

# Service Manual

 **PIONEER®**  
The Art of Entertainment

ORDER NO.  
RRV1951

FILE-TYPE CD PLAYER

# PD-F607

## PD-F507

- Refer to the service manual RRV1877 for PD-F607/KUXJ and PD-F507/KUXJ.

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

Type	Model		Power Requirement	The voltage can be converted by the following method.
	PD-F607	PD-F507		
WYXJ	○	—	AC220-240V	———
WVXJ	○	—	AC220-240V	———
WPWXJ	—	○	AC220-240V	———
MAMXJ	—	○	AC220-230V	———
RLXJ	—	○	AC110-120V/220-240V	With the voltage selector
RDXJ	—	○	AC110-127V/220-240V	With the voltage selector

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# 1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

— IMPORTANT —

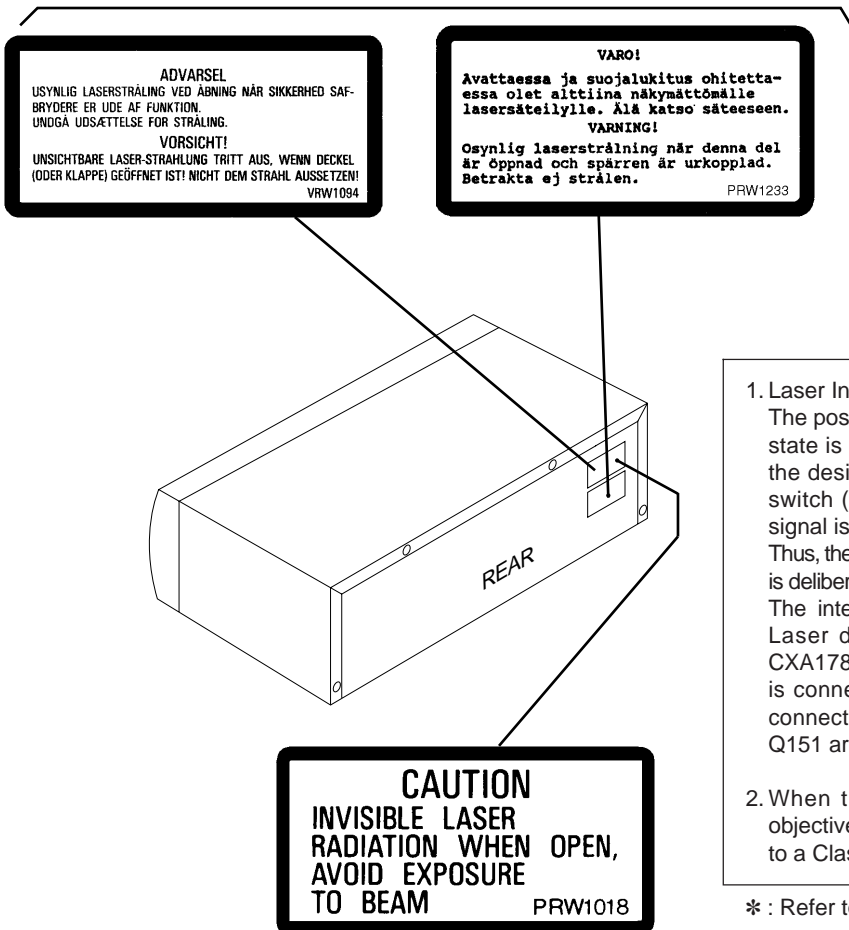
THIS PIONNER APPARATUS CONTAINS LASER OF CLASS 1. SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

— LASER DIODE CHARACTERISTICS —

MAXIMUM OUTPUT POWER : 5 mw  
WAVELENGTH : 780-785 nm

## LABEL CHECK (For PD-F607/WYXJ,WVXJ and PD-F507/WPWXJ only)

PD-F607/WYXJ only



— Additional Laser Caution —

- Laser Interlock Mechanism**  
The position of the switch (S651) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S651) is not on CLMP terminal side (CLMP signal is OFF or high level). Thus, the interlock will no longer function if the switch (S651) is deliberately set to CLMP terminal side. (low level)  
The interlock also does not function in the test mode\*. Laser diode oscillation will continue, if pin 33 of CXA1782CQ (IC151) on the MOTHER BOARD ASSY is connected to GND, or pin 26 of IC351 (LDON) is connected to low level (ON), or else the terminals of Q151 are shorted to each other (fault condition).
- When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

\* : Refer to page 25. on the service manual RRV1877.

