S/M No.:R637V0A001

DAEWOO

Service Manual

Microwave Oven

MODEL : KOR-637V

DAEWOO ELECTRONICS CO., LTD

http : //svc.dwe.co.kr

AUG. 2001

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 power to the microwave oven 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

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 surface should be kept clean.

No greas,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 micrwave oven has concealead 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 manafacterer immediately.

IMPORTANT

The wire in this mains lead coloured in accordance with the following code.

Green-and-yellow : Earth

Blue : Neartral

Brown. : live

As the colours of the wires in the manins lead of this appliance may not correspond with the coloured makings 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', earth symbol or coloured green-and-yellow.

The wire which is coloured blue must be connected to the terminals which is marked with the letter 'N' or colouredblack.

The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red.

NOTE

The oven is desigend for counter-top use only.

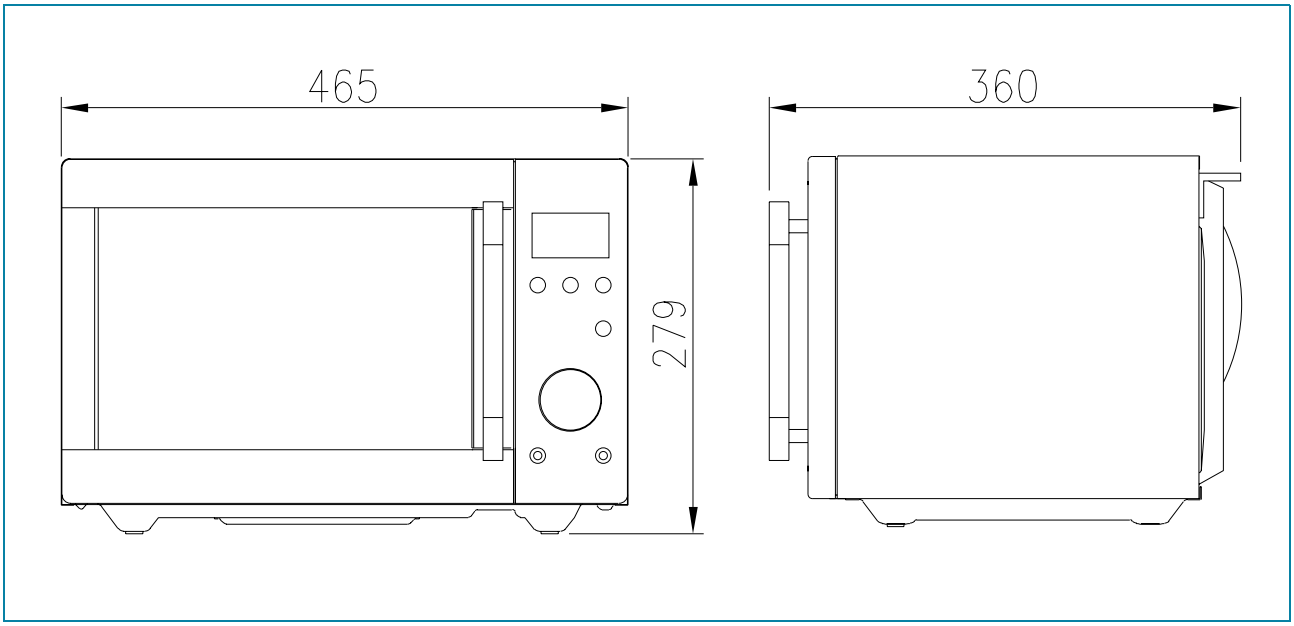
SPECIFICATIONS

MODEL		KOR-637V
POWER SUPPLY		120V ~ 60Hz, SINGLE PHASE WITH EARTHING
POWER CONSUMPTION	MICROWAVE	1200W
	GRILL	
	COMBINATION	
	UV LAMP	10W
MICROWAVE ENERGY OUTPUT		800W
MICROWAVE FREQUENCY		2450MHz
OUTSIDE DIMENSIONS(W X H X D)		465 x 279 x 360 mm (18.3 x 11.0 x 14.2 in.)
CAVITY DIMENSIONS (W X H X D)		290 x 220 x 306 mm (11.4 x 8.7 x 12.0 in)
NET WEIGHT		APPROX. 12.3Kg(27.2 lbs.)
TIMER		59min. 00 sec.
FUNCTION SELECTIONS		MICROWAVE
POWER SELECTIONS		5 LEVELS
CAVITY VOLUME		0.7 Cu.Ft.

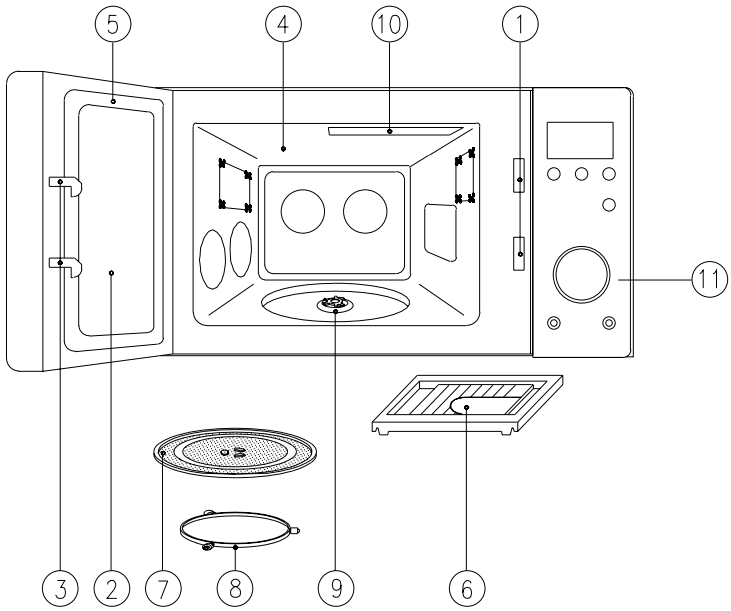
* SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

EXTERNAL VIEW

1. OUTER DIMENSION

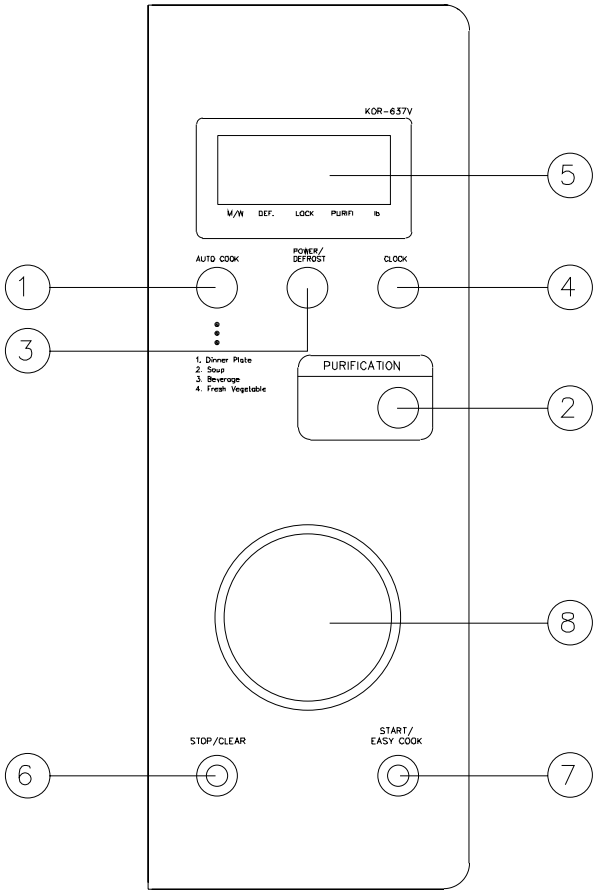


2. FEATURE DIAGRAM



1. **Safety interlock system**
2. **Door screen** - Allows viewing of food. The screen is transparent to light, but prevents microwaves escaping.
3. **Door latch** - When the door is closed, it will automatically shut off. If the door is opened while the oven operating, the magnetron tube will immediately stop operating.
4. **Oven cavity**
5. **Door seal** - Door seal surfaces prevent microwave escaping from the oven cavity.
6. **Shelf** - Made of special heat resistant plastic. The shelf can be easily removed for cleaning. The shelf must be placed on the glass cooking tray. Do not use when the oven is operating for microwave cooking.
7. **Glass cooking tray** - Made of special heat resistant glass. The tray can be easily removed for cleaning. Make sure it is correctly positioned(indentation) before operating. Place food in a suitable container(dish)on the tray.
8. **Roller guide** - Supports the glass cooking tray.
9. **Coupler** - This fits over the shaft in the center of the ovens cavity floor. This is to remain in the oven for all cooking.
10. **UV lamp**
11. **Control panel**

3. Control panel



1. Auto cook - Used to cook using a program or to reheat.

2. UV Purification - Used to purify baby bottle, cup, plate, etc.

3. Power/Def - Used to set power level and to defrost foods by weight or time.

4. Clock - Used to set clock.

5. Display - Cooking time, power level, indicators and present time are displayed.

6. Stop/Clear - Used to stop the oven operation or to erase all entries.

7. Strat/Easy cook - Used to start the oven operation and also increase the reheat time by 30 seconds.

8. Dial Knob - Used to set the time and weight.

INSTALLATION

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

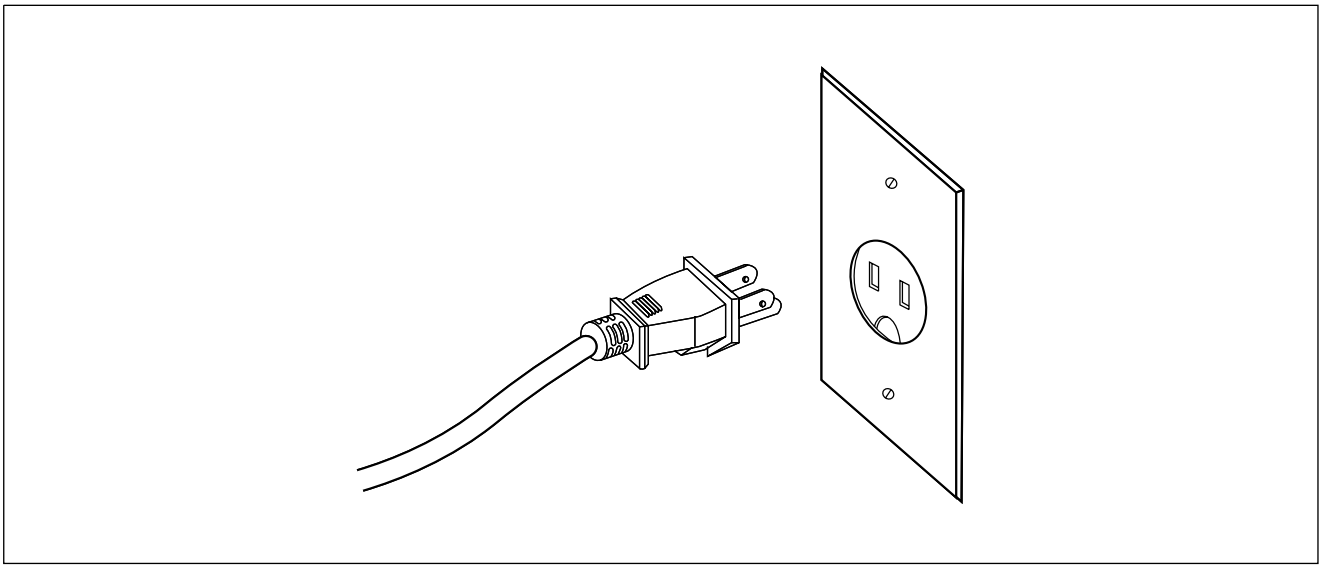
4. Away from heating appliances and water taps

Keep the oven away from hot air, steam or 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 10 amperes, 120Volts, 60Hz grounded outlet.
Power supply cord is about 0.8 meters long.

