

# TOOLS AND MEASURING INSTRUMENTS

## NECESSARY TOOLS

Tools normally used for TV servicing are sufficient. Standard tools are listed below.

- Diagonal pliers
- Long nose pliers
- Phillips screwdriver
- Flat blade screwdriver
- Wrench (size 5mm)
- Nutdriver (size 5mm)
- Adjustable wrench
- Soldering iron
- Solder
- Vinyl insulation tape
- Polishing cloth

## NECESSARY MEASURING INSTRUMENTS

- TESTER (VOLTS-DC, AC, Ohmmeter)
- Microwave survey meter
  - Holaday HI-1500  
HI-1501
  - Narda 8100  
8200
- Inch scale
- 600 cc non conductive material beaker (glass or plastic),  
inside diameter: approx. 8.5 cm (3<sup>1</sup>/<sub>2</sub> in.)
- Cylindrical and made of borosilicate glass vessel.  
max. thickness: 3 mm  
outside diameter: approx. 190mm  
height: approx. 90mm
- Glass thermometer: 100C or 212F (1 deg scale)

# MICROWAVE LEAKAGE TEST

## CAUTIONS

- Be sure to check microwave leakage prior to servicing the oven if the oven is operative prior to servicing.
- The service personnel should inform the manufacture importer, or assembler of any certified oven unit found to have a microwave emission level in excess of 5 mW/cm<sup>2</sup> and should repair any unit found to have excessive emission levels at no cost to the owner and should ascertain the cause of the excessive leakage. The service personnel should instruct the owner not to use the unit until the oven has been brought into compliance.
- If the oven operates with the door open, the service personnel should:
  - Tell the user not to operate the oven.
  - Contact the manufacturer and CDRH (Center for Devices and Radiological Health) immediately.

### NOTE: Address on CDRH

Office of Compliance(HFZ-312)  
Center for Devices and Radiological  
Health 1390, Piccard Drive,  
Rockville. MD 20850

- The service personnel should check all surface and vent openings for microwave leakage.
- Check for microwave leakage after every servicing. The power density of the microwave radiation leakage emitted by the microwave oven should not exceed 4 mW/cm<sup>2</sup>. Always start measuring of an unknown field to assure safety for operating personnel from radiation leakage.

## MEASURING MICROWAVE ENERGY LEAKAGE

- Pour 275±15cc of 20±5°C (68±9°F) water in a beaker which is graduated to 600 cc, and place the beaker on the center of the turntable.
- Set the energy leakage monitor to 2,450 MHz and use it following the manufacturer's recommended test procedure to assure correct result.
- When measuring the leakage, always use the 2-inch (5cm) spacer supplied with the probe.
- Operate the oven at its maximum output.
- Measure the microwave radiation using and electromagnetic radiation monitor by holding the probe perpendicular to the surface being measured

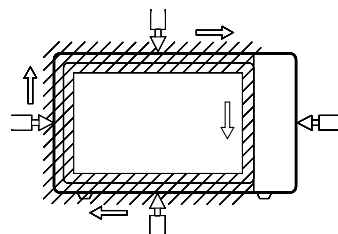
Move probe along shaded area

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Probe scanning speed

Less than 2.5 cm/sec

(1 in/sec)



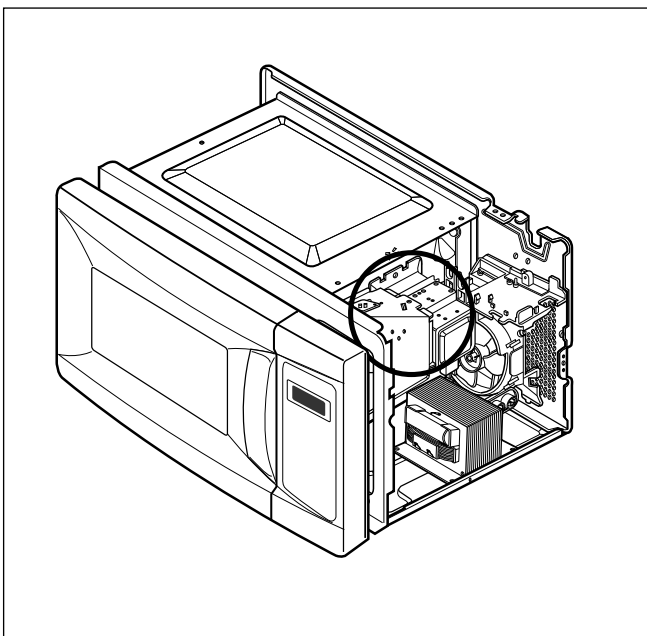
## MEASUREMENT WITH OUTER CASE REMOVED

- 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 Fig. below)

- Around the magnetron
- The waveguide

**WARNING : AVOID CONTACTING ANY HIGH VOLTAGE PARTS**



## 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

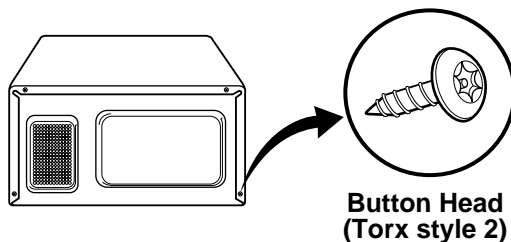
- Do not exceed meter full scale deflection.
- The test probe must be removed no faster than 1 inch/sec (2.5 cm/sec) along the shaded area, otherwise a false reading may result.
- The test probe must be held with the grip portion of the handle.  
A false reading may result if the operator's hand is between 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 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.

## SPECIAL TIP

- This oven used the button head screws.



- When you remove the screws, use the tamper-resistant Torx driver having a pin-in-head.

# 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 (T1) 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 T of (10±2) is measured, where T is the time in seconds and T 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.

