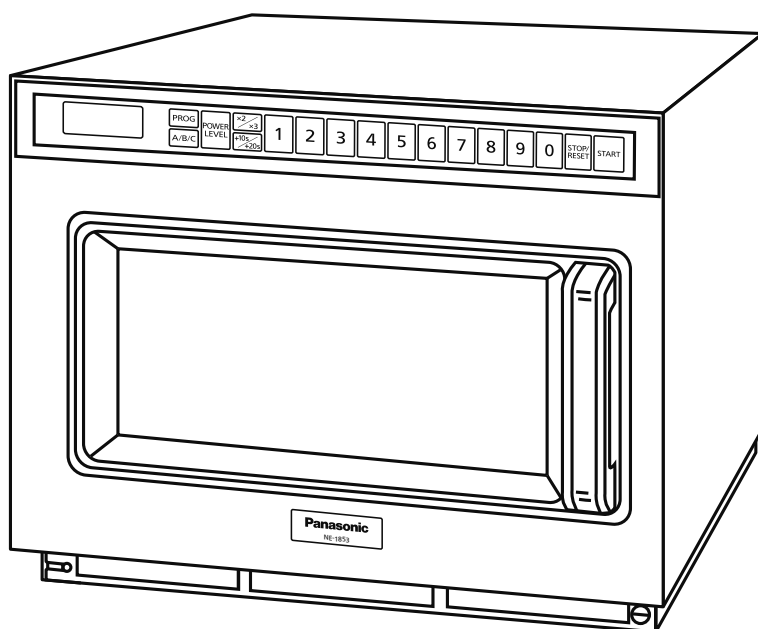


# Panasonic®

## Operating Instructions

For Commercial Use

Model No. **NE-1853**  
Microwave Oven



Model availability is varied by country.

Please read these instructions completely before operating this oven.

# Index

	Page
Safety Instructions	3
Important Instructions	4
Before Use	5
Definitions and Feature Explanations	6
Outline Diagram	7
How to Operate	8
A. Manual Single Stage Heating	8
B. Manual 2 to 5 Stage Heating	9
C. Programming Memory Pads for Single Stage Heating	10
D. Programming Memory Pads for 2 to 5 Stage Heating	11
E. Memory Pad Heating	11
F. Programming Double/Triple Quantity Pad	12
G. Memory Pad Heating for Double/Triple Quantity Heating	13
H. +10s/+20s Pad Heating	13
I. To Read the Cycle Counter	14
J. To Activate Program Lock	14
K. To Deactivate Program Lock	14
L. To Read Program List	15
M. To Select Beep Tone Options	16
N. Procedure to Program the Air Filter	17
O. Oven Lamp	18
Installation Instructions for Stacking	20
Self Diagnostics Failure Code Explanation	21
Care of Your Microwave Oven	22
Before Cooking	23
Heating and Defrosting Time Charts	24
Appetizers	25
Baked Goods and Desserts	26
Breakfast	27
Casseroles	28
Fish and Seafood	29
Gravies, Sauces, and Soups	30
Plated Meat and Poultry Entrees	31
Rice and Pasta	32
Sandwiches	33
Vegetables	34
Technical Specifications	35



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

\*May not be available for all countries

# Safety Instructions

## Precautions to be taken when using Microwave Ovens for Heating foodstuffs

**INSPECTION FOR DAMAGE.** A microwave oven should only be used if an inspection confirms all of the following conditions:

1. The grille is not damaged or broken.
2. The door fits squarely and securely and opens and closes smoothly.
3. The door hinges are in good condition.
4. The metal plates of a metal seal on the door are neither buckled nor deformed.
5. The door seals are neither covered with food nor have large burn marks.

**PRECAUTIONS.** Microwave radiation from microwave ovens can cause harmful effects if the following precautions are not taken:

1. Never tamper with or deactivate the interlocking devices on the door.
2. Never poke an object, particularly a metal object, through a grille or between the door and the oven while the oven is operating.
3. Never place saucepans, unopened cans or other heavy metal objects in the oven.
4. Do not let other metallic articles, e.g. fast food foil containers, touch the side of the oven.
5. Clean the oven cavity, the door and the seals with water and a mild detergent at regular intervals. Never use any form of abrasive cleaner that may scratch or scour surfaces around the door.
6. Never operate the oven without a load (i.e. an absorbing material such as food or water) in the oven cavity unless specifically allowed in the manufacturer's literature.
7. For horizontally hinged doors, never rest heavy objects such as food containers on the door while it is open.
8. The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of

experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

## Earthing Instructions

This microwave oven must be earthed. In the event of an electrical short circuit, earthing reduces the risk of electric shock by providing an escape wire for the electric current.

This microwave oven is equipped with a cord having an earthing wire with an earthing plug. The plug must be plugged into an outlet that is properly installed and earthed.

**WARNING**—Improper use of the earthing plug can result in a risk of electric shock.

**WARNING**—15 A OUTLET TO BE USED ONLY. DO NOT REMOVE APPROVED 15 AMP PLUG.

## Voltage and Power Warning

The voltage used must be the same as specified on the microwave oven. Using a higher voltage than that which is specified is dangerous, and may result in a fire or other type of accident causing damage.

## Placement of Oven

Oven must be placed on a flat, stable surface and can be stacked as required.

For proper operation, the oven must have sufficient air flow to the air vents i.e. 5 cm (2 inches) at the side and rear, 20 cm (8 inches) for top.

## Removal of Protective Film

A protective film is used to prevent scratching of the outer case during transportation. Peel this film off before installation or use.

## Attach Caution Label

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

## WARNING

- a) The appliance should be inspected for damage to the door seals and door seal areas and if these areas are damaged the appliance should not be operated until it has been repaired by a qualified service technician trained by the manufacturer.
- b) It is hazardous for anyone other than a competent person to carry out any service or repair operation that involves the removal of any cover which gives protection against exposure to microwave energy.
- c) If the supply cord of this appliance is damaged, it must be replaced by the special cord available only from the manufacturer.
- d) Before use, the user should check that utensils are suitable for use in microwave ovens.
- e) Liquids or other foods must not be heated in sealed containers since they are liable to explode. Baby bottles fitted with a screw cap or a teat are considered to be sealed containers.
- f) The contents of feeding bottles and baby food jars must be stirred or shaken and the temperature checked before consumption, in order to avoid burns.

# Important Instructions

**WARNING**—To reduce the risk of burns, electric shock, fire, injury to persons or excessive microwave energy:

1. Read all instructions before using microwave oven.
2. Use this microwave oven only for its intended use as described in this manual.
3. Do not operate this microwave oven, if it is not working properly, or if it has been damaged or dropped.
4. Do not use outdoors.
5. Do not immerse cord or plug in water.
6. Keep cord away from heated surfaces.
7. Do not let cord hang over edge of table or counter.
8. To reduce the risk of fire in the oven cavity:
  - a) Do not overcook food. Carefully attend microwave oven if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
  - b) Remove wire twist-ties from bags before placing bag in oven.
  - c) If materials inside the oven should ignite, keep oven door closed, turn oven off at the wall switch, or shut off power at the fuse or circuit breaker panel.

## General Use

1. In order to maintain high quality, do not operate the oven when empty. The microwave energy will reflect continuously throughout the oven if no food or water is present to absorb energy.
2. If smoke is observed, press the STOP/RESET Pad and leave door closed. Disconnect the power cord, or shut off power at the fuse or circuit breaker panel.
3. Look at the oven from time to time when food is heated or cooked in disposal containers of plastic, paper or other combustible materials.
4. Do not dry clothes, newspapers or other materials in oven. They may catch on fire.
5. Do not use recycled paper products unless the paper product is labelled as safe for microwave oven use. Recycled paper products may contain impurities which may cause sparks and/or fires when used.
6. Do not hit or strike control panel. Damage to controls may occur.
7. POT HOLDERS may be needed as heat from food is transferred to the cooking container.
8. Do not store flammable materials next to, on top of, or in the oven. It could be a fire hazard.
9. **Do NOT** use this oven to heat chemicals or other non-food products. **Do NOT** clean this oven with any product that is labelled as containing corrosive chemicals. **The heating of corrosive chemicals in this oven may cause microwave radiation leaks.**

10. This microwave oven requires free airflow in the back for maximum cooling efficiency. You should keep the air vents clear while cooking.
11. The appliance should not be cleaned with a water jet.

## Food

1. Do not use your oven for home canning or the heating of any closed jar. Pressure will build up and the jar may explode. In addition, the microwave oven cannot maintain the food at the correct canning temperature. Improperly canned food may spoil and be dangerous to consume.
2. Do not attempt to deep fat fry in your microwave oven.
3. Eggs in their shell and whole hard-boiled eggs should not be heated in microwave ovens since they may explode even after microwave heating has ended.
4. Potatoes, apples, egg yolks, whole squash and sausages are examples of foods with nonporous skins. This type of food must be pierced before cooking, to prevent bursting.
5. When heating liquids, e.g. soup, sauces and beverages in your microwave oven, overheating the liquid beyond boiling point can occur without evidence of bubbling. This could result in a sudden boil over the hot liquid. To prevent this possibility the following steps should be taken:
  - a) Avoid using straight-sided containers with narrow necks.
  - b) Do not overheat.
  - c) Stir the liquid before placing the container in the oven and again halfway through cooking time.
  - d) After heating, allow to stand in the oven for a short time, stirring again before carefully removing the container.
6. **DO NOT USE A CONVENTIONAL MEAT THERMOMETER IN THE MICROWAVE OVEN. To check the degree of cooking of roasts and poultry use a MICROWAVE THERMOMETER.** Alternatively, a conventional meat thermometer may be used after the food is removed from the oven. If undercooked, return meat or poultry to the oven and cook for a few more minutes at the recommended power level. It is important to ensure that meat and poultry are thoroughly cooked.
7. Extreme care should be taken when cooking popcorn in a microwave oven. Cook for minimum time as recommended by manufacturer. Use the directions suitable for the wattage of your microwave oven. **NEVER** leave oven unattended when popping popcorn.

