ONE TOUCH COOK(PRESET)

One touch cooking allows you to cook or reheat many of your favorite foods by pressing just one pad. To increase quantity, press the chosen pad until the number in the display is same as desired quantity to cook.



 Press POPCORN pad once for 3.5 oz bag, twice for 3.0 oz bag or three times for 1.75 oz bag. When you press POPCORN pad once, "3.5" is displayed.

2. Press START pad.

NOTE: 1. Use prepackaged room-temperature microwave popcorn.

- 2. Place bag in oven according to manufacturer's directions.
- 3. Pop only one bag at a time.
- 4. After popping, open bag carefully: popcorn and steam are extremely hot.
- 5. Do not reheat unpopped kernels or reuse bag.
- 6. Do not leave oven unattended while popping popcorn.

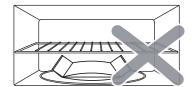
CAUTION: If prepackaged popcorn is of a different weight than the recommended weight, do not use the popcorn pad. Follow the manufacturer instruction.

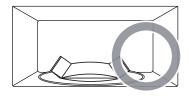


CAUTION

DO NOT leave the microwave oven unattended while popping corn. When popping commercially packaged popcorn, remove the rack from the oven. Do not place the bag of microwave popcorn on the rack or under the rack.









1. Press BEVERAGE pad once for 1 cup, twice for 2 cups or three times for 3 cups.

When you press BEVERAGE pad once, " 1 " is displayed.

2. Press START pad.

* BEVERAGE *: 7 oz/cup(mug)

- 1 cup (7 oz total volume) : Press BEVERAGE once.
- 2 cups(14 oz total volume): Press BEVERAGE twice.
- 3 cups(20 oz total volume): Press BEVERAGE three times.

SENSOR OPERATIONS

The Sensor Cook categories are designed to detect the increasing humidity released by the food during the cooking process. The microwave oven sensor will automatically adjust the cooking time to the type and amount of food.

Using Sensor Settings

- After the oven is plugged in, wait 2 minutes before using Sensor Cook.
- Be sure the exterior of the cooking container and the interior of the oven are dry. Wipe off any moisture with a dry cloth or paper towel.
- The oven works with foods at normal storage temperature.
- More or less food than the quantity listed in the chart should be cooked following the guidelines in any microwave cookbook.
- 5. Do not open the oven door or press STOP/CLEAR pad until cooking time appears on the display window. The measurement of vapor will be interrupted. If this occurs, an error message "Er01" will appear. To continue cooking, press the STOP/ CLEAR pad and cook manually.

- When the sensor detects the vapor emitted from the food, the remainder of cooking time will appear. The door may be opened when remaining cooking time appears on the display. At this time, you may stir or season food, as desired.
- 6. Always use microwave-safe containers and cover them with loose fitting lids or vented plastic wrap. Never use tight sealing plastic containers. They will prevent steam from escaping and this will mislead the sensor, usually causing the food to overcook.
- 7. Check food for temperature or doneness after cooking. If food is not completely cooked, enter additional cooking time manually. Do not use one of the Sensor Cook categories twice in succession on the same food portion. This may result in severely overcooked or burnt food.

Covering Foods

Some foods work best when covered. Use the cover recommended in the Sensor Cook Chart for these foods.

- 1. Casserole lid.
- Plastic wrap: Use plastic wrap recommended for microwave cooking. Cover dish loosely; allow approximately 1/2 inch to remain uncovered to allow steam to escape. Plastic wrap should not touch food.
- Wax paper: Cover dish completely; fold excess wrap under dish to secure. If dish is wider than paper, overlap two pieces at least one inch to cover.

Be careful when removing any covering to allow steam to escape away from you.

SENSOR COOK

Sensor is semi-conductor device that detects the vapor emitted from the food as it heats. The sensor adjusts the cooking time and power level for various food and quantities and you don't need to enter the weight or quantity of the food.

Potato	 Press POTATO pad. Press START pad. 	When you press POTATO pad, "SCPO" is displayed. When the sensor detects the vapor emitted from the food, the remainder of cooking time will appear.
Frozen Entree	Press FROZEN ENTREE pad. Press START pad.	When you press FROZEN ENTREE pad, "SCFE" is displayed. When the sensor detects the vapor emitted from the food, the remainder of cooking time will appear.
Frozen Vegetables	Press FROZEN VEGETABLES pad. Press START pad.	When you press FROZEN VEGETABLES pad, "SCFU" is displayed. When the sensor detects the vapor emitted from the food, the remainder of cooking time will appear.
Reheat	Press REHEAT pad. Press START pad.	When you press REHEAT pad, "SrH" is displayed. When the sensor detects the vapor emitted from the food, the remainder of cooking time will appear.

SENSOR COOK CHART

PRESS PAD	DISPLAY	WEIGHT	COMMENTS
Potato	SCPO	8 - 24 oz	Before cooking, pierce potato skin with fork 5-6 times. Place potatoes on the turntable.
Frozen Entree	SCFE	8 - 32 oz	Follow the directions that is specific for the microwave oven that is printed on the packaging.
Frozen Vegetables	SCFU	6 - 16 oz	2-4 tbsp water per serving. Cover with lid or vented plastic wrap.
Reheat	SrH	4 - 36 oz	For casseroles, add 2-3tbsp water, cover with lid or vented plastic wrap. • The food type to avoid, Beverage Frozen pizza or Frozen food, Raw food, Biscuits, cake

NOTE

Do not use the Sensor Cook twice in succession on the same food portion.

This may result in severely over-cooked or burnt food.

If additional time is needed after previous cooking, use one of the +30sec pads or TIME COOK pads.

- Use proper container and cover for best sensor cooking result.
- Always use microwave- safe container and cover them with lid or vented plastic wrap. Never use tight sealing plastic containers - They can be prevent steam from escaping and cause food to overcook.
- Be sure the outside of the cooking containers and the inside of the microwave oven are dry before placing food in the oven.

TURNTABLE ON-OFF

For best cooking result, the turntable should be on. However the turntable can be turned off so that it does not rotate when extra large dishes are used.



1. TURNTABLE On-Off pad.

The options are displayed for 2 seconds.

