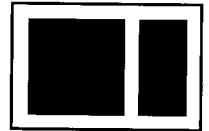

Amana *Radarange*[®] MICROWAVE OVEN

Use & Care Manual and Cooking Guide



Models:
RBG322T
RL322T
RW322T
RWG322T
800 Watts*

*Wattage rating based on the IEC 705 test. The prior one liter test method resulted in a 700 watt rating.

Please Read Before Operating Oven

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Record in the space below the Model No., Manufacturing (Mfg.) No. and Serial No. found on the nameplate of your oven. The nameplate is located on the upper left side wall of the oven interior.

Model No. _____

Mfg. No. _____

Serial No. _____

Date Installed _____

Selling Dealer _____

Retain these numbers and your Sales Receipt for proof of purchase should warranty questions arise. Your Sales Receipt is required if warranty service is needed. Complete the registration card, which is included with the packet that comes with the oven. This must be filled out and returned to Amana Refrigeration, Inc. Federal regulations require that all manufacturers of microwave ovens have a permanent record of the owners of each oven.

IMPORTANT SAFETY INSTRUCTIONS



Recognize this symbol as a SAFETY message

WARNING

WHEN USING ELECTRICAL APPLIANCES, BASIC SAFETY PRECAUTIONS SHOULD BE FOLLOWED TO REDUCE THE RISK OF BURNS, ELECTRICAL SHOCK, FIRE, INJURY TO PERSONS OR EXPOSURE TO EXCESSIVE MICROWAVE ENERGY:

1. READ all instructions before using the appliance.
2. READ AND FOLLOW the specific "PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY" found on page 5.
3. This appliance **MUST BE GROUNDED**. Connect only to properly grounded outlet. See "GROUNDING INSTRUCTIONS" on page 4.
4. Install or locate this appliance **ONLY** in accordance with the provided installation instructions.
5. Some products such as whole eggs and sealed containers — for example, closed glass jars — may explode and **SHOULD NOT be HEATED** in this oven.
6. 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, cook, or dry food. It is not designed for industrial or laboratory use.
7. As with any appliance, **CLOSE SUPERVISION** is necessary when used by **CHILDREN**.
8. **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.
9. This appliance should be serviced **ONLY** by qualified service personnel. Contact nearest authorized service facility for examination, repair or adjustment.
10. **DO NOT** cover or block any openings on the appliance.
11. **DO NOT** store 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.
12. **DO NOT** immerse cord or plug in water.
13. Keep cord **AWAY** from **HEATED** surfaces.
14. **DO NOT** let cord hang over edge of table or counter.
15. See door cleaning instructions on page 27.

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.
IF THE DOOR IS OPENED THE FIRE MAY SPREAD!
- 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.

THIS APPLIANCE MUST BE SERVICED ONLY BY QUALIFIED SERVICE PERSONNEL. CONTACT YOUR NEAREST AUTHORIZED SERVICE FACILITY FOR EXAMINATION, REPAIR OR ADJUSTMENT.

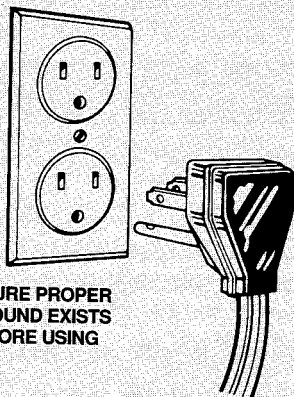
SAVE THESE INSTRUCTIONS

UNPACKING THE OVEN

Inspect the oven for any damage such as dents or holes in the screen of the door or dents inside the oven cavity. Any dents or breakage should be

reported to your Amana dealer immediately. You will be told if the unit will operate correctly.

GROUNDING INSTRUCTIONS



INSURE PROPER
GROUND EXISTS
BEFORE USING

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. **DO NOT** use a two-prong adaptor.

▲ WARNING — Improper use of the grounding plug can result in a risk of electric shock.

Consult a qualified electrician or serviceman if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded. If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade grounding plug, and a 3-slot receptacle that will accept the

plug on the appliance. The extension cord must be rated at a minimum of 15 amps, 120 volts, and should be no more than six feet in length. This oven should be plugged into a separate 120 volt, 15 amp, 60 hertz circuit. When a microwave oven is on a circuit with other appliances, an increase in cooking times may be required and fuses can be blown.

POWER SUPPLY CORD

- A short power-supply cord is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
- Longer cord sets or extension cords are available and may be used if care is exercised in their use.
- 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.

OVEN PLACEMENT

DO NOT build the oven in with the sides, top or bottom airflow restricted. The oven must have sufficient airflow around it. If you wish to build in this Radarange Microwave Oven, use **ONLY**

Amana model "RS" trim kits that have a label identifying which Amana Radarange Microwave Oven Model Series may be used. Trim kits can be purchased from your Amana Dealer.

SAFETY INSTRUCTIONS CONT.

Read and Follow These Rules for Safe Operation.

This microwave oven is designed to be safe and reliable. As with all appliances, there are certain rules to follow. Make sure everyone who cooks with this oven is familiar with this product's operation and with these precautions.

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: (a) Door (bent), (b) hinges and latches (broken or loosened), (c) door seals and sealing surfaces.
- (d) The oven should **NOT** be adjusted or repaired by anyone except properly qualified service personnel.

PRECAUTIONS

- (a) **Always press STOP/RESET before programming the oven.**
- (b) **▲WARNING: Liquids** must be briskly stirred or poured (to mix in air) before being heated in a microwave oven. If air is not mixed into a liquid, the liquid can erupt in the oven or after removal from the oven.
- (c) **Eggs** must **NOT** be cooked or reheated in the shell, or with an unbroken yolk. To do so may result in a pressure build-up and eruption. Pierce the yolk with a fork or knife before cooking. Do **NOT** reheat previously cooked eggs in the microwave oven unless finely chopped or scrambled.
- (d) **Home canning** must **NOT** be done in a microwave oven. Home canning is generally done with metal lids. Since metal lids reflect microwaves, you cannot be assured that the food product will be heated uniformly to 212°F or above, and there is a probability of deterioration of the food product. USDA extension specialists do not recommend home canning in microwave ovens.
- (e) **Deep fat frying** must **NOT** be done in any microwave oven. The fat could overheat and be hazardous to handle.
- (f) **▲WARNING: Do not heat sealed containers in any microwave oven.** Containers with restricted openings such as syrup bottles must **NOT** be used for cooking. Food or liquid could expand quickly and cause the container to break.
- (g) **Regular cooking thermometers** must **NOT** be used in a microwave oven. Most cooking thermometers contain mercury and may cause "arcing", malfunction, and/or damage to the oven.
- (h) **Plastic bags (and other airtight containers)** must always be pierced or opened before heating in a microwave oven. This is needed to allow steam to escape during cooking.
- (i) **Metal or ceramic accessories** which have been specially designed to absorb microwave energy to provide heat ("active" accessories such as browning skillets) may be used with caution. Be sure to test any such device before use and to carefully read and follow manufacturer's instructions provided with the accessory. Any questions concerning these accessory products should be referred to the accessory manufacturer. Amana Refrigeration, Inc., does not endorse any brand of accessory. Remember that all microwave accessories are not "top quality"; some may not be suitable for microwave cooking. Caution must be used when purchasing microwave accessories.
- (j) **Newspapers** must **NEVER** be used in a microwave oven since they may ignite.
- (k) **Paper towels** which contain nylon or other synthetic fibers woven through them must **NOT** be used because the heated synthetics could melt and cause the paper to ignite.
- (l) **Use only popcorn in packages designed and labeled for microwave use.** Pop according to package directions, beginning with the **MINIMUM** amount of time recommended. Pop until bag has expanded and there are one to two seconds between pops. Popcorn yields may vary. Do **NOT** continue to heat after popping has stopped, since popcorn will scorch or burn. Do **NOT** leave oven unattended. Use caution when handling the hot popcorn bag.
- (m) **If you're using a microwave popcorn popper**, use according to manufacturer's instructions. Do **NOT** continue to heat after popping has stopped, since popcorn will scorch or burn. Do **NOT** leave oven unattended.
- (n) **Microwave convenience foods** are often packed in specially designed packaging. Special plates, lids, containers, or other unique packaging materials may be used. Susceptor packing material (a thin, metallized plastic film) is frequently used to help brown and crisp foods such as microwave pizzas, French fries or fish sticks. When using micro-

PRECAUTIONS CONT.

wave convenience foods with susceptor packaging or other special packaging materials, read and follow the instructions on the food package carefully. Any questions concerning microwave susceptor packaging or other special packaging materials should be referred to the manufacturer of the food product in question. Amana Refrigeration, Inc., does **NOT** endorse any brand of microwave convenience foods, or any particular type of microwave food packaging. Caution must be used when purchasing microwave convenience foods in special packaging.

- (o) **Pot Holders** may be needed for microwave cooking. Containers can become hot when heat is transferred from cooked food.
- (p) **Potatoes, tomatoes or other foods with a "skin"** must only be cooked in the microwave oven after the skin has been pierced. All foods with an outer skin or membrane must be pierced to allow steam to escape during cooking.
- (q) Do not leave the microwave oven unattended when drying **anything**. Foods or items being dried can become too dry and can ignite. If anything does ignite, keep the oven door

closed and disconnect the power cord, or shut off power at the fuse or circuit breaker panel.

- (r) **Excess fat drippings** from meats and poultry should be removed during cooking to prevent spattering.
- (s) **We do not recommend operating the microwave oven when the oven is empty.** Damage to the oven can occur if the oven is operated empty for an extended period of time.
- (t) **All uncooked foods should be heated to a final internal temperature of at least 165°F.** For some foods, higher temperatures are recommended. The recommended temperatures for these foods kill most foodborne, disease causing organisms. Some common visual signs that indicate the cooking temperature **has** been reached:
 - Food steams throughout, not just around the edges.
 - Center bottom of dish is very hot to the touch.
- (u) **Closely supervise children** when they're cooking. Make sure they can read instructions and reach the controls. Never permit them to lean or swing on the door.

CHANGING OVEN SIGNAL

Your oven features an entry signal and an end-of-cycle signal that is programmed to be on, but can be deactivated, if you choose. The entry signal is set to "beep" whenever a pad is pressed. It confirms the oven has "read" and accepted your instructions. The end-of-cycle signal is set to "beep" at the end of the cooking time. Three of the preprogrammed pads (pad 4, FROZEN VEG.; pad 7, POTATO; and pad 0, PIZZA) can be set to have a half time signal. This "beep" sounds 1/2 way through the cooking time. It acts to remind you to stir the vegetables, turnover the potatoes, or turn the pizza.

Follow these instructions, to cancel the entry signal or end-of-cycle signal or to add the 1/2 time signal:

1. **Press and hold MEMORY SET for 5 seconds.** "OP:10" or "OP:11" will be displayed. (See chart for definition of signal options.)
2. **To change the signal option, press 0 if you wish to deactivate the entry signal. Press 1 if you wish to activate the entry signal.**
3. **Press MEMORY SET.** "OP:20" or "OP:21" will be displayed. You are now ready to change the signal option for the end-of-cycle signal, if desired.
4. **Advance to the next signal option by pressing MEMORY SET.**
5. **To exit the signal option mode, press STOP/RESET once.**

SIGNAL OPTIONS

Option Number	Option Function
OP:10	Prevents a beep signal from sounding when a pad is pressed.
OP:11*	Allows a beep signal to sound when a pad is pressed.
OP:20	Prevents the end-of-cycle signal from sounding when heating time is over. **
OP:21*	Allows a signal to sound at the end of the heating time and timer cycle.
OP:30*	Prevents a signal from sounding halfway through the heating time and timer cycle.
OP:31	Allows a signal to sound halfway through the heating time for preprogrammed pads 4, 7, and 0.

*As shipped from factory

**It also prevents the end of timer signal from sounding.

CHECKING OVEN OPERATION

A. Oven Light

The oven light will come on when the door is opened. It will also come on when the oven is operating.

B. Set the Clock

1. **Press CLOCK.** "CLOCK" will be displayed.

