

# Service Manual

## Microwave Oven

Model: ITO-ZEN1 // ITO-ZEN2

DAEWOO

✓ **Caution**

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service Information Center (<http://svc.dwe.co.kr>).

# **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.

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# SAFETY AND PRECAUTIONS

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## CAUTION

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.

## 1. FOR SAFE OPERATION

Damage that allows the microwave energy (that cooks or heats the food) to escape will result in poor cooking and may cause serious bodily injury to the operator.

IF ANY OF THE FOLLOWING CONDITIONS EXIST, OPERATOR MUST NOT USE THE APPLIANCE.

(Only a trained service personnel should make repairs.)

- (1) A broken door hinge.
- (2) A broken door viewing screen.
- (3) A broken front panel, oven cavity.
- (4) A loosened door lock.
- (5) A broken door lock.

The door gasket plate and oven cavity surface should be kept clean.

No grease, soil or spatter should be allowed to build up on these surfaces or inside the oven.

DO NOT ATTEMPT TO OPERATE THIS APPLIANCE WITH THE DOOR OPEN.

The microwave oven has concealed switches to make sure the power is turned off when the door is opened.

Do not attempt to defeat them.

DO NOT ATTEMPT TO SERVICE THIS APPLIANCE UNTIL YOU HAVE READ THIS SERVICE MANUAL.

## 2. FOR SAFE SERVICE PROCEDURES

1. If the oven is operative prior to servicing, a microwave emission check should be performed prior to servicing the oven.
2. If any certified oven unit is found to servicing, a microwave emission check should be performed prior to servicing the oven.
  - (a) inform the manufacturer, importer or assembler,
  - (b) repair the unit at no cost to the owner,
  - (c) attempt to ascertain the cause of the excessive leakage,
  - (d) tell the owner of the unit not to use the unit until the oven has been brought into compliance.
3. If the oven operates with the door open, the service person should tell the user not to operate the oven and contact the manufacturer and CDRH immediately.

## CAUTION

### 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 CONNECTED. ALL INPUT AND OUTPUT MICROWAVE CONNECTIONS, WAVEGUIDE FLANGES AND PASKETS MUST BE SECURE. NEVER OPERATE THE DEVICE WITHOUT A MICROWAVE ENERGY ABSORBING LOAD ATTACHED. NEVER LOOK INTO AN OPEN SAVEGUIDE OR ANTENNA WHILE THE DEVICE IS ENERGIZED.

# SPECIFICATIONS

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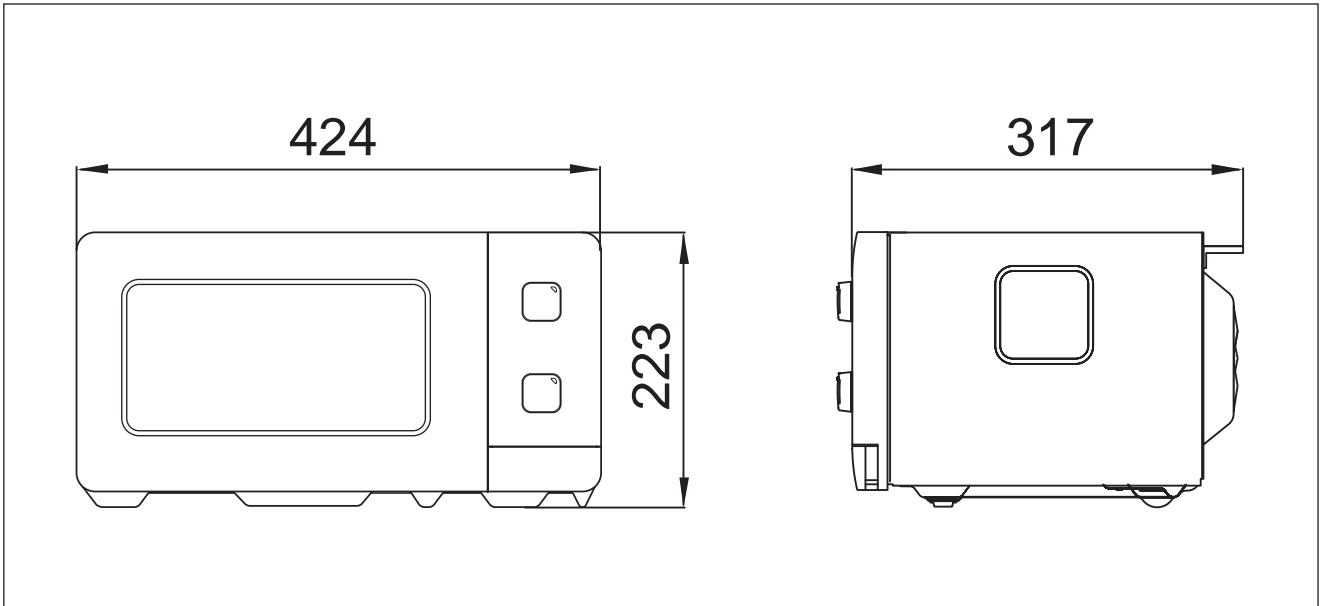
POWER SUPPLY		120V, 60Hz SINGLE PHASE WITH EARTHING
MICROWAVE	INPUT POWER	900 W
	ENERGY OUTPUT	500 W
	FREQUENCY	2,450MHz
OUTSIDE DIMENSIONS (W x H x D)		424 x 223 x 317 mm
CAVITY DIMENSIONS (W x H x D)		275 x 178 x 297 mm
CAVITY VOLUME		15 L
NET WEIGHT		APPROX. 8.5 Kg
TIMER		35min. DUAL SPEED
POWER SELECTIONS		7 Levels

*\* Specifications are subject to change without notice.*

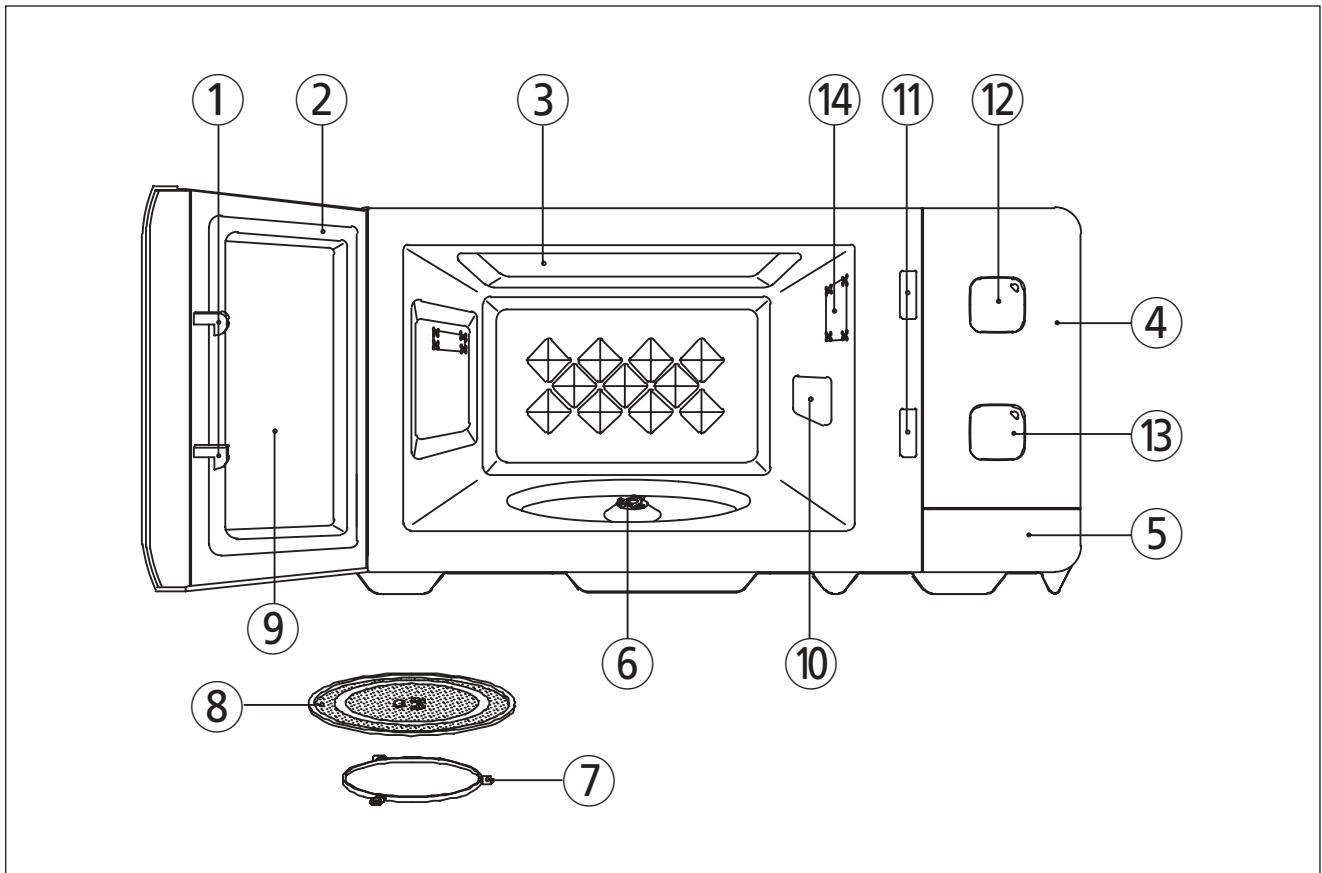
# EXTERNAL VIEW

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## 1. OUTER DIMENSION



## 2. FEATURES DIAGRAM



- ① **Door latch** - When the door is closed, it will automatically shut off. If the door is opened while the oven is operating, the magnetron will automatically shut off.
- ② **Door seal** - The door seal surfaces prevent microwaves escaping from the oven cavity.
- ③ **Oven cavity**
- ④ **Control panel**
- ⑤ **Door open button** - To open the door push the door open button.
- ⑥ **Coupler**- This fits over the shaft in the center of the oven cavity floor. This is to remain in the oven for all cooking.
- ⑦ **Roller guide** - This must always be used for cooking together with the glass cooking tray.
- ⑧ **Glass cooking tray** - Made of special heat resistant glass. The tray must always be in proper position before operating. Do not cook food directly on the tray.
- ⑨ **Viewing screen** - Allows viewing of food. The screen is designed so that light can pass through, but not the microwave.
- ⑩ **Waveguide cover** - Protects the microwave outlet from splashes of cooking foods.
- ⑪ **Safety interlock system**
- ⑫ **Variable Power Control Knob** - Used to select a microwave power level.
- ⑬ **Timer knob** - Used in setting cooking time for all functions.
- ⑭ **Oven lamp** - Automatically turns on during oven operating.

