Dear Radarange Oven Owner:

Welcome to the world of microwave cooking! We're sure you'll be pleased with your new Amana Touchmatic Radarange Oven. You'll find it to be one of the best time and energy-saving appliances you'll ever own.

To be sure you get the full benefit from your Radarange Oven, please read the Use and Care Manual and introductory chapter of your Amana cookbook thoroughly.

In over fifteen years of working with microwave oven owners we've found cooking schools to be one of the best ways of learning to use a microwave oven to its best advantage. But not everyone has the opportunity to enroll in a cooking school. Many of us are employed or busy with many activities inside and outside our homes. Plus cooking schools may not always be available in the area in which you live. Therefore in this Use and Care Manual and the cookbook, we're helping you teach yourself how to use your Amana oven.

Your Use and Care Manual is written in five "sessions". Each session is designed to require less than one hour of your time. Each session "builds" on what you've learned in previous sessions. So set aside time each day for the first week or two you have your oven to complete the sessions and practice what you've learned. By completing each of the six sessions you'll learn to use all the features of your microwave oven. Learn to use all the features to get the most benefit from your investment. The extra time you spend learning to operate your oven now will be well worthwhile.

If you have any questions, please write to me.

Sincerely,

Ann MacGregor

Ann MacGregor
Consumer Affairs Department
Amana Refrigeration, Inc.

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IMPORTANT CAUTIONS
Installation and Safety Instructions
Checking Oven Operation

Read all instructions before operating.

IMPORTANT SAFETY INSTRUCTIONS

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

WARNING — To reduce the risk of burns, electric shock, fire, injury to persons or exposure to 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 4.
3. This appliance must be grounded. Connect only to properly grounded outlet. See "GROUNDING INSTRUCTIONS" found on page 3.
4. Install or locate this appliance only in accordance with the provided installation instructions.
5. As with any appliance, close supervision is necessary when used by children.
6. 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.
7. This appliance should be serviced only by qualified service personnel. Contact nearest authorized service facility for examination, repair or adjustment.
8. Do not cover or block any openings on the appliance.
9. See door surface cleaning instructions on page 25.

SAVE THESE INSTRUCTIONS

Installation Instructions
UNPACKING THE OVEN

A. Unpack and visually check the oven. After the oven is uncrated, all packing materials must be removed from the oven cavity. Inspect the oven for any damage such as damaged gasketing around the door, 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 and the delivering carrier immediately. Your Amana Dealer will tell you if the unit will operate correctly.
B. After removing packing material and literature from around the glass oven tray, place tray in oven. Do not operate oven without glass tray in place.

C. On the back of the oven is the serial plate. Record the model number, manufacturing number and serial number stamped on the plate in the space provided on page 1 of this book.

We also suggest that you retain for future reference your sales receipt, or any document prepared by your selling dealer which states model number, manufacturing number, serial number and purchase or delivery date.

D. 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., Amana, Iowa 52204. Federal regulations require that all manufacturers of microwave ovens have a permanent record of the owners of each oven.

**Electrical Requirements**

**IMPORTANT: PLEASE READ AND FOLLOW THESE INSTRUCTIONS.**

**WARNING:**

For your personal protection against possible shock hazards, this appliance is equipped with a three-prong (grounding) plug. **DO NOT UNDER ANY CIRCUMSTANCES CUT OR REMOVE THE ROUND GROUNDING PRONG FROM THIS PLUG.**

For your personal safety, this oven must be plugged **DIRECTLY** into a separate, properly grounded and polarized three-prong wall receptacle. Where a two-prong wall receptacle is encountered, it is the personal responsibility and obligation of the customer to contact a qualified electrician and have it replaced with a properly grounded and polarized wall receptacle in accordance with the National Electrical Code.

**The oven must be grounded at all times.** If you move the oven from area to area, the receptacle you use must be a fully grounded and polarized separate circuit, and the electrical circuit must be of the proper power rating.

**Do not use a two-prong adaptor.**

**Do not use an extension cord.**

This oven must be plugged directly into a separate 120 volt, 15 amp, 60 cycle circuit all its own. No other appliances or lights must be on the circuit. If a microwave oven is on a circuit with other appliances, cooking times can be increased and fuses can be blown.

The wall receptacle you intend to use must receive its power from an electrical circuit with the correct power rating. It is the personal responsibility and obligation of the customer to have a qualified electrician make sure that the electrical circuit matches the power rating stamped on the oven serial plate.
NOTE: A Power Interruption Signal (dash lines) will appear in the read-out display whenever the oven is initially plugged into an electrical outlet. The lines will also appear anytime electrical power to the oven has been interrupted and then restored. When you see these lines, simply press the pad and they will disappear. The display will then be blank and remain blank whenever the oven is not in use.

