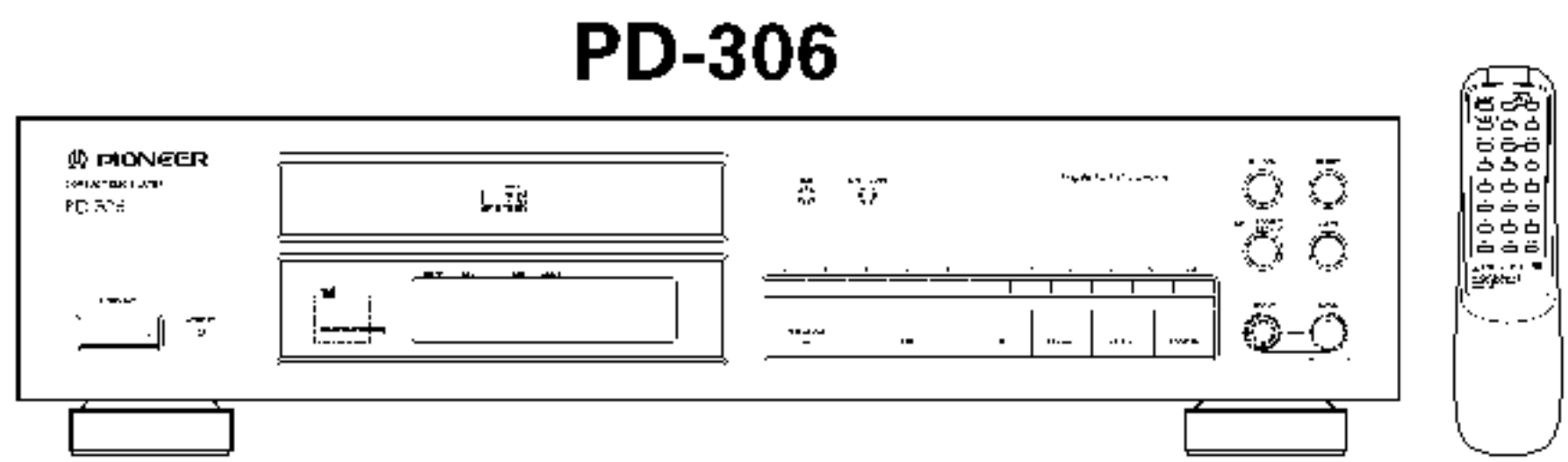


Service Manual



ORDER NO.
RRV 1788

COMPACT DISC PLAYER

PD-306

PD-206

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

Type	Model		Power Requirement	The voltage can be converted by the following method.
	PD-306	PD-206		
WYXK	O	O	AC220 – 240V	_____
WVXK	–	O	AC220 – 240V	_____
WPWXJ	–	O	AC220 – 240V	_____
RDXJ	–	O	AC110 – 127V/220 – 240V	With the voltage selector
RDXJ/NC	–	O	AC110 – 127V/220 – 240V	With the voltage selector
RLXJ	–	O	AC110 – 120V/220 – 240V	With the voltage selector

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PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, 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 Lane Crawford Place, Singapore 0923

1. SAFETY INFORMATION

VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVARSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRakta EJ STRÅLEN.

LASER
Kuva 1
Lasersäteilyn varoitusmerkki

WARNING!
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

LASER
Picture 1
Warning sign for laser radiation

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

WYXK type only

ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING!
UNSICHTBARE LASER-STRÅLUNG TRITT AUS, WENN DECKEL (ODER KLAPPE)GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!
VRW1094

VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
PRW1233

CLASS 1 LASER PRODUCT
VRW-328
Except RDXJ and RDXJ/NC types

CAUTION
INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM
PRW1018
WVXK, WPWXJ and RLXJ type

Except RDXJ and RDXJ/NC types

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.

