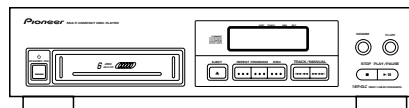


Service Manual



PD-M427

ORDER NO.
RRV2905

MULTI COMPACT DISC PLAYER

PD-M427 RFXJ

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

Model	Type	Power Requirement	The voltage can be converted by the following method.
PD-M427	RFXJ	AC110-127V/ 220-240V	With the voltage selector



For details, refer to "Important symbols for good services" .

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.

WARNING !

THE AEL (ACCESSIBLE EMISSION LEVEL) OF THE LASER POWER OUTPUT IS LESS THAN CLASS 1 BUT THE LASER COMPONENT IS CAPABLE OF EMITTING RADIATION EXCEEDING THE LIMIT FOR CLASS 1.
A SPECIALLY INSTRUCTED PERSON SHOULD DO SERVICING OPERATION OF THE APPARATUS.

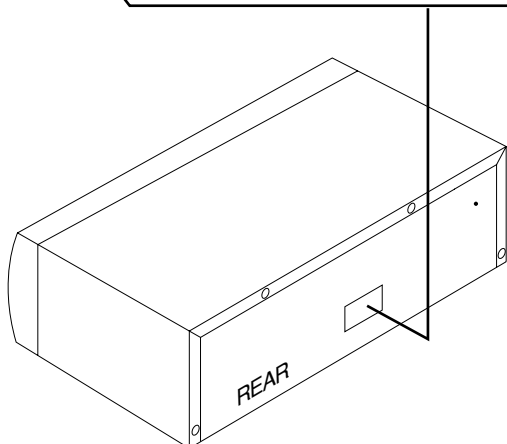
LASER DIODE CHARACTERISTICS

FOR DVD : MAXIMUM OUTPUT POWER : 5 mW
WAVELENGTH : 650 nm
FOR CD : MAXIMUM OUTPUT POWER : 7 mW
WAVELENGTH : 780 nm

LABEL CHECK



(DRW2168)



Additional Laser Caution

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

* : Refer to page 23. on the service manual RRV2905.

[Important symbols for good services]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

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1. SPECIFICATIONS

SPECIFICATIONS

General

Type Compact disc digital audio system
Power requirements
Multi-voltage model AC 110-127/220-240 V
(Switchable), 50/60Hz

Power consumption
Australian and New Zealand models 12 W
Operating temperature +5°C+35°C
(+41°F– +95°F)
Weight (without package) 3.7 kg (8 lb, 3 oz.)
External dimensions 420(W) x 294 (D) x 105 (H) mm
16-9/16 (W) x 11-9/16 (D) x 4-1/8 (H) in

Audio section

Frequency response 2 Hz – 20 kHz
Output voltage 2.0 V
Wow and flutter Limit of measurement
(0.001% W.PEAK) or less (EIAJ)
Channels 2-channel (stereo)

Output terminal

Audio line output
Control input/output jacks

Accessories

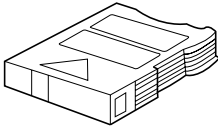
- Remote control unit 1
- Size AAA/R03 dry cell batteries 2
- Six-compact-disc magazine 1
- Control cable 1
- Output cable 1
- Operating instructions 1

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

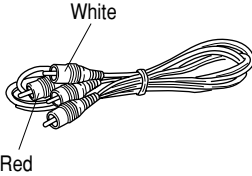
The Magazine Type Multi CD Players with  mark
and the Magazines with the same mark are compatible
for 5 inch (12 cm) discs.

Accessories

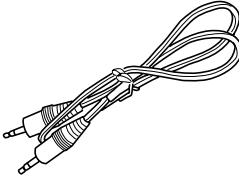
- Operating instructions



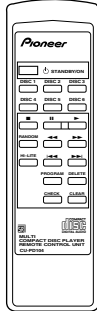
6-Compact disc magazine
(PXA1617)



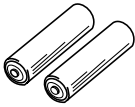
Output cable
(PDE1315)
(L= 1 m)



Control cable
(PDE-319)
(L= 1 m)



Remote control unit
(PWW1149)
(CU-PD104)

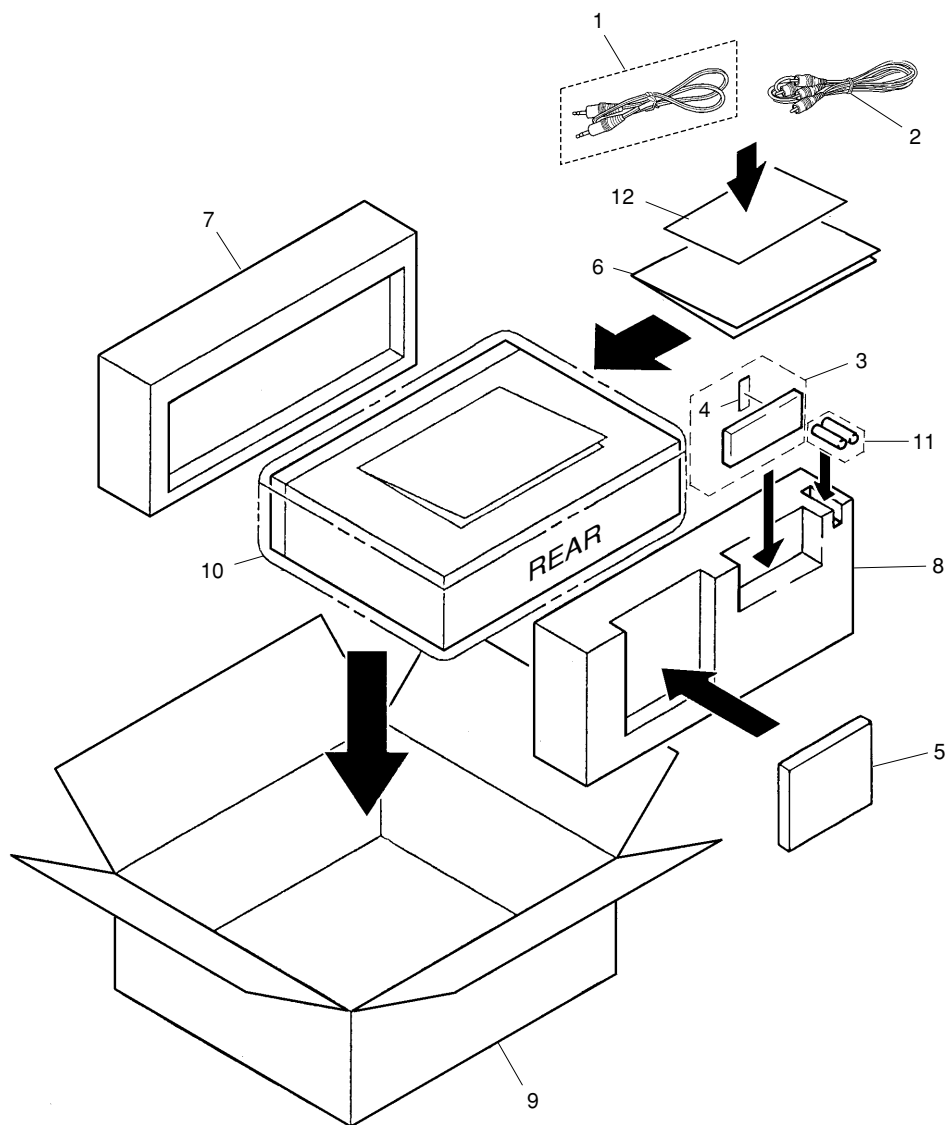


Dry cell batteries
(AAA/R03)

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.
● Screws adjacent to ▼ mark on product are used for disassembly.
● For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING

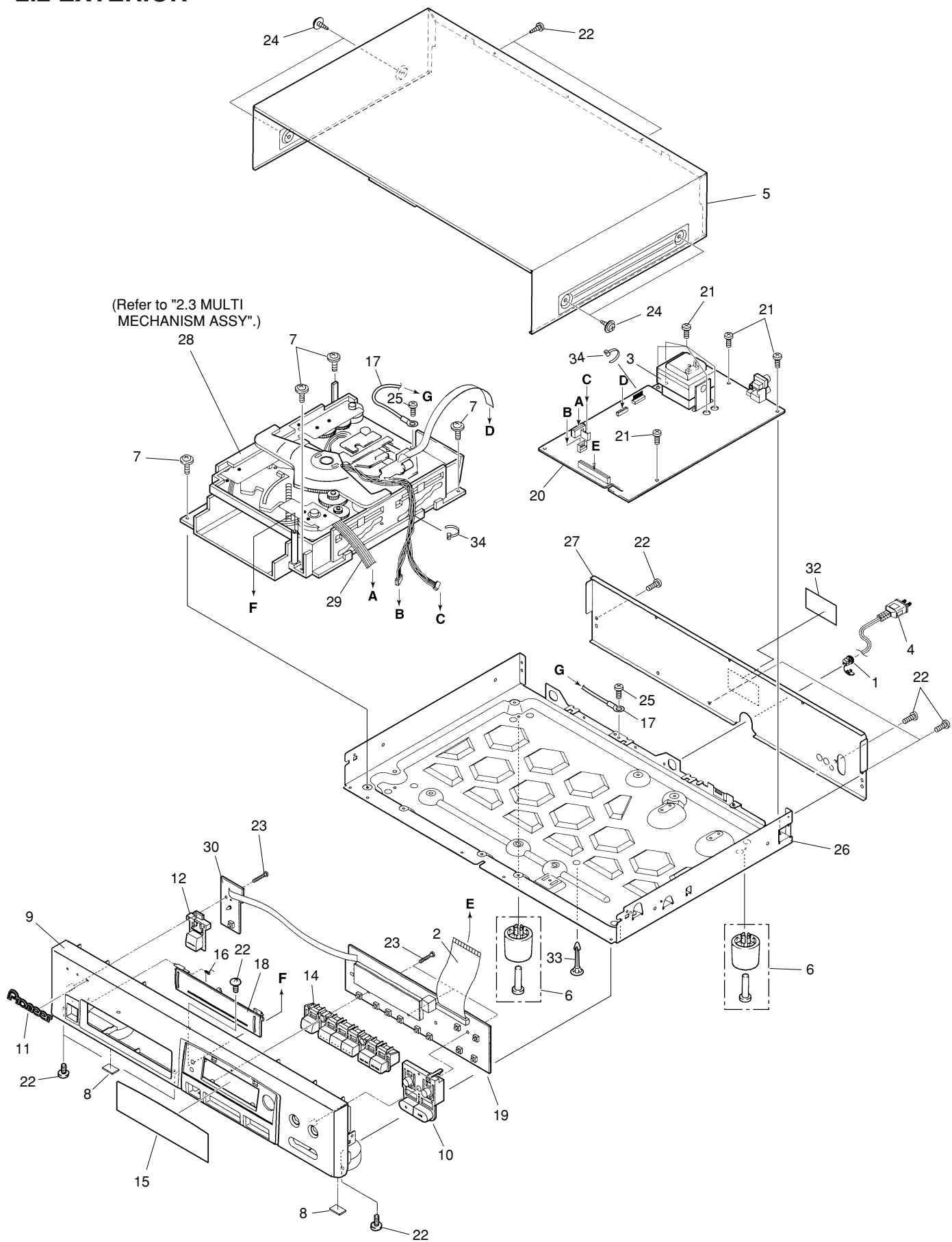


● PACKING PARTS LIST

(1) PACKING PARTS LIST

Mark	No.	Description	Parts No.
	1	Control Cable (for SR) (L=1 m)	PDE-319
	2	Output Cable (L=1 m) (for AUDIO)	PDE1315
	3	Remote Control Unit (CU-PD104)	PWW1149
	4	Battery Cover	PZN1010
	5	6-Compact Disc Magazine	PXA1617
	6	Operating Instructions (English, Trad-Chinese)	PRE1298
	7	Styrol Protector (F)	PHA1276
	8	Styrol Protector (R)	PHA1277
	9	CD Packing Case	PHG2373
	10	Mirror Mat Sheet (750X600X0.5)	Z23-007
NSP	11	Dry Cell Battery (AAA/R03)	VEM-022
	12	Caution 220V Label	ARR1003

