

SHARP® SERVICE MANUAL

S40189R244M//

MICROWAVE OVEN



MODELS

R-244(W)M

R-244(G)M

R-244(B)M

R-244(SL)M

In interests of user-safety the oven should be restored to its original condition and only parts identical to those specified should be used.

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SHARP CORPORATION

SERVICING

WARNING TO SERVICE PERSONNEL

Microwave ovens contain circuitry capable of producing very high voltage and current. Contact with following parts will result in electrocution:-

High voltage capacitor, High voltage transformer, Magnetron, High voltage rectifier, High voltage wires.

REMEMBER TO CHECK 3D

- 1) Disconnect the supply.
- 2) Door opened, and wedged open.
- 3) Discharge high voltage capacitor.

WARNING AGAINST THE CHARGE OF THE HIGH-VOLTAGE CAPACITOR

The high-voltage capacitor remains charged about 60 seconds after the oven has been switched off. Wait for 60 seconds and then short-circuit the connection of the high-voltage capacitor (that is, of the connecting lead from the high-voltage rectifier) against the chassis using a screwdriver with an insulated handle.

Sharp recommend that wherever possible, fault-finding is carried out with the supply disconnected. In some cases, it may be necessary to connect the supply with the cover removed to carry out fault investigation in the control circuitry. In such cases, the high voltage circuit should be disabled as described below to reduce the hazards:-

- Carry out 3D checks (see above).
- Disconnect the supply leads from the high voltage transformer, making a note of the polarity. Insulate the connectors, ensuring they are positioned away from the transformer and fastened there.
- Connect any relevant test equipment e.g. voltmeter.
- Reconnect the oven to the supply, then close the door.
- Note the results of the test, taking care to keep clear of the operational oven.
- Carry out 3D checks (see above).
- Reconnect the leads to the transformer. Take care to observe correct polarity.
- Carry out 4R checks (see below).

Microwave ovens should not be used without a load. To test for the presence of microwave energy within a cavity, place a cup of cold water on the oven turntable, close the door and set the microwave timer for one (1) minute, set the power level to HIGH (100%) and push the start key. When the one (1) minute has elapsed (timer at zero) carefully check that the water is now hot.

AFTER REPAIR REMEMBER TO CHECK 4R

- 1) Reconnect all leads removed from components during testing.
- 2) Replace the outer case (cabinet).
- 3) Reconnect the supply.
- 4) Run the oven. Check all functions.

When all service work is completed, and the oven is fully assembled, the microwave power output should be checked and microwave leakage test carried out.

IMPORTANT: If the oven becomes inoperative because of a blown F8A Fuse, check the monitored latch switch and monitor switch before replacing the fuse .

WARNING: WIRING / RE-WIRING

Before carrying out any work; carry out 3D checks.

- 1) Disconnect the supply.
- 2) Open the door and wedge open.
- 3) Discharge the high voltage capacitor.

RE-WIRING

- 1) Wires must not touch:
 - a) High voltage parts.
 - b) Parts that become hot.
 - c) Sharp edges.
 - d) Movable parts.
- 2) Positive lock connectors are fitted correctly
- 3) Wires are connected correctly as per pictorial diagram.
- 4) No wire leads are trapped by the outer wrap.

CAUTION / WARNING

CAUTION MICROWAVE RADIATION

Do not become exposed to radiation from the magnetron or other parts conducting microwave energy. All input and output microwave connections, waveguides, flanges and gaskets must be secured. Never operate the device without a microwave energy absorbing load attached. Never look into an open waveguide or antenna while the device is energized.

WARNING

Servicing and repair work must be carried out only by trained service engineers.

The parts marked '*' on the parts list and schematic diagram have voltages in excess of 250V.

Removal of the outer wrap gives access to potential above 250V.

All the parts marked "Δ" on the parts list may cause undue microwave exposure, by themselves, or when they are damaged, loosened or removed.

WARNING

THIS APPLIANCE MUST BE EARTHED. THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE:
GREEN-AND-YELLOW : EARTH BLUE : NEUTRAL BROWN : LIVE

If the mains lead is replaced, only part number QACCB A030WRE4 should be used

PRODUCT DESCRIPTION

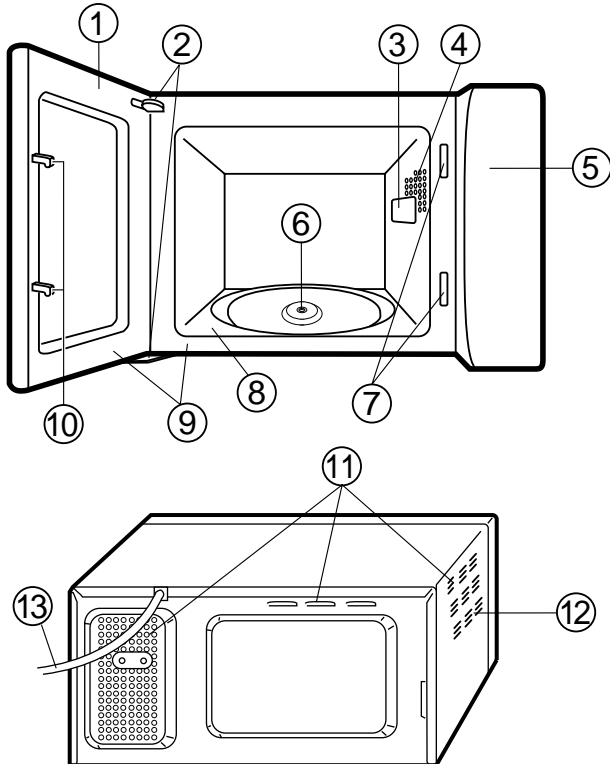
SPECIFICATION

Power Requirements	230-240 Volts 50 Hertz Single phase, 3 wire grounded
Power Consumption	1.2kW
Power Output	800W watts nominal of RF microwave energy (measured by way of IEC60705) Operating frequency of 2450 MHz
Case Dimensions	Width 449mm / Height 282mm including foot / Depth 385mm
Cooking Cavity Dimensions	Width 287mm / Height 220mm / Depth 311mm
Turntable diameter	272mm
Control Complement	<p>Touch Control System Clock(1:00-12:59 or 0:00-23:59) Microwave Power for Variable Cooking Repetition Rate;</p> <p>HIGH Full power throughout the cooking time MEDIUM HIGH approx. 70% of Full Power MEDIUM approx. 50% of Full Power MEDIUM LOW approx. 30% of Full Power LOW approx. 10% of Full Power</p> <p>EXPRESS COOK button EXPRESS DEFROST button POWER LEVEL/WEIGHT button STOP/CLEAR button START/AUTO MINUTE button</p>
Net Weight	Approx. 13.3 kg

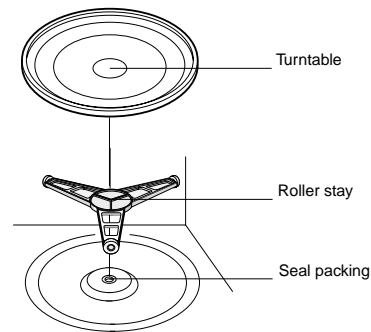
As part of our policy of continuous improvement, we reserve the right to alter design and specifications without notice

APPEARANCE VIEW

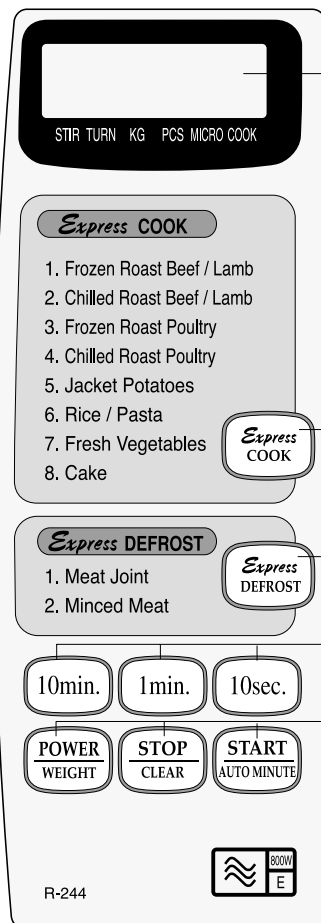
OVEN



1. Door
2. Door hinges
3. Waveguide cover
4. Oven lamp
5. Control panel
6. Rubber seal
7. Door latch openings
8. Oven cavity
9. Door seals and sealing surfaces
10. Safety door latches
11. Ventilation openings
12. Outer case
13. Power supply cord



1. Place the roller stay on the floor of the oven cavity, engaging shaft.
2. Then place the turntable on the roller stay.



1. DIGITAL DISPLAY
2. EXPRESS COOK pad
3. EXPRESS DEFROST pad
4. TIMER Pads
5. POWER /WEIGHT STOP/CLEAR START/AUTO MINUTE Pads

OPERATING SEQUENCE

OFF CONDITION

- When the oven door is opened, the oven lamp comes on at this time.

MICROWAVE COOKING CONDITION

CONNECTED COMPONENTS	RELAY
Oven lamp, Fan motor, Turntable motor	RY1
Power transformer	RY2

- When the cooking time is up, a single tone is heard and the relays RY1 + RY2 go back to their home position. The circuits to the oven lamp, power transformer, fan motor and turntable motor are cut off.
- When the door is opened during a cook cycle, the switches come to the following condition.

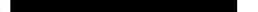




SWITCH	CONTACT	CONDITION	
		DURING COOKING	DOOR OPEN (NO COOKING)
Monitor switch	COM-NC	Open	Closed
Monitored latch switch	COM-NO	Closed	Open
Stop switch	COM-NO	Closed	Open

The circuits to the power transformer, fan motor and turntable motor are cut off when the monitored latch switch and stop switch are made open.

The oven lamp remains on even if the oven door is opened after the cooking cycle has been interrupted, because the relay RY1 stays closed. Shown in the display is the remaining time.

HIGH, MEDIUM HIGH, MEDIUM, MEDIUM LOW, LOW COOKING

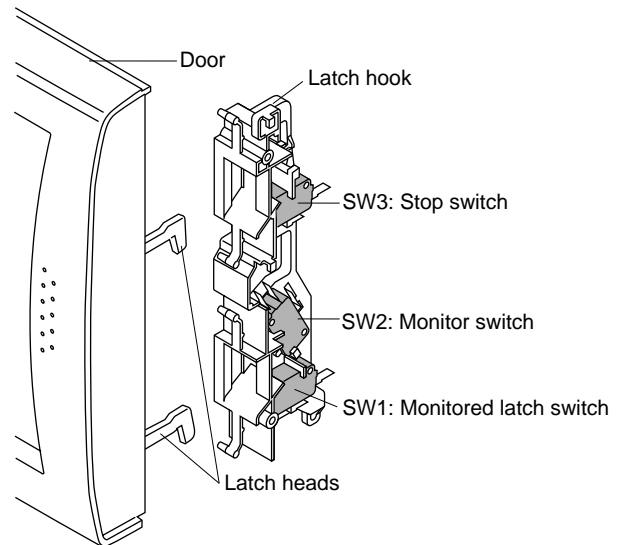
When the microwave oven is preset for variable cooking power, the line voltage is supplied to the power transformer intermittently within a 32-second time base through the relay contact which is coupled with the current-limiting relay (RY2). The following levels of microwave power are given.

	32 sec. ON		Approx. 100% = 800 Watts
HIGH			
	24 sec. ON	8 sec. OFF	
MEDIUM HIGH			Approx. 70% = 560Watts
	18 sec. ON	14 sec. OFF	
MEDIUM			Approx. 50% = 400 Watts
	12 sec. ON	20 sec. OFF	
MEDIUM LOW			Approx. 30% = 240 Watts
	6 sec. ON	26 sec. OFF	
LOW			Approx. 10% = 80 Watts

NOTE: The ON/OFF time ratio does not exactly correspond to the percentage of microwave power, because approx. 3 seconds are needed for heating up the magnetron filament.

DOOR OPEN MECHANISM

The door can be opened by pulling the door.



**Figure D-1. Door Open Mechanism
MONITORED LATCH SWITCH AND STOP SWITCH**

- When the oven door is closed, the contacts (COM-NO) must be closed.

MONITOR SWITCH

- When the oven door is closed, the contacts (COM-NC) must be opened.
- When the oven door is opened, the contacts (COM-NC) must be closed.
- If the oven door is opened and the contacts (COM-NO) of the monitored latch switch fail to open, the fuse F1 blows immediately after closing the contacts (COM-NC) of the monitor switch.

CAUTION: BEFORE REPLACING A BLOWN FUSE F1 TEST MONITORED LATCH SWITCH (SW1) AND MONITOR SWITCH FOR PROPER OPERATION. (REFER TO CHAPTER "TEST PROCEDURE").

