

Service Manual

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ORDER NO.SIMMC 0303015A3

Service Manual

Microwave Oven



- NN-MX21WF
NN-MX26WF

QPQ(Australia, New Zealand)

HNE(Hong Kong)

YNQ(Singapore)

MNQ(Malaysia)

TNE(Thailand, Indonesia)

LNK(Philippines)

YKE(Others)

KKE(UAE, Egypt, Iran)

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

SNM(Saudi Arabia)

ZPE(CIS Countries)

[Please file and use this manual together with the service manual for Model NN-MX20/25WF \(ORDER NO. SIMMC0203003C3 or SIMMC0203004C3\)](#)



Specification

Model	NN-MX21WF	NN-MX26WF
Power Source:	240V AC Single Phase, 50Hz _ _ _ _ _ For KNQ, MNQ, YNQ Models 230V~240V AC Single Phase, 50Hz _ _ For QPQ Models 220V AC Single Phase, 50Hz _ _ _ _ _ For KKE, ZPE, HNE, TNE YKE Models 220V AC Single Phase, 50Hz/60Hz _ _ . For SNM Models 220V~230V AC Single Phase,60Hz _ _ For LNK Models	
Power Requirement:	1250W	1250W
Output(IEC705-88):	800W	800W
Microwave Frequency:	2450MHZ	
Timer:	30min	29min.90sec (HIGH POWER)/99min.90sec
Outside Dimensions:	354mm(W) x 482mm(D) x 282mm(H)	
Oven Cavity Dimensions:	330mm(W) x 325mm(D) x 218mm(H)	
Weight:	14kg	
PbF	This product with PbF	
Output power:IEC705-88 Test Procedure		
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 Δ on the replacement parts list. It is essential that these critical parts be replaced only with the manufacturer'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.

QPQ	For Australia, New Zealand	KKE	For UAE, Egypt, Iran
HNE	For Hongkong	KNQ	For Kuwait, Doha, Qatar,
TNE	For Thailand, Indonesia		Oman, Bahrain, Pakistan
YNQ	For Singapore	SNM	For Saudi Arabia
MNQ	For Malaysia	ZPE	For CIS Countries
LNK	For Philippines		
YKE	For Others		

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, waveguide 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.

CAUTION

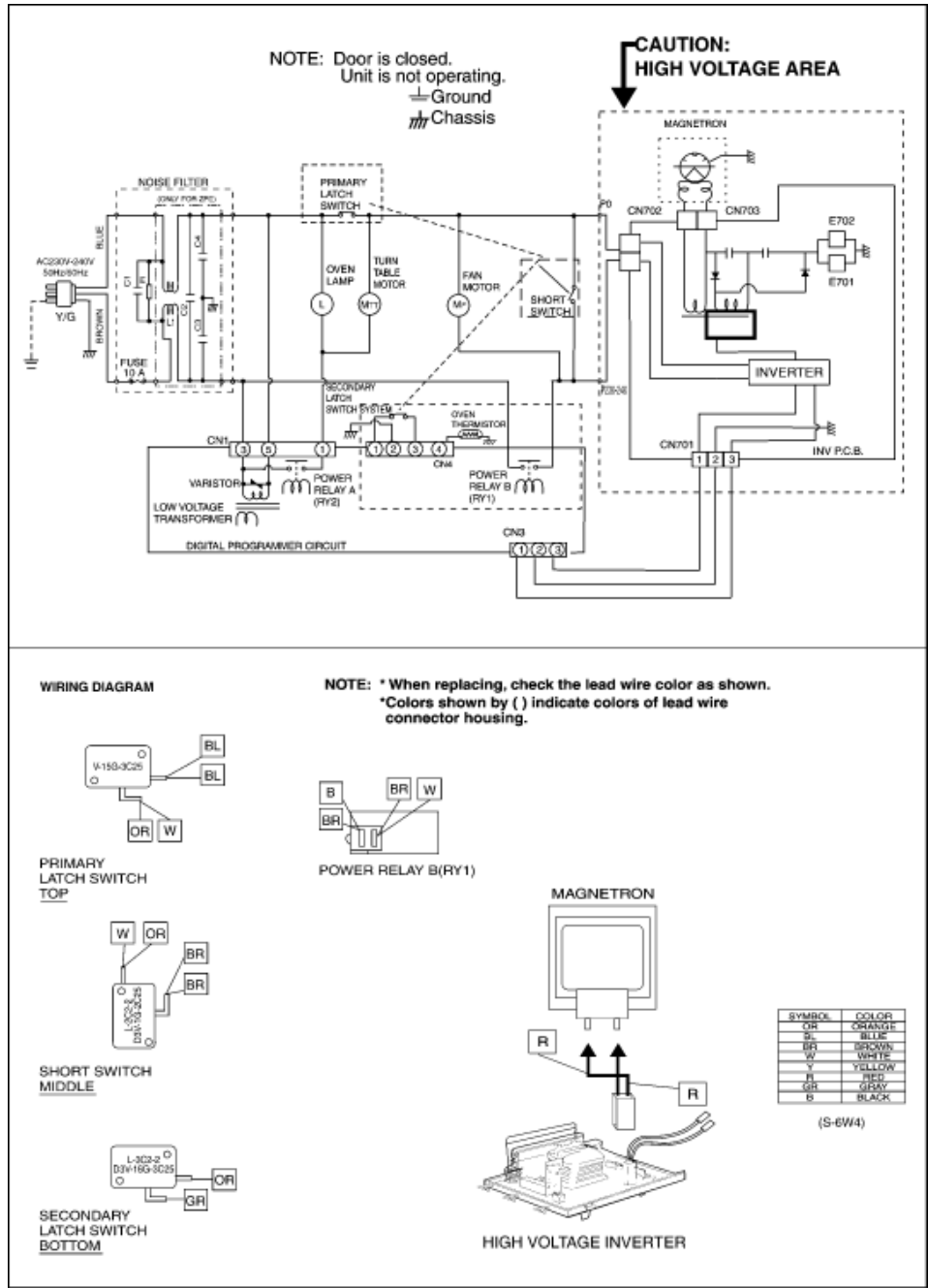
About lead free solder (PbF)

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).

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

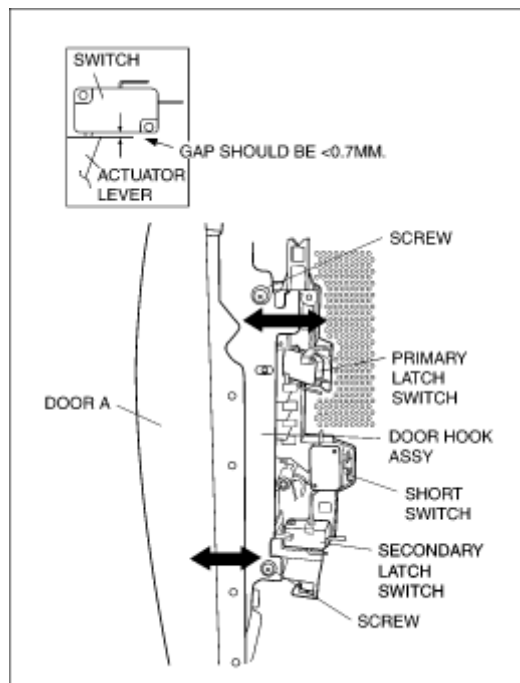
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1. Mount the Primary latch switch, the Secondary latch switch and the Short switch to the door hook assembly as shown in ILL.

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.



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3.2 Measurement of microwave output

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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:

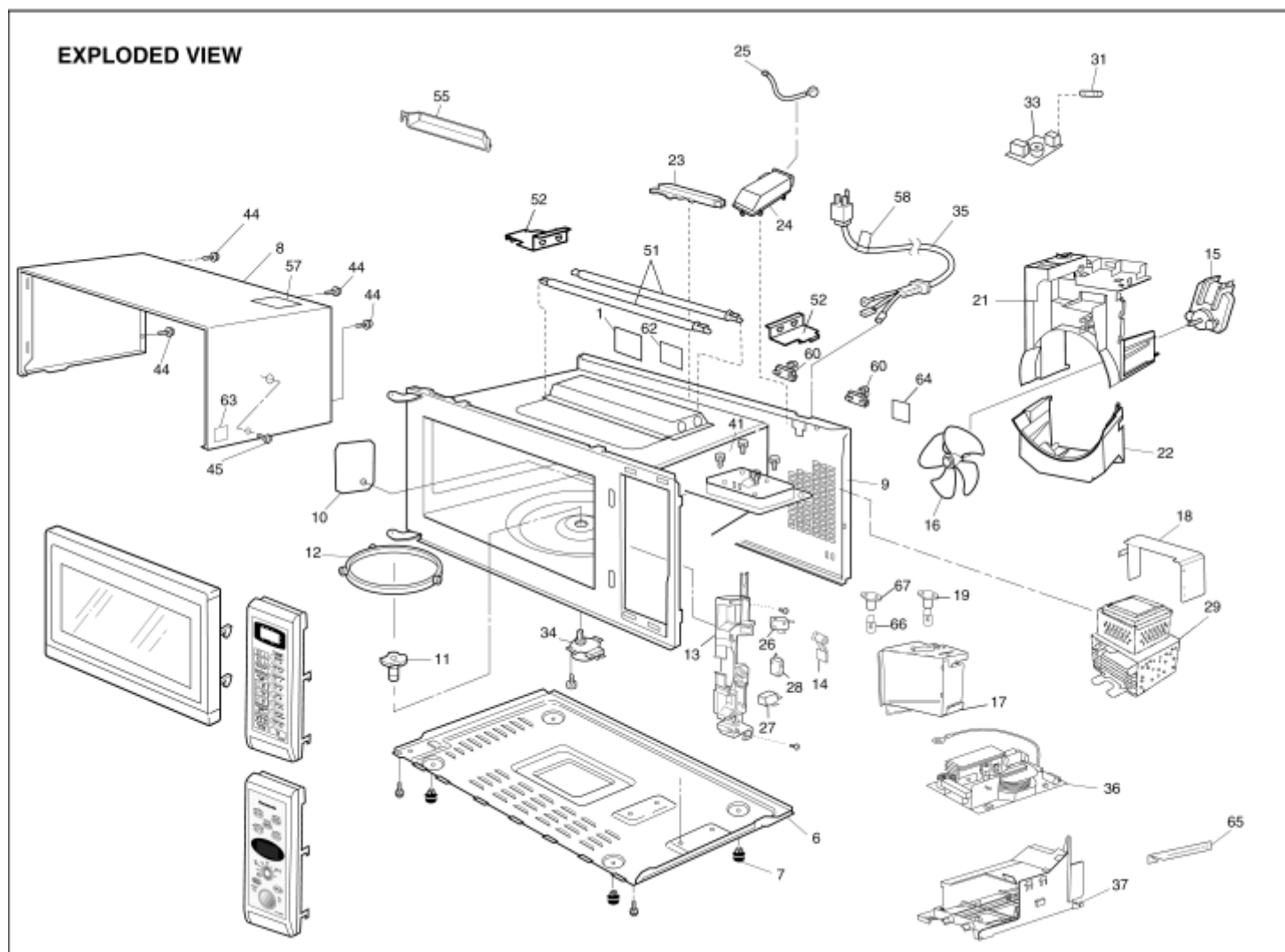
Check the line voltage under load. Low voltage will lower the magnetron output. Take the temperature readings and heating time as accurately as possible.

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
1000W	Min. 8.6°C
1100W	Min. 9.4°C

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4.2 PARTS LIST

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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:

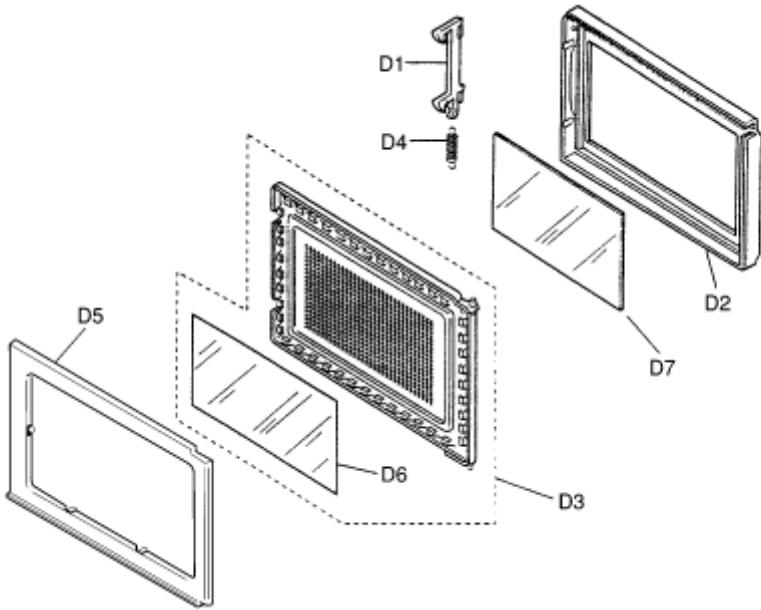
Components identified by  mark have special characteristics important for safety.

When replacing any of these components, use only manufacture's specified parts.

Ref. No.		Part No.	Part Name & Description	Pcs/Set	Remarks
1		F00066V00HP	CAUTION LABEL	1	EXCEPT ZPE
1		F00066W10ZP	CAUTION LABEL	1	ZPE
6		F10015Q00AP	BASE	1	
7		F10084T00AP	RUBBER FOOT	4	
8		F110D5R00SAP	CABINET BODY	1	K593MF,K574MF
8		F110D5R00HAP	CABINET BODY	1	K574WF,K544WF
8		F110D5Q00SAP	CABINET BODY	1	S554MF
8		F110D5Q00HAP	CABINET BODY	1	S554WF
9		F200A5R50CP	OVEN	1	K593MF,K574MF/WF
9		F200A5R20BP	OVEN	1	K544WF
9		F200A5Q30BP	OVEN	1	S554MF/WF
10		F20555Q00BP	COVER	1	
11		F21315G10XN	PULLY SHAFT	1	
12		F290D5Q00AP	ROLLER RING (U)	1	
13		F30205Q00AP	DOOR HOOK	1	
14		F31365Q00AP	HOOK LEVER A	1	
15		F400A5U00XN	FAN MOTOR	1	
16		F40085G10XN	FAN BLADE	1	
17		F40255Q00AP	AIR GUIDE A	1	
18		F40425Q00AP	AIR GUIDE F	1	
19		F612E5G10XN	INCANDESCENT LAMP(U)	1	EXCEPT HPE
21		F41445Q00AP	UPPER ORIFICE	1	
22		F42095Q00AP	LOWER ORIFICE	1	
23		F64505Q00AP	SENSOR COVER B	1	K593MF,K574MF/WF
24		F65434W00AP	SENSOR COVER C	1	K593MF,K574MF/WF
25		A607S4T00AP	STEAM SENSOR	1	K593MF,K574MF/WF
26		J61424T00AP	MICRO SWITCH	1	(PRIMARY LATCH SWITCH) (V-15G-3C25)
27		J61414T00AP	MICRO SWITCH	1	(SECONDARY LATCH SWITCH) (D3V-16G-3C25)
28		J61784T00AP	MICRO SWITCH	1	(SHORT SWITCH) (D3V-1G-2C25)
29		2M261-M32F	MAGNETRON	1	EXCEPT STM,ZPE
29		2M261-M32J	MAGNETRON	1	STM,ZPE

31		A62304210BP	FUSE	1	(10A)
33		J692Y4T00YNR	NOISE FILTER (U)	1	EXCEPT STM,ZPE
33		J607X4L00BP	NOISE FILTER (U)	1	STM,ZPE
34		F63265U30XN	TURNTABLE MOTOR	1	
35		F900C5Q00YK	AC CORD W/PLUG	1	HPE,MPQ,YTE,YPQ,KTE,KPQ,KUE
35		F900C5G40SN	AC CORD W/PLUG	1	STM
35		F900C5Q00TN	AC CORD W/PLUG	1	TPE,PTE,ZPE
35		F900C5Q00LN	AC CORD W/PLUG	1	LPK
36		F606Y4V00XN	H.V.INVERTER (U)	1	
37		F65855R00BP	INVERTER BRACKET	1	
41		XTWFA4+12T	SCREW	4	FOR MAGNETRON
44		XTWFA4+12D	SCREW	4	FOR CABINET BODY
45		XTCAFA4+12AFW	SCREW	1	FOR CABINET BODY SIDE (K574WF,K544WF,S554WF)
45		XTCAFA4+12AFS	SCREW	1	FOR CABINET BODY SIDE (K593MF,K574MF,S554MF)
51		F630G5R20GP	HEATER (AU)	2	K593MF (KTE,PTE), K574MF/WF (HPE,TPE,YTE,LPK,KTE,STM,ZPE)
51		F630G5R20BP	HEATER (AU)	2	K574MF/WF (MPQ,YPQ),K574WF (KPQ)
51		F630G6B80XN	HEATER (AU)	2	K544WF (KTE,KUE,HPE,TPE,YTE,ZPE,PTE)
51		F630G5R00BP	HEATER (AU)	2	K544WF (MPQ)
52		F64605R00BP	HEATER SUPPORT	2	K593MF,K574MF/WF,K544WF
55		F40245R00BP	EXHAUST GUIDE A	1	K593MF,K574MF/WF,K544WF
57		F01506W50XP	NO TOUCHING LABEL	1	K593MF,K574MF/WF,K544WF
58		F02395E20KN	CORD CAUTION LABEL	1	KTE,KPQ,STM,PTE,KUE
60		F11404J60XN	STOPPER	2	
62		F00066W10MP	CAUTION LABEL	1	YPQ
63		F02846W10YP	NO. LABEL	1	K574MF YPQ
63		F02846W40YP	NO. LABEL	1	S554MF YPQ
64		F0005-4S10	EARTH LABEL	1	TPE
65		F20345Q00CP	REINFORCE BRACKET	1	
66		F60305G60HN	INCANDESCENT LAMP	1	HPE
67		F61525H00AP	SOCKET	1	HPE

