DAEWOO

Service Manual

Microwave Oven

Model: KOR-616T

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

PROPER USE AND SERVICE PRECAUTIONS

1. For Safe Operation

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

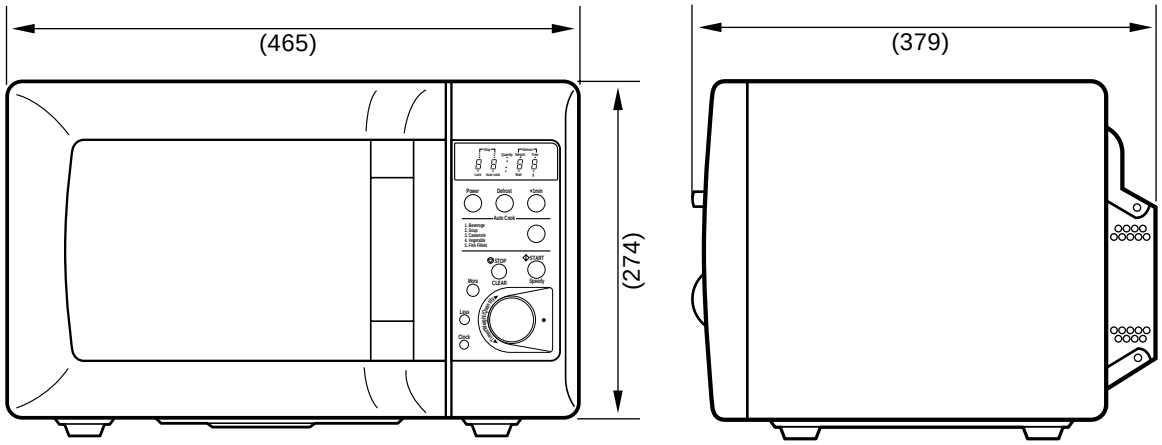
2. For Safe Service Procedures.

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 have excessive emission level 5mW/cm^2, the service person should:
   (a) inform the manufacturer, importer or assembler,
   (b) repair the unit at no cost to the owner,
   (c) attempt to ascertain the cause of the excessive leakage,
   (d) tell the owner of the unit not to use the unit until the oven has been brought into compliance.
3) If the oven operates with the door open, the service person should tell the user not to operate the oven and contact the manufacturer and CDRH immediately.

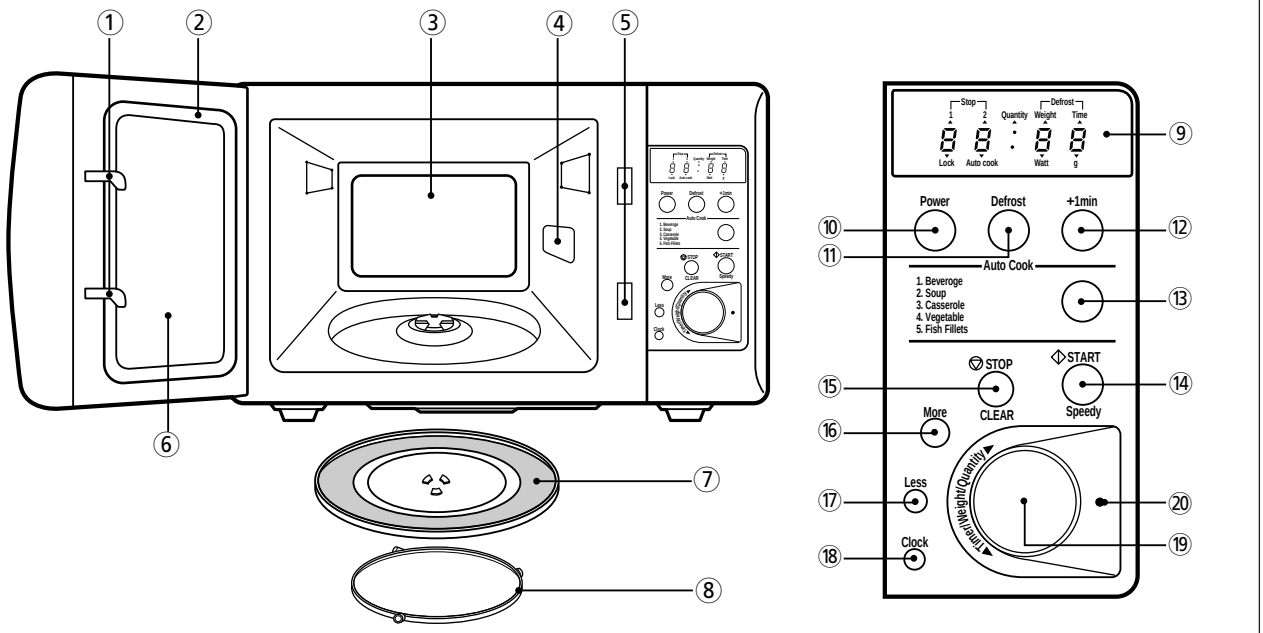
SPECIFICATIONS

Specifications		KOR-616T	
Power Supply		220V ~ 60Hz, SINGLE PHASE WITH EARTHING	
MICROWAVE	POWER CONSUMPTION	1200 W	
	OUTPUT POWER	800 W (IEC 705)	
	FREQUENCY	2450 MHz	
OUTSIDE DIMENSIONS (W x H x D)		465 x 274 x 379 mm	
CAVITY DIMENSIONS (W x H x D)		290x 200 x 290 mm	
NET WEIGHT		APPROX. 13.5Kg	
TIMER		60 min. 00 sec	
POWER SELECTIONS		5 LEVELS	

** Specifications subject to change without notice.*



FEATURES DIAGRAM



① **Door latch** - When the door is closed it will automatically lock shut. If the door is opened while the oven is operating, magnetron will immediately stop operating.

② **Door seal** - Door seal maintains the microwave energy within the oven cavity and prevents microwave leakage.

③ **Oven cavity.**

④ **Spatter shield** - Protects the microwave outlet from splashes of cooking foods.

⑤ **Safety interlock system.**

⑥ **Door viewing screen** - Allows viewing of food. The screen is designed so that light can pass through, but not the microwaves.

⑦ **Glass cooking tray -** Made of special heat resistant glass. Food in a proper receptacle is placed on this tray for cooking.

⑧ **Roller guide -** This must always be used for cooking together with the glass cooking tray.

⑨ **Display -** Cooking time, power level, present time are displayed.

⑩ ⑪ ⑬ **Function buttons -** Used to select desired oven operation.

: MICROWAVE, DEFROST, AUTOCOOK.

⑫ **+1 min. button -** Used to increase time of operating.

⑭ **Start button -** Used to start a selected operation. When lamp blinks, press the start button.

Speedy cook button - Used to set desired time.(It is incresed 30 seconds.)

⑮ **Stop/clear button -** Used to pause or clear all information manually put into the oven control panel except clock.

⑯ ⑰ **More/Less button -** Used to select auto cook time. (More/less 10% of auto cook time)

⑱ **Clock button -** Used to set and recall the time of day.

⑲ **Dial knob -** Used to set the cooking time, weight and quantity.

⑳ **Guide lamp -** When blinking it informs you to be ready to operte dial knob.

EARTHING INSTRUCTIONS

This appliance must be earthed. In the event of an electrical short circuit, earthing reduces the risk of 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 or serviceman if the earthing instructions are not completely understood, or if doubt exists as to whether the appliance is properly earthed. If it 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.

INSTALLATION

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

3 **Away from Radio, and TV sets**
Poor television reception and radio interference may result if the oven is located close to a TV, Radio, or antenna, feeder and so on.
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 oven requires a current of approximately 6 amperes, 220V 60Hz.
- 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 damege resulting from use of this oven will 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, A dent in cavity.
If any of the above are visable, DO NOT INSTALL, and notify dealer immediately.

7 **Do not operate the oven if it is colder than room termperature.**
(This may occur during delivery in cold weather.) Allow the oven to become room temperature before operating.

OPERATION PROCEDURE

This section includes useful information about oven operation.

1. Plug power supply cord into a 220V 60Hz power outlet.
2. After placing the food in a suitable container, open the oven door and put it on the glass tray. The glass tray must always be in place during cooking.
3. Shut the door. Make sure that it is firmly closed.

1 When the oven door is opened, the light turns off.

2 The oven door can be opened at any time during operation by touching the door release button on the control panel. The oven will automatically shut off. To restart the oven, close the door and then touch START.

3 Each time a pad is touched, a BEEP will sound to acknowledge the touch.

4 The oven automatically cook on full power unless set to a lower power level.

5 The display will show " :0" when the oven is plugged in.

6 Time clock returns to the present time when the cooking time ends.

7 When the STOP/CLEAR pad is touched during the oven operation, the oven stops cooking and all information retained. To erase all information (except the present time), touch the STOP/CLEAR pad once more. If the oven door is opened during the oven operation, all information is retained.

8 If the START pad is touched and the oven does not operate, check the area between the door and door seal for obstructions and make sure the door is closed securely. The oven will not start cooking until the door is completely closed or the program has been reset.

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

Wattage output chart

• The power-level is set by pressing the M/W pad. The chart shows the display, the power level and the percentage of power.

Touch Power pad, Once the Touch	Power Level (Display)	Approximate Percentage of Power
5	900W (800W)	100%
4	700W (650W)	80%
3	500W (450W)	60%
2	350W (300W)	40%
1	150W (140W)	20%

CONTROLS

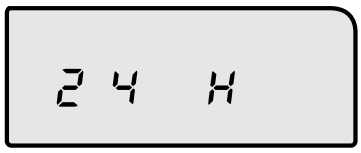
Tips: • Be sure to read the cookbook's introduction before operating the oven.
- Also remember to read this operating instruction for proper safety information and instruction bfore using the oven.
- See the cookbook for specific recipes.
- Prior to setting the controls, place one cup of water in the 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.
- If you don't take off the food after end cooking, buzzer will sound as 1 minute.

CLOCK

NOTE:
- When the oven is plugged in, “0:00”appears in the display window.
- The two dots between the hour and minute are the clock indicator lights. 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 poerating, press 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.

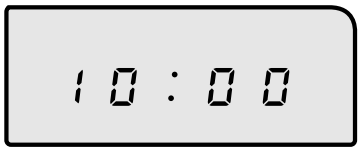


This example is 24 hour clock system.

NOTE: This oven is multiple clock system.

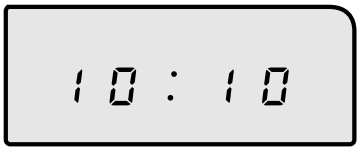
NOTE: If you are not setting current time for 3 seconds, display return to old time.

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

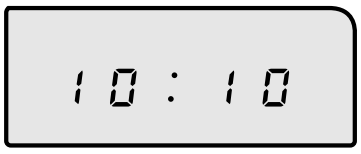


NOTE:
- If you selected 12 hour clock system, this digital clock allows you to set from 1:00 to 12:59.
- If you selected 24 hour clock system, this digital clock allows you to set from 0:00 to 23:59.
- The colon will stop blinking.

3. Turn right the DIAL KNOB for minute you want.



4. Press CLOCK button.

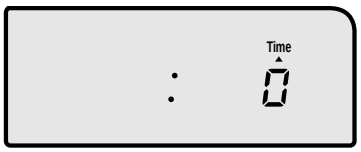


The display will show present time, and the colon starts blinking.
This digital clock allows you to set to “10:10”

TIME DEFROST

SETTING THE CONTROL

1. Press DEFROST button twice.



This TIME DEFROST indicator light will light up.

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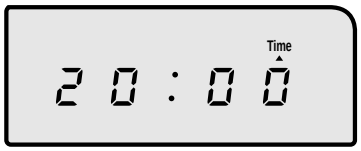
2. Turn the DIAL KNOB for the desired defrosting time.

   For example: 20 minutes.



20:00 will show in the display.

NOTE: Time can be set up to 60 minutes.

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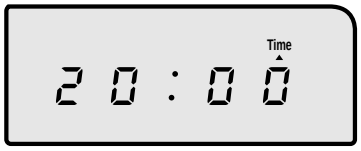
3. Press ⏀ button.



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

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4. 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: 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.

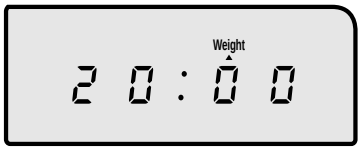
The WEIGHT DEFROST indicator light will come on. The g indicator light will start blinking.

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

For example: 1000g

The 1000 will show in the display. It is represent 1000g.

3. Press ⏀ button.



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

4. 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.

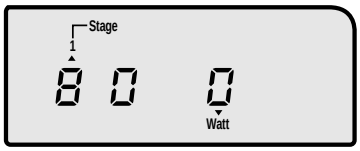
NOTE: During the defrosting operation, turn over the food after buzzer sound for completed defrosting.

COOKING IN ONE STAGE

NOTE: • To insure the best microwave and defrost results, be sure to start with a cool oven. Let the oven cool 15~20minutes with the door slightly open.
• Power levels are 800W, 650W, 450W, 300W and 140W
• 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 60 minutes.

SETTING THE CONTROL

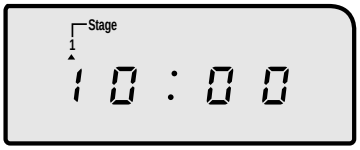
1. Press POWER button
   By repeatedly pressing this button, you can also select other power levels.



The STAGE1 indicator light will light. The WATT indicator light start blinking.

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

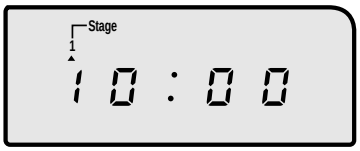
   For example: 10minutes



10:00 will show in the display.

NOTE: Time can be set up to 60 minutes.

3. Press ⏀ button.



The STAGE1 indicator light will starts blinking to show the oven is in MICROWAVE mode.

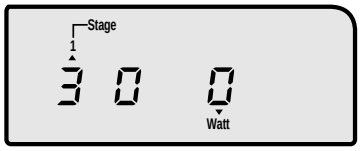
4. Buzzer will sound at the end of the cooking time. The indicator light will go off. The display panel will return to the time of day. The oven light will turn off and the turntable will stop turning.

COOKING IN TWO STAGES

NOTE: For best results, some recipes call for one power level for a certain length of time and another power level for a different length of time.

SETTING THE CONTROL

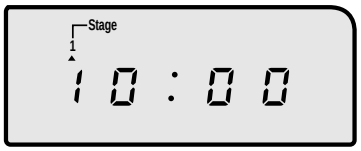
1. Press POWER button more than three times.
   By repeatedly pressing this button, you can also select other power levels.



The STAGE1 indicator light will light.
The WATT indicator light start blinking.

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

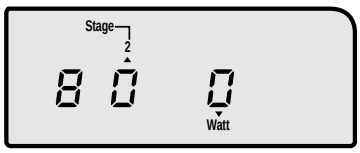
   For example: 10 minutes



10:00 will show in the display.

NOTE: Time can be set up to 60 minutes.

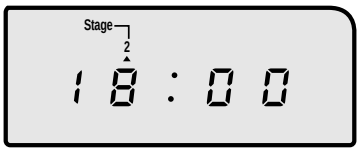
3. Press POWER button
   By repeatedly pressing this button, you can also select other power levels.



The STAGE2 indicator light will light
The WATT indicator start blinking.

4. Turn the DIAL KNOB for the desired cooking time.

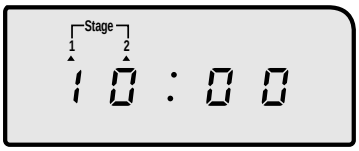
   For example: 18minutes



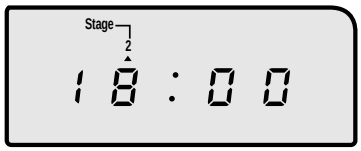
18:00 will show in the display.

NOTE: Time can be set up to 60 minutes.

5. Press ⏀ button.



When you touch START, both STAGE1 & 2 indicator lights come on.
STAGE1 indicator light blinking to show you that the oven is cooking in the first of two cook stages.
The oven will cook at the power you selected for stage 1.



At the end of stage 1, the oven will beep and start the second stage 2.
The STAGE1 indicator light will go off and the STAGE2 indicator light starts blinking. The display counts down the time to show you how much cooking time is left in the second stage.

6. 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.

AUTO COOK

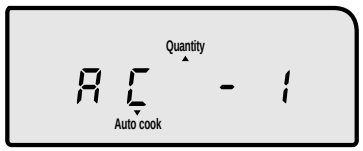
NOTE: • There is programmed for cooking of five kinds (1~5)
• You don't have to worry about setting time, power and function.

SETTING THE CONTROL

You can operate MORE or LESS than programmed time as pressing MORE or LESS button whenever MORE or LESS button, display is changed “10” or “-10”.

10: Adds 10% for programmed time.
-10: Romove 10% for prjogrammed time.

1. Press AUTO COOK button

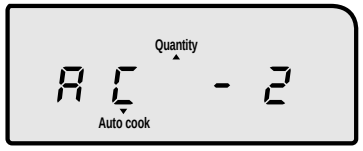


The AUTO COOK indicator light will light “AC-1” will show in the display.

2. Select the desired cooking.

For example: SOUP

Press AUTO COOK button twice.



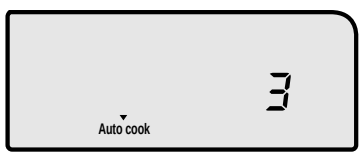
“AC-2” will show in the display. The quantity indicator light will start blinking

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.