# Before Use

## Cookware

1. Heat-proof glassware, such as Pyroceram and Pyrex, is best suited for use in the Microwave Oven.
2. Do not use metal ware, ceramics trimmed with gold or silver, or any container with a metal content.
3. If “arcing” should occur, check the cookware carefully again for metal.
4. You may use ordinary glassware, chinaware, plastic-ware and paper-ware, when cooking food that requires a low temperature. Using this type of cookware for high temperature cooking may cause cracking or warping.
5. You can cook steamed vegetables in special “see-through” wrapping film, such as Glad Wrap, or wax paper.  
Do not cook in a plastic bag.

### CAUTION

Do not use METAL UTENSILS in this oven.

## Defrosting Frozen Food

1. If you try to completely defrost frozen food in the Microwave Oven, uneven defrosting may occur due to the differences in the thickness and shape of the food. Drippings may also result, and sometimes a part of the food cooks although other parts still remain frozen. In actual usage of frozen food, you should not normally defrost them 100%, 70% defrosting in the Microwave Oven is ideal and helpful for the next cooking operation.
2. To defrost evenly, turn the food 180°, or turn it over during defrosting.
3. To defrost fatty meat, heat it in the Microwave Oven for a short time and leave it to stand at room temperature, or heat it intermittently until defrosted.
4. When you defrost a whole chicken, or any frozen food of irregular shape, wrap legs or thin parts with aluminium foil. Otherwise thin parts will be defrosted faster and sometimes cooked before other parts have properly defrosted.  
For big pieces of meat, wrap the sides with aluminium foil so that they will be uniformly thawed by vertical microwaves only.  
**NB:** Ensure foil does not touch the sides of the oven, otherwise arcing may occur.
5. Ice should be removed at times during defrosting.

## Other Helpful Instructions

### For best results

1. When determining time for particular food, always figure minimum time and check occasionally during cooking for progress. The Microwave Oven cooks so quickly, therefore it is easy to overcook your food.
2. Be careful of the cooking time for small quantities of food, or food with low water content. They may burn if cooked too long.
3. Do not use the oven for drying kitchen towels or napkins. They may burn if heated too long.
4. Do not try to boil eggs in the oven.
5. When you cook an egg be sure to pierce the yolk membrane prior to placing into the oven to prevent the egg bursting.

### How to get browned finish

Generally food does not brown when cooked by a Microwave Oven. This is one of the features of the equipment. To brown chicken, brush sauce on the surface before or during cooking. You can also brown meat in a conventional frying pan before cooking in the oven. A browning skillet for the Microwave Oven can obtain the same result.

### For even finished cooking

Open the door and give the dish a half turn, or turn the food over during cooking. This helps to achieve more even cooking. When you cook chicken the legs cook faster than other parts. Wrap the legs with aluminium foil during cooking to reflect the microwave energy in order to create even cooking.

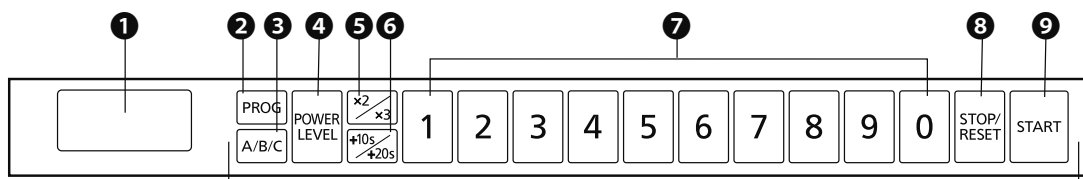
**NB:** Ensure foil does not touch the sides of the oven, otherwise arcing may occur.

# Definitions and Feature Explanations

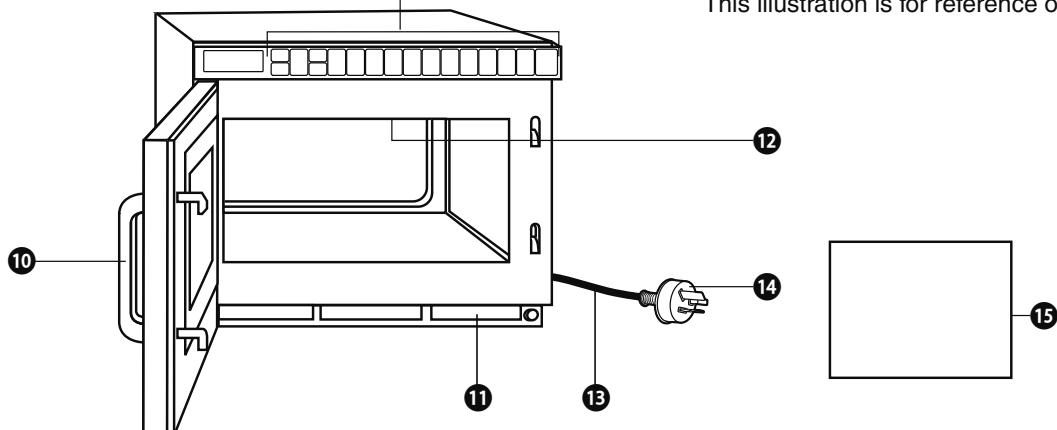
This oven has many features not typically found on other commercial Microwave Ovens.

FEATURE	EXPLANATION
Manual Heating	Gives the user maximum flexibility to set the oven to desired heating time and power level. Ideal for menus that require variations in heating.
Single Stage Heating	Allows the oven to run at the selected power level for the selected heating time.
Two and Three Stage Heating	Allows the oven to be set to begin heating at one power level then shift automatically to a different power level after designated amount of heating time (i.e. HI to MED or DEF to HI).
Interrupt Function	Allows opening of the oven door to check on the food in the cavity. Closing the door and touching START Pad resumes heating. Cooking time does not countdown while you check on your food. <b>NOTE:</b> Interrupt Feature is de-activated in "Program Lock".
Repeat Function (For Manual Heating Only)	After you remove your food from the oven, the timer is automatically preset to repeat the last heating time and power level. This is especially convenient for Daily Specials that you do not want to program into a memory Pad.
Two Step Operation (In "Program Unlock" Only)	Gives you time to confirm and or revise the selected heating program before starting the heat cycle. (Select heating program either manually or by Pad number, and then touch Start Pad.)
One Touch Start (In "Program Lock" Only)	One touch of the desired programmed number pads starts heating. Great for Fast Food, Convenience store and Vending applications.
Cycle Counter	The oven can display the total number of times the oven has been operated by pad number, by manual operation and cumulatively. Great for analysing usage of the oven and traffic flow at the location.
Program Lock	<ol style="list-style-type: none"> <li>1. "Locks" the control panel number pads into their programmed heating times and power levels.</li> <li>2. Converts the oven to "One Touch Start" operation.</li> <li>3. Deactivates Program, Power Level Selector and Start Pads.</li> <li>4. Deactivates Manual operation.</li> </ol> Prevents unwanted erasing of Memory Pads. Simplifies operation—Great for Fast Food, Convenience Store and Vending applications.
Program Unlock	Deactivates "Program Lock" and activates all other features.
Self Diagnostics	The oven constantly monitors its operation. When an operational problem develops the Digital window displays a Failure code. By checking the code number against the list in this manual you will know the nature of the problem and whether you can solve the problem yourself, need to call a service agent or need to call an electrician. If a service agent is required the Failure code number will let him know which parts to bring on the Service call.
Tone Loudness Control	Allows setting of the loudness of the Beep Tone to one of 6 different levels.
Tone Length Control	Allows you to choose the length of the end of heating cycle beep tone to either short beeps or 60 seconds of long beeps.
Program List	Allows you to review all currently programmed Pad number, heating time and Power level for each stage.
Filter Clean Function	The word "FILT" will appear in the display after 500 hours of use, to remind you to remove and clean the Air Filter. This time can be reprogrammed to your own needs.
Double/Triple Quantity Pads	These pads have a preset magnification of 1.6 times the original cooking time for Double quantity and 2.2 times for the Triple quantity, to cook two or three portions at once.

# Outline Diagram



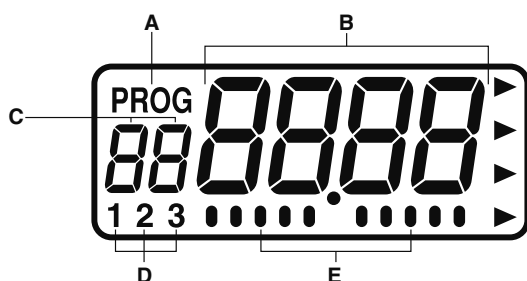
This illustration is for reference only.



- ① Digital Display Window (see below)
- ② Prog (Program) Pad
- ③ Shift (A/B/C) Pad
- ④ Power Level Selector Pad
- ⑤ Double/Triple Quantity Pad
- ⑥ +10s/+20s Pad
- ⑦ •Number/Memory Pads
- Time Input
- ⑧ Stop/Reset Pad

- ⑨ Start Pad
- ⑩ Door Handle
- ⑪ Air Filter
- ⑫ Splatter Shield (top of inner cavity)
- ⑬ Power Cord
- ⑭ Power Plug
- ⑮ OPERATING GUIDE

Caution label is attached on the outside surface.



