

Pioneer

Service Manual

ORDER NO.
RRV2119

COMPACT DISC PLAYER

PD-S507

- Refer to the service manual RRV2034 for PD-S507/MYXK.

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-S507		
RD	O	AC110-127/220-240V	With the voltage selector
WPW	O	AC220-240V	

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1. SAFETY INFORMATION

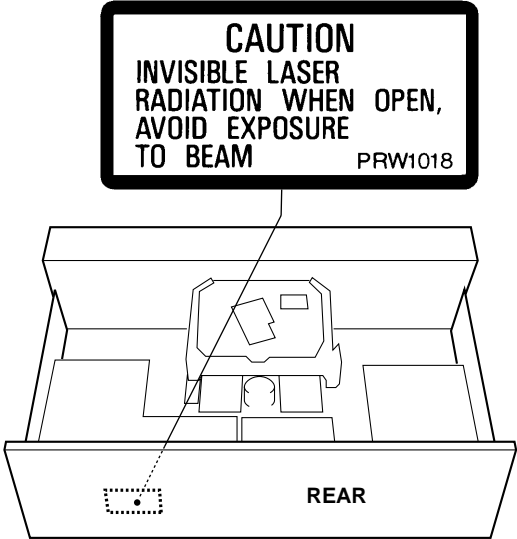
This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly 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 PIONEER 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: 7 mw
WAVELENGTH: 780 – 785 nm

LABEL CHECK

WPW type 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.
 - 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 Ω \rightarrow $56 \times 10^1 \rightarrow$ 561 | RD1/4PU $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$ J |
| 47k Ω \rightarrow $47 \times 10^3 \rightarrow$ 473 | RD1/4PU $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix}$ J |
| 0.5 Ω \rightarrow R50 | RN2H $\begin{bmatrix} R & 5 & 0 \end{bmatrix}$ K |
| 1 Ω \rightarrow 1R0 | RS1P $\begin{bmatrix} 1 & R & 0 \end{bmatrix}$ K |
- Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
- | | |
|---|---|
| 5.62k Ω \rightarrow $562 \times 10^1 \rightarrow$ 5621 | RN1/4PC $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix}$ F |
|---|---|

■ CONTRAST TABLE

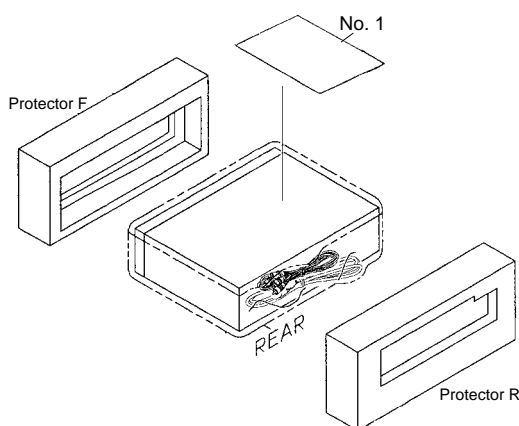
PD-S507/ RD, WPW and MYXK are constructed the same except for the following:

Ref. No.	Mark	Symbol and Description	Part No.			Remarks
			MYXK type	RD type	WPW type	
		PCB ASSEMBLIES				No.1
P5-1	NSP	MOTHER BOARD ASSY	PWM2240	PWM2242	PWM2243	
P5-2	⚠	MAIN BOARD ASSY	PWZ3762	PWZ3764	PWZ3765	
P6-1	⚠	POWER BOARD ASSY	PWZ3770	PWZ3771	PWZ3772	
P6-2	NSP	SWITCH BOARD ASSY	PWZ3766	PWZ3767	PWZ3767	
P6-3	NSP	MODE BOARD ASSY	PWZ3768	PWZ3769	PWZ3769	
	NSP	HEADPHONE BOARD ASSY	PWZ3773	PWZ3776	PWZ3776	
		PACKING				
P3-2		Protector R	PHA1331	PHA1330	PHA1330	
P3-3		Packing Case	PHG2314	PHG2331	PHG2331	
P3-6		Operating Instructions (English/French/German/Italian/ Dutch/Swedish/Spanish/Portuguese)	PRE1270	Not used	Not used	
P3-6		Operating Instructions (English/Spanish/Chinese)	Not used	PRE1271	PRE1271	
P3-8		Remote Control Unit	XWW1001 (CU-PD096)	PWW1140 (CU-PD092)	PWW1140 (CU-PD092)	
P3-12	NSP	Warranty Card	ARY7022	Not used	PRY1002	
	NSP	Caution 220V Card	Not used	ARR7003	Not used	
		EXTERIOR				
P5-5	⚠	AC Power Cord	PDG1043	PDG1013	ADG1123	
P5-6	⚠	Power Transformer	PTT1236	PTT1238	PTT1236	
P5-11	NSP	PCB Spacer	PEB1304	Not used	Not used	
P5-12		Bonnet	PYY1162	PYY1265	PYY1265	
P5-14		Rear Base	PNA2419	PNA2443	PNA2444	
P5-15		Cushion 55	PNM1316	Not used	Not used	
P5-18		Disc Guard	REC1305	PNM1245	PNM1245	
P5-20		Caution Label (HE)	PRW1233	Not used	Not used	
P5-22		Caution Label	VRW1094	Not used	PRW1018	
P6 - 9		Display Window	PAM1759	PAM1764	PAM1764	
P6-15		26P F·F·C / 30V	PDD1142	PDD1141	PDD1141	

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

■ EXPLODED VIEWS

● PACKING SECTION



■ CONTRAST OF PCB ASSEMBLIES

BF MAIN BOARD ASSY

PWZ3764, PWZ3765 and PWZ3762 are constructed the same except for the following:

Mark	Symbol and Description	Part No.			Remarks
		PWZ3762	PWZ3764	PWZ3765	
	C23 C25, C26 C27, C211, C212, C216, C217 C444, C446 C131	CEGA4R7M50 PCH1119 PCH1128 PCH1128 PCH1128	CEAT101M10 PCH1120 CEAT470M16 CEAT470M16 CEAT4R7M50	CEAT101M10 PCH1120 CEAT470M16 CEAT470M16 CEAT4R7M50	
	C169, C170, C474, C475 C171 C175 C200, C201 C202, C203	PCH1127 PCH1126 CQMA154J50 PCH1128 Not used	CEAT4R7M50 CEAT101M10 CEAT101M10 Not used CKSQYF103Z50	CEAT4R7M50 CEAT101M10 CEAT101M10 Not used CKSQYF103Z50	
	C301, C302 C303, C411 C309 C322 C341	CQMA154J50 PCH1122 CFTLA474J50 PCH1128 PCH1122	Not used CEAT101M10 CEATR47M50 CEAT101M10 CEAT101M10	Not used CEAT101M10 CEATR47M50 CEAT101M10 CEAT101M10	
	C410 C414, C415 C429, C430 C432, C433 C461	CEGA470M25 CEGA4R7M50 PCH1124 PCH1126 CEGA4R7M50	CEAT101M10 CEAT220M25 CEAT470M16 CEAT470M16 Not used	CEAT101M10 CEAT220M25 CEAT470M16 CEAT470M16 Not used	
	C496 IC461 Q23 L21 L151	PCH1128 NJM2930L05 2SC3068 RTF1167 LFA100J	CEAT221M16 Not used 2SC1815 Not used Not used	CEAT221M16 Not used 2SC1815 Not used Not used	
	L301, L393 L303 L321 R26, R27 R447, R448, R449, R450	LFA100J LFA151J RTF1068 Not used Not used	LFA1R0J LFA1R0J LFA1R0J RS1/10S103J RS1/10S471J	LFA1R0J LFA1R0J LFA1R0J RS1/10S103J RS1/10S471J	
	R451, R452 R1447, R1448, R1449, R1450	RDR1/2PM101J RD1/4VM471J	Not used Not used	Not used Not used	

Note : Refer to "3.SCHEMATIC DIAGRAM".

CF HEADPHONE BOARD ASSY

Although PWZ3773 and PWZ3776 are different in part number, they consist of the same components.

EF POWER BOARD ASSY

PWZ3771, PWZ3772 and PWZ3770 are constructed the same except for the following:

Mark	Symbol and Description	Part No.			Remarks
		PWZ3770	PWZ3771	PWZ3772	
	C11 C12 C13, C34 C18, C19, C33 C51 C52 C53 C1012 C1020 D56 D57 L1108 L1110 Q54 Q55, Q56 R15 R51, R54 R55 R58 R59 S05	CKSQYF103Z50 Not used CKSQYF103Z50 CEZA2R2M50 PCH1124 PCH1126 CEZA4R7M50 CQMA103J50 CQMA223J50 1SS355 UDZS6.8B PTH1016 PTH1014 2SC3068 DTC124EK RD1/4VM100J RS1/10S223J RS1/10S223J RS1/10S471J RS1/10S223J Not used VEF1040	CKSQYF473Z50 CKSQYF473Z50 Not used Not used CEAT330M25 CEAT101M35 Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used	CKSQYF473Z50 CKSQYF473Z50 Not used Not used CEAT330M25 CEAT101M35 Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used Not used	

Note : Refer to "3.SCHEMATIC DIAGRAM".

FF SWITCH BOARD ASSY

PWZ3767 and PWZ3766 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ3766	PWZ3767	
	C701 C702 C706 C709, C710 L701 L702, L703 S701, S702, S703, S704, S710, S711	CFTLA274J50 PCH1128 CFTLA274J50 CKSQYF103Z50 LFA100J LFA1R0J ASG1034	CEAT470M16 CEAT221M16 CEAT220M50 Not used Not used Not used VSG1009	

Note : Refer to "3.SCHEMATIC DIAGRAM".

GF MODE BOARD ASSY

PWZ3769 and PWZ3768 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ3768	PWZ3769	
	S751, S752, S753, S754, S755	ASG1034	VSG1009	

Note : Refer to "3.SCHEMATIC DIAGRAM".

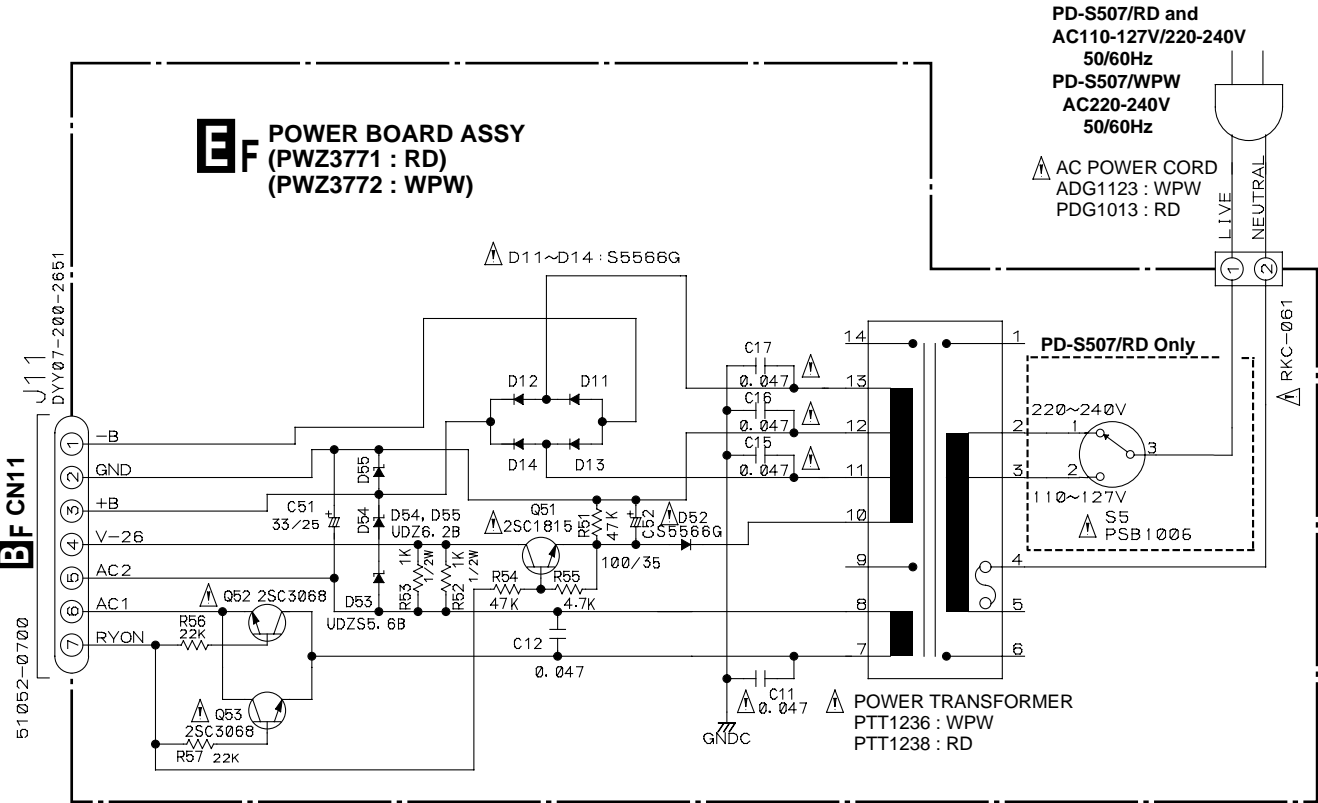
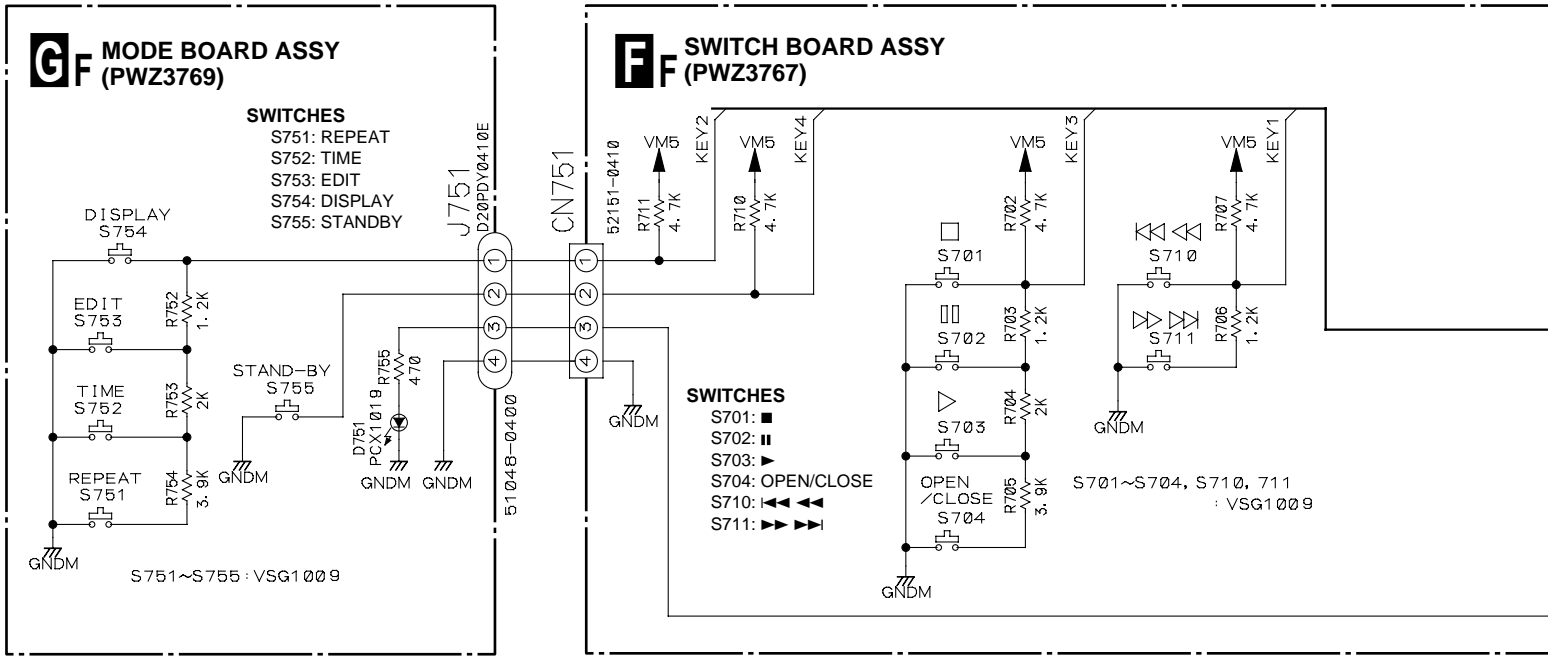
The numbers marked with a circle show the number of each measuring point, which correspond to the number in the service manual PD-S507 (ORDER NO. RRV2034) on page12 .



C

C

3.2 SWITCH BOARD ASSY, POWER BOARD ASSY and MODE BOARD ASSY



NOTES

RESISTORS (UNIT:Ω)

Unmarked Type:RS1/10S

CAPACITORS (UNIT:μF)

Unmarked Type:CKSQYF

Unmarked Electrolysis:CEAT

TL CFTLA

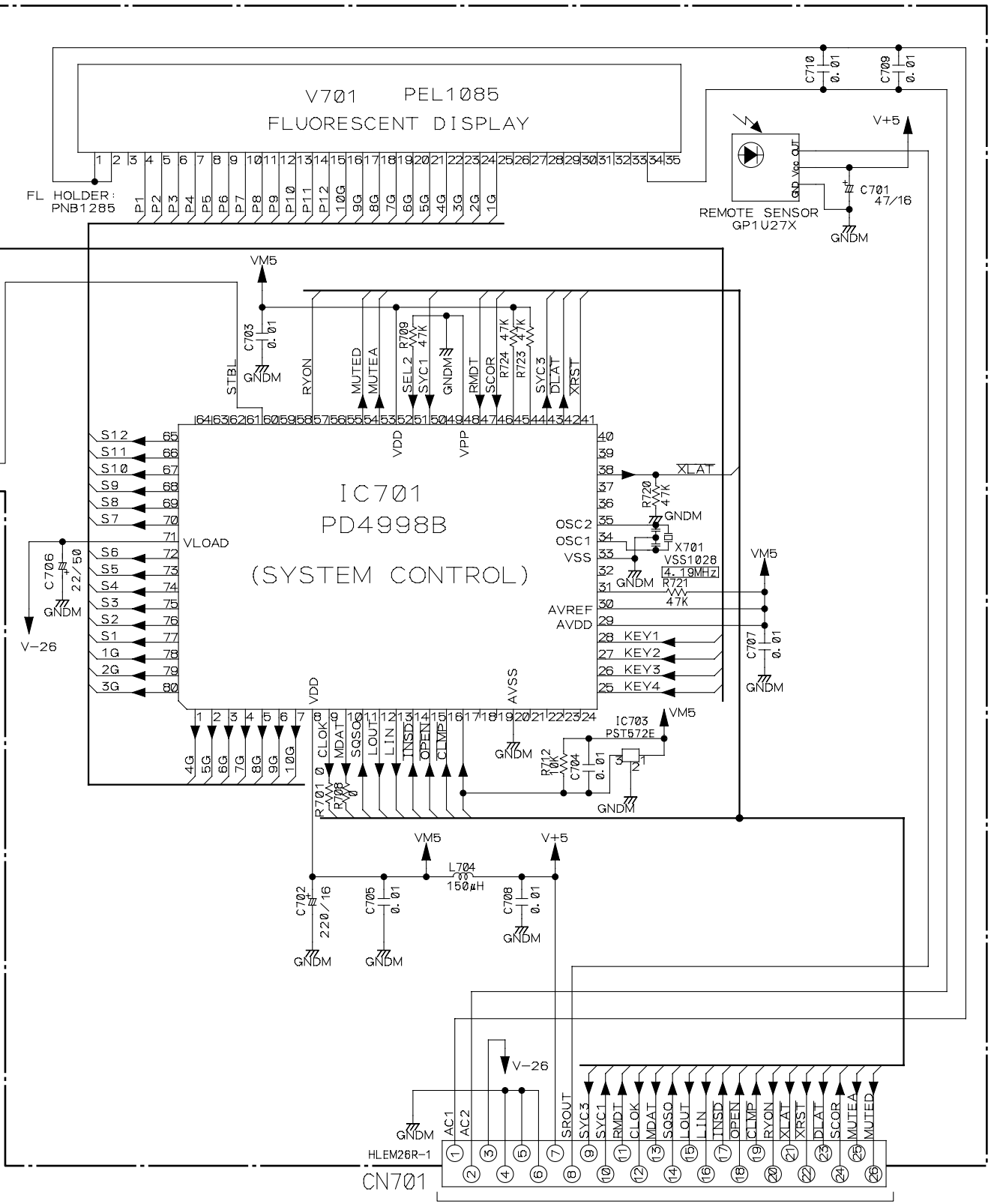
INDUCTORS

Unmarked Type:LFA

OTHERS

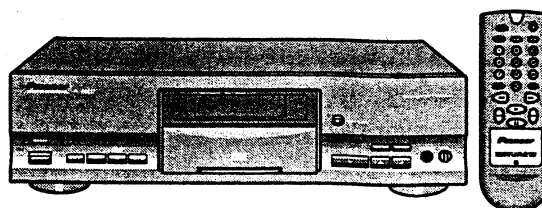
gndc : CHASSIS GND

ABC:LOW ACTIV SIGNAL



Service Manual

Pioneer



ORDER NO.
RRV2034

COMPACT DISC PLAYER **PD-S507**

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

Type	Model	Power Requirement	Remarks
	PD-S507		
MYXK	○	AC220-230V	
MVXK	○	AC220-230V	

