

GoldStar

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6-4

MICROWAVE OVEN

OWNER'S MANUAL & COOKING GUIDE

PLEASE READ THIS OWNER'S MANUAL
THOROUGHLY BEFORE OPERATING.

MS-204 YD

MA-2003W/H

MS-186SW

MS-184SJ



Thank you for purchasing a GoldStar microwave oven.

Please record the model number and serial number of this unit for future reference. We also suggest you record the details of your contact with GoldStar (LG Electronics U.S.A., Inc.) concerning this unit.

Model No: _____

Serial No: _____

Dealer: _____

Dealer Phone No: _____

Staple your receipt here for proof of retail purchase.

Customer Relations
LG Electronics U.S.A., Inc.
Service Division Bldg. #3
201 James Record Rd.
Huntsville, AL 35824-0126

**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 closes properly and that there is no damage to the:
 - (1) Door (bent),
 - (2) Hinges and latches (broken or loosened),
 - (3) Door seals and sealing surfaces.
- (d) The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

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TECHNICAL SPECIFICATIONS

MODEL	MS-186SW MS-184SJ	MS-264YD MA-2003W/H
Power Supply	120 V AC, 60 Hz	
Rated Power Consumption	1550W	
Microwave Output	*1100W	*1150W
Frequency	2450 MHz	
Rated Current	13.6 A	
Overall Dimensions(WxHxD)	23 7/8" X 13 9/16" X 18 13/16"	
Oven Cavity Dimensions(WxHxD)	17 1/6" X 9 3/4" X 18 5/16"	17 1/6" X 10 13/16" X 18 5/16"
Effective Capacity of Oven Cavity	1.8 Cu.ft	2.0 Cu.ft

*IEC 705 RATING STANDARD

Specifications subject to change without prior notice.

IMPORTANT SAFETY INSTRUCTIONS

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

1. Read all instructions before using the appliance.

2. Read and follow the specific **PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY** found on page 2 of this manual.

3. This appliance must be grounded. Connect only to properly grounded outlet. See **GROUNDING INSTRUCTIONS** found on page 5 of this manual.

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 the 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 the 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 the edge of a table or counter.

15. When cleaning surfaces of door and oven that comes together on closing the door, use only mild, nonabrasive soaps or detergents applied with a sponge or soft cloth.

16. To reduce the risk of fire in the oven cavity:

a. Do not overcook food. Carefully attend appliance if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.

b. Remove wire twist-ties from paper or plastic bags before placing bag in oven.

c. If materials inside the oven should ignite, **KEEP OVEN DOOR CLOSED**, turn oven off, and disconnect the power cord or shut off power at the fuse or circuit breaker panel.

d. Do not use the cavity for storage purposes. Do not leave paper products, cooking utensils, or food in the cavity when not in use.

17. Do not heat any type of baby bottles or baby food. Uneven heating may occur and could cause personal injury.

18. Avoid heating small-necked containers such as syrup bottles.

19. Avoid using corrosive and vapors, such as sulfide and chloride.

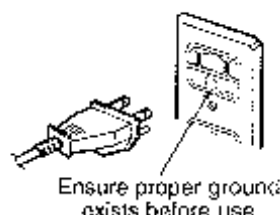
20. Liquids heated in certain shaped containers (especially cylindrical-shaped containers) may become overheated. The liquid may splash out with a loud noise during or after heating or when adding ingredients (instant coffee, etc.), resulting in harm to the oven and possible injury. In all containers, for best results, stir the liquid several times before heating. Always stir liquid several times between reheatings.

SAVE THESE INSTRUCTIONS

INSTALLATION

A. GROUNDING INSTRUCTIONS

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



WARNING

Improper grounding can result in a risk of electric shock. Consult a qualified electrician if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly grounded, and either:

1. 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 marked rating of the extension cord shall be equal to or greater than the electrical rating of the appliance, or
2. Do not use an extension cord. If the power supply cord is too short, have a qualified electrician or serviceman install an outlet near the appliance.

NOTE:

1. A short power-supply cord is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
2. Longer cord sets or extension cords are available and may be used if care is exercised in their use.
3. If a long cord or extension cord is used, (1) the marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the appliance, (2) the extension cord must be a grounding-type 3-wire cord, and (3) the longer cord should be arranged so that it will not drape over the countertop or tabletop where it can be pulled on by children or tripped over accidentally.

