MS23F301T**
MS23F302T**

Microwave Oven

Owner's Instructions & Cooking Guide

imagine the possibilities

Thank you for purchasing this Samsung product.

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.

SAMSUNG

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.

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- **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 plasitic 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 deposites removed.
- Failure to maintain the oven in a clean conditioin 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.

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- 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.

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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.

This product is a Group 2 Class B ISM equipment. The definition of group 2 which contains all ISM equipment in which radio-frequency energy is intentionally generated and/or used in the form of electromagnetic radiation for the treatment of material, and EDM and arc welding equipment.
For Class B equipment is equipment suitable for use in domestic establishments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.

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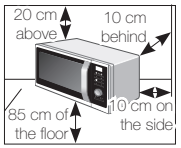
INSTALLING YOUR MICROWAVE OVEN

Place the oven on a flat level surface 85 cm above the floor. The surface should be strong enough to safety 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.

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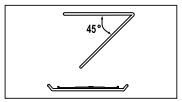
2. Remove any splashes or stains on the inside surfaces of oven with a soapy cloth. Rinse and dry.
3. To loosen hardened food particles and remove smells, place a cup of diluted lemon juice in the oven and heat for ten minutes at maximum power.
4. Wash the dishwasher-safe plate whenever necessary.

- **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.

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- 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 objecton 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.	✓	✓	✓	
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.	✓	✓	✓	✓
Do not pour or directly spray water onto the oven.	✓	✓		
Do not place objects on the oven, inside or on the door of the oven.	✓	✓	✓	
Do not spray volatile material such as insecticide onto the surface of the oven.	✓	✓		

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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.	✓		✓	✓
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.	✓	✓	✓	✓
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: • 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.	✓	✓	✓	✓
Do not put the tray or rack in water shortly after cooking because it may cause breakage or damage of the tray or rack.				✓
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 of the hot liquid.	✓			✓

⚠ CAUTION				
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.	✓		✓	✓
Do not use your microwave oven to dry papers or clothes.	✓		✓	✓
Use shorter times for smaller amounts of food to prevent overheating and burning food.	✓		✓	✓
Do not immerse the power cable or power plug in water and keep the power cable away from heat.	✓	✓		
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 inshells, tomatoes etc.			✓	✓
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.	✓		✓	
Always use oven mitts when removing a dish from the oven to avoid unintentional burns.			✓	
Stir liquids halfway during heating or after heating ends and allow the liquid stand at least 20 seconds after heating to prevent eruptive boiling.			✓	
Stand at arms length from the oven when opening the door to avoid getting scalded by escaping hot air or steam.			✓	

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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.

(a) 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.

(b) 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.

(c) 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:

(1) door (bent)

(2) door hinges (broken or loose)

(3) door seals and sealing surfaces

(d) 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) A Dented, Scratched, or Broken Door, Handle, Out-Panel, or Control Panel.

(b) 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.

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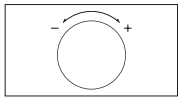
QUICK LOOK-UP GUIDE

If you want to cook some food.

1. Place the food in the oven.
   Select the power level by pressing the **Microwave** ( ) button one or more times.

2. Select the cooking time by turning the **dial knob** as required.

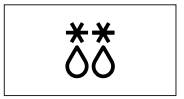


3. Press the **Start/+30s** ( ) button.

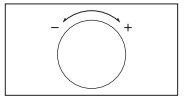
   Result : Cooking starts. The oven beeps 4 times when cooking is over.

If you want to auto Power defrost some food.

1. Place the frozen food in the oven.
   Select the type of food that you are cooking by pressing the **Power defrost** ( ) button one or more times.



2. Select the weight by turning the **dial knob** as required.



3. Press the **Start/+30s** ( ) button.

If you want to add extra 30 seconds.

Leave the food in the oven.
Press **+30s** one or more times for each extra 30 seconds that you wish to add.

ENGLISH

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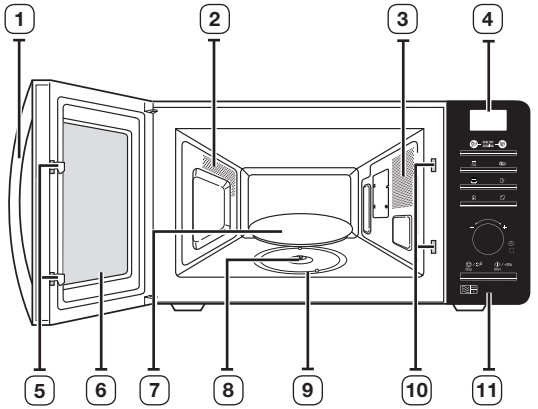
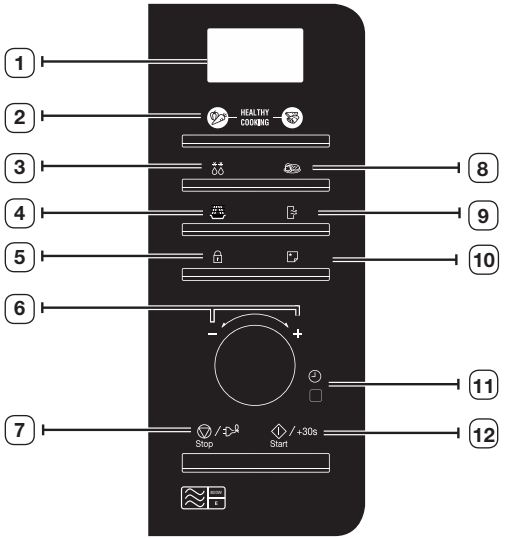
OVEN