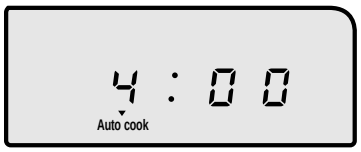
For example: 3(350g)



“3” will show in the display.

6. If you want to select other, turn the dial Knob until display you desired.

7. Press ⏀ button.
This example don't set MORE or LESS function.



The oven will now start auto cook for menu2.
The indicator light starts blinking.

8. 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	
1	BEVERAGE	1	1 CUP
		2	2CUPS
		3	3CUPS
2	SOUP	1	250g
		2	300g
		3	350g
		4	400g
3	CASSEROLE	1	200g
		2	400g
		3	600g
		4	800g
4	VEGETABLE	1	250g
		2	300g
		3	350g
		4	400g
5	FISH FILLET	1	300g
		2	400g
		3	500g
		4	600g
		5	700g

SPEEDY COOK

SETTING THE CONTROL

1. Press ◈ 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 SAFTY LOCK

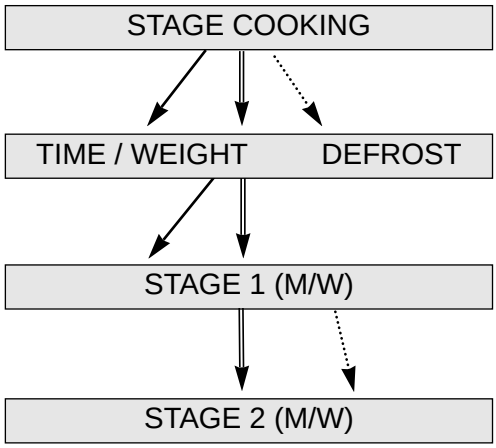
- The safty lock prevents unwanted oven operation such as by small children.
- To set, press STOP/CLEAR for 3 seconds, lock indicator light starts blinking.
- To cancel, press STOP/CLEAR for 3 seconds, lock indicator goes off.

+1 min.

- The function can use when oven is working state.
- Whenever press this button, time is increased as 1 minute.
- Time is increased until 60 minutes.

STAGE COMVINATIONS

This oven has the ability to be programmed to do up to three consecutive functions. These combinations are five 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 are lighted setted function.
  Indicator of operating function is blinking.

TO STOP THE OVEN WHILEITIS OPERATING

1. Press ⊽ (STOP/CLEAR) button.
   -Touch ⊽ once more to erase all instruction except clock.
   -You can restart the oven by touching ◇ (START) button.

2. Open the door
   -You can restart the oven by closing the door and touching ◇ button.

NOTE: Oven stops operating when door is opened.

ERASING INSTRUCTIONS

- TOUCH ⊽ (STOP/CLEAR)button to erase all instructions you set previously.
- Opening the oven door during cooking dose not erase cooking instruction.
- If you push twice ⊽ button during operation, the cooking instruction is all erased.

GENERAL COOKING HINTS

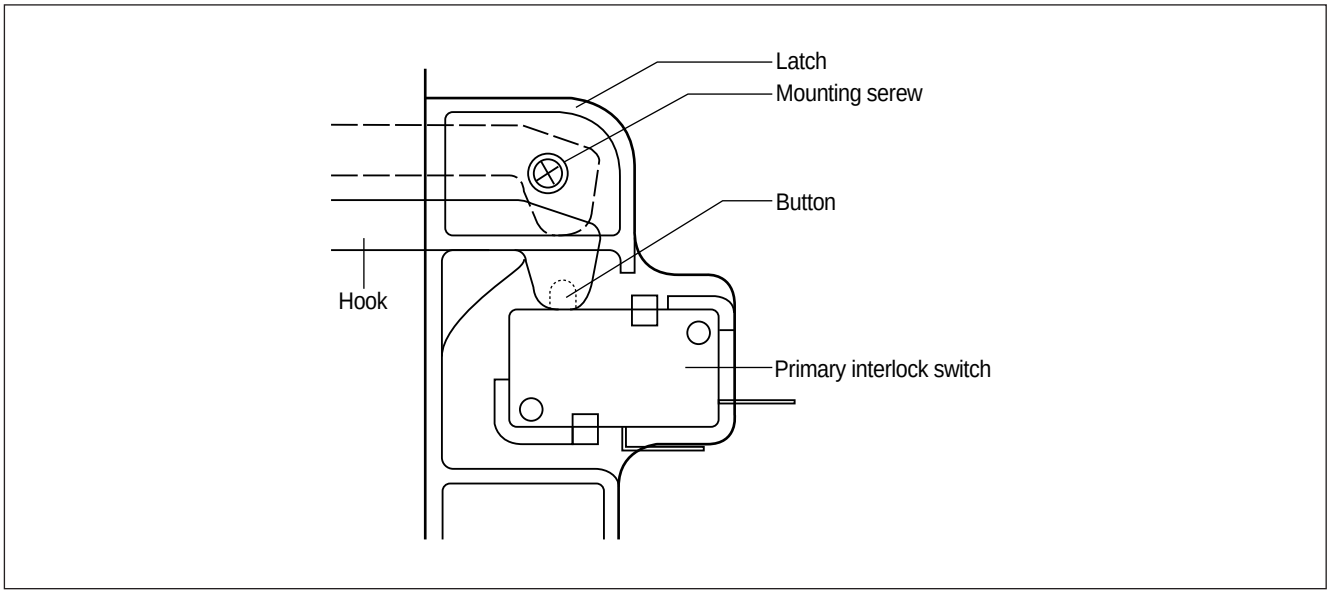
1. When cook a roast with an excess amount of drippings, it is helpful to remove the drippings at turnover time to prevent spattering.
2. Prick the meats, fish or poultry with a fork to prevent bursting.
   Steam builds up pressure in meats, fish or poultry which are tightly covered by a skin or membrane.
3. Reduce suggested cooking times, It is always better to undercook foods rather than to over-cook them.
   If a range of times is stated in a recipe, cook the minimun suggested time, check for doneness, and then cook slightly longer if necessary.

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.

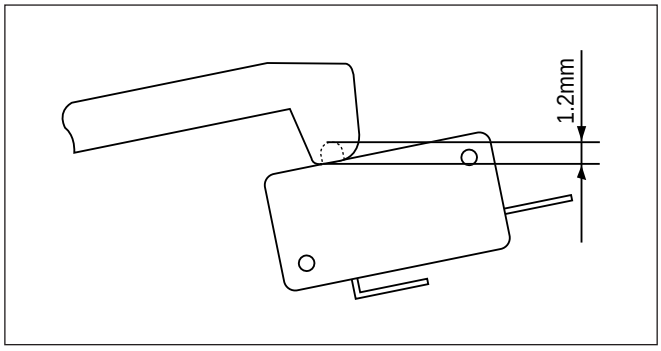
(1) Primary interlock switch

When the door is closed, the hook locks the oven door. If the door is not closed properly the oven will not operate. When the door is closed, the hook pushes the button of the micro switch. Then the button of the primary interlock switch bring it under on condition.



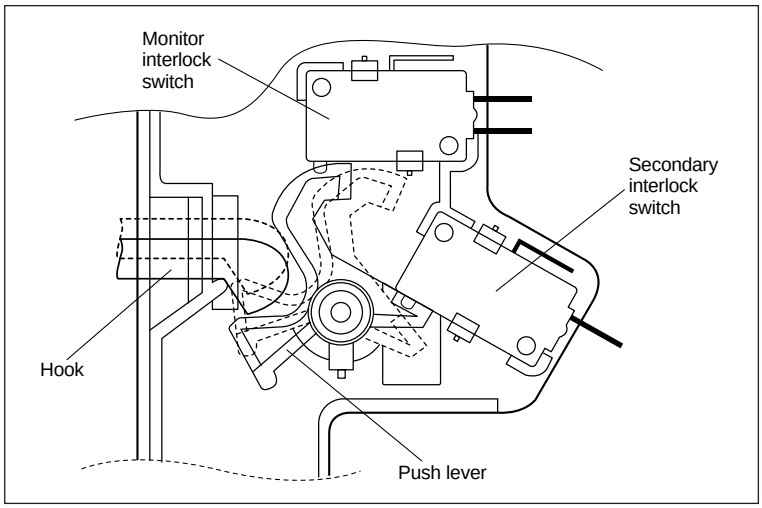
Adjustment 1.

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



(2) Secondary interlock switch and interlock monitor switch

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



Adjustment 2.

Interlock monitor switch

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

Secondary interlock switch

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

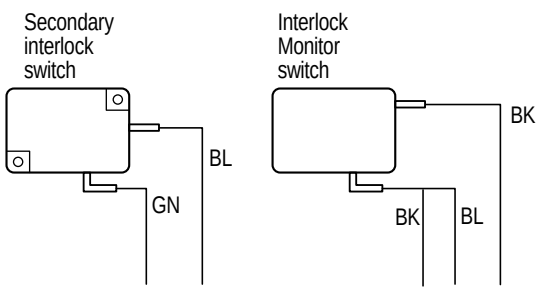
(3) Adjustment steps

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

(4) Interlock switch resplacement

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



SYMBOL	COLOR
RD	RED
WH	WHITE
BK	BLACK
BL	BLUE

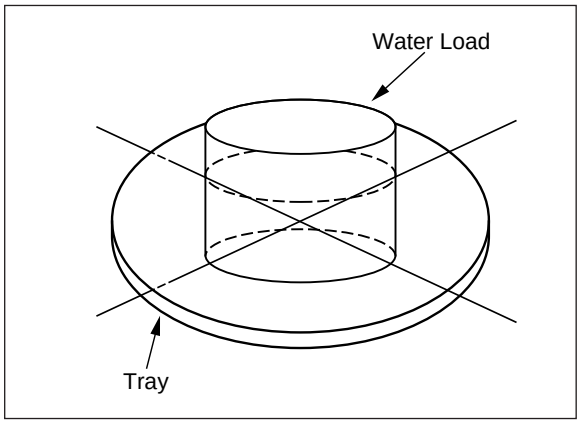
MEASUREMENT OF THE MICROWAVE OUTPUT POWER

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

Procedure

1. Microwave power output measurement is made with the microwave oven supplied at rated voltage and operated at its maximum microwave power setting with a load of 1,000±5cc of potable water.
2. The water is contained in a cylindrical borosilicate glass vessel having a maximum material thickness of 3 mm and an outside diameter of approximately 190 mm.
3. The oven and the empty vessel are at ambient temperature prior to the start of the test.
   The initial temperature of the water is 10±2°C (50±3.6°F).
   It is measured immediately before the water is added to the vessel. After addition of the water to the vessel, the load is immediately placed on the center of the shelf which is in the lowest normal position.
4. Microwave power is switched on.
5. Heating time should be exactly 52 seconds .

   Heating time is measured while the microwave generator is operating at full power.
   The filament heat-up time for magnetrons is not included.
6. The initial and final water temperatures are select-ed 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:

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

   • $\triangle T$ is actual temperature rise.
   • t is the heating time.
   The power measured should be 800W ± 10%

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

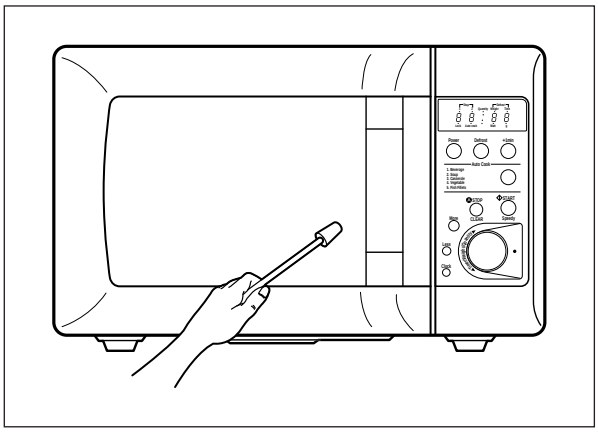
MICROWAVE RADIATION TEST

WARNING
Make sure to check the microwave leakage before and after repair or adjustment.

- Always, start measuring of an unknown field to assure. Safety for operating personnel from microwave energy.
- Do not place your hands into any suspected microwave radiation field unless the safe density level is known.
- Care should be taken not to place the eyes in direct line with the source of microwave energy.
- Slowly approach the unit under test until the radiometer reads an appreciable microwave leakage from the unit under the test.

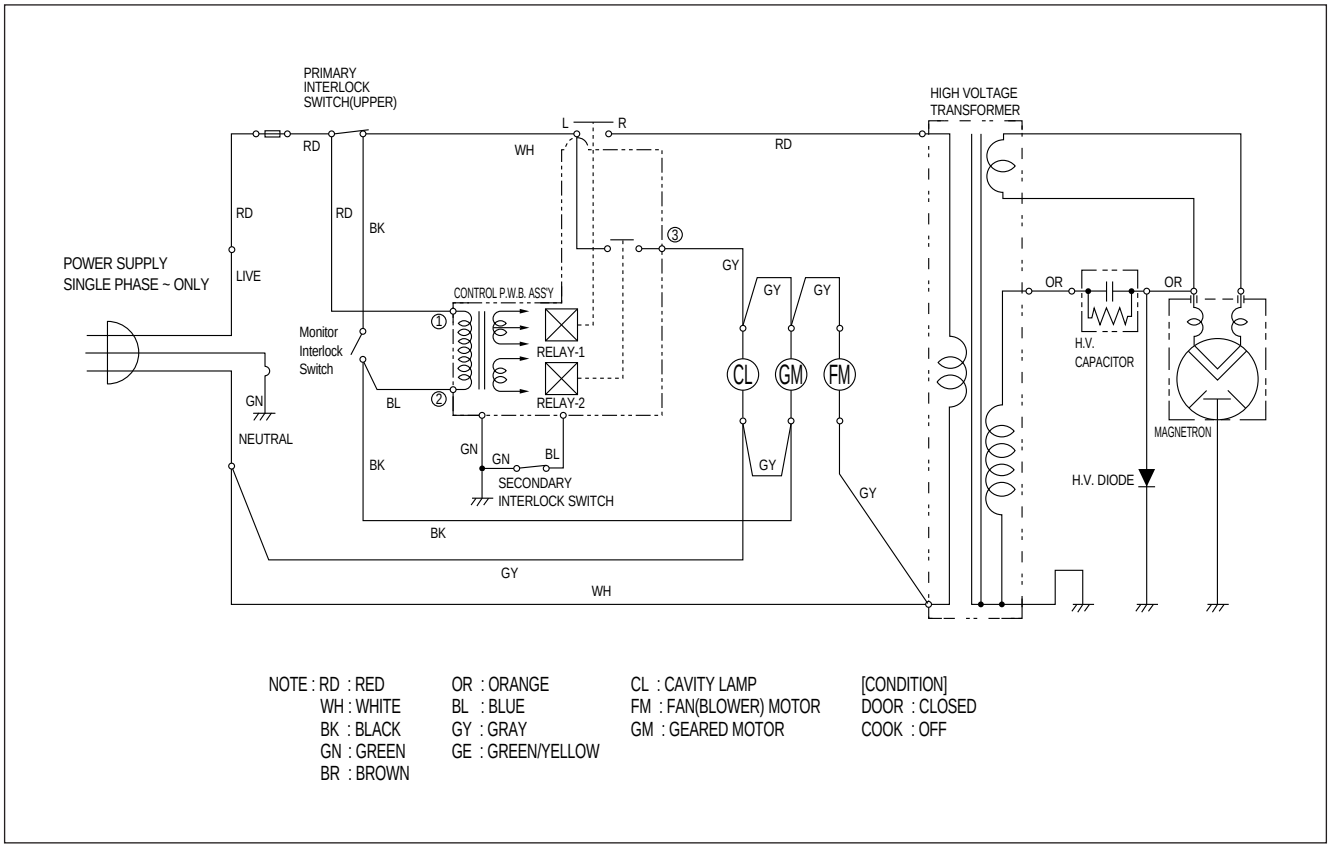
Procedure

A) Prepare Microwave Energy Survey Meter, 600cc glass beaker, glass thermometer 100°C or 212°F.
B) Pour 275cc±15cc of tap water initially at 20±5°C (68±9°F) in the 600cc beaker with an inside diameter of approx. 8.5cm (3.5 in).
C) Place it at the center of the tray and set it in a cavity.
D) Close the door and operate the oven.
E) Measure the leakage by using microwave energy survey meter with dual ranges, set to 2,450 MHz.
-Measured radiation leakage must not exceed the values prescribed below.
• Leakage for a fully assembled oven with door normally closed must be less than 4mW/cm^2.
-When measuring the leakage, always use the 2 in (5cm) space cone with probe. Hold the probe perpendicular to the cabinet, door. Place the space cone of the probe on the door, cabinet, door seam, door viewing screen, the exhaust air vents and the suction air vents.
-Measuring should be in a counter-clockwise direction at a rate of 1 inch/sec. If the leakage of the cabinet door seam is unknow, move the probe more slowly.



-When measuring near a corner of the door, keep the probe perpendicular to the areas making sure the probe end at the base of the cone does not get closer than 2 inches from any metal.
If it does, erroneous reading may result.

WIRING DIAGRAM



NOTE : RD : RED
WH : WHITE
BK : BLACK
GN : GREEN
BR : BROWN
OR : ORANGE
BL : BLUE
GY : GRAY
GE : GREEN/YELLOW
CL : CAVITY LAMP
FM : FAN(BLOWER) MOTOR
GM : GEARED MOTOR
[CONDITION]
DOOR : CLOSED
COOK : OFF

Fig. 1

CIRCUIT DESCRIPTION

Refer to the “WIRING DIAGRAM” (Fig. 1) on page 20.

