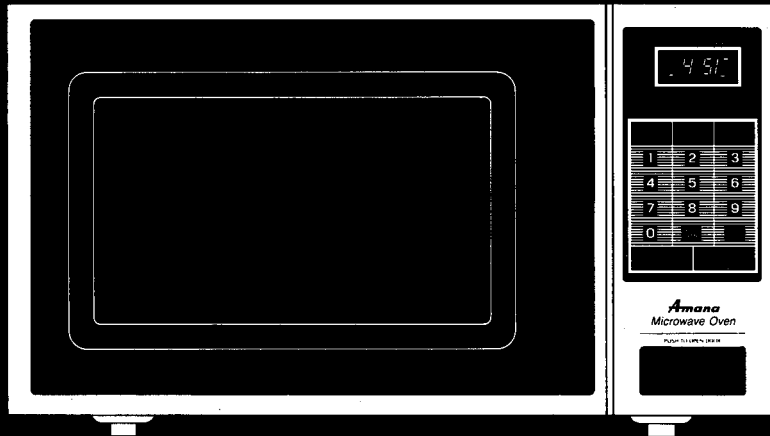


# Amana® Microwave Oven

## Model ML446P Use & Care Manual

500 Watts of Full Cooking Power\*



Record in the space below the Model No., Manufacturing (Mfg.) No. and Serial No. found on the nameplate on the back of your oven.

Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Mfg. No. \_\_\_\_\_

Date Installed \_\_\_\_\_

Selling Dealer \_\_\_\_\_

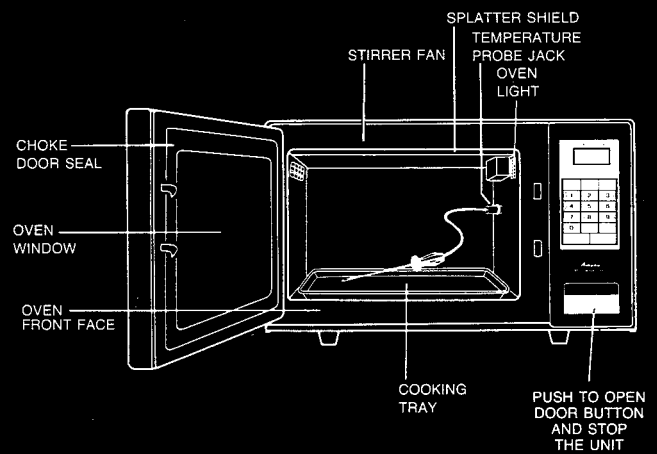
Retain these numbers and your Sales Receipt for proof of purchase should warranty questions arise. Your Sales Receipt is required should warranty service be needed. Complete the registration card, which is included in the packet that comes with the oven. This must be filled out and returned to Amana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

## READ THIS MANUAL BEFORE OPERATING YOUR OVEN

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### OVEN PARTS



\*Per 1-liter test.

# IMPORTANT SAFETY INSTRUCTIONS

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

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

1. Read all instructions before using the appliance.
2. Read and follow the specific "PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY" found on page 3.
3. This appliance must be grounded. Connect only to properly grounded outlet. See "GROUNDING INSTRUCTIONS" found on page 3.
4. Install or locate this appliance only in accordance with the provided installation instructions.
5. 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.
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 use outdoors.
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 7.
16. To reduce the risk of fire in the cavity:
  - a. Do not overcook the 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 by pressing the RESET pad and disconnecting the power cord, or shutting off power at the fuse or circuit breaker panel.

## 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. Your Amana Dealer will

tell you if the unit will operate correctly.

After removing packing material and literature, place the supplied glass tray in the oven. Do not operate oven without glass tray in place.

### OVEN PLACEMENT

The oven can be placed on a countertop or mounted under a kitchen wall cabinet.

The oven must have sufficient airflow around it. Allow one inch on the right side and four inches on the left side for clearance. Do not build in the oven. Never cover or block the vents underneath the oven.

Locate the oven away from steam or high temperatures.

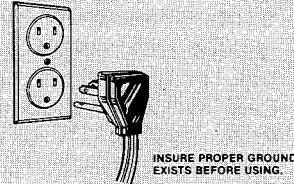
If the oven is placed on a countertop, the sur-

face must be flat. The oven feet and the four caps on top of the oven must remain in place.

If the oven is to be mounted under a cabinet, use only Amana Mounting Kit No. MLMTK1, which can be purchased from your Amana Dealer. Remove and save the four caps on top of the oven. The caps must be re-installed later if the oven is moved to a countertop. Do not mount the oven above ranges, ovens or any appliance that produces steam or high temperatures.

