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MICROWAVE OVEN **SERVICE MANUAL**

MODEL: MS-2324F

CAUTION

BEFORE SERVICING THE UNIT, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

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SAFETY PRECAUTIONS

This device is to be serviced only by properly qualified service personnel. Consult the service manual for proper service procedures to assure continued safety operation and for precautions to be taken to avoid possible exposure to excessive microwave energy.

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- A) Do not operate or allow the oven to be operated with the door open.
- B) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary; (1) interlock operation, (2) proper door closing, (3) seal and sealing surfaces (arcing, wear, and other damage), (4) damage to or loosening of hinges and latches, (5) evidence of dropping or abuse.
- C) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.
- D) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.
- E) A microwave leakage check to verify compliance with the Federal Performance Standard should be performed on each oven prior to release to the owner.

CAUTION MICROWAVE RADIATION

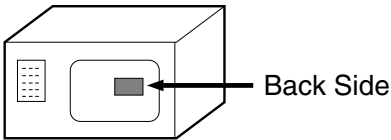
DO NOT BECOME EXPOSED TO RADIATION FROM THE MICROWAVE GENERATOR OR OTHER PARTS CONDUCTING MICROWAVE ENERGY.

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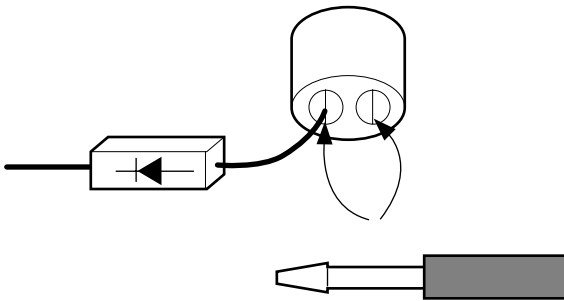
SPECIFICATIONS

ITEM	DESCRIPTION
MODEL	MS-2324F
Power Requirement	230 Volts AC 50 Hz 1,250 Watts Single phase, 3 wire grounded
Power Output	850 Watts full microwave power (IEC60705)
Microwave Frequency	2,450 MHz
Magnetron	2M167B - M47J1
Timer	0 ~ 60 min.
Outside Dimensions	507 (W) x 283 (H) x 418 (D) mm
Cavity Dimensions	331 (W) x 203 (H) x 360 (D) mm
Net Weight	14.0 kg (approx.)
Shipping weight	16.0 kg (approx.)
Control Complement	Microwave Power for Variable Cooking Power level Max 620W 380W **Defrost 90W
Nameplate Location	
Accessories	Owner's manual Glass turntable Roller Rest
<p>This microwave oven is designed for household use only. It is not recommended for commercial purposes.</p>	

CAUTIONS

Unlike other appliances, the microwave oven is high-voltage and high-current equipment. Though it is free from danger in ordinary use, extreme care should be taken during repair.

- DO NOT operate on a 2-wire extension cord during repair and use.
- NEVER TOUCH any oven components or wiring during operation.
- BEFORE TOUCHING any parts of the oven, always remove the power plug from the outlet.
- For about 30 seconds after the oven stop, an electric charge remains in the high voltage capacitor. When replacing or checking, you must discharge the high voltage capacitor by shorting across the two terminals with an insulated screwdriver.

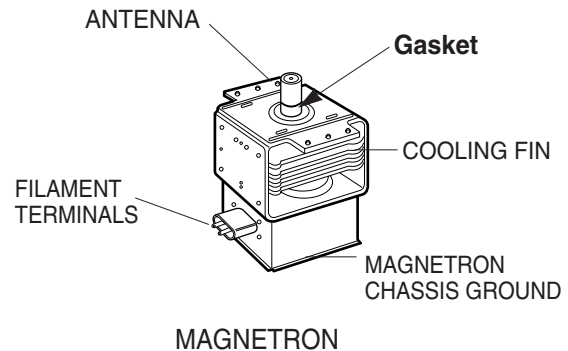


- Remove your watches whenever working close to or replacing the Magnetron.
- DO NOT touch any parts of the control panel circuit. A resulting static electric discharge may damage this P.C.B.
- NEVER operate the oven with no load.
- NEVER injure the door seal and front plate of the oven cavity.
- NEVER put iron tools on the magnetron.
- NEVER put anything into the latch hole and the interlock switches area.

MICROWAVE RADIATION

Personnel should not be exposed to the microwave energy which may radiate from the magnetron or other microwave generating device if it is improperly used or connection. All input and output microwave connections, waveguide, flange and gasket must be secure never operate the device without a microwave energy absorbing load attached. Never look into an open waveguide or antenna while the device is energized.

- Proper operation of the microwave oven requires that the magnetron be assembled to the waveguide and cavity. Never operate the magnetron unless it is properly installed.
- **Be sure that the magnetron gasket is properly installed around the dome of the tube whenever installing the magnetron.**



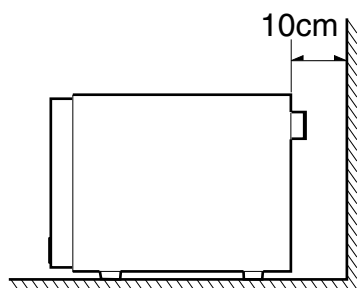
THE OVEN IS TO BE SERVICED ONLY BY PROPERLY QUALIFIED SERVICE PERSONNEL.

INSTALLATIONS

BEFORE YOU BEGIN, READ THE FOLLOWING INSTRUCTIONS COMPLETELY AND CAREFULLY.

INSTALLING

1. Empty the microwave oven and clean inside it with a soft, damp cloth. Check for damage such as misaligned door, damage around the door or dents inside the cavity or on the exterior.
2. Put the oven on a counter, table, or shelf that is strong enough to hold the oven and the food and utensils you put in it. (The control panel side of the oven is the heavy side. Use care when handling.)
3. Do not block the vent and the air intake openings. Blocking vent or air intake openings can cause damage to the oven and poor cooking results. Make sure the microwave oven legs are in place to ensure proper air flow.
4. The oven should not be installed in any area where heat and steam are generated, because they may damage the electronic or mechanical parts of the unit.
Do not install the oven next to a conventional surface unit or above a conventional wall oven.
5. Use microwave oven in an ambient temperature less than 104°F(40°C).
6. Place the microwave oven on a sturdy and flat surface at least 10 cm(4 inches) from the wall.
7. Place the microwave oven as far away as possible from TV, RADIO, COMPUTER, etc., to prevent interference.



EARTHING INSTRUCTIONS

This microwave oven is designed to be used in a fully earthed condition. It is imperative, therefore, to make sure it is properly earthed before servicing

WARNING- THIS APPLIANCE MUST BE EARTHED

IMPORTANT

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

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

As the colors of the wires in the mains lead of this appliance may not correspond with the colored markings identifying the terminals in your plug, proceed as follows.

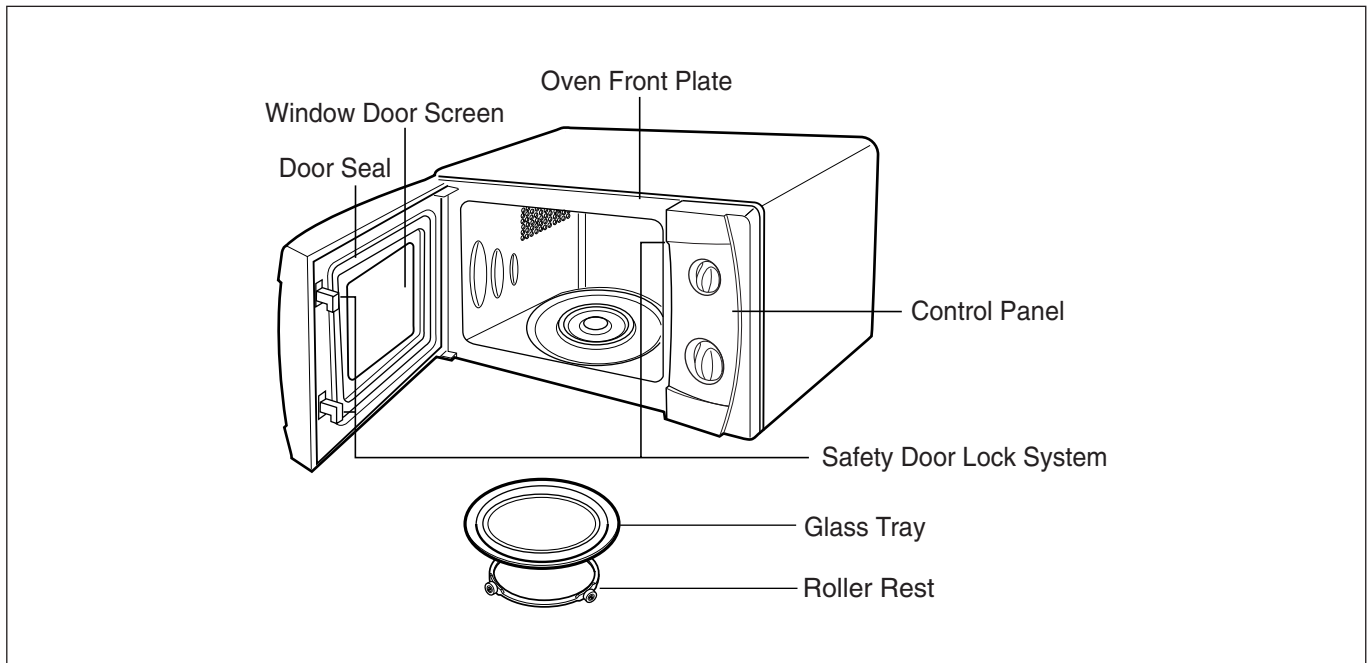
The wire which is colored **green-and-yellow** must be connected to the terminal in the plug which is marked with the letter **E** or by the **earth symbol** (\perp) or colored **green** or **green-and-yellow**.

The wire which is colored **blue** must be connected to the terminal in the plug which is marked with the letter **N** or colored **black**.