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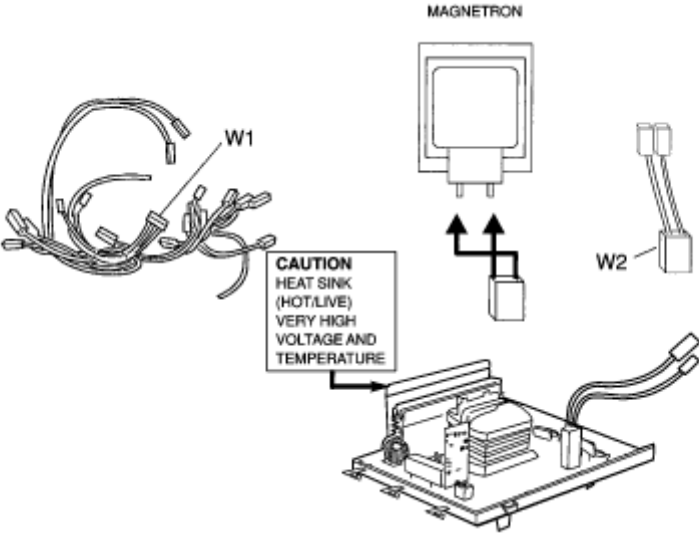
4.3 DOOR ASSEMBLY

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Ref. No.		Part No.	Part Name & Description	Pcs/Set	Remarks
D1		F30185Q00AP	DOOR KEY A	1	
D2		F30015Q00SBP	DOOR A	1	K593MF,K574MF(EXCEPT LPK),S554MF
D2		F30015Q00SAP	DOOR A	1	K574MF LPK
D2		F30015Q00HBP	DOOR A	1	K574WF,K544WF,S554WF(EXCEPT LPK)
D2		F30015Q00HAP	DOOR A	1	S554WF LPK
D3		F302K5Q00AP	DOOR E(U)	1	
D4		F30215G10XN	DOOR KEY SPRING	1	
D5		F30855Q00AP	DOOR C	1	
D6		F31456V60XP	DOOR SCREEN A	1	
D7		F31465R90HP	DOOR SCREEN B	1	K593MF,K574MF/WF,K544WF
D7		F31465Q00HP	DOOR SCREEN B	1	S554MF/WF

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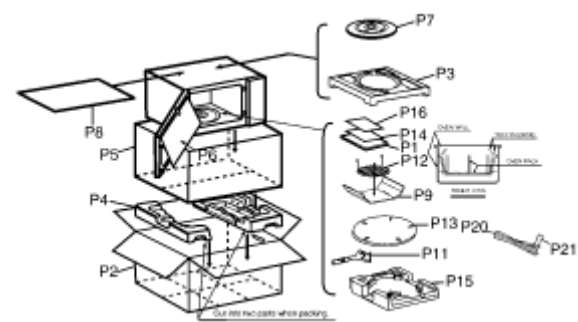
4.4 WIRING MATERIALS

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Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
W1	F030A6D70XP	LEAD WIRE HARNESS	1	K593MF(KTE,PTE),K574MF/WF(EXCEPT STM & ZPE), K544WF (EXCEPT ZPE)
W1	F030A5R30ZP	LEAD WIRE HARNESS	1	K574WF STM,K574MF ZPE,K544WF ZPE
W1	F030A6D50XP	LEAD WIRE HARNESS	1	S554MF/WF (EXCEPT ZPE)
W1	F030A5Q00BP	LEAD WIRE HARNESS	1	S554MF/WF ZPE
W2	F030E5Q00AP	H.V.LEAD WIRE	1	

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4.5 PACKING AND ACCESSORIES

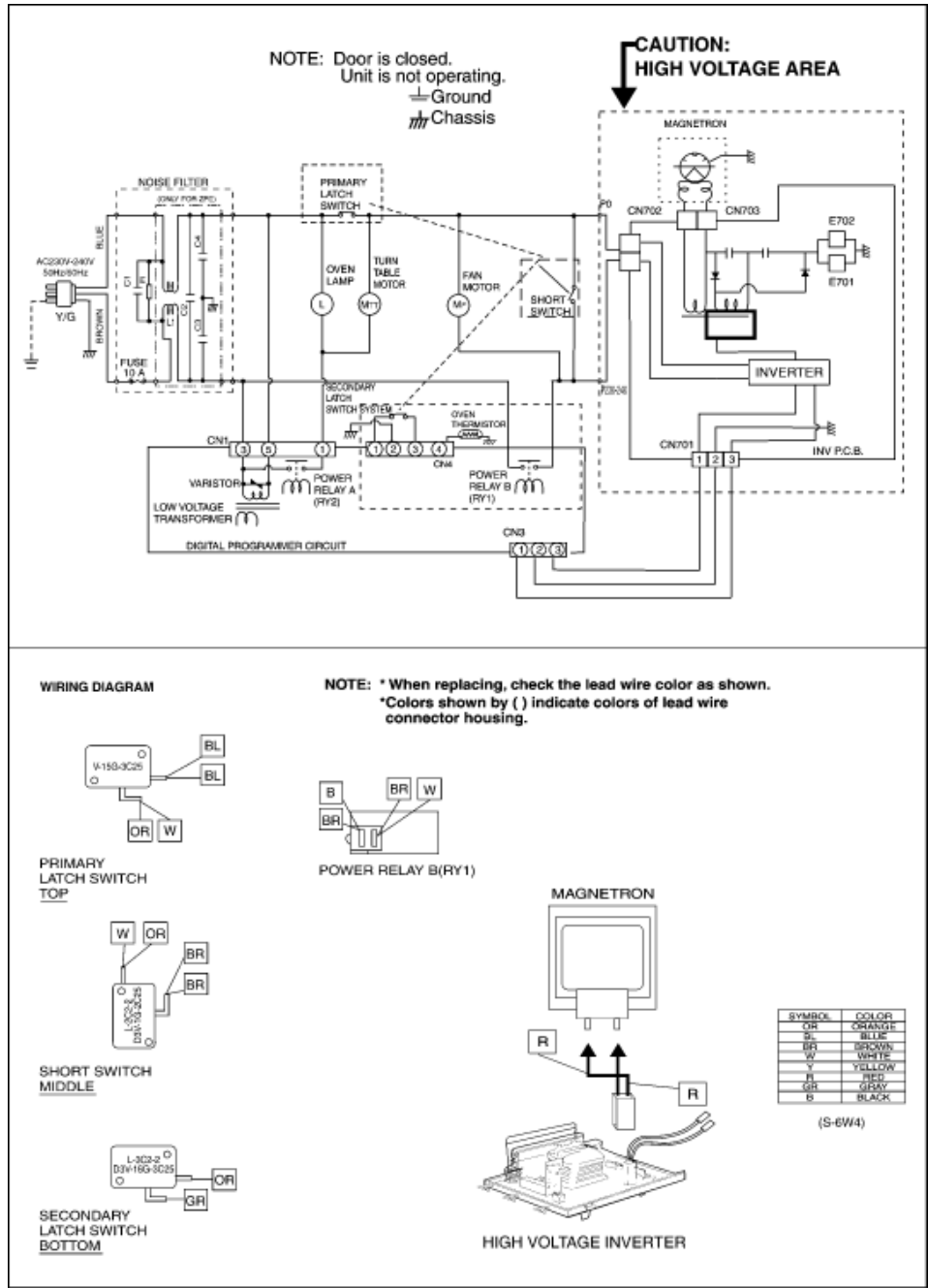
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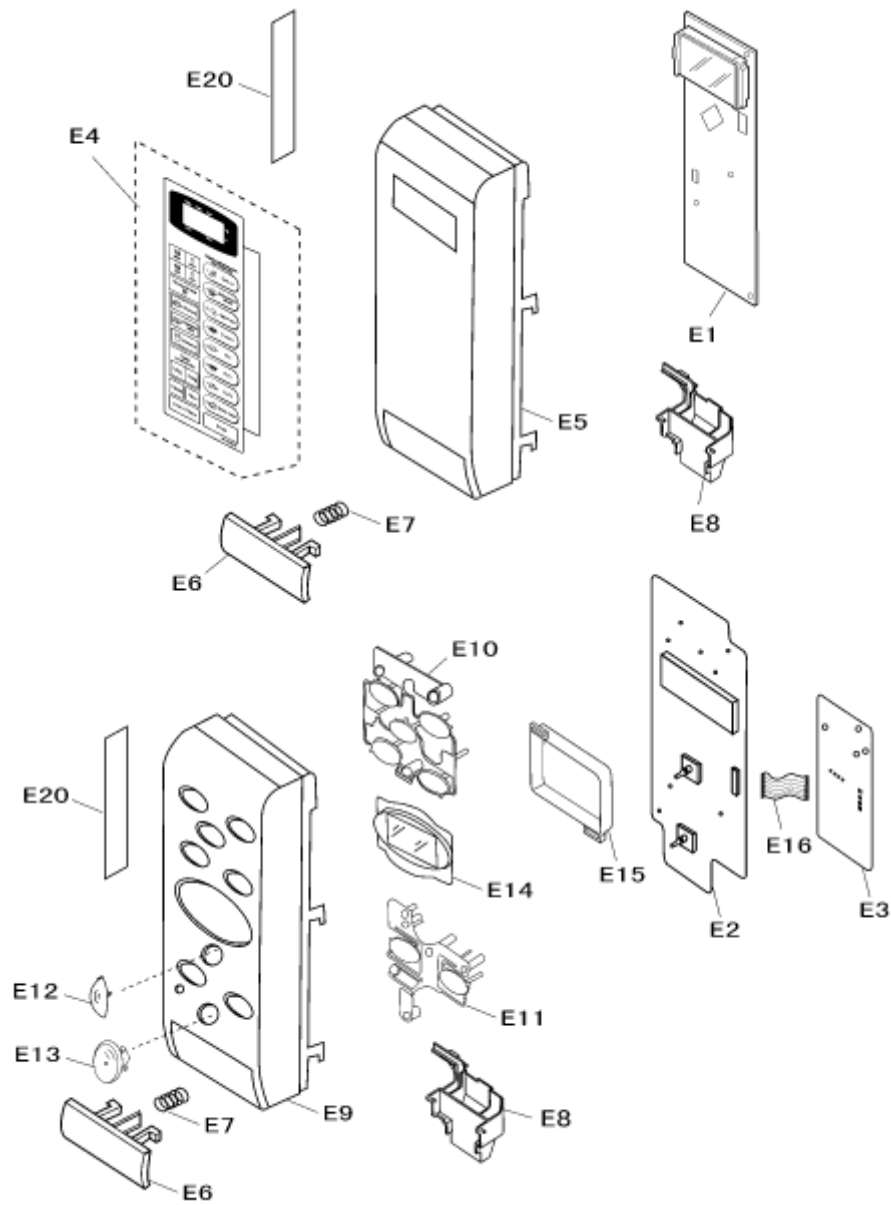


Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
P1	F00036W00KP	INSTRUCTION MANUAL	1	K593MF (KTE,PTE)
P1	F00036W10HP	INSTRUCTION MANUAL	1	K574MF (HPE,TPE,MPQ,YTE,LPK,YPQ)
P1	F00036W10KP	INSTRUCTION MANUAL	1	K574WF (KTE,KPQ,STM,PTE)
P1	F00036W10ZP	INSTRUCTION MANUAL	1	K574MF (ZPE)
P1	F00036W20KP	INSTRUCTION MANUAL	1	K544WF (KTE,PTE,KUE)
P1	F00036W20HP	INSTRUCTION MANUAL	1	K544WF (HPE,TPE,MPQ,YTE)
P1	F00036W20ZP	INSTRUCTION MANUAL	1	K544WF (ZPE)
P1	F00036W40HP	INSTRUCTION MANUAL	1	S554WF (HPE,TPE,YTE,MPQ,LPK),S554MF (MPQ,YPQ)
P1	F00036W40ZP	INSTRUCTION MANUAL	1	S554MF/WF (ZPE)
P2	F01026W00SKT	PACKING CASE,PAPER	1	K593MF (KTE,PTE)
P2	F01026W10SHP	PACKING CASE,PAPER	1	K574MF (HPE,TPE,MPQ,YTE,LPK,YPQ)
P2	F01026W10HKT	PACKING CASE,PAPER	1	K574WF (KTE,PTE)
P2	F01026W10HKP	PACKING CASE,PAPER	1	K574WF (KPQ,STM)
P2	F01026W10SZP	PACKING CASE,PAPER	1	K574MF (ZPE)
P2	F01026W20HHP	PACKING CASE,PAPER	1	K544WF (HPE,TPE,MPQ,YTE)
P2	F01026W20HZP	PACKING CASE,PAPER	1	K544WF (ZPE)
P2	F01026W20HKT	PACKING CASE,PAPER	1	K544WF (KTE,PTE,KUE)
P2	F01026W40HHP	PACKING CASE,PAPER	1	S554WF (HPE,TPE,YTE,MPQ,LPK)
P2	F01026W40HZP	PACKING CASE,PAPER	1	S554WF (ZPE)
P2	F01026W40SYP	PACKING CASE,PAPER	1	S554MF (MPQ,YPQ)
P2	F01026W40SZP	PACKING CASE,PAPER	1	S554MF (ZPE)
P3	F01045Q00AP	UPPER FILLER	1	
P4	F01055Q00AP	LOWER FILLER	1	
P5	F01068I00XN	P.E.BAG	1	
P6	F01078I00XN	DOOR SHEET	1	
P7	F06015Q00AP	COOKING TRAY	1	
P8	F01924T00AP	SHEET	1	K593MF,K574MF
P9	F01085R00BP	RACK PACKING	1	K593MF (KTE,PTE)
P9	F01085R00AP	RACK PACKING	1	K574MF/WF,K544WF
P11	F10855R00AP	PIZZA PAN HANDLE	1	K593MF (KTE,PTE)
P12	F060V5U00XN	OVEN RACK	1	K593MF,K574MF/WF,K544WF
P13	F46065R00AP	PIZZA PAN	1	K593MF (KTE,PTE)
P14	F000B6V90KP	COOKING GUIDE	1	KTE,KPQ,STM,PTE,KUE
P14	F000B6V70MP	COOKING GUIDE	1	HPE,TPE,MPQ,YTE,LPK,YPQ
P14	F000B6W10ZP	COOKING GUIDE	1	ZPE
P15	F01135R00AP	PIZZA PAN FOAM	1	K593MF (KTE,PTE)
P16	F04456W00KT	OVERLAY	1	K593MF (KTE,PTE)
P16	F04456W00PT	OVERLAY	1	K593MF (PTE)
P16	F04456W10TP	OVERLAY	1	K574MF (TPE)
P16	F04456W10MP	OVERLAY	1	K574MF (MPQ,YPQ)
P16	F04456W10KT	OVERLAY	1	K574WF (KTE,KPQ,STM,PTE)
P16	F04456W10PT	OVERLAY	1	K574WF (PTE)

P16	F04456W20TP	OVERLAY	1	K544WF (TPE)
P16	F04456W20MP	OVERLAY	1	K544WF (MPQ)
P16	F04456W20KT	OVERLAY	1	K544WF (KTE,PTE,KUE)
P16	F04456W20PT	OVERLAY	1	K544WF (PTE)
P16	F04456W20KU	OVERLAY	1	K544WF (KUE)
P16	F04456W40TP	OVERLAY	1	S554WF (TPE)
P16	F04456W40MP	OVERLAY	1	S554MF/WF (MPQ)
P20	F91644000XN	EARTH LEAD	1	TPE
P21	F00324040XN	EARTH CAUTION LABEL	1	TPE

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4.6 ESCUTCHEON BASE ASSEMBLY