1. DOOR HANDLE
2. VENTILATION HOLES
3. LIGHT
4. DISPLAY
5. DOOR LATCHES
6. DOOR
7. TURNTABLE
8. COUPLER
9. ROLLER RING
10. SAFETY INTERLOCK HOLES
11. CONTROL PANEL

CONTROL PANEL



1. DISPLAY
2. HEALTHY COOKING BUTTON
3. POWER DEFROST BUTTON
4. MICROWAVE BUTTON
5. CHILD LOCK BUTTON
6. DIAL KNOB (WEIGHT/SERVING/TIME)
7. STOP/ECO BUTTON
8. MY PLATE BUTTON
9. DEODORIZATION BUTTON
10. MEMORY BUTTON
11. CLOCK SETTING BUTTON
12. START/+30s BUTTON

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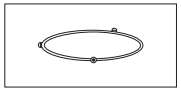
ACCESSORIES

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

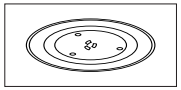
1. **Roller ring**, to be placed in the centre of the oven.

   Purpose : The roller ring supports the turntable.



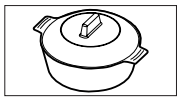
2. **Turntable**, to be placed on the roller ring with the centre fitting to the coupler.

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



3. **Steam cooker,** see page 19 to 21.
   (Only MS23F301TF*, MS23F302TF* models)

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



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

SETTING THE TIME

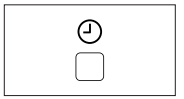
Your microwave oven has an inbuilt clock. When power is supplied, ":0", "88:88" or "12:00" is automatically displayed on the display.
Please set the current time. The time can be displayed in either the 24- hour or 12-hour notation. You must set the clock:

- When you first install your microwave oven
- After a power failure

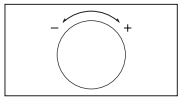
Do not forget to reset the clock when you switch to and from summer and winter time.

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.

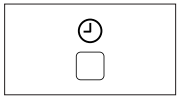
1. **To display the time in the...**
   24-hour notation.
   12-hour notation.
   Press the **Clock** (🕘) button once or twice.



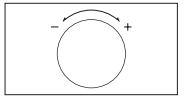
2. Turn the **dial knob** to set the hour.



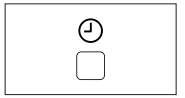
3. Press the **Clock** (🕘) button.



4. Turn the **dial knob** to set the minute.



5. Press the **Clock** (🕘) button.



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HOW A MICROWAVE OVEN WORKS

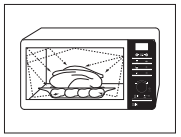
Microwaves are high-frequency electromagnetic waves; the energy released enables food to be cooked or reheated without the foods form or colour changing.

You can use your microwave oven to:

- Defrost (manual & auto)
- Cook
- Reheat

Cooking Principle.

1. The microwaves generated by the magnetron are distributed uniformly as the food rotates on the turntable. The food is thus cooked evenly.
2. The microwaves are absorbed by the food up to a depth of about 1 inch (2.5 cm). Cooking then continues as the heat is dissipated within the food.
3. Cooking times vary according to the recipient used and the properties of the food:
   - Quantity and density
   - Water content
   - Initial temperature (refrigerated or not)



As the centre of the food is cooked by heat dissipation, cooking continues even when you have taken the food out of the oven. Standing times specified in recipes and in this booklet must therefore be respected to ensure:

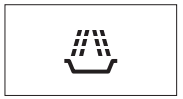
- Even cooking of the food right to the centre
- The same temperature throughout the food

CHECKING THAT YOUR OVEN IS OPERATING CORRECTLY

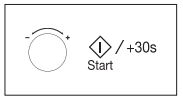
The following simple procedure enables you to check that your oven is working correctly at all times.
Open the oven door by pulling the handle on the right side of the door.
Place a glass of water on the turntable. Then, close the door.

1. Press the **Microwave** ( ) button.

   Result : The 800 W (maximum cooking power) indications are displayed:



2. Set the time 4 to 5 minutes by turning the dial knob and press the **Start/+30s** () button.



   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.

The oven must be plugged into an appropriate wall socket. The turntable must be in position in the oven. If a power level other than the maximum is used, the water takes longer to boil.

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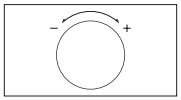
COOKING/REHEATING

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. Press the **Microwave** ( ) button.

Result : The 800 W (maximum cooking power) indications are displayed:
Select the appropriate power level by pressing the **Microwave** ( ) button again until the corresponding wattage is displayed. Refer to the power level table.

2. Set the cooking time by turning the **dial knob.**



Result : The cooking time is displayed.

3. Press the **Start/+30s** ( ) button.

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.