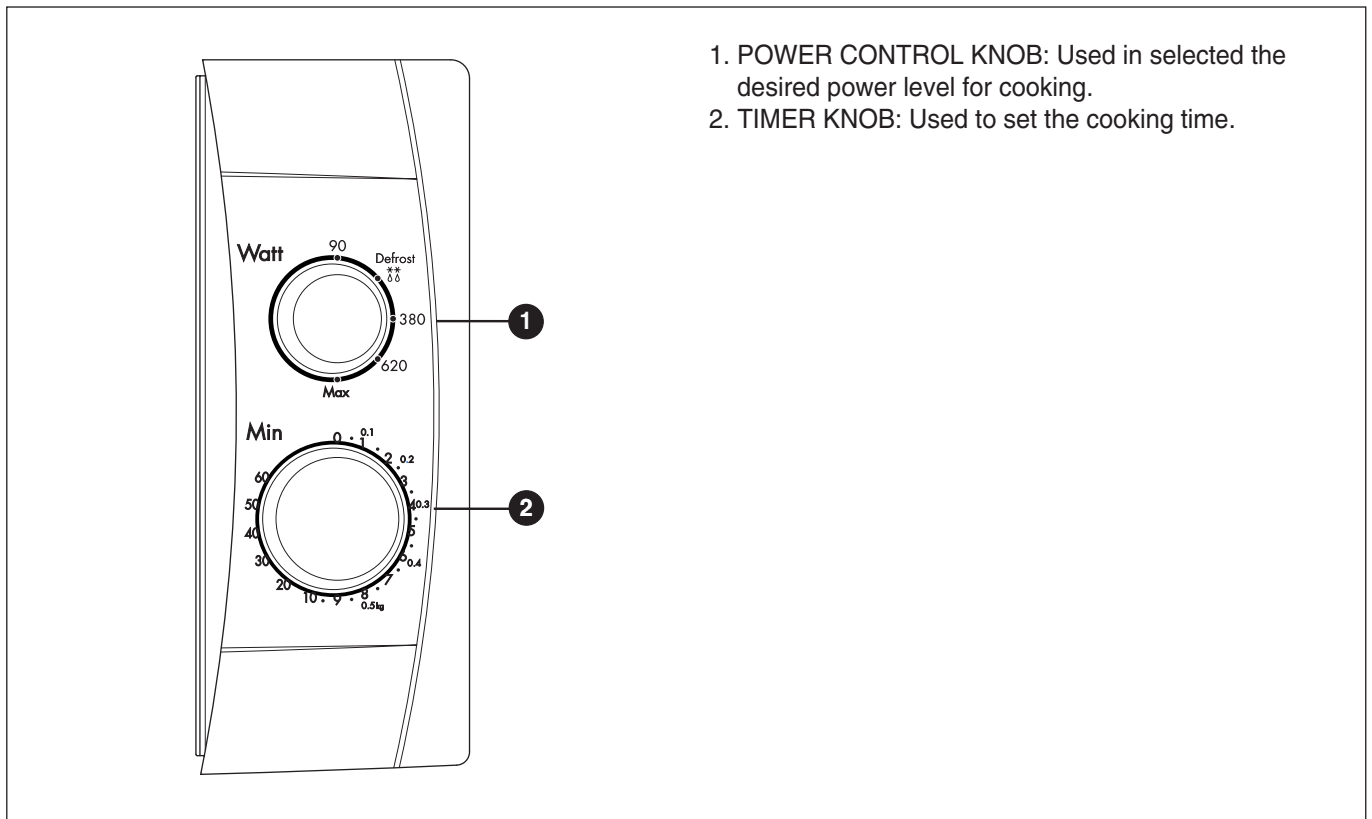
The wire which is colored **brown** must be connected to the terminal in the plug which is marked with the letter **L** or colored **red**.

OPERATING INSTRUCTIONS

FEATURES



CONTROL PANEL



OPERATING SEQUENCE

MICROWAVE COOKING

1. Open the oven door, place the food on the turntable in the oven, and close the oven door.
2. Set the microwave power selector to the desired power level. There are five power levels from 90W to MAX. The power selector can be set to any one of these positions.

POSITIONS
Max
620W
380W
**Defrost
90W

3. Set the timer to the desired cooking time. The turntable begins to rotate and cooking starts. At the end of cooking time you will a single ring sound, and the lamp is turn off.

NOTE:

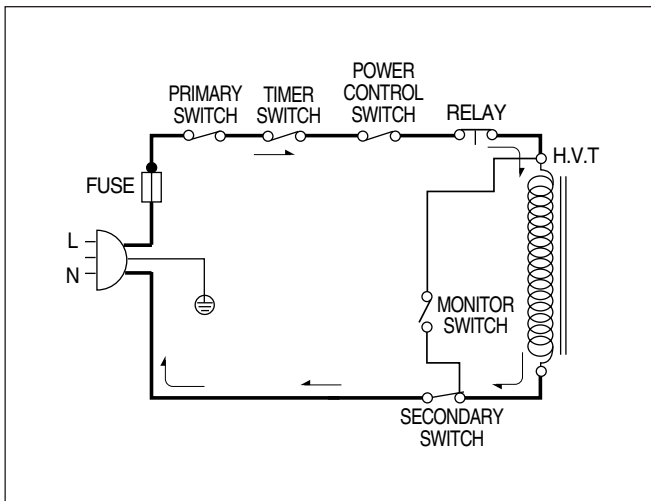
- Each number represents minutes. To ensure accurate timing, it is advisable to turn the timer knob slightly passed the desired cooking time and then back to the proposed setting.
- Press the door opener to check the cooking condition during oven operation. Opening the door during oven operation automatically turns off the oven and stops the timer. If cooking is to continue, close the door. Cooking will be resumed until the full cooking time has elapsed.

CIRCUIT DESCRIPTION

- As the door is closed, the contact of MONITOR SWITCH opens. This switch creates the short circuit to blow fuse during operation under abnormal condition. (ie, should the contacts of primary and secondary switch fail to open the circuit)
- The latches are secured by latch board. The oven light turns on while the oven is in operation.

WHEN MICROWAVE POWER LEVEL AND COOKING TIME SET

- The contacts of the timer switch changes to ON position when the timer knob is rotated. (While power control knob is set at "Full Power")
- The contacts of primary and secondary switch close the circuit.
- Input Volts AC. is applied to the high voltage transformer through power control switch as shown by the solid line.

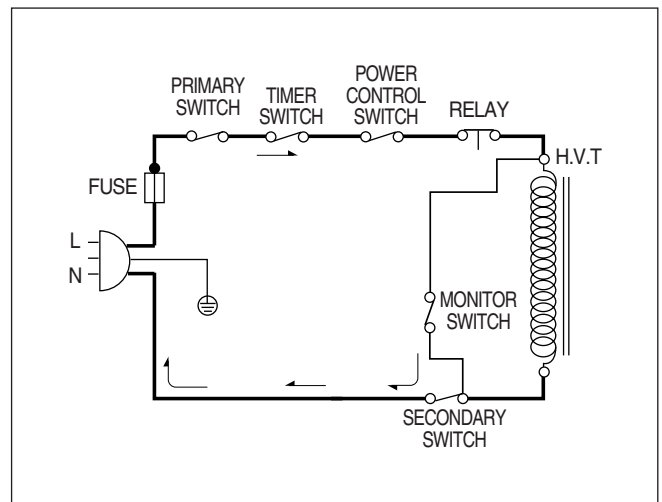


- Turntable rotates.
- The fan motor rotates and cools the magnetron by blowing the air (coming from the intake holes on the baseplate) over the magnetron.
- The air is also directed into the oven to exhaust the vapor in the oven through the upper plate.
- Timer starts rotating.

- 3.2 volts AC is generated from the filament winding of the high voltage transformer. This 3.2 volts is applied to the magnetron to heat the magnetron filament through two noise preventing choke coils. A high voltage of approximately 2100 volts AC is generated in the secondary of the high voltage transformer which is increased by the action of the diode and charging of the high voltage capacitor. The negative DC voltage is then applied to the filament of the magnetron

WHEN THE DOOR IS OPENED DURING COOKING

- Both primary switch and secondary switch open to cut off the primary winding voltage to the high voltage transformer to stop microwave oscillation.
- Timer, turntable and fan motor stop.
- As the door is opened, if the contact of primary switch and secondary switch fail to open, the fuse opens due to the large current surge caused by the monitor switch activation which in turn stops magnetron, oscillation.



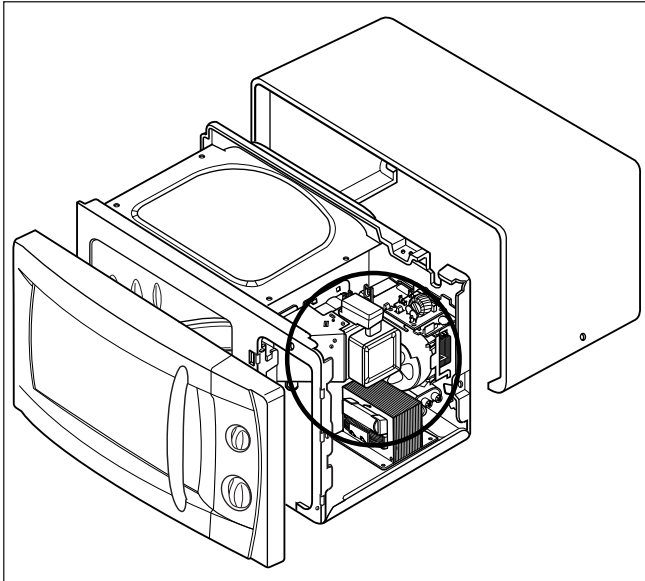
MEASUREMENT WITH OUTER CASE REMOVED

- When you replace the magnetron, measure for microwave energy leakage before the outer case is installed and after all necessary components are replaced or adjusted.

Special care should be taken in measuring the following parts. (Circled area of below Fig.)

- Around the magnetron
- The waveguide

WARNING : AVOID CONTACTING ANY HIGH VOLTAGE PARTS (Magnetron, H.V. Transformer, H.V. Capacitor, H.V. Cable Ass'y, H.V. Circuit Protector)



MEASUREMENT WITH A FULLY ASSEMBLED OVEN

- After all components, including the outer case, are fully assembled, measure for microwave energy leakage around the door viewing window, the exhaust opening, and air inlet openings.
- Microwave energy leakage must not exceed the values prescribed below.

NOTE : Leakage with the outer case removed less than 5 mW/cm.sq. Leakage for a fully assembled oven (Before the latch switch (primary) is interrupted) with the door in a slightly opened position-less than 2 mW/cm.sq.

NOTES WHEN MEASURING

- Do not exceed meter full scale deflection.
- The test probe must be removed no faster than 1 inch/sec (2.5 cm/sec) along the shaded area, otherwise a false reading may result.
- The test probe must be held with the grip portion of the handle. A false reading may result if the operator's hand is between the handle and the probe.
- When testing near a corner of the door, keep the probe perpendicular to the surface making sure the probe horizontally along the oven surface, this may possibly cause probe damage.

