

Important Information

Pride and workmanship go into every product to provide our customers with quality products. It is possible, however, that during its lifetime a product may require service. Products should be serviced only by a qualified service technician who is familiar with the safety procedures required in the repair and who is equipped with the proper tools, parts, testing instruments and the appropriate service manual. **REVIEW ALL SERVICE INFORMATION IN THE APPROPRIATE SERVICE MANUAL BEFORE BEGINNING REPAIRS.**

IMPORTANT NOTICES



WARNING

To avoid risk of serious injury or death, repairs should not be attempted by an unauthorized personal, dangerous conditions (such as exposure to electrical shock) may result.



WARNING

To avoid risk of serious injury or death, it is hazardous for anyone other than a qualified service technician to service or repair unit which involves removal of any cover that provides protection against exposure to microwave energy.



CAUTION

Amana® will not be responsible for any injury or property damage from improper service procedures. If performing service on your own product, assume responsibility for any personal injury or property damage which may result.

To locate an authorized servicer, please consult your telephone book or the dealer from whom you purchased this product. For further assistance, please contact:

AMANA
ATTN: INTERNATIONAL DIVISION
AMANA, IOWA 52204, USA
Telephone: (319) 622-5511
Facsimile: (319) 622-2180

RECOGNIZE SAFETY SYMBOLS, WORDS AND LABELS



DANGER

DANGER - Immediate hazards which **WILL** result in severe personal injury or death.



WARNING

WARNING - Hazards or unsafe practices which **COULD** result in severe personal injury or death.



CAUTION

CAUTION - Hazards or unsafe practices which **COULD** result in minor personal injury or product or property damage.

Important Safety Information



Do not become exposed to radiation from the microwave generator or other parts conducting microwave energy.

Basic design of this microwave oven makes it an inherently safe device to both use and service. However, there are some precautions which should be followed when servicing microwave oven to maintain this safety. These are as follows:

1. Always operate unit from an adequately grounded outlet. Do not operate on a two-wire extension cord.
2. Before servicing unit (if unit is operable) perform microwave leakage test.
3. Oven should never be operated if door does not fit properly against seal, hinge/hinge bearings are damaged or broken; choke is damaged, (pieces missing, etc.); or any other visible damage can be noted. Check choke area to ensure that this area is clean and free of all foreign matter. If any above problems occur take the following steps:
 - Tell the user not to operate the oven.
 - Contact Amana immediately.
4. If oven operates with door open and produces microwave energy, take the following steps:
 - Tell the user not to operate the oven.
 - Contact Amana immediately.
5. Always have oven disconnected when outer case is removed except when making "live" tests called for in the service manual. Do not reach into equipment area while unit is energized. Make all connections for the test and check them for tightness before plugging cord into outlet.
6. Always ground capacitors on magnetron filter box and H.V. capacitor with an insulated-handle screwdriver before working in high voltage area of equipment compartment. Some types of failures will leave a charge in capacitors and the discharge could cause a reflex action which could make you injure yourself.
7. In the area of the transformer, capacitor, diode, and magnetron there is HIGH VOLTAGE. When unit is operating, keep area clean and free of anything which could possibly cause an arc or ground, etc.
8. **DO NOT** for any reason defeat interlock switches, there is no valid reason for this action at any time; nor will it be condoned by Amana.
9. Microwave oven should never be operated with:
 - Any components removed and/or bypassed
 - Any of the safety interlocks are found to be defective
 - Any of the seal surfaces are defective, missing, or damaged
10. To ensure that unit does not emit excessive microwave leakage and to meet Department of Health and Human Services guidelines check oven for microwave leakage using Narda Model 8100, 8200, Holaday HI1500, HI1501, or Simpson 380M leakage monitor as outlined in instructions. Maximum leakage level allowed is 4mw/cm².
11. If servicer encounters an emission reading over 4mw/cm², servicer is to cease repair and contact Amana Service Department immediately for further direction.
12. Install or locate this equipment **ONLY** in accordance with the installation instructions in this manual.
13. Some products such as whole eggs and sealed containers – for example, closed glass jars – may explode and **SHOULD NOT** be **HEATED** in this equipment.
14. 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 equipment is specifically designed to heat or cook. It is not designed for industrial or laboratory use.
15. As with any equipment, **CLOSE SUPERVISION** is necessary when used by **CHILDREN**.
16. **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.
17. 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.
18. **DO NOT** cover or block any openings on the equipment.
19. **DO NOT** store this equipment 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.
20. **DO NOT** immerse cord or plug in water.
21. Keep cord **AWAY** from **HEATED** surfaces.
22. **DO NOT** let cord hang over edge of table or counter.

Important Safety Information



To avoid risk of personal injury or death of fire in the oven cavity:

- **DO NOT** overcook food. Carefully attend equipment if paper, plastic, or other combustible materials are placed inside the equipment to facilitate cooking.
- Remove wire twist-ties from paper or plastic bags before placing bag in equipment.
- **KEEP EQUIPMENT DOOR CLOSED**, turn equipment off, and disconnect the power cord, or shut off power at the fuse or circuit breaker panel, if materials inside the equipment should ignite. Fire may spread if door is opened.
- **DO NOT** use the cavity for storage purposes. **DO NOT** leave paper products, cooking utensils, or food in the cavity when not in use.



To avoid personal injury or property damage, observe the following:

1. Briskly stir or pour liquids before heating with microwave energy to prevent spontaneous boiling or eruption. Do not overheat. If air is not mixed into a liquid, liquid can erupt in equipment or after removal from equipment.
2. Do not deep fat fry in equipment. Fat could overheat and be hazardous to handle.
3. 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.
4. Pierce skin of potatoes, tomatoes, and similar foods before cooking with microwave energy. When skin is pierced, steam escapes evenly.
5. Pop popcorn in microwave mode only. If equipment is preheated or hot, allow equipment to cool before popping popcorn or bag may ignite.
7. Do not use regular cooking thermometers in equipment when cooking in microwave or combination mode. Most cooking thermometers contain mercury and may cause an electrical arc, malfunction, or damage to equipment.
8. Do not heat baby bottles in equipment.
9. Do not use metal utensils in equipment 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.
10. Never use paper, plastic, or other combustible materials that are not intended for cooking. If equipment temperature is high, material may ignite.
12. Do not use paper towels which contain nylon or other synthetic fibers. Heated synthetics could melt and cause paper to ignite.
13. Do not heat sealed containers or plastic bags in equipment. Food or liquid could expand quickly and cause container or bag to break. Pierce or open container or bag before heating.
14. Racks, utensils, and equipment 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.
15. Do not use rack position if rack hook breaks. Replace broken hooks immediately.
16. Do not unplug equipment immediately after use. Internal fan must cool equipment to avoid damage of electrical components.
17. To avoid pacemaker malfunction, consult physician or pacemaker manufacture about effects of microwave energy on pacemaker.