FUSE

- The fuse F1 blows when the contacts (COM-NO) of the monitored latch switch remain closed with the oven door open and when the contacts (COM-NC) of the monitor switch are closed.
- If the wire harness or electrical components are short-circuited, the fuse F1 blows to prevent an electric shock or fire hazard.

HVT THERMOSTAT 150°C

The thermostat protects the high voltage transformer against overheating. If the temperature goes up higher than 150°C because the fan motor is interrupted or the ventilation openings are blocked, the thermostat will cycle, line voltage to the high voltage transformer will also cycle. (If operated, check the magnetron for damage.)

OPERATING SEQUENCE

THERMAL CUT-OUT 125°C (OVEN)

The thermal cut-out located on the top of the oven cavity is designed to prevent damage to the oven, if the food in the oven catch fire due to over heating produced by improper setting of cook time or failure of control unit. Under normal operation, the thermal cut-out remains closed. However, when abnormally high temperatures are reached within the oven cavity, the thermal cut-out will open at 125°C, causing the oven to shut down. The defective thermal cut-out must be replaced with a new one.

TURNTABLE MOTOR

The turntable motor drives the turntable roller assembly to rotate the turntable.

FAN MOTOR

The fan motor drives a blade which draws external cool air. This cool air is directed through the air vanes surrounding the magnetron and cools the magnetron. This air is channelled through the oven cavity to remove steam and vapours given off from heating food. It is then exhausted through the exhaust vents at the rear of the oven cavity.

NOISE FILTER

The noise filter assembly prevents radio frequency interference that might flow back into the power circuit.

OUTPUT POWER TEST PROCEDURE

MICROWAVE OUTPUT POWER (IEC-60705)

The power output of this oven is rated using the method specified by IEC-60705. Full details of how to carry out this procedure can be found in the Sharp Technical Training notes which is available from Sharp Parts Centre (part number SERV-LITMW01).

Using this procedure, the heating time to raise 1000g of water by 10°C is approximately 50 seconds.

The IEC-60705 procedure must be carried out using laboratory-type procedures and equipment. These requirements make the procedure unsuitable for routine performance checks. An indication of the power being produced by the oven can however be obtained using the procedure given below.

Alternative simplified method:

1. Place 2 litres of cold water (between 12°C and 20°C) in a suitable container.
2. Stir the water and measure the temperature in °C. Note temperature as T1.
3. Place the container in the microwave and heat the water for 2 minutes on full power.
4. When the 2 minutes is completed, remove the container and stir the water. Note the water temperature as T2.
5. Calculate the output power using the following formula:
$$\text{R.F. Power Output} = (T2 - T1) \times 70.$$

Note: The result from this test should be within 10% of the power rating stated on the rating label.

MICROWAVE LEAKAGE TEST

This oven should be tested for microwave leakage on completion of any repair or adjustment, following the procedure described in the Sharp Technical Training notes (part number SERV-LITMW01). The maximum leakage permitted in BS EN 60335-2-25 is 50W/m² (equivalent to 5mW/cm²), however it is not normal to detect any significant leakage, therefore, any leakage which is detected should be investigated.

It is essential that only leakage detectors with current calibration traceable to the National Physical Laboratories are used.

Suitable leakage detectors : CELTEC A100
 APOLLO X1

TEST PROCEDURES

PROCEDURE LETTER

COMPONENT TEST

A

TOUCH CONTROL PANEL ASSEMBLY TEST

CAUTION

Do not touch the electrical parts and the printed wiring board to prevent an electric shock. Because the control unit is " TRANSLESS CIRCUIT " and all electrical parts are used at A.C. line voltage.

The touch control panel consists of circuits including semiconductors such as LSI, ICs, etc. Therefore, unlike conventional microwave ovens, proper maintenance cannot be performed with only a voltmeter and ohmmeter.

In this service manual, the touch control panel assembly is divided into two units, Control Unit and Switch Unit, and troubleshooting by unit replacement is described according to the symptoms indicated.

1. Switch Unit. Note : Check switch unit lead wire harness connection before replacement.

The following symptoms indicate a defective switch unit. Replace the switch unit.

- a) When touching the keys, a certain key produces no signal at all.
- b) When touching a key, two figures or more are displayed.
- c) When touching the keys, sometimes a key produces no signal.

2. Control Unit

The following symptoms indicate a defective control unit. Before replacing the control unit perform the Switch unit test (Procedure M) to determine if control unit is faulty.

- 2-1 In connection with keys.

- a) When touching the keys, a certain group of keys do not produce a signal.
- b) When touching the keys, no keys produce a signal.

- 2-2 In connection with indicators

- a) At a certain digit, all or some dots do not light up.
- b) At a certain digit, brightness is low.
- c) Only one indicator does not light.
- d) The corresponding dots of all digits do not light up; or they continue to light up.
- e) Wrong figure appears.
- f) A certain group of indicators do not light up.
- g) The figure of all digits flicker.

- 2-3 Other possible problems caused by defective control unit.

- a) Buzzer does not sound or continues to sound.
- b) Clock does not operate properly.
- c) Cooking is not possible.

B

TACT SWITCH TEST

1. Disconnect the oven from the power supply.
2. Discharge the high voltage capacitor.
3. Remove the control unit from the control panel.
4. By using an ohmmeter, check the tact switch operation.
5. When the tact switch is not depressed, an ohmmeter should indicate an open circuit. When the tact switch is depressed, an ohmmeter should indicate a short circuit. If improper operation is indicated, the tact switch is probably defective and should be checked.

C

RELAY TEST

Remove the outer case and check voltage between Pin No 5 of the 3 pin connector (A) and common terminal of the relay (RY2) on the control unit with an A.C. voltmeter.
The meter should indicate rated voltage, if not check oven circuit.

RY1 and RY2 Relay Test

These relays are operated by D.C. voltage

Check voltage at the relay coil with a D.C. voltmeter during the microwave cooking operation.

DC. voltage indicated..... Defective relay.

DC. voltage not indicated Check diode which is connected to the relay coil. If diode is good, control unit is defective.

RELAY SYMBOL	OPERATIONAL VOLTAGE	CONNECTED COMPONENTS
RY1	Approx. 18.0V D.C.	Oven lamp / Turntable motor / Cooling fan motor
RY2	Approx. 7.0V D.C.	High voltage transformer

TEST PROCEDURES

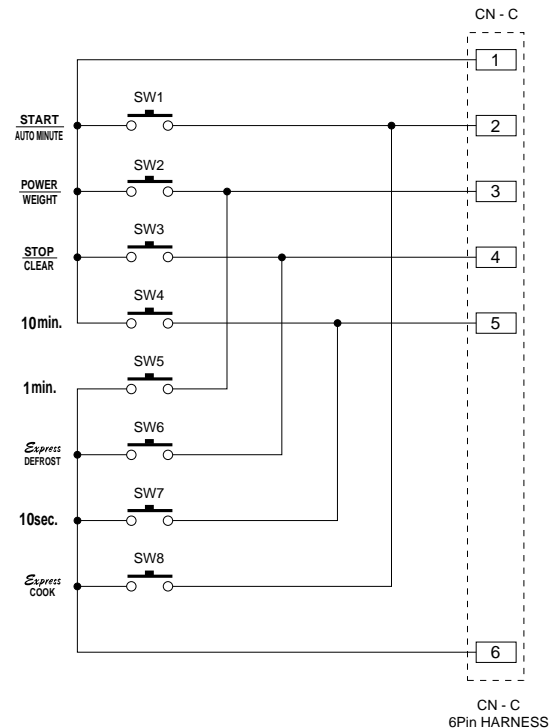
PROCEDURE LETTER

COMPONENT TEST

D

SWITCH UNIT TEST

If the display fails to clear when the STOP/CLEAR key is depressed, first verify the lead wire harness is making good contact, verify that the stop switch operates properly; that is the contacts are closed when the door is closed and open when the door is open. If the stop switch is good, disconnect the lead wire harness that connects the switch unit to the display unit and make sure the stop switch is closed (either close the door or short the stop switch connector). Use the Switch unit matrix indicated on the switch unit circuit and place a jumper wire between the pins that correspond to the STOP/CLEAR key making momentary contact. If the display unit responds by clearing with a beep the switch unit is faulty and must be replaced. If the display unit does not respond, it is a faulty and must be replaced. If a specific key does not respond, the above method may be used (after clearing the display unit) to determine if the display unit or switch unit is at fault.



E

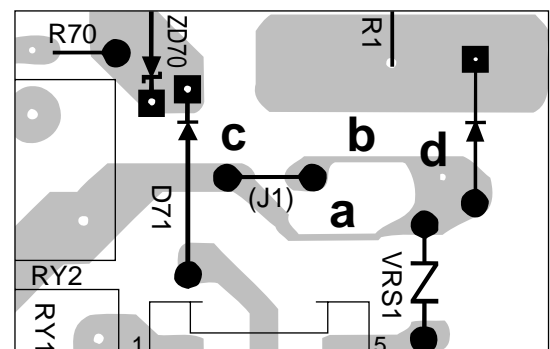
PROCEDURES TO BE TAKEN WHEN THE FOIL PATTERN ON THE PRINTED WIRING BOARD (PWB) IS OPEN

To protect the electronic circuits, this model is provided with a fine foil pattern added to the input circuit on the PWB, this foil pattern acts as a fuse. If the foil pattern is open, follow the troubleshooting guide given below for repair.

Problem: POWER ON, indicator does not light up.

STEPS	OCCURRENCE	CAUSE OR CORRECTION
1	The rated voltage is not applied between Pin No. 5 of the 3 pin connector (A) and the common terminal of the relay RY2.	Check supply voltage and oven power cord.
2	Only pattern at "a" is broken.	*Insert jumper wire J1 and solder.
3	Pattern at "a" and "b" are broken.	*Insert the coil RCILF2003YAZZ between "c" and "d".

NOTE: *At the time of making these repairs, make a visual inspection of the varistor. Check for burned damage. If any abnormal condition is detected, replace the defective parts.



TOUCH CONTROL PANEL ASSEMBLY

OUTLINE OF TOUCH CONTROL PANEL

The touch control section consists of the following units.

- (1) Switch Unit
- (2) Control Unit

The principal functions of these units and the signals communicated among them are explained below.

Switch Unit

The switch unit is composed of a matrix, signals generated in the LSI are sent to the switch unit through R60, R61, R62 and R63.

When a switch button is touched, a signal is completed through the switch unit and passed back to the LSI through R81 and R83 to perform the function that was requested.

Control Unit

Control unit consists of LSI, ACL circuit, indicator circuit, power source circuit, relay circuit, buzzer circuit, synchronizing signal circuit and back light circuit.

1) ACL

This circuit generates a signal which resets the LSI to the initial state when power is supplied.

2) Indicator Circuit

This circuit consists of 4-digits, 12-segments and 3-common electrodes using a Liquid Crystal Display.

3) Power Source Circuit

This circuit generates voltage necessary in the control unit from the AC line voltage.

Symbol	Voltage	Application
VC	+5V	LSI(IC1)

4) Relay Circuit

To drive the magnetron, fan motor, turntable motor and light the oven lamp.

5) Buzzer Circuit

The buzzer is responsive to signals from the LSI to emit audible sounds (tact switch touch sound and completion sound).

6) Synchronizing Signal Circuit

The power source synchronizing signal is available in order to compose a basic standard time in the clock circuit. It accompanies a very small error because it works on commercial frequency.

7) Door Sensing Switch (Stop Switch)

A switch to "tell" the LSI if the door is open or closed.

8) Back Light Circuit

A circuit to drive the back light (Light emitting diodes LED1-LED3)

DESCRIPTION OF LSI

LSI(IXA085DR)

The I/O signal of the LSI(IXA085DR) are detailed in the following table.

