

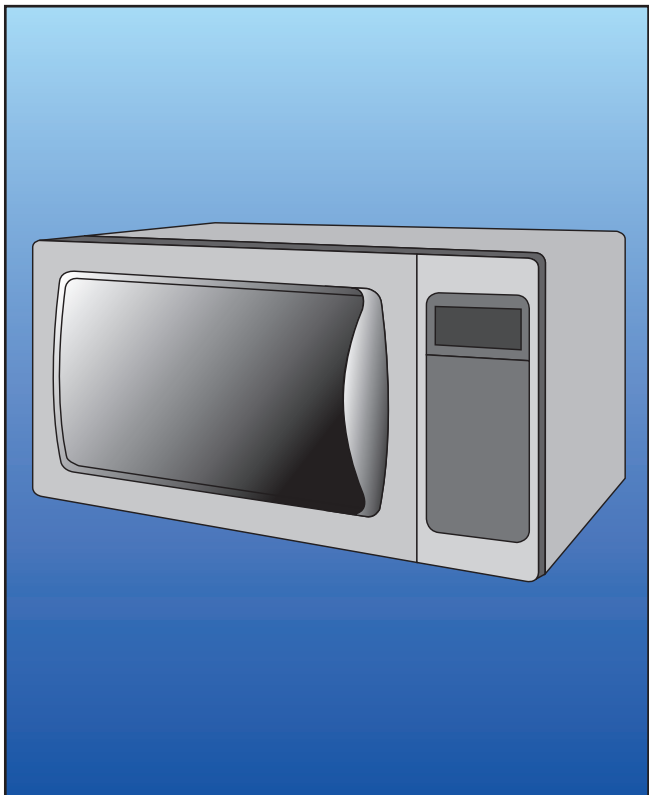


MICROWAVE OVEN

BASIC: GR87
MODEL: G2739NR
MODEL CODE: G2739NR-D/BWT
G2739NR-SD/BWT

SERVICE Manual

MICROWAVE OVEN



FEATURES

1. Competitive cost .
2. Great cooking performance.

Refer to the service manual in <http://itself.sec.samsung.co.kr> for more information.



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

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.

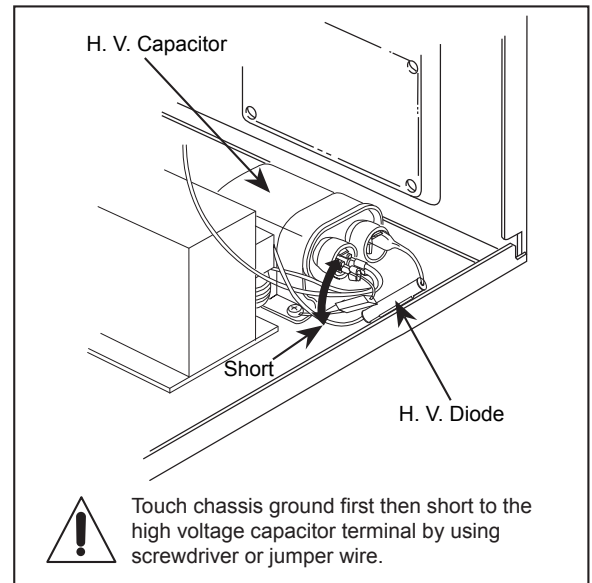


Fig. 1-1 Discharging High Voltage Capacitor

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

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

PRECAUTION

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

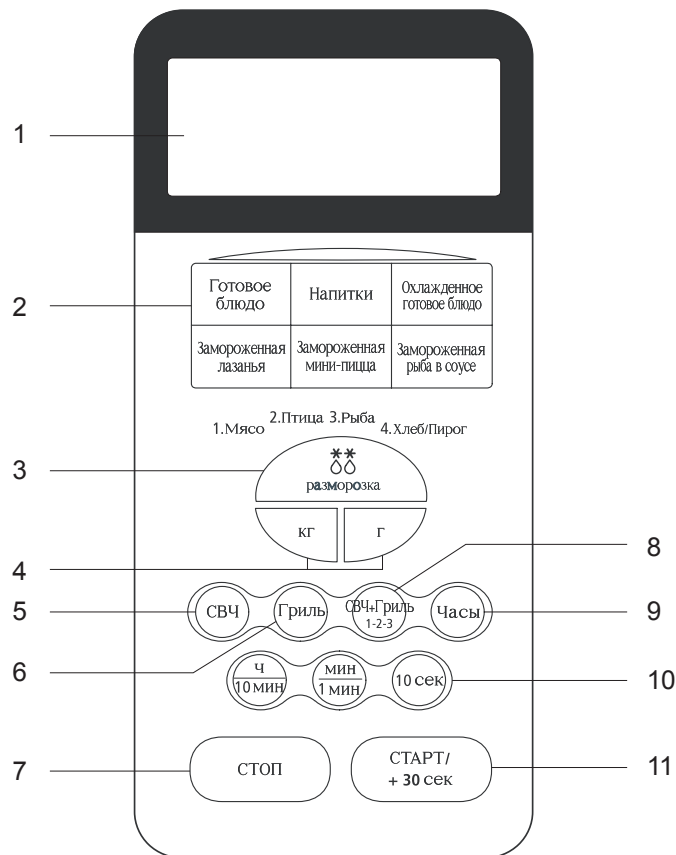
2. Specifications

2-1 Table of Specifications

| ITEMS | New Model | Baselc Model |
|----------------------|----------------------|-----------------------|
| | G2739NR | GR87 |
| Capacity | 0.7 Cu. ft (20Liter) | 0.7 Cu. ft (20Liter) |
| Cavity Dim. (WxHxD) | 330 x 187 x 320 | 329 x 199 x 329 |
| Outside Dim. (WxHxD) | 489 x 275 x 396 | 421.5 x 319.5 x 436.7 |
| M/W Distribution | Turntable | Turntable |
| Door open Method | Handle | Handle |
| Oven Tray | Glass, 288 mm | Glass, 318 mm |
| Oven Material | Epoxy | Epoxy |
| Control Method | Membrane | Tact |
| Display | LCD | LED-Bar |
| Power Levels | 4 levels | 6 levels |
| Weight (Net) | 15 kg | 14.5 kg |
| Weight (Gross) | 16.5 kg | 16 kg |
| Loading Q'ty (40ft) | 755 (Sets) / 40ft | 576(Sets) / 40ft |
| Power Source | 230V / 50Hz | 230V / 50Hz |
| Input Power | 1100 W | 1200 W |
| Output Power | 750 W | 800 W |
| Heater Power | 950 W | 800 W |
| Cooking Time | 99min 90sec | 99min |
| Auto Reheat & Cook | 6 | 6 |
| Auto Defrost | 4 | 4 |
| Baby Bottle | No | Yes |

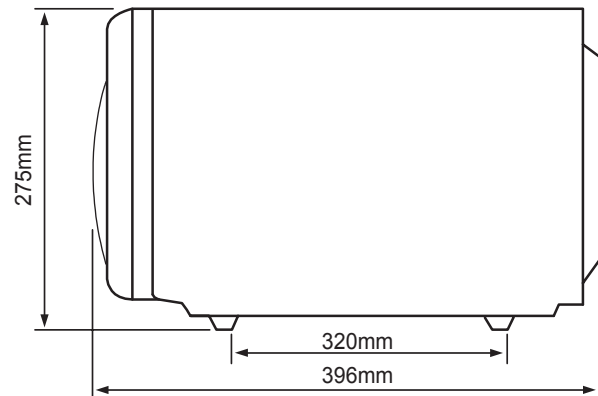
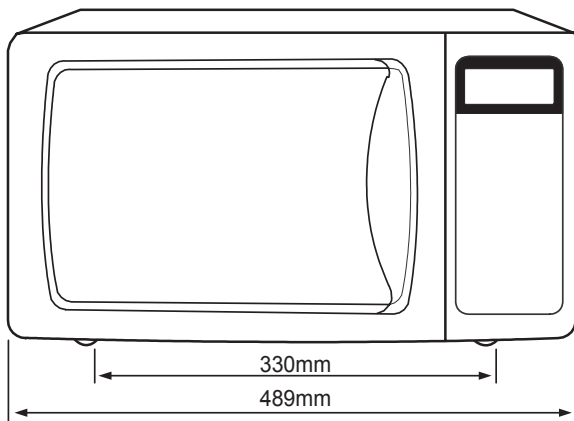
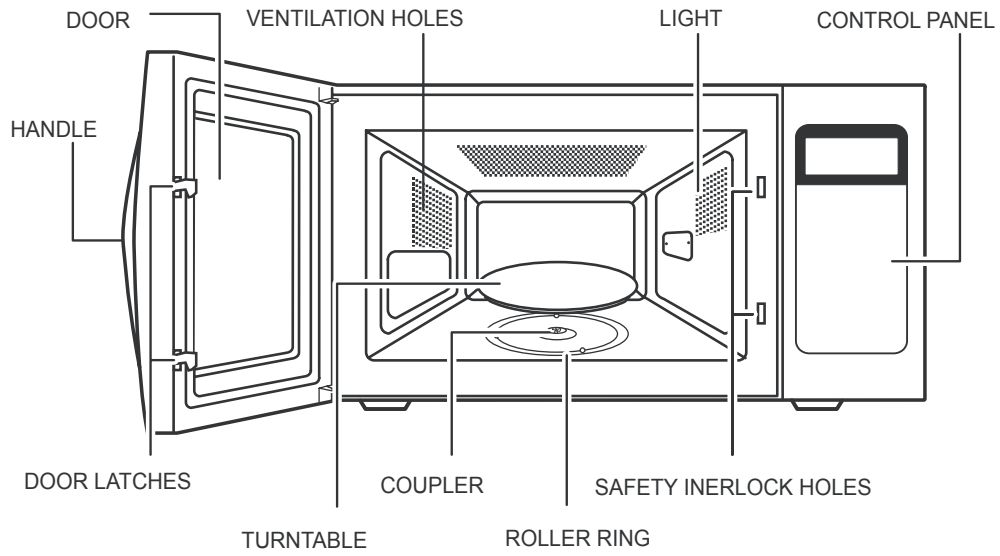
3. Operating Instructions

3-1 Control Panel

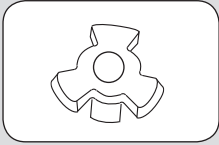
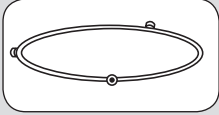
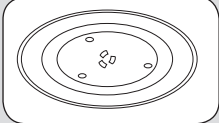
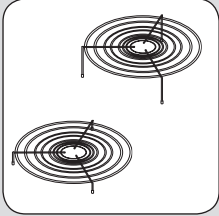


1. DISPLAY
2. INSTANT REHEAT/COOK SELECTION
3. AUTO DEFROST FEATURE SELECTION
4. WEIGHT SELECTION
5. MICROWAVE MODE SELECTION
6. GRILL MODE SELECTION
7. STOP/CANCEL BUTTON
8. COMBI MODE SELECTION
9. CLOCK SETTING
10. TIME SETTING
11. START BUTTON

3-2 Features & External Views



3-3 Accessory

| Item | Description | Code No. | Q'ty |
|--|--------------------------------------|-------------|------|
|  | Coupler | DE87-00187A | 1 |
|  | Roller ring | DE92-90189T | 1 |
|  | Turntable | DE74-20015G | 1 |
|  | Metal racks (High rack, Low rack) | DE97-00216E | 1 |

4. Disassembly and Reassembly

4-1 Replacement 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).

1. Disconnect all lead wires from the magnetron and lamp.
2. Remove a screw securing air cover.
3. Remove the air cover.
4. Remove screws securing the magnetron to the wave guide.
5. Take out the magnetron very carefully.
6. Remove tow from the back panel of fan motor assembly.
7. Take out the fan motor assembly.
8. Remove the oven lamp by rotating to pull out from hole of air cover.

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

1. Discharge the high voltage capacitor.
2. Disconnect all the leads.
3. Remove the mounting bolts.
4. Reconnect the leads correctly and firmly.

