# **ABOUT THIS MANUAL**

(주) 신광씨링 광주광역시 서구 하남대로 502번길 14

담 당	이주희 님			
브 랜 드	WINIA	WINIA 언어 영어		
F.MODEL	KOM9P2CTTZBW1BU	KOM9P2CTTZBW1BUT00		
B.MODEL	KOM9P1160HZ	KOM9P1160HZ		
BUYER	REGALE			
COUNTRY	U,K,			
мемо	총 29p (140 x 210)			

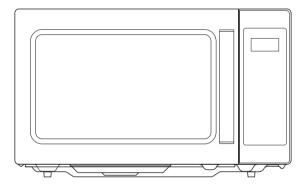
20.07.13-총 1p (표지) 20.07.24 - 총 1p(표지2)

# **NO NEED PRINT**

# **USE AND CARE MANUAL**

# COMMERCIAL MICROWAVE OVEN

# KOM9P1160HZ



\* CUSTMER SERVICE HELP LINE

Before operating this oven, please read these instructions completely.

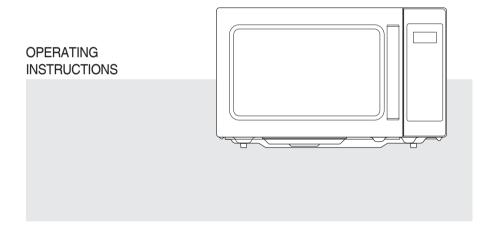
FREE 3 year commercial warranty.

This product has a limited 3 year on-site parts and labour warranty for electrical malfunction from the date of purchase (proof of purchase required). This warranty does not include, glass items, lamps, ceiling or base plates, removable parts, damage, misuse or lack of cleaning correct procedures. For service enquiries please contact either your supplier or WINIA Electronics on 0844 887 2525. Your original invoice will be required as verification. This warranty does not cover the replacement of damaged parts required during any servicing of the appliance.

# WINIA

# **MICROWAVE OVEN**

# KOM9P1160HZ



Before operating this oven, please read these instructions completely.

# PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (A) DO NOT ATTEMPT TO OPERATE THIS OVEN WITH THE DOOR OPEN SINCE OPEN-DOOR OPERATION CAN RESULT IN HARMFUL EXPOSURE TO MICROWAVE ENERGY. IT IS IMPORTANT NOT TO DEFEAT OR TAMPER WITH THE SAFETY INTERLOCKS.
- (B) DO NOT PLACE ANY OBJECT BETWEEN THE OVEN FRONT FACE AND THE DOOR OR ALLOW SOIL OR CLEANER RESIDUE TO ACCUMULATE ON SEALING SURFACES.
- (C) WARNING: IF THE DOOR OR DOOR SEALS ARE DAMAGED, THE OVEN MUST NOT BE OPERATED UNTIL IT HAS BEEN REPAIRED BY A COMPETENT PERSON; (1) DOOR (BENT), (2) HINGES AND LATCHES(BROKEN OR LOOSENED), (3) DOOR SEALS AND SEALING SURFACES.
- (D) 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:
- (E) 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.

1

# PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (F) 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.
- (G) WARNING: LIQUIDS AND OTHER FOODS MUST NOT BE HEATED IN SEALED CONTAINERS SINCE THEY ARE LIABLE TO EXPLODE:
- (H) WARNING: MICROWAVE HEATING OF BEVERAGES CAN RESULT IN DELAYED ERUPTIVE BOILING, THEREFORE CARE MUST BE TAKEN WHEN HANDLING THE CONTAINER:
- (I) WARNING: THE CONTENTS OF FEEDING BOTTLES AND BABY FOOD JARS MUST BE STIRRED OR SHAKEN AND THE TEMPERATURE CHECKED BEFORE CONSUMPTION, IN ORDER TO AVOID BURNS;

# **TABLE OF CONTENTS**

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICHOWAVE ENERGY	1
TABLE OF CONTENTS	3
EARTHING INSTRUCTIONS	4
INSTALLATION	4
SPECIFICATIONS	5
IMPORTANT	5
IMPORTANT SAFETY INSTRUCTIONS	6
FEATURES DIAGRAM	9
OPERATION PROCEDURE	11
CONTROLS	12
TIME DEFROSTING	12
COOKING IN ONE STAGE	13
MEMORY FUNCTION	14
START /+30 SEC	15
CHECK FUNCTION	15
DOUBLE QUANTITY FUNCTION	15
CHILD SAFETY LOCK	16
POWER SAVE MODE	16
MUTE FUNCTION	16
TO STOP THE OVEN WHILE THE OVEN IS OPERATING	16
ABNORMAL MESSAGE	16
COOKING INSTRUCTIONS	17
MICROWAVING PRINCIPLES	18
HOW MICROWAVES COOK FOOD	18
CONVERSION CHART	18
COOKING TECHNIQUES	19
DEFROSTING GUIDE	20
COOKING CHART	21
REHEATING CHART	22
VEGETABLE CHART	23
CARE OF YOUR MICROWAVE OVEN	24
CARE AND CLEANING	24
USE YOUR MICROWAVE OVEN SAFELY	25
ARCING	25
BEFORE YOU CALL FOR SERVICE	26
DISPOSAL OF USED ELECTRICAL & ELECTRONIC EQUIPMENT	26
OLIESTIONS AND ANSWERS	27

# **EARTHING INSTRUCTIONS**

This appliance must be earthed. In the event of an electrical short circuit, earthing reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a earthing wire with an earthing plug. The plug must be plugged into an outlet that is properly installed and earthed.

WARNING: Improper use of the earthing plug can result in a risk of electric shock. Consult a qualified electrician or serviceman if the earthing instructions are not completely understood, or if doubt exists as to whether the appliance is properly earthed. If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade earthing plug, and a 3-slot receptacle that will accept the plug on the appliance. The marked rating of the extension cord should be equal to or greater than the electrical rating of the appliance.

