



SAMSUNG

# MICROWAVE OVEN

BASIC : CM1079  
MODEL : CM1099  
MODEL CODE : CM1099/XEU

# SERVICE Manual

MICROWAVE OVEN

CONTENTS



1. Precaution
2. Specification
3. Disassembly and Reassembly
4. Troubleshooting
5. Wiring Diagrams

Refer to the service manual in the GSPN(see rear cover) for the more information.

# • Contents

<b>1. Precaution . . . . .</b>	<b>3</b>
1-1 Safety precautions . . . . .	4
1-2 Special High Voltage Precautions . . . . .	5
<b>2. Specifications . . . . .</b>	<b>6</b>
2-1 Features . . . . .	6
2-2 Table of Specifications . . . . .	6
<b>3. Operating Instructions . . . . .</b>	<b>7</b>
3-1 Control Panel . . . . .	7
3-2 Features & External Views . . . . .	8
<b>4. Disassembly and Reassembly . . . . .</b>	<b>9</b>
4-1 Disassembly of Magnetron, Motor Assembly and Lamp . . . . .	9
4-2 Replacement of High Voltage Transformer . . . . .	11
4-3 Replacement of Door Assembly . . . . .	13
4-4 Replacement of Drive Motor . . . . .	14
4-5 Replacement of Control Circuit Board . . . . .	15
<b>5. Troubleshooting . . . . .</b>	<b>16</b>
5-1 Malfunction . . . . .	16
5-2 Unsatisfactory Cooking . . . . .	18
5-3 Part Check List . . . . .	18
<b>6. Wiring Diagrams . . . . .</b>	<b>19</b>
6-1 Wiring Diagrams . . . . .	19
<b>8. Reference . . . . .</b>	<b>21</b>
8-1 Model name standard . . . . .	21
8-2 Customer inquiry cases and countermeasures . . . . .	23

## 1. Precaution

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

- (a) Do not operate or allow the oven to be operated with the door open.
- (b) Make the following safety checks on all ovens to be serviced before activating the magnetron or other microwave source, and make repairs as necessary:
  - (1) Interlock operation,
  - (2) proper door closing,
  - (3) seal and sealing surfaces (arcing, wear, and other damage),
  - (4) damage to or loosening of hinges and latches,
  - (5) evidence of dropping or abuse.
- (c) Before turning on microwave power for any service test or inspection within the microwave generating compartments, check the magnetron, wave guide or transmission line, and cavity for proper alignment, integrity, and connections.
- (d) Any defective or misadjusted components in the interlock, monitor, door seal, and microwave generation and transmission systems shall be repaired, replaced, or adjusted by procedures described in this manual before the oven is released to the owner.
- (e) A Microwave leakage check to verify compliance with the Federal performance standard should be performed on each oven prior to release to the owner.

# 1. Precaution

Follow these special safety precautions. Although the microwave oven is completely safe during ordinary use, repair work can be extremely hazardous due to possible exposure to microwave radiation, as well as potentially lethal high voltages and currents.

## 1-1 Safety precautions ( )

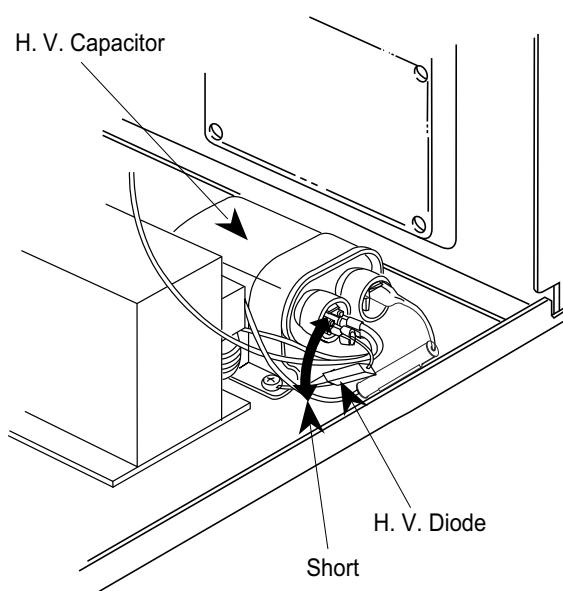
1. All repairs should be done in accordance with the procedures described in this manual. This product complies with Federal Performance Standard 21 CFR
2. Microwave emission check should be performed to prior to servicing if the oven is operative.
3. If the oven operates with the door open :Instruct the user not to operate the oven and contact the manufacturer and the center for devices and radiological health immediately.
4. Notify the Central Service Center if the microwave leakage exceeds 5 mW/cm<sup>2</sup>.
5. Check all grounds.
6. Do not power the MWO from a "2-prong" AC cord. Be sure that all of the built-in protective devices are replaced. Restore any missing protective shields.
7. When reinstalling the chassis and its assemblies, be sure to restore all protective devices, including: nonmetallic control knobs and compartment covers.
8. Make sure that there are no cabinet openings through which people --particularly children--might insert objects and contact dangerous voltages. Examples: Lamp hole,ventilation slots.
9. Inform the manufacturer of any oven found to have emission in excess of 5 mW/cm<sup>2</sup> ,Make repairs to bring the unit into compliance at no cost to owner and try to determine cause. Instruct owner not to use oven until it has been brought into compliance.
- CENTRAL SERVICE CENTER**
10. Service technicians should remove their watches while repairing an MWO.
11. To avoid any possible radiation hazard,replace parts in accordance with the wiring diagram. Also, use only the exact replacements for the following parts: Primary and secondary interlock switches, interlock monitor switch.
12. If the fuse is blown by the Interlock Monitor Switch: Replace all of the following at the same time: Primary, door sensing switch and power relay, as well as the Interlock Monitor Switch. The correct adjustment of these switches is described elsewhere in this manual. Make sure that the fuse has the correct rating for the particular model being repaired.
13. Design Alteration Warning: Use exact replacement parts only, i.e.,only those that are specified in the drawings and parts lists of this manual. This is especially important for the Interlock switches, described above. Never alter or add to the mechanical or electrical design of the MWO. Any design changes or additions will void the manufacturer's warranty. Always unplug the unit's AC power cord from the AC power source before attempting to remove or reinstall any component or assembly.
14. Never defeat any of the B+ voltage interlocks. Do not apply AC power to the unit (or any of its assemblies) unless all solid-state heat sinks are correctly installed.
15. Some semiconductor ("solid state") devices are easily damaged by static electricity. Such components are called Electrostatically Sensitive Devices (ESDs). Examples include integrated circuits and field-effect transistors. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground.
16. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.
17. When checking the continuity of the switches or transformer, always make sure that the power is OFF, and one of the lead wires is disconnected.
18. Components that are critical for safety are indicated in the circuit diagram by shading,  or  .
19. Use replacement components that have the same ratings, especially for flame resistance and dielectric strength specifications. A replacement part that does not have the same safety characteristics as the original might create shock, fire or other hazards.

**NOTE :** Connect the oven to a 20A. When connecting the oven to a 15A,make sure that circuit breaker can operate.

# 1. Precaution

## 1-2 Special High Voltage Precautions

1. High Voltage Warning Do not attempt to measure any of the high voltages --this includes the filament voltage of the magnetron. High voltage is present during any cook cycle. Before touching any components or wiring, always unplug the oven and discharge the high voltage capacitor (See Figure 1-1)
2. The high-voltage capacitor remains charged about 30 seconds after disconnection. Short the negative terminal of the high-voltage capacitor to the oven chassis. (Use a screwdriver.)
3. High voltage is maintained within specified limits by close-tolerance, safety-related components and adjustments. If the high voltage exceeds the specified limits, check each of the special components.



### PRECAUTION

There exists HIGH VOLTAGE ELECTRICITY with high current capabilities in the circuits of the HIGH VOLTAGE TRANSFORMER secondary and filament terminals. 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.



