Owner's Manual

Microwave Oven

Household Use Only

Model No. EM245A2DL-PVH(PAN)

Scan this code for special instructions and features.

READ ALL INSTRUCTIONS CAREFULLY BEFORE USING THE OVEN.

For assistance, please contact us via the web at:
http://shop.panasonic.com/support **(U.S.A only)**

For microwave oven safety reference, please visit the FDA's web page at:
http://www.fda.gov/Radiation-EmittingProducts/default.htm

Para obtener instrucciones en español, por favor visite la página web en:
http://shop.panasonic.com/support

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IMPORTANT SAFETY INSTRUCTIONS

Your safety and the safety of others are very important.

We have provided important safety messages in this manual and on your appliance. Always read and obey all safety messages.

This is the safety alert symbol. It is used to alert you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word "DANGER", "WARNING" or "CAUTION". These words mean:

DANGER You can be killed or seriously injured if you don't immediately follow instructions.

WARNING You can be killed or seriously injured if you don't follow instructions.

CAUTION You can be exposed to a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

(a) **DO NOT** attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.

(b) **DO NOT** place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.

(c) **DO NOT** operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the:

(1) DOOR (bent),

(2) HINGES AND LATCHES (broken or loosened),

(3) DOOR SEALS AND SEALING SURFACES.

(d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

Thank you for purchasing a Panasonic Microwave Oven

When using electrical appliances basic safety precautions should be followed, including the following.

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

1. Read all instructions before using the appliance.
2. Read and follow the specific: "***PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY***" found on page 1.
3. This appliance must be grounded. Connect only to properly grounded outlet. See "***GROUNDING INSTRUCTIONS***" found on page 3.
4. Install or locate this appliance only in accordance with the provided installation instructions.
5. As with any appliance, close supervision is necessary when used by children.
6. When cleaning surfaces of door and oven that comes together on closing the door, use only mild, nonabrasive soaps, or detergent applied with a sponge or soft cloth.
7. Keep cord away from heated surface.
8. Liquids, such as water, coffee, or tea are able to overheat beyond the boiling point without appearing to be boiling. Visible bubbling or boiling when the container is removed from the microwave oven is not always present. THIS COULD RESULT IN VERY HOT LIQUID SUDDENLY BOILING OVER WHEN THE CONTAINER IS DISTURBED OR A UTENSIL IS INSERTED INTO THE LIQUID. To reduce the risk of injury to persons:
   (a) **DO NOT** overheat the liquid.
   (b) Stir the liquid both before and halfway through heating it.
   (c) **DO NOT** use straight-sided containers with narrow necks.
   (d) After heating, allow the container to stand in the microwave oven for a short time before removing the container.

IMPORTANT SAFETY INSTRUCTIONS (continued)

(e) Use extreme care when inserting a spoon or other utensil into the container.

9. This appliance should be serviced only by qualified service personnel. Contact nearest authorized service facility for examination, repair, or adjustment.
10. To reduce the risk of fire in the oven cavity:
    (a) **DO NOT** overcook food. Carefully attend appliance when paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
    (b) Remove wire twist-ties from paper or plastic bag before placing bag in oven.
    (c) If material inside of the oven ignite, keep oven door closed, turn oven off, and disconnect the power cord, or shut off power at the fuse or circuit breaker panel.
    (d) **DO NOT** use the cavity for storage purposes. **DO NOT** leave paper products, cooking utensils, or food in the cavity when not in use.
11. Some products such as whole eggs and sealed containers, for example, closed glass jars are able to explode and should not be heated in this oven.
12. **DO NOT** store this appliance outdoors. **DO NOT** use this product near water - for example, near a kitchen sink, in a wet basement, near a swimming pool, or similar location.
13. **DO NOT** immerse cord or plug in water or any other liquid.
14. Use this appliance only for its intended use as described in the manual. **Do not** use corrosive chemicals or vapors in this appliance. This type of oven is specifically designed to heat, cook or dry food. It is not designed for industrial or laboratory use.
15. **DO NOT** operate this appliance if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
16. **DO NOT** cover or block any openings on the appliance.
17. **DO NOT** let cord hang over edge of table or counter.