2. **Enter the time of day.** For example, if it is 10:35 (a.m. or p.m.) press **1,0,3,5**, in that order.
3. **Press CLOCK again.** The clock is now set. If oven power is interrupted (for example, if the supply circuit is disconnected, or if there is a power failure), all programming

CHECKING OVEN OPERATION CONT.

instructions will be erased. When power is reconnected dashes will appear in the display. You must then reset the desired signal options and clock as indicated above.

C. **Check operation of the interlock systems.** The **START** and **STOP/RESET** turn the oven on and off. Microwave energy is generated only when the door is closed, cooking time has been set and **START** has been pressed. In addition, the oven has interlock switches to assure no microwave energy is generated when the door is open. To check or remove food before the cooking time has elapsed, you may either press **STOP/RESET** or open the oven door to turn the oven off. Before the oven door opens, hidden interlock switches sense the motion of the door handle and automatically turn the oven off.

Here is how you may check the operation of **START**, **STOP/RESET** and the interlock switches:

1. Place a glass of water in oven and close oven door.
2. Press **TIME ENTRY**.
3. Press **5**, then **0**.
4. Press **START**. The oven should operate and the oven light should come on.
5. Press **STOP**. The oven should shut off immediately and the sound of the motor should cease. The oven light should go out.
6. Open oven door fully. The oven light should come on when the door is opened.
7. Press **STOP/RESET**.

If under any of the preceding conditions the oven does not operate as stated, do not use it. Call your Amana dealer or authorized service agency.

THE CONTROL PANEL

READOUT DISPLAY — Normally shows time of day.

- Shows remaining time when cooking by time or using the Timer.

MEMORY SET — Used to change the preset time for each for the preprogrammed pads. See page 10.

TIME ENTRY — Used when changing the time and/or cookmatic power level for the preprogrammed food pads. Press after the pad number but before entering the new heating time. See page 9.

COOKMATIC LEVEL — Programs cooking power level lower than full power. See page 9.

STOP/RESET

- Press once to stop the oven when operating.
- Press twice to cancel mistakes:

START — Starts oven operation.

TIMER — Lets you time a separate task, even if the oven is cooking. See page 9.

NUMBERS — Press after Time Entry when programming the oven to heat by time.

REHEAT 1 — Programmed to heat for 15 seconds.

REHEAT 2 — Programmed to heat for 1:00.

REHEAT 3 — Programmed to heat for 2:45.

FROZEN VEG. PAD — Programmed to heat a 9-10 oz. package of frozen vegetables for 6:00.

The diagram shows a control panel with the following buttons and their functions:

- TIME ENTRY** (top left)
- REHEAT 1** (top right)
- REHEAT 2** (middle right)
- REHEAT 3** (middle right)
- FROZEN VEGETABLE** (middle right)
- MINI-MEAL** (middle right)
- SOUP** (middle right)
- POTATO** (middle right)
- HOT DRINK** (middle right)
- POPCORN** (middle right)
- PIZZA** (middle right)
- COOKMATIC LEVEL** (left side, below TIME ENTRY)
- MEMORY SET** (left side, below COOKMATIC LEVEL)
- STOP/RESET** (left side, below MEMORY SET)
- START** (left side, below STOP/RESET)
- TIMER** (bottom left)
- CLOCK** (bottom right)

MINI MEAL PAD — Programmed to heat one 7½-8½ oz. single serving lunch meal for 1:30. This pad can heat up to four mini meals at one time.

SOUP PAD — Programmed to heat a 10½-11 oz. size serving of soup for 2:00. This pad can heat up to four servings of soup at one time.

POTATO PAD — Programmed to cook one 6-7 oz. size baking potato for 3:30. This pad can cook up to eight potatoes at one time.

HOT DRINK PAD — Programmed to heat one cup of your favorite beverage for 1:45. This pad can heat up to four individual cups of liquid at one time.

POPCORN PAD — Programmed to pop one 3.5 oz. package of microwave popcorn for 3:13.

PIZZA PAD — Programmed to heat one single serving microwave pizza for 4:30.

CLOCK — Sets time of day. See page 6.

IF YOU MAKE A MISTAKE

- If the oven is not operating yet, **press STOP/RESET**. This cancels everything. You must program the oven again.
- If the oven is operating, and it appears to be doing something you don't want it to do, **press STOP/RESET** once to stop the oven. **Press STOP/RESET** a second time to cancel everything. You may now program the oven again.

USING THE PREPROGRAMMED CONVENIENCE FOOD PADS

Your oven features ten preprogrammed number pads specifically designed to cook some of the more popular microwaveable foods fast and easy using full power. The chart below outlines each preprogrammed pad in detail.

Pad Number	Pad Name	Preprogrammed Time	Uses	Instructions	Notes
1	REHEAT	15 seconds	Reheat a cinnamon roll or soften butter.		
2	REHEAT	1:00 min.	Reheat a slice of pizza or cook a scrambled egg.		
3	REHEAT	2 min., 45 sec.	Reheat a plate of food or a cheese spread.		
4	FROZEN VEG.	6:00 min.	Designed to cook a 9-10 oz. package of frozen vegetables to serving temperature. Follow these guidelines to reprogram the pad to cook other package sizes of frozen vegetables. Package Size 4-5 oz. 6-8 oz. 12-16 oz. 28-32 oz. Time 2:45-3:15 4:30-5:00 8:00-9:00 15:00-17:00	Empty the contents of the package into a 1-1½ quart casserole dish. Heat, covered. Stir halfway through the cooking time. Note: If heating vegetables in a pouch, pierce pouch before heating.	A beep can be programmed to sound halfway through the cooking time to remind you to stir the vegetables. See page 6 for instructions.
5	MINI MEALS	1 min., 30 sec.	Designed to heat a 7½-8½ oz. (room temperature) lunch sized serving mini meal, such as Hormel Micro Cup™, Chef Boyardee® Microwave Meals and Lunch Buckets, to serving temperature. Up to four individual meals can be heated at one time. See page 9 for instructions. Follow these guidelines to reprogram the pad to heat other single serving meals. Package Size 7½-8½ oz. (refrigerated temperature) 10½ oz. (room temperature) 10½ oz. (refrigerated temperature) Time* 1:55-2:10 2:20-2:30 3:35-3:45	Prepare the mini meal for heating per the package instructions. Stir soups before heating to prevent boil overs. Stir all mini meals before serving.	
6	SOUP	2:00 min.	Designed to heat a 10½-11 oz. can of ready-to-eat soup to serving temperature. Up to four individual servings of soup can be heated at one time.	Stir soup vigorously or pour from the can into the serving bowl before reheating to prevent boil overs. Cover with vented plastic wrap, for faster more even heating.	
7	POTATO	3 min., 30 sec.	Designed to cook a 6-7 oz. baking potato. Up to 8 potatoes can be cooked at one time. Follow these guidelines to reprogram the pad to cook other sizes of potatoes. Weight 5-6 oz. 9-10 oz. 11-12 oz. Time* 2:55-3:05 4:40-4:50 4:50-5:10	Pierce the skin of the potato with a fork to allow steam to escape during cooking. Place in the oven on a microwave-safe paper towel. Turn over halfway through the cooking time. Let stand 2 minutes before serving. Note: If cooking more than one potato, arrange in a circular pattern on the microwave-safe paper towel.	A beep can be programmed to sound halfway through the cooking time to remind you to turn the potato(es) over. See page 6 for instructions.
8	HOT DRINK	1 min., 45 sec.	Designed to heat a room temperature 6-8 oz. cup of your favorite hot drink, i.e. coffee, tea or cider. Up to four individual cups can be heated at one time. See page 9 for instructions.	Note: To prevent boil overs when heating cocoa, heat the water before adding the cocoa mix.	
9	POPCORN	3 min., 13 sec.	Designed to pop most 3.5 oz. packages of microwave popcorn. Specialty popcorn i.e. cheese, caramel or toffee flavors may take less time to pop. Follow these guidelines to reprogram the pad to pop different size bags of popcorn. Weight 1.5-1.75 oz. 7 oz. Time 2:00-2:15 5:45-6:00	Follow package directions for popping.	
0	PIZZA	4 min., 30 sec.	Designed to cook a single serving 7" round or 4½" deep dish pizza or a 7" x 3" x 3½" french bread pizza. For best results, choose pizzas which have packaging that enhance crispness and browning.	Prepare the pizza for cooking per the package instructions. Turn the pizza a quarter-turn halfway through the cooking time.	A beep can be programmed to sound halfway through the cooking time to remind you to turn the pizza a quarter-turn. See page 6 for instructions.

*NOTE: To cook multiple items, reprogram the oven for the time recommended for one serving. The oven will automatically calculate the time for cooking more than one serving. See page 10.

USING THE PREPROGRAMMED FOOD PADS

1. Place the food in the oven and close the oven door.
2. Press **STOP/RESET** to clear the display.
3. Press the desired preprogrammed pad. The preprogrammed time and "MICRO" will be displayed.
NOTE: If you press any of the multiple food pads, MINI MEAL, SOUP, POTATO OR HOT DRINK, a "1" and two letters representing the pad name will be displayed. For example, if you press pad **5**, "LU" (for Lunch) will be displayed.

4. Press **START**. The oven will operate and the time will count down. "MICRO" and "POWER" will be displayed.
5. The oven will stop and sound a signal at the end of the cooking time.
NOTE: To stop the oven, press **STOP/RESET** once. To clear the display, press **STOP/RESET** twice.

USING THE PREPROGRAMMED FOOD PADS TO COOK MULTIPLE FOOD ITEMS

For added convenience and quickness, the MINI MEAL, SOUP and HOT DRINK pads will calculate the time to heat up to four individual servings automatically. The POTATO pad can calculate the time to heat up to 8 potatoes automatically.

1. Place the food in the oven and close the door.
2. Press **STOP/RESET** to clear the display.
3. Press **MINI MEAL, SOUP, POTATO** or **HOT DRINK** the number of times equal to the number of individual servings you plan to cook at one time. The number and two letters representing the pad name will

be displayed. For example, to heat three individual bowls of soup, press **SOUP** three times. A "3" and "SP" will be displayed.

4. Press **START**. The oven will operate and the time will countdown. "MICRO" and "POWER" will be displayed.
5. The oven will stop and sound a signal at the end of the cooking time.
NOTE: To stop the oven, press **STOP/RESET** once. To clear the display, press **STOP/RESET** twice.

COOKING WITH FULL POWER

1. Place food in the oven and close the door.
2. Press **STOP/RESET** to clear the display.
3. Press **TIME ENTRY**. "MICRO" and a "0" will be displayed.
4. Press numbers for cooking time. (To cook 1 minute and 10 seconds, press **1,1,0**.) The display will show the time you

have set. If you make a mistake, press **STOP/RESET** once and return to step 3.

5. Press **START** and the oven will begin to operate. "MICRO" and "POWER" will be displayed to indicate the oven is cooking.
6. The oven will stop and sound a signal at the end of the cooking time.

COOKING WITH DIFFERENT COOKMATIC POWER LEVELS

Just as some foods cook better conventionally at lower rather than higher oven temperatures, some foods cook better at lower rather than higher microwave power levels. This oven has 10 power levels, each well-suited for different types of foods. When no power level is programmed, the oven operates at Full Power.

1. Place food or water in oven and close oven door.
2. Press **STOP/RESET** to clear display.
3. Press **TIME ENTRY**. "MICRO" and "0" will be displayed.
4. Enter numbers for the cooking time. The time will appear in the display.
5. Press **COOKMATIC LEVEL**. "Cook Level" will appear in the display.
6. Press the number for the desired Cookmatic level. The

number will appear in the display. For example, to cook at level 8, press **8**, which is 80% of full power.

7. Press **START** and the oven will operate. The display will show "MICRO", and the power level selected (for example, "8 COOK LEVEL" for Level 8). The magnetron tube cycles on and off to cook at lower power levels, so "POWER" flashes on and off accordingly as microwave energy is produced.
8. To change a power level, press **STOP/RESET** once to stop the oven. Press **COOKMATIC LEVEL** and then the new power level.
9. The oven will stop and sound a signal at the end of the cooking time.

USING THE INDEPENDENT TIMER

You can use the oven like an independent timer to time mixing, sleeping or even telephone calls.