Do not build the oven in with the sides, top or bottom air flow restricted. The oven must have sufficient air flow around it. If you wish to build in the Radarange Oven, an optional (at extra cost) built-in kit can be ordered through your Amana dealer.

Read and follow these rules for safe operation.
The Radarange Microwave Oven is designed to be safe and reliable. Now we ask you to do your part. As with all appliances, there are certain rules to follow, some that apply to all microwave ovens and some that are unique. 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

1) 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.

2) Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.

3) 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.

4) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

B. Precautions about general use

1) Do not operate oven without glass tray in place.

2) Always press the pad before programming the oven.

This is especially important whenever electrical power has been interrupted.

3) Extreme overcooking, as in conventional cooking, can cause food to smoke or possibly ignite. In the rare event this happens, keep the oven door closed. Unplug the oven or disconnect the power supply (circuit breaker or fuse) and the fire will self extinguish.

4) Do not operate the oven when it is empty. Microwave energy can damage the magnetron tube if the oven is operated empty for an extended period of time.
5) **Food and cookware** should not be rested on the oven door. It could misalign the door.

6) **Water** must never be poured into the bottom of the oven.

7) **Do not remove the outer case, door or control panel at any time.** Doing so would expose you to extremely high voltage. All service and repair should be performed by a qualified service technician.

8) **Do not leave the oven unattended when drying anything.** Foods, or other items, can become too dry and can ignite. If this happens, unplug the oven or disconnect the power supply (circuit breaker or fuse). **Do not open the door** until after the fire stops and the oven is cool.

9) This oven is designed for home use only; do not use the oven for commercial purposes. Amana manufactures a full line of microwave ovens designed especially for use in restaurants, factories, offices and other commercial areas. Inquiries regarding Amana Commercial Radarange Microwave Ovens should be directed to Amana Refrigeration, Inc., Amana, Iowa 52204.

### C. Precautions regarding specific features

1) The **temperature probe** must always be stored outside the oven when not in use.

2) The **temperature probe** must always be securely inserted into food.

3) The **temperature probe plug** must not be immersed in water for cleaning, and should not be washed in a dishwasher.

4) When holding a **food at temperature** in your Radarange Oven, always select a temperature of 140° F or above to prevent the growth of bacteria and production of toxins.

### D. Precautions regarding specific types of foods, etc.

1) **WARNING:** Do not heat or reheat liquids in a microwave oven **without first stirring.** Liquids must be briskly stirred or poured (to mix in air) before being heated in a microwave oven. If air is not mixed into liquid, it can erupt in the oven, or when removed from the oven.

2) **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.

3) **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.

4) **Special popcorn in bags** designed and labeled for **MICROWAVE ONLY** may be used. Since your microwave oven cooks very fast, do not exceed the minimum amount of cooking time recommended on the popcorn package. Do not leave the oven unattended.
5) **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.

6) **Deep fat frying** must not be done in any microwave oven. The fat could overheat and be hazardous to handle.

7) **Excess fat and drippings** from meat and poultry should be removed during cooking to prevent splattering.

E. **Precautions regarding utensils**

1) **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.

2) **Regular cooking thermometers** must not be used in the Radarange Oven. Most cooking thermometers contain mercury and may cause "arching", malfunction, and/or damage to the oven.

3) **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.

4) **Metal cookware** is not recommended for use in the microwave oven. Do not wrap food in aluminum foil except when recommended in the recipe (as poultry). The use of metal cookware, "TV" dinner trays or foil will increase cooking time and decrease energy efficiency. It usually causes uneven cooking and can cause "arching". Also, with extended use, metal cookware could damage the magnetron tube of any microwave oven designed for home use.

5) **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 all instructions provided with the accessory. Any questions concerning these accessory products should be referred to the accessory manufacturer. Amana Refrigeration, Inc., doesn't endorse any brand of accessory. If you purchase any accessory, follow the accessory manufacturer's directions. 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.

6) **Newspapers** must never be placed in a microwave oven. Some types of printers' ink can absorb microwave energy and could cause the paper to ignite.

7) **Paper towels** which contain nylon or other synthetic fibers woven through them must not be used because the heated synthetics could cause the paper to ignite.
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. Check operation of the interlock systems
   The oven contains hidden interlock switches to assure no microwave energy is generated when the oven door is open. The interlock switches sense the motion of the door if it is opened, and automatically turn the oven off. Microwave energy is generated only when the door is closed, cooking time or temperature has been set and has been pushed.