### PRECAUTION

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



### PRECAUTION

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

## 2. Specifications

### 2-1 Features

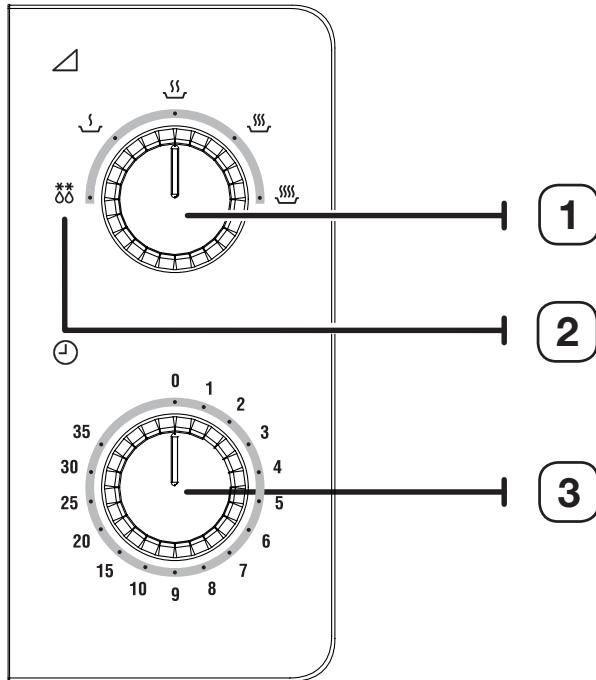
Product Features
- Light-Duty Professional Microwave Oven.
- Sanitary Stainless Steel Cavity.
- Easy-to-use Dial Control Type.

### 2-2 Table of Specifications

Items	Model	
	Model Basic	Model New
MODEL NAME	CM1079	CM1099
Power Source	230V~50Hz	230V~50Hz
Power consumption	Microwave	1,600W
Output Power	230V / 1,050W (IEC-705)	230V / 1,050W (IEC-705)
Operating Frequency	2,450MHz	2,450MHz
Magnetron	OM75S(31)	OM75S(31)
Cooling Method	Cooling fan motor	Cooling fan motor
Dimensions (W x H x D)	Outside	517 x 297 x 412mm
	Oven cavity	336 x 225 x 349mm
Volume	26Liter	26Liter
Weight	Net	17.5Kg
	Gross	19.0Kg
Export zone	UK	UK

### 3. Operating Instructions

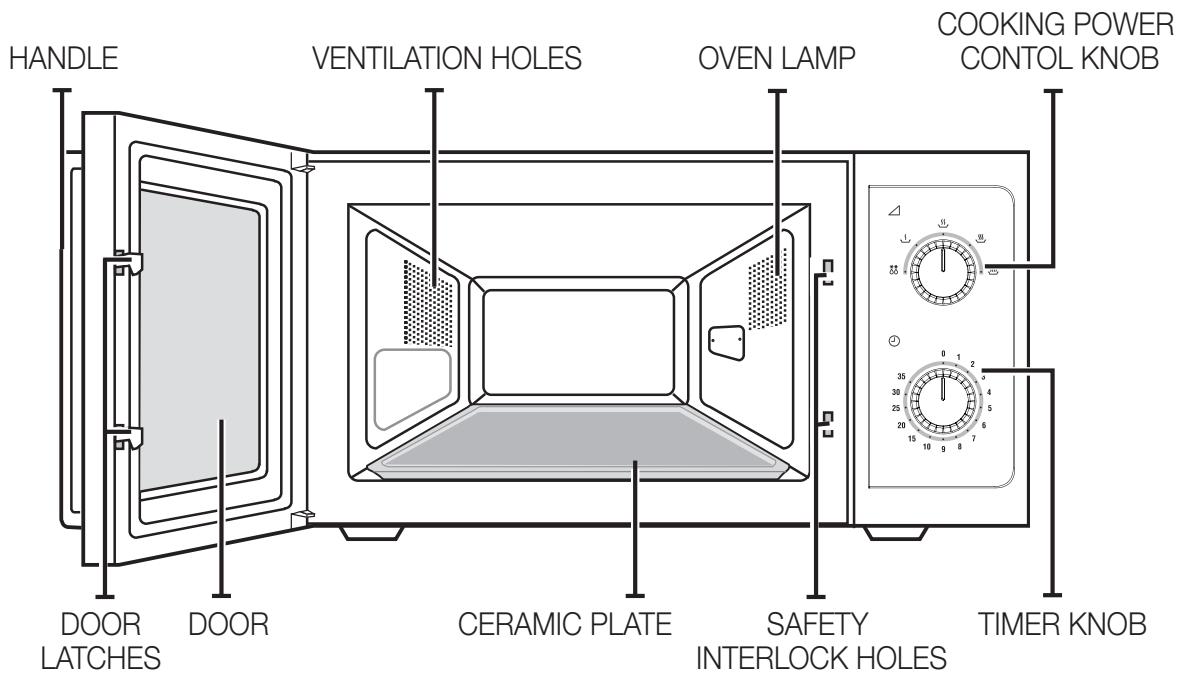
#### 3-1 Control Panel



1. COOKING POWER CONTROL KNOB
2. DEFROST
3. TIMER KNOB

### 3. Operating Instructions

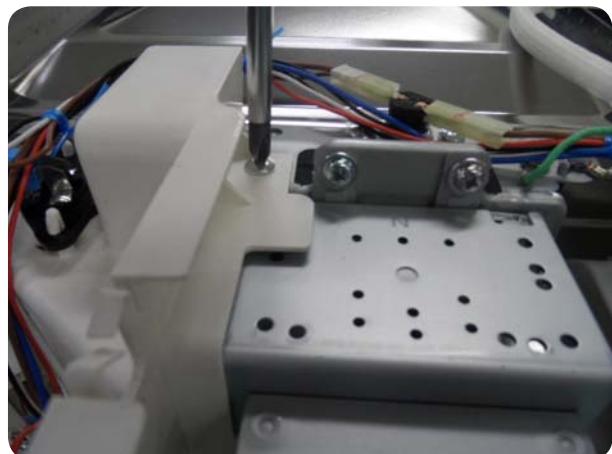
#### 3-2 Features & External Views



## 4. Disassembly and Reassembly

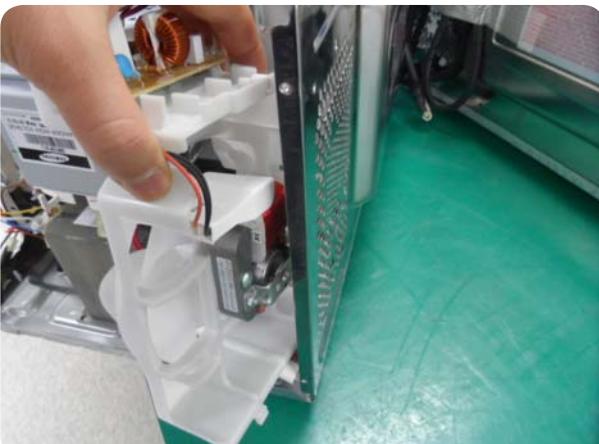
### 4-1 Disassembly of Magnetron, Motor Assembly and Lamp

Remove the magnetron including the shield case, permanent magnet, choke coils and capacitors (all of which are contained in one assembly)

Parts	Explanation Photo	Explanation
		<ol style="list-style-type: none"><li>1. Disconnect all lead wires from the magnetron and lamp.</li></ol>
Magnetron, Motor Assembly and Lamp		<ol style="list-style-type: none"><li>2. Remove a screw securing air cover.</li></ol>
		<ol style="list-style-type: none"><li>3. Remove the air cover.</li></ol>

## 4. Disassembly and Reassembly

### 4-1 Disassembly of Magnetron, Motor Assembly and Lamp

Parts	Explanation Photo	Explanation
Magnetron, Motor Assembly and Lamp		<ol style="list-style-type: none"><li>4. Remove screws securing the magnetron to the wave guide.</li></ol>
		<ol style="list-style-type: none"><li>5. Take out the magnetron very carefully.</li></ol>
		<ol style="list-style-type: none"><li>6. Remove two screws from the back panel.</li><li>7. Take out the fan motor.</li></ol>

## 4. Disassembly and Reassembly

### 4-1 Disassembly of Magnetron, Motor Assembly and Lamp

Parts	Explanation Photo	Explanation
Magnetron, Motor Assembly and Lamp		<p>8. Remove the oven lamp from hole of air cover.</p>

**NOTE1:** When removing the magnetron, make sure that its antenna does not hit any adjacent parts, or it may be damaged.

**NOTE2:** When replacing the magnetron, be sure to remount the magnetron gasket in the correct position and make sure the gasket is in good condition.

