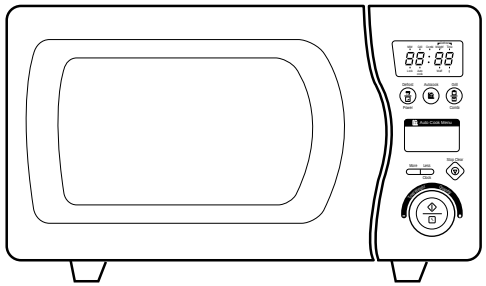
DAEWOO

Service Manual

Microwave Oven

KOG-846T



DAEWOO ELECTRONICS CO., LTD.

PRECAUTIONS TO BE OBSERVED BEFORE AND DURING SERVICING TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

(a) Do not operate or allow the oven to be operated with the door open.

(b) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary: (1) Interlock operation, (2) proper door closing, (3) seal and sealing surfaces (arcing, wear, and other damage), (4) damage to or loosening of hinges and latches, (5) evidence of dropping or abuse.

(c) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.

(d) Any defective or misadjusted components in the interlock, monitor, door seal and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.

(e) A microwave leakage check to verify compliance with the Federal performance standard should be performed on each oven prior to release to the owner.

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PROPER USE AND SERVICE PRECAUTIONS

CAUTION : This Device is to be Serviced Only by Properly Qualified Service Personnel. Consult the Service Manual for Proper Service Procedures to Assure Continued Safety Operation and for Precautions to be Taken to Avoid Possible Exposure to Excessive Microwave Energy.

1. For Safe Operation

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

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

(Only a trained service personnel should make repairs.)

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

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

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

DO NOT ATTEMPT TO OPERATE THIS APPLIANCE WITH THE DOOR OPEN. The microwave oven has concealed switches to make sure the power is turned off when the door is opened. Do not attempt to defeat them.

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

2. Correct Installation

1) This microwave oven weighs 18 kg(40lbs.) and must be placed on a horizontal base strong enough to support this weight.
2) The oven should be placed as far from high temperature source and vapour as possible.
3) The power supply cord is about 1.6m (5.25ft) long. Earthing is required when connecting the power source.
4) Power consumption of this oven is approximately 2.8 kw. It is suggested that the unit is operated on such power line(about 12 amperes) that can provide more power than this rating.
5) Object must not be placed on the top enclosure so as not to obstruct air flow for ventilation.

CAUTION

MICROWAVE RADIATION

PERSONNEL SHOULD NOT BE EXPOSED TO THE MICROWAVE ENERGY WHICH MAY RADIATE FROM THE MAGNETRON OR OTHER MICROWAVE GENERATING DEVICE IF IT IS IMPROPERLY USED OR CONNECTED. ALL INPUT AND OUTPUT MICROWAVE CONNECTIONS, WAVEGUIDE, FLANGES AND GASKETS MUST BE SECURE. NEVER OPERATE THE DEVICE WITHOUT A MICROWAVE ENERGY ABSORBING LOAD ATTACHED. NEVER LOOK INTO AN OPEN WAVEGUIDE OR ANTENNA WHILE THE DEVICE IS ENERGIZED

IMPORTANT

The wires 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' or by earth symbol or green-and-yellow.

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

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

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

SPECIFICATIONS

Power Supply		230V~, 50Hz	240V~, 50Hz(U.K)
Microwave	Power Consumption	1450 W	1500W
	Output Power	900W (IEC 705)	900 Watts
	Frequency	2450 MHz	2450 MHz
Grill power consumption		1400 W	1500W
Simultaneous Heating Power Consumption		2800 W	2950 W
Outside Dimensions (W X H X D)		501 X 319 X 389 mm (19.7 X 12.6 X 15.3 in.)	
Cavity Dimensions (W X H X D)		310 X 229 X 330 mm (12.2 X 9.0X 13.0 in.)	
Net Weight		Approx. 18 kg (40 lbs.)	
Timer		Digital times 99 min	
Select Function		Microwave/Grill/Combination/Defrost/Program cook	
Microwave Power Level		5 stages	

** Specifications are subject to change without notice.*

EXTERNAL VIEWS

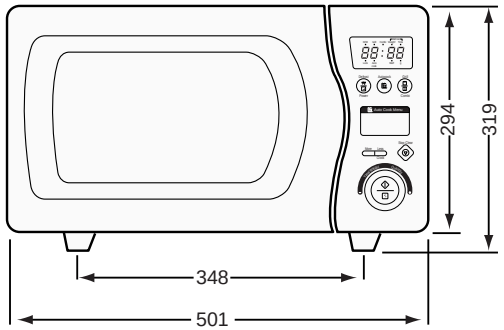


FIG.1 FRONT VIEW

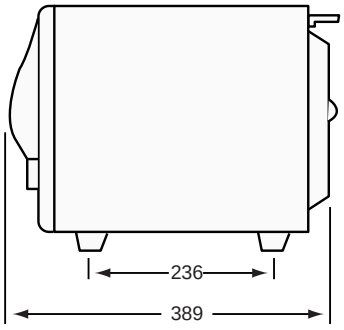
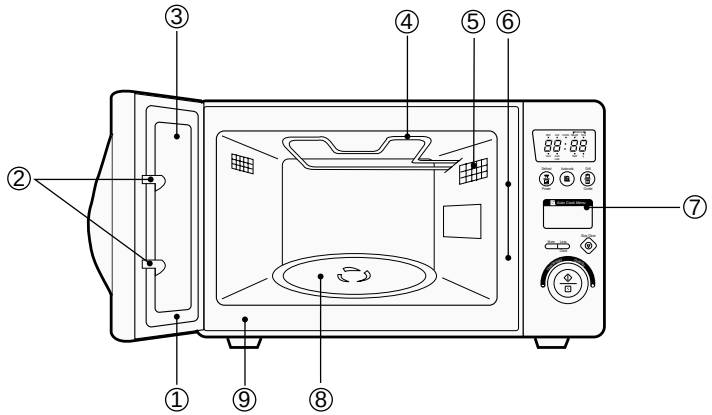
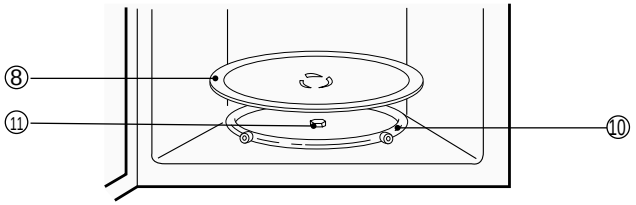


FIG. 2 SIDE VIEW

NAMES AND FUNCTION OF PARTS





¤ **DOOR SEAL**
Door seal maintains the microwave within the oven cavity and prevents microwave leakage.

¤Ł **DOOR HOOK**
When door is closed, it will autoamtically lock shut. If door is opened while oven is operating, magnetron tube will immediately stop operating.

¤Ø **DOOR SCREEN**
Allows viewing of food. Microwave cannot pass through perforations in screen.

¤Œ **GRILL HEATER**
Turns on when grill and simultaneous cooking is selected.

¤º **OVEN LAMP**
Automatically turns on during oven operating.

¤ **SAFETY INTERLOCK SYSTEM**

¤ **CONTROL PANEL**

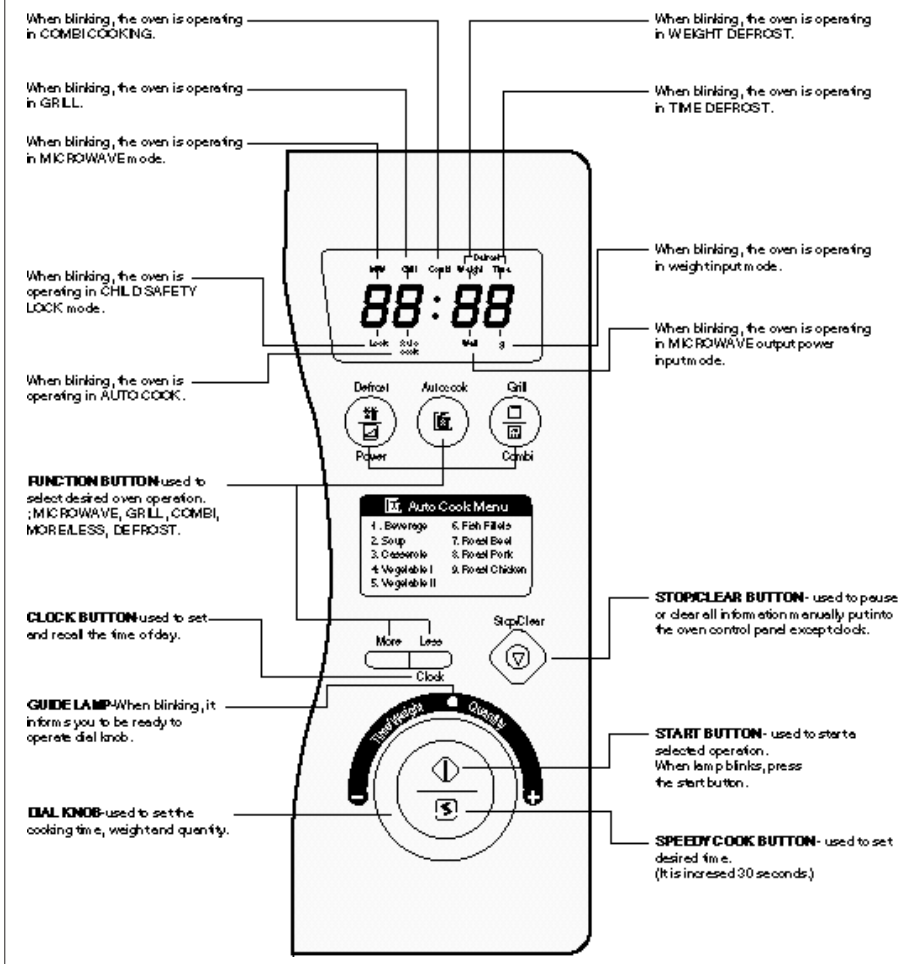
¤ **GLASS TURN -TABLE TRAY**
Rotates during cooking and ensure even distribution of Microwaves. It can also be used as a cooking utensil.

¤ **OVEN FRONT PLATE**

¤ **ROLLER GUIDE**
This must be always used for cooking together with the glass turn-table tray. Use a mild detergent, water and a soft cloth to clean the roller guide.

¤æ **COUPLER**
This fits over the shaft in the center of the oven's cavity floor.
This is to remain in the oven for all cooking.

CONTROL PANEL



OPERATION

TO STOP THE OVEN WHILE THE OVEN IS OPERATING

1. Press ⓥ (STOP/CLEAR) button.

- You can restart the oven by pressing ⓥ (START) button.
- Press ⓥ once more to erase all instruction except clock.

2. Open the door

- You can restart the oven by closing the door and pressing ⓥ button.

NOTE : Ovne stops operating when door is opened.

ERASING INSTRUCTIONS

ƒU Press ⓥ (STOP/CLEAR) button to erase all instructions you set previously.

ƒU Opening the oven door during cooking dose not erase cooking instruction.

ƒU If you press twice ⓥ button during operation, the cooking instruction is all erased.

HOW TO SET THE OVEN CONTROLS

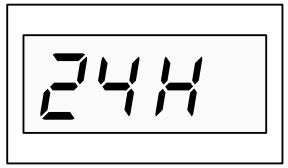
Tips :
- ¡ Be sure to read the cookbook's introduction before operating the oven.
- ¡ Also remember to read this operating instruction for proper safety information and instruction before using t he oven.
- ¡ See the cookbook for specific recipes.
- ¡ Prior to setting the controls, place one cup of water in the oven, in a heat-proof glass measuring cup, for testing purposes.
- ¡ When setting the controls, everytime a button is pressed, a beep can be heard.

CLOCK

NOTE :
- ¡ When the oven is plugged in, "0:00" appears in the display window.
- ¡ The two dots between the hour and minutes are the clock indicator light. They will start to flash on and off.
- ¡ The time of day will be displayed at all times, except when the oven is operating.
- ¡ In the oven of a power failure or if the oven is unplugged, the clock will have to be reset for the proper time. Once power is restored or oven is plugged in, the display will show "0:00".
- ¡ To reset the time of day, repeat the steps given below.
- ¡ To check the time of day while the oven is operating, push the CLOCK button, then the time will be displayed for 3 seconds.
- ¡ When you turn DIAL KNOB, minutes are increased by to turn right and hours are increased as to turn left.

SETTING THE CONTROL

1. Press CLOCK button.
   If you push the CLOCK button once again, you can select 12 hour clock system.
   Then guide lamp will starts blinking.



This example is 24 hour clock system.

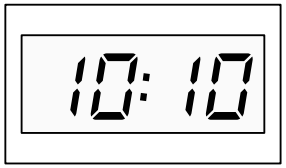
NOTE : This oven is multiple clock system.

NOTE : If you are not setting current time for 3 seconds, display return to old time.

2. Turn left the DIAL KNOB for hour you want.

NOTE :
- If you selected 12 hour clock system, this digital clock allows you to set from 1:00 to 12:59.
- If you selected 24 hour clock system, this digital clock allows you to set from 0:00 to 23:59.
- The colon will stop blinking.

3. Turn right the DIAL KNOB for minute you want



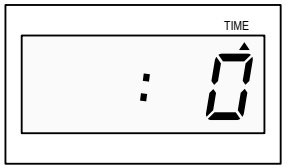
1. Press CLOCK button.

The display will show present time, and the colon starts blinking. This digital clock allows you to set to "10:10"

TIME DEFROST

SETTING THE CONTROL

1. Press DEFROST button twice.



The TIME DEFROST indicator light will light.

2. Turn the DIAL KNOB for the desired defrosting time.

   For example : 20 minutes.

20:00 will show in the display

NOTE : Time can be set up to 99 minutes.

3. Press ◇ button.

The TIME DEFROST indicator light will start blinking to show the oven is in TIME DEFROST mode.

4. Buzzer will sound at the end of the cooking time, The indicator light go off. The display panel will return to the time of day. The oven light will turn off and the turntable will stop turning.

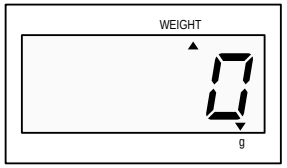
NOTE : During the defrosting operation, turn over after buzzer sound for completed defrosting.

WEIGHT DEFROST

NOTE : • This digital weight allows you set from 200g to 3000g.
• Whenever you press this button, the display is circulated WEIGHT DEFROST, TIME DEFROST , and MICROWAVE mode.

