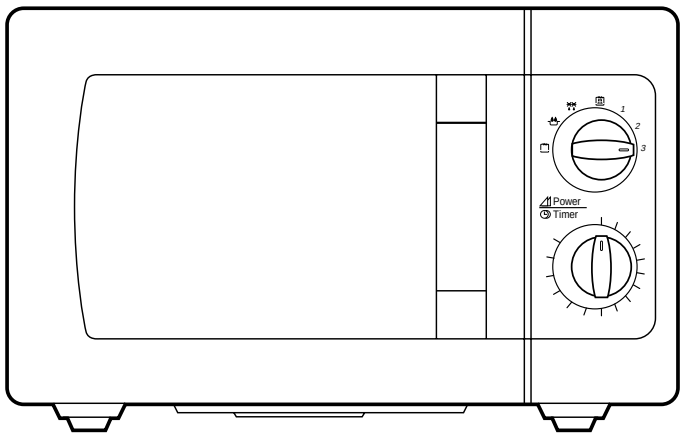
DAEWOO

Service Manual

Microwave Oven

KOG-3667OS



DAEWOO ELECTRONICS CO., LTD.

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 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 gernerating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, intergrity, and connections.

(d) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave gerneration 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.

TABLE OF CONTENTS

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.

PROPER USE AND SERVICE PRECAUTIONS

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 tok 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.

CAUTIOU

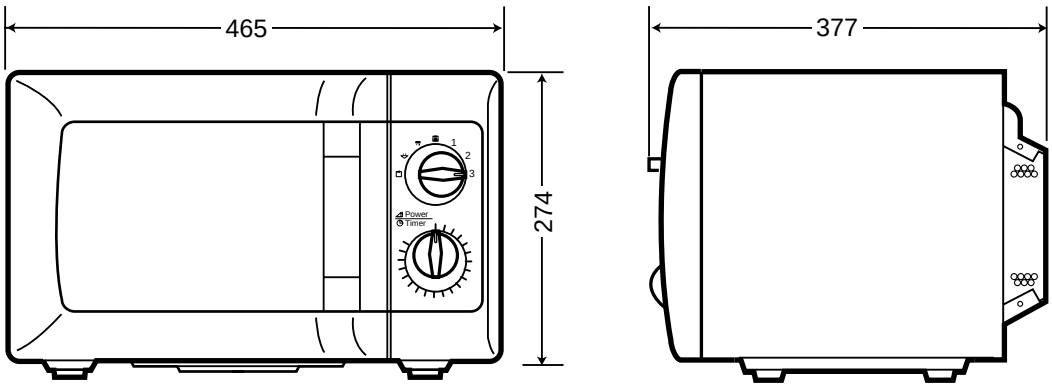
MICROWAVE RADIATION

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 GASKETS MUST BE SECURE. NEVER OPERATE THE DEVICE WITHOUT A MCROWAVE ENERGY ABSORNING LOAD ATTACHED. NEVER LOOK INTO AN OPEN WAVEGUIDE OR ANTENNA WHILE THE DEVICE IS ENERGIZED.

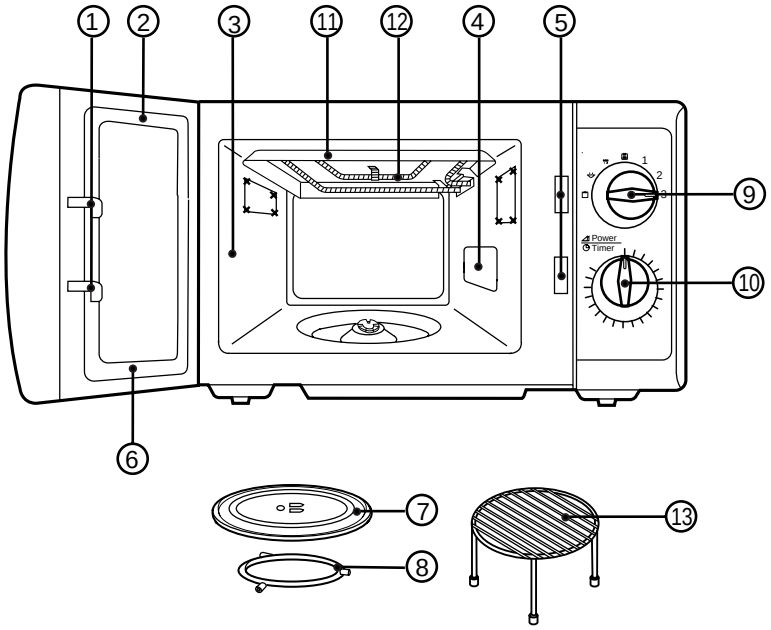
SPECIFICATIONS

ITEM		Specification
POWER SUPPLY		230V~50Hz, SINGLE PHASE WITH EARTHING
POWER CONSUMPTION	MICROWAVE	1200W
	GRILL	1050W
	COMBINATION	2200W
MICROWAVE ENERGY OUTPUT		800W (IEC705)
MICROWAVE FREQUENCY		2450 MHz
OUTSIDE DIMENSIONS (W X H X D)		465 X 274 X 377 mm
CAVITY DIMENSIONS (W X H X D)		290 X 200 X 290 mm
NET WEIGHT		14.5 Kg
TIMER		35min. DUAL SPEED
FUNCTION SELECTIONS		MICROWAVE / GRILL / COMBINATION
MICROWAVE POWER LEVELS		5 LEVELS

ƒN Specifications subject to change without notice.



FEATURES DIAGRAM



¤ **Door latch**–When the door is closed it will automatically lock shut. If the door is opened while the oven is operating, magnetron will immediately stop operating.

¤Ł **Door seal**–Door seal maintains the microwave energy within the oven cavity and prevents microwave leakage.

¤Ø **Oven cavity.**

¤Œ **Spatter shield**–Protects the microwave outlet from splashes of cooking foods.

¤º **Safety interlock system.**

¤ **Door viewing screen**–Allows viewing of food. The screen is designed so that light can pass through, but not the microwaves.

¤ **Glass cooking tray**–Made of special heat resistant glass. Food in a proper receptacle is placed on this tray for cooking.

¤ **Roller guide**–This must always be used for cooking together with the glass cooking tray.

¤ **Knob V.P.C**–Used to select a microwave power level.

¤ **Knob timer**–Used in setting cooking timer for all functions.

¤æ **Reflector (Insulator Heater)**

¤ **Heating Element**

¤ **Metal Rack**

INSTALLATION

1 **Steady, flat location**
This microwave oven should be set on a steady, flat surface.

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 oven 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, or antenna, feeder and so on.

4 **Away from heating appliances and water taps**
Keep the oven away from hot air, steam or splash when choosing a place to position it, or the insulation might be adversely affected and breakdowns occur.

5 **Power supply**
ƒ UCheck your local power source.
This microwave oven requires a current of approximetely 12 amperes, 230V 50Hz.
Use a receptacle that will accept the earth prong.
ƒ UVoltage Warning
The voltage used must be the same as specified on this Microwave 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 Microwave Oven will a voltage or amperage fuse other than those specified.
ƒ UPower supply cord is about 1.1 meters long. Do not use an extension cord.
If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person is order to aviod a hazard:

CAUTION : Do not under any circumstances cut or remove the round earthing prong from this plug.

CAUTION : Maintenances works like the replacing of the power cable must be made by a technician qualified of the after-sales-services.

CAUTION : This appliance must be earthed.

CAUTION :
The wires in this mains lead are coloured in accordance with the following code.

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

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter ‘E’ or by the earth symbol or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter ‘N’ or coloured black.
The wire shich is coloured brown must be connected to the terminal which is marked with the letter ‘L’ or coloured red.

6 **Examine the oven after unpacking for any damage such as:**
Dents, A misaligned door, Broken door, A dents is cavity.
If any of the above are visabel, do not install this oven.

OPERATION PROCEDURE

1 Connect the mains lead to an electrical socket-outlet.

2 After placing the food in a suitable utensil, open the oven door and put it on the glass turntable, Glass turntable must always be in place during cooking. In case the oven is operated in the grill mode, use the Metal Rack and place food on the metal Rack.

3 Shut the door.
Make sure that it is firmly closed.

4 **How to set each function**
To set MICROWAVE Cooking
- Set the variable POWER SELECTOR to desired power level

SYMBOL	POWER LEVEL	OUTPUT POWER
	WARM	26%
	DEFROST	41%
1	MEDILUM	73%
2	MED-HIGH	88%
3	HIGH	100%

To set GRILL Cooking
- Set the POWER SELECTOR to the (grill) position.

To set COMBI Cooking
- Set the POWER SELECTOR to the (combi) position.

5 Set the time control by turning the timer knob and then the oven operate in selected cooking mode. If turning the timer knob for less than 2 minutes, turn it past 2 minutes and then back to the desired time.

6 The oven will be turned off automatically when the timer point to “OFF”.
The take out foods.
- To prevent the oven operating with the door open, your is fitted with safety door interlock switches. If you wish to inspect the food during the cooking time, simply open the door. The oven will automatically stop the cooking. To continue cooking, you simply close the door.
- If you wish to stop the cooking during the cooking simply turn the timer knob the poing “OFF”. Cooking can be reset at any time during the cooking cycle by only turning the timer knob.
- Do not let the timer continue to operate after removing food.

7 Note : When using the GRILL or COMBI mode:
- Do not open the door so often, the temperature inside the oven decrease and the cooking may not complete in setting time.
- Never touch the oven window and metal interior of the oven when taking food in and out, because of the temperature inside the oven and door is very high.
- When using these modes, be careful as the tray will be hot to touch, use oven gloves or pot holders while handling tray.

COOKING UTENSILS
Before use, the user should check that tensils are suitable for use in microwave ovens.

Material	Grill cooking	Microwave cooking	Combined cooking
Glass (general)	No	Yes (1)	No
Glass (heat resistant)	Yes	Yes	Yes
Glass-ceramic and ceramic (heat resistant)	Yes	Yes (1)	Yes (1)
Earthenware	Yes	Yes	Yes
China (heat resistant)	Yes	Yes	Yes
Plastic (general)	No	Yes (2)	No
Plastic (heat resistant)	Yes (2)	Yes (2)	Yes (2)
Aluminum foil containers/aluminum foil	Yes	Yes (3)	Yes
Metal baking tins	Yes (4)	No	Yes (4)
Metal (pots. pans, etc)	Yes	No	No
Paper	No	Yes	No

1. Without metal parts or metal trims.
2. Some plastics are heat-proof only to certain temperatures. Check carefully!
3. It is possible to use aluminium foil to shield delicate areas of food (this prevents over-cooking).
4. Metal tins can be used in the combination methodes, however if these are very deep, they will greatly reduce the efficiency, as metal shields the microwave energy from the food.

MEASUREMENT OF THE MICROWAVE OUTPUT POWER

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. Microwave power output measurement is made with the microwave oven supplied at rated voltage and operated at its maximum microwave power setting with a load of 1,000 ¡ 5cc of potable water.

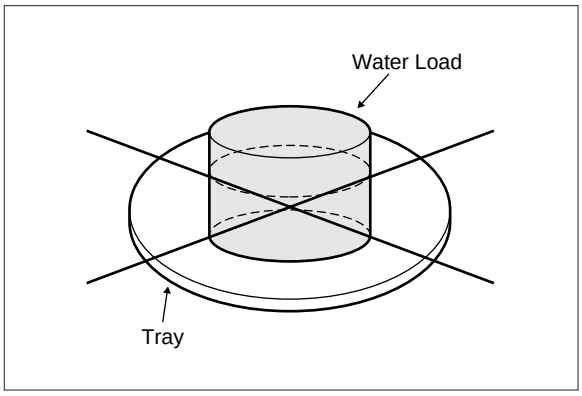
2. The water is contained in a cylindrical borosilicate glass vessel having a maximum material thickness of 3 mm and an outside diameter of approximately 190 mm.

