



**Owner's Manual
Over The Range Microwave Oven
Household Use Only
Model No. NN-SG138S**



**ATTACHED INSTALLATION INSTRUCTION
PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE USING THIS PRODUCT,
AND SAVE THIS MANUAL FOR FUTURE USE.**

Inverser le manuel pour lire les instructions en français.

For assistance, please contact us via the web at:
<http://www.panasonic.ca/english/support> (Canada only)

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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.

! IMPORTANT SAFETY INSTRUCTIONS (continued)

- (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.
 - (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 ignites, 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:

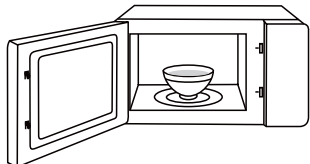
Tightly-closed utensils could explode. Closed containers should be opened and plastic pouches should be pierced before cooking.

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:

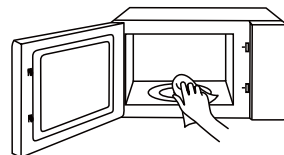
1. Fill a microwave-safe container with 1 cup of cold water (250ml) along with the utensil in question.



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

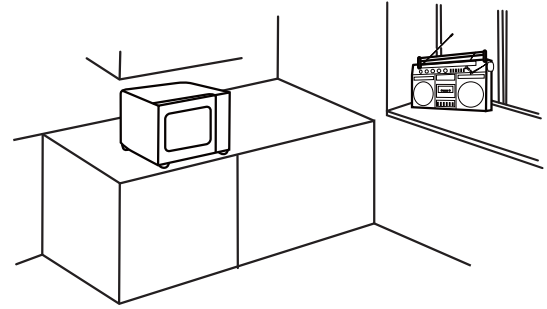
KEEP THE CAVITY CLEAN





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.



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. Longer 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.

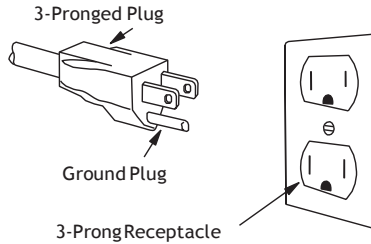


Grounding Instructions

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THIS APPLIANCE MUST BE GROUNDED.

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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).
4. 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 or 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)



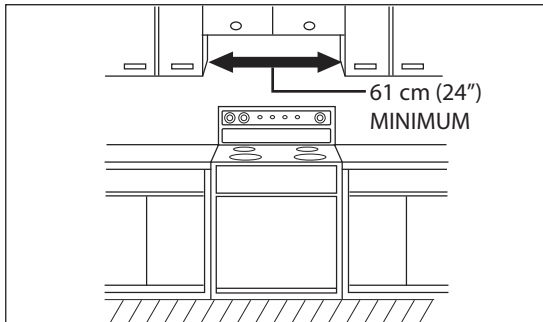
Installation

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. This oven must be installed in at least a 61 cm (24") inch opening, it is suitable for use above gas or electric cooking equipment 91.4 cm (36 inches) or less wide.



2. Be sure to install this oven only in accordance with the additional installation instructions provided.
3. It is recommended that the product be mounted to a flush wall of 5 x 10 cm (2" x 4") stud and 1 cm ($\frac{3}{8}$ ") minimum thickness drywall or plaster/lath construction. For further information, please consult the additional installation instructions provided.
4. Make sure the kitchen cabinet height is as high as the specification described in the installation instructions.
5. This oven was manufactured for household use only.

TV / RADIO / WIRELESS EQUIPMENT INTERFERENCE

This product has been tested and found to comply with the limits for ISM Equipment pursuant to part 18 of FCC rules, which are designed to provide reasonable protection against such interference in a residential installation. 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:

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 pad (refer to page 15). 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.

Food Preparation (continued)

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

- Browning dishes or grills are designed for microwave cooking only. Always follow instructions provided by the manufacturer. **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 1/2-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.



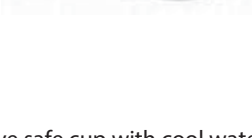
Parchment Paper

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.

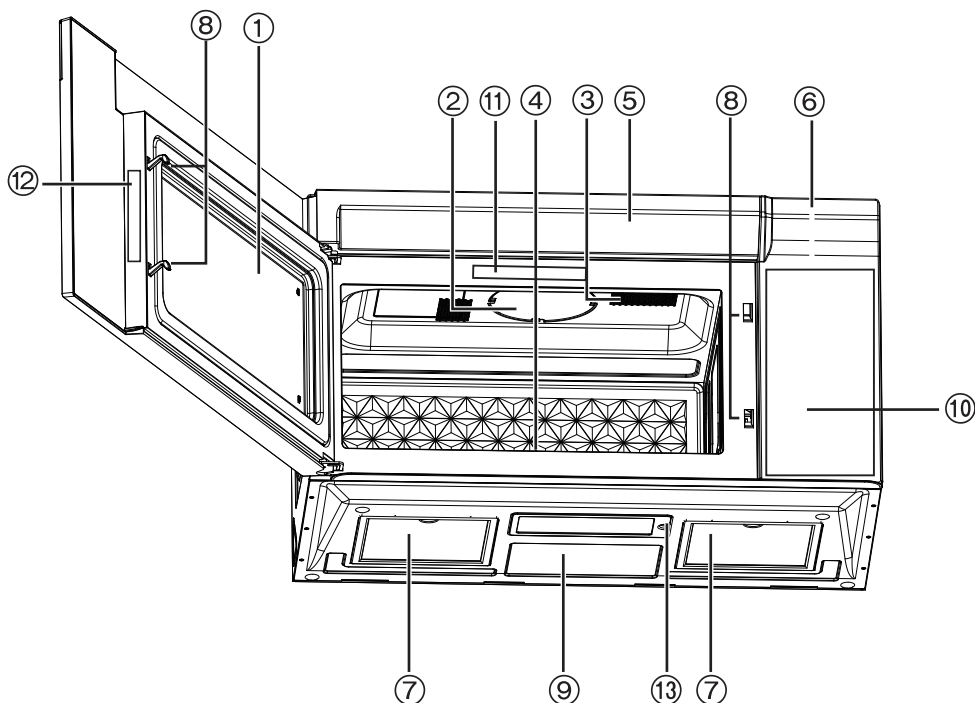


CONTAINER TEST

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 P10 (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.



