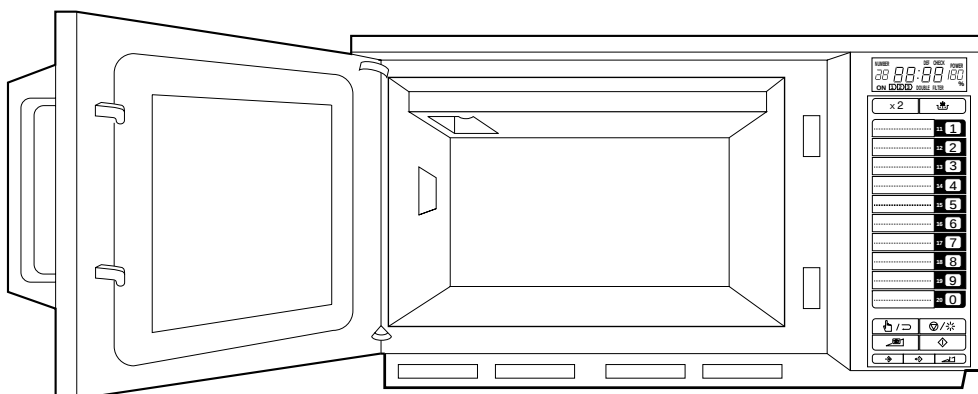


SHARP

PROFESSIONNELLES MIKROWELLENGERÄT
FOUR A MICRO-ONDES COMMERCIAL
KOMMERCIËLE MAGNETRONOVEN
FORNO A MICROONDE COMMERCIALE
HORNO MICROONDAS INDUSTRIAL



D	BEDIENUNGSANLEITUNG - Diese Bedienungsanleitung enthält wichtige Informationen, welche Sie vor Inbetriebnahme des Gerätes unbedingt sorgfältig durchlesen sollten. Achtung Die Nichtbeachtung der Gebrauchs- und Serviceanweisungen sowie jeglicher Eingriff, der das Betreiben des Gerätes in geöffnetem Zustand (z.B. geöffnetes Gehäuse) erlaubt, führt zu erheblichen Gesundheitsschäden. <i>Dieses Gerät entspricht den Anforderungen der EG-Richtlinien 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.</i>
F	MODE D'EMPLOI - Ce mode d'emploi du four contient des informations importantes, que vous devez lire avant d'utiliser votre four à micro-ondes. Avertissement Des risques sérieux pour la santé peuvent être encourus si ces instructions d'utilisation et d'entretien en sont pas respectées ou si le four est modifié de sorte qu'il soit possible de le faire fonctionner lorsque la porte est ouverte. <i>Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifiées par la directive 93/68/CEE.</i>
NL	GEbruIKSAANWIJZING - Deze gebruiksaanwijzing bevat belangrijke informatie die u dient te lezen alvorens u de oven in gebruik neemt. Waarschuwing Het niet naleven van de gebruiks- en onder- houdsvoorschriften evenals elke ingreep die het mogelijk maakt dat het toestel in niet-gesloten toestand in werking kan gesteld worden, kan leiden tot ernstige gezondheidsletsels. <i>Dit apparaat voldoet aan de eisen van de richtlijnen 89/336/EEG en 73/23/EEG, gewijzigd door 93/68/EEG.</i>
I	MANUALE D'ISTRUZIONI - Questo manuale contiene informazioni importanti, che dovete leggere prima di usare il forno. Avvertenza: La mancata osservanza di queste istruzioni sull'uso e sulla manutenzione del forno, o l'alterazione del forno che ne permetta l'uso a sportello aperto, possono costituire un grave pericolo per la vostra salute. <i>Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC e 73/23/EEC, come emendata dalla direttiva 93/68/EEC.</i>
E	MANUAL DE INSTRUCCIONES - Este manual contiene información muy importante que debe leer antes de utilizar el horno. Advertencia Pueden presentarse serios riesgos para su sa-lud si no respeta estas instrucciones de uso y mantenimiento, o si el horno se modifica de forma que pueda ponerse en funcionamiento con la puerta abierta. <i>Este aparato satisface las exigencias de las-Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.</i>

R-23AT 1800W(IEC 60705)

DEUTSCH

FRANÇAIS

NEDERLANDS

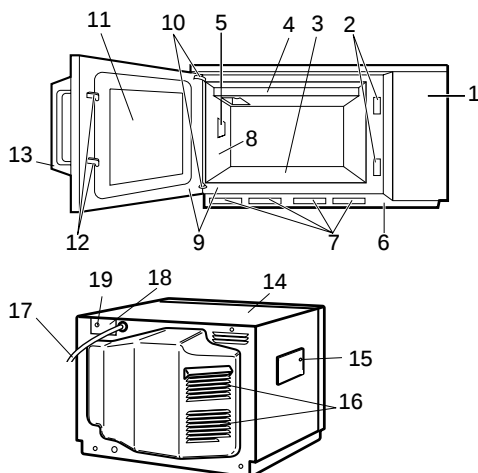
ITALIANO

ESPAÑOL

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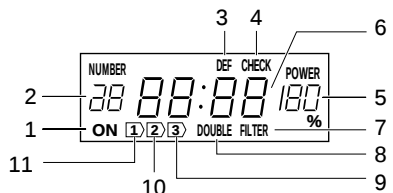
PART NAMES

OVEN



- 1 Control panel
- 2 Door lock openings
- 3 Ceramic floor
- 4 Splash cover
- 5 Oven lamp
- 6 Air intake filter
- 7 Air intake openings
- 8 Oven cavity
- 9 Door seals and sealing surfaces
- 10 Door hinges
- 11 Door
- 12 Safety door latches
- 13 Door open handle
- 14 Outer cabinet
- 15 Oven lamp access cover
- 16 Ventilation openings
- 17 Power supply cord
- 18 Mounting plate
- 19 Screw for mounting plate

AUTO-TOUCH CONTROL PANEL



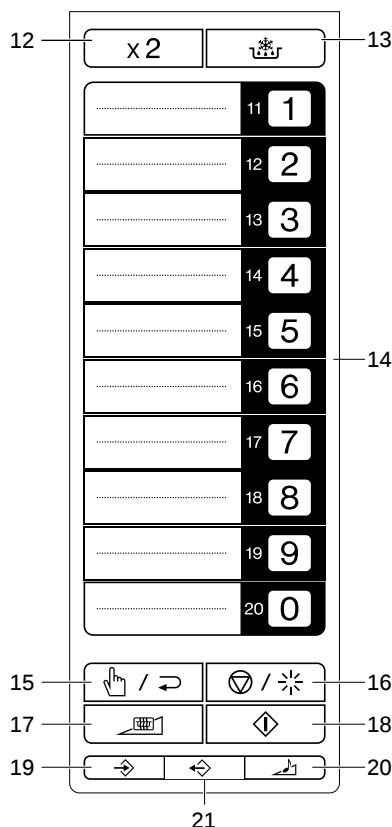
DISPLAY AND INDICATORS

Check indicators after the oven starts to confirm the oven is operating as desired.

