

S/M No. : OR6L353S001

# Service Manual

## Microwave Oven

Model: KOR-6L35

DAEWOO

✓ **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>).

**DAEWOO**   
ELECTRONICS

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# **SPECIFICATIONS**

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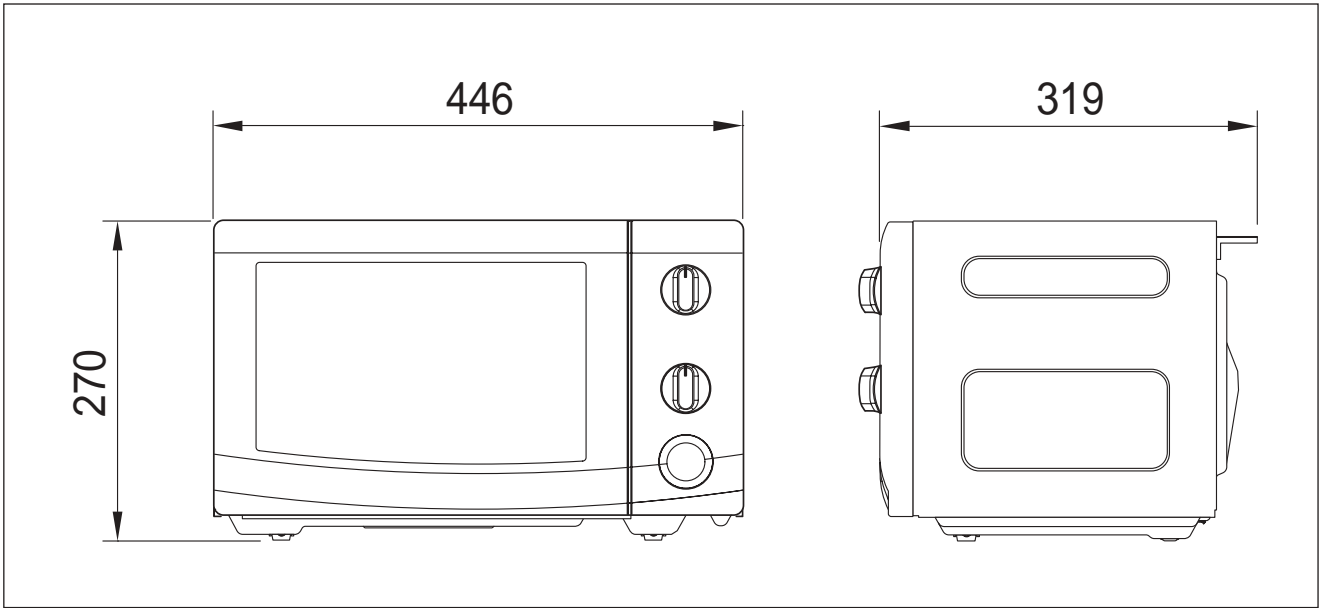
POWER SUPPLY		230V AC, 50Hz SINGLE PHASE WITH GROUNDING
MICROWAVE	INPUT POWER	1000 W
	ENERGY OUTPUT	700 W
	FREQUENCY	2,450MHz
OUTSIDE DIMENSIONS (W x H x D)		446 x 270 x 319 mm
CAVITY DIMENSIONS (W x H x D)		295 x 219 x 303 mm
CAVITY VOLUME		20 L
NET WEIGHT		APPROX. 10.6 Kg
TIMER		35min. DUAL SPEED
POWER SELECTIONS		5 Levels