Oven Components Diagram



Glass Tray



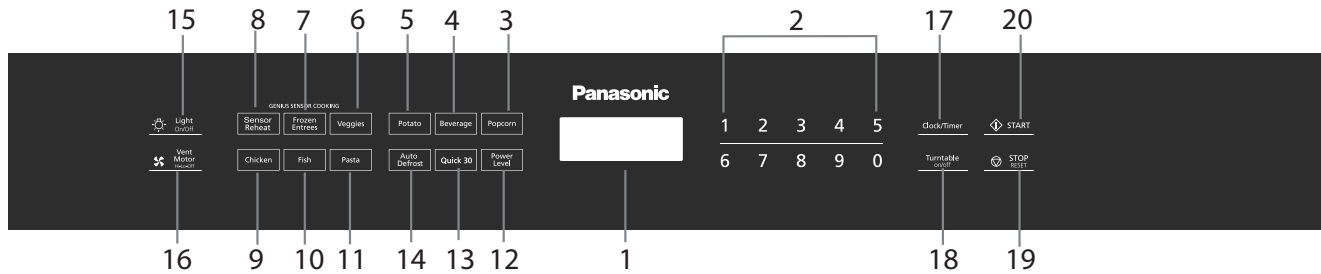
Roller Ring

- 1 See-through Oven Window
- 2 Waveguide Cover (do not remove)
- 3 Oven Light
- 4 Glass Tray (Turntable)
- 5 Oven Air vent (Vent Grille is removable and can be cleaned, see page 25)
- 6 Panel
- 7 Grease Filter (Grease filter is removable and can be cleaned, see page 25)
- 8 Door Safety Lock System
- 9 Warning Label
- 10 Cooking Guide Label
- 11 Rating Label
- 12 DHHS Label
- 13 Cook-top Light

NOTE:

The illustration is for reference only.

Control Panel

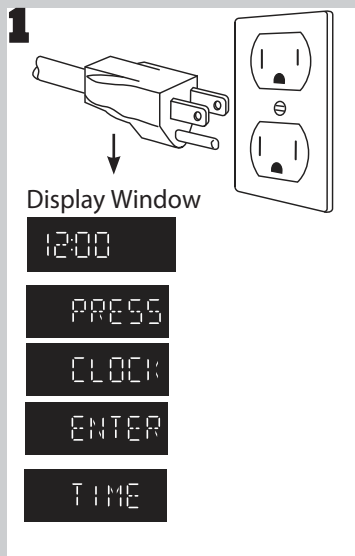


1. Display Window
2. Number Pads
3. Popcorn Pad
4. Beverage Pad
5. Potato Pad
6. Veggies Pad
7. Frozen Entrees Pad
8. Sensor Reheat Pad
9. Chicken Pad
10. Fish Pad
11. Pasta Pad
12. Power Level Pad
13. Quick 30 Pad
14. Auto Defrost Pad
15. Light On/Off Pad
16. Vent Motor Pad
17. Clock/Timer Pad
18. Turn Table On/Off Pad
19. Stop/Reset Pad

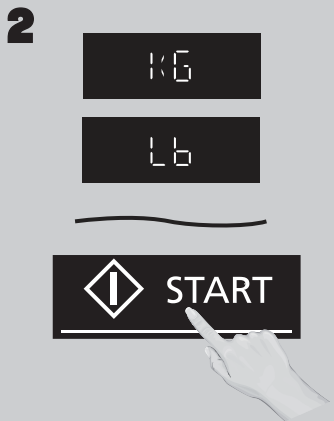
Before cooking: one tap clears all your instructions. **During cooking:** one press temporarily stops the cooking process. Another press cancels all your instructions, and time of day or colon appears in the display window.

20. Start pad
After cooking program setting, one press 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.

Using the Microwave for the First Time



Plug into a properly grounded electrical outlet. "12:00 PRESS CLOCK ENTER TIME" message scrolls across display window.

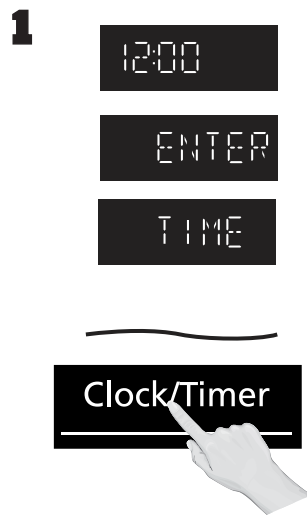


The oven automatically defaults to the imperial measure system (oz/lb). Press Start to cycle between the weight system, Metric(g/kg) or Imperial (oz/lb)

NOTES:

These choices can be selected only when you plug-in the oven.

Setting the Clock



Press **Clock/Timer** once, then **press number pad** to input the current time.



Press **Start** or **Clock/Timer** once to confirm. Current time is displayed. If no operation for 5 minutes, the setting will be cancelled.

Setting the Child Safety Lock



When the time of day appears in the display, press **Start** three times; Current time will appear in the display.



Press **Stop/Reset** three times; Current time will display 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. You can set Child Lock feature when the display shows a colon or time of day.