Pin No.	Signal	I/O	Description
1-12	SEG0 - SEG11	OUT	Segment data signal. Connected to LCD. The relation between signals are as follows: <div style="display: flex; justify-content: space-between;"> <div> LSI signal (Pin No.) LCD (Pin No.) SEG 0 (1) S6 SEG 1 (2) S7 SEG 2 (3) S8 SEG 3 (4) S9 SEG 4 (5) S10 SEG 5 (6) S11 </div> <div> LSI signal (Pin No.) LCD (Pin No.) SEG 6 (7) S12 SEG 7 (8) S5 SEG 8 (9) S4 SEG 9 (10) S3 SEG 10 (11) S2 SEG 11 (12) S1 </div> </div>
13	R60	OUT	Tact switch strobe signal. Signal applied to tact switch section. A pulse signal is input to R81 or R83 terminal while the tact switch SW1 or SW8 is touched.
14	R61	OUT	Tact switch strobe signal. Signal applied to tact switch section. A pulse signal is input to R81 or R83 terminal while the tact switch SW2 or SW5 is touched.
15	R62	OUT	Tact switch strobe signal. Signal applied to tact switch section. A pulse signal is input to R81 or R83 terminal while the tact switch SW3 or SW6 is touched.
16	R63	OUT	Tact switch strobe signal. Signal applied to tact switch section. A pulse signal is input to R81 or R83 terminal while the tact switch SW4 or SW7 is touched.
17	AIN0	IN	To input signal which communicates the door open/close information to LSI. Door close "L" level signal (0V). Door open "H" level (+5V)
18-20	AIN1-AIN3	IN	Terminal to change functions according to the Model. By using the A/D converter contained in the LSI, DC voltage in accordance with the Model in operation is applied to set up its function.
21	VSS	IN	Power source voltage: 0V. VSS voltage of power source circuit input.
22	R70	OUT	Magnetron high-voltage circuit driving signal. To turn on and off the cook relay (RY2). The signals holds "L" level during microwave cooking and "H" level while not cooking. In other cooking modes (variable cooking) the signal turns to "H" level and "L" level in repetition according to the power level. <div style="text-align: right;"> </div>
23	R71	OUT	Signal to sound buzzer (2.0 kHz). A: Tact switch touch sound. B: Completion sound. <div style="text-align: right;"> </div>
24	R72	OUT	Oven lamp, fan motor and turntable motor driving signal. To turn on and off shut off relay (RY1). The square waveform voltage is delivered to the RY1 driving circuit. <div style="text-align: right;"> </div>
25	R73	IN	Terminal not used.
26	INT2	IN	Signal synchronized with commercial power source frequency. This is the basic timing for time processing of LSI. <div style="text-align: right;"> </div>

DESCRIPTION OF LSI

LSI(IXA085DR)

The I/O signal of the LSI(IXA085DR) are detailed in the following table

Pin No.	Signal	I/O	Description
27	R81	IN	<u>Signal coming from tact switch.</u> When either of tact switches SW5-SW8 is touched, a corresponding signal out of R60, R61, R62 and R63 will be input into R81. When no tact switch is touched, the signal is held at "H" level.
28	INT1	IN	Terminal not used.
29	R83	IN	<u>Signal coming from tact switch.</u> When either of tact switches SW1-SW4 is touched, a corresponding signal out of R60, R61, R62 and R63 will be input into R83. When no tact switch is touched, the signal is held at "H" level.
30-32	R90-R92	OUT	Terminal not used.
33	XIN	IN	<u>Internal clock oscillation frequency setting input.</u> The internal clock frequency is set by inserting the capacitor and resistor circuit with respect to XOUT terminal.
34	XOUT	OUT	<u>Internal clock oscillation frequency control output.</u> Output to control oscillation input of XIN.
35	RESET	IN	<u>Auto clear terminal.</u> Signal is input to reset the LSI to the initial state when power is supplied. Temporarily set "L" level the moment power is supplied, at this time the LSI is reset. Thereafter set at "H" level.
36	HOLD	IN/OUT	Connected to VDD.
37	VLC	IN	<u>Signal synchronized with commercial power source frequency.</u> Signal similar to VSS.
38	COM1	OUT	<u>Common data signal.</u> Connected to LCD(C1).
39	COM2	OUT	<u>Common data signal.</u> Connected to LCD(C2).
40	COM3	OUT	<u>Common data signal.</u> Connected to LCD (C3).
41	COM4	OUT	Terminal not used.
42	VDD	IN	<u>Power source voltage input terminal.</u> Connected to VC.

TOUCH CONTROL PANEL ASSEMBLY

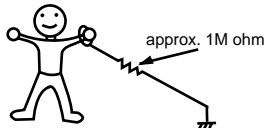
SERVICING

1. Precautions for Handling Electronic Components

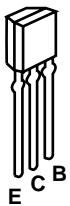
This unit uses CMOS LSI in the integral part of the circuits. When handling these parts, the following precautions should be strictly followed. CMOS LSI have extremely high impedance at its input and output terminals. For this reason, it is easily influenced by the surrounding high voltage power source, static electricity charge in clothes, etc., and sometimes it is not fully protected by the built-in protection circuit.

In order to protect CMOS LSI.

- 1) When storing and transporting, thoroughly wrap them in aluminium foil. Also wrap PW boards containing them in aluminium foil.
- 2) When soldering, ground the technician as shown in the figure and use grounded soldering iron and work table.



2. Shapes of Electronic Components



Transistor
2SA1267Y
KRA101M
KRC101M
KRC105M

3. Servicing of Touch Control Panel

We describe the procedures to permit servicing of the touch control panel of the microwave oven and the precautions you must take when doing so.

To perform the servicing, power to the touch control panel is available either from the power line of the oven itself or from an external power source.

(1) Servicing the touch control panel with power supply of the oven :

CAUTION:

THE HIGH VOLTAGE TRANSFORMER OF THE MICROWAVE OVEN IS STILL LIVE DURING SERVICING AND PRESENTS A HAZARD .

Therefore, when checking the performance of the touch control panel, put the outer cabinet on the oven to avoid touching the high voltage transformer, or unplug the primary terminal (connector) of the high voltage transformer to turn it off; the end of such connector must be insulated with an insulating tape. After servicing, be sure to replace the leads to their original locations.

A. On some models, the power supply cord between the touch control panel and the oven itself is so short that the two can't be separated.

For those models, check and repair all the controls (sensor-related ones included) of the touch control

panel while keeping it connected to the oven.

- B.** On some models, the power supply cord between the touch control panel and the oven proper is so long enough that they may be separated from each other. For those models, therefore, it is possible to check and repair the controls of the touch control panel while keeping it apart from the oven proper; in this case you must short both ends of the door sensing switch (on PWB) of the touch control panel with a jumper, which brings about an operational state that is equivalent to the oven door being closed. As for the sensor-related controls of the touch control panel, checking them is possible if the dummy resistor(s) with resistance equal to that of the controls are used.

(2) Servicing the touch control panel with power supply from an external power source:

Disconnect the touch control panel completely from the oven proper, and short both ends of the door sensing switch (on PWB) of the touch control panel, which brings about an operational state that is equivalent to the oven door being closed. Connect an external power source to the power input terminal of the touch control panel, then it is possible to check and repair the controls of the touch control panel; it is also possible to check the sensor-related controls of the touch control panel by using the dummy resistor(s).

4. Servicing Tools

Tools required to service the touch control panel assembly.

- 1) Soldering iron: 30W
(It is recommended to use a soldering iron with a grounding terminal.)
- 2) Oscilloscope: Single beam, frequency range: DC - 10MHz type or more advanced model.
- 3) Others: Hand tools

5. Other Precautions

- 1) Before turning on the power source of the control unit, remove the aluminium foil applied for preventing static electricity.
- 2) Connect the connector of the key unit to the control unit being sure that the lead wires are not twisted.
- 3) After aluminium foil is removed, be careful that abnormal voltage due to static electricity etc. is not applied to the input or output terminals.
- 4) Attach connectors, electrolytic capacitors, etc. to PWB, making sure that all connections are tight.
- 5) Be sure to use specified components where high precision is required.

COMPONENT REPLACEMENT AND ADJUSTMENT PROCEDURE

WARNING: Avoid possible exposure to microwave energy. Please follow the instructions below before operating the oven.

1. CARRY OUT 3D CHECKS.
2. Make sure that a definite "click" can be heard when the microwave oven door is unlatched. (Hold the door in a closed position with one hand, then push the door open button with the other, this causes the latch heads to rise, it should then be possible to hear a "click" as the door switches operate.)
3. Visually check the door and cavity face plate for damage (dents, cracks, signs of arcing etc.).
2. Door hinge, support or latch hook is damaged.
3. The door seal is damaged.
4. The door is bent or warped.
5. There are defective parts in the door interlock system.
6. There are defective parts in the microwave generating and transmission assembly.
7. There is visible damage to the oven.

Carry out any remedial work that is necessary before operating the oven.

Do not operate the oven if any of the following conditions exist;

1. Door does not close firmly.

Do not operate the oven:

1. Without the RF gasket (Magnetron).
2. If the wave guide or oven cavity are not intact.
3. If the door is not closed.
4. If the outer case (cabinet) is not fitted.

POWER SUPPLY CORD REPLACEMENT

Removal

1. CARRY OUT 3D CHECKS.
2. Remove the single (1) screw holding the green/yellow wire to the cavity.
3. Disconnect the leads of the power supply cord from the noise filter, referring to the Figure C-3 (a).
4. Release the power supply cord from the rear cabinet.
5. Now, the power supply cord is free.

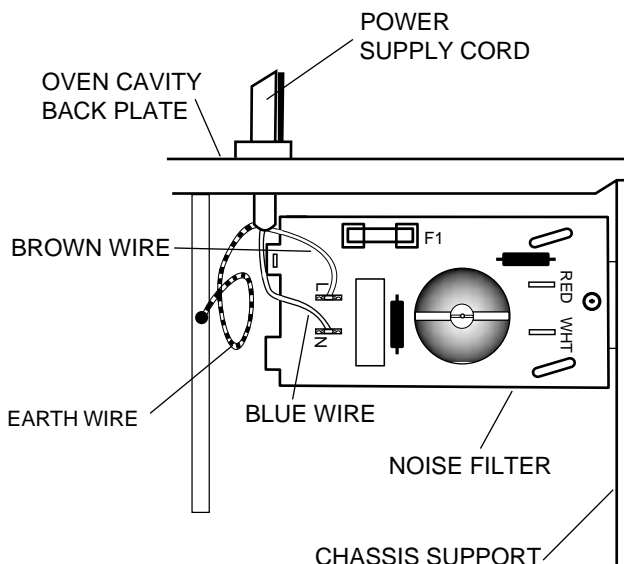


Figure C-3 (a) Replacement of Power Supply Cord

Re-install

1. Insert the moulding cord stopper of power supply cord into the square hole of the rear cabinet, referring to the Figure C-3 (b). Installation of Power supply cord.
2. Install the earth wire lead of power supply cord to the cavity with one (1) screw and nut and tighten the screw.
3. Connect the brown and blue wire leads of power supply cord to the noise filter correctly, referring to the Pictorial Diagram.

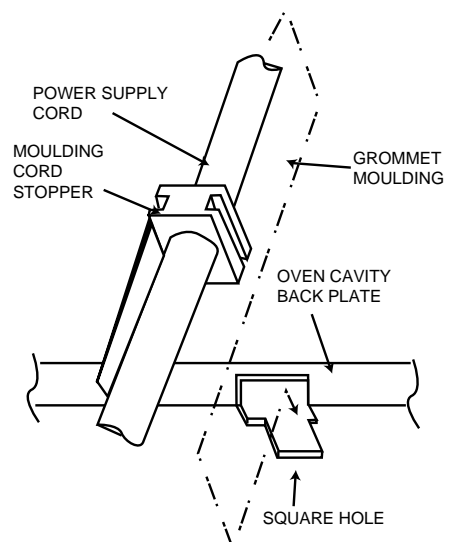


Figure C-3 (b) Replacement of Power Supply Cord

COMPONENT REPLACEMENT AND ADJUSTMENT PROCEDURE

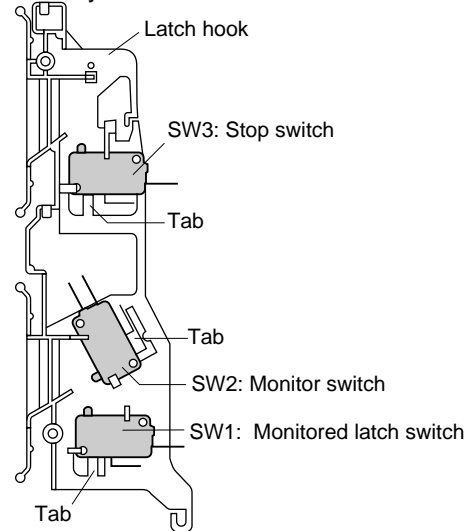
REMOVAL

1. CARRY OUT 3D CHECKS.
2. Disconnect the wire leads from the switches and control panel.
3. Remove the control panel assembly from the oven cavity front flange. Referring to chapter "CONTROL PANEL ASSEMBLY REMOVAL".
4. Remove the two (2) screw holding the latch hook to the oven flange.
5. Remove the latch hook assembly from the oven flange.
6. To remove the switch.
 - 6-1. With pushing outward on the tab that is holding the switch, turn the switch so that the post is an axis.
 - 6-2. Pull out the switch from the latch hook. Do not break the post or tab of the latch hook.
 - 6-3. Now the switch is free.