1. Press **TIMER**. "TIMER" will be displayed.
2. Enter digits for the amount of time desired.
3. Press **TIMER**. The display will count down and show "TIMER" indicating the timer function is being used.
4. A signal will sound when the time has elapsed.

To erase the time from the display before the time has elapsed.

1. Press **TIMER**.
2. Press **0**. "0" will be displayed.
3. Press **TIMER**. The clock will be displayed.

INSTANT REPLAY

Your oven has "Instant Replay" features that let you ask questions about what you've programmed.

When cooking:

1. Press **CLOCK** to see what time of day it is.
2. Press **CLOCK** again to display the remaining cooking time.

When using the timer while cooking:

1. Press **CLOCK** to see what time of day it is.
2. Press **CLOCK** again to display remaining cooking time.
3. Press **TIMER** to display remaining time on timer.

HOW TO CHANGE TIME AND COOKMATIC POWER LEVELS FOR PREPROGRAMMED FOOD PADS

The preprogrammed food pads are designed to cook specific amounts of each of the listed foods (see page 8) to serving temperature. However, you may find it necessary to change the preprogrammed time on one or more of the pads to better fit your family's needs. For example, you may cook a 16 oz. package of vegetables more often than the 10 oz. Or, you may pop 7 oz. large bags of popcorn more often than the regular 3.5 oz. bags.

Any of the ten pads can be reprogrammed to meet your needs.

NOTE: When reprogramming one of the multiple program pads, MINI MEAL, SOUP, POTATO, or HOT DRINK, reprogram the oven for the time recommended to cook one serving. The oven will automatically calculate the time for cooking more than one serving.

1. Press **STOP/RESET** to clear the display.
2. Press **MEMORY SET**. A "P" will be displayed.
3. Press pad number **0-9** that you would like to change. The current heating time, cookmatic level, and "MICRO" will be displayed.
4. Press **TIME ENTRY**. "0" will appear in the display.
5. Enter the new heating time. The new time will appear in the display.

6. To cook on a power level other than full power, press **COOKMATIC LEVEL**. "COOK LEVEL" will be displayed.
7. Enter the desired cookmatic power level. For example, to cook on Cook Level 5, **PRESS 5**. The new power level will be displayed.
8. Press **MEMORY SET** to lock the new instructions into the preprogrammed pad. A "P" will be displayed.
NOTE: If the cooking time and/or cookmatic power level is changed on the MINI MEAL, SOUP, POTATO, or HOT DRINK pads, the change will be for one serving only. The oven will automatically calculate the change for servings 2, 3, 4 and so on. For example, if you decide to change the time for one potato from 3:30 to 3:00, the oven will calculate the amount of time to cook 8 potatoes.
9. To change other preprogrammed pads, return to step 3.
10. To exit this mode, press **STOP/RESET**. The time of day will be displayed.

COOKING GUIDE

Your microwave oven will make it possible to use utensils that you have never used for cooking before. You will now be able to cook, as well as serve, on paper, glass, or china plates.

1. Most glass, glass ceramic, and heat resistant glassware utensils are excellent for use in a microwave oven, with the exception of those with metallic trim. Items with metallic trim should not be used in the microwave oven.
2. Most metal utensils should not be used in your microwave oven, unless designated as a microwave utensil. If sparks appear, remove metal material and transfer food to a nonmetallic container.
3. Browning dishes may be used to achieve a brown exterior on small items such as steaks, chops, and pancakes. Follow instructions provided with your browning dish. The browning dish is designed only for use in the microwave oven. **DO NOT** use in a conventional oven or on a range top.
4. Utensils generally remain cool to the touch. However, during long-term cooking, the food may heat the dish. You may wish to keep hot pads handy to aid in removing foods which have cooked for long periods of time.

Utensil Test: Use this test to determine when a glass-ceramic or ceramic or plastic utensil is satisfactory to use for microwave cooking.

1. Place a glass measure with 1 cup of water in the microwave.
2. Place empty utensil you wish to test next to the cup of water.
3. Heat on full power for 1 minute.
4. Press **START**.
5. After one minute, if the water is very warm and the dish is cool, the dish is safe to use. If the dish is slightly warm, it should be used for short term cooking only. If the dish is hot and the water cool, do not use the dish.

NOTE: DO NOT PREHEAT THE BROWNING DISH LONGER THAN RECOMMENDED BY THE DISH MANUFACTURER, SINCE THIS COULD CAUSE THE CERAMIC FLOOR TO CRACK.

MICROWAVE UTENSIL GUIDE

TYPE OF UTENSIL	MICROWAVE USES
Foil-lined Paper Bags, Boxes and Baking Trays, Metal or Part Metal Pots, Pans, Thermometers, Skewers, Lead Crystal, Newspapers, and Foil Trays.	Do not use. Foil or metal will reflect microwaves, thus preventing even heating. Arcing can occur if foil is closer than 1-in. to oven walls.
Boilable Hard and Soft Plastics, such as: Rubbermaid	Cooking ground beef (colander), defrosting, and heating.
Pottery, Porcelain, Stoneware	Cooking and heating.
Microwave Plastics such as: Anchor Hocking Microwave, Bangor Plastics, Mister Microwave, Nordic Ware, Republic, Tara, Wearever Nupac	Cooking.
Paper or Styrofoam Plates and Cups	Heating and serving foods and beverages. Styrofoam should be used for short-term heating at low temperatures and for serving.
Oven Glass such as: Anchor Hocking Fire King, Glassbake, Heller, Jena, Pyrex	Cooking and heating.
Regular Dinnerware such as: Correlle by Corning, Dansk Generation, Denby, El Camino, Franciscan, International Stoneware, Lenox, Temperware, Marsh, Mikasa, Pfaltzgraff	Heating and some cooking.
Unsuitable Dinnerware, such as: Corning Centura, Fitz and Floyd Oven-to-table Ware, Melamine, Dishes with metal trim.	Do not use in microwave oven.
Paper Towels and Napkins, Wax Paper	Cooking Bacon. Absorbing moisture and preventing splatters. Heating and serving sandwiches or appetizers. Light covering to hold in steam.
Glass-Ceramic (Pyroceram), such as: Corning Ware, Progression G by Noritake	Cooking and heating.
Plastic Wrap, Cooking Bags, Boil-in-bags, Storage Bags	Covering to hold in steam (wrap). Cooking (cooking and boil-in bags). Heating (storage bags).
Specialty Glass-Ceramic and Porcelain, such as: El Camino, F.B. Rogers, Heller, March Industries, Pfaltzgraff, Shafford	Recommended for microwave oven-to-table cooking.

MICROWAVE OVEN COOKING TECHNIQUES

Microwave oven cooking is slightly different from conventional cooking. Although you can apply most of your conventional cooking knowledge to microwave cooking, you should be aware of special "cooking techniques" which are unique to microwave cooking.

COOKING VARIABLES

Microwave cooking can be directly affected by different food variables.

Starting temperature.

Foods taken from the freezer or refrigerator take longer to cook than foods at room temperature. Foods already slightly warm will heat very quickly in the microwave oven.

Shape of food.

Foods that are flat and thin heat faster than foods which are chunky. For example, a casserole will cook faster in a flat dish, rather than if heaped in a small dish. Foods cut into small pieces will cook faster than large shaped foods. Pieces should be of a uniform size and shape for more uniform cooking.

Quantity of food.

As the volume of the food is increased, the time required to cook or heat the item increases almost proportionately. For example, if 1 potato cooks in 4 minutes, then 2 potatoes will require about 7 to 7½ minutes of cooking time, or not quite 8 minutes. Increase the amount of cooking time when you increase the amount of food to be cooked.

Density of food.

Porous foods, such as breads, cakes or pastries, will heat much more quickly than dense meats of the same size. Porous foods absorb microwaves quickly throughout. Meats absorb microwaves mostly at the exterior surface, and the interior is heated by conduction, increasing the cooking time.

Moisture Content.

The higher the moisture content is in a food, the longer the amount of cooking time.

Fat and Sugar Content.

Foods containing high fat and sugar levels heat very quickly and may reach much higher temperatures than foods having low fat and sugar levels.

Arrangement of Food.

For best results, arrange irregularly shaped foods with the thickest, or hardest to cook portion toward the outside of the dish. Place the smaller, easier to cook portion toward the center. For example, arrange drumsticks with the thicker ends toward the outside.

MANIPULATION OF FOODS

Some foods, such as large meats and poultry will need to be turned over halfway through the cooking time. You should give some baked goods, such as cakes and breads, a quarter-turn during the cooking time.

Stirring

Stirring is required less often in microwave cooking than in conventional cooking. In conventional cooking, you use a spoon to move food up from the bottom of a pan to evenly distribute the heat. In microwave cooking, you still stir to redistribute the heat within some foods, but you need to stir from the outside of a dish toward the inside or center.

If a recipe states to stir once or twice during cooking, stir at approximately even intervals. For example, in a 12-minute cooking period, if a recipe states to stir twice, stir after 4 minutes of cooking and again after 8 minutes of cooking. However, it is not necessary to be precise. Stir only when necessary. Some examples of foods which may require stirring are puddings, some casseroles, some sauces, some soups and some egg dishes.

Rearranging

A few foods which can't be stirred should be repositioned or rearranged during cooking. One example is broccoli spears. Move pieces from the center to the outside edge and pieces from the edge to the center. Rearranging allows for the most even cooking of foods.

Turning

There are actually two types of turning. Turning is done when foods cannot be stirred. Foods which are cooked covered usually require little turning.

Turning Foods Over: Turning foods over is done to redistribute heat. Meat and poultry are two types of foods which are sometimes "turned over." Examples include large roasts, turkeys, and whole chickens.

Rotating Or Turning Dishes: There are some foods which cannot be stirred, rearranged or turned over. Therefore, the actual cooking dish is turned or rotated. Baked items are sometimes turned or rotated.

BROWNING

When preparing food in the microwave oven, you will find that some foods will not brown the same as they do in a conventional oven. This is particularly true for baked goods, such as breads and cakes. But the lack of browning can be easily "disguised."

When cooking a cake, for example, the frosting will cover the cake and the lack of browning is not noticed. Also, dark-colored ingredients can be used in bread dough and cakes to simulate browning. Some examples are whole wheat flour, rye flour, raisins, dark brown sugar or dark spices, such as cinnamon. Crumb toppings on baked goods add color, as does a simple sprinkling of cinnamon-sugar. When baking cakes and breads, which are later turned out of the baking dish, color may be added by generously greasing the dish and then coating the dish with cinnamon-sugar, cornflake crumbs, graham cracker crumbs, or toasted wheat germ.

Color may be added to pastry pie crusts by adding 1 teaspoon paprika to the flour or 4 to 6 drops of yellow food coloring to the

Shielding

To prevent certain areas of large foods, such as turkeys, from overcooking, you may cover small areas with thin strips of foil. This foil will reflect microwave energy away and prevent overcooking. On turkeys, the ends of drumsticks, wing tips, and the breast bone may need to be shielded. You may also shield areas that are becoming warm during defrosting. Use only small strips or pieces of foil. If necessary, they may be secured with toothpicks.

Piercing

Membranes or tight skins on foods, such as egg yolks, potatoes, tomatoes, and acorn squash, must be pierced with a toothpick, fork, or knife. Piercing allows for excess steam to escape during cooking and prevents bursting. Frozen pouches of vegetables, fruits, or entrees should be slit with a knife for venting. Plastic wrap should also be vented by slitting or by leaving a corner open.

Covering

Foods are often covered during cooking to retain steam and moisture or to prevent spattering. Glass lids and heavy-duty plastic wrap help hold in the greatest amount of steam. Steam retention allows for more even distribution of heat and more rapid cooking. It also prevents dehydration. Coverings such as these are most important for cooking foods like vegetables, fruits, less tender cuts of meat, and liquids that need to come to a boil. If a dish doesn't have a lid, use heavy-duty plastic wrap, be sure it is vented by either leaving a corner open or by making a 1-inch slit with a knife. Waxed paper is good for catching spatters and for cooking individual ears of corn. Microwave-safe paper towels are recommended for cooking bacon, because they catch spatters and absorb excess grease. Paper and linen napkins or towels are also recommended for covering or wrapping breads and other baked items during reheating.

water before mixing the dough. The crust edge may also be sprinkled with paprika or cinnamon-sugar before baking. The method you use to add color to crusts will vary depending on type of pie you bake, sweet (dessert) or savory (quiche).