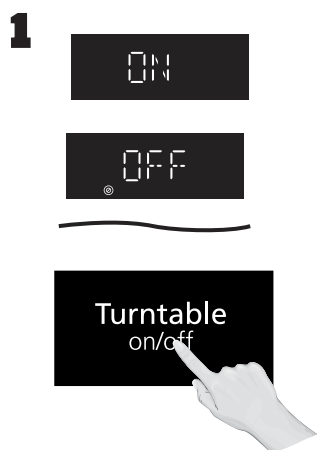
Setting Light



This feature allows you to control the brightness of Cooktop Light.

Press **Light** pad once to turn on the light. Twice to turn off the light.

Setting Turntable On/Off



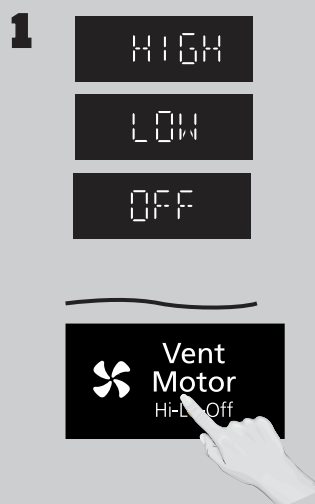
For best cooking results, leave the turntable on. It can be turned off for large dishes.

Press **Turntable On/Off** pad to turn the turntable on or off. When you turn it off, on or off, will appear in the display window.

NOTES:

1. When "Turntable Off" is selected, it will automatically return to "On" again after the heating cycle is completed. Do not operate the oven "Turntable Off" when cooking foods.
2. Sometimes the glass tray can become too hot to touch. Be careful when touching the glass tray during and after cooking.
3. When a large dish or more than one dish is used for cooking, the turntable can be turned off. For best results, rotate each dish or interchange multiple dishes, and stir foods occasionally during cooking. For foods that cannot be stirred, (e.g. lasagna) the center of foods should be cut with a knife, to ensure it is well heated through.

Setting Fan



The Fan (Vent Fan) removes steam and other vapors from the cooking surface below the microwave oven. Press **Vent Motor** pad once for **High** fan speed, twice for **Low** fan speed, 3 times for fan speed off.

NOTES:

1. The High fan speed will run for one second even though the Low fan setting is selected. This is absolutely normal.
2. If the temperature from the range or cooktop below the oven gets too hot, the vent fan will automatically turn on to protect the oven. It may stay on up to an hour to cool the oven. When this occurs, the Vent pad will not turn the fan off.

Cooking



Power Level

Press **Power Level** until the desired power level appears in the display. PL--HI is the highest and PL--0 is the lowest.

Press	Power Level
once	PL--HI (HIGH)
twice	PL--90
3 times	PL--80
4 times	PL--70
5 times	PL--60
6 times	PL--50
7 times	PL--40
8 times	PL--30
9 times	PL--20
10 times	PL--10
11 times	PL--0

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. Three beeps will sound at the end of the entire sequence.

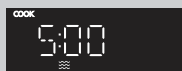
2



5 | 0 | 0

Set Cooking Time using the **Number** pads. The max. time is 99 minutes, 99 seconds.

3



START

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

Setting the Timer



Clock/Timer

This feature allows you to program the oven as a kitchen timer. Press **Clock/Timer** twice.

2



3 | 0 | 0

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

3



START

Press **Start**. The timer will count down without cooking and three beeps when done.

Notes:

1. END is displayed when timer finished.
2. During setting, press STOP/RESET to exit timer setting

Potato

This feature allows you to cook potato without setting weight and time. The oven simplifies programming.

1



Press **Potato** once for 1 potato.
Twice for 2 potatoes.
Three times for 3 potatoes.
Four times for 4 potatoes.

2



Press **Start**. Cooking time appears in the display window and begins to count down.

NOTES:

1. END is displayed when cooking finished and beeps three times.

Popcorn

This feature allows you to pop popcorn without setting weight and time. The oven simplifies programming.

1



Press **Popcorn** once for 3.5 Oz.
Twice for 3.0 Oz.
Three times for 1.75 Oz.

2



Press **Start**. Cooking time appears in the display window and begins to count down.

NOTES:

1. Pop one bag at a time.
2. Place bag in oven according to manufacturers' directions.
3. Start with popcorn at room temperature.
4. Allow popped corn to sit unopened for a few minutes.
5. Open bag carefully to prevent burns, because steam will escape.
6. Do not reheat unpopped kernels or reuse bag.
7. If popcorn is of a different weight than listed, follow instructions on popcorn package.
8. **Never leave the oven unattended.**
9. **Overcooking can burn popcorn or cause fire.**

Beverage

This feature allows you to reheat beverage without setting weight and time. The oven simplifies programming.

1



Press **Beverage** once for 1 cup.
Twice for 2 cups.
Three times for 3 cups.

2



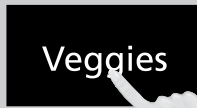
Press **Start**. Cooking time appears in the display window and begins to count down.

NOTES:

1. END is displayed when cooking finished and beeps three times.

Sensor Menu-Veggies

1



Press **Veggies** once for fresh vegetables. Twice for frozen vegetables.

2



Press **Start**. Fresh veggies or Frozen veggies appears in the display window.

NOTES:

1. END is displayed when cooking finished and beeps three times.

Sensor Menu-Sensor Reheat

1



Press **Sensor Reheat** to choose reheat menu.

2



Press **Start**. Reheat appears in the display window.

NOTES:

1. END is displayed when cooking finished and beeps three times.

Sensor Menu-Chicken

1



Press **Chicken** once.

2



Press **Start**. Chicken appears in the display window.

NOTES:

1. END is displayed when cooking finished and beeps three times.

Sensor Menu-Fish

1



Press Fish once.

2



Press **Start**. Fish appears in the display window.