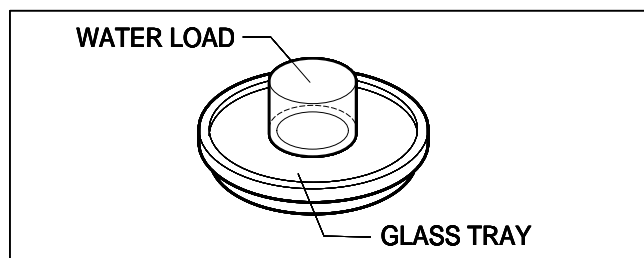
**NOTE:** For simple test of microwave power output, conduct it by heating one litter water for one minute, minimum temperature rise should be 15.4F(8.6C).

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

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

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 of the case.  
The outer case must be moved backward to be lifted off.

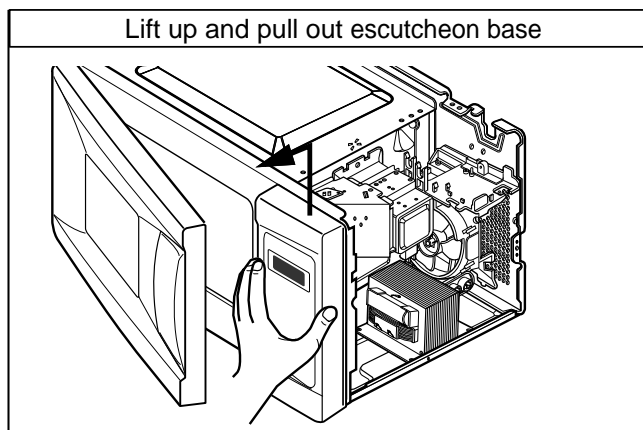
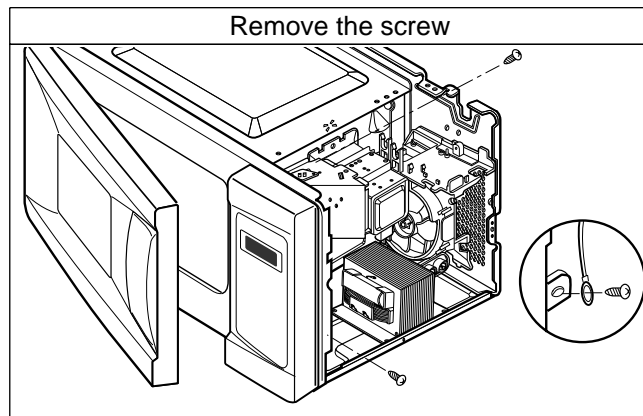
### B. POWER SUPPLY CORD

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

### C. ESCUTCHEON BASE U

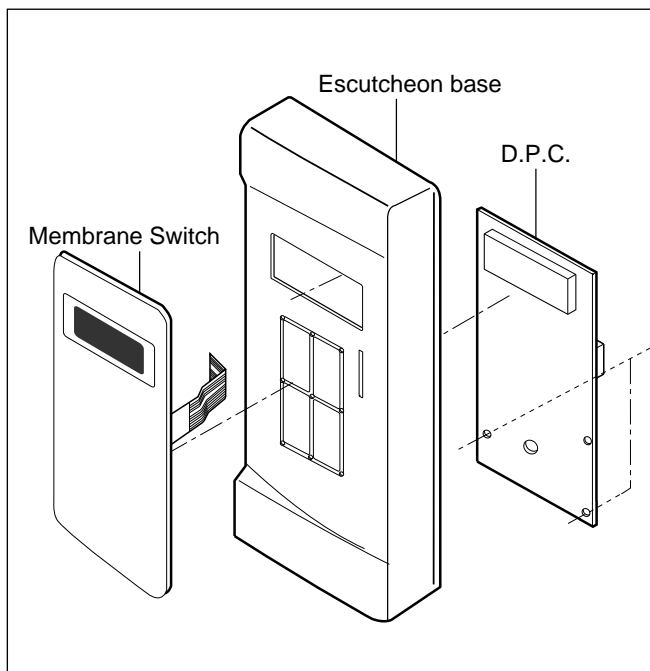
- 1) Open the door.
- 2) Disconnect the leadwire from RELAY (RY2) of the D.P.C.
- 3) Disconnect the leadwire from connector (CN1) of the D.P.C.
- 4) Remove screw which hold escutcheon base U to the cavity.
- 5) Lift up and pull out escutcheon base U carefully from the cavity.

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



## D. DIGITAL PROGRAMMER CIRCUIT REMOVAL

- 1) Remove the escutcheon base U from the cavity. (Refer to escutcheon base U removal on previous page.)
- 2) Remove screws which hold the D.P.C to escutcheon base.
- 3) Disconnect the flat cable from the D.P.C and take off the D.P.C.