3. The oven and the empty vessel are at ambient temperature prior to the start of the test.
   The initial temperature of the water is 10 ¡ 2˚C (50 ¡ 3.6˚F).
   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 shelf which is in the lowest normal position.

4. Microwave power is switched on.

5. Heating time should be exactly 52 seconds.
   Heating time is measured while the microwave generator is operating at full power.
   The filament heat-up time for magnetrons is not included.

6. The initial and final water temperatures are selected so that the maximum difference between the ambient and final water temperatures is 5K.



7. The microwave power output P in watts is calculated from the follwing formula:

$$P = 4187 \text{ ¡¿§ } T/t$$

- § T is actual temperature rise.
- t is the heating time.
  The power measured should be 800W ¡ 10%.

CAUTION :

1. Water load should be measured exactly to 1 liters.
2. Input power voltage should be exactly 230 volts as specified.
3. Ambient temperature should be 20 ¡ 2˚C (68 ¡ 3.6˚F)

MICROWAVE RADIATION TEST

WARNING

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

Procedure

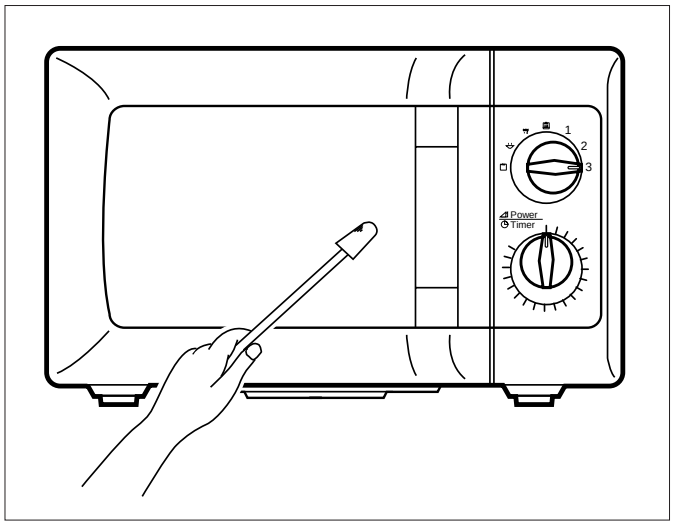
A) Prepare Microwave Energy Survey Meter, 600cc glass beaker, glass thermometer 100˚C or 212˚F.

B) Pour 275cc ¡ 15cc of tap water initially at 20 ¡ 5˚C (68 ¡ 9˚F) in the 600cc beaker with an inside diameter of approx. 9.5cm (3.5 in).

C) Place it at the center of the tray and set it in a cavity.

D) Close the door and operate the oven.

E) Measure the leakage by using microwave energy survery meter with dual ranges, set to 2450 MHz.
- Measured radiation leakage must not exceed the values prescribed below.
  • Leakage for a fully assembled oven with door normally closed must be less than 4mW/cm^2.
- When measuring the leakage, always use the 2 in (5cm) space cone with probe. Hold the probe perpendicular to the cabinet, door. Place the space cone of the probe on the door, cabinet, door seam, door viewing screen, the exhaust air vents and the suction air vents.
- Measuring should be in a counter-clockwise direction at a rate of 1 inch / sec. If the leakage of the cabinet door seam is unknow, move the probe more slowly.



- 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 inches from any metal. If it does, erroneous reading may result.

WIRING DIAGRAM

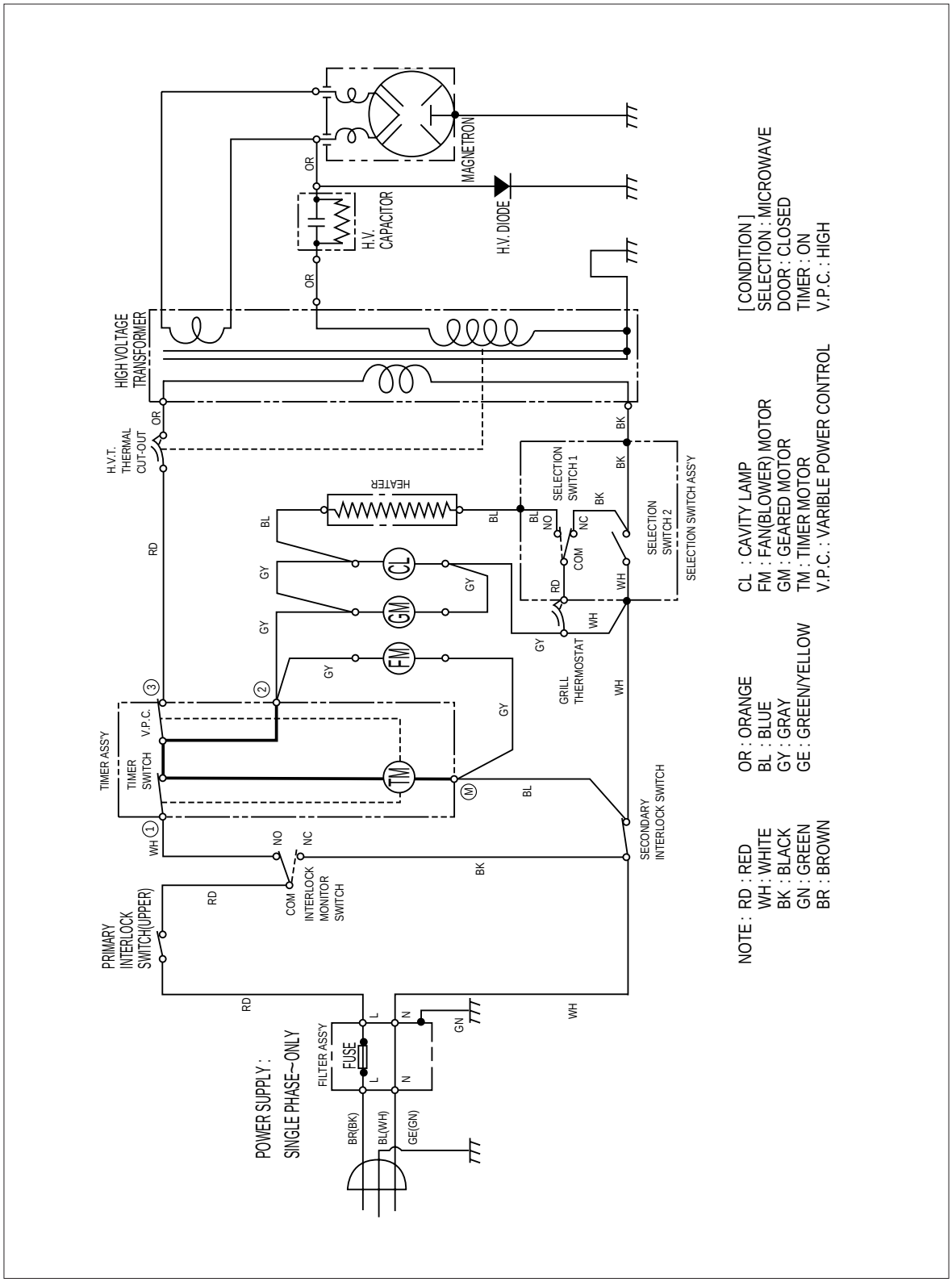
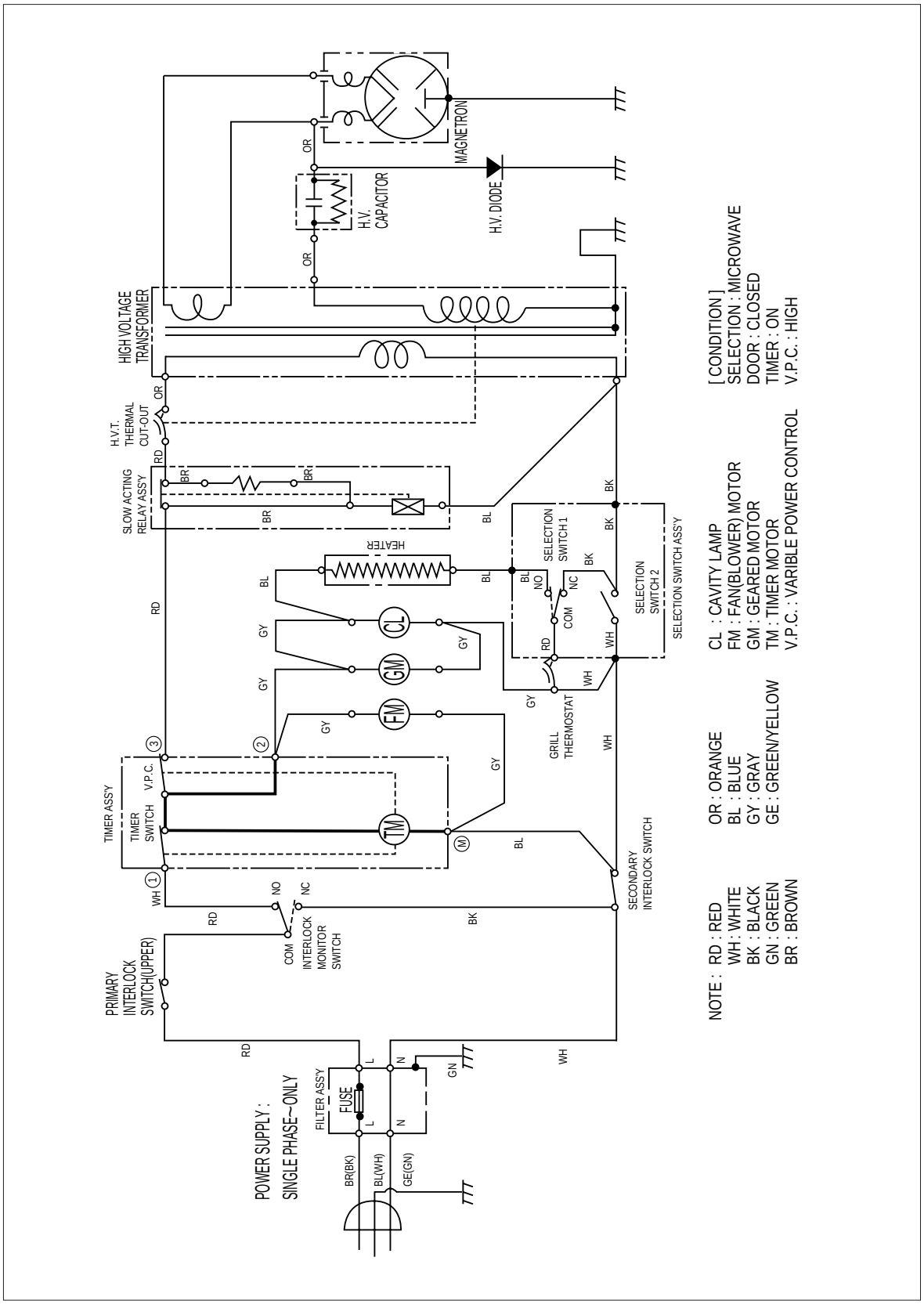


Fig. 1 Wiring Diagram

SCHEMATIC DIAGRAM (FOR GERMANY)



CIRCUIT DESCRIPTION

1. When the food is placed in the oven cavity and door is closed.

- The contact of the interlock monitor switch open (NO).
- The contacts of the primary interlock switch and secondary interlock switch close.