PRECAUTION

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

PRECAUTION

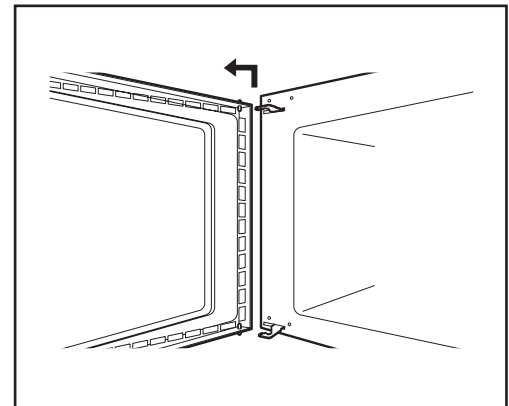
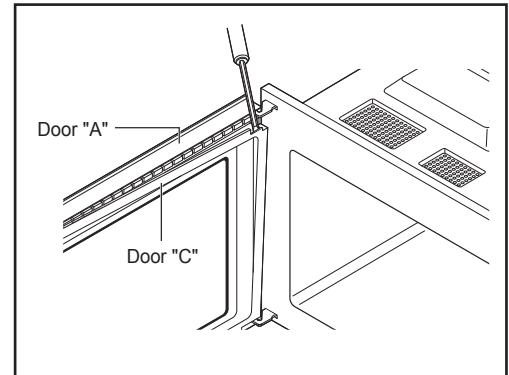
There exists HIGH VOLTAGE ELECTRICITY with high current capabilities in the circuits of the HIGHVOLTAGE TRANSFORMER secondary and filament terminals. It is extremely dangerous to work on or near these circuits with the oven energized.

DO NOT measure the voltage in the high voltage circuit including filament voltage of magnetron.

4-3 Replacement of Door Assembly

4-3-1 Removal of Door "C"

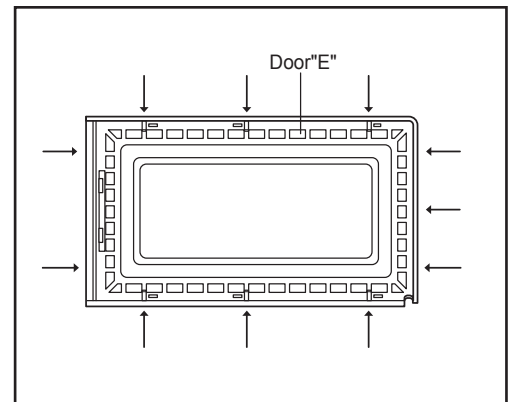
Insert flat screwdriver into the gap between Door "A" and Door "C" to remove Door "C". Be careful when handling Door "C" because it is fragile. Then remove the door assembly.



4-3-2 Removal of Door "E"

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.

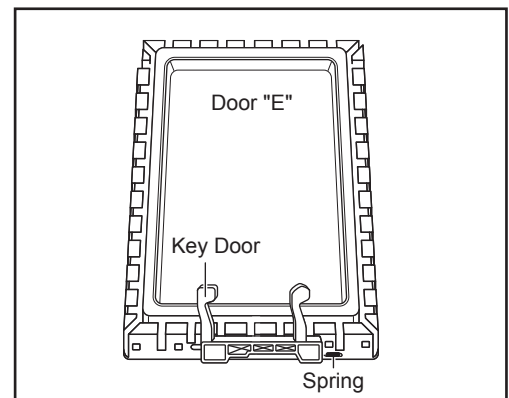
- Insertion depth of the thin metal plate should be 0.5mm or less.



4-3-3 Removal of Key Door & Spring

Remove pin hinge from Door "E"

Detach spring from Door "E" and key door.



4-3 Replacement of Door Assembly (Continued)

4-3-4 Reassembly Test

After replacement of the defective component parts of the door, reassemble it and follow the instructions below for proper installation and adjustment so as to prevent an excessive microwave leakage.

1. When mounting the door to the oven, be sure to adjust the door parallel to the bottom line of the oven face plate by moving the upper hinge and lower hinge in the direction necessary for proper alignment.
2. Adjust so that the door has no play between the inner door surface and oven front surface. If the door assembly is not mounted properly, microwave energy may leak from the space between the door and oven.
3. Do the microwave leakage test.

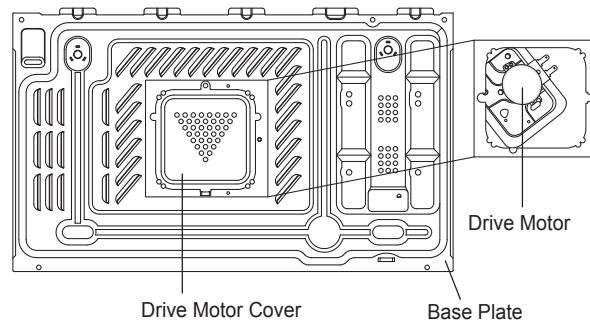
4-4 Replacement of Fuse

1. Disconnect the oven from the power source.
2. When 12A fuse blows out by the operation of interlock monitor switch failure, replace the primary interlock switch, door sensing switch, monitor switch and power relay.
3. When the above three switches operate properly, check if any other part such as the control circuit board, blower motor or high voltage transformer is defective.

4-5 Replacement of Drive Motor

1. Take out the glass tray, guide roller from oven cavity, disconnect power.
2. Remove turn table motor cover from case bottom.
CAUTION : Remove sharp edge after cover removal.
3. Disconnect leads from motor.
4. Remove the screws securing motor to bottom of oven cavity and lift out the motor.
5. When replacing the motor, be sure to remount it in the correct position.
NOTE : The shaft of motor should fit tip coupler.
6. Screw the motor to bottom of oven cavity.
7. Connect leads to the drive motor.
8. Screw the drive motor cover to the base plate with a screw driver.

NOTE : Bring the spare screw from service center.

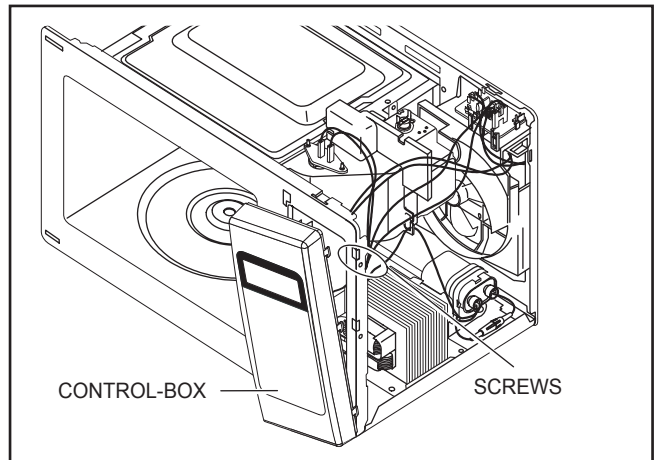


COVER FIXING SCREW : MATCHINE SCREW(6006-001170)

4-6 Replacement of Control Circuit Board

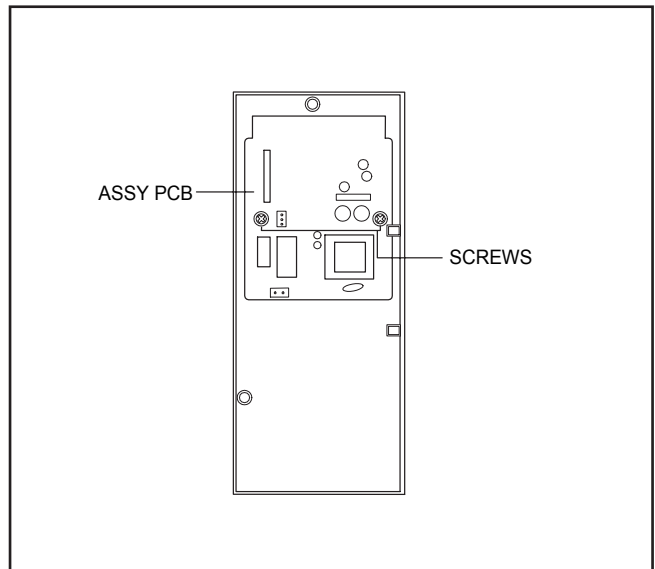
4-6-1 Removal of Control Box

1. Be sure to ground any static electric charge in your body and never touch the control circuit.
2. Disconnect the connectors from the control circuit board.
3. Remove screws securing the control box assembly.
4. Remove the screw securing the ground tail of the keyboard.



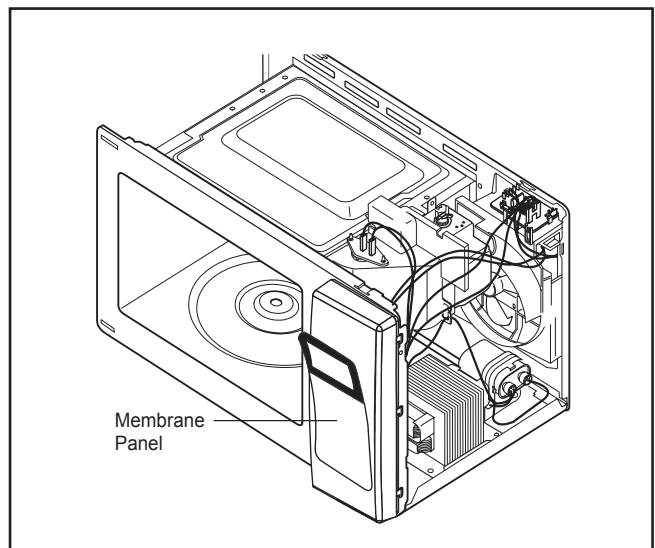
4-6-2 Removal of P.C.B Assembly

1. Pull the lever end of the plastic fastener and remove the Flexible Printed Circuit(FPC) of membrane panel.
2. Remove screws securing the control circuit board.
3. Lift up the control circuit board from the Ass'y control box.
4. When reconnecting the FPC connector, make sure that the holes on the connector are properly engaged with the hooks on the Plastic Fastener.



4-6-3 Removal of Window Display & Membrane Panel

1. Window display should not be disassembled as its mounting tabs will be broken. If repair work is difficult, replace with Ass'y control panel.
2. The membrane key board is attached to the escutcheon base with double faced adhesive tape. Therefore, applying hot air such as using of hair dryer is recommended for smoother removal.
3. When installing new membrane key board, make sure that the surface of escutcheon base is cleaned sufficiently so that any problems (shorted contacts or uneven surface) can be avoided.



5. Alignment and Adjustments

PRECAUTION

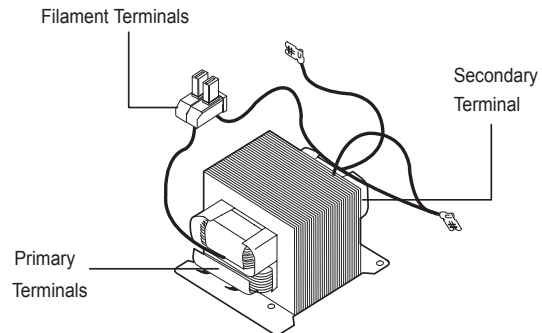
1. High voltage is present at the high voltage terminals during any cook cycle.
2. It is neither necessary nor advisable to attempt measurement of the high voltage.
3. Before touching any oven components or wiring, always unplug the oven from its power source and discharge the high voltage capacitor.

5-1 High Voltage Transformer

1. Remove connectors from the transformer terminals and check continuity.
2. Normal resistance readings are as follows:

| | |
|-----------|------------------------|
| Secondary | Approx. 165.0 Ω |
| Filament | Approx. 0 Ω |
| Primary | Approx. 2.4 Ω |

(Room temperature = 20°C)



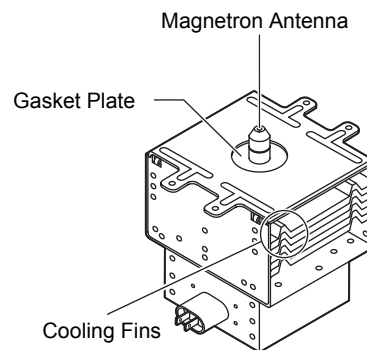
5-2 Low Voltage Transformer

1. The low voltage transformer is located on the control circuit board.
2. Remove the low voltage transformer from the PCB Ass'y and check continuity.
3. Normal resistor reading is shown in the table.

| Terminals | Resistance |
|-----------------|---------------|
| 1~2 (Input) | 1250 Ω |
| 3~4 (Output7V) | 17.4 Ω |
| 5~6 (Output17V) | 3.53 Ω |

5-3 Magnetron

1. Continuity checks can indicate only an open filament or a shorted magnetron. To diagnose an open filament or shorted magnetron.
2. Isolate the magnetron from the circuit by disconnecting its leads.
3. A continuity check across the magnetron filament terminals should indicate one ohm or less.
4. A continuity check between each filament terminal and magnetron case should read open.