- 1 Cook indicator
This indicator shows cooking in progress.
- 2 Memory number indicator
- 3 Defrost indicator
- 4 Check mode indicator
- 5 Microwave power level indicator
- 6 Digital display
- 7 Filter indicator
- 8 Double quantity indicator
- 9 3rd stage indicator
- 10 2nd stage indicator
- 11 1st stage indicator

OPERATING KEYS

- 12 DOUBLE QUANTITY key
- 13 DEFROST key
- 14 NUMBER keys
- 15 MANUAL/REPEAT keys
- 16 STOP/CLEAR key
- 17 MICROWAVE POWER SETTING key
- 18 START key
- 19 SET key
- 20 VOLUME key
- 21 CHECK key



IMPORTANT SAFETY INSTRUCTIONS

READ CAREFULLY AND KEEP FOR FUTURE REFERENCE.

WARNING

To avoid the danger of fire

- The microwave ovens should not be left unattended during operation. Power levels that are too high or cooking times that are too long may overheat foods resulting in a fire.**
- This oven is not designed to be built-in to a wall or cabinet.
- The electrical outlet must be readily accessible so that the unit can be unplugged easily in an emergency.
- The AC power supply must be 230V, 50Hz, with a minimum 16A distribution line fuse, or a minimum 16A distribution circuit breaker. In using two ovens, each oven must be secured with a 16A distribution line fuse or a distribution circuit breaker.
- It is recommended that a separate circuit serving only this appliance be provided.
- Do not place the oven in areas where heat is generated. For example, close to a conventional oven.
- Do not install the oven in an area of high humidity or where moisture may collect.
- Do not store or use the oven outdoors.
- If food being heated in the oven begins to smoke, DO NOT OPEN THE DOOR. Unplug the oven and wait until the food has stopped smoking. Opening the door while food is smoking may cause a fire.**
- Use only microwave-safe containers and utensils. See "GUIDE" on page 15.**
- Always attend the oven closely when using disposable plastic, paper or other combustible food containers. Look at the oven from time to time when cooking or reheating food in those containers. Only use for warming food. Pay special attention as over-heating may cause a fire in your oven.**
- Clean the splash cover and the oven cavity after use. These must be dry and free from grease. Built-up grease may overheat and begin to smoke or catch fire.**
- Do not place flammable materials near the oven or ventilation openings.
- Do not block the ventilation openings.
- Remove all metallic seals, wire twists, etc., from food and food packages. Arcing on metallic surfaces may cause a fire.
- Do not use the microwave oven to fry with oil or heat oil for deep frying. The temperature can not be controlled and the oil catch fire.
- To make popcorn, use only special microwave makers.
- Do not store food or any other items inside the oven.
- Check the settings after you start the oven to ensure the oven is operating as desired.

- To avoid overheating and fire, special care must be taken when cooking or reheating foods with a high sugar or fat content, for example, Sausage rolls, Pies or Christmas pudding.
- See the corresponding hints in this operation manual and in the attached cookery book section.

To avoid the possibility of injury

- Do not operate the oven if it is damaged or malfunctioning. Check the following before use.
 - The door; make sure the door closes properly and ensure it is not misaligned or warped.
 - The hinges and safety door latches; check to make sure they are not broken or loose.
 - The door seals and sealing surfaces; ensure that they have not been damaged.
 - Inside the oven cavity or on the door; make sure there are no dents.
 - The power supply cord and plug; ensure that they are not damaged.
- Never adjust, repair or modify the oven yourself. It is hazardous for anyone other than a authorized electrician to carry out any service or repair operation which involves the removal of a cover which gives protection against exposure to microwave energy.**
- Do not operate the oven with the door open or alter the safety door latches in any way.
- Do not operate the oven if there is an object between the door seals and sealing surfaces.
- Do not allow grease or dirt to build up on the door seals and sealing surfaces. Follow instructions for "Care and Cleaning", page 13.
- Individuals with PACEMAKERS should check with their doctor or the manufacturer of the pacemaker for precautions regarding microwave ovens.

To avoid the possibility of electric shock

- Under no circumstances should you remove the outer cabinet.
- Never spill or insert any objects into the door lock openings or ventilation openings. In the event of a spill, turn off and unplug the oven immediately, and call a SHARP service agent.
- Do not immerse the power supply cord or plug in water or any other liquid.
- Do not let the power supply cord hang over the edge of a table or work surfaces.
- Keep the power supply cord away from heated surfaces, particularly the back of the oven.
- Unplug the oven before replacing the oven lamp (25W/230V).
- If the power supply cord of this appliance is damaged, it must be replaced with a special cord. The exchange must be made by an authorized SHARP service agent.

To avoid the possibility of explosion and sudden boiling

1. **WARNING: Liquids and other foods must not be heated in sealed containers since they are liable to explode.**
2. Never use sealed containers. Remove seals and lids before use. Sealed containers can explode due to a build up of pressure even after the oven has been turned off.
3. Take care when microwaving liquids. Use a wide-mouthed container to allow bubbles to escape.
Never heat liquids in narrow necked containers such as baby bottles, as this may result in the contents erupting from the container when heated and cause burns.

To prevent sudden eruption of boiling liquid and possible scalding:

- 1) Stir liquid prior to heating/reheating.
- 2) It is advisable to insert a glass rod or similar utensil into the liquid whilst reheating.
- 3) Let liquid stand in the oven at the end of cooking time to prevent delayed eruptive boiling.
4. **Do not cook eggs in their shells and whole hard boiled eggs should not be heated in microwave ovens since they may explode even after microwave cooking has ended. To cook or reheat eggs which have not been scrambled or mixed, pierce the yolks and the whites, or the eggs may explode. Shell and slice hard boiled eggs before reheating them in the microwave oven.**
5. Pierce the skin on such foods as potatoes, sausages and fruit before cooking, or they may explode.

To avoid the possibility of burns

1. Use pot holders or oven gloves when removing food from the oven to prevent burns.
2. Always open containers, popcorn makers, oven cooking bags, etc., away from the face and hands to avoid steam burns.
3. **To avoid burns, always test food temperature and stir before serving and pay special attention to the temperature of food and drink given to babies, children or the elderly.**

Temperature of the container is not a true indication of the temperature of the food or drink; always check the food temperature.