Important Safety Information

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (a) **DO NOT** attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- (b) **DO NOT** place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
- (c) **DO NOT** operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the: (a) Door (bent), (b) hinges and latches (broken or loosened), (c) door seals and sealing surfaces.
- (d) The oven should **NOT** be adjusted or repaired by anyone except properly qualified service personnel.

PRECAUTIONS A PRENDRE POUR EVITER LES RISQUES D'EXPOSITION A DES QUANTITES EXCESSIVES D'ENERGIE MICRO-ONDE

- (a) **NE PAS** essayer de faire marcher le four avec la porte ouverte car cela risque d'exposer l'utilisateur à une quantité nocive d'énergie micro-onde. Ne jamais supprimer ou altérer les verrouillages de sécurité.
- (b) **NE RIEN METTRE** entre la face avant du four et la porte et ne pas laisser de saletés ou de produits de nettoyage s'accumuler sur les surfaces d'étanchéité.
- (c) **NE JAMAIS** faire fonctionner le four s'il est endommagé. Il est tout particulièrement important que la porte du four se ferme correctement et que les éléments suivants fonctionnent sans problème : a) la porte (faussée), b) les charnières et les verrouillages (cassés ou desserrés), c) les joints et les surfaces d'étanchéité de la porte.
- (d) Le four **NE DOIT ETRE** réparé que par des réparateurs qualifiés.

PRECAUCIONES PARA EVITAR LA POSIBLE EXPOSICION EXCESIVA A LA ENERGIA DE MICROONDAS

- (a) **NO** intente hacer funcionar este horno con la puerta abierta ya que podría resultar en una exposición dañina a la energía de microondas. Es muy importante no pasar por alto o averiar los interruptores de seguridad.
- (b) **NO** coloque ningún objeto entre el frente del horno y la puerta. Tampoco permita que suciedad o residuos de limpiador se acumulen en las superficies de sellado del aparato.
- (c) **NO** haga funcionar el horno si éste estuviera averiado. Es de particular importancia que la puerta del horno se cierre correctamente y que no existan daños en: (a) la puerta (dobladuras), (b) las bisagras y el pestillo (rotos o flojos), (c) los sellos de las puertas y otras superficies de sellado.
- (d) El horno **NO** deberá ser ajustado o reparado por ninguna persona excepto personal de servicio propiamente calificado.

VORSICHTSMASSNAHMEN ZUM SCHUTZ GEGEN MIKROWELLENSTRAHLUNG

- (a) **NICHT** versuchen, den Herd mit offener Tür zu betreiben, da Sie dadurch schädlicher Mikrowellenstrahlung ausgesetzt werden können. Auf keinen Fall die Sicherheitsverriegelung unwirksam machen oder ändern.
- (b) **KEINE** Gegenstände zwischen Herd und Tür einklemmen oder Schmutz und Rückstände von Reinigungsmitteln auf den Dichtflächen sich ansammeln lassen.
- (c) **KEINEN** beschädigten Herd benutzen. Es ist besonders wichtig, daß die Herdtür richtig schließt und die folgenden Teile nicht beschädigt sind: (a) Tür (z.B. verbogen), (b) Scharniere und Klinken (z.B. gebrochen oder lose), (c) Türdichtungen und Dichtflächen.
- (d) Das Gerät **NUR** von qualifiziertem Kundendienstpersonal reparieren lassen.

Important Safety Information

VAROITUS MIKROAALTOSÄTEILYÄ

Käyttäjä ei saa joutua alttiiksi mikroaaltoenergialle, jota voi säteillä magnetronista tai muusta mikroaaltoja kehittävästä laitteesta, jos sitä käytetään väärin tai jos se kytketään väärin. Kaikkien mikroaaltoliitäntöjen sekä syöttöettä ulostulopuolella, aaltoputkien laippojen ja tiivisteiden tulee

olla varmistettuja. Mikroaaltouunia ei saa koskaan käyttää ilman kuormaa, jossa mikroaaltoenergiaa kuluu. Avoimeen aaltoputkeen tai antenniin ei saa koskaan katsoa virran ollessa kytkettynä.

VARNING FÖR MIKROVÅGSSTRÅLNING

Mikrovågsenergi kan stråla från magnetronen eller från annan mikrovågsgenererande anordning om den används eller ansluts felaktigt. Alla anslutningar för mikrovåg, såsom flänsar och tätningar måste vara betryggande ur säkerhets-

synpunkt. Starta aldrig anordningen utan mikrovågsabsorberande belastning. Mikrovågsstrålning från en öppen vågledare eller antenn har sådan strålningstäthet att uppenbar skaderisk föreligger.

ADVARSEL FOR MIKROBØLGESTRALING

Mikrobølgeenergi kan stråle fra magnetronen eller annen mikrobølgeproduserende anordning ved feilkopling eller feil bruk. Alle mikrobølgeinntak og -uttaksforbindelser, flenser og pakninger, må være sikkerhetsmessig betryggende

utført. Anordningen må aldri startes uten mikrobølgeabsorberende belastning. Se aldri inn mot en åpen bølgeleder eller antenne mens apparatet er i drift.

FORSIGTIG MIKROBØLGESTRÅLING

Undgå at blive udsat for stråling fra mikrobølgegeneratoren eller andre dele som fører mikrobølgeenergi.

Important Safety Information

PRECAUZIONI PER EVITARE L'EVENTUALE ECCESSIVA ESPOSIZIONE ALLE MICROONDE

- (a) **NON** cercare di far funzionare questo forno con lo sportello aperto: ciò può causare l'esposizione nociva alle microonde. È importante non danneggiare o manomettere i dispositivi di sicurezza.
- (b) **NON** porre alcun oggetto fra il lato anteriore del forno e lo sportello o permettere il depositarsi di sporcizia o residui sulle superfici di tenuta.
- (c) **NON** usare un forno danneggiato. È molto importante che lo sportello del forno si chiuda bene e che non vi siano danni a: (a) sportello (piegato); (b) cardini e dispositivi di chiusura (rotti o allentati); (c) guarnizioni dello sportello e delle superfici di tenuta.
- (d) Il forno va regolato o riparato **ESCLUSIVAMENTE** da personale d'assistenza debitamente qualificato.