## E. DOOR MAIN ASSEMBLY REMOVAL

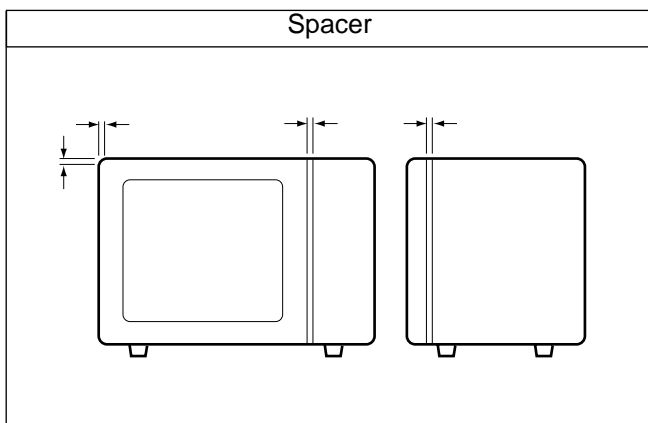
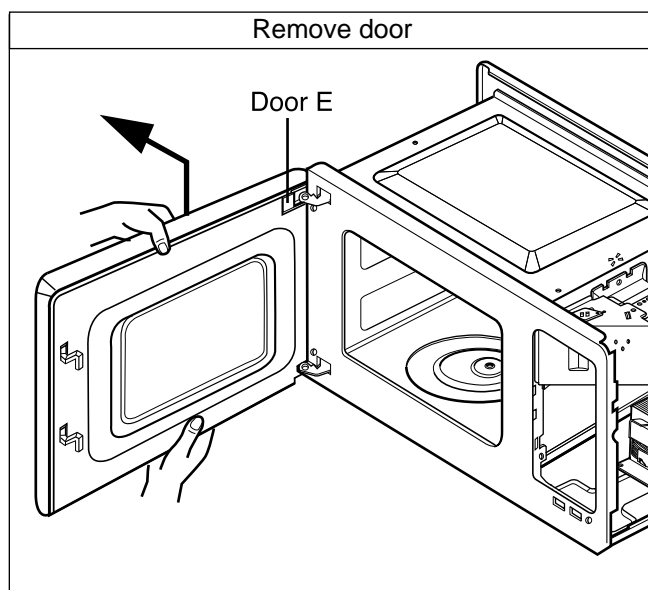
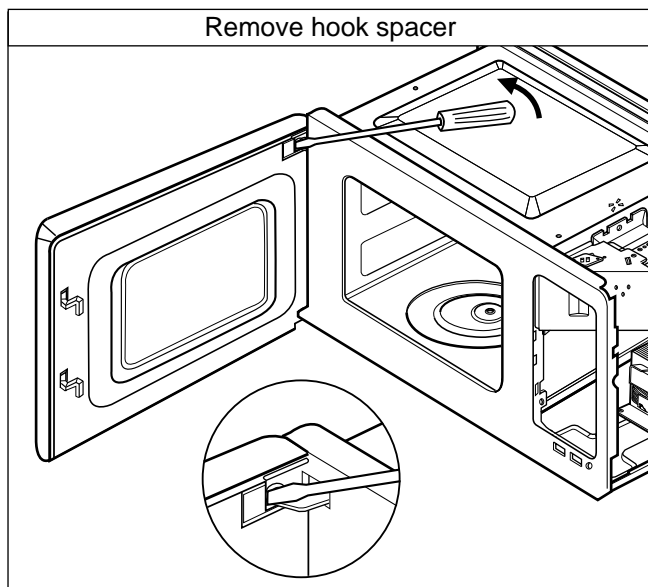
- 1) Open the door.
- 2) Remove the choke cover very carefully with a flat-blade screwdriver.

**CAUTION: Be careful not to damage door E 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 4 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.



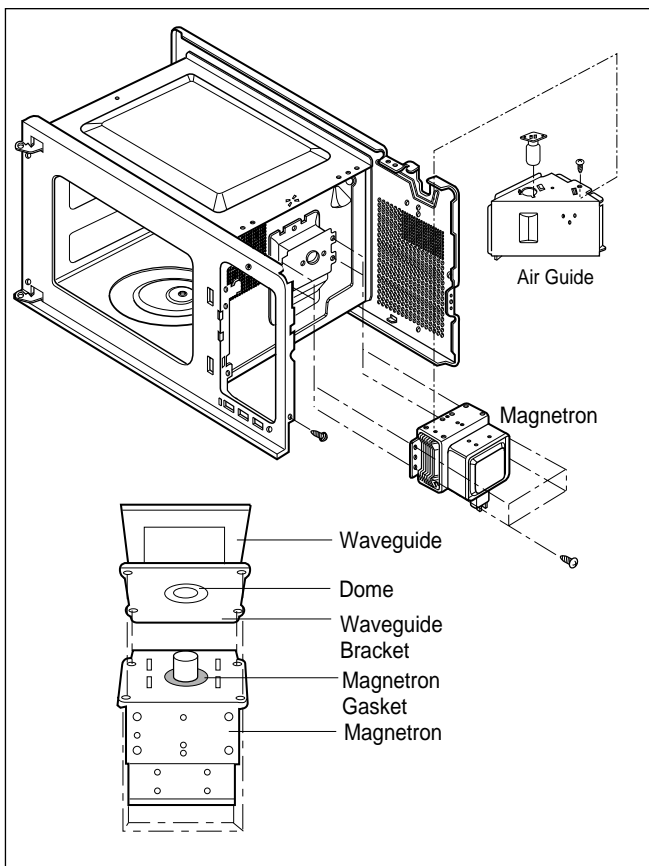
## F. MAGNETRON REMOVAL

- 1) Disconnect the leadwire from the magnetron.
- 2) Carefully remove the mounting screws holding the magnetron and the waveguide.
- 3) Remove the magnetron ASSEMBLY 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  $5 \text{ mW/cm}^2$ . (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.