- A—Program Display
- B—Heating Time Display  
("min. sec." or "hour min.")
- C—•Memory Pad Number Display
- Heating Stage Indicator
- D—Pattern of Buzzer Sound Setting
- E—•Calling Programmed Heating:  
Stage Number Indicator
- Programmed Heating in Progress:  
Operation Indicator
- Beep Tone Setting: Scale Indicator

## This oven is preset at the factory for the following:

1. Manual operation
2. Number Pads preset to HIGH power at the indicated heating times for single stage heating.  
A1=10 sec.    A2=20 sec.    A3=30 sec.    A4=40 sec.    A5=50 sec.  
A6=1 min.    A7=1 min. 15 sec.    A8=1 min. 30 sec.    A9=1 min. 45 sec.    A0=2 min.
3. Program unlock
4. Double Quantity=1.6 times    Triple Quantity=2.2 times
5. Cycle counter set to "0" on all pads.
6. Oven Lamp    When the door is open = ON    Blinking at the end of heating cycle = OFF  
Decrease brightness during cooking = OFF
7. The default filter cleaning time is set to "500".

If you wish to change these times, please consult the operating instructions to find how to program them.

# How to Operate

## POWER LEVEL SELECTOR PAD

Each time the pad is touched, the Power Level switches as the illustration below.



<b>HIGH</b>	P10: 1800 W*	<b>LOW</b>	P3: 30% P2: 25%
<b>MEDIUM HIGH</b>	P9: 90%	<b>DEFROST</b>	P1: 340 W
	P8: 80%	<b>OFF</b>	P0: 0%
	P7: 70%	<b>HEAT FROM TOP DOWN</b>	PU1: 50% PU2: 25%
	P6: 60%		PL1: 50% PL2: 25%
<b>MEDIUM</b>	P5: 50% P4: 40%	<b>HEAT FROM BOTTOM UP</b>	

\*IEC Test Procedure

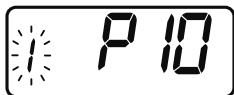
## A. Manual Single Stage Heating



1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door.  
The oven lamp will turn on. "0" will appear in the Digital Display Window.
3. Put the food into a suitable container, place it in the centre of the oven and then close the door securely.  
The oven lamp will turn off.  
**Note:** While "0" appears, operation is available. 1 minute after the door is closed, "0" will disappear.



4. Select the desired Power Level by touching Power Level Selector Pad.  
The selected Power Level will be displayed in the Digital Display Window and the single stage heating indicator "1" will start to blink.  
[Example]: Touch Power Level Selector Pad once for HIGH power.  
**Note:** Each time Power Level Selector Pad is touched, the Power Level switches as the above Power Level Selector illustrates.



5. Set the desired heating time by touching the appropriate Number Pads.  
**Note:** The maximum set time for "DEFROST" and "P0" is 30 minutes, and 15 minutes for all others.  
[Example]: Touch Number Pads "2", "0" and "0" for 2 minutes.



6. Touch Start Pad.  
A. The oven lamp will turn on.  
B. Heating will start.  
C. During operation, the indicator appears from the left.  
D. The heating time on digital display will count down.



7. When all time expires, the end of cycle beep tone will sound and all heating will stop. The oven lamp will turn off. The display will blink "0000" until the door is opened. 1 minute later cooling fan will stop.

(Continued on next page.)





8. Open the door and take the food out.  
The oven lamp will turn on. The digital display will show the originally selected time and heating stage number.
9. Close the door.  
The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

#### **SPECIAL NOTE:**

1. While heating, one touch on Stop/Reset Pad stops the oven. You can restart it by touching Start Pad or a second touch on Stop/Reset Pad will cancel the selected program.
2. While not in a heating cycle, one touch on Stop/Reset Pad cancels the selected program.

#### **REPEAT FEATURE**

1. You can repeat exactly the same manually selected heating time by touching only Start Pad, if you use the oven again within 1 minute.
2. After 1 minute of non-use with the door closed, the repeat feature will be cancelled.

## **B. Manual 2 to 5 Stage Heating**



1. Follow Steps 1–5 on page 8.
2. Select the desired Power Level for the second stage heating by touching Power Level Selector Pad the appropriate number of times.  
The Power Level will be displayed in the Digital Display Window and the second stage indicator "2" will start to blink.  
[Example]: Touch Power Level Selector Pad 8 times for LOW power.



3. Set the desired heating time for the second stage by touching the appropriate Number Pads.  
**Note:** The maximum set time for "DEFROST" and "P0" is 30 minutes, and 15 minutes for all others.  
However, the TOTAL TIME can be set up to 25 minutes for continuous heating (1 to 5 stage heating) that excludes "DEFROST" and "P0".  
[Example]: Touch Number Pads "1", "0" and "0" for 1 minute.



4. Touch Start Pad.
  - A. The total time for both stages will be displayed.
  - B. The oven lamp will turn on.
  - C. During operation, the indicator appears in order from the left.
  - D. The heating time for the first stage will count down.



5. After the first stage heating time expires, a single beep tone will sound, the second stage heating indicator "2" will start to blink, and the heating time will continue to count down.



6. When all time expires, the end of cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink "0000" until the door is opened. 1 minute later cooling fan will stop.

(Continued on next page.)



7. Open the door and take the food out.  
The oven lamp will turn on. The digital display will show the originally selected time and heating stage number.



8. Close the door.  
The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

**Note:** For the heating cycle of the third and later stages, select Power Level once again after Step 3 on page 9 and set a heating time.

See Special Note of “Manual Single Stage Heating” on page 9.

## C. Programming Memory Pads for Single Stage Heating

The oven can not be programmed until the program lock feature is deactivated.

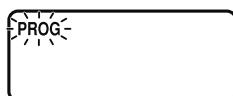
(See page 14, J. To Activate Program Lock.)



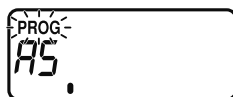
1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door and leave it open.



3. Touch Prog Pad.  
“PROG” sign will start to blink in the Digital Display Window.



4. Touch Memory Pad you desire to program.  
The pad number and the previously programmed information will appear in the Digital Display Window.  
[Example]: Touch Memory Pad “5”.



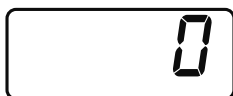
5. Select the desired Power Level by touching Power Level Selector Pad.  
The selected power level will be displayed in the window and the single stage heating indicator “1” will start to blink.  
[Example]: Touch Power Level Selector Pad 10 times for DEFROST power.



6. Set the desired heating time by touching the appropriate Number Pad.  
**Note:** The maximum set time for “DEFROST” and “P0” is 30 minutes, and 15 minutes for all others.  
[Example]: Touch Number Pads “1”, “0” and “0” for 1 minute.



7. Touch Prog Pad again.  
The “PROG” sign and the single stage heating indicator “1” will stop blinking. This means that you have completed programming the selected Memory Pad for the single stage heating.



8. 3 seconds after programming is completed, “0” will appear.
9. Program the remaining Memory Pads as desired by repeating Steps 3–7 above.

**Note:** ●When the “PROG” Display is blinking, the program can be cancelled and/or one touch on Stop/Reset Pad erased the programmed Number/Memory Pad number.  
●When you want to program B or C side, touch Shift (A/B/C) Pad before touching Program Number Pad.

## D. Programming Memory Pads for 2 to 5 Stage Heating



1. Complete Steps 1–6 above.



2. Select Power Level for the second stage by touching Power Level Selector Pad. The selected Power Level will be displayed in the window and the second stage heating indicator “2” will start to blink.  
[Example]: Touch Power Level Selector Pad once for HIGH power.

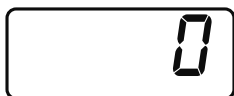


3. Set the desired heating time by touching appropriate Number Pads.  
**Note:** The maximum set time for “DEFROST” and “P0” is 30 minutes, and 15 minutes for all others.  
However, the TOTAL TIME can be set up to 25 minutes, and 15 minutes for continuous heating (1 to 5 stage heating) that excludes “DEFROST” and “P0”.

[Example]: Touch Number Pads “2”, “0” and “0” for 2 minutes.



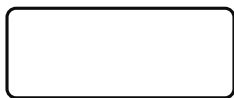
4. Touch Prog Pad again and the “PROG” sign and the second stage heating indicator “2” will stop blinking. The total time for both stages will be displayed. This means that you have completed programming the desired Memory Pad for the second stage heating.



5. 3 seconds after programming is completed, “0” will appear.
6. Program the remaining pads as desired by repeating the Steps above.

**Note:** ●When you want to program B or C side, touch Shift (A/B/C) Pad before touching Program Number Pad.  
●Repeat the above procedure to set Heating for the third stage and later stages.

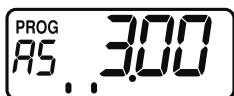
## E. Memory Pad Heating



1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door.  
The oven lamp will turn on. “0” will appear in the Digital Display Window.  
**Note:** While “0” will appear, operation is available. 1 minute after the door is closed, “0” will disappear.
3. Put the food into a suitable container, place it in the centre of the oven and then close the door securely.  
The oven lamp will turn off.

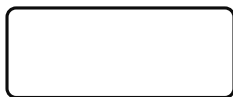


4. Touch the desired Memory Pad.  
A. The currently programmed information will be indicated.  
[Example]: Memory Pad “5” (Program No. A-5)  
The heating program (at DEFROST power for 1 minute, at HIGH power for 2 minutes) as programmed on pages 10–11 is set.



5. Touch Start Pad.  
A. The oven lamp will turn on.  
B. During operation, the indicator appears in order from the left.  
C. The heating time will count down.

(Continued on next page.)



6. When all the time expires, the end of the cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink "0000" until the door is opened. 1 minute later, cooling fan will stop.

7. Open the door and take the food out.  
The oven lamp will turn on.
8. Close the door.  
The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

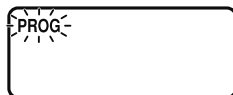
**Note:** To use B or C side Program, touch Shift (A/B/C) Pad before touching Program Number Pad.

