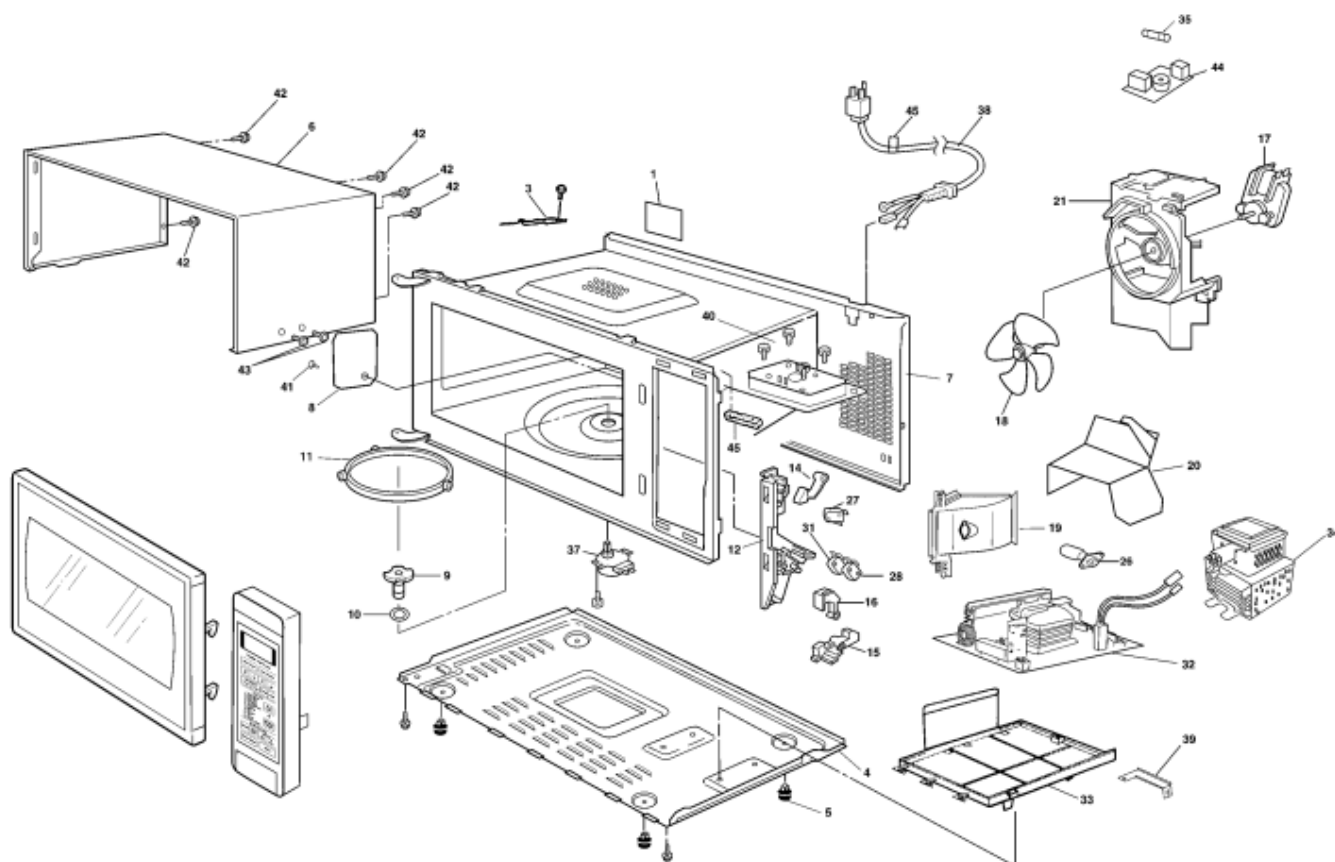
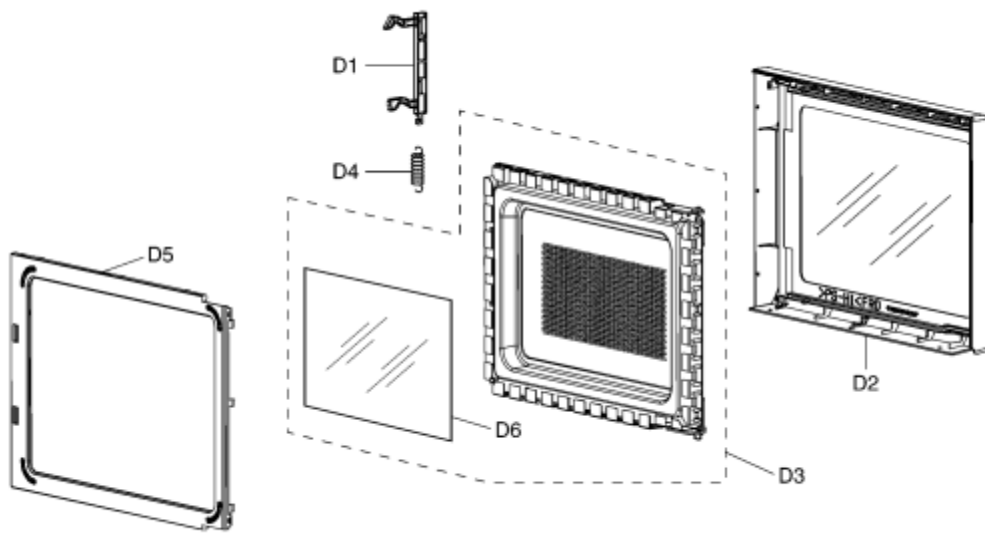
