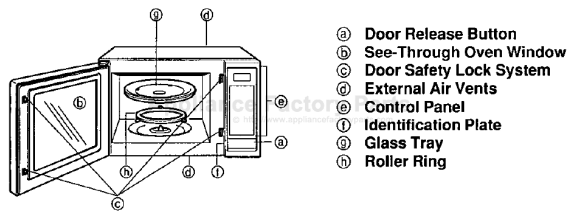


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PANASONIC NN-6382 Owner's Manual

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Panasonic®

Cookbook and Operating Instructions

Microwave oven
Model NN-6382



Before operating this oven, please read these instructions completely.
La referencia rápida en español puede ser encontrada en la páginas 13-17.
(Spanish quick reference can be found on pages 13-17.)

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.

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The serial number of this product may be found on the right side of the oven door opening. 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 _____

IMPORTANT SAFETY INSTRUCTIONS

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

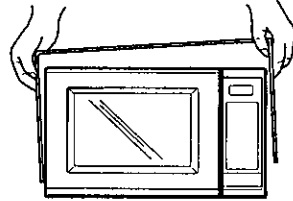
WARNING — To reduce the risk of burns, electric shock, fire, injury to persons or exposure to excessive microwave energy:

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 left page.
3. This appliance must be grounded. Connect only to properly grounded outlet. See "GROUNDING INSTRUCTIONS" found on page 2.
4. Install or locate this appliance only in accordance with the installation instructions found on page 2.
5. Do not cover or block any openings on this appliance.
6. Do not store or use this appliance outdoors. Do not use this product near water — for example, near a kitchen sink, in a wet basement, or near a swimming pool, and the like.
7. Use this appliance only for its intended use as described in this manual. Do not use corrosive chemicals or vapors in this appliance. This type of oven is specifically designed to heat, or cook food. It is not designed for industrial or laboratory use.
8. When cleaning surfaces of door and oven that come together on closing the door, use only mild, non-abrasive soaps or detergents applied with a sponge or soft cloth.
9. As with any appliance, close supervision is necessary when used by children.
10. 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.
11. Do not immerse cord or plug in water.
12. Keep cord away from heated surfaces.
13. Do not let cord hang over edge of table or counter.
14. This appliance should be serviced only by qualified service personnel. Contact the nearest authorized service facility for examination, repair or adjustment.
15. Some products such as whole eggs and sealed containers — for example, closed glass jars — may explode and should not be heated in this oven.
16. To reduce the risk of fire in the oven cavity:
 - (a) Do not overcook food. Carefully attend appliance if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
 - (b) Remove wire twist-ties from paper or plastic bags before placing bag in oven.

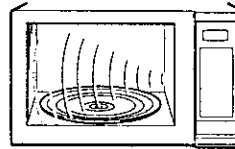
- (c) If materials inside the oven should ignite, keep oven door closed, turn oven off, and disconnect the power cord, or shut off power at the fuse or circuit breaker panel.
- (d) Do not use the cavity for storage purposes. Do not leave paper products, cooking utensils, or food in the cavity when not in use.

General Use

1. **Do NOT** tamper with or make any adjustments or repairs to door, control panel housing, safety interlock switches or any other part of the oven. **Do NOT** remove outer panel from oven. Repairs should only be done by a qualified service person.



2. **Do NOT** operate the oven empty. The microwave energy will reflect continuously throughout the oven if no food or water is present to absorb energy.



3. **Do NOT** use this oven to heat chemicals or other non-food products. **Do NOT** clean this oven with any product that is labeled as containing corrosive chemicals. **The heating of corrosive chemicals in this oven can cause radiation leaks.**
4. **Do NOT** dry clothes, newspapers or other materials in oven. They may catch fire.
5. **Do NOT** use recycled paper products, as they may contain impurities which may cause sparks and/or fires when used.
6. **Do NOT** use newspapers or paper bags for cooking. Fire can result.
7. **Do NOT** hit or strike control panel. Damage to controls may occur.
8. POT HOLDERS may be needed when cooking. Heat is transferred from the hot food to the cooking container and from the cooking container to the Glass Tray. Glass Tray can be very hot after removing cooking container from oven.
9. **Do NOT** store flammable materials next to, on top of, or in the oven. These could be fire hazards.

SAVE THESE INSTRUCTIONS

For proper use of your oven read remaining safety cautions and operating instructions.

INSTALLATION AND GROUNDING INSTRUCTIONS

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. Oven must be placed on a flat, stable surface. For proper operation, the oven must have sufficient air flow. Allow 3 inches of space on both sides of the oven and 1 inch of space on top of oven.
 - a. **Do NOT** block air vents.
If they are blocked during operation, the oven may overheat. If the oven overheats, a thermal safety device will turn the oven off. The oven will remain inoperable until it has cooled.
 - b. **Do NOT** place oven near a hot damp surface such as a gas or electric range.
 - c. **Do NOT** operate oven when room humidity is too high.
2. This oven was manufactured for household use only.

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 plug can result in a risk of electric shock.

Consult a qualified electrician or service person 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 three wire extension cord that has a three blade grounding plug, and a three slot receptacle that will accept the plug on the appliance. The marked rating of the extension cord should be equal to or greater than the electrical rating of the appliance.

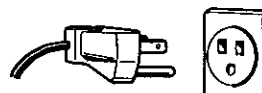
Power Supply

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 available and may be used if care is exercised in their use.

3. If a long cord or extension cord is used, (1) the marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the appliance, (2) the extension cord must be a grounding-type 3-wire cord, and (3) the longer cord should be arranged so that it will not drape over the countertop or tabletop where it can be pulled on by children or tripped over accidentally.

Wiring Requirements

1. The oven must be plugged into at least a 15 AMP 120 VOLT, 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.



2. A TEMPORARY CONNECTION with a two-prong adaptor may be made where LOCAL CODES PERMIT it. Unless the cover screw is grounded through the house wiring, attaching the adaptor grounding plate to the cover screw will not ground the oven. If there is any doubt that the cover screw is grounded, have it checked by an electrician.



3. The oven must be on a SEPARATE 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, or the food may cook slower than times recommended in this manual.
4. The VOLTAGE used must be the same as specified on this microwave oven (120V). Using a higher voltage is dangerous and may result in a fire or other accident causing oven damage. Using a lower voltage will cause slow cooking. Panasonic is **NOT** responsible for damage resulting from the use of the oven with other than specified voltage.

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 surfaces of the oven. (See Care of Your Microwave Oven found on page 29)
 - b. Place the radio, TV, etc. away from the microwave oven as far as possible.
 - c. Use a properly installed antenna to obtain stronger signal reception.

Practical Hints

Follow These Safety Precautions When Cooking in Your Oven

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

- Do not use your oven for home canning or the heating of any closed jar. Pressure will build up and the jar may explode. Your oven cannot maintain the food at the proper canning temperature. Improperly canned food may spoil and be dangerous to consume.
- Small quantities of food or foods with low moisture content can dry out, burn or catch on fire.
- Do not dry meats, herbs, fruits and vegetables in your oven.

IMPORTANT

Proper cooking depends on time set and weight of food. If you use a smaller portion than recommended and cook at time for the recommended portion, fire can result. If a fire occurs, turn oven off and leave oven door closed. Disconnect the power cord or shut off power at the fuse or circuit breaker panel.

2) POPCORN

- Popcorn must be popped in a microwave oven corn popper. Microwave popcorn which pops in its own package is also available. Follow popcorn manufacturers' directions and use a brand suitable for the wattage of your microwave oven. NEVER leave oven unattended when popping popcorn.

3) DEEP FAT FRYING

- Do not attempt to deep fat fry in your microwave oven. Cooking oils may burst into flames and may cause damage to the oven and perhaps result in burns. Microwave utensils may not be able to withstand the temperature of the hot oil, and could shatter.

4) EGGS

- Do not heat eggs in their shell in a microwave oven. Pressure will build up and the eggs will explode.

5) FOODS WITH NONPOROUS SKINS

- Potatoes, apples, egg yolks, whole squash and sausages are examples of foods with nonporous skins. These types of foods must be pierced before Microwave cooking to prevent their bursting.
- Use fresh potatoes for baking and cook until just done. Overcooking causes dehydration and may cause a fire. Use recommended weights or fire may occur.

6) LIQUIDS

- Heated liquids can erupt if not mixed with air. Do not heat liquids in your microwave oven without first stirring.