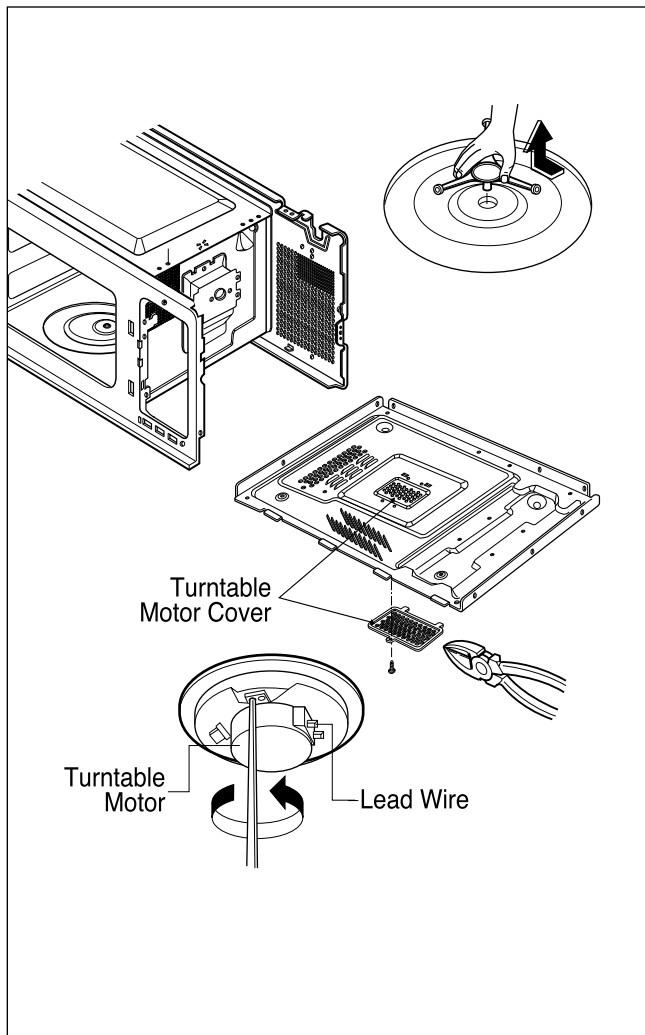


## G. REMOVING THE TURNTABLE MOTOR

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

### NOTE:

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



## H. HIGH VOLTAGE TRANSFORMER

### REMOVAL

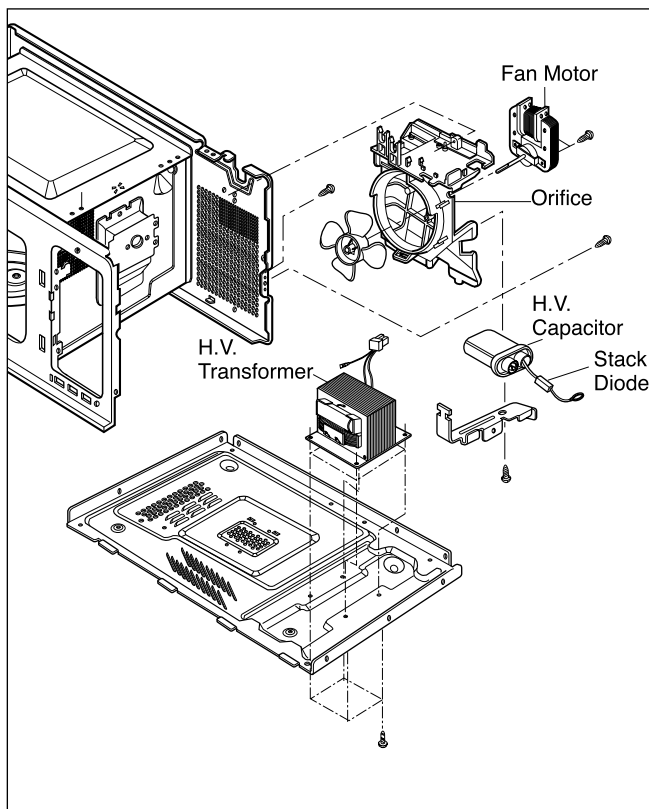
- 1) Discharge the high voltage capacitor.
- 2) Disconnect the leadwire from magnetron, high voltage transformer, and capacitor.
- 3) Remove the screw holding the high voltage transformer to the base.

## I. FAN MOTOR ASSEMBLY REMOVAL

- 1) Discharge the high voltage capacitor.
- 2) Disconnect the leadwire from fan motor and high voltage capacitor.
- 3) Remove the two screws holding the the orifice to the oven cavity.
- 4) Remove the two screws holding the fan motor to the orifice.

## J. HIGH VOLTAGE CAPACITOR AND DIODE REMOVAL

- 1) Discharge the high voltage capacitor.
- 2) Disconnect the leadwire from fan motor and high voltage capacitor.
- 3) Remove the screw holding the orifice to the oven cavity.
- 4) Remove the screw holding the high voltage capacitor bracket and remove the stack diode earth screw.



## K. INTERLOCK SYSTEM

### 1) INTERLOCK MECHANISM

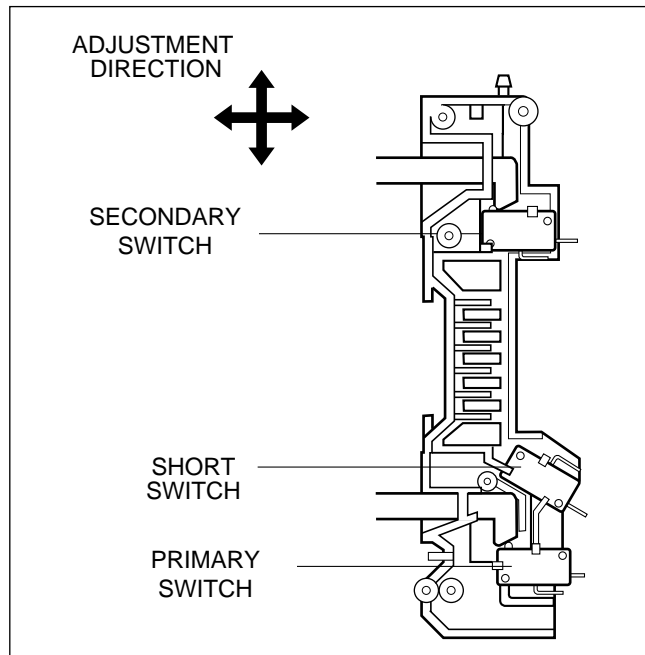
The door lock mechanism is a device which has been specially designed to eliminate completely microwave activity when the door is opened during cooking and thus to prevent the danger resulting from the microwave leakage.

