

# Service Manual

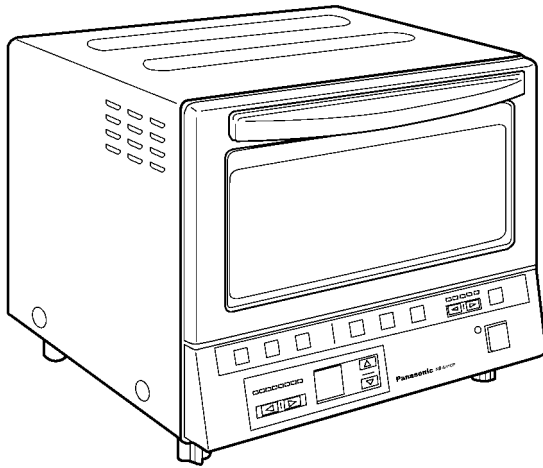
## TOASTER OVEN

Model No. **NB-G110PLVA**

Chassis

Product Color Silver

Destination USA



### **⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

### **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.




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# 1 Safety Precautions

The precautions listed below must be followed in order to prevent accidents during repair and ensure the safety of the product after repair.




■ The following labels describe the degree of danger and damage that might result through non-compliance with these precautions.

	<b>Danger</b>	This section warns of the urgent danger of death or serious injury.
	<b>Warning</b>	This section warns of the risk of death or serious injury.
	<b>Caution</b>	This section warns of the risk of injury or damage to property.

■ The following labels describe the types of rules that need to be followed.  
(These labels are examples.)

	This label shows a "reminder" action to be paid attention to.
	This label shows a "prohibited" action.
	This label shows a "compulsory" action to be followed without fail.

## **Warning**

<p><b>After repair, return wiring to its original condition.</b></p> <p> Rotary parts or part extremities that contact lead may cause failure, electrical shock, or fire.</p>	<p><b>Before repair.</b></p> <div style="border: 1px solid black; padding: 2px; display: inline-block; margin-bottom: 5px;">             CUT A.C. POWER LINE         </div> <p>Make sure to cut off the power line before disassembly, parts replacement, and assembly. Otherwise, electrical shock or injury may occur.</p>
<p><b>Use a designated part</b></p> <p> Make sure to use a designated part when the part is marked in circuit diagrams and parts lists. Otherwise, smoke, fire, or failure may occur.</p>	<p><b>Wait until the rotary part has stopped completely.</b></p> <p> You may injure your hands even when the part is rotating slowly.</p> <p>Do not touch</p>

## **Caution**

<p> <b>Wear gloves for disassembly, replacement and assembly.</b></p> <p>Make sure to wear gloves in order to prevent injuries by metal edges and electric shock when the power is turned on.</p>
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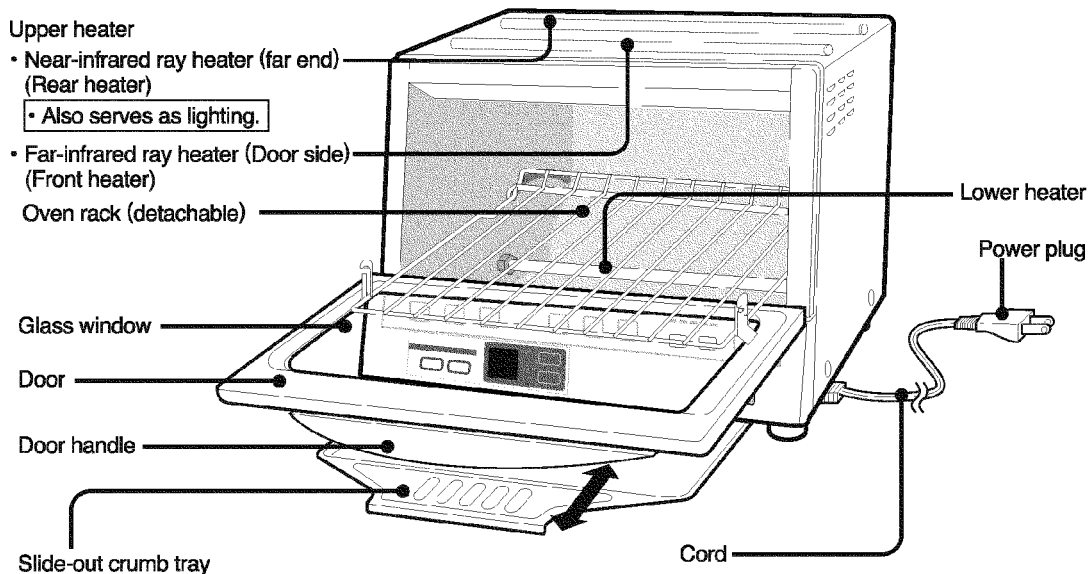
## 2 Specifications

Power Supply		120 V ~ 60 Hz
Power consumption		1300 W
Temperature control (approx.)		250 – 500 °F (120 – 260°C)
Timer		0.5 – 25 min
Dimensions (W × D × H) (approx.) inch (cm)	Outer dimensions	13" × 12" × 10.2" (33.0 × 30.5 × 26.0)
	Inner dimensions	10.2" × 9.8" × 4.1" (26.0 × 25.0 × 10.5)
	Oven tray (inner dimensions)	9.3" × 9.3" × 0.7" (23.5 × 23.5 × 1.8)
Weight (approx.)		7.5 lbs (3.4 kg)
Cord length		36.6 inch (93 cm)

- The power consumption is about 0.4 W when the power plug is inserted into the wall outlet without the Power button pressed.

### 3 Installation Instructions

## Part Names and Handling Instructions



- Insert the tray toward the far end securely. (If the tray is not properly set, it may result in poor cooking.)
- Pull the tray toward you to remove.
- Make sure the toaster oven is cold before removing the tray.

- Do not use the cord in a tight bundle. (The cord will become hot and cause malfunction of the toaster oven.)

#### Note

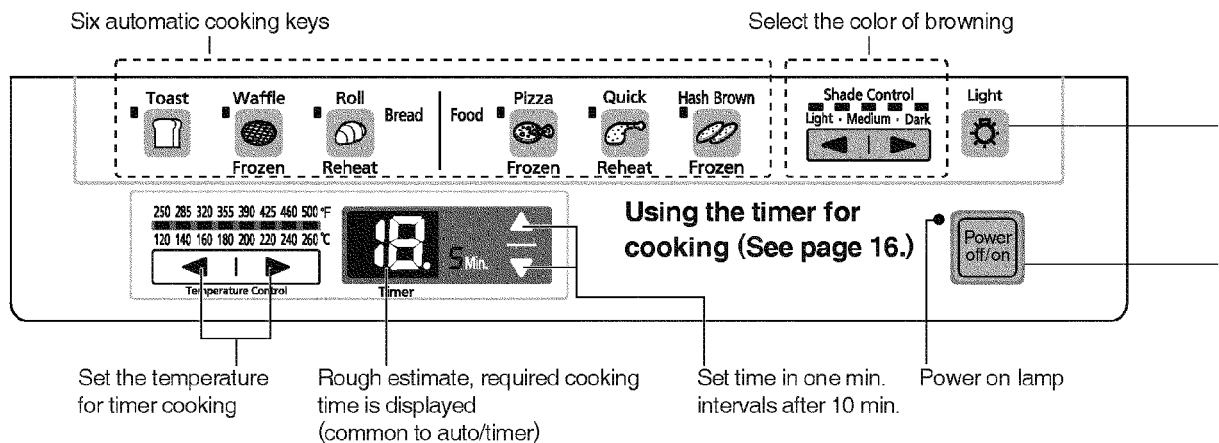
- The heaters automatically turn off and on during operation to control the temperature during cooking. This is not a malfunction.

#### Important

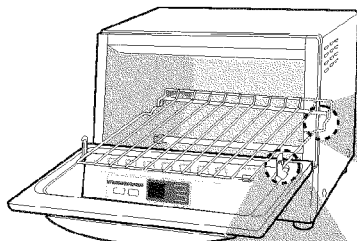
- Do not open the door during cooking. (Cooking will be uneven.)
- Do not pour water on the glass window if it is hot. (The glass might break.)

## Operation panel

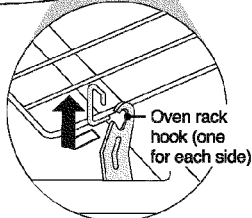
Using automatic cooking key for cooking (See page 12.)



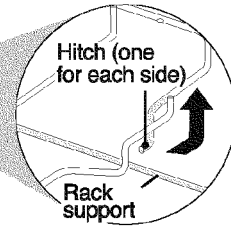
**To remove oven rack**



① Open the door halfway, pull the oven rack towards you to disengage it from the hooks.



② Disengage the hitches of the oven rack from the gridiron support.



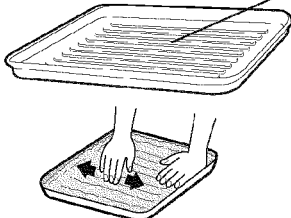
**To attach**

① Open the door. Engage the hitches of the oven rack onto the rack support inside the toaster oven.

② Pull the oven rack toward you while closing the door halfway and engaging the oven rack onto the hooks.

**Accessory**

1 oven tray



- The tray has a grooved surface for warming cold fried food efficiently. (The food might get groove patterns on its bottom.)
- It is good practice to put a sheet of aluminum foil on the oven tray to prevent stains.
- It is advisable to put a sheet of aluminum foil on the tray, pressing it with fingers along the grooves to ensure that frozen pizza or cold fried food can be crispy cooked.

**Note**

- It smells when using the product initially, but it won't smell after repeated using.

Lighting (near-infrared ray heater serves also as lighting.)

- Press the light button to turn on the near-infrared ray heater to brighten the interior of the toaster oven so that you can check the food. The heater will automatically turn off after a certain time.
- The length of time the near-infrared ray heater is kept on varies with the heating condition.
- You cannot turn off the lighting manually.
- Do not press the light button successively. (The temperature inside the toaster oven will rise which will affect the cooking result.)

Power off/on

- Press to turn on the toaster oven (lamp comes on).
- Press to turn off the toaster oven during operation (lamp goes out).
- Press after use (lamp goes out).



# 4 Operating Instructions

## Cooking using automatic cooking keys

### Toast Bread can be toasted to your desired color of browning.

#### (1-4 slices)



#### Cooking note:

- The color of browning varies with type, size and thickness of bread.
- Bread containing a lot of sugar will brown darker. Set the level to the Light side.
- The surface of a thick slice of bread will brown a little darker.
- Standard cooking time: 2-3 min.
- \* Cooking time may vary according to shade control setting.

