

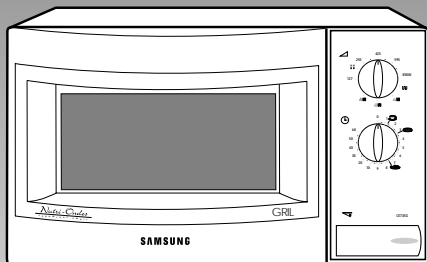


MICROWAVE OVEN

CE735GV (GREEN)

SERVICE *Manual* Supplement

MICROWAVE OVEN



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Specifications

TIMER	60 MINUTES
POWER SOURCE	230V/50HZ, AC
POWER CONSUMPTION	MICROWAVE : 1,400W GRILL : 1100W
OUTPUT POWER	FROM 127 TO 850W (6 LEVEL POWER) (IEC-705 TEST PROCEDURE)
OPERATING FREQUENCY	2,450MHz
MAGNETRON	OM75PH(31)
COOLING METHOD	COOLING FAN MOTOR
OUTSIDE DIMENSIONS	19 ¹ / ₄ "(W) x 10 ²⁷ / ₃₂ "(H) x 14 ³ / ₈ "(D)
NET WEIGHT	36.3 LBS.
SHIPPING WEIGHT	39.6 LBS.

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 Subchapter J (DHHS).
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 immediatly.
4. Notify the Central Service Center if the microwave leakage exceeds 5 mW/cm²
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/cm², 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.

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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 and secondary switches, 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.10.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.

1-2 Special Servicing Precautions (Continued)

17. When checking the continuity of the witches 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.

1-3 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.

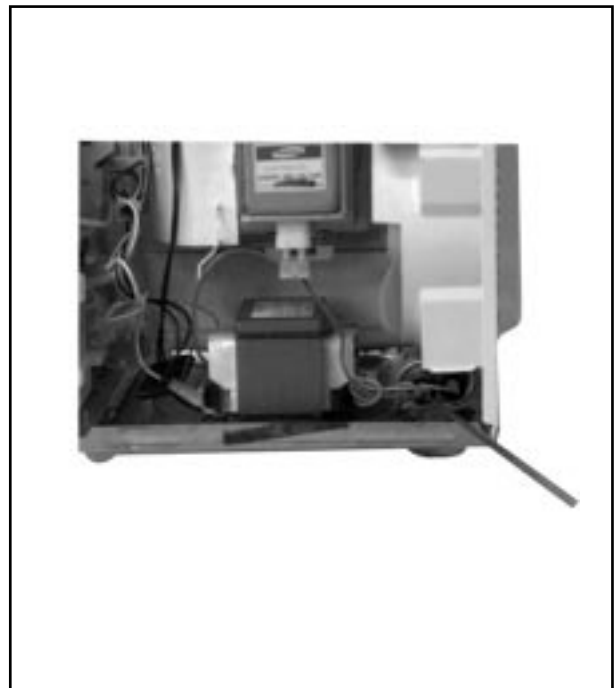
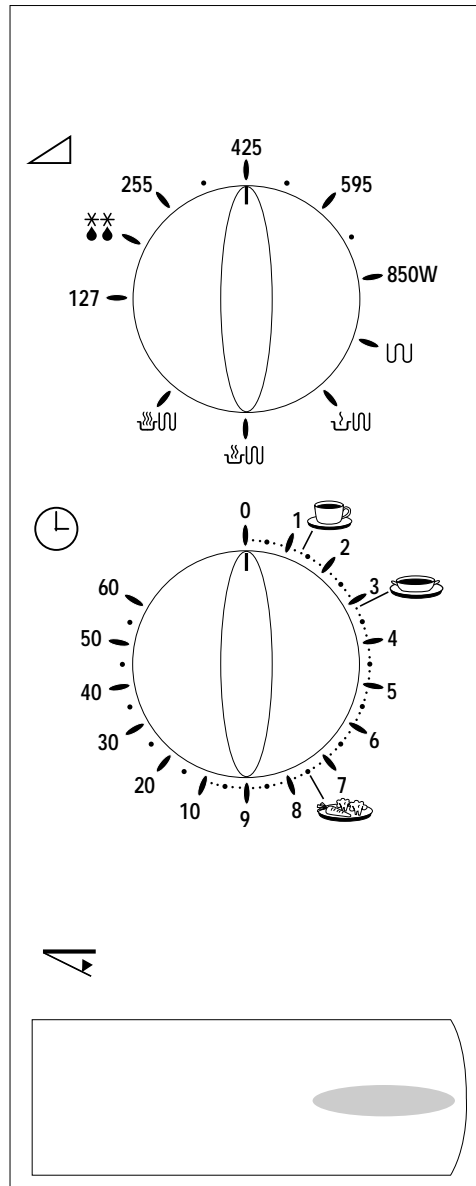