# GROUNDING INSTRUCTIONS

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

## SAFETY INSTRUCTIONS

### Read and follow these Rules for Safe Operation

The Amana Microwave Oven is designed to be safe and reliable. As with all appliances, there are certain rules to follow. Make sure everyone who cooks 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: (1) Door (bent), (2) hinges and latches (broken or loosened), (3) door seals and sealing surfaces.
- (d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

## PRECAUTIONS

- (a) **Do not operate the oven when door seal is damaged.** To do so would allow microwave energy to escape.
- (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 buildup 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) **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.

- (e) **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.
- (f) **Deep fat frying** must not be done in any microwave oven. The fat could overheat and be hazardous to handle.
- (g) **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.
- (h) **Regular cooking thermometers** must not be used in a microwave oven. They may contain mercury and may cause "arcing", malfunction, and/or damage to the oven.
- (i) **Plastic bags (and other air-tight containers)** must always be pierced or opened

before heating in a microwave oven. This is needed to allow steam to escape during cooking.

- (j) **Metal or ceramic accessories** which have a special design 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 read carefully and follow all manufacturer's instructions provided with the accessory. Any questions 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.
- (k) **Newspapers** must never be used in a microwave oven since they may ignite.
- (l) **Paper towels** which contain nylon or have other synthetic fibers woven through them must not be used because the heated synthetics could melt and cause the paper to ignite.

## THE CONTROL PANEL

**READOUT DISPLAY**---Normally shows time of day. Also shows cooking time, temperature, defrosting time, and power level number when selected.

**ACCU-THAW™ INDICATOR LIGHT**---Indicates when Accu-Thaw™ is being used.

**NUMBERS (0-9)**---Use to select numbers for power level, cooking time and defrosting time.

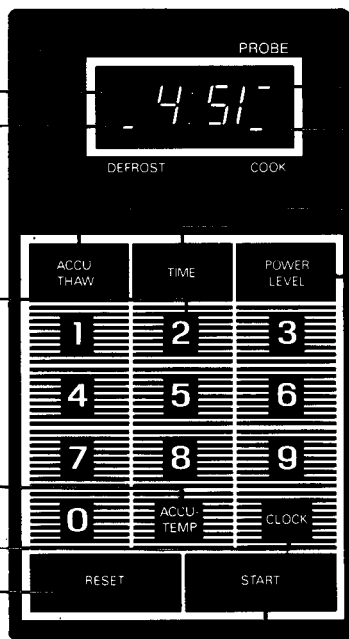
**ACCU-TEMP**---Controls cooking temperature when probe is used. Press before entering cooking temperature.

**CLOCK**---Use to set time of day.

**RESET**---Cancels all instructions. Stops oven if oven is operating.

**START**---Press to start operation when ready to cook or defrost.

**NOTE:**All pads except start will sound a beep signal when pressed in the proper sequence. Pressing numbers before function will result in no signal and no entry.



**PROBE INDICATOR LIGHT**---Indicates when probe is being used.

**COOK INDICATOR LIGHT**---Indicates when oven is operating.

**ACCU-THAW**---Controls defrosting cycle. Press before entering numbers for defrosting time. Oven will defrost using three power levels, which change automatically during defrosting time.

**TIME**---Controls cooking time. Press before entering numbers for cooking time.

**POWER LEVEL**---Controls cooking speed. Press before selecting number for one of the nine power levels. Oven automatically cooks on HIGH, which is Power Level 9.

**DOOR OPERATION BUTTON**---Push to open door, or stop unit without erasing program.

## SETTING THE CLOCK

Always CLOCK-RESET (time) CLOCK

When the oven is initially plugged in, "1:01" will appear in the display window.

1. Press **CLOCK**.
2. Press **RESET** within 5 seconds.
3. Enter the time of day by pressing the numbers in sequence. For example, if it is

3:45 (a.m. or p.m.), press number pads **3**, **4**, and **5** in that order.

4. Press **CLOCK** again. The two dots between the hour and minutes will flash every other second.

## TRY IT! COOKING WITH HIGH POWER

Before operating this oven, please read the introductory chapter in the cookbook. This oven provides approximately 500 watts\* of cooking power when operating on HIGH (Power Level 9).

1. **Open oven door** by pushing button labeled PUSH TO OPEN DOOR. The oven light will come on whenever the door is opened.
2. **Place food in center of oven and close oven door.** The oven light will go out.
3. Press **RESET** to erase any previous information.
4. Press **TIME**.
5. Press cooking time numbers (for 2 minutes and 30 seconds, press **2, 3, 0**).
6. Press **START** and the oven will automatically cook on HIGH, which is Power Level 9. The oven light will come on

and the blower will operate. The display will show cooking time as it "counts down". The cook indicator light will also appear in the display.