*\* Specifications are subject to change without notice.*

# EXTERNAL VIEW

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## 1. OUTER DIMENSION

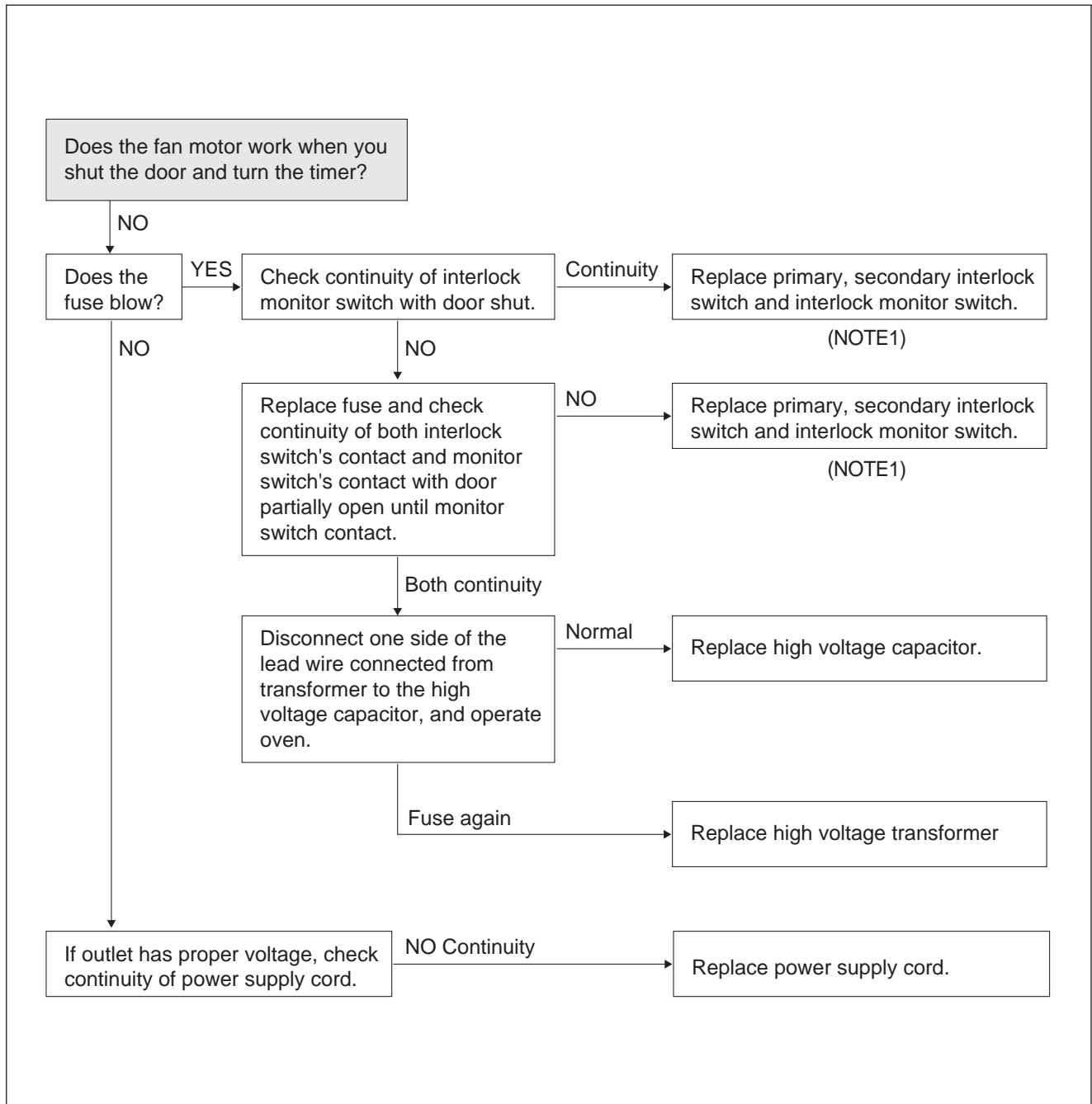


# TROUBLESHOOTING GUIDE

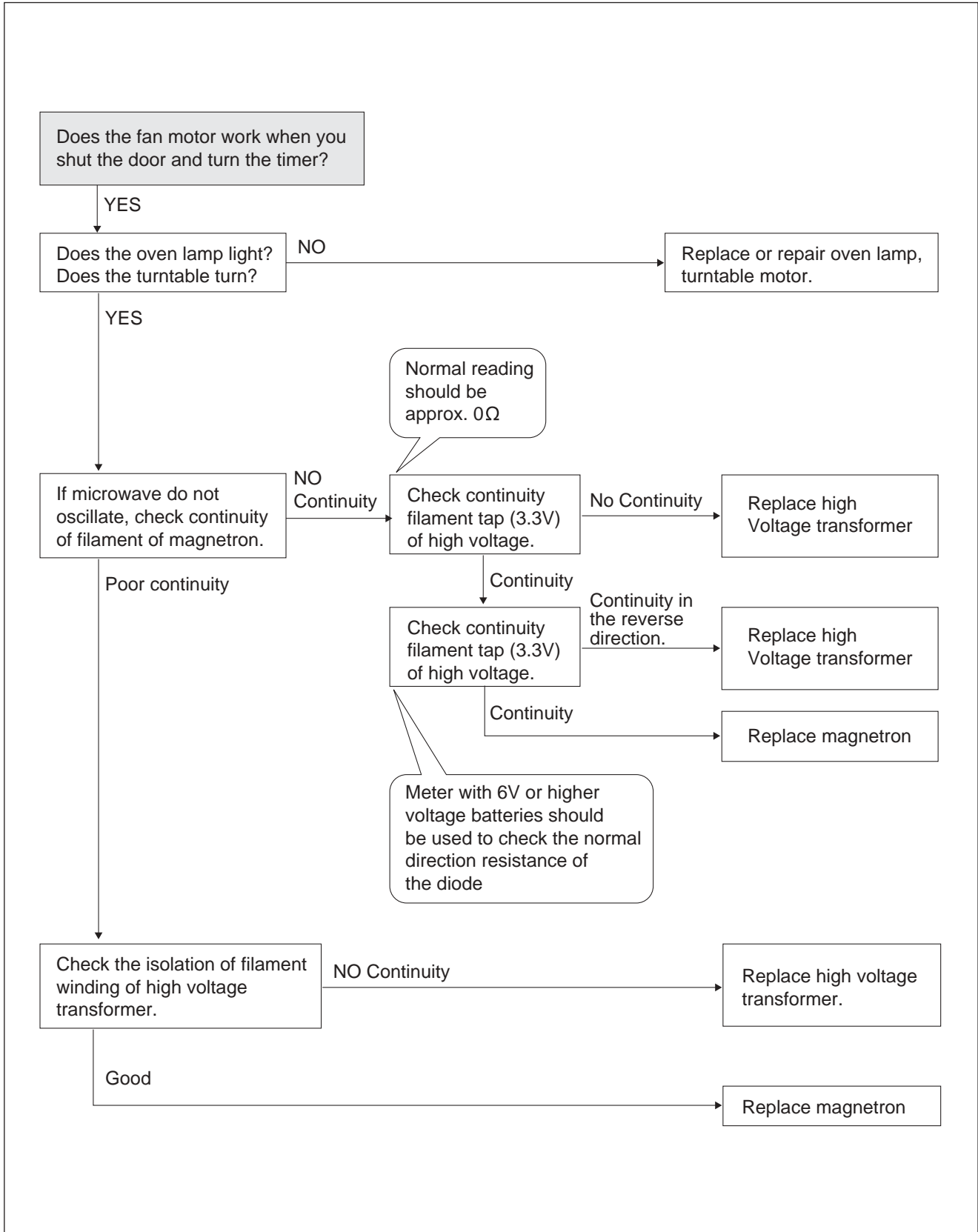
Following the procedure below to check if the oven is defective or not.

1. Check grounding before trouble checking.
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.

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



**NOTE1** : All these switches must be replaced at the same time, please refer to "Interlock Mechanism And Adjustment"



# 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. A cylindrical container of borosilicate glass is used for the test. It has a maximum thickness of 3mm, an external diameter of approximately 190mm and a height of approximately 90mm. The mass of the container is determined.
2. At the start of the test, the oven and the empty container are at ambient temperature. Water having an initial temperature of  $10^{\circ}\text{C} \pm 1^{\circ}\text{C}$  is used for the test. The water temperature is measured immediately before it is poured into the container.
3. A quantity of  $1000\text{g} \pm 5\text{g}$  of water is added to the container and its actual mass obtained. The container is then immediately placed in the centre of the oven shelf, which is in its lowest normal position. The oven is operated and the time for the water temperature to attain  $20^{\circ}\text{C} \pm 2^{\circ}\text{C}$  is measured. The oven is then switched off and the final water temperature is measured within 60s.