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Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
E1	F603L6W10HP	D.P.CIRCUIT(AU)	1	K574MF (HPE,TPE)
E1	F603L6W10MP	D.P.CIRCUIT(AU)	1	K574MF (MPQ)
E1	F603L6W10YT	D.P.CIRCUIT(AU)	1	K574MF (YTE)
E1	F603L6W10LP	D.P.CIRCUIT(AU)	1	K574MF (LPK)
E1	F603L6W10YP	D.P.CIRCUIT(AU)	1	K574MF (YPQ)
E1	F603L6W10KT	D.P.CIRCUIT(AU)	1	K574WF (KTE,PTE)
E1	F603L6W10KP	D.P.CIRCUIT(AU)	1	K574WF (KPQ)
E1	F603L6W10ST	D.P.CIRCUIT(AU)	1	K574WF (STM)
E1	F603L6W10ZP	D.P.CIRCUIT(AU)	1	K574MF (ZPE)
E1	F603L6W20HP	D.P.CIRCUIT(AU)	1	K544WF (HPE,TPE)
E1	F603L6W20MP	D.P.CIRCUIT(AU)	1	K544WF (MPQ)
E1	F603L6W20YT	D.P.CIRCUIT(AU)	1	K544WF (YTE)
E1	F603L6W20ZP	D.P.CIRCUIT(AU)	1	K544WF (ZPE)
E1	F603L6W20KT	D.P.CIRCUIT(AU)	1	K544WF (KTE,PTE,KUE)
E1	F603L6W40HP	D.P.CIRCUIT(AU)	1	S554WF (HPE,TPE)
E1	F603L6W40MP	D.P.CIRCUIT(AU)	1	S554MF/WF (MPQ),S554MF (YPQ)
E1	F603L6W40YT	D.P.CIRCUIT(AU)	1	S554WF (YTE)
E1	F603L6W40LP	D.P.CIRCUIT(AU)	1	S554WF (LPK)
E1	F603L6W40ZP	D.P.CIRCUIT(AU)	1	S554MF/WF (ZPE)
E2	F608E5R90HP	D.P.CIRCUIT(ABU)	1	K593MF (KTE,PTE)
E3	F603Y5R90HP	D.P.CIRCUIT(DU)	1	K593MF (KTE,PTE)
E4	F630Y6W40HHP	MEMBRANE SWITCH(U)	1	S554WF (HPE,TPE,YTE,MPQ,LPK)
E4	F630Y6W40SYP	MEMBRANE SWITCH(U)	1	S554MF (MPQ,YPQ)
E4	F630Y6W40SZP	MEMBRANE SWITCH(U)	1	S554MF (ZPE)
E4	F630Y6W40HZP	MEMBRANE SWITCH(U)	1	S554WF (ZPE)
E4	F630Y6W10SHP	MEMBRANE SWITCH(U)	1	K574MF (HPE,TPE,MPQ,YTE,LPK,YPQ)
E4	F630Y6W10HKT	MEMBRANE SWITCH(U)	1	K574WF (KTE,KPQ,STM,PTE)
E4	F630Y6W10SZP	MEMBRANE SWITCH(U)	1	K574MF (ZPE)
E4	F630Y6W20HHP	MEMBRANE SWITCH(U)	1	K544WF (HPE,TPE,MPQ,YTE)
E4	F630Y6W20HKT	MEMBRANE SWITCH(U)	1	K544WF (KTE,PTE,KUE)
E4	F630Y6W20HZP	MEMBRANE SWITCH(U)	1	K544WF (ZPE)
E5	F80345Q00SBP	ESCUTCHEON BASE	1	K574MF,S554MF
E5	F80345Q00HBP	ESCUTCHEON BASE	1	K574WF,K544WF,S554WF
E6	F80725Q00SAP	DOOR OPENING BUTTON	1	K593MF,K574MF,S554MF
E6	F80725Q00HAP	DOOR OPENING BUTTON	1	K574WF,K544WF,S554WF
E7	F80375K00AP	COOK BUTTON SPRING	1	
E8	F82565Q00AP	DOOR OPENING LEVEL	1	
E9	F80345R90SHP	ESCUTCHEON BASE	1	K593MF (KTE,PTE)
E10	F80245R90SHP	BUTTON A	1	K593MF (KTE,PTE)
E11	F83875R90SHP	BUTTON B	1	K593MF (KTE,PTE)
E12	F80205Q50SEP	KNOB A	1	K593MF (KTE,PTE)
E13	F83925R80SEP	KNOB B	1	K593MF (KTE,PTE)

E14	F81895Q50HEP	DISPLAY WINDOW	1	K593MF (KTE,PTE)
E15	F80165Q50EP	DISPLAY FRAME	1	K593MF (KTE,PTE)
E16	F66165Q00EP	FLAT CABLE	1	K593MF (KTE,PTE)
E20	F00076W00KT	NAME PLATE	1	K593MF KTE
E20	F00076W00PT	NAME PLATE	1	K593MF PTE
E20	F00076W10HP	NAME PLATE	1	K574MF HPE
E20	F00076W10TP	NAME PLATE	1	K574MF TPE
E20	F00076W10MP	NAME PLATE	1	K574MF MPQ
E20	F00076W10YT	NAME PLATE	1	K574MF YTE
E20	F00076W10LP	NAME PLATE	1	K574MF LPK
E20	F00076W10YP	NAME PLATE	1	K574MF YPQ
E20	F00076W10KT	NAME PLATE	1	K574WF KTE
E20	F00076W10KP	NAME PLATE	1	K574WF KPQ
E20	F00076W10ST	NAME PLATE	1	K574WF STM
E20	F00076W10ZP	NAME PLATE	1	K574MF ZPE
E20	F00076W10PT	NAME PLATE	1	K574WF PTE
E20	F00076W20HP	NAME PLATE	1	K544WF HPE
E20	F00076W20TP	NAME PLATE	1	K544WF TPE
E20	F00076W20MP	NAME PLATE	1	K544WF MPQ
E20	F00076W20YT	NAME PLATE	1	K544WF YTE
E20	F00076W20ZP	NAME PLATE	1	K544WF ZPE
E20	F00076W20KT	NAME PLATE	1	K544WF KTE
E20	F00076W20PT	NAME PLATE	1	K544WF PTE
E20	F00076W20KU	NAME PLATE	1	K544WF KUE
E20	F00076W40HP	NAME PLATE	1	S554WF HPE
E20	F00076W40TP	NAME PLATE	1	S554WF TPE
E20	F00076W40YT	NAME PLATE	1	S554WF YTE
E20	F00076W40SYP	NAME PLATE	1	S554MF YPQ
E20	F00076W40HMP	NAME PLATE	1	S554WF MPQ
E20	F00076W40SMP	NAME PLATE	1	S554MF MPQ
E20	F00076W40LP	NAME PLATE	1	S554WF LPK
E20	F00076W40SZP	NAME PLATE	1	S554MF ZPE
E20	F00076W40HZP	NAME PLATE	1	S554WF ZPE

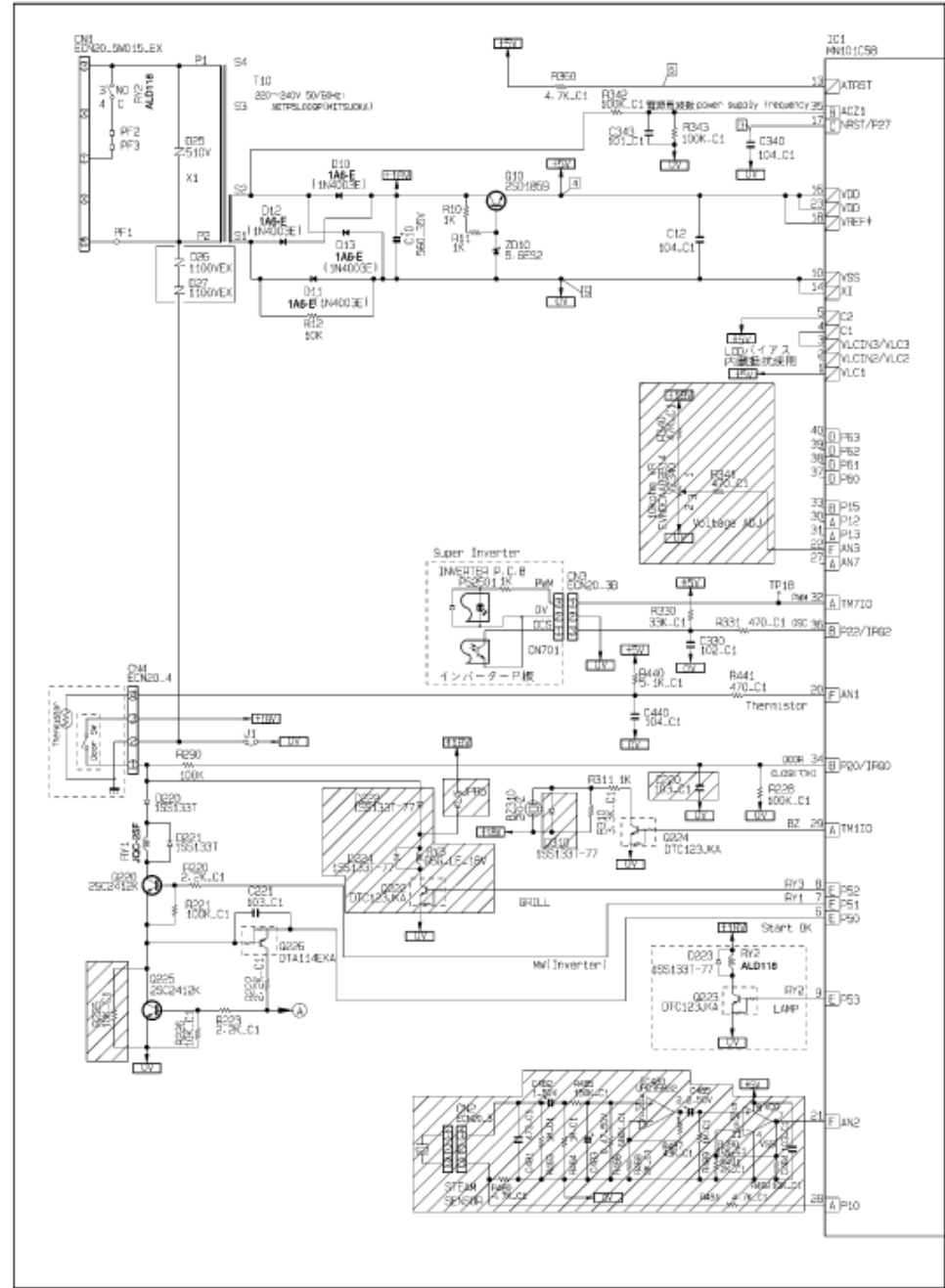
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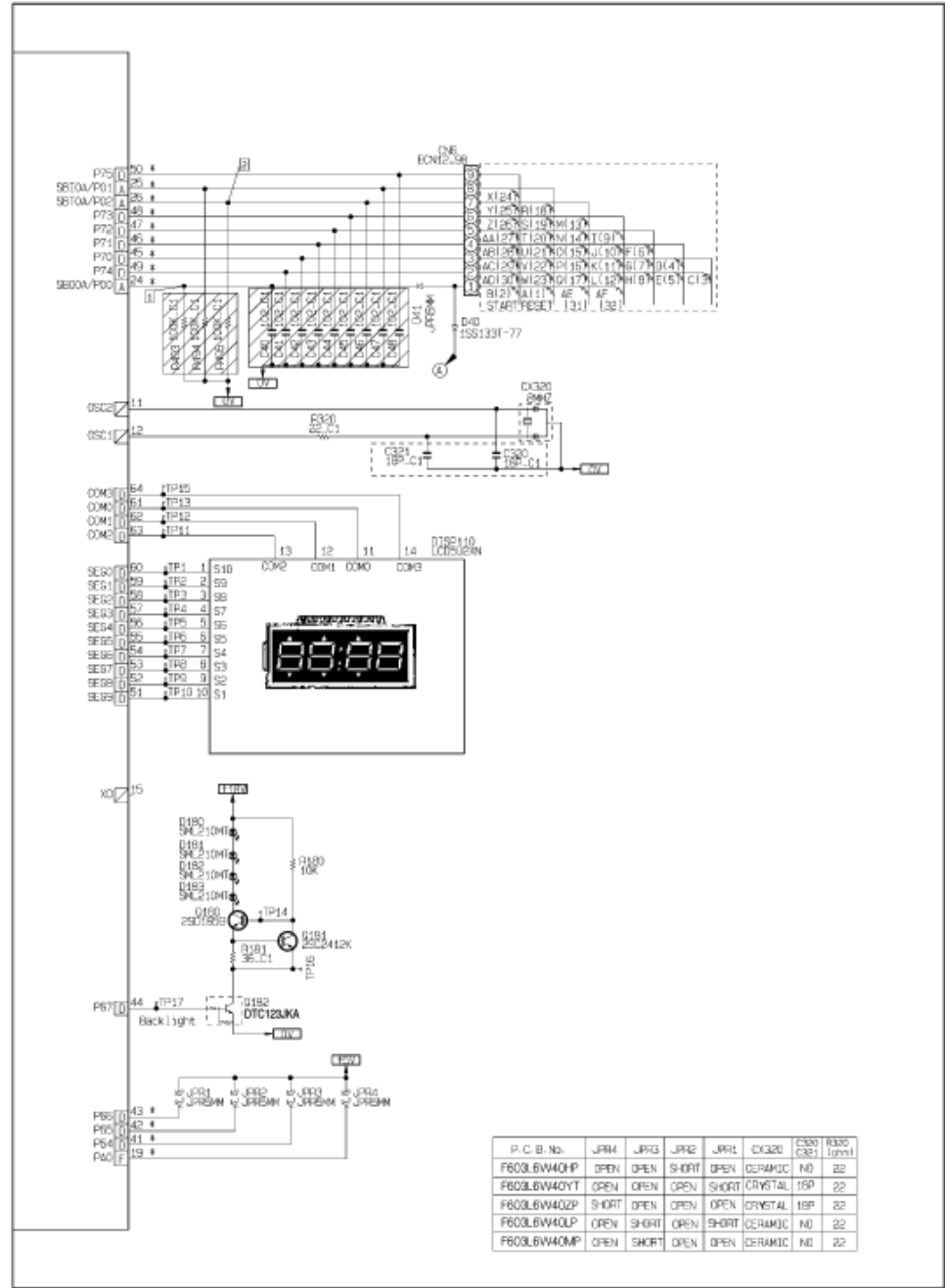
4.7 H.V. INVERTER BOARD MAIN PARTS LIST (F606Y4V00XN)

