S/M No. : OT1G0A0001

Service Manual

Microwave Oven & Hood Exhaust

Model : KOT-1G0W
KOT-1G0B
KOT-1G0S

• Caution:
In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information, please refer to PPL(Parts Price List) in Service Information Center (http://svc.dwe.co.kr).

Sep. 2007

DAEWOO ELECTRONICS

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 the microwave oven for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.

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

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

TABLE OF CONTENTS

SAFETY AND PRECAUTIONS **2**

SPECIFICATIONS **3**

EXTERNAL VIEW **4**

INSTALLATION **4**

OPERATIONS AND FUNCTIONS **4**

DISASSEMBLY AND ASSEMBLY **5**

TROUBLE SHOOTING GUIDE **28**

MEASUREMENT AND TEST **30**

WIRING DIAGRAM **37**

PRINTED CIRCUIT BOARD **41**

EXPLODED VIEW AND PARTS LIST **50**

SAFETY AND 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 Safey 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. 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.

CAUTION :

Microwave Radiation
Personnel Should Be Exposed to the Microwave Energy Which May Radiat from the Magnetron or Other Microwave Generating device if it is Improperly Used or Connected. All Input and Output Microwave Connections, Wave-Guide, Flanges and Gaskets Must be Secure. Never Operate the Device Without a Microwave Energy Absorbing Load Attached. Never Look Into an Openwaveguide or Antenna While the Device is Energized.

SPECIFICATIONS

Model		KOT-1G0A / KOT-1G4U
Power Supply		120V ~ 60 Hz, SINGLE PHASE WITH GROUNDING
Rated Current		14A
Microwave	Power Consumption	1600W, Max.
	Output Power (IEC 705)	1000W
	Frequency	2450 MHz
Outside Dimensions (WxHxD)		760x427x363 mm (29.9" x 16.8" x 14.3")
Cavity Dimensions (WxHxD)		514x248x347 mm (20.2" x 9.7" x 13.7")
Net Weight		21.8Kg (48 lbs) / 22.8Kg (50.3 lbs)
Timer		Approx. 99 min 99sec
Power Selections		10 Levels
Cavity Volume		1.6 Cu. Ft.
Magnetron cooling		Forced air
Microwave Distribution		turntable
Rectification voltage doubler, half-wave.		
Door Sealing		Choke System
Safety Device	Cavity Thermostat	open : 212°F/100°C, reset : 140°F/60°C
	Bottom Thermostat	open : 203°F/95°C, reset : 32°F/0°C
	Hood Thermostat	open : 104°F/40°C, reset : 132.8°F/56°C
	Line Fuse	20 A
	Door Interlock Switches	Primary Interlock Switch.
		Secondary Interlock Switch.
		Interlock Monitor.
Magnetron type		RM228JFP (or 2M218JFP)
High Voltage Capacitor		0.98uf 2.1KV AC
High Voltage Diode		350 mA, 9.0 KV
Cook-top Lamp		125V, 30W
Cavity Lamp		125V, 30W
Tray		Glass

* SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

EXTERNAL VIEW

; REFER TO THE INSTALLATION GUIDE

INSTALLATION

; REFER TO THE INSTALLATION GUIDE

OPERATIONS AND FUNCTIONS

; REFER TO THE INSTALLATION GUIDE

DISASSEMBLY AND ASSEMBLY

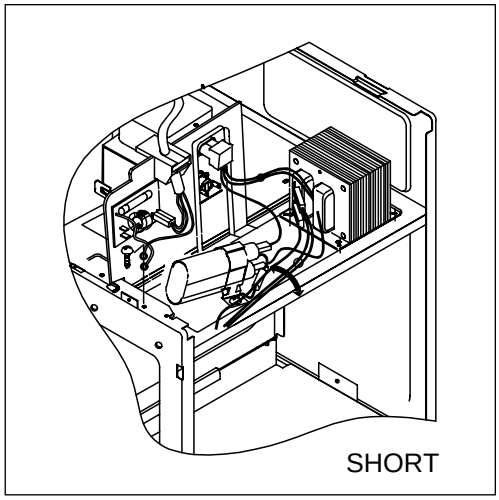
Caution to be observed when trouble shooting

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

1. Always remove the power plug from the outlet before servicing.
2. Use an insulated screwdriver and wear rubber gloves when servicing the high voltage side.
3. Discharge the high voltage capacitor before touching any oven components or wiring.

1) Check the grounding.
Do not operate on a two-wire extension cord.
It is imperative, therefore, to make sure it is grounded properly before beginning repair work.

2) Warning about the electric charge in the high voltage capacitor.
for about 30 seconds after the operation has stopped an electric charge remains in the high voltage capacitor.
When replacing or checking parts, short between oven chassis and the negative high terminal of the high voltage capacitor by using a properly insulated screwdriver to discharge.



4. When the 20A fuse is blown due to the operation for the monitor switch; replace primary interlock switch, secondary interlock switch and interlock monitor switch.
5. After repair or replacement of parts, make sure that the screws are properly tightened, and all electrical connections are tightened.
6. Do not operate without cabinet.

CAUTION :

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

CAUTION :

When servicing the appliance, take care when touching or replacing high potential parts because of electric shock or exposing microwave. These parts are as follows - HV Transformer, Magnetron, HV Capacitor, HV Diode.

1. GENERAL

-REMOVING / REINSTALLING

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

-CABINET

CABINET REMOVAL

Refer to FIG. 1 for the following steps:

1. Remove the microwave oven from its mounting location and set it on a protected (padded) work surface.
2. Remove the two screws from the top of the microwave oven that secure the vent grille to the oven, and pull the top of the vent grille out so the tabs are from their slots, and remove it.
3. Remove 1 screw from the vent motor cover.
4. Remove the remaining 13 screws from the top, side and rear of the cabinet. Slide the cabinet back and unhook it from the side tabs, then slide the power cord into the cabinet, and lift the cabinet from the oven.
   Proceed to the section for the component you wish to service.

CABINET INSTALLATION

Refer to FIG. 1 for the following steps:

1. Position the cabinet over the top of the microwave oven and slide the power cord all the way through the top opening.
2. Slide the cabinet forward so that the tabs along the sides of the microwave oven fit into the corresponding slots in the cabinet and tighten the screws.
3. Install the vent grille on the oven with two screws.
4. Install the oven in its mounting location.

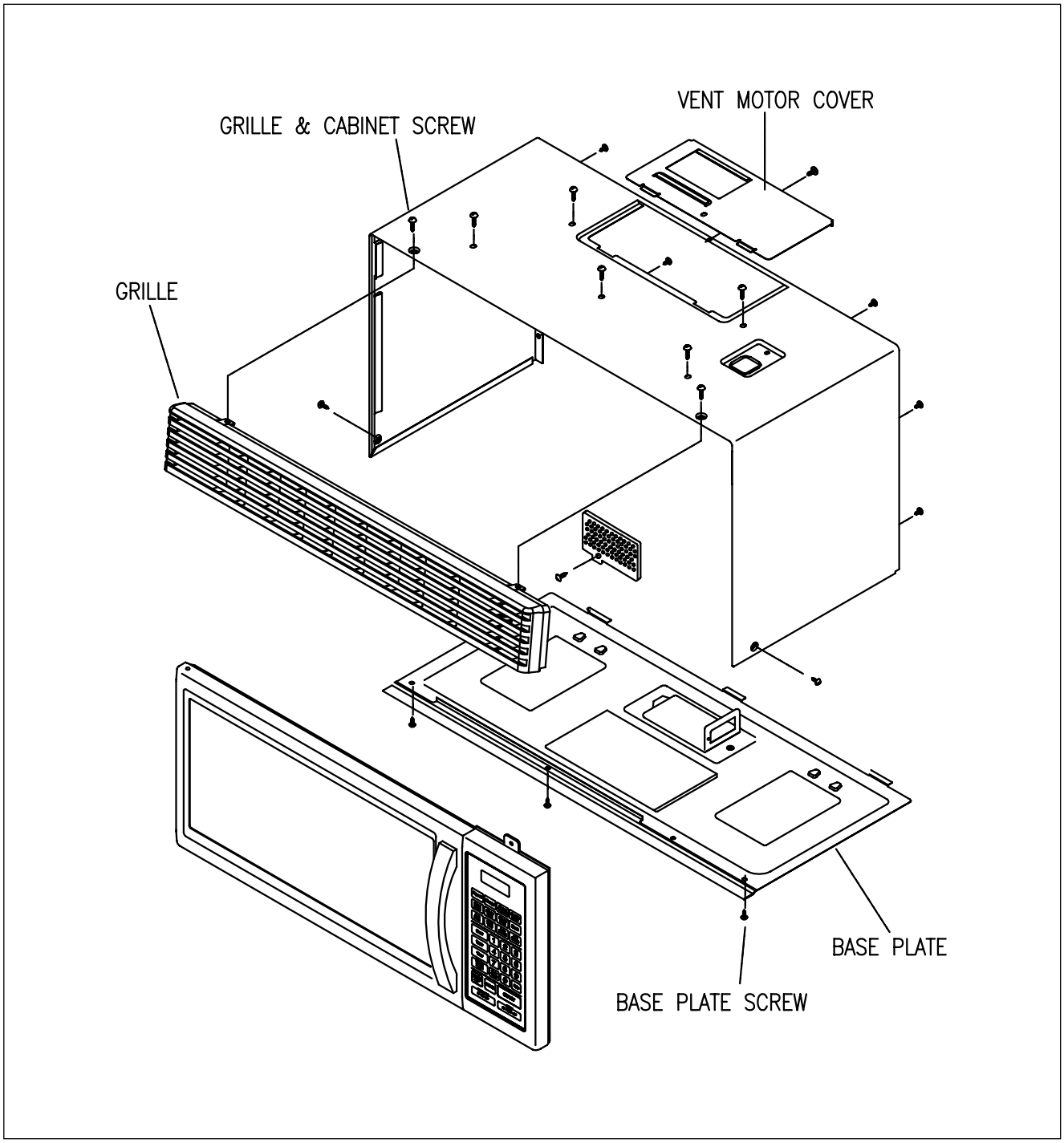

VENT MOTOR COVER
GRILLE & CABINET SCREW
GRILLE
BASE PLATE
BASE PLATE SCREW

FIG. 1

2.THE OPERATING CONTROL SYSTEMS

-REPLACING THE CONTROL CIRCUIT BOARD

WARNING :

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. Remove two screws on the top of the microwave oven for the vent grille and remove the grille(See FIG. 1).
Refer to FIG. 2, FIG. 2-1 for the following steps:

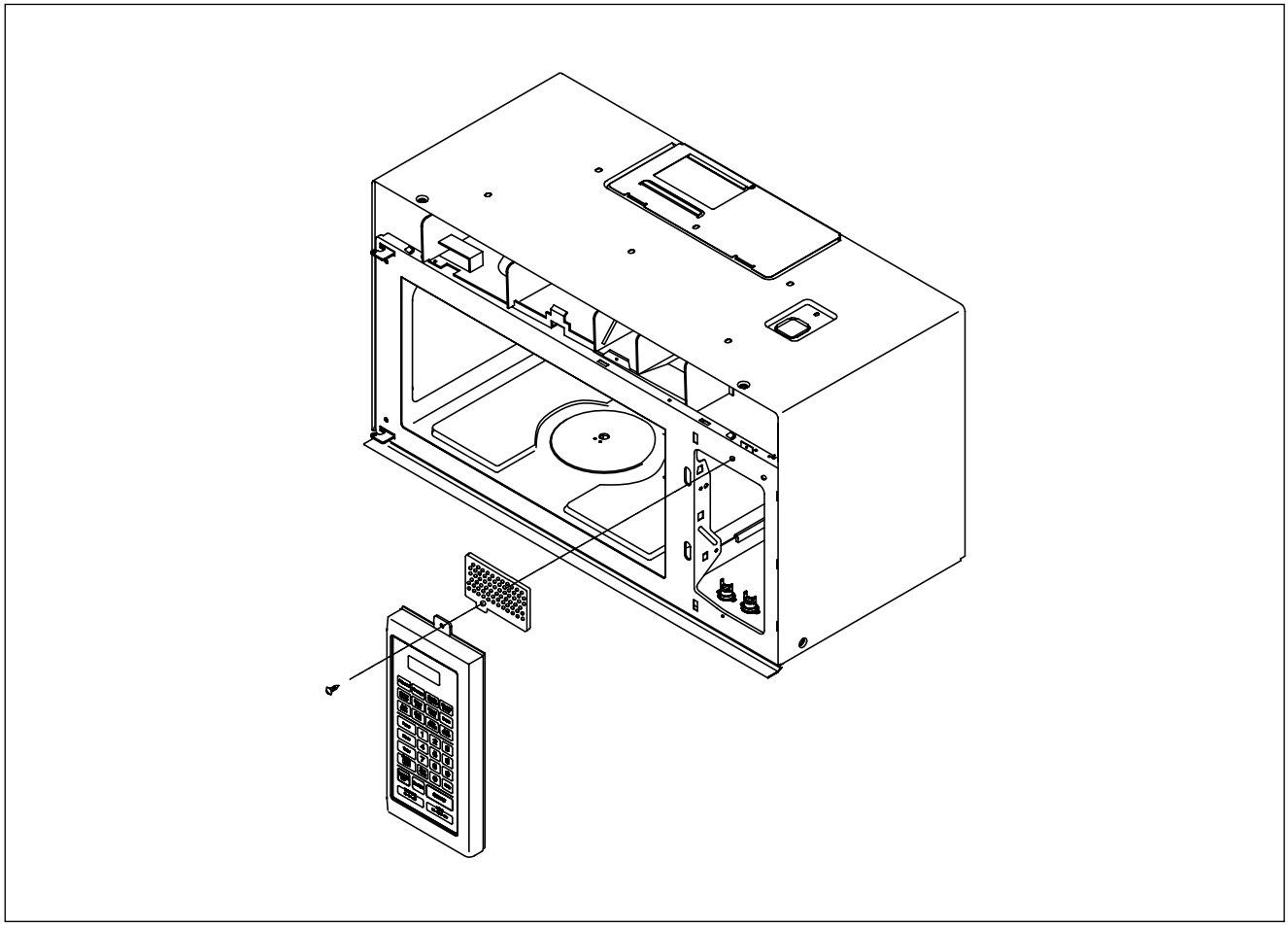


FIG. 2

2. Remove the screw on the front of the microwave oven for wire protector and remove the wire protector.
3. From the top and back of the control panel, lift the top locking tab and pull the top of the panel out slightly, then lift the bottom tabs of the panel out of the slots and pull it forward.

4. Unplug the following connectors from the control circuit board:
   a) 2-Pin connector at CN1.
   b) 2-Pin connector on relay RY1.
   c) 6-Pin connector at CN3.
   d) Lift the end of the locking arm on the ribbon cable at CN2, then lift the ribbon cable out of the socket.
5. Remove 4 screws from the control circuit board and lift the board off the mounting bracket.
6. Clean the surface of the new display and the inside of the control panel window with a soft, damp cloth to remove any dirt, smudges, or lint.
7. Mount the new control circuit board to the mounting bracket with 4 screws.
8. Plug the following connectors over their control circuit board plugs so that they lock into place:
   a) 2-Pin connector at CN1.
   b) 2-Pin connectors on relay RY1.
   c) 6-Pin connector at CN3.
   d) Insert the end of the ribbon cable into the narrow slot of connector CN2 as far as it will go(See DETAIL CN2). Lower the locking arm so that the two small tabs fit into the cutouts of the ribbon cable, then press down so that it locks into place.
9. Mount the control panel to the oven and wire protector with mounting screw.
10. Mount the vent grille to the microwave oven and check out the operation.

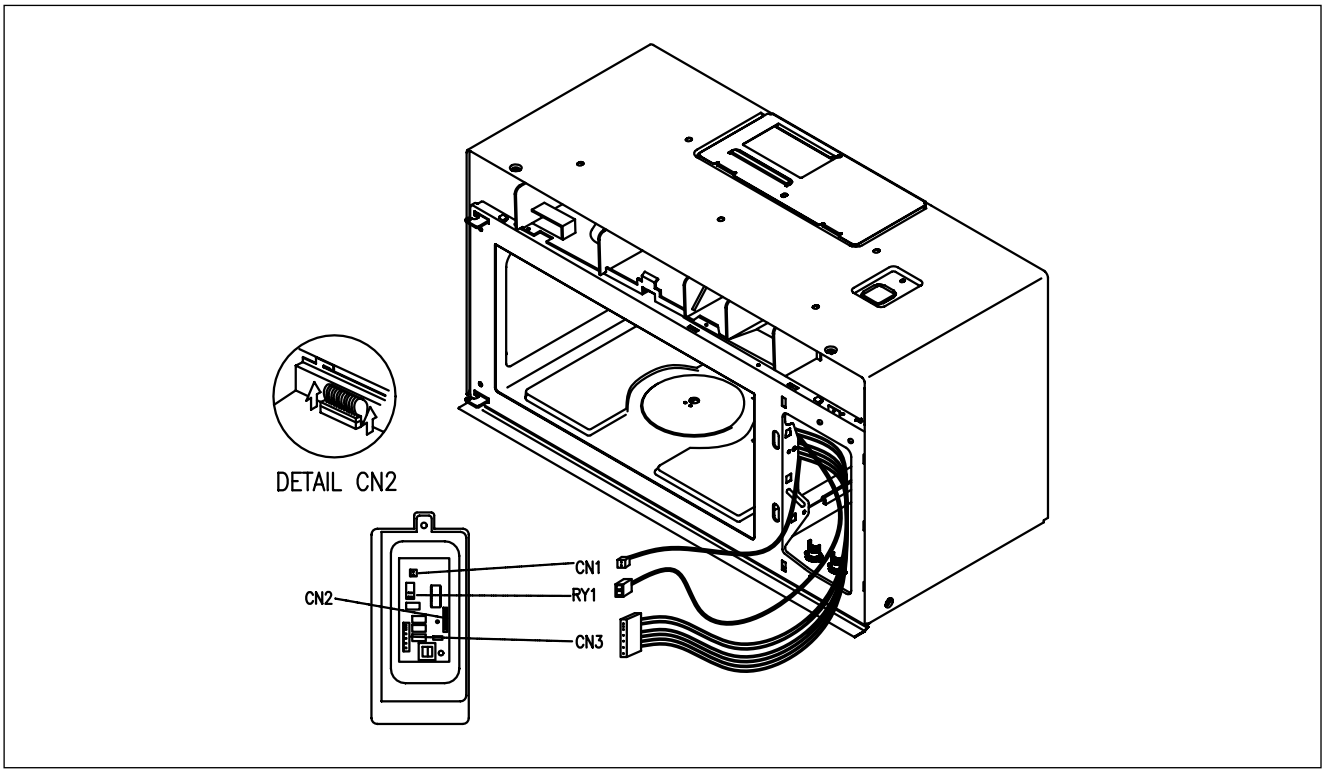


FIG. 2-1

3. REPLACING AN OVEN LIGHT SOCKET

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

1. Remove the screws for the vent grille and remove the grille.(See FIG.1)
2. Remove the cavity lamp cover(See FIG.3).
3. Remove the old light and mount a new light in its place .
4. Reinstall the cavity lamp cover into its air guide top.
5. Mount the vent grille to the microwave oven and check out the operation.

