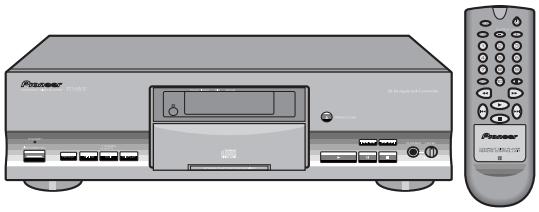
Service Manual



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	

CONTENTS

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE, INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER ELECTRONIC (EUROPE) N.V. Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 501 Orchard Road, #10-00 Wheelock Place, Singapore 238880

T–ZZR OCT. 1998 Printed in Japan

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.

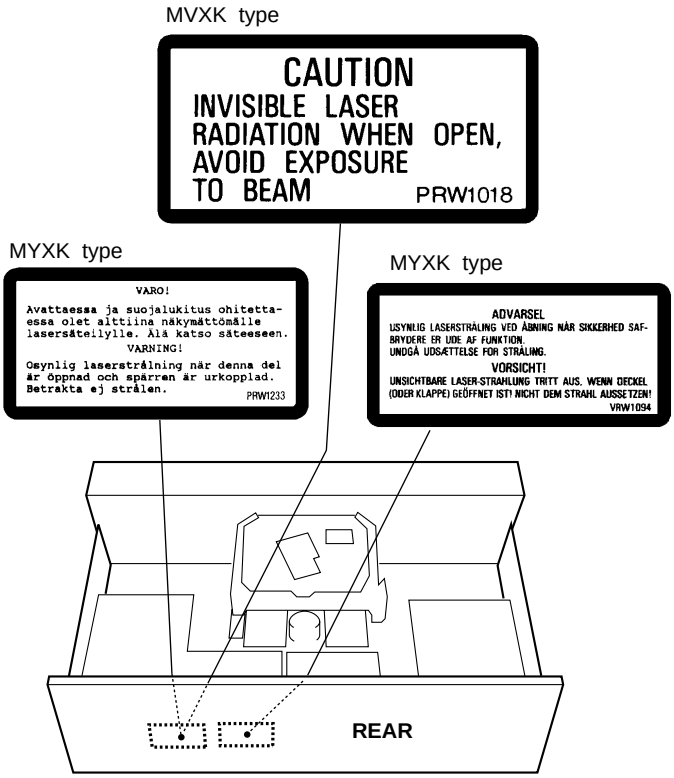
IMPORTANT

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: 5 mw
WAVELENGTH: 780 – 785 nm

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(LDON) is connected to low level (ON), or else the terminals of Q151 are shorted to each other (fault condition).

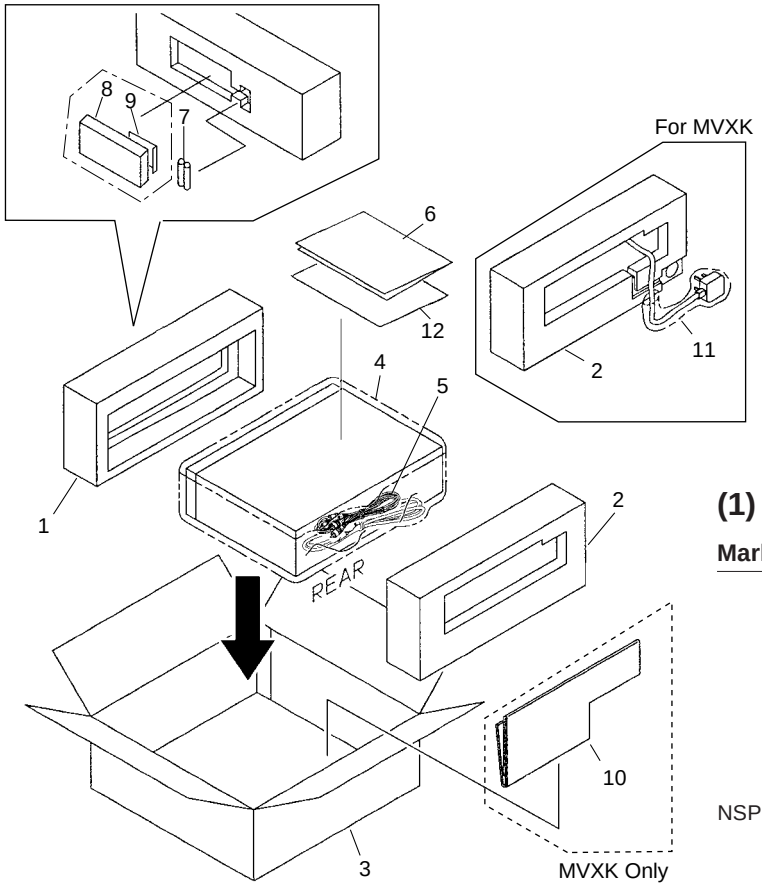
2. When the cover is opened with the servo mechanism block removed and turned over, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

* *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 ⚠ 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

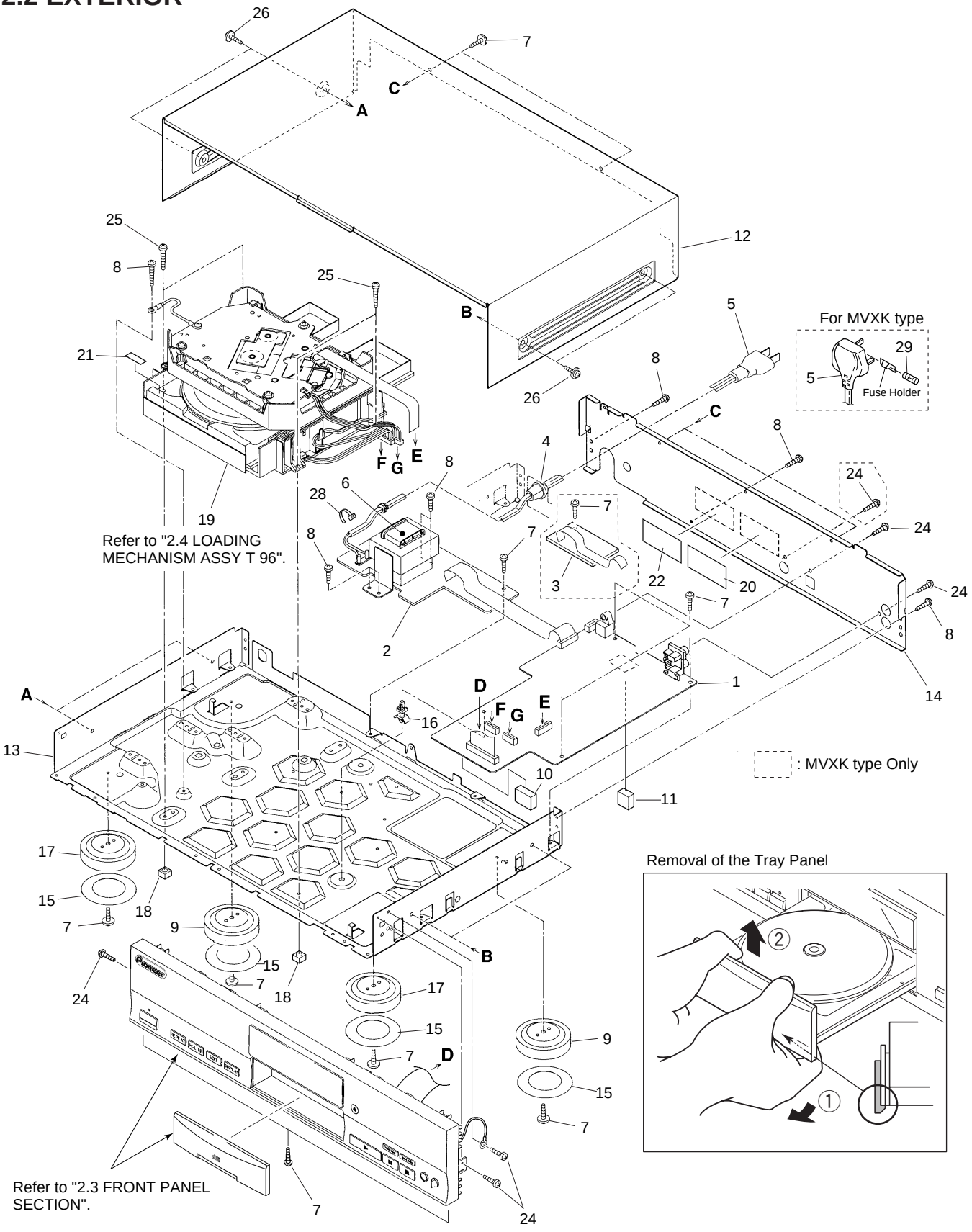
Mark	No.	Description	Part No.
	1	Protector F	PHA1329
	2	Protector R	See Contrast table (2)
	3	Packing Case	See Contrast table (2)
	4	Packing Sheet (750 × 600 × 0.5)	Z23–007
	5	Output Cable (L=1.2m)	PDE1248
	6	Operating Instructions	See Contrast table (2)
NSP	7	Batteris (R03, AAA)	VEM–022
	8	Remote Control 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	ARY7022

(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	
	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


For MVXK type
Fuse Holder
Refer to "2.4 LOADING MECHANISM ASSY T 96".
: MVXK type Only
Removal of the Tray Panel
Refer to "2.3 FRONT PANEL SECTION".

(1) EXTERIOR PARTS LIST

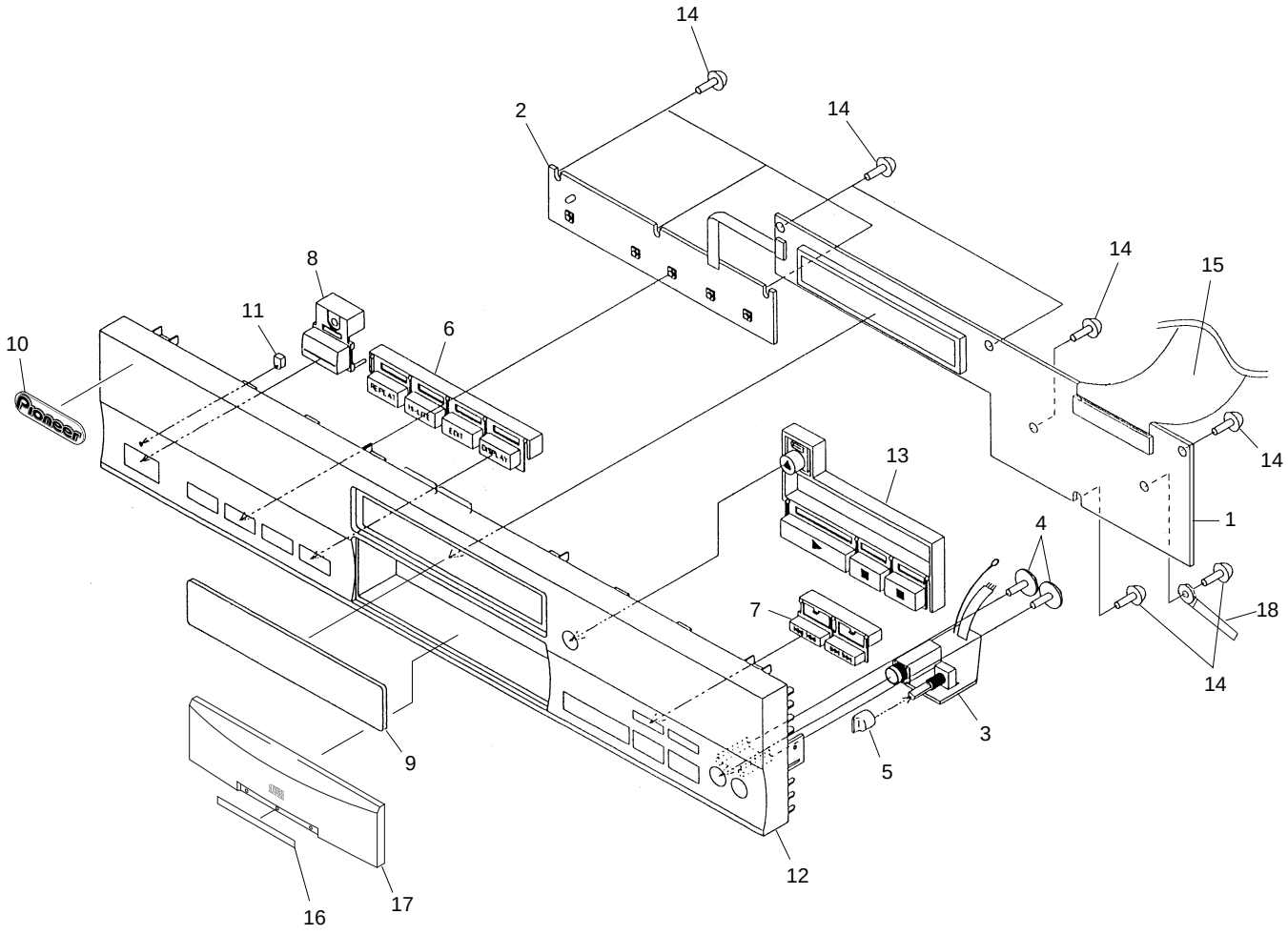
Mark	No.	Description	Part No.
	1	MAIN BOARD ASSY	See Contrast table (2)
	2	POWER BOARD ASSY	PWZ3770
	3	COAXIAL OUTPUT BOARD ASSY	See Contrast table (2)
⚠	4	Strain Relief	CM–22B
⚠	5	AC Power Cord	See Contrast table (2)
⚠	6	Power Transformer	PTT1236
	7	Screw	ABA1011
	8	Screw (3 × 6)	ABA1207
	9	Insulator	AMR7198
	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)
	21	Caution Label	PRW1244
	22	Caution Label	See Contrast table (2)
	23	.....	
	24	Screw	BBZ30P080FCC
	25	Screw	BSZ30P070FMC
	26	Screw	FBT40 P080FZK
	27	.....	
	28	Binder (SKB–90BK)	ZCA–SKB90BK
⚠	29	Fuse (5A)	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	

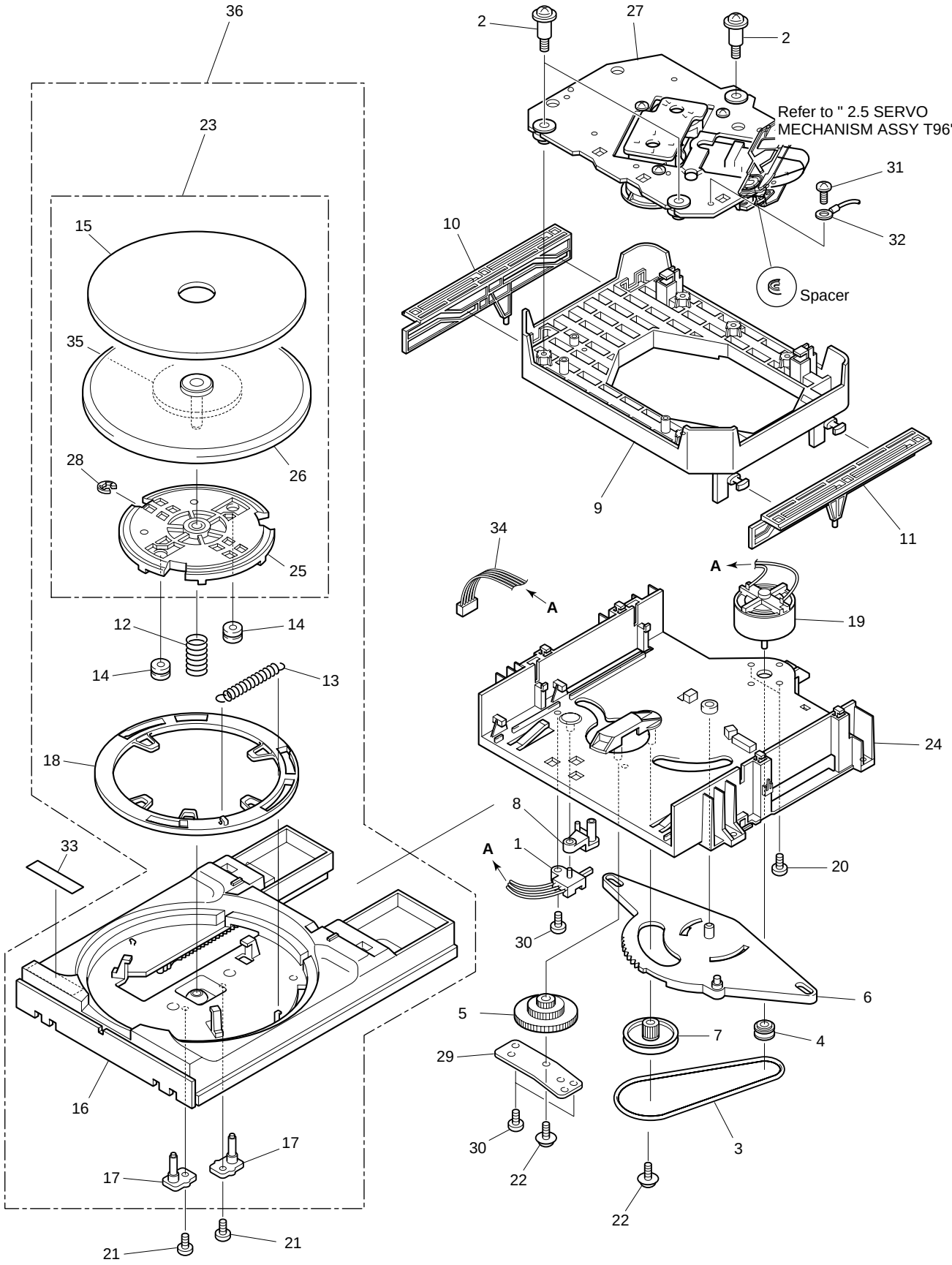
2.3 FRONT PANEL SECTION



■ FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	SWITCH BOARD ASSY	PWZ3766
	2	MODE BOARD ASSY	PWZ3768
	3	HEADPHONE BOARD ASSY	PWZ3773
	4	Screw (FE)	ABA7009
	5	HEADPHONE Knob	PAC1707
	6	MODE Button	PAC1887
	7	MANUAL Button	PAC1889
	8	POWER Knob	PAC1891
	9	Display Window	PAM1759
	10	Name Plate	PAM1776
	11	LED Lens	PNW2019
	12	Function Panel	PNW2807
	13	PLAY Button B	RAC2204
	14	Screw	PPZ30P080FMC
	15	26P FFC/30V	PDD1142
NSP	16	Tray Badge	PAN1358
	17	Tray Name Plate	PNW2806
	18	Cord Clamper	RNH–184