1. A short power-supply cord is provided to reduce the risks resulting from becoming entangled in or tripping over a longer cord.
2. Longer cord sets or extension cords are available and may be used if care is exercised in their use.
3. If a long cord or extension cord is used:
   1) The marked electrical rating of the cord set or extension cord should be at least as great as the electrical rating of the appliance.
   2) The extension cord must be a grounding type 3-wire cord.
   3) The longer cord should be arranged so that it will not drape over the counter top or tabletop where it can be pulled on by children or tripped over unintentionally.



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.

OPERATIONS AND FUNCTIONS

1. Connect the main 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. When the oven door is opened, the light turns off.
5. The oven door can be opened at any time during operation by touching the door release button on the control panel.
   The oven will automatically shut off. To restart the oven, close the door and then touch Start button.
6. Each time a button is touched, a BEEP will sound to acknowledge the touch.
7. The oven automatically cook on full power unless set to a lower power level.
8. The display will show ":0" when the oven is plugged in.
9. Time clock returns to the present time when the cooking time ends.
10. When the Stop/Clear button is touched during the oven operation, the oven stops cooking and all information retained.
    To erase all information (except the present time), touch the Stop/Clear button once more. If the oven door is opened during the oven operation, all information is retained.
11. If the Start button is touched and the oven does not operate, check the area between the door and door seal for obstructions and make sure the door is closed securely.
    The oven will not start cooking until the door is completely closed or the program has been reset.
12. When using the Purification mode ;
    - After purify metal tablewares, take out them certainly
      If not so, touching other buttons, it can be happened to spark.
    - Do not use the glass tray for the Purification mode. Use the shelf only.

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

Wattage output chart

The power level is set by pressing the Power button. The chart shows the display, the power level and the percentage of power.

Touch Power button	Power level (Display)	Approximate Percentage of power
Once	P-HI	100 %
Twice	P-80	80 %
3 times	P-60	60 %
4 times	P-40	40 %
5 times	P-20	20 %

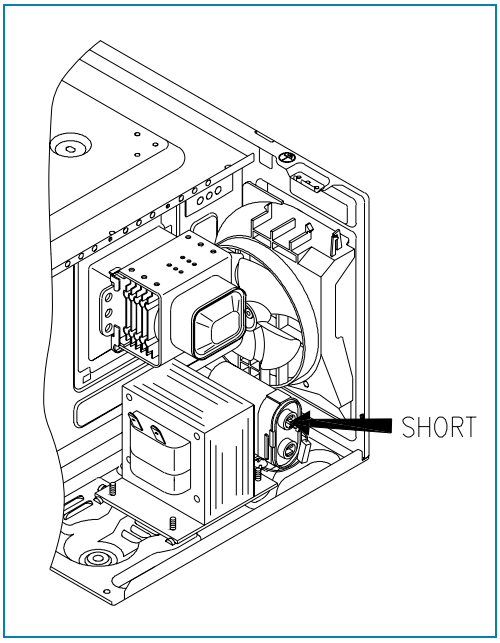
DISASSEMBLY AND ASSEMBLY

Cautions to be observed when trouble shooting.

Unlike many other appliances, the microwave oven is high-voltage, high-current equipment.
It is completely safety 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 scredriver and ware rubber gloves when servicing the high voltage side.
3. Discahrge the high voltage capacitor before touching any oven components or wiring.

(1) Check the earthed.
Do not operate on a two-wire extension cord.
The microwave oven is designed to be used with earthed.
It is imperative, therefore, to make sure it is grounded 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 12A 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

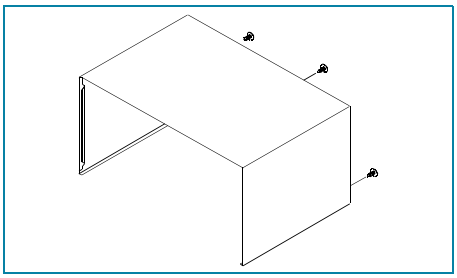
Service personnel should remove their watches whenever working close to or replacing the magnetron.

WARNING

When servicing th 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, HVFuse.

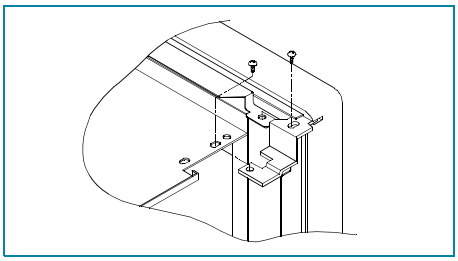
1. To remove cabinet

1) Remove three screws on cabinet back.
2) Push the cabinet backward.



2. To remove door assembly

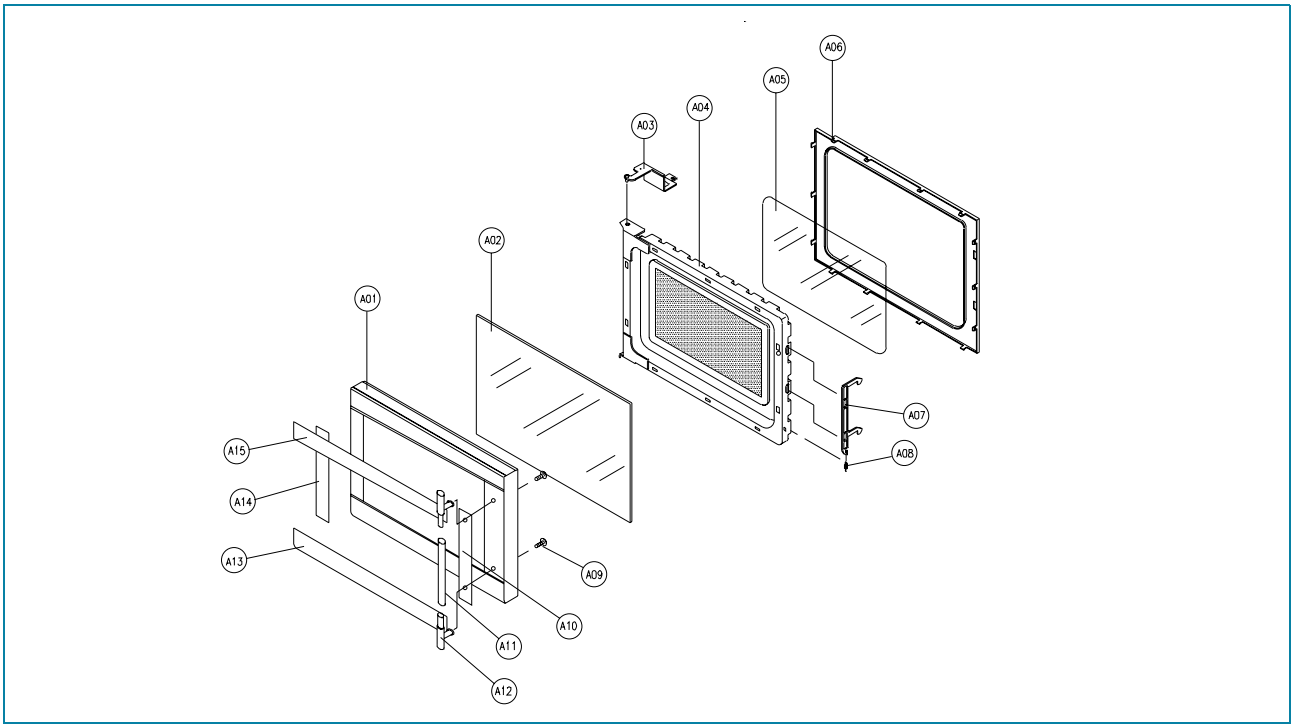
1) Remove screws which secure the stopper hinge top.
2) Remove the door assembly from top plate of cavity.
3) Reverse the above for reassembly.



NOTE

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

3. To remove door parts.



NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
A01	3512205230	FRAME DOOR	ABS SG-175 SG-0760D	1
A02	3517005670	BARRIER SCREEN *O	TEMP GLASS T3.2	1
A03	3515204100	STOPPER HINGE *T AS	KOR-63150S	1
A04	3511706120	DOOR PAINTING AS	KOR-634R0S	1
A05	3517002800	BARRIER SCREEN *I	PET 0.1	1
A06	3512300200	GASKET DOOR	PP	1
A07	3513100730	HOOK	POM BLACK	1
A08	3515101320	SPRING HOOK	HSW-3	1
A09	7112402011	SCREW TAPPING	T1 TRS 4x20 MFZN	2
A10	3511606100	DECORATOR DOOR*R	STS304 T0.5H/L	1
A11	3512603220	HANDLE DOOR	CR T0.9	1
A12	3515307300	SUPPORTER HANDLE	ABS SG-175	2
A13	3511605900	DECORATOR DOOR *U	STS304 T0.5H/L	1
A14	3511606200	DECORATOR DOOR *L	STS304 T0.5H/L	1
A15	3511605800	DECORATOR DOOR *T	STS304 T0.5H/L	1

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

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

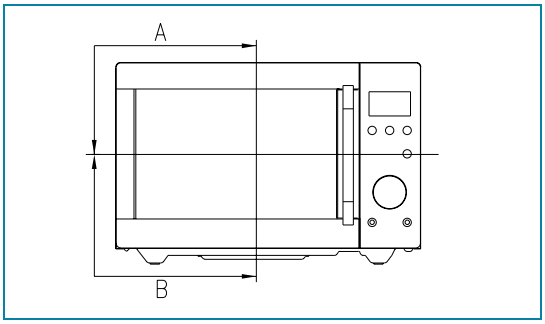
▶ Loosen two screws on stopper hinge top, and then push the door to contact the door seal to oven front surface.

▶ Tighten a screw.

