S/M No. : OC8H4T7001

Service Manual

Microwave Oven

Model: KOC-8H4T7R

✔ **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

DAEWOO ELECTRONICS

MAY, 2006

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 if 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.

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1. 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 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.
   (1) inform the manufacturer, importer or assembler,
   (2) repair the unit at no cost to the owner,
   (3) attempt to ascertain the cause of the excessive leakage,
   (4) 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 immediately.

IMPORTANT

The wire in this mains lead 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□, earth symbol or coloured 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 which is coloured brown must be connected to the terminal which is marked with the letter □L□ or coloured red.

NOTE : This oven is designed for counter-top use only.

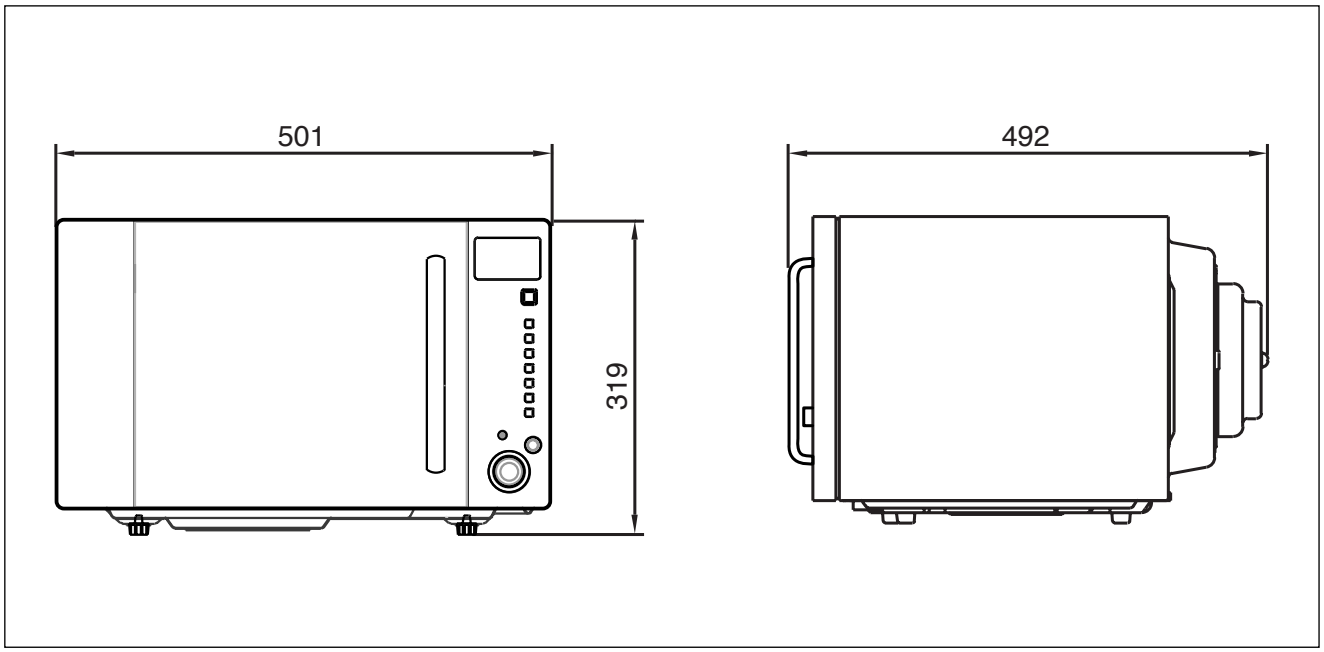
2. SPECIFICATIONS

MODEL		KOC-8H4T7R
POWER SUPPLY		230V~50Hz, SINGLE PHASE WITH EARTHING
POWER CONSUMPTION	MICROWAVE	1400W
	GRILL	850W
	CONVECTION	1850W
	COMBINATION	1850W
MICROWAVE ENERGY OUTPUT		900W (IEC 705)
MICROWAVE FREQUENCY		2450MHz
OUTSIDE DIMENSIONS (W X D X H)		501 X 492 X 319mm(19.7 X 19.4 X 12.6 in.)
CAVITY DIMENSIONS (W X D X H)		310 X 328 X 232mm(12.2 X 12.9 X 9.1 in.)
NET WEIGHT		Approx. 18Kg (39.6 lbs.)
TIMER		60 minutes
FUNCTION SELECTIONS		Microwave / Grill / Convection / Combination
POWER SELECTIONS		10 LEVELS
CAVITY VOLUME		0.83 Cu. Ft

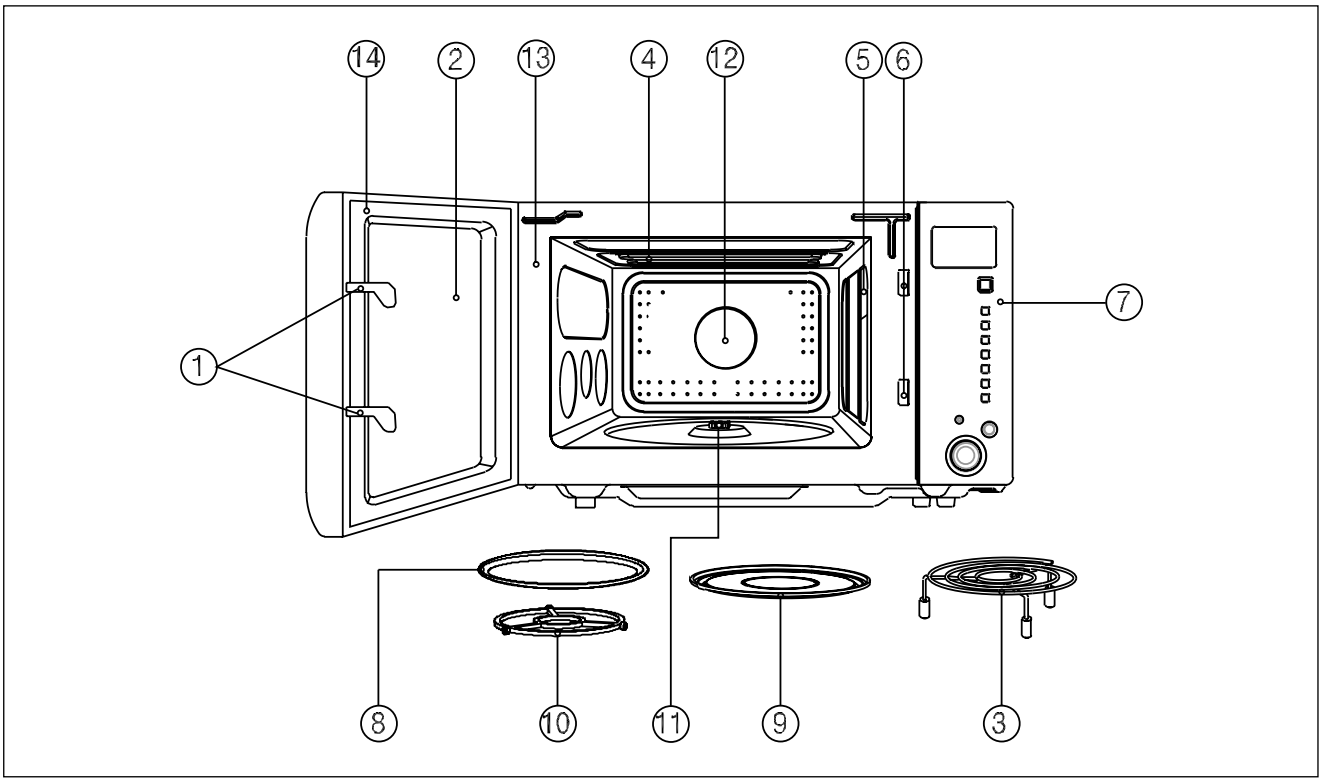
** SPECIFICATION ARE SUBJECT TO CHANGE WITHOUT NOTICE.*

3. EXTERNAL VIEW

1. OUTER DIMENSION



2. FEATURE DIAGRAM



1. DOOR HOOK
When the door is closed, it will automatically lock shut. If door is opened while oven is operating, the magnetron will immediately stop operating.

2.DOOR VIEWING SCREEN
Allows viewing of food. The screen is designed so that light can pass through, but not the microwave.

3. METAL RACK

4. TOP HEATER
Turns on when convection, grill and combi cooking is selected.

5. OVEN LAMP
Automatically turns on during oven operating.

6. SAFETY INTERLOCK SYSTEM

7. CONTROL PANEL

8. Glass Turntable
Turntable Center the tray on the roller guide when using the microwave features. Place food or microwave-safe cookware directly on the glass turntable.
*** NOTE : Glass Turntable is atteched to the right cushion.**

9. Metal Tray
Put food or appropriate cookware directly on the metal tray and place on the glass turntable and then place on the roller guide when using convection cooking, combination cooking, auto cooking or grill cooking.

10. ROLLER GUIDE
This must always be used for cooking together with the turntable tray.

11. COUPLER
This fits over the shaft in the center of the ovens cavity floor. This is to remain in the oven for all cooking.

12. CONVECTION OUTLET & FAN

13. OVEN FRONT PLATE

14. DOOR SEAL
Door seal maintains the microwave energy within the oven cavity and prevents microwave leakage.

4. 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 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 8 amperes, 230V, 50Hz.
- Power supply cord is about 1.0 meters long.
- The voltage used 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.

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 wire with a earthing plug. The plug must be plugged into an outlet that is properly installed and earthed.

WARNING

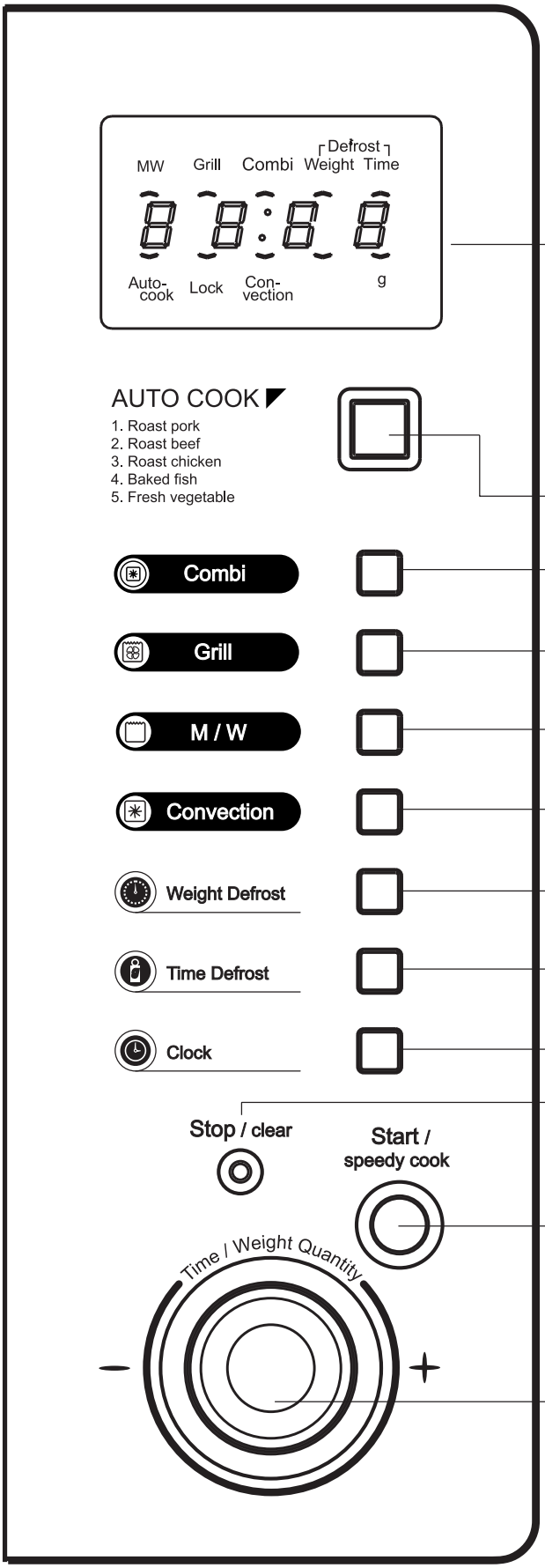
Improper use of the earthing plug can result in a risk of electric shock.

Consult a qualified electrician of serviceman 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.

5. CONTROL PANEL



① **Display :** Cooking time, power level, indicators and present time are displayed.

MW : When blinking, the oven is operating in MICROWAVE COOK.
Grill : When blinking, the oven is operating in GRILL.
Combi : When blinking, the oven is operating in COMBI.
Defrost Weight : When blinking, the oven is operating in WEIGHT DEFROST.
Time : When blinking, the oven is operating in TIME DEFROST.
Auto-cook : When blinking, the oven is operating AUTO COOK.
Lock : When lighting, the oven is CHILD LOCK.
Con-vection : When blinking, the oven is operating in CONVECTION.
g : When blinking, the oven is operating in weight input mode.

② **Auto cook :** Used to cook or reheat.

③ **Combi :** Used to select combi.

④ **Grill :** Used to select grill.

⑤ **MW :** Used to set power level of micro wave.

⑥ **Convection :** Used to select convection and selected temp.

⑦ **Weight Defrost :** Used to defrost foods.

⑧ **Time Defrost :** Used to defrost foods.

⑨ **Clock :** Used to set clock.

⑩ **STOP/CLEAR :** Used to stop the oven operation or to delete the cooking data.

⑪ **START/SPEEDY COOK :** Used to start a programmed, also for speedy start(each press adds 30 seconds microwave cooking time).

⑫ **Dial knob :** Used to set time, weight and quantity.