If you wish to heat a dish for a short period of time at maximum power (800 W), simply press the **+30s** button once for each 30 seconds of cooking time. The oven starts immediately.

POWER LEVELS

You can choose among the power levels below.

Power level	Output
HIGH	800 W
MEDIUM HIGH	600 W
MEDIUM	450 W
MEDIUM LOW	300 W
DEFROST ( )	180 W
LOW/KEEP WARM	100 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

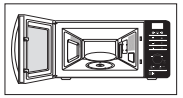
You can increase the cooking time by pressing the **+30s** button once for each 30 seconds to be added.

Press the **+30s** button once for each 30 seconds to be added.

STOPPING THE COOKING

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

1. To stop temporarily;
1) Open the door.

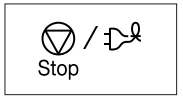


Result : Cooking stops. To resume cooking, close the door and press ( ) again.

2) Press the **Stop** ( ) button.

Result : Cooking stops. To resume cooking, press ( ) again.

2. To stop completely;
Press the **Stop** ( ) button.



Result : The cooking stops. If you wish to cancel the cooking settings, press the **Stop** ( ) button again.

You can also cancel any setting before starting by simply pressing **Stop** ( ).

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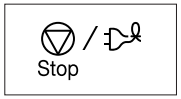
SETTING THE ENERGY SAVE MODE

The oven has an energy save mode. This facility saves electricity when the oven is not in use. Normal condition is standby mode and show clock when not using.

- Press the **Energy Save** (⏻) button.
  Result : Display off.
- To remove energy save mode, open the door and then display shows current time. The oven is ready for use.



USING THE DEODORIZE FEATURE

Use this feature after cooking odorous food or when there is a lot of smoke in the oven interior. First clean the oven interior.

Press the **Deodorization** (⏻) button after you have finished cleaning. you will hear four beeps when it has finished.

The deodorization time has been specified as 5 minutes. It increases by 30 seconds whenever the **+30s** button is pressed.

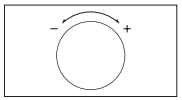
The maximum deodorization time is 15 minutes.

USING THE HEALTHY COOKING FEATURES

The Healthy Cooking Features has sixteen pre-programmed cooking times. You do not need to set either the cooking times or the power level. You can adjust the item of the serving by turning the **dial knob**.
First, place the food in the centre of the turntable and close the door.

1. Select the type of food that you are cooking by pressing the **Healthy Cooking** (⏻) or **Healthy Cooking** (⏻) button once or more times.

2. Select the size of the serving by turning the **dial knob**. (Refer to the table on the side).



3. Press the **Start/+30s** (⏻) button.
   Result : Cooking starts. When it has finished.
   1) 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 HEALTHY COOKING PROGRAMMES: VEGETABLES & GRAINS

The following table presents the 10 Healthy diet auto programmes for cooking vegetables or grains. It contains its quantities, standing times and appropriate recommendations. Programmes 1-10 are running with microwave energy only.

Code	Food	Portion (g)	Standing time (min.)	Recommendations
1	**Broccoli**	250 500	1-2	Rinse and clean fresh broccoli and prepare florets. Put them evenly into a glass bowl with lid. Add 30 ml (2 tablespoons) water when cooking for 250 g, and add 60-75 ml (4-5 tablespoons) for 500 g. Put bowl in the centre of turntable. Cook covered. Stir after cooking.
2	**Carrots**	250	1-2	Rinse and clean carrots and prepare even slices. Put them evenly into a glass bowl with lid. Add 30 ml (2 tablespoons) water when cooking for 250 g. Put bowl in the centre of turntable. Cook covered. Stir after cooking.

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Code	Food	Portion (g)	Standing time (min.)	Recommendations
3	**Green Beans**	250	1-2	Rinse and clean green beans. Put them evenly into a glass bowl with lid. Add 30 ml (1 tablespoon) water when cooking 250 g. Put bowl in the centre of turntable. Cook covered. Stir after cooking.
4	**Spinach**	150	1-2	Rinse and clean spinach. Put into a glass bowl with lid. Do not add water. Put bowl in the centre of turntable. Cook covered. Stir after cooking.
5	**Corn on the cob**	250 (1 pcs)	1-2	Rinse and clean corn on the cobs and put into an oval glass dish. Cover with microwave cling film and pierce film.
6	**Peeled Potatoes**	250 500	2-3	Wash and peel the potatoes and cut into a similar size. Put them into a glass bowl with lid. Add 45-60 ml (3-4 tablespoons) water. Put bowl in the centre of turntable. Cook covered.
7	**Brown Rice** (parboiled)	125	5-10	Use a large glass ovenware dish with lid. Add double quantity of cold water (1/4 l). Cook covered. Stir before standing time and add salt and herbs.
8	**Wholemeal Macaroni**	125	1	Use a large glass ovenware dish with lid. Add 1/2 l hot boiling water, a pinch of salt and stir well. Cook uncovered. Cook covered. Stir before standing time and drain thoroughly afterwards.