# INSTALLATION

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## 1. Steady, flat location

This microwave oven should be set on a steady, flat surface.

This microwave oven is designed for counter top use only.

## 2. 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, cause failure.

## 3. 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, or feeder and so on. Position the oven as far from them as possible.

## 4. Away from heating appliances and water taps

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

## 5. Power supply

- Check your local power source.

This microwave oven requires a current of approximately 8.5 ampere, 120V, 60Hz.

- Power supply cord is about 0.8 meters long.
- Used the voltage 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.
- This appliance is supplied with cable of special type, which, if damaged, must be repaired with cable of same type. Such a cable can be purchased from DAEWOO and must be installed by a qualified person.

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

A misaligned door, broken door or a dent in cavity.

If any of the above are visible, DO NOT INSTALL, and notify dealer immediately.

## 7. 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.

## EARTHING INSTRUCTIONS

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

### WARNING

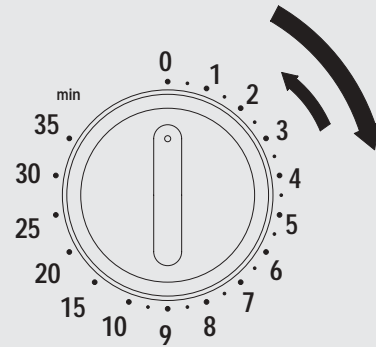
Improper use of the earthing plug can result in a risk of electric shock. Consult a qualified electrician or service-man if the earthing instructions are not completely understood, or if doubt exists as to whether the appliance is properly earthed, and either : If it is necessary to use an extension 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, or DO NOT USE an extension cord.

# OPERATIONS AND FUNCTIONS

1. Connect the mains lead to an electrical outlet.
2. After placing the food in a suitable container, open the oven door and put it on the glass tray. The glass tray must always be in place during cooking.
3. Close the door securely.
4. Choose cooking power level by setting V.P.C knob to the desired position. Refer to cookbook for recommended power levels.
5. Determine cooking time. Consult cookbook for recipe timing. Oven light turns on and cooling fan starts to operate. Microwave cooking starts.
6. You may open the door while the oven is operating. As soon as the door is opened, the safety mechanisms stop the generation of microwave power and the operation of cooking timer. If you wish to change the time during cooking, simply adjust the timer to the desired time.
7. When the timer reaches zero, a bell will ring and the unit will turn off. Oven light turns off. If additional cooking time is needed and the door is closed, the oven will automatically start when the timer is reset.

## NOTE

When setting timer for less than 10 minutes, turn the timer past 10 minutes and then return to the correct timer setting.










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

## Variable power cooking

ON and OFF cycle time of mechanical V.P.C switch is 30 seconds.

When the V.P.C knob is set to the desired position and timer knob to the desired position, the V.P.C switch has a cycle (ON/OFF time(sec.)) listed below.

Variable power setting		Approximate Percentage of Power
Power level		
	High	100%
	Medium high	86%
	Medium	72%
	Low stage	56%
	Defrost	38%
	Heat	26%
	Gentle heating	16%



# DISASSEMBLY AND ASSEMBLY

## Cautions to be observed when trouble shooting.

Unlike many other appliances, the microwave oven is high-voltage, high-current equipment.

It is completely safe during normal operation.

However, carelessness in servicing the oven can result in an electric shock or possible danger from a short circuit.

You are asked to observe the following precautions carefully.

1. Always remove the power plug from the outlet before servicing.
2. Use an insulated screwdriver and wear rubber gloves when servicing the high voltage side.
3. Discharge the high voltage capacitor before touching any oven components or wiring.

(1) Check the grounding.

Do not operate on a two-wire extension cord.

The microwave oven is designed to be used while earthed.

It is imperative, therefore, to make sure it is earthed

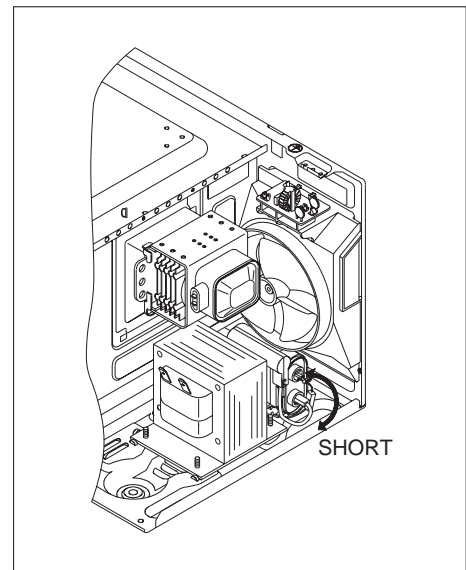
properly before beginning repair work.

(2) Warning about the electric charge in the high voltage capacitor.

For about 30 seconds after the operation stopped and electric charge remains in the high voltage capacitor.

When replacing or checking parts, short between oven chassis and the negative high terminal of the high voltage capacitor by using a properly insulated screwdriver to discharge.

4. When the fuse is blown out due to the operation of the monitor switch; replace primary interlock switch, secondary interlock switch and interlock monitor switch.
5. After repair or replacement of parts, make sure that the screws are properly tightened, and all electrical connections are tightened.
6. Do not operate without cabinet.

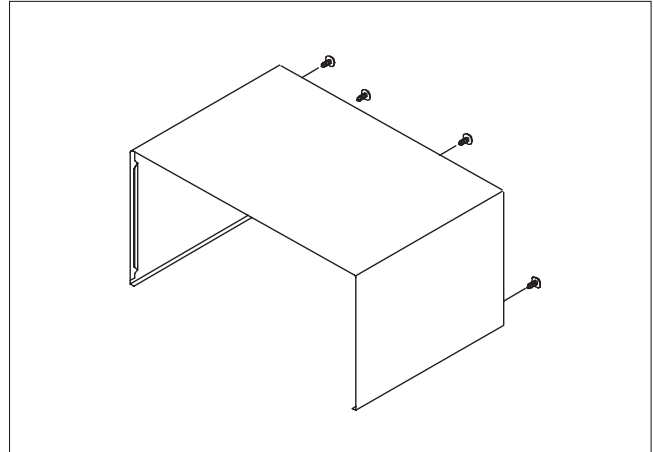


**CAUTION** : Service personnel should remove their watches whenever working close to or replacing the magnetron.

**WARNING** : When servicing the appliance, need a care of touching or replacing high potential parts because of electrical shock or exposing microwave. These parts are as follows - HV Transformer, Magnetron, HV Capacitor, HV Diode.

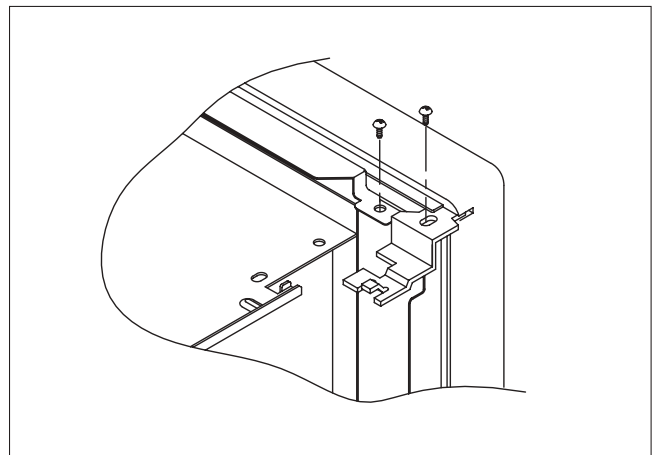
## 1. To remove cabinet

- 1) Remove four screws on cabinet back.
- 2) Pull the cabinet backward.



