### **Panasonic**

# Operation Instructions Microwave oven

Models: NN-DS581M NN-DS591M



Model: NN-DS591M

Before operating this oven, please read these instructions completely and save carefully.



Product check passed by inside of the company



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# **Quick Guide to Operation**

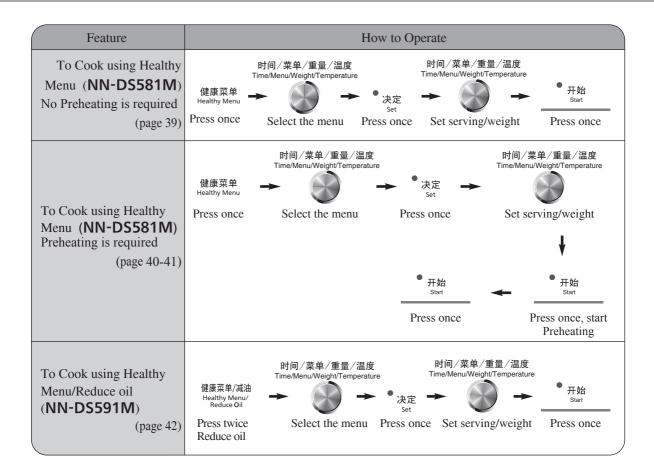
After plugging in, "88:88" will appear in the display window, then you can start to operate.

Feature	How to Operate
To Reheat using IR Reheat (page 12-14)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  温控再加热 IR. Reheat  Press once  Set temperature  Press once
To Reheat using Steam Reheat (page 15)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  蒸气再加热 Steam Reheat  Press once  Optional  Press once
To Use Steam Defrost (page 16)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  蒸气解冻 Steam Defrost  Press once  Set weight  Press once
To Set Microwave Power (page 19-20)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  微波火力 Micro Power  Press once to 6 times to set power  Set time  Press once
To Set Micro Steam (page 22)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  蒸气微波 Micro Steam  Press once  Set time  Press once
To Use Oven No Preheating is required (page 23)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  烘烤/发酵 Oven/Ferment  Press once  Set temperature  Press once  Fine/Menu/Weight/Temperature  中央定 Set  Fine/Menu/Weight/Temperature  中央定 Set  Fine/Menu/Weight/Temperature  Fress once  Press once  Fress once
To Use Oven Preheating is required (page 24-25)	所向/菜单/重量/温度 Time/Menu/Weight/Temperature  中Press once  Set temperature  Press once  Press once  Press once  Press once  Press once  おはれて  Preheating  ・ 开始 Start  Press once  Set time
To Use Ferment (page 26)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  烘烤/发酵 Oven/Ferment  Press once Turn left and set 40 °C Press once Set time Press once

# **Quick Guide to Operation**

Feature	How to Operate	
To Use Grill/Double Power (NN-DS591M) (page 27-28)	Press once Grill   Press twice Double Power   Set time   Press once Grill   Press once Grill   Press twice Double Power   Set time   Press once Grill   Press twice Double Power   Press once Grill   Press onc	ee e
Double Bake (NN-DS581M) (page 29)	時间/菜单/重量/温度 Time/Menu/Weight/Temperature  Press twice Double Bake  Set time  Press onc	ee
To Set/Cancel Child Safety Lock (page 32)	To Set Display Cancel Display  ### Figure 1	
To Cook using Auto Cook No Preheating is required (page 36)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  电脑烹调 Auto Menu Press once Select the menu Press once Billow Select the menu Press once Billow Filme/Menu/Weight/Temperature  □ 決定 Set Set Set Set Serving/weight Press once	e
To Cook using Auto Cook Preheating is required (page 37-38)	时间/菜单/重量/温度 Time/Menu/Weight/Temperature  电脑烹调 Auto Menu  Press once  Select the menu  Press once  Press once  Fress once  Press once, st. Preheating	art

# **Quick Guide to Operation**

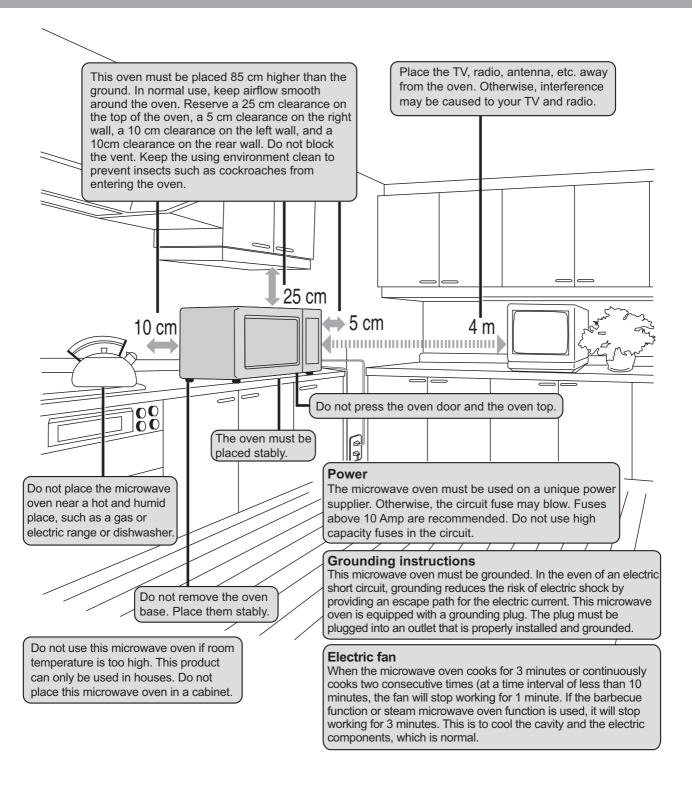


#### **Cautions**

- 1. Never use micro power without a load in the cavity.
- 2. When using the steam function, always clean and wipe the cavity, flume and decorative plate after cooling the oven.
- 3. It's normal if white smoke gives off when first time using the heater select function.
- 4. After using the microwave oven, the fan motor will continue operating several minutes. It's normal.

For English operating instructions, please visit the website at: http://panasonic.cn/support/download/?keyword=NN-DS591M http://panasonic.cn/support/download/?keyword=NN-DS581M

### Placement of the Oven



#### I Please inspect your oven as follows before using:

The oven door and the oven cavity are not damaged or cracked.



If so, the microwave oven will leak and you may not use the microwave oven.

Forbidden

The inside metal insulating (or anti-leakage) screen of the oven door is not bent or deformed.



If so, do not use the microwave

Forbidden

The open button or door hooks are not normal.



If the open button cannot be used normally or the door hooks are damaged, do not use the microwave oven.

Forbidden

Note: Not all machines have the open button or door hooks.

There is food or oil contamination on the metal insulating screen on the oven door and the oven cavity.



Be careful

If so, fire may be caused to the microwave oven when heating. Thus, please clean the microwave oven regularly.



Before using the microwave oven, please read the operating instructions carefully. Use this microwave oven only for its intended purposes as Be careful described in the instructions.



Must be grounded.

This microwave oven must be grounded. In the event of an electric short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This microwave oven is equipped with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded

II The following items must be taken note of. Otherwise, hazards such as microwave leakage, microwave oven damage or bodily injury may be caused.

#### 1. Forbidden items



Forbidden

Caution: In the event that the oven door or door seal has been damaged, do not use the oven until the qualified personnel repair it.

Note: Do not damage the safety lock of the oven door, including the door hooks and door hinges. If service is needed, please call the Panasonic Service Center or contact the appointed repair store for maintenance.



No disassembling

Caution: Except for a qualified serviceman, it is very dangerous for any one who does the repair work, including dismantling the protective cover which prevents the microwave radiation from leaking, etc. Do not dismantle, repair or modify the microwave oven yourself.

Note: If service is needed, please call the Panasonic Service Center or contact the appointed repair store for maintenance.



Forbidden

When it is found that the microwave oven works abnormally, do not continue using it.

Note: If service is needed, please call the Panasonic Service Center or contact the appointed repair store for maintenance.



Forbidden

When using the microwave oven for cooking, do not place into the oven any metallic articles, such as metal containers, metal disks or any metal ornaments.

Note: Use the special metal accessories (the grill, etc.) for the microwave oven and the aluminum foil according to the instructions.



Forbidden

In the event that the socket is loose or the cord or plug are damaged, do not use the microwave oven.



No wet touching

Do not touch or pull out the plug with wet hands. Otherwise, electric shocks may be caused.



Forbidden

Do not knock the control panel, the housing, the oven cavity, the oven door, etc. otherwise, the microwave oven may be faulted.



Forbidden

Do not place the microwave oven near a hot and humid place, such as a gas or electric range or water



Forbidden

This microwave oven is only suitable for household cooking. It cannot be used for laboratory experiments or other commercial purposes. It cannot be placed in a cabinet.



Forbidden

**Caution:** Do not use rough lotion or sharp metallic spatula to clean the oven door glass, it would cause glass shattered to pieces.

#### 2. Dangerous items



Fire

Dot not place flammables around the microwave oven or in the oven cavity. Otherwise, fire may be caused.



Be careful

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.



Fire

The microwave oven is intended for cooking only. Drying articles, etc. may cause fire.

In case of smoke, turn off the switch of the appliance or pull out the plug and keep the oven door closed to contain the fire.



Plug must be pulled out.

Press the [Stop/Reset] Pad and then pull out the plug and turn over off the power switch in the room.



Microwave radiation

Do not use the microwave oven to heat chemicals or other non-food products. Otherwise, microwave leakage may be caused.



Electric shock.

Avoid operations or behavior which may damage the cord or the plug, such as immersing the cord or plug into water, placing the cord near a hot place, bending, twisting, stretching, pressing, binding the cord, etc. Hazards such as short circuit, electric shock, fire, etc. may be caused in case of such damage.

#### 3. The following items must be taken note of.



Be careful

Caution: Do not allow children to use the microwave oven without supervision. Children with instructions and with the knowledge that incorrect use method will create danger are allowed to use the microwave oven without supervision.

Note: You can set a child safety lock on computer-type microwave ovens.



Be careful

Do not start an empty microwave oven, because, when no food or water is placed in the oven cavity for absorbing the microwave energies, the microwave radiation will be reflected in the microwave oven and cause abnormally high temperatures in the oven cavity.

(Note: expect in situations allowed by the instructions)



Be careful

Do not allow the aluminum foil to touch the inner wall of the oven cavity. Otherwise, fire may be caused during work and damage the microwave oven.

Note: Use the special grill for the microwave oven according to the instructions.



Be careful

When opening the oven door, do not hang the container on the oven door. The load on the oven door cannot exceed 5 kilograms.

Note: This item is only suitable for pull-down-door appliances.

#### 4. Indication items

Only proper utensils are allowed to be used in the microwave oven.



Must

Verify if the utensils made from different materials are suitable for use in the microwave oven before use. Metal packages are not allowed to be used. When food are packaged in plastic or paper, observe the microwave oven to avoid fire.

Note: Please reference (select cookers for the microwave oven)



Must

Food cannot be directly cooked on glass turntables or glass plate. The food must be placed in a container suitable for use in the microwave oven.

Note: Please reference (select cookers for the microwave oven)



Must

When taking out the cooked food or stirring or turning over the food during cooking, you must use tongs or thermal insulation gloves to avoid scalding. Because heat will be transferred from hot food to the container, the glass turntable or the glass plate.



Hot surface

After cooking, the microwave oven is very hot. Do not directly clean the microwave oven. Clean it after it is cooled to avoid scalding.



Plug must be pulled out Please pull out the plug before cleaning the microwave oven and do not use corrosive detergent to avoid damage or corrosion of the microwave oven.



Plug must be pulled out Clean the dust on the plug regularly. If the microwave oven is out of service for a long time, pull out the plug. Do not draw the cord when pulling out the plug. Hold the plug to pull it out.

#### The following items must be taken note of when using the barbecue functions:



Be careful

It's normal if white smoke gives off when first using all barbecue functions. This is because the protective oil of the components are heated and volatilized.



Be careful

Caution: Children must use the microwave oven with the supervision of adults due to temperature rise.

During and after barbecuing, the housing surface, the air vents and the oven door are very hot. To avoid scalding, do not touch them with your hands.



After cooking, the barbecue utensils and the food are very hot, use the thermal insulation gloves to take Be careful out the food and the utensils.



Be careful

Cleaning the broiler must proceed after it is completely cooled. During cleaning, you must be very careful and use a soft cloth to wipe the broiler to avoid injuring fingers.



When barbecuing (including combination), bakeware special for the microwave oven could be used. Be careful However, in case of microwave cooking, it cannot be used to avoid fire.



When using the barbecue function, do not directly place the aluminum container or other metal containers Be careful on the grill. Place a microwave safety disc between the container and the grill to avoid fire.

#### IV The following items must be taken note of when using the steam functions:



Forbidden

Do not place any article on the ceramic lid to avoid meltdown and deformation



After steam cooking, the ceramic lid is very hot. Do not directly wash it with cold water.



Forbidden

In event that the water box has cracks or gaps. Do not continue using it to avoid electric leakage or electric shock caused by water leakage.



Be careful

During steam cooking, if the oven door needs opening to turn over or stir the food, keep distance to avoid scalding your face or hands with steam.



### Microwave Oven Cooking Precautions



Caution: Do not heat liquid or other food filled in sealed containers, such as baby bottles, canned food and closed jars. When the air pressure increases, the bottles and cans may explode.



Forbidden

Never heat the eggs with shells and the boiled eggs which may explode when heating, even after heating. Food with shells (such as eggs, chestnuts, etc.) and egg yolks may explode under pressure and then might damage the product itself or injure people.



Do not fry food in the microwave oven. Otherwise, oil may splash and scald the operator.



Fire

When heating food in plastic or paper containers, keep an eye on the microwave oven to avoid the possibility of fire.



Be careful

When heating liquid such as soup, sauce or beverages in your microwave oven, the liquids might splash due to sudden boiling and may injure operators. You must be very careful when taking out the liquids. To prevent this accident from happening, please obey the following steps:
((a) Never use "straight-sided"

containers with narrow necks or thick and long containers.

- Do not overheat the food. Otherwise, it may cause liquids to splash, and thus might injure operators due to sudden boiling when taking the food out from microwave oven.
- When heating liquid food, keep liquid not less than 80 percent of the container's capacity. If the liquid being heated is too little, sudden splashing may occur when the liquid boils.
- (d) Stir the liquid slightly before heating and during heating.
- (e) After cooking, leave the food in the microwave oven for a moment and stir it slightly before taking it out.
- Please further stir or shake the food after it is heated in food jars, especially for babies. Furthermore, please check the temperature of the food inside the bottle before feeding babies to avoid them being scalded.



sausages and chicken wings have nonporous skins. So this type of food must be pierced before Must cooking to avoid them from burning or bursting.