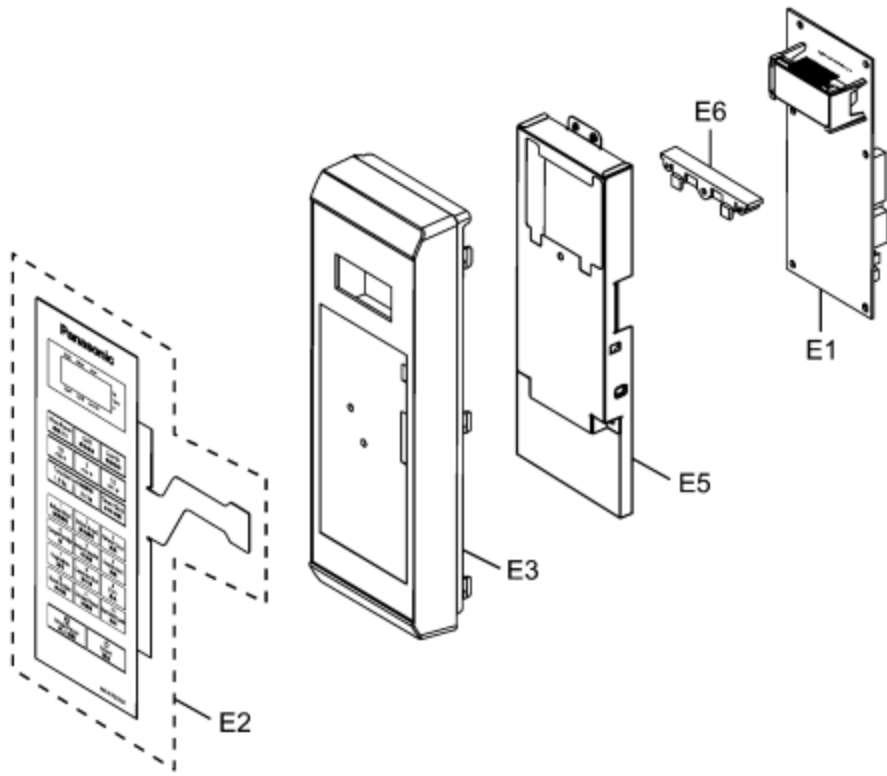
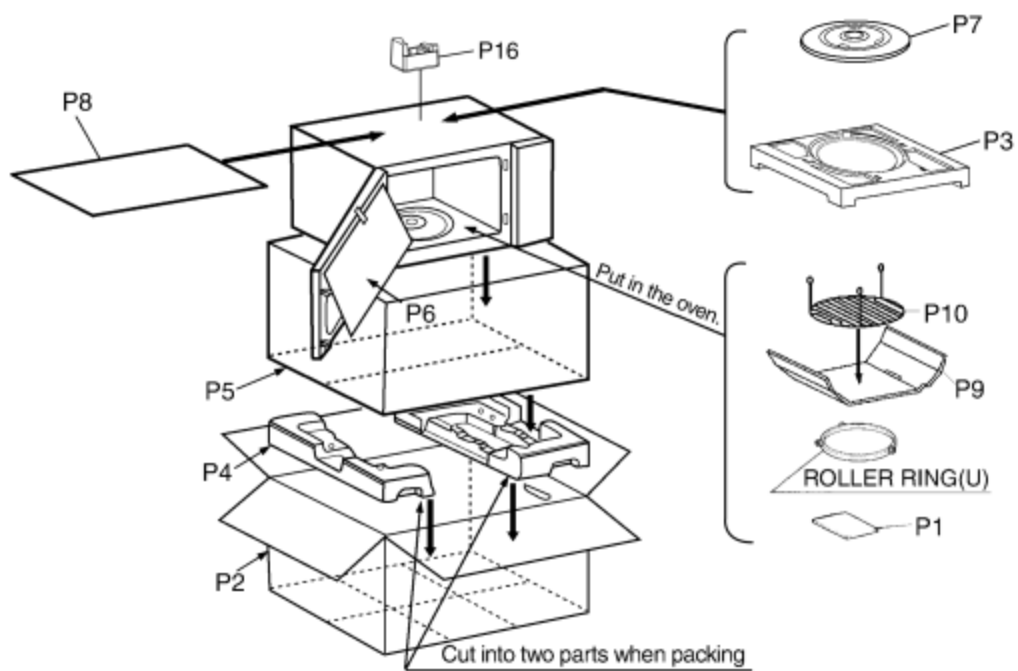