PD-306, PD-206

(1) PARTS LIST

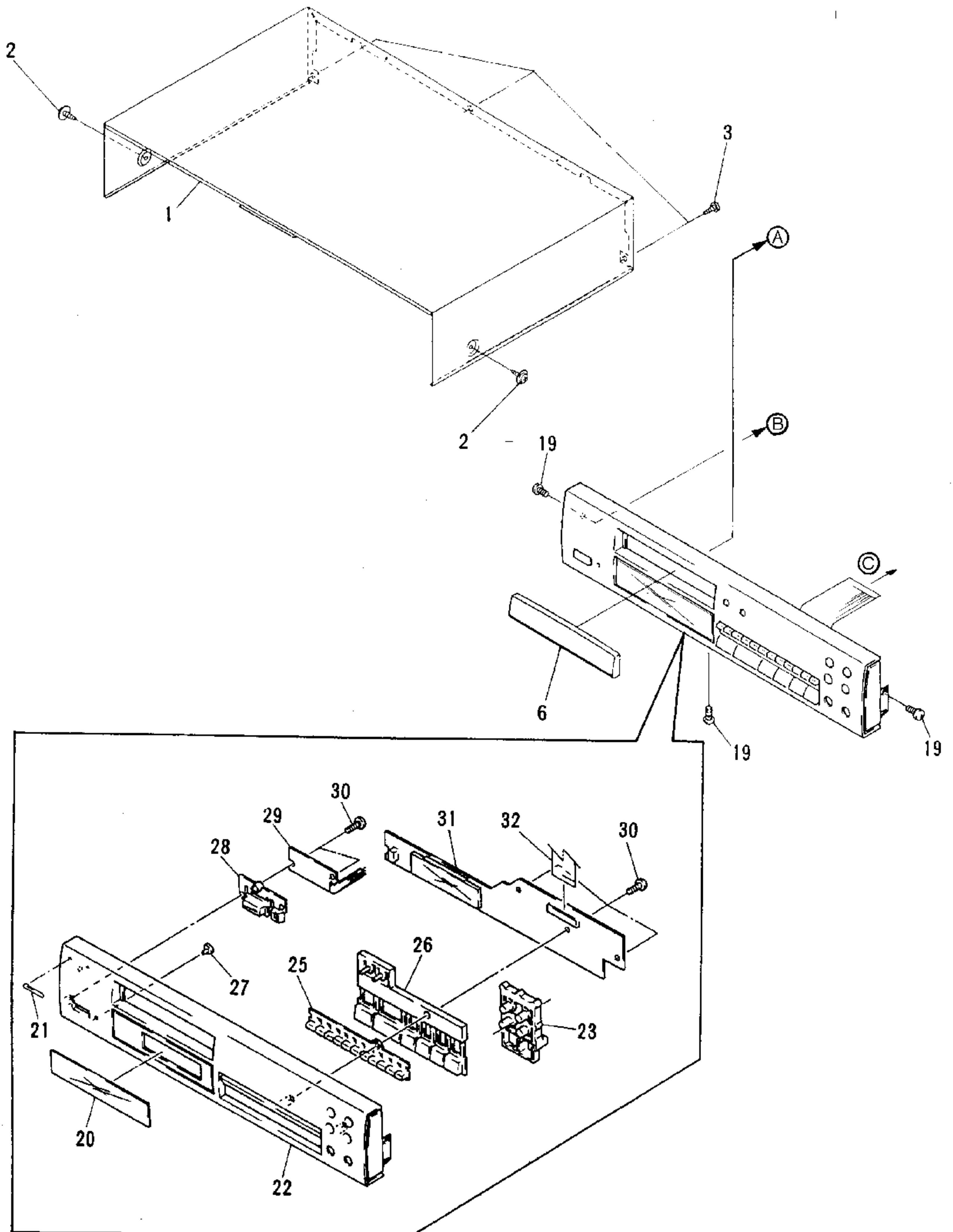
Mark	No.	Description	Parts No.
NSP	1	AA/R6P Dry Cell Batteries	AEX – 010
	2	Output Cable (L=1m)	PDE1248
	3	Operating Instructions	See Contrast table (2)
	4	Operating Instructions	See Contrast table (2)
	5	Remote Control Unit (CU – PD085)	PWW1118
	6	Battery Cover	AZA7148
	7	Polyethylene Bag	See Contrast table (2)
	8	Styrol Protector R	See Contrast table (2)
	9	Styrol Protector L	See Contrast table (2)
	10	Packing Case	See Contrast table (2)
	11	Seat	Z23 – 007
	12	Styrol Protector F	See Contrast table (2)
	13	Styrol Protector R	See Contrast table (2)
	14	Polyethylene Bag	See Contrast table (2)
NSP	15	Spacer	See Contrast table (2)
	16	Caution 220V Label	See Contrast table (2)