SAVE THESE INSTRUCTIONS
HOUSEHOLD USE ONLY
(NOT FOR COMMERCIAL USE)

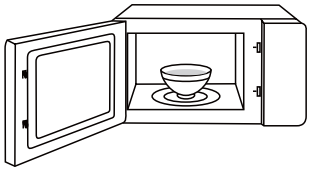
UTENSILS

⚠ CAUTION

Personal Injury Hazard:
Tightly-closed utensils could explode. Closed containers should be opened and plastic pouches should be pierced before cooking. See the instructions on "Materials you can use in microwave oven." or "Materials can not be used in microwave oven."
There may be certain non-metallic utensils that are not safe to use for microwaving. If in doubt, you can test the utensil in question following the procedure below.

Utensil Test:

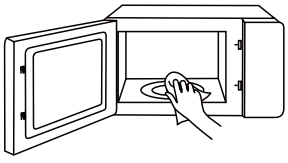
1. Fill a microwave-safe container with 1 cup of cold water (250ml) along with the utensil in question.



2. Cook on maximum power for 1 min.
3. Carefully feel the utensil. If the empty utensil is warm, do not use it for microwave cooking.
4. **DO NOT** exceed 1 min cooking time.

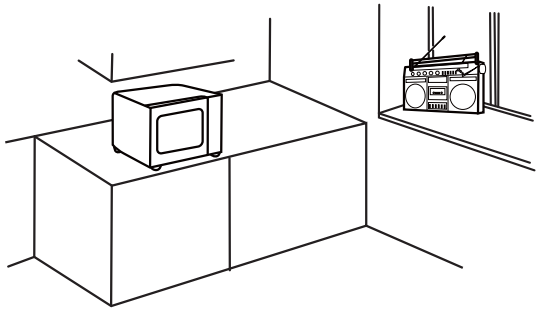
⚠ CAUTION

KEEP THE CAVITY CLEAN



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 door and sealing surface of the oven.
   (b) Reorient the receiving antenna of radio or television.
   (c) Relocate the microwave oven with respect to the receiver.
   (d) Move the microwave oven away from the receiver.
   (e) Plug the microwave oven into a different outlet so that microwave oven and receiver are on different branch circuits.



This device complies with part 18 of the FCC Rules.

GROUNDING INSTRUCTIONS

Grounding Instructions
THIS APPLIANCE MUST BE GROUNDED.

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

WARNING

Improper use of the grounding can result in a risk of electric shock. Consult a qualified electrician or serviceman if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded. If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade grounded plug, and 3-slot receptacle that will accept the plug on the appliance. The marked rating of the extension cord shall be equal to or greater than the electrical rating of the appliance.

DANGER

Electric Shock Hazard:
Touching some of the internal components can cause serious personal injury or death. Do not disassemble this appliance.

WARNING

Electric Shock Hazard:
Improper use of the grounding can result in electric shock. Do not plug into an outlet until appliance is properly installed and grounded.

1. A short power-supply cord is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
2. Long cord sets or extension cords are not recommended.
3. If a long cord or extension cord is used:
   (a) The marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the appliance.
   (b) The extension cord must be a grounding-type 3-wire cord.
   (c) The longer cord should be arranged so that it will not drape over the counter top or tabletop where it can be pulled on by children or tripped over unintentionally.

GROUNDING INSTRUCTIONS

Grounding Instructions

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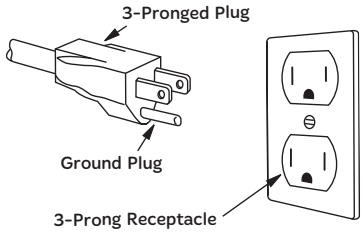


The plug must be plugged into an outlet that is properly installed and grounded.

- **Plug into properly installed and grounded three-prong outlet.**
- **DO NOT** remove ground prong.
- **DO NOT** use an adapter.

Wiring Requirements

1. The oven must be operated on a DEDICATED CIRCUIT. No other appliance should share the circuit with the microwave oven. If it does, the branch circuit fuse may blow or the circuit breaker may trip.
2. The oven must be plugged into at least a 20 A, 120 V, 60 Hz GROUNDED OUTLET. Where a standard two-prong outlet is encountered, it is the personal responsibility and obligation of the consumer to have it replaced with a properly grounded three-prong outlet.
3. The VOLTAGE used must be the same as specified on this microwave oven (120 V, 60 Hz).