# INSTALLATION

#### 1. Ventilation

Do not block air vents. If they are blocked during operation, the oven may overheat and eventually cause a failure. For proper ventilation, allow above 3 inches of space between oven sides, rear and the minimum height of free space necessary above the top surface of the oven is 100mm.

#### 2. Steady, flat location

This oven should be set on a steady, flat surface. This oven is designed for counter top use only.

The microwave oven shall not be placed in a cabinet unless it has been tested in a cabinet.

#### 3. Leave space behind and side

All air vents should be kept a clearance. If all vents are covered during operation, the oven may overheat and, eventually, oven failure.

#### 4. Away from radio and TV sets

Poor television reception and radio interference may result if the oven is located close to a TV, Radio antenna, feeder and so on. Position the oven as far from them as possible.

# 5. Away from heating appliance and water taps

Keep the oven away from hot air, steam or Splash when choosing a place to position it, or the insulation might be adversely affected and breakdowns occur.

#### 6. Power supply

- Check your local power source.
   This oven requires a current of approximately 7 amperes, 240V 60Hz.
- Power supply cord is about 1.0 meters long.
- The voltage used must be the same as specified on this oven. Using a higher voltage may result in a fire or other accident causing oven damage. Using low voltage will cause slow cooking. We are not responsible for damage resulting from use of this oven with a voltage of ampere fuse other than those specified.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified persons in order to avoid a hazard.

# 7. Examine the oven after unpacking for any damage such as:

A misaligned door, Broken door, A dent in cavity. If any of the above is visible, DO NOT INSTALL, and notify dealer immediately.

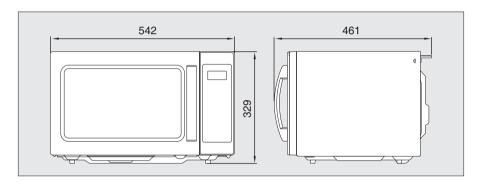
# 8. Do not operate the oven if it is colder than room temperature.

(This may occur during delivery in cold weather.) Allow the oven to become room temperature before operating.

# **SPECIFICATIONS**

POWER SUPPLY		240V AC 60Hz SINGLE PHASE WITH EARTHING	
	POWER CONSUMPTION	1600 W	
MICROWAVE	OUTPUT POWER	1100 W	
	FREQUENCY	2450 MHz	
OUTSIDE DIMENSIONS (W x H x D)		542 x 329 x 461mm (21.34 x 12.95 x 18.15 in.)	
CAVITY DIMENSIONS (W x H x D)		350 x 230 x 357 mm (12.78 x 3.06 x 14.06 in.)	
NET WEIGHT		APPROX. 18Kg (37.48 lbs.)	
TIMER		5 min	
POWER SELECTIONS		5 LEVELS	

<sup>\*</sup> Specifications are subject to change without notice.



# **IMPORTANT**

The wires in this mains lead fitted to this appliance 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 identifying the terminals in your plug, proceed as follows: the wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter 'E', the earth symbol or coloured green-and-yellow. The wire which is coloured blue must be connected to the terminal which is marked with the letter 'N' or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red.

WARNING: This appliance must be earthed.

# IMPORTANT SAFETY INSTRUCTIONS READ CAREFULLY AND KEEP FOR FUTURE REFERENCE

WARNING: To prevent fire, burns, electric shock and other warnings:
Listed below are, as with all appliances, certain

rules to follow and safeguards to assure high performance from this oven:

- Do not use the oven for any reason other than food preparation, such as for drying clothes, paper, or any other nonfood items or for sterilizing purposes.
- 2. Do not use the oven when empty, this could damage the oven.
- Do not use the oven cavity for any type of storage, such as papers, cookbook, cookware, etc.
- Make sure you remove caps or lids prior to cooking when you cook food sealed in bottles.
- Do not put foreign material between the oven surface and door. It could result in excessive leakage of microwave energy.

- Do not use recycled paper products for cooking. They may contain impurities which could cause sparks and/or fires when used during cooking.
- 7. Do not pop popcorn unless popped in a microwave approved popcorn popper or unless it's commercially packaged and recommended especially for microwave ovens. Microwave popped corn produces a lower yield than conventional popping; there will be a number of unpopped kernels. Do not use oil unless specified by the manufacturer.
- 8. Do not cook any food surrounded by a membrane, such as egg yolks, potatoes,

- chicken livers, etc., without first piercing them several times with a fork.
- Do not pop popcorn longer than the manufacturer's directions. (popping time is generally below 3 minutes). Longer cooking does not yield more popped corn, it can cause scorchings and fire. Also, the cooking tray can become too hot to handle or may break.
- If smoke is observed, switch off or unplug the appliance and keep the door closed in order to stifle any flames.
- 11. When heating food in plastic or paper containers, keep an eye on the oven due to the possibility of ignition.
- 12. 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.
- 13. Always test the temperature of food or drink which has been heated in a microwave oven before you give it to

- somebody, especially to children or elderly people. This is important because things which have been heated in a microwave oven carry on getting hotter even though the microwave oven cooking has stopped.
- 14. 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;
- 15. Keep the waveguide cover clean at all times. Wipe the oven interior with a soft damp cloth after each use. If you leave grease or fat anywhere in the cavity it may overheat, smoke or even catch fire when next using the oven.
- 16. Never heat oil or fat for deep frying as you cannot control the temperature and doing so may lead to overheating and fire.
- 17. Liquids, such as water, coffee, or tea are able to be overheated beyond the boiling

point without appearing to be boiling due to surface tension of the liquid. Visible bubbling or boiling when the container is removed from the microwave oven is not always present. THIS COULD RESULT IN VERY HOT LIQUIDS SUDDENLY BOILING OVER WHEN A SPOON OR OTHER UTENSIL IS INSERTED INTO THE LIQUID.