6. DISASSEMBLY AND ASSEMBLY

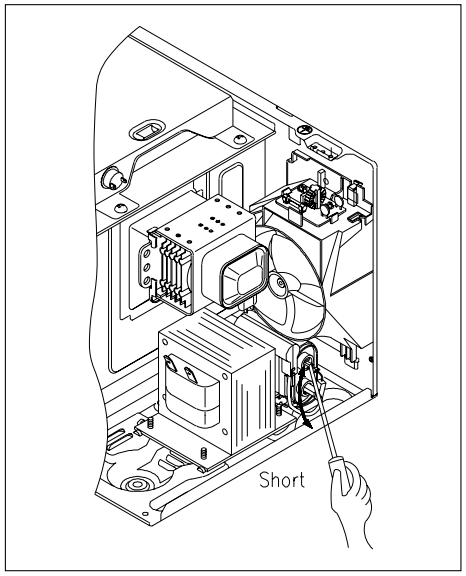
- Cautions to be observed when trouble shooting.

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 grounded.
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 has stopped, 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.



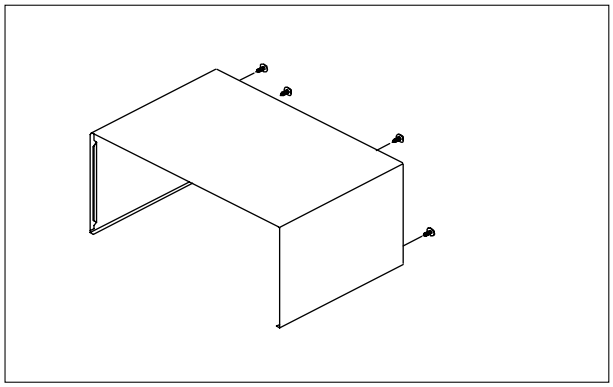
4. When the fuse is blown out due to the operation of the monitor switch; replace primary interlock switch, secondary interlock switch and interlock monitor switch.
5. After repair or replacement of parts, make sure that the screws are properly tightened, and all electrical connections are tightened.
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, take care when 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

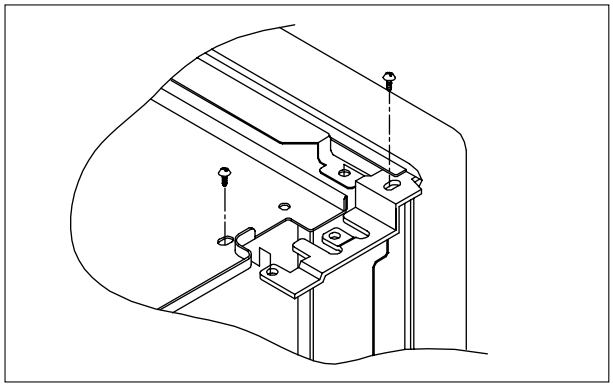
1) Remove four screws on cabinet back.
2) Push the cabinet backward.



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 assemby.

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



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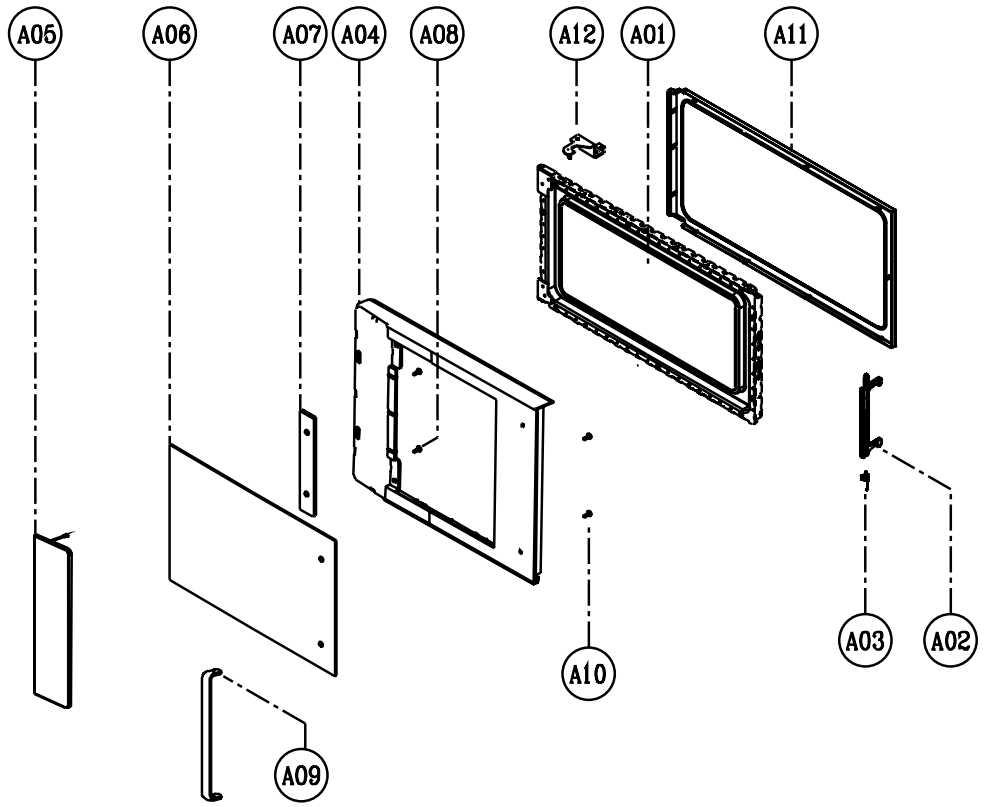
3. To remove door parts.



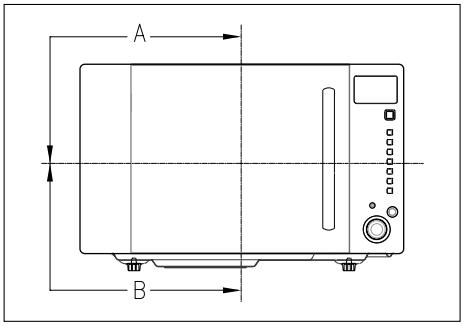
REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
A01	3516601400	DOOR-PLATE	SBHG-1A T0.7	1	
A02	3513101310	HOOK	POM	1	
A03	3515101310	SPRING HOOK	HSW-3	1	
A04	3512209910	FRAME DOOR	ABS SR0320	1	
A05	3511616300	DECORATOR DOOR	STS430 T0.5 HL	1	
A06	3517009500	BARRIER-SCREEN *O	MIRROR T3.2	1	
A07	3510610600	SUPPORTER BRACKEK GLASS	SBHG T0.8	1	
A08	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2	
A09	3512606700	HANDLE DOOR	AL	1	
A10	7001401211	SCREW MACHINE	PAN M4XL12 MFZN	2	
A11	3512301310	GASKET DOOR	PP	1	
A12	3515203600	STOPPER HINGE *T AS	KOC-970T1S	1	

(1) Remove the gasket door from door plate.
(2) Remove screws from door plate.
(3) Remove the door frame from door plate.
(4) Remove screws from door frame.
(5) Remove the handle from door frame.
(6) Remove the decorator door from door frame.
(7) Remove the stopper hinge top from door plate.
(8) Remove the spring and the hook.
(9) Remove screws from supporter braket glass.
(10) Remove barrier screen outer from door frame.
(11) 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 stopper hinge top, and then push the door to contact the door seal to oven front surface.
- Tighten two screws.

(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 two screws.



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

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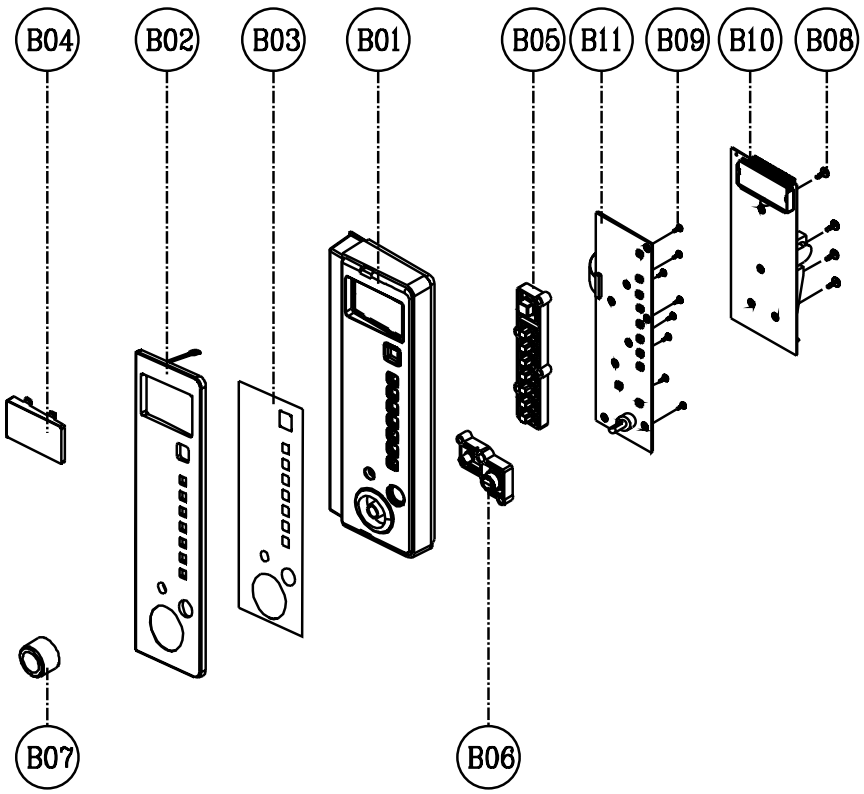
5. To remove control panel parts.

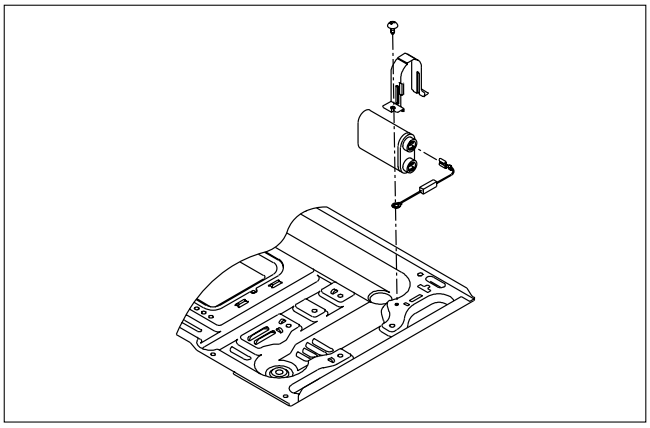


REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
B01	3516734500	CONTROL-PANEL	ABS SG-076OD SG-175	1	
B02	3511616200	DECORATOR C-PANEL	STS430 T0.5 HL	1	
B03	3516006400	SPEICAL DOUBLE TAPE	SI-161 T0.15 5500	1	
B04	3515502500	WINDOW DISPLAY	PMMA IF-850	1	
B05	3516915010	BUTTON FUNCTI0N-A	ABS SG-076OD SG-175 COATING	1	
B06	3516915110	BUTTON FUNCTI0N-B	ABS SG-076OD SG-175 SPRAY	1	
B07	3513408910	KNOB VOLUME	ABS SG-076OD SG-175 COATING	1	
B08	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	4	
B09	7621301011	SCREW TAPPING	T2 PAN 3X10 PW MFZN	8	
B10	PKMPMSGG10	PCB MAIN MANUAL AS	KOC-8H4T7R	1	
B11	PKBPMSGG00	PCB BUTTON MANUAL AS	KOC-8H4T7S	1	

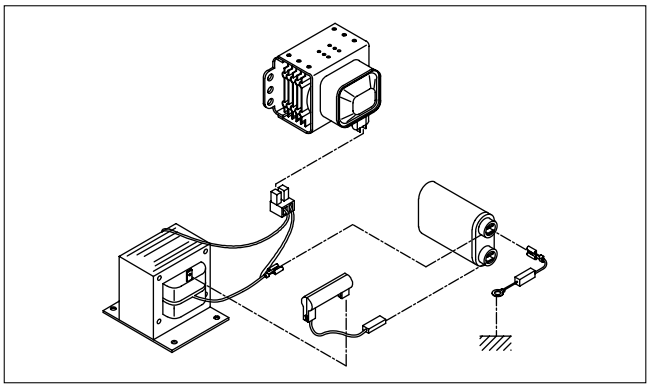
(1) Remove the screw which secure the control panel, push up two snap fits and draw forward the control panel assembly.
(2) Remove four screws(B08) which secure the PCB Main ASS°ØY.
(3) Pull out the Main PCB assembly(B10).
(4) Remove eight screws(B09) which secure the PCB Sub ASS°ØY.
(5) Pull out the Sub PCB assembly(B11).
(6) Pull out the Knob volume(B07) from the Sub PCB assembly.
(7) Pull out ten buttons from the control panel.
(8) Pull out Decorator control panel(B01) from the control panel.
(9) Pull out Window display(B04) from the control panel.
(10)Reverse the above steps for reassembly.

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.

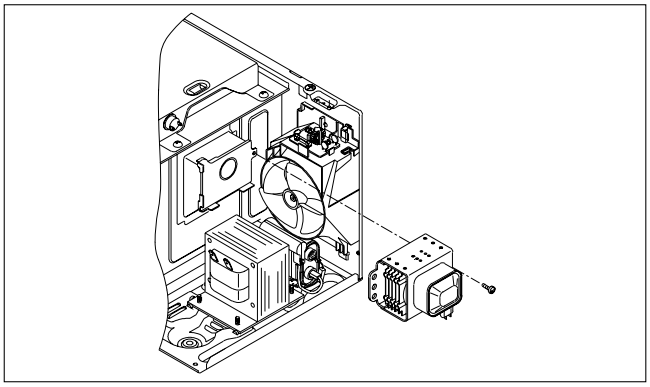


◆ High voltage circuit wiring

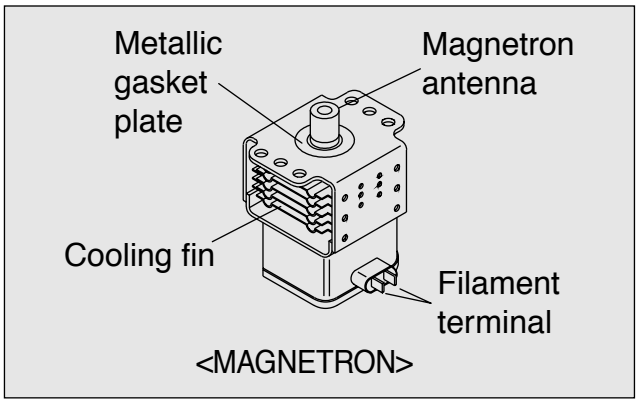


7. To remove magnetron.

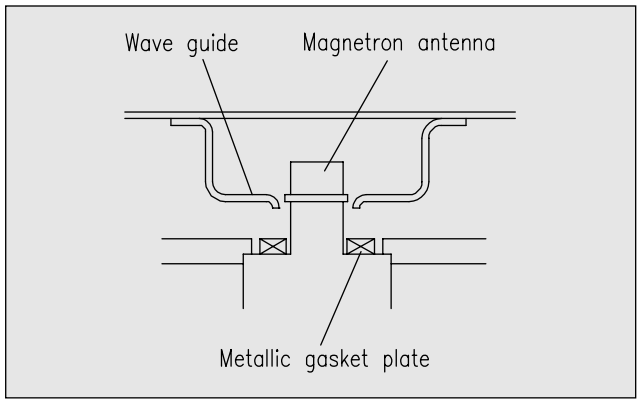
1) Remove a screw which secure the magnetron.
2) Remove the magnetron.
3) Reverse the above steps for reassembly.