Food like potatoes, apples,



Must

A special popcorn utensil must be used when cooking popcorn in a microwave oven. Additionally, some popcorn in paper containers can be directly cooked in the microwave oven. Proceed according to the instructions and usage recommended by the manufacturers. Never leave the oven unattended when popping popcorn.



Instead of a common thermometer, a meat thermometer is used after beef or chicken is removed from the oven. If undercooked, return over the beef or chicken into the oven and cook for a few more minutes at the recommended power level.



Must

When the microwave oven is used for cooking, the time must be controlled. Never leave the food to be heated unattended.

Overheating the food may cause smoke and fire.



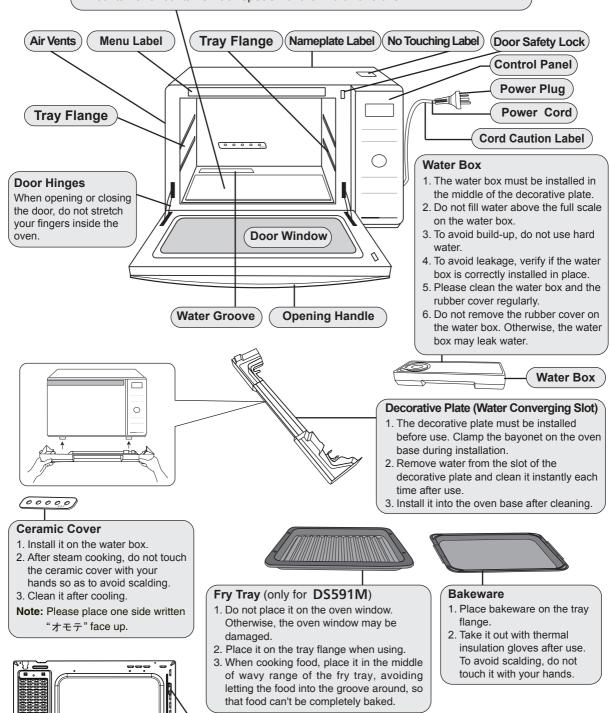
Be careful

The cooking menu only provides an approximate time. Factors influencing the cooking time include: the preferred cooking degree, start temperature, altitude, weight, size, shape and the type of containers. If familiar with the microwave oven operation, you can modify the cooking time yourself with reference to the above-mentioned factors.

# **Feature Diagram (Front View)**

Glass ceramic turntable

- 1. Clean the glass ceramic turntable after cooling.
- 2. Do not directly place the food on the glass ceramic turntable. Place it on a container or container rack special for the microwave oven.





Stopper

Stopper (unremovable)

The stopper functions as a limit for ensuring essential space between the back and rear part of the oven and guarantee good air ventilation.

### **Cookware Guide**

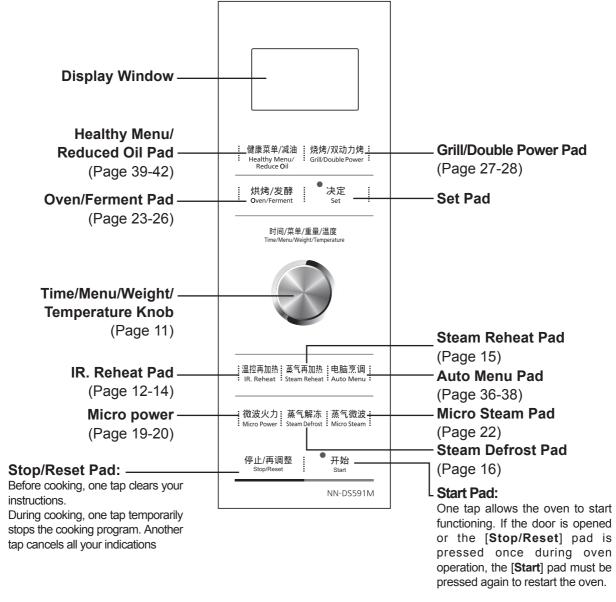
Contail	ners	Micro power	Double Bake/Grill/Oven/Ferment	Double Power
Heat-resistant Glass Cookware		Please use quick cooling-resistant, sudden heat-resistant and super heat-resistant glass cookware to cook foods generating high temperature.	X	X
Non-heat-resistant Glass Cookware		Engraved glass and strengthened glass cannot be used.	X	X
Heat-resistant Plastic Cookware		Please use containers with "for use in microwave oven." Note 1: Some container lids have poor heat-resistance. Note 2: It is forbidden to use tightly sealed lids. Note 3: Food containing high oil and high sugar are susceptible to generating high heat, so heat-resistant plastic containers cannot be used.	X	X
Non-heat-resistant Plastic Cookware		Containers made of materials including polyethylene, melamine, phenol, urea resin, etc. which are susceptible to deterioration under the effect of microwaves cannot be used.  Note: Foam trays can only be used when defrosting fresh products.	X	X
Ceramics & Porcelains		Note: Containers with colored paints or metal or silver ornaments are susceptible to color stripping, sparking, etc.	Note: Do not use containers with colored paints inside which may fall off.	
Painted Ware		They may be susceptible to paint stripping, breakage, etc.	X	X
Metal Containers		X	Note: Metal containers with resin handles cannot be used.	Note:Metal accessories special for microwave oven can be used according to the instructions.
Wood, Bamboo and Paper Products		Easy to ignite.	Note: Paper containers which have undergone 250 °C heat-resistant treatment can be used when the cooking temperature is less than 250 °C.	X
Plastic Wrap & Heat-Resistant PE Bags		It is recommended to use the fresh- keeping film with heat-resistant temperature of 140 °C. Note: It cannot be used to cook high-oil food.	The fresh-keeping film will melt at high temperature.	X
Aluminum Foil		Note: It could be used some times (to defrost the fresh products) by means of the reflection property of the microwaves. Do remember that it cannot touch the inner wall of the oven cavity.	Wrap the food with the aluminum foil.	X



#### How to test a container for safe microwave oven use:

Fill a glass measure with 300 ml cool water and place it in the microwave oven alongside the empty container to be tested. Heat it for one minute at high power. If the container is microwave oven-safe, the container should remain comfortably cool, and the water in the glass measure should be hot. If the container is hot, it has absorbed some microwave energy and should not be used. This test cannot be used for plastic containers.

### Control Panel (NN-DS591M)



Backlight power-saving mode: The microwave oven enters the backlight power-saving mode, which means the white backlight is turned off, under the following conditions:

- 1. No operation is carried out 5 seconds after the child lock is set or cancelled.
- No operation and no door opening or closing occur for 5 seconds after powering on or after the blank timer blinks in the display window.

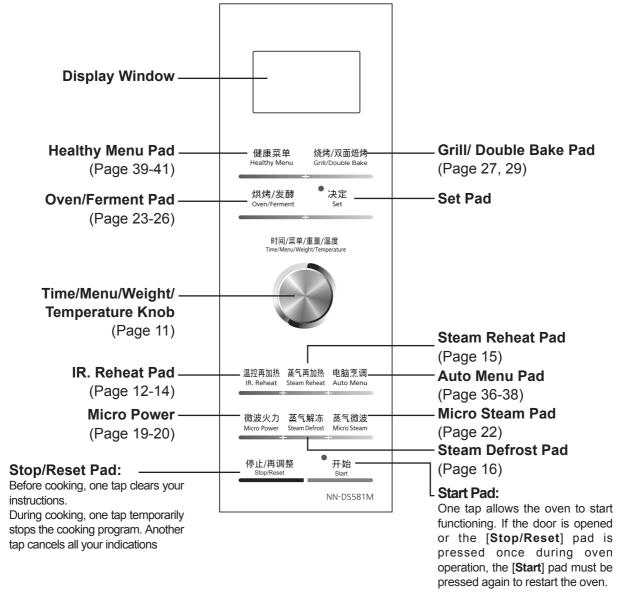
#### **Beep Sound:**

When a pad is pressed correctly, a beep sound will be heard. If a pad is pressed and no beep is heard, the unit did not or could not accept the instruction. The oven will beep twice to prompt that the food needs turning over or stirring or represent that a cooking stage ends. At the end of the any completed program, the oven will beep 5 times.

#### Note:

After you finish setting the cooking program and no operation is carried out, including opening or closing the oven door, the auto program will automatically cancel the setting and recover to the blank timer or clock display state after 6 minutes.

### Control Panel (NN-DS581M)



Backlight power-saving mode: The microwave oven enters the backlight power-saving mode, which means the white backlight is turned off, under the following conditions:

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- 2. No operation and no door opening or closing occur for 5 seconds after powering on or after the blank timer blinks in the display window.

#### **Beep Sound:**

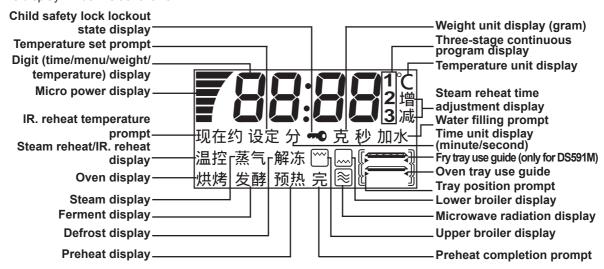
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#### Note:

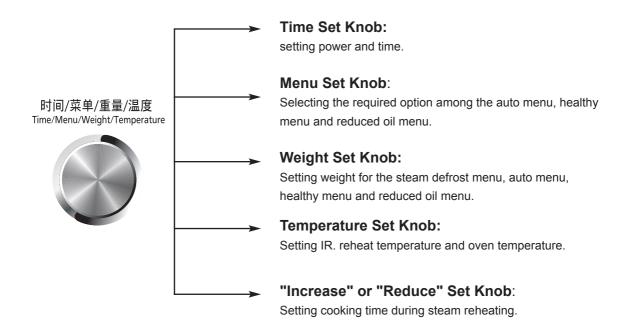
After you finish setting the cooking program and no operation is carried out, including opening or closing the oven door, the auto program will automatically cancel the setting and recover to the blank timer or clock display state after 6 minutes.

### Introduction to the Display Window

To operate the microwave oven conveniently, your current operation state will appear on the display window. The display window is as follows:



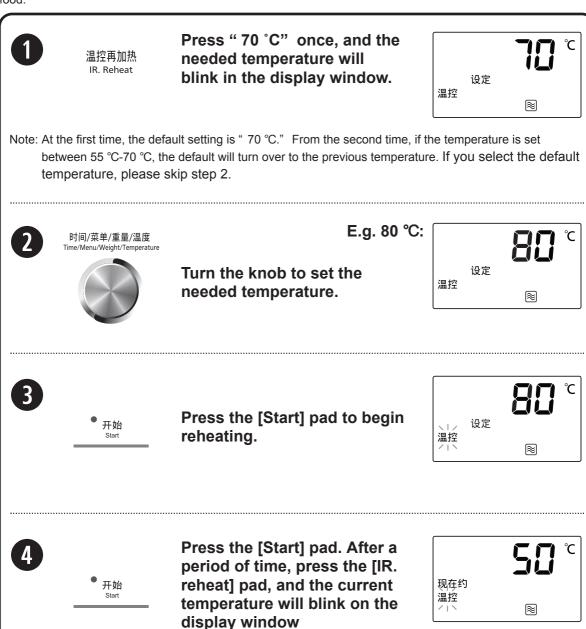
### **Knob Instruction**



This feature includes two reheating functions, IR. reheat and steam reheat. You can choose one according to requirements.

### IR. Reheat Setting

This feature allows the temperature to adjust from -10 °C~90 °C without power and time setting according to the food.

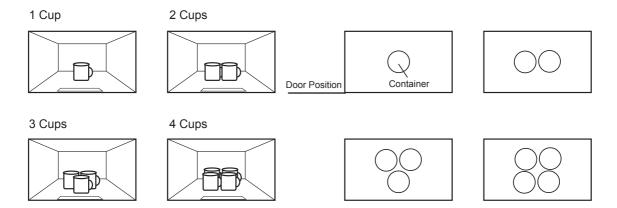


(unnecessary step).

<sup>%</sup> In the display window view, " means this icon is blinking.

#### Cautions:

- 1. The default is 70 °C when the oven is used for the first time. From the second time, if the temperature is set between 55 °C-70 °C, the default will turn over to the previous temperature.
- 2. After heating is completed, please stir and eat the food.
- 3. The food to be heated should be placed in the middle of the glass ceramic turntable.
- 4. Heat 1 to 4 cups of beverage (200 ml/cup). Stir the beverage slightly after heating. Figures below display the displacement method of the beverage.

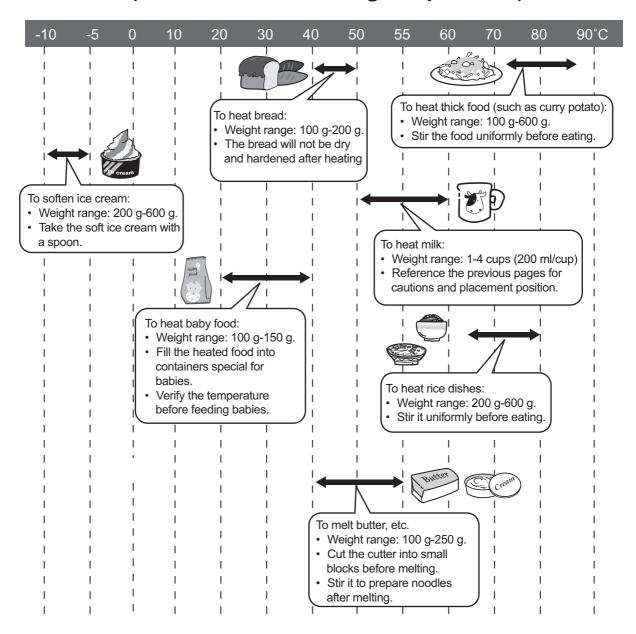


Use fresh-keeping film to heat food. The film must be adhered to the food surface. Otherwise, the food temperature might not be detected. If there are several layers of film, the overlapped surface should face downwards.



