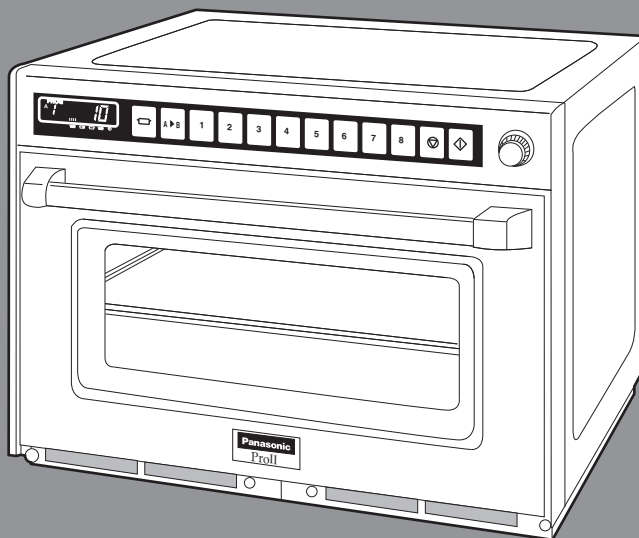


**Panasonic®**

# Operating Instructions

(Original instructions)

Model No. **NE-3280/NE-1880**  
**3200/1800 Watts Microwave Oven**



FOR COMMERCIAL USE

Thank you for purchasing this Panasonic product.  
Please read these instructions completely before operating this oven and keep for future reference.

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This product is an equipment that fulfills the European standard for EMC disturbances (EMC = Electromagnetic Compatibility) EN 55011. According to this standard this product is an equipment of group 2, class B and is within required limits. Group 2 means that radio-frequency energy is intentionally generated in the form of electromagnetic radiation for warming and cooking of food. Class B means that this product may be used in normal household areas.

Manufactured by: Panasonic Corporation, 1006 Oaza Kadoma,  
Kadoma City, Osaka, Japan  
Importer: Panasonic Marketing Europe GmbH  
Panasonic Testing Centre,  
Winsbergring 15, 22525 Hamburg,  
Germany

# Important Safety Instructions

## INSTALLATION

### EXAMINE YOUR OVEN

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

### 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.

## EARTHING

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

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

This appliance must be connected to an outlet having a rated current greater than 13 amps. A 13 amp, B.S. 1363 plug and socket is, therefore, not suitable. It is recommended that this unit should be installed by a professional contractor, as the installation wiring should be in accordance with current IEE regulations and connected to the circuit with all poles having a disconnection of at least 3 mm.

## VOLTAGE AND POWER WARNING

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

Do not plug your oven in via an extension cable as this can be dangerous. It is important to plug the oven directly into a wall socket. The back of the appliance heats up during use. Do not allow the cord to be in contact with the back of the appliance or cabinet surface.

## CAUTION

The rear panel of model NE-3280 can become hot – take care when handling.

# Important Safety Instructions

## PLACEMENT OF THE OVEN

Locate the oven on a surface which is flat and stable. Do not place the oven in a hot or damp place;

e.g. near a gas or electric range. Do not operate the oven when the room temperature is higher than 40°C and/or the humidity is more than 85%. Free airflow around the oven is important.

There is a possibility of a small amount of interference with weak broadcast signals if the microwave oven is too close to a radio or TV.

For safe and efficient operation, the oven must have sufficient air flow to the air vents i.e. 5 cm at the side and rear; 20 cm at the top.

Do not install the appliance at heights above 1.6 m and, also, less than 0.8 m.

The oven must be placed for easy access to the control panel and door and, also, for easy access to be able to disconnect power or shut off power by fuse or circuit breaker.



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

## GUARANTEE CARD

Fill out and post the pre-addressed guarantee card.

Sound pressure level is less than 70 dB (A weighted).

## WARNING

1. If the door or door seals are damaged, the oven must not be operated until it has been repaired by a competent person.
2. The contents of feeding bottles and baby food jars shall be stirred or shaken and the temperature checked before consumption, in order to avoid burns.
3. Liquids and other foods must not be heated in sealed containers since they are liable to explode.
4. Microwave heating of beverages can result in delayed eruptive boiling, therefore care must be taken when handling the container.
5. It is hazardous for anyone other than a competent person to carry out any service or repair operation that involves the removal of a cover which gives protection against exposure to microwave energy.

# Important Safety Instructions

## CAUTION

1. To reduce the risk of burns, electric shock, fire, injury to persons or excessive microwave energy:  
Read all instructions before using the microwave oven.
2. In order to maintain the high quality of the magnetron tubes and other components, you are requested not to turn the oven on with no food inside.
3. High voltages are present inside the cabinet. Repairs and adjustments should be done only by qualified service personnel.
4. This microwave oven requires free airflow in the back for maximum cooling efficiency. You should keep the air vents clear while cooking.
5. Do not dry clothes in the microwave oven since there is a possibility of the clothes burning if left in the oven for too long of a time.
6. Use this microwave oven only for its intended use as described in this manual.
7. Do not operate this microwave oven if it is not working properly, or if it has been damaged or dropped.
8. Do not use outdoors.
9. Do not immerse the cord or plug in water.
10. Keep the cord away from heated surfaces.
11. Do not let the cord hang over edge of table or counter.
12. To reduce the risk of fire in the oven cavity:
  - a) Do not overcook food. Carefully attend 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.