Re-install

1. Re-install each switch in its place. The monitored latch switch is in the lower position and the monitor switch is in the middle position. The stop switch is in the upper position.
2. Re-connect wire leads to each switch. Refer to "Pictorial Diagram" page 17.
3. Secure latch hook (with two (2) mounting screws) to oven flange.

4. Re-install the control panel assembly to the oven cavity front flange.
5. Re-connect wire leads to the control unit. Refer to "Pictorial Diagram" page 17.
6. Make sure that monitor switch is operating properly and check continuity of the monitor circuit. Refer to chapter



"Test Procedure", and Adjustment Procedure below.

Figure C-2. Latch Switch Removal

MONITORED LATCH SWITCH, MONITOR SWITCH AND STOP SWITCH ADJUSTMENT

1. CARRY OUT 3D CHECKS.

If the monitored latch switch, stop switch and monitor switch do not operate properly due to a misadjustment, the following adjustment should be made.

2. Loosen the two (2) screws holding the latch hook to the flange of the oven front face.
3. With the door closed, adjust latch hook by moving it back and forth and up and down. In and out play of the door allowed by the upper and lower position of the latch hook should be less than 0.5mm. The horizontal position of the latch hook should be adjusted so that the monitor switch is activated with the door closed. The vertical position of the latch hook should be adjusted so that the stop switch and the monitored latch switch are activated with the door closed.
4. Secure the screws firmly.
5. Check the operation of all switches. If each switch has not activated with the door closed, loosen screw and adjust the latch hook position.

After adjustment, make sure of the following.

1. In and out play of the door remains less than 0.5mm when in the latched position. First check upper position of latch hook, pushing and pulling upper portion of door toward the oven face. Then check lower portion of the latch hook, pushing and pulling lower portion of door toward the oven face. Both results (play in the door) should be less than 0.5mm.

2. The monitored latch switch and stop switch interrupt the circuit before the door can be opened.
3. The monitor switch contacts (COM-NC) close when the door is opened.
4. Re-install outer case and check for microwave leakage around the door with an approved microwave survey meter. (Refer to Microwave Measurement Procedure.)

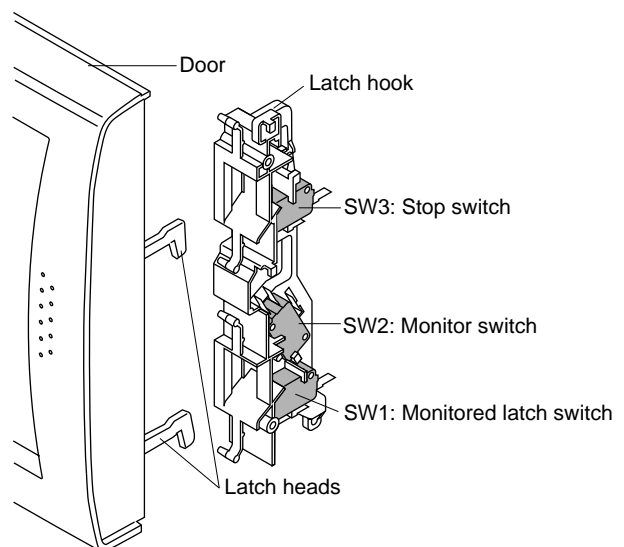


Figure C-3. Latch Switch Adjustments

COMPONENT REPLACEMENT AND ADJUSTMENT PROCEDURE

REMOVAL

1. Disconnect the power supply cord.
2. Open the door slightly.
3. Remove the choke cover taking care not to break clips by inserting an iron plate (thickness of about 0.5mm) or flat type screw driver to the gap between the choke cover and door panel as shown Figure C-4 to free the engaged parts.
4. Release choke cover from door panel.
5. Now choke cover is free.

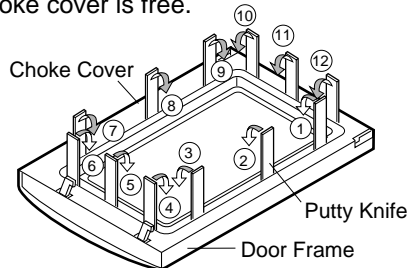


Figure C-4. Door Disassembly

6. Release two (2) pins of door panel from two (2) holes of upper and lower oven hinges by lifting up.
7. **1. Remove door assy by removing screws (4).**
8. Release door panel from tabs of door frame and remove door frame by sliding the door panel downward.
9. Now, door panel with inner sealer film is free.
10. Tear inner sealer film from door panel.
11. Now, door panel is free.
12. Slide latch head upward and remove it from door frame with releasing latch spring from door frame and latch head.
13. Now, latch head and latch spring are free.
14. **Remove Glass Stopper Screw (noting position of stopper) and slide stopper down while lifting up.**
15. **Slide glass towards Glass Stopper position and then down towards the lower edge of the door frame.**
16. **Lift upper edge of glass, which will now be free from upper clips and remove from lower clips.**
17. **Refitting is a reversal of the above when refitting, ensure the glass and the glass stopper is in the original position.**

RE-INSTALL

1. Re-install the outer door glass to the door frame with the glass stopper.
2. Hold the glass stopper with the one (1) screw.
3. Re-install latch spring to the head. Re-install latch spring to the door frame. Re-install latch head to the door frame.
4. Re-install door panel to door frame by fitting tabs of door frame to holes of door panel.
5. Put sealer film on door panel. Refer to "Inner Sealer Film" and figure C-6, on how to handle the new film.
6. Catch two (2) pins of door panel on two (2) hole of upper and lower oven hinges.
7. Re-install choke cover to door panel by pushing.

Note: After any service to the door;

(A) Make sure that monitored latch switch, stop switch and monitor switch are operating properly. (Refer to chapter "Test Procedures").

(B) An approved microwave survey meter should be used to assure compliance with proper microwave radiation emission limitation standards.

After any service, make sure of the following :

1. Door latch heads smoothly catch latch hook through latch holes and that latch head goes through center of latch hole.
2. Deviation of door alignment from horizontal line of cavity face plate is to be less than 1.0mm.
3. Door is positioned with its face pressed toward cavity face plate.
4. Check for microwave leakage around door with an approved microwave survey meter. (Refer to Microwave Measurement Procedure.)

Note: The door on a microwave oven is designed to act as an electronic seal preventing the leakage of microwave energy from oven cavity during cook cycle. This function does not require that door be air-tight, moisture (condensation)-tight or light-tight. Therefore, occasional appearance of moisture, light or sensing of gentle warm air movement around oven door is not abnormal and do not of themselves, indicate a leakage of microwave energy from oven cavity.

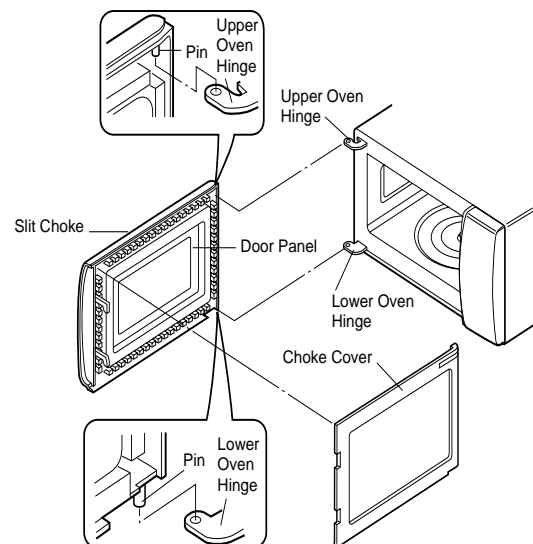


Figure C-5. Door Replacement

INNER SEALER FILM

NOTE: When carrying out any repair to the door, do not bend or warp the slit choke (tabs on the door panel assembly) to prevent microwave leakage.

Installation

1. Tear away the backing film.
3. Put the pasted side of the inner sealer film on the door panel.

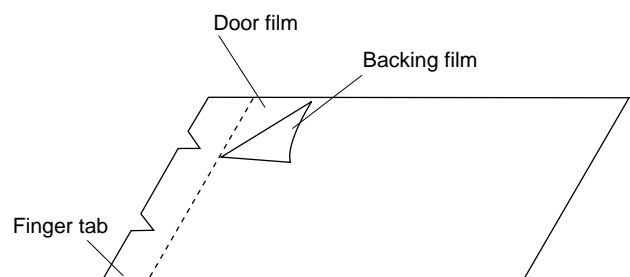


Figure C-6. Inner Sealer Film

MICROWAVE MEASUREMENT

After any repair, the microwave oven must be checked for microwave leakage to ensure continued safe operation. BS EN 60335-2-25 specifies that the maximum permitted leakage with a load of 275 ml is 50 W/m² (equivalent to 5 mW/cm²) at a distance of 5 cm from the oven.

PREPARATION

The following items are required to carry out this test:-

1. A low form of 600 ml beaker made from an electrically non-conductive material, such as glass or plastic, with an inside diameter of approximately 8.5 cm. This must contain 275 ± 15 ml of water, at an initial temperature of $20 \pm 2^\circ\text{C}$.
2. A leakage detector which has been calibrated within the preceding 12 months to a standard whose accuracy can be traced to National Physical Laboratory Standards.

Recommended instruments are:

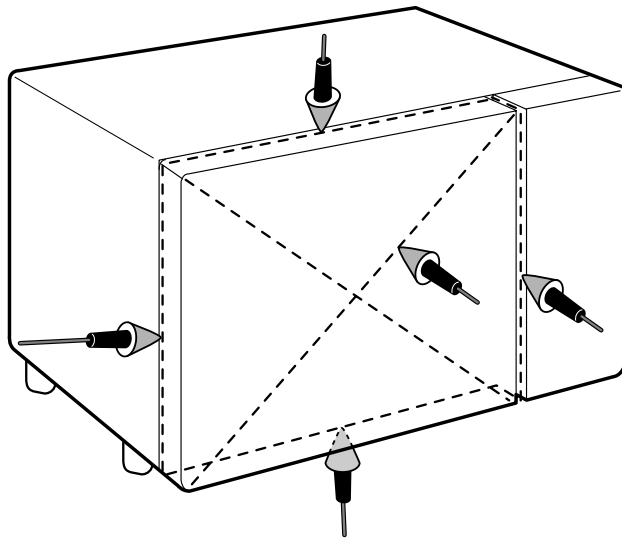
Apollo "XI"

Celtec "A100"

Before commencing the test, check that the leakage detector is functioning and adjusted according to the manufacturer's instructions, and any spacers are fitted to ensure that measurement is taken 5cm from the surface of the oven.

PROCEDURE

1. Place the beaker containing the water load in the oven cavity at the centre of the turntable. The placing of this standard load in the oven is important, not only to protect the oven, but also to ensure that any leakage it is not disguised by too large a load absorbing energy.
2. Close the oven door, and with the power level set to FULL, turn the oven ON with the timer set for a few minutes operation. Should the water begin to boil before the test has been completed, it should be replaced.
3. As shown in the diagram below, move the probe slowly (not faster than 2.5 cm/sec.);-
 - a) around the edge of the door following the gap
 - b) across the face of the door
 - c) across any vents in the oven's sides, rear or top



Dotted line indicates the path by the leakage detector.

Whilst the maximum leakage permitted in BS60335 2-25 is 50 W/m² (equivalent to 5 W/cm²), it is not normal to detect any significant leakage, and therefore any detected leakage should be investigated.