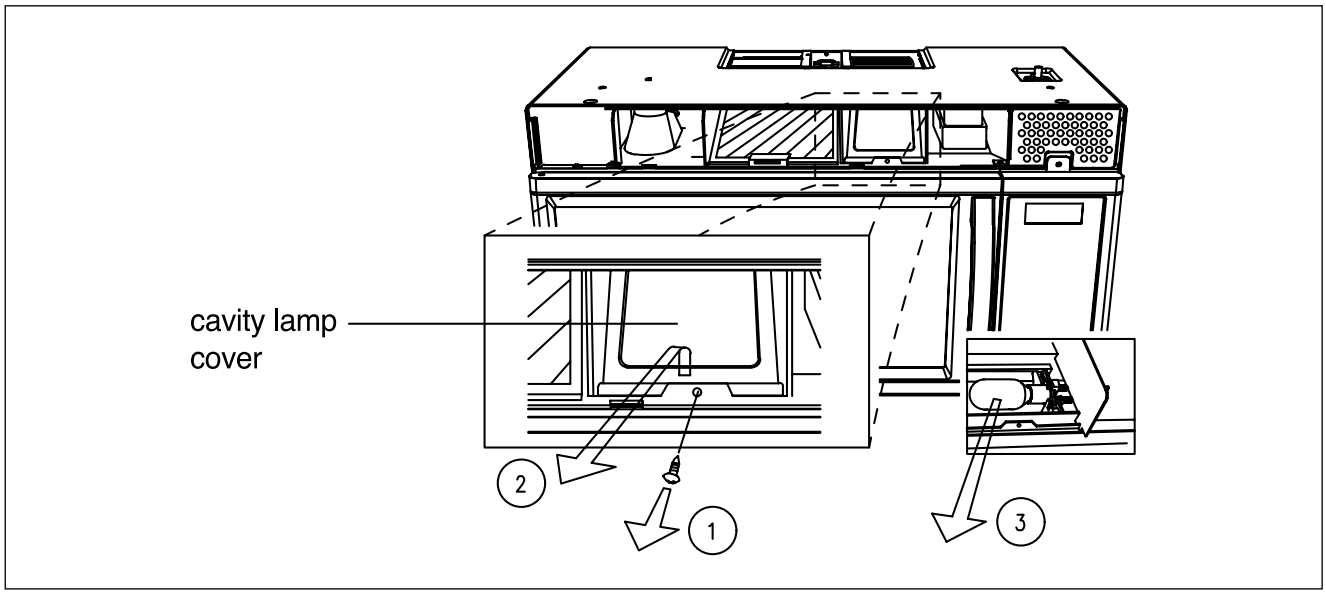


FIG. 3

4. REPLACING THE LINE FUSE

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other per sonal injury.

1. Remove 2 screws from the vent grille and remove the grille (See FIG. 1).
2. Remove the screw from the front of the microwave oven for wire protector and control panel and remove control panel and the wire protector(see Fig. 2).
3. Without touching the metal ends, remove the defective line fuse from the line filter and install a new one in it s place.
4. Mount the wire protector and the control panel to the oven and secure it with it s mounting screw.
5. Mount the vent grille to the microwave oven and check out the operation.

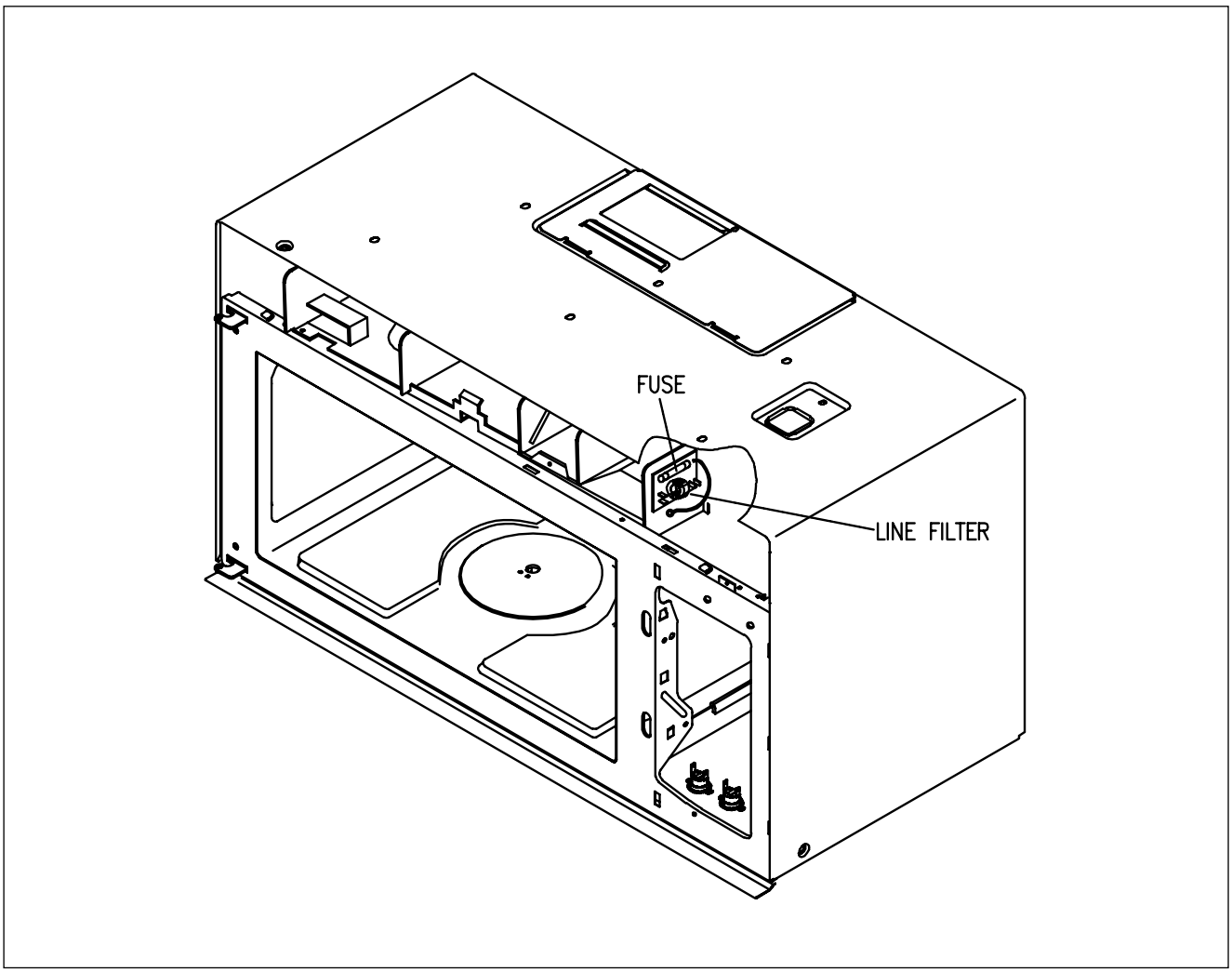


FIG. 4

5. REPLACING THE VENT MOTOR CAPACITOR

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove the microwave oven from the microwave oven location.
2. Remove the vent grille and cabinet from the microwave oven (See Cabinet Removal). Refer to FIG.6 and Perform it as following steps
3. Remove the power cord (See the replacing the powercord, FIG. 14).
4. Remove the screw(1) and lift out the case blow fan top.
5. Remove the 2 screws(2) for the vent motor and remove the vent motor.
6. Remove the screw(3) and lift out the case blow fan under.
7. Remove the screw(4) and lift out the air guide top.
8. Disconnect the two wire connectors from the vent motor capacitor terminals.
9. Reconnect the wires to the new vent motor capacitor terminals, as shown in the FIG.5.
10. Reinstall all the removed components carefully on the microwave oven.

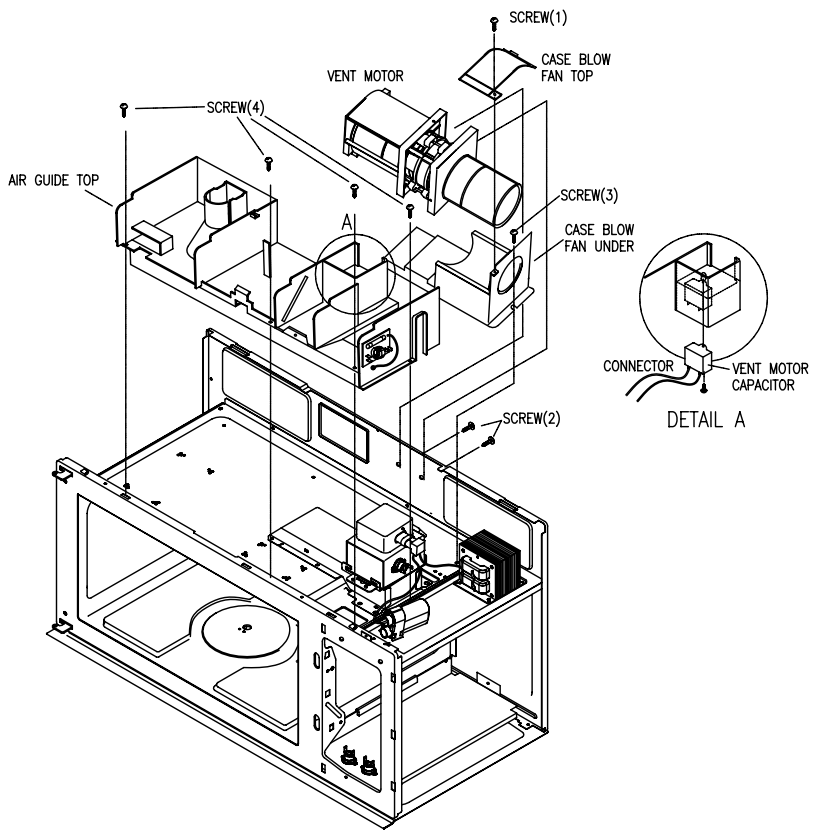


FIG. 5

6. REPLACING/ADJUSTING - INTERLOCK SWITCHES

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

-REPLACING A SWITCH

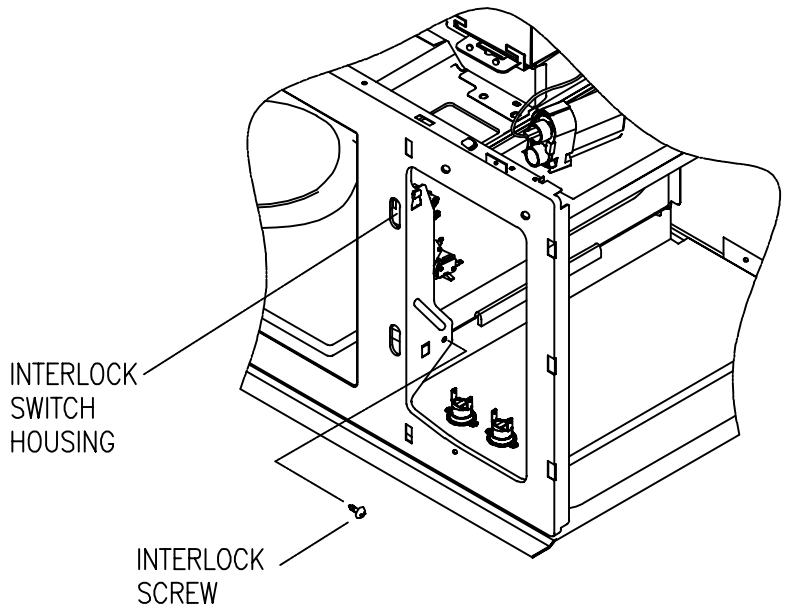


FIG. 6

1. Disconnect the electrical supply to the microwave oven.
2. Remove the vent grille and the cabinet from the microwave oven (See cabinet removal on FIG. 1).
3. Remove the screw from the top center tab of the control panel (See FIG. 2).
4. From the top and back of the control panel, lift the top locking tab and Pull the top of the panel out slightly, then lift the bottomly, then lift the bottom tabs of the panel out of the slots and pull it forward. Set the panel inside the oven cavity while you work.
   Refer to FIG. 6 for the following steps:
5. Remove the mounting screw from the interlock switch assembly, and position the assembly so you can easily access the switches and wiring.
6. Refer to REMOVE SWITCH in FIG. 6-1 for the interlock switch housing assembly, and remove the switch from the housing as shown.
7. Once at a time, pull the wire connectors off the defective switch, and reconnect them to the same terminals on the replacement switch (See FIG. 6-1).
8. Snap the new switch into place on the switch housing.
9. Mount the interlock switch assembly to the chassis flange with screw (See FIG. 6).

-MAKING ADJUSTMENTS

Refer to FIG. 7-1 for the following steps:

1. If necessary, adjust the interlock switch housing so that the switches operate properly.

WARNING :

The interlock Monitor Switch provides an additional safety check on the Primary and Secondary Interlock Switches. If the Primary and Secondary Interlock Switches allow the oven to operate with the door open, the Monitor Interlock Switch will blow the line fuse.

NOTE :

Perform the electrical continuity check of interlock switches and microwave emission test mentioned in this manual.

2. Mount the control panel to the oven with the screw you removed earlier.
3. Mount the vent grille to the microwave oven and check out the operation of the switches.

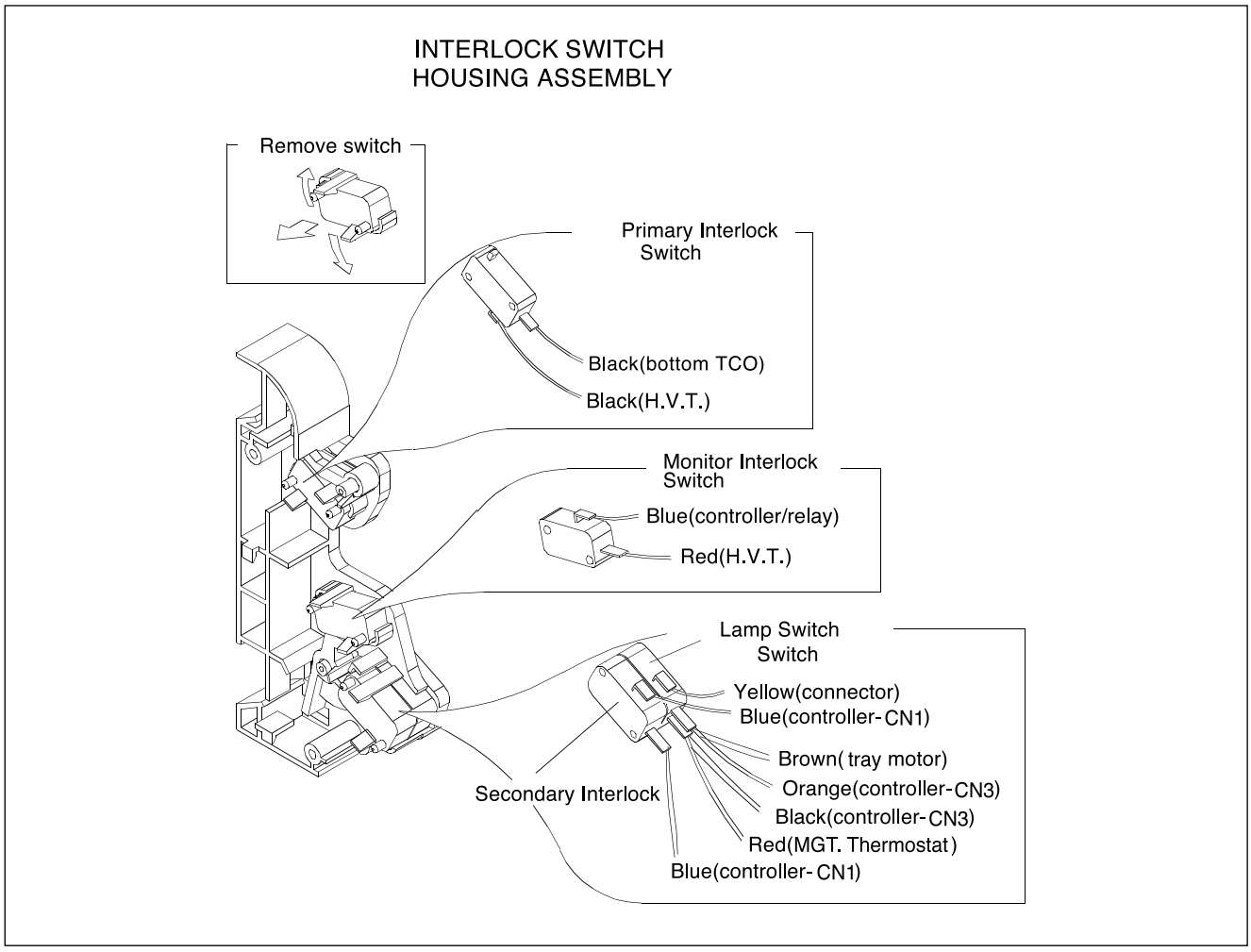


FIG. 6-1

7. REPLACING THE THERMOSTAT (BOTTOM / VENT)

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

1. Disconnect the electric supply to the microwave oven.
2. Remove the vent grille and the cabinet from the microwave oven (See cabinet removal on FIG. 1).
3. Remove the screw from the top center tab of the control panel. (See FIG. 2).
4. From the top and back of the control panel, lift the top locking tab and pull the top of the panel out slightly, then lift bottom tabs of the panel out of the slots and pull it forward. Set the panel inside the oven cavity while you work.
   Refer to FIG. 7 and the inset for the following steps:
5. Remove the mounting screw from the bottom thermostat and lift the bottom flange out at slot in the chassis (See FIG. 7)
6. Unplug the two wire connectors from the bottom thermostat.
7. Connect the two wires to the new bottom thermostat.
8. Insert the bottom tab of the bottom thermostat into the chassis slot, and secure the thermostat with its mounting screw.
9. Mount the Control panel to the oven and screw it with its mounting screw.
10. Mount the vent grille to the microwave oven and check out the operation.

* Vent thermostat is the same as bottom thermostat method.

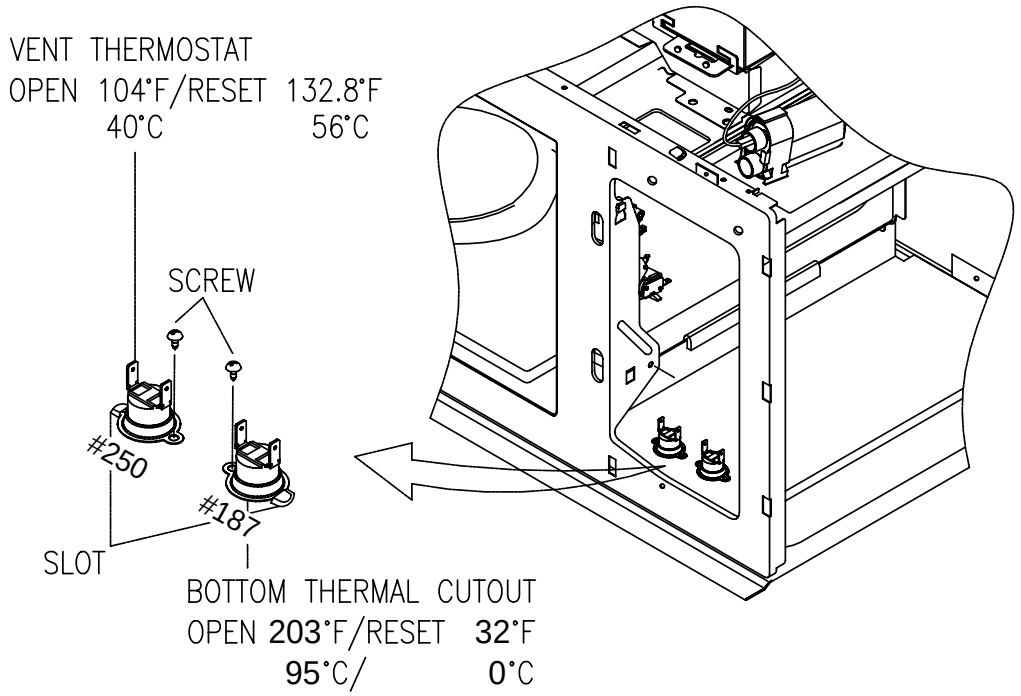


FIG. 7

8. REPLACING THE TRAY MOTOR

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove 3 screws from the base plate and remove it.
   Refer to the FIG. 8 for the following steps:
2. Pull the connectors off the tray motor terminal.
3. Remove the screws from the tray motor and remove the motor.
4. Install the coupler onto the new tray motor shaft.
5. Mount the new motor to the oven with its the screws.
6. Connect the wires to the tray motor terminal.
7. Reinstall the base plate in the oven.
8. Secure its 3 screws.