1. Put a glass of water in the Radarange Oven.
2. Locate this switch on the Radarange Oven:
3. Press
4. Press 5, then 0.
5. Push the switch. The oven should now be operating. The oven interior light should be on.
6. Open the oven door. The oven should shut off immediately. The sound of the motor should cease.
7. Open the door fully. The oven interior light should come on when the door is opened.
8. Press

If oven does not respond as stated, please perform the following steps.
1. Check to see if a fuse or circuit breaker is open.
2. Unplug the oven for 1 minute.
3. Reconnect the oven to the wall outlet. Dash lines will appear in the display.
4. Press (Dash lines will disappear.)

YOUR OVEN MUST BE ON A GROUNDED, POLARIZED CIRCUIT FOR CONTROL AND READOUT STABILITY.

If under any of the preceding conditions the oven does not operate as stated, do not use it. Call your Amana dealer or authorized servicer.
Quick Cooking By Time With Full Microwave Power

In this session you'll learn how to do quick cooking with full microwave power.
The control panel on your Radarange Microwave Oven looks like the picture at left. In this session you’ll only use the areas outlined.

READOUT DISPLAY —
• When cooking with time, it shows remaining cooking time.
• When cooking with temperature, it shows set temperature and actual temperature.
• Chevrons, or arrows, light up to indicate cooking function.
• Display will be blank when oven is not in use.

NUMBERS — Used to program everything into the Touchmatic Control. They’re arranged just like a touch-type telephone.

RESET — Used to cancel all instructions given to the Touchmatic Control. Pressed before programming any oven instructions.

START SWITCH — Pushed to start cooking operation. You must program cooking time or temperature before pushing start switch.

At some time while you’re learning to use your Radarange Oven you may make a programming mistake. If you do make a mistake, or are confused about what you’ve done — it’s easy to get back on the right track.

— If the oven isn’t operating yet — Press . This will cancel all the instructions you’ve given the oven and you can start again.

If oven is operating, open the oven door, then press . This will erase everything you’ve set the oven to do and you can start again.
TRY IT! Cooking with Full Microwave Power

Cooking with Full Power is the fastest and easiest way to cook in a microwave oven. When at Full Power your Radarange Oven will provide approximately 700 watts* of cooking power. It's very fast!

A. Put a cup or glass of water in the Radarange Oven. This is to absorb the microwaves as you experiment with the controls. When there is no food, water or other "load" to absorb the microwave energy, parts of the microwave oven could become damaged.

B. Press the pad. Pressing this pad causes it to cancel everything it's been told. Always press the pad before programming the Touchmatic Control. This will cancel any "leftover" instructions from previous cooking or which might have been accidentally programmed by curious children.

C. To heat the water 50 seconds with full microwave power:

1. Press \[5\], then \[0\].

2. Push the switch. The readout will display 50 in the window. This signifies 50 seconds.

   • Notice that a chevron (small arrow) automatically lights up in the readout display above the word "COOK". This tells you what the microwave oven is programmed to do — COOK.

   • The display arrow above the word "POWER" lights up whenever the magnetron tube is producing microwave energy. Since you are cooking with Full Power, the arrow will remain lighted continuously.

   • When the 50 seconds cooking time is finished, an audible signal will be heard and the oven will turn off.

D. To heat the water for 1 minute 30 seconds:

1. Press \[10\].

2. Press \[1\], then \[3\], then \[0\]. The readout will be 130, signifying 1 minute 30 seconds.

3. Push the switch.

*per 1 liter test.
4. **Watch the readout “count down”**. Notice that the readout following 100 is 59. Remember — the last two digits of the readout mean seconds; the previous digits mean minutes. Since there are 60 seconds in a minute, the number that follows 100 (1 minute, 0 seconds) is 59, which stands for 59 seconds.

Again, notice that the small arrow above the word “COOK” lights up to tell you the microwave oven is programmed to cook.

5. As the readout is “counting down”, **open the door**. Notice that when you stop the oven in the middle of what you’re doing, it automatically “locks” the instructions in place.

6. **Push the switch again**. When you push the start switch, the oven automatically starts cooking from where you interrupted it.

7. If you don’t want to continue to cook, **open the oven door**, then press .

### Summary — To Cook With Full Power

1. Press .
2. Press cooking time (to cook 6 minutes 10 seconds — press ).

### TRY IT! Changing a Time Entry

Occasionally you may make a mistake when entering a cooking time in the Touchmatic Control. If you do, the entry can easily be changed.