NOTE:

- 1. This option is not available in sensor cook, one touch cook, defrost and melt/soften modes.
- 2. Sometimes the turntable can become too hot to touch. Be careful touching the turntable during and after cooking.
- 3. Do not run the oven empty.

VENT FAN

The vent fan removes steam and other vapors from surface cooking. You can control the 2-speed fan by pressing the VENT FAN pad.



 Press VENT FAN pad once for high fan speed, twice for low fan speed or three times to turn the fan off. The options are displayed for 2 seconds.

NOTE:

- 1. High fan speed can not be used together with microwave cooking.
- 2. An automatic fan feature protects the microwave from too much heat rising from the cooktop below it. It automatically turns on for low speed if it senses too much heat. If you have turned the fan on you may find that you cannot turn it off. The fan will automatically turn off when the internal parts are cool.
- 3. If there is no user input for 10 hours, cooktop light and vent fan will turn off automatically to save energy.

COOKTOP LIGHT

You can control the light by pressing the LIGHT pad.



 Press LIGHT pad once to turn the light on or twice to turn the light off. The options are displayed for 2 seconds.

NOTE: If there is no user input for 10 hours, cooktop light and vent fan will turn off automatically to save energy.

MUTE



Audible signals are available to guide you when setting and using your oven.

To mute, press KITCHEN TIMER pad for 3 seconds. The MUTE indicator lights. To sound on, press KITCHEN TIMER pad for 3 seconds. A beep sounds and the MUTE indicator will be turned off.

FILTER RESET



If your oven is vented to the inside, the charcoal filter should be replaced approximately every 6 months. The charcoal filter can not be cleaned.

REPLACE with - The Filter Reset pad will light up when is time to replace the charcoal filter. Press and hold FILTER RESET pad for 3 seconds after replacing the filter. See page 27, 29.

TO SET POWER SAVE MODE



- 1. Press the STOP/CLEAR pad.
 - ":0" or clock appears in the display.



2. Press and hold the CLOCK pad for 3 seconds.

The display will turn off and a beep sounds.

To operate the oven in power save mode, press any key.

Then ":0" or clock will be shown and the operation of all function key will be same as in the normal mode.

But if there is no operation within 10 seconds in clear mode, all the contents of display will disappear.

3. To cancel power save mode simply repeat setting procedure. When the display is on.

The power save mode will be canceled and a beep sounds.

The oven is again available for normal use.

CHILD SAFETY LOCK



Child safety lock feature may lock the control panel to prevent the oven from being accidentally started or used by children. To lock, press and hold STOP/CLEAR pad for 3 seconds.

A beep sounds and "Loc" will be displayed for 3 seconds.

To unlock, press and hold STOP/CLEAR pad for 3 seconds. A beep sounds.

NOTE:

- 1. While the Child Lock is active, only the STOP/CLEAR pad works to unlock it.
- 2. Microwave oven cannot be used while Child Lock is activated.

TO STOP THE OVEN WHILE THE OVEN IS OPERATING



- 1. Press the STOP/CLEAR pad.
 - You can restart the oven by pressing the START pad.
 - Press the STOP/CLEAR pad once more to erase all instructions.
 - You must enter in new instructions.
- 2. Open the door.
 - You can restart the oven by closing the door and pressing the START pad.

NOTE: Oven stops operating when door is opened.

METAL RACK

The metal rack gives you extra space when cooking in more than one container at the same time.

The rack allows several foods to be cooked or reheated at one time.

However, for the best cooking and reheating, use TURNTABLE ON function and cook with SENSOR COOK modes without the rack. When the rack is used, set time and power level manually.

The oven is again available for normal use.

To avoid risk of property damage:

- 1. Do not use rack to pop popcorn.
- 2. Rack must be on the four plastic supports when used.
- 3. Use the rack only when cooking food on rack position.
- 4. Do not cook with rack on floor of the oven.

To use metal rack:

- 1. Place rack securely on the four plastic supports.
 - Rack MUST NOT touch metal walls or back of microwave oven.
 - Allow plenty of space around and between the dishes. Pay close attention to the cooking and reheating progress.
- 2. Place equal amounts of food both ABOVE AND BELOW rack.
 - Amount of food must be approximately the same to balance out cooking energy.
- Reposition the foods and reverse them from the rack to turntable and stir them at least once during any cooking or reheating time.
 - After cooking or reheating, stir if possible. Using a lower power level will assist in better cooking and reheating uniformity.

IMPORTANT:

To avoid oven damage, DO NOT store or use the metal rack in this oven unless more than one item is being cooked or a recipe calls for it.

Recommended Usage

- 1. Soups
- 2. Casseroles
- 3. Dinner Plates

CARE AND CLEANING

WARNING:

The oven should be cleaned regularly and any food deposits removed.

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.

MICROWAVE OVEN INTERIOR

Disconnect the power cord before cleaning or leave the door open to inactivate the oven during cleaning.

The oven interior should be cleaned after each use with a damp cloth to keep it free from grease and soil buildup. Stubborn soils can be removed with a plastic scrub pad. When cleaning interior surfaces and surfaces of door and oven that come together when the door is closed, use only mild, non-abrasive soaps or detergents applied with a sponge or soft cloth.

Odors can be eliminated from the inside of the oven by boiling a solution of one cup of water and several tablespoons of lemon juice in the oven for 5-7 minutes. This also helps loosen any dried soil in the oven. Wipe off excess moisture after use.

NOTE:

- Do not spray or pour liquid cleansers directly onto a surface. Spray or pour cleanser onto a cloth or sponge and then clean.
- Do not use abrasive cleaners, oven cleaners, abrasive cleaning pads or steel wool, as they can scratch or dull oven surfaces.
- Do not remove or insert knife around the stirrer cover to clean, it may damage the cover or affect the cooking performance of your oven.

OVEN BOTTOM

Wash oven bottom with hot sudsy water, rinse and dry. Do not use excessive amounts of water when cleaning the oven, especially around the turntable. Do not allow water or cleaning agents to seep into turntable gears located underneath.

GLASS TRAY/TURNTABLE

Allow to cool before removing and cleaning. Wash in soapy water or dishwasher.