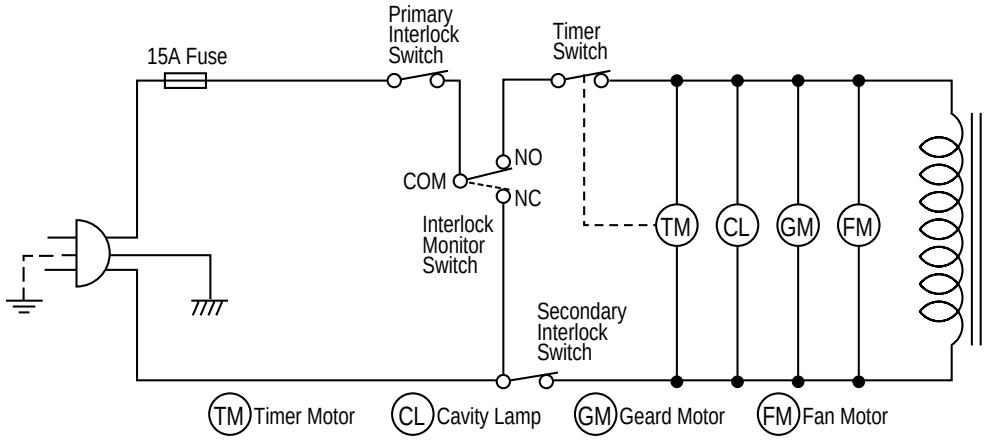


Fig. 1

2. When the timer is set to the time desired.

- The contact of the timer switch close.
- Oven lamp turn on.
- 230V AC is applied to the high voltage transformer.
- Turntable motor start rotating and glass tray rotating.
- Fan motor rotating and cools the magnetron by blowing air.
- Timer motor operating and point to passing cooking time.
- 3.3 Volts AC is generated from the filamente winding of the high voltage transformer. This filament voltage is applied to the magnetron to heat the magnetron filament through two noise preventing choke coils.
- A high voltage of 2000 Volts AC is generated in the secondary of high voltage transformer and this secondary voltage is increased by the action of the diode and the charging of the high voltage capacitor. This resultant D.C voltage is then applied to the anode of the magnetron. As shown in Fig. 2 the first half cycle of the high voltage produces in the high voltage transformer secondary charges the high voltage capacitor. Current flow is in the direction of the dotted-line during the second half cycle, the voltage produced by the transformer secondary, and the chargy of the high voltage capacitor are combined and applied to the magnetron as shown by the solid line so that oscillations begins.

  The disturbance wave generated by the magnetron is prevented by the choke coils of 1.5µH, filter capacitors of 500pF and the magnetron's shielded case so that TV and radio programs are not impaired by noise.

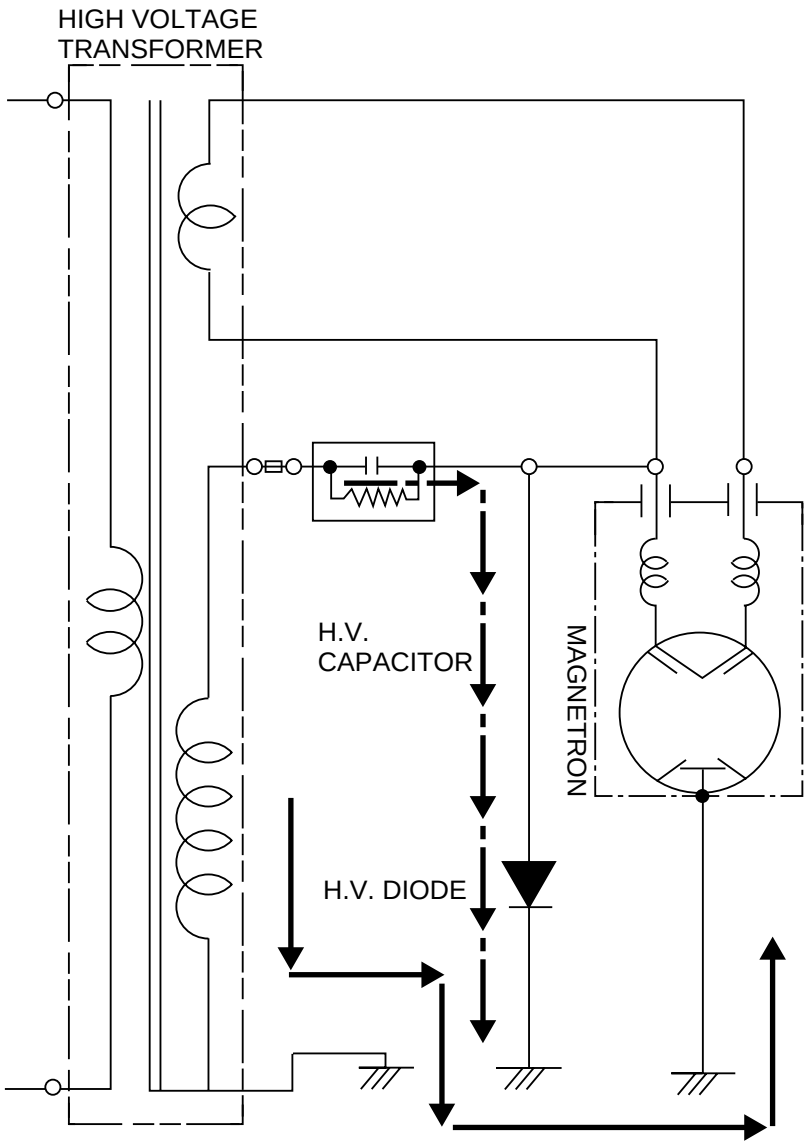


Fig. 2

3. When the door is opened during cooking.

- Primary interlock switch and secondary interlock switch open to cut off the primary voltage to the high voltage transformer to stop microwave oscillation.
- Fan motor, timer motor and turntable motor stop rotating.
- Oven lamp turn off.
- As soon as the door is opened, monitor switch close (NC) to create the short circuit.
  If the contacts of primary interlock switch and secondary interlock switch are both malfunction, the 12A fuse blows open due to the large current surge caused by monitor switch activation.

PRECAUTIONS FOR DISASSEMBLY AND REPAIR

– Cautions to be observed when trouble shooting.

Unlike many other appliances, the microwave oven is a high-voltage, high-current equipment. It is completely safety during normal operation. However, carelessness in servicing the oven can result in an electeric shock or possible danger from a short circuit.
You are asked to observe the following precautions carefully.

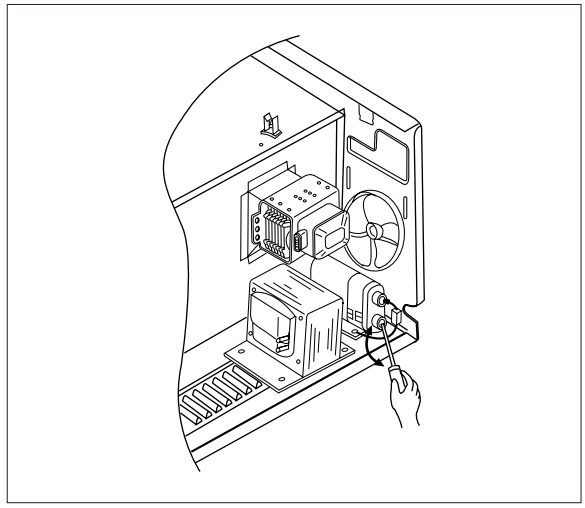
(1) Always remove the power plug from the outlet before servicing.

(2) Use an insulated screwdriver which is attached to iron plate, and wear rubber gloves when servicing the high voltage side.

(3) Warning about the electric charge in the high voltage capacitor. When inspecting and repairing the high voltage side, always short the capacitor terminals and make sure of discharge.

1. Check the grounding.
Do not operate on a 2-wire extension cord.
The microwave oven is designed to be used when grounded.
It is imperative, therefore, to makes sure it is grounded properly vefore before begining repair work.

2. Warning about the electric charge in the high voltage capacitor.
For about 30 seconds after the operation stops, 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 screw driber to discharge.



(4) When the 15 Amp. fuse is blown out to operation of the monitor switch; replace primary, and monitor switch.
Refer to 21 page for the necessary adjustment.

(5) After repair or replacement of parts, make sure that the screws are properly tightened, and all electrical connections are tightened.

(6) Do not opertate without cabinet.

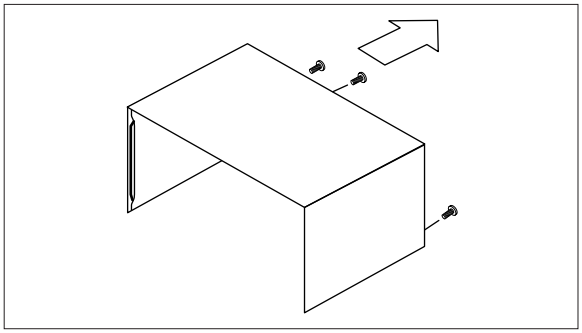
CAUTION: Service personnel should remove their watches whenever working close to or repairing the magnetron.

WARNING: When servicing the appliance, need a care of touching or replacing high potential parts because of electrical shock of exposing microwave. These parts are as follows–H.V. Thansformer, Magnetron, H.V. Capacitor, H.V. Diode.

DISASSEMBLY AND ASSEMBLY

1. To remove cabinet.

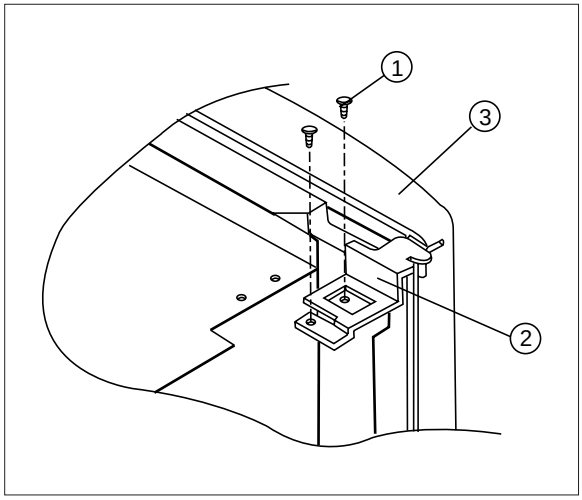
Remove three screws on cabinet back.



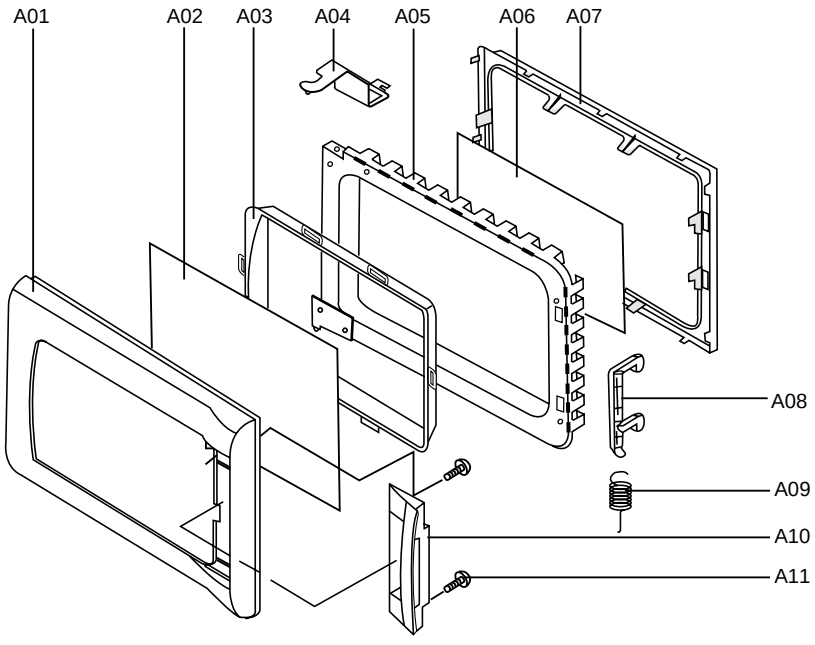
2. To remove door assembly.