### 4-2 Replacement of High Voltage Transformer

Parts	Explanation Photo	Explanation
High Voltage Transformer		<p>1. Discharge the high voltage capacitor.</p>

Parts	Explanation Photo	Explanation
		<p>2. Disconnect all the leads.</p>

## 4. Disassembly and Reassembly

### 4-2 Replacement of High Voltage Transformer

Parts	Explanation Photo	Explanation
High Voltage Transformer		<ol style="list-style-type: none"><li>3. Remove the mounting bolts.</li><li>4. Replace the High Voltage Transformer</li><li>5. After replace, reconnect the leads correctly and firmly.</li></ol>



#### PRECAUTION

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



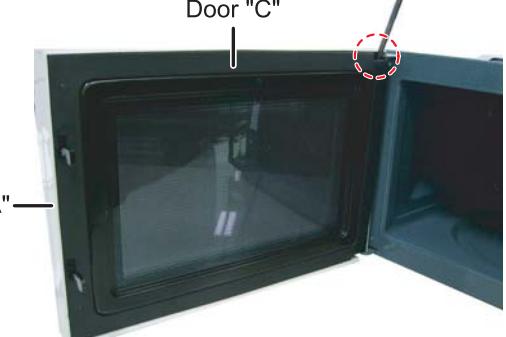
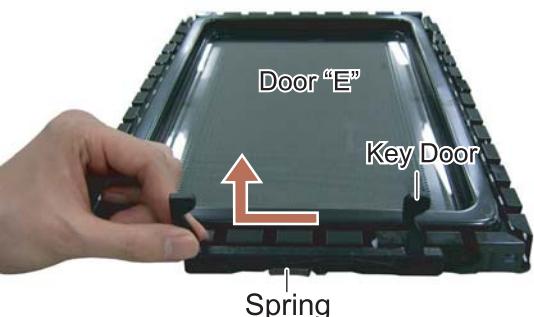
#### PRECAUTION

There exists HIGH VOLTAGE ELECTRICITY with high current capabilities in the circuits of the HIGHVOLTAGE TRANSFORMER secondary and filament terminals. 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.

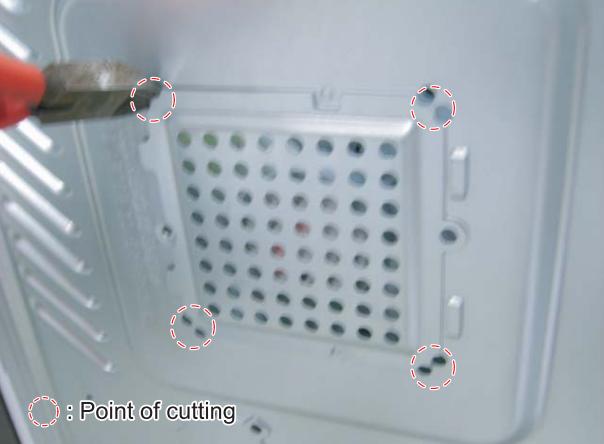
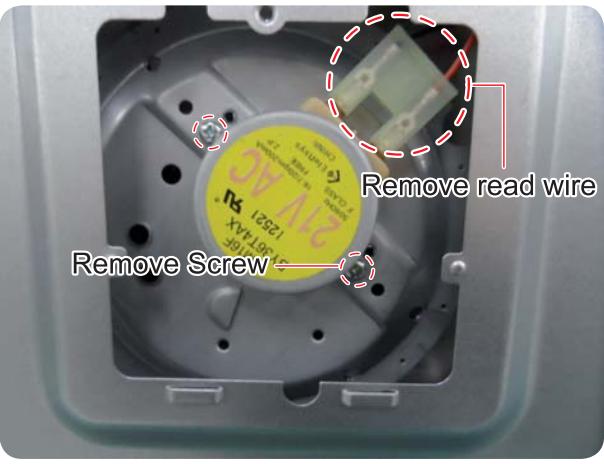
## 4. Disassembly and Reassembly

### 4-3 Replacement of Door Assembly

Parts	Disassembly Photo	Explanation
Removal of Door "C"		<p>Insert flat screwdriver into the gap between Door "A" and Door "C" to remove Door "C". Be careful when handling Door "C" because it is fragile. Then remove the door assembly.</p>
Removal of Door Assembly		<p>Lift up the Door Assembly from Cavity.</p>
Removal of Door "E"		<p>Following the procedure as shown in the figure, insert and bend a thin metal plate between Door "E" and Door "A" until you hear the 'tick' sound.</p> <ul style="list-style-type: none"> <li>• Insertion depth of the thin metal plate should be 0.5mm or less.</li> </ul>
Removal of Key Door & Spring		<p>Remove pin hinge from Door "E". Detach spring from Door "E" and key door.</p>

## 4. Disassembly and Reassembly

### 4-4 Replacement of Drive Motor

Parts	Explanation Photo	Explanation
Drive Motor		<ol style="list-style-type: none"> <li>1. Take out the glass tray, guide roller from oven cavity, disconnect power.</li> <li>2. Remove turn table motor cover from case bottom.</li> </ol> <p><b>CAUTION :</b> Remove sharp edge after cover removal.</p>
Drive Motor		<ol style="list-style-type: none"> <li>3. Disconnect leads from motor.</li> <li>4. Remove the screws securing motor to bottom of over cavity.</li> </ol>
Drive Motor		<ol style="list-style-type: none"> <li>6. Lift out the motor.</li> <li>5. When replacing the motor, be sure to remount it in the correct position.</li> </ol> <p><b>NOTE :</b> The shaft of motor should fit tip coupler.</p>
	<p><b>COVER FIXING SCREW :</b> MATCHINE SCREW(6006-001170)</p>	<ol style="list-style-type: none"> <li>6. When reassemble a drive motor cover, give a turn in a 180° and fix with a screw.</li> </ol> <p><b>NOTE :</b> Bring the spare screw from service center.</p>

## 4. Disassembly and Reassembly

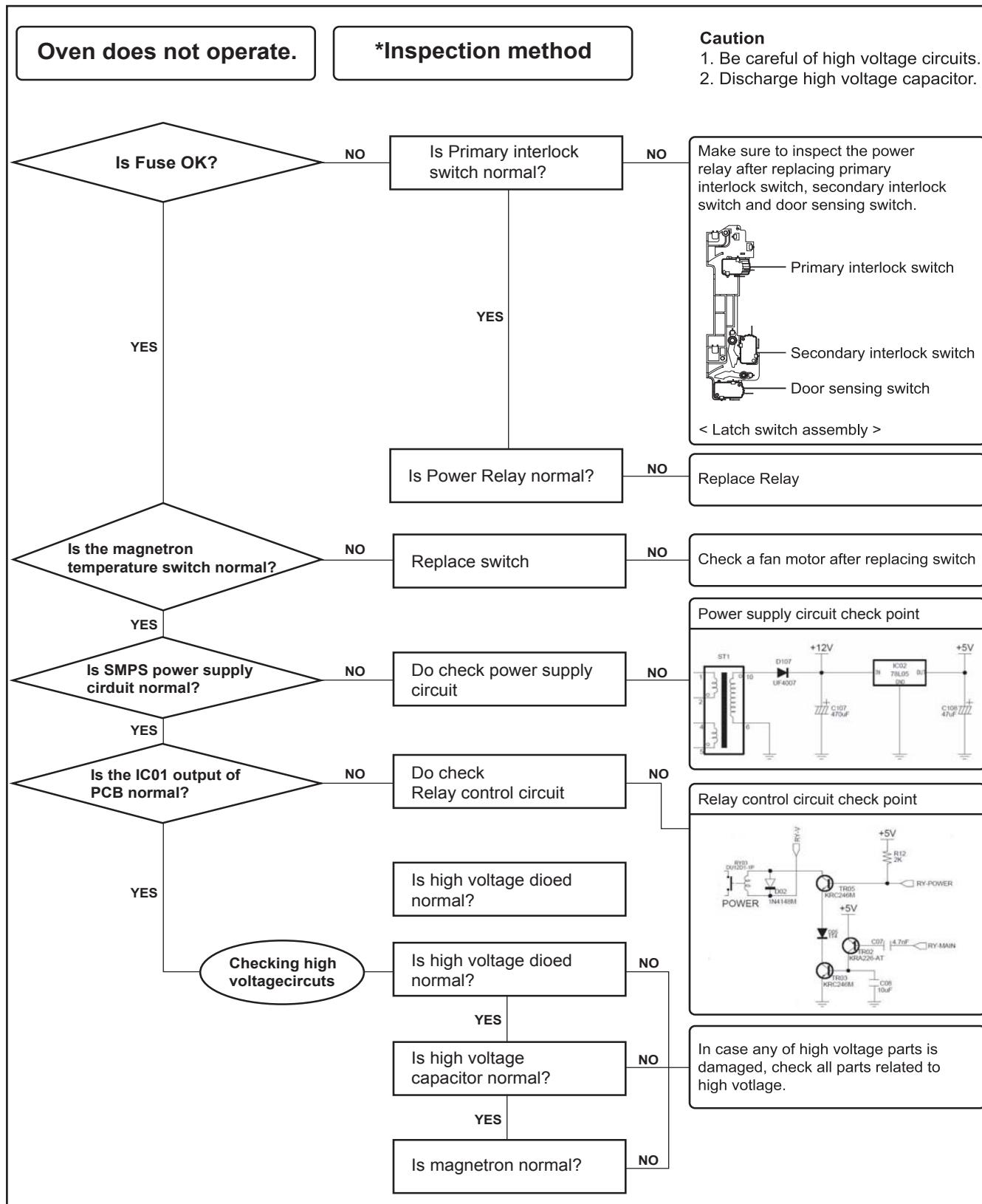
### 4-5 Replacement of Control Circuit Board

