

Pioneer

Service Manual

ORDER NO.
RRV2270

FILE-TYPE COMPACT DISC PLAYER

PD-F27

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	PD-F27		
KU/CA	○	AC 120V	

● This service manual should be used together with the following manual(s):

Model No.	Order No.	Remarks
PD-F1009/KU/CA	RRV2262	

CONTENTS

1. CONTRAST OF MISCELLANEOUS PARTS 2
2. SCHEMATIC DIAGRAM 8
3. PCB CONNECTION DIAGRAM 14

1. CONTRAST OF MISCELLANEOUS PARTS

- NOTES :
- Parts marked by “NSP” are generally unavailable because they are not in our Master Spare Parts List.
 - The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Reference Nos. indicate the pages and Nos. in the service manual for the base model.
 - When ordering resistors, first convert resistance values into code form as shown in the following examples.
- Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by $J = 5\%$, and $K = 10\%$).
- 560 $\Omega \rightarrow 56 \times 10^1 \rightarrow 561$ RD1/4PU $\begin{matrix} 5 & 6 & 1 \\ \hline & & J \end{matrix}$
 47k $\Omega \rightarrow 47 \times 10^3 \rightarrow 473$ RD1/4PU $\begin{matrix} 4 & 7 & 3 \\ \hline & & J \end{matrix}$
 0.5 $\Omega \rightarrow R50$ RN2H $\begin{matrix} R & 5 & 0 \\ \hline & & K \end{matrix}$
 1 $\Omega \rightarrow 1R0$ RS1P $\begin{matrix} 1 & R & 0 \\ \hline & & K \end{matrix}$
- Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
- 5.62k $\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$ RN1/4PC $\begin{matrix} 5 & 6 & 2 & 1 \\ \hline & & & F \end{matrix}$

■ CONTRAST TABLE

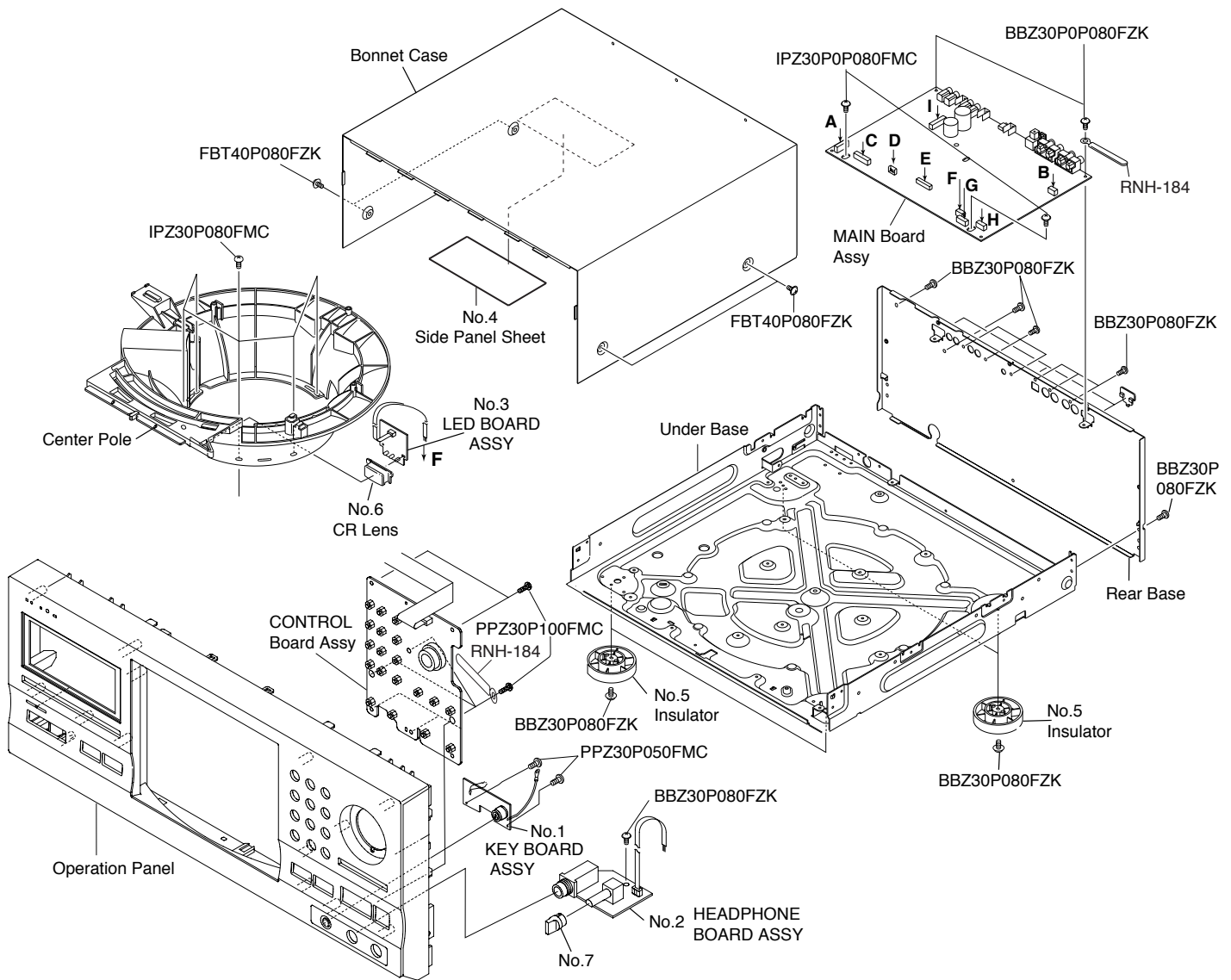
PD-F27/KU/CA and PD-F1009/KU/CA are constructed the same except for the following:

Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			PD-F1009 /KU/CA	PD-F27 /KU/CA	
PCB ASSEMBLIES					
P7- 1 P7- 2	NSP	MOTHER BOARD ASSY	PWM2294	PWM2260	No.1
		├─ MAIN BOARD ASSY	PWZ4036	PWZ3833	
		├─ KEY BOARD ASSY	Not used	PWZ3838	
		├─ SR BOARD ASSY	PWZ4042	Not used	
		└─ POWER BOARD ASSY	PWZ4048	Not used	
P7-27	NSP	├─ DOOR MOTOR BOARD ASSY	PWZ4061	Not used	
P7-28	NSP	├─ DOOR SW BOARD ASSY	PWZ4062	Not used	
P9- 7	NSP	├─ VOLUME BOARD ASSY	PWZ4063	Not used	
P13-1		├─ DISPLAY BOARD ASSY	PWZ4053	Not used	
P13-2		└─ CONTROL BOARD ASSY	PWZ4057	Not used	
SUB BOARD ASSY					
P7- 2 P7-27 P7-28 P9- 7	NSP	├─ POWER BOARD ASSY	Not used	PWX1586	
		├─ DOOR MOTOR BOARD ASSY	Not used	PWZ3858	
		├─ DOOR SW BOARD ASSY	Not used	PWZ3863	
		├─ DOOR SW BOARD ASSY	Not used	PWZ3865	
		└─ VOLUME BOARD ASSY	Not used	PWZ3864	
P13-1		├─ DISPLAY BOARD ASSY	Not used	PWZ3844	
P13-2		├─ CONTROL BOARD ASSY	Not used	PWZ3849	
	NSP	├─ HEADPHONE BOARD ASSY	Not used	PWZ3861	No.2
	NSP	└─ LED BOARD ASSY	Not used	PWZ3867	No.3
PACKING					
P5- 3		Packing Case	PHG2397	PHG2413	
P5- 6		Operating Instructions(English)	PRB1300	PRB1304	
P5- 7		Remote Control Unit	PWW1168	PWW1139	
P5-12	NSP	Warranty Card	ARY7045	ARY1026	
	NSP	Side Panel Sheet	Not used	AMR7284	No.4
EXTERIOR					
P7- 9		Rear Base	PNA2529	PNA2546	
P7-15		CR Spacer	PNW2961	Not used	
P7-17		Hood	PNW2793	PNW2872	
		Insulator	AMR7198	PNW2766	No.5
		CR Lens	Not used	PNW2816	No.6

Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			PD-F1009 /KU/CA	PD-F27 /KU/CA	
FRONT PANEL SECTION					
P13-4		26P F. F.C / 60V	ADD7118	Not used	
P13-4		18P. F.F.C / 60V	Not used	PDD1188	
P13-5		MODE Button	PAC1994	PAC1880	
P13-6		PLAY Button	PAC1995	PAC1881	
P13-9		Name Plate	PAM1776	PAN1376	
P13-10		Display Window	PAM1816	PAM1782	
P13-16		Operation Panel	PNW2958	PNW2970	
P13-21		16P. F.F.C / 60V	PDD1203	Not used	
P13-24		Rubber Sheet	AEB1111	Not used	
		Rotary Knob	Not used	RAC1903	No.7

- The numbers in the remarks column correspond to the numbers on the "EXPLODED VIEWS".
- For PCB ASSEMBLIES, Refer to "CONTRAST OF PCB ASSEMBLIES", "PCB PARTS LIST", "2.SCHEMATIC DIAGRAM" and "3. PCB CONNECTION DIAGRAM".

EXPLODED VIEWS



■ CONTRAST OF PCB ASSEMBLIES

KF DISPLAY BOARD ASSY

PWZ3844 and PWZ4053 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ4053	PWZ3844	
	IC701 IC721 Q702- Q705 D706, D707 C703	PE5132B S-806E Not used 1SS133 CKSQYF103Z50	PE5134A Not used DTC124ES Not used CKCYF103Z50	
	C704, C705 C706 C707 C708 C710, C711	CKSQYF103Z50 Not used CKSQYF103Z50 Not used Not used	CKPUYF103Z25 CEAL100M50 CKPUYF104Z50 CKPUYF104Z50 CEAT100M50	
	C721 C722 R701 R702- R704 R705	CEAL101M6R3 CKSQYF104Z25 RS1/10S471J RS1/10S471J Not used	Not used Not used RD1/4PU471J RD1/4PU124J RD1/4PU124J	
	R706, R707 R710 R711 R712- R718, R721 R751	RS1/10S473J RS1/10S0R0J RS1/10S562J RS1/10S473J RS1/10S471J	RD1/4PU103J Not used Not used Not used RD1/4PU331J	
	R1701 R1702- R1706 R1707 CN701 CN702	RS1/10S103J RS1/10S103J Not used HLEM26R-1 HLEM16S-1	Not used RD1/4PU103J RD1/4PU103J HLEM18R-1 SBRK04R-4	
	J702 KN701 V701 FL HOLDER CABLE HOLDER CABLE HOLDER	Not used Not used PEL1098 VNF1085 Not used Not used	DE010WE0 PNB1595 PEL1096 Not used 51048-1300 51048-1400	

• Refer to "2. SCHEMATIC DIAGRAM".

MF POWER BOARD ASSY

PWZ3858 and PWZ4048 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ4048	PWZ3858	
⚠ ⚠ ⚠ ⚠ ⚠	IC61 IC71 Q62 D71 , D72 D11- D14, D52	Not used Not used 2SC1815 Not used S5688G	NJM78M56FA BA05T Not used S5688G Not used	
	D54 D62 D81 D82 C11, C13, C62, C63	MTZJ18B MTZJ6.2B 1SS133 MTZJ4.7B CKCYF103Z50	Not used Not used Not used Not used CQMA103J50	

Mark	Symbol and Description	Part No.		Remarks
		PWZ4048	PWZ3858	
⚠	C15- C17	CKCYF103Z50	CFTLA103J	
	C61	Not used	CQMA103J50	
	C51, C52	CEAT101M35	Not used	
	C65	CEAT4R7M50	CEAT101M10	
	C66	CKSQYF104Z25	Not used	
	C71	Not used	CEAT332M16	
	C72	Not used	CEHAT101M10	
	C74	CCSQCH101J50	CCCSL101J50	
	C1061	CKSQYF103Z50	Not used	
	R51	RS1/10S223J	Not used	
	R52- R54	RD1/4PU152J	Not used	
	R64	RD1/4PU222J	Not used	
	R71	Not used	RD1/4PU103J	
	R81	RD1/4PU472J	Not used	
	R82	RD1/4PU103J	Not used	
T1	PTT1318	PTT1348		
J11	D20PDY1025E	D20PDY0925E		
J71	Not used	D20PDY0315E		
3P CABLE HOLDER	Not used	51048-0300		
CABLE HOLDER	51048-1000	51048-0900		
PCB BINDER	VEF1040	Not used		

• Refer to "2. SCHEMATIC DIAGRAM".

L CONTROL BOARD ASSY

PWZ3849 and PWZ4057 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ4057	PWZ3849	
	C751, C752	CKSQYF103Z50	CKPUYF103Z25	

B DOOR MOTOR BOARD ASSY

PWZ3863 and PWZ4061 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ4061	PWZ3863	
	J631	D20PDY0445E	D20PDY0445G	

D DOOR SW BOARD ASSY

Although PWZ3865 and PWZ4062 are different in part number, they consist of the same components.

O VOLUME BOARD ASSY

Although PWZ3864 and PWZ4063 are different in part number, they consist of the same components.

Mark No.	Description	Part No.
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PCB PARTS LIST

Q KEY BOARD ASSY (PWZ3838)

SEMICONDUCTORS

D801, D802	DA204K
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CAPACITORS

C805	CEAL101M6R3
C802- C804, C806	CKSQYB104K25

RESISTORS

R801, R802	RS1/10S471J
R803, R1803	RS1/10S0R0J

OTHERS

J801	4P JUMPER WIRE	D20PWY0455E
NSP J802	LEAD WIRE UNIT	PDF1012
JA801	MIN DIN 6P SOCKET	RKN1038

R HEADRHONE BOARD ASSY(PWZ3861)

COILS

L501, L504, L505	LAU1R0J
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CAPACITORS

C505	CCCSL101J50
C503	CGCYX473K25
C501, C502	CKCYF103Z50

RESISTORS

VR501 (500Ω- B)	PCS1003
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OTHERS

J501	3P CABLE HOLDER	51048-0300
JA501	3P JUMPER WIRE	D20PDY0355E
	HP JACK	RKN1002

S LED BOARD ASSY(PWZ3867)

SEMICONDUCTORS

D1601- D1603	SLR-343YC
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RESISTORS

R1601- R1603	RD1/4PU331J
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OTHERS

J1601	3P CABLE HOLDER	51048-0300
	3P JUMPER WIRE	D20PDY0325E

Mark No.	Description	Part No.
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JF MAIN BOARD ASSY (PWZ3833)