2.2 EXTERIOR



■ EXTERIOR PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
⚠	1	Strain Relief	CM-22C		21	Screw	BBZ30P060FMC
	2	32P F.F.C/30V	PDD1041		22	Screw	BBZ30P080FZK
⚠	3	Power Transformer	PTT1238		23	Screw	PPZ30P120FMC
⚠	4	AC Power Cord	PDG1075		24	Screw	FBT40P080FZK
	5	Bonnet	PYY1149		25	Screw	PDZ30P050FMC
	6	Foot Assy	AEC1531	NSP	26	Under Base	PNA1751
	7	Screw	IBZ30P080FCC		27	Rear Base	PNA2597
	8	Rubber Sheet	AEB1111	NSP	28	Multi Mechanism Assy	PXA1592
	9	Function Panel	PNW2913		29	Flat Cable (6P)	D20PYY0615E
	10	Play Button	PAC1766	NSP	30	SW BOARD Assy	PWZ2805
	11	Name Plate	PAM1776		31	• • • •	
	12	Power Button	PAC1719		32	Caution Label	DRW2168
	13			NSP	33	Locking Card Spacer	AEC7492
	14	Track Button	PAC1765		34	Binder	ZCA-SKB90BK
	15	Display Window	PAM1855				
	16	Spring (Door)	PBH1022				
NSP	17	Earth Lead Unit	DE007VF0				
	18	Door	PNW2598				
	19	FUNCTION BOARD Assy	PWZ2769				
⚠	20	MOTHER BOARD Assy	PNW2155				

2.3 MULTI MECHANISM ASSY

A

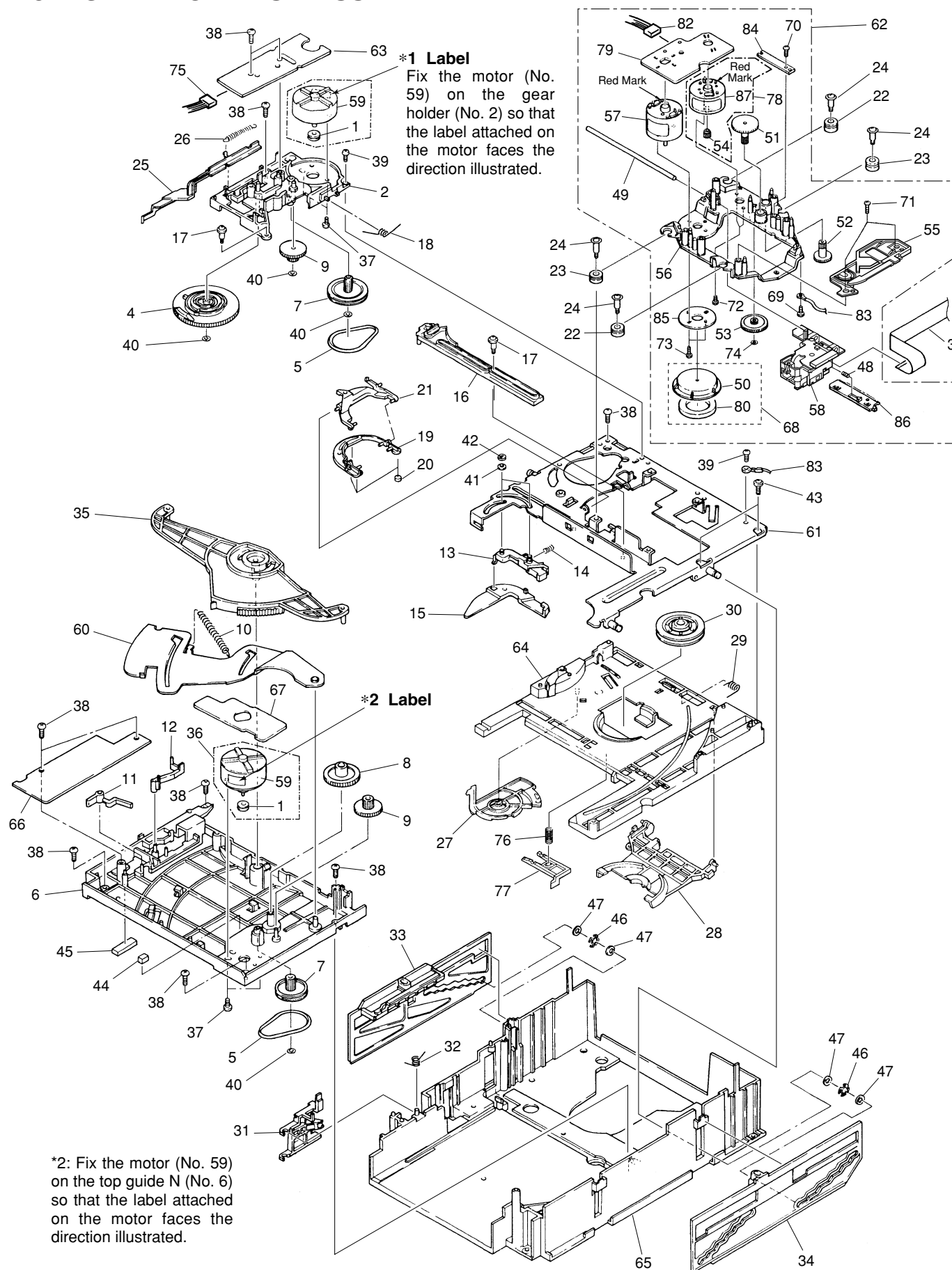
B

C

D

E

F



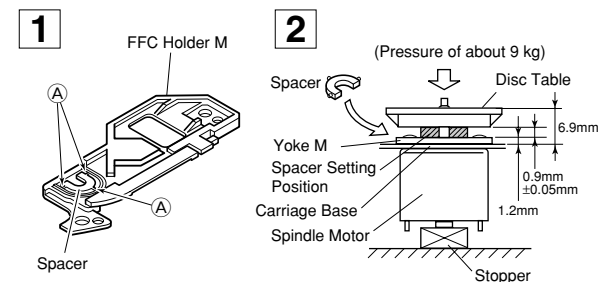
MULTI MECHANISM ASSY PARTS LIST

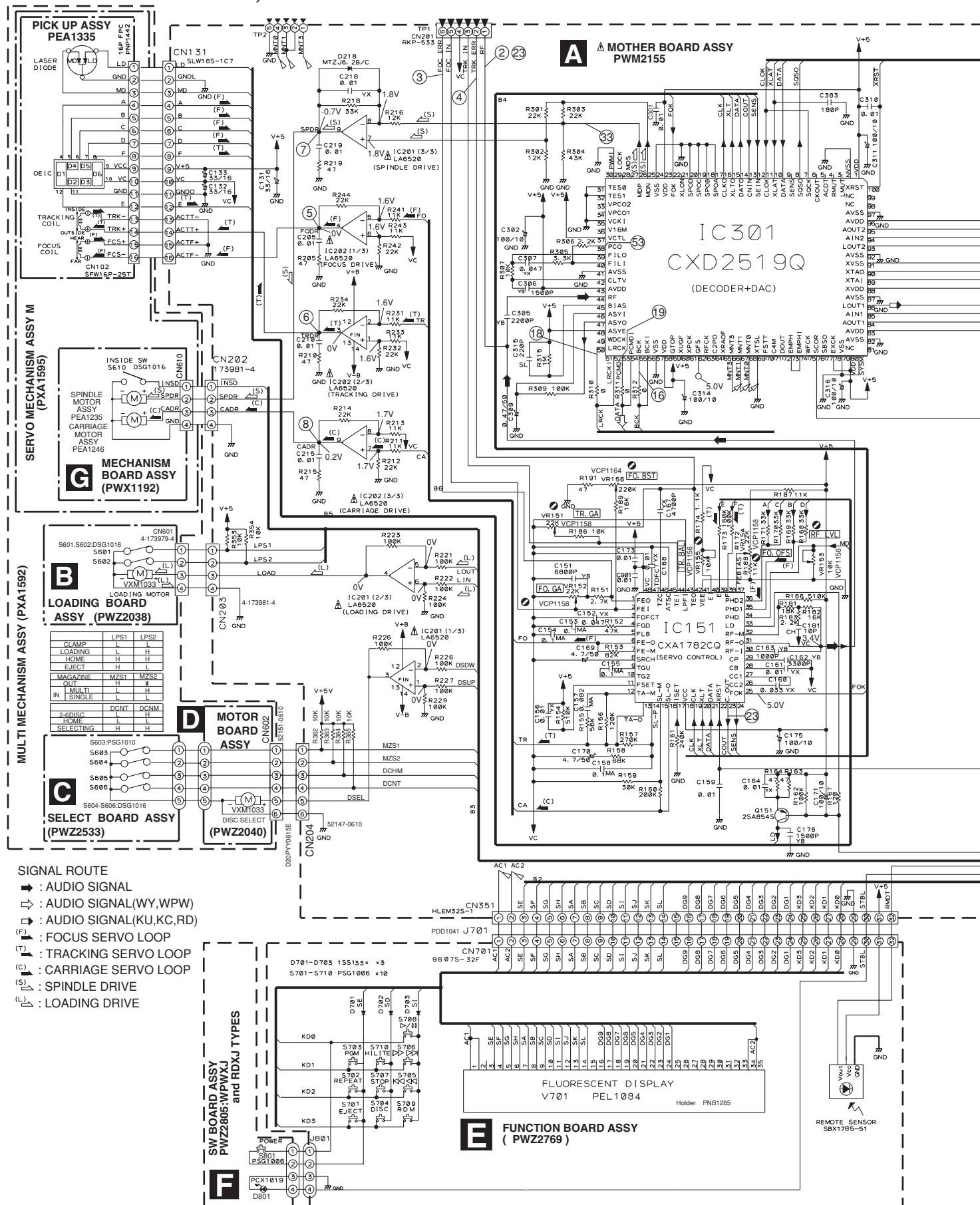
Mark	No.	Description	Parts No.
	1	Motor Pulley	PNW3026
	2	Gear Holder	PNW1929
	3	PU PWB (POLYIMDE)	PNP1442
	4	Cam Gear	PNW1923
	5	Belt	PEB1138
	6	Top Guide N	PNW2441
	7	Gear Pulley	PNW1918
	8	Gear S	PNW1919
	9	Gear L	PNW1920
	10	Eject Spring	PBH1107
	11	SW Lever	PNW1927
	12	Seven Bar	PNW1931
	13	Sub Revolving Lever	PNW1933
	14	Sub Revolving Lever Spring	PBH1111
	15	Revolving Lever	PNW1932
	16	Drive Plate	PNW1930
	17	Motor Screw	PBA-112
	18	Holder Lever Spring	PBH1110
	19	Disc Holder	PNW1924
	20	Cushion A	PED1001
	21	Holder Lever	PNW1925
	22	Float Rubber	PEB1014
	23	Float Rubber	PEB1132
	24	Float Screw	PBA1073
	25	Release Lever	PNW1934
	26	Release Spring	PBH1106
	27	Clamper Cam	PNW1922
	28	Clamper Holder	PNW1921
	29	Centering Spring	PBH1109
	30	Clamper	PNW2774
	31	Lock Lever	PNW1917
	32	Lock Spring	PBH1108
	33	Stair NL	PNW2443
	34	Stair NR	PNW2444
	35	Synchronize Lever	PNW1926
	36	Motor Assy (LOADING, DISC SELECT)	PEA1130
	37	Screw	PMZ26P040FMC
	38	Screw	PPZ30P080FMC
	39	Screw	BBZ30P060FMC
	40	Washer	WT26D047D025
	41	Washer	WA31D054D025
	42	E Ring	Z39-010
	43	Screw	IPZ30P080FMC
	44	Spacer (Rubber)	PEB1238
	45	Spacer (Rubber)	PEB1179
	46	Silent Ring	PBK1093
	47	Washer	WA62D130D025
	48	Rack Spring	PBH1128
	49	Guide Bar	PLA1094
	50	Disc Table	PNW1067
	51	Gear 1	PNW2052
	52	Gear 2	PNW2053
	53	Gear 3	PNW2054
	54	Pinion Gear	PNW2055
	55	FFC Holder M	PNW2746

Mark	No.	Description	Parts No.
	56	Carriage Base	PNW2699
	57	D.C. Motor Assy (Spindle with oil)	PEA1235
	58	Pickup Assy	PEA1335
	59	Carriage Motor	VXM1033
	60	Eject Lever	PNB1644
	61	Upper Chassis	PNB1642
NSP	62	Servo Mechanism Assy M	PXA1595
NSP	63	LOADING BOARD Assy	PWZ2038
	64	Sub Chassis N	PNW2440
	65	Main Chassis	PNW2074
NSP	66	SELECT BOARD Assy	PWZ2533
NSP	67	MOTOR BOARD Assy	PWZ2040
	68	Disc Table Assy	PEA1035
	69	Screw	BBZ26P060FMC
	70	Screw	BPZ20P060FMC
	71	Screw	BPZ26P100FMC
	72	Screw	JFZ17P025FZK
	73	Screw	JFZ20P040FMC
	74	Washer	WT12D032D025
	75	Connector Assy	PDE1241
	76	Stopper Spring	PBH1131
	77	Stopper	PNW2069
	78	D.C. Motor Assy (CARRIAGE)	PEA1246
NSP	79	MECHANISM BOARD Assy	PWX1279
	80	Clamp Magnet	PMF1014
	81		
	82	Connector Assy	PDE1240
NSP	83	Earth Lead Unit	PDF1118
	84	Gear Stopper	PNB1303
	85	Yoke M	PNB1312
	86	Rack Holder	PNW2056
	87	Carriage DC Motor	PXM1027