Parts	Explanation Photo	Explanation
Removal of Control Box Assembly		<ol style="list-style-type: none"><li>1. Disconnect the connectors from the control box assembly.</li><li>2. Remove screws securing the control box assembly</li><li>3. Remove the knobs of the control box A'ssy</li><li>4. Remove the screw securing the timer.</li></ol>

# 5. Troubleshooting

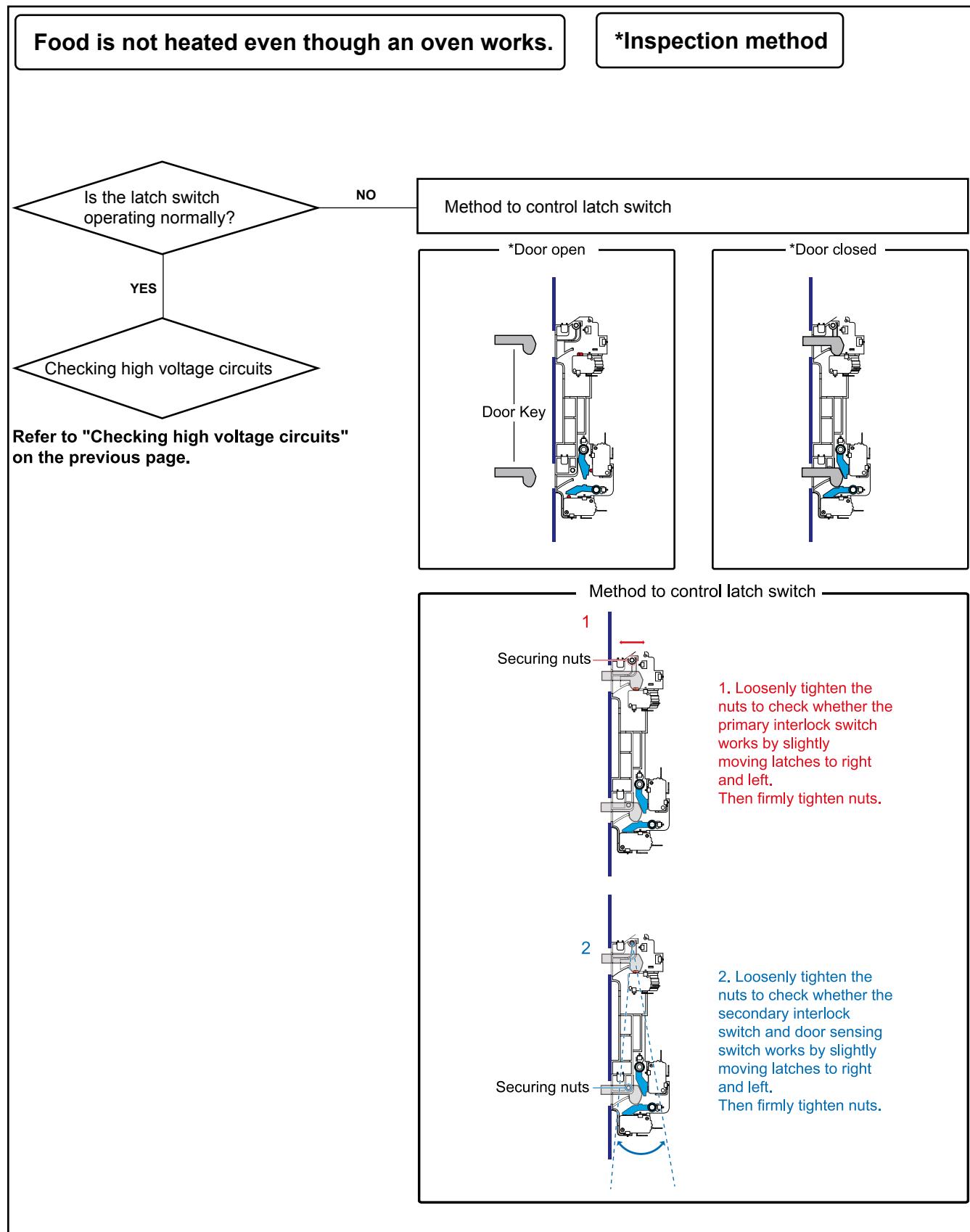
## 5-1 Malfunction

### 5-1-1 If oven malfunction



## 5. Troubleshooting

### 5-1-2 If food is not heated even though an oven works



## 5. Troubleshooting

### 5-2 Unsatisfactory Cooking

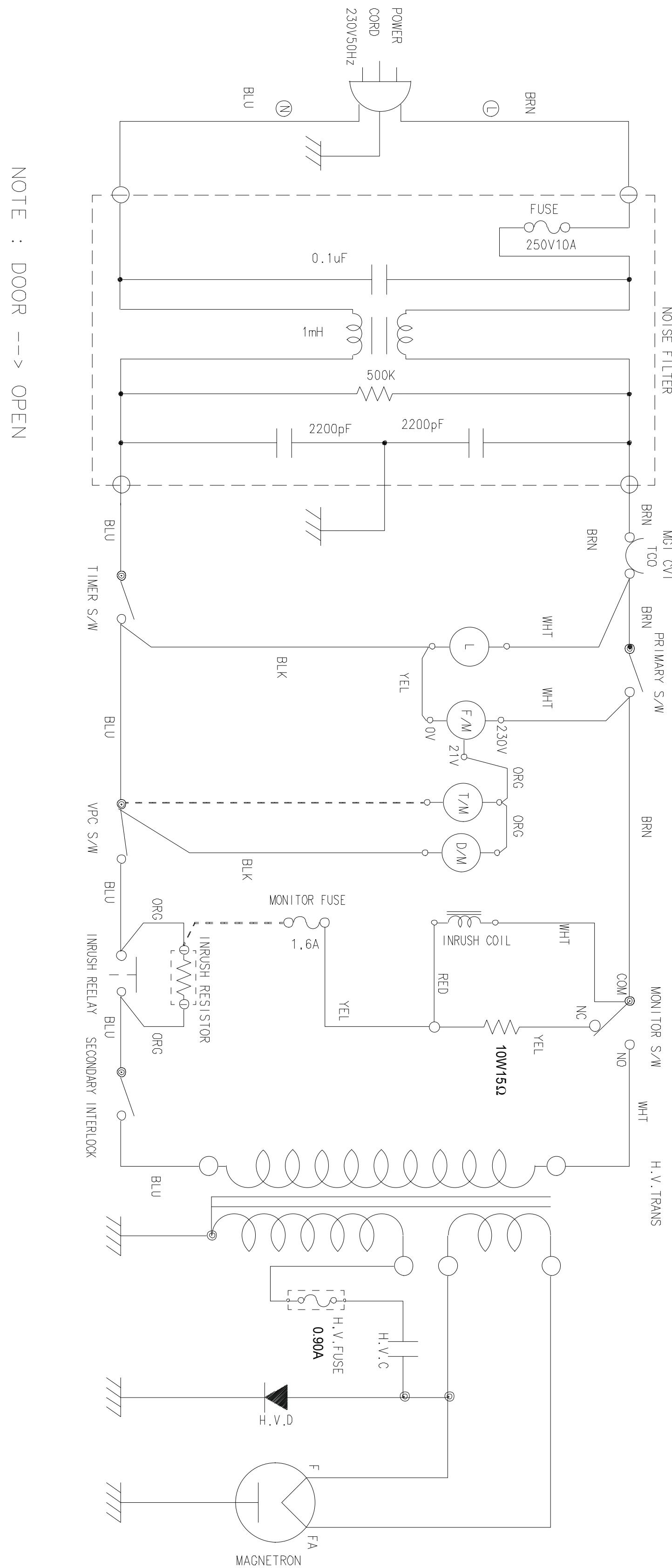
Parts	Cause	Diagnosis	Remedy
Food is not heated.	1) Open cathode of magnetron	Check the terminals with a multimeter to see if the heater circuit is open.	Replace magnetron.
	2) Defective H. V. Diode	Check the H. V. Diode for continuity in the reverse and normal directions using meter. If there is continuity in the reverse direction, the H. V. Diode may be faulty. (In this event H. V. Capacitor will be hot)	Replace H. V. Diode.
	3) Shorted magnetron	Connect megger leads to quick-connect terminal & body of the magnetron if there is continuity, the magnetron may be fuse will be blown) faulty. (In this case the main fuse will be blown)	Replace magnetron.
	4) Defective magnetron	If there is a crack in the magnetron antenna (dome), the magnetron is defective.	Replace magnetron.
	5) Poor contact of primary interlock switch	Check if the screws are secured well to the door hinge. and pressing it ON and OFF repeatedly.	Replace or adjust.
	6) Open coil of H. V. Transformer	Check the continuity of primary coil and secondary coil. If there is no continuity, H. V. Transformer is defective.	Replace the H. V. Transformer.
	7) Shorted H. V. capacitor	Check the continuity of capacitor. If the capacitor shorts, the fuse blows	Replace the H. V. Capacitor.
	8) Monitor Fuse out	Check the monitor fuse (on the noise filter)	Replace the Monitor fuse