5-4 High Voltage Capacitor

1. Check continuity of the capacitor with the meter set at the highest resistance scale.
2. Once the capacitor is charged, a normal capacitor shows continuity for a short time, and then indicates 9MΩ.
3. A shorted capacitor will show continuous continuity.
4. An open capacitor will show constant 9MΩ.
5. Resistance between each terminal and chassis should read infinite.

5-5 High Voltage Diode

1. Isolate the diode from the circuit by disconnecting its leads.
2. With the ohm-meter set at the highest resistance scale, measure across the diode terminals. Reverse the meter leads and read the resistance. A meter with 6V, 9V or higher voltage batteries should be used to check the front-to back resistance of the diode (otherwise an infinite resistance may be read in both directions). The resistance of a normal diode will be infinite in one direction and several hundred KΩ in the other direction.

5-6 Main Relay and Power Control RelayA

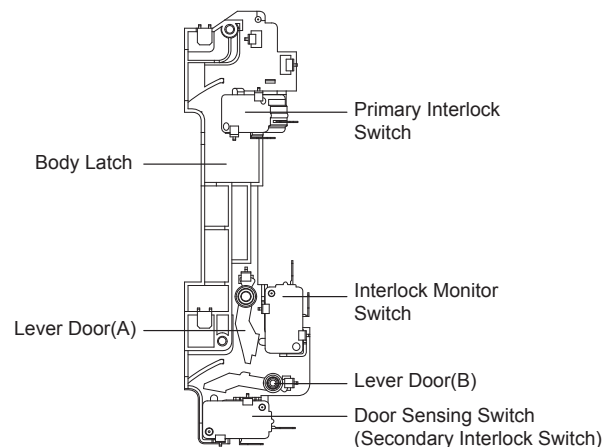
1. The relays are located on the PCB Ass'y. Isolate them from the main circuit by disconnecting the leads.
2. Operate the microwave oven with a water load in the oven. Set the power level set to high.
3. Check continuity between terminals of the relays after the start pad is pressed.

5-7 Adjustment of Primary Switch, Door Sensing Switch and Monitor Switch

PRECAUTION

For continued protection against radiation hazard, replace parts in accordance with the wiring diagram and be sure to use the correct part number for the following switches: Primary and secondary interlock switches, and the interlock monitor switch (replace all together). Then follow the adjustment procedures below. After repair and adjustment, be sure to check the continuity of all interlock switches and the interlock monitor switch.

1. When mounting Primary switch and Interlock Monitor switch to Latch Body, consult the figure.
2. No specific adjustment during installation of Primary switch and Monitor switch to the latch body is necessary.
3. When mounting the Latch Body to the oven assembly, adjust the Latch Body by moving it so that the oven door will not have any play in it. Check for play in the door by pulling the door assembly. Make sure that the latch keys move smoothly after adjustment is completed. Completely tighten the screws holding the Latch Body to the oven assembly.
4. Reconnect to Monitor switch and check the continuity of the monitor circuit and all latch switches again by following the components test procedures.
5. Confirm that the gap between the switch housing and the switch actuator is no more than 0.5mm when door is closed.
6. Interlock Switch Replacement - When replacing faulty switches, be sure switch mounting tabs are not bent, broken or otherwise deficient in their ability to secure the switches in place.



| | Door Open | Door Closed |
|---|-----------|-------------|
| Primary Interlock switch | ∞ | 0 |
| Monitor switch(COM-NC) | 0 | ∞ |
| Monitor switch(COM-NO) | ∞ | 0 |
| Door Sensing S/W (Secondary Interlock S/W) | ∞ | 0 |

5-8 Output Power of Magnetron

CAUTION
MICROWAVE RADIATION

PERSONNEL SHOULD NOT ALLOW EXPOSURE TO MICROWAVE RADIATION FROM MICROWAVE GENERATOR OR OTHER PARTS CONDUCTING MICROWAVE ENERGY.

The output power of the magnetron can be measured by performing a water temperature rise test.

Equipment needed :

- Two 1-liter cylindrical borosilicate glass vessel (Outside diameter 190 mm)
- One glass thermometer with mercury column

NOTE: Check line voltage under load. Low voltage will lower the magnetron output. Make all temperature and time tests with accurate equipment.

1. Fill the one liter glass vessel with water.
2. Stir water in glass vessel with thermometer, and record glass vessel's temperature ("T1", 10±1°C).
3. After moving the water into another glass vessel, place it in the center of the cooking tray. Set the oven to high power and operate for 58 seconds exactly. (3 seconds included as a holding time of magnetron oscillation:)
4. When heating is finished, stir the water again with the thermometer and measure the temperature ("T2").
5. Subtract T1 from T2. This will give you the water temperature rise. (ΔT)
6. The output power is obtained by the following formula;

$$\text{Output Power} = \frac{4.187 \times 1000 \times \Delta T + 0.55 \times \text{Mc} \times (\text{T}_2 - \text{T}_1)}{55}$$

58 : Heating Time (sec)
 55 : Counting Time (sec)
 4.187 : Coefficient for Water
 1000 : Water (cc)
 ΔT : Temperature Rise (T2-T1)
 To : Room Temperature
 Mc : Cylindrical borosilicate glass weight

7. Normal temperature rise for this model is 9°C to 11°C at 'HIGH'.

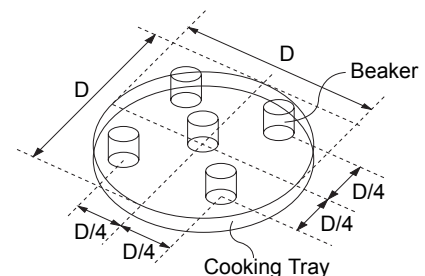
NOTE 1: Variations or errors in the test procedure will cause a variance in the temperature rise. Additional power test should be made if temperature rise is marginal.

NOTE 2: Output power in watts is computed by multiplying the temperature rise (step 5) by a factor of 91 times the of centigrade temperature.

5-9 Microwave Heat Distribution - Heat Evenness

The microwave heat distribution can be checked indirectly by measuring the water temperature rise at certain positions in the oven:

1. Prepare five beakers made of 'Pyrex', having 100 milliliters capacity each.
2. Measure exactly 100 milliliters off water load with a measuring cylinder, and pour into each beaker.
3. Measure the temperature of each water load. (Readings shall be taken to the first place of decimals.)
4. Put each beaker in place on the cooking tray as illustrated in figure below. Start heating.
5. After heating for 2 minutes, measure the water temperature in each beaker.
6. Microwave heat distribution rate can be calculated as follows:

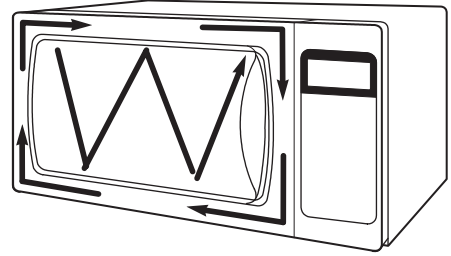


$$\text{Heat Distribution} = \frac{\text{Minimum Temperature Rise}}{\text{Maximum Temperature Rise}} \times 100(\%)$$

The result should exceed 65%

5-10 Procedure for Measurement of Microwave Energy Leakage

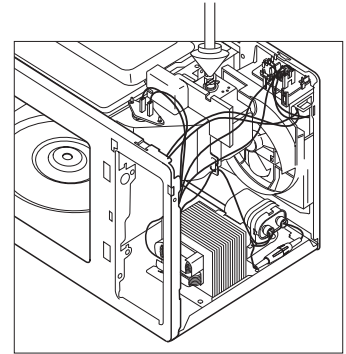
1. Pour 275 ± 15 cc of $20 \pm 5^\circ\text{C}$ ($68 \pm 9^\circ\text{F}$) water in a beaker which is graduated to 600cc, and place the beaker in the center of the oven.
2. Start to operate the oven and measure the leakage by using a microwave energy survey meter.
3. Set survey meter with dual ranges to 2,450MHz.
4. When measuring the leakage, always use the 2 inch spacer cone with the probe. Hold the probe perpendicular to the cabinet door. Place the spacer cone of the probe on the door and/or cabinet door seam and move along the seam, the door viewing window and the exhaust openings moving the probe in a clockwise direction at a rate of 1 inch/sec. If the leakage testing of the cabinet door seam is taken near a corner of the door, keep the probe perpendicular to the areas making sure that the probe end at the base of the cone does not get closer than 5cm to any metal. If it gets closer than 5cm, erroneous readings may result.
5. Measured leakage must be less than $4\text{mW}/\text{cm}^2$, after repair or adjustment.



Maximum allowable leakage is $5\text{mW}/\text{cm}^2$.
 $4\text{mW}/\text{cm}^2$ is used to allow for measurement and meter accuracy

5-11 Check for Microwave Leakage

1. Remove the outer panel.
2. Pour 275 ± 15 cc of $20 \pm 5^\circ\text{C}$ ($68 \pm 9^\circ\text{F}$) water in a beaker which is graduated to 600cc, and place the beaker in the center of the oven.
3. Start the oven at the highest power level.
4. Set survey meter dual ranges to 2,450MHz.
5. Using the survey meter and spacer cone as described above, measure near the opening of magnetron, the surface of the air guide and the surface of the wave guide as shown in the following photo. (but avoid the high voltage components.) The reading should be less than $4\text{mW}/\text{cm}^2$.



5-12 Note on Measurement

1. Do not exceed the limited scale.
2. The test probe must be held on the grip of the handle, otherwise a false reading may result when the operator's hand is between the handle and the probe.
3. When high leakage is suspected, do not move the probe horizontally along the oven surface; this may cause damage to the probe.
4. Follow the recommendation of the manufacturer of the microwave energy survey meter.

5-13 Leakage Measuring Procedure

5-13-1 Record keeping and notification after measurement

- 1) After adjustment and repair of a radiation preventing device, make a repair record for the measured values, and keep the data.
- 2) If the radiation leakage is more than $4\text{mW}/\text{cm}^2$ after determining that all parts are in good condition, functioning properly and the identical parts are replaced as listed in this manual notify that fact to ;

CENTRAL SERVICE CENTER

5-13-2 At least once a year have the microwave energy survey meter checked for accuracy by its manufacturer.

6. Troubleshooting

PRECAUTION

1. CHECK GROUNDING BEFORE CHECKING FOR TROUBLE.
2. BE CAREFUL OF THE HIGH VOLTAGE CIRCUIT.
3. DISCHARGE THE HIGH VOLTAGE CAPACITOR.
4. WHEN CHECKING THE CONTINUITY OF THE SWITCHES OR TRANSFORMER, DISCONNECT ONE LEAD WIRE FROM THESE PARTS AND THEN CHECK CONTINUITY WITHOUT THE POWER SOURCE ON. TO DO OTHERWISE MAY RESULT IN A FALSE READING OR DAMAGE TO YOUR METER.
5. DO NOT TOUCH ANY PART OF THE CIRCUIT OR THE CONTROL CIRCUIT BOARD, SINCE STATIC DISCHARGE MAY DAMAGE IT. ALWAYS TOUCH GROUND WHILE WORKING ON IT TO DISCHARGE ANY STATIC CHARGE BUILT UP.