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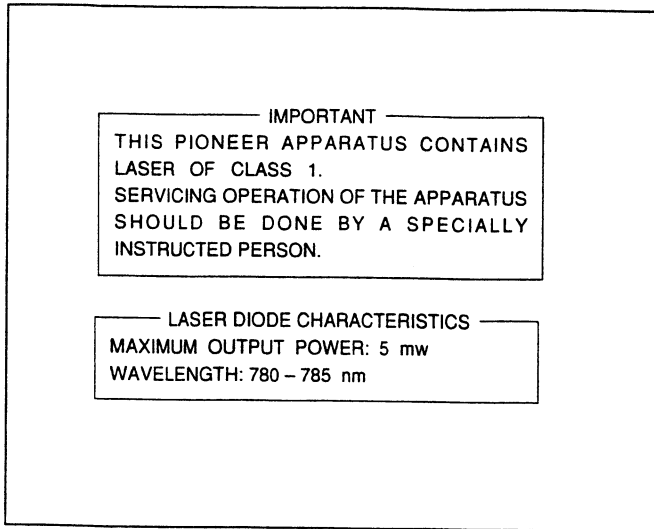
1. SAFETY INFORMATION	2	7. GENERAL INFORMATION	35
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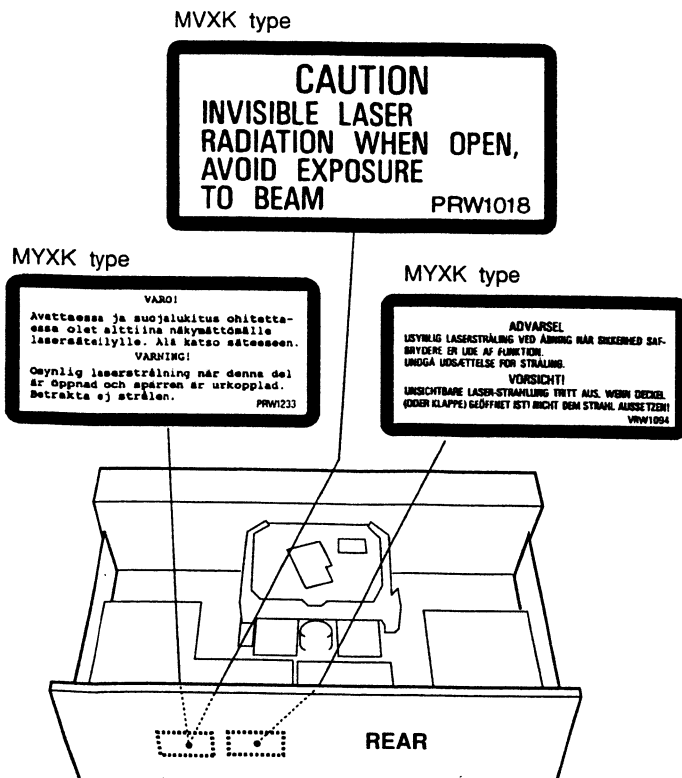
T-ZZR OCT. 1998

1. SAFETY INFORMATION

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LABEL CHECK



Additional Laser Caution

1. Laser Interlock Mechanism

The position of the switch (S601) for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S601) is not on CLMP terminal side (CLMP signal is OFF or high level.). Thus, the interlock will no longer function if the switch (S601) 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 MAIN BOARD ASSY is connected to GND, or pin 22 of IC301(LD0N) is connected to low level (ON), or else the terminals of Q151 are shorted to each other (fault condition).

2. When the cover is opened with the servo mechanism block removed and turned over, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* Refer to page 28.

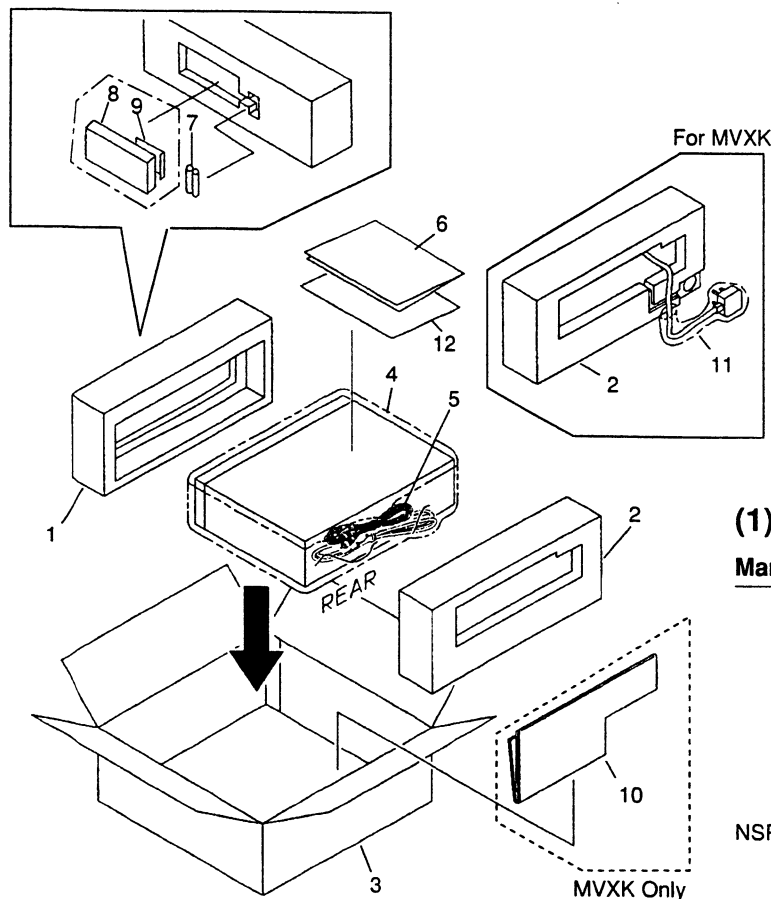
2. EXPLODED VIEWS AND PARTS LIST

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.

● Screw adjacent to ∇ mark on the product are used for disassembly.

2.1 PACKING



(1) PACKING PARTS LIST

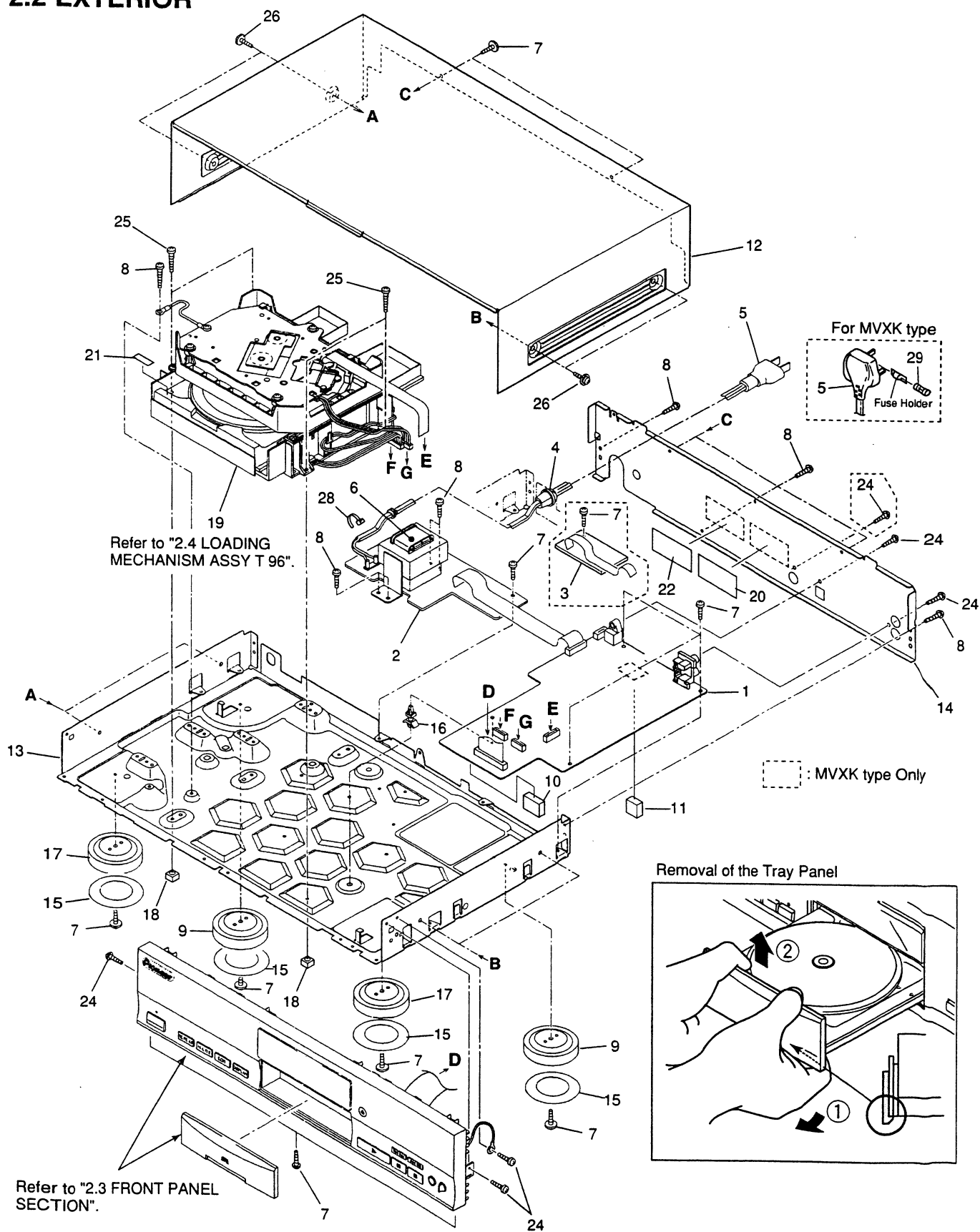
Mark	No.	Description	Part No.
	1	Protector F	PHA1329
	2	Protector R	See Contrast table (2)
	3	Packing Case	See Contrast table (2)
	4	Packing Sheet (750 × 600 × 0.5)	Z23-007
	5	Output Cable (L=1.2m)	PDE1248
	6	Operating Instructions	See Contrast table (2)
NSP	7	Batteris (R03, AAA)	VEM-222
	8	Remote Control Unit(CU-PD096)	XWW1001
	9	Battery Cover	XZN1001
	10	Spacer	See Contrast table (2)
	11	Polyethylene Bag (115 × 270 × 0.05)	See Contrast table (2)
NSP	12	Warranty Card	ARY7122

(2) CONTRAST TABLE

PD-S507/MVXK and MVXK are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.		Remarks
			MYXK type	MVXK type	
	2	Protector R	PHA1331	PHA1332	
	3	Packing Case	PHG2314	PHG2330	
	6	Operating Instructions (English/ French/ German/Italian/ Dutch/ Swedish/Spanish/Portuguese)	PRE1270	Not used	
	6	Operating Instructions (English)	Not used	PRB1274	
	10	Spacer	Not used	PHC1078	
	11	Polyethylene Bag (115 × 270 × 0.05)	Not used	Z21-013	

2.2 EXTERIOR



(1) EXTERIOR PARTS LIST

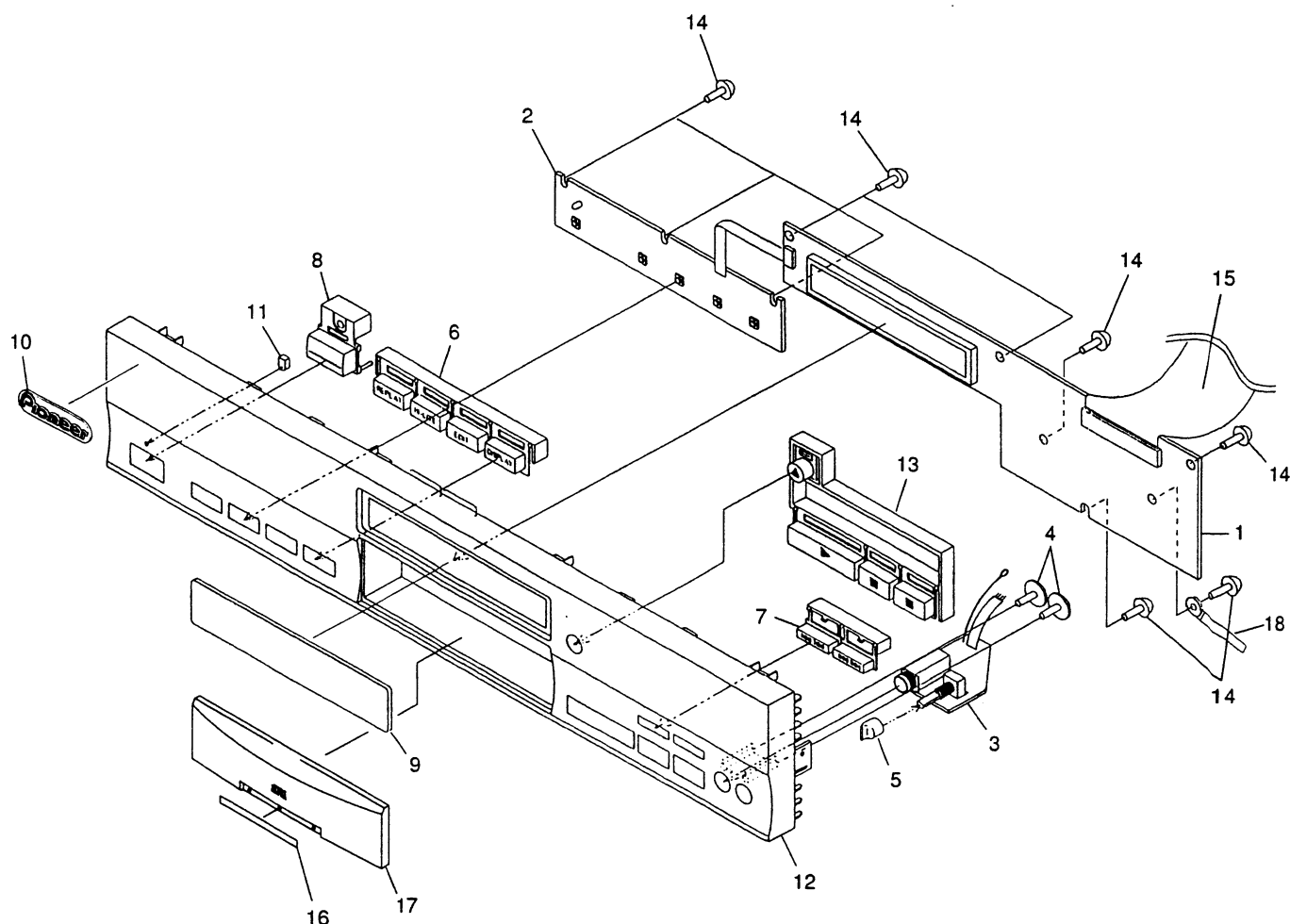
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	MAIN BOARD ASSY	See Contrast table (2)		21	Caution Label	PRW1244
	2	POWER BOARD ASSY	PWZ3770		22	Caution Label	See Contrast table (2)
	3	COAXIAL OUTPUT BOARD ASSY	See Contrast table (2)		23	
△	4	Strain Relief	CM-22B		24	Screw	BBZ30P080FCC
△	5	AC Power Cord	See Contrast table (2)		25	Screw	BSZ30P070FMC
	6	Power Transformer	PTT1236		26	Screw	FBT40 P080FZK
	7	Screw	ABA1011		27	
	8	Screw (3 × 6)	ABA1207		28	Binder (SKB-90BK)	ZCA-SKB90BK
	9	Insulator	AMR7198	△	29	Fuse (5A)	See Contrast table (2)
	10	Rubber Spacer B	PEB1281				
NSP	11	PCB Spacer	PEB1304				
	12	Bonnet	PYY1162				
NSP	13	Under Base 56	PNA2214				
	14	Rear Base	See Contrast table (2)				
	15	Cushion 55	PNM1316				
NSP	16	PCB Holder	PNW2100				
	17	Insulator	PNW2766				
	18	Disc Guard	REC1305				
NSP	19	Loading Mechanism Assy T96	PXA1604				
	20	Caution Label HE	See Contrast table (2)				

(2) CONTRAST TABLE

PD-S507/MYXK and MVXK are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.		Remarks
			MYXK type	MVXK type	
△	1	MAIN BOARD ASSY	PWZ3762	PWZ3763	
	3	COAXIAL OUTPUT BOARD ASSY	Not used	PWZ3775	
	5	AC Power Cord	PDG1043	PDG1055	
	14	Rear Base	PNA2419	PNA2442	
	20	Caution Label HE	PRW1233	Not used	
△	22	Caution Label	VRW1094	PRW1018	
	29	Fuse (5A)	Not used	PEK1003	

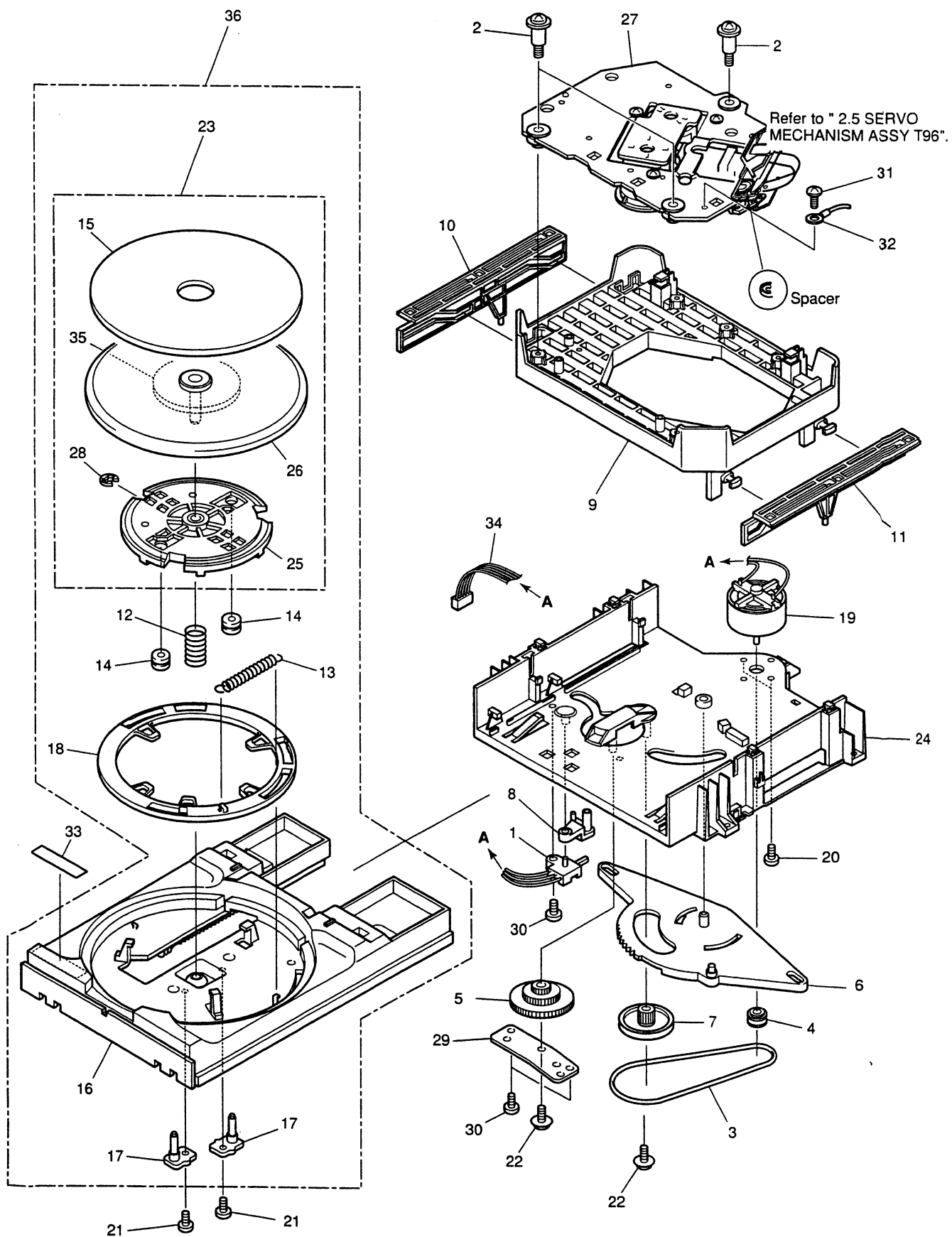
2.3 FRONT PANEL SECTION



■ FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	SWITCH BOARD ASSY	PWZ3766		11	LED Lens	PNW2019
	2	MODE BOARD ASSY	PWZ3768		12	Function Panel	PNW2807
	3	HEADPHONE BOARD ASSY	PWZ3773		13	PLAY Button B	RAC2204
	4	Screw (FE)	ABA7009		14	Screw	PPZ30P08.0FMC
	5	HEADPHONE Knob	PAC1707		15	26P FFC/30V	PDD1142
	6	MODE Button	PAC1887	NSP	16	Tray Badge	PAN1358
	7	MANUAL Button	PAC1889		17	Tray Name Plate	PNW2806
	8	POWER Knob	PAC1891		18	Cord Clamper	RNH-184
	9	Display Window	PAM1759				
	10	Name Plate	PAM1776				