## **Important Safety Instructions**

13. Do not store flammable materials next to, on top of, or in the oven. It could be a fire hazard.
14. 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.
15. 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.
16. Do not attempt to deep fat fry in your microwave oven.
17. 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.
18. 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.
19. Extreme care should be taken when cooking popcorn in a microwave oven. Cook for the minimum time as recommended by the popcorn manufacturer. Use the directions suitable for the wattage of your microwave oven. NEVER leave the microwave oven unattended when popping popcorn.
20. When reheating babies bottles always remove top and teat. Liquid at the top of the bottle will be much hotter than at the bottom and must be shaken thoroughly before checking the temperature. The lid must also be removed from babies food jars, the contents must also be stirred or shaken before the temperature is checked.

## **Important Safety Instructions**

21. The door seals and door seal areas should be cleaned with a damp cloth.
22. If smoke is observed, switch off or unplug the appliance and keep the door closed in order to stifle any flames.
23. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
24. Before use, the user should check that utensils are suitable for use in the microwave ovens.
25. When heating liquids, e.g. soup, sauces and beverages in your microwave oven, overheating of 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.
26. When heating food in plastic or paper containers, keep an eye on the oven due to the possibility of ignition.
27. 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.
28. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

## **Important Safety Instructions**

29. The appliance should not be cleaned with a water jet.
30. There is possibility of danger due to electromagnetic fields, and persons with heart pacemakers are advised to move away from areas with electromagnetic fields. In this case, take note of the instructions provided by the manufacturer.
31. If this product is not going to be used, do not keep items inside. Doing so may result in danger to the surroundings if the switch is accidentally turned on.
32. Do not use recycled paper products, as they may contain impurities which may cause sparks and/or fires when used, unless packaging states they are specifically designed for microwave use.
33. The appliance shall be disconnected from its power supply during service and whilst replacing parts. Following the removal of the supply plug, the plug should remain visible to the service operator to ensure that inadvertent reconnection is avoided.
34. The oven should be cleaned regularly and any food deposits removed.
35. Do not use metal ware, ceramics trimmed with gold or silver, or any container with a metal content.
36. It is essential reheated food is served “piping hot” (72°C). Always check before serving and if in doubt return the food to the oven for further heating.
37. Standing times are essential for foods cooked or reheated by microwave. During the stand time, heat will continue to conduct to the centre to cook the food completely. The denser the food, the longer the stand time.  
Reheated foods also require a standing time.



## **Important Safety Instructions**

### **USING YOUR OVEN**

Do not store any objects inside the oven in case it is accidentally turned on. In case of electronic failure, the oven can be turned off at wall socket.

Do not slide the removable shelf in or out when placing or removing food. This action could cause damage to the shelf or cause hot food to tip towards the operator.

### **MAINTENANCE OF YOUR OVEN**

WHEN YOUR OVEN REQUIRES A SERVICE call your local Panasonic engineer (08701-591590).

Do not attempt to tamper with or make any adjustments or repairs to the door, control panel housing, safety interlock switches or any other part of the oven.

## **Care of Your Microwave Oven**

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.

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. Do not spray anything directly onto the door and the walls, and into the oven cavity. Spray onto a cloth and wipe over.
6. Failure to follow these cleaning instructions may invalidate the warranty on this machine.

# Care of Your Microwave Oven

## CLEANING OF THE DOOR HOOK SYSTEM

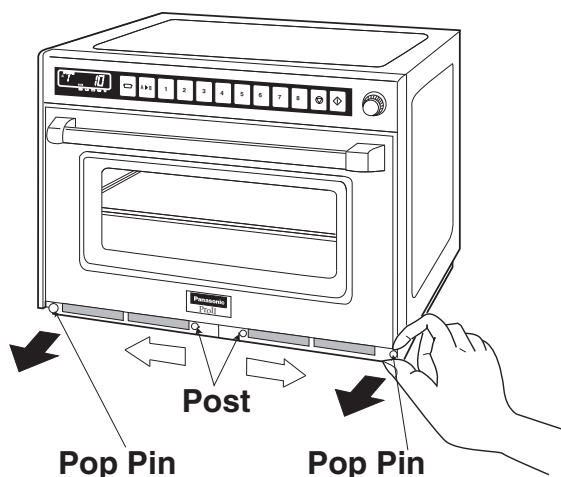
Make sure that kitchen detergent or soap does not get into the hole of the door hook system, since this can get inside the door hook system and also damage the unit.

Make sure to clean the door hooks with a damp cloth after cleaning the oven, or when the door hooks are dirty. Never close the door if soap or kitchen detergent remains on the door hooks. The soap or kitchen detergent will get into the unit through the hole and then damage the unit.

## CLEANING OF THE AIR FILTERS

Clean the Air Filters occasionally according to the following instructions. Problems may occur with the oven if the Air Filters become clogged with dirt or dust.\*

1. Remove the right Air Filter from the front bottom skirt by pulling the right Pop Pin straight out, then slide the filter to the right and lift it off the post at the centre. Remove the left Air Filter in a similar manner, sliding to the left.
2. Wash the Air Filters with soap and water.
3. To replace, align the Air Filter with the centre post, and holding the front of the Pop Pin forward, locate the back of the pin into its hole. Press the front of the pin and it will pop into place. Be sure to replace the Air Filters before using this oven.



\* If the Air Filter becomes clogged with dust or grease this will cause an overheat problem on the oven.

# Types of Container to Use

## 1. GLASS

DO USE: Heat resistant glass eg. Pyrex

DO NOT USE:

Delicate glass, lead crystal, etc, which may crack or arc.

## 2. CHINA/CERAMICS

DO USE: Glazed china dishes, porcelain and ceramic dishes designed for cooking.

DO NOT USE:

Fine bone china dishes with metal patterns. Jugs with glued handles.

## 3. POTTERY/EARTHENWARE/STONEWARE

DO USE: If completely glazed.