4. Always stand back from the oven door when opening it to avoid burns from escaping steam and heat.
5. Slice stuffed baked foods after heating to release steam and avoid burns.
6. Keep children away from the door to prevent them burning themselves.
7. Do not touch the back of the oven because it will become hot.

To avoid misuse by children

1. **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.**
2. Do not lean or swing on the oven door. Do not play with the oven or use it as a toy.
3. Children should be taught all important safety instructions: use of pot holders, careful removal of food coverings; paying special attention to packaging (e.g. self-heating materials) designed to make food crisp, as they may be extra hot.

Other warnings

1. Never modify the oven in any way.
2. Do not move the oven while it is in operation.
3. This oven is for food preparation only and may only be used for cooking food. It is not suitable for laboratory use.

To promote trouble free use of your oven and avoid damage.

1. Never operate the oven when it is empty.
Doing so may damage the oven.
2. When using a browning dish or self-heating material, always place a heat-resistant insulator such as a porcelain plate under it to prevent damage to the ceramic floor due to heat stress. The preheating time specified in the dishes instructions must not be exceeded.
3. Do not use metal utensils, which reflect microwaves and may cause electrical arcing. Do not put cans in the oven.
4. Do not place anything on the outer cabinet during operation.

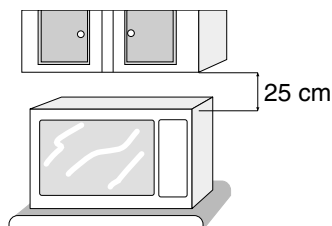
NOTE

1. If you are unsure how to connect your oven, please consult an authorized qualified electrician.
2. Neither the manufacture nor the dealer can accept any liability for damage to the oven or personal injury resulting from failure to observe the correct electrical connection procedure.
3. Water vapour or drops may occasionally form on the oven walls or around the door seals and sealing surfaces. This is a normal occurrence and is not an indication of microwave leakage or a malfunction.

INSTALLATION INSTRUCTIONS

WARNING: Always keep the caution sheet (SPECIAL INSTRUCTIONS AND WARNINGS) close to the oven for your reference.

- 1) Remove all packing materials from the inside of the oven cavity. Remove all the blue protective film from the outside of the oven.
- 2) Check the oven carefully for any signs of damage.
- 3) Place the oven on a flat, level surface strong enough to support the oven's weight plus the heaviest item likely to be cooked.
- 4) Ensure there is a minimum free space above the oven of 25 cm.



- 5) Securely connect the plug of the oven to a standard earthed (grounded) household electrical outlet.
- 6) Two ovens can be installed together by placing one on top of another. Follow these instructions.
- 6-1) Place the oven A and position the oven B on top of the oven A as shown in the figure A.
- 6-2) Remove the single screw (a) holding the mounting plate A to the rear cabinet of the oven A. And remove the mounting plate A.
- 6-3) Remove the single screw (b) from the rear cabinet of the oven B, as shown in the figure A.
- 6-4) Reinstall the mounting plate A to the rear cabinet of the oven B with the single screw (b) removed, as shown in the figure A.
- 6-5) Hold the mounting plate A to the rear cabinet of the oven A with the single screw (a), as shown in the figure A.

- 6-6) Remove the screw (a) holding the mounting plate B to the rear cabinet of the oven B. And remove the mounting plate B from the oven B. See the figure A.
- 6-7) Install the screw (a) to its position again.
- 6-8) Remove the screw (c) from the oven A.
- 6-9) Remove the screw (d) from the oven B.
- 6-10) Turn the removed mounting plate B over and then using the removed screw (c) and (d), attach the mounting plate B, as shown in the figure A.

WARNING:

In case where two ovens are installed together by placing one on top of another,

- 1) Use the two mounting plates for fixing the two ovens.
- 2) Make sure that the power supply cord is not caught between the two ovens.
- 3) Do not install more than one oven on top of another.
- 4) Do not lose the removed screws.

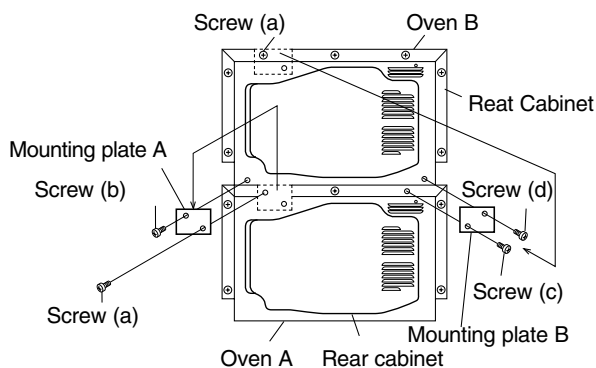


Figure A: How to fix two ovens

ACCESSORIES

Check to make sure the following accessories are provided:

Manuals and others

- Operation manual
- Menu sticker

Enter cooking times or dish names in this sticker and attach to the control panel.

- Caution sheet (SPECIAL INSTRUCTIONS AND WARNINGS: part code TCAUHA257WRR0)

NOTE:

- When you order accessories, please mention the two items: part name and model name to your dealer or SHARP authorized service agent.
- The model name is printed on the cover of this operation manual.

SHORT DESCRIPTION OF FEATURES

Manual operation

for individual cooking and defrosting of different types of food by setting of time and power.

Multiple sequence cooking:

programming of 2-3 different cooking times and power levels, running automatically.

Repeat cook:

after manual operation it is possible to use same cooking time and power level again just by pressing manual / repeat key and then start key.

Defrost function:

for well defrosting of different types of food, without power level setting.

Memory function:

preprogrammed cooking times and power levels (possible to change individually)

Double quantity function:

by pressing double quantity key beforehand, the oven calculates the cooking time for the double amount of food on Memory function.

Counter function:

The oven counts automatically all operations.

Error message:

Mistakes in operation of technical problems are displayed with an Error code

Accustical signal:

At cooking end a signal will sound. Loudness and length can be varied.

BEFORE OPERATION

* Before operating your new oven, make sure you read and understand this operation manual completely.

- 1) Plug in the oven.
* The digital display will then show .
- 2) You can input the keys only when the door is closed.
- 3) Oven lamp and fan motor work for 1 minute whenever the door is opened or after cooking.
- 4) The programme and the check are canceled when any keys are not touched for more than 3 minutes during programming.
- 5)  will appear on the display after the timer reaches zero. It will disappear when the oven door is opened or the STOP/CLEAR key () is touched.

Volume and Sound Setting

There are 3 preset volume levels of 2 different-sounds on your oven.