**Suppose you want to cook with full microwave power for 30 seconds but accidentally program it for 50 seconds.**

**A.** Put a cup or glass of cool water in the Radarange Oven.

**B.** Press .

**C.** Press , then .

**D.** To change the entry —

1. Press .
2. To enter the correct cooking time, press \(3\), then \(0\).

E. Push \(\text{Start}\) switch.

Summary — To Change a Time Entry

1. Press \(\text{Start}\).
2. Reprogram correct entry.

In this Session you’ve learned how to cook with full microwave power and how to change an entry if you ever make a mistake while programming the Touchmatic Control. We suggest you practice what you’ve learned in this Session before going on to the next Session. Select any recipe in the cookbook which uses only Full Power and Try It! A few things we’d suggest you try are:

**Breakfast**
- Scrambled Eggs
- Instant Hot Chocolate Mix
- Bacon
- Blueberry Muffins
- Chilled Fruit Cup

**Lunch**
- Made-Right Mushroom Burgers
- Chili Con Carne
- Soup (canned)
- Reuben Sandwich

**Dinner**
- Easy Barbecued Chicken
- French Fish Fillets
- Meat Ball Stew
- Frozen vegetables
- Dinner rolls
- Cherry Crisp
- Fruit-Flavor Gelatin
Cooking With Cookmatic®
Power Levels / Defrosting

In this session you’ll learn to cook with lower microwave power levels. You’ll also learn how to use the defrost cycle. To do these things you’ll use sections of the Touchmatic control you didn’t use in Session #1 or #2. Locate this control on your Radarange Oven:

COOKMATIC LEVEL PAD — Used to change the cooking power level.

TRY IT! Cooking at Cookmatic Power Levels

Many foods cook very well at full microwave power (as you learned in Session #2). However, 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. Your Amana Radarange Microwave Oven has ten power levels from 10% to 100% (70-700 watts). Each power level is particularly well suited for cooking different types of foods.

Your Radarange Microwave Oven is designed to allow quick defrosting of frozen foods. Most foods are defrosted using Cookmatic Level 3. This defrost cycle pulses microwave energy on and off automatically. During the “on” periods (approximately 30% of defrost time programmed) microwave energy is produced heating the exterior of the frozen food. During the “off” periods the heat is conducted to the interior of the food. This allows the food to be evenly defrosted, with little or no cooking of the exterior before the interior is completely thawed.

Defrosting instructions for specific types of foods are provided at the beginning of appropriate chapters of your Amana cookbook. Follow instructions in your Amana cookbook for defrosting at Cookmatic Levels other than Cookmatic Level 3.

Note: Many foods, especially meats, need to be completely defrosted before cooking begins. If not completely defrosted on the inside as well as the outside, cooking will be uneven. If ice crystals remain in the inside of meats when cooking starts, the meat will be done on the outside while the inside is underdone. Defrosting times and power levels suggested in the Amana cookbook have been thoroughly tested to provide optimum defrosting. Be sure to follow defrosting instructions exactly.

Each recipe in the Amana cookbook specifies the Cookmatic power level to be used for cooking. For example, the directions in your Amana cookbook for heating milk are to heat the milk for one and one-half minutes at Cookmatic Level 8. To heat a cup of milk:

A. Place a cup of milk (or a cup of cold water) in the Radarange Oven.

B. Press .
C. Press 8, then . This tells the oven you want to use #8 Cookmatic Level, which is 80% of Full Power. The number 8 will show at the far right of the readout display and a small arrow in the display will light up above the words "COOK LEVEL".

D. Press 130. The display now shows 130 and the lighted arrow above the words "COOK LEVEL" shows you are using a Cookmatic Level other than Full Power.

E. Push switch. The oven will now heat the milk at Cookmatic Level 8.

• Notice that the arrow in the display above the word "COOK" lights up, indicating the oven is programmed to cook.
• Also notice the arrow above the words "COOK LEVEL" is lighted, confirming the oven is cooking at a lower Cookmatic Level.
• The arrow above "PWR" is flashing on and off. This arrow lights up whenever the magnetron tube is producing microwave energy. As you will recall from Session #2, this arrow does not flash on and off when cooking with Full Power. To cook with Cookmatic Power Levels, the magnetron tube cycles on and off, and the arrow above "PWR" flashes on and off accordingly.

Summary — To Cook With Cookmatic Power Levels

1. Press .

2. Press Cookmatic Level number (to cook at Level 3 press ).

3. Press pad.

4. Press cooking time (to cook 1 minute 45 seconds, press ).

5. Push switch.
TRY IT! Changing Cookmatic Level During Cooking

Sometimes you may want to switch the Cookmatic power level as you're cooking. For example, if something is cooking too quickly or appears like it might boil over, you'll want to change the Cookmatic power level to a lower setting. With your Amana Radarange Oven, you can change the power level instantly, without even stopping the oven.