Browning is also easily achieved with meats. Meats which weigh 3 pounds or more will brown by themselves "naturally" in a microwave oven. This is because the exteriors of meats of this size become very hot during cooking. Many meats of this size have a high fat content, and fats also become very hot during cooking. This heat, plus the longer cooking times, are required for browning. Therefore, larger cuts of meat and poultry will brown by themselves. For additional browning, a bottled browning sauce or soy sauce may also be used with meats. Microwave browning seasonings may be used. For poultry, a paste of shortening and paprika will give a golden-brown color.

GENERAL HINTS FOR REHEATING FOODS

1. When reheating single dinner plates of food, cover with heavy-duty plastic wrap or waxed paper to retain heat and moisture, and to prevent spattering.
2. Arrange slow-to-heat foods around the outside edge of a plate. Examples include meats, poultry and potatoes.
3. Place quick-heating foods and foods cut in small pieces in the center of a plate. Foods having low moisture, high fat or high sugar contents heat quickly. Examples include vegetables such as peas, fruits and some desserts.
4. Arrange irregular pieces of food with the thickest parts toward the outside edge of the plate. Examples include poultry pieces or some small cuts of meat.
5. Reheat porous items such as breads and cakes for a minimum amount of time. For best results, reheat these items separately.
6. Reheat fish and seafood for a minimum amount of time.
7. Foods can also be reheated in serving dishes, if desired. **DO NOT** reheat foods in dishes having a metal trim.
8. Before reheating soups, sauces or beverages, stir them vigorously.

EVERYDAY FOODS HEATING AND REHEATING CHART

Food	Amount	Heating Time	Cookmatic Power Level	Special Instructions
Bread (defrosting)	1 loaf (1 lb.)	2½ to 3½ min.	3	Leave in plastic wrapper. Remove metal twist. Loosen end.
Butter or margarine (melting)	2 to 3 tablespoons ¼ cup	30 to 60 sec. 45 sec. to 1 min., 15 sec.	Full Power (10) Full Power (10)	
	½ cup	1 to 2 min.	Full Power (10)	
(softening)	½ cup	30 to 45 sec.	3	
Cheese (softening)	1 (5 oz.) jar	2 to 3 min.	3	
Chicken, cooked (2 pieces)	6½ to 7 oz.	1 to 2 min.	Full Power (10)	Cover with plastic wrap* or microwave-safe paper towel.
Chocolate, morsels (melting)	6 oz.	1 to 2½ min.	Full Power (10)	Stir halfway through heating time.
	12 oz.	1½ to 3 min.	Full Power (10)	Stir halfway through heating time.
squares (melting)	1 oz.	1 to 2½ min.	Full Power (10)	Stir halfway through heating time.
Coffee or Tea	1 cup	1 to 2 min.	Full Power (10)	
Cream Cheese (softening)	3 oz.	1 to 2 min.	3	
	8 oz.	2 to 3 min.	3	
Dinner plate, with meat, potato and vegetable (reheating)	1 plate	1½ to 3 min.	Full Power (10)	Cover with waxed paper or plastic wrap.*
Frankfurter	1	30 to 45 sec.	Full Power (10)	Wrap with napkin or plastic wrap.* Place in bun last 15 sec. of heating time.
Ice Cream (softening)	½ gallon	4 to 6 min.	1	Loosen package. Be careful not to melt it.
Meat patty	1 (4 oz.)	30 to 45 sec.	Full Power (10)	Cover with waxed paper or microwave-safe paper towel.
Milk (hot)	1 cup	2 to 3 min.	Full Power (10)	
Pie, fruit (4-inch)	1 slice	20 to 30 sec.	Full Power (10)	Cover with napkin or plastic wrap.*
Roll, dinner	1 roll	10 to 20 sec.	Full Power (10)	Cover with napkin.
breakfast	1 roll	15 to 25 sec.	Full Power (10)	Cover with napkin.
Soup	1 (8 oz.) serving	1½ to 2½ min.	Full Power (10)	Cover with waxed paper or plastic wrap.* Stir halfway through heating time.
Vegetables, canned	1 (16 oz. can)	2 to 3 min.	Full Power (10)	Cover with glass lid or plastic wrap.* Stir halfway through heating time.
Water, (hot)	1 cup	1½ to 2 min.	Full Power (10)	
(boiling)	1 cup	2 to 3 min.	Full Power (10)	

*Use heavy-duty plastic wrap.

DEFROSTING

The ability to defrost foods quickly is a major benefit of your microwave oven. Microwaves defrost the outer portion of the food and the heat is carried to the center.

It's very important that most foods, especially meats, be totally defrosted before they begin to cook. If they **aren't** totally defrosted before cooking, then the cooking will be uneven.

1. Foods can be defrosted in their original wrappings. Loosen boxes or lids and pierce plastic bags. Remove all metal parts. Metal clamps holding turkey legs should be removed during defrosting as soon as possible. Remove foods from metal containers before defrosting.
2. Some larger foods may need to be turned over during defrosting, for the best results.

3. For faster defrosting, separate foods frozen in pieces as they thaw. For example, meat patties frozen together can be separated. Hamburger can be broken apart with a fork and stirred.
4. To determine whether foods such as meats are totally defrosted, insert a sharp knife in the center of the food to check for remaining ice crystals.
5. Use the following guidelines for defrosting meat, fish and poultry. Follow package directions when defrosting other frozen foods.

MEAT

Item	Total Defrost Time	Cookmatic Power Level	Method
Roast, under 3 lbs.	1st - 4 min./lb. 2nd. - 9 min./lb.	3 1	Place meat on a plastic rack in a utility dish or on a plastic meat tray. Cover with heavy-duty plastic wrap or in a heavy-duty plastic roasting bag. Turn over halfway through each defrosting time.
3 to 6 lbs.	1st. - 4 to 5 min./lb. 2nd. - 9 to 10 min./lb.	3 1	Place meat on a plastic rack in a utility dish or on a plastic meat tray. Cover with heavy-duty plastic wrap or in a heavy-duty plastic roasting bag. Turn over halfway through each defrosting time.
Bacon, 16 oz.	3½ to 5½ min.	3	Place on a plate. Turn over halfway through defrosting time. Separate as pieces begin to thaw.
Bratwurst, 16 oz.	7 to 9 min.	3	Place on a plate. Turn over halfway through defrosting time. Separate as pieces begin to thaw.
Chops, 16 oz.	7 to 10 min.	3	Place on a plate. Turn over halfway through defrosting time. Separate as pieces begin to thaw.
Frankfurters, 12 oz.	4 to 6 min.	3	Place on a plate. Turn over halfway through defrosting time. Separate as pieces begin to thaw.
16 oz.	4½ to 6½ min.	3	
Ground Beef, Pork, Lamb (Bulk), 16 oz.	8 to 10 min.	3	Place on a plate. Turn over halfway through defrosting time. Separate and remove defrosted portions as soon as possible.
Ground Beef, Pork, Lamb (Patties), 16 oz.	6 to 8 min.	3	Arrange in a circle on a plate. Turn over halfway through defrosting time.
Sausage, 12 oz.	4 to 6 min.	3	Place on a plate. Turn over halfway through defrosting time. Separate and remove defrosted portions as soon as possible.
Steaks (Beef), 16 oz.	7 to 10 min.	3	Place on a plate. Turn over halfway through defrosting time. Separate as pieces begin to thaw.

POULTRY

Item	Total Defrost Time	Cookmatic Power Level	Method
Whole Chicken, Turkey, Duck, Cornish Hens, individual poultry pieces	1st - 4 to 5 min./lb. 2nd - 9 to 10 min./lb.	3 1	Place on a plastic rack in a 2-quart utility dish. Cover with heavy-duty plastic wrap. Remove all metal pieces, if possible. Turn over halfway through defrosting time. Soak large poultry items in cool water, if necessary, to finish defrosting.

FISH, SEAFOOD

Item	Total Defrost Time	Cookmatic Power Level	Method
Crab Claws or Legs, 12 oz.	5 to 8 min.	3	Place in a dish. Cover with heavy-duty plastic wrap or waxed paper. Rearrange halfway through defrosting time. Allow to stand for an equal period of defrosting time before cooking to be certain the crab is totally defrosted.
Crab Meat, 6 oz.	2½ to 3½ min.	3	Place in a dish. Cover with heavy-duty plastic wrap or waxed paper. Stir halfway through defrosting time. Allow to stand for an equal period of defrosting time before cooking to be certain the crab meat is totally defrosted.
Fillets, Flounder, Cod, Sole, Haddock, 16 oz.	6½ to 8½ min.	3	Place in a dish. Cover with heavy-duty plastic wrap or waxed paper. Turn over halfway through defrosting time. Allow to stand for an equal period of defrosting time before cooking to be certain the fillets are totally defrosted.
Lobster Tail, 12 oz.	6 to 8 min.	3	Place in a dish. Wrap in heavy-duty plastic wrap or waxed paper. Turn over halfway through defrosting time. Allow to stand for an equal period of defrosting time to be certain the lobster is totally defrosted.
Shrimp, 12 oz.	6 to 8 min.	3	Place in a dish. Wrap in heavy-duty plastic wrap or waxed paper. Turn over halfway through defrosting time. Allow to stand for an equal period of defrosting time to be certain the shrimp is totally defrosted.

CAKES, PIES

Item	Total Defrost Time	Cookmatic Power Level	Method
Pie, frozen 8" (20-30 oz.)	7 to 11 min.	3	Pie needs to be cooked before freezing. Place frozen pie in a glass pie plate. Do not cover. After defrosting time, let pie stand for an equal amount of time.
9" (30-40 oz.)	13 to 16 min.	3	
Cake (12-14 oz.)	2 to 2½ min.	3	Remove from container, if metal. Place on a plastic rack or paper plate. Cover with microwave safe paper towel, if not frosted. If frosted, do not melt frosting. Let stand for a period of time equal to the defrosting time.
(16-18 oz.)	2½ to 3 min.	3	
Pound Cake (10-11 oz.)	2 to 2½ min.	3	Remove from container, if metal. Place on a plastic rack or paper plate. Cover with microwave safe paper towel, if not frosted. If frosted, do not melt frosting. Let stand for a period of time equal to the defrosting time.

NOTE: For defrosting microwave convenience cakes and pies, follow the instructions on the package.

MEAT COOKING GUIDELINES

1. Meats weighing 3 pounds or more will brown by themselves "naturally" in the microwave oven. Large cuts of meat become very hot during cooking and require a longer cooking time than do smaller cuts of meat. A long cooking time and heat are required for browning.
2. For more browning on small cuts of meat, such as steaks, chops and meat patties, use a browning dish or bottled browning sauce.
3. Because salt can cause the surface of meat to become dehydrated and tough, it is best to salt meats only after cooking, or just before serving. If, however, the meat is just one ingredient in a main dish, or the meat is covered by a sauce, you may add salt to the sauce or main dish.
4. Excess fat may be trimmed from meat before cooking to decrease the amount of accumulated meat juices and to reduce spattering during cooking.
5. For the best cooking results, turn most large meats over halfway through the cooking time.
6. Remember that meats continue to cook during standing time. You may wish to remove meats from your microwave oven when they reach 5°F to 10°F lower than the desired end doneness.