SEMICONDUCTORS

IC151	CXA2570N
IC301	CXD2587Q
△ IC35, IC36	ICP-N10
△ IC203	LA6517
△ IC201, IC202	LA6520

IC501	M5218AFP
IC352	M5M51008CFP-70H
IC431- IC433	NJM4558MD
△ IC23	NJM79M05FA
IC341	PD0236AM

IC351	PDE5133A
IC401	PE8001A
△ IC21	PQ05RR12
IC353	S-806E
IC951	TC74HC157AF

IC331	TC74HCU04AF
Q151	2SA854S
Q391	2SC1740S
Q361, Q381	2SC2412K
Q431- Q436	2SD2144S

Q152, Q362, Q438, Q441, Q443	DTA124EK
Q382	DTA124EK
Q437, Q440, Q442, Q439	DTC124EK
D351- D353, D391, D392	1SS133
D395, D958	1SS133

D151, D406- D408, D410	DA204K
D54	MTZJ24B
△ D11- D14, D52	S5688G
D152	RB501V-40
D218	UDZS6.2B

COILS AND FILTERS

L351, L332	LAU100J
L334	PTL1003

CAPACITORS

C323, C361, C407, C408	CCSQCH101J50
C301, C310	CCSQCH221J50
C403	CCSQCH240J50
C404	CCSQCH300J50
C335	CCSQCH390J50

C302	CCSQCH681J50
C29, C365	CEAT101M10
C51	CEAT101M35
C52	CEAT101M50
C201- C204, C333	CEAT470M16

C309	CEATR47M50
C1511, C1512, C364	CFTLA104J50
C231, C233, C406	CKSQYB102K50
C151, C215, C220, C225, C240	CKSQYB103K50
C250, C308	CKSQYB103K50

C230, C260, C303, C334, C338	CKSQYB104K25
C159, C241, C243, C306	CKSQYB152K50
C218	CKSQYB332K50
C2112	CGCYX473K25

Mark No.	Description	Part No.	Mark No.	Description	Part No.
C232, C234 C307 C242, C244 C212, C214 C305		CKSQYB471K50 CKSQYB473K25 CKSQYB681K50 CKSQYB682K50 CKSQYB822K50	J332	1P JACK PCB BINDER SCREW PLATE	VKB1097 VEF1040 VNE1948
C158, C322, C339, C342, C343 C352, C353, C362, C410 C412, C413, C416- C418, C953 C28, C154, C205, C206 C314, C316, C318, C320, C321		CKSQYF103Z50 CKSQYF103Z50 CKSQYF103Z50 CKSQYF104Z25 CKSQYF104Z25			
C332, C337, C1324, C1325 C359, C1358, C1398, C1951, C1952 C445, C446 C433- C436, C439, C440 C447, C448		CKSQYF104Z25 CKSQYF473Z50 CQMBA102J50 CQMBA152J50 CQMBA471J50			
C431, C432, C441- C444(47µF/50V) C155- C157, C304, C411(100µF/50V) C419(100µF/50V) C414, C415(4.7µF/50V) C27, C153, C315, C317(220µF/25V)		PCH1124 PCH1126 PCH1126 PCH1127 PCH1128			
C319, C331, C341, C351(220µF/25V) C354 (0.1F/5.5V) C25, C26 (4700µF/16V)		PCH1128 PCH1133 PCH1135			

RESISTORS

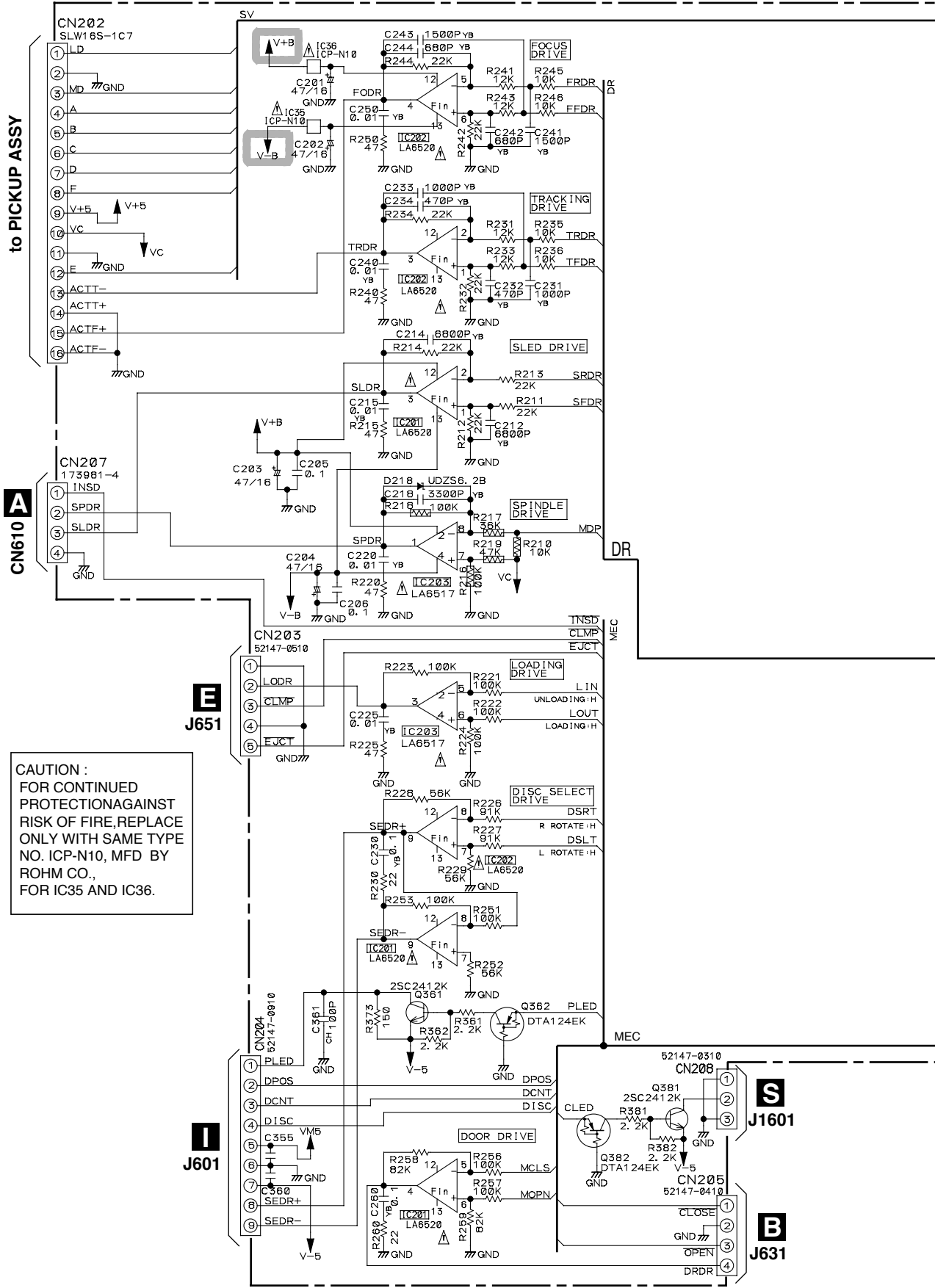
R56- R59		RD1/4PU241J
R52- R54		RD1/4PU272J
R471- R476		RD1/4PU332J
R163, R164, R503, R504		RD1/4PU470J
R210, R441, R442, R445, R446		RN1/10SE1002D
R216, R218		RN1/10SE1003D
R437, R438		RN1/10SE1801D
R457- R460		RN1/10SE2202D
R217		RN1/10SE3602D
R219, R451- R456		RN1/10SE4702D
VR155 (10kΩ)		VCP1156
Other Resistors		RS1/10S □□□J