How to Install the Disc Table

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





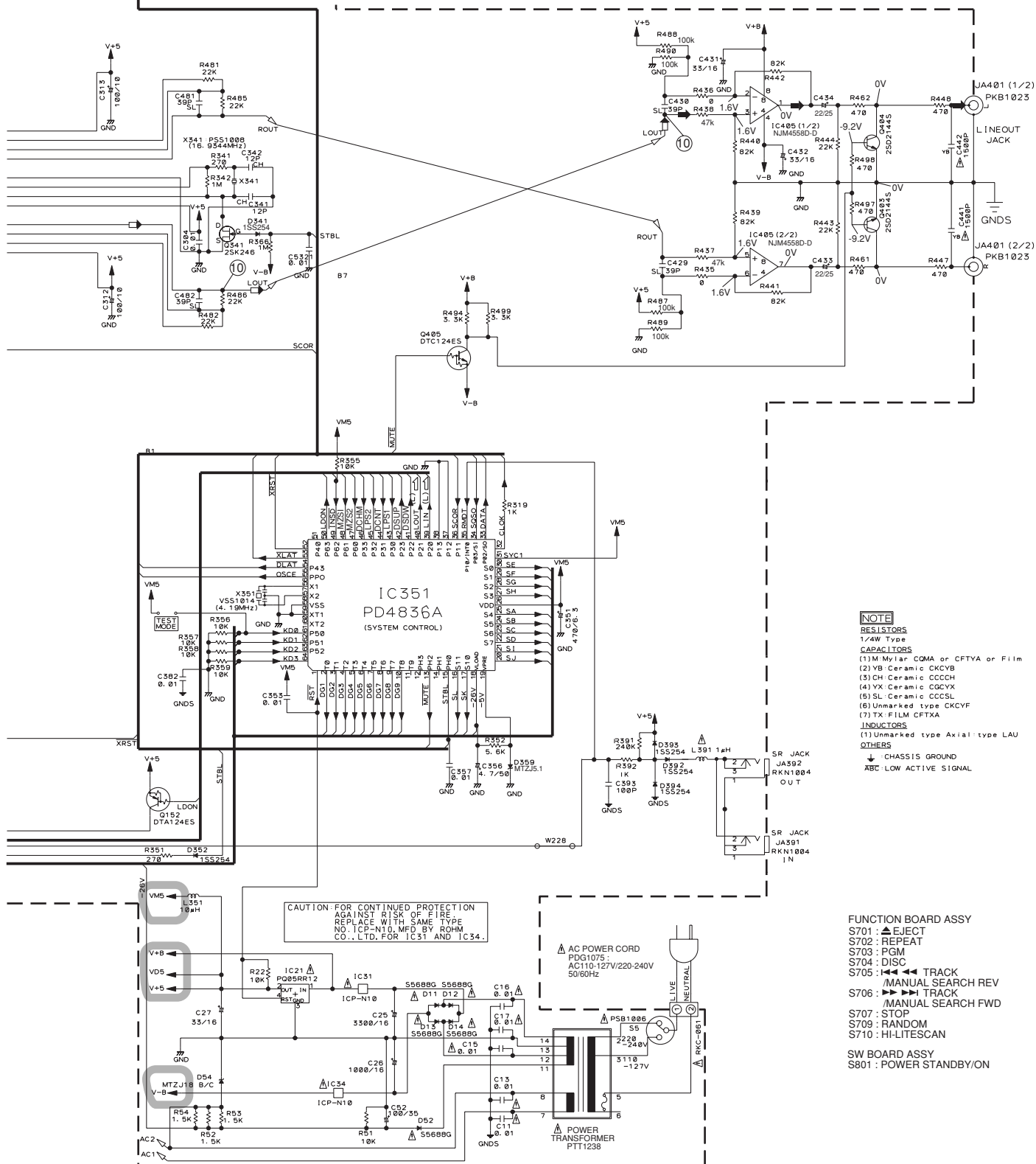
Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST"

IC351(PD4836A) PLAY:1DISC PLAY.

PIN No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Volta-ge(V)	PLAY	5.0	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2	-23.2
	STOP	5.0	-23.8	-23.7	-23.7	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8	-23.8

PIN No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Volta-ge(V)	PLAY	22.5	19.8	-13.5	0.4	-0.43	4.9	-19.0	-20.0	-13.5	-13.3	4.9	4.8	4.0	0.9	4.9	4.0	0.0	0.0	0.0
	STOP	22.9	23.2	-10.5	-0.37	0.44	4.9	-22.8	-26.4	-10.5	-10.4	4.8	4.9	2.5	2.9	4.9	2.3	0.0	0.0	0.0

PIN No.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Volta-ge(V)	PLAY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	4.9	4.9	4.9	4.9	2.3	2.2	0.1	0.1	—	0.1	0.1	0.1	0.1
	STOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	—	4.9	4.9	4.9	2.3	2.2	0.1	0.1	—	0.1	0.1	0.1	0.1



3.2 WAVEFORMS

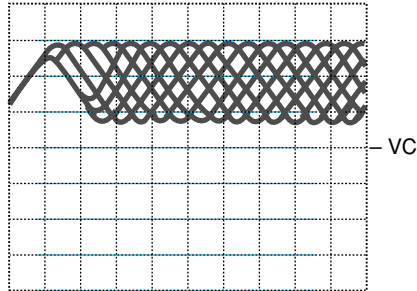
B Waveforms (Mother Board Assy)

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

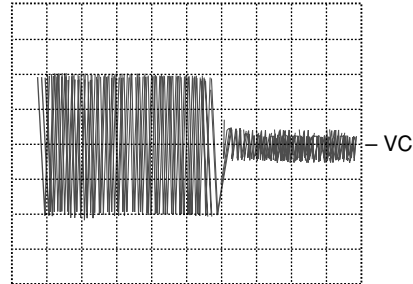
*1 50T-JUMP: After switching to the pause mode, press the manual search key.

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

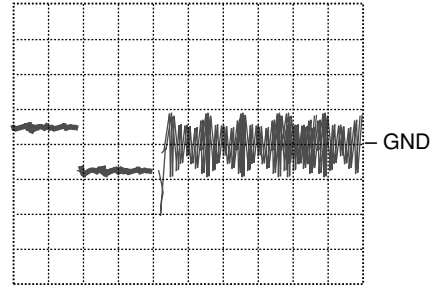
② TP1-Pin 1: PLAY MODE (RF)
500mV/div 500nsec/div



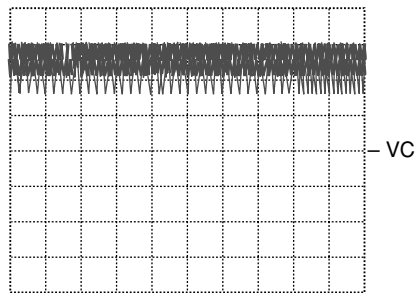
④' TP1-Pin 2: 50T - JUMP (*1) MODE (TRER)
200mV/div 1msec/div



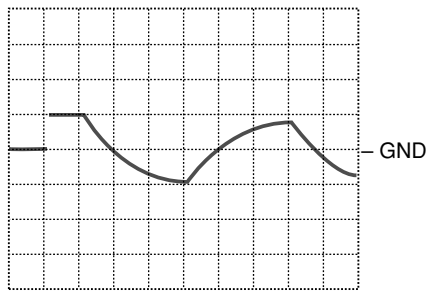
⑥' IC202-Pin 3: 50T - JUMP (*1) MODE (TRDR)
500mV/div 1msec/div



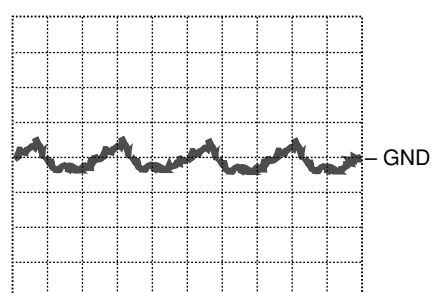
② TP1-Pin 1: TRACK SEARCH MODE (RF)
500 mV/div 200 μsec/div



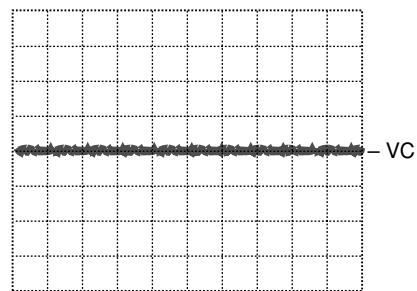
⑤ IC202-Pin 4: FOCUS-IN (*2) MODE (FODR)
1V/div 200msec/div



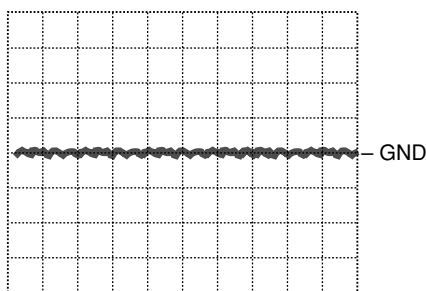
⑦ IC201-Pin 9: PLAY MODE (SPDR)
1V/div 50msec/div



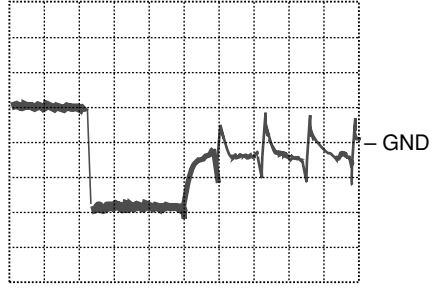
③ TP1-Pin 6: PLAY MODE (FOER)
100mV/div 10msec/div



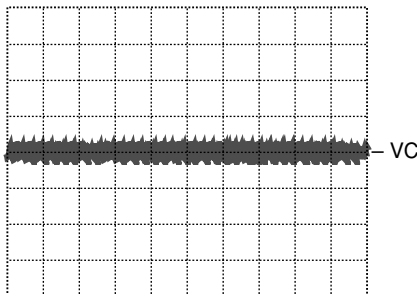
⑤ IC202-Pin 4: PLAY MODE (FODR)
1V/div 1msec/div



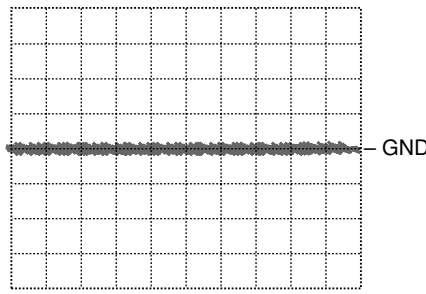
⑦ IC201-Pin 9: TRACK SEARCH MODE (SPDR)
2V/div 50msec/div



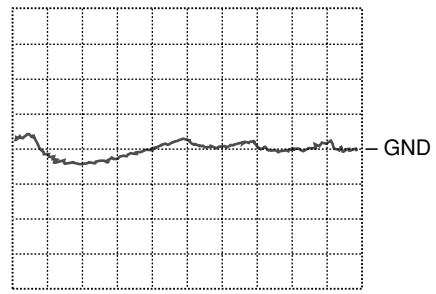
④ TP1-Pin 2: PLAY MODE (TRER)
200mV/div 1msec/div