B. CIRCUITS

For safety purposes this oven must be plugged into a 15 Amp circuit. No other electrical appliances or lighting circuits should be on this line. If in doubt, consult a licensed electrician.

C. VOLTAGE WARNING

The voltage used at the wall receptacle must be the same as specified on the oven name plate located on the back or on the side of the control panel of the oven. Use of a higher voltage is dangerous and may result in a fire or other type of accident causing oven damage. Low voltage will cause slow cooking. In case your microwave oven does not perform normally in spite of proper voltage, remove and reinsert the plug.

D. PLACEMENT OF THE OVEN

Your microwave oven can be placed easily in your kitchen, family room, or anywhere else in your home. Place the oven on a flat surface such as a kitchen countertop or a specially designed microwave oven cart. Do not place oven above a gas or electric range. Free air flow around the oven is important.

E. DO NOT BLOCK AIR VENTS

All air vents should be kept clear during cooking. If air vents are covered during oven operation the oven may overheat. In this case, a sensitive thermal safety device automatically turns the oven off. The oven will be inoperable until it has cooled sufficiently.

F. RADIO INTERFERENCE

1. Microwave oven operation may interfere with TV or radio reception.
2. When there is interference, it may be reduced or eliminated by taking the following measures:
 - a. Clean the door and the sealing surfaces of the oven.
 - b. Reorient the receiving antenna of radio or television.
 - c. Relocate the microwave oven in relation to the TV or radio.
 - d. Move the microwave oven away from the receiver.
 - e. Plug the microwave oven into a different outlet so that microwave oven and receiver are on different branch circuits.

OTHER HELPFUL INFORMATION

PRECAUTIONS

- *Be certain to place the front surface of the door three inches away or more from the countertop edge to avoid accidental tipping of the appliance in normal usage.
- *For the most accurate programming of the electronic units, touch the center of each pad securely. Do not touch several pads at one time or touch between pads. A beep sound should be heard with each touch when a pad is touched correctly.
- *Do not hit or strike the control with objects such as silverware, utensils, etc. Breakage may occur.
- *Be careful when taking the cooking utensils out of the oven. Some dishes absorb heat from the cooked food and may be hot.
- *Do not rinse cooking utensils by immediately placing them into water just after cooking. This may cause breakage. Allow the turntable to cool.
- *Use only specific glass utensils. See cooking utensils section in this manual.
- *Do not operate the oven empty. Either food or water should always be in the oven during operation to absorb microwave energy.
- *Do not use your microwave oven to dry newspapers or clothes. They can catch fire.
- *Use only thermometers approved for microwave oven cooking.
- *Be certain the turntable is in place when you operate the oven.
- *Pierce the skin of potatoes, whole squash, apples, or any fruit or vegetable which has a skin covering before cooking.
- *Never use your microwave oven to cook eggs in the shell. Pressure can build up inside the shell, causing it to burst.
- *Do not pop popcorn, except in a microwave-safe container or commercial package designed especially for microwave ovens. Never try to pop popcorn in a paper bag not designed for microwave oven use. Overcooking may result in smoke and fire. Do not repop unpopped kernels. Do not reuse popcorn bags.

GETTING THE BEST RESULTS FROM YOUR MICROWAVE OVEN

Keep an eye on things. The instructions in this book have been formulated with great care, but your success in preparing them depends, of course, on how much attention you pay to the food as it cooks. Always watch your food while it cooks. Your microwave oven is equipped with a light that turns on automatically when the oven is in operation so that you can see inside and check the progress of your recipe. Directions given in recipes to elevate, stir, and the like should be thought of as the minimum steps recommended. If the food seems to be cooking unevenly, simply make the necessary adjustments you think appropriate to correct the problem.

Factors affecting cooking times. Many factors affect cooking times. The temperature of ingredients used in a recipe makes a big difference in cooking times. For example, a cake made with ice-cold butter, milk, and eggs will take considerably longer to bake than one made with ingredients that are at room temperature. All of the recipes in this book give a range of cooking times. In general, you will find that the food remains under-cooked at the lower end of the time range, and you may sometimes want to cook your food beyond the maximum time given, according to personal preference. The governing philosophy of this book is that it is best for a recipe to be conservative in giving cooking times. While undercooked food may always be cooked a bit more, overcooked food is ruined for good. Some of the recipes, particularly those for bread, cakes, and custard, recommend that food be removed from the oven when they are slightly undercooked. This is not a mistake. When allowed to stand, usually covered, these foods will continue to cook outside of the oven as the heat trapped within the outer portions of the foods gradually travels inward. If the foods are left in the oven until they are cooked all the way through, the outer portions will become overcooked or even burnt. As you gain experience in using your microwave oven, you will become increasingly skillful in estimating both cooking and standing times for various foods.

