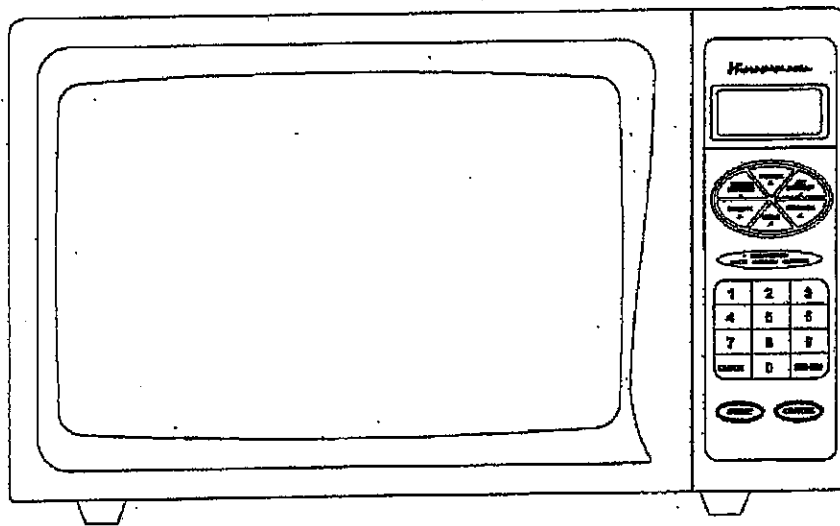


SANYO

Microwave Oven

This owner's guide book is for the following 800 watts microwave oven model:

EM-X412



1. READ these instructions carefully before installing and operating the oven. Keep them for further reference.

2. Record in the space below the SERIAL NO. found on the nameplate on your oven and retain this information for future reference.

SERIAL NO.:

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PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (a) Do not attempt to operate this oven with the door open since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- (b) Do not place any object between the oven front face and the door or allow soil or cleaner residue to accumulate on sealing surfaces.
- (c) Do not operate the oven if it is damaged. It is particularly important that the oven door close properly and that there is no damage to the :
 - ① Door (bent),
 - ② Hinges and latches (broken or loosened),
 - ③ Door seals and sealing surfaces.
- (d) The oven should not be adjusted or repaired by anyone except SANYO service personnel.

SPECIFICATIONS

Power Consumption:	230V~240V 50Hz, 1300W
Output:	800W
Operation Frequency:	2450MHz
Outside Dimensions:	305mm(H)×525mm(W)×431mm(D)
Oven Cavity Dimensions:	219mm(H)×350mm(W)×355mm(D)
Oven Capacity:	28Litres
Cooking Uniformity:	Turntable System{ Φ314mm}
Net Weight:	Approx.17.9kg

BEFORE YOU CALL FOR SERVICE

If the oven fails to operate:

A) Check to ensure that the oven is plugged in securely. If it is not, remove the plug from the outlet, wait 10 seconds and plug it in again securely.

B) Check for a blown circuit fuse or a tripped main circuit breaker. If these seem to be operating properly, test the outlet with

another appliance.

C) Check to ensure that the control panel is programmed correctly and the timer is set.

D) Check to ensure that the door is securely closed engaging the door safety lock system. Otherwise, the microwave energy will not flow into the oven.

IF NONE OF THE ABOVE RECTIFY THE SITUATION, THEN CONTACT A SANYO TECHNICIAN. DO NOT TRY TO ADJUST OR REPAIR THE OVEN YOURSELF.

INSTALLATION

1. Make sure that all the packing materials are removed from the inside of the door.
2. Check the oven for any damage, such as misaligned or bent door, damaged door seals and sealing surface, broken or loose door hinges and latches and dents inside the cavity or on the door. If there is any damage, do not operate the oven and contact a SANYO service personnel.
3. This microwave oven must be placed on a flat, stable surface to hold its weight and the heaviest food likely to be cooked in the oven.
4. Do not place the oven where heat, moisture or high humidity are generated, or near combustible materials.
5. For correct operation, the oven must have sufficient airflow. Allow 20cm of space above the oven, 10cm at back and 5cm at both sides. Do not cover or block any openings on the appliance. Do not remove feet.
6. Do not operate the oven without glass tray, roller support, and shaft in their proper positions.
7. Make sure that the power supply cord is undamaged and does not run under the oven or over any hot or sharp surface.
8. The socket must be readily accessible so that it can be easily unplugged in an emergency.
9. Do not use the oven outdoors.

