



Heavy-Duty Stainless Steel Commercial Steamer Microwaves with Push Button Controls

180MWASS022 208/240V • 2200W
180MWASS035 208/240V • 3500W



Read and keep these instructions. Indoor use only.

09/2024

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Important Safety Instructions



WARNING

To reduce the risk of burns, electrical shock, fire, or person injury when using electrical equipment, basic safety precautions should be followed.

1. READ all instructions before using equipment.
2. This equipment **MUST BE GROUNDED**. Connect only to properly GROUNDED outlet. See "GROUNDING/ EARTHING INSTRUCTIONS" on page 4.
3. Install or locate this equipment **ONLY** in accordance with the installation instructions in this manual.
4. Some products such as whole eggs and sealed containers (for example, closed glass jars) are able to explode and **SHOULD NOT BE HEATED** in this oven.
5. Use this equipment **ONLY** for its intended use as described in this manual. **DO NOT** use corrosive chemicals or vapors in this equipment. This type of oven is specifically designed to heat, cook, or dry food. It is not designed for industrial or laboratory use.
6. **HOT CONTENTS CAN CAUSE SEVERE BURNS. DO NOT ALLOW CHILDREN TO USE THE MICROWAVE.** Use caution when removing hot items.
7. **DO NOT** operate this equipment if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
8. This equipment, including power cord, must be serviced **ONLY** by qualified service personnel. Special tools are required to service equipment. Contact nearest authorized service facility for examination, repair, or adjustment.
9. **DO NOT** cover or block filter (if applicable) or other openings on equipment.
10. **DO NOT** store this equipment outdoors. **DO NOT** use this product near water – for example, near a kitchen sink, in a wet basement, a swimming pool, or a similar location.
11. **DO NOT** immerse cord or plug in water.
12. Keep cord **AWAY** from **HEATED** surfaces.
13. **DO NOT** let cord hang over edge of table or counter.
14. Cleaning and user maintenance shall not be made by children without supervision.
15. To avoid risk of fire in the oven cavity:
 - a. **DO NOT** overcook food. Carefully attend oven when paper, plastic, or other combustible materials are placed inside the oven.
 - b. Remove wire twist-ties from paper or plastic bags before placing bag in oven.
 - c. If materials inside the oven 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. **DO NOT** leave paper products, cooking utensils, or food in the cavity when not in use.
16. For commercial use only.
17. It is hazardous for anyone other than a competent person to carry out any service or repair operation that involves the removal of any cover which gives protection against exposure to microwave energy.
18. If the door or door seals are damaged, the oven must not be operated until it has been repaired by a competent person.
19. Appliance is not to be used by children 8 years and below or persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge, unless they have been given supervision or instruction.
20. Only use utensils that are suitable for use in microwave oven.
21. When heating food in plastic or paper containers, keep an eye on the oven due to the possibility of ignition.
22. If smoke is observed, switch off or unplug the appliance and keep the door closed in order to stifle any flames.
23. Failure to maintain the oven in a clean condition could lead to deterioration of the surface that could adversely affect the life of the appliance and possibly result in a hazardous situation.

24. The appliance should not be cleaned with a water jet or steam cleaner.
25. Liquids or other foods must not be heated in sealed containers since they are liable to explode.
26. Microwave heating of beverages can result in delayed eruptive boiling, therefore care must be taken when handling the container.

Combination Ovens Only:

27. DO NOT insert oversized foods or oversized utensils in a microwave/convection oven as they may create a fire, an electrical arc, or risk of electrical shock.
28. DO NOT clean with metal scouring pads. Pieces can break off the pad and touch electrical parts involving risk of electrical shock.
29. DO NOT use paper products not intended for high temperature cooking when equipment is operated in convection or combination mode.
30. DO NOT store any materials, other than manufacturer's recommended accessories, in this equipment when not in use.
31. DO NOT cover any part of the oven with metal foil. Airflow restriction will cause overheating of the oven.
32. DO NOT spray oven cleaning solutions toward the rear inner cavity surface. This will contaminate and damage the convection heating assembly.



CAUTION

To avoid risk of personal injury or property damage, observe the following safety instructions:

General Use:

1. DO NOT use regular cooking thermometers in oven. Most cooking thermometers contain mercury and may cause an electrical arc, malfunction, or damage to oven.
2. Never use paper, plastic, or other combustible materials that are not intended for cooking.
3. When cooking with paper, plastic, or other combustible materials, follow manufacturer's recommendations on product use.
4. DO NOT use paper towels which contain nylon or other synthetic fibers. Heated synthetics could melt and cause paper to ignite.
5. To avoid surface deterioration, keep the oven in a clean condition. Infrequent cleaning could adversely affect the life of the appliance and possible result in a hazardous situation.
6. Clean oven regularly and remove any food deposits.

Heating Foods and Liquids:

7. Liquids such as water, coffee, or tea are able to be overheated beyond the boiling point without appearing to be boiling due to surface tension of the liquid. Visible bubbling or boiling when the container is removed from the microwave oven is not always present. **THIS COULD RESULT IN VERY HOT LIQUIDS SUDDENLY BOILING OVER WHEN A SPOON OR OTHER UTENSIL IS INSERTED INTO THE LIQUID.**
To reduce the risk of injury to persons:
 - a. DO NOT overheat the liquid.
 - b. Stir the liquid both before and halfway through heating it.
 - c. DO NOT use straight-sided containers with narrow necks.
 - d. After heating, allow the container to stand in the microwave for a short time before removing it.
 - e. Use extreme care when inserting a spoon or other utensil into the container.
8. DO NOT deep fat fry in oven. Fat could overheat and be hazardous to handle.