2.4 LOADING MECHANISM ASSY T96



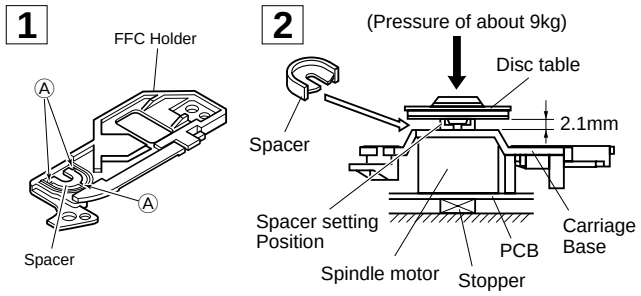
■ LOADING MECHANISM ASSY T96 PARTS LIST

Mark	No.	Description	Parts No.
	1	Lever Switch (S601)	DSK1003
	2	Float Screw	PBA1027
	3	Rubber Belt	PEB1186
	4	Motor Pulley	PNW1634
	5	Drive Gear	PNW1996
	6	Synchronized Lever	PNW2168
	7	Gear Pulley	PNW1998
	8	SW Head	PNW1999
	9	Float Base	PNW2767
	10	Left Cam	PNW2001
	11	Right Cam	PNW2002
	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
	26	Turn Table	PNR1044
NSP	27	Servo Mechanism Assy T96	PXA1606
	28	E Ring	YE20FUC
	29	Shaft Holder	PNB1382
	30	Screw	BPZ26P060FMC
	31	Screw	BBZ26P060FMC
NSP	32	Earth Lead	DE010VF0
	33	Caution Label	PRW1244
	34	Connector Assy 5P	PDE1243
NSP	35	Table Base	PXA1382
NSP	36	Tray Assy TT	PXA1449

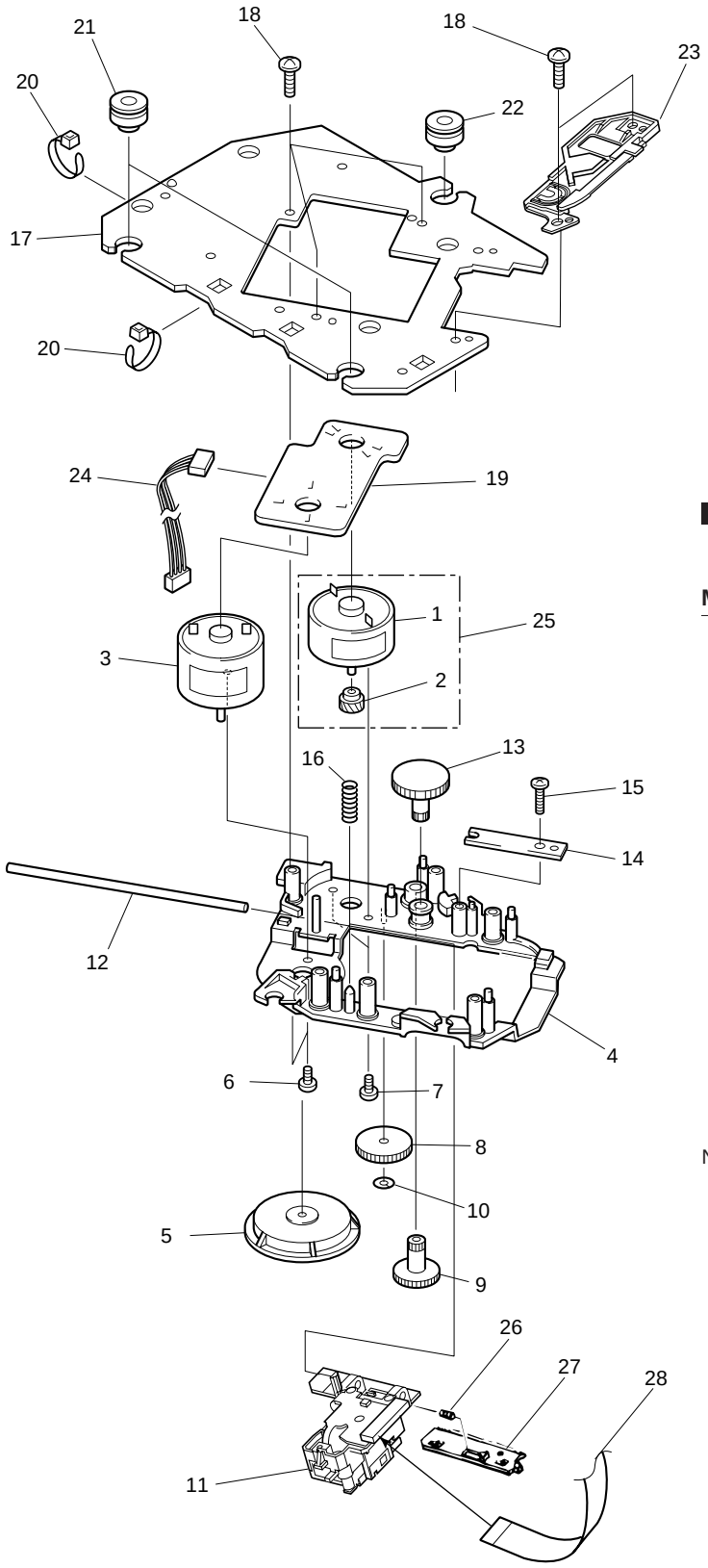
● How to Install the Disc Table

1 Use nipper or other tool to cut the three sections marked Ⓐ 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



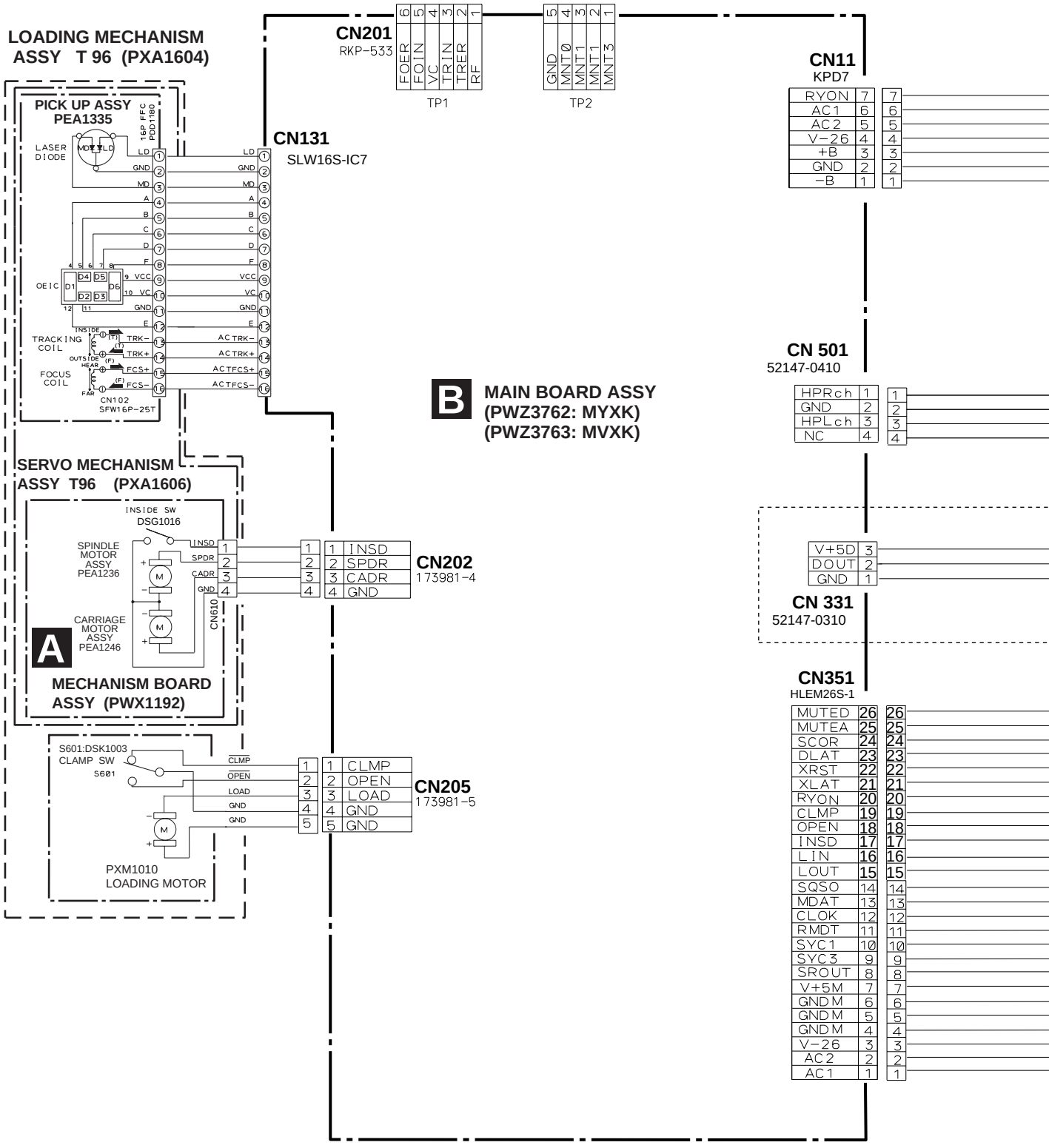
■ SERVO MECHANISM ASSY T96 PARTS LIST

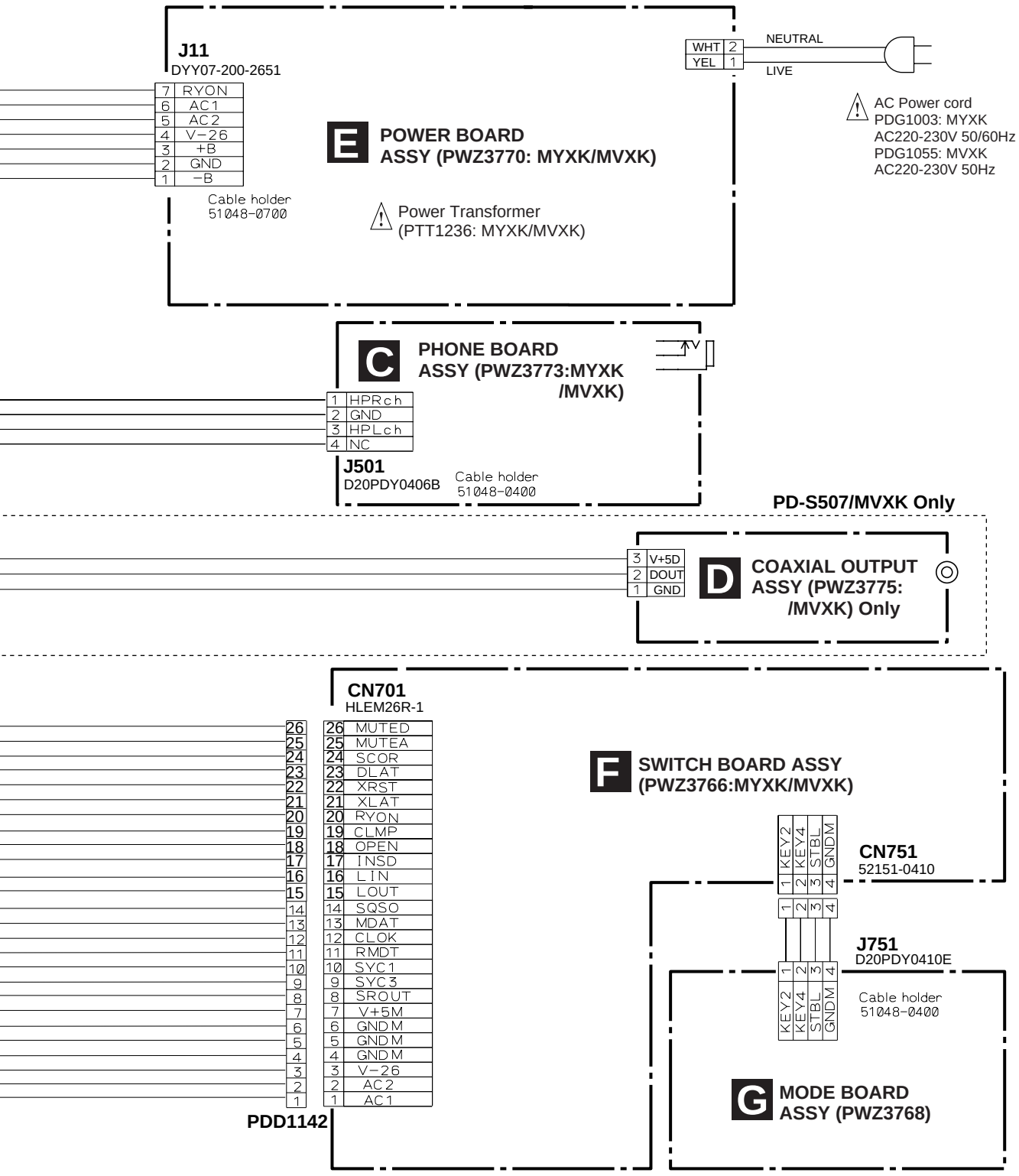
Mark	No.	Description	Parts No.
	1	Carriage D.C. Motor (0.3W)	PXM1027
	2	Pinion Gear	PNW2055
	3	Spindle Motor Assy (SPINDLE, with Oil)	PEA1236
	4	Carriage Base	PNW2699
	5	Disc Table	PNW1067
	6	Screw	JFZ20P030FNI
	7	Screw	JFZ17P025FZK
	8	Gear 3	PNW2054
	9	Gear 2	PNW2053
	10	Washer	WT12D032D025
	11	Pickup Assy	PEA1335
	12	Guide Bar	PLA1094
	13	Gear 1	PNW2052
	14	Gear Stopper	PNB1303
	15	Screw	BPZ20P060FMC
	16	Earth Spring	PBH1132
NSP	17	Mechanism Base T.T.96	PNB1592
	18	Screw	BPZ26P100FMC
	19	Mechanism Board Assy	PWX1192
	20	Binder	PEC–107
	21	Float Rubber	PEB1031
	22	Float Rubber	PEB1170
	23	FFC Holder	PNW2734
	24	Connector Assy 4P	PDE1238
	25	Carriage Motor Assy (CARRIAGE)	PEA1246
	26	Rack Spring	PBH1128
	27	Rack Holder	PNW2056
	28	F.F.C.(16P)	PDD1185

3. SCHEMATIC DIAGRAM

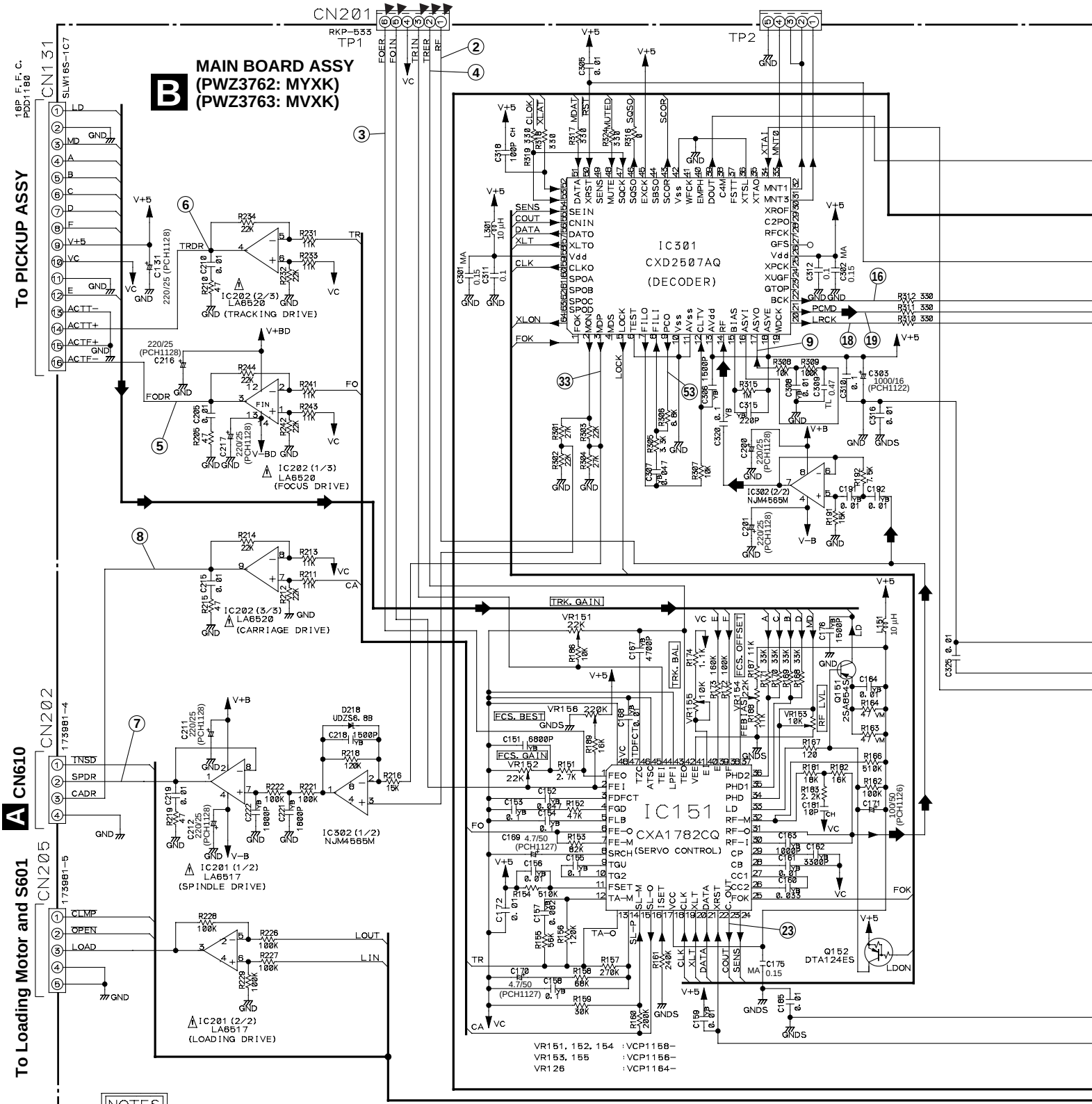
Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "PCB PARTS LIST".