## F. Programming Double/Triple Quantity Pad

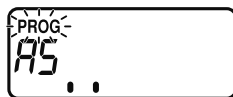
(The oven can not be programmed until the program lock feature is deactivated.)



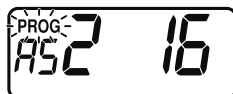
1. Open the door and leave it open.  
The oven lamp will turn on, and "0" will appear.



2. Touch Prog Pad.  
"PROG" will blink in the Digital Display Window.



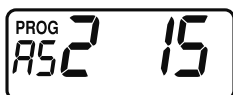
3. Touch Memory Pad for the desired program.  
The pad number and the previously programmed information will appear in the display. "PROG" will start to blink.



4. Touch Double/Triple Quantity Pad once.  
The previously selected magnification number will appear in the display.  
[Example]: 1.6 times is 16. (Double quantity) 2.2 times is 22. (Triple quantity)



5. Set the desired magnification by touching the appropriate Number Pad.  
[Example]: 1.5 times; Touch Number Pads "1" and "5".



6. Touch Prog Pad again.  
The "PROG" will stop blinking. This means that you have completed programming the selected Memory Pad for appropriate double quantity.



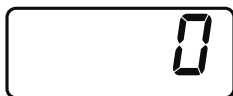
7. After 3 seconds later, "0" will appear.

**Note:** If you want to change appropriate time for triple quantity, you touch Double/Triple Quantity Pad twice as in Step 4 above. The magnification is preset. Each magnification must be programmed separately for alterations.

**N.B.** Please test for correct times when setting the program to achieve correct temperatures.

## G. Memory Pad Heating for Double/Triple Quantity Heating

[Make sure the unit is properly programmed. (See page 12.)]

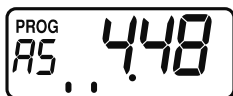


1. Follow Steps 1–3 in “E. Memory Pad Heating”.



2. Touch Double/Triple Quantity Pad once.

**Note:** When you want triple quantity heating, touch Double/Triple Quantity Pad twice.



3. Touch the desired Memory Pad.

[Example]: Memory Pad 5 (Program No. A-5)



4. Touch Start Pad.

A. The oven lamp will turn on.

B. During operation, the indicator appears in order from the left.

C. The heating time will count down.

**Note:** If program lock is activated, the heating program starts immediately, i.e. there is no need to touch Start Pad. (See page 14.)



5. When all time has expired, the end of the cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink “0000” until the door is opened.

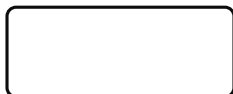


6. Open the door and remove the food. Close the door.

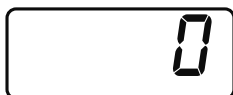
1 minute later the Digital Display Window will go blank.

**Note:** To use B or C side Program, touch Shift (A/B/C) Pad before touching Program Number Pad.

## H. +10s/+20s Pad Heating



1. Make sure the oven is plugged into a properly earthed electrical outlet.



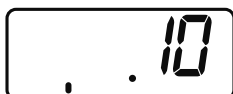
2. Open the door.

The oven lamp will turn on. “0” will appear in the Digital Display Window.

**Note:** While “0” will appear, operation is available. 1 minute after the door is closed, “0” will disappear.

3. Put the food into a suitable container, place it in the centre of the oven and then close the door securely.

The oven lamp will turn off.



4. Touch +10s/+20s Pad once.

A. The oven lamp will turn on.

B. During operation, the indicator appears in order from the left.

C. Heating will start on HIGH power for 10 seconds.

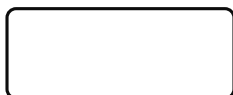
[Example]: Touch +10s/+20s Pad once for 10 seconds.

Touch +10s/+20s Pad twice for 20 seconds.



5. When all the time expires, the end of cycle beep tone will sound. All heating will stop. The oven lamp will turn off. The time display will blink “0000” until the door is opened. 1 minute later, cooling fan will stop.

(Continued on next page.)

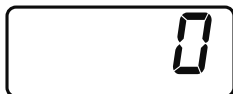


6. Open the door and take the food out.  
The oven lamp will turn on.
7. Close the door.  
The oven lamp will turn off and 1 minute later the Digital Display Window will go blank.

**Note:** While heating, one touch on Stop/Reset Pad or opening the door will cancel the heating program.

## I. To Read the Cycle Counter

### •To display all cooking times ever used

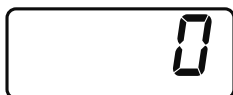


1. Open the door and leave it open.  
The oven lamp will turn on. "0" will appear in the display.



2. While touching Start Pad, touch Number Pad "3".  
All the cooking times that were ever used will appear.

### •To display the cumulative number of times the oven was used

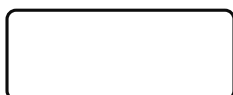


1. Open the door and leave it open.  
The oven lamp will turn on. "0" will appear in the display.

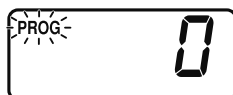


2. While touching Start Pad, touch Power Level Selector Pad.  
The Number of cycles that the oven has been used will appear.  
**Note:** The last two digits are dropped from the cumulative number of times the oven was used, which is displayed in units of 100 when used over 100 times.

## J. To Activate Program Lock



1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door and leave it open.  
The oven lamp will turn on. "0" will appear in the display. While touching Start Pad, touch Prog Pad until the display show "PROG", "P" and "L" (for more than 2 seconds).



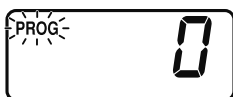
3. Program Lock feature is now activated.  
**Note:** In "Program Lock"
  - a. The oven is started by touching the desired Memory Pad. There is no need to touch Start Pad.
  - b. The Interrupt feature is deactivated—opening the door cancels the remaining time on the program.
  - c. The oven can not be programmed or run manually until the Program Lock feature is deactivated.

## K. To Deactivate Program Lock



1. Make sure the oven is plugged into a properly earthed electrical outlet.

(Continued on next page.)



2. Open the door and leave it open.  
The oven lamp will turn on. "0" will appear in the display. While touching Start Pad, touch Prog Pad until the Digital Display Window show "PROG" and "P" (for more than 2 seconds).



3. Program Lock feature is now deactivated.

**Note:** In "Program Unlock"

- a. Oven reverts to a two-touch operating mode (Number/Memory Pad + Start Pad).
- b. Repeat and interrupt features are operational.
- c. Memory Pads can be programmed.
- d. Manual heating is operational.
- e. Tone loudness control, length control and pitch control (beep tone at the end of heating cycle/filter cleaning alarm) are operational.

## L. To Read Program List



1. Open the door and leave it open.



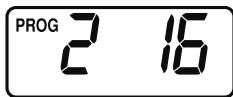
2. While touching Start Pad, touch Number Pad "1".  
All currently programmed information (the program set into each Number/Memory Pad (A0 to C9), Beep Tone, Program Lock, Oven Lamp settings when the door is open, Oven Lamp blink settings at the end of heating cycle and Oven Lamp reduction settings during cooking information) will continuously appear.

**Note:** When the filter cleaning alarm counter is set, this appears after Program Lock.



### How to erase memory content

1. Open the door (keep it open) and touch Prog Pad.
2. Select the memory number you want to erase, and touch Power Level Selector Pad.
3. Touch Stop/Reset Pad, and "0" is displayed to indicate that memory is erased.  
\*Memory content is automatically erased if overwritten.



## M. To Select Beep Tone Options

(The oven can not be programmed until the program lock feature is deactivated.)

The beep tone can be set for loudness—(4 Levels), length of tone—(3 Options), pitch of tone—(3 Options) and pitch of filter cleaning alarm—(3 Options). You can select the combination of loudness, length and pitch that best suits your needs.

The beep tone is set at the factory to the loudest level (#3), to 3 beeps and to normal pitch.

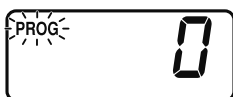
### To Select Loudness Level

1. Make sure the oven is plugged into a properly earthed electrical outlet.



2. Open the door and leave it open.

The oven lamp will turn on. "0" will appear in the display.



3. Touch Prog Pad first and then touch Start Pad.

"3 bEEP" and pattern of buzzer sound settings indicator "1" will appear in the Digital Display Window and "PROG" will blink.



4. Select the desired sound loudness level by touching Start Pad.

Repeated touching of Start Pad will lower the loudness of the tone all the way to silent. The tone will sound at its loudness level and the Digital Display Window will display loudness level in digits (3 to 0—loud to silent) followed by the word "bEEP".

[Example]: 3 bEEP—Loudest (Factory Setting)

1 bEEP—Low

2 bEEP—Mid

0 bEEP—Silent



5. Touch Prog Pad again, and "PROG" will stop blinking, and the set loudness of beep tone will appear for 3 seconds. Then "0" will appear.

To proceed to set length of beep tone, touch Start Pad before "0" is displayed after Step 5.



### To Select Length of Tone

There are 3 options for the length of beep tone at the end of heating cycle.

- 1st. 3 beeps (Factory Setting)

- 2nd. Short beeps for 60 seconds

- 3rd. "Beep" sounds for 5 seconds, and then 3 beeps sound 30 seconds later and again 60 seconds later. (Buzzer reminder functions to prevent food from being forgotten in the oven.)



6. Within 3 seconds after touching Prog Pad at Step 5, touch Start Pad.

A. "PROG" will blink.

B. Current length of beep tone will be displayed.

C. The display changes to 1st, 2nd, and 3rd each time Start Pad is touched and the settings change.



7. When the desired length of tone has been selected, touch Prog Pad again.

"PROG" will stop blinking, and the set length of tone at the end of heating cycle will appear for 3 seconds. Then "0" will appear.