9. DO NOT cook or reheat eggs in shell or with an unbroken yolk using microwave energy. Pressure may build up and erupt. Pierce yolk with fork or knife before cooking.
10. Pierce skin of potatoes, tomatoes, and similar foods before cooking with microwave energy. When skin is pierced, steam escapes evenly.
11. DO NOT heat sealed containers or plastic bags in oven. Food or liquid could expand quickly and cause container or bag to break. Pierce or open container or bag before heating.
12. DO NOT heat baby bottles in oven.
13. Baby food jars shall be open when heated and contents stirred or shaken before consumption, in order to avoid burns.
14. Never use oven to heat alcohol or food containing alcohol as it can more easily catch fire if overheated.

Additional Microwave Oven Safety Instructions:

15. DO NOT operate equipment without load or food in oven cavity.
16. Use only popcorn in packages designed and labeled for microwave use. Popping time varies depending on oven wattage. DO NOT continue to heat after popping has stopped. Popcorn will scorch or burn. DO NOT leave oven unattended.
17. DO NOT use metal utensils in oven.
18. An authorized servicer MUST inspect equipment annually. Record all inspections and repairs for future use.

Additional Combination Oven Safety Instructions:

19. DO NOT pop popcorn in this oven.
20. DO NOT use metal utensils in oven except when recommended by microwave food manufacturers or recipe requires metal utensils in convection or combination mode. Heat food in containers made of glass or china if possible.
21. Oven temperature is at least 450°F in convection mode. Verify plastic, paper or other combustible materials are recommended by the manufacturer to withstand the maximum oven temperature.
22. Racks, utensils, rack guides, and oven surfaces may become hot during or after use. Use utensils or protective clothing, like pan grips or dry oven mitts, when necessary to avoid burns.
23. DO NOT unplug oven immediately after use. Internal fan must cool oven to avoid damage of electrical components.
24. Caution: To avoid burns, do not use containers loaded with liquid or kitchen products that become liquid by heating at levels above those that can be easily observed.

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:
 - a. Door (bent).
 - b. Hinges and latches (broken or loosened).
 - c. Door seals and sealing surfaces.
4. The oven should not be adjusted or repaired by anyone except properly qualified service personnel.

Grounding



WARNING

To avoid risk of electrical shock or death, this oven must be grounded and plug must not be altered.

- Oven **MUST** be grounded. Grounding reduces risk of electric shock by providing an escape wire for the electric current if an electrical short occurs.
- This oven 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. Consult a qualified electrician or servicer if grounding instructions are not completely understood, or if doubt exists as to whether the oven is properly grounded.
- Do **NOT** use an extension cord. If the product power cord is too short, have a qualified electrician install a three-slot receptacle.
- This oven should be plugged into a separate circuit with the electrical rating as provided in product specifications (available on Solwave's website at www.SolwaveOvens.com). and the oven's serial plate / rating label. When the oven is on a circuit with other equipment, an increase in cooking times may be required and fuses can be blown.

External Equipotential Earthing Terminal (Export Only)

- Equipment has secondary earthing terminal. Terminal provides external earthing connection used in addition to earthing prong on plug. Located on outside of oven back, terminal is marked with symbol shown at right.



Installation



WARNING

Excessive Weight Hazard - Use two or more people to move and install oven. Failure to do so can result in back or other injury.

Unpacking the Oven

- Inspect oven for damage such as dents in door or inside oven cavity.
- Report any dents or breakage to source of purchase immediately.
- **DO NOT** attempt to use oven if damaged.
- Remove all packing materials from oven interior.
- If oven has been stored in extremely cold area, wait a few hours before connecting power.
- A protective film is used to prevent scratching of the outer case during transportation. Peel off the film from the exterior of the oven before installation.
- The warning label provided with the oven must be placed in an easily visible location near the oven.

Radio Interference

Microwave operation may cause interference to WiFi network, radio, television, or a similar oven. Reduce or eliminate interference by doing the following:

- Clean door and sealing surfaces of oven according to provided instructions.
- Place WiFi network, radio, television, etc. as far as possible from oven.
- Use a properly installed antenna on radio, television, etc. to obtain stronger signal reception.

Oven Placement

- Do NOT install oven next to or above source of heat, such as pizza oven or deep fat fryer. This could cause oven to operate improperly and could shorten life of electrical parts. Ambient temperatures above 90°F may cause damage to the unit.
- Do NOT block or obstruct oven filters. Allow access for cleaning.
- Install oven on level counter-top surface.
- Outlet should be located so that plug is accessible when oven is in place.
- This oven is required to be sealed to the countertop to establish proper sanitary operation. It is manufactured with a basepan gasket designed to provide this seal.
- Inspect gasket for damage before placing oven on countertop.
- Minimize sliding of oven to prevent damage to gasket.
- When in place, this gasket is intended to prevent liquid spillage on adjacent countertop surfaces from passing under inaccessible portions off the equipment.