#### How to place food inside:

If you want to toast, place it at the center of oven rack.

### Frozen Waffle Frozen bread can also be toasted to your desired color of browning.

#### (1-4 slices)



#### Cooking note:

- The color of browning varies with the type, size and thickness of bread. In addition, the inside of bread might not heat enough in some cases.
- The cooking of frozen bread takes time because the toaster oven defrosts frozen bread by turning the heater on and off repeatedly.
- The toaster oven performs optimal heating. It might take longer when the color of browning is set to Dark than when set to Light.
- When cooking bread containing a lot of sugar, set to the Light side.
- Standard cooking time: 4-6 min.
- \* Cooking time may vary according to shade control setting.

#### How to place food inside:

Remove frost from the surface of frozen bread and place it on the oven rack.

### Reheat Roll Rolls can be reheated without browning.

#### (1-4 pieces)



#### Cooking note:

- When cooking bread containing a lot of sugar, set the level of browning to the Light side.
- Use the timer when warming stuffed or cooked bread such as hamburgers or the like.
- Standard cooking time: 2-3 min.
- \* Cooking time may vary according to shade control setting.

### Frozen Pizza Baking pizza up to 22.5cm (9 inches) in diameter.

#### (12.5-22.5cm) (5-9 inches)



#### Cooking note:

- If cooking a large pizza, the side closer to the door might not bake enough. Make sure to put it toward the far end.
- Standard cooking time: 12-14 min.
- \* Cooking time may vary according to shade control setting.

#### How to place food inside:

Place aluminum foil on the oven tray. (See page 11.) Remove frost from the surface of the pizza and place the frozen pizza on the tray. Place the tray inside the toaster oven.

## Cooking using automatic cooking keys (Operating procedure)

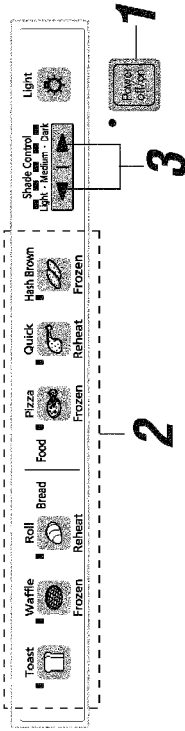
### Preparations

- ① Insert the power plug into the wall outlet.
- ② Put the food inside the toaster oven.

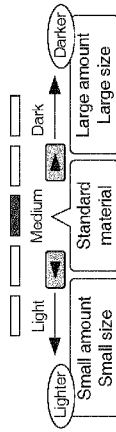
**1** Press [Power off/on] (Red power lamp comes on.)

**2** Press any of the automatic cooking keys.

**3** Within 30 seconds, use the keys to adjust the color of browning.



### How to set the color of browning (Using the shade control)



- Lighting of the lamps occur in intervals every time the button is pressed.
  - The color of browning varies with the type and quantity of food and the size (weight) of each piece.
  - Once the toaster oven is set to a color of browning, the next round of cooking will be performed at this setting.
  - ※ The setting stored in memory will be lost if the power plug is removed.
- The color of browning will be set to medium when the power is turned on.

### Cooking starts and the standard cooking time is displayed.

**2:5** Min. during cooking

※ The displayed time counts down in increments of 0.5 minutes during cooking.

Note: For a while after cooking starts, the cooking time blinks. During this time, the baking time is checked. When the cooking time is confirmed, the displayed time stays on.



When cooking is finished, the buzzer sounds and the power is automatically turned off.

Take out the food with a pot holder (oven mitt).

### After use:

Turn off unit by pressing the power button. The lamp goes out. Remove the power plug.

## Reheat Quick



### Warming fried food.

#### **How to place food inside**

Place aluminum foil on the oven tray. (See page 11.)  
Place cold fried food on the tray and place it inside the toaster oven.

#### **Cooking note**

- The inside of chilled fries might not be heated enough.  
Provide additional heating. (See page 15.)
- Standard cooking time: 5–7 min.  
\* Cooking time may vary according to shade control setting.

## Frozen Hash Browns



### (Up to tray range)

#### **How to place food inside**

Remove frost from the surface of the hash browns.  
Place onto the tray and keep proper space between them, otherwise they may swell too much or sag when heated.

#### **Cooking note**

- Standard cooking time: 4–6 min.  
\* Cooking time may vary according to shade control setting.

### Baking hash browns.

## Common to 6 automatic cooking menus

### ● To change the menu or the color of browning:

- The color of browning can be changed if it is within 30 seconds after the automatic cooking key is pressed. You cannot change the color of browning if 30 seconds have elapsed.
- If 30 seconds have elapsed or if you want to change the menu press the power button. The lamp goes out. Start over again from the first step of the operating procedure. (See page 12.)

### ● To stop the cooking halfway:

Press the power button. The lamp goes out.

### ● To provide additional heating:

- When the color of browning is lighter than you expected, or when the food was not heated enough.
- Press the same automatic cooking key you pressed in step 2 of the operating procedure. (See page 12.)
- Stand by the toaster oven to watch how the food is heated. Press power button when necessary to stop cooking. The lamp goes out.

### ● To continue cooking in succession:

- Set the toaster oven, starting with step 2 (see page 12) of the operating procedure.
- \* The food might not be browned properly compared with the first time or the inside of food might not be heated enough. It is advisable to open the door and keep it open for a while to cool down the inside of the toaster oven before starting cooking again.

#### **Note**

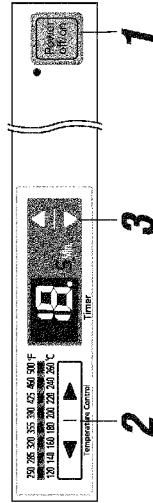
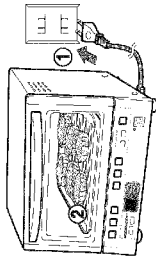
- The heater might stay off for a few minutes.  
This is not a malfunction. In particular, when the toaster oven is used immediately after high-temperature cooking, the heater might stay off for about 3 minutes.
- If you adjust the color of browning to the light side, the cooking might end as soon as the time interval is established.



## Cooking using the timer (Operating procedure)

### Preparations

- ① Insert the power plug into the wall outlet.
- ② Place the food at the center inside the toaster oven.
- Place large food such as pizzas or cakes, or multiple food items such as cookies, at a position toward the far end, because those at the near end might not bake enough.

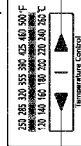


- 1 Press [Power off/on].

■ Power lamp comes on. \*

- 2 Select the cooking temperature.

■ Adjust the cooking temperature according to the recipe. (See page 18.)  
(The 390 °F (200 °C) lamp comes on at first.)



Low High

### 3

- 3 Set the timer.

As soon as the key is pressed, cooking starts.

The set interval counts down in 0.5 minutes.

When the set interval is up, the buzzer sounds and the heater is automatically turned off.

Take the food out from the toaster oven using a pot holder.

- Adjust the cooking time according to the recipe. (See page 18.)

The time on display increases (0→0.5→1)

5 min The time on display decreases (0→25→24)

• You can set the cooking time up to 10 min. in increments of 0.5 min. You can set up to 25 min. but in increments of one min. after 10 min.

• Press and hold down the key to increase or decrease the number rapidly.

• When the timer is set to "0" during cooking, the toaster oven will automatically turn off in 3 seconds.

\* You can change the cooking temperature and the set the time freely during cooking.

- To stop the cooking halfway Press the Power off/on. (The heater lamp goes out.)
- To continue cooking in succession Set the toaster oven, repeating with step 2 of the operating procedure.
- After use Press the Power off/on. The red lamp goes out. Remove the power plug.

## Cooking using the timer

### Points for cooking with timer

#### Cooking time

- There is no need for preheating.
- The standard time varies with the temperature, quality, quantity of food and material of the cooking tray. Adjust properly by watching how the food is heated.
- If it takes more than 25 minutes to cook food, set the temperature and timer again, checking the result from time to time.
- If you cook in succession, the food might not brown enough or the inside might not heat properly. It is advisable to open the door and keep it open for a while to cool down the inside of the toaster oven, before starting the cooking again.
- If the food is not sufficiently heated, use the timer to heat it further, checking the result from time to time.
- \* In particular, when baking cakes, cool down the inside of the toaster oven before cooking.

#### Cooking temperature

- If food is heated at the same temperature as used for a large oven, it might bake too much because of the difference in the interior size. Adjust the temperature properly watching how the food is heated.
- For food that has been cooked using a toaster oven without temperature control function, set the cooking temperature to 460 °F – 500 °F (240 °C – 260 °C) and use the timer, cook and watch the result of baking.

#### When baking commercial frozen food

- Use the frozen food key for the toaster oven.
- Do not rely too much on the power level and refer cooking time written on the package.

#### When baking tall food items such as cakes

- Any tall food is browned easily. When the food is browned properly, cover it with a foil before baking further.
- Cut a sheet of aluminum foil into a size a little larger than the mold and use it, because large pieces of foil make it difficult to bake the food properly.

#### Baking mold for cakes

- Avoid using molds made of porcelain or heat-resistant glass, or those with a metal hook.

#### Important

- Do not try to bake meat or fish which oozes oil without wrapping. When baking meat or fish, wrap it in a foil to prevent oil from splashing, and put it on the oven tray.
- Do not use the toaster oven for steaming. (Steam will cause malfunction of the toaster oven.)
- Do not use parchment paper or cooking sheeting other than for putting it under cake molds. Cut away excess parchment paper or cooking sheeting from under the cake molds.
- Do not use paper baking molds for cake mix. (They might catch fire when in contact with the heater.) (There is a danger of fire.)



Parchment paper (cooking sheeting)

- When cooking with foil, such as when baking cakes or large potatoes, use caution to prevent the foil from coming in contact with the heater. (The foil might melt away and adhere to the surface of the heater, causing malfunction of the toaster oven.)