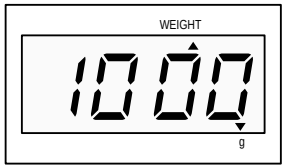
SETTING THE CONTROL

1. Press DEFROST button once.



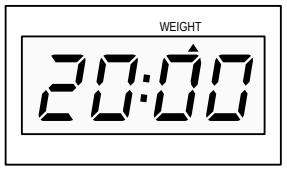
The WEIGHT DEFROST indicator light will come on.
The g indicator light will start blinking.

2. Turn the DIAL KNOB for the desired defrosting weight
   For example : 1000g



The 1000 will show in the display
This display represent 1000g.

3. Press ◇ button



The WEIGHT DEFROST indicator light will starts blinking to show the oven in WEIGHT DEFROST mode.

4. Buzzer will sound at the end of the cooking time, The indicator light go off. The display panel will return to the time of day. The oven light will turn off and the turntable will stop turning.

NOTE : During the defrosting operation, turn over the food after buzzer sound for completed defrosting.

MICROWAVE

NOTE :
- To insure the best microwave and defrost results, be sure to start with a cool oven. Let the oven cool 15~20 minutes with the door slightly open.
- Power levels are 900W, 700W, 500W, 350W, and 150W
- It is displayed after an interval of 10 seconds from 10 seconds to 5 minutes, 30 seconds from 5 minutes to 10 minutes, 1 minute from 10 minutes to 99 minutes

SETTING THE CONTROL

1. Press POWER button more than three times
   By repeatedly pressing this button, you can also select other power levels.
   For example : 900 WATT

The W/W indicator light will light
The WATT indicator light start blinking.

2. Turn the DIAL KNOB for the desired cooking time.
   For example : 10 minutes

10:00 will show in the display.

3. Press ◇ button

The M/W indicator light will start blinking to show the oven is in the micorwave MODE

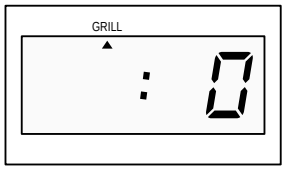
4. Buzzer will sound at the end of the cooking time, The indicator light go off. The display panel will return to the time of day. The oven light will turn off and the turntable will stop turning.

GRILL

NOTE :
- The heating element is located in the top of the oven.
- There is no pre-heating the oven for grilling. Place food inside the oven when setting the controls.
- The GRILL button is used with COMBI function.
- Whenever this button is pressed, display is changed to GRILL/COMBI mode.
- The setting time is increased if you are to turn right the DIAL KNOB. The setting time is decreased if you are to turn left the DIAL KNOB.
- It is displayed after an interval of 10 seconds from 10 seconds to 5 minutes, 30 seconds from 5 minutes to 10 minutes, 1 minutes from 10 minutes to 60 minutes.

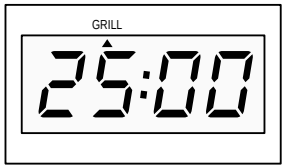
SETTING THE CONTROL

1. Press GRILL button once.



The GRILL indicator light will light.

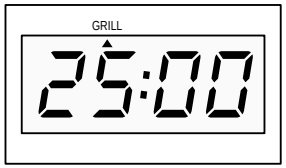
2. Turn the DIAL KNOB for the desired cooking time.
   For example : 25 minutes.



25:00 will show in the display.

NOTE : Time can be set up to 60 minutes.

3. Press ◇ button



The GRILL indicator light will start blinking

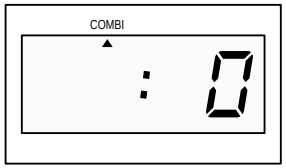
4. Buzzer will sound at the end of the cooking time, The indicator light go off. The display panel will return to the time of day. The oven light will turn off and the turntable will stop turning.

TO SET COMBI COOKING

NOTE : • Microwave and Gril operate simultaneously (or sequentially) in this mode.
• Whenever you press COMBI button, display is changed " : 0", " : H", " : L",
Therefore you can select power level of MICROWAVE

SETTING THE CONTROL

1. Press COMBI button once again.



The corresponding COMBI indicators will light on the display.

2. Turn the DIAL KNOB for the desired cooking time.
For example : 10 minutes.

10 : 00 will show in the display

NOTE : Time can be set up to 99 minutes.

3. Press ◇ button

The COMBI indicator light will start blinking

4. Buzzer will sound at the end of the cooking time, The indicator light go off. The display panel will return to the time of day. The oven light will turn off and the turntable will stop turning.

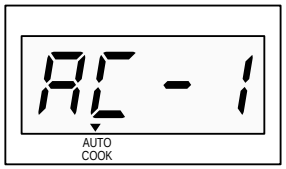
NOTE :

DISPLAY	POWER LEVEL
: 0	500W
: H	600W
: L	400W

AUTO COOK

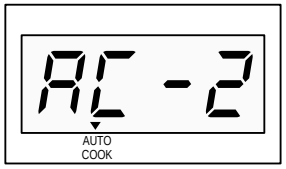
NOTE : • There is programmed for cooking of nine kinds (1~9).
• You don't have to worry about setting time, power and function.

1. Press AUTO COOK button.



The AUTO COOK indicator light will light "AC-1" will show in the display.

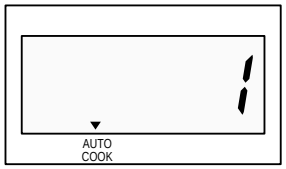
2. Select the desired cooking.
For example : SOUP
Press AUTO COOK button twice.



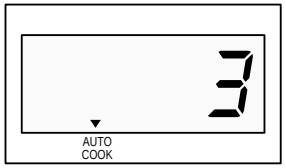
"AC-2" will show in the display.

3. If you want to select other menu, press AUTO COOK button until display your desired cooking menu.

4. Turn the DIAL KNOB for desired cooking quantity.



5. Select the desired cooking quantity.
For example : 3(600g)

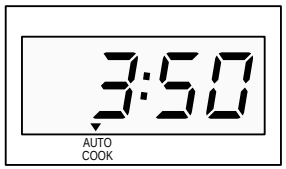


"3" will show in the display.

6. If you want to select other quantity, press quantity button once again until display you desired.

7. You can operate MORE/LESS than programmed time as pressing MORE/LESS button whenever press MORE/LESS button, display is changed “10” , “0” or “-10”
   10 : Adds 10% for programmed time.
   0 : Add Zero
   -10 : Remove 10% for prorammed time.

8. Push ◇ button
   For example : MORE/LESS 0



The oven will now start auto cook for menu 2.
The indicator light starts blinking.

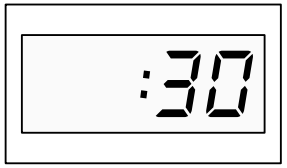
9. Buzzer will sound at the end of the cooking time. The indicator light will go off. The display panel will return to the time of day, the oven light will turn off and the turntable will stop turning.

NOTE : ¥ AUTO COOK menu and quantity

MENU NO.		QUANTITY NO.		MENU NO.		QUANTITY NO.	
1	BEVERAGE	1	1 CUP	7	ROAST BEEF	1	700g
		2	2 CUPS			2	800g
		3	3 CUPS			3	900g
		4	4 CUPS	8	ROAST PORK	4	1000g
2	SOUP	1	200g			5	1100g
		2	400g			6	1200g
3	CASSEROLE	3	600g			7	1300g
		4	800g	9	ROAST CHICKEN	1	700g
4	VEGETABLE I	-	680g			2	800g
						3	900g
5	VEGETABLE II	-	450g			4	1000g
						5	1100g
						6	1200g
6	FISH FILLETS	-	450g			7	1300g
						8	1400g
						9	1500g

SPEEDY COOK

1. Push ⚡ button
   Then start lamp will start blinking.



Whenever the button is pressed, cooking time is increased 30 seconds. If the time was setting, this oven is operated automatically after 2 seconds to microwave high power.

NOTE : This key is increased from 30 seconds to 5 minutes.
If you are pressing more than about 0.5 seconds, the time is increased 30 seconds continuously.

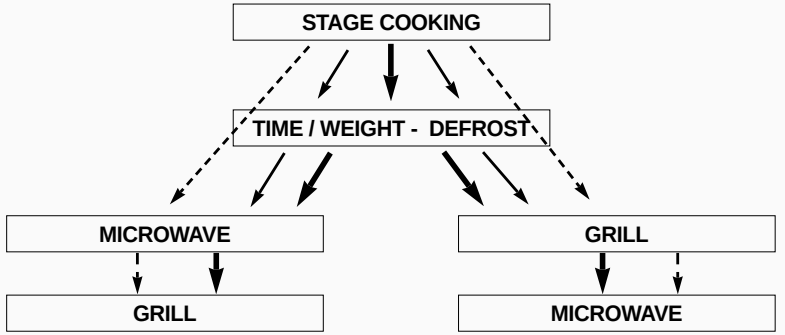
CHILD SAFETY LOCK

¡ The safty lock prevents unwanted oven operation such as by small children.
¡ To set, press STOP/CLEAR for 3 seconds, lock indicator light starts blinking.
¡ To cancel, press STOP/CLEAR for 3 seconds, lock indicator goes off.

PROGRAMMING COMBINATIONS

STAGE COMBINATIONS

This oven has the ability to be programmed to do up to three consecutive functions. These combinations are given below and either the complete program or part of it can be used.



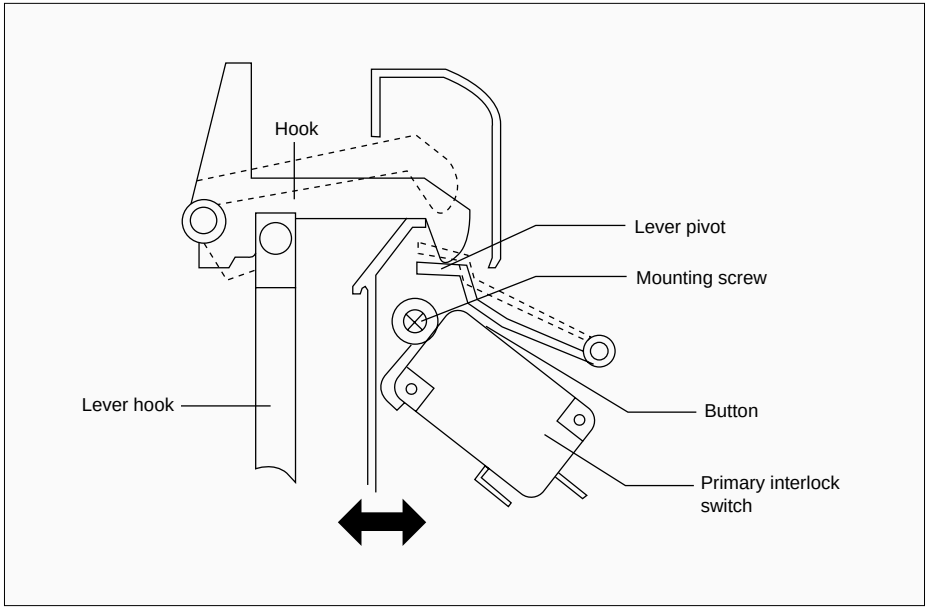
* When you set stage mode, indicator is lighted only setting.
* When you press START button, all indicators of setted functions are lighted, and

INTERLOCK MECHANISM FUNCTIONS AND ADJUSTMENTS

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.

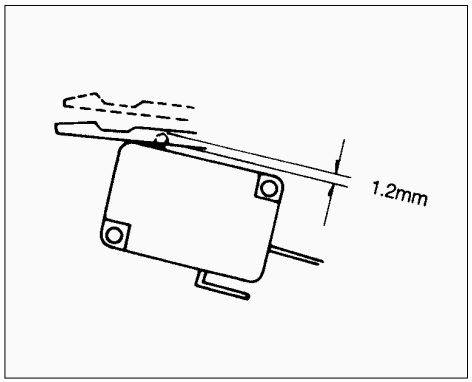
(1) Primary interlock switch

When the door is closed, the hook will lock the oven door.
If the door is not closed properly, the oven will not operate.
When the door is closed, the hook pushes the lever downward.
The lever presses the button of the primary interlock switch to bring it under 'ON' condition.



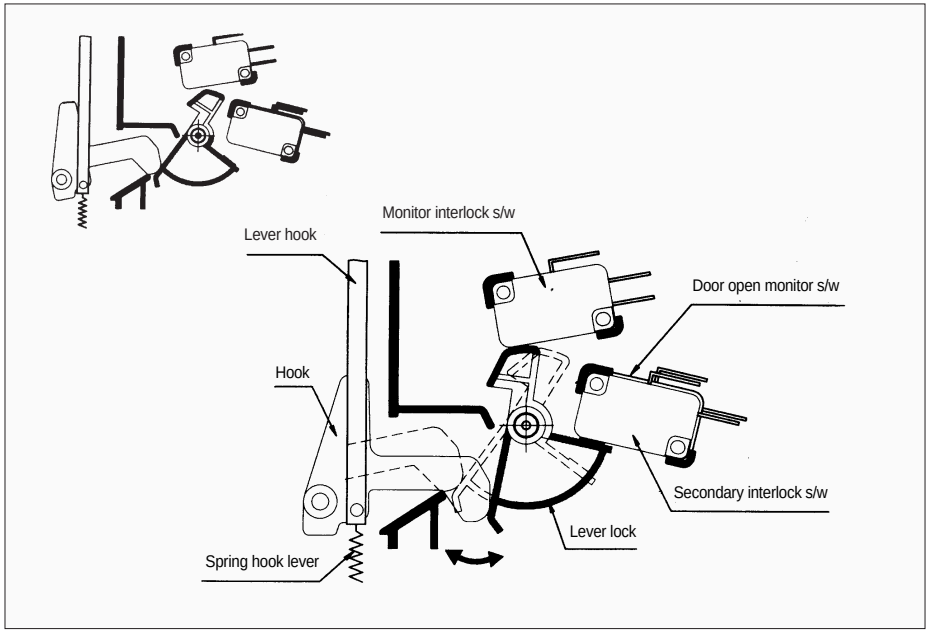
Adjustment 1

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



(2) Secondary interlock switchm, monitor interlock switch and D.O.M switch

When the door is closed, the hook pushes the lever lock forward, and the lever presses the button of the interlock monitor switch to bring it under 'OFF' condition. Simultaneously, the lever lock presses the button on the secondary interlock switch and D.O.M switch to bring it under 'ON' condition.



Adjustment 2

Interlock monitor switch
When the door is closed, the monitor switch should be opened before other switches closed.
When the door is opened, the monitor switch should be closed after other switches opened.

Secondary interlock switch and D.O.M switch
The movement of the switch button should exceed 1.2mm measured at the top of the button.