NOTES:

1. END is displayed when cooking finished and beeps three times.

Sensor Menu-Frozen Entree

1



Press **Frozen Entree** once.

2



Press **Start**. Frozen entree appears in the display window.

NOTES:

1. END is displayed when cooking finished and beeps three times.

Sensor Menu-Pasta

1



Press **Pasta** once.

2



Press **Start**. Pasta appears in the display window.

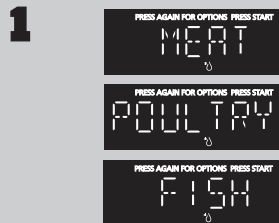
NOTES:

1. END is displayed when cooking finished and beeps three times.

Operation (continued)

Auto Defrost

1. MEAT
2. POULTRY
3. FISH



Auto Defrost

Press **Auto Defrost** once for meat; twice for poultry; three times for fish.



START

Press **Start** to set the weight.



5 | 0

Enter the desired weight by pressing number pads. The weight is 0.1-6.0 Lbs.



START

Press **Start** to start defrosting. Cooking time counts down.

The auto defrost feature provides you with the best defrosting method for frozen foods. The cooking guide will show you which defrost sequence is recommended for the food you are defrosting.

For added convenience, the Auto Defrost includes a built-in beep mechanism that reminds you to check, turn over, separate, or rearrange the food in order to get the best defrost results.

Operating Tips

- For best results, remove fish, shell fish, meat and poultry from its original closed paper or plastic package (wrapper). Otherwise, the wrap will hold steam and juice close to the foods, which can cause the outer surface of the foods to cook.
- For best results, roll your ground meat into a ball before freezing. During the DEFROST cycle, the microwave will signal when it is time to turn the meat over. Scrape off any excess frost from the meat and continue defrosting.
- Place foods in a shallow container or on a microwave roasting rack to catch drippings.

Weight conversion table

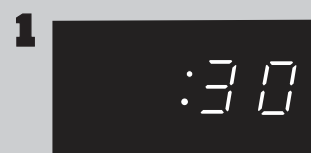
You are probably used to measuring food in pounds and ounces that are fractions of a pound (for example, 4 ounces equals 1/4 pound). However, in order to enter food weight in Auto Defrost, you must specify pounds and tenths of a pound.

If the weight on the food package is in fractions of a pound, you can use the following table to convert the weight to decimals.

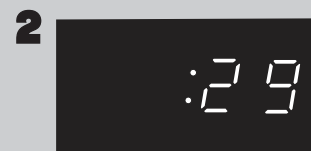
Equivalent Weight	
OUNCES	DECIMAL WEIGHT
1.6	.10
3.2	.20
4.0	.25 One-Quarter Pound
4.8	.30
6.4	.40
8.0	.50 One-Half Pound
9.6	.60
11.2	.70
12.0	.75 Three-Quarters Pound
12.8	.80
14.4	.90
16.0	1.0 One Pound

Quick 30

(Set or add cooking time in 30 seconds increments)



Press **Quick 30** until the desired cooking time (up to 99 minutes 90 seconds) appears in the display. Power Level is pre-set at PL10.



START

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

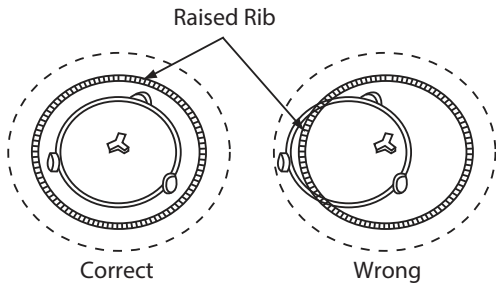
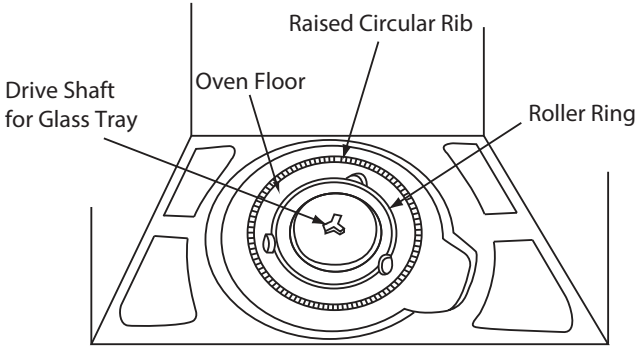
NOTES:

1. If desired, you can use other power levels. Select desired power level before pressing **Quick 30**.
2. After setting the time by **Quick 30** pad, you cannot use the Number Pads.
3. **Quick 30** pad can also be used to add more time during manual cooking.

Operation (continued)

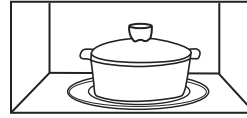
Placement of the Roller Ring

Before using the microwave oven, be sure the Roller Ring is properly installed. Incorrect installation can result in improper cooking, damage to the oven or spillage of food. The Roller Ring must be located on the surface between the raised rib and raised floor.



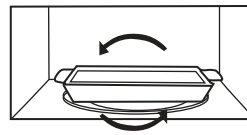
For best cooking Results 1-Level cooking

Food microwaves best when placed onto the turntable, with turntable on (rotating).

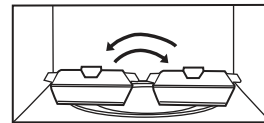
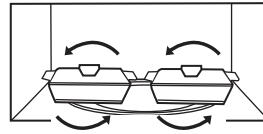


(Turntable On) For best results

When a large dish or more than one dish is used for cooking, the turntable can be turned off. For best results, rotate each dish or interchange multiple dishes, and stir foods occasionally during cooking. For foods that cannot be stirred, (e.g. lasagna) the center of foods should be cut with a knife, to ensure it is well heated through.