METAL RACK

Wash the metal rack with a mild soap and a soft or nylon scrub brush.

Dry completely.

Do not use abrasive scrubbers or cleaners to clean rack.

ROLLER GUIDE

Clean frequently to prevent excessive noise. Wash in soapy water or dishwasher.

OVEN EXTERIOR

Wipe the outside of your oven with a soapy cloth, rinse and dry. Do not use abrasive cleaners. They may scratch the surface.

LIGHT COMPARTMENT

Clean off the grease and dust on the light compartment cover on the bottom side of the microwave oven often with warm water and detergent.

CONTROL PANEL

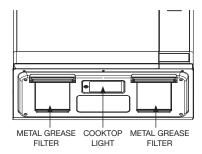
Wipe with a damp cloth. Dry. Do not spray cleaners directly on panel. Spray cleaners on cloth and then wipe.

WAVEGUIDE COVER

The waveguide cover is located on the right side wall of the oven cavity. It is made from mica so requires special care. Keep the waveguide cover clean to assure good oven performance. Carefully wipe with a damp cloth any food spatters from the surface of the cover immediately after they occur. Built-up splashes may overheat and cause smoke or possibly catch fire. DO NOT REMOVE THE WAVEGUIDE COVER.

THE EXHAUST FEATURE

The exhaust hood feature on your microwave oven is equipped with two metal filters which collect grease. When the fan is being operated, air is drawn up through the filters and is then discharged through the venting to the outside or through the charcoal filters if not vented to the outside.



REUSABLE GREASE FILTERS

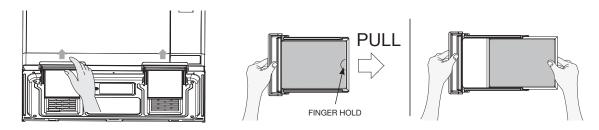
The reusable grease filters should be cleaned at least once a month. Never operate the microwave without the filters in place. In situations where flaming might occur on surfaces below the hood, filters will stop the entry of flames into the unit.

The grease filters should be removed and cleaned at least once every 6 month, or as required.

TO REMOVE GREASE FILTER

To remove the grease filter holder, pull the tab toward the front of the oven. Repeat for the other grease filter

To remove the grease filter from the holder, pull using the "finger hold" to assist as shown in below image.



TO CLEAN GREASE FILTER

To clean grease filters, soak and then agitate filter in solution of hot water and detergent. Do not use ammonia or ammonia products because they will darken the metal. Light brushing can be used to remove embedded dirt. Rinse, shake and remove moisture before replacing.

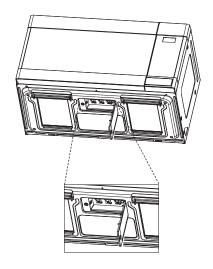
TO REPLACE GREASE FILTER

To replace the grease filter, slide the grease filter into the grease filter holder. Insert the grease filter holder into the designated area of the bottom of the oven. Repeat for the other grease filter.

LIGHT REPLACEMENT

Cooktop Light

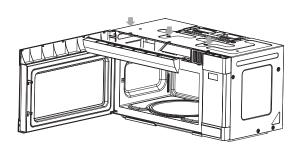
When replacing the cooktop light, make sure that you are wearing gloves to avoid injury from the heat of the lamp.



- 1. Unplug the oven or turn off the power at the main power supply.
- 2. Remove the screw from the light cover and lower the cover until it stops.
- 3. Remove the screw on center of the LED Light secured to the Cover and pull out terminal.
- Replace with 1.0-watt LED light available from your authorized dealer and secure with screw.
 You can purchase LED cooktop light from 1-800-BE-SHARP.
- 5. Replace the light cover and mounting screw.
- 6. Turn the power back on at the main power supply.

Oven Light

When replacing the cooktop light, make sure that you are wearing gloves to avoid injury from the heat of the light.



LIGHT COVER BULB LIGHT

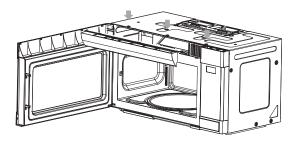
- 1. Unplug the oven or turn off the power at the main power supply.
- 2. Remove the vent grille mounting 3 screws and open the door.
- 3. Slide the grille air to the left, then pull it straight out.
- 4. Remove the charcoal filter, if present
- 5. Pull the hook a little and remove light cover.
- Replace the light bulb with 30-watt bulb. available from your authorized dealer.
 You can purchase Oven Light from 1-800-BE-SHARP.
- 7. Replace the light cover.
- 8. Replace the grille air and 3 screws and close the door.
- 9. Plug the oven in or turn on the power at the main power supply.

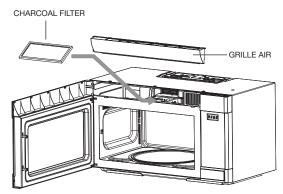
INSTALL/REPLACE CHARCOAL FILTER

Charcoal Filter

If your oven is vented to the inside, the charcoal filter should be replaced if it is used for approximately 6 months.

You can purchase Charcoal Filter from 1-800-BE-SHARP.





- 1. Unplug the oven or turn off the power at the main power supply.
- 2. Remove the grille air mounting 3 screws and open the door.
- 3. Slide the grille air to the left, then pull it straight out.
- 4. Push the charcoal filter backwards and remove it.
- 5. Slide a new charcoal filter into place. The filter should rest at the angle.
- 6. Replace the grille air and 3 screws and close the door.
- 7. Plug the oven in or turn on the power at the main power supply.

BEFORE YOU CALL

Check the following to be sure a service call is necessary:

If noting on the oven operates:

- check for a blown circuit fuse or a tripped main circuit breaker.
- check if oven is properly connected to electric circuit in house.
- check that controls are set properly.
- check that the cooking time is set.

If the oven interior light does not work:

 The LED light may be loose or defective. See page 28 or call a qualified servicer.

If oven will not cook:

- check that control panel was programmed correctly.
- check that door is firmly closed.
- check that **START Pad** was pressed.
- Auto Start may have been set.
- the Control Lockout may have been set
- check the area between the door and seal for obstructions.