NOTE 1 - The water stirred is before its temperature is measured.

NOTE 2 - Stirring and measuring devices are to have a low heat capacity.

4. The microwave power output is calculated from the formula

$$P = \{4,187 \cdot m_w(T_2 - T_1) + 0.55 \cdot m_c (T_2 - T_0)\} / t$$

where

- P is the microwave power output, in watts ;
- $m_w$  is the mass of the water, in grams ;
- $m_c$  is the mass of the container, in grams ;
- $T_0$  is ambient temperature, in degrees Celsius ;
- $T_1$  is the initial temperature of the water, in degree Celsius ;
- $T_2$  is the final temperature of the water, in degrees Celsius ;
- t is the heating time, in seconds, excluding the magnetron filament heating-up time.

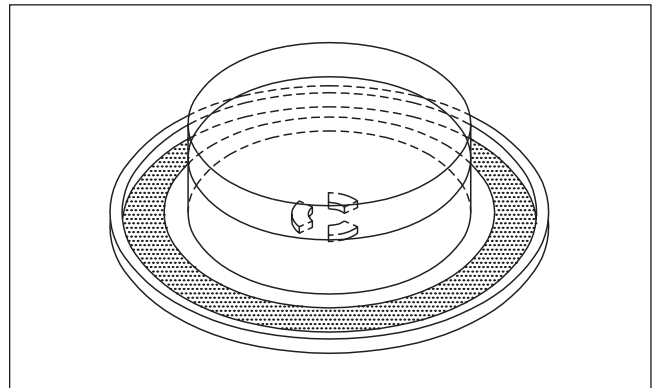
\* The microwave power output is stated in watts, rounded off to the nearest 50W

### CAUTION

1. Water load should be measured exactly to 1 liter.
2. Input power voltage should be exactly specified voltage (Refer to SPECIFICATIONS).
3. Ambient temperature should be  $20 \pm 2^{\circ}\text{C}$  ( $68 \pm 3.6^{\circ}\text{F}$ )

\* Heating time for power output: ( $T_2 = T_0$ )

A (second)	70	64	60	56	52	49	47	44	42	40	38
B (W)	600	650	700	750	800	850	900	950	1000	1050	1100



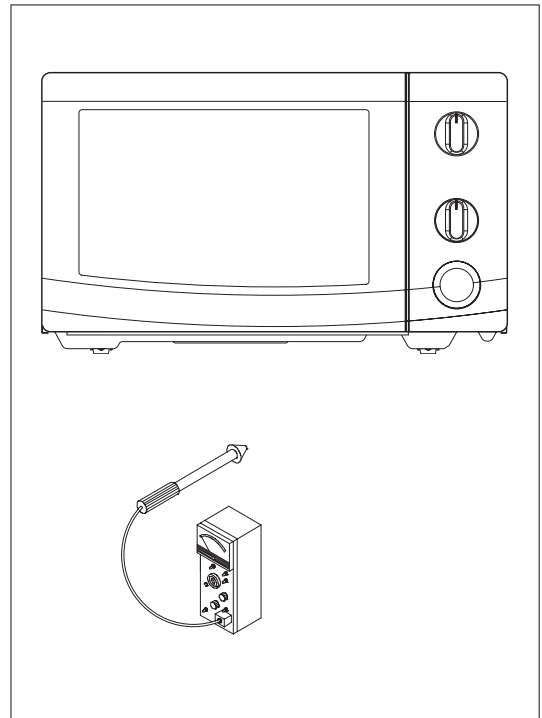
## 2. MICROWAVE RADIATION TEST

### CAUTION

1. Make sure to check the microwave leakage before and after repair of adjustment.
2. Always start measuring of an unknown field to assure safety for operating personnel from microwave energy.
3. Do not place your hands into any suspected microwave radiation field unless the safe density level is known.
4. Care should be taken not to place the eyes in direct line with the source of microwave energy.
5. Slowly approach the unit under test until the radiometer reads an appreciable microwave leakage from the unit under the test.