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.

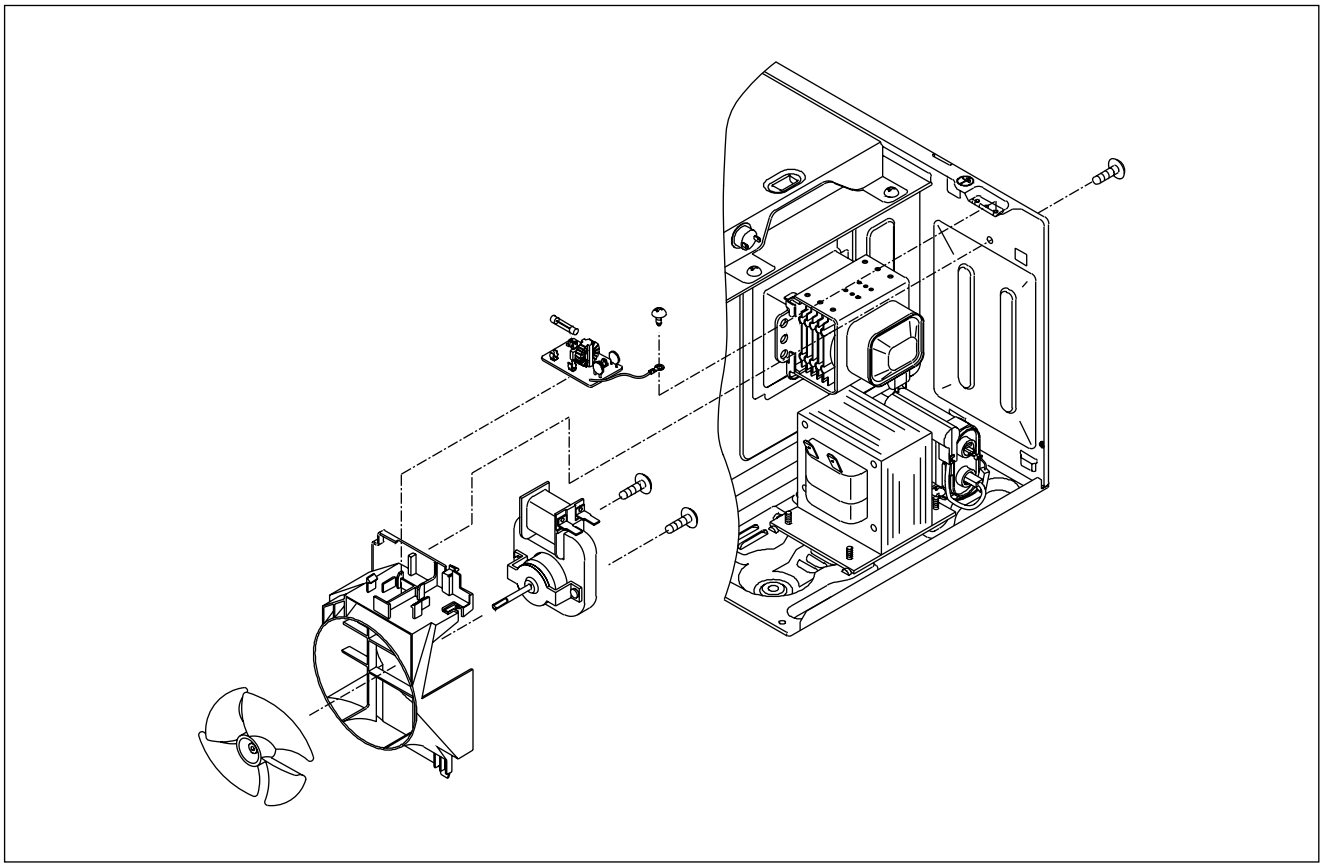


<MAGNETRON>



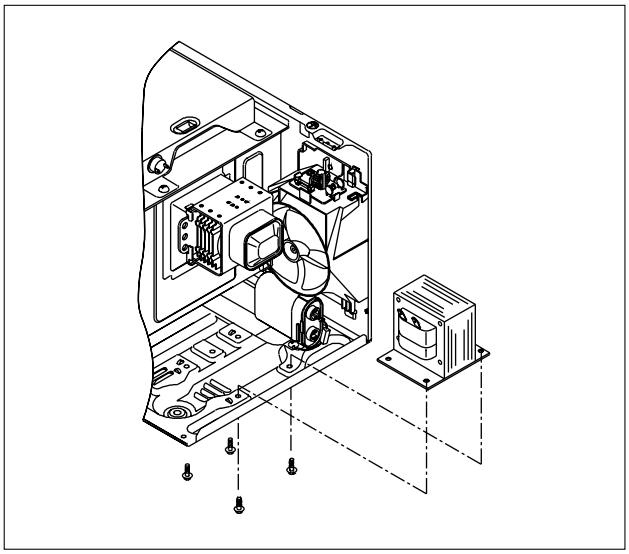
8. To remove wind guide assembly.

1) Remove a screw for earthing.
2) Remove the noise filter from the wind guide.
3) Remove a 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 reasembly.



9. 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.



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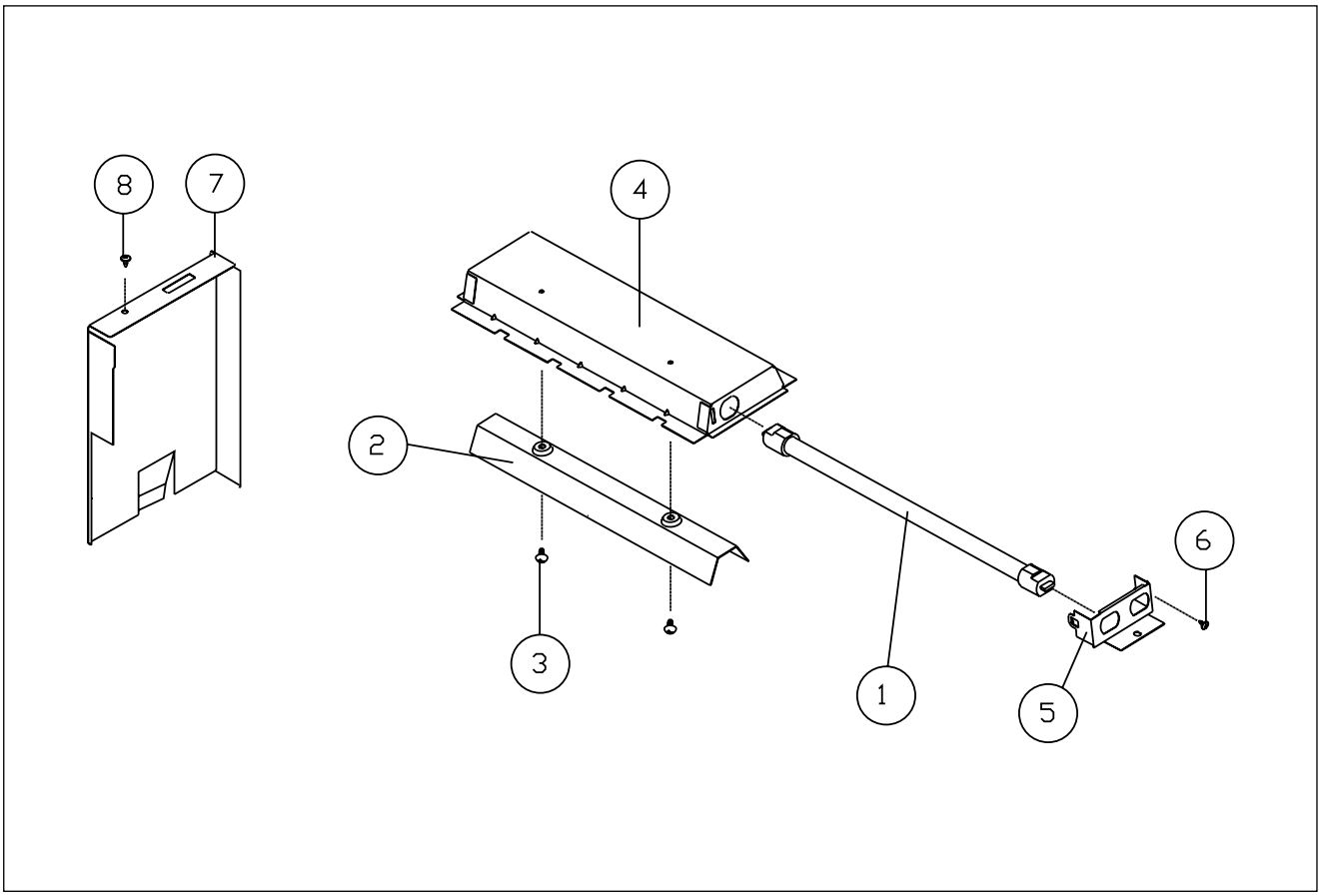
10. To remove Top heater assembly parts.



REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
1	3512805800	HEATER MIRACLON	230V 800W 270MM	1	
2	3512806900	HEATER REFLECTOR	STS430 T0.5	1	
3	7121400611	SCREW TAPPING	T2S PAN 4X6 MFZN	2	
4	3511412400	COVER HEATER *T	SA1D-80 T0.5	1	
5	3510610500	BRACKET COVER HEATER	SECC T0.5	1	
6	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1	
7	3512523600	GUIDE AIR OUTLET	SBHG T0.5	1	
8	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1	

1) Remove a screw 8 and pull out Guide air outlet 7 .
2) Remove screws 6 and pull out braket cover heater 5 .
3) Pull out heater miraclon 1 .
4) Remove two screws 3 .
5) Pull out the heater reflector 2 from cover heater *T 4 .
6) Reverse the above steps for reassembly.

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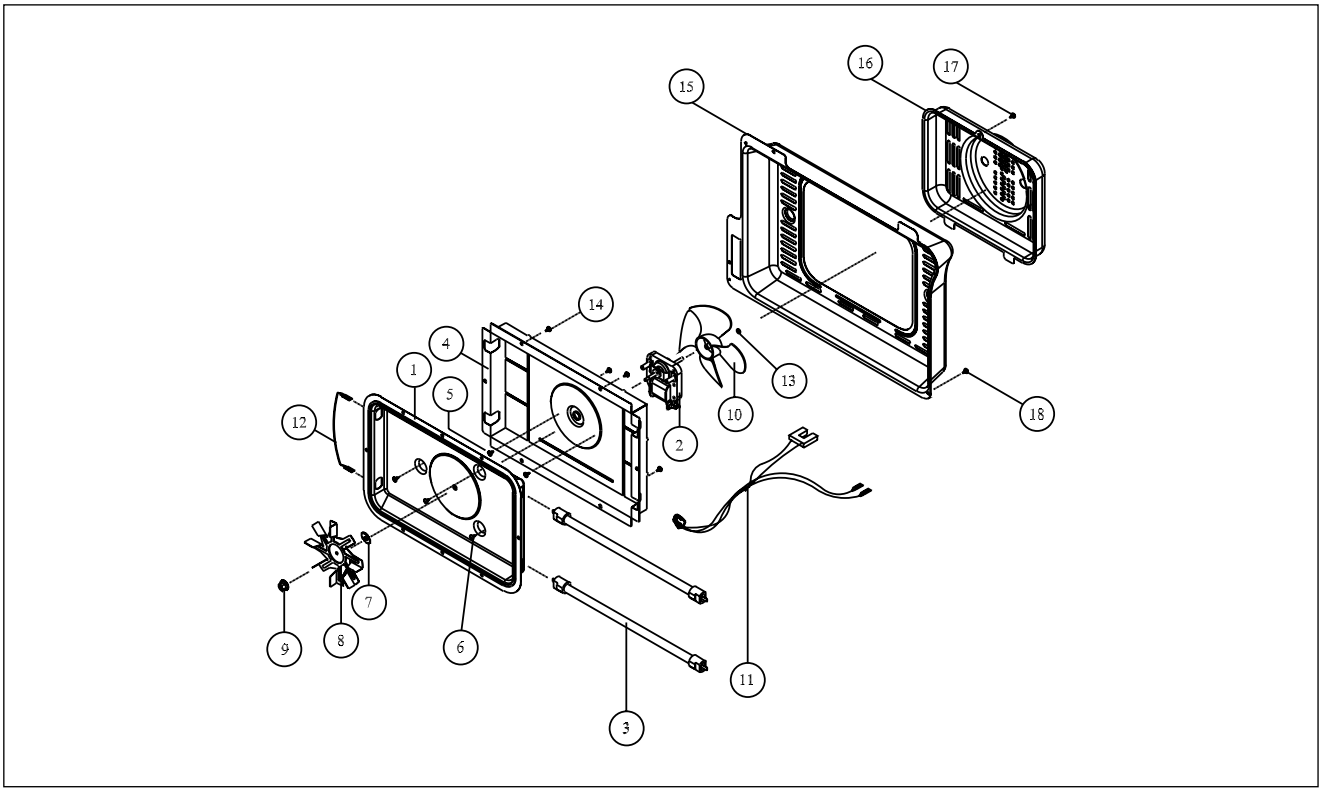
11. To remove Rear heater assembly parts.