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

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

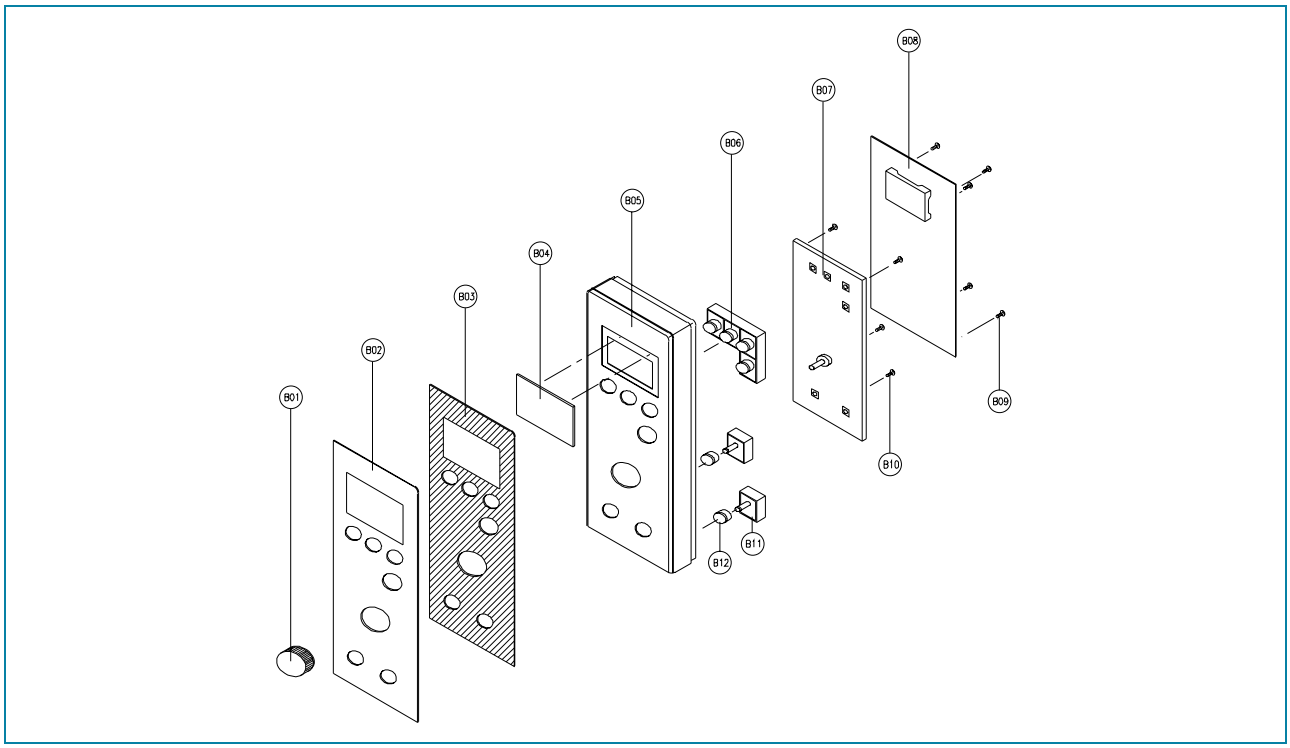
▶ Tighten a screw.



NOTE

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

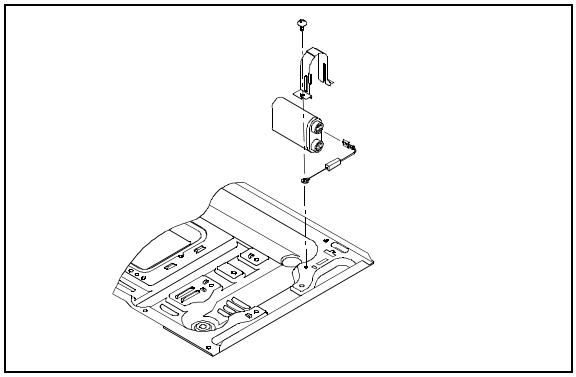
5. To remove control panel parts.



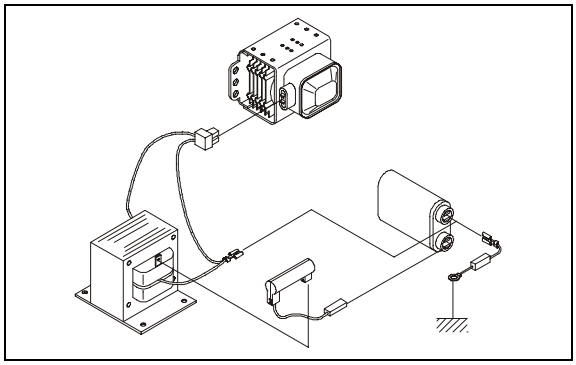
NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
B01	3513404620	KNOB VOLUME	ABS XR-401, H-2938	1
B02	3511604540	DECORATOR C-PANEL	STS304 T0.5 H/L	1
B03	3516003980	SPECIAL DOUBLE TAPE	SI-161 T0.15	1
B04	3515501530	WINDOW DISPLAT	PMMA	1
B05	3516726200	CONTROL-PANEL	ABS SG-175 SG-0760D	1
B06	3516907480	BUTTON FUNCTION	ABS SG-175 SG-0760D	1
B07	3514321440	PCB SUB AS	KOR-637V	1
B08	3514323330	PCB MAIN AS	KOR-637V0A	1
B09	7122401211	SCREW TAPPING	T2S TRS 4x12 MFZN	3
B10	7621301011	SCREW TAPPING	T2 PAN 3x10 PW MFZN	5
B11	3516908520	BUTTON FUNCTION-C	ABS SG-175 SG-0760D	2
B12	3511605120	DECORATOR RING	ABS SG-175 SG-0760D	2

6. To remove high voltage capacitor.

1) Remove a 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.

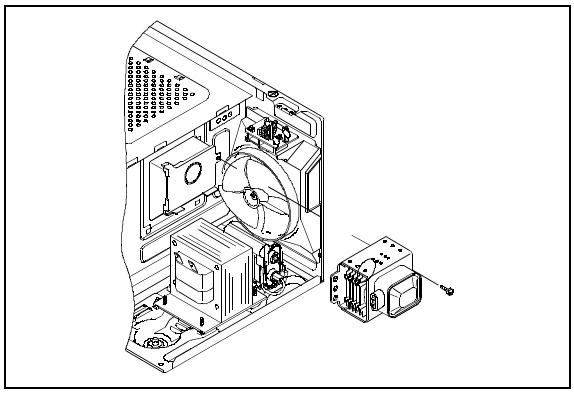


◆ High voltage circuit wiring



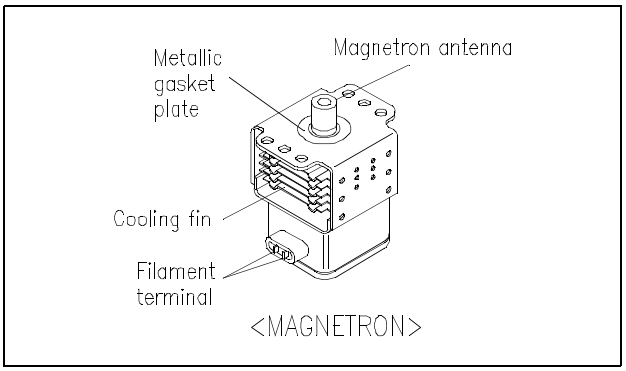
7. To remove magnetron.

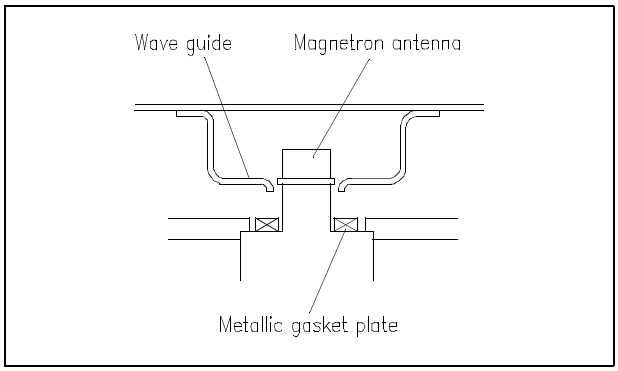
1) Remove a screw which secure the magnetron.
2) Remove the magnetron.
3) Reverse the above steps for reassembly.



NOTE

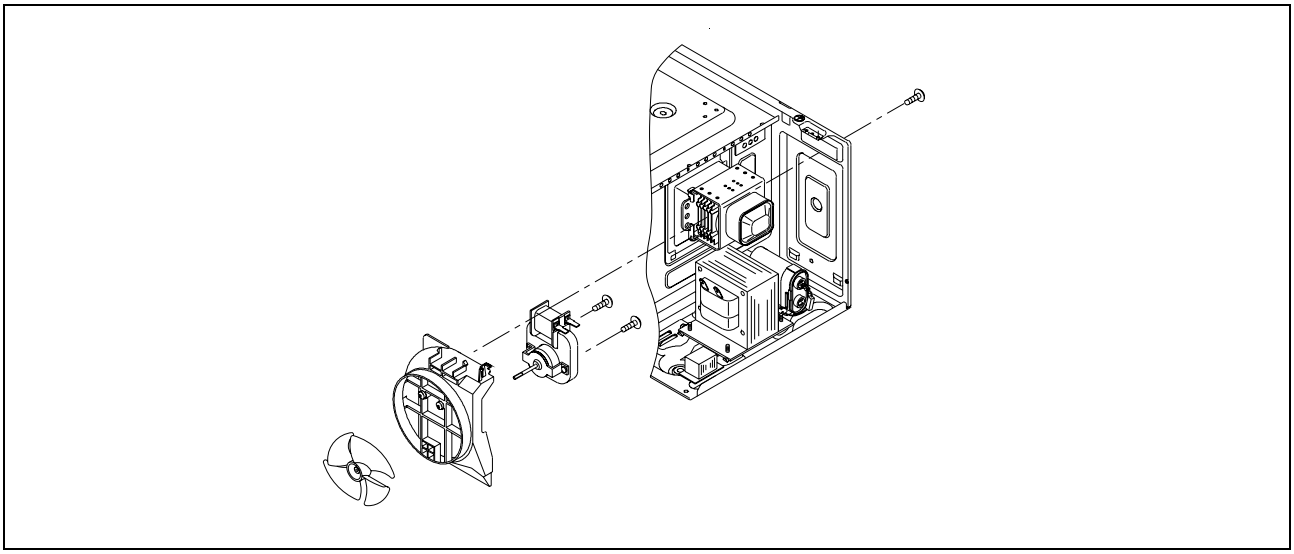
Never install the magnetron without the metallic gasket plate which is packed with each magnetron to prevent microwave leakage. Whenever repair work is carried out on magnetron, check the microwave leakage. It shall not exceed 4mW/cm^2 for a fully assembled oven with door normally closed.





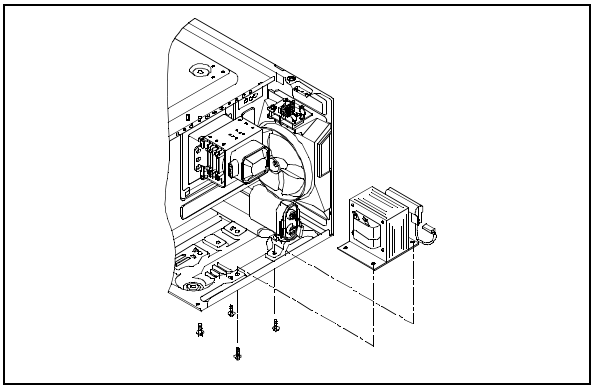
8. To remove wind guide assembly.

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



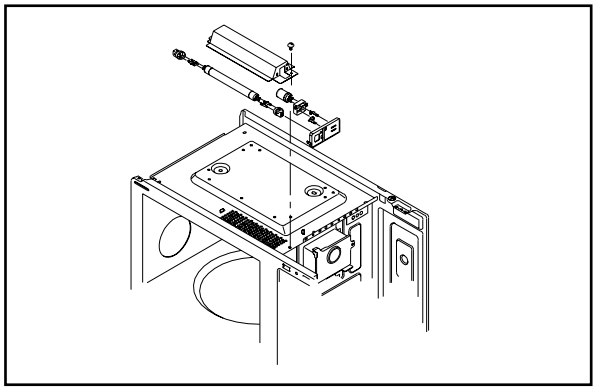
9. To remove H.V. transformert.

