

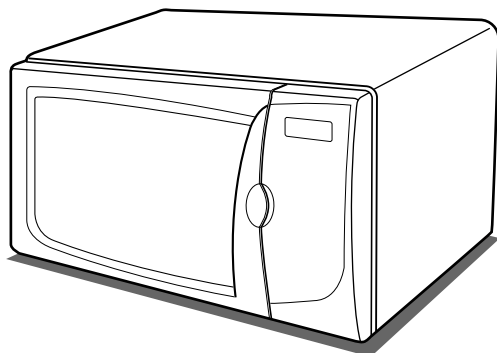


MICROWAVE OVEN SERVICE MANUAL

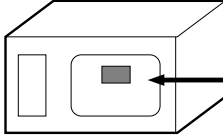
MODEL: MS-194A

CAUTION

BEFORE SERVICING THE UNIT, READ THE
SAFETY PRECAUTIONS IN THIS MANUAL.

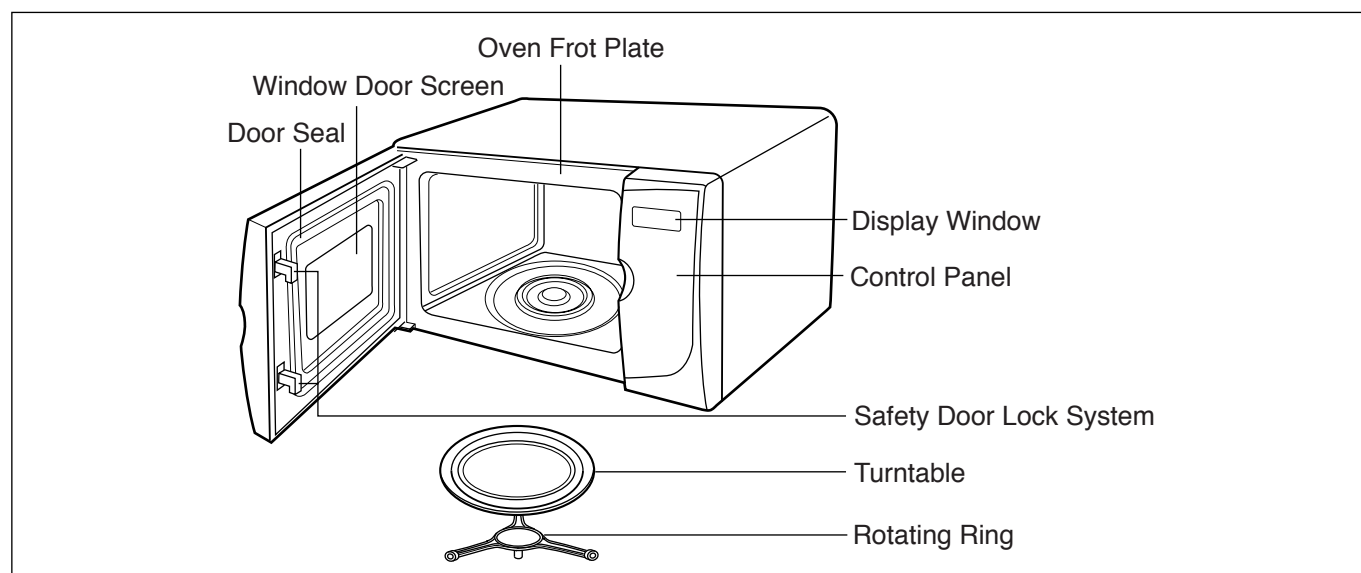


SPECIFICATIONS

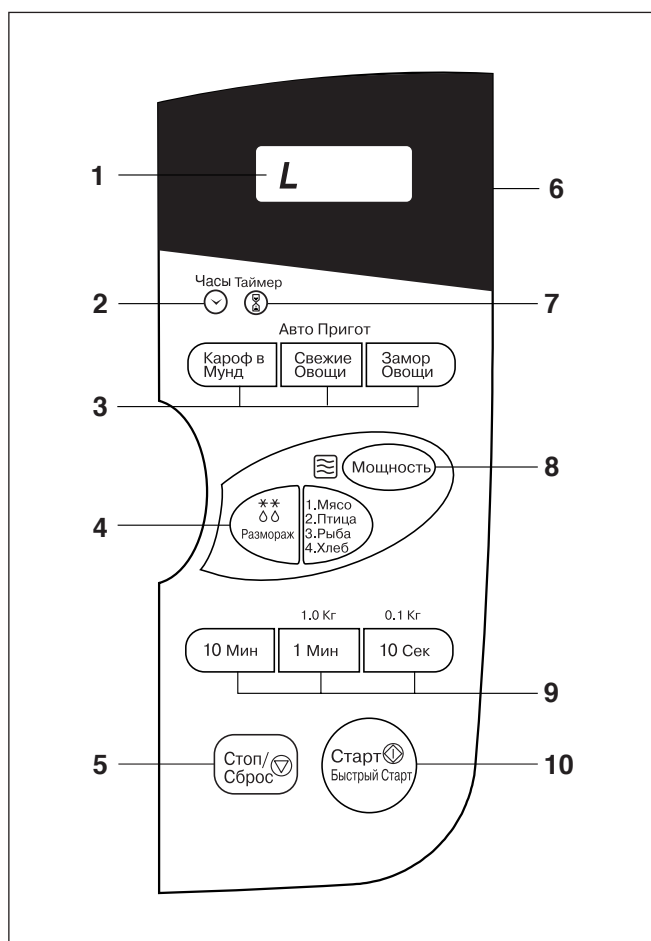
ITEM	DESCRIPTION
MODEL	MS-194A
Power Requirement	230 Volts AC 60 Hz 1,200 Watts Single phase, 3 wire grounded
Power Output	800 Watts full microwave power (IEC705)
Microwave Frequency	2,450 MHz
Magnetron	2M214 - 39F, 2M218J, 2M254J
Timer	0 ~ 99 min. 90 sec.
Outside Dimensions	483 (W) x 285 (H) x 360 (D) mm
Cavity Dimensions	312 (W) x 198 (H) x 316 (D) mm
Net Weight	12.5 kg (approx.)
Shipping weight	14 kg (approx.)
Control Complement	<p>Microwave Power for Variable Cooking</p> <p>Power level</p> <p>Max ----- Full power throughout the cooking time</p> <p>Med.-High ----- approx. 80% of Full power</p> <p>Medium ----- approx. 60% of Full power</p> <p>Defrost ----- approx. 40% of Full power</p> <p>Low/Warm ----- approx. 20% of Full power</p>
Nameplate Location	 <p>Back Side</p>
Accessories	<p>Owner's manual & cooking guide</p> <p>Glass turntable</p> <p>Rotating Ring</p>