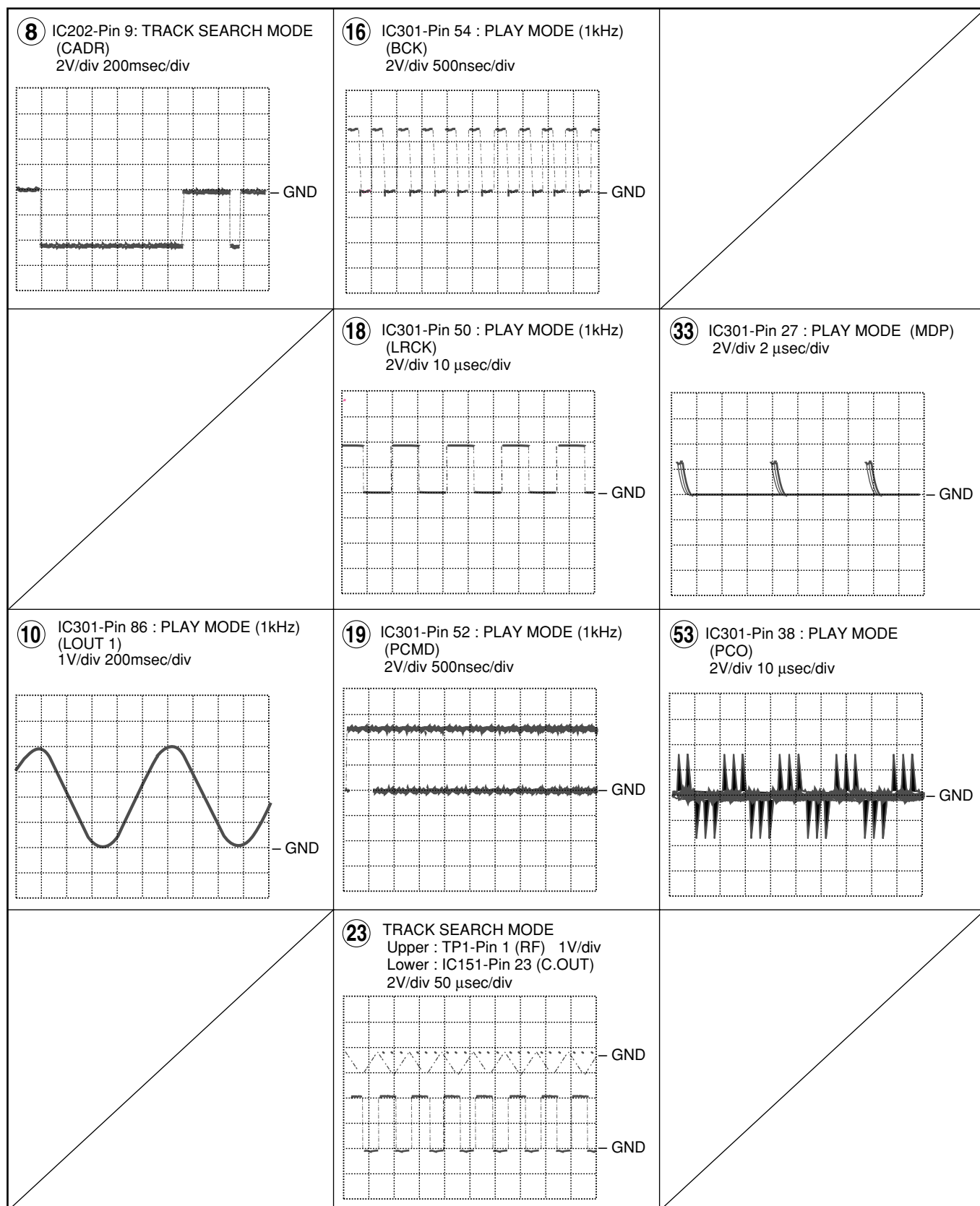


⑥ IC202-Pin 3: PLAY MODE (TRDR)
500mV/div 1msec/div



⑧ IC202-Pin 9: PLAY MODE (CADR)
0.2V/div 2sec/div

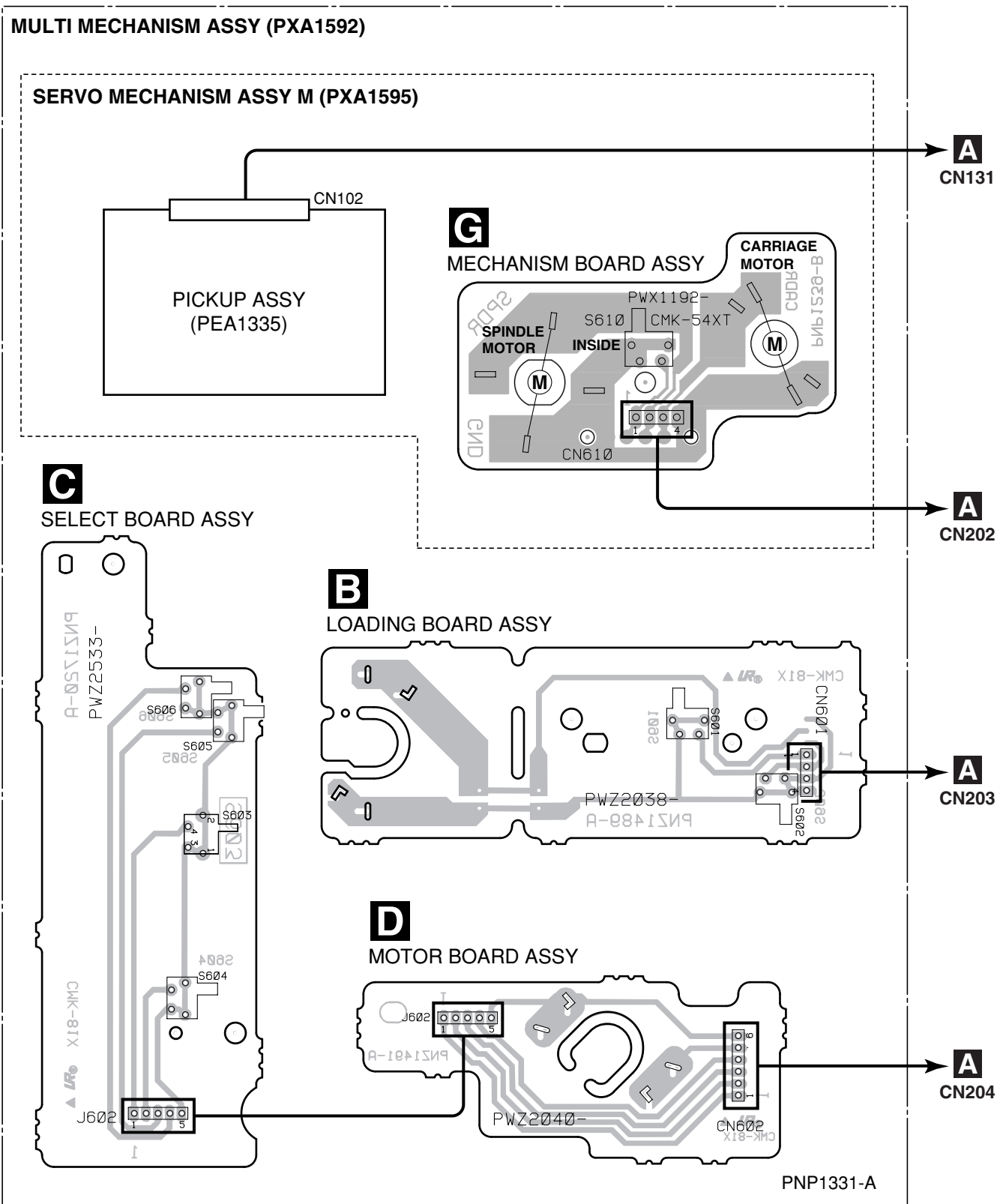




4. PCB CONNECTION DIAGRAM

4.1 LOADING BOARD ASSY, SELECT BOARD ASSY, MOTOR BOARD ASSY and MECHANISM BOARD ASSY

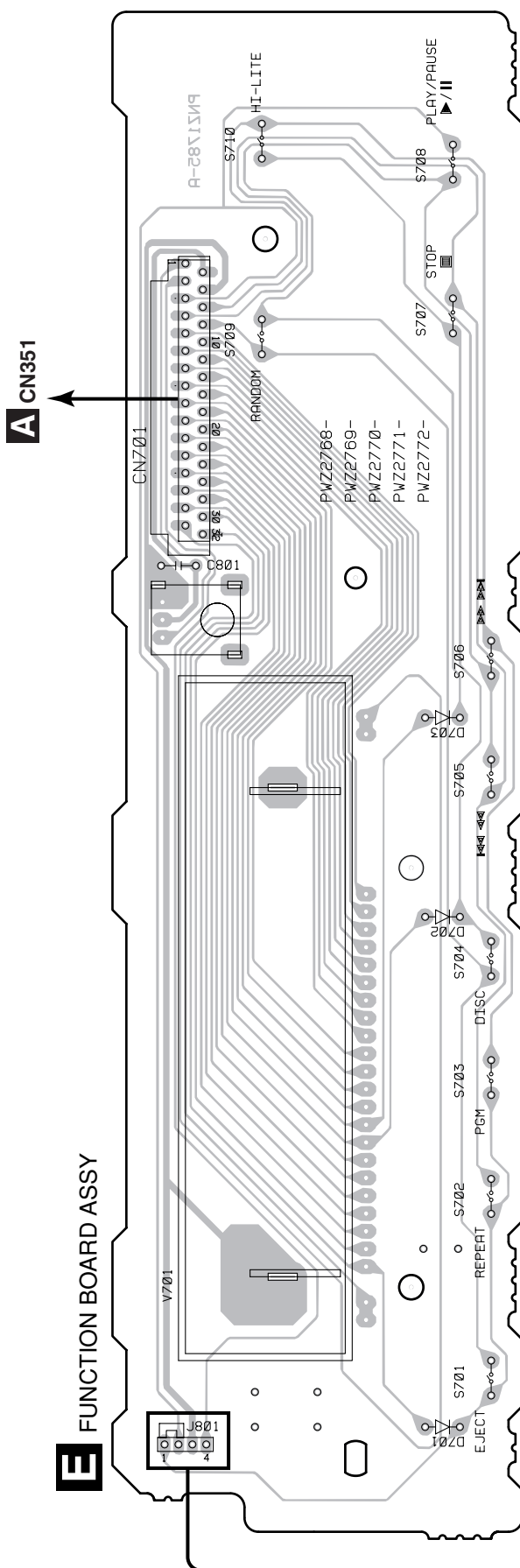
SIDE A



B C D G

4.2 FUNCTION BOARD ASSY and SW BOARD ASSY

SIDE A



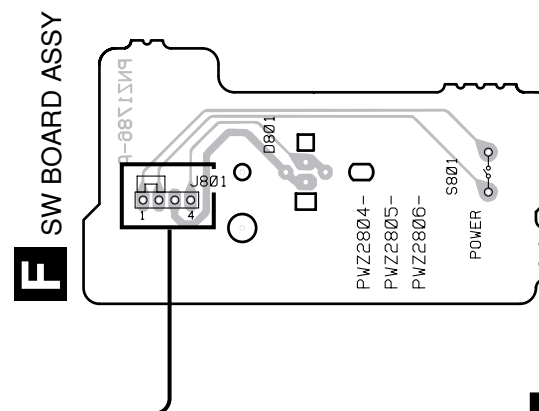
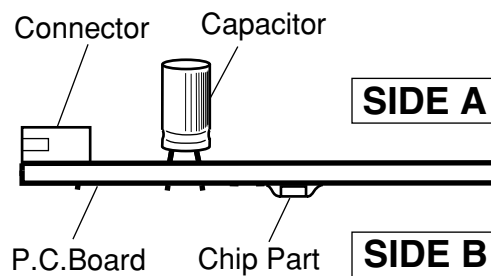
PNP1366-A

NOTE FOR PCB DIAGRAMS :

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

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

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



△

A MOTHER BOARD ASSY

55

A

E CN701

PNP1424-B

Q201

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 → 56 × 10¹ → 561 RD1/4PU J

47k → 47 × 10³ → 473 RD1/4PU J

0.5 → R50 RN2H K

1 → 1R0 RS1P K

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

5.62k → 562 × 10¹ → 5621 RN1/4PC F

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.	Remarks
		PD-M427/RFXJ	
	MOTHER BOARD ASSY	PWM2155	
NSP	SUB BOARD ASSY	PWX1337	
	└ FUNCTION BOADR ASSY	PWZ2769	
NSP	└ SW BOARD ASSY	PWZ2805	
NSP	MULTI MECHANISM ASSY	PXA1592	
NSP	└ MECHA BOARD ASSY	PWX1279	
NSP	└ └ LOADING BOARD ASSY	PWZ2038	
NSP	└ └ MOTOR BOARD ASSY	PWZ2040	
NSP	└ └ SELECT BOARD ASSY	PWZ2533	
NSP	└ SERVO MECHANISM ASSY M	PXA1595	
NSP	└ └ MECHANISM BOARD ASSY	PWX1192	

■ PARTS LIST FOR PD-M427/RFXJ

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
		MOTHER BOARD ASSY			D359		MTZJ5.1B
					D218		MTZJ6.2B
		SEMICONDUCTORS			D11-D14, D52		S5688G
				COILS AND FILTERS			
	IC151	CXA1782CQ		L351	AXIAL INDUCTOR		LAU100J
	IC301	CXD2519Q		L391	INDUCTOR		LAU1R0J
	IC31, IC34	ICP-N10		CAPACITORS			
	IC201, IC202	LA6520		C181			CCCCH100D50
	IC405	NJM4558D-D		C341, C342			CCCCH120J50
	IC351	PD4836A		C383			CCCSL181J50
	IC21	PQ05RR12		C393			CCCSL101J50
	Q151	2SA854S					
	Q403, Q404	2SD2144S					
	Q152	DTA124ES					
	Q341	2SK246					
	Q405	DTC124ES					
	D352, D341, D391- D394	1SS254					
	D54	MTZJ18B					