If oven takes longer than normal to cook or cooks too rapidly:

- be sure the **Power Level** is programmed properly.
- check instructions on food density, etc.
- verify that voltage to the microwave oven is not low.

If the time-of-day clock does not always keep correct time:

- check that the power cord is fully inserted into the outlet receptacle.
- check that the oven is properly grounded.
- try plugging the oven into an outlet on a separate electrical circuit.

If oven floor or glass tray are hot:

 this is normal. The floor is absorbing heat from the food.

If the interior of oven collects moisture:

 this is normal. Food gives off moisture when cooking and the steam collects on the door and the oven surface. Wipe off excess moisture from oven after each use.

If food cooks unevenly:

- refer to your recipe for proper cooking procedures.
- be sure food is evenly shaped.
- be sure food is completely defrosted before cooking.
- check placement of aluminum strips used to prevent overcooking.

If food is undercooked:

- check recipe to be sure all directions (amount, time, and power levels) were correctly followed.
- · check household voltage.
- try plugging the oven into an outlet on a separate electrical circuit.
- be sure food was completely defrosted before cooking.

If food is overcooked:

- check recipe to be sure all directions (amount, time, and power levels) were correctly followed.
- the initial temperature of food may have been higher than normal.

If arcing (sparks) occur:

- be sure microwave-safe dishes were used.
- be sure wire twist ties were not used.
- be sure oven was not operated when empty.

If the display shows a time counting down but the oven is not cooking:

• check that door is firmly closed.

QUESTIONS AND ANSWERS

* Q: I accidentally ran my microwave oven without any food in it. Is it damaged?

A: Running the oven empty for a short time will not damage the oven. However, it is not recommended.

* Q: Can the oven be used with the glass tray or roller guide removed?

A: No. Both the glass tray and roller guide must always be used in the oven before cooking.

*Q: Can I open the door when the oven is operating?

A: The door can be opened anytime during the cooking operation. Then microwave energy will be instantly switched off and the time setting will maintain until the door is closed.

* Q: What does "Er01" message mean?

A: "Er01" means SENSOR ERROR and will appear if you open the oven door or press STOP/CLEAR pad while cooking times is displayed. To continue cooking, press the STOP/CLEAR pad and cook manually.

* Q: Why do I have moisture in my microwave oven after cooking?

A: The moisture on the side of your microwave oven is normal. It is caused by steam from cooking food hitting the cool oven surface.

* Q: Will the microwave oven be damaged if it operates while empty?

A: Yes. Never run it empty.

* Q: Why do eggs sometimes pop?

A: When baking or poaching eggs, the yolk may pop due to steam build-up inside the yolk membrane. To prevent this, simply pierce the yolk with a toothpick before cooking. Never cook eggs without piercing their shells.

* Q: Why is this standing time recommended after the cooking operation has been completed?

A: Standing time is very important.

With microwave cooking, the heat is in the food, not in the oven. Many foods build up enough internal heat to allow the cooking process to continue, even after the food is removed from the oven. Standing time for joints of meat, large vegetables and cakes is to allow the inside to cook completely, without overcooking the outside.

* Q: What does "standing time" mean?

A: "Standing time" means that food should be removed from the oven and covered for additional time to allow it to finish cooking. This frees the oven for other cooking.

* Q: Why does my oven not always cook as fast as the microwave cooking guide says?

A: Check your cooking guide again, to make sure you've followed directions exactly; and to see what might cause variations in cooking time. Cooking guide times and heat settings are suggestions, to help prevent over-cooking... the most common problem in getting used to a microwave oven.

Variations in the size, shape and weights and dimensions could require longer cooking time. Use your own judgement along with the cooking guide suggestions to check whether the food has been properly cooked just as you would do with a conventional cooker.

* Q: Does microwave energy pass through the viewing screen in the door?

A: No. The metal screen bounces back the energy to the oven cavity. The holes are made to allow light to pass through. They do not let microwave energy pass through.

* Q : Can I operate my microwave oven without the turntable or turn the turntable over to hold a large dish?

A: No. If you remove or turn over the turntable, you will get poor cooking results. Dishes used in your oven must fit on the turntable.

* Q : Is it normal for the turntable to turn in either direction?

A: Yes. The turntable rotates clockwise or counterclockwise, depending on the rotation of the motor when the cooking cycle begins.

* Q : Can I pop popcorn in my microwave oven? How do I get the best results?

A: Yes. Pop packaged microwave popcorn following manufacture's guidelines. Do not use regular paper bags. Use the "listening test" by stopping the oven as soon as the popping slows to a "pop" every 1 or 2 seconds. Do not repop unpopped kernels. Do not pop popcorn in glass cookware.

UTENSIL GUIDE

Only use utensils that are suitable for use in microwave ovens.

To cook food in the microwave oven, the microwaves must be able to penetrate the food, without being reflected or absorbed by the dish used. Care must therefore be taken choosing the utensil. If the utensil is marked microwave-safe, you do not need to worry. The following table lists various utensil and indicates whether and how they should be used in a microwave oven.

UTENSIL	SAFE	COMMENTS
Aluminium foil	A	Can be used in small quantities to protect areas against overcooking. Arcing can occur if the foil is too close to the oven wall or if too much foil is used.
Crisp Plate	•	Do not preheat for more than 8minutes.
China and earthenware	•	Porcelain, pottery, glazed earthenware and bone china are usually suitable, unless deco-rated with a metal trim.
Disposable polyester cardboard dishes	•	Some frozen foods are packaged in these dishes.
Fast-food packaging Polystyrene cups containers Paper bags or newspaper Recycled paper or metal trims	• × ×	Can be used to warm food. Overheating may cause the polystyrene to melt. May catch fire. May cause arcing.
Glassware Oven-to-table ware Fine glassware Glass jars	•	Can be used, unless decorated with a metal trim. Can be used to warm foods or liquids. Delicate glass may break or crack if heated suddenly. Must remove the lid. Suitable for warming only.
MetalDishesFreezer bag twist ties	× ×	May cause arcing or fire.
Paper • Plates, cups, napkins and Kitchen paper • Recycled paper	• ×	For short cooking times and warming. Also to absorb excess moisture. May cause arcing.
Plastic • Containers • Cling film • Freezer bags		Particularly if heat-resistant thermoplastic. Some other plastics may warp or discolour at high temperatures. Do not use Melamine plastic. Can be used to retain moisture. Should not touch the food. Take care when removing the film as hot steam will escape. Only if boilable or oven-proof. Should not be airtight. Prick with a fork, if necessary.
Wax or grease-proof paper	•	Can be used to retain moisture and prevent spattering.

