**S/M No.**: G6C075S003



# **Service Manual**

# **Microwave Oven**

Model: KOG-6C075S

KOG-6C075S12

**KOG-6C175S** 

KOG-6C175S12

**KOG-6C275S** 

KOG-6C275S12

# ✓ 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 CORP.

http://svc.dwe.co.kr Oct. 2003

# 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 power to the microwave oven 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.

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## SAFETY AND PRECAUTIONS

#### 1. FOR SAFE OPERATION

Damage that allows the microwave energy (that cooks or heats the food) to escape will result in poor cooking and may cause serious bodily injury to the operator.

IF ANY OF THE FOLLOWING CONDITIONS EXIST, OPERATOR MUST NOT USE THE APPLIANCE.

(Only a trained service personnel should make repairs.)

- (1) A broken door hinge.
- (2) A broken door viewing screen.
- (3) A broken front panel, oven cavity.
- (4) A loosened door lock.
- (5) A broken door lock.

The door gasket plate and oven cavity surface should be kept clean.

No grease, soil or spatter should be allowed to build up on these surfaces or inside the oven.

DO NOT ATTEMPT TO OPERATE THIS APPLIANCE WITH THE DOOR OPEN.

The microwave oven has concealed switches to make sure the power is turned off when the door is opened.

Do not attempt to defeat them.

DO NOT ATTEMPT TO SERVICE THIS APPLIANCE UNTIL YOU HAVE READ THIS SERVICE MANUAL.

#### 2. FOR SAFE SERVICE PROCEDURES

- If the oven is operative prior to servicing, a microwave emission check should be performed prior to servicing the oven.
- 2. If any certified oven unit is found to servicing, a microwave emission check should be performed prior to servicing the oven
  - (a) inform the manufacturer, importer or assembler,
  - (b) repair the unit at no cost to the owner,
  - (c) attempt to ascertain the cause of the excessive leakage,
  - (d) tell the owner of the unit not to use the unit until the oven has been brought into compliance.
- 3. If the oven operates with the door open, the service person should tell the user not to operate the oven and contact the manufacturer and CDRH immediately.

#### **IMPORTANT**

The wire in this mains lead coloured in accordance with the following code.

Green-and-yellow: Each
Blue: Neutral
Brown: Live

As the colours of the wires in the manins lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows.

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked with the letter 'E', earth symbol or coloured green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter 'N' or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter 'L' or coloured red.

#### NOTE

This oven is designed for counter-top use only.

# **SPECIFICATIONS**

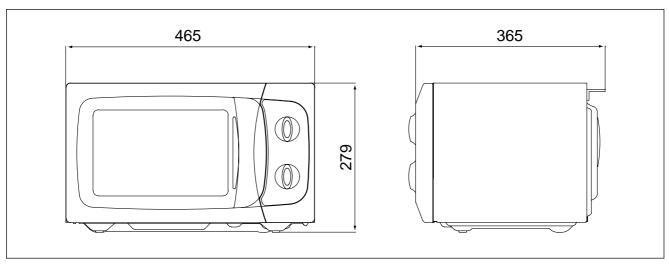
MODEL		KOG-6C075S/6C175S/6C275S/6C075S12/6C175S12/6C275S12	
POWER SUPPLY		230V~50Hz, SINGLE PHASE WITH GROUNDING	
POWER	MICROWAVE	1200W	
CONSUMPTION	GRILL	1050W	
CONSUMPTION	COMBINATION	2200W	
MICROWAVE ENERG	SY OUTPUT	800W	
MICROWAVE FREQU	IENCY	2450MHz	
OUTSIDE DIMENSIO	NS (W x H x D)	465 x 279 x 364 mm (18.3 x 11.0 x 14.4 in)	
CAVITY DIMENSIONS	S (W x H x D)	290 x 220 x 306 mm (11.4 x 8.7 x 12.0 in)	
NET WEIGHT		APPROX. 13.4kg	
TIMER		35 MIN. DUAL SPEED	
FUNCTION SELECTIONS		MICROWAVE/GRILL/COMBINATION	
POWER SELECTIONS		7 LEVELS	
CAVITY VOLUME		E 0.7 Cu. Ft.	