Using a higher voltage is dangerous and may result in a fire or oven damage. Using a lower voltage will cause slow cooking. Panasonic is NOT responsible for any damages resulting from the use of the oven with any voltage other than specified.

TV / RADIO/WIRELESS EQUIPMENT INTERFERENCE

This product has been tested and found to comply with the limits for Microwave Oven , pursuant to Part 18 of the FCC Rules. This product can radiate radio frequency energy, which could cause interference to such products as radio, TV, baby monitor, cordless phone, Bluetooth, wireless router, etc., which can be confirmed by turning this product off and on. If present, the user is encouraged to try to correct by taking one or more of the following countermeasures:

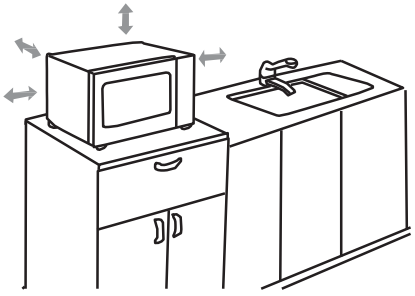
(1) Increase the spacing distance between the microwave oven and other product receiving the interference.
(2) If possible, use a properly installed receiver antenna and/or reorient the receiving antenna of the other product receiving the interference.
(3) Plug the microwave oven into a different outlet from the other product receiving the interference.
(4) Clean door and sealing surfaces of the oven. (See Care and Cleaning of Your Microwave Oven)

Installation

Examine Your Oven

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

Placement of Oven



1. The oven must be placed on a flat, stable surface. For proper ventilation, a minimum clearance of 3.0 inches (7.5cm) is required between the oven and any adjacent walls and right side must be open. Leave a minimum clearance of 12 inches (30cm) above the oven.
   (a) **DO NOT** block air vents. If they are blocked during operation, the oven may overheat and be damaged.
   (b) **DO NOT** place oven near a hot, damp surface such as a gas or electric range, sink, or dishwasher.
   (c) **DO NOT** operate oven when room humidity is excessive.
2. This oven is manufactured for household use only. It is not approved or tested for mobile vehicle, marine, or commercial use.

Installation

1. **DO NOT** block air vents. If they are blocked during operation, the oven may overheat. If the oven overheats, a thermal safety device will turn the oven off. The oven will remain inoperable until it has cooled.

Food Preparation

Follow these Safety Precautions when cooking in your oven.

IMPORTANT

Proper cooking depends upon the power, the time setting and quantity of food. If you use a smaller portion than recommended but cook at the time for the recommended portion, fire could result.

1) HOME CANNING / STERILIZING / DRYING FOODS / SMALL QUANTITIES OF FOODS

- **DO NOT** use your oven for home canning. Your oven cannot maintain the food at the proper canning temperature. The food may be contaminated and then spoil.
- **DO NOT** use the microwave oven to sterilize objects (baby bottles, etc.). It is difficult to keep the oven at the high temperature needed for sterilization.
- **DO NOT** dry meats, herbs, fruits or vegetables in your oven. Small quantities of food or foods with low moisture content can dry out, scorch or catch on fire if overheated.

2) POPCORN

Popcorn may be popped in a microwave oven corn popper. Microwave popcorn that pops in its own package is also available. Follow popcorn manufacturers' directions and use a brand suitable for the cooking power of your microwave oven.

CAUTION: When using pre-packaged microwave popcorn, you can follow recommended package instructions or use the Popcorn button (refer to page 10). Otherwise, the popcorn may not pop adequately or may ignite and cause a fire. Never leave the oven unattended when popping popcorn. Allow the popcorn bag to cool before opening, and always open the bag facing away from your face and body to prevent steam burns.

3) DEEP FAT FRYING

- **DO NOT** deep fat fry in your microwave oven. Cooking oils may burst into flames and may cause damage to the oven and may result in burns. Microwave utensils may not withstand the temperature of the hot oil, and can shatter or melt.

4) FOODS WITH NONPOROUS SKINS

- **DO NOT COOK / REHEAT WHOLE EGGS, WITH OR WITHOUT THE SHELL.**
  Steam buildup in whole eggs may cause them to explode, and possibly damage the oven or cause injury. Reheating SLICED hard-boiled eggs and cooking SCRAMBLED eggs is safe.

