



Microwave Oven

Owner's Instructions & Cooking Guide

Please be advised that the Samsung warranty does NOT cover service calls to explain product operation, correct improper installation, or perform normal cleaning or maintenance.

Planet First 100 %
Recycled Paper

This manual is made with 100 % recycled paper.

MS23F301E**
MS23F302E**

imagine the possibilities

Thank you for purchasing this Samsung product.
To receive more complete service, please register
your product at

www.samsung.com/register



SAMSUNG



contents

| | |
|--|-----------|
| Oven features..... | 13 |
| Oven..... | 13 |
| Control panel..... | 13 |
| Accessories..... | 14 |
| Oven use..... | 14 |
| Setting the time | 14 |
| Cooking/Reheating..... | 15 |
| Power levels | 15 |
| Adjusting the cooking time | 15 |
| Stopping the cooking..... | 15 |
| Using the auto defrost feature..... | 15 |
| Power steam cooking guide (Only MS23F301EF*, MS23F302EF* models)..... | 16 |
| Cookware guide | 17 |
| Troubleshooting..... | 19 |
| Technical specifications | 20 |

safety information

USING THIS INSTRUCTION BOOKLET

You have just purchased a SAMSUNG microwave oven. Your Owner's Instructions contain valuable information on cooking with your microwave oven:

- Safety precautions
- Suitable accessories and cookware
- Useful cooking tips
- Cooking tips

LEGEND FOR SYMBOLS AND ICONS



WARNING

Hazards or unsafe practices that may result in **severe personal injury or death**.



CAUTION

Hazards or unsafe practices that may result in **minor personal injury or property damage**.



Warning; Fire hazard



Warning; Hot surface



Warning; Electricity



Warning; Explosive material



Do NOT attempt.



Do NOT touch.



Do NOT disassemble.



Follow directions explicitly.



Unplug the power plug from the wall socket.



Make sure the machine is grounded to prevent electric shock.



Call the service center for help.



Note



Important



IMPORTANT SAFETY INSTRUCTIONS


READ CAREFULLY AND KEEP FOR FUTURE REFERENCE.





Make sure that these safety precautions are obeyed at all times.

Before using the oven, confirm that the following instructions are followed.

WARNING (Microwave function only)

-  **WARNING:** If the door or door seals are damaged, the oven must not be operated until it has been repaired by a competent person.
-  **WARNING:** It is hazardous for anyone other than a competent person to carry out any service or repair operation that involves the removal of a cover which gives protection against exposure to microwave energy.
-  This appliance is intended to be used in household only.
-  **WARNING:** Only allow children to use the oven without supervision when adequate instructions have been given so that the child is able to use the oven in a safe way and understands the hazards of improper use.

 **WARNING:** This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children unless they are aged from 8 years and above and supervised.

-  Only use utensils that are suitable for use in microwave ovens.
-  When heating food in plastic or paper containers, keep an eye on the oven due to the possibility of ignitions.
-  The microwave oven is intended for heating food and beverages. Drying of food or clothing and heating of warming pads, slippers, sponges, damp cloth and similar may lead to risk of injury, ignition or fire.
-  If smoke is emitted, switch off or unplug the appliance and keep the door closed in order to stifle any flames.



★ **WARNING:** Microwave heating of beverages can result in delayed eruptive boiling, therefore care must be taken when handling the container.

★ **WARNING:** The contents of feeding bottles and baby food jars shall be stirred or shaken and the temperature checked before consumption, in order to avoid burns.

☐ Eggs in their shell and whole hard-boiled eggs should not be heated in microwave ovens since they may explode, even after microwave heating has ended.

★ The oven should be cleaned regularly and any food deposits removed.

☐ 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.

☐ The appliance is not intended for installing in road vehicles, caravans and similar vehicles etc.

★ This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

★ Children should be supervised to ensure that they do not play with the appliance.

☑ If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

☐ **WARNING:** Liquids or other foods must not be heated in sealed containers since they are liable to explode;

☐ The appliance should not be cleaned with a water jet.

★ This oven should be positioned proper direction and height permitting easy access to cavity and control area.

★ Before using the your oven first time, oven should be operated with the water during 10 minute and then used.



- ★ If the oven generates a strange noise, a burning smell, or smoke is emitted, unplug the power plug immediately and contact your nearest service center.
- ★ The microwave oven has to be positioned so that plug is accessible.
- ☐ The microwave oven is intended to be used on the counter or counter top use only, the microwave oven shall not be placed in a cabinet.




⚠ **WARNING (Oven function only) - Optional**

- ☐ **WARNING:** When the appliance is operated in the combination mode, children should only use the oven under adult supervision due to the temperatures generated.
- ★ During use the appliance becomes hot. Care should be taken to avoid touching heating elements inside the oven.
- ☐ **WARNING:** Accessible parts may become hot during use. Young children should be kept away.
- ☐ A steam cleaner is not to be used.

- ☐ **WARNING:** Ensure that the appliance is switched off before replacing the lamp to avoid the possibility of electric shock.
- ★ **WARNING:** The appliance and its accessible parts become hot during use. Care should be taken to avoid touching heating elements. Children less than 8 years of age shall be kept away unless continuously supervised.
- ★ This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- ☐ Do not use harsh abrasive cleaners or sharp metal scrapers to clean the oven door glass since they can scratch the surface, which may result in shattering of the glass.
- ☐ The temperature of accessible surfaces may be high when the appliance is operating.