<sup>\*</sup> SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

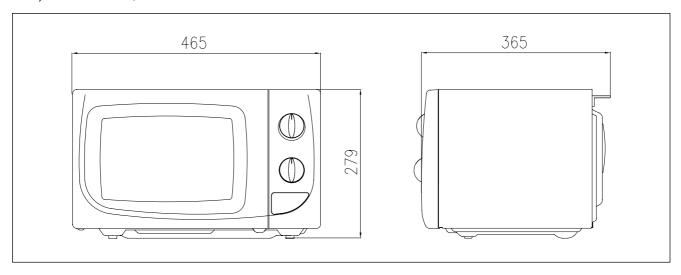
# **EXTERNAL VIEW**

#### 1. OUTER DIMENSION

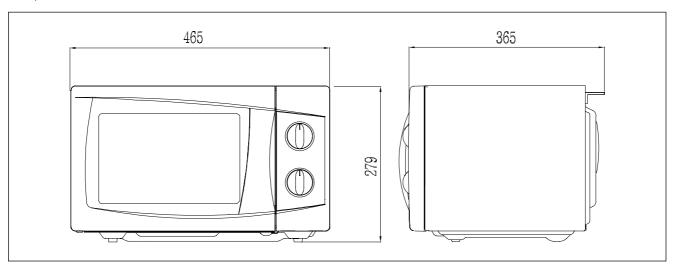
1) KOG-6C075S, KOG-6C075S12



### 2) KOG-6C175S, KOG-6C175S12

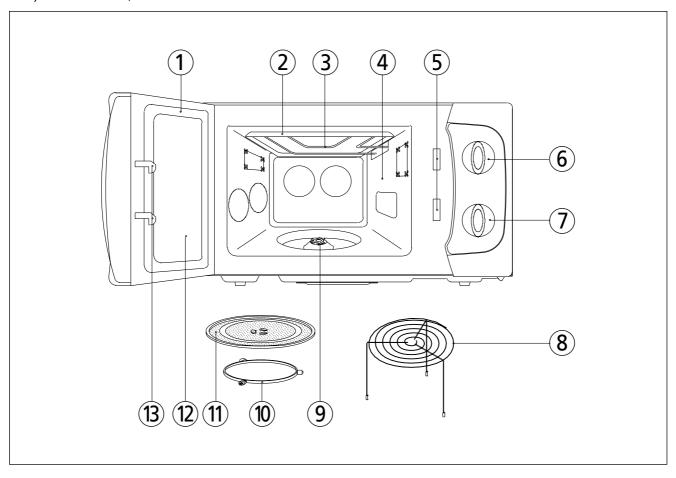


#### 3) KOG-6C275S, KOG-6C275S12



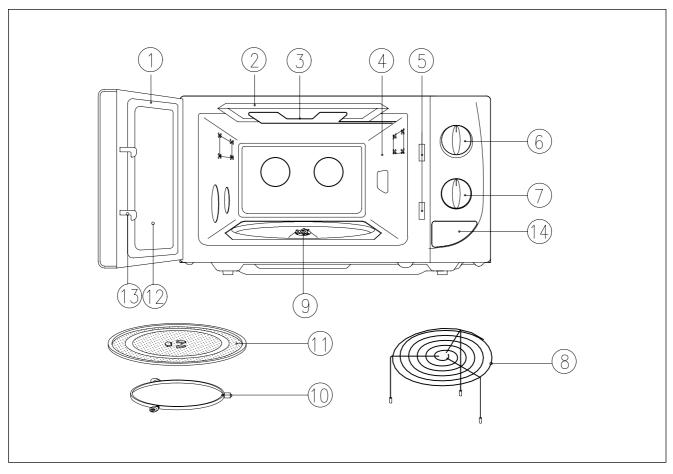
#### 2. FEATURE DIAGRAM

1) KOG-6C075S, KOG-6C075S12



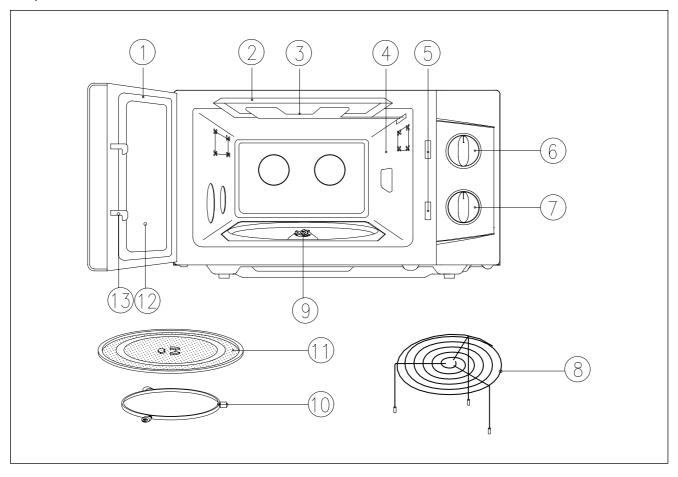
- 1 Door seal Door seal maintains the microwave energy within the oven cavity and prevents microwave leakage.
- (2) **Reflector** (Insulator Heater)
- **3 Heating Element**
- (4) Oven cavity
- (5) Safety interlock system
- (6) **Knob V.P.C** Used to select a microwave power level.
- (7) **Knob timer** Used in setting cooking time for all functions.
- (8) Metal Rack
- (9) Coupler This fits over the shaft in the center of the ovens cavity floor. This is to remain in the oven for all cooking.
- (10) Roller guide This must always be used for cooking together with the glass cooking tray.
- (1) Glass cooking tray Made of special heat resistant glass. Food in a proper receptacle is placed on this tray for cooking.
- (2) **Door viewing screen** Allows viewing of food. The screen is designed so that light can pass through, but not the microwave.
- (3) **Door hook** When the door is closed, it will automatically shut off. If the door is opened while the oven is operating, the magnetron will immediately stop operating.

#### 2) KOG-6C175S, KOG-6C175S12



- 1 Door seal Door seal maintains the microwave energy within the oven cavity and prevents microwave leakage.
- (2) Reflector (Insulator Heater)
- **3 Heating Element**
- (4) Oven cavity
- (5) Safety interlock system
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- (14) Door open button

#### 3) KOG-6C275S, KOG-6C275S12



- 1 Door seal Door seal maintains the microwave energy within the oven cavity and prevents microwave leakage.
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## INSTALLATION

#### 1. Steady, flat location.

This microwave oven should be set on a steady, flat surface.

#### 2. Leave space behind and side.

All air vents should be kept a clearance. If all vents are covered during operation, the oven may be overheated and, eventually, cause oven failure.

#### 3. Away from radio, and TV sets

Poor television reception and radio interference may result if the oven is located close to a TV, radio, antenna, or feeder and so on.

#### 4. Away from heating appliances and water taps

Keep the oven away from hot air, steam or splash when choosing a place to position it, or the insulation might be adversely affected and breakdowns occur.

#### 5. Power supply

· Check your local power source.

This microwave oven requires a current of approximately 6 amperes, 230 Volts, 50 Hz.

- · Power supply cord is about 0.8 meters long.
- The voltage used must be the same as specified on this oven. Using a higher voltage may result in a fire or other
  accident causing oven damage. Using low voltage will cause slow cooking. We are not responsible for damage
  resulting from use of this oven with a voltage of ampere fuse other than those specified.
- This appliance is supplied with cable of special type, which, if damaged, must be repaired with cable of same type.

Such a cable can be purchased from DAEWOO and must be installed by a Qualified Person.

#### 6. Examine the oven after unpacking for any damage such as:

A misaligned door, broken door or a dent in cavity.

If any of the above are visible, DO NOT INSTALL, and notify dealer immediately.

#### 7. Do not operate the oven if it is colder than room temperature

(This may occur during delivery in cold weather.) Allow the oven to become room temperature before operating.

#### **EARTHING INSTRUCTIONS**

This appliance must be earthed. In the event of an electrical short circuit, earthing reduces the risk of the electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a earthing plug. The plug must be plugged into an outlet that is properly installed and earthed.

#### WARNING

Improper use of the earthing plug can result in a risk of electric shock. Consult a qualified electrician or serviceman if the earthing instructions are not completely understood, or if doubt exists as to whether the appliance is properly earthed, and either: If it is necessary to use an extension cord, use only a 3-wire extension cord that has a 3-blade earthing plut, and a 3-slot receptacle that will accept the plug on the appliance. The marked rating of the extension cord should be equal to or greater than the electrical rating of the appliance, or Do not use an extension cord.

# **OPERATIONS AND FUNCTIONS**

This section includes useful information about oven operation.

- 1. Connect the mains lead to an electrical outlet.
- 2. After placing the food in a suitable container, open the oven door and put it on the glass tray.
  - The glass tray and roller guide must always be in place during cooking.
- 3. Shut the door. Make sure that it is firmly closed. When the oven door is opened, the light turns off. The oven door can be opened at any time during operation by pulling the door. The oven will automatically shut off.
- 4. How to set each function

#### To set MICROWAVE cooking

 Set the variable power selector to the desired power level.