RECORD KEEPING AND NOTIFICATION AFTER MEASUREMENT

- After adjustment and repair of any microwave energy interruption or microwave energy blocking device, record the measured values for future reference. Also enter the information on the service invoice.
- The microwave energy leakage should not be more than 4 mW/cm.sq. after determining that all parts are in good condition, functioning properly and genuine replacement parts which are listed in this manual have been used.
- At least once a year, have the electromagnetic energy leakage monitor checked for calibration by its manufacturer.

MEASUREMENT OF MICROWAVE POWER OUTPUT

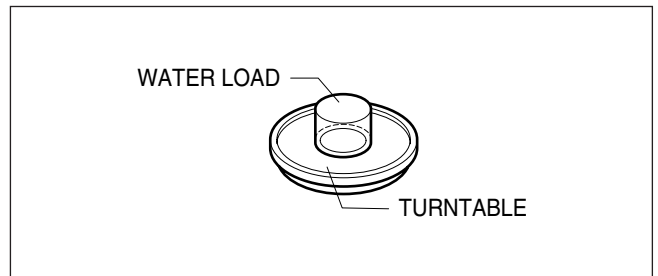
- Microwave power output measurement is made with the microwave oven supplied at its rated voltage and operated at its maximum microwave power setting with a load of (1000±5) g of potable water.
- The water is contained in a cylindrical borosilicate glass vessel having a maximum material thickness of 3 mm and an outside diameter of approximately 190mm.
- The oven and the empty vessel are at ambient temperature prior to the start of the test.
- The initial temperature (±1) of the water is (10±2)°C. It is measured immediately before the water is added to the vessel. After addition of the water to the vessel, the load is immediately placed on the center of the turntable which is in the lowest position and the microwave power switched on.
- The time T for the temperature of the water to rise by a value ΔT of (10±2)°K is measured, where T is the time in seconds and ΔT is the temperature rise. The initial and final water temperatures are selected so that the maximum difference between the final water temperature and the ambient temperature is 5°K.

- The microwave power output P in watts is calculated from the following formula :

$$P = \frac{4187 \times (\Delta T)}{T}$$

is measured while the microwave generator is operating at full power. Magnetron filament heat-up time is not included. (about 3 sec)

- The water is stirred to equalize temperature throughout the vessel, prior to measuring the final water temperature.
- Stirring devices and measuring instruments are selected in order to minimize addition or removal of heat.



DISASSEMBLY AND ADJUSTMENT

A. OUTER CASE REMOVAL

- 1) Disconnect the power supply cord from the outlet.
- 2) Remove the screws from the rear and along side edges of the case.
The outer case must be moved backward to be lifted off.

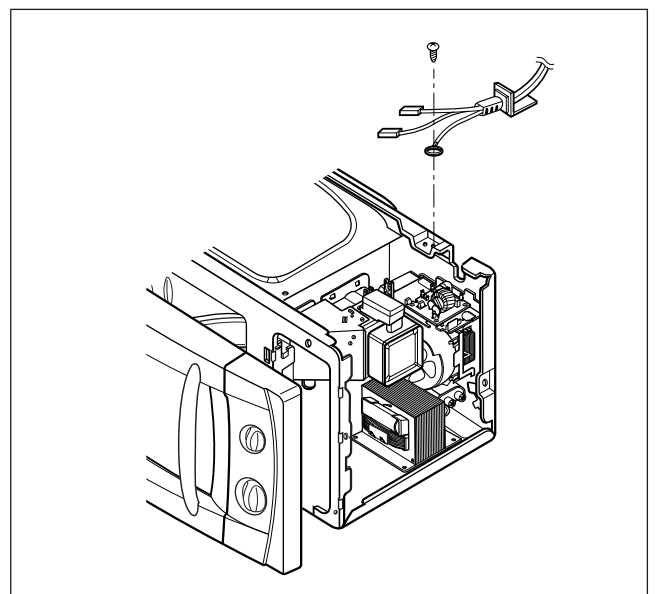
B. POWER SUPPLY CORD

- 1) Remove the outer case.
- 2) Disconnect two terminals, and remove one screw of the earth terminal.

CAUTION: DISCHARGE THE HIGH VOLTAGE CAPACITOR BEFORE SERVICING
(refer to page 2-1)

C. CONTROL PANEL ASSEMBLY

- 1) Disconnect the leadwire from the Timer motor
- 2) Remove the screws for securing the control panel.
- 3) Lift control panel ASS 'Y from the oven by the tab unhooked.



D. DOOR GROSS ASSEMBLY REMOVAL

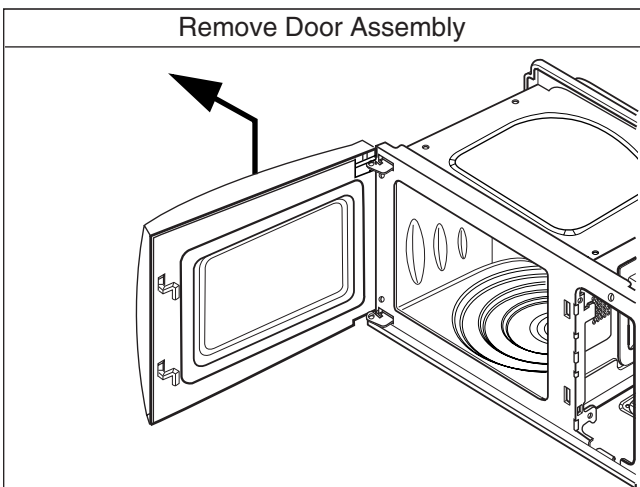
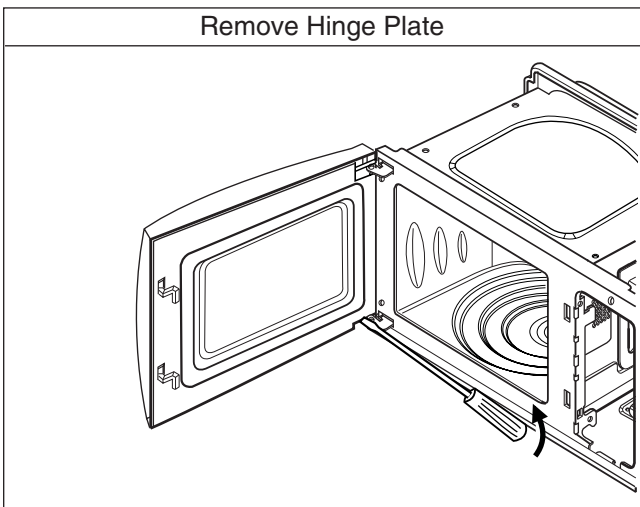
- 1) Open the door.
- 2) Remove the choke cover cap very carefully with a flat-blade screwdriver.

CAUTION : Be careful not to damage door seal plate by screwdriver.

- 3) Lift up and push the door.

NOTE:

1. After replacing the door, be sure to check that the primary switch, monitor switch, and secondary switch operate normally.
2. After replacing the door, check for microwave energy leakage with a survey meter. Microwave energy must be below the limit of 5 mW/cm. (with a 275 ml water load)
3. When mounting the door assembly to the oven assembly, be sure to adjust the door assembly parallel to the chassis. Also adjust so the door has no play between the inner door surface and oven frame assembly. If the door assembly is not mounted properly, microwaves may leak from the clearance between the door and the oven.



E. HIGH VOLTAGE TRANSFORMER REMOVAL

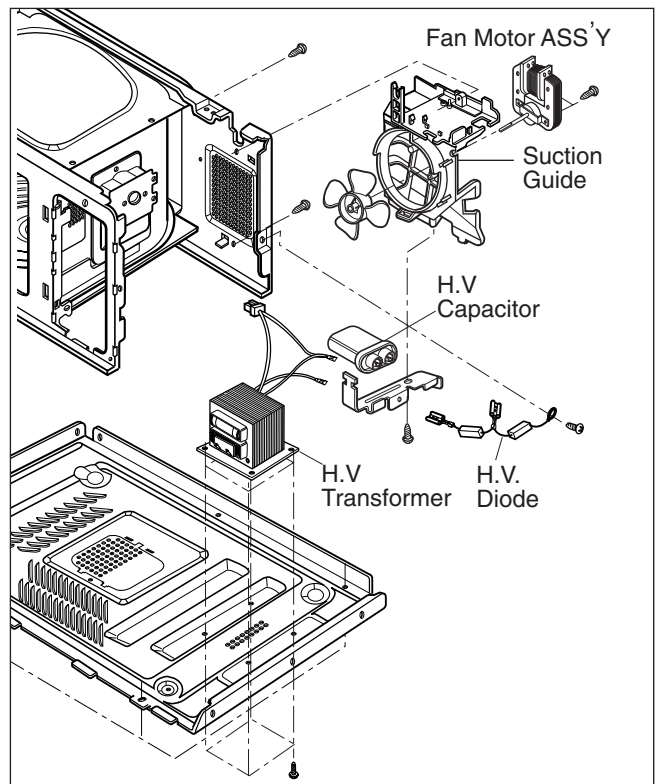
- 1) Discharge the high voltage capacitor.
- 2) Disconnect the leadwire from magnetron, high voltage transformer, and capacitor.
- 3) Remove the screw holding the high voltage transformer to the baseplate.

F. FAN MOTOR ASSEMBLY REMOVAL

- 1) Discharge the high voltage capacitor.
- 2) Disconnect the leadwire from fan motor, noise filter and high voltage capacitor.
- 3) Remove the two screws holding the the suction guide ASS'Y to the oven cavity and remove the high voltage diode earth screw.
- 4) Remove the screw of the capacitor bracket.
- 5) Remove the two screws holding the fan motor ASS'Y to the suction guide ASS'Y.

G. HIGH VOLTAGE CAPACITOR AND DIODE REMOVAL

- 1) Discharge the high voltage capacitor.
- 2) Disconnect the leadwire from fan motor, noise filter and high voltage capacitor.
- 3) Remove the screw holding the suction guide ASS'Y to the oven cavity and remove the high voltage diode earth screw.
- 4) Remove the screw holding the high voltage capacitor bracket.



H. AIR DUCT ASSEMBLY REMOVAL

- 1) Disconnect the leadwire from lamp, A.C Relay and monitor resistor.
- 2) Remove the mounting screw to the magnetron.