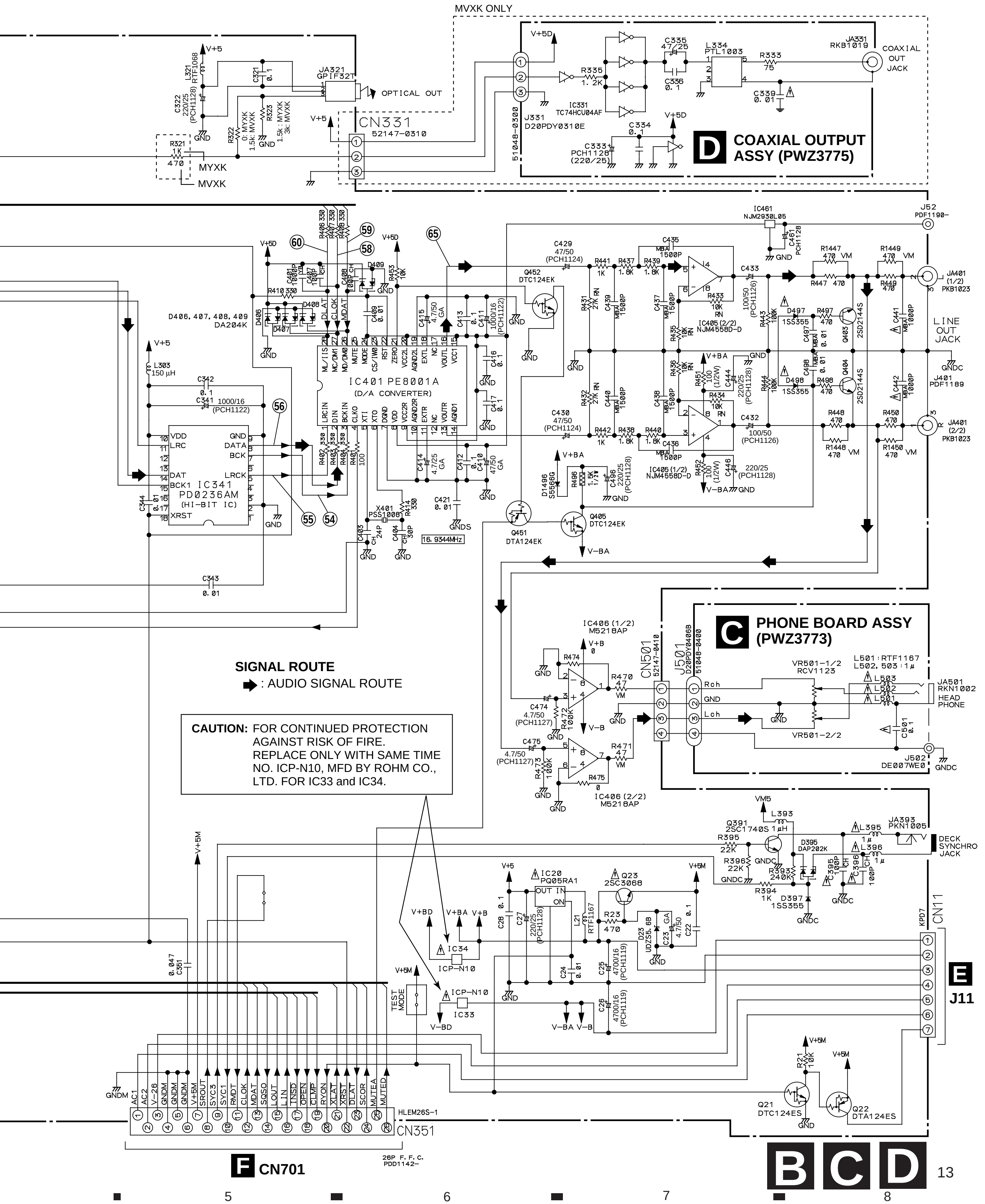
3.1 OVERALL SCHEMATIC DIAGRAM




J11
DYY07-200-2651
7 RYON
6 AC1
5 AC2
4 V−26
3 +B
2 GND
1 −B
Cable holder
51048-0700
E POWER BOARD
ASSY (PWZ3770: MYXK/MVXK)
Power Transformer
(PTT1236: MYXK/MVXK)
WHT 2
YEL 1
NEUTRAL
LIVE
AC Power cord
PDG1003: MYXK
AC220-230V 50/60Hz
PDG1055: MVXK
AC220-230V 50Hz
C PHONE BOARD
ASSY (PWZ3773:MYXK
/MVXK)
1 HPRch
2 GND
3 HPLch
4 NC
J501
D20PDY0406B
Cable holder
51048-0400
PD-S507/MVXK Only
3 V+5D
2 DOUT
1 GND
D COAXIAL OUTPUT
ASSY (PWZ3775:
/MVXK) Only
CN701
HLEM26R-1
26 MUTED
25 MUTEA
24 SCOR
23 DLAT
22 XRST
21 XLAT
20 RYON
19 CLMP
18 OPEN
17 INSD
16 LIN
15 LOUT
14 SQSO
13 MDAT
12 CLOK
11 RMDT
10 SYC1
9 SYC3
8 SROUT
7 V+5M
6 GNDM
5 GNDM
4 GNDM
3 V−26
2 AC2
1 AC1
PDD1142
F SWITCH BOARD ASSY
(PWZ3766:MYXK/MVXK)
1 KEY2
2 KEY4
3 STBL
4 GNDM
CN751
52151-0410
J751
D20PDY0410E
Cable holder
51048-0400
G MODE BOARD
ASSY (PWZ3768)

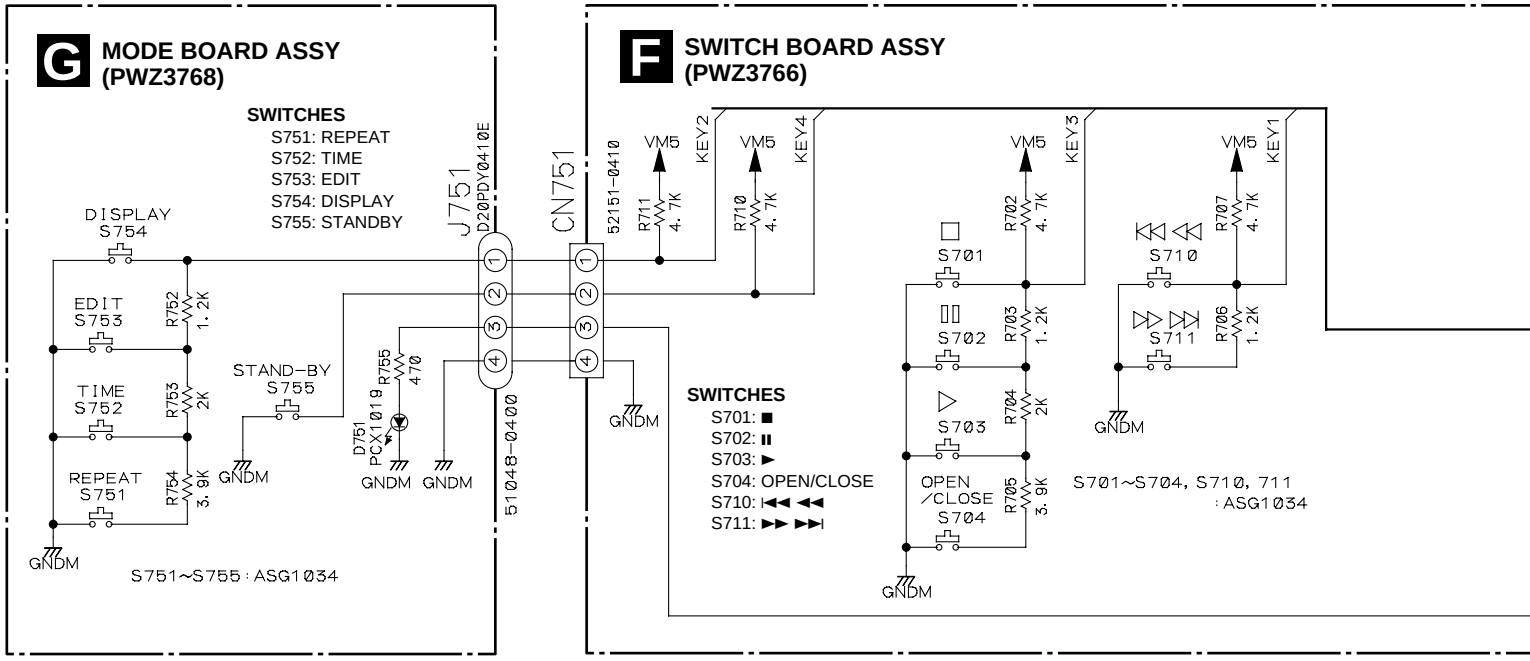
3.2 MAIN BOARD ASSY, PHONE BOARD ASSY and COAXIAL OUTPUT ASSY

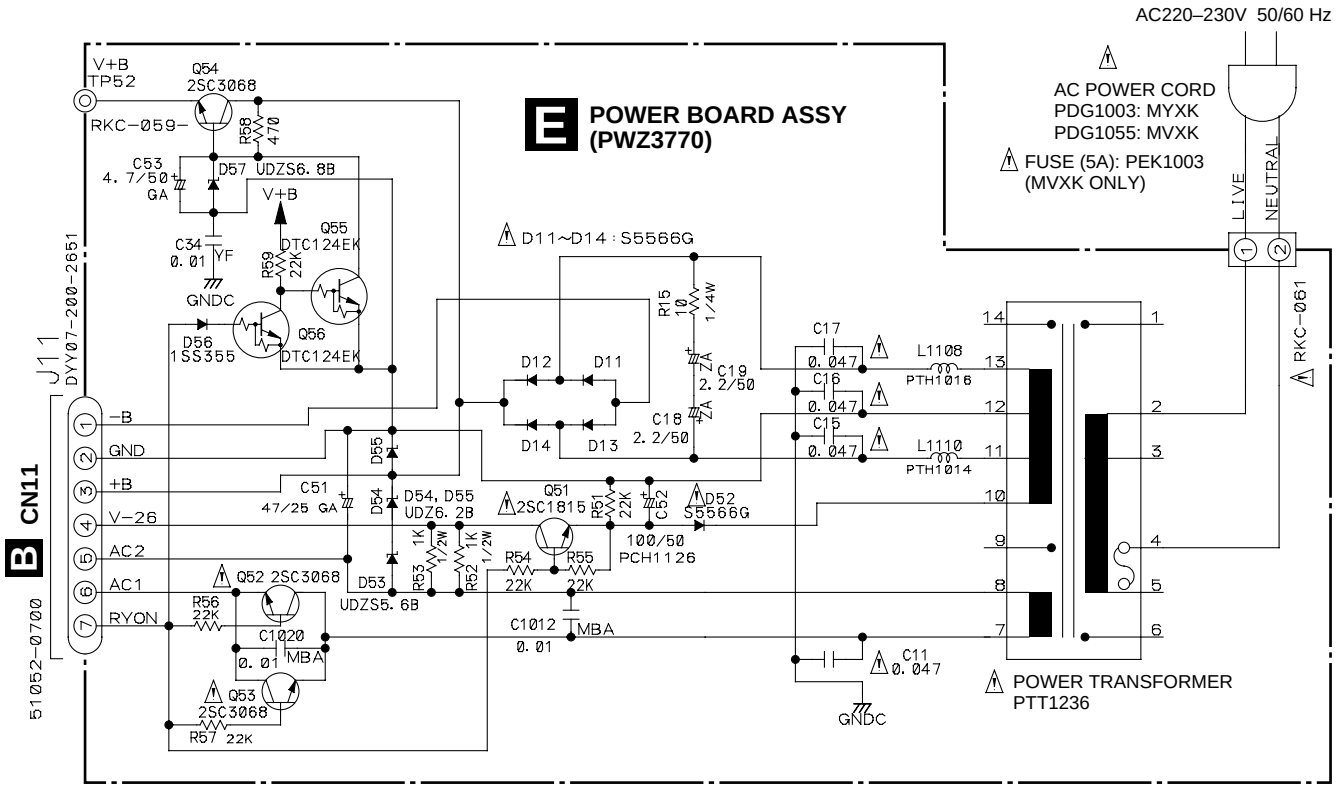




MVXK ONLY
OPTICAL OUT
CN331
52147-0310
COAXIAL OUT JACK
D COAXIAL OUTPUT ASSY (PWZ3775)
IC331 TC74HCU04AF
J331 D20PDY0310E
IC401 PE8001A (D/A CONVERTER)
IC341 PD0236AM (HI-BIT IC)
IC461 NJM2930L05
IC405 (2/2) NJM4558D-D
IC405 (1/2) NJM4558D-D
LINE OUT JACK
C PHONE BOARD ASSY (PWZ3773)
IC406 (1/2) M5218AP
IC406 (2/2) M5218AP
CN501
J501
HEAD PHONE
DECK SYNCHRO JACK
IC20 PQ05RA1
IC34 ICP-N10
IC33 ICP-N10
TEST MODE
E J11
CN351
F CN701
26P F.F.C. PDD1142-
SIGNAL ROUTE
: AUDIO SIGNAL ROUTE
CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE. REPLACE ONLY WITH SAME TIME NO. ICP-N10, MFD BY ROHM CO., LTD. FOR IC33 and IC34.
B C D