- 6. Do not heat food of less than 100 g. Because the food temperature is difficult to detect, the food may be overheated.
- 7. When it is too hot in the oven cavity, the display window will display " ". At this time, do not use this feature until " " disappears.
- 8. The temporal oven temperature, food density, container material and food position on the glass ceramic turntable determine the error between the food temperature and the set value.

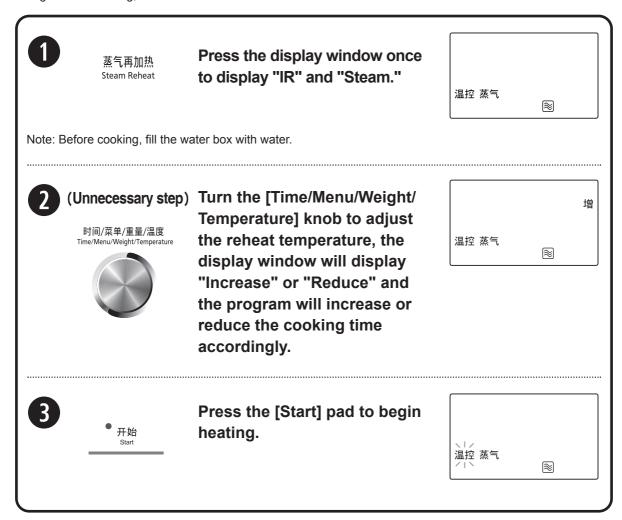
### IR. reheat (recommended heating temperature)



Note: The above food heating temperatures are intended for recommendation. When heating liquid beverage, the temperature cannot exceed 60 °C. Otherwise, it will boil and splash.

### Steam reheat setting

This feature provides you programs suitable for reheating rice and other dishes. Operate as per the following instructions to automatically complete reheating without setting power and time. Recommended weight is 200 g-600 g. Before cooking, fill the water box with water.



#### To heat rice

- Stir the cold rice uniformly before heating and fill the water box with water.
- Do not cover it or use the fresh-keeping film.
- Stir the rice before eating.

#### Noto:

- 1. This program is only suitable for cooked rice and other dishes.
- 2. This program is not suitable for heating liquids.
- 3. This program can be used for heating frozen food but is not suitable for heating high-caloric and high-density food, such as Shao-Mai and Zongzi.

To heat other dishes

· Stir the rice before eating.

the water box full.

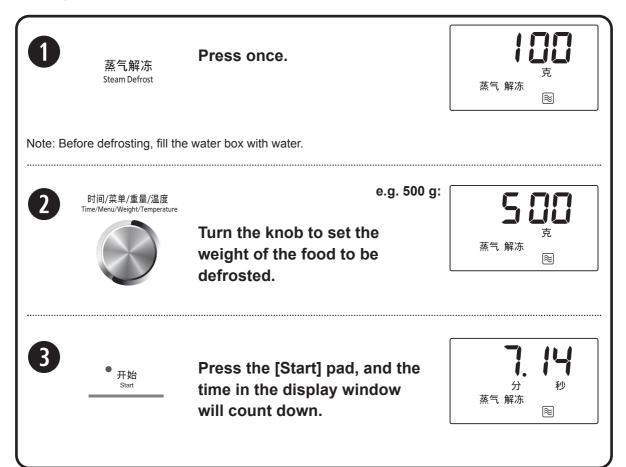
· Stir the cold dish uniformly before heating and fill

· Do not cover it or use the fresh-keeping film.

4. When it is very hot in the oven cavity, the display window will display " ". At this time, this program cannot be used until " " disappears.

### **Steam Defrost Setting**

This feature is a steam and microwave combined defrosting method, capable of automatically defrosting frozen meat, poultry or seafood by just setting the weight. The allowed weight ranges from 100 g to 3000 g. Before defrosting, fill the water box with water.

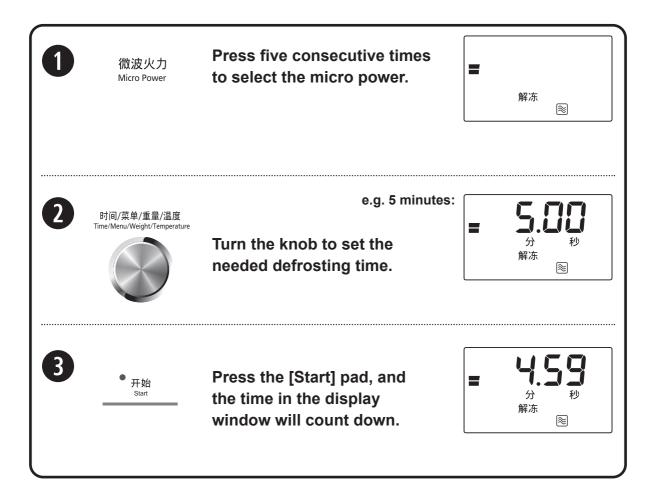


#### Notes:

- 1. Steam sprays out during steam defrosting. The food does not need wrapping with the fresh-keeping film.
- 2. During defrosting, if the oven beeps twice, open the door and turn over, stir or re-arrange the food. Take out the defrosted part in time to avoid overheating.
- 3. When it is very hot in the oven cavity, the display window will display " ". At this time, this program cannot be used until " " disappears.

# Micro power Defrost Setting

This feature allows you to decide the defrosting time by yourself.



#### Notes:

- 1. Use the fresh-keeping film or lid during defrosting.
- 2. It is recommended to open the oven door during cooking, take out the defrosted part, and turn over, stir or re-arrange the rest part.
- 3. The maximum cooking time is 1 hour 30 minutes.

### **Defrosting Technique**

#### **Preparation for freezing:**

The quality of the fresh food, the food freezing storage, defrosting technique and defrosting time determine the quality of the cooked food. The food bought must be fresh and of high quality, instantly frozen after being bought and then stored for a period of time.

#### Note:

- 1. Remove aluminum foil packages before defrosting so as to avoid generating electric arcs.
- 2 Keep the temperature of the food below -18 °C in the freezer (freeze the food for at least 24 hours before defrosting).

#### Special technique of steam defrosting

Compared with meat without bones, meat with bones of the same weight are lighter. So, reduce 0.5 kilograms when setting the weight of 2 kilogram meat with bones; reduce 0.2 to 0.3 kg when setting meat with bones less than 2 kilograms.

#### When the oven beeps twice:

Turn over all meat, chicken, fish and shellfish. Break apart stewing meat, chicken pieces and minced meat. Separate chops and hamburger patties. Shield the chicken wings, ends of the barbecues, fat or bones, etc.

### **Defrosting method**

For uniform defrosting, turn over the food and remove the food in the container during defrosting.



Remove frozen fresh meat from the package and place it on the tray.



Wrap the thin front part of the chicken leg with foil.



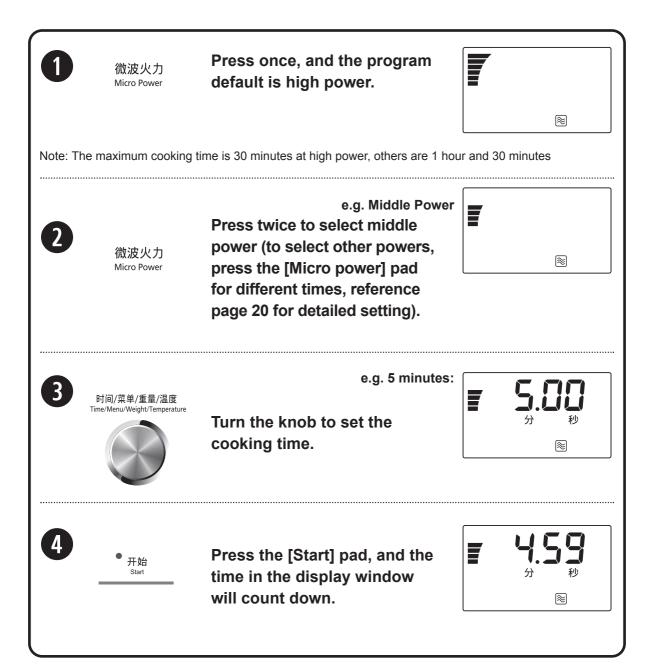
Wrap the head and tail of whole fish with foil.



Remove fish slices from the package and place them on the tray.

# Micro power Setting

This feature allows you to set the needed micro power and cooking time.



# Micro power Setting

Press	State Icon	Micro power	Power (Approximate)	Example of Use
1	<b>F</b>	High	1000 W	Boil water. Cook fresh fruits, vegetables, preserved fruit and candies.
2		Med-High	800 W	Cook fish and seafood, meat, poultry, eggs and cakes.
3		Medium	600 W	Cook cakes, stew food, and melt butter and chocolate.
4	<b>■</b>	Med-Low	400 W	Cook tough meat, stew soup and soften butter.
5	解冻	Defrost	300W	Defrost. Defrost meat, poultry or seafood.
6	<b>■</b>	Low	200 W	Keep food warm and soften ice cream.

#### Note:

If high power is selected at the first stage, do not press the [Micro power] pad, but just turn the [Time/Menu/Weight/Temperature] knob directly to set the cooking time and then press the [Start] pad.



Material: a fish (about 400 g), some green onion, ginger and dried mushroom.

Seasonings: salt, some wine

- 1. Remove fish scales and internal organs and place the fish into the
  - a) Remove the internal organs and gills, wash the fish, and poke the surface with a cutter.
  - b) Marinade the fish with salt and wine 3. Input 8 minutes. for 10 minutes.
  - c) Cut the green onion, ginger and dried mushroom into strips, place
- them into the fish belly, and place the fish onto the utensil.
- d) Cover the fish with fresh-keeping
- 2. Press [Micro power] 3 times to select middle power.
- 4. Press the [Start] pad. The oven begins



### **More/Less Setting**

This feature allows you to add or reduce the cooking time when using the micro power or barbecue power to cook food. 1 tap means 1 minute.

e.g. In case the cooking time of micro medium power is 5 minutes, add 3 minutes when there are still 4 minutes.



#### Notes:

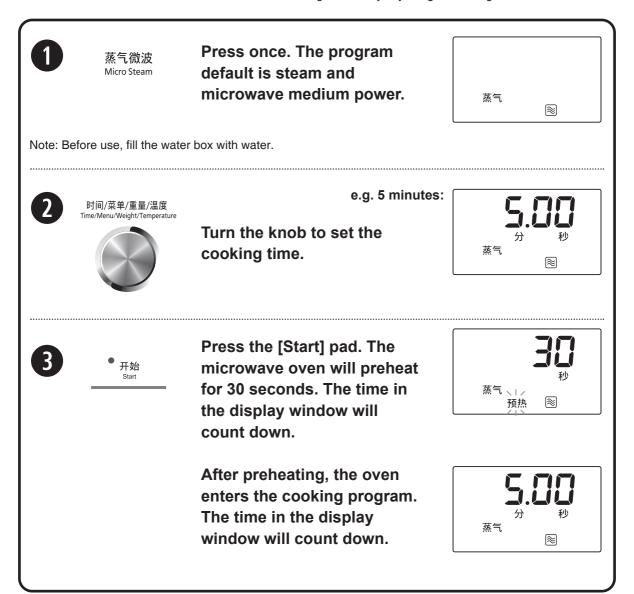
- 1. Use the oven according to the actual condition to prevent the food from over-cooking due to time increase.
- 2. This feature is intended for use in the micro power, grill, double bake, oven or fermenting state, and cannot be used in the preheating state.
- 3. If the reduced cooking time is less than the rest time of time, the program will stop.

the cooking time).



### **Micro Steam Setting**

This feature is a steam and microwave combined heating method by adjusting the settings.



#### Notes:

- 1. Each time before use, fill the water box with water.
- 2. If it is the steam microwave in the first power stage, the microwave oven will preheat for 30 seconds which is excluded in the total cooking time. The maximum cooking time is 15 minutes.
- 3. During preheating, the broiler will light up, which does not influence cooking.
- 4. Lid or fresh-keeping film cannot be used when the steam microwave is used.
- 5. After using the steam microwave, the ceramic lid is very hot. Do not touch it.
- 6. Allow the oven cavity to cool down completely and then clear the water in the lower water box of the ceramic lid after use.

### **Oven Setting**

### **Oven setting**

Oven temperatures range from 100 °C to 250 °C. This feature is particularly suitable for baking cakes and pizzas. Place food on the bakeware, place the tray into the upper or lower tray flange, and select proper temperature and time. Then, the oven will cook.

#### When no preheating is required:



烘烤/发酵

Press once.



Note: The default oven temperature is 100 °C. If you select the default temperature, skip step 2.

2

时间/菜单/重量/温度



Turn the knob to set temperature.

e.g.200 °C:



3

决定

Press the [Set] pad to verify the selected temperature.



4

时间/菜单/重量/温度 Fime/Menu/Weight/Temperatur



Turn the knob to set the cooking temperature.



Note: The maximum cooking time for oven function is 1 hour and 30 minutes.

5

● 开始 Start Press the [Start] pad. The time in the display window will count down.



# **Oven Setting**

#### When preheating is required:



烘烤/发酵

Press once.



Note: The default oven temperature is 100 °C. If you select the default temperature, skip step 2.

2

时间/菜单/重量/温度



Turn the knob to set temperature.

e.g.200 ℃



3

· 决定 Set Press the [Set] pad to verify the selected temperature.



4

● 开始 Start Press the [Start] pad. Preheating begins.



5

After preheating, the display window displays "preheating completed". Place food inside the oven quickly.



(Next page to continue)

### **Oven Setting**



时间/菜单/重量/温度

#### e.g. 15 minutes:



烘烤



Turn the knob to set the cooking time

Note: The maximum cooking time for oven function is 1 hour and 30 minutes.



● 开始 Start Press the [Start] key. The time in the display window will count down.



#### Notes:

- 1. The maximum cooking time for oven funtion is 1 hour and 30 minutes.
- 2. When you need to use 220 °C-250 °C to preheat cooking, after preheating, please place the food onto the bakeware to cook in 5 minutes, in order not to let temperature drop. After 20 minutes of cooking, oven temperature drops to 210 °C, so as not to affect the cooking just for high temperature.