#### Note

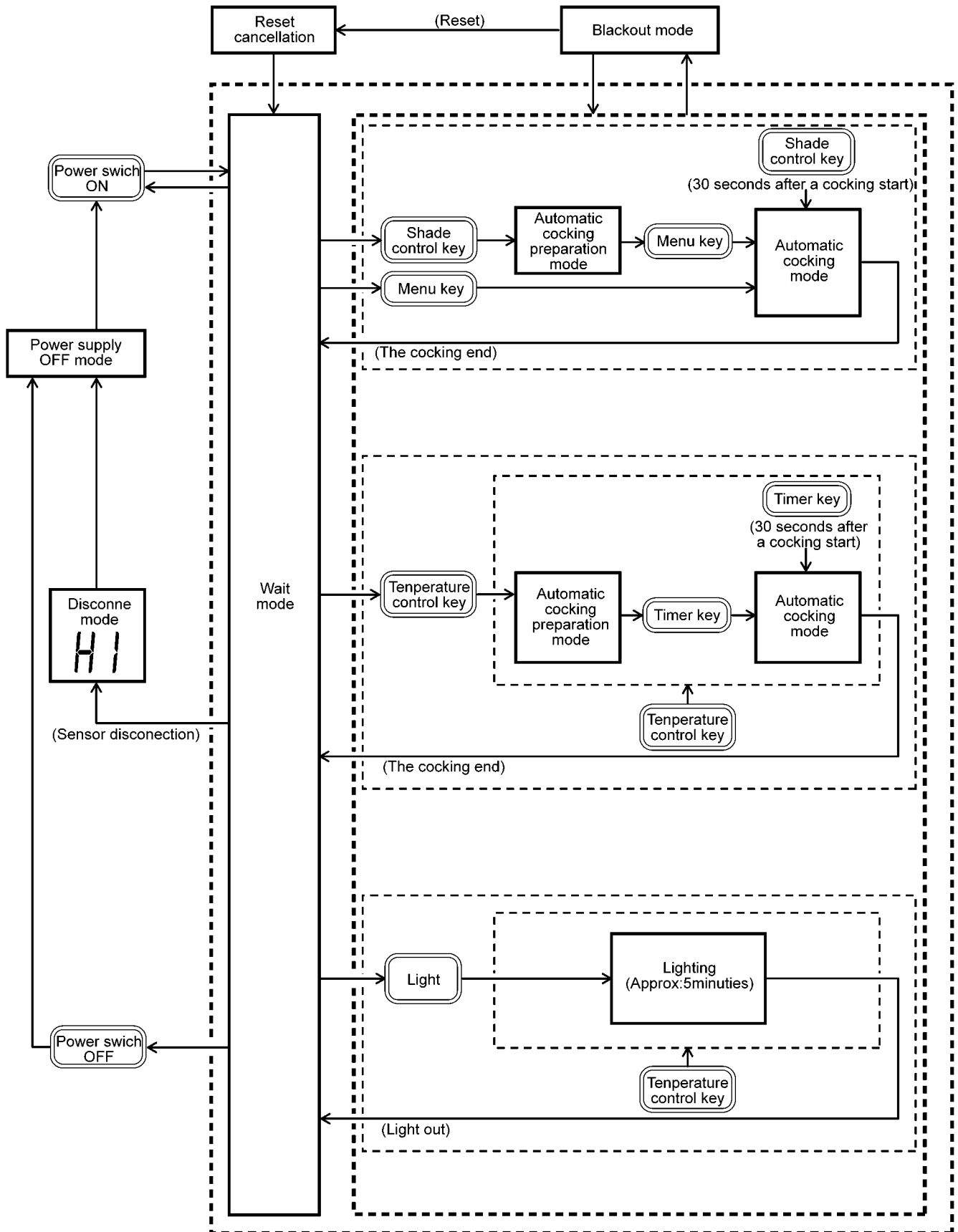
- When cooking at a low temperature 250 °F – 285 °F (120 °C – 140 °C), the heater will stay off for about 3 minutes. This is not a malfunction.

# 5 Troubleshooting Guide

Before starting the troubleshooting, check the action of the oven according to the operation check tests 1 & 2 below.

1. Operation check test for the P.C. board
2. Operation check test for the heater and thermistor


## 5.1. Flow chart of basic movement.



## 5.2. Operation check test for the P.C. board (Do not turn on the power of the heater during the check test.)

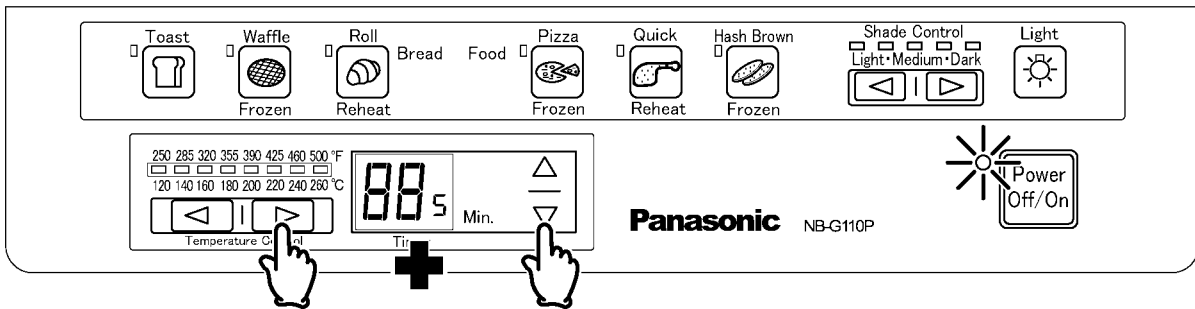
1.

- Set the power button to "ON".



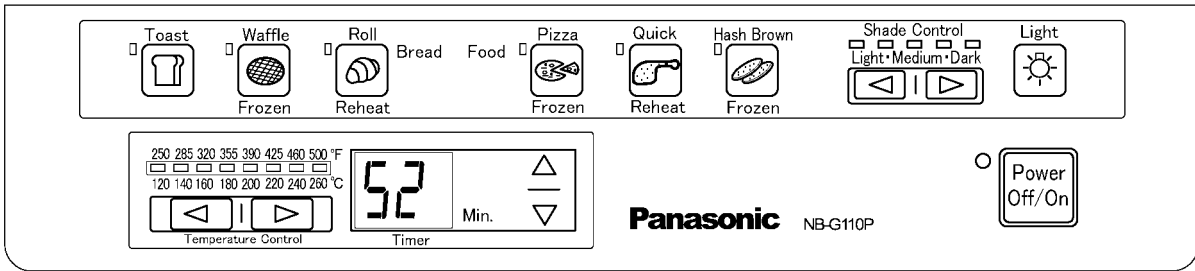
2.

- Connect the power cord to the 120V.a.c. with the temperature key "▲ (up)" and the timer key "▼ (down)" pressed.



3.

- Display order of "VinAD" in the Lcd display.



No.	Operation	Working description		Items to be checked
		Display and buzzer information	Action	
1	<ul style="list-style-type: none"> <li>Set the power button to ON.</li> <li>Connect the power cord to the 120 V a.c outlet with the temperature keys "▲" and timer keys "▼" pressed.</li> </ul>	<ul style="list-style-type: none"> <li>The power lamp comes on.</li> <li>Display "Vin a.c oder" in LCD Display.</li> </ul>	No power is supplied to the heater.	Check if the mode changes to the test one. * The mode change was ended in failure. (Perform the operation of No.1 again.)
2	<ul style="list-style-type: none"> <li>Press the "Toast" key.</li> </ul>	<ul style="list-style-type: none"> <li>The power lamp comes on.</li> <li>The buzzer sounds once when the key is operated.</li> <li>The "Toast" lamp comes on.</li> </ul>		
3	<ul style="list-style-type: none"> <li>Press the "Waffle / Frozen" key.</li> </ul>	<ul style="list-style-type: none"> <li>The power lamp comes on.</li> <li>The buzzer sounds once when the key is operated.</li> <li>The "Waffle / Frozen" lamp comes on.</li> </ul>		
4	<ul style="list-style-type: none"> <li>Press the "Roll / Reheat" key.</li> </ul>	<ul style="list-style-type: none"> <li>The power lamp comes on.</li> <li>The buzzer sounds once when the key is operated.</li> <li>The "Roll / Reheat" lamp comes on.</li> </ul>		

No.	Operation	Working description		Items to be checked
		Display and buzzer information	Action	
5	• Press the "Pizza / Frozen" key.	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The "Pizza / Frozen" lamp comes on.</li> </ul>		
6	• Press the "Quick / Reheat" key.	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The "Quick / Reheat" lamp comes on.</li> </ul>		
7	• Press the "Hash Browns / Frozen" key.	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The "Hash Browns / Frozen" lamp comes on.</li> </ul>		
8	• Press the key "◀" on the "Temperature Control".	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The temperature lamps "250" and "500" come on in this order repeatedly.</li> </ul>		
9	• Press the key "▲" on the "Timer".	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• "8" and "8.5" on the timer display blink in this order repeatedly.</li> </ul>		
10	• Press the key "▶" on the "Shade Control".	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The baked color lamps of "Light", "Medium" and "Dark" come on one by one in this order repeatedly.</li> </ul>		
11	• Press the key "◀" on the "Shade Control".	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The temperature control lamp "250" comes on.</li> <li>• The temperature control lamp won't come on.</li> <li>• The temperature control lamp "500" comes on.</li> </ul>		<ul style="list-style-type: none"> <li>• The thermistor temperature is 41 -104°F</li> <li>• The thermistor temperature is 106 - 120°F</li> <li>• The thermistor temperature is 122°F or higher.</li> </ul>
12	• Press the key "▶" on the "Temperature Control".	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The Algon Heater come on.</li> </ul>		<ul style="list-style-type: none"> <li>• The Algon Heater power ON in during for 25 seconds.</li> <li>• 214°C power OFF.</li> </ul>
13	• Press the key "▼" on the "Timer".	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The Upper Heater and Lower Heater come on.</li> </ul>		<ul style="list-style-type: none"> <li>• The Upper Heater and Lower Heater power ON in during for 25 seconds.</li> <li>• 214°C power OFF.</li> </ul>
14	• Press the key "Light".	<ul style="list-style-type: none"> <li>• The power lamp comes on.</li> <li>• The buzzer sounds once when the key is operated.</li> <li>• The "Light" lamp comes on.</li> </ul>		<ul style="list-style-type: none"> <li>* Check the Algon Heater's wiring in this step.</li> <li>• When power is supplied to the Algon Heater for 5 sec.</li> <li>• The oven inside becomes bright.</li> </ul>
15	After checking, press the power button to finish the test.			

### 5.3. Operation check test for the heater and thermistor

The precondition for this test is to set the baked color to "Medium".