SCHEMATIC DIAGRAMS

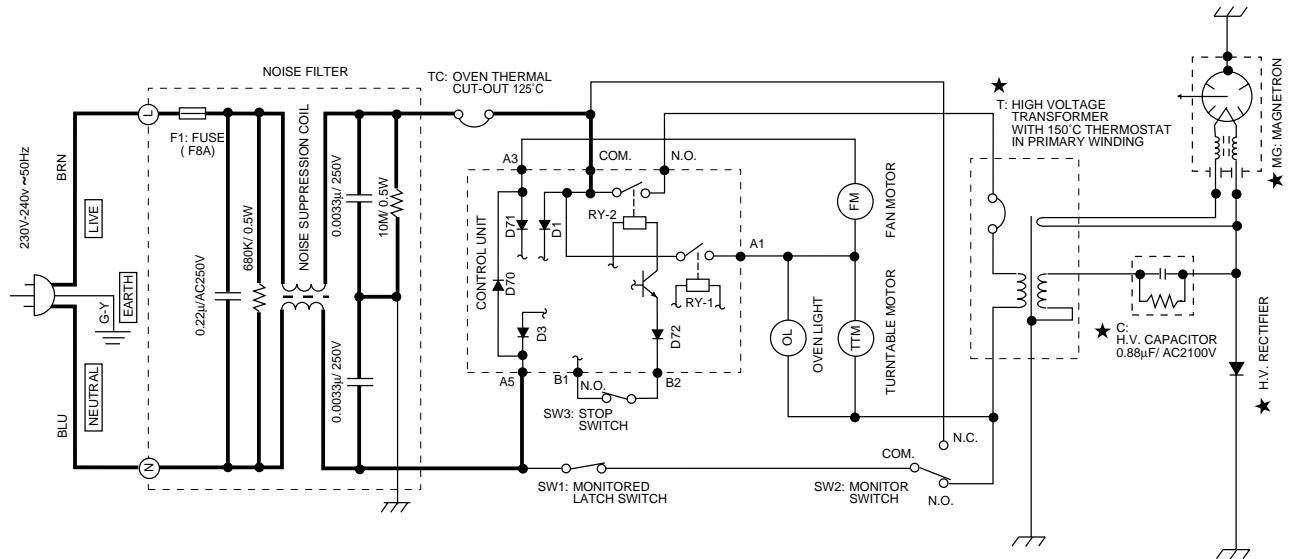
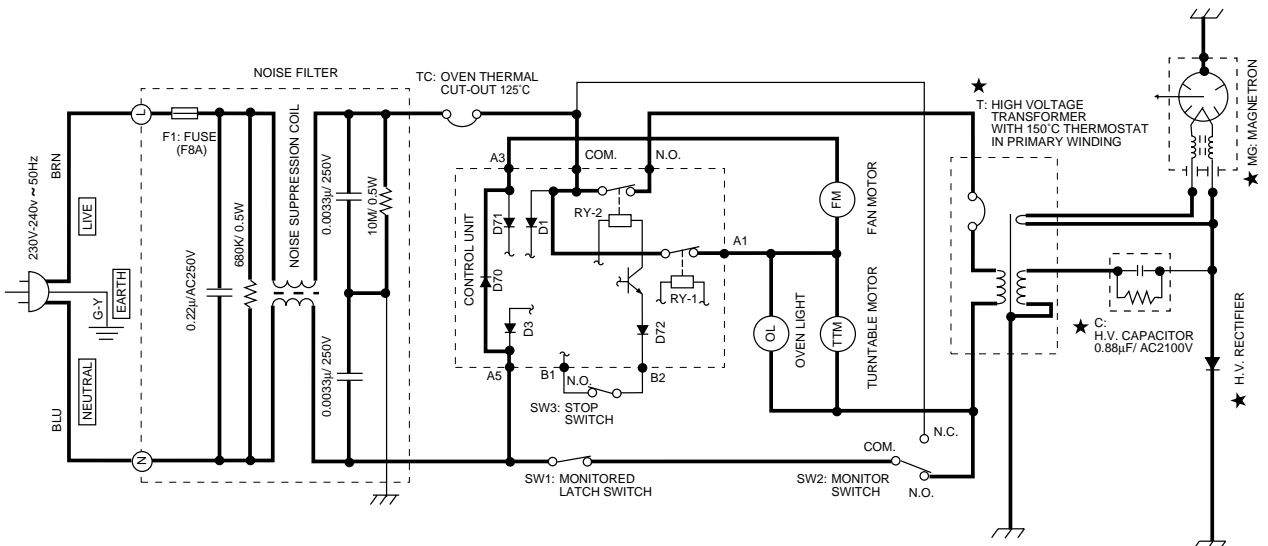


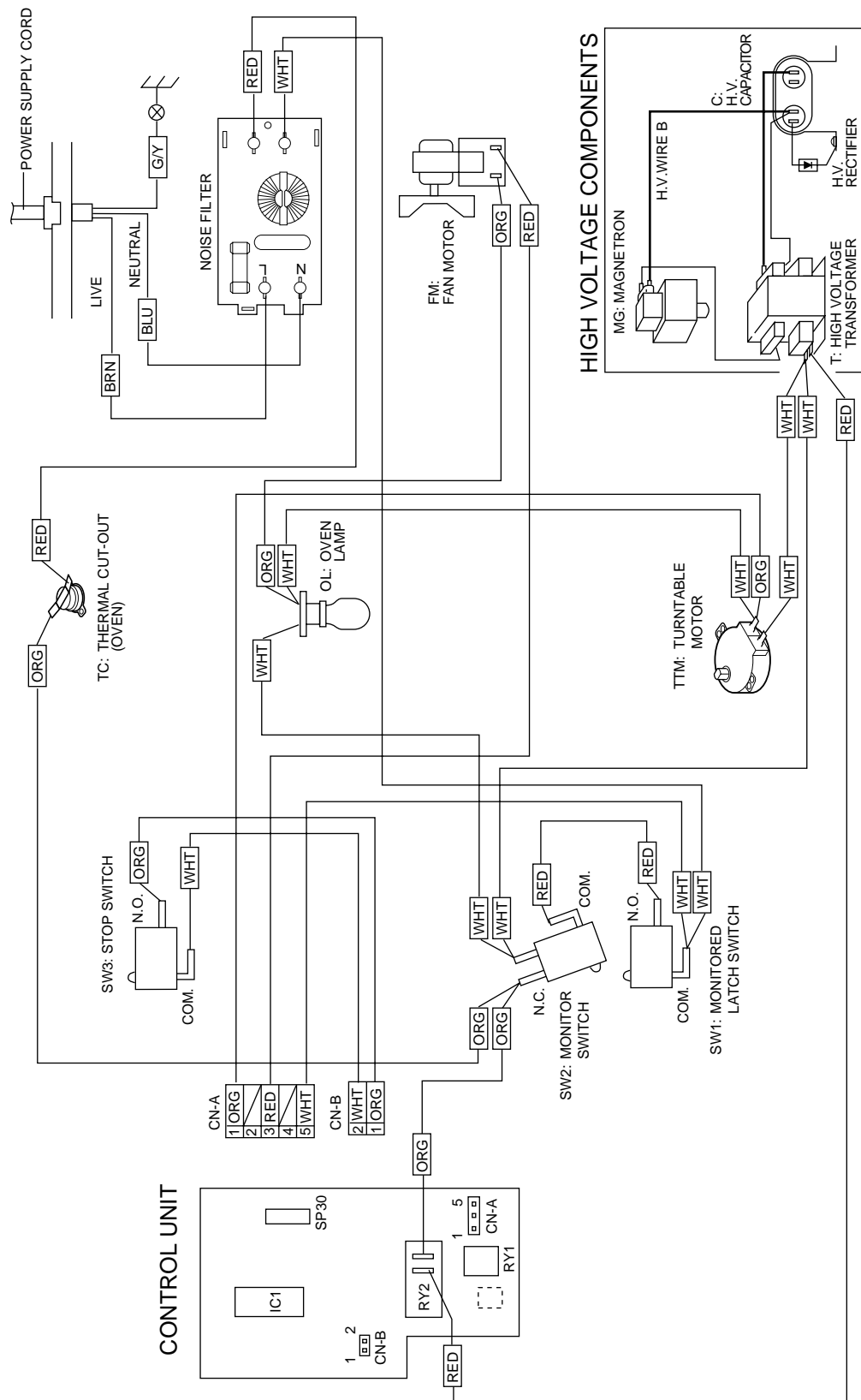
Figure 0-1 Schematic-OFF Condition, Door Closed



*NOTE: PARTS WITH POTENTIALS ABOVE 250V

Figure 0-2 Schematic-ON Condition, Door Closed.

PICTORIAL DIAGRAM



NOTE: Most of the terminals are Positive Lock (No-Case type). **Figure S-1. Pictorial Diagram**