7) COOKING UTENSILS/FOIL

- Cooking utensils get hot during Microwaving. Use potholders when removing utensils from the oven or when removing lids or plastic wrap covers from cooking utensils to avoid burns.
- When using foil, skewers, warming rack or utensils made of metal in the oven, allow at least 1-inch of space between metal material and interior oven walls. If arcing occurs (sparking) remove metal material (skewers etc.) and/or transfer to a non-metallic container.
- Dishes with metallic trim should not be used, as arcing may occur.

8) PAPER TOWELS/CLOTHS

- Do not use paper towels or cloths which contain a synthetic fiber woven into them. The synthetic fiber may cause the towel to ignite.
- Do not use paper bags or recycled paper products in the microwave oven.

9) 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 8 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.

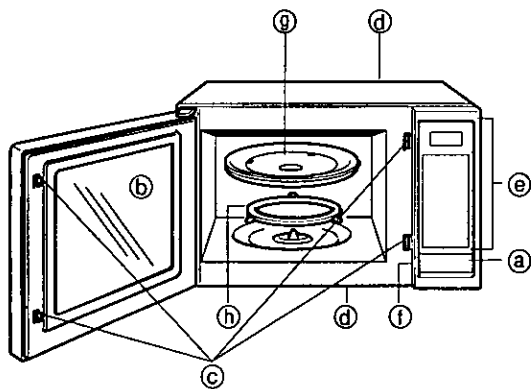
10) THERMOMETERS

- Do not use a conventional meat thermometer in your oven. Arcing may occur.

11) GENERAL OVEN USAGE GUIDELINES/OVEN DOOR

- Do not use the oven for any reason other than the preparation of food.
- Do not leave oven unattended while in use.

Feature Diagram



- (a) Door Release Button
- (b) See-Through Oven Window
- (c) Door Safety Lock System
- (d) External Air Vents
- (e) Control Panel
- (f) Identification Plate
- (g) Glass Tray
- (h) Roller Ring

Glass Tray

1. Do not operate the oven without the Roller Ring and Glass Tray in place.
2. Only use the Glass Tray specifically designed for this oven. Do not substitute any other Glass Tray.
3. If Glass Tray is hot, allow to cool before cleaning or placing in water.
4. **Do not** cook directly on Glass Tray. Always place food in a microwave-safe dish, or on a rack set in a microwave-safe dish.
5. If food or utensil on Glass Tray touches oven walls, causing the tray to stop moving, the tray will automatically rotate in opposite direction. This is normal.
6. Glass tray can rotate in either direction.

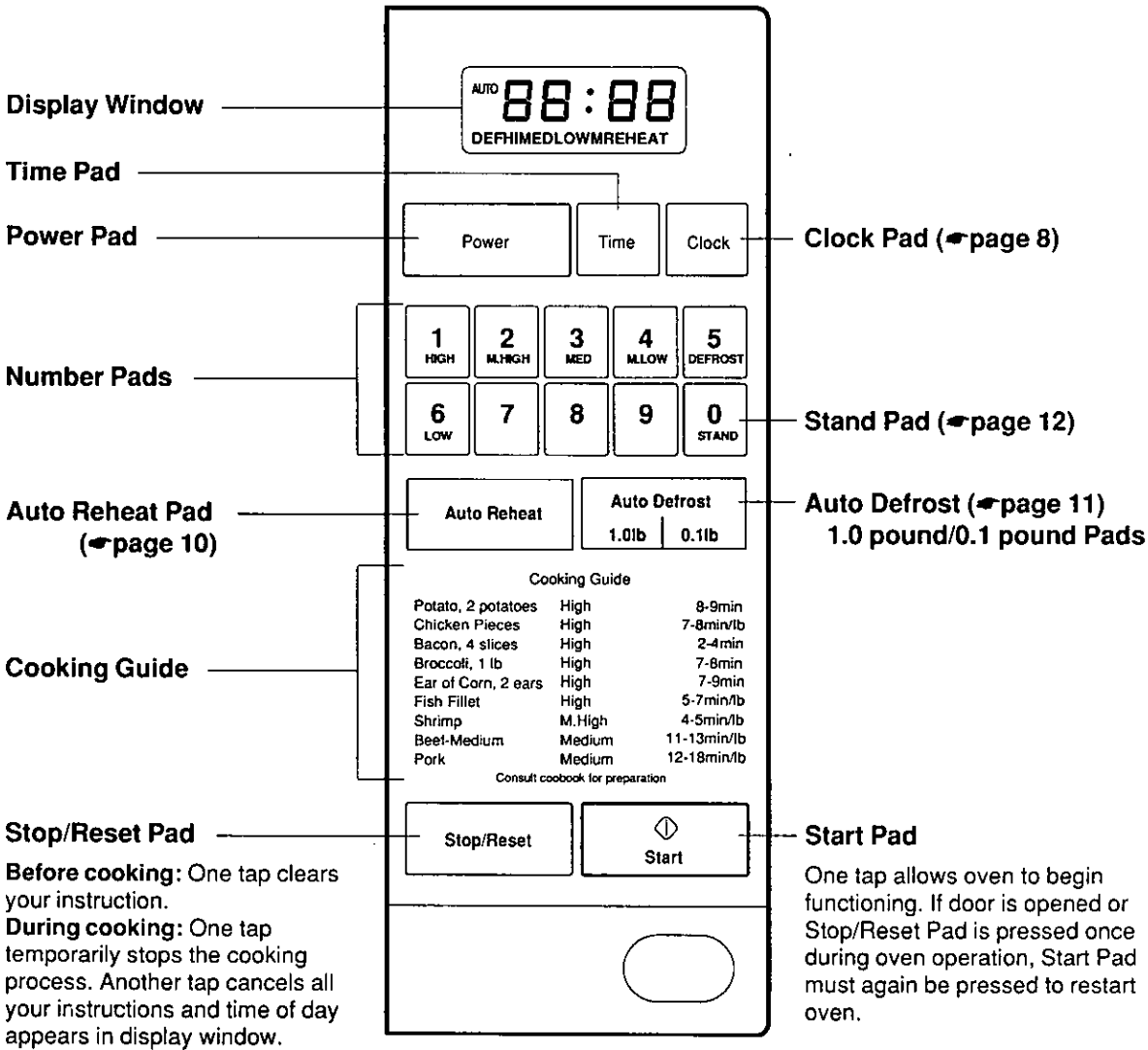
Door Release Button

Press to open the door.
Opening the door during cooking will stop the cooking process without canceling the program. Cooking resumes as soon as the door is closed and Start Pad is pressed. The oven light will stay on or turn on whenever the door is opened.

Roller Ring

1. The Roller Ring and oven floor should be cleaned frequently to prevent excessive noise.
2. The Roller Ring must always be used together with the Glass Tray for cooking.

Control Panel

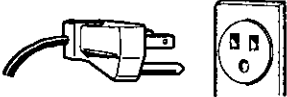

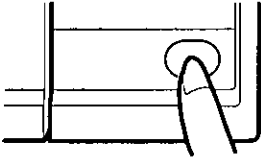
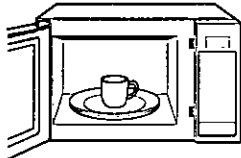
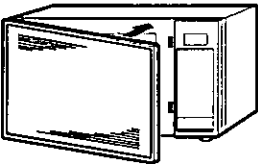
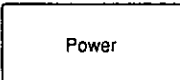






Beep Sound



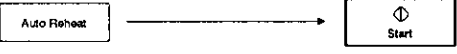
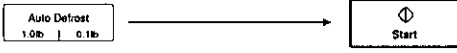
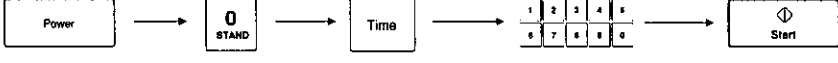
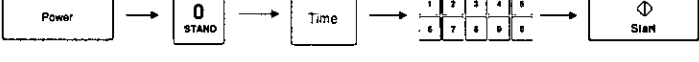
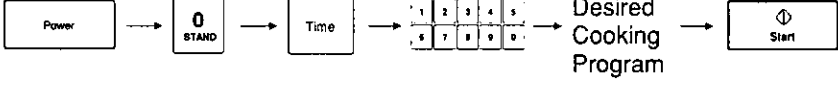
When a pad is pressed correctly, a beep will be heard. If a pad is pressed and no beep is heard, the unit did not or cannot accept the instruction. The oven will beep twice between programmed stages. At the end of any complete program, the oven will beep 5 times.