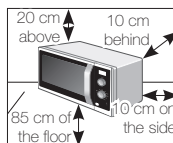




-  The door or the outer surface may get hot when the appliance is operating.
-  Keep the appliance and its cord out of reach of children less than 8 years.
-  Appliances are not intended to be operated by means of an external timer or separate remote-control system.

INSTALLING YOUR MICROWAVE OVEN

Place the oven on a flat level surface 85 cm above the floor. The surface should be strong enough to safely bear the weight of the oven.


1. When you install your oven, make sure there is adequate ventilation for your oven by leaving at least 10 cm (4 inches) of space behind and, on the sides of the oven and 20 cm (8 inches) of space above.
2. Remove all packing materials inside the oven.
3. Install the roller ring and turntable. Check that the turntable rotates freely. (Turntable type model only)
4. This microwave oven has to be positioned so that plug is accessible.



-  If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
For your personal safety, plug the cable into a proper AC earthed socket.
-  Do not install the microwave oven in hot or damp surroundings like next to a traditional oven or radiator. The power supply specifications of the oven must be respected and any extension cable used must be of the same standard as the power cable supplied with the oven. Wipe the interior and the door seal with a damp cloth before using your microwave oven for the first time.

CLEANING YOUR MICROWAVE OVEN

The following parts of your microwave oven should be cleaned regularly to prevent grease and food particles from building up:

- Inside and outside surfaces
 - Door and door seals
 - Turntable and Roller rings (Turntable type model only)
-  **ALWAYS** ensure that the door seals are



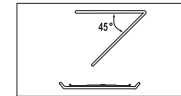


clean and the door closes properly.

- ❑ 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.
- 1. Clean the outside surfaces with a soft cloth and warm, soapy water. Rinse and dry.
- 2. Remove any splashes or stains on the inside surfaces of oven with a soapy cloth. Rinse and dry.
- 3. To loosen hardened food particles and remove smells, place a cup of diluted lemon juice in the oven and heat for ten minutes at maximum power.
- 4. Wash the dishwasher-safe plate whenever necessary.
- ✍ **DO NOT** spill water in the vents. **NEVER** use any abrasive products or chemical solvents. Take particular care when cleaning the door seals to ensure that no particles:
 - Accumulate
 - Prevent the door from closing correctly
- ✍ **Clean** the microwave oven cavity right after

each use with a mild detergent solution, but let the microwave oven cool down before cleaning in order to avoid injury.

When cleaning the upper part inside the cavity, it will be convenient to turn heater downward by 45 ° and clean it. (Swing heater model only)



STORING AND REPAIRING YOUR MICROWAVE OVEN

A few simple precautions should be taken when storing or having your microwave oven serviced.

The oven must not be used if the door or door seals are damaged:

- Broken hinge
- Deteriorated seals
- Distorted or bent oven casing

Only a qualified microwave service technician should perform repair

- ❑ **NEVER** remove the outer casing from the oven. If the oven is faulty and needs servicing or you are in doubt about its condition:



- Unplug it from the wall socket
- Contact the nearest after-sales service centre

☑ If you wish to store your oven away temporarily, choose a dry, dustfree place.

Reason : Dust and damp may adversely affect the working parts in the oven.

☑ This microwave oven is not intended for commercial use.

☑ The Light bulb should not be replaced in person for safety reasons.
Please contact nearest authorised Samsung customer care, to arrange for a qualified engineer to replace the bulb.

| ! WARNING | | | | | |
|-----------|---|---|---|---|---|
| | Only qualified staff should be allowed to modify or repair the appliance. | ✓ | ✓ | ✓ | ✓ |
| | Do not heat liquids and other food in sealed containers for microwave function. | ✓ | ✓ | ✓ | ✓ |
| | For your safety, do not use high-pressure water cleaners or steam jet cleaners. | ✓ | ✓ | ✓ | ✓ |
| | Do not install this appliance; near heater, inflammable material; in a humid, oily or dusty location, in a location exposed to direct sunlight and water or where gas may leak; on un level ground. | ✓ | ✓ | ✓ | ✓ |
| | This appliance must be properly grounded in accordance with local and national codes. | ✓ | ✓ | ✓ | ✓ |

| | | | | | |
|--|---|---|---|---|---|
| | Remove all foreign substances such as dust or water from the power plug terminals and contact points using a dry cloth on a regular basis. | ✓ | ✓ | ✓ | ✓ |
| | Do not pull or excessively bend or place heavy objection the power cord. | ✓ | ✓ | ✓ | ✓ |
| | In the event of a gas leak (such as propane gas, LP gas, etc.), ventilate immediately without touching the power plug. | ✓ | ✓ | ✓ | ✓ |
| | Do not touch the power plug with wet hands. | ✓ | ✓ | ✓ | ✓ |
| | Do not turn the appliance off by unplugging the power plug while an operation is in progress. | ✓ | ✓ | ✓ | ✓ |
| | Do not insert fingers or foreign substances, If any foreign substance such as water has entered the appliance, unplug the power plug and contact your nearest service centre. | ✓ | ✓ | ✓ | ✓ |
| | Do not apply excessive pressure or impact to the appliance. | ✓ | ✓ | ✓ | ✓ |
| | Do not place the oven over a fragile object such as a sink or glass object. | ✓ | ✓ | | |
| | Do not use benzene, thinner, alcohol, steam cleaner or high pressure cleaner to clean the appliance. | ✓ | ✓ | ✓ | ✓ |
| | Ensure that the power voltage, frequency and current are the same as those of the product specifications. | ✓ | ✓ | | ✓ |
| | Plug the power plug into the wall socket firmly. Do not use a multiple plug adapter, an extension cord or an electric transformer. | ✓ | ✓ | ✓ | |
| | Do not hook the power cord on a metal object, insert the power cord between the objects or behind the oven. | ✓ | ✓ | ✓ | |