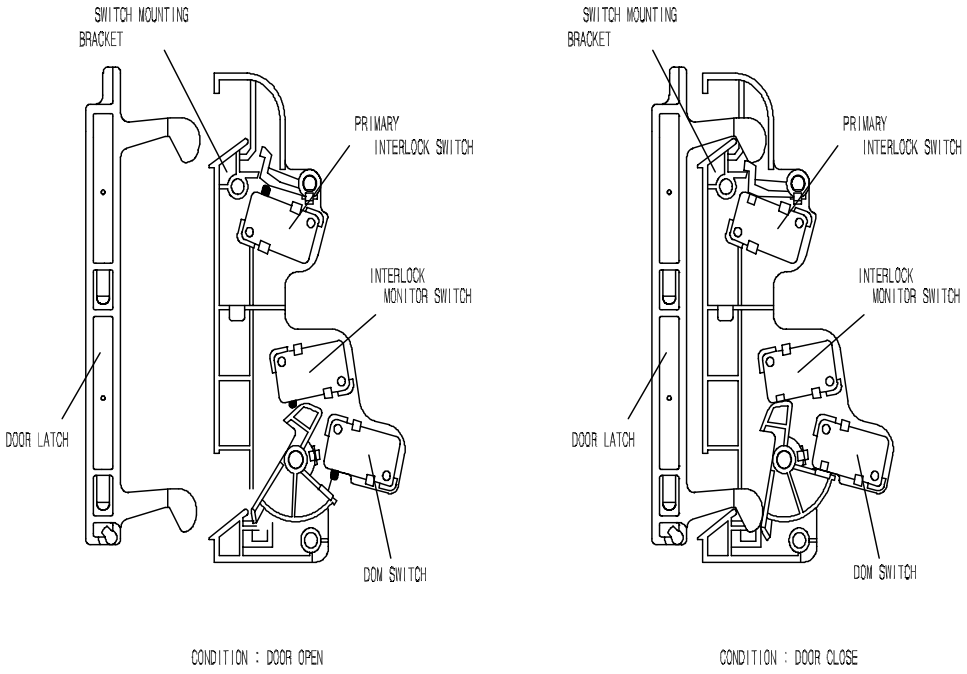


REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
1	3511412500	COVER HEATER *B	SA1D-80 T0.5	1	
2	3963514330	MOTOR SHADED POLE	230V 50HZ MW10CA-T03	1	
3	3512807310	HEATER QUARTZ	115V 500W 240MM A	2	
4	3513303900	INSULATOR HEATER *B	SBHG-1 T0.6	1	
5	7601400811	SCREW MACHINE	PAN 4X8 PW MFZN	2	
6	7113400814	SCREW TAPPING	T1 BIN 4X8 MFNI	3	
7	7400104011	WASHER PLAIN	PW-1-4 MFZN	1	
8	3511800700	FAN CONVECTION	SA1D-80 T0.5	1	
9	7S627W40X1	SPECIAL SCREW	NUT FLANGE M4 MFZN	1	
10	3511800900	FAN	PBT	1	
11	3512782600	HARNESS CONVECTION *A	KOC-8H5T7S	1	
12	3512782610	HARNESS CONVECTION *B	KOC-8H5T7S	1	
13	7402704600	RING C	CR-5 SK5	1	
14	7122400611	SCREW TAPPING	T2S TRS 4X6 MFZN	4	
15	3511412600	COVER *B	SBHG-3 T0.4	1	
16	3511410500	COVER MOTOR *B	SA1D-80 T0.5	1	
17	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1	
18	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1	

1) Remove a screw 17 and pull out Cover motor *B 16.
2) Remove a screw 18 and pull out Cover *B 15 .
3) Pull out the Harness convection-A 11 and Harness convection-B 12 .
4) Remove four screws 14 and then pull out the Rear heater assembly.
5) Remove a Nut 9 and the pull out the Fan convection 8 .
6) Remove three screws 6 and then separate the Cover heater *B 1 and the Insulator heater *B 4 .
7) Pull out the Heater 3 from the Cover Heater *B 1 .
8) Remove two screw 5 and then separate the Insulator heater *B 1 and Motor shaded pole 2 .
9) Remove the C-Ring 13 and then pull out the Fan 10 from Motor shaft.
10)Reverse the above steps for reassebly.

7. 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. (No position)

(2) DOM 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 OFF condition (No position) and presses the button of the DOM switch to bring it under ON condition. (No position)

ADJUSTMENT :

Interlock monitor switch

When the door is closed, the interlock monitor switch should be opened (No position) before other switches are closed.
When the door is opened, the interlock monitor switch should be closed (No position) 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 smoothly after adjustment is completed.
d) Tighten completely two mounting screws.

NOTE :

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

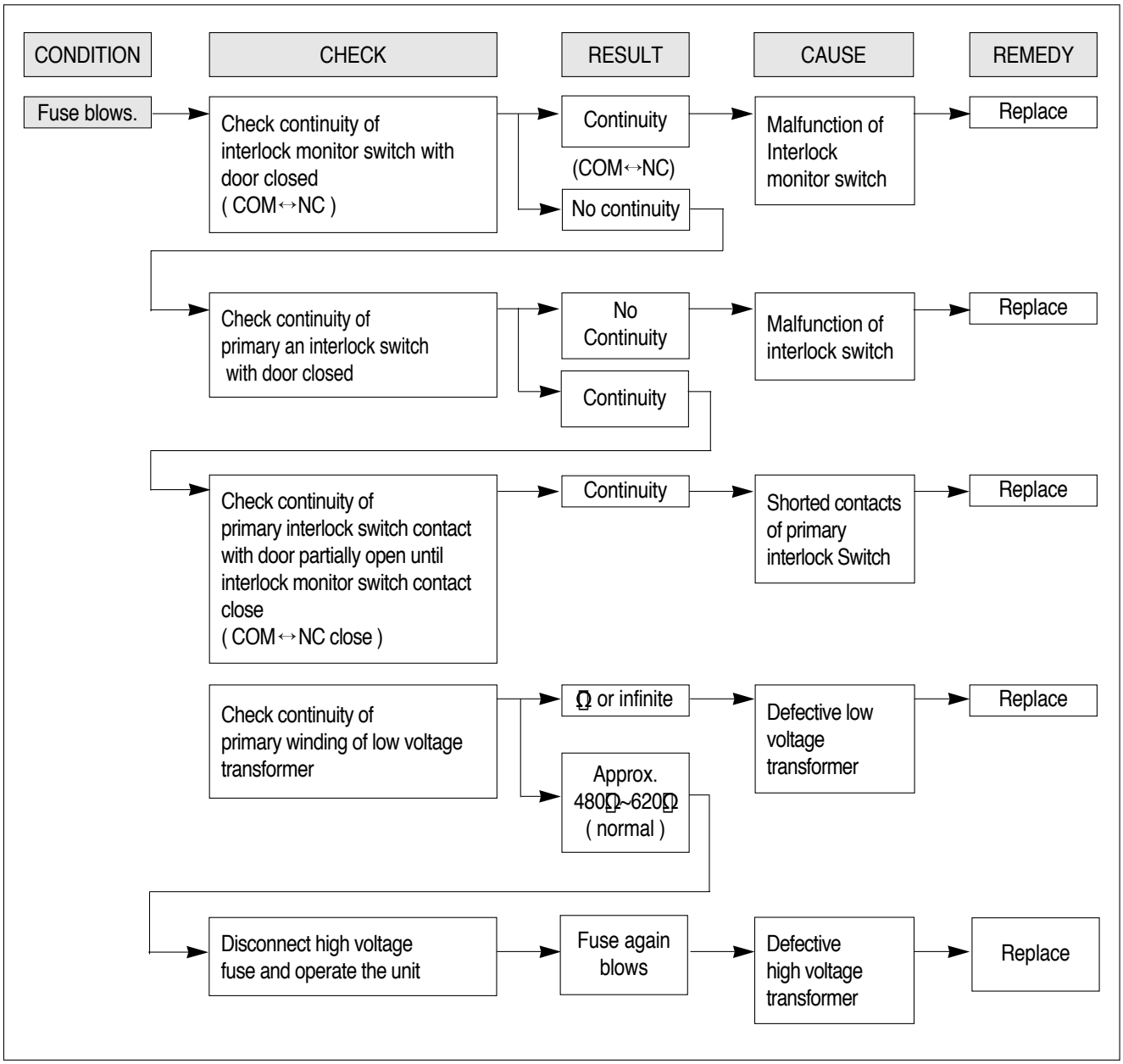
8. TROUBLE SHOOTING GUIDE

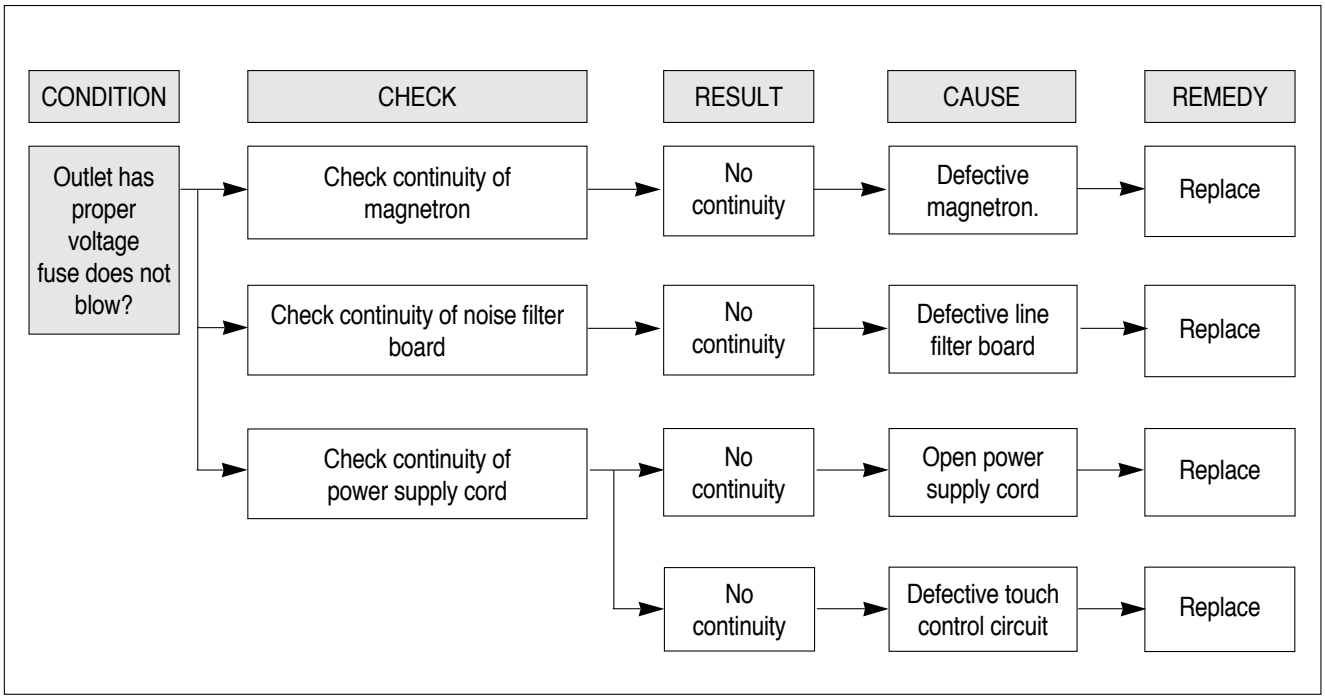
Following the procedure below to check if the oven is defective or not.

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 tranformer, disconnect one load 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 connection of the terminals and power cord before check the parts listed below.

