

# Service Manual

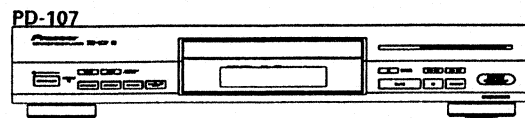
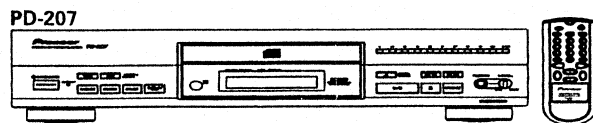
# Pioneer

ORDER NUMBER: XRV1002

COMPACT DISC PLAYER

# PD-207

# PD-107



THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODELS AND TYPES.

Type	Model		Power Requirement
	PD-107	PD-207	
WYXK	○	○	220-240 VAC
WVXK	○	○	220-240 VAC

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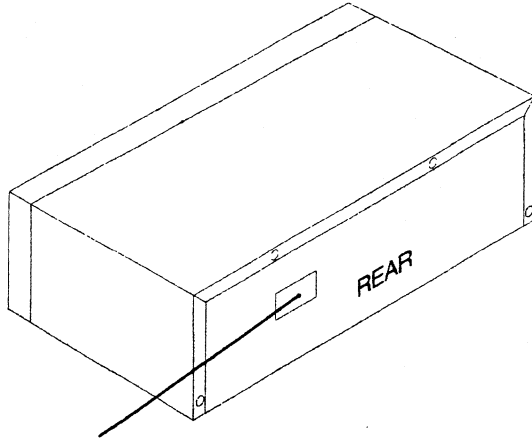
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NOVEMBER 1998

# 1. SAFETY INFORMATION - LABEL CHECK

## OUTSIDE THE UNIT



### Additional Laser Caution

#### 1. 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).

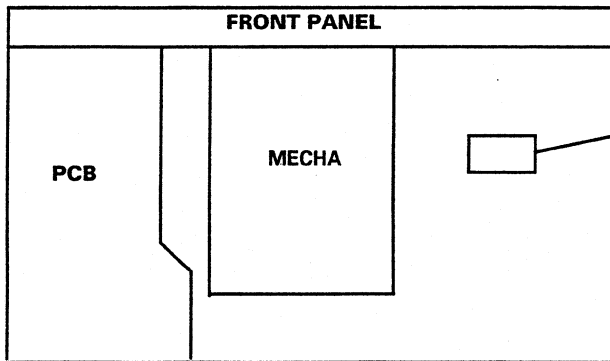
Thus, the interlock will no longer function if the switch (S651) is deliberately set to CLMP terminal side. (low level)

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 28 of IC351 (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, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 laser beam.

\* : Refer to page 20

## INSIDE THE UNIT



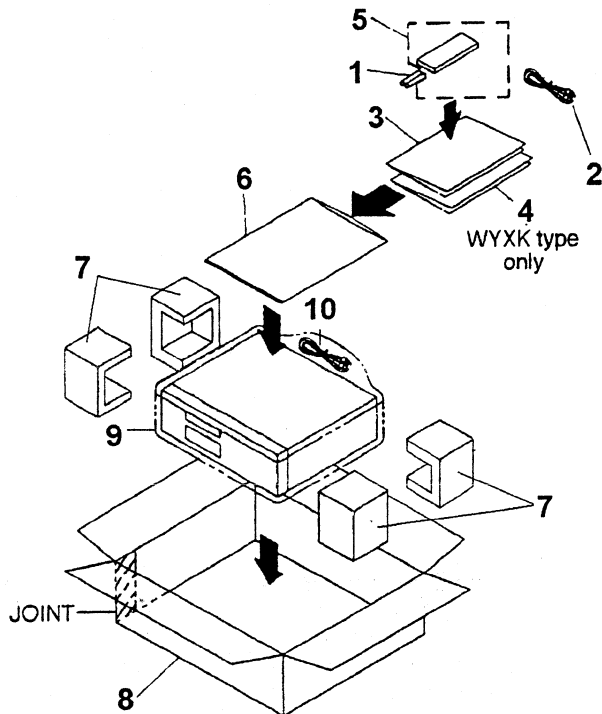
CAUTION	INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM.
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NAKYMÄTTOMÄLLE LASERSATEILYLLE. ALA KATSO SÄTEESEEN
WARNING!	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING NÄR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!	UNSIHTBARE LASER-STRÄHLUNG TRITTS AUS. WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN! XRW1003-A

## 2. EXPLODED VIEWS AND PARTS LIST

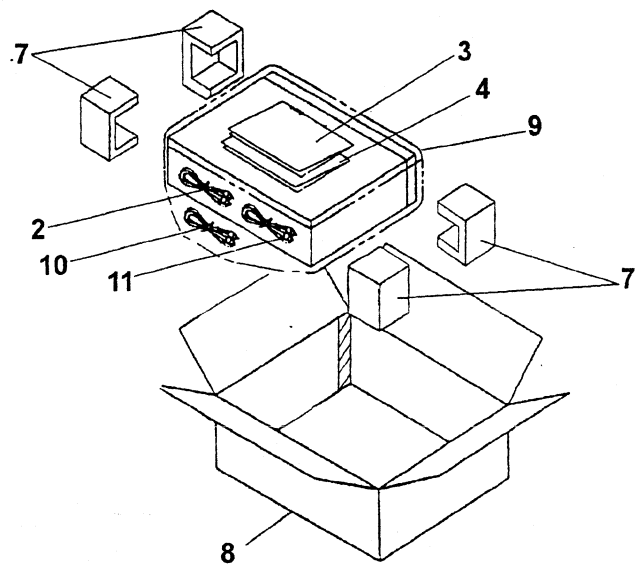
- NOTES: - Parts marked by 'NSP' are generally unavailable because they are not in our master spare parts list.  
 - The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.  
 - Screws adjacent to  $\blacktriangledown$  mark on product are used for disassembly.

### 2.1 PACKING

#### PD-207/WYXK and PD-207/WVXK



#### PD-107/WYXK and PD-107/WVXK

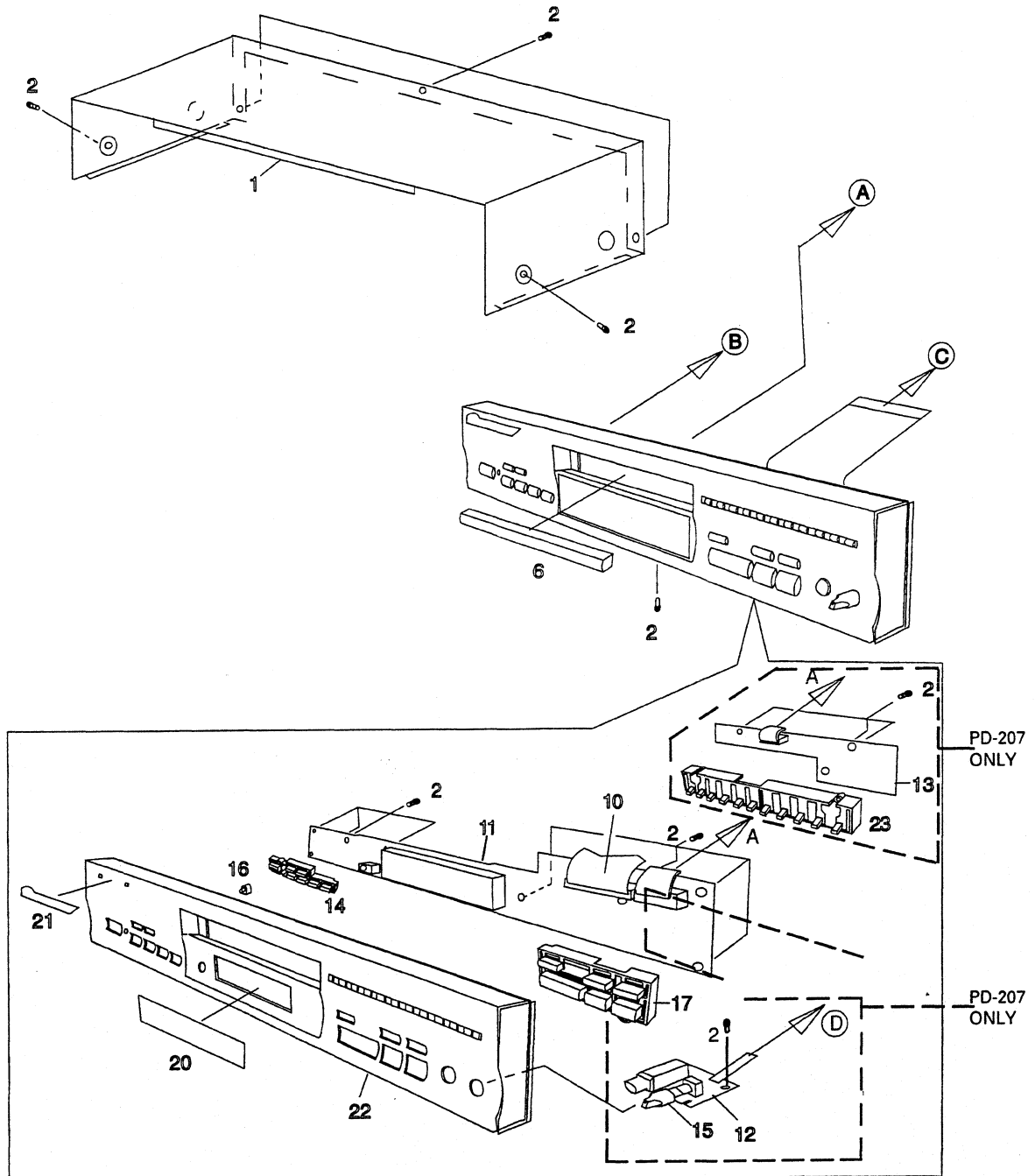


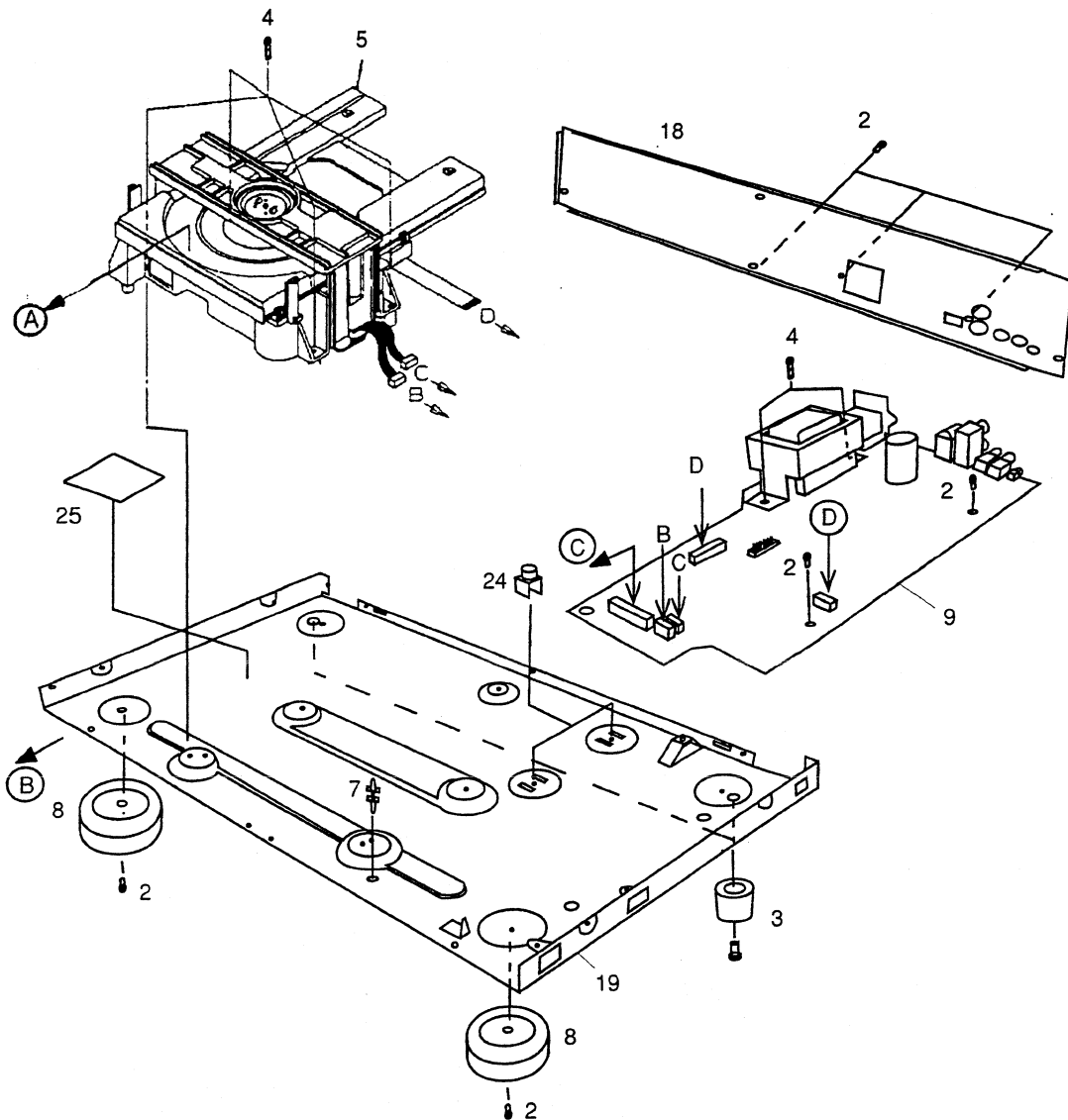
NB. For WVXY Models, the pins of the UK plug are inserted into the holes in the rear panel before packing.