1) Remove two screws ¤ which secure the stopper hinge top.
2) Remove the stopper hinge top ¤Ł and door assembly ¤Øfrom top plate of cavity.
3) Remove the stopper hinge top ¤Ł from door assembly.
4) Reverse the above for reassembly taking care to replace fixing glue.

NOTE: After replacing the door preform a check of correct alignment with the hinge and cavity front face.



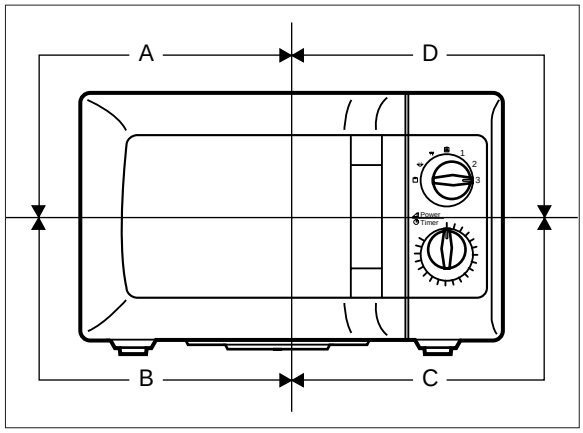
3. To remove door parts.



(1) Remove the gasket door (A07) from door weld ass'y (A05).
(2) Remove the frame (A01) from door weld ass'y (A05).
(3) Remove the barrier screen outer (A02) and the supporter barrier screen outer (A03).
(4) Remove the hook spring (A09) and the hook (A08).
(5) Remove hings stopper top ass'y (A04).
(6) Remove the screws (A11) which secure the handle door (A10).
(7) Remove the handle door (A10) from the door frame (A01).
(8) Remove the above steps for reassenbly.

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

(1) To reduce gap located on part 'A'
1) Loosen two screws on the stopper hinge top, and then push the door to con tact the door seal to oven front surface.
3) Tighten two screws.



(2) To reduce gap located on part 'B'.
1) Loosen two screws in stopper hinge under, and then the door to contact the door seal to oven front surface.
2) Tighten two screws.
(3) To reduce gap located on part 'C'. (See Fig. A)
1) Loosen a screw on the interlock switch assembly located at the bottom of the oven body.
2) Draw the interlock switch assembly inward as possible with hook on the door bottom.
3) Tighten a screw.
(4) To reduce gap located on part 'D'. (See Fig. B)
1) Loosen a screw on the interlock switch assembly located at the top of the oven body.
2) Follow step (3) 2) and 3).

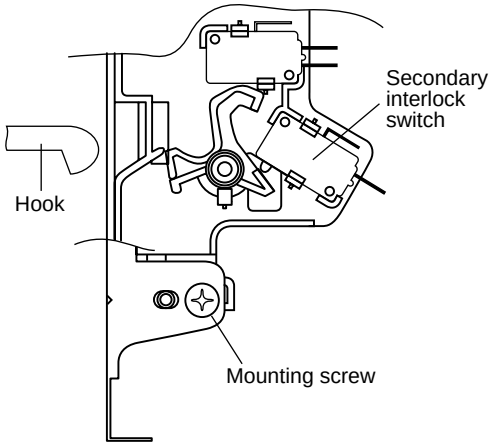


Fig. A

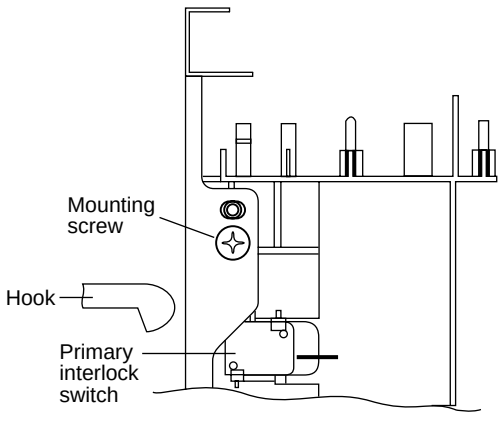
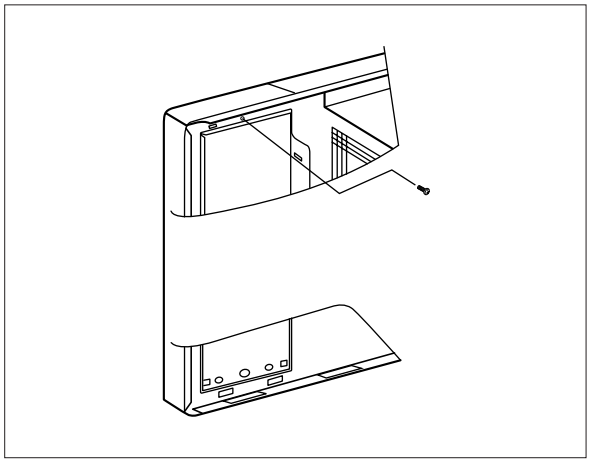


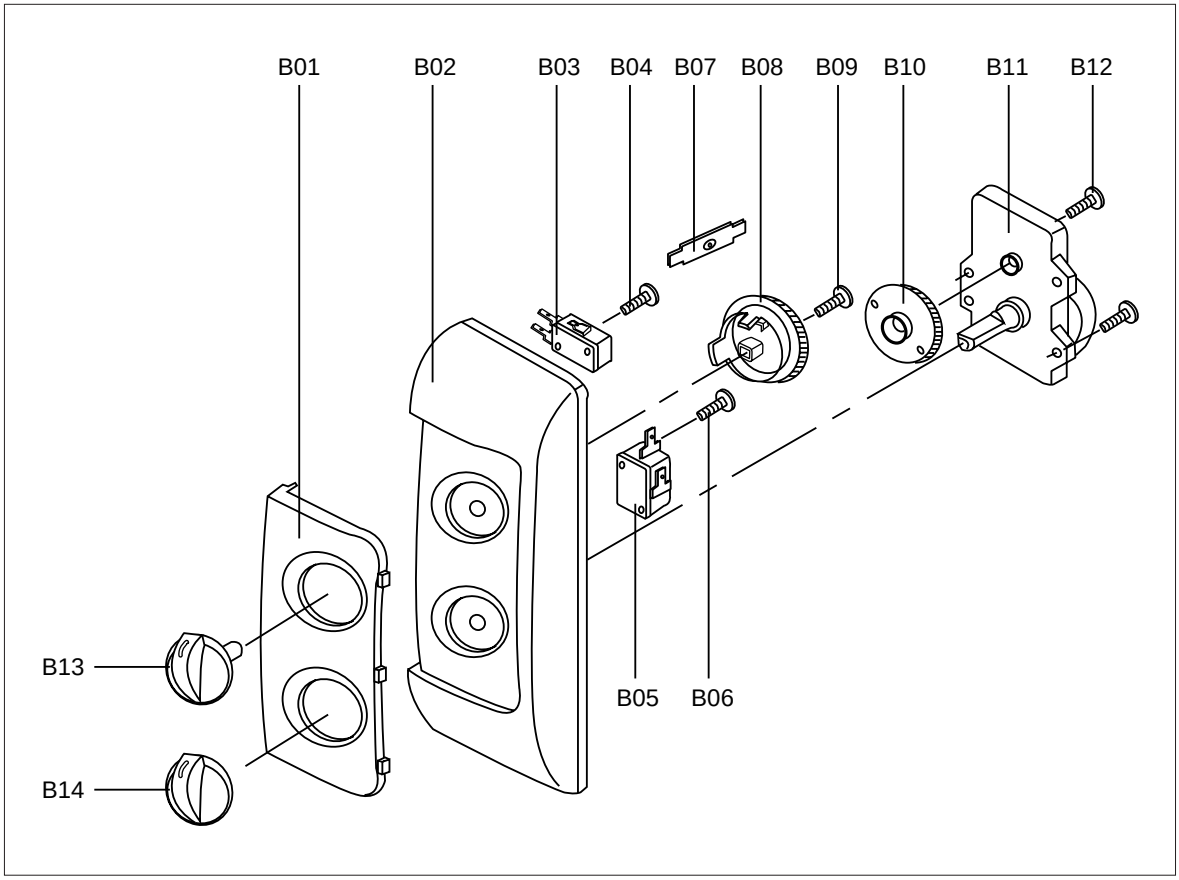
Fig. B

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

5. To remove control panel parts.

(1) Remove the screw which secur the control panel, push up two snap fits and draw forward the control panel assenbly.

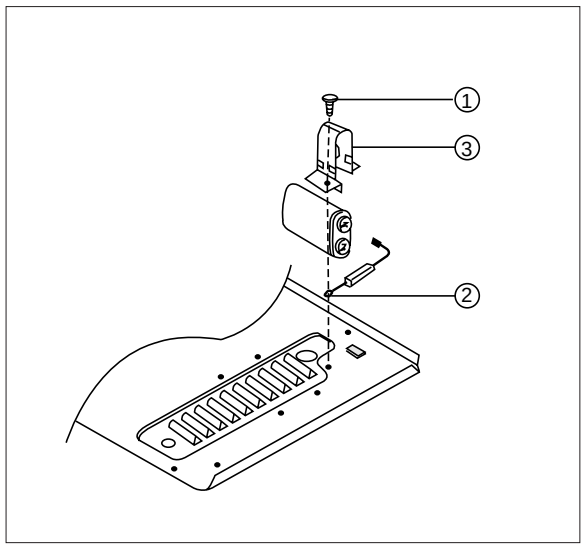




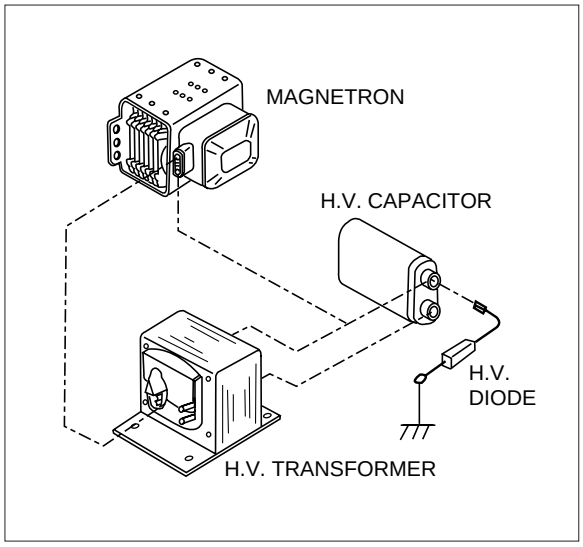
(2) Remove the screw (B04) pull out the switch micro (B03).
(3) Remove the screw (B06) pull out the switch micro (B05).
(4) Remove the screw (B09) which secure the VPC coupler (B08).
(5) Pull out the VPC coupler (B08), VPC knob (B13) and the flat spring (B07) from the control panel (B02).
(6) Remove two screws (B12) which secure the timer ass'y (B11).
(7) Pull out the knob (B14), from the timer ass'y (B11).
(8) Remove the timer ass'y (B11).
(9) Pull out the timer coupler (B10) from the timer ass'y (B11).
(10) Remove the decorator panel (B01) from the control panel (B02).
(11) Remove the above steps for reassembly.