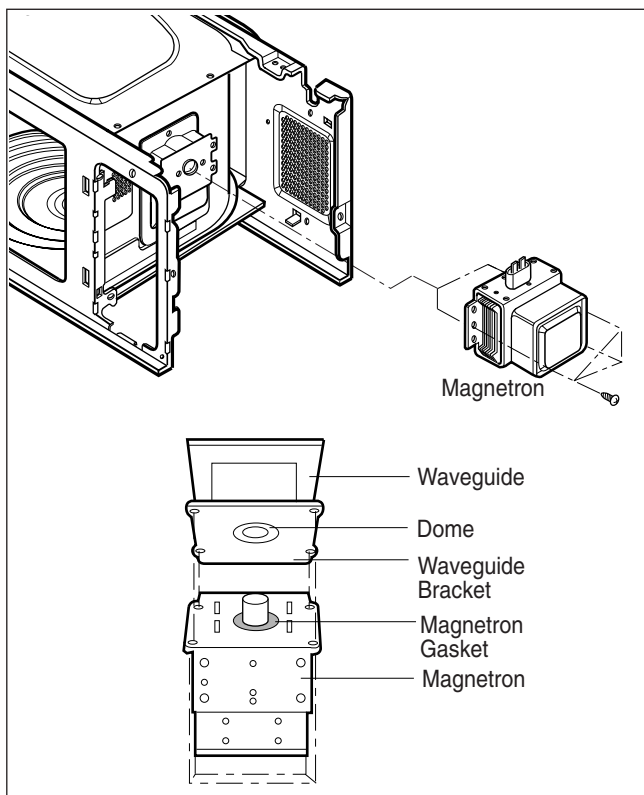
I. MAGNETRON REMOVAL

- 1) Disconnect the leadwire from the high voltage transformer and high voltage capacitor.
- 2) Carefully remove the mounting screws holding the magnetron and the waveguide.
- 3) Remove the magnetron ASS'Y until the tube is clear from the waveguide.

NOTE:

1. When removing the magnetron, make sure its dome does not hit any adjacent parts, or it may be damaged.
2. When replacing the magnetron, be sure to install the magnetron gasket in the correct position and be sure that the gasket is in good condition.
3. After replacing the magnetron, check for microwave leakage with a survey meter around the magnetron. Microwave energy must be below the limit of 5 mW/cm². (With a 275 ml. water load).

Make sure that gasket is rigidly attached to the magnetron. To prevent microwave leakage, tighten the mounting screws properly, making sure there is no gap between the waveguide and the magnetron.

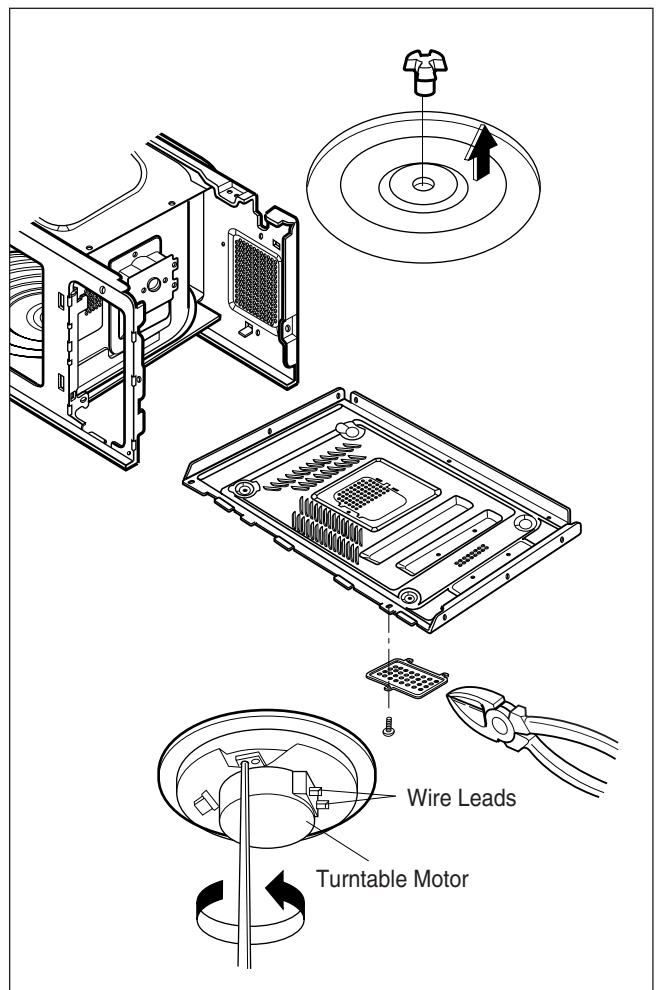


J. REMOVING THE TURNTABLE MOTOR

- 1) Remove the turntable.
- 2) Remove the turntable shaft VERY CAREFULLY.
- 3) Lay the unit down on its back.
- 4) Remove the turntable motor cover.
The turntable base cover is easily removed by pinching the six parts with a wire cutting.
- 5) Disconnect the leadwire from the turntable motor terminals.
- 6) Remove the screw securing the turntable motor to the oven cavity ASS'Y
- 7) After repairing the motor, rotate the removed turntable motor cover.
- 8) Fit the turntable motor cover's projecting part to the base plate slit.

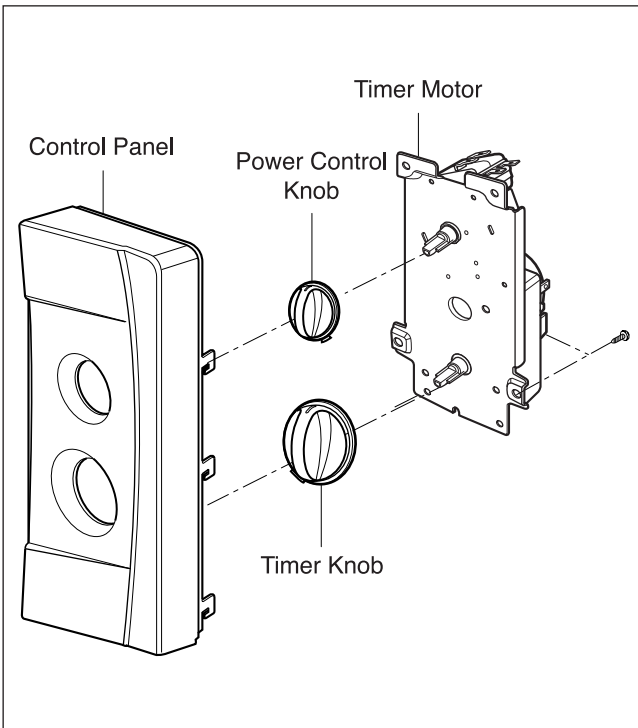
NOTE:

1. Remove the wire lead from the turntable motor VERY CAREFULLY.
2. Be sure to grasp the connector, not the wires, when removing.



K. TIMER MOTOR REMOVAL

- 1) Remove the control panel assembly from the cavity.
- 2) Remove screws which hold the timer motor to the control panel.
- 3) Remove the timer motor from the control panel.
- 4) Remove the power control knob and the timer knob.

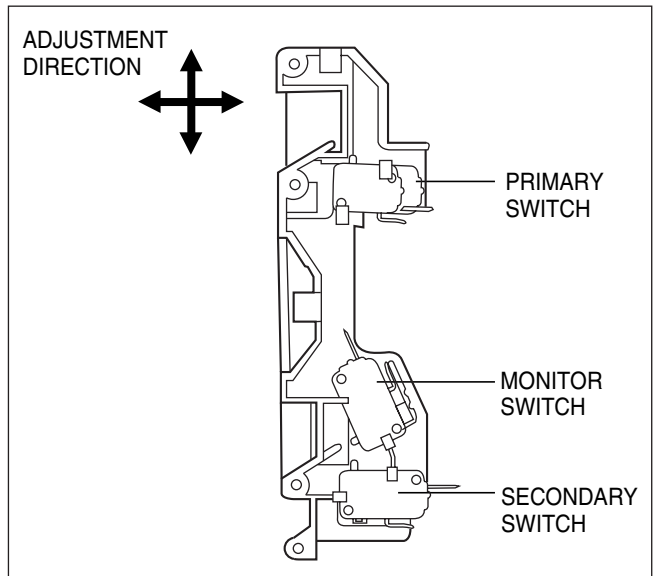


L. INTERLOCK SYSTEM

1) INTERLOCK MECHANISM

The door lock mechanism is a device which has been specially designed to eliminate completely microwave activity when the door is opened during cooking and thus to prevent the danger resulting from the microwave leakage.

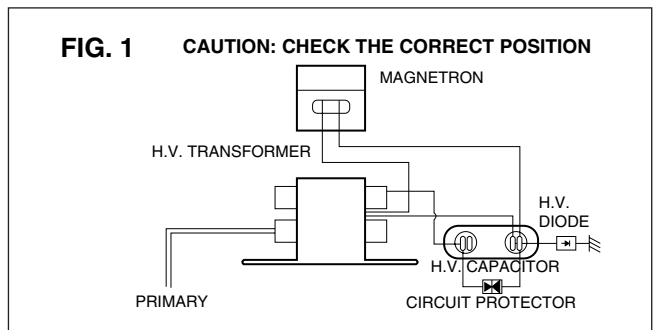
2) MOUNTING OF THE PRIMARY/MONITOR/SECONDARY SWITCHES TO THE LATCH BOARD



3) INSTALLATION AND ADJUSTMENT OF THE LATCH BOARD TO THE OVEN ASSEMBLY

- Mount the latch board to the oven assembly.
- Adjust the latch board in the arrow direction so that oven door will not have any play in it when the door is closed.
- Tighten the mounting screw.
- **Check for play in the door by pushing the door release button. Door movement should be less than 0.5 mm.(1/64 inch)**

Don't push the door release button while making adjustment. Make sure that the latch moves smoothly after adjustment are completed and that the screws are tight. Make sure the primary, monitor, and secondary switches operate properly by following the continuity test procedure.



INTERLOCK CONTINUITY TEST

WARNING : FOR CONTINUED PROTECTION AGAINST EXCESSIVE RADIATION EMISSION, REPLACE ONLY WITH IDENTICAL REPLACEMENT PARTS.

TYPE NO.SZM-V 16-FA-63 OR VP-533A-OF FOR PRIMARY SWITCH
 TYPE NO.SZM-V 16-FA-62 OR VP-532A-OF FOR MONITOR SWITCH
 TYPE NO.SZM-V 16-FA-63 OR VP-533A-OF FOR SECONDARY SWITCH

A. PRIMARY INTERLOCK SWITCH TEST

When the door release button is depressed slowly with the door closed, an audible click should be heard at the same time or successively at intervals. When the button is released slowly, the latches should activate the switches with an audible click.