DO NOT USE:

If unglazed - these dishes can absorb water which absorbs energy.

This makes the dish hot and increases the heating time.

## 4. FOIL/METAL

DO USE: Small amounts of aluminium foil can be used to shield joints of meat during DEFROSTING - take care that foil doesn't touch sides or door.

DO NOT USE:

Metal platters, Wire Rack Shelf, METAL SKEWERS, any dish with METAL PATTERN or TRIM.

DO NOT USE FOIL CONTAINERS - ARCING may occur as they become DENTED / DAMAGED. Do not use Le Crueset-style dishes (Cast iron covered by enamel).

## Types of Container to Use

### 5. PLASTIC

DO USE: High temperature plastic like Durable Polysulfon rather than soft flexible dishes.

(Remove any metal twist ties.)

DO NOT USE:

Container made from Melamine, Polypropylene, Phenol Urea, also do not use plastic food storage bags and containers eg. Margarine, Yoghurt and Mayonnaise tubs.

### 6. COVERING FILMS

DO USE: Non plasticiser cling film designed for Microwave use.

Do not allow the film to touch the food. To prevent nasty steam burns, pierce the film to allow steam to escape and remove the film from the dish carefully.

DO NOT USE:

Film designed only for covering food.

### 7. WOOD/WICKER

DO USE: Wooden skewers designed for food use.

DO NOT USE:

Wicker baskets, wooden bowls (with prolonged use these tend to dry out and may ignite)

### 8. PAPER

DO USE: Disposable, polyester coated paper board dishes if designed for microwave.

DO NOT USE:

Paper napkins (these can ignite), wax coated cups, recycled products (unless stated suitable by manufacturer)

# How Does the Microwave Work?

Microwaves are a form of high frequency radio waves similar to those used by a radio including AM, FM and CB. They are, however, much shorter than radio waves; approximately 12 cm long. Electricity is converted into microwave energy by the magnetron tube. From the magnetron tube, microwave energy is transmitted and absorbed.

## Reflection

Microwaves are reflected by metal just as a ball is bounced off a wall. A combination of stationary (interior walls) and rotating antenna, located underneath the bottom shelf and above the ceiling cover assure that the microwaves are well distributed within the oven cavity to produce even heating or cooking of foods.

## Transmission

Microwaves pass through some materials such as paper, glass and plastic much like sunlight shining through a window. Because these substances do not absorb or reflect the microwave energy, they are ideal materials for microwave oven cooking containers.

## Absorption

During heating, microwaves will be absorbed by food. They penetrate to a depth of about 1–5 cm. Microwave energy excites the molecules in the food (especially water, fat and sugar molecules), and causes them to vibrate at a rate of 2,450,000,000 times per second. This vibration causes friction, and heat is produced just as you will feel heat produced if you vigorously rub your hands together. The internal heating of larger foods is done by conduction. The heat which is produced by friction travels by conduction to the centre of the food. Foods also continue to heat by conduction during standing time.

Because microwaves dissipate, much like sunlight as it reaches the Earth's surface, they are not stored in food.

## Radio Interference

1. Operation of the microwave oven may cause Interference to your radio, TV or similar equipment.
2. When there is interference, it may be reduced or eliminated by taking the following measures:
  - a) Clean the door and sealed surfaces of the oven. (See Care of Your Microwave Oven found on page 8.)
  - b) Place the radio, TV, etc. as far away as possible, from the microwave.
  - c) Use a properly installed antenna, to obtain stronger signal reception.

# Before Use

## Two Level Cooking

When heating, one item always place the container in the centre of the bottom shelf.

When using the microwave mainly for reheating one item at a time, remove the middle shelf and work on the bottom shelf.

When reheating two items at a time place both dishes on the bottom shelf side by side, unless the containers are too large and then place one on the shelf.

When heating more than two plates, place the dishes evenly on the two shelves.

Allow some space between each plate, do not cram too much food into the oven.

If the middle shelf is not used, it should be stored outside the oven and must not be put on the bottom shelf.

## 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. Drip may also result, and sometimes a part of the food cooks although other parts still remain frozen. In actual usage of frozen foods, 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 over or rearrange the food 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.
5. Ice should be removed at times during defrosting.

## Other Helpful Instructions

### For best results

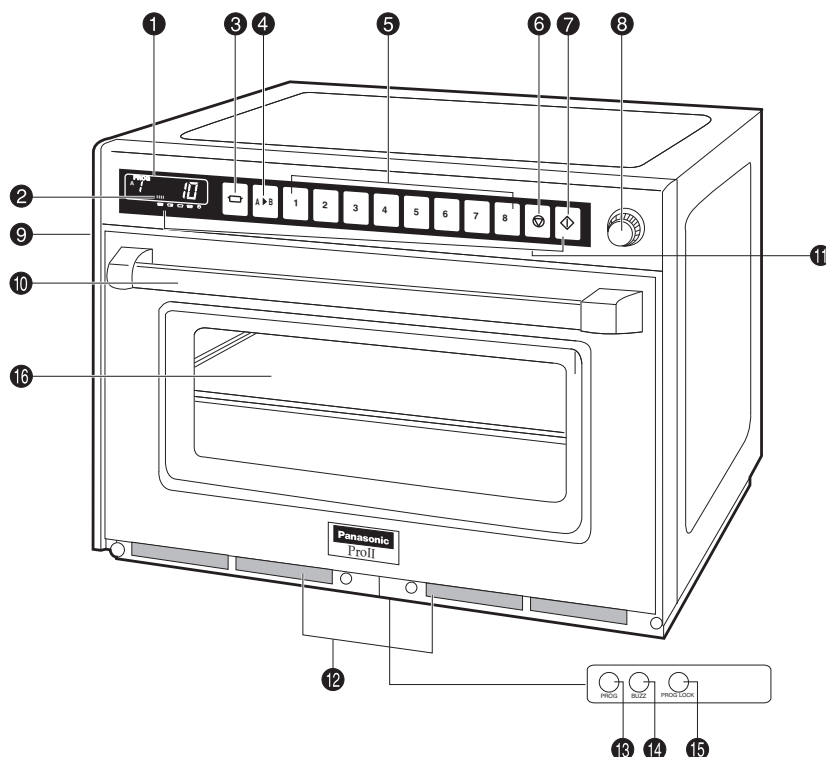
1. As microwave cooking times are much shorter than other cooking methods it is essential that recommended cooking times are not exceeded without first checking the food. Factors that may affect cooking times are: preferred degree of cooking, starting temperature, altitude, volume, size and shape of foods and utensils used. As you become familiar with the oven, you will be able to adjust these factors. It is better to undercook rather than overcook foods. If food is undercooked, it can always be returned to the oven for further cooking. If food is overcooked, nothing can be done. Always start with minimum cooking times.