No.	Operation	Working description		Items to be checked
		Display and buzzer information	Action	
1	<ul style="list-style-type: none"> <li>Connect the power cord to the 120 V a.c outlet.</li> </ul>	<ul style="list-style-type: none"> <li>The power lamp comes on.</li> </ul>		<ul style="list-style-type: none"> <li>Check the power cord</li> </ul>
2	<ul style="list-style-type: none"> <li>The power supply button is pushed.</li> </ul>	<ul style="list-style-type: none"> <li>Power supply indication light lighting.</li> </ul>		<ul style="list-style-type: none"> <li>The power cord is normal.</li> </ul>
3	<ul style="list-style-type: none"> <li>Press the "Toast" key.</li> </ul>	<ul style="list-style-type: none"> <li>The "Toast" lamp comes on.</li> <li>The cooking time display "2.5 min." blinks.</li> <li>The cooking time display comes to "0 min."</li> <li>The buzzer sounds 12 times.</li> <li>Only the power lamp comes on.</li> </ul>	<ul style="list-style-type: none"> <li>The heater is heated up to become red.</li> <li>The heater turns off.</li> </ul>	<ul style="list-style-type: none"> <li>Check the algon heater.</li> <li>The upper heater has no failure.</li> <li>The lower heater has no failure.</li> </ul>
4	Disconnect the power cord from the outlet (to carry out the check test for the thermistor).			
5	<ul style="list-style-type: none"> <li>After 10 sec., make sure that the power button is set to "ON". Then, connect the power cord to the 120 V a.c outlet with the temperature control "▶" and the timer "▼" keys pressed. (test mode)</li> </ul>	<ul style="list-style-type: none"> <li>The power lamp comes on.</li> <li>"Vin a.c oder" on the timer display blink in this order repeatedly.</li> </ul>		<ul style="list-style-type: none"> <li>Check if the mode changes to the test one.</li> <li>The mode change was ended in failure. (Perform the operation of No.4 again.)</li> </ul>
6	<ul style="list-style-type: none"> <li>Press the "◀" key of the "Shade Control".</li> </ul>	<ul style="list-style-type: none"> <li>The power lamp comes on.</li> <li>The buzzer sounds once when the key is operated.</li> <li>The temperature lamp "500" comes on.</li> </ul>		<ul style="list-style-type: none"> <li>The thermistor has no failure.</li> </ul>
7	After checking, press the power button to finish the test.			

### 5.4. TABLE OF TROUBLESHOOTING GUIDE

When performing the troubleshooting, see the check point on page XX for the electric resistances of the parts which might cause any trouble.

**Notes:**

When the power is supplied to the algon heater, it is too bright to visually check the upper heater assy. (far infrared rays heater) and the lower heater assy. (miracron heater) for malfunction or breakage of wire. If the consumption power cannot be measured, turn off the heater and visually check the dim light of the upper and lower heaters.

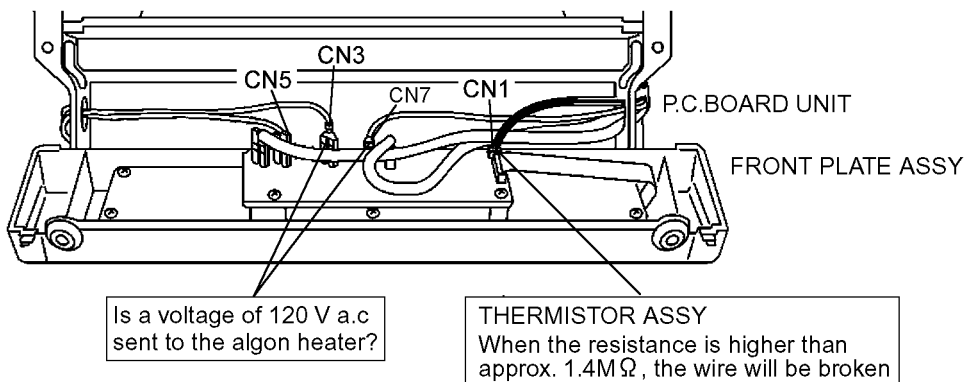
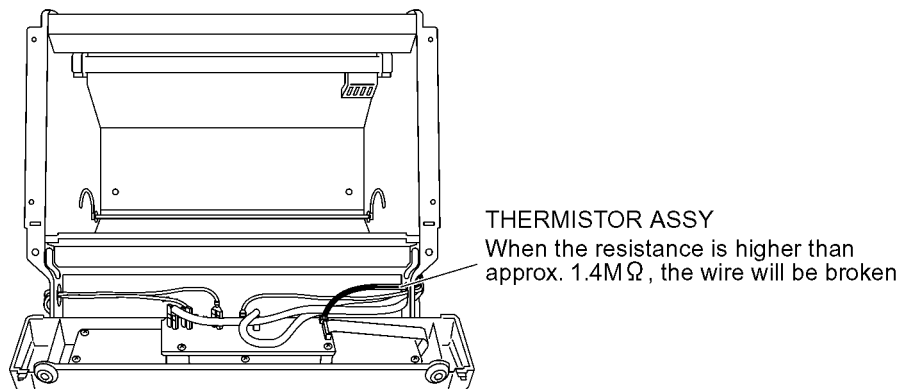
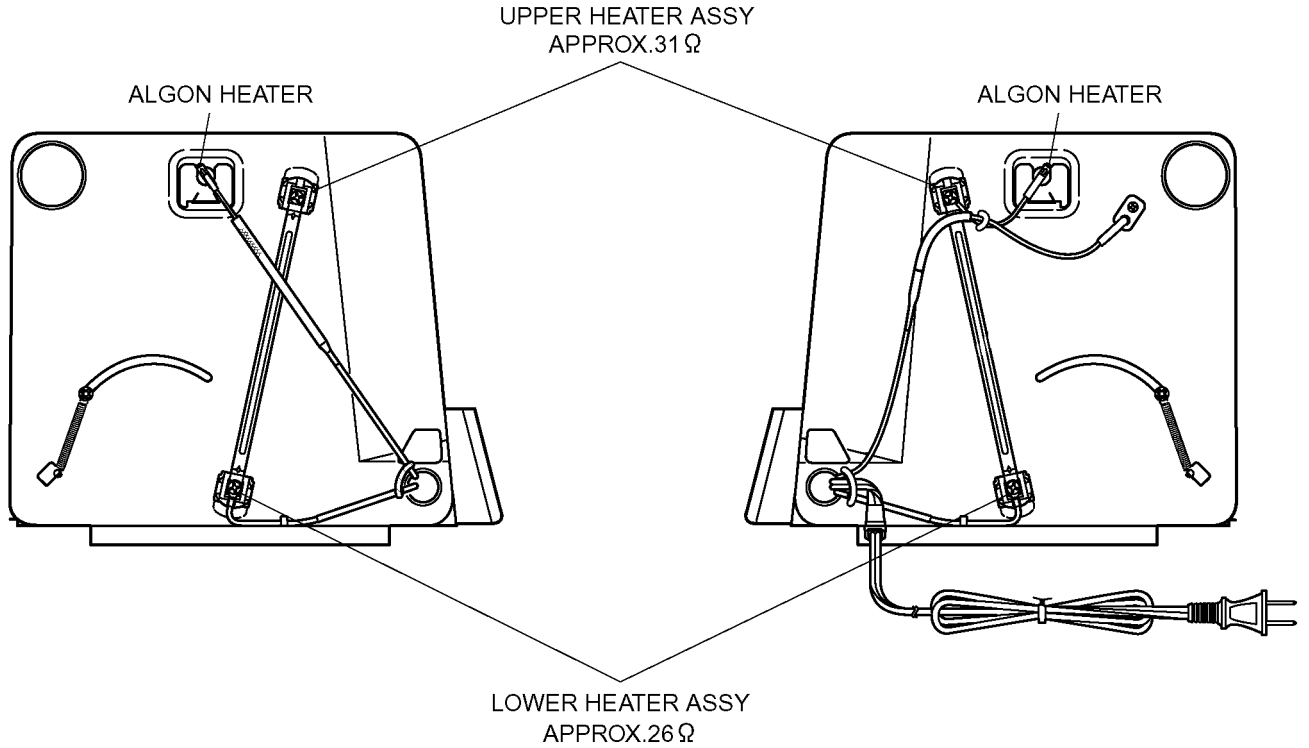
Troubles	Items to be checked	Remedy
Power cannot be supplied. <ul style="list-style-type: none"> <li>Power cannot be supplied to all heaters.</li> <li>Power cannot be supplied to all lamps, too.</li> </ul>	<ul style="list-style-type: none"> <li>Check the power cord for breakage.</li> <li>Check the P.C. board for correct connection</li> </ul>	<ul style="list-style-type: none"> <li>Replace the power cord.</li> <li>Replace the P.C. board.</li> </ul>
Baked color won't be added to the food upper surface <ul style="list-style-type: none"> <li>The algon heater won't emit light.</li> </ul>	Measure voltage <ul style="list-style-type: none"> <li>120 V a.c is sent to CN2 and CN6.</li> <li>120 V a.c is not sent to CN2 and CN6.</li> </ul>	<ul style="list-style-type: none"> <li>Replace the algon heater</li> <li>Replace the P.C. board</li> </ul>
Baked color won't be added to the food upper surface <ul style="list-style-type: none"> <li>Power won't be supplied to the upper heater (far infrared rays heater).</li> </ul>	Measure resistance <ul style="list-style-type: none"> <li>Measure upper heater resistance: approx. 31Ω</li> <li>Measure upper heater resistance: None</li> </ul>	<ul style="list-style-type: none"> <li>Replace the P.C. board</li> <li>Replace the upper heater.</li> </ul>
Baked color won't be added to the food lower surface <ul style="list-style-type: none"> <li>Power won't be supplied to the lower heater (miracron).</li> </ul>	Measure resistance <ul style="list-style-type: none"> <li>Measure upper heater resistance: approx. 26Ω</li> <li>Measure upper heater resistance: None</li> </ul>	<ul style="list-style-type: none"> <li>Replace the P.C. board</li> <li>Replace the lower heater.</li> </ul>
No switch except the power switch will be accepted. <ul style="list-style-type: none"> <li>"H1" is displayed and the toast lamp blinks.</li> </ul>	Measure resistance. <ul style="list-style-type: none"> <li>Measure thermistor resistance: approx. 1.4MΩ or more (Thermistor is broken or short-circuited.)</li> </ul>	<ul style="list-style-type: none"> <li>Replace the thermistor.</li> </ul>
Power is supplied to the algon heater for 5 seconds after cooking starts. After that, no power is supplied to the all heaters.	<ul style="list-style-type: none"> <li>The thermistor is short-circuited.</li> </ul>	<ul style="list-style-type: none"> <li>Replace the thermistor.</li> </ul>
No keys on the operation area is accepted. <ul style="list-style-type: none"> <li>Baked color cannot be controlled.</li> <li>Cooking key cannot be operated.</li> <li>The LED lamp won't come on.</li> </ul>	Check the P.C. board. <ul style="list-style-type: none"> <li>Terminals on the P.C. board are not connected.</li> <li>The P.C. board is cracked.</li> <li>The electronic parts are broken.</li> </ul>	<ul style="list-style-type: none"> <li>Connect the terminals correctly</li> <li>Replace the P.C. board.</li> <li>Replace the P.C. board.</li> </ul>

**Note:**

The unit is controlled with both of the power board and the operation board on the P.C. board unit. Replace the P.C. board unit as a set.