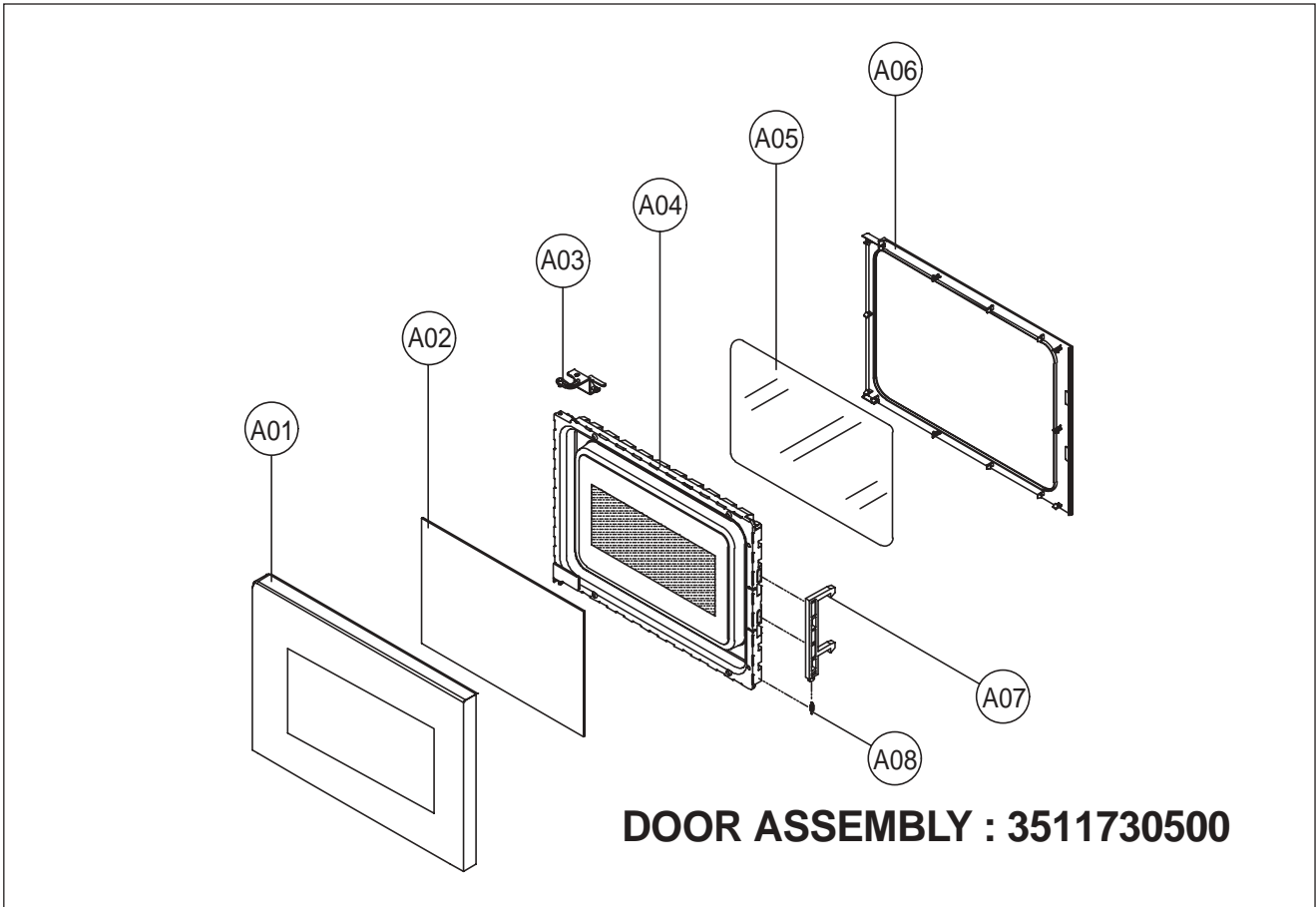
## 2. To remove door assembly

- 1) Remove two screws which secure the stopper hinge top.
- 2) Remove the door assembly from top plate of cavity.
- 3) Reverse the above for reassembly.



**NOTE :** After replacing the door assembly, perform a check of correct alignment with the hinge and cavity front plate.

### 3. To remove door parts.



REF No.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
A00	3511730500	DOOR AS	KOR-4A070S	1	
A01	3512211420	FRAME DOOR	HIPS SG-970 HG-1760H	1	
A02	3517011400	BARRIER SCREEN *O	TEMP GLASS T3.2	1	
A03	3515205620	STOPPER HINGE *T AS	KOR-4A070S	1	
A04	3511730510	DOOR PAINTING AS	KOR-4A070S	1	
A05	3517011410	BARRIER SCREEN *I	PE T0.1	1	
A06	3512303100	GASKET DOOR	PP	1	
A07	3513102200	HOOK	POM	1	
A08	3515101300	SPRING HOOK	PW1	1	

- 1) Remove the gasket door from the door painting as.
- 2) Remove the barrier screen inner from the door painting as.
- 3) Remove the frame door from the door painting as.
- 4) Remove the stopper hinge top as from the door painting as.
- 5) Remove the spring hook and the hook from the door painting as.
- 6) Remove the barrier screen outer from the frame door.
- 7) Reverse the above steps for reassembly.

#### 4. Method to reduce the gap between the door seal and the oven front surface.

(1) To reduce gap located on part 'A'

- Loosen two screws on the stopper hinge top, and then push the door to contact the door seal to the oven front surface.
- Tighten two screws.

(2) To reduce gap located on part 'B'

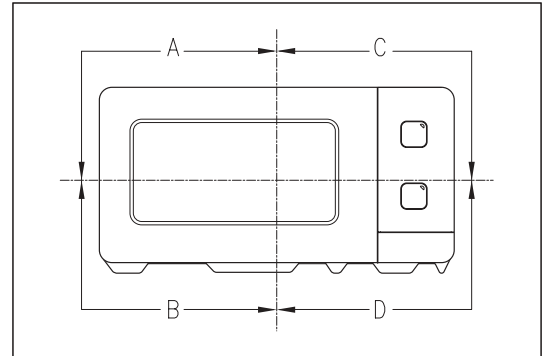
- Loosen two screws on the stopper hinge under, and then push the door to contact the door seal to the oven front surface.
- Tighten two screws.

(3) To reduce gap located on part 'C'

- Loosen the screw on the interlock switch assembly located the top of the oven body.
- Draw the interlock switch assembly inward as possible to engage with the hook on the door bottom.
- Tighten a screw.

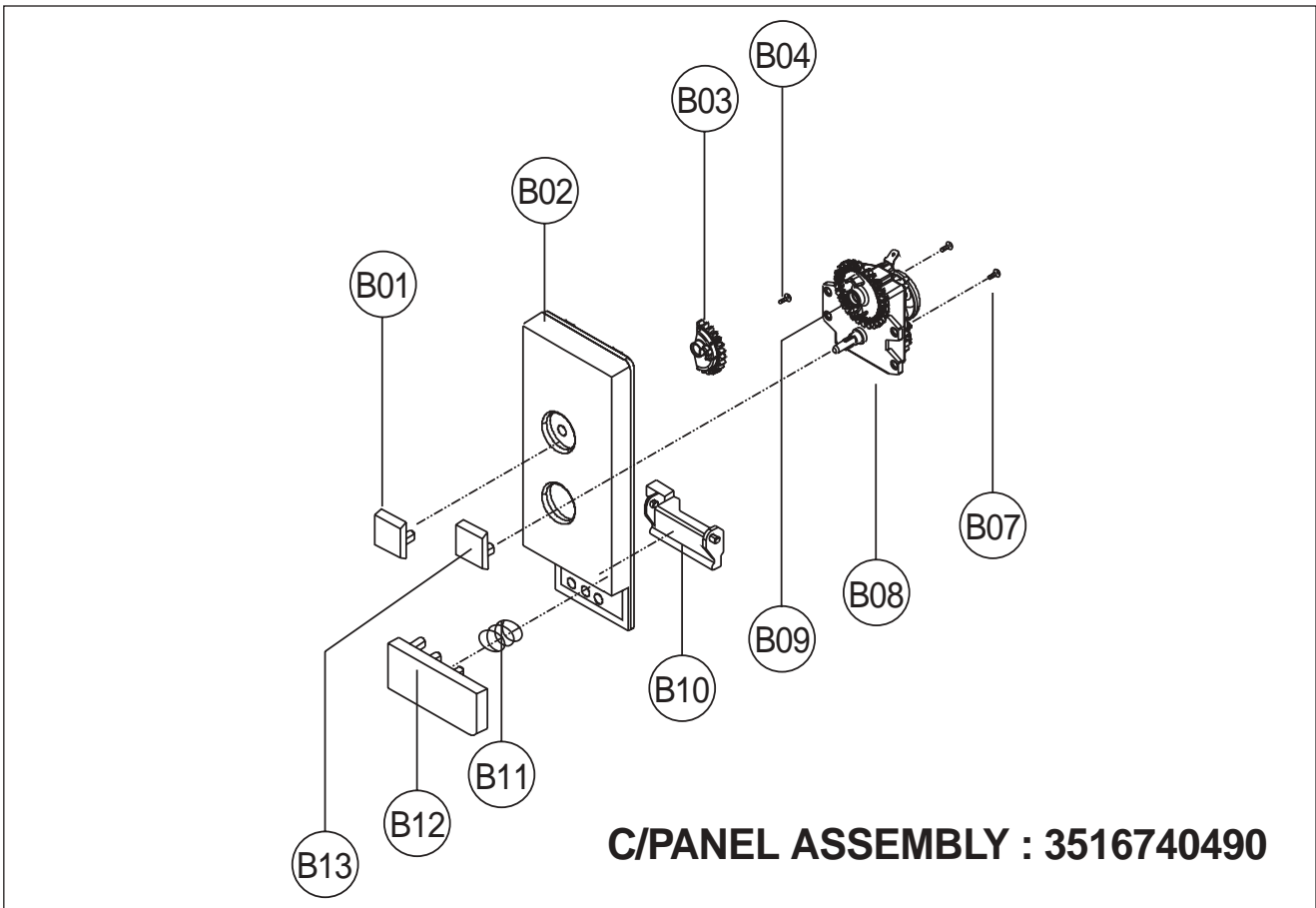
(4) To reduce gap located on part 'D'

- Loosen the screw on the interlock switch assembly located the bottom of the oven body.