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

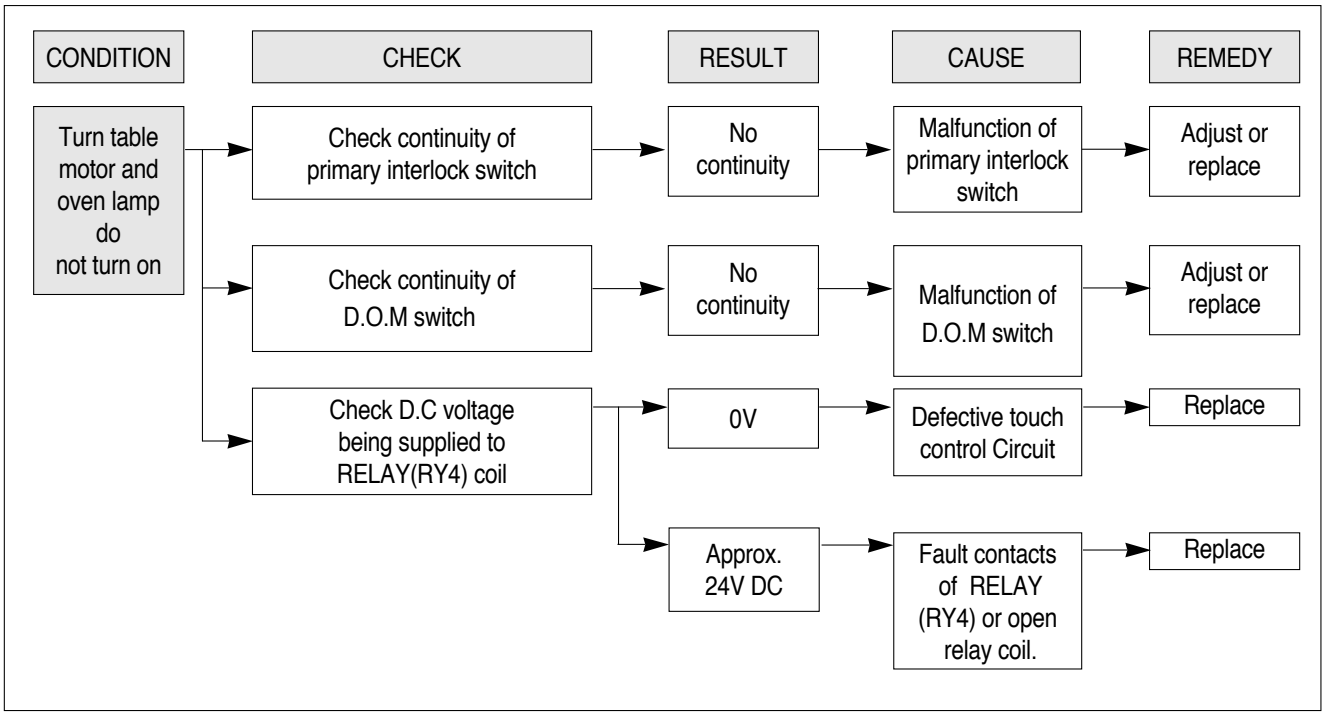




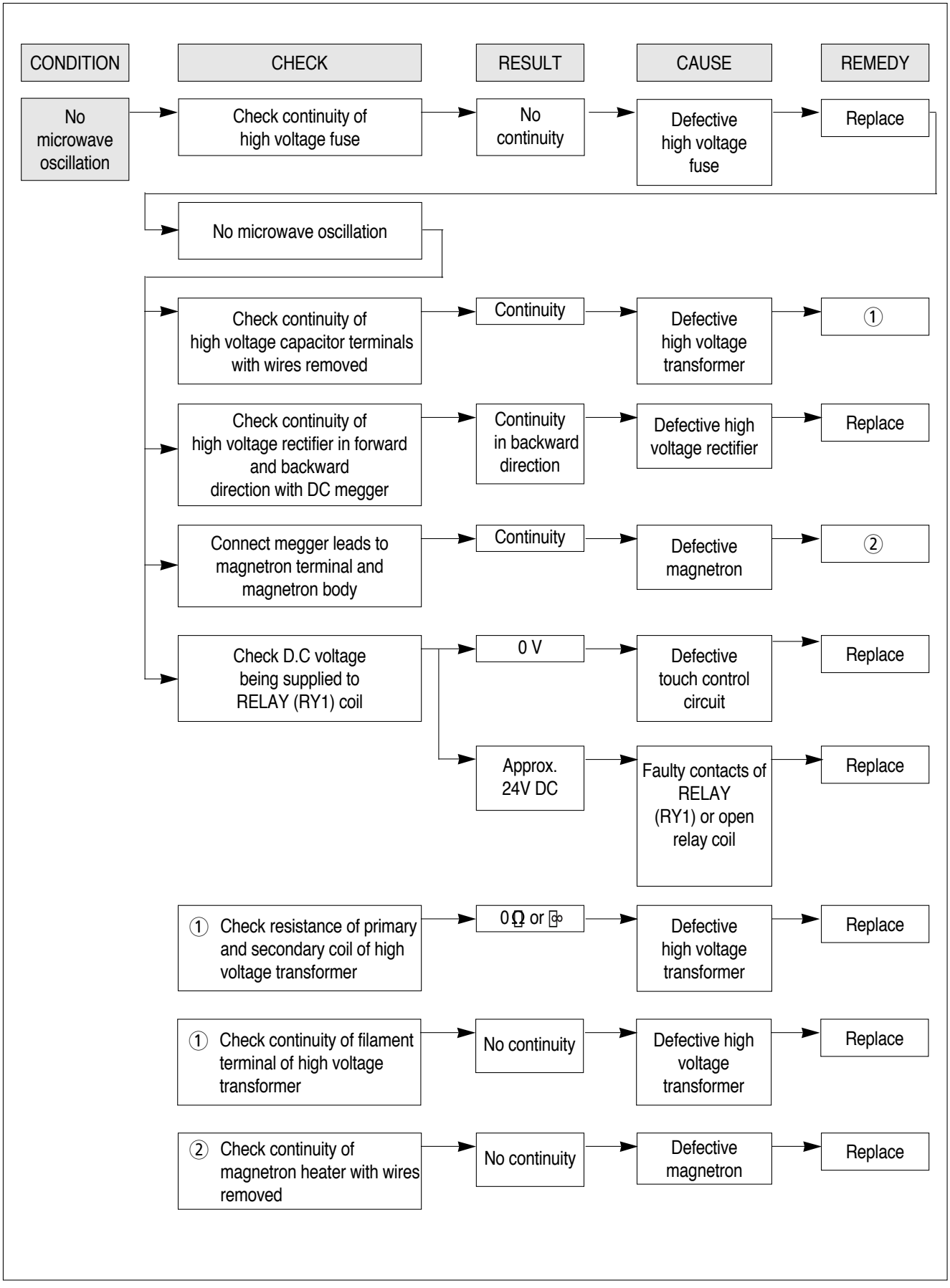
NOTE : All these switches must be replaced at the same time, please refer to (7.Interlock mechanism and adjust) for adjustment instructions

(TROUBLE 2)

Display shows all figures selected, but oven does not start cooking, even though desired program and time are set and start button is tapped.

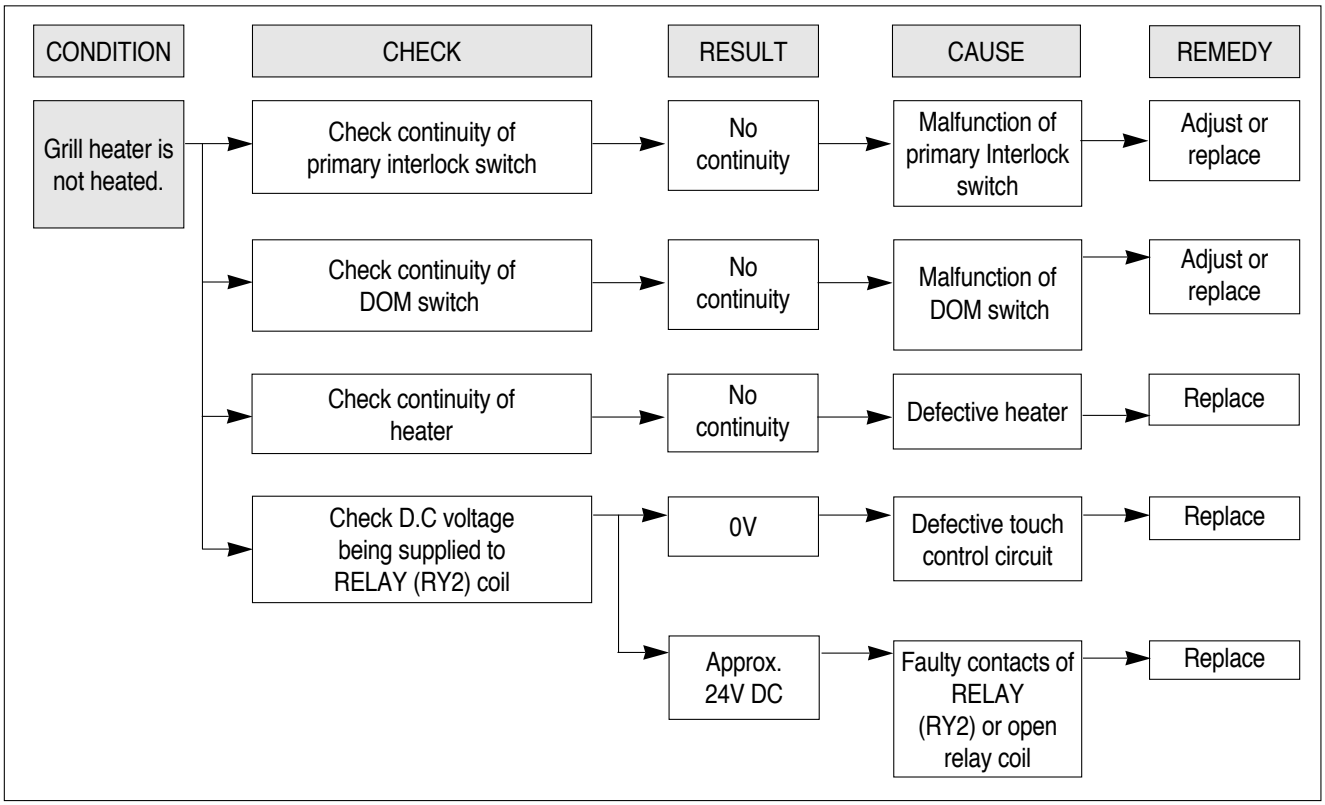


TROUBLE 3) No microwave oscillation even though fan motor rotates.



(TROUBLE 4)

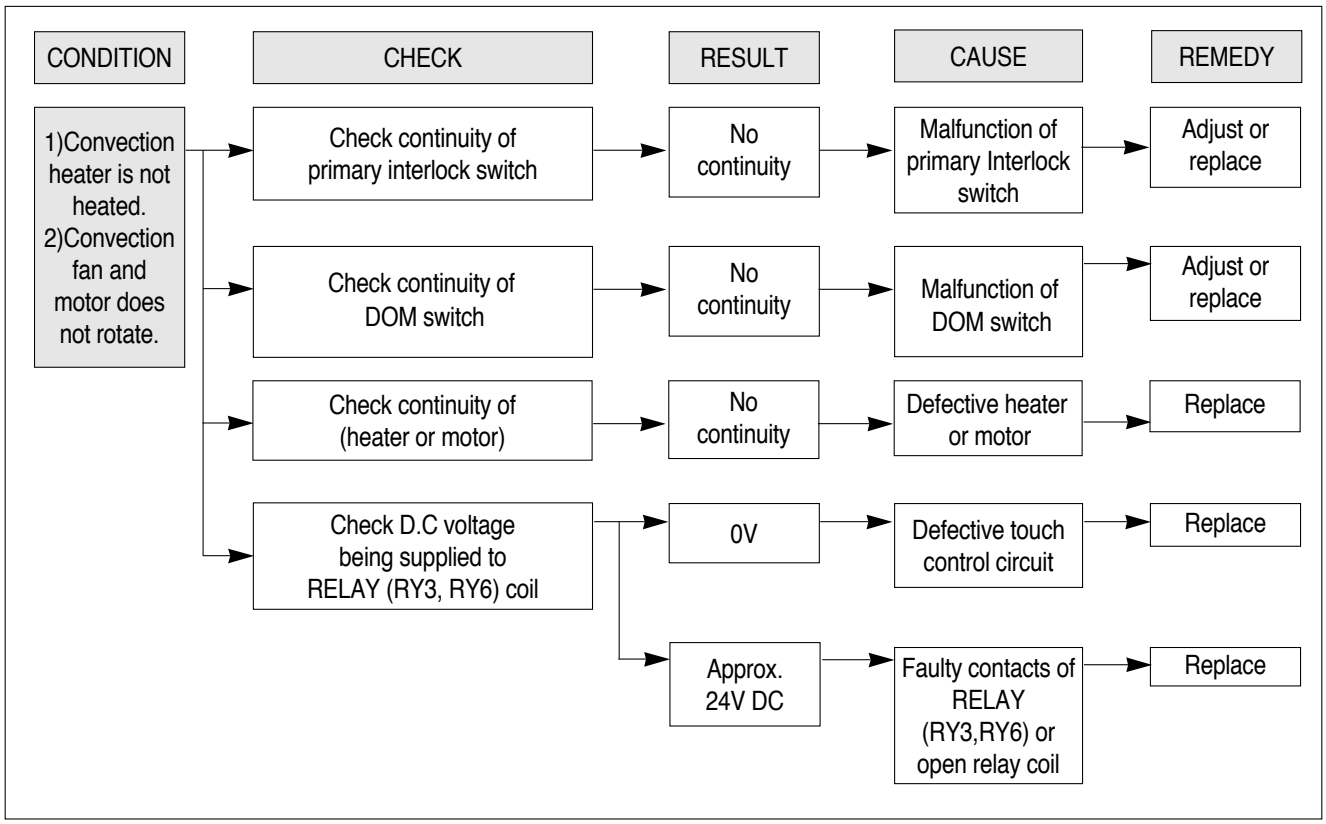
Grill heater (upper heater) is not heated; food will not become hot.



(TROUBLE 5)

1) Convection heater is not heated; food will not become hot.

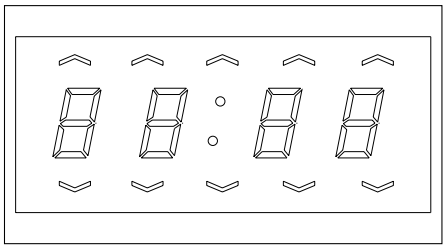
2) Convection fan motor does no rotate.



(TROUBLE 6)

The following visual conditions inditions indicate a probable defective touch control Circuit or button P.C.B. assembly

1. Incomplete segments.
   1) segment missing
   2) partial segments missing
   3) digit flickering other than normal fluorescent slight flickering
2. A distinct change in the brightness of one or more numbers exists in the display.
3. One or more digits in the display are not on when they should be.
4. Display does not count down or up with time cooking or clock operation.
5. Oven is programmable and cooks normally but no display shows.
6. Display obviously jumps in time while counting down.
7. Display counts down noticeably too fast while cooking.
8. Display does not show the time of day when clear button is touched.
9. Oven lamp and turn table motor do not stop although cooking is finished.
   Check if the RELAY(RY4) contacts close and 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 button for continuity of the button	Normal	Malfunction of sub pcb assembly	Replace control box sub-assembly

(TROUBLE 7)

When "ERROR 2 ERROR 3" come on display.