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



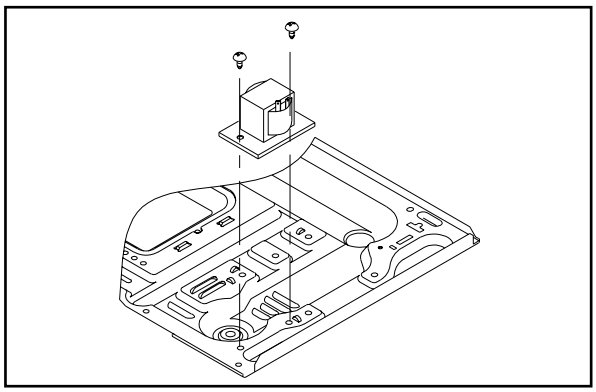
10. To remove UV lamp assembly.

1) Remove the screw which secure the UV lamp assembly to the top-plate.
2) Remove the screw which hold the socket starter *O to the cover lamp.
3) Remove the socket starter *O from the cover lamp by pushing up two snap fits.
4) Remove the socket starter *I from the socket starter *O.
5) Remove the terminal starters from the socket starter *I.
6) Remove the starter glow from the socket starter *I.
7) Remove the lamp germicidal from the cover lamp.
8) Remove the socket lamp.
9) Remove the terminal lamp.
10) Reverse the above steps for reasembly.



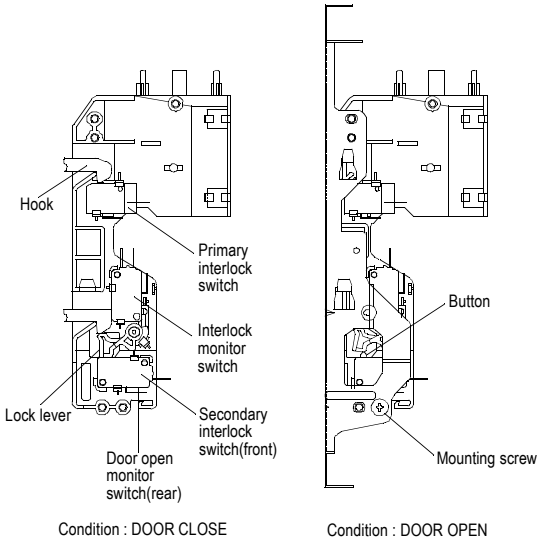
11. To remove the ballast.

1) Remove two screws holding the ballast.
2) Remove the ballast.
3) Reverse the above steps for reasembly.



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 changed (NO condition) before other switches are closed.
When the door is opened, the interlock monitor switch should be changed (NC condition) after other switches are opened.

3. Adjustment steps

a) Loosen the one mounting screw.
b) Adjust interlock switch assembly position.
c) Make sure that lock lever moves smothly after adjustment is completed.
d) Tighten completely one mounting screw.

NOTE

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

TROUBLE SHOOTING GUIDE

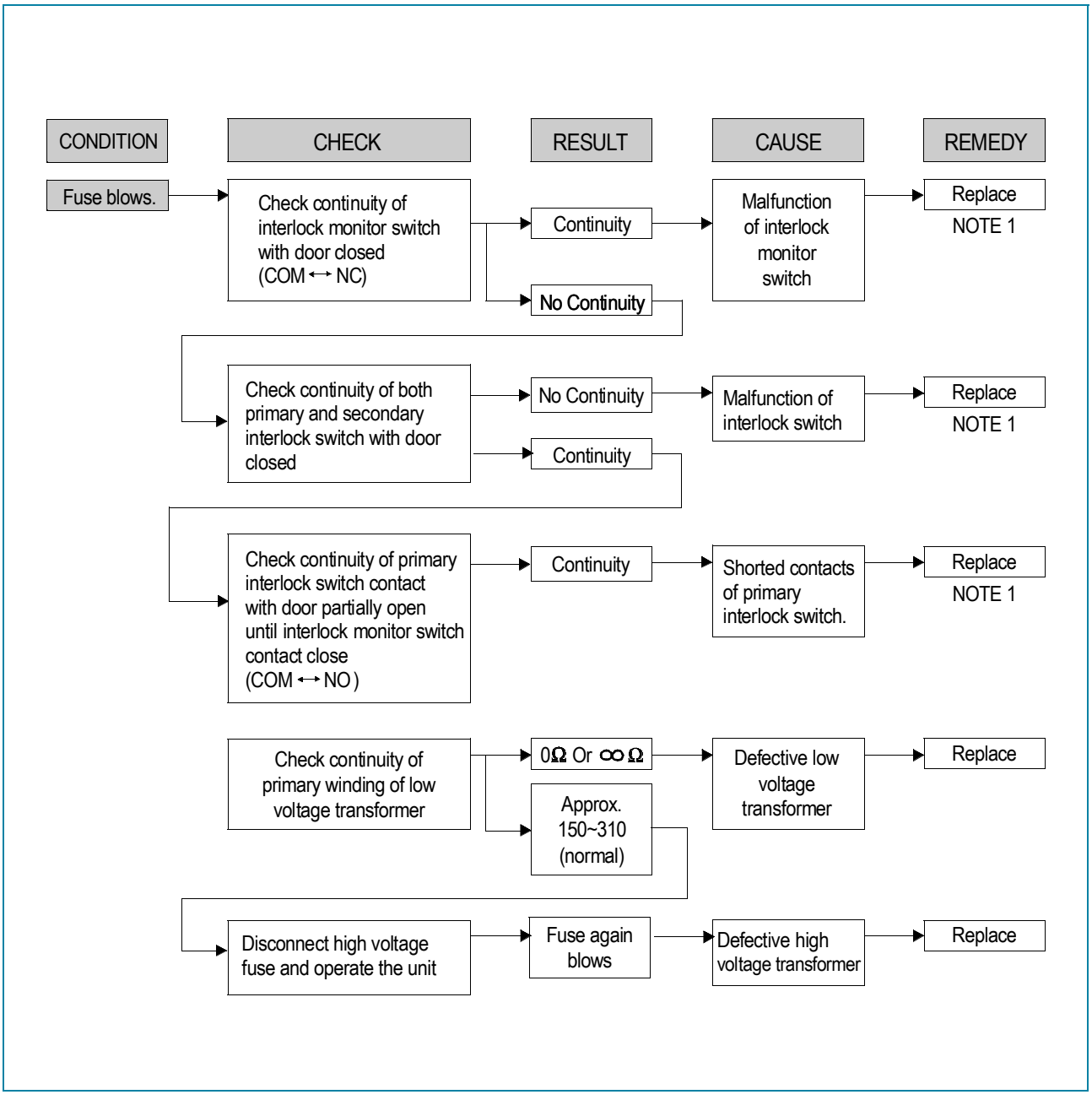
Following the procedure below to check if the oven is defective or not.

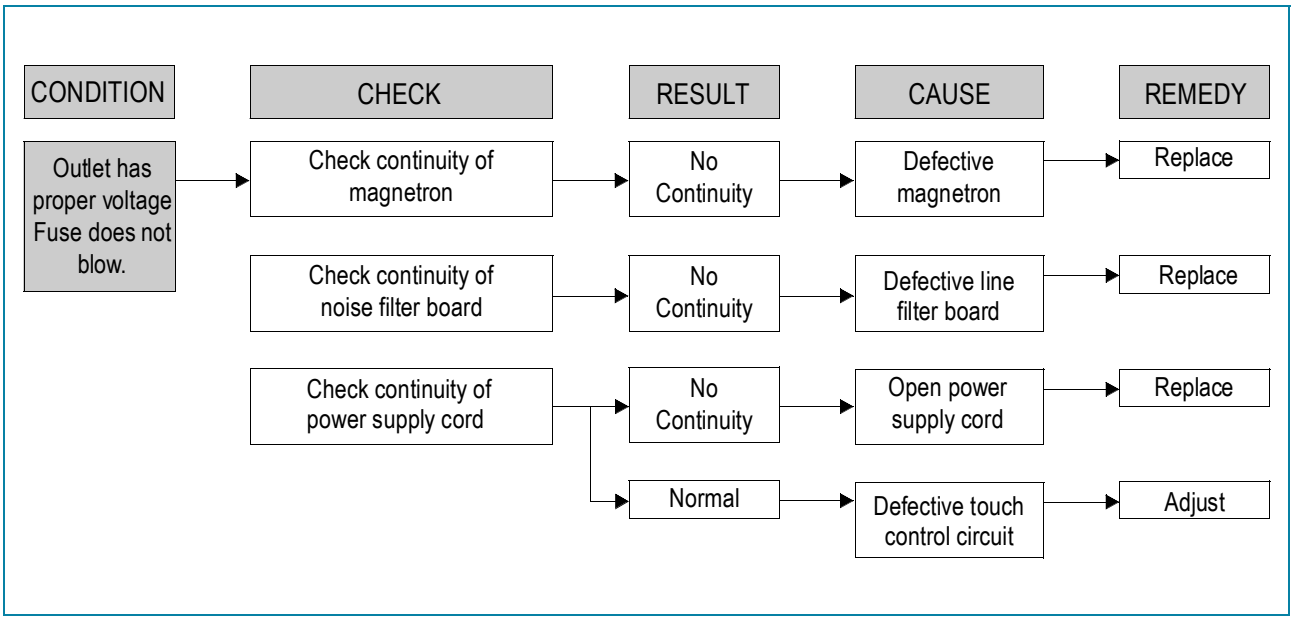
1. Check grounding before trouble checking.
2. Be careful of the high voltage circuit.
3. Discharge the high voltage capacitor.
4. When checking the continuity of the switches, fuse or high voltage transformer, disconnect one lead wire from these parts and check continuity with the AC plug removed. To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

NOTE

When electric parts are checked, be sure the power cord is not inserted the wall outlet.
Check wire harness, wiring and connected of the terminals and power cord before check the parts listed below.

(TROUBLE 1) Door shut, timer set, but no cooking takes place.