OTHERS

CN207	MT 4P CONNECTOR	173981-4
CN12,CN208	3P JUMPER CONNECTOR	52147-0310
CN501	3P JUMPER CONNECTOR	52147-0310
CN205	4P JUMPER CONNECTOR	52147-0410
CN203	5P JUMPER CONNECTOR	52147-0510
CN11,CN204	9P JUMPER CONNECTOR	52147-0910
JA331	OPTICAL LINK OUT	GP1F32T
CN351	CONNECTOR	HLEM18S-1
JA401, JA402	JACK	PKB1035
JA393	JACK	PKN1005
KN151	JUMPER TERMINAL	PKX1001
X401	XTAL. RES. (16.9344MHz)	PSS1008
J391,J392	REMOTE JACK	RKN1004
J951,J952	REMOTE JACK	RKN1004
CN201	6P TOP POST	B6P-SHF-1AA
CN202	CONNECTOR	SLW16S-1C7
X351	CERAMIC RESONATOR (4.19MHz)	VSS1028


2. SCHEMATIC DIAGRAM

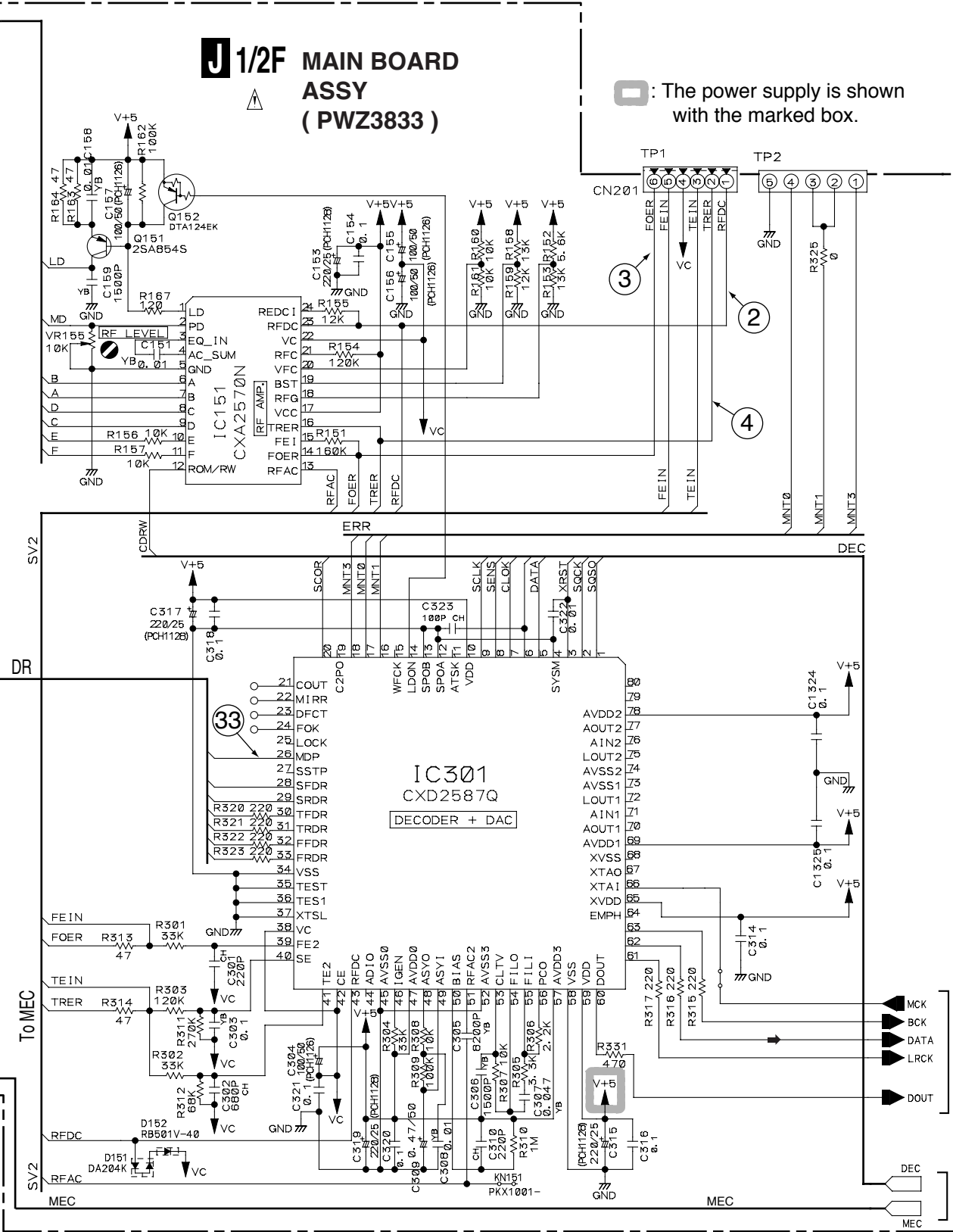
2.1 MAIN BOARD ASSY (1/2)



CAUTION :
 FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE NO. ICP-N10, MFD BY ROHM CO., FOR IC35 AND IC36.

J 1/2F MAIN BOARD ASSY (PWZ3833)

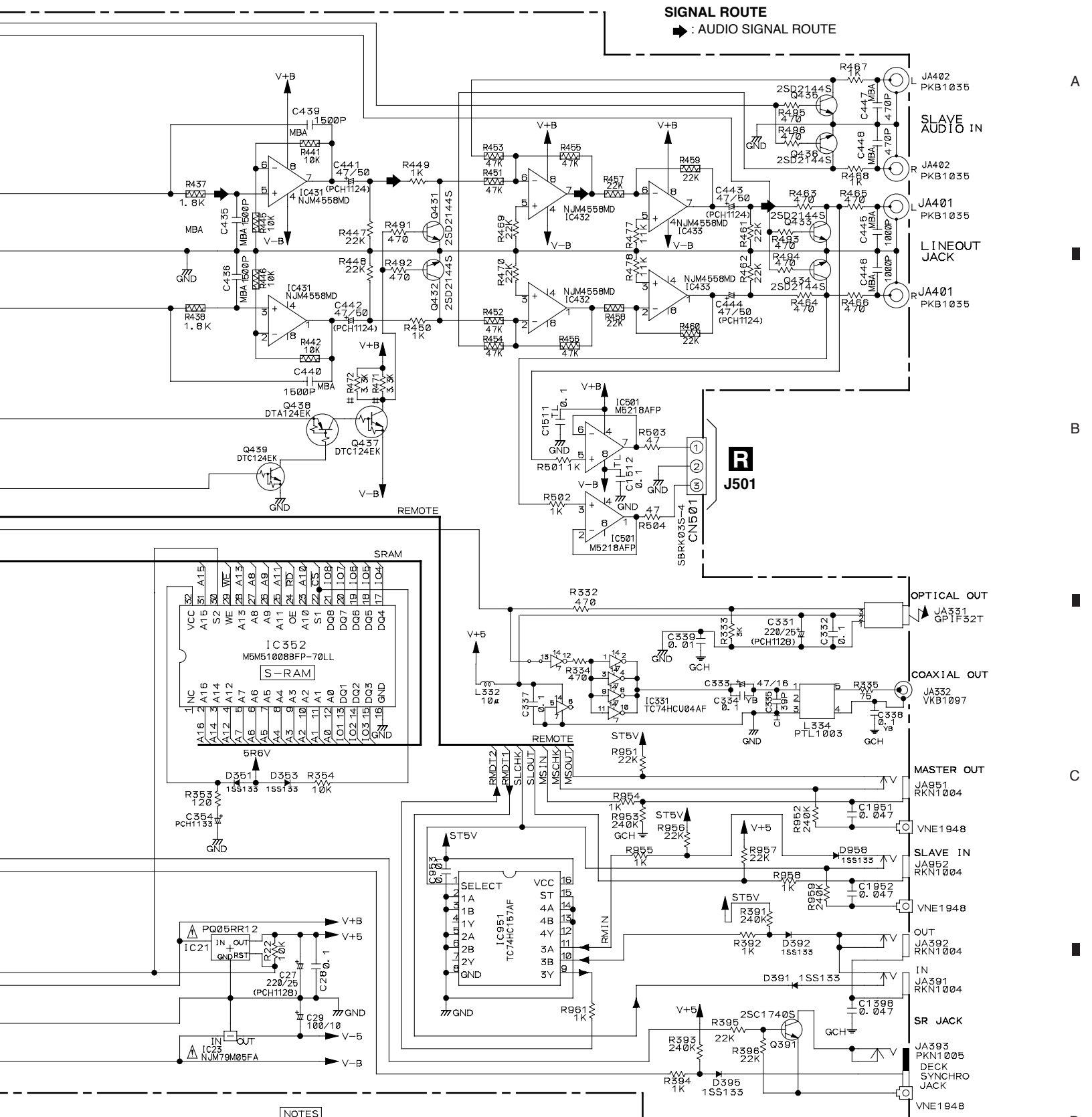
 : The power supply is shown with the marked box.