Adjustment step:

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

PRECAUTIONS FOR DISASSEMBLY AND REPAIR

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

1. Check the earthing.

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

2. Warning about the electric charge in the high voltage capacitor. (Refer to Fig. 1)

For about 30 seconds after the operation stops, electric charge remains in the high voltage capacitor. When replacing or checking parts, short between oven chassis and the negative high terminal of the high voltage capacitor, by using a properly insulated screw driver to discharge.

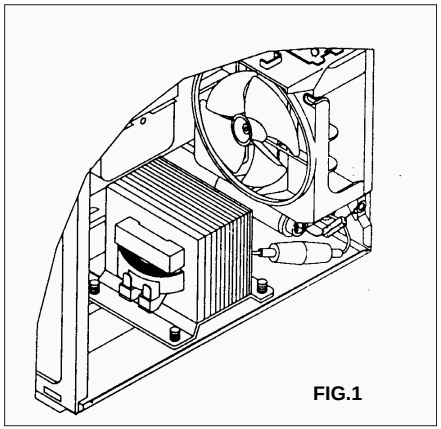


FIG.1

(4) When the fuse(normal blow type) is blown out due to the operation of the monitor switch; replace primary, secondary interlock switch and monitor switch.
Refer 18~19 page for the necessary adjustment.

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

(6) Do not operate without cabinet.

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

WARNING: When servicing the appliance, care is required when touching or replacing high potential parts due to electrical shock or exposure of microwave energy. These parts are as follows-H.V. transformer, Magnetron, H.V. Capacitor, H.V. Diode.

DISASSEMBLY AND ASSEMBLY

1. To remove cabinet (Refer to Fig. 2)

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

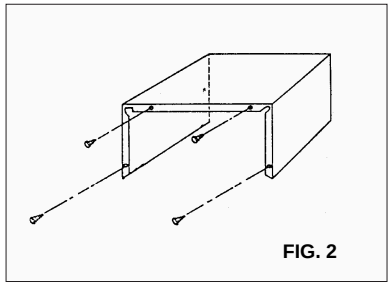


FIG. 2

2. To remove parts of guide wind assembly (Refer to Fig.3)

1) Release the earth screw (F57)
2) Remove the noise-filter (F52) to the guide wind (F42) .
3) Pull the fan (F45) to the motor shaft.
4) Release two screws (F44) Which secure the motor shaded pole (F43) .
5) Remove the motor shaded pole.
6) Release a screw (F48) Which secure the holder capacitor (F47) .
7) Remove the holder capacitor and capacitor (F46) to the guide wind.
8) Remove the diode H.V (F49) .
9) Reverse the above steps for reassembly.

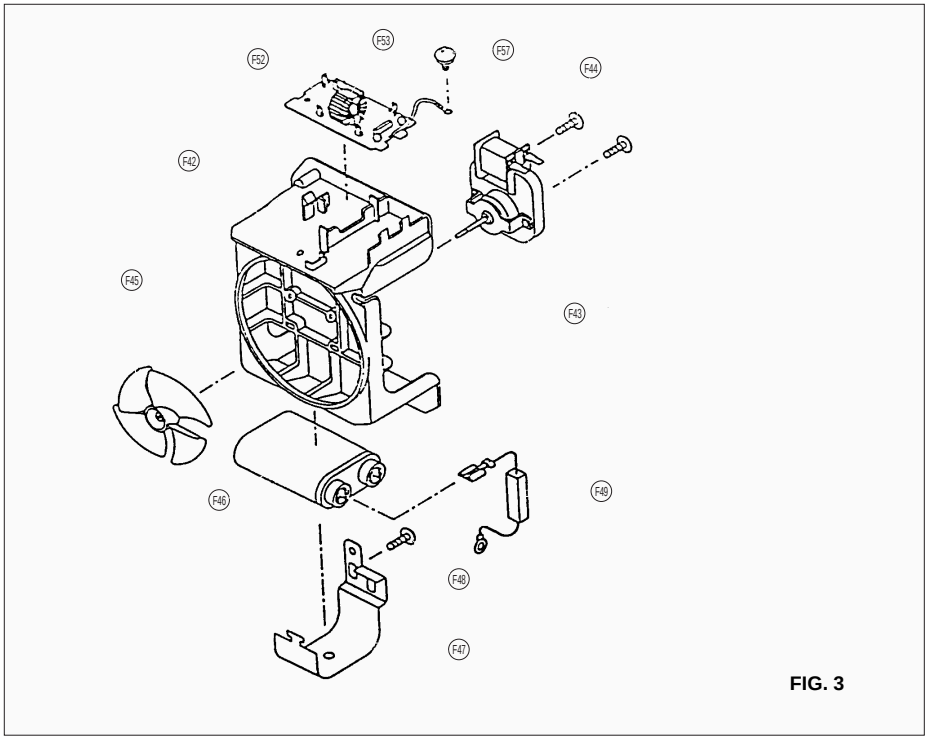


FIG. 3

3. To remove lamp (Refer to Fig. 4)

1) Remove a screw (F37) holding lamp (F36) to the guide air (F34)
2) Remove the lamp.
3) Reverse the above steps for reassembly.

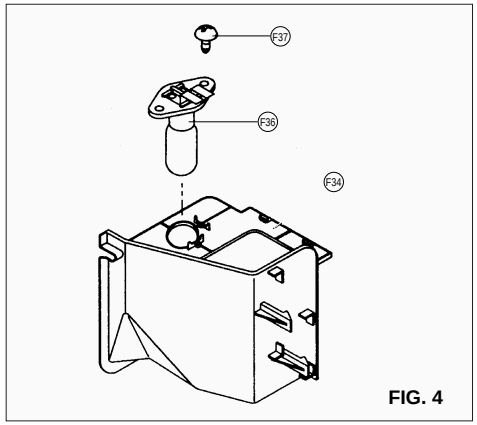


FIG. 4

4. To remove H.V. Transformer (Refer to Fig. 5)

1) Remove four screws (F22) which secure the H.V. Transformer bracket to the base plate.
2) Remove the H.V. Transformer (F21)

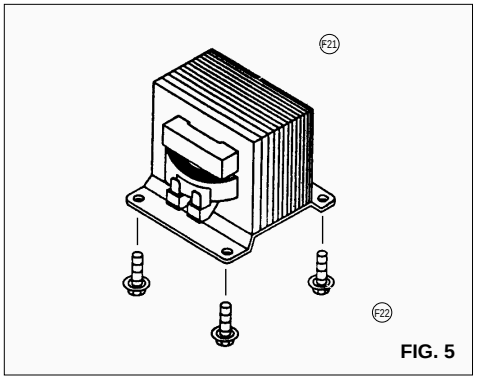
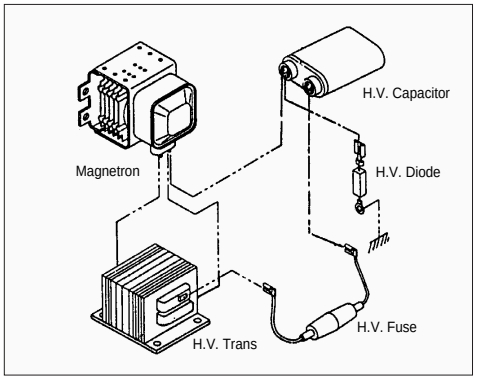


FIG. 5

High voltage circuit wiring



5. To remove magnetron and magnetron thermostat (Refer to Fig. 6)

1) Remove two secrews (F26) which secure the thermostat (F25)
2) Remove the thermostat.
3) Remove three screws (F24) which secure the magnetron (F23).
4) Remove the magnetron.
5) Reverse the above steps for reassembly.

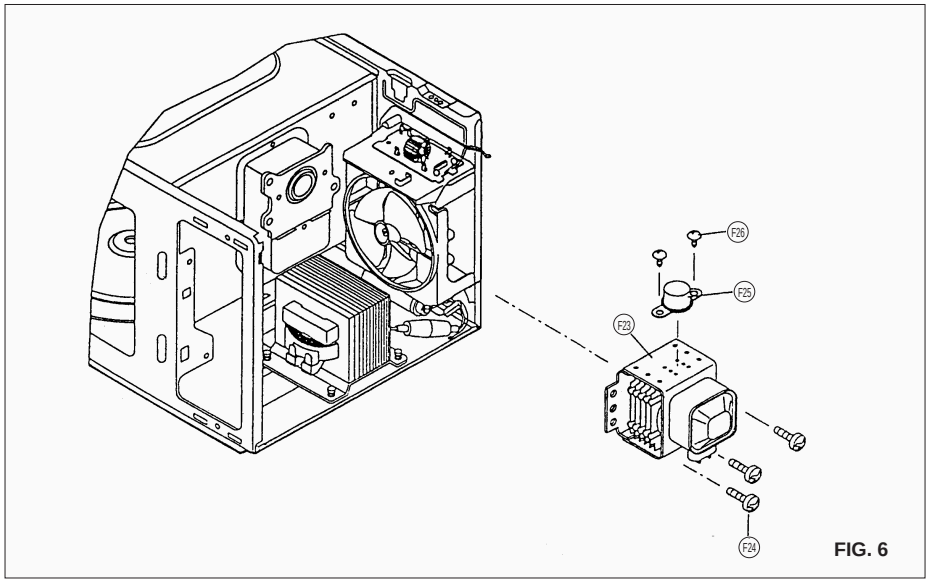
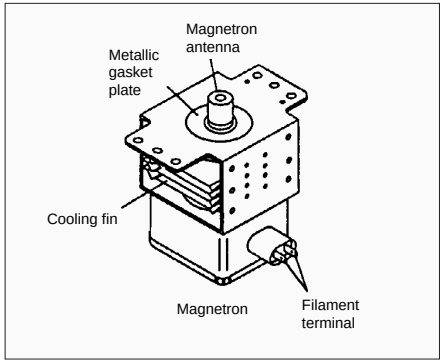
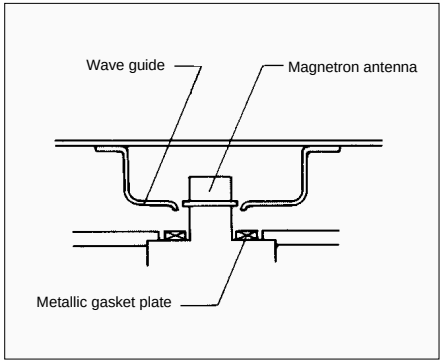


FIG. 6

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.





6. To remove parts of control panel assembly (Refer to Fig. 7,8)

1) Remove a screw holding control panel assembly to the oven front plate. At the same time, draw forward the control panel assembly from oven front plate.
2) Pull forward the knob volume (B11) to take out (B11) (B12) (B13) simultaneouly
3) Remove three screws (B9) which secure the PCB main assembly (B7) to control panel (B1) .
4) Remove six screws (B9) which secure the PCB sub assembly (B6) to control panel (B1).
5) Remove button function (B5) , button function (B4) , window display (B3) , decorator ring (B2), cover LED (B14) from the control panel (B1).
6) Remove decorator knob (B10) from control panel (B1).
7) Reverse the above steps for reassembly.

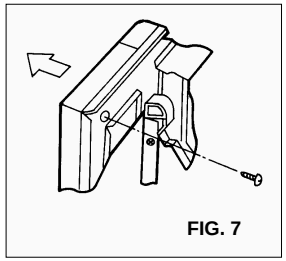


FIG. 7

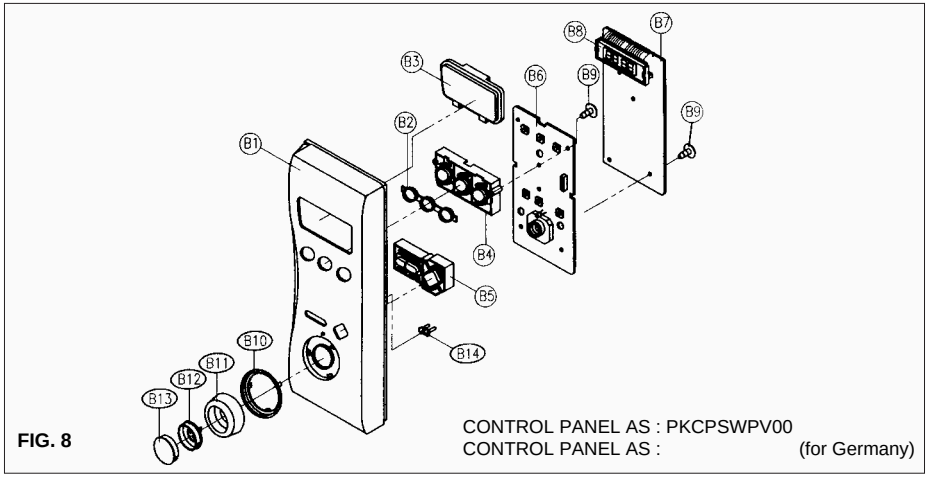


FIG. 8

CONTROL PANEL AS : PKCPSWPV00
CONTROL PANEL AS : (for Germany)

REF.NO	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
B1	3516714000	CONTROL-PANEL	ABS	1	
B2	3511602000	DECORATOR RING	ABS	1	GOLD COLOR
	3511602010	DECORATOR RING	ABS	1	
B3	3515500700	WINDOW DISPLAY	PMMA	1	SMOG
B4	3516904500	BUTTON FUNCTION	ABS	1	
B5	3516904510	BUTTON FUNCTION	ABS	1	
B6	PKBPMSPV00	PCB SUB AS	KOG-846T ØS	1	
		PCB SUB AS	KOG-846T	1	For Germany
B7	PKMPMSPV00	PCB MAIN AS	KOG-846T ØS	1	MAIN
		PCB MAIN AS	KOG-846T	1	For Germany
B8	3513002000	HOLDER VFD	PP	1	
B9	7621301011	SCREW TAPPING	T2 PAN 3X10 PW MFZN	9	
B10	3511601300	DECORATOR KNOB	ABS	1	GOLD COLOR
	3511601310	DECORATOR KNOB	ABS	1	
B11	3513402000	KNOB VOLUME	ABS	1	
B12	3516902800	BUTTON START *I	ABS	1	
B13	3516902900	BUTTON START *0	ABS	1	MILKY
B14	3511403900	COVER LED	SAN	1	

7. To remove door assembly (Refer to Fig. 9)

1) Remove two bolts (F19) and two nuts (F20) which secure to hinge.
2) Remove door assembly (A00).
3) Remove door above for reassembly taking case to replace fixing glue.