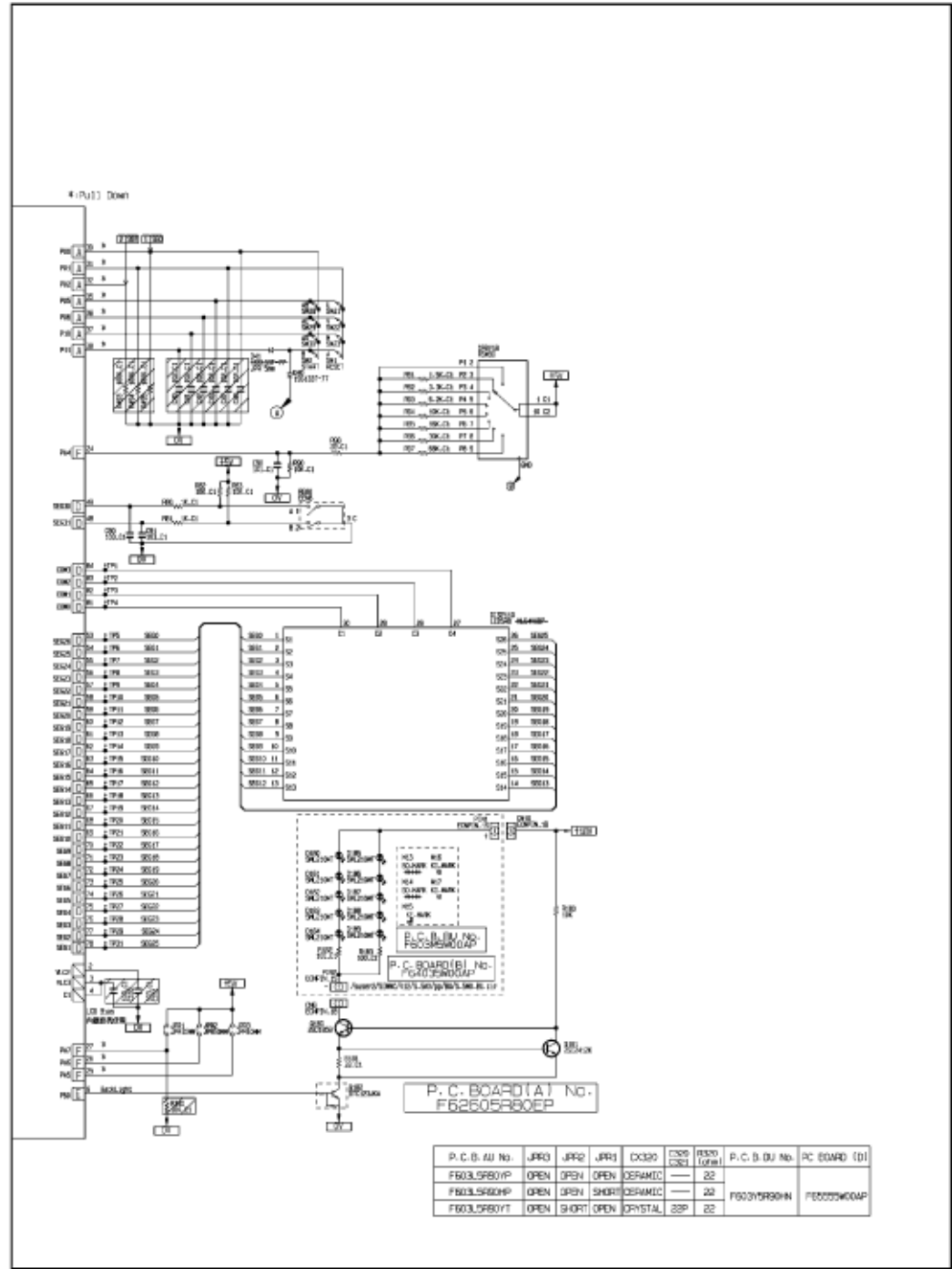
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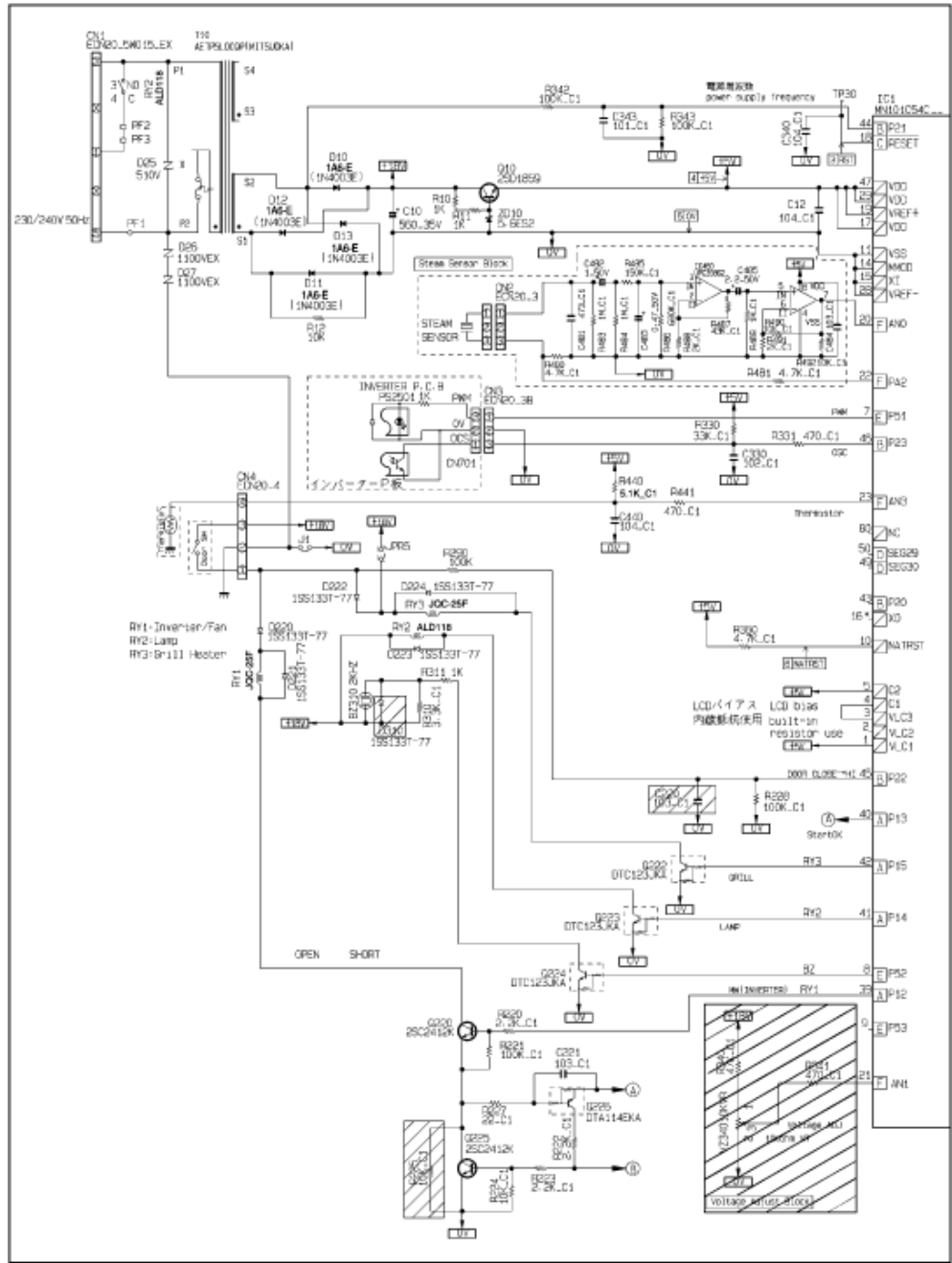
Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
Q701	A691E4V10GP	TRANSISTOR SI	1	
Q702		TRANSISTOR SI	1	
DB701	AESTRS2006M	DIODE SI	1	20A,600V
D701,D702	A62024V00GP	DIODE SI	2	0.3A
C704,C705	ECWH30822JUA	CAPACITOR	2	8200PF 3000VDC
T701	F609A4V00XN	H.V. TRANSFORMER	1	
	F607D4V00XN	D.P.CIRCUIT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