			PD-107/WYXK	PD-107/WVXK	PD-207/WYXK	PD-207/WVXK
1	BATTERY (AAA)	PEM1004	NOT USED	NOT USED		
2	OUTPUT CABLE	PDE1249				
3	INSTRUCTION MANUAL (ENGLISH)	XRB1002				
4	INSTRUCTION MANUAL (Fre, Ger, Ita, Dut, Swe, Spa, Por)	XRD1001		NOT USED		NOT USED
5	REMOTE CONTROL	XWW1001	NOT USED	NOT USED		
6	PLASTIC BAG	AHG7011	NOT USED	NOT USED		
7	STYROL PROTECTOR	XHA1004				
8	PACKING CASE	XHD1012	NOT USED	NOT USED		
	PACKING CASE	XHD1011			NOT USED	NOT USED
9	PACKING SHEET	PHL1072				
$\Delta$ 10	POWER CORD	ADG7010		NOT USED		NOT USED
$\Delta$ 10	POWER CORD	ADG7009	NOT USED		NOT USED	NOT USED
11	CONTROL CABLE	PDE1095			NOT USED	NOT USED

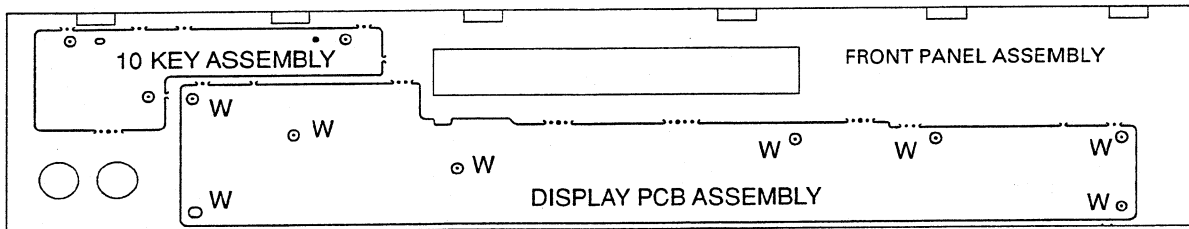
PD-207/PD-107

2.2 MECHANICAL - EXPLODED VIEWS





**REMOVING AND REPLACING THE DISPLAY PCB ASSEMBLY.**

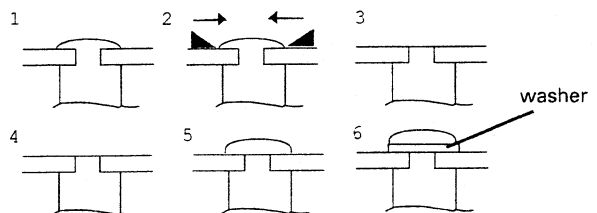


**REMOVING**

- 1 The PCB is held in place by 8 plastic welds, marked W above.
- 2 Using flat edge cutters, carefully cut the ends off the welds. BE CAREFUL NOT TO DAMAGE THE COPPER PATTERN.
- 3 Remove the PCB.

**REFITTING**

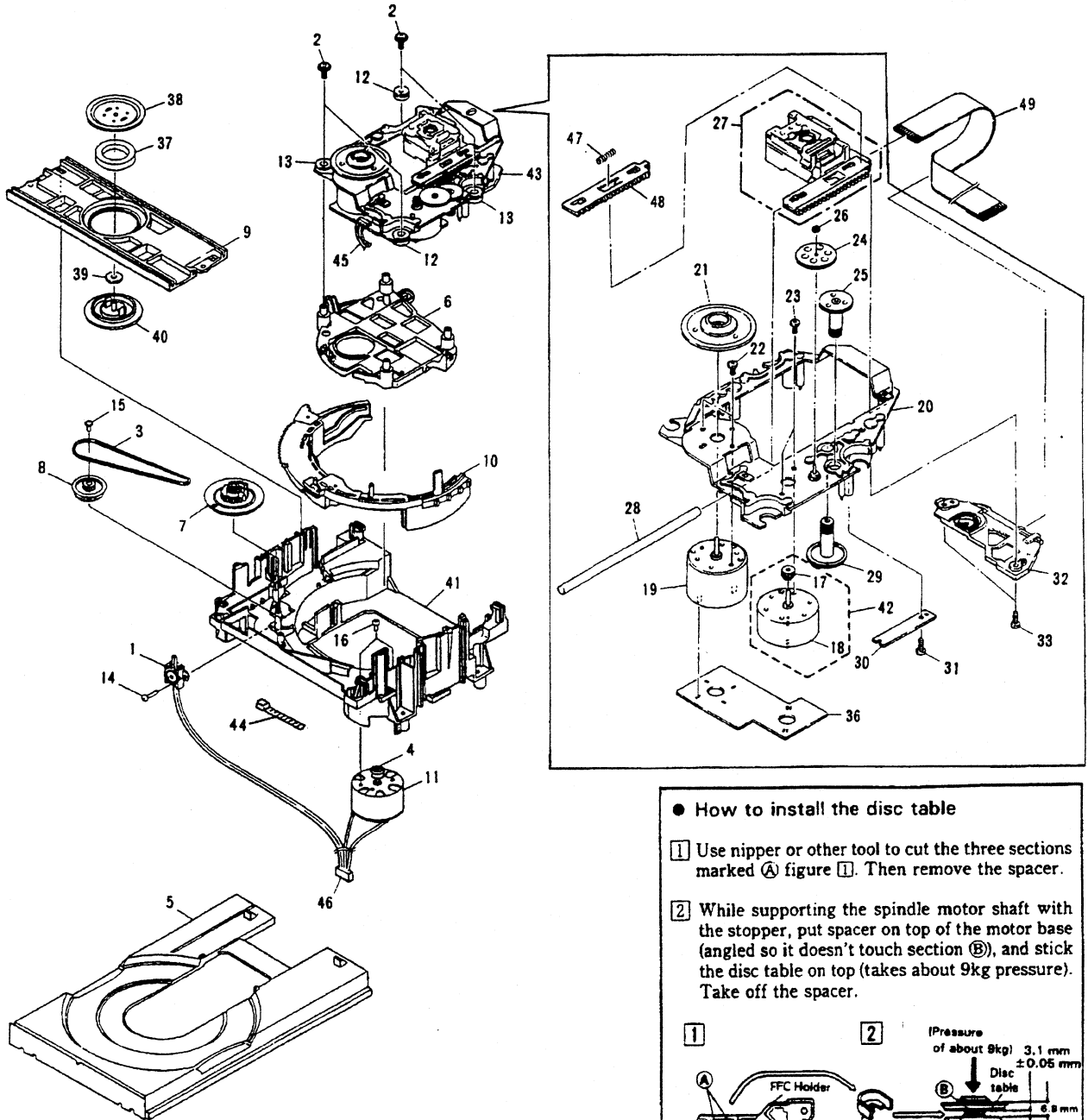
- 4 Refit the PCB to the posts.
- 5 Fix the PCB in position using BBZ30P080FZK screws.
- 6 If an alternative screw is used, it is recommended that a nylon or fibre washer be fitted before the screw.



2.2 MECHANICAL - PARTS LIST

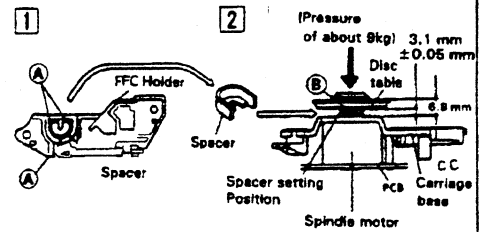
		PD-207		PD-107		
		WYXK	WVXK	WYXK	WVXK	
	1	BONNET				XNE1002
	2	SCREW				BBZ30P080FZK
	3	INSULATOR				PNW2766
	4	SCREW				BBZ30P180FMC
NSF	5	SINGLE MECHA ASSY				XXA1002
	6	XNW1002			XNW1005	
	7	PCB SUPPORTS				AEC7006
	8	FOOT (RUBBER)				REC1263
NSF	9	XWM1006			XWM1005	
	10	FFC (23P)				XDD1001
NSF	11	XWZ1002			XWZ1001	
NSF	12	XWZ1003			NOT USED	
	13	XWZ1004			NOT USED	
	14	POWER BUTTON				XAC1001
	15	PAC1707			NOT USED	
	16	LED LENS				PNW2019
	17	PLAY BUTTON				XAC1002
	18	XNC1002			XNC1001	
NSF	19	CHASSIS				XNA1001
	20	XAM1004			XAM1005	
	21	NAME PLATE				PAM1776
	22	XNW1003			XNW1004	
	23	XAC1003			NOT USED	
	24	PCB MOLD				AMR2533
NSF	25	CAUTION LABEL (COMB)				XRW1003

2.3 SINGLE MECHANISM ASSY - EXPLODED VIEW



● How to install the disc table

- 1 Use nipper or other tool to cut the three sections marked (A) figure 1. Then remove the spacer.
- 2 While supporting the spindle motor shaft with the stopper, put spacer on top of the motor base (angled so it doesn't touch section (B)), and stick the disc table on top (takes about 9kg pressure). Take off the spacer.



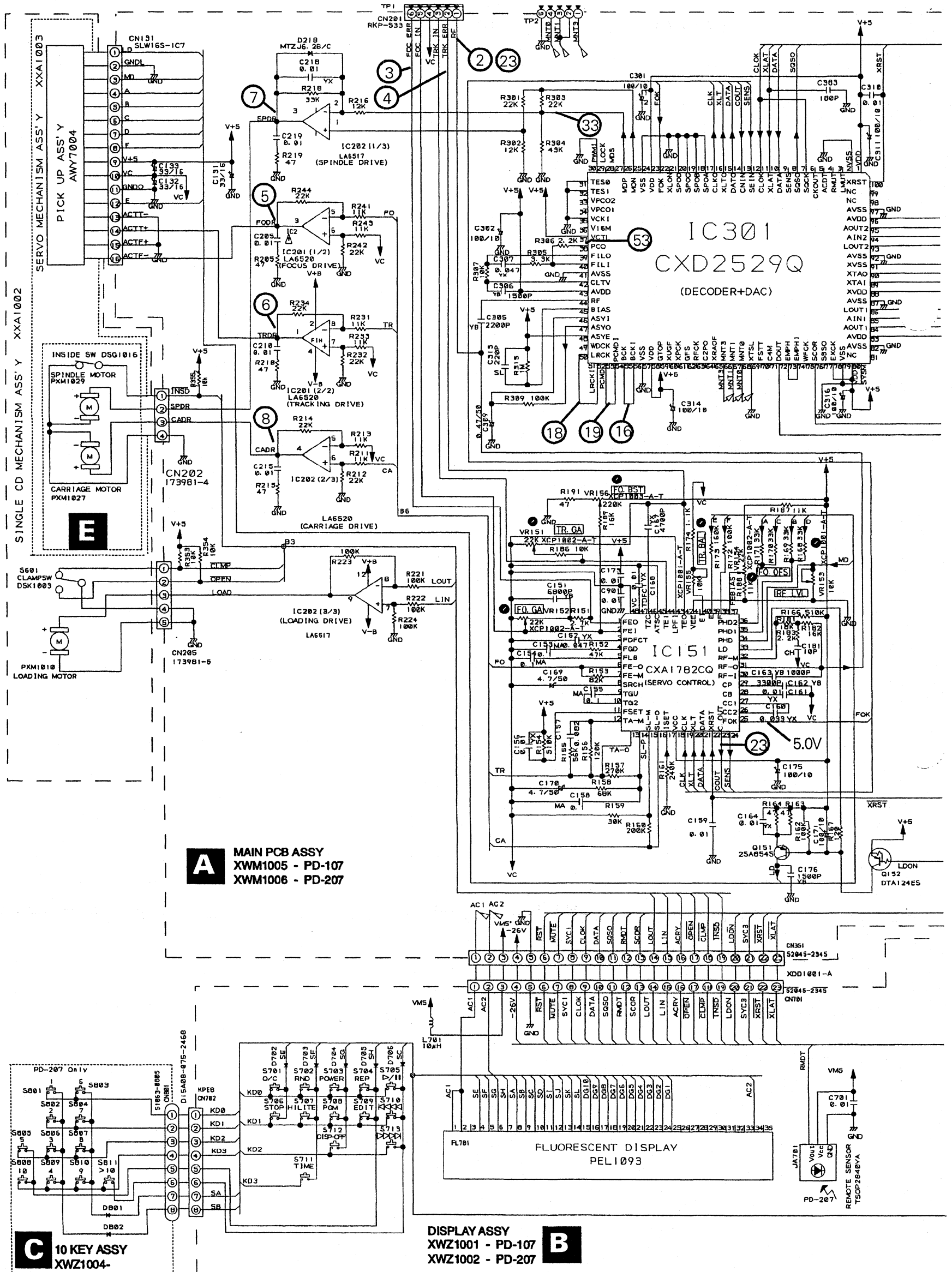
(BLANK PAGE)