• : Recommended use

▲ : Limited Use

X: Not Recommended

USE YOUR MICROWAVE OVEN SAFELY

General Use

Do not attempt to defeat or tamper with safety interlocks.

Do not place any object between the oven front frame and the door or allow residue to build up on sealing surfaces. Wipe with a mild detergent, rinse and dry. Never use abrasive powders or pads.

Do not subject the oven door to strain or weight such as a child hanging on an open door.

This could cause the oven to fall forward resulting in injury to you and damage to the oven.

Do not operate the oven if door seals or sealing surfaces are damaged; or if door is bent; or if hinges are loose or broken.

Do not operate the oven empty. This will damage the oven

Do not attempt to dry clothes, newspapers or other materials in the oven. They may catch on fire.

Do not use recycled paper products as they may contain impurities which may cause sparks or fires.

Do not hit or strike the control panel with hard objects. This can damage the oven.

Food

Never use your microwave oven for home canning. The oven is not designed for proper home canning. Improperly canned food may spoil and be dangerous to consume.

Always use the minimum recipe cooking time. It is better to undercook rather than overcook foods.

Undercooked foods can be returned to the oven for more cooking. If food is overcooked, nothing can be done.

Heat small quantities of food or foods with low moisture carefully. These can quickly dry out, burn or catch on fire.

Do not heat eggs in the shell. Pressure may build up and eggs can explode.

Potatoes, apples, egg yolks and sausages are examples of food with non-porous skins.

These must be pierced before cooking to prevent bursting.

Do not attempt to deep fat fry in your microwave oven.

Always allow a standing time of at least 20 seconds after the oven has been switched off to allow the temperature to even out, stir during heating, if necessary, and ALWAYS stir after heating. To prevent eruptive boiling and possible scalding, you should put a spoon or glass stick into the beverages and stir before, during and after heating.

Do not leave the oven unattended while popping corn. Do not pop corn in a paper bag unless it is the commercially prepared Microwave Popcorn product. The kernels can overheat and ignite a brown paper bag. Do not exceed the Microwave Popcorn manufacturers

Longer popping does not yield more popcorn but it can result in scorch, burn of fire. Remember, the Popcorn bag and tray can be too hot to handle. Remove with caution and use pot holders.

suggested popping time.

ARCING

If you see arcing, open the door and correct the problem.

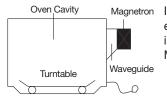
Arcing is the microwave term for sparks in the oven. Arcing is caused by:

- Metal or foil touching the side of the oven.
- Foil not molded to food (upturned edges act like antennas).
- Metal, such as twist-ties, poultry pins, or gold rimmed dishes, in the microwave.
- Recycled paper towels containing small metal pieces being used in the microwave.
- Dirt or grease on waveguide cover.

MICROWAVING PRINCIPLES

Microwave energy has been used in this country to cook and reheat food since early experiments with RADAR in World War II. Microwaves are present in the atmosphere all the time, both naturally and manmade sources. Manmade sources include radar, radio, television, telecommunication links and car phones.

HOW MICROWAVES COOK FOOD



Magnetron In a microwave oven, electricity is converted into microwave by the MAGNETRON.

▶TRANSMISSION



Then they pass through the cooking containers to be absorbed by the water molecules in the food, all foods contain water to a more or lesser extent.

▶ REFLECTION



The microwaves bounce off the metal walls and the metal door screen.

▶ ABSORPTION







crowave Water Molecule Absorption

Vibration

The microwaves cause the water molecules to vibrate which causes FRICTION, i.e. HEAT. This heat then cooks the food. Microwaves are also attracted to fat and sugar particles, and foods high in these will cook more quickly. Microwaves can only penetrate to a depth of $1\frac{1}{2}$ - 2 inches(4-5cm) and as heat spreads through the food by conduction, just as in a traditional oven, the food cooks from the outside inwards.

CONVERSION CHARTS

WEIGHT MEASURES				
15 g	1/2 oz.			
25 g	1 oz.			
50 g	2 oz.			
100 g	4 oz.			
175 g	6 oz.			
225 g	8 oz.			
450 g	1 lb.			

VOLUME MEASURES				
30 ml	1 fl.oz.			
100 ml	3 fl.oz.			
150 ml	5 fl.oz. (1/4 pt)			
300 ml	10 fl.oz. (1/2 pt)			
600 ml	20 fl.oz. (1pt)			

VOLUME MEACURES

SPOON MEASURES			
1.25 ml	1/4 tsp		
2.5 ml	1/2 tsp		
5 ml	1 tsp		
15 ml	1 tbsp		

FLUID MEASUREMEN	TS	
1 Cup	= 8 fl.oz	= 240 ml
1 Pint	= 16 fl.oz. (UK 20 fl.oz.)	= 480 ml (UK 560 ml)
1 Quart	= 32 fl.oz. (UK 40 fl.oz.)	= 960 ml (UK 1120 ml)
1 Gallon	= 128 fl.oz. (UK 160 fl.oz.)	= 3840 ml (UK 4500 ml)

COOKING TECHNIQUES

STANDING TIME

Dense foods e.g. meat, jacket potatoes and cakes, require standing time(inside or outside of the oven) after cooking, to allow heat to finish conducting to cook the center completely. Wrap meat joints and jacket potatoes in aluminium foil while standing. Meat joints need approx. 10-15 minutes, jacket potatoes 5 minutes. Other foods such as plated meal, vegetables, fish etc require 2-5 minutes standing. After defrosting food, standing time should also be allowed. If food is not cooked after standing time, return to the oven and cook for additional time.