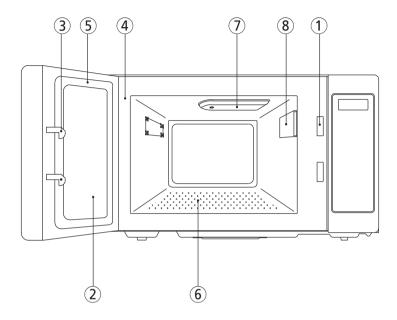
# To reduce the risk of injury to persons:

- a) Do not overheat the liquid.
- b) Stir the liquid both before and halfway through heating it
- c) Do not use straight-sided containers with narrow necks.
- d) After heating, allow the container to stand in the microwave oven for a short time before removing the container.
- e) Use extreme care when inserting a spoon or other utensil into the container.

- Oven should be cleaned regularly and any food deposits removed.
- 19. 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.
- 20. 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.
- 21. Children should be supervised to ensure that they do not play with the appliance.
- 22. Only use utensils that are suitable for use in microwave ovens.
- The appliance must not be cleaned with a steam cleaner.

# SAVE THESE INSTRUCTIONS

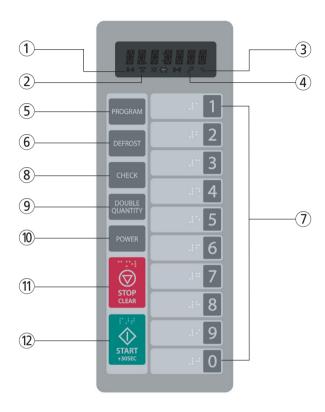
# **FEATURES DIAGRAM**



- 1 SAFETY INTERLOCK SYSTEM.
- ② DOOR VIEWING SCREEN Allows viewing of food. The screen is designed so that light can pass through, but not the microwave.
- 3 DOOR HOOK When door is closed, it will automatically shut off. If the door is opened while the oven is operating, magnetron will immediately stop operating.
- (4) OVEN CAVITY.

- (5) DOOR SEAL Door seal maintains the microwave energy within the oven cavity and prevents microwave leakage.
- 6 PLATE TRAY Made of special heat resistant ceramic. Food in a proper receptacle is placed on this plate for cooking.
- (7) STIRRER COVER This is located on the ceiling with the stirrer fan.
- (8) **INLET COVER -** Protect the air hole from splashes of cooking foods.

# FEATURES DIAGRAM (continued)



- 1 MICROWAVE indicator, showing microwaving in progress.
- ② DEFROST indicator, showing defrosting in progress.
- (3) **PERCENTAGE** of power indicator.
- 4 CHILD LOCK indicator.
- (5) **PROGRAM -** Used to save cooking data.
- 6 **DEFROST** Used to defrost foods for time.

- 7 TIME SET PAD Used to set the cooking time.
- 8 CHECK Used to check cooking data.
- DOUBLE QUANTITY Used to extend programmed cooking time.
- 10 POWER Used to set power level.
- (1) STOP/CLEAR Used to stop the oven operation or to delete the cooking data.
- (2) START /+30SEC Used to start the oven and also used to set a reheat time.

# **OPERATION PROCEDURE**

This section includes useful information about oven operation.

- 1. Plug power supply cord into a standard 3- pronged 240V AC 60Hz power outlet.
- After placing the food in a suitable container, open the oven door and put it on the plate tray.The plate tray must always be in place during cooking.
- 3. Close the door and Make sure that it is firmly closed.
- 4. Set required programme and time, then touch the stert pad.
- 5. Once cooking is complete, take care removing container as it will be hot.
- 1 The oven light is on when the microwave oven is operating or the door is opened.
- **2** The oven door can be opened at any time during operation by opening the door. The oven will automatically shut off.
- **3** Each time a pad is touched, a BEEP will sound to acknowledge the touch.
- 4 The oven automatically cooks on full power unless set to a lower power level.
- **5** The display will show ":0" when the oven is plugged in.

- 6 When the STOP/CLEAR pad is touched during the oven operation, the oven stops cooking and all information retained.
  - To erase all information, touch the STOP/ CLEAR pad once more. If the oven door is opened during the oven operation, all information is retained.
- 7 If the START pad is touched and the oven does not operate, check the area between the door and door seal for obstructions and make sure the door is closed securely.
  - The oven will not start cooking until the door is completely closed or the program has been reset.

Make sure the oven is properly installed and plugged into the electrical outlet.

#### **WATTAGE OUTPUT CHART**

• The power-level is set by touching the POWER pad. The chart shows the display, the power level and the percentage of power.

Touch POWER pad.	Power Level (Display)	Approximate Percentage of Power
once	100	100%
twice	80	80%
3 times	60	60%
4 times	40	40%
5 times	20	20%

# **CONTROLS**

## TIME DEFROSTING

When DEFROST is selected, the automatic cycle divides the defrosting time into periods of alternating defrost and stand times by cycling on and off.

DEFROST

1. Touch the DEFROST pad.

The DEFROST indicator lights and ": 0" is displayed.

2. Touch the number pads for the desired defrosting time.

The display will show the numbers you pressed in the order you touched.

**NOTE:** Your oven can be programmed for 60 minutes. (60:00)

3. Touch the START pad.

When you touch the START pad, the DEFROST indicator lights to show the oven is in the DEFROST mode. The display counts down the time to show you how much defrosting time is left in the DEFROST mode. The oven beeps during the defrosting cycle to signal that the food needs to be turned or rearranged. When the defrosting time ends, you will hear 3 beeps.

## **COOKING IN ONE STAGE**

POWER x3

- Touch the POWER pad.
   (Select desired power level.)
- 2. Touch the number pads for the cooking time.

The MICROWAVE and % indicators light. The display will show what you touched.

This example shows power level 60. The display will show the numbers you pressed in the order you touched.