To proceed to set pitch of beep tone, touch Start Pad before "0" is displayed after Step 7.



(Continued on next page.)



### To Select Pitch of Tone

There are 3 options for the pitch of tone at the end of the heating cycle.

•: Low, ••: Normal (Factory Setting), •••: High

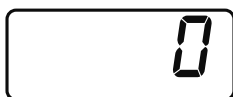


8. Within 3 seconds after touching Prog Pad at Step 7, touch Start Pad.
  - A. "PROG" will start to blink.
  - B. Current pitch of tone will be displayed.
  - C. The display changes to "•", "••", and "•••" each time Start Pad is touched and the settings change (Under the "bE" in "bEEP").



9. When the desired pitch of tone has been selected, touch Prog Pad again.

"PROG" will stop blinking, and the set pitch of tone at the end of heating cycle will appear for 3 seconds. Then "0" will appear.



To proceed to set pitch of filter cleaning alarm, touch Start Pad before "0" is displayed after Step 9.

### To Select Pitch of Filter Cleaning Alarm

There are 3 options for the pitch of the filter cleaning alarm.

•: Low, ••: Normal (Factory Setting), •••: High



10. Within 3 seconds after touching Prog Pad at Step 9, touch Start Pad.
  - A. "PROG" will start to blink.
  - B. Current pitch of filter cleaning alarm will be displayed.
  - C. The display changes to "•", "••", and "•••" each time Start Pad is touched and the settings change (Under the "EP" in "bEEP").



11. When the desired pitch of filter cleaning alarm has been selected, touch Prog Pad again.

"PROG" will stop blinking, and the set pitch of filter cleaning alarm will appear for 3 seconds. Then "0" will appear.

**Note:** When the programmed hour of cleaning Air Filter is "0", the pitch of filter cleaning alarm can not be selected.



## N. Procedure to Program the Air Filter



1. Open the door and leave it open.

The oven lamp will turn on. "0" will appear in the Digital Display Window.



2. While touching Start Pad, touch Number Pad "7".



3. The display will show the length of time (in hours) between cleaning the Air Filter you have programmed in or the original time preset by the manufacturer.

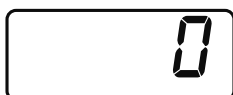


4. Set the desired time between cleaning by touching the appropriate Number Pads. (Up to 9999 hours)  
[Example]: Touch Number Pads "6", "0" and "0" for 600 hours.

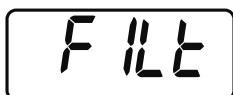
(Continued on next page.)



5. Touch Prog Pad.  
This completes the procedure to program time between cleaning of the Air Filter.



6. After 3 seconds, "0" will appear in the Digital Display Window. The oven is now ready for use.

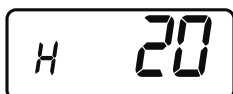


- Note:** When "FILT" sign appears in Digital Display Window, remove the Air Filter and clean it.  
Touch Stop/Reset Pad for 2 seconds to clear the display.



#### To display the filter cleaning alarm counter

1. Open the door and leave it open.
2. While touching Start Pad, touch Number Pad "5".
3. The cumulative total cooking time starts over and is displayed after it is cleared.



After 3 seconds, "0" will appear in the Digital Display Window.

**N.B.** If the oven cuts out after short operation, check the Air Filter is clean before calling an engineer.

## O. Oven Lamp

(The oven can not be programmed until the program lock feature is deactivated.)

### •Oven Lamp settings when the door is open

#### To turn Oven Lamp settings OFF



1. Open the door and leave it open.  
The oven lamp will turn on, and "0" will appear.



2. While touching Start Pad, touch Number Pad "9".  
"PROG" will start to blink. The previously set Oven Lamp settings are displayed.

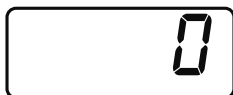


3. Touch Start Pad.  
**Note:** "on" → "off" → "on" is repeated each time the Pad is touched.



4. Touch Prog Pad.  
"PROG" will stop blinking, and the Oven Lamp settings will appear for 3 seconds. Then "0" will appear.

To proceed to Step 5, touch Start Pad before "0" is displayed after Step 4.



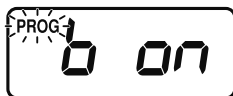
(Continued on next page.)

●Oven Lamp blinks at the end of heating cycle

**To turn the blinking Oven Lamp ON at the end of heating cycle**



5. Within 3 seconds after touching Prog Pad at Step 4, touch Start Pad.  
“PROG” will start to blink. The previously set Oven Lamp blink settings are displayed.

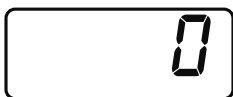


6. Touch Start Pad.  
**Note:** “oFF” → “on” → “oFF” is repeated each time the Pad is touched.



7. Touch Prog Pad.  
“PROG” will stop blinking, and the Oven Lamp blink settings will appear for 3 seconds. Then “0” will appear.

To proceed to Step 8, touch Start Pad before “0” is displayed after Step 7.



●Adjusting Oven Lamp brightness during cooking

**To decrease brightness of the inner cavity during cooking**



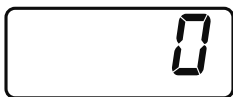
8. Within 3 seconds after touching Prog Pad at Step 7, touch Start Pad.  
“PROG” will start to blink. The previously set Oven Lamp reduction settings are displayed.



9. Touch Start Pad.  
**Note:** “oFF” → “on” → “oFF” is repeated each time the Pad is touched.



10. Touch Prog Pad.  
“PROG” will stop blinking, and the Oven Lamp reduction settings will appear for 3 seconds. Then “0” will appear.



# Installation Instructions for Stacking

## Important

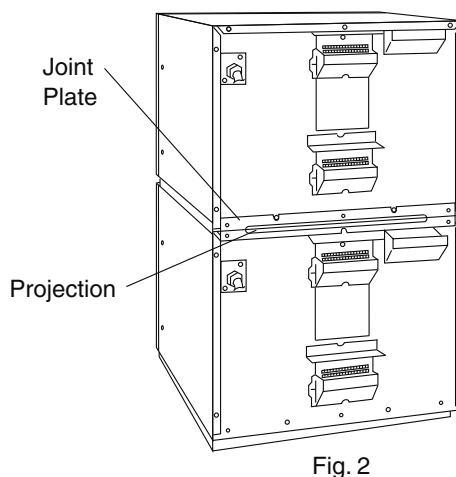
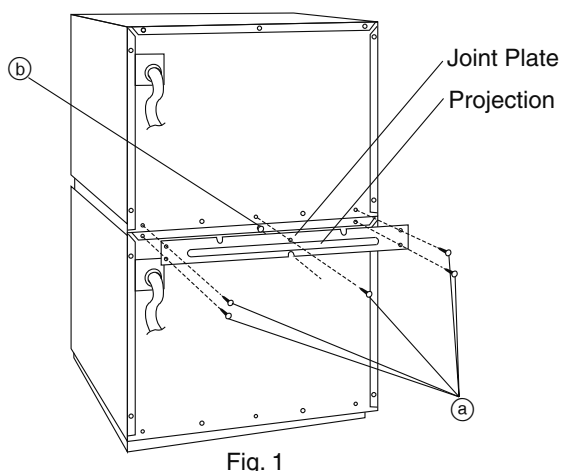
1. Disconnect the power cord from the wall socket before attempting installation.
2. For stacking installation, you must use the Panasonic Joint Plate A1134-3280 (Available via service route).
3. Combination of the unit for stacking is limited within only the following model.  
NE-1853
4. Do not stack more than one oven above bottom oven.

## Preparation

Be sure the oven cavity is empty.

## Installation

1. Stack the units and remove five screws (a) as shown in Fig. 1.
2. Loosen the screw (b).
3. The projection on the Joint Plate must face away from the oven. Place the Joint Plate on the screw (b).
4. Attach and tighten five screws (a) and the screw (b). See Fig. 2.
5. Ensure the top oven is at a safe and workable height.



# Self Diagnostics Failure Code Explanation

This oven monitors its operation and displays a Failure Code in the Digital Display Window when a problem occurs.

## What to do when a failure code appears:

Unplug the oven and wait more than 10 seconds before reconnecting.

If normal operation does not resume, follow the chart below.

CODE	PROBLEM	WHAT TO DO (BELOW)
F01	Temperature of exhaust air too High	1./2./3./4./5.
F33	Defective Thermistor Circuit	1./5.
F44	Defective Control Panel	1./5.
F81–82	Defective Relay Circuit	5./6./7.
F86–87	Defective Relay Circuit	1./5.
U30	Memory cooking has exceeded the maximum time during double quantity and triple quantity setting.	Check and change the time. —See page 8, step 5 “Note”.

1. Oven shuts off automatically. Disconnect the power cord from the wall socket.
2. Oven beeps continuously.
3. Oven resets for operation when cool.
4. Move oven to cooler location.
5. If problem persists call service agent.
6. Oven will operate even if failure code appears, just not as designed. Call service agent.
7. Touch Stop/Reset Pad and try again.