7. **To interrupt cooking**, simply open the oven door. Microwave energy will stop immediately, the display countdown will pause and the blower will turn off. To resume cooking, close oven door and press **START**. Operation will continue from where it stopped.
8. **When cooking time has elapsed**, a signal will sound three times and all oven functions will cease. The display will return to the time of day. The oven light will go out.

**NOTE:** If you press **RESET** while the oven is operating, the oven will shut off and all programming will be erased.

## TRY IT! DEFROSTING WITH THE ACCU-THAW™ FEATURE

Most frozen food can be defrosted quickly by using **ACCU-THAW**, which automatically selects various power levels for optimum defrosting results, without much of the premature cooking that occurs with many ordinary microwave oven defrost cycles. It pulses microwave energy on and off at the proper power levels. During the "on" periods, the exterior of the food is heated. During the "off" periods, heat is conducted to the interior of the food, allowing uniform defrosting with little or no cooking on the exterior. **Note:** Many foods, especially meats, must be defrosted completely before cooking begins. If ice crystals remain inside foods, cooking will be uneven because the outside of the food will be done, but the inside will be underdone. Consult the Accu-Thaw Defrosting Guide in your cookbook when using **ACCU-THAW**.

**To defrost foods using ACCU-THAW:**

1. **Place frozen food inside oven and close oven door.** If food is inside a plastic bag, slit the bag to allow steam to escape.
2. Press **RESET**.
3. Press **ACCU-THAW**.
4. **Press numbers for defrosting time.** (For example, to defrost for 12 minutes, press **1, 2, 0, 0**.) Start with the shortest length of time and increase if needed.
5. Press **START** and the oven will operate. Defrosting time will be displayed as it "counts down". The defrost indicator light will also be displayed.

**NOTE:** If additional defrosting time is needed after the minimum automatic defrosting time, finish defrosting on Power Level 2.

\*Per 1 liter test.

# TRY IT! COOKING WITH LOWER POWER LEVELS

Your microwave oven cooks most foods well on HIGH Power (9). It can also operate on lower power levels such as those required in some of the recipes in the microwave oven cookbook. For example, to simmer a hot beverage:

1. Press **RESET**.
2. Press **POWER LEVEL**.
3. Press Power Level number (for example, **3**).
4. Press **TIME**.
5. Press numbers for cooking time (for 12 minutes, press **1, 2, 0, 0**).

## 6. Press **START**.

**NOTE:** To check time of day or to recheck power level selected while the oven is operating, press **CLOCK** or **POWER LEVEL**. The display will show the time of day or power level for five seconds, then resume showing any remaining cooking or defrosting time. The oven will not shut off.

POWER LEVELS		
1 WARM	4 MEDIUM	7 BAKE
2 LOW	5 SLO COOK	8 MED HI
3 SIMMER	6 ROAST	9 HIGH (Full Power)

# USING THE AUTOMATIC TEMPERATURE CONTROL SYSTEM

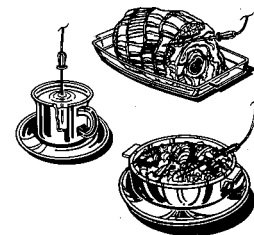
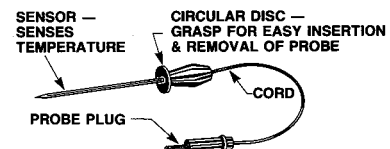
Read these special hints first.

Use the automatic temperature control system to cook foods especially meats, to a precise temperature. It can also be used for reheating leftovers and many other tasks.

1. **Do not use the temperature probe to cook candies.** The highest temperature sensed by the probe is 190°F, while most candies require temperatures of 230°F or higher.
2. **Insert the temperature probe as shown:**  
**Meats** — Insert probe sensor tip in the thickest lean section, halfway between the center and the exterior, but away from fat and bone.  
**Casseroles, Leftovers, Beverages** — Insert probe sensor tip in center, without touching bottom or sides.
3. **Be sure probe is securely inserted into food.** If the probe accidentally falls out of food, air temperature will be sensed and food will not cook properly. The probe could become damaged.
4. **Do not use the probe with foil or other metal.** Arcing could result. If the recipe suggests using foil, do not use the probe.
5. **Do not operate the oven if probe is caught in oven door.**
6. **Do not use the automatic temperature control system when cooking different foods at the same time.** Different foods

cook at different speeds, and the results may be unsatisfactory.

7. **Do not force the temperature probe into frozen food.** The sensor tip could be damaged or the probe could break.
8. **Use a hot pad to remove the hot temperature probe.** During cooking, the probe could become hot enough to burn you.
9. **Always remove the probe after use.** Do not store in the oven. Keep the probe in a place where it won't become lost or damaged.
10. **Wash the probe with hot, soapy water.** Do not immerse the probe plug in water nor wash in an automatic dishwasher. Rinse and dry probe thoroughly.