Oven Stacking

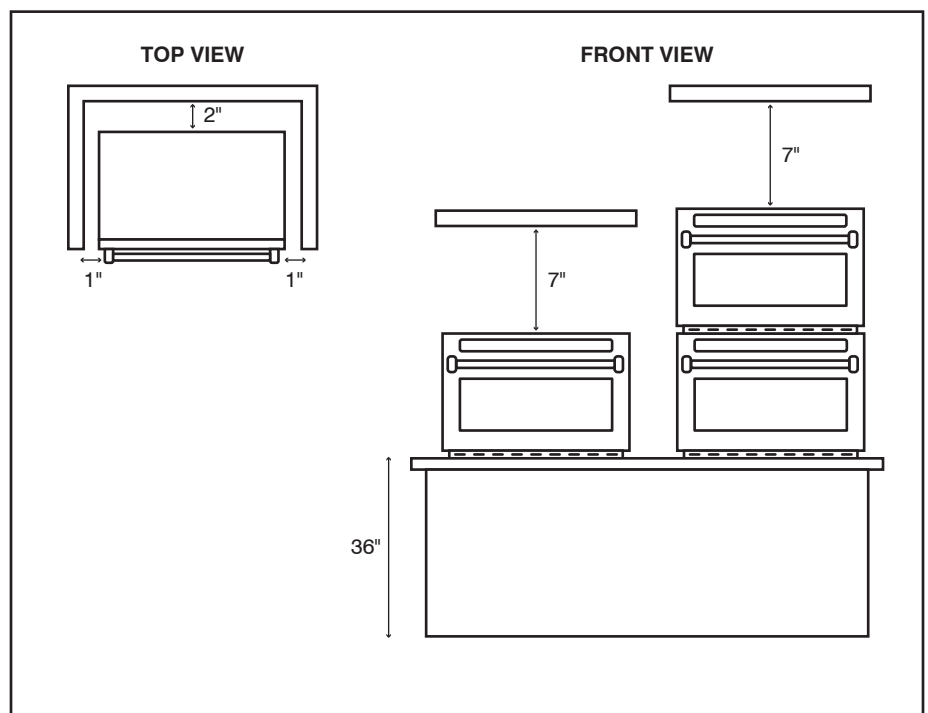
- Oven stacking is allowed using stacking bracket located on the top of the back panel on the hinge side corner.
- Remove screws from stacking brackets on the rear of the ovens and reattach them to the back panel between both ovens, securing them together using back panel screws.

Oven Clearances

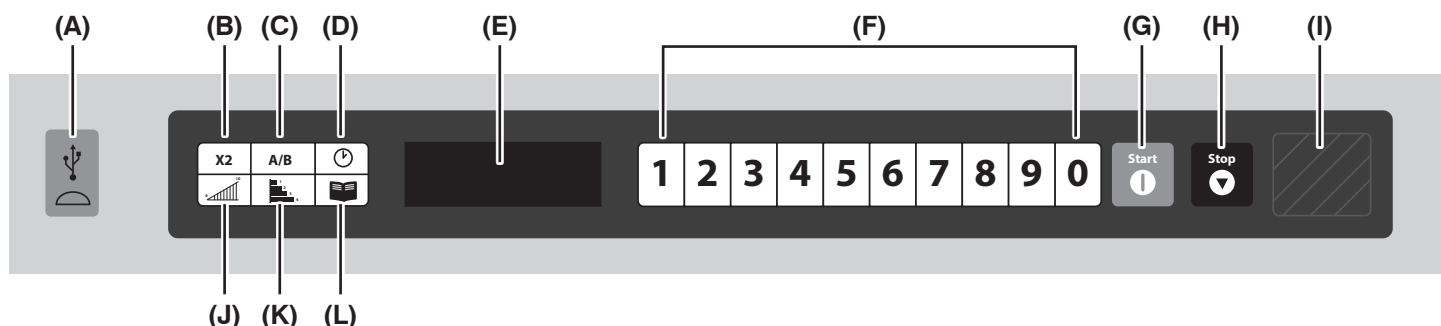
- Proper air flow around oven cools electrical components. With restricted air flow, oven may not operate properly and life of electrical parts is reduced.

Minimum Clearances (stacked and unstacked units)

- 7" (17.78 cm) above top of oven.
- 2" (5.1 cm) around back of oven.
- 1" (2.54 cm) around sides of oven.
- 36" (91.5 cm) above the floor.



Control Panel



(A) USB Port

Standard USB flash drive compatible.
Allows for import/export of programmed settings and user options.

(B) X2 - DOUBLE QUANTITY COOKING

Increases a preset cook time by a percentage of the original cook time, also known as a COOK FACTOR. Used for cooking multiple servings of foods. For instructions on how to use this feature, see "Programmed Keys" on page 7.

(C) MENU A/B

Toggles menu selection between two sets of programmed cook settings.
Selecting Menu A allows preset programs 0 through 9 to operate using keys 0-9.
Selecting Menu B allows preset programs 10 through 19 to operate using keys 0-9.

(D) MANUAL TIME ENTRY MODE

Allows the operator to heat without changing the preset program keys.

(E) DISPLAY

(F) NUMBER KEYS

Used to operate preset cooking programs and enter settings.

(G) START/OK KEY

Begins cooking in Manual Time Entry Mode.

(H) STOP/RESET KEY

Interrupts operation, and/or exits modes and menus.

(I) HIDDEN KEY

The hidden key pad can be used for adjusting oven controls based on user preferences. It is located to the right of the STOP pad. For instructions on how to use this, see "User Options" on page 10.

(J) POWER LEVEL KEY

The power level key allows the user to change the microwave power level for different stages of a cook cycle. For instructions on how to program the power level, see "Programming Keys" on page 8.