- **Potatoes, apples, whole squash and sausages** are examples of foods with nonporous skins. These types of foods must be pierced before microwave cooking to prevent them from exploding.
  CAUTION: ***Cooking dry or old potatoes can cause fire.***

5) GLASS TRAY / COOKING CONTAINERS / FOIL

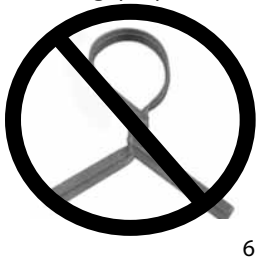
- Cooking containers get hot during microwaving. Heat is transferred from the HOT food to the container and the Glass Tray. Use pot holders when removing containers from the oven or when removing lids or plastic wrap covers from cooking containers, to avoid burns.
- The Glass Tray will get hot during cooking. It should be allowed to cool before handling or before paper products, such as paper plates or microwave popcorn bags, are placed in the oven for microwave cooking.
- When using foil in the oven, allow at least 1-inch (2.5 cm) of space between foil and interior oven walls or door.
- Dishes with metallic trim should not be used, as arcing may occur.

6) PAPER TOWELS / CLOTHS

- **DO NOT** use paper towels or cloths that contain a synthetic fiber woven into them. The synthetic fiber may cause the towel to ignite. Use paper toweling under supervision.

7) **BROWNING DISHES / OVEN COOKING BAGS**

- Only use browning dishes that are designed for microwave cooking. Check browning dish information for instructions/heating chart.
  DO NOT preheat browning dish more than six minutes.
- If an oven cooking bag is used for microwave cooking, prepare according to package directions. **DO NOT** use a wire twist-tie to close bag. Instead use plastic ties, cotton string or a strip cut from the open end of the bag.



8) THERMOMETERS

- **DO NOT** use a conventional meat thermometer in your oven. Arcing may occur. Microwave safe thermometers are available for both meat and candy.

9) BABY FORMULA / BABY FOOD

- **DO NOT** heat baby formula or baby food in the microwave oven. The glass jar or surface of the food may appear warm while the interior can be so hot as to burn the infant's mouth and esophagus.

10) REHEATING PASTRY PRODUCTS

- When reheating pastry products, check temperatures of any fillings before eating. Some foods have fillings, which heat faster and can be extremely hot, while the surface remains warm to the touch (for example, jelly donuts).

11) GENERAL OVEN USAGE GUIDELINES

- **DO NOT** use the oven for any purpose other than the preparation of food.

Cookware Guide

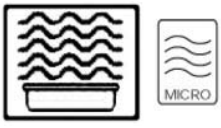
This section answers the question, "Can I use in the Microwave?"

Aluminum Foil
It is not recommended to use. Arcing can occur if foil is too close to oven wall or door and cause damage to your oven.

Browning Dish
Yes. Only use browning dishes that are designed for microwave cooking. Check browning dish information for instructions/heating chart. Do not preheat for more than six minutes.

Brown Paper Bags
No. They may cause a fire in the oven.

Microwave Safe
Yes. If labeled Microwave Safe, check manufacturers' directions for use in microwave heating. Some dinnerware may state on the back of the dish, "Oven-Microwave Safe".



Dinnerware
If unlabeled, use **CONTAINER TEST** below.

Disposable Polyester Paperboard Dishes
Yes. Some frozen foods are packaged in these dishes. Also can be purchased in some grocery stores.

Fast Food Cartons with Metal Handle
No. Metal handle may cause arcing.

Frozen Dinner Trays
If made for the microwave, then yes. If it contains metal, then no.

Glass Jars
No. Most glass jars are not heat resistant.

Heat Resistant Oven Glassware/Ceramic
Yes, but only ones for microwave cooking and browning. (See **CONTAINER TEST** below.)

Metal Bakeware
No. Metal can cause arcing and damage to your oven.

Metal Twist-Ties
No. May cause arcing which could cause a fire in the oven.

Oven Cooking Bag
Yes. Follow manufacturers' directions. Close bag with the nylon tie provided, a strip cut from the end of the bag, or a piece of cotton string. Do not close with metal twist-tie. Make six ½-inch slits near the closure.