To set the volume and the sound, touch the SET key () twice within 2 second and then touch the VOLUME key () continuously until you hear desired volume and sound.

NOTE:

1. The volume will decrease as you press the VOLUME key ().
After the lowest level, the volume will return to the maximum level and the sound will change to another one at the same time.
2. Any audible signals will not sound when the SET key is touched first and then an audible signal will sound when the SET key is touched second.

Using STOP/CLEAR () Key

Use the STOP/CLEAR key () to:

1. Stop the oven temporarily during cooking.
2. Erase a mistake during programming.
3. Cancel a programme during cooking by touching twice.

PROGRAMME OPERATION

This oven has 20 memory banks (1-20) which can store cooking programmes.

The memory banks 1-10 have been programmed previously as shown in the table. These preprogrammed memory banks can be changed individually if required. Please see page 6.

In addition for all memory banks a magnification factor 1.8 for the double quantity is stored. The stored magnification factor can also be changed individually if required. Please see page 7.

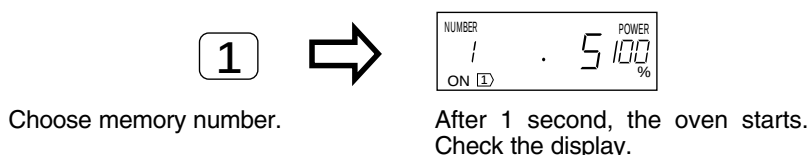
Memory No.	Cook Time	Output Power	Memory No.	Cook Time	Output Power
1	5 sec.	100%	6	50 sec.	100%
2	10 sec.	100%	7	1 min.	100%
3	20 sec.	100%	8	1 min. 15 sec.	100%
4	30 sec.	100%	9	1 min. 30 sec.	100%
5	40 sec.	100%	10	2 min.	100%

Information in these memory banks is not lost due to power interruptions. If the power goes off, the oven does not need to be reprogrammed. No batteries are necessary for this type of memory.

To check the stored programmes, please refer to "Memory check" on page 7.

COOKING WITH MEMORY PROGRAMME

Example : Suppose you want to cook by using memory 1, which was programmed for 5 seconds at 100 %.

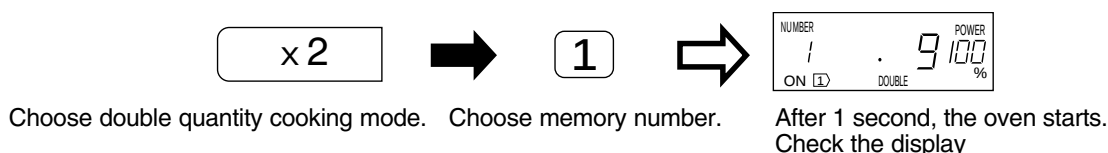


NOTE:

If you want to cook by using memory 11-20, touch the desired NUMBER key twice within 1 second.

Cooking double quantity with memory programme

Example : Suppose you want to cook 2 servings by memory 1.



NOTE:

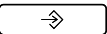
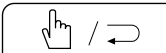
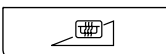
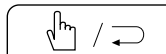
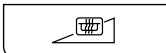
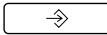
- If you want to cook double quantity by using memory 11-20, touch the desired NUMBER key twice within 1 second.
- Double quantity means best time for cooking two servings; it is not double the time.
 - The Memory cooking system does not require the use of the START key (). Memory cannot be used to start the oven if any programme is on display.
 - If the door is opened during memory cooking, the programme is canceled.
 - To stop the cooking of a memory key and then restart, first, touch the STOP/CLEAR key (), then open the door, check food, close door and touch START key ().
 - If the programmed time is over the maximum time at double Quantity, you cannot use double Quantity for that memory. You can cook only 1 serving. See page 8 about the maximum time.

MEMORY SETTING

You can change memory programmes for 20 memory banks. Up to three sequences on any power level can be programmed for each memory. See cooking sequence chart on page 8 for time maximums.

Setting time and power level

Example : Suppose you want to set 4 minutes at 60 % for the 1st sequence and 2 minutes at 30 % for the 2nd sequence for 1 serving in the memory 1.

Step	Action	Press key	Display
1	Choose set mode.	 X 2 within 2 sec.	NUMBER .
2	Choose memory number.		NUMBER 1 .
3	Touch MANUAL/REPEAT key.		NUMBER 1 . 0 (2)
4	Enter desired cooking time for 1st sequence.	  	NUMBER 1 4.00 (1)
5	Touch MICROWAVE POWER SETTING key.		NUMBER 1 4.00 POWER (1) 100 %
6	Choose desired power level for 1st sequence.		NUMBER 1 4.00 POWER (1) 60 %
7	Touch MANUAL/REPEAT key.		NUMBER 1 . 0 (2)
8	Enter desired cooking time for 2nd sequence.	  	NUMBER 1 2.00 (2)
9	Touch MICROWAVE POWER SETTING key.		NUMBER 1 2.00 POWER (2) 100 %
10	Choose desired power level for 2nd sequence.		NUMBER 1 2.00 POWER (2) 30 %
11	Complete memorizing.	 X 2 within 2 sec.	NUMBER .

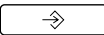
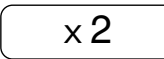
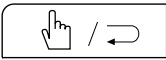
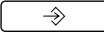
NOTE:

1. If you want to set memory 11-20, touch the desired NUMBER key twice.
2. If 100% is required, it is not necessary to set the microwave power.
3. If the cooking time exceeds the max. time, the display will show EE9.
4. At Step1, any audible signals will not sound when the SET key is touched first and then an audible signal will sound when the SET key is touched second.

Setting magnification factor

It is possible to change the magnification factor for double quantity in the memory.

Example : Suppose you want to set the magnification factor to 1.67 for double quantity in memory 1.

Step	Action	Press key	Display
1	Choose set mode.	 X 2 within 2 sec.	NUMBER .
2	Choose double quantity.		NUMBER . DOUBLE
3	Choose memory number.		NUMBER / DOUBLE
4	Touch MANUAL/REPEAT key.		NUMBER / 0.00 DOUBLE
5	Enter magnification factor.	  	NUMBER / 1.67 DOUBLE
6	Complete memorizing.	 X 2	NUMBER .

NOTE:

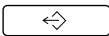
1. In case you want to change the magnification factor it must be set for each key separately.
2. The magnification factor can be set from 0.00 to 9.99.
3. At Step 1, any audible signals will not sound when the SET key is touched first and then an audible signal will sound when the SET key is touched second.

MEMORY CHECK

You can check the information programmed into the memory.