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

### 3) INSTALLATION AND ADJUSTMENT OF THE DOOR HOOK TO THE OVEN ASSEMBLY

- Mount the door hook to the oven assembly.
- Adjust the door hook 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 pulling the door handle. Door movement should be less than 0.5 mm. (1/64 inch)**

Don't pull the door handle while making this adjustment. Make sure that the door key moves smoothly after adjustment is completed and that the screws are tight. Make sure the primary, short, 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. ALL THESE SWITCHES MUST BE REPLACED AT THE SAME TIME.**

TYPE NO. SZM-V 15-FA-63 OR VP-533A-OF FOR PRIMARY SWITCH  
TYPE NO. SZM-V 16-FA-62, VP-532A-OF OR V-5220Q FOR MONITOR SWITCH  
TYPE NO. SZM-V 16-FA-63, VP-533A-OF OR V-5230Q FOR SECONDARY SWITCH

## A. PRIMARY INTERLOCK SWITCH TEST

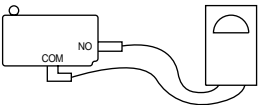


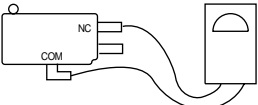


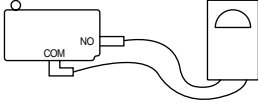


When the door is opened slowly, an audible **click** should be heard at the same time or successively at intervals and the latches should activate the switches with an audible **click**.  
If the Door key do not activate the switches when the door is closed, the switches should be a adjusted in accordance with the adjustment procedure. Disconnect the lead wire 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(SHORT) SWITCH TEST

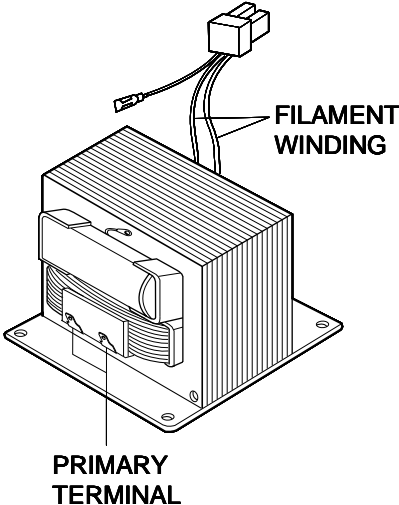
Disconnect the lead wire from the monitor switch. Connect the ohmmeter leads to the common (COM) and normally closed (NC) terminals of the switch. The meter should indicate closed circuit in the door open condition. When the door is closed, meter should indicate an open circuit. When the monitor switch 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	
SWITCHES (Wire leads removed)	Check for continuity of the switch with an Ohm-meter		Door open	Door closed
	Primary Switch			
	Monitor(Short) Switch			
	Secondary Switch			
	NOTE : After checking for the continuity of switches, make sure that they are connected correctly.			

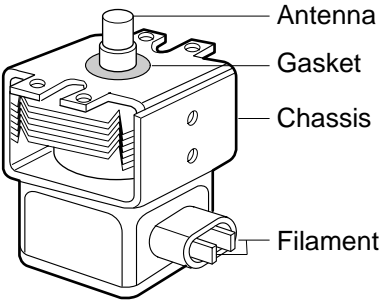
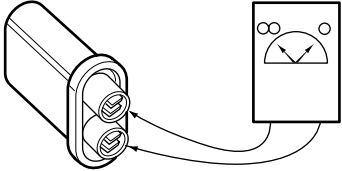
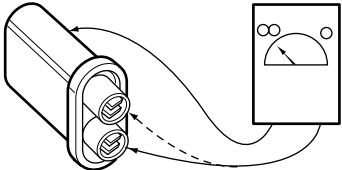
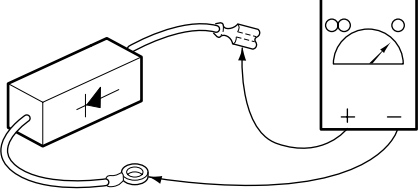
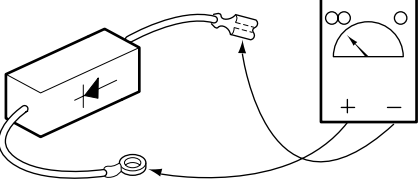
# COMPONENT TEST PROCEDURE

## CAUTIONS

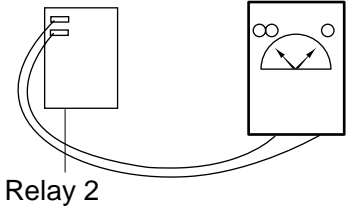


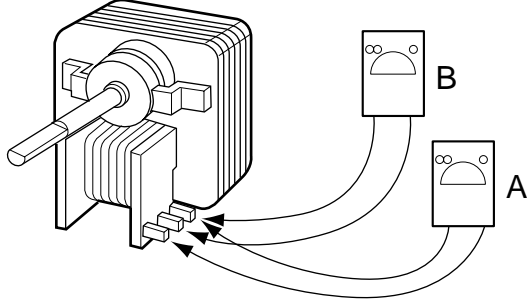
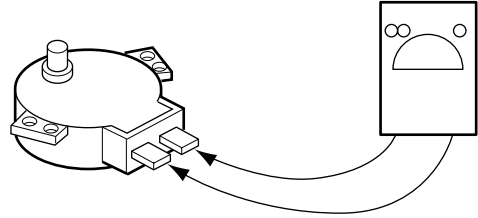
1. DISCONNECT THE POWER SUPPLY CORD FROM THE OUTLET WHENEVER REMOVING THE OUTER CASE FROM THE UNIT. PROCEED WITH THE TEST ONLY AFTER DISCHARGING THE HIGH VOLTAGE CAPACITOR AND REMOVING THE WIRE LEADS FROM THE PRIMARY WINDING OF THE HIGH VOLTAGE TRANSFORMER. (SEE PAGE 2-1)
2. ALL OPERATIONAL CHECKS WITH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