Paper Plates/Cups
Yes. Use to warm cooked foods, and to cook foods that require short cooking time, such as hot dogs. **Do not microwave paper cups; they may overheat and ignite.**

Towels & Napkins
Yes, only paper napkins/towels. Use to warm rolls and sandwiches, only if labeled safe for microwave use. Do NOT use recycled paper towels.

Parchment Paper
Yes. Use as a cover to prevent splattering.

Plastic Cookware
Yes, with caution. Should be labeled, "Suitable for Microwave Heating." Check Microwave Safe manufacturers' directions for recommended uses. Some microwave safe plastic containers are not suitable for cooking foods with high fat or sugar content. The heat from hot food may cause warping.

Plastic, Melamine
No. This material absorbs microwave energy. Dishes get HOT!

Plastic Foam Cups
Yes, with caution. Plastic foam will melt if foods reach a high temperature. Use short term only to reheat foods to a low serving temperature. **Do not microwave paper cups; they may overheat and ignite.**

Plastic Wrap
Yes. Use to cover food during cooking to retain moisture and prevent splattering. Should be labeled "Suitable for Microwave Heating". Check package directions.

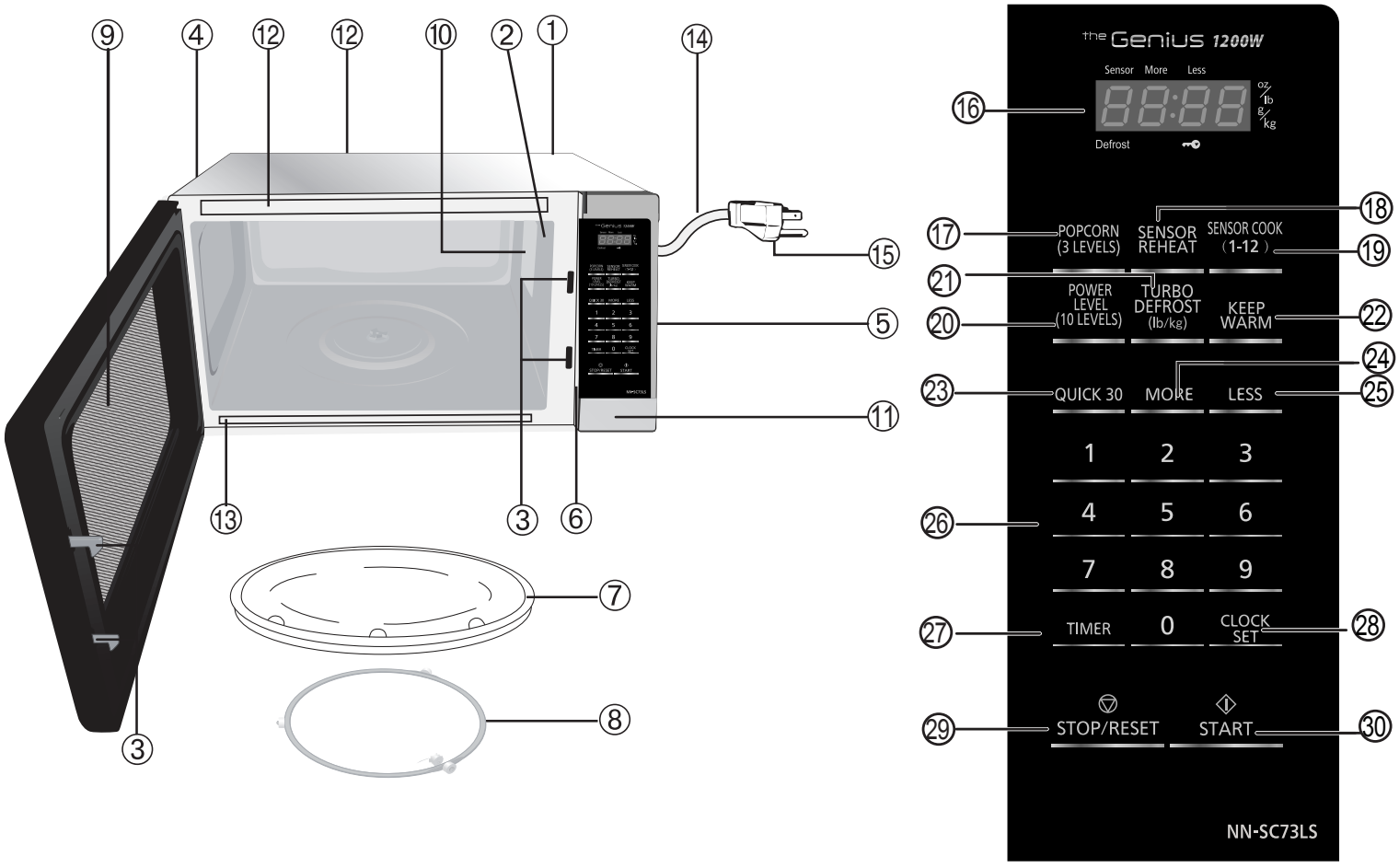
Straw, Wicker, Wood
Yes, short term only. Use only for short term reheating and to bring food to a low serving temperature. Wood may dry out, split or crack.