2.4 LOADING MECHANISM ASSY T96

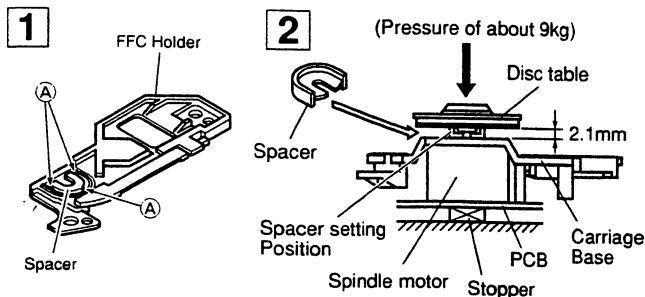


■ LOADING MECHANISM ASSY T96 PARTS LIST

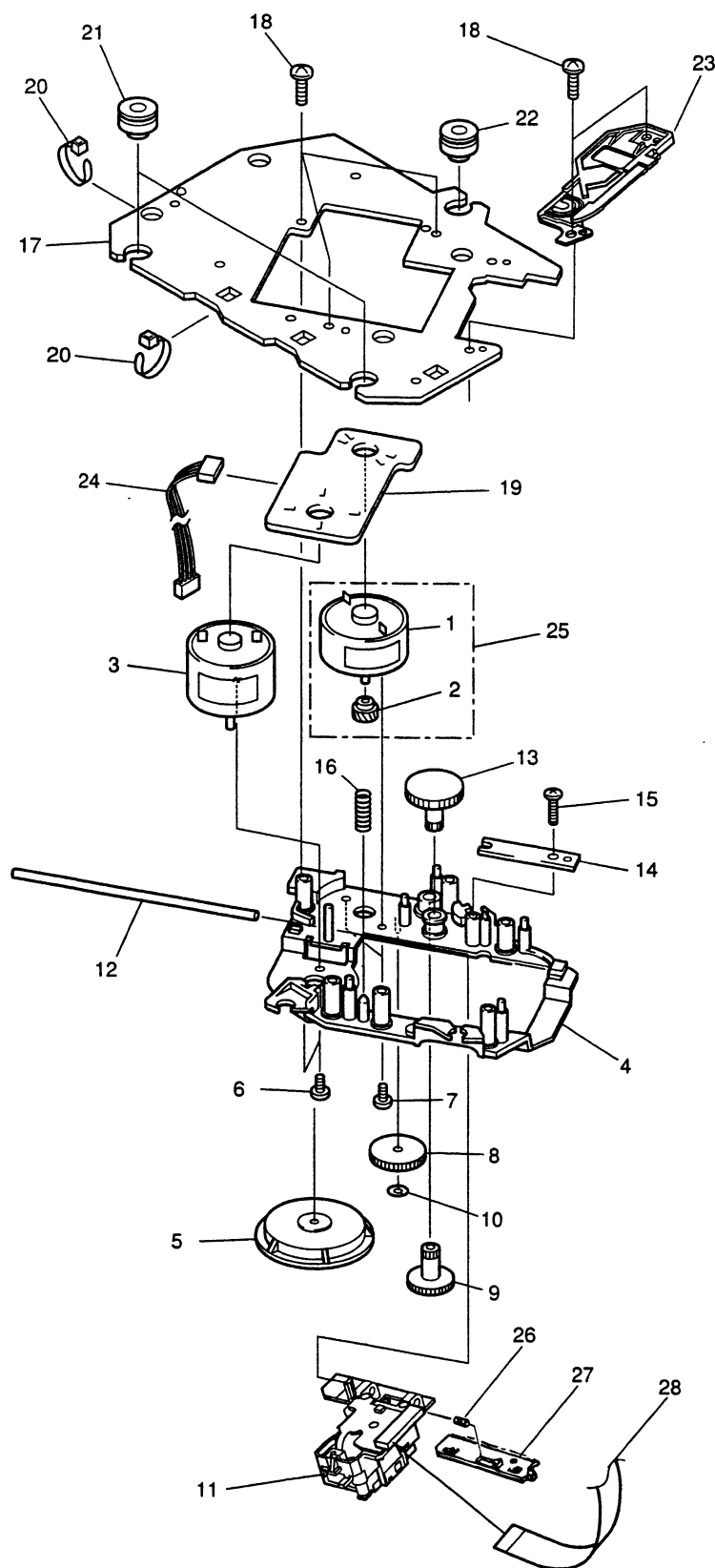
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Lever Switch (S601)	DSK1003		26	Turn Table	PNR1044
	2	Float Screw	PBA1027	NSP	27	Servo Mechanism Assy T96	PXA1606
	3	Rubber Belt	PEB1186		28	E Ring	YE20FUC
	4	Motor Pulley	PNW1634		29	Shaft Holder	PNB1382
	5	Drive Gear	PNW1996		30	Screw	BPZ26P060FMC
	6	Synchronized Lever	PNW2168		31	Screw	BBZ26P060FMC
	7	Gear Pulley	PNW1998	NSP	32	Earth Lead	DE010VF0
	8	SW Head	PNW1999		33	Caution Label	PRW1244
	9	Float Base	PNW2767		34	Connector Assy 5P	PDE1243
	10	Left Cam	PNW2001	NSP	35	Table Base	PXA1382
	11	Right Cam	PNW2002	NSP	36	Tray Assy TT	PXA1449
	12	Float Spring	PBH1120				
	13	Lock Spring	PBH1121				
	14	Float Rubber	PEB1014				
	15	Table Rubber Sheet	PEB1181				
	16	Tray	PNW2760				
	17	Table Guide	PNW2004				
	18	Lock Plate	PNW2005				
	19	D.C. Motor (0.75W, LOADING)	PXM1010				
	20	Screw	BMZ26P040FMC				
	21	Screw	IPZ26P060FCU				
	22	Screw	IPZ20P080FMC				
	23	Turn Table Assy	PEA1199				
	24	Loading Base	PNW2761				
	25	Table Shaft Holder Assy	PXA1383				

● How to Install the Disc Table

- 1 Use nipper or other tool to cut the three sections marked (A) in figure 1. Then remove the spacer
- 2 While supporting the spindle motor shaft with the stopper, put spacer on top of the carriage base, and stick the disc table on top (takes about 9kg pressure). Take off the spacer.



2.5 SERVO MECHANISM ASSY T96



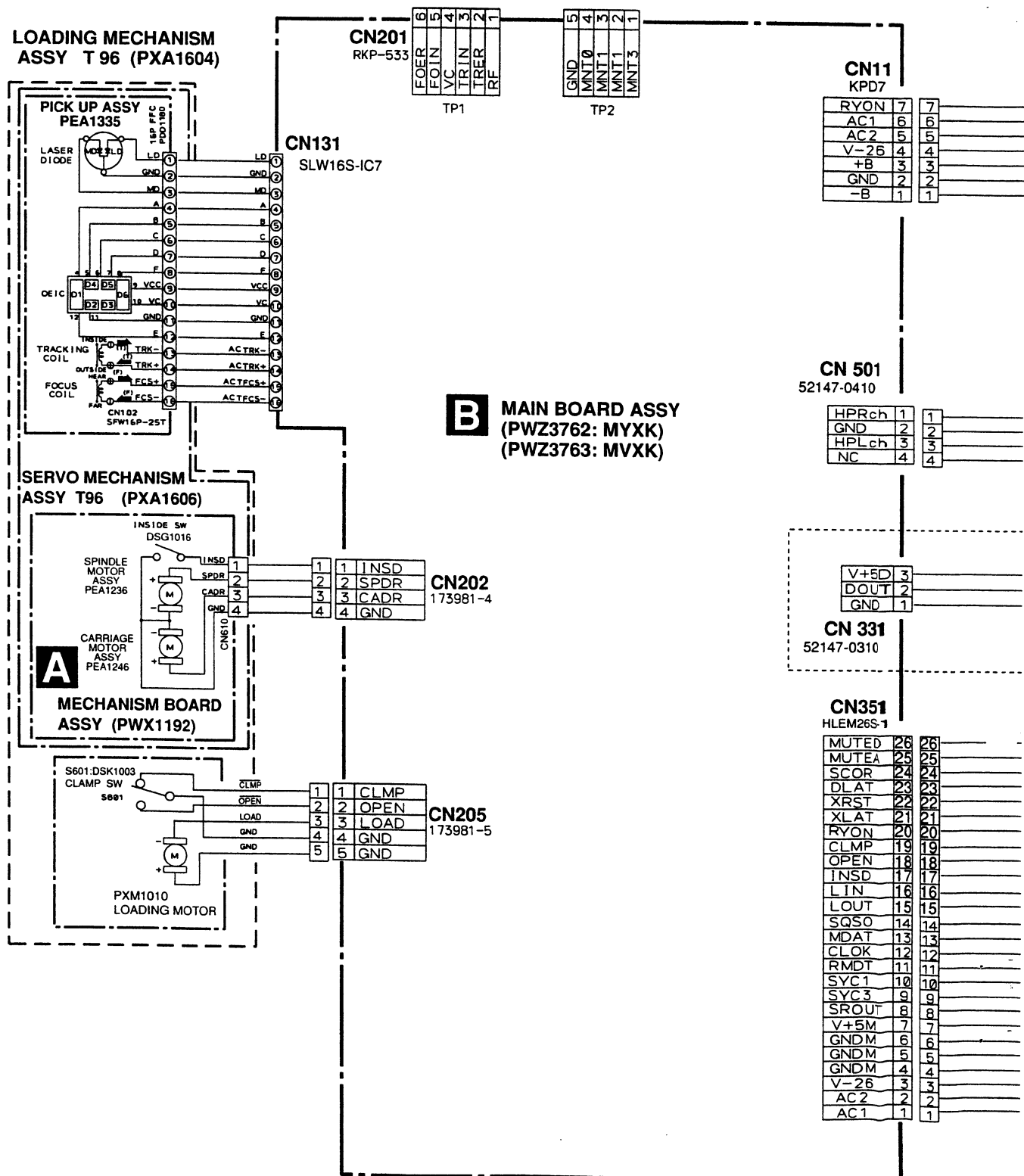
■ SERVO MECHANISM ASSY T96 PARTS LIST

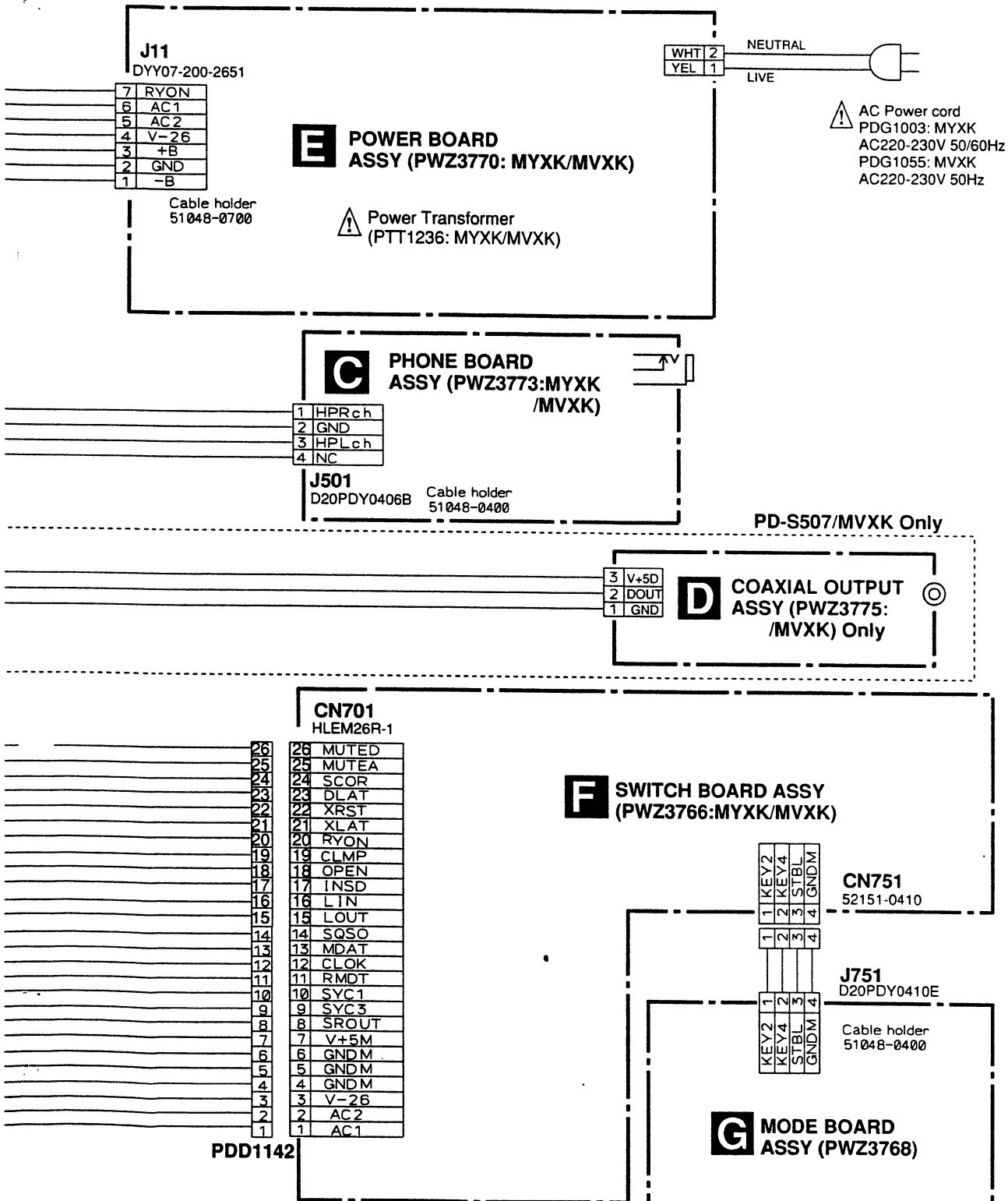
Mark	No.	Description	Parts No.
	1	Carriage D.C. Motor (0.3W)	PXM1027
	2	Pinion Gear	PNW2055
	3	Spindle Motor Assy (SPINDLE, with Oil)	PEA1236
	4	Carriage Base	PNW2099
	5	Disc Table	PNW1067
	6	Screw	JFZ20P030FNI
	7	Screw	JFZ17P025FZK
	8	Gear 3	PNW2054
	9	Gear 2	PNW2053
	10	Washer	WT120032D025
	11	Pickup Assy	PEA1335
	12	Guide Bar	PLA1094
	13	Gear 1	PNW2052
	14	Gear Stopper	PNB1303
	15	Screw	BPZ20P060FMC
NSP	16	Earth Spring	PBH1132
	17	Mechanism Base T.T.96	PNB1092
	18	Screw	BPZ26P100FMC
	19	Mechanism Board Assy	PWX1192
	20	Binder	PEC-107
	21	Float Rubber	PEB1031
	22	Float Rubber	PEB1170
	23	FFC Holder	PNW2134
	24	Connector Assy 4P	PDE1238
	25	Carriage Motor Assy (CARRIAGE)	PEA1246
	26	Rack Spring	PBH1128
	27	Rack Holder	PNW2156
	28	F.F.C.(16P)	PDD1185

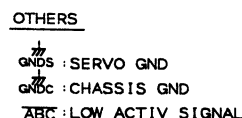
3. SCHEMATIC DIAGRAM

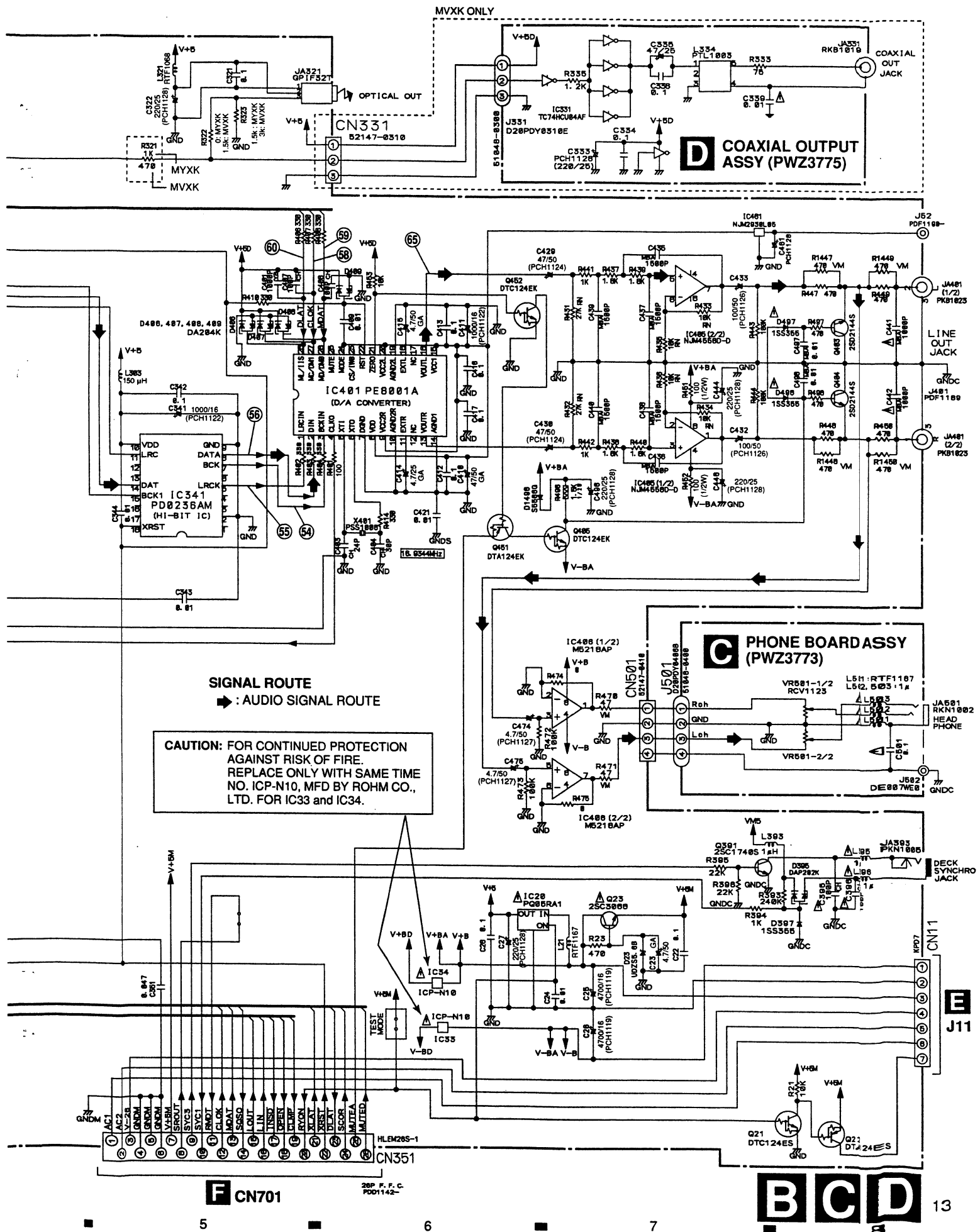
Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".