A. Place a cup of hot tap water in the Radarange Oven.

B. Press \[\text{Mspot}\].

C. Press \[9\], then \[\text{Cookmatic Level}\]. This programs the oven to use the \#9 Cookmatic Level.

D. Press \[3\], then \[0\], then \[0\] again. This sets the Touchmatic Control to use three minutes.

E. Push \[\text{Switch}\] switch. Notice that the display arrows above the words "COOK" and "COOK LEVEL" both light up. This indicates the oven is cooking at a lower Cookmatic Level. The water will start to boil during the three minutes. When it does, change the power level to a lower setting as follows:

1. Press \[2\] then \[\text{Cookmatic Level}\]. The number "2" will show at the far right of the readout display. Press \[\text{Mspot}\]. The display will return to the remaining time, which has continued to count down. Watch the water — it will stop boiling, but it will remain hot.

2. Press \[0\], then \[\text{Cookmatic Level}\]. The number "10" will appear in the display, indicating Cookmatic Level 10, or Full Power. The water will now start to boil again. Press \[\text{Mspot}\] to return to the countdown of remaining time. Remember — when no Cookmatic Level is programmed, the Touchmatic control assumes you want to cook at Full Power. Therefore, to change a Cookmatic Level from a lower setting back to Full Power, you must set the oven for "0" Cookmatic Level.
Summary — To Change Cookmatic Level While Cooking

1. Press new Cookmatic Level number (to cook at Cookmatic Level 3 press 3).

2. Press COOK.

3. Press NEXT.

In this session you've learned to cook with lower microwave power levels. Plus you've learned to use the Radarange Oven automatic defrost cycle. We suggest you practice what you've learned in this session before going on to the next session. Try any recipe in the cookbook which uses any one of the Cookmatic power levels. You will also want to try defrosting. Select any food in a defrost chart (at the beginning of appropriate chapters in your Amana cookbook) and try it!
Using the Automatic Temperature Control System

Your Amana Radarange Oven has an automatic temperature control system which allows you to cook food to the precise temperature desired. You'll find this feature particularly helpful for cooking meats to the exact temperature you want. You can also use it to reheat leftovers, to warm soups and beverages and for many other cooking tasks.

The temperature probe is not intended for use as a candy thermometer. The highest temperature sensed by the probe is 190° F., while most candies require temperatures of 230° F or higher. The Amana Radarange microwave oven Touchmatic Candymaker (model MCT-1) may be used with your Amana Touchmatic Radarange Oven. See your Amana dealer for ordering information.

Do not confuse the temperature probe with the Candymaker. The Touchmatic Candymaker has brown beads and a white cord with the word “Candymaker” on the handle. The temperature probe (the one that came with your oven) is all brown.

Special Hints for Using the Temperature Probe

Do

1. Insert probe as instructed in recipe or as shown at lower left.
   a. Meats
      — With the sensor tip in the thickest section, halfway between the center and outside edge of the meat, away from fat and bone. Be sure the probe is inserted into the largest lean area of the meat.
   b. Casseroles, Leftovers
      — With tip in center of casserole or dish, not touching bottom or sides.
   c. Beverages
      — With tip in center of liquid.

2. Be sure probe is securely inserted into food. If probe should accidentally fall out, the food will not cook properly. If the probe tends to slip out of the food, loop the cord (as shown in the beverage drawing at left). The cord can be secured in the slit in the bead closest to the probe plug. Simply loop the cord, then press a section of the cord into the slit in the bead.
3. If a recipe suggests covering with plastic wrap, use a heavy duty plastic wrap, such as Saran®. Some lightweight plastic wraps can melt if in contact with a hot temperature probe for a long time.

4. If necessary, use a hot pad to remove hot temperature probe. During cooking the probe could become hot enough to burn you.

5. **Always remove the temperature probe after use.** Store the temperature probe somewhere other than inside the Radarange Oven, in a place where it won't be lost or damaged.

**Don't**

1. **Do not store the temperature probe inside the Radarange Oven.**

2. **Do not attempt to force the temperature probe into solidly frozen foods.** The temperature sensor tip could be damaged or the probe could break.

3. **Do not use the temperature probe in conjunction with foil or other metal.** Arcing could result. **If a recipe suggests the use of foil, do not use the temperature probe for cooking.**

4. **Do not immerse the temperature probe plug in water or wash in an automatic dishwasher.** An electrical problem could occur. Instead, wash the probe by hand in hot, soapy water, taking care not to get the probe plug wet. Rinse and dry probe thoroughly.