CONTROL PANEL CIRCUIT DIAGRAM

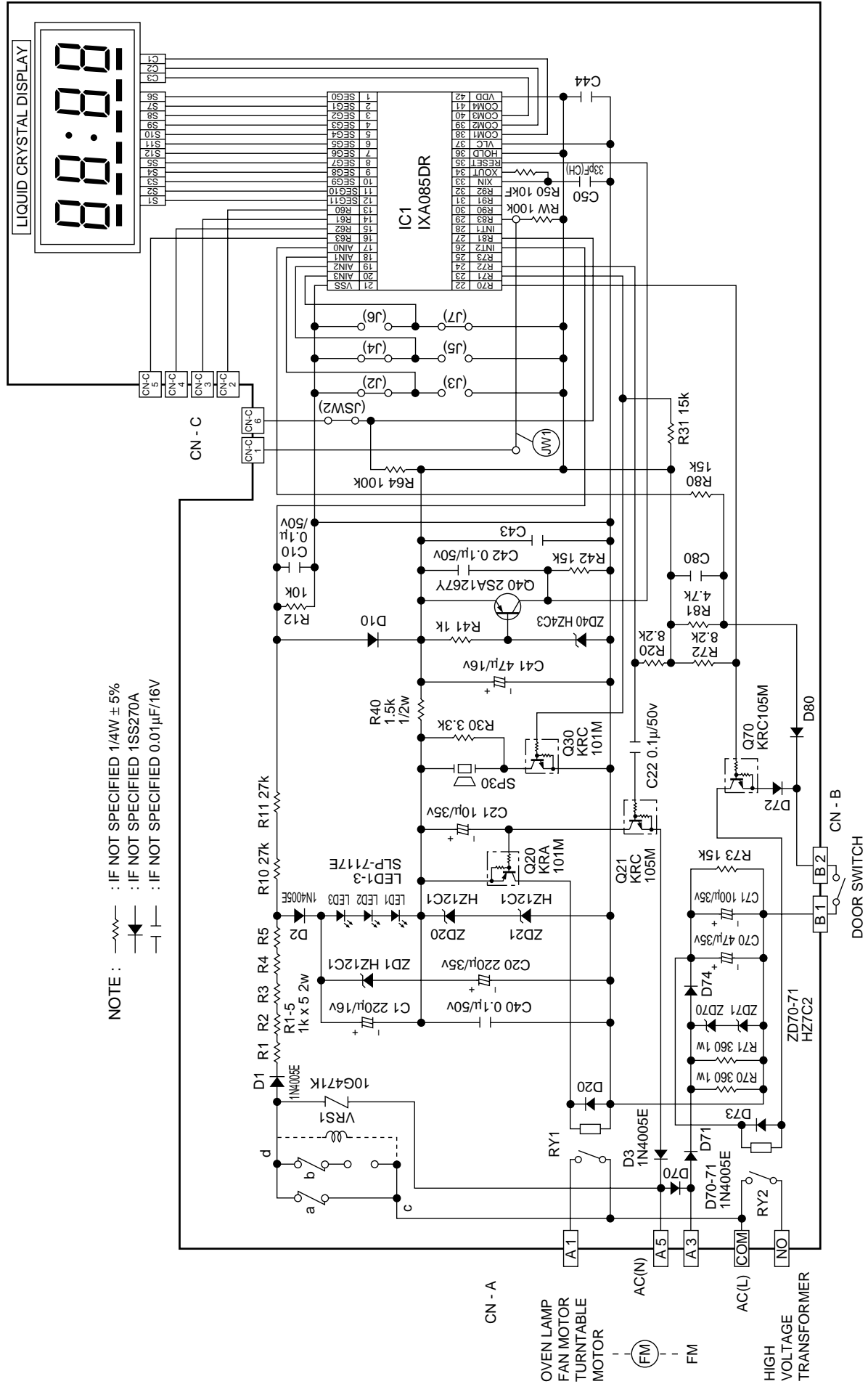


Figure S-2. Control Panel Circuit

SWITCH UNIT CIRCUIT DIAGRAM

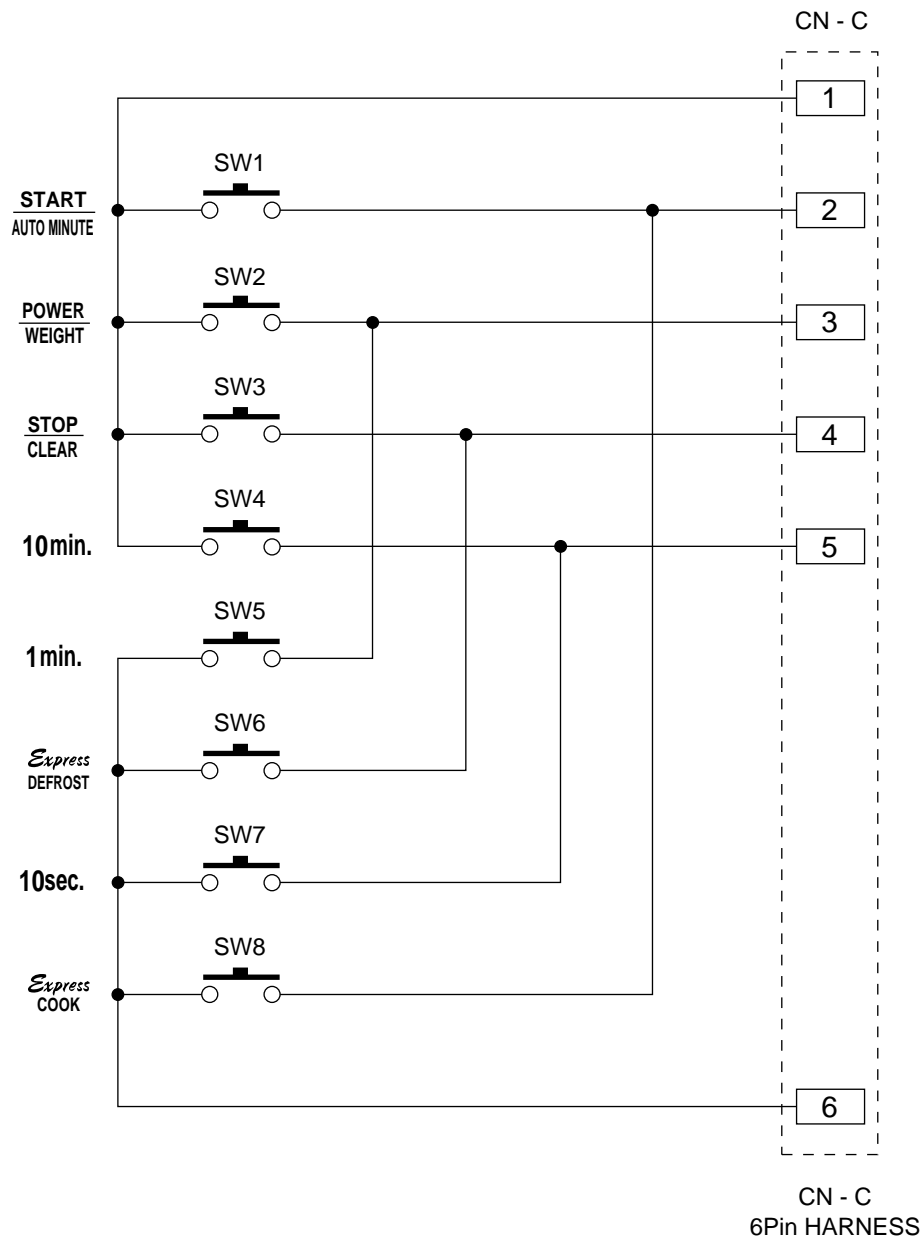


Figure S-3. Switch Unit Circuit

PRINTED WIRING BOARD OF CONTOL PANEL DIAGRAM

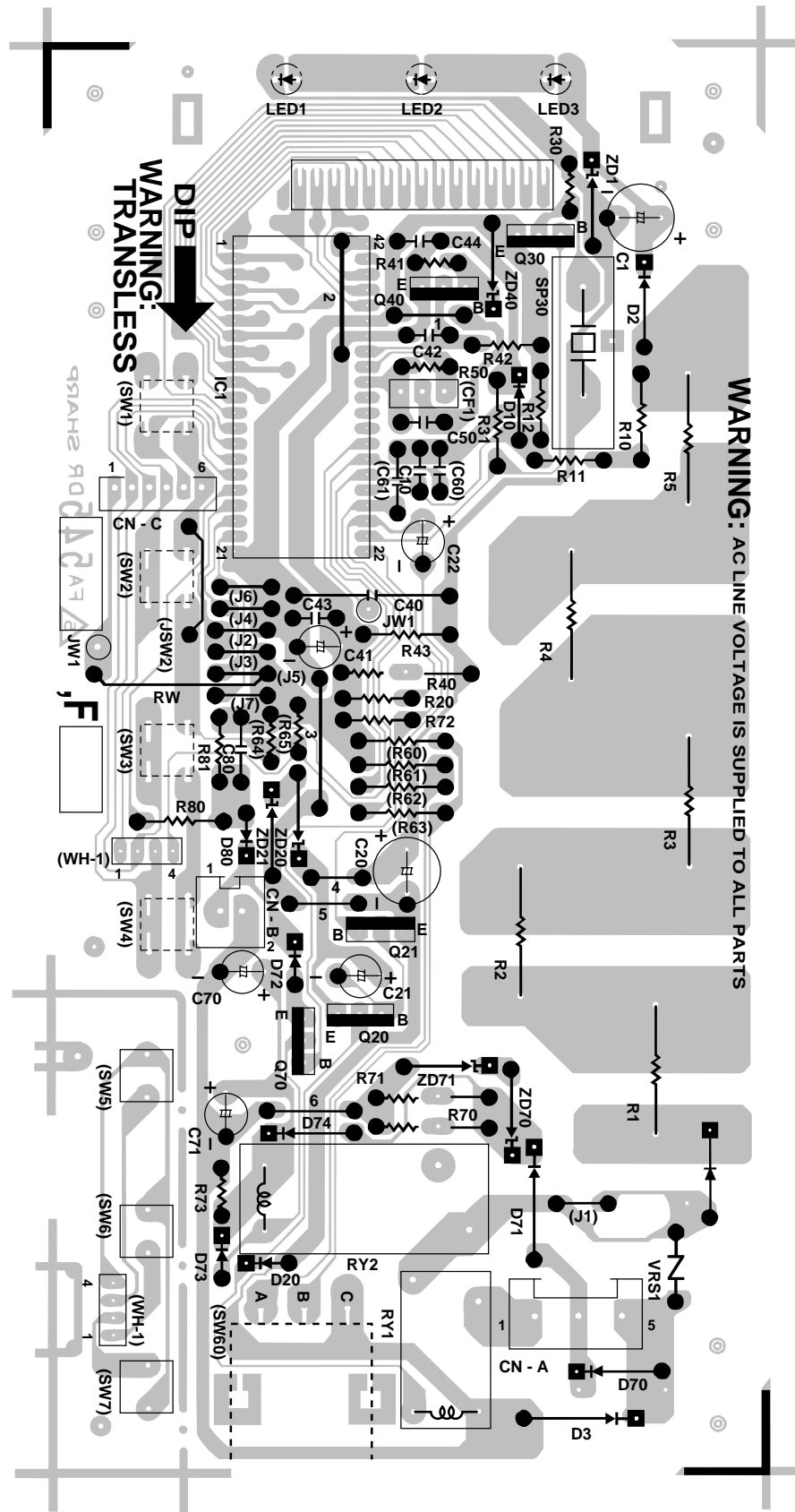


Figure S-3. Printed Wiring Board of Control unit

PRINTED WIRING BOARD OF SWITCH UNIT DIAGRAM

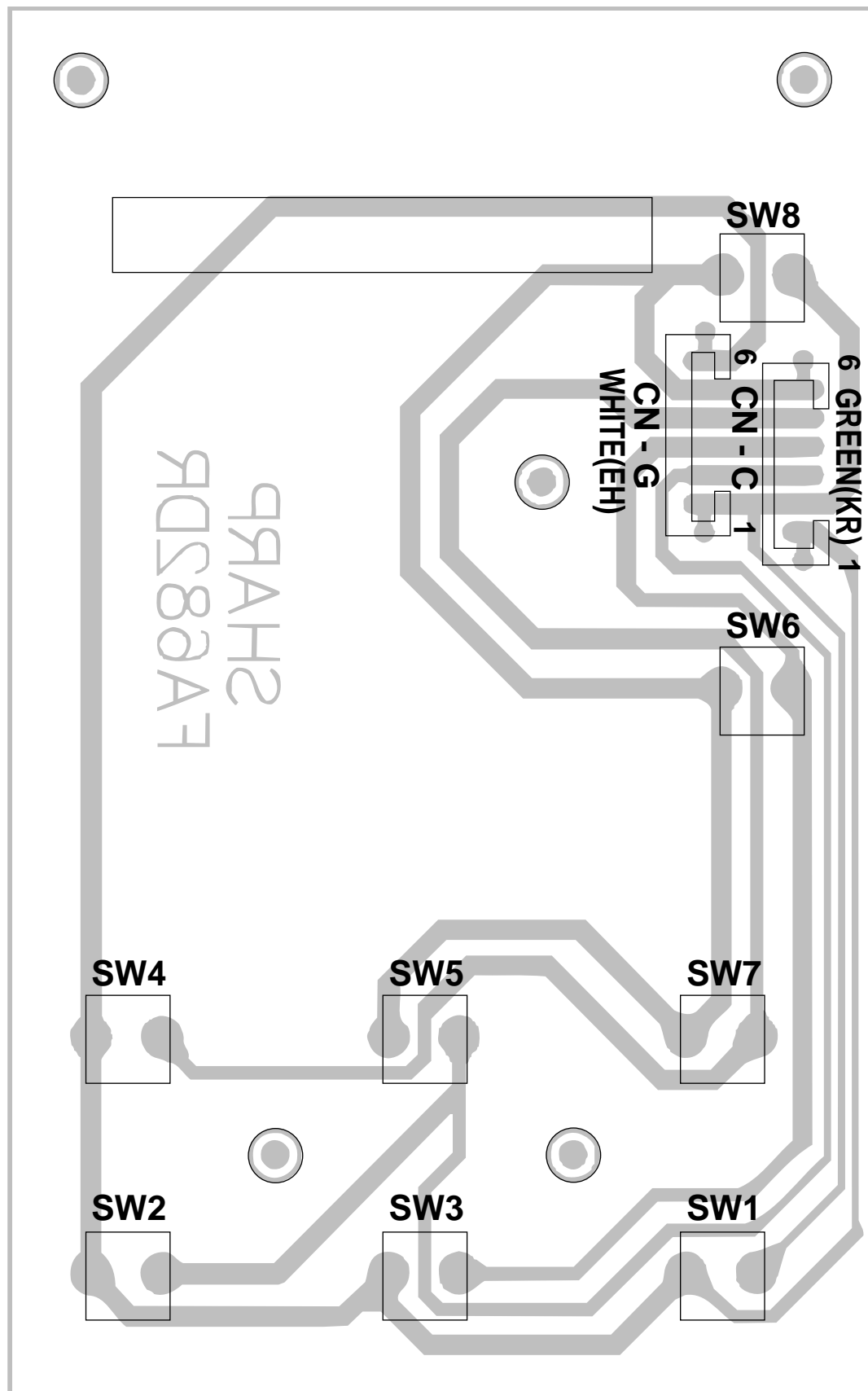


Figure S-5. Printed Wiring Board of Switch Unit

PARTS LIST

Note: The parts marked "*" are used in voltage more than 250V. The parts marked Δ may cause undue microwave exposure

"S" MARK: SPARE PARTS-DELIVERY SECTION

REF NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
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ELECTRIC PARTS

1-1	RH-DZA048WRE0	U	H.V. rectifier assembly	1	AM	*
1-2	RC-QZA297WRZZ	U	High voltage capacitor	1	AN	*
1-3	QSW-MA146WRZZ	U	Monitor switch	1	AC	
1-4	QSW-MA147WRZZ	U	Monitored latch switch	1	AC	
1-5	QSW-MA147WRZZ	U	Stop switch	1	AC	
1-6	FPWBFA308WRE2	U	Noise filter	1	AQ	
1-7	QFS-CA025WRE0	U	Fuse F8A	1	AC	
1-11	RTHM-A122WRZZ	U	Thermal cut-out 125°C (Oven)	1	AG	
1-13	QACCBA030WRE4	U	Power supply cord	1	AK	
1-14	RMOTEA003URE0	U	Fan motor	1	AQ	
1-15	RV-MZA264WRE0	U	Magnetron	1	BK	*Δ
1-16	RLMPTA066WRE0	U	Oven lamp	1	AK	
1-17	RMOTDA226WRE0	J	Turntable motor	1	AQ	
1-18	RTRN-A015URE1	U	High voltage transformer	1	BE	*

CABINET PARTS

2-1	GCABUA003URP0	U	Outer case cabinet (G)	1	AT	Δ
2-1	GCABUA573WRT0	U	Outer case cabinet (W)	1	AT	Δ
2-1	GCABUA001URP0	U	Outer case cabinet (B)	1	AT	Δ
2-1	GCABUA027URP0	U	Outer case cabinet (SL)	1	AT	Δ
2-2	GLEGPA057WRE0	U	Foot	2	AB	