If the latches do not activate the switches when the door is closed, the switches should be adjusted in accordance with the adjustment procedure. Disconnect the wire lead from the primary switch. Connect the ohmmeter leads to the common (COM) and normally open (NO) terminal of the switch. The meter should indicate an open circuit in the door open condition. When the door is closed, the meter should indicate a closed circuit.

When the primary switch operation is abnormal, make the necessary adjustment or replace the switch only with the same type of switch.

B. SECONDARY INTERLOCK SWITCH TEST

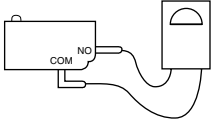


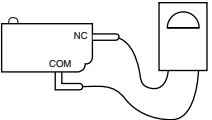


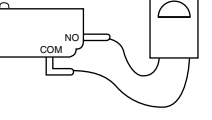


Disconnect the wire lead from the secondary switch.

Connect the ohmmeter leads to the common (COM) and normally open (NO) terminals of the switch. The meter should indicate a open circuit in the door open condition. When the door is closed, meter should indicate an closed circuit. When the secondary switch operation is abnormal, make the necessary adjustment or replace the switch only with the same type of switch.

C. MONITOR SWITCH TEST

Disconnect the wire lead from the monitor switch. Connect the ohmmeter leads to the common (COM) and normally closed (NC) terminals of the switch. The meter should indicate closed circuit in the door open condition. When the door is closed, meter should indicate an open circuit. When the monitor switch operation is abnormal, replace with the same type of switch.

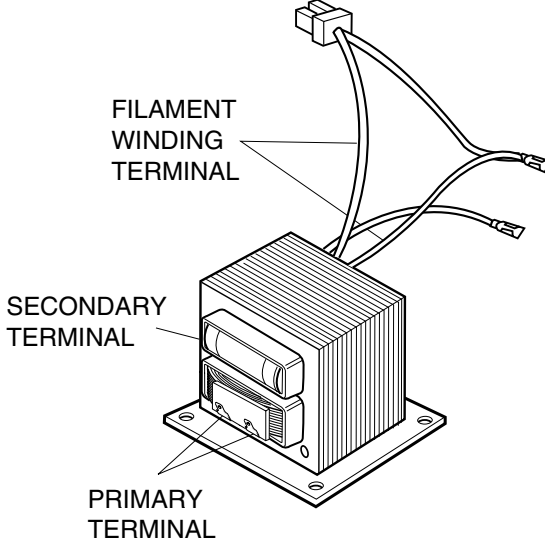
NOTE: After repairing the door or the interlock system, it is necessary to do this continuity test before operating the oven.

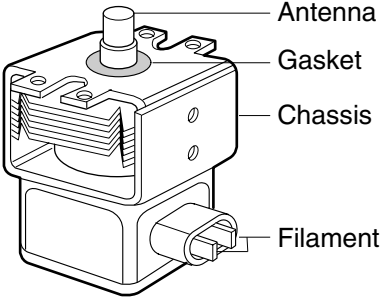
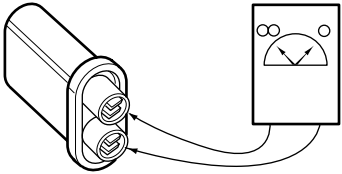
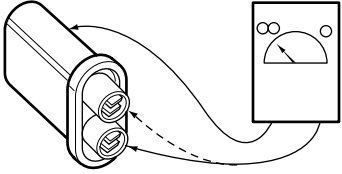
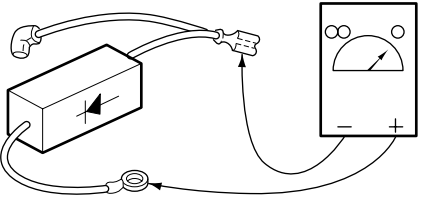
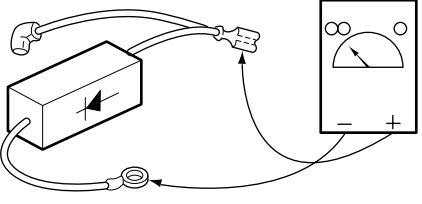
COMPONENTS	TEST PROCEDURE	RESULTS	
		Door open	Door closed
SWITCHES (Wire leads removed)	Check for continuity of the switch with an Ohm-meter		
	Primary Switch 		
	Monitor Switch 		
	Secondary Switch 		
NOTE : After checking for the continuity of switches, make sure that are connected correctly.			

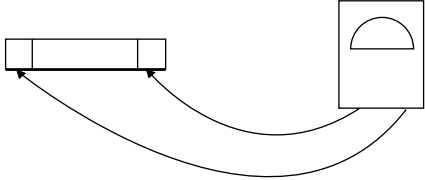
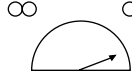
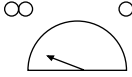
COMPONENT TEST PROCEDURE

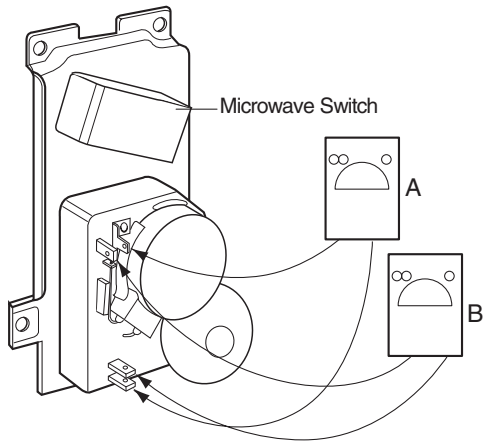






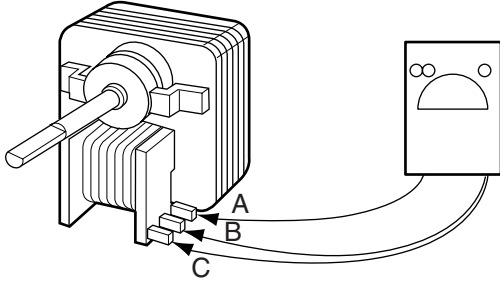
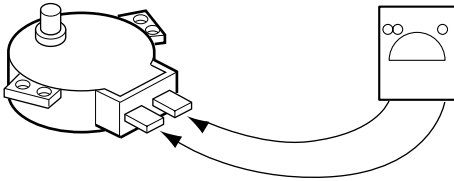
CAUTIONS

1. DISCONNECT THE POWER SUPPLY CORD FROM THE OUTLET WHENEVER REMOVING THE OUTER CASE FROM THE UNIT. PROCEED WITH THE TEST ONLY AFTER DISCHARGING THE HIGH VOLTAGE CAPACITOR AND REMOVING THE WIRE LEADS FROM THE PRIMARY WINDING OF THE HIGH VOLTAGE TRANSFORMER. (SEE PAGE 2-1)
2. ALL OPERATIONAL CHECKS WITH MICROWAVE ENERGY MUST BE DONE WITH A LOAD (1 LITER OF WATER IN CONTAINER) IN THE OVEN.

COMPONENTS	TEST PROCEDURE	RESULTS
<p>HIGH VOLTAGE TRANSFORMER (Wire leads removed)</p>	 <p>The diagram shows a rectangular high voltage transformer with a filament winding terminal at the top, secondary terminals on the front, and primary terminals at the bottom. Three wires are connected to the filament winding terminal.</p> <ol style="list-style-type: none"> 1. Measure the resistance. (Ohm-meter scale: Rx1) <ul style="list-style-type: none"> • Primary winding • Secondary winding • Filament winding 2. Measure the resistance. (Ohm-meter scale: Rx1000) <ul style="list-style-type: none"> • Primary winding to ground • Filament winding to ground 	<p>Approx.: 1.4 ohm Approx.: 90 ohm Less than: 1 ohm</p> <p>Normal: Infinite Normal: Infinite</p>
<p>MAGNETRON (Wire leads removed)</p>	<ol style="list-style-type: none"> 1. Measure the resistance. (Ohm-meter scale: Rx1) <ul style="list-style-type: none"> • Filament terminal 2. Measure the resistance. (Ohm-meter scale: Rx1000) <ul style="list-style-type: none"> • Filament to chassis 	<p>Normal: Less than 1 ohm</p> <p>Normal: Infinite</p>

COMPONENTS	TEST PROCEDURE	RESULTS
	 <p>NOTE: When testing the magnetron, be sure to install the magnetron gasket in the correct position and be sure that the gasket is in good condition.</p>	
HIGH VOLTAGE CAPACITOR	<p>Measure the resistance. (Ohm-meter scale: Rx1000) • Terminal to terminal.</p> 	Normal: Momentarily indicates several ohms, and then gradually returns to infinite.
	<p>Measure the resistance. (Ohm-meter scale: Rx1000) • Terminal to case.</p> 	Normal: ∞
HIGH VOLTAGE DIODE	<p>Measure the continuity (Forward). (Ohm-meter scale: Rx10000)</p> 	Normal: Continuity. Abnormal: ∞
NOTE : Some inexpensive meters may indicate infinite resistance in both direction.	<p>Measure the continuity (Reverse). (Ohm-meter scale: Rx10000)</p> 	Normal: ∞ Abnormal: Continuity.