RECOMMENDED END TEMPERATURE CHART

MEAT TYPE	COOKED DEGREE	END TEMPERATURE	
Beef	Rare	140°F	
	Medium	160°F	
	Well-Done	170°F	
Lamb	Rare	140°F	
	Medium	160°F	
	Well-Done	170°F	
Pork	Well-Done	170°F	
		Fresh	170°F
		Smoked	170°F
Pre-cooked		140°F	
Veal	Well-Done	170°F	

Item	Total Cooking Time	Cookmatic Power Level	Method
LESS TENDER			
Beef Roasts (Rump, Pot, Chuck or Sirloin Tip Roasts)	40 min./lb.	3	Place meat in a heavy-duty plastic roasting bag. Place in a 2-quart utility dish. Add ½ cup of water or favorite meat sauce. Close the bag loosely, securing with a string. Turn the roast over 2 to 3 times during the cooking time. Let stand in the bag for 10 to 15 minutes before serving.
TENDER			
Beef Roasts (Standing, and Rolled Rib Roast)	(Rare 140°F) 1st - 3 min./lb. 2nd - 7-11 min./lb.	Full Power (10) 3	Place meat on a plastic rack in a 2-quart utility dish. Cover with waxed paper. Turn large cuts of meat over halfway through the cooking time.
	(Medium 160°F) 1st - 3 min./lb. 2nd - 11-14 min./lb.	Full Power (10) 3	
	(Well 170°F) 1st - 3 min./lb. 2nd - 15-18 min./lb.	Full Power (10) 3	
Ground Beef (Bulk)	4-5 min./lb.	Full Power (10)	Place in a dish, cover. Stir halfway through cooking time. Drain.
Ground Beef Patties 2 patties (4 oz. each) 4 patties (4 oz. each)	1½-4½ min.	Full Power (10)	Place on a roasting rack or preheat in a browning dish according to manufacturer's instructions. Cook covered. Turn meat over halfway through cooking time.
	2½-5½ min.	Full Power (10)	
Veal Roasts (Rib and Loin Roasts)	(Rare 140°F) 1st - 3 min./lb. 2nd - 7-11 min./lb.	Full Power (10) 3	Place meat on a plastic rack in a 2-quart utility dish. Cover with waxed paper. Turn large cuts of meat over halfway through the cooking time.
	(Medium 160°F) 1st - 3 min./lb. 2nd - 11-14 min./lb.	Full Power (10) 3	
	(Well 170°F) 1st - 3 min./lb. 2nd - 15-18 min./lb.	Full Power (10) 3	
Boneless Pork Roast (top loin, loin blade, loin sirloin, shoulder blade Boston roast) 3-3½ lbs.	22-24 min./lb.	3	Place in a heavy-duty plastic roasting bag. Place in a 2-quart utility dish. Sprinkle with seasoning, if desired. Close the bag loosely, securing with a string. Turn roast over halfway through the cooking time. Let stand, covered, for 10 minutes after the cooking time.
Bone-In Pork Roasts (loin center roasts, shoulder blade Boston roasts)	20-22 min./lb.	3	Place in a heavy-duty plastic roasting bag. Place in a 2-quart utility dish. Sprinkle with seasoning, if desired. Close the bag loosely, securing with a string. Turn roast over halfway through the cooking time. Let stand, covered, for 10 minutes after the cooking time.
Pork Loin Country Style Ribs 3-3½ lbs.	14-16 min./lb.	5	Place ribs in a heavy-duty plastic roasting bag. Place in a 2-quart utility dish. Add 1 cup of water. Close bag loosely, securing with a string. Invert or turn ribs halfway through cooking time and rotate dish a half-turn.
Ham Pre-cooked (boneless, bone-in, picnic, canned hams)	15-20 min./lb.	3	Place fat-side-down on a plastic rack in a 2-quart utility dish. Cover with heavy-duty plastic wrap. Turn over 2 to 3 times during the cooking time.
Bacon			
2 slices	1½-2½ min.	Full Power (10)	Arrange slices on a roasting rack or paper towel lined plate. Cover with microwave-safe paper towel. Bacon may be layered between microwave-safe paper towels. Cook until browned and crisp.
4 slices	3½-4½ min.	Full Power (10)	
6 slices	5-6½ min.	Full Power (10)	
8 slices	6½-8 min.	Full Power (10)	

Item	Total Cooking Time	Cookmatic Power Level	Method
Frankfurters			
1	30-45 sec.	Full Power (10)	Place on a plate or plastic rack. Pierce skin(s) with a fork or knife. Cover with a microwave-safe paper towel. Frankfurters may be placed on buns during the last 15 to 30 seconds of the cooking time.
2	40-60 sec.	Full Power (10)	
4	1 min., 15 sec. – 1 min., 30 sec.	Full Power (10)	
6	1 min., 45 sec.– 2 min., 15 sec.	Full Power (10)	
Lamb Roast (Shoulder Roast and Legs)	(Rare 140°F) 1st - 3 min./lb. 2nd - 7-11 min./lb.	Full Power (10) 3	Place meat on a plastic rack in a 2-quart utility dish. Cover with waxed paper. Turn large cuts of meat over halfway through the cooking time.
	(Medium 160°F) 1st - 3 min./lb. 2nd -11-14 min./lb.	Full Power (10) 3	
	(Well 170°F) 1st - 3 min./lb. 2nd - 15-18 min./lb.	Full Power (10) 3	

Classic Meat Loaf

Yield: 6 to 8 servings

Sauce:

- 1/3 cup catsup
- 1 teaspoon Worcestershire sauce
- 1 tablespoon dark brown sugar
- 1 tablespoon prepared mustard

Meat Loaf:

- 1 1/2 lbs. ground beef
- 1 (8 oz.) can tomato sauce*
- 1 egg, slightly-beaten
- 1/2 cup bread crumbs
- 1 tablespoon instant minced onion
- 1/4 teaspoon instant minced garlic
- 1/2 teaspoon salt
- 1/4 teaspoon pepper

1. Combine all sauce ingredients in small bowl. Set aside.
2. Combine all ingredients for meat loaf in large bowl. Mix well. Pat into 9 x 5 x 2-inch loaf dish. Cook on Full Power for 6 minutes.
3. Pour sauce over meat loaf. Continue cooking on Cook Level 3 for 25 to 30 minutes, or until temperature of 160°F is reached.

MICRO-TIP:

*For a firmer meat loaf, decrease tomato sauce to 3/4 cup. If desired, add remaining tomato sauce to meat loaf sauce.

Beef Strips and Tomatoes

Yield: 5 servings

- 1 (1 lb.) flank steak
- 1/3 cup soy sauce
- 1/3 cup dry white wine
- 1 teaspoon sugar
- 2 tablespoons cornstarch
- 1 medium onion, sliced
- 2 cups sliced fresh mushrooms
- 1/2 green pepper, sliced
- 1 pint cherry tomatoes (halved, if desired)

1. Slice steak into thin strips, diagonally across grain. Place in 2-quart casserole. Combine soy sauce, wine and sugar. Pour over meat. Mix lightly to coat evenly. Marinate for 1 to 2 hours in refrigerator.
2. Stir in cornstarch, onion, mushrooms and green pepper.
3. Cook meat mixture, covered, on Full Power for 8 minutes. Stir halfway through cooking time. Continue cooking on Cook Level 3 for 20 to 25 minutes, or until meat is cooked and sauce is thickened. Stir halfway through cooking time.
4. Pierce or halve tomatoes and add. Heat, covered, on Full Power for 1 to 2 minutes, or until tomatoes are heated.

Beef Stroganoff

Yield: 4 servings

- 1 tablespoon butter or margarine
- 1/3 cup finely chopped onion
- 1 clove garlic, minced
- 1 lb. sirloin steak, 1/2-inch thick
- 1 (10 3/4 oz.) can cream of mushroom soup
- 1 (4 oz.) can sliced mushrooms, drained
- 2 tablespoons catsup
- 1 cup dairy sour cream

1. Combine butter, onion and garlic in 2-quart casserole. Cook, covered, on Full Power for 2 to 3 1/2 minutes, or until onion is tender.
2. Trim excess fat from meat. Cut meat into thin bite-size strips. Add meat to casserole. Cook, covered, on Full Power for 3 minutes. Stir halfway through cooking time. Continue cooking, covered, on Cook Level 3 for 10 to 13 minutes, or until meat is cooked.
3. Stir in soup, mushrooms and catsup. Heat, covered, on Full Power for 1 1/2 to 3 1/2 minutes, or until heated through.
4. Stir in sour cream. Heat, covered, on Full Power for 1 to 2 1/2 minutes, or until sour cream is heated through.

MICRO-TIP: May be served over cooked noodles or rice.

Veal Cordon Bleu

Yield: 4 servings

- 4 veal cutlets (about 1 lb.), thinly sliced
- 4 slices pre-cooked ham or prosciutto
- 4 slices Mozzarella cheese
- 1/4 cup all-purpose flour
- 1 egg, slightly-beaten
- 1/2 cup seasoned bread crumbs
- 1 (10 3/4 oz.) can golden mushroom soup
- 1/4 cup milk

Oriental Pork

Yield: 4 to 6 servings

- 1 (1 lb.) pork tenderloin
- 3 tablespoons soy sauce
- 1 tablespoon cornstarch
- 1 teaspoon instant chicken flavored bouillon
- 1 (6 oz.) pkg. frozen pea pods
- 1 (8 oz.) can bamboo shoots, drained
- 1 (8 oz.) can water chestnuts, drained and sliced
- 1/2 cup sliced green pepper
- 1/2 cup sliced green onion

1. Pound cutlets into 1/8-inch thickness, if necessary. Top each cutlet with one slice ham and one slice cheese. Roll each up starting at narrow end. Secure with toothpicks.
2. Dredge cutlets in flour, dip in egg and then in bread crumbs. Place seam-sides-down in 1 1/2-quart utility dish. Combine mushroom soup and milk. Pour over rolls. Cover loosely with heavy-duty plastic wrap. Cook, covered, on Full Power for 4 minutes. Continue cooking on Cook Level 3 for 11 to 14 minutes, or until veal is cooked and tender.

1. Trim fat from pork. Cut pork into bite-size pieces. Combine pork, soy sauce, cornstarch and bouillon in 2-quart casserole.
2. Cook, covered, on Cook Level 5 for 13 to 16 minutes, or until pork is thoroughly cooked and no longer pink.
3. Add remaining ingredients. Cook, covered, on Full Power for 4 to 6 minutes, or until vegetables are cooked as desired. Stir halfway through cooking time.

MICRO-TIP: This dish may be served over rice, if desired.

POULTRY COOKING GUIDELINES

1. Remove metal clamps from poultry and tie the legs and wings with string, if desired, before cooking.
2. Small poultry items can be cooked on a plastic rack in a 2-quart utility dish or on a plastic meat tray.
3. Your microwave oven will hold a family-size turkey.
4. Poultry weighing 3 pounds or more will brown by itself "naturally" in the microwave oven.
5. For some poultry items, you may wish to add additional color. Seasoned coating mixes and paprika will improve the color of poultry. Try making a paste of 1 tablespoon paprika and 2 tablespoons of shortening. Rub this paste over poultry for a nice reddish-brown color.
6. Do not salt poultry until just before serving, since salt will dehydrate the surface of poultry, making it tough. Salt may be added before cooking to the cavity or to a sauce that covers the poultry.
7. Begin cooking chicken pieces skin-side-down. Turn the pieces over halfway through cooking time in most recipes.
8. When cooking whole poultry, begin by cooking breast-side-down. When the poultry is turned over, cooking can be completed breast-side-up for a nicer, browner, finished appearance.
9. Pierce the skin of poultry before placing it in the microwave oven, to prevent popping.
10. After the poultry has started to brown, you may wish to cover the wing tips, the narrow part of the legs, and the high point of the breast bone with small thin strips of foil. This process is called shielding. The small amount of foil will slow the cooking of these areas and prevent them from dehydrating and overcooking.
11. Large poultry items, such as large turkeys, may need to be turned over several times during cooking, for more even cooking.

Item	Total Cooking Time	Cookmatic Power Level	Method
Whole Chicken, Turkey, Duck, Cornish Hen	(170°F Dark Meat) (180°F White Meat) 7-8 min./lb.	Full Power (10)	Place in a heavy-duty roasting bag on a rack in a 2-quart utility dish. Close the bag loosely, securing with a string. Turn over several times during the cooking time. Allow to stand 10-15 minutes before carving.