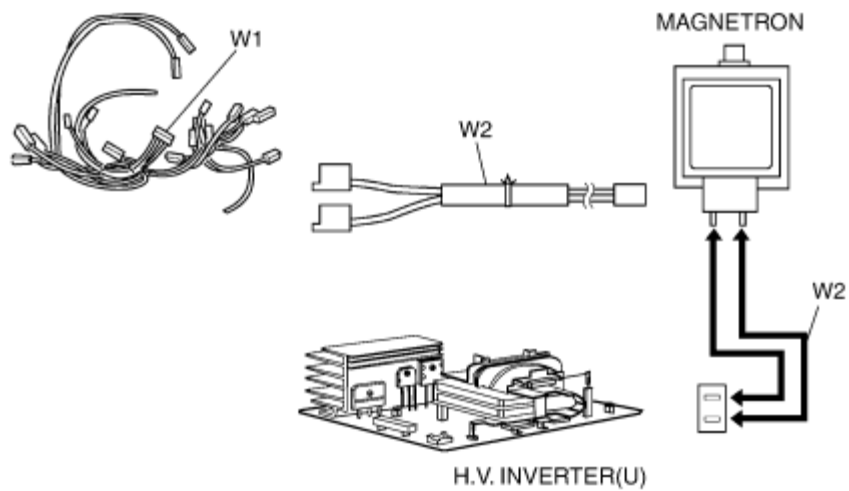
EXPLODED VIEW











ORDER NO.PHAMOS0501010A3

Service Manual

Microwave Oven



NN-S754WF

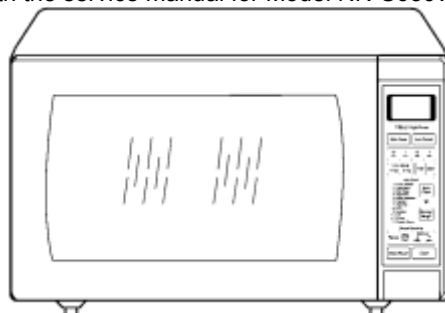
KTE(UAE)

PTE(Iran)

KPQ(Kuwait, Doha, Qatar, Oman, Bahrain, Pakistan)

STM(Saudi Arabia)