COMPONENTS	TEST PROCEDURE	RESULTS	
MAIN FUSE	<p data-bbox="518 280 986 342">Check for continuity of the fuse with an multi-meter.</p> 	Normal	Abnormal
	<p data-bbox="518 689 1452 846">NOTE: If the fuse is blown, check the primary, the secondary, and the monitor switches, H.V.D. and H.V.C. before replacing the fuse. If the fuse is blown by improper switch operation replace the defective switch and the fuse at the same time. Replace just the fuse if the switches operate normally.</p>		

COMPONENTS	TEST PROCEDURE	RESULTS									
TIMER MOTOR (Wire leads removed)		<table border="1" data-bbox="1070 286 1476 526"> <tr> <td></td> <td>Turn on</td> <td>Turn Off</td> </tr> <tr> <td>A</td> <td></td> <td></td> </tr> <tr> <td>B</td> <td colspan="2">Approx. 25 K</td> </tr> </table> <p data-bbox="1082 584 1452 678">Note: A is ON,OFF switch B is power supply terminal of the timer motor C is defrost switch</p>		Turn on	Turn Off	A			B	Approx. 25 K	
	Turn on	Turn Off									
A											
B	Approx. 25 K										
FAN MOTOR (Wire leads removed)	<p data-bbox="528 831 863 898">Measure the resistance. (Ohm-meter scale: R x 100)</p> 	<p data-bbox="1082 831 1182 864">Normal:</p> <table border="1" data-bbox="1086 880 1437 976"> <tr> <td>A ~ B</td> <td>A ~ C</td> </tr> <tr> <td>30 ~ 50</td> <td>300 ~ 500</td> </tr> </table> <p data-bbox="1082 1088 1350 1122">Abnormal: or several</p>	A ~ B	A ~ C	30 ~ 50	300 ~ 500					
A ~ B	A ~ C										
30 ~ 50	300 ~ 500										
TURNTABLE MOTOR (Wire leads removed)	<p data-bbox="528 1279 879 1346">Measure the resistance. (Ohm-meter scale: R x 1000)</p> 	<p data-bbox="1082 1279 1398 1312">Normal: Approx. 100~200</p> <p data-bbox="1082 1312 1350 1346">Abnormal: or several</p>									
<p data-bbox="172 1749 1369 1906">NOTE : • A MICROWAVE LEAKAGE TEST MUST ALWAYS BE PERFORMED WHEN THE UNIT IS SERVICED FOR ANY REASON. • MAKE SURE THE WIRE LEADS ARE IN THE CORRECT POSITION. • WHEN REMOVING THE WIRE LEADS FROM THE PARTS, BE SURE TO GRASP THE CONNECTOR, NOT THE WIRES.</p>											

TROUBLE SHOOTING

WHEN YOU GET A COMPLAINT FROM YOUR CUSTOMER, EVALUATE THE COMPLAINT CAREFULLY. IF THE FOLLOWING SYMPTOMS APPLY, PLEASE INSTRUCT THE CUSTOMER IN THE PROPER USE OF THE MICROWAVE OVEN. THIS CAN ELIMINATE AN UNNECESSARY SERVICE CALL.

CAUTIONS

1. Check grounding before checking for trouble.
2. Be careful of the high voltage circuit.
3. Discharge the high voltage capacitor. (See page 2-1)
4. When checking the continuity of the switches or of the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.

CONDITION	CAUSE	REMEDY
Microwave oven does not work.	Inserting many plug into one plug outlet and using them at the same time (causes overloading).	Avoid using other electrical appliances when you use the microwave oven.
	Microwave oven plug is not inserted tightly.	Insert microwave oven plug securely.
Output power is too low.	Low AC input voltage.	Use the microwave oven at adequate line voltage.
	Food temperature is too low.	This may not be a defect. It is possible that the food should be cooked for a longer time period.
Sparks occur.	Using metallic ware and allowing it to touch the oven wall.	Do not use metallic ware for cooking except where noted in the cooking guide.
	Ceramic ware trimmed in gold or silver powder is used.	Do not use any type of cookware with metallic trimming.
Uneven cooking.	Inconsistent intensity of microwave by their characteristics.	<ol style="list-style-type: none"> 1. Use plastic wrap or lid. 2. Stir once or twice while cooking soup, cocoa or milk, etc.
Turntable drags or makes noise.	Excessive weight on tray or improperly balanced.	Distribute food evenly. Cook smaller portions and, or use lighter weight cookware.

(TROUBLE 1) Oven lamp does not turn on when the timer knob is pushed with door closed.

CONDITION	CHECK	RESULT	CAUSE	REMEDY	
1. Fuse blows.	Check continuity of monitor switch (with door closed).	Continuity.	Malfunction of the monitor switch.	Replace fuse, primary, monitor and secondary switches.	
		No continuity.			
	Replace fuse				
	Check continuity of primary switch (with door opened).	Continuity.	Shorted contact at the primary switch.	Replace fuse, primary, monitor and secondary switches.	
		No continuity.			
	Disconnect one side of the wire lead connected from transformer to the high voltage capacitor and operate the unit.	Normal.	Defective high voltage capacitor.	Replace high voltage capacitor.	
Fuse blows again		Defective high voltage transformer.	Replace high voltage transformer.		

This fuse is a special type of fuse which is kept as spare part by the importer.

NOTE : All these switches must be replaced at the same time.

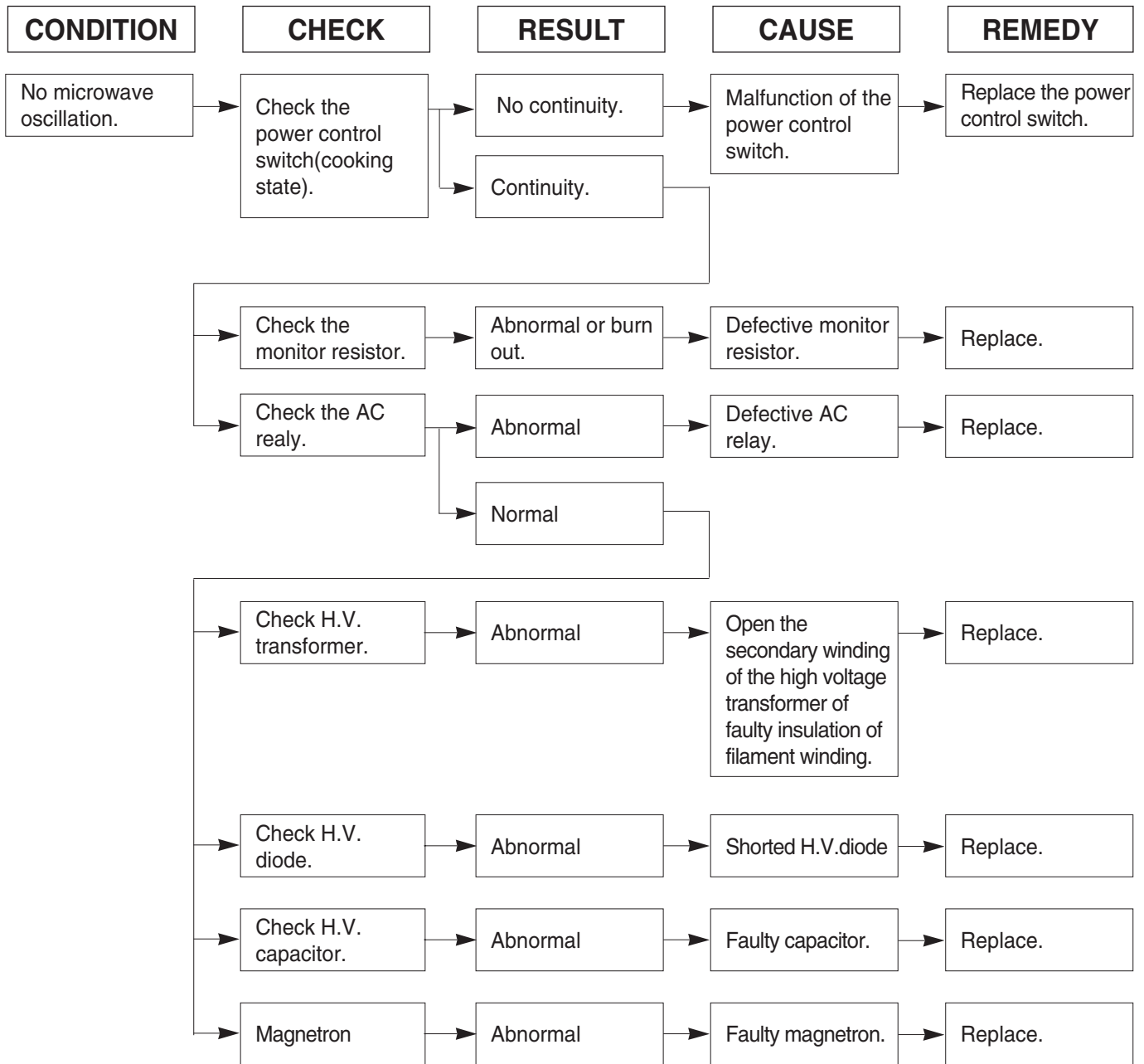
(TROUBLE 2) Oven does not start even though the timer is set.

CONDITION	CHECK	RESULT	CAUSE	REMEDY
1.Oven does not operate.	Check the continuity of the primary switch with door closed.	No continuity.	Malfunction of the primary switch.	Adjust or replace.
	Check the continuity of the secondary switch with secondary switch pushed.	No continuity.	Malfunction of the secondary switch.	Adjust or replace.
	Check the continuity of the timer switch contacts.	No continuity.	Malfunction of the timer switch.	replace.
	Check the continuity of the thermostat.	No continuity.	Faulty thermostat.	replace.

(TROUBLE 3) Output power is low.

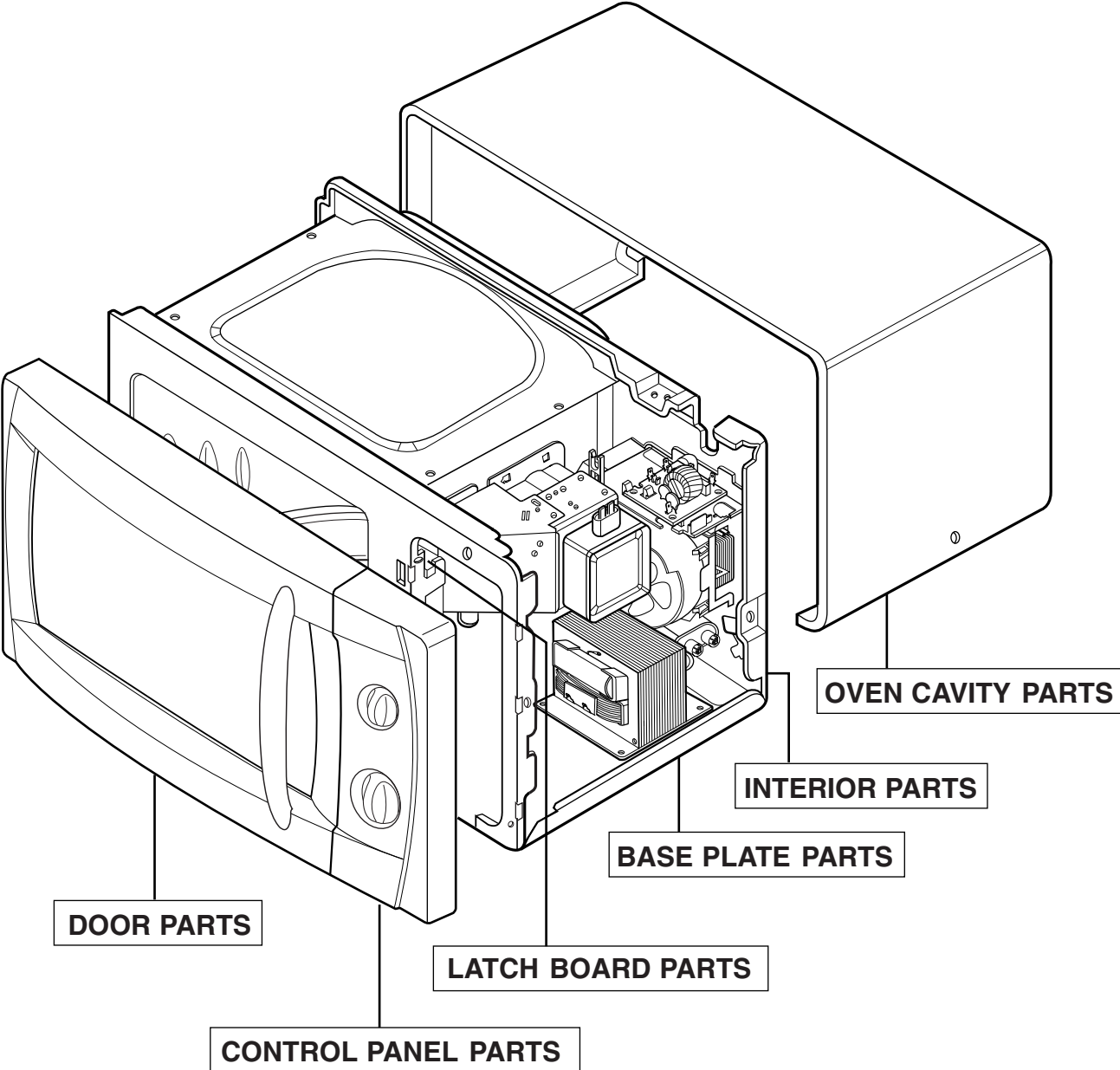
CONDITION	CHECK	RESULT	CAUSE	REMEDY
Output is low	Check the power source voltage oscillating.	Lower than 207V.	Decrease in power source voltage with load.	Suggest customer contact local electric power utility co. or qualified electrician.
		Normal		
	Measure the magnetron's output(See test procedure).	Less than 8.5°C.	Faulty magnetron.	Replace.