SYMBOL	POWER LEVEL	OUTPUT POWER
-,♦♦	WARM	26%
**	DEFROST	41%
1	MEDILUM	73%
2	MED-HIGH	88%
3	HIGH	100%

#### To set GRILL Cooking

Set the POWER SELECTOR to the 

 (grill) position.

#### To set COMBI Cooking

- Set the POWER SELECTOR to the (combi) position.
- 5. Set the time control by turning the timer knob and then microwave cooking starts.
  - If turning the timer knob for less than 2 minutes, turn it past 2 minutes and then back to the desired time.
  - During the same time, the rotating angle of the timer knob of the period from 35 to 10 minute is smaller than that of the period from 10 to 0 minute owing to the dual speed of the timer motor.

- Microwave energy will be turned off auto matically when the timer reaches "OFF". Then food can be taken out of the oven.
  - To prevent the oven from operating with the door open, your microwave oven is fitted with safety door interlock switches.
  - If you wish to inspect the food while it is cooking simply open the door. The oven will automatically stop cooking. To continue cooking, you simply close the door.
  - If you wish to stop cooking, simply turn the timer knob to the "OFF" position. Cooking can be reset at any time during the cooking cycle by turning the timer control.
  - Do not let the timer continue to operate after removing or when there is no food.
- The safety lock prevents unwanted oven operation such as by small children.
   To set, pull down the side knob like the figure.
   To cancel, lift up the slide knob.

(KOG-6C075S, KOG-6C175S, KOG-6C275S ONLY)



- 8. NOTE: When using the GRILL or COMBI mode;
  - Do not open the door so often, the temperature inside the oven decrease and the cooking may not be completed in setting time.
  - Never touch the oven window and metal interior of the oven when taking food in and out, because the temperature inside the oven and door is very high.
  - When using these modes, be careful as the tray will be hot to touch, use oven gloves or pot holders while handling tray.

# DISASSEMBLY AND ASSEMBLY

#### Cautions to be observed when trouble shooting.

Unlike many other appliances, the microwave oven is high-voltage, high-current equipment.

It is completely safe during normal operation.

However, carelessness in servicing the oven can result in an electric shock or possible danger from a short circuit.

You are asked to observe the following precautions carefully.

- 1. Always remove the power plug from the outlet before servicing.
- 2. Use an insulated screwdriver and ware rubber gloves when servicing the high voltage side.
- 3. Discharge the high voltage capacitor before touching any oven components or wiring.
  - (1) Check the grounding.

Do not operate on a two-wire extension cord.

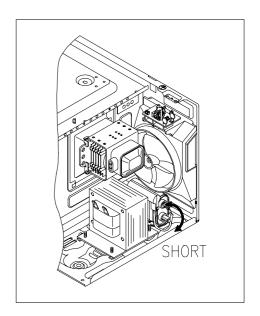
The microwave oven is designed to be used while earthed.

It is imperative, therefore, to make sure it is earthed properly before beginning repair work.

(2) Warning about the electric charge in the high voltage capacitor. For about 30 seconds after the operation stopped and electric charge remains in the high voltage capacitor.

When replacing or checking parts, short between oven chassis and the negative high terminal of the high voltage capacitor by using a properly insulated screwdriver to discharge.

- 4. When the 15A fuse is blown out due to the operation of the monitor switch; replace primary interlock switch, secondary interlock switch and interlock monitor switch.
- 5. After repair or replacement of parts, make sure that the screws are properly tightened, and all electrical connections are tightened.
- 6. Do not operate without cabinet.

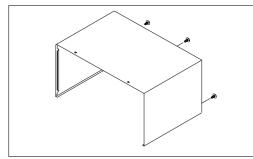


**CAUTION**: Service personnel should remove their watches whenever working close to or replacing the magnetron.

**WARNING**: When servicing the appliance, need a care of touching or replacing high potential parts because of electrical shock or exposing microwave. These parts are as follows - HV Transformer, Magnetron, HV Capacitor, HV Diode, HV fuse.

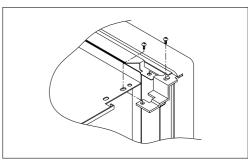
#### 1. To remove cabinet

- 1) Remove three screws on cabinet back.
- 2) Push the cabinet backward.



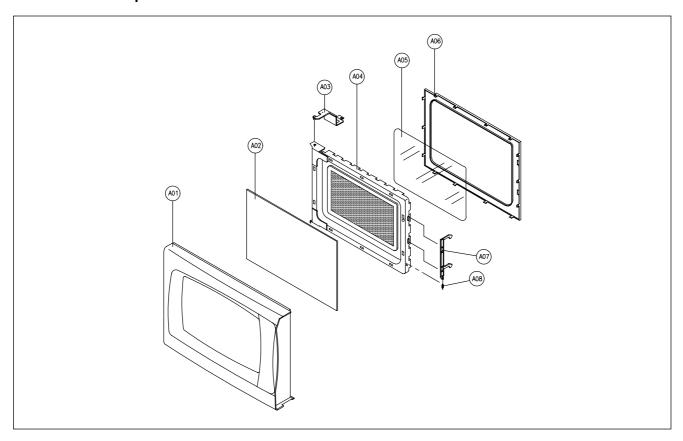
#### 2. To remove door assembly

- 1) Remove two screws which secure the stopper hinge top.
- 2) Remove the door assembly from top plate of cavity.
- 3) Reverse the above for reassembly.



**NOTE**: After replacing the door assembly, perform a check of correct alignment with the hinge and cavity front plate.

#### 3. To remove door parts.



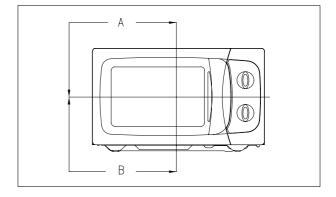
REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
	3512206420				KOG-6C075S(12)
A01	3512208500	FRAME DOOR	ABS SG-0760D SG-175	1	KOG-6C175S(12)
	3512208510				KOG-6C275S(12)
A02	3517007300	BARRIER-SCREEN *O	PET T0.125	1	
A03	3515204100	STOPPER HINGE *T AS	KOR-63150S	1	
A04	3511719600	DOOR WELD AS	KOR-6C0B5S	1	
A05	3517002800	BARRIER SCREEN *I	POLYESTER TO.1	1	
A06	3512300210	GASKET DOOR	PP	1	
A07	3513100730	HOOK	POM BLACK	1	
A08	3515101320	SPRING HOOK	HSW-3	1	

- (1) Remove the gasket door from door weld as.
- (2) Remove the door frame from door weld as.
- (3) Remove the stopper hinge top from door weld as.
- (4) Remove the spring and the hook.
- (5) Remove the barrier screen outer from door frame.
- (6) Reverse the above steps for reassembly.