VOORZORGSMATREGELEN TER VOORKOMING VAN MOGELIJKE BLOOTSTELLING AAN OVERMATIGE MICROGOLFENERGIE

- (a) Probeer **NIET** om deze magnetron met de deur open te gebruiken. daar gebruik met open deur schadelijke blootstelling aan microgolvenenergie ten gevolge kan hebben. Het is belangrijk dat u de veiligheidssluitingen nooit onklaar maakt of ermee knoeit.
- (b) Plaats **GEEN** voorwerpen tussen de voorkant van de oven en de deur. Zorg dat geen vuil of schoonmaakmiddel op de sluitvlakken achterblijft.
- (c) Gebruik de magnetron **NIET** indien hij beschadigd is. Het is vooral belangrijk dat de deur goed sluit en dat er geen beschadigingen zijn aan: (a) de deur (verbogen), (b) de scharnieren en sloten (gebroken of los), (c) de deurdichtingen en sluitvlakken.
- (d) De magnetron mag **UITSLUITEND** door daartoe bevoegd servicepersoneel bijgesteld en gerepareerd worden.

Product Information

Stirrer Blade

Distributes microwave energy throughout the cavity.

Blower/Fan Assembly

Circulates cooling air throughout the convection or microwave oven compartment and cavity.

Stirrer Cover

Covers and protects the stirrer blade assembly.

Door Interlock and Monitoring Switch

NOTE: When the line fuse is blown the Interlock Switch Module must be replaced.

Interlock switch (module) mounts behind oven cavity front bulkhead. It is actuated by door hook and guide attached to the door.

Monitoring switch (contacts 7 and 8) is actuated by the door guide.

The primary interlock switch (contacts 2 and 3) is actuated by the door hook.

The primary interlock switch is in series with the interlock monitoring switch in the monitor circuit.

If a malfunction occurs in the primary interlock when door opens, current will flow through the monitor switch causing the oven fuse to open.

If a faulty door interlock switch has allowed current through the monitor switch, the switch module must be replaced (see interlock switch testing) before replacing fuse.



To avoid severe personal injury or death avoid contacting any high voltage parts. The capacitors are at high voltage (4000 volt) potential and it is extremely important that they be earthed before handling.

Transformer High Voltage

High voltage transformer is used in this unit, which supplies high voltage A.C. for operation of the magnetron tube.

High Voltage Capacitor

Doubles the A.C. output voltage from the high voltage transformer.

High Voltage Diode (Rectifier)

Is connected at the output side of the high voltage capacitor. It changes voltage from A.C. to D.C. It passes current in one direction and blocks it in the other. Also called a rectifier.

Magnetron

With filament voltage and high D.C. voltage from the output of the H.V. capacitor, diode junction the magnetron will put out an electromagnetic radio frequency of 2450 MHz to heat the food load in the oven.

Thermal Protectors

At a predetermined temperature the thermal cut-outs will open or close. The oven will indicate an error code in the display, initiate cooling fan operation, or prevent the generation of microwave energy.

- Magnetron thermal cut-out is mounted directly on the body of the magnetron
- Fan thermostat is mounted directly on the exhaust duct
- Limiter thermal cut-out is mounted directly on the heater box
- Oven thermal cut-out is mounted directly on the heater box

Touch Panels

Allows consumer operation and programming of oven.

Triacs

Triacs are controlled by high voltage and low voltage circuit boards. Triacs control one side of the power line going to the high voltage power transformer and calrods.

- Microwave, Heating Element A, and Heating Element B triacs are mounted inside oven chassis behind oven cavity front bulkhead.

Snubbers

Used as a transient suppressor to maintain proper voltage at components and eliminates line noise.

- Snubbers are located on triacs and motor terminals.

RTD (Resistance Thermal Device)

Maintains proper temperature inside oven cavity.

Heating Elements

Heating elements are used to produce convection heat.

Installation

Unpacking Oven

- Remove packing and printed material from oven cavity.
- Report any dents or breakage to source of purchase immediately.
- Inspect oven for damage such as dents in door or inside oven cavity.

Oven Placement

- Do not install oven over or under another microwave, convection, or combination oven.
- Do not install oven next to or above source of heat, such as pizza oven or deep fat fryer. Excessive heat may cause oven to operate improperly and shorten life of electrical parts.
- Install combination oven so oven bottom is at least 91.5 centimeters / 3 feet above floor.
- Allow air flow around oven leaving at least 3.18 centimeters / 1 ¼ inch between air discharge on back of oven and back wall. Lift handle on back of oven ensures 3.18 centimeters / 1 ¼ inch spacing. Restricted air flow may cause oven to operate improperly and shorten life of electrical parts.
- Install according to all local building codes and ordinances.

Radio Interference

Microwave or combination mode operation may cause interference to radio, television, or similar equipment. Reduce or eliminate interference by doing the following:

- Clean door and sealing surfaces of oven according to instructions in "Care and Cleaning" section.
- Place radio, television, etc. as far as possible from oven.
- Use properly installed antenna on radio, television, etc. to obtain stronger signal reception.

Earthing Instructions

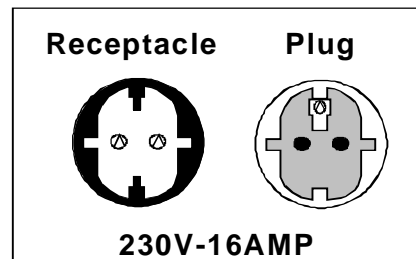
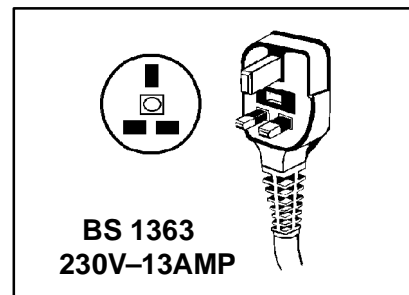
NOTE: Do not under any circumstances cut or remove earthing prong from the plug or bend power prongs to fit receptacle other than one shown for your equipment. Such abuse of the plug can result in electrical shock or overheating.



This equipment **MUST** be earthed. In the event of an electrical short circuit, earthing reduces risk of electric shock by providing an escape wire for electric current. This oven is equipped with a cord having earthing wire with a earthing plug. Plug must be plugged into an outlet that is properly installed and earthed. **DO NOT** use a two-prong adapter.

Consult a qualified electrician or servicer if earthing instructions are not completely understood, or if doubt exists as to whether the equipment is properly earthed.

Do not use an extension cord. If product power cord is too short, have a qualified electrician install an appropriate receptacle. This equipment should be plugged into a separate 50 Hz circuit with the appropriate electrical rating as shown in the drawings. When an oven is on a circuit with other equipment, an increase in cooking times may be required and fuses can be blown.



Equipment requires a 230 V 50 Hz power supply.

Care and Cleaning

Clean oven frequently to maximize oven life, performance, and efficiency. A dirty oven cooks inefficiently because moisture, spills, and grease absorb convection and microwave energy.



To avoid electrical shock which can cause severe personal injury or death, disconnect power to appliance before cleaning.



To prevent personal injury, handle utensils, racks, and door with care. Utensils, racks, and door may become hot during operation.