(Turntable Off) Rotate each dishes halfway through cooking



(Turntable Off) Interchange dishes halfway through cooking

Food Characteristics

Food Characteristics

Bone and Fat

Both bone and fat affect cooking. Bones may cause irregular cooking. Meat next to the tips of bones may overcook while meat positioned under a large bone, such as a ham bone, may be undercooked. Large amounts of fat absorb microwave energy and the meat next to these areas may overcook.



Density

Porous, airy foods such as breads, cakes or rolls take less time to cook than heavy, dense foods such as potatoes and roasts. When reheating donuts or other foods with different centers be very careful. Certain foods have centers made with sugar, water, or fat and these centers attract microwaves (for example, jelly donuts). When a jelly donut is heated, the jelly can become extremely hot while the exterior remains warm to the touch. This could result in a burn if the food is not allowed to cool properly in the center.



Quantity

Two potatoes take longer to cook than one potato. As the quantity of the food decreases so does the cooking time. Overcooking will cause the moisture content in the food to decrease and a fire could result. Never leave microwave unattended while in use.



Shape

Uniform sizes heat more evenly. The thin end of a drumstick will cook more quickly than the meaty end. To compensate for irregular shapes, place thin parts toward the center of the dish and thick pieces toward the edge.



Size

Thin pieces cook more quickly than thick pieces.



Starting Temperature

Foods that are at room temperature take less time to cook than if they are chilled, refrigerated or frozen.



Cooking Techniques

Piercing

Foods with skins or membranes must be pierced, scored or have a strip of skin peeled before cooking to allow steam to escape. Pierce clams, oysters, chicken livers, whole potatoes and whole vegetables. Whole apples or new potatoes should have a 1-inch strip of skin peeled before cooking. Score sausages and frankfurters. 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.

Browning

Foods will not have the same brown appearance as conventionally cooked foods or those foods which are cooked utilizing a browning feature. Meats and poultry may be coated with browning sauce, Worcestershire sauce, barbecue sauce or shake-on browning sauce. To use, combine browning sauce with melted butter or margarine and brush on before cooking. For quick breads or muffins, brown sugar can be used in the recipe in place of granulated sugar, or the surface can be sprinkled with dark spices before baking.

Spacing

Individual foods, such as baked potatoes, cupcakes and appetizers, will cook more evenly if placed in the oven equal distances apart. When possible, arrange foods in a circular pattern.

Covering

As with conventional cooking, moisture evaporates during microwave cooking. Casserole lids or plastic wrap are used for a tighter seal. When using plastic wrap, vent the plastic wrap by folding back part of the plastic wrap from the edge of the dish to allow steam to escape. Loosen or remove plastic wrap as recipe directs for stand time. When removing plastic wrap covers, as well as any glass lids, be careful to remove them away from you to avoid steam burns. Various degrees of moisture retention are also obtained by using wax paper or paper towels.

Cooking Time

Cooking times will vary because of food shape variations, starting temperature, and regional preferences. Always cook food for the minimum cooking time given in a recipe and check for doneness. If the food is undercooked, continue cooking. It is easier to add time to an undercooked product. Once the food is overcooked, nothing can be done.

Food Characteristics (continued)

Stirring

Stirring is usually necessary during microwave cooking. Always bring the cooked outside edges toward the center and the less cooked center portions toward the outside of the dish.

Rearranging

Rearrange small items such as chicken pieces, shrimp, hamburger patties or pork chops. Rearrange pieces from the edge to the center and pieces from the center to the edge of the dish.

Turning

It is not possible to stir some foods to distribute the heat evenly. At times, microwave energy will concentrate in one area of the food. To help ensure even cooking, these foods need to be turned. Turn over large foods, such as roasts or turkeys, halfway through cooking.

Standing Time

Most foods will continue to cook by conduction after the microwave oven is turned off. After cooking meat, the internal temperature will rise 5 °F to 15° F (3 °C to 8 °C), if allowed to stand, tented with foil, for 10 to 15 minutes. Casseroles and vegetables need a shorter amount of standing time, but this standing time is necessary to allow foods to complete cooking to the center without overcooking on the edges.

Test for Doneness

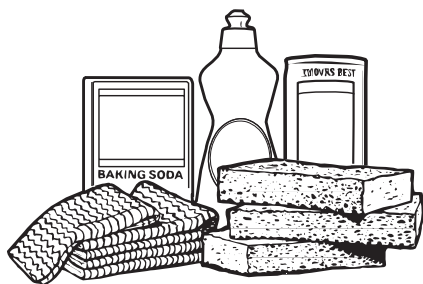
The same tests for doneness used in conventional cooking may be used for microwave cooking. Meat is done when fork-tender or splits at fibers. Chicken is done when juices are clear yellow and drumstick moves freely. Fish is done when it flakes and is opaque. Cake is done when a toothpick or cake tester is inserted and comes out clean.

Check foods to see that they are cooked to the United States Department of Agriculture's recommended temperatures.

To test for doneness, insert a meat thermometer in a thick or dense area away from fat or bone. NEVER leave the thermometer in the food during cooking, unless it is approved for microwave oven use.

Cook all food to these minimum internal temperatures as measured with a food thermometer before removing food from oven. For reasons of personal preference, you may choose to cook food at higher temperatures.

Product	Minimum Internal Temperature & Rest Time
Beef, Pork, Veal & Lamb Steaks, chops, roasts	145 °F (63 °C) and allow to rest for at least 3 minutes
Ground meats	160 °F (71 °C)
Ham, fresh or smoked (uncooked)	145 °F (63 °C) and allow to rest for at least 3 min.
Fully Cooked Ham (to reheat)	Reheat cooked hams packaged in USDA-inspected plants to 140 °F (60 °C); all others to 165 °F (74 °C).
All Poultry (breasts, whole bird, legs, thighs, and wings, ground poultry, and stuffing)	165 °F (74 °C)
Eggs	160 °F (71 °C)
Fish & Shellfish	145 °F (63 °C)
Leftovers	165 °F (74 °C)
Casseroles	165 °F (74 °C)



Helpful Hints

An occasional thorough wiping with a solution of baking soda and water keeps the inside fresh.