### PROCEDURE

1. Prepare Microwave Energy Survey Meter, 600cc glass beaker, and glass thermometer 100°C (212°F).
2. Pour 275cc ± 15cc of tap water initially at 20 ± 5°C (68 ± 9°F) in the 600 cc glass beaker with an inside diameter of approx. 95 mm(3.7 in.).
3. Place it at the center of the tray and set it in a cavity.
4. Close the door and operate the oven.
5. Measure the leakage by using Microwave Energy Survey Meter with dual ranges, set to 2450MHz.
  - 1) Measured radiation leakage must not exceed the value prescribed below. Leakage for a fully assembled oven with door normally closed must be less than 4mW/cm<sup>2</sup>.
  - 2) When measuring the leakage, always use the 5 cm (2 in.) space cone with probe. Hold the probe perpendicular to the cabinet and door. Place the space cone of the probe on the door, cabinet, door seem, door viewing screen, the exhaust air vents and the suction air vents.
  - 3) Measuring should be in a counter-clockwise direction at a rate of 1 in./sec. If the leakage of the cabinet door seem is unknown, move the probe more slowly.
  - 4) When measuring near a corner of the door, keep the probe perpendicular to the areas making sure the probe end at the base of the cone does not get closer than 2 in. from any metal. If it does not, erroneous reading may result.



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### 3. COMPONENT TEST PROCEDURE

- High voltage is present at the high voltage terminal of the high voltage transformer during any cooking cycle.
- It is neither necessary nor advisable to attempt measurement of the high voltage.
- Before touching any oven components or wiring, always unplug the oven from its power source and discharge the capacitor.

#### 1. High voltage transformer

- 1) Remove connections from the transformer terminals and check continuity.
- 2) Normal readings should be as follows :
  - Secondary winding ... Approx.  $214.1 \Omega \pm 10\%$
  - Filament winding ... Approx.  $0 \Omega$
  - Primary winding ... Approx.  $2.4125 \Omega$

#### 2. High voltage capacitor

- 1) Check continuity of capacitor with meter on the highest OHM scale.
- 2) A normal capacitor will show continuity for a short time, and then indicate  $10M\Omega$  once the capacitor charged.
- 3) A shorted capacitor will show continuous continuity.
- 4) An open capacitor will show constant  $10M\Omega$
- 5) Resistance between each terminal and chassis should be infinite.

#### 3. High voltage diode

- 1) Isolate the diode from the circuit by disconnecting the leads.
- 2) With the ohmmeter set on the highest resistance scale measure the resistance across the diode terminals. Reverse the meter leads and again observe the resistance reading. Meter with 6V, 9V or higher voltage batteries should be used to check the front-back resistance of the diode, otherwise an infinite resistance may be read in both directions. A normal diode's resistance will be infinite in one direction and several hundred  $k \Omega$  in the other direction.

#### 4. Magnetron

For complete magnetron diagnosis, refer to "Measurement of the Microwave Power Output." Continuity checks can only indicate an open filament or a shorted magnetron. To diagnose for an open filament or a shorted magnetron,

- 1) Isolate magnetron from the circuit by disconnecting the leads.
- 2) A continuity check across magnetron filament terminals should indicate  $0.1 \Omega$  or less.
- 3) A continuity check between each filament terminal and magnetron case should read open.