Recommended Maintenance Schedule

Schedule Maintenance Cleaning (**Not Covered Under Warranty**)

- Contact an authorized servicer to remove and clean heater box.
- Schedule appointment every 6 months or when heavy grease buildup is apparent on back of oven cavity.

Recommended Cleaning Schedule

Schedule Several Daily Cleanings

- Clean interior, exterior, door, and racks according to "General Cleaning" cleaning instructions.
- If possible, clean spills immediately.
- Wipe dry after cleaning.

Clean After Use

- Remove oven racks and rack hooks, and clean according to "Oven Racks and Rack Hooks" instructions.
- Clean exterior according to "General Cleaning" instructions.
- Clean oven interior with commercial degreaser (See "Cleaners" section) and clean cloth, sponge, or nylon pad.
- Wipe dry after cleaning.

General Cleaning

Clean door and other surfaces with a clean cloth, sponge, or nylon pad, and mild detergent diluted in warm water. Remove racks and rack hooks for best results. Wipe dry after cleaning.

- Do not spray cleaners directly in or on oven. Spray on cloth or sponge before applying to oven surfaces.
- Do not use knife, metal utensil, or abrasive cleaning pad to remove baked on material.
- Do not use harsh or abrasive cleaners, or cleaners containing ammonia.
- Do not use water pressure type cleaning systems.
- Remove excess water from cloth before wiping oven.

Cleaners

- Use commercial degreaser to clean oven cavity.
- Do not spray cleaners into oven cavity.
- Follow manufacturer's instructions on use of cleaners.
- Contact cleaner manufacturer for specific recommendations on use.
- Do not use oven or grille cleaners that may damage aluminum or electrical connections.

Oven Racks and Rack Hooks

Clean oven racks and rack hooks with detergent diluted in warm water or in dishwasher. Scrub with soft nylon pad to remove baked on material. Do not soak rack hooks for an extended period of time.

Important

If oven rack hook breaks, do not use rack position. Replace broken oven rack hook immediately.

Air Filter

Air filter is located directly below oven door.

1. Remove air filter by removing filter retaining screws, located on outside edges of filter. Remove screws with fingers.
2. Wash filter with mild detergent diluted in warm water. Rinse and dry thoroughly.
3. Replace filter by reversing step 1.

Important

Clean air filter regularly to prevent overheating, which may damage oven.

Discharge Air Vents

Check for a buildup of cooking vapors along discharge louvers in back of oven. Clean air vent with damp cloth to ensure proper airflow. Dry thoroughly.

Oven Operation

Fan

During microwave or convection cooking fan operates. Fan may come on at any time to cool internal oven components.

Ready Mode

Oven display shows "READY" to indicate ready mode. If oven shows "STANDBY", pressing *ON/STANDBY* pad sets oven to ready mode. Once in ready mode, "R" in "READY" flashes for 2 minutes. While "R" flashes, pads are active. When "R" stops flashing, pads are not active. Oven door must be opened and closed to reactivate pads.

Standby Mode

Oven shows "STANDBY" in display to indicate standby mode. If oven is in ready mode, pressing *ON/STANDBY* pad resets oven to standby mode. In standby mode, pads are inactive. Press *STANDBY* pad at end of day to disable pads.

Preheat

Preheat oven before cooking with convection or combination mode for best results. Preheat temperatures range from 70°C to 250°C in increments of 10°C.

When oven heats to reach preheat temperature, oven display shows "WARMUP" with "W" flashing. While "W" flashes, pads are active. After 2 minutes, "W" stops flashing and pads become inactive. Oven door must be opened and closed, or preheat temperature reached to reactivate pads.

Oven maintains preheat temperature for 2 consecutive hours. If door is opened or pad is pressed during preheat cycle, oven resets 2 hour preheat timer. Oven resets to ready mode after 2 hours if not used.

Cooking

Choose programmable menus (A, B, or C) or manual cooking functions (MICROWAVE, CONVECTION, or COMBINATION). Programmable menus and manual cooking functions have up to 4 cooking stages.

Set time, temperature, and/or microwave power level after manual cooking function is selected. If manual cooking function is selected and *START* pad pushed, oven cooks according to default time, temperature, and microwave power level. See "Cooking Displays" section for explanation of default settings.

Programmable Menus

Oven has 3 programmable menus (A, B, and C). Each menu contains 8 programmable pads. Oven cooks according to how each pad is programmed.

Programmable Pads

Pads do not come programmed from factory. Pads 1–8 can be programmed to cook according to frequently used sequences. When a pad is pressed, oven begins cooking with microwave, convection, or combination function according to previous programming.

Microwave

Microwave mode cooks using 1000 watts I.E.C. 705 microwave power. Place items to be cooked on rack. If only 1 rack is required for cooking, remove extra rack for best results. Use microwave-safe containers while cooking in microwave mode.

When cooking in microwave mode, oven cavity warms to 70°C to reduce condensation. A warm oven cavity may affect cooking times. When oven cavity is warming, "c" appears in oven display.

Microwave cooking times range from 1 second (00:01) to a total of 20 minutes (20:00) over 4 stages. If more than 20 minutes of total microwave cooking time is required, open door and inspect food before beginning new cooking cycle. Microwave power levels range from "10%" to "HI". "HI" is 100 percent power. If cooking time is set and *START* pad pressed, oven cooks at 100 percent power.

Convection

Convection mode cooks by circulating hot air around food. Preheat oven before using convection mode for best results. Place items to be cooked on rack for best results.

Cooking time ranges from 1 second (00:01) to a total of 60 minutes (60:00) over 4 stages. Cooking temperatures range from 70°C to 250°C in increments of 10°C.

Combination

Combination mode cooks using microwave energy and convection heat. Preheat oven before using combination mode for best results. Metal utensils may be used in combination mode when necessary. Use heat-resistant, microwave-safe utensils when possible. Place items to be cooked on rack for best results.

Cooking times range from 1 second (00:01) to a total of 20 minutes (20:00) over 4 stages. Temperature and power level settings combination mode are same as convection and microwave mode.

User Options

User options allow oven to operate according to individual preferences. See "Programming User Options" section in Programming Instructions.