MICROWAVE COOKING

TIME COOKING

1. When the food is placed incide the oven and door is closed.

1) The low voltage transformer supplies the necessary voltage to the touch control circuit when the power cord is plugged in.

2) The contacts of the interlock monitor switch open.
This switch creates short circuit to blow 15A fuse and stop magnetron oscillation when door is opened during operation under abnormal condition (i.e. the contacts of primary interlock switch do not open the circuit).

3) The contacts of primary interlock switch close the primary circuit.

2. When cooking cycle, power and time are set by touching the function pads and the desired numerical pads.

1) The function indicating bars are located on the digitron light to indicate that function have been set.

2) The time you set appears in the display window.

3) The touch control circuit memorizes the cooking program you set.

3. When the start button is touched.

* The RELAY “1”, “2” are controlled by the touch control circuit.

1) 220VAC is applied to the high voltage transformer through the contacts of RELAY “1”(See Fig.1)

2) Fan motor starts rotating and cools the magnetron by blowing the air coming from the intake on the rear plate hole.

3) The oven lamp light the inside of the oven.

4) Indicator light turns on to indicate function operation. Cooking time starts count down.

5) 3.3 Volts AC is generated from the filament winding of the high voltage transformer. This filament voltage is applied to the magnetron to heat the magnetron filament through two noise preventing choke coils.

6) A high voltage of 2000 Volts AC is generated in the secondary of high voltage transformer and this secondary voltage is increased by the action of the diode and the charging of the high voltage capacitor. This resultant DC voltage is then applied to the anode of the magnetron. As shown in Fig. 2 the first half cycle of the high voltage produced in the high voltage transformer secondary charges the high voltage capacitor. Current flow is in the direction of the dotted-line during the second half cycle, the voltage produced by the transformer secondary, and the charge of the high voltage capacitor are combined and applied to the magnetron as shown by the solid line so that oscillations begin. The disturbance wave generated by the magnetron is prevented by the choke coils of 3.2μH, filter capacitors of 16pF and the magnetron’s shielded case so that TV and radio programs are not impaired by noise.

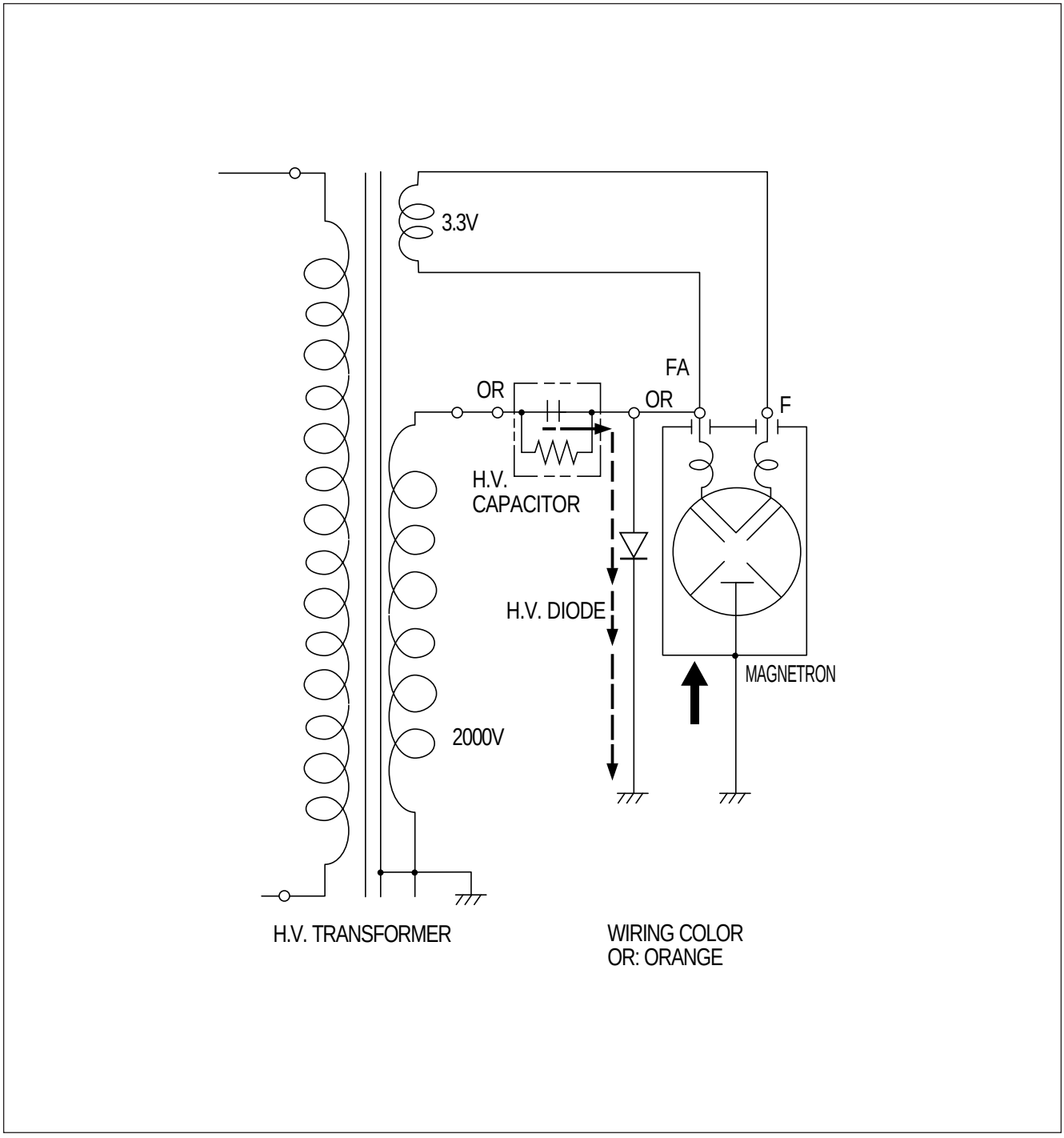


Fig.2

The touch control circuit controls the ON-OFF time of RELAY “1” in order to vary the output power of the microwave oven from “power level 1” to “5 (100%) power”.
One complete ON and OFF cycle of the RELAY “1” is 29 seconds. The relation between indications on the control panel and the output of the microwave oven is as shown is Fig. 3

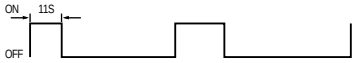
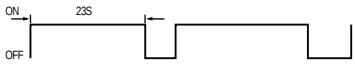
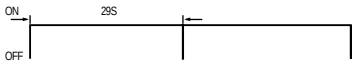
POWER LEVEL	OUTPUT POWER AGAINST FULL POWER	RELAY “1” TURN ON, OFF TIME
1	5/29	
2	11/29	
3	17/29	
4	23/29	
5	29/29	

Fig. 3

AUTO DEFROST CYCLE

When auto defrost is selected and the desired defrosting time is chosen, the automatic cycle divides the defrosting time into 5 periods of alternating defrost and stand times, by cycling on and off.

4. When the door is opened during cooking.

1) The primary interlock switch is opened to cut off primary voltage to the high voltage transformer to stop microwave oscillation.
2) The secondary interlock switch is opened to give the door open information to touch control circuit. The contacts of the RELAY “1” and “2” open, the display stops counting down.
3) Fan motor and turn table stop rotating.
4) The oven lamp turns off.
5) As soon as the door is opened, the interlock monitor switch contacts close and creats the short circuit.
6) If the contacts of primary interlock switch malfunction the 15A fuse blows open due to the large current surge caused by the short circuit activation, and this in turn stops magnetron oscillation (Fig. 1).

5. When the STOP/CLEAR button is touched during cooking.

1) The touch control circuit cuts the voltage supplied to the RELAY “1” coil and causes the magnetron to stop oscillating.
2) RELAY “2” turns off.
3) The display will show the time of day. If you don’t set the clock, the display will show a colon.
4) The oven lamp turns off.
5) Fan motor and turn table motor stop rotating.

SAFETY PRECAUTIONS FOR DISASSEMBLY AND REPAIR

-Cautions to be observed when trouble shooting.

Unlike many other appliances, the microwave oven is a high-voltage, high-current equipment. It is completely safety during normal operation. However, carelessness in servicing the oven can result in an 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 screw driver which is attached to irom plate, and wear rubber gloves when servicing the high voltage side.

(3) Discharge the high voltage capacitor before touching any oven components or wiring.

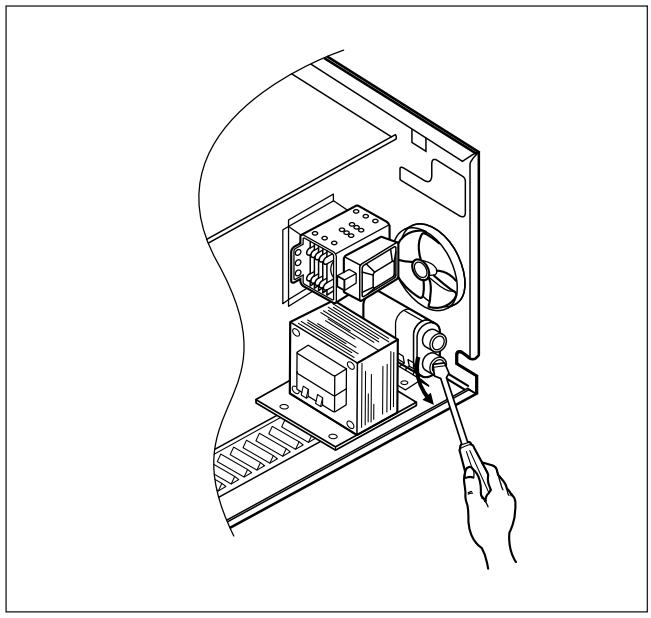
1. Check the earthed.

Do not operate on a 2-wire extension cord. The microwave oven is designed to be used with 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.

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



(4) When the 15Amp. fuse is blown out due to the operation of the monitor switch; replace primary, secondary interlock switch and monitor switch.
Refer to next 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.

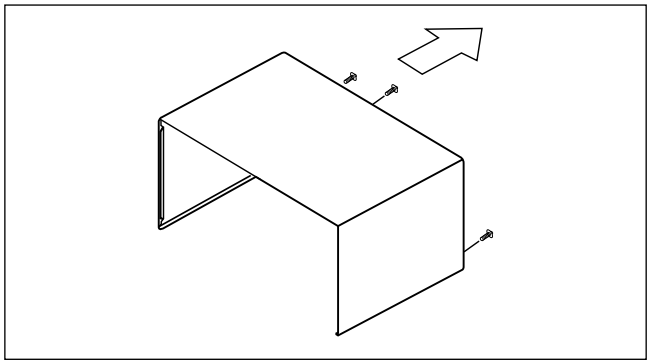
CAUTION: Service personnel should remove their watches whenever working close to or repairing the magnetron.

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

DISASSEMBLY AND ASSEMBLY

1. To remove cabinet.

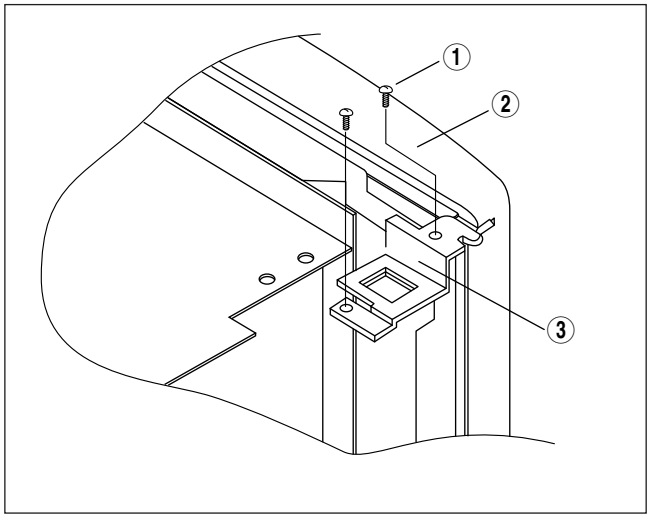
Remove three screws on cabinet back.



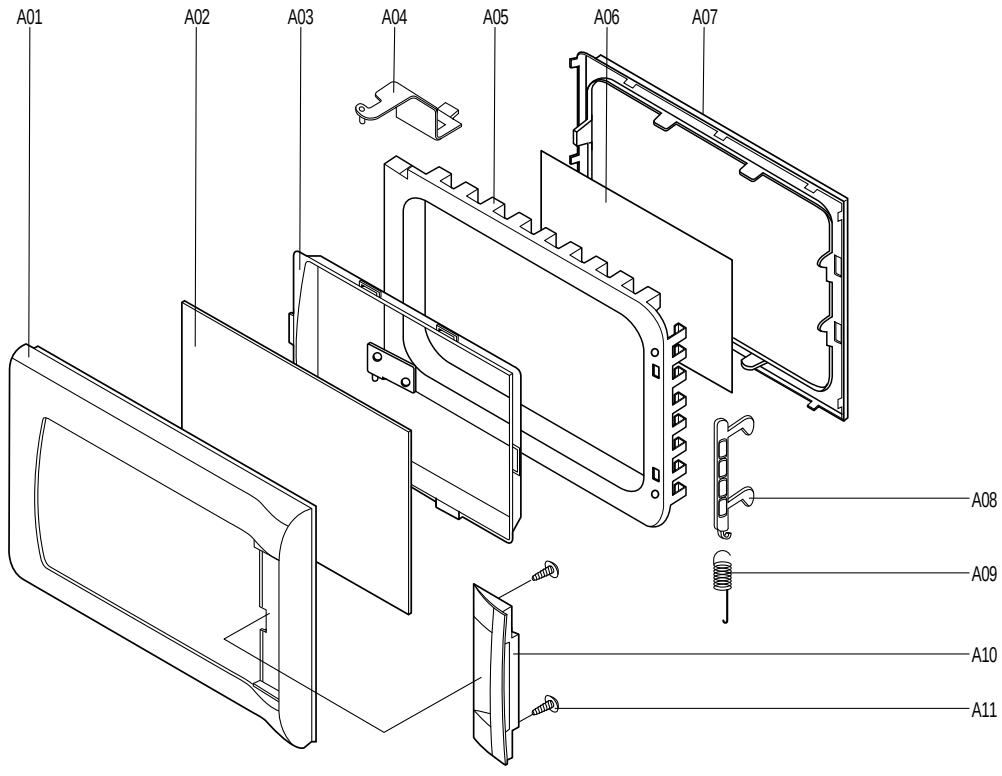
2. To remove door assembly.

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

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

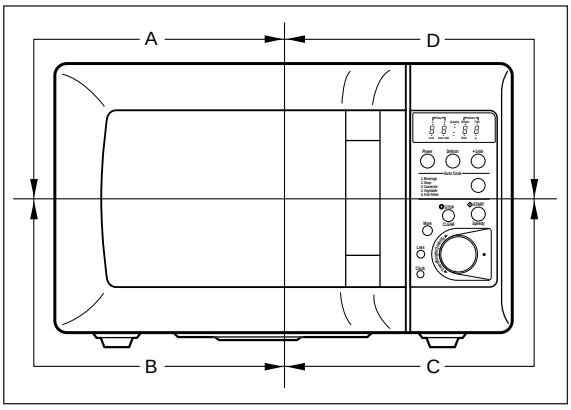


3. To remove door parts.



(1) Remove the gasket door(A07) from door painting ass'y(A05).
(2) Remove the door frame(A01) from door painting ass'y(A05).
(3) Remove the barrier screen outer(A02) and the supporter barrier screen outer(A03).
(4) Remove the hook spring(A09) and the hook(A08).
(5) Remove the hinge stopper top ass'y(A04).
(6) Remove two screws(A11) which secure the handle door(A10).
(7) Rmove the handle door(A10) from the door frame(A01).
(8) 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'.
1) Loosen two screws on the top hige stopper,and then push the door to con-tact the door seal to oven front surface.
2) Tighten two screws.

(2) To reduce gap located on part 'B'.
1) Loosen three screws on bottem hinge stopper, and then the door to contact the door seal to oven front surface.
2) Tighten three screws.

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

(4) To reduce gap located on part 'D'.(See Fig. B)
1) Loosen a screw on the interlock switch assembly located at the top of the oven body.
2) Follow step (3) 2) and 3).