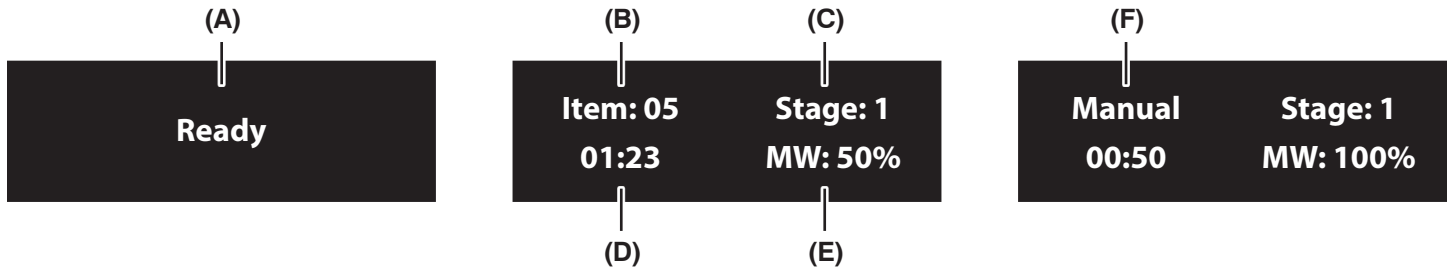
(K) STAGE COOKING KEY

A user can program up to four different stages combining both power levels and time changes per key. Each combination is known as a stage. See "Programming Multiple Stages" on page 8 for more information about stage cooking.

(L) PROGRAM SAVE KEY

Programs or settings can be changed and saved based on a user's preference. For instructions on saving changes, see "Programming Keys" on page 8.

General Display Screens



- (A) Indicates oven is ready to operate. The operator may press keys to begin preset programs.
- (B) Preprogrammed number key.
- (C) Current stage of cook cycle. Indicates oven is ready to operate.
- (D) Remaining cooking time.
- (E) User specified percentage of microwave power.
- (F) Indicates oven is in manual cooking mode.

Programming Features

Stage Cooking

Allows operator to use up to four different cooking cycles or stages consecutively without repeated input from the operator. For example, stage cooking could be set to defrost food initially, then cook it, and then keep the food warm until serving time.

Preset Program Keys

The oven can store up to 100 cooking programs in memory.

Single Digit Keypad Cooking

From the factory, the oven is programmed to store 10 cooking programs (0-9). Each key begins a cooking program.

Double Digit Keypad Cooking

The oven control can be changed to store up to 100 cooking programs (00-99). Each entry will be assigned a double digit number, for example 01, 05, or 20. When using the double keypad programming, two keypads must be pressed to start the cooking cycle.

Note: To set control to Double Digit Entry, see “User Options” section in this manual.

Top or Bottom Only Cooking

Top Only or Bottom Only cooking allows the user to use only the top or bottom of the microwave during a cooking cycle. When “Top Only” is selected, only the top magnetrons operate. When “Bottom Only” is selected only the bottom magnetrons operate. See “Programming Top & Bottom Only Cooking” on page 8 for more information about this feature.

Mid-Cycle Cooking Pause

The cooking pause is a feature unique to this series of microwaves. This pause enables extra ingredients to be added, cooking progress to be checked, or for food to sit for a necessary time between cooking cycles. During a mid-cycle cooking pause, the microwave beeps continuously and PROGRAM PAUSED displays until the oven door is opened and closed. To continue the cycle, press the START button. To utilize this feature, see “Programming Mid-Cycle Cooking Pause” on page 9.

Methods of Cooking & Programming

Cooking with Preset Program Keys

Allows operator to quickly activate saved cooking sequences using 1-2 keypad strokes.

Manual Time Entry Cooking

Allows operator to heat without changing the preset program keys.

Manual Key Programming

Allows operator to use keys to edit preset programs and/or create new programs for customized cooking.

USB Programming Uploads

Allows operator to load program settings and user options using a standard USB flash drive.

Oven Controls

Interrupting Operation

Open the oven door or press STOP/RESET key to interrupt operation. The display will continue to show the countdown time. Close door and press START key to resume oven operation.

Manual Time Entry

To cook food using a specific entered time and power level.

1. Open oven door and place food in oven. Close door.
 - READY displays. Fan and light will turn on.
2. Press TIME ENTRY key.
 - If pad does not work, open and close oven door and try again.
3. Enter cooking time by using the numbered keys.
4. Press a power level key to change power level if desired.
 - 0 indicates 0% microwave power, 2 indicates 20%, 5 indicates 50% and 7 indicates 70% microwave power. If a number is not displayed with POWER LEVEL the microwave is set to full power.
5. If stage cooking is desired, press STAGE key and repeat steps 3 through 4.
 - Display changes to cook time and power level for the next stage.
6. Enter cook time and power level as in steps 3 and 4.
 - To add another cooking stage press STAGE key again.
 - Up to four different stages can be programmed.
7. Press START key.
 - Oven operates and time counts down.
8. At end of cooking cycle oven beeps and shuts off.
 - DONE displays.

Programmed Keys

To cook food using a specific entered time and power level.

1. Open oven door and place food in oven. Close door.
 - READY displays. Fan and light will turn on.
2. Press desired key.
 - For single key entry, press only one key.
 - For double key entry, press the two keys, in order, of the double digit number for the desired cooking sequence.
 - To change single or double key entry option, see User Options section in this manual.
3. Oven begins to cook.
 - POWER, power level and total cooking time display. If power level does not display, microwave is cooking at full power.
 - For additional cooking time, press preprogrammed key again to begin cooking sequence again.
4. At end of cooking cycle oven beeps and shuts off.