| | | | | | |
|-------------------------------------|--|---|---|---|---|
| <input type="checkbox"/> | Do not use a damaged power plug, damaged power cord or loose wall socket. When the power plug or power cord is damaged, contact your nearest service centre. | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> | Do not pour or directly spray water onto the oven. | ✓ | ✓ | | |
| <input type="checkbox"/> | Do not place objects on the oven, inside or on the door of the oven. | ✓ | ✓ | ✓ | |
| <input type="checkbox"/> | Do not spray volatile material such as insecticide onto the surface of the oven. | ✓ | ✓ | | |
| <input type="checkbox"/> | Do not store flammable materials in the oven. Take special care when heating dishes or drinks that contain alcohol as alcohol vapours may contact a hot part of the oven. | ✓ | | ✓ | ✓ |
| <input checked="" type="checkbox"/> | Keep children away from the door when opening or closing it as they may bump themselves on the door or catch their fingers in the door. | ✓ | ✓ | ✓ | ✓ |
| <input checked="" type="checkbox"/> | WARNING: Microwave heating of beverages can result in delayed eruptive boiling, therefore care must be taken when handling the container; To prevent this situation ALWAYS allow a standing time of at least 20 seconds after the oven has been switched off so that the temperature can equalize. Stir during heating, if necessary, and ALWAYS stir after heating. In the event of scalding, follow these FIRST AID instructions: <ul style="list-style-type: none"> Immerse the scalded area in cold water for at least 10 minutes. Cover with a clean, dry dressing. Do not apply any creams, oils or lotions. | ✓ | ✓ | ✓ | ✓ |
| <input type="checkbox"/> | Do not put the tray or rack in water shortly after cooking because it may cause breakage or damage of the tray or rack. | | | | ✓ |

| | | | | | |
|--------------------------|--|---|--|--|---|
| <input type="checkbox"/> | Do not operate the microwave oven for deep fat frying because the oil temperature cannot be controlled. This could result in a sudden boil over the hot liquid. | ✓ | | | ✓ |
|--------------------------|--|---|--|--|---|

CAUTION

| | | | | | |
|-------------------------------------|--|---|---|---|---|
| <input checked="" type="checkbox"/> | Only use utensils that are suitable for use in microwave ovens; DO NOT use any metallic containers, Dinnerware with gold or silver trimmings, Skewers, forks, etc. Remove wire twist ties from paper or plastic bags. Reason: Electric arcing or sparking may occur and may damage the oven. | ✓ | | ✓ | ✓ |
| <input type="checkbox"/> | Do not use your microwave oven to dry papers or clothes. | ✓ | | ✓ | ✓ |
| <input checked="" type="checkbox"/> | Use shorter times for smaller amounts of food to prevent overheating and burning food. | ✓ | | ✓ | ✓ |
| <input type="checkbox"/> | Do not immerse the power cable or power plug in water and keep the power cable away from heat. | ✓ | ✓ | | |
| <input type="checkbox"/> | Eggs in their shell and whole hard-boiled eggs should not be heated in microwave ovens since they may explode, even after microwave heating has ended; Also do not heat airtight or vacuum-sealed bottles, jars, containers, nuts in shells, tomatoes etc. | | | ✓ | ✓ |
| <input type="checkbox"/> | Do not cover the ventilation slots with cloth or paper. They may catch fire as hot air escapes from the oven. The oven may also overheat and switch itself off automatically, and will remain off until it cools sufficiently. | ✓ | | ✓ | |
| <input checked="" type="checkbox"/> | Always use oven mitts when removing a dish from the oven to avoid unintentional burns. | | | ✓ | |
| <input checked="" type="checkbox"/> | Stir liquids halfway during heating or after heating ends and allow the liquid stand at least 20 seconds after heating to prevent eruptive boiling. | | | ✓ | |

English - 9





| | | | |
|---|---|---|---|
| ★ Stand at arms length from the oven when opening the door to avoid getting scalded by escaping hot air or steam. | | ✓ | |
| ☐ Do not operate the microwave oven when it is empty. The microwave oven will automatically shut down for 30 minutes for safety purposes. We recommend placing a glass of water inside the oven at all times to absorb microwave energy in case the microwave oven is started accidentally. | ✓ | | ✓ |
| ★ Install the oven in compliance with the clearances stated in this manual. (See installing your microwave oven.) | ✓ | | ✓ |
| ★ Take care when connecting other electrical appliances to sockets near the oven. | ✓ | ✓ | ✓ |

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY. (MICROWAVE FUNCTION ONLY)

Failure to observe the following safety precautions may result in harmful exposure to microwave energy.