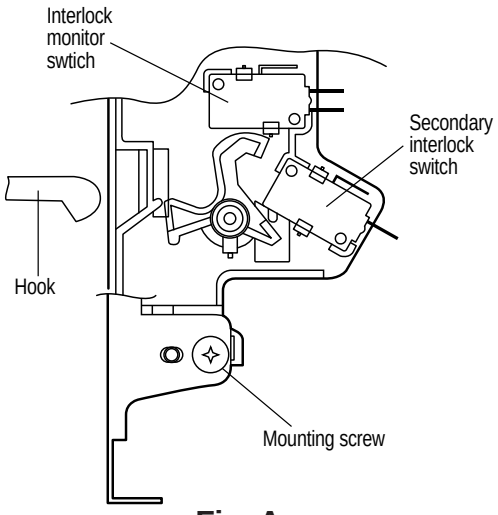


Fig. A

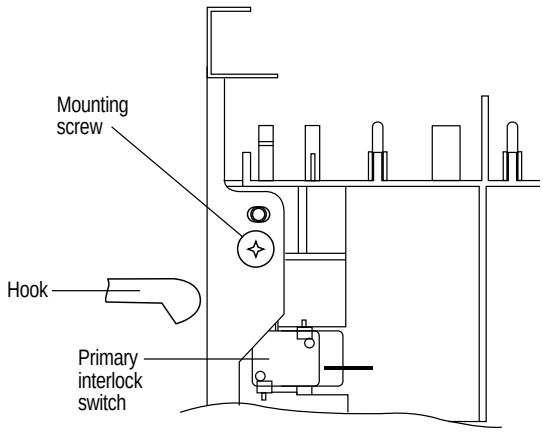
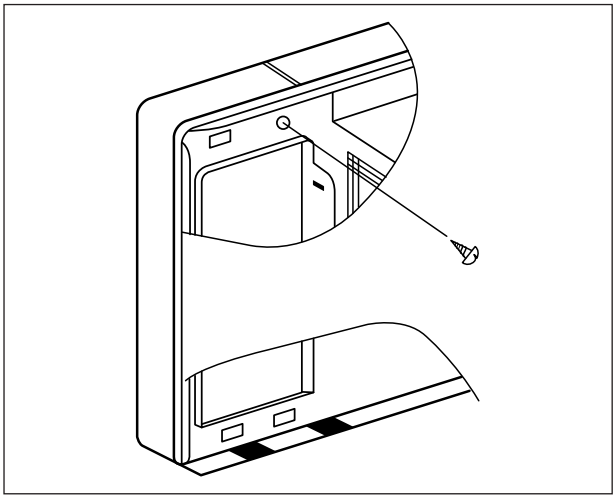


Fig. B

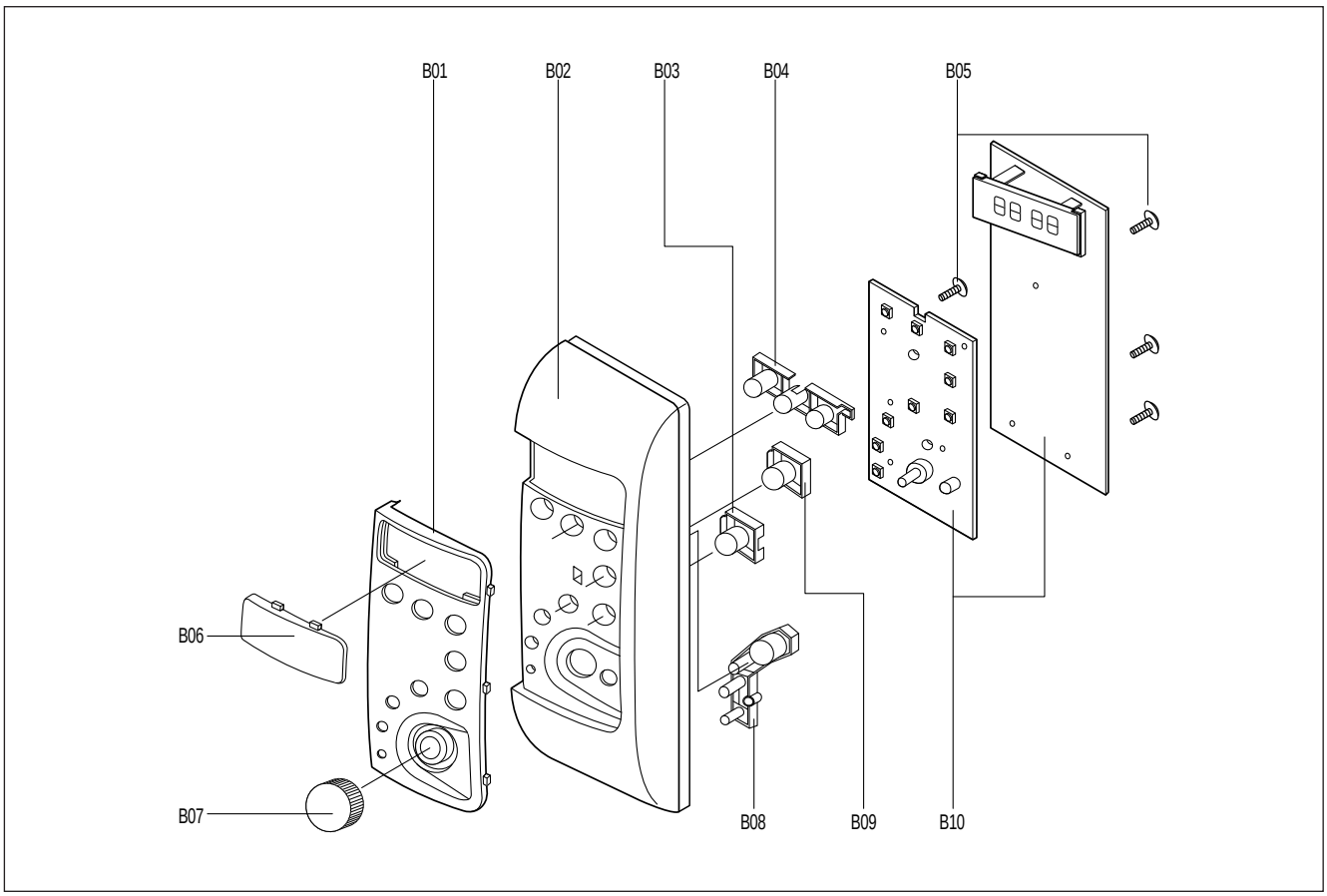
NOTE: A small gap may be acceptable if the microwave leakage does not exceed 4mW/cm^2.

5. To remove control panel parts.

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



NOTE: Do not attempt to remove switch membrane except for replacement.



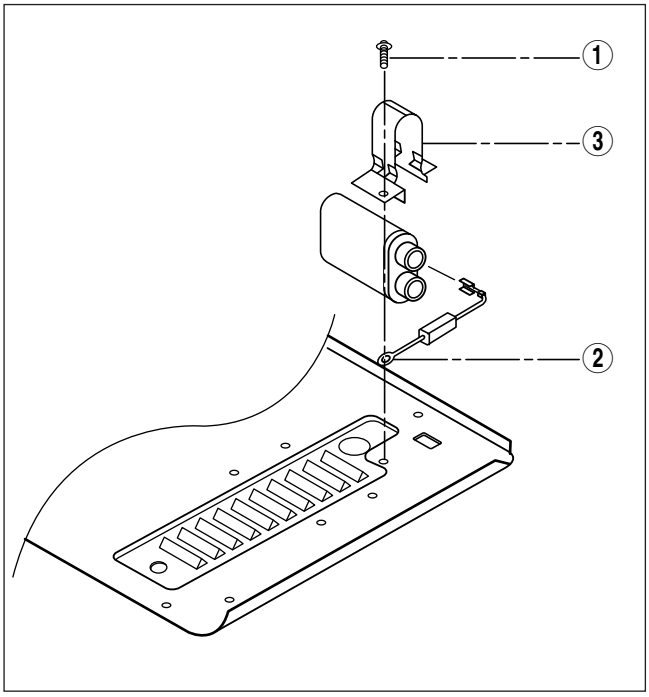
(2) Pull out the knob volume (B07) form the control panel ass'y.
(3) Remove eight screws (B05) which secure the PCB ass'y(B10).
(4) Remove the PCB ass'y (B10) from the control panel (B02).
(5) Remove the button cook (B04), the button auto cook (B09), the button start (B03) and the button function (B08) from the control panel (B02).
(6) Remove the decorator panel (B01) from the control panel(B02).
(7) Rmove the window display (B06) from the decorator panel(B01).
(8) Reverse the above steps for reassembly.

6. To remove high voltage capacitor.

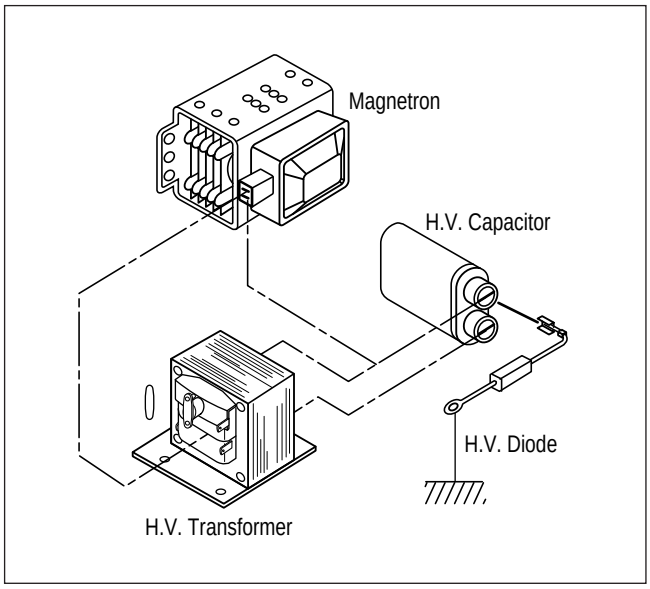
(1) Remove a screws ① which secure the grounding ring terminal of the H.V. diode ② and the capacitor holder ③.

(2) Remove the H.V. diode ② from the capacitor holder ③.

(3) Remove the above steps for reassembly.



High voltage circuit wiring

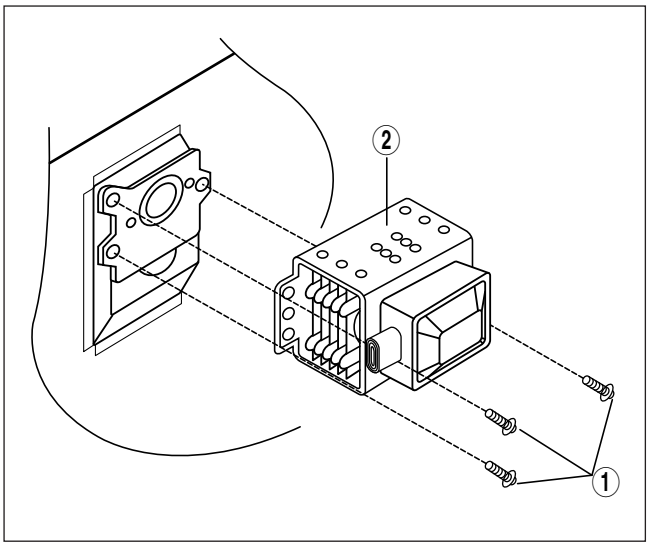


7. To remove magnetron.

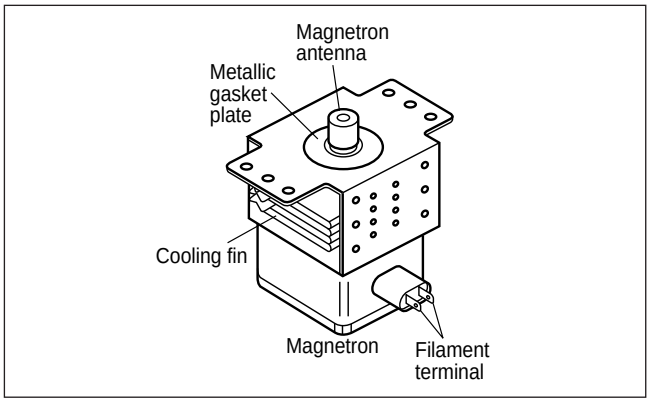
(1) Remove three screws ① which secure the magnetron ②.

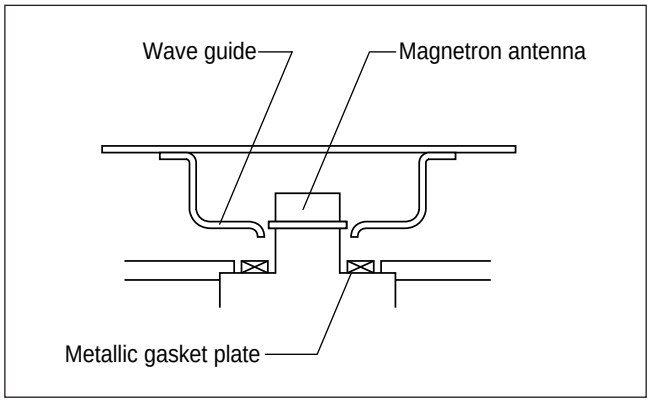
(2) Remove the magnetron ② .

(3) Reverse the above steps for reassembly.



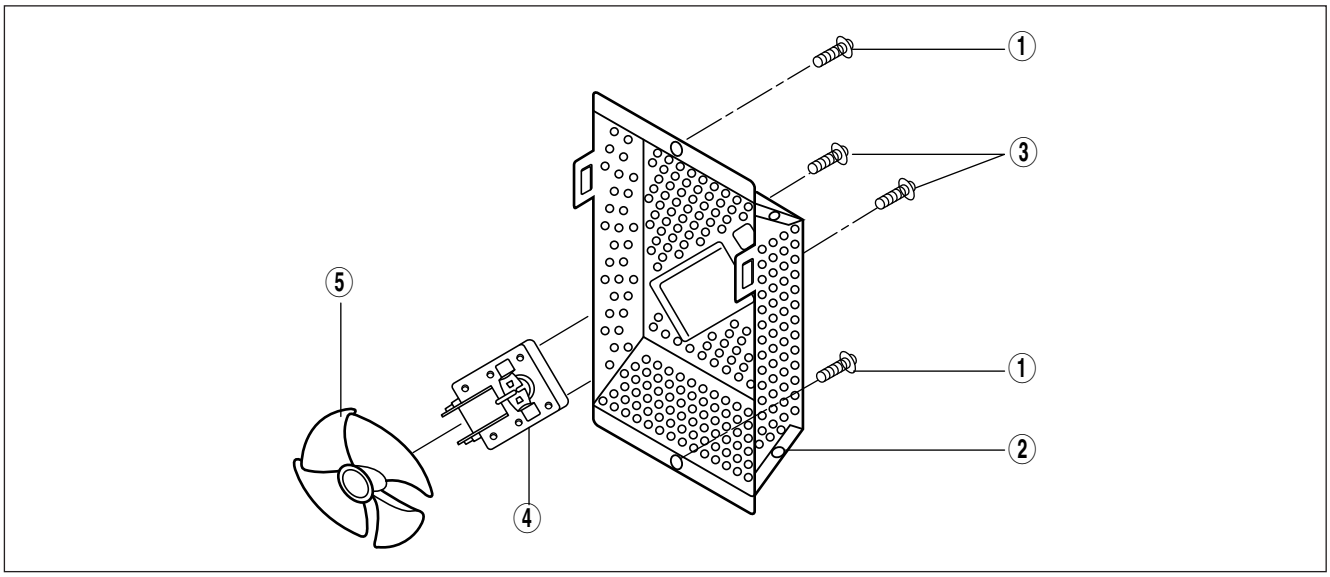
CAUTION: Never install the magnetron without the metallic gasket plate which is packed with each magnetron to prevent microwave leakage.
Whenever repair work is carried out on magnetron, check the microwave leakage. It shall not exceed 4mW/cm^2 for a fully assembled oven with door normally closed.





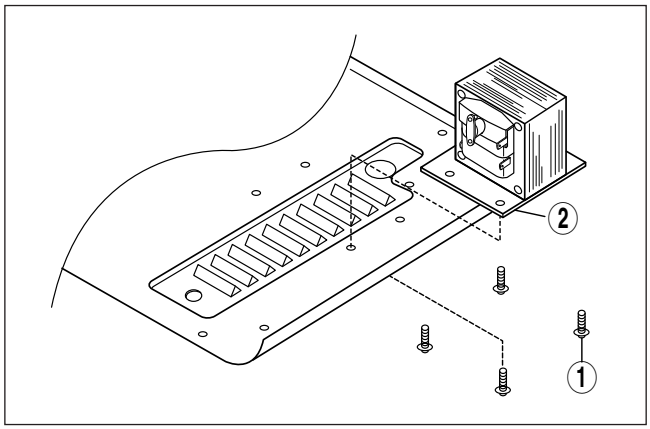
8. To remove fan motor assembly.

(1) Remove two screws (1) which secure the back cover (2) from the cavity outer.
(2) Remove two screws (3) which secure the fan motor (4) from the back cover (2).
(3) Pull out the fan (5) from the fan motor (4).
(4) Reverse the above steps for reassembly.



9. To remove transformer.

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



TROUBLE SHOOTING GUIDE

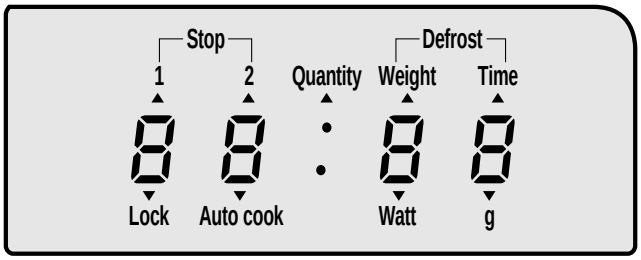
Folling the procedure below to check if the oven is defective or not.

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.