## 5.5. Checking Points

The points to checking the thermistors in the upper and lower heaters are indicated below.



## 6 Disassembly and Assembly Instructions

<b>⚠ Caution</b>	
<b>⚠</b>	<b>Be careful not to injure yourself on the metal edge during disassembly, replacement, or assembly.</b> Make sure to wear gloves.

<b>⚠ Caution</b>	
<b>⊘</b>	Do not reuse P.C.Board after repair in case P.C.Board print pattern is disconnected.

### Important:

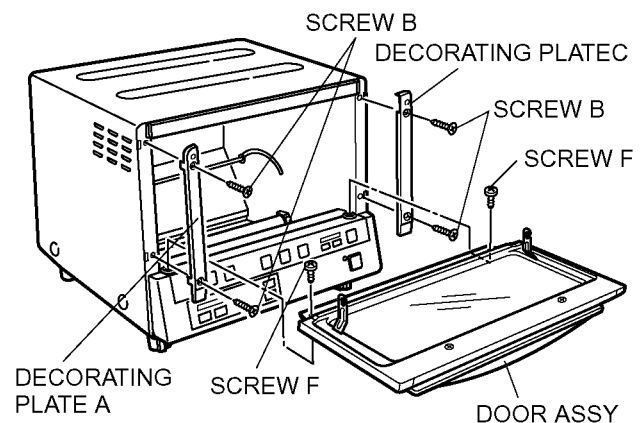
- Refer to the tips on assembly, and carry out the disassembly procedure backward to assembly.
- Remove the bread pan assy and kneading blade B unit before disassembling.

### Notes:

- Before disassembling the unit, remove the crumb tray, net assy., and drip pan.
- Reassemble the unit in the reverse order of the disassembly, referring to the points in reassembly.

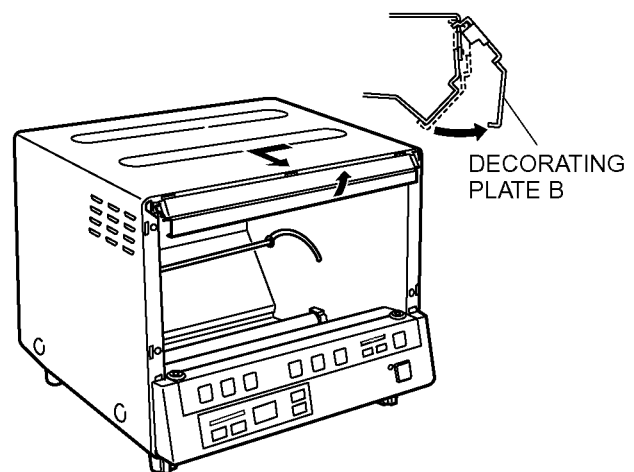
### 6.1. Disassembling the door assy, decorating plate A and decorating plate C

1. Remove the two screws F and remove the door assembly.
2. Remove the two screws B and remove the decorating plate A.
3. Remove the two screws B and remove the decorating plate C.



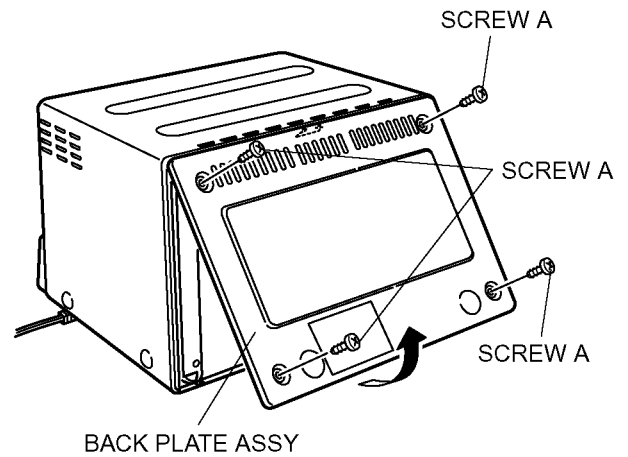
### 6.2. Disassembling the decorating plate B

1. Remove the hook (inside the unit) from the frame of the decorating plate B.
2. Remove the decorating plate B in the direction indicated by the arrows 1 and 2.



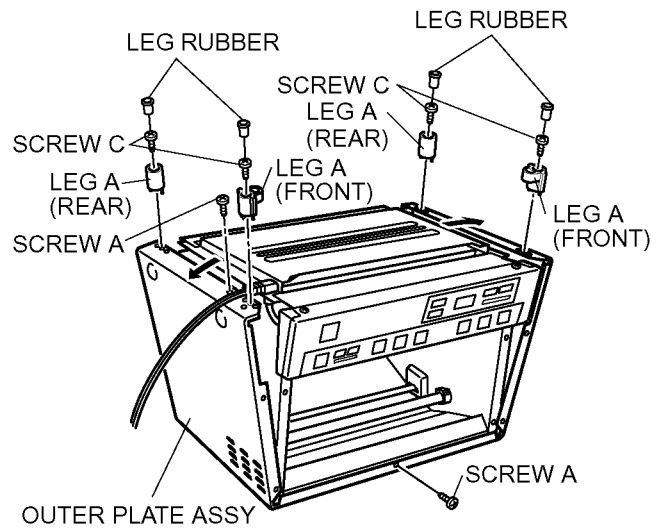
### 6.3. Disassembling the back plate assy.

1. Remove the 4 screws A and remove the back plate assy. in the direction indicated by the arrow.



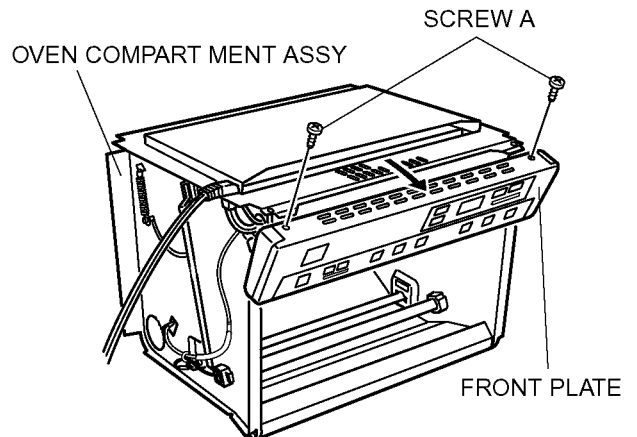
### 6.4. Disassembling the outer plate assy.

1. Pull out the 4 leg rubbers.
2. Remove the 2 screws C and remove the front leg.
3. Remove the 2 screws C and remove the rear leg.
4. Remove the 1 screws A and remove the outer plate assy.



### 6.5. Disassembling the front plate

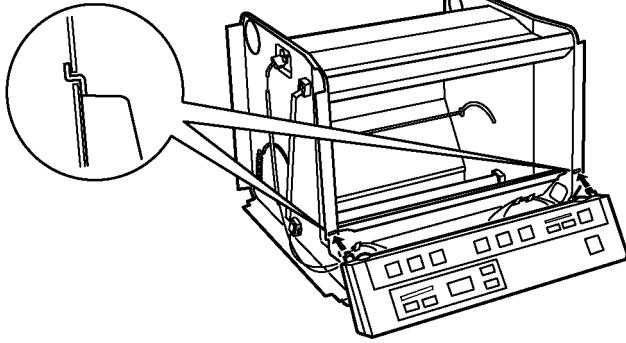
1. Remove the 2 screws A.
2. Remove the 2 tabs from the oven compartment assy. and remove the front plate.



**The point in reassembly**

Reinstall the front plate by inserting the tabs (at right and left sides) to the step mark.

※ At right and left sides



**6.6. Disassembling the upper heater assy. and the lower heater assy.**

**Disassembling the upper heater assy.**

1. Remove the 2 screws E.
2. Roll out the tab locking the upper heater assy. with a pair of small pliers.
3. Remove the upper heater assy.

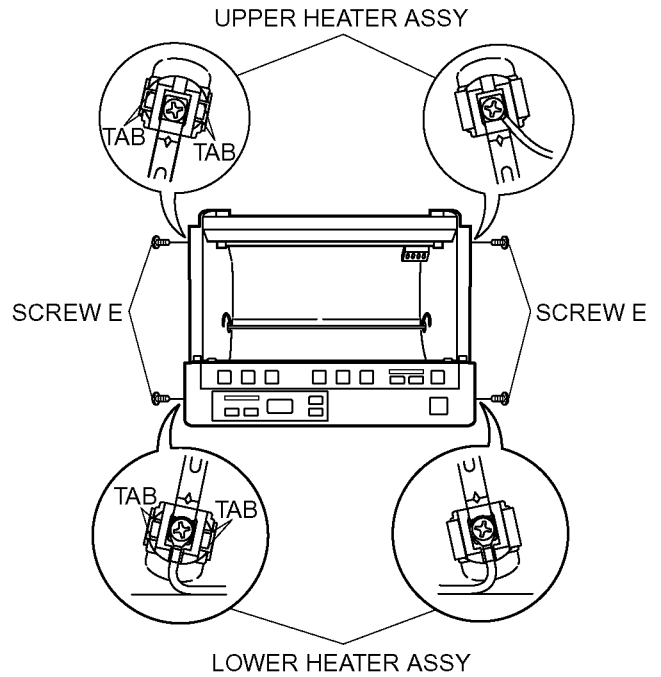
**Disassembling the lower heater assy.**

1. Remove the 2 screws E.
2. Roll out the tab locking the lower heater assy. with a pair of small pliers.
3. Remove the lower heater assy.