<p>This microwave oven is designed for household use only.</p> <p>It is not recommended for commercial purposes.</p>	

OPERATING INSTRUCTIONS

FEATURES



CONTROL PANEL



1. INDICATORS

2. **SET CLOCK:** Used to set the time of day.

3. **AUTO COOK:** Used to cook the foods listed by one touch.

4. **AUTO DEFROST:** Used to select the desired auto weight defrost programmed with weight pad.

5. **STOP/CLEAR:** Used to stop oven and clear all entries except time of day.

6. DISPLAY WINDOW

7. KITCHEN TIMER

8. **POWER:** Used to select the desired power level for cooking.

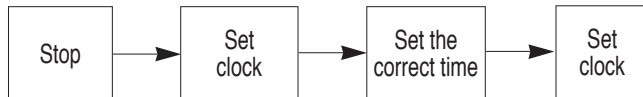
9. **COOK TIME:** Used to cook food for a desired time.

10. **START:** One tap allows oven to begin functioning.

OPERATING SEQUENCE

The following is a description of component functions during oven operation.

1. SETTING THE CLOCK



ex) To set 4:35, Press 10 min four times.
Press 1 min three times.
Press 10 sec five times.

NOTE: You can set 12 hour clock.

2. CANCEL FUNCTION

Touch the **STOP** pad whenever you need to cancel an entry or a function currently in use.
The display will either return to the last item entered or to the clock.