Thermometers
Only microwave safe thermometers can be used, NOT conventional thermometers.

Wax Paper
Yes. Use as a cover to prevent splattering and to retain moisture.

CONTAINER TEST
TO TEST A CONTAINER FOR SAFE MICROWAVE OVEN USE: Fill a microwave safe cup with cool water and place it in the microwave oven along side the empty container to be tested; **heat one (1) minute at PL 10 (HIGH)**. If the container is microwave oven safe (transparent to microwave energy), the empty container should remain comfortably cool and the water should be hot. If the container is hot, it has absorbed some microwave energy and should NOT be used. This test cannot be used for plastic containers.

Location of Controls



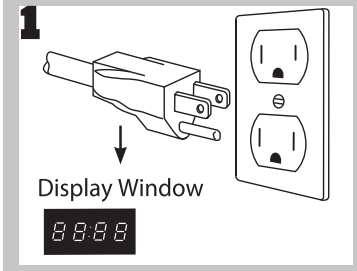
1 External Air Vent
2 Internal Air Vent
3 Door Safety Lock System
4 Exhaust Air Vent
5 Control Panel
6 Identification Plate
7 Glass Tray
8 Roller Ring
9 Heat/Vapor Barrier Film **(do not remove)**
10 Waveguide Cover **(do not remove)**
11 Door Release Button
12 Warning label
13 Menu label
14 Power Supply Cord
15 Power Supply Plug
16 Display Window
17 Popcorn Pad (See page 11)
18 Sensor Reheat Pad (See page 13)
19 Sensor Cook Pad (See page 13)
20 Power level Pad (See page 9)
21 Turbo Defrost Pad (See page 12)
22 Keep Warm Pad (See page 11)
23 Quick 30 Pad (See page 11)
24 More Pad (See page 11)
25 Less Pad (See page 11)
26 Number Pads
27 Timer Pad (See page14)
28 Clock Pad (See page 8)
29 Stop/Reset Pad
Before cooking: One tap clears all your instructions. During cooking: one tap temporarily stops the cooking process. Another tap cancels all your instructions, and time of day or colon appears in the display window.
30 Start Pad
After cooking program setting, one tap allows oven to begin functioning. If door is opened or Stop/Reset Pad is pressed once during oven operation, Start Pad must be pressed again to restart oven.

Beep Sound:
When a pad is pressed correctly, a beep will be heard. If a pad is pressed and no beep is heard, the unit did not or cannot accept the instruction. When operating, the oven will beep twice between programmed stages. At the end of any complete program, the oven will beep 5 times.

NOTE:
If no operation after cooking program setting, 6 minutes later, the oven will automatically cancel the cooking program. The display will return to clock or colon display.

Using the Microwave for the First Time

1



Plug into a properly grounded electrical outlet. The oven automatically defaults to the imperial measure system (oz/lb).

2

Press **Start** once to enter the weight system.

Press **Timer** to cycle between the weight system, Metric (g/kg) or Imperial (oz/lb).

3

Press **Start** once again to access to the sound switch system.
(If you press start twice after plug-in, you can skip the weight system and access the sound switch system.)

The screen will display **bEEP.**

4

Press **Timer** to cycle between the sound switch system. Beep On or Beep OFF.

The default mode is Beep On.
The screen will display On

5

Press **Timer** once

The mode change to Beep OFF.
The screen will display OFF.

Press **Timer** to cycle between the sound system, On or OFF.