(2) CONTRAST TABLE

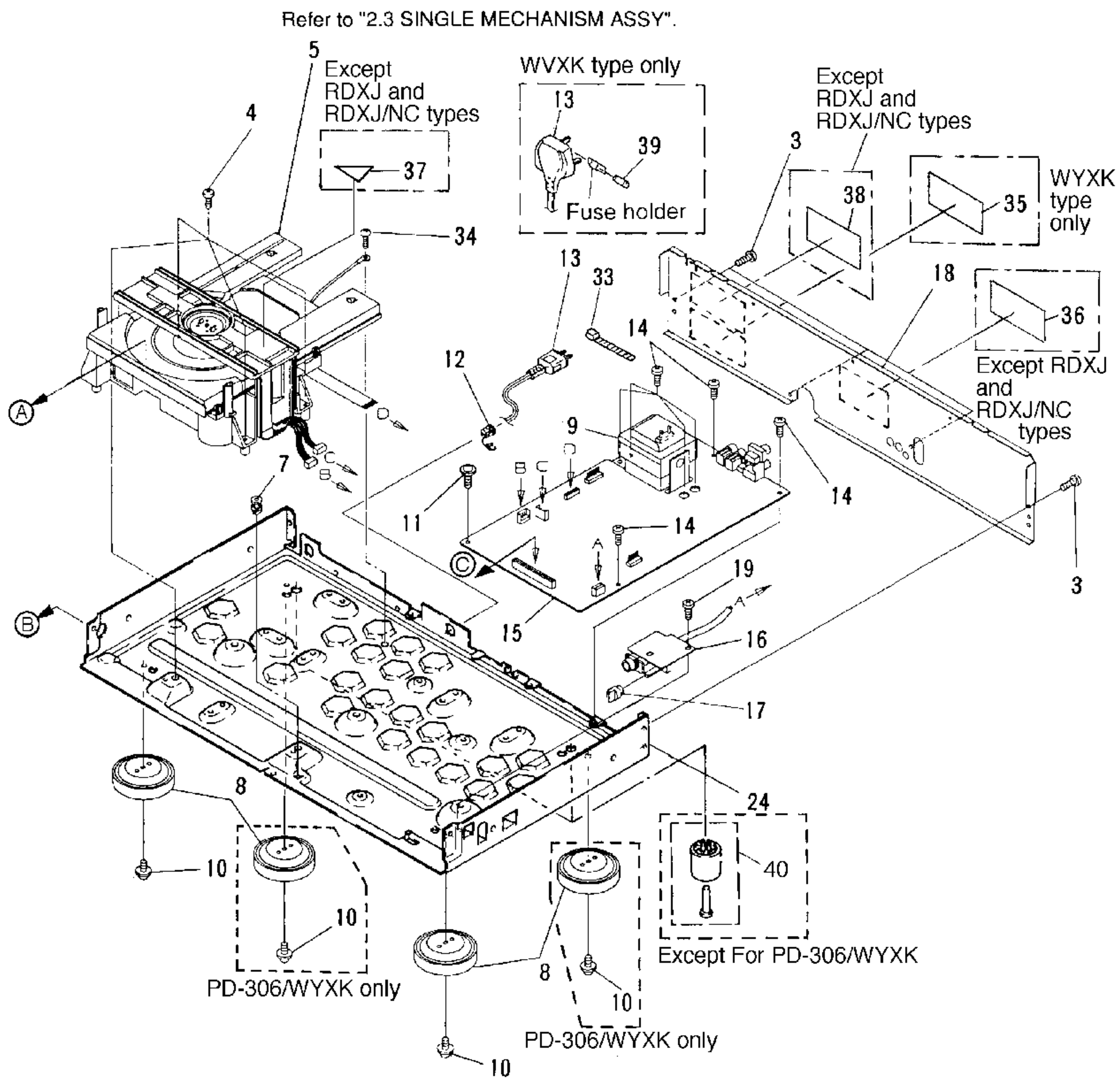
PD-206/WYXK, PD-206/WVXK, PD-206/WPWXJ, PD-206/RDXJ, PD-206/RLXJ, PD-206/RDXJ/NC and PD-306/WYXK have the same construction except for the following:

Mark	No.	Symbol and Description	Part No.							Remarks
			PD-306 /WYXK	PD-206 /WYXK	PD-206 /WVXK	PD-206 /WPWXJ	PD-206 /RDXJ	PD-206 /RLXJ	PD-206 /RDXJ/NC	
NSP	3	Operating Instructions (English)	PRB1254	PRB1254	PRB1254	PRB1254	Not used	Not used	Not used	
	3	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	Not used	Not used	PRE1256	PRE1256	PRE1256	
	4	Operating Instructions (German/French/Italian/Dutch /Swedish/Spanish/Portuguese)	PRD1017	PRD1017	Not used	Not used	Not used	Not used	Not used	
	7	Polyethylene Bag	Z21 – 038	Z21 – 038	Not used	Z21 – 038	Z21 – 038	Z21 – 038	Z21 – 038	
	8	Styrol Protector R	PHA1289	PHA1289	Not used	PHA1289	PHA1289	PHA1289	PHA1289	
	9	Styrol Protector L	PHA1290	PHA1290	Not used	PHA1290	PHA1290	PHA1290	PHA1290	
	10	Packing Case	PHG2237	PHG2238	PHG2239	PHG2240	PHG2240	PHG2240	PHG2269	
	12	Styrol Protector F	Not used	Not used	PHA1239	Not used	Not used	Not used	Not used	
	13	Styrol Protector R	Not used	Not used	PHA1254	Not used	Not used	Not used	Not used	
	14	Polyethylene Bag	Not used	Not used	Z21 – 013	Not used	Not used	Not used	Not used	
	15	Spacer	Not used	Not used	PHC1075	Not used	Not used	Not used	Not used	
	16	Caution 220V Label	Not used	Not used	Not used	Not used	ARR1003	ARR1003	ARR1003	