Let's Start To Use Your Oven !

Example: To heat a cup of water for 1 minute on HIGH Power.

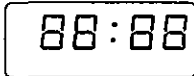
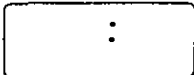









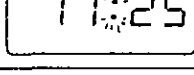

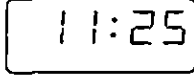
<p>1.</p> 	<ul style="list-style-type: none"> • Plug in a properly grounded electrical outlet.
<p>2.</p> 	<ul style="list-style-type: none"> • Press Stop/Reset Pad to delete "88:88" indication. You may set the clock. (see page 8)
<p>3.</p> 	<ul style="list-style-type: none"> • Open the door by pressing Door Release Button.
<p>4.</p> 	<ul style="list-style-type: none"> • Place a cup of water on the glass tray. Note: Use a Microwave-safe utensil.
<p>5.</p> 	<ul style="list-style-type: none"> • Shut the door.
<p>6.</p> 	<ul style="list-style-type: none"> • Press Power Pad.
<p>7.</p> 	<ul style="list-style-type: none"> • Select the cooking power by pressing Number Pads.
<p>8.</p> 	<ul style="list-style-type: none"> • Press Time Pad.
<p>9.</p> 	<ul style="list-style-type: none"> • Set the cooking time by pressing Number Pads.
<p>10.</p> 	<ul style="list-style-type: none"> • Press Start Pad.

Quick Guide to Operation

Feature	How to Operate
To Set Clock (☛page 8)	
To Reheat/Defrost/ Cook by setting power and time (☛page 9)	
To Reheat using "Auto Reheat" Pad (☛page 10)	 <p>Select Category.</p>
To Defrost using "Auto Defrost" Pad (☛page 11)	 <p>Set the weight of food.</p>
To Use as a Kitchen Timer (☛page 12)	
To Set Standing Time (☛page 12)	<p>Set the Desired Cooking Program</p> 
To Set Delay Start (☛page 12)	

To Set Clock

When oven is first plugged in, "88:88" will appear in the display window. You can use the oven without setting the clock.

Example: To set 11:25		
		 or 
1. 	• Press Clock Pad. ▶ Colon will blink.	
2.    	• Enter time of day by pressing appropriate Time Pads. ▶ Time appears in display window; colon is blinking.	   
3. 	• Press Clock Pad. ▶ Colon stops blinking; time of day is entered and locked into display.	




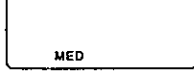

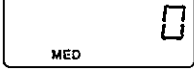




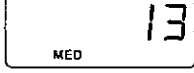
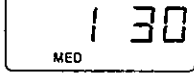

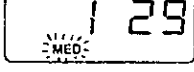
NOTES:

1. To reset time of day, repeat step 1 through step 3.
2. The clock will keep the time of day as long as oven is plugged in and electricity is supplied.

To Reheat/Defrost/Cook by setting power and time

How do I program Power and Time?

Example: To cook at MEDIUM Power for 1 minute 30 seconds

<p>1.</p> 	<p>●Press Power Pad. NOTE: When selecting HIGH Power on the first stage, you can start from step 4.</p>																						
<p>2.</p> 	<p>●Set the Power Level by pressing Number Pads.</p> <table border="1" data-bbox="424 584 951 808"> <thead> <tr> <th>Power Level</th> <th></th> <th>% Power</th> </tr> </thead> <tbody> <tr> <td>HIGH</td> <td>(1)</td> <td>100 %</td> </tr> <tr> <td>DEFROST</td> <td>(5)</td> <td>30 %</td> </tr> <tr> <td>MEDIUM-HIGH</td> <td>(2)</td> <td>70 %</td> </tr> <tr> <td>MEDIUM</td> <td>(3)</td> <td>55 %</td> </tr> <tr> <td>MEDIUM-LOW</td> <td>(4)</td> <td>30 %</td> </tr> <tr> <td>LOW</td> <td>(6)</td> <td>10 %</td> </tr> </tbody> </table>	Power Level		% Power	HIGH	(1)	100 %	DEFROST	(5)	30 %	MEDIUM-HIGH	(2)	70 %	MEDIUM	(3)	55 %	MEDIUM-LOW	(4)	30 %	LOW	(6)	10 %	
Power Level		% Power																					
HIGH	(1)	100 %																					
DEFROST	(5)	30 %																					
MEDIUM-HIGH	(2)	70 %																					
MEDIUM	(3)	55 %																					
MEDIUM-LOW	(4)	30 %																					
LOW	(6)	10 %																					
<p>3.</p> 	<p>●Press Time Pad.</p>																						
<p>4.</p>   	<p>●Set Cooking Time by pressing Number Pads. (Up to 99 minutes and 99 seconds for a single stage)</p>	  																					
<p>5.</p> 	<p>●Press Start Pad. ►Cooking will start. The time on the display will count down.</p>																						

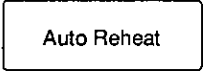
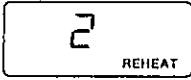

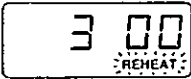
NOTE:

For 2 stage cooking, repeat steps 1 and 4 above before pressing Start Pad.

To Reheat using the Auto Reheat Pad

This feature allows you to reheat 1 to 4 servings of precooked room temperature and refrigerator temperature foods without setting power and time.

Example: To reheat 2 cups of soup

<p>1.</p>  <p>Auto Reheat 2 times</p>	<p>● Press Auto Reheat Pad until the desired number of servings appears in the display.</p>	
<p>2.</p>  <p>Start</p>	<p>● Press Start Pad. ▶ Cooking time appears in the display and begins to count down.</p>	

NOTE:

1. Auto Reheat can be programmed for 1 to 4 servings.
2. The following are the recommended food items and approximate weights.

Foods	Number of Servings	Serving Size	Starting Temp.
Plate of Food	1	12 to 16 oz.	Refrig.
Meat, Poultry	1 - 4	4 to 6 oz.	Refrig.
Casseroles	1 - 2	8 to 16 oz.	Refrig.
Side Dishes	1 - 4	4 to 6 oz.	Refrig. or Room Temp.
Soups, Sauces, Gravy	1 - 2	4 to 6 oz.	Refrig. or Room Temp.

For best results follow these recommendations:

1. All foods must be previously cooked.
2. Make sure glass tray in the oven is dry to assure best cooking results.
3. Foods should always be covered loosely, but completely with plastic wrap, wax paper or casserole lid.
4. Foods weighing less than 4 ounces and more than 16 ounces should be reheated by power and time only.
5. All foods should have a covered stand time of 3 to 5 minutes.
6. The surrounding room temperature should not be above 95°F. Inaccurate cooking may result.

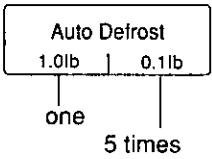
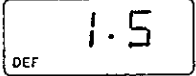

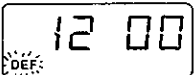
DO NOT

1. Reheat bread and pastry products. Use manual power and time.
2. Cook or reheat raw or uncooked food.
3. Use reheat if oven cavity is warm.
4. Use reheat for beverages.

To Defrost using the Auto Defrost Pad

This feature allows you to defrost meat, poultry and seafood by weight. Weight must be programmed in pounds and tenths of a pound.

Example: To defrost 1.5 pounds of meat

<p>1.</p> 	<p>●Set the weight of the food by pressing 1.0 lb Pad and/or 0.1 lb Pad.</p>	
<p>2.</p> 	<p>●Press Start Pad. ▶Defrosting time appears in the display and begins to count down.</p>	

NOTE:

- To use Auto Defrost, program the weight of the food in pounds (1.0) and tenths of a pound (0.1). If a piece of meat weighs 1.95 pounds or 1 pound 14 ounces, program 1.9 pounds. If a piece of meat weighs 1.99 pounds or 2 pounds 0 ounces, program 2.0 pounds.
- The shape and size of the food will determine the maximum weight the oven can accommodate. The recommended **maximum weight of meat is 4 lbs; poultry, 6 lbs. and seafood, 3 lbs.**
- Stand time or power level may be programmed after Auto Defrost.
- For further information on Auto Defrost, refer to page 20.

Conversion Chart

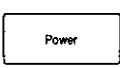


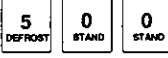

Follow this chart to convert ounces or hundredths of a pound into tenths of a pound.