CONDITION	CHECK	RESULT	CAUSE	REMEDY
"ERROR 2 & ERROR 3" come on display	Check continuity of thermistor (resistance of thermistor)	0Ω or infinite	Replace	Replace
		Approx 200~300kΩ (room temperature)		
	Check continuity of heater (convection, upper)	No continuty	Defective heater	Replace
		continuity	Defective touch control circuit	Replace

9. MEASUREMENT AND TEST

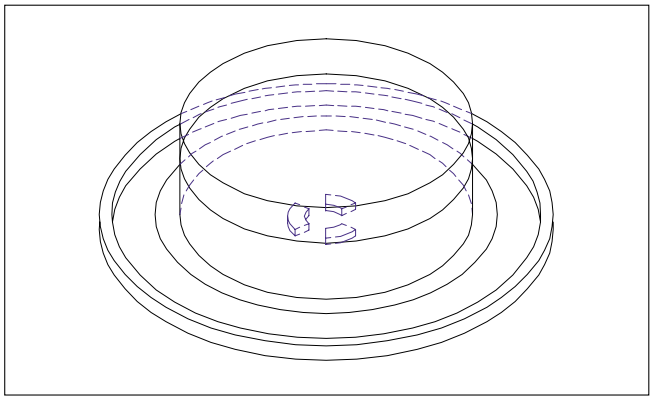
1. MEASUREMENT OF THE MICROWAVE POWER OUTPUT

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˚C ± 1˚C is used for the test. The water temperature is measured immediately before it is poured into the container.
3. A quantity of 1000g ± 5g 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˚C ± 2˚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 ± 2°C (68 ± 3.6°F)

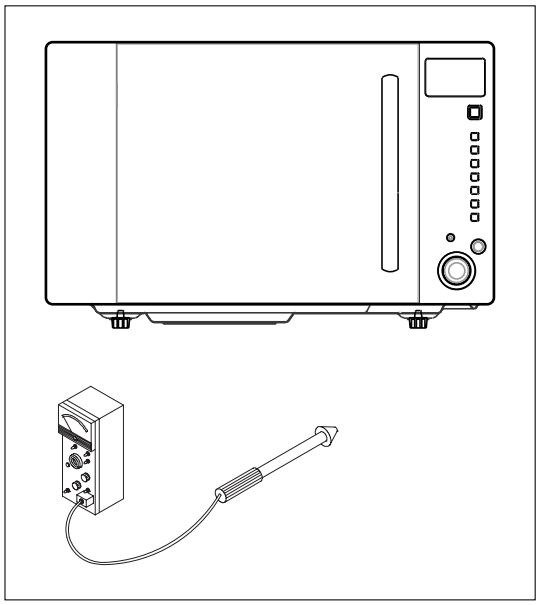
✻ **Heating time for power output: ($T_2 = T_0$)**

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

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 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(3.5 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^2.
   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.

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. 146Ω ± 10%
   Filament winding ... Approx. 0Ω
   Primary winding ... Approx. 2Ω

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 10MΩ once the capacitor 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 may be read in both directions. A normal diode's resistance will be infinite in one direction and several hundred k 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 0.1 Ω or less.
3) A continuity check between each filament terminal and magnetron case should read open.

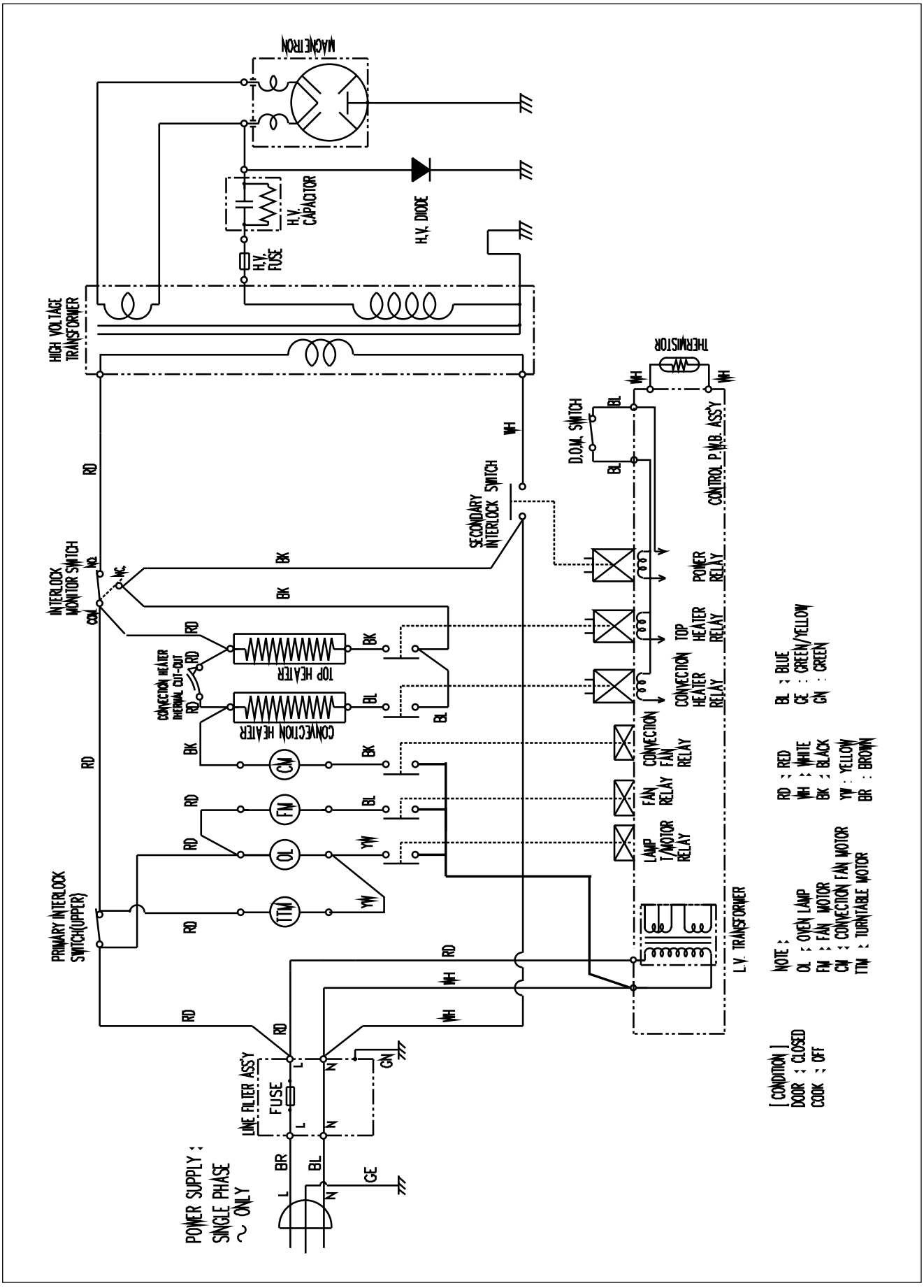
5. Fuse

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.

4. COMPONENT ACTION

COOKING MODE		MAGNE-TRON	UPPER ELEMENT	REAR ELEMENT	CONVEC-TION FAN
MANUAL MODE	M/W	●			
	GRILL		●		
	COMBI	●	●	●	●
	CONVECTION		●	●	●
AUTO MODE	ROAST PORK	●	●	●	●
	ROAST BEEF	●	●	●	●
	ROAST CHICKEN	●	●	●	●
	BAKED FISH	●	●	●	●
	FRESH VEGETABLES	●			

10. WIRING DIAGRAM



11. EXPLODED VIEW AND PARTS LIST

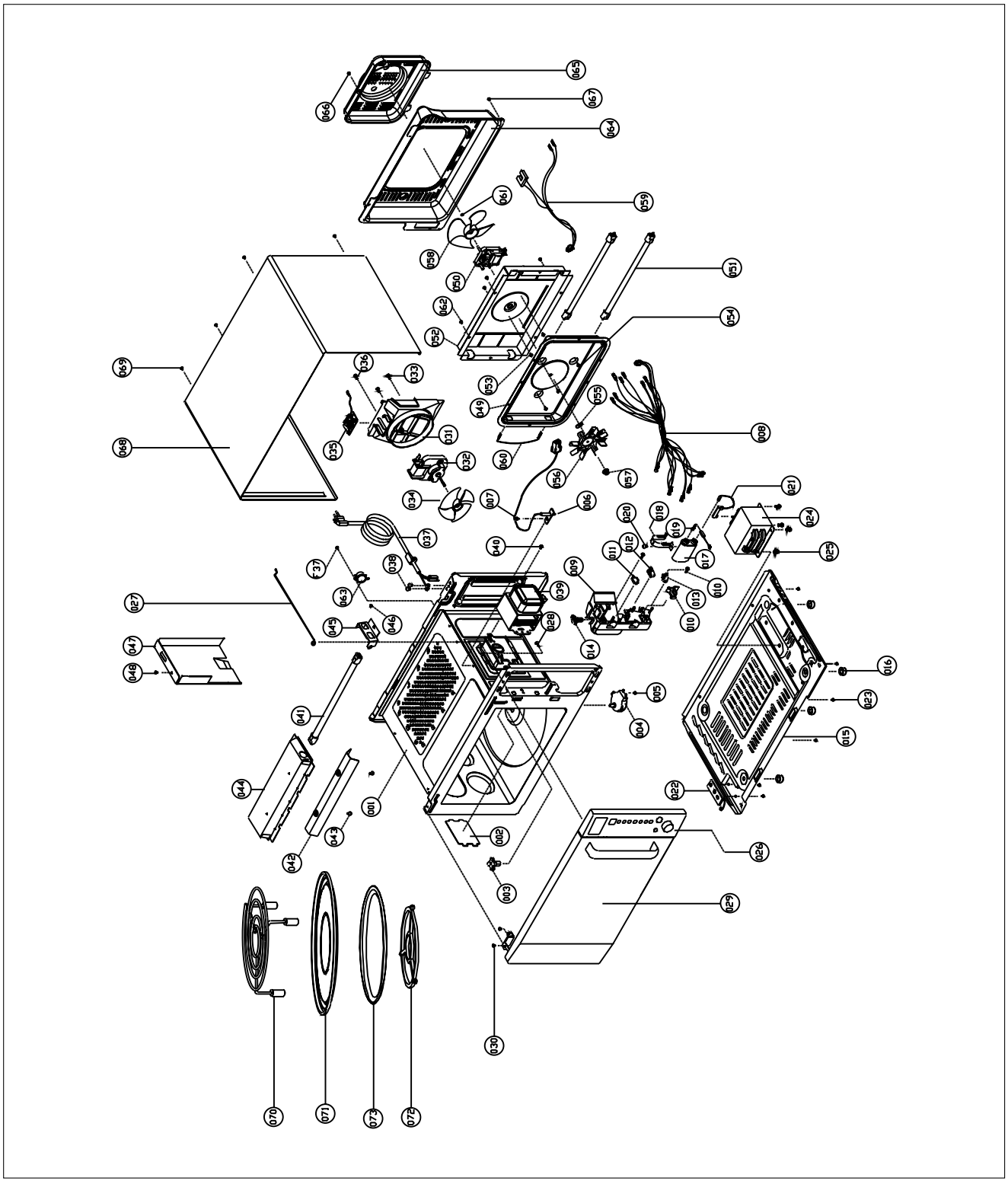
1. DOOR ASSEMBLY

Refer to 6. Disassembly and assembly.

2. CONTROL PANEL ASSEMBLY

Refer to 6. Disassembly and assembly.

3. TOTAL ASSEMBLY



✔ **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).

NO	PART CORD	PART NAME	DESCRIPTION	Q'TY
1	3516118500	CAVITY AS	KOC-8H5T7S	1
2	3511403800	COVER WAVE GUIDE	MICA T0.35	1
3	3517400610	COUPLER	TEFLON	1
4	3966031700	MOTOR SYNCRO	220/240V 50/60HZ SM16 HK36M6F6	1
5	7121400611	SCREW TAPPING	T2S PAN 4X6 MFZN	1
6	3514801600	SENSOR TEMPERATURE	MWS-DWM-0010-0	1
7	7S422X4081	SCREW SPECIAL	TT3 TRS 4X8 SE MFZN	1
8	3512782620	HARNESS MAIN	KOC-8H5T7S	1
9	3513811750	LOCK	CHEIL(FH-44N)	1
10	3513702620	LEVER LOCK	POM	1
11	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
12	4415A66910	SW MICRO	VP-531A-OF/SZM-V16-FA-61	1
13	3518571000	SWITCH PUSH	MP101C	1
14	3513601600	LAMP	BL 240V 25W T25 C7A H187	1
15	3510311000	BASE	SBHG-1 T0.7	1
16	3512101400	FOOT	DASF-310	4
17	3518303401	CAPACITOR HV	2100VAC 1.05UF #187	1
18	3513001900	HOLDER HV CAPACITOR	SECC T0.8	1
19	3518401300	DIODE HV	CL01-12	1
20	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
21	3518701400	FUSE HV	5KV 0.7A	1
22	3515202800	STOPPER HINGE *U AS	KOR-121M0A	1
23	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	5
24	3518122800	TRANS HV	R1S592 ES00	1
25	3516003700	SPECIAL SCREW	TT3 HEX 4X8 FLG MFZN	4
26	PKCPSWGG10	CONTROL-PANEL AS	KOC-8H4T7R	1
27	3515309200	SUPPORTER WIRE	SWRH 2.0	1
28	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
29	3511726410	DOOR AS	KOC-8H4T7S	1
30	3516003700	SPECIAL SCREW	TT3 HEX 4X8 FLG MFZN	2
31	3512524100	GUIDE WIND	PP GP-3152F FH44N NC	1
32	3963512320	MOTOR SHADED POLE	230V 20W MW10CA-M03	1
33	7121402511	SCREW TAPPING	T2S PAN 4X25 MFZN	2
34	3511800300	FAN	PP+30%GLASS	1
35	3518606200	NOISE-FILTER	DWLF-M12	1
36	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
37	35113A5QM5	CORD POWER AS	3X1.0 80X80 120-RTML 1.4M	1