Easy Barbecued Chicken

Yield: 4 to 6 servings

- 3 lb. broiler-fryer, cut-up
- 3/4 cup bottled barbecue sauce*
- 1 teaspoon instant minced onion (optional)
- 1 teaspoon liquid smoke (optional)

1. Arrange chicken in 2-quart utility dish with larger pieces in corners, skin-side-down. Place small pieces in center. Mix sauce, onion and liquid smoke together. Pour over chicken.
 2. Cover loosely with heavy-duty plastic wrap. Cook, covered, on Full Power for 20 to 25 minutes, or until chicken is thoroughly cooked and tender. Turn chicken over halfway through cooking time.
- *MICRO-TIP:** Use hickory smoke flavored barbecue sauce or barbecue sauce with onion bits.

Chicken and Wild Rice Bake

Yield: 6 servings

- 1 (6 oz.) pkg. quick-cooking long grain and wild rice mix
- 1 (10 3/4 oz.) can cream of mushroom soup
- 1/2 cup milk
- 1/2 cup diced celery
- 1 (3 lb.) fryer, cut up

1. Combine rice mix, seasonings from packet, soup, milk and celery in 4-quart casserole. Arrange chicken over top of rice mix.
2. Cook, covered, on Full Power for 25 to 30 minutes, or until chicken is done and rice is tender.

Chicken Enchilada Bake

Yield: 4 to 6 servings

- 1 tablespoon butter or margarine, melted
- 1/2 cup chopped onion
- 1 (10³/₄ oz.) can cream of chicken soup
- 1 cup dairy sour cream
- 1/4 teaspoon coriander
- 1/4 teaspoon cumin
- 12 tortillas, each cut into bite-size pieces
- 2 to 3 cups cooked, cubed, chicken
- 2 (4 oz. each) cans green chilies, chopped, drained
- 8 oz. shredded Cheddar cheese (about 2 cups)
- 8 oz. shredded Monterey Jack cheese (about 2 cups)

1. Place butter and onion in 1-quart casserole. Cook, covered, on Full Power for 2 to 4¹/₂ minutes, or until tender. Stir in soup, sour cream, coriander and cumin. Mix well. Set aside.
2. Layer half of tortillas, chicken, chilies, soup mixture, Cheddar cheese and Monterey Jack cheese in 2-quart utility dish. Repeat layers with remaining ingredients, reserving cheese.
3. Cover loosely with heavy-duty plastic wrap. Heat, covered, on Full Power for 9 to 12 minutes, or until heated through. Sprinkle remaining cheese over top. Cover, and let stand for 5 minutes before serving.

FISH AND SEAFOOD COOKING GUIDELINES

1. In most cases, fish should be defrosted, before cooking, unless otherwise stated in a recipe.
2. Cook most fish and seafood, covered, on Full Power. The use of coverings decreases cooking times and helps to keep fish moist.
3. Cook fish until it flakes easily with a fork and is opaque and firm. Always cook fish and seafood for a minimum amount

- of time. Allow 5 minutes, covered, standing time to allow for cooking to be completed.
4. Always cook fish last when preparing an entire meal, since it doesn't reheat as well as some foods and can overcook during reheating.
5. Shellfish can be cooked directly in the shell.

Item	Total Cooking Time	Cookmatic Power Level	Method
Fish, Fillets	3 ¹ / ₂ -6 min./lb.	Full Power (10)	Arrange in a 2-quart utility dish or roasting rack. Brush with melted butter or lemon, if desired. Cover with plastic wrap or waxed paper. Rearrange and turn over halfway through cooking time. Fish is done when it turns opaque in color and flakes near the center of the fillet. Let stand, covered, 5 minutes before serving.
Fish, Steaks	5-8 min./lb.	7	Arrange in a 2-quart utility dish or roasting rack. Brush with melted butter or lemon juice, if desired. Cover with plastic wrap or waxed paper. Rearrange and turn over halfway through the cooking time. Fish is done when it turns opaque in color and flakes near the center of the steak. Let stand, covered, for 5 minutes before serving.
Scallops	5-8 min./lb.	7	Arrange in a single layer in a baking dish. Cover with vented plastic wrap. Stir and rearrange halfway through cooking time. Scallops are done when they are opaque. Let stand 5 minutes before serving.
Shrimp	5-8 min./lb.	7	Arrange in a single layer in a baking dish. Cover with vented plastic wrap. Stir and rearrange halfway through cooking time. Shrimp are done when they are opaque. Let stand 5 minutes before serving.
Lobster Tails (2 - 8 oz. each)	7-11 min.	5	Slit or remove the membrane (soft shell) on the underside of the tail. Arrange in a baking dish, shell-side down. Brush with melted butter, if desired. Cover with plastic wrap. Rotate dish once or twice during cooking time. Lobster is done when it is firm and opaque. Let stand 5 minutes before serving.

Fancy Fish For One

Yield: 1 serving

- 1 cup sliced mushrooms
- 1/2 cup sliced carrots
- 1/2 cup sliced celery
- 1 tablespoon lemon juice
- 1 tablespoon butter or margarine
- 1/2 teaspoon parsley flakes
- 1/8 teaspoon Italian seasoning
- Salt
- Pepper
- 1/2 lb. orange roughy or any fillets
- Paprika

1. Place all ingredients, except fish, in a 9 x 5 x 2-inch loaf dish. Cover loosely with heavy-duty plastic wrap. Cook, covered, on Full Power for 3 to 5 minutes, or until vegetables are crisp-tender. Drain and reserve liquid.
2. Arrange fish over top. Pour reserved liquid over fish. Sprinkle with paprika. Cover loosely with heavy-duty plastic wrap. Cook, covered, on Full Power for 3¹/₂ to 5¹/₂ minutes, or until fish flakes easily with fork.

MICRO-TIP: Garnish with lemon slices and additional parsley, if desired.

Shrimp Creole

Yield: 4 to 5 servings

- 1 cup chopped onion
- 1 cup chopped celery
- $\frac{3}{4}$ cup chopped green pepper
- 2 tablespoons all-purpose flour
- 1 (14 $\frac{1}{2}$ oz.) can tomatoes
- 1 teaspoon sugar
- 5 to 6 drops hot pepper sauce
- 1 bay leaf
- $\frac{1}{4}$ teaspoon salt
- $\frac{1}{8}$ teaspoon pepper
- 1 lb. shrimp, peeled and cleaned

Tuna Divan

Yield: 6 to 8 servings

- 3 tablespoons butter or margarine
- 3 tablespoons all-purpose flour
- $\frac{1}{2}$ teaspoon basil
- $\frac{1}{4}$ teaspoon garlic powder
- 1 (10 $\frac{3}{4}$ oz.) can chicken broth
- $\frac{1}{2}$ cup dairy sour cream
- 2 (10 oz. each) pkgs. frozen broccoli spears
- 2 (6 $\frac{1}{2}$ to 7 oz. each) cans tuna, drained
- 2 (2 $\frac{1}{2}$ oz. each) jars sliced mushrooms, drained
- $\frac{1}{4}$ cup grated Parmesan cheese
- Paprika

1. Combine onion, celery and green pepper in 1 $\frac{1}{2}$ -quart casserole. Cook, covered, on Full Power for 4 to 6 minutes, or until vegetables are tender. Stir halfway through cooking time.
2. Sprinkle vegetables with flour. Stir to blend. Mix in tomatoes. Cook, covered, on Full Power for 4 to 6 minutes, or until thickened and bubbling. Stir halfway through cooking time.
3. Blend in remaining ingredients. Cook, covered, on Full Power for 5 to 7 minutes, or until shrimp are pink and fully cooked. Stir twice during cooking time. Remove bay leaf before serving.

MICRO-TIP: May be served over cooked rice.

1. Place butter in 1-quart casserole. Heat on Full Power for 30 to 60 seconds, or until melted.
2. Stir in flour, basil and garlic powder. Gradually blend in chicken broth. Cook, covered, on Full Power for 4 to 6 minutes, or until thickened and bubbling. Stir 2 to 3 times during cooking time. Blend in sour cream. Set aside.
3. Place broccoli in 2-quart utility dish. Cover loosely with heavy-duty plastic wrap. Cook, covered, on Full Power for 8 to 11 minutes, or until broccoli is tender. Break apart with fork halfway through cooking time. Spread evenly in dish.
4. Layer tuna, mushrooms sauce, and Parmesan cheese over broccoli. Sprinkle with paprika. Cover loosely with heavy-duty plastic wrap. Heat, covered, on Full Power for 7 to 10 minutes, or until heated through.

EGG COOKING GUIDELINES

1. Egg recipes, such as casseroles, quiches and puffy omelets are prepared on Cook Level 4.
2. Plain eggs, such as scrambled and poached, are cooked on Full Power.
3. Do not hard-cook eggs or boil eggs in the shell in a microwave oven. Yolks cook faster than whites and the rapid heat generated through microwave cooking expands the air inside the shell, causing it to burst. Do not reheat eggs which have been prepared conventionally or in the microwave oven unless they are finely chopped or scrambled before heating. Pressure can build up in reheated eggs and cause them to burst.
4. Before poaching eggs, gently pierce or puncture the yolk membrane with a toothpick, knife or fork. This will slightly break the membrane and prevent the yolk from erupting during cooking. Remove eggs while they are still moist and slightly underdone. Let them stand, covered, a few minutes to complete the cooking process.

Item	Cooking Time	Cookmatic Power Level	Amount of Butter*	Amount of Milk or Water (Optional)	Method
Scrambled Eggs					
1	45 sec. to 1 min.	Full Power (10)	1 teaspoon	2 teaspoons	Melt the butter in the bottom of a 1 to 1 $\frac{1}{2}$ -quart bowl on Full Power for 30 to 45 seconds. Swirl the bowl so the melted butter covers the entire dish bottom. Stir the eggs vigorously with a fork in a butter-coated bowl. Add milk or water, if desired, for a smooth texture. Cook, covered, on Full Power for the specified time, depending upon the quantity of eggs used. Eggs may be loosely covered with waxed paper. For fluffier eggs, stir several times during cooking. Eggs are cooked when they look done, but are still slightly moist. Stir or fluff with a fork before serving. Be careful not to overcook. Season with salt and pepper, as desired.
2	1 $\frac{1}{4}$ to 1 $\frac{1}{2}$ min.	Full Power (10)	1 teaspoon	1 tablespoon	
4	2 to 2 $\frac{1}{2}$ min.	Full Power (10)	2 teaspoons	1 $\frac{1}{2}$ tablespoons	
6	3 to 3 $\frac{1}{2}$ min.	Full Power (10)	1 tablespoon	2 tablespoons	

*Spray-on vegetable coating may be used instead of butter. Spray to cover entire dish.

Items	Cooking Time	Cookmatic Power Level	Amount of Water	Method
Poached Eggs				
1	30 to 60 sec.	Full Power (10)	1 cup	<p>Place water in a glass measure. Cover loosely with heavy-duty plastic wrap. Cook, covered, on Full Power for 2 to 3 minutes, or until water boils. Stir water vigorously after the cooking time.</p> <p>Break egg(s) into 1½-quart bowl. Be sure to use a bowl with steep sides, so the water will be deep enough to cover the egg(s).</p> <p>Pierce the yolk(s) with a toothpick, knife or fork.</p> <p>Pour boiling water slowly over the egg(s). One tablespoon of vinegar can be added to the water to help the egg(s) hold its (their) shape. Cover loosely with heavy-duty plastic wrap.</p> <p>Cook, covered, until done as desired. Allow to stand in the water up to 5 minutes after cooking to desired doneness, if necessary. Remove the eggs with a slotted spoon. Season with salt and pepper, as desired.</p>
2	45 sec. to 1½ min.	Full Power (10)	1 cup	
4	1 min., 15 sec. to 2 min., 15 sec.	Full Power (10)	1½ cups	

PASTA AND RICE COOKING GUIDELINES

- Use hot tap water, since it will boil faster than cold.
- The amount of oil in the water is important when cooking pasta and rice as it helps to keep the water from boiling over.
- Cook pasta and rice in a covered dish, for faster cooking. Glass lids or heavy-duty plastic wrap are the best coverings to use since they are the most water-vapor-proof.
- Use a large enough dish so that water can completely cover pasta and rice.
- Pasta can be reheated quickly in the microwave oven. Pasta should be reheated on Full Power in a covered casserole. For a large quantity, add 1 to 2 tablespoons of liquid before reheating. Stir once or twice during reheating.

