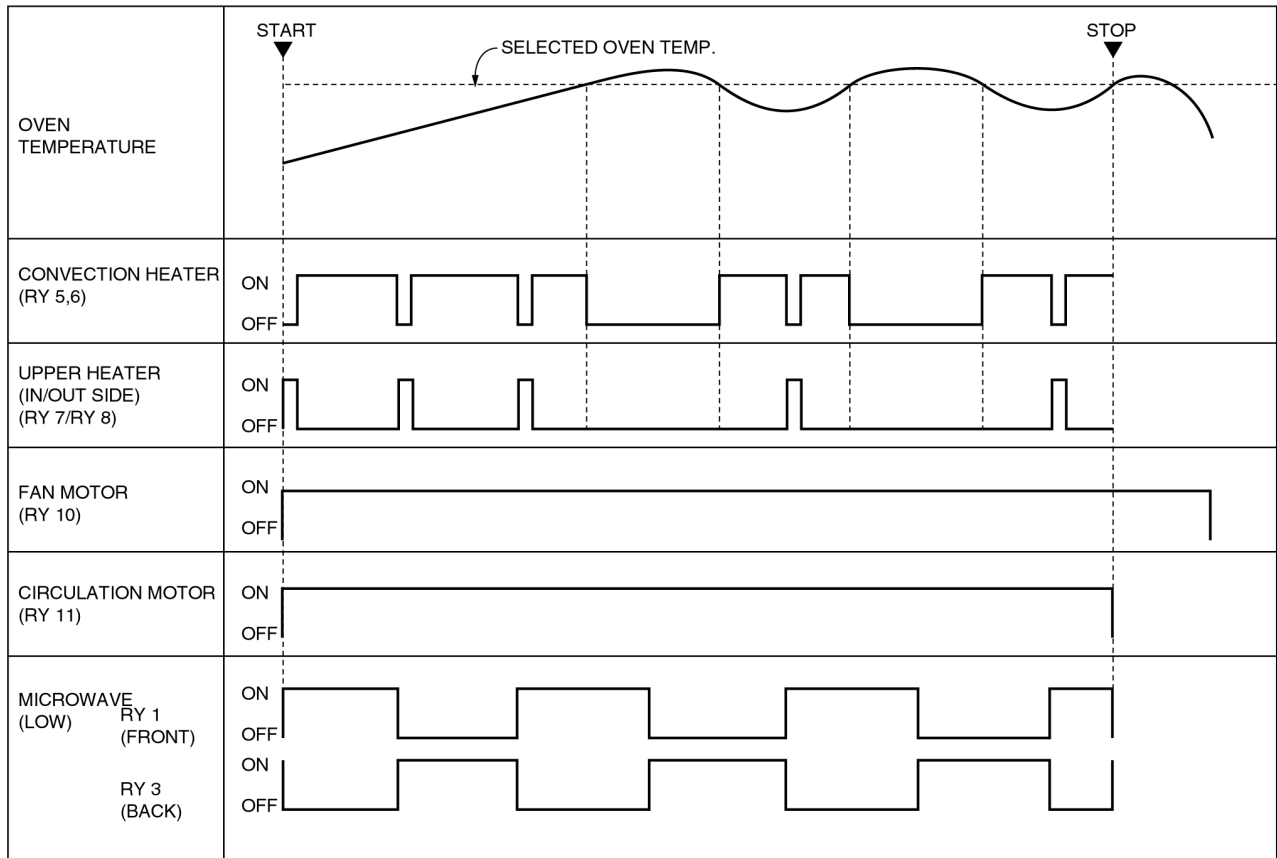


**Combination (Convection + Microwave)**

96-023M

## 6 CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

Unlike many other appliances, the microwave oven is a high voltage, high current apparatus.

Although it is safe to operate, extreme care should be taken during repair.

### CAUTION

Servicemen should remove their watches and rings whenever working close to or replacing the magnetron.

### 6.1. Check the earthing/grounding

Do not operate on a 2 wire extension cord. The microwave oven is designed to be used in a completely earthed/grounded condition. It is imperative, therefore, to make sure it is properly earthed/grounded before beginning repair work.

### 6.2. Warning about the electric charge in the high voltage capacitor.

For about 30 seconds after the oven is turned off, an electric charge remains in the high voltage capacitor. When replacing or checking parts, remove the power plug from the outlet and short the terminal of the high voltage capacitor (terminal of lead wire from diode) to chassis ground with an insulated handle screwdriver or insulated jumper lead wire to discharge.

### WARNING

There is high-voltage present, with high-current capabilities in the circuits of the high voltage winding and filament winding of the high voltage transformer. It is extremely dangerous to work on or near these circuits with the oven energized. DO NOT measure the voltage in the high voltage circuit including filament voltage of magnetron.