Mark	No.	Description	Part No.
	C315 C481, C482 C309 C171, C175, C302, C311, C314 C316, C312, C313		CCCSL221J50 CCCSL390J50 CEASR47M50 CEAS101M10 CEAS101M10
	C52 C26 C433, C434 C131–C133, C27 C25		CEAS101M35 CEAS102M16 CEAS220M25 CEAS330M16 CEAS332M16
	C351 C169, C170, C356 C156, C161, C164, C168, C218 C160 C167		CEAS471M6R3 CEAS4R7M50 CGCYX103K25 CGCYX333K25 CGCYX472K25
	C152, C307 C157 C163 C176, C306, C441, C442 C305		CGCYX473K25 CGCYX823K25 CKCYB102K50 CKCYB152K50 CKCYB222K50
	C162 C151 C11, C13, C15, C16, C17 C159, C205, C210, C215 C219, C301, C304, C310		CKCYB332K50 CKCYB682K50 CKCYF103Z50 CKCYF103Z50 CKCYF103Z50
	C353, C357 C153–C155, C158		CKCYF103Z50 CQMA104J50
RESISTORS			
	VR153, VR155 (10k Ω) VR151, VR152, VR154 (22k Ω) VR156 (220k Ω) Other Resistors		VCP1156 VCP1158 VCP1164 RD1/4PU□□□J
OTHERS			
	CN131 1mm CONNECTOR CN202 MT 4P CONNECTOR CN203 CONNECTOR 4P CN204 6P JUMPER CONNECTOR CN351 32P FFC CONNECTOR		SLW16S–1C7 173981–4 4–173981–4 52147–0610 HLEM32S–1
	JA401 2P PIN JACK X341 XTAL RES(16.9344 MHz) TERMINAL		PKB1023 PSS1008 RKC–061 RKP–533 VSS1014
	CN201 CONNECTOR 6P X351 CERAMIC RES(4.19 MHz)		
	S5 Voltage Selector JA391, JA392 SR JACK		PSB1006 RKN1004

E FUNCTION BOARD ASSY

SEMICONDUCTOR

D701–D703 1SS133X

SWITCHES

S701–S710 PSG1006

OTHERS

Mark	No.	Description	Part No.
	CN701 V701	FFC CONNECTOR 32P FL INDICATOR TUBE REMOTE SENSOR	9607S–32F PEL1084 SBX1785–51

F SW BOARD ASSY

SEMICONDUCTOR

D801 PCX1019

SWITCH

S801 PSG1006

OTHER

J801 2mm JUMPER WIRE D20PWW0420E

B LOADING BOARD ASSY

SWITCHES

S601, S602 DSG1016

OTHER

CN601 CONNECTOR 4P 4–173979–4

D MOTOR BOARD ASSY

OTHER

CN602 6PJUMPER CONNECTOR 52151–0610

C SELECT BOARD ASSY

SWITCHES

S604–S606
S603 DSG1016
PSG1010

G MECHANISM BOARD ASSY

SWITCH

S610 DSG1016

OTHER

CN610 MT 4P CONNECTOR 173979–4

6. ADJUSTMENT

6.1 PREPARATIONS



6.1.1 Jigs and Measuring Instruments

CD TEST DISC (YEDS-7)	⊖ Precise screwdriver	⊖ screwdriver (small)	⊕ screwdriver (medium)	⊕ screwdriver (large)
Ball point hexagon wrench (size: 1.5mm) G GK1002	Low-frequency oscillator	Dual-trace oscilloscope (10 : 1 probe)	Low pass filter ① (39 kΩ + 0.001μF)	Low pass filter ② (56 kΩ + 0.001μF)

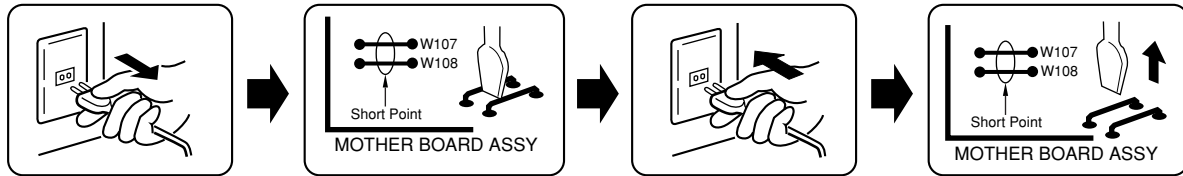
6.1.2 Necessary Adjustment Points

When	Adjustment points
Exchange PICKUP	1.2.3.4.5.6.7. 8.9.10.11.12 → Page 24~29
Exchange MAIN BOARD ASSY	1.3.5.6.7.8. 9.10.11.12 → Page 24~29
Exchange SERVO MECH ASSY	1.2.3.4.5.6.7. 8.9.10.11.12 → Page 24~29
Exchange SPINDLE MOTOR	ADJ → Page 11