Be sure the power is off before cleaning any part of this microwave oven.

How to Clean the Inside

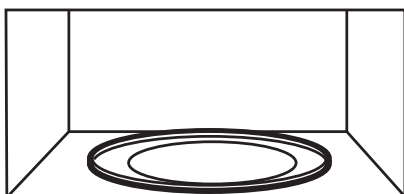
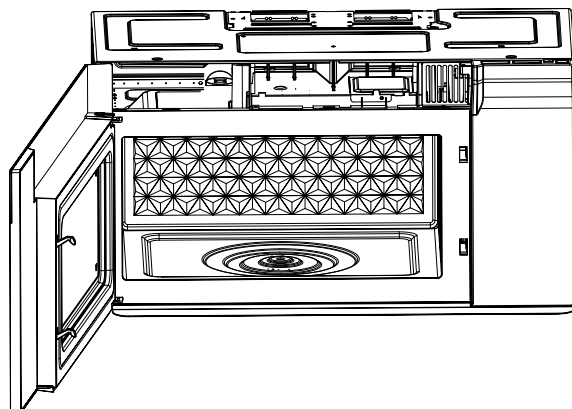
Walls, Floor, Inside Window, Metal and Plastic Parts on the Door

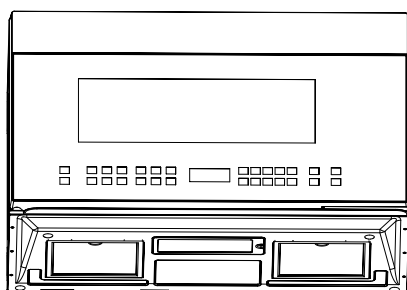
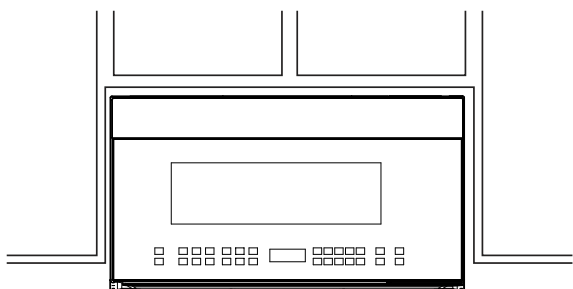
Some spatters can be removed with a paper towel; others may require a damp cloth. Remove greasy spatters with a sudsy cloth, then rinse with a damp cloth. Do not use abrasive cleaners or sharp utensils on oven walls.

Never use a commercial oven cleaner on any part of your microwave.

Removable Turntable and Turntable Roller Ring

To prevent breakage, do not place the turntable into water just after cooking. Wash it carefully in warm, sudsy water or in the dishwasher. The turntable and roller ring can be broken if dropped. Remember, do not operate the oven in the microwave mode without the turntable and roller ring seated and in place.





How to Clean the Outside

We recommend against the use of spray cleaners and using cleaners with ammonia or alcohol, as they can damage the appearance of the microwave oven. If you choose to use a common household cleaner, first apply the cleaner directly to a clean cloth, then wipe the soiled area.

Case

Clean the outside of the microwave with a sudsy cloth. Rinse and then dry. Wipe the window clean with a damp cloth.

Door Panel

Before cleaning the front door panel, make sure you know what type of panel you have. Refer to the eighth digit of the model number. "S" is stainless steel "B", "W" or "C" are plastic colors.

Stainless Steel (on some models)

The stainless steel panel can be cleaned with Stainless Steel Magic or a similar product using a clean, soft cloth. Apply stainless cleaner carefully to avoid the surrounding plastic parts. Do not use appliance wax, polish, bleach or products containing chlorine on Stainless Steel finishes.

Plastic Color Panels

Use a clean, soft, lightly dampened cloth, then dry thoroughly.

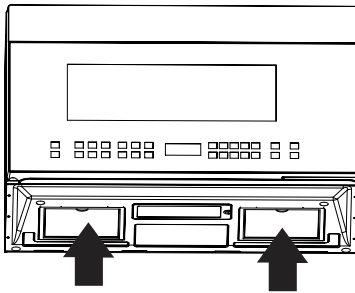
Door Seal

It's important to keep the area clean where the door seals against the microwave. Use only mild, non-abrasive detergents applied with a clean sponge or soft cloth. Rinse well.

Bottom

Clean off the grease and dust on the bottom often. Use a solution of warm water and detergent.

About the exhaust feature



*Reusable vent filters
(on all models).*

Vent FAN

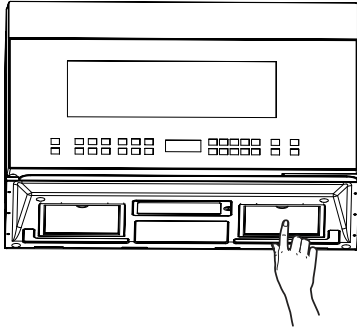
The vent fan has two metal reusable vent filters. Models that recirculate air back into the room also use a charcoal filter.

Grease Filters

The metal filters trap grease released by foods on the cooktop. They also prevent flames from foods on the cooktop from damaging the inside of the oven.

For this reason, the filters must always be in place when the hood is used. The vent filters should be cleaned once a month, or as needed.

Care and Cleaning of Your Microwave Oven (continued)



Removing and Cleaning the Filters

To remove, slide them to the rear using the tabs. Pull down and out.

To clean the vent filters, soak them and then swish around in hot water and detergent. Don't use ammonia or ammonia products because they will darken the metal. Light brushing can be used to remove embedded dirt.