Factory Preset Programs

KEY	TIME	POWER
1	00:10	100%
2	00:20	
3	00:30	
4	00:45	
5	01:00	
6	01:30	
7	02:00	
8	03:00	
9	04:00	
0	05:00	

Multiple Servings

To increase cooking time by a specific cooking factor when cooking more than one serving. The cooking factor is a percentage of the original cooking time (from 10 to 100%).

1. Open oven door and place food in oven. Close door.
 - READY displays. Fan and light will turn on.
2. Press X2 key.
 - Display will read "DOUBLE."
 - To clear, open and close the door or press the STOP/RESET key.
3. Press desired preprogrammed key or key sequence.
4. Oven begins cooking. Displayed cooking time is the total of original cooking time plus the added X2 time.
 - Amount of time added is a percentage of the original preprogrammed cooking time.

Programming the Oven Controls

Programming Keys

Oven is shipped from the factory for single key programming. To change the oven default to allow double key programming, see User Option section. To change the amount of time or the power level for a preset key:

1. Open oven door.
 - READY displays.
 - If STOP key is pressed before programming is complete, changes are discarded and microwave exits programming mode.
2. Press PROGRAM SAVE key.
 - Programming mode begins.
 - "Enter Program to Add/Review" displays.
3. Press key to be reprogrammed.
 - Power level and cooking time settings display.
4. Press TIME ENTRY to edit the amount of cooking time.
 - Enter cooking time by using the number keys.
 - Maximum cooking time is 60 min.
5. Press POWER LEVEL to edit the level of microwave power.
 - For a lower microwave power, press keys 1 (10%) through 9 (90%).
 - Press numeric key for desired level. Press same numeric key again to reset power level to 100%.
6. Press PROGRAM SAVE key to save new programming changes to the key.
7. To discard changes, press STOP/RESET before pressing PROGRAM SAVE.

Programming Multiple Stages

Stage cooking allows consecutive cooking cycles without interruption. Up to four different cooking cycles can be programmed into a memory key. To use stage cooking:

1. Follow steps 1 through 5 of "Programming Keys."
2. Press STAGE key.
 - This will begin programming for the next cooking stage.
 - Display indicates stage to be programmed.
3. Enter cook time and power level as in steps 4 and 5 of "Programming Keys."
 - To enter another cooking stage for that key, press the STAGE key again.
 - Up to four different stages can be programmed.
4. Press PROGRAM SAVE key to save the new programming changes to the key.
 - Total max cooking time (all stages totaled) is 60 minutes.
5. To discard changes, press STOP/RESET key before pressing PROGRAM SAVE key.

Programming Top & Bottom Only

1. Push the POWER LEVEL key.
 - Select and program the preferred microwave power.
2. If the POWER LEVEL key is pushed a second time, "Top Only" option will be selected and displayed.

Manual Stage: 1
00:50 MW: 50% ← Flashing

3. If the POWER LEVEL key is pushed a third time, "Bottom Only" option is selected and displayed.

Manual Stage: 1
00:50 MW: 50% ← Flashing

4. If the POWER LEVEL key is pushed a fourth time, the oven resets and both top and bottom will heat.

Manual Stage: 1
00:50 MW: 100% ← Flashing

Programming Mid-Cycle Cooking Pause

To ADD a pause to a programmed cook cycle:

1. Press HIDDEN KEY after entering time or power level.
2. A short beep sounds. This indicates the program is set for a mid-cycle pause.
3. Continue programming key as desired.

To REMOVE a pause to a programmed cook cycle:

1. Press HIDDEN KEY after entering time or power level.
2. A short beep sounds. This indicates that the mid-cycle pause has been removed.
3. Continue programming key as desired.

Import Menu via USB Flash Drive

1. READY must be on the display. If not, open and close the door.
2. Open the oven door completely.
3. Insert USB flash drive.
4. Press and hold the 5 key until "USB" appears on the display.
5. To transfer programming FROM the USB drive TO the oven, press the 1 key.
6. Push the START pad to begin transfer.
 - Display will read, "Contacting USB card."
 - Display will then read, "Transferring data from USB to oven."
7. Once programming has been successfully transferred, display will read "Done - Loaded ____ Programs."
 - Shut the door to clear the display and begin cooking cycle.

ERROR CODES:

- **No file:** USB flash drive is empty or does not have the correct file(s) required for operation

Export Menu via USB Flash Drive

1. READY must be on the display. If not, open and close the door.
2. Open the oven door completely.
3. Insert USB flash drive.
4. Press and hold the 5 key until "USB" appears on the display.
5. To transfer programming TO the USB drive FROM the oven, press the 2 key.
6. Push the START pad to begin transfer.
 - Display will read, "Contacting USB card."
 - Display will then read, "Transferring data from oven to USB."
7. Once programming has been successfully transferred, display will read "Done - Loaded ____ Programs."
 - Shut the door to clear the display and begin cooking cycle.

User Options

Changing User Options

Options such as single or double key programming, beep volume, and maximum cooking time can be changed to suit individual preferences. To change options:

1. Open and close oven door. "READY" is displayed.
2. Press firmly on HIDDEN KEY located to the right of the STOP/RESET key.
 - The display remains the same when hidden key is pressed.
3. Press PROGRAM SAVE key.
 - The first user option will display. Oven is now in options mode.
4. Press desired number key to control changes in options.
 - Current option will be displayed.
5. Press the same number key again to disable or enable the setting.
 - Each time the key is pressed, the option will change.
 - To change additional options, repeat steps 3 and 4.
6. Press PROGRAM SAVE to return to READY mode.
 - Changes take effect immediately.
 - To exit without saving, press the STOP/RESET key.