2.2 EXTERIOR



PD-306, PD-206



(1) PARTS LIST

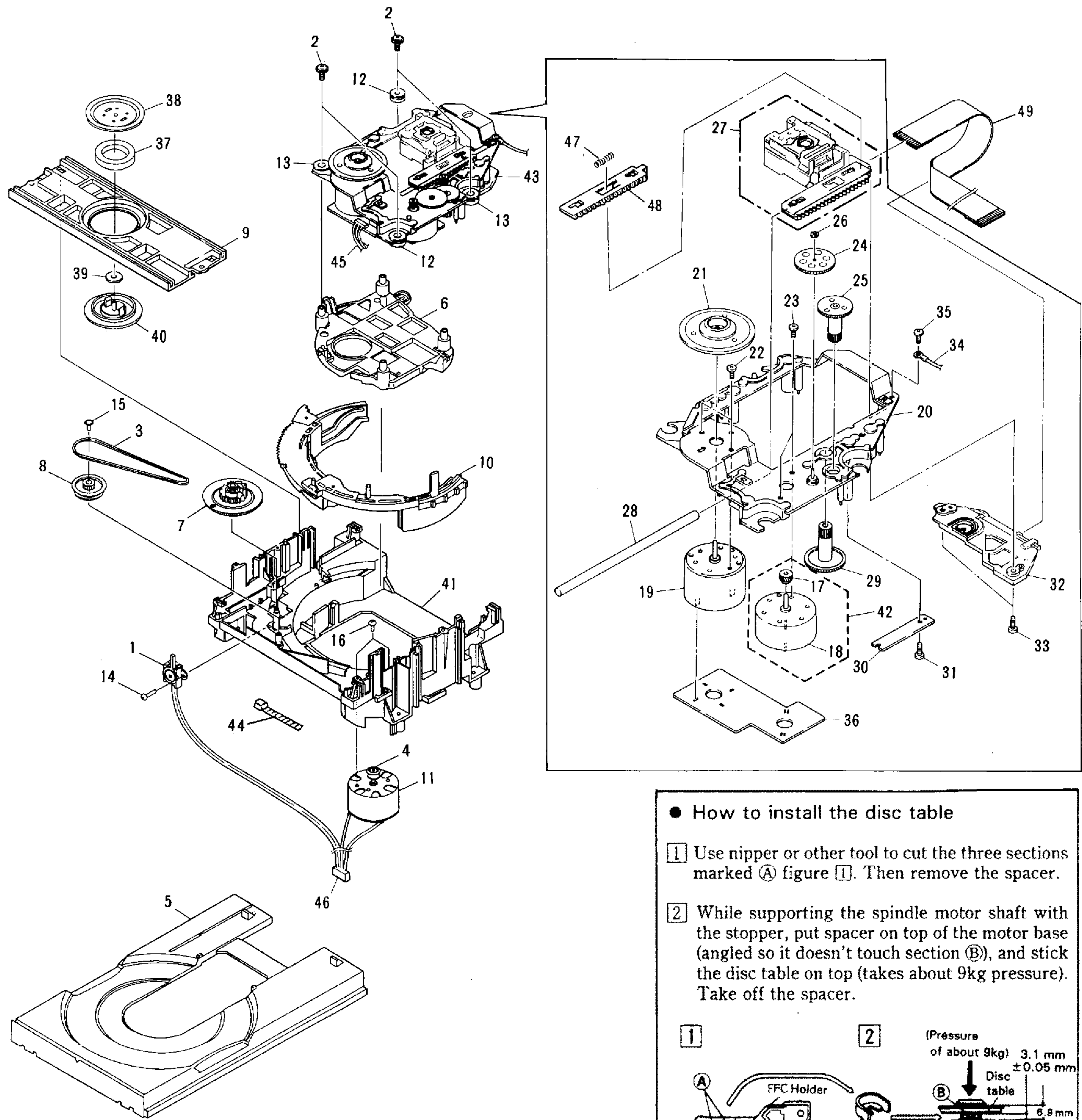
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	Bonnet	See Contrast table (2)	NSP	26	Operate Button	See Contrast table (2)
	2	Screw	FBT40P080FZK		27	LED Lens	PNW2019
	3	Screw	BBZ30P080FZK		28	Power Button	PAC1708
	4	Screw	BBZ30P160FMC		29	SW BOARD ASSY	See Contrast table (2)
	5	SINGLE MECHANISM ASSY	PXA1593		30	Screw	PPZ30P100FMC
NSP	6	Name Plate	PNW2539	NSP	31	DISPLY BOARD ASSY	See Contrast table (2)
	7	Spacer	PNY – 404		32	32P F.F.C/30V	PDD1041
⚠	8	Insulator	PNW1912	⚠	33	Binder	ZCA – SKB90BK
	9	Power Transformer	See Contrast table (2)		34	Screw	PDZ30P050FMC
⚠	10	Screw	IBZ30P100FCC		35	Caution Label	See Contrast table (2)
	11	Screw	IBZ30P150FCC	NSP	36	Caution Label (F)	See Contrast table (2)
⚠	12	Strain Relief	CM – 22B		37	Caution Label (G)	See Contrast table (2)
	13	AC Power Cord	See Contrast table (2)	⚠	38	Caution Label	See Contrast table (2)
⚠	14	Screw	BBZ30P060FMC		39	FUSE (T5A)	See Contrast table (2)
	15	MOTHER BOARD ASSY	See Contrast table (2)	⚠	40	Reg Assy	See Contrast table (2)
NSP	16	HP BOARD ASSY	See Contrast table (2)				
	17	Knob	PAC1707				
	18	Rear Base	See Contrast table (2)				
	19	Screw	IBZ30P080FCC				
	20	Display Window	See Contrast table (2)				
NSP	21	Name Plate	PAM1608				
	22	Panel	See Contrast table (2)				
	23	Mode Button	PAC1796				
	24	Under Base	See Contrast table (2)				
	25	10 Key	PAC1797				