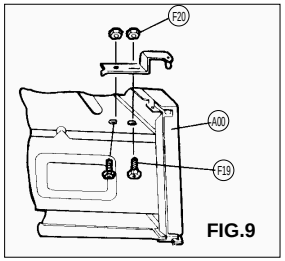


FIG.9

8. To remove door parts (Refer to Fig. 10)

1) Remove the frame door (A9) and barrier-screen (A8).
2) Remove the absorber microwave (A7).
3) Pull the two fixture hook (A5).
4) Remove the spring hook (A6).
5) Remove two hooks (A3) , and lever hook (A4) .

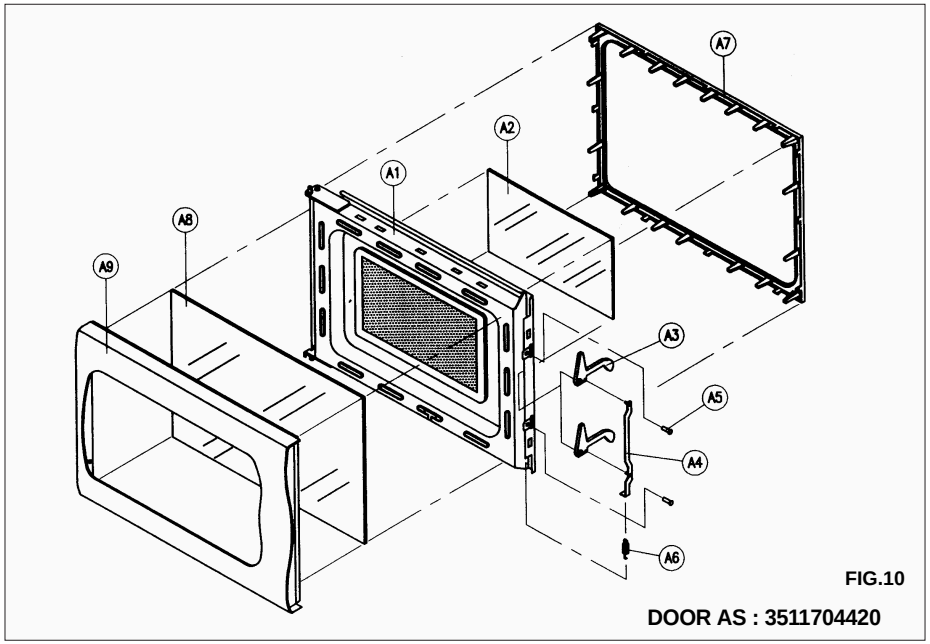


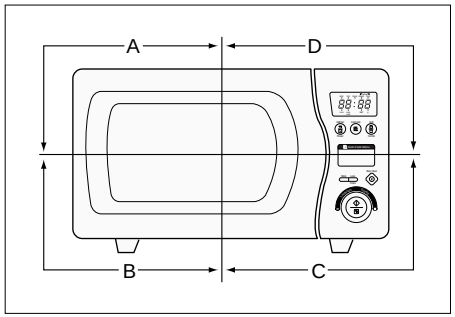
FIG.10

DOOR AS : 3511704420

REF.NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
A1	3511704600	DOOR PAINTING AS	KOG-840KS	1	
A2	3517001800	BARRIER-SCREEN *I	TEMPERED GLASS 3.2T	1	
A3	3513100600	HOOK	POM	2	
A4	4413A44001	LEVER HOOK AS	KOR-640	1	
A5	4413A40052	FIXTURE HOOK	SWRM3 Ø5.5XL12.5	2	
A6	441G448071	SPRING HOOK	SWPA80	1	
A7	3510100300	ABSORBER MICROWAVE	PAI+FERRITE	1	
A8	3517003600	BARRIER-SCREEN *O	GLASS 3.0T	1	
A9	3512203000	FRAME DOOR	ABS	1	

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

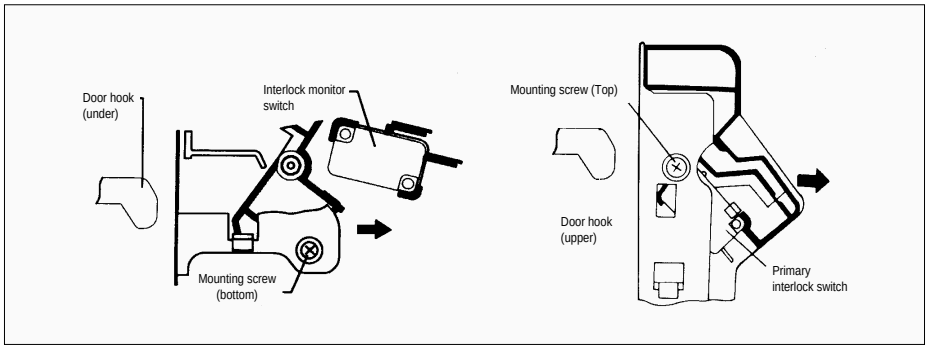
(1) To reduce gap located on part 'A'.
1) Loosen a Hex Bolt on top door hinge, then push the door to contact the door seal to oven front surface.
2) Tighten a Hex Bolt.



(2) To reduce gap located on part 'B'.
1) Loosen a Hex Bolt on bottom hingle, then push the door to contact the door seal to oven front surface.
2) Tighten a Hex Bolt.

(3) To reduce gap located on part 'C'
1) Remove the cabinet.
2) Loosen a screw on interlock switch assembly located bottom of oven body.
3) Draw the interlock switch assembly inward as possible to engage with hook on the door bottom.
4) Tighten a screw.

(4) To reduce gap located on part 'D'.
1) Remove the cabinet.
2) Loosen a screw on interlock switch assembly located top of oven body.
3) and (4) are same as step (3).



NOTE : Small gap may be acceptable if the microwave leakage does not exceed 1mW/cm2.

NOTE : The door on a microwave oven is designed to act as an electronic seal preventing the leakage of microwave energy from the oven cavity during the cook cycle, This function does not require that the door be air-tight, moisture (condensation) - tight or light-tight. Therefore, the occasional appearance of moisture, light or the sensing of gentle warm air movement around the oven door is not abnormal and do not of themselves, indicate a leakage of microwave energy from the oven cavity. If such were the case, your oven could not be equipped with a vent, the very purpose of which is to exhaust the vapor-laden air from the oven cavity.

10. To remove tray motor (Refer to Fig. 11)

1) Cut the tray motor cover parts from the base plate (Refer to Fig 11, 12).
2) Remove the tray motor cover.
3) Remove two screws (F12) which secure the tray motor (F11) to tray motor bracket.
4) Remove the tray motor.

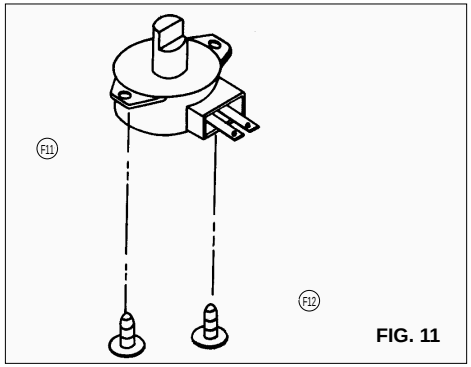


FIG. 11

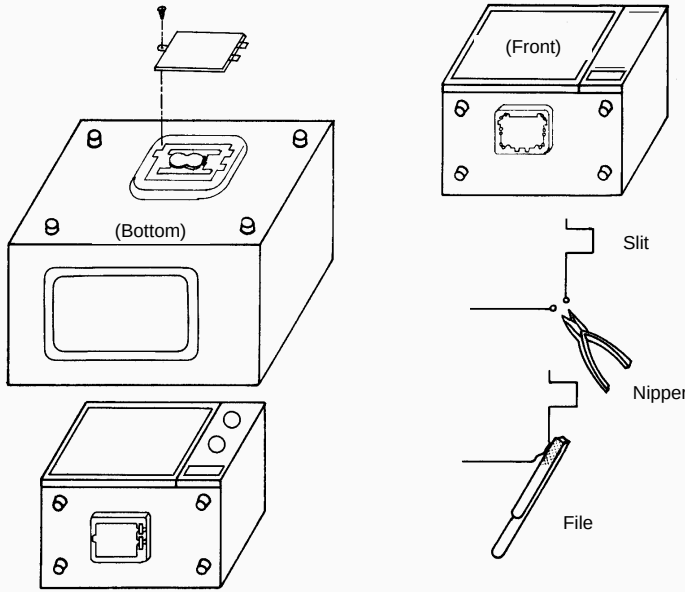


FIG. 12

11. To remove grill heater assembly (Refer to Fig. 13)

1) Release three hex nuts (F10) holding the Grill Heater Assembly (F9) to top and side plate.
2) Remove Grill heater Assembly.

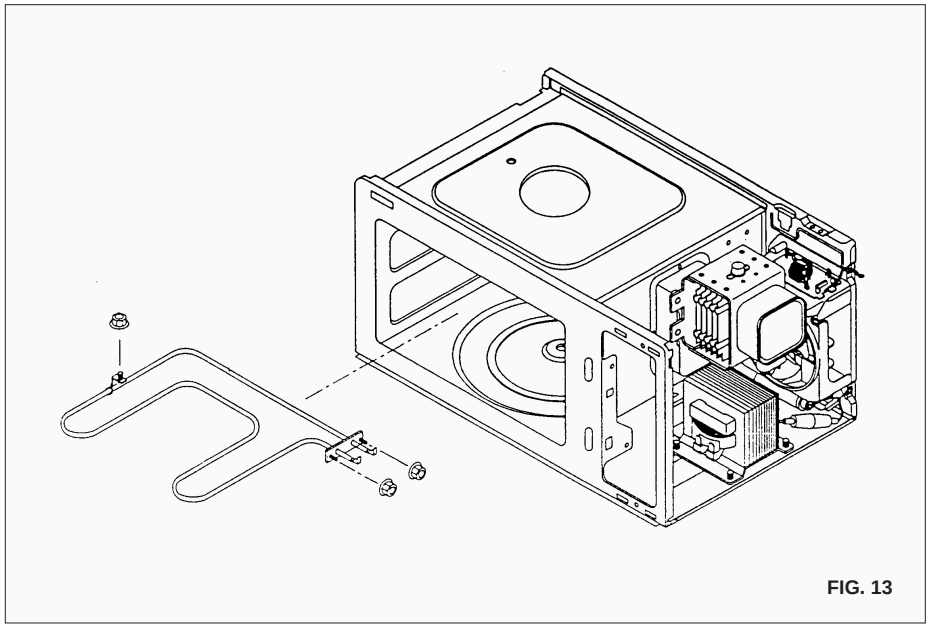


FIG. 13

TROUBLE SHOOTING GUIDE

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

1. Check earthing before fault finding.
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 or replaced, 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

Condition	Check	Result	Cause	Remedy
Fuse blows	Check continuity of interlock monitor switch with door closed (COM ¡ÆNC)	(COM ¡ÆNC) Continuity	Malfunction of interlock monitor switch	Replace Note 1.
		(COM ¡ÆNC) No Continuity		
	Check continuity of both primary and secondary interlock switch with door closed	No Continuity	Malfunction of interlock switch	Replace Note 1.
		Continuity		
	Check continuity of primary interlock switch contact with door partially open until interlock monitor switch contact close (COM ¡ÆNC close)	Continuity	Shorted contacts of primary interlock switch	Replace Note 1.
	Check continuity of primary winding of low voltage transformer.	0 Ω or infinite	Defective low voltage transformer	Replace
		Approx. 150~210 (normal)		
	Disconnect high voltage fuse and operate the unit.	Fuse again blows	Defective high voltage transformer	Replace

Condition	Check	Result	Cause	Remedy
Outlet has proper voltage. Fuse does not blow	Check continuity both magnetron and heater thermostat	No Continuity	Defective magnetron and heater thermostat	Replace
	check continuity of noise filter board	No Continuity	Defective line filter board	Replace
	Check continuity of power supply cord	No Continuity	Open power supply cord	Replace
		Normal	Defective touch control circuit	Replace

NOTE 1 : All these switches must be replaced at the same time, please refer to page 18 and 19 for adjustment instructions.

(TROUBEL 2) Heater does not heat (Food will not become hot).

Condition	Check	Result	Cause	Remedy
Grill heater does not heat	Check continuity both primary interlock switch	No Continuity	Malfunction of primary interlock switch	Adjust or replace
	Check continuity of heater thermostat	No Continuity	Defective heater thermostat	Replace the heater thermostat
	Check continuity of secondary interlock switch	No Continuity	Malfunction of secondary interlock switch	Adjust or replace
	Check continuity of heater	No continuity	Defective heater	Replace
	Check D.C. voltage being supplied to RELAY (RY3) coil	0V	Defective touch control circuit	Replace
		Approx. -16V DC	Faulty contacts of RELAY (RY3) or open relay coil	Replace

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

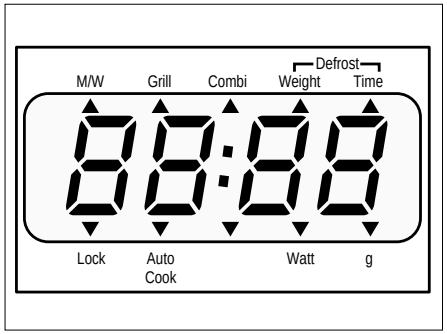
Condition	Check	Result	Cause	Remedy
No microwave oscillation	Check continuity of high voltage fuse	No Continuity		
	Check continuity of high voltage capacitor terminals with wires removed	Continuity	Defective high voltage transformer	Replace
	Check continuity of high voltage recitifier in forword and backward direction with DC megger	Continuity in backward direction	Defective high voltage rectifier	Replace
	Connect megger leads to magnetron terminal and magnetron body	Continuity	Defective magnetron	Replace
	Check resistance of primary and secondary coil of high voltage transformer	0 Ω or ∞	Defective high voltage transfromer	Replace
	Check continuity of magnetron heater with wires removed	No Continuity	Defective magnetron	Replace
	Check continuity of filament terminal of high voltage transformer	No Continuity	Defective high voltage transfromer	Replace
	Check D.C. voltage being supplied to RELAY(RY1) coil	0V	Defective touch control circuit	Replace
		Approx. -16V DC	Faulty contacts of RELAY(RY1) or open relay coil	Replace

(TROUBLE 4) Display shows all figures selected, but oven does not start cooking, even

Condition	Check	Result	Cause	Remedy
Turn table motor, fan motor and oven lamp do not turn on	Check continuity of primary interlock switch	No Continuity	Malfunction of primary interlock switch	Adjust or replace
	Check continuity of secondary interlock and D.O.M. switch	No Continuity	Malfunction of secondary interlock and D.O.M. switch	Adjust or replace
	Check D.C. voltage being supplied to RELAY (RY2) coil.	0V	Defective touch control circuit	Replace
		Approx. -16 VDC	Faulty contacts of RELAY (RY2) or open relay coil	Replace

(TROUBLE 5) The following visual conditions indicate a probable defective touch control circuit.