**NOTE :** A small gap may be acceptable if the microwave leakage does not exceed 4mW/cm<sup>2</sup>.

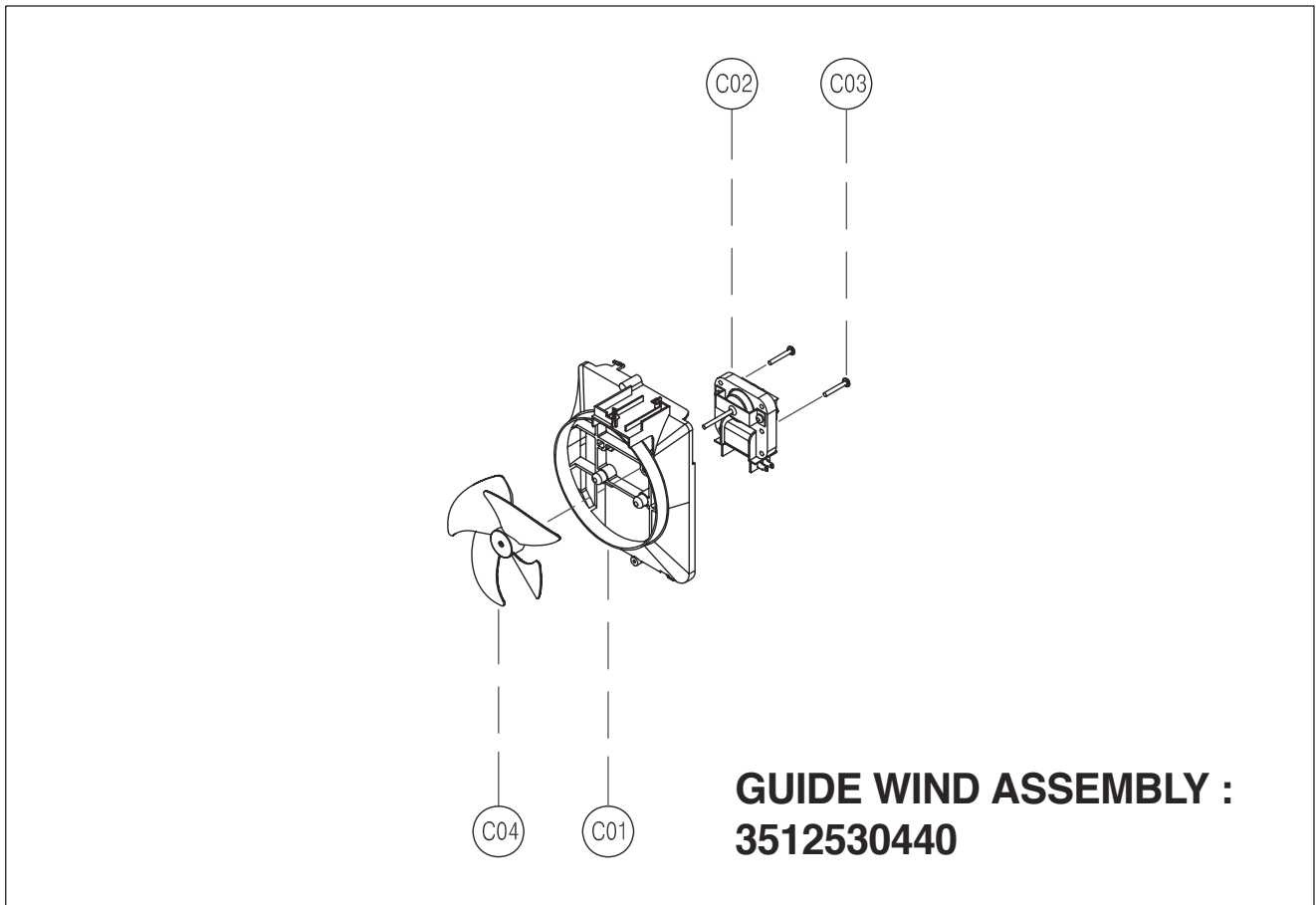
**5. To remove control panel parts.**



REF No.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
B00	3516740490	CONTROL-PANEL AS	KOR-4A070A27	1	
B01	3513412500	KNOB VPC	ABS SG-0760D SG-175	1	
B02	3516740460	CONTROL-PANEL	HIPS SG-970 HG-1760H	1	
B03	3517413700	COUPLER VPC	PP 5113MF6	1	
B04	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1	
B07	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2	
B08	3518204300	TIMER	KN35MKD 15U-P	1	
B09	3517400900	COUPLER TIMER	PP	1	
B10	3513703810	LEVER DOOR OPEN	PP 5113MF6	1	
B11	441G430171	SPRING BUTTON	SWP DIA. 0.7	1	
B12	3516917810	BUTTON DOOR OPEN	HIPS SG-970 HG-1760H	1	
B13	3513412510	KNOB	ABS SG-0760D SG-175	1	

- 1) Remove the screw which secure the control panel and draw forward the control panel assembly.
- 2) Remove two screws which secure the timer assembly.
- 3) Pull out the timer assembly from the control panel.
- 4) Pull out the timer knob from the timer.
- 5) Remove the screw which secure the coupler.
- 6) Pull out the coupler and V.P.C knob from the control panel.
- 7) Reverse the above steps for reassembly.

**6. To remove guide wind parts.**

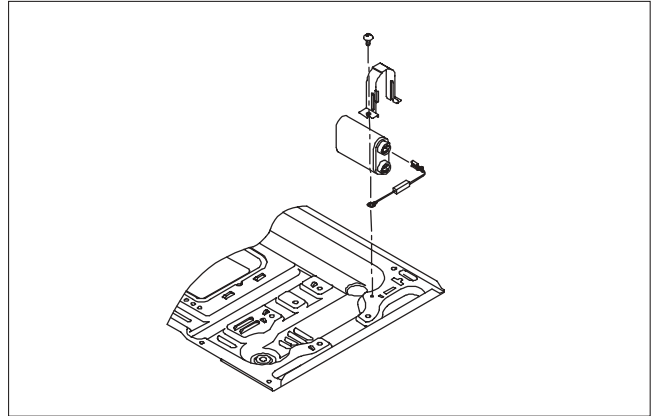


REF No.	PART CODE	PART NAME	DESCRIPTION	QTY	REMARK
C00	3512530440	GUIDE WIND AS	KOR-4A070A27	1	
C01	3512530410	GUIDE WIND	PP	1	
C02	3963821600	MOTOR SHADED POLE	120V 21W OEM-10DWX1-A07	1	
C03	7121402511	SCREW TAPPING	T2S PAN 4X25 MFZN	2	
C04	3511800300	FAN	PP+30%GLASS	1	

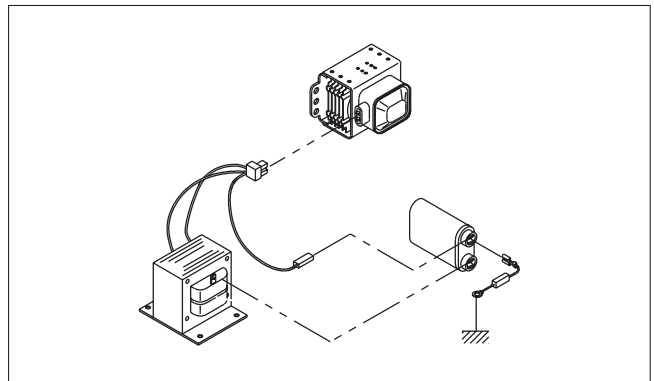
- 1) Remove two screws for earthing and for fixing to rear-plate.
- 2) Pull the fan from the motor shaft.
- 3) Remove two screws which secure the motor shaded pole.
- 4) Remove the motor shaded pole.
- 5) Reverse the above steps for reassembly.

## 7. To remove high voltage capacitor.

- 1) Remove the screw which secure the grounding ring terminal of the H.V. diode and the capacitor holder.
- 2) Remove the H.V. diode from the capacitor holder.
- 3) Reverse the above steps for reassembly.

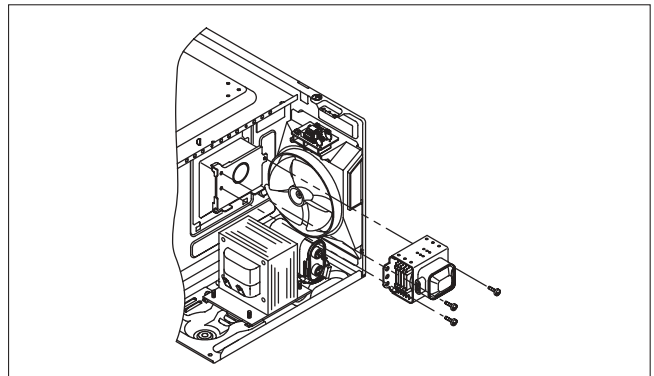


## ◆ High voltage circuit wiring

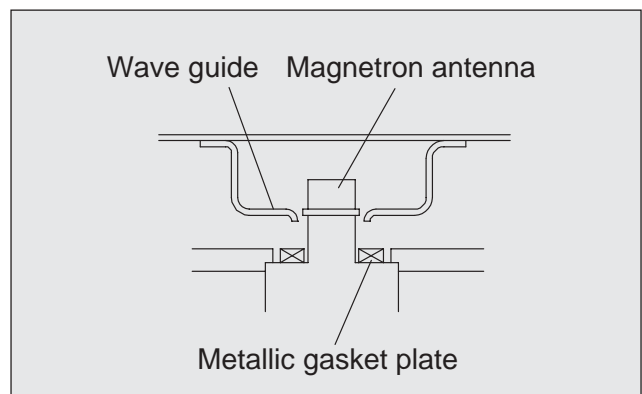
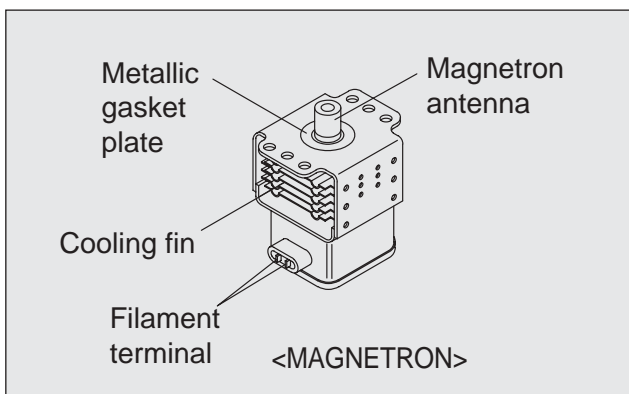


## 8. To remove magnetron.

- 1) Remove three screws which secure the magnetron.
- 2) Remove the magnetron.
- 3) Reverse the above steps for reassembly.