3.1 OVERALL SCHEMATIC DIAGRAM





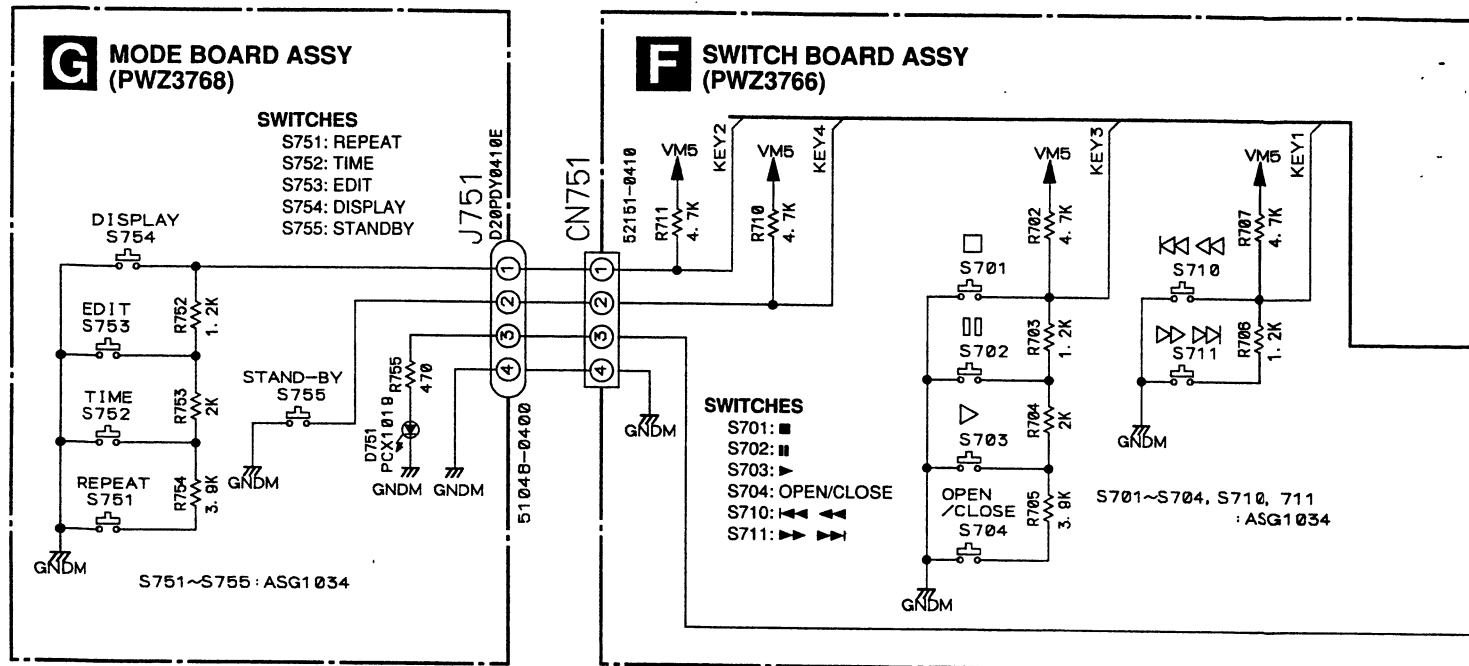
B



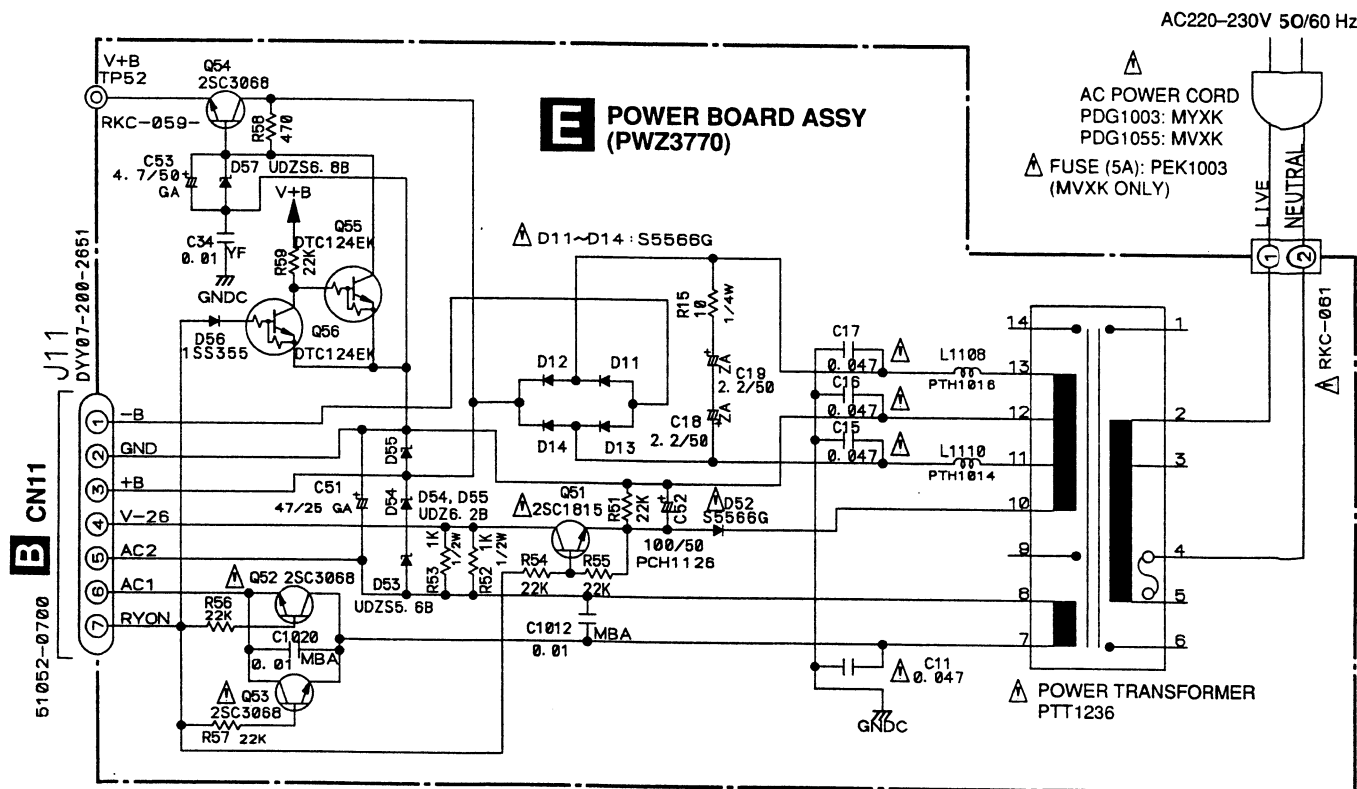
3.3 POWER BOARD ASSY, SWITCH BOARD ASSY and MODE BOARD ASSY

A

B



C



D

NOTES

RESISTORS (UNIT:Ω)

Unmarked Type:RS1/10S

CAPACITORS (UNIT:μF)

Unmarked Type:CKSQYF

Unmarked Electrolysis:CEAT
 TL CFTLA

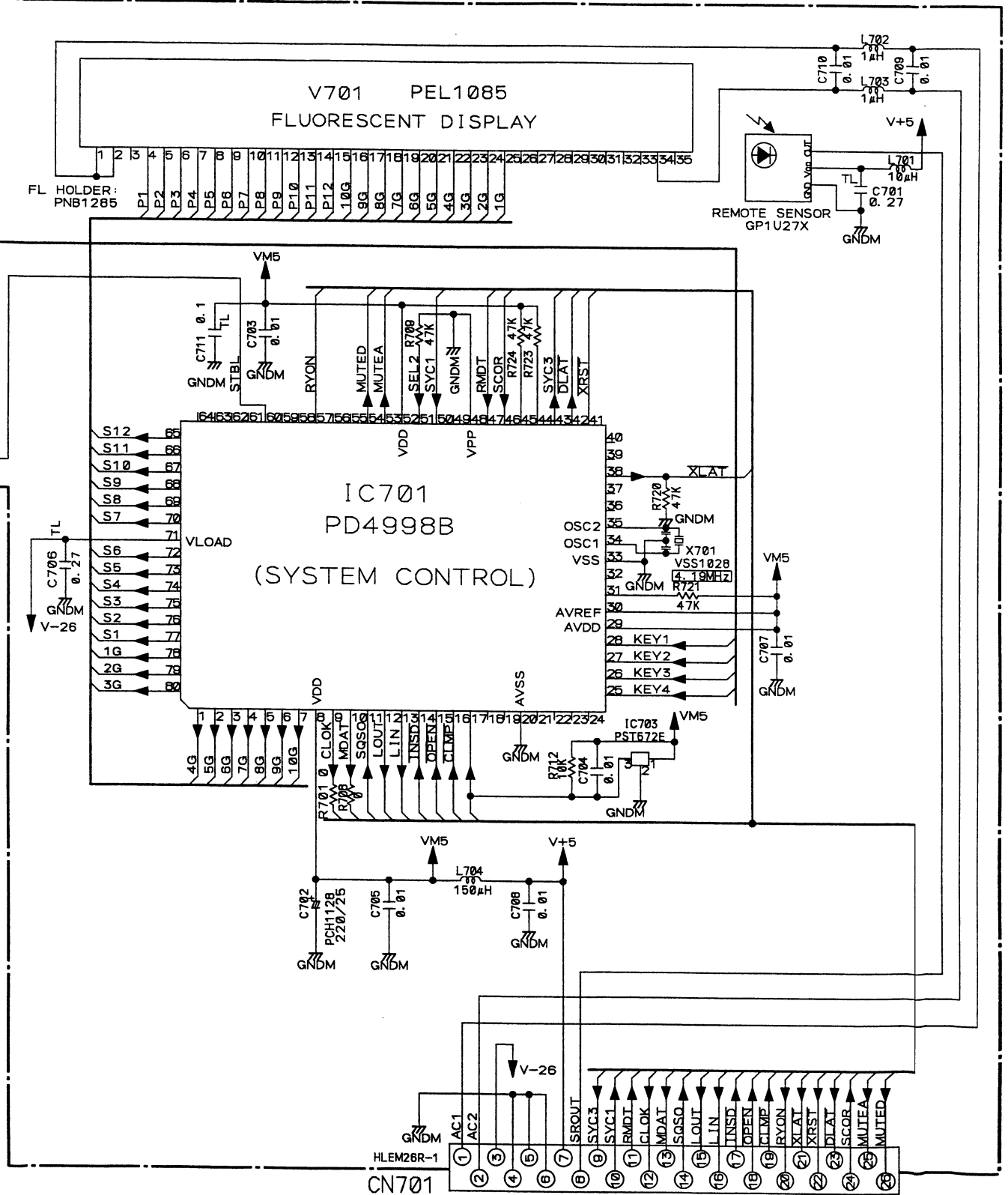
INDUCTORS

Unmarked Type:LFA

OTHERS

△:CHASSIS GND

ABC:LOW ACTIV SIGNAL



B CN351

26P F. F. C: PDD1142-

B MAIN BOARD ASSY Waveforms

Note: The encircled numbers denote measuring point in the schematic diagram.

*1 50T-JUMP: After switching to the pause mode, press the manual search key.

*2 FOCUS-IN: Press the play key without loading a disc.

<p>② TP1- Pin 1 : PLAY MODE (RF) H : 500nsec/div</p>	<p>⑤ IC202- Pin 3 : PLAY MODE (FODR) H : 1msec/div</p>	<p>⑧ IC202- Pin 9 : TRACK SEARCH MODE (CADR) H : 200msec/div</p>	<p>③③ IC301- Pin 3 : PLAY MODE (MDP) H : 2μsec/div</p>	<p>⑤⑧ IC401- Pin 27 : PLAY MODE (1 kHz) (CLOCK) H : 0.2 msec/div</p>
<p>② TP1- Pin 1 : TRACK SEARCH MODE (RF) H : 200 μsec/div</p>	<p>⑥ IC202- Pin 4 : PLAY MODE (TRDR) H : 1msec/div</p>	<p>⑨ IC301- Pin 17 : PLAY MODE ASY0 (EFM) H : 500nsec/div</p>	<p>⑤③ IC301- Pin 9 : PLAY MODE (PCO) H : 10μsec/div</p>	<p>⑤⑨ IC401- Pin 26 : PLAY MODE (1 kHz) (MDAT) H : 0.2 msec/div</p>
<p>③ TP1- Pin 6 : PLAY MODE (FOER) H : 10msec/div</p>	<p>⑥ IC202- Pin 4 : 50T-JUMP(*1) MODE (TRDR) H : 1msec/div</p>	<p>①⑥ IC301- Pin 22 : PLAY MODE (1kHz) (BCLK) H : 500nsec/div</p>	<p>⑤④ IC341- Pin 7 : PLAY MODE (1 kHz) (BCKO) H : 0.2 μsec/div</p>	<p>⑥① IC401- Pin 28 : PLAY MODE (1 kHz) (DLAT) H : 0.2 μsec/div</p>
<p>④ TP1- Pin 2 : PLAY MODE (TRER) H : 10msec/div</p>	<p>⑦ IC302- Pin 1 : PLAY MODE (SPDR) H : 50msec/div</p>	<p>①⑧ IC301- Pin 20 : PLAY MODE (1kHz) (LRCK) H : 10μsec/div</p>	<p>⑤⑤ IC341- Pin 5 : PLAY MODE (1 kHz) (LRCKO) H : 10 μsec/div</p>	<p>⑥⑤ IC401- Pin 16 : PLAY MODE (1 kHz) H : 0.2 msec/div</p>
<p>④ TP1- Pin 2 : 50T- JUMP(*1)MODE (TRER) H : 1msec/div</p>	<p>⑦ IC302- Pin 1 : TRACK SEARCH MODE (SPDR) H : 50msec/div</p>	<p>①⑨ IC301- Pin 21 : PLAY MODE (1kHz) (DATA) H : 500nsec/div</p>	<p>⑤⑥ IC341- Pin 8 : PLAY MODE (1 kHz) (DATAO) H : 0.2 μsec/div</p>	
<p>⑤ IC202- Pin 3 : FOCUS-IN(*2) MODE (FODR) H : 200msec/div</p>	<p>⑧ IC202- Pin 9 : PLAY MODE (CADR) H : 2sec/div</p>	<p>②③ TRACK SEARCH MODE Upper:TP1-Pin1(RF) Lower:IC151-Pin 23 (C.OUT) H : 200μsec/div</p>		

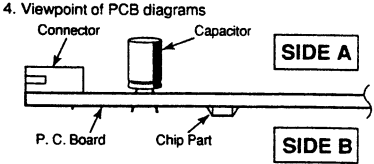
4. PCB CONNECTION DIAGRAM

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
		Resistor array
		3-terminal regulator

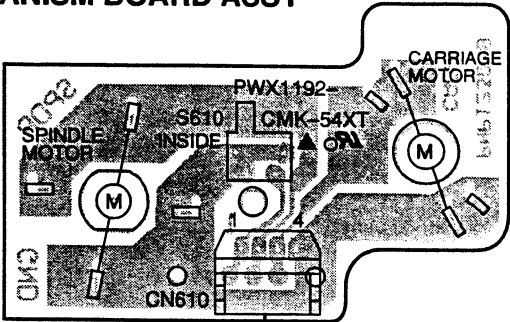
3. The parts mounted on this PCB include all necessary parts for several destination.
For further information for respective destinations, be sure to check with the schematic diagram.



4.1 PHONE BOARD ASSY and MECHANISM BOARD ASSY

SIDE A

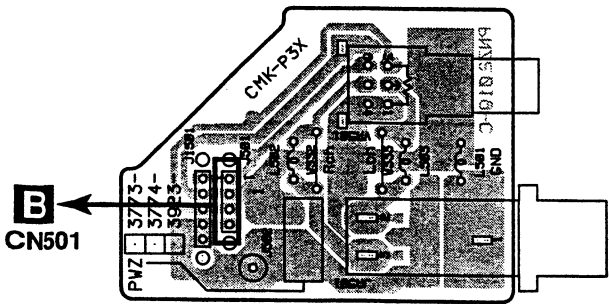
A MECHANISM BOARD ASSY



B CN202

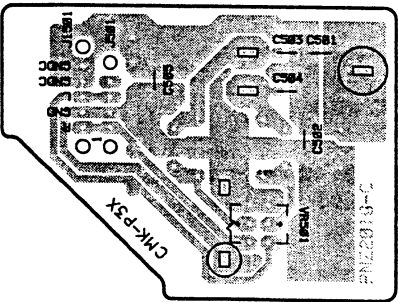
SIDE A

C PHONE BOARD ASSY



SIDE B

C PHONE BOARD ASSY



(PNP448-C)

4.2 MAIN BOARD ASSY and COAXIAL OUTPUT ASSY

B MAIN BOARD ASSY

SIDE A

A

E J11

B

C

D

D COAXIAL OUTPUT ASSY

(PD-S507/MVXK Only)

To Pickup Assy

To Loading Motor and S601

A CN610

C J501

F CN701

(PNP1448-C)