User Option Codes

- Default values marked in **bold**.

KEY	DISPLAY	OPTIONS
1: Double Digit Entry	Disabled Enabled	Allows 10 (0-9) preprogrammed keys. Allows 100 (00-99) preprogrammed keys.
2: Manual Programming	Disabled Enabled	Manual time entry/cooking not allowed. Manual time entry/cooking allowed.
3: Reset on Door Open	Disabled Enabled	Opening oven door DOES NOT reset oven back to READY mode. Opening oven door DOES reset oven back to READY mode.
4: Key Beep	OFF ON	Keys DO NOT beep when pressed. Keys DO beep when pressed.
5: Speaker Volume	OFF LOW MEDIUM HIGH	Key beep volume OFF. Key beep volume LOW. Key beep volume MEDIUM. Key beep volume HIGH.
6: End of Cook Signal	Solid Beep 3 Second Beep 4 Beeps Once 4 Beeps Repeating	Done signal is a continuous beep until reset by user. Done signal is a 3 second beep. Done signal is 4 beeps continuously. Done signal is 4 beeps, 4 times.
7: Keyboard Active	15 Seconds 30 Seconds 60 Seconds 120 Seconds Always	Keypad time entry window is 15 seconds. Keypad time entry window is 30 seconds. Keypad time entry window is 60 seconds. Keypad time entry window is 120 seconds. Keypad time entry window is always active.
0: Top or Bottom Cooking	Disabled Enabled	Disables the use of top or bottom only cooking. Enables the use of top or bottom only cooking.
TIME ENTRY: On-The-Fly Cook (add or change time mid-cycle without stopping)	Disabled Enabled	Disables on-the-fly cooking. Enables on-the-fly cooking.
X2: X2 Prompt	Disabled Enabled	Disables X2 prompt. Enables X2 prompt.
A/B: A/B Menus	Disabled Enabled	Disables A/B menus. Enables A/B menus.
POWER LEVEL: Return to Menu	A B Last Selected	Return to Menu A. Return to Menu B. Return to last selected menu.
STAGE: Clean Filter Message	Disabled Weekly Montly Quarterly	Oven will NOT display CLEAN FILTER. Oven will display CLEAN FILTER every 7 days. Oven will display CLEAN FILTER every 30 days. Oven will display CLEAN FILTER every 90 days.

Cooking Guidelines

The Solwave Microwave Oven can make your job easier. You'll cook ahead and pre-portion more. You'll also spend less time preparing special-order dishes. To be sure of consistently good results, you'll want to remember a few simple guidelines.

Food Variables

Microwave cooking can be directly affected by different food variables:

The shape of foods can greatly affect the amount of cooking time. Foods that are flat and thin heat faster than foods which are chunky. For example, a casserole will cook faster in a flat dish, rather than if heaped in a small dish. Foods cut into small pieces will cook faster than large-shaped foods. Pieces should be of a uniform size and shape for more uniform cooking, or the smaller pieces will cook faster. The greatest amount of cooking takes place within 3/4" (1.9 cm) of the food's surface. The interior of large food items, or dense foods, is heated by the heat conducted from the outer food layer. The most uniform cooking occurs in flat, doughnut shaped foods. For best results, cook foods together which have similar sizes and shapes.

The quantity or volume of a food can affect the amount of cooking time. As the volume of the food is increased, the time required to cook or heat the item increases almost proportionately. If twice the amount of food is placed in the oven, it will take almost twice as long to cook. To determine the time for larger quantities, multiply the individual serving time by the increased amount, then reduce the total cooking time by about 20%.

The density of foods can greatly affect the amount of cooking time. Porous foods, such as breads, cakes or pastries, will heat much more quickly than dense meats of the same size. Porous foods absorb microwaves quickly throughout. Meats absorb microwaves mostly at the exterior surface, and the interior is heated by conduction, increasing the cooking time. Meats can be cooked in a sauce, if desired. Due to the moisture content, a sauce will heat rapidly. The heat will transfer to the meat, so the meat will heat faster due to heat by conduction as well as by microwaves.

The starting temperature of foods affects the amount of cooking time. Each temperature degree that the food item is to raise must be supplied with a definite amount of energy. Lower initial starting temperatures require more energy and more time to cook. Therefore, refrigerator temperature foods require a longer cooking time than do room temperature foods. Foods already slightly warm will heat very quickly in the oven.

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

The salt, fat, and sugar content of foods affects the amount of cooking time. Foods containing high salt, fat, and sugar levels heat very quickly and may reach much higher temperatures than foods having low salt, fat, and sugar levels. Foods having lower salt, fat, and sugar levels require longer cooking times.

The arrangement of food within a microwave oven cavity affects the way in which the food cooks. A "round" arrangement is best. Use round utensils whenever possible. Also, arrange foods such as baked potatoes in a circle, rather than in rows, for cooking. When only one food item is being cooked, place it in the center of the oven glass shelf for cooking.

Manipulation of Foods

Sometimes recipes suggest manipulating or moving food during cooking. There are several forms of manipulation:

Stirring is required less often in microwave cooking than in conventional cooking. In conventional cooking, you use a spoon to move food up from the bottom of a pan to evenly distribute the heat. In microwave cooking, you still stir to redistribute the heat within some foods, but you need to stir from the outside of a dish toward the inside or center. If a recipe states to stir once or twice during cooking, stir at approximately even intervals. For example, in a 12-minute cooking period, if a recipe states to stir twice, stir after 4 minutes of cooking and again, after 8 minutes of cooking. However, it is not necessary to be precise. Stir only when necessary. When using lower power levels or settings, less stirring is required. Some examples of foods which may require stirring are puddings, some casseroles, some sauces, some soups, and some egg dishes. Some foods can't be stirred. These foods are rearranged or turned.