MOISTURE CONTENT

Many fresh foods e.g. vegetables and fruit, vary in their moisture content throughout the season, particularly jacket potatoes. For this reason cooking times may have to be adjusted. Dry ingredients e.g. rice, pasta, can dry out during storage so cooking times may differ.

DENSITY

Porous airy foods heat more quickly than dense heavy foods.

CLING FILM

Cling film helps keep the food moist and the trapped steam assists in speeding up cooking times. Pierce before cooking to allow excess steam to escape. Always take care when removing cling film from a dish as the build-up of steam will be very hot.

SHAPE

Even shapes cook evenly. Food cooks better by microwave when in a round container rather than square.

SPACING

Foods cook more quickly and evenly if spaced apart. NEVER pile foods on top of each other.

STARTING TEMPERATURE

The colder the food, the longer it takes to heat up. Food from a fridge takes longer to reheat than food at room temperature.

LIQUIDS

All liquids must be stirred before and during heating. Water especially must be stirred before and during heating, to avoid eruption. Do not heat liquids that have previously been boiled. DO NOT OVERHEAT.

TURNING & STIRRING

Some foods require stirring during cooking. Meat and poultry should be turned after half the cooking time.

ARRANGING

Individual foods e.g. chicken portions or chops, should be placed on a dish so that the thicker parts are towards the outside.

QUANTITY

Small quantities cook faster than large quantities, also small meals will reheat more quickly than large portions.

PIERCING

The skin or membrane on some foods will cause steam to build up during cooking. These foods must be pierced or a strip of skin should be peeled off before cooking to allow the steam to escape. Eggs, potatoes, apples, sausages etc, will all need to be pierced before cooking. DO NOT ATTEMPT TO BOIL EGGS IN THEIR SHELLS.

COVERING

Cover foods with microwave cling film or a lid. Cover fish, vegetables, casseroles, soups. Do not cover cakes, sauces, jacket potatoes or pastry items.

DEFROSTING GUIDE

- Do not defrost covered meat. Covering might allow cooking to take place. Always remove outer wrap and tray. Use only containers that are microwave-safe.
- ▶ Begin defrosting whole poultry breast-side-down. Begin defrosting roasts fat-side-down.
- ► The shape of the package alters the defrosting time. Shallow rectangular shapes defrost more quickly than a deep block.
- ▶ After ¹/3 of the defrost time has elapsed, check the food. Toy may wish to turn over, break apart, rearrange or remove thawed portions of the food.
- ▶ During defrost, the oven will prompt you to turn the over. At this point, open oven door and check the food. Follow the techniques listed below for optimum defrost results.

Then, close oven door, press the START pad to complete defrosting.

- ▶ When defrosted, food should be cool, but softened in all areas. If still slightly icy, return to microwave oven very briefly, or let stand a few minutes. After defrosting, allow food to stand 5-60 minutes if there are any icy areas.
- Poultry and fish may be placed under running cool water until defrosted
- □ Turn over: Roast, ribs, whole poultry, turkey breasts, hot dogs, sausages, steaks, or chops.

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- Rearrange: Break apart or separate steaks, chops, hamburger patties, ground meat, chicken or seafood pieces, chunks of meat such as stew beef.
- Shield: Use small strips of aluminum foil to protect thin areas or edges of unevenly shaped foods such as chicken wings. To prevent arcing, do not allow foil to come within 1-inch of oven walls or door.
- ➡ Remove: To prevent cooking, thawed portions should be removed from the oven at this point. This may shorten defrost time for food weighing less than 3 lbs.(1350g).

DEFROSTING CHART (by Time Defrost)

ITEM & WEIGHT	DEFROSTING TIME	STANDING TIME	SPECIAL TECHNIQUES
BEEF Minced beef 1 lb./450g	8-10 min.	15-20 min.	Break apart and remove thawed portions with fork.
Stew Meat 1 1/2 lbs./675g	12-14 min.	25-30 min.	Separate and rearrange on
Patties 4(4oz./110g)	6-8 min.	15-20 min.	Turn over after half the time.
PORK Spareribs 1 lb./450g	6-8 min.	25-30 min.	Separate and rearrange once.
Chops 4(5oz./125g)	6-8 min.	25-30 min.	Separate and turn over once.
Minced pork 1 lb./450g	7-8min.	15-20 min.	Break apart and remove thawed portions with fork.
POULTRY Whole Chicken 2 1/2 lbs./1125g	22-24 min.	45-90 min.	Break side down. Turn over after half the time. Shield as needed.
Chicken Breasts 1 lbs./450g	8-10 min.	15-30 min.	Separate and rearrange once.
Fryer Chicken(cut up 2 lbs./900g) 17-19 min.	25-30 min.	Separate and rearrange once.
Chicken Thights 1 1/2 lbs./675g	12-14 min.	15-30 min.	Separate and rearrange once.
FISH & SEAFOOD Whole Fish 1 lb./450g	6-8 min.	15-20 min.	Turn over after half the time. Shield as needed.
Fish Fillets 1 1/2 lb./675g	8-10 min.	15-20 min.	Turn over after half the time. Shield as needed.
Shrimp 1/2 lb./225g	2-3 min.	15-20 min.	Turn over after half the time. Shield as needed.

COOKING & REHEATING CHART

Cooking chart

ITEM	POWER LEVEL	COOKING TIME PER LB./450G	SPECIAL INSTRUCTION
MEAT	DI O	2.2	
Beef joint - Rare - Medium - well done Pork Joint Bacon joint	PL-8 PL-8 PL-8 PL10 PL10	6-8 min. 7-10 min. 9-11 min. 9-12 min. 5-7 min.	 Chilled meat and poultry should be removed from the refrigerator at least 30 minutes before cooking. Always let the meat and poultry stand, covered after cooking.
POULTRY Whole chicken Portions chicken Breast (boned)	PL10 PL-8 PL-8	4-9 min. 5-7 min. 6-8 min.	
FISH Fish Fillets Whole Mackerel, Cleaned and prepared Whole Trout, Cleaned & Prepared Salmon steaks	PL10 PL10 PL10 PL10	3-5 min. 3-5 min. 4-6 min. 4-6 min.	 Brush a little oil or melted butter over the fish, or add 15~30ml(1-2 tbsp) lemon juice, wine, stock, milk or water. Always let the fish stand, covered, after cooking

NOTE: The above times should be regarded only as a guide. Allow for difference in individual tastes and preferences. The times may vary due to the shape, cut, and composition of the food. Frozen meat, poultry and fish must be thoroughly thawed before cooking.