6-1 Electrical Malfunction

| SYMPTOM | CAUSE | CORRECTIONS |
|--|---|---|
| Oven is dead. Fuse is OK. No display and no operation at all . | <ol style="list-style-type: none"> 1. Open or loose lead wire harness 2. Open thermal cutout (Magnetron) 3. Open low voltage transformer 4. Defective Ass'y PCB | <p>Check fan motor when thermal cutout is defective.</p> <p>Check Ass'y PCB when L.V.T is defective.</p> |
| No display and no operation at all. Fuse is blown. | <ol style="list-style-type: none"> 1. Shorted lead wire harness 2. Defective primary latch switch (NOTE 1) 3. Defective monitor switch (NOTE 1) 4. Shorted H.V.Capacitor 5. Shorted H.V.Transformer (NOTE 2) <p>NOTE 1: All of these switches must be replaced at the same time. (refer to adjustment instructions) Check continuity of power relay contacts and if it has continuity, replace power relay also.</p> <p>NOTE 2: When H.V.Transformer is replaced, check diode and magnetron also.</p> | <p>Check adjustment of primary, interlock monitor, power relay, door sensing switch.</p> |
| Oven does not accept key input (Program) | <ol style="list-style-type: none"> 1. Key input is not in-Sequence 2. Open or loose connection of membrane key pad to Ass'y PCB 3. Shorted or open membrane panel 4. Defective Ass'y PCB | <p>Refer to operation procedure.</p> <p>Replace PCB main.</p> |
| Timer starts countdown but no microwave oscillation. (No heat while oven lamp and fan motor turn on.) | <ol style="list-style-type: none"> 1. Off-alignment of latch switches 2. Open or loose connection of high voltage circuit especially magnetron filament circuit <p>NOTE: Large contact resistance will bring lower magnetron filament voltage and cause magnetron to lower output and/or intermittent oscillation.</p> <ol style="list-style-type: none"> 3. Defective high voltage components H.V.Transformer H.V. Capacitor H.V.Diode, H.V.Fuse Magnetron 4. Open or loose wiring of power relay 5. Defective primary latch switch 6. Defective power relay or Ass'y PCB | <p>Adjust door and latch switches.</p> <p>Check high voltage component according to component test procedure and replace if it is defective.</p> <p>Replace PCB main.</p> |

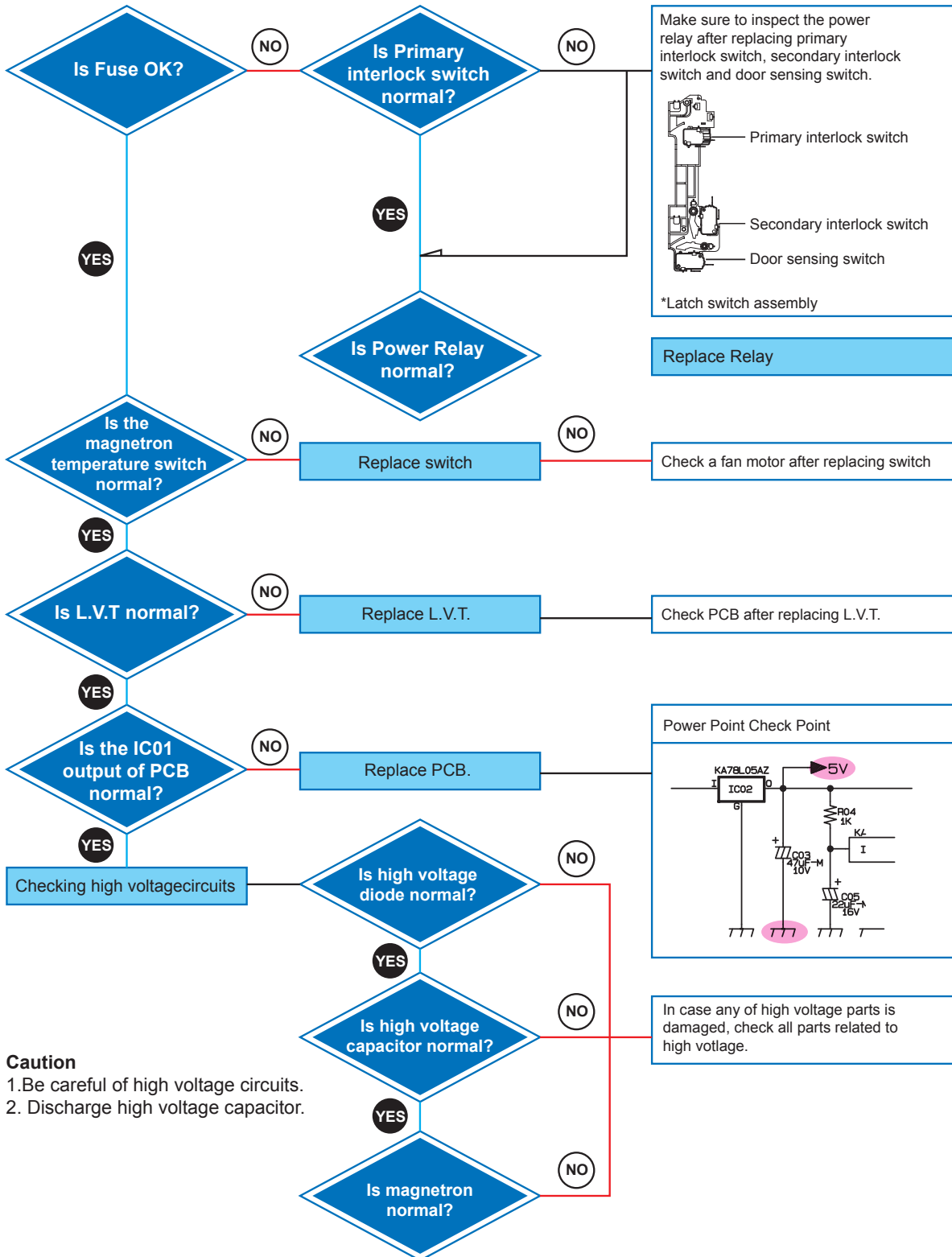
6-1 Electrical Malfunction (continued)

| SYMPTOM | CAUSE | CORRECTIONS |
|--|--|--|
| Oven lamp and fan motor turn on | <ol style="list-style-type: none"> Misadjustment or loose wiring of primary latch switch Defective primary latch switch | Adjust door and latch switches. |
| Oven can program but timer does not start. | <ol style="list-style-type: none"> Open or loose wiring of secondary interlock switch Off-alignment of primary interlock Defective secondary interlock S/W | Adjust door and interlock switches. |
| Microwave output is low;. Oven takes longer time to cook food. | <ol style="list-style-type: none"> Decrease in power source voltage. Open or loose wiring of magnetron filament circuit. (Intermittent oscillation)) Aging of magnetron | Consult electrician. |
| Fan motor turns on when plugged in | Loose wiring of door sensing switch | Check wire of door sensing switch. |
| Oven does not operate and return to the plugged in mode. | Defective Ass'y PCB | Replace PCB main. |
| Loud buzzing noise can be heard. | <ol style="list-style-type: none"> Loose fan and fan motor Loose screws on H.V.Transformer Shorted H.V.Diode | Tighten screws of fan motor. Tighten screws of H.V.Transformer. Replace H.V.Diode. |
| Turntable motor does not rotate. | <ol style="list-style-type: none"> Open or loose wiring of turntable motor. Defective turntable motor. | Replace turntable motor. |
| Oven stops operation during cooking | <ol style="list-style-type: none"> Open or loose wiring of primary interlock switch Operation of thermal cutout (Magnetron) | Adjust door and latch switches. |
| Sparks | <ol style="list-style-type: none"> Metallic ware or cooking dishes touching on the oven wall. Ceramic ware trimmed with gold or silver powder also causes sparks. | Inform the customer. Do not use any type of cookware with metallic trimming. |
| Uneven cooking | Uneven intensity of microwave due to its characteristics. | Wrap thinner parts of the food with aluminum foil. Use plastic wrap or cover with a lid. Stir once or twice while cooking foods such as soup, cocoa, or milk. |
| Noise from the turntable motor when it starts to operate. | Noise may result from the motor. | Replace turntable motor. |

6-1 Electrical Malfunction (continued)

Oven does not operate.

*Inspection method



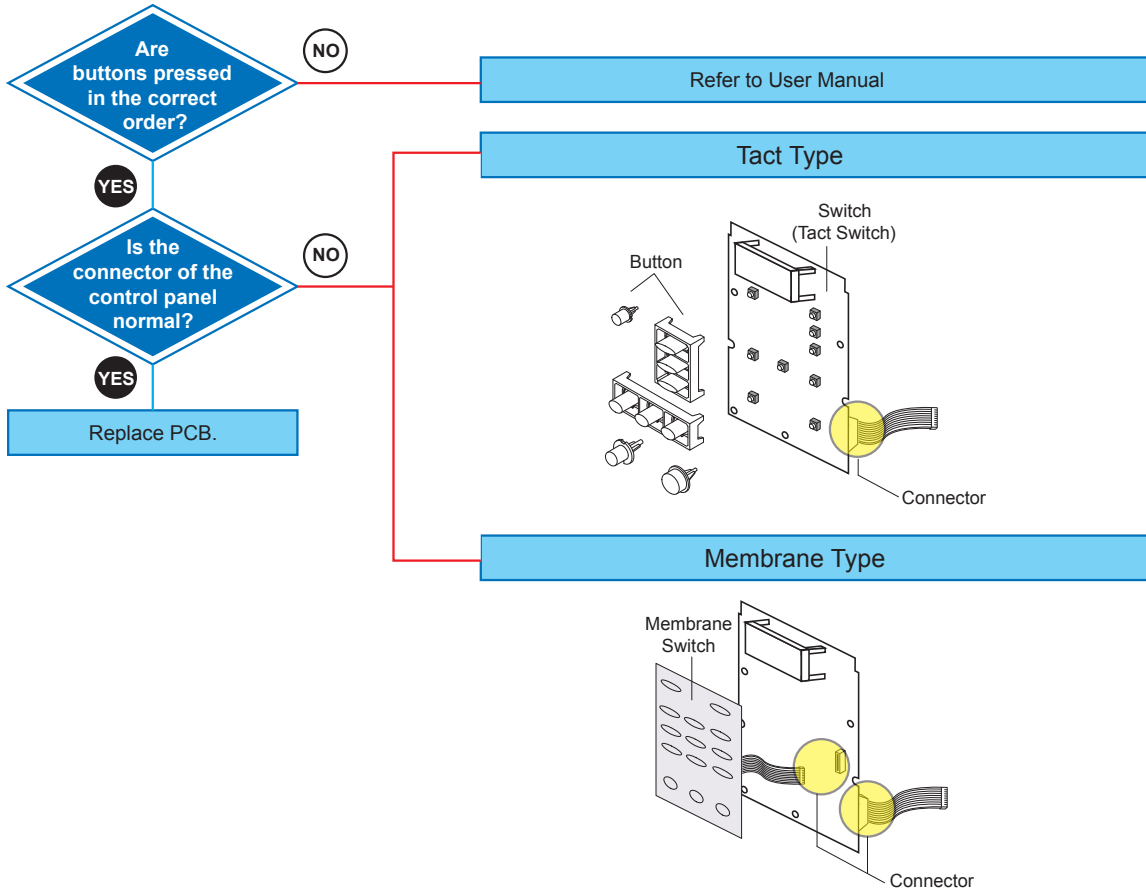
Caution

- 1. Be careful of high voltage circuits.
- 2. Discharge high voltage capacitor.

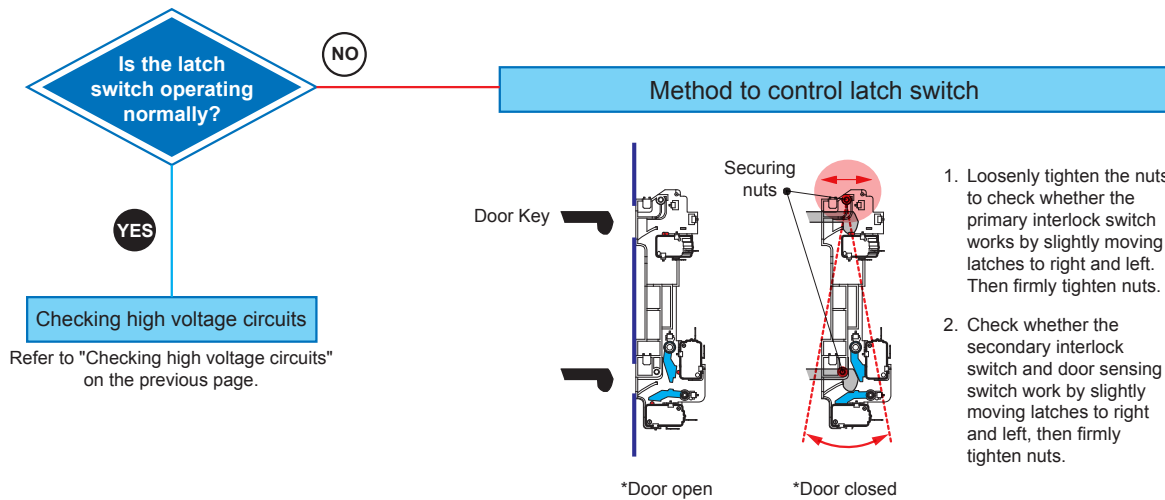
6-1 Electrical Malfunction (continued)

Buttons of the control panel do not work.