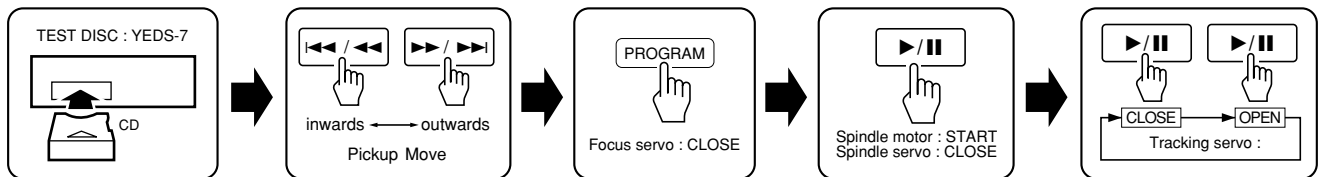
6.2 ADJUSTMENT

6.2.1 How to Start/Cancel Test Mode

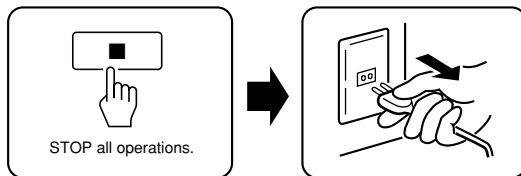
TEST MODE : ON



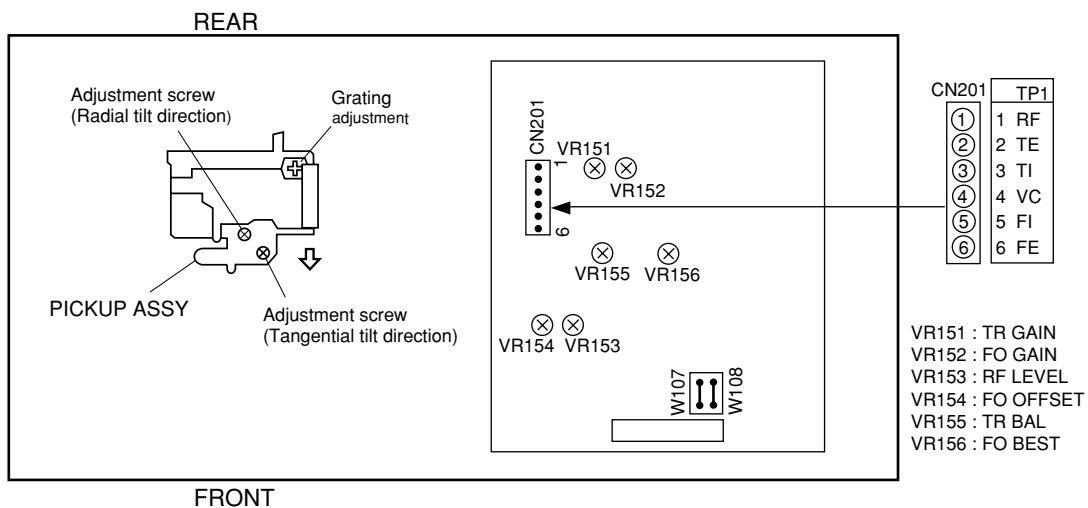
TEST MODE : PLAY



TEST MODE : STOP → CANCEL

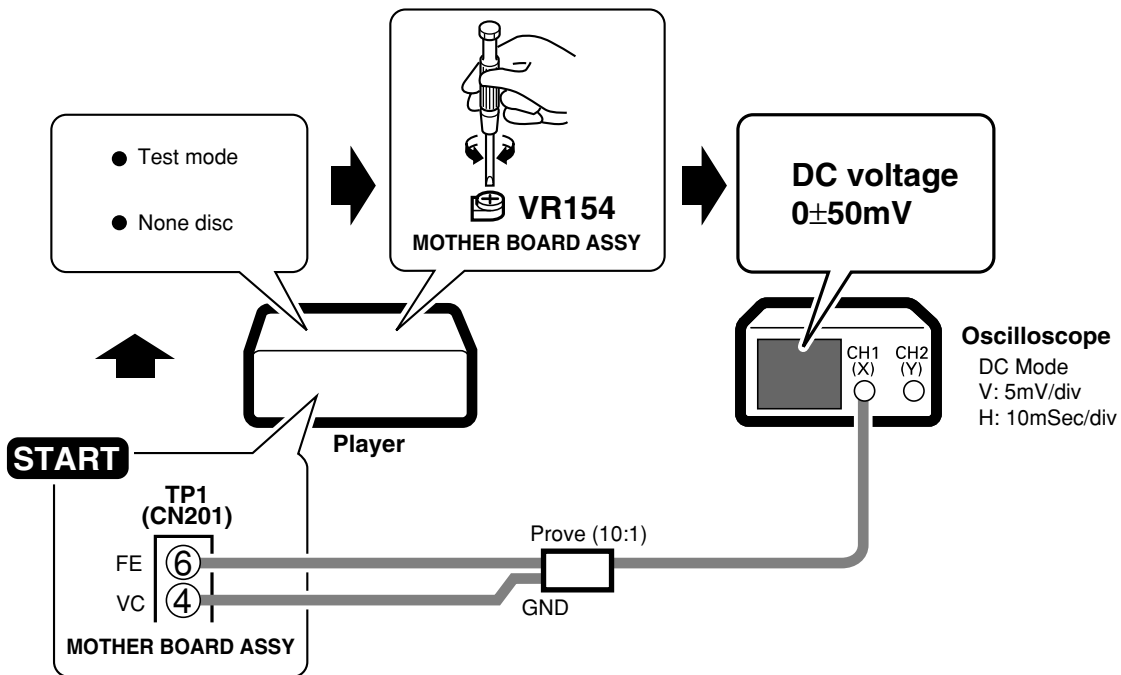


6.2.2 Adjustment Location

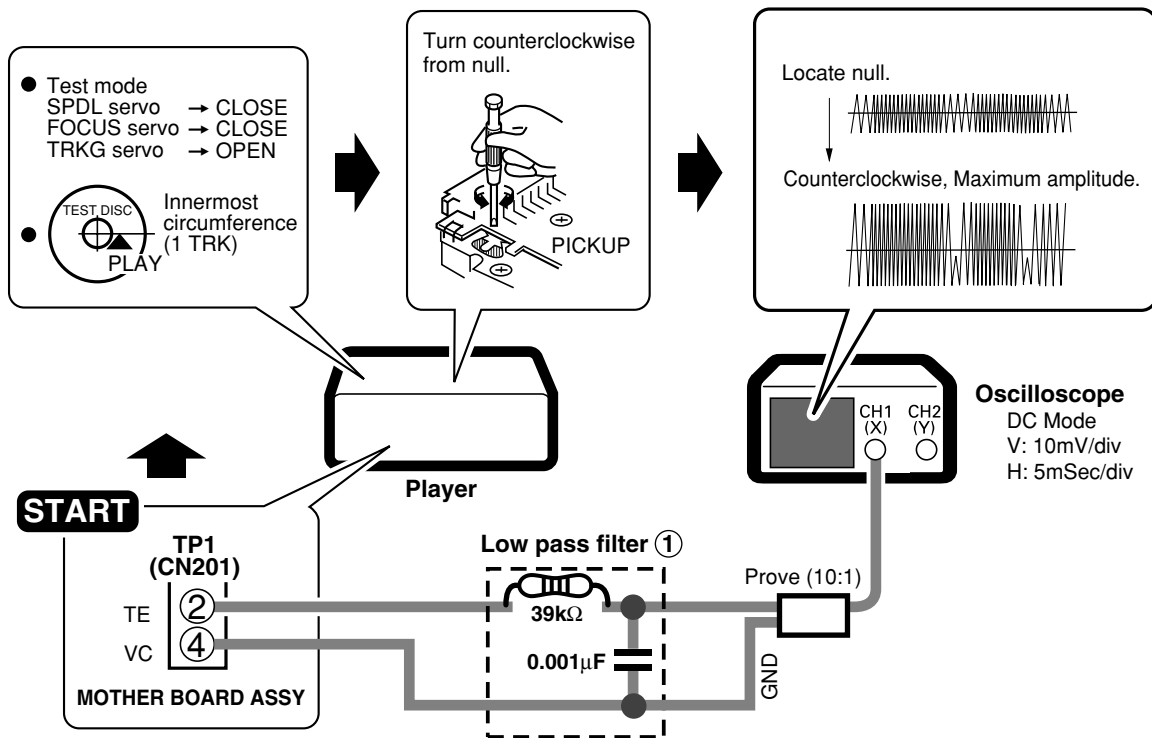


6.2.3 Check and Adjustment

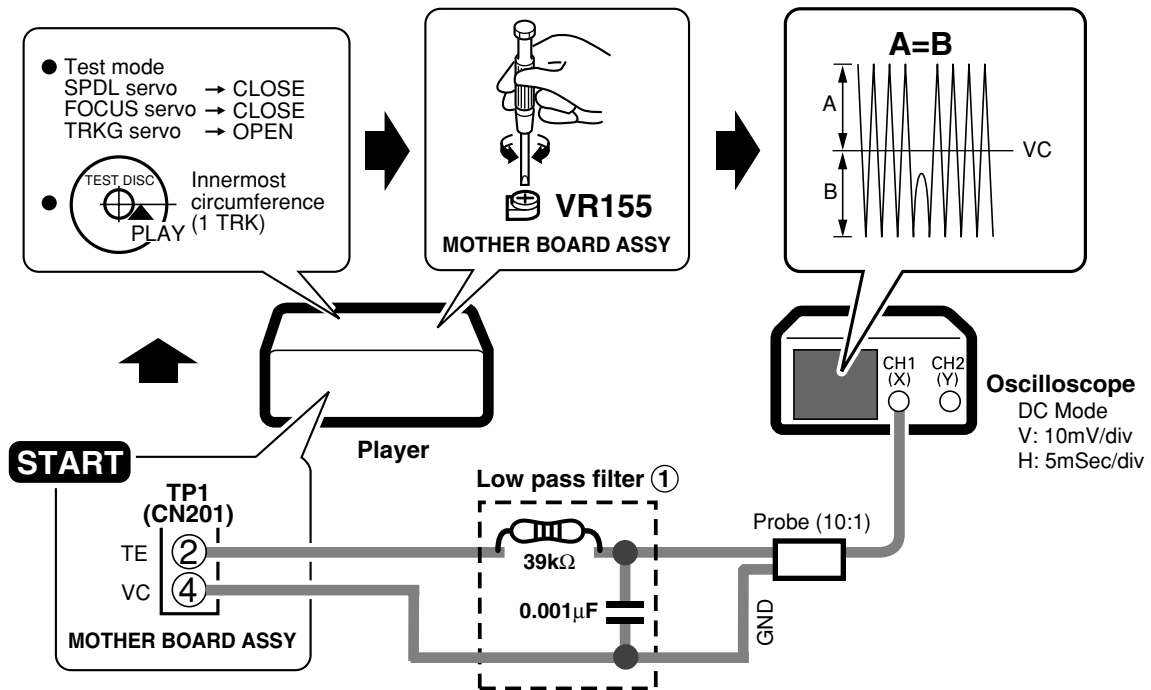
1. Focus Offset Adjustment



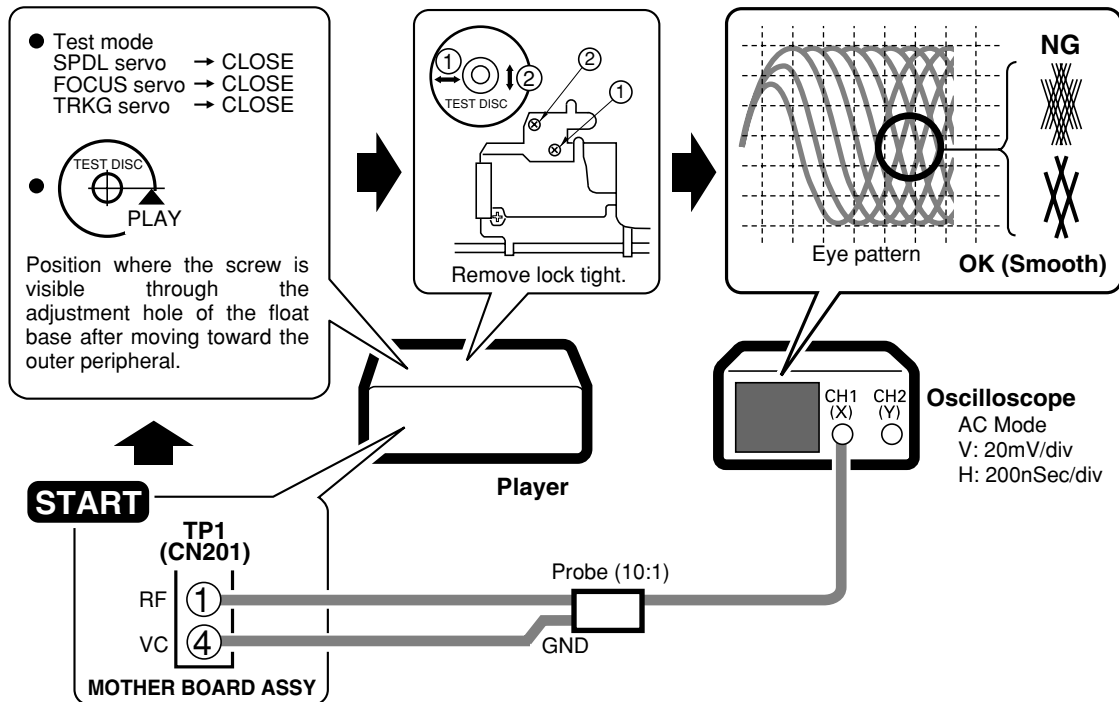
2. Grating Adjustment



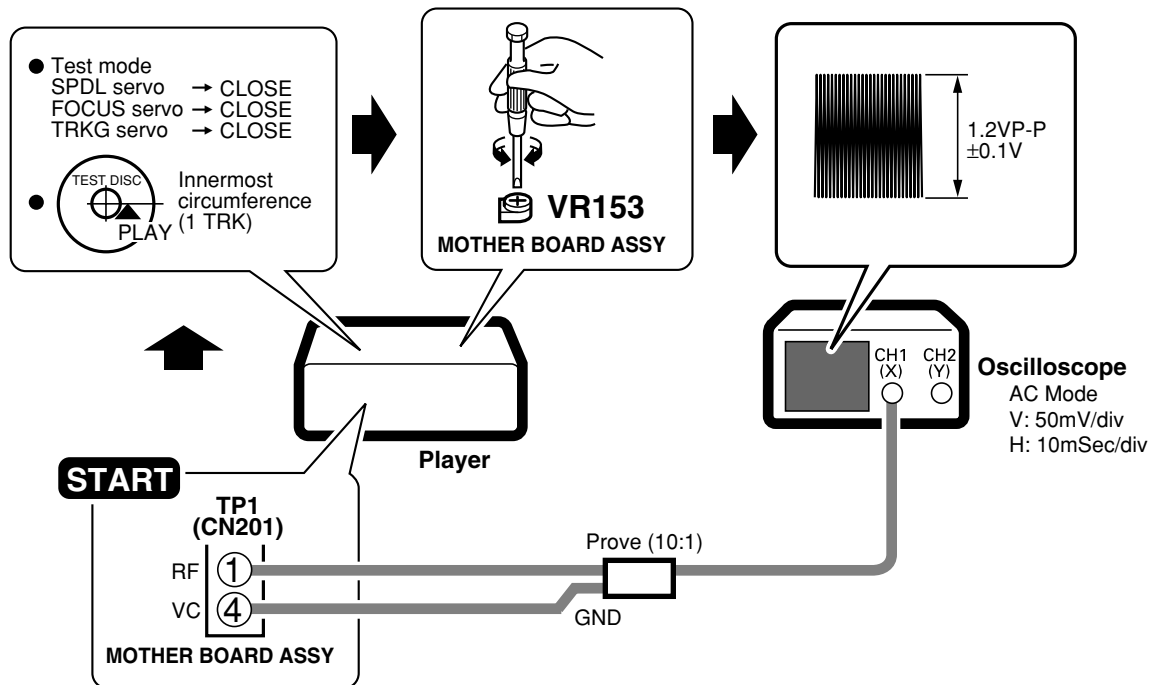
3. Tracking Error Balance Adjustment



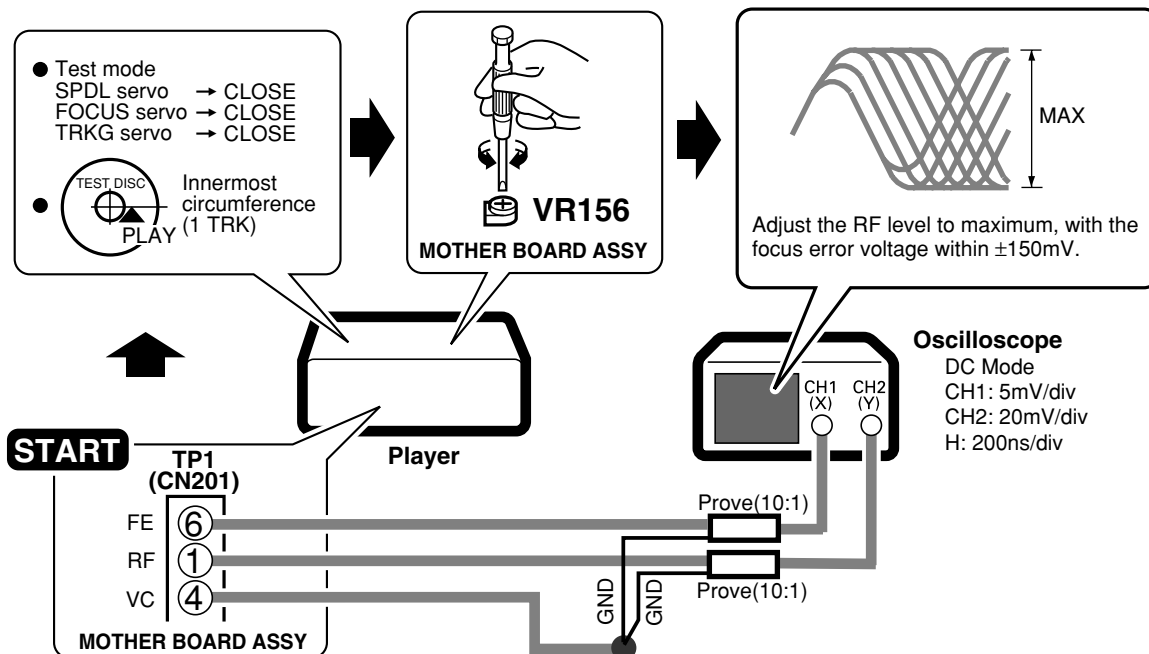
4. Pickup ①Radial ②Tangential Direction Tilt Adjustment