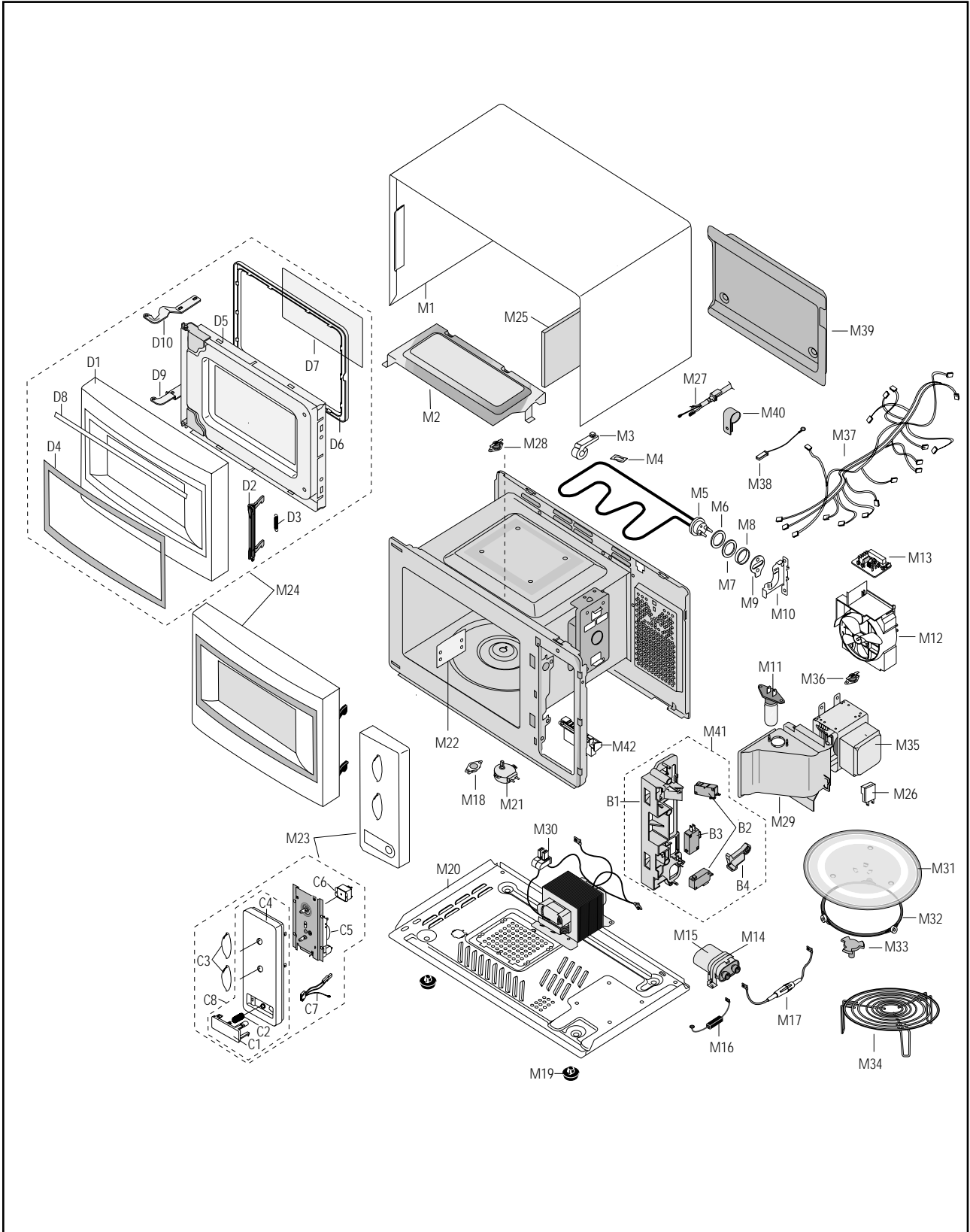
Fig. 1-1. Discharging the High Voltage Capacitor