Checking time and power level

Example : Suppose you want to know the information programmed into the memory 1, programmed for 4 minutes at 60% at the 1st sequence and 2 minutes at 30 % at the 2nd sequence, and after that the memory 13, programmed for 3 minutes at 70 %.

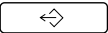
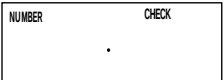
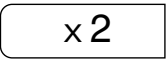
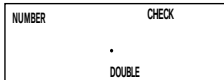
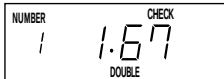
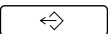
Step	Action	Press key	Display
1	Choose checking mode.		NUMBER CHECK .
2	Choose memory number.		NUMBER CHECK POWER / 4.00 60 % (1) NUMBER CHECK POWER / 2.00 30 % (2) Repeat
3	Choose memory number.	 X 2	NUMBER CHECK POWER 13 3.00 70 % (1)
4	Cancel checking mode.		NUMBER .

NOTE:

When  is displayed at step 2 or step 3, the memory is not set.

Checking the magnification factor

Example : Suppose you want to know the magnification factor for double quantity in memory 1, programmed 1.67.

Step	Action	Press Key	Display
1	Choose checking mode.		
2	Choose double quantity.		
3	Choose memory number.		
4	Cancel checking mode.		

NOTE:

Magnification factor 1.80 for the double quantity is stored in all memories previously.

MANUAL OPERATION

Your oven can be programmed for up to 3 cooking stages and has 11 preset microwave power levels.

Cooking Sequence	Microwave power level that can be used	Cooking time that can be used
1 Stage only	0-100 %	Max. 30 minutes
2 or 3 Stages	0-40 % all stages	Max. 30 minutes any stage. Max. 60 minutes for two stages. Max. 90 minutes for three stages.
	50-100 %	Max. 30 minutes for three stages.

NOTE:

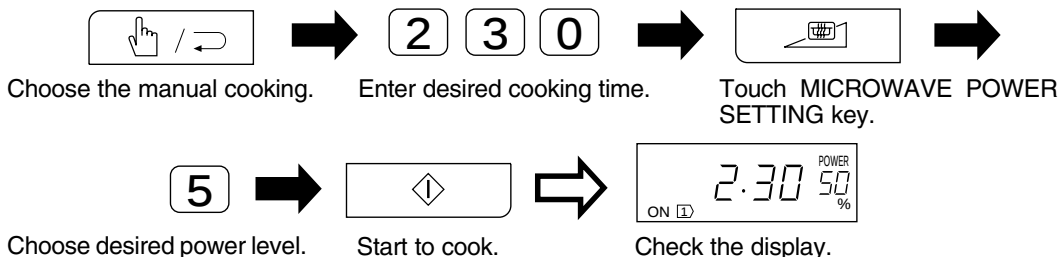
If the oven is used with the power level above 40 % on any stage, the maximum cooking time is 30 minutes in total.

This model has 11 power levels. Use correct number pad after touching MICROWAVE POWER SETTING key ().

Microwave Power level	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
Number keys	—	9	8	7	6	5	4	3	2	1	0

TIME COOKING

Example : Suppose you want to cook for 2 minutes and 30 seconds at 50 %.

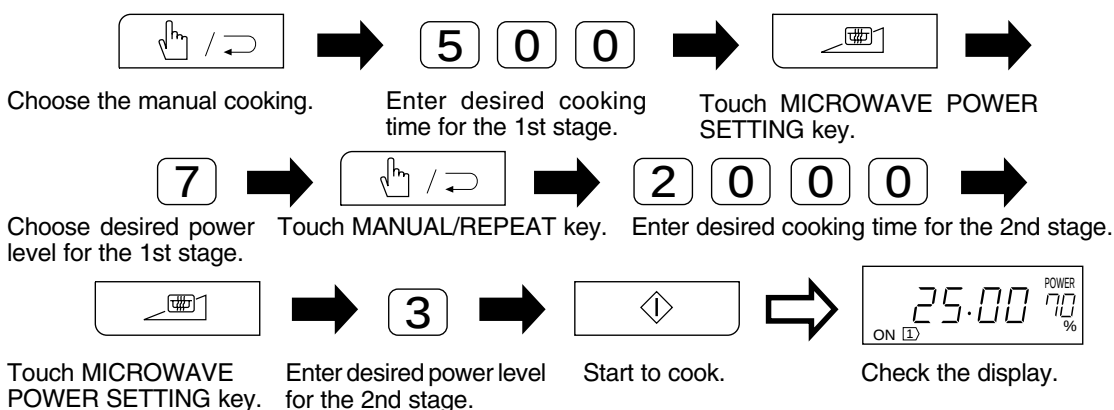


NOTE:

1. It is not necessary to touch MICROWAVE POWER SETTING key () for 100 %.
2. During cooking mode, the oven stops when the door is opened, and the programme is canceled if the START key () is not touched within 1 minute after the door is closed.

MULTIPLE SEQUENCE COOKING

Example : Suppose you want to cook for 5 minutes at 70 % and then continue to cook for 20 minutes at 30 %.



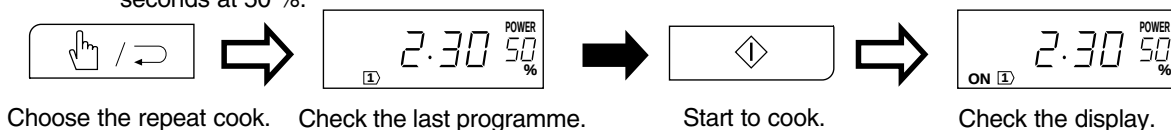
NOTE:

1. It is not necessary to touch MICROWAVE POWER SETTING key () for 100 %.
2. When you press START pad, the display will show the total cooking time.
3. During cooking mode, the oven stops when the door is opened, and the programme is canceled if the START key () is not touched within 1 minute after the door is closed.
4. If the cooking time exceeds the max. time, the display will show "EE 9". In this case touch STOP/CLEAR key () and programme again.

REPEAT COOK

Your oven can remember the last manual programme.

Example : Suppose you want to cook with the last programme, which is programmed for 2 minutes and 30 seconds at 50 %.



EXPRESS DEFROST

Express Defrost is used to defrost meat and poultry. Enter desired defrost time, referring to the defrost chart.
Example : If you want to defrost for 7 minutes and 30 seconds.

Step	Action	Press Key	Display
1	Press the EXPRESS DEFROST key.		
2	Enter desired defrost time.		
3	Press the START key.		
4	Halfway through defrost time CHECK will flash and the oven will "beep" 4 times. Open the door. Turn food over and shield any warm portions. Close the door.		
5	Press the START key within 1 minute after closing the door.		