#### 4. Method to reduce the gap between the door seal and the oven front surface.

- (1) To reduce gap located on part 'A' Loosen a screws on stopper hinge top, and then push the door to contact the door seal to oven front surface. Tighten two screws.
- (2) To reduce gap located on part 'B' Loosen two screws on stopper hinge under, and then push the door to contact the door seal to oven front surface.

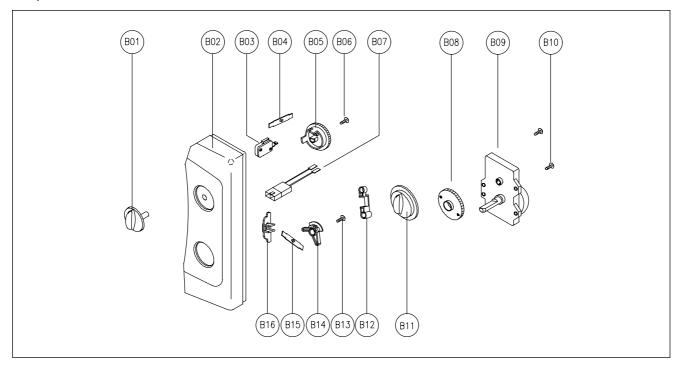
Tighten two screws.



**NOTE**: A small gap may be acceptable if the microwave leakage does not exceed 4mW/cm<sup>2</sup>.

#### 5. To remove control panel parts.

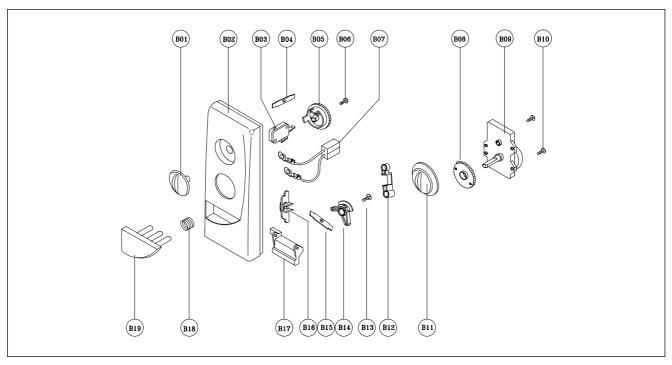
#### 1) KOG-6C075S, KOG-6C075S12



REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
B01	3513407210	KNOB VPC	HIPS	1	
B02	3516729010	CONTROL-PANEL	HIPS	1	
B03	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1	
B04	3515101600	SPRING FLAT	SUS 301 T0.5	1	
B05	3517400510	COUPLER VPC KNOB	POM	1	
B06	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1	
B07	3512766301	HARNESS TIMER	KOG-37150S	1	
B08	3517400400	COUPLER TIMER	POM	1	
B09	3518205500	TIMER	NT35MKD27E-P BROWNER ONLY	1	
B10	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2	
B11	3513407200	KNOB	HIPS	1	
B12	3511410200	COVER KNOB SLIDE	PP	1	KOG-6C075S
B13	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1	KOG-6C075S
B14	3513703000	LEVER STOPPER	POM	1	KOG-6C075S
B15	3515101600	SPRING FLAT	SUS 301 T0.5	1	KOG-6C075S
B16	3513407300	KNOB SLIDE	HIPS	1	KOG-6C075S

- 1) Remove the screw which secure the control panel, push two snap fits and draw forward the control panel assembly.
- 2) Remove two screws which secure the timer assembly.
- 3) Remove the timer assembly.
- 4) Pull out the timer knob from timer.
- 5) Pull out the timer coupler from timer.
- 6) Remove the screw which secure the V.P.C coupler.
- 7) Pull out the V.P.C coupler, V.P.C knob and flat spring from the control panel.
- 8) Pull out the cover knob slide.
- 9) Remove the screw which secure the lever stopper.
- 10) Pull out the lever stopper, knob slide and flat spring from the control panel.
- 11) Reverse the above steps for reassembly.

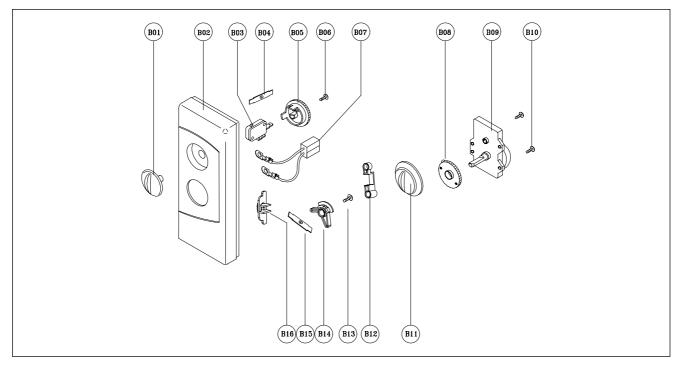
#### 2) KOG-6C175S, KOG-6C175S12



REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
B01	3513407230	KNOB VPC	HIPS	1	
B02	3516729030	CONTROL-PANEL	HIPS	1	
B03	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1	
B04	3515101600	SPRING FLAT	SUS 301 T0.5	1	
B05	3517400510	COUPLER VPC KNOB	POM	1	
B06	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1	
B07	3512766301	HARNESS TIMER	KOG-37150S	1	
B08	3517400400	COUPLER TIMER	POM	1	
B09	3518205500	TIMER	NT35MKD27E-P BROWNER ONLY	1	
B10	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2	
B11	3513407220	KNOB	HIPS	1	
B12	3511410200	COVER KNOB SLIDE	PP	1	KOG-6C175S
B13	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1	KOG-6C175S
B14	3513703000	LEVER STOPPER	POM	1	KOG-6C175S
B15	3515101600	SPRING FLAT	SUS 301 T0.5	1	KOG-6C175S
B16	3513407300	KNOB SLIDE	HIPS	1	KOG-6C175S
B17	3513702700	LEVER DOOR OPEN	PP	1	
B18	441G430171	SPRING BUTTON	SWP DIA. 0.7	1	
B19	3516911000	BUTTON DOOR OPEN	ABS SG-175, SG-0760D	1	

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- 8) Pull out the cover knob slide.
- 9) Remove the screw which secure the lever stopper.
- 10) Pull out the lever stopper, knob slide and flat spring from the control panel.
- 11) Reverse the above steps for reassembly.