### WARNING

Never touch any circuit wiring with your hand nor with an insulated tool during operation.

### 6.3. If the door lock, the door switch, the door seal or the door develops a malfunction, be sure not to operate the oven until complete repairs are made.

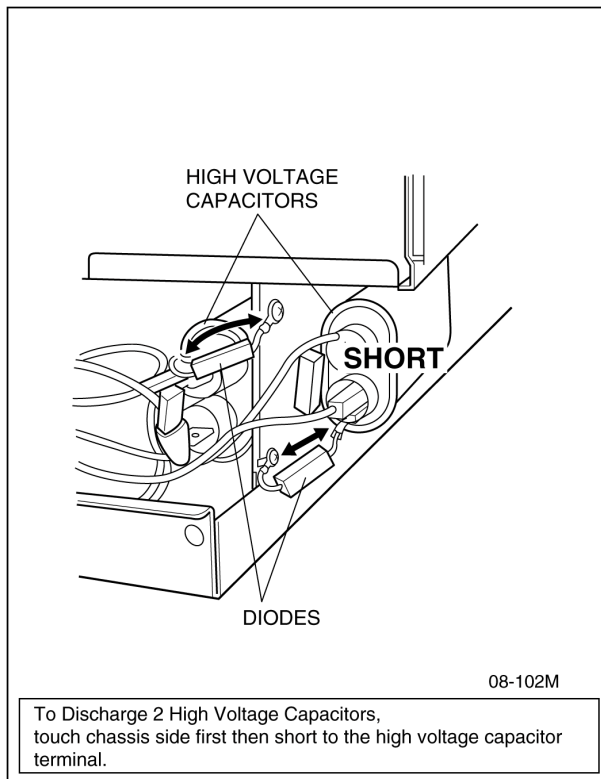
If the oven is operated with any of these parts in imperfect condition, hazardous microwave leakage might occur.

**WARNING**

Never operate the oven until the following are confirmed:

- (A) The door is tightly closed.
- (B) There is no broken hinge or door arm.
- (C) The door seal is not damaged.
- (D) The door is not bent or warped.
- (E) There is no other visible damage.

## 6.4. When parts must be replaced, remove the power plug from the outlet.

**Important Note**

1. High voltage (above 250 volts) exists at following parts during oven operation.
  - Magnetron
  - High Voltage Transformer
  - High Voltage Diode
  - High Voltage Capacitor
2. If the microwave oven is operated with incorrect installed door hinge or magnetron, it can cause microwave leakage of over 5mW/square centimeter.  
Hence it is absolutely necessary to check if magnetron and door hinge are correctly and safety installed after repairs or replacement.

## 6.5. Confirm after repair

1. After repair or replacement of parts, make sure that the screws of the oven, etc. are neither loose nor missing. Microwave might leak if screws are not properly tightened.
2. Make sure that all electrical connections are tight before inserting the plug into the wall outlet.

## 6.6. Avoid inserting nails, wire, etc. through holes in unit during operation.

Never insert a wire, nail or any other metal object through the lamp holes on the cavity or any other holes or gaps, because such objects may work as an antenna and cause microwave leakage.

**CAUTION  
MICROWAVE RADIATION**

Personnel should not be exposed to the microwave energy which may radiate from the magnetron or other microwave generating device if it is improperly used or connected. All input and output microwave connections waveguides, flanges, and gasket must be secure. Never operate the device without a microwave energy absorbing load attached. Never look into an open waveguide or antenna while the device is energized.

**CAUTION**

High voltage parts may become uncovered when outer cabinet is removed.

# 7 DISASSEMBLY AND PARTS REPLACEMENT PROCEDURE

## 7.1. Magnetron (Front and Back)

1. Discharge the high voltage capacitors.
2. Remove 5 screws holding air guides.
3. Disconnect magnetron, lead wire connectors and grounding lead.
4. Loosen wire harness and lift up air guide.
5. Remove 4 screws holding each magnetron.
6. Remove 2 screws holding thermal cutout.

**NOTE:**

To prevent microwave leakage, tighten mounting screws making sure there is no gap between the waveguide and the magnetron.

**CAUTION**

When replacing the magnetron, be sure the antenna gasket is in place.

## 7.2. Digital programmer circuit (DPC)

1. Remove 1 screw holding grounding strip tab of membrane switch.
2. Remove 2 screws holding escutcheon base and slide the escutcheon base upward slightly with door opened.
3. Disconnect all connectors from DPC.
4. Remove 3 screws holding DPC.

To replace membrane key board

1. Bend escutcheon A catch hooks straighten and separate escutcheon A and base.
2. Push the upper part of key board (display window) from back of escutcheon base and peel off membrane key board.