PD-F607/WVXJ and PD-F507/WPWXJ only

## 2. 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.
- Screw adjacent to  $\blacktriangledown$  mark on the product are used for disassembly.
- 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  $\Omega \rightarrow 1R0$  ..... RSIP  $\begin{matrix} 1 & R & 0 \\ \hline & & K \end{matrix}$

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 (FOR PD-F607)

WYXJ, WVXJ and KUXJ types are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.			Remarks
			PD-F607			
			KUXJ	WYXJ	WVXJ	
<b>ASSEMBLES</b>						
P5-1	$\triangle$	Mother Board Assy	PWM2199	PWM2200	PWM2200	No.9
	NSP	Headphone Board Assy	Not used	PWX1549	PWX1549	
	NSP	Sub Board Assy	PWX1540	PWX1541	PWX1541	
P7-16	NSP	└ Power SW Board Assy	PWZ3622	PWZ3623	PWZ3623	
<b>PACKING</b>						
P3-1		Operating Instructions (English)	PRB1262	Not used	PRB1265	
P3-1		Operating Instructions (English/French)	Not used	PRE1265	Not used	
P3-1		Operating Instructions (German/Italian/Dutch/Swedish /Spanish/Portuguese)	Not used	PRD1026	Not used	
P3-5	NSP	Control Cable (L=1m)	PDE1247	Not used	Not used	
P3-10		Packing Case	PHG2282	PHG2298	PHG2299	
P3-12		Warranty Card	ARY1051	ARY7009	ARY7009	
		CD Liner Notes File	Not used	PHN1051	PHN1051	No.1
		Index Label Sheet (25)	Not used	PRW1422	PRW1422	No.2
		Rear Spacer	Not used	Not used	PHC1087	No.3
		Polyethylene Bag (115 x 270 x 0.05)	Not used	Not used	Z21-013	No.4
<b>EXTERIOR</b>						
P5-2	$\triangle$	Cord Stopper	CM-22C	CM-22B	CM-22B	
P5-4	$\triangle$	AC Power Cord	PDG1015	PDG1003	PDG1055	
P5-5	$\triangle$	Power Transformer (AC120V)	PTT1237	Not used	Not used	
P5-5	$\triangle$	Power Transformer (AC220-240V)	Not used	PTT1236	PTT1236	
P5-8	$\triangle$	Rear Base	PNA2386	PNA2398	PNA2399	
P5-42		65 Label	ORW1069	Not used	Not used	
		Insulator (Front Side)	Not used	PNW2766	PNW2766	No.5
		Caution Label	Not used	Not used	PRW1018	No.6
		Caution Label HE	Not used	PRW1233	Not used	No.7
		Caution Label	Not used	VRW1094	Not used	No.8
		Headphone Angle	Not used	PNB1584	PNB1584	No.10
		Knob	Not used	RAC1903	RAC1903	No.11
<b>FRONT PANEL SECTION</b>						
P7-10		Display Window	PAM1740	PAM1739	PAM1739	
P7-15		Control Panel	PNW2756	PNW2757	PNW2757	
P7-20		Rubber Sheet	AEB1111	Not used	Not used	
		LED Lens	Not used	PNW2019	PNW2019	No.12

Note: ● The numbers in the remarks column correspond to the numbers on the exploded diagram, Refer to “EXPLODED VIEWS”.

● For ASSEMBLIES, Refer to “■ CONTRAST OF PCB ASSEMBLES” and “3. SCHEMATIC AND PCB DIAGRAMS”.