(2) CONTRAST TABLE

PD-206/WYXK, PD-206/WVXK, PD-206/WPWXJ, PD-206/RDXJ, PD-206/RLXJ, PD-206/RDXJ/NC and PD-306/WYXK have the same construction except for the following:

Mark	No.	Symbol and Description	Part No.							Remarks
			PD-306 /WYXK	PD-206 /WYXK	PD-206 /WVXK	PD-206 /WPWXJ	PD-206 /RDXJ	PD-206 /RLXJ	PD-206 /RDXJ/NC	
⚠	1	Bonnet	PYY1183	PYY1183	PYY1183	PYY1182	PYY1182	PYY1182	PYY1182	
	9	Power Transformer	PTT1236	PTT1236	PTT1236	PTT1236	PTT1238	PTT1238	PTT1238	
	13	AC Power Cord	PDG1003	PDG1003	PDG1055	ADG1123	PDG1013	PDG1003	PDG1013	
	15	MOTHER BOARD ASSY	PWM2141	PWM2138	PWM2138	PWM2140	PWM2139	PWM2139	PWM2139	
	NSP 16	HP BOARD ASSY	PWZ2945	PWZ2945	PWZ2945	PWZ2949	PWZ2949	PWZ2949	PWZ2949	
NSP	18	Rear Base	PNA2330	PNA2331	PNA2332	PNA2335	PNA2333	PNA2334	PNA2364	
	20	Display Window	PAM1729	PAM1665	PAM1665	PAM1666	PAM1666	PAM1666	PAM1666	
	22	Panel	PNW2723	PNW2724	PNW2724	PNW2724	PNW2724	PNW2724	PNW2724	
	24	Under Base	PNA2219	PNA2219	PNA2219	PNA2177	PNA2177	PNA2177	PNA2177	
	26	Operate Button	PAC1846	PAC1798	PAC1798	PAC1798	PAC1798	PAC1798	PAC1798	
NSP	29	SW BOARD ASSY	PWZ2941	PWZ2941	PWZ2941	PWZ2942	PWZ2942	PWZ2942	PWZ2942	
NSP	31	DISPLAY BOARD ASSY	PWZ2936	PWZ2936	PWZ2936	PWZ2937	PWZ2937	PWZ2937	PWZ2937	
NSP	35	Caution Label	PRW1233	PRW1233	Not used	Not used	Not used	Not used	Not used	
	36	Caution Label (F)	VRW – 328	VRW – 328	VRW – 328	VRW – 328	Not used	VRW – 328	Not used	
	37	Caution Label (G)	VRW – 329	VRW – 329	VRW – 329	VRW – 329	Not used	VRW – 329	Not used	
⚠	38	Caution Label	VRW1094	VRW1094	PRW1018	PRW1018	Not used	PRW1018	Not used	
	39	Fuse (T5A)	Not used	Not used	PEK1003	Not used	Not used	Not used	Not used	
	40	Reg Assy	Not used	AEC1222	AEC1222	AEC1531	AEC1531	AEC1531	AEC1531	

2.3 SINGLE MECHANISM ASSY



● How to install the disc table

1 Use nipper or other tool to cut the three sections marked ① 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 ②), and stick the disc table on top (takes about 9kg pressure). Take off the spacer.