### 5-3 Part Check List

Symptom	Related Parts	Check Points	Remedy
Microwave cooking does not work.	H.V.Transformer	1) Check if the primary and secondary coil is open or shorted. * Resistance of primary coil: . 1.2Ω Approx. Resistance of secondary coil: Approx. 90Ω 2) Check if the MGT Heater Voltage is approx. 3.3V AC. <b>Caution : High voltage !</b>	Replace.
	H.V.Capacitor	Check continuity of capacitor between two terminals with H.V.wire lead removed. The resistance should be approx. 10MW, it's failure..	Replace.
	H.V.Diode	1) If there is no continuity in forward, direction the H.V.Diode is open. 2) If there is continuity in reverse direction, it's shorted.	Replace.
Fan motor does not rotate.	Fan motor	Check if the motor coil is open.	Replace.

## 6-1 Wiring Diagrams

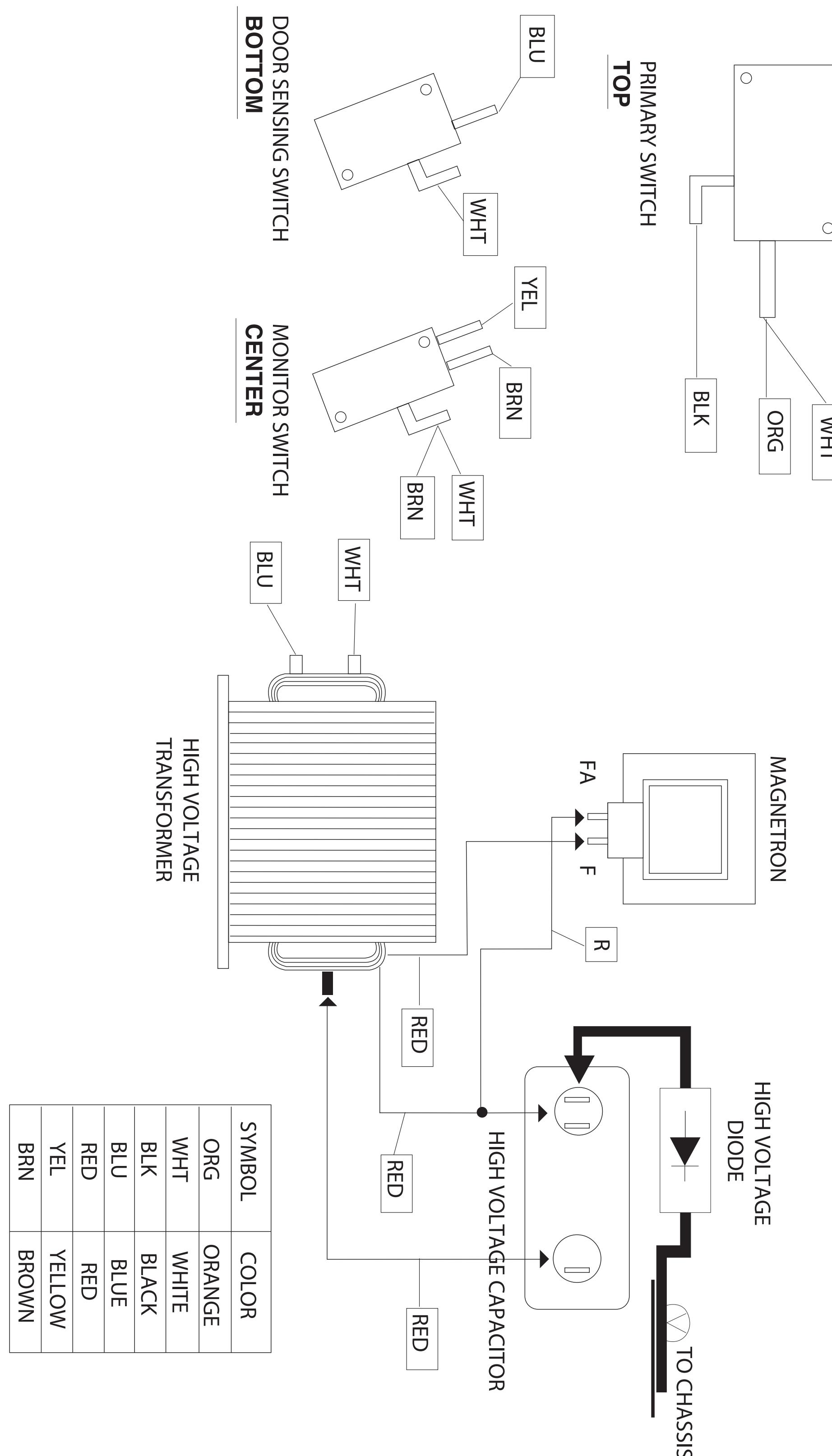
(This Document can not be used without Samsung's authorization)



NOTE: DOOR --> OPEN

## 6-1 Wiring Diagrams

(This Document can not be used without Samsung's authorization)