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5.4.1 NN- S554MF/S554WF/K574MF/K574WF/K544WF

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Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
BZ310	AEFBAT2001	BUZZER	1	2.0KHz
C221	AECUU06F103Z	CHIP CAPACITOR	1	0.01μF/50V
C484	AECUU06F103Z	CHIP CAPACITOR	1	0.01μF/50V (K574MF/WF)
C343	AECUU06C101J	CHIP CAPACITOR	1	100PF/50V
C12,C340,C440	AECUT06F104Z	CHIP CAPACITOR	3	0.1μF/25V
C320,C321	AECUT06C180J	CHIP CAPACITOR	2	18PF/25V, S554MF/WF (YTE,ZPE)
C320,C321	AECUU06C220J	CHIP CAPACITOR	2	22PF/50V (K574/K544 (YTE,ZPE))
C330	AECUU06R102K	CHIP CAPACITOR	1	1000PF/50V
C481	AECUU06F473Z	CHIP CAPACITOR	1	0.047μF/50V (K574MF/WF)
C10	AECETK1V561B	AL CHEM CAPACITOR	1	560μF/35V
C482	AECETS1H010B	AL CHEM CAPACITOR	1	1μF/50V (K574MF/WF)
C483	AECETS1HR47B	AL CHEM CAPACITOR	1	0.47μF/50V (K574MF/WF)
C485	AECETS1H2R2B	AL CHEM CAPACITOR	1	2.2μF/50V (K574MF/WF)
CN1	AEEMXH01505W	CONNECTOR	1	5 Pin
CN2	AEEMMF00703W	CONNECTOR	1	3 Pin (K574MF/WF)
CN3	F03524U00AP	CONNECTOR	1	(S554MF/WF)
CN3	F03524U50AP	CONNECTOR	1	(K574MF/WF,K544WF)
CN4	AEEMXH00F04W	CONNECTOR	1	4 Pin
CN6	AEEM09FDZBTM	CONNECTOR	1	9 Pin
CX320	AEFOS800MG06	CERAMIC RESONATOR	1	8.0MHz (EXCEPT YTE, ZPE)
CX320	AEYXAT49-8MA	CRYSTAL RESONATOR	1	8.0MHz (YTE,ZPE)
DISP110	AEDDHJ5U20XN	LCD	1	(S554MF/WF)
DISP110	AEDDHJ5E40XN	LCD	1	(K574MF/WF,K544WF)
DISP1 HOLDER	F66174U20AP	LCD HOLDER	1	(S554MF/WF)
DISP1 HOLDER	F66175E40XN	LCD HOLDER	1	(K574MF/WF,K544WF)
	F67525E40XN	DIFFUSION SHEET	1	(K574MF/WF,K544WF)
D10-D13	AESSRCT1A6-E	DIODE	4	
D40,D220,D221,D223	AESS133T-77	DIODE	4	
D222,D224	AESS133T-77	DIODE	2	(K574MF/WF,K544WF)
D25	AERZ511KD10D	VARISITOR	1	
D26,D27	AERZ102KD10A	VARISITOR	2	
D180-D183	AESQPY1112H	CHIP-LED	4	
D184-D189	AESQPY1112H	CHIP-LED	6	(K574MF/WF,K544WF)
IC1	MN101C589EZ	L.S.I	1	(S554MF/WF)
IC1	MN101C54CFJ	L.S.I	1	(K574MF/WF,K544WF)
IC480	AEICUPC358G2	IC	1	(K574MF/WF)
Q226	AESA14EKE	CHIP DIGI-TRANSISTOR	1	
Q182,Q223,Q224	AESC23JKE	CHIP DIGI-TRANSISTOR	3	
Q222	AESC23JKE	CHIP DIGI-TRANSISTOR	1	(K574MF/WF,K544WF)
Q10,Q180	2SD1859TV2Q	TRANSISTOR	2	
Q181,Q220,Q225	2SC2412KT146	CHIP TRANSISTOR	3	
R182,R183	AERJ06J101R	CHIP RESISTOR	2	100Ω,1/10W,5% (K574MF/WF,K544WF)

R226	AERJ06J103R	CHIP RESISTOR	1	10K,1/10W,5% (S554MF/WF)
R224	AERJ06J103R	CHIP RESISTOR	1	10K,1/10W,5% (K574MF/WF,K544WF)
R490,R492	AERJ06J103R	CHIP RESISTOR	2	10K,1/10W,5% (K574MF/WF)
R221,R228,R342,R343	AERJ06J104R	CHIP RESISTOR	4	100K,1/10W,5%
R483,R484,R489	AERJ06J105R	CHIP RESISTOR	3	1Ω,1/10W,5% (K574MF/WF)
R485	AERJ06J154R	CHIP RESISTOR	1	150K,1/10W,5% (K574MF/WF)
R488,R491	AERJ06J202R	CHIP RESISTOR	2	2K,1/10W,5% (K574MF/WF)
R320	AERJ06J220R	CHIP RESISTOR	1	22Ω,1/10W,5%
R181,R227	AERJ06J220R	CHIP RESISTOR	2	22Ω,1/10W,5% (K574MF/WF,K544WF)
R220,R222,R223	AERJ06J222R	CHIP RESISTOR	3	2.2K,1/10W,5%
R310	AERJ06J332R	CHIP RESISTOR	1	3.3K,1/10W,5%
R330	AERJ06J333R	CHIP RESISTOR	1	33K,1/10W,5%
R181	AERJ06J360R	CHIP RESISTOR	1	36Ω,1/10W,5% (S554MF/WF)
R487	AERJ06J433R	CHIP RESISTOR	1	43K,1/10W,5% (K574MF/WF)
R331,R441	AERJ06J471R	CHIP RESISTOR	2	470Ω,1/10W,5%
R360	AERJ06J472R	CHIP RESISTOR	1	4.7K,1/10W,5%
R480,R481	AERJ06J472R	CHIP RESISTOR	2	4.7K,1/10W,5% (K574MF/WF)
R440	AERJ06J512R	CHIP RESISTOR	1	5.1K,1/10W,5%
R486	AERJ06J684R	CHIP RESISTOR	1	680K,1/10W,5% (K574MF/WF)
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	
RY3	AEBGJQC25F18	POWER RELAY	1	(K574MF/WF,K544WF)
RY2	AEBLD118	POWER RELAY	1	
T10	AETP5L00QP	LOW VOLTAGE TRANSFORMER	1	
ZD10	AESZMTZJ5R6B	ZENER DIODE	1	

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2.1 Check the grounding

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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.