1

2

(Pressure of about 9kg) 3.1 mm ± 0.05 mm

Disc table

6.8 mm

CC Carriage base

PCB

Spindle motor

Spacer setting Position

Spacer

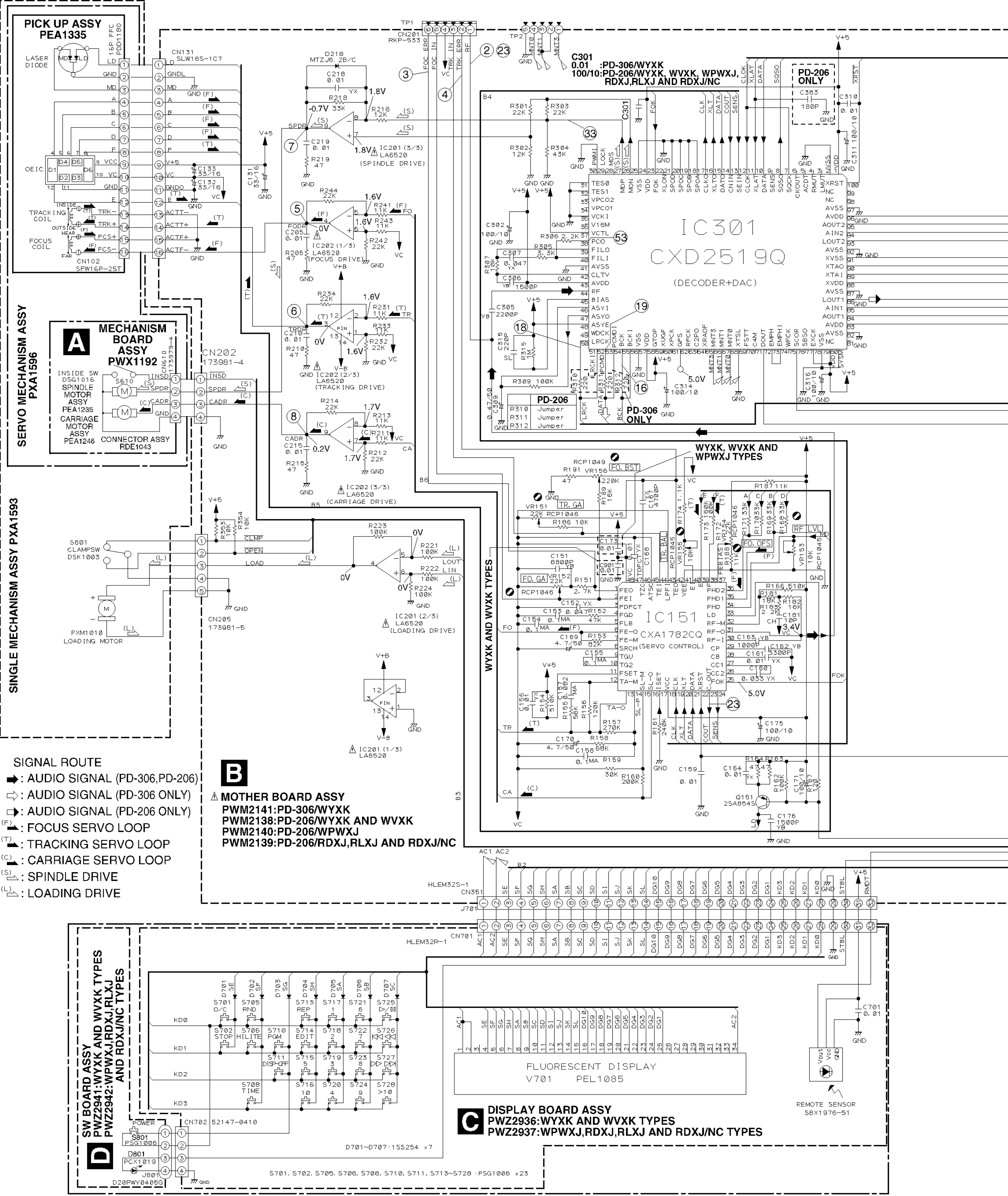
FFC Holder

Spacer

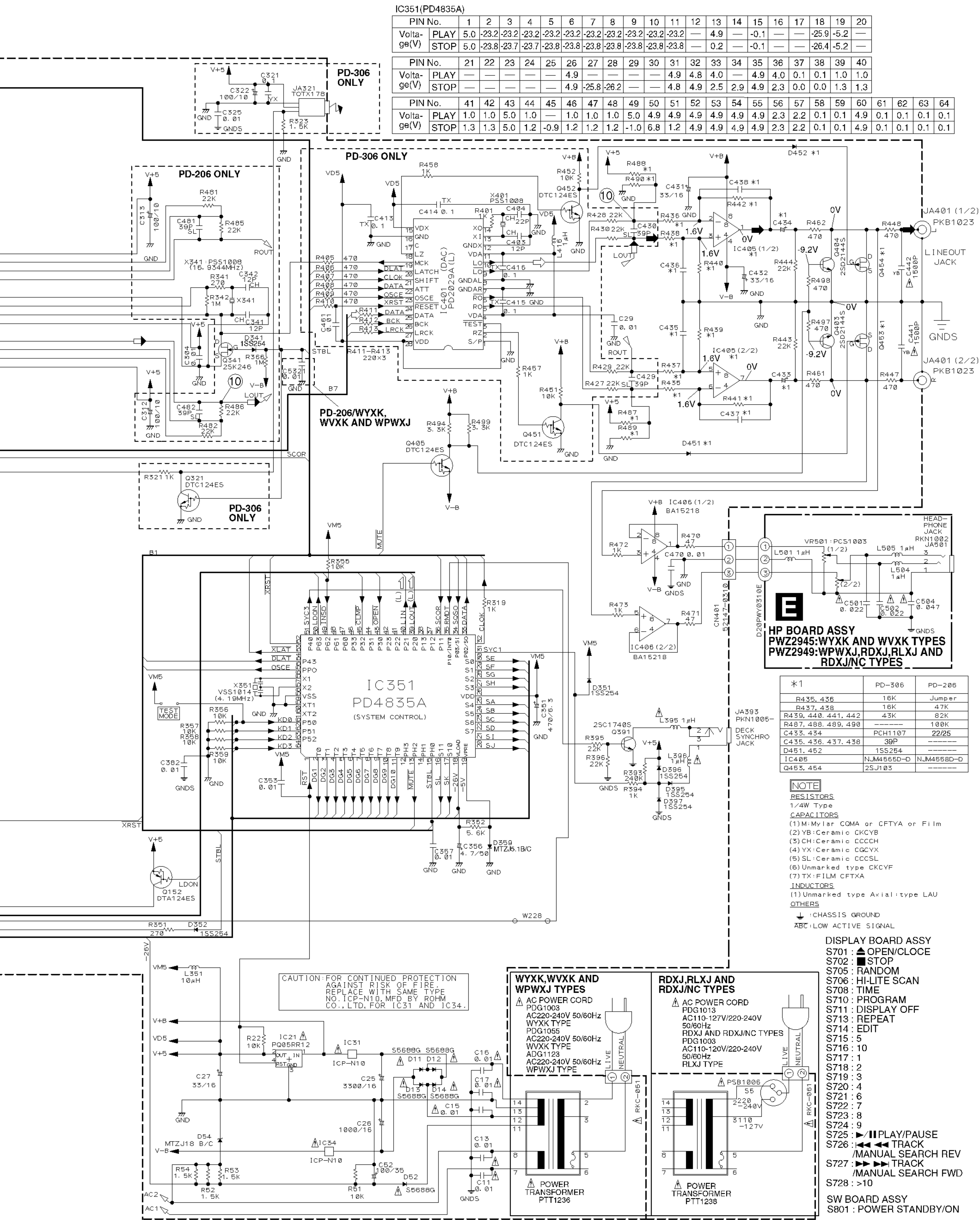
PARTS LIST

Mark	No.	Description	Parts 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	Pinion 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	Gear 3	PNW2054
	25	Gear 2	PNW2053
	26	Washer	WT12D032D025
	27	Pick Up Assy-S	PEA1335
	28	Guide Bar	PLA1094
	29	Gear 1	PNW2052
	30	Gear Stopper	PNB1303
	31	Screw	BPZ20P060FMC
	32	FFC Holder	PNW2734
	33	Screw	BPZ26P100FMC
	34	Earth Lead Unit	PDF1104
	35	Screw	BBZ26P060FMC
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	D.C. 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 F.F.C/30V	PDD1183