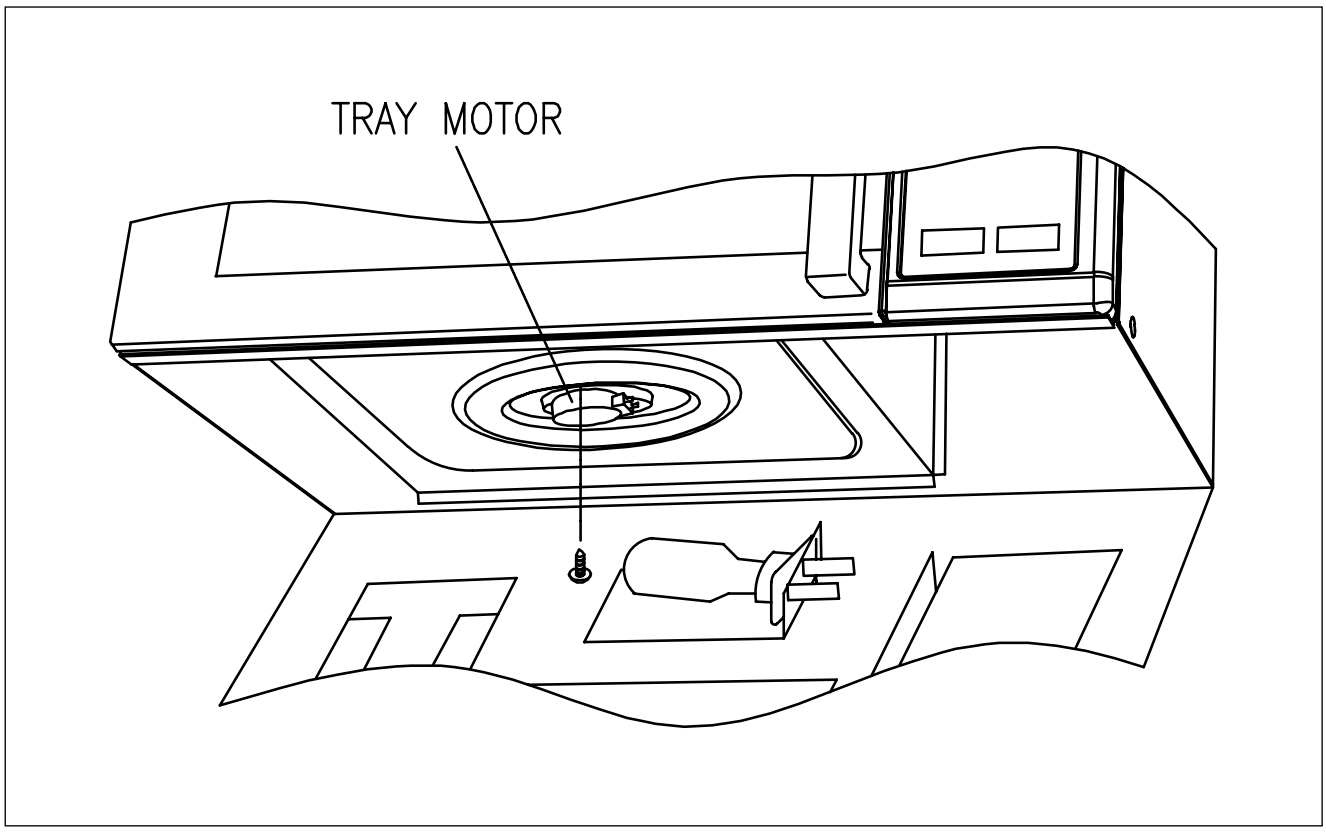


FIG. 8

9. REPLACING A COOK-TOP LIGHT SOCKET

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Pull the connectors off the cook-top light socket terminals set the base plate aside.
2. Remove the screw for the cook-top light socket and remove it.
3. Mount the new light socket into the holder.
4. Reattatch the connector with the blue and orange wires to the outside termind and the connector with the brown wire to the inside terminal.
5. Mount the base plate to the microwave oven.

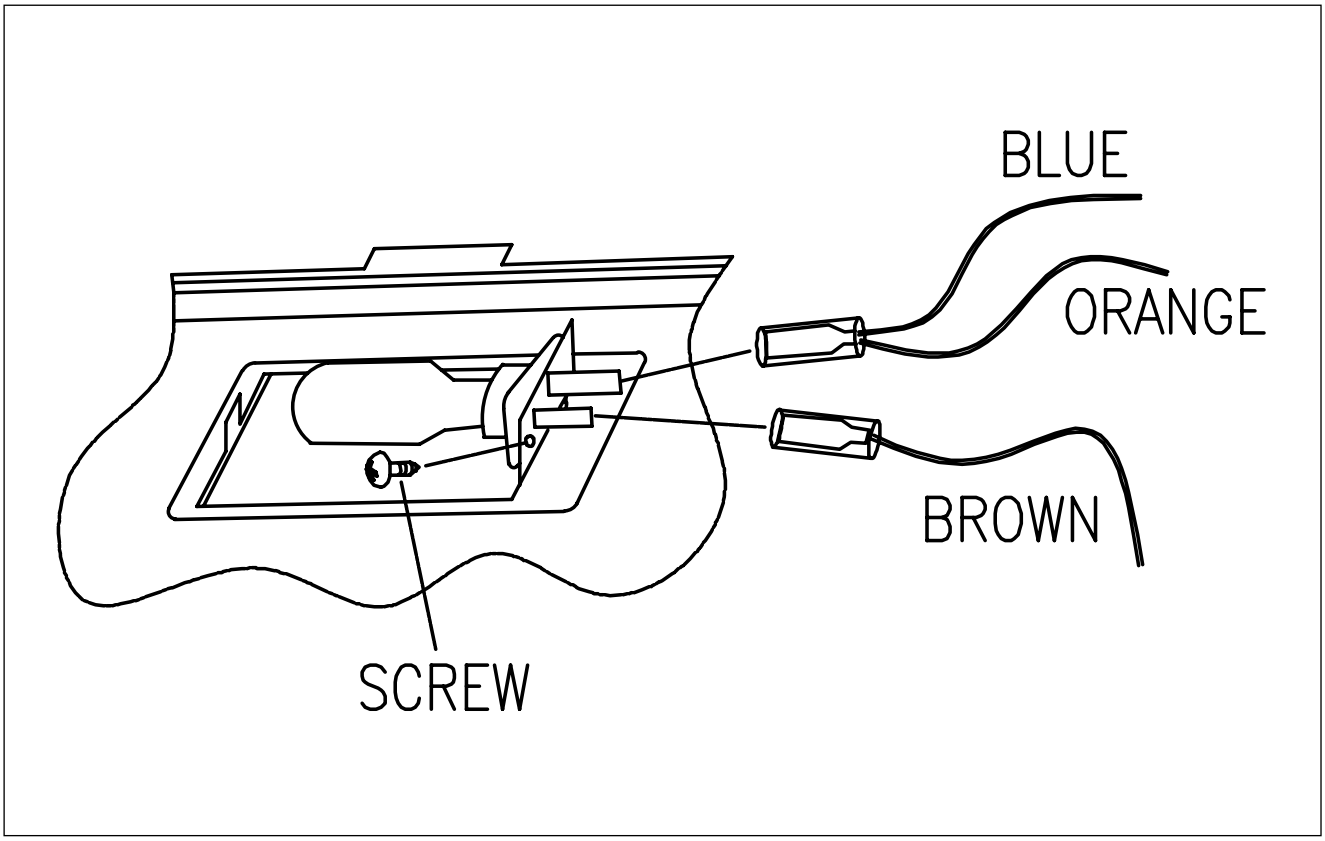


FIG. 9

10. REPLACING THE DOOR ASSEMBLY

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

Refer to FIG. 10 for the following steps:
1. Remove the Grille
2. Open the door and lift the door.

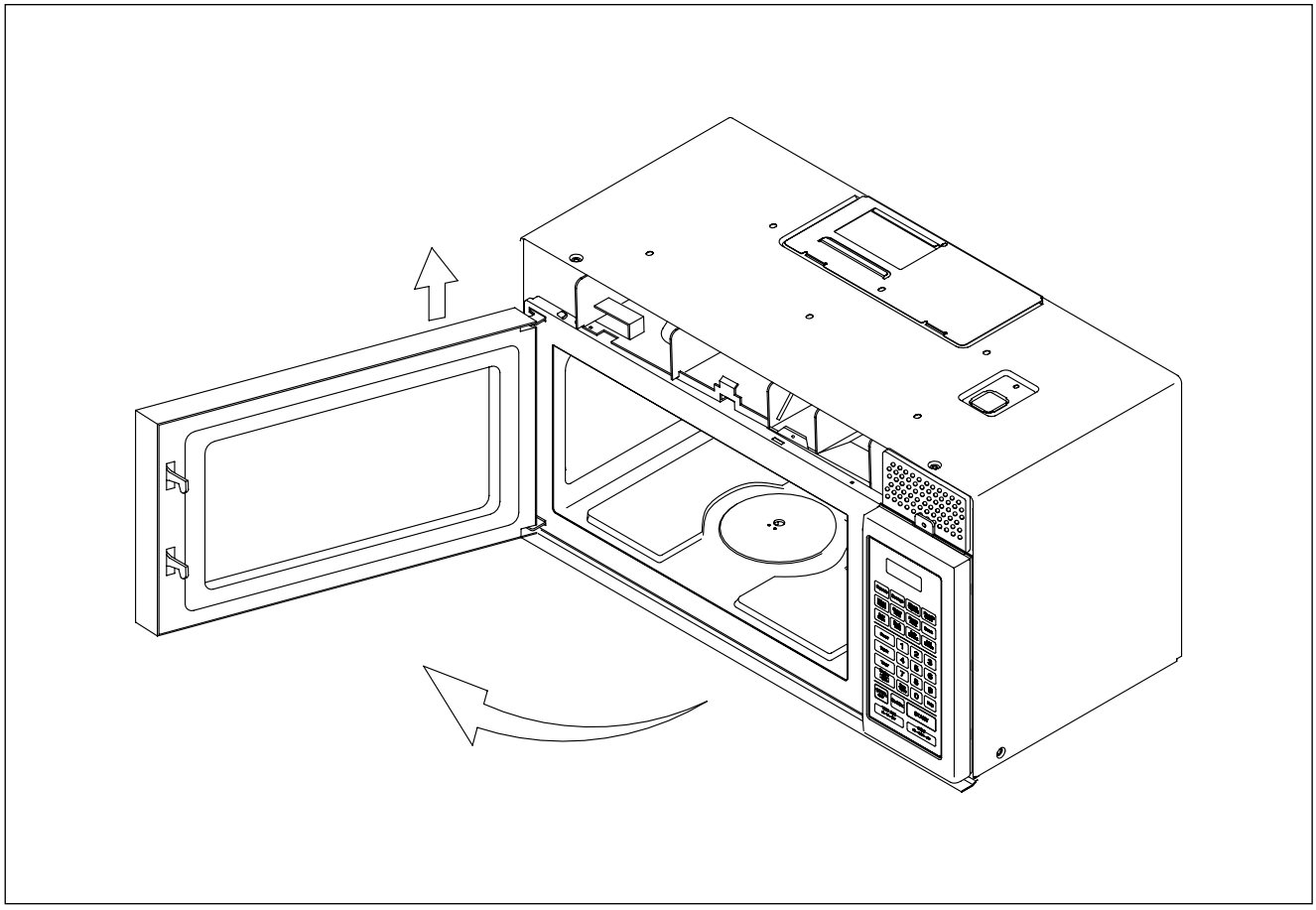


FIG. 10

11. REPLACING THE GASKET

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

Refer to FIG. 11 for the following steps:

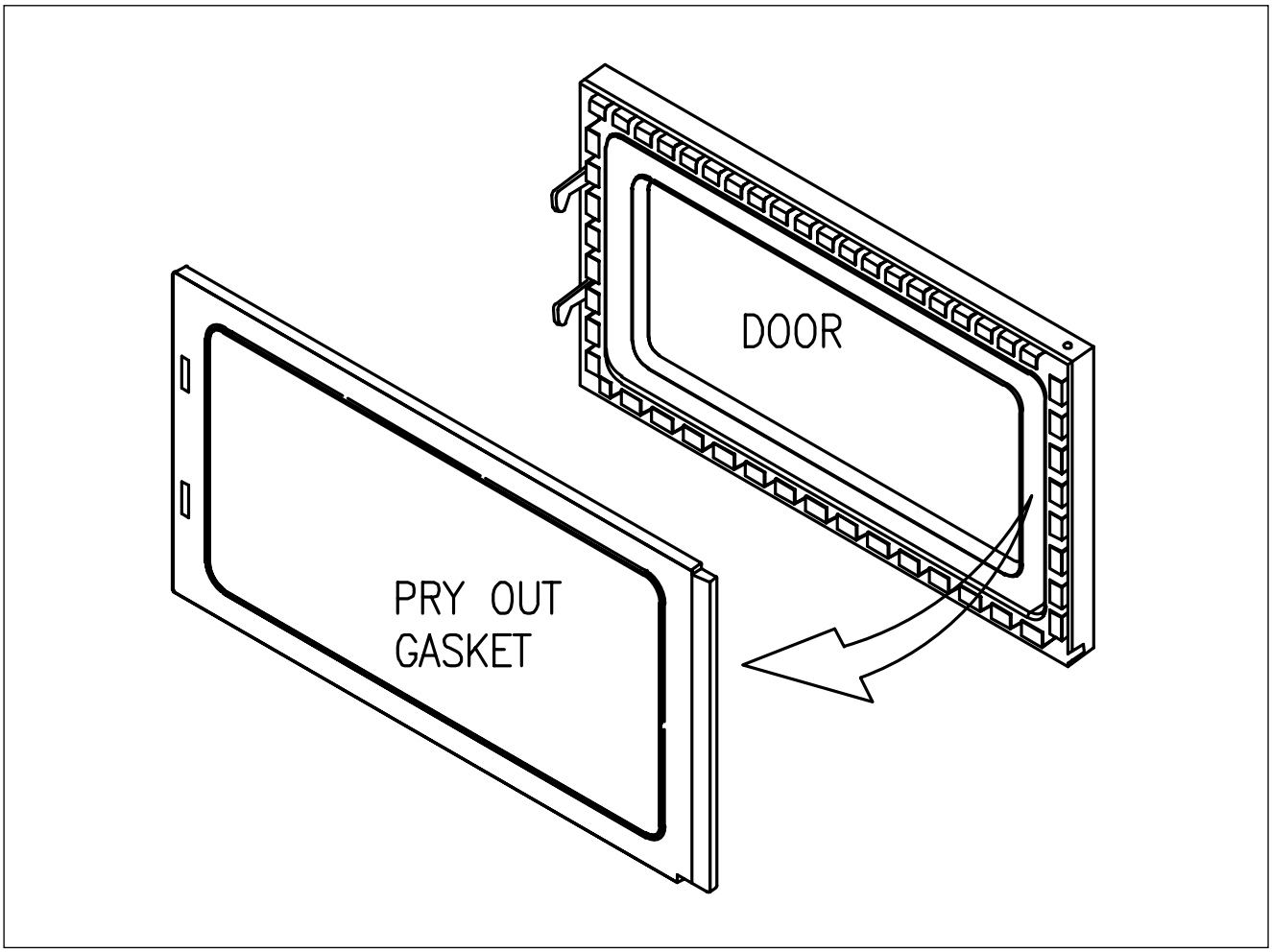


FIG. 11

1. Open the oven door.
2. Pry out the gasket along the edges of the door with a putty knife.
3. Install the new gasket so that it fits tightly into place inside the door.

12. REPLACING -THE CAVITY THERMOSTAT

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.
Discharge the high voltage capacitor before working inside the oven. failure to do so could result in electrical shock.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove the microwave oven from the microwave oven location.
2. Remove the vent grille and cabinet from the microwave oven. (See the cabinet removal)
3. Remove the wire protector, case blow fan top, vent motor and case blow fan under. Lift the air guide top. (See 5. replacing the vent motor capacitor, step 3 to 7).
4. Unplug and replace the two wire connectors from the cavity thermostat. (See FIG. 12)
5. Install the new cavity thermostat and reinstall the air guide top, case blow under, vent motor, case blow fan top cabinet, wire protector and vent grille on the microwave oven.