Please file and use this manual together with the service manual for Model NN-S650WF (ORDER NO. SIMMC0007014C3)



Specifications:

Specifications:	Models:	NN-S754WF
Power Source:	230V-240V AC Single Phase, 50Hz for KPQ model 220V AC Single Phase, 50Hz for KTE, PTE models 220V AC Single Phase, 50Hz/60Hz for STM model	
Power Requirement:	1150W	
Output:	1100W	
Microwave Frequency:	2450MHz	
Timer:	30 min. /Stage (HIGH Power) - 5 Stage Maximum 99 min. 99 sec. /Stage (Other Power Levels) - 5 Stage Maximum	
Outside Dimensions:	555mm(W) X 493mm(D) X304mm(H)	
Oven Cavity Dimensions:	418mm(W) X 470mm(D) X 228mm(H)	
Weight:	14.3 kg	
PbF	This product with PbF	
Specifications subject to change without notice.		

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.

Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

WARNING

1. This product should be serviced only by trained, qualified personnel.
2. Check for radiation leakage before and after every servicing according to the "procedure for measuring radiation leakage."
3. If the unit cannot be repaired on site, advise the customer not to use until unit is repaired.
4. There are special components used in the microwave oven which are important for safety. These parts are marked with a ⚠ on the replacement parts list. It is essential that these critical parts be replaced only with the manufacture's specified parts to prevent microwave leakage, shock, fire, or other hazards. Do not modify the original design.

This service manual covers products for following markets.

When troubleshooting or replacing parts, please refer to the country identifications shown below for your applicable product specification.

KTE For UAE

PTE For Iran

KPQ For Kuwait, Doha, Qatar

Oman, Bahrain, Pakistan

STM For Saudi Arabia

CAUTION**About lead free solder (PbF)**

Distinction of PbF PCB: PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

- Caution:**
- Pb free solder has a higher melting point than standard solder; Typically the melting point is 30 - 40°C higher. Please use a high temperature soldering iron. In case of the soldering iron with temperature control, please set it to 370 ± 10°C.
 - Pb free solder will tend to splash when heated too high (about 600°C).

Panasonic®

1 SCHEMATIC DIAGRAM



2 CAUTIONS TO BE OBSERVED WHEN TROUBLESHOOTING

Unlike many other appliances, the microwave oven is a high voltage, high current device. It is free from danger in ordinary use, though extreme care should be taken during repair.

Caution

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

2.1 Check the grounding

Do not operate on a two wire extension cord. The microwave oven is designed to be grounded when used. It is imperative, therefore, to ensure the appliance is properly grounded before beginning repair work.

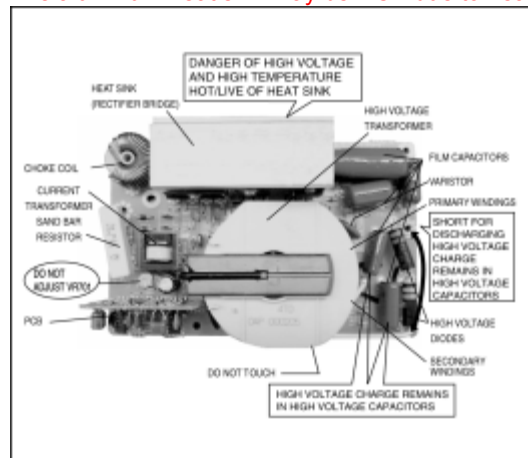
2.2 Inverter warnings

DANGER, HIGH VOLTAGE AND HIGH TEMPERATURE (HOT/LINE) OF THE INVERTER POWER SUPPLY (U)

The high voltage inverter power supply handles very high voltage and current for the magnetron tube. Though it is free from danger in ordinary use, extreme care should be taken during repair.

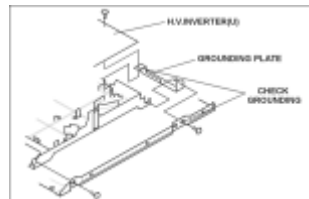
The aluminum heat sink is also energized with high voltage (HOT), do not touch when the AC input terminals are energized. The power device Collector is directly connected to the aluminum heat sink.