**Note:** Above Codes shown in the display do not indicate all the possible failures on the unit.

# Care of Your Microwave Oven

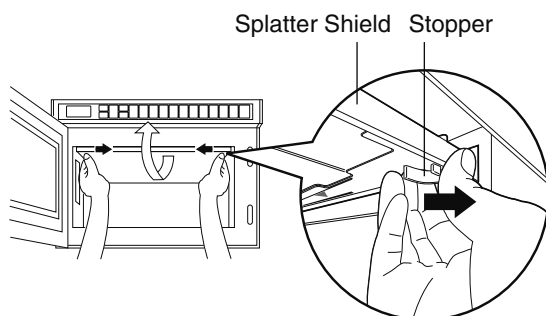
1. Remove the plug from the electrical socket before cleaning.
2. Keep the inside of the oven clean. If pieces of food or spilled liquids stick to the oven walls, or between door seal and door surface, they will absorb microwaves and may cause arcing or sparks. Wipe up all spills with a damp cloth. Kitchen detergent or Food Sanitizer Solution may be used if the oven gets very dirty. Do not use harsh detergents or abrasives.
3. The outside surface of this Microwave Oven should be cleaned with soap and water, then dried with a soft cloth. Make sure that water does not get into the back ventilation or control panel opening since this can damage the unit.
4. The window of the door should be washed with very mild soap and water. Be sure to use a soft cloth. Never use window cleaner. The front door can be scratched by harsh soap or cleaners.
5. 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.

## Cleaning of the Splatter Shield

1. Hold snap / snap out stoppers of splatter shield with both hands and pull them in and down. Then take the splatter shield out of the oven cavity.
2. Rinse splatter shield in soapy water or Food Sanitizer Solution.
3. Be sure to replace the shield before using the oven.

### CAUTION

Splatter shield must be in place securely when you use the oven.

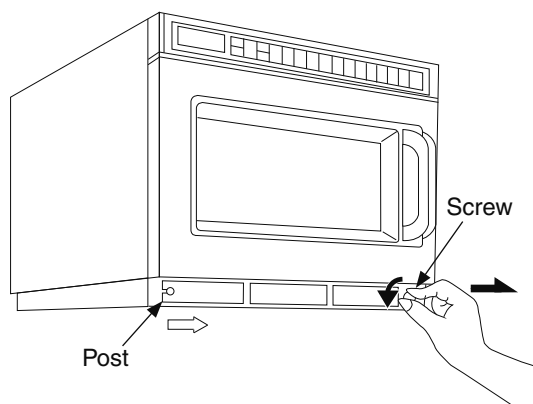


## Cleaning the Air Filter

Clean the Air Filter regularly according to the following instructions. The Oven may have problems when the Air Filter becomes clogged with\* dust.

1. Remove the Air Filter from the front bottom skirt by turning to left the right screw. Then slide the filter to the right and lift it off the post at the left.
2. Wash this filter in warm soapy water.
3. Be sure to replace the Air Filter before using the oven.

\*If the Air Filter becomes clogged with debris this will cause an overheating problem with the oven.



# Before Cooking

## Microwave Basics

Fundamental principles determine the success of microwave food preparation.

They include:

1. **Temperature of Foods**—Frozen or refrigerated food items will require longer heating times to reach a desired serving temperature than foods at room temperature.
2. **Food Components**—Foods high in sugar, salt, fats and moisture content heat faster because these properties attract microwave energy. Denser foods high in protein and fibre, absorb microwave energy slower which means a lengthier heating time.
3. **Bulk/Volume**—The greater the mass of food, the longer it takes to heat.
4. **Containers**—Ceramic, paper, china, styrofoam, glass and plastic are suitable for use in microwave ovens with the following caution:

Heating foods with either high sugar or high fat content should be done **ONLY** in high temperature-resistant containers since these foods get very hot. Using styrofoam containers for these foods will cause the styrofoam to warp. Other low temperature restaurant glass or plastic platters may crack or warp under similar conditions.

**DO NOT HEAT** foods in a **SEALED** container or bag. Foods expand when heated and can break the container or bag.

5. **AVOID METAL** because it “bounces” the microwaves, causing uneven heating and sometimes even flashes, which may pit or mar the interior of the oven, the metal container or plate trim.
6. Heated liquids can erupt if not mixed with air. Do not heat liquids in your microwave oven without first stirring.

## General Guidelines for Heating in a Microwave Oven

For specific time, see each food category for appropriate heating techniques, plus necessary pre-preparation of foods.

### Heating Foods from Refrigerated Temperature

Foods stored in the refrigerator (5°C) should be covered before reheating with the exception of breads, pastries or any breaded product, which should be heated uncovered to prevent sogginess.

Most conventionally prepared foods should be slightly undercooked, and held in the refrigerator, so that overcooking does not occur during microwave heating.

Cooked items, such as vegetables, may be portion plated and covered for reheating without loss of colour, texture or nutritional content.

### Heating Foods from Room Temperature

Food items such as canned entrees, vegetables, etc. will require significantly less heating time than those at refrigerated temperatures.

### Important Recommendations

1. For best results it is recommended that foods conventionally prepared be slightly undercooked when subsequently heated in this oven.
2. **REMEMBER** that after the heating cycle has been completed, internal food temperatures continue to rise slightly in foods heated in this oven.
3. A major abuse of microwave applications is the category of breads and baked goods. Because crusts of breads, pastries and pies are drier than insides of fillings, they heat more slowly. Therefore, baked goods should **ONLY** be heated until the crust is warm to the touch (50°C–55°C).
4. **DO NOT OVERHEAT YOUR FOOD:** 99% of all food quality complaints of microwave-heated foods can be traced to overheating.

# Heating and Defrosting Time Charts

## Table of Contents

Appetizers .....	25
Baked Goods and Desserts .....	26
Breakfast .....	27
Casseroles .....	28
Fish and Seafood .....	29
Gravies, Sauces, and Soups.....	30
Plated Meat and Poultry Entrees .....	31
Rice and Pasta.....	32
Sandwiches.....	33
Vegetables.....	34

**Note:** All heating times in the following charts are “**APPROXIMATE**”. We recommend you test your own recipe items and plating techniques in this oven to establish the correct heating times for your recipe items.

The maximum programmable time for single stage heating is

HI and MED power 15 min.

DEF power 30 min.

For items that cook longer than 15 minutes on HIGH and MEDIUM power, please program oven for two-stage cooking.

For example: To program 20 minutes:

First Stage: Program HIGH 15 minutes

Second Stage: Program HIGH 5 minutes



# Appetizers

Quantities of appetizers can be prepared conventionally in advance and refrigerated until needed. Most appetizers, with the exception of “nacho” platters and potato skins, should be heated covered. Appetizers of the same basic shape and size can be reheated together.

Most cooked appetizers heat on HIGH power, between 7 and 11 seconds per 25 g depending on weight, density, and bone content. “Nacho’s” need 30 to 37 seconds per 25 g depending on the amount of topping.

All heating times listed in the chart are from refrigerated temperatures (5°C) except for “nacho” chips.

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Chicken wings	60 g	Prepare conventionally partially cook refrigerate covered.	Place on plate allow to stand 1 min. before serving.	HIGH (P10)	3 min. 20 sec.
Chicken nugget	500 g (25)	Keep refrigerated covered.	Place on paper towel lined plate.	HIGH (P10)	1 min. 40 sec.
Chicken drumsticks (frozen)	200 g (20) 45 g (4)	Prepare conventionally partially cook refrigerate covered.	Place on plate allow to stand 1 min. before serving.	HIGH (P10) HIGH (P10)	2 min. 20 sec. 4 min.
Burrito	275 g (1) 600 g (4)	Prepare conventionally refrigerate covered.	Place on paper towel lined plate, allow to stand before serving.	HIGH (P10) HIGH (P10)	1 min. 10 sec. 3 min. 20 sec.
Filled pastry savouries	400 g (24)	Prepare conventionally refrigerate covered.	Place on paper towel lined plate, allow to stand before serving.	HIGH (P10)	45 sec.
Crepes (chicken/mushroom)	108 g (1) 207 g (2) 615 g (6)	Prepare conventionally freeze.	Place on plate defrost uncovered.	DEFROST (P1) DEFROST (P1) DEFROST (P1)	3 min. 5 min. 8 min.
Crepes (chicken/mushroom)	42 g (1) 82 g (2)	Prepare conventionally refrigerate covered.	Place on paper towel lined plate, allow to stand 1 min. before serving.	HIGH (P10) HIGH (P10)	25 sec. 45 sec.

# Baked Goods and Desserts

Breads, pastries and pies should be heated uncovered, at HIGH power. They should be placed on absorbent material, such as a napkin or paper towel, to prevent sogginess.

DO NOT OVERHEAT breads and pastries. Baked goods should only be heated until the crust feels warm to the touch (50°C–55°C).

Because crusts of breads, pastries, and pies are drier than insides or fillings, they heat more slowly. After heating, let rest about 1 minute for equalization of temperature. If product is overheated, the end result will not be satisfactory.

Heating times for sweet baked goods and desserts are relatively short because of the high sugar content.

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Bread rolls	1 2 6	Prepare conventionally store at room temperature.	Place on paper towel uncovered.	HIGH (P10) HIGH (P10) HIGH (P10)	10 sec. 15 sec. 30 sec.
Croissants (frozen)	1 2	Prepare conventionally freeze.	Place on paper towel uncovered.	HIGH (P10) HIGH (P10)	15 sec. 25 sec.
French stick	1	Prepare conventionally store at room temperature.	Place on paper towel uncovered.	HIGH (P10)	20 sec.
Fruit muffins	2 6	Prepare conventionally store at room temperature.	Place on paper towel uncovered.	HIGH (P10) HIGH (P10)	25 sec. 1 min.
Cheese cake	1.2 kg	Prepare conventionally freeze.	Place on paper towel uncovered.	DEFROST (P1)	8 min.
Carrot cake (frozen)	425 g	Prepare conventionally freeze.	Place onto microwave safe dish uncovered.	DEFROST (P1)	1 min. 20 sec.
Apple strudel	470 g	Prepare conventionally freeze or refrigerate.	Place onto paper towel uncovered.	HIGH (P10)	45 sec.
Fruit pie (frozen)	500 g	Prepare conventionally freeze or refrigerate.	Place onto paper towel uncovered.	DEFROST (P1) HIGH (P10)	3 min. 1 min. 45 sec.
Quiche	1.2 kg (frozen) 1.25 kg	Prepare conventionally freeze or refrigerate.	Place on paper towel uncovered.	DEFROST (P1)  HIGH (P10)	10 min.  2 min. 30 sec.
Meat pies	1 (180 g) 2 (360 g)	Prepare conventionally refrigerate.	Place on paper towel uncovered.	HIGH (P10) HIGH (P10)	45 sec. 1 min. 30 sec.
Sausage rolls	4 (260 g)	Prepare conventionally refrigerate.	Place on paper towel uncovered.	HIGH (P10)	1 min.