Cooking Displays

c, m, or cm	"c" indicates convection element is producing heat. "m" indicates oven is producing microwave energy. "cm" indicates oven is producing microwave energy and convection heat. Indicators are located in lower right corner of oven display.
CLOSE DOOR	Displays when oven door is open. Element is no longer active because door has been open more than 15 seconds. Oven is in convection, combination, or preheat mode.
DOOR OPEN	Displays when oven door is open.
FINISHED REMOVE FOOD (A, B, C) PAD (1-8)	Displays at end of cooking cycle.
MANUAL COOKING	Shows while cooking with manual cooking function.
MANUAL COOKING PAUSE	Displays when cooking is interrupted by opening door or pushing STOP/RESET pad.
MAXIMUM ALLOWABLE DEFAULT COOK TIME	Displays in user option mode when greatest default cook time is reached. (Maximum = 10:00)
MAXIMUM ALLOWABLE MICROWAVE COOK TIME	Displays when no additional microwave cooking time can be added. (Maximum = 20:00)
MAXIMUM ALLOWABLE TOTAL COOK TIME	Displays when no additional cooking time can be added. (Maximum = 60:00)
MENU (A,B, or C)	Indicates which menu is selected for programming.
MICRO (10%-HI)	Indicates microwave power level.
(A, B, C) PAD (1-8) COOKING	Displays while cooking with programmable pad.
(A, B, C) PAD (1-8) PAUSE	Displays when cooking is interrupted by opening door or pushing STOP/RESET pad.
(0, 150-475F) PREHEAT (0, 70-250C)	Indicates temperature when preheat is selected.
PROGRAM NOT FOUND PROGRAM PAD (1-8) TO USE	Indicates selected programmable pad has not been programmed.
PROGRAMMING STAGE (1-4)	Indicates beginning of a new programming stage.
PUSH RESET TO DELETE START TO START OVER	Displays when STOP/RESET pad is pressed while oven is being programmed.
READY	Displays when oven is in ready mode. If "R" is flashing, pads are active.
READY c	Displays after oven has reached preheat temperature. If "R" is flashing, pads are active.
SELECT COOK FUNCTION	Displays after beginning of a new stage while programming.
STAGE (1-4)	Indicates present cooking stage.
STANDBY	Displays when oven is in standby mode.
WARM UP c	Displays when oven is preheating.
WELCOME STANDBY	Displays when oven receives power.

Default Cooking Time

Oven is factory preset to cook for 2 minutes, "2:00", when cooking function (MICROWAVE, CONVECTION, or COMBINATION) is selected. To change default cooking time, see "Programming User Options" section of manual.

Default Preheat Temperature

When power is connected to oven, oven sets preheat temperature to 250°C. If preheat has been set before, oven resets to previous preheat temperature when *PREHEAT* pad is selected.

Default Cooking Temperature

If oven was preheated oven sets cooking temperature to previous preheat temperature. If oven was not preheated temperature sets to 250°C.

Preheat/Convection Indicator

When oven preheats or cooks, oven shows "c" in display. "c" indicates heating element is on. While oven is in preheat or convection mode, "c" disappears as heating element cycles off to maintain temperature. To indicate warming of oven cavity, "c" may appear when door is open or in microwave mode.

Microwave Indicator

When oven cooks using microwave energy, oven shows "m" in display. While oven uses power levels other than 100 percent, "m" disappears as oven cycles off.

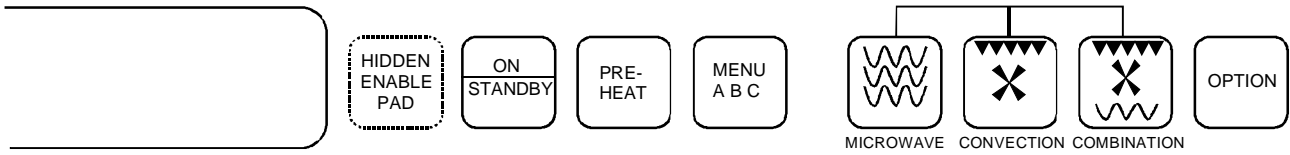
Flashing Items

When programming oven to cook, items in display flash indicating what needs to be set. For example, when setting the time, colon (:) flashes. When setting cooking temperature, "C" flashes. When setting microwave power levels, percent (%) flashes.

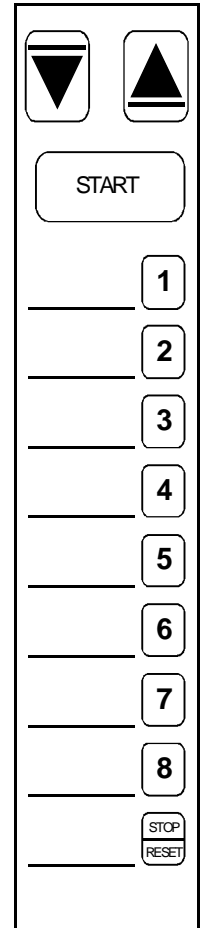
When oven is in ready mode, "R" in ready flashes indicating oven is ready for next entry. "R" in "READY" flashes for 2 minutes.

When oven heats to reach preheat temperature, oven display shows "WARMUP" with "W" flashing. While "W" flashes, pads are active and oven accepts entries. "W" in "WARMUP" flashes for 2 minutes.

Control Pads



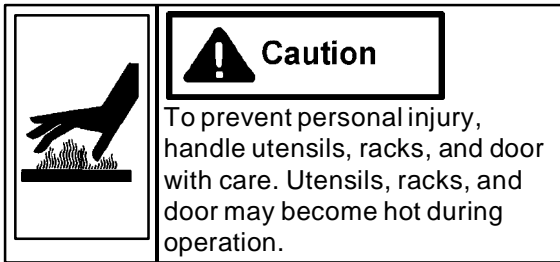
HIDDEN ENABLE PAD		Accesses programming for user options mode.
ON/STANDBY		Enables and disables pads. If oven shows "STANDBY", press ON/STANDBY pad to set oven to ready mode. Oven sets to standby mode if oven display shows "READY" and ON/STANDBY pad is pressed.
PREHEAT		Sets oven to preheat mode.
MENU A B C		Selects programmable cooking menus.
MICROWAVE		Selects microwave function.
CONVECTION		Selects convection function.
COMBINATION		Selects combination function.
OPTION		Advances programming. Advances time to oven temperature, oven temperature to power level, and then to next cooking stage.
Up and Down Arrows		Adjusts time, oven temperature, and power levels.
PADS 1-8		Starts programmed cooking sequences.
START		Begins operation of manual cooking functions. Saves programming and enters preheat temperature.
STOP/RESET		Pauses cooking and resets oven program.



Operating Instructions

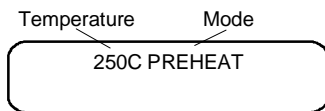
Preheat Entry

Preheat uses convection heat to bring oven temperature to desired cooking temperature. Preheat before convection or combination cooking for best results.

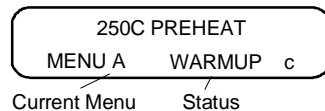


Operating Preheat Function

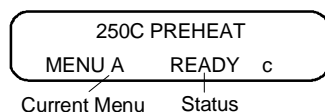
1. Verify oven display shows "READY".
 - If oven display shows "STANDBY", press *ON/STANDBY* pad.
 - If "R" in "READY" is not flashing, open and close oven door.
2. Press *PREHEAT* pad to enter preheat mode. "C" flashes after temperature.