SV2
DR

To MEC
SV2
MEC

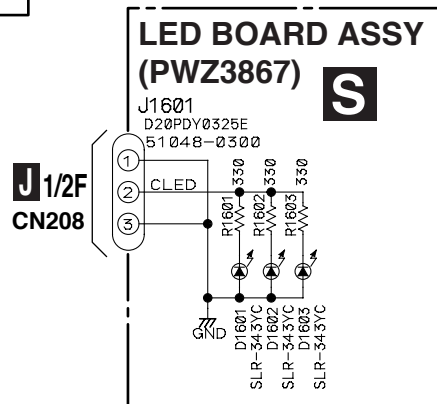
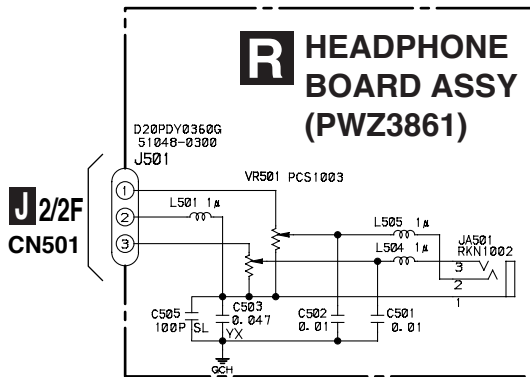
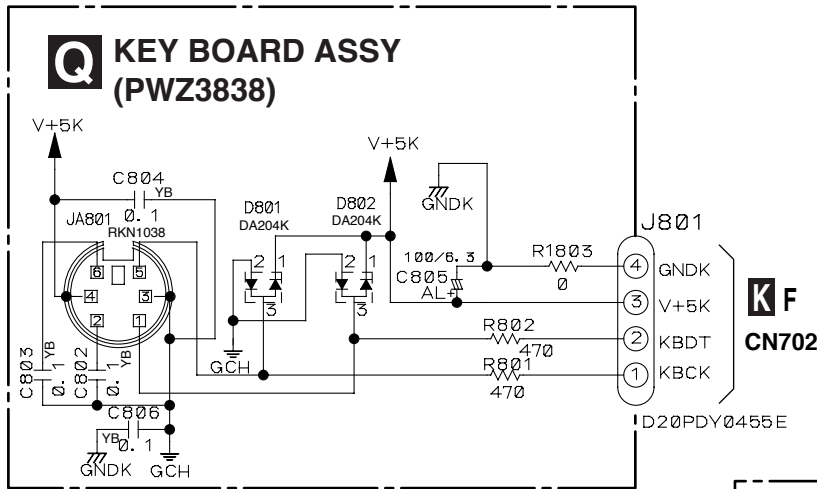
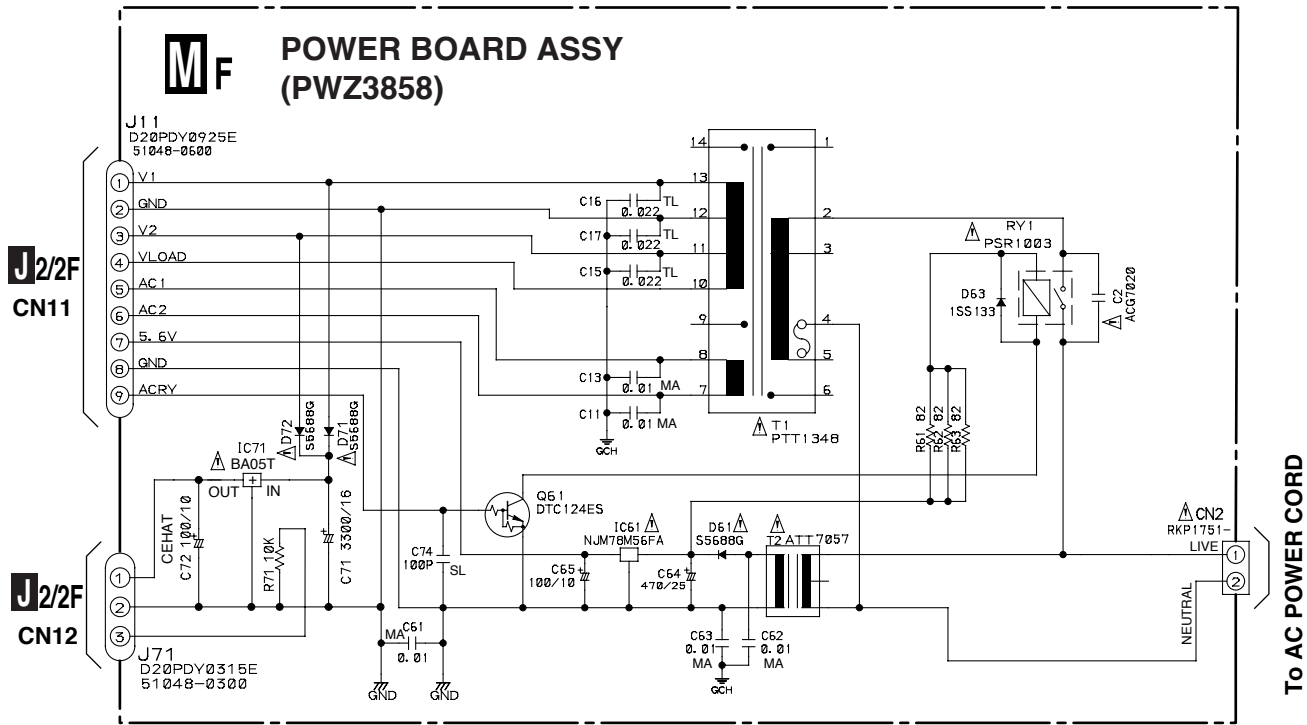
J2/2F
J1/2F