#### For Example: Baking Pizza



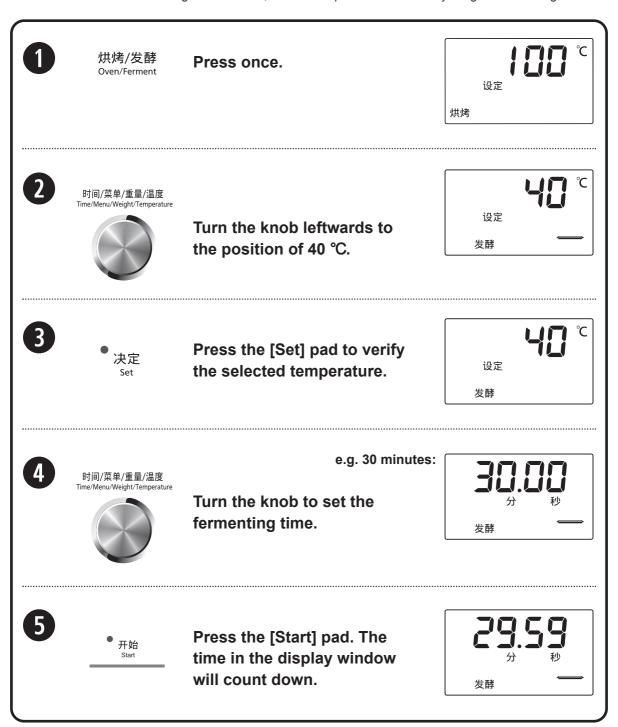
Material: a piece of 9 inch pizza (about 400 g)

- 1. Directly take out the pizza from the freezer and place it on the bakeware without defrosting.
- 2. Press the [Oven/Ferment] pad once.
- 3. Turn the [Time/Menu/Weight/Temperature] knob until the display window displays 200 °C.
- 4. Press the [Start] pad to preheat.
- 5. When the oven beeps three times, open the oven door and quickly place the bakeware with the pizza into the tray flange of the lower grill in the microwave oven.
- 6. Input time: 16 to 18 minutes.
- 7. Press the [Start] pad. The oven will begin to cook.

# **Ferment Setting**

### **Ferment Function Setting**

Ferment function is used for dough fermentation, such as the pizza base or bakery dough when making bread.

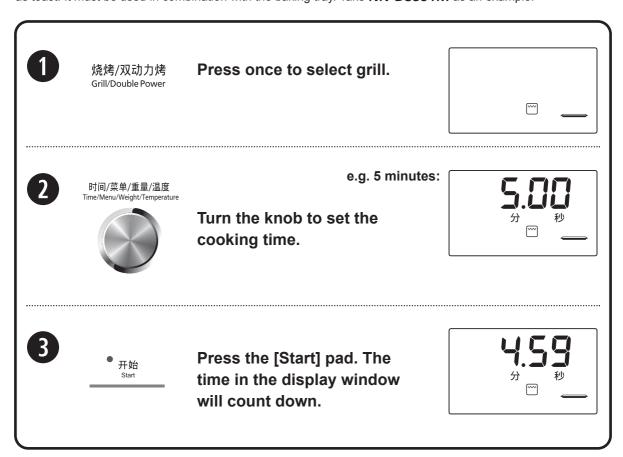


#### Note:

# **Grill Setting**

### To Set Grill (NN-DS581M/NN-DS591M)

Grill function uses upper grill tube to bake food. It is suitable for baking sliced meat, poultry and seafood, as well as toast. It must be used in combination with the baking tray. Take **NN-DS591M** as an example:

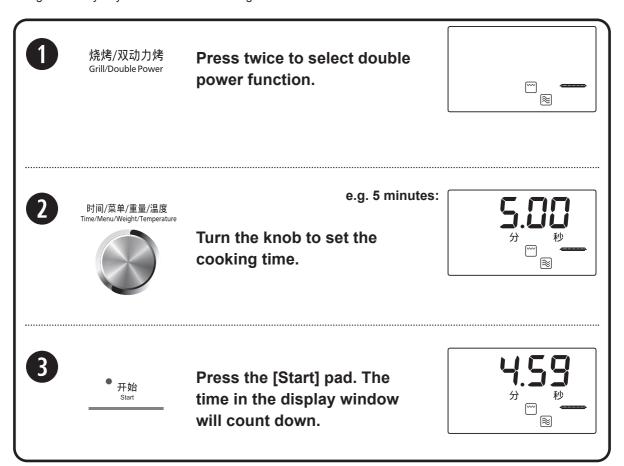


#### Note:

### **Double Power Setting**

### Double Power Setting (intended for NN-DS591M only)

The Double Power feature allows the upper and lower surfaces of food to be roasted by means of the particular design of the fry tray. It is suitable for roasting all kinds of meat and seafood.



#### Note:

### To Set Double Bake

### To Set Double Bake (only NN-DS581M)

Double bake function uses upper and lower grill tube to bake food simultaneously. It is suitable for baking thin meat slices, and seafood.



#### Note:

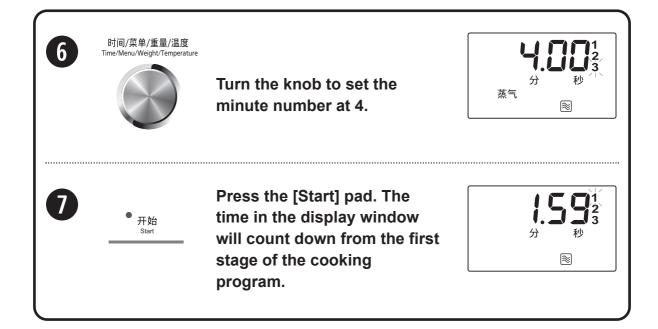
# To Set Three-stage Continuous Cooking Program

For example: continuously set the medium power for 2 minutes, med-low power for 2 minutes and Micro Steam for 4 minutes.



(Next page to continue)

# To Set Three-stage Continuous Cooking Program



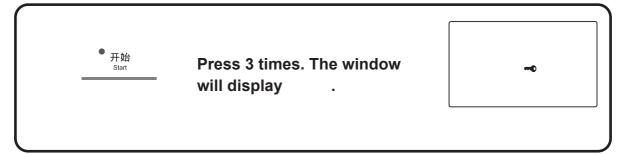
#### Notes:

- 1. The oven beeps twice between two stages.
- 2. Continuous setting is only suitable for micro power and steam microwave.
- 3. Steam microwave can only be set once.
- 4. There is no 30 seconds for preheating, when mircro steam is on the second or third micro power stage.

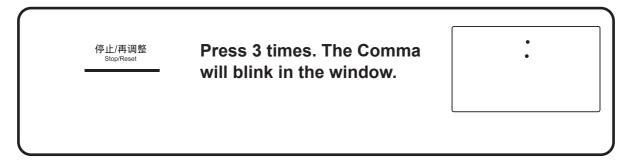
### To Set/Cancel the Child Safety Lock

This feature keeps children from opening the microwave oven without supervision. After setting, only pads are locked, and the door can be opened or closed. Please set when the blank timer blinks in the display window.

### **Enable Child Safety Lock:**



### **Cancel Child Safety Lock:**



### NN-DS581M auto menus and healthy menu are as follows:

#### Auto Menus::

No.	Menu	Weight/Portion	Adding Quantity	Recommended Utensils	Tray Position	*Steam
1	RICE	200-600 g	50 g	Microwave Cooker	-	-
2	PORRIDGE	50-250 g	50 g	Microwave Cooker	-	-
3	DUMPLING	200-600 g	50 g	Microwave Cooker	-	-
4	SOUP	1-2 Portions	1 Portion	Microwave Cooker	-	-
5	STEAM FISH	100-400 g	100 g	Microwave Tray	-	-
6*	STEAM EGG	1-4 Eggs	1	Bakeware	Lower	The water box is full of water.
7*	STEAM FROZEN FOOD	100-400 g	100 g	Microwave Tray	-	The water box is full of water.
8	INSTANT NOODLE	1-2 Packages	1 Package	Microwave Cooker	-	-
9	STEW BEEF	500-1000 g	100 g	Microwave Cooker	-	-
10	BRAISED PORK	500-1000 g	100 g	Microwave Cooker	-	-
11	TOAST	1-4 Pieces	1 Piece	Bakeware	Upper	-
12	DORIA	200 g	-	Bakeware	Upper	-
13	ROAST WINGS	12	-	Bakeware	Upper	-
14	PIZZA (Preheating is required)	1	-	Bakeware	Upper	-
15	ROAST CHICKEN (Preheating is required)	600-1000 g	200 g	Bakeware	Upper	-
16	ROAST SALMON	300 g	-	Bakeware	Upper	-
17	ROAST EEL	350 g	-	Bakeware	Upper	-
18	ROAST CUTTLEFISH	350 g	-	Bakeware	Upper	-
19	SPONGE CAKE (Preheating is required)	1	-	Bakeware	Lower	-
20	COOKIES (Preheating is required)	20 Pieces	-	Bakeware	Upper	-
21*	PUFF (Preheating is required)	9	-	Bakeware	Lower	The water box is full of water.
22	PUDDING (Preheating is required)	9	-	Bakeware	Lower	-
23	CHEESE CAKE (Preheating is required)	1	-	Bakeware	Lower	The water box is full of water.

#### **Health Menus:**

No.	Menu	Weight/Portion	Adding Quantity	Recommended Utensils	Tray Position	*Steam
26	PUMPKIN GRUEL	50-250 g	50 g	Microwave Cooker	-	-
27	PAPAYA & FUNGUS SOUP	1-2 Portions	1 Portion	Microwave Cooker	-	-
28	VEGETABLES	100-400 g	50 g	Microwave Cooker or Microwave Bowl	-	-
29	STRAWBERRY JAM	100-600 g	50 g	Microwave Cooker or Microwave Bowl	-	-
30	REHEAT FRIED FOOD	300 g	-	Bakeware	Upper	-

### NN-DS591M auto menus and Healthy Menu/Reduce Oil are as follows:

Auto Menus::

No.	Menus	Weight/Portion	Adding Quantity	Recommended Utensils	Tray Position	*Steam
1	RICE	200-600 g	50 g	Microwave Cooker	-	-
2	PORRIDGE	50-250 g	50 g	Microwave Cooker	-	-
3	DUMPLING	200-600 g	100 g	Microwave Cooker	-	-
4	SOUP	1-2 Portions	1 Portion	Microwave Cooker	-	-
5	STEAM FISH	100-400 g	100 g	Microwave Cooker	-	-
6*	STEAM FROZEN FOOD	100-400 g	100 g	Microwave Tray	-	The water box is full of water.
7	INSTANT NOODLE	1-2 Packages	1 Package	Microwave Cooker	-	-
8	STEW BEEF	500-1000 g	100 g	Microwave Cooker	-	-
9	BRAISED PORK	500-1000 g	100 g	Microwave Cooker	-	-
10	TOAST	1-4 Pieces	1 Piece	Bakeware	Upper	-
11	DORIA	200 g	-	Fry tray	Upper	-
12	PIZZA (Preheating is required)	1	-	Bakeware	Lower	-
13	ROAST CUTTLEFISH	350 g	-	Fry tray	Upper	-
14	SPONGE CAKE (Preheating is required)	1	-	Bakeware	Lower	-
15	COOKIES (Preheating is required)	20 Pieces	-	Bakeware	Upper	-
16*	PUFF (Preheating is required)	9	-	Bakeware	Lower	The water box is full of water.
17	PUDDING (Preheating is required)	9	-	Bakeware	Lower	-
18*	CHEESE CAKE (Preheating is required)	1	-	Bakeware	Lower	The water box is full of water.

### **Healthy Menu/Reduced Oil Menus:**

No.	Menu	Weight/Portion	Adding Quantity	Recommended Utensils	Tray Position	*Steam
22	PUMPKIN GRUEL	50-250 g	50 g	Microwave Cooker	-	-
23	PAPAYA & FUNGUS SOUP	1-2 Portions	1 Portion	Microwave Cooker	-	-
24	VEGETABLES	100-400 g	50 g	Microwave Cooker or Microwave Bowl	-	-
25	STRAWBERRY JAM	100-600 g	50 g	Microwave Cooker or Microwave Bowl	-	-
26	REHEAT FRIED FOOD	300 g	-	Fry tray	Upper	-
27	FRIED CHICKEN PIECES	300 g	-	Fry tray	Upper	-
28	FRIED SPRING ROLLS	12	-	Fry tray	Upper	-
29	FRIED POTATO CAKE	300 g	-	Fry tray	Upper	-
30	FRIED CHOPPED POTATO	250 g	-	Fry tray	Upper	-
31	ROAST BEEF	300 g	-	Fry tray	Upper	-
32*	ROAST RICE NOODLES	400 g	-	Fry tray	Upper	The water box is full of water.
33*	STEAM EGG	1-4 Eggs	1 Egg	Fry tray	Lower	The water box is full of water.
34*	ROAST WINGS WITH SAUCE	12	-	Fry tray	Upper	The water box is full of water.
35*	ROAST CHICKEN	600-1000 g	200 g	Fry tray	Lower	The water box is full of water.
36	ROAST SALMON	300 g	-	Fry tray	Upper	-
37	ROAST EEL	350 g	-	Fry tray	Upper	-
38	EGG TART (Preheating is required)	9	-	Bakeware	Lower	-
39*	ROAST WINGS WITH SAUCE (REDUCE OIL)	12	-	Fry tray	Upper	The water box is full of water.
40*	ROAST CHICKEN (REDUCE OIL)	600 -1000 g	200 g	Fry tray	Lower	The water box is full of water.

#### Notes:

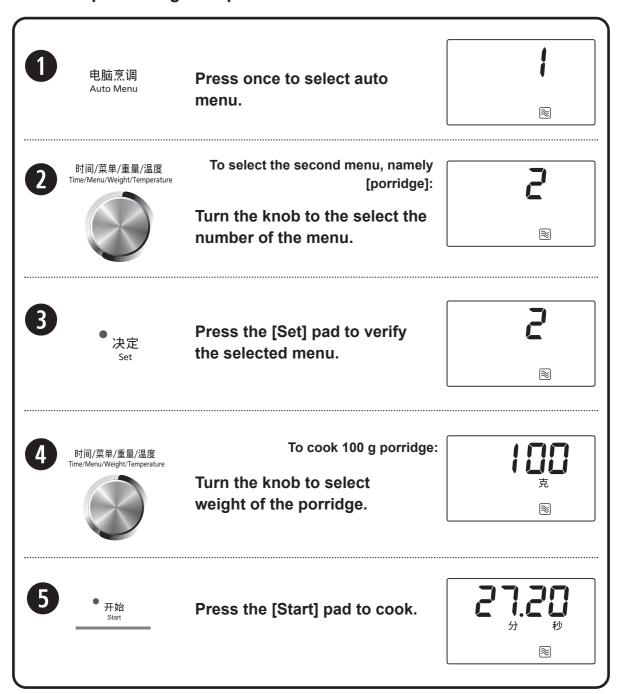
- 1. " \* " means that menu uses steam. Please fill the water box with water before cooking.
- 2. When it is too hot in the oven cavity, the display window will display " ". At this time, this feature cannot be conducted until " " disappears.
- 3. Operate the oven according to the cooking methods recommended by the manufacturer.