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





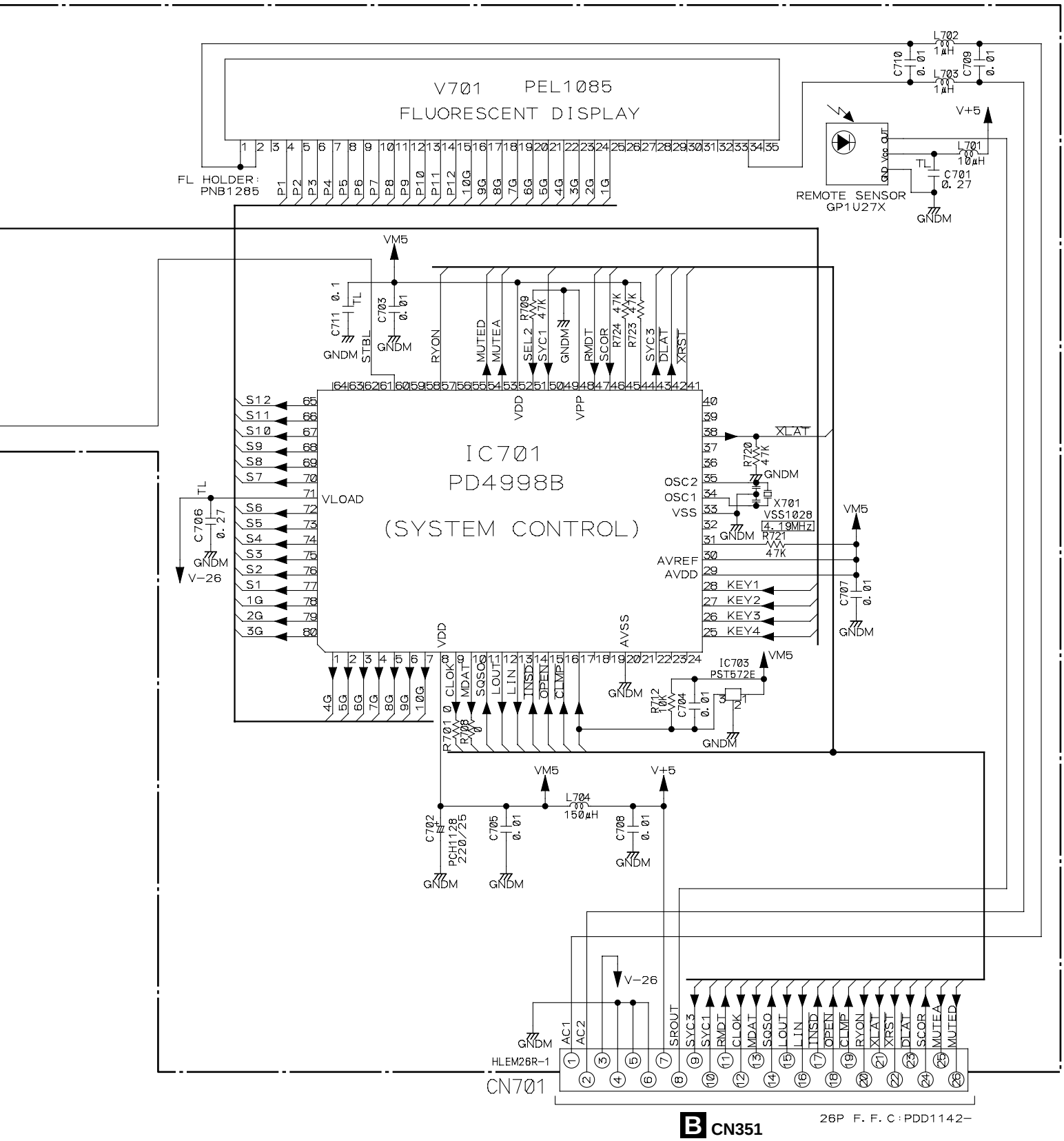
NOTES

RESISTORS (UNIT : Ω)
Unmarked Type : RS1/10S

CAPACITORS (UNIT : μF)
Unmarked Type : CKSQYF
Unmarked Electrolysis : CEAT TL CFTLA

INDUCTORS
Unmarked Type : LFA

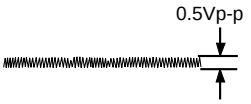
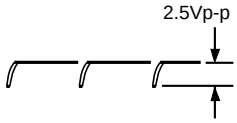
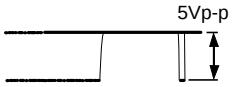
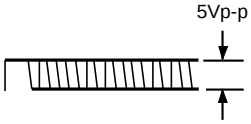
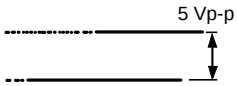
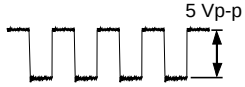
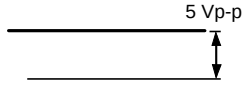
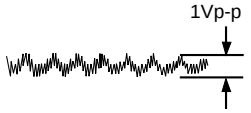
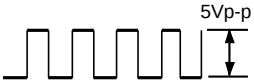
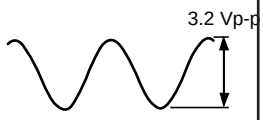
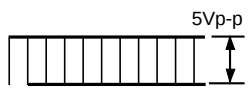
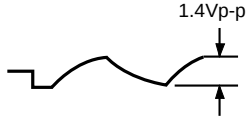
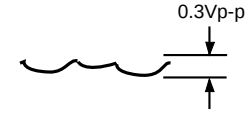
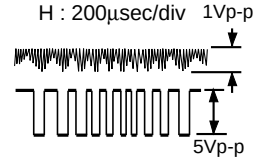
OTHERS
GNDC : CHASSIS GND
$\overline{ABC}$: LOW ACTIV SIGNAL


V701 PEL1085
FLUORESCENT DISPLAY
FL HOLDER: PNB1285
REMOTE SENSOR GP1U27X
IC701
PD4998B
(SYSTEM CONTROL)
VLOAD
VDD
VPP
VSS
AVREF
AVDD
OSC2
OSC1
X701
VSS1028
4.19MHz
XLAT
KEY1
KEY2
KEY3
KEY4
IC703
PST572E
L702 1μH
L703 1μH
L704 150μH
L701 10μH
C710 0.01
C709 0.01
C711 0.1
C703 0.01
C706 0.27
C701 0.27
C707 0.01
C704 0.01
C705 0.01
C708 0.01
C702 PCH1128 220/25
R709 47K
R724 47K
R723 47K
R720 47K
R721 47K
R712 10K
R701 0
R708 0
V+5
VM5
V-26
GNDM
TL
CN701
HLEM26R-1
CN351
26P F.F.C:PDD1142-

B MAIN BOARD ASSY Waveforms

∗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.

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

2 TP1- Pin 1 : PLAY MODE (RF) H : 500nsec/div 	**5** IC202- Pin 3 : PLAY MODE (FODR) H : 1msec/div 	**8** IC202- Pin 9 : TRACK SEARCH MODE (CADR) H : 200msec/div 	**33** IC301- Pin 3 : PLAY MODE (MDP) H : 2µsec/div 	**58** IC401- Pin 27 : PLAY MODE (1 kHz) (CLOK) H : 0.2 msec/div 
2 TP1- Pin 1 : TRACK SEARCH MODE (RF) H : 200 µsec/div 	**6** IC202- Pin 4 : PLAY MODE (TRDR) H : 1msec/div 	**9** IC301- Pin 17 : PLAY MODE ASY0 (EFM) H : 500nsec/div 	**53** IC301- Pin 9 : PLAY MODE (PCO) H : 10µsec/div 	**59** IC401- Pin 26 : PLAY MODE (1 kHz) (MDAT) H : 0.2 msec/div 
3 TP1- Pin 6 : PLAY MODE (FOER) H : 10msec/div 	**6** IC202- Pin 4 : 50T-JUMP(∗1) MODE (TRDR) H : 1msec/div 	**16** IC301- Pin 22 : PLAY MODE (1kHz) (BCLK) H : 500nsec/div 	**54** IC341- Pin 7: PLAY MODE (1 kHz) (BCKO) H : 0.2 µsec/div 	**60** IC401- Pin 28 : PLAY MODE (1 kHz) (DLAT) H : 0.2 µsec/div 
4 TP1- Pin 2 : PLAY MODE (TRER) H : 10msec/div 	**7** IC302- Pin 1 : PLAY MODE (SPDR) H : 50msec/div 	**18** IC301- Pin 20 : PLAY MODE (1kHz) (LRCK) H : 10µsec/div 	**55** IC341- Pin 5 : PLAY MODE (1 kHz) (LRCKO) H : 10 µsec/div 	**65** IC401- Pin 16 : PLAY MODE (1 kHz) H : 0.2 msec/div 
4 TP1- Pin 2 : 50T- JUMP(∗1)MODE (TRER) H : 1msec/div 	**7** IC302- Pin 1 : TRACK SEARCH MODE (SPDR) H : 50msec/div 	**19** IC301- Pin 21 : PLAY MODE (1kHz) (DATA) H : 500nsec/div 	**56** IC341- Pin 8 : PLAY MODE (1 kHz) (DATAO) H : 0.2 µsec/div 	
5 IC202- Pin 3 : FOCUS-IN(∗2) MODE (FODR) H : 200msec/div 	**8** IC202- Pin 9 : PLAY MODE (CADR) H : 2sec/div 	**23** TRACK SEARCH MODE Upper:TP1-Pin1(RF) Lower:IC151-Pin 23 (C.OUT) H : 200µsec/div 		

4. PCB CONNECTION DIAGRAM

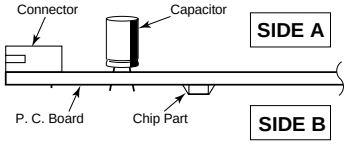
NOTE FOR PCB DIAGRAMS:

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
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

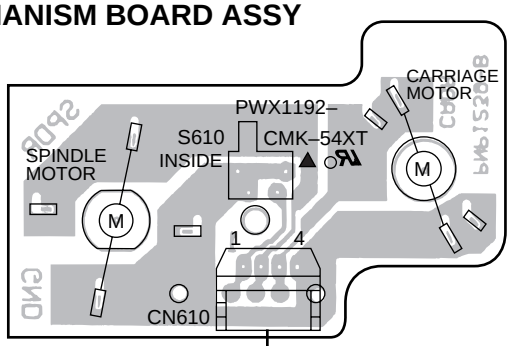
3. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. Viewpoint of PCB diagrams



4.1 PHONE BOARD ASSY and MECHANISM BOARD ASSY

SIDE A

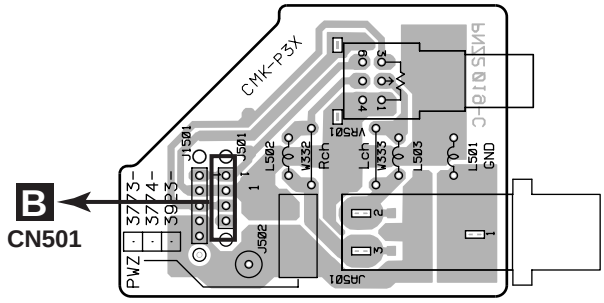
A MECHANISM BOARD ASSY



B CN202

SIDE A

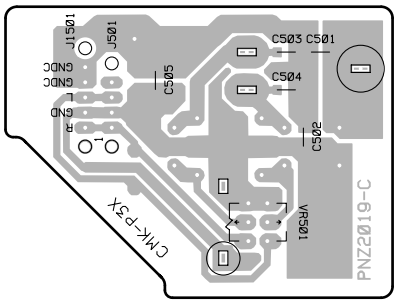
C PHONE BOARD ASSY



B CN501

SIDE B

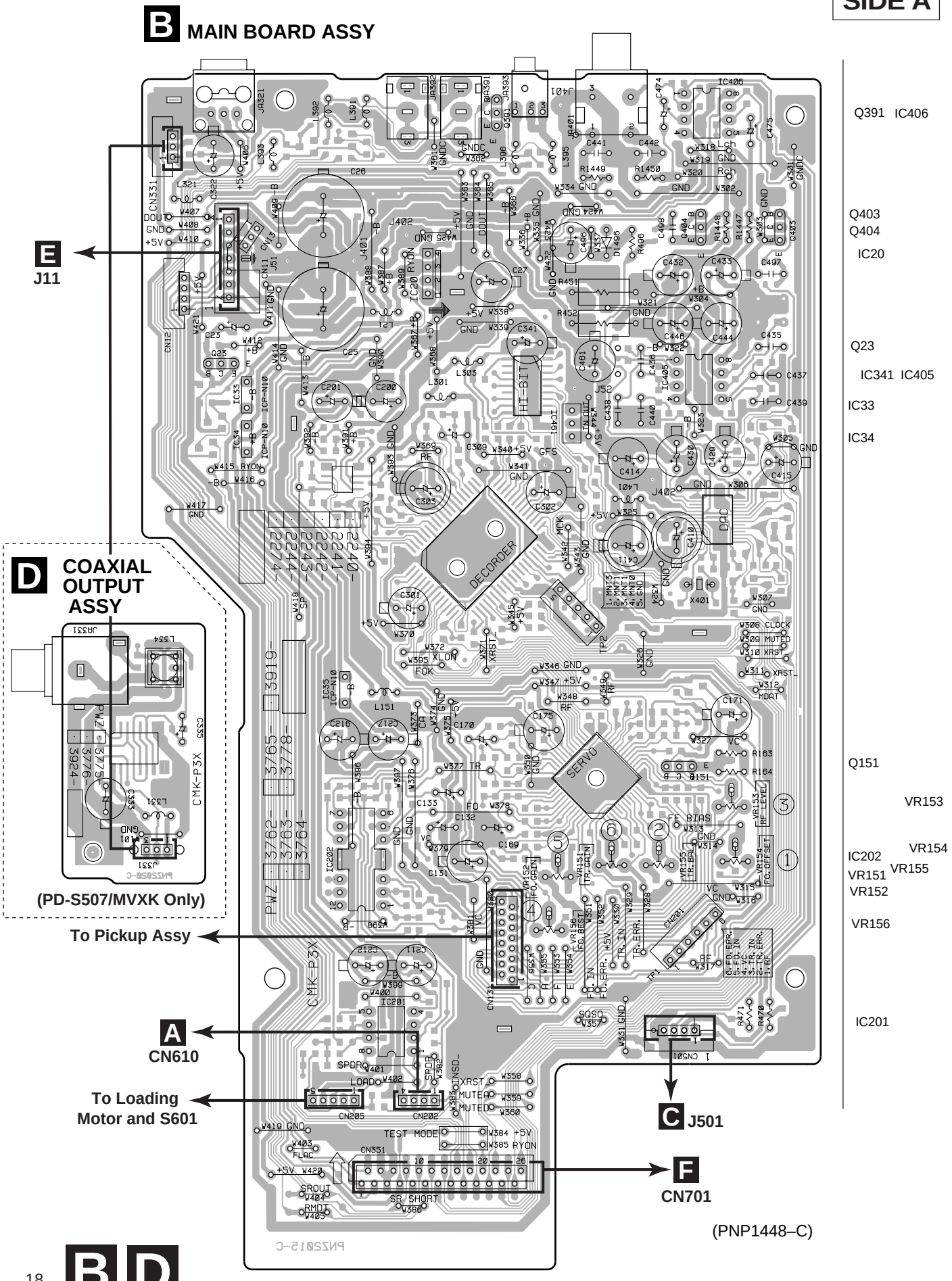
C PHONE BOARD ASSY



(PNP1448-C)

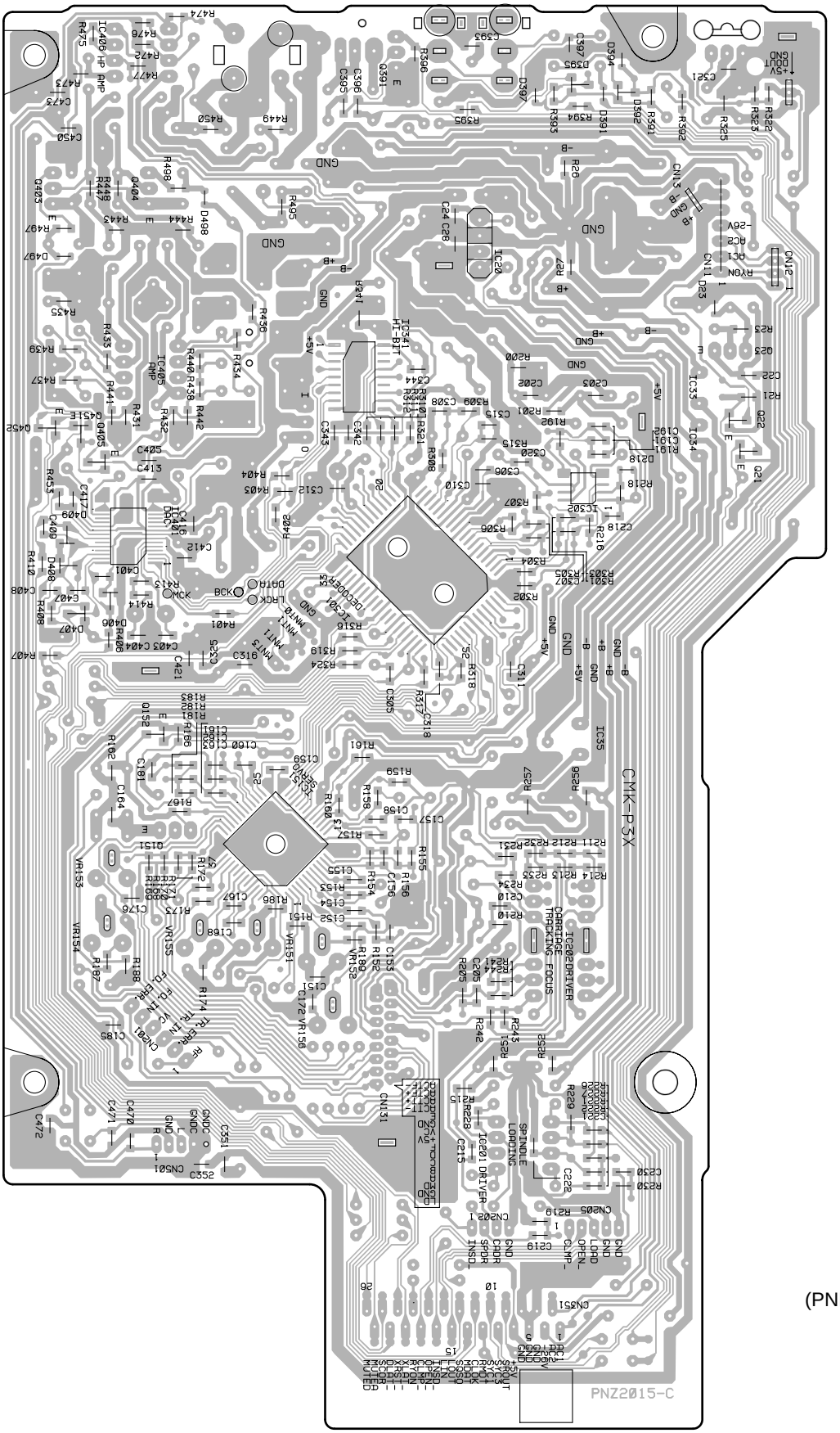
4.2 MAIN BOARD ASSY and COAXIAL OUTPUT ASSY