The aluminum heat sink may be HOT due to heat energy, therefore, extreme care should be taken during servicing.



WARNING FOR INVERTER POWER SUPPLY (U) GROUNDING

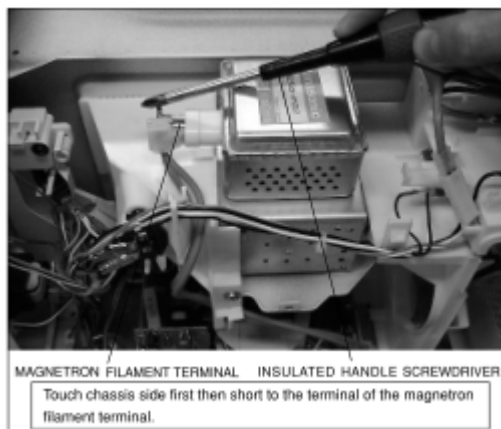
Check the high voltage inverter power supply circuit grounding. The high voltage inverter power supply circuit board must have a proper chassis ground. The inverter grounding bracket must be connected to the chassis. If the inverter board is not grounded it will expose the user to very high voltages and cause extreme DANGER! Be sure that the inverter circuit is properly grounded via the inverter earth bracket.



WARNING! DISCHARGE THE HIGH VOLTAGE CAPACITORS

For about 30 seconds after the oven is turned off, an electric charge remains in the high voltage capacitors in the inverter power supply circuit board.

When replacing or checking parts, remove the power plug from the outlet and short the inverter output terminal of the magnetron filament terminals to the chassis ground with an insulated handle screwdriver to discharge. Please be sure to touch the chassis ground side first and then short to the output terminals.



WARNING

There is high voltage present with high current capabilities in the circuits of the primary and secondary windings, choke coil and heat sink of the inverter. 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 the filament voltage of the magnetron.

WARNING

Never touch any circuit wiring with your hand or with an insulated tool during operation.

2.3 Part replacement.

When any part or component is to be replaced, always ensure that the power cord is removed from the wall outlet.

2.4 When the 10A fuse is blown due to the operation of the short switch:

WARNING

When the 10A 250V fuse is blown due to the operation of the interlock monitor switch, replace all of the components (primary latch switch, door switch, short switch and power relay B (RY1)).

1. This is mandatory. Refer to "adjustments and measurements" for the location of these switches.
2. When replacing the fuse, confirm that it has the appropriate rating for these models.
3. When replacing faulty switches, be sure the mounting tabs are not bent, broken or deficient in their ability to hold the switches.

2.5 Avoid inserting nails, wire etc. through any holes in the unit during operation.

Never insert a wire, nail or any other metal object through the lamp holes on the cavity or any holes or gaps, because such objects may work as an antenna and cause microwave leakage.

2.6 Confirm after repair

1. After repair or replacement of parts, make sure that the screws of the oven, etc. are neither loose nor missing. Microwaves might leak if screws are not properly tightened.
2. Make sure that all electrical connections are tight before inserting the plug into the wall outlet.
3. Check for microwave energy leakage. (Refer to procedure for measuring microwave energy leakage).

CAUTION MICROWAVE RADIATION

USE CAUTION NOT TO BECOME EXPOSED TO RADIATION FROM THE MICROWAVE MAGNETRON OR OTHER PARTS CONDUCTING MICROWAVE ENERGY

IMPORTANT NOTICE

The following components have potentials above 2000V while the appliance is operated.

- Magnetron
- High voltage transformer (Located on inverter (U))
- High voltage diodes (Located on inverter (U))
- High voltage capacitors (Located on inverter (U))

Pay special attention to these areas.

When the appliance is operated with the door hinges or magnetron installed incorrectly, the microwave leakage can exceed more than 5mW/cm^2 . After repair or exchange, it is very important to check if the magnetron and the door hinges are correctly installed.

2.7 Sharp edges

Caution

Please use caution when unpacking, installing or moving the unit, as some exposed edges may be sharp to the touch and cause injury if not handled with care.