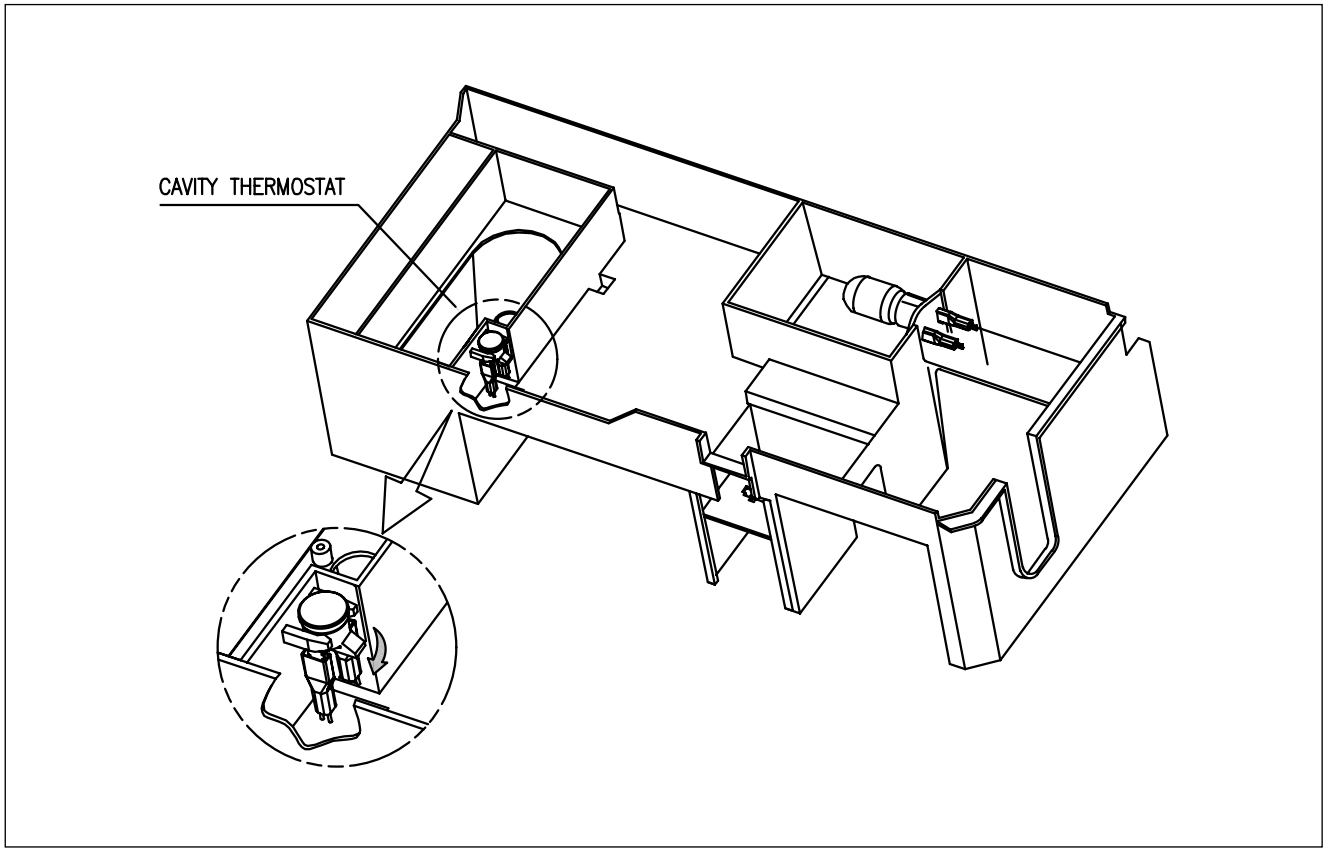


FIG. 12

13. REPLACING THE VENTILATION MOTOR

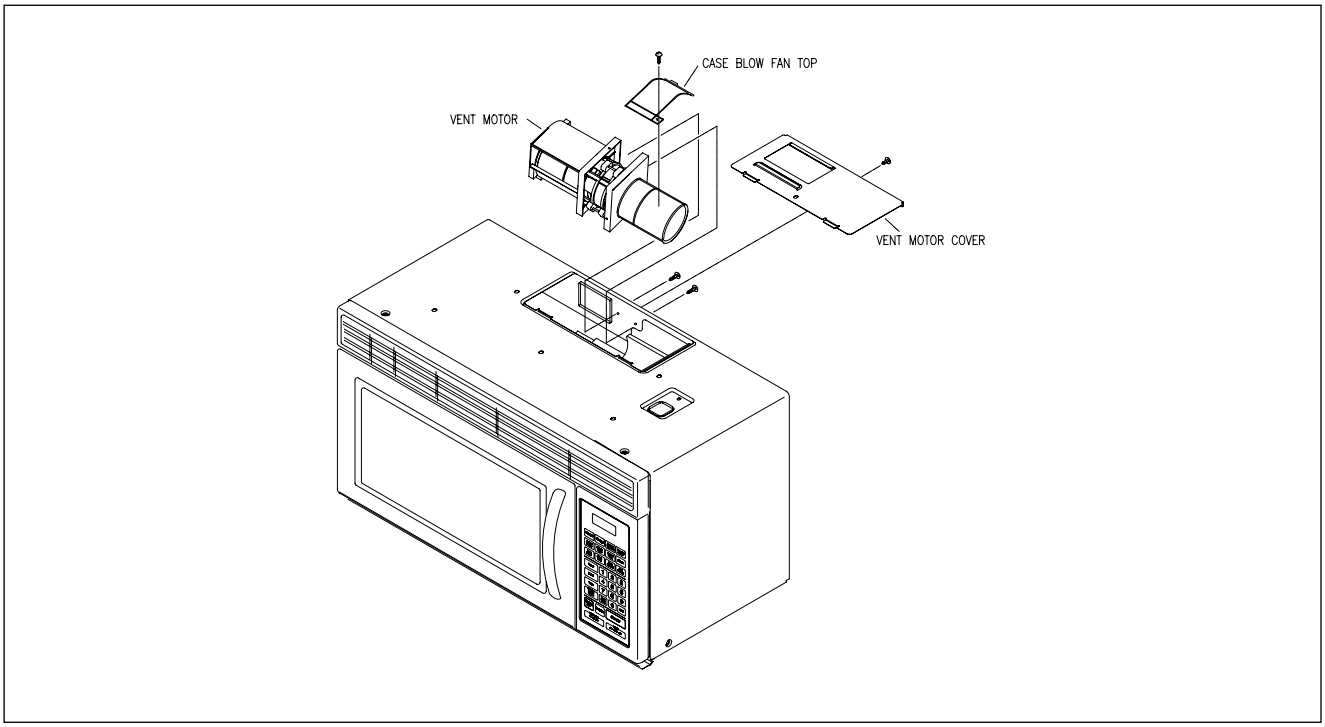


FIG. 13

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it Failure to do so could result in personal injury.

1. Remove the microwave oven from the microwave oven location.
2. Remove the screw for the vent motor cover and remove it. (See cabinet removal, FIG.1).
3. Remove the screw for the case blow fan top and remove it.
4. Remove 2 screws for the vent motor and lift it.
5. Unplug the wire connectors for vent motor.
6. Connect the wire connector and secure the vent motor.
7. Install the new vent motor.
8. Reinstall the case blow fan top and the vent motor cover and remount the oven.

14. PEPLACING THE POWER CORD

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Heazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove the microwave oven from its mounting location.
2. Remove the vent grille, the wire protector and the cabinet from the microwave oven (See Cabinet Removal, FIG.1). Refer to FIG. 14 and the inset for the following steps.
3. Unplug the housing with black and white power cord leads.
4. Remove the ground screw from the green power cord lead.
5. Remove the old power cord.
6. Push the new power cord Strain relief black into the slot of the guide air top.
7. Connect the power cord lead to the terminals of the hoise filter.
8. Use the ground screw to secure the ground wire to the front plate.
9. Refer to Cabinet Installation and reinstall the cabinet and the vent grille on the microwave oven.
10. Reinstall the microwave oven in its mounting location.

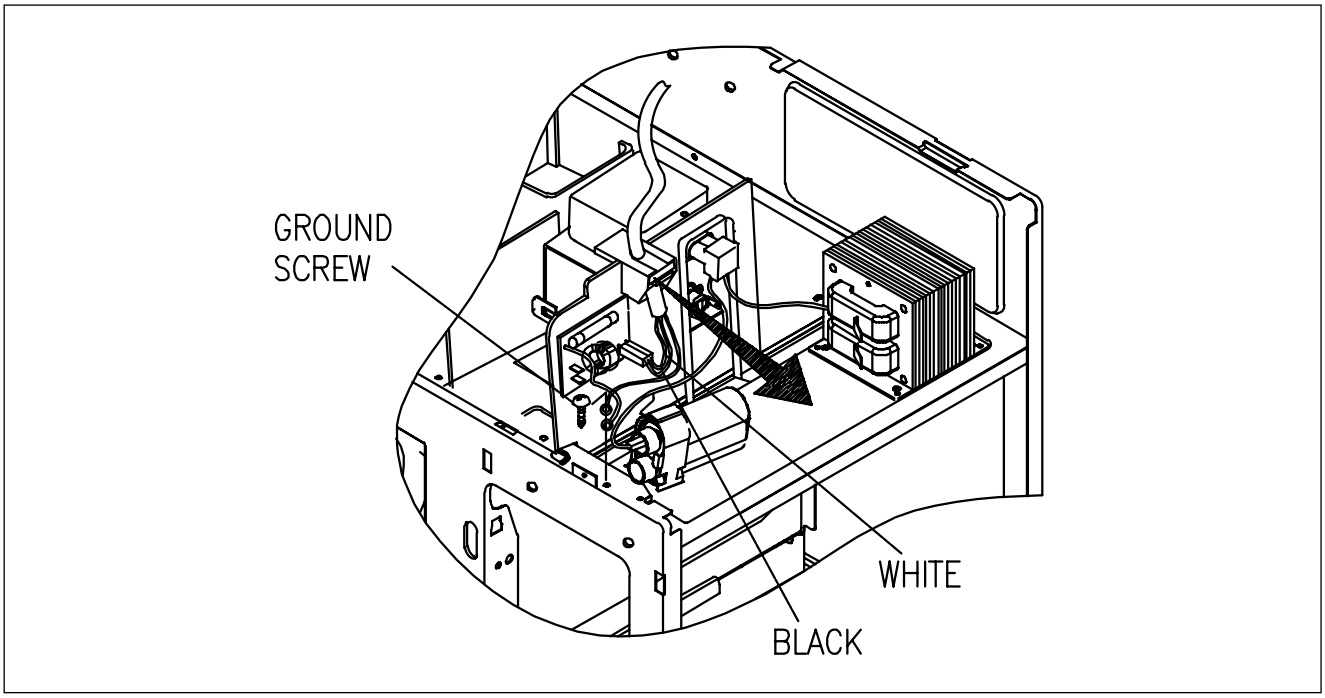


FIG. 14

15. REPLACING THE HIGH-VOLTAGE TRANSFORMER

WARNING :

Personal Injury Hazard
Disconect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove the vent grille and the cabinet from the microwave oven (See FIG. 1).

NOTE :

Personal Injury Hazard
Disconnect from the power supply, before servicing the unit. Discharge the capacitor using a 20,000 W discharge resistor, or an insulated plastic-handle screwdriver to short across the capacitor terminals.

2. Discharge the high-voltage capacitor.
3. Remove 4 screws from the H.V. Transformer and save the screws.
   Refer to FIG. 15 for the following steps:
4. Unplug the five high-voltage transformer wire connectors and remove high voltage transformer.
5. Mount the new high-voltage transformer to the plate with 4 mounting screws you removed earlier.
6. Connect 5 wire connectors going to the high-voltage capacitor, the high-voltage transformer, and the magentron as shown in FIG.15.

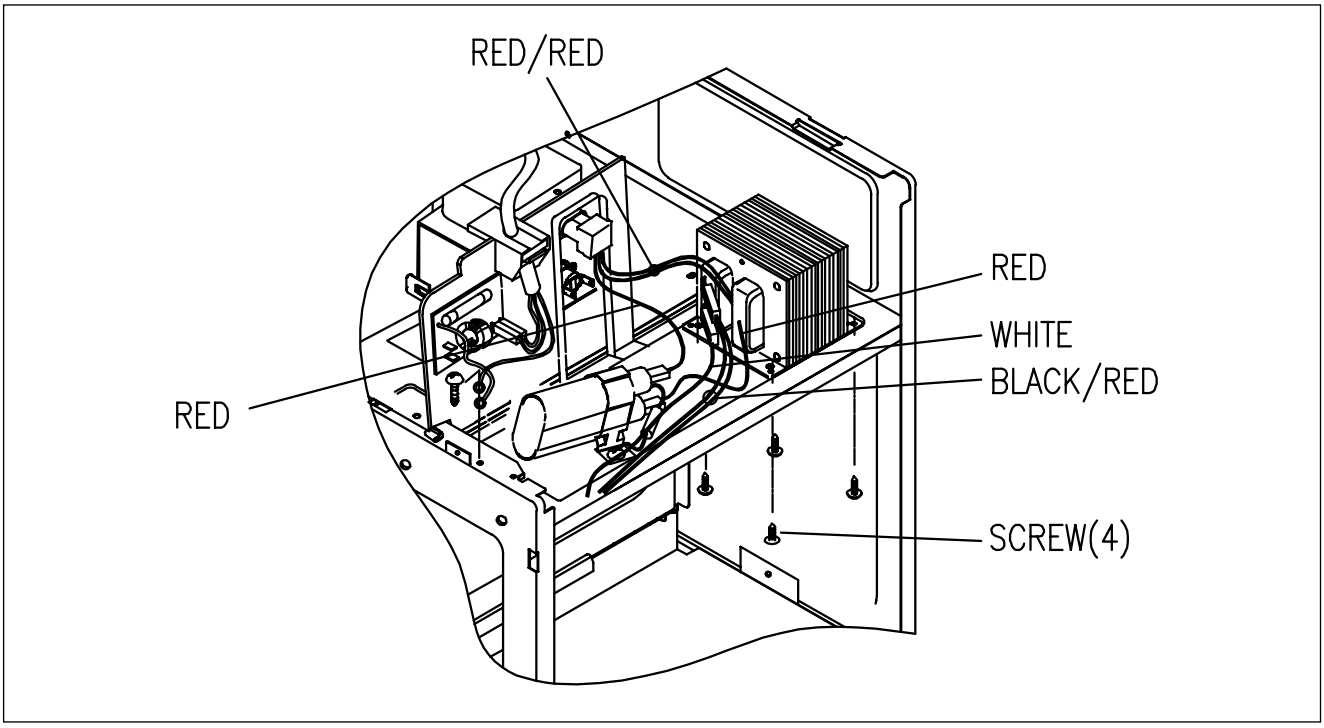


FIG. 15

16. REPLACING THE HIGH VOLTAGE RECTIFER

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove the vent grille and the cabinet from the microwave oven (See FIG.1).
2. You can access the high-voltage section in the microwave oven.

WARNING :

Personal Injury Hazard
Disconnect from the power supply, before servicing the unit. Discharge the capacitor using a 20,000 W discharge resistor, or an insulated plastic-handle screwdriver to short across the capacitor terminals.

3. Discharge the high-voltage capacitor.
4. Unplug one end of the high-voltage rectifier from the high-voltage capacitor terminal.
5. Remove a screw from the end of the high-voltage rectifier, and remove the high voltage rectifier.
6. Mount the eyelet on the end of the high-voltage rectifier lead to the bracket with its mounting screw.

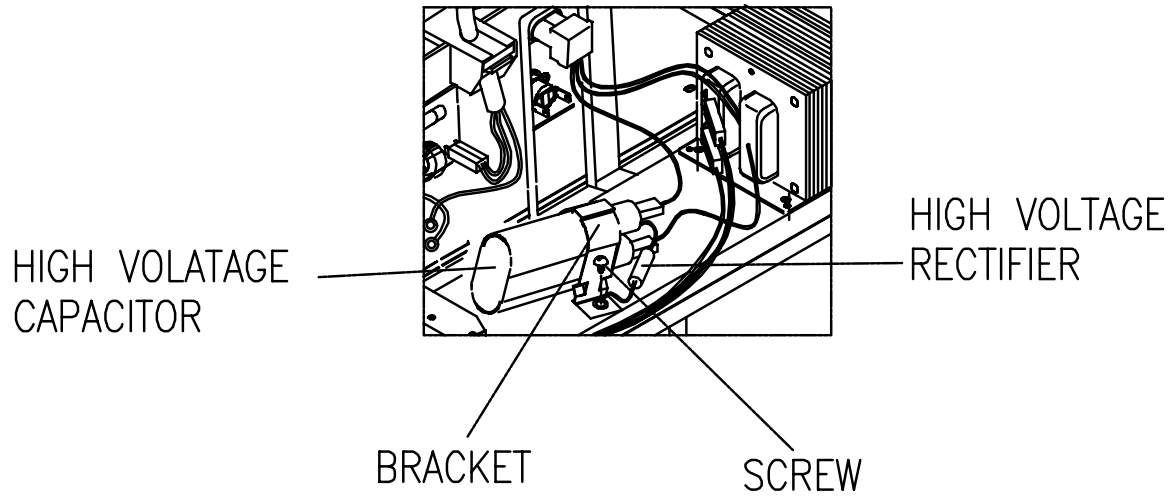


FIG. 16

17. REPLACING THE HIGH VOLTAGE CAPACITOR

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove the vent grille and the cabinet (See FIG.1).

WARNING :

Personal lnjury Hazard
Disconnect from the power supply, before servicing the unit. Discharge the capacitor using a 20,000 W discharge resistor, or an insulated plastic-handle screwdriver to short across the capacitor terminals.

2. Discharge the high-voltage capacitor.
3. Unplug the wire connector going to high voltage transformer and one end of high voltage rectifier.
4. Remove the capacitor mounting strap screw, then remove the old capacitor.
5. Position the new high-voltage capacitor with the round blister (between the leads). Make sure that the flange on the strap is against the front end of the capacitor, and tighten the screw just enough to hold the capacitor in place.
6. Connect the end of the high-voltage rectifier and red wire coming from the high voltage transformer to the indicated capacitor terminal.
7. Connect the remaining red lead coming from the magnetron to the indicated capacitor terminal.

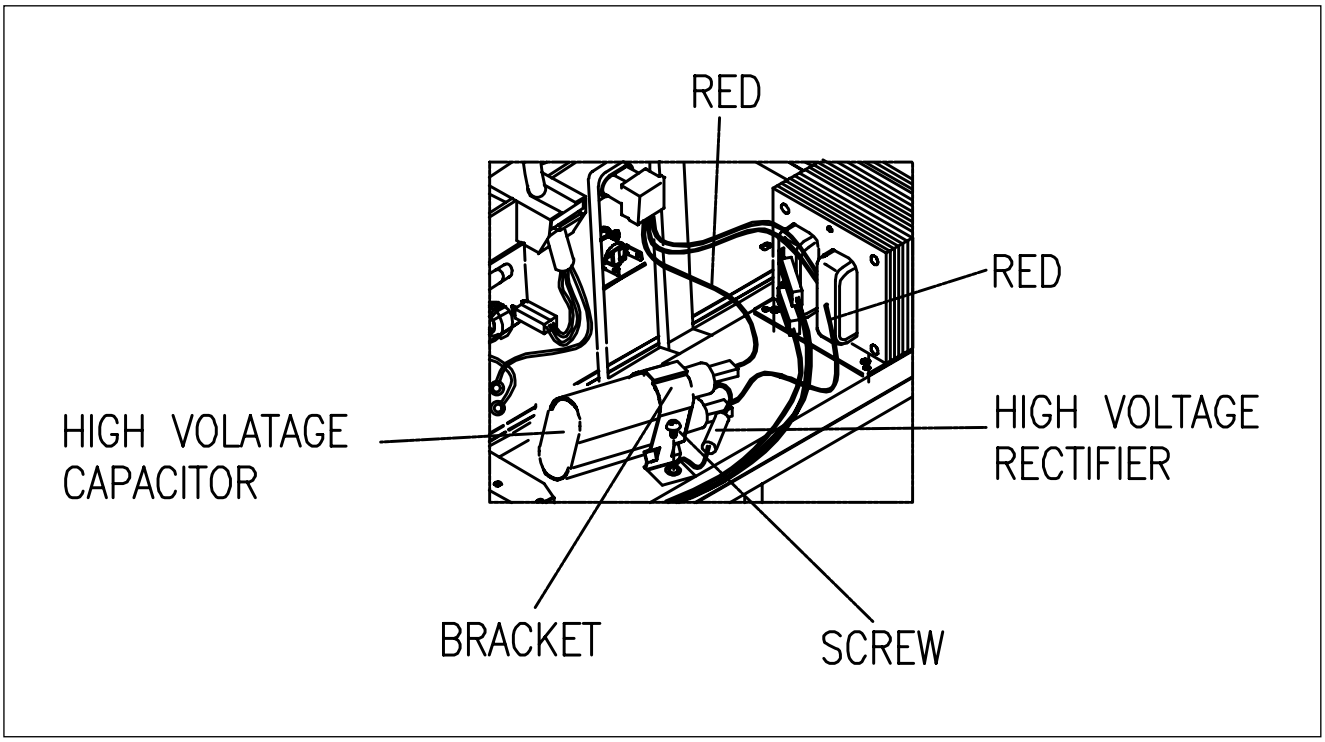


FIG. 17

18. REPLACING THE MAGNETRON

WARNING :

Personal Injury Hazard
Disconnect from the power supply before servicing the unit. Failure to do so could result in electric shock or other personal injury.

CAUTION :

Personal Injury Hazard
Because of the weight and size of the microwave oven, two people are required to safely move and install it. Failure to do so could result in personal injury.

1. Remove the microwave oven from its mounting location.
2. Remove the vent grille and the cabinet from the microwave oven (See Cabinet Removal, FIG.1).

WARNING :

Personal Injury Hazard
Disconnect from the power supply, before servicing the unit. Discharge the capacitor using a 20,000 W discharge resistor, or an insulated plastic-handle screwdriver to short across the capacitor terminals.

4. Remove the case blow fan top, the vent motor, the case blow fan under and the airguide top. (See Fig.5)
5. Discharge the high-voltage capacitor.
6. Unplug the red wire connectors from the high voltage transformer and the 2 screws from the magretran thermostat.
7. Remove the mounting screw from the magnetron.