NOTE: Your oven can be programmed for 60 minutes. (60:00) but, in case of full power(100%), maximum time is 20 minutes (20:00)

3. Touch the START pad.

When you touch the START pad, the MICROWAVE indicator lights to show the oven is cooking. The display counts down the time to show how much cooking time is left. When the cooking time ends, you will hear 3 beeps.

NOTE: Using low power levels increases the cooking time which is recommended for foods such as cheese, milk and slow cooking of meats.

NOTE: The cooling fan may operate to prevent the oven being overheated.

## MEMORY FUNCTION

This microwave oven has 20 programmable pads (1~20).

PROGRAM	

1. Touch the PROGRAM pad. The display will show "PROGRAM".

2. Touch the number pads. ex)5 The display will show "PROG-05".

3. Touch the POWER pad. The MICROWAVE and % indicators light. (Select desired power level.)

4. Touch the number pads for The display will show what you touched.

cooking time.

5. Touch the START pad to save cooking time and power level. The display will show "STAGE-2" and long beep sounds.

6. Touch the STOP/CLEAR pad. When you touch the STOP/CLEAR pad, memory function ends.

NOTE 1: If you want cooking in two or three stage, repeat step 3~5 once or twice, and display will show "STAGE-2" or "STAGE-3".

After touching the START pad to save cooking time and power level in 3-stage, you can see "- END -" on the display.

NOTE 2: In case of original set, number 1~10 is programmed but cooking data is changeable later.

And number 11~20 is not programmed, so you will save cooking data.

After programming is finished, just touch the NUMBER pad of the memory number you want to select. Then the oven will automatically start heating according to the pre-programmed cooking time and power level.

#### \* Preprogrammed Cooking Times and Power Level

Pad	Cooking Time	Power Level
1	10 sec.	100 %
2	20 sec.	100 %
3	30 sec.	100 %
4	45 sec.	100 %
5	1 min.	100 %
6	1 min.30 sec.	100 %
7	2 min.	100 %
8	3 min.	100 %
9	4 min.	100 %
10	5 min.	100 %

## START /+30 SEC

START /+30 SEC allows you to reheat for 30 seconds at 100% (full power) by simply touching the START /+30 SEC pad.

By repeatedly touching the START /+30 SEC pad, you can also extend reheating time to 5 minutes by 30 second increments.

START / +30 SEC Touch the START /+30 SEC pad.

When you touch the START /+30 SEC, ":30" is displayed.

The oven will start immediately. It will add 30 seconds to the time counting down each time the pad is touched.

## CHECK FUNCTION

This feature allows you to check the programmed cooking time and power level.

CHECK

1. Touch the CHECK pad.

The display will show "CHECK".

2. Touch the NUMBER pads which you want confirmation. ex)5

The display will show "PROG-05".

The display will show cooking time, power level each stage. If you want to end, touch the STOP/CLEAR pad.

## DOUBLE QUANTITY FUNCTION

This feature allows you to extend programmed cooking time twice temporarily. But, the extended cooking time can't exceed maximum cooking time. Maximum cooking time of this oven is 60 minutes except full power. In case of full power (100%), maximum cooking time is 20 minutes 00 seconds.



 Touch the DOUBLE QUANTITY pad. The display will show "DOUBLE".

Touch the NUMBER pads which is programmed. ex)5

The display will show "PROG-05". After 1.5 seconds, the oven automatically start cooking.

#### CHILD SAFETY LOCK

The safety lock prevents unwanted oven operation such as by small children.

To set, press and hold the STOP/CLEAR pad for 3 seconds, LOCK indicator lights.

To cancel, press and hold STOP/CLEAR for 3 seconds, LOCK indicator goes off.

#### **POWER SAVE MODE**

This function is used for saving energy.

To set, press and hold the CHECK pad for 3 seconds. The oven will beep and nothing appears in the display. Now the oven is in power save mode.

To operate the oven in power save mode, press any pad. Then ": 0" will shown and the operation of all function key will be same as in normal mode.

But, if there is no operation within 10 seconds in clear mode or while mainpulating the key, all the contents of display will disappear.

To cancel, after press any pad, press and hold the CHECK pad for 3 seconds.

Then the oven is again available for normal use.

#### MUTE FUNCTION

To set, press and hold the DOUBLE QUANTITY pad for 3 seconds.

The display will show "MUTE" for 1 second.

Then you will not hear beeps, when you press any pad.

To cancel, press and hold the DOUBLE QUANTITY pad for 3 seconds.

## TO STOP THE OVEN WHILE THE OVEN IS OPERATING

- 1. Touch the STOP/CLEAR pad.
  - You can restart the oven by touching START pad.
  - Touch the STOP/CLEAR once more to erase all instructions.
  - You must enter in new instructions.
- 2. Open the door.
  - You can restart the oven by closing the door and touching the START pad.

NOTE: Oven stops operating when door is opened.

## ABNORMAL MESSAGE

E10	"E10" message occurs when the total sum of the stage cooking time is greater than 20 minutes in full power or 60 minutes in other power levels.     Touch the STOP/CLEAR pad and try again.
E20	"E20" message occurs when EEPROM is not able to read cooking data from it's memory or write cooking data on it's memory.      Unplug the power and call for service.

# **COOKING INSTRUCTIONS**

## **Utensil Guide**

Only use utensils that are suitable for use in microwave ovens.

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 choosing the utensil. If the utensil is marked microwave-safe, you do not need to worry. The following table lists various of utensil and indicates whether and how they should be used in a microwave oven.