# PD-F607, PD-F507

## ■ CONTRAST TABLE (FOR PD-F507)

WPWXJ, MAMXJ, RLXJ, RDXJ and KUXJ types are constructed the same except for the following :

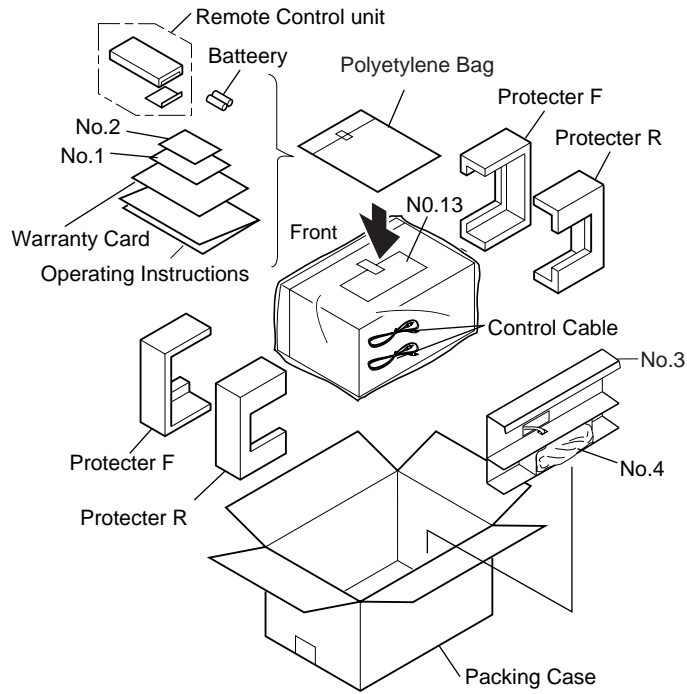
Ref. No.	Mark	Symbol and Description	Part No.					Remarks
			PD-F507					
			KUXJ	WPWXJ	MAMXJ	RLXJ	RDXJ	
P5-1	NSP	<b>ASSEMBLES</b>						
		MOTHER Board Assy	PWM2193	PWM2196	PWM2197	PWM2195	PWM2195	
P7-16		SUB Board Assy └ Power SW Board Assy	PWX1537 PWZ3622	PWX1538 PWZ3623	PWX1538 PWZ3623	PWX1538 PWZ3623	PWX1538 PWZ3623	
		<b>PACKING</b>						
P3-1	NSP	Operating Instructions (English)	PRB1265	PRB1265	Not used	Not used	Not used	
P3-1		Operating Instructions (English/Spanish/Chinese)	Not used	Not used	PRE1267	PRE1267	PRE1267	
P3-1		Operating Instructions (German/Italian/Dutch/Swedish/Spanish/ Portuguese)	Not used	Not used	PRD1028	Not used	Not used	
P3-5		Control Cable (L=1m)	PDE1247	PDE1247	Not used	Not used	Not used	
P3-10		Packing Case	PHG2301	PHG2303	PHG2313	PHG2303	PHG2303	
P3-12		Warranty Card	ARY1051	PRY1003	Not used	Not used	Not used	
		CD Liner Notes File	Not used	PHN1051	PHN1051	PHN1051	PHN1051	No.1
		Index Label Sheet (25)	Not used	PRW1422	PRW1422	PRW1422	PRW1422	No.2
		Caution 220V Label	Not used	Not used	Not used	ARR1003	ARR1003	No.13
			<b>EXTERIOR</b>					
P5-2	⚠	Cord Stopper	CM-22C	CM-22B	CM-22B	CM-22B	CM-22B	
P5-4		AC Power Cord	PDG1015	ADG1123	PDG1062	PDG1003	PDG1056	
P5-5		Power Transformer (AC120V)	PTT1237	Not used	Not used	Not used	Not used	
P5-5		Power Transformer (AC220-240V)	Not used	PTT1236	PTT1236	Not used	Not used	
P5-5		Power Transformer (RLXJ type: AC110-120V/220-240V) (RDXJ type: AC110-127V/220-240V)	Not used	Not used	Not used	PTT1238	PTT1238	
P5-8	⚠	Rear Base	PNA2401	PNA2403	PNA2416	PNA2404	PNA2402	
P5-42		65 Label	ORW1069	Not used	Not used	Not used	Not used	
		Insulator (Front Side) Caution Label	Not used	PNW2766 PRW1018	PNW2766 Not used	PNW2766 PRW1018	PNW2766 Not used	No.5 No.6
		<b>FRONT PANEL SECTION</b>						
P7-15	⚠	Control Panel	PNW2783	PNW2784	PNW2784	PNW2784	PNW2784	
P7-20		Rubber Sheet	AEB1111	Not used	Not used	Not used	Not used	
		LED Lens	Not used	PNW2019	PNW2019	PNW2019	PNW2019	No.12

Note: • The numbers in the remarks column correspond to the numbers on the exploded diagram, Refer to "EXPLODED VIEWS".