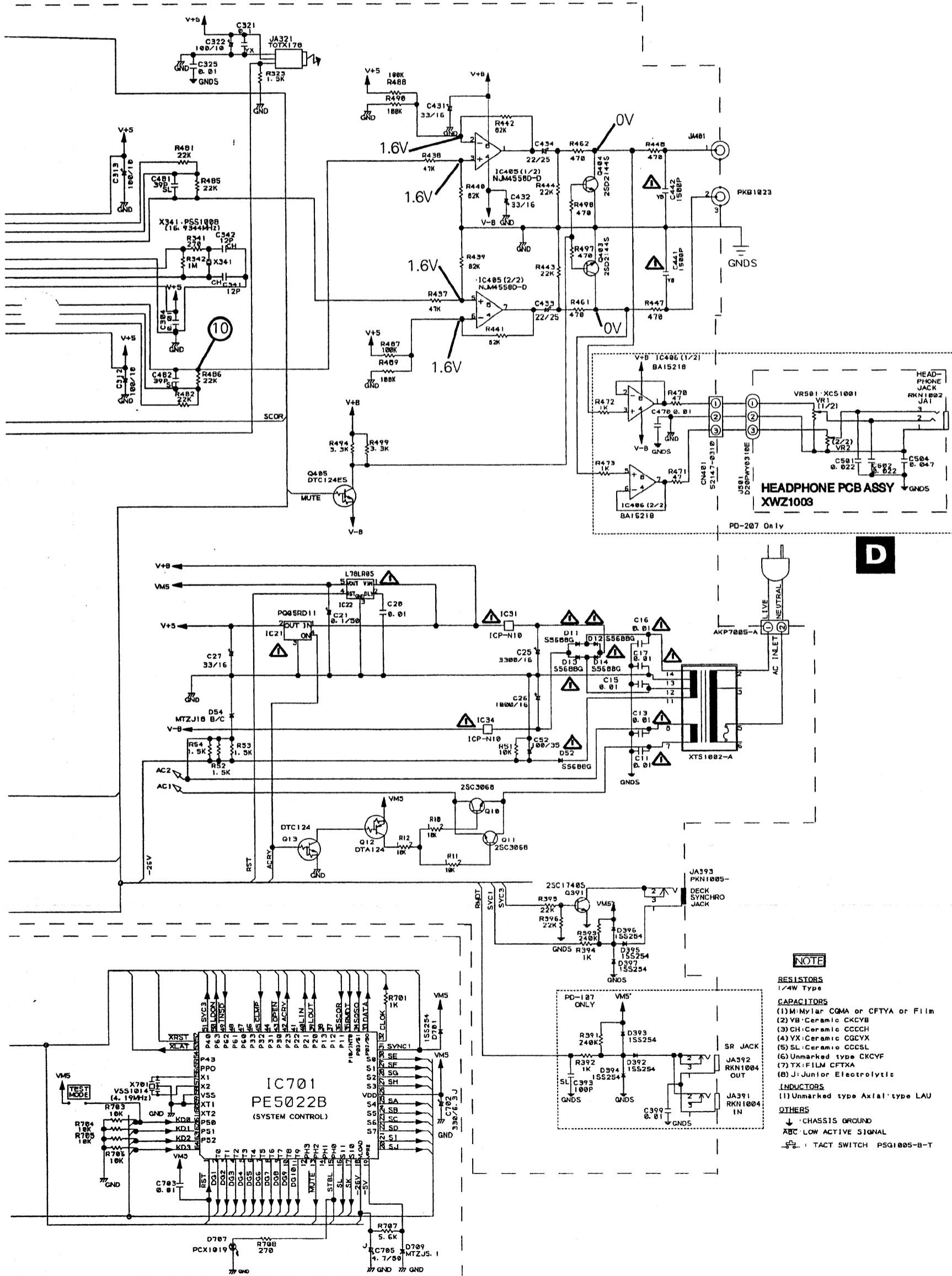
**2.3 SINGLE MECHANISM ASSY - PART LIST**

Mark	No.	Description	Part No.
	1	Lever Switch	DSK1003
	2	Screw	PBA1048
	3	Rubber Belt	PEB1193
	4	Motor Pulley	PNW1634
	5	Tray Black V	PNW2455
	6	Float Base	PNW2032
	7	Drive Gear 2	PNW2369
	8	Gear Pulley	PNW2034
	9	Clamper Base	PNW2375
	10	Clamp Cam	PNW2364
	11	DC Motor/0.75W	PXM1010
	12	Float Rubber B	REB1287
	13	Float Rubber G	REB1288
	14	Screw	BPZ26P080FMC
	15	Screw	Z39-019
	16	Screw	PMZ26P040FMC
	17	Pionion Gear	PNW2055
NSP	18	DC Motor (CARRIAGE)	PXM1027
	19	D.C.Motor Assy (SPINDLE)	PEA1235
	20	Carriage Base	PNW2699
	21	Disc Holder	PNW1608
	22	Screw	JFZ20P030FNI
	23	Screw	JFZ17P025FZK
	24	Gear3	PNW2054
	25	Gear2	PNW2053
	26	Washer	WT12D032D025
	27	Pick UP Assy	AWY7004
	28	Guide Bar	PLA1094
	29	Gear1	PNW2052
	30	Gear Stopper	PNB1303
	31	Screw	BPZ20P060FMC
	32	FFC Holder	PNW2734
	33	Screw	BPZ26P100FMC
	34	.....	.....
	35	.....	.....
NSP	36	MECHANISM BOARD ASSY	PWX1192
	37	Clamp Magnet	PMF1014
	38	Yoke	PNB1216
NSP	39	H Rubber	PEB1249
	40	Clamper S	PNW1609
	41	Loading Base	PNW2376
	42	DC Motor Assy (CARRIAGE)	PEA1246
NSP	43	SERVO MECHANISM ASSY	PXA1596
	44	Binder	Z09-056
	45	Connector Assy (4p)	RDE1043
	46	Connector Assy (5p)	PDE1239
	47	PU Rack Spring	ABH7077
	48	Rack Holder	PNW2056
	49	16P FFC/30V	PDD1183

### 3. SCHEMATIC DIAGRAM



NOTE: WHEN ORDERING SERVICE PARTS, BE SURE TO REFER TO "EXPLODED VIEWS AND PARTS LIST" OR "PCB PARTS LIST"



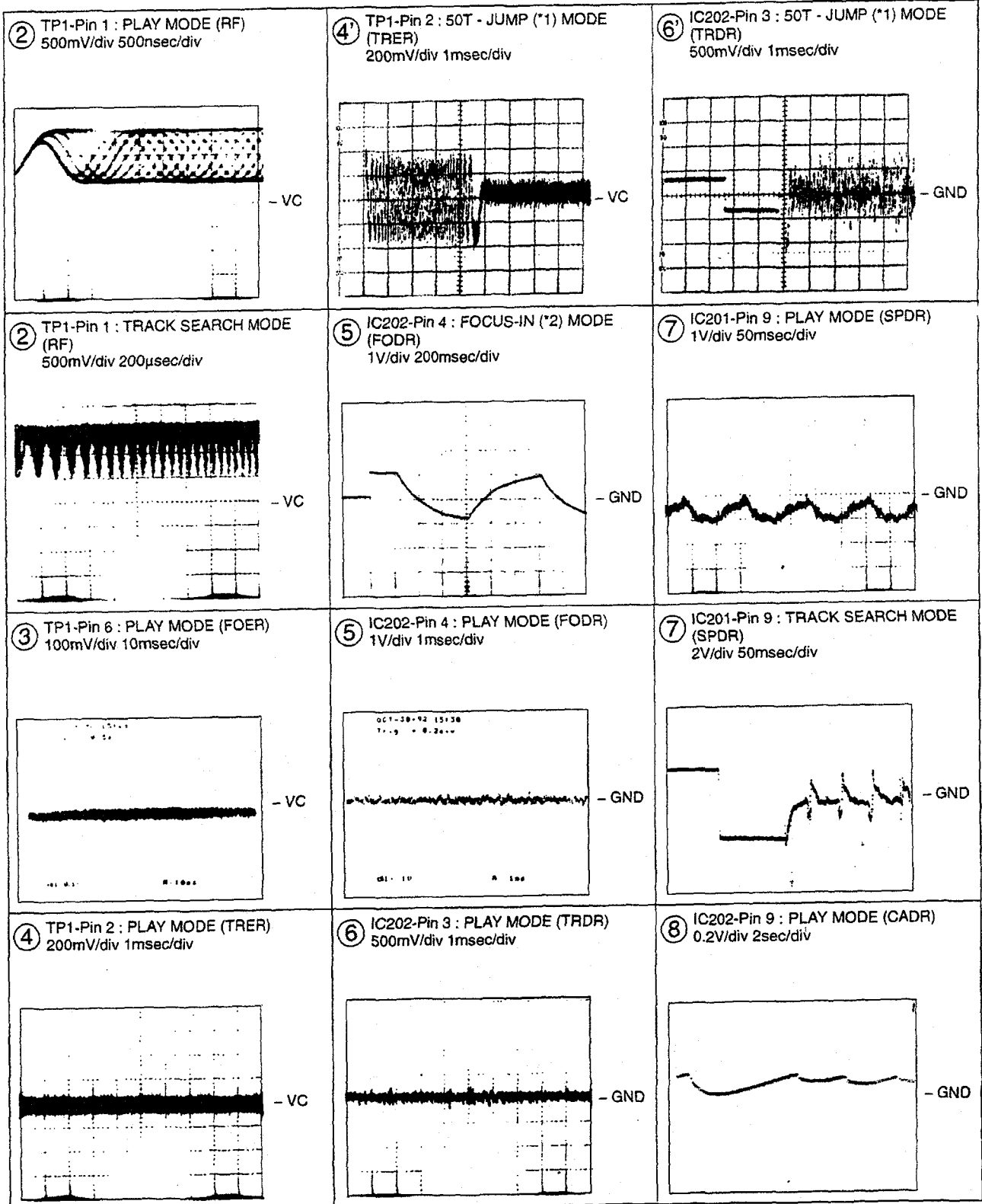
- NOTE**
- RESISTORS**  
1/4W Type
- CAPACITORS**  
(1) M: Mylar CQMA or CFTYA or Film  
(2) YB: Ceramic CKCYB  
(3) CH: Ceramic CCCCH  
(4) YX: Ceramic CGCVX  
(5) SL: Ceramic CCGSL  
(6) Unmarked type CKCYF  
(7) TX: FILM CFTXA  
(8) J: Junior Electrolytic
- INDUCTORS**  
(1) Unmarked type Axial type LAU
- OTHERS**  
↓ CHASSIS GROUND  
ABC: LOW ACTIVE SIGNAL  
⊘: TACT SWITCH PSQ1005-B-T

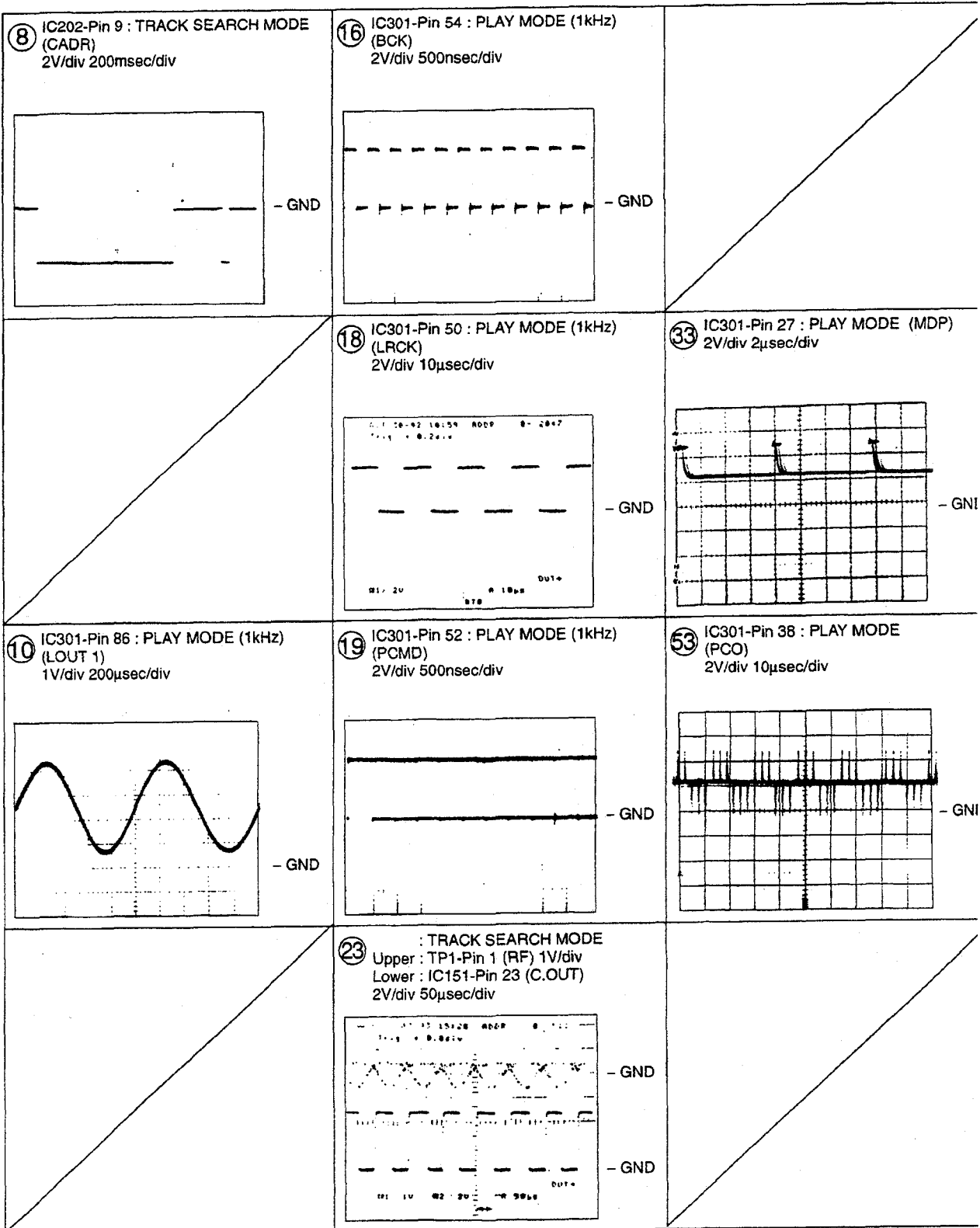
PD-207/PD-107

Waveforms

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

\*1 50T-JUMP : After switching to the pause mode, Press the manual search key.  
 \*2 FOCUS-IN : Press the key without loading a disc.