Item	Hot Water	Vegetable Oil	Salt (Optional)	Total Cooking Time	Power Level	Method
Rice, Long Grain, (1 cup) Yield: 3 cups	2 cups	1 tsp.	½ tsp.	15-24 min.	Full Power (10) for first 5-9 min., Level 4 for last 10-15 min.	Place water, oil, and salt in casserole. Heat, covered on Full Power for 4 to 6 minutes, or until water boils. Add rice. Cook, covered, on Full Power for 1 to 3 minutes, or until boiling. Continue cooking, covered, on Cook Level 4 to 10 to 15 minutes, or until rice is tender.
Egg Noodles, 2 cups	4 cups	2 tbsp.	1 tsp.	16½-27½ min.	Full Power (10) for first 9½-17½ min., Level 4 for last 7-10 min.	Place hot water and salt in 3-quart casserole. Heat on Full Power 8-14 minutes or until boiling. Stir in pasta and oil. Cook, covered, on Full Power for 1½-3½ minutes. Reduce to Cook Level 4 and cook for 7-10 minutes. Pasta is done when it is tender. Allow to stand 5 minutes, covered, to finish cooking. Drain and rinse with hot water tap.
Macaroni, 2 cups	4 cups	2 tbsp.	1 tsp.	16½-27½ min.	Full Power (10) for first 9½-17½ min., Level 4 for last 7-10 min.	Place hot water and salt in 3-quart casserole. Heat on Full Power 8-14 minutes or until boiling. Stir in pasta and oil. Cook, covered, on Full Power for 1½-3½ minutes. Reduce to Cook Level 4 and cook for 7-10 minutes. Pasta is done when tender. Allow to stand 5 minutes, covered, to finish cooking. Drain and rinse with hot tap water.
Spaghetti, Fettuccini, 8 oz.	6 cups	2 tbsp.	1 tsp.	22-34 min.	Full Power (10) for first 14-24 min., Level 4 for last 8-10 min.	Place hot water and salt in 4-quart casserole. Heat on Full Power for 12-20 minutes or until boiling. Stir in pasta and oil. Cook, covered, on Full Power for 2-4 minutes. Reduce to Cook Level 4 and cook for 8-10 minutes. Pasta is done when it is tender. Allow to stand 5 minutes, covered, to finish cooking. Drain and rinse with hot tap water.

NOTE: To cook microwave convenience rice and pasta, follow package instructions.

BREAD COOKING GUIDELINES

- Muffins, coffee cakes, quick breads, and yeast breads are generally baked on Cook Level 7.
- BROWNING**
Breads won't brown in a microwave oven as they do in a conventional oven. For color, use toppings or ingredients which supply color. Some examples include rye flour, whole wheat flour, brown sugar, or dark spices, such as cinnamon. In some recipes, there may seem to be extra topping ingredients left over. Use all ingredients, since the bread will expand during cooking.
- MUFFINS**
When cooking muffins, use 6 oz. glass custard cups or a 6-cupcake capacity plastic tray. Line custard cups or plastic tray compartments with paper liners. Fill liners with 2 tablespoons of batter to avoid having the muffins rise over the edges. Arrange

custard cups in a circle, rather than in rows. Remove muffins from custard cups or plastic tray immediately, to avoid soggy "bottoms."

- AFTER COOKING**
Quick breads are usually fully cooked when a toothpick inserted in the center comes out clean. Some breads will look slightly moist when first removed from the microwave oven. Look through the bottom of a glass dish to see if the bread is fully cooked. Breads should be allowed to stand 3 to 5 minutes after cooking.
- REHEATING BREADS**
When reheating baked breads, heat only for a few seconds. Reheat only as much bread as is needed for each meal. Wrap the bread in a microwave-safe paper towel or napkin when reheating to capture steam and help keep the bread moist.

Item	Cooking Time	Cookmatic Power Level	Method
Muffins (6)	2-3½ min.	7	Prepare according to recipe or package directions. Place 2 tablespoons of batter into a plastic muffin tray lined with paper liners. Turn quarter-turn halfway through cooking time. Muffins are done when tops spring back when lightly pressed. Remove muffins from tray and place on cooling rack immediately.
Coffee Cake 9" round from scratch	9-13 min.	7	Prepare according to recipe or package directions. Turn quarter-turn halfway through cooking time. Coffee cake is done when toothpick inserted in the middle comes out clean.
Corn Bread 9" round	8-10 min.	7	Prepare according to recipe or package directions. Turn quarter-turn halfway through cooking time. Top may look glossy but will finish cooking after 5 minutes standing time.

NOTE: To bake microwave convenience bread products, follow package instructions.

Cranberry Muffins

Yield: About 2 dozen muffins

- Topping:**
- 1 teaspoon grated orange peel
 - ¼ cup sugar
 - 2 teaspoons cinnamon
 - ¼ cup chopped nuts
- Muffins:**
- 2 cups all-purpose flour
 - ½ cup sugar
 - 1 tablespoon baking powder
 - 1 cup milk
 - ¼ cup vegetable oil
 - 1 egg, beaten
 - 1 cup coarsely chopped cranberries
 - ½ cup chopped nuts
 - 2 teaspoons grated orange peel

- For topping:* Combine orange peel, sugar, cinnamon, and chopped nuts in small bowl. Set aside.
- For muffins:* Combine flour, sugar and baking powder in large mixing bowl. Combine milk, oil and egg. Add to combined dry ingredients. Mix until just blended. Fold in cranberries, nuts, and orange peel.
- Spoon 2 tablespoons of batter into plastic muffin tray (or 6, 6 oz. glass custard cups) lined with paper liners. Arrange 6 muffins in circle in oven if using custard cups.
- Cook half-dozen on Cook Level 7 for 2 to 3½ minutes, or until tops spring back when lightly pressed with finger. Turn quarter-turn and sprinkle with 1 teaspoon topping over muffins halfway through cooking time. Remove muffins from tray or custard cups and place on cooling rack immediately. Repeat with remaining muffins.

Blueberry-Sour Cream Coffee Cake

Yield: 1, 9-inch round or 8-inch square, cake

- Topping:**
- ½ cup all-purpose flour
 - ½ cup sugar
 - 1½ teaspoons cinnamon
 - 3 tablespoons butter or margarine, softened
 - ½ cup chopped nuts
- Cake:**
- ½ cup sugar
 - ½ cup butter or margarine
 - 1 egg
 - ½ cup dairy sour cream
 - 1 cup all-purpose flour
 - ½ teaspoon baking powder
 - ¼ teaspoon baking soda
 - 1 cup blueberries, fresh or frozen, thawed

- For topping:* Combine flour, sugar and cinnamon in small bowl. Cut in butter until crumbly. Stir in nuts. Set aside.
- For cake:* Cream sugar and butter in large mixing bowl. Beat in egg and sour cream, until smooth.
- Combine flour, baking powder and baking soda in small bowl. Add to creamed mixture, beating until well-blended. Gently stir in blueberries.
- Pour half of batter into greased 9 x 2-inch round or 8 x 8 x 2-inch dish. Sprinkle half of topping over batter. Top with remaining batter. Cook on Cook Level 7 for 9 to 13 minutes, or until toothpick inserted in center comes out clean. Turn quarter-turn and sprinkle remaining topping evenly over batter halfway through cooking time.

Bran and Cheddar Cheese Batter Bread

Yield: 1 loaf

- 1 cup small cubes Cheddar cheese
- $\frac{3}{4}$ cup milk
- $\frac{1}{3}$ cup vegetable oil
- $\frac{1}{4}$ cup honey
- 2 eggs
- $\frac{3}{4}$ cup whole bran cereal
- $\frac{3}{4}$ cup whole wheat flour
- $\frac{3}{4}$ cup all-purpose flour
- 1 tablespoon baking powder
- $\frac{1}{4}$ cup crushed bran cereal

1. Combine cheese, milk, oil, honey and eggs in large mixing bowl. Add bran cereal and let stand for 5 minutes.
2. Combine whole wheat flour, all-purpose flour, baking powder and add to cereal mixture. Grease 1-quart casserole. Coat with crushed bran cereal. Pour batter into casserole. Cook on Cook Level 7 for 9 to 10 minutes, or until toothpick inserted in center comes out clean. Turn quarter-turn halfway through cooking time. Let stand 5 minutes, then invert on serving platter.

BAKED GOODS AND DESSERT COOKING GUIDELINES

1. Circular and tube dishes provide best cooking results. Arrange cupcakes in a circle, if baking them in custard cups or use circular-shaped cupcake trays.
2. If you do not have a ceramic or plastic tube dish, you can "create" one by placing a 2 to 3-inch diameter drinking glass in a 3 or 4-quart casserole. Pour the cake batter around the glass.
3. If you want to turn a layer cake out of the dish and onto a serving platter, grease the dish and line the bottom with waxed paper before baking. This will allow easy removal of the cake. Do not use flour when greasing a dish since it will tend to lump in the bottom of the dish. Avoid using spray-on vegetable coating, as it makes cakes sticky.
4. You may wish to decrease the amount of batter slightly when cooking microwave oven cakes. Dishes should be about half-filled with batter. Excess batter can be used for baking cupcakes.
5. Cook cake layers separately, one at a time. The same dish may be used, if desired. Use a fresh piece of waxed paper when cooking the second layer.
6. Cakes and bars generally baked on Cook Level 7. You may want to turn some cakes a quarter-turn halfway through the cooking time.
7. Cakes and bars are done when tops spring back when lightly pressed with a finger. Cakes may appear slightly moist after cooking. "Moisture" is not "raw" batter. This moisture will disappear when the cake stands for 3 to 5 minutes after cooking. Remember this "carry-over cooking" time.
8. Due to the short amount of cooking time, microwave oven-cooked cakes and bars will not brown. By using frosting or toppings, however, the lack of browning is not noticed. Confectioners' sugar, a mixture of cinnamon and sugar, nuts, or coconut may be sprinkled over the top of a cake. Sauces, fruit toppings, and fresh or frozen fruit may be served over cake. Even pudding can be used as a topping for cake!

Item	Cooking Time	Cookmatic Power Level	Method
Cake, Layer 8" round	7 $\frac{1}{2}$ -9 $\frac{1}{2}$ min.	7	Microwave one layer at a time. Turn quarter-turn halfway through cooking time. Cake is done when top springs back when touched lightly. The top may still appear moist but not raw. Let stand for 5 minutes. Invert on a cooling rack. Cool completely.
Cupcakes	2-3 $\frac{1}{2}$ min.	7	Prepare according to recipe or package directions. Place 2 tablespoons of batter into a plastic cupcake tray lined with paper liners. Turn quarter-turn halfway through cooking time. Cupcakes are done when top springs back when lightly pressed. Remove from tray and place on a cooling rack immediately.
Bundt Cake 10-12 cups	10-13 min.	7	Prepare according to recipe or package directions. Place in a greased bundt pan. Turn a quarter-turn halfway through cooking time. Cake is done when top springs back when touched lightly. The top may still appear moist but not raw. Let stand 5 minutes. Invert on cooling rack. Cool completely.

Item	Cooking Time	Cookmatic Power Level	Method
Brownies 8" square	7 $\frac{1}{2}$ -9 min.	7	Prepare according to recipe or package directions. Turn quarter-turn halfway through cooking time. Brownies are done when top springs back when lightly touched. The top may still appear moist but not raw. Let stand until cooled.
Single Pie Crust 9" round	6-8 min.	7	Prepare according to recipe or use thawed ready-made pie crust. Cover with microwave-safe paper towel. Turn quarter-turn halfway through cooking time. Pie crust is done when dough is no longer moist. Cool. Fill with desired filling.

NOTE: To bake microwave convenience cakes, bars, desserts, etc., follow package instructions.