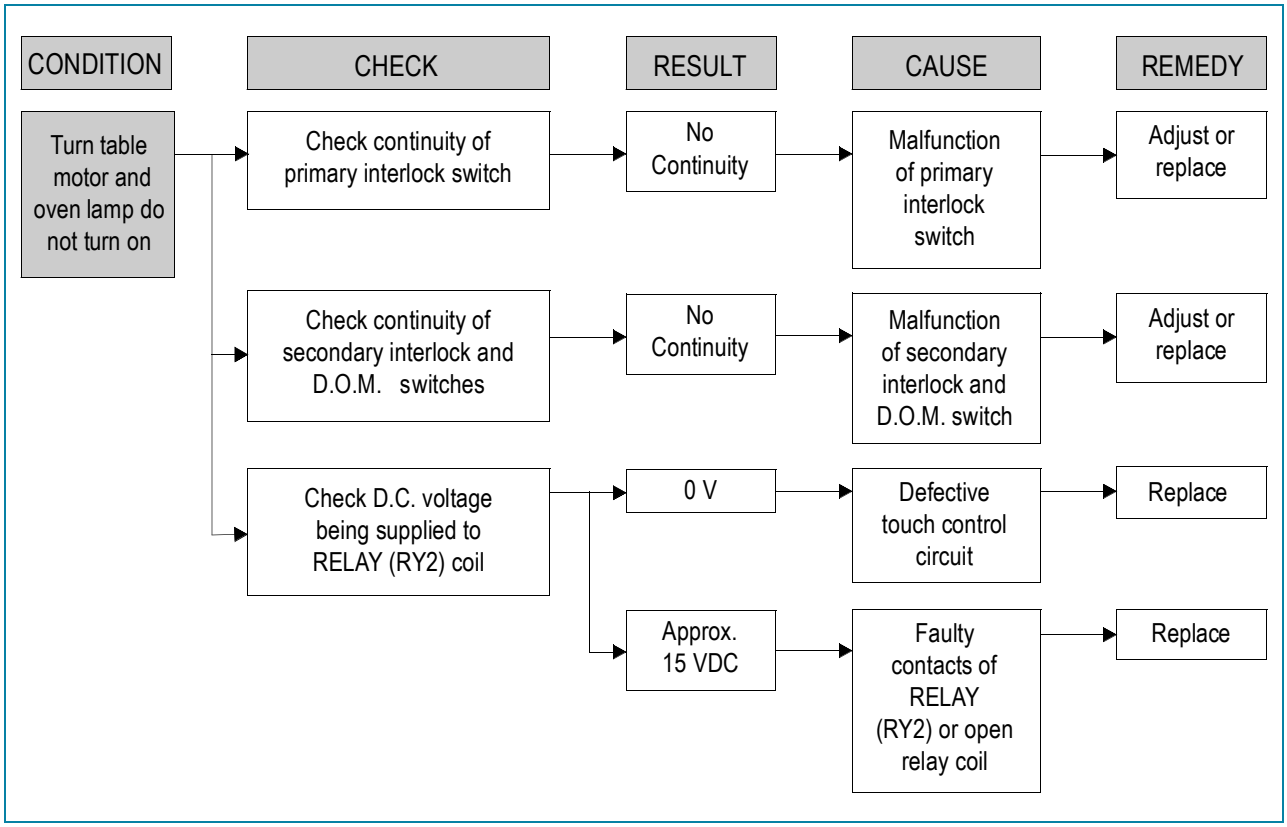




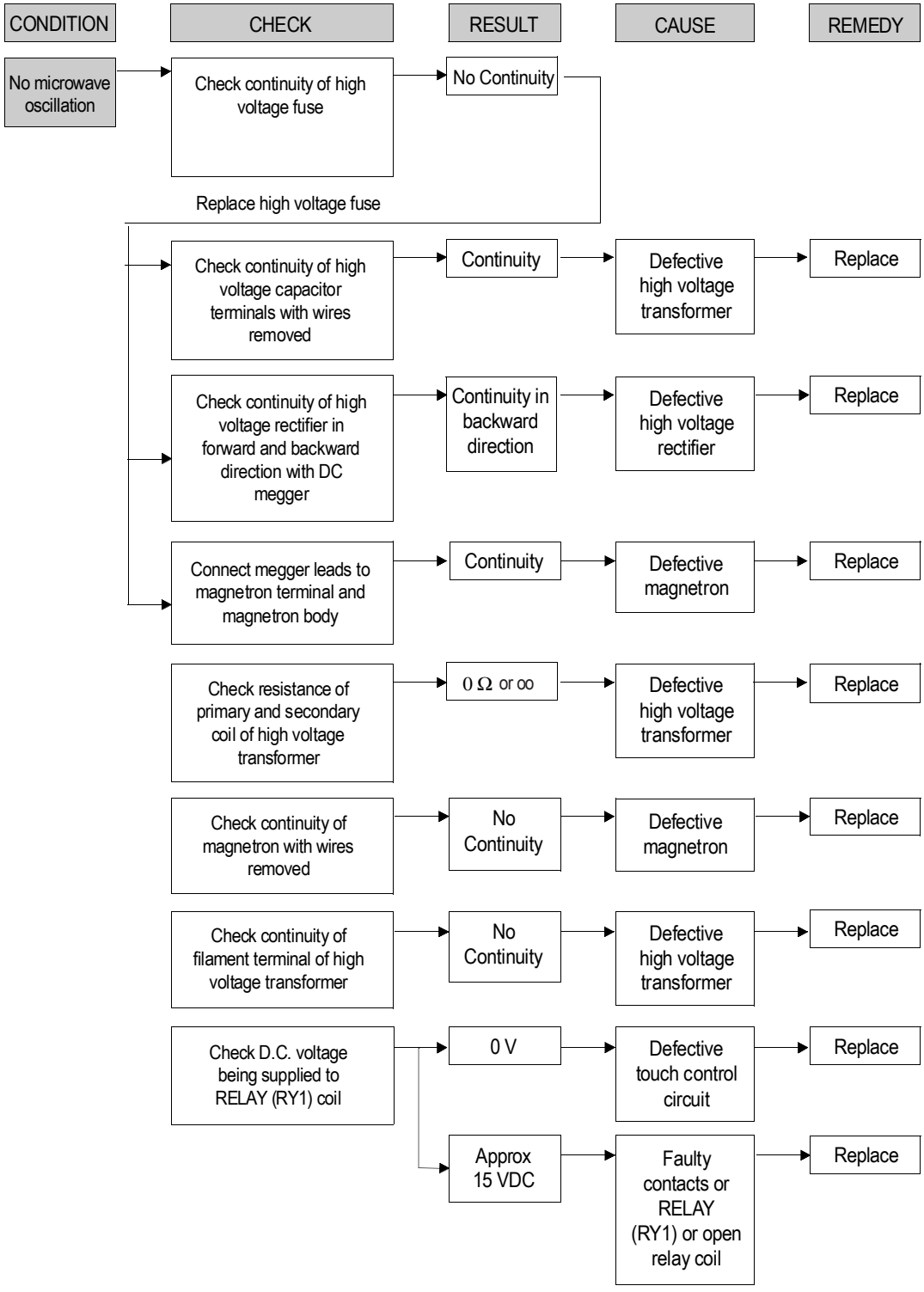
NOTE

All these switches must be replaced at the same time, please refer to “Interlock Mechanism And Adjustment”.

(TROUBLE 2) Display shows all figures selected, but oven does not start cooking, even thouh desired program and time are set and start pad is tapped.



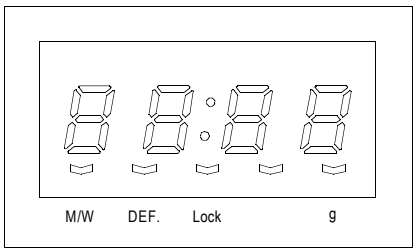
(TROUBLE 3) No microwave oscillation even though fan motor rotates.



TROUBLE SHOOTING GUIDE

(TROUBLE 4) The following visual conditions indicate a profective touch control circuit or membrane switch assembly.

1. Incomplete segments,
   1) Segments missing.
   2) Partical segments missing.
   3) Digit flickering other than normal display slight flickering.
   4) ":0" does not display when power is on.



2. A distinct change in the display is not on when it should be.

3. One or more digits in the display are not on when they should be.

4. Display indicates a number different from one touched.

5. Specific numbers (for example 2 or 3) will not display when the panel is touched.

6. Display does not count down or up with time cooking or clock operation.

7. Oven is programmable and cooks normally but no display shows.

8. Display obviously jumps in time while counting down.

9. Display counts down noticeably too fast while cooking.

10. Display does not show the time of day when clear pad is touched.

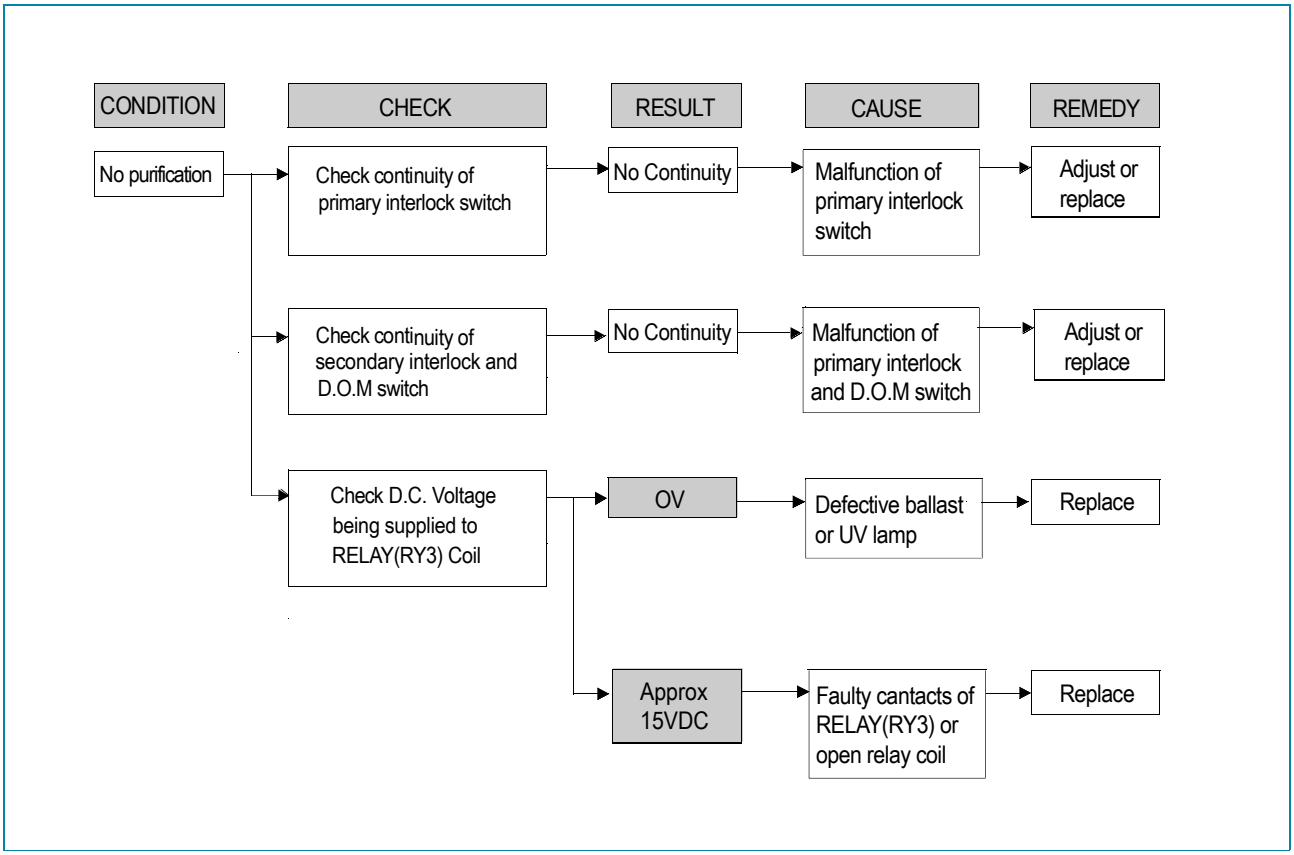
11. Oven lamp and turntable motor do not stop although cooking is finished. Check if the RELAY 2 contacts close if they are close, replace touch control circuit.

CONDITION	CHECK	RESULT	CAUSE	REMEDY
Display does not show programming at all, even if keyboard is touched.	Check each pad for continuity of the membrane keyboard for the following keyboard check procedure	Normal	Malfunction of touch control circuit of control box sub-assembly	Replace control box sub-assembly
		Abnormal	Malfunction of the membrane keyboard	Replace the membrane keyborad

NOTE

Before following the particular steps listed above in the trouble shooting guide for the membrane keyboard's, failure, please check for the continuity of each wire-harness between the membrane keyboard and P.C.B. assembly.

(TROUBLE 5) Press purification button, but oven don't start purifying.