GROUNDING INSTRUCTIONS

This appliance must be grounded. This oven is equipped with a cord having a grounding wire with a grounding plug. It must be plugged into a wall receptacle that is properly installed and grounded. In the event of an electrical short circuit, grounding reduces risk of electric shock by providing an

escape wire for the electric current. It is recommended that a separate circuit serving only the oven be provided. Using a high voltage is dangerous and may result in a fire or other accident causing oven damage.

WARNING: Improper use of the grounding plug can result in a risk of electric shock.

Notes: 1. If you have any questions about the grounding or electrical instructions, consult a qualified electrician or service person.

2. Neither the manufacturer nor the dealer can accept any liability for damage to the oven or personal injury resulting from failure to observe the electrical connection procedures.

The wires in this mains cable are colored in accordance with the following code:

Green and Yellow = EARTH

Blue = NEUTRAL

Brown = LIVE

RADIO INTERFERENCE

1. Operation of the microwave oven can cause interference to your radio, TV or similar equipment.
2. When there is interference, it may be reduced or eliminated by taking the following measures:
 - a. Clean door and sealing surface of the oven.
 - b. Reorient the receiving antenna of radio or television.
 - c. Relocate the microwave oven with respect to the receiver.
 - d. Move the microwave oven away from the receiver.
 - e. Plug the microwave oven into a different outlet so that microwave oven and receiver are on different branch circuits.

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliance basic safety precautions should be followed, including the following:

WARNING: To reduce the risk of burns, electric shock, fire, injury to persons or exposure to excessive microwave energy:

1. Read all instructions before using the appliance.
2. Use this appliance only for its intended use as described in this manual. Do not use corrosive chemicals or vapors in this appliance. This type of oven is specifically designed to heat, cook or dry food. It is not designed for industrial or laboratory use.
3. Do not operate the oven when empty.
4. Do not operate this appliance if it has a damaged cord or plug, if it is not working properly or if it has been damaged or dropped.
5. As with any appliance, close supervision is

necessary when used by children.

6. To reduce the risk of fire in the oven cavity:
 - a. When heating food in plastic or paper container, check the oven frequently to avoid the possibility of ignition.
 - b. Remove wire twist-ties from paper or plastic bags before placing bag in oven.
 - c. **If smoke is observed, switch off or unplug the appliance and keep the door closed in order to stifle any flames.**
 - d. Do not use the cavity for storage purposes. Do not leave paper products, cooking utensils or food in the cavity when not in use.
7. Liquid or other food must not be heated in sealed containers since they are liable to explode.
8. Microwave heating of beverage can result in delayed eruptive boiling, therefore care has to be taken when handle the container.
9. Do not fry food in the oven. Hot oil can damage oven parts and utensils and even result in skin burns.
10. Whole eggs should not be heated in the oven since they may explode.
11. Pierce foods with heavy skins such as potatoes, whole squashes, apples and chestnuts before cooking.
12. The contents of feeding bottles and baby jars should be stirred or shaken and the temperature should be checked before serving in order to avoid burns.
13. Cooking utensils may become hot because of heat transferred from the heated food. Potholders may be needed to handle the utensil.
14. Utensils should be checked to ensure that they are suitable for use in microwave oven.
Utensil Test: Place the empty utensil in the oven, microwave at high power for 60 seconds. A utensil which becomes very hot should not be used.
15. **WARNING:** It is hazardous for anyone other than a trained person to carry out any service or repair operation which involves the removal of any cover which gives protection against exposure to microwave energy.

MICROWAVE COOKING PRINCIPLES

1. Arrange food carefully. Place thickest areas towards outside of dish.
2. Watch cooking time. Cook for the shortest amount of time indicated and add more as needed. Food severely overcooked can smoke or ignite.
3. Cover foods while cooking. Covers prevent spattering and help foods to cook evenly.
4. Turn foods over once during microwaving to speed cooking of such foods as chicken and hamburgers. Large items like roasts must be turned over at least once.

5. Rearrange foods such as meatballs halfway through cooking both from top to bottom

and from the center of the dish to the outside.