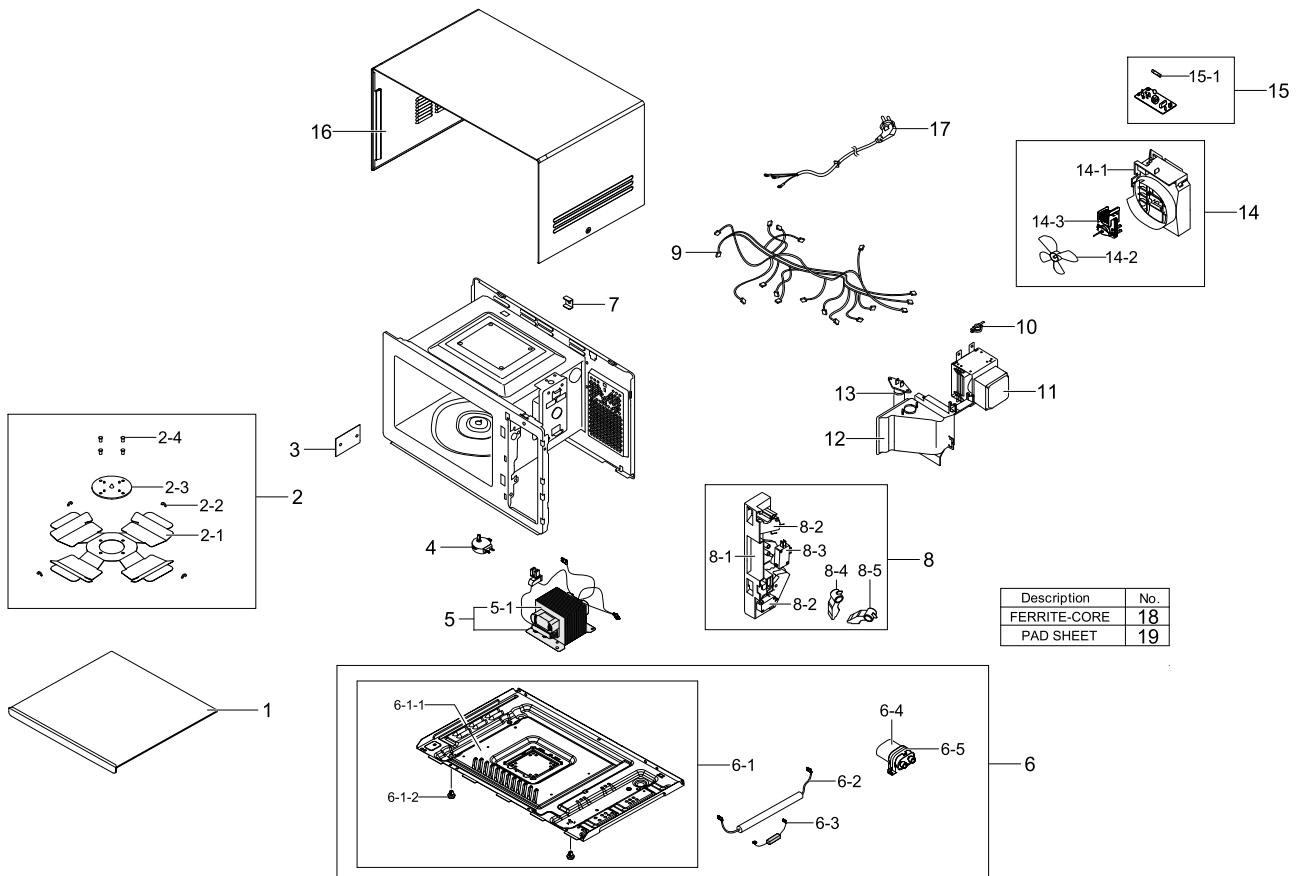
## 7. Reference

### 7-1 Model name standard

Baoad Classification	Distinguisher	Middle Classification	Distinguisher	Product Code	Full Name
USA CMO	M	CMO (Counter-top MWO)	W	MW	USA CMO(EPOXY CAVITY)
		UTC (Under The Cabinet)	U	MU	USA UTC
		Browner, Grill	G	MG	USA GRILL
		Convection	C	MC	USA CONVECTION
		Sensor	S	MS	USA CMO SENSOR
		DC MWO	D	MD	USA DC MWO
		Hospital MWO	H	MH	USA Hospital MWO
		Ceramic Enamel	E	ME	USA CMO(CERAMIC ENAMEL)
USA RV	R	SOLO	M	RM	USA RV SOLO
		CONVECTION	C	RC	USA RV CONVECTION
		BUILT-IN	B	RB	USA RV BUILT-IN
USA Junior	SJ	-	-	SJ	USA Junior MWO
USA OTR	SM	SOLO	H	SMH	USA OTR SOLO
		CONVECTION	V	SMV	USA OTR CONVECTION
EUROPE Epoxy Cavity	M	SOLO	1	M1	EUROPE SOLO(EPOXY CAVITY)
		GRILL	2	M2	EUROPE GRILL(EPOXY CAVITY)
EUROPE Ceramic Enamel	CE	SOLO	1	CE1	EUROPE SOLO(CERAMIC ENAMEL)
		GRILL	2	CE2	EUROPE GRILL(CERAMIC ENAMEL)
EUROPE Quartz GRILL	G2	-	-	G2	EUROPE Quartz GRILL
EUROPE Power Grill	PG	-	-	PG	POWER GRILL
EUROPE Convection	CK	-	-	CK	EUROPE CONVECTION
	C	-	-	C	EUROPE CONVECTION
EUROPE Fully Built-In	F	SOLO	W	FW	EUROPE SOLO FULLY BUILT-IN
		GRILL	G	FG	EUROPE GRILL FULLY BUILT-IN
		CONVECTION	C	FC	EUROPE CONVECTION FULLY BUILT-IN

# 1. MAIN

## Exploded View



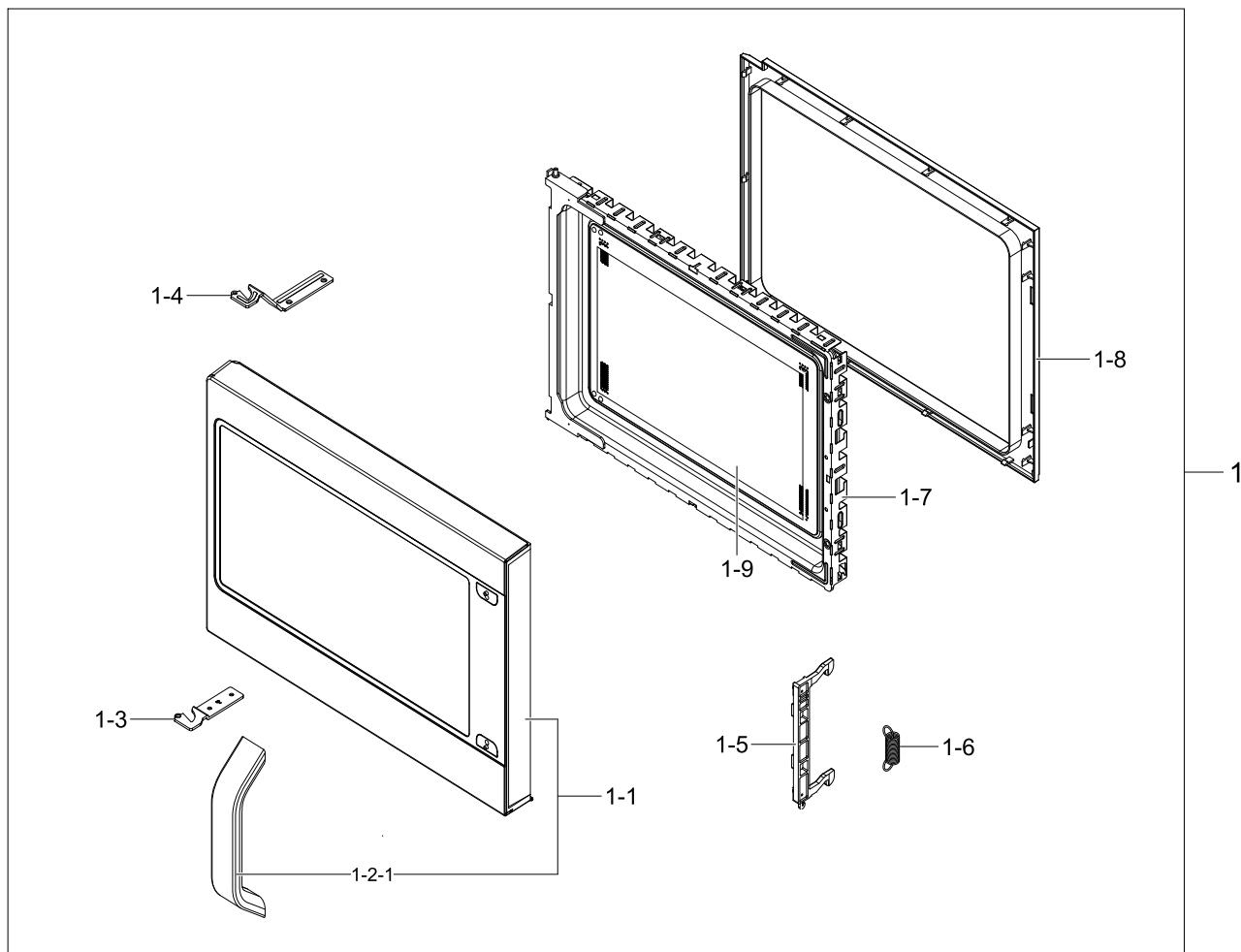
## Parts List

No.	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
1	2	T002	DE97-00191A	ASSY-TRAY CERAMIC; CM1049,-,T3.2,COMMERCIAL	SA	1
2	2	P001	DE97-00190A	ASSY STIRRER; CM1049,ALS	SA	1
2-1	3	T036	DE31-00009A	BLADE-STIRRER; CM1030M,ALP1050,T0.8	SNA	1
2-2	3	T074	DE60-80043A	SPACER-STIRRER; TEFLON,W6.3,T2	SNA	4
2-3	3	T037	DE61-00098A	HOLDER-STIRRER; CM1030M,TEFLON,WHT	SNA	1
2-4	3	M078	DE69-90054A	CLIP-STIRRER; 5mm,TEFLON-PFA,CM1819/29	SA	4
3	2	M051	DE71-00163A	COVER-CEILING; CM1049,MICA SHEET,T0.5,W12	SA	1
4	2	M049	DE31-10173C	MOTOR SYNCHRONOUS; SEMI-COMM,21V,16.7/20R	SA	1
5	1		DE96-00964C	ASSY POWER PACK; CM1079-A/XEU,0.8 CU.FT	SA	1
5-1	2	M038	DE26-00051B	TRANS H.V; SHV-E1049B,230V,50Hz,2360V/3.4	SA	1
6	2	M155	DE96-00240G	ASSY BASE PLATE; SEMI COMM 1059/1069,-,-	SA	1
6-1	3	M045	DE96-00042A	ASSY BASE PLATE SUB; -, -, 3RD-1.0,SEPARA	SA	1