COOKING & REHEATING CHART

Reheating chart

- Baby food particularly needs to be checked carefully before serving to prevent burns.
- When heating pre-packaged ready-cooked foods, always follow the pack instructions carefully.
- If you freeze foods which were bought from the fresh or chilled counters, remember that they should be thoroughly thawed before following the heating instructions on the packed. It's worth putting a note on them so that other members of the household will remember too.
- Remember to remove metal ties and transfer food from foil containers before reheating.
- Chilled(refrigerated) food takes longer to reheat than food at room temperature (such as just-cooled food or food from the store cupboard).
- All foods should be reheated using full microwave power.

ITEM	COOKING TIME	SPECIAL INSTRUCTIONS
Baby food 4.5oz.	20 sec.	Empty into a small serving bowl. Stir well once or twice during heating. Before serving, check the temperature carefully.
Baby milk 100ml / 4fl.oz. 225ml / 8fl.oz.	20-30 sec. 40-50 sec.	Stir or shake well and pour into a sterilized bottle. Before serving, shake well and check the temperature carefully.
Sandwich roll or bun 1 roll	20-30 sec.	Wrap in paper towel and place on glass microwaveable rack. *Note: Do not use recycled paper towels.
Lasagna 1 serving (10 ½ oz./300g)	4-6 min.	Place lasagna on microwaveable plate. Cover with plastic wrap and vent.
Casserole 1 cup 4 cups	1 ½-3 min. 5-7 min.	Cook covered, in microwaveable casserole. Stir once halfway through cooking.
Mashed potatoes 1 cup 4 cups	2-3 min. 6-8 min.	Cook covered, in microwaveable casserole. Stir once halfway through cooking.
Baked beans 1 cup	2-3 min.	Cook covered, in microwaveable casserole. Stir once halfway through cooking.
Ravioli or pasta in sauce 1 cup 4 cups	2-3 min. 6-9 min.	Cook covered, in microwaveable casserole. Stir once halfway through cooking.

VEGETABLE CHART

Use a suitable glass pyrex bowl with lid. Add 30-45ml cold water(2-3 tbsp.) for every 250g unless another water quantity is recommended - see table. Cook covered for the minimum time - see table.

Continue cooking to get the result you prefer. Stir once during and once after cooking. Add salt, herbs or butter after cooking. Cover during a standing time of 3 minutes.

Hint: cut the fresh vegetables into even sized pieces. The smaller they are cut, the quicker they will cook.

All vegetables should be cooked using full microwave power.

Cooking Guide for fresh vegetables

VEGETABLES	WEIGHT	TIME	COMMENTS
Broccoli	½ lb./250g 1 lb./500g	3-5 min 6-8 min	Prepare even sized florets. Arrange the stems to the centre.
Brussels sprouts	½ lb./250g	3-5 min	Add 60-75ml(4-5 tbsp.) water.
Carrots	½ lb./250g	3-5 min	Cut carrots into even sized slices.
Cauliflower	½ lb./250g 1 lb./500g	3-5 min 6-8 min	Prepare even sized florets. Cut big florets into halves. Arrange stems to the centre.
Courgettes	½ lb./250g	3-4 min	Cut courgettes into slices. Add 30ml(2tbsp.) water or a knob of butter. Cook until just tender.
Aubergine (eggplant)	½ lb./250g	3-4 min	Cut aubergine into small slices and sprinkle with 1 tablespoon lemon juice.
Leeks	½ lb./250g	3-4 min	Cut leeks into thick slices.
Mushrooms	0.3 lb./125g ½ lb./250g	2-3 min 3-4 min	Prepare small whole or sliced mushrooms. Do not add any water. Sprinkle with lemon juice. Spice with salt and pepper. Drain before serving.
Onions	½ lb./250g	2-3 min	Cut onions into slices or halves. Add only 15ml(1tbsp.) water.
Pepper	½ lb./250g	2-4 min	Cut pepper into small slices.
Potatoes	½ lb./250g 1 lb./500g	4-5 min 6-8 min	Weigh the peeled potatoes and cut them into similar sized halves or quarters.
Turnip cabbage	½ lb./250g	4-6 min	Cut turnip cabbage into small cubes.

Cooking Guide for frozen vegetables

VEGETABLES	WEIGHT	TIME	INSTRUCTIONS
Spinach	0.3 lb./125g	2-3 min	Add 15ml(1tbsp.) cold water.
Broccoli	½ lb./250g	4-5 min	Add 30ml(2 tbsp.) cold water.
Peas	½ lb./250g	4-5 min	Add 15ml(1 tbsp.) cold water.
Green beans	½ lb./250g	4-5½ min	Add 30ml(2 tbsp.) cold water.
Mixed vegetables (carrots/peas/corn)	½ lb./250g	4-5 min	Add 15ml(1 tbsp.) cold water.
Mixed vegetables (Chinese style)	½ lb./250g	4-6 min	Add 15ml(1 tbsp.) cold water.