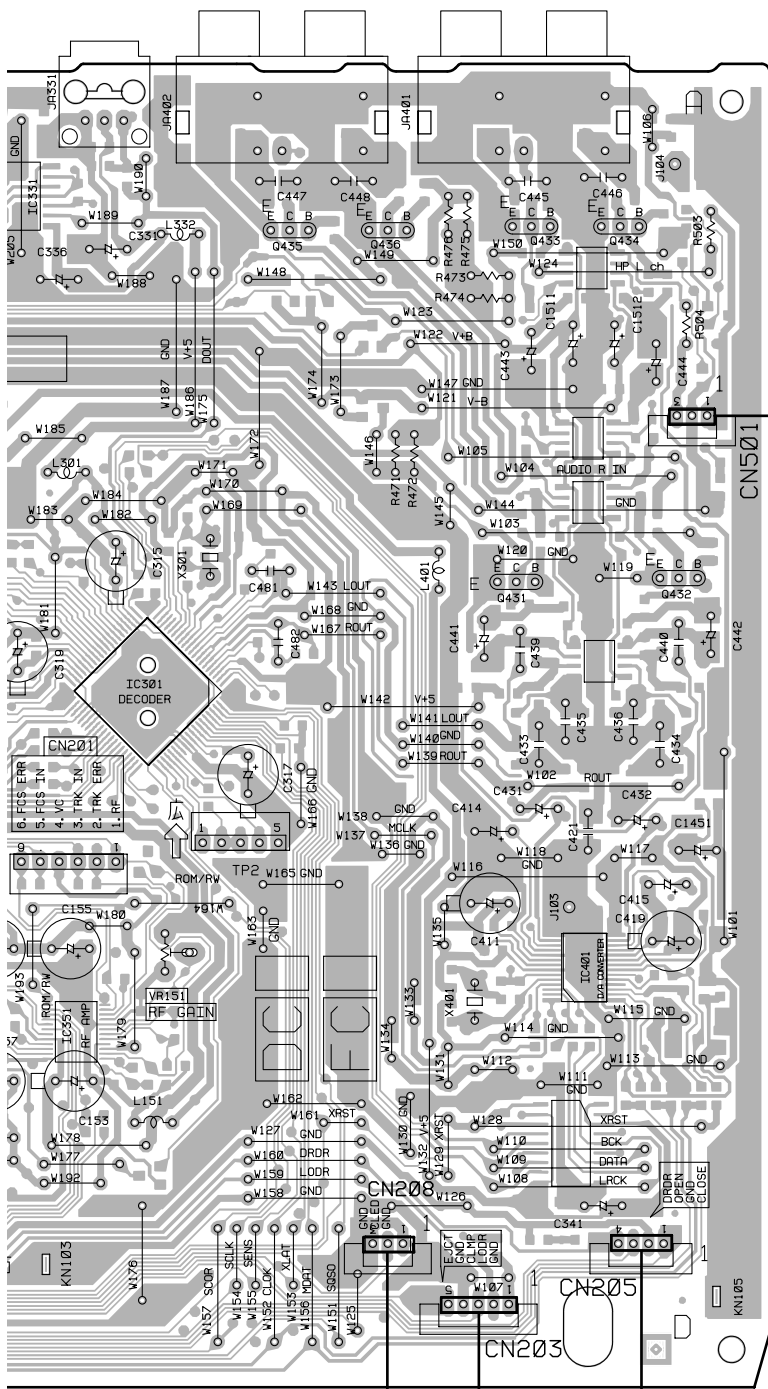
NOTES

CAPACITORS
 UNMARKED UNIT: μ F
 YB CERAMIC CKSQYB
 YL CERAMIC CKSQCH
 YL CERAMIC CKSQCH
 SL CERAMIC CCCSL
 UNMARKED CERAMIC
 TL FILM CFSQYF
 MBA FILM CFTLA
 UNMARKED ELECTROLYSIS CEAT

INDUCTORS
 UNIT: μ H
 AXIAL TYPE LAU
 RESISTORS
 UNIT: Ω
 UNMARKED RS1/10S
 # RD1/4PU
 RNT RN1/10SE



5 VR151

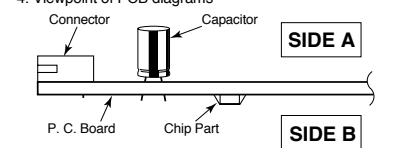


NOTE FOR PCB DIAGRAMS:

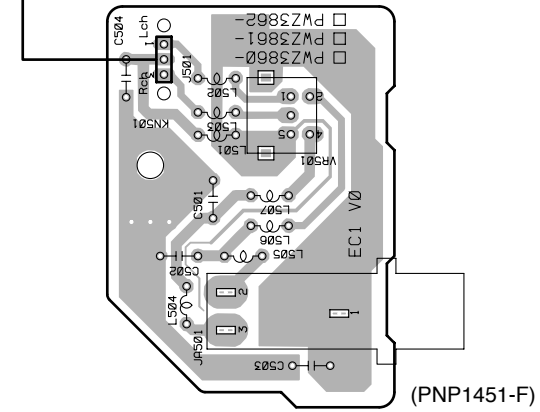
- 1. Part numbers in PCB diagrams match those in the schematic diagrams.
- 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

- 3. The parts mounted on this PCB include all necessary parts for several destination.
- For further information for respective destinations, be sure to check with the schematic diagram.



R HEADPHONE BOARD ASSY



SIDE A

(PNP1468-B)