Cherry Cheesecake

Yield: 12 to 15 servings

- 1/2 cup butter or margarine
- 2 cups graham cracker crumbs
- 1/2 cup sugar
- 1/2 teaspoon cinnamon
- 3 (8 oz. each) pkgs. cream cheese, softened
- 5 eggs
- 1 cup sugar
- 1/2 teaspoon vanilla
- 2 1/2 cups dairy sour cream
- 1/3 cup sugar
- 1 1/2 teaspoons vanilla
- 1 (21 oz.) can cherry pie filling*

Chocolate Malt Cake

Yield: 1, 9-inch 2-layer cake

- Cake:
- 1 cup sugar
 - 1/2 cup butter or margarine
 - 1 cup vegetable oil
 - 3 eggs
 - 1 teaspoon vanilla
 - 2 cups all-purpose flour
 - 1 1/2 cups chocolate flavored malted milk powder
 - 1 tablespoon baking powder
 - 1 1/4 cups milk
- Frosting:
- 1 (12 oz.) carton frozen non-dairy whipped topping, thawed
 - 1/2 cup chocolate flavored malted milk powder
 - 1/4 cup cocoa

Lemon Bars

Yield: 1 dozen bars

- 1/2 cup butter or margarine
- 1 1/2 cups all-purpose flour
- 1/4 cup confectioners' sugar
- 1 cup sugar
- 2 eggs
- 3 tablespoons lemon juice
- 2 tablespoons all-purpose flour
- 1 teaspoon grated lemon peel
- 3 to 4 tablespoons confectioners' sugar

Chocolate Pudding

Yield: 4 servings

- 2/3 cup sugar
- 1/3 cup cocoa
- 2 tablespoons cornstarch
- 2 cups milk
- 2 beaten egg yolks or 1 beaten egg
- 2 tablespoons butter or margarine
- 1 teaspoon vanilla

Dutch Apple Cream Pie

Yield: 1, 9-inch pie

- 1 cup all-purpose flour
- 1/2 cup brown sugar, firmly packed
- 1 teaspoon cinnamon
- 1/3 cup butter or margarine, softened
- 1/3 cup chopped nuts
- 1 cup dairy sour cream
- 3/4 cup sugar
- 1 egg, slightly-beaten
- 2 tablespoons all-purpose flour
- 1/2 teaspoon cinnamon
- 4 cups cored, peeled, and sliced apples
- 1, 9-inch baked pie crust.

1. Place butter in 2-quart utility dish. Heat on Full Power for 1 to 2 minutes, or until melted.
2. Blend in crumbs, sugar, and cinnamon. Press mixture firmly against bottom and sides of dish. Cook on Full Power for 1 to 2 1/2 minutes, or until firm. Turn half-turn halfway through cooking time.
3. Beat cream cheese until smooth. Beat in eggs, one at a time. Mix in sugar and vanilla, until smooth and creamy. Pour over crust. Cook on Cook Level 4 for 35 to 45 minutes, or until knife inserted in center comes out clean. Turn half-turn halfway through cooking time.
4. Combine sour cream, sugar, and vanilla. Blend well. Pour mixture over cheesecake. Chill. Top with cherry pie filling.

MICRO-TIP: *Cherry pie filling may be substituted with glazed fresh fruit or other fruit pie fillings, such as strawberry or blueberry.

1. *For cake:* Line bottoms of 2, 9 x 2-inch round dishes with waxed paper.
2. Cream together sugar and butter in large mixing bowl, until fluffy. Gradually blend in oil.
3. Add eggs, one at a time. Beat well after each addition. Blend in vanilla.
4. Mix together flour, malted milk powder, and baking powder in medium mixing bowl. Add dry ingredients alternately with milk. Beat well after each addition.
5. Pour one-half of batter into dish. Cook on Cook Level 7 for 7 1/2 to 9 1/2 minutes, or until top springs back when lightly pressed with finger. Turn quarter-turn halfway through cooking time. Let stand for 5 minutes. Invert on cooling rack. Cool completely. Repeat with remaining layer.
6. *For frosting:* Combine all frosting ingredients in large mixing bowl. Mix until well-blended. Fill and frost cooled cake.

1. Place butter in 8 x 8 x 2-inch baking dish. Heat on Full Power for 1 to 2 minutes, or until melted. Blend together melted butter, 1 1/2 cups flour, and 1/4 cup confectioners' sugar.
2. Cook on Full Power for 2 to 3 1/2 minutes, or until crumbly. Stir 2 to 3 times during cooking time. Press mixture firmly against bottom of dish. Cook on Full Power for 1 1/2 to 2 1/2 minutes, or until slightly firm.
3. Beat together sugar, eggs, lemon juice, 2 tablespoons flour, and grated lemon peel. Pour over hot crust. Cook on Cook Level 4 for 10 to 13 minutes, or until center is firm. Turn quarter-turn halfway through cooking time. Sprinkle with 3 to 4 tablespoons confectioners' sugar. Cool completely. Cut into squares.

1. Combine sugar, cocoa and cornstarch in 1 1/2-quart casserole. Blend together. Gradually stir milk into cornstarch mixture with wire whip. Cook on Full Power for 6 to 8 minutes, or until thickened and bubbling. Stir 2 to 3 times during cooking time.
2. Beat half of hot mixture into egg yolks. Return egg mixture to hot mixture. Cook on Full Power for 1 to 2 1/2 minutes, or until thickened and heated through. Stir twice during cooking time.
3. Mix well with wire whip, stirring in butter and vanilla. Pour into 4, 6 oz. custard cups or dessert dishes.

1. *For topping:* Combine 1 cup flour, brown sugar and 1 teaspoon cinnamon. Cut in butter, until mixture is crumbly. Stir in nuts. Set aside.
2. *For filling:* Combine sour cream, sugar, egg, flour, and cinnamon. Stir in apples.
3. Add filling to baked pie crust. Cook on Full Power for 10 to 12 minutes, or until apples are tender. Sprinkle topping over pie and turn quarter-turn halfway through cooking time.

MAINTENANCE — CLEANING THE OVEN

To Clean The Oven and Door Interior

If the inside walls, floor, door and splatter shield at the top of the oven should become splattered, simply wipe them with a paper towel or clean with a mild detergent in warm water using a soft sponge or cloth. If desired, a cup of water can be boiled in the oven to loosen soil before cleaning. After boiling the water, allow the water vapor to settle on the oven walls and soften the soil for several minutes before you open the door.

Do not use an abrasive to clean the inside. It might damage the finish. Never pour water into the bottom of the oven.

To Clean The Splatter Shield Inside Oven

The splatter shield keeps the top of the oven and antenna from getting dirty. Normally, a damp cloth will remove any splatter from the shield. However, if you want to clean it more thoroughly, remove the splatter shield. Be careful not to bend the antenna when removing the splatter shield. The shield snaps into a lip in the front of the oven and three slots in the back wall. Place your thumbs in the two indentations in the front of the shield. Press lightly towards the back and carefully lower the shield away from the antenna. Pull the shield out of the back slots and out of the oven.

Wash the shield in hot soapy water. Do not wash in a dishwasher. Do not use harsh or abrasive cleansers. When replacing, again be careful not to bend the antenna. To replace, fit shield tabs into the three slots at the top of the back. Lift front until shield snaps into place.

To check antenna operation, place a glass or cup of water in the unit, close the door and start the unit. A rotating shadow should be visible above the splatter shield.

To Clean The Oven Exterior, use a soft sponge or cloth dampened with mild, sudsy water. Do not use abrasive cleaners.

To Clean The Discharge Air Vents

There will be a slight buildup of cooking vapors along the discharge louvers in the back of the oven on the right hand side. Clean the air vent with a damp cloth.

Always Keep The Control Panel Clean

To clean the control panel, wipe with a damp cloth or sponge. If the time of day is accidentally erased from the control, **press STOP/RESET** then set the correct time of day.

HOW TO CHANGE THE OVEN LIGHT

The lightbulb for the inside of the oven can be changed only from the back. On the upper left hand side of the oven back is a metal plate with one screw. The lightbulb is located behind this plate.

Follow these steps to change the bulb:

- Unplug the oven from the electrical outlet.
- Facing the oven back, remove the screw and remove the plate.
- To remove the bulb, turn it counterclockwise, being careful not to burn fingers or break the bulb.
- Replace the bulb with a 40 watt, 115-125 volt appliance bulb, which can be purchased at grocery or hardware stores. To replace bulb, turn it clockwise.

- Reposition the plate, being careful not to bend the hinge tab. Replace and tighten the screw. Do not operate the oven without having the plate in place.
- Connect the oven to power outlet.



To remove bulb turn in the direction shown.

BEFORE YOU CALL FOR SERVICE

Be sure you have read and followed the operating instructions. Avoid unnecessary service calls. The electronic control module used in this microwave oven is the finest in versatility, quality and reliability. In many cases, a customer call for module timer service is caused by conditions other than failure of the controls. That's why you should read the following before calling for service.



NOTE: A Power Interruption Signal (dash lines) will appear in the display whenever the oven is initially plugged into an electrical outlet. The lines will also appear whenever electrical power to the oven has been interrupted and then restored. When you see these lines, simply set the clock.

IF THE READOUT DISPLAY DOESN'T LIGHT UP:

- Is the oven plugged securely into the proper power outlet?
- Is a fuse blown or circuit breaker open?
- If the condition remains unchanged, perform the steps listed in the box on this page.

IF THE READOUT APPEARS WRONG:

- Did you remember to press **STOP/RESET** before programming the oven?
- Have you (or someone else) pressed the controls after cooking has started?
- If the condition remains unchanged, perform the steps listed in the box on this page.

IF THE CONTROL WILL NOT ACCEPT YOUR INSTRUCTIONS:

- For cooking by time, if the condition remains unchanged, perform the steps listed in the box on this page.

IF ANOTHER FEATURE DOESN'T APPEAR TO BE OPERATING CORRECTLY:

- Have you followed the use and care instructions exactly? Review them to be sure.
- Did you press **STOP/RESET** twice before programming the oven?
- Is the oven plugged into a properly grounded and polarized outlet as described in the grounding instructions (page 4)? Improper installation can result in erratic operation.
- If the condition remains unchanged, perform the steps listed in the box on this page.

WHEN SERVICE IS REQUIRED

Call nearest authorized Amana service agency. (The dealer from whom you purchased your microwave oven can give you the name of your authorized Service Center.) Help them give you prompt service by providing:

1. An accurate description of the trouble.
2. Complete model and serial numbers. (See page 2.)
3. Date of installation. (We also suggest you retain your sales receipt.)

Remember, repair by an unauthorized service person that results in subsequent failure will void the warranty. Warranty details are contained in the warranty certificate shipped with the oven. Keep an accurate record of any service calls: what was done, who serviced the microwave oven and the date.

IF MICROWAVE POWER WON'T COME ON:

- Did you press **START**?
- Is the oven door securely closed?
- If the condition remains unchanged, perform the steps listed in the box on this page.

IF THE OVEN LIGHT PULSES DIMMER, THEN BRIGHTER:

- Is the line voltage to your home low or lower than usual? (The power company in your area should be able to tell you if there is low voltage to your home.)

If condition remains unchanged, please perform the following steps:

1. Check to see if a fuse or circuit breaker is open.
2. Unplug the oven.
3. Reconnect the oven to the wall outlet. Dash lines will appear in the display.
4. Press **STOP/RESET**. (Dash lines will disappear.)

YOUR OVEN MUST BE ON A GROUNDED, POLARIZED CIRCUIT.

IF ROOM LIGHTS DIM OR PULSE DIMMER, THEN BRIGHTER WHEN THE OVEN IS IN USE:

- Is the microwave oven on a separate circuit? (Review grounding instructions on page 4.)

IF FOOD IS OVERCOOKED:

- Did you remember to program the correct cooking power level? (Review instructions, page 9.)

IF FOOD IS UNDERCOOKED:

- Are there other energy-consuming appliances on the same circuit as the microwave oven? (Review grounding instructions, page 4.)
- Is the line voltage to your home low or lower than usual? (The power company in your area should be able to tell you if there is low voltage to your home.)
- Did you remember to program the correct cooking power level? (Review instructions, page 9.)

Amana has a large network of Authorized Service Centers in the U.S. However, if you should have a service problem that is not resolved locally,

Write:
Customer Relations Department
AMANA REFRIGERATION, INC.
Amana, Iowa 52204

Or dial: (319) 622-5511 Monday through Friday (8 a.m. - 4:30 p.m., Central Time Zone) and ask for Customer Relations. Please include model and serial numbers, date of purchase and selling dealer.