*Inspection method

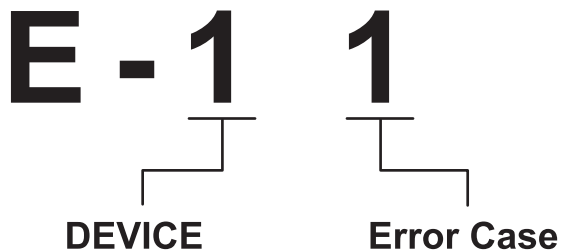


Food is not heated even though an oven works.



6-2 Error Code Numbering Rule

1. ERROR CODE NUMBERING RULE is applied to a microwave oven and an oven.(CMO, OTR, Grill, Convection, Commercial etc.)
2. All sensors and devices have their own number. ex) Gas Sensor = 1, Temp. Sensor = 2, ...
3. Of each device, No.1 and No.2 refer to "Open Error" (not sensed) and "Short Error", respectively.
4. For unusual cases, errors can be indicated in letters after discussion in advance. ex) Key Short Error (-SE-)
5. Error code not mentioned below should be discussed in advance and approved by P/L and numbered, reported to relevant departments.
6. This numbering rule has been applied to models to have been developed since January, 1, 2005. (But, GE or Customize model are excluded.)



- 0 - Others
- 1 - Gas Sensor
- 2 - Temp. Sensor
- 3 - Weight Sensor
- 4 - Easy/PH Sensor
- 5 - EEPROM
-
-

- 1 - Open
- 2 - Short
-
-

6-2 Error Code Numbering Rule(continued)

Error Code List

Gas Sensor

| Error Code | Gas Sensor Error Case (E-1X) |
|------------|------------------------------|
| E-11 | Open |
| E-12 | Short |
| E-13 | T1 Max Time Error |
| E-14 | Dry Up / No Load |

Temp Sensor

| Error Code | Temp. Sensor Error Case (E-2X) |
|------------|---|
| E-21 | Open |
| E-22 | Short |
| E-23 | T1 Max Time Error (Preheating not completed) |
| E-24 | Over temperature error |
| E-25 | In case abnormal temperature is sensed at Micro Cook |
| E-26 | In case the temperature is not over the fixed AD in first 3 minutes after cooking by heater starts. |

Weight Sensor

| Error Code | Gas Sensor Error Case (E-1X) |
|------------|--|
| E-31 | Open (When value of HEX is above "FF" for 5 seconds) |
| E-32 | Short |
| E-33 | In case the initial value of HEX is under "14" for 30 seconds while a weight sensor in operation. |
| E-34 | In case the initial value of K calculated by a weight sensor is above and under "±28" as value of HEX. |
| E-35 | In case the value of A is "-" as a weight sensor calculates. |
| E-36 | In case the door opens during sensor cooking. |

Easy/Ph Sensor

| Error Code | Easy/PH Sensor Error Case (E4) |
|------------|--------------------------------|
| E-41 | Open |
| E-42 | Short |
| E-43 | T1 Max Time Error |
| E-44 | Dry Up |
| E-45 | Cooling Error (3minutes) |
| E-46 | Primary Open Error(3minutes) |
| E-47 | The door opens during cooking |

6-2 Error Code Numbering Rule(continued)

Error Code List

Eeprom Error

| Error Code | EEPROM Error Case (E-5X) |
|------------|--------------------------|
| E-51 | Open (Sense Failure) |
| E-53 | Read/Write Error |
| E-54 | Zero not to be set |

Humidity Sensor

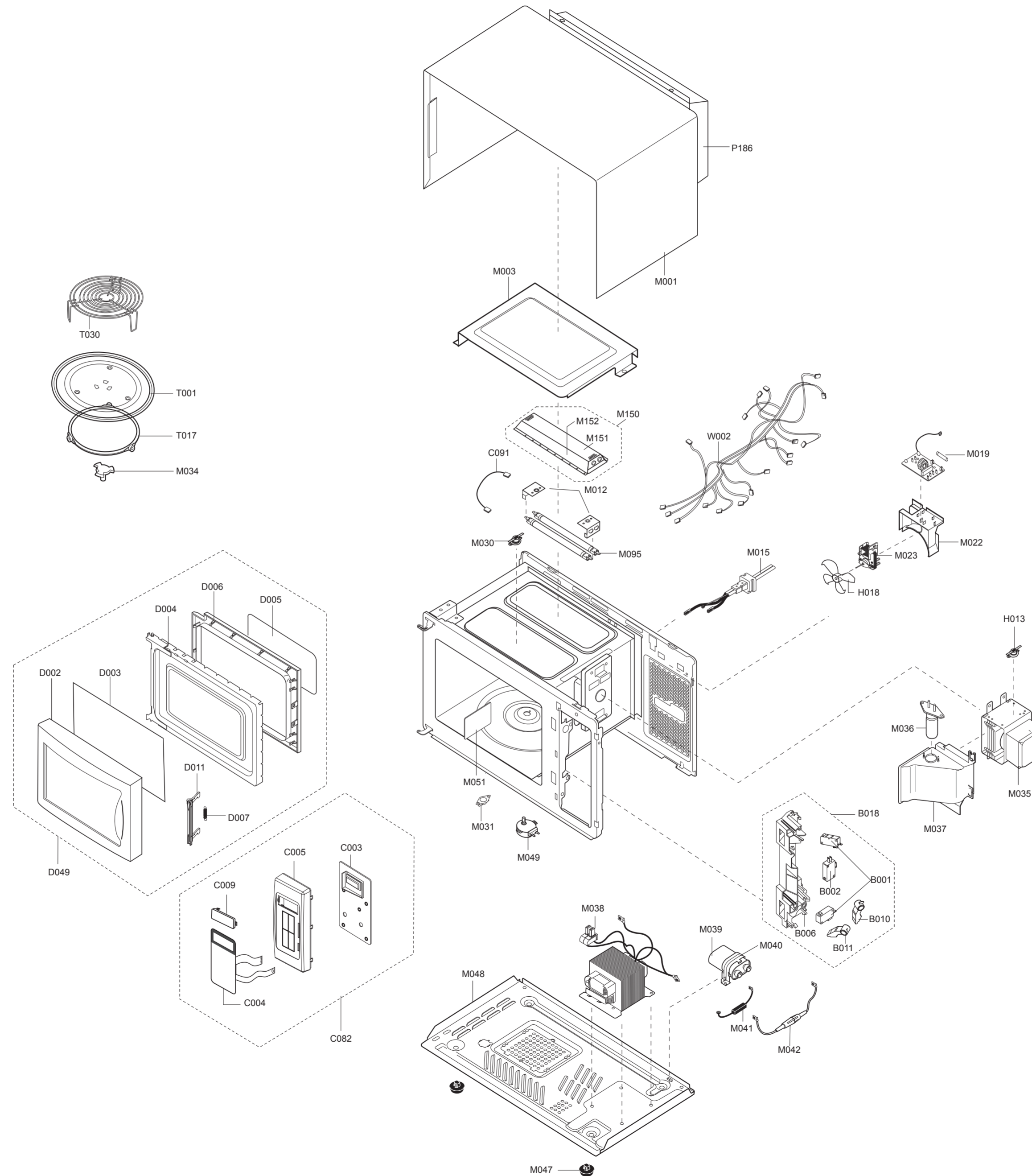
| Error Code | Humidity Sensor Error Case (E-6X) |
|------------|-----------------------------------|
| E-61 | Open |
| E-62 | Short |
| E-63 | T1 Max Time Error |

Others

| Error Code | Others (E-0X, Letter) |
|------------|--|
| -SE- | Key Short Error (10 seconds) |
| E-01 | The door opens in case the door should not be opened. |
| E-02 | Cooking Time Setting Over Error (MWO) |
| E-03 | Cooking Time Setting Over Error (Grill) |
| E-04 | Cooking Time Setting Over Error (Convection) |
| E-05 | Cooking Time Setting Over Error (Combination) |
| E-06 | It fails to sense that the swing heater has stopped for 20 seconds during cooking. |
| E-08 | In case function of MWO starts with spit inserted into cavity inside. |
| E-09 | In case the damper is not set to be positioned for 2 minutes. |

7. Exploded Views and Parts List

7-1 Exploded Views



7-2 Main Parts List

G2739NR-D

(S.N.A : SERVICE NOT AVAILABLE)

| Level | No. | Code No. | Description | Specification | Q'ty | SA/SNA | Remark |
|-------|------|---------------|---------------------|-----------------------------------|------|--------|----------------------|
| 1-1 | M041 | 0402-001554 | HV DIODE-RECTIFIER | HV03-12T01,12000V,0.4A | 1 | SA | PACKING |
| 1-1 | M039 | 2501-001011 | C-OIL | 910nF,2100V,BK,54x35x75mm,20mm | 1 | SA | PACKING |
| 1-1 | M019 | 3601-001019 | FUSE-CARTRIDGE | 250V,12A,SLOW-BLOW,CERAMI | 1 | SA | PACKING-N/ FILTER |
| 1-1 | M036 | 4713-001046 | LAMP-INCANDESCENT | 240V,104mA,25W,ORG,-,- | 1 | SA | MAIN-CV/AIR |
| 1-1 | M038 | DE26-00099A | TRANS H.V | SHV-EURO1-1,230V,50HZ,2330V,3. | 1 | SA | PACKING |
| 1-1 | M049 | DE31-10154A | MOTOR SYNCHRONOUS | M2HJ49ZR02,ST-16,50/60 | 1 | SA | MAIN |
| 1-1 | M023 | DE31-10184A | MOTOR-FAN | SMF-3RDEA,230V50Hz,2400rpm,3rd | 1 | SA | PACKING |
| 1-1 | H018 | DE31-90057A | BLADE-FAN | PP,T1.5,-,3RD-W,-,-,- | 1 | SA | PACKING |
| 1-1 | M015 | DE39-20058L | ASSY POWER CORD | CE2713/XEF,1.5SQ,230V50H | 1 | SA | PACKING |
| 1-1 | C091 | DE39-30097B | LEAD WIRE-G | L100,MBQ45,GRILL,-,-,-,- | 1 | SA | MAIN |
| 1-1 | M031 | DE47-00002B | THERMOSTAT | PW2N,-,-,100,110,-,-,-,187H,3 | 1 | SA | MAIN- CAVITY |
| 1-1 | M095 | DE47-00024A | HEATER | SHQ-E2712A,-,-,490W,-,115V,26OHM, | 2 | SA | MAIN |
| 1-1 | H013 | DE47-20009A | THERMOSTAT | PW2N-520PB,160/60,250V/7.5A,H | 1 | SA | PACKING- MGT |
| 1-1 | M030 | DE47-20032A | THERMOSTAT | PW-2N,85/75,-,-,-,-,-,- | 1 | SA | MAIN-GRILL |
| 1-1 | M040 | DE61-00139A | BRACKET-HVC | NC2000,SECC,T0.8,-,-,-,0.6/0 | 1 | SNA | PACKING |
| 1-1 | M003 | DE61-00263A | BRACKET-UPPER | N7Q88,SECC,T0.5,-,-,-,QUAR | 1 | SNA | MAIN |
| 1-1 | M012 | DE61-00265A | BRACKET-HEATER | N7Q88,ALSTAR,T0.5,W49.5,L | 2 | SNA | MAIN |
| 1-1 | M047 | DE61-40066A | FOOT | -,PP,-,BLK,-,-,- | 2 | SA | MAIN-B/ PLATE |
| 1-1 | M034 | DE67-00140A | COUPLER | PPS,(ESS840),3G,BRN,NEW | 1 | SA | MAIN |
| 1-1 | M001 | DE70-00184A | PANEL-OUTER | SECC T0.5 MW850WA 0.8 | 1 | SA | MAIN |
| 1-2 | M150 | DE96-00155A | ASSY-HEATER COVER | N7Q88,QUARTZ | 1 | SNA | |
| 1-3 | M151 | DE63-00076A | COVER-HEATER(U) | N7Q88,ALSTAR,T0.5,W160,L | 1 | SNA | |
| 1-3 | M152 | DE71-60353A | COVER-HEATER(L) | -,STS304,T0.5,160,290,-, | 1 | SA | |
| 1-1 | M022 | DE71-00148A | COVER-BLOWER | PP,T1.5NTR MW850WA NC2000 | 1 | SA | MAIN |
| 1-1 | M051 | DE71-00151A | COVER MGT | PP,T2,W54,L129,GE- WHTMW850WA | 1 | SA | MAIN |
| 1-1 | P186 | DE71-60298A | COVER-BACK | -,SECC,T0.6,W273,L633,-,M6Q45 | 1 | SA | MAIN |
| 1-1 | M037 | DE71-60457C | COVER-AIR | 3RD-0.7(BTM),PP(FB53 G30),-,-, | 1 | SA | MAIN |
| 1-1 | T001 | DE74-20102B | TRAY-COOKING | GLASS,T5.0,M745,-,- | 1 | SA | MAIN |
| 1-1 | T030 | DE74-70071D | RACK-WIRE | MSWR10,PI3,0.7/NC2000,D230,H85 | 1 | SA | MAIN |
| 1-1 | M048 | DE80-00023A | BASE PLATE | SGCC T0.6 MW850WA NC2000 | 1 | SA | MAIN |
| 1-1 | M042 | DE91-70061J | ASSY-H.V.FUSE | THV060T-0650-H,5KV0.65A,WL | 1 | SA | PACKING |
| 1-1 | B018 | DE96-00120B | ASSY BODY LATCH | M1717N NC2000 (HANDLE) | 1 | SA | MAIN |
| 1-2 | B010 | DE66-00093A | LEVER SWITCH (A) | NC2000 PP-TH53 NTR HA | 1 | SA | |
| 1-2 | B011 | DE66-00094A | LEVER-SWITCH(B) | NC2000,PP-TH53,-,-,-,N | 1 | SA | |
| 1-2 | B006 | DE72-00137B | LATCH-BODY | PG113R,NYLON,WHT,-,-,-,-,- | 1 | SA | |
| 1-2 | B002 | 3405-001032 | SWITCH-MICRO | 125/250VAC,16A,200GF,SPDT | 1 | SA | ASSY BODY LATCH |
| 1-2 | B001 | 3405-001034 | SWITCH-MICRO | 125/250VAC,16A,200GF,SPST-N | 2 | SA | ASSY BODY LATCH |
| 1-1 | W002 | DE96-00227A | ASSY-WIRE HARNESS A | G2739N,230V50HZ,EURO | 1 | SA | MAIN |
| 1-1 | T017 | DE97-00193B | ASSY-GUIDE ROLLER | NC2000 0.6,T2*P1198(14 | 1 | SA | MAIN |
| 1-1 | M035 | OM75S(31)ESGN | ASSY-MGT | | 1 | SA | PACKING |