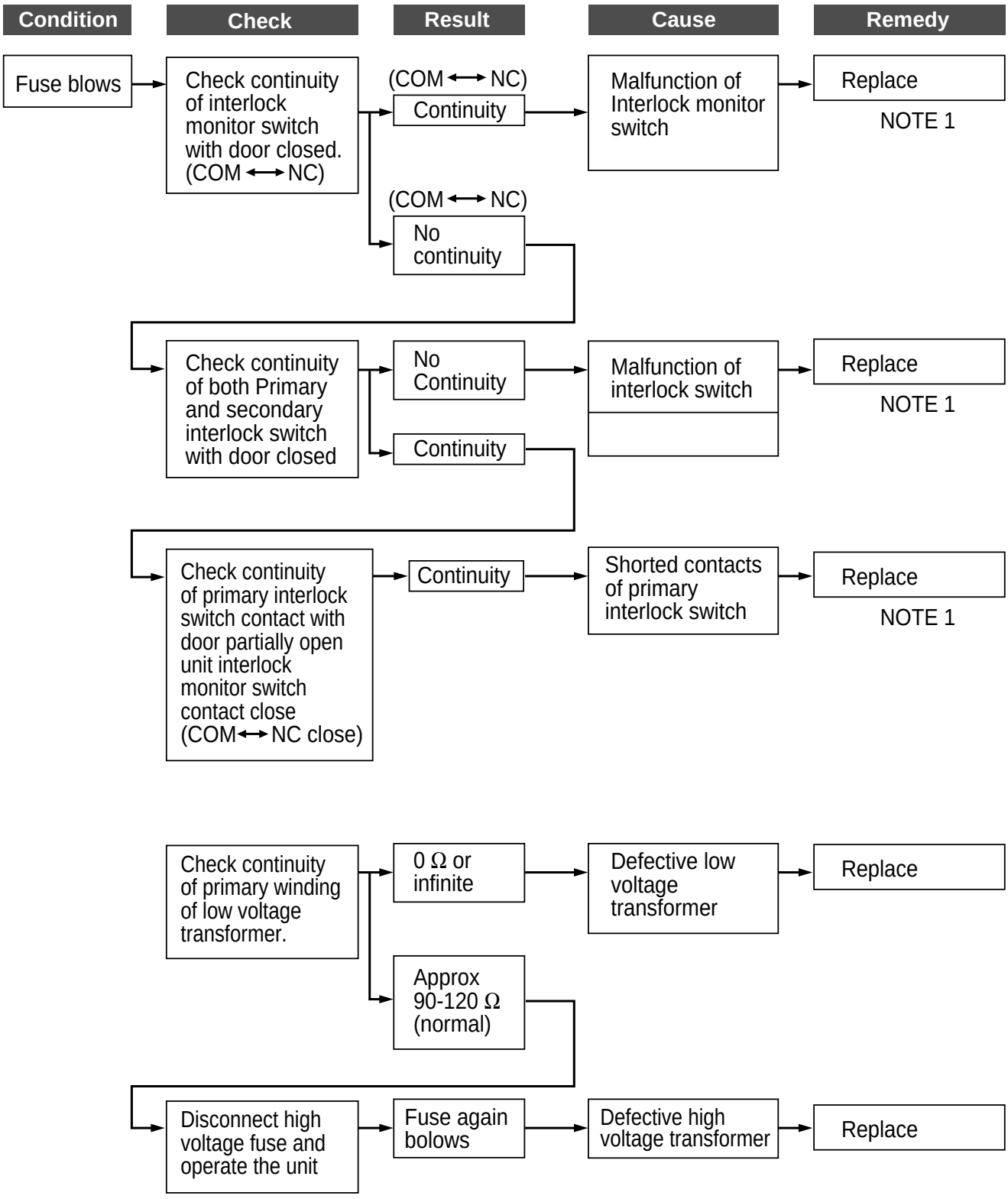
NOTE: When electric parts are checked or replaced, be sure the power cord is not inserted the wall outlet.
Check wire harness, wiring, and connection of the terminals, and power cord before check the parts listed below.

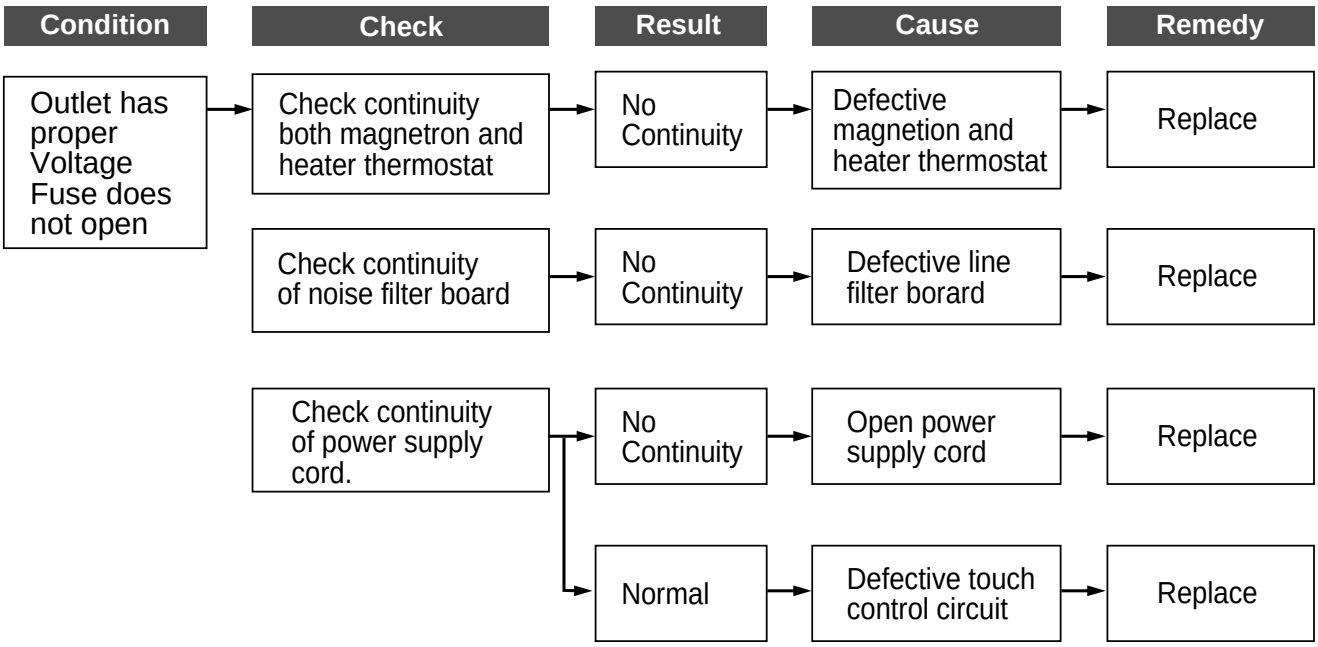
(TROUBLE 1) The following visual conditions indicate a probable defective touch control circuit.

1. Incomplete segments.
   (A) Segments missing.
   (B) Partial segments missing.
   (C) Digit flickering other than normal fluorescent slight flickering.
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 5:00 setted, 3:00 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.



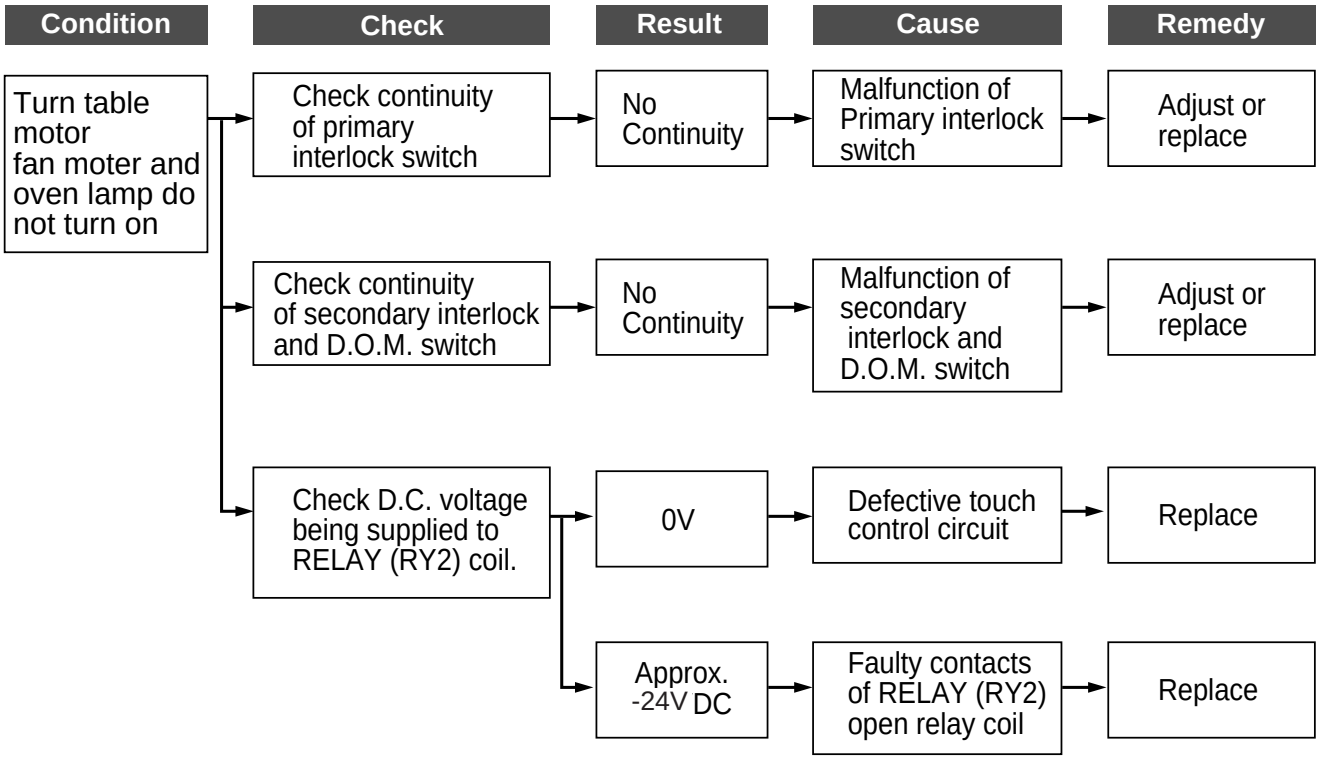
(TROUBLE 2) Oven does not operte at all; any inputs can not be acceted



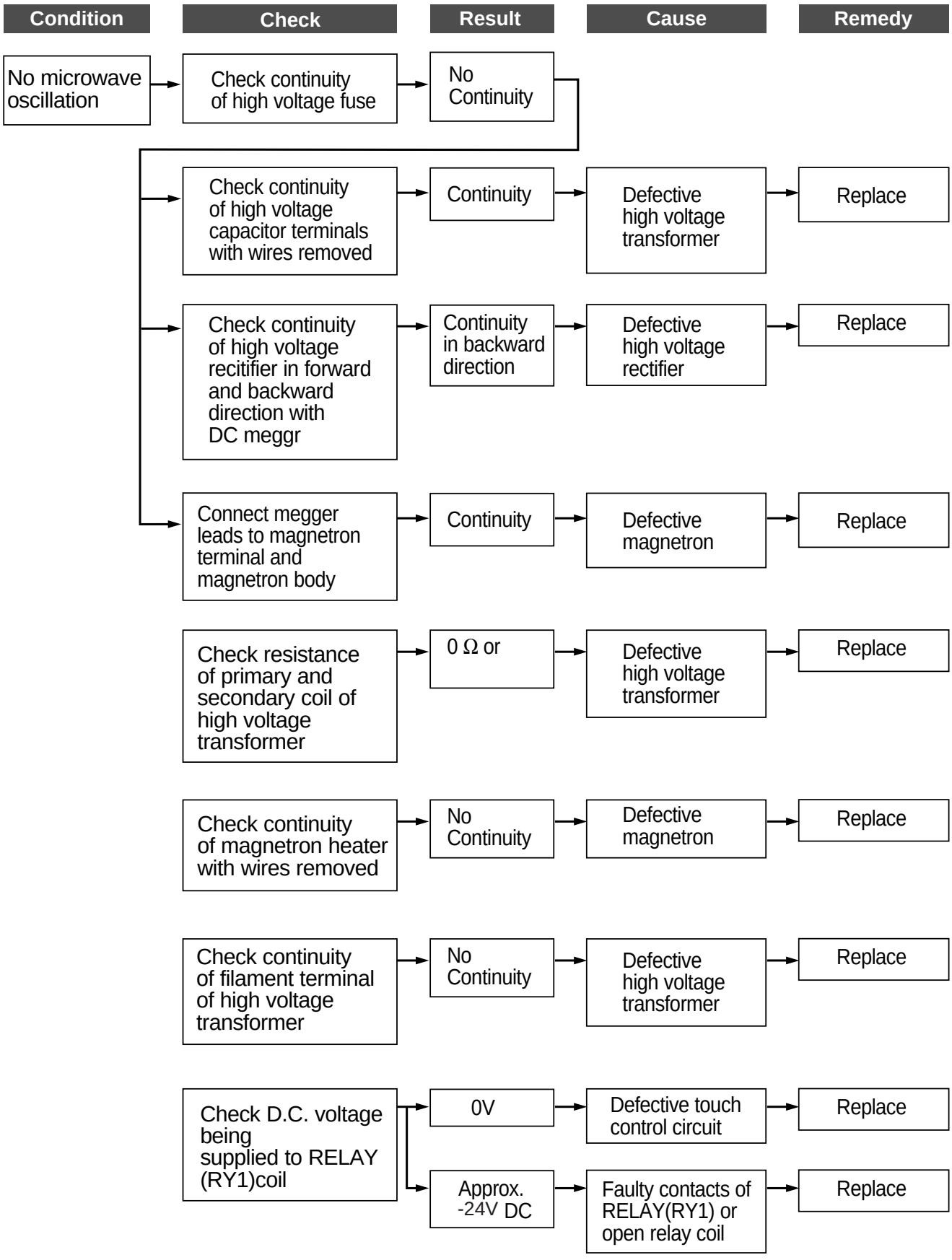


NOTE 1: All these switches must be replaced at the same time, please refer to page 17 and 18 for adjustment instructions.

(TROUBLE 3) 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 4) No microwave oscillation even though fan motor rotates.



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

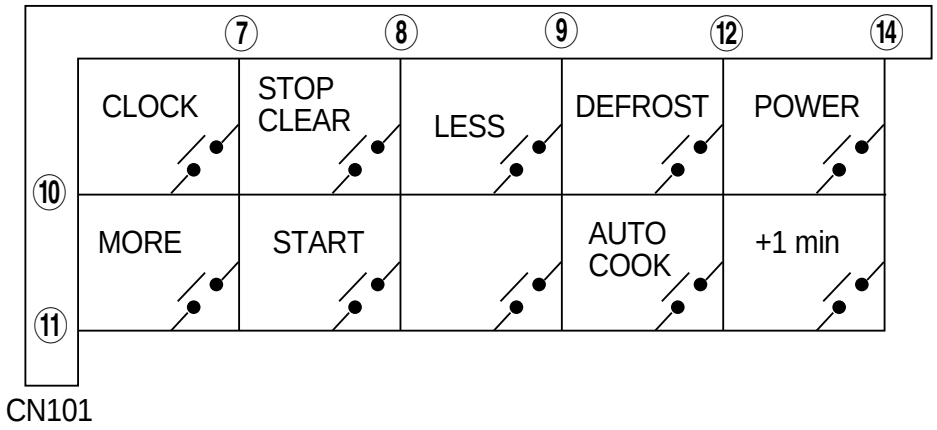


FIG. 4 KEY MATRIX

The tact switch keyboard consists of 9 keys whose aconfigurations 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) CLOCK button: Between 7 and 10
2) STOP/CLEAR button: Between 8 and 10
3) LESS button: Between 9 and 10
4) DEFROST button: Between 12 and 10
5) POWER button: Between 14 and 10
6) MORE button: Between 7 and 11
7) START button: Between 8 and 11
8) AUTO COOK button: Between 12 and 11
9) +1 min button: Between 14 and 11

COMPONENT TEST PROCEDURE

1. High voltage is present at the high voltage terminal of the high voltage transformer during any cooking cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components or wiring, always unplug the oven from its power source and discharge the capacitor (see page 24).

1. High voltage transformer

(A) Remove connections from the transformer terminals and check continuity.

(B) Normal readings should be as follows:

Secondary winding.....
.....Approx 95Ω±10%(KOR-816T)
.....Approx. 90Ω±10%(KOR-616T)
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

(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 agin 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. Anormal diodes resistance will be infinite in one direction and several hundred KΩ inthe other direction.

4. Magnetron

For complete magnetron diagnosis, refer to "Measurement of the Microwave Output Power". (Page 24) Continuity checks can only indicate and open filament or a shorted magnetron. To diagnose for an open filament or shorted magnetron.

(A) Isolate magnetron from the circuit by disconecting the leads.

(B) A continuity check across magnetron filament terminals should indicate ohm or less.

(C) A continuity check between each filament terminal and magnetron case should read open.

5. Interlock monitor switch

The interlock switch can be checked with an ohmmeter. Isolate the switch and then connect the meter leads to the common (COM) and normally close (NC) terminals of the switch. The meter should indicate an open circuit with the door closed and a closed circuit with the door opened.