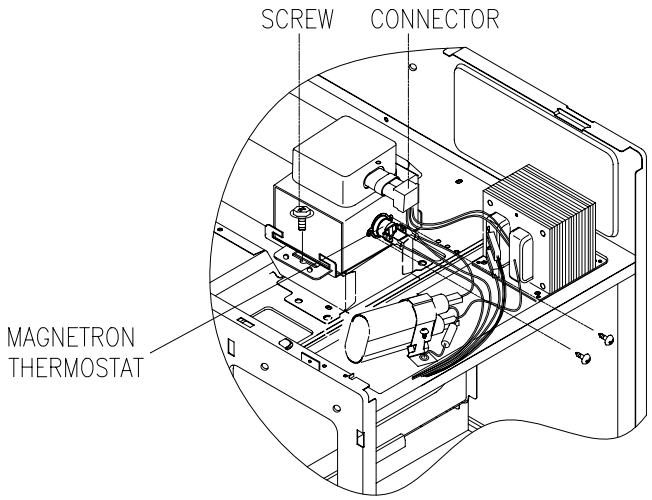


FIG. 18

8. Mount the new magnetron with its mounting screw.
9. Reinstall the Air guide top, powercord, case blow fan under, vent motor, the case blow fan top and the vent grille on the microwave.
10. Secure the magnetron thermostat to the magnetron using 2 screws.
11. Connect the red high voltage leads to the magnetron terminals.
12. Reinstall the cabinet and the vent grille on the microwave oven.
13. Reinstall the micowave oven in its mounting location.

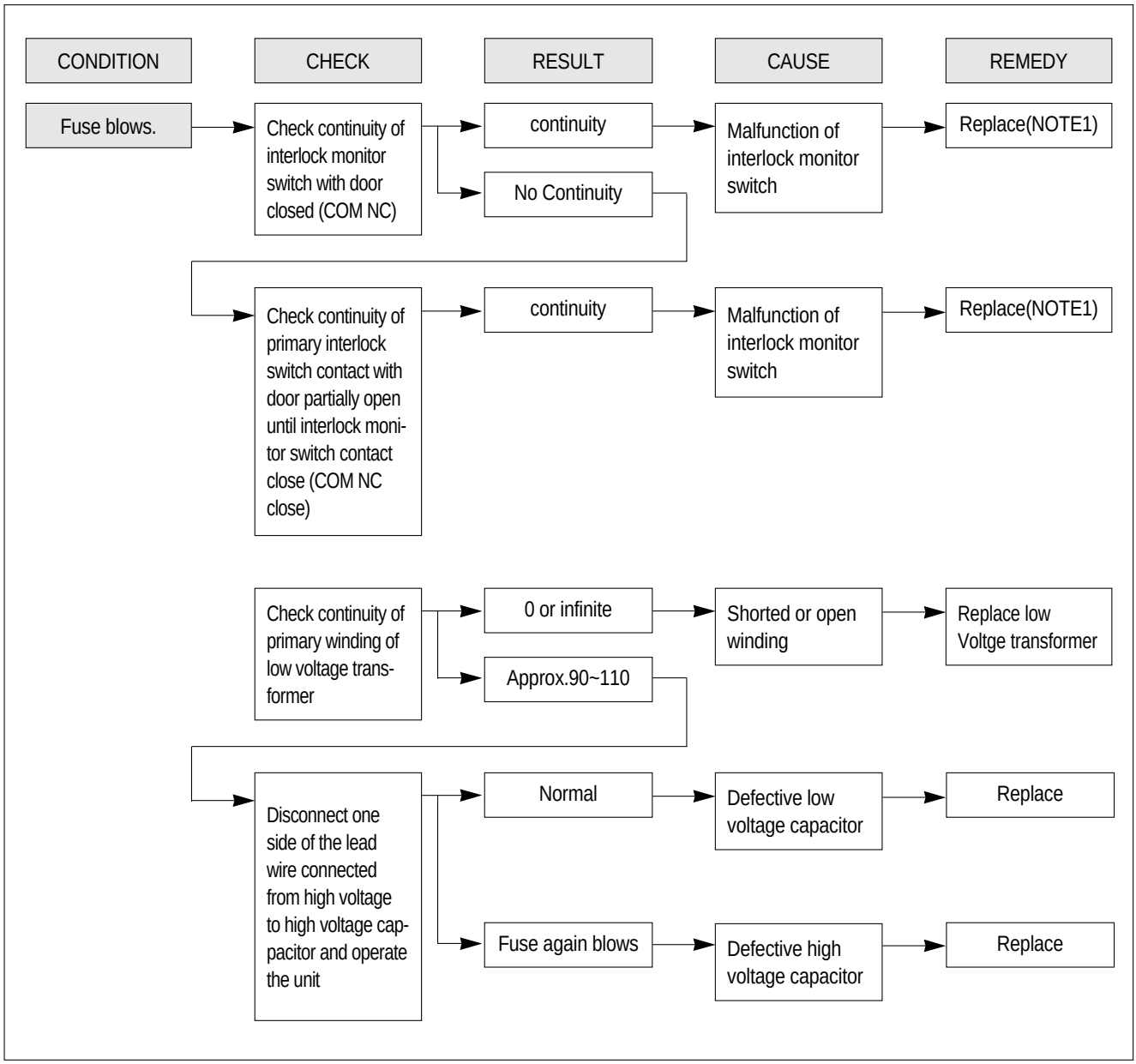
TROUBLE SHOOTING GUIDE

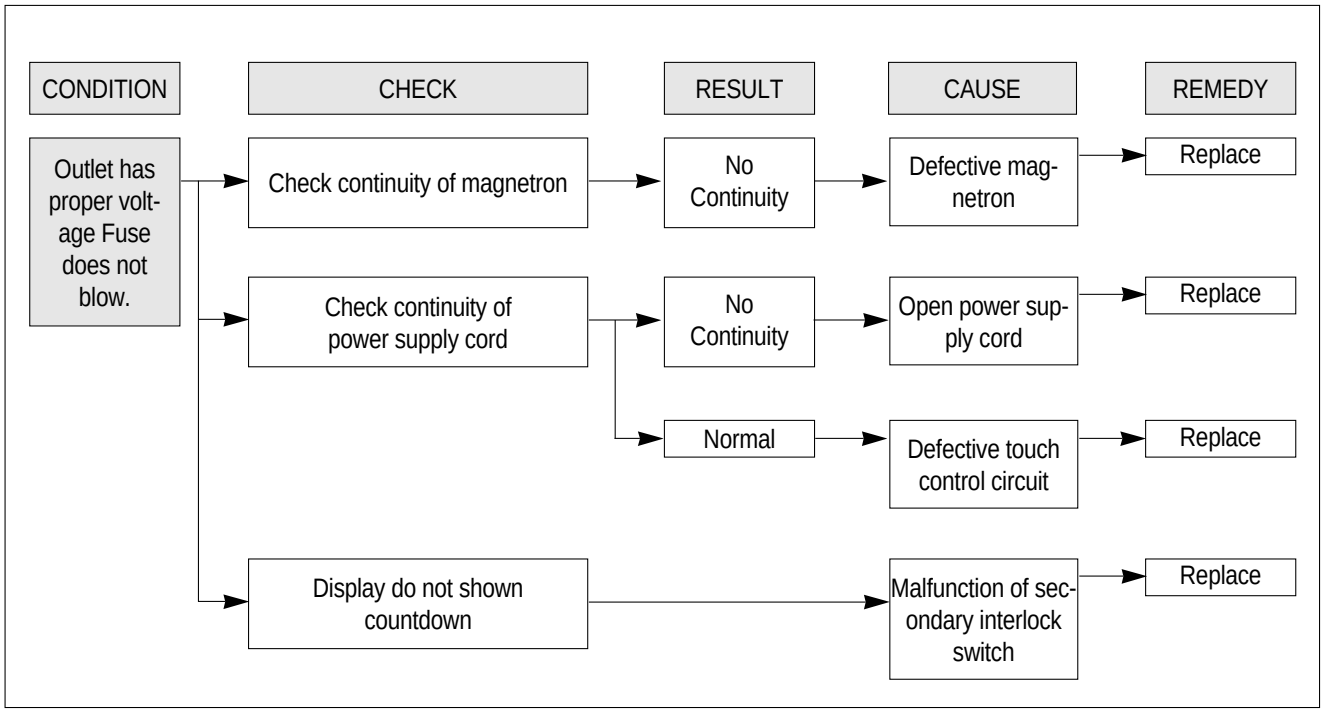
Following the procedure below to check if the oven is defective or not.

1. Check grounding before checking trouble.
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.
5. Do not touch any part of the circuit on the touch control circuit since static electric discharge may damage this control panel. Always touch yourself to ground while working on this panel to discharge any static charge built up in your body.

   First of all, operate the microwave oven following the correct operation described in users guide manual (instruction manual) by time cooking in order to find the exact cause of any trouble.

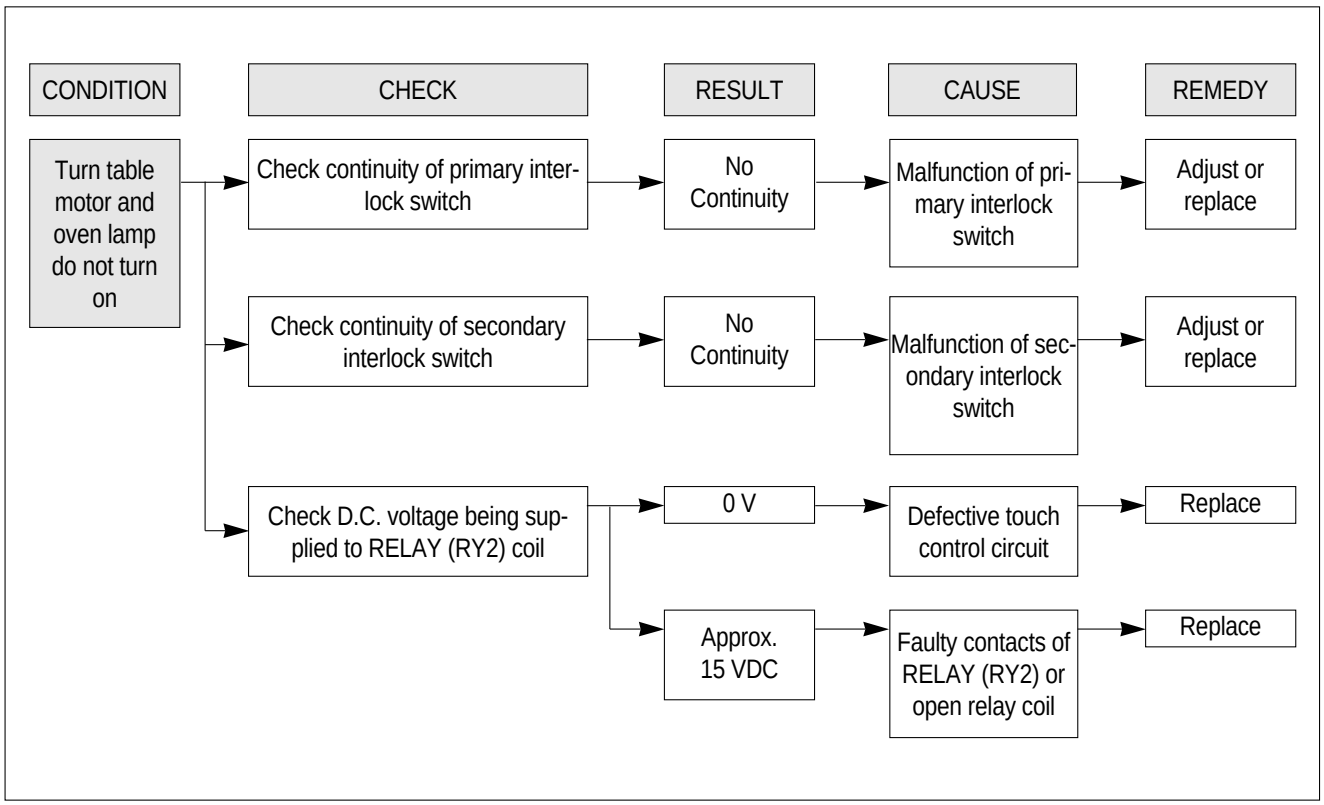
(TROUBLE 1) Oven does not operate at all; any input can not be accepted.





NOTE 1
All these switches must be replaced at the same time, please refer to Interlock Mechanism And Adjustment .

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



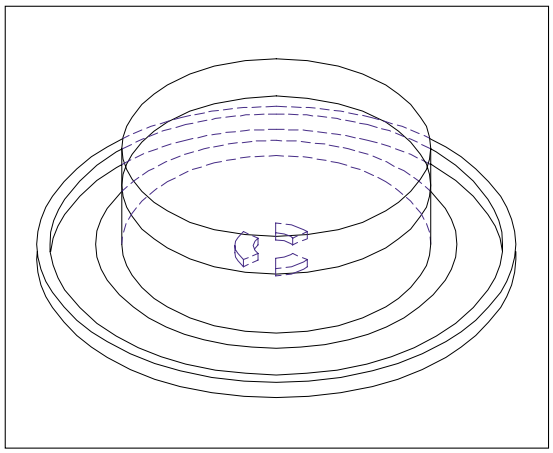
MEASUREMENT AND TEST

1. MEASUREMENT OF THE MICROWAVE POWER OUTPUT

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

PROCEDURE

1. Microwave power output measurement is made with the microwave oven supplied at rated voltage and operated at its maximum microwave power setting with a load 1000±5cc of potable water.
2. The water is contained in a cylindrical borosilicate glass vessel having a maximum material thickness of 3 mm and an outside diameter of approximately 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.
   Heating time should be exactly 42 sec.
   Heating times is measured while the microwave Generator is operating at full power. The filament Heat-up time for magnetron is not included.
5. The initial and final water temperature are selected so that the maximum difference between the ambient and final water temperature is 5°C.
6. The microwave power output P in watts is calculated from the following formula.



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

- △T is actual temperature rise.
- t is the heating time.

The power measured should be 1000W±10%.

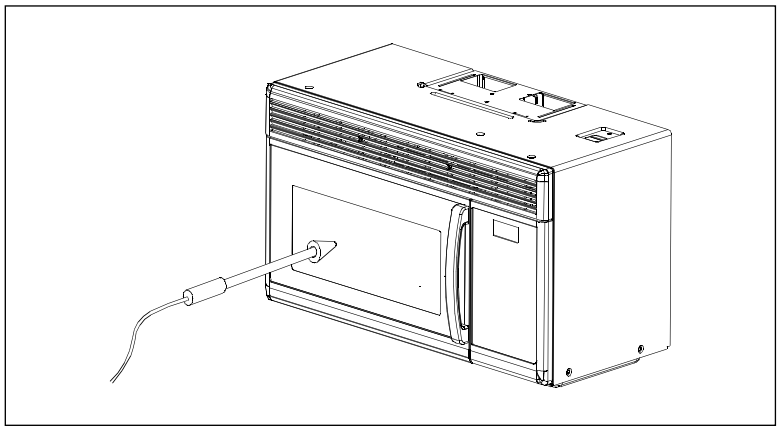
CAUTION :

1. Water load should be measured exactly to 1 liter.
2. Input power voltage should be exactly 120V as specified.
3. Ambient temperature should be 20±2°C(68±3.6°F)

2. MICROWAVE RADIATION TEST

On every service call, checks for microwave energy emission must be made according to the following manner.

1. Remove the cooking rack from the oven cavity, if the microwave oven is, so equipped.
2. Place 275mL(9. oz.) glass of water in the center of the oven bottom.
3. Select HIGH cook power, turn the microwave oven on, and test for R.F leakage using the following pattern:
   a) Check around the cabinet at the front
   b) Check around the door
   c) Check around the console panel
   d) Check horizontally across the door
   e) Check vertically across the door
   f) Check diagonally across the door
   g) Check across the air vents
   h) Check across the rear air vent



WARNING :
The scan speed is 1 in./sec.

EQUIPMENT
• Electromagnetic energy leakage monitor.

*** 600 cc** glass beaker with an inside diameter of approx. 85 mm (3.5 in).

When checking for R.F leakage, use an approved R.F measuring device to assure less than **4mW/cm²** emission at 5cm distance with a maximum scan rate of **2.5cm/second,** in compliance with U.S. Government Department of Health, Education and Welfare 21 CFR1030, performance Standard for Microwave Ovens.

A proper operating door and seal assembly will normally register small emissions, but they must be nogreater than **4mW/cm²** to allow for measurement uncertainty.

All microwave ovens exceeding the emission level of **4mW/cm²** must be reported to Department of Service for microwave ovens immediately and the owner should be told not to use the microwave oven until it has been repaired completely.

If a microwave oven is found to operate with the door open, report to Department of Service, the manufacturer and **CDRH*** immediately. Also tell the owner not to use the oven.

The interlock monitor switch acts as the final safety switch protecting the customer from microwave radiation.
It the interlock monitor switch operates and opens the line fuse, the interlock switches have failed, and you must replace all of them(primary and secondary interlock switches, and the monitor switch), because their contact may be melted and welded together.
All repairs must be performed so that microwave energy emission are minimal.

CDRH.-Center for Device and Radiological Health, Food, and Drug Administration.

MAKING THE MEASUREMENTS

MEASURING THE OVEN WITH THE CABINET INSTALLED MEASUREMENT NOTES:

- When measuring for leakage, use the **2"(5cm)** spacer that is provided with the probe.
- Leakage with the outer panels removed should be less than **5mW/cm²**
- Leakage for a fully assembled oven (before the lamp switch primary is interrupted) with the door opened slightly, should be less than **4mW/cm²**
- Do not exceed the meter s full-scale deflection.
- Do not move the test probe along the measuring surfaces faster than 1-inch-per-second **(2.5 cm/sec),** otherwise a false reading will occur.
- When testing near a corner of the door, keep the probe perpendicular to the surface, and move it horizontally without touching the surfaces, otherwise a false reading will occur.
- Hold the test probe by its gripping surface only, otherwise a false reading will occur.

To measure for oven leakage:

1. Pour **275cc(±25cc)** of water into a **600 cc** glass beaker.
2. Place the beaker into the center of the microwave oven.
3. Set the energy leakage monitor to **2,450 MHz,** and use it according to the manufacturer s recommended test procedure to obtain the correct results.
4. Measure the microwave radiation with an electromagnetic radiation monitor. Hold the probe perpendicular to the surface being measured and measure around the door viewing window, the exhaust opening, and air inlet openings.
5. Operate the oven at its maximum energy output, and take the measurements.

MEASURING THE OVEN WITH THE CABINET REMOVED

When the magnetron has been replaced, use the previous procedure, and measure for microwave energy leakage after all of the necessary components are replaced or adjusted, and before the cabinet is installed.
Take special care to measure around the magnetron and the waveguide.

WARNING :

Be careful not to contact any of the high Voltage components when making measurements with the cabinet removed.