RECIPES

TOMATO & ORANGE SOUP

- 1 oz.(25g) butter
- 1 medium onion, chopped
- 1 large carrot & 1 large potato, chopped
- 13/4lb(800g) canned, chopped tomatoes juice and grated rind of 1 small orange 11/2pints(900ml) hot vegetable stock
- salt and pepper to taste

FRENCH ONION SOUP

- 1 large onions, sliced
- 1 tbsp (15ml) corn oil
- 2 oz.(50g) plain flour
- 2 pints(1.2 liters) hot meat or vegetable stock
- salt and pepper to taste
- 2 tbsp (30ml) parsley, chopped
- 4 thick slices French bread
- 2 oz.(50g) cheese, grated

STIR FRIED VEGETABLES

- 1 tbsp(15ml) sunflower oil
- 2 tbsp (30ml) soy sauce
- 1 tbsp (15ml) sherry
- 1"(2.5cm) root ginger, peeled and finely grated
- 2 medium carrots, cut into fine strips
- 4 oz.(100g) button mushrooms, chopped
- 2 oz.(50g) beansprouts
- 4 oz.(100g) mange-tout
- 1 red pepper, seeded and thinly sliced
- 4 spring onions, chopped
- 4 oz.(100g) canned water chestnuts, sliced
- 1/4 head of chinese leaves, thinly sliced

- 1. Melt the butter in a large bowl on PL10 for 30 seconds.
- Add the onion, carrot and potato and cook on PL10 for 4 minutes. stir halfway through cooking.
- Add the tomatoes, orange juice, orange rind and stock. Mix thoroughly. Season with salt and pepper to taste. Cover the bowl and cook on PL10 for 15 minutes. stir 2-3 times during cooking, until the vegetables are tender.
- 4. Blend and serve immediately.
- Place the onion and oil a bowl, mix well and cook on PL10 for 1 minutes.
- 2. Stir in the flour to make a paste and gradually add stock. Season and add the parsley.
- 3. Cover the bowl and cook on PL-7 for 16 minutes.
- Pour the soup into serving bowls, submerge bread and sprinkle generously with cheese.
- Cook on PL-7 for 2 minutes, until the cheese has melted.
- 1. Place the oil, soy sauce, sherry, ginger, garlic and carrots in a large bowl, mix thoroughly
- 2. Cover and cook on PL10 for 3-5 minutes, stirring once.
- Add the button mushrooms, beansprouts, mange-tout, red pepper, spring onions, water chestnuts and chinese leaves. Mix thoroughly.
- Cook on PL10 for 5-6 minutes, until the vegetables are tender. Stir 2-3 times during cooking.

Stir fried vegetables are ideally served with meat or fish.

HONEYED CHICKEN

- 4 boneless chicken breasts
- 2 tbsp(30ml) clear honey
- 1 tbsp(15ml) whole grain mustard
- 1/2 tsp(2.5ml) dried tarragon
- 1 tbsp(15ml) tomato puree
- 1/4 pint(150ml) chicken stock

- 1. Place the chicken breasts in a casserole dish.
- 2. Mix all remaining ingredients together and pour over the chicken. Salt and pepper to taste.
- 3. Cook on PL10 for 13-14 minutes. Rearrange and coat the chicken with the sauce twice during cooking.

BLUE CHEESE & CHIVE JACKETS

2 baking potatoes, (approx.9 oz.(250g) each) 2 oz.(50g) butter 4 oz.(100g) blue cheese, chopped 1 tbsp(15ml) fresh chives, chopped 2 oz.(50g) mushrooms, sliced salt and pepper to taste

WHITE SAUCE

1 oz.(25g) butter 1 oz.(25g) plain flour 1/2 pint(300ml) milk salt and pepper to taste

STRAWBERRY JAM

11/2 lb.(675g) strawberries, hulled 3 tbsp(45ml) lemon juice 11/2 lb.(675g) caster sugar

PLAIN MICROWAVE CAKE

4 oz.(100g) margarine 4 oz.(100g) sugar 1 eggs 4 oz.(100g) self raising flour, sifted 2-3 tbsp(30-45ml) milk

OMELETTE

1/2 oz.(15g) butter 4 eggs 6 tbsp(90ml) milk salt & pepper

- Prick each potato in several places. Cook on PL10 for 7-9 minutes. Halve and scoop the flesh into a bowl, add the butter, cheese, chives, mushrooms, salt and pepper, mix thoroughly.
- Pile mixture into the potato skins and place in a flan dish.
- Cook on PL-5 for 10 minutes.
- Place the butter in a bowl and cook on PL10 for 30 seconds, until melted.
- Stir in the flour and whisk in the milk. Cook on PL10 for 3-4 minutes, stirring every 2 minutes until thick and smooth. Season with salt and pepper to taste.
- Place strawberries and lemon juice in a very large bowl, heat on PL10 for 4 minutes, or until the fruit has softened. Add sugar, mix well. Without covered.
- 2. Cook on PL-7 for 20-25 minutes, until setting point*is reached, stir every 4-5 minutes.
- 3. Pour into hot, clean jars. Cover, seal and label.
- * setting point: To determine setting point, place 1 tsp(5ml) jam onto chilled saucer. Allow to stand for 1 minute. Move surface of jam gently with your finger, if the surface wrinkles setting point has been reached.
- 1. line the base of 8" (20.4cm) cake dish with grease-proof
- Cream the margarine and sugar together until light and fluffy. Beat in the eggs and fold in the sifted flour alternately with the milk.
- 3. Pour into prepared container. Cook on PL10 for 4-5 minutes, until a skewer comes out cleanly.
- Leave the cake to stand for 5 minutes before turning out.
- 1. Whisk together eggs and milk.
- Place butter in 10"(26cm) flan dish. Cook on PL10 for 30 seconds, until melted. Coat the dish with the melted butter.
- Pour omelette mixture into flan dish. Cook on PL10 for 2 minutes. whisk mixture and cook again on PL10 for 1 minutes.

SCRAMBLED EGG

1/2 oz.(15g) butter 2 eggs 2 tbsp(30ml) milk salt & pepper

SAVORY MINCE

- 1 small onion, diced
- 1 clove garlic, crushed
- 1 tsp(5ml) oil
- 7 oz.(200g) can chopped tomatoes
- 1 tbsp(15ml) tomato puree
- 1 tsp(5ml) mixed herbs
- 8 oz.(225g) minced beef

salt and pepper

- 1. Melt the butter in a bowl on PL10 for 30 seconds.
- 2. Add the eggs, milk and seasoning and mix well.
- 3. Cook on PL10 for 3 minutes, stirring every 30 seconds.
- Place onion, garlic and oil in casserole, and cook on PL10 for 2 minutes or until soft.
- 2. Place all other ingredients in casserole. Stir well.
- 3. Cover and cook on PL10 for 5 minutes then PL-5 for
- 8-13 minutes or until the meat is cooked.