7-2 Main Parts List (Continued)

G2739NR-SD

(S.N.A : SERVICE NOT AVAILABLE)

| Level | No. | Code No. | Description | Specification | Q'ty | SA/SNA | Remark |
|-------|------|---------------|---------------------|-----------------------------------|------|--------|----------------------|
| 1-1 | M041 | 0402-001554 | HVDIODE-RECTIFIER | HV03-12T01,12000V,0.4A | 1 | SA | PACKING |
| 1-1 | M039 | 2501-001011 | C-OIL | 910nF,2100V,BK,54x35x75mm,20 mm | 1 | SA | PACKING |
| 1-1 | M019 | 3601-001019 | FUSE-CARTRIDGE | 250V,12A,SLOW-BLOW,CERAMI | 1 | SA | PACKING-N/ FILTER |
| 1-1 | M036 | 4713-001046 | LAMP-INCANDESCENT | 240V,104mA,25W,ORG,-,- | 1 | SA | CV/AIR |
| 1-1 | M038 | DE26-00099A | TRANS H.V | SHV-EURO1-1,230V,50HZ,2330V,3. | 1 | SA | PACKING |
| 1-1 | M049 | DE31-10154A | MOTOR SYNCHRONOUS | M2HJ49ZR02,ST-16,50/60 | 1 | SA | MAIN |
| 1-1 | M023 | DE31-10184A | MOTOR-FAN | SMF-3RDEA,230V50Hz,2400rpm, 3rd | 1 | SA | PACKING |
| 1-1 | H018 | DE31-90057A | BLADE-FAN | PP,T1.5,-,3RD-W,-,-,- | 1 | SA | PACKING |
| 1-1 | M015 | DE39-20058L | ASSY POWER CORD | CE2713/XEF,1.5SQ,230V50H | 1 | SA | PACKING |
| 1-1 | C091 | DE39-30097B | LEAD WIRE-G | L100,MBQ45,GRILL,-,-,-,- | 1 | SA | MAIN |
| 1-1 | M031 | DE47-00002B | THERMOSTAT | PW2N,-,-,100,110,-,-,-,187H,3 | 1 | SA | MAIN- CAVITY |
| 1-1 | M095 | DE47-00024A | HEATER | SHQ-E2712A,-,-,490W,-,115V,26OHM, | 2 | SA | MAIN |
| 1-1 | H013 | DE47-20009A | THERMOSTAT | PW2N-520PB,160/60,250V/7.5A,H | 1 | SA | PACKING- MGT |
| 1-1 | M030 | DE47-20032A | THERMOSTAT | PW-2N,85/75,-,-,-,-,-,- | 1 | SA | MAIN-GRILL |
| 1-1 | M040 | DE61-00139A | BRACKET-HVC | NC2000,SECC,T0.8,-,-,-,0.6/0 | 1 | SNA | PACKING |
| 1-1 | M003 | DE61-00263A | BRACKET-UPPER | N7Q88,SECC,T0.5,-,-,-,QUAR | 1 | SNA | MAIN |
| 1-1 | M012 | DE61-00265A | BRACKET-HEATER | N7Q88,ALSTAR,T0.5,W49.5,L | 2 | SNA | MAIN |
| 1-1 | M047 | DE61-40066A | FOOT | -,PP,-,BLK,-,-,- | 2 | SA | MAIN |
| 1-1 | M034 | DE67-00140A | COUPLER | PPS,(ESS840),3G,BRN,NEW | 1 | SA | MAIN |
| 1-1 | M001 | DE70-00184H | PANEL OUTER | NC-2000,SECC,T0.5,SILVER | 1 | SA | MAIN |
| 1-1 | M022 | DE71-00148A | COVER-BLOWER | PP,T1.5NTR MW850WA NC2000 | 1 | SA | MAIN |
| 1-1 | M051 | DE71-00151A | COVER MGT | PP,T2,W54,L129,GE- WHTMW850WA | 1 | SA | MAIN |
| 1-1 | P186 | DE71-60298A | COVER-BACK | -,SECC,T0.6,W273,L633,-,M6Q45 | 1 | SA | MAIN |
| 1-1 | M037 | DE71-60457C | COVER-AIR | 3RD-0.7(BTM),PP(FB53 G30),-,-,- | 1 | SA | MAIN |
| 1-1 | T001 | DE74-20102B | TRAY-COOKING | GLASS,T5.0,M745,-,- | 1 | SA | MAIN |
| 1-1 | T030 | DE74-70071D | RACK-WIRE | MSWR10,PI3,0.7/NC2000,D230,H85 | 1 | SA | MAIN |
| 1-1 | M048 | DE80-00023A | BASE PLATE | SGCC T0.6 MW850WA NC2000 | 1 | SA | MAIN |
| 1-1 | M042 | DE91-70061J | ASSY-H.V.FUSE | THV060T-0650-H,5KV0.65A,WL | 1 | SA | PACKING |
| 1-2 | M150 | DE96-00155A | ASSY-HEATER COVER | N7Q88,QUARTZ | 1 | SNA | |
| 1-3 | M151 | DE63-00076A | COVER-HEATER(U) | N7Q88,ALSTAR,T0.5,W160,L | 1 | SNA | |
| 1-3 | M152 | DE71-60353A | COVER-HEATER(L) | -,STS304,T0.5,160,290,-, | 1 | SA | |
| 1-1 | B018 | DE96-00120B | ASSY BODY LATCH | M1717N NC2000 (HANDLE) | 1 | SA | MAIN |
| 1-2 | B010 | DE66-00093A | LEVER SWITCH (A) | NC2000 PP-TH53 NTR HA | 1 | SA | |
| 1-2 | B011 | DE66-00094A | LEVER-SWITCH(B) | NC2000,PP-TH53,-,-,-,-,N | 1 | SA | |
| 1-2 | B006 | DE72-00137B | LATCH-BODY | PG113R,NYLON,WHT,-,-,-,-,- | 1 | SA | |
| 1-2 | B002 | 3405-001032 | SWITCH-MICRO | 125/250VAC,16A,200GF,SPDT | 1 | SA | ASSY BODY LATCH |
| 1-2 | B001 | 3405-001034 | SWITCH-MICRO | 125/250VAC,16A,200GF,SPST-N | 2 | SA | ASSY BODY LATCH |
| 1-1 | W002 | DE96-00227A | ASSY-WIRE HARNESS A | G2739N,230V50HZ,EURO | 1 | SA | MAIN |
| 1-1 | T017 | DE97-00193B | ASSY-GUIDE ROLLER | NC2000 0.6,T2*P1198(14 | 1 | SA | MAIN |
| 1-1 | M035 | OM75S(31)ESGN | ASSY-MGT | | 1 | SA | PACKING |

7-3 Control & Door Parts List

G2739NR-D

(S.N.A : SERVICE NOT AVAILABLE)

| Level | No. | Code No. | Description | Specification | Q'ty | SA/SNA | Remark |
|-------|------|---------------|------------------|-----------------------------------|------|--------|--------|
| 1-1 | D049 | DE94-00552L | ASSY DOOR | M1719NP/WHTSILKTDS+SAM | 1 | SA | MAIN |
| 1-2 | D005 | DE01-00112A | FILM-DOOR | -,PET,-,L268,T0.15,W150,NTR,-, | 1 | SA | |
| 1-2 | D007 | DE61-00198A | SPRING KEY | M1877,HSWR D6,23 1/4 T0.7 | 1 | SA | |
| 1-2 | D003 | DE63-00059A | SCREEN-DOOR | M1729N,SAN,-,-,-,SMOG,-,- | 1 | SA | |
| 1-2 | D011 | DE64-00264A | DOOR-KEY | 3RD-W,NEW,POM,-,BLK,-,-,-, | 1 | SA | |
| 1-2 | D002 | DE64-00292L | DOOR-A | M1719N/XEC,ABS,-,-,-,-,PURE-WHT,S | 1 | SNA | |
| 1-2 | D006 | DE64-40008B | DOOR-C | -,PP,CE745G,-,-,-,BLK,- | 1 | SA | |
| 1-2 | D004 | DE92-50133C | ASSY DOOR-E | MW4593G,-,BLK,3RD-0.7,-,-,- | 1 | SA | |
| 1-1 | C082 | DE94-00805G | ASSY CONTROL-BOX | 230V49HZ,G2739NR/BWT,PU | 1 | SNA | MAIN |
| 1-2 | C004 | DE34-00115F | SWITCH MEMBRANE | NEW G2739NR-S/BWT,-,-,PE | 1 | SA | |
| 1-2 | C005 | DE64-00713A | CONTROL-PANEL | G2739N,ABS(HG0760),-,-,-,- | 1 | SA | |
| 1-2 | C009 | DE67-40179A | WINDOW-DISPLAY | SAN,T2.0,-,-,SMOG,-,3RD-W | 1 | SA | |
| 1-2 | C003 | RCS-N2LED1-39 | ASSY PCB PARTS | G2739NR,230V60HZ | 1 | SA | |