SIDE A



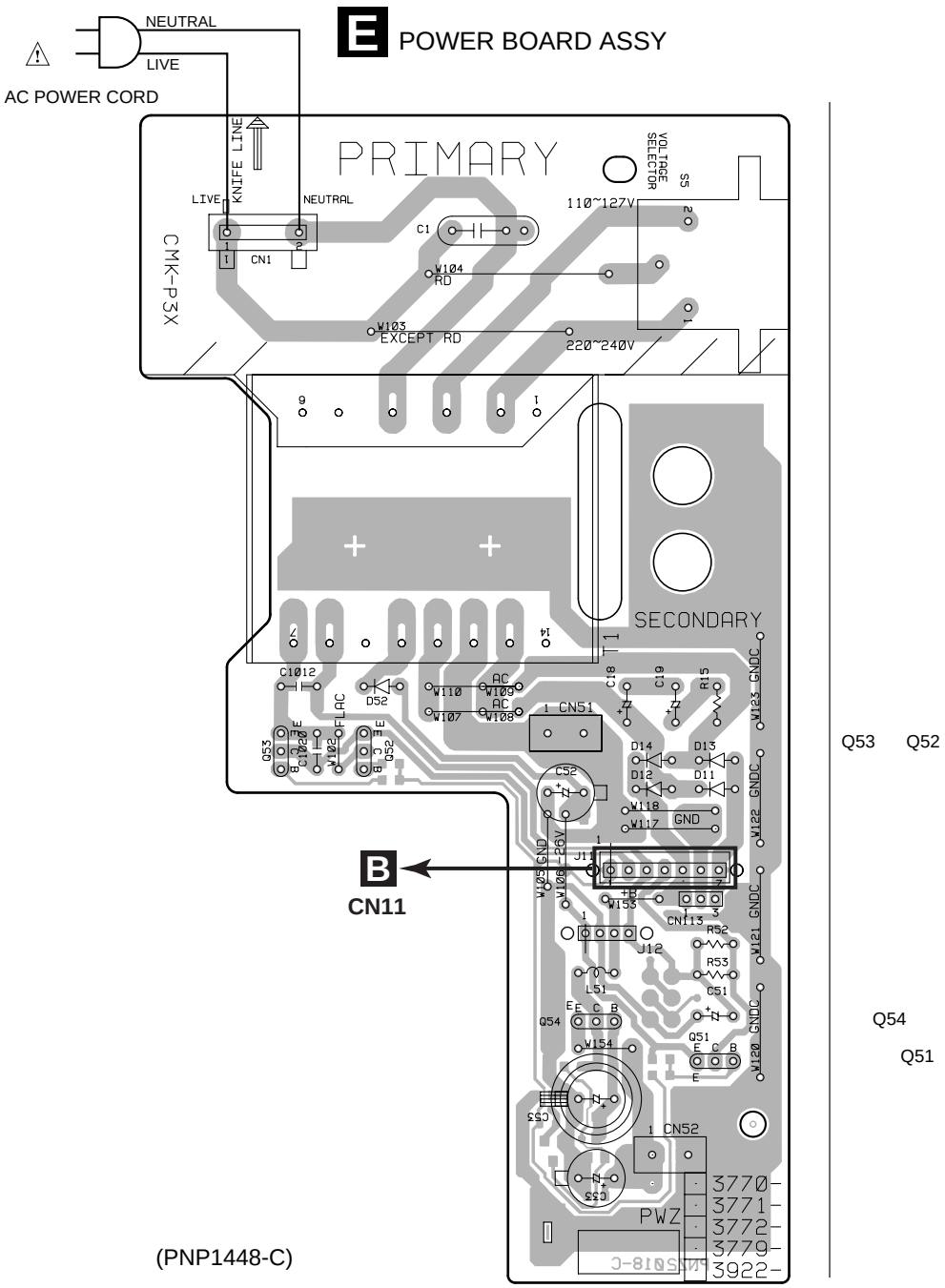
SIDE B

B MAIN BOARD ASSY



4.3 POWER BOARD ASSY

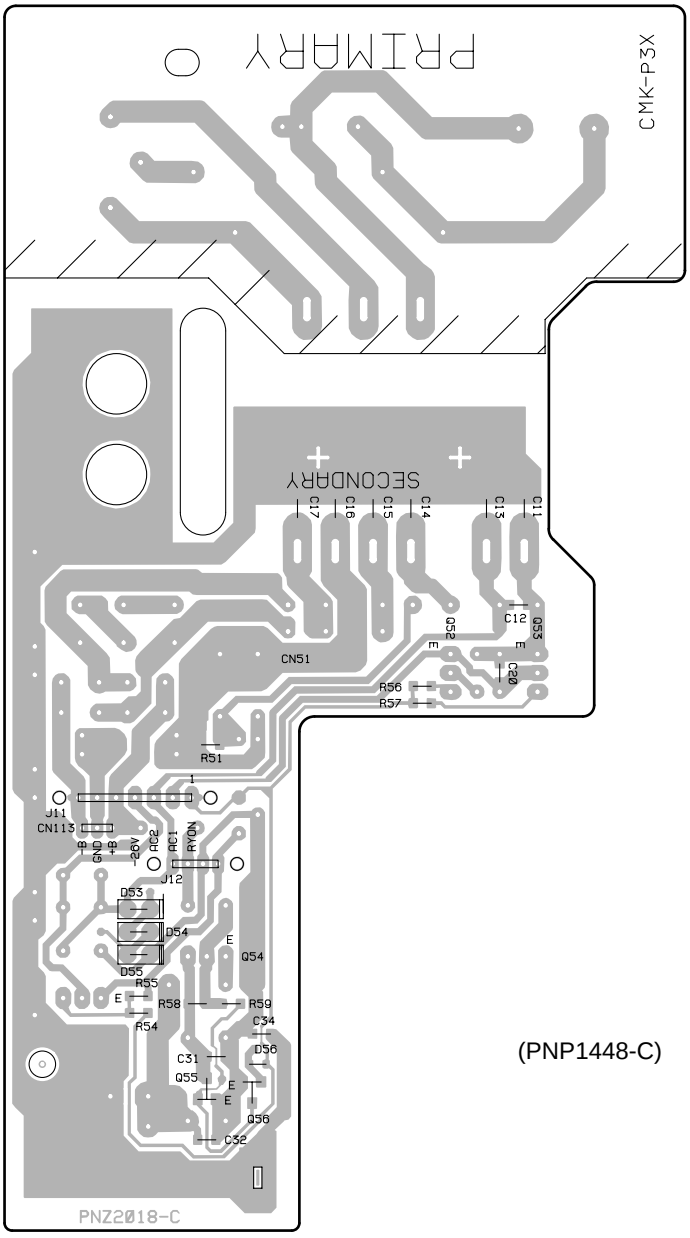
SIDE A



(PNP1448-C)

SIDE B

POWER BOARD ASSY



(PNP1448-C)

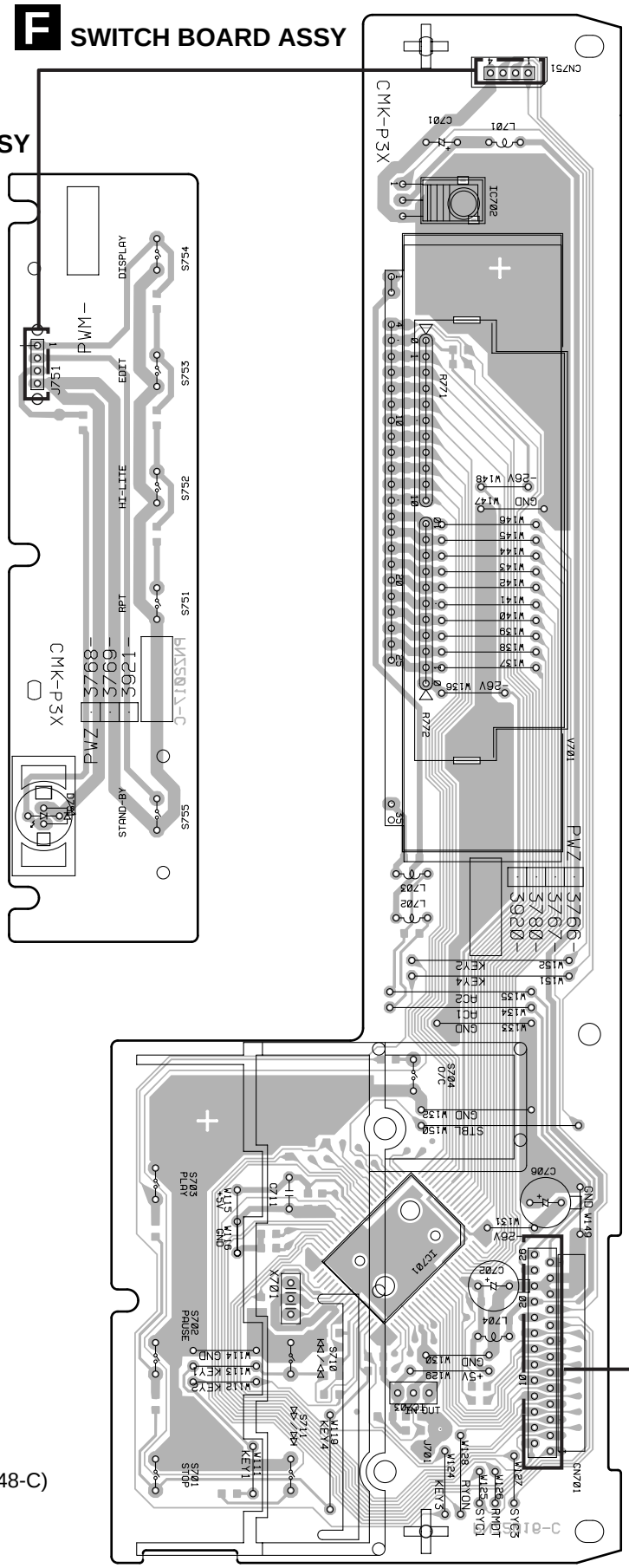
Q55 Q56

4.4 SWITCH BOARD ASSY and MODE BOARD ASSY

SIDE A

F SWITCH BOARD ASSY

G MODE BOARD ASSY



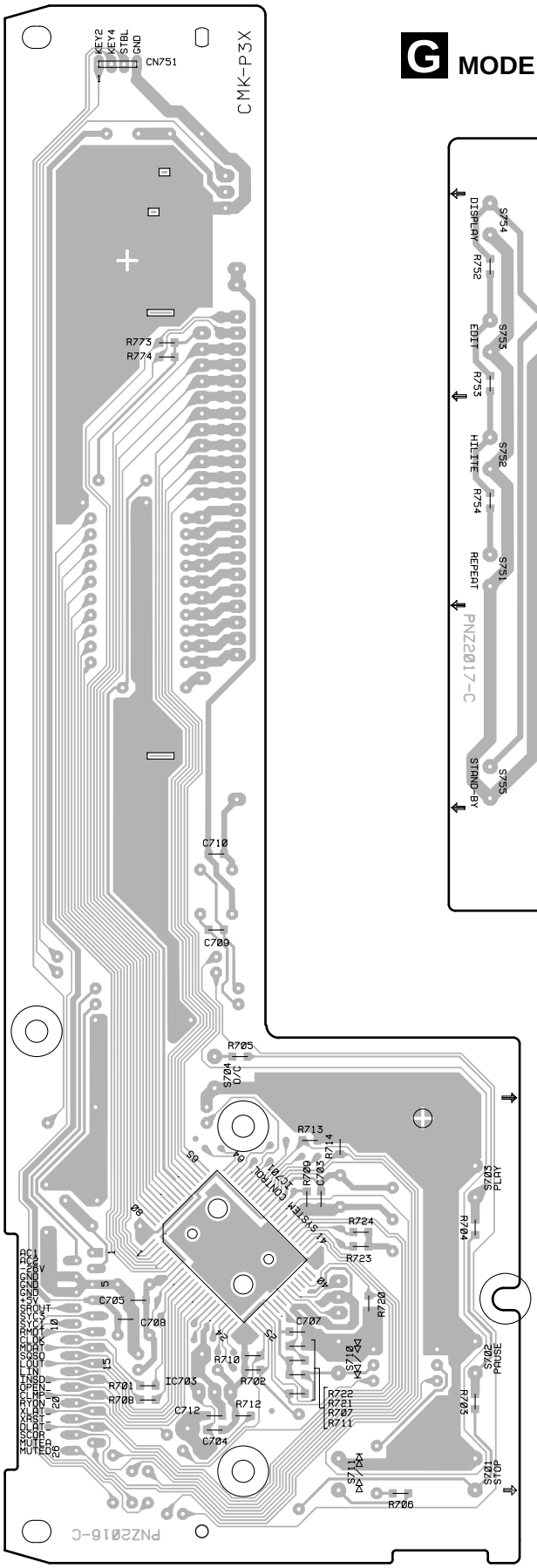
B CN351

(PNP1448-C)

SIDE B

F SWITCH BOARD ASSY

G MODE BOARD ASSY



(PNP1448-C)

5. PCB PARTS LIST

NOTES :
- *Parts marked by "* NSP *" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ 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 Ω → 56 × 10 [1] → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 × 10 [3] → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω → 562 × 10 [1] → 5621 ..... RN1/4PC 5 6 2 1 F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.		Remarks
		MYXK	MVXK	
NSP	MOTHER BOARD ASSY	PWM2240	PWM2241	
	├ 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	MVXK Only
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

PWZ3762and 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
	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	CQMBA102J50
⚠	C497, C498	CQMBA103J50
	C435– C440	CQMBA152J50
	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	PKB1023
	JA393	JACK	PKN1005
	X401	XTAL RES (16.9344 MHz)	PSS1008
	CN201	CONNECTOR 6P	RKP-533
	CN131	CONNECTOR	SLW16S-1C7
		PCB BINDER	VEF1040

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

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		CQMBA103J50
	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
		7P CABLE HOLDER	51052- 0700
	J11	7P JUMPER WIRE	DYY07-200-2651

F SWITCH BOARD ASSY

Mark	No.	Description	Part No.
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
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

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	D751	LED (RED)	PCX1019
SWITCHES			
	S751–S755		ASG1034
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
		4P CABLE HOLDER	51048-0400
	J751	4P JUMPER WIRE	D20PDY0410E

C PHONE BOARD ASSY

Mark	No.	Description	Part No.
COILS AND FILTERS			
⚠	L502, L503	(Coil 1µH)	LFA1R0J
⚠	L504	(Noise filter)	RTF1167
CAPACITORS			
⚠	C501		CKSQYF103Z25
RESISTORS			
	VR501 (500Ω–B)		RCV1123
OTHERS			
		4P CABLE HOLDER	51048-0400
	J501	4P JUMPER WIRE	D20PDY0406B
	JA501	JACK	RKN1002

A MECHANISM BOARD ASSY

Mark	No.	Description	Part No.
SWITCHES			
	S610		DSG1016
OTHERS			
	CN610	MT CONNECTOR 4P	173979-4

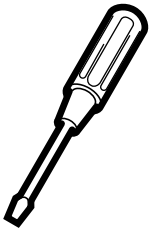
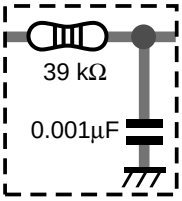
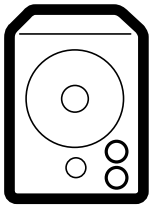
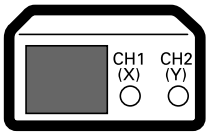
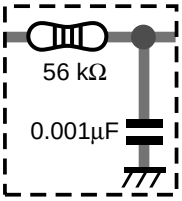
D COAXIAL BOARD ASSY

Mark	No.	Description	Part No.
SEMICONDUCTORS			
	IC331		TC74HCU04F
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
OTHERS			
		3P CABLE HOLDER	51048-0300
	J331	3P JUMPER WIRE	D20PDY0310E
	JA331	1P JACK	RKB1019

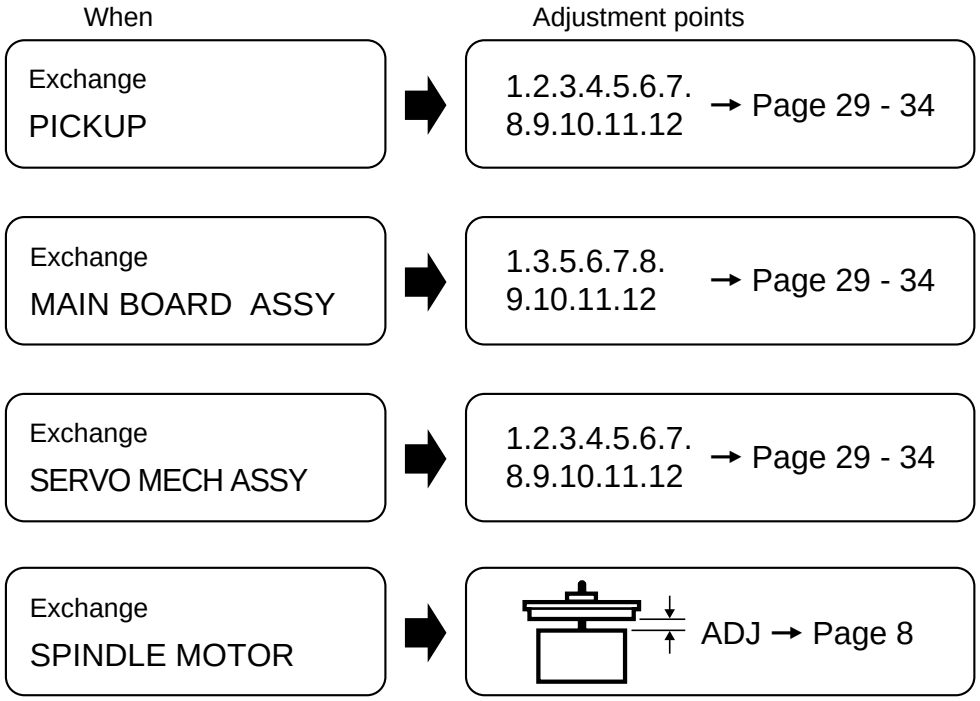
6. ADJUSTMENT

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)