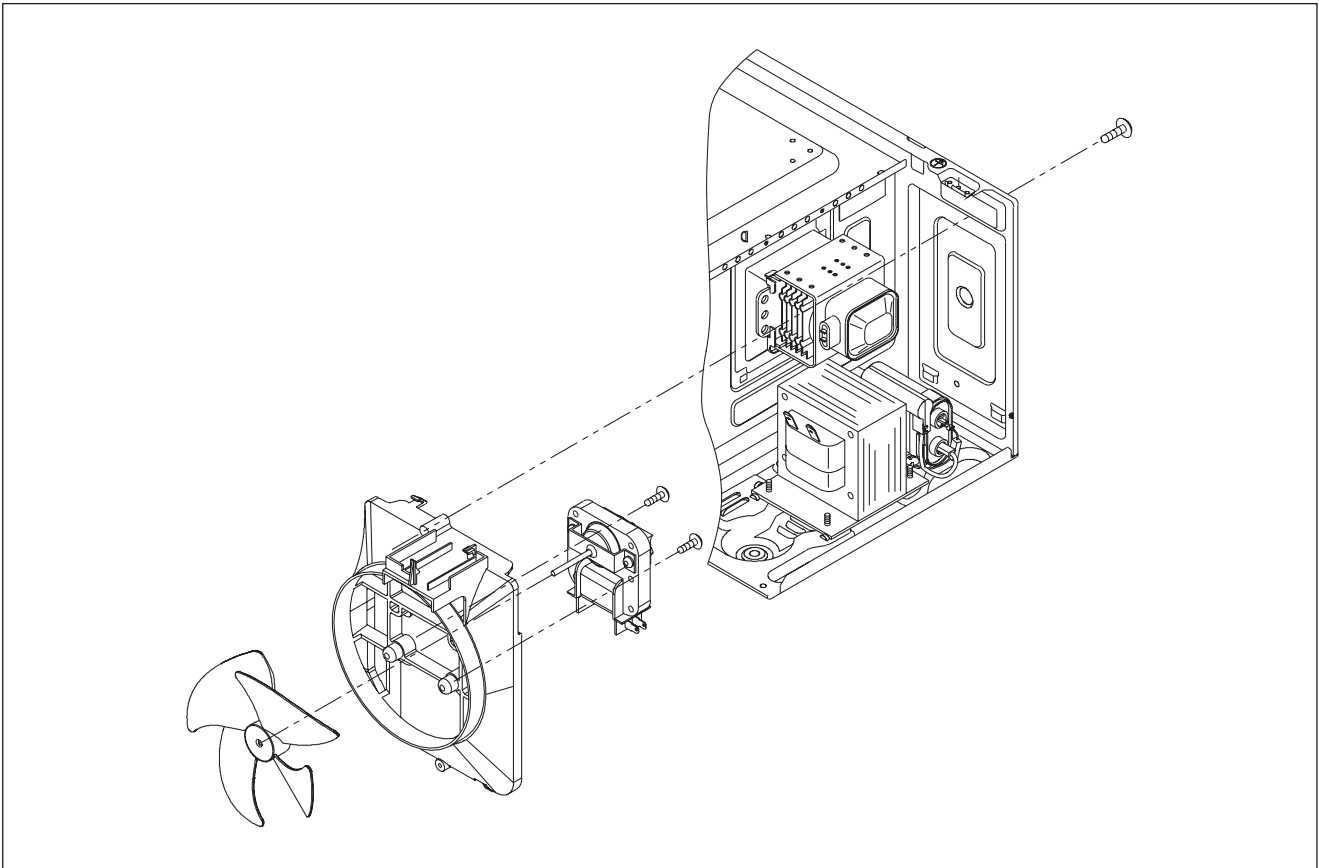


**NOTE :** Never install the magnetron without the metallic gasket plate which is packed with each magnetron to prevent microwave leakage. Whenever repair work is carried out on magnetron, check the microwave leakage. It shall not exceed  $4\text{mW}/\text{cm}^2$  for a fully assembled oven with door normally closed.



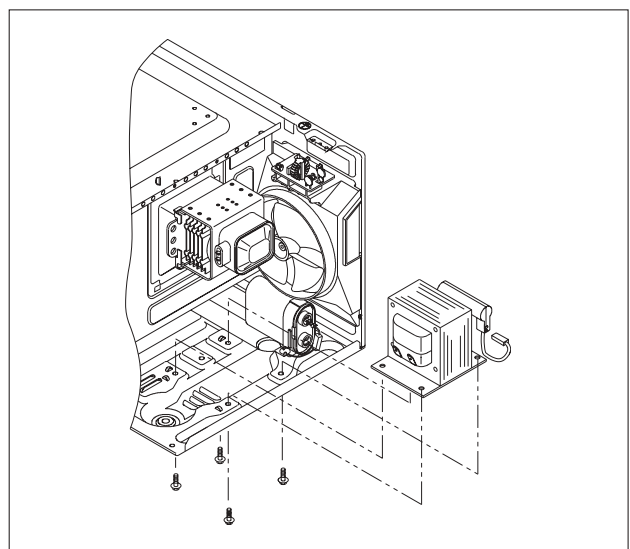
## 9. To remove wind guide assembly.

- 1) Remove the screw for earthing.
- 2) Remove the noise filter from the wind guide.
- 3) Remove the screw which secure the wind guide assembly.
- 4) Draw forward the wind guide assembly.
- 5) Pull the fan from the motor shaft.
- 6) Remove two screws which secure the motor shaded pole.
- 7) Remove the motor shaded pole.
- 8) Reverse the above steps for reassembly.



## 10. To remove H.V.transformer.

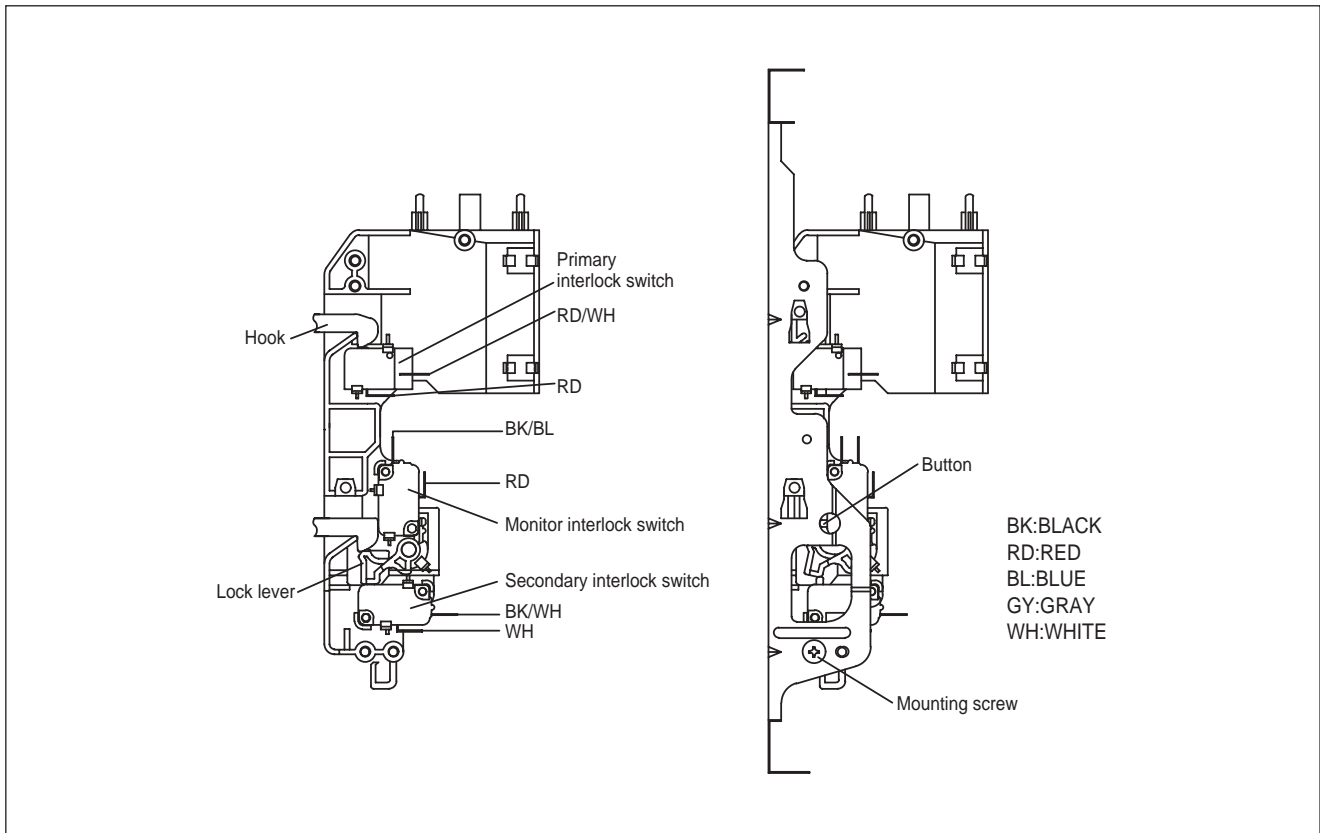
- 1) Remove four screws holding the H.V.transformer.
- 2) Remove the H.V.transformer.
- 3) Reverse the above steps for reassembly.