(TROUBLE 4) Oven does not cook at all even though turntable rotates.

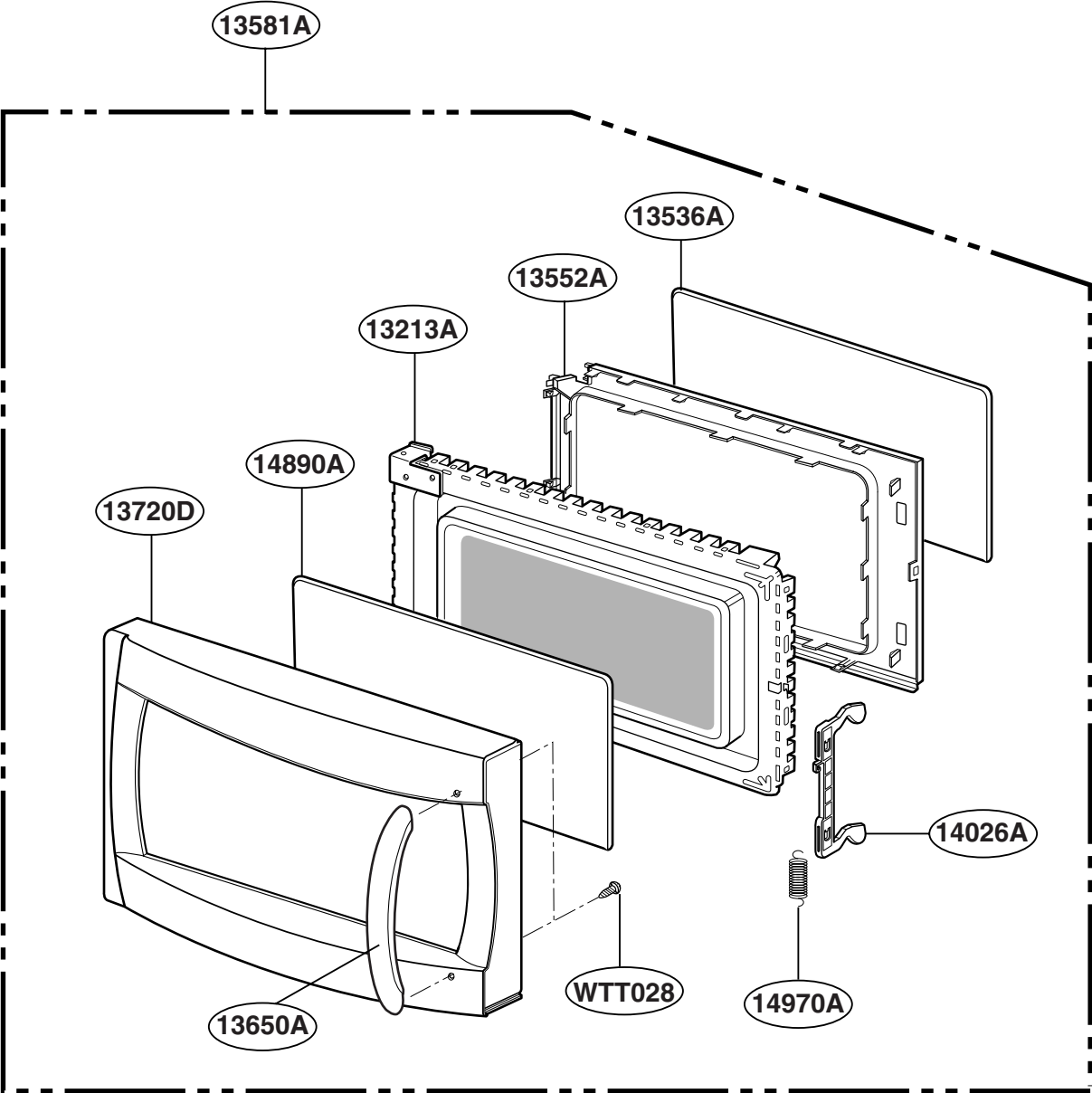


EXPLODED VIEW

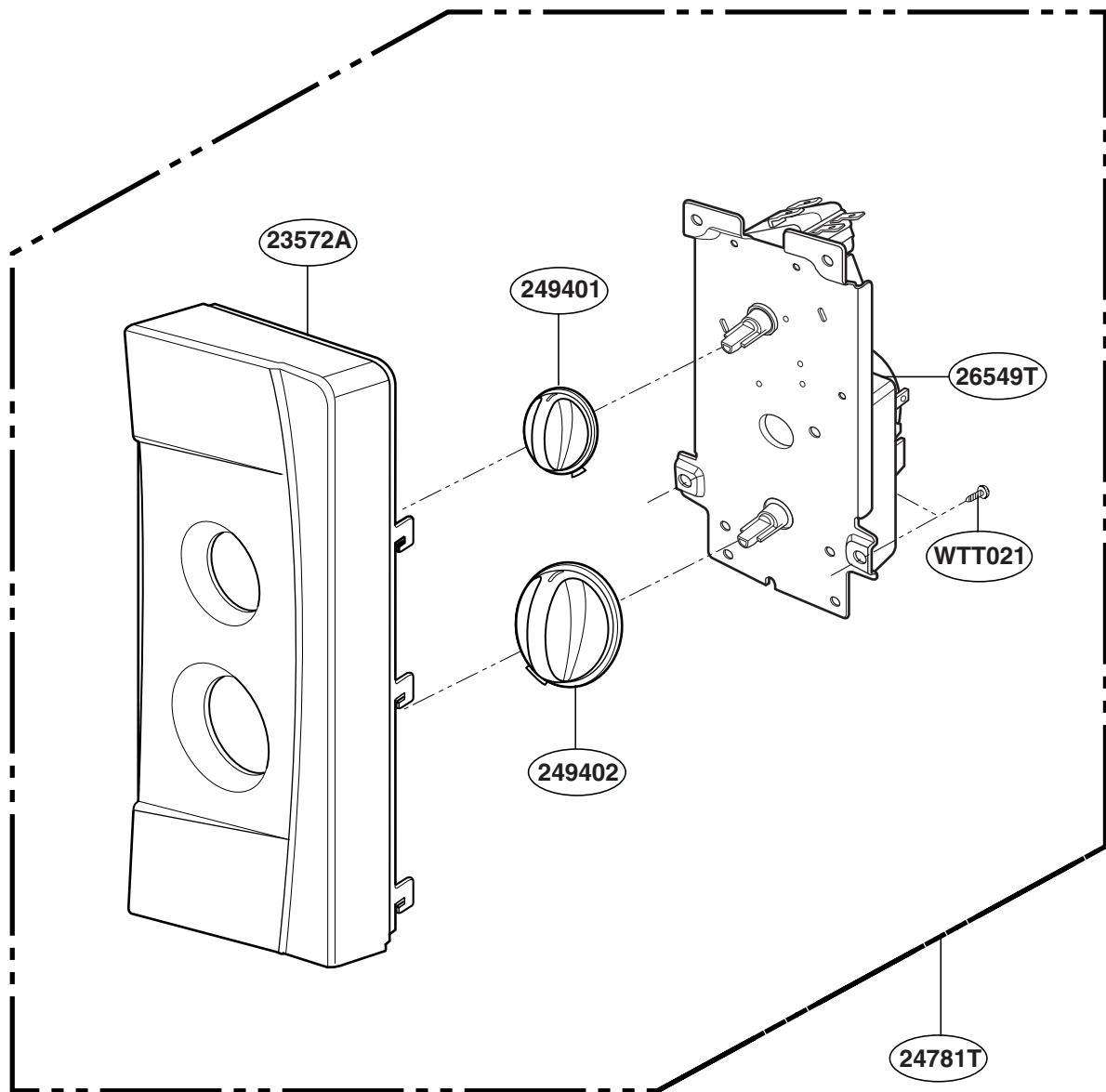
INTRODUCTION



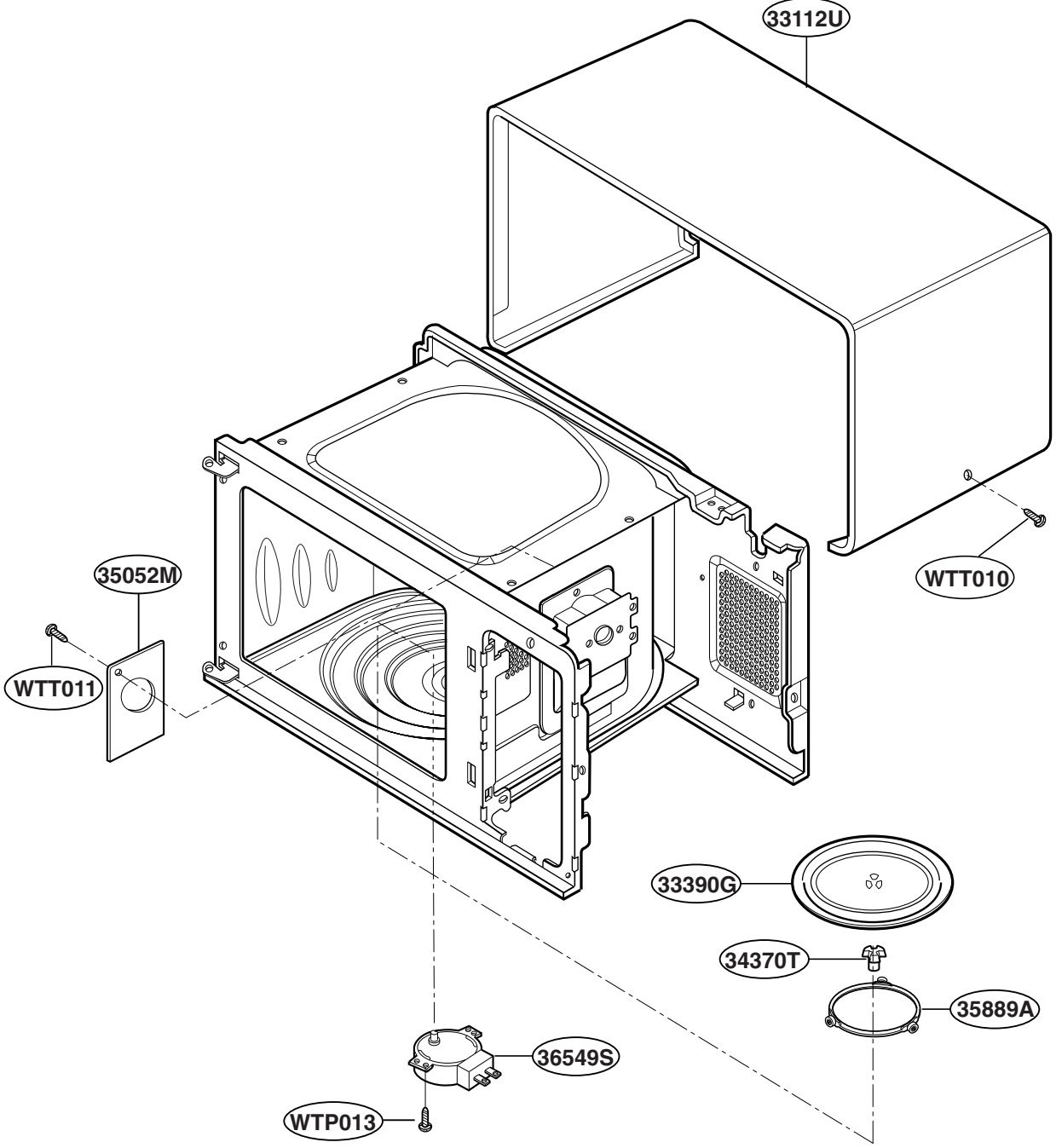