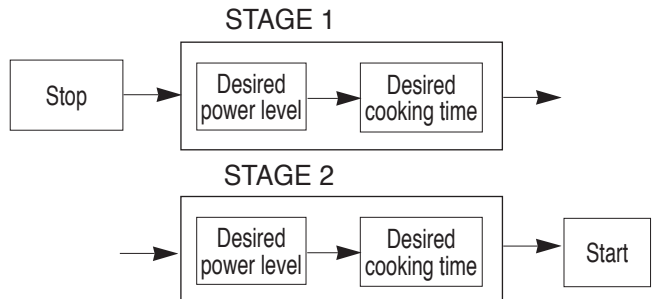
3. QUICK START



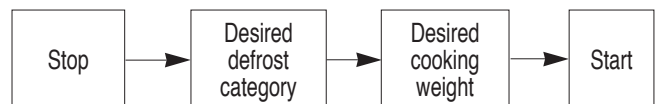
4. MICROWAVE COOKING



5. MULTI-STAGE MICROWAVE COOKING



6. AUTO WEIGHT DEFROST COOKING



7. CHILD LOCK

This oven has a CHILD LOCK feature

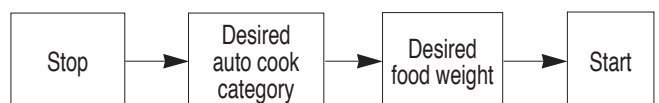
• TO SET CHILD LOCK

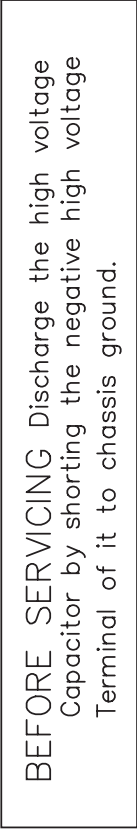
- Touch the **Stop** pad
- Touch STOP pad → **L** appear in the display.

• TO CANCEL CHILD LOCK

- Touch the **Stop** pad
- touch STOP pad → **L** disappears.

8. AUTO COOK





CIRCUIT DESCRIPTION

GENERAL DETAILS

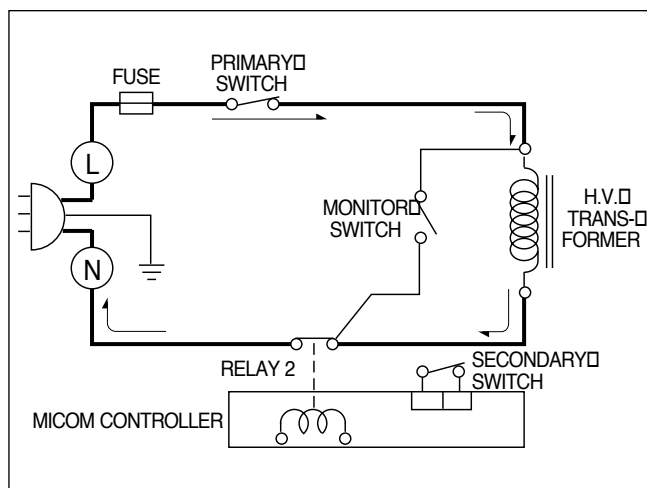
- The low voltage transformer supplies the necessary voltage to the micom controller when power cord is plugged in.
- When the door is closed, the primary switch is ON, the secondary switch is ON, and the monitor switch opens (contact COM and NO).

WHEN SELECTING COOKING POWER LEVEL AND TIME

- The micom controller memorizes the function you set.
- The time you set appears in the display window.
- Each indicator light turns on to indicate that the stage has been set.

WHEN TOUCHING THE START PAD

- The coil of the relay is energized by the micom controller.
- Power input is supplied to the high voltage transformer through the fuse to the primary switch and relay 2.
- Turntable rotates.



- The fan motor rotates and cools the magnetron by blowing the air (coming from the intake on the baseplate).
- The air is also directed into the oven to exhaust the vapor in the oven through the upper plate.
- Cooking time starts counting down.
- 3.2 volts AC is generated from the filament winding of the high voltage transformer. This 3.2 volts is applied to the magnetron to heat the magnetron filament through two noise-preventing choke coils.

- A high voltage of approximately 2100 volts AC is generated in the secondary of the high voltage transformer which is increased by the action of the high voltage diode and charging of the high voltage capacitor.
- The negative 4,000 Volts DC is applied to the filament of the magnetron.

WHEN THE OVEN IS SET AT ANY LEVEL EXCEPT MAXIMUM.

- The micom controller controls the ON-OFF time of relay 2 by the applied signal to vary the average output power of microwave oven as POWER LEVEL. (refer to page 1-1)
- One complete cycle of relay 2 is 22 seconds.

WHEN THE DOOR IS OPENED DURING COOKING

- Both the primary switch and relay 2 are cut off primary winding voltage of the high voltage transformer.
- ON-OFF of relay 2 is coupled electrically with opening and closing of the secondary switch.
- When the door is opened, the secondary switch is opened and when the door is closed, the secondary switch is closed.
- The cooking time stops counting down.
- Relay stops functioning.
- As the door is opened, if the contact of primary switch and relay 2 and/or secondary switch fails to open, the fuse opens due to the large current surge caused by the monitor switch activation, which in turn stops magnetron oscillation.