1. Incomplete segments.
   (A) Segments missing.
   (B) Partial segments missing.
   (C) Digit flickering other than normal fluorescent slight flickering.
   (D) "0:00" does not display when power is on.
2. A distinct change in the brightness of one or more numbers is in the display.
3. One or more digits in the display are not on when they should be.
4. Display indicates a number different from one setted.(For example, when 5 setted, 3 appears in the display.)
5. Specific numbers (for example 2 or 3) do not display when the dial knob is rotated.
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 can not shift from the first stage cooking to the third stage cooking while 3 phase cooking (including defrost).
11. Display does not show the time of day when clear button is pressed.
12. Oven lamp, fan motor and turn table motor do not stop although cooking is finished. Check if the RELAY (RY2) contacts close if they are close, replace touch control circuit.



Condition	Check	Result	Cause	Remedy
Display does not show program-ming at all, even if button key is pressed	Check each button for continuity of the tact switch keyboard as the following keyboard check procedure.	Normal	Malfunction of touch control circuitry of control box main-assembly	Replace control box main assembly
		Abnormal	Malfunction of touch control circuitry of control box sub-assembly	Replace control box sub-assembly

NOTE : Before following the particular steps listed above in the trouble shooting guide for failure, please check for the continuity of each wire-harness between the tact switch keyboard and PCB assembly.

KEYBOARD CHECK PROCEDURE

1. Type of encoding and key names

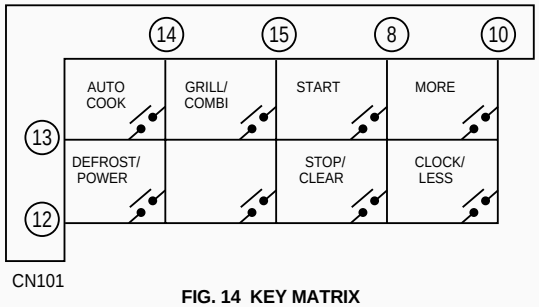


FIG. 14 KEY MATRIX

The tact switch keyboard consists of 7 keys whose configurations are described above.

2. Key check procedure

To determine if the tact switch keyboard is defective or not, check the continuity of each button contacts with a multimeter.

1) AUTO COOK button : Between 14 and 13
2) GRILL/COMBI button : Between 15 and 13
3) START button : Between 8 and 13
4) MORE button : Between 10 and 13
5) DEFROST/POWER button : Between 14 and 12
6) STOP/CLEAR button : Between 8 and 12
7) CLOCK/LESS button : Between 10 and 12

MEASUREMENT

1. Microwave Output Power

1-1. Standard Method

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.

1) Microwave power output measurement is made with the microwave oven supplied at rated voltage and operated at its maximum microwave power setting with a load of 1,000 ¡ 5cc of potable water.
2) The water is contained in a cylindrical borosilicate glass vessel having a maximum material thickness of 3 mm and an outside diameter of approximately 190 mm.
3) The oven and the empty vessel are at ambient temperature prior to the start of the test. The initial temperature of the water is 10 ¡ 2 ¡ÆC(50 ¡ 3.6 ¡ÆF). 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. (Fig. 15).
4) Microwave power is switched on.
5) Heating time should be exactly 47 seconds. Heating time is measured while the microwave generator is operating at full power. The filament heat-up time magnetrons is not included.
6) The initial and final water temperatures are selected so that the maximum difference between the ambient and final water temperatures is 5K.
7) The microwave power output P in watts is calculated from the following formula:

$$P = 4187 \times \Delta T / t$$

• ΔT is actual temeprature rise.
• T is the heating time.

The power measured should be 900W ¡ 10 %.

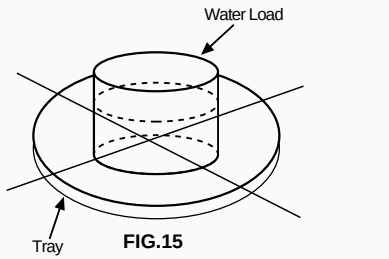


FIG.15

CAUTION :

1. Water load should be measured exactly to 1 litre.
2. Input power voltage should be exactly volts as specified.
3. Ambient temperature should be 20 ¡ 2 ¡ÆC

2. Electrical Continuity Check of Interlock Switch

2-1. Procedure

NOTE : Remove the power plug from the wall receptacle before testing.

1. Primary Interlock Switch

1) Disconnect two connectors from Primary Interlock Switch.
2) Connect the ohmeter leads between the terminals of the primary interlock switch.
3) Read the value of resistance between the terminals of the switch, when the door is opened, and when the door is closed.

2. Secondary Interlock Switch

1) Disconnect two connectors from secondary interlock switch.
2) Connect the ohmeter leads between the terminals of the secondary interlock switch.
3) Read the value of resistance between the terminals of the switch, when the door is opened, and when then oven door is closed.

3. Interlock Monitor Switch

1) Disconnect the lead wire connecting the primary interlock switch and interlock monitor switch from primary interlock switch terminal.
2) Connect the ohmeter leads between the lead wire connector disconnected as item '1' and the power supply neutral plug pin.
3) Read the value of resistance between the lead wire connector and the power supply neutral plug pin, when the oven door is opened, and when the oven door is closed.

2-2 Judgement

The value of resistance should be applied to the value specified below.

Door	Open	Closed
Primary Interlock Swtich	∞	
Secondary Interlock Switch	∞	0
Interlock Monitor Circuit	0	∞

When value obtained is not acceptable, the switch should be replaced or adjusted again.

3. Microwave Leakage Test

3-1. Warning

1) DO NOT place your hands into any suspected microwave leakage field unless the safe density level is known.
2) Always start measuring of an unknown field to assure safety for operating personnel from microwave energy.
3) Slowly approach the unit under test until the radiometer reads an appreciable leakage from the unit under test.
4) Care should be taken not to place the eyes in direct line with the source of microwave energy.

3-2 Method

The power density of the microwave leakage emitted by the microwave oven should not exceed 1mW/cm^2 at any point 50mm (2 in.) or more away from the external surface of the oven as measured prior to acquisition by a purchaser and thereafter once the oven is in use, 4mW/cm^2 at any point 50mm(2 in.) or more away from the external surface of the oven, checks to be made around the whole of the door seal and on each of the main unit surface.

Measurements should be made with the oven operating at its maximum output and containing a load of 275 ¡ 15 millilitres of tap water initially at 68 ¡ 9 ¡ÆF (20 ¡ 5 ¡ÆC) placed within the cavity at the center of the load carrying surface provided by the manufacture. The water container should be a low from 600 milliliters beaker having an inside diameter of approximately 85mm (3-11/32 in.) and made of an electrically nonconductive material such as glass or plastic.

3-3. Procedures

1) Prepare 600cc glass or plastic container.
2) Pour 275 ¡ 15 millilitres of tap water initially at 68 ¡ 9 ¡ÆF(20 ¡ 5 ¡ÆC) in the container.
3) Place it at the centre of the tray.
4) Operate oven.
5) measure the microwave leakage using an approved microwave leakage meter after a few minutes of operation.

NOTE : The scan rate should not exceed 1 inch/sec.

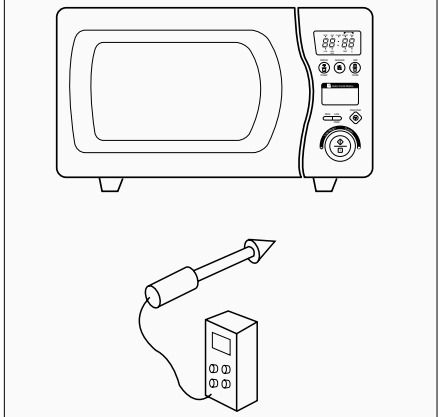


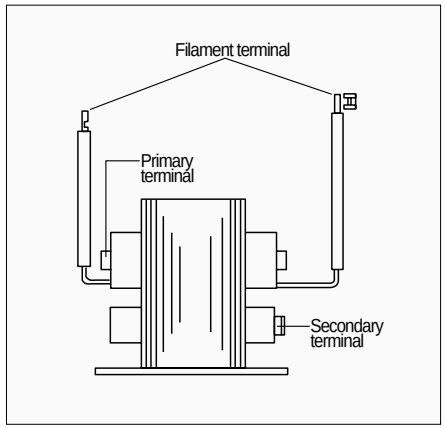
FIG. 16

COMPONENT TEST PROCEDURE

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cook cycle.
2. It is neither necessary not advisable to attempt measurement of the high voltage.
3. Before touching any oven components or wiring, always unplug the oven from its power source and discharge the capacitor (see page 20).

1. High voltage transformer

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



2. High voltage capacitor

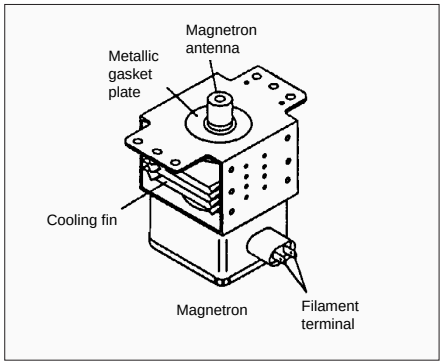
(A) Check continuity of capacitor with meter on the highest OHM scale.
(B) A normal capacitor will show continuity for a short time, and then indicate 9MΩ once the capacitor is charged.
(C) A shorted capacitor will show continuous continuity.
(D) An open capacitor will show constant 9MΩ.
(E) Resistance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

3. High voltage diode

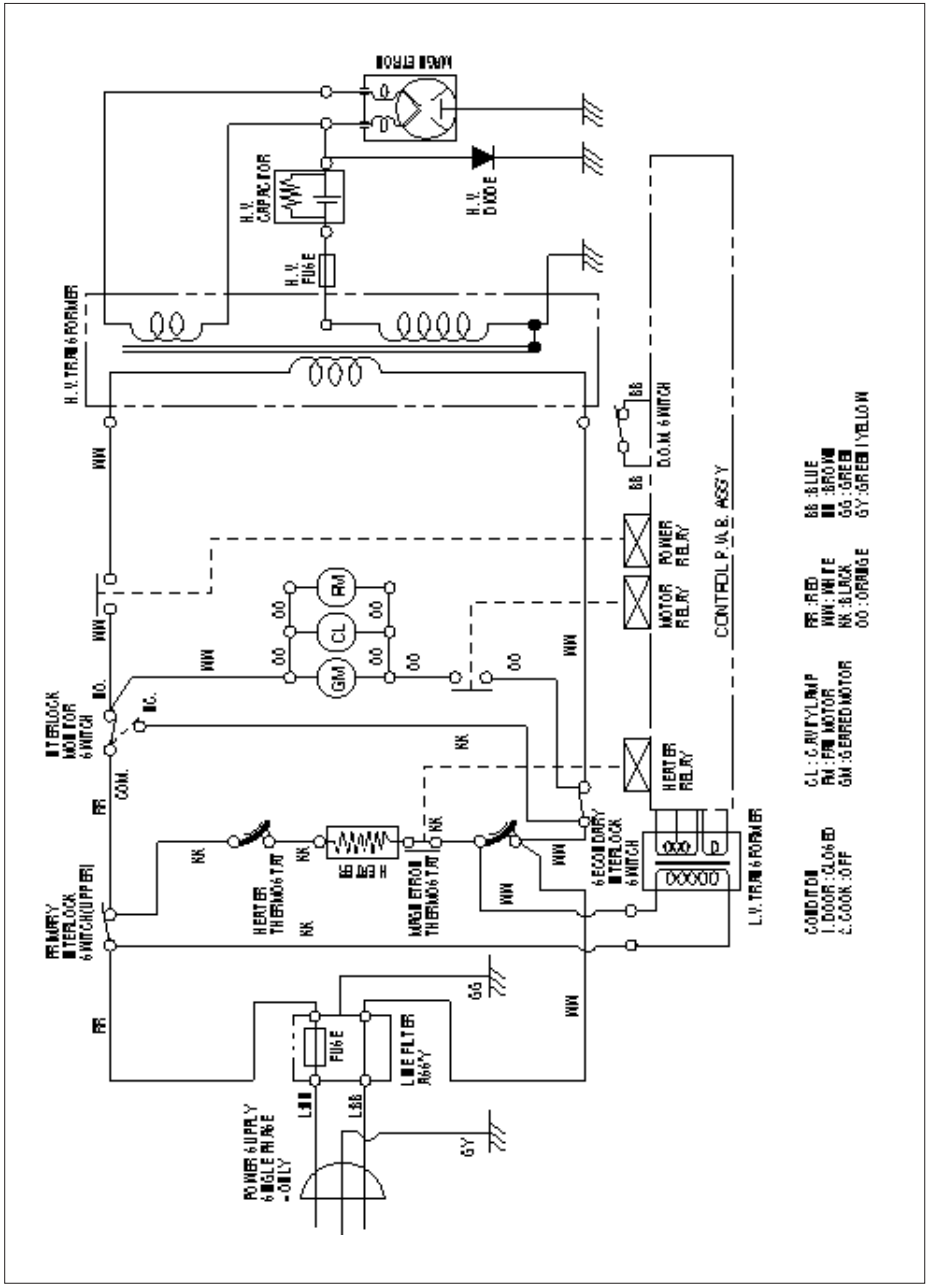
The high voltage diode is located on the base near the transformer.
(A) Isolate the diode from the circuit by disconnecting the leads.
(B) With the ohmmeter set on the highest resistance scale, measure the resistance across the diode terminals.
Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-to-back resistance of the diode, otherwise an infinite resistance may be read in both directions. A normal diodes resistance will be infinite in one direction and several hundred KΩ in the other direction.

4. Magnetron

For complete magnetron diagnosis, refer to "Measurement of the Microwave Output Power". Continuity checks can only indicate and open filament or a shorted magnetron. To diagnose for an open filament or shorted magnetron.
(A) Isolate magnetron from the circuit by disconnecting the leads.
(B) A continuity check across magnetron filament terminals should indicate one ohm or less.
(C) A continuity check between each filament terminal and magnetron case should read open.