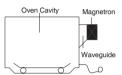
Utensil	Safe	Comments
Aluminium foil	<b>A</b>	Can be used in small quantities to protect areas against overcooking. Arcing can occur if the foil is too close to the oven wall or if too much foil is used.
Crust plate	•	Do not preheat for more than 8minutes.
China and earthenware	•	Porcelain, pottery, glazed earthenware and bone china are usually suitable, unless deco-rated with a metal trim.
Disposable polyester cardboard dishes	•	Some frozen foods are packaged in these dishes.
Fast-food packaging Polystyrene cups containers Paper bags or newspaper Recycled paper or metal trims	• × ×	Can be used to warm food. Overheating may cause the polystyrene to melt.  May catch fire.  May cause arcing.
Glassware    Oven-to-table ware    Fine glassware    Glass jars	•	Can be used, unless decorated with a metal trim. Can be used to warm foods or liquids. Delicate glass may break or crack if heated suddenly. Must remove the lid. Suitable for warming only.
Metal • Dishes • Freezer bag twist ties	×	May cause arcing or fire.
Paper  Plates, cups, napkins and Kitchen paper  Recycled paper	• ×	For short cooking times and warming. Also to absorb excess moisture. May cause arcing.
Plastic	•	Particularly if heat-resistant thermoplastic. Some other plastics may warp or discolour at high temperatures. Do not use Melamine plastic.  Can be used to retain moisture. Should not touch the food. Take care when removing the film as hot steam will escape.  Only if boilable or oven-proof. Should not be airtight. Prick with a fork if processor.
Wax or grease-proof paper	•	with a fork, if necessary.  Can be used to retain moisture and prevent spattering.

# MICROWAVING PRINCIPLES

Microwave energy has been used in this country to cook and reheat food since early experiments with RADAR in World War II. Microwaves are present in the atmosphere all the time, both naturally and manmade sources. Manmade sources include radar, radio, television, telecommunication links and car phones.

# HOW MICROWAVES COOK FOOD

Microwave oven is a Group 2 ISM equipment in which radiofrequency energy is intentionally generated and used in the form of electromagnetic radiation for the treatment of material. This oven is a Class B 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.



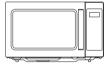
Magnetron In a microwave oven, electricity is converted into microwave by the MAGNETRON.

# **▶TRANSMISSION**



Then they pass through the cooking containers to be absorbed by the water molecules in the food, all foods contain water to a more or lesser extent.

#### **▶** REFLECTION



The microwaves bounce off the metal walls and the metal door screen.

#### **▶**ABSORPTION







Microwave Water Molecule Absorption

Vibration

The microwaves cause the water molecules to vibrate which causes FRICTION, i.e. HEAT. This heat then cooks the food. Microwaves are also attracted to fat and sugar particles, and foods high in these will cook more quickly. Microwaves can only penetrate to a depth of 1½ - 2 inches(4-5cm) and as heat spreads through the food by conduction, just as in a traditional oven, the food cooks from the outside inwards.

# **CONVERSION CHARTS**

WEIGHT MEASURES		VOLUME	MEASURES	SPOON MEASURES		
15 g	½ oz.	30 ml	1 fl.oz.	1.25 ml	1/4 tsp	
25 g	1 oz.	100 ml	3 fl.oz.	2.5 ml	½ tsp	
50 g	2 oz.	150 ml	5 fl.oz. (¼ pt)	5 ml	1 tsp	
100 g	4 oz.	300 ml	10 fl.oz. (½ pt)	15 ml	1 tbsp	
175 g	6 oz.	600 ml	20 fl.oz. (1pt)			
225 g	8 oz.					
450 g	1 g.					

FLUID MEASUREME	NTS	
1 Cup	= 8 fl.oz.	= 240 ml
1 Pint	= 16 fl.oz. (UK 20 fl.oz.)	= 480 ml (UK 560 ml)
1 Quart	= 32 fl.oz. (UK 40 fl.oz.)	= 960 ml (UK 1120 ml)
1 Gallon	= 128 fl.oz. (UK 160 fl.oz.)	= 3840 ml (UK 4500 ml)

# **COOKING TECHNIQUES**

#### STANDING TIME

Dense foods e.g. meat, jacket potatoes and cakes, require standing time(inside or outside of the oven) after cooking, to allow heat to finish conducting to cook the center completely. Wrap meat joints and jacket potatoes in aluminium foil while standing. Meat joints need approx. 10-15 minutes, jacket potatoes 5 minutes. Other foods such as plated meal, vegetables, fish etc require 2-5 minutes standing. After defrosting food, standing time should also be allowed. If food is not cooked after standing time, return to the oven and cook for additional time.

#### MOISTURE CONTENT

Many fresh foods e.g. vegetables and fruit, vary in their moisture content throughout the season, particularly jacket potatoes. For this reason cooking times may have to be adjusted. Dry ingredients e.g. rice, pasta, can dry out during storage so cooking times may differ.

#### DENSITY

Porous airy foods heat more quickly than dense heavy foods.

#### CLING FILM

Cling film helps keep the food moist and the trapped steam assists in speeding up cooking times. Pierce before cooking to allow excess steam to escape. Always take care when removing cling film from a dish as the build-up of steam will be very hot.

#### SHAPE

Even shapes cook evenly. Food cooks better by microwave when in a round container rather than square.

#### **SPACING**

Foods cook more quickly and evenly if spaced apart. NEVER pile foods on top of each other.

#### STARTING TEMPERATURE

The colder the food, the longer it takes to heat up. Food from a fridge takes longer to reheat than food at room temperature.

#### LIQUIDS

All liquids must be stirred before and during heating. Water especially must be stirred before and during heating, to avoid eruption. Do not heat liquids that have previously been boiled. DO NOT OVERHEAT.

#### **TURNING & STIRRING**

Some foods require stirring during cooking. Meat and poultry should be turned after half the cooking time.

#### **ARRANGING**

Individual foods e.g. chicken portions or chops, should be placed on a dish so that the thicker parts are towards the outside.

#### QUANTITY

Small quantities cook faster than large quantities, also small meals will reheat more quickly than large portions.