#### 3) KOG-6C275S, KOG-6C275S12

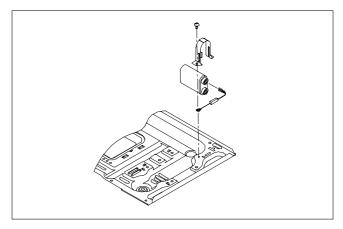


REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
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B02	3516730730	CONTROL-PANEL	HIPS	1	
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B04	3515101600	SPRING FLAT	SUS 301 T0.5	1	
B05	3517400510	COUPLER VPC KNOB	POM	1	
B06	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1	
B07	3512766301	HARNESS TIMER	KOG-37150S	1	
B08	3517400400	COUPLER TIMER	POM	1	
B09	3518205500	TIMER	NT35MKD27E-P BROWNER ONLY	1	
B10	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	2	
B11	3513407240	KNOB	HIPS	1	
B12	3511410200	COVER KNOB SLIDE	PP	1	KOG-6C275S
B13	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1	KOG-6C275S
B14	3513703000	LEVER STOPPER	POM	1	KOG-6C275S
B15	3515101600	SPRING FLAT	SUS 301 T0.5	1	KOG-6C275S
B16	3513407300	KNOB SLIDE	HIPS	1	KOG-6C275S

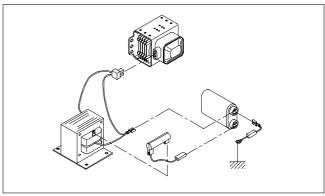
- 1) Remove the screw which secure the control panel, push two snap fits and draw forward the control panel assembly.
- 2) Remove two screws which secure the timer assembly.
- 3) Remove the timer assembly.
- 4) Pull out the timer knob from timer.
- 5) Pull out the timer coupler from timer.
- 6) Remove the screw which secure the V.P.C coupler.
- 7) Pull out the V.P.C coupler, V.P.C knob and flat spring from the control panel.
- 8) Pull out the cover knob slide.
- 9) Remove the screw which secure the lever stopper.
- 10) Pull out the lever stopper, knob slide and flat spring from the control panel.
- 11) Reverse the above steps for reassembly.

#### 6. To remove high voltage capacitor.

- 1) Remove a screw which secure the grounding ring terminal of the H.V. diode and the capacitor holder.
- 2) Remove the H.V. diode from the capacitor holder.
- 3) Reverse the above steps for reassembly.

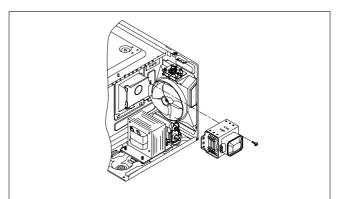


#### High voltage circuit wiring

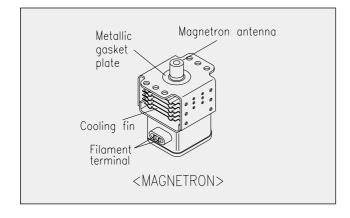


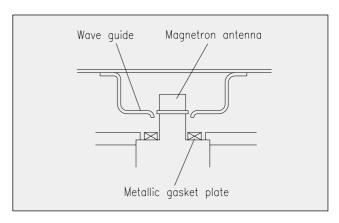
#### 7. To remove magnetron.

- 1) Remove a screw which secure the magnetron.
- 2) Remove the magnetron.
- 3) Reverse the above steps for reassembly.



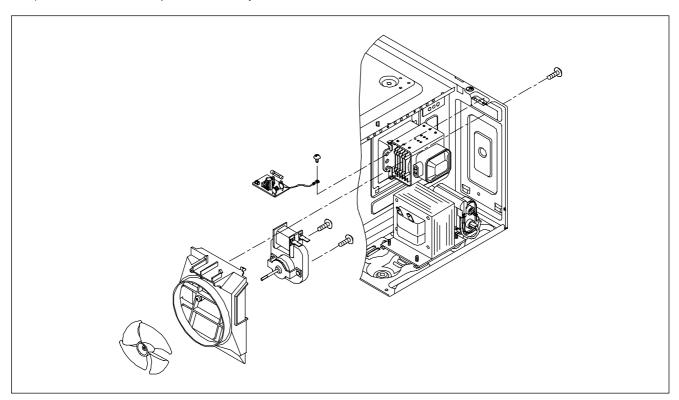
**NOTE**: Never install the magnetron without the metallic gasket plate which is packed with each magnetron to prevent microwave leakage. Whenever repair work is carried out on magnetron, check the microwave leakage. It shall not exceed 4mW/cm² for a fully assembled oven with door normally closed.





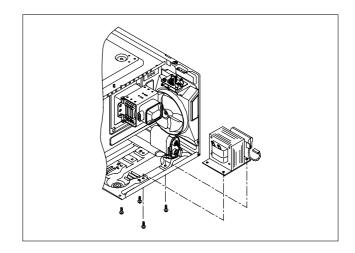
#### 8. To remove wind guide assembly.

- 1) Remove a screw for earthing.
- 2) Remove the noise filter from the wind guide.
- 3) Remove a screw which secure the wind guide assembly.
- 4) Draw forward the wind guide assembly.
- 5) Pull the fan from the motor shaft.
- 6) Remove two screws which secure the motor shaded pole.
- 7) Remove the motor shaded pole.
- 8) Reverse the above steps for reassembly.



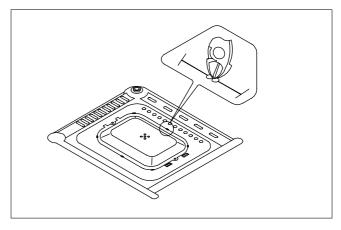
#### 9. To remove H.V.transformer.

- 1) Remove four screws holding the H.V.transformer.
- 2) Remove the H.V.transformer.
- 3) Reverse the above steps for reassembly.

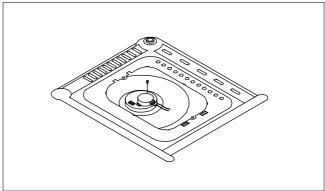


#### 10. To remove tray motor.

- 1) Remove the coupler in the cavity.
- 2) Turn the set upside down.
- 3) Cut the tray motor cover part from the base plate.
- 4) Remove the tray motor cover.