5. **Do not attempt to operate the microwave oven if the temperature probe should accidentally get caught in the oven door.**

6. **Do not use the Automatic Temperature Control System when cooking different dishes or foods in the Radarange Oven at the same time.** Because different foods cook at different rates, the results may be unsatisfactory.
TRY IT! Cooking to Temperature

Try using the Automatic Temperature Control System to heat water to 190°F to make instant coffee.

A. **Before using the temperature probe**, wash it in hot, soapy water. Never immerse the probe plug in water. Rinse and dry.

B. **Place cup of cold water in Radarange Oven.**

C. **Insert probe plug into the probe receptacle** on the right side of the microwave oven cavity. The actual temperature sensed by the probe will appear at the far left of the display readout. The number at the far right shows the set temperature. The number "0" will appear now, since no temperature has been set. The display arrow above the word "TEMP" will light up.

**Note:** Make sure you have inserted the probe plug correctly into the oven probe receptacle. This tells the oven that you will be cooking to temperature instead of by time. If the display does not light up when the probe is inserted into the oven probe receptacle, the oven will not operate by the Automatic Temperature Control System. See page 28 for what to do when service is required.

D. Place tip of probe in center of cup.

E. Close Radarange Oven door.

F. **Press**.

G. **Press**. You always press the middle number of the desired end temperature. See chart on this page.

For

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Press</th>
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<tbody>
<tr>
<td>110°F</td>
<td>1</td>
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<tr>
<td>120°F</td>
<td>2</td>
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</table>

**H. Push** switch. When using the automatic temperature control system, no cooking time is programmed, since the oven will cook by temperature alone. Notice the display arrow above "PWR" lights up. This indicates the Radarange Oven is cooking at Full Power. Also notice the display arrow above the word "TEMP" is lit. This happens whenever the Radarange Oven is cooking to temperature.

**Watch the readout display.** On the right side will be a "9". This indicates the end temperature you have programmed (remember 9 stands for 190°F. You always program the middle number of the desired temperature.)

On the left side you will see a number indicating the actual temperature. A "0" means that the actual temperature of the water is less than 110°F, the lowest temperature sensed by the temperature control system. A "1" would indicate the actual
temperature is 110°F. The number on the actual temperature readout will increase until the programmed temperature is reached.

The Radarange Oven will sound a tone when the programmed temperature is reached and both numbers displayed are the same.

1. **Open the oven door** when you hear the tone. (Don’t worry if you don’t open the door immediately, because the Radarange Oven will hold the water at 190°F until you stop it, as you will learn in “Holding at Temperature”.) Remove probe from oven.

2. **Add instant coffee to water.**

   **Note:** In this example, you cooked to temperature using Full Power. You can also cook to temperature using a lower Cookmatic power level. For example, if you were heating milk you would want to cook at Cookmatic Level 8 to 140°F. To cook at a lower Cookmatic Level, complete Steps “A” through “F” on the previous page, then press the Cookmatic Level number and pad. Then press the middle number of desired temperature. Push switch.

**Summary — To Cook to Temperature**

1. Insert probe into food and oven receptacle.

2. Press .

3. If less than full microwave power is desired, press Cookmatic power level number, then press .

4. Press middle number of desired end temperature (to cook to 140°F, press ).
5. Push **START** switch.

Readout on right side of display signifies desired end temperature. Readout on left side signifies present temperature. The numbers displayed are the **middle** numbers of the temperatures ("4" means 140° F).

When the actual temperature reaches desired end temperature, a signal sounds.

6. Open the oven door to turn oven off when signal sounds that the food has cooked to temperature. Remove probe from oven.

**TRY IT! Holding at Temperature**

The temperature-holding capability of your Amana Radarange Microwave Oven allows you to prepare the most even, tender meats ever cooked in a microwave oven. You can also maintain a precise simmer of sauces, stews and soups. You can hold a casserole, fondue, meat or almost any other food at serving temperature for even the latest of the late-comers.

To illustrate, suppose you want to hold liquid at a 140° F temperature.

A. Place a cup or glass of fresh cold water in the Radarange Oven.

B. Insert probe into the middle of cup. Insert the probe plug into the oven receptacle.
   The display arrow above the word "TEMP" lights up, indicating the oven is programmed to take the food to the given temperature and hold it there automatically.