Code	Food	Portion (g)	Standing time (min.)	Recommendations
9	**Quinoa**	125	1-3	Use a large glass ovenware dish with lid. Add double quantity of cold water (250 ml). Cook covered. Stir before standing time and add salt and herbs.
10	**Bulgur**	125	2-5	Use a large glass ovenware dish with lid. Add double quantity of cold water (250 ml). Cook covered. Stir before standing time and add salt and herbs.

USING HEALTHY COOKING PROGRAMMES: POULTRY & FISH

The following table presents the 6 Healthy diet auto programmes for cooking poultry and fish, its quantities, standing times and appropriate recommendations. Programmes 1-6 are running with microwave energy only.

Code	Food	Portion (g)	Standing time (min.)	Recommendations
1	**Chicken Breast**	300 (2 pcs)	2	Rinse pieces and put on a ceramic plate. Cover with microwave cling film. Pierce film. Put dish on turntable.
2	**Turkey Breast**	300 (2 pcs)	2	Rinse pieces and put on a ceramic plate. Cover with microwave cling film. Pierce film. Put dish on turntable.
3	**Fresh Fish fillet**	300 (2 pcs)	1-2	Rinse fish and put on a ceramic plate, add 1 tablespoon lemon juice. Cover with microwave cling film. Pierce film. Put dish on turntable.

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Code	Food	Portion (g)	Standing time (min.)	Recommendations
4	**Fresh Salmon Filet**	300 (2 pcs)	1-2	Rinse fish and put on a ceramic plate, add 1 tablespoon lemon juice. Cover with microwave cling film. Pierce film. Put dish on turntable.
5	**Fresh Prawns**	250	1-2	Rinse prawns on a ceramic plate, add 1 tablespoon lemon juice. Cover with microwave cling film. Pierce film. Put dish on turntable.
6	**Fresh Trout**	200 (1 fish)	2	Put 2 fresh whole fish into an ovenproof dish. Add a pinch salt, 1 tablespoon lemon juice, salt and herbs. Cover with microwave cling film. Pierce film. Put dish on turntable.

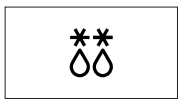
USING THE AUTO POWER DEFROST FEATURE

The Auto Power Defrost feature enables you to defrost meat, poultry, fish and bread/cake. The defrost time and power level are set automatically. You simply select the programme and the weight.

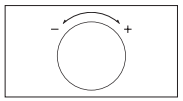
Use only dishes that are microwave-safe.

First, place the frozen food in the centre of the turntable and close the door.

1. Select the type of food that you are cooking by pressing the **Power Defrost** button one or more times. (Refer to the table on the side).



2. Set the weight of food by turning the **dial knob**. It is possible to set up to a maximum of 1500 g.



3. Press the **Start/+30s** button.

Result :

- Defrosting begins.
- The oven beeps half way through defrosting to remind you to turn the food over.
- Press button again to finish defrosting.

You can also defrost food manually. To do so, select the microwave cooking/reheating function with a power level of 180 W. Refer to the section entitled “Cooking/Reheating” on page 15 for further details.

USING THE AUTO POWER DEFROST PROGRAMMES

The following table presents the various Auto Power Defrost programmes, quantities, standing times and appropriate recommendations.
Remove all kinds of package material before defrosting. Place meat, poultry, fish on a ceramic plate.

Food		Serving size (g)	Standing time (min.)	Recommendations
	Meat	200-1500	15-60	Shield the edges with aluminium foil. Turn the pieces over, when the oven beeps. This programme is suitable for meat such as steaks, chops or minced meat, chicken pieces, whole chicken or fish fillets.
	Poultry			
	Fish			

Select the Manual Defrosting function with a power level of 180 W if you want to defrost food manually. For further details on manual defrosting and defrosting time, refer to the page 27-28.

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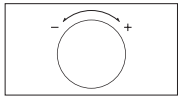
USING THE MY PLATE FEATURE

The my plate feature has two pre-programmed cooking times. You do not need to set either the cooking times or the power level. You can adjust the number of servings by turning the dial knob. First, place the food in the centre of the turntable and close the door.

1. Select the type of food that you are cooking by pressing the **My plate** (🍽) button once or more times.

2. Select the size of the serving by turning the **dial knob.** (Refer to the table on the side.)



3. Press the (⏀) button.

Result : Cooking starts. When it has finished.
1) 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 MY PLATE PROGRAMMES

The following table presents the My Plate auto reheat programmes, quantities, standing times and appropriate recommendations. Those programmes are running with microwave energy only.

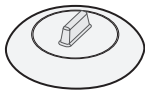
Code/Food	Serving size (g)	Standing time (min.)	Recommendations
1. Chilled Ready meal	300-350 400-450	2-3	Put on a ceramic plate and cover with microwave cling film. This programme is suitable for meals consisting of 3 components (e.g. meat with sauce, vegetables and a side dishes like potatoes, rice or pasta).
2. Chilled Vegetarian Meal	300-350 400-450	2-3	Put meal on a ceramic plate and cover with microwave cling film. This programme is suitable for meals consisting of 2 components (e.g. spaghetti with sauce or rice with vegetables).

POWER STEAM COOKING GUIDE (ONLY MS23F301TF*, MS23F302TF* 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.

ENGLISH

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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.				
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.				