### IMPORTANT

**If the recommended cooking times are exceeded, the food will be spoiled and in extreme circumstances it could catch fire and possibly damage the interior of the oven.**

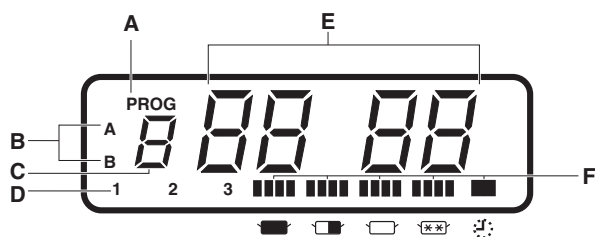
2. Be careful of the cooking time for small quantities of foods, or foods with low water content. They may burn if cooked too long.
3. Do not use the oven for drying kitchen towels or napkins. They may burn if heated too long.
4. Do not try to boil eggs in the oven.
5. When you cook an egg be sure to pierce the yolk membrane prior to placing into the oven to prevent the egg bursting.
6. To achieve more even cooking result, give the dish a half-turn, or turn the food over.
7. Christmas puddings and other foods high in fats or sugar, e.g. jam, mince pies, must not be over heated. These foods must never be left unattended as with over cooking these foods can ignite.
8. It is essential that reheated food is served "piping hot". Remove the food from the oven and check that it is "piping hot", i.e. steam is being emitted from all parts and any sauce is bubbling. If you wish you may choose to check the food has reached 72°C with a food thermometer—(but remember do not leave this thermometer inside the microwave.) or to a temperature recommended by Government Food Hygiene Regulations. For foods that cannot be stirred, e.g. lasagne, shepherds pie, the centre should be cut with a knife to test it is well heated through. Even if a manufacturer's packet instructions have been followed, always check the food is piping hot before serving it. If in doubt return your food to the oven for further heating.
9. Standing time refers to the period at the end of cooking or reheating when food is left before being eaten, i.e. it is a rest time which allows the heat in the food to continue to conduct to the centre, thus eliminating cold spots.

# Outline Diagram



- ① Digital Display Window
- ② Power Level Indicator Display
- ③ Power Level Selector Pad (□)
- ④ Memory Shift Pad (A B)
- ⑤ Memory Pads
- ⑥ Stop/Reset Pad (⏏)
- ⑦ Start Pad (▶)
- ⑧ Timer Dial

- ⑨ Oven Lamp Cover
- ⑩ Door Handle
- ⑪ Control Panel
- ⑫ Air Filters
- ⑬ Program Entry Switch (behind Air Filters)
- ⑭ Buzzer Switch (behind Air Filters)
- ⑮ Program Lock Switch (behind Air Filters)
- ⑯ Middle Shelf



- A - Program Display
- B - Memory Area Code Display
- C - Memory Pad Number Display
- D - Stage Heating Indicator
- E - Heating Time Display (min. sec.)
- F - Power Level Indicator

- HIGH
- ▒ MEDIUM
- LOW
- ⏏ DEFROST
- ⌚ STAND

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

- ◆ Manual operation
- ◆ Memory pads preset HIGH power at the indicated heating times for single stage heating
 

|                    |                    |             |             |            |
|--------------------|--------------------|-------------|-------------|------------|
| 1 = 10 sec.        | 2 = 20 sec.        | 3 = 30 sec. | 4 = 45 sec. | 5 = 1 min. |
| 6 = 1 min. 15 sec. | 7 = 1 min. 30 sec. | 8 = 2 min.  |             |            |

 (There are two sides, A and B. Only A-side is preset.)

- ◆ Program Unlock
- ◆ Cycle Counter set to "0" on all pads

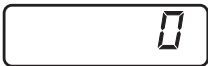














If you wish to change these times, please consult the operating instructions to find how to program them.