Note: If you do not open the door when an audible signal sounds, the defrosting cycle will continue and the defrosting time will count down to 0.

EXPRESS DEFROST CHART

This is specially designed for smaller cuts of food. The following foods should be used on the express defrost programme.

- 1.Beef Steak
- 2.Lamb Chops
- 3.Pork Chops
- 4.Chicken Portions
- 5.Fish Steaks

The oven is pre-programmed with a time and power level cycle so that the food listed above is defrosted easily.

BASIC IDEAS FOR EXPRESS DEFROST

- Always allow food to stand for approx. 10-30 minutes after defrosting to equalise the temperature and to produce better defrosting results.
- Check food after standing. If the item is not thoroughly defrosted, continue to defrost on 20% power for additional time.
- Choose foods that are the same thickness throughout. This will produce better defrosting results. Foods which vary in thickness may require shielding with small flat pieces of tin foil to prevent over-defrosting.
- For foods not listed in the chart refer to the manual defrosting chart.
- When freezing chicken pieces, steak, chops and fish, freeze separately in single flat layers and if necessary interleave with freezer plastic to separate layers. This will ensure even defrosting.

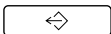
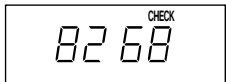
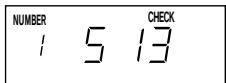
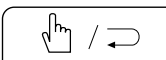
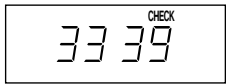
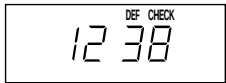
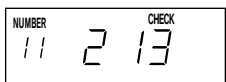
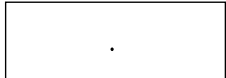
FOOD	200 g	400 g	600 g	METHOD
Steak Pork, lamb chops Chicken Portions Fish Steaks	1 - 1½	2 - 3	3½ - 4½	1. Position the food with thinner parts in centre in a single layer, if pieces are stuck together separate as soon as possible. 2. Shield any thinner parts with foil if necessary. 3. Turn over, rearrange after the audible sound. After turning over, shield the defrosted portions with small, flat pieces of aluminium foil. After defrosting stand for 10-30 minutes.

OTHER CONVENIENT FEATURES

COUNTER CHECK

The number of times when the oven will be used are automatically accumulated for each key. You can check how many times the oven was used.

Example : Suppose you want to know total using time, times of using each memory and times of manual cooking. In this case the oven was used 8268 times, the memory 1 was used 513 times, manual cooking was used 3339 times, DEFROST was used 1238 and the memory 11 was used 213 times.

Step	Action	Press Key	Display
1	Choose checking mode.	 X 2	 (Total count)
2	Check times of using the memory 1.		 (Times memory 1 used)
	Check times of using manual cooking.		 (Times manual cooking used)
	Check times of using DEFROST.		 (DEFROST count)
	Check times of using the memory 11.	 X 2	
3	Complete checking.		

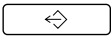
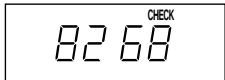
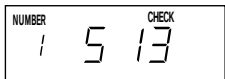
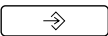
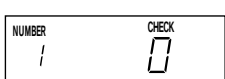
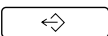
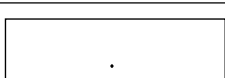
NOTE:

Each counter can count the times up to 9999, and then it will return to 0.

COUNTER RESET

Each number of times can be cleared.

Example : Suppose you want to clear the times of memory 1.

Step	Action	Press Key	Display
1	Choose checking mode.	 x 2	 (Total count)
2	Choose the memory 1.		 (Times memory 1 used)
3	Clear times of using the memory 1.		
4	Cancel checking mode.		

NOTE:

- To clear times of manual cooking, touch MANUAL/REPEAT key () at step 2 instead of NUMBER key.
To clear times of Defrost cooking, touch DEFROST key () at step 2 instead of NUMBER key.
- To clear total using times, skip step 2.

INFORMATION WITH ERROR MESSAGES

If ERROR messages are displayed, follow the below instructions.

ERROR MESSAGES

EE1, EE2, EE3, EE6, EE8, EE0 EE10, EE16	Please contact your dealer or an authorized Sharp service agent because the oven must be out of order.
EE7	Exhaust air temperature is too high. Checking that nothing is blocking the ventilation openings or that room temperature is very hot or that oven cavity is empty during operation. Correct, touch STOP/CLEAR key () and try again after a few minutes.
EE9	Cooking time exceed the max. time. Touch STOP/CLEAR key () and programme again.
EE17	Magnetron temperature is too high, touch STOP/CLEAR key () and try again after a few minutes.

INFORMATION WITH FILTER INDICATOR

Clean the air intake filter when the FILTER indicator lights up (See page 14.). The FILTER indicator will light up when the oven has been operated for about 200 hours in total.

To cancel FILTER indicator touch the START key (). The oven will start to count the operation time automatically again when the FILTER indicator is canceled.

CARE AND CLEANING

VERY IMPORTANT CAUTIONS:

- DO NOT OPERATE THE OVEN WITHOUT THE SPLASH COVER IN PLACE.
- DO NOT REMOVE THE SPLASH COVER UNLESS THE POWER CORD IS REMOVED FROM THE OUTLET BECAUSE THE ROTARY ANTENNA, WHICH IS LOCATED ON THE CEILING, OPERATES FOR 1 MINUTES AFTER THE DOOR IS OPENED AND INJURY COULD OCCUR.
- DO NOT USE COMMERCIAL OVEN CLEANERS, ABRASIVE, HARSH CLEANERS OR SCOURING PADS ON ANY PART YOUR MICROWAVE OVEN.
- DO NOT SPRINKLE WATER ONTO THE OVEN DIRECTLY. IT MAY CAUSE ELECTRIC SHOCK, LEAKAGE OF ELECTRICITY OR DAMAGE OF THE OVEN.

Oven Exterior

The outside of your oven can be easily cleaned with mild soap and water. Make sure that the soap is wiped off with a moisture cloth, and dry the exterior with a soft towel.

Control Panel

Open the door before cleaning to inactivate the control panel keys. Care should be taken in cleaning the control panel. Using a cloth dampened with water only, gently wipe the panel until it becomes clean. Avoid the use of excess water. Do not use any sort of chemical or abrasive cleaner. To do so may cause severe damage to the panel and make key entry impossible.

Oven Interior

- 1) For easy cleaning, wipe any spatters or spills with a sort damp cloth or sponge at the end of each day for hygienic reasons. For heavier spills, use mild soap and wipe several times with a damp cloth until all residues are removed.
- 2) Keep the ceramic floor clean at all times. If you leave grease or fat in the cavity, it may overheat, smoke or even catch fire when next using the oven.