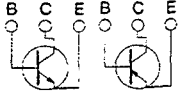

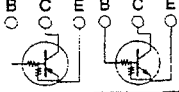

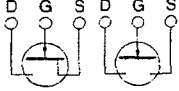
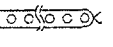
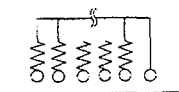

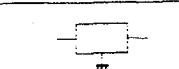




### 4. PCB CONNECTION DIAGRAM

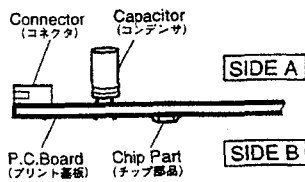
**NOTE FOR PCB DIAGRAMS**

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.

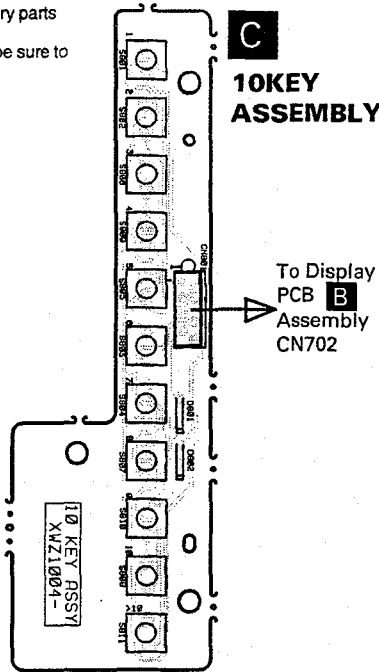
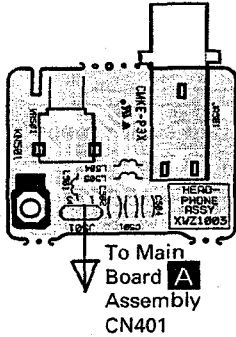
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

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.

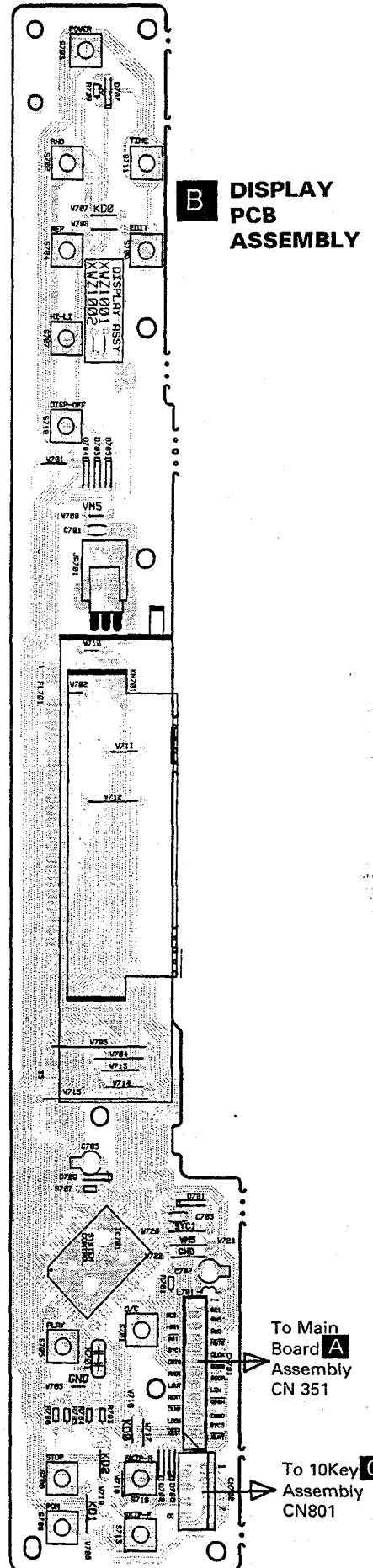
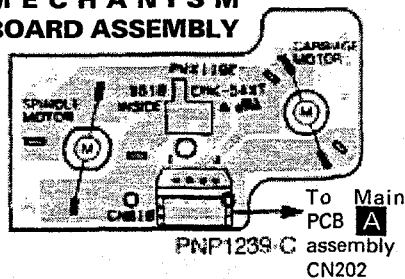
**4. Viewpoint of PCB diagrams**



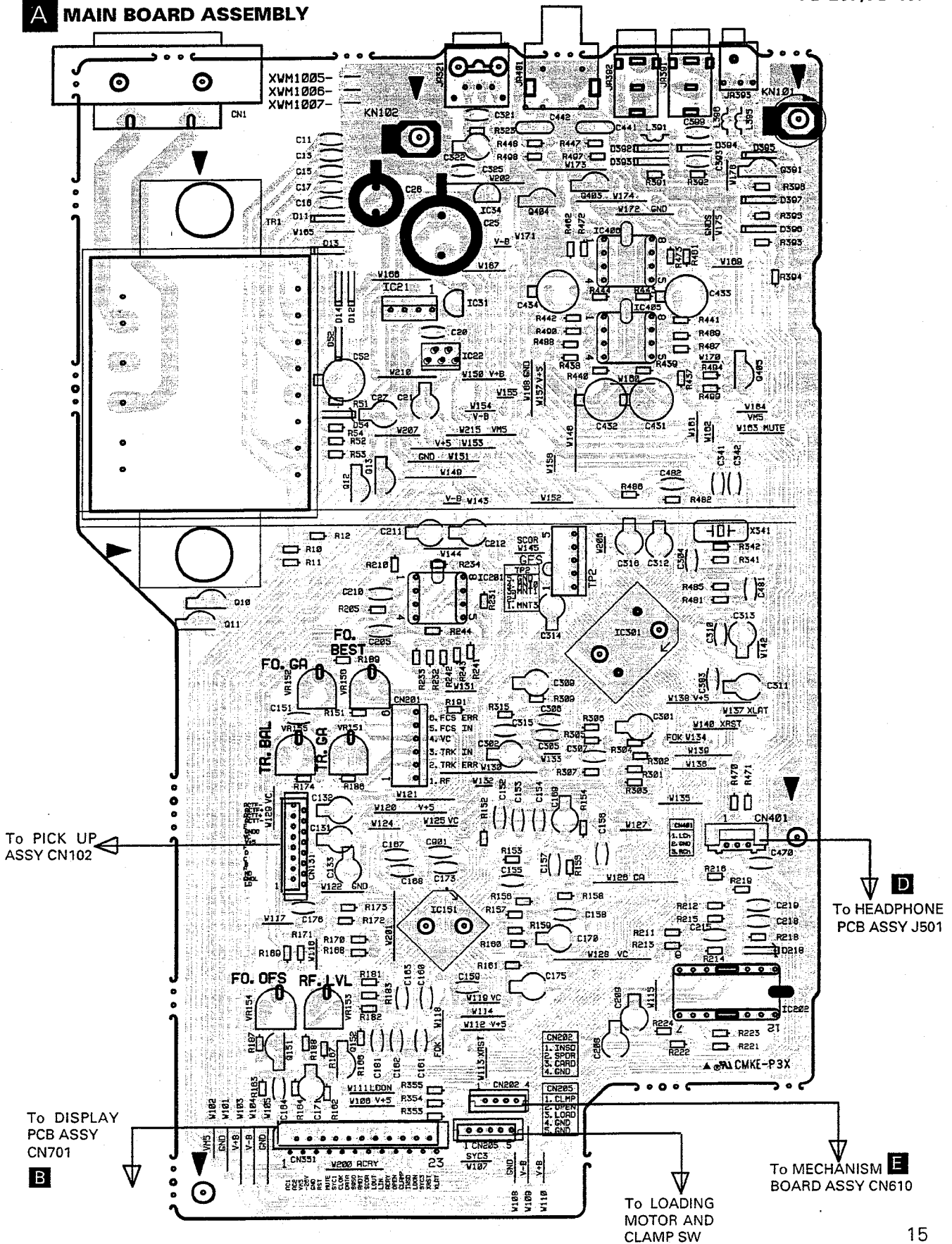
**D HEADPHONE ASSEMBLY**



**E MECHANISM BOARD ASSEMBLY**



**A** MAIN BOARD ASSEMBLY



## 5. PCB PARTS LIST

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

• The  $\Delta$  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 <sup>1</sup>	$\rightarrow$	561 .....	RD1/4PU	561J
47k $\Omega$	$\rightarrow$	47 $\times$ 10 <sup>3</sup>	$\rightarrow$	473 .....	RD1/4PU	473J
0.5 $\Omega$	$\rightarrow$	R50 .....			RN2H	R50K
1 $\Omega$	$\rightarrow$	1R0 .....			RS1P	1R0K

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

5.62k $\Omega$	$\rightarrow$	562 $\times$ 10 <sup>1</sup>	$\rightarrow$	5621 .....	RN1/4PC	5621F
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### LIST OF WHOLE PCB ASSEMBLIES

Mark	Description	PD-207		PD-107	
		WYXK	WVXK	WYXK	WVXK
$\Delta$ NSP	MAIN BOARD ASSEMBLY		XWM1006		XWM1005
$\Delta$ NSP	SUB PCB ASSEMBLY		XWX1003		XWX1002
NSP	DISPLAY PCB ASSEMBLY		XWZ1002		XWZ1001
NSP	10KEY ASSEMBLY		XWZ1004		NOT USED
NSP	HEADPHONE ASSEMBLY		XWZ1003		NOT USED
NSP	SINGLE MECHA ASSEMBLY			XXA1002	
NSP	SERVO MECHA ASSY			XXA1003	
NSP	MECHANISM PCB ASSY			PXA1192	

### 5.1 CONTRAST OF PCB ASSEMBLIES

#### DISPLAY PCB ASSEMBLY

XWZ1001 has the same construction as XWZ1002 except for the following.

Mark	Part Number	Description	Location	
	CAPACITORS			
	CKCYF103Z50-T	CERAMIC CAPACITOR	C 701	NOT USED
	OTHERS			
	TSOP2840YA	REMOTE SENSOR	JA 701	NOT USED
	KPE8	52004-0810 CONNECTOR	CN702	NOT USED



**MAIN BOARD ASSEMBLY**

XWM1005 has the same construction as XWM1006 except for the following.

Mark	Part Number	Description	Location	
<b>SEMICONDUCTORS</b>				
	1SS254-T	DIODE	D 392 393 394	USED
	BA15218	OP-AMP IC	IC 406	NOT USED
<b>CAPACITORS</b>				
	CKCYF103Z50-T	CERAMIC CAPACITOR	C 470	NOT USED
	CCCSL101J50-T	CERAMIC CAPACITOR	C 393	USED
	CKCYF103Z50-T	CERAMIC CAPACITOR	C 399	USED
<b>RESISTORS</b>				
	RD1/4PU470J-T	CARBON FILM RESISTOR	R 470 471	NOT USED
	RD1/4PU102J-T	CARBON FILM RESISTOR	R 472 473	NOT USED
	RD1/4PU244J-T	CARBON FILM RESISTOR	R 391	USED
	RD1/4PU102J-T	CARBON FILM RESISTOR	R 392	USED
<b>OTHERS</b>				
	RKN1004-A	JACK	J 391 392	USED
	52147-0310	CONNECTOR (3P)	CN401	NOT USED

**5.2 PCB PARTS LISTS**

**HEADPHONE ASSY- XWZ1003 D**

Mark	Part Number	Description	PCB Location
<b>CAPACITORS</b>			
	CKCYF223Z50-T	CERAMIC CAPACITOR	C 501 502
	CKCYF473Z50-T	CERAMIC CAPACITOR	C 504
<b>OTHERS</b>			
	D20PWY0310E	FLAT CABLE (3P)	J 501
	RKN1002-A	HEADPHONE JACK	JA 1
	XCS1001-A	VARIABLE RESISTOR	VR 501

**10KEY ASSY - XWZ1004 C**

Mark	Part Number	Description	PCB Location
<b>SEMICONDUCTORS</b>			
	1SS254-T	DIODE	D 801 802
<b>SWITCHES AND RELAYS</b>			
	PSG1005-B-T	TACTILE SW.(SKHVBB)	S 801 802 803 804 805 806 807 808 809 810 811
<b>OTHERS</b>			
	51063-0805	AKT1022-A HOLDER	CN801
	D15A08-075-2468	FLAT CABLE (8P)	J 801

**DISPLAY PCB ASSY - XWZ1002**

**B**

Mark	Part Number	Description	PCB Location
<b>SEMICONDUCTORS</b>			
	PE5022B	UPD75212AGF-605-3BE	IC 701
	SLH34VCF04-T	LED (RED)	D 707
	MTZJ5.1B/C-T	ZENER DIODE	D 709
	1SS254-T	DIODE	D 701 702 703 704 705 706
<b>CAPACITORS</b>			
	CEJA331M6R3-T	ELECT. CAPACITOR	C 702
	CEJA4R7M50-T	ELECTROLYTIC CAP.	C 705
	CKCYF103Z50-T	CERAMIC CAPACITOR	C 701 703
<b>COILS AND FILTERS</b>			
	LAU100J-T	AXIAL INDUCTOR	L 701
<b>RESISTORS</b>			
	RD1/4PU102J-T	CARBON FILM RESISTOR	R 701
	RD1/4PU103J-T	CARBON FILM RESISTOR	R 703 704 705 706
	RD1/4PU562J-T	CARBON FILM RESISTOR	R 707
	RD1/4PU271J-T	CARBON FILM RESISTOR	R 708
<b>SWITCHES AND RELAYS</b>			
	PSG1005-B-T	TACTILE SW.(SKHVBB)	S 701 702 703 704 705 706 707 708 709 710 711 712 713
<b>OTHERS</b>			
	VSS1014-A-T	CERAMIC RESONATOR	X 701
	KPE8	52004-0810 CONNECTOR	CN702
	52045-2345	CONNECTOR (23P)	CN701
	PEL1093-A	FL TUBE (10SM02)	FL 701
	TSOP2840YA	REMOTE SENSOR	JA 701