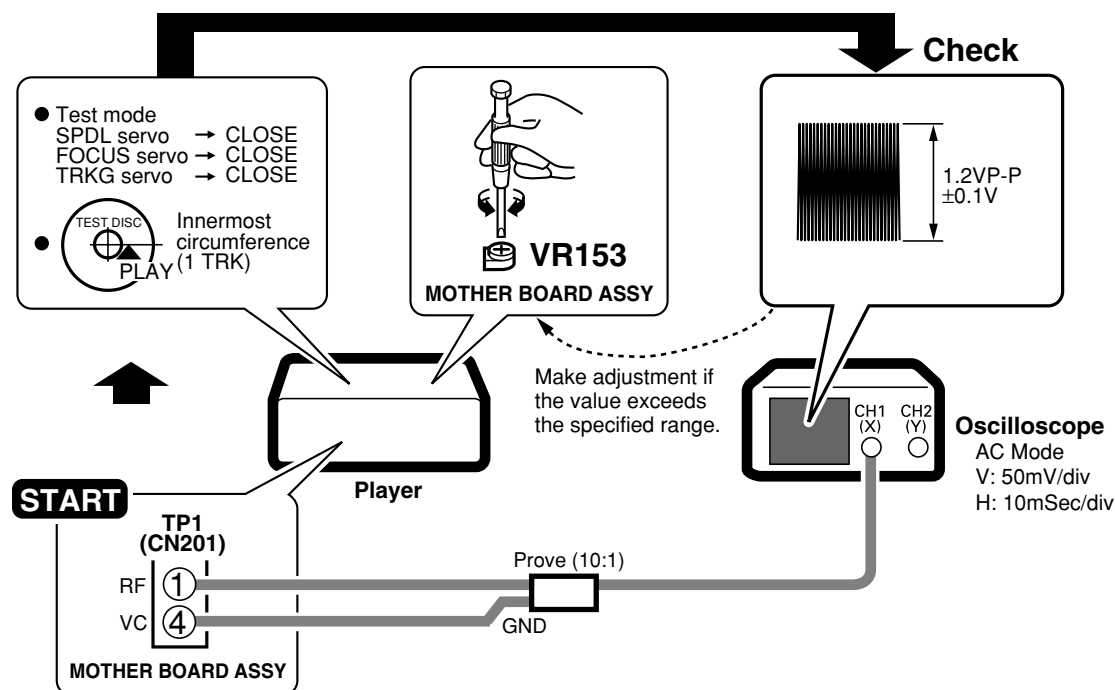
5. RF Level Adjustment I



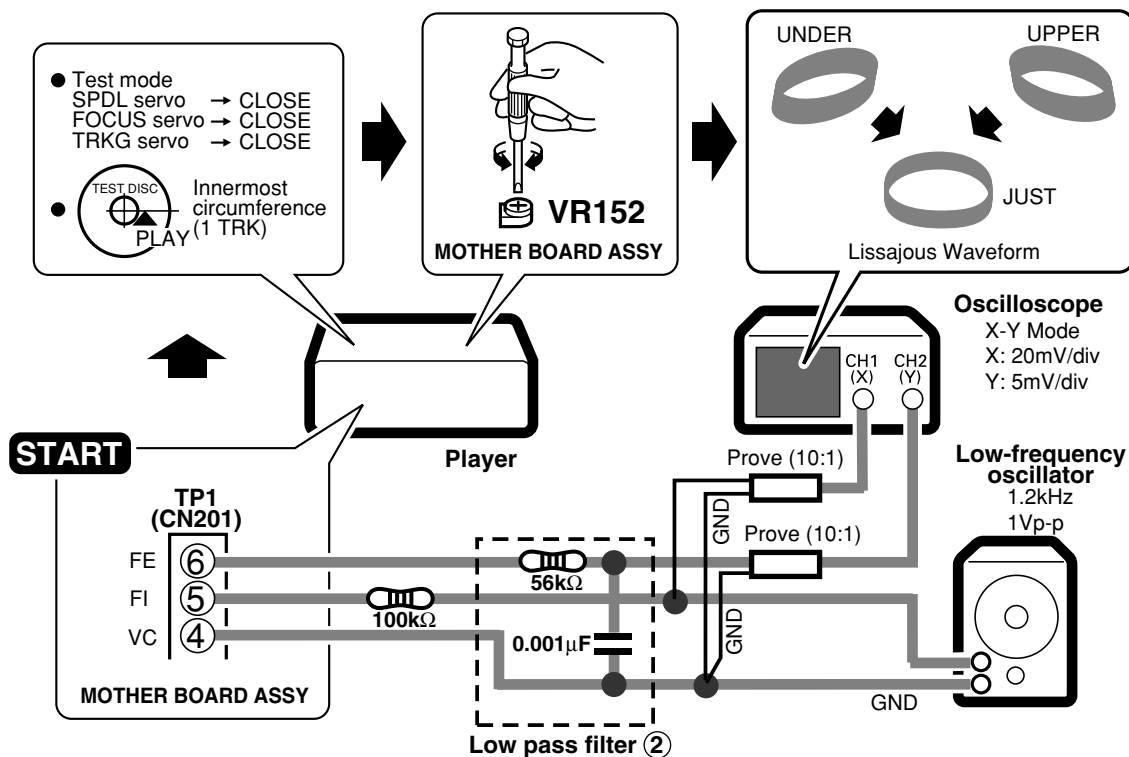
6. Focus Best Adjustment I



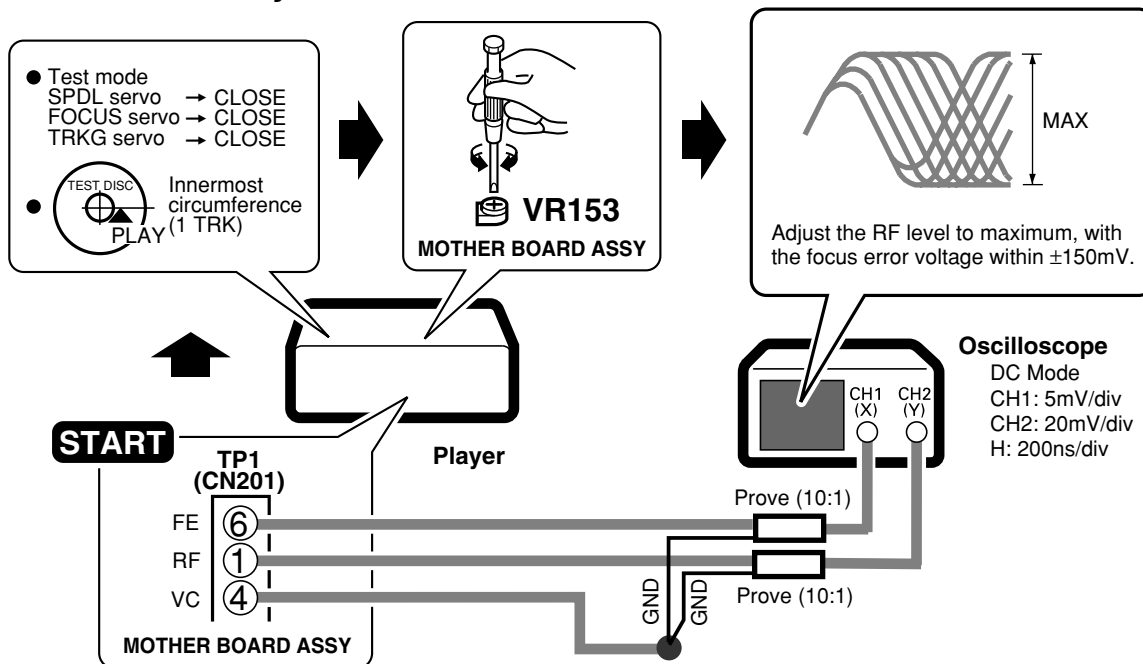
7. RF Level Adjustment II



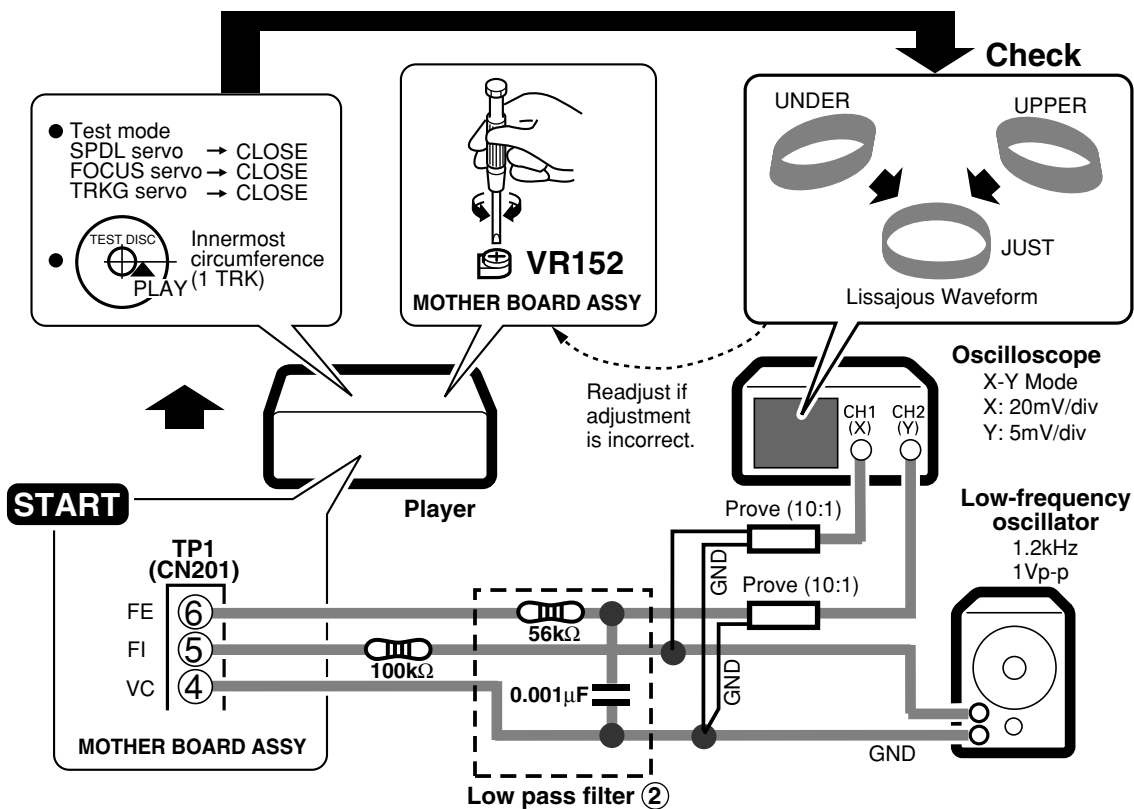
8. Focus Servo Loop Gain Adjustment I



9. Focus Best Adjustment II

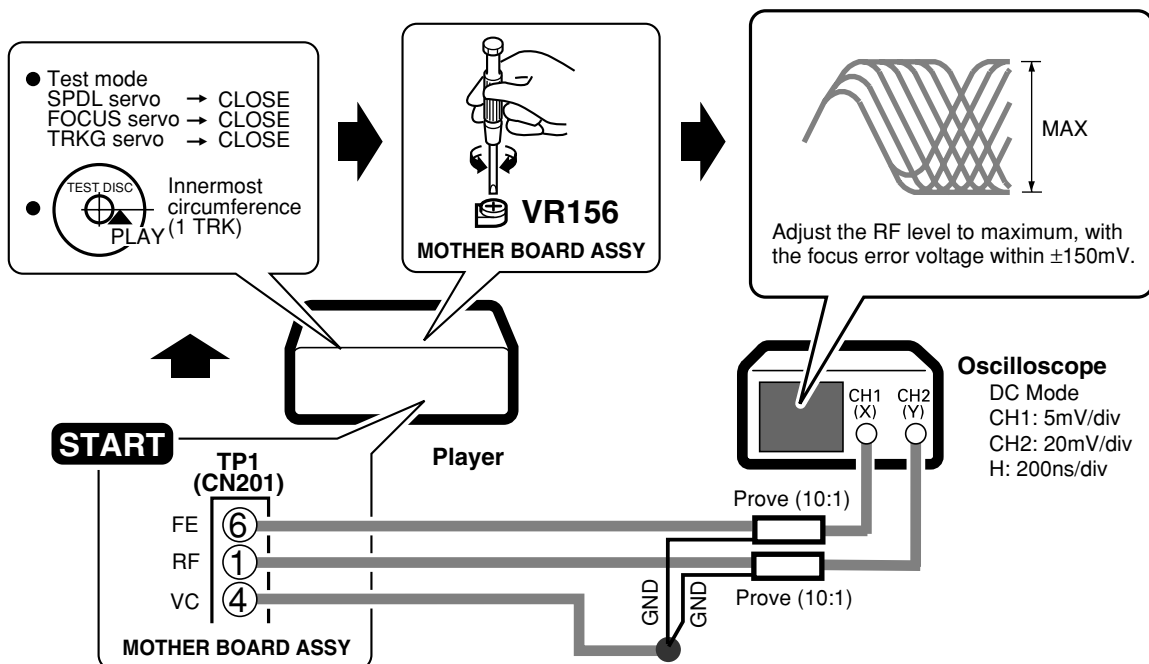


10. Focus Servo Loop Gain Adjustment II

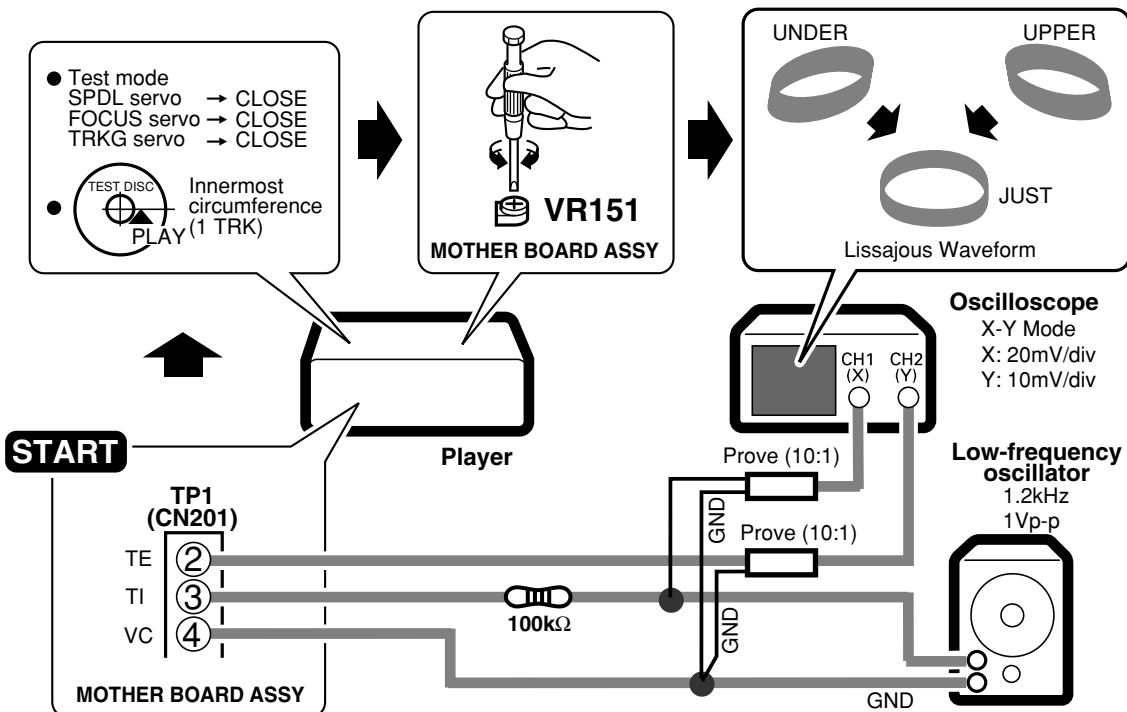


11. Focus Best Adjustment III

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



12. Tracking Servo Loop Gain Adjustment



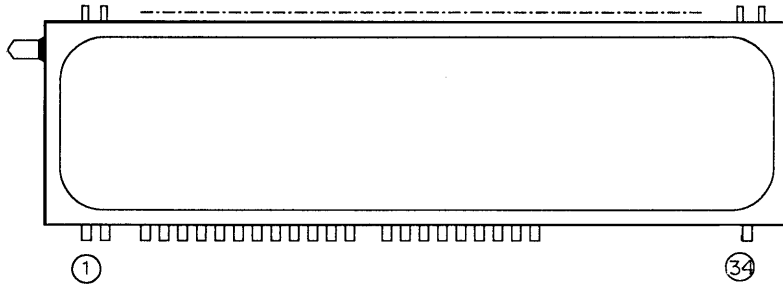
7. GENERAL INFORMATION

7.1 DISPLAY

■ PEL1084 (V701: FUNCTION BOARD ASSY)