G2739NR-SD

(S.N.A : SERVICE NOT AVAILABLE)

| Level | No. | Code No. | Description | Specification | Q'ty | SA/SNA | Remark |
|-------|------|---------------|------------------|------------------------------------|------|--------|--------|
| 1-1 | D049 | DE94-00552K | ASSY DOOR | M1719N-S/ XEU,SILVER,SILK(TDS+S | 1 | SA | MAIN |
| 1-2 | D005 | DE01-00112A | FILM-DOOR | -,PET,-,L268,T0.15,W150,NTR,-, | 1 | SA | |
| 1-2 | D007 | DE61-00198A | SPRING KEY | M1877,HSWR D6,23 1/4 T0.7 | 1 | SA | |
| 1-2 | D003 | DE63-00059A | SCREEN-DOOR | M1729N,SAN,-,-,-,SMOG,-,- | 1 | SA | |
| 1-2 | D011 | DE64-00264A | DOOR-KEY | 3RD-W,NEW,POM,-,BLK,-,-,-, | 1 | SA | |
| 1-2 | D002 | DE64-00292K | DOOR-A | M1719N-S/XEU,ABS,-,-,-,-,SILVER,S | 1 | SA | |
| 1-2 | D006 | DE64-40008B | DOOR-C | -,PP,CE745G,-,-,-,BLK,- | 1 | SA | |
| 1-2 | D004 | DE92-50133C | ASSY DOOR-E | MW4593G,-,BLK,3RD-0.7,-,-,- | 1 | SA | |
| 1-1 | C082 | DE94-00805F | ASSY CONTROL-BOX | 230V49HZ,G2739NR-S/BWT, | 1 | SA | MAIN |
| 1-2 | C004 | DE34-00115E | SWITCH MEMBRANE | G2739NR-S/BWT,-,-,PET,-, | 1 | SA | |
| 1-2 | C005 | DE64-00713B | CONTROL-PANEL | G2739N-S,ABS(HG0760),-,-,-,- | 1 | SA | |
| 1-2 | C009 | DE67-40179A | WINDOW-DISPLAY | SAN,T2.0,-,-,SMOG,-,3RD-W | 1 | SA | |
| 1-2 | C003 | RCS-N2LED1-39 | ASSY PCB PARTS | G2739NR,230V60HZ | 1 | SA | |

7-4 Standard Parts List

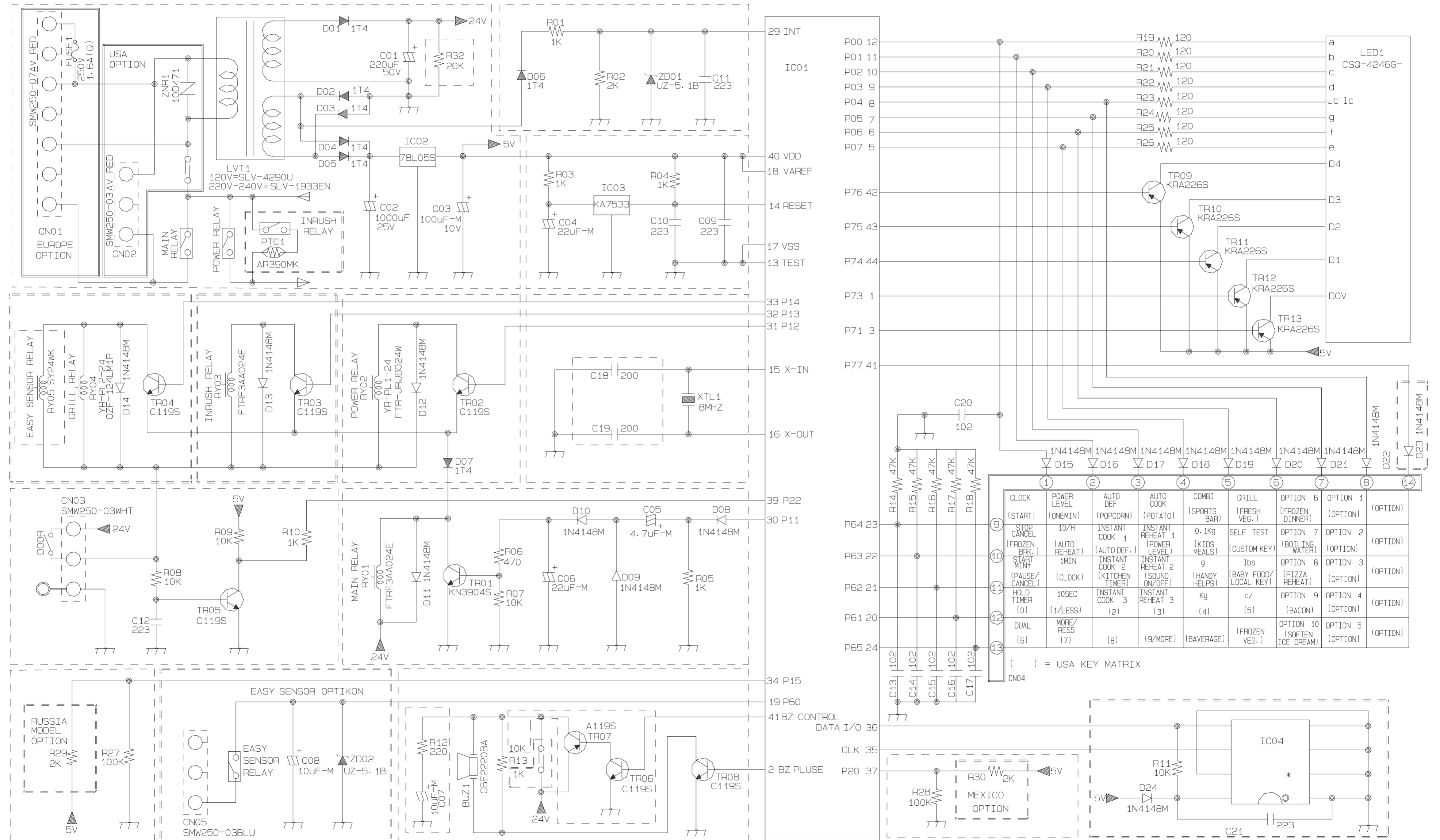
(S.N.A : SERVICE NOT AVAILABLE)

| Level | Code No. | Description | Specification | Q'ty | SA/SNA | Remark |
|-------|-------------|-----------------|----------------------------------|------|--------|----------------------|
| 1-1 | 6002-001320 | SCREW-TAPPING | TH,+,2S,M4,L8,PASS | 2 | SNA | MAIN-O/PANEL |
| 1-1 | 6002-001325 | SCREW-TAPPING | TH,TORX,2S,M4,L12,ZPC(YEL) | 1 | SNA | MAIN-C-BACK |
| 1-1 | 6006-001170 | SCREW-ASSY TAPP | WS,TH,+,M4,L10,ZPC(YEL) | 3 | SNA | PACKING-P/C EARTH |
| 1-1 | 6006-001176 | SCREW-ASSY TAPT | WT,PH,+,M4,L8,ZPC(YEL) | 3 | SNA | PACKING-MGT-TCO |
| 1-1 | DE60-10051A | SCREW-TAP PH | -, -,MSWR,-,PH,M4,-,L6,-,- | 1 | SNA | MAIN-D/MOTOR |
| 1-1 | DE60-10080A | SCREW-WASHER | -, -, -,M5,L12,-,2S,-,- | 2 | SA | PACKING-MGT |
| 1-1 | DE60-10082I | SCREW-A | -, -, -,2S-4X10,FEFZY,-, -, -, - | 6 | SNA | MAIN-O/PANEL |
| 1-1 | DE60-30016A | NUT-FLANGE | M4,MSWR10,-, -, -, -, -, - | 1 | SA | PACKING-F-MOTOR |
| 1-2 | 6002-000630 | SCREW-TAPPING | PH,+,2S,M3,L8,ZPC(YEL),SWR | 1 | SNA | ASSY-PCB |

8. Schematic Diagrams

8-1 Schematic Diagrams

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9. Electrical Parts List

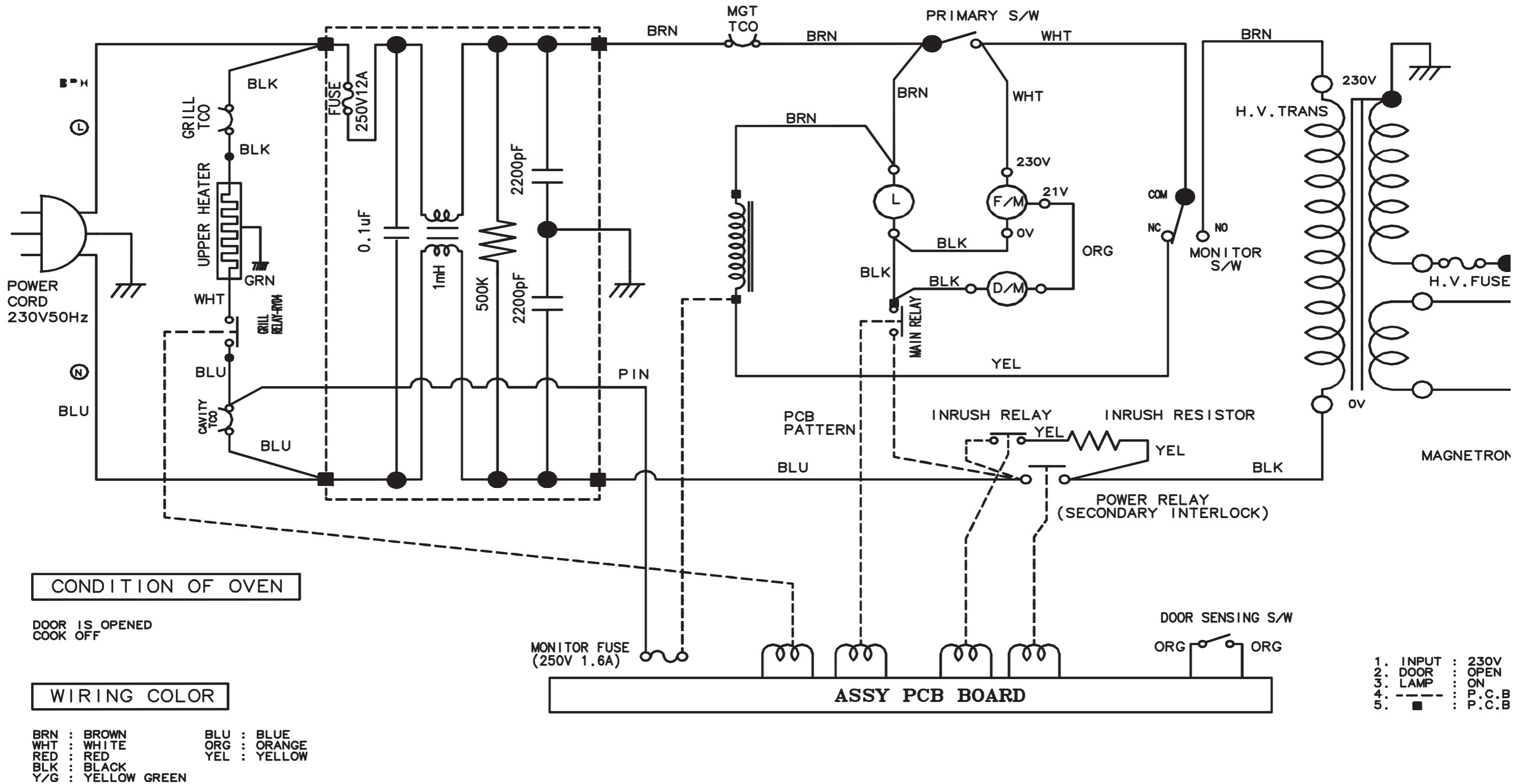
(S.N.A : SERVICE NOT AVAILABLE)