3 MEASUREMENTS AND ADJUSTMENTS

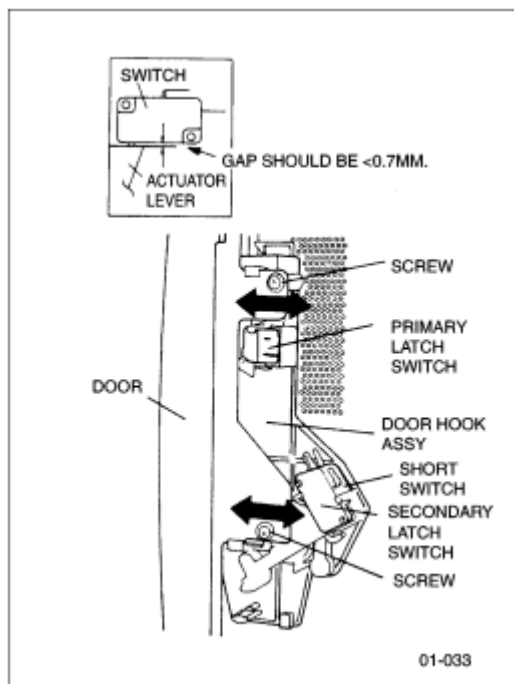
3.1 Adjustment of primary latch switch, secondary latch switch and short switch.

1. Mount the Primary latch switch, the secondary latch switch and the short switch to the door hook assembly as shown in ILL.

NOTE:

No specific individual adjustments during installation of the Primary latch switch, Secondary latch switch or Short switch to the door hook are required.

2. When mounting the door hook assembly to the oven assembly, adjust the door hook assembly by moving it in the direction of the arrows in the illustration, 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 door hook assembly to the oven assembly.
3. Reconnect the short switch and check the continuity of the monitor circuit and all latch switches again by following the component test procedures.



3.2 Measurement of microwave output

The output power of the magnetron can be determined by performing IEC standard test procedures. However, due to the complexity of IEC test procedures, it is recommended to test the magnetron using the simple method outlined below.

Necessary Equipment:

*1 liter beaker *Glass thermometer

*Wrist watch or stopwatch

NOTE:

Check the line voltage under load. Low voltage will lower the magnetron output. Take the temperature readings and heating time as accurately as possible.

1. Fill the beaker with exactly one liter of tap water. Stir the water using the thermometer and record the water's

- temperature. (recorded as T1).
2. Place the beaker on the center of glass tray.
Set the oven for High power and heat it for exactly one minute.
 3. Stir the water again and read the temperature of the water. (recorded as T2).
 4. The normal temperature rise at High power level for each model, is as shown in table.

TABLE (1L-1min.test)

RATED OUTPUT	TEMPERATURE RISE
1100W	Min. 9.4°C

4 EXPLODED VIEW AND PARTS LIST

4.1 EXPLODED VIEW



4.2 PARTS LIST

NOTE:










1. When ordering replacement part(s), please use part number(s) shown in this part list.
Do not use description of the part.
2. Important safety notice:
Components identified by mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

NOTE:

"A" parts are supplied by CSD (Japan)

"F" parts are supplied by PHAMOS (China)

Ref. No.		Part No.	Part Name & Description	Pcs/Set	Remarks
1		F00066V00HP	CAUTION LABEL	1	
3		F03534W00QP	LEAD WIRE HARNESS	1	
4		F10014W00AP	BASE	1	
5		F10084T00AP	RUBBER FOOT	4	
6		F110D4W00HQP	CABINET BODY (U)	1	
7		F200A5X30AP	OVEN (U)	1	
8		F20555K00AP	COVER	1	
9		F21315Y00AP	PULLY SHAFT	1	
10		F2177-F80	WASHER	1	
11		F290D9330AP	ROLLER RING (U)	1	
12		F3020-1200	DOOR HOOK	1	
14		F3136-1200	HOOK LEVER A	1	