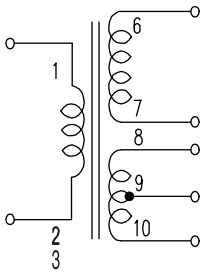
NO	PART CORD	PART NAME	DESCRIPTION	Q'TY
38	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	2
39	3518003700	MAGNETRON	2M218JFL 6CF	1
40	3516004000	SPECIAL SCREW	T2 BOLT FLANGE 5X12 DACRO	1
41	3512805800	HEATER MIRACLON	230V 800W 270MM	1
42	3512806900	HEATER REFLECTOR	STS430 T0.5	1
43	7121400611	SCREW TAPPING	T2S PAN 4X6 MFZN	2
44	3511412400	COVER HEATER *T	SA1D-80 T0.5	1
45	3510610500	BRACKET COVER HEATER	SECC T0.5	1
46	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
47	3512523600	GUIDE AIR OUTLET	SBHG T0.5	1
48	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
49	3511412500	COVER HEATER *B	SA1D-80 T0.5	1
50	3963514330	MOTOR SHADED POLE	230V 50HZ MW10CA-T03	1
51	3512807310	HEATER QUARTZ	115V 500W 240MM A	2
52	3513303900	INSULATOR HEATER *B	SBHG-1 T0.6	1
53	7601400811	SCREW MACHINE	PAN 4X8 PW MFZN	2
54	7113400814	SCREW TAPPING	T1 BIN 4X8 MFNI	3
55	7400104011	WASHER PLAIN	PW-1-4 MFZN	1
56	3511800700	FAN CONVECTION	SA1D-80 T0.5	1
57	7S627W40X1	SPECIAL SCREW	NUT FLANGE M4 MFZN	1
58	3511800900	FAN	PBT	1
59	3512782600	HARNESS CONVECTION *A	KOC-8H5T7S	1
60	3512782610	HARNESS CONVECTION *B	KOC-8H5T7S	1
61	7402704600	RING C	CR-5 SK5	1
62	7122400611	SCREW TAPPING	T2S TRS 4X6 MFZN	4
63	3518907400	THERMOSTAT	OFF:160 ON:0 V #187	1
64	3511412600	COVER *B	SBHG-3 T0.4	1
65	3511410500	COVER MOTOR *B	SA1D-80 T0.5	1
66	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
67	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
68	3510806400	CABINET AS	KOC-871C0S	1
69	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	4
70	3517201951	TRAY RACK AS	KOR-17551S 30MM	1
71	3517210900	TRAY METAL AS	KOC-624S0J	1
72	3512527900	GUIDE ROLLER AS	KRG-8H5T7S	1
73	3517203610	TRAY	BORO-SI GLASS(NEG)	1

12. PRINTED CIRCUIT BOARD

CIRCUIT CHECK PROCEDURE

1. Low voltage transformer check

The low voltage transformer is located on the P.C.B.
Measuring condition: Input voltage: 230V / Frequency: 50Hz

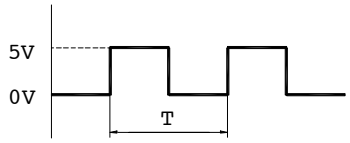
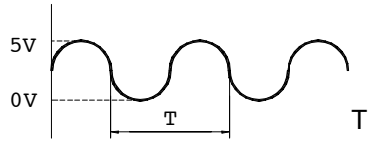


Terminal	Voltage(load)	Voltage(no load)
6-7	AC 17.0 V	AC 19.9 V
8-9	AC 1.3 V	AC 1.6 V
9-10	AC 1.3 V	AC 1.6 V

NOTE
1. Secondary side voltage of the low voltage transformer changes in proportion to fluctuation of power source voltage.
2. The allowable tolerance of the secondary voltage is within ± 5% of nominal voltage.

2. Voltage Check

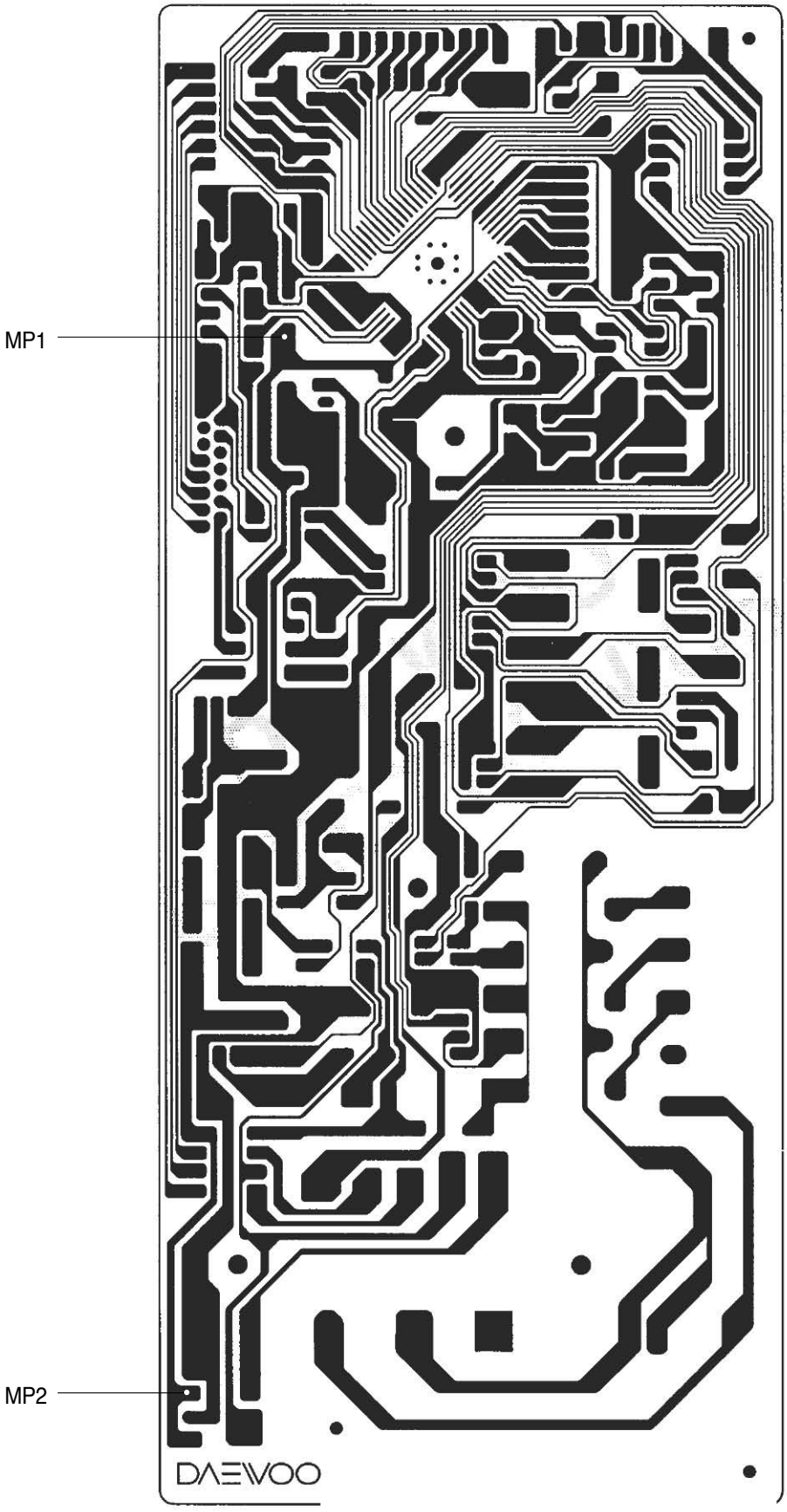
- Key check point

NO	CHECK POINT	REMARK
1	IC1 PIN 26, 27	5VDC± 5%
2	IC1 PIN 28	 T : 20 ms(50Hz)
3	IC1 PIN 8 OR 9	 T : 250 ns(4MHz)

- Check method

NO	MEASURE POINT	WAVE FORM	REMEDY	REMARK
1	MP1	DC 5V± 5%	Replace ZD3, EC1	NO LOAD
2	MP2	DC 24V± 20%	Replace D17-20, EC5	NO LOAD

NOTE: Each measure point must be measured with GND points.

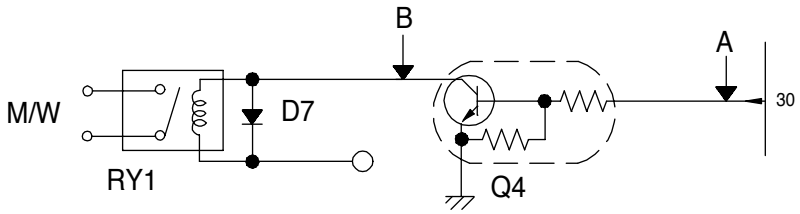


MEASUREPOINT

3. Case of no microwave oscillation

1) When touching M/W button, oven lamp turns on and Fan motor and turntable rotate, and cook indicator in display comes on.

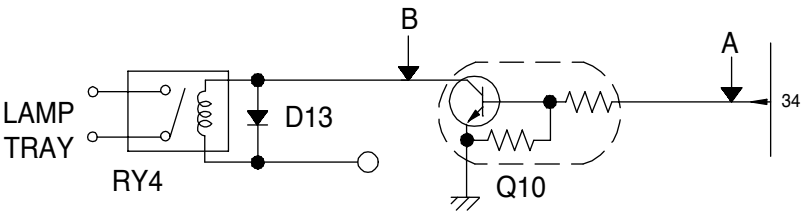
*Cause: **RELAY 1** does not operate.



STATE	POINT A	POINT B
RELAY 1 ON	+5V DC	GND
RELAY 1 OFF	GND	+24V DC

2) When touching M/W button, oven lamp does not turn on and turntable motor does not rotate but cook indicator in display comes on.

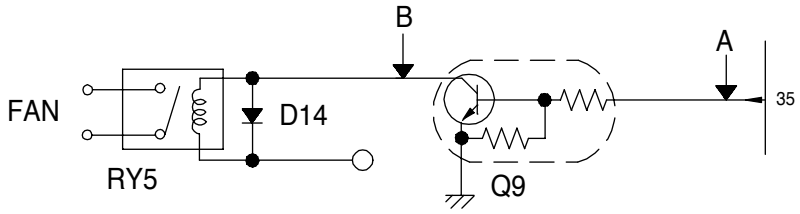
*Cause: **RELAY 4** does not operate.



STATE	POINT A	POINT B
RELAY 4 ON	+5V DC	GND
RELAY 4 OFF	GND	+24V DC

3) When touching M/W button, oven lamp turns on and fan motor does not rotate but cook indicator in display comes on.

*Cause: **RELAY 5** does not operate.

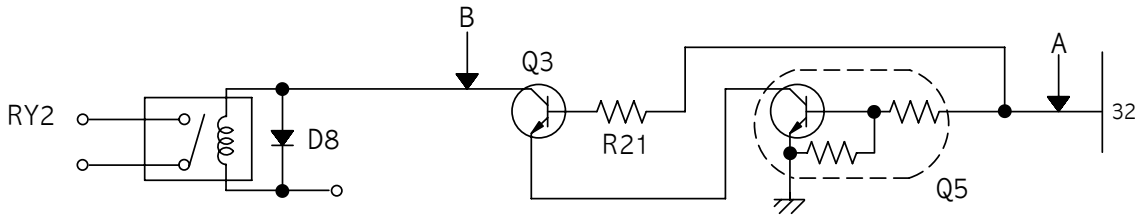


STATE	POINT A	POINT B
RELAY 5 ON	+5V DC	GND
RELAY 5 OFF	GND	+24V DC

4. Case of no heating of top grill

When touching GRILL or COMBI button, oven lamp turns on and fan motor and turntable rotate, and cook indicator in display comes on.

*Cause: **RELAY 2** does not operate.

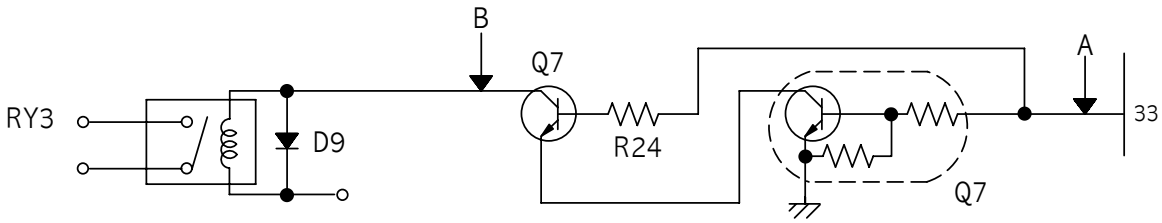


STATE	POINT A	POINT B
RELAY 2 ON	+5V DC	GND
RELAY 2 OFF	GND	+24V DC

5**. Case of no heating of convection grill**

When touching CONVECTION button, oven lamp turns on and Fan motor and turntable rotate and cook indicator in display comes on.

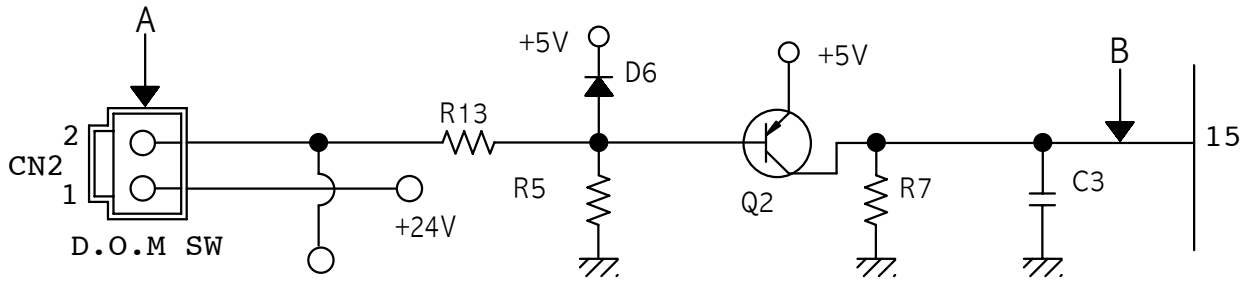
*Cause: **RELAY 3** does not operate.