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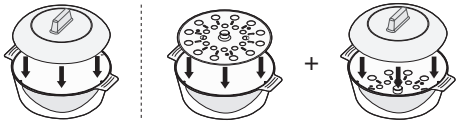
Food	Portion	Power levels	Cooking time (min.)	Standing time (min.)	Handling
Fruit compote	250 g	800 W	3-4	2-3	Bowl + Lid
	Instructions Weigh the fresh fruits (e.g. apples, pears, plums, apricots, mangoes or pineapple) after peeling, washing and cutting into similar sizes or cubes. Put into steam bowl. 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.

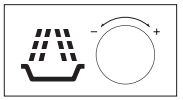
USING THE MEMORY FEATURE

If you often cook or reheat the same types of dishes, you can store the cooking times and power levels in the oven's memory, so that you do not have to reset them each order.
You can store two different setting.

Storing the settings.

1. **To programme the...**	**Then press the (★) button**
First setting	Once (Display is P1)
Second setting	Twice (Display is P2)

2. Set your cooking programme as usual (power level and cooking time) see if necessary.



3. Press the (◇) button.

Result : Your setting are now stored in the oven's memory.

USING THE MEMORY PROGRAMMES

First, place the food in the centre of the turntable and close the door.

1. **To select the...**	**Then press the (★) button**
First setting	Once (Display is P1)
Second setting	Twice (Display is P2)

2. Press the (◇) button.

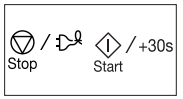
Result : The food is cooked as requested.

SWITCHING THE BEEPER OFF

You can switch the beeper off whenever you want.

1. Press the (▽) and (◇) buttons at the same time.

Result :

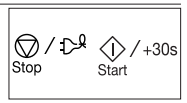


- The following indication is displayed.
- The oven does not beep each time

you press a button.

2. To switch the beeper back on, press the (▽) and (◇) buttons again at the same time.

Result :



- The following indication is displayed.

- The oven operates with the beeper on again.

ENGLISH

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SAFETY-LOCKING YOUR MICROWAVE OVEN

Your microwave oven is fitted with a special Child Safety programme, which enables the oven to be “locked” so that children or anyone unfamiliar with it cannot operate it accidentally.
The oven can be locked at any time.

1. Press the (🔒) buttons at the same time.

Result :

- The oven is locked (no functions can be selected).
- The display shows “L”.

2. To unlock the oven, press the (🔒) buttons again at the same time.

Result : The oven can be used normally.

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	✓ ✗	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.
Crust plate	✓	Do not preheat for more than 8 minutes.
China and earthenware	✓	Porcelain, pottery, glazed earthenware and bone china are usually suitable, unless decorated with a metal trim.
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.

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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**

COOKING GUIDE

MICROWAVES

Microwave energy actually penetrates food, attracted and absorbed by its water, fat and sugar content.
The microwaves cause the molecules in the food to move rapidly. The rapid movement of these molecules creates friction and the resulting heat cooks the food.

COOKING

Cookware for microwave cooking:
Cookware must allow microwave energy to pass through it for maximum efficiency. Microwaves are reflected by metal, such as stainless steel, aluminium and copper, but they can penetrate through ceramic, glass, porcelain and plastic as well as paper and wood. So food must never be cooked in metal containers.

Food suitable for microwave cooking:
Many kinds of food are suitable for microwave cooking, including fresh or frozen vegetables, fruit, pasta, rice, grains, beans, fish, and meat. Sauces, custard, soups, steamed puddings, preserves, and chutneys can also be cooked in a microwave oven. Generally speaking, microwave cooking is ideal for any food that would normally be prepared on a hob. Melting butter or chocolate, for example (see the chapter with tips, techniques and hints).

Covering during cooking
To cover the food during cooking is very important, as the evaporated water rises as steam and contributes to cooking process. Food can be covered in different ways: e.g. with a ceramic plate, plastic cover or microwave suitable cling film.

Standing times
After cooking is over food the standing time is important to allow the temperature to even out within the food.

Cooking Guide for frozen vegetables

Use a suitable glass pyrex bowl with lid. Cook covered for the minimum time - see table. Continue cooking to get the result you prefer.
Stir twice during cooking and once after cooking. Add salt, herbs or butter after cooking. Cover during standing time.

Food	Portion (g)	Power (W)	Time (min.)	Standing time (min.)	Instructions
Spinach	150	600	4½-5½	2-3	Add 15 ml (1 tablespoon) cold water.
Broccoli	300	600	9-10	2-3	Add 30 ml (2 tablespoon) cold water.
Peas	300	600	7½-8½	2-3	Add 15 ml (1 tablespoon) cold water.
Green beans	300	600	8-9	2-3	Add 30 ml (2 tablespoon) cold water.
Mixed vegetables (carrots/peas/corn)	300	600	7½-8½	2-3	Add 15 ml (1 tablespoon) cold water.

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Food	Portion (g)	Power (W)	Time (min.)	Standing time (min.)	Instructions
Mixed vegetables (chinese style)	300	600	8-9	2-3	Add 15 ml (1 tablespoon) cold water.