COMPONENTS	TEST PROCEDURE	RESULTS
HIGH VOLTAGE TRANSFORMER (Wire leads removed)	<div><p>The diagram shows a high voltage transformer with a rectangular core and a base plate. Two wires are connected to the top of the transformer, labeled 'FILAMENT WINDING'. A label 'PRIMARY TERMINAL' points to the bottom of the transformer where the primary winding is connected.</p></div> <ol style="list-style-type: none"><li>1. Measure the resistance. (Ohm-meter scale: Rx1 and Rx100)<ul style="list-style-type: none"><li>• Primary winding</li><li>• Secondary winding</li><li>• Filament winding</li></ul></li><li>2. Measure the resistance. (Ohm-meter scale: Rx1000)<ul style="list-style-type: none"><li>• Primary winding to ground</li><li>• Filament winding to ground</li></ul></li></ol>	<p>Approx.: 0.2 ~ 0.4 ohm Approx.: 60 ~ 90 ohm Less than: 1 ohm</p> <p>Normal: Infinite Normal: Infinite</p>
MAGNETRON (Wire leads removed)	<ol style="list-style-type: none"><li>1. Measure the resistance. (Ohm-meter scale: Rx1)<ul style="list-style-type: none"><li>• Filament terminal</li></ul></li><li>2. Measure the resistance. (Ohm-meter scale: Rx1000)<ul style="list-style-type: none"><li>• Filament to chassis</li></ul></li></ol>	<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)</p> <ul style="list-style-type: none"> <li>• Terminal to terminal.</li> </ul> 	Normal: Momentarily indicates several ohms, and then gradually returns to infinite.
	<p>Measure the resistance. (Ohm-meter scale: Rx1000)</p> <ul style="list-style-type: none"> <li>• Terminal to case.</li> </ul> 	Normal: Infinite.
HIGH VOLTAGE DIODE	<p>Measure the continuity (Forward). (Ohm-meter scale: Rx10000)</p> 	<p>Normal: Continuity. Abnormal: Infinite.</p> <p><b>NOTE:</b> Meter reading depend on the battery in the meter.</p>
	<p>Measure the continuity (Reverse). (Ohm-meter scale: Rx10000)</p> 	<p>Normal: Infinite. Abnormal: Continuity.</p>

NOTE :  
Some inexpensive meters may indicate infinite resistance in both direction.

COMPONENTS	TEST PROCEDURE	RESULTS		
RELAY 2	Check for continuity of relay 2 with an ohm-meter. (Remove wire leads from relay 2 and operate the unit.)  	POWER LEVEL		
		1	4 sec	18 sec
		2	6 sec	16 sec
		3	8 sec	14 sec
		4	10 sec	12 sec
		5	12 sec	10 sec
		6	14 sec	8 sec
		7	16 sec	6 sec
		8	18 sec	4 sec
		9	20 sec	2 sec
		10	22 sec	0 sec
FAN MOTOR (Wire leads removed)	Measure the resistance. (Ohm-meter scale: R x 1)  	Normal: A: Approx. 85 ~ 100 ohm. B: Approx. 10 ~ 25 ohm.  Abnormal: Infinite or several ohms.		
TURNTABLE MOTOR (Wire leads removed)	Measure the resistance. (Ohm-meter scale: R x 1)  	Normal: Approx. 100~150 ohm Abnormal: Infinite or several ohm.		

- 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.
  - ON SOME BARE CONNECTORS, PUSH RELEASE - TAB TO RELEASE.

# TROUBLESHOOTING

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.
5. Do not touch any part of the circuit on the DPC since static electric discharge may damage this control panel.

Always touch yourself to ground while working on this panel to discharge any static charge built up in your body. (Micom model only)

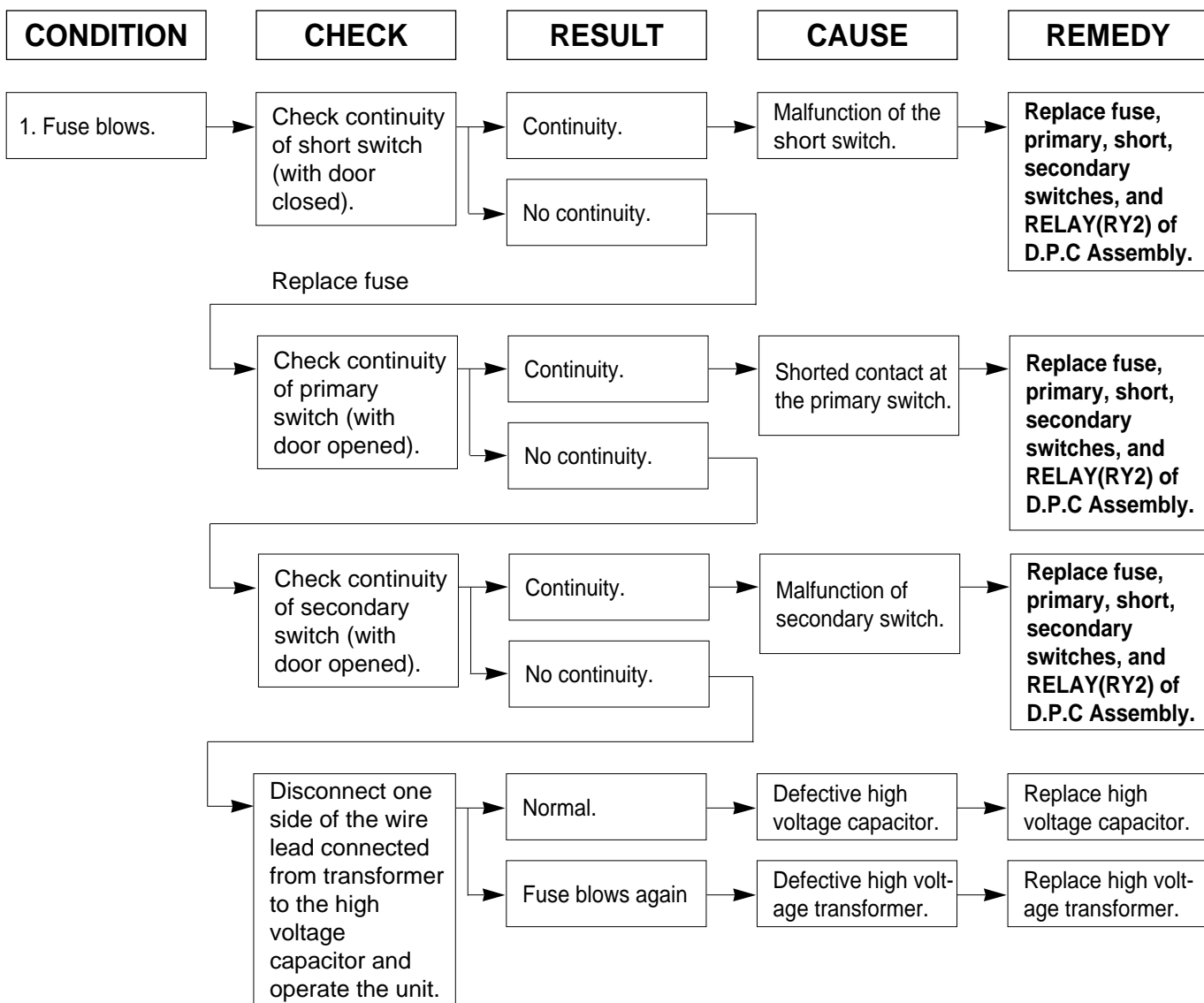
CONDITION	CAUSE	REMEDY
Microwave oven does not work.	Inserting many plugs into one outlet and using them at the same time. (blown fuse or breaker)	Avoid using other electrical appliances when you use the microwave oven.
	Microwave oven plug is not inserted tightly.	Insert microwave oven plug securely.
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 that 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.	1. Use plastic wrap or lid. 2. Stir once or twice while cooking soup, cocoa or milk, etc.