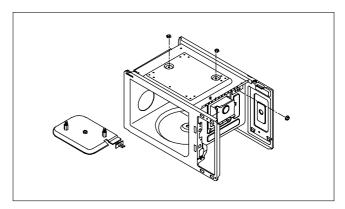


- 5) Remove a screw which secure the tray motor.
- 6) Remove the tray motor.
- 7) Reverse the above steps for reassembly except for securing the tray motor cover with screw.

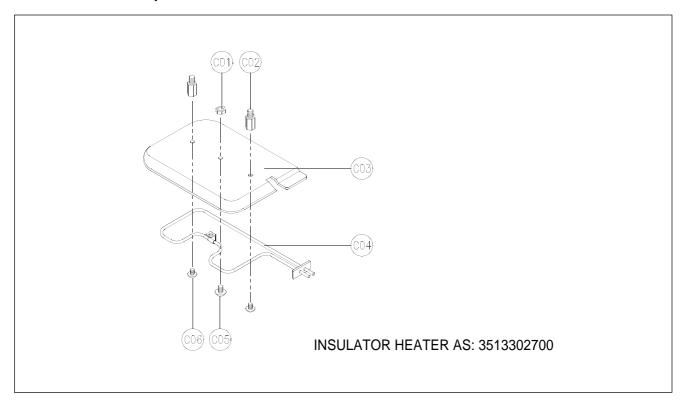


#### 11. To remove heater assembly.

- 1) Remove the three nuts.
- 2) Remove the insulator heater assembly.
- 3) Reverse the above steps for reassembly.



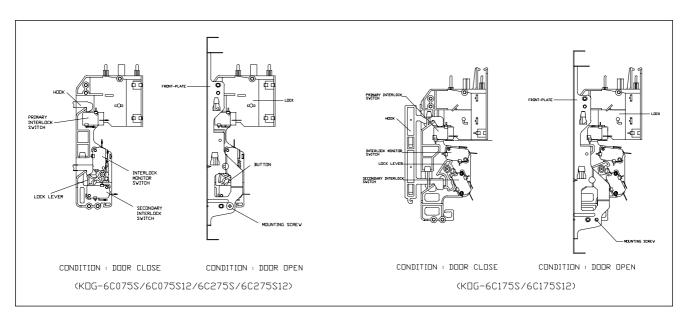
#### 12. To remove heater parts.



REF NO.	PART CODE	PART NAME	DESCRIPTION	Q'TY	REMARK
C01	7392500008	NUT HEX	6N-2-5 SUS	1	
C02	3515000600	SPACER INSULATOR *I	C3771BD	2	
C03	3513301100	INSULATOR HEATER	SPP T0.8	1	
C04	3512803400	HEATER	230V 1000W 1R67994001	1	
C05	7002500613	SCREW MACHINE	TRS 5X6 MFCR	1	
C06	7002400413	SCREW MACHINE	TRS 4X4 MFCR	2	

# INTERLOCK MECHANISM AND ADJUSTMENT

The door lock mechanism is a device which has been specially designed to completely eliminate microwave radiation when the door is opened during operation, and thus to perfectly prevent the danger resulting from the leakage of microwave.



#### (1) Primary interlock switch

When the door is closed, the hook locks the oven door. If the door is not closed properly, the oven will not operate. When the door is closed, the hook pushes the button of the microswitch.

Then the button of the primary interlock switch bring it under "ON" condition.

#### (2) Secondary interlock switch and interlock monitor switch

When the door is closed, the hook pushes the lock lever downward. The lock lever presses the button of the interlock monitor switch to bring it under "OFF" condition and presses the button of the secondary interlock switch to bring it under "ON" condition.

#### ADJUSTMENT:

Interlock monitor switch

When the door is closed, the interlock monitor switch should be changed(NO condition) before other switches are closed. When the door is opened, the interlock monitor switch should be changed(NC condition) after other switches are opened.

#### (3) Adjustment steps

- 1) Loosen the mounting screw.
- 2) Adjust interlock switch assembly position.
- 3) Make sure that lock lever moves smoothly after adjustment is completed.
- 4) Tighten completely the mounting screw.

#### NOTE:

Microwave emission test should be performed after adjusting interlock mechanism.

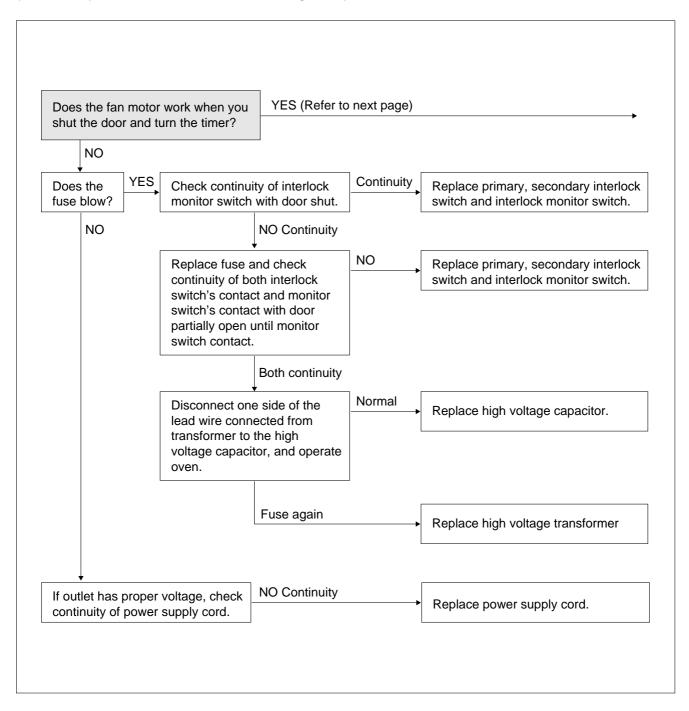
If the microwave smission exceed 4mW/cm<sup>2</sup>, readjust interlock mechanism.