Ounces	Hundredths of a Pound	Tenths of a Pound
0	.96 -.05	0.0
1 - 2	.06 -.15	0.1
3 - 4	.16 -.25	0.2
5	.26 -.35	0.3
6 - 7	.36 -.45	0.4
8	.46 -.55	0.5
9 - 10	.56 -.65	0.6
11 - 12	.66 -.75	0.7
13	.76 -.85	0.8
14 - 15	.86 -.95	0.9

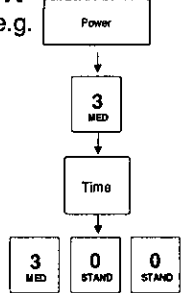
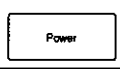



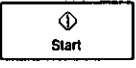
To Set Timer

This feature allows you to program a Standing Time after cooking is completed and to program the oven as a minute timer and/or to program delay start.

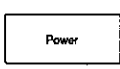


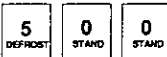
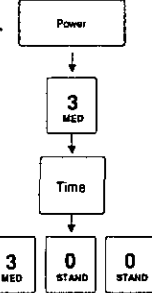

To Use as a Kitchen Timer:

Example: To count 5 minutes	
1. 	• Press Power Pad.
2. 	• Press Stand Pad.
3. 	• Press Time Pad.
4. 	• Set desired amount of time. (up to 99 minutes and 99 seconds)
5. 	• Press Start Pad. ▶ Time will count down without oven operating.

To Set Standing Time:

Example: To stand for 5 minutes after cooking (3 mins. at MEDIUM Power)	
1. e.g. 	• Set the desired cooking Program. (see page 9 for directions)
2. 	• Press Power Pad.
3. 	• Press Stand Pad.
4. 	• Press Time Pad.
5. 	• Set desired amount of Standing Time. (up to 99 minutes and 99 seconds)
6. 	• Press Start Pad. ▶ Cooking will start. After cooking, standing time will count down without oven operating.

To Set Delay Start:

Example: To start cooking 5 mins. later (3 mins. at MEDIUM Power)	
1. 	• Press Power Pad.
2. 	• Press Stand Pad.
3. 	• Press Time Pad.
4. 	• Set desired amount of delayed time. (up to 99 minutes and 99 seconds)
5. e.g. 	• Set the desired cooking program. (see page 9 for directions.)
6. 	• Press Start Pad. ▶ Delayed time will count down. Then cooking will start.

NOTES:

1. If oven door is opened during the Standing Time or Kitchen Timer, the time in display window will continue to count down.
2. Delay Start cannot be programmed before any Auto Control Function. This is to prevent the starting temperature of the food from rising before defrosting or cooking begins. A change in the starting temperature could cause inaccurate results.

Cookbook

Food Characteristics and Their Effects on Microwave Cooking —

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.

Quantity: Two potatoes take longer to cook than one potato. As the quantity of the food increases so does the cooking time.
When cooking small amounts of food such as one or

two potatoes, do not leave oven unattended. The moisture content in the food may decrease and a fire could result.

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 room temperature take less time to cook than if they are refrigerator temperature or frozen.

Cooking Techniques

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.

Browning: Foods will not have the same brown appearance as conventionally cooked foods. 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; brush on before cooking.

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 whole egg yolks and whites, 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 sausage and frankfurters.

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. However, unless specified, a recipe is cooked uncovered.

Shielding: Thin areas of meat and poultry cook more quickly than meaty portions. To prevent overcooking, these thin areas can be shielded with strips of aluminum foil. Wooden toothpicks may be used to hold the foil in place.

Timing: A range in cooking time is given in each recipe. The time range compensates for the uncontrollable differences in food shapes, starting temperature and regional preferences. Always cook food for the minimum cooking time given in the 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.

Stirring: Stirring is usually necessary during microwave cooking. We have noted when stirring is helpful, using the words once, twice, frequently or occasionally to describe the amount of stirring necessary.

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 redistribute the heat. At times microwave energy will concentrate in one area of a food. To help insure 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. In meat cookery, the internal temperature will rise 5°F to 15°F 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 in the center without overcooking on the edges.

Testing 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.

Cookware and Utensil Guide

ITEM	MICROWAVE	COMMENTS
Aluminum Foil	Yes for Shielding	Small strips of foil can be molded around thin parts of meat or poultry to prevent overcooking. Arcing can occur if foil is too close to oven wall or if too much foil is used.
Browning Dish	Yes	Check browning dish information for instructions and heating chart. Do not preheat for more than 8 minutes.
Brown paper bags	No	May cause a fire in the oven.
Dinnerware Microwave-Safe, only	Yes	Check manufacturers' use and care directions for suitability for microwave heating. Some dinnerware may state on the back of the dish, "Oven-Microwave Proof."
Disposable polyester Paperboard Dishes	Yes	Some frozen foods are packaged in these dishes. Can be purchased in grocery stores.
Fast Food Carton with Metal Handle	No	May cause arcing.
Frozen Dinner Tray Metal	Yes	Frozen dinners may be heated in foil tray, if tray is less than 3/4-inch high. Place foil tray in center of oven. Leave at least 1-inch space between foil tray and oven walls. Heat only 1 foil tray in the oven at a time. For containers more than 3/4-inch deep, remove food and place in a similar size microwave-safe container.
Microwave-safe	Yes	
Glass Jars	Yes	Remove lid. Heat food until just warm. Most glass jars are not heat resistant.
Glassware Heat Resistant Oven Glassware and Ceramic, only	Yes	Ideal for microwave cooking and browning. May have many pieces available in your home.
Metal Twist Ties	No	They may cause arcing and 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 by closure.
Paper Plates and Napkins	Yes	Use to warm cooked foods, and to cook foods that require short cooking times such as frankfurters.
Paper Towels and Napkins	Yes	Use to warm rolls and sandwiches.
Plastic Microwave-Safe, only Cookware and Storage Dishes	Yes	Should be labeled, "Suitable for microwave heating." Check manufacturers' directions for recommended uses. Some microwave-safe plastic dishes are not suitable for cooking foods with high fat content.
Plastic Wrap	Yes	Use to cover foods during cooking to retain moisture.
Straw, Wicker, Wood	Yes	Use only for short term reheating.
Plastic Foam Cups	Yes	Use to bring foods to a low serving temperature. Plastic foam will melt if foods reach a high temperature.
Thermometers Microwave-safe, only Conventional	Yes No	Use only microwave-safe meat and candy thermometers.
Wax paper	Yes	Use as a cover to prevent spattering and to retain moisture.

TO TEST A CONTAINER FOR SAFE MICROWAVE OVEN USE: Fill a 1-cup glass measure with water and place it in the microwave oven along with the container to be tested; **heat one minute at HIGH**. If the container is microwave oven-safe, it 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.

Auto Defrost

Preparing Food for Freezing

For successful defrosting, meats should be packaged properly for freezing. Freeze meats, poultry and fish in packages with only 1 or 2 layers of food. To aid in separating layers, place two pieces of wax paper between layers. Package in heavy-duty plastic wraps, bags or freezer paper. Remove as much air as possible. Wrap should be snug against food. Seal securely and label. CONVERT ounces to tenths of a pound. Meats packaged in most grocery stores are labeled with the weight in pounds and hundredths of a pound. See conversion chart on page 11.

Defrosting Techniques

Remove wrapper. Otherwise, the wrap will hold steam and juice close to the food which can cause the outer surface of the food to cook.

Remove ground meat from its TRAY. Place meat in an appropriate size dish.

Place roast fat-side down and **whole poultry breast-side down** on a microwave roasting rack in a dish. The rack helps prevent the food from sitting in its own juice. The juice will get hot during defrosting and if the food is sitting in the juice, the bottom will begin to cook.

Place small items, such as chops, chicken pieces, shrimp, scallops, fish on a microwave roasting rack in a dish.

The oven beeps once during the defrosting cycle to signal that the food needs to be **turned** or **rearranged**. To prevent over defrosting, thin areas or edges can be **shielded** with strips of aluminum foil. Follow the directions given in the chart for the best defrosting results. For best results, the minimum recommended weight is **0.5 pound**.