#### **PIERCING**

The skin or membrane on some foods will cause steam to build up during cooking. These foods must be pierced or a strip of skin should be peeled off before cooking to allow the steam to escape. Eggs, potatoes, apples, sausages etc, will all need to be pierced before cooking. DO NOT ATTEMPT TO BOIL EGGS IN THEIR SHELLS.

#### **COVERING**

Cover foods with microwave cling film or a lid. Cover fish, vegetables, casseroles, soups. Do not cover cakes, sauces, jacket potatoes or pastry items.

# **DEFROSTING GUIDE**

- ▶ Do not defrost covered meat. Covering might allow cooking to take place. Always remove outer wrap and tray. Use only containers that are microwave-safe.
- ▶ Begin defrosting whole poultry breast-side-down. Begin defrosting roasts fat-side-down.
- ► The shape of the package alters the defrosting time. Shallow rectangular shapes defrost more quickly than a deep block.
- After <sup>1</sup>/<sub>3</sub> of the defrost time has elapsed, check the food. Toy may wish to turn over, break apart, rearrange or remove thawed portions of the food.
- During defrost, the oven will prompt you to turn the over. At this point, open oven door and check the food. Follow the techniques listed below for optimum defrost results. Then, close oven door, touch the START pad to complete defrosting.
- When defrosted, food should be cool, but softened in all areas. If still slightly icy, return to microwave oven very briefly, or let stand a few minutes. After defrosting, allow food to stand 5-60 minutes if there are any icy areas. Poultry and fish may be placed under running cool water until defrosted
- Turn over: Roast, ribs, whole poultry, turkey breasts, hot dogs, sausages, steaks, or chops.
- Rearrange: Break apart or separate steaks, chops, hamburger patties, ground meat, chicken or seafood pieces, chunks of meat such as stew beef.
- Shield: Use small strips of aluminum foil to protect thin areas or edges of unevenly shaped foods such as chicken wings. To prevent arching, do not allow foil to come within 1-inch of oven walls or door.
- Remove: To prevent cooking, thawed portions should be removed from the oven at this point. This may shorten defrost time for food weighing less than 3 lbs.(1350g).

## **DEFROSTING CHART (by time def.)**

Item & Weight	Defrosting Time	Standing Time	Special Techniques
BEEF Minced beef 1 lb./450g	6-8 min.	15-20 min.	Break apart and remove thawed portions with fork.
Stew Meat 1 ½ lbs./675g	7-9 min.	25-30 min.	Separate and rearrange once.
Patties 4(4oz./110g)	5-7 min.	15-20 min.	Turn over after half the time.
POULTRY Whole Chicken 2 ½ lbs./1125g	12-15 min.	45-50 min.	Break side down. Turn over after half the time. Shield as needed.
Chicken Breasts 1 lbs./450g	6-8 min.	15-30 min.	Separate and rearrange once.
Fryer Chicken(cut up) 2 lbs./900g	10-12 min.	25-30 min	Separate and rearrange once.
Chicken Thights 1 ½ lbs./675g	7-10 min.	15-30 min.	Separate and rearrange once.
FISH & SEAFOOD Whole Fish 1 lb./450g	4-5 min.	15-20 min.	Turn over after half the time. Shield as needed.
Fish Fillets 1 ½ lb./675g	5-7 min.	15-20 min.	Separate and turn over once.
Shrimp ½ lb./225g	2-3 min.	15-20 min.	Separate and rearrange once.

<sup>\*</sup> The times are approximate because freezer temperatures vary.

# **COOKING CHART**

Item		Power Level	Cooking Time Per lb./450g	Special Instruction
MEAT				
Beef joint	- Rare	P-80	6-8 min.	- Chilled meat and poultry should be removed
	- Medium	P-80	7-9 min.	from the refrigerator at least 30 minutes before cooking.
	- well done	P-80	9-11 min.	- Always let the meat and poultry stand,
POULTRY				covered after cooking.
Whole chick	en	P-HI	4-9 min.	
Portions chic	cken	P-80	4-6 min.	
Breast (bone	Breast (boned)		5-7 min.	
FISH				
Fish Fillets		P-HI	3-5 min.	- Brush a little oil or melted butter over the fish,
Whole Mack	Whole Mackerel,		3-5 min.	or add 15~30ml(1-2 tbsp) lemon juice, wine, stock, milk or water.
Cleaned and prepared				- Always let the fish stand, covered, after
Whole Trout, Cleaned		P-HI	4-6 min.	cooking
& Prepared				
Salmon stea	iks	P-HI	4-6 min.	

## NOTE:

The above times should be regarded only as a guide. Allow for difference in individual tastes and preferences. The times may vary due to the shape, cut, and composition of the food. Frozen meat, poultry and fish must be thoroughly thawed before cooking.

# **REHEATING CHART**

- Baby food particularly needs to be checked carefully before serving to prevent burns.
- When heating pre-packaged ready-cooked foods, always follow the pack instructions carefully.
- If you freeze foods which were bought from the fresh or chilled counters, remember that they should be thoroughly thawed before following the heating instructions on the packed. It's worth putting a note on them so that other members of the household will remember too.
- Remember that remove the metal ties and transfer food from foil containers before reheating.
- Chilled(refrigerated) food takes longer to reheat than food at room temperature (such as just-cooled food or food from the store cupboard).
- All foods should be reheated using full microwave power.