STATE	POINT A	POINT B
RELAY 3 ON	+5V DC	GND
RELAY 3 OFF	GND	+24V DC

6. Case of no stopping of the count down timer

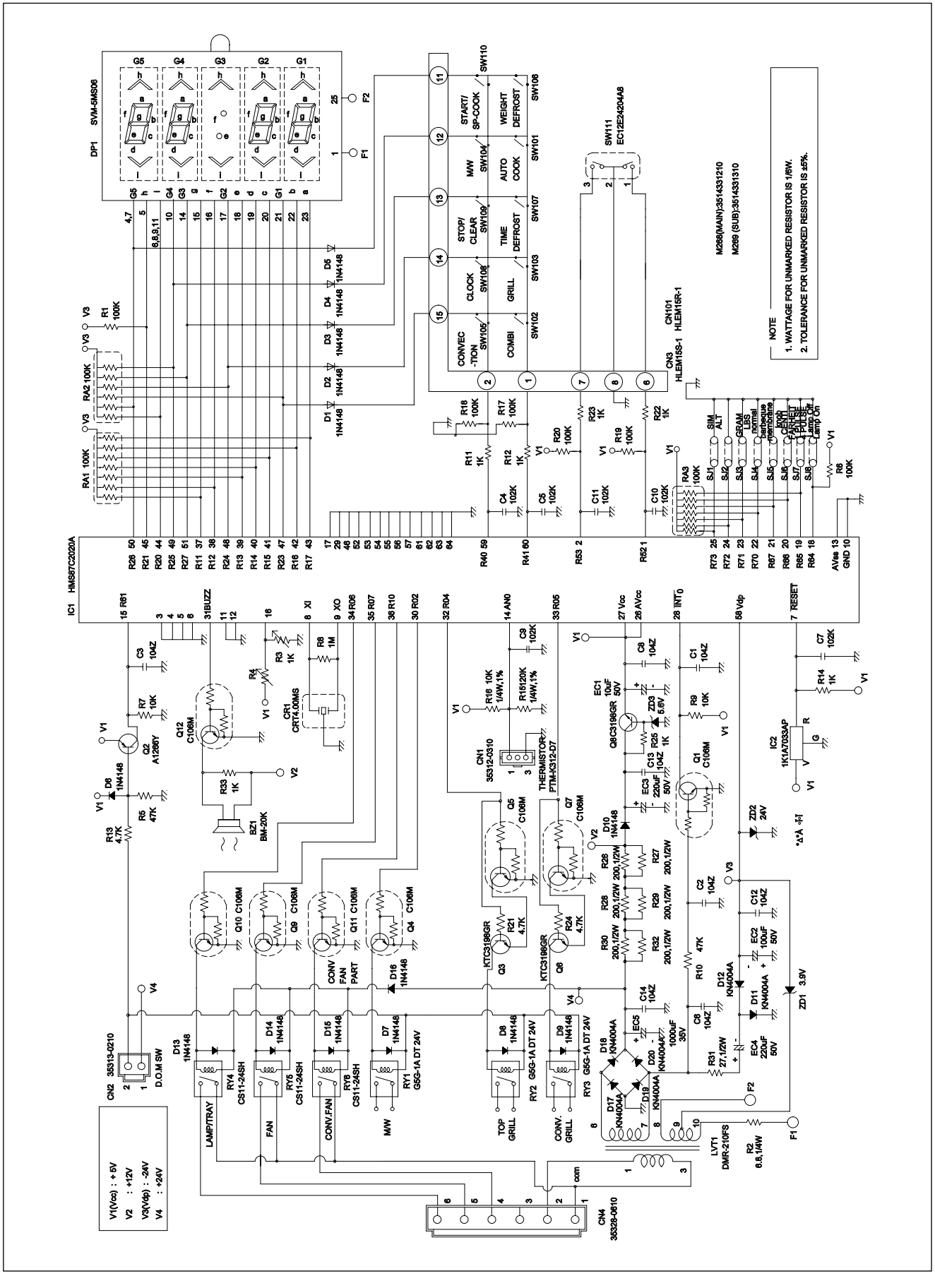
When the door is opened during operation, the count down timer does not stop.



POINT / STATE	A	B
DOOR OPEN	OPEN	+5V DC
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 swith.

13. P.C.B. CIRCUIT DIAGRAM



PCB ASS'Y PART LIST

NO	LOC	PART CODE	NAME	SPECIFICATION	Q'TY
1	BZ1	3515600100	BUZZER	BM-20K (BUJEON)	1
2	CN1	30166M5030	WAFER	MOLEX 35312-0310 (WHITE)	1
3	CN2	30166M7020	CONNECTOR	MOLEX 35313-0260 ROHS	1
4	CN3	4CW215SBD0	CONN WAFER	HLEM15S-1	1
5	CN4	4CW3061MX0	CONN WAFER	MOLEX 35328-0610	1
6	DP1	DSVM5MS06-	DIGITRON	SVM-5MS06(S/S)	1
7	EC5	CEXF1V102V	C ELECTRO	35V RSS 1000MF (13X25) TP	1
8	IC1	150G2020A-	IC MICOM	HMS87C2020A	1
9	LVT1	5EPV041410	TRANS POWER	DMR-210FS	1
10	RY1	5SC0101124	SW RELAY	G5G-1A-DT 1C 1P DC24V	1
11	RY2	5SC0101124	SW RELAY	G5G-1A-DT 1C 1P DC24V	1
12	RY3	5SC0101124	SW RELAY	G5G-1A-DT 1C 1P DC24V	1
13	RY4	5SC0101129	SW RELAY	CS11-24SH 1C 1P	1
14	RY5	5SC0101129	SW RELAY	CS11-24SH 1C 1P	1
15	RY6	5SC0101129	SW RELAY	CS11-24SH 1C 1P	1
16	SJ1	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
17	SJ5	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
18	SJ7	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
19	SJ8	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
20	CR1	5P4R00MTS-	RESONATOR CERA	CRT 4.00MS	1
21	EC1	CEXE1H100A	C ELECTRO	50V RS 10MF (5X11) TP	1
22	EC2	CEXF1H101V	C ELECTRO	50V RSS 100MF (8X11.5) TP	1
23	EC3	CEXF1H221V	C ELECTRO	50V RSS 220MF (10X16) TP	1
24	EC4	CEXF1H221V	C ELECTRO	50V RSS 220MF (10X16) TP	1
25	IC2	1K1A7033AP	IC RESET	KIA7033AP	1
26	Q01	TZRC106M--	TR	KRC106M(AUTO)	1
27	Q02	TZTA1266Y-	TR	KTA1266Y- (2SA1980NYATPF)	1
28	Q03	TZTC3198GR	TR	KTC3198GR (1815GR)	1
29	Q04	TZRC106M--	TR	KRC106M(AUTO)	1
30	Q05	TZRC106M--	TR	KRC106M(AUTO)	1
31	Q06	TZTC3198GR	TR	KTC3198GR (1815GR)	1
32	Q07	TZRC106M--	TR	KRC106M(AUTO)	1
33	Q08	TZTC3198GR	TR	KTC3198GR (1815GR)	1
34	Q09	TZRC106M--	TR	KRC106M(AUTO)	1
35	Q10	TZRC106M--	TR	KRC106M(AUTO)	1
36	Q11	TZRC106M--	TR	KRC106M(AUTO)	1
37	Q12	TZRC106M--	TR	KRC106M(AUTO)	1
38	RA1	RA-88X104J	R ARRAY	8P(7) 1/8 100K OHM J	1
39	RA2	RA-87X104J	R ARRAY	7P(6) 1/8 100K OHM J	1
40	RA3	RA-88X104J	R ARRAY	8P(7) 1/8 100K OHM J	1
41	BOARD	3514331210	PCB MAIN	M268	1
42	C01	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1
43	C02	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1
44	C03	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1

NO	LOC	PART CODE	NAME	SPECIFICATION	Q'TY
45	C04	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	1
46	C05	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	1
47	C06	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1
48	C07	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	1
49	C08	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1
50	C09	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	1
51	C10	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	1
52	C11	CCZB1H102K	C CERA	50V B 1000PF K (AXIAL)	1
53	C12	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1
54	C13	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1
55	C14	CCZF1H104Z	C CERA	HIKF 50V 0.1MF Z AXIAL	1
56	D01	DZN4148---	DIODE	1N4148 AUTO 52MM	1
57	D02	DZN4148---	DIODE	1N4148 AUTO 52MM	1
58	D03	DZN4148---	DIODE	1N4148 AUTO 52MM	1
59	D04	DZN4148---	DIODE	1N4148 AUTO 52MM	1
60	D05	DZN4148---	DIODE	1N4148 AUTO 52MM	1
61	D06	DZN4148---	DIODE	1N4148 AUTO 52MM	1
62	D07	DZN4148---	DIODE	1N4148 AUTO 52MM	1
63	D08	DZN4148---	DIODE	1N4148 AUTO 52MM	1
64	D09	DZN4148---	DIODE	1N4148 AUTO 52MM	1
65	D10	DZN4148---	DIODE	1N4148 AUTO 52MM	1
66	D11	DZN4004A--	DIODE	KN4004A AUTO 52MM	1
67	D12	DZN4004A--	DIODE	KN4004A AUTO 52MM	1
68	D13	DZN4148---	DIODE	1N4148 AUTO 52MM	1
69	D14	DZN4148---	DIODE	1N4148 AUTO 52MM	1
70	D15	DZN4148---	DIODE	1N4148 AUTO 52MM	1
71	D16	DZN4148---	DIODE	1N4148 AUTO 52MM	1
72	D17	DZN4004A--	DIODE	KN4004A AUTO 52MM	1
73	D18	DZN4004A--	DIODE	KN4004A AUTO 52MM	1
74	D19	DZN4004A--	DIODE	KN4004A AUTO 52MM	1
75	D20	DZN4004A--	DIODE	KN4004A AUTO 52MM	1
76	J01	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
77	J02	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
78	J03	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
79	J04	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
80	J05	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
81	J06	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
82	J07	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
83	J08	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
84	J09	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
85	J10	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
86	J11	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
87	J12	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
88	J13	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1

NO	LOC	PART CODE	NAME	SPECIFICATION	Q'TY
89	J14	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
90	J15	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
91	J16	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
92	J17	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
93	J18	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
94	J19	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
95	J20	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
96	J21	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
97	J22	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
98	J23	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
99	J24	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
100	J25	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
101	J26	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
102	J27	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
103	J28	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
104	J29	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
105	J30	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
106	J31	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
107	J32	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
108	R01	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	1
109	R02	RD-4Z689J-	R CARBON FILM	1/4 6.8 OHM J	1
110	R03	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
111	R05	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	1
112	R06	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	1
113	R07	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	1
114	R08	RD-AZ105J-	R CARBON FILM	1/6 1M OHM J	1
115	R09	RD-AZ103J-	R CARBON FILM	1/6 10K OHM J	1
116	R10	RD-AZ473J-	R CARBON FILM	1/6 47K OHM J	1
117	R11	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
118	R12	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
119	R13	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	1
120	R14	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
121	R15	RN-4Z1203F	R METAL FILM	1/4 120K OHM F	1
122	R16	RN-4Z1002F	R METAL FILM	1/4 10K OHM F	1
123	R17	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	1
124	R18	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	1
125	R19	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	1
126	R20	RD-AZ104J-	R CARBON FILM	1/6 100K OHM J	1
127	R21	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	1
128	R22	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
129	R23	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
130	R24	RD-AZ472J-	R CARBON FILM	1/6 4.7K OHM J	1
131	R25	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
132	R26	RD-2Z201JS	R CARBON FILM	1/2 200 OHM J SMALL	1

NO	LOC	PART CODE	NAME	SPECIFICATION	Q'TY
133	R27	RD-2Z201JS	R CARBON FILM	1/2 200 OHM J SMALL	1
134	R28	RD-2Z201JS	R CARBON FILM	1/2 200 OHM J SMALL	1
135	R29	RD-2Z201JS	R CARBON FILM	1/2 200 OHM J SMALL	1
136	R30	RD-2Z201JS	R CARBON FILM	1/2 200 OHM J SMALL	1
137	R31	RD-2Z270JS	R CARBON FILM	1/2 27 OHM J SMALL	1
138	R32	RD-2Z201JS	R CARBON FILM	1/2 200 OHM J SMALL	1
139	R33	RD-AZ102J-	R CARBON FILM	1/6 1K OHM J	1
140	ZD1	DZUZ3R9BSB	DIODE ZENER	UZ-3.9BSB(3.92-4.14)	1
141	ZD2	DZUZ24BSB-	DIODE ZENER	UZ-24BSB(22.75-23.73V)	1
142	ZD3	DZUZ5R6BSB	DIODE ZENER	UZ-5.6BSB(5.46-5.70V)	1
143	CN101	4CW215RBD0	CONN WAFER	HLEM15R-1	1
144	SW111	5S10302005	SW ROTARY	EC12E24204A8	1
145	WF1	WSJ-159007	WIRE FLAT	15/90 WH C	1
146	SW101	5S50101Z93	SW TACT	KPT-1115AM	1
147	SW102	5S50101Z93	SW TACT	KPT-1115AM	1
148	SW103	5S50101Z93	SW TACT	KPT-1115AM	1
149	SW104	5S50101Z93	SW TACT	KPT-1115AM	1
150	SW105	5S50101Z93	SW TACT	KPT-1115AM	1
151	SW106	5S50101Z93	SW TACT	KPT-1115AM	1
152	SW107	5S50101Z93	SW TACT	KPT-1115AM	1
153	SW108	5S50101Z93	SW TACT	KPT-1115AM	1
154	SW109	5S50101Z93	SW TACT	KPT-1115AM	1
155	SW110	5S50101Z93	SW TACT	KPT-1115AM	1
156	BOARD	3514331310	PCB SUB	M269	1
157	J101	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
158	J102	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1
159	J103	85801052GY	WIRE COPPER	1/0.52 TIN COATING	1

DAEWOO ELECTRONICS CORP.
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C.P.O. BOX 8003 SEOUL, KOREA
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