**The points in reassembly**

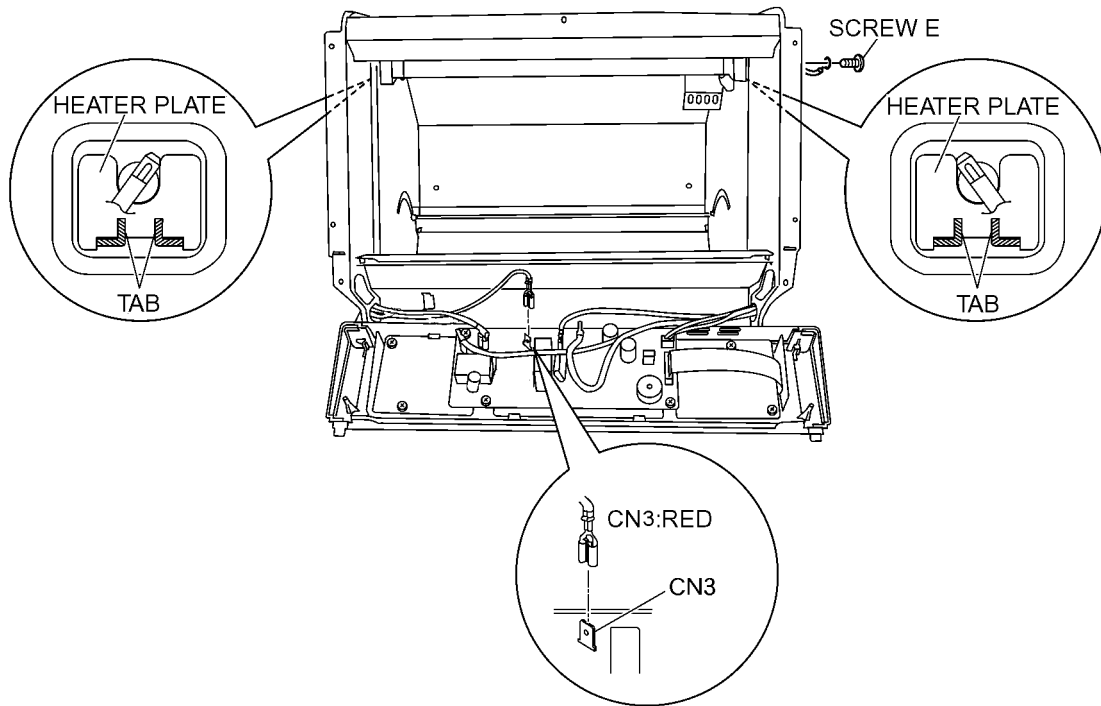
How to distinguish between upper heater assy. and lower heater assy.

Heater	Difference	Resistance at room temperature
Upper heater assy.	The pipe is yellow.	Approx. 31Ω
Lower heater assy.	The pipe is white.	Approx. 26Ω



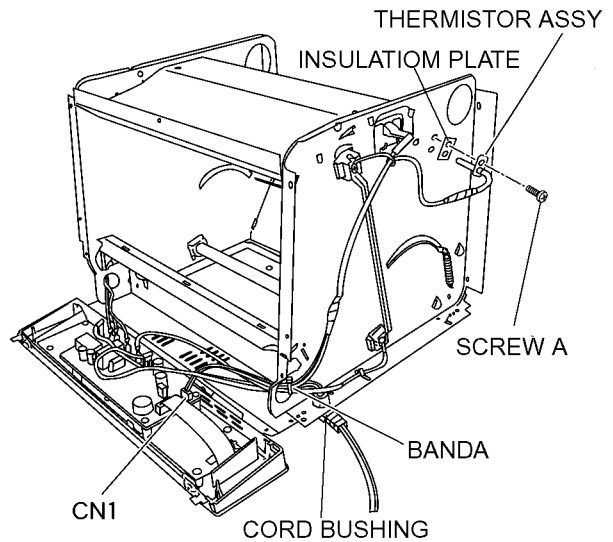
## 6.7. Disassembling the algon heater assy.

1. Remove the 2 screws E.
2. Remove the fasten terminal (CN3: red and CN7: white) from the P.C. board unit.
3. Roll out the tab locking the algon heater assy. with a pair of small pliers.
4. Remove the heater plate.
5. Remove the algon heater assy.



## 6.8. Disassembling the thermistor assy.

1. Remove the fasten terminal (CN4: blue) from the P.C. board unit.
2. Cut the band.
3. Remove the screw A.
4. Remove the insulation plate and thermistor assy.

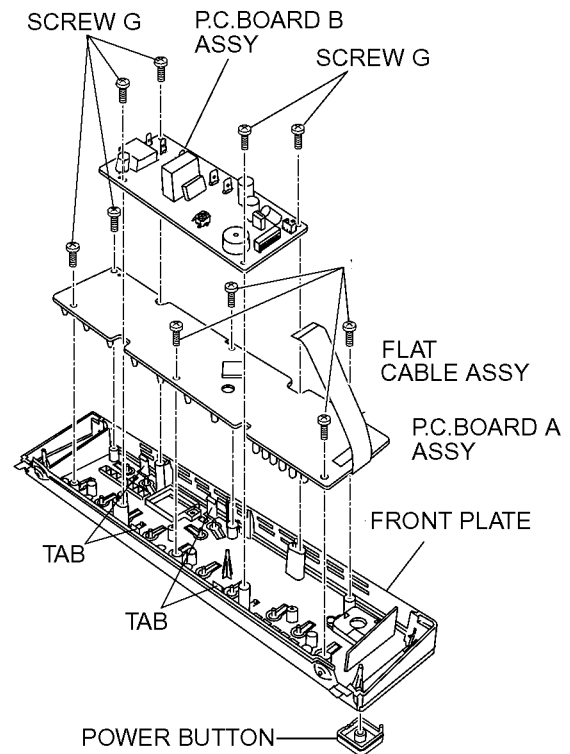


## 6.9. Disassembling the P.C. board unit

1. Remove the fasten terminal and connector from the P.C. board unit.
2. Remove the 4 screws G and remove the P.C. board B assy.
3. Remove the 6 screws G.
4. Spread out the 4 holding tabs to remove the P.C. Board A assy.

\*1. The flat cable assy. is connected.

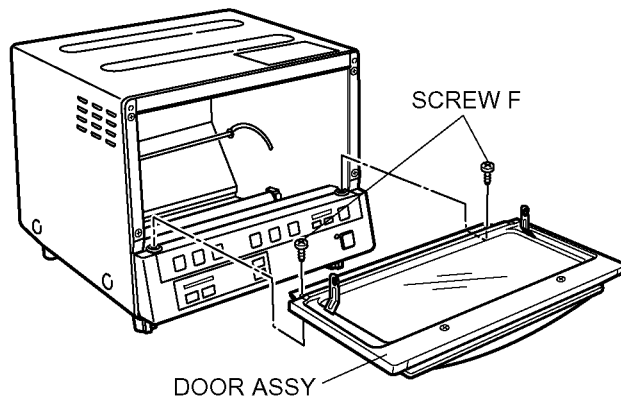
\*2. Use caution not to lose the power button.



## 6.10. Disassembling the door assy.

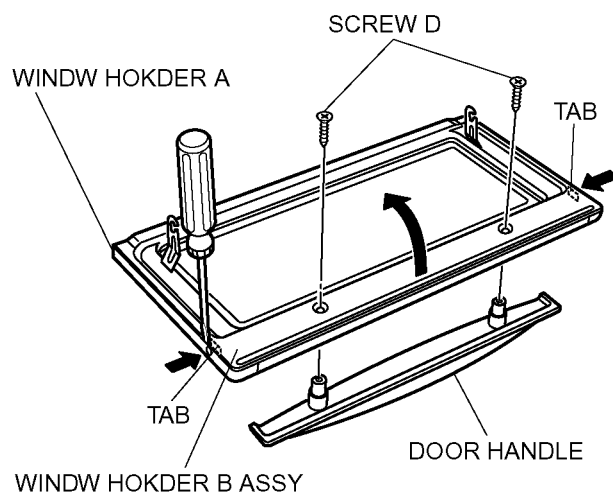
### 6.10.1. DOOR

1. Remove the 2 screws.
2. Remove the door assy.



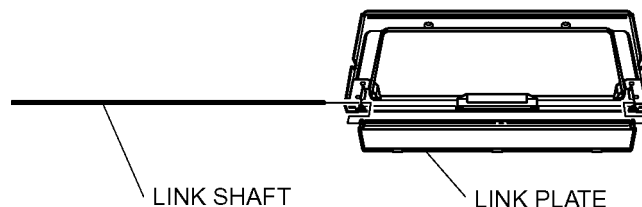
### 6.10.2. DOOR HANDLE

1. Remove the 2 screws D.
2. Remove the door handle.
3. Insert the thin screwdriver between the window holder A and window holder B, and remove the 2 tabs.
4. Remove the window holder A and the window holder B assy. in the direction indicated by the arrow.



### 6.10.3. WINDOW HOLDER

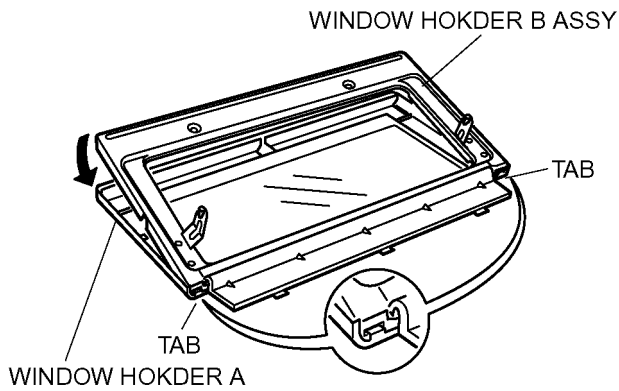
1. Pull out the link shaft and remove the link plate from the window holder B assy.



### 6.10.3.1. Points in reassembly

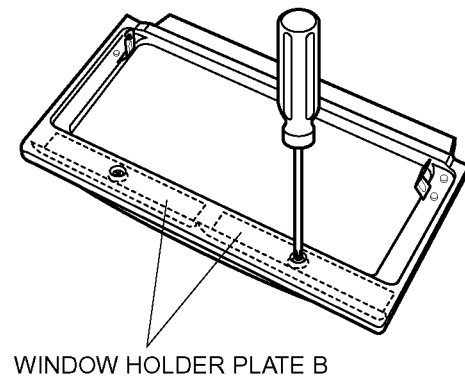
#### WINDOW HOLDER A&B

1. Insert the 2 holders on the window holder A into the holes on the window holder B assy. to install the window holder A and the window holder B in the door assy.