- Under no circumstances should any attempt be made to operate the oven with the door open or to tamper with the safety interlocks (door latches) or to insert anything into the safety interlock holes.
- Do NOT place any object between the oven door and front face or allow food or cleaner residues to accumulate on sealing surfaces. Ensure that the door and door sealing surfaces are kept clean by wiping after use first with a damp cloth and then with a soft dry cloth.
- Do NOT operate the oven if it is damaged until it has been repaired by a qualified microwave service technician trained by the manufacturer. It is particularly important that the oven door closes properly and that there is no damage to the:
 - door (bent)
 - door hinges (broken or loose)
 - door seals and sealing surfaces

- The oven should not be adjusted or repaired by anyone other than a properly qualified microwave service technician trained by the manufacturer.

Samsung will charge a repair fee for replacing an accessory or repairing a cosmetic defect if the damage to the unit and/or damage to or loss of the accessory was caused by the customer. Items this stipulation covers include:

- A dented, scratched, or broken door, handle, out-panel, or control panel.
 - A broken or missing tray, guide roller, coupler, or wire rack.
- Use this appliance only for its intended purpose as described in this instruction manual. Warnings and Important Safety Instructions in this manual do not cover all possible conditions and situations that may occur. It is your responsibility to use common sense, caution, and care when installing, maintaining, and operating your appliance.
 - Because these following operating instructions cover various models, the characteristics of your microwave oven may differ slightly from those described in this manual and not all warning signs may be applicable. If you have any questions or concerns, contact your nearest service centre or find help and information online at www.samsung.com.
 - This microwave oven is supposed for heating food. It is intended for domestic home-use only. Do not heat any type of textiles or cushions filled with grains, which could cause burns and fire. The manufacturer cannot be held liable for damage caused by improper or incorrect use of the appliance.
 - 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 possible result in a hazardous situation.



CORRECT DISPOSAL OF THIS PRODUCT (WASTE ELECTRICAL & ELECTRONIC EQUIPMENT)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

INSTALLATION & WIRING INSTRUCTIONS

IMPORTANT NOTE :

The mains lead on this equipment is supplied with a moulded plug incorporating a fuse.

The value of the fuse is indicated on the pin face of the plug and, if it requires replacing, a fuse approved to BS1363 of the same rating must be used.


Never use the plug with the fuse cover omitted if the cover is detachable. If a replacement fuse cover is required, it must be of the same colour as the pin face of the plug.

Replacement covers are available from your Dealer. If the fitted plug is not suitable for the power points in your house or the cable is not long enough to reach a power point, you should obtain a suitable safety approved extension lead or consult your Dealer for assistance. However, if there is no alternative to cutting off the plug, remove the fuse and then safely dispose of the plug. Do not connect the plug to a mains socket, as there is a risk of shock hazard from the bared flexible cord.

WIRING INSTRUCTIONS

WARNING THIS APPLIANCE MUST BE EARTHED.

This appliance must be earthed. In the event of an electrical short circuit, earthing reduces the risk of electric shock providing an escape wire for the electric current. The appliance is equipped with a mains lead which includes an earth wire for connecting to the earth terminal of your mains plug. The plug must be plugged into a socket that is properly installed and earthed.


 The wires in this mains lead are coloured in accordance with the following code:

- Green and yellow : Earth
- Blue : Neutral
- Brown : Live

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings indentifying the terminals in your plug, proceed as follows.

Connect the green and yellow wire to the terminal in the plug marked with the letter E or the earth symbol (\perp) or coloured green or green-and-yellow.

Connect the blue wire to the terminal marked with the letter N or coloured black.

 Consult a qualified electrician or service technician if in doubt about any of these instructions.

The manufacturer of this oven will not accept any liability for damage to persons or material for non observance of these requirements.

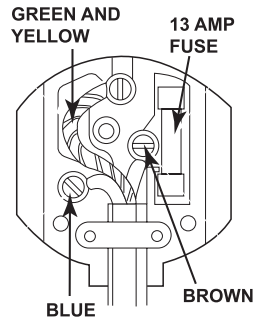
There are no user-serviceable parts inside the oven and if the mains lead of this appliance is damaged, it must only be replaced by qualified service personnel approved by the manufacturer because special tools are required.



WARNING : Ensure that the plug and power cord are not damaged before use. If you have any reason to remove the moulded plug from this appliance, immediately remove the fuse and dispose of the plug.
Do not connect the plug to a mains socket under any circumstances as there is a danger of electric shock.



CIRCUITS : Your microwave oven should be operated on a separate circuit from other appliances. Failure to do this may cause the circuit breaker to trip, the fuse to blow, or the food to cook more slowly.



COOKING INSTRUCTIONS ON FOOD PACKAGING

Microwave Symbols

On the front of your oven there is a microwave oven symbol, as shown below.

This symbol has been introduced for your benefit when cooking or reheating packaged food.



Packaged food is also, increasingly, using a microwave symbol similar to the one below. When you see this



Symbol on food packaging, the cooking instructions are based on either the IEC Power Output Rating, or the Reheating Categories A, B, C, D or E.

COOKING INSTRUCTIONS

The IEC Power Output rating is an internationally standardised rating, so all microwave manufacturers now use the same method of measuring power output.