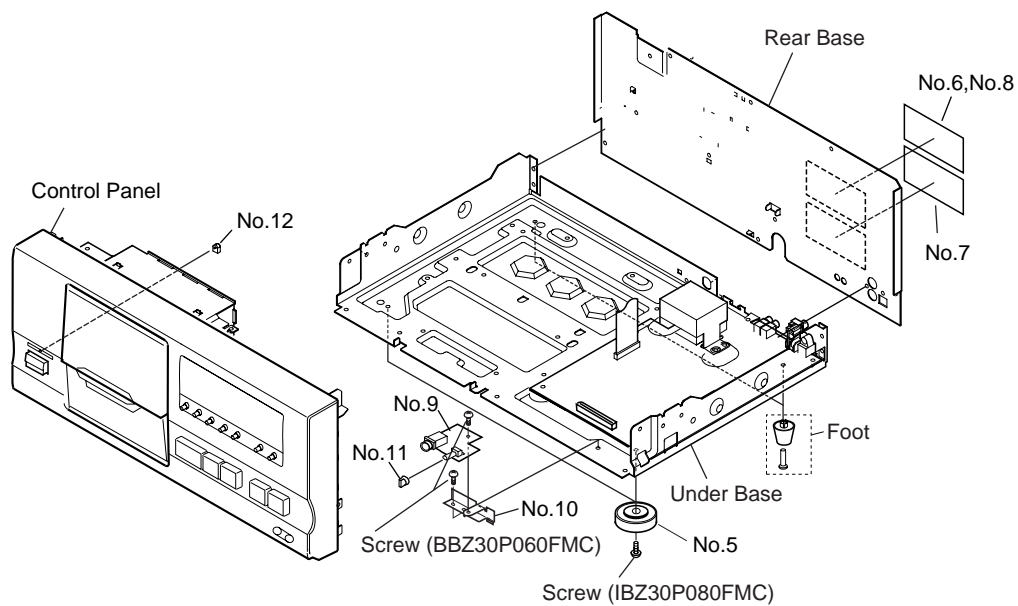
• For ASSEMBLIES, Refer to "■ CONTRAST OF PCB ASSEMBLES" and "3. SCHEMATIC AND PCB DIAGRAMS".

## ■ EXPLODED VIEWS

### ● PACKING SECTION



### ● EXTERIOR and FRONT PANEL SECTION



■ CONTRAST OF PCB ASSEMBLIES

**JF** MOTHER BOARD ASSY ASSY (For PD-F507)

PWM2197, PWM2195 and PWM2196 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		PWM2196	PWM2197	PWM2195	
⚠	D391-D394 L391 C319,C324,C431,C432 C399 R391	1SS254 LAU1R0J Not used CKCYF103Z50 RD1/4PU244J	Not used Not used Not used Not used Not used	Not used Not used CKCYF103Z50 Not used Not used	
	R392 JA391,JA392 S5 (Voltage selector)	RD1/4PU102J RKN1004 Not used	Not used Not used Not used	Not used Not used PSB1006	

■ PCB PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
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**JF** MOTHER BOARD ASSY

(PWM2196: For PDF-507/WPWXJ)

SEMICONDUCTORS

	IC151	CXA1782CQ
	IC301	CXD2529Q
⚠	IC31,IC34	ICP-N10
⚠	IC201,IC202	LA6520
	IC405	NJM4558D-D
⚠	IC351	PD4900B
	IC21	PQ05RR12
	Q151	2SA854S
	Q403,Q404	2SD2144S
	Q341	2SK246
	Q152	DTA124ES
	Q321,Q405	DTC124ES
	D321,D341,D352,D391-D394	1SS254
	D54	MTZJ18B
	D218	MTZJ6.2B
⚠	D11-D14,D52	S5688G

COILS

	L351	LAU100J
	L322,L391	LAU1R0J

CAPACITORS

	C181	CCCCH100D50
	C341,C342	CCCCH120J50
	C318	CCCCL181J50
	C315	CCCCL221J50
	C481,C482	CCCCL390J50
	C171,C175,C301,C302	CEAT101M10
	C311-C314,C316,C322,C352	CEAT101M10
	C52	CEAT101M35
	C26	CEAT102M16
	C433,C434	CEAT220M25
	C131-C133,C27	CEAT330M16
	C25	CEAT332M16
	C351	CEAT471M6R3
	C169,C170,C356	CEAT4R7M50
	C309	CEATR47M50
	C156,C161,C164,C168,C218	CGCYX103K25
	C321	CGCYX104K25
	C160	CGCYX333K25
	C167	CGCYX472K25
	C152,C307	CGCYX473K25