# INTERLOCK MECHANISM AND ADJUSTMENT

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



## (1) Primary interlock switch

When the door is closed, the hook locks the oven door. If the door is not closed properly, the oven will not operate.

When the door is closed, the hook pushes the button of the microswitch. Then the button of the primary interlock switch bring it under ON condition.

## (2) Secondary interlock switch and interlock monitor switch

When the door is closed, the hook pushes the lock lever downward. The lock lever presses the button of the interlock monitor switch to bring it under NO condition and presses the button of the secondary interlock switch to bring it under ON condition.

### ADJUSTMENT :

Interlock monitor switch

When the door is closed, the interlock monitor switch should be "OFF" condition before other switches are "ON" condition.

When the door is opened, the interlock monitor switch should be "ON" condition after other switches are "OFF" condition.

## (3) Adjustment steps

- Loosen the mounting screw.
- Adjust interlock switch assembly position.  
Actuation distance of primary and secondary interlock switch shall be adjusted almost 0.7mm.
- Make sure that lock lever moves smoothly after adjustment is completed.
- Tighten completely a mounting screw.

### NOTE :

Microwave emission test should be performed after adjusting interlock mechanism.

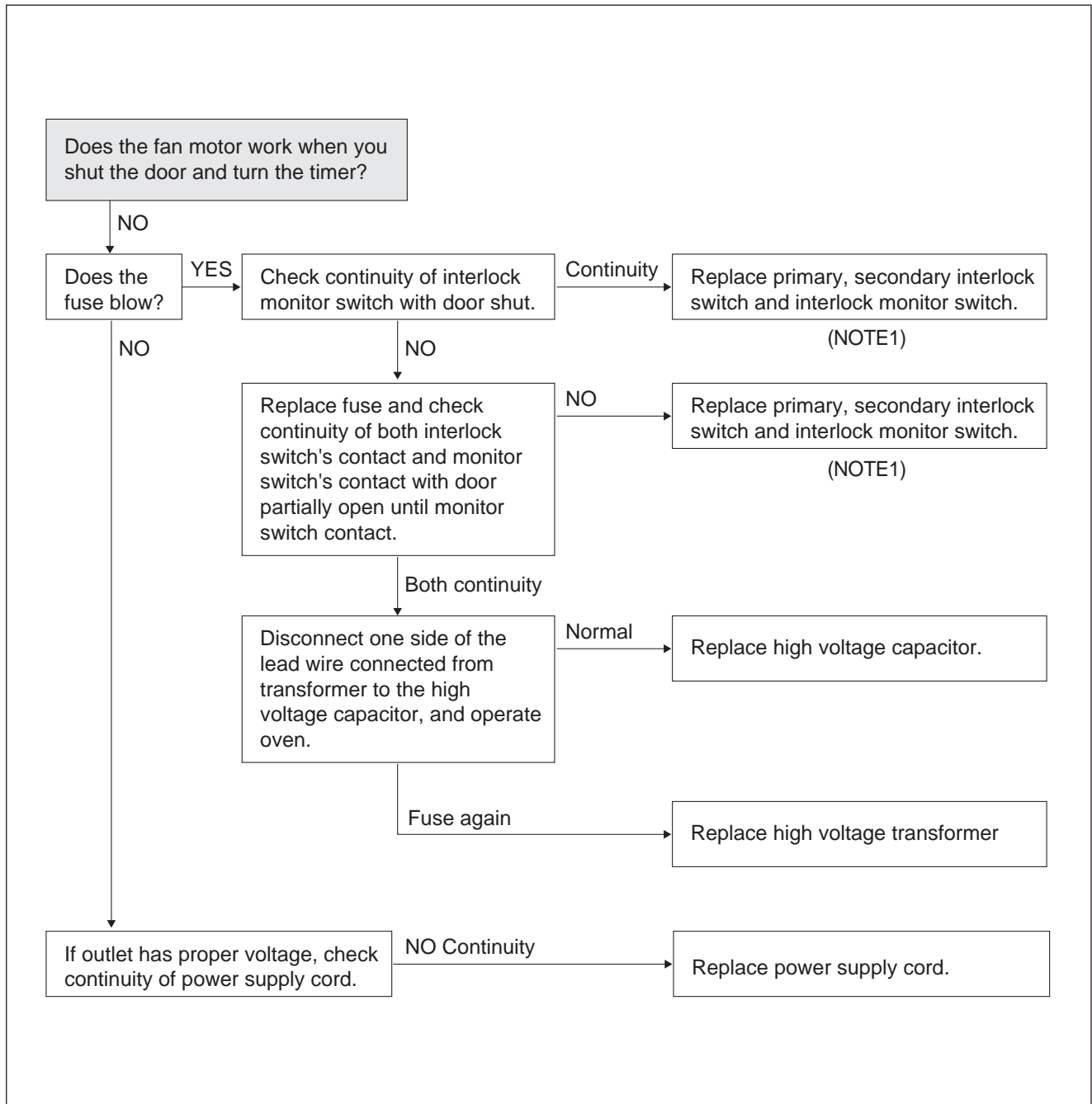
If the microwave emission exceed  $4\text{mW}/\text{cm}^2$ , readjust interlock mechanism.

# TROUBLESHOOTING GUIDE

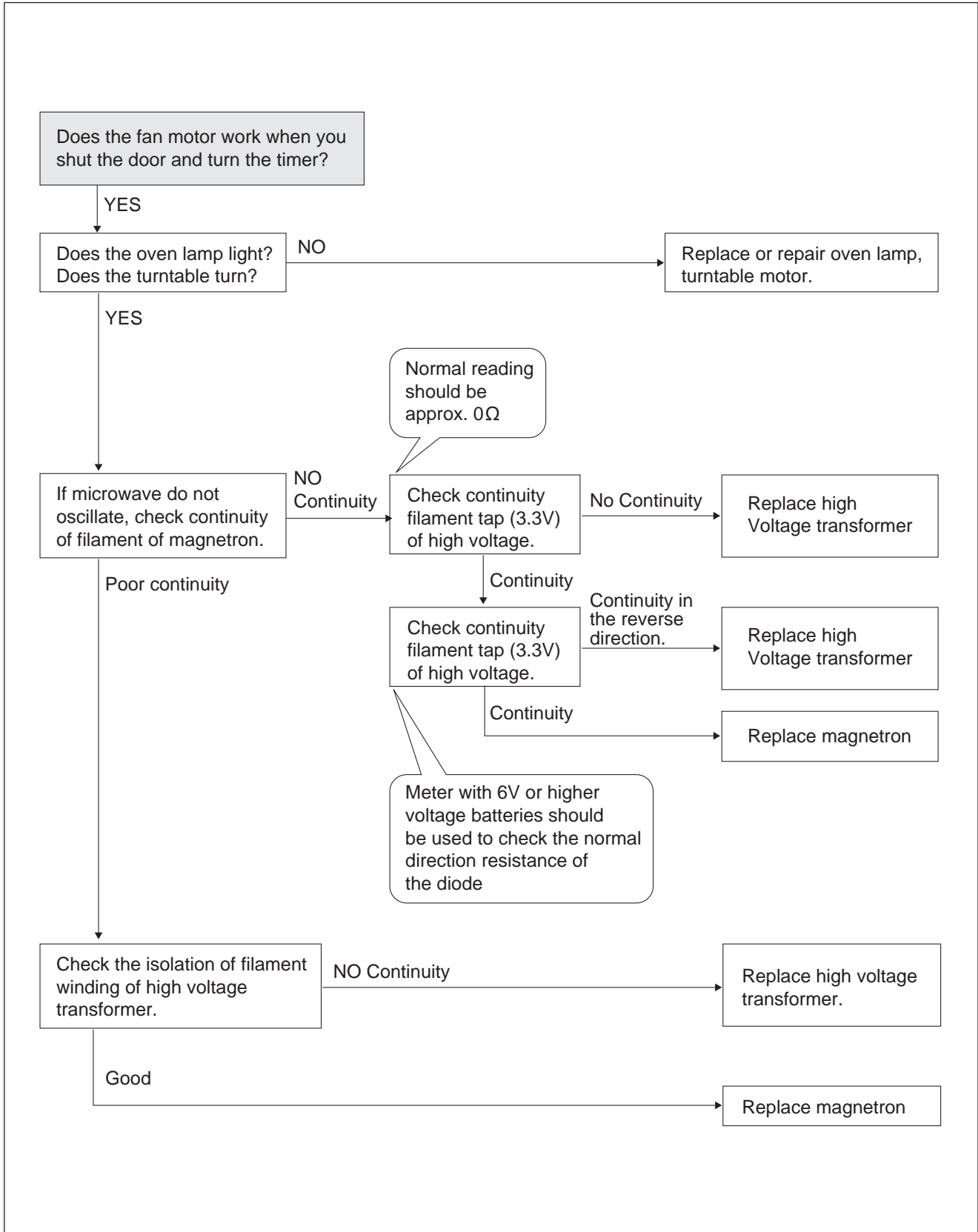
Following the procedure below to check if the oven is defective or not.

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

(TROUBLE 1) Oven does not operate at all ; any inputs can not be accepted.



