOR DOOR A (DOOR C)
	X28	XTS3+8AXRV1	TAPPING SCREW		2	(3X8) FOR FRONT SIDE COVER Ux2, SASH, BOTTOMx1
	X29	XTW4+16QJ	SCREW		4	(4X16) FOR TABx1, DOOR Ax1, DOOR EUx2
	X31	XTWANE4+10BN	TAPPING SCREW		2	(4X10) FOR BRACKET, MOTOR
	X32	XTTANE4+8SX	SCREW		27	(4X8) FOR CIRCULATION FAN CASE U (HEATER PANEL Fx2, HEATER FIXING BRACKETx1, etc.)