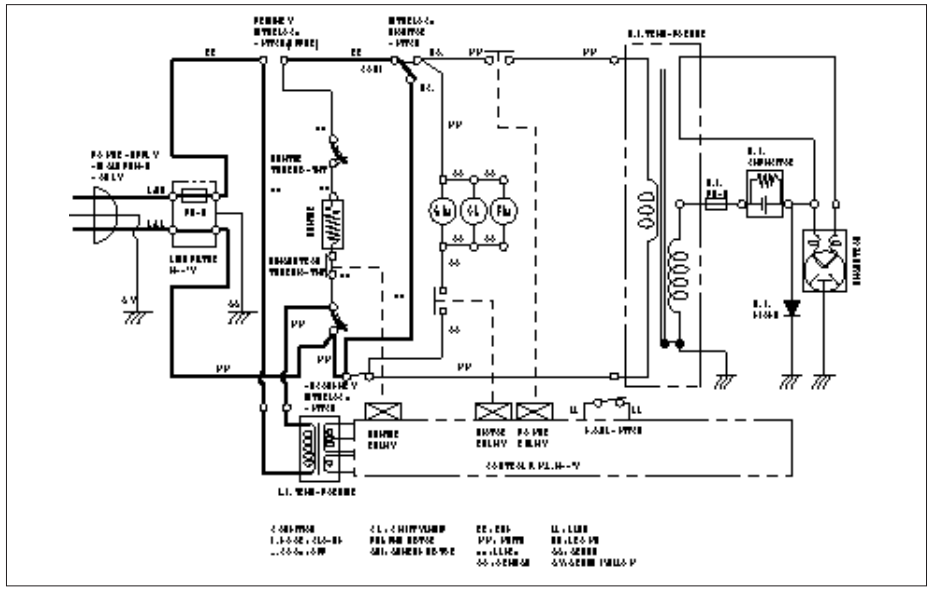


WIRING DIAGRAM

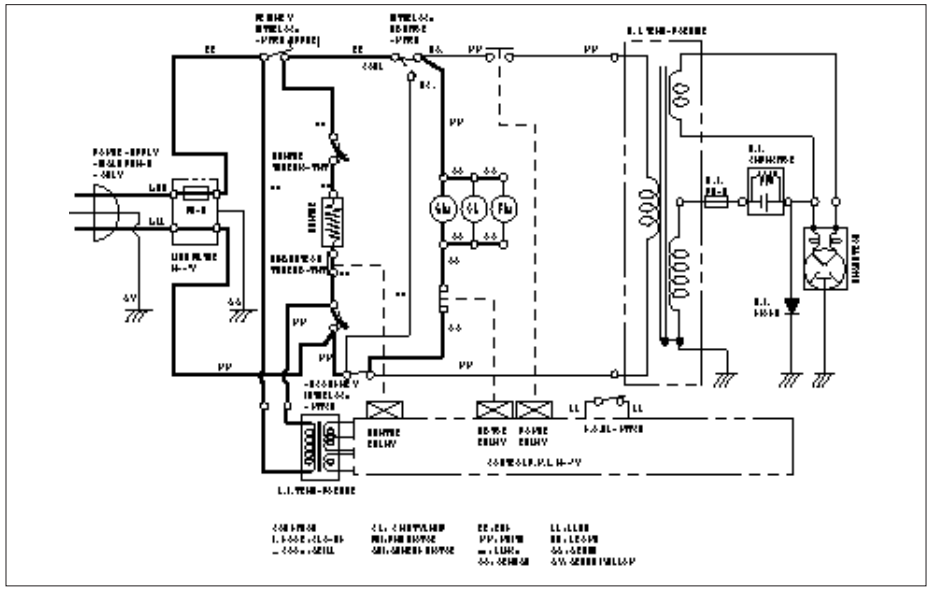


SCHEMATIC DIAGRAMS

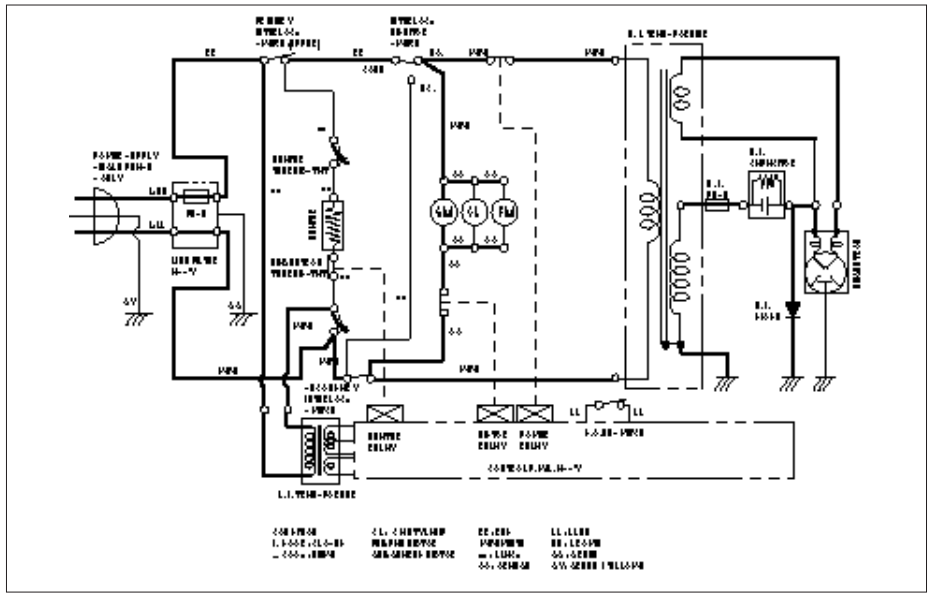
IDLE



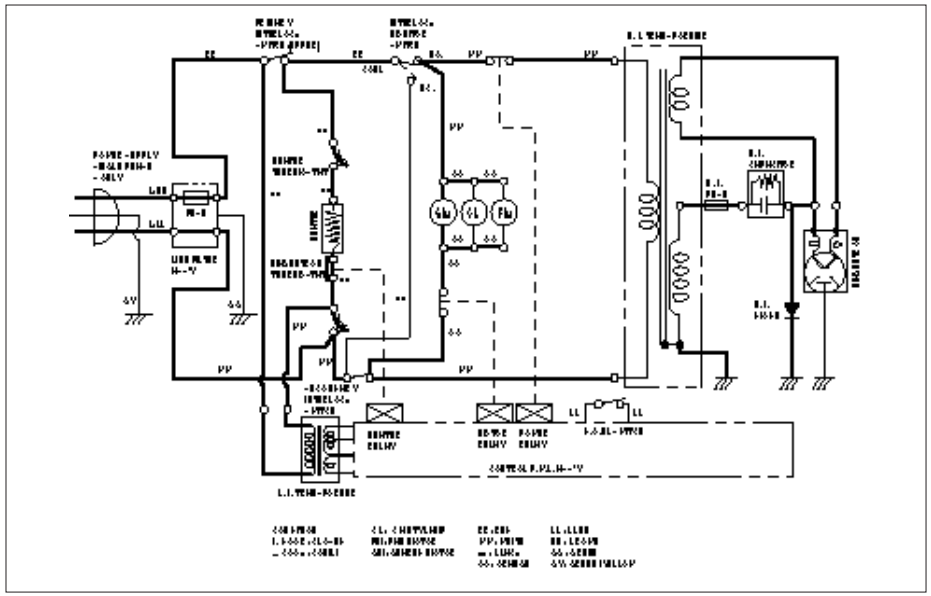
GRILL



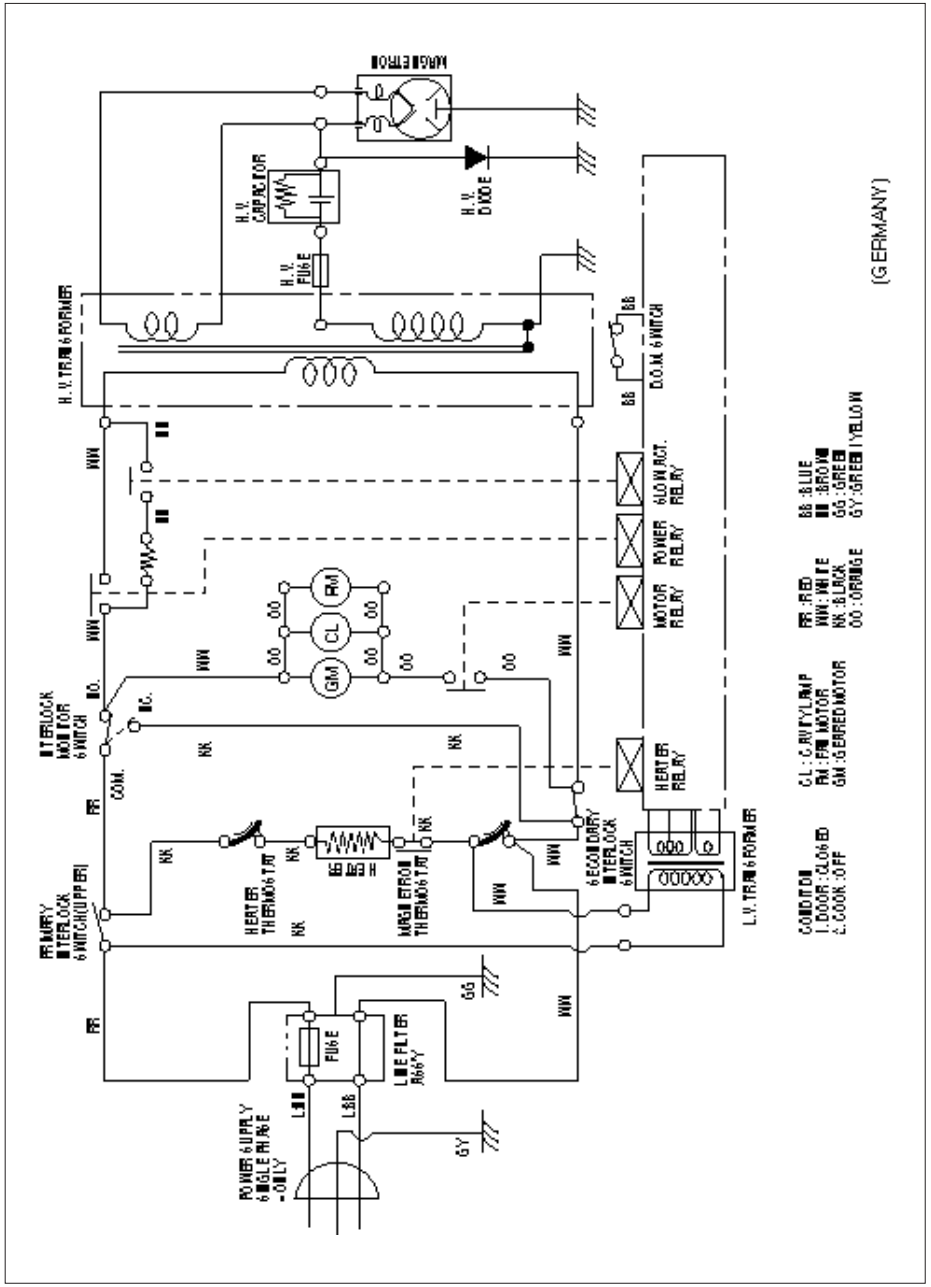
M/W



COMBI

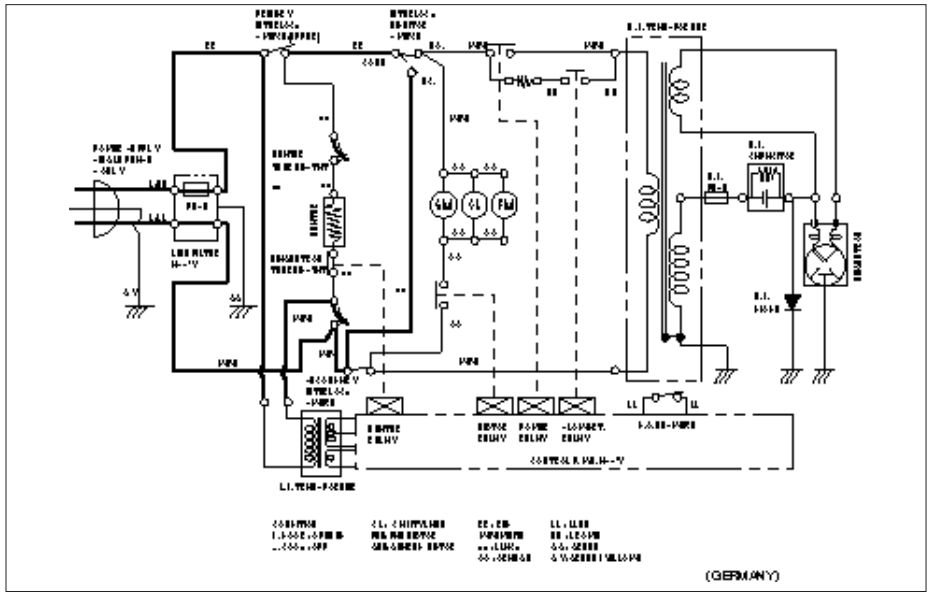


WIRING DIAGRAM(GERMANY ONLY)

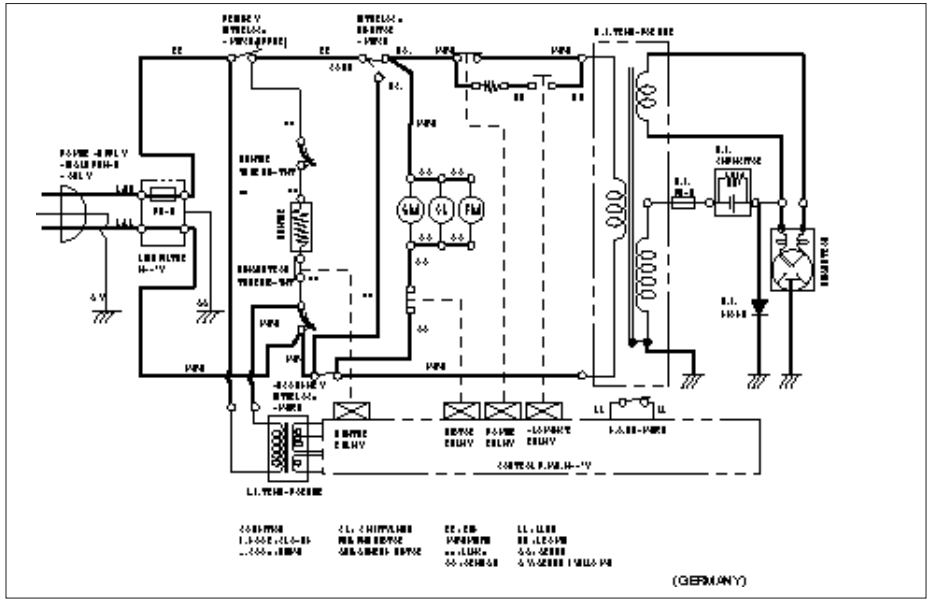


SCHEMATIC DIAGRAMS (GERMANY ONLY)