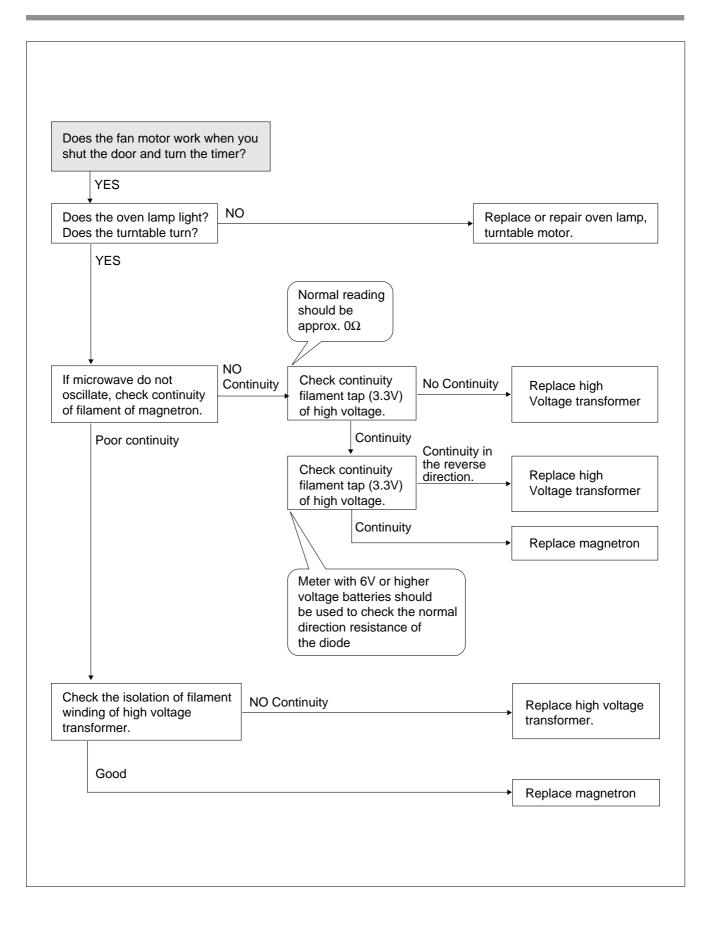
# TROUBLE SHOOTING GUIDE

#### 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) Door shut, timer set, but no cooking takes place.





## 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**

- Microwave power output measurement is made with the microwave oven supplied at rated voltage and operated at its maximum microwave power setting with a load of 1000±5cc of potable water.
- The water is contained in a cylindrical borosilicate glass vessel having a maximum material thickness of 3 mm and an outside diameter of approximately 190 mm.
- 3. The oven and the empty vessel are at ambient temperature prior to the start of the test.

The initial temperature of the water is 10±2°C (50±3.6°F)

It is measured immediately before the water is added to the vessel.

After addition of the water to the vessel, the load is immediately placed on the center of the shelf, which is in the lowest normal position.

- 4. Microwave power is switched on.
- Heating time should be exactly A seconds. (Refer to table as following)
   Heating time is measured while the microwave generator is operating at full power.

The filament heat-up time for magnetron is not included.

- 6. The initial and final temperature of water is selected so that the maximum difference between the ambient and final water temperature is 5K.
- 7. The microwave power output P in watts is calculated from the following formula:

P=4187 X △T/t

- △T is difference between initial and ending temperature.
- It is the heating time.

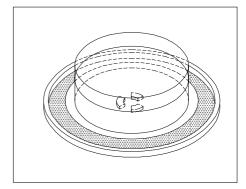
The power measured should be B (Refer to SPECIFICATIONS)W±10.0%.

#### **CAUTION:**

- 1. Water load should be measured exactly to 1 liters.
- 2. Input power voltage should be exactly specified voltage(Refer to SPECIFICATIONS).
- 3. Ambient temperature should be 20±2°C(68±3.6°F)

#### Heating time for power output:

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

#### **WARNING:**

Make sure to check the microwave leakage before and after repair of adjustment.

Always start measuring of an unknown field to assure safety for operating personnel from microwave energy.

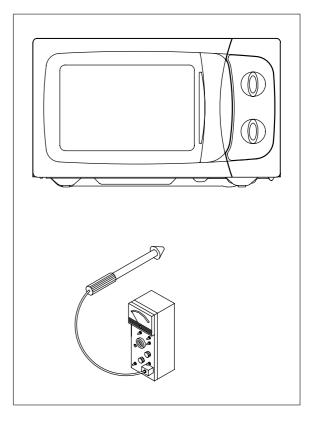
Do not place your hands into any suspected microwave radiation field unless the safe density level is known.

Care should be taken not to place the eyes in direct line with the source of microwave energy.

Slowly approach the unit under test until the radiometer reads an appreciable microwave leakage from the unit under the test.

#### **PROCEDURES**

- 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 600cc glass beaker with an inside diameter of approx. 95mm(3.5in.).
- 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.
  - 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/cm².
  - 2) When measuring the leakage, always use the 5cm(2in.) 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.
  - 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.



#### 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:

#### 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 is 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 and open filament or a shorted magnetron.

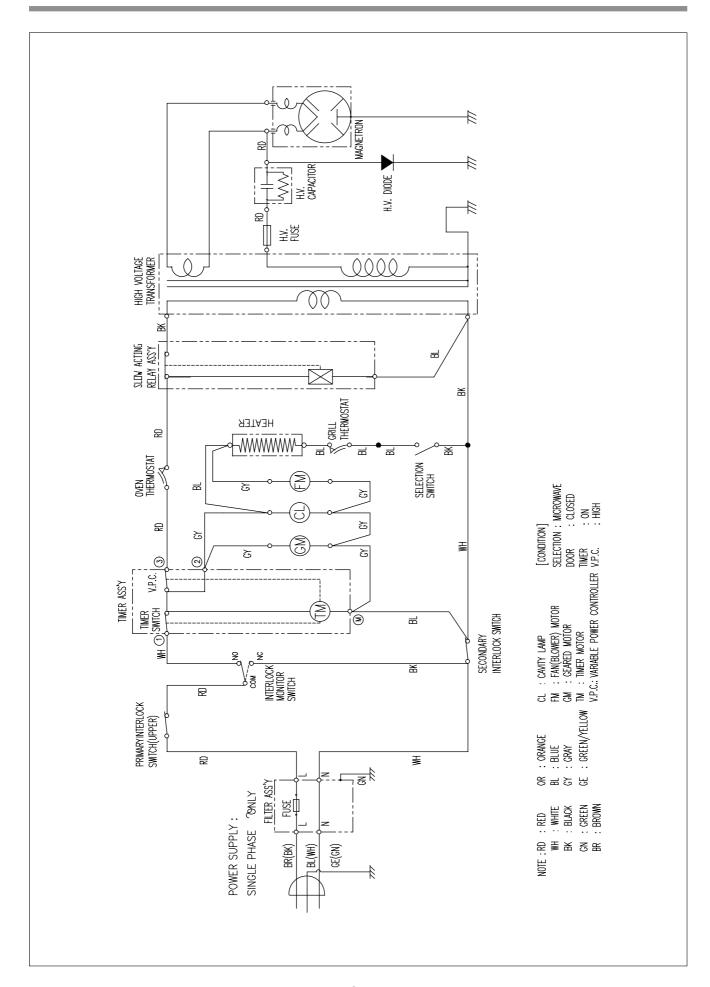
To diagnose for an open filament or a shorted magnetron.