This feature sets programs for many common dishes of different weights. There are [Auto Menu] and [Healthy Menu/Reduced Oil] options. Operation proceeds according to recommendations in order to complete cooking automatically without setting power and time. Turn the [Time/Menu/Weight/Temperature] knob, and then the display window will display the corresponding figure.

When the blank timer blinks in the display window, set Auto Menu. Take NN-DS591M as an example:

Operation of the Auto Menu (menus 1 to 21) is as follows:

When no preheating is required:



### When preheating is required:



电脑烹调 Auto Menu Press once to select auto menu.



**Note:** At this time, if the word [Steam] appears on the display, this means that the cooking program uses the steam. Please fill the water box with water.

- Means the cooking utensil to be used is the bakeware.
- \_\_\_ Means the cooking utensil to be used is fry tray.

It is the hint of the using position of the tray



时间/菜单/重量/温度 Time/Menu/Weight/Temperature



To select the 14th menu, namely "Sponge Cake"

Turn the knob to select the number of the menu.





决定 Set Press the [Set] pad to verify selected.



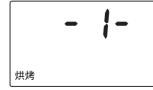


时间/菜单/重量/温度



To cook a sponge cake:

Turn the knob to select weight of the cake to be cooked.



(Next page to continue)



● 开始 Start Press the [Start] pad. The program will enter the preheating state.

After the oven beeps 3 times, preheating is completed. Please quickly place the tray into the tray flange of the lower grill and close the oven door for 2 minutes.





**Note:** If you fail to place food in time, 90 seconds after the door is opened, the program will sound 30 seconds to remind you to place the food. Otherwise, the program will be stopped and you need to reset it.



● 开始 Start

Press the [Start] pad. The oven will begin to cook.



Operation to set [Healthy Menu] (menus 22 to 38) is as follows: When no preheating is required:



健康菜单/减油 Healthy Menu/ Reduce Oil

Press once to select [Healthy Menu].



æ

**Note:** At this time, if the word [Steam] appears on the display, this means that the cooking program uses the steam. Please fill the water box with water.

- Means the cooking utensil to be used is the bakeware.
- Means the cooking utensil to be used is fry tray.

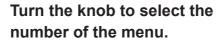
It is the hint of the using position of the tray



时间/菜单/重量/温度 Fime/Menu/Weight/Temperature



To select the 23rd menu, namely [papaya and fungus soup]:





≋

3

● 决定 Set Press the [Set] pad, verify the selected menu.



 $\approx$ 

4

时间/菜单/重量/温度



e.g. food for 1 Serving

Turn the knob to select weight.



5

● 开始 Start Press the [Start] pad. The time in the display window will count down.

**39.59** №

### Preheating is required



健康菜单/减油 Healthy Menu/ Reduce Oil

Press once to select Healthy Menu.



≋

**Note:** At this time, if the word [Steam] appears on the display, this means that the cooking program uses the steam. Please fill the water box with water.

- Means the cooking utensil to be used is the bakeware.
- Means the cooking utensil to be used is fry tray.



时间/菜单/重量/温度 Time/Menu/Weight/Temperature



To select the 38th menu, namely "Egg Tart":

Turn the knob to select the number of the menu.



烘烤



决定 Set Press the [Set] pad to verify selected.

38

烘烤

(Next page to continue)



时间/菜单/重量/温度 Time/Menu/Weight/Temperature



E.g. food for 9 serving:

Turn the knob to select weight.





● 开始 Start Press the [Start] pad. The program will enter the preheating state.

After the oven beeps 3 times, preheating is completed. Please quickly place the tray into the tray flange of the lower grill and close the oven door for 2 minutes.





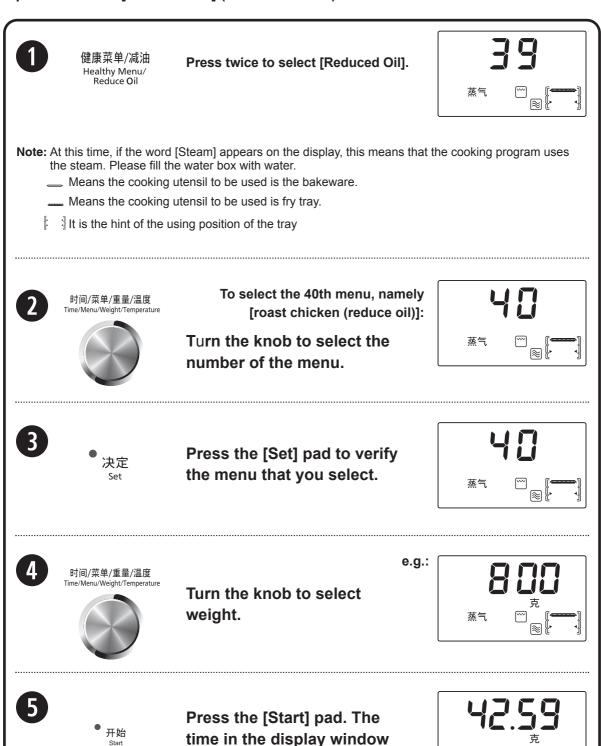
Note: If you fail to place food in time.90 seconds after the door is opened, the program will sound 30 seconds to remind you to place the food. Otherwise, the program will be stopped and you need to reset it.



● 开始 Start Press the [Start] pad. The time in the display window will count down.

**39.59** 秒

### Operation to set [Reduced Oil] (menus 39 to 40) is as follows:



will count down.

#### Rice

- Cook rice with the microwave container. Please use the special rice cooker for microwave ovens to achieve the best effect.
- Wash and immerse the rice. The immersion time varies with rice type. The ratio of rice to water is the same as that of the traditional method. Data in the table are intended for reference only, but the total amount of rice and water cannot exceed half of the container.
- Keep the air vents of the container smooth. If the container used has no air vents or small air vents, it is recommended to open the lid slightly to prevent overflow.
- At the completion of the cooking time, let stand for 3 to 5 minutes before eating it.

Reference Ratio of Rice to Water:

Weight (Rice)	200 g	300 g	400 g	600 g
Water	300 ml	400 ml	550 ml	800 ml

#### **Porridge**

- Cook rice with microwave container. Please use special rice cooker for microwave oven to achieve the best effect.
- Wash and immerse the rice. The immersion time varies with rice type. The ratio of rice to water is the same as that of the traditional method. Data in the table are intended for reference only, but the total amount of rice and water cannot exceed half of the container.
- Keep the air vents of the container smooth. If the container used has no air vents or small air vents, it is recommended to open the lid slightly to prevent overflow.
- When the oven beeps twice, open the microwave oven, carefully take the container out, stir the food with a spoon, and then slightly open the lid, place the container into the oven, close the door and press the [Start] pad to continue cooking.
- At the completion of cooking time, let stand 5 to 10 minutes.

Note: During stirring and at the completion of the cooking time, the steam temperature is very high. To avoid scalding, you must be very careful to open the rice cooker lid.

Reference Ratio of Rice to Water:

Weight (Rice)	50 g	150 g	250 g
Water	250 ml	650 ml	1200 ml

#### **Dumplings**

- · Suitable for cooking frozen dumplings/wontons.
- Place the frozen dumplings/wontons into Microwave container, and pour boiling water into the container. The total amount cannot exceed half of the container to avoid overflow.
- During cooking, keep the air vents of the container smooth. If the container used has no air vents or small air vents, open the lid slightly.
- During cooking, when the oven beeps, open the oven door, stir the food, then close the door and press the [Start] pad to continue cooking. At the completion of the cooking, add seasonings.

Reference Ratio of Dumplings to Boiling Water:

Dumplings	200 g	300 g	400 g
<b>Boiling Water</b>	600 ml	800 ml	1000 ml

#### Soup

- Suitable for traditional soup, such as chicken soup or rib soup.
- Clean all raw materials and ingredients for later use. Add all raw materials, ingredients and water into a microwave container and cover it. The total amount cannot exceed half of the container to avoid overflow.
- During cooking, when the oven beeps, open the oven door, stir the food, then close the door and press the [Start] pad to continue cooking.
- At the completion of the cooking, add seasonings.
   Reference Ratio of Raw Materials to Water:

Meat	200 g (1 portion)	400 g (2 portions)
Ingredients	100 g (1 portion)	200 g (2 portions)
Water	900 ml (1 portion)	1800 ml (2 portions)

#### Steam fish

- Suitable for steaming all kinds of fishes or fish slices
- Place the washed fish on the microwave tray and add salt, green onion, ginger and cooking wine.
- Use the special fresh-keeping film or lid for microwave ovens.
- Place the tray in the middle of the glass ceramic turntable and select programs. The oven will begin to cook. When the oven beeps, open the oven door, and rotate the safety disc 180 degree. Then close the door and press the [Start] pad to continue cooking.

**Note:** The thickness of the fish cannot exceed 2 cm. If the fish is too thick, cut it into slices.

#### Steam frozen food

- Suitable for all kinds of frozen desserts which have been heated before freezing, such as steamed bread with milk and egg, steamed bun and Shaomai, excluding those which are big in size, high in density or not heated before freezing and not labeled for microwave oven use.
- Take the desserts out of the refrigerator, then directly place them onto the microwave tray.
- Keep the desserts separate. Otherwise, the desserts expand after cooking and become stiff due to mutual squeezing.
- · Do not use the fresh-keeping film or lid.
- · Fill the water box with water.
- Place the microwave tray in the middle of the glass ceramic turntable and select program. Then the oven will begin to cook.
- When the oven beeps, turn the microwave tray 180 °C. Press the [Start] pad. The oven will continue to cook.

#### Steam eggs

- Break the egg shell, stir the egg uniformly, add salt and monosodium glutamate and then stir the mixer uniformly.
- Add cold water into the egg at a ratio and remove the foam for later use.
- The ratio of the egg to water is 1:1.8.
- The water box is full of water.
- Place the microwave container in the centre of the oven and place the baking tray on the tray flange at the lower position of the microwave oven.
- Select program and press the [Start] pad. The oven will begin to cook.

Reference Ratio of Egg to Water: (taking a 50 g egg without shell as an example)

Egg	Cold Water
1 (50 g)	90 g
2 (100 g)	180 g
3 (150 g)	270 g
4 (200 g)	360 g

### Papaya & Fungus Soup

- Suitable for making desserts, such as papaya and fungus soup.
- · Pre-soak all raw materials.
- Place all raw materials and water into the microwave container. The total amount cannot exceed half of the container to avoid overflow. Use the lid or the fresh-keeping film to cover it.
- During cooking, when the oven beeps twice, open the oven door, stir the mixture uniformly, close the oven door and press the [Start] pad. The oven will continue cooking.
- At the completion of cooking, please cool the product in the refrigerator before eating.
- 1 portion (for 1-3 people), 2 portions (for 4-6 people)

Reference Ratio of Raw Materials to Ingredients:

Portions	1	2
Fungus	15 g	30 g
Water	900 ml	1800 ml
Papaya	100 g	200 g
Crystal sugar	75 g	150 g

### **Vegetables**

- Suitable for cooking all types of leaf vegetables, such as greens, cabbages, and spinach.
- Wash, drain and place the vegetables into the microwave container. Add some oil and stir uniformly.
- Cover it with the lid or the special fresh-keeping film for microwave ovens during cooking.
- During cooking, when the oven beeps, open the oven door, stir the food, then close the door and press [Start] pad to continue cooking.
- At the completion of the cooking, add salt and other seasonings and stir uniformly.

#### **Instant Noodles**

- Suitable for cooking all kinds of instant noodles.
   Place noodles and all seasonings into the microwave container and fill boiling water.
- The total amount of the noodles and the water cannot exceed half of the container.
   During cooking, keep the air vents of the container smooth. If the container used has no air vents or small air vents, open the lid slightly
- to avoid overflow.
  During cooking, when the oven beeps, open the oven door, stir the food, then close the door and press the [Start] pad to continue cooking.let stand 2 minutes before eating.

Reference Ratio of Noodles and Water:

Noodles	1 Package	2 Packages
Boiling Water	600 ml	1000 ml

#### Stewed beef

Raw materials:

Fresh beef blocks, potatoes or carrots.

Ingredients:

- Dark soy sauce, oyster sauce, sesame oil, oil, garlic, anise and cassia.
- Wash the beef, cut the potatoes or carrots.
- Add the beef blocks or potatoes or carrot blocks into the container, and add ingredients according to your own taste. Marinade the materials for 10 minutes, pour in beer and stir uniformly. Cover the lid and place the container into the microwave oven.
- During cooking, when the oven beeps, open the oven door, stir the food, then close the door and press the [Start] pad to continue cooking.

Reference Ratio of Raw Materials to Ingredients:

Beef	Potatoes/Carrots	Beer
500 g	250 g	150 ml
800 g	400 g	225 ml
1000 g	500 g	300 ml

#### **Braised pork**

Raw materials:

Fresh streaky pork, green onion, ginger. Ingredients:

- Dark soy sauce, sugar, yellow rice and millet wine, and monosodium glutamate.
- Wash and cut the streaky pork, wash it with boiling water to remove blood.
- Add all materials and seasonings into a microwave container and stir uniformly, cover the container with a lid, marinade the materials for 10-15 minutes, and stir once halfway.
- During cooking, when the oven beeps, open the oven door, stir the food, then close the door and press the [Start] pad to continue cooking.

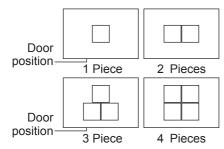
Reference Ratio of Raw Materials to Ingredients

Streaky Pork	Dark Soy Sauce	Yellow Rice and Millet Wine	Sugar
500 g	45 ml	15 ml	45 g
800 g	65 ml	25 ml	65 g
1000 g	90 ml	30 ml	90 g

#### **Baked bread**

- · Suitable for baking bread.
- Place the bread on the bakeware at the position shown in the figure below.
- Place the bakeware into the tray flange of the upper grill in the microwave oven. Select the program. The oven will begin to cook.
- During cooking, when the oven beeps twice, open the oven door, turn the bread upside down, then close door and press the [Start] pad to continue cooking.
- At the completion of baking, coat butter and cheese on the bread. You may also directly eat the crisp bread.