3. COMPONENT TEST PROCEDURE

THE THERMOSTAT AND THERMAL CUT OUT

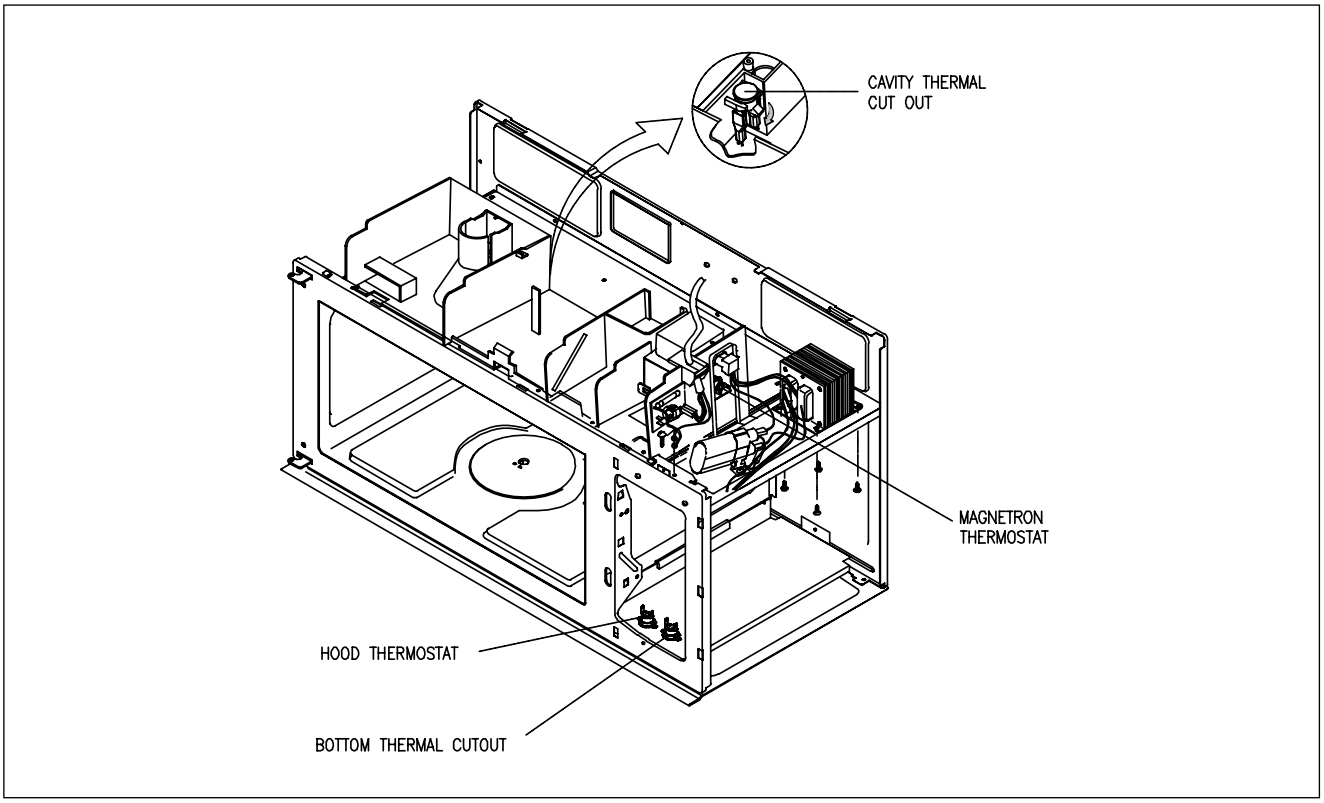
There are Two thermostats and Two Thermal Cut Out in the OTR Microwave Oven. They are the cavity thermal cut out and the bottom thermal cut out. The cavity thermal cut out is located air guide top. This thermal cut out is normally-closed , and will open at a set temperature to disable the oven.

The bottom thermal cut out is located directly behind the control panel. It is a normally-closed , and will open at a set temperature to disable the oven.

The vent thermostat is located directly behind the control panel. It is a normally-open , that when closed, the Vent motor activates a low speed. This thermostat is automatically resettable.

POSSIBLE CUSTOMER COMPLAINT:
The unit turns on by itself.

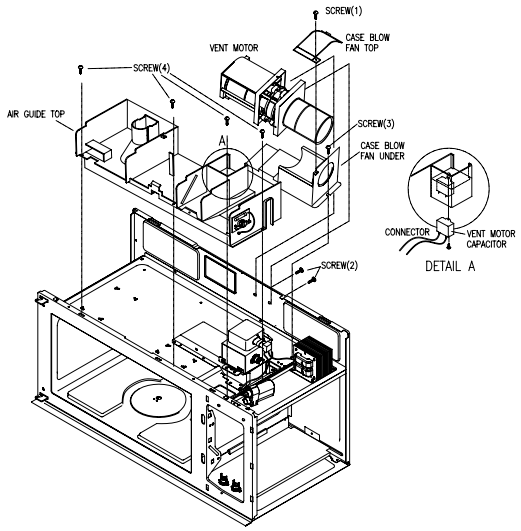
	Open (°F/°C)	**Reset** (°F/°C)
Cavity Thermal Cut Out	212 / 100	140 / 60
Bottom Thermal Cut Out	203 / 95	32 / 0
Hood (Vent) Thermostat	104 / 40	132.8 / 56
Magnetron Thermostat	320 / 160	239 / 115



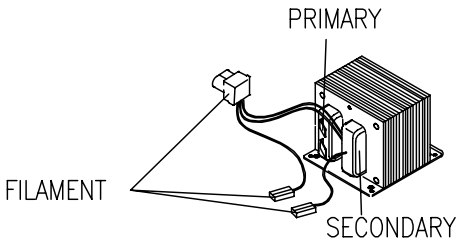
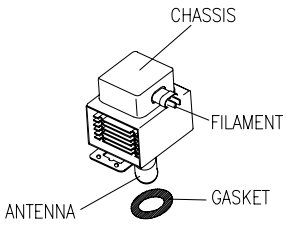
VENT MOTOR CAPACITOR

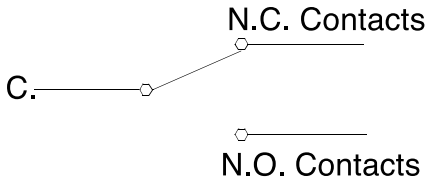
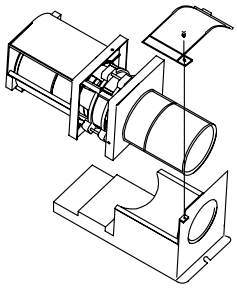
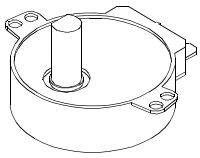
The Vent motor capacitor is located bottom of the airguide top.

It is in use any time the Vent motor is on. The capacitor helps to maintain a constant voltage to the Vent motor so that it runs more efficiently.



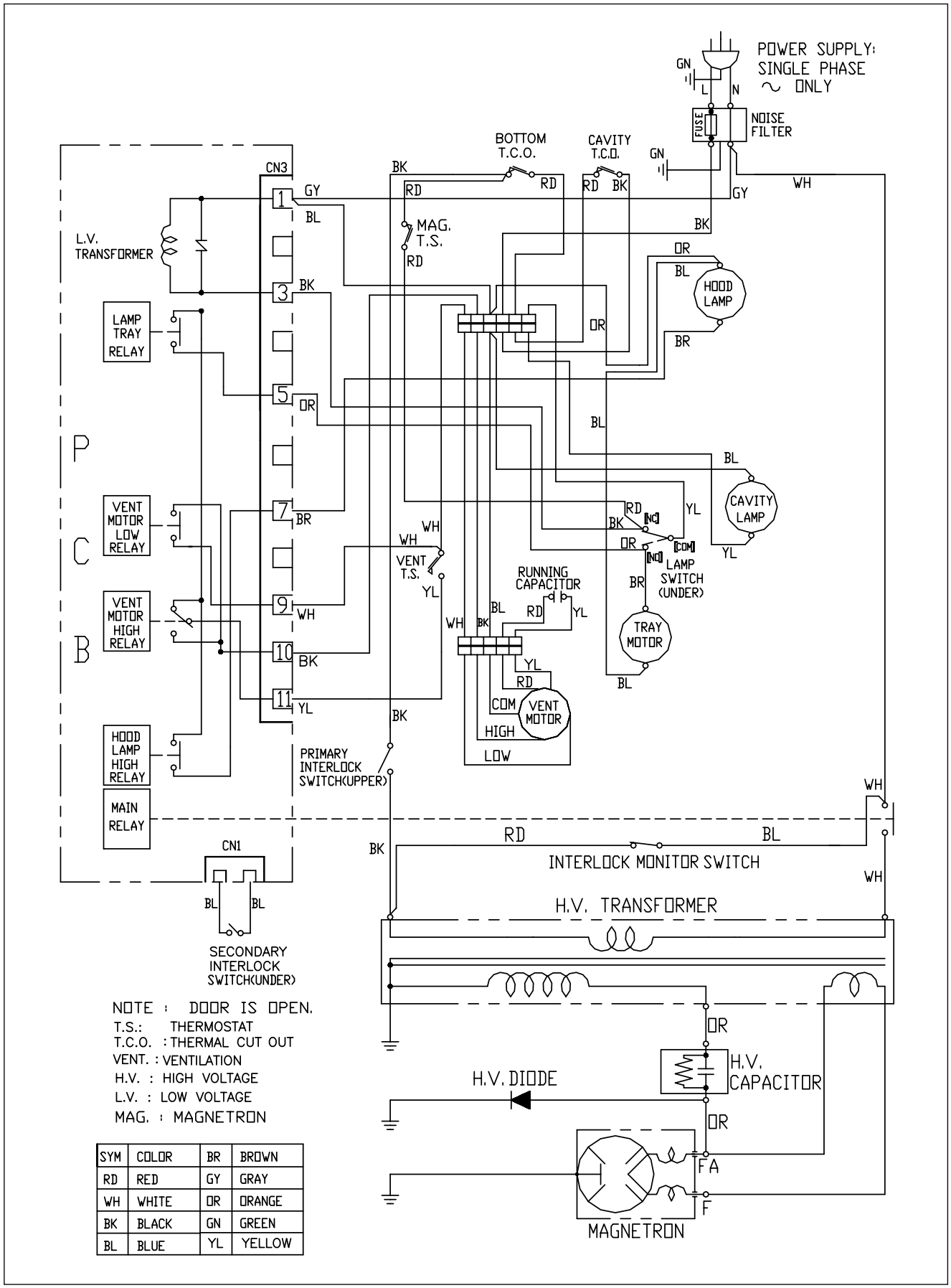
TEST CHARTS

COMPONET	TEST PROCEDURE	RESULT
High Voltage Transformer(With wire leads unplugged) 	1. Set the ohmmeter to the Rx1 scale, and measure the: a) Primary winding b) Secondary winding c) Filament winding 2. Set the ohmmeter to its Rx1000 scale, and measure the: a) Primary to ground b) Filament to ground	a) 0.4 to 0.6 ohms b) 70 to 130 ohms c) 0 ohms a) Normal = infinity b) Normal = infinity
Magnetron(with wire leads unplugged) **NOTE** A microwave energy leakage test must always be performed when the oven is serviced for any reason. **NOTE** Replace the magnetron if the checks and all of the high voltage component tests are good, but the unit still does not heat a load 	1. Set the ohmmeter to its Rx1000 scale, and measure the: a) Filament terminal 2. Set the ohmmeter to its Rx1000 scale, and measure the: a) Filament winding to chassis	a) Normal readings less than 1ohms a) Normal = infinity

COMPONET	TEST PROCEDURE	RESULT
Switches (with wire leads removed). All of the switches are measured in the same manner.  	N. O. and C Terminals Set the ohmmeter to the R X 1 scale, and measure the resistance between the normally-open (N.O.) and the common (C) terminals of the switch.	a) Normal - The meter indicates infinity. b) Abnormal - The meter indicates zero ohms (a short).
	N. O. and C Terminals Set the ohmmeter to the R X 1 scale, and measure the resistance between the normally-close (N.C.) and the common (C) terminals of the switch.	a) Abnormal - The meter indicates infinity. b) Normal - The meter indicates zero ohms (a short).
Blower Motor (with leads disconnected) 	Set the ohmmeter to the R x 1 scale, and measure the: a) High speed windings (blue and black wires) b) Low speed windings (blue and white wires)	a) Normal - High speed : 25 to 45 ohms b) Normal - Low speed : 45 to 65 ohms
Turn Table Motor (with leads disconnected) 	Set the ohmmeter to the R x 1000 Scale, and measure the resistance between the motor terminals.	a) Normal - 3k to 4k ohms b) Abnormal - infinite or zero ohms

WIRING DIAGRAM

1. WIRING DIAGRAM



SYM	COLOR	BR	BROWN
RD	RED	GY	GRAY
WH	WHITE	OR	ORANGE
BK	BLACK	GN	GREEN
BL	BLUE	YL	YELLOW

2. CIRCUIT DESCRIPTION

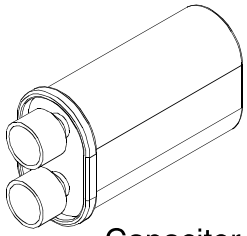
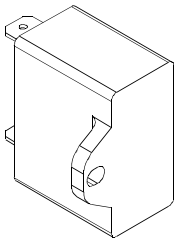
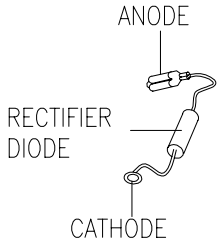
MICROWAVE COOKING

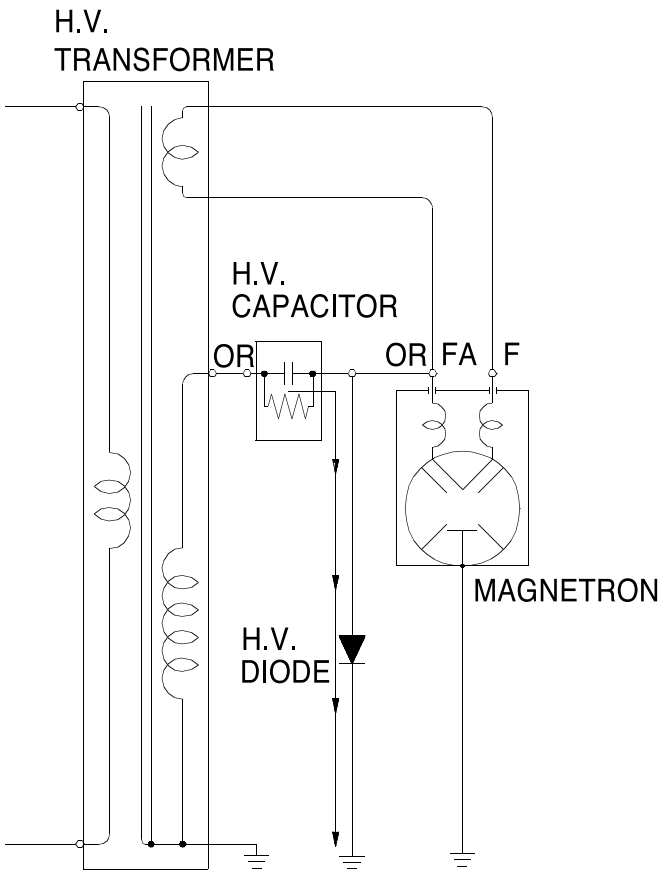
- TIME COOKING

1. When the food is placed inside the oven and door is closed.
   1) The low voltage transdormer 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 20A fuse and stop magnetron oscillation when door is opened during oper ation 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 contacts of the interlock monitor switch open.
   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 pad is touched.
   The RELAY 1,2 and 4 are controlled by the touch control circuit.
   1) 120VAC is applied to the high voltage transformer through the contacts of RELAY 1
   2) Fan motor starts to cool the magnetron by blowing the air coming from the intake on the grille 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 filament winding of the 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 Figure the first half cycle of the high voltage produced in the 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 3.2mH, filter capacitors of 16pF and the magnetron s shielded case so that TV and radio programs are not impaired by noise.

COMPONET	TEST PROCEDURE	RESULT
High Voltage Capacitor  Capacitor	Terminal-To-Terminal Set the ohmmeter to the Rx10k scale, and measure the resistance across the capacitor terminals.	a) Normal - The meter indicates several ohms, then gradually returns to infinity. b) Abnormal - The meter indicates infinity, or zero ohms (a short) immediately.
	Terminal-To-Case Set the ohmmeter to the Rx1 scale, and measure the resistance between each terminal and the case.	a) Normal - The meter indicates infinity. b) Abnormal - The meter indicates zero ohms, or a short.
Vent Motor Capacitor 	Terminal-To-Terminal Set the ohmmeter to the Rx10k scale, and measure the resistance across the capacitor terminals.	a) Normal - The meter indicates several ohms, then gradually returns to infinity b) Abnormal - The meter indicates infinity, or zero ohms (a short) immediately.
High Voltage Diode 	Forward Continuity Set the ohmmeter to the Rx1 scale, and measure forward resistance across the rectifier terminals with the (+) lead touching the anode and the (–) lead touching the cathode.	a) Normal - The meter indicates several ohms. b) Abnormal - The meter indicates continuity, or zero ohms (a short).



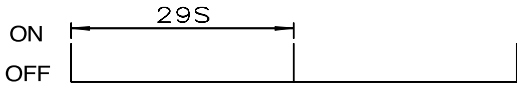
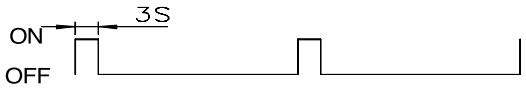
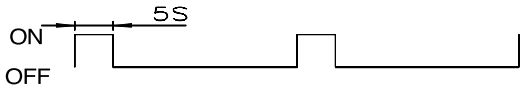
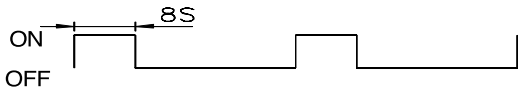
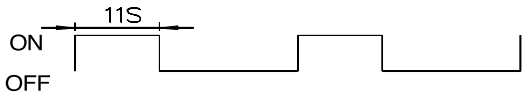
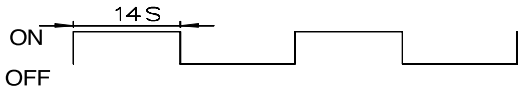
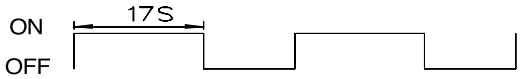
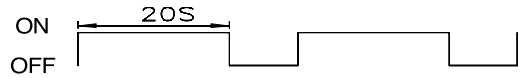
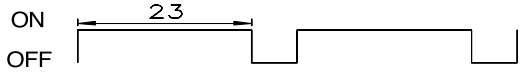
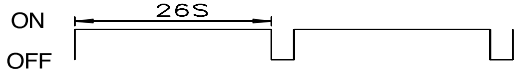
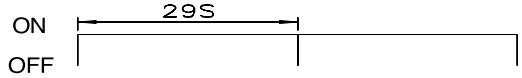
The Touch control circuit controls the ON-OFF time of RELAY 1 in order to vary the output power of the microwave oven from power level 1 to HI (100%) power.
One complete ON and OFF cycle of the RELAY 1 is 29 seconds. The relation between indications on the control panel and the output of the microwave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

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 1,2 and 4 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 creates the short circuit.
6) If the contacts of primary interlock switch malfunction the 20A fuse blows open due to the large current surge caused by the short circuit activation, and this in turn stops magnetron oscillation.

5. When the CANCEL/OFF pad is touched during cooking.
1) The touch control circuit the voltage supplied to the RELAY 1 coil and causes the magnetron to stop oscillating.
2) RELAY 2 and 4 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.

POWER LEVEL	OUTPUT POWER AGAINST FULL POWER	RELAY 1 TURN ON, OFF TIME
P-0	0/29(0%)	
P-10	3/29(10%)	
P-20	5/29(17%)	
P-30	8/29(28%)	
P-40	11/29(38%)	
P-50	14/29(48%)	
P-60	17/29(59%)	
P-70	20/29(69%)	
P-80	23/29(79%)	
P-90	26/29(90%)	
P-HI	29/29(100%)	

PRINTED CIRCUIT BOARD

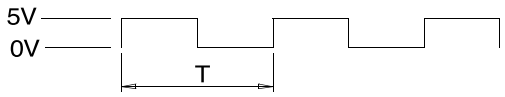
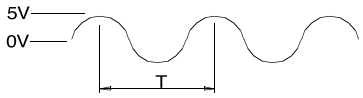
1. CIRCUIT CHECK PROCEDURE

1) Low Voltage Transformer (DMR-161P) Check
The low voltage transformer is located on the PCB
Measuring condition : Input voltage : 120 V
Frequency : 60Hz

Voltage / Terminal	LOAD	NO LOAD
7 - 8	AC 11V	AC 14.5V

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

2) Voltage Check
- KEY CHECK POINT

NO	CHECK POINT	REMARK
1	IC1 PIN 5	+5VDC
2	IC1 PIN 8	 T : 16.67ms (60Hz)
3	IC1 PIN 35 OR 36	 T : 250 ns (4 MHz)

- CHECK METHOD

NO	MEASURE POINT (page 55)	WAVE FORM	REMEDY	REMARK
1	MP1	DC +5V–0.25	REPLACE EC1, VL1	NO LOAD
2	MP2	DC +12V–2.0	REPLACE EC2, D13, 14	NO LOAD

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

MEASURE POINT

4) When there is no microwave oscillation

When touching START pad, oven lamp does not turn on.