# Breakfast

All foods listed are prepared in advance and reheated at HIGH power from refrigerated temperatures (5°C).

Most breakfast foods are heated covered to retain moisture, with the exception of breads and pastries, which should be heated uncovered on absorbent material, such as a napkin or paper towel, to prevent sogginess.

For poached eggs, pierce yolks before heating and allow eggs to stand for 1 minute after cooking so pressure subsides before cutting into them.

When preparing breakfast foods conventionally, undercook slightly and immediately chill and store, covered, for later reheating.

Cured breakfast meats will reheat faster than uncured meats because salt readily absorbs microwave energy.

**WARNING:** Never cook or reheat eggs in the shell. They may explode when interior pressure builds up.

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Hash browns	58 g (1) 112 g (2) 346 g (6)	Prepare hash browns conventionally cook and refrigerate, covered.	Heat on a paper towel lined plate.	HIGH (P10) HIGH (P10) HIGH (P10)	20 sec. 30 sec. 1 min. 10 sec.
Pancakes	60 g (2) 144 g (6) 260 g (8)	Prepare pancakes conventionally cook, cover and refrigerate.	Heat stacked on a paper towel lined plate.	HIGH (P10) HIGH (P10) HIGH (P10)	10 sec. 20 sec. 30 sec.
Pancakes with bacon	4 pcs. 4 strips	Prepare conventionally, refrigerate, covered.	Place on plate in single layer, cover.	HIGH (P10)	40 sec.
Pancakes and Sausage patty	4 pcs. 112 g	Prepare conventionally, refrigerate, covered.	Place on plate in single layer, cover.	HIGH (P10)	30 sec.
Sausage links	4 links	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	30 sec.
Sausage patties	4 patties	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	40 sec.
Ham steaks	99 g (1) 201 g (2)	Store covered in refrigerator.	Heat on paper towel lined plate.	HIGH (P10) HIGH (P10)	30 sec. 1 min. 40 sec.
Bacon	64 g 2 rashers	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate, cover with paper towel.	HIGH (P10)	10 sec.
Eggs poached	120 g (2)	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate, pierce yolks, cover.	HIGH (P10)	20 sec.
Eggs scrambled	120 g (2)	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate and cover.	HIGH (P10)	20 sec.
Eggs scrambled with bacon	184 g 2 eggs 2 rashers	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate and cover.	HIGH (P10)	30 sec.
Eggs poached with bacon	184 g 2 eggs 2 rashers bacon	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate and cover.	HIGH (P10)	30 sec.
Eggs scrambled with sausage	226 g 2 eggs 4 small sausages	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate and cover.	HIGH (P10)	40 sec.
French toast with bacon	2 slices 4 links	Prepare conventionally, refrigerate, covered.	Place toast on plate in single layer. Cover.	HIGH (P10)	30 sec.
French toast with sausage links	2 slices 4 links	Prepare conventionally, refrigerate, covered.	Place toast on plate in single layer. Cover.	HIGH (P10)	30 sec.
French toast	3 slices	Prepare conventionally, refrigerate, covered.	Place toast on plate. Heat uncovered.	HIGH (P10)	40 sec.

# Casseroles

Food-Service casseroles can be cooked successfully in this microwave oven. For best results, follow instructions below.

## Preparation

Remove all casseroles from their foil baking trays, while still frozen and place in a suitable microwave safe container. Place in refrigerator and thaw for about 2 to 4 days.

Let stand 15 minutes before serving.

## Casseroles, Frozen—Heating

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Beef stroganoff	2 kg	Prepare conventionally freeze.	Defrost in a suitable dish and allow to stand 10 min. after defrosting.	DEFROST (P1)	25 min.
Beef stroganoff	2 kg	Prepare conventionally store covered in refrigerator.	Heat in a large dish.	HIGH (P10)	6 min. 20 sec.
Macaroni and cheese	1 kg	Prepare conventionally store covered in refrigerator.	Stir once during cooking.	HIGH (P10)	3 min. 20 sec.
Sweet and sour pork	2 kg	Prepare conventionally store covered in refrigerator.	_____	HIGH (P10)	6 min. 20 sec.
Chicken mornay	2 kg	Prepare conventionally store covered in refrigerator.	_____	HIGH (P10)	6 min. 20 sec.

# Fish and Seafood

## Defrost

Fish and seafood can be defrosted and heated successfully in this microwave oven. To defrost evenly, fish should be arranged in a single layer in container and should be only thawed to the point of being flexible so it does not begin to cook at the edges.

## Primary Cooking

Cooking individual portions demands close attention as well as slight undercooking. Delicate fish and shellfish should always be undercooked and should be allowed to rest after heating.

### Fish/Seafood—Primary Cooking

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Fish fillets	250 g (20) 1 kg (8)	Defrost, refrigerate, covered.	Place on plate, and cover.	HIGH (P10) HIGH (P10)	50 sec. 3 min. 20 sec.
Scallops	140 g	Defrost slightly, refrigerate, covered.	Place in microwave dish dot with butter and cover.	HIGH (P10)	25 sec.
Prawns (medium)	168 g	Defrost, refrigerate, covered.	Place on plate, and cover.	HIGH (P10)	35 sec.
Lobster tail	224 g	Defrost, refrigerate, covered.	Place on plate brush with butter and cover.	HIGH (P10)	1 min. 45 sec.
Crumbed fish	125 g (1) 250 g (2) 750 g (6)	Prepare conventionally cook cover and refrigerate.	Place on paper towel lined plate.	HIGH (P10) HIGH (P10) HIGH (P10)	35 sec. 45 sec. 1 min. 40 sec.

### Fish/Seafood, Frozen—Defrosting

Item	Quantity	Pre-preparation Instructions	Heating Instructions	Power Setting	Approximate Times
Lobster tail	224 g	_____	Place on plate and cover after DEFROST cycle stand 5 min. & refrigerate or cook.	DEFROST (P1)	3 min.
Fish fillets	250 g (2) 1070 g (8)	_____	Place in microwave halfway thru defrost turn over & re-arrange after DEFROST cycle let rest 5 min. & refrigerate.	DEFROST (P1) DEFROST (P1)	4 min. 9 min.
Prawns (medium)	2.5 kg	_____	Place in dish remove any defrosted liquid & prawns from dish during defrosting.	DEFROST (P1)	40 min.

# Gravies, Sauces, and Soups

Some water-based gravies, sauces, and soup mixes may be prepared in large portions using this oven to heat water and thicken the blended mixes.

Refrigerated gravies, sauces, and soups can be reheated quickly at HIGH power and may require stirring during heating to produce an even temperature.

## Gravies

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Brown gravy	1 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	3 min. 30 sec.
Chicken gravy	1 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	3 min. 30 sec.

## Sauces

Item	Quantity	Pre-preparation Instructions	Heating Instructions	Power Setting	Approximate Times
White sauce	1 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	4 min.
Cheese sauce	1 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	4 min.
Tomato sauce	1 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	3 min. 50 sec.
Mushroom sauce	1 litre	Prepare conventionally or heat mix ingredients in microwave, if recommended. Refrigerate sauce.	Place in microwave pan. Cover. Stir midway through heating.	HIGH (P10)	3 min. 30 sec.

## Soups

Item	Quantity	Pre-preparation Instructions	Heating Instructions	Power Setting	Approximate Times
Chicken noodle soup	1 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	4 min.
Beef consomme	2 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	5 min. 30 sec.
Lobster bisque	1 litre	Prepare conventionally refrigerate covered.	Place in microwave safe dish cover, stir halfway through.	HIGH (P10)	5 min. 30 sec.

# Plated Meat and Poultry Entrees

Meat and poultry can be reheated successfully in this oven.

Undercook meat slightly. Arrange meat or poultry slices in single layer, overlapping pieces as little as possible.

## CAUTION

Pork products must be fully cooked prior to reheating.

When appropriate, cover meats or poultry evenly with sauces.

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Beef, prime rib with gravy	336 g	Prepare conventionally, refrigerate, covered.	Place on plate and top meat with gravy. Cover.	HIGH (P10)	2 min.
Beef stew	224 g	Prepare conventionally, refrigerate, covered.	Put in small bowl, stir midway through heating, cover.	HIGH (P10)	45 sec.
Beef stroganoff with noodles	224 g	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	1 min.
Chicken, breaded, fried	224 g	Prepare conventionally, refrigerate, covered.	Place on plate, uncovered.	HIGH (P10)	45 sec.
Chicken, broiled	½ pcs.	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	1 min.
Chicken pieces, with potatoes, dressing and gravy	336 g	Prepare all components conventionally, refrigerate, covered.	Place on plate depress potatoes, and cover.	HIGH (P10)	1 min. 30 sec.
Duck	½ pcs.	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	1 min. 30 sec.
Burrito	224 g	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	45 sec.
Meat loaf with gravy	196 g	Prepare conventionally, refrigerate, covered.	Arrange slices in single layer on plate, cover with gravy. Cover.	HIGH (P10)	1 min.
Green peppers, stuffed	168 g	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	50 sec.
Pork chop, stuffed	196 g	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	1 min. 15 sec.
Ribs, short	224 g	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	1 min. 15 sec.
Ribs, spare	448 g	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	1 min. 25 sec.
Salisbury steak	196 g	Prepare conventionally, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	1 min.
Turkey, sliced with gravy	336 g	Prepare conventionally, refrigerate, covered.	Arrange slices in single layer on plate, cover with gravy. Cover.	HIGH (P10)	1 min. 20 sec.