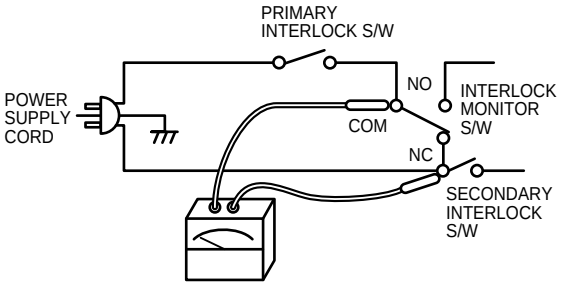
6. Primary and secondary interlock switch

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

SAFETY INTERLOCK CONTINUITY TEST

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

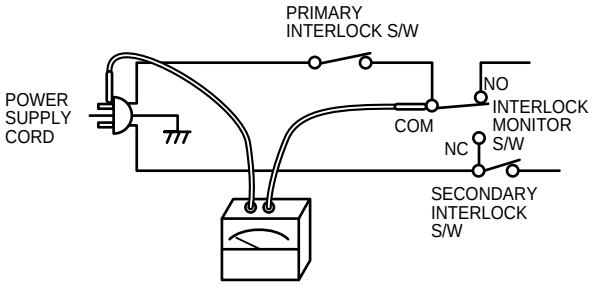
1) In case of interlock monitor check.
(Lamp on or zero resistance)



(ohmmeter)
– Fig. a –

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

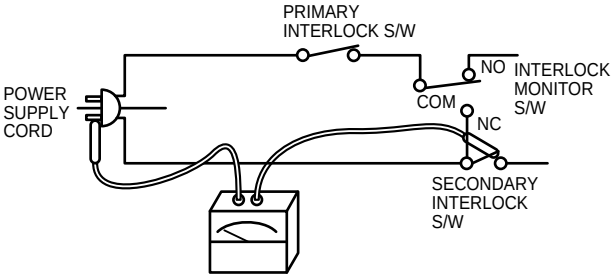
2) In case of primary interlock check.
(Lamp on or zero resistance)



(ohmmeter)
– Fig. b –

Condition: 1) Door is closed.
2) Timer is on.

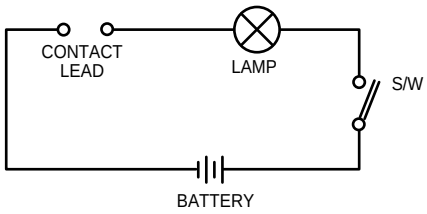
3) In case of secondary interlock switch.
(Lamp on or zero resistance)



(ohmmeter)
– Fig. c –

Condition : The same as primary interlock check.

* (Schematic diagram of S/W tester)

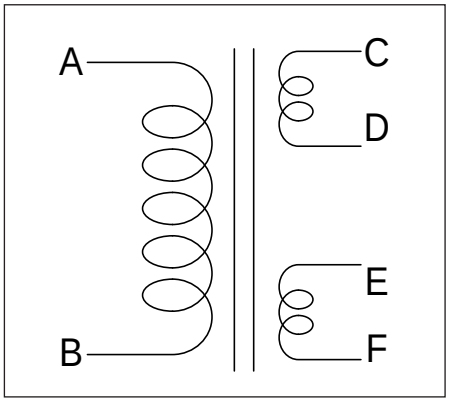


PRINTED WIRING BOARD

1. CIRCUIT CHECK PROCEDURE

1) Low voltage transformer (DMR-814FS) check.

The low voltage transformer is located on the P.C.B. Measuring condition: Input voltage:220V
Frequency : 60Hz



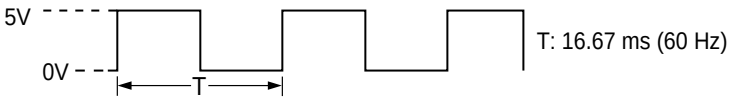
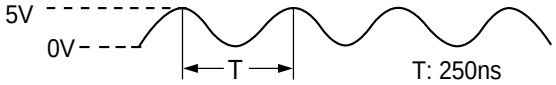
Terminal \ Voltage	LOAD	NO LOAD
C-D	-19VDC	-24VDC
E-F	2.1VDC	2.2VAC

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)

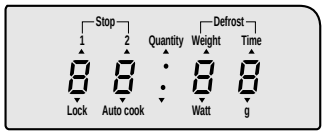
NO.	CHECK POINT	REMARK
1	PIN 21,24,32,33 OR 34	-5VDC
2	PIN 48	-27VDC
3	PIN 44	
4	PIN 18 OR 19	
5	DP1 PIN 1& 25	2.6 VAC (DISPLAY FILAMENT VOLTAGE)

CHECK METHOD

NO.	MEASURE POINT	WAVEFORM	REMARK
1	MP 1	-5V DC	REPLACE Q4, EC2
2	MP 2	-16V DC	REPLACE R6, EC3
3	MP 3	-24V DC	REPLACE D12, D13, EC4

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

2) Display prolems

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	Refer to “The display trouble shooting data”		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

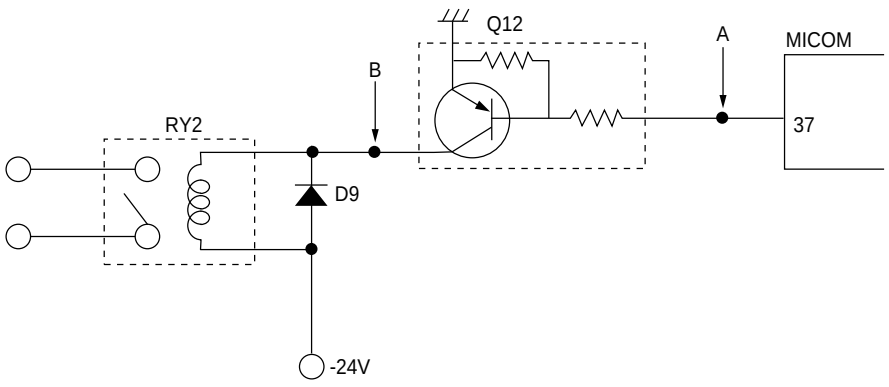
TROUBLE	DISPLAY NAME & PIN NO.	MICOM OUTPUT IN PIN NO.
TIME DEFROST, g do not come on	GRID 1 (G1), 21	10
WEIGHT DEFROST, WATT do not come on.	GRID 2 (G2), 17	6
QUANTITY does not come on	GRID 3 (G3), 14	3
STAGE 2,AUTO COOK do not come on.	GRID 4 (G4), 20	2
STAGE 1, LOCK do not come on.	GRID 5 (G5), 4,7	1
SEGMENT, “a” does not come on from G1 to G5.	SEGMENT d, 19	8
SEGMENT, “b” does not come on from G1 to G5.	SEGMENT e, 18	7
SEGMENT, “c” does not come on from G1 to G5.	SEGMENT f, 16	5
SEGMENT, “d” does not come on from G1 to G5.	SEGMENT a, 23	12
SEGMENT, “e” does not come on from G1 to G5.	SEGMENT b, 22	11
SEGMENT, “f” does not come on from G1 to G5.	SEGMENT c, 20	9
SEGMENT, “g” does not come on from G1 to G5.	SEGMENT g, 15	4
DEFROST, QUANTITY, STAGE2, STAGE1 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 “ START ” 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.



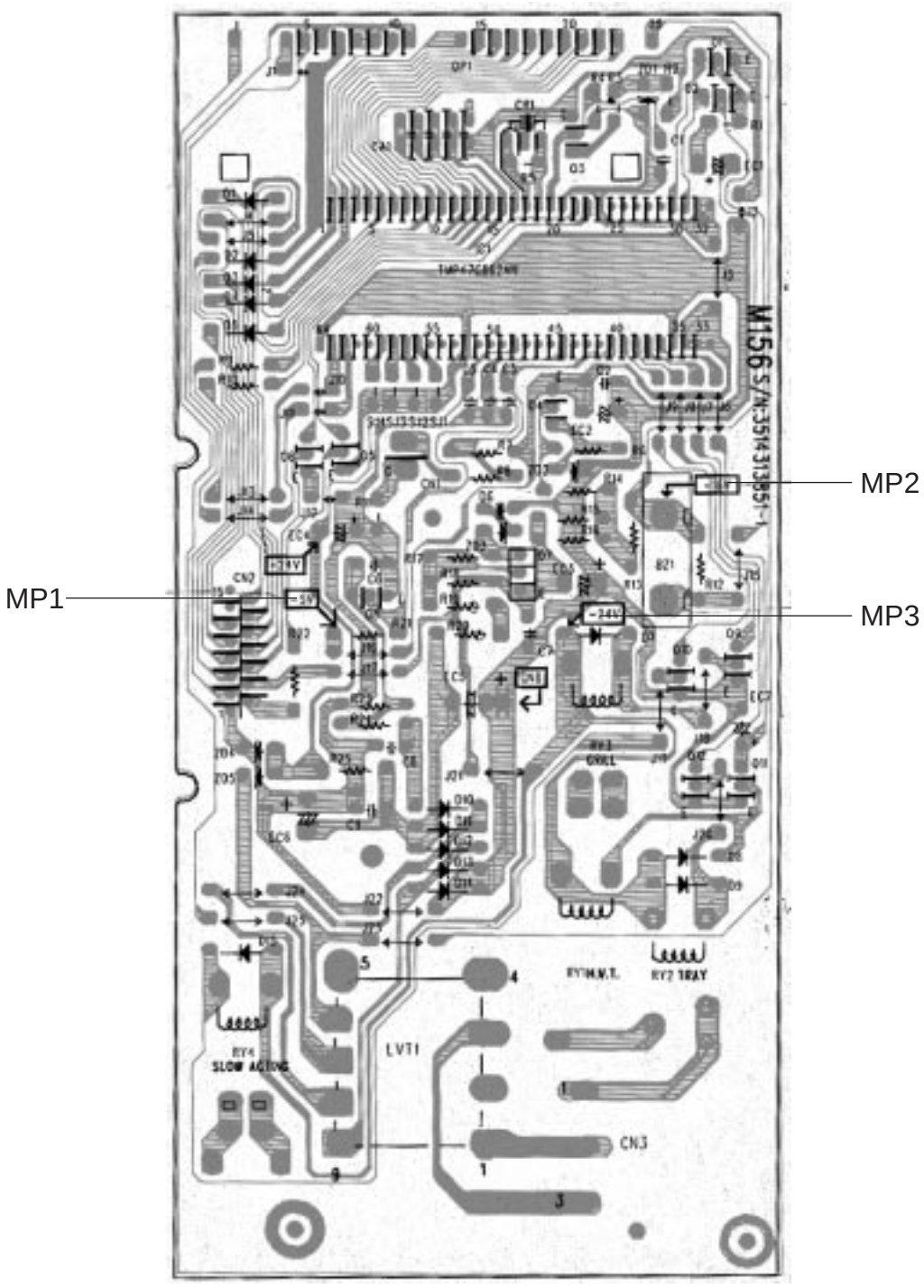


FIG. 5 MEASUREMENT POINT

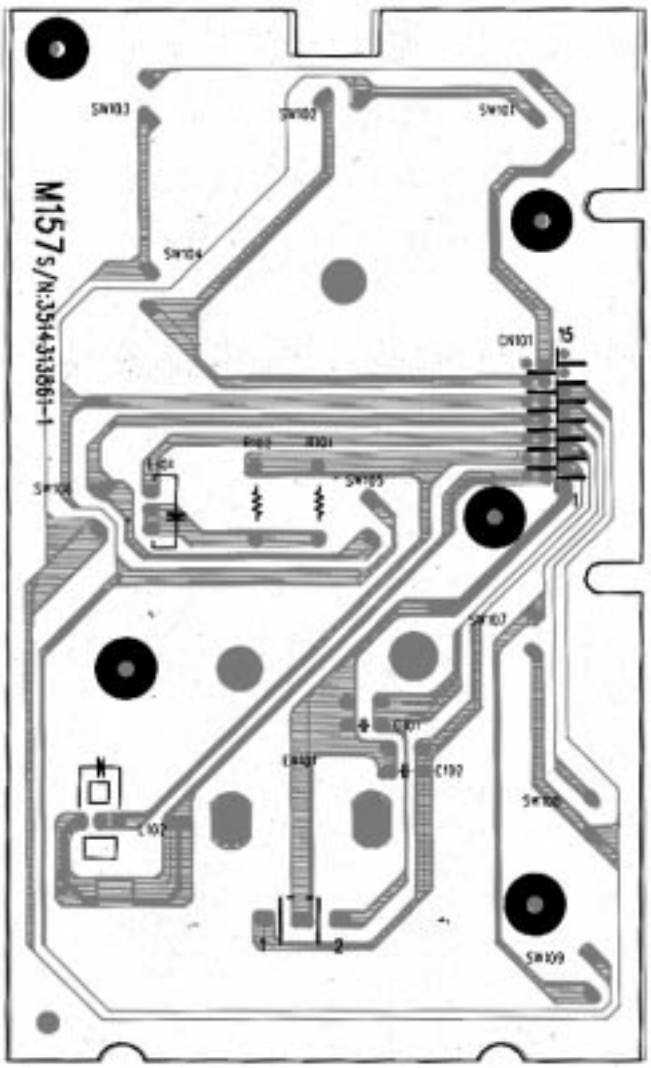
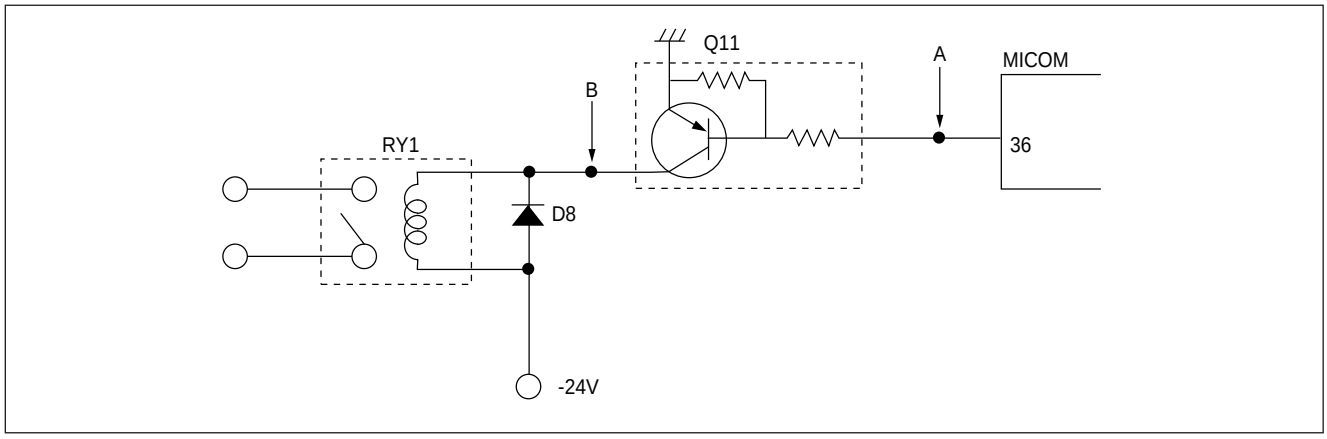


FIG. 5 MEASUREMENT POINT

CHECK METHOD

STAGE \ POINT	A	B
RELAY “2” ON	– 5VDC	GND
RELAY “2” OFF	GND	–24VDC

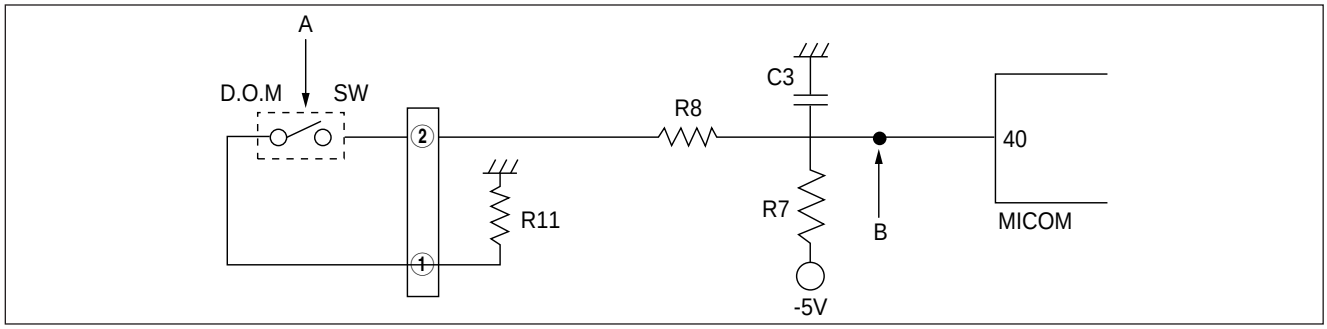
(2) When pressing “ START ” button, oven lamp turn on.
Fan motor and turntable motor rotate and cook indicator in display comes on.
* Cause : RELAY “1”does not operate.