SPECIAL TECHNIQUES IN MICROWAVE COOKING

Browning: Meats and poultry that are cooked fifteen minutes or longer will brown lightly in their own fat. Foods that are cooked for a shorter period of time may be brushed with a browning sauce to achieve an appetizing color. The most commonly used browning sauces are Worcestershire sauce, soy sauce, and barbecue sauce. Since relatively small amounts of browning sauces are added to foods, the original flavor of recipes is not altered.

Covering: A cover traps heat and steam and causes food to cook more quickly. You may either use a lid or microwave cling-film with a corner folded back to prevent splitting.

Covering with waxed paper: Waxed paper effectively prevents spattering and helps food retain some heat. Since it makes a looser cover than a lid or cling-film, it allows the food to dry out slightly.

Wrapping in waxed paper or paper towel: Sandwiches and many other foods containing prebaked bread should be wrapped prior to microwaving to prevent drying out.

Arranging and spacing: Individual foods such as baked potatoes, small cakes, and hors d'oeuvres will heat more evenly if placed in the oven and equal distance apart, preferably in a circular pattern. Never stack foods on top of one another.

Stirring: Stirring is one of the most important of all microwaving techniques. In conventional cooking, foods are stirred for the purpose of blending. Microwaved foods, however, are stirred in order to spread and redistribute heat. Always stir from the outside towards the center as the outside food heats first.

Turning over: Large, tall foods such as roasts and whole chickens should be turned so that the top and bottom will cook evenly. It is also a good idea to turn cut-up chicken and chops.

Placing thicker portions near the edge: Since microwaves are attracted to the outside portion of foods, it makes sense to place thicker portions of meat, poultry and fish to the outer edge of the baking dish. This way, thicker portions will receive the most microwave energy and the foods will cook evenly.

Elevating: Thick or dense foods are often elevated so that microwaves can be absorbed by the underside and center of the foods.

Piercing: Foods enclosed in a shell, skin, or membrane are likely to burst in the oven unless they are pierced prior to cooking. Such foods include both yolks and whites of eggs, clams and oysters, and many whole vegetables and fruits.

Testing if cooked: Because foods cook so quickly in a microwave oven, it is necessary to test food frequently. Some foods are left in the microwave until completely cooked, but most foods, including meats and poultry, are removed from the oven while still slightly undercooked and allowed to finish cooking during standing time. The internal temperature of foods will rise between 5°F (3°C) and 15°F (8°C) during standing time.

Standing time: Foods are often allowed to stand for 3 to 10 minutes after being removed from the microwave oven. Usually the foods are covered during standing time to retain heat unless they are supposed to be dry in texture (some cakes and biscuits, for example). Standing allows foods to finish cooking and also helps flavors to blend and develop.

HOW FOOD CHARACTERISTICS AFFECT MICROWAVE COOKING

Density of foods: Light, porous food like cakes and breads cook more quickly than heavy, dense foods such as roasts and casseroles. You must take care when microwaving porous foods that the outer edges do not become dry and brittle.

Height of foods: The upper portion of tall foods, particularly roasts, will cook more quickly than the lower portion. Therefore, it is wise to turn tall foods during cooking, sometimes several times.

Moisture content of foods: Since the heat generated from microwaves tends to evaporate moisture, relatively dry foods such as roasts and some vegetables should either be sprinkled with water prior to cooking or covered to retain moisture.

Bone and fat content of foods: Bones conduct heat and fat cooks more quickly than meat. Therefore, care must be taken when cooking bony or fatty cuts of meat that the meats do not cook unevenly and do not become overcooked.

OTHER HELPFUL INFORMATION

Shape of foods: Microwaves penetrate only about 1 inch (2.5cm) into foods; the interior portion of thick foods is cooked as the heat generated on the outside travels inward. In other words, only the outer edge of any food is actually cooked by microwave energy; the rest is cooked by convection. It follows then that the worst possible shape for a food that is to be microwaved is a thick cube. The corners will burn long before the center is even warm. Round, thin, and ring shaped foods cook most successfully in the microwave.