**MAIN PCB ASSEMBLY - XWM1006-**

**B**

Mark	Part Number	Description	PCB Location
<b>SEMICONDUCTORS</b>			
	1SS254-T	DIODE	D 395 396 397
	BA15218	OP-AMP IC	IC 406
	CXA1782CQ	SERVO IC	IC 151
	CXD2529Q	EFM DEMODULATION IC	IC 301
▲	ICP-N10-T	IC PROTECTOR	IC 31 34
▲	L78LR05F-MA	REGULATOR IC	IC 22
▲	LA6517	POWER OP-AMP IC	IC 202
▲	LA6520	POWER OP-AMP IC	IC 201
	MTZJ18B/C-T	ZENER DIODE	D 54
	MTZJ6.2B/C-T	ZENER DIODE	D 218
	NJM4558D-D	OP-AMP IC	IC 405
▲	PQ05RD11	REGULATOR IC	IC 21
▲	S5688G-T	DIODE (TPA3)	D 11 12 13 14 52

CAPACITORS

CCCCH100D50-T	CERAMIC CAPACITOR	C 181
CCCCH120J50-T	CERAMIC CAPACITOR	C 341 342
CCCSL181J50-T	CERAMIC CAPACITOR	C 383
CCCSL221J50-T	CERAMIC CAPACITOR	C 315
CCCSL390J50-T	CERAMIC CAPACITOR	C 481 482
CEAS101M10-T	ELECTROLYTIC CAP.	C 171 175 301 302 311 312 313 314 316 322
CEAS101M35-T	ELECTROLYTIC CAP.	C 52
CEAS102M16-F	ELECTROLYTIC CAP.	C 26
CEAS220M25-T	ELECTROLYTIC CAP.	C 433 434
CEAS330M16-T	ELECTROLYTIC CAP.	C 27 131 132 133 431 432
CEAS332M16-F	ELECTROLYTIC CAP.	C 25
CEAS4R7M50-T	ELECTROLYTIC CAP.	C 169 170
CEASR10M50-T	ELECTROLYTIC CAP.	C 21
CEASR47M50-T	ELECTROLYTIC CAP.	C 309
CGCYX103K25-T	CERAMIC CAPACITOR	C 156 161 164 168 218
CGCYX104K25-T	CERAMIC CAPACITOR	C 321
CGCYX333K25-T	CERAMIC CAPACITOR	C 160
CGCYX472K25-T	CERAMIC CAPACITOR	C 167
CGCYX473K25-T	CERAMIC CAPACITOR	C 152 307
CGCYX823K25-T	CERAMIC CAPACITOR	C 157
CKCYB102K50-T	CERAMIC CAPACITOR	C 163
CKCYB152K50-T	CERAMIC CAPACITOR	C 176 306 441 442
CKCYB222K50-T	CERAMIC CAPACITOR	C 305
CKCYB332K50-T	CERAMIC CAPACITOR	C 162
CKCYB682K50-T	CERAMIC CAPACITOR	C 151
CKCYF103Z50-T	CERAMIC CAPACITOR	C $\triangle$ 11 $\triangle$ 13 $\triangle$ 15 $\triangle$ 16 $\triangle$ 17 20 159 173 205 210 215 219 304 310 325 470 901
CQMA104J50-T	MYLOR FILM CAPACITOR	C 153 154 155 158

RESISTORS

RD1/4PU102J-T	CARBON FILM RESISTOR	R 394 472 473
RD1/4PU103J-T	CARBON FILM RESISTOR	R 10 11 12 51 186 307 353 354 355
RD1/4PU104J-T	CARBON FILM RESISTOR	R 162 172 221 222 223 224 309 487 488 489 490
RD1/4PU105J-T	CARBON FILM RESISTOR	R 315 342
RD1/4PU112J-T	CARBON FILM RESISTOR	R 174
RD1/4PU113J-T	CARBON FILM RESISTOR	R 187 188 211 213 231 233 241 243
RD1/4PU121J-T	CARBON FILM RESISTOR	R 167
RD1/4PU123J-T	CARBON FILM RESISTOR	R 216 302
RD1/4PU124J-T	CARBON FILM RESISTOR	R 156
RD1/4PU152J-T	CARBON FILM RESISTOR	R 52 53 54 323
RD1/4PU163J-T	CARBON FILM RESISTOR	R 182 189
RD1/4PU164J-T	CARBON FILM RESISTOR	R 173
RD1/4PU183J-T	CARBON FILM RESISTOR	R 181
RD1/4PU204J-T	CARBON FILM RESISTOR	R 160
RD1/4PU222J-T	CARBON FILM RESISTOR	R 183 306
RD1/4PU223J-T	CARBON FILM RESISTOR	R 212 214 232 234 242 244 301 303 395 396 443 444 481 482 485 486
RD1/4PU244J-T	CARBON FILM RESISTOR	R 161 393
RD1/4PU271J-T	CARBON FILM RESISTOR	R 341
RD1/4PU272J-T	CARBON FILM RESISTOR	R 151

PD-207/PD-107






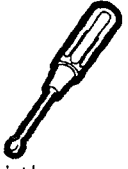

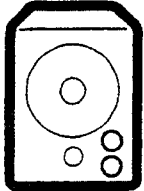
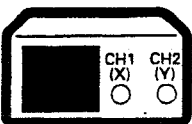
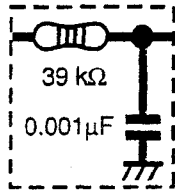
RD1/4PU274J-T	CARBON FILM RESISTOR	R 157
RD1/4PU303J-T	CARBON FILM RESISTOR	R 159
RD1/4PU332J-T	CARBON FILM RESISTOR	R 305 494 499
RD1/4PU333J-T	CARBON FILM RESISTOR	R 168 169 170 171 218
RD1/4PU334J-T	CARBON FILM RESISTOR	R 304
RD1/4PU470J-T	CARBON FILM RESISTOR	R 163 164 191 215 210 205 219 470 471
RD1/4PU471J-T	CARBON FILM RESISTOR	R 448 461 462 462 497 498
RD1/4PU473J-T	CARBON FILM RESISTOR	R 152 437 438
RD1/4PU514J-T	CARBON FILM RESISTOR	R 154 166
RD1/4PU563J-T	CARBON FILM RESISTOR	R 155
RD1/4PU683J-T	CARBON FILM RESISTOR	R 158
RD1/4PU823J-T	CARBON FILM RESISTOR	R 153 439 440 441 442
XCP1001-A-T	PRE-SET RESISTOR	VR 153 155
XCP1002-A-T	PRE-SET RESISTOR	VR 151 152 154
XCP1003-A-T	PRE-SET RESISTOR	VR 156
OTHERS		
173981-4	CONNECTOR (4P)	CN202
173981-5	CONNECTOR (5P)	CN205
52030-1610	CONNECTOR	CN131
52045-2345	CONNECTOR (23P)	CN351
52147-0310	CONNECTOR (3P)	CN401
△ AKP7005-A	YKE31-0119 AC INLET	CN 1
PKB1023-A	YKC21-3226 PIN JACK	JA 401
PKN1005-A	MINI JACK	J 393
PSS1008-A-T	CRYSTAL RESONATOR	X 341
RKP-533--	B6P-SHF-1AA-K CONN6P	CN201
TOTX178	OPTICAL JACK	JA 321
XTS1002-A	POWER TRANSFORMER	TR 1

# 6. ADJUSTMENT


## 6.1 ELECTRIC ADJUSTMENTS

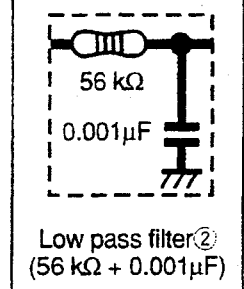
### 6.1.1 PREPARATIONS

#### 1.1 Jigs and Measuring Instruments

 <p>8-cm DISC (With at least about 20 minutes recording)</p>	 <p>CD TEST DISC (YEDS-7)</p>	 <p>⊖ Precise screwdriver</p>	 <p>⊖ screwdriver (small)</p>	 <p>⊕ screwdriver (medium)</p>
 <p>Ball point hexagon wrench (size: 1.5mm) GGK1002</p>	 <p>⊕ screwdriver (large)</p>	 <p>Low-frequency oscillator</p>	 <p>Dual-trace oscilloscope (10 : 1 probe)</p>	 <p>Low pass filter<sup>①</sup> (39 kΩ + 0.001 μF)</p>

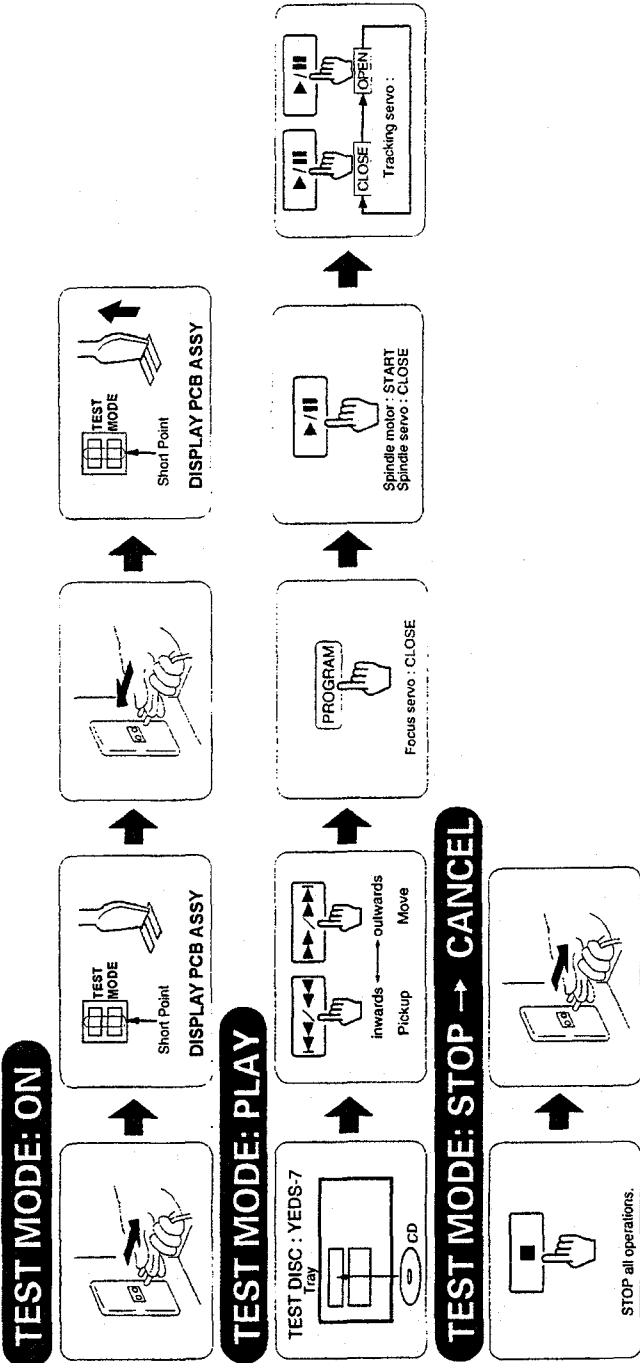
#### 1.2 Necessary Adjustment Points

When	Adjustment points
Exchange PICKUP	1.2.3.4.5.6.7. → Page 21~26 8.9.10.11.12.
Exchange MOTHER BOARD ASSY	1.3.5.6.7.8. → Page 21~26 9.10.11.12.
Exchange SERVO MECH ASSY	1.2.3.4.5.6.7. → Page 21~26 8.9.10.11.12.
Exchange SPINDLE MOTOR	 ADJ → Page 8