#### 5. Fuse

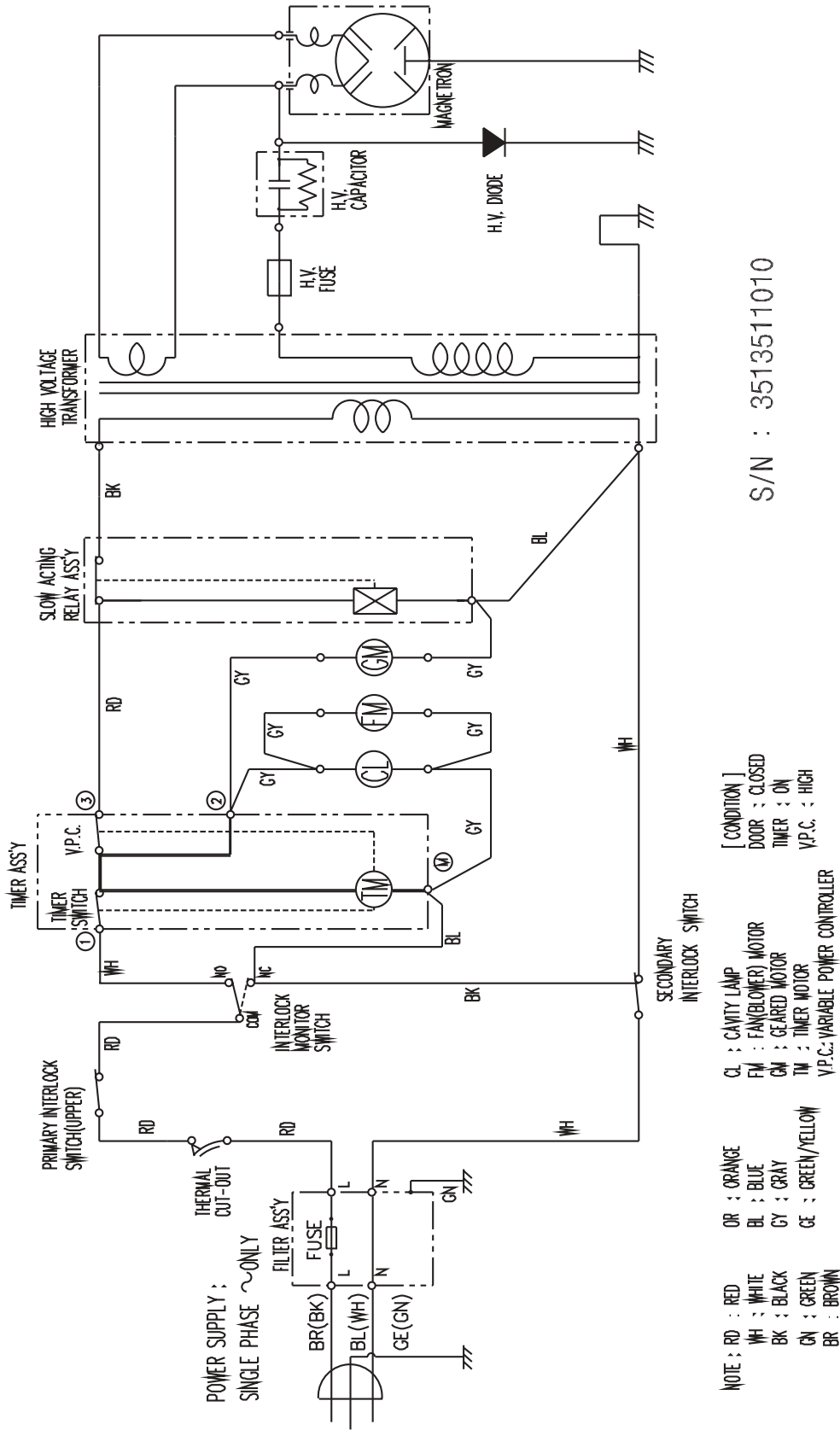
If the fuse in the primary and monitor switch circuit is blown when the door is opened, check the primary and monitor switch before replacing the blown fuse. In case the fuse is blown by an improper switch operation, replace the defective switch and fuse at the same time. Replace just the fuse if the switches operate normally.

#### 6. Interlock switches

- (1) You can test continuity of safety interlock and monitor switch by using ohmmeter.
- (2) The switch operation is checked by zero/unlimited.
  - The meter should indicate zero resistance.
- (3) The sequence of check is interlock monitor switch, primary and secondary interlock switches check.