FOOD	BEEP	AFTER DEFROSTING
Meat (up to 4 lbs.*) Chops / Steaks Frankfurters / Sausage Ground Meat / Stew Meat Hamburger Patties Roast Ribs	Turn Over / Separate / Shield Separate / Remove Defrosted Pieces Turn Over / Separate / Remove Defrosted Pieces / Shield Turn Over / Separate / Remove Defrosted Patties / Rotate each patty in dish half-turn Turn Over / Shield Turn Over / Remove Defrosted Pieces (if non-rack of ribs) / Shield	Stand 5 min. Stand 5 min. Stand 5 min. Stand 5 min. Stand 30 min. in refrigerator covered with plastic wrap Stand 10 min.
Poultry (up to 6 lbs.*) Split Cornish Hens Whole Cornish Hens Chicken Pieces Whole Chicken / Capon / Turkey Breast	Turn Over / Separate / Rotate each piece in dish half-turn / Shield Turn Over / Separate (if more than 1 hen) / Shield Separate / Remove Defrosted Pieces Turn Over / Shield	Stand 5 min. /Rinse under cold water for 2-5 min. Stand 20 min. in refrigerator covered with plastic wrap/Run cold water in (each) cavity for 2 min. Stand 5 min. /Rinse under cold water for 2-5 min. Stand 30 min. in refrigerator covered with plastic wrap/Run cold water in cavity for 3-5 min.
Fish and Seafood (up to 3 lbs.*) Sea Scallops Shrimp Fish Fillets	Separate / Turn Over / Remove Defrosted Pieces Turn Over / Separate / Remove Defrosted Pieces Turn Over / Separate	Stand 5 min. /Separate further (if necessary)/Rinse under cold water for 2-3 min. Rinse under cold water for 2-3 min. Stand 5 min./Rinse under cold water for 2-3 min.

NOTES: For items frozen in 2 layers, perform first beep instructions on both layers. If rinsing is required after defrosting, each layer should be rinsed separately for the time indicated. Stand time for double-layer meat may have to be increased.

* The maximum weight of food will vary according to the cavity size of your oven model and the shape of the food.

Time Defrost

Before freezing, package meats according to directions given in "Preparing Food for Freezing" on page 20.

Remove food from wrapper and set in a microwave-safe dish. Place small items, such as chops, chicken pieces, shrimp, scallops and fish on a microwave roasting rack set in a dish.

Shield thin portions of foods with aluminum foil. Select **DEFROST** using Power Pad and the time recommended in the chart. **Large roasts** and **whole poultry** may still be icy in center; allow to stand in the refrigerator covered with plastic wrap. **Fish** and **seafood** should still be slightly icy.

FOOD	DEFROST TIME (min. per pound)	DIRECTIONS	AFTER DEFROSTING
Fish and seafood			
Crabmeat	12 to 14	Break apart halfway through defrost time.	Stand 5 minutes.
Fish fillets	6 to 8	Turn over and rearrange halfway through defrost time. Rinse under cold water to separate.	Stand 5 minutes.
Fish Steaks	6 to 10	Turn over halfway through defrost time.	Stand 5 minutes.
Sea Scallops	14 to 16	Break apart halfway through defrost time. Remove defrosted scallops. Rinse under cold water.	Stand 5 minutes.
Shrimp medium	8 to 10	Break apart halfway through defrost time. Remove defrosted shrimp. Rinse under cold water.	Stand 5 minutes.
Whole fish	10 to 12	Shield tail before defrost time. Rinse under cold water.	Stand 5 minutes.
Beef			
Ground Beef	8 to 10	Turn over and remove defrosted portion halfway through defrost time. Shield edges.	Stand 10 minutes.
Liver (thin sliced)	8 to 10	Drain liquid as it defrosts. Turn over and separate pieces halfway through defrost time.	Stand 5 minutes.
Roasts (2 ¹ / ₂ -4 lb.)	8 to 12	Turn over 2 to 3 times during defrost time. Shield ends and defrosted surfaces.	Let stand in refrigerator 30 minutes.
Steak Sirloin	8 to 10	Turn over and shield ends halfway through defrost time.	Stand 5 minutes.
Rib or T-Bone	8 to 10	Turn over halfway through defrost time. Shield.	Stand 5 minutes.
Flank	8 to 10	Turn over halfway through defrost time. Shield.	Stand 5 minutes.
Stew Meat	10 to 12	Break apart halfway through defrost time. Shield.	Stand 5 minutes.
Pork			
Bacon	4 to 6	Defrost in original wrapper. Turn over halfway through defrost time. Center should be slightly icy.	Stand 5 minutes.
Chops	8 to 10	Separate, turn over, and rearrange halfway through defrost time.	Stand 5 minutes.
Ribs	6 to 8	Turn over halfway through defrost time.	Stand 5 minutes.
Roasts (2 ¹ / ₂ -4 lb.)	8 to 12	Turn over 2 to 3 times during defrost time. Shield ends.	Let stand in refrigerator 30 minutes.
Lamb			
Chops	8 to 10	Separate, turn over, and rearrange halfway through defrost time.	Stand 5 minutes.
Ribs	6 to 8	Turn over halfway through defrost time.	Stand 5 minutes.
Roasts (2 ¹ / ₂ -4 lb.)	8 to 12	Turn over 2 to 3 times during defrost time.	Let stand in refrigerator 30 minutes.
Poultry			
Chicken, Whole (up to 3 lb.)	6 to 10	Turn over 2 to 3 times during defrost time. Rinse under cold water 2-3 min. Shield chicken parts that have begun to defrost.	Let stand in refrigerator 20 minutes.
Pieces	8 to 10	Separate halfway through defrost time.	Stand 10 minutes.
Cutlets	6 to 8	Turn over halfway through defrost time. Rinse under cold water to separate.	Stand 5 minutes.
Cornish Hens	8 to 12	Turn over and rearrange halfway through defrost time. Rinse under cold water.	Stand 10 minutes.
Turkey Breast (5-6 lb.)	8 to 12	Shield breast bone tips. Turn over 2 to 3 times during defrost time. Rinse under cold water.	Let stand in refrigerator 20 minutes.

Meats

Place meat fat-side up on microwave roasting rack set in an 8- to 10-inch square dish or 2½-quart shallow oval casserole dish. Beef rib roast should be placed cut-side down.

For tender cuts of beef and lamb roasts, loosely cover with wax paper to prevent spatter. For pork roasts or hams, cover with plastic wrap or place in an oven cooking bag. Less tender cuts such as pot roasts can also be cooked in an oven cooking bag. Prepare bag according to manufacturers' package directions.

Do NOT use wire or metal twist-ties to close bag. Use nylon tie provided, a piece of cotton string or a strip cut from the open end of the bag. Make six ½-inch slits by the closure to allow steam to escape. If a large amount of juice accumulates in the bottom of the dish, drain occasionally. Multiply the weight of the roast by the minimum recommended minutes per pound. Program Power and Time. Turn pot roast over halfway through cooking time.

Beef, Pork and Lamb Roasts: Can be shielded at the beginning of cooking or halfway through cooking. If you wish to shield at the beginning of cooking, remove foil halfway through the cooking time. Beef and pork rib roasts should be shielded near the bones. Foil should extend about 2 inches down from bones. The shank bone on a lamb roast should be cupped with foil. Thin ends of boneless roasts should also be shielded.

Canned Hams: Shield on the top of the cut-edge with a 1-inch strip of foil. Wrap strip of foil around ham and secure to body of ham with wooden toothpicks. Fold 1 inch over cut surface. Place ham in dish. Cover loosely, but completely with plastic wrap. Turn ham over and reshield, if necessary, halfway through cooking. If desired, glaze during last 10 to 20 minutes of cooking.

Less tender cuts, such as pot roasts, should be cooked in liquid. Use 1 cup of liquid such as soup or broth per pound of meat. Use an oven cooking bag (see information at left regarding oven cooking bags) or covered casserole. Select a covered casserole deep enough so that the meat does not touch the lid. Multiply the weight of the roast by the minimum recommended minutes per pound. Program Power and Time. Turn meat over halfway through cooking.

After cooking, check temperature using a meat thermometer. The thermometer should not touch bone or fat. If it does, the reading could be inaccurate. Lower temperatures are found in the center of the roast and in the muscle close to a large bone, such as a pork loin center rib roast. If the temperatures are low, return meat to the oven and cook a few more minutes at the recommended power level. **Do not use a conventional meat thermometer in the microwave oven.** Let stand, tented with foil, 10 to 15 minutes. During stand time, internal temperature rises 5°F to 15°F.