Q391 IC406

Q403
Q404
IC20

Q23
IC341 IC405

IC33

IC34

Q151

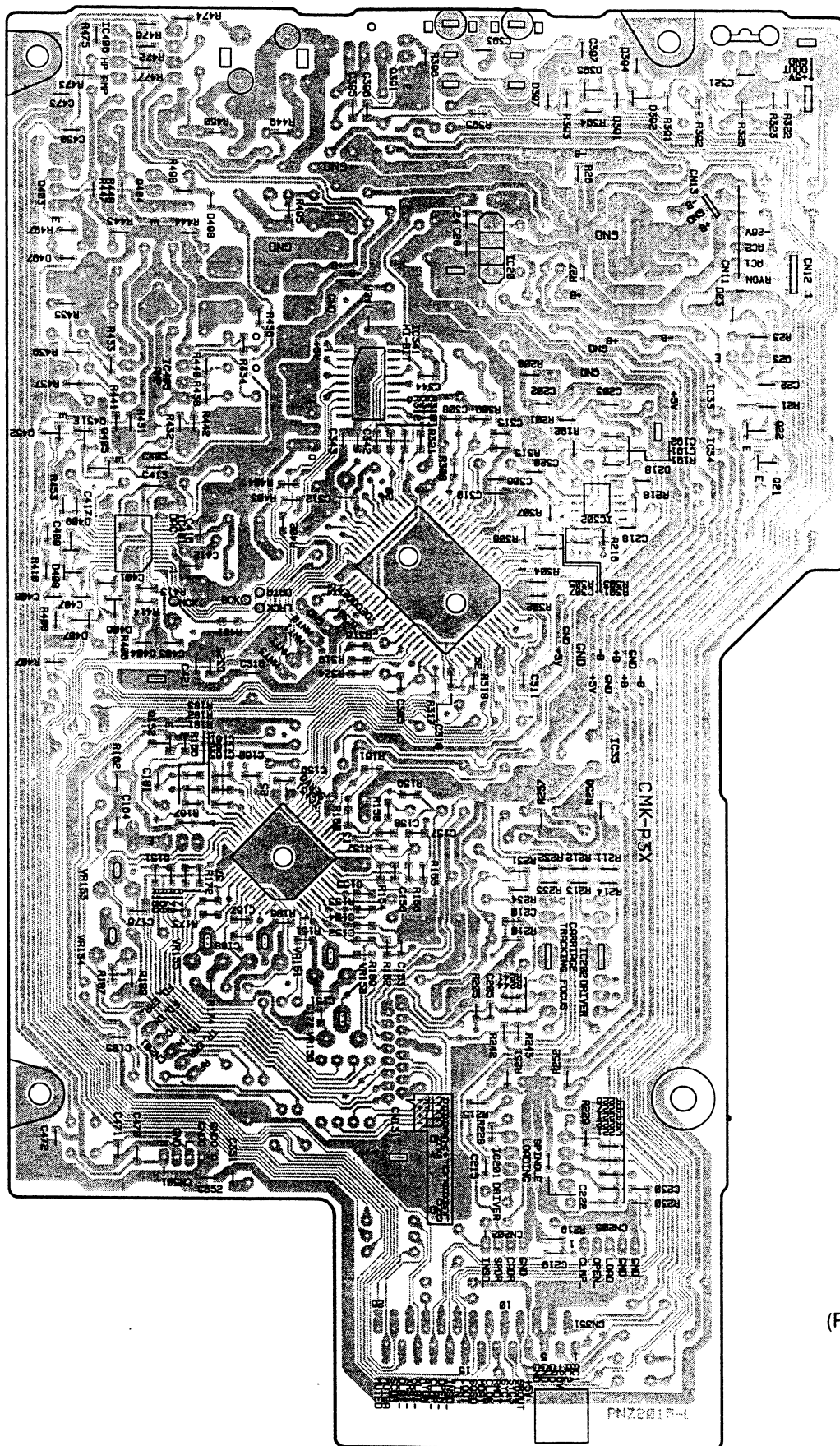
VR153

IC202 VR154
VR151 VR155
VR152

VR156

IC201

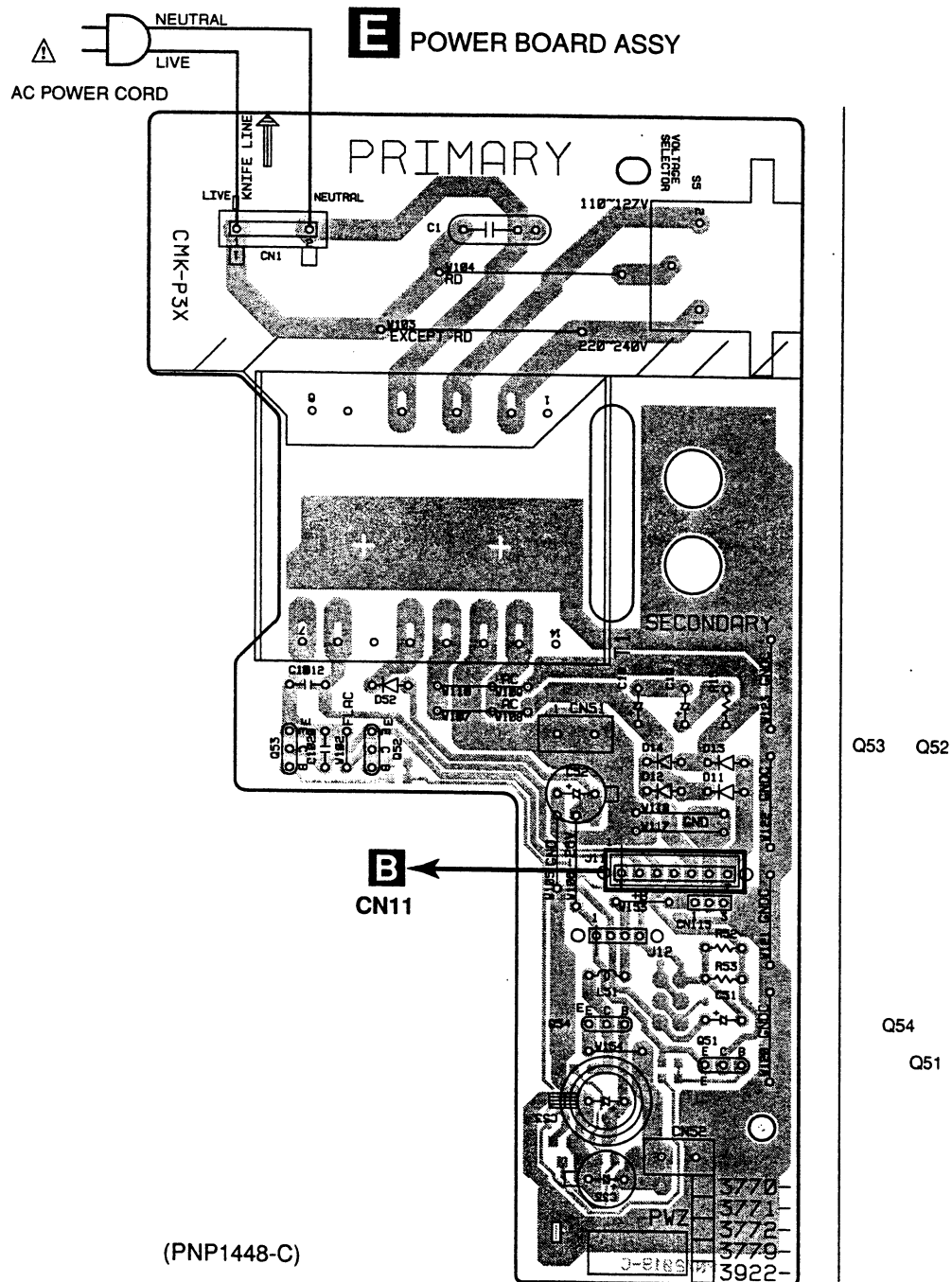
B MAIN BOARD ASSY



(PN: 1448-C)

4.3 POWER BOARD ASSY

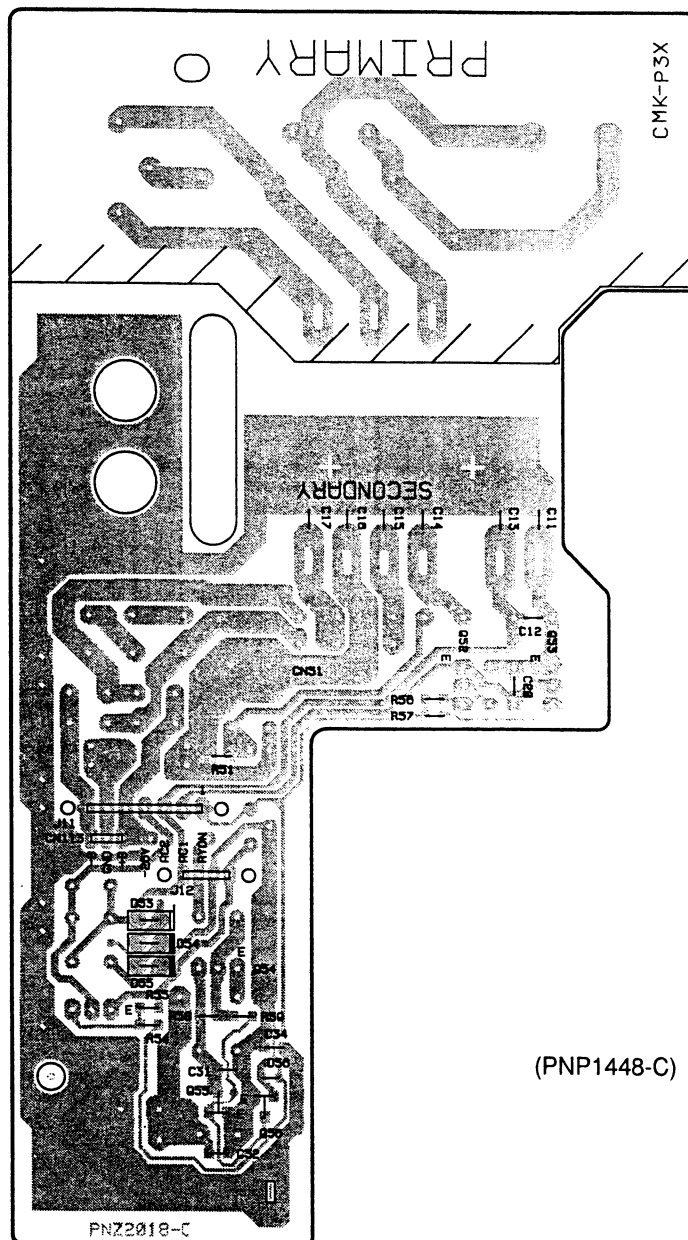
SIDE A



SIDE B

E POWER BOARD ASSY

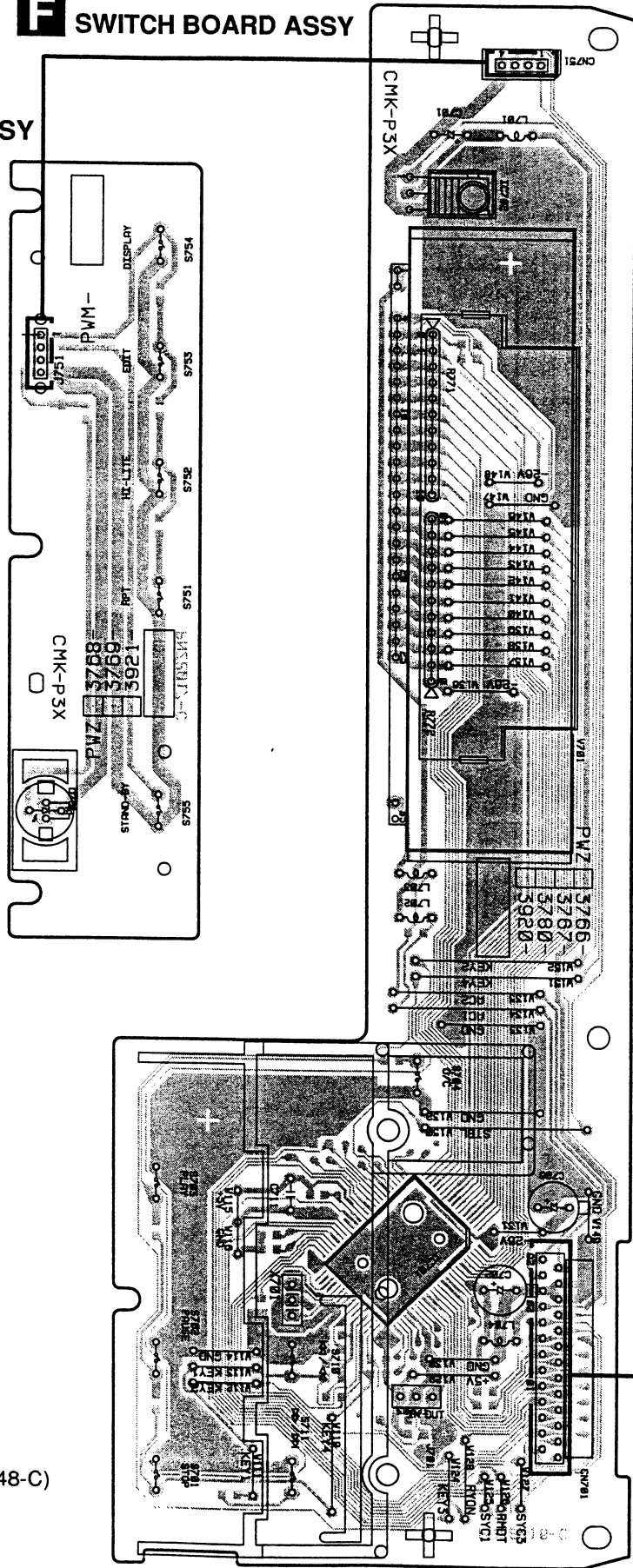
Q55 Q56



4.4 SWITCH BOARD ASSY and MODE BOARD ASSY

SIDE A

F SWITCH BOARD ASSY
G MODE BOARD ASSY



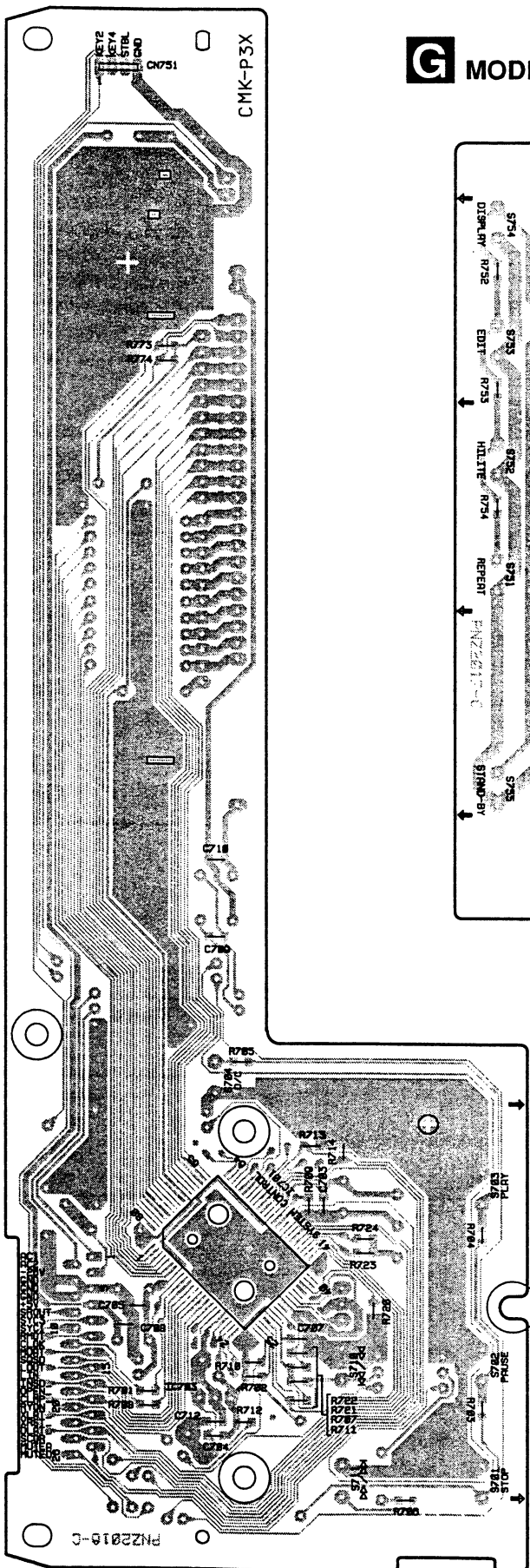
(PNP1448-C)

F SWITCH BOARD ASSY

G MODE BOARD ASSY

IC701

IC703



(PN1448-C)

5. PCB PARTS LIST

- NOTES :**
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The Δ 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.
 - 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 $\begin{matrix} 5 & 6 & 1 \\ \hline \end{matrix} J$
 47k $\Omega \rightarrow 47 \times 10^3 \rightarrow 473$ RD1/4PU $\begin{matrix} 4 & 7 & 3 \\ \hline \end{matrix} J$
 0.5 $\Omega \rightarrow R50$ RN2H $\begin{matrix} R & 5 & 0 \\ \hline \end{matrix} K$
 1 $\Omega \rightarrow 1R0$ RS1P $\begin{matrix} 1 & R & 0 \\ \hline \end{matrix} K$
- 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 $\begin{matrix} 5 & 6 & 2 & 1 \\ \hline \end{matrix} F$

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.		Remarks
		MYXK	MVXK	
NSP	MOTHER BOARD ASSY	PWM2240	PWM2241	MVXK Only
	└ MAIN BOARD ASSY	PWZ3762	PWZ3763	
	└ POWER BOARD ASSY	PWZ3770	PWZ3770	
	└ SWITCH BOARD ASSY	PWZ3766	PWZ3766	
NSP	└ MODE BOARD ASSY	PWZ3768	PWZ3768	
NSP	└ PHONE BOARD ASSY	PWZ3773	PWZ3773	
NSP	└ COAXIAL BOARD ASSY	Not used	PWZ3775	
NSP	LOADING MECHANISM ASSY T96	PXA1604	PXA1604	
	└ SERVO MECHA BOARD ASSY T96	PXA1606	PXA1606	
	└ MECHANISM BOARD ASSY	PWX1192	PWX1192	

■ CONTRAST OF PCB ASSEMBLIES

MAIN BOARD Assy

PWZ3762 and PWZ3763 are constructed the same except for the following:

Mark	Symbol and Description	Part No.		Remarks
		PWZ3762	PWZ3763	
	R 321	RS1/10S102J	RS1/10S471J	
	R 322	RS1/10S0R0J	RS1/10S152J	
	R 323	RS1/10S152J	RS1/10S302J	
	CN 331 (3P JUMPER CONNECTOR)	Not used	52147-0310	

■ PARTS LIST FOR PD-S507/MVXK

Mark	No.	Description	Part No.
------	-----	-------------	----------

MOTHER BOARD ASSY

OTHERS

PC Board (MOTHER)

PNP1448

B MAIN BOARD ASSY

SEMICONDUCTORS

	IC151	CXA1782CQ
	IC301	CXD2507AQ
△	IC33, IC34	ICP-N10
△	IC201	LA6517
△	IC202	LA6520
	IC406	M5218AP
	IC461	NJM2930L05
	IC405	NJM4558D-D
	IC302	NJM4565M
	IC341	PD0236AM
	IC401	PE8001A
△	IC20	PQ05RA1
	Q151	2SA854S
△	Q391	2SC1740S
	Q23	2SC3068
	Q403, Q404	2SD2144S
	Q152, Q22, Q451	DTA124EK
	Q21, Q405, Q452	DTC124EK
	D397, D497, D498	1SS355
	D406- D409	DA204K
	D395	DAP202K
	D1496	S5566G(TPB2)
	D23	UDZS5.6B
	D218	UDZS6.8B

COILS AND FILTERS

	L151, L301 (RADIAL INDUCTOR)	LFA100J
	L303 (RADIAL INDUCTOR)	LFA151J
	L393 (RADIAL INDUCTOR)	LFA1R0J
△	L395, L396 (RADIAL INDUCTOR)	LFA1R0J
	L321 (COIL 0.15mH)	RTF1168
	L21 (Noise filter)	RTF1167

CAPACITORS

	C181	CCSQCH100D50
	C318	CCSQCH101J50
△	C395, C396	CCSQCH101J50
	C407, C408	CCSQCH101J50
	C403	CCSQCH240J50
	C404	CCSQCH300J50
	C410	CEGA470M25
	C23, C414, C415	CEGA4R7M50
	C309	CFTLA474J50
	C163, C401	CKSQYB102K50
	C156, C159, C161, C164, C168	CKSQYB103K50
	C191, C192, C308	CKSQYB103K50
	C153- C155, C158, C320	CKSQYB104K25
	C176, C218, C306	CKSQYB152K50
	C221, C222	CKSQYB182K50
	C315	CKSQYB221K50
	C162	CKSQYB332K50
	C160	CKSQYB333K50
	C167	CKSQYB472K50

Mark	No.	Description	Part No.
------	-----	-------------	----------

	C152, C307	CKSQYB473K50
	C151	CKSQYB682K50
	C157	CKSQYB823K25
	C172, C185, C205, C210, C215	CKSQYF103Z50
	C219, C24, C305, C316, C325	CKSQYF103Z50
	C343, C344, C409, C421	CKSQYF103Z50
	C22, C28, C310- C312, C321	CKSQYF104Z25
	C342, C412, C413, C416, C417	CKSQYF104Z25
	C351	CKSQYF473Z50
△	C175, C301, C302	CQMA154Z50
	C441, C442	CQMA102J50
△	C497, C498	CQMA103J50
	C435- C440	CQMA152J50
	C25, C26 (4700μF/16V)	PCH1119
	C303, C341, C411(1000μF/16V)	PCH1122
	C429, C430 (47μF/50V)	PCH1124
	C171, C432, C433 (100μF/50V)	PCH1126
	C169, C170, C474, C475 (4.7μF/50V)	PCH1127
	C131, C200, C201, C211, C212 (220μF/25V)	PCH1128
	C216, C217, C27, C322, C444 (220μF/25V)	PCH1128
	C446, C461, C496 (220μF/25V)	PCH1128