# WIRING DIAGRAM



S/N : 3513511010

- NOTE :
- RD : RED
  - WH : WHITE
  - BK : BLACK
  - GN : GREEN
  - BR : BROWN
  - OR : ORANGE
  - BL : BLUE
  - GY : GRAY
  - GE : GREEN/YELLOW
  - BR : BROWN
- CL : CAVITY LAMP  
 FM : FAN(BLOWER) MOTOR  
 GM : GEARED MOTOR  
 TM : TIMER MOTOR  
 V.P.C.: VARIABLE POWER CONTROLLER
- [ CONDITION ]  
 DOOR : CLOSED  
 TIMER : ON  
 V.P.C. : HIGH

# EXPLODED VIEW AND PARTS LIST

## 1. DOOR ASSEMBLY

Refer to Disassembly and assembly.

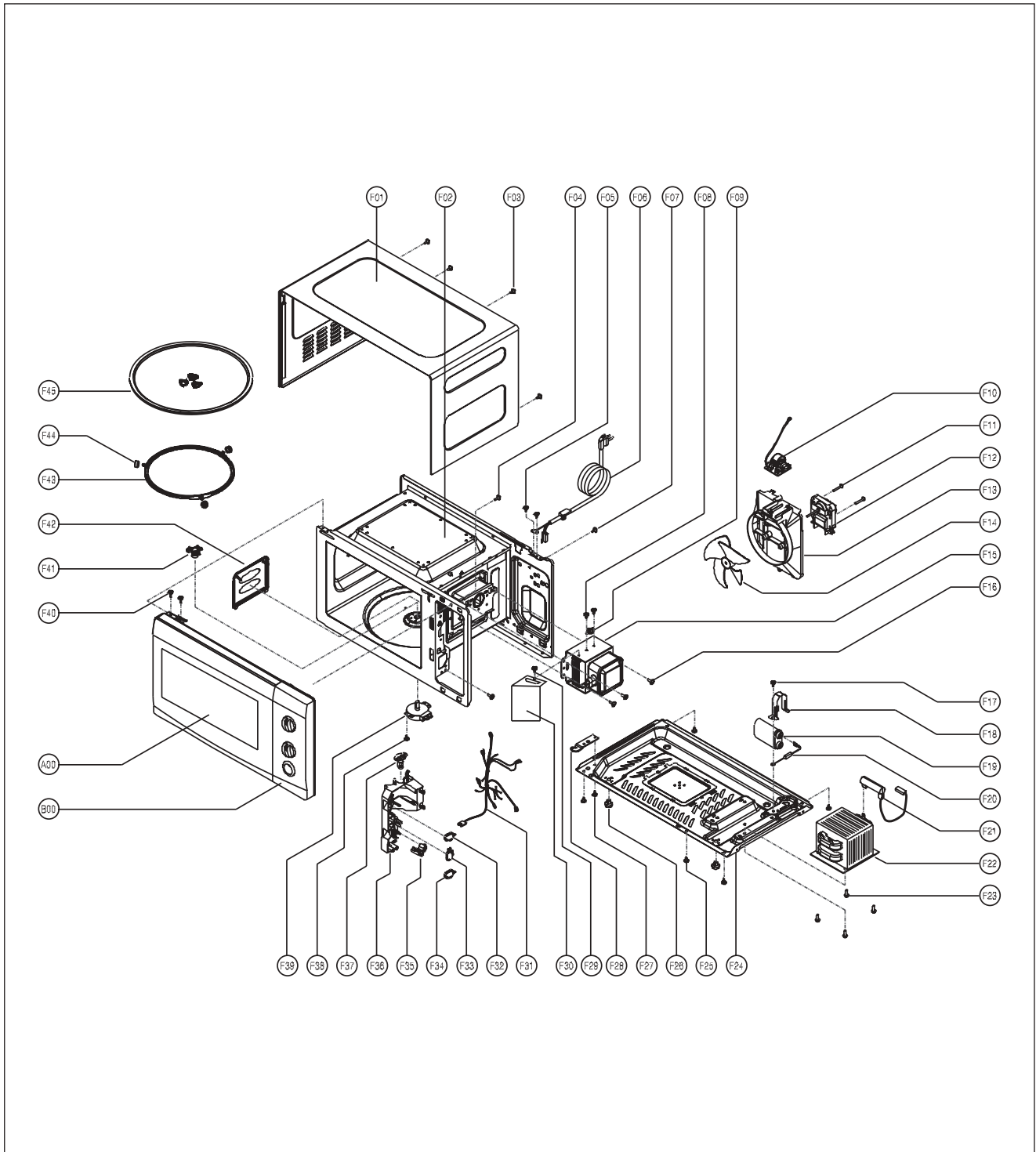
## 2. CONTROL PANEL ASSEMBLY

Refer to Disassembly and assembly.

## 3. GUIDE WIND ASSEMBLY

Refer to Disassembly and assembly.

## 4. TOTAL ASSEMBLY



REF. NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
A00	3511729900	DOOR AS	KQG-6L353S	1
B00	3516739010	CONTROL-PANEL AS	KOR-6L353S	1
F01	3510808410	CABINET AS	KOR-6L0B1A	1
F02	3516117410	CAVITY AS	KOR-6L0B1A	1
F03	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	4
F04	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F05	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	2
F06	35113AEQ0D	CORD POWER AS	3X0.75 70X70 100-RTML	1
F07	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F08	7121300611	SCREW TAPPING	T2S PAN 3X6 MFZN	2
F09	3518903800	THERMOSTAT	OFF:160 ON:115 V #187	1
F10	3518608300	NOISE-FILTER	DWLF-M12 B	1
F11	7121402511	SCREW TAPPING	T2S PAN 4X25 MFZN	2
F12	3963514350	MOTOR SHADED POLE	230V 50HZ MW10CA-M04	1
F13	3512527600	GUIDE WIND	PP	1
F14	3511800300	FAN	PP+30%GLASS	1