Meat Roasting Chart for Time Cooking

MEAT	POWER	APPROX. COOKING TIME (min / lb.)	TEMPERATURE AFTER COOKING	SPECIAL INSTRUCTIONS
BEEF ROASTS (2.5 to 4 lbs.) Rib, Boneless Rib, Top Sirloin Rare Medium Well Rump, Eye of round (High Quality) Rare Medium Well Pot Roast (2½ to 3½ lb.) Chuck, Rump	MEDIUM MEDIUM MEDIUM MEDIUM MEDIUM MEDIUM MEDIUM-LOW	9 to 12 11 to 15 15½ to 17½ 9 to 12 11 to 13 14 to 17 25 to 30	130° F 140° F 160° F 130° F 140° F 160° F ———	Place roast fat-side up. Cover roast with wax paper. Cover meat with liquid. Turn meat over halfway through cooking time.
PORK ROASTS (2.5 to 4 lbs.)* Bone-in ———— Boneless ———— Cover with plastic wrap.	MEDIUM MEDIUM	12 to 18 12 to 18	170° F 170° F	Place roast fat-side up. Cover roast with plastic wrap.
HAM (fully cooked)* Canned (3 lb.) Butt (8 lb.) Shank (8 lb.) Slice, 1-inch thick (1lb.) Cover with plastic wrap.	MEDIUM MEDIUM MEDIUM HIGH	8 to 12 13 to 15 13 to 15 5 to 8	140° F 140° F 140° F ———	Place ham fat-side up. Cover ham with plastic wrap.
LAMB ROASTS (2.5 to 4 lbs.)* Bone-In Medium Well Boneless Medium Well	MEDIUM MEDIUM MEDIUM MEDIUM	8½ to 13 11 to 16 8 to 11 10 to 15	140° F 160° F 140° F 160° F	Place lamb fat-side up. Cover lamb with wax paper.

* The recommended maximum weight will vary according to the cavity size of your microwave oven model and the shape of the meat.

Poultry

Directions for Roasting Poultry

Season as desired, but salt after cooking. Browning sauce mixed with equal parts of butter will enhance appearance.

Poultry may be stuffed or unstuffed. Tie legs together with cotton string. Whole chickens should be placed **breast-side down** on a microwave roasting rack set in an 8- to 10-inch square dish or 2 1/2-quart shallow oval casserole dish. Cornish hens should be placed breast-side up. Turkey Breast, Duck and Whole Turkey should be placed breast-side up.

Cover with wax paper to prevent spatter. Turn Whole Chickens breast-side up, after half the cooking time. Recover with wax paper. If a large amount of juice accumulates in the bottom of the baking dish, occasionally drain it. If desired, reserve for making gravy.

During cooking it may be necessary to shield legs, wings and the breast bone to prevent overcooking. Wooden toothpicks can be used to hold foil in place.

Less tender hens should be cooked in liquid such as soup or broth. Use 1/4 cup per pound of poultry. Use an oven cooking bag or covered casserole. Select a covered casserole deep enough so that the hen does not touch the lid.

If an oven cooking bag is used, prepare according to package directions. **Do NOT use wire twist-ties to close bag.** Do use nylon tie, a piece of cotton string or a strip cut from the open end of the bag. Make six 1/2-inch slits by the closure to allow steam to escape.

To Cook Whole Poultry: Multiply the weight of the poultry by the minimum recommended minutes per pound. Program Power and Time.

To Cook Chicken Parts: Arrange pieces skin-side up, with meatier portions toward edge of dish. Cover with wax paper. Multiply the weight by the minutes per pound recommended in chart below. Cook at **HIGH**. Poultry is cooked when juices are clear. If there is a slight pink color in the juice, return poultry parts to the oven and cook one or two minutes longer. Let stand, covered, 5 minutes before serving.

After cooking, check the temperature of large chickens and turkeys with a meat thermometer. Check the temperature in both thigh muscles. If the thermometer touches bone, the reading may be inaccurate.

Do NOT use a conventional thermometer in the oven when cooking by microwave.

Small chickens and game birds are cooked when juices run clear and drumsticks readily move up and down. If poultry is undercooked, cook a few more minutes at the recommended power level. Let large chickens and turkeys stand, tented with foil, 10 to 15 minutes before carving.

Poultry Chart for Time Cooking

POULTRY	POWER	COOKING TIME (minutes per pound)	TEMPERATURE AFTER COOKING	SPECIAL INSTRUCTIONS
Cornish Hens, whole (1 to 1 1/2 lb. ea.)	HIGH	7 to 9	————	Place breast-side up. DO NOT turn over.
Chicken parts	HIGH	7 to 8	————	Place skin-side up.
Chickens (up to 4 lb.)	HIGH	8 to 10	————	Place breast-side down. Turn breast-side up after half of cooking time.
Chickens (4 to 6 lb.)	HIGH	9 to 11	180°F to 190°F	
Turkey Breast (5 to 7 lb.)	MEDIUM	13 to 15	180°F to 190°F	Place breast-side up. DO NOT turn over.
Duck (3 to 5 lb.)	MEDIUM-HIGH	7 to 10	180°F to 190°F	
Turkey* (8 to 10 lb.)	MEDIUM-HIGH	9 to 11	180°F	

* The recommended maximum weight of turkey will vary according to the height and size of your turkey.

Fish and Seafood

Directions for Preparing Fish and Seafood

Use fresh or defrosted clean fish.

Arrange fish in a single layer in dish. For best results, avoid overlapping edges as this will prevent fish from cooking evenly.

Place thicker sections toward edge of the dish. (i.e. tail sections toward center).

Arrange shrimp and scallops in a single layer in dish.

To Cook Fish or Seafood — Cover loosely, but completely, with plastic wrap.

Rearrange or stir shrimp or scallops halfway through cooking.

Test for doneness before adding extra cooking time. The color of seafood and fish should be opaque and the fish should flake easily when tested with a fork. If undercooked, return to oven and cook 15 to 30 seconds longer at recommended power level.

Let stand, covered, 3 to 5 minutes before serving. Stand time allows the internal temperature to equalize throughout the food and thereby complete the cooking process.

Fish and Seafood Chart

FISH OR SEAFOOD	AMOUNT	POWER	APPROX. COOKING TIME (in minutes)
Fish Fillets	1 lb.	HIGH	5 to 7 1/2
Fish Steaks (1-inch thick)	1 lb.	MEDIUM-HIGH	5 1/2 to 7
Scallops (sea)	1 lb.	MEDIUM-HIGH	6 to 8
Shrimp, medium size (shelled and cleaned)	1 lb.	MEDIUM-HIGH	4 to 5 1/2
Whole fish, cleaned (stuffed or unstuffed)	1 to 1 1/2 lb.	MEDIUM-HIGH	5 to 7

Eggs

SCRAMBLED EGGS

Beat eggs, 1 tablespoon milk and dash salt for each egg.

Pour into greased glass container.

Cook at **MEDIUM-HIGH** according to time in the chart.

Stir two-thirds of the way through the cooking time. Stir and let stand. Eggs will continue to cook during stand time and should be slightly undercooked after cooking.

Eggs	Container	Cooking Time (in min.)	Stand Time (in min.)
1	1-cup glass measure	3/4 to 1 1/4	1
2	1-cup glass measure	1 1/2 to 2	1 1/2
4	1-quart bowl	3 1/4 to 3 3/4	1 1/2
6	1 1/2-quart bowl	4 3/4 to 5 1/2	2

POACHED EGGS

Place 1 1/2 cups hot water and a dash of vinegar and salt in 2-quart casserole and heat at **HIGH** 5 to 7 minutes, or until water boils.

Break egg(s) into boiling water and with toothpick pierce egg yolk twice and egg white several times. Cook at **MEDIUM-HIGH** according to the time given in the chart.

Let stand. Eggs will continue to cook during stand time and should be slightly undercooked after cooking.