	C163	CKCYB102K50
	C176,C306,C441,C442	CKCYB152K50
	C305	CKCYB222K50
	C162	CKCYB332K50
	C151	CKCYB682K50

⚠	C11-C13,C15,C16,C17	CKCYF103Z50
	C159,C172,C173,C205	CKCYF103Z50
	C210,C215,C219,C2231,C29	CKCYF103Z50
	C304,C310,C317,C323,C325	CKCYF103Z50
	C353,C354,C357,C399	CKCYF103Z50

	C153-C155,C158	CQMA104J50
	C157	CQMA823J50

RESISTORS

	VR153,VR155 (10kΩ)	RCP1045
	VR151,VR152,VR154 (22kΩ)	RCP1046
	VR156 (220kΩ)	RCP1049
	Other Resistors	RD1/4PU □□□ J

OTHERS

	CN351	CONNECTOR	HLEM34S-1
	CN201	CONNECTOR 6P	RKP-533
	CN202	CONNECTOR 25P	VKN1201
	JA401	2P PIN JACK	PKB1023
	JA391,JA392	REMOCON JACK	RKN1004

⚠	JA321	OPTICAL OUTPUT JACK	TOTX178
		TERMINAL 2P	RKC-061

	X341	CRYSTAL RESONATOR	PSS1008
		(16.9344MHz)	
	X351	CERAMIC RESONATOR	VSS1014
		(4.194MHz)	

**JF** MOTHER BOARD ASSY

(PWM2200: For PDF-607/WYXJ)

SEMICONDUCTORS

	IC406	BA15218
	IC151	CXA1782CQ
	IC301	CXD2529Q
⚠	IC31,IC34	ICP-N10
⚠	IC201,IC202	LA6520
	IC302	LC89170M
	IC405	NJM4558D-D
	IC401	PD2026B(L)
	IC351	PD4900B
⚠	IC21	PQ05RR12

Mark	No.	Description	Part No.
	Q151		2SA854S
	Q403,Q404		2SD2144S
	Q152		DTA124ES
	Q321,Q405		DTC124ES
	D54		MTZJ18B
	D218		MTZJ6.2B
⚠	D11-D14,D52		S5688G
<b>COILS</b>			
	L351		LAU100J
	L322		LAU1R0J
	L3410		LAUR47J
<b>CAPACITORS</b>			
	C181		CCCCH100D50
	C403		CCCCH120J50
	C404		CCCCH220J50
	C318		CCCCL181J50
	C315		CCCCL221J50
	C429,C430,C43-C438		CCCCL390J50
	C171,C175,C301,C302,C311		CEAT101M10
	C314,C316,C322,C352		CEAT101M10
	C52		CEAT101M35
	C26		CEAT102M16
	C433,C434		CEAT220M25
	C131-C133,C27,C432		CEAT330M16
	C25		CEAT332M16
	C351		CEAT471M6R3
	C169,C170,C356		CEAT4R7M50
	C309		CEATR47M50
	C413-C416		CFTXA104J50
	C156,C161,C164,C168,C218		CGCYX103K25
	C321		CGCYX104K25
	C160		CGCYX333K25
	C167		CGCYX472K25
	C152,C307		CGCYX473K25
	C163		CKCYB102K50
	C176,C306		CKCYB152K50
⚠	C441,C442		CKCYB152K50
	C305		CKCYB222K50
	C162		CKCYB332K50
	C151		CKCYB682K50
⚠	C11-C13,C15		CKCYF103Z50
	C159		CKCYF103Z50
⚠	C16,C17		CKCYF103Z50
	C172,C173,C205,C210,C215		CKCYF103Z50
	C219,C29,C304,C310		CKCYF103Z50
	C312,C313,C317,C319		CKCYF103Z50
	C323-C325,C353,C354,C357		CKCYF103Z50
	C387,C405,C417,C461,C471		CKCYF103Z50
	C153-C155,C158,C382		CQMA104J50
	C157		CQMA823J50
<b>RESISTORS</b>			
	VR153,VR155 (10kΩ)		RCP1045
	VR151,VR152,VR154 (22kΩ)		RCP1046
	VR156 (220kΩ)		RCP1049
	Other Resistors		RD1/4PU □□□J
<b>OTHERS</b>			
	CN401 CONNECTOR		52147-0310
	CN351 CONNECTOR		HLEM38S-1
	CN201 CONNECTOR 6P		RKP-533
	CN202 CONNECTOR 25P		VKN1201
	JA401 2P PIN JACK		PKB1023