If food packaging gives cooking instructions based on IEC Power ratings, set cooking times according to the IEC Power of your oven.

For example :

If the cooking instructions are based on a 650 W oven, then you will need to reduce some cooking time for the MS23F301E**, MS23F302E** (800 W) Ready meals are now very convenient and popular. These are meals which are already prepared and cooked by the food manufacturer, and then frozen, chilled or vacuum sealed for long life.

Increasingly, heating times for such ready meals are being based on the Heating Categories A, B, C, D and E.

On this instance, simply match the heating category of your oven to the instructions on the food package, and set your timer accordingly.

For example :

If the heating instructions are 3 minutes on HIGH for a D category oven, then you will need to set your timer for less than 3 minutes on HIGH for the MS23F301E**, MS23F302E** (E category).

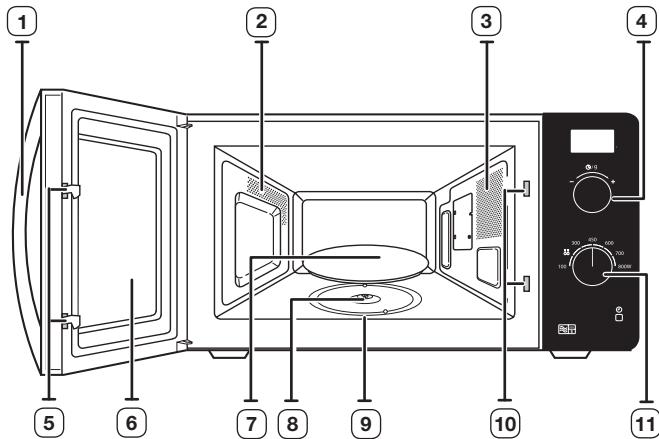


Always remember that cooking instructions are intended only as a guide. If you have followed the instructions and the food is still not piping hot throughout, simply return it to the oven and cook it until it is.



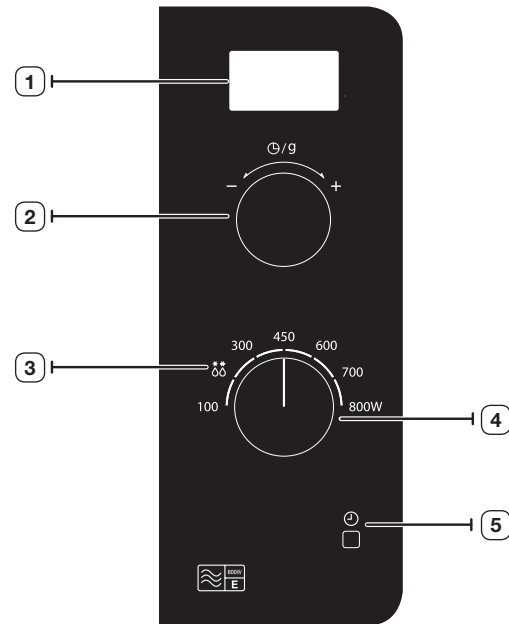
oven features

OVEN



- | | |
|----------------------|---|
| 1. DOOR HANDLE | 7. TURNTABLE |
| 2. VENTILATION HOLES | 8. COUPLER |
| 3. LIGHT | 9. ROLLER RING |
| 4. TIME/WEIGHT DIAL | 10. SAFETY INTERLOCK HOLES |
| 5. DOOR LATCHES | 11. VARIABLE COOKING POWER CONTROL KNOB |
| 6. DOOR | |

CONTROL PANEL



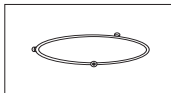
- | | |
|---------------------|--|
| 1. DISPLAY | 4. VARIABLE COOKING POWER CONTROL KNOB |
| 2. TIME/WEIGHT DIAL | 5. CLOCK SETTING BUTTON |
| 3. AUTO DEFROST | |

ACCESSORIES

Depending on the model that you have purchased, you are supplied with several accessories that can be used in a variety of ways.

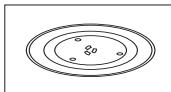
1. **Roller ring**, to be placed in the centre of the oven.


Purpose : The roller ring supports the turntable.



2. **Turntable**, to be placed on the roller ring with the centre fitting to the coupler.

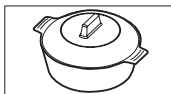
Purpose : The turntable serves as the main cooking surface; it can be easily removed for cleaning.




-  **DO NOT** operate the microwave oven without the roller ring and turntable.

3. **Steam cooker**, see page 16 to 17.
(Only MS23F301EF*, MS23F302EF* models)

Purpose : The plastic steam cooker when using power steam function.





-  **DO NOT** operate the microwave oven without the roller ring and turntable.

oven use

SETTING THE TIME

Your microwave oven has an inbuilt clock. When power is supplied, “:0”, “88:88” or “12:00” is automatically displayed on the display. Please set the current time. The time can be displayed in either the 24-hour or 12-hour notation. You must set the clock:

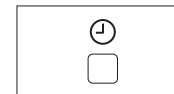
- When you first install your microwave oven
 - After a power failure
-  Do not forget to reset the clock when you switch to and from summer and winter time.
 -  **Auto energy saving function**
If you do not select any function when appliance is in the middle of setting or operating with temporary stop condition, function is canceled and clock will be displayed after 25 minutes.
Oven Lamp will be turned off after 5 minutes with door open condition.