Eggs	Cooking Time (in minutes)	Stand Time (in minutes)
1	1/2 to 3/4	1
2	1 to 1 1/4	2
4	1 3/4 to 2	2

Pasta, Rice and Cereal Chart

ITEM	CONTAINER	AMOUNT OF HOT WATER	POWER TO COOK	APPROX. TIME TO COOK (in min.)	STAND TIME (in min.)	SPECIAL INSTRUCTIONS
Pasta						
Egg Noodles, medium width (8 oz.)	3-qt. casserole	1 1/2 quarts	HIGH	7 to 9	3	Add 1 teaspoon oil and 1 teaspoon salt to water. Heat hot water to a boil at HIGH (approx. 13 to 18 min.). Stir in pasta; Cook, covered; stir occasionally. Let stand, covered. Pasta that is to be added to a casserole should be slightly undercooked.
Specialty Noodles (8 oz.)	3-qt. casserole	1 1/2 quarts	HIGH	8 to 12	3	
Spaghetti or Fusilli (8 oz. broken)	3-qt. casserole	2 quarts	HIGH	12 to 14	3	
Frozen Tortellini (15 oz.)	3-qt. casserole	1 1/2 quarts	HIGH	7 to 9	3	
Rice						
Flavored Rice Mix (4.4 to 7.5 oz.)	2-qt. casserole	as package directs	MEDIUM	15 to 30 or as package directs	10	Cover and heat hot water to a boil at HIGH (approx. 4 to 7 min.). Add rice, salt and butter (amount of salt and butter as package directs). Cook covered; stir. Let stand, covered.
Long Grain (1 cup)	2-qt. casserole	2 cups	MEDIUM-LOW	13 to 16	10	
Short Grain (1 cup)	2-qt. casserole	2 cups	MEDIUM-LOW	10 to 12	10	
Cereal						
Cream of Wheat (Regular)						Combine cereal and water. Cook uncovered. Stir frequently. Stir once before stand time.
1 serving (2 1/2 tbsp.)	1-qt. glass bowl	3/4 cup	HIGH	2 to 4	1	
2 servings (1/3 cup)	1 1/2-qt. glass bowl	1 1/2 cups	HIGH	3 to 5	1	
Farina						Cover and heat hot water to a boil at HIGH (approx. 3 to 6 min.). Slowly add cereal; stir frequently. Cook uncovered. Stir once before stand time.
1 serving (3 tbsp.)	1-qt. glass bowl	1 cup	HIGH	2 to 3	1	
2 servings (6 tbsp.)	1 1/2-qt. glass bowl	2 cups	HIGH	2 to 4	1	
Oatmeal (Quick)						Combine water and cereal. Cook uncovered. Stir once before stand time.
1 serving (1/3 cup)	individual serving dish	1/2 cup	HIGH	1 to 2	1	
2 servings (2/3 cup)	2 individual serving dishes	1 1/2 cups	HIGH	3 to 4	1	
4 servings (1 1/3 cups)	2-qt. glass bowl	3 cups	HIGH	5 to 6	2	
Wheat Bran Cereal						Combine water and cereal. Cook uncovered. Stir once before stand time.
1 serving (1/4 cup)	1-qt. glass bowl	3/4 cup	HIGH	3 to 4	1	
2 servings (1/2 cup)	1 1/2-qt. glass bowl	1 1/2 cups	HIGH	6 to 7 1/2	1	
4 servings (1 cup)	2-qt. glass bowl	3 cups	HIGH	7 to 8	2	

To prepare Instant Rice: Combine 1 cup water, 1 teaspoon butter and dash salt in 1-quart casserole. Cover with lid. Cook at **HIGH** 2 to 3 minutes or until water boils. Stir in 1 cup rice. Let stand, covered, 5 minutes. Fluff lightly with fork before serving.

Vegetables

Directions for Cooking Fresh Vegetables

Weights given in the chart for fresh vegetables are the purchase weight before peeling and trimming.

Prepare vegetables for cooking. Cut, slice, or trim as directed in chart. Place vegetables in casserole. Add amount of water recommended in chart. Whole vegetables, such as potatoes or eggplant, should be pierced with a fork several times before cooking. Arrange on a microwave-safe dish in oven. Arrange potatoes in a circular pattern on the dish.

Cook according to time recommended in chart. Two-thirds of the way through cooking, stir, rearrange, and/or turn vegetables over.

After cooking, stir vegetables. Let stand, covered, before serving. Vegetables that are cut into pieces should stand 3 minutes. Whole vegetables should stand 5 minutes.

Directions for Cooking Frozen Vegetables

For 9- to 10-ounce packages, remove vegetables from their package and place in 1- to 1½-quart casserole.

Add 2 tablespoons water to frozen artichokes, brussels sprouts, sliced and whole okra and ½ cup water plus 1 tablespoon butter or margarine to frozen lima beans.

Cover with lid or plastic wrap.

Cook at **HIGH** 5 to 8 minutes or until slightly tender. Stir halfway through cooking and before stand time.

Let stand, covered, 3 minutes before serving.

Frozen Vegetables in a Pouch

Remove pouch from package and place on a microwave-safe plate. Cut small slit in center of pouch.

Cook at **HIGH**, following times on package directions (approximately 3¾ to 7 minutes, depending on vegetable).

Let stand 2 minutes before serving.

Never leave oven unattended when heating small amounts of foods such as one or two potatoes. Potatoes may catch on fire if overcooked and cause severe damage to the oven and surroundings.

Fresh Vegetable Chart for Time Cooking

VEGETABLE	AMOUNT	WATER	APPROX. COOKING TIME at HIGH (in min.)
Artichokes, 6 to 8 oz. ea.	1	Rinsed	5 to 7½
	2	and	9 to 11
	4	Drained	14 to 16
Asparagus, 6-in. spears	1 lb.	¼ cup	7 to 8
Beans, Green or Wax, cut into 1½-in. pieces	1 lb.	¼ cup	9 to 11
Broccoli, cut into spears	1 lb.	¼ cup	7 to 9
Brussels Sprouts	1 tub (10 oz.)	¼ cup	6 to 8
Cabbage, shredded	4 cups (about 1 lb.)	¼ cup	7 to 9
Carrots, sliced ½-in. thick	1 lb.	¼ cup	7 to 9
Corn, on the Cob	1 ear	2 tablespoons	6 to 7
	2 ears	¼ cup	7 to 9
	4 ears	¼ cup	12 to 14
Eggplant, cubed	1 lb.	¼ cup	7 to 8½
	Whole (pierce skin)	—	4½ to 6
Onions, small whole	8 to 10 (1 lb.)	¼ cup	6½ to 7½
Peas, Green	1½ lb.	¼ cup	5 to 6½
Potatoes, about 8 oz. ea., turn over halfway through cooking. Pierce skin several times.	1	—	5 to 7
	2	—	8 to 10
	4	—	13 to 15
Spinach, leaf	1 lb.	¼ cup	5½ to 7
Squash, Spaghetti, about 2 to 3 lb., cut in half, scoop out seeds and place cut-side down in dish.	1	¼ cup	13 to 15
Zucchini, sliced ½-in. thick	1 lb.	¼ cup	7 to 9

* Use 2 tablespoons water for ½ lb.-1 lb. of vegetables, if not indicated in chart.

Quick Breads and Cakes

Directions for Quick Breads and Cakes

Layer cakes must be baked one layer at a time, or the entire cake mix may be baked in a 16-cup fluted tube dish. Prepare batter according to package, chart or recipe directions. Use dishes recommended in chart or in recipes. Glass dishes allow the bottom of the cakes to be checked for doneness. When the product is removed from the oven, visually check bottom. If cake is to be inverted or removed from dish, such as layer cakes or upside-down cake, grease sides of dish and line bottom of 8- or 9-inch round or square dish with wax paper. If cake is to be served directly from the dish, grease bottom of dish. Never flour cake dishes, fluted tube dishes or muffin pans.

Use only 2¼ cups of batter for an 8- or 9-inch round or square dish. Cover with wax paper. Elevate on inverted pie plate when stated in recipe. Cook second layer immediately after the first. The remaining batter can be used for cupcakes.

When using fluted tube dish, be sure to grease sides and "tube." All the batter from a 2-layer cake mix may be poured into a 16-cup fluted dish.

When cooking cupcakes or muffins, line microwave muffin pans with paper baking cups. Fill paper baking cups half full. Cover with wax paper when indicated in chart or recipe.

Check during cooking. Different brands vary in ingredients and density of batter; cooking times may be slightly different than those given in chart.

After cooking, test for doneness. Check to make sure edges of cake are dry and have begun to pull away from sides of dish, and toothpick inserted near center comes out clean.

Let stand, uncovered, on a flat surface for 10 to 15 minutes. Stand time is important to allow cakes and cupcakes to finish baking.

Cakes and breads that are to be inverted should be loosened from the sides of the dish. Carefully turn out of dish. Remove wax paper from bottom of cake. Store, covered, until ready to serve.

For best results, it is recommended to follow microwave cooking instructions issued by the individual cake mix manufacturers.