Quantity of foods: The number of microwaves in your oven remains constant regardless of how much food is being cooked. Therefore, the more food you place in the oven, the longer the cooking time. Remember to decrease cooking times by at least one-third when halving a recipe.

COOKING UTENSILS

MICROWAVE-SAFE UTENSILS

Never use metal or metal-trimmed utensils in your microwave oven: Microwaves cannot penetrate metal. They will bounce off any metal object in the oven and cause arcing, an alarming phenomenon that resembles lightning. Most heat-resistant non-metallic cooking utensils are safe for use in your microwave oven. However, some may contain materials that render them unsuitable as microwave cookware. If you have any doubts about a particular utensil, there is a simple way to find out if it can be used in your microwave oven.

Testing utensils for microwave use: Place the utensil in question next to a glass bowl filled with water in the microwave oven. Microwave at power HIGH for 1 minute. If the water heats up but the utensil remains cool to the touch, the utensil is microwave-safe. However, if the water does not change temperature but the utensil becomes warm, microwaves are being absorbed by the utensil and it is not safe for use in the microwave oven. You probably have many items on hand in your kitchen that can be used as cooking equipment in your microwave oven. Just read through the following checklist.

1. Dinner plates: Many kinds of dinner-ware are microwave-safe. If in doubt consult the manufacturer's literature or perform the microwave test, above.

2. Glassware: Glassware that is heat-resistant is microwave-safe. This includes all brands of oven-tempered glass cookware. However, do not use delicate glassware, such as tumbler or wine glasses, as these might shatter as the food warms.

3. Paper: Paper plates and containers are convenient and safe to use in your microwave oven, provided the cooking time is short and foods to be cooked are low in fat and moisture. Paper towels are also very useful for wrapping foods and for lining baking trays in which greasy foods, such as bacon, are cooked. In general, avoid colored paper products as the color may run.

4. Plastic storage containers: These can be used to hold foods that are to be quickly reheated. However, they should not be used to hold foods that will need considerable time in the oven as hot foods will eventually warp or melt plastic containers.

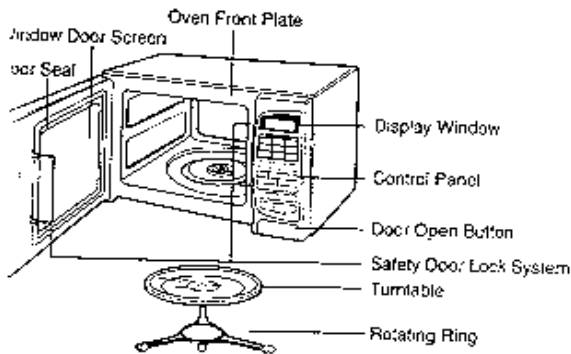
5. Plastic cooking bags: These are microwave-safe provided they are specially made for cooking. However, be sure to make a slit in the bag so that steam can escape. Never use ordinary plastic bags for cooking in your microwave oven, as they will melt and rupture.

6. Plastic microwave cookware: A variety of shapes and sizes of microwave cookware is available. For the most part, you can probably cook with items you already have on hand rather than investing in new kitchen equipment.

7. Pottery, stoneware, and ceramic: Containers made of these materials are usually fine for use in your microwave oven, but they should be tested to be sure.

CAUTION: SOME ITEMS ARE NOT INTENDED FOR COOKING, INCLUDING SOME STONEWARE AND ITEMS WITH HIGH IRON OR LEAD CONTENTS.

FEATURE DIAGRAM

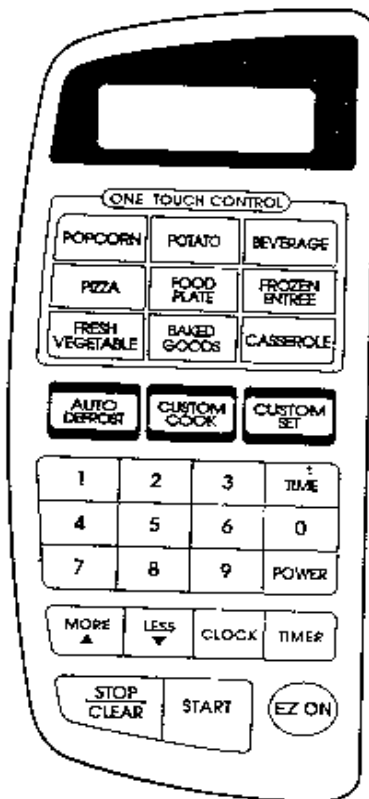


Your oven will be packed with the following materials:

Glass Turntable 1 each
 Owner's Manual &
 Cooking Guide 1 each
 Rotating Ring 1 each

This microwave oven is designed for household use only. It is not recommended for commercial purposes.