## (TROUBLE 1) The following visual conditions indicate a probable defective control circuit.

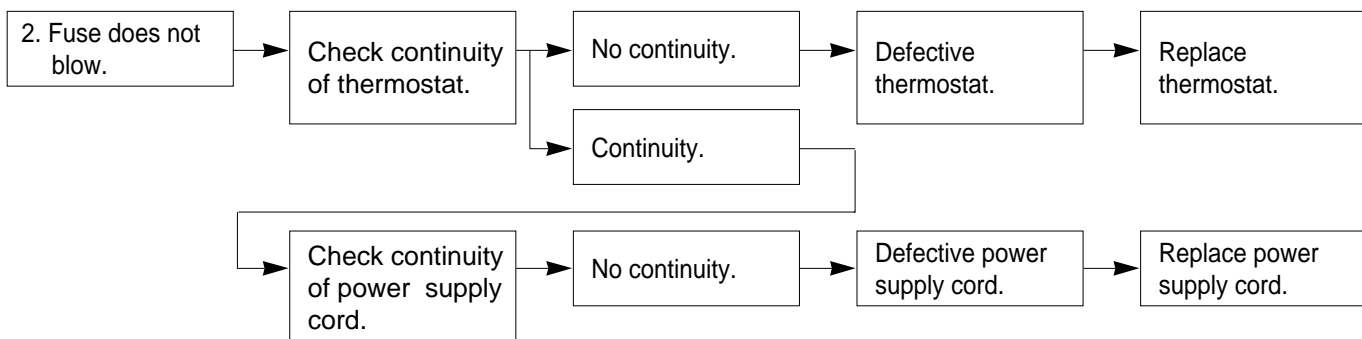
1. Incomplete segments.
  - Segment missing.
  - Partial segment missing.
  - Digit flickering (NOTE: Slight flickering is normal.)
2. Colon does not turn on or blink.
3. A distinct change in the brightness of one or more numbers in display.
4. One or more digits in the display are not lighting.
5. Display indicates a number different from one touched, for example, key in **5** and **3** appears in the display.
6. Specific numbers (for example 7 or 9) will not display when key pad is touched.
7. Display does not count down with time blinking or up with clock operation.
8. Display obviously jumps in time while counting down.
9. Display counts down too fast while cooking.
10. Each indicator light does not turn on after setting cooking cycle.
11. Display time of day does not reappear when cooking is finished.

CONDITION	CHECK	RESULT	CAUSE	REMEDY
1. No input can be programmed.	Check the connection between membrane key board and DPC assembly.	Continuity	Defective DPC assembly.	Replace DPC assembly.
		No continuity	Loose connection.	Connect them tightly.
2. Some inputs cannot be programmed.	Replace membrane key board and check operation.	Everything works as specified.	Defective membrane key board.	Replace membrane key board.
3. Display shows a number or figure different from one touched.		Still have trouble.	Defective DPC assembly.	Replace DPC assembly.
4. Random programming when touching other pads.				
5. Display is fixed at some figure and can not accept any input.				

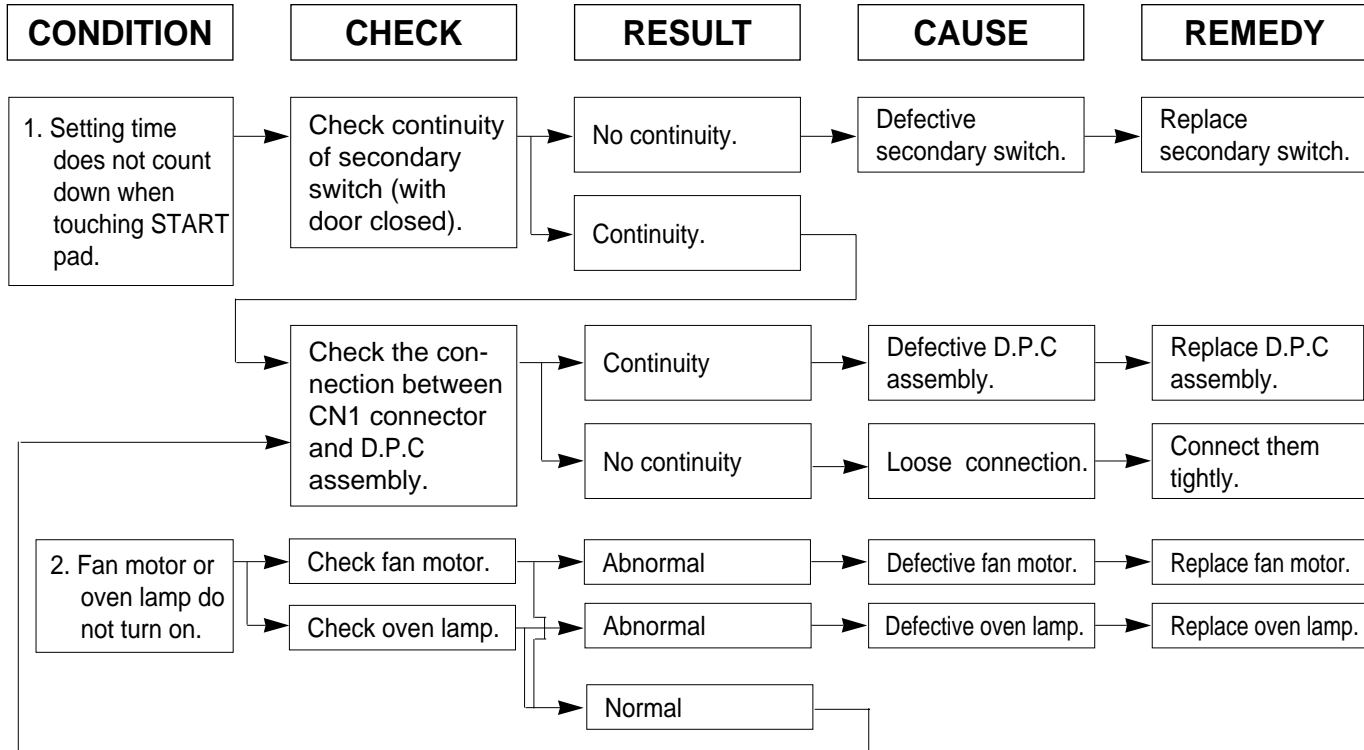
**(TROUBLE 2) Oven does not operate at all, display window does not display any figures, and no input is accepted.**