No.	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
6-1-1	4	M048	DE80-10001G	BASE-PLATE; 3RD,GI-SGCC,T0.6,W345,L565	SNA	1
6-1-2	4	M047	DE61-40066A	FOOT; PP, BLK	SA	2
6-2	3	M042	DE91-70061H	ASSY H.V.FUSE; -,THV060T-0900-H,5KV0.90A,	SA	1
6-3	3	M527	DE59-00002A	DIODE-H.V; MWO ALL,2CL4512H,-,450mA 13KV,	SNA	1
6-4	3	M039	2501-001285	C-OIL; 1.13uF,2100V(CLASS P),AL CAN TYPE,	SA	1
6-5	3	M040	DE61-00419A	BRACKET-HVC; CM1049,EGI-SECC,T0.8	SNA	1
7	2	M011	DE61-50541A	BRACKET-EARTH; GI-SGCC,T1.0,W15,L8	SNA	1
8	1	B022	DE94-01862D	ASSY BODY LATCH; MC455TCRCSR/XE,CONTRABAS	SNA	1
8-1	2		DE72-00137G	LATCH-BODY; AMC6158/JMC9158,PBT	SA	1
8-2	2	B048	3405-001034	SWITCH-MICRO; 125/250VAC,16A,200gf,SPST-N	SA	2
8-3	2	B046	3405-001032	SWITCH-MICRO; 125/250VAC,16A,200GF,SPDT	SA	1
8-4	2	B010	DE66-00093A	LEVER-SWITCH(A); NC2000,PP,NTR,HANDLE	SA	1
8-5	2	B011	DE66-00094A	LEVER-SWITCH(B); NC2000,PP,NTR,HANDLE	SA	1
9	1	W002	DE96-00743A	ASSY WIRE HARNESS-A; CM1059,-,TCM	SNA	1
10	2	M457	DE47-20173A	THERMOSTAT; NT-101,125/250V,905,605,1	SA	1
11	2	M035	OM75P(31)ESGN	ASSY-MGT; ASSY-MGT		1
12	2	M037	DE71-60016E	COVER-AIR; CM1049,PP,FH44N,SEMI-COM	SA	1
13	2	M036	4713-001524	LAMP-INCANDESCENT; 230V,20W	SA	1
14	2	M020	DE96-00108C	ASSY MOTOR FAN; CM1059/XEU,230V50HZ,2500R	SA	1
14-1	3	P109	DE71-00061A	COVER-MOTOR; 2 & 2 PROJECT,PP,TB53,2 & 2 PROJ	SA	1
14-2	3	H096	DE31-90051A	BLADE-FAN; -,PP,-,D130,-,T,-	SA	1
14-3	3	M023	DE31-10177C	MOTOR FAN; SMF-1049EA,-,-,230V50Hz,15mm,-	SNA	1
15	2	M017	DE96-00010C	ASSY NOISE FILTER; -,SN-3WED(12),250V12A,	SA	1
15-1	3	M019	3601-001019	FUSE-CARTRIDGE; 250V,12A,SLOW-BLOW,CERAMI	SA	1
16	1	M001	DE64-01740A	PANEL-OUTER; CM1059/1069,STAINLESS-STS430	SA	1
17	1	M015	DE96-00180C	ASSY POWER CORD; BSI,Flag,250V/13A,H07RN-	SA	1
18	2	M052	DE73-90027A	FERRITE-CORE; T13.8,NI-ZN,BNF-14(K150),L2	SA	1
19	2		DE69-00909A	PAD SHEET; ALL MODEL CMO,HDPE,T0.03,W400,	SA	1

## 2. ASSY DOOR

### Exploded View



### Parts List

No.	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
1	1	D049	DE94-03005A	ASSY DOOR; CM1089,STSS,MANDOLIN	SA	1
1-1	2	D037	DE94-03002A	ASSY DOOR A; CM1089,STSS,MANDOLIN	SA	1
1-2-1	3	D019	DE64-02745A	HANDLE-DOOR; COMMERCIAL,AL,MANDOLIN	SNA	1
1-3	2	D010	DE61-80003A	HINGE-LOWER; ME6144W/XSA,SSEC,T2.3,W26,L7	SA	1
1-4	2	D009	DE61-80002A	HINGE-UPPER; WHT,SSEC,T2.3,W26,L77,ZPC3	SA	1
1-5	2	D011	DE64-00264A	KEY-DOOR; 3RD-W NEW,POM,-,-,BLK,-,-	SA	1
1-6	2	D007	DE61-00199A	SPRING-KEY; M1977,HSWR-SWRH,D6,25 1/4,25	SC	1
1-7	2	D004	DE92-50127H	ASSY DOOR E; -,-,BLACK,COATING,T0.8	SC	1

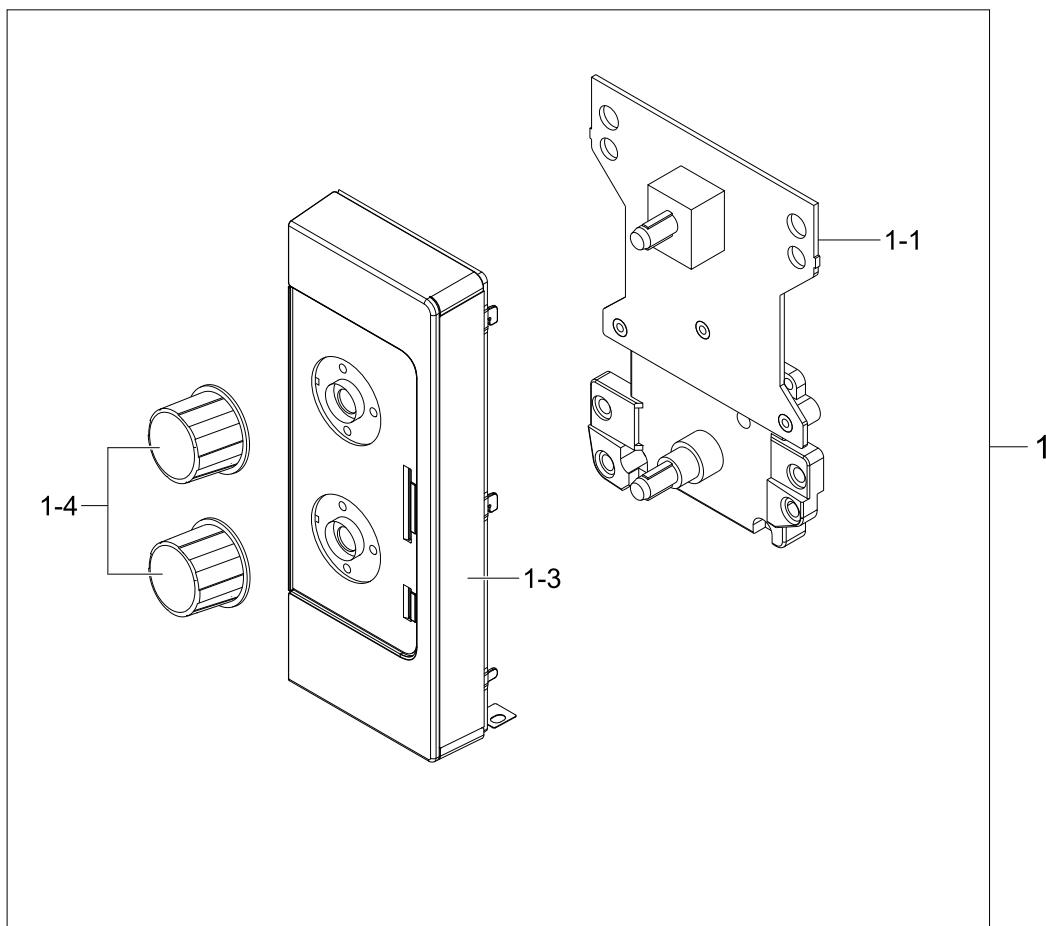
Exploded Views and Parts List

---

No.	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
1-8	2	D006	DE64-40012D	DOOR-C; JES1036NL02,ROH,EMBO HEIGHT 0.8mm	SA	1
1-9	2	D005	DE01-00002B	FILM-DOOR; CM1089,PET,T0.15,W290,L169,NTR	SA	1

### 3. ASSY CONTROL BOX

#### Exploded View



#### Parts List

No.	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
1	1	C082	DE94-03007A	ASSY CONTROL BOX; CM1099,230V 50HZ,STSS S	SNA	1
1-1	2	F002	DE96-00738A	ASSY-TIMER CONTROL; MW71E,DAM-TCM1-00,-,W	SA	1
1-3	2	C001	DE94-03006A	ASSY CONTROL PANEL; CM1099,STSS ST-430 T0	SA	1
1-4	2	C029	DE64-02753A	KNOB-DIAL; COMMERCIAL,PC,HB,BLACK,MANDOLI	SNA	2