# How to Operate

## A. MANUAL HEATING

### ◆ Single stage heating

**Example: To cook food at HIGH power for 2 minutes**

|  | PAD   | INSTRUCTION   | DIGITAL DISPLAY WINDOW  |
|--|---|---|---|
| 1  |   | <b>Open the door and put the food in the oven.</b><br>☛ The oven lamp will turn on and "0" will appear.<br><b>Note:</b> While "0" appears, operation is available. One minute after the door is closed, "0" will disappear.   |    |
| 2  |  | <b>Press Power Level Selector pad once.</b><br>☛ The selected power level will be indicated and 1st Stage Heating Indicator "1" will start to blink.<br><b>Note:</b> Press once for HIGH power, twice for MEDIUM power, 3 times for LOW, four times for DEFROST and 5 times for STAND.  |    |
| 3  |  | <b>Set the desired heating time using the Timer Dial.</b><br>☛ The selected heating time will appear.<br><b>Note:</b> up to 15 min. on  or  , 60 min. on  ,  or  |    |
| 4  |  | <b>Press Start pad.</b><br>☛ The oven lamp will turn on and heating will start. Power Level Indicator will start to blink, and heating time will count down.  |    |
| <ul style="list-style-type: none"> <li>• When all time expires, beep tone will sound and heating will stop. The oven lamp will turn off. "0" will blink until the door is opened. One minute later, cooling fan will stop.</li> <li>• Open the door and take the food out. The oven lamp will turn on. Digital Display Window will show the originally selected time and power.</li> <li>• Close the door. The oven lamp will turn off. One minute later, Digital Display Window will go blank.</li> </ul> |   |   | <br><br> |



# How to Operate

## ◆ 2 or 3 stages heating

**Example: To cook food at HIGH power for 2 minutes and at DEFROST power for 1 minute**

|   | PAD | INSTRUCTION   | DIGITAL DISPLAY WINDOW |
|---|-----|---|------------------------|
|   |     | Follow steps 1 to 3 on page 15.   |                        |
| 4   |     | <b>Press Power Level Selector pad four times.</b><br>☛ The selected power level will be indicated and 2nd Stage Heating Indicator “2” will start to blink.  |                        |
| 5   |     | <b>Set the desired heating time for the second stage using the Timer Dial.</b><br>☛ The set heating time will appear.<br><b>Note:</b> up to 15 min. on  or , 60 min. on ,  or   |                        |
| 6   |     | <b>Press Start pad.</b><br>☛ The oven lamp will turn on. The total time for both stages will appear and start to count down. 1st Stage Heating Indicator “1” and Power Level Indicator for the first stage heating will start to blink. |                        |
| <ul style="list-style-type: none"> <li>• After the first stage heating, a single beep tone will sound. 2nd Heating Stage Indicator “2” and Power Level Indicator for the second stage heating will start to blink and the remaining heating time will count down.</li> <li>• When all time expires, beep tone will sound and heating will stop. The oven lamp will turn off. “0” will blink until the door is opened. One minute later, cooling fan will stop.</li> <li>• Open the door and take the food out. The oven lamp will turn on. Digital Display Window will show the originally set time and power.</li> <li>• Close the door. The oven lamp will turn off. One minute later, Digital Display Window will go blank.</li> </ul> |     |   | <br><br><br>           |

**Note:** For 3 stages Heating, repeat steps 4 and 5 above before pressing Start pad ◆.

### **SPECIAL NOTE: For both single and 2 or 3 stages heating**

1. While heating, one press on Stop/Reset pad stops the operation. You can restart it by pressing Start pad or a second press on Stop/Reset pad will cancel the selected program.
2. While not heating, one press on Stop/Reset pad cancels the selected program.

### **Repeat Feature**

- You can repeat the last manually selected heating time by pressing the Start pad ◆, if the oven is used within 1 minute.
- The Repeat Feature will be cancelled after 1 minute of non-use. The display goes blank.









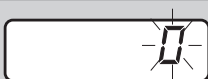

# How to Operate

## B. PROGRAMMED HEATING


### ◆ In Program Unlock Mode:

MAKE SURE THE UNIT IS PROPERLY PROGRAMMED (see page 20).

**Example: To select Memory pad “5” at A side in which your desired heating program (at HIGH power for 3 min., single stage heating) is set**

|   | PAD   | INSTRUCTION   | DIGITAL DISPLAY WINDOW   |
|---|---|---|--|
| 1   |   | <b>Open the door and put the food in the oven.</b><br> The oven lamp will turn on and “0” will appear.<br><b>Note:</b> While “0” appears, operation is available. One minute after the door is closed, “0” will disappear. |   |
| 2   |  | <b>Press the Desired Memory Pad “5”.</b><br> The currently programmed information will be indicated.   |   |
| 3   |  | <b>Press Start pad.</b><br> The oven lamp will turn on and heating will start. The heating time will count down.   |   |
| <ul style="list-style-type: none"> <li>When all time expires, beep tone will sound and heating will stop. The oven lamp will turn off. “0” will blink until the door is opened. One minute later, cooling fan will stop.</li> <li>Open the door and take the food out. The oven lamp will turn on.</li> <li>Close the door. The oven lamp will turn off. One minute later, Digital Display Window will go blank.</li> </ul> |   |   | <br> |

#### Note:

- When you want to select Memory Area B, press Memory Shift pad  before pressing the desired Memory pad.

### ◆ In Program Lock Mode:

Just press the desired Memory pad. Heating will automatically start without pressing Start pad.


















# How to Operate

## C. PROGRAMMING MEMORY PADS


### ◆ *Single stage heating*

THE OVEN CAN NOT BE PROGRAMMED WHEN PROGRAM LOCK IS ACTIVATED! (see page 20)  
DO NOT OPEN THE DOOR WHILE PROGRAMMING!