6. To remove high voltage capacitor.

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

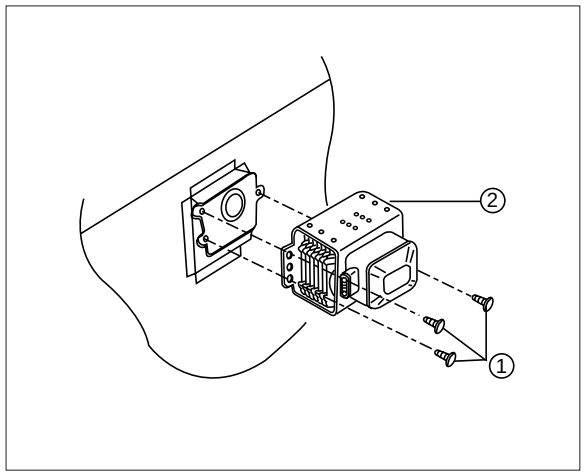


High voltage circuit wiring

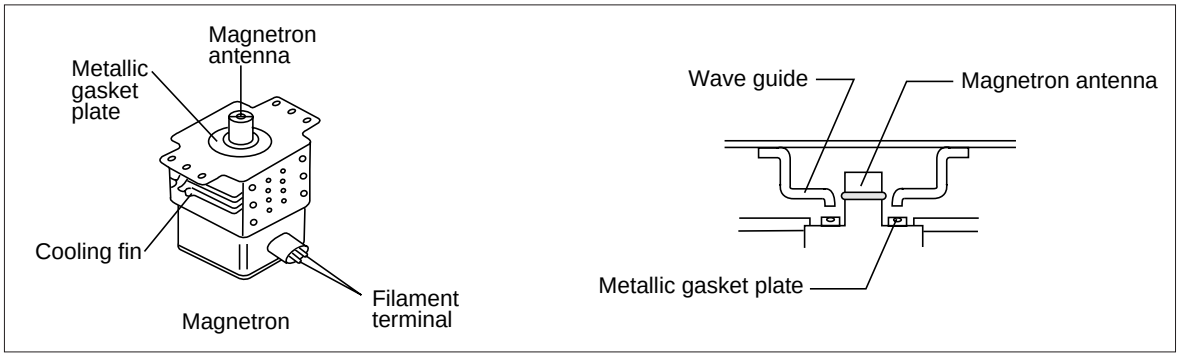


7. To remove magnetron.

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

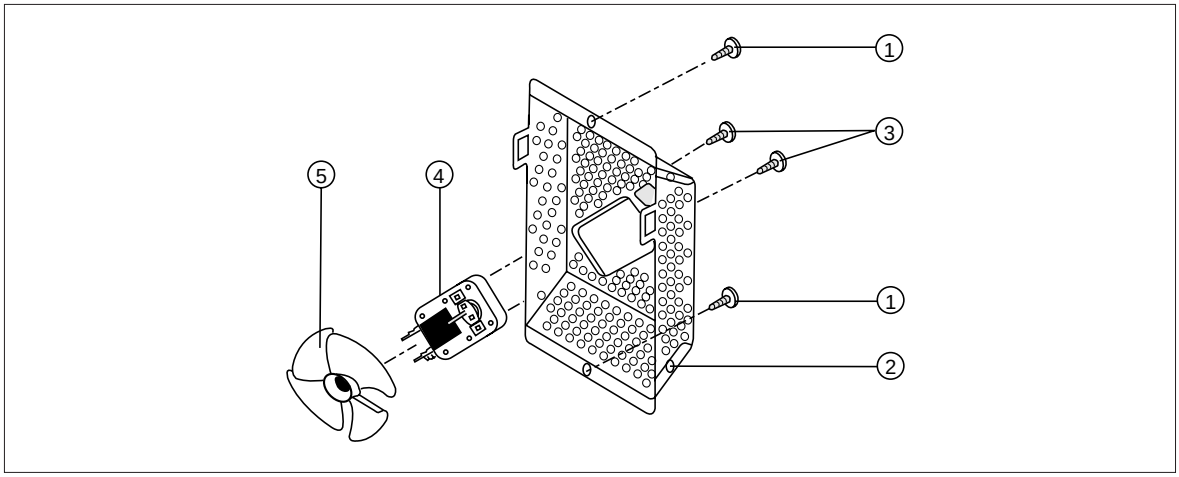


CAUTION: Never install the magnetron without the metallic gasket plate which is packed with each magnetron to prevent microwave leakage.
Whenever repair work is carried out on magnetron, check the microwave leakage.
It shall not exceed 4mW/cm^2 for a fully assembled oven with door normally closed.



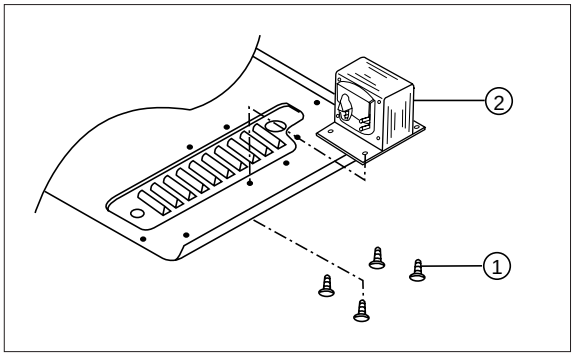
8. To remove fan motor assembly.

(1) Remove two screws ¤ which secure the back cover ¤Ł from the cavity outer.
(2) Remove two screws ¤Øwhich secure the fan motor ¤Œfrom the back cover ¤Ł.
(3) Pull out the fan ¤º from the motor ¤Œ.
(4) Remove the above steps for reassembly.



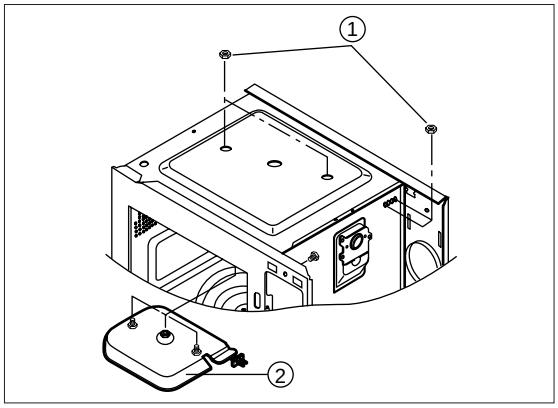
9. To remove thransformer.

(1) Remove the four screws ¤ holding the H.V. tramsformer ¤Ł.
(2) Remove the transformer ¤Ł.
(3) Reverse the above steps for reassembly.

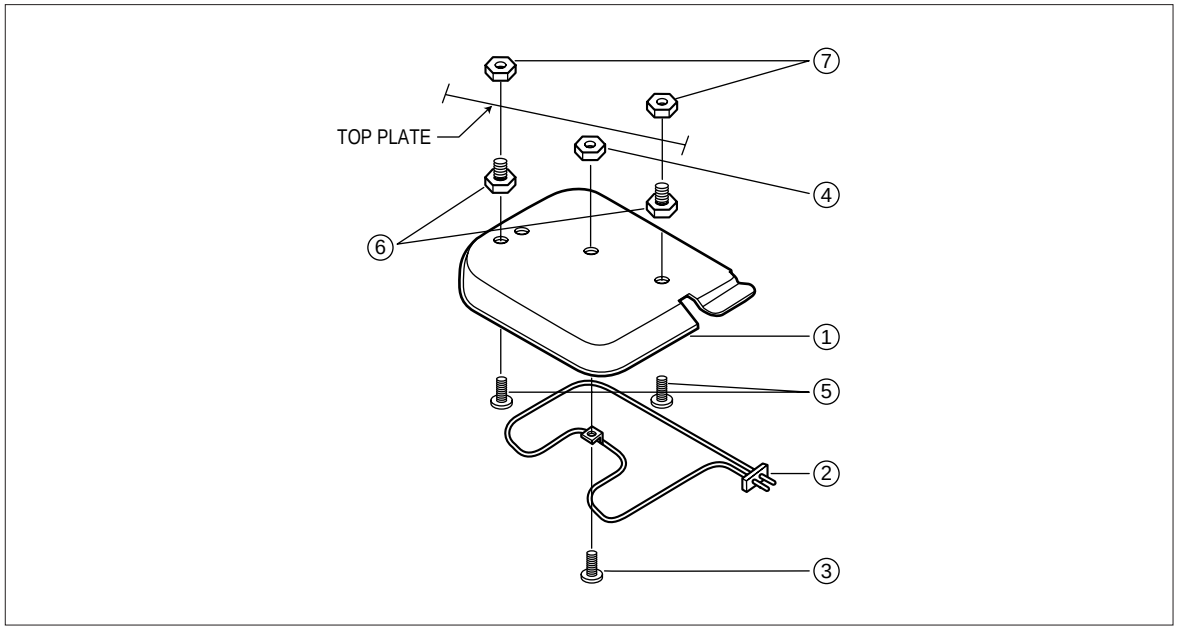


10. To remove insulator Heater assembly.

(1) Remove the four HEX NUTS ¤ .
(2) Remove the Insulator Heater assembly ¤Ł.
(3) Reverse the above steps for reassembly.



11. To remove Heater Part.



NO	PART NAME	PART CODE	Q'TY	DESCRIPTION	REMARK
1	INSULATOR HEATER	3513301100	1	SPP T0.8	
2	HEATER	3512801700	1	230V 1000W	
3	SCREW MACHINE	7002500613	1	TRS 5X6 MFCR	
4	NUT HEX	7392500008	1	6N-2-5 SUS	
5	SCREW MACHINE	7002400413	2	TRS 4X4 MFCR	
6	SPACER INSULATOR*I	3515000700	2	C3771BD	
7	NUT HEX	7392500411	2	6N-2-5 MFZN	

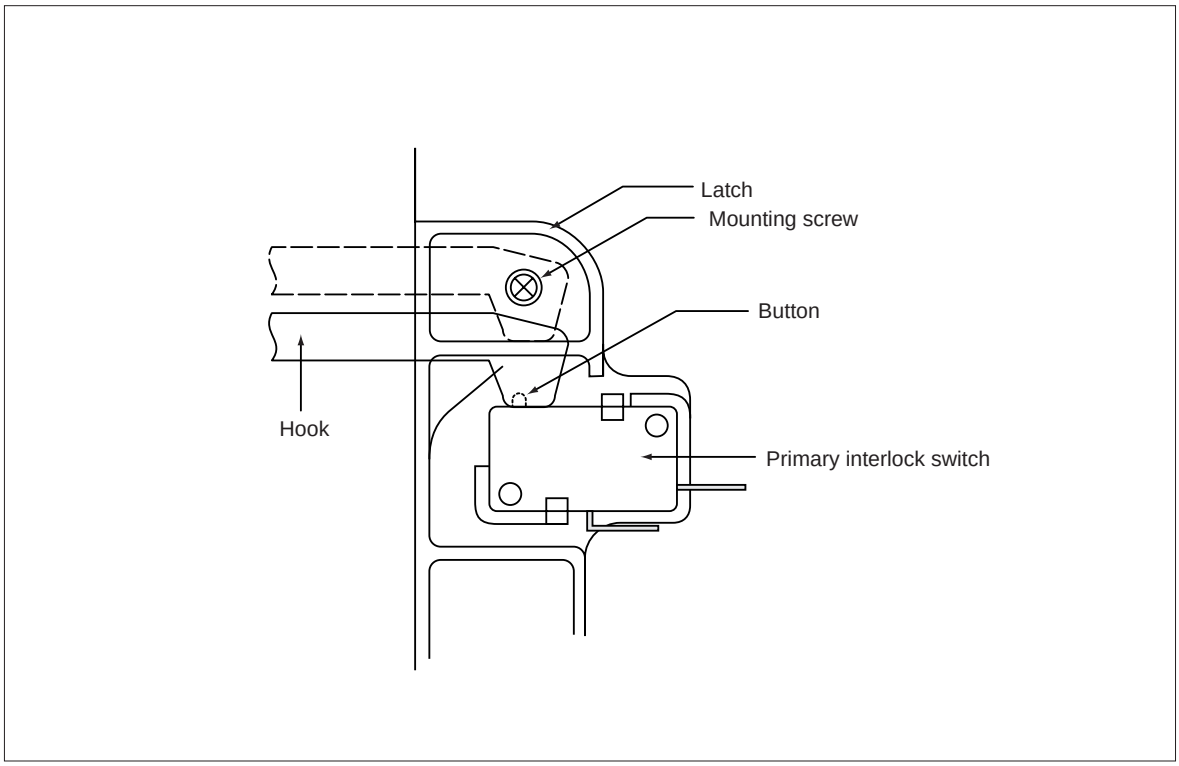
(1) Remove the HEX NUT ¤Œ
(2) Remove the Insulater Heater ¤ and Heater ¤Ł.
(3) Remove the two screws ¤º.
(4) Reverse the above steps for reassembly.