CAUTION:

DO NOT REMOVE THE CERAMIC FLOOR FROM THE OVEN.

- 3) Make sure that mild soap or water dose not penetrate through the small vents in the walls which may cause damage to the oven.
- 4) Do not use spray type cleaners on the oven interior.

Splash cover

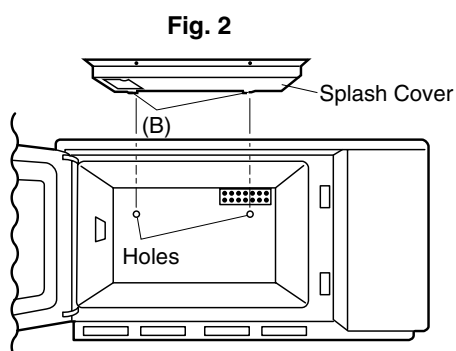
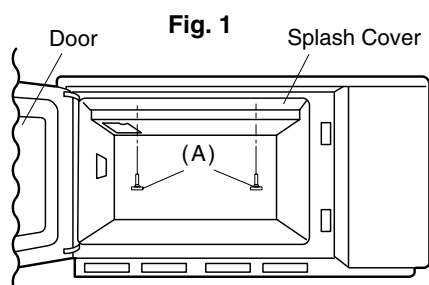
AT LEAST ONCE A WEEK, REMOVE THE SPLASH COVER AND WASH BOTH SIDES OF IT IN A MILD DETERGENT SOLUTION. BUILT-UP GREASE MAY OVERHEAT AND BEGIN TO SMOKE. AND OVERHEATED GREASE MAY BURN THE SPLASH COVER. THE SPLASH COVER IS LOCATED IN THE TOP OF THE OVEN AND MAY EASILY BE REMOVED. REMEMBER TO UNPLUG THE POWER CORD.

Removal:

1. Remove two thumb screws (A) as shown in Fig. 1.
2. Remove the splash cover from the oven.

Reinstall:

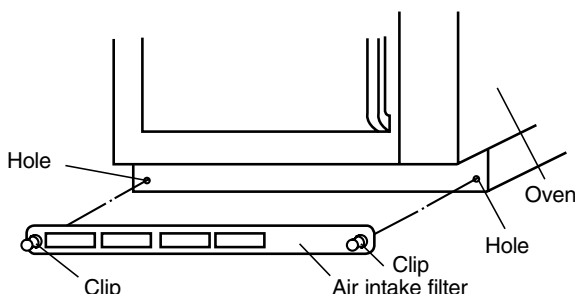
1. Insert two projections of the cover (B) into the holes of the oven cavity backplate as shown in Fig. 2.
2. Secure the cover to the oven ceiling with two thumb screws (A) as shown in Fig. 1.



Door

Wipe the door, window and door seals on both sides and adjacent parts frequently with a damp cloth to remove any spills or spatters.

Air intake filter



Keep clean the air intake filter. To clean the air intake filter you have to pull the two clips on the filter and to remove the air intake filter. Wash the air intake filter in mild soapy water and dry with a soft cloth. After cleaning re-install the air intake filter to the oven. Clean the air intake filter once every two weeks.

CAUTION:

DO NOT OPERATE THE OVEN WITHOUT THE AIR INTAKE FILTER IN PLACE.

ATTENTION ONLY IN GERMANY:

This appliance has to be checked at least once a year by an expert (SHARP Service). The result of this check has to be recorded. The customer is responsible to call an authorized SHARP Service Agent for that annual check.

SERVICE CALL CHECK

Please check the following before calling for service.

1. Power Supply
Check the power plug is properly connected to a suitable wall outlet.
Check the line fuse/circuit breaker is functioning properly.
2. When the door is opened:
A. Does the oven lamp light?
B. Does the cooling fan work?
(Put your hand over the rear ventilation opening.)
3. Place one cup of 150 ml water in the oven and close the door securely.
Touch these keys.



- A. Does the cook indicator go on?
- B. At the end of this time, is the water warm?

YES ____ NO ____
YES ____ NO ____

YES ____ NO ____
YES ____ NO ____

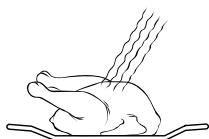
If "NO" is the answer to any of the above questions, call your dealer or an authorized SHARP Service Agent and report the results of your check.

GUIDE

USEFUL THINGS TO KNOW ABOUT MICROWAVES

Microwaves set the water molecules contained in the food vibrating. The resulting friction generates heat that can be used to defrost or cook the food.

Food



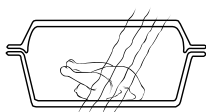
The microwaves are absorbed by the food

SUITABLE UTENSILS

Glass, Glass-ceramics and Porcelain

Heat-resistant utensils made of glass, glass-ceramic or porcelain are suitable. However, the utensils must not contain metals (e.g., lead crystal) or be metal-plated (e.g., gold rim, cobalt blue).

Glass, Porcelain, Ceramics Plastics, paper etc.



Microwaves pass through

Ceramics

are usually suitable but they must be enamelled. When using utensils that are not enamelled, moisture can be absorbed by the material and heat it up. This can cause the material to crack.

Plastics and Paper Dishes

Heat-resistant and microwave-proof plastic utensils or paper dishes are suitable for defrosting, heating and cooking. Please follow the manufacturer's instructions.

Microwave Plastic Wrap

or heat-resistant wrap is suitable for covering and wrapping food. Please follow the manufacturer's instructions.

Roasting Bags

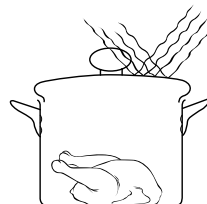
can be used in microwave ovens. Do not close the bags with a metal clip because the clip may cause the bag film to melt. Close the bag with string and pierce it several times with a fork. Films that are not heat-resistant, e.g., films to retain product freshness are not recommended for use in microwave ovens.

Metals

should not, as a rule, be used in microwave ovens because microwaves cannot penetrate metals and reach the food inside.

There are, however, some exceptions: Small strips of aluminum foil can be used to cover parts to prevent them from defrosting or cooking too fast (e.g., chicken wings).

Metal



Microwaves are reflected

Small metal skewers and aluminum trays (of prepackaged food) may be used. However, they must be small in proportion to the food. Aluminum containers, for example, must be filled to at least 2/3 to 3/4 with food. It is recommendable to transfer the food into microwave-safe containers.

When using aluminum trays or other metal utensils, they must be placed at least 2.0 cm away from the cavity walls. Otherwise the cavity walls may be damaged by sparking.