3. SCHEMATIC DIAGRAM



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

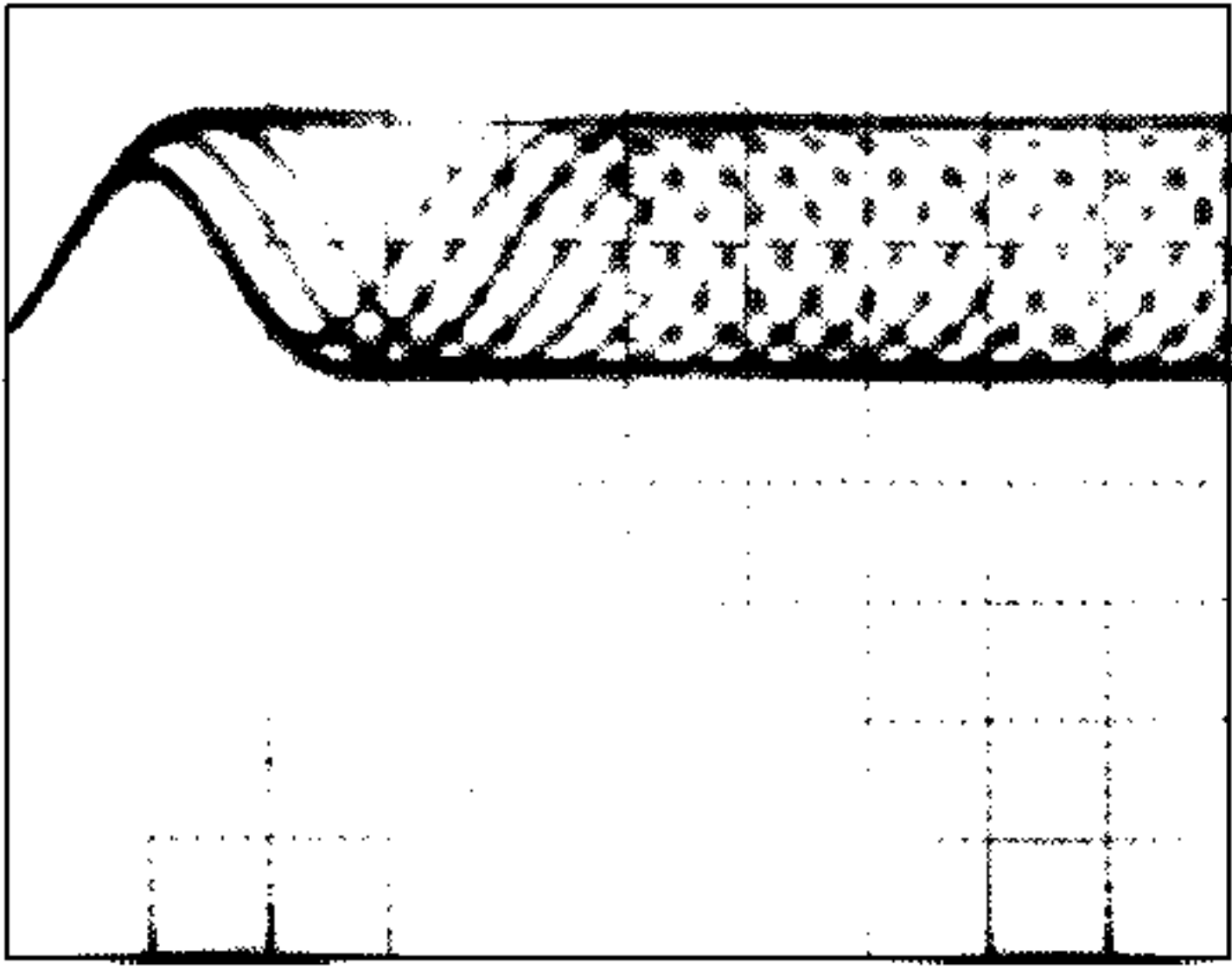
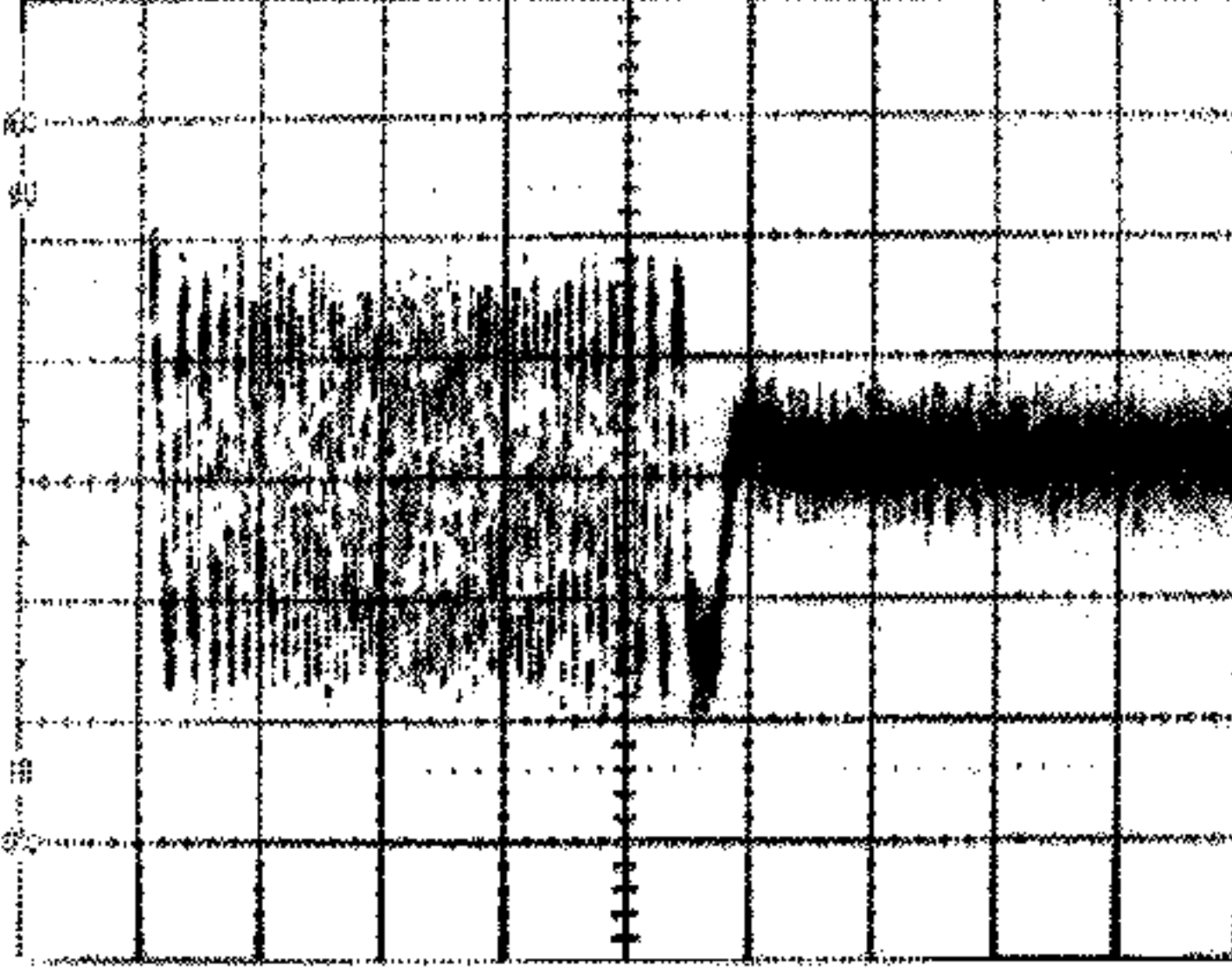