**Example: To program cooking at DEFROST power for 1 minute into Memory pad “5”**

|  | PAD   | INSTRUCTION  | DIGITAL DISPLAY WINDOW  |
|--|---|--|---|
| 1  |   | <b>Keep the door closed.</b><br>☛ Digital Display Window must be blank or show “0”.  |    |
| 2  |  | <b>Press Program Entry Switch.</b><br>☛ “PROG” will start to blink.  |    |
| 3  |  | <b>Press Memory pad you wish to program.</b><br>☛ The selected pad number will appear and currently programmed information will be indicated.  |    |
| 4  |  | <b>Press Power Level Selector pad four times.</b><br>☛ The selected power level will be indicated, “PROG” and 1st Stage Heating Indicator “1” will start to blink.   |    |
| 5  |  | <b>Set the desired heating time using Timer Dial.</b><br>☛ The set heating time will appear.<br><b>Note:</b> up to 15 min. on  or  , 60 min. on  ,  or  |    |
| 6  |  | <b>Press Program Entry Switch again.</b><br>☛ “PROG” and 1st Stage Heating Indicator “1” will stop blinking.<br>This means that you have completed programming.  |    |
| • Three seconds later, Digital Display Window will go blank. |   |  |  |

#### Note:














- Program the remaining Memory pads as desired by repeating steps 2-6 above.
- When you want to select Memory Area B, press Memory Shift pad  before selecting the desired Memory pad.

# How to Operate

## ◆ 2 or 3 stages heating

**THE OVEN CAN NOT BE PROGRAMMED WHEN PROGRAM LOCK IS ACTIVATED! (see page 20)**  
**DO NOT OPEN THE DOOR WHILE PROGRAMMING!**




**Example: To program cooking at DEFROST power for 1 minute and at HIGH power for 2 minutes into Memory pad “5”**

|  | PAD   | INSTRUCTION  | DIGITAL DISPLAY WINDOW  |
|--|---|--|---|
|  |   | Follow steps 1 to 5 on page 18.  |  |
| 6  |  | <b>Press Power Level Selector pad once.</b><br>➤ The power level for 2nd stage will be indicated, 2nd Stage Heating Indicator “2” will start to blink.   |  |
| 7  |  | <b>Set the desired heating time using Timer Dial.</b><br>➤ The set heating time will appear.<br><b>Note:</b> up to 15 min. on  or  , 60 min. on  ,  or  |  |
| 8  |  | <b>Press Program Entry Switch again.</b><br>➤ “PROG” and 2nd Stage Heating Indicator “2” will stop blinking. The total time for both stages will appear. This means that you have completed programming.   |  |
| • Three seconds later, Digital Display Window will go blank. |   |  |  |

# How to Operate

## D. PROGRAM LOCK




### ◆ To Activate Program Lock:

|   | PAD   | INSTRUCTION   | DIGITAL DISPLAY WINDOW  |
|---|---|---|---|
| 1 |   | <b>Keep the door closed.</b><br>• Digital Display Window must be blank.   |  |
| 2 |  | <b>Press Program Lock Switch until “PROG”, “P” and “L” appear. (for five seconds)</b><br>• “PROG”, “P” and “L” will appear. |  |

#### In Program Lock mode:

- The oven is started by pressing the desired Memory pad. There is no need to press Start pad.
- Opening the door cancels the remaining time on the program.
- The oven can not be programmed until the program lock is released.

### ◆ To Release Program Lock:

|   | PAD   | INSTRUCTION   | DIGITAL DISPLAY WINDOW  |
|---|---|---|---|
| 1 |   | <b>Keep the door closed.</b><br>• Digital Display Window must be blank.   |  |
| 2 |  | <b>Press Program Lock Switch until “PROG” and “P” appear. (for five seconds)</b><br>• “PROG” and “P” will appear. |  |

#### In Program Unlock mode:

- Oven reverts to a two-touch operating mode (Memory pad + Start pad).
- Repeat and interrupt feature are operational.
- Memory pads can be programmed.
- Tone loudness control and length control are operational.

# How to Operate

## E. BEEP TONE








The loudness of beep tone and the length of beep tone at the end of heating cycle can be set.

There are four levels of the loudness.



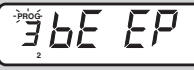

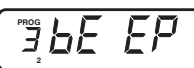

There are two options of the length of beep tone at the end of heating cycle.

The loudest level and 3 beeps are preset at the factory.

### ◆ To Select Loudness Level and Length “3 beeps”:







|   | PAD   | INSTRUCTION   | DIGITAL DISPLAY WINDOW   |
|---|---|---|--|
| 1 | <br>PROG | <b>Press Program Entry Switch.</b><br>☛ “PROG” sign will start to blink in the display window. (The door may be open or closed at this stage)   |   |
| 2 | <br>BUZZ | <b>Press Buzzer Switch.</b><br>☛ The tone will sound at its loudness level and the loudness level “3” followed by the word “bEEP” will appear. “PROG” will start to blink and 1st Stage Heating Indicator “1” (the length of beep tone “3 beeps”) will be indicated.<br><b>Note:</b> Repeatedly pressing the Buzzer Switch will lower the loudness level all the way to silent. (3bEEP — loudest, 2bEEP — middle, 1bEEP — quietest, and 0bEEP — silent) |   |
| 3 | <br>PROG | <b>Press Program Entry Switch again.</b><br>☛ “PROG” will stop blinking. That means that you have completed program.<br>Three seconds later, the display window will go blank when the door is closed.  | <br> |

### ◆ To Select Length of Tone “short beeps for 60 seconds”:

|   | PAD   | INSTRUCTION   | DIGITAL DISPLAY WINDOW   |
|---|---|---|--|
| 4 |   | Follow step 1-3 on page 21.   |   |
| 5 | <br>BUZZ | <b>Within three seconds after pressing Program Entry Switch at step 3, press Buzzer Switch.</b><br>☛ “PROG” will start to blink and 2nd Stage Heating Indicator “2” (the length of beep tone “short beeps for 60 seconds”) will be indicated. |   |
| 6 | <br>PROG | <b>Press Program Entry Switch again.</b><br>☛ “PROG” will stop blinking. This means that you have completed programming.<br>Three seconds later, the display window will go blank when the door is closed.                                    | <br> |