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
15	F31374650AP	HOOK LEVER B	1	
16	F31384650AP	HOOK LEVER C	1	
17	F400A6V00QP	FAN MOTOR	1	AC240V,SINGLE PHASE,50Hz
18	F40084T00AP	FAN BLADE	1	
19	F40254W00AP	AIR GUIDE A	1	
20	F40264W00AP	AIR GUIDE B	1	
21	F41444W00AP	ORIFICE	1	
26	F612E4Y00XN	INCANDESCENT LAMP (U)	1	24V,50Hz,20W
27	 J61424T00AP	MICRO SWITCH	1	(PRIMARY LATCH SWITCH) (V-15G-3C25)
28	 J61414T00AP	MICRO SWITCH	1	(SECONDARY LATCH SWITCH) (D3V-16G-3C25)
31	 J61784T00AP	MICRO SWITCH	1	(SHORT SWITCH) (D3V-1G-2C25)
32	 F606Y4V00XN	H.V.INVERTER (U)	1	
33	F65854W00AP	INVERTER BRACKET A	1	
34	 2M261-M32J	MAGNETRON	1	
35	 A62304210BP	FUSE	1	10A/240V
37	F63265U30XN	TURNTABLE MOTOR	1	
38	 F900C8790YK	AC CORD W/PLUG	1	KTE,KPQ
38	 F900C5E90SN	AC CORD W/PLUG	1	STM
38	 F900C9620TN	AC CORD W/PLUG	1	PTE
39	F66624W00AP	GROUNDING PLATE	1	
40	XTWFA4+12T	SCREW	4	FOR MAGNETRON
41	F90804W00AP	CANOE CLIP	1	FOR COVER
42	XTWFA4+12D	SCREW	5	FOR CABINET BODY

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
43	XTTFA4+8BCR	SCREW	2	FOR CABINET BODY SIDE
44	J692Y4T00QPR	NOISE FILTER	1	
45	F02395E20KN	CORD CAUTION LABEL	1	

4.3 DOOR ASSEMBLY



Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
D1	F3018-1200	DOOR KEY A	1	
D2	 F30016V20HQP	DOOR A	1	
D3	 F302K4W00AP	DOOR E (U)	1	
D4	F30215G10XN	DOOR KEY SPRING	1	
D5	 F30854W00AP	DOOR C	1	
D6	 F31456V00XP	DOOR SCREEN A	1	
D7	F31466J00BAP	DOOR SCREEN B	1	

4.4 WIRING MATERIALS



Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
W1	F030A5T50QP	LEAD WIRE HARNESS	1	
W2	F030E6V00QP	H.V.LEAD WIRE	1	

4.5 ESCUTCHEON BASE ASSEMBLY



Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
E1	F603L6V30QP	D.P.CIRCUIT (AU)	1	

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
E3	F630Y6V30HQP	MEMBRANE SWITCH (U)	1	
E4	F80346J00HAP	ESCUTCHEON BASE	1	
E5	F80726J00HAP	DOOR OPENING BUTTON	1	
E6	F80375K00AP	COOK BUTTON SPRING	1	
E7	F82564W00AP	DOOR OPENING LEVEL	1	
E8	F00076V30HPT	NAME PLATE	1	S754WF PTE
E8	F00076V30HKT	NAME PLATE	1	S754WF KTE
E8	F00076V30HKP	NAME PLATE	1	S754WF KPQ
E8	F00076V30HST	NAME PLATE	1	S754WF STM

4.6 PACKING AND ACCESSORIES



Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
P1	F00036V30KP	INSTRUCTION MANUAL	1	
P2	F01026V30HKP	PACKING CASE,PAPER	1	S754WF KPQ/STM
P2	F01026V30HKT	PACKING CASE,PAPER	1	S754WF KTE/PTE
P3	F01045J00AP	UPPER FILLER	1	
P4	F01055J00AP	LOWER FILLER	1	
P5	F01064W00AP	P.E.BAG	1	
P6	F01074W00AP	DOOR SHEET	1	
P7	F06014W00AP	COOKING TRAY	1	
P8	F01084W00AP	TRAY PACKING	1	
P9	F000B6V90KP	COOKING GUIDE	1	
P10	F04456V30HKP	OVERLAY	1	

4.7 H.V. INVERTER BOARD MAIN PARTS LIST

(F606Y4V00XN)