Do not use any utensils with metal-plating, metal parts or metal projections like screws, ribbons, or handles.

TESTING UTENSILS

Perform the following test if you are unsure whether a certain utensil is microwave-safe: Place the utensil into the oven, put a glass containing about 150 ml of water on or beside the utensil, and operate the microwave oven at 100% power for 1 to 2 minutes. If it is cool or luke-warm to the touch, the utensil is suitable for microwave use. Do not perform this test on plastic dishes because the plastic might melt.

INFORMATION ABOUT POWER LEVEL

100%-70% power:

The high power is perfect for warming up or regenerating food. You can also use it to make food boil e.g. water and then cook further with lower power. (e.g. for rice or noodles)

60%-40% power:

For longer cooking times and compact types of food.

30%-20% power:

For considerate cooking and sensitive menus. Also after cooking to simmer or for noodles and rice.

10% power:

The low power level is mainly for defrosting. You can also use it for cooking of very sensitive menus like cheese sauce.

Basically it is recommendable to cover the food for cooking or reheating. Additionally you can sprinkle some water over the food (you can also use salted water or even bouillon).

The water steam keeps the food moist and it also helps to make the cooking faster.

COOKING CHART AND RECIPES

	Menu	Init. Temp.	Microwave Power Levels	200g	400g	600g	Comment
DEFROST	Meat	-18°C	10%	approx. 4'30"	approx. 6'30"	8'30"	Turn over at 1/2 of total defrosting time. Standing time about 10 mins.
	Poultry	-18°C	10%	approx. 4'30"	approx. 6'30"	approx. 9'30"	
	Fish	-18°C	10%	approx. 4'30"	approx. 6'30"	approx. 8'30"	
	Fruit	-18°C	10%	approx. 2'50"	approx. 5'30"	—	
	*Cake (no fruit or cheese)	-18°C	10%	approx. 1'10"	approx. 1'50"	approx. 2'10"	
	*Cream cake	-18°C	10%	approx. 1'10"	approx. 2'10"	—	
	Shrimps	-18°C	10%	approx. 4'	6'-7'	approx. 9'	
	**Cold meat	-18°C	10%	approx. 3'	approx. 5'30"	8'	
REHEAT	Soup, clear	5±2°C	100%	approx. 1'	approx. 1'40"	approx. 2'30"	Cover with microwave foil or lid. Stir well after reheating.
	Soup, cream	5±2°C	100%	approx. 1'	approx. 2'	2'50"	
	Casseroles	5±2°C	100%	approx. 1'	approx. 2'	approx. 2'50"	
	Supplements, Noodles	5±2°C	100%	approx. 50 sec.	approx. 1'20"	approx. 2'20"	
	Supplements, Rice	5±2°C	100%	approx. 50 sec.	approx. 1'30"	approx. 2'30"	
	Supplements, Potatoes	5±2°C	100%	approx. 50 sec.	approx. 1'30"	approx. 2'30"	
	Supplements, Vegetables	5±2°C	100%	approx. 50 sec.	approx. 1'50"	approx. 2'30"	
	Baked Beans	5±2°C	100%	approx. 1'	approx. 2'	—	
	Goulash, Ragout	5±2°C	100%	approx. 1'10"	approx. 2'10"	approx. 3'	
	*Meat (150g)	5±2°C	100%	approx. 40 sec.	1'20"	—	
	*Sausages (50g)	5±2°C	100%	approx. 15 sec.	25 sec.	35 sec.	—
COOK	Supplements, Potatoes	20±2°C	100%	approx. 2'10"	approx. 4'40"	approx. 6'	Use casserole lid. Stir at 1/2 of total cooking
	Supplements, Vegetables	20±2°C	100%	approx. 2'50"	approx. 4'40"	approx. 6'30"	

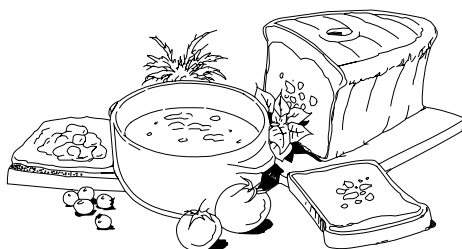
*indications per pcs. (1,2,3 pcs.) not in gramm.

**Remove defrosted portions. Standing time about 10 mins.

	Menu	Int. Temp.	Microwave Power Levels	1 pc	2 pcs
SPECIALS	Danish Pastrys	20±2°C	100%	approx. 6 sec.	—
	*Doughnuts/Berliner	20±2°C	100%	5 sec.	8 sec.
	*Boucheés à la reine	20±2°C	100%	approx. 10 sec.	approx. 15 sec.
	*Burger	5±2°C	100%	40 sec.	1'20"
	*Cheeseburger	5±2°C	50%	50 sec.	1'30"
	Toast and Bacon(140g)	20±2°C	100%	10 sec.	—
	Scrambled Eggs and Bacon(140g)	5±2°C	100%	35 sec.	—

*indications per pcs. (1,2,3 pcs.) not in gramm.

Recipes



Bacon

Place 2 thin slices of bacon between paper towels and cook approx. 20 sec.



Omelette

Sprinkle a normal plate with fat. Beat three eggs with some salt and pepper. Pour the eggs on the plate and cook for ca. 50 sec. Add any filling (2 tbsp.) you want (ragout, vegetables) and cook again for ca. 10 sec.



Toast Hawaii

Prepare toasts and spread with butter. Place one slice of ham, pineapple and cheeses on a plate and cook for approx. 20 sec. After cooking place on the prepared toast.



Scrambled Eggs

Mix two eggs with salt, pepper and some milk. Cook for approx. 45 sec., three times stirring within total cooking time.



Hot chocolate with cream

Pour 150 ml milk in a big cup. Add 30 g black chocolate (sliced). Stir and cook for 50 sec. Stir again once in between. Add some stirred cream and serve with some chocolate powder on top.



SPECIFICATIONS

AC Line Voltage	230V, 50Hz, single phase
Distribution line fuse/circuit breaker	16A (time lag)
AC Power Required	2.9kW
Output Power	1800W(IEC 60705)
Microwave Frequency	2450MHz *(Class B/Group 2)
Outside Dimensions	510 mm(W) x 335 mm(H) x 470 mm(D) (Single oven) 510 mm(W) x 670 mm(H) x 470 mm(D) (Two ovens)
Cavity Dimensions	330 mm(W) x 180 mm(H) x 330 mm(D)
Oven Capacity	20litres
Cooking Uniformity	Rotary antenna system
Weight	Approx. 33kg

* This is the classification of ISM (Industrial, Scientific and Medical) equipment described in the International Standard CISPR11.