1. **To display the time in the...**

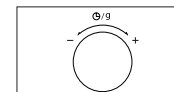
24-hour notation.

12-hour notation.

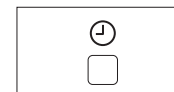
Press the **Clock** (🕒) button once or twice.



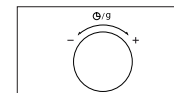
2. Turn the **Time/Weight** (🕒/g) dial to set the hour.



3. Press the **Clock** (🕒) button.



4. Turn the **Time/Weight** (🕒/g) dial to set the minute.



5. Press the **Clock** (🕒) button.

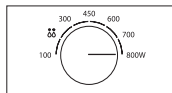




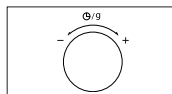
COOKING/REHEATING

The following procedure explains how to cook or reheat food. ALWAYS check your cooking settings before leaving the oven unattended. First, place the food in the centre of the turntable. Then, close the door.

1. Select the power level to maximum by turning **COOKING POWER CONTROL** knob.
(MAXIMUM POWER : 800 W)



2. Select the time by turning the **Time/Weight** (g/g) dial.



Result : The oven light comes on and the turntable starts rotating.

- 1) Cooking starts and when it has finished the oven beeps 4 times.
- 2) The end reminder signal will beep 3 times (once every minute).
- 3) The current time is displayed again.

Never switch the microwave oven on when it is empty.

You can change the power level during cooking by turning the **COOKING POWER CONTROL** knob.

POWER LEVELS

You can choose among the power levels below.

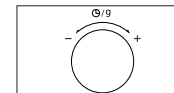
| Power Level | Output | Power Level | Output |
|-------------|--------|--------------------|--------|
| HIGH | 800 W | MEDIUM LOW | 300 W |
| REHEAT | 700 W | AUTO DEFROST (g/g) | 180 W |
| MEDIUM HIGH | 600 W | LOW/KEEP WARM | 100 W |
| MEDIUM | 450 W | | |

If you select higher power level, the cooking time must be decreased.

If you select lower power level, the cooking time must be increased.

ADJUSTING THE COOKING TIME

1. Adjust the remaining cooking time by rotating the **Time/Weight** (g/g) dial. Turn the dial right to increase the cooking time of your food during the cooking process.

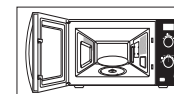


STOPPING THE COOKING

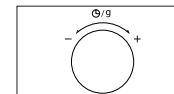
You can stop cooking at any time to check the food.

1. To stop temporarily;
Open the door.

Result : Cooking stops. To resume cooking, close the door.



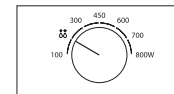
2. To stop completely;
Turn the **Time/Weight** (g/g) dial to the left.
“Current time” will be displayed.



USING THE AUTO DEFROST FEATURE

The Auto Defrost feature enables you to defrost meat, poultry or fish. First, place the frozen food in the centre of the turntable and close the door.

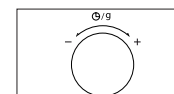
1. Turn the **COOKING POWER CONTROL** knob to the **Auto Defrost** (g/g) symbol.



2. Turn the **Time/Weight** (g/g) dial select the appropriate weight.

Result : The oven light comes on and the turntable starts rotating.

- 1) Cooking starts and when it has finished the oven beeps 4 times.
- 2) The end reminder signal will beep 3 times (once every minute).
- 3) The current time is displayed again.



Use only recipients that are microwave-safe.



USING THE AUTO POWER DEFROST PROGRAMMES

Remove all kinds of packaging material before defrosting. Place the frozen foods on a turntable. Turn the food over when the oven beeps. Keep the corresponding standing time after Auto Defrosting has finished.

| Code/Food | Serving size | Standing time | Recommendations |
|-----------|--------------|---------------|---|
| Meat | 200-1500 g | 20-60 min. | Shield the edges with aluminium foil. Turn the food over when the oven beeps. |
| Poultry | 200-1500 g | 20-60 min. | |
| Fish | 200-1500 g | 20-50 min. | |

POWER STEAM COOKING GUIDE (ONLY MS23F301EF*, MS23F302EF* MODELS)

The Power Steamer is based on the principle of steam cooking, and is designed for fast, healthy cooking in your Samsung Microwave oven. This accessory is ideal for cooking rice, pasta, vegetables, etc. in record time, while preserving their nutritional values.

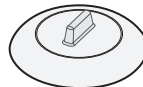
The Microwave Power steamer set is made up of 3 items:



Bowl



Insert tray



Lid

All parts withstand temperatures from -20 °C to 140 °C. Suitable for freezer storage. Can also be used separately or together.

CONDITIONS of USE:

- ☒ Do not use:
 - to cook foods with a high sugar or fat content,
 - with the grill or rotating heat function or on a hob.
- ☒ Wash all parts well in soapy water before first use.
- ☒ To find out cooking times, please refer to the instructions in the table on next page.

MAINTENANCE:

- ☒ Your steamer can be washed in a dishwasher.
- ☒ When washing by hand, use hot water and washing-up liquid. Do not use abrasive pads.
- ☒ Some foods (such as tomato) may discolour the plastic. This is normal and not a manufacturing fault.