Some foods can't be stirred and should be **repositioned or rearranged** during cooking. Some examples include baked potatoes, cupcakes (in custard cups), chicken pieces, and others. Rearranging allows for more even cooking of foods. Foods which are cooked, covered, or which are cooked using lower power levels, usually require little rearranging.

There are actually **two types of turning**. Turning is done when foods cannot be stirred. Foods which are cooked, covered, or which are cooked at lower power levels usually require little turning.

Turning foods over: Turning foods over is done to distribute heat. Meat and poultry are two types of foods which are sometimes "turned over." Examples include roasts, turkeys and whole chickens. Small meat items such as poultry pieces may need to be turned over when in casseroles, or when in a browning skillet.

Rotating or turning dishes: There are a few foods which cannot be stirred, rearranged or turned over. Therefore, the actual cooking dish is turned or rotated. A half-turn means to grasp the dish and turn the portion of the dish that faces the oven door around, until it faces the back of the oven. Examples of foods which are sometimes turned or rotated in a cooking dish include cakes, quiches, or soufflés. When cooking foods at lower power levels or Settings, less turning of the cooking dishes is required.

Microwave Utensils

Never use cooking containers or covers with any metal content. This includes all metal and enameled metal-core ware, foil, and metal-trimmed containers. Suitable cooking containers include those made of paper products, glass, china, cloth, and wicker baskets.

Recommended:

- Plastic Amber High Temp Pans with Lids
- Microwave Safe Plastic Bags for Individual Serving Portions
- Glass/Ceramic
- Natural Fiber Cloth
- Non-Recycled Paper
- Plastic
- Wood

NOT Recommended:

- Aluminum Foil
- Grocery Bags
- Recycled Paper
- Lead Crystal
- Newspapers
- Metal
- Metallic Trimmed China

Utensil Check Test

Use the following test to check utensils for safety:

1. Place glass measuring cup of water next to empty dish to be tested in microwave oven.
2. Heat on full power for one minute.
3. Check temperature of dish and water.
 - If dish remains cool and water is hot, dish is microwave safe.
 - If dish is slightly warm, use for short term cooking.
 - If dish is hot and water is cool, do not use. Dish remains cool if not absorbing microwaves and microwaves are being absorbed.

Cooking Instructions

Cooking Tips

1. Cover foods for faster, more even cooking. Glass lids, plastic wrap, plate covers, or other paper products may be used. DO NOT seal. Instead, allow for steam-venting at all times.
2. Pierce pouches, plastic wrap covers, and all foods with a thin skin or membrane (potatoes, squash, tomatoes, eggs, etc.). This prevents an eruption in the oven and allows for expansion and/or the escape of steam.
3. Foods should be carefully plated. For best results, arrange food such as vegetables or casserole-type items evenly around the edge of the plate with slightly less depth in the center. The edges of food items should not overlap or overhang the rim of the container. Cover meats with gravy or au jus and moisten all dry foods other than bread or pastry items.
4. DO NOT stack food or plated dishes in your oven. Instead, when cooking more than one serving or platters, all plates should be placed at the same level in the oven, with space between all containers.

Steaming Tips

1. **Cooking Vessels**
 - a. Always heat or cook food items in covered containers to accomplish:
 - Retention of steam for efficient cooking and to keep foods moist
 - Even cooking results and temperatures
 - A cleaner oven interior and prevention of food splatters
 - b. Ceramic, paper, china, styrofoam, glass and plastic are suitable materials for use in microwave ovens. A high temperature resistant amber pan is recommended for ALL items, especially those high in fat or sugar content, as these ingredients get hot very quickly.
2. **Food Temperature**
 - a. To reach a mandatory serving temperature, frozen foods require a longer cook time than refrigerated items.
 - b. Refrigerated items:
 - Items stored at 40°F (4°C) in the refrigerator should be covered while heated; except breads, pastries or any products with a breaded coating, which should be heated uncovered to avoid softening.
 - c. Room temperature items:
 - Foods held at room temperature, such as canned items or vegetables, will require less time to heat than refrigerated items.
 - d. Conventionally prepared foods should be slightly undercooked to prevent overcooking when rethermed by microwave steaming.
 - e. After a steaming cycle has been completed, internal food temperatures continue to slightly rise due to the presence of steam.
3. **Structure of Food**
 - a. Food items that are high in fat, sugar, salt and moisture attract and quickly absorb microwave energy, allowing for a shorter cook time.
 - b. Items high in protein or fiber require a longer cook time, due to a slower absorption of microwave energy.
4. **Quantity**
 - a. As the mass of food increases, so will the necessary cook time.

Refer to and comply with all USDA/FDA Food Code guidelines when cooking or heating food items.

General Microwave Cooking

Microwave cooking uses high frequency energy waves to heat the food. When cooking, microwave energy causes food molecules to move rapidly. This rapid movement between the food molecules creates heat, which cooks the food.

Is it safe to run a microwave if it is empty?

Running a microwave without a load can cause serious damage to electrical components. When food is placed in the oven, microwave energy generated by the magnetron is absorbed by the food. When no food is in the oven, there is nothing to absorb the energy. The energy bounces around the cavity and is channeled back through the waveguide. This can cause arcing, fire and may burn out the magnetron.