## 7. Reference

### 7-1 Model name standard (Continued)

(Blue Color) : Not Used

Baod Classification	Distinguisher	Middle Classification	Distinguisher	Cavity / type	Distinguisher	Full Name	
CHINA	C	SOLO / CMO	M	CERAMIC ENAMEL	E	CME / CMC / CMW / CMS	
		Inverter SOLO	I			CIE / CIC / CIW / CIS	
		Grill / Browner	G			CGE / CGC / CGW / CGS	
		Quartz Grill / Browner	Q	CERAMIC ENAMEL(Clay)	C	CQE / CQC / CQW / CQS	
		Conv.	C			CCE / CCC / CCW / CCS	
		TBMO / Power Grill	T	Epoxy	W	CTE / CTC / CTW / CTS	
		Commercial	O			COE / COC / COW / COS	
KOREA	D	SOLO / CMO	M	CERAMIC ENAMEL	E	DME / DMC / DMW / DMS	
		Inverter SOLO	I			DIE / DIC / DIW / DIS	
		Grill / Browner	G	CERAMIC ENAMEL(Clay)	C	DGE / DGC / DGW / DGS	
		Quartz Grill / Browner	Q			DQE / DQC / DQW / DQS	
		Conv.	C	Epoxy	W	DCE / DCC / DCW / DCS	
		TBMO / Power Grill	T			DTE / DTC / DTW / DTS	
		Commercial	O	STSS	S	DOE / DOC / DOW / DOS	
EUROPE	-	SOLO / CMO	M	CERAMIC ENAMEL	E	ME / MC / MW / MS	
		Inverter SOLO	I			IE / IC / IW / IS	
		Grill / Browner	G	CERAMIC ENAMEL(Clay)	C	GE / GC / GW / GS	
		Quartz Grill / Browner	Q			QE / QC / QW / QS	
		Conv.	C	Epoxy	W	CE / (CC) / (CW) / <b>CST</b>	
		TBMO / Power Grill	T			TE / (TC) / <b>TM</b> / <b>TST</b>	
		Commercial	O	STSS	S	OE / OC / OW / OS	
USA	A	SOLO / CMO	M	CERAMIC ENAMEL	E	AME / (AMC) / AMW / AMS	
		Inverter SOLO	I			AIE / AIC / AIW / AIS	
		Grill / Browner	G	CERAMIC ENAMEL(Clay)	C	AGE / (AGC) / AGW / AGS	
		Quartz Grill / Browner	Q			AQE / AQC / AQW / AQS	
		Conv.	C	Epoxy	W	ACE / ACC / ACW / ACS	
		TBMO / Power Grill	T			ATE / ATC / ATW / ATS	
		Commercial	O	STSS	S	AOE / AOC / AOW / AOS	
CHINA	C	Fully Built-In	F	SOLO(MW ONLY)	W	CFW / CFG / CFC / CFI / CFT	
KOREA	D			GRILL	G	DFW / DFG / DFC / DFI / DFT	
EUROPE	-			CONVECTION	C	DFW / DFG / DFC / DFI / DFT	
USA	A			INVERTER	I	FW / FG / FC / FI / <b>FPG</b>	
				TBMO / Power Grill	T	AFW / AFG / AFC / AFI / AFT	
USA OTR		SM		SOLO(MW ONLY)	H	SMH / <b>SMB</b> / SMV / SMI / <b>STB</b>	
EUROPE OTR		EM		GRILL	G	EMH / EMG / EMV / EMI / EMT	
CHINA OTR		UM		CONVECTION	V	UMH / UMG / UMV / UMI / UMT	
KOREA OTR		PM		INVERTER	I	PMH / PMG / PMV / PMI / PMT	
				TBMO / Power Grill	T		

**CST** : EUROPE STSS Conv.

**TST** : EUROPE TBMO with STSS cavity

**TM** : EUROPE TBMO with epoxy cavity

**FPG** : EUROPE FBI POWER GRILL

**SMB** : USA Grill OTR

**STB** : USA TBMO OTR

## 7. Reference

### 7-2 Customer inquiry cases and countermeasures

Symptom	Cause	Countermeasures
The oven works automatically whenever the power is turned on.	<ul style="list-style-type: none"> <li>It may happen due to power failure or abnormal voltage.</li> <li>It may happen when the door does not close completely.</li> </ul>	<ul style="list-style-type: none"> <li>Connect the power plug three seconds after disconnecting the power plug.</li> <li>Close the door completely =&gt; Press the Cancel button =&gt; Press the Start button.</li> </ul>
Heating	<ul style="list-style-type: none"> <li>In many cases, it may happen when the power level is incorrectly set.</li> <li>It may happen when the door does not close completely.</li> <li>It may happen when the oven is out of order.</li> </ul>	<ul style="list-style-type: none"> <li>Select HIGH/MEDIUM/LOW by pressing the Power Level button. - MEDIUM/LOW: This function is used to cook the food slowly.</li> <li>Close the door completely. =&gt; Press the Cancel button. =&gt; Press The Start button.</li> <li>Contact the nearest Samsung after-sales service center.</li> </ul>
Ground	<ul style="list-style-type: none"> <li>Ground problem may happen when the oven is placed in a humid area and the over is not grounded.</li> <li>Ground is not provided by an extended electric outlet.</li> </ul>	<ul style="list-style-type: none"> <li>If the oven is placed in a humid area, buy an electric wire in a store selling electrical products. (Electric wires for home use are also allowed) Ground the oven through the electric wire.</li> <li>Buy an electric wire in a store selling electrical products. (Electric wires for home use are also allowed) Ground the oven through the electric wire.</li> </ul>
The oven sometimes beeps.	<ul style="list-style-type: none"> <li>The oven beeps every minute unless the food is in the oven after the food is cooked completely.</li> <li>The oven occasionally beeps during cooking.</li> </ul>	<ul style="list-style-type: none"> <li>Open and close the door again. (Beeping sounds indicate that the food is ready to be removed from the oven after cooking is complete.)</li> </ul>
Strange popping sounds are produced while fish is cooked.	<ul style="list-style-type: none"> <li>Since fish is salty and maintains its moisture, it is cooked while making a series of soft popping sounds. (The liquid may come out of the fish when the fish is cooked.)</li> </ul>	<ul style="list-style-type: none"> <li>Food with bones such as fish (e.g. mackerel) and pork (e.g. pork chops) is cooked while making a series of soft popping sounds. Wrap the food completely so that food particles or spattered oils do not stick to the oven walls or floor.</li> </ul>

## 7. Reference

### 7-2 Customer inquiry cases and countermeasures (Continued)

Symptom	Cause	Countermeasures
Strange smell is produced in the oven.	<ul style="list-style-type: none"> <li>It may happen when food particles stuck to oven walls or floor.</li> </ul>	<ul style="list-style-type: none"> <li>Clean the inside of the oven. =&gt; Remove strange smell through the Deodorant button =&gt; If the strange smell still remains, place a piece of lemon on the turntable and operate the oven for 5 minutes by pressing the Deodorant button.(However, the smells produced from the food exposed such as herbal remedies are not removed.)</li> </ul>
Error	<ul style="list-style-type: none"> <li>Errors are classified with Failure and Non-failure.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to the section of ERROR in User Manual.</li> </ul>
Accessory		<ul style="list-style-type: none"> <li>Visit the nearest Samsung Service Center or local dealer to buy accessories. Before visiting, check the model name printed on the lower right side of the front panel of the oven.</li> </ul>
Number does not appear on the display screen.	<ul style="list-style-type: none"> <li>It happens when the power saving function is activated.</li> </ul>	<ul style="list-style-type: none"> <li>Since the government recommends the reduction of electricity, the power saving function is performed for number display like that power cord is unplugged when the oven is not used. (Numbers are displayed when another button is pressed or when the door opens.)</li> </ul>



### GSPN (GLOBAL SERVICE PARTNER NETWORK)

Area	Web Site
Europe, CIS, Mideast & Africa	<a href="http://gspn1.samsungcportal.com">gspn1.samsungcportal.com</a>
Asia	<a href="http://gspn2.samsungcportal.com">gspn2.samsungcportal.com</a>
North & Latin America	<a href="http://gspn3.samsungcportal.com">gspn3.samsungcportal.com</a>
China	<a href="http://china.samsungportal.com">china.samsungportal.com</a>

This Service Manual is a property of Samsung Electronics Co.,Ltd.  
Any unauthorized use of Manual can be punished under applicable  
International and/or domestic law.

© Samsung Electronics Co., Ltd. March 2013  
Printed in Korea