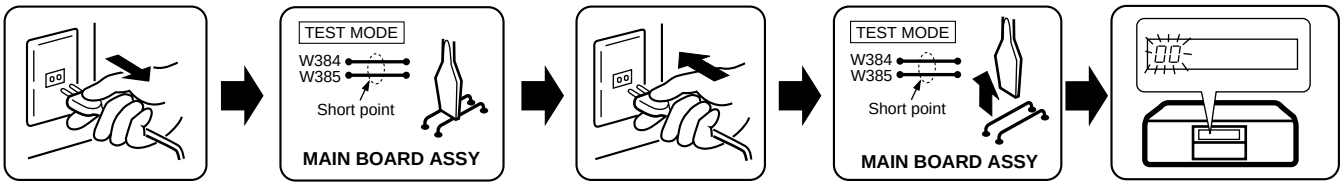
6.1.2 Necessary Adjustment Points



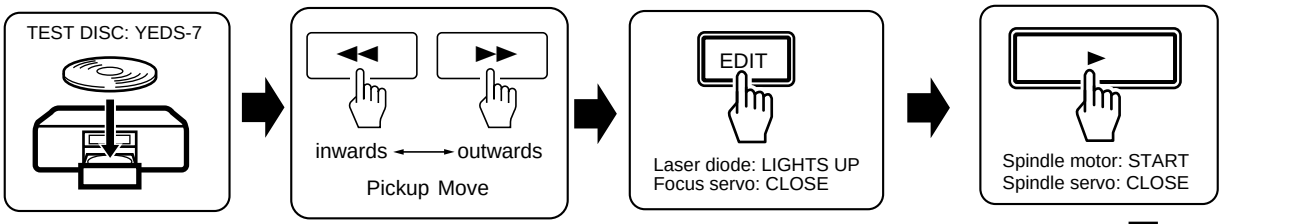
6.2 ADJUSTMENT

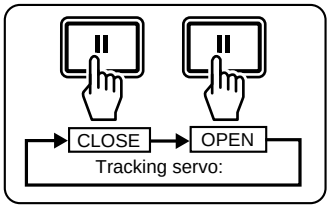
6.2.1 How to Start/Cancel Test Mode

TEST MODE : ON

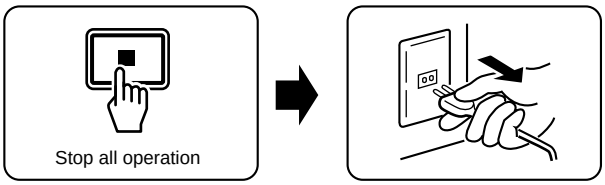


TEST MODE : PLAY

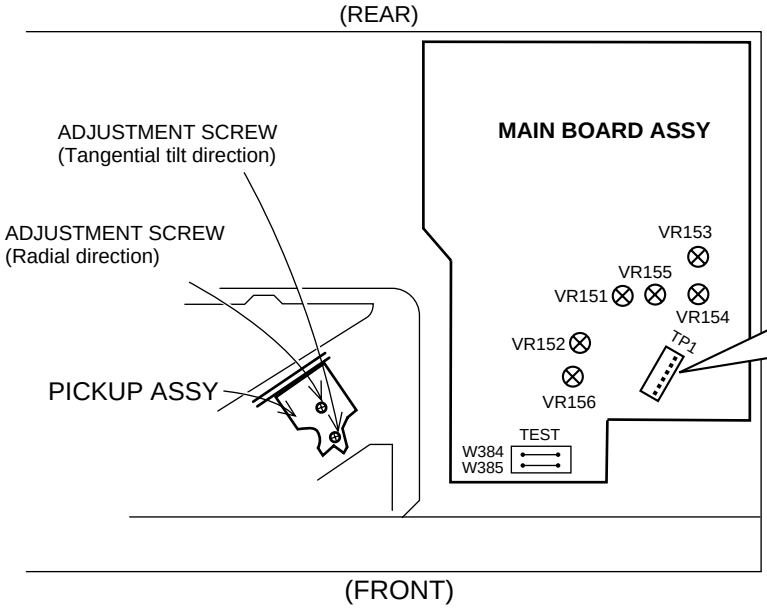




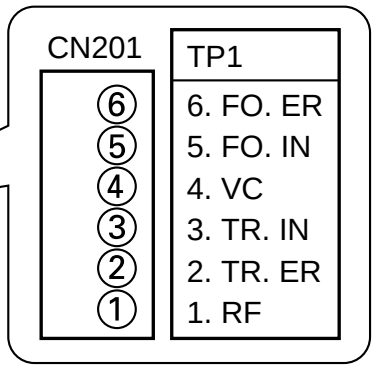
TEST MODE : STOP → CANCEL



6.2.2 Adjustment Location

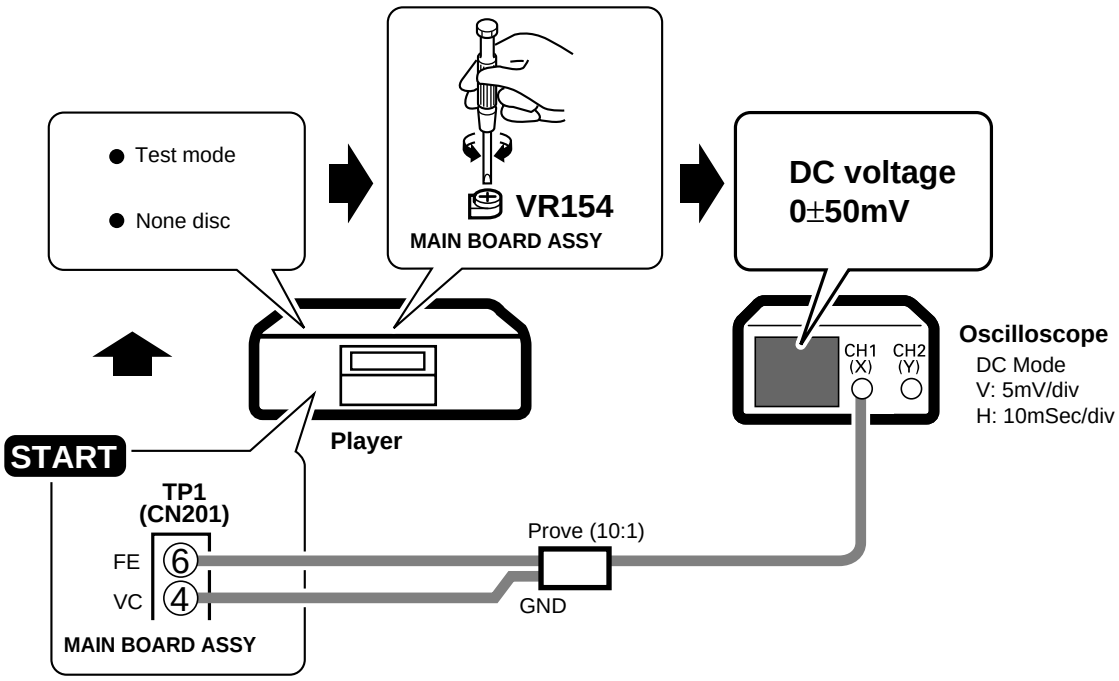


VR151. TR GAIN
VR152. FO GAIN
VR153. RF LEVEL
VR154. FO OFFSET
VR155. TR BAL
VR156. FO BEST

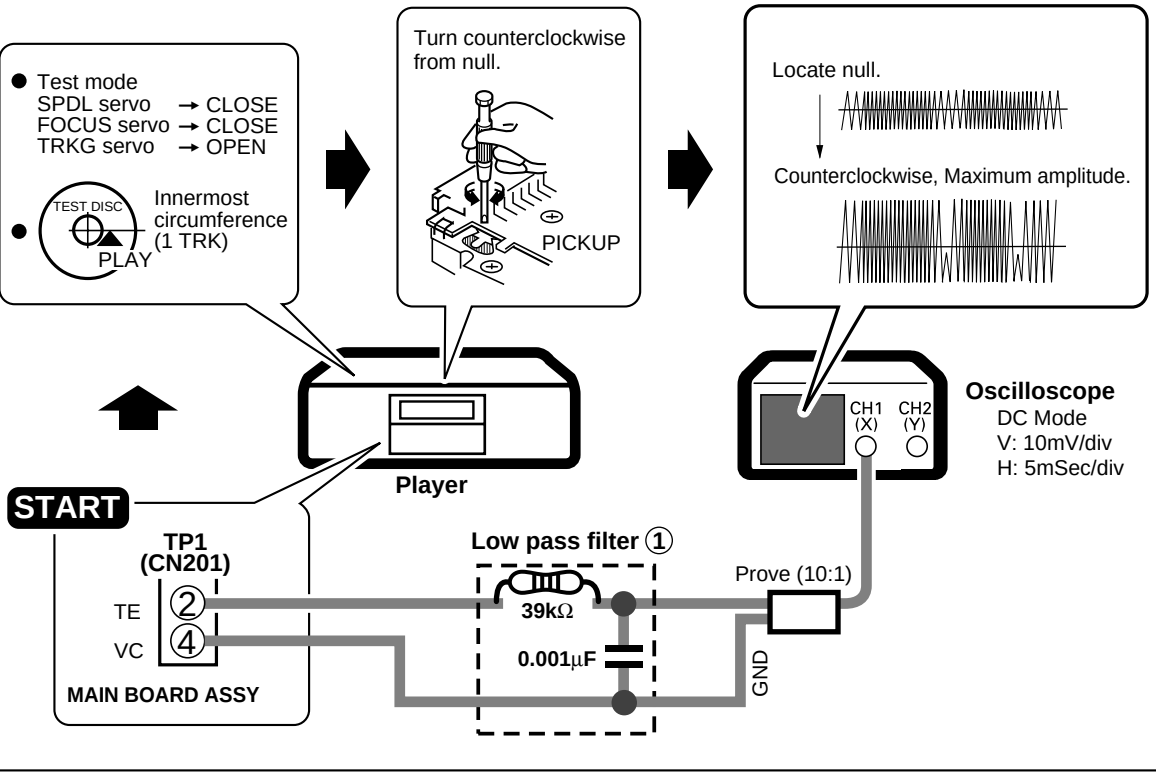


6.2.3 Check and Adjustment

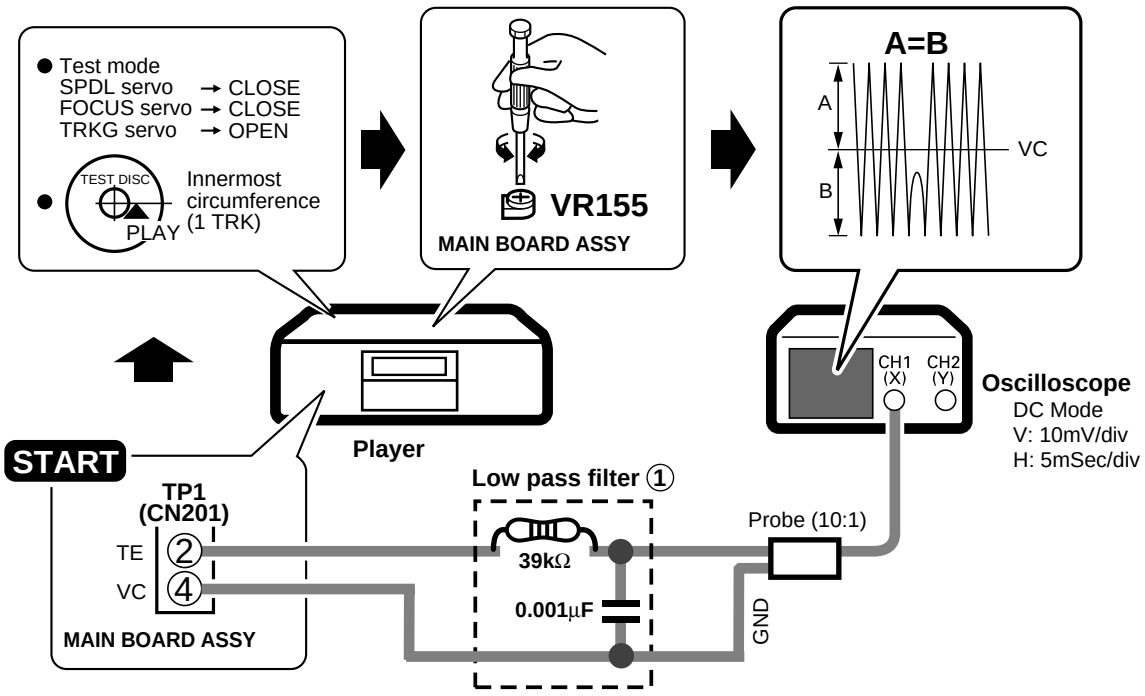
1. Focus Offset Adjustment



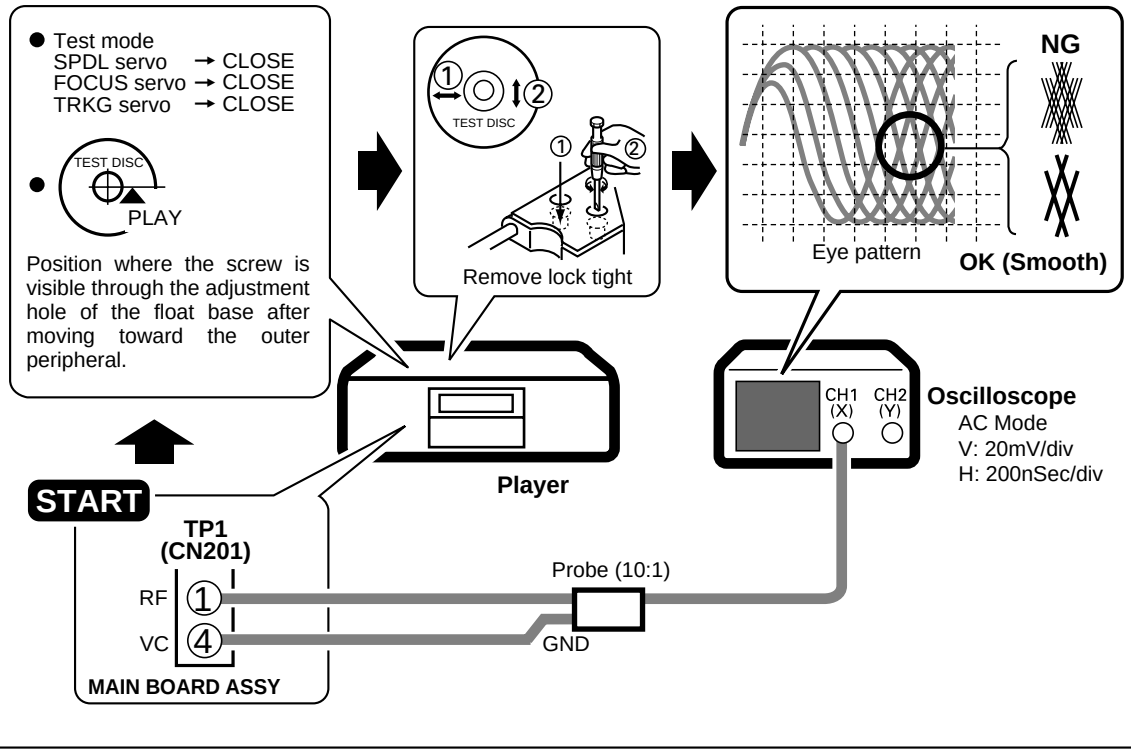
2. Grating Adjustment



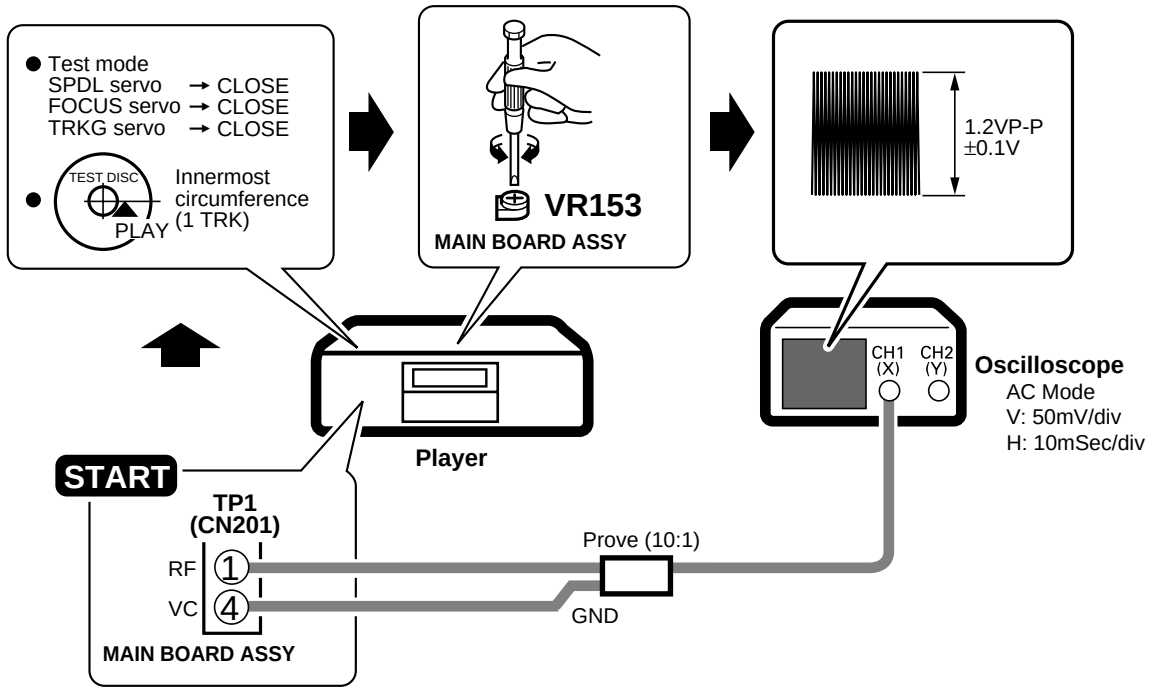
3. Tracking Error Barance Adjustment



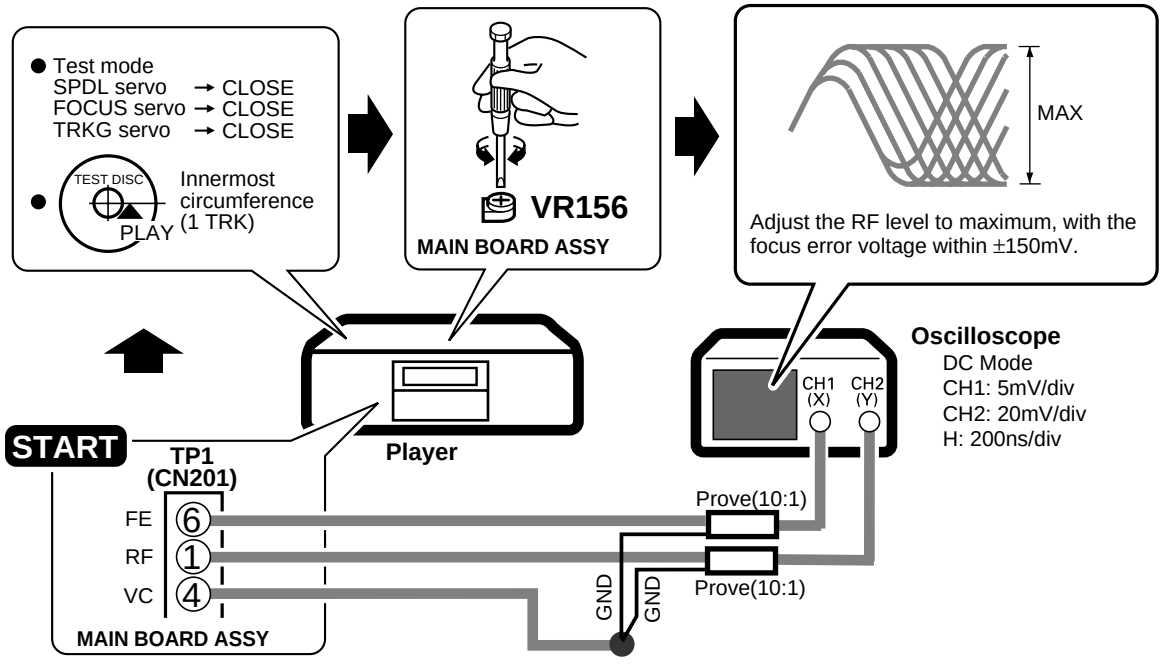
4. Pickup ①Radial/ ②Tangential Direction Tilt Adjustment