Refer to the following table for the placement of the bread:



Note: If the oven beeps, but you do not turn over the bread and press the [Start] pad, the program will be in the standby state and the oven cannot continue to cook.

Remained cooking time will be displayed after turnning over.

#### Doria

Make food by two steps

To make sauce:

- Stage 1, heat butter and flour. Refer to the following table for power and time.
- Stage 2, add milk and stir uniformly. And continue cooking. refer to the following table for power and time.

Reference Ratio of Raw Materials and Ingredients:

	Sauce	200 g	Operation
1	Butter	30 g	Heat and stir
'	Flour	30 g	uniformly
	Medium Power	1 min.	dimoning
2	Milk	400 ml	Stir once every
-	Medium Power	8 min.	three minutes

To prepare doria:

 Add rice, onion, sausage, potatoes, etc. into a special tray for microwave ovens. Pour the sauce prepared onto the rice and stir uniformly. Pour the sauce prepared onto the rice and stir uniformly. At last, spray mozzarella cheese on the surface, place the tray in the middle of the oven and then place it into the tray flange of the upper grill in the microwave oven for roasting.

Sauce	200 g
Rice	100 g
Sausage	50 g
Potatoes	50 g
Onion	30 g
mozzarella cheese	80 g

### Roast chicken wings (intended for DS581M only)

- Suitable for roasting chicken wings. Wash the chicken wings and pierce the chicken wings with a toothpick before roasting.
- Immerse in seasonings for 20 minutes and then drain.
- Lay a piece of tin foil on the bakeware and place the chicken wings on the tin foil uniformly.
- Place the bakeware into the tray flange of the upper grill in the microwave oven for roasting.
- Select program. The oven will start to cook.

#### Notes:

- 1. If the chicken wings are frozen, defrost them.
- In case of marinating chicken wings, skip the immersion step.
- 3. This program is not suitable for roasting too thick or thin chicken wings.

130 g

#### Pizza

Raw material:

Pizza base:
 Flour
 Dried yeast

Dried yeast 4 g
Low-fat milk powder 7 g
Salt 3 g
Sugar 10 g
Salt-less butter (room temperature) 10 g
Warm water (40 °C) 65 ml

2. Fillings:

Onion (small particles)	50 g
Mushroom (thin slices)	30 g
Sausage (thin slices)	70 g
Green pepper	50 g
Mozzarella cheese (special for pizza)	100 g
Tomato source	45 g

- To prepare pizza base: Fully blend the raw materials of the pizza base and shape spherical dough. Coat a layer of oil on the microwave thermal-insulation container, put the dough into the container without covering a lid, place the container at the center of the bakeware, and place the bakeware together with the container at the lower baking position in the microwave oven. Fill the water box with water and select the program of 40 °C fermentation. The size of the dough should change little after fermentation.
- Select program and press the [Start] pad. The oven will begin to preheat.
- Spread a thin layer of flour on the top of the table, place the fermented dough on the top, spread it towards the four sides with your hands and remove the air; then, roll the dough into a round cake with a diameter of 25 cm with a roller. Place the round cake on the oiled bakeware and adjust the shape to form a pizza edge. Coat a layer of tomato sauce on the pizza base, spread the fillings and at last spread the mozzarella cheese on the pizza surface.
- After preheating is completed. Please quickly place the tray into the tray flange of the lower grill in the microwave oven and press the [Start] pad, start baking.

#### Roast whole chicken

- Suitable for roasting a whole chicken or large chicken pieces.
- Clean the chicken, immerse it in seasonings for about 30 minutes and drain. Use knife to cut the lower part of the chicken apart.
- Uniformly place the chicken on the bakeware or the barbecue tray. Place the tray into the tray flange of the lower grill in the microwave oven.
- Select the program and press the [Start] pad.
   The oven will begin to cook.

#### Notes:

**DS581M** Preheating is required. After preheating, lay a piece of tin foil on the bakeware, and then place the bakeware into the microwave.

NN-DS591M product uses the steam function for this menu. Please fill the water box with water

#### Roast salmon

- Suitable for roasting salmon.
- Select proper fresh salmon and immerse it into the seasonings for about 20 minutes.
- Coat a thin layer of butter on the salmon before roasting.
- Uniformly place the salmon on the bakeware or the barbecue tray. Place the tray into the tray flange of the upper bakeware or barbecue tray in the microwave oven.

 Select the program and press the [Start] pad. The oven will begin to cook.

Note: Please lay a piece of tin foil on the bakeware of NN-DS581M.

#### Roast eel

- Clean the fish, remove mucosa, cut into slices which are 10 cm thick.
- Coat sauce on the fish body, immerse for about 30 minutes and place the fish on the bakeware or fry tray. Place the tray into the tray flange of the upper grill of the microwave oven for roasting.
- Select the program and press the [Start] pad. The oven will begin to cook.

Note: Please lay a piece of tin foil on the bakeware of NN-DS581M.

#### Roast cuttlefish

- Suitable for roasting squid tubes.
- Clean the cuttlefish ,remove its tentacles and drain it.
- Immerse the food into the prepared seasonings for 20 minutes.
- Arrange the squid tubes on the bakeware or fry tray regularly. Place the tray into the tray flange of the upper grill of the microwave oven for roasting.
- Select the program and press the [Start] pad. The oven will begin to cook.

**Note:** Please lay a piece of tin foil on the bakeware of NN-DS581M.

#### Sponge Cake (A 8-inch cake mold )

Raw materials:

Butter 15 g Milk 10 g

Egg 150 g (about 3 eggs)

Cake raising flour 90 g Soft sugar 90 g

- Put the eggs and soft sugar into a container and stir with an eggbeater at a low speed until the sugar is dissolved completely. Adjust to highspeed until the egg liquid is completely foamed and turns white. Words written on the egg liquid surface with the eggbeater can keep a period of time. Re-adjust to low-speed to make the air bubbles uniform.
- Select the program and press the [Start] pad. The oven will begin to cook.
- Pour the screened cake powder, butter and milk into the uniform egg liquid and uniformly stir the mixture with a turner from the bottom to the top.
- Lay wax paper at the bottom and four sides of the cake mold and pour the cake liquid into the mold.
   Place the mold onto the bakeware.
- When the oven beeps 3 times, preheating is completed. Quickly place the bakeware at the lower baking position in the microwave oven. Press the [Start] pad.

#### Notes:

- Stirring of the cake liquid directly influences the baking effect. Do not stir too much after pouring the cake powder.
- 2. If the mold size and the raw material portions prepared are inconsistent with the operating instructions, please set the oven time yourself.
- When preheating is completed, please quickly place the bakeware and the mold. If the oven door is opened for a too long time, the oven cavity cools down quickly, which directly influences the baking effect.
- Insert a toothpick into the baked cake. If the toothpick pulled out is clean, this means the cake is well baked.

#### Cookies

Raw materials:

Egg 50 g (1) Flour 240 g Butter 100 g Soft sugar 100 g

- Pour butter into a container and stir with an eggbeater until it turns milk white.
- Add the soft sugar and continue stirring.
- Add uniformly beaten egg and stir until the mixture is completely uniform.
- Gradually add screened flour and stir uniformly with a turner. Put the cookies into a refrigerator to refrigerate for 20 minutes.
- Select the program and press the [Start] pad. The oven will begin to preheat.
- Lay a layer of tin foil on the bakeware, uniformly cut 20 pieces of 5 m cookies into 11gram blocks and arrange the blocks in a shape of 5x4.
- When the oven beeps 3 times, preheating is completed. Please quickly place the tray into the tray flange of the upper grill in the microwave oven.
   Press the [Start] pad. The oven will begin to cook.

#### Notes:

- The butter can be softened with the microwave in advance. However, it is better to beat the butter to be milk white in the solid state.
- During stirring, use a deep container to avoid raw materials splashing.
- 3. The cookies must be arranged at equal intervals and cannot exceed the specified quantity. Otherwise, the baking effect will be influenced.
- 4. When the preheating program is completed, please quickly place the bakeware into the oven cavity. If the door is opened for a long time, the oven cavity will cool down quickly, which will directly influence the baking effect.

#### **Puffs**

Raw materials:

Flour 50 g Butter 50 g

Egg 120 g (about 3)

Water 80ml

- Heat the butter and water in a container until boiling. Quickly pour in the flour and stir until the dough does not adhere to the inner walls and bottom of the container.
- Gradually pour the beaten egg uniformly in the dough and stir continuously until the dough on the turner gradually falls down in stripes.
- Fill the water box with water.
- Select the program and press the [Start] pad. The oven will begin to preheat.
- Lay a piece of tin foil on the bakeware and coat it with a layer of oil. Place the dough balls on the bakeware in a shape of 3x3 at an equal interval on the right and right. Each dough ball is about 25 g.
- When the oven beeps 3 times, preheating is completed. Quickly place the bakeware into the tray flange of the lower grill in the microwave oven. Press the [Start] pad. The oven will begin to work.

#### Notes:

- 1. When gradually pouring the edge liquid into the dough, stir it quickly and uniformly.
- When the dough is in stripe shape, stop adding egg liquid to avoid the raw materials from being too thin.
- The raw materials must be arranged at an equal interval and cannot exceed the specified quantity. Otherwise, the baking effect will be influenced.
- 4. When the preheating program is completed, please quickly place the bakeware into the oven cavity. If the door is opened for a long time, the oven cavity will cool down quickly, which will directly influence the baking effect.
- 5. At the completion of baking, take out the bakeware, separate the puffs from the tin foil carefully, and put the puffs onto another tray. The tin foil is difficult to separate from the puffs after the puffs cool down completely.

**Pudding** (A pudding mold with 4.5 cm diameter and 5.5 cm depth)

Raw materials:

 Sugar
 125 g

 Milk
 500 ml

 Egg (stirred uniformly)
 200 g

 Warm water (50 °C)
 350 ml

- To prepare caramel: Add a large spoon of water into 40 g sugar, pour water and sugar into a container to heat for 195 seconds at medium power. Stir at the completion of heating. Take the sugar out when it turns to dark brown. Add a large spoon of water, quickly stir and left stand for cooling down.
- To prepare egg liquid: Add 300 ml milk and 85 g sugar into a container to heat for 210 seconds at med-high power to make sugar completely dissolve into the milk. Let cool down, and then add 200 g egg and stir the mixture uniformly. Coat the inside of the mold with butter, spread 3 g of caramel at the bottom uniformly, and add 800 g milk with egg. The total volume cannot exceed ¾ of the mold volume.

- Select the program and press the [Start] pad. The oven will begin to preheat.
- Lay a piece of kitchen paper onto the bakeware and pour 350 ml of 50°C warm water. Arrange the pudding molds in a shape of 3x3 onto the bakeware
- When the oven beeps 3 times, preheating is completed. Quickly place the bakeware into the tray flange of the lower grill in the microwave oven.
   Press the [Start] pad. The oven will begin to work.

#### Cheesecake (A 8-inch cake mold)

4	Calca	haaa	materials:
1	Cake	nase	materials.

Sweet digestive biscuits (crashed)	50 g
Salt-less butter (cut slices)	40 g

#### 2. Cake materials:

Cheese (room temperature: Egg (yolk and egg white separated) Sugar (screened)	200 g 100 g 50 g
Cake ingredients:	
Corn meal:	20 g
Lemon juice	20 ml
Unsalted cream	30 ml

#### Biscuits base:

Milk

 Place the biscuits into a fresh-keeping film and crush with a roller.

30 ml

- Place the butter into a microwave thermalinsulation container and cover it. Heat at med-high power to dissolve the butter in 40-50 seconds.
- Lay a piece of paper at the bottom of the mold, fully blend the crashed biscuits and melted butter, and compress the materials at the bottom of the mold. Place the food into a refrigerator to cool it.

#### Cake part:

- Beat the cheese smooth with an eggbeater. If the cheese is hard, soften it in the fresh-keeping bag. Add the yolk, the cake ingredients into the cheese, and uniformly blend the mixture.
- Beat the egg white in another container until foam is generated, add sugar, rebeat until the solution is full of bubbles and turns white and can fall down in stripes.
- Pour the mixture obtained in step 1 into that from step 2 and fully blend until the mixture has no lumps.
- Select the program and press the [Start] pad. The oven will begin to preheat.
- Take the mold out of the refrigerator, pour the cheese part into the mold, and scrape the surface with a scraper. Place the mold in the center of the bakeware.
- When the oven beeps 3 times, preheating is completed. Quickly place the bakeware into the tray flange of the lower grill in the microwave oven. Press the [Start] pad.
- After cooking, cut the mold along the edge with a cutter to separate the cake from the mold. Then place the cake into a refrigerator.

### Pumpkin porridge

- Use the microwave container to cook pumpkin porridge.
- To achieve the best effect, use the special rice cooker for the microwave oven. Clean and immerse the rice. The immersion time varies with rice type. The ratio of the rice to the water is the same as that of the traditional method. Data in the table are intended for reference only. Add the proper amount of pumpkin. The total mount of the rice, water and pumpkin cannot exceed half of the capacity of the container.
- Keep the air vents of the container smooth. If the container has no air vents or has small air vents, it is recommended to open the lid slightly to avoid overflow.
- When the oven beeps twice, open the oven, take the container out carefully, and stir it with spoon. Then open the lid slightly to place the container inside, close the door and press the [Start] pad. The oven will continue cooking.
- At the completion of cooking, please wait 5-10 min and then open the lid to eat the food.

**Note:** During stirring or at the completion of cooking, the steam is very hot. Be careful when you open the rice cooker rice to avoid scalding.

Ratio of rice to water:

Rice	50 g	100 g	200 g
Water	240 ml	475 ml	950 ml
Pumpkin	25 g	50 g	100 g

#### Strawberry jam

- Clean a proper amount of strawberries and air them dry. Remove the root and cut into small pieces. Place into a container. Add sugar, white vinegar and edible oil and stir the mixture uniformly.
- Cover the lid or cover the container port with special fresh-keeping film, and place the container into the microwave oven. When the oven beeps, open the oven door, stir the jam once, close the oven door and press the [Start] pad. The oven will continue cooking.

Reference Ratio of Raw Materials to Ingredients:

Strawberry	200 g	300 g	400 g
Sugar	100 g	150 g	200 g
Oil	10 g	10 g	10 g
White Vinegar	5 g	5 g	5 g

#### Reheat fried food

- · Suitable for reheating fried food, such as fried chicken base, fried chicken wings and fried cakes with meat.
- · Place fried food on the bakeware or fry tray uniformly.
- Place the tray into the tray flange of the upper grill in the microwave oven for roasting.
- · Select the program. And press the [Start] pad the oven will begin to cook.