**NOTE1** : All these switches must be replaced at the same time, please refer to "Interlock Mechanism And Adjustment"



# MEASUREMENT AND TEST

## 1. MEASUREMENT OF THE MICROWAVE POWER OUTPUT

Microwave output power can be checked by indirectly measuring the temperature rise of a certain amount of water exposed to the microwave as directed below.

### PROCEDURE

1. A cylindrical container of borosilicate glass is used for the test. It has a maximum thickness of 3mm, an external diameter of approximately 190mm and a height of approximately 90mm. The mass of the container is determined.
2. At the start of the test, the oven and the empty container are at ambient temperature. Water having an initial temperature of  $10^{\circ}\text{C} \pm 1^{\circ}\text{C}$  is used for the test. The water temperature is measured immediately before it is poured into the container.
3. A quantity of  $1000\text{g} \pm 5\text{g}$  of water is added to the container and its actual mass obtained. The container is then immediately placed in the centre of the oven shelf, which is in its lowest normal position. The oven is operated and the time for the water temperature to attain  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  is measured. The oven is then switched off and the final water temperature is measured within 60s.

NOTE 1 - The water stirred is before its temperature is measured.

NOTE 2 - Stirring and measuring devices are to have a low heat capacity.

4. The microwave power output is calculated from the formula

$$P = \{4,187 \cdot m_w(T_2 - T_1) + 0.55 \cdot m_c (T_2 - T_0)\} / t$$

where

- P is the microwave power output, in watts ;
- $m_w$  is the mass of the water, in grams ;
- $m_c$  is the mass of the container, in grams ;
- $T_0$  is ambient temperature, in degrees Celsius ;
- $T_1$  is the initial temperature of the water, in degree Celsius ;
- $T_2$  is the final temperature of the water, in degrees Celsius ;
- t is the heating time, in seconds, excluding the magnetron filament heating-up time.

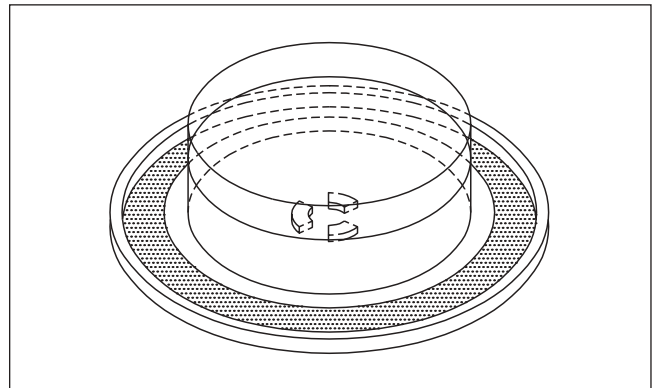
\* The microwave power output is stated in watts, rounded off to the nearest 50W

### CAUTION

1. Water load should be measured exactly to 1 liter.
2. Input power voltage should be exactly specified voltage (Refer to SPECIFICATIONS).
3. Ambient temperature should be  $20 \pm 2^{\circ}\text{C}$  ( $68 \pm 3.6^{\circ}\text{F}$ )

\* Heating time for power output: ( $T_2 = T_0$ )

A (second)	70	64	60	56	52	49	47	44	42	40	38
B (W)	600	650	700	750	800	850	900	950	1000	1050	1100



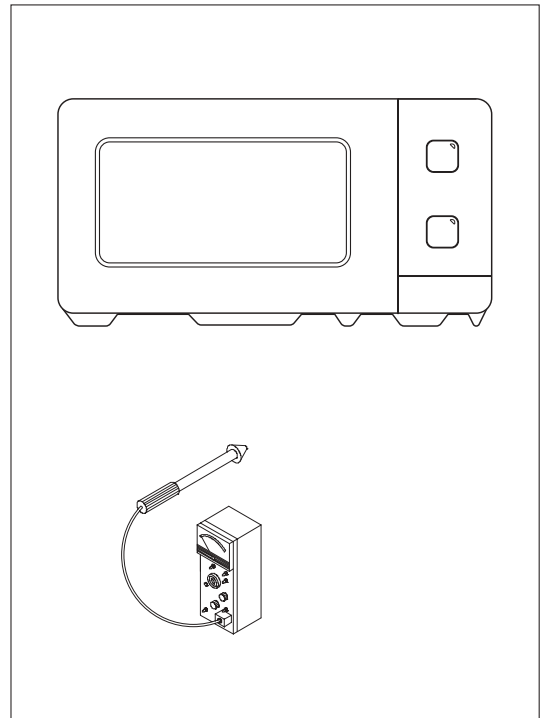
## 2. MICROWAVE RADIATION TEST

### CAUTION

1. Make sure to check the microwave leakage before and after repair of adjustment.
2. Always start measuring of an unknown field to assure safety for operating personnel from microwave energy.
3. Do not place your hands into any suspected microwave radiation field unless the safe density level is known.
4. Care should be taken not to place the eyes in direct line with the source of microwave energy.
5. Slowly approach the unit under test until the radiometer reads an appreciable microwave leakage from the unit under the test.

### PROCEDURE

1. Prepare Microwave Energy Survey Meter, 600cc glass beaker, and glass thermometer 100°C (212°F).
2. Pour 275cc ± 15cc of tap water initially at 20 ± 5°C (68 ± 9°F) in the 600 cc glass beaker with an inside diameter of approx. 95 mm(3.7 in.).
3. Place it at the center of the tray and set it in a cavity.
4. Close the door and operate the oven.
5. Measure the leakage by using Microwave Energy Survey Meter with dual ranges, set to 2450MHz.
  - 1) Measured radiation leakage must not exceed the value prescribed below. Leakage for a fully assembled oven with door normally closed must be less than 4mW/cm<sup>2</sup>.
  - 2) When measuring the leakage, always use the 5 cm (2 in.) space cone with probe. Hold the probe perpendicular to the cabinet and door. Place the space cone of the probe on the door, cabinet, door seem, door viewing screen, the exhaust air vents and the suction air vents.
  - 3) Measuring should be in a counter-clockwise direction at a rate of 1 in./sec. If the leakage of the cabinet door seem is unknown, move the probe more slowly.
  - 4) When measuring near a corner of the door, keep the probe perpendicular to the areas making sure the probe end at the base of the cone does not get closer than 2 in. from any metal. If it does not, erroneous reading may result.



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### 3. COMPONENT TEST PROCEDURE

- High voltage is present at the high voltage terminal of the high voltage transformer during any cooking cycle.
- It is neither necessary nor advisable to attempt measurement of the high voltage.
- Before touching any oven components or wiring, always unplug the oven from its power source and discharge the capacitor.

#### 1. High voltage transformer

- 1) Remove connections from the transformer terminals and check continuity.
- 2) Normal readings should be as follows :
  - Secondary winding ... Approx.  $220.0 \Omega \pm 3\%$
  - Filament winding ... Approx.  $0 \Omega$
  - Primary winding ... Approx.  $0.966 \Omega \pm 3\%$

#### 2. High voltage capacitor

- 1) Check continuity of capacitor with meter on the highest OHM scale.
- 2) A normal capacitor will show continuity for a short time, and then indicate  $10M\Omega$  once the capacitor charged.
- 3) A shorted capacitor will show continuous continuity.
- 4) An open capacitor will show constant  $10M\Omega$
- 5) Resistance between each terminal and chassis should be infinite.

#### 3. High voltage diode

- 1) Isolate the diode from the circuit by disconnecting the leads.
- 2) With the ohmmeter set on the highest resistance scale measure the resistance across the diode terminals. Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-back resistance of the diode, otherwise an infinite resistance may be read in both directions. A normal diode's resistance will be infinite in one direction and several hundred  $k \Omega$  in the other direction.

#### 4. Magnetron

For complete magnetron diagnosis, refer to "Measurement of the Microwave Power Output." Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose for an open filament or a shorted magnetron,

- 1) Isolate magnetron from the circuit by disconnecting the leads.
- 2) A continuity check across magnetron filament terminals should indicate  $0.1 \Omega$  or less.
- 3) A continuity check between each filament terminal and magnetron case should read open.