DEFROSTING:

Place the frozen food in the steam bowl without the lid. The liquid will remain in the bottom of the pot and will not harm the food.

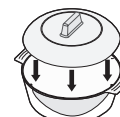
COOKING:

| Food | Portion | Power levels | Cooking time (min.) | Standing time (min.) | Handling |
|--------------------------|--|--------------|---------------------|----------------------|-----------------------------|
| Artichokes | 300 g (1-2 pcs) | 800 W | 5-6 | 1-2 | Bowl with insert tray + Lid |
| | Instructions Rinse and clean artichokes. Put insert tray into bowl. Set artichokes on tray. Add one tablespoon lemon juice. Cover with lid. | | | | |
| Fresh vegetables | 300 g | 800 W | 4-5 | 1-2 | Bowl with insert tray + Lid |
| | Instructions Weigh the vegetables (e.g. broccoli, cauliflower, carrots, pepper) after washing, cleaning and cutting into similar size. Put tray into bowl. Distribute vegetables on insert tray. Add 2 tablespoons water. Cover with lid. | | | | |
| Frozen vegetables | 300 g | 600 W | 7-8 | 2-3 | Bowl with insert tray + Lid |
| | Instructions Put the frozen vegetables into the steam bowl. Put insert tray into bowl. Add 1 tablespoon water. Cover with lid. Stir well after cooking and standing. | | | | |

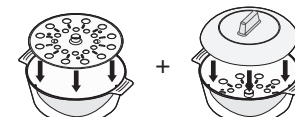


| Food | Portion | Power levels | Cooking time (min.) | Standing time (min.) | Handling |
|--|---------|--------------|---------------------|----------------------|------------|
| Rice | 250 g | 800 W | 15-18 | 5-10 | Bowl + Lid |
| Instructions Put rice into the steam bowl. Add 500 ml cold water. Cover with lid. After cooking let stand white rice 5 minutes, brown rice 10 minutes. | | | | | |
| Jacket potatoes | 500 g | 800 W | 7-8 | 2-3 | Bowl + Lid |
| Instructions Weigh and rinse the potatoes and put them into steam bowl. Add 3 tablespoons water. Cover with lid. | | | | | |
| Stew (chilled) | 400 g | 600 W | 5-6 | 1-2 | Bowl + Lid |
| Instructions Put stew into the steam bowl. Cover with lid. Stir well before standing. | | | | | |
| Soup (chilled) | 400 g | 800 W | 3-4 | 1-2 | Bowl + Lid |
| Instructions Pour into steam bowl. Cover with lid. Stir well before standing. | | | | | |
| Frozen soup | 400 g | 800 W | 8-10 | 2-3 | Bowl + Lid |
| Instructions Put frozen soup into steam bowl. Cover with lid. Stir well before standing. | | | | | |
| Frozen yeast dumpling with jam filling | 150 g | 600 W | 1-2 | 2-3 | Bowl + Lid |
| Instructions Moist the top of filled dumplings with cold water. Put 1-2 frozen dumplings side by side into the steam bowl. Cover with lid. | | | | | |
| Fruit compote | 250 g | 800 W | 3-4 | 2-3 | Bowl + Lid |
| Instructions Weigh the fresh fruits (e.g. apples, pears, plums, apricots, mangoes or pineapple) after peeling, washing and cutting into similar sizes or cubes. Put into steam bowl. Add 1-2 tablespoons water and 1-2 tbsp. sugar. Cover with lid. | | | | | |

Handling of power steam cooker



Bowl + Lid



Bowl with insert tray + Lid

PRECAUTIONS:

- ☐ Take special care when opening the lid of your steamer, because the steam escaping may be very hot.
- ☐ Use oven gloves when handling after cooking.

cookware guide

To cook food in the microwave oven, the microwaves must be able to penetrate the food, without being reflected or absorbed by the dish used. Care must therefore be taken when choosing the cookware. If the cookware is marked microwave-safe, you do not need to worry. The following table lists various types of cookware and indicates whether and how they should be used in a microwave oven.

| Cookware | Microwave-Safe | Comments |
|------------------------------|----------------|---|
| Aluminum foil | ✓ X | Can be used in small quantities to protect areas against overcooking. Arcing can occur if the foil is too close to the oven wall or if too much foil is used. |
| Browning plate | ✓ | Do not preheat for more than eight minutes. |
| China and earthenware | ✓ | Porcelain, pottery, glazed earthenware and bone china are usually suitable, unless decorated with a metal trim. |



| Cookware | Microwave-Safe | Comments |
|--|----------------|---|
| Disposable polyester cardboard dishes | ✓ | Some frozen foods are packaged in these dishes. |
| Fast-food packaging | | |
| • Polystyrene cups containers | ✓ | Can be used to warm food. Overheating may cause the polystyrene to melt. |
| • Paper bags or newspaper | ✗ | May catch fire. |
| • Recycled paper or metal trims | ✗ | May cause arcing. |
| Glassware | | |
| • Oven-to-tableware | ✓ | Can be used, unless decorated with a metal trim. |
| • Fine glassware | ✓ | Can be used to warm foods or liquids. Delicate glass may break or crack if heated suddenly. |
| • Glass jars | ✓ | Must remove the lid. Suitable for warming only. |
| Metal | | |
| • Dishes | ✗ | May cause arcing or fire. |
| • Freezer bag twist ties | ✗ | |
| Paper | | |
| • Plates, cups, napkins and kitchen paper | ✓ | For short cooking times and warming. Also to absorb excess moisture. |
| • Recycled paper | ✗ | May cause arcing. |