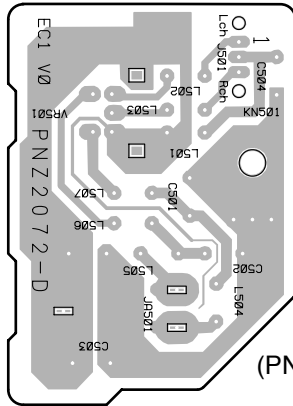
S J1601 **E** J651 **B** J631

J F MAIN BOARD ASSY

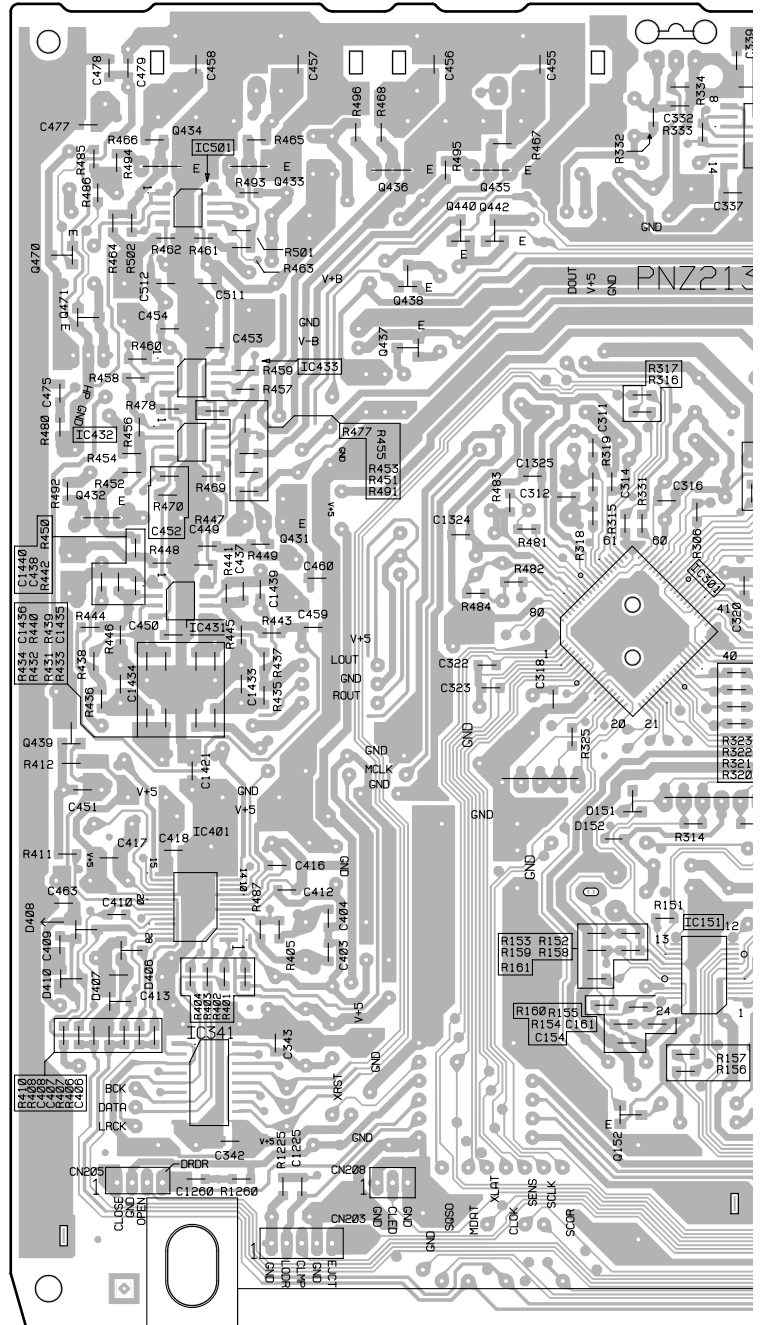
Q470	IC501								
Q471	IC433								
Q432	IC432								
Q439	IC401	Q433	Q436	Q435	IC301				
	Q434	IC341	Q431	Q437 Q440 Q442	Q152	IC151	IC		

R HEADPHONE BOARD ASSY

SIDE B



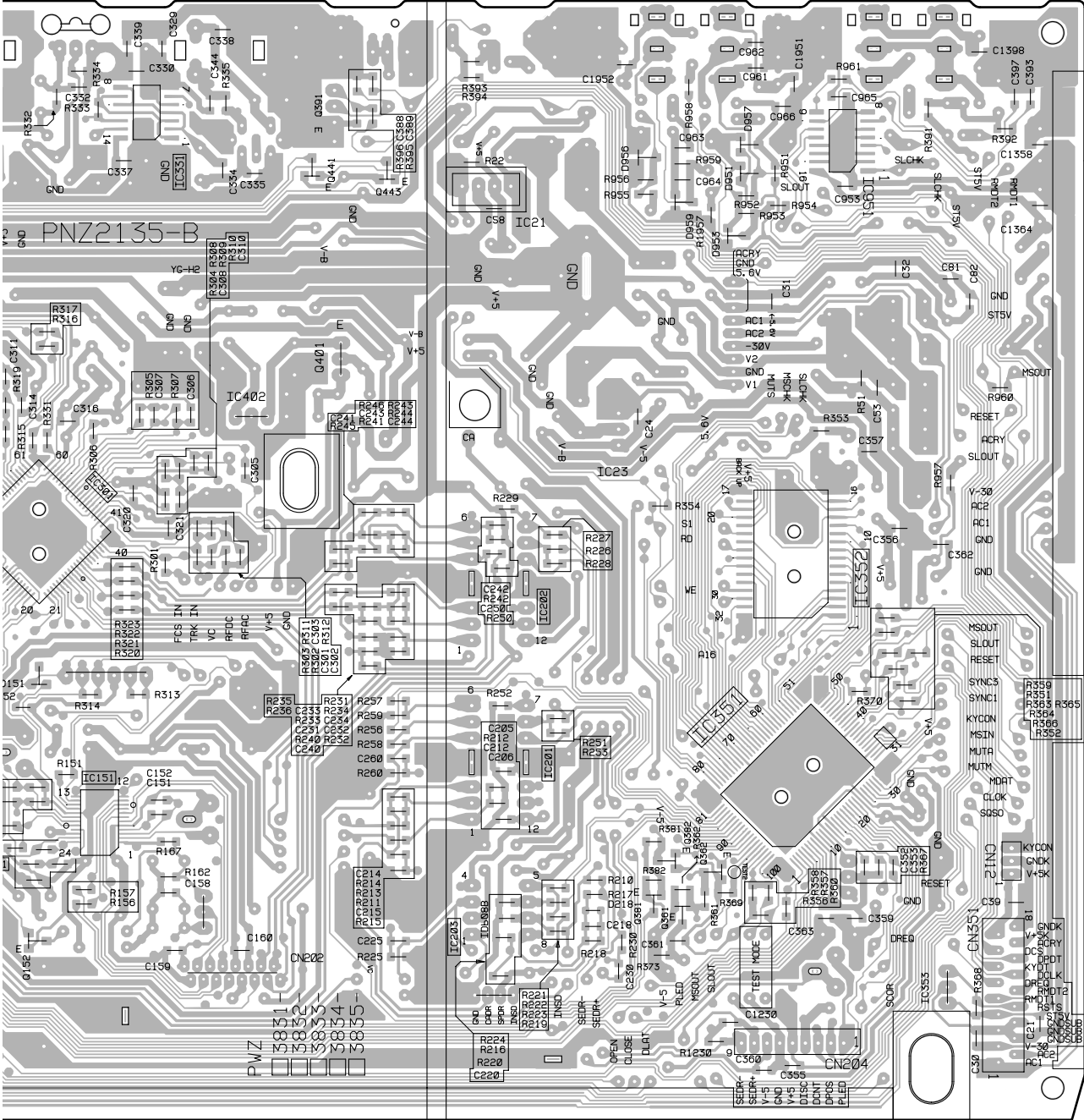
(PNP1451-F)



(PNP1468-B)