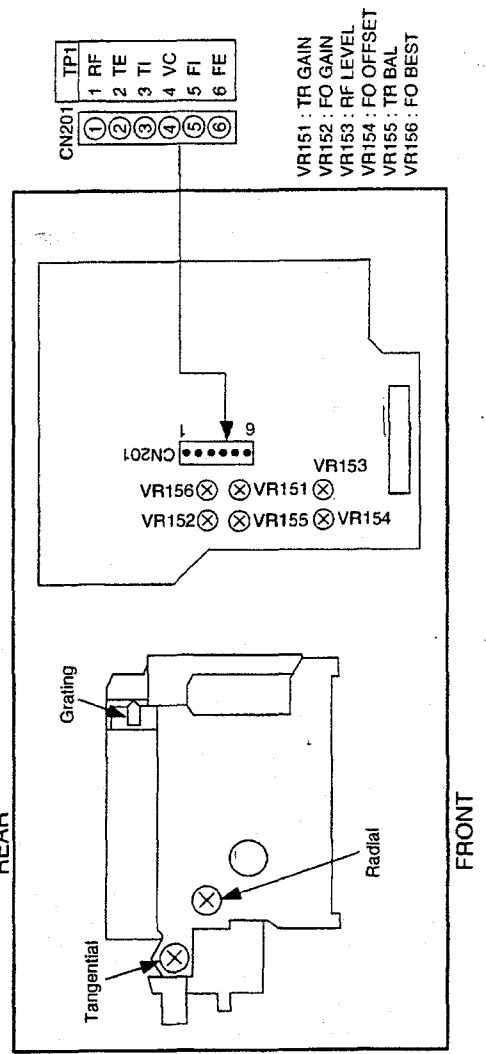


6.1.2 ADJUSTMENT

1 How to Start/Cancel Test Mode

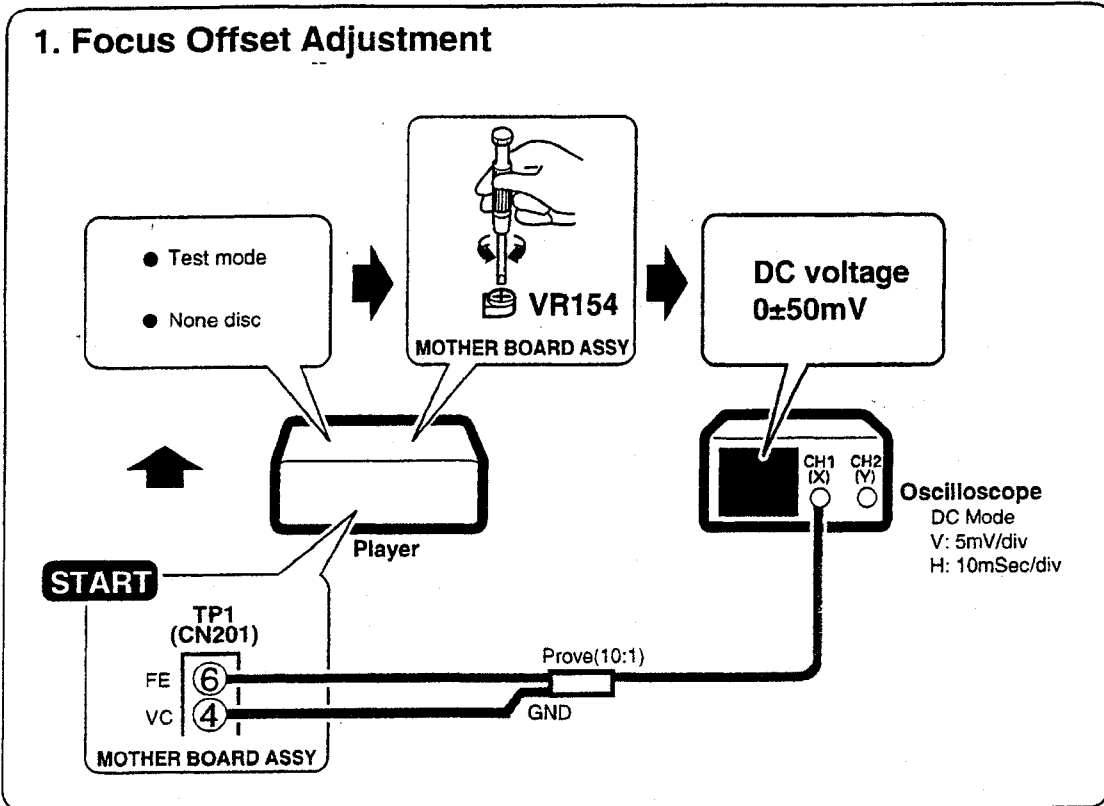


2 Adjustment Locations

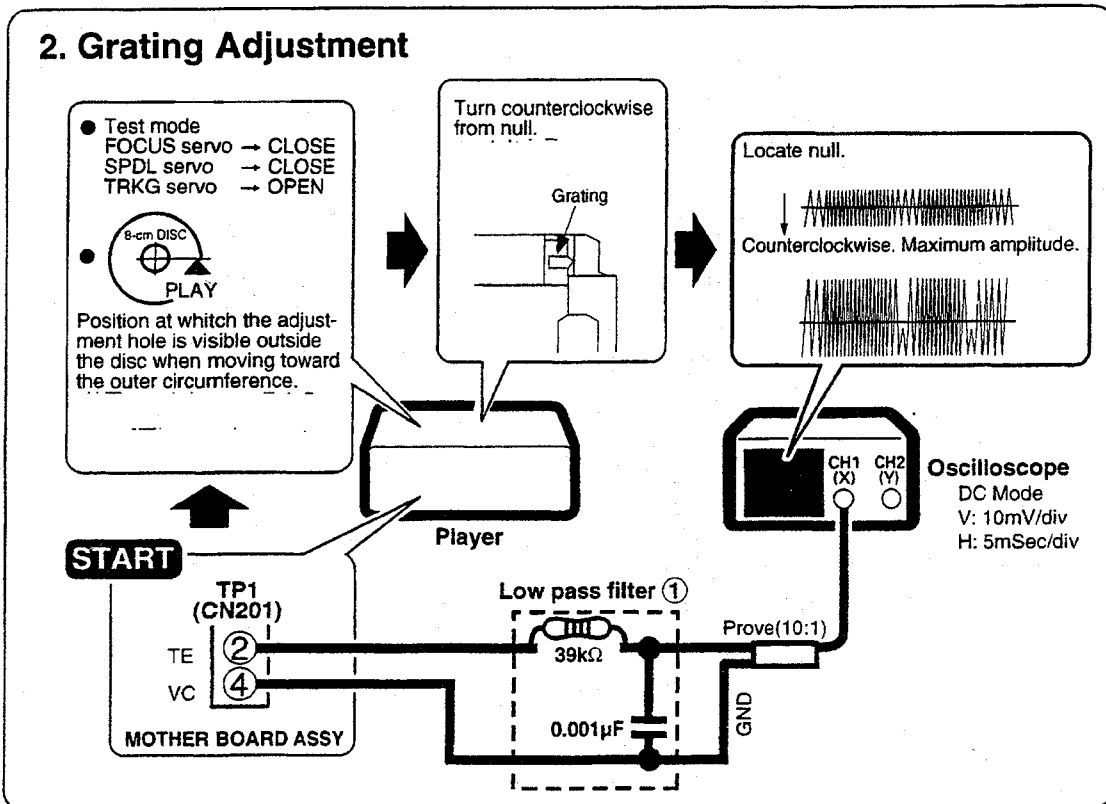


6.2 Check and Adjustment

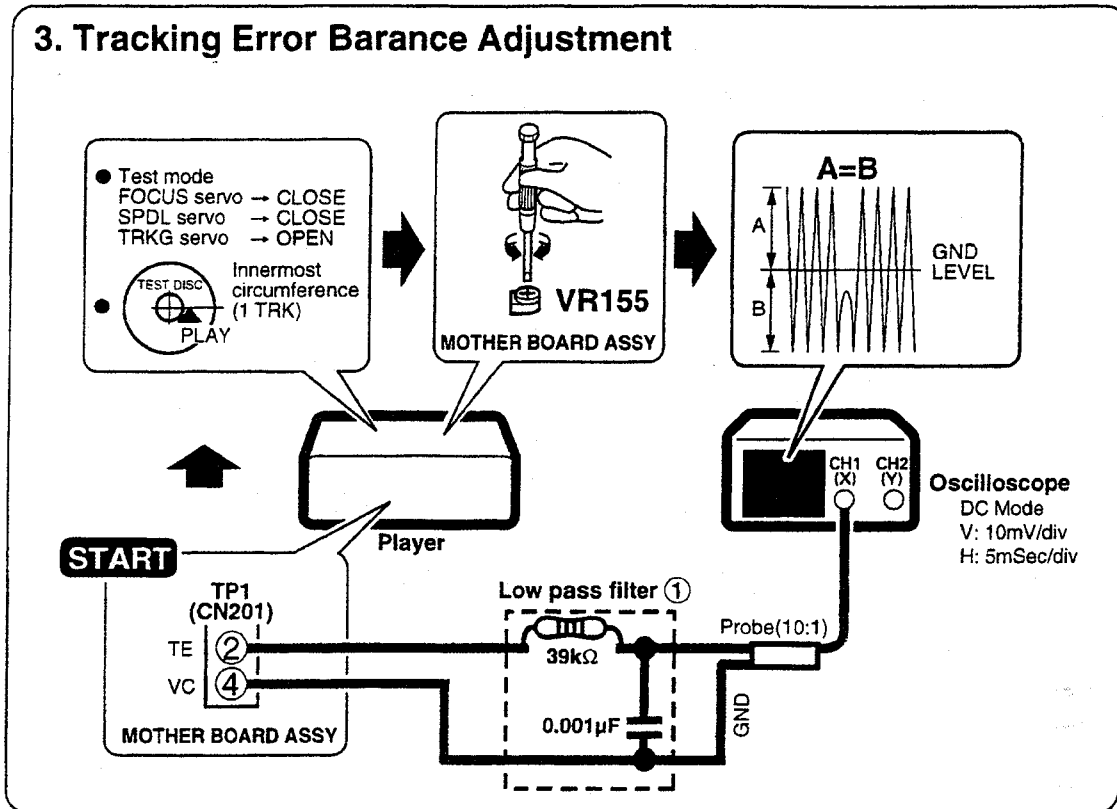
1. Focus Offset Adjustment



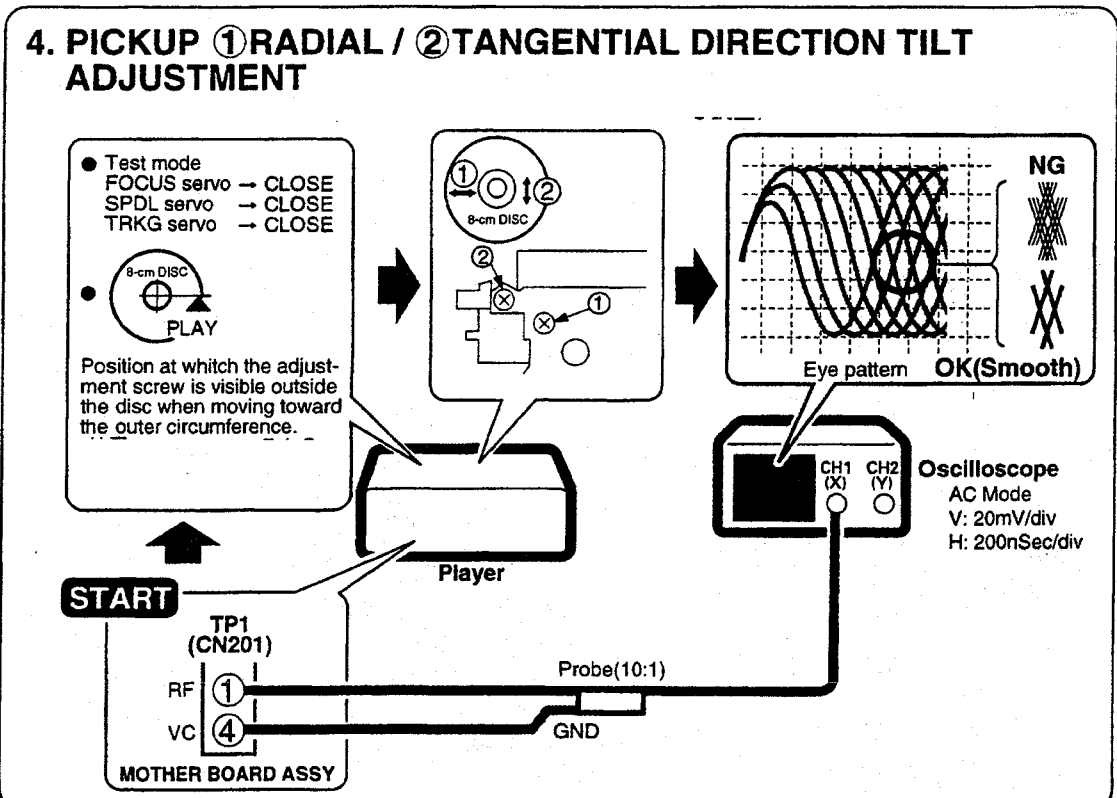