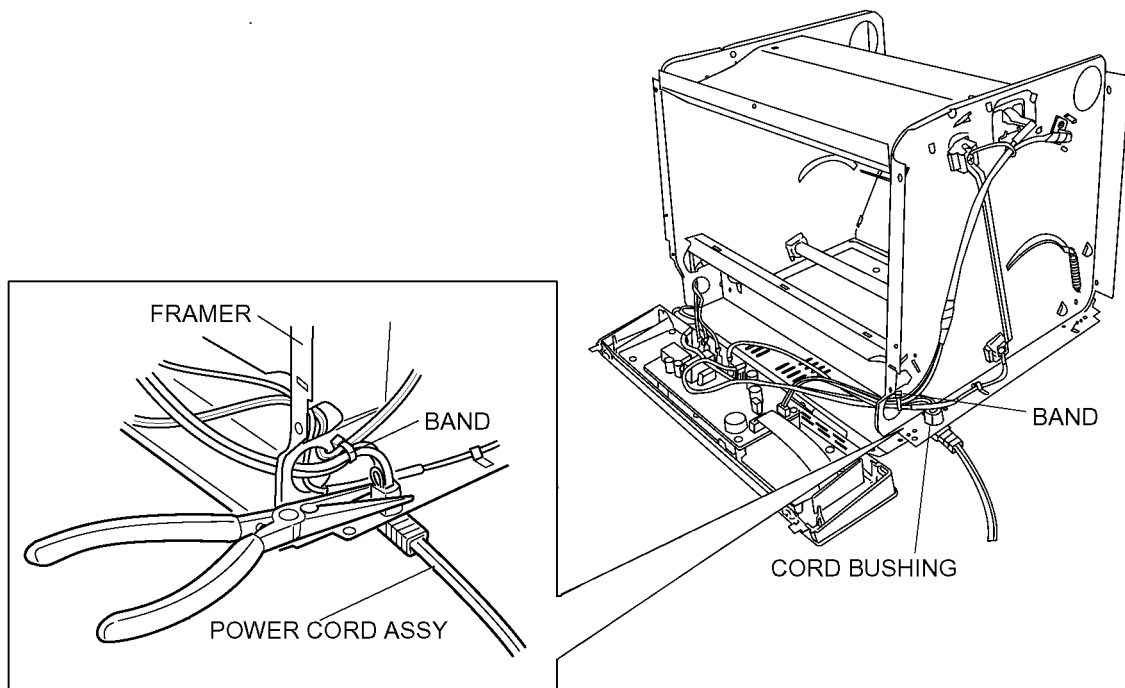
#### GLASS A&DOOR HONDLE

1. Adjust the clearance between the window holder plate B and glass A, and install the door handle.





### 6.10.4. Disassembling the power cord assy.

1. Cut the band out.
2. Remove the power cord assy. fasten terminal from the P.C. board unit.
3. Remove the power cord assy. from the frame R.



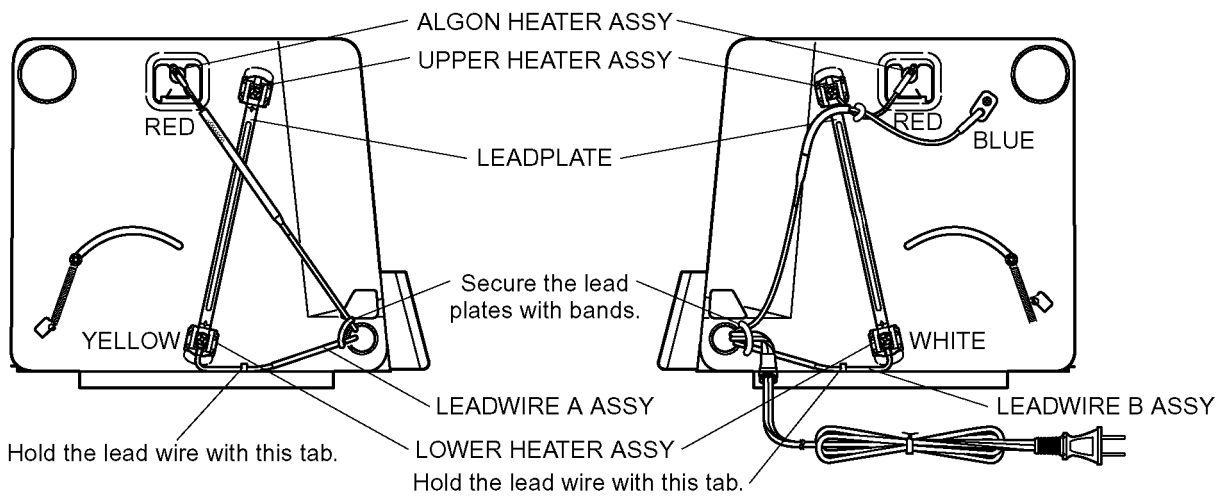
# 7 Wiring Connection Diagram

 <b>Caution</b>	
	<p>The wiring processing after the repair please put it back. It causes trouble and the electric shock by a wiring lead wire touching other parts.</p>