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
Q701	A691E4V10GP	TRANSISTOR SI	1	
Q702		TRANSISTOR SI	1	
DB701	AESTRS2006M	DIODE SI	1	20A,600V
D701,D702	A62024V00GP	DIODE SI	2	0.3A
C704,C705	ECWH30822JUA	CAPACITOR	2	8200PF 3000VDC
T701	F609A4V00XN	H.V. TRANSFORMER	1	
	F607D4V00XN	D.P.CIRCUIT (KU)	1	
L701	F50204V00XN	CHOKE COIL	1	
CT701	F66904V00XN	CURRENT TRANSFORMER	1	

5 DIGITAL PROGRAMMER CIRCUIT

5.1 DIGITAL PROGRAMMER CIRCUIT



5.2 PARTS LIST

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
BZ310	AEFBAT2001	BUZZER	1	2.0KHz
C221	AECUU06F103Z	CHIP CAPACITOR	1	0.01 μ F/50V
C343	AECUU06C101J	CHIP CAPACITOR	1	100PF/50V
C12,C340,C440	AECUT06F104Z	CHIP CAPACITOR	3	0.1 μ F/25V
C330	AECUU06R102K	CHIP CAPACITOR	1	1000PF/50V
C10	AECETK1V561B	AL CHEM CAPACITOR	1	560 μ F/35V
CN1	AEEMXH01505W	CONNECTOR	1	
CN3	F03524U50AP	CONNECTOR	1	
CN4	AEEMXH00F04W	CONNECTOR	1	
CN6	AEEM09FDZBTM	CONNECTOR	1	9 Pin
CX320	AEFOS800MG06	CERAMIC RESONATOR	1	8.0MHz
DISP110	AEDDHJ4M00AP	LCD	1	
DISP1 HOLDER	F66175E40XN	LCD HOLDER	1	
	F67525E40XN	DIFFUSION SHEET	1	
D10-D13	AESSRCT1A6-E	DIODE	4	
D40,D220,D221,D223	AESS133T-77	DIODE	4	
D25	AERZ511KD10A	VARISTOR	1	
D26,D27	AERZ102KD10A	VARISTOR	2	
D180-D189	AESQPY1112H	CHIP-LED	10	
IC1	MN101C54CFT	L.S.I.	1	
Q226	AESA14EKE	CHIP DIGI-TRANSISTOR	1	
Q182,Q223,Q224	AESC23JKE	CHIP DIGI-TRANSISTOR	3	
Q10,Q180	2SD1859TV2Q	TRANSISTOR	2	
Q181,Q220,Q225	2SC2412KT146	CHIP TRANSISTOR	3	
R182,R183	AERJ06J101R	CHIP RESISTOR	2	100 Ω ,1/10W,5%
R224	AERJ06J103R	CHIP RESISTOR	1	10K,1/10W,5%
R221,R228,R342,R343	AERJ06J104R	CHIP RESISTOR	4	100K,1/10W,5%
R181,R320	AERJ06J220R	CHIP RESISTOR	2	22 Ω ,1/10W,5%
R220,R222,R223	AERJ06J222R	CHIP RESISTOR	3	2.2K,1/10W,5%
R310	AERJ06J332R	CHIP RESISTOR	1	3.3K,1/10W,5%
R330,R440	AERJ06J333R	CHIP RESISTOR	2	33K,1/10W,5%
R331,R441	AERJ06J471R	CHIP RESISTOR	2	470 Ω ,1/10W,5%
R360	AERJ06J472R	CHIP RESISTOR	1	4.7K,1/10W,5%
R10,R11,R311	AERDY2TJ102T	CARBON RESISTOR	3	1K,1/4W,5%
R12,R180	AERDY2TJ103T	CARBON RESISTOR	2	10K,1/4W,5%
R290	AERDY2TJ104T	CARBON RESISTOR	1	100K,1/4W,5%
RY1	AEBGJQC25F18	POWER RELAY	1	
RY2	AEBLD118	POWER RELAY	1	

Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
T10	AETP5L00QP	LOW VOLTAGE TRANSFORMER	1	
ZD10	AESZMTZJ5R6B	ZENER DIODE	1	

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S-6V3
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