2. Control Panel



3. Exploded Views and Parts List

3-1 Exploded Views



3-2 Main Parts List

Ref. No.	Parts No.	Description/Specification	Q'ty	Remarks
M 1	DE70-30116F	PANEL-OUTER;SECC T0.6 GREEN-SPRAY W351.7	1	
M 2	DE61-50323A	BRACKET-UPPER;ALSTAR T0.6 W385 L205 M624	1	
M 3	DE61-30008A	SUPPORTER-HEATER;ALUMINA T12 CE745G	1	
M 4	DE61-70060A	SPRING-PLATE;SK-5 T0.5	1	
M 5	DE47-70073A	HEATER-GRILL;230V 1100W 470HM 6.8	1	
M 6	DE63-20017A	GASKET-HEATER;BRASS T1.5 OD30.5 ID22.5	1	
M 7	DE60-40009B	WASHER-TEFLON;SLOT ID22.2 OD28 T1.2 TEFL	1	
M 8	DE61-50021A	BRACKET-FLANGE;SECC1 T0.8 32 32	1	
M 9	DE61-50027B	BRACKET-HEATER;SECC T1.0 W51 L55 CE945GF	1	
M 10	DE61-50025A	BRACKET-EARTH;BSS2-A T1.0 CE745G	1	
M 11	4713-001031	LAMP-INCANDESCENT;230V,173mA,40W ORG,-,-,25	1	
M 12	DE31-30031A	FAN-MOTOR;SMF745EA 230V/50HZ ASSY-FAN-MO	1	
M 13	DE91-40095A	ASSY NOISE FILTER;SN-E10D(N) 250V 10A *2	1	
M 14	DE61-50106A	BRACKET-HVC;SECC T0.8 W31 L125.8	1	
M 15	2501-001015	C-OIL;HCH212100C 1.0UF,2100V 35X54X80,20MM,	1	
M 16	DE59-40001A	DIODE-H.V;HVR-1X-32B-12	1	
M 17	DE91-70061B	ASSY-H.V.FUSE;THV060T-0750-H 5KV0.75A RE	1	
M 18	DE47-20174A	THERMOSTAT;NT-101NA 8XH 120 110 23.8MM	1	
M 19	DE61-40017A	FOOT;PP(A353) BLK MW5630T	2	
M 20	DE80-10003A	BASE-PLATE;SGCC1-Z T0.8 W340 L550 M745	1	
M 21	DE31-10154A	MOTOR-DRIVE;M2HJ49ZR02,ST-16 21V 5/6	1	
M 22	DE71-60013A	COVER-CEILING;MICA T0.5 W52 L118 CE745G	1	
M 23		ASSY CONTROL-BOX;230V50HZ CE735GV/XEF DEEP-GRN	1	⚠
M 24		ASSY DOOR;CE735GV/XEF DEEP-GRN	1	⚠
M 25	DE63-90035G	CUSHION-RUBBER;DFA20 T2 W190 L100 BLK	1	
M 26	DE27-10020A	COIL-MC CHOKE;TC 101	1	
M 27	DE39-20058E	ASSY POWER CORD;KKP4819D/B232 230V/16A L	1	
M 28	DE47-20008A	THERMOSTAT;CS-7S(100/60)187Y 250V7.5A 10	1	
M 29	DE71-60010A	COVER-AIR;PP(TB53) T1.7 WHT 64G M745	1	
M 30	DE26-10099A	TRANS-H.V;SHV-745EG1 230V 2230V/3.10V 50	1	⚠
M 31	DE74-20102B	TRAY-COOKING;GLASS T5.0 PI288 780G M745	1	
M 32	DE92-90436A	ASSY-GUIDE ROLLER;MW4370W	1	
M 33	DE67-60002A	COUPLER;PPS 5GR BRN M97G45	1	
M 34	DE74-70071B	RACK-WIRE;MSWR3 PI3 PI230 HI80 SNC2	1	
M 35	DE03-30035A	MAGNETRON;OM75PH((31)ESS	1	⚠
M 36	DE47-20009A	THERMOSTAT;CS-7SA(160/60)187Y 250V7.5A 1	1	
M 37	DE39-40569A	WIRE HARNESS-A;230V50HZ CE935G/CE73	1	
M 38	DE39-40409A	WIRE HARNESS-E;230V50HZ M9G45 CTW	1	
M 39	DE71-60298A	COVER-BACK;SECC T0.6 W273 L633 M6Q45	1	
M 40	DE65-20014A	CABLE CLAMP;DA-6N NY-66	1	
M 41	DE93-20001A	ASSY BODY LATCH;2ND-W1 M97G45/M9745	1	
M 42	DE66-90013A	LEVER-DOOR;POM(F20-01) NTR MW5630T	1	