# How to Operate

## F. PROGRAM LIST

|   | PAD   | INSTRUCTION  | DIGITAL DISPLAY WINDOW   |
|---|---|--|--|
| 1 |   | <b>Open the door and leave it open.</b><br>• The oven lamp will turn on and “0” will appear.   |  |
| 2 |  +  | <b>While pressing Stop/Reset pad, press Start pad.</b><br>• All currently programmed information (the program set into each Memory pad (A/B sides), Beep Tone, and Program Lock information) will continuously appear. | <br><br><br> |

## G. CYCLE COUNTER

◆ *To Read Total Cumulative Times That The Oven Has Been Used:*

|   | PAD   | INSTRUCTION  | DIGITAL DISPLAY WINDOW |
|---|---|--|------------------------|
| 1 |   | <b>Open the door and leave it open.</b><br>• The oven lamp will turn on and “0” will appear.   |                        |
| 2 |   | <b>Close the door.</b><br>• Carry out Step 3 within 60 seconds of closing the door, or the display will go blank.                                    |                        |
| 3 |  +  | <b>While pressing Buzzer Switch, press Program Entry Switch.</b><br>• The display shows the total cumulative number of times the oven has been used. |                        |

# 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 from 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.

N.B. Always check manufacturer's instructions as some food manufacturers are producing food in containers that do not require piercing.

5. **AVOID METAL** because it "bounces" the microwaves, causing uneven heating and sometimes even flashes, which may pit or mark 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, pastries and pies. They are drier than insides or 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.



# Cooking/Defrosting Guide


























The times given in the following charts are a **guideline only**. Many factors eg **starting temperature** of the food can affect the final heating time required. The cooking and defrosting times must be adjusted when necessary. All times are tested using foods at **starting temperatures** as below;

Chilled foods . . . . . Approx. +5°C

Frozen foods . . . . . Approx. -18°C














Always check for the correct core temperature with a temperature probe to comply with current Government Food Hygiene Regulations.

## Standard Portion Heating Chart

| Function                                    | Food                      | Weight                | Power Level   | Approx. Time              |            |
|---|---------------------------|-----------------------|---|---------------------------|------------|
|   |                           |                       |   | NE-3280                   | NE-1880    |
| <b>Defrosting</b>                           | Fish Fillets              | 500 g                 |    | 6 min 40 s                | 8 min      |
|   | Minced Beef               | 500 g                 |    | 4 min 15 s                | 5 min      |
|   | Whole Chicken             | 1.36 kg               |    | 21 min 15 s               | 25 min     |
|   | Composite Dish            |                       |   |                           |            |
|   | Multi portion             | 1.36 kg               |    | 17 min                    | 20 min     |
|   | Single portion            | 275 g                 |    | 6 min 40 s                | 8 min      |
|   | Apple Pie                 | 1 portion             |    | 1 min 05 s                | 1 min 15 s |
|   | Gateau                    | 1 portion             |    | 1 min 40 s                | 2 min      |
|   | Bread Rolls               | 1 portion 50 g        |    | 25 s                      | 30 s       |
| <b>Cooking from Chilled Raw Food</b>        | Scrambled Egg             | 2 eggs + 2 tbsp. milk |    | 13–17 s                   | 26–30 s    |
|   | Broccoli                  | 500 g                 |    | 1 min 40 s                | 3 min 30 s |
|   | Fish Fillets              | 500 g                 |    | 2 min 20 s                | 4 min 45 s |
|   | Bacon                     | 2 rashers             |   | 25 s                      | 50 s       |
|   | Chicken Portions          | 500 g                 |  | 2 min 30 s<br>–3 min 25 s | 7–8 min    |
| <b>Cooking and/or Reheating from Frozen</b> | Peas                      | 500 g                 |  | 2 min 10 s                | 4 min      |
|   | Cooked Rice               | 167 g                 |  | 1 min                     | 1 min 40 s |
|   | Cooked Sausages           | x 3 (50 g each)       |  | 40 s                      | 1 min      |
|   | Cooked Wings of Fire      | x 7 pieces            |  | 1 min                     | 1 min 40 s |
|   | Cooked Boxed Cheeseburger | 75 g                  |  | 40 s                      | 1 min      |
|   | Chocolate Fudge Cake      | 1 portion             |  | 25 s                      | 30 s       |
| <b>Reheating from Cooked Chilled</b>        | Lasagne                   | 325 g                 |  | 1 min 40 s                | 3 min      |
|   | Chilli                    | 325 g                 |  | 1 min 40 s                | 3 min      |
|   | Apple Pie                 | 1 portion             |  | 8 s                       | 16 s       |
|   | Pepper Sauce              | 100 ml                |  | 35 s                      | 50 s       |
|   | Baked Beans               | 100 ml                |  | 35 s                      | 50 s       |
|   | Soup                      | 125 ml                |  | 26 s                      | 50 s       |