3. Press arrow pads to increase or decrease preheat temperature.
4. Press *START* pad to begin preheat mode. Oven heats until oven reaches preheat temperature. "WARMUP" appears.



5. Oven signals when oven reaches preheat temperature. "READY" appears. Oven is ready to accept next entry if "R" is flashing.



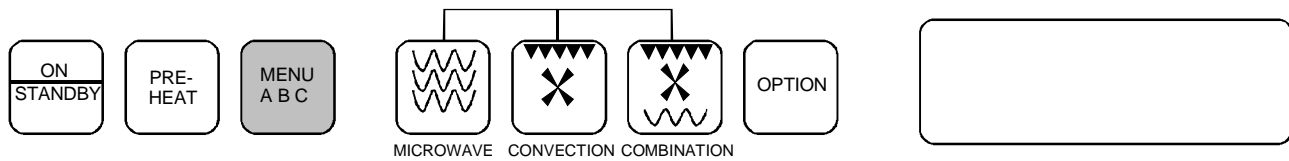
Reset or Cancel

1. Press *PREHEAT* pad. Oven display shows preheat temperature, flashing "C" and "PREHEAT".
2. Press arrow pads to adjust preheat temperature. To cancel preheat mode, press down arrow pad until oven display shows "OC".
3. Press *START* pad.

Summary of Preheat Function

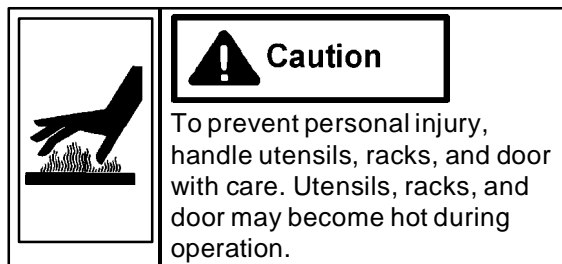
1. Verify oven display shows "READY".
2. Press *PREHEAT* pad.
3. Press arrows to select temperature.
4. Press *START* pad.
5. Oven signals when oven reaches preheat temperature.

Operating Instructions



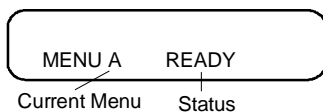
Programmable Menu Entry

Oven contains 3 programmable menus with 8 programmable number pads. Program programmable number pads to form menus. To set programmable pads, see “Programming Pads (1–8)” section.



Operating Programmable Menu Items

1. Verify Oven shows “READY” in display.
 - If oven display shows “STANDBY”, press *ON/STANDBY* pad.
 - If “R” in “READY” is not flashing, open and close oven door.
 - Preheat temperature and “PREHEAT” appear in display if oven is in preheat mode.
2. Close oven door. “R” in “READY” flashes. Preheat temperature and “PREHEAT” appear in display if oven is in preheat mode.



3. Press *MENU A B C* pad to select programmable menu.
4. Press numbered pad (1–8) to begin cooking. Oven display reflects programming. If pad is not programmed, see “Programming Pads (1–8)” section.
 - Oven stops and signals at end of cooking sequence.
5. Remove food to avoid overcooking.

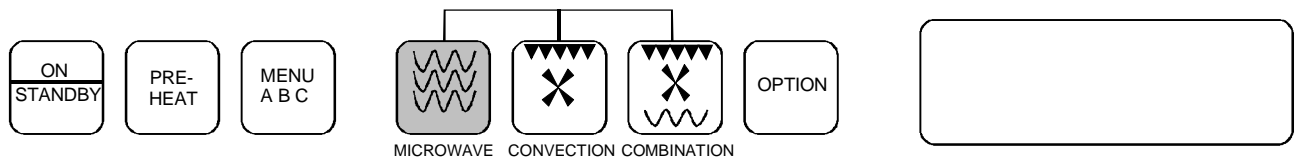
Pause or Cancel

1. Press *STOP/RESET* pad or open oven door to pause cooking sequence. Press *START* pad to resume operation.
2. Press *STOP/RESET* pad again to cancel cooking program.

Summary of Programmable Menu Items

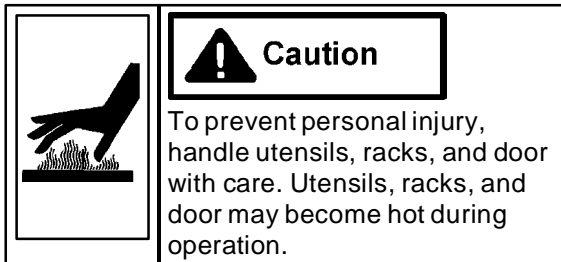
1. Verify oven display shows “READY”.
2. Open oven door, place food in oven, and close oven door.
3. Select menu (A, B, or C).
4. Press numbered pad.
5. Remove food.

Operating Instructions



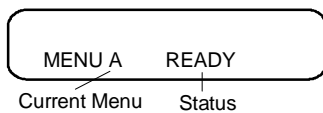
Manual Microwave Entry

Microwave function cooks using microwave energy. Set cooking time and power levels.

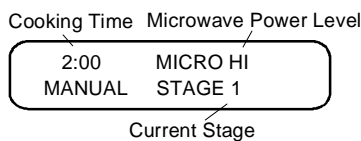


Operating Microwave Function

- Verify Oven shows "READY" in display.
 - If oven display shows "STANDBY", press *ON/STANDBY* pad.
 - If "R" in "READY" is not flashing, open and close oven door.
 - Preheat temperature and "PREHEAT" appear in display if oven is in preheat mode.



- Press *MICROWAVE* pad to select microwave cooking function. Colon (:) in cooking time flashes.



- Press arrow pads to add or subtract cooking time.
- Press *OPTION* pad.
- Press arrow pads to increase or decrease microwave power level. For example, press the down arrow once for "90%". "HI" is 100 percent microwave power level.
 - If no additional cooking stages are required, go to step 7.

- Press *OPTION* pad. Oven display shows "PROGRAMMING STAGE (2-4)" for 2 seconds, and then display shown below.
 - Repeat steps 3-7 if additional cooking stages are required. See "Oven Operation" in "Cooking" section for explanation of stages.



- Open oven door, place food in oven, and close door.
- Press *START* pad. Total time for each stage selected counts down. Oven stops and signals at end of cooking sequence.
- Remove food to avoid overcooking.

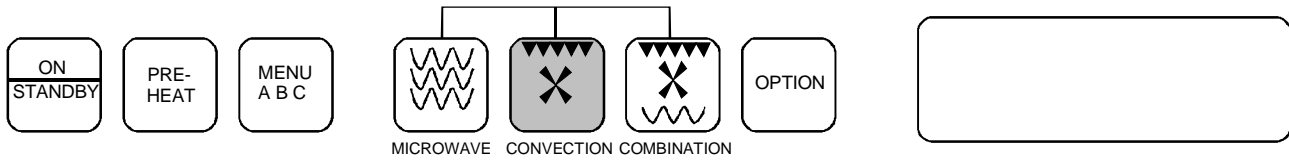
Pause or Cancel

- Press *STOP/RESET* pad or open oven door to pause cooking sequence. Press *START* pad to resume operation.
- Press *STOP/RESET* pad again to cancel cooking program.