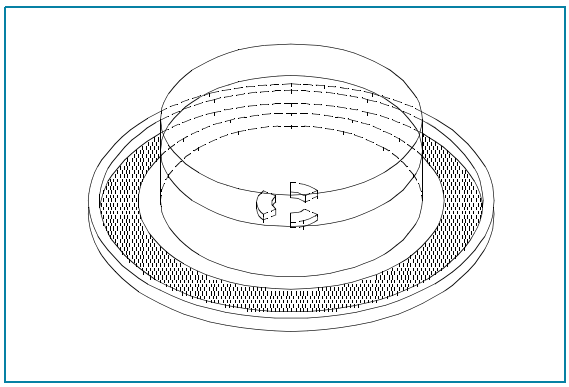
MEASUREMENT AND TEST

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. 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 1000 ± 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 190mm.
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℃ (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 A seconds.
   (Refer to table as following)
   Heating time is measured while the microwave generator is operating at full power.
   The filament heat-up time for magnetron is not included.
6. The initial and final temperature of water is selected so that the maximum difference between the ambient and final water temperature is 5K.
7. The microwave power output P in watts is calculated from the following formula :



P = 4187 X △T/t

- △T is difference between initial and ending temperature.
- t is the heating time.

The power measured should be **B** (Refer to SPECIFICATIONS) W ± 10.0%.

CAUTION

1. Water load should be measured exactly to 1 liters.
2. Input power voltage should be exactly specified voltage (Refer to SPECIFICATIONS)
3. Ambient temperature should be 20 ± 2℃ (68 ±3.6°F)

* Heating time for power output :

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

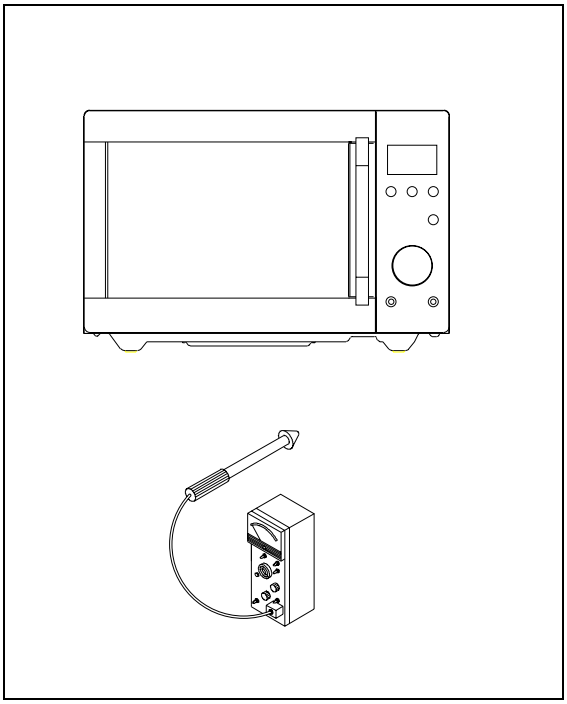
2. MICROWAVE RADIATION TEST

WARNING

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 approch the unit under test until the radiometer readds an appreciable microwave leakage from the unit under the test.

PROCEDURES

1. Prepare Microwave Energy Survey, 600cc glass beaker, and glass thermometer 100℃(212°F).
2. Pour 275cc ± 15cc of tap water initially at 20 ± 5 ℃(68 ± 9°F) in the 600cc glass breaker with an inside diameter of approx. 95mm(3.5in.).
3. Place it at the center of the tray and set in a cavity.
4. Close the door and operate the oven.
5. Measure the leakage by using Microwave Energy Survey Meter with dual ranes, 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^2.
   2) When measuring the leakage, always use the 5cm(2 in.) space cone with probe. Hold the probe perpendicular to the cabinet and door. Place the space cone of the prove 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.

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. 110Ω ± 10%
Filament winding ..... Approx. 0Ω
Primary winding ..... Approx. 0Ω

2. High voltage capacitor

(1) Check continuity of capacitor with meter on the hightest OHM scale.
(2) A normal capacitor will show continuity for a short time, and then indicate 10MΩ once the capacitor is charged.
(3) A shorted capacitor will show continuous continuity.
(4) An open capacitor will show constant 10MΩ.
(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 amy be read in both directions.
A normal diode's resistance will be infinite in one direction and several hundred KΩ in the other direction.

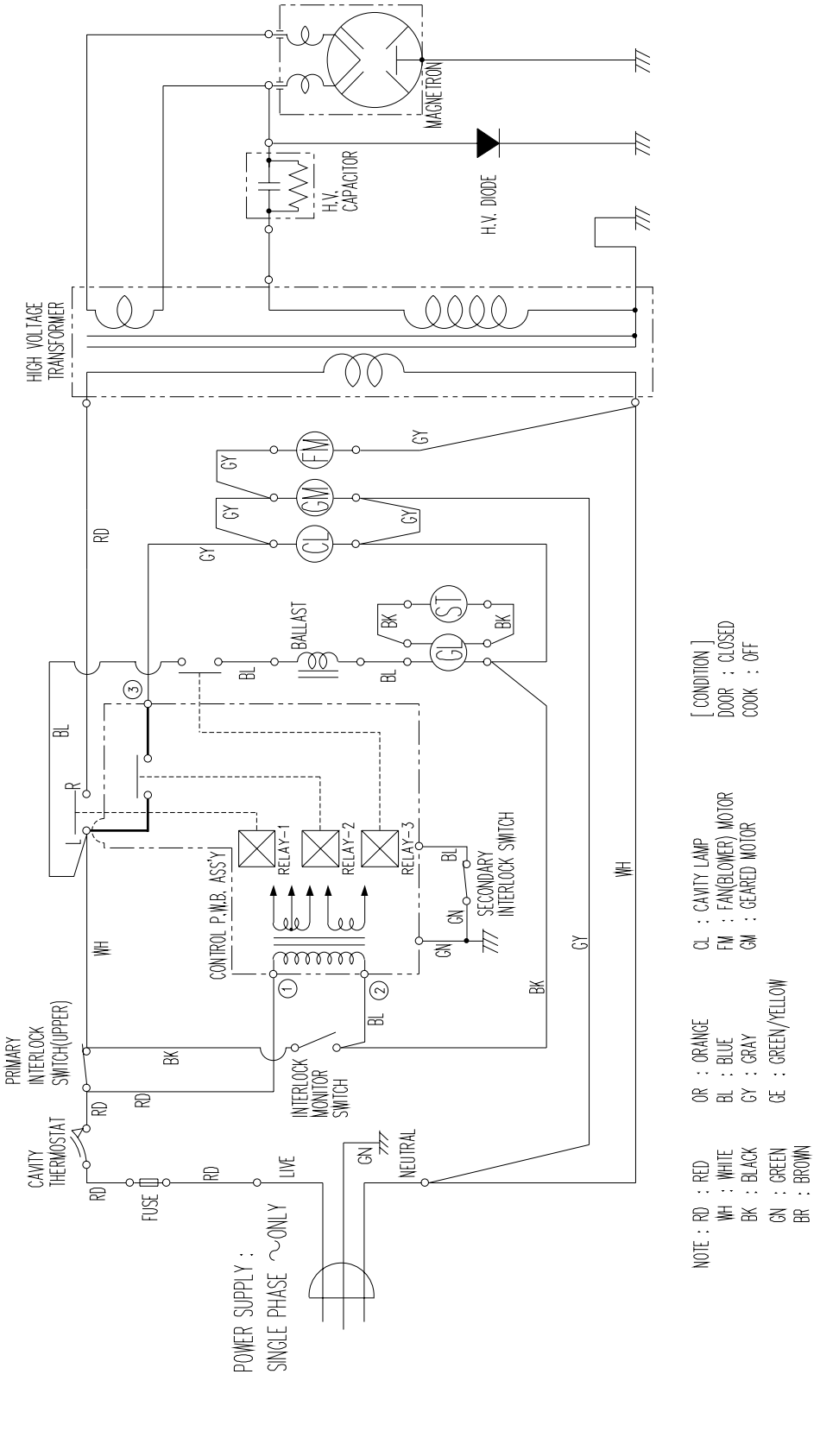
4. Magnetron

For complete magnetron diagnosis, refer to " Measurement of the Microwave Power Output ".
Continuity checks can only indicate and 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 0.1Ω 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.

WIRING DIAGRAM



PRINTED CIRCUIT BOARD

1. CIRCUIT CHECK PROCEDURE

1. Low voltage transformer check

The low voltage transformer is located on the P.C.B.

Measuring condition : Input voltage : 120V / Frequency : 60Hz

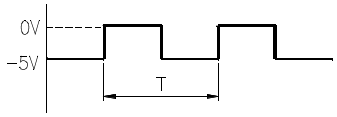
Terminal Voltage	LOAD	NO LOAD
4 - 7	AC 12.6	AC 14.7V

NOTE

1. Refer to Circuit Diagram (point 4).
2. Secondary side voltage of the low voltage transformer changes in proportion to fluctuation of power source voltage.
3. The allowable tolerance of the secondary voltage is within ± 5% of normal voltage.

2. Voltage Check

- Key check point

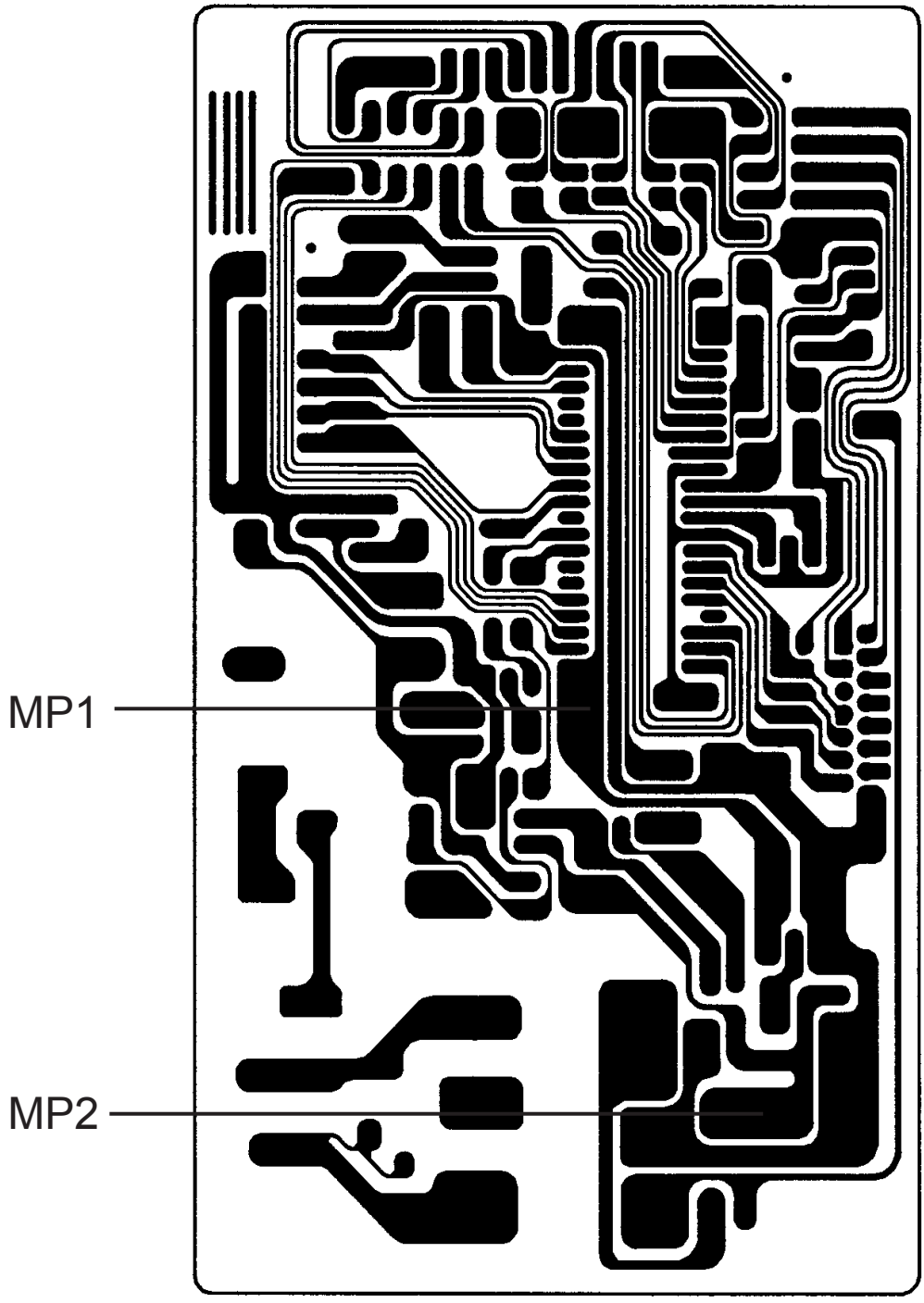
NO	CHECK POINT	REMARK
1	IC 1 PIN 2, 21, 30, 34	-5VDC
2	IC 1 PIN 35	 T : 16.6ms(60Hz)
3	IC 1 PIN 31 OR 32	 T : 250 ns(4MHz)