DOOR PARTS



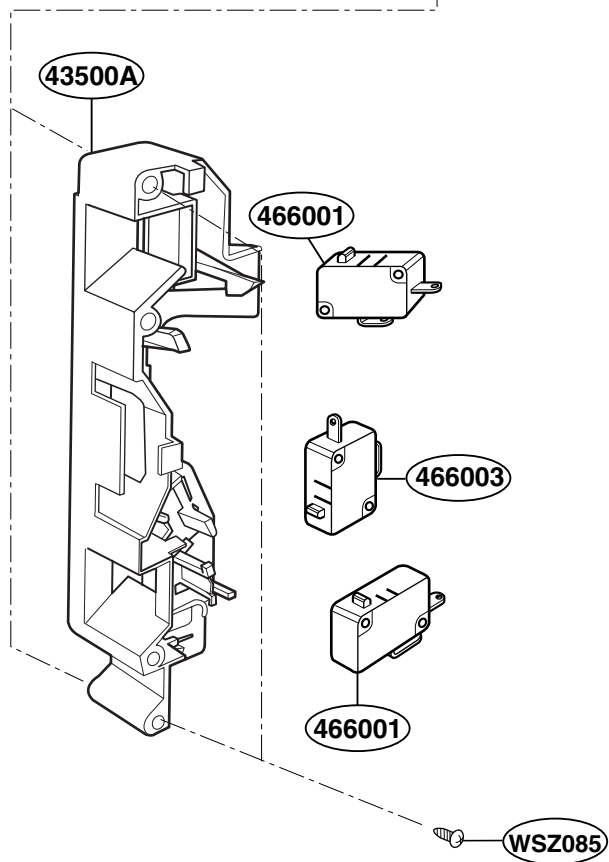
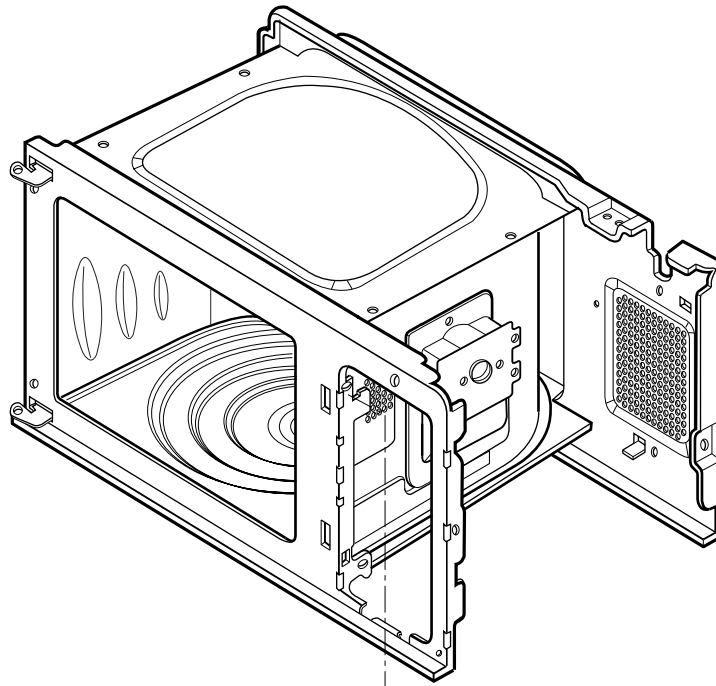
CONTROLLER PARTS



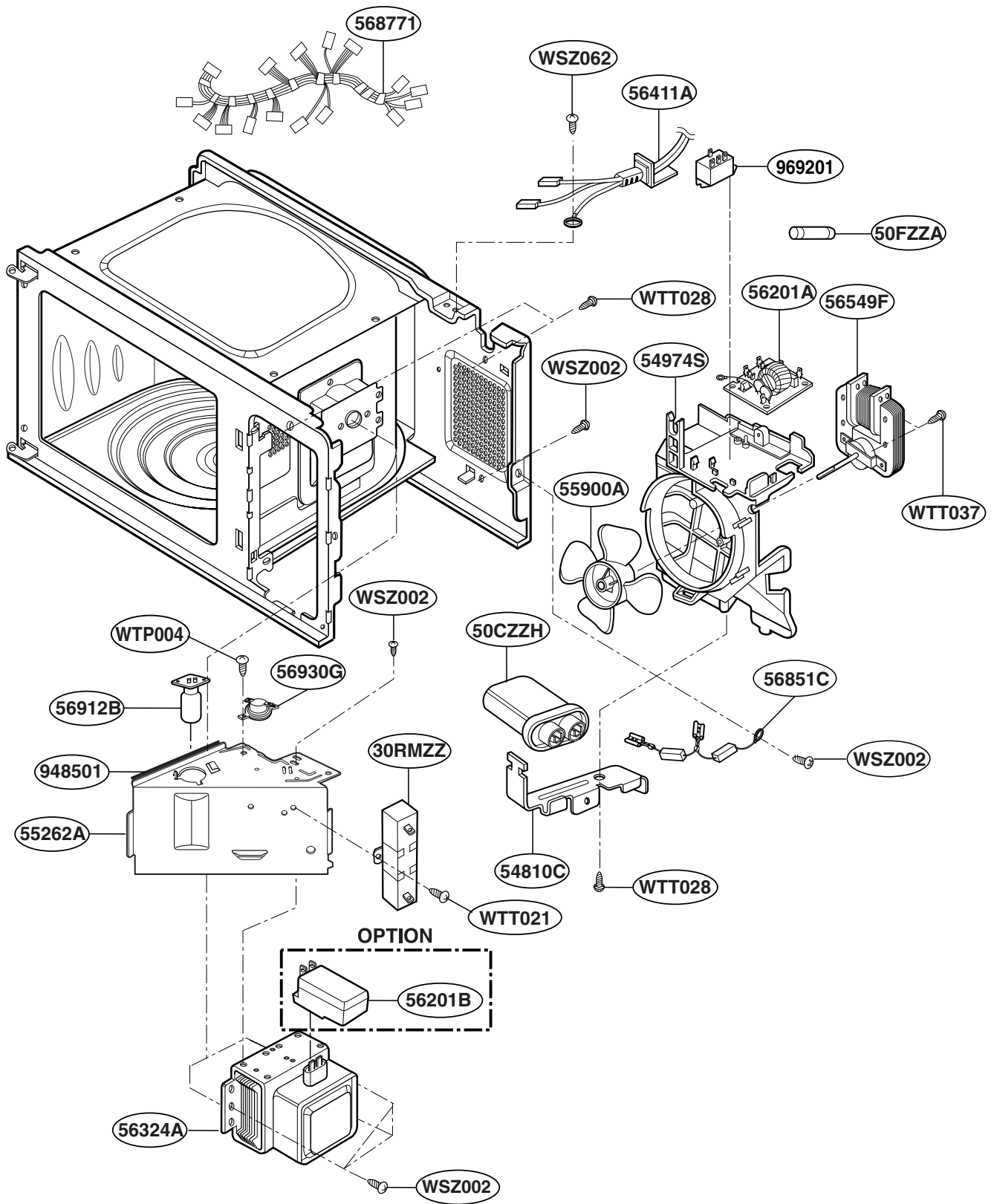
OVEN CAVITY PARTS



LATCH BOARD PARTS



INTERIOR PARTS



BASE PLATE PARTS