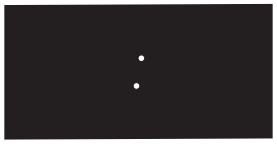
6

Press **Stop/Reset** to confirm; a colon (:) will appear in the display window.

NOTES:
1. These choices can be selected only when you plug-in the oven.
2. After beep setting, it will revert back to the metric weight measurement setting if start pad is pressed again.
3. Press **Stop/Reset** pad to exit.

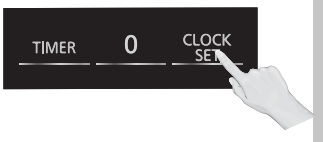
Setting the Clock

1



With the oven NOT cooking, press **Clock/Set** once; the colon will blink. Enter time of day using the **Number** pads.

2



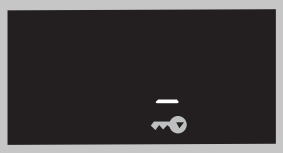
Press **Clock/Set** to finish setting and the colon (:) will stop blinking.

NOTES:

1. To reset the clock, repeat steps.
2. The clock will retain the time of day as long as the oven is plugged in and electricity is supplied.
3. The clock is a 12-hour display.
4. Oven will not operate while colon (:) is flashing.

Setting the Child Safety Lock

1



When the time of day appears in the display, press **Start** three times;

2

Press **Stop/Reset** three times; the display will return to the time of the day and Child Lock will be cancelled.

NOTES:

1. This feature prevents the electronic operation of the oven until cancelled. It does not lock the door.
2. To set or cancel child safety lock, Start or Stop/Reset pad must be pressed 3 times within 10 seconds.
3. You can set Child Lock feature when the display shows a colon or time of day.

Cooking

1

If cooking at high power (10), skip to step 2. Press **Power Level** until the desired power level appears in the display. PL10 is the highest and PL1 is the lowest.

Press	Power Level
once	PL10 (HIGH)
twice	PL9
3 times	PL8
4 times	PL7 (MED-HIGH)
5 times	PL6 (MEDIUM)
6 times	PL5
7 times	PL4
8 times	PL3 (MED-LOW)/ DEFROST
9 times	PL2
10 times	PL1 (LOW)

2

Set Cooking Time using the **Number** pads. For all power levels, the max. working time is 99 mitues,99 seconds.

3

Press **Start**; the cooking will start and the time will count down in the display. At the end of cooking, five beeps will sound.

NOTES:

1. For reheating, use PL10 (HIGH) for liquids, PL7 (MED-HIGH) for most foods, and PL6 (MEDIUM) for dense foods.
2. For defrosting, use PL3 (MED-LOW).

DO NOT OVERCOOK: This oven requires less time to cook than older units. Overcooking will cause food to dry out and may cause a fire. A microwave oven's cooking power tells you the amount of microwave power available for cooking.

Stage Cooking:

For more than one stage of cooking, repeat steps 1 and 2 for each stage of cooking before pressing **Start**. The maximum number of stages for cooking is three. When operating, two beeps will sound between each stage. Five beeps will sound at the end of the entire sequence.

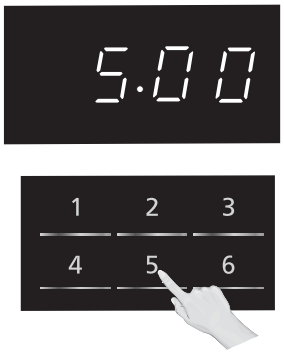
Setting a Standing Time

1

Some recipes call for a standing time after cooking. To do this, repeat steps 1 and 2 in the **Cooking** section on previous page. Then press **Timer** .

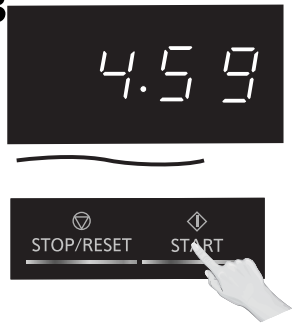
Note: Do not skip step 1, even use high power PL10.

2



Set desired amount of stand time using **Number** pads (up to 99 minutes, 99 seconds).

3



Press **Start**. The timer will start and then beep twice at the end of cooking time (the beginning of standing time). Five beeps will sound when standing time is done.