ITEM	AMOUNT OF BATTER	PREPARATION/ DISH SIZE	FIRST STAGE	SECOND STAGE	SPECIAL INSTRUCTIONS	STAND TIME
Quick Bread (14 to 17 oz.)	All batter	Line bottom of 8½ × 4½ × 2½-inch loaf dish with wax paper	MEDIUM-LOW 8-9 minutes	HIGH 4½ to 5½ minutes	Shield each end with a 3-inch strip of foil. Mold foil around handle.	15 minutes, uncovered.
Cornbread (7 or 8 oz.)	All batter	Grease 8-or 9-inch round or square dish	MEDIUM-HIGH 4½ to 6 minutes	————	Cover with wax paper.	10 minutes, uncovered.
Gingerbread (14 oz.)	All batter	8-inch square dish	HIGH 10 to 12 minutes	————	Shield each corner with a piece of foil. Place dish on a microwave-safe inverted pie plate.	15 minutes, uncovered.
Muffins (cook 6 at a time)	Fill ½ full	6-cup muffin pan lined with paper baking cups	MEDIUM 3½ to 5 minutes	————	————	5 minutes, uncovered.
Cake Mix (18 to 20¼ ounces)	2¼ cups	Wax paper-lined 8- to 9-inch round or square glass baking dish	MEDIUM-LOW 8 minutes	HIGH 3 to 4½ minutes	Place dish on microwave-safe inverted pie plate during baking. Cover with sheet of wax paper.	10 minutes, uncovered.
Cake Mix (18 to 20¼ ounces)	Prepare batter according to package directions. Pour all batter into pan.	Generously grease 16-cup fluted tube pan	MEDIUM-LOW 9 to 10 minutes	HIGH 6 to 11 minutes	Cover pan with wax paper.	————
Cupcakes	2 rounded tablespoons batter per cupcake. Fill paper baking cups half full.	Muffin pan lined with paper baking cups 2 4 6	MEDIUM (in minutes) 1¾ to 2 2 to 2½ 3½ to 4½	————	Cover with wax paper during baking.	5 minutes, uncovered.

Microwave Shortcuts

FOOD	POWER	TIME (in minutes)	DIRECTIONS
Butter, Melted , 1/4 pound Butter, Softened , 1/4 pound	MEDIUM MEDIUM-LOW	1 to 2 1/2 to 1	Remove wrapper and place butter in a microwave-safe dish.
Chocolate, Melted , 1 square (1 oz.) Chocolate, Melted , 1/2 cup chips	MEDIUM MEDIUM	2 to 3 2 to 3	Remove wrapper and place chocolate in dish. Stir before adding more time. Chocolate holds its shape even when softened.
Bacon, Separated , 1 lb.	HIGH	1/2 to 1	Remove wrapper. After heating, use a plastic spatula to separate slices.
Cream Cheese, Softened , 3 oz.	MEDIUM-LOW	1/2 to 1	Remove wrapper and place in a bowl.
Cup of Water 1 cup (8 oz.) 2 cups (16 oz.) Cup of milk 1 cup (8 oz.) 2 cups (16 oz.)	HIGH HIGH MEDIUM-HIGH MEDIUM-HIGH	4 6 1/2 3 1/2 to 4 1/2 7 to 8	Heated liquids can erupt if not mixed with air. Do not heat liquids in your microwave oven without stirring first.
Coconut, Toasted , 1/3 cup	HIGH	1 to 3	Place in a pie plate or bowl. Stir every 30 seconds.
Ground Beef, Browned , 1 lb.	HIGH	3 to 5	Crumble in microwave-safe colander set in another dish. Stir twice.
Ice Cream, Softened , 1/2 gallon	MEDIUM-LOW	3 to 4	
Nuts, Roasted , 1 1/2 cups	HIGH	3 to 5	Spread nuts in 9-inch pie plate. Stir twice.
Sesame Seeds, Toasted , 1/4 cup	HIGH	2 1/2 to 4	Place in a small bowl. Stir twice.
Brown sugar, Softened	HIGH	1/2 to 3/4	Place 1 cup hard brown sugar in dish with a slice of bread or a wedge of apple. Cover with plastic wrap.
To Remove Oven Odors	HIGH	5	Combine 1 to 1 1/2 cups of water with the juice and peel of one lemon in a small bowl. After heating, wipe interior of oven with damp cloth.

Care of Your Microwave Oven

1. Turn the oven off before cleaning.
2. Keep the inside of the oven clean. When food spatters or spilled liquids adhere to oven walls, wipe with a damp cloth. Mild detergent may be used if the oven gets very dirty. The use of harsh detergent or abrasives is not recommended.
3. The outside oven surfaces should be cleaned with a damp cloth. To prevent damage to the operating parts inside the oven, water should not be allowed to seep into the ventilation openings.
4. If the Control Panel becomes wet, clean with a soft, dry cloth. Do not use harsh detergents or abrasives on Control Panel.
When cleaning the Control Panel, leave oven door open to prevent oven from accidentally turning on. After cleaning touch STOP/RESET Pad to clear display window.
5. If steam accumulates inside or around the outside of the oven door, wipe with a soft cloth. During cooking, steam is given off from the food.

Most of the steam is removed from the oven by the air which circulates in the oven cavity. Some steam will condense on cooler surfaces, such as the oven door. This also may occur when the microwave oven is operated under high humidity conditions. This is normal.

6. It is occasionally necessary to remove the glass tray for cleaning. Wash the tray in warm sudsy water or in a dishwasher.
7. The roller ring and oven cavity floor should be cleaned regularly to avoid excessive noise. Simply wipe the bottom surface of the oven with mild detergent water or window cleaner and dry. The roller ring may be washed in mild sudsy water or dishwasher. Cooking vapors collect during repeated use but in no way affect the bottom surface or roller ring wheels.
When removing the roller ring from cavity floor for cleaning, be sure to replace in the proper position.

Questions and Answers

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

A: We do not recommend operating the microwave oven without any food. However, running the oven empty for a short time will not damage the oven.

Q: Why won't my oven turn on?

A: When the oven does not turn on, check the following:

1. Is the oven plugged in securely? Remove plug from outlet, wait 10 seconds and reinsert.
2. Check circuit breaker or fuse. Reset circuit breaker or replace fuse if it is tripped or blown.
3. If the circuit breaker or fuse is all right, plug another appliance into the outlet. If the other appliance works, there probably is a problem with the oven. If the other appliance does not work, there probably is a problem with the outlet.

If it seems there is a problem with the oven, contact an authorized Servicenter.

Q: The oven won't accept my program. Why?

A: Check to make sure the oven door is securely closed. The oven is designed not to accept an incorrect program. If that was not the problem, contact the nearest authorized Servicenter.

Q: My microwave oven causes interference with my T.V. Is this normal?

A: Some radio and T.V. 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.

Q: Why does my oven light dim?

A: When cooking with a power other than **HIGH**, the oven must cycle to obtain the lower power levels. The oven light dims and clicking noises can be heard when the oven cycles.

Q: Why does steam accumulate on the oven door and warm air come from the oven vents?

A: During cooking, steam and warm air is given off from the food. Most of the steam and warm air is 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.

What to Do When Service is Needed

If your Panasonic microwave oven needs service, look in the yellow pages of the telephone book under "Home Appliance Service" for your nearest Matsushita Services Company ("MSC") Factory Servicenter, or MSC authorized Servicenter, or call 1-800-545-2672, toll free to find a convenient servicenter. Do NOT send the product to the Executive or Regional Sales offices. They are NOT equipped to make repairs.

Consumers requiring product information or operating assistance with a consumer product should contact:
CONSUMER AFFAIRS DEPARTMENT 2F-3
50 Meadowland Parkway, Secaucus, N.J. 07094
(201) 348-9090

SERVICE HOTLINE
1-800-545-2672
Matsushita Services Co.

Technical Specifications

Power Consumption:	12.8 Amps, 1,500 W
Output:*	900 W
Outside Dimensions:	12 "(H) × 21 ⁷ / ₈ " (W) × 16 ³ / ₄ " (D) 306 mm (H) × 555 mm (W) × 425 mm (D)
Oven Cavity Dimensions:	8 ⁵ / ₈ " (H) × 14 ³ / ₄ " (W) × 15 ⁹ / ₁₆ " (D) 220 mm (H) × 375 mm (W) × 395 mm (D)
Operating Frequency:	2,450MHz
Uncrated Weight:	Approx. 35 lbs.

*IEC 705-88 Test procedure
Specifications subject to change without notice.

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