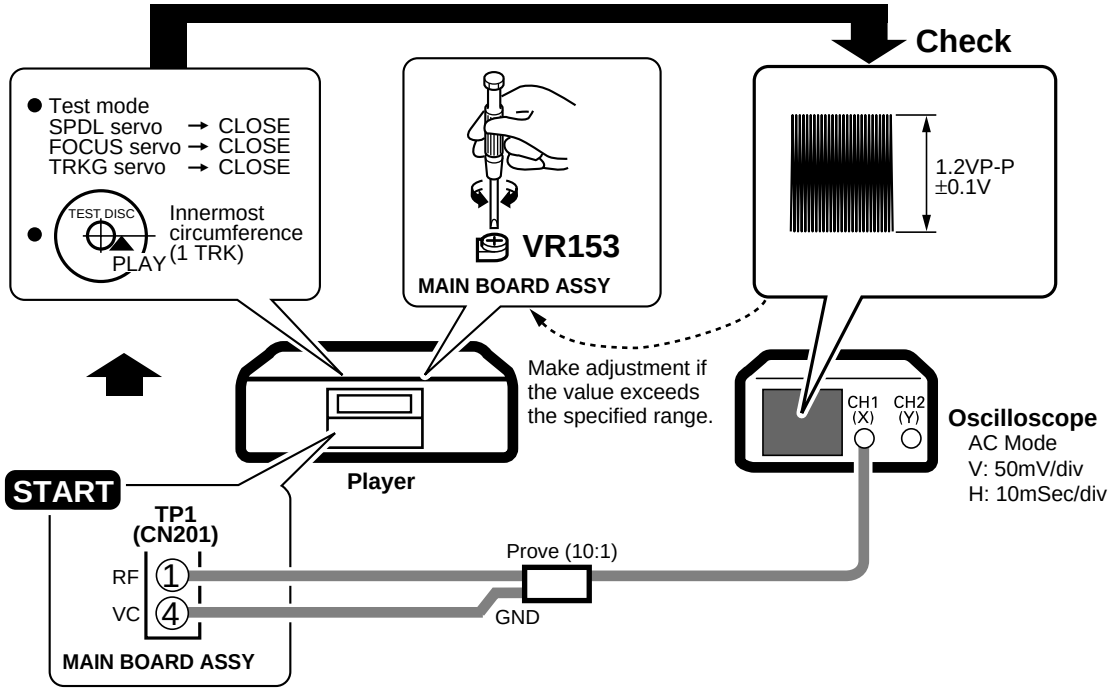
5. RF Level Adjustment Ⅰ



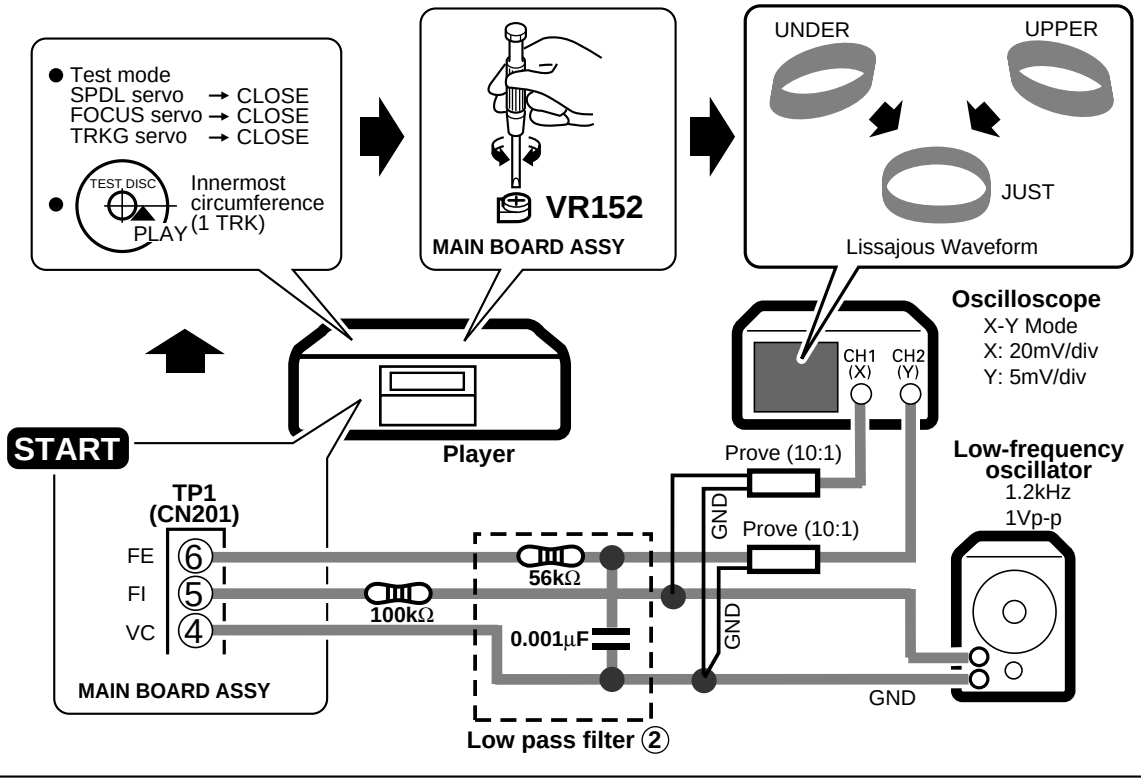
6. Focus Best Adjustment Ⅰ



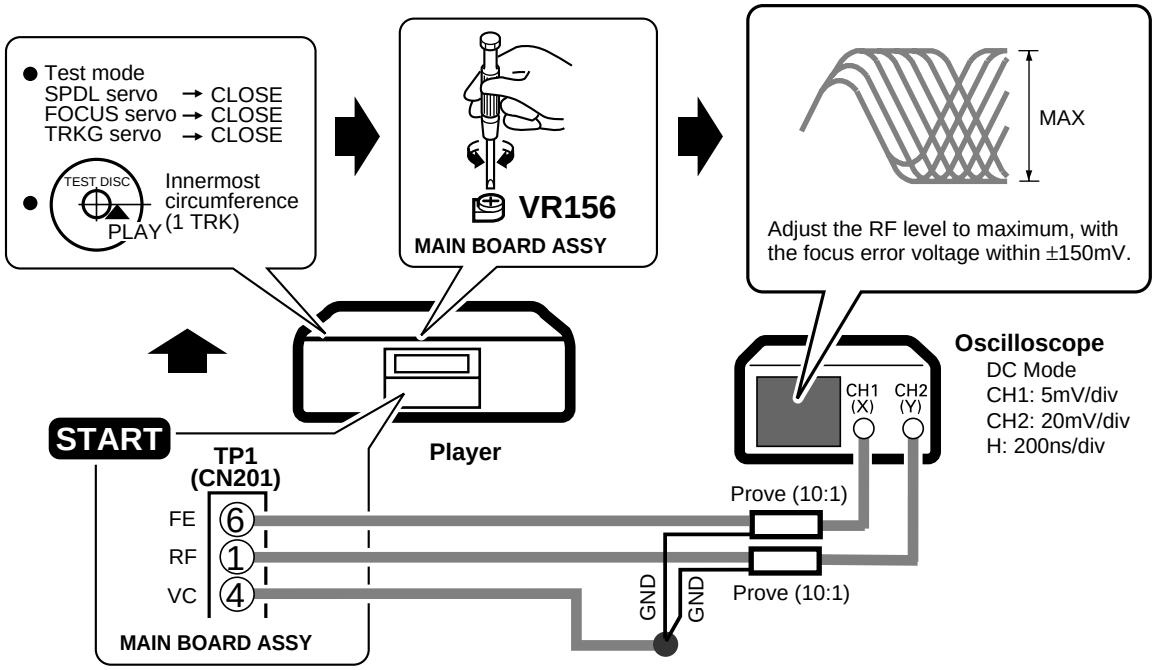
7. RF Level Adjustment Ⅱ



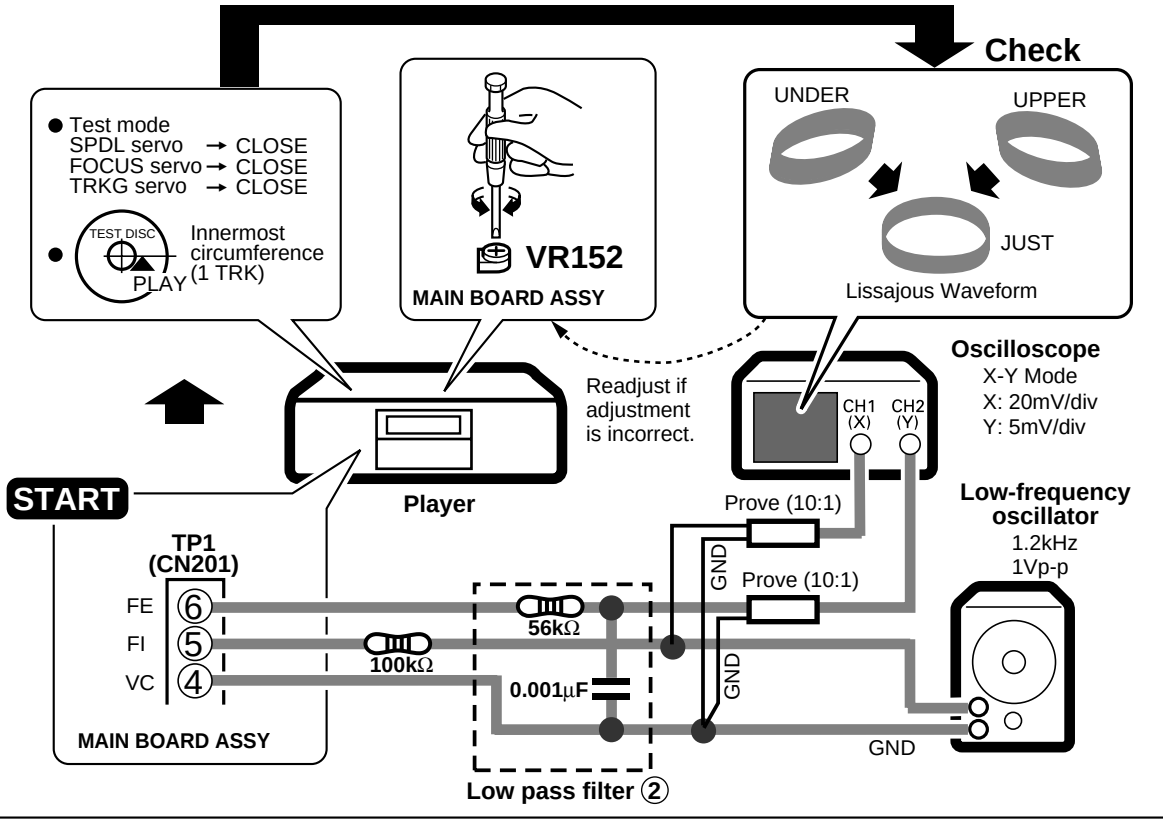
8. Focus Servo Loop Gain Adjustment Ⅰ



9. Focus Best Adjustment Ⅱ

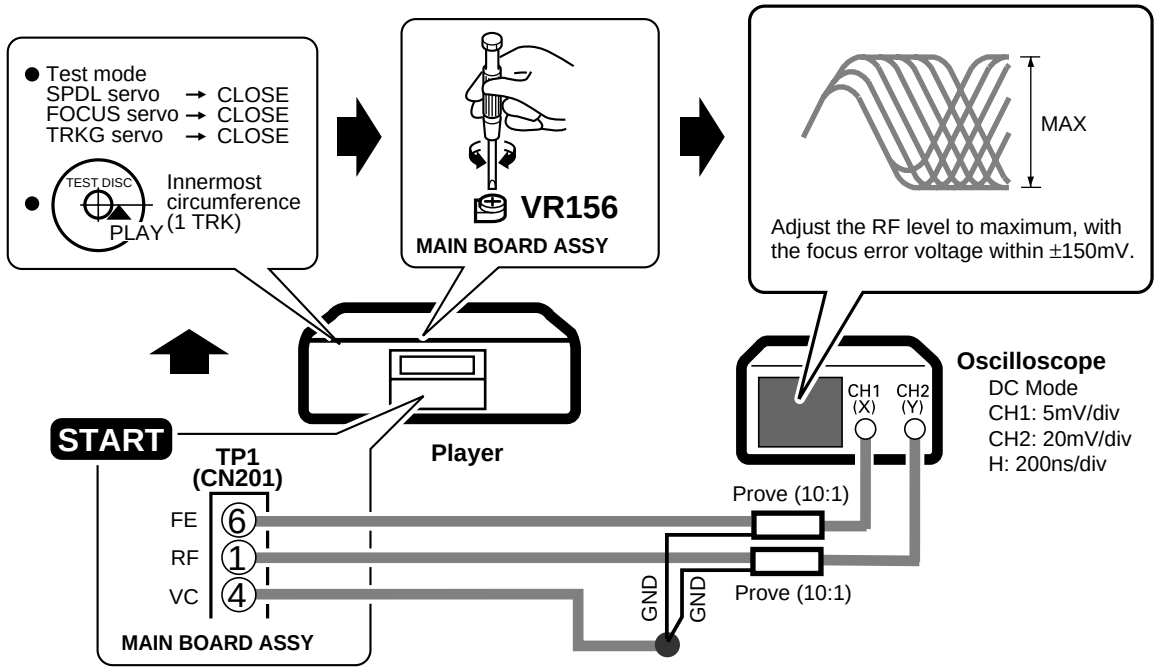


10. Focus Servo Loop Gain Adjustment Ⅱ

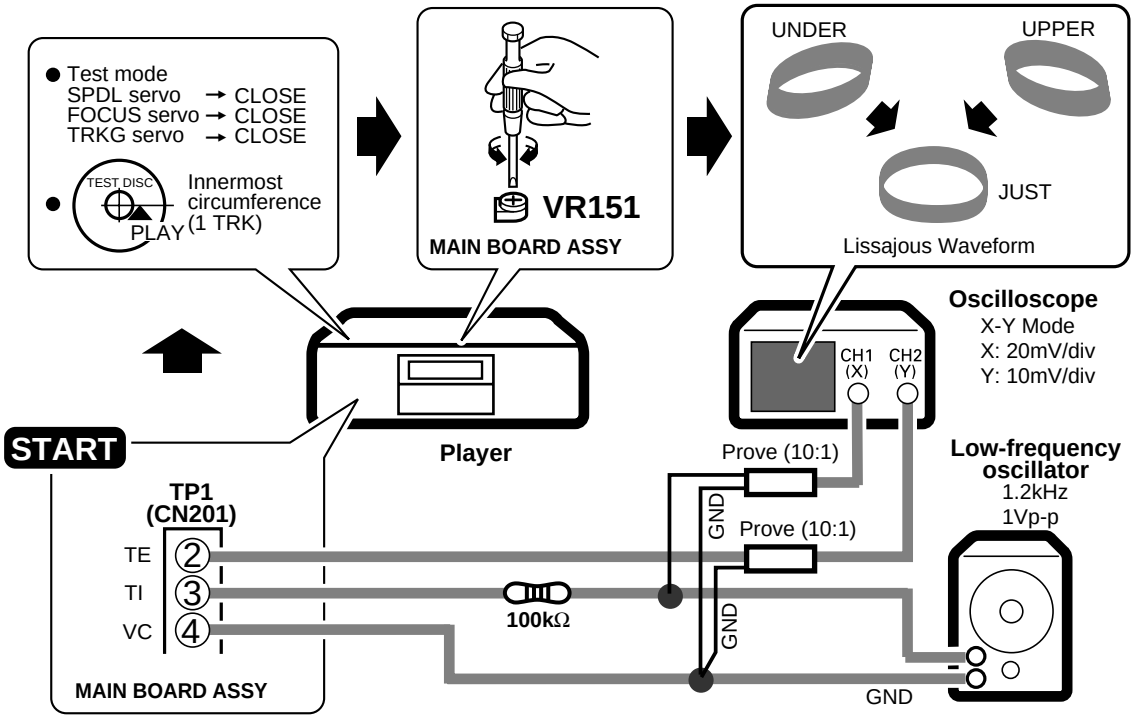


11. Focus Best Adjustment Ⅲ

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



12. Tracking Servo Loop Gain Adjustment



7. GENERAL INFORMATION

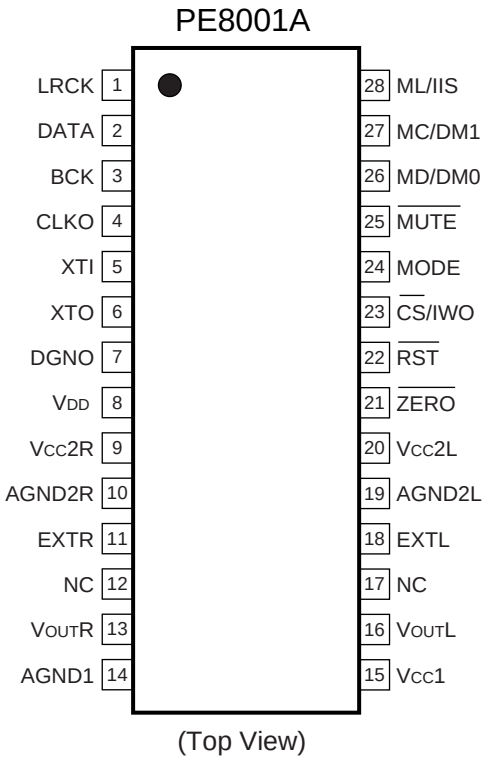
7.1 IC

■ PE8001A (IC401: MAIN BOARD ASSY)

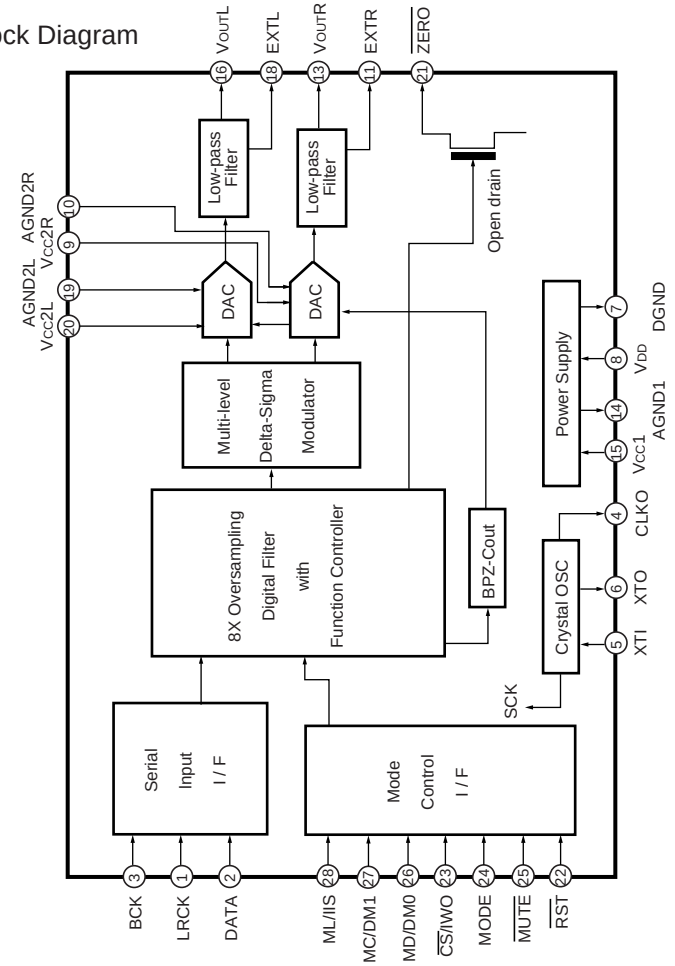
■ D/A CONVERTER IC

● The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

● 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

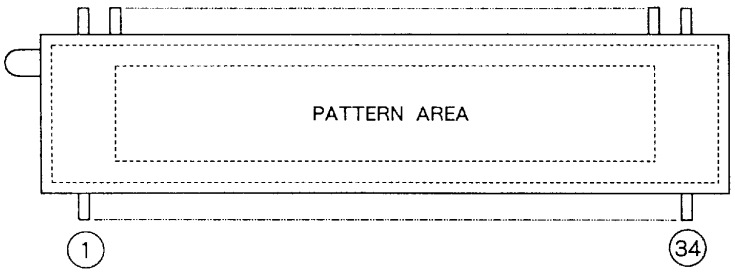
No.	Name	I/O	Description
15	VCC1	–	+5V Analog Power Supply
16	VOUTL	O	Lch, Common Pin of Analog output Amp.
17	NC	–	Not connect
18	EXTL	O	Lch, Analog Voltage output of Audio signal
19	AGND2L	–	Analog GND
20	VCC2L	–	+5V Analog Power Supply
21	$\overline{\text{ZERO}}$	O	Zerodata. flag
22	$\overline{\text{RST}}$	I	Reset. "L"at reset DF and modulator
23	$\overline{\text{CS}}$/IWO	I	Chip select / Input format. select
24	MODE	I	Mode control select (H: Software, L: Hardware)
25	$\overline{\text{MUTE}}$	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