2. Grating Adjustment



### 3. Tracking Error Barance Adjustment

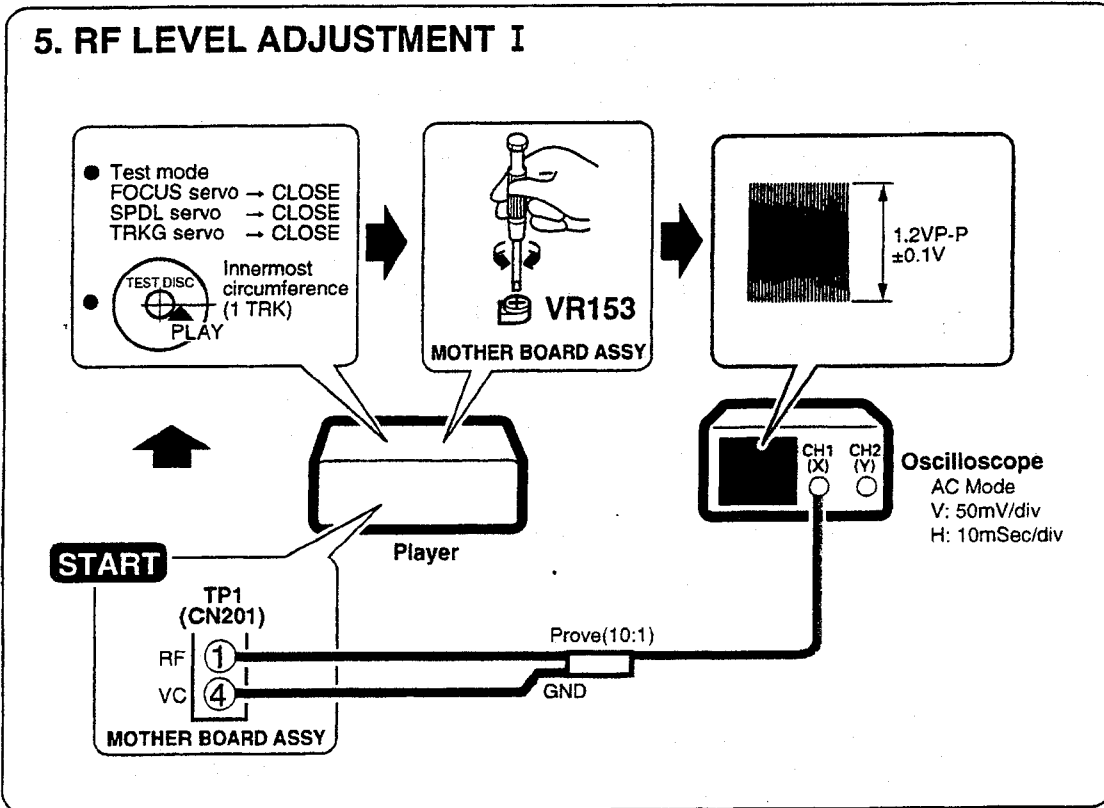


### 4. PICKUP ① RADIAL / ② TANGENTIAL DIRECTION TILT ADJUSTMENT

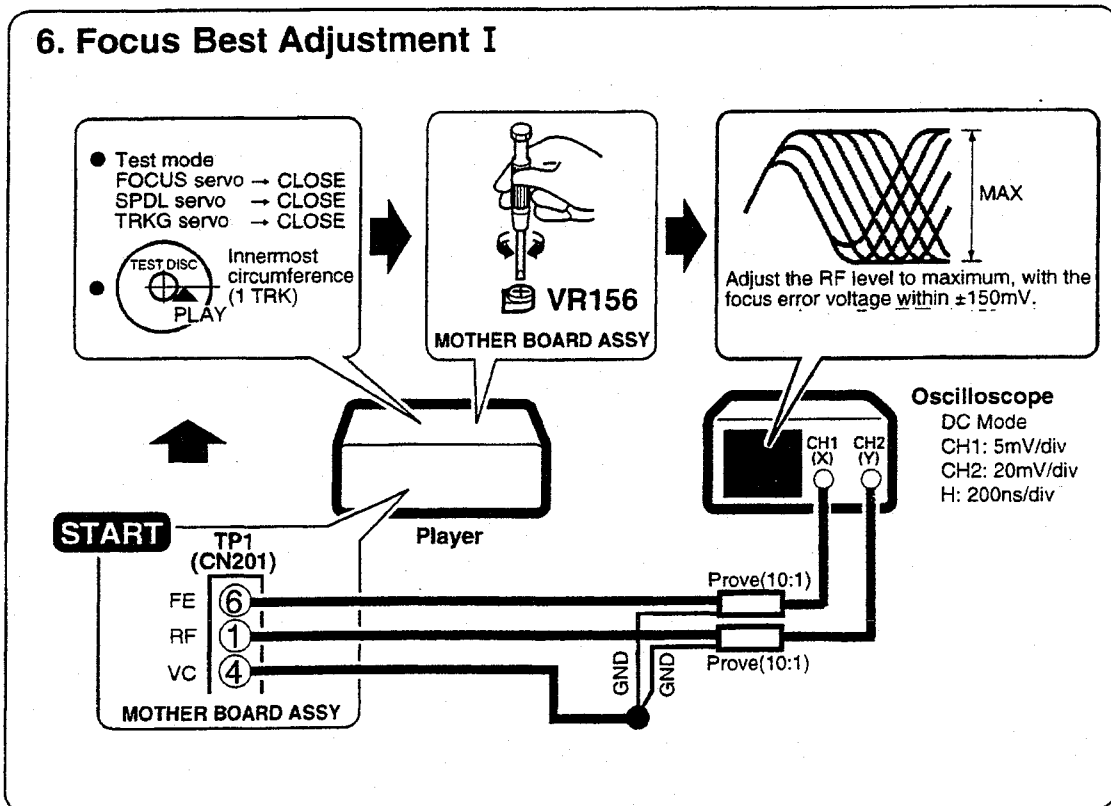


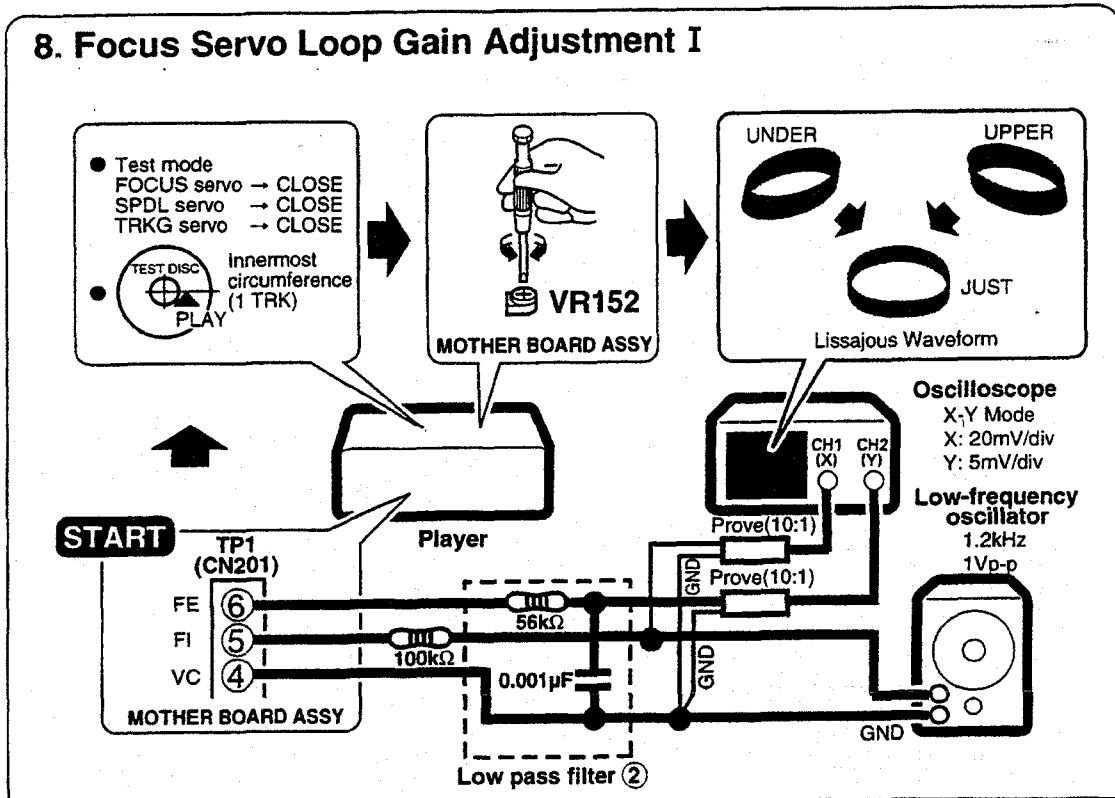
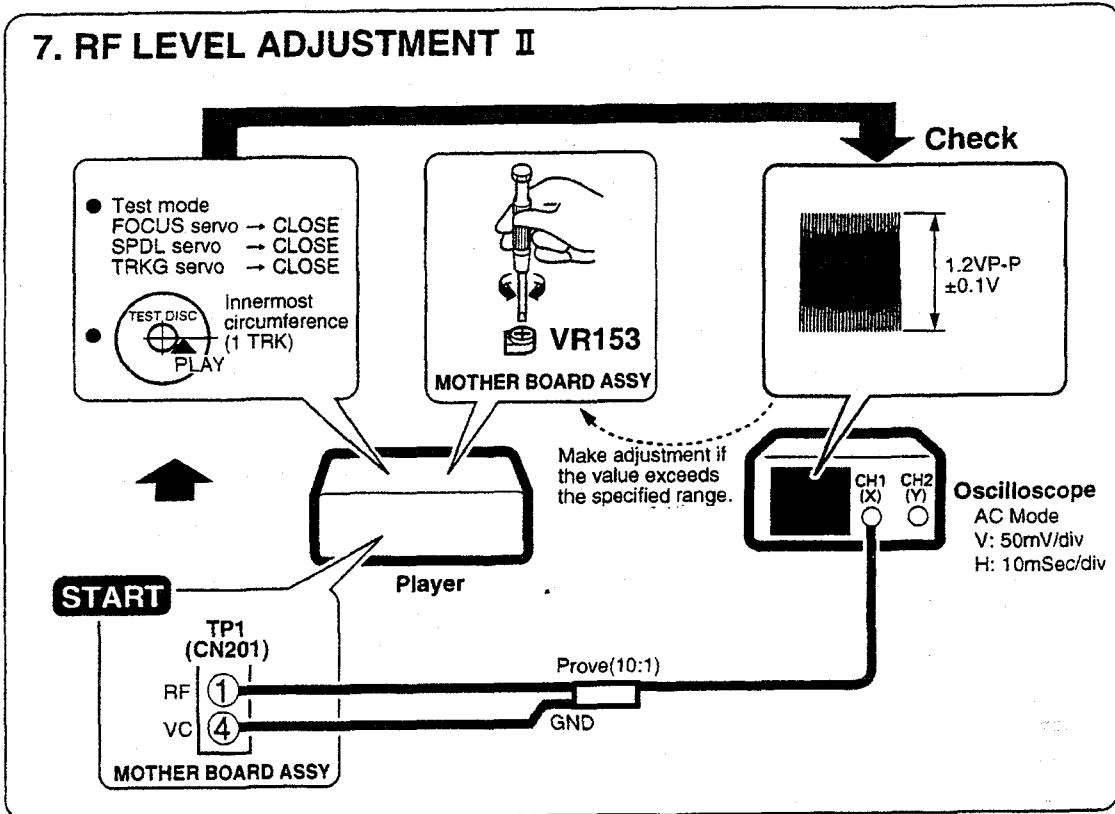