Item	Cooking time	Special Instructions	
Baby food 128g jar	20-30 sec.	Empty into a small serving bowl. Stir well once or twice during heating. Before serving, check the temperature carefully.	
Baby milk 100ml / 4fl.oz. 225ml / 8fl.oz.	20-30 sec. 40-50 sec.	Stir or shake well and pour into a sterilized bottle. Before serving, shake well and check the temperature carefully.	
Sandwich roll or bun 1 roll	20-30 sec.	Wrap in paper towel and place on glass microwaveable rack. *Note: Do not use recycled paper towels.	
Lasagna 1 serving (10 ½ oz./300g)	4-6 min.	Place lasagna on microwaveable plate. Cover with plastic wrap and vent.	
Casserole 1 cup 4 cups	1 ½-3 min. 5-7 min.	Cook covered in microwaveable casserole. Stir once halfway through cooking.	
Mashed potatoes 1 cup 4 cups	2-3 min. 6-8 min.	Cook covered in microwaveable casserole. Stir once halfway through cooking.	
Baked beans 1 cup	2-3 min.	Cook covered in microwaveable casserole. Stir once halfway through cooking.	
Ravioli or pasta in sauce 1 cup 4 cups	2-3 min. 6-9 min.	Cook covered in microwaveable casserole. Stir once halfway through cooking.	

# **VEGETABLE CHART**

Use a suitable glass pyrex bowl with lid. Add 30-45ml cold water(2-3 tbsp.) for every 250g 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 vegetables should be cooked using full microwave power.

## Cooking Guide for fresh vegetables

Vegetables	Weight	Time	Comments
Broccoli	½ lb./250g	2-3 min	Prepare even sized florets.
	1 lb./500g	4-6 min	Arrange the stems to the centre.
Brussels sprouts	½ lb./250g	3-4 min	Add 60-75ml(5-6tbsp.) water.
Carrots	½ lb./250g	2-3 min	Cut carrots into even sized slices.
Cauliflower	½ lb./250g	2-3 min	Prepare even sized florets. Cut big florets into
	1 lb./500g	4-6 min	halves. Arrange stems to the centre.
Courgettes	½ lb./250g	2-3 min	Cut courgettes into slices. Add 30ml(2tbsp.) water or a knob of butter. Cook until just tender.
Egg plants	½ lb./250g	2-3 min	Cut egg plants into small slices and sprinkle with 1 tablespoon lemon juice.
Leeks	½ lb./250g	2-3 min	Cut leeks into thick slices.
Mushrooms	0.3 lb./125g	1-2 min	Prepare small whole or sliced mushrooms. Do not add any water. Sprinkle with lemon juice. Spice with
	½ lb./250g	2-4 min	salt and pepper. Drain before serving.
Onions	½ lb./250g	2-3 min	Cut onions into slices or halves. Add only 15ml(1tbsp.) water.
Pepper	½ lb./250g	2-4 min	Cut pepper into small slices.
Potatoes	½ lb./250g	4-6 min	Weigh the peeled potatoes and cut them into similar
	1 lb./500g	7-9 min	sized halves or quarters.
Turnip cabbage	½ lb./250g	4-6 min	Cut turnip cabbage into small cubes.

# Cooking Guide for frozen vegetables

Vegetables	Weight	Time	Instructions
spinach	0.3 lb./125g	1-2 min	Add 15ml(1tbsp.) cold water.
broccoli	½ lb./250g	2 ½-4 min	Add 30ml(2 tbsp.) cold water.
Peas	½ lb./250g	2 ½-4 min	Add 15ml(1 tbsp.) cold water.
Green beans	½ lb./250g	3-5 min	Add 30ml(2t tbsp.) cold water.
Mixed vegetables (carrots/peas/corn)	½ lb./250g	2 ½-4 min	Add 15ml(1ttbsp.) cold water.
Mixed vegetables (Chinese style)	½ lb./250g	3-5 min	Add 15ml(1 tbsp.) cold water.

# CARE OF YOUR MICROWAVE OVEN

- 1 Turn the oven off before cleaning.
- 2 Keep the inside of the oven clean. When food spatters or spilled liquids adhere to oven walls, plate tray, stirrer cover and inlet cover wipe with a damp cloth. Mild detergent may be used if the oven gets very dirty. The use of harsh detergent or abrasives is not recommended.
- 3 The outside oven surface should be cleaned with soap and water, rinsed and dried with a soft cloth. To prevent damage to the operating parts inside the oven, water should not be allowed to seep into the ventilation openings.
- 4 If the Control Panel becomes wet, clean with a soft, dry cloth. Do not use harsh detergents or abrasives on Control Panel.
- 5 If steam accumulates inside or around the outside of the oven door, wipe with a soft cloth. This may occur when the microwave oven is operated under high humidity conditions and in no way indicates malfunction of the unit.

#### IMPORTANT CAUTIONS

- 1. Do not operate after removed food.
- 2. Do not operate the oven without stirrer cover in place.
- 3. Do not remove the stirrer cover and plate tray.

# CARE AND CLEANING

Although your oven is provided with safety features, it is important to observe the following:

- 1. It is important not to defeat or tamper with safety interlocks.
- Do not place any object between the oven front face and the door or allow residue to accumulate on sealing surfaces. Wipe the sealing area frequently with a mild detergent, rinse and dry. Never use abrasive powders or pads.
- 3. When opened, the door must not be subjected to strain, for example, a child hanging on an opened door or any load could cause the oven to fall forward to cause injury and also damage to the door. Do not operate the oven if it is damaged, until it has been repaired by a competent service technician. It is particularly important that the oven closes properly and that there is no damage to the:
  - i) Door(bent)
  - ii) Hinges and Hookes(broken or loosened)
  - iii) Door seals and sealing surfaces.
- 4. The oven should not be adjusted or repaired by anyone except a properly competent service technician.
- 5. The oven should be cleaned regularly and any food deposits removed;
- Failure to maintain the oven in a clean condition could lead to deterioration of the surface that could adversely affect the life of the appliance and possibly result in a hazardous situation.

# **USE YOUR MICROWAVE OVEN SAFELY**

#### General Use

Do not attempt to defeat or tamper with safety interlocks.

Do not place any object between the oven front frame and the door or allow residue to build up on sealing surfaces. Wipe with a mild detergent, rinse and dry. Never use abrasive powders or pads. Do not subject the oven door to strain or weight such as a child hanging on an open door.