How do you defrost food while using a commercial microwave?

Not all commercial microwaves have the defrost button that is commonly found on a residential microwave. To defrost, simply use 20% microwave power level.

How do you know if a container is microwave safe?

To test if a container is microwave safe, place it in the microwave next to a container of water that is microwave safe. Run the microwave for one minute. If the tested container is warm or hot, it is not microwave safe.

Cleaning and Maintenance

Microwave energy is attracted to any food source in the oven. Food splatters or spills can affect heating performance, and can also cause oven damage. To prevent damage to oven, keep the microwave oven clean and remove any food debris. Follow the recommendations below for proper maintenance of oven.



WARNING

To avoid electrical shock which can cause severe personal injury or death, unplug power cord or open circuit breaker to oven before cleaning.

Wear protective gloves and protective glasses when cleaning the oven.

Failure to maintain the oven in a clean condition could lead to deterioration of the surface that could adversely affect the life of the appliance and possibly result in a hazardous situation.



WARNING

Not following approved oven cleaning instructions may void your warranty.

- **ALWAYS UNPLUG THE OVEN BEFORE CLEANING.**
- DO NOT use abrasive cleaners or cleaners containing ammonia, citrus, phosphates, chlorine, sodium, or potassium hydroxide (lye). The use of caustic cleaning products can damage critical oven parts. Use of unapproved cleaning agents will void the terms of the warranty.
- DO NOT pour water into microwave oven bottom.
- DO NOT use water pressure type cleaning systems.
- DO NOT operate oven without the antenna shield and air filter in place.
- DO NOT turn on or operate oven during cleaning procedure.
- DO NOT clean appliance with water jet or steam cleaner.

Daily Care and Cleaning

Interior, Exterior, and Door

1. Remove any food debris.
2. Clean microwave oven with mild detergent in warm water using soft sponge or cloth. Wring sponge or cloth to remove excess water before wiping equipment (Fig. 1 & 2).
3. If desired, boil a cup of water in oven to loosen soil before cleaning.



Control Panel

1. Open oven door to deactivate oven timer.
2. Clean with mild detergent in warm water using soft sponge or cloth. Wring sponge or cloth to remove excess water before wiping equipment (Fig. 3).



Antenna/Splatter Shield

⚠ DO NOT spray cleaning solution directly on the antenna/splatter shield.

1. The antenna shield (or splatter/grease shield) is a vital part of the oven's design. It is located on the ceiling of the interior of the unit and should be cleaned in place to prevent food splatter/debris from building up.
2. Clean antenna shield with mild detergent in warm water using soft sponge or cloth. Wring sponge or cloth to remove excess water before wiping equipment (Fig. 4).



Interior Removable Shelf

- ⚠ DO NOT place removable shelf in dishwasher.
- ⚠ DO NOT immerse in water. Hand wash only.
- ⚠ DO NOT use metal scouring pads or steel wool.

1. Clean shelf with mild detergent in warm water using soft sponge, cloth, or nylon scouring pad. Wring sponge or cloth to remove excess water before wiping equipment (Fig. 5).
2. Dry thoroughly before use.



Weekly Care and Cleaning



CAUTION

To avoid overheating and oven damage, filter should be cleaned regularly.
DO NOT operate oven without filter in place.

Air Filters

1. Remove the magnetic filters.
2. Wash filters in hot water and mild detergent.
3. Rinse and dry thoroughly.
4. Reinstall the clean air filters.



Monthly Care and Cleaning

Discharge Air Vents

1. Check monthly for any obstructions along the discharge louvers on the top, center, and back of the oven.
2. DO NOT block or obstruct oven filter or louvers. Keep clear to ensure proper airflow.



Troubleshooting



WARNING

To avoid electrical shock which can cause severe personal injury or death, DO NOT remove outer case at any time.

Only an authorized servicer should remove outer case.

SYMPTOM	POSSIBLE CAUSE	SOLUTION
Oven fan runs and light remains on after cook cycle has completed.	Normal operation.	The fan cools oven components, it is normal for the fan to run for 60 seconds after cook cycle is complete.
Oven fan runs while oven is not cooking.		
Oven does not operate.	Oven is unplugged.	Confirm oven is plugged in to appropriate outlet.
	Fuse has blown.	Check fuse and/or circuit breaker.
	Oven is plugged in to unqualified outlet.	Confirm oven is plugged in to dedicated, grounded circuit that matches information on serial plate. Contact electrician to confirm.
Oven does not accept entries when keypad is pressed.	Oven is turned off.	Confirm oven is plugged in and turned on.
	Oven door is ajar or was not closed properly.	Open and close oven door, try pressing keypad again.
Oven operates intermittently.	Possible blockage of airflow.	Check air filters and discharge area for obstructions, clean as directed in Cleaning and Maintenance section.
Oven operates, but does not heat food.	Possible oven failure.	Place one cup of cool water in oven. Heat for 1 minute. If temperature does not rise, oven is operating incorrectly and servicer should be called.
"Clean Filter" displays.	Normal operation.	Standard alert that will appear for 24 hours as a notification that it is time to clean the filter.
Oven malfunctions or shows "CALL SERVICE" or "ERROR" with a number.	Self-diagnostic system has detected an error or problem.	Record the number shown. Unplug the oven and wait for 1 minute before plugging back in. If failure continues, call for service.
CALL SERVICE (flashing after cook cycle).	Oven may not be operating at full power.	Contact authorized servicer.