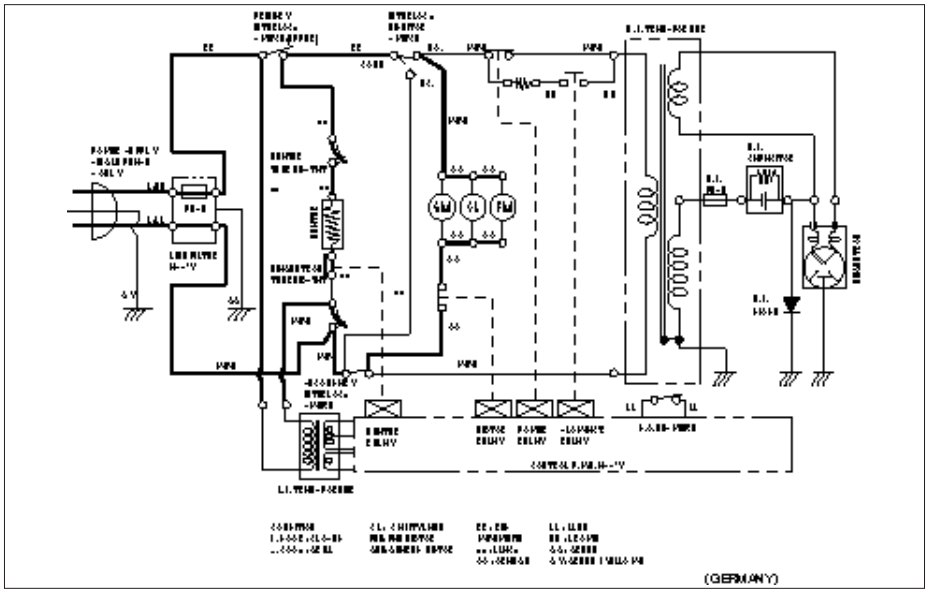
IDLE



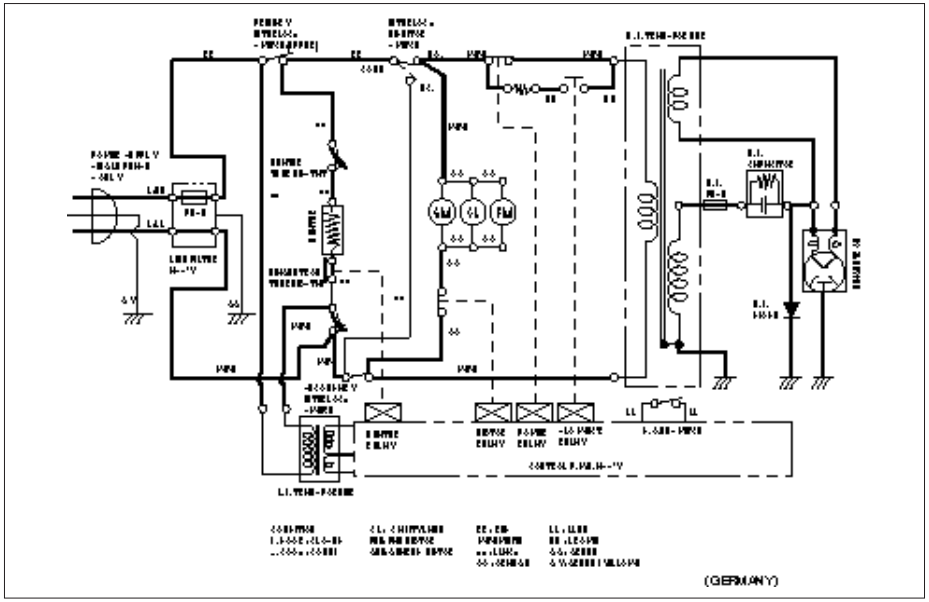
M/W



GRILL



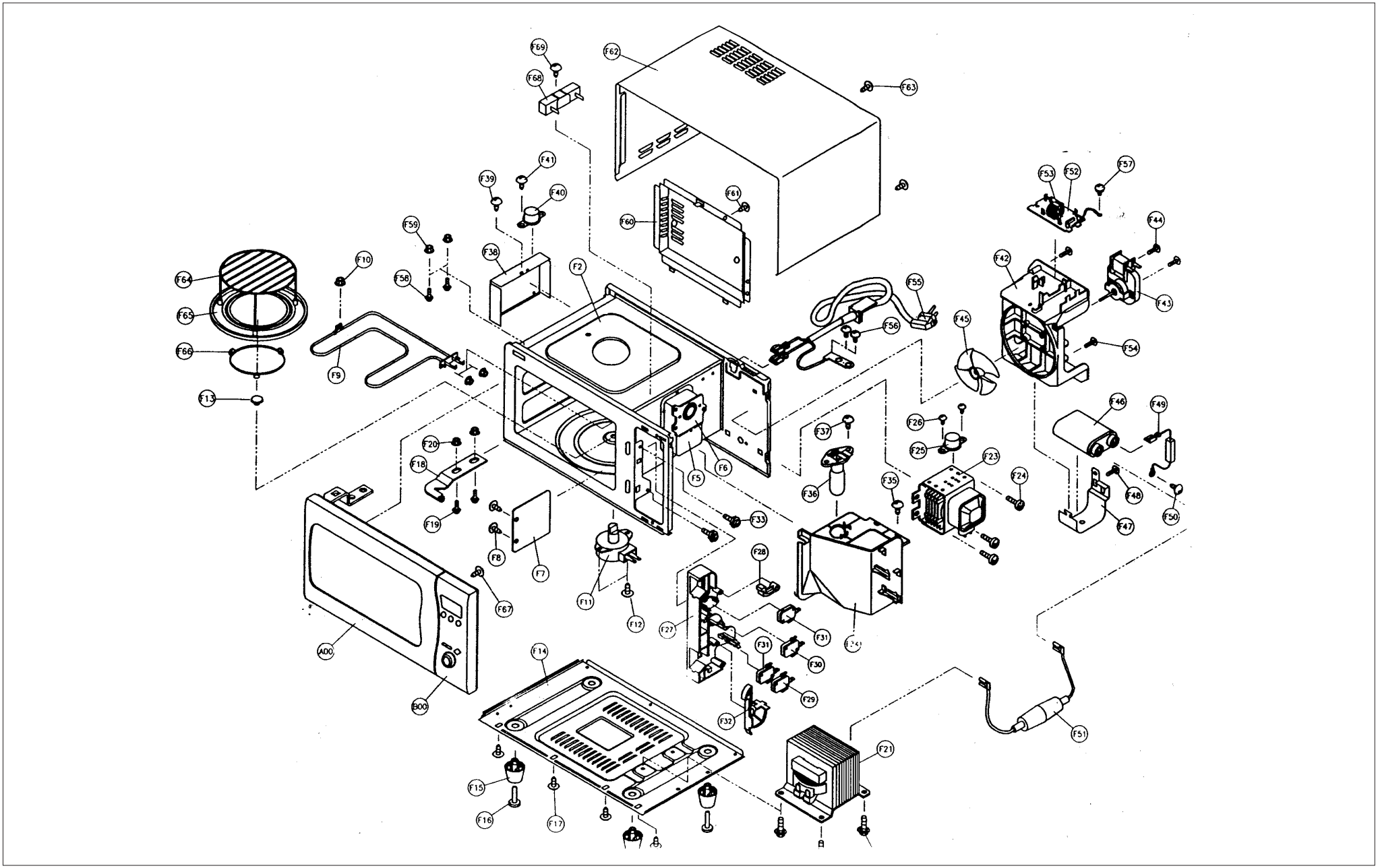
COMBI



ƒNSUB : Substitutive

REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
F2	3510103700	CAVITY WELD AS	KOG-8415 ØS	1	
F5	3512504800	GUIDE WAVE	SA1D-80 0.5T	1	
F6	3510602500	BRACKET MAGNETRON	SECC 1.2T	1	
F7	3511401500	COVER WAVE GUIDE	MICA 0.35T	1	
F8	7113400814	SCREW TAPPING	T1 BIN 4X8 MFNI	2	
F9	3512800800	HEATER	1R07817 230V 1350W	1	
F10	7S627W50X1	NUT HEX	FLANGE M5X0.8P MFZN	3	
F11	3966030500	MOTOR SYNCRO	220/240V 4W GM-16-24FD16	1	
F12	7121400811	SCREW TAPPING	T2S PAN 4X8 MFZN	2	
F13	3517400200	COUPLER	TEFLON	1	
F14	3510306100	BASE	SBHG-1 0.8T	1	
F15	4415B04042	FOOT	P.P	4	
F16	4415B04050	FIXTURE FOOT	P.P	4	
F17	7112400811	SCREW TAPPING	T1 TRS 4X8 MFZN	7	
F18	3515200700	STOPPER HINGE *U	SCP-1 3.2T	1	
F19	7S517W50D1	SCREW SPECIAL	HEX 6B-1 5X16 SE MFZN	2	
F20	7S627W50X1	NUT HEX	FLANGE M5X0.8P MFZN	2	
F21	3518103500	TRANS HV	DW-N90S0-84T	1	
	3518103510	TRANS HV	JY-N90S0-84T	1	SUB
F22	7S327W50B1	SCREW TAPPING	T2 FLANGE 5X12 MFZN	4	
F23	3518002400	MAGNETRON	2M218J (MF) I	1	
F24	7S312X4081	SCREW TAPPING	T1 TRS 4X8 SE MFZN	3	
F25	3518903000	THERMOSTAT	NT-101 H038 140/125 #187	1	
F26	7279300611	SCREW TAPPTITE	TT3 BRS 3X6 MFZN	2	
F27	3513804700	LOCK	POM	1	
F28	3513702100	LEVER SW MICRO	POM	1	
F29	4415A17352	SW MICRO	VP-533A-0F SPNO #187	1	
	5S762S10G0	SW MICRO	V16-FA-63 SPNO #187	1	SUB
F30	4415A66910	SW MICRO	VP-531A-0F	1	
	5S762310G0	SW MICRO	V16-FA-61 2C 3P	1	SUB
F31	4415A17352	SW MICRO	VP-533A-0F SPNO #187	2	
	5S762S10G0	SW MICRO	V16-FA-63 SPNO #187	2	SUB
F32	3513700800	LEVER LOCK	POM	1	
F33	7S342X40B1	SCREW SPECIAL	T2S TRS 4X12 SE MFZN	2	
F34	3512505100	GUIDE AIR	P.P BLACK	1	
F35	7112400811	SCREW TAPPING	T1 TRS 4X8 MFZN	1	
F36	3513601600	LAMP	BL T-25 240V 25W C7A #187	1	
F37	7121401211	SCREW TAPPING	T2S PAN 4X12 MFZN	1	
F38	3512504900	GUIDE AIR OUTLET	SA1D-80 0.5T	1	

EXPLODED VIEW



ƒNSUB : Substitutive

NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
F39	7121400811	SCREW TAPPING	T2S PAN 4X8 MFZN	1	
F40	3518902800	THERMOSTAT	130/120 H PW-2N	1	
F41	7121400811	SCREW TAPPING	T2S PAN 4X8 MFZN	1	
F42	3512505000	GUIDE WIND	P.P	1	
F43	3963512910	MOTOR SHADED POLE	230V 25W MW15CA-K01	1	
	3963512900		OEM-15DWC2-A02		SUB
F44	7124402511	SCREW TAPPING	T2S RND 4X25 MFZN	2	
F45	3511800100	FAN	P.P+G/F	1	
F46	4416W67820	CAPACITOR H.V	2100V AC 1.1µF	1	
F47	3513001000	HOLDER CAPACITOR	SECC 0.6T	1	
F48	7S422X4081	SCREW SPECIAL	TT2 TRS 4X8 SE MFZN	1	
F49	4416V24000	DIODE HV	HVR-1X-32B(D5.3)	1	
F50	7S422X4081	SCREW SPECIAL	TT2 TRS 4X8 SE MFZN	1	
F51	3518700210	FUSE HV	5KV 0.7A THV-060T	1	OPTION
F52	3518602700	NOISE-FILTER	DWLF-L1	1	
F53	4414A25100	FUSE	BUSSMANN MDA-15	1	
F54	7621401211	SCREW TAPPING	T2S PAN 4X12 PW MFZN	2	
F55	35113A5L25	CORD POWER AS	3X1.5 80X80 120-RTML	1	
	35113E5L25		3X1.5 80X80 120-RTML		U.K
F56	7S422X4081	SCREW SPECIAL	TT2 TRS 4X8 SE MFZN	2	
F57	7S422X4081	SCREW SPECIAL	TT2 TRS 4X8 SE MFZN	1	
F58	7650501611	BOLT HEX	6B-1 5X16 HS MFZN	2	
F59	7S627W50X1	NUT HEX	FLANGE M5X0.8P MFZN	2	
F60	3511401400	COVER *B	SBHG-1 0.6T	1	
F61	7S312X4081	SCREW TAPPING	T1 TRS 4X8 SE MFZN	1	
F62	3510800800	CABINET	PCM 0.6T	1	
F63	7S312X4081	SCREW TAPPING	T1 TRS 4X8 SE MFZN	4	
F64	3517203201	TRAY RACK AS	KOG-8415 104MM	1	
F65	3517203500	TRAY	GLASS	1	
F66	3512512500	GUIDE ROLLER AS	KOG-846T PPS	1	
F67	7S341W40B1	SCREW SPECIAL	T2S PAN 4X12 PW SE MFZN	1	
F68	4419J75030	RESISTOR S/A	20W 20ohm	1	For Germany
F69	7S312X4081	SCREW TAPPING	T1 TRS 4X8 SE MFZN	1	For Germany
A00	3511704420	DOOR AS	KOG-843KS	1	SEE DETAIL P25
B00	PKCPSWPV00	CONTROL-PANEL AS	KOG-846T ØS	1	SEE DETAIL P24

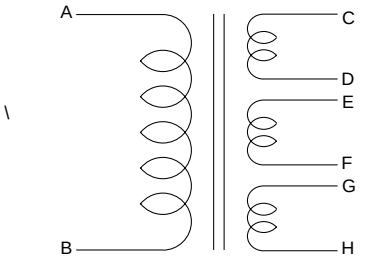
* : FOR GERMANY USE ONLY

PRINTED WIRING BOARD

1. Circuit Check Procedure

1) Low voltage transformer (DMR-9940F) check.