# Rice and Pasta

For best results, undercook rice and pasta dishes during primary cooking. Reheat covered at HIGH power. Adding moisture, such as a sauce, can facilitate reheating though its not essential.

Rice and pasta dishes with cheese sauces, require more stirring than tomato-based sauces to avoid over-heating and stringiness of cheese.

## Rice

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Fried rice base	1.5 kg	Prepare conventionally refrigerate covered.	Place into dish, covered.	HIGH (P10)	5 min. 30 sec.
Rice, long grain and wild rice	1.0 kg 5 cups	Prepare conventionally refrigerate covered.	Place into dish, covered.	HIGH (P10)	3 min. 30 sec.
Chicken rice pilaf	112 g	Prepare conventionally, undercook slightly, refrigerate, covered.	Place on plate, cover.	HIGH (P10)	35 sec.

## Pasta

Item	Quantity	Pre-preparation Instructions	Heating Instructions	Power Setting	Approximate Times
Noodles	650 g 4 cups	Prepare conventionally refrigerate covered.	Place onto dish, cover let stand 1 min. before serving.	HIGH (P10)	1 min. 40 sec.
Lasagna	400 g	Prepare conventionally refrigerate covered.	Place onto dish, cover let stand 1 min. before serving.	HIGH (P10)	1 min. 40 sec.
Lasagna frozen	3.0 kg	Prepare conventionally refrigerate covered.	Place in microwave safe dish. Let stand 10 min. after defrosting.	DEFROST (P1)	30 min.
Ravioli frozen	2.0 kg	Prepare conventionally refrigerate.	Place in microwave safe dish. Let stand 10 min. after defrosting.	DEFROST (P1)	25 min.
Ravioli	2.0 kg	Prepare conventionally refrigerate covered.	Place into suitable dish stand 3 min. before serving.	HIGH (P10)	6 min.
Macaroni & cheese	250 g	Prepare conventionally refrigerate covered.	Place into suitable dish stand 1 min. before serving.	HIGH (P10)	50 sec.
Macaroni & cheese	450 g	Prepare conventionally refrigerate covered.	Place into suitable dish stand 1 min. before serving.	HIGH (P10)	1 min. 40 sec.
Macaroni & cheese	800 g	Prepare conventionally refrigerate covered.	Place into suitable dish stand 1 min. before serving.	HIGH (P10)	3 min. 20 sec.
Spaghetti with meat sauce	336 g	Prepare conventionally, keeping spaghetti and sauce separate, refrigerate, covered.	Place on plate, cover with sauce, cover.	HIGH (P10)	1 min. 45 sec.



# Sandwiches

Preassembled sandwiches can be heated quickly and easily in this microwave oven. For best results, assemble sandwiches no more than three hours in advance.

Meat fillings such as hamburgers and sausages should be precooked and preferably not be more than 1.3 cm thick.

Day-old, toasted breads, or breads whose formula is enriched with egg or fat, are advantageous because they tend to become less soggy when heated. When fresh, untoasted breads are required, seal with butter or another spread.

Thin sliced meats, lightly packed, allow for more even heating. Place meat over bread.

All but openfaced sandwiches should be heated uncovered on absorbent material such as paper towel or napkin to prevent sogginess.

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Hamburger with bun	156 g	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10)	50 sec.
Hamburger with cheese/bun	160 g	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10)	50 sec.
Roast beef open with gravy	320 g	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10)	1 min. 15 sec.
Roast chicken open with gravy	350 g	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10)	1 min. 15 sec.
Chicken roll	200 g	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10)	30 sec.
Hot dog	145 g	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10)	30 sec.
Chicken burger patty	1 (90 g) 2 (180 g)	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10) HIGH (P10)	25 sec. 35 sec.
Beef burger patty	1 (20 g) 2 (40 g)	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10) HIGH (P10)	25 sec. 50 sec.
Beef steaks	1 (70 g) 2 (140 g)	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10) HIGH (P10)	20 sec. 35 sec.
Meatloaf	500 g	Prepare conventionally, refrigerate, covered.	Place on paper towel, uncovered.	HIGH (P10)	2 min. 40 sec.

# Vegetables

Most vegetables, small and bulk portions, defrost, heat, and cook very successfully in the microwave, retaining fresh colour and texture as well as nutritional value. The thicker and more fibrous the vegetable, the longer the cooking time.

Frozen vegetables can be defrosted and heated in one step. 1 to 2 tablespoons of water should be added to frozen vegetables.

Icy sections should be broken up during heating for even temperature distribution.

Canned vegetables can be heated at HIGH power in approximately 1 minute per 500 g.

Most fresh vegetables are prepared with a small amount of cooking liquid such as water.

## Vegetables, Frozen—Defrosting and Heating

Item	Quantity	Instructions for Pre-preparation	Instructions for Microwave Heating	Power Setting	Approximate Times
Broccoli	2.0 kg	Cut into serving size pieces.	Place in large dish blanch and freezeheat covered.	HIGH (P10)	17 min.
Carrots	2.0 kg	Cut into serving size pieces, blanch and freeze.	Place in heating dish, cover.	HIGH (P10)	17 min.
Corn cobs	1.0 kg (9)	Prepare corn, blanch and freeze.	Place into dish. Heat covered.	HIGH (P10)	8 min.
Beans	2.0 kg	Prepare beans, blanch and freeze.	Place in suitable dish . Heat covered.	HIGH (P10)	17 min.
Cauliflower	2.0 kg	Cut into serving size pieces, blanch and freeze.	Place in suitable dish . Heat covered.	HIGH (P10)	17 min.

## Vegetable, Fresh—Heating

Item	Quantity	Pre-preparation Instructions	Heating Instructions	Power Setting	Approximate Times
Carrot	2.0 kg	Cut into suitable serving size pieces.	Place in dish and add water heat covered.	HIGH (P10)	10 min.

## Vegetable Fresh—Primary Cooking

Item	Quantity	Pre-preparation Instructions	Heating Instructions	Power Setting	Approximate Times
Broccoli	1.4 kg	Rinse broccoli. Cut into spears.	Place in a microwave safe suitable container. Add 2 tablespoons of water. Cover with lid. Let stand, covered, 10 minutes.	HIGH (P10)	7 min.
Baked potatoes	8 med sized 1 kg	Wash, dry and pierce several times with fork. Arrange evenly on paper towel.	Allow to stand 1 minute after cooking.	HIGH (P10)	4 min.
Refried beans	3.2 kg	_____	Place in a microwave safe suitable container. Cover with lid. Stir midway through heating. Let stand 5 minutes.	HIGH (P10)	5 min.

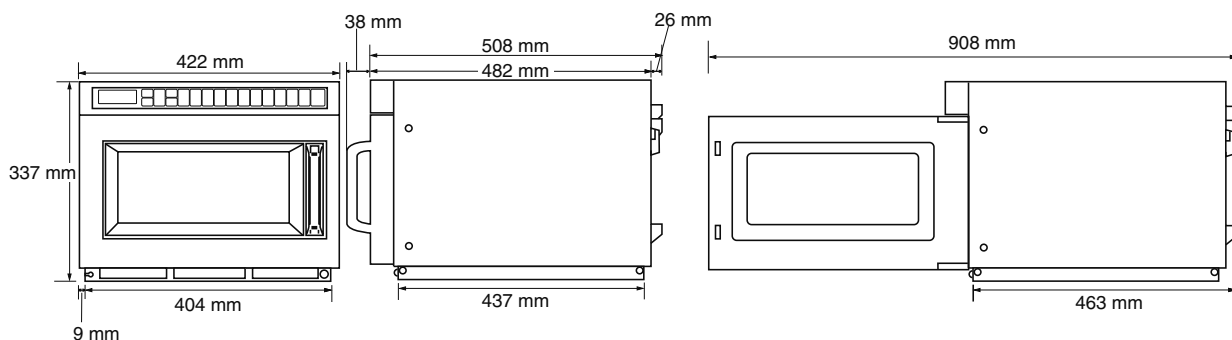
# Technical Specifications

			NE-1853
Power Source			50 Hz, single phase 230 V
			50 Hz, single phase 230 – 240 V
Required Power			12.3 A 2830 W
Output*	HIGH	(P10)	1800 W*
	MEDIUM HIGH	(P9)	90%
		(P8)	80%
		(P7)	70%
		(P6)	60%
	MEDIUM	(P5) (P4)	50% 40%
	LOW	(P3) (P2)	30% 25%
	DEFROST	(P1)	340 W
	OFF	(P0)	0%
	HEAT FROM TOP DOWN	(PU1) (PU2)	50% 25%
	HEAT FROM BOTTOM	(PL1) (PL2)	50% 25%
Frequency			2450 MHz
Outside Dimensions (W×D×H)			422 mm×508 mm×337 mm
Cavity Dimensions (W×D×H)			330 mm×310 mm×175 mm
Net Weight			30.0 kg
Timer			30 minutes (digital)/10 touch pads Maximum programmable time for single stage heating P1 and P0=30 minutes P10–P2, PU1–PL2=15 minutes

## \*IEC Test Procedure

Specifications subject to change without notice.

Voltage requirement may differ by country.



**Panasonic Corporation**  
Website: <http://www.panasonic.com>  
© Panasonic Corporation 2014

**A00033F92QP**  
F0314-20820  
Printed in Japan