Fan motor does not rotate, but cook indicator in display comes on.

*Cause: RELAY 1,2,4 does not operate. -> refer to Circuit Diagram (point 2,3,4)

- CHECK METHOD

STAGE POINT	A	B
RELAY 2,4,5 ON	+5VDC	GND
RELAY 2,4,5 OFF	GND	+15VDC

When touching START pad, oven lamp turns on.

Fan motor and turntable rotate and cook indicator in display comes on.

*Cause: RELAY 1 does not operate. -> refer to Circuit Diagram (point 2)

- CHECK METHOD

STAGE POINT	A	B
RELAY 1 ON	+5VDC	GND
RELAY 1 OFF	GND	+15VDC

5)When the door is opened during operation, the Count down timer does not stop. -> refer to Circuit Diagram (point 1)

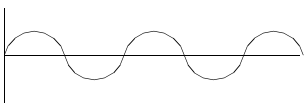
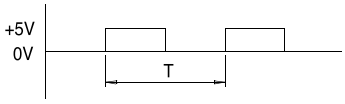
- CHECK METHOD

STAGE POINT	A	B
1) DOOR OPEN	OPEN	+5VDC
2) DOOR CLOSED	CLOSED	GND

CHECK NO.	A	B
1	Check the stage (ON, OFF) of the secondary interlock switch by resistance measurement.	Replace secondary interlock switch.

6) When the digital clock does not operate properly. -> refer to Circuit Diagram (point 6)

- CHECK METHOD

POINT	WAVE FORM
A	 T: 16.67 ms (60 Hz)
B	 T: 16.67 ms (60 Hz)

If clock does not keep exact time, you must check D15, R25, R24, ZD2, C6.

TROUBLE SHOOTING

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

1. Check grounding before checking trouble.
2. Be careful of the high voltage circuit.
3. Discharge the high voltage capacitor.
4. When checking the continuity of switches or of the high voltage transformer, disconnect one lead wire from these parts and then check conitnuity with the AC plug removed. To do otherwise may result in false reading or damage to your meter.
5. Do not touch and part of the circuitry on the touch control circuit since static electric discharge may damage this control panel.

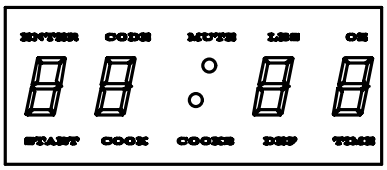
Always touch yourself to ground while working on this panel to discharge any static charge built up in your body.

First of all operate the microwave oven following the correct operation described on pages 6~19 by time cooking, in order to find the exact cause of any trouble.

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

1. Incomplete segments.
   (A) Segments missing.
   (B) Partial segments missing
   (C) Digit flickering other than normal fluorescent slight flickering.
   (D) All segments do not disply when power is on.
2. A distinct change in the brightness of one or more numbers in the display.
3. One of more digits in the display are not on when they should be.
4. Display indicates a number different from one touched.
5. Specific numbers (for example 5 and 3) will not display when the panel is touched.
6. Display does not count down or up with time cooking or clock operation.
7. Oven is programmable and cooks normally but no display shows.
8. Display obviously jumps in time while counting down.
9. Display counts down noticeably too fast while cooking.
10. Display does not show the time of day when dear pad is touched (in clock mode).
11. Oven lamp and turn table motor do not stop although cooking is finished.

Check if the RELAY 2 contacts close if they are close, replace touch control circuit.



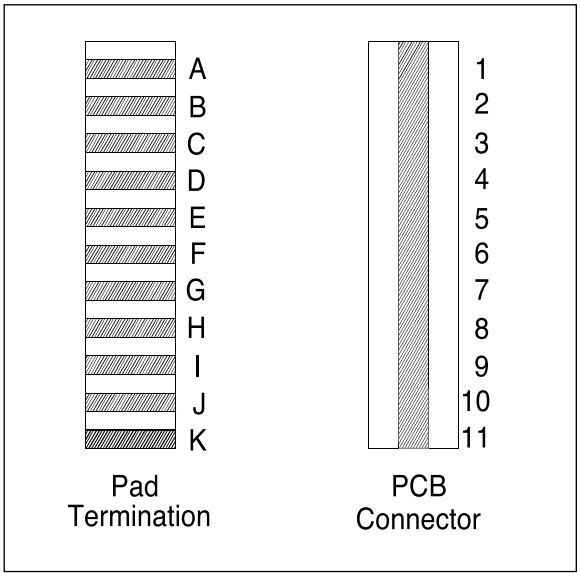
(TROUBLE 2) Digital readout display does not show programming, even if the membrane keyboard is programmed by touching proper pads.

NOTE :

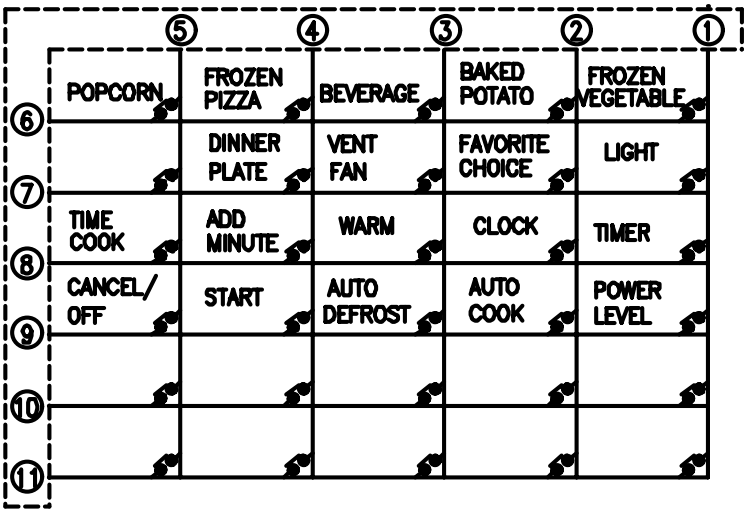
Before following the particular steps listed above in the trouble shooting guide for the membrane keyboard, failure, please check for the continuity of each wire-harness between the membrane keyboard and control box assembly.

MEMBRANE KEYBOARD CHECK PROCEDURE

1. Check the pad termination order and nomenclature



2. Type of encoding and pad names



The membrane keyboard consists of 33 keys whose configurations are described above and provide 11 pad termintions to be connected to the touch control circuit.

3. Key check procedure

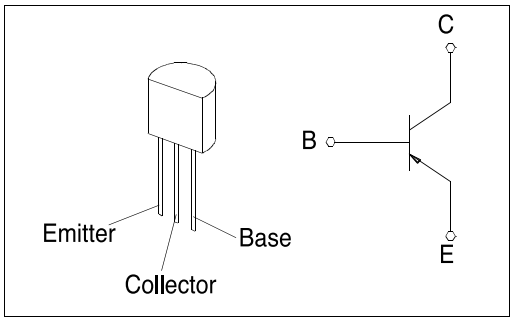
To determine if the membrane keyboard is defective or not, check the continuity of each pad(key) contacts with a multi-meter.

1) 0	pad : Between A and J
2) 1	pad : Between B and J
3) 2	pad : Between C and J
4) 3	pad : Between D and J
5) 4	pad : Between E and J
6) 5	pad : Between A and K
7) 6	pad : Between B and K
8) 7	pad : Between C and K
9) 8	pad : Between D and K
10) 9	pad : Between E and K
11) TIMER	pad : Between A and G
12) WARM	pad : Between C and H
13) AUTO COOK	pad : Between B and I
14) ADD MINUTE	pad : Between D and H
15) FROZEN PIZZA	pad : Between D and F
16) FROZEN VEGETABLE	pad : Between A and F
17) DINNER PLATE	pad : Between D and G
18) BAKED POTATO	pad : Between B and F
19) POPCORN	pad : Between E and F
20) BEVERAGE	pad : Between C and F
21) START	pad : Between D and I
22) FAVORITE CHOICE	pad : Between B and G
23) CLOCK	pad : Between B and H
24) AUTO DEFROST	pad : Between C and I
25) TIME COOK	pad : Between E and M
26) POWER LEVEL	pad : Between A and I
27) LIGHT	pad : Between A and G
28) VENT FAN	pad : Between C and G
29) CANCEL/OFF	pad : Between E and I