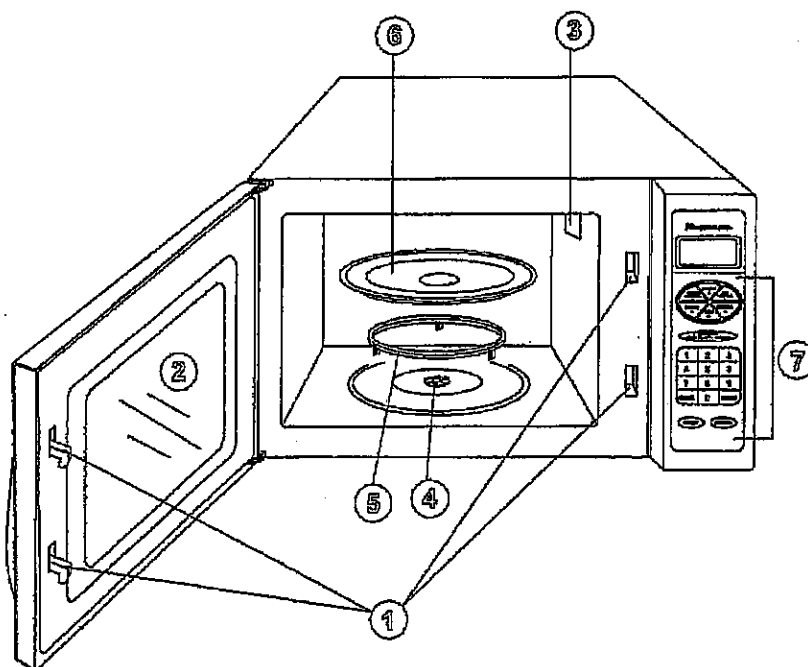
UTENSILS GUIDE

1. The ideal material for a microwave utensil is transparent to microwave, it allows energy to pass through the container and heat the food.
2. Microwave can not penetrate metal, so metal utensils or dishes with metallic trim should not be use.
3. Do not use recycled paper products when microwave cooking, as they may contain small metal fragments which may cause sparks and/or fires.
4. Round /oval dishes rather than square/oblong ones are recommend, as food in corners tends to overcook.

The list below is a general guide to help you select the correct utensils.

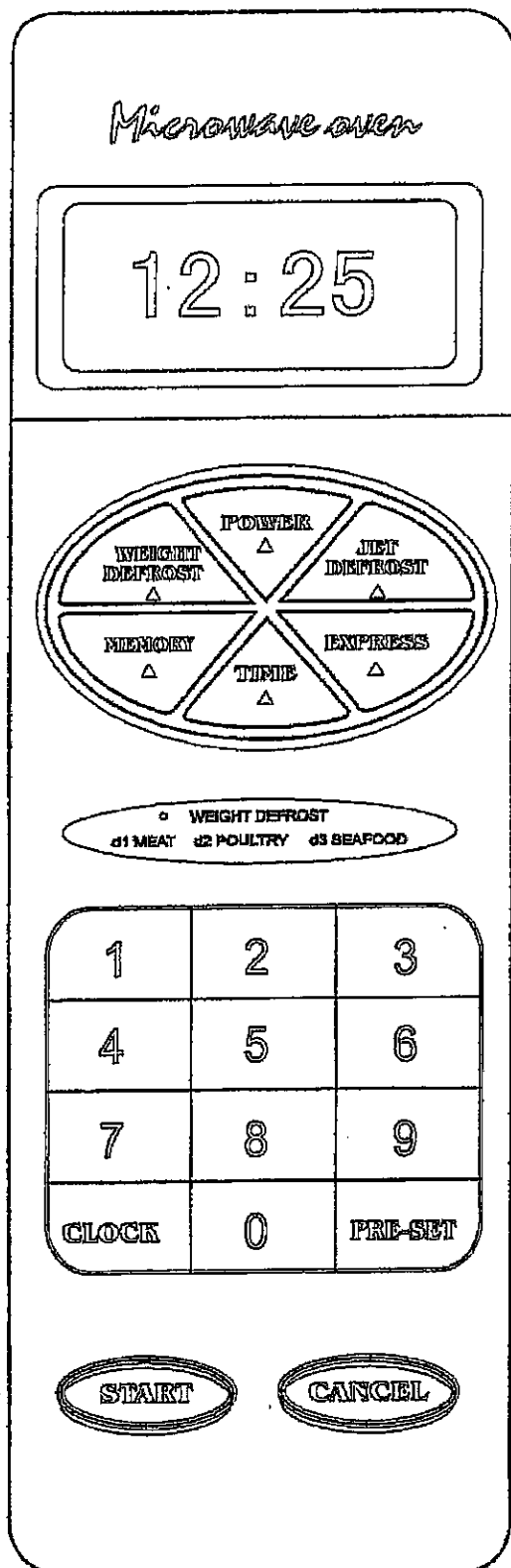
Cookware	Microwave Cooking
Heat-Resistant Glass	Yes
Non Heat-Resistant Glass	No
Heat-Resistant Ceramics	Yes
Microwave-Safe Plastic Dish	Yes
Kitchen Paper	Yes
Metal Tray	No
Metal Rack	No
Aluminum Foil & Foil Containers	Yes

PART NAMES



- ① Door Safety Lock System
- ② Oven Window
- ③ Oven Air Vent
- ④ Shaft
- ⑤ Roller Ring
- ⑥ Glass Tray
- ⑦ Control Panel

CONTROL PANEL



(Also see following pages for more detail.)