Summary of Microwave Function

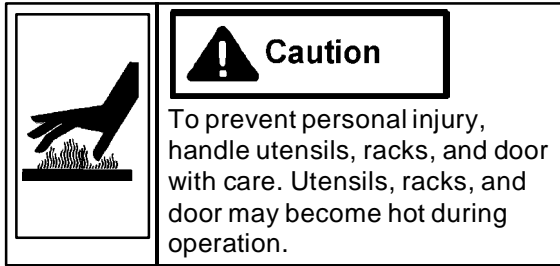
- Verify oven display shows "READY".
- Press *MICROWAVE* pad.
- Press arrow pads to add or subtract cooking time.
- Press *OPTION* pad.
- Press arrow pads to increase or decrease microwave power level.
- Press *OPTION* pad. Repeat steps 2-7 for additional stages.
- Open oven door, place food in oven, and close door.
- Press *START* pad.
- Remove food.

Operating Instructions



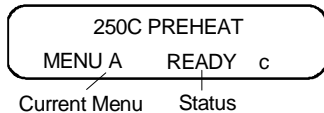
Manual Convection Entry

Preheat oven before using convection function for best results. Set time and temperature.

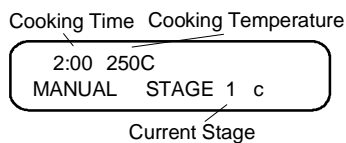


Operating Convection Function

- Set preheat mode. See "Preheat Entry" section to set preheat mode.
- Verify Oven shows "READY" in display.
 - If oven display shows "STANDBY", press *ON/STANDBY* pad.
 - If "R" in "READY" is not flashing, open and close oven door.
 - Preheat temperature and "PREHEAT" appear in display if oven is in preheat mode.



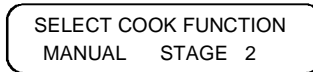
- Press *CONVECTION* pad to select convection cooking function. Colon (:) in cooking time flashes.



- Press arrow pads to add or subtract cooking time.
- Press *OPTION* pad. "C" flashes after temperature.
- Press arrow pads to increase or decrease cooking temperature. Cooking temperature should equal preheat temperature for best results.
 - If no additional cooking stages are required, go to step 8.

- Press *OPTION* pad. Oven display shows "PROGRAMMING STAGE (2-4)" for 2 seconds, and then display shown below.

- Repeat steps 3-7 if additional cooking stages are required. See "Oven Operation" section under "Cooking" for explanation of cooking stages.



- Open oven door, place food in oven, and close door.
- Press *START* pad. Total time for each stage selected counts down. Oven stops and signals at end of cooking sequence.
- Remove food to avoid overcooking.

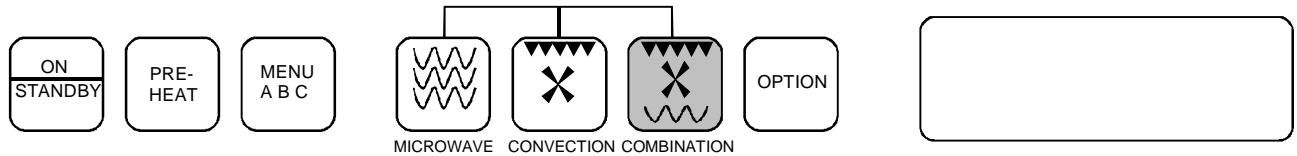
Pause or Cancel

- Press *STOP/RESET* pad or open oven door to pause cooking sequence. Press *START* pad to resume operation.
- Press *STOP/RESET* pad again to cancel cooking program.

Summary of Convection Function

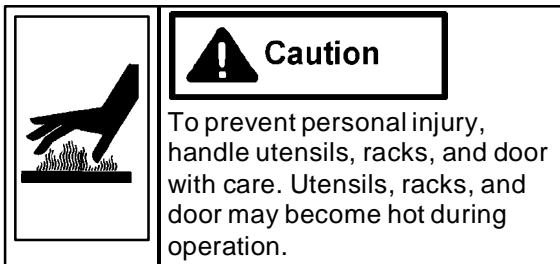
- Set preheat mode.
- Verify oven display shows "READY".
- Press *CONVECTION* pad.
- Press arrow pads to add or subtract cooking time.
- Press *OPTION* pad.
- Press arrow pads increase or decrease cooking temperature.
- Press *OPTION* pad. Repeat steps 3-7 for additional stages.
- Open oven door, place food in oven, and close door.
- Press *START* pad.
- Remove food.

Operating Instructions



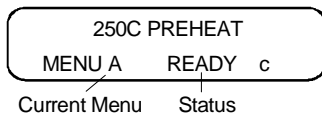
Manual Combination Entry

Combination function cooks using a combination of convection heat and microwave energy. Preheat oven before using combination function for best results. Set time, temperature, and microwave power level.

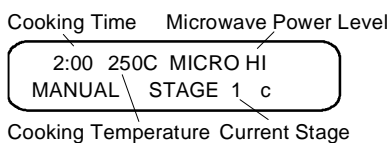


Operating Combination Function

- Set preheat mode. See “Preheat Entry” section to set preheat mode.
- Verify oven shows “READY” in display.
 - If oven display shows “STANDBY”, press *ON/STANDBY* pad.
 - If “R” in “READY” is not flashing, open and close oven door.
 - Preheat temperature and “PREHEAT” appear in display if oven is in preheat mode.



- Press *COMBINATION* pad to select combination function. Colon (:) in cooking time flashes.



- Press arrow keys to add or subtract cooking time.
- Press *OPTION* pad. “C” flashes after temperature.
- Press arrow pads to increase or decrease oven temperature. Cooking temperature should equal preheat temperature for best results.
- Press *OPTION* pad.
- Press arrow pads to increase or decrease microwave power level. For example, press the down arrow once for “90%”.
 - If no additional cooking stages are required go to step 10.

- Press *OPTION* pad. Oven display shows “PROGRAMMING STAGE (2–4)” for 2 seconds, and then display shown below.

- Repeat steps 3–7 if additional cooking stages are required. See “Oven Operation” in “Cooking” section for explanation of cooking stages.



- Open oven door, place food in oven, and close door.
- Press *START* pad. Total time for each stage selected counts down. Oven stops and signals at end of cooking sequence.
- Remove food to avoid overcooking.