Rinse, shake and let dry before replacing.

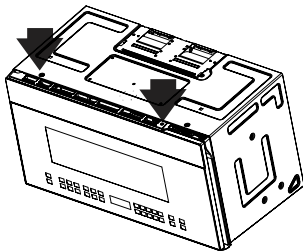
To replace, slide the filters into the frame slots on the back of each opening. Press up and to the front to lock into place.

Charcoal Filter

The charcoal filter cannot be cleaned. It must be replaced.

If the model is not vented to the outside, the air will be recirculated through a disposable charcoal filter that helps remove smoke and odors.

The charcoal filter should be replaced when it is noticeably dirty or discolored (usually after 6 to 12 months, depending on usage).



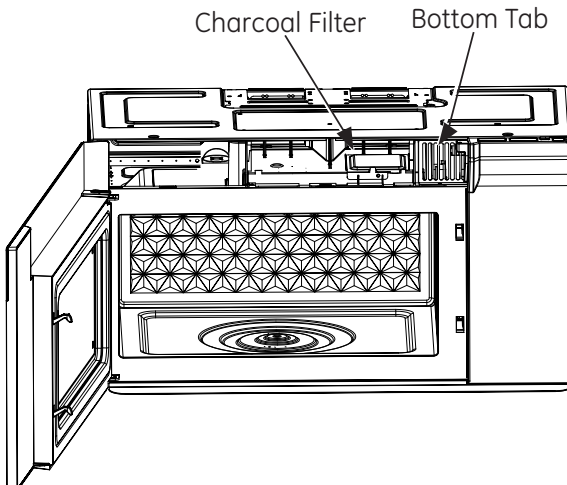
Remove 2 grille screws to remove the grille.

To Remove the Charcoal Filter

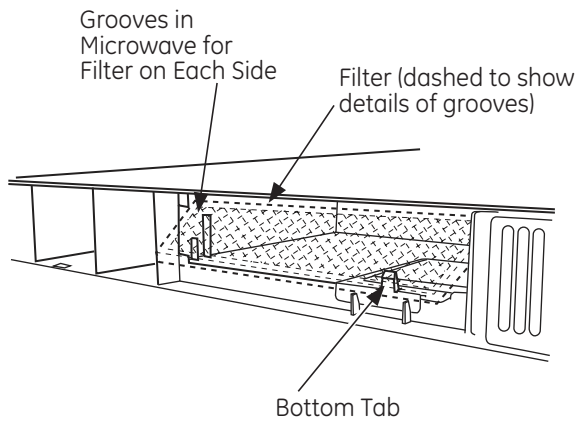
To remove the charcoal filter, first disconnect power at the main fuse or circuit breaker, or pull the plug. Remove the top grille by removing only the two screws that hold it in place, as shown.

You may need to open the cabinet doors to remove the screws.

Press back on the top of the filter with both hands until the filter lays down almost horizontal. Lift the filter at the bottom until it comes free of the tabs. Slide the filter down and out.



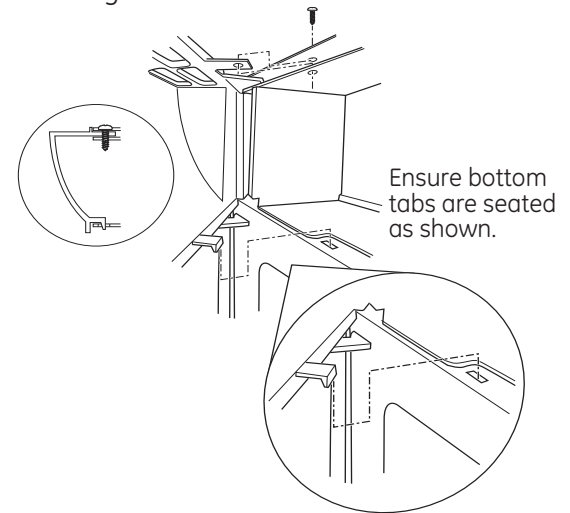
Care and Cleaning of Your Microwave Oven (continued)



To Install the Charcoal Filter

To install a new charcoal filter, remove plastic and other outer wrapping from the new filter.

Insert the top of the filter up and into the grooves on both sides of the inside of the top opening. Once you have cleared the bottom tab, push the bottom of the filter in until it rests in place vertically behind the tab.



Shop Accessories

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:
shop.panasonic.ca

Parts Available to Order

Instructions/Owner's Manual (this book)	16170000A84346
Installation Instructions	16170000A84348
Glass Tray.....	12570000001005
Roller Ring Assembly	12170000004330
Grease Filter.....	12270000008300
Charcoal Filter.....	NN-CF138

Before Requesting Service

See below before calling for service, as most problems can easily be remedied by following these simple solutions:

Problem	Solution
The oven causes TV interference.	Some radio, TV, Wi-Fi, cordless telephone, baby monitor, blue tooth or other wireless equipment interference might occur when you cook with the microwave oven. This interference is similar to the interference caused by small appliances such as mixers, vacuums, blow dryers, etc. It does not indicate a problem with your oven.
Steam accumulates on oven door and warm air comes from the oven vents.	During cooking, steam and warm air are given off from the food. Most of the steam and warm air are removed from the oven by the air which circulates in the oven cavity. However, some steam will condense on cooler surfaces such as the oven door. This is normal. After use, the oven should be wiped dry (see page 23).
Oven will not turn on.	The oven is not plugged in securely or needs to be reset; remove plug from outlet, wait ten seconds and re-insert. Main circuit breaker or main fuse is tripped; reset main circuit breaker or replace main fuse. There is a problem with the outlet; plug another appliance into the outlet to check if it is working.
Oven will not start cooking.	The door is not completely closed; close the oven door securely. Start was not pressed after programming; press Start . Another program is already entered into the oven; press Stop/Reset to cancel the previous program and enter new program. The program is not correct; program again according to the Operating Instructions. Stop/Reset has been pressed accidentally; program oven again.
The Glass Tray wobbles.	The Glass Tray is not positioned properly on the Roller Ring or there is food under the Roller Ring; take out Glass Tray and Roller Ring. Wipe with a damp cloth and reset Roller Ring and Glass Tray properly.
When the oven is operating, there is noise coming from the Glass Tray.	The Roller Ring and oven bottom are dirty; clean these parts according to Care and Cleaning of Your Microwave Oven (see page 23).
The word "LOCK" appears in the display.	The CHILD SAFETY LOCK was activated by pressing Start three times; Deactivate CHILD SAFETY LOCK by pressing Stop/Reset three times.
The word "DEMO MODE" appears on the Display Window.	Demo mode was selected "On". Deactivate mode by pressing Power Level Pad once Start Pad 4 times and Stop/Reset Pad 4 times.
The oven stops cooking and "SERVICE" appears in the display.	The oven's power supply has failed; please contact an authorized Service Center (see next page).

WARRANTY

Panasonic Canada Inc.
5770 Ambler Drive, Mississauga, Ontario L4W 2T3
Panasonic PRODUCT – LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship under normal use and for a period as stated below from the date of original purchase agrees to, at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by Panasonic Canada Inc.

Category	Service type	Parts	Labour	Magnetron
Counter top microwave oven (<i>except Prestige models</i>)	Carry-in	1 Year	1 Year	Additional 4 Years (Part only)
Counter top microwave oven – Prestige model (<i>Genius Prestige, Genius Prestige Plus and Genius Prestige Grill</i>)	In-home	2 Years	2 Years	Additional 3 Years (Part only)
Microwave Convection oven	In-home	2 Years	2 Years	Additional 3 Years (Part only)
Over The Range (OTR) microwave oven	In-home	2 Years	2 Years	Additional 3 Years (Part only)

In-home Service will be carried out only to locations accessible by roads and within 50 km of an authorized Panasonic service facility.

This warranty is given only to the original purchaser, or the person for whom it was purchased as a gift, of a Panasonic brand product mentioned above sold by an authorized Panasonic dealer in Canada and purchased and used in Canada, which product was not sold “as is”, and which product was delivered to you in new condition in the original packaging.

IN ORDER TO BE ELIGIBLE TO RECEIVE WARRANTY SERVICE HEREUNDER, A PURCHASE RECEIPT OR OTHER PROOF OF DATE OF ORIGINAL PURCHASE, SHOWING AMOUNT PAID AND PLACE OF PURCHASE IS REQUIRED

LIMITATIONS AND EXCLUSIONS

This warranty **ONLY COVERS** failures due to defects in materials or workmanship, and **DOES NOT COVER** normal wear and tear or cosmetic damage. The warranty **ALSO DOES NOT COVER** damages which occurred in shipment, or failures which are caused by products not supplied by **Panasonic Canada Inc.**, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Authorized Servicer, or damage that is attributable to acts of God.

Over-The-Range cooktop light bulbs are excluded from coverage under this warranty.

In the case where the microwave oven is built-in, the warranty will be voided if using a non-Panasonic trim kit.

THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT WILL Panasonic Canada Inc. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT OR ARISING OUT OF ANY BREACH OF ANY EXPRESS OR IMPLIED WARRANTY. (As examples, this warranty excludes damages for lost time, travel to and from the Authorized Servicer, loss of or damage to media or images, data or other memory or recorded content. This list of items is not exhaustive, but for illustration only.)

In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable. This warranty gives you specific legal rights and you may have other rights which vary depending on your province or territory.

WARRANTY SERVICE

PRODUCT OPERATION ASSISTANCE

For product information and operation assistance, please visit our Support page: www.panasonic.ca/english/support

PRODUCT REPAIRS

Please locate your nearest Authorized Servicentre: panasonic.ca/english/support/servicentrelocator

IF YOU SHIP THE PRODUCT TO A SERVICENTRE

Carefully pack and send prepaid, adequately insured and preferably in the original carton.

Include details of the defect claimed, and proof of date of original purchase.

Specifications

Power Source	120 V~ , 60 Hz
Power Consumption	1,550 W
Cooking Power*	1,000 W
Outside Dimensions (W x H x D)	23 ⁷ / ₈ " x 17 ¹³ / ₃₂ " x 16 ²⁵ / ₃₂ " (606 mm x 442 mm x 426 mm)
Oven Cavity Dimensions (W x H x D)	15 ² / ₃₂ " x 10 ⁵ / ₃₂ " x 15 ⁵ / ₃₂ " (398 mm x 258 mm x 384.6 mm)
Charcoal Filter (optional)	NN-CF138
Operating Frequency	2,450 MHz
Ventilation Power	High (300 CFM)
Net Weight	Approx. 57.3 lbs (26 kg)

Specifications subject to change without notice.

* IEC Test procedure is applied for measuring output wattage.

** This is the classification of ISM(Industrial ,Scientific and Medical) equipment described in the International Standard CISPR11 and 14-2.

***Internal capacity is calculated by measuring maximum width, depth and height. Actual capacity for holding food is less.

In compliance with standards set by :

FCC - Federal Communication Commission Authorized.

DHHS - Complies with Department of Health and Human Services (DHHS) rule , CFR , Title 21, Chapter I, Subchapter J.



- This symbol on the nameplate means the product is listed by Underwriters Laboratories , Inc. for use in USA or Canada.

User's Record

The serial number of this product can be found on the front side of the oven cavity. You should note the model number and the serial number of this oven in the space provided and retain this book as a permanent record of your purchase for future reference.

Model No. _____

Serial No. _____

Date of Purchase _____