DISPLAY

Cooking time, power, indicators and present time are displayed.

POWER

Use to set power level. To check power level during time cooking, touch POWER pad.

WEIGHT DEFROST

Use to defrost frozen meat, poultry and seafood by weight. The defrosting time and power level are automatically set once the food category and the weight are programmed.

JET DEFROST

Touch to set defrosting time; the oven automatically divides the defrosting time into periods of alternating defrost and stand times by cycling on and off.

MEMORY

When programming the oven to cook by time, use the MEMORY pad when setting both the 1st and the 2nd cooking stage. The respective lights will come on to indicate which stage the oven is operating in.

TIME

Use to set cooking time. Allows you to set up to 99 minutes and 99 seconds.

EXPRESS

Use this feature to program the oven for 4 popular microwave timings. The oven will operate at HIGH power (100% power output) for EXPRESS cooking program.

NUMBER PADS (0-9)

Touch to set times or weights.

CLOCK

Use to set the time of day or recall the time of day. The time of day will be displayed at all times except when the oven is operating. In the event of a power failure or if the oven is unplugged, the clock will have to be reset.

PRE-SET

Use to set the oven to start-up at a later time. The pre-set indicator will flicker when the oven is in the PRE-SET state. The clock must be set before the pre-set function can be programmed.

OPERATION INSTRUCTIONS

BEEP DURING OVEN SETTINGS

Each time a pad is touched, a beep will sound to acknowledge the touch.

SETTING THE CLOCK

1. Touch **CLOCK** pad.
2. Touch **CANCEL** pad.
3. Use the number pads to enter the correct time. You must touch at least three numbers to set the clock (one for hour and two for minutes).
4. Touch **CLOCK** pad again.

NOTE:

This is a 12-hour clock. When the oven was plugged in, "1:01" should have appeared in the display. To reset the time of day, repeat the steps given above. You can check the clock time while cooking is in progress by touching the **CLOCK** pad.

START

Touch to start the cooking or defrosting programs. The cooking indicator light and the oven light will turn on and the cooling fan will operate.

CANCEL

Touch to cancel the selected power level, cook or defrost times that previously programmed. But the time of day clock cannot be cancelled.

SETTING THE OVEN TIMER

1. Touch **TIME** pad.
2. Enter the amount of time you want to count down by touching the number pads. Digit time is in minutes and seconds and set left to right. Set one digit (a 5 for 5 seconds) or up to four digits (2405 for 24 minutes, 5 seconds).
3. Touch **POWER** pad.
4. Touch number pad 0.
5. Touch **START** pad.

NOTE:

- Touch **TIME** and then touch **CANCEL** to cancel **TIME** during timing process.

SETTING COOKING TIMES AND POWER LEVELS

A. One-stage Cooking

1. Touch TIME pad.
2. Use the number pads to set a cooking time. You can set a cooking time from one seconds to 99 minutes and 99 seconds. If you are setting a time greater than one minute, you must enter numbers for both minutes and seconds. For example, to set 20 minutes, enter 2,0,0,0.
3. If you want to set a power level other than 100% power, touch POWER, then use the number pads to enter the power level. You can set the power level from 1 to 9.
4. Touch START to start cooking.

USE THESE SINGLE DIGIT TO REPRESENT POWER LEVELS	
Number pad	% of Power
9	90%
8	80%
7	70%
6	60%
5	50%
4	40%
3	30%
2	20%
1	10%

B. Two-stage Cooking

Some recipes require different stages of cooking at different temperatures.

1. SET STAGE 1:

Follow steps 1 and 2 in "One-stage Cooking".

DO NOT TOUCH START PAD.

2. SET STAGE 2:

Touch MEMORY pad then enter proper cooking time and (lower) power level.

(Most 2-stage recipes use lower power for second stage.)

3. Touch START pad.

NOTE:

- The respective lights will come on to indicate which stage the oven is operating in. After total time has elapsed, 3 beeps sound. After a cooking or defrosting program has completed, the oven will automatically continue to sound three beeps every two minutes until the door is opened or the CANCEL pad is touched.