| Level | Code No. | Description | Specification | Q'ty | SA/SNA | Remark |
|-------|---------------|----------------------|---------------------------------|------|--------|--------|
| 1-2 | RCS-N2LED1-39 | ASSY PCB PARTS | G2739NR,230V60HZ | 1 | SA | |
| 1-3 | 3501-001155 | RELAY-MINIATURE | 24VDC,200MW,3000MA,1FORM | 2 | SA | RY03 |
| 1-3 | 3601-001126 | FUSE-CARTRIDGE | 250V,1.6A,FAST-ACTING,CER | 1 | SA | FUSE1 |
| 1-3 | 3708-001551 | CONNECTOR-FPC/FC/PIC | 14P,1.25mm,STRAIGHT | 1 | SNA | CN04 |
| 1-3 | DE02-00060A | CH-ISOPROPHYL ALCOHO | ALL,MODEL,-,-,-,-,- | 5 | SNA | |
| 1-3 | DE07-00021B | LED DISPLAY | CSQ-4246G-01,-,-,-,40SEG,5DIGI | 1 | SA | LED1 |
| 1-3 | DE26-00034A | TRANS-L.V | SLV-1933EN,230V,50Hz,7.0V/17V, | 1 | SA | LVT1 |
| 1-3 | DE30-20016A | BUZZER | CBE2220BA,STICK,-,-,-,-,-,-,- | 1 | SNA | BUZ1 |
| 1-3 | DE47-40024A | HOLDER-FUSE | FH-51H,7.5A,-,-,-,-,- | 1 | SA | FUSE1 |
| 1-3 | DE92-01586A | ASSY PCB AUTO | -,-,RCS-N2LED1-39,230V50HZ | 1 | SNA | |
| 1-4 | 0402-001103 | DIODE-RECTIFIER | 1T4,400V,1A,TS-1,TP | 7 | SNA | D07 |
| 1-4 | 0501-000465 | TR-SMALL SIGNAL | MMBT3904,NPN,350MW,SOT-2 | 1 | SNA | TR01 |
| 1-4 | 0504-001008 | TR-DIGITAL | RN2427,PNP,200MW,2.2K/10K,SOT | 5 | SNA | TR13 |
| 1-4 | 0504-001080 | TR-DIGITAL | KRC-246S | 5 | SNA | TR08 |
| 1-4 | 1202-000141 | IC-VOLTAGE COMP. | 7033,SOT-89,3P,-,SINGLE | 1 | SNA | IC03 |
| 1-4 | 1203-001037 | IC-VOLTAGE REGULATOR | 78L05,SOT-89,3P,185 | 1 | SNA | IC02 |
| 1-4 | 1404-001194 | THERMISTOR-PTC | 39ohm,20%,220/240V,270Vac | 1 | SNA | PTC1 |
| 1-4 | 2007-000033 | R-CHIP | 0OHM,5%,1/8W,DA,TP,3216 | 4 | SNA | J16 |
| 1-4 | 2007-000282 | R-CHIP | 100KOHM,5%,1/10W,DA,TP,2012 | 2 | SNA | R28 |
| 1-4 | 2007-000300 | R-CHIP | 10Kohm,5%,1/8W,TP,2012 | 4 | SNA | R13 |
| 1-4 | 2007-000346 | R-CHIP | 120OHM,5%,1/8W,DA,TP,3216 | 8 | SNA | R26 |
| 1-4 | 2007-000468 | R-CHIP | 1Kohm,5%,1/8W,TP,2012 | 5 | SNA | R10 |
| 1-4 | 2007-000671 | R-CHIP | 2Kohm,5%,1/8W,TP,2012 | 2 | SNA | R29 |
| 1-4 | 2007-000931 | R-CHIP | 470ohm,5%,1/8W,TP,2012 | 1 | SNA | R06 |
| 1-4 | 2007-000941 | R-CHIP | 47Kohm,5%,1/8W,TP,2012 | 6 | SNA | R32 |
| 1-4 | 2203-000444 | C-CER,CHIP | 1nF,10%,50V,X7R,TP,2012,- | 6 | SNA | C20 |
| 1-4 | 2203-000555 | C-CER,CHIP | 0.02NF,5%,50V,C0G,TP,2012 | 2 | SNA | C19 |
| 1-4 | 2203-001608 | C-CERAMIC,CHIP | 22nF,+80-20%,50V,Y5V,TP,2 | 4 | SNA | C12 |
| 1-4 | 2401-000151 | C-AL | 1000uF,20%,25V,GP,TP,10x20,5 | 1 | SNA | C02 |
| 1-4 | 2401-000244 | C-AL | 100uF,20%,10V,GP,TP,6.3x7,5 | 1 | SNA | C03 |
| 1-4 | 2401-000911 | C-AL | 22uF,20%,16V,GP,TP,5x7,5 | 2 | SNA | C06 |
| 1-4 | 2401-002075 | C-AL | 4.7uF,20%,50V,GP,TP,5x11,5 | 1 | SNA | C05 |
| 1-4 | 2401-002598 | C-AL | 220uF,20%,50V,GP,TP,10x16,5 | 1 | SNA | C01 |
| 1-4 | 2801-003933 | CRYSTAL-UNIT | 8MHZ,50PPM,28-AAA,12PF,70OH | 1 | SNA | XTL1 |
| 1-4 | DE39-60001A | WIRE-SO COPPER | PI0.5,SN,T,52MM,TAPING_WI | 9 | SNA | J09 |
| 1-4 | DE41-00178A | PCB-MAIN | RA-N2LED1-**,FR-1,1,-,-,T1.6*W2 | 1 | SNA | |
| 1-4 | DE60-60012A | PIN-EYELET | ID2.1,OD2.5,L3.0,SN,BSP,T0.25 | 2 | SNA | |
| 1-4 | DE09-00200D | IC MICOM | TMP87CH47U-5DD4,CE2638N,CE2933N | 1 | SNA | IC01 |
| 1-4 | 0401-000133 | DIODE-SWITCHING | RLS4148,75V,150mA,LL-34, | 16 | SNA | D23 |
| 1-4 | 0403-001064 | DIODE-ZENER | RLZ5.1B,4.94-5.2V,500MW,LL-3 | 1 | SNA | ZD01 |
| 1-3 | 3501-001209 | RELAY-POWER | 24V DC,0.53W,-,1FORMA,9.3MS, | 1 | SA | RY04 |
| 1-3 | 3501-001188 | RELAY-POWER | 24V DC,0.53W,-,1FormA,9.3ms, | 1 | SA | RY02 |
| 1-3 | DE68-02628A | LABEL-PCB ADHESIVE | -,-,-,-,W10,L30,WHT,- | 1 | SNA | |
| 1-3 | 3711-000024 | CONNECTOR-HEADER | BOX,3P,1R,2.5mm,STRAIGH | 1 | SNA | CN03 |
| 1-3 | 3711-004200 | CONNECTOR-HEADER | BOX,4P/7P,1R,2.5MM,STRA | 1 | SNA | CN01 |

10. Wiring Diagrams

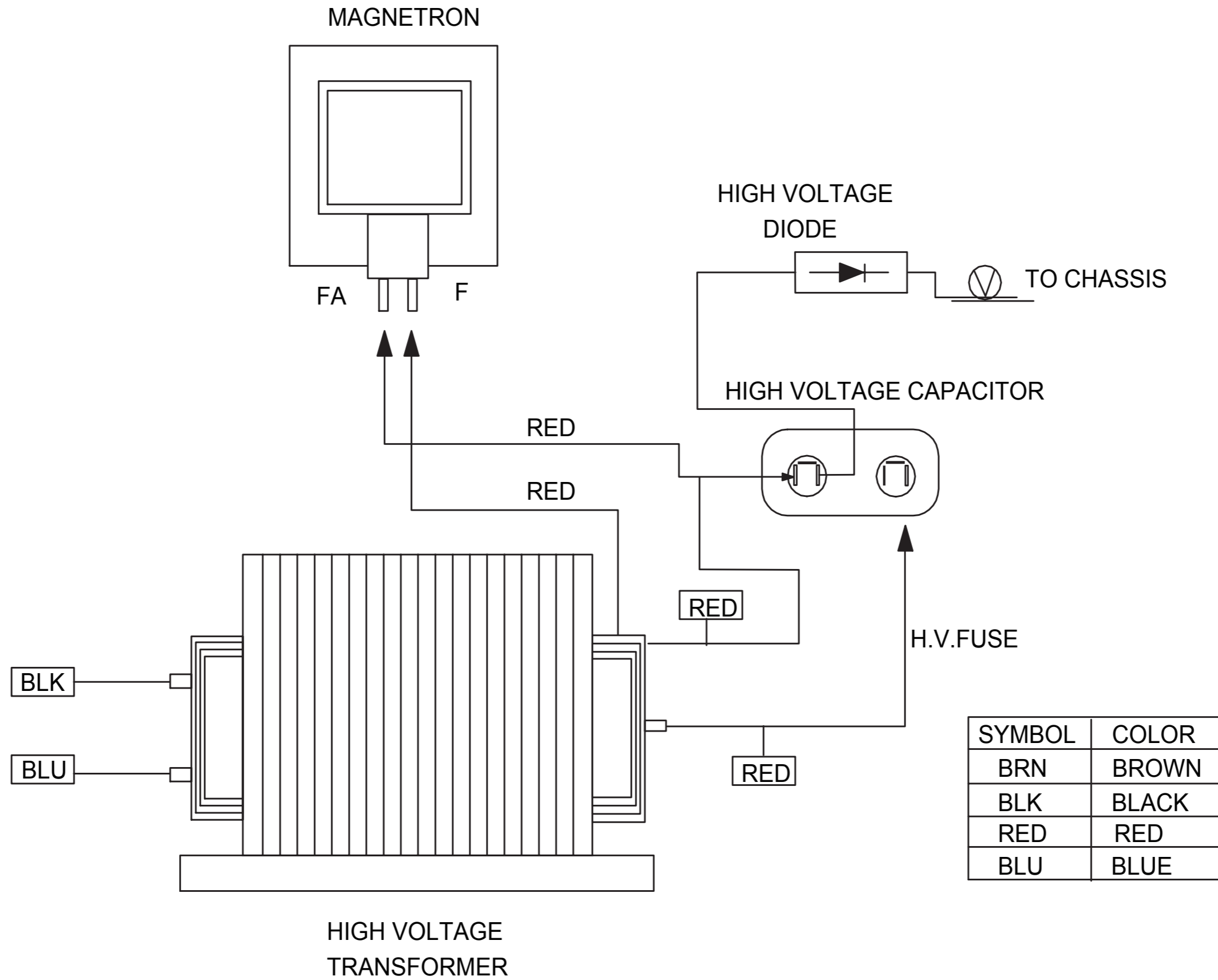
10-1 Wiring Diagrams

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10-1 Wiring Diagrams (Continued)

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11. Reference

11-1 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 |

11-2 Customer inquiry cases and countermeasures

| Symptom | Cause | Countermeasures |
|---|---|--|
| Air is evacuated from the oven. | <ul style="list-style-type: none"> The vent of the oven is designed to be placed on the bottom of the product, and air is evacuated from the oven. | In the past, the vent was placed on the back panel of the oven. Since the oven was placed near the wall of a kitchen, the wall behind the oven was discolored. Thus, the vent of a new oven is placed on the bottom of the product, and air is evacuated from the oven. |
| The oven works automatically whenever the power is turned on. | <ul style="list-style-type: none"> It may happen due to power failure or abnormal voltage. It may happen when the door does not close completely. | <ul style="list-style-type: none"> Connect the power plug three seconds after disconnecting the power plug. Close the door completely => Press the Cancel button => Press the Start button. |
| Heating | <ul style="list-style-type: none"> In many cases, it may happen when the power level is incorrectly set. It may happen when the door does not close completely. It may happen when the oven is out of order. | <ul style="list-style-type: none"> Select HIGH by rotating the Cooking Power Control knob. <ul style="list-style-type: none"> - KEEP WARM: This function is used to warm the cooked food for a certain time period, not to heat the food. - MEDIUM/LOW: This function is used to cook the food slowly. Close the door completely. => Press the Cancel button. => Press the Start button. Contact the nearest Samsung after-sales service center. |
| Ground | <ul style="list-style-type: none"> Ground problem may happen when the oven is placed in a humid area and the oven is not grounded. Ground is not provided by an extended electric outlet. | <ul style="list-style-type: none"> 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. 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. |
| Turn table occasionally rotates in reverse order. | <ul style="list-style-type: none"> Turntable has been designed to rotate in either direction since 1994. | <ul style="list-style-type: none"> In the past, the gear of the turntable was easily worn by turning it during cleaning. Now, the turntable of the oven is designed to rotate in both directions to prevent damage during cleaning. (Rotation direction is set when the oven initially operates.) |
| The oven sometimes beeps. | <ul style="list-style-type: none"> The oven beeps every minute unless the food is in the oven after the food is cooked completely. The oven occasionally beeps during cooking. | <ul style="list-style-type: none"> Open and close the door again. (Beeping sounds indicate that the food is ready to be removed from the oven after cooking is complete.) |

11-2 Customer inquiry cases and countermeasures (Continued)

| Symptom | Cause | Countermeasures |
|---|---|--|
| Strange popping sounds are produced while fish is cooked. | <ul style="list-style-type: none"> • 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.) | <ul style="list-style-type: none"> • 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. |
| Strange smell is produced in the oven. | <ul style="list-style-type: none"> • It may happen when food particles stuck to oven walls or floor. | <ul style="list-style-type: none"> • Clean the inside of the oven. => Remove strange smell through the Deodorant button => 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.) |
| Error | <ul style="list-style-type: none"> • Errors are classified into the case which is out of order and the case which is not out of order. | <ul style="list-style-type: none"> • Clean the inside of the oven. => Remove strange smell through the Deodorant button => 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.) |
| Accessory | | <ul style="list-style-type: none"> • 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. |
| Number does not appear on the display screen. | It happens when the power saving function is activated. | <ul style="list-style-type: none"> • 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.) |