● : Option Parts

⚠ : Warning

⚠ : Electrostatically Sensitive Devices

3-3 Door Parts List

Ref. No.	Parts No.	Description / Specification	Q'ty	Remarks
D 1	DE64-40007D	DOOR-A;ABS(VH-0370D) T3 GRN M745GR	1	● ▲
D 2	DE64-40006A	DOOR-KEY;POM(TC3005) T2.0 12GR BLK CE9	1	
D 3	DE61-70033A	SPRING-KEY;ES HSWR10 PI0.6 D6.0 L22.3 BL	1	
D 4	DE67-20004P	SCREEN-DOOR;PC T1.5 W173.6 L373.5 CE735G	1	
D 5	DE92-50126B	ASSY DOOR-E;COATING BLK CE745G	1	
D 6	DE64-40008B	DOOR-C;PP T1.5 W L G BLK CE745G	1	
D 7	DE01-00003B	FILM-DOOR;PC T0.2 W143 L265 TRP CE745G	1	
D 8	DE02-00125A	TAPE-DOUBLE FACE;ACRYL T0.45 W9 WHT WF103	1	
D 9	DE61-80004A	HINGE-LOWER;SCP1 T2.3 ZN-COATING BLK	1	
D 10	DE61-80005A	HINGE-UPPER;SCP1 T2.3 BLK ZN-COATING	1	

3-4 Control Parts List

Ref. No.	Parts No.	Description/Specification	Q'ty	Remarks
C 1	DE66-20006C	BUTTON-PUSH;ABS(HR-0370D) GREEN M745GR	1	▲
C 2	DE61-70076A	SPRING-BUTTON;HSWR PI0.6	1	
C 3	DE64-10123D	KNOB;ABS 5G DEEP-GRN M735V/XEF	2	
C 4	DE72-70006N	CONTROL-PANEL;ABS T3 W106 L261 DEEP-GRN	1	● ▲
C 5	DE45-10076A	TIMER-ASSY;TMFK60MTB1 220V/240V 310-GRIL	1	
C 6	3501-000309	RELAY-POWER;CHP11-A240S-250V15A 240V,375	1	
C 7	DE39-40333B	WIRE HARNESS-B;230V50HZ CE735G/CE935G	1	
C 8	DE93-30532A	ASSY CONTROL-PSNRL;CE735GV/XEF DEEP-GRN	1	