## TRY IT! COOKING TO TEMPERATURE/ HOLDING AT TEMPERATURE

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Note: The Temperature-Hold feature is designed to operate when the set temperature is 140°F or above. Food such as cooked meat, poultry or fish should be held at 140°F or above to prevent the growth of bacteria or the production of toxins.

1. Read the rules and hints on previous page.
2. Insert temperature probe tip into food. Place food in oven. Insert probe plug into receptacle. Close oven door.
3. Press **RESET**.
4. Press **ACCU-TEMP**.
5. Press middle number of desired end temperature (for example to cook to 140°F, press **4**). The probe's temperature setting range is 100°F to 190°F.
6. If less than full microwave power is desired, press **POWER LEVEL**, then the appropriate number pad (for example **4**).
7. Press **START** and the oven will operate. (You don't program cooking time

because the oven will cook to temperature only.) The display will show 90°F, until the food reaches that temperature. The display will then "count up" in 5°F increments until the preset temperature is reached.

8. When set temperature is reached, the oven will sound a signal. If the set temperature is 130°F or lower, the oven will sound three tones and automatically stop when the temperature is reached. **AUTOMATIC HOLD** — If the set temperature is 140°F or higher, the oven will automatically "hold" food at that temperature for 60 minutes or until you open the door. If you stop and restart the oven during the hold period, the timing of the 60 minutes will begin again. At the end of the 60 minute hold, the oven will sound three tones and stop.
- NOTE: Do not store probe in the oven. Store in a place it won't become damaged. If you press **RESET** while the oven is operating, the oven will shut off and all programming will be erased.

## TRY IT! PROGRAMMED COOKING USING DEFROST AND COOK

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This oven can remember to defrost food and cook, all with one set of instructions.

1. Put food in oven and close oven door.
2. Press **RESET**.
3. Enter your defrosting instructions for Cooking Program 1 by pressing **ACCU-THAW** first, then the numbers for defrosting time (for 15 minutes, press **1, 5, 0, 0**).

4. Press **TIME** to "advance" to Program 2.
5. Enter your cooking instructions for Program 2 by pressing cooking time numbers (for 2 minutes, 45 seconds, press **2, 4, 5**). If a lower power level is desired, then press **POWER LEVEL** followed by the power level number (for example, **3**).
6. Press **START**.

## MAINTENANCE---CLEANING THE OVEN

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### To Clean the Oven and Door Interiors

If the inside walls, floor, door, oven front face and splatter shield 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 for several minutes in the oven to help make cleaning easier. After boiling the water, allow the water vapor to settle on the oven walls to soften the soil for several minutes before you open the door.

Do not use abrasive cleansers or cleaners containing ammonia. They might damage the finish. Never pour water into the bottom of the oven.

### To Clean the Glass Tray

Lift the tray and remove it from the oven. Wash in warm water and detergent or in a dishwasher. Replace drip tray so the words "FOR MICROWAVE OVEN ONLY" are readable. Do not operate the oven without tray in position.

### To Clean the Splatter Shield Inside Oven

The splatter shield keeps the top of the oven and stirrer fan from getting dirty. Normally, a damp cloth will remove any splatter from the shield.

To Clean The Temperature Probe wash the metal probe in hot, soapy water. Do not im-

merse the probe or wires in water. Do not wash probe in dishwasher.

#### **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 in the discharge vents located underneath the oven. These vents should be cleaned occasionally using a damp cloth.

## **IF THE GLASS TRAY SHOULD BREAK**

The glass oven tray must be in place when operating the oven. This allows the microwaves to be reflected up into the bottom of the food being cooked. The tray is a special

type of glass and unique to this oven model. If the tray is accidentally broken, it must be replaced with the same type of tray from your Amana Dealer.

## **BEFORE YOU CALL FOR SERVICE**

If microwave power won't come on:

- Did you set the time correctly and press the START pad?
- Is the oven door securely closed?
- Is the oven plugged securely into the power outlet?
- Is a fuse or circuit breaker open?

If the temperature probe appears not to function correctly:

- Is the probe plug securely inserted into the jack? This tells the oven that it is about to be set to temperature.
- Is the food you're attempting to heat already hotter than the temperature you've programmed?

- Is the food completely defrosted?

- Has the probe been accidentally left in the oven when cooking by a method other than temperature cooking? The probe could be destroyed by leaving it in the oven when cooking by a method other than temperature cooking.

If food is undercooked:

- Are there other energy-consuming appliances on the same circuit as the microwave oven? (Review grounding instructions.)
- 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.)

## **WHEN SERVICE IS REQUIRED**

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

1. An accurate description of the trouble.
2. Complete model, manufacturing and serial numbers (located on the nameplate on the back of the oven).
3. Date of installation.

**Remember**, repair by an unauthorized service person that results in subsequent failure will

void the warranty promise.

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.