# Cooking/Defrosting Guide

## Multi-Portions and Large Quantities

| Function                           | Food                         | Weight     | Power Level   | Approx. Time |                  |
|------------------------------------|------------------------------|------------|---|--------------|------------------|
|                                    |                              |            |   | NE-3280      | NE-1880          |
| Defrosting                         | Composite dish               | 1.36 kg    |    | 17 min       | 20 min           |
|                                    | Multi-Portion Apple Pie      | whole 1 kg |    | 17 min       | 20 min           |
| Cooking from Chilled Raw Food      | Jacket Potatoes (10 oz 290g) | x 1        |    | 1 min 20 s   | 3 min 30 s—4 min |
|                                    |                              | x 2        |    | 2 min 30 s   | 6 min 30 s       |
|                                    |                              | x 3        |    | 4 min        | 9 min            |
|                                    |                              | x 4        |    | 5 min 30 s   | 12 min           |
|                                    | Mixed Vegetables             | 2.5 kg     |    | 7 min        | 11 min           |
| Reheating from Cooked Chilled      | Lasagne                      | 1.58 kg    |    | 5 min        | 6 min 45 s       |
|                                    | Leek & Bacon Bake            | 1.76 kg    |    | 6 min        | 7 min            |
|                                    | Chicken Tikka Masala         | 1.36 kg    |    | 3 min        | 5 min 30 s       |
|                                    | Cooked Mixed Vegetables      | 2.5 kg     |    | 4 min        | 7 min 30 s       |
| Cooking from Frozen                | Peas                         | 1.5 kg     |  | 6 min        | 9 min            |
| Reheating from Ambient Temperature | Baked Beans                  | 2.6 kg     |  | 3 min 30 s   | 6 min            |

- HINTS:**
- Do not cook/reheat/defrost directly onto the base of the oven — use a suitable container.
  - When defrosting **multi portions** of foods, turn over and break apart halfway through defrost time to allow better penetration of microwave energy.
  - **Solid/dense foods** should not be cooked from frozen as they will be overcooked round the edges before the centre has reached the required temperature.
  - **Cover** dishes where appropriate during cooking/reheating. This will retain moisture and prevent splashing/spillages.
  - Loosen lids/pierce clingfilm before cooking/reheating covered foods.
  - **Stir** or **shake** foods halfway through cooking/defrosting time to distribute the heat evenly.
  - Allow a **Stand Time** before food temperature is checked and/or offered for consumption.

# Self Diagnostics Failure Code Explanation

This oven monitors its operation and displays a Failure Code in the display window when a problem occurs.

**What to do when a failure code appears:**

| CODE               | CAUSE  | WHAT TO DO   |
|--------------------|--|--|
| F01                | <ul style="list-style-type: none"> <li>Overcooked food.</li> <li>Temperature of exhaust air too high.</li> </ul> | <ul style="list-style-type: none"> <li>Disconnect appliance from electricity supply to stop beep.</li> <li>Wait for appliance to cool down to reset operation.</li> <li>If food ignites, do not open the door.</li> <li>If normal operation does not resume, call the service agent with information of failure code.</li> </ul> |
| F05                | Defective Memory IC.   | <ul style="list-style-type: none"> <li>Disconnect appliance from electricity supply and wait more than 1 minute and reconnect.</li> <li>If normal operation does not resume, call the service agent with information of failure code.</li> </ul>   |
| F33–34             | Defective thermistor circuit.  |  |
| F44                | Defective control panel.   |  |
| F81–F84<br>F86–F89 | Defective relay circuit.   |  |

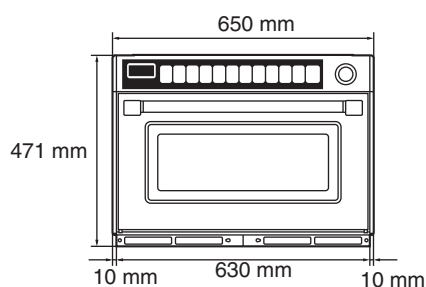
**Note:** Above codes shown in the display do not indicate all the possible failures on the unit.

## Technical Specifications

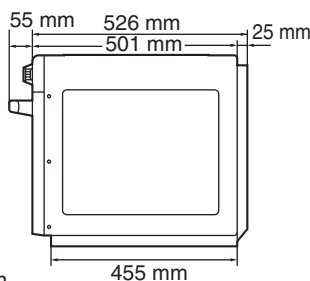
|                               | NE-3280   | NE-1880  |
|-------------------------------|---|--|
| Power Source                  | 230 - 240 V, 50 Hz, single phase  |  |
| Required Power                | 5220 W/22.3 A   | 3400 W/14.8 A  |
| Output                        | HI 3200 W*<br>MED 1600W<br>LOW 340 W<br>DEF 170 W<br>STAND 0 W  | HI 1800 W*<br>MED 900 W<br>LOW 340 W<br>DEF 170 W<br>STAND 0 W |
| Frequency                     | 2450 MHz  |  |
| Outer Dimensions (W x D x H)  | 650 mm x 526 mm x 471 mm<br>(25 <sup>9</sup> / <sub>16</sub> " x 20 <sup>3</sup> / <sub>4</sub> " x 18 <sup>9</sup> / <sub>16</sub> " |  |
| Cavity Dimensions (W x D x H) | 535 mm x 330 mm x 250 mm<br>(21 <sup>1</sup> / <sub>16</sub> " x 13" x 9 <sup>7</sup> / <sub>8</sub> "                                |  |
| Net Weight                    | 65 kg   | 54 kg  |
| Timer                         | Maximum programable time for single stage heating<br>HI and MED = 15 min.<br>LOW, DEF and STAND = 60 min.                             |  |
| Memory Capability             | 16 programs   |  |

\*IEC Test Procedure

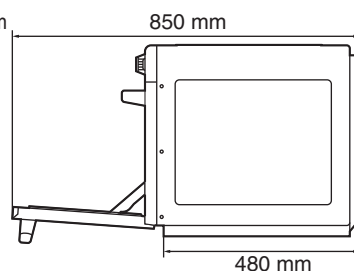
Specifications subject to change without notice.



Front View

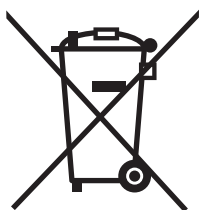


Side View



Side View with Opened Door

## Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact

your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

## For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

## Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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