This could cause the oven to fall forward resulting in injury to you and damage to the oven.

Do not operate the oven if door seals or sealing surfaces are damaged; or if door is bent; or if hinges are loose or broken.

Do not operate the oven empty. This will damage the oven.

Do not attempt to dry clothes, newspapers or other materials in the oven. They may catch on fire. Do not use recycled paper products as they may contain impurities which may cause sparks or fires. Do not hit or strike the control panel with hard objects. This can damage the oven.

#### Food

Never use your microwave oven for home canning. The oven is not designed for proper home canning. Improperly canned food may spoil and be dangerous to consume.

Always use the minimum recipe cooking time. It is better to undercook rather than overcook foods. Undercooked foods can be returned to the oven for more cooking. If food is overcooked, nothing can be done

Heat small quantities of food or foods with low moisture carefully. These can quickly dry out, burn or catch on fire.

Do not heat eggs in the shell. Pressure may build up and eggs can explode.

Potatoes, apples, egg yolks and sausages are examples of food with non-porous skins.

These must be pierced before cooking to prevent bursting.

Do not attempt to deep fat fry in your microwave oven.

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.

Do not leave the oven unattended while popping com

Do not pop corn in a paper bag unless it is the commercially prepared Microwave Popcorn product. The kernels can overheat and ignite a brown paper bag.

Do not put packaged Microwave Popcom bags directly on the oven tray. Place the package on a microwave safe glass or ceramic plate to avoid overheating and cracking the oven tray. Do not exceed the Microwave Popcorn manufacturers suggested popping time. Longer popping does not yield more popcorn but it can result in scorch, burn of fire. Remember, the Popcorn bag and tray can be too hot to handle. Remove with caution and use pot holders.

# **ARCING**

If you see arcing, open the door and correct the problem. Arcing is the microwave term for sparks in the oven.

Arcing is caused by:

- Metal or foil touching the side of the oven.
- Foil not molded to food (upturned edges act like antennas).
- Metal, such as twist-ties, poultry pins, or gold rimmed dishes, in the microwave.
- Recycled paper towels containing small metal pieces being used in the microwave.

# BEFORE YOU CALL FOR SERVICE

Refer to following checklist, you may prevent an unnecessary service call.

- \* The oven doesn't work:
- 1. Check that the power cord is securely plugged in.
- 2. Check that the door firmly closed.
- 3. Check that the cooking time is set.
- 4. Check for a blown circuit fuse or tripped main circuit breaker in your house.
- \* Sparking in the cavity;
- 1. Check that utensils are metal containers or dishes with metal trim.
- 2. Check that metal skewers touch the interior walls.

If there is still a problem, contact the service station.

A list of these stations is included in the oven.

DO NOT ATTEMPT TO SERVICE THE OVEN YOURSELF!

# DISPOSAL OF USED ELECTRICAL & ELECTRONIC EQUIPMENT



The meaning of the symbol on the product, its accessory or packaging indicates that this product shall not be treated as household waste. Please, dispose of this equipment at your applicable collection point for the recycling of electrical & electronic equipments waste. In the European Union and Other European countries which there are separate collection systems for used electrical and electronic product. By ensuring the correct disposal of this product, you will help prevent potentially hazardous to the environment and to human health, which could otherwise be caused by unsuitable waste handling of this product. The recycling of materials will help conserve natural resources. Please do not therefore dispose of your old electrical and electronic equipment with your household waste. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

# **QUESTIONS AND ANSWERS**

# \* Q : I accidentally ran my microwave oven without any food in it. Is it damaged?

A: Running the oven empty for a short time will not damage the oven. However, it is not recommended

# \* Q : Can I open the door when the oven is operating?

A: The door can be opened anytime during the cooking operation. Then microwave energy will be instantly switched off and the time setting will maintain until the door is closed.

#### \* Q : Why do I have moisture in my microwave oven after cooking?

A: The moisture on the side of your microwave oven is normal. It is caused by steam from cooking food hitting the cool oven surface.

# \* Q : Does microwave energy pass through the viewing screen in the door?

A: No. The metal screen bounces back the energy to the oven cavity. The holes are made to allow light to pass through. They do not let microwave energy pass through.

#### \* Q: Why do eggs sometimes pop?

A: When baking or poaching eggs, the yolk may pop due to steam build-up inside the yolk membrane. To prevent this, simply pierce the yolk with a toothpick before cooking. Never cook eggs without piercing their shells.

# \* Q : Why this standing time recommended after the cooking operation has been completed?

A: Standing time is very important.

With microwave cooking, the heat is in the food, not in the oven. Many foods build up enough internal heat to allow the cooking process to continue, even after the food is removed from the oven. Standing time for joints of meat, large vegetables and cakes is to allow the inside to cook completely, without overcooking the outside.

#### \* Q : What does "standing time" mean?

A: "Standing time" means that food should be removed from the oven and covered for additional time to allow it to finish cooking. This frees the oven for other cooking.

#### \* Q : Why does my oven not always cook as fast as the microwave cooking guide savs?

A: Check your cooking guide again, to make sure you've followed directions exactly; and to see what might cause variations in cooking time. Cooking guide times and heat settings are suggestions, to help prevent over-cooking... the most common problem in getting used to a microwave oven.

Variations in the size, shape and weights and dimensions could require longer cooking time. Use your own judgement along with the cooking guide suggestions to check whether the food has been properly cooked just as you would do with a conventional cooker.

#### \* Q : Will the microwave oven be damaged if it operates while empty?

A: Yes. Never run it empty.

# \* Q : Can I pop popcorn in my microwave oven? How do I get the best results?

A: Yes. Pop packaged microwave popcorn following manufacture's guidelines. Do not use regular paper bags. Use the "listening test" by stopping the oven as soon as the popping slows to a "pop" every 1 or 2 seconds. Do not repop unpopped kernels. Do not pop popcorn in glass cookware.