CONTROL PANEL



NOTE: A beep sounds when a pad on the control panel is touched to indicate setting has been entered.

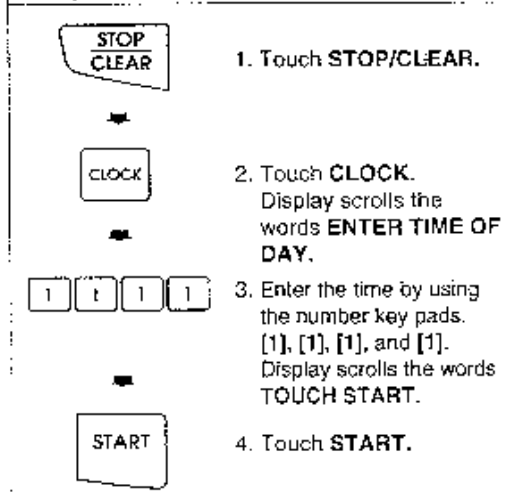
OPERATING INSTRUCTIONS

SETTING CLOCK

This is a 12 hour clock.

When your oven is plugged in for the first time or when power resumes after a power interruption, the word **PLEASE SET TIME OF DAY** in the display scrolls five times.

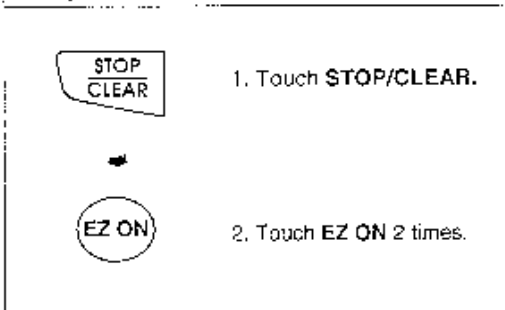
Example: To set 11:11



EZ ON

A time-saving pad, this simplified control lets you quickly set and start microwave cooking without the need to touch **START**.

Example: To set EZ ON for 2 minutes.



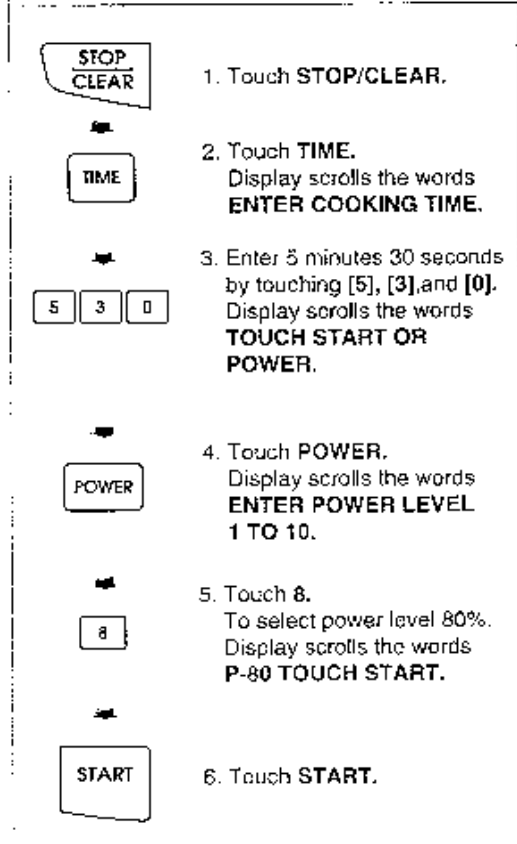
NOTE:

If you touch **EZ ON**, every touch will add 1 minute up to 99 min 59 seconds.

TIME COOK

This function allows you to cook food for a desired time. In order to give you the best results, there are 10 power level settings in addition to **HI-POWER** because many food need slower cooking (at less than **HI-POWER**).

Example: To cook food on 80% Power (Power8) for 5 minutes 30 seconds



When cooking is complete, two short tones and one long tone will sound. The word **END** shows in the display window. Then the oven shuts itself off.

NOTE :

If you do not select the power level, the oven will operate at power **HIGH**. To set **HI-POWER** cooking, skip steps 4 & 5 above.



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