CHECK METHOD

STAGE \ POINT	A	B
RELAY “2” ON	– 5VDC	GND
RELAY “2” OFF	GND	–24VDC

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

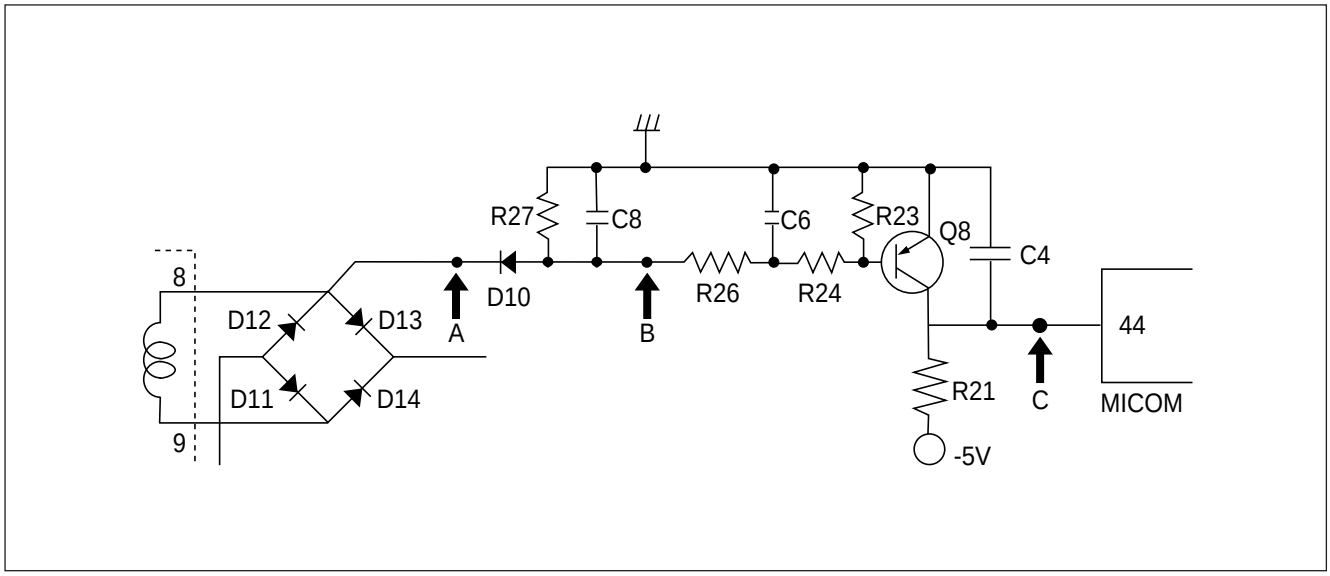


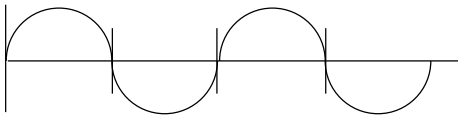
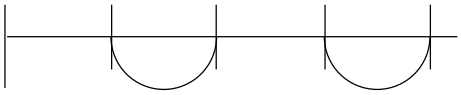
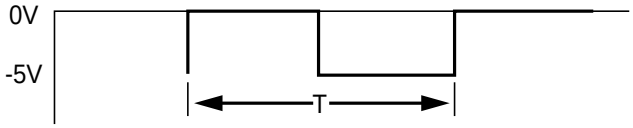
CHECK METHOD

STAGE \ POINT	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

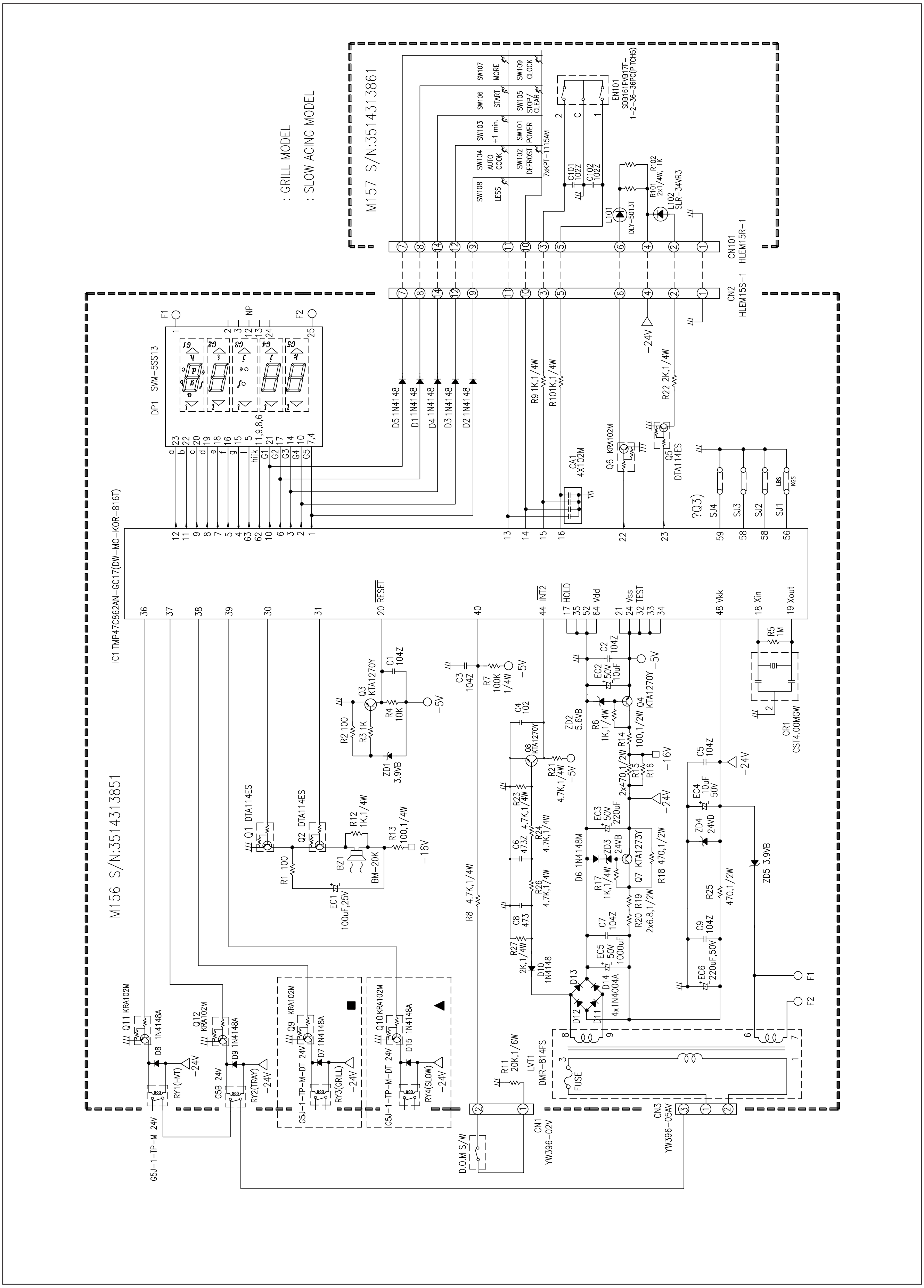
6) When the digital clock does not operate properly.



POINT	WAVEFORM
A	
B	
C	 T: 16.67 ms(60Hz)

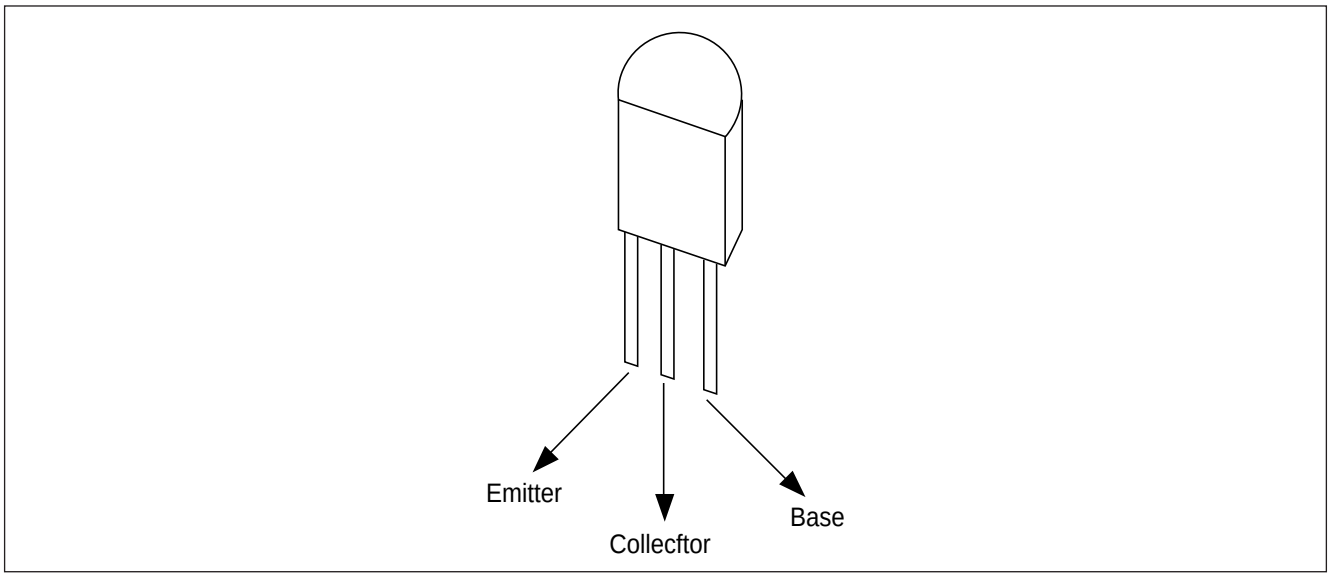
If clock does not keep exact time, you must check Diode D10, transistor Q8.

2. P. C. B CIRCUIT DIAGRAM

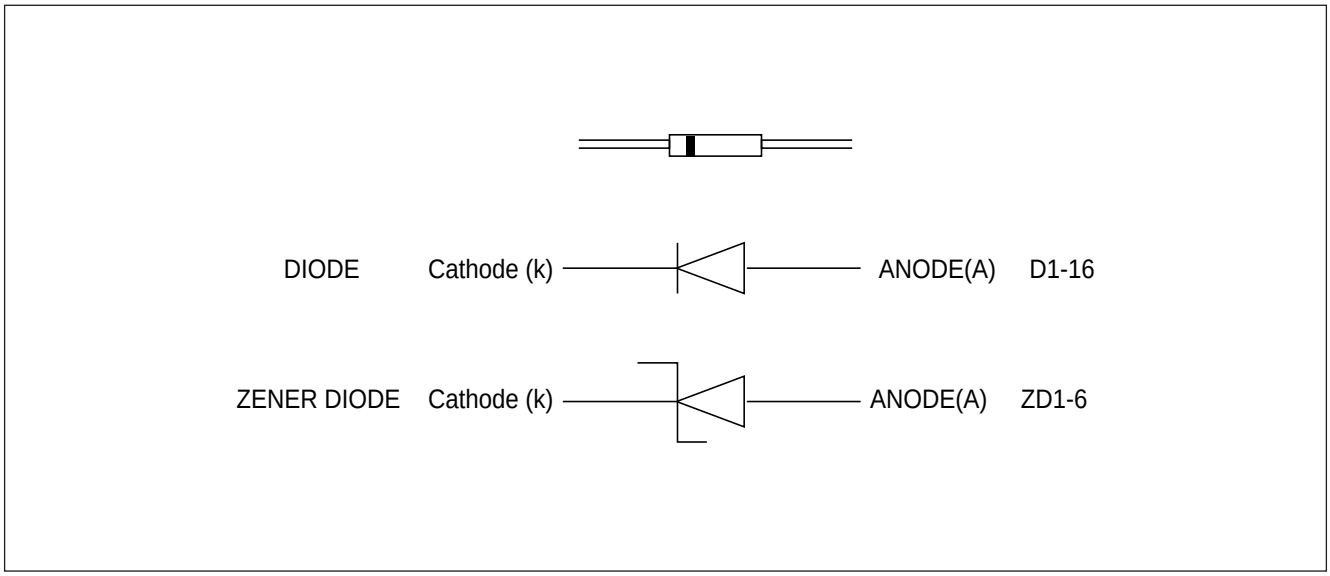


3. COMPONENT INFORMATION

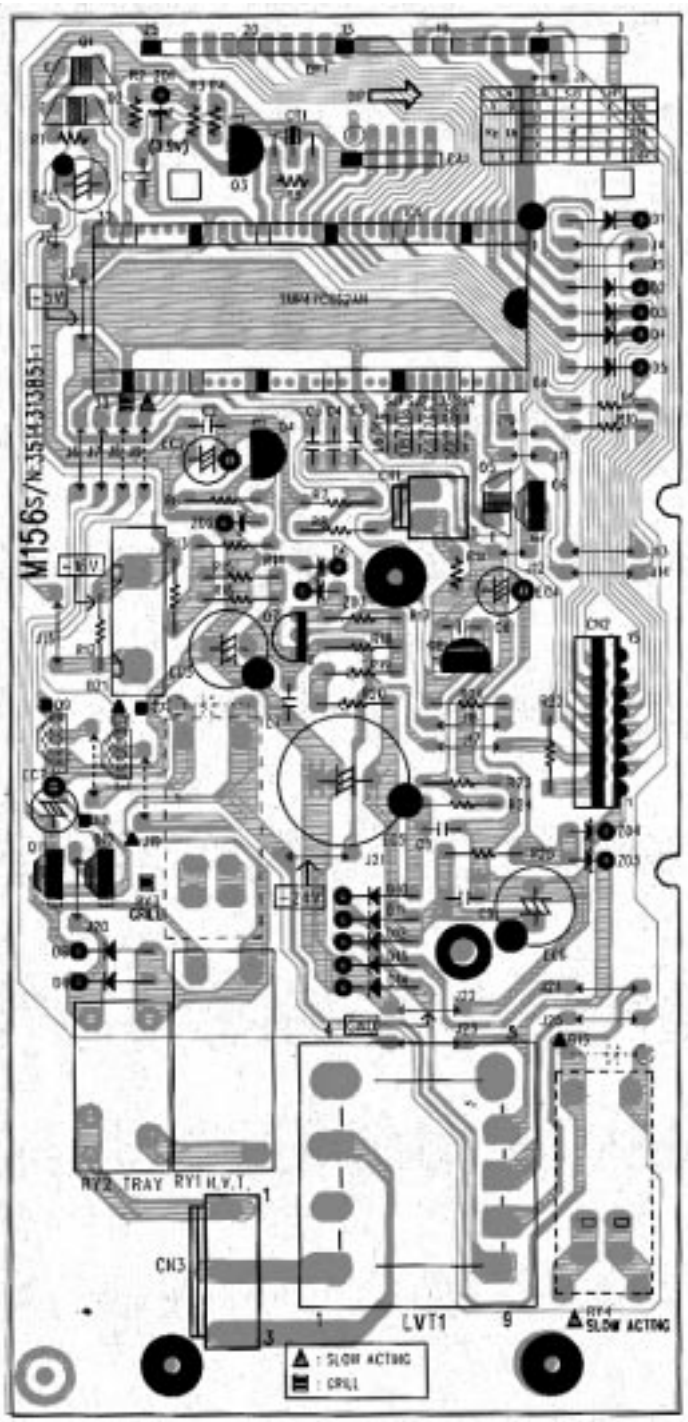
1) Transistor(NPN Type)

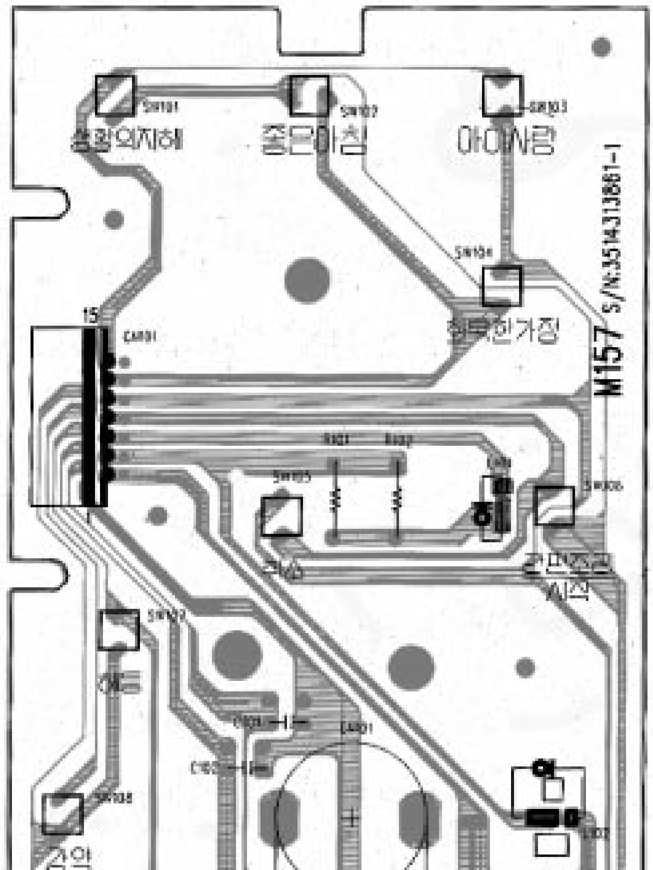


2) Diode and zener diode



4. PRINTED CIRCUITS BOARD





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M157
S/N:3514313861-1
2 C 1

5. P.C.B LOCATION NO.

1) PCB PART LIST

NO	PART NAME	SYMBOL	SPECIFICATION	PARTCODE	Q'TY
1	PCB MAIN	M156	M156	3514313851	1
2	R CARBON FILEM	R6, R9, R10, R12, R17	1/4W 1KΩJ	RD-4Z102J-	5
3	R CARBON FILEM	R13	1/4W 100ΩJ	RD-4Z101J-	1
4	R CARBON FILEM	R27	1/4W 2KΩJ	RD-4Z202J-	1
5	R CARBON FILEM	R8, R21, R23, R24, R26	1/4W 4.7ΩJ	RD-4Z472J-	5
6	R CARBON FILEM	R7	1/4W 100KΩJ	RD-4Z104J-	1
7	R CARBON FILEM	R22	1/6W 1MΩJ	RD-4Z202J-	1
8	R CARBON FILEM	R5	1/6W 1MΩJ	RD-AZ105J-	1
9	R CARBON FILEM	R1, R2	1/6W 1KΩJ	RD-AZ101J-	2
10	R CARBON FILEM	R3	1/6W 1KΩJ	RD-AZ103J-	1
11	R CARBON FILEM	R4	1/6W 10KΩJ	RD-AZ103J-	1
12	R CARBON FILEM	R11	1/6W 20KΩJ	RD-AZ203J-	1
13	R CARBON FILEM	R19, R20	1/2W 6.8KΩJ	RD-2Z689JS	2
14	R CARBON FILEM	R16, R18, R25	1/2W 470KΩJ	RD-2Z471JS	3
16	R CARBON FILEM	R14	1/2W 100ΩJ	RD-2Z101JS	1
17	C CERAMIC	C1~C5, C7~C9	50V 0.1uF Z	CCKF1H473Z	8
18	C CERAMIC	C6	50V 0.047uF Z	CCKF1H104Z	1
19	C ARRRAY	CA1	50V 1000PF(5P)	CN4XB-102M	1
20	DIODE ZENER	D1~D5, D10	1N4148	DZN4148-	6
21	DIODE RECTIFIER	D8, D9, D11~D14	1N4002A	DZN4002A-	6
22	DIODE SWITCHING	D6	1N4148M	DZN4148M-	1
23	DIODE ZENER	ZD1, ZD5	MTZ3.9B	DZTZ3R9B-	2
24	DIODE ZENER	ZD2	MTZ5.6B	DZTZ5R6B-	1
25	DIODE ZENER	ZD3, ZD4	MTZ24B	DZTZ5R6B-	2
26	TR DIGITAL	Q1, Q2, Q5	DTA114ES	TDTA114ES-	3
27	TR DIGITAL	Q6, Q11, Q12	KTRA106M	TZRA106M-	3
28	TRANSISTOR	Q3, Q4, Q8	KTA1270Y	TZTA1270Y-	3
29	TRANSISTOR	Q7	KTA1273Y	TZTA1273Y-	1
30	C ELECTRO	EC2, EC4	RS 50V 10uF	CEXE1H100A	2
31	C ELECTRO	EC1	RS 250V 100uF	CEXE1E101A	1
32	C ELECTRO	EC3, EC6	RSS 50V 220uF	CEXF1H221V	2
33	C ELECTRO	EC5	RSS 50V 1000uF	CEXF1H102V	1
34	CONNECTOR	CN1	YW396-02V	3519150520	1
35	CONNECTOR	CN2	HLEM15S-1	4CW215SBD0	1
36	CONNECTOR	CN3	YW396-05AV	3519150510	1
37	WIRE FLAT		1.25X15X90XC	WSJ-159007	1
38	IC MICOM	IC1	TMP47C862AN-GC17	13GSR816T-	1
39	RESONATOR	CR1	KBR-40MKSTF	5PKBR40MKS	1
40	BUZZER	BZ1	MB-20K	3515600100	1