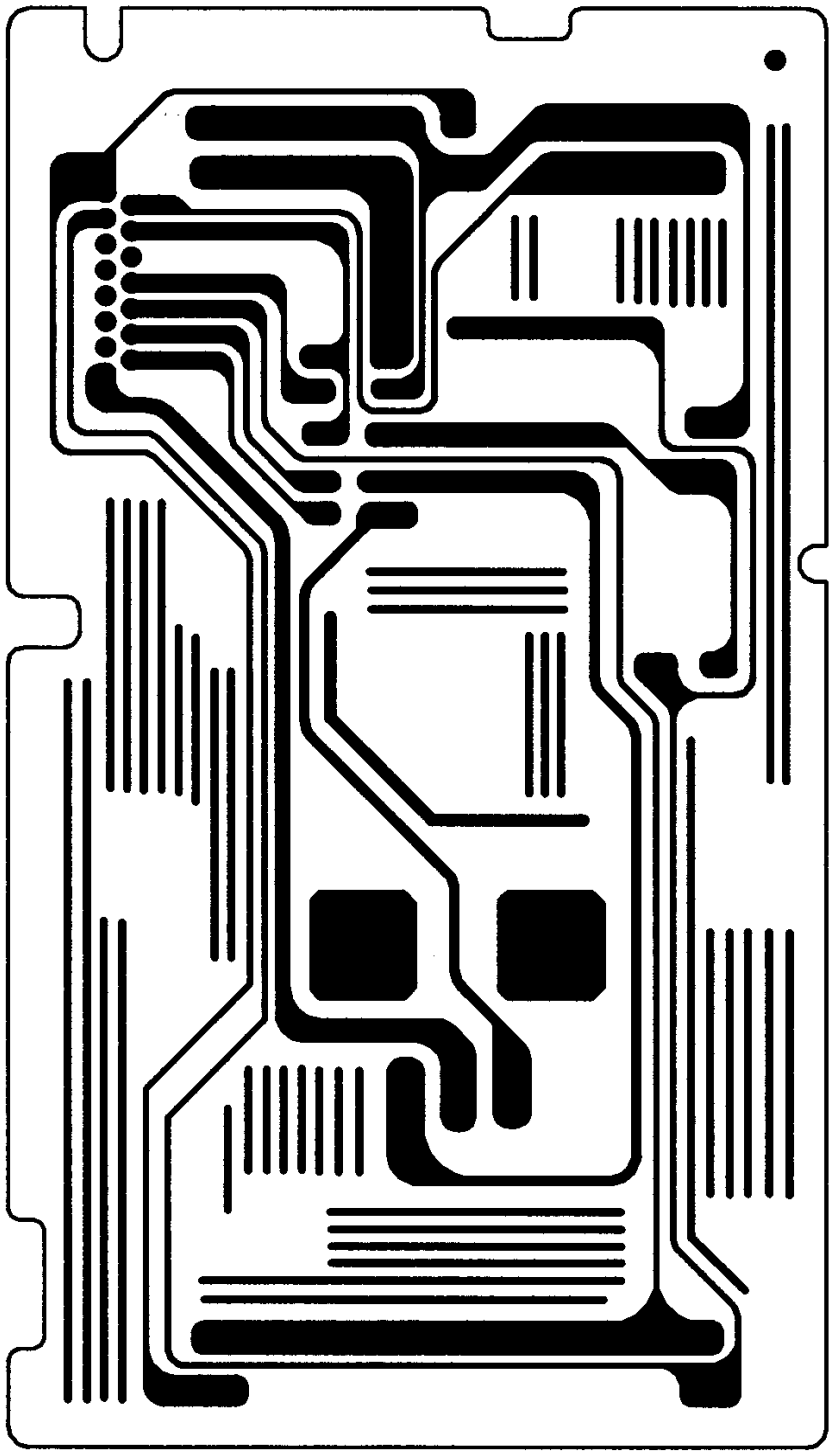
- Check method

NO	MEASURE POINT	WAVE FORM	REMEDY	REMARK
1	MP1	DC - 5V 0.25V	Replace VL1, EC1	NO LOAD
2	MP2	DC - 12V 2.0V	Replace EC2, D10,11,12	NO LOAD

NOTE

Each measure point must be measured with GND points.


MP1
MP2



3. When there is no microwave oscillation

1) When touching **START** pad, oven lamp does not turn on.
Fan motor do not rotate, but cook indicator in display comes on.
* Cause : **RELAY 2** does not operate. → refer to Circuit Diagram (Point 3)
- Check method

POINT / STATE	A	B
RELAY 2 ON	- 5V DC	GND
RELAY 2 OFF	GND	- 12VDC

2) When touching **START** pad, oven lamp turns on.
Fan motor and turntable rotate and cook indicator in display comes on.
* Cause : **RELAY 1** does not operate. → refer to Circuit Diagram (Point 2)
- Check method

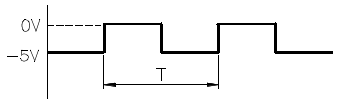
POINT / STATE	A	B
RELAY 2 ON	- 5V DC	GND
RELAY 2 OFF	GND	- 12VDC

4. When the door is opened during operation, the count down timer does not stop.
→ refer to Circuit Diagram (Point 1)
- Check method

POINT / STATE	A	B
1) DOOR OPEN	OPEN	-5VDC
2) DOOR CLOSED	CLOSE	GND

CHECK NO	METHOD	REMEDY
1	Check the stage(ON, OFF) of the door open monitor switch by resistance measurement.	Replace door open monitor switch.

5. When the digital clock does not operate properly.
→ refer to Circuit Diagram (Point 5)

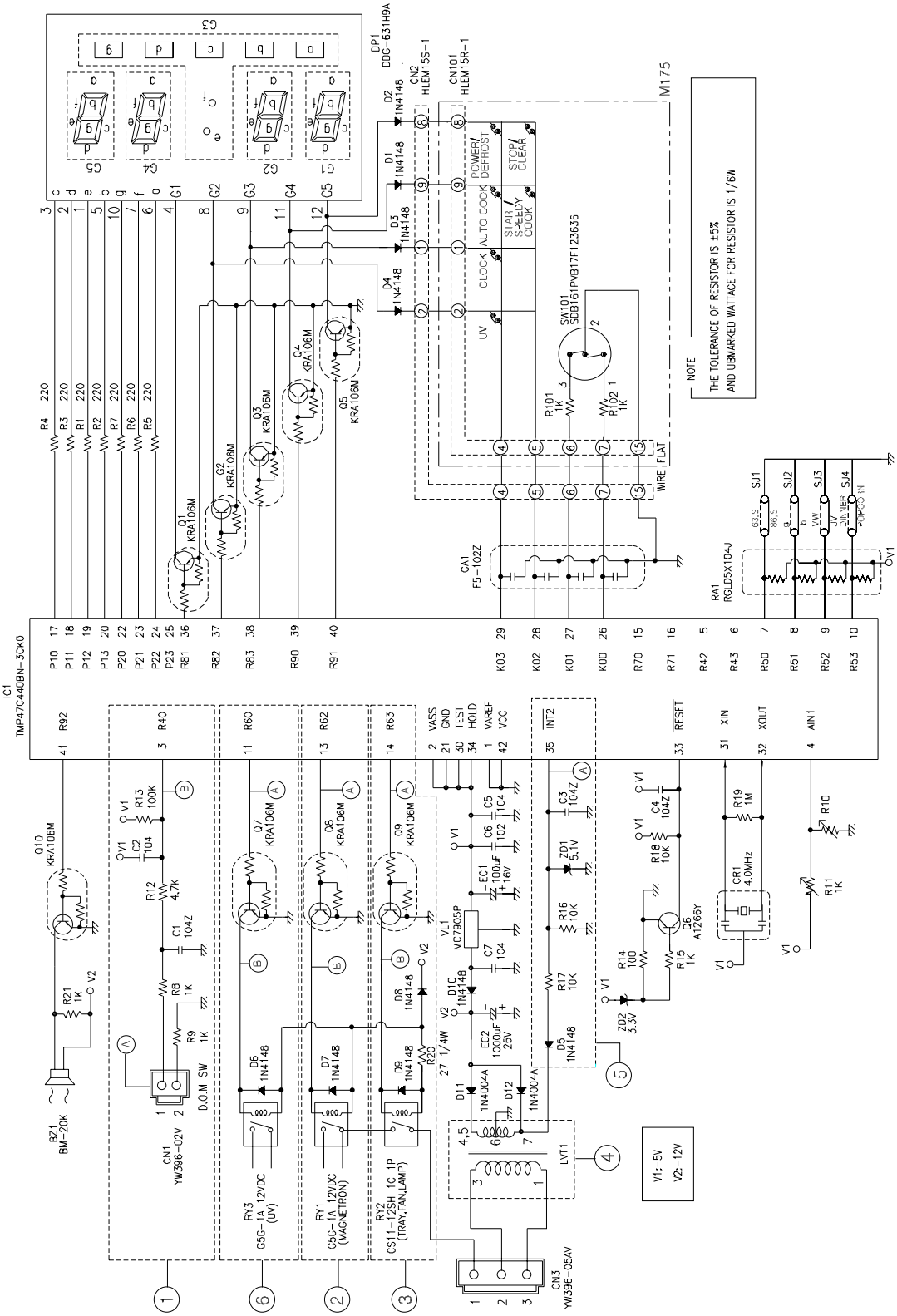
POINT	WAVE FORM
A	 T : 16.6 ms (60Hz)

* If clock does not keep exact time, you must check resistor R16, 17 zener diodeZD1.