Cooking Guide for rice and pasta

Rice : Use a large glass pyrex bowl with lid - rice doubles in volume during cooking. Cook covered.
After the cooking time is over, stir before standing time and salt or add herbs and butter.
Remark: the rice may not have absorbed all water after the cooking time is finished.

Pasta : Use a large glass pyrex bowl. Add boiling water, a pinch of salt and stir well. Cook uncovered.
Stir occasionally during and after cooking. Cover during standing time and drain thoroughly afterwards.

Food	Portion (g)	Power (W)	Time (min.)	Standing time (min.)	Instructions
White rice (parboiled)	250	800	16-17	5	Add 500 ml cold water.
Brown rice (parboiled)	250	800	21-22	5	Add 500 ml cold water.
Mixed rice (rice + wild rice)	250	800	17-18	5	Add 500 ml cold water.
Mixed corn (rice + grain)	250	800	18-19	5	Add 400 ml cold water.
Pasta	250	800	11-12	5	Add 1000 ml hot water.

Food	Portion (g)	Power (W)	Time (min.)	Standing time (min.)	Instructions
Indomie	1 Small pack (80 g) 1 Big pack (120 g)	800	7½-8 9½-10	-	Use a glass pyrex bowl. Put the noodle and add room temperature 350 ml water in bowl. Cook covered with wrap and pierce at several times. After cooking, drain water and mix indomie spices.

Cooking Guide for fresh vegetables

Use a suitable glass pyrex bowl with lid. Add 30-45 ml cold water (2-3 tbsp.) for every 250 g unless another water quantity is recommended – see table. Cook covered for the minimum time – see table. Continue cooking to get the result you prefer. Stir once during and once after cooking. Add salt, herbs or butter after cooking.
Cover during a standing time of 3 minutes.

Hint : Cut the fresh vegetables into even sized pieces. The smaller they are cut, the quicker they will cook.

All fresh vegetables should be cooked using full microwave power (800 W).

Food	Portion (g)	Time (min.)	Standing time (min.)	Instructions
Broccoli	250 500	4-4½ 7-7½	3	Prepare even sized florets. Arrange the stems to the centre.
Brussels sprouts	250	5½-6½	3	Add 60-75 ml (5-6 tbsp.) water.
Carrots	250	4½-5	3	Cut carrots into even sized slices.

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Food	Portion (g)	Time (min.)	Standing time (min.)	Instructions
Cauliflower	250 500	5-5½ 8½-9	3	Prepare even sized florets. Cut big florets into halves. Arrange stems to the centre.
Courgettes	250	3½-4	3	Cut courgettes into slices. Add 30 ml (2 tbsp.) water or a knob of butter. Cook until just tender.
Egg plants	250	3½-4	3	Cut egg plants into small slices and sprinkle with 1 tablespoon lemon juice.
Leeks	250	4½-5	3	Cut leeks into thick slices.
Mushrooms	125 250	1½-2 3-3½	3	Prepare small whole or sliced mushrooms. Do not add any water. Sprinkle with lemon juice. Spice with salt and pepper. Drain before serving.
Onions	250	5½-6	3	Cut onions into slices or halves. Add only 15 ml (1 tbsp.) water.
Pepper	250	4½-5	3	Cut pepper into small slices.
Potatoes	250 500	4-5 7½-8½	3	Weigh the peeled potatoes and cut them into similar sized halves or quarters.
Turnip cabbage	250	5-5½	3	Cut turnip cabbage into small cubes.
Boiled Yam	350	12½-13	1-2	Peel and cut yam 3 cm thick and put on pyrex bowl. Add room temperature 250 ml water in bowl. Cook covered with wrap and pierce at several times. After cooking, drain water and serve.

REHEATING

Your microwave oven will reheat food in a fraction of the time that conventional ovens hobs normally take.
Use the power levels and reheating times in the following chart as a guide. The times in the chart consider liquids with a room temperature of about +18 to +20 °C or a chilled food with a temperature of about +5 to +7 °C.

Arranging and covering
Avoid reheating large items such as joint of meat – they tend to overcook and dry out before the centre is piping hot. Reheating small pieces will be more successful.

Power levels and stirring
Some foods can be reheated using 800 W power while others should be reheated using 600 W, 450 W or even 300 W.
Check the tables for guidance. In general, it is better to reheat food using a lower power level, if the food is delicate, in large quantities, or if it is likely to heat up very quickly (mince pies, for example).
Stir well or turn food over during reheating for best results. When possible, stir again before serving.
Take particular care when heating liquids and baby foods. To prevent eruptive boiling of liquids and possible scalding, stir before, during and after heating. Keep them in the microwave oven during standing time. We recommend putting a plastic spoon or glass stick into the liquids. Avoid overheating (and therefore spoiling) the food.
It is preferable to underestimate cooking time and add extra heating time, if necessary.

Heating and standing times
When reheating food for the first time, it is helpful to make a note of the time taken – for future reference.
Always make sure that the reheated food is piping hot throughout.
Allow food to stand for a short time after reheating - to let the temperature even out.
The recommended standing time after reheating is 2-4 minutes, unless another time is recommended in the chart.
Take particular care when heating liquids and baby food. See also the chapter with the safety precautions.