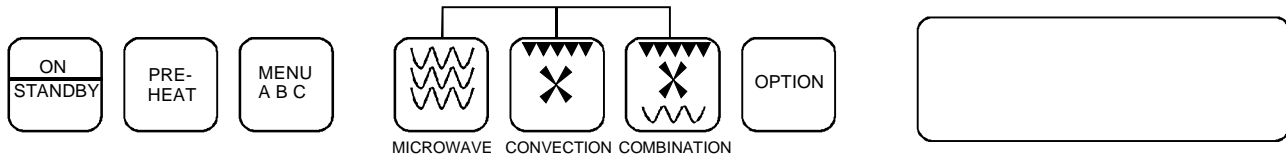
Pause or Cancel

- Press *STOP/RESET* pad or open oven door to pause cooking sequence. Press *START* pad to resume operation.
- Press *STOP/RESET* pad again to cancel cooking program.

Summary of Combination Function

- Preheat oven.
- Verify oven display shows “READY”.
- Press *COMBINATION* pad.
- Press arrow pads to add or subtract cooking time.
- Press *OPTION* pad.
- Press arrow pads increase or decrease cooking temperature.
- Press *OPTION* pad.
- Press arrow pads increase or decrease microwave power level.
- Press *OPTION* pad. Repeat steps 3–7 for additional stages.
- Open oven door, place food in oven, and close door.
- Press *START* pad.
- Remove food.

Programming Instructions

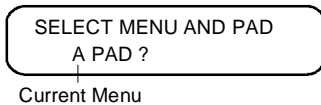


Programming Pads (1–8)

Pads (1–8) activate a programmed cooking sequence when pressed. Program each pad individually to form menus. Programming remains in memory until reprogrammed.

Programming Mode

- Verify Oven shows “READY” in display.
 - If oven display shows “STANDBY”, press *ON/STANDBY* pad.
 - If “R” in “READY” is not flashing, open and close oven door.
 - Preheat temperature and “PREHEAT” appear in display if oven is in preheat mode.
- Open oven door. Oven door must remain open during programming.
- Press and hold *1* pad for approximately 3-5 seconds.



- Press *MENU A B C* pad, if necessary, to select menu.
- Press desired (1–8) pad.



- Press *MICROWAVE*, *CONVECTION*, or *COMBINATION* pad to select cooking function.
- Set time, temperature, and/or power levels.
 - If *MICROWAVE* pad is chosen, see “Manual Microwave Entry” steps 3–6.
 - If *CONVECTION* pad is chosen, see “Manual Convection Entry” steps 4–7.
 - If *COMBINATION* pad is chosen, see “Manual Combination Entry” steps 4–9.

- Press *OPTION* pad after setting time, temperature, and/or power levels to advance to next stage.
 - Repeat steps 4–6 up to 4 times to create a maximum of 4 cooking stages. If no additional cooking stages are required, go to next step.

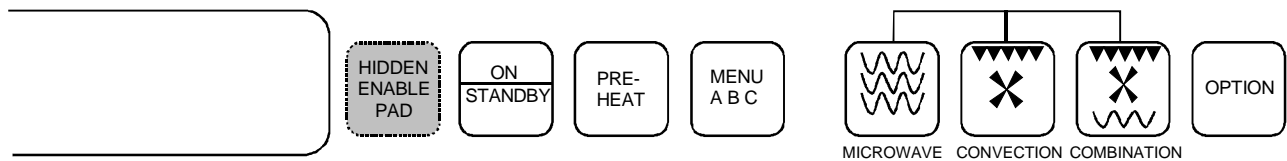


- Press *START* pad to save cooking sequences. Oven display shows “SELECT MENU AND PAD” and “(A, B, or C) PAD ?”.
 - Repeat steps 4-8 to program additional pads.
- Close oven door to exit programming mode.

Summary of Programming Mode

- Open oven door.
- Press and hold “1” pad.
- Press *MENU A B C* pad to select menu.
- Press (1–8) pad to be programmed.
- Press *MICROWAVE*, *CONVECTION*, or *COMBINATION* pad.
- Set time, temperature, and microwave power level according to instructions.
- Press *OPTION* pad to set second stage or *START* pad to save entry. Repeat 4-8 to program additional pads.
- Close oven door.

Programming Instructions

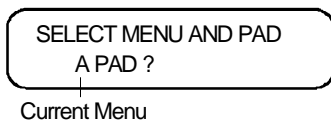


Programming User Options

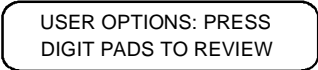
User options change oven features to meet specific needs. See associated table for options.

Setting User Options

1. Verify Oven shows "READY" in display.
 - If oven display shows "STANDBY", press *ON/STANDBY* pad.
 - If "R" in "READY" is not flashing, open and close oven door.
 - Preheat temperature and "PREHEAT" appear in display if oven is in preheat mode.
2. Open oven door. Oven door must remain open during programming.
3. Press and hold *1* pad for approximately 3–5 seconds.



4. Press hidden enable pad located left of *ON/STANDBY* pad.



5. Press (1–8) pads to review options. See associated table for descriptions.
6. Press arrow pads to select option.
7. Press *START* pad to enter option.
8. Close door to exit user options programming mode.

Summary of Setting User Options

1. Open oven door.
2. Press and hold *1* pad.
3. Press hidden enable pad.
4. Press (1–8) pads.
5. Press arrow pads.
6. Press *START* pad to save.
7. Close door to exit.

Programming Instructions

User Options for UCA2000, UM2000C, DCA2000, and DMM2000C Model

Number Pads	Display Titles	Options () = FactorySetting	Description
1	MANUAL PROGRAMMING	(ENABLE) or DISABLE	Allows or prevents manual programming of oven.
2	SLEW RATE	SLOW, MEDIUM, (MEDIUM-FAST), or FAST	Controls speed of arrow pads.
3	TEMP SCALE DEGREES	(C) or F	Displays temperatures in Fahrenheit or Celsius. When oven converts preprogrammed and default temperatures from Fahrenheit to Celsius, temperatures set to the next lowest factor of 10 degrees Celsius. From Celsius to Fahrenheit, temperatures set to the next lowest factor of 25 degrees Fahrenheit.
4	DEFAULT COOK TIME	(2:00) 00:00-10:00	Sets default cooking time.
5	SPEAKER VOLUME	LOW, (MEDIUM), HIGH, or OFF	Controls oven signal volume.
6	KEYBEEPS	(ON) or OFF	Controls whether pads signal when pressed.
7	END OF CYCLE TONE	CONTINUOUS TONE, CONTINUOUS BEEP, (4 CYCLES OF BEEP), or 3 SECOND TONE	Determines how oven signals at end of cycle.
8	MAGNETRON HOURS DOOR CYCLES	MAGNETRON HOURS and DOOR CYCLES	Displays how many hours magnetron tube has operated and how many times door has been opened and closed.