RESISTORS

	R496	RD1/2VM152J
	R163, R164, R470, R471	RD1/4VM470J
	R1447- R1450	RD1/4VM471J
	R451, R452	RDR1/2PM101J
	R433- R436	RN1/10SE1002D
	R431, R432	RN1/10SE2702D
	VR153, VR155 (10kΩ- B)	VCP1156
	VR151, VR152, VR154 (22kΩ- B)	VCP1158
	VR156 (220kΩ- B)	VCP1164
	Other Resistors	RS1/10S□□□J

OTHERS

CN202	MT 4P CONNECTOR	173981-4
CN205	MT 5P CONNECTOR	173981-5
CN331	3P JUMPER CONNECTOR	52147-0310
CN501	4P JUMPER CONNECTOR	52147-0410
CN351	26P FFC CONNECTOR	HLEM26S-1
JA321	OPTICAL LINK OUT	GP1F32T
CN11	7P JUMPER CONNECTOR	KPD7
JA401	2P JACK	PKB1O23
JA393	JACK	PKN1O05
X401	XTAL RES (16.9344 MHz)	PSS1O08
CN201	CONNECTOR 6P	RKP533
CN131	CONNECTOR	SLW16S-1C7
	PCB BINDER	VEF1O40

E POWER BOARD ASSY

SEMICONDUCTORS

△	Q51	2SC1815
△	Q52, Q53	2SC3068
	Q54	2SC3068
	Q55, Q56	DTC124EK
	D56	1SS355
△	D11- D14, D52	S5566G(TPB2)
	D53	UDZS5.6B
	D54, D55	UDZS6.2B
	D57	UDZS6.8B

PD-S507

Mark	No.	Description	Part No.
------	-----	-------------	----------

COILS AND FILTERS

	L1110 (FERRITE BEADS)	PTH1014
	L1108 (FERRITE BEADS)	PTH1016

CAPACITORS

	C53	CEGA4R7M50
	C18, C19	CEZA2R2M50
	C51	CEZA470M25
	C34	CKSQYF103Z50
△	C11, C15- C17	CKSQYF473Z50

	C1012, C1020	CQ MBA103J50
	C52 (100 μF/50V)	PCH1126

RESISTORS

	R52, R53	RD1/2VM102J
	R15	RD1/4VM100J
	Other Resistors	RS1/10S□□□J

OTHERS

△	TP52	1P TERMINAL	RKC-059
		TERMINAL	RKC-061
		PCB BINDER	VEF1040
	J11	7P CABLE HOLDER	51052- 0700
		7P JUMPER WIRE	DYY07-200-2651

F SWITCH BOARD ASSY

SEMICONDUCTORS

	IC701	PD4998B
	IC703	PST572E

COILS AND FILTERS

	L701	LFA100J
	L704	LFA151J
	L702, L703	LFA1R0J

SWITCHES

	S701-S704, S710, S711	ASG1034
--	-----------------------	---------

CAPACITORS

	C711	CFTLA104J50
	C701, C706	CFTLA274J50
	C703-C705, C707-C710	CKSQYF103Z25
	C702 (220 μF/25V)	PCH1128

RESISTORS

	All Resistors	RS1/10S□□□J
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OTHERS

	CN751	4P JUMPER CONNECTOR	52151-0410
		REMOTE RECEIVER UNIT	GP1U27X
	CN701	26P FFC CONNECTOR	HLEM26R-1
	V701	FL INDICATOR TUBE	PEL1085
	X701	CERAMIC RESONA(4.19 MHz)	VSS1028

G MODE BOARD ASSY

SEMICONDUCTORS

	D751	LED (RED)	PCX1019
--	------	-----------	---------

SWITCHES

	S751-S755	ASG1034
--	-----------	---------

Mark	No.	Description	Part No.
------	-----	-------------	----------

RESISTORS

	All Resistors	RS1/10S□□□J
--	---------------	-------------

OTHERS

	J751	4P CABLE HOLDER	51048-0400
		4P JUMPER WIRE	D20PDY0410E

C PHONE BOARD ASSY

COILS AND FILTERS

△	L502, L503	(Coil 1μH)	LFA1R0J
△	L504	(Noise filter)	RTF1167

CAPACITORS

△	C501	CKSQYF103Z25
---	------	--------------

RESISTORS

	VR501 (500Ω-B)	RCV1123
--	----------------	---------

OTHERS

	J501	4P CABLE HOLDER	51048-0400
	JA501	4P JUMPER WIRE	D20PDY0406B
		JACK	RKN1002

A MECHANISM BOARD ASSY

SWITCHES

	S610	DSG1016
--	------	---------

OTHERS

	CN610	MT CONNECTOR 4P	173979-4
--	-------	-----------------	----------

D COAXIAL BOARD ASSY

SEMICONDUCTORS

	IC331	TC74HC04F
--	-------	-----------

COILS AND FILTERS

	L334 (COIL)	PTL1003
--	-------------	---------

CAPACITORS

△	C335	CEAT470M25
	C339	CKSQYF103Z50
	C334, C336	CKSQYF104Z25
	C333 (220 μF/25V)	PCH1128

RESISTORS

	All Resistors	RS1/10S□□□J
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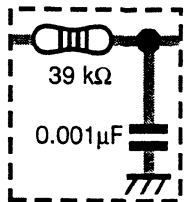


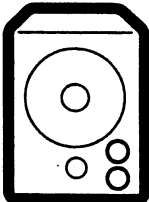
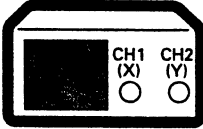
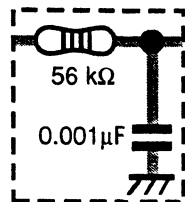
OTHERS

	J331	3P CABLE HOLDER	510480300
	JA331	3P JUMPER WIRE	D20PDY0310E
		1P JACK	RKB1119


6. ADJUSTMENT

6.1 PREPARATIONS

6.1.1 Jigs and Measuring Instruments

 CD TEST DISC (YEDS-7)	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)	 ⊕ screwdriver (large)	 Low pass filter ① (39 kΩ + 0.001μF)
 ⊖ Precise screwdriver	 Ball point hexagon wrench (size: 1.5mm) GGK1002	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter ② (56 kΩ + 0.001μF)

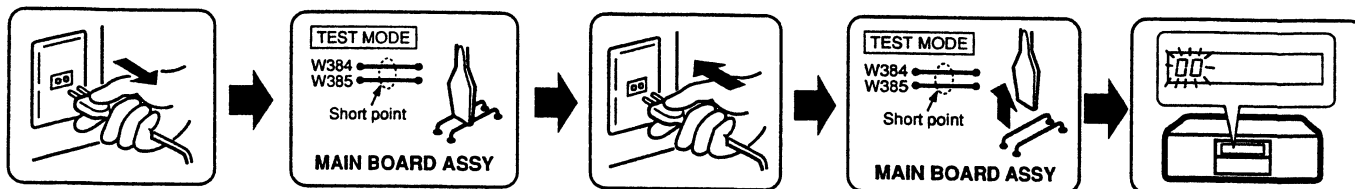
6.1.2 Necessary Adjustment Points

When	Adjustment points
Exchange PICKUP	1.2.3.4.5.6.7. 8.9.10.11.12 → Page 29 - 34
Exchange MAIN BOARD ASSY	1.3.5.6.7.8. 9.10.11.12 → Page 29 - 34
Exchange SERVO MECH ASSY	1.2.3.4.5.6.7. 8.9.10.11.12 → Page 29 - 34
Exchange SPINDLE MOTOR	 ADJ → Page 8