6. When touching Sterilization (Purification) pad, UV lamp does not turn on. but cook indicator in display comes on.
* cause : RELAY 3 does not operate. → refer to Circuit Diagram (Point 6)
- Check method

POINT / STATE	A	B
RELAY 3 ON	-5VDC	GND
RELAY 3 OFF	GND	-12VDC

2. P.C.B. CIRCUIT DIAGRAM



3. P.C.B. LOCATION NO

NO.	NAME	SYMBOL	SPECIFICATION	PART CODE	Q'TY
1	BUZZER	BZ1	BM-20K	3515600100	1
2	C ARRAY	CA1	5P(4) 102M 50V	CN4XB-102M	1
3	C ELECTRO	EC1	16V RSS 100uF	CEXF1C101V	1
4	C ELECTRO	EC2	25V RSS 1000uF	CEXF1E102V	1
5	CONNECTOR WAFER	CN1	YW396-02AV	3519150520	1
6	CONNECTOR WAFER	CN3	YW396-05AV	3519150510	1
7	CONNECTOR WAFER	CN2	HLEM15S-1	4CW215SBD0	1
8	CONNECTOR WAFER	CN101	HLEM15R-1	4CW215RBD0	1
9	DIODE	D1~10	1N4148	DZN4148---	10
10	DIODE	D11, 12	1N4004A	DZN4004A--	2
11	DIODE ZENER	ZD1	UZ-5.1BSB	DZUZ5R1BSB	1
12	DIODE ZENER	ZD2	UZ-3.9BSB	DZUZ3R9BSB	1
13	LED DISPLAY	DP1	DDG-631H9A	DDDG631H01	1
14	PCB MAIN	M174	82X139.9	3514324500	1
15	PCB SUB	M175	80X139.9	3514324600	1
16	R ARRAY	RA1	5P(4) 1/8 100K J	RA-85X104J	1
17	R CARBON FILM	R1~7	1/6W 220 5%	RD-AZ221J-	7
18	R CARBON FILM	R8,9,11,15,21,101,102	1/6W 1K 5%	RD-AZ102J-	7
19	R CARBON FILM	R13	1/6W 100K 5%	RD-AZ104J-	1
20	R CARBON FILM	R14	1/6W 100 5%	RD-AZ101J-	1
21	R CARBON FILM	R16~18	1/6W 10K 5%	RD-AZ103J-	3
22	R CARBON FILM	R19	1/6W 1M 5%	RD-AZ105J-	1
23	R CARBON FILM	R20	1/4W 27 5%	RD-4Z270J-	1
24	R CARBON FILM	R12	1/6W 4.7K 5%	RD-AZ472J-	1
25	IC REGULATOR	VL1	MC7905C	1MC7905C--	1
26	TRANSISTOR	Q1~5, 7~10	KRA-106M	TZRA106M--	9
27	TRANSISTOR	Q6	KTA-1266Y	TZTA1266Y-	1
28	TRANS POWER	LVT1	DMR-631P	5EPU035302	1
29	WIRE COPPER	J1-J14, J101	1/0.52 TIN COATING	85801052GY	15
30	WIRE FLAT	WF1	1.25X15X90XCWH	WSJ-159007	1
31	SW TACT	SW102~107	KPT-1115AM	5S50101Z93	1
32	SW ROTARY	SW101	SDB161PVB17F123636	5S10109002	1
33	IC MICOM	IC1	TMP47C440BN-3CK0	13GS637V00	1
34	RESONATOR CERA	CR1	KBR-4.0MSTF	5PKBR40MKS	1
35	SW RELAY	RY1, RY3	G5G-1A DC12V	5SC0101121	2
36	SW RELAY	RY2	DJ-SS-112M-DC12V	5SC0101404	1
37	C CERA	C6	102 50V Z AXIAL	CCZB1H102K	1
38	C CERA	C1~5, C7	104 50V Z AXIAL	CCZF1H104Z	6

EXPLODED VIEW AND PARTS LIST

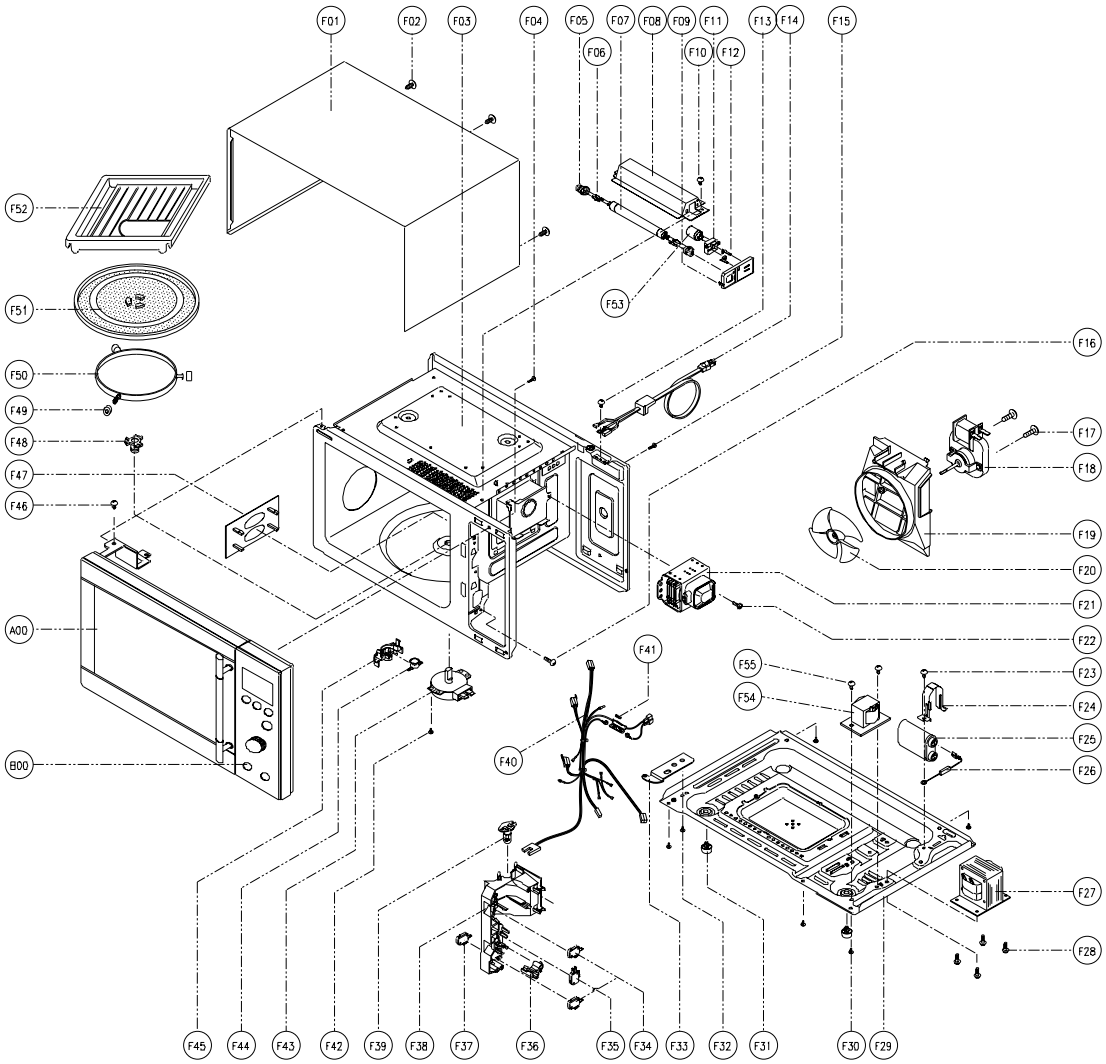
1. DOOR ASSEMBLY

Refer to Disassembly and assembly.

2. CONTROL PANEL ASSEMBLY

Refer to Disassembly and assembly.

3. TOTAL ASSEMBLY



EXPLODED VIEW AND PARTS LIST

NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
A00	3511714460	DOOR AS	KOR-637V	1
B00	3516726240	CONTROL PANEL AS	KOR-637V0A	1
F01	3510805300	CABINET AS	KOR-61150S	1
F02	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	3
F03	3516109590	CAVITY AS	KOR-637V0S	1
F04	7122401211	SCREW TAPPING	T2S TRS 4*12 MFZN	1
F05	3515900100	SOCKET LAMP	PBT	2
F06	3519300300	TERMINAL LAMP	BRASS	4
F07	3513603000	LAMP GERMICIDAL	G4T5/4W SANKYO	1
F08	3511409000	COVER LAMP	STS430 T0.4	1
F09	3515900400	SOCKET STARTER *O	PBT	1
F10	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F11	3515900300	SOCKET STARTER *I	PBT	1
F12	3519300400	TERMINAL STARTER	BRASS	2
F13	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F14	35113TCN35	CORD POWER AS	3X16 AWG 40X40 120-RTML	1
F15	7122401211	SCREW TAPPING	T2S TRS 4*12 MFZN	1
F16	7122401211	SCREW TAPPING	T2S TRS 4*12 MFZN	1
F17	7121403011	SCREW TAPPING	T2S PAN 4X30 MFZN	2
F18	3963821610	MOTOR SHADED POLE	120V 60HZ MW10XA-MO1	1
F19	3512517000	GUIDE WIND	PP	1
F20	3511800300	FAN	PP +30% GLASS	1
F21	3518002400	MAGNETRON	2M218J (F)	1
F22	3516004000	SPECIAL SCREW	T2 BOLT FLANGE 5X12 DACRO	1
F23	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
F24	3513003200	HOLDER HV CAPACITOR	SECC T0.6	1
F25	3518301600	CAPACITOR HV	2100VAC 0.79uF #187	1
F26	3518400400	DIODE HV	HVR-1X-3AR 12KV #187	1
F27	3518118210	TRANS HV	TM-R80A0-63T	1
	3518117440	TRANS HV	JMOT-N80A0-63T	1
F28	3516003700	SPECIAL SCREW	TT3 HEX 4X8 FLG MFZN	4
F29	3510311700	BASE	SBHT T0.7	1
F30	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	5
F31	3512000900	FOOT	PP DASF-130	2
F32	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
F33	3515201101	STOPPER HINGE *U	SCP-1 T2.5	1
F34	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	2
F35	4415A66600	SW MICRO	VP-532A-OF/SPNO #187 200G	1

NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
F36	3513702610	LEVER LOCK	POM	1
F37	3518571000	SWITCH PUSH	MP101C	1
F39	3513811710	LOCK	POM BLACK	1
F38	3513601500	LAMP	BL 120V 25W T25 C5A H187	1
F40	3512715120	HARNESS MAIN	KOR-637V0A	1
F41		FUSE		
F42	7121400611	SCREW TAPPING	T2S PAN 4X6 MFZN	1
F43	3966820200	MOTOR SYNCRO	120V 2W GM-16-12F17	1
F44	3518905300	THERMOSTAT	OFF:75 ON:65 H #187 NR	1
F45	3513003400	HOLDER THERMOSTAT	PBT	1
F46	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
F47	3511406200	COVER WAVE GUIDE	HEATPROOF PP	1
F48	3517402000	COUPLER	QUESTRA	1
F49	3514700710	ROLLER	TEFLON	3
F50	3512517300	GUIDE ROLLER	PP 5113MF6 A353B	1
F51	3517203600	TRAY	GLASS	1
F52	3517207800	TRAY	PP	1
F53	3518571200	STARTER GLOW	FS-5	1
F54	3517800120	BALLAST	FB 4W A 120V/60HZ	1
F55	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	2