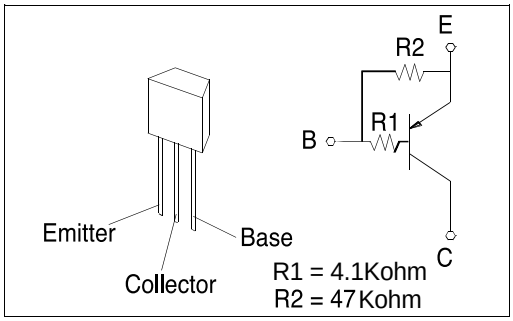
2. COMPONENT INFORMATION

1) TRANSISTOR

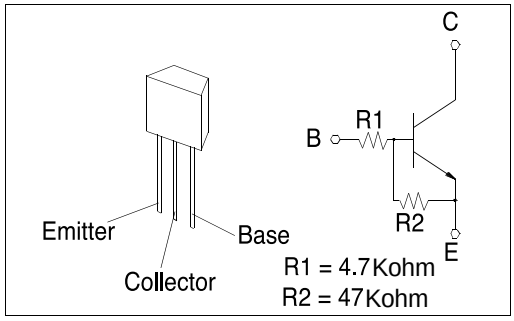
KTA1266Y



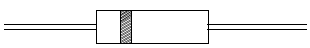
KRA106M

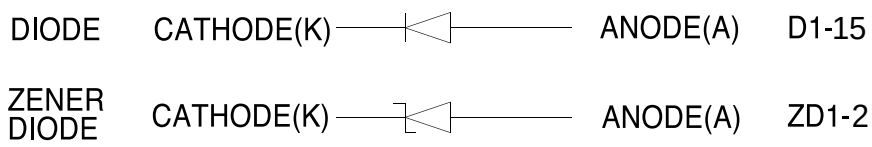


KRC106M

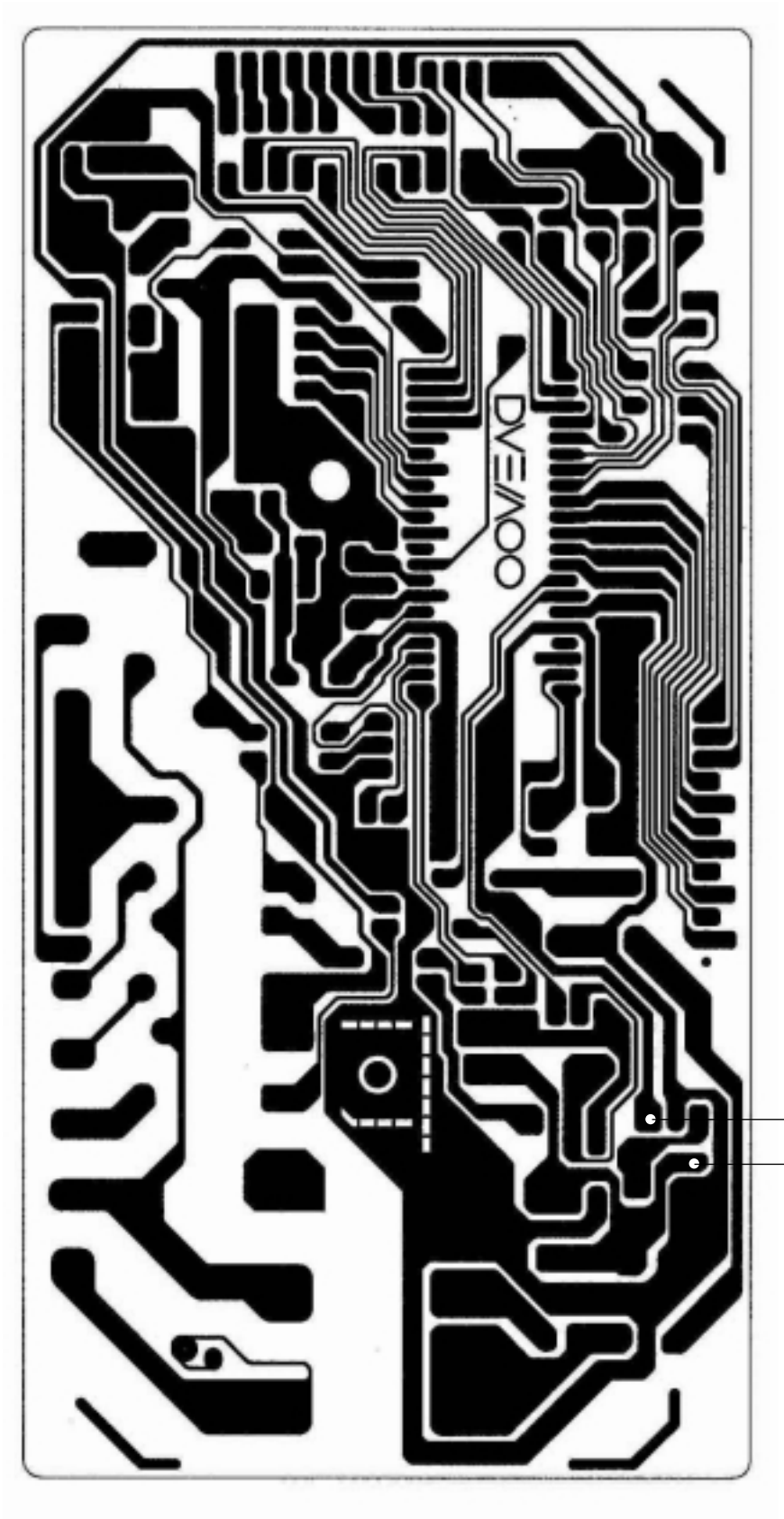


2) DIODE AND ZENER DIODE

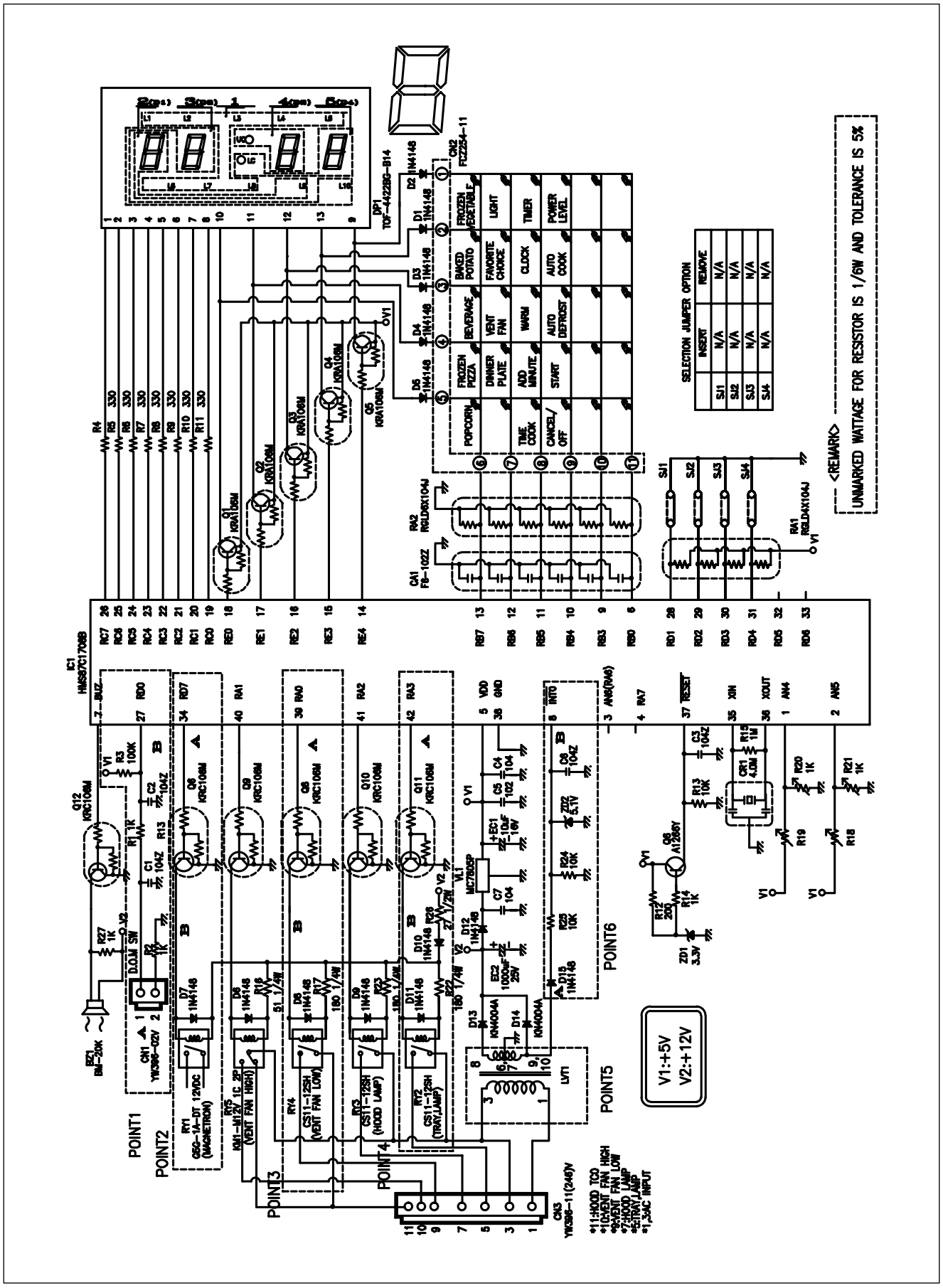




3. PRINTED CIRCUIT BOARD FILM



4. PCB CIRCUIT DIAGRAM

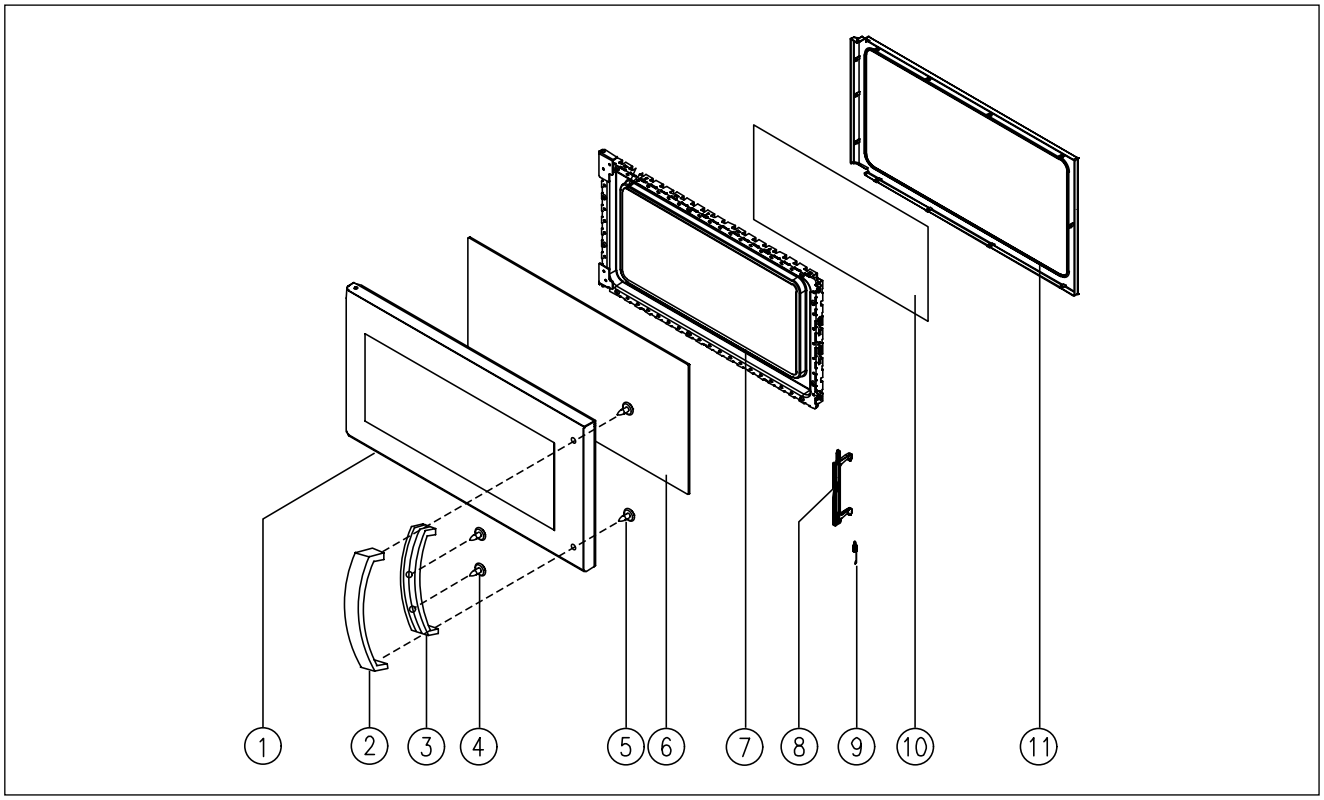


5. PCB LOCATION NO

NO	NAME	SYMBOL	SPECIFICATION	PART CODE	QT'Y	REMARK
1	BUZZER	BZ1	BM-20K	3515600100	1	
2	C ARRAY	CA1	7P(6) 1000PF M 50V	CN6XB-102M	1	
3	CAPACITOR CERA	C5	102 50V Z AXIAL	CCZB1H102K	1	
4	CAPACITOR CERA	C1~4,C6,C7	104 50V Z AXIAL	CCZF1H104Z	6	
5	CAPACITOR ELEC	EC1	50V RS 10uF	CEXE1H100A	1	
6	CAPACITOR ELEC	EC2	25V RSS 1000MF	CEXF1E102V	1	
7	CONNECTOR WAFER	CN1	YW396-02V	3519150520	1	
8	CONNECTOR WAFER	CN2	FCZ 254-11	441M367160	1	
9	CONNECTOR WAFER	CN3	YW396-11(246)AV	3519150800	1	
10	DIODE RECTIFY	D1~12, D15	1N4148	DZN4148---	13	
11	DIODE RECTIFY	D13,14	KN4004A	DZN4004A--	2	
12	DIODE ZENER	ZD1	UZ- 3.3BSB 1/2W	DZUZ3R3BSB	1	
13	DIODE ZENER	ZD2	UZ- 5.1BSB 1/2W	DZUZ5R1BSB	1	
14	IC MICOM	IC1	HMS87C1716BK	150LC1716B	1	OTP
15	LED DISPLAY	DP1	TOF-4422BG-B14	DT0F4422BG	1	
16	PCB MAIN	M321	82X163.7	3514331100	1	
17	R ARRAY	RA1	5P(4) 1/8 100K OHM J	RA-85X104J	1	
18	R ARRAY	RA2	7P(6) 1/8 100K OHM J	RA-87X104J	1	
19	R CARBON FILM	R4~11	1/6W 330 5%	RD-AZ331J-	8	
20	R CARBON FILM	R1,2,14,20,21,27	1/6W 1K 5%	RD-AZ102J-	6	
21	R CARBON FILM	R12	1/6W 200 5%	RD-AZ201J-	1	
22	R CARBON FILM	R13,R24,R25	1/6W 10K 5%	RD-AZ103J-	3	
23	R CARBON FILM	R3	1/6W 100K 5%	RD-AZ104J-	1	
24	R CARBON FILM	R15	1/6W 1M 5%	RD-AZ105J-	1	
25	R CARBON FILM	R17,R22,R23	1/4W 180 5%	RD-4Z181J-	3	
26	R CARBON FILM	R16	1/4W 51 5%	RD-4Z510J-	1	
27	R CARBON FILM	R26	1/2W 27 5%	RD-2Z270JS	1	
28	RESONATOR CERA	CR1	CRT 4.00MS	5P4R00MTS-	1	
29	IC REGULATOR	VL1	MC7805C	1CPMC7805C	1	
30	TRANSISTOR	Q1~5	KRA106M	TZRA106M--	5	
31	TRANSISTOR	Q6,Q8~12	KRC106M	TZRC106M--	6	
32	TRANSISTOR	Q7	KTA-1266Y	TZTA1266Y-	1	
33	TRANS POWER	LVT1	DMR-161P	5EPU035303	1	
34	SW RELAY	RY1	G5G-1A-DT DC12V	5SC0101123	1	
35	SW RELAY	RY2~RY4	CS11-12SH 1C 1P	5SC0101128	3	
36	SW RELAY	RY5	KM1-M12V 1C 2P	5SC0102118	1	
37	WIRE COPPER	J1~3,J5,J7~9,J11	1/0.52 TIN COATING	85801052GY	8	7.5mm
38	WIRE COPPER	J4,J6	1/0.52 TIN COATING	85801052GY	2	10mm
39	WIRE COPPER	J10	1/0.52 TIN COATING	85801052GY	1	12.5mm

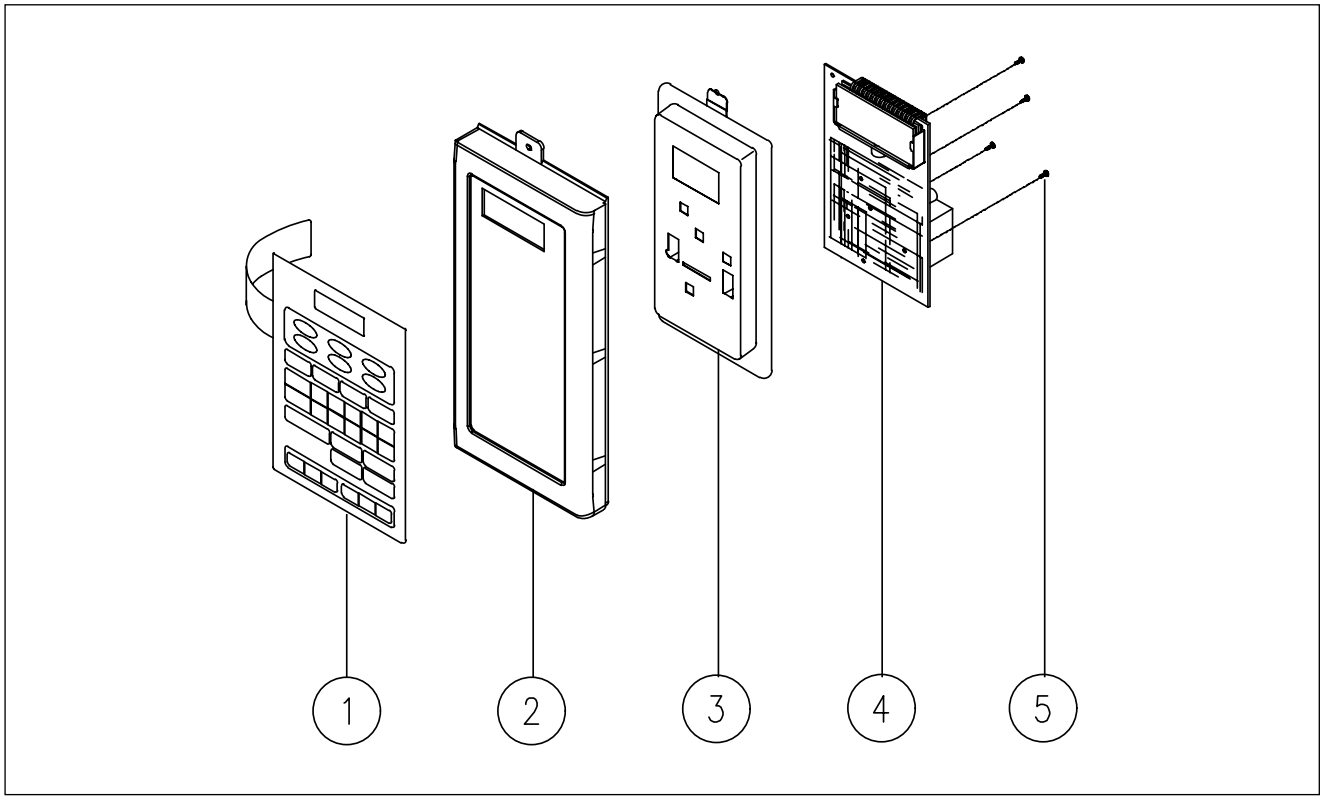
EXPLODED VIEW AND PARTS LIST

1. DOOR ASSEMBLY (KOT-1G0B / KOT-1G0S)



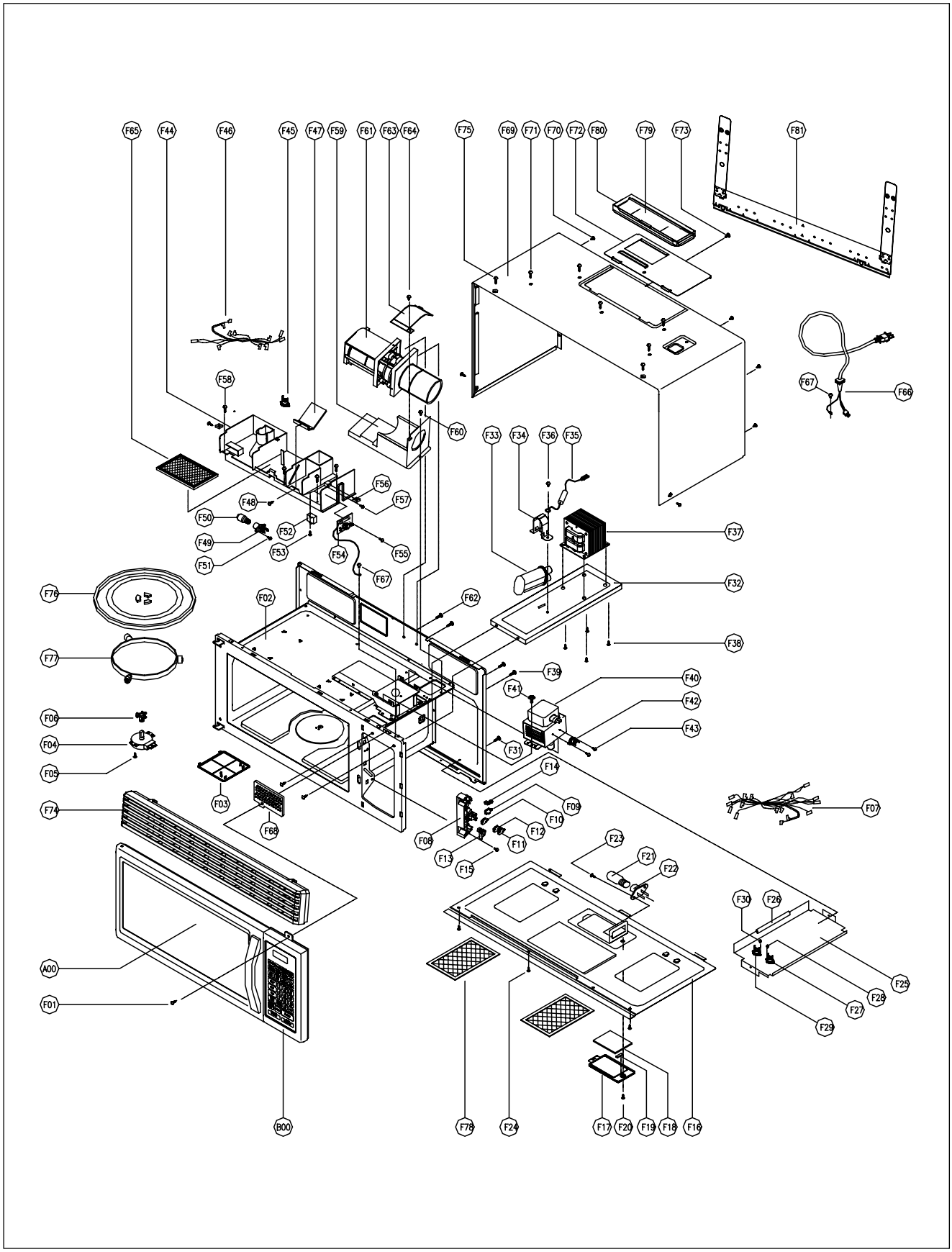
REF NO.	PART NAME	DESCRIPTION	PART CODE	Q'TY	REMARK
1	FRAME DOOR	ABS	3512209600	1	KOT-1G0A
			3511716210		KOT-1G4U
2	HANDLE DOOR *O	ABS	3512606400	1	KOT-1G0A
			3512604500		KOT-1G4U
3	HANDLE DOOR *I	ABS	3512606500	1	
4	SCREW TAPPING	T2S PAN 4X10 MFZN	7121401011	2	
5	SCREW TAPPING	T2S TRS 4X12 MFZN	7122401211	2	
6	BARRIER SCREEN *O	TEMP GLASS T3.2	3517009410	1	
7	DOOR PAINTING AS	KOT-150S0A	3511712300	1	
8	HOOK	POM	3513101200	1	
9	SPRING HOOK	PW1	3515101800	1	
10	BARRIER SCREEN *I	PE T0.1	3517006300	1	
11	GASKET DOOR	PP 5113MF6 A353B BK	3512302100	1	

2. CONTROL PANEL ASSEMBLY (KOT-1G0B / KOT-1G0S)



REF NO.	PART NAME	DESCRIPTION	PART CODE	Q'TY	REMARK
B00	SWITCH MEMBRANE	KOT-1G0A9A	3518572100	1	KOT-1G0B
			3518572110		KOT-1G0S
B01	CONTROL PANEL	ABS	3516733700	1	KOT-1G0B
			3516734800		KOT-1G0S
B02	BACK PLATE	SECC T0.6	3516802200	1	KOT-1G0A
			3516802210		KOT-1G4U
B03	PCB AS	KOT-1G0A9A	PKMPMSF200	1	
B04	SCREW TAPPING	T2S TRS 4X12 MFZN	7122401211	4	

3. TOTAL ASSEMBLY (KOT-1G0B / KOT-1G0S)



NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
A00	3511726100	DOOR AS	KOT-1G0A9A NEGRO	1
	3511712260		KOT-176SBA SILVER	
B00	PKCPSWF200	CONTROL-PANEL AS	KOT-1G0A9A NEGRO	1
	PKCPSWF210		KOT-1G4U9A SILVER	
F01	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F02	3516118200	CAVITY AS	KOT-1G0A9A	1
F03	3511406200	COVER WAVE GUIDE	HEATPROOF PP	1
F04	3966820200	MOTOR SYNCRO	120V 2W GM-16-12F17	1
F05	7121400611	SCREW TAPPING	T2S PAN 4X6 MFZN	1
F06	3517400620	COUPLER	XAREC	1
F07	3512782000	HARNESS MAIN	KOT-1G0A9A	1
F08	3513804700	LOCK	POM	1
F09	4415A66910	SW MICRO	VP-531A-OF/SZM-V16-FA-61	1
F10	4415A66600	SW MICRO	VP-532A-OF SPNC #187 200G	1
F11	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
F12	3518571000	SWITCH PUSH	MP101C	1
F13	3513700800	LEVER LOCK	POM	1
F14	3513702100	LEVER SW MICRO	POM,KOG-846T0S	1
F15	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F16	3514503500	PLATE *B PAINTING AS	KOT-1G0A9A	1
F17	3510610200	BRACKET LAMP COVER	SECC T0.5	1
F18	3511412300	COVER LAMP	GLASS T4.0	1
F19	3517303300	FOAM	UR 5TX10X60	1
F20	7112401012	SCREW TAPPING	T1 TRS 4X10 MFZN BK	1
F21	3513602400	LAMP	BL 125V 30W T25 C7A #187	1
F22	3513003000	HOLDER LAMP	PENOL 250V 75W	1
F23	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F24	7122401011	SCREW TAPPING	T2S TRS 4*10 MFZN	3
F25	3512526300	GUIDE AIR OUTLET	SECC T0.4	1
F26	3517304600	FOAM	CR 6TX220X30	1
F27	3518906800	THERMOSTAT	OFF:95 ON:0 V #187 «•±,:90N/0	1
F28	7121400611	SCREW TAPPING	T2S PAN 4X6 MFZN	1
F29	3518905500	THERMOSTAT	OFF:40 ON:56 V #250	1
F30	7121400611	SCREW TAPPING	T2S PAN 4X6 MFZN	1
F31	7122401011	SCREW TAPPING	T2S TRS 4*10 MFZN	1
F32	3510316800	BASE *R	SBHG T0.7	1
F33	3518302200	CAPACITOR HV	2100VAC 0.98UF #187	1
F34	3513003200	HOLDER HV CAPACITOR	SECC T0.6	1
F35	3518400800	DIODE HV AS	ESJC13-12BX (187)	1
F36	7S432X4081	SPECIAL SCREW	TT3 TRS 4X8 SE MFZN	1
F37	3518122600	TRANS HV	DWAR10A0-1HT 1	1
F38	3516003700	SPECIAL SCREW	TT3 HEX 4X8 FLG MFZN	4
F39	7122401011	SCREW TAPPING	T2S TRS 4*10 MFZN	4

NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
F40	3518003420	MAGNETRON	RM228JFP 6CF	1
F41	3516004000	SPECIAL SCREW	T2 BOLT FLANGE 5X12 DACRO	1
F42	3518903800	THERMOSTAT	OFF:160 ON:115 V #187	1
F43	7121300611	SCREW TAPPING	T2S PAN 3X6 MFZN	2
F44	3512526200	GUIDE AIR *T	PP	1
F45	3518906310	THERMOSTAT	OFF:100 ON:60 V #187	1
F46	3512782100	HARNESS THERMOSTAT	KOT-1G0A9A	1
F47	3511411800	COVER CAVITY LAMP	SECC T0.5	1
F48	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F49	3513003000	HOLDER LAMP	PENOL 250V 75W	1
F50	3513602400	LAMP	BL 125V 30W T25 C7A #187	1
F51	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F52	3518301100	CAPACITOR RUNNING	250VAC 6.0UF	1
F53	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2
F54	3518608000	NOISE-FILTER	DWLF-M30	1
F55	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F56	3516006300	SPEICAL NUT	M6 17X11 MFZN YELLOW	2
F57	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2
F58	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	4
F59	3511101300	CASE BLOW FAN *U	PP	1
F60	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F61	3964822000	MOTOR VENTILATION	120V 60HZ OBB-2025X1	1
F62	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2
F63	3511101200	CASE BLOW FAN *T	PP	1
F64	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F65	3511900700	FILTER CHARCOAL	KOT-1G0A9A	1
F66	35113U5W88	CORD POWER AS	3X14AWG 80X80 187-RTML	1
F67	7S432X4081	SPECIAL SCREW	TT3 TRS 4X8 SE MFZN	1
F68	3517504800	PROTECTOR WIRE	SECC T0.6	1
F69	3510809500	CABINET AS	KOT-1G0A9A	1
F70	7112401012	SCREW TAPPING	T1 TRS 4X10 MFZN BK	8
F71	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	5
F72	3511405210	COVER MOTOR CONDENSE	SBHG T0.5	1
F73	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F74	3512400600	GRILLE AIR	ABS NEGRO	1
	3512400610		KOT-1G4U9A SILVER	
F75	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2
F76	3517203510	TRAY	KOR-8115 GLASS NEG	1
F77	3512517500	GUIDE ROLLER AS	KOR-63150S	1
F78	3511900800	FILTER AIR	KOT-1G0A9A	2
F79	3512516500	GUIDE DAMPER	SECC T0.5	1
F80	3515400400	VALVE DAMPER	ET T0.21	1
F81	3510610400	BRACKET RANGE MT WELDING AS	KOT-1G0A9A	1