C. Close Radarange Oven door.

D. Press **START**.

E. Press 4. Remember, you press the middle number of the desired temperature.

F. Push **START** switch. The Radarange Oven will heat the water with full microwave power to 140° F.
   The microwave power will then cycle on just often enough to maintain the temperature at 140°F for 60 minutes, or until you turn the oven off by opening the oven door. The display arrow above the letters "PWR" lights up to indicate that the oven is generating microwave power.
Notice the readout display. The "4" on the right side of the display indicates the oven is holding the food at 140°F. The number on the left side of the display is the actual temperature of the food at any given time. The left number will go from 0 to 4 as the water is heated. When the left number reaches 4 (the desired temperature) a tone will sound and the “PWR” arrow light will go out. At this point, the food has cooked to temperature, and the oven begins “holding at temperature” automatically.

While holding at temperature, you may notice the left number fluctuate between 3 and 4 and the “PWR” arrow light flashing on and off. This is normal. As the water cools slightly, the microwave power cycles on just enough to reheat the water to 140°F.

G. Open the oven door to turn oven off. Remove probe from oven.

H. Press .

Note: In the above example, you cooked and held at temperature using full microwave power. To cook at a lower Cookmatic Level, complete Steps “A” through “D”, then press the desired Cookmatic Power Level number and pad before pressing the number for the desired temperature. Push the switch.

Note: If you wish to use the temperature hold feature, especially with cooked meat, poultry or fish, it should be held at 140°F or above to prevent the growth of bacteria or the production of toxins.

Summary — To Hold at Temperature

1. Insert probe into food and oven receptacle.
2. Press .
3. If less than full microwave power is desired, press desired Cookmatic power level number, then press .
4. Press middle number of desired holding temperature (to hold at 150°F, press ).
5. Push switch.
6. Open the oven door to turn oven off when desired. Remove probe from oven.
7. Press .
TRY IT! Using the Temperature Probe Without Cooking

You can also use the temperature probe as a thermometer, even when the oven isn't cooking! For example, you may want to measure to see if tap water is warm enough to soften dry yeast (110°F), or if food is less than serving temperature (less than 140°F).

A. Place a glass of hot tap water in the Radarange Oven.  
B. Insert temperature probe in the water. Insert probe plug into the oven wall receptacle. The number which appears on the left side of the readout display signifies the actual temperature. For example, if a "2" appears on the display the water is 120°F. If a "0" appears, the water is less than 110°F. Remove probe from oven.

C. Press \[ \text{ } \]

Summary — To Use the Temperature Probe Without Cooking

1. Insert temperature probe tip into food; insert probe plug into oven wall receptacle.
2. Press \[ \text{ } \]
3. Read number on left side of display.
4. Remove probe from oven and press \[ \text{ } \]

In this session you have learned to use the Automatic Temperature Control System both to cook to temperature and to hold food at a given temperature. We'd suggest trying each of these cooking procedures on your own before going on to the next session.
Read "Meal Planning," the second section of your Amana cookbook. In this section you'll learn how to make entire meals in your microwave oven.
Maintenance Tips/
Cleaning the Unit

To Clean The Oven Interior
The inside walls and floor are made of stainless steel. If they should become splattered, all you do is 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.

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

To Clean The Glass Tray, lift up the tray and remove. Wash in warm water and detergent or in a dishwasher. Replace drip tray so the word “Front” is 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 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 is secured by four screws in recessed wells in the front underside of the shield and four tabs which fit into slots in the back oven wall. Remove the four screws. Then carefully lower the shield and, clearing the antenna, pull the shield forward out of the back wall 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. Also be sure the splatter shield tabs fit snugly into the slots in the back of the oven before replacing the screws.
To check antenna operation, place a glass or cup of water in the unit, close the door and start the unit. A rotating shadow of the antenna 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 Temperature Probe wash the metal probe in hot, soapy water. Do not immerse the probe plug or wires in water. Do not wash probe in dishwasher.

To Clean The Discharge Air Vents
There will be a slight build-up of cooking vapors in the discharge vent located in the upper right hand corner, above the control panel. This vent should be cleaned occasionally. Do not attempt to remove the front of the Touchmatic Control module; it is an integral part of the oven. Clean the air vent with a damp cloth.
How to Change the Oven Light

Always unplug the oven from the electric outlet before you change the oven light.

The lightbulb inside the oven can easily be changed from the back. On the upper right 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:

a) Unplug the Radarange Oven from the electric outlet.
b) Facing the oven back, remove the screw, allowing the metal plate and light to swing outward.
c) Remove the bulb, being careful not to burn fingers or break the bulb. (To remove the bulb press into socket and turn counterclockwise.)
d) Replace the bulb with a 25 watt bulb 25T8DC bayonet base bulb.
   To replace the bulb press into socket before turning clockwise.
e) Reposition the plate, being careful not to bend the hinge tabs. Replace the screw.
f) Connect the Radarange Oven to the power outlet.