F15	3518003710	MAGNETRON	2M218HFL 6CF	1
F16	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	3
F17	7S432X4081	SPECIAL SCREW	TT3 TRS 4X8 SE MFZN	1
F18	3513003200	HOLDER HV CAPACITOR	SECC T0.5	1
F19	3518302201	CAPACITOR HV	2100VAC 0.98UF #187 75MM	1
F20	3518400900	DIODE HV AS	HVR-1X-30B #187	1
F21	3518701100	FUSE HV	5KV 0.55A HV-41A55-02	1
F22	3518122950	TRANS HV	R1S57A (DA30)	1
F23	3516003700	SPECIAL SCREW	TT3 HEX 4X8 FLG MFZN	4
F24	3510317500	BASE	SBHG T0.5	1
F25	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	5
F26	3512100900	FOOT	PP DASF-130	2
F27	7S432X4081	SPECIAL SCREW	TT3 TRS 4X8 SE MFZN	1
F28	3515201101	STOPPER HINGE *U	SCP-1 T2.5	1
F29	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F30	3512527800	GUIDE AIR	SECC T0.5	1
F31	3512720240	HARNESS MAIN	KOR-6L053S	1
F32	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
F33	4415A66910	SW MICRO	VP-531A-OF/SZM-V16-FA-61	1
F34	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
F35	3513702600	LEVER LOCK	POM	1
F36	3513818900	LOCK	PP FH44D GP-3152F	1
F37	3513601600	LAMP	BL 240V 25W T25 C7A H187	1
F38	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F39	3966031600	MOTOR SYNCRO	220/240V 50/60HZ ST-16 MN73MQAD A	1
F40	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	2
F41	3517400600	COUPLER	XAREC	1
F42	3511406220	COVER WAVE GUIDE	PP J640A WHITE	1
F43	3512517300	GUIDE ROLLER	PP 5113MF6 A353B	1
F44	3514700710	ROLLER	TEFLON	3
F45	3517203600	TRAY	GLASS	1



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