INTERLOCK MECHANISM

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.

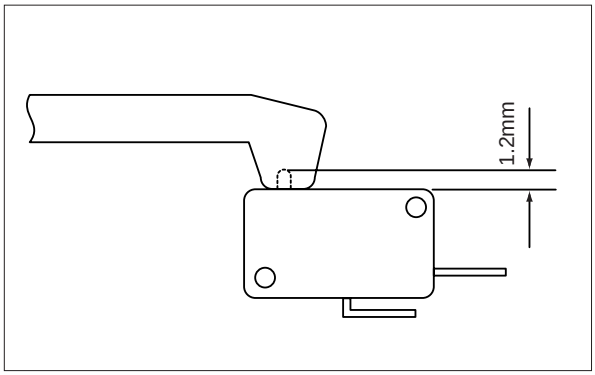
(1) Primary interlock switch

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 micro switch. Then the button of the primary interlock switch bring it under on condition.



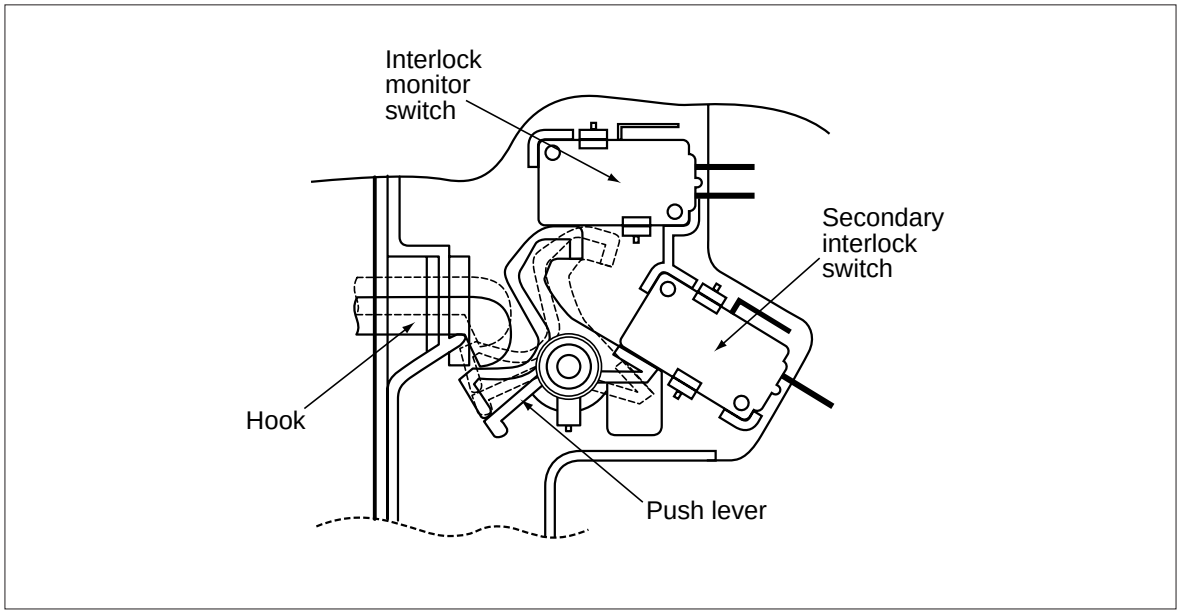
Adjustment 1.

When the door is closed, the switch button is pushed by the hook.
The movement of the switch button should exceed 1.2mm measured at the top of the button.



(2) Secondary interlock switch and interlock monitor switch

When the door is closed, the hook pushes the push lever down ward, the push lever presses the button of the monitor interlock switch to bring it under “off”, condition and presses the button of the secondary interlock switch to bring it under “on”, condition.



Adjustment 2.

Interlock monitor switch

When the door is closed, the interlock monitor switch should be opened before other switches close. When the door is opened, the interlock monitor siwtch should be closed after other switches open.

Secondary interlock switch

The movement of the switch button should exceed 1.2mm measured at the top of the button.

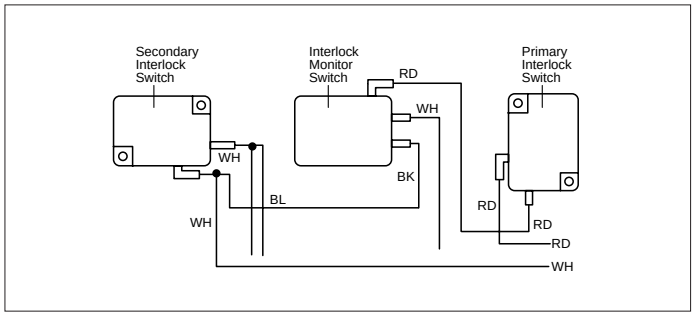
(3) Adjustment steps

a) Loosen the two mounting screws.
b) Adjust interlock switch assembly position.
c) Confirm the gap (1.2mm) described above.
d) Make sure that push lever moves smoothly after adjustments is completed.
e) Completely tighten the two mounting screws.

NOTE: Microwave emission test should be performed after adjusting interlock machanism. If the microwave emission exceed 4mW/cm^2, readjust interlock mechanism.

(4) Interlock switch resplacement

Whenever safety interlock switch are replaced:
1) Refer to the following diagram.
2) Check the connection of monitor switch after replacement.
3) Pereform the electrical continuity check of interlock switches and microwave emission test mentioned in this manual.