SIDE B

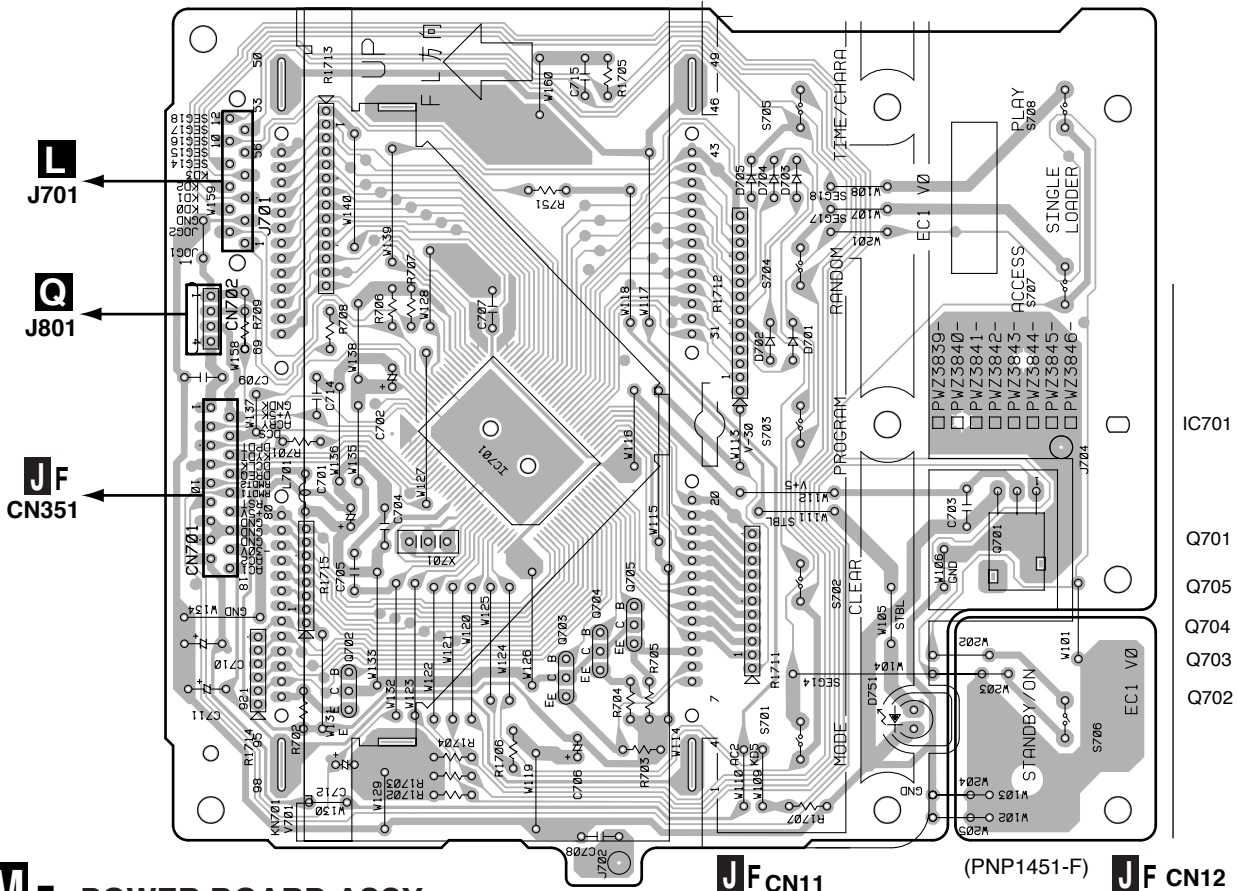
IC301	IC151	IC331	IC402	Q441	Q401	Q433	IC21	IC202	IC201	IC203	Q382	Q362	IC352	IC351	IC951	IC353
Q152											IC23	Q381	Q361			



3.2 DISPLAY BOARD and POWER BOARD ASSYS

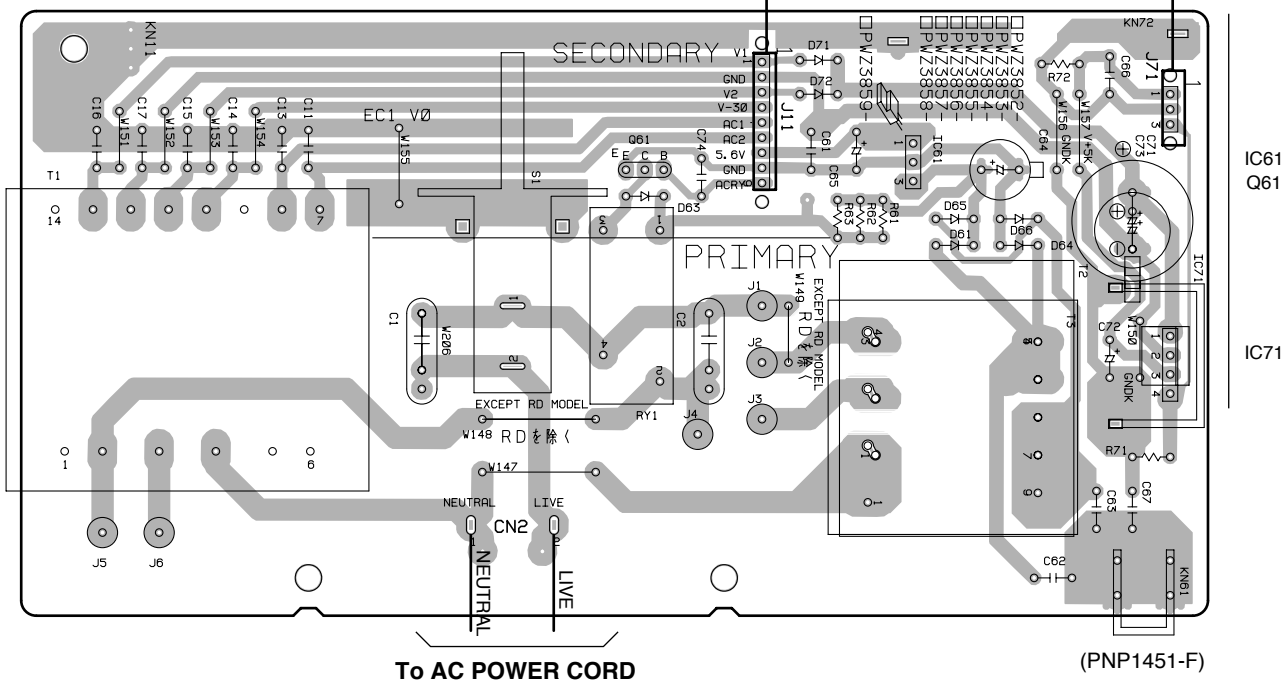
K F DISPLAY BOARD ASSY

SIDE A



M F POWER BOARD ASSY

J F CN11 (PNP1451-F) J F CN12



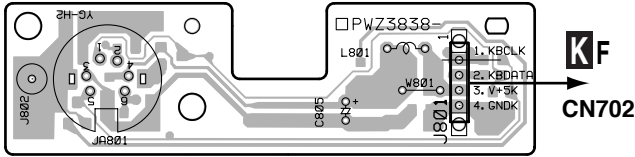
To AC POWER CORD

(PNP1451-F)

3.3 KEY BOARD and LED BOARD ASSYS

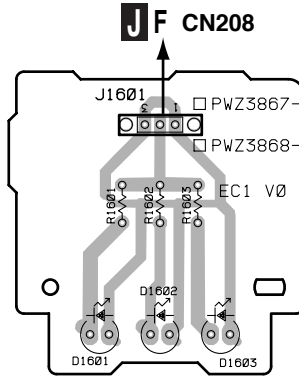
SIDE A

Q KEY BOARD ASSY



(PNP1468-B)

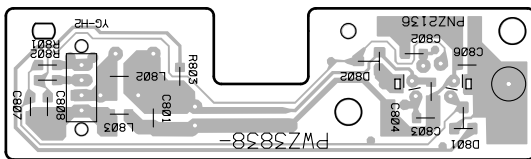
S LED BOARD ASSY



(PNP1451-F)

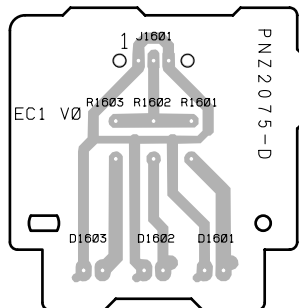
Q KEY BOARD ASSY

SIDE B



(PNP1468-B)

S LED BOARD ASSY



(PNP1451-F)