■ FL INDICATOR TUBE

● Pin Assignment

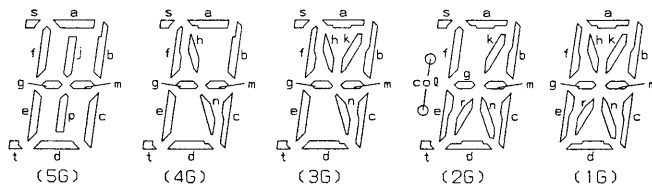
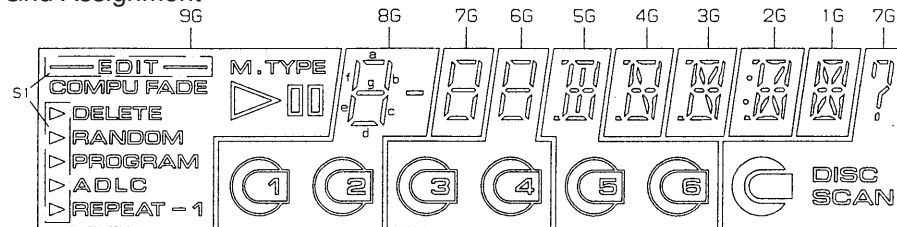


● Pin Connection

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	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	1	1	P	1	2	3	4	5	6	7	8	9	0	1	2	X	G	G	G	G	G	G	G	G	G	G	X	X	X	X	X	P	X	2

NOTE 1) F1, F2 --- Filament 4) 1G~9G --- Grid
 2) NP ----- No pin
 3) NX ----- No extend pin

● Grid Assignment



● Anode Connection

	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	RANDOM	e	e	e	e	e	e	e	e
P2	FADE	f	f	f	f	f	f	f	f
P3	COMPU	g	g	g	g, m	g	g, m	g, m	g
P4	00	-	?	-	s, t	m	s, t	s, t	m
P5	M.TYPE	a	a	a	a	a	a	a	a
P6	S1	b	b	b	b	b	b	b	b
P7	DELETE	c	c	c	c	c	c	c	c
P8	PROGRAM	d	d	d	d	d	d	d	d
P9	▷	-	DISC	-	j, p	h	h	col	h
P10	ADLC	-	SCAN	-	-	s	k	k	k
P11	-1	①	②	③	④	n	n	n	n
P12	REPEAT	⑤	⑥	⑦	⑧	t	-	r	r

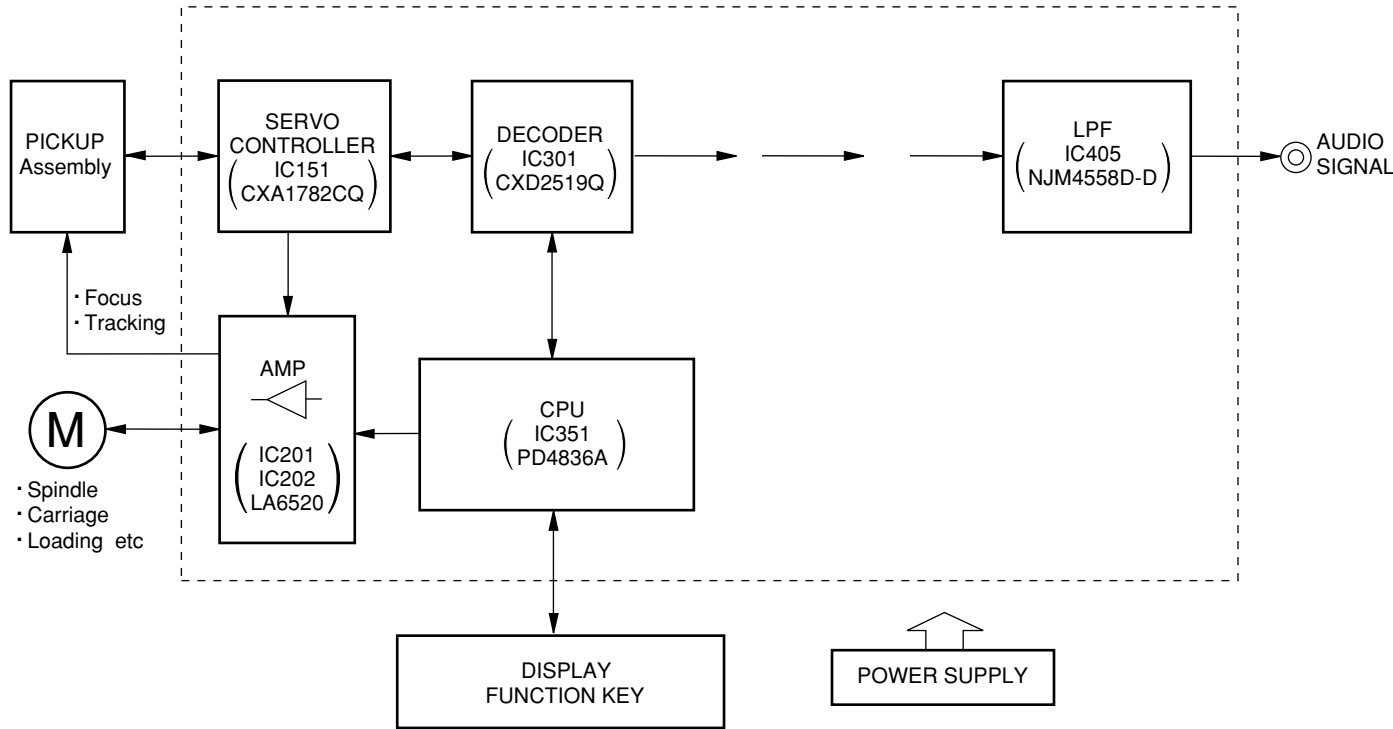
7.2 CLEANING



Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

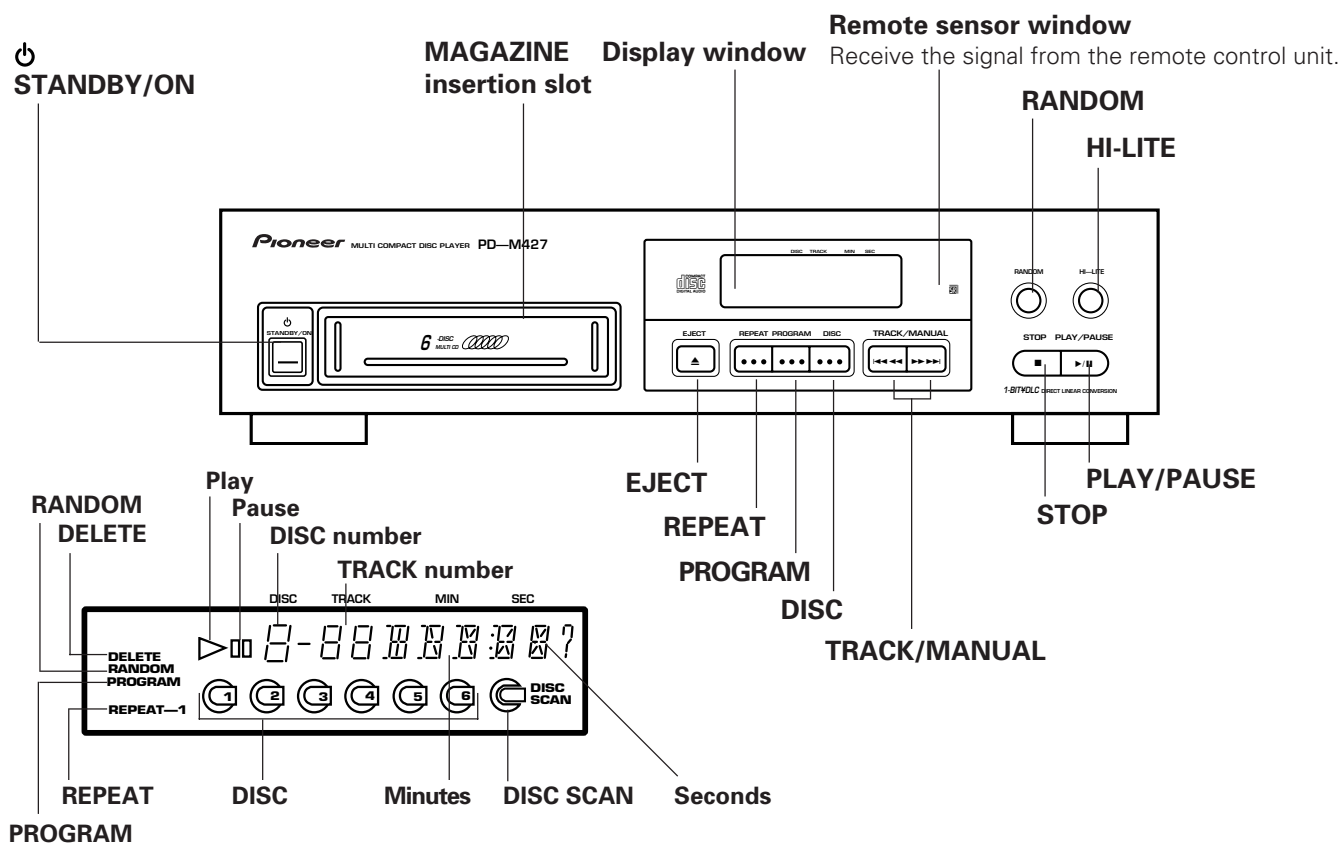
Position to be cleaned	Cleaning tools
Pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

7.3 BLOCK DIAGRAM

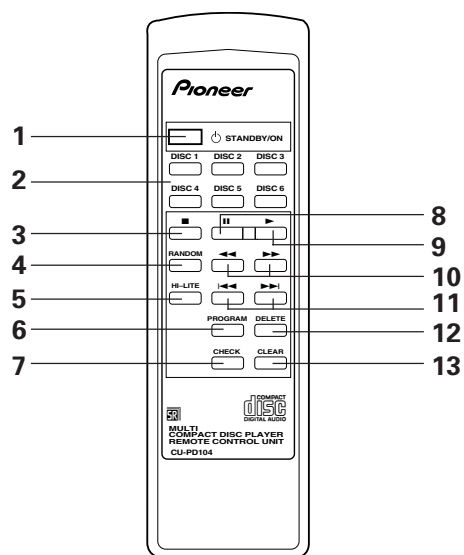


8. PANEL FACILITIES

■ PANEL FACILITIES



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 **STANDBY/ON** button
- 2 **DISC NUMBER** buttons (DISC 1-DISC 6)
- 3 **STOP** button (■)
- 4 **RANDOM** button
- 5 **HI-LITE SCAN** button
- 6 **PROGRAM** button
- 7 **CHECK** button
- 8 **PAUSE** button
- 9 **PLAY** button (▶)
- 10 **MANUAL** search buttons (◀◀, ▶▶)
- 11 **TRACK** search buttons (◀◀, ▶▶)
- 12 **DELETE** button
- 13 **CLEAR** button