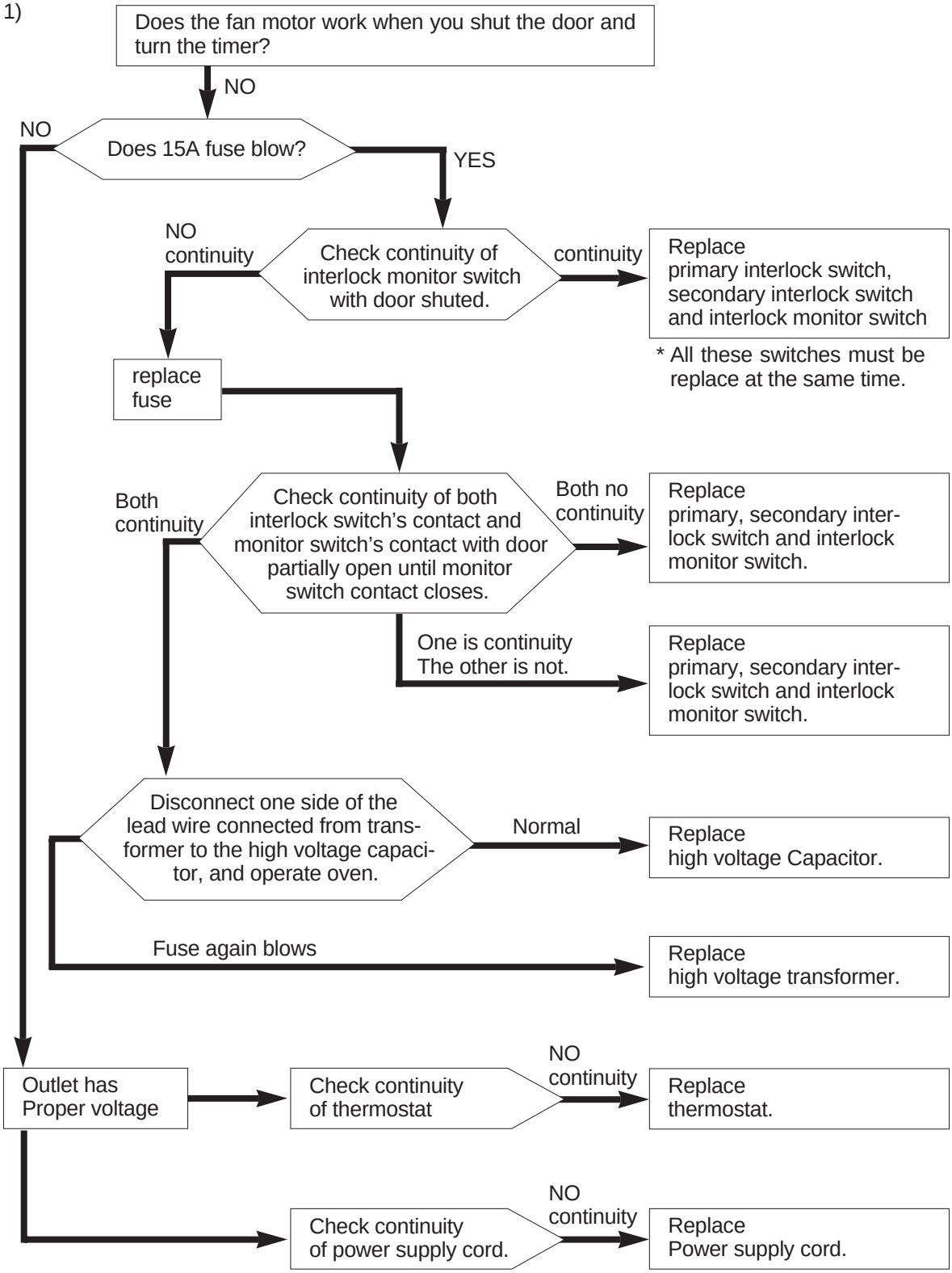


SYMBOL	COLOR
RD	RED
WH	WHITE
BK	BLACK
BL	BLUE

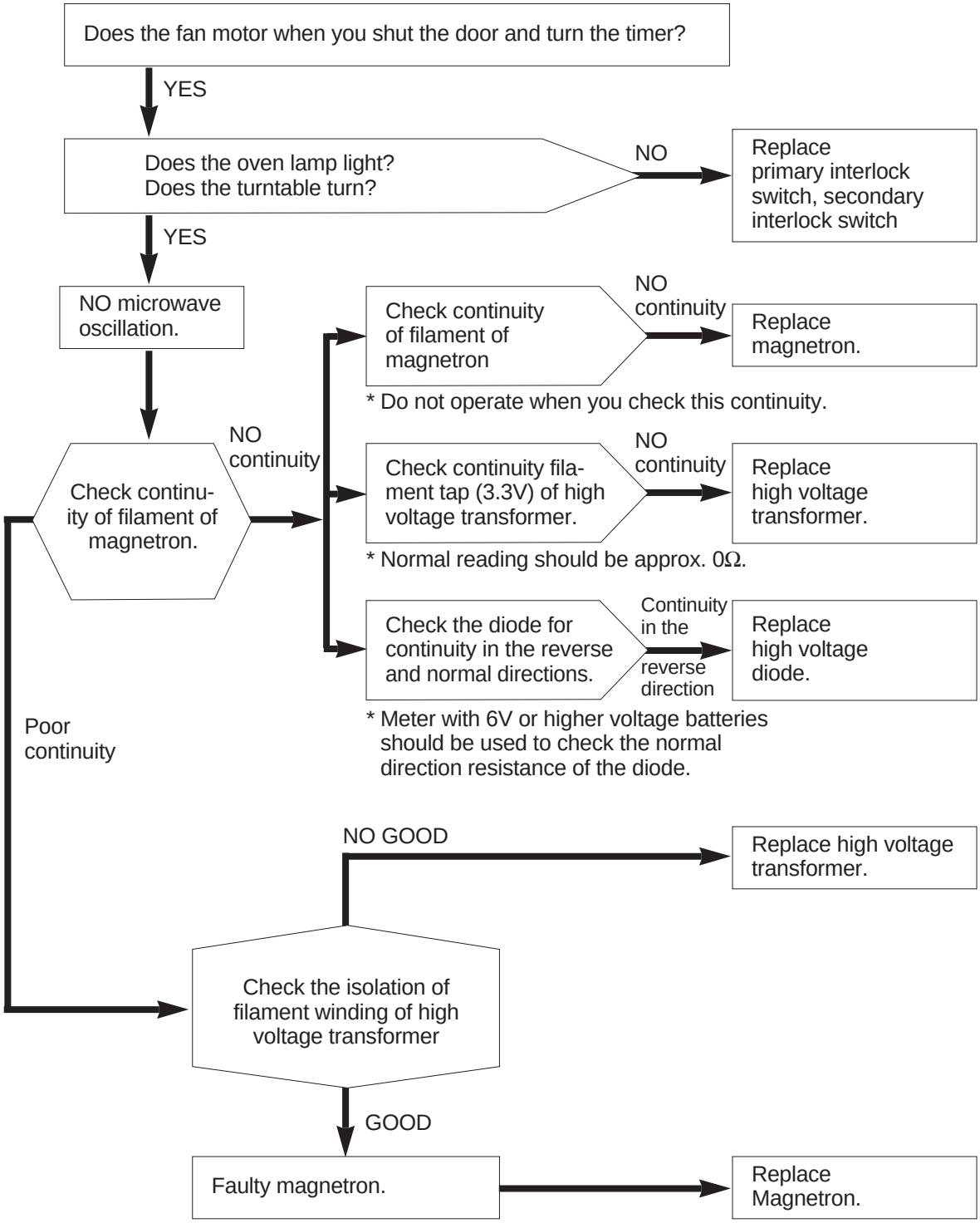
TROUBLE SHOOTING GUIDE

Trouble
Door shut, timer set but no cooking takes place.

1)



2)


Does the fan motor when you shut the door and turn the timer?
YES
Does the oven lamp light?
Does the turntable turn?
NO
Replace primary interlock switch, secondary interlock switch
YES
NO microwave oscillation.
Check continuity of filament of magnetron
NO continuity
Replace magnetron.
* Do not operate when you check this continuity.
NO continuity
Check continuity of filament of magnetron.
Check continuity filament tap (3.3V) of high voltage transformer.
NO continuity
Replace high voltage transformer.
* Normal reading should be approx. 0Ω.
Check the diode for continuity in the reverse and normal directions.
Continuity in the reverse direction
Replace high voltage diode.
* Meter with 6V or higher voltage batteries should be used to check the normal direction resistance of the diode.
Poor continuity
NO GOOD
Replace high voltage transformer.
Check the isolation of filament winding of high voltage transformer
GOOD
Faulty magnetron.
Replace Magnetron.

COMPONENT TEST PROCEDURE

1. High voltage is present at the high voltage terminal of the high voltage transforner during any cooking cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components or wiring, always unplug the oven from its power source and discharge the capacitor (see page 14).

1. High voltage transformer

(A) Remove connections form the transformer terminals and check continuity.
(B) Normal readings should be as follows:
Secondary winding ..... Approx. 100Ω¡ 10%
Filament winding..... Approx. 0Ω
Primary winding ..... Approx. 0Ω

2. High voltage capacitor

(A) Check continuity of capacitor with meter on the highest OHM scale.
(B) A normal capacitor will show continuity for a short time, and then indicate 9MΩ once the capacitor is charged.
(C) A shorted capacitor will show continuous continuity.
(D) An open capacitor will show constant 9MΩ.
(E) Resistance between each terminal and chasis should be infinite.

3. High voltage diode

(A) Isolate the diode from the circuit by disconnecting the leads.
(B) 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 diodes resistance will be infinite in one direction and several hundred kΩ in the other direction.

4. Magnetron

For complete magnetron diagnosis, refer to “Measurement of the Microwave Output Power”. (Page 8) Continuity checks can only indicate and open filament or a shorted magnetron.
To diagnose for an open filament or shorted magnetron.

(A) Isolate magnetron from the circuit by disconecting the leads.
(B) A continuity check across magnetron filament terminals should indicate ohm or less.
(C) A continuity check between each filament terminal and magnetron case should read open.

5. Interlock monitor switch

The interlock switch can be checked with an ohmmeter. Isolate the switch and then connect the meter leads to the common (COM) and normally close (NC) terminals of the switch. The meter should indicate an open circuit with the door closed and a closed circuit with the door opened.
In case improper operation is indicated, make the necessary switch adjustment or replacement.

6. Primary and secondary interlock switch

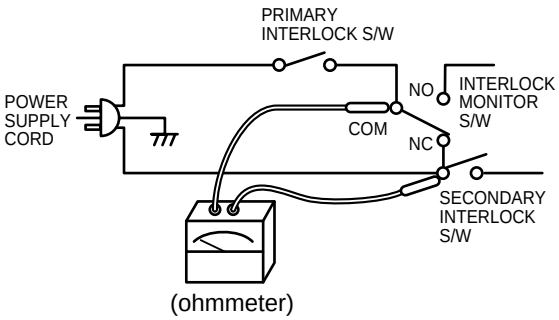
The primary and secondary interlock switch can be checked with an ohmmeter. Isolate the switch and connect the meter leads to the common (COM) and normally open (NO) terminals of the switch.
The meter should indicate an open circuit with the door opened and a closed circuit with the door closed. In case improper operation is indicated, make the necessary switch adjustment or replacement.

SAFETY INTERLOCK CONTINUITY TEST

- Disconnect the oven from the power supply.
- You can test continuity of safety interlocks and monitor switch by using switch tester or ohmmeter.
- The switch operation is checked by the lamp on/off of resistance zero/unlimited.
- The sequence of check is interlock monitor switch; primary and secondary interlock switches check.
- Make circuits like Fig. a, Fig. b, Fig. c for tests.

1) In case of interlock monitor check.

(Lamp on or zero resistance)

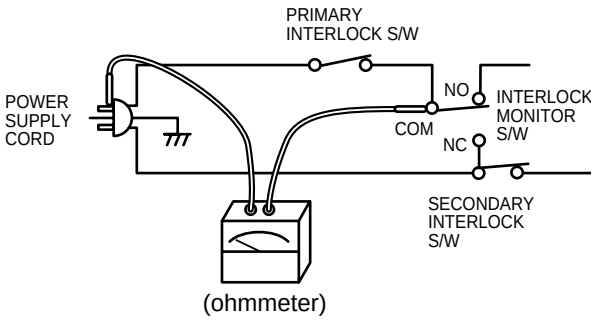


- Fig. a -

Condition: 1) Door is opened.
2) Common terminal of the monitor switch disconnected.

2) In case of primary interlock check.

(Lamp on or zero resistance)

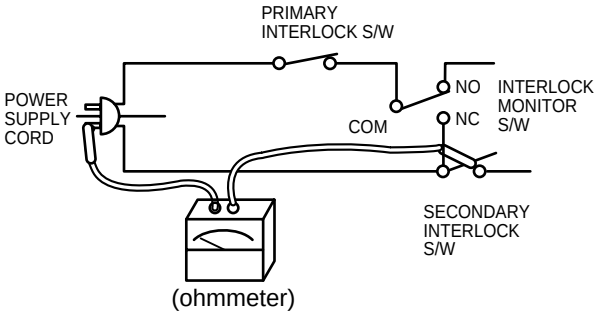


- Fig. b -

Condition: 1) Door is closed.

3) In case of secondary interlock switch.

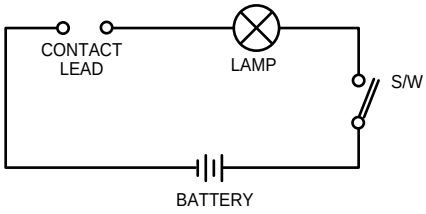
(Lamp on or zero resistance)



- Fig. c -

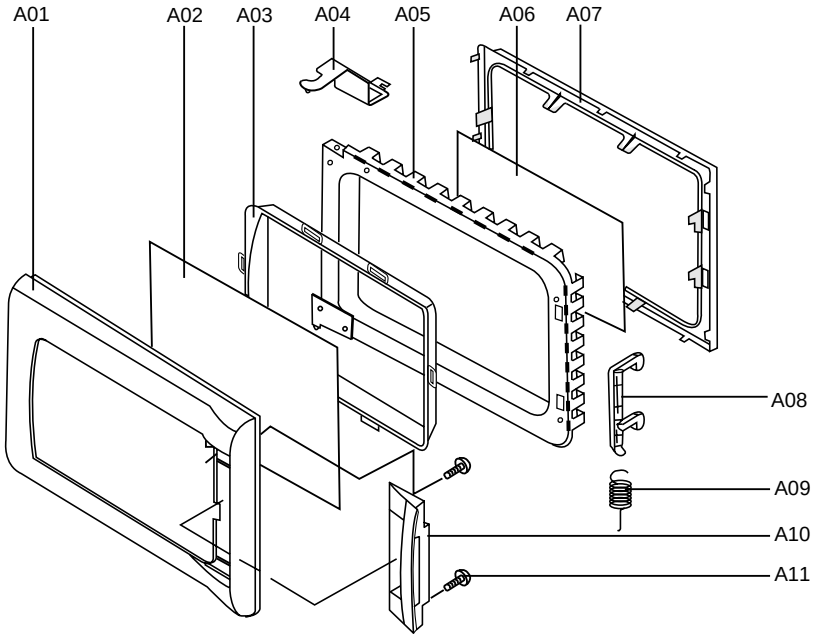
Condition: 1) Door is closed.

* (Schematic diagram of S/W tester)