- (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.



# EXPLODED VIEW AND PARTS LIST

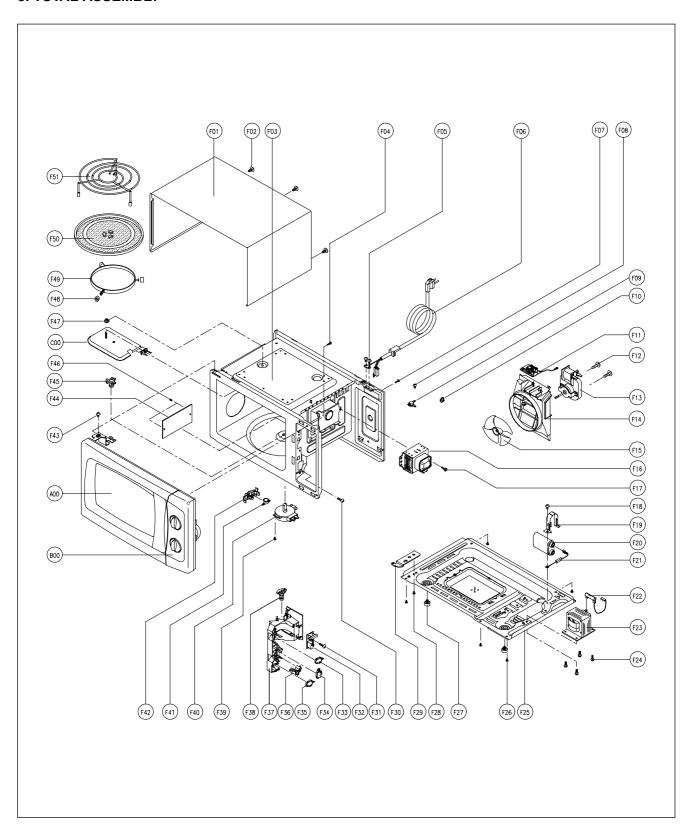
#### 1. DOOR ASSEMBLY

Refer to Disassembly and assembly.

#### 2. CONTROL PANEL ASSEMBLY

Refer to Disassembly and assembly.

#### 3. TOTAL ASSEMBLY



✓ Caution: In this Service 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).

NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
A00	3511723700	DOOR AS	KOG-6C075S	1
	3511723710		KOG-6C175S	1
	3511723720	_	KOG-6C275S	1
B00	3516730600	CONTROL-PANEL AS	KOG-6C075S	1
	3516730610		KOG-6C075S12	1
	3516730620		KOG-6C175S	1
	3516730640		KOG-6C175S12	1
	3516730630		KOG-6C275S	1
	3516730650		KOG-6C275S12	1
C00	3513302700	INSULATOR HEATER AS	KOG-37150S	1
F01	3510805300	CABINET AS	KOR-61150S	1
F02	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	3
F03	3516109510	CAVITY AS	KOG-37150S	1
	3516109610	CAVITY JOINT AS	KOG-37150S	1
F04	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F05	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	2
F06	35113A5QJ5	CORD POWER AS	3X1.5 80X80 120-RTML 1.4M	1
F07	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F08	7121300611	SCREW TAPPING	T2S PAN 3X6 MFZN	1
F09	3518904500	THERMOSTAT	OFF:100 ON:90 HN #187	1
F10	7S627W50X1	NUT HEX	NUT FLANGE M5X0.8P MFZN	1
F11	3518606100	NOISE-FILTER	DWLF-M13	1
F12	7121402511	SCREW TAPPING	T2S PAN 4X25 MFZN	2
F13	3963512310	MOTOR SHADED POLE	230V 20W MW10CA-M02	1
F14	3512517000	GUIDE WIND	PP	1
F15	3511800300	FAN	PP+30%GLASS	1
F16	3518003700	MAGNETRON	2M218JFL	1
F17	3516004000	SPECIAL SCREW	T2 BOLT FLANGE 5X12 DACRO	1
F18	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
F19	3513003200	HOLDER HV CAPACITOR	SECC T0.6	1
F20	3518302200	CAPACITOR HV	2100VAC 0.98UF #187	1
F21	3518400400	DIODE HV	HVR-1X-3AB 12KV #187	1
F22	3518701100	FUSE HV	5KV 0.55A HV-41A55-02	1
F23	3518113790	TRANS HV	DW-R80S0-63TA	1
F24	3516003700	SPECIAL SCREW	TT3 HEX 4X8 FLG MFZN	4
F25	3510311700	BASE	SBHG T0.7	1
F26	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	5
F27	3512100900	FOOT	PP DASF-130	2
F28	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
F29	3515201101	STOPPER HINGE *U	SCP-1 T2.5	1

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NO	PART CODE	PART NAME	DESCRIPTION	Q'TY
F30	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F31	7122401211	SCREW TAPPING	T2S TRS 4X12 MFZN	1
F32	3518570400	SWITCH S/A RELAY	DWSR-1	1
F33	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
F34	4415A66910	SW MICRO	VP-531A-OF/SZM-V16-FA-61	1
F35	4415A17352	SW MICRO	VP-533A-OF SPNO #187 200G	1
F36	3513702610	LEVER LOCK	POM	1
F37	3513811710	LOCK	POM BLACK	1
F38	3513601600	LAMP	BL 240V 25W T25 C7A H187	1
F39	7112401011	SCREW TAPPING	T1 TRS 4*10 MFZN	1
F40	3966030900	MOTOR SYNCRO	220-240V 50HZ TYJ50-8A7	1
F41	3518905300	THERMOSTAT	OFF:75 ON:65 H #187 NB	1
F42	3513003400	HOLDER THERMOSTAT	PP(NATURAL)	1
F43	7272400811	SCREW TAPTITE	TT3 TRS 4X8 MFZN	1
F44	3511405100	COVER WAVE GUIDE	MICA T0.35	1
F45	3517402130	COUPLER	XAREC	1
F46	4078502031	BUTTON LOCKING	PP HONAM A353	2
F47	7S627W50X1	NUT HEX	NUT FLANGE M5X0.8P MFZN	1
F48	3514700900	ROLLER	TEFLON	3
F49	3512509210	GUIDE ROLLER	PP 5113MF6 A 353B	1
F50	3517203610	TRAY	BORO-SI GLASS(NEG)	1
F51	3517204410	TRAY RACK AS	KOG-361Q0S 99MM	1



#### DAEWOO ELECTRONICS CORP.

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