CONTROL PANEL PARTS

3- 1	DPWBFC142WRKZ	U	Control unit	1	BB	
3- 1A	QCNCMA430DRE0	U	3-pin connector (CN-A)	1	AC	
3- 1B	QCNCMA414DRE0	U	2-pin connector (CN-B)	1	AB	
3- 1C	QCNCMA330DRE0	U	6-pin connector (CN-C)	1	AB	
3- 1D	RLCDSA036DRE0	U	Liquid crystal display	1	AP	
3- 1E	LHLD-A179WRF0	U	LED holder	1	AE	
3- 1F	PSHEPA601WRE0	U	LED sheet	1	AD	
C1	VCEAB31CW227M	U	Capacitor 220 uF 16V	1	AA	
C10	RC-KZA087DRE0	U	Capacitor 0.1 uF 50V	1	AB	
C20	VCEAB31VW227M	U	Capacitor 220 uF 35V	1	AA	
C21	VCEAB31VW106M	U	Capacitor 10 uF 35V	1	AB	
C22	RC-KZA087DRE0	U	Capacitor 0.1 uF 50V	1	AB	
C40	RC-KZA087DRE0	U	Capacitor 0.1 uF 50V	1	AB	
C41	VCEAB31CW476M	U	Capacitor 47 uF 16V	1	AA	
C42	RC-KZA087DRE0	U	Capacitor 0.1 uF 50V	1	AB	
C43-44	VCKYD11CY103N	U	Capacitor 0.01 uF 16V	2	AA	
C50	VCCCF61HH330J	U	Capacitor 33 pF 50V	1	AA	
C70	VCEAB31VW476M	U	Capacitor 47 uF 35V	1	AA	
C71	VCEAB31VW107M	U	Capacitor 100 uF 35V	1	AB	
C80	VCKYD11CY103N	U	Capacitor 0.01 uF 16V	1	AA	
D1-3	VHD1N4005E61B	U	Diode (1N4005E)	3	AA	
D10	VHD1SS270A/-1	U	Diode (1SS270ATA)	1	AA	
D20	VHD1SS270A/-1	U	Diode (1SS270ATA)	1	AA	
D70-71	VHD1N4005E61B	U	Diode (1N4005E)	2	AA	
D72-74	VHD1SS270A/-1	U	Diode (1SS270ATA)	3	AA	
D80	VHD1SS270A/-1	U	Diode (1SS270ATA)	1	AA	
IC1	RH-IXA085DRZZ	U	LSI	1	AZ	
JW1	FW-VZA259DRZZ	U	1-pin harness	1	AE	
LED1-3	VHPSLP7117E-3	U	Light emitting diode	3	AC	
Q20	VSKRA101M// -3	U	Transistor (KRA101M)	1	AA	
Q21	VSKRC105M// -3	U	Transistor (KRC105M)	1	AB	
Q30	VSKRC101M// -3	U	Transistor (KRC101M)	1	AB	
Q40	VS2SA1267Y/-3	U	Transistor (2SA1267Y)	1	AB	
Q70	VSKRC105M// -3	U	Transistor (KRC105M)	1	AB	
R1-5	VRS-L63DA102J	U	Resistor 1.0k ohm 2W	5	AB	
R10-11	VRD-B12EF273J	U	Resistor 27k ohm 1/4W	2	AA	
R12	VRD-B12EF103J	U	Resistor 10k ohm 1/4W	1	AA	
R20	VRD-B12EF822J	U	Resistor 8.2k ohm 1/4W	1	AA	
R30	VRD-B12EF332J	U	Resistor 3.3k ohm 1/4W	1	AA	

PARTS LIST

Note: The parts marked "" are used in voltage more than 250V. The parts marked Δ may cause undue microwave exposure
 "S" MARK: SPARE PARTS-DELIVERY SECTION

REF NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
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CONTROL PANEL PARTS (CONTINUED)

R31	VRD-B12EF153J	U	Resistor 15k ohm 1/4W	1	AA
R40	VRD-B12HF152J	U	Resistor 1.5k ohm 1/2W	1	AA
R41	VRD-B12EF102J	U	Resistor 1.0k ohm 1/4W	1	AA
R42	VRD-B12EF153J	U	Resistor 15k ohm 1/4W	1	AA
R50	VRN-B12EK103F	U	Resistor 10k ohm 1/4W	1	AA
R64	VRD-B12EF104J	U	Resistor 100k ohm 1/4W	1	AA
R70-71	VRS-B13AA361J	U	Resistor 360 ohm 1W	2	AA
R72	VRD-B12EF822J	U	Resistor 8.2k ohm 1/4W	1	AA
R73	VRD-B12EF153J	U	Resistor 15k ohm 1/4W	1	AA
R80	VRD-B12EF153J	U	Resistor 15k ohm 1/4W	1	AA
R81	VRD-B12EF472J	U	Resistor 4.7k ohm 1/4W	1	AA
RW	VRD-B12EF104J	U	Resistor 100k ohm 1/4W	1	AA
RY1	RRLY-A080DRE0	U	Relay (OJ-SH-124LM)	1	AG
RY2	RRLY-A105DRE0	U	Relay (OMIF-S-112LM)	1	AG
SP30	RALM-A014DRE0	U	Buzzer (PKM22EPT-THAI)	1	AG
VRS1	RH-VZA032DRE0	U	Varistor (10G471K)	1	AC
ZD1	VHEHZ12C1//-1	U	Zener diode (HZ12C1)	1	AA
ZD20-21	VHEHZ12C1//-1	U	Zener diode (HZ12C1)	2	AA
ZD40	VHEHZ4C3///-1	U	Zener diode (HZ4C-3)	1	AA
ZD70-71	VHEHZ7C2///-1	U	Zener diode (HZ7C2)	2	AA
3- 2	FPWBFA058URK0	U	Switch unit assembly	1	AW
3- 2-1	FW-VZA262DRZZ	U	6-pin harness (CN-C)	1	AE
3- 2-2	QSW-PA016DRE0	U	Tact switch (SW1-8)	8	AB
3- 3	HPNLCB034URR0	U	Control panel frame [R-244(B)M]	1	AK
3- 3	HPNLCG024URR0	U	Control panel frame [R-244(G)M]	1	AK
3- 3	HPNLCS030URR0	U	Control panel frame [R-244(SL)M]	1	AV
3- 3	HPNLCS071URR0	U	Control panel frame [R-244(W)M]	1	AK
3- 4	GCOVHA032URF0	U	Key fixing frame	1	AF
3- 5	GMADIA006URF0	U	Display window	1	AF
3- 6	PSHEPA045URE0	U	Key sheet [R-244(W)M]	1	AM
3- 6	PSHEPA046URE0	U	Key sheet [R-244(G)M]	1	AM
3- 6	PSHEPA047URE0	U	Key sheet [R-244(B)M]	1	AM
3- 6	PSHEPA048URE0	U	Key sheet [R-244(SL)M]	1	AM
3- 7	XEPSD30P10XS0	U	Screw; 3mm x 10mm	7	AA

OVEN PARTS

4-1	DOVN-A013URT1	U	Oven cavity	1	BA
4-2	GDAI-A280WRP1	U	Base plate	1	AQ
4-3	LBNDKA111WRP0	U	H.V.Capacitor holder	1	AD
4-4	PHOK-A001URF1	U	Latch hook	1	AH
4-6	PDUC-A638WRF2	U	Fan duct	1	AE
4-7	NFANJA029WRE0	U	Fan blade	1	AM
4-8	LANGFA169WRP6	U	Chassis support	1	AE
4-9	PPACGA002URE0	U	Packing seal	1	AB
4-10	PCOVPA309WRE0	U	Waveguide cover	1	AC
4-11	PDUC-A581WRF3	U	Air intake duct	1	AE
4-12	PCUSGA308WRP0	U	HVT cushion Not on BOM	2	AA
4-13	PSPAGA001WRE0	U	Vibration Proof Cushion	1	AA

PARTS LIST

Note: The parts marked “*” are used in voltage more than 250V. The parts marked Δ may cause undue microwave exposure
 “§” MARK: SPARE PARTS-DELIVERY SECTION

REF NO.	PART NO.	§	DESCRIPTION	Q'TY	CODE
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DOOR PARTS

5	CDORFG014URK0	U	Door assembly (G)	1	BD	Δ
5	CDORFW012URK0	U	Door assembly (W)	1	BD	Δ
5	CDORFB006URK0	U	Door assembly (B)	1	BD	Δ
5	CDORFS005URK0	U	Door assembly (SL)	1	BD	Δ
5-1	FDORFA299WRT1	U	Door panel assembly	1	AU	
5-2	GCOVHA366WRF0	U	Choke cover	1	AG	Δ
5-3	GWAKPG006URF0	U	Door frame (G)	1	AT	
5-3	GWAKPW023URF0	U	Door frame (W)	1	AT	
5-3	GWAKPB013URF0	U	Door frame (B)	1	AT	
5-3	GWAKPS016URRO	U	Door frame (SL)	1	AT	
5-4	PGLSPA003URE0	U	Outer door glass	1	AL	
5-5	LSTPPA013URF0	U	Latch head	1	AD	
5-6	MSPRTA141WRE0	U	Latch spring	1	AA	
5-7	PSHEPA482WRE0	U	Inner Sealer film	1	AH	
5-8	LSTPPA012URF1	U	Glass stopper	1	AB	
5-9	XEBSD30P06000	U	Door Frame screw 3mm x 6mm	5	AA	

SCREW, NUT AND WASHER

7-1	LX-CZA001URE0	J	Screw 4mm x 12mm	18	AA	
7-2	XHTSD40P08RV0	J	Screw 4mm x 8mm	4	AA	
7-3	XHPD40P08K00	J	Noise unit screw	1	AA	
7-4	XJPSD40P10X00	U	Screw self tapping	1	AA	
7-6	LX-NZA026WRE0	J	Nut M4 nyloc	1	AA	
7-7	XFPSD40P06000	J	TTM screw/chassis support to magnetron	2	AA	
7-10	XOTSE40P10000	J	O/Wrap screw (W)/(SL)	2	AA	
7-10	XOTSF40P10000	J	O/Wrap screw (G/B)	2	AA	
7-12	LX-CZA001URE0	J	TTM cover screw (not shown in illustration)	1	AA	
7-14	PCLI-A001URE0	U	Harness clip	1	AA	
7-15	LX-LZA002URE0	U	Rivet	1	AA	

MISCELLANEOUS

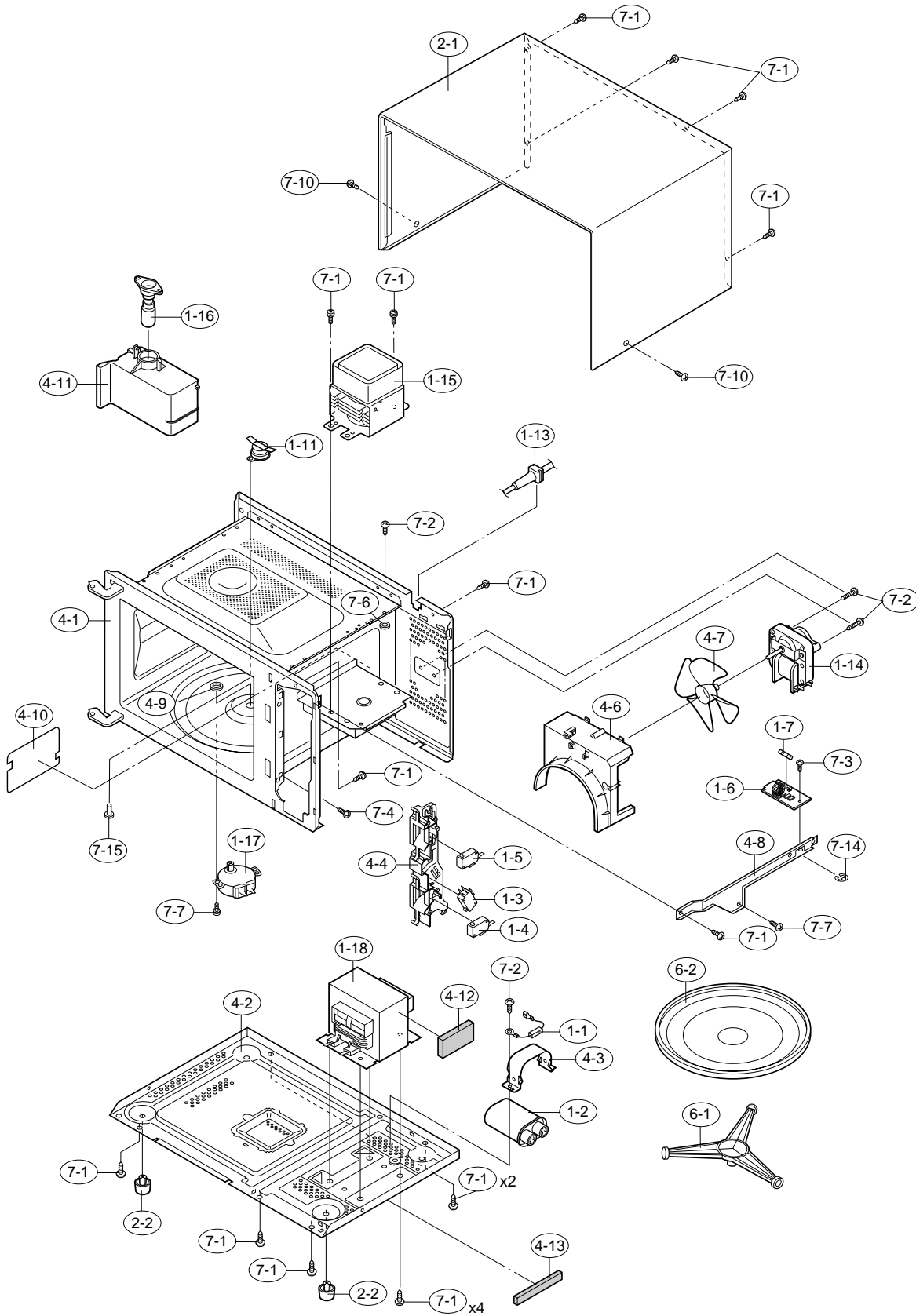
6-1	FROLPA070WRK3	U	Roller stay	1	AM	
6-2	NTNT-A060WRE0	J	Turntable	1	AN	
6-3	TINS-A252URR0	U	Operation Manual/Cookery book	1	AM	
6-4	QW-QZA5001URE0	U	H.V. wire B	1	AE	
6-5	FW-VZA059URE3	U	Main wire harness	1	AN	*