3-5 Body Latch Parts List

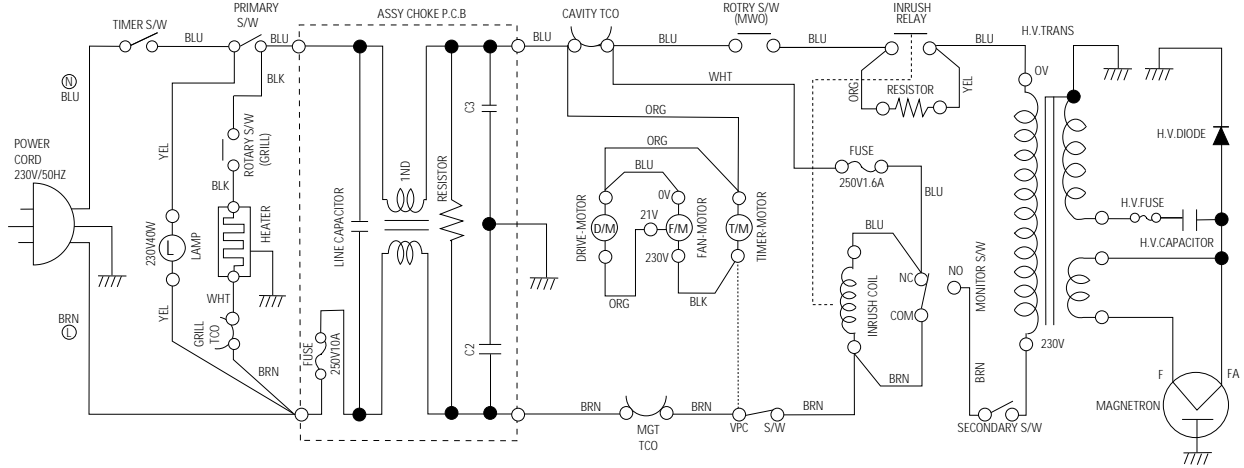
Ref. No.	Parts No.	Description / Specification	Q'ty	Remarks
B 1	DE66-40001A	LATCH-BODY;POM(F20-02) 40GR NTR	1	
B 2	3405-000178	SWITCH-MICRO;250V,15A,200gf,SPST-NO	2	
B 3	3405-000175	SWITCH-MICRO;250V,15A,200gf,SPST-NO	1	
B 4	DE66-90001A	LEVER-SWITCH;P.O.M(F20-02) 2 6 NTR SND-W	1	

3-6 Standard Parts List

Parts No.	Description / Specification	Q'ty	Remarks
DE60-10012A	SCREW-TAP TITE;TH + 3 M4 L10 SWR10 ZPC2 TOO	1	B/DR-M
DE60-10012A	SCREW-TAP TITE;TH + 3 M4 L10 SWR10 ZPC2 TOO	1	N-F-EA
DE60-10012A	SCREW-TAP TITE;TH + 3 M4 L10 SWR10 ZPC2 TOO	1	P-C-EA
DE60-10013A	SCREW-ASSY TAP;TH 2S 4 L12 MSWR3 ZPC3 FIBER	2	MO/FAN
DE60-10018A	SCREW-ASSY MACHINE;PH M4X0.7P 8 MSWR10 S	2	B/EATH
DE60-10024A	SCREW-PH;PH + 4 L8 MSWR10 ZPC3	2	B/HEAT
DE60-10033A	SCREW-TH;TH + M4 L10 MSWR10 FEFZY	2	HI-LOW
DE60-10033A	SCREW-TH;TH + M4 L10 MSWR10 FEFZY	2	HI-UPP
DE60-10052A	SCREW-TAP PH;PH M4 L8 FEFZY	1	GR-TCO
DE60-10069A	SCREW-TAP TH;TH M4 L10 FRFZY	3	B/UPPE
DE60-10069A	SCREW-TAP TH;TH M4 L10 FRFZY	1	CV/AIR
DE60-10072A	SCREW-TAP TH;TH M4 L16 FEFZY 2-SLOT	1	CB-CMP
DE60-10080A	SCREW-WASHER;M5 L12 2S	4	MGT
DE60-10080A	SCREW-WASHER;M5 L12 2S	4	TNS-HV
DE60-10082A	SCREW-A;M4 L12 2S TOOTHED	4	B/PLTE
DE60-10082A	SCREW-A;M4 L12 2S TOOTHED	1	CN-BOX
DE60-10082A	SCREW-A;M4 L12 2S TOOTHED	2	LATCH
DE60-10098A	SCREW-ASSY TAPTITE;PH TC M4X8 SWRCH18A ZPC2	1	B/HVC
DE60-10098A	SCREW-ASSY TAPTITE;PH TC M4X8 SWRCH18A ZPC2	1	CV-TCO
DE60-10098A	SCREW-ASSY TAPTITE;PH TC M4X8 SWRCH18A ZPC2	2	M/DRIV
DE60-10098A	SCREW-ASSY TAPTITE;PH TC M4X8 SWRCH18A ZPC2	2	MG-TCO
DE60-10122A	SCREW-TAP TH;TAP TH 2-4X8 FE FN	2	C-CEIL