### 5. RF LEVEL ADJUSTMENT I

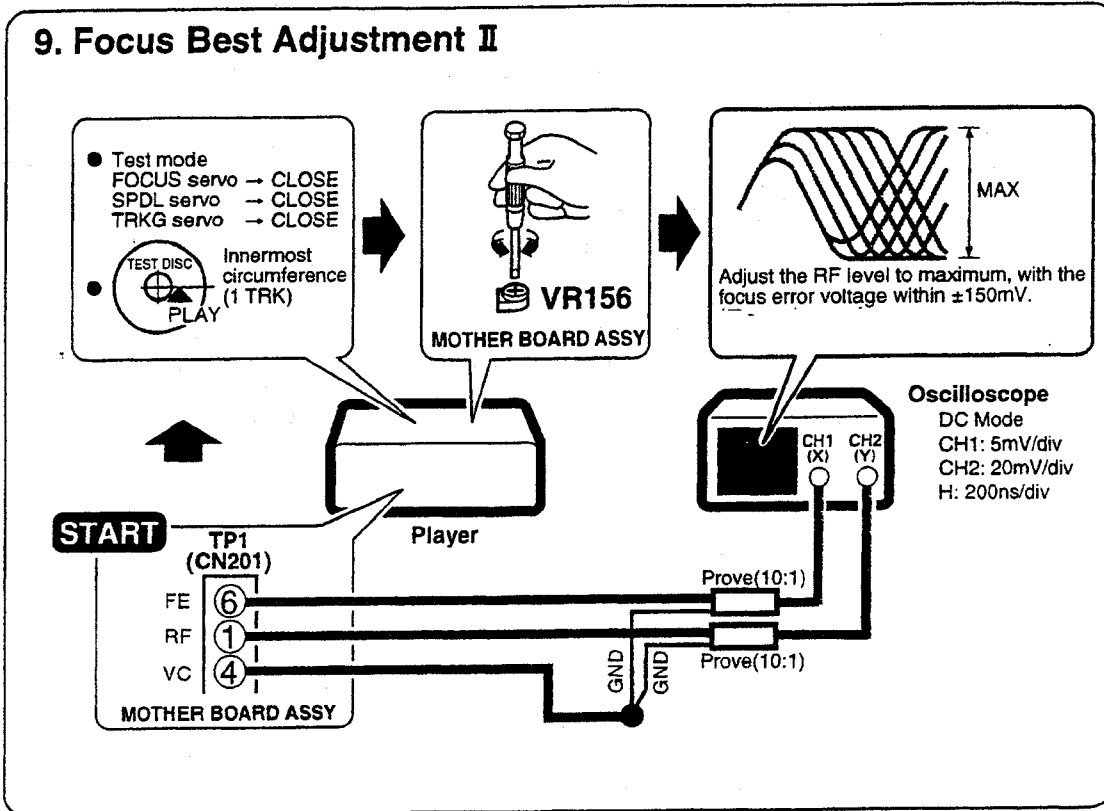


### 6. Focus Best Adjustment I

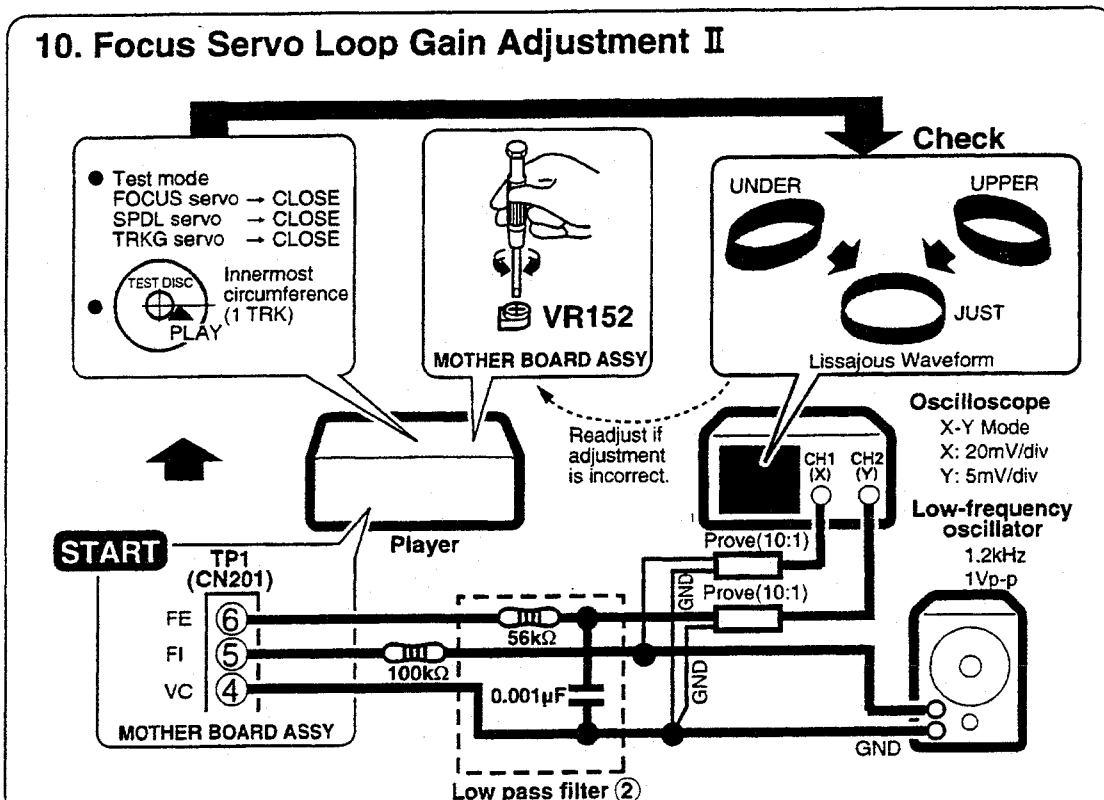




### 9. Focus Best Adjustment II

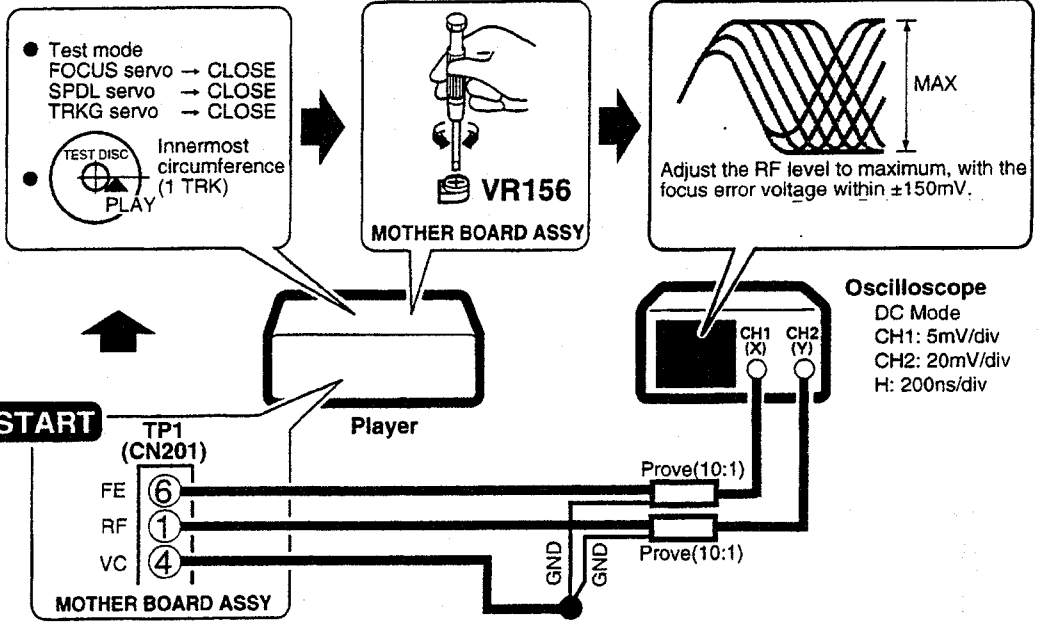


### 10. Focus Servo Loop Gain Adjustment II

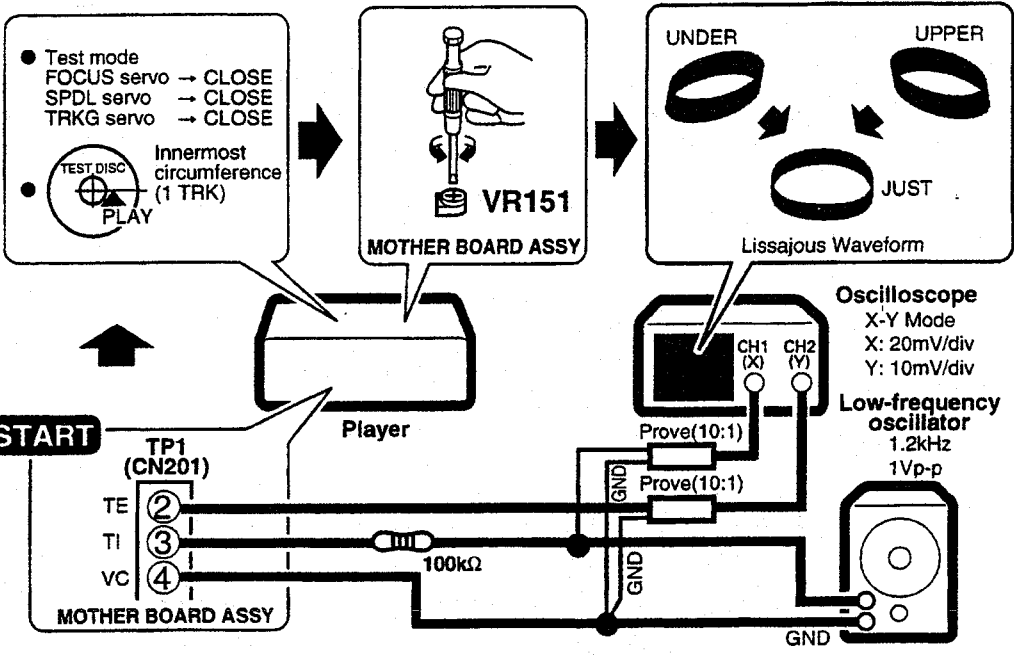


### 11. Focus Best Adjustment III

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

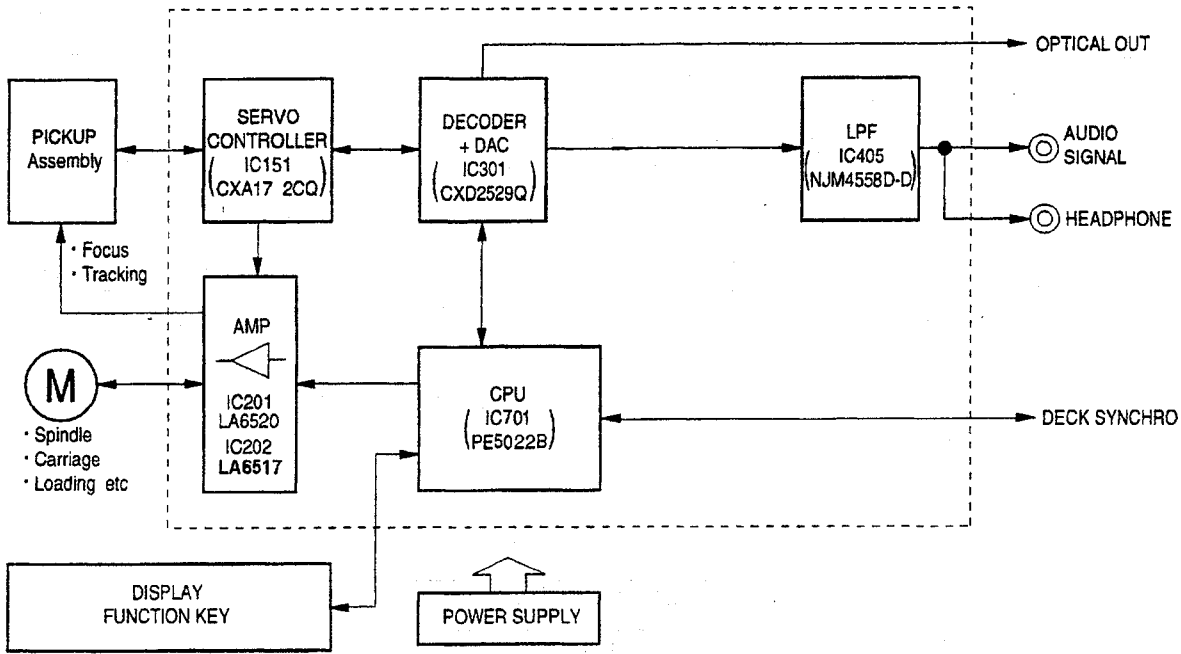


### 12. Tracking Servo Loop Gain Adjustment

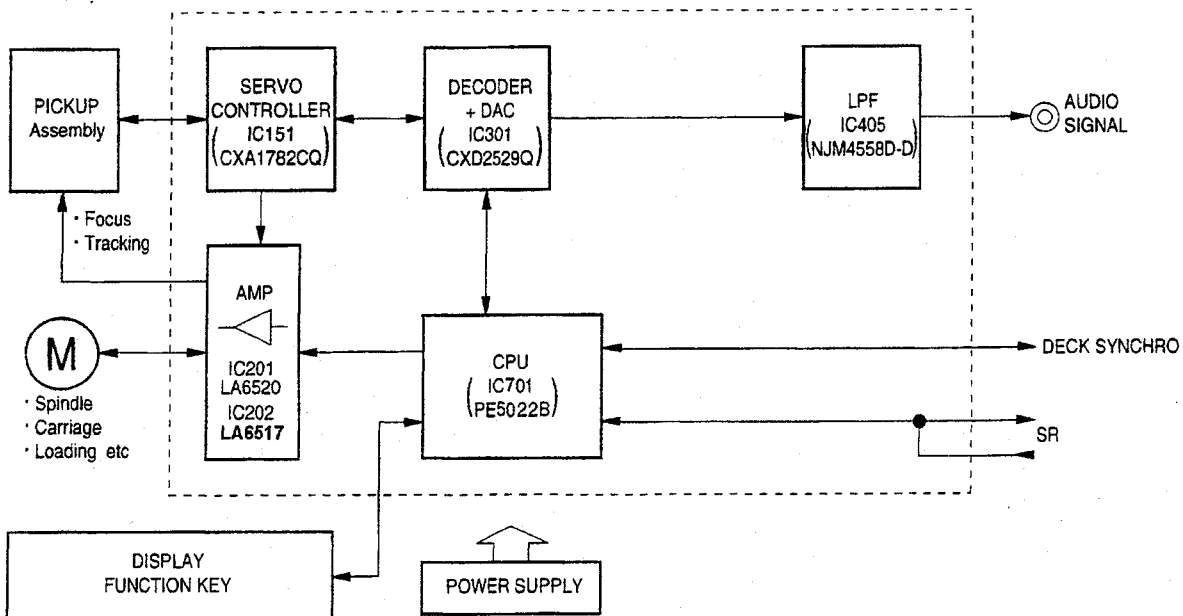


## 7. GENERAL INFORMATION

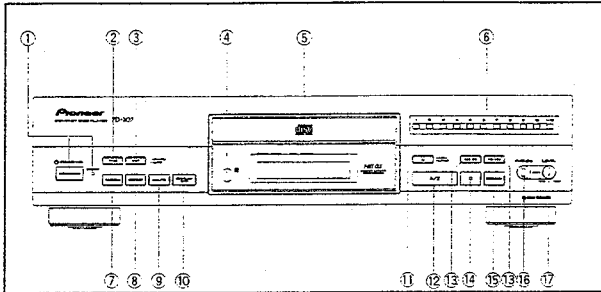
### PD-207



### PD-107



**PD-207/PD-107**



**FRONT PANEL**

(The diagram shows the PD-207)

- ① **STANDBY/ON switch and STANDBY indicator**
- ② **TIME button**
- ③ **COMPU/AUTO EDIT button**
- ④ **Remote sensor (PD-207 only)**  
Receives the signal from the remote control unit.
- ⑤ **Disc tray**
- ⑥ **Digit buttons (PD-207 only)**  
(1 - 10, >10)
- ⑦ **RANDOM button**
- ⑧ **REPEAT button**
- ⑨ **HI-LITE scan button**
- ⑩ **DISPLAY OFF button**
- ⑪ **OPEN/CLOSE button (▲)**
- ⑫ **Play/Pause button (▶/⏸)**
- ⑬ **Track/Manual search buttons**  
(◀◀ ◀▶ / ▶▶ ▶▶)
- ⑭ **Stop button (■)**
- ⑮ **PROGRAM button**
- ⑯ **Headphones jack (PHONES) (PD-207 only)**
- ⑰ **Headphones volume control (LEVEL) (PD-207 only)**

**1. General**

Type ..... Compact disc digital audio system  
 Power requirements ..... AC 220 - 240 V, 50/60 Hz  
 Power consumption ..... 12 W  
 Operating temperature ..... +5°C - +35°C  
 Weight ..... 3.1 kg  
 External dimensions ..... 420(W) X 101(H) X 267(D) mm

**2. Audio section**

**PD-207, PD-107**  
 Frequency response ..... 2 Hz - 20 kHz  
 S/N ratio ..... 98 dB (EIAJ)  
 Dynamic range ..... 96 dB or more (EIAJ)  
 Harmonic distortion ..... 0.003% or less (EIAJ)  
 Output voltage ..... 2.0 V (EIAJ)  
 Wow and flutter ..... Limit of measurement  
 (±0.001% W.PEAK) or less (EIAJ)  
 Channels ..... 2-channel (stereo)

**3. Output terminal**

Audio line output jacks  
 Control input/output jacks (PD-107 only)  
 CD-DECK SYNCHRO jack  
 Headphones jack (with volume control) (PD-207 only)  
 Optical digital output jack

**4. Accessories**

- ① Output cable ..... 1
- ② Control cable (PD-107 only) ..... 1
- ③ AAA dry cell batteries (PD-207 only) ..... 2
- ④ Remote control unit (PD-207 only) ..... 1
- ⑤ Power Cord ..... 1
- + Operating instructions ..... 1
- + Warranty Card ..... 1

**NOTE:**

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