The low voltage transformer is located on the P.C.B. Measuring condition : Input voltage : 230V (240V)
Frequency : 50Hz



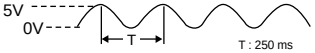
Terminal \ Voltage	LOAD	NO LOAD
C-D	-19VDC	-24VDC
E-F	-34VDC	-36VDC
G-H	2.6VAC	2.7VAC

NOTE 1: Secondary side voltage of the low voltage transformer changes in proportion to fluctuation of power source voltage.

NOTE 2. : The acceptable tolerance of the secondary voltage is within ¡ 5% of norminal voltage

2) Voltage check

Key check point (MICOM PIN)

NO.	CHECK POINT	REMARK
1	PIN 21,24,32,33 OR 34	- 5VDC
2	PIN 48	- 27VDC
3	PIN 44	 T: 20 ms (50 Hz)
4	PIN 18 OR 19	
5	DP 1 PIN 1 & 25	2.6 VAC (DISPLAY FILAMENT VOLTAGE)

CHECK METHOD

NO.	MEASURE POINT Fig. 17	WAVEFORM	REMARK
1	MP 1	-5V DC	REPLACE Q8, EC2
2	MP 2	-16V DC	REPLACE Q12, EC5
3	MP 3	-24V DC	REPLACE D12,D13

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

3) Display problems

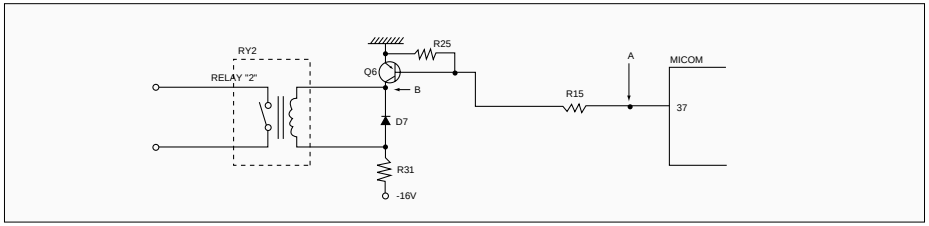
NO.	CAUSE	MEASUREMENT	RESULT	REMEDY
1	Poor contact between P.C.B and display filament.	1. Check the voltage of PIN 1 & PIN 25.	2.6 VAC	Fix the PIN 1 & 25 on the P.C.B.
2	The Display has some troubles in its segment or grid.	Refer to “The display trouble shooting data” below.		Replace P.C.B. assembly.
3	Loss of vacuum in the display.		White spot is generated on the display	Replace P.C.B. assembly.

Display trouble shooting data

TROUBLE	DISPLAY NAME & PIN NO.	MICOM OUTPUT IN PIN NO.
TIME DEFROST, g do not come on	GRID 1 (G1), 21	7
WEIGHT DEFROST, WATT do not come on.	GRID 2 (G2), 17	3
COMBI does not come on.	GRID 3 (G3), 14	10
GRILL, AUTO COOK do not come on.	GRID 4 (G4), 10	11
M/W, LOCK do not come on.	GRID 5 (G5),4,7	12
SEGMENT, “a” does not come on from G1 to G5.	SEGMENT d, 19	1
SEGMENT, “b” does not come on from G1 to G5.	SEGMENT e, 18	2
SEGMENT, “c” does not come on from G1 to G5.	SEGMENT f, 16	4
SEGMENT, “d” does not come on from G1 to G5.	SEGMENT a, 23	9
SEGMENT, “e” does not come on from G1 to G5.	SEGMENT b, 22	8
SEGMENT, “f” does not come on from G1 to G5.	SEGMENT c, 20	6
SEGMENT, “g” does not come on from G1 to G5.	SEGMENT g, 15	5
DEFROST, COMBI, GRILL, M/W do not come on.	UPPER BAR l,5	63
LOCK,AUTO COOK, WATT, g do not come on.	LOWER BAR h,i,j,k,6,8,9,11	62

4) When there is not microwave oscillation.

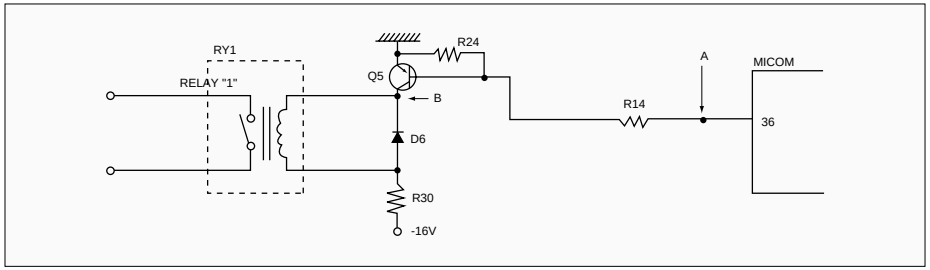
(1) When pressing “ ⏀ ” button, oven lamp does not turn on.
Fan motor and turntable motor do not rotate, but cook indicator in display comes on.
* Cause : RELAY “2” does not operate.



CHECK METHOD

STAGE \ POINT	A	B
RELAY “2” ON	+5VDC	GND
RELAY “2” OFF	GND	-16VDC

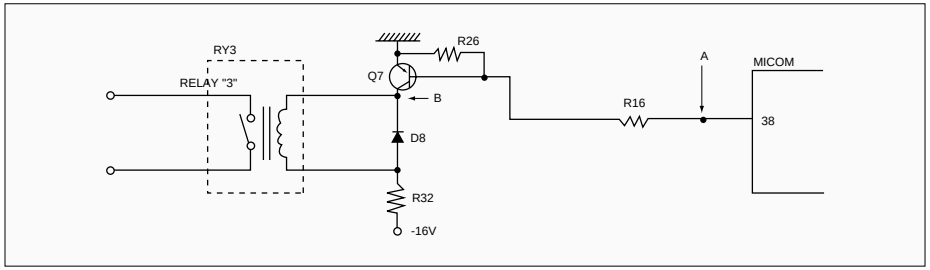
(2) When pressing “ ⏀ ” button, oven lamp turns on.
Fan motor and turntable motor rotate and cook indicator in display comes on.
* Cause : RELAY “1” does not operate.



CHECK METHOD

STAGE \ POINT	A	B
RELAY “1” ON	+-5VDC	GND
RELAY “1” OFF	GND	-16VDC

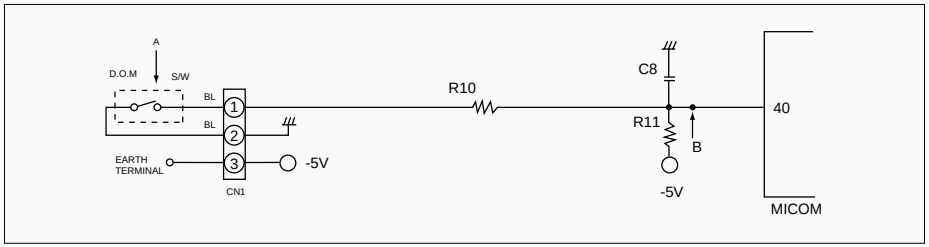
5) When there is not Grill heat.
When pressing “ ⏀ ” button, oven lamp turns on.
Fan motor and turntable and cook indicator in display comes on
* Cause : RELAY “3” does not operate.



CHECK METHOD

STAGE \ POINT	A	B
RELAY “3” ON	+-5VDC	GND
RELAY “3” OFF	GND	-16VDC

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

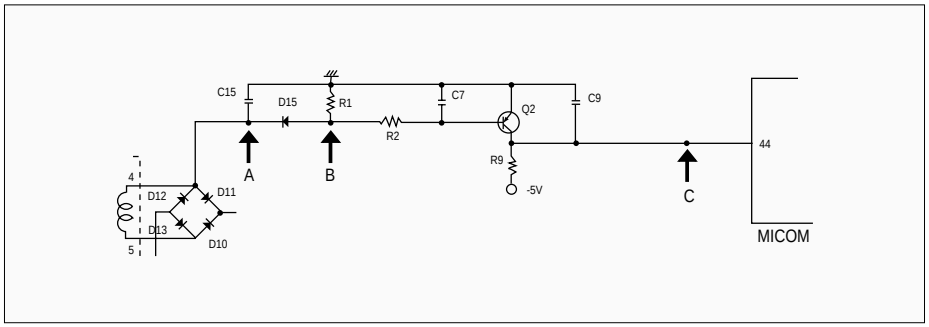


CHECK METHOD

POINT / STAGE	A	B
1) DOOR OPENED	OPEN	-5VDC
2) DOOR CLOSED	CLOSED	GND

CHECK NO.	METHOD	REMEDY
1	Check the state (ON,OFF) of the secondary Interlock switch by resistance measurement.	Replace secondary interlock switch

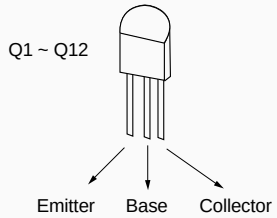
7) When the digital clock does not oeprate properly.



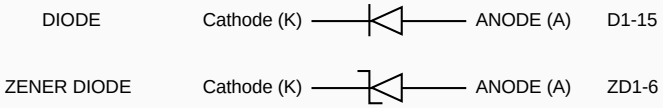
POINT	WAVEFORM
A	
B	
C	+5V 0V T: 20 ms (50Hz)

If clock does not keep exact time, you must check Diode D6, transistor Q2.

1) Transistor(NPN Type)



2) Diode and zener diode



P.C.B. LOCATION NO

REF NO.	PART CODE	PART NAME	DESCRIPTION	REMARK
R4,5,12,13	RD-4Z102J-	R CARBON FILM	1/4W 1KΩ J	
R28, 34, 41	RD-4Z102J-	R CARBON FILM	1/4W 1KΩ J	
R27	RD-4Z101J-	R CARBON FILM	1/4W 100Ω J	
R35	RD-4Z103J-	R CARBON FILM	1/4W 10KΩ J	
R9,10	RD-4Z472J-	R CARBON FILM	1/4W 4.7KΩ J	
R1,11	RD-4Z104J-	R CARBON FILM	1/4W 100KΩ J	
R37	RD-4Z202J-	R CARBON FILM	1/4W 2KΩ J	
R42,43	RD-4Z150J-	R CARBON FILM	1/4W 15KΩ J	
R30~33	RD-4Z510J-	R CARBON FILM	1/4W 51Ω J	
R3	RD-AZ105J-	R CARBON FILM	1/6W 1MΩ J	
R6, 29	RD-AZ101J-	R CARBON FILM	1/6W 100Ω J	
R7	RD-AZ102J-	R CARBON FILM	1/6W 1KΩ J	
R8,24~26	RD-AZ103J-	R CARBON FILM	1/6W 10KΩ J	
R14~16,36	RD-AZ472J-	R CARBON FILM	1/6W 4.7KΩ J	
R17	RD-AZ472J-	R CARBON FILM	1/6W 4.7Ω J	for Germany
R38,39	RD-2Z689JS	R CARBON FILM	1/2W 6.8Ω J	
R40	RD-2Z471JS	R CARBON FILM	1/2W 470Ω J	
C1~4	CCZB1H102K	C CERA AXIAL	50V B 1000PF K AXIAL	
C5,6,8,9,11~15	CCZF1H104Z	C CERA AXIAL	50V F0.1μF Z AXIAL	
C7	CCZF1H473Z	C CERA AXIAL	50V F 0.04μF Z AXIAL	
D1~4,15	DZN4148---	DIODE SWITCHING	1N4148 AUTO 52mm	
D6~14	DZN4002A--	DIODE RECTIFIER	1N4002A	
D5	DZN4002A--	DIODE RECTIFIER	1N4002A	for Germany
ZD1	DZTZ3R9B--	DIODE ZENER	MTZ3.9B	
ZD2	DZT27D----	DIODE ZENER	MTZ-27Z D 0.5W	
ZD3,6	DZTZ4R7B--	DIODE ZENER	MTZ4.7B 26mm	
ZD4	DZTZ5R6B--	DIODE ZENER	UZ-5.6B	
ZD5	DZTZ12C---	DIODE ZENER	NTZ12C	
LD101	DSLR34VR--	LED	SLR-34VR	PCB SUB
Q3,9,11	TDTA114ES-	TR DIGITAL	DTA114ES AUTO	
Q1,2,5~8,10	TZTA1270Y-	TRANSISTOR	KTA1270Y 562Y	
Q4	TZTA1270Y--	TRANSISTOR	KTA1270Y 562Y	for Germany
Q12	TZTA1273Y-	TANSISTOR	KTA1273Y 966Y	

REF NO.	PART CODE	PART NAME	DESCRIPTION	REMARK
SW101~106	5S50101Z93	SWITCH	KPT-1115AM	PCB SUB
EC1,2	CEXE1H100A	C ELECTRO	RS 50V 10μF 5X11 PT	
EC3	CEXE1E101A	C ELECTRO	RS 25V 100μF 811.5	
EC 4,5	CEXE1H221V	C ELECTRO	RSS 50V 220μF 10X16	
EC6	CEXF1H102V	C ELECTRO	RSS 50V 1000μF 16X25	
CN1	30166M503R	CONNECTOR	35312-0310	
CN3	4CW215SBD0	CONNECTRO	HLEM15S-1	
EN101	4CW215RBD0	CONNECTOR	HLEM15R-1	PCB SUB
CN4	3519150500	CONNECTOR	YW396-03AV	
W01	WSJ-159007	WIRE FLAT	1.25X15X90XC	PCB SUB
IC1	13GS846T00	IC MICOM	TMP47C862AN	
CR1	5PCST400MG	RESONATOR	CST4.00MGW	
BZ1	3515600100	BUZZER	BM-20K	
RY1,2,3	5SC0101112	SW RELAY	G5J-1-TP-M-DT 12V	
RY4	5SC0101112	SW RELAY	G5J-1-TP-M-DT 12V	for Germany
LVT	EPV041360	TRANS POWER	DMR-9940F	
L101	3513601200	LAMP PILOT	24V 40mA ROUND	PCB SUB
SM101	5S10106002	SW ROTARY	PA-1005 1C 6P	PCB SUB
DP1	DSVM05SS13	DIGITRON	SVM-05SS13	
BOARD	3514311950	PCB MAIN BOARD	M906-1	
BOARD	3514311960	PCB SUB BOARD	M907-1	
DPH	3513002000	HOLDER VFD	PP	
J1~8,10,14	85801052GY	JUMPER WIRE	1/0.52 TIM COATING	
J16,18~20	85801052GY	JUMPER WIRE	1/0.52 TIM COATING	
J101~103	85801052GY	JUMPER WIRE	1/0.52 TIM COATING	PCB SUB
J15	85801052GY	JUMPER WIRE	1/0.52 TIM COATING	for Germany

DAEWOO

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S/M NO.:G846T0S001

PRINTED DATE: FEB.1996