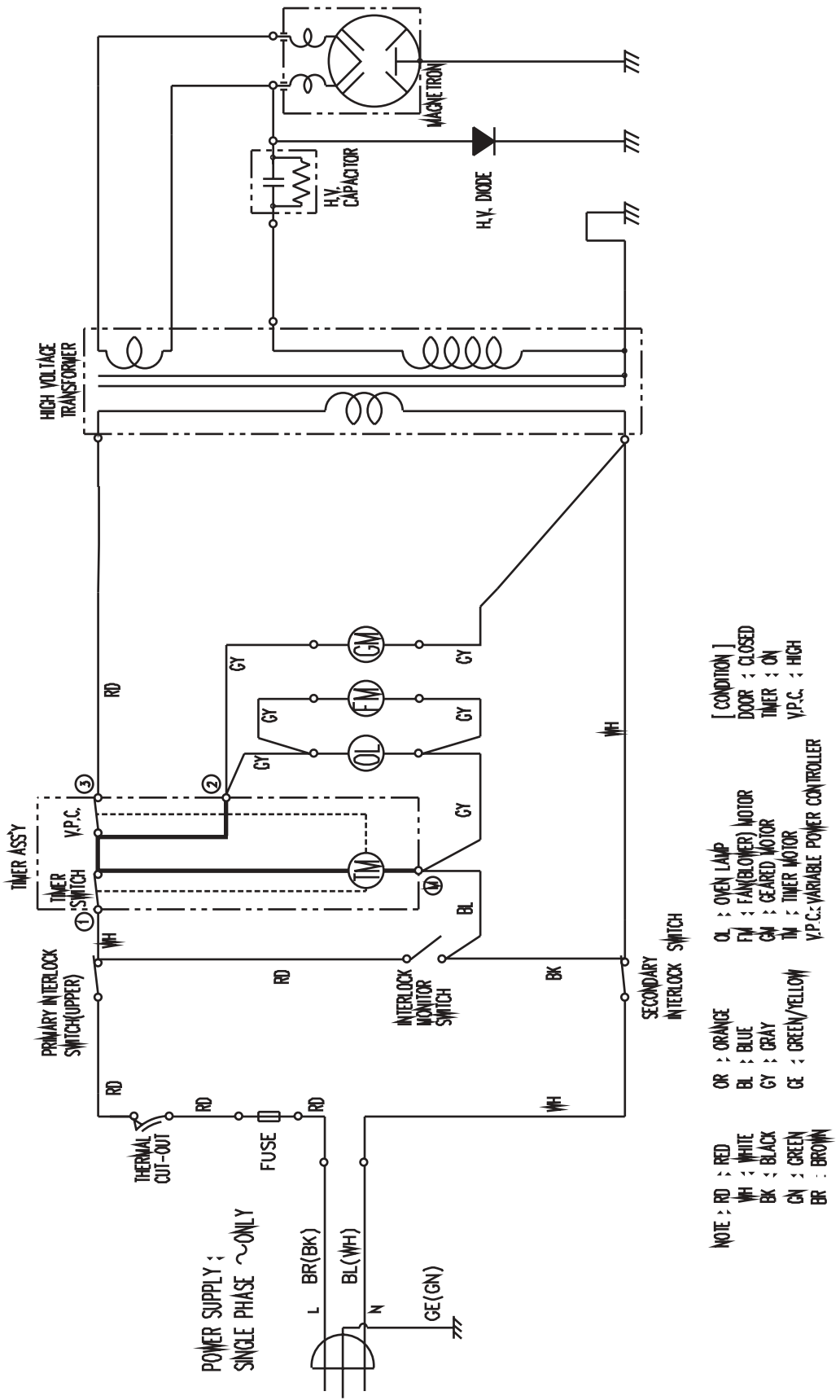
#### 5. Fuse

If the fuse in the primary and monitor switch circuit is blown when the door is opened, check the primary and monitor switch before replacing the blown fuse. In case the fuse is blown by an improper switch operation, replace the defective switch and fuse at the same time. Replace just the fuse if the switches operate normally.

#### 6. Interlock switches

- (1) You can test continuity of safety interlock and monitor switch by using ohmmeter.
- (2) The switch operation is checked by zero/unlimited.
  - The meter should indicate zero resistance.
- (3) The sequence of check is interlock monitor switch, primary and secondary interlock switches check.

# WIRING DIAGRAM



# EXPLODED VIEW AND PARTS LIST

## 1. DOOR ASSEMBLY

Refer to Disassembly and assembly.

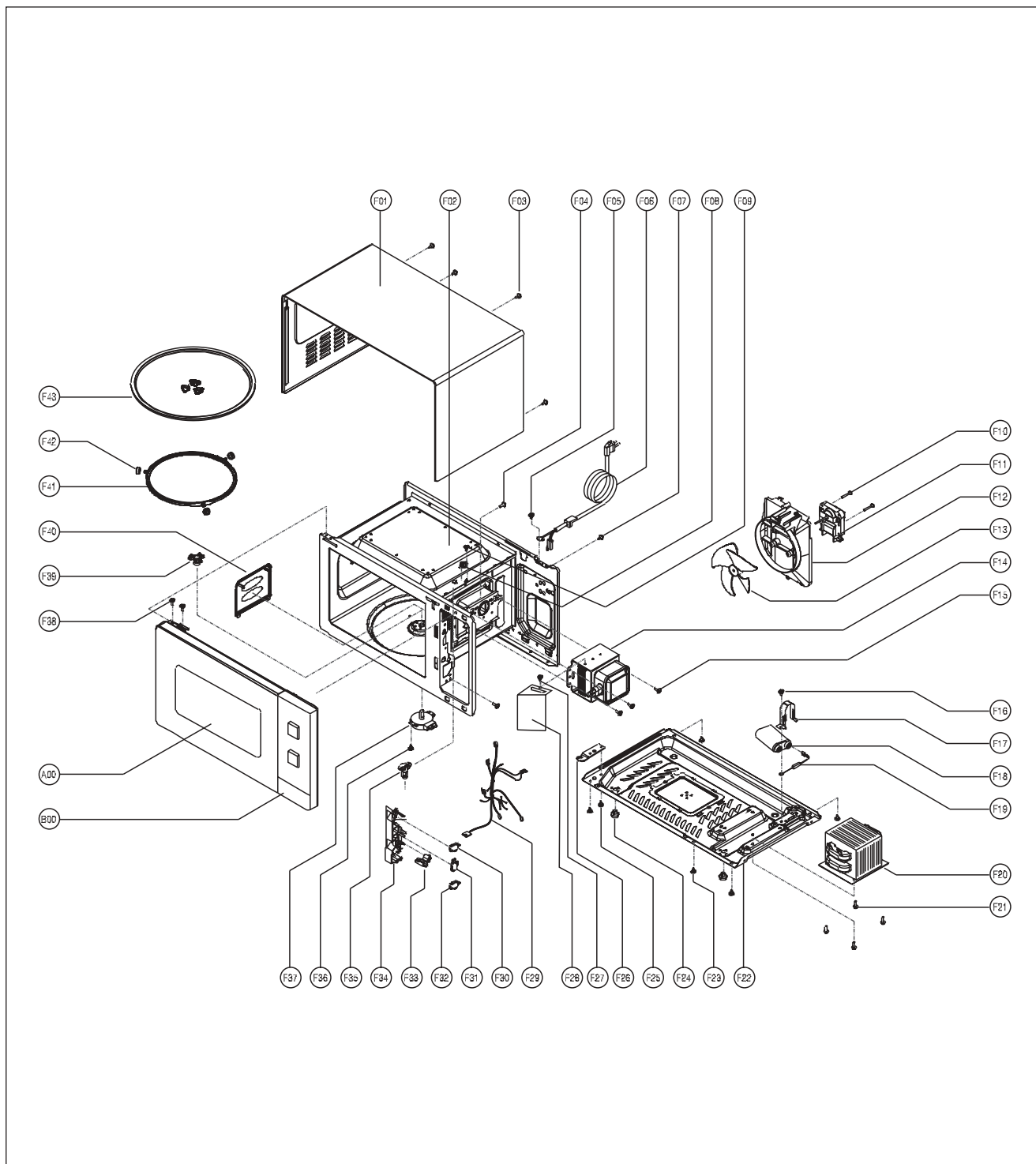
## 2. CONTROL PANEL ASSEMBLY

Refer to Disassembly and assembly.

## 3. GUIDE WIND ASSEMBLY

Refer to Disassembly and assembly.

## 4. TOTAL ASSEMBLY





REF. NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
A00	3511730500	DOOR AS	KOR-4A070S	1
B00	3516740490	CONTROL-PANEL AS	KOR-4A070A27	1
F01	3510811310	CABINET AS	KOR-4A070S	1
F02	3516121600	CAVITY AS	KOR-4A070S	1
F03	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	4
F04	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F05	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F06	35113NCN35	CORD POWER AS	3X18AWG 40X40 120-RTML	1
F07	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F08	7121300611	SCREW TAPPING	T2S PAN 3X6 MFZN	1
F09	3518907010	THERMOSTAT	OFF:120 ON:60 H #187	1
F10	7121402511	SCREW TAPPING	T2S PAN 4X25 MFZN	2
F11	3963821600	MOTOR SHADED POLE	120V 21W OEM-10DWX1-A07	1
F12	3512530410	GUIDE WIND	PP	1
F13	3511800300	FAN	PP+30%GLASS	1
F14	3518003710	MAGNETRON	2M218HFL 6CF	1
F15	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	3
F16	7S432X4081	SPECIAL SCREW	TT3 TRS 4X8 SE MFZN	1
F17	3513005800	HOLDER HV CAPACITOR	SECC T0.4	1
F18	3518301301	CAPACITOR HV	2100VAC 0.70UF #187	1
F19	3518400800	DIODE HV AS	ESJC13-12BX (CL01-12)	1
F20	3518125730	TRANS HV	DYAS50A0-4AT A	1
F21	3516003700	SPECIAL SCREW	TT3 HEX 4X8 FLG MFZN	4
F22	3510319300	BASE	SBHG T0.5	1
F23	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	5
F24	3512100900	FOOT	PP DASF-130	2
F25	7S432X4081	SPECIAL SCREW	TT3 TRS 4X8 SE MFZN	1
F26	3515205610	STOPPER HINGE *U	SCP-1 T2.0	1
F27	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F28	3512527800	GUIDE AIR	SECC T0.5	1
F29	3512784520	HARNESS MAIN	KOR-4A070A27	1
F30	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
F31	4415A66600	SW MICRO	VP-532A-OF SPNC #187 200G	1
F32	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
F33	3513703800	LEVER LOCK	PP 5113MF6	1
F34	3513822000	LOCK	POM	1
F35	3513601500	LAMP	BL 125V 25W T25 C5A H187	1
F36	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F37	3517211850	MOTOR SYNCRO	SM-16U AS6BSL (SHORT)	1
F38	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	2
F39	3517400620	COUPLER	XAREC	1
F40	3511415700	COVER WAVE GUIDE	PP 5113MF6	1
F41	3512517300	GUIDE ROLLER	PP 5113MF6 A353B	1
F42	3514700710	ROLLER	TEFLON	3
F43	3517203600	TRAY	GLASS	1



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