Mark	No.	Description	Part No.
⚠	JA321	OPTICAL OUTPUT JACK TERMINAL 2P	TOTX178 RKC-061
	X401	CRYSTAL RESONATOR (16.9344MHz)	PSS1008
	X351	CRYSTAL RESONATOR (4.194MHz)	VSS1014

## **K** HEADPHONE BOARD ASSY (PD-F607 only)

<b>COILS</b>			
⚠	L501,L506,L507		LAU1R0J
<b>CAPACITORS</b>			
⚠	C501,C502		CKCYF103Z50
⚠	C507		CKCYF473Z50
<b>RESISTORS</b>			
	VR501 (5kΩ)		PCS1003
<b>OTHERS</b>			
	JA501 HEADPHONE JACK		RKN1002
	J501 JUMPER WIRE 3P		D20PWY0310E

## **G** F POWER SW BOARD ASSY

<b>SEMICONDUCTOR</b>			
	D751		SLR-342VCT31
<b>SWITCHE</b>			
	S751		RSG1030
<b>OTHERS</b>			
	J801 JUMPER WIRE 5P		D20PWW0545E

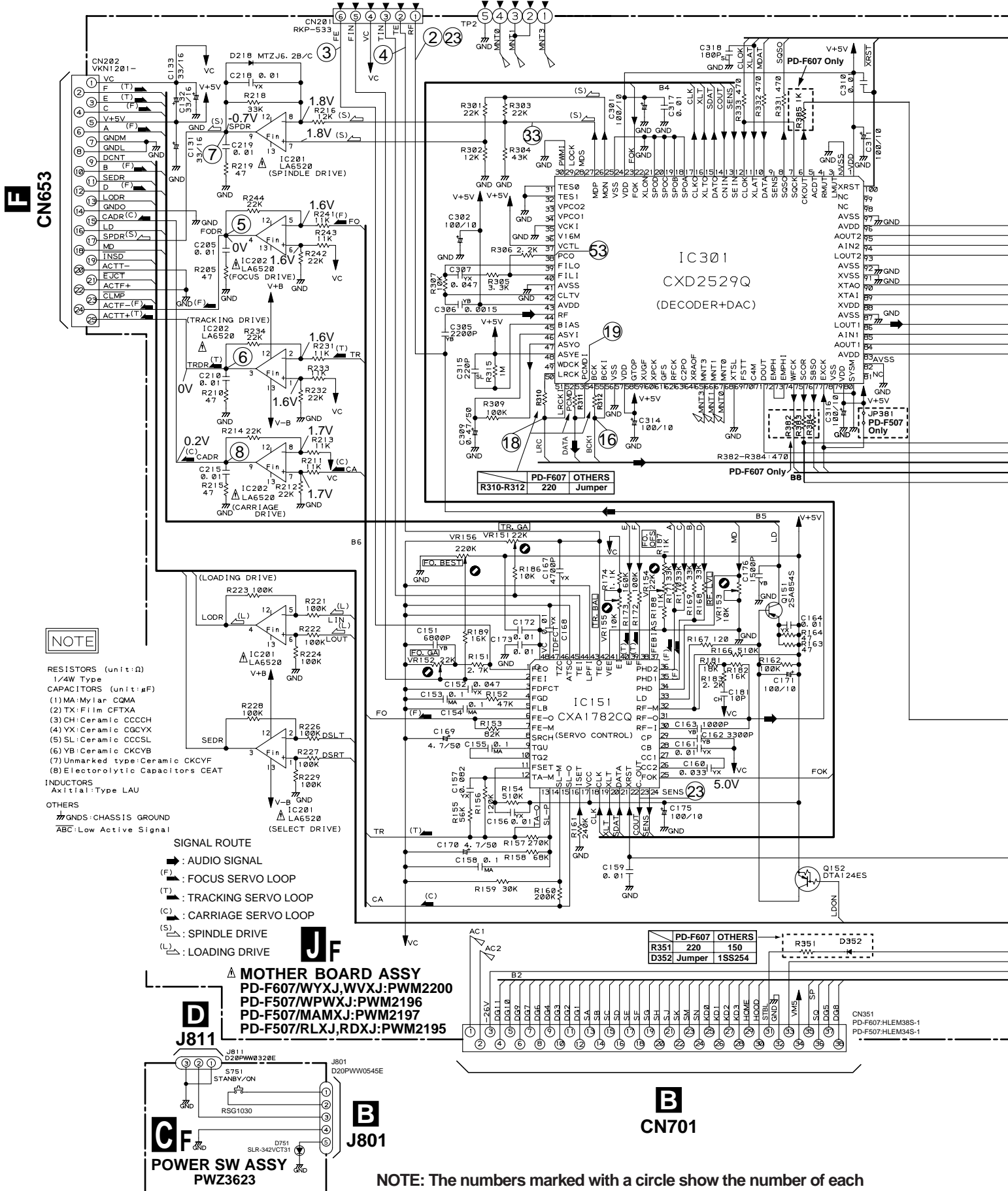
# 3.SCHEMATIC AND PCB DIAGRAMS

A

B

C

D



NOTE: The numbers marked with a circle show the number of each measuring point, which correspond to the number in the service manual PD-F607(ORDER NO.RRV1877) on page16-17.



NOTE: When ordering service parts, be sure to refer to  
 "PARTS LIST of EXPLODED VIEWS" or "PCBPARTS LIST".

PD-F607, PD-F507

IC301 (CXD2529Q)

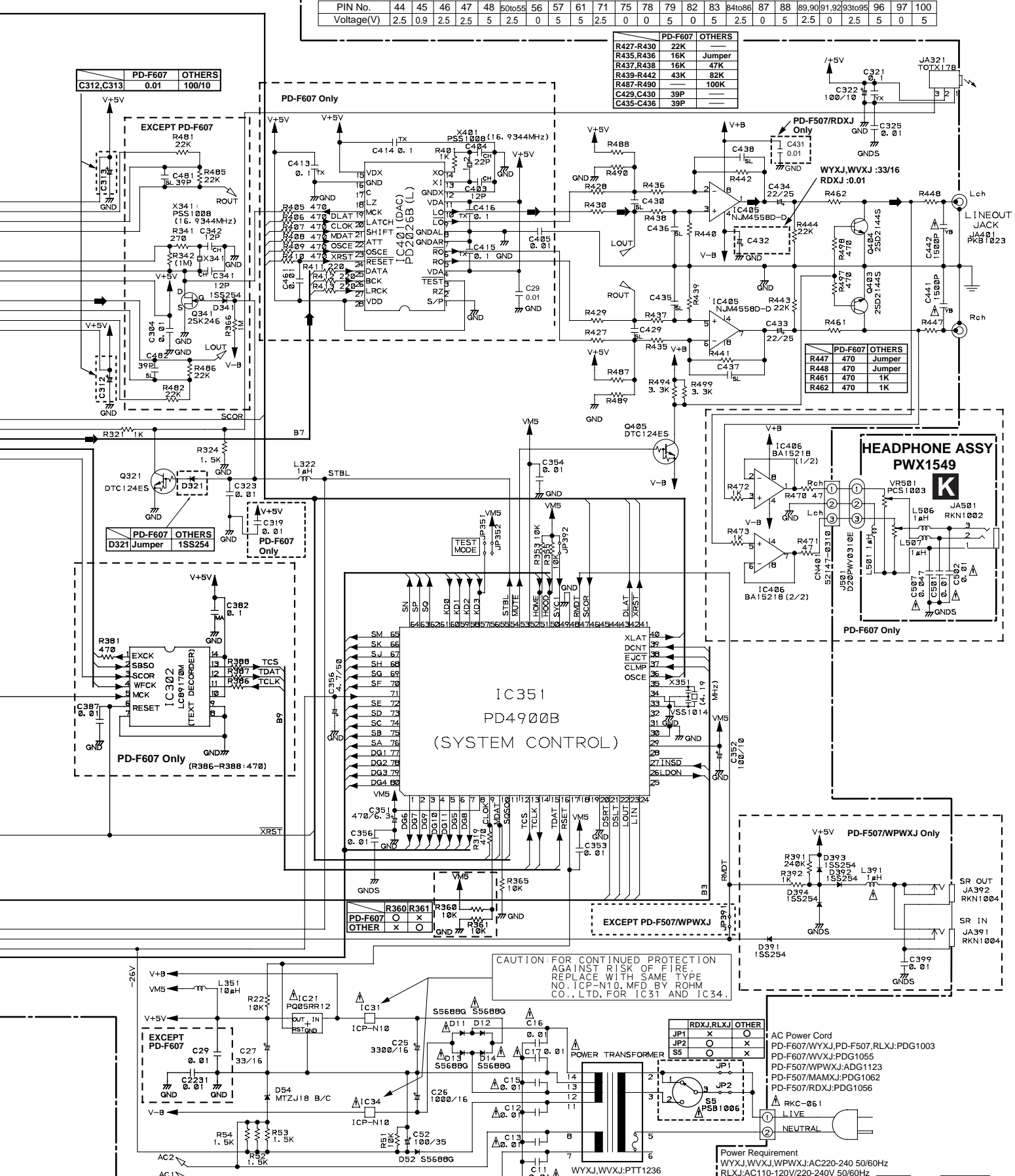
PIN No.	1	2to4	7	8	9	10	11	12	13	14	16	17	23	24	25	26	27	28	39	40	41	42	43
Voltage(V)	5	0	4.7	1.2-1.4	1.2-1.4	4.4	5	4.7	4.7	0.05	5	4.7	5	0	5	0	5	2.7	3.1	2.5	0	3.1	5