| Cookware | Microwave-Safe | Comments |
|----------------------------------|----------------|--|
| Plastic | | |
| • Containers | ✓ | Particularly if heat-resistant thermoplastic. Some other plastics may warp or discolour at high temperatures. Do not use Melamine plastic. |
| • Cling film | ✓ | Can be used to retain moisture. Should not touch the food. Take care when removing the film as hot steam will escape. |
| • Freezer bags | ✓ ✗ | Only if boilable or oven-proof. Should not be airtight. Prick with a fork, if necessary. |
| Wax or grease-proof paper | ✓ | Can be used to retain moisture and prevent spattering. |

✓ : Recommended ✓✗ : Use caution ✗ : Unsafe



troubleshooting

If you have any of the problems listed below try the solutions given.

This is normal.

- Condensation inside the oven
- Air flow around the door and outer casing
- Light reflection around the door and outer casing
- Steam escaping from around the door or vents

The oven does not start when you turn the Time/Weight (⌚/g) dial.

- Is the door completely closed?

The light bulb is not working.

- The Light bulb should not be replaced in person for safety reasons.
Please contact nearest authorised Samsung customer care, to arrange for a qualified engineer to replace the bulb.

The food is not cooked at all

- Have you set the timer correctly and/or pressed the **Time/Weight (⌚/g)** dual.
- Is the door closed?
- Have you overloaded the electric circuit and caused a fuse to blow or a breaker to be triggered?

The food is either overcooked or undercooked

- Was the appropriate cooking length set for the type of food?
- Was an appropriate power level chosen?

The oven causes interference with radios or televisions

- Slight interference may be observed on televisions or radios when the oven is operating. This is normal. To solve this problem, install the oven away from televisions, radios and aerials.
- If interference is detected by the oven's microprocessor, the display may be reset. To solve this problem, disconnect the power plug and reconnect it. Reset the time.

Sparkling and cracking occur inside the oven (arcing)

- Have you used a dish with metal trimmings?
- Have you left a fork or other metal utensil inside the oven?
- Is aluminum foil too close to the inside walls?



If the above guidelines do not enable you to solve the problem, then contact your local SAMSUNG customer service centre.

Please have the following information read.

- The model and serial numbers, normally printed on the rear of the oven
- Your warranty details
- A clear description of the problem

Then contact your local dealer or SAMSUNG after sales service.



technical specifications

SAMSUNG strives to improve its products at all times. Both the design specifications and these user instructions are thus subject to change without notice.

| | |
|---|---|
| Model | MS23F301E**, MS23F302E** |
| Power source | 230 V ~ 50 Hz |
| Power consumption Microwave | 1150 W |
| Output power | 100W / 800W (IEC-705) - 240V : 800W - 230V : 750W |
| Operating frequency | 2450 MHz |
| Magnetron | OM75S(31) |
| Cooling method | Cooling fan motor |
| Dimensions (W x H x D) Outside Oven cavity | 489 x 275 x 374 mm 330 x 211 x 324 mm |
| Volume | 23 liter |
| Weight Net | 12 kg approx |



QUESTIONS OR COMMENTS

| COUNTRY | CALL | OR VISIT US ONLINE AT |
|-------------|--|--|
| AUSTRIA | 0810 - SAMSUNG (7267864, € 0.07/min) | www.samsung.com |
| BELGIUM | 02-201-24-18 | www.samsung.com/be (Dutch) www.samsung.com/be_fr (French) |
| DENMARK | 70 70 19 70 | www.samsung.com |
| FINLAND | 030-6227 515 | |
| FRANCE | 01 48 63 00 00 | www.samsung.com/fr |
| GERMANY | 0180 6 SAMSUNG bzw. 0180 6 7267864* [HHP] 0180 6 M SAMSUNG bzw. 0180 6 67267864* (*0.20 €/Anruf aus dem dt. Festnetz, aus dem Mobilfunk max. 0.60 €/Anruf) | www.samsung.com |
| ITALIA | 800-SAMSUNG(726-7864) [HHP] 800.Msamsung (800.67267864) | www.samsung.com/gr |
| CYPRUS | 8009 4000 only from landline | |
| GREECE | 80111-SAMSUNG (80111 726 7864) only from land line (+30) 210 6897691 from mobile and land line | |
| LUXEMBURG | 261 03 710 | |
| NETHERLANDS | 0900-SAMSUNG (0900-7267864) (€ 0.10/Min) | www.samsung.com |
| NORWAY | 815 56480 | |
| PORTUGAL | 808 20-SAMSUNG(808 20 7267) | |
| SPAIN | 902 - 1 - SAMSUNG (902 172 678) | |
| SWEDEN | 0771 726 7864 (SAMSUNG) | www.samsung.com/ch (German) www.samsung.com/ch_fr (French) |
| SWITZERLAND | 0848 - SAMSUNG(7267864, CHF 0.08/min) | |
| U.K | 0330 SAMSUNG (7267864) | www.samsung.com |
| EIRE | 0818 717100 | |