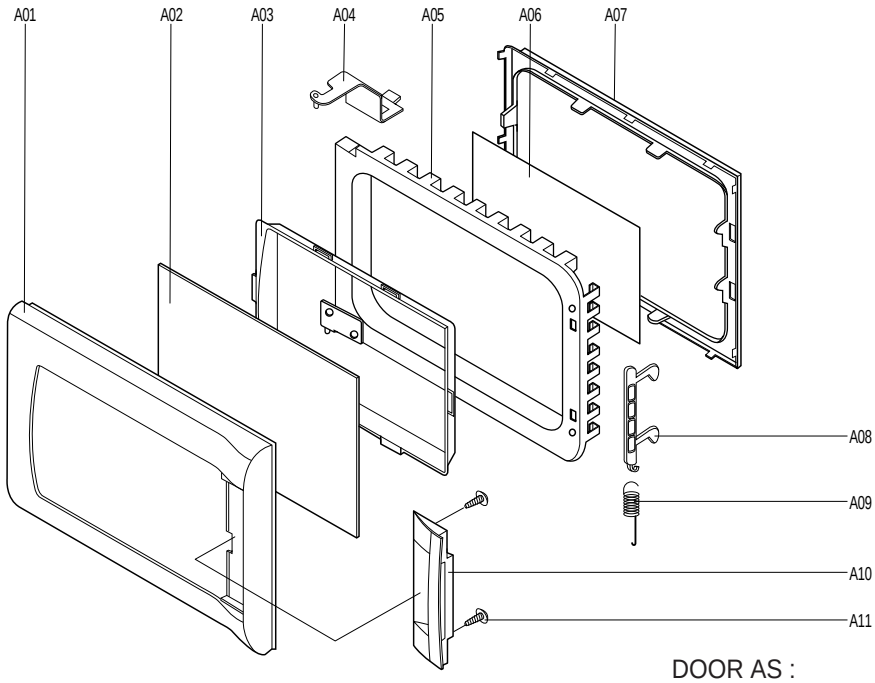
NO	PART NAME	SYMBOL	SPECIFICATION	PARTCODE	Q'TY
41	SW RELAY	RY1	G5J-1TP-M 24V	5SC0101107	1
42	SW RELAY	RY2	G5B-1 24V	5SC0101107	1
43	TRANS POWER	LVT1	DMR-814FS	5EP035301	1
44	DIGITRON	DP1	SVM-05SS13	DSVM5SS13-	1
45	HOLDER VFD		PP(BALCK)	351302600	1
46	JUMPER WIRE	J3~J7, J13~J17, J20~J25	1/0.52 TING COATING	85801052GY(10MM)	16
47	JUMPER WIRE	J1, J2, J10, J11, J12	1/0.52 TIN COATING	85801052GY(5MM)	5

2) SUB PCB PART LIST

NO	PART NAME	SYMBOL	SPECIFICATION	PARTCODE	Q'TY
1	PCB SUB	M157	M157	3514313861	1
2	LED	L102	SLR-34VR	DSLR34VR-	1
3	SWITCH TACT	SW101~SW109	KPT-1115AM	5S50101Z93	9
4	SWITCH TACT	CN101	HLEM15R-1	4CW215RBD0	1
5	LED	L101	DLY-5013T	DLY-5013T-	1
6	SW ROTARY	EN101	SDB161PVB17F- 1-2-36-36PC(PITCH5)	5S10109002	1
7	R CARBON	R101~103	1/4W KΩJ	RD-4Z102J-	3
8	C CERAMIC	C101~104	50V 100PF Z	CCZF1H102Z	4
9	COVER LED		PP(NATURAL)	3511404600	2

EXPLODED AND PARTS LIST

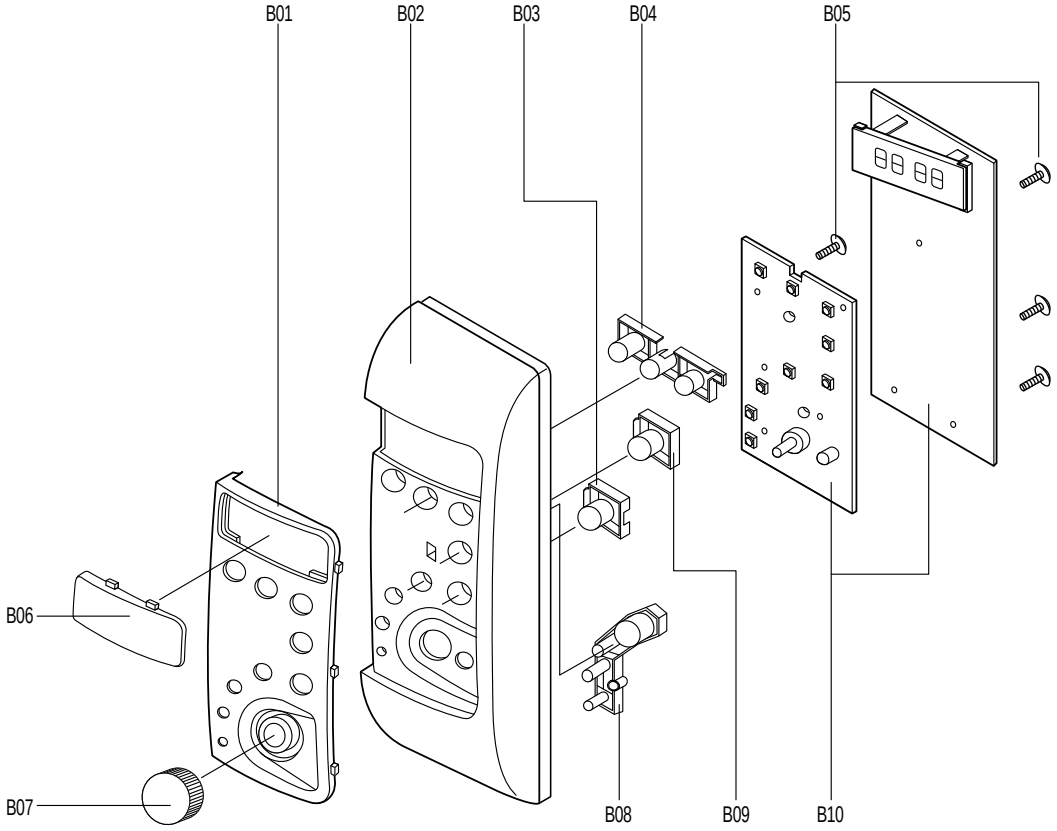
1. Door Assembly



DOOR AS :
3511707920

REF NO.	PART NAME	PART CODE	DESCRIPTION	Q'TY	REMARK
A01	FRAME DOOR	3512202020	ABS	1	KOR-616T
A02	BARRIER-SCREEN * O	3517003040	ACRYLE 1.5T	1	KOR-616T
A03	SUPPORTER BARR-S * O	3515304600	ABS	1	KOR-616T
A04	STOPPER HINGE * T AS	3515201500	KOR-61150S	1	
A05	DOOR PAINTING AS	3511706100	KOR-61150S	1	KOR-616T
A06	BARRIER-SCREEN * I	3517002800	PE 0.1T	1	KOR-616T
A07	GASKET DOOR	3512300200	PP	1	KOR-616T
A08	HOOK	3513100710	POM	1	
A09	SPRING HOOK	3515101310	HSW-3	1	
A10	HANDLE DOOR	3512601300	ABS	1	KOR-616T
A11	SCREW TAPPING	7122401211	T2S TRS 4X12 MFZN	2	

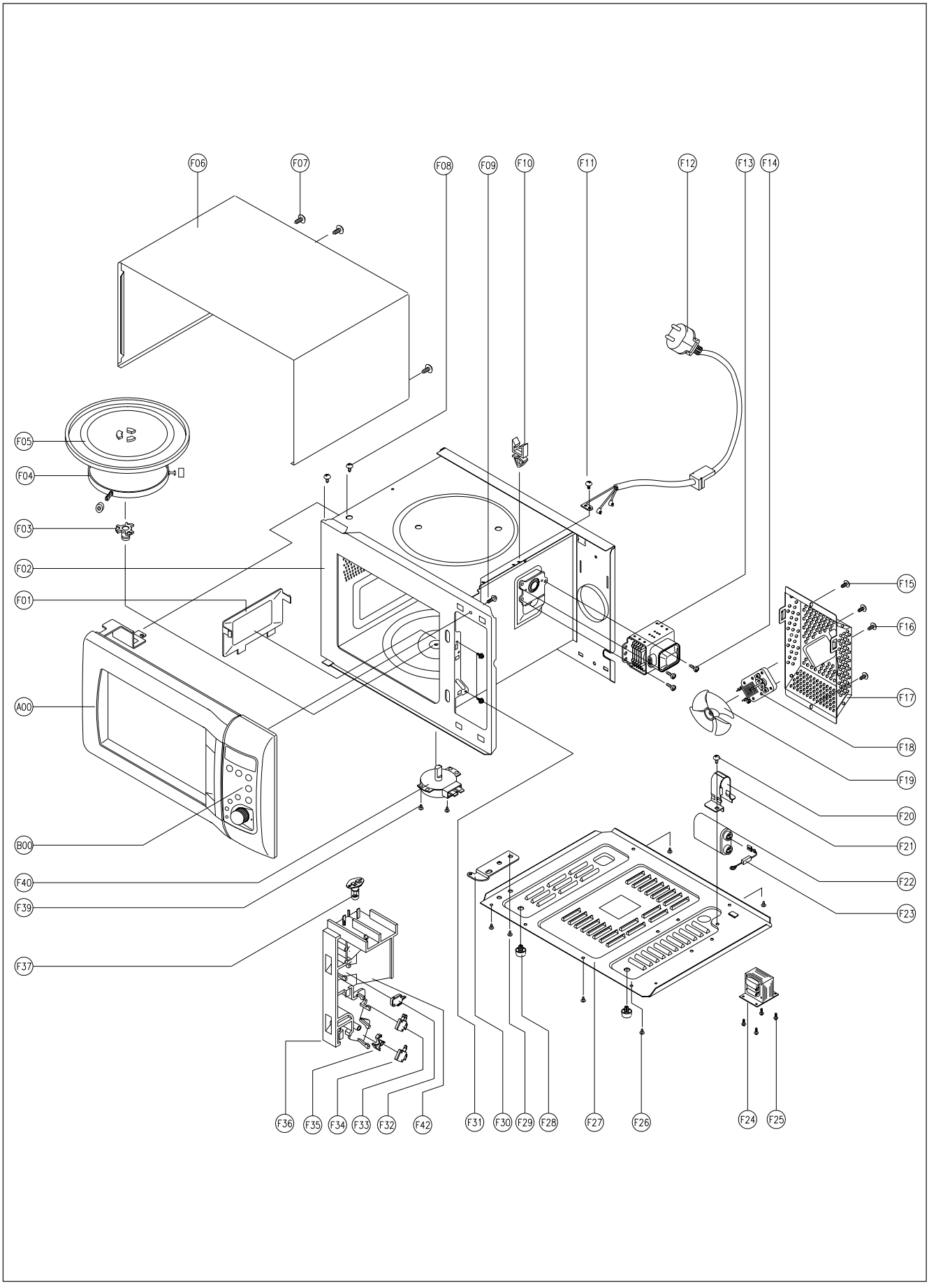
2. Control Panel Ass'Y



C-PANEL AS :
PKCPSWDD00

REF NO.	PART NAME	PART CODE	DESCRIPTION	Q'TY	REMARK
B01	DECORATOR C-PANEL		ABS	1	
		3511602300			KOR-616T
B02	C-PANEL		ABS	1	
		3516713350			KOR-616T
B03	BUTTON START	3516905800	ABS	1	MILKY
B04	BUTTON FUNCTION(COOK)	3516905710	ABS	1	
B05	SCREW TAPPING	7621301011	T2S PAN 3X10 PW MFZN	9	
B06	WINDOW DISPLAY		PMMA	1	
		3515500810			KOR-616T
B07	KNOB VOLUME	3513403810	ABS	1	
B08	BUTTON FUNCTION	3516905600	ABS	1	
B09	BUTTON FUNCTION(AUTO)	3516905910	ABS	1	
B10	PCB AS			1	
		PKMPMSUM00	KOR-616T0A		

3. Main Unit


F06
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PART LIST

REF NO	PART NAME	PART CODE	DESCRIPTION	Q'TY	REMARK
A00	DOOR ASS'Y		EXPLODED AND PART LIST	1	
B00	C/PANEL ASS'Y			1	
F01	COVER WAVE GUIDE	3511403200	PP	1	
		3516104800	KOR-61150S	1	616T
F03	COUPLER	3517400600	PPS	1	
F04	GUIDE ROLLER AS	3512510600	KOR-61150S	1	
F05	TRAY				
		3517203600	GLASS	1	616T
F06	CABINET				
		3510801300	PCM T0.6	1	616T
F07	SCREW TAPPING	7112401011	T1 TRS 4X10 MFZN	3	
F08	SCREW SPECIAL	3516003700	TT3 FLG HEX 4X8 MFZN	2	
F09	SCREW TAPPING	7122401211	T2S TRS 4X12 MFZN	1	
F10	CLAMP POWER CORD	4413A90012	NYLON 66	1	
F11	SCREW TAPPING	7112401011	T1 TRS 4X10 MFZN	1	
F12	CORD POWER AS	35113ACNM5	3X1.0 40X40 120-TRML	1	
F13	MAGNETRON	3518002200	2M218H (MF) I	1	
F14	SCREW SPECIAL	3516002700	T2S FLG HEX 4X13 SE MFZN	3	
F15	SCREW TAPPING	7112401011	T1 TRS 4X10 MFZN	2	
F16	SCREW MATCHINE	7601400811	PAN 4X8 PW MFZN	2	
F17	COVER *B	3511402500	SBGH T0.8	1	
F18	MOTOR SHADED POLE	3963324500	220V 25W MW10GA-R02	1	
F19	FAN	3511800300	PP+30% GLASS	1	
F20	SCREW TAPTITE	7272400811	TT3 TRS 4X8 MFZN	1	
F21	HOLDER HV CAPACITOR	3513001900	SECC T0.8	1	
F22	CAPACITOR HV				
		441L267010	2100VAC 0.70μF	1	616T
F23	DIODE H.V.	4416V24000	HVR-1X-32B	1	
F24	TRANS H.V.				
		3518107400	JY-N60P0-61T	1	616T
F25	SCREW SPECIAL	3516003700	TT3 FLG HEX 4X8 MFZN	4	
F26	SCREW TAPPING	7112401011	T1 TRS 4X10 MFZN	5	
F27	BASE				
		3510308700	SBHG T0.8	1	616T
F28	FOOT	3512100900	PP DASF-130	2	
F29	SCREW TAPTITE	7272400811	TT3 TRS 4X8 MFZN	1	
F30	STOPPER HINGE *U	3515201101	SCP-1 T2.5	1	
F31	SCREW TAPPING	7122401211	T2S TRS 4X12 MFZN	2	
F32	SWITCH MICRO	4415A17352	VP-533A-OF	1	
F33	SWITCH MICRO	4415A66600	VP-532A-OF	1	
F34	SWITCH MICRO	4415A17352	VP-533A-OF	1	
F35	LEVER LOCK	3513701300	POM	1	
F36	LOCK	3513805700	POM	1	
F37	LAMP	3513601600	BL 240V 25W T25	1	
F39	SCREW TAPPING	7121400611	T2S TRS 4X6 MFZN	2	
F40	MOTOR SYNCRO	3966310100	GM-16-24FD12	1	