HOW TO ORDER REPLACEMENT PARTS

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

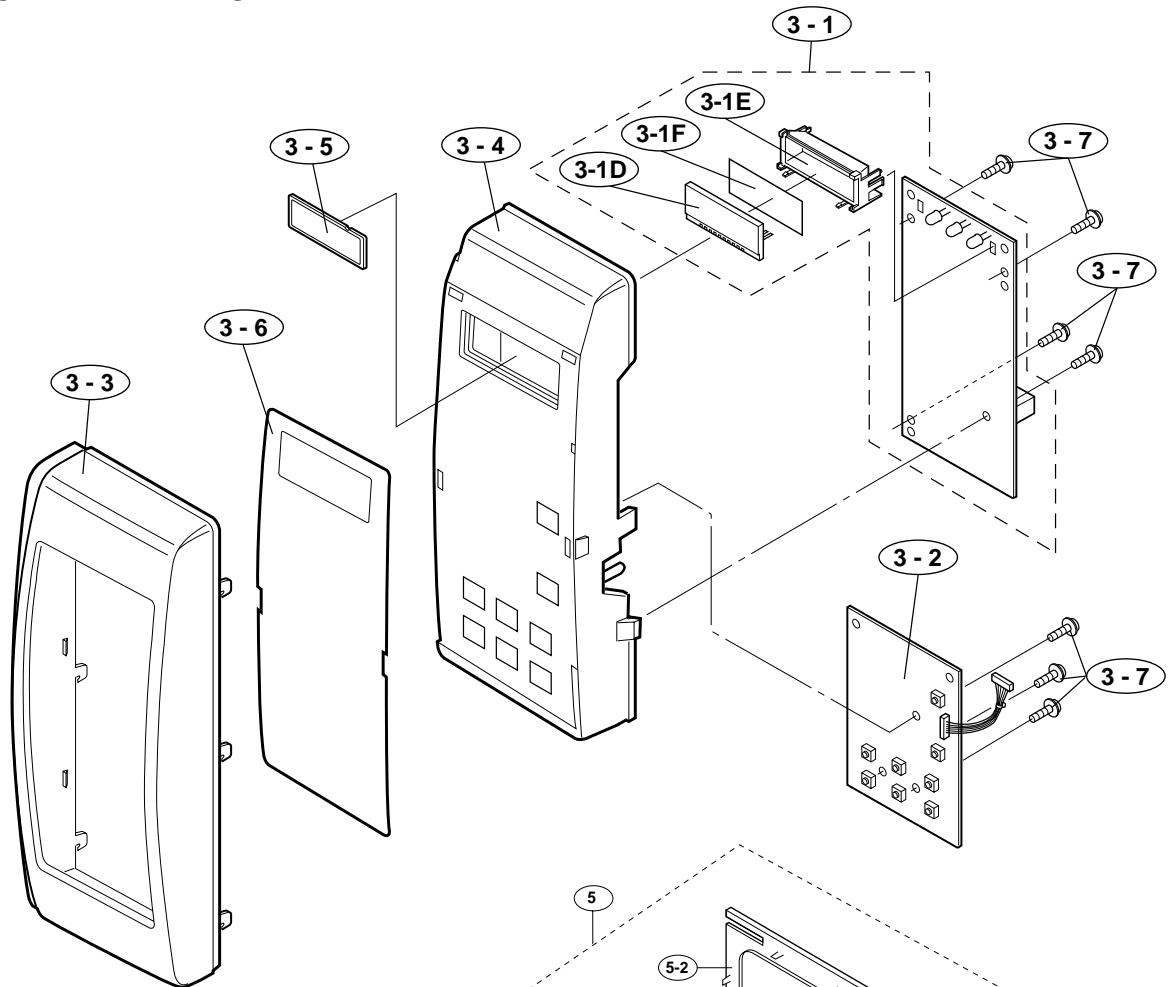
EXPLODED DIAGRAM OF OVEN



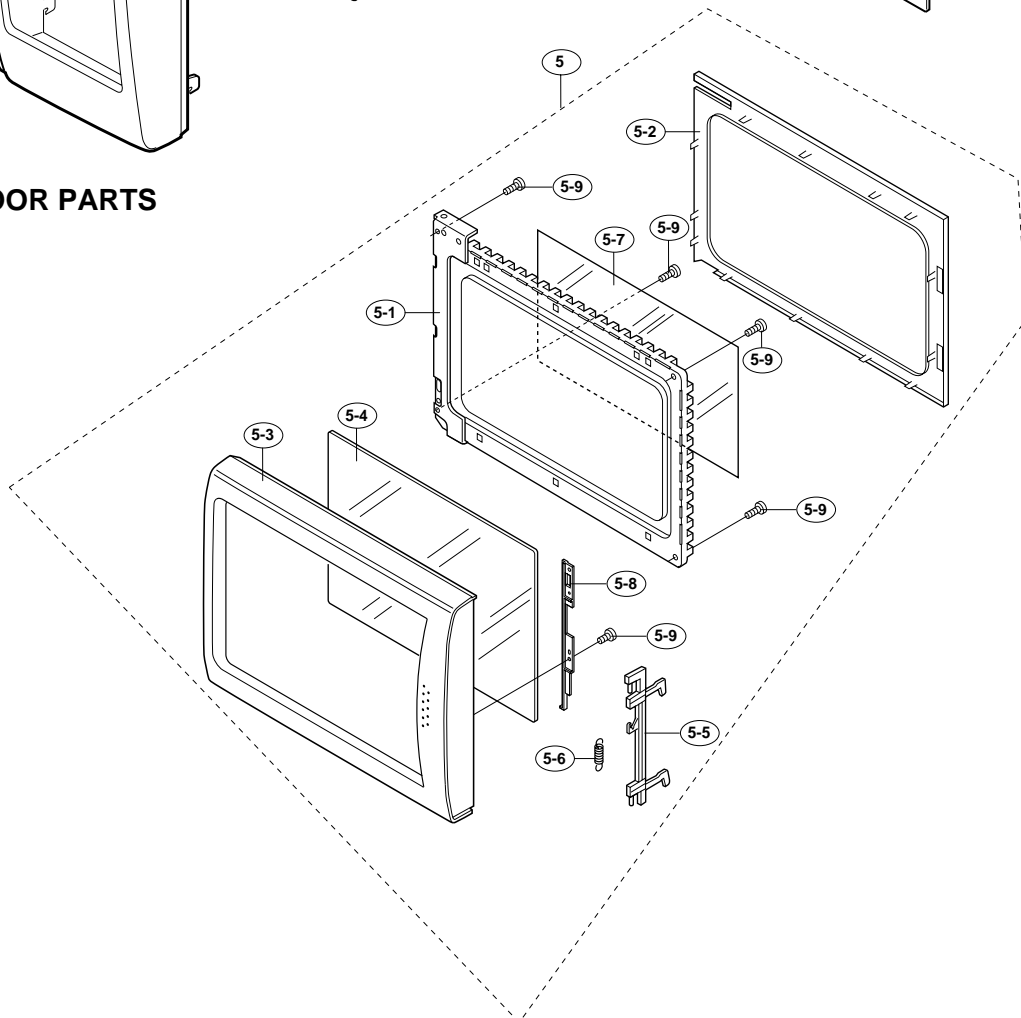
NOTE: In the event of removing the turntable motor cover
this part should be refitted using screw connection:
LX-CZA030WRE0

CONTROL PANEL / DOOR PARTS

CONTROL PANEL PARTS

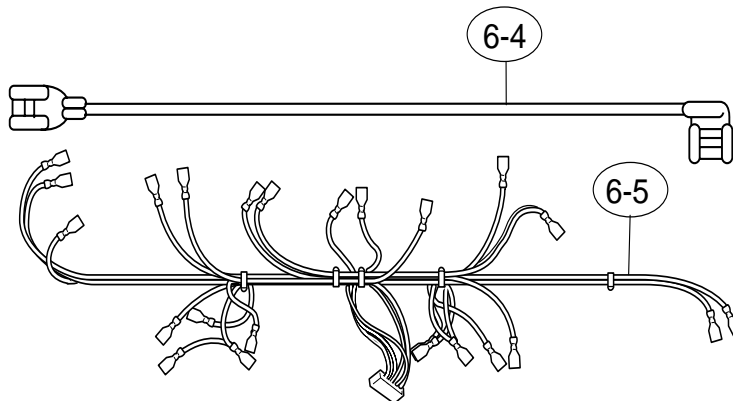


DOOR PARTS



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MISCELLANEOUS



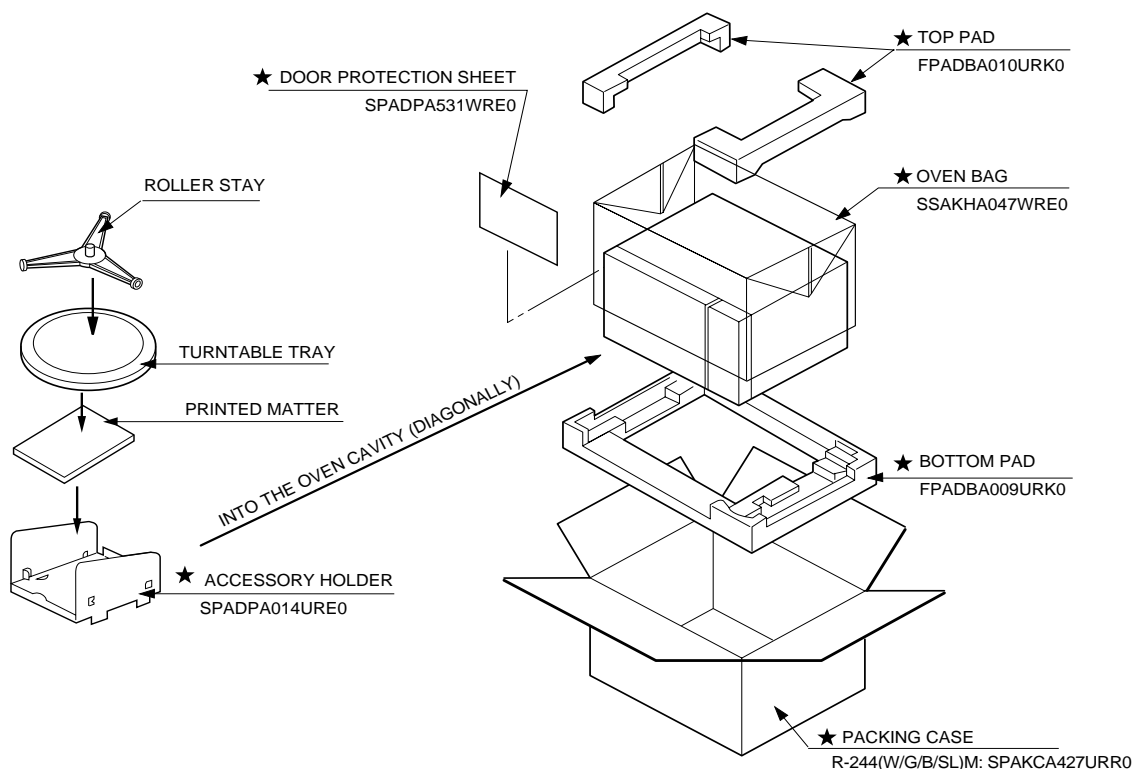
Actual wire harness may be different from illustration.

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