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REHEATING LIQUIDS

Always allow a standing time of at least 20 seconds after the oven has been switched off to allow the temperature to even out. Stir during heating, if necessary, and ALWAYS stir after heating. To prevent eruptive boiling and possible scalding, you should put a spoon or glass stick into the beverages and stir before, during and after heating.

Reheating Liquids and Food

Use the power levels and times in this table as a guide lines for reheating.

Food	Portion	Power (W)	Time (min.)	Standing time (min.)	Instructions
Drinks (coffee, tea and water)	150 ml (1 cup) 250 ml (1 mug)	800	1-1½ 1½-2	1-2	Pour into cup and reheat uncovered. Put cup/ mug in the centre of turntable. Keep in microwave oven during standing time and stir well.
Soup (chilled)	250 g	800	3-3½	2-3	Pour into a deep ceramic plate. Cover with plastic lid. Stir well after reheating. Stir again before serving.
Stew (chilled)	350 g	600	5½-6½	2-3	Put stew in a deep ceramic plate. Cover with plastic lid. Stir occasionally during reheating and again before standing and serving.
Pasta with sauce (chilled)	350 g	600	4½-5½	3	Put pasta (e.g. spaghetti or egg noodles) on a flat ceramic plate. Cover with microwave cling film. Stir before serving.
Filled pasta with sauce (chilled)	350 g	600	5-6	3	Put filled pasta (e.g. ravioli, tortellini) in a deep ceramic plate. Cover with plastic lid. Stir occasionally during reheating and again before standing and serving.
Plated meal (chilled)	350 g	600	5½-6½	3	Plate a meal of 2-3 chilled components on a ceramic dish. Cover with microwave cling-film.

REHEATING BABY FOOD

BABY FOOD: Empty into a deep ceramic plate. Cover with plastic lid. Stir well after reheating!
Let stand for 2-3 minutes before serving. Stir again and check the temperature.
Recommended serving temperature: between 30-40 °C.
BABY MILK: Pour milk into a sterilised glass bottle. Reheat uncovered. Never heat a baby's bottle with teat on, as the bottle may explode if overheated. Shake well before standing time and again before serving ! Always carefully check the temperature of baby milk or food before giving it to the baby. Recommended serving temperature: ca. 37 °C.
REMARK: Baby food particularly needs to be checked carefully before serving to prevent burns.
Use the power levels and times in the next table as a guide lines for reheating.

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Reheating baby food and milk

Use the power levels and times in this table as guide lines for reheating.

Food	Portion	Power (W)	Time	Standing time (min.)	Instructions
Baby food (vegetables + meat)	190 g	600	30 sec.	2-3	Empty into ceramic deep plate. Cook covered. Stir after cooking time. Stand for 2-3 minutes. Before serving, stir well and check the temperature carefully.
Baby porridge (grain + milk + fruit)	190 g	600	20 sec.	2-3	Empty into ceramic deep plate. Cook covered. Stir after cooking time. Stand for 2-3 minutes. Before serving, stir well and check the temperature carefully.
Baby milk	100 ml 200 ml	300	30-40 sec. 50 sec. to 1 min.	2-3	Stir or shake well and pour into a sterilized glass bottle. Place into the centre of turn-table. Cook uncovered. Shake well and stand for at least 3 minutes. Before serving, shake well and check the temperature carefully.

MANUAL DEFROSTING

Microwaves are an excellent way of defrosting frozen food. Microwaves gently defrost frozen food in a short period of time. This can be of great advantage, if unexpected guests suddenly show up.
Frozen poultry must be thoroughly thawed before cooking. Remove any metal ties and take it out of any wrapping to allow thawed liquid to drain away.
Put the frozen food on a dish without cover. Turn over half way, drain off any liquid and remove any giblets as soon as possible.
Check the food occasionally to make sure that it does not feel warm.
If smaller and thinner parts of the frozen food start to warm up, they can be shield by wrapping very small strips of aluminium foil around them during defrosting.
Should poultry start to warm up on the outer surface, stop thawing and allow it to stand for 20 minutes before continuing.
Leave the fish, meat and poultry to stand in order to complete defrosting. The standing time for complete defrosting will vary depending on the quantity defrosted. Please refer to the table below.

Hint : Flat food defrosts better than thick and smaller quantities need less time than bigger ones. Remember this hint while freezing and defrosting food.

For defrosting of frozen food with a temperature of about -18 to -20 °C, use the following table as a guide.

All frozen food should be defrosted using defrosting power level (180 W).

Food	Portion	Time (min.)	Standing time (min.)	Instructions
Meat				
Minced beef	250 g 500 g	6½-7½ 10-12	5-25	Place the meat on a flat ceramic plate. Shield thinner edges with aluminium foil. Turn over after half of defrosting time!
Pork steaks	250 g	7½-8½		

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Food	Portion	Time (min.)	Standing time (min.)	Instructions
Poultry				
Chicken pieces	500 g (2 pcs)	14½-15½	15-40	First, put chicken pieces first skin-side down, whole chicken first breast-side-down on a flat ceramic plate. Shield the thinner parts like wings and ends with aluminium foil. Turn over after half of defrosting time!
Whole chicken	900 g	28-30		
Fish				
Fish fillets	250 g (2 pcs)	6-7	5-15	Put frozen fish in the middle of a flat ceramic plate. Arrange the thinner parts under the thicker parts. Shield narrow ends with aluminium foil. Turn over after half of defrosting time!
	400 g (4 pcs)	12-13		

SPECIAL HINTS

MELTING BUTTER
Put 50 g butter into a small deep glass dish. Cover with plastic lid.
Heat for 30-40 seconds using 800 W, until butter is melted.