PRE-SET

Suppose you want to set the oven to start-up at 2 o'clock.

Step : 1. Touch PRE-SET pad.

2. Touch numeral pads 2.0.0.

3. Set the cooking programs.

4. Touch START pad.

NOTE:

Be sure the time of day clock is set at the correct time before programming PRE-SET.

EXPRESS

Use this feature to program the oven for 4 popular microwave timings.

With each touch of the EXPRESS pad you can program the oven for :

15 seconds TOUCH ONCE

30 seconds..... TOUCH TWICE

1 minute..... TOUCH 3 TIMES

2 minutes..... TOUCH 4 TIMES

The oven will operate at HIGH power (100% power output) for EXPRESS cooking program.

Suppose you want to set the oven to cook for 1 minute at 100% by using the feature:

- Step : 1. Touch the EXPRESS pad 3 times then
"1:00" will appear in the display.
2. Touch START pad.

SETTING "JET DEFROST"

1. Touch JET DEFROST pad.
2. Enter desired defrosting time by touching correct number pads. Digital timer sets minutes and seconds from left to right so a single digit can be set (5 for 5 seconds) or up to 4 digits (2405 for 24 minutes 5 seconds).
3. Touch START pad.

SETTING "WEIGHT DEFROST"

Suppose you want to defrost 600g shrimp.

1. Touch WEIGHT DEFROST pad 3 times.
"d3" will appear in the display.
2. Touch number pads 6.0.0.
3. Touch START pad.

NOTE: The maximum allowable weight for each category is shown below.

FOOD CATEGORY	MAXIMUM WEIGHT	DISPLAY
Meat	2300g	d1
Poultry	4000g	d2
Seafood	900g	d3

For foods exceeding these maximum weights, use the JET DEFROST program. If you program weight in excess of the maximum recommended, the oven will not operate properly.

PROGRAM COOKING

The oven has the ability to be programmed to do several consecutive functions.

Suppose you want set the following cooking program:

- ① JET DEFROST;
- ② 1st stage: Cook for 5 minutes at 100%;
- ③ 2nd stage: Cook for 10 minutes at 50%.

Step: 1. Touch CANCEL pad.

2. Input jet defrost program.
3. Input time (5 minutes) and power level (100%) cooking program.
4. Touch MEMORY pad.
5. Input time (10 minutes) and power level (50%) cooking program.
6. Touch START pad.

NOTE: JET DEFROST and WEIGHT DEFROST can only be selected before the cooking stage in a program. It can not be selected between or after stage1 or stage 2.

SETTING "SAFETY LOCK"

The safety lock prevents unsupervised operation by little children. To set, press and hold number pads 5 and 7 for 3 sec, a beep sounds and LOCK indicator lights. To cancel, press and hold number pads 5 and 7 for 3 sec, a beep sounds and LOCK indicator goes off.

TO STOP THE OVEN WHILE THE OVEN IS OPERATING

Open the door.

- You can restart the oven by closing the door and touching START pad.

NOTE:

- Oven stops operating when door is opened.

CLEANING AND CARE

1. Turn off the oven and remove the power plug from the wall socket before cleaning.
2. Keep the inside of the oven clean. When food splatters or spilled liquids adhere to oven walls, wipe with a damp cloth. Mild detergent may be used if the oven gets very dirty. Avoid the use of spray and other harsh cleaners as they may stain, streak or dull the door surface.
3. The outside surfaces should be cleaned with a damp cloth. To prevent damage to the operating parts inside the oven, water should not be allowed to seep into the ventilation openings.
4. Wipe the window on both sides with a damp cloth to remove any spills or splatters.
5. Do not allow the control panel to become wet. Clean with a soft, damp cloth. When cleaning the control panel, leave oven door open to prevent oven from accidentally turning on.
6. 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, this is normal.
7. It is occasionally necessary to remove the glass tray for cleaning. Wash the tray in warm sudsy water or in a dishwasher.
8. The roller ring and oven floor should be cleaned regularly to avoid excessive noise. Simply wipe the bottom surface of the oven with mild detergent. The roller ring may be washed in mild sudsy water or dishwasher. When removing the roller ring from cavity floor for cleaning, be sure to replace in the proper position.
9. Remove odors from your oven by combining a cup of water with the juice and skin of one lemon in a deep microwaveable bowl, microwave for 5 minutes. Wipe thoroughly and dry with a soft cloth.
10. When it becomes necessary to replace the oven light, please consult a dealer to have it replaced.