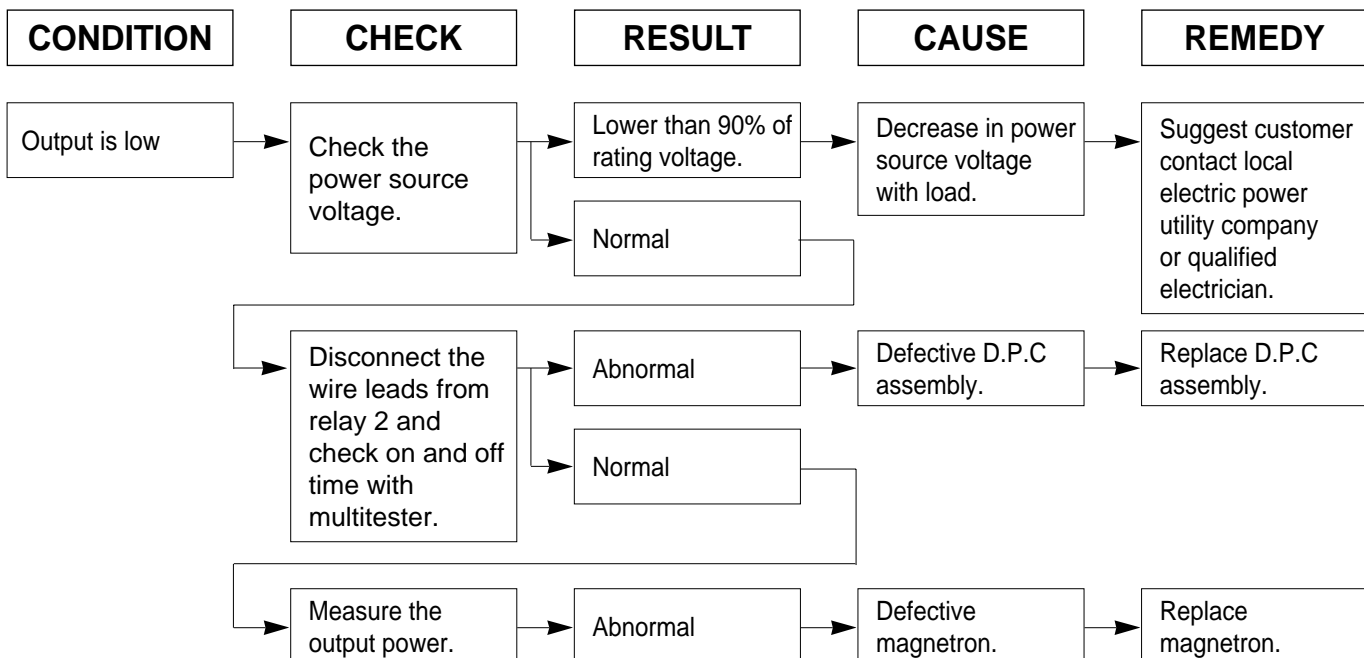
**NOTE : All these switches must be replaced at the same time. Refer to page 5-7, 5-8**



**(TROUBLE 3) Display shows all figures set, but oven does not start cooking while desired program times are set and START pad is touched.**



**(TROUBLE 4) Oven seems to be operating but little heat is produced in oven load.**



**NOTE :** Simple test of power output-conducted by heating one liter water for one min. if available.  
Minimum 8.6°C(15.4°F) temperature rise is normal condition.

**(TROUBLE 5) No microwave oscillation even though oven lamp and fan motor run.  
(Display operates properly)**

CONDITION	CHECK	RESULT	CAUSE	REMEDY
No microwave oscillation.	Disconnect the wire leads from relay 2 and check continuity of relay 2. (Operate the unit)	No continuity.	Defective D.P.C assembly.	Replace D.P.C assembly.
		Continuity.		
	Check high voltage transformer	Abnormal	Defective high voltage transformer.	Replace high voltage transformer.
		Normal		
	Check high voltage capacitor.	Abnormal	Defective high voltage capacitor.	Replace high voltage capacitor.
		Normal		
	Check high voltage diode.	Abnormal	Defective high voltage diode.	Replace high voltage diode.
		Normal		
	Check magnetron.	Abnormal	Defective magnetron.	Replace magnetron.
		Normal		

**NOTE :** • 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.
- When removing the magnetron, be sure to install the magnetron gasket in the correct position and in good condition.

Output is full power when you set lower power level.	Disconnect the wire leads from relay 2 and check continuity relay 2. (Operate the unit)	Abnormal.	Defective D.P.C assembly.	Replace D.P.C assembly.
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