MELTING CHOCOLATE
Put 100 g chocolate into a small deep glass dish.
Heat for 3-5 minutes, using 450 W until chocolate is melted.
Stir once or twice during melting. Use oven gloves while taking out!

MELTING CRYSTALLIZED HONEY
Put 20 g crystallized honey into a small deep glass dish.
Heat for 20-30 seconds using 300 W until honey is melted.

MELTING GELATINE
Lay dry gelatine sheets (10 g) for 5 minutes into cold water.
Put drained gelatine into a small glass pyrex bowl.
Heat for 1 minute using 300 W.
Stir after melting.

COOKING GLAZE/ICING (FOR CAKE AND GATEAUX)
Mix instant glaze (approximately 14 g) with 40 g sugar and 250 ml cold water.
Cook uncovered in a glass pyrex bowl for 3½ to 4½ minutes using 800 W, until glaze/icing is transparent. Stir twice during cooking.

COOKING JAM
Put 600 g fruits (for example mixed berries) in a suitable sized glass pyrex bowl with lid. Add 300 g preserving sugar and stir well.
Cook covered for 10-12 minutes using 800 W.
Stir several times during cooking. Empty directly into small jam glasses with twist-off lids. Stand on lid for 5 minutes.

COOKING PUDDING
Mix pudding powder with sugar and milk (500 ml) by following the manufacturers instructions and stir well. Use a suitable sized glass pyrex bowl with lid. Cook covered for 6½ to 7½ minutes using 800 W.
Stir several times well during cooking.

BROWNING ALMOND SLICES
Spread 30 g sliced almonds evenly on a medium sized ceramic plate.
Stir several times during browning for 3½ to 4½ minutes using 600 W.
Let it stand for 2-3 minutes in the oven. Use oven gloves while taking out!

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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 (⏚) or coloured green or green-and-yellow.

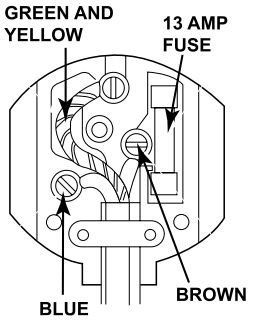
Connect the blue wire to the terminal marked with the letter N or coloured black.

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 **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.



⚠ WARNING **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.

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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 MS23F301T**, MS23F302T** (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 MS23F301T**, MS23F302T** (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.

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WHAT TO DO IF YOU ARE IN DOUBT OR HAVE A PROBLEM

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 press the (◊) button.

- Is the door completely closed?

The food is not cooked at all.

- Have you set the timer correctly and/or pressed the (◊) button?
- 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?

Sparking 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?

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 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.

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 aftersales 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	MS23F301T** , MS23F302T**
Power source	230 V ~ 50 Hz
Power consumption Microwave	 1150 W
Output power	100 W / 800 W (IEC-705) - 240 V : 800 W - 230 V : 750 W
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

ENGLISH

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QUESTIONS OR COMMENTS

COUNTRY	CALL	OR VISIT US ONLINE AT
AUSTRIA	0800 - SAMSUNG (0800 - 7267864)	www.samsung.com/at/support
BELGIUM	02-201-24-18	www.samsung.com/be/support (Dutch) www.samsung.com/be_fr/support (French)
DENMARK	70 70 19 70	www.samsung.com/dk/support
FINLAND	030-6227 515	www.samsung.com/fi/support
FRANCE	01 48 63 00 00	www.samsung.com/fr/support
GERMANY	0180 6 SAMSUNG bzw. 0180 6 7267864* (*0,20 €/Anruf aus dem dt. Festnetz, aus dem Mobilfunk max. 0,60 €/Anruf)	www.samsung.com/de/support
ITALIA	800-SAMSUNG (800.7267864)	www.samsung.com/it/support
CYPRUS	8009 4000 only from landline, toll free	www.samsung.com/gr/support
GREECE	80111-SAMSUNG (80111 726 7864) only from land line (+30) 210 6897691 from mobile and land line	
LUXEMBURG	261 03 710	www.samsung.com/support
NETHERLANDS	0900-SAMSUNG (0900-7267864) (€ 0,10/Min)	www.samsung.com/nl/support
NORWAY	815 56480	www.samsung.com/no/support
PORTUGAL	808 20 7267	www.samsung.com/pt/support
SPAIN	0034902172678	www.samsung.com/es/support
SWEDEN	0771 726 7864 (SAMSUNG)	www.samsung.com/se/support
SWITZERLAND	0848 726 78 64 (0848-SAMSUNG)	www.samsung.com/ch/support (German) www.samsung.com/ch_fr/support (French)
U.K	0330 SAMSUNG (7267864)	www.samsung.com/uk/support
EIRE	0818 717100	www.samsung.com/ie/support

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