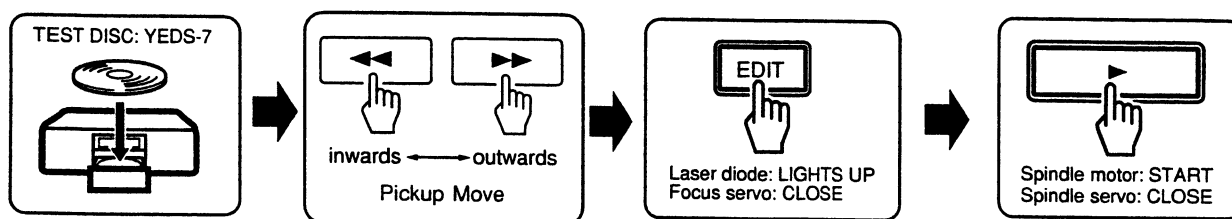
6.2 ADJUSTMENT

6.2.1 How to Start/Cancel Test Mode

TEST MODE : ON



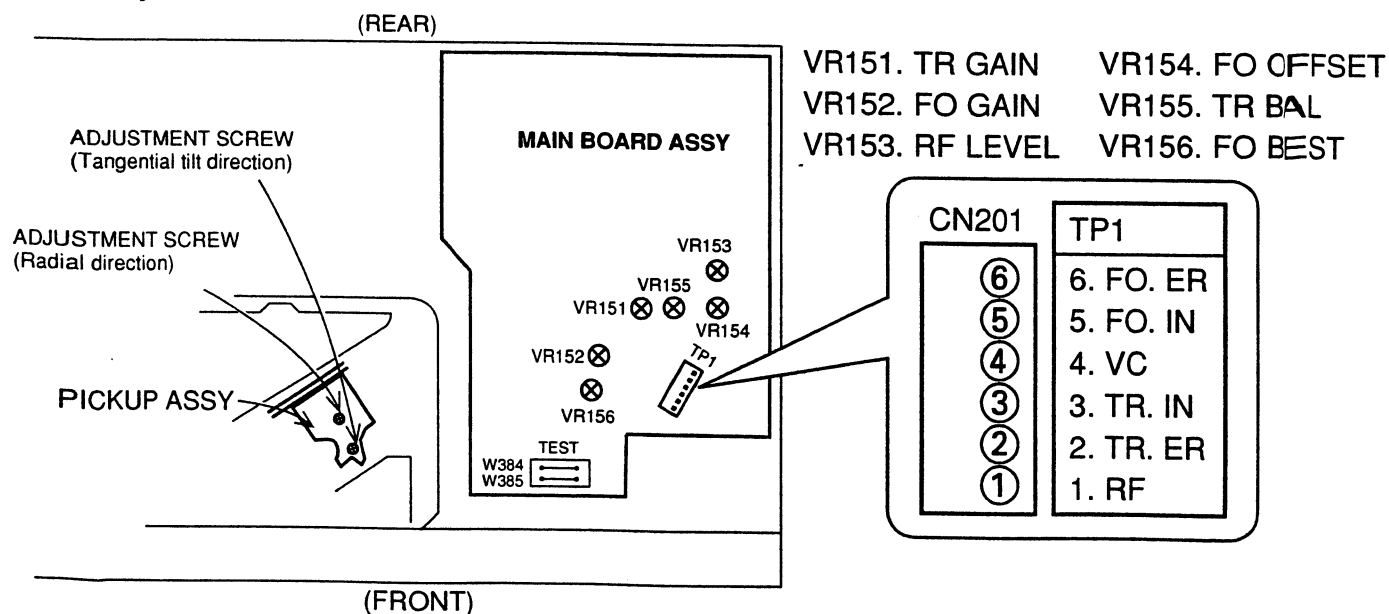
TEST MODE : PLAY



TEST MODE : STOP → CANCEL

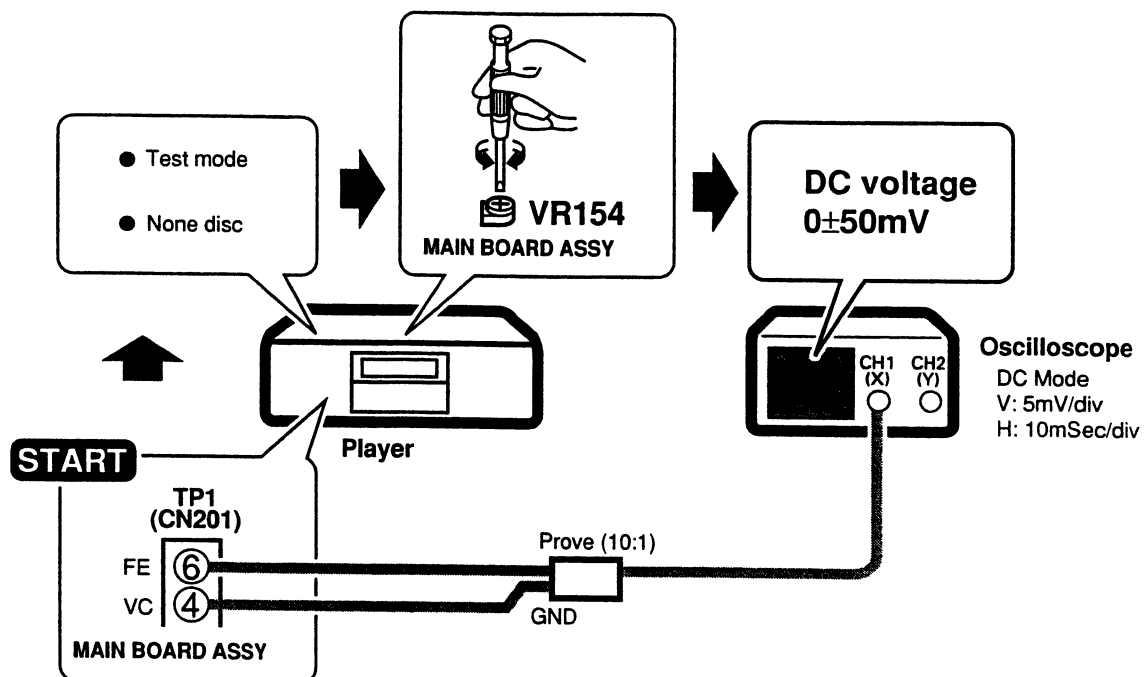


6.2.2 Adjustment Location

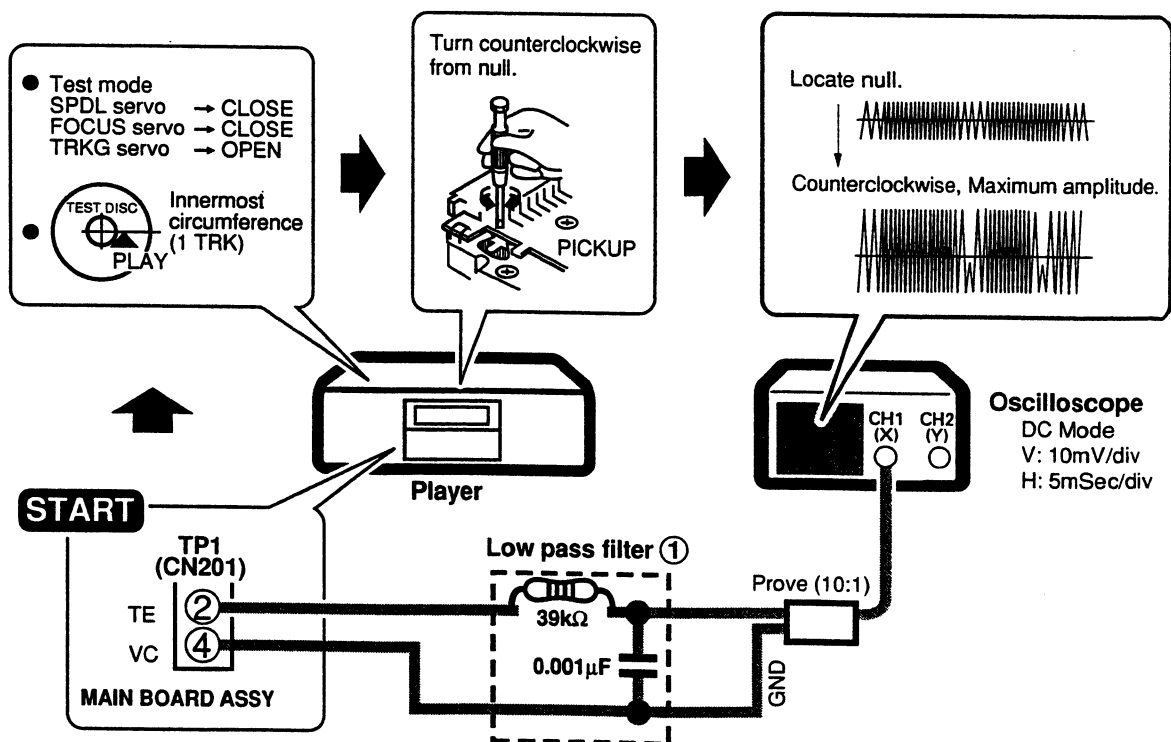


6.2.3 Check and Adjustment

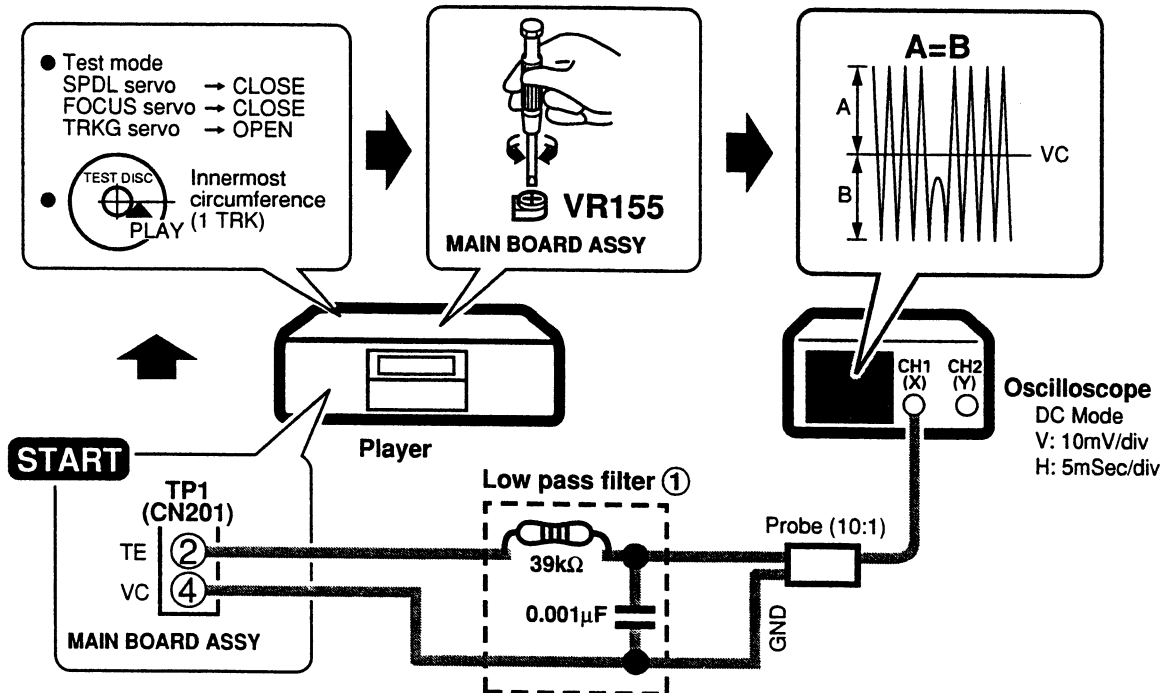
1. Focus Offset Adjustment



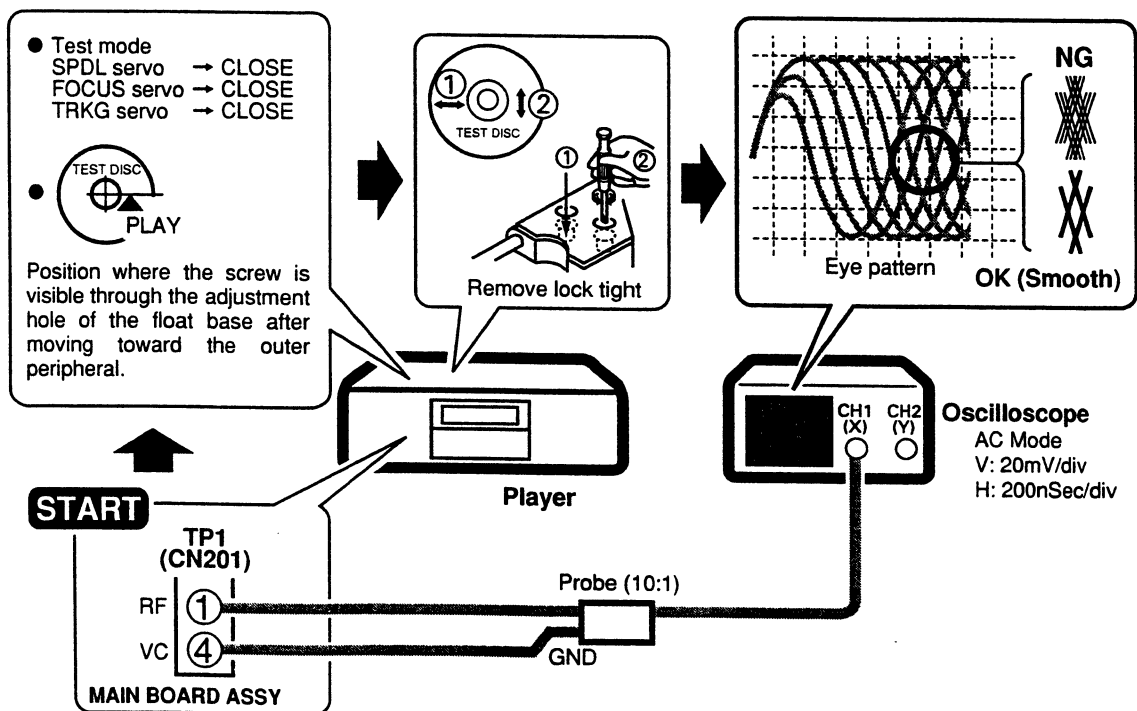
2. Grating Adjustment



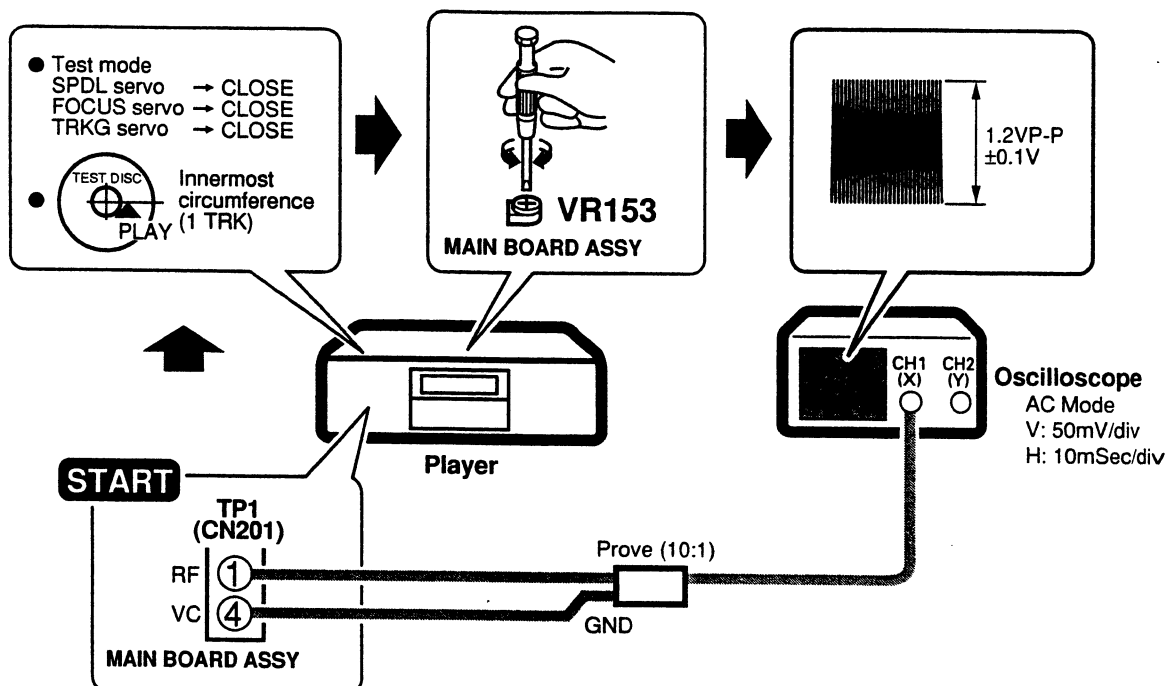
3. Tracking Error Barance Adjustment



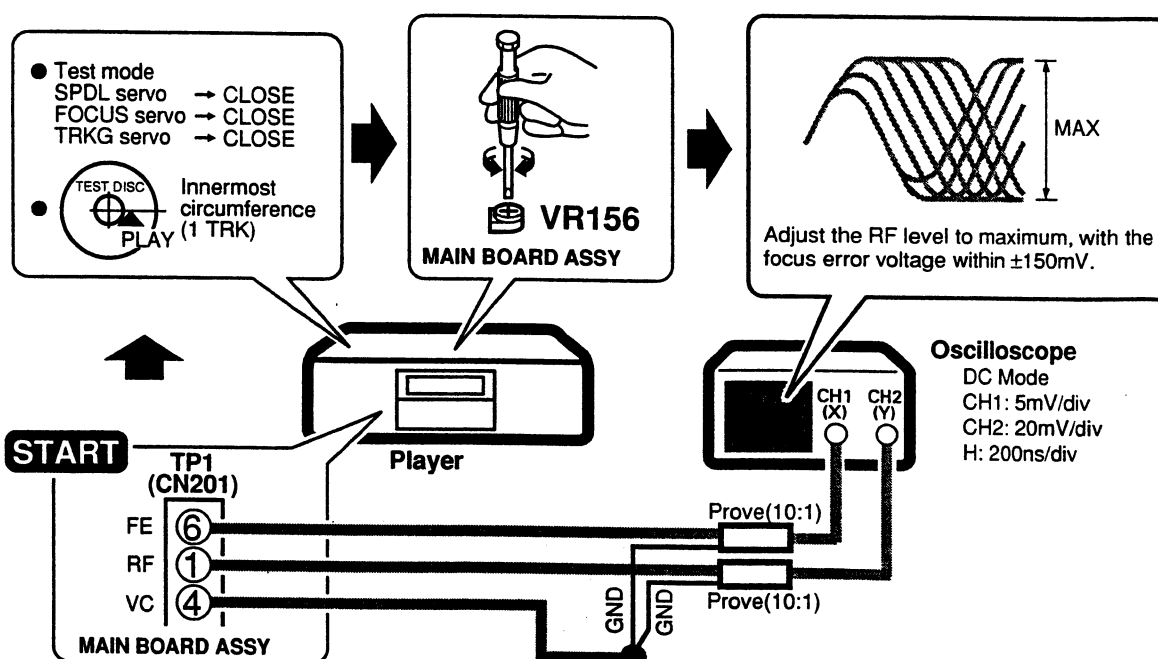
4. Pickup ①Radial/ ②Tangential Direction Tilt Adjustment



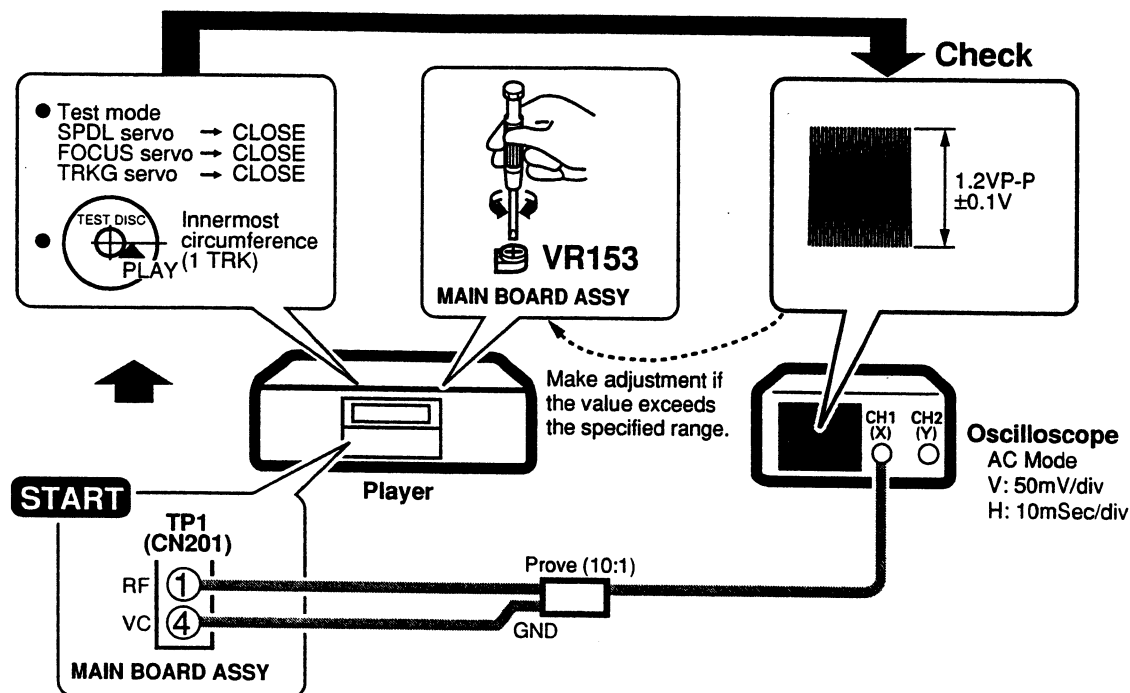
5. RF Level Adjustment I



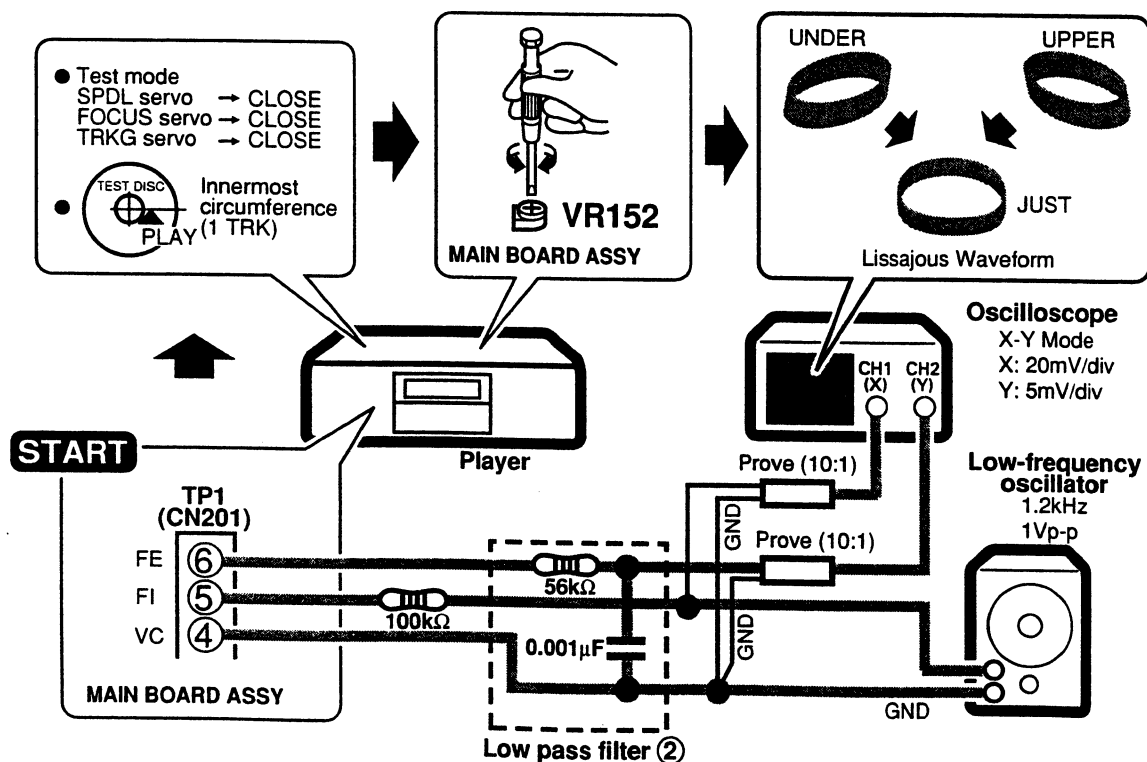
6. Focus Best Adjustment I



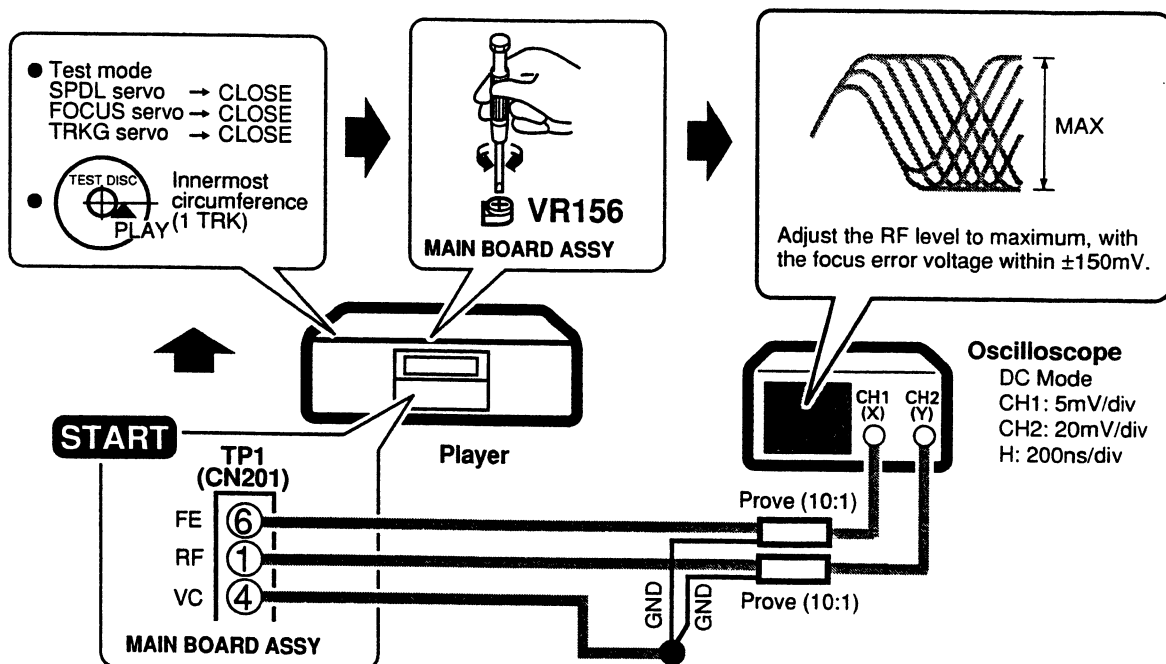
7. RF Level Adjustment II



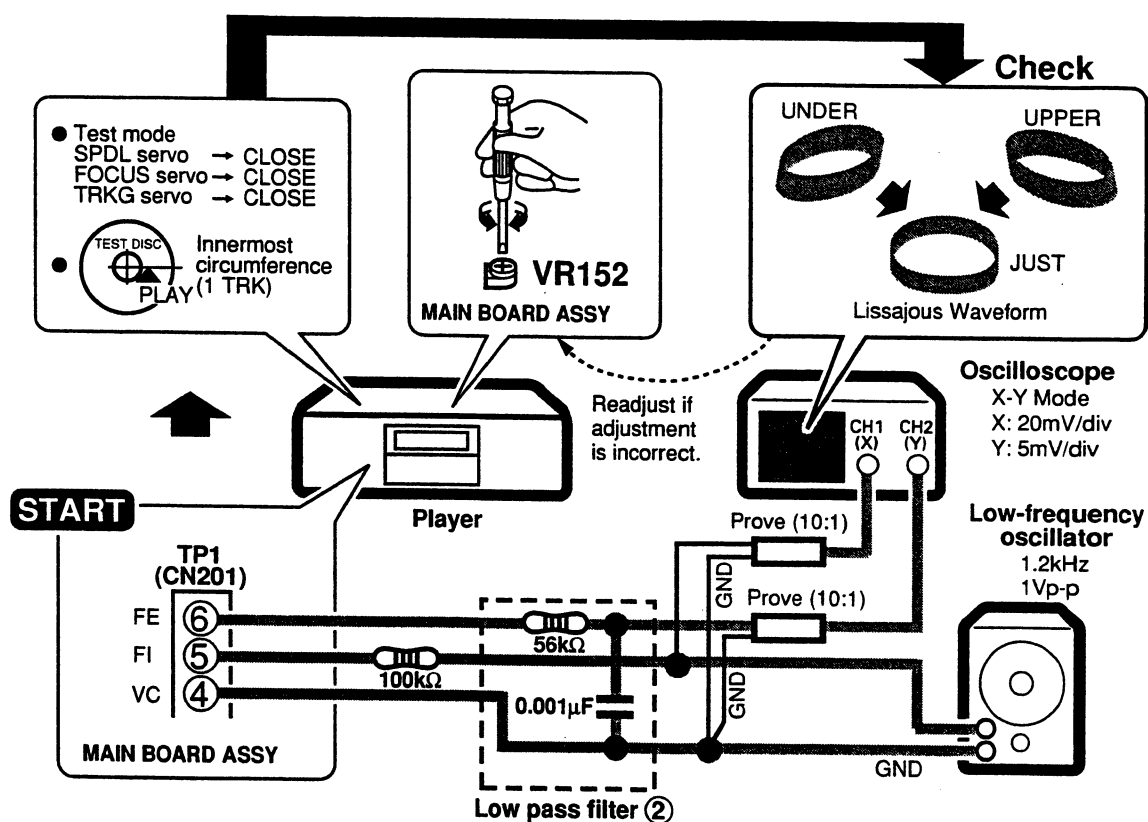
8. Focus Servo Loop Gain Adjustment I



9. Focus Best Adjustment II

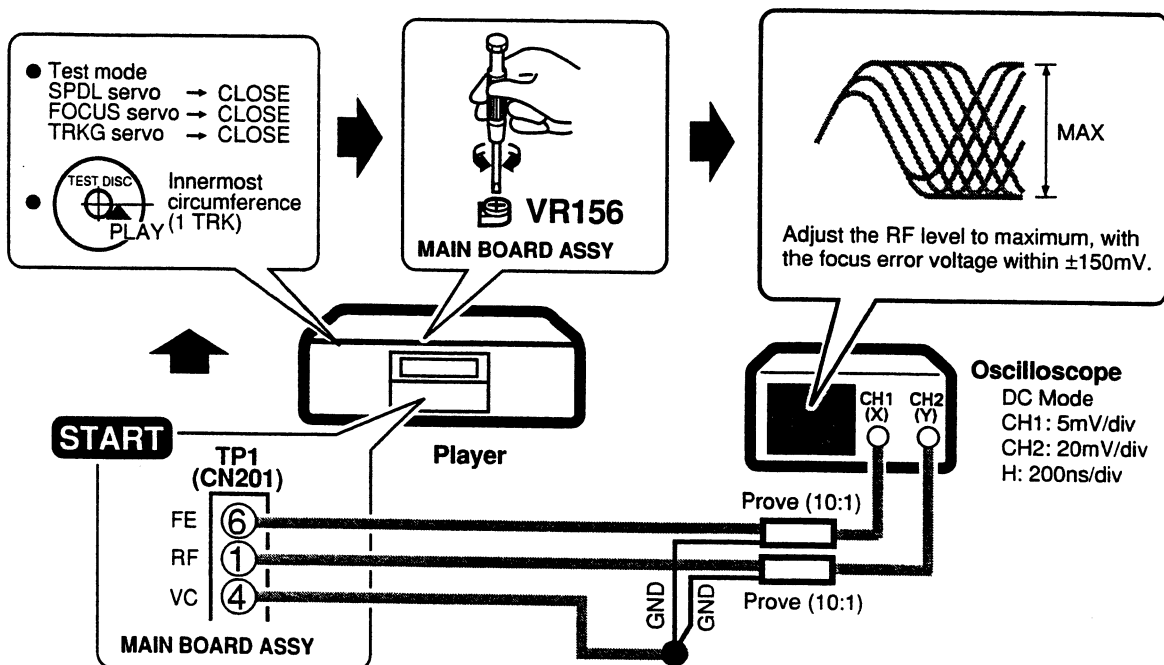


10. Focus Servo Loop Gain Adjustment II

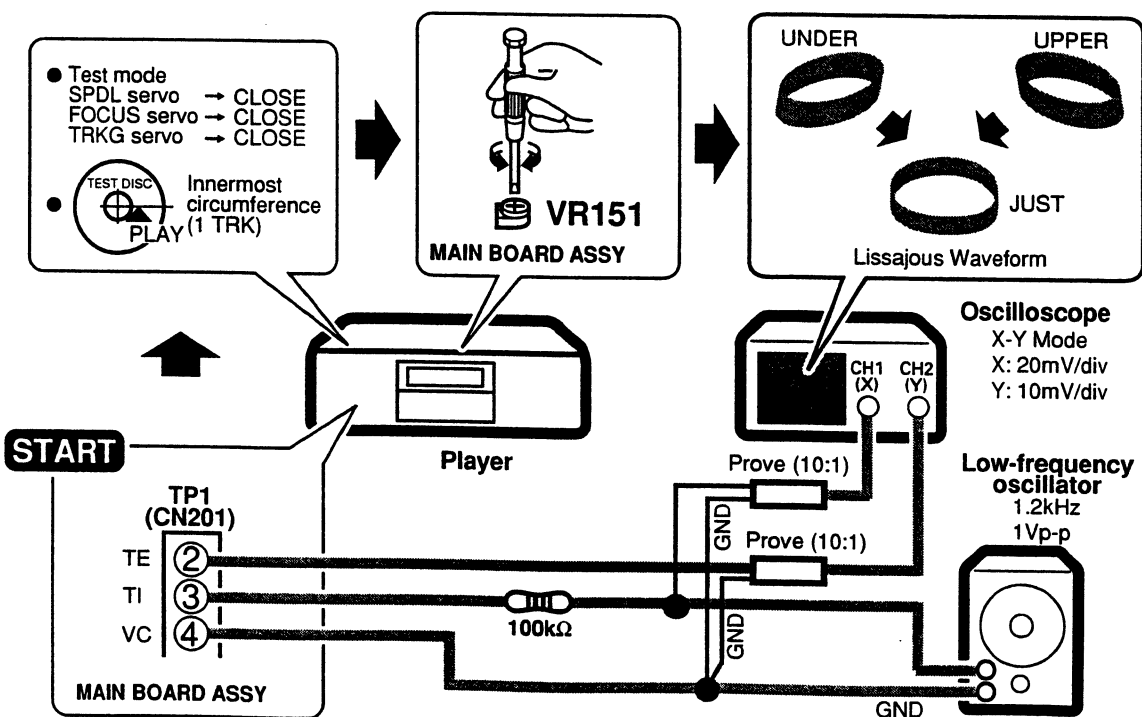


11. Focus Best Adjustment III

Adjust this point only if adjustment was made in item 10.