EXPLODED AND PARTS LIST

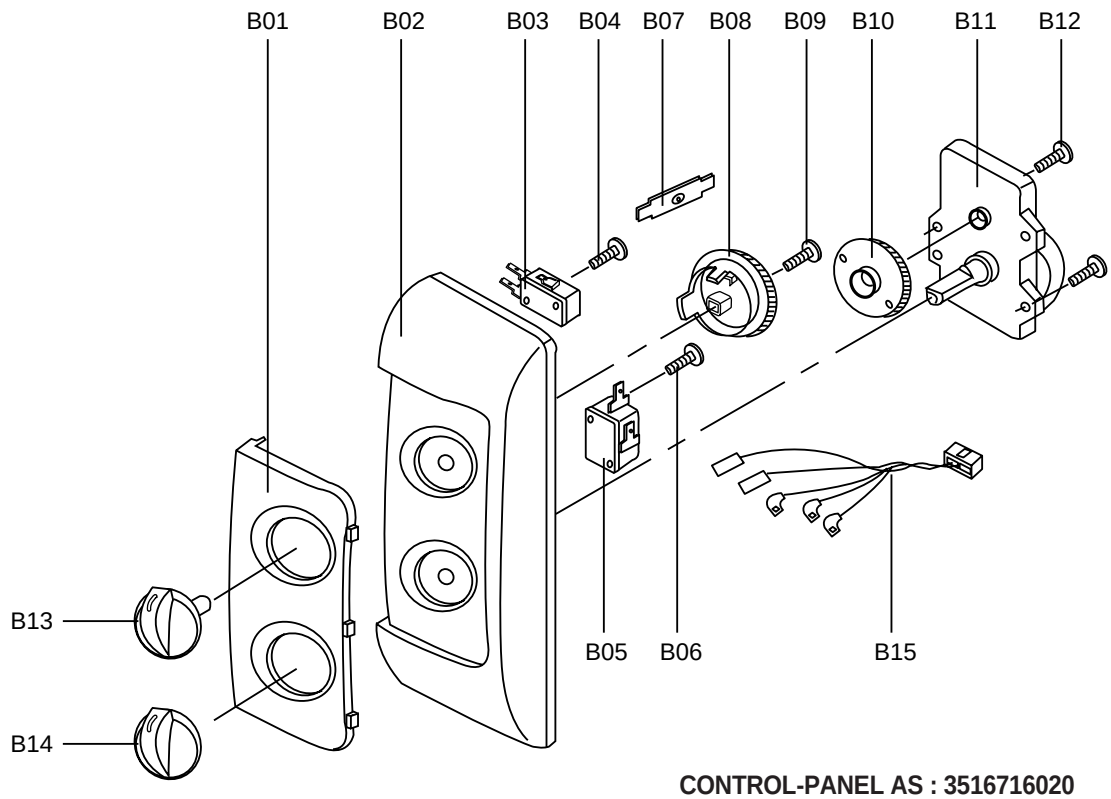
1. Door Assembly



DOOR AS : 3511707920

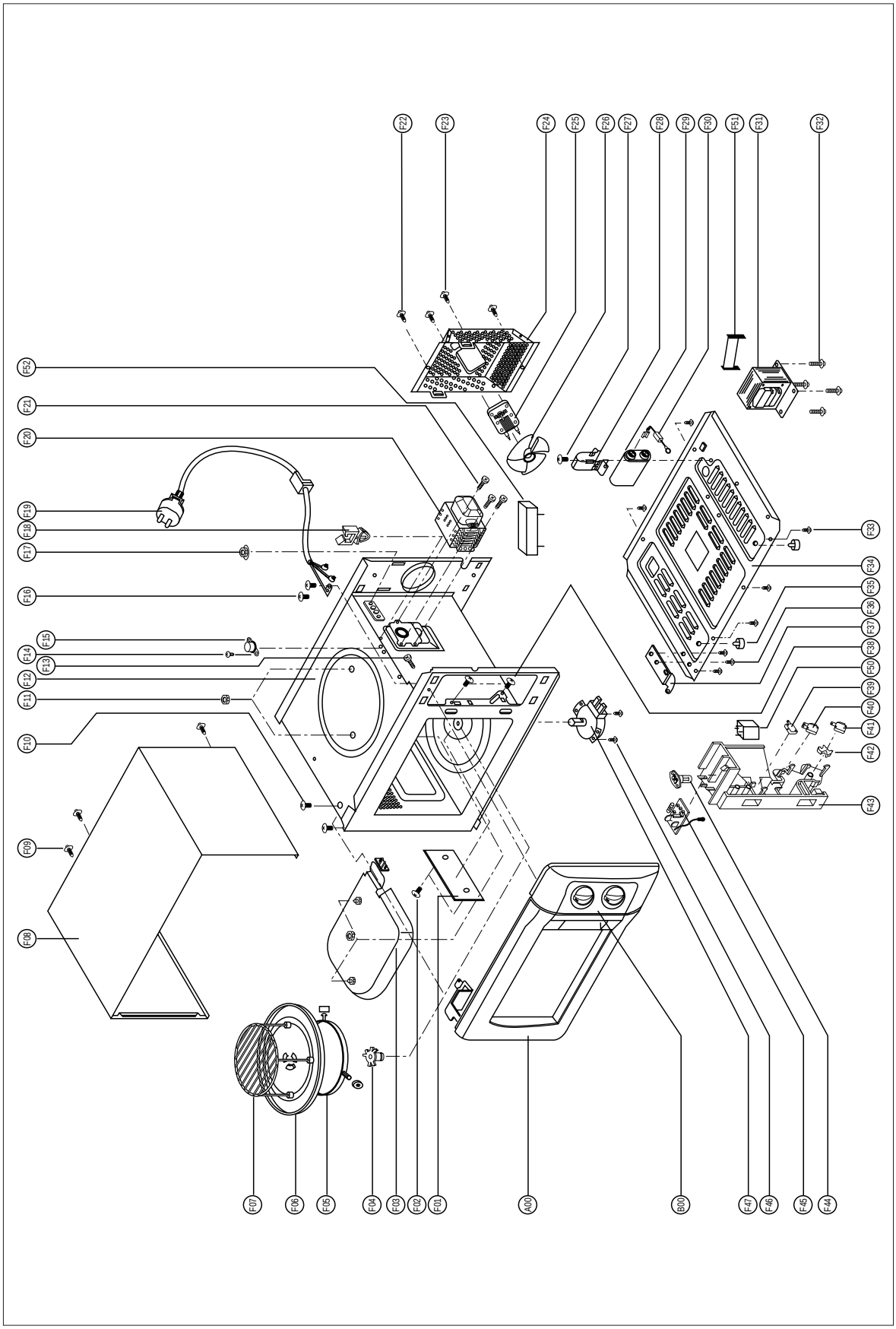
REF No.	PART NAME	PART CODE	DESCRIPTION	Q'TY	REMARK
A01	FRAME DOOR	3512202020	ABS	1	
A02	BARRIER-SCREEN * O	3517003040	ACRYLE 1.5T	1	
A03	SUPPORTER BARRI-S * O	3515304600	ABS	1	
A04	STOPPER HINGE * T AS	3515201500	KOR-6115OS	1	
A05	DOOR PAINTING AS	3511706100	KOR-6115OS	1	
A06	BARRIER-SCREEN * I	3517002800	PE 0.1T	1	
A07	GASKET DOOR	3512300200	PP	1	
A08	HOOK	3513100710	POM	1	
A09	SPRING HOOK	3515101500	PW1	1	
A10	HANDLE DOOR	3512601300	ABS	1	
A11	SCREW TAPPING	7S341W40B1	T2S PAN 4X12 PW MFZN	2	

2. Control Panel Assembly



CONTROL-PANEL AS : 3516716020

REF No.	PART NAME	PART CODE	DESCRIPTION	Q'TY	REMARK
B01	DECORATOR C-PANEL	3511602310	ABS	1	
B02	C-PANEL	3516709830	ABS	1	
B03	S/W MICRO	5S762310G0	V16-FA-61 2C 3P	1	
B04	SCREW TAPPING	7121301411	T2S PAN 3X14 MFZN	1	
B05	S/W MICRO	5S762S10G0	V16-FA-63 SPNO #187	1	
B06	SCREW TAPPING	7121301411	T2S PAN 3X14 MFZN	1	
B07	SPRING FLAT	3515101600	SUS301 T0.5	1	
B08	COUPLER VPC KNOB	3517400510	POM	1	
B09	SCREW TAPPING	7S341W40B1	T2S PAN 4X12 PW MFZN	1	
B10	COUPLER TIMER	3517400400	POM	1	
B11	TIMER	3518203800	KN35MKD	1	
B12	SCREW TAPPING	7S341W40B1	T2S PAN 4X12 PW MFZN	2	
B13	KNOB VPC	3513402650	ABS	1	
B14	KNOB	3513402550	ABS	1	
B15	HARNESS TIMER	3512764200	KOG-3615OS	1	


F22
F23
F24
F25
F26
F27
F28
F29
F30
F51
F31
F32
F32
F21
F20
F19
F18
F17
F16
F15
F14
F13
F12
F11
F10
F09
F08
F33
F34
F35
F36
F37
F38
F50
F39
F40
F41
F42
F43
F07
F06
F05
F04
F03
F02
F01
A00
B00
F47
F46
F45
F44

REF No.	PART NAME	PART CODE	DESCRIPTION	Q'TY	REMARK
F01	COVER WAVE GUIDE	3511403500	MICA T0.5	1	
F02	BUTTON LOCKING	4078502031	PP	2	
F03	INSULATOR HEATER AS	3513301400	KOG-3615OS	1	
F03-1	HEATER	3512801700	230V 1000W	1	
F03-2	INSULATOR HEATER	3513301100	SPP T0.8	1	
F04	COUPLER	3517400600	PPS	1	
F05	GUIDE ROLLER AS	3512510600	KOR-6115OS	1	
F06	TRAY	3517203600	GLASS	1	
F07	TRAY RACK AS	3517204410	KOG-361QOS 100MM	1	
F08	CABINET	3510801300	PCM T0.6	1	
F09	SCREW SPECIAL	7S312X40A1	T1 TRS 4X10 SE MFZN	3	
F10	SCREW SPECIAL	7S427W40A1	TT2 HEX FG 4X10 SE MFZN	2	
F11	NUT HEX	7392500008	6N-2-5 SUS	2	
F12	CAVITY AS	3516104810	KOG-3615OS	1	
F13	SCREW SPECIAL	7S341W40B1	T2S PAN 4X12 PW SE MFZN	1	
F14	SCREW TAPPING	7121300811	T2S PAN 3X8 MFZN	1	
F15	THERMOSTAT	3518902200	OFF:130 ON:115 H NT101	1	
F16	SCREW SPECIAL	7S422X4081	TT2 TRS 4X8 SE MFZN	3	
F17	NUT HEX	7S627W50X1	NUT FLANGE M5X0.8P MFZN	2	
F18	CLAMP POWER CORD	4413A90012	NYLON 66	1	
F19	CORD POWER AS	35113AAQG5	3X1.5 60X60 120-RTML	1	
F20	MAGNETRON	3518002200	2M218H (MF) I	1	
F21	SCREW SPECIAL	7S327U40A1	T2 FG 4X10 PW SE MFZN	3	
F22	SCREW SPECIAL	7S312X40A1	T1 TRS 4X10 SE MFZN	2	
F23	SCREW MACHINE	7S101W4081	PAN FLANGE 4X8 MFZN	2	
F24	COVER * B	3511402500	SBHG T0.8	1	
F25	MOTOR SHADED POLE	3963512100	MW10CA-R01	1	
F26	FAN	3511800300	PP+30% GLASS	1	
F27	SCREW SPECIAL	7S422X4081	TT2 TRS 4X8 SE MFZN	1	
F28	HOLDER HV CAPACITOR	3513001900	SECC T0.8	1	
F29	CAPACITOR HV	441U667020	2100VAC 0.95μF	1	
F30	DIODE HV	4416V24000	HVR-1X-32B	1	
F31	TRANS HV	3518106210	JY-N80S0-61T	1	
F32	SCREW SPECIAL	7S427W40A1	TT2 HEX FG 4X10 SE MFZN	4	
F33	SCREW SPECIAL	7S312X40A1	T1 TRS 4X10 SE MFZN	6	
F34	BASE	3510308700	SBHG T0.8	1	
F35	FOOT	3512100900	PP DASF-130	2	
F36	SCREW SPECIAL	7S422X4081	TT2 TRS 4X8 SE MFZN	2	
F37	STOPPER HINGE * U	3515201100	SCP-1 T2.5	1	

REF No.	PART NAME	PART CODE	DESCRIPTION	Q'TY	REMARK
F38	SCREW SPECIAL	7S341W40B1	T2S PAN 4X12 PW SE MFZN	2	
F39	S/W MICRO	4415A17352	VP-533A-OF	1	
F40	S/W MICRO	4415A66910	VP-531A-OF	1	
F41	S/W MICRO	4415A17352	VP-533A-OF	1	
F42	LEVER LOCK	3513701300	POM	1	
F43	LOCK	3513805710	POM	1	
F44	LAMP	3513601600	BL 240V 25W T25	1	
F45	NOISE-FILTER	3518603700	DWLF-M	1	
F46	SCREW TAPPING	7121400811	T2S PAN 4X8 MFZN	2	
F47	MOTOR SYNCRO	3966310100	GM-16-24FD12	1	
F	S/ACTING RELAY	4416W67211	JALA-TM-AC 220V	1	FOR GERMANY
F-1	HARNESS MAIN	3512710100	KOG-3615OS	1	
		3512710110	KOG-3615OS		FOR GERMANY
B00	CONTROL-PANEL AS	3516716020	KOG-3667OS	1	
A00	DOOR AS	3511707920	KOR-616TOS	1	