4. Schematic Diagrams

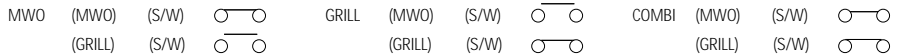
4-1 Schematic Diagrams



CONDITION OF OVEN

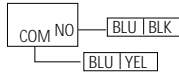
DOOR IS OPENED
COOK OFF

FUNCTION ROTARY S/W

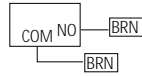


WIRING COLOR

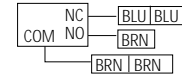
BRN : BROWN BLU : BLUE
WHT : WHITE ORG : ORANGE
RED : RED YEL : YELLOW
BLK : BLACK
Y/G : YELLOW GREEN



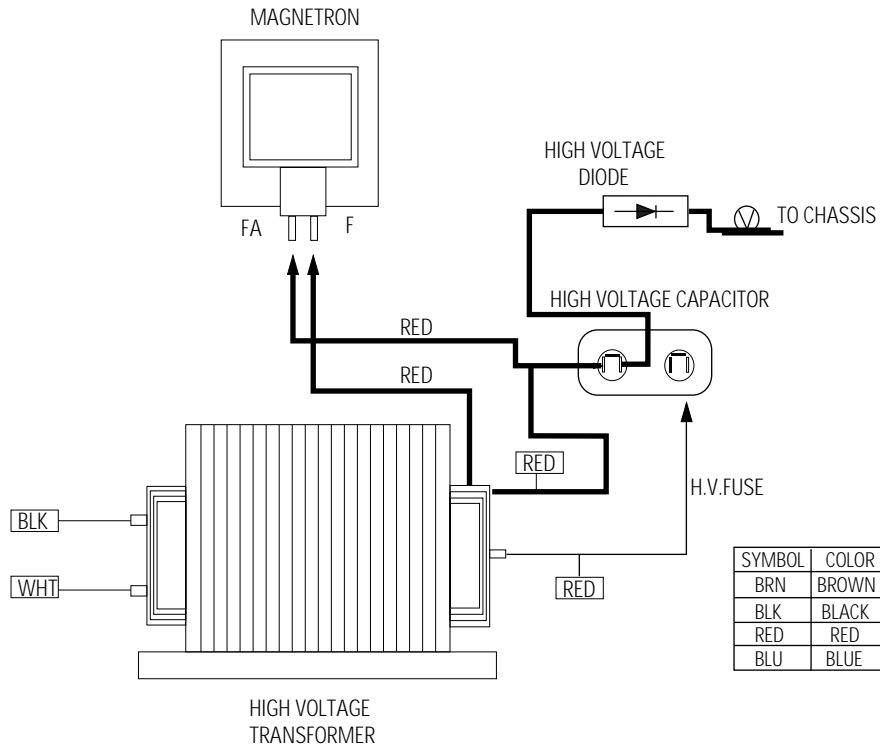
PRIMARY SWITCH



SECONDARY SWITCH



MONITOR SWITCH



SYMBOL	COLOR
BRN	BROWN
BLK	BLACK
RED	RED
BLU	BLUE