12. Tracking Servo Loop Gain Adjustment



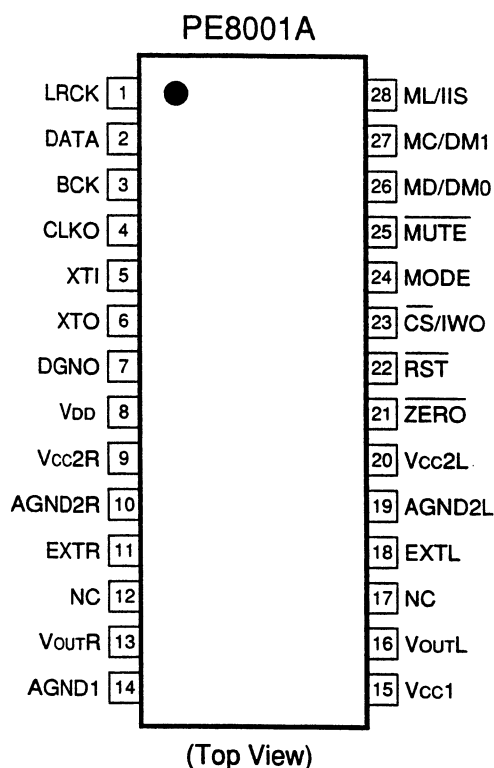
7. GENERAL INFORMATION

7.1 IC

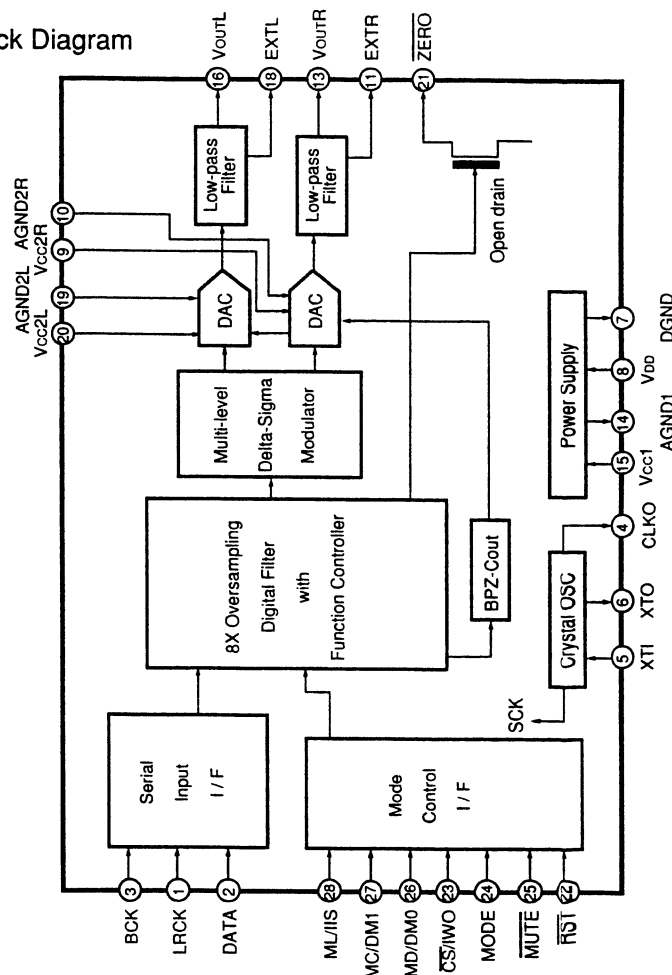
■ PE8001A (IC401: MAIN BOARD ASSY)

■ D/A CONVERTER IC

- Pin Arrangement



- Block Diagram



- ### ● Pin Function

No.	Name	I/O	Description
1	LRCK	I	LRCK Clock Input (fs)
2	DATA	I	Serial Audio Data Input
3	BCK	I	Data bit clock Input
4	CLKO	O	Buffer output of System clock.
5	XTI	I	Oscillator Input / External clock Input
6	XTO	O	Oscillator Output
7	DGND	–	Digital GND
8	VDD	–	+5V Digital Power Supply
9	Vcc2R	–	+5V Analog Power Supply
10	AGND2R	–	Analog GND
11	EXTR	O	Rch, Common Pin of Analog output Amp.
12	NC	–	Not connect
13	VoutR	O	Rch, Analog Voltage output of Audio signal
14	AGND1	–	Analog GND

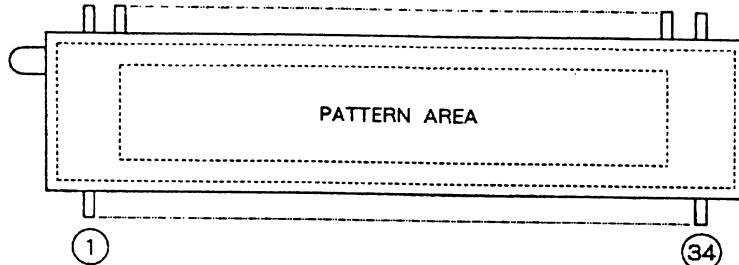
No.	Name	I/O	Description
15	Vcc1	–	+5V Analog Power Supply
16	VoutL	O	Lch, Common Pin of Analog output Amp.
17	NC	–	Not connect
18	EXTL	O	Lch, Analog Voltage output of Audio signal
19	AGND2L	–	Analog GND
20	Vcc2L	–	+5V Analog Power Supply
21	ZERO	O	Zerodata. flag
22	RST	I	Reset. "L" at reset DF and modulator
23	CS/IWO	I	Chip select / Input format. select
24	MODE	I	Mode control select (H: Software, L: Hardware)
25	MUTE	I	Mute control
26	MD/DM0	I	Mode control data / De-emphasis selection
27	MC/DM1	I	Mode control BCK / De-emphasis selection
28	ML/IIS	I	Mode control WDEK / Input format selection

7.2 DISPLAY

■ PEL1085 (V701: SWITCH BOARD ASSY)

■ FL INDICATOR TUBE

● Pin Assignment



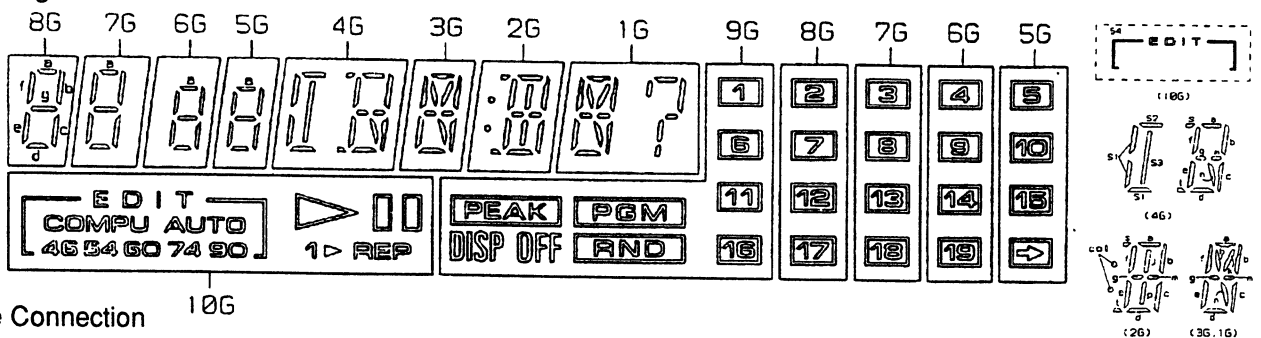
NOTE

- 1) F1, F2.....Filament
- 2) NP.....No pin
- 3) NX.....No extend pin
- 4) DL.....Datum Line
- 5) 1G - 10G.....Grid

● Pin Connection

PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
CONNECTION	F	F	N	P	P	P	P	P	P	P	P	P	P	P	1	0	9	8	7	6	5	4	3	2	1	N	N	N	N	N	N	N	N	F
	1	2	P	1	2	3	4	5	6	7	8	9	0	1	2	G	G	G	G	G	G	G	G	G	G	X	X	X	X	X	X	P	X	2

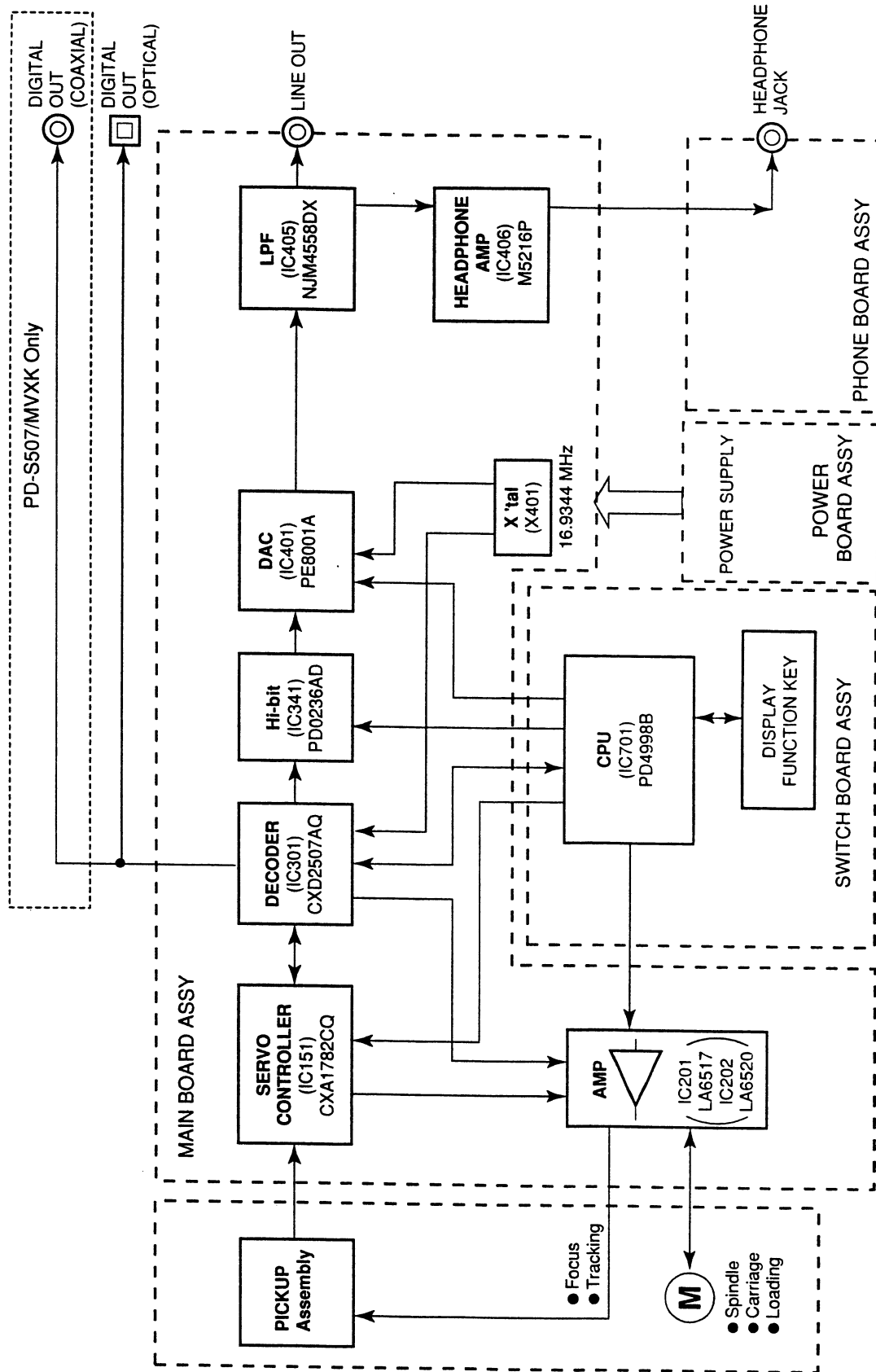
● Grid Assignment



● Anode Connection

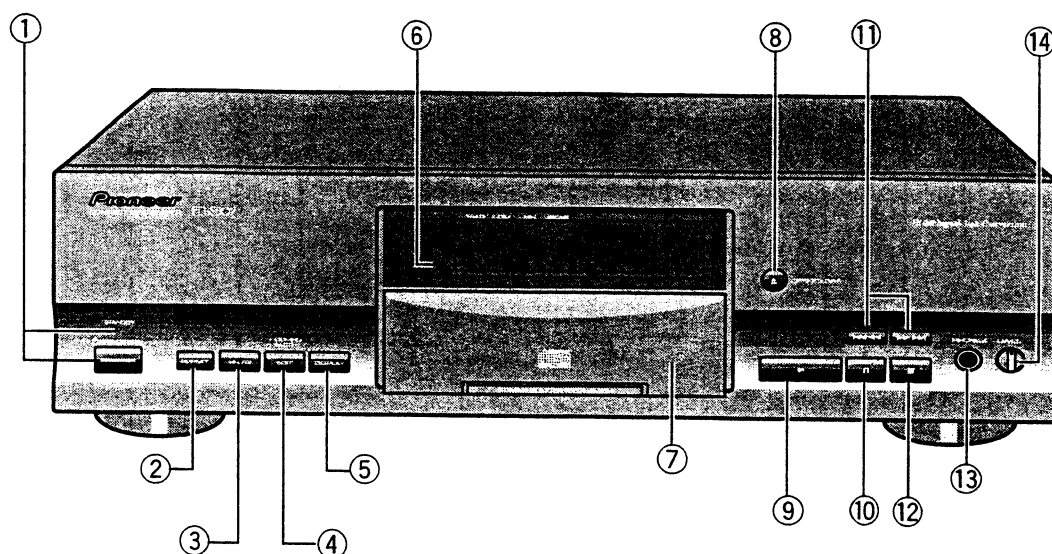
	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	4G	RND	e	e	e	e	e	e	e	e
P2	5G	PGM	f	f	f	f	f	f	f	f
P3	6G	PEAK	g	g	g	g	g, m	g, m	g, m	g
P4	1▷	DISP OFF	-	-	-	-	s, t	-	s, t	m
P5	7G	-	a	a	a	a	a	a	a	a
P6	8G	-	b	b	b	b	b	b	b	b
P7	AUTO	-	c	c	c	c	c	c	c	c
P8	COMPU	-	d	d	d	d	d	d	d	d
P9	S4	1	2	3	4	5	S2	h	col	h
P10	▷	6	7	8	9	10	S3	k	j, p	k
P11	□□	11	12	13	14	15	n	n	-	n
P12	REP	16	17	18	19	20	S1	-	-	?

7.3 BLOCK DIAGRAM



8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES



FRONT PANEL

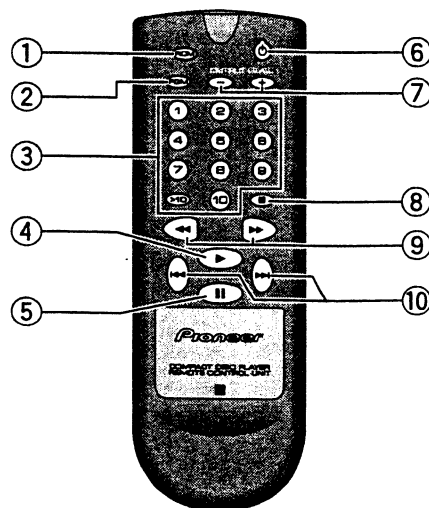
PD-S507 FRONT PANEL

- ① **⏻ STANDBY/ON switch and STANDBY indicator**
- ② **REPEAT button**
- ③ **HI-LITE button**
- ④ **COMPU/AUTO EDIT button**
(• COMPU/• AUTO)
- ⑤ **DISPLAY button**
- ⑥ **Remote sensor**
Receives the signal from the remote control unit.
- ⑦ **Disc tray**
- ⑧ **OPEN/CLOSE button (⏏)**
- ⑨ **Play button (▶)**
- ⑩ **Pause button (⏏)**
- ⑪ **Track/Manual search buttons**
(◀◀◀/▶▶▶)
- ⑫ **Stop button (■)**
- ⑬ **Headphones jack**
- ⑭ **Headphones volume control (LEVEL)**

REMOTE CONTROL UNIT

Remote control buttons with the same names or marks as buttons on the front panel of the player control the same operations as the corresponding front panel buttons.

- ① **Random play button (RDM)**
- ② **Program button (PGM)**
- ③ **Track number/Digit buttons**
(1 - 10, >10)
- ④ **Play button (▶)**
- ⑤ **Pause button (⏏)**
- ⑥ **Power standby/on button (⏻)**
- ⑦ **OUTPUT LEVEL buttons (-/+)**
- ⑧ **Stop button (■)**
- ⑨ **Manual search buttons (◀◀ / ▶▶)**
- ⑩ **Track search buttons (◀◀◀ / ▶▶▶)**



REMOTE CONTROL UNIT

■ SPECIFICATIONS

1. General

Type	Compact disc digital audio system
Power requirements	AC 220 - 230 V, 50/60 Hz
Power consumption	13 W
Power consumption in standby mode	3 W
Operating temperature	+5°C - +35°C
Weight	3.8 kg
External dimensions	420 (W) X 283 (D) X 112 (H) mm

2. Audio section

Frequency response	2 Hz - 20 kHz
S/N ratio	110 dB or more (EIAJ)
Dynamic range	99 dB or more (EIAJ)
Harmonic distortion	0.002% or less (EIAJ)
Output voltage	2.0 V
Wow and flutter	Limit of measurement (±0.001% W.PEAK) or less (EIAJ)
Channels	2-channel (stereo)

3. Output terminal

Audio line output jacks
 CD-DECK SYNCHRO jack
 Optical digital output jack
 Coaxial digital output jack (MVXK model only)
 Headphone jack (with volume control)

4. Accessories

• Remote control unit	1
• Size AAA/R03 dry cell batteries	2
• Output cable	1
• Operating instructions	1

NOTE:

Specifications and design subject to possible modification without notice, due to improvements.