Note: Lay a piece of tin foil on the bakeware of **DS581M** in advance

#### Fried chicken pieces (intended for DS591M only)

Raw materials:

300 g Chicken Egg Cooking wine little little Flour Pepper little Slat 5 g

- Clean the chicken and cut it into pieces 7 cm wide. The thickness of the chicken pieces cannot
- · Put the chicken pieces, egg, cooking wine, flour, pepper and salt into a clean bowl and stir to make the flour wrap the chicken surface uniformly. Marinade the chicken for at least half an hour.
- Uniformly arrange the marinated chicken pieces on the barbecue tray. Place the tray into the tray flange of the upper grill in the microwave oven for
- Select the program and press the [Start] pad. The oven will begin to cook.

#### Fried spring rolls (intended for DS591M only)

- · Suitable for frying frozen spring rolls. Coat a thin layer of oil on the barbecue tray.
- Directly arrange the spring rolls in a shape of 4x3 on the barbecue tray without defrosting. Coat the spring rolls surface a layer of oil. Place the tray into the tray flange of the upper grill in the microwave oven for roasting.
- Select the program and press the [Start] pad. The oven will begin to cook.

#### Fried potato cakes (intended for DS591M only)

- Suitable for frying frozen potato cakes.
- Directly place the potato cakes on the barbecue tray uniformly without oiling. Place the tray into the tray flange of the upper grill in the microwave oven for roasting.
- · Select the program and press the [Start] pad. The oven will begin to work.

#### French fried chips (intended for DS591M only)

- · Suitable for frying frozen and fried French chips.
- Directly spread the French fried chips on the barbecue tray uniformly. Place the tray into the tray flange of the upper grill in the microwave oven for roasting.
- Select the program and press the [Start] pad. The oven will begin to work.

#### Roast beef (intended for DS591M only)

- Suitable for roast thin beef to 7-8 degrees.
- Clean the beef, immerse it in the seasonings for 30 minutes and drain.
- Uniformly spread the beef on the barbecue tray.
- Place the fry tray into the tray flange of the upper grill in the microwave oven for roasting.
- Press the [Start] pad. The oven will begin to work.

- 1. If the beef is frozen, defrost it.
- 2. If the beef is marinated, skip the immersion step.
- 3. This program is not suitable for roasting thick meat (the thickness of the meat cannot exceed 2 cm).

#### Fried rice noodles (intended for DS591M only)

Raw materials:

Cabbage (strips)	50 g
Carrot (strips)	50 g
Onion (strips)	100 g
Formed rice noodles	400 g
Meat (marinated)	100 g

Ingredients A:

5 g
little
3 g
45 g
5 g
10 g

Ingredients B:

Pepper little

- Marinade the vegetables: put the cabbage, carrots and onion into a container and add ingredient B, blend the materials.
- Marinade the rice noodles: add the ingredients A and rice noodles into another container and stir uniformly.
- · Fill the water box with water.
- Spread a layer of vegetables on the barbecue tray, place the meat pieces on the vegetables and finally place the rice noodles on the top uniformly. Place the tray into the tray flange of the upper grill in the microwave oven for roasting.
- Select the program and begin to cook.
- At the completion of the cooking, stir the rice noodles, meat pieces and vegetables uniformly, and put the food into a tray.

#### Roast chicken wings (intended for DS591M only)

- Suitable for roast chicken wings. Clean the chicken wings. Pierce them with toothpick before roasting.
- Immerse the chicken wings into seasonings for 20 minutes and then drain.
- Uniformly arrange the marinated chicken pieces on the barbecue tray. Place the tray into the tray flange of the upper grill in the microwave oven
- Fill the water box with water.
- Select the program and begin to cook.

### Baked egg tart (intended for DS591M only)

Raw materials:

Fresh cream 105 g Milk 85 g Flour 7 g Fine sugar 31 g Yolk 4 Condensed milk 7 g Tart molds 9

- Put the fresh cream, milk, flour, sugar and condensed milk into a container to heat at high power. Stir the materials every minute until the sugar and the flour are completed fused.
- Beat 4 eggs and stir uniformly. Add the yolk and stir the mixture uniformly after the heated tart fillings are cooled. Select programme, press [Start] pad to preheat.
- Equally pour the tart fillings into 9 tart molds, and arrange the molds in a 3x3 shape on the barbecue tray. When the oven beeps 3 times, preheating is completed. Quickly place the bakeware into the tray flange of the lower grill in the microwave oven. Press the [Start] pad.
- · Select the program and begin to cook.

#### Roast chicken wings (reduced oil)

(intended for **DS591M** only)

- Suitable for roasting wing middle joints, capable of reducing oil fat in the wing middle joints.
- Clean the chicken wings and pierce them with toothpick before roasting.
- Immerse the chicken wings in seasonings for 20 minutes and then drain.
- Uniformly place the chicken wings on the barbecue tray, Place the fry tray into the tray flange of the upper grill in the microwave oven for roasting.
- Fill the water box with water.
- · Select the program and begin to roast.

#### Roast chicken (reduced oil)

(intended for DS591M only)

- Suitable for roasting a whole chicken or large chicken pieces, capable of reducing oil fat in the chicken.
- Clean the chicken Immerse the chicken in seasonings for 30 minutes and then drain. Use knife to cut the lower part of the chicken apart.
- Uniformly place the chicken on the barbecue tray, Place the tray into the tray flange of the lower grill in the microwave oven.
- Fill the water box with water.
- · Select the program and begin to roast.

# Ch-En Menu

### NN-DS581M Auto Menus:

Sequence No.	Chinese	English
1	蒸饭	RICE
2	煮粥	PORRIDGE
3	煮水饺	DUMPLING
4	煲汤	SOUP
5	蒸鱼	STEAM FISH
6	蒸蛋	STEAM EGG
7	蒸冷冻食品	STEAM FROZEN FOOD
8	即时泡面	INSTANT NOODLE
9	炖牛肉	STEW BEEF
10	红烧肉	BRAISED PORK
11	烤面包	TOAST
12	奶酪焗饭	DORIA
13	烤鸡翅	ROAST WINGS
14	自制比萨	PIZZA
15	烤全鸡	ROAST CHICKEN
16	烤三文鱼	ROAST SALMON
17	烤鳗鱼	ROAST EEL
18	铁板鱿鱼	ROAST CUTTLEFISH
19	海绵蛋糕	SPONGE CAKE
20	曲奇	COOKIES
21	泡芙	PUFF
22	布丁	PUDDING
23	奶酪蛋糕	CHEESE CAKE

### NN-DS581M Healthy Menu:

Sequence No.	Chinese	English	
26	南瓜粥	PUMPKIN GRUEL	
27	木瓜银耳羹	PAPAYA & FUNGUS SOUP	
28	炒时蔬	VEGETABLES	
29	草莓酱	STRAWBERRY JAM	
30	油炸食品再翻热	REHEAT FRIED FOOD	

### Ch-En Menu

### NN-DS591M Auto Menus:

Sequence No.	Chinese	English		
1	蒸饭	RICE		
2	煮粥	PORRIDGE		
3	煮水饺	DUMPLING		
4	煲汤	SOUP		
5	蒸鱼	STEAM FISH		
6	蒸冷冻食品	STEAM FROZEN FOOD		
7	即时泡面	INSTANT NOODLE		
8	炖牛肉	STEW BEEF		
9	红烧肉	BRAISED PORK		
10	烤面包	TOAST		
11	奶酪焗饭	DORIA		
12	自制比萨	PIZZA		
13	铁板鱿鱼	ROAST CUTTLEFISH		
14	海绵蛋糕	SPONGE CAKE		
15	曲奇	COOKIES		
16	泡芙	PUFF		
17	布丁	PUDDING		
18	奶酪蛋糕	CHEESE CAKE		

### NN-DS591M Healthy Menu/Reduced Oil:

Sequence No.	Chinese	English		
22	南瓜粥	PUMPKIN GRUEL		
23	木瓜银耳羹	PAPAYA & FUNGUS SOUP		
24	炒时蔬	VEGETABLES		
25	草莓酱	STRAWBERRY JAM		
26	油炸食品再翻热	REHEAT FRIED FOOD		
27	炸鸡块	FRIED CHICKEN PIECES		
28	炸春卷	FRIED SPRING ROLLS		
29	炸薯饼	FRIED POTATO CAKE		
30	炸薯条	FRIED CHOPPED POTATO		
31	烤牛排	ROAST BEEF		
32	炒米粉	ROAST RICE NOODLES		
33	蒸蛋	STEAM EGG		
34	照烧鸡翅	ROAST WINGS WITH SAUCE		
35	烤全鸡	ROAST CHICKEN		
36	烤三文鱼	ROAST SALMON		
37	烤鳗鱼	ROAST EEL		
38	烤蛋挞	EGG TART		
39	照烧鸡翅减油	ROAST WINGS WITH SAUCE (REDUCE OIL)		
40	烤全鸡减油	ROAST CHICKEN (REDUCE OIL)		

# **Drainage Setting**

This feature allows you to drain water in the tube into the water box. Dry the oven after the oven cavity completely cools down.

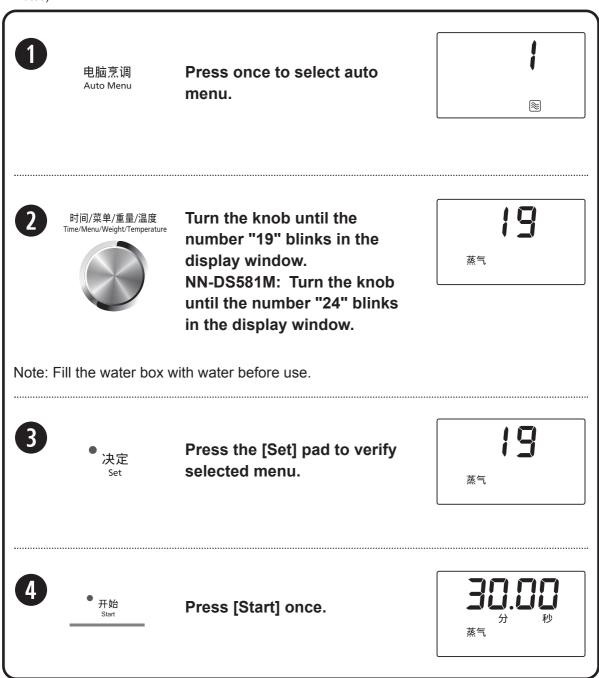
#### Notes:

1. This feature could be continuously used for 3 times at most. Reuse it at a time interval of 10 minutes.

# **Cavity Cleaning Setting**

### To clean the oven cavity (taking NN-DS591M as an example)

This feature is suitable for cleaning too much greasy dirt in the oven cavity of the microwave oven (it takes 30 minutes).



#### Note:

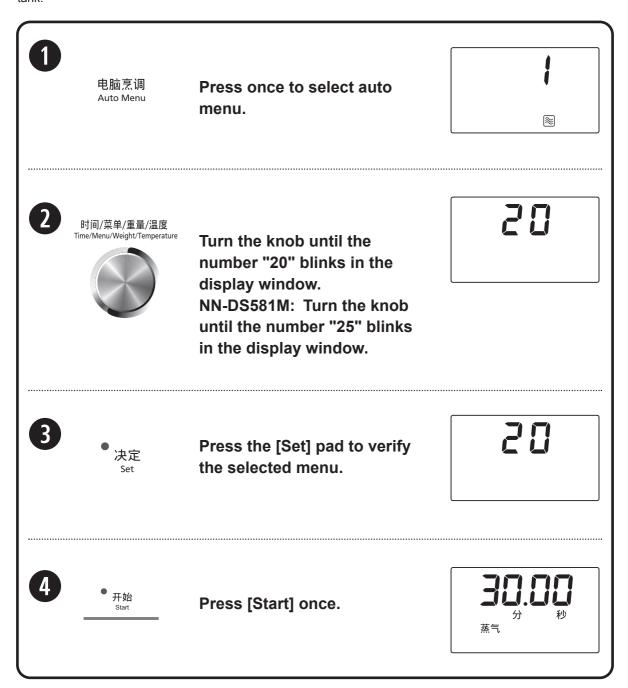
Open the oven door after cleaning and wipe the oven cavity with wet cloth.

# **Cavity Cleaning Setting**

### Clean the water tank (taking NN-DS591M as an example):

This feature is suitable for cleaning deposits in the water tank caused by regularly using the steam function (it takes 30 minutes).

Prepare cleaning agent: dissolve about 2 g citric acid in 20 ml water and pour the solution into the water tank.



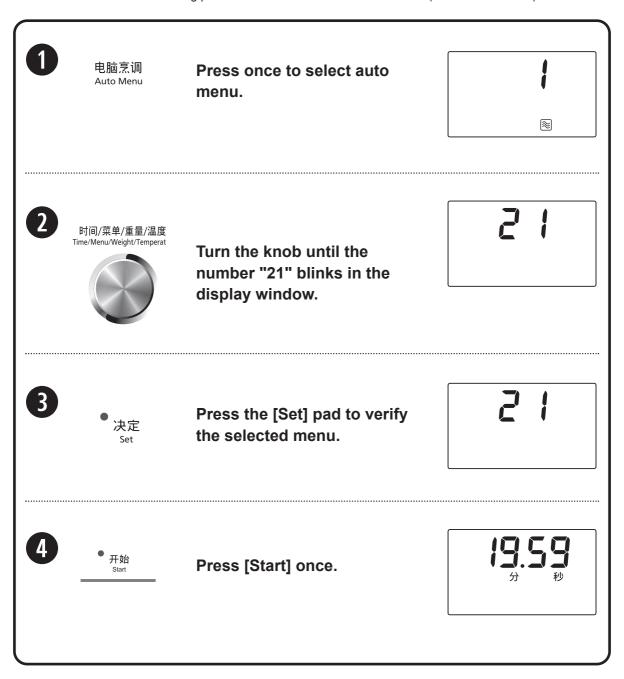
#### Note:

- 1. Open the oven door after cleaning and wash the ceramic lid with water.
- 2. Wipe dry any liquid remaining in the water tank.

# **Cavity Cleaning Setting**

### Odor removal (Only NN-DS591M)

This feature is suitable for clearing particular smells from the microwave oven (it takes 20 minutes).