PIN No.	44	45	46	47	48	50to55	56	57	61	71	75	78	79	82	83	84to86	87	88	89,90	91,92	93to95	96	97	100
Voltage(V)	2.5	0.9	2.5	2.5	5	2.5	0	5	5	2.5	0	0	5	0	5	2.5	0	5	2.5	0	2.5	5	0	5

PD-F607	OTHERS
R427-R430	22K
R435,R436	16K Jumper
R437,R438	16K 47K
R439-R442	43K 82K
R487-R490	100K
C429,C430	39P
C435-C436	39P

PD-F607	OTHERS
R447	470 Jumper
R448	470 1K
R461	470 1K
R462	470 1K



RDXJ,RLXJ	OTHER
JP1	X
JP2	O
SS	O

AC Power Cord	PD-F607/WXJ, PD-F507, RLXJ, PDG1003
PD-F607/WXJ, PDG1055	PD-F507/WPXJ, ADG1123
PD-F507/MAMXJ, PDG1062	PD-F507/RDXJ, PDG1056

JP1	X
JP2	O
SS	O

Power Requirement  
 WXJ,WXJ,PTT1236  
 WPXJ,MAMXJ,PTT1236  
 RLXJ,RDXJ,PTT1236



# PD-F607, PD-F507

## PCB DIAGRAMS

A

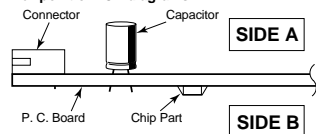
### NOTE FOR PCB DIAGRAMS:

- 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.

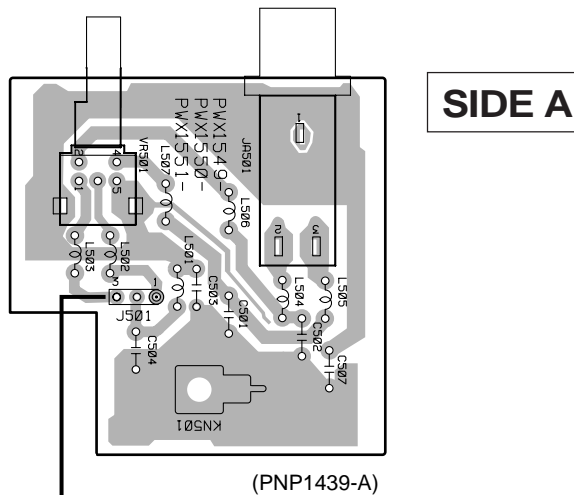
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

- 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.

### 4. Viewpoint of PCB diagrams



## K HEADPHONE BOARD ASSY



J CN401

B

C

D