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5.4.2 NN-K593MF

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Ref. No.	Part No.	Part Name & Description	Pcs/Set	Remarks
BZ310	AEFBAT2001	BUZZER	1	2.0KHz
C80,C81,C221,C484,C486	AECUU06F103Z	CHIP CAPACITOR	5	0.01μF/50V
C90,C343	AECUU06C101J	CHIP CAPACITOR	2	100PF/50V
C12,C222,C340,C440	AECUT06F104Z	CHIP CAPACITOR	4	0.1μF/25V
C330	AECUU06R102K	CHIP CAPACITOR	1	1000PF/50V
C481	AECUU06F473Z	CHIP CAPACITOR	1	0.047μF/50V
C483	AECETS1HR47B	CHIP CAPACITOR	1	0.47μF/50V
C482	AECETS1H010B	CHIP CAPACITOR	1	1μF/50V
C485	AECETS1H2R2B	CHIP CAPACITOR	1	2.2μF/50V
C10	AECETK1V561B	AL CHEM CAPACITOR	1	560μF/35V
C13	AECETS1C220B	AL CHEM CAPACITOR	1	22μF/16V
CN1	K1KA03A00409	CONNECTOR	1	5 Pin
CN2	AEEMMF00703W	CONNECTOR	1	3 Pin
CN3	F03524U00AP	CONNECTOR	1	
CN4	AEEMXH00F04W	CONNECTOR	1	4 Pin
CN5	AEEM17F9604S	CONNECTOR	1	17 Pin
CN6	AEEM17F9604S	CONNECTOR	1	17 Pin
CX320	AEFOS800MG06	CERAMIC RESONATOR	1	8.0MHz
DISP110	AEDDHJ5R80EP	LCD	1	
DISP1 HOLDER	F66175W00AP	LCD HOLDER	1	
	F67525E40XN	DIFFUSION SHEET	1	
D10-D13	AESSRCT1A6-E	DIODE	4	
D40,D220-D225	AESS133T-77	DIODE	7	
D25	AERZ511NS10D	VARSITOR	1	
D26,D27	AERZ102KD10A	VARSITOR	2	
D180-D189	AESQPY1112H	CHIP-LED	10	
PIN1,PIN2	AEPINIPS-1E7		2	
IC1	MN101C54CEL	L.S.I	1	
IC480	AEICUPC358G2	IC	1	
Q226	AESA14EKE	CHIP DIGI-TRANSISTOR	1	
Q182,Q222,Q223,Q224	AESC23JKE	CHIP DIGI-TRANSISTOR	4	
Q10,Q180	2SD1859TV2Q	TRANSISTOR	2	
Q181,Q220,Q225	2SC2412KT146	CHIP TRANSISTOR	3	
SW1,SW2,SW21-SW23,SW28-SW30	EVQ11L05R	SLIGHT TOUCH SWITCH	8	
RSW90	AEVQSRBV18	REVOLVING SWITCH	1	
RE80	AEVQEC16B24	REVOLVING ENCODER	1	
R182,R183	AERJ06J101R	CHIP RESISTOR	2	100Ω, 1/10W,5%
R80,R81	AERJ06J102R	CHIP RESISTOR	2	1K, 1/10W,5%
R82,R83,R90,R94,R224,R490,R492	AERJ06J103R	CHIP RESISTOR	7	10K, 1/10W,5%
R221,R228,R342,R343	AERJ06J104R	CHIP RESISTOR	4	100K, 1/10W,5%
R483,R484,R489	AERJ06J105R	CHIP RESISTOR	3	1M, 1/10W,5%
R91	AERJ06J152R	CHIP RESISTOR	1	1.5K, 1/10W,5%
R13,R485	AERJ06J154R	CHIP RESISTOR	2	150K, 1/10W,5%
R95	AERJ06J163R	CHIP RESISTOR	1	16K, 1/10W,5%

R488,R491	AERJ06J202R	CHIP RESISTOR	2	2K,1/10W,5%
R98,R181,R320	AERJ06J220R	CHIP RESISTOR	3	22Ω,1/10W,5%
R220,R222,R223	AERJ06J222R	CHIP RESISTOR	3	2.2K,1/10W,5%
R96	AERJ06J303R	CHIP RESISTOR	1	30K,1/10W,5%
R92,R310	AERJ06J332R	CHIP RESISTOR	2	3.3K,1/10W,5%
R330	AERJ06J333R	CHIP RESISTOR	1	33K,1/10W,5%
R487	AERJ06J433R	CHIP RESISTOR	1	43K,1/10W,5%
R331,R441,R496	AERJ06J471R	CHIP RESISTOR	3	470Ω,1/10W,5%
R360,R480,R481	AERJ06J472R	CHIP RESISTOR	3	4.7K,1/10W,5%
R97	AERJ06J683R	CHIP RESISTOR	1	68K,1/10W,4%
R486	AERJ06J684R	CHIP RESISTOR	1	680K,1/10W,5%
R440	AERJ06J512R	CHIP RESISTOR	1	5.1K,1/10W,5%
R93	AERJ06J622R	CHIP RESISTOR	1	6.2K,1/10W,5%
R97	AERJ06J683R	CHIP RESISTOR	1	68K,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,RY3	AEGG5G1A18	POWER RELAY	2	
RY2	AEBJQ1A18	POWER RELAY	1	
T10	AETP5L00QP	LOW VOLTAGE TRANSFORMER	1	
ZD10	AESZMTZJ5R6B	ZENER DIODE	1	

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2.2 Inverter warnings

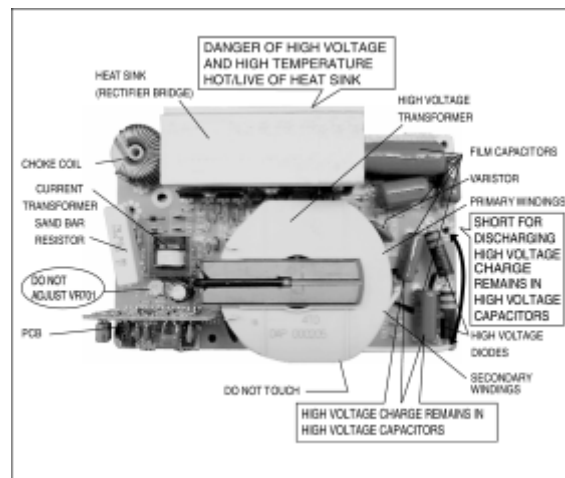
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DANGER, HIGH VOLTAGE AND HIGH TEMPERATURE (HOT/LINE) OF THE INVERTER POWER SUPPLY (U)

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.

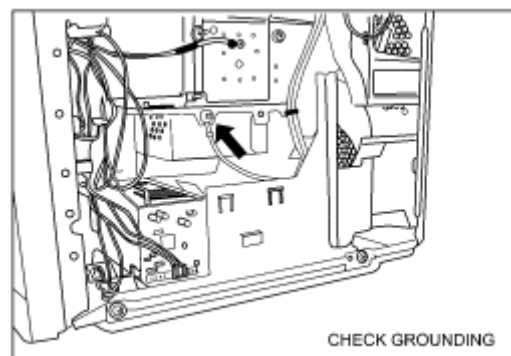
The aluminum heat sink may be HOT due to heat energy, therefore, extreme care should be taken during servicing.



H.V. Inverter warning

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.

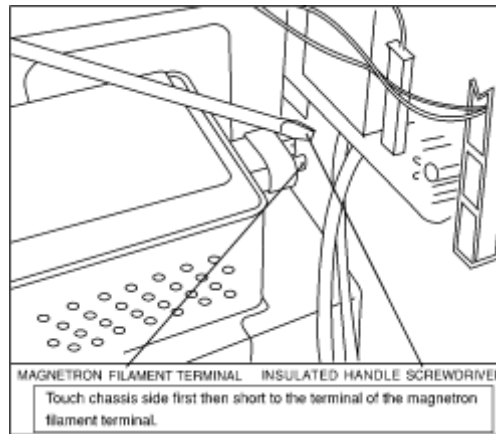


Grounding of the inverter circuit board

WARNING! DISCHARGE THE HIGH VOLATGE 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.



Discharging the high voltage capacitors

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. DONOT 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.

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2.3 Part replacement.

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

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

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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, secondary latch 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.

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

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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.

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2.6 Confirm after repair

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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/cm². After repair or exchange, it is very important to check if the magnetron and the door hinges are correctly installed.

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2.7 Sharp edges

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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.

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