### **Principle of the Microwave**

#### **Cooking with Microwave Energy**









Pass through ceramics, Reflected by metal glass, etc.

Microwaves are a form of high frequency electron magnetic waves. It can't generate heat by itself. Microwaves which exist in the atmosphere and nature cannot heat food as they are scattered. The microwave oven can convert electric energy into thermal energy by using a magnetron tube and penetrating into food at the frequency of 2450 MHz per second. When the microwaves are

absorbed by the food, the molecules within the food absorb the energy and vibrate at a rate of 2,45 billion times per second. Friction, created by the vibration, produces heat energy which is conducted through the food to heat food in a quick time.

### **Food Characteristics**

Food characteristics which affect conventional cooking are more pronounced with microwave heating.

#### **Size and Quantity**

Small sizes and quantities cook faster than large ones.

#### **Shape**

Uniform sizes heat more evenly. To compensate for irregular shapes, place thin pieces toward the center of the dish and thicker pieces toward the edge of the dish.



#### **Starting Temperature**

Room temperature food takes less time to heat up than refrigerator frozen food. So, the heating properties of these two different states are totally different.

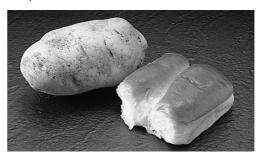
#### **Bone and Fat**

Bones may cause irregular heating. Large amounts of fat absorb microwave energy and meat next to these areas may be overcooked.



#### Density

Porous, airy food takes less time to heat than heavy, compact food.



### **Cooking Tips**

#### **Timing**

A range in heating time is given in each recipe. The time range compensates for the uncontrollable differences in food shapes, starting temperature and personal preferences. Always cook food for the minimum cooking time given in the recipe and check for doneness. If the food is undercooked, continue cooking. It is easy to add time to an undercooked product. Once the food is overcooked, nothing can be done.

#### **Spacing**

Individual foods, such as baked potatoes or cupcakes, will heat more evenly if placed in the oven equal distances apart.



When possible, arrange food in a circular pattern. Similarly, when placing food in a baking dish, arrange around the outside of the dish, not lined up next to each other. Food should not be stacked on top of each other.



#### **Piercing**

The skin or membranes on some food will cause steam to build up during microwave cooking. Food must be pierced, scored or have a strip of skin peeled off before cooking to allow steam to escape.

Eggs - Pierce egg yolk twice and egg white several times with a toothpick.

Whole Clams and Oysters - Pierce several times with a toothpick.

Whole Potatoes and Vegetables - Pierce with a fork. Frankfurters and Sausages - Score smoked polish sausage and frankfurters. Pierce fresh sausage with a fork.



#### **Browning**

Meats and poultry may appear cooked or browned effects after 10-15 minutes cooking. The reason is the fat in the meat absorbs microwave more easily to make food browned. If you want to shorten the cooking time and get a good appearance, you can marinate food in soy sauce or any other sauce before cooking. For quick breads or muffins, brown sugar can be used to take the place of granulated sugar, or the surface can be sprinkled with dark spices before cooking.

#### Covering

As with conventional cooking, moisture evaporates during microwave cooking. Because microwave cooking is done by time and not direct heat, the rate of evaporation cannot be easily controlled. This, however, can be easily corrected by using different materials to cover dishes. However, unless specified, a recipe is heated uncovered. Casserole lids or cling film are used for a tighter seal. Various degrees of moisture retention are also obtained by using wax paper or paper towels.

#### Stirring

Stirring is usually necessary during microwave cooking. We have noted when stirring is helpful, using the words once, twice, frequently or occasionally to describe the amount of stirring required. Always bring cooked outside edges towards the center and the less cooked center portions towards the outside.

#### **Turning and Rearranging**

It is not possible to stir some food to redistribute the heat. At times, microwave energy will concentrate in one area of a food. To help ensure even cooking, some food needs to be turned or rearranged. Turn over large food such as roasts or chickens. Rearrange small items such as chicken pieces, shrimp, hamburger patties or pork chops. Rearrange pieces from the edge to the center and pieces from the center to the edge of dish.

#### **Standing Time**

Most food will continue to cook by conduction after the microwave oven is turned off. In meat cookery, the internal temperature will rise 5 to 15 °C if allowed to stand, covered for 10 to 20 minutes. Casseroles and vegetables need a shorter amount of standing time, but this standing time is necessary to allow food to complete cooking in the center without overcooking on the edges.

#### **Converting Favorite Recipes**

Select recipes that convert easily to microwave cooking. A basic rule when converting conventional recipes to microwave recipes is to cut the suggested cooking time to a quarter. Also, find a similar microwave recipe and adapt that time and power setting. Season meats with herbs and spices before cooking and salt after cooking. Stews are not browned before cooking. Omit any oil or fat that would be used for browning. Cut stew meat into 2.5 cm pieces. Cut carrots, potatoes and other vegetables into small pieces. Carrots should be thinly sliced and potatoes diced. Cover with a glass lid and cook at High to bring liquid to a boil and then cook at Low until tender. Stir occasionally.

Note: A small plate placed on top of the meat and vegetables will help stop the meat overcooking.

Microwave ovens cook casseroles well. Cut food into uniform pieces. Condensed soup makes a good base for casseroles. Select a dish that is large enough to allow for stirring. Cooking covered with a glass lid or cling film reduces cooking time. To keep crumb toppings crisp, sprinkle on before the standing time.



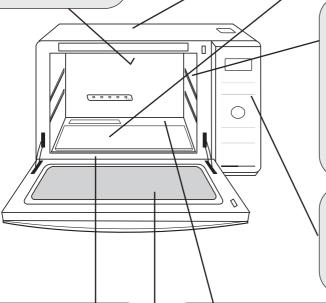
# Care of your Microwave Oven

Before cleaning, remove the plug from outlet. Do not clean the microwave oven with a steam cleaner.

Cleaning of the broiler must proceed after the broiler completely cools down. During cleaning, use a soft cloth to wipe the tube so as to avoid damaging the broiler and injuring your fingers.

Clean the surface of the microwave oven with a wet cloth. To prevent damaging the inside functional parts, do not allow water to seep into lateral air vents.

The glass ceramic turntable must be cleaned regularly, in particular at the completion of the barbecue function. It must be cleaned with the cleaning agent and wiped with a dry cloth in the cold state.



Regularly clean the microwave oven and clear all food residue in the oven. Keep the oven clean. If the splashed food or overflowing liquid is converged in the oven cavity, please wipe it with a wet cloth. If the oven is very dirty, use the soft cleaning agent. Do not use rough or corrosive cleaning agents.

Please wipe away grease, dirt and food residue in the oven cavity when the oven cavity cools down completely, because they may cause smoke and fire during heating.

If the control panel is wet, dry it with a soft, dry cloth. Rough or corrosive articles cannot be used. When wiping the control panel, please open the oven door to prevent the unexpected start of the oven. After wiping, press the [Stop/Reset] pad to clear the display window.

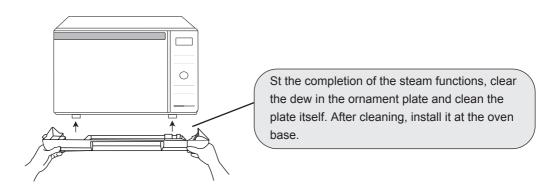
Wipe with a soft cloth when steam accumulates inside or around the oven door. This may occur when the microwave oven is operated in a proper way or under high humidity conditions.

The ceramic lid must be cleaned with a cleaning agent regularly to prevent dirt from blocking the steam nozzle. To avoid scalding, cleaning must proceed in the cold state. At the completion of each us of the steam function, clear the water accumulating in the water tank below the ceramic lid and wipe with a dry cloth after the oven cavity cools down completely.

Please clean the oven door and the door glass with a soft, wet cloth. If the grease is too difficult to clean, clean it with a soft cloth and some soft cleaning agent.



### Care of your Microwave Oven



If you want to replace the oven lamp, please contact the Panasonic Service Center.

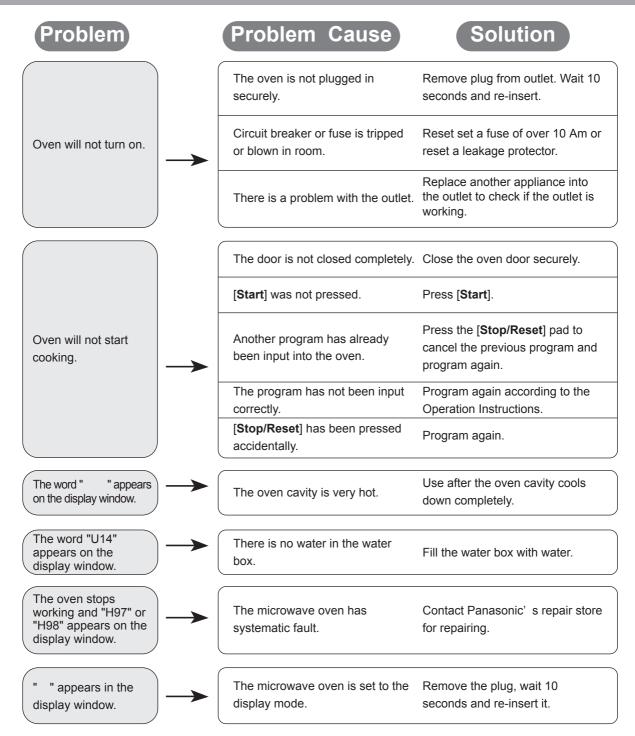
#### **About Maintenance:**

If you want to maintain your oven, please contact the Panasonic Service Center directly or Panasonic's appointed repair stores. Refer to the content in your warranty card.

#### Note:

- 1. In case of any problem or difficulty, please call Panasonic Service Center: 400-810-0781: 800-810-0781 (ground line). You may also log into the Panasonic website: http://panasonic.cn
- 2. The oven must be repaired by a trained technician in the Panasonic Service Center.
- 3. The oven lamp and cord must be replaced with the assigned products.
- 4. Refer to the <Service Manual> when requesting maintenance.
- 5. When maintaining, the technicians should take note of not exposing the microwave generator or other microwave transmitters.

# **Before Requesting Service**



<sup>\*</sup> The display mode is only intended for units in appliance stores. In this mode, no microwaves are radiated. In case of problem, please contact the Panasonic Service Center directly or Panasonic's appointed repair stores.

# **Before Requesting Service**

The following conditions are normal:				
The oven causes interference with TV.	Some radio and TV interference might occur when you cook with the microwave oven. This interference is similar to that caused by small appliances such as mixers, vacuums, electric fans, etc. It does not indicate a problem with your oven.			
Steam accumulates on the oven door and warm air comes from the oven vents.	During cooking, steam is given off from the food, and most of the steam is exhausted from the vents. However, it accumulates at cold places, such as the oven door. This is normal.			
Steam comes from gaps of the oven door's sides.	When functioning related to the steam, a great amount of steam will be generated in the oven cavity during operation, and some of the steam leaks from the door gaps. This is normal and does not cause microwave leakage.			
I accidentally ran my microwave oven without food in it.	The oven works without load, which does not cause damage to the microwave oven. However, you must avoid such condition.			
When conducting barbecue functions, smoke and particular smell come from the microwave oven.	The microwave oven must be washed regularly, in particular at the completion of these functions. Any grease accumulating on the top of the oven cavity and on the oven wall will cause white smoke.			
The broiler turns on and off alternatively in the barbecuing process.	If the broiler works for a long time, the oven cavity will be very hot. To protect the broiler, the program controls the broiler to enter intermittent work state, which is normal.			
The fan is still working at the completion of cooking.	The microwave oven cools down the oven cavity and electronic components, which is normal.			
There are differences in brightness of the heaters.	Since there are classifications between the heaters, it is normal when it gives off distinct brightness.			

#### **Hazardous Substance Information**

	Hazardous Substance					
Parts	Pb	Hg	Cd	Cr(VI)	PBB	PBDE
External parts	0	0	0	0	0	0
Electric parts	0	0	0	0	0	0
Internal parts	0	0	0	0	0	0
Control parts	×	0	0	0	0	0
Accessory parts	0	0	0	0	0	0

o. Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is within the limit which is required in the trade standard of the People's Republic of China SJ/T11363-2006.

### **Technical Specifications**

Mode		NN-DS581M	NN-DS591M		
Power source	Power source		220 V ~ 50 Hz		
Rated input power	Microwave	1,080 W			
	Electric heat (warm air baking)	1,380 W			
Primary input power	(microwave)	7.2 A			
Input current of micr	Input current of micro steam		- A		
Rated output power	(microwave*1)	1,000 W			
Outside dimensions (with handle) (W x D x H)		529 mm × 475 mm × 340 mm			
Cavity dimensions (W x D x H)		338 mm × 336 mm × 191 mm			
Cavity volume		27 L			
Microwave oscillation frequency		2,450 MHz			
Product net weight		15 kg			
Noises <sup>*2</sup>		58 dB (A) (acoustic power)			
Energy grade		1			
Efficiency value (%) <sup>*3</sup>		62			
Standby power(%) <sup>-3</sup>		1.0			
Barbecue consumption (W.H) <sup>*3</sup>		1.2			

<sup>&</sup>lt;sup>1</sup> GB/T18800 Test procedure.

Weight and volume are approximately calculated.

Specifications are subject to change without notice.

As for the production serial number and manufacturer, please refer to the identification plate on the microwave oven.

The product conforms to the national standard as follows:

GB4706.1-2005

GB4706.21-2008

GB4706.14 -2008

Standard No. of enterprise product: Q/YXSS1



<sup>× :</sup> Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the limit which is required in the trade standard of the People's Republic of China the SJ/T11363-2006 standard. For the situation of x, we, Panasonic, ensure the implementation and compliance of EU RoHS standards.

 $<sup>^{^{\</sup>mathrm{2}}}$  GB19606 Test procedure. Complies with regulations.

<sup>&</sup>lt;sup>13</sup> GB24849 Test procedure.

### Panasonic Microwave Oven Satisfaction Prize-Giving Questionnaire

Thank for choosing a Panasonic microwave oven. To increase your satisfaction with the design and appearance of our products, we have a platform on the following website: http://home.panasonic.cn/microwaveoven-poll/

We hope you give your suggestions to improve our products.

To thank you for your cooperation, we have prepared for you a small prize after you complete the whole questionnaire.

Panasonic Appliances Microwave Oven (Shanghai) Co., Ltd.

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