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 that is being cooked. The tray is a special type of glass and, if it is accidentally broken, it must be replaced with the same type of glass from your Amana Dealer.

Avoid Unnecessary Service Calls

Avoid unnecessary service calls for difficulties that are not the result of defective workmanship or materials. You will be charged for service person's travel expenses and labor, even though the product may be in warranty, if the difficulty is not caused by workmanship or materials, or if that component is considered customer replaceable: oven lightbulb, glass tray, temperature probe and accessories.

Amana Touchmatic Radarange microwave ovens with space-age, electronic control modules offer 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 Touchmatic controls. That's why you should read the following before calling for service.

Should you find that the readout display will not light up, appears incorrect or garbled, or that the control will not accept instructions, it could be for any of the following reasons:

- Electrical storm
- Momentary power interruption
- Momentary heavy load or power surge
- Drills, vacuum cleaners, welders, light dimmers on same circuit
- Static discharge to touch pads
- Extraneous signals: radio or TV transmitting equipment
- Other reasons
IF THE READOUT DISPLAY DOESN'T LIGHT UP, PLEASE CHECK:
• 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 4 steps listed in the box shown below.

IF THE READOUT APPEARS WRONG:
• Did you remember to press before programming the oven?
• Have you (or someone else) pressed the Touchmatic Control pads after cooking is started?
• If the condition remains unchanged, perform the steps listed in the box shown below.

IF THE TOUCHMATIC CONTROL WILL NOT ACCEPT YOUR INSTRUCTIONS:
• For cooking to temperature, did the display light up when you connected the temperature probe? If not, check to see if the probe jack is securely inserted into the oven receptacle. (Review explanation, page 19.)
• For cooking by time, if the condition remains unchanged, perform the four steps listed in the box shown below.

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 before programming the oven?
• Is the oven plugged into a properly grounded and polarized outlet as described in installation instructions (page 3)? Improper installation can result in erratic operation.
• If the condition remains unchanged, perform the 4 steps listed in the box shown below.

IF MICROWAVE POWER WON'T COME ON:
• Did you push the switch?
• Is the oven door securely closed?
• If the condition remains unchanged, perform the 4 steps listed in the following box.

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 for 1 minute.
3. Reconnect the oven to the wall outlet. Dash lines will appear in the display.
4. Press . (Dash lines will disappear.)

YOUR OVEN MUST BE ON A GROUNDED, POLARIZED CIRCUIT FOR CONTROL AND READOUT STABILITY.
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 ROOM LIGHTS DIM OR PULSE DIMMER, THEN BRIGHTER WHEN THE OVEN IS IN USE:
• Is the microwave oven on a separate circuit? (Review installation instructions, page 3.)

IF THE TEMPERATURE PROBE APPEARS NOT TO FUNCTION CORRECTLY:
• Is the probe jack securely inserted into the receptacle? This tells the oven that it is about to be set to cook to temperature.
• Is the food you're attempting to heat already hotter than the temperature you're programming?
• 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 OVERCOOKED:
• Did you remember to program the correct Cooking Power Level? (Review instructions, page 13.)

IF FOOD IS UNDERCOOKED:
• Are there other energy-consuming appliances on the same circuit as the microwave oven? (Review installation instructions, page 3.)
• 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 13.)

When Service is Required

Call nearest authorized service agency. (The dealer from whom you purchased your Radarange 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 nameplate on the back of the Radarange Oven.)
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 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. to 5 p.m., Central Time Zone) and ask for Customer Relations.
In 1854 a group of God fearing people of West German, Swiss and Alsation ancestry left New York State and founded the seven villages of Amana in the fertile fields of Iowa. They established their own woolen mills, wagon shops, furniture factory and other industries. Each member contributed some particular skill handed down from father to son in true old-world tradition.

The excellence of the Amana products soon attracted the attention of the outside world and the colonies enjoyed a national reputation for superb workmanship. In all America there is no other community quite like the Amana colonies of Iowa. Here today are blended the new ways with the old... 20th century efficiency and time honored, fine craftsmanship.

Amana pioneered in low temperature refrigeration; and Amana Refrigeration, Inc. continues to be a leading manufacturer of a quality line of microwave ovens, refrigerators, freezers, room air conditioners, electric ranges and cooktops, trash compactors, and central cooling and heating products. Every Amana product reflects the heritage of technical skill, integrity, pride of workmanship and highest quality standards.

Backed by a Century-Old Tradition of Fine Craftsmanship