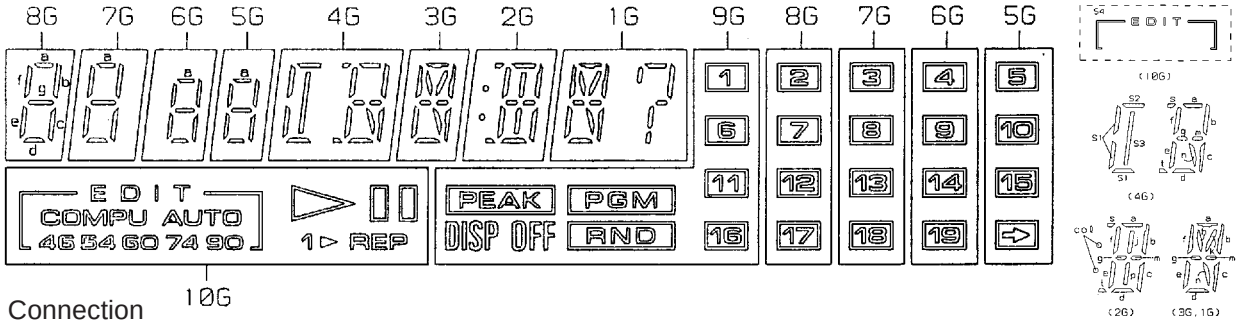


NOTE
1) F1, F2 ..... Filament
2) NP ..... No pin
3) NX ..... No extend pin
4) DL ..... Datum Line
5) 1G – 10G ..... Grid

● 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	F1	F2	NP	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NX	NX	NX	NX	NX	NX	NP	NX	F2

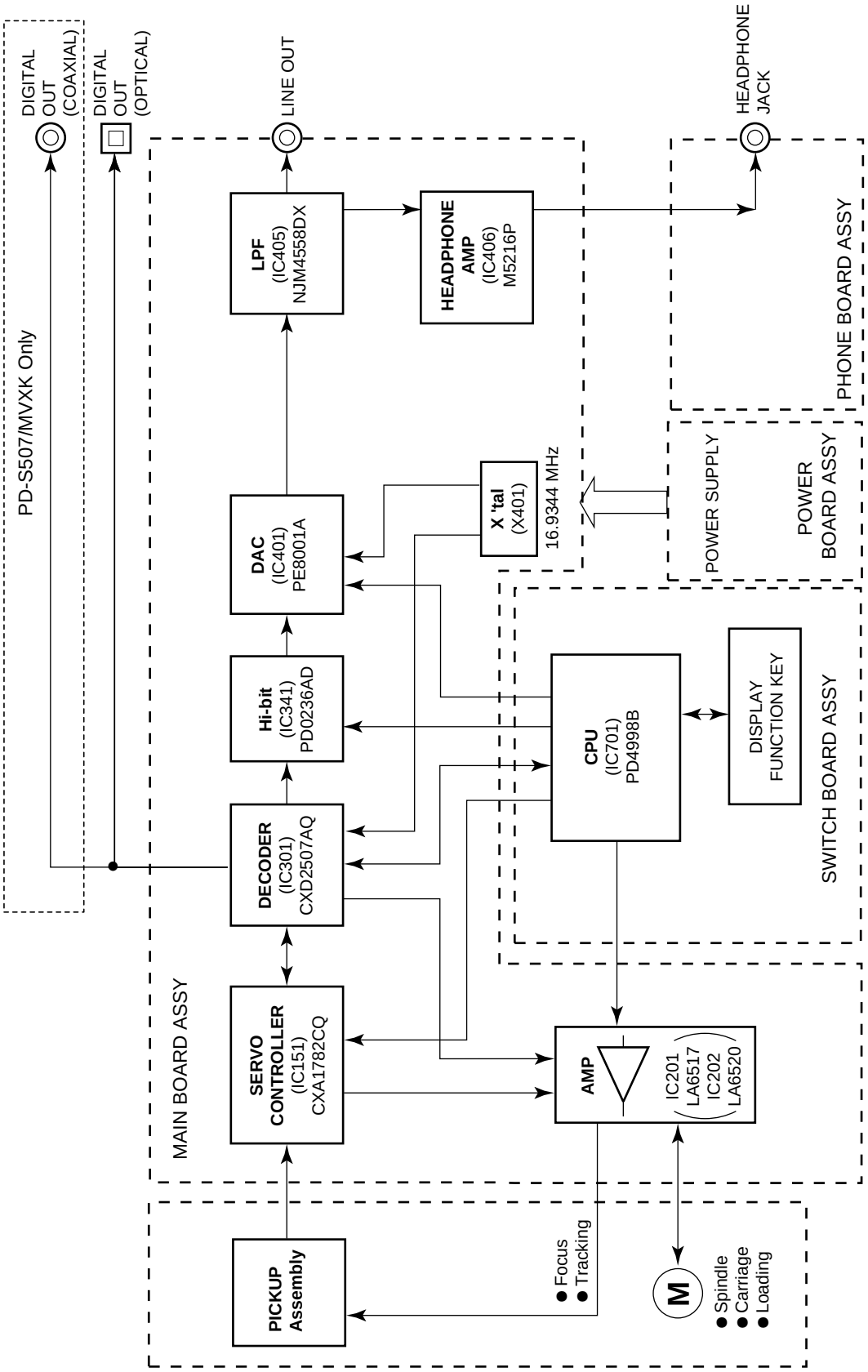
● Grid Assignment



● Anode Connection

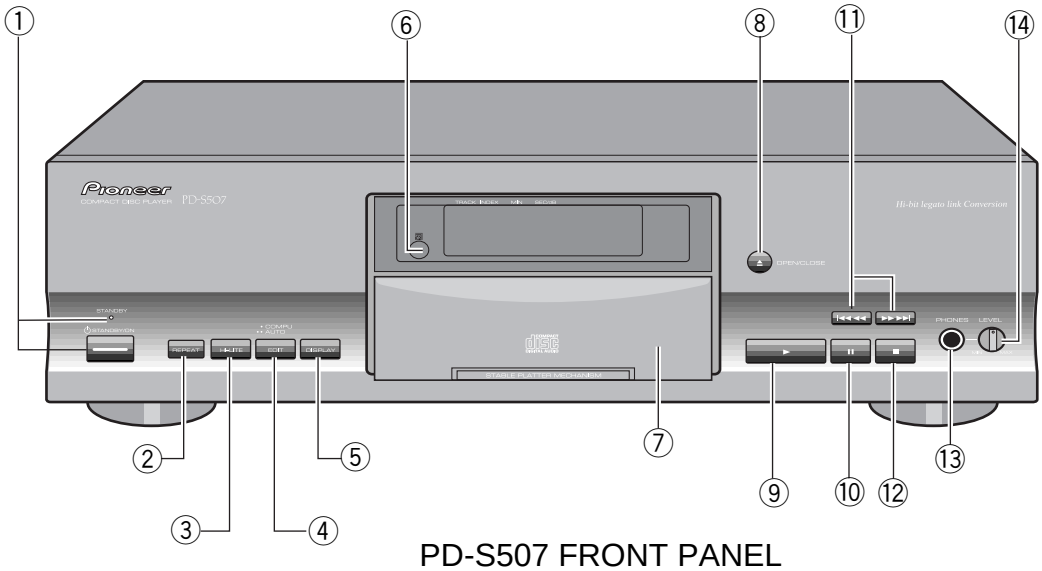
	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	46	RND	e	e	e	e	e	e	e	e
P2	54	PGM	f	f	f	f	f	f	f	f
P3	60	PEAK	g	g	g	g	g,m	g,m	g,m	g
P4	1▷	DISP OFF	–	–	–	–	s,t	–	s,t	m
P5	74	–	a	a	a	a	a	a	a	a
P6	90	–	b	b	b	b	b	b	b	b
P7	AUTO	–	c	c	c	c	c	c	c	c
P8	COMPU	–	d	d	d	d	d	d	d	d
P9	S4	1	2	3	4	5	S2	h	col	h
P10	▷	6	7	8	9	10	S3	k	j,p	k
P11	□□	11	12	13	14	15	n	n	–	n
P12	REP	16	17	18	19	⇨	S1	–	–	7

7.3 BLOCK DIAGRAM



8. PANEL FACILITIES AND SPECIFICATIONS

■ PANEL FACILITIES



PD-S507 FRONT PANEL

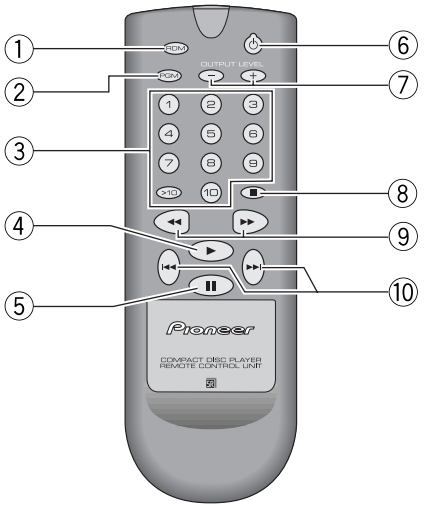
FRONT PANEL

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 (II)**
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 (II)**
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)

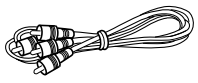
4. Accessories

- 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.

Accessories

Output cable x 1
(L=1.2m : PDE1248)



Remote control unit x 1
(CU-PD096)

AAA/R03 dry cell batteries x 2