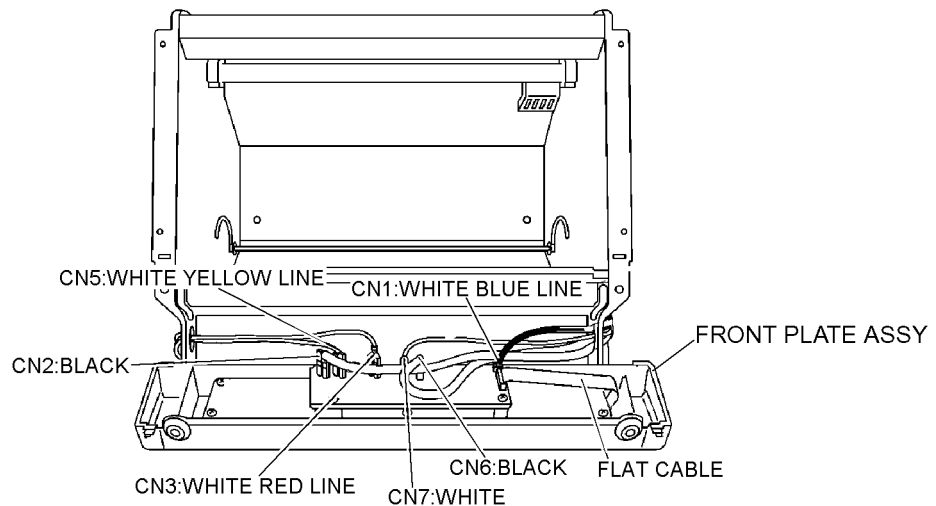
## 7.1. BASIC WIRING DIAGRAM

LEFT

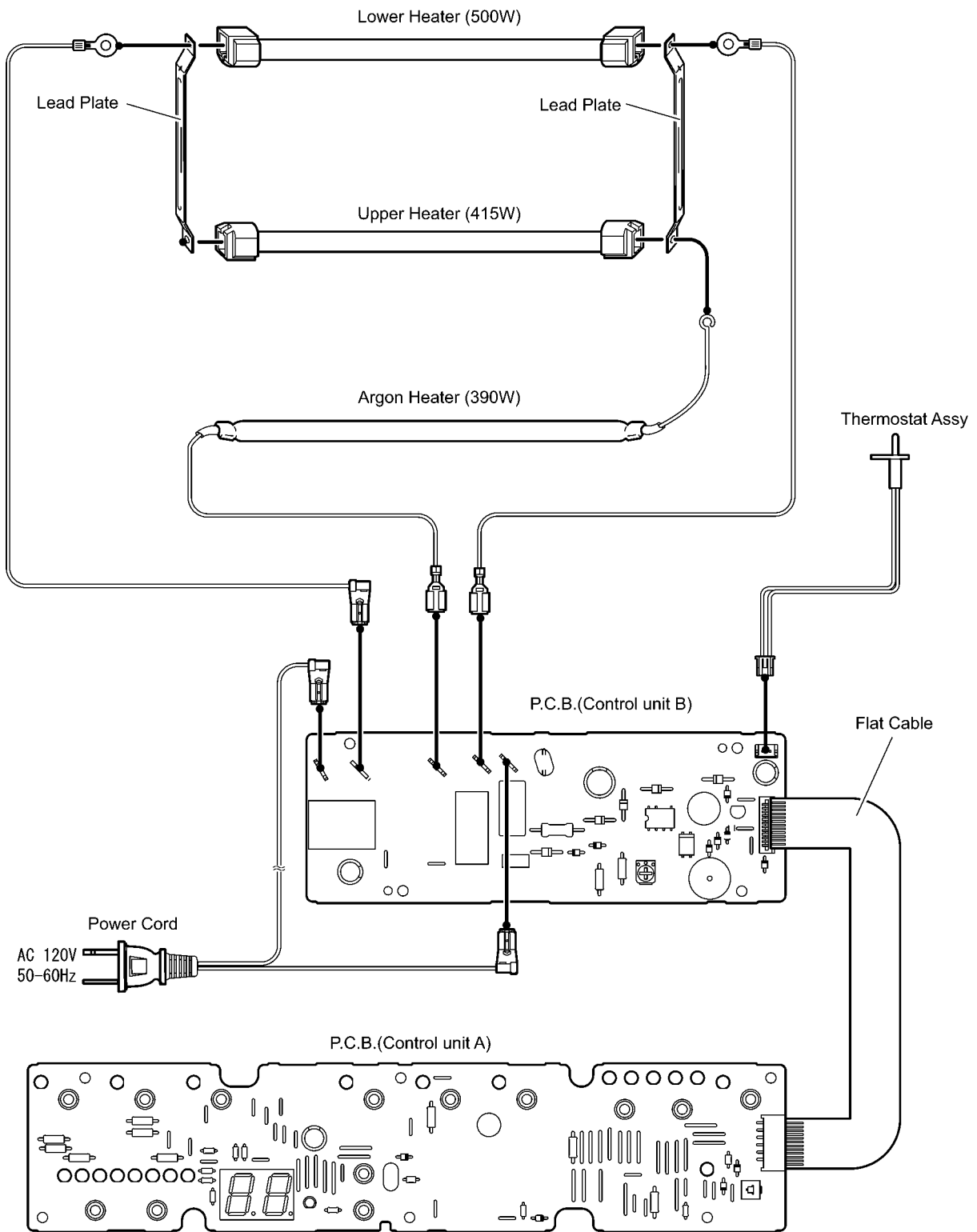
RIGHT



FRONT

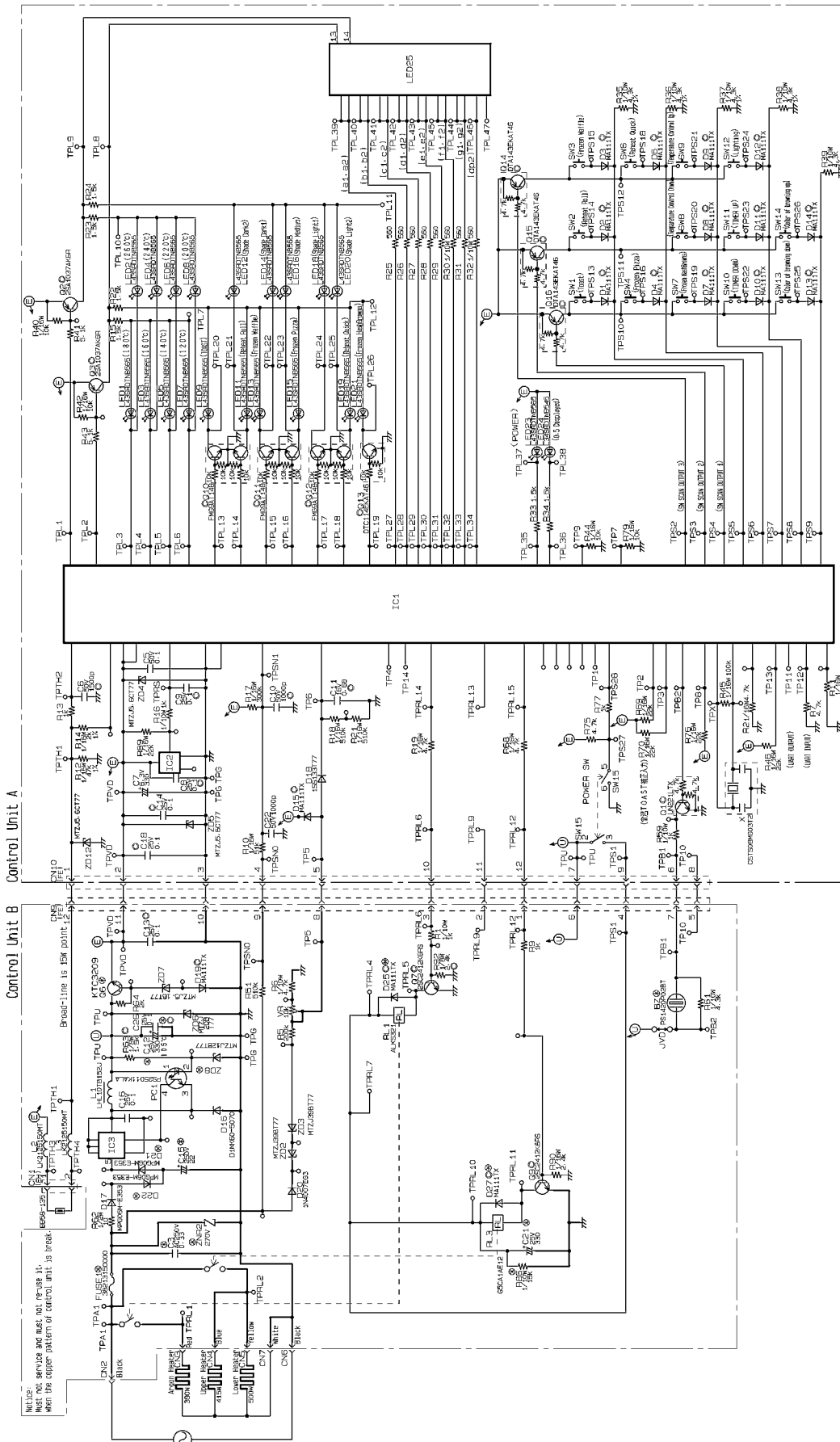


## 7.2. Wiring Connection Diagram



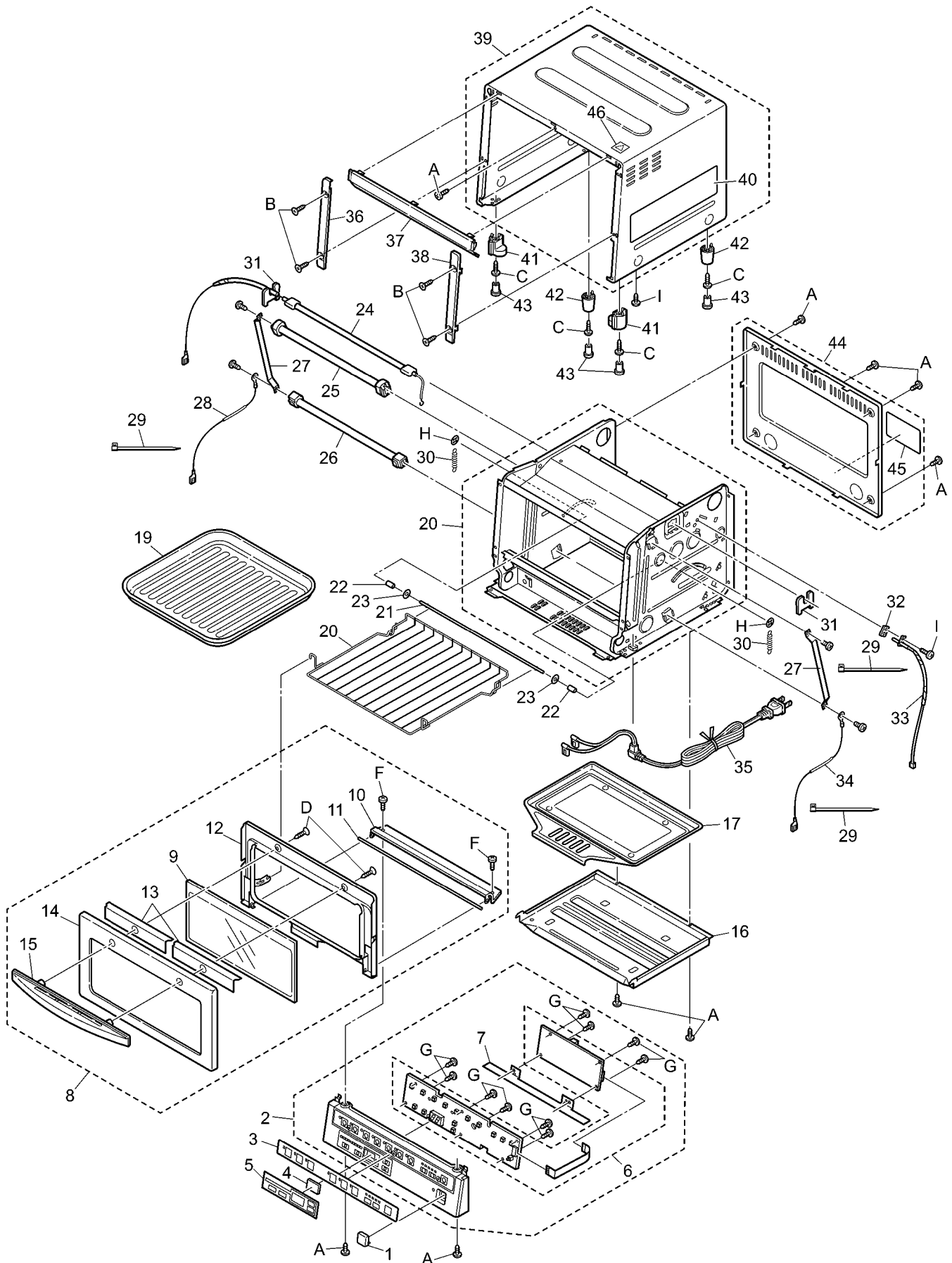
# 8 Schematic Diagram

## 8.1. SCHEMATIC DIARAM



# 9 Exploded View and Replacement Parts List

## 9.1. PARTS LOCATION



## 9.2. REPLACEMENT PARTS LIST

Notes: Important safety notice

- Components identified by  $\Delta$  mark have special characteristics important for safety.
- " When replacing any of these components use only manufacturer's specified parts."

MODEL No.NB-G110P

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
				G110P	
<PARTS LIST>					
	1	ABF03A135-N0	Power button	1	
$\Delta$	2	ABA11-175-S0	Front plate assy.	1	
	3	ABF70-175-S1	Escutcheon A	1	
	4	ABG65A135	Transparent board	1	
$\Delta$	5	ABF73-175-S1	Escutcheon B	1	
$\Delta$	6	ABR10A175	P.C.Board unit	1	
	7	ABD28-175	Heat shield plate C	1	
	8	ABA18-167-S0	Door assy.	1	
	9	ABC28-167	Glass	1	
	10	ABD42-135	Link plate	1	
	11	ABD55-135	Link shaft	1	
	12	ABA16-135	Window holder B assy.	1	
	13	ABC25-135	Window holder plate B	2	
	14	ABC21-135-S0	Window holder A	1	
	15	ABC31-167-S0	Door handle	1	
	16	ABC15-135	Bottom plate	1	
	17	ABC40-135	Crumb plate	1	
	18	ABA50-148	Net assy.	1	
	19	ABK00-135	Drip pan	1	
	20	ABA38-17500U	Oven compartment assy.	1	
	21	ABH20-115	Net holder	1	
	22	ABH09-115	Sleeve	2	
	23	ABJ01-135	Washer A	2	
$\Delta$	24	ABA86-17500U	Argon heater assy.	1	
$\Delta$	25	ABA80-17500U	Upper heater assy.	1	
$\Delta$	26	ABA83-17500U	Lower heater assy.	1	
$\Delta$	27	ABP26-159	Lead plate	2	
$\Delta$	28	ABB00-17500U	Lead wire A	1	
	29	ABP93-135	Band	3	
	30	ABD50-135	Door spring	2	
	31	ABG08-135	Heater plate	2	
	32	ABH01-135	Insulation plate	1	
$\Delta$	33	ABB57-14800U	Thermistor assy.	1	
$\Delta$	34	ABB01-17500U	Lead wire B assy.	1	
$\Delta$	35	ABB50-17500U	Power cord assy.	1	AC120V/A-2 Plug
	36	ABF60-135	Decorating plate A	1	
	37	ABF61-135	Decorating plate B	1	
	38	ABF62-135	Decorating plate C	1	
	39	ABC00-135-S0	Outer plate assy.	1	
	40	ABY20-175-S0	Seal A	1	
	41	ABF40-135	Leg A(Front)	2	
	42	ABF41-135	Leg B(Rear)	2	
	43	ABF43-116	Leg rubber	4	
	44	ABC17-135-S0	Back plate assy.	1	
$\Delta$	45	ABY00-175-S0	Rating label	1	
$\Delta$	46	ABY19-175	PL label	1	
<SMALL STANDARDIZED METAL PARTS>					
	A	XTN3+8AFJ	Screw	9	
	B	XTS3+8AFN	Screw	4	
	C	XTN35+12AFJ	Screw	4	
	D	XTS35+20BFN	Screw	2	
	E	XSB35+6FN	Screw	4	
	F	XTN3+8AFN	Screw	2	
	G	XTB3+10BFJ	Screw	10	
	H	CSTW-3	Push nut	2	
	I	XTN3+8BFJ	Screw	2	
<PACKING SPECIFICATIONS>					
		ABZ04-175-S0	Carton box	1	SILVER
$\Delta$		ABZ51-175	Operating instructions	1	
		ABZ19-135	Cushion A	1	
		ABZ20-135	Cushion B	1	
		ABZ40-135	Net support A	1	

Safety	Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
				G110P	
		ABZ41-159	Net support B	1	
		ABZ06-135	Pad A	1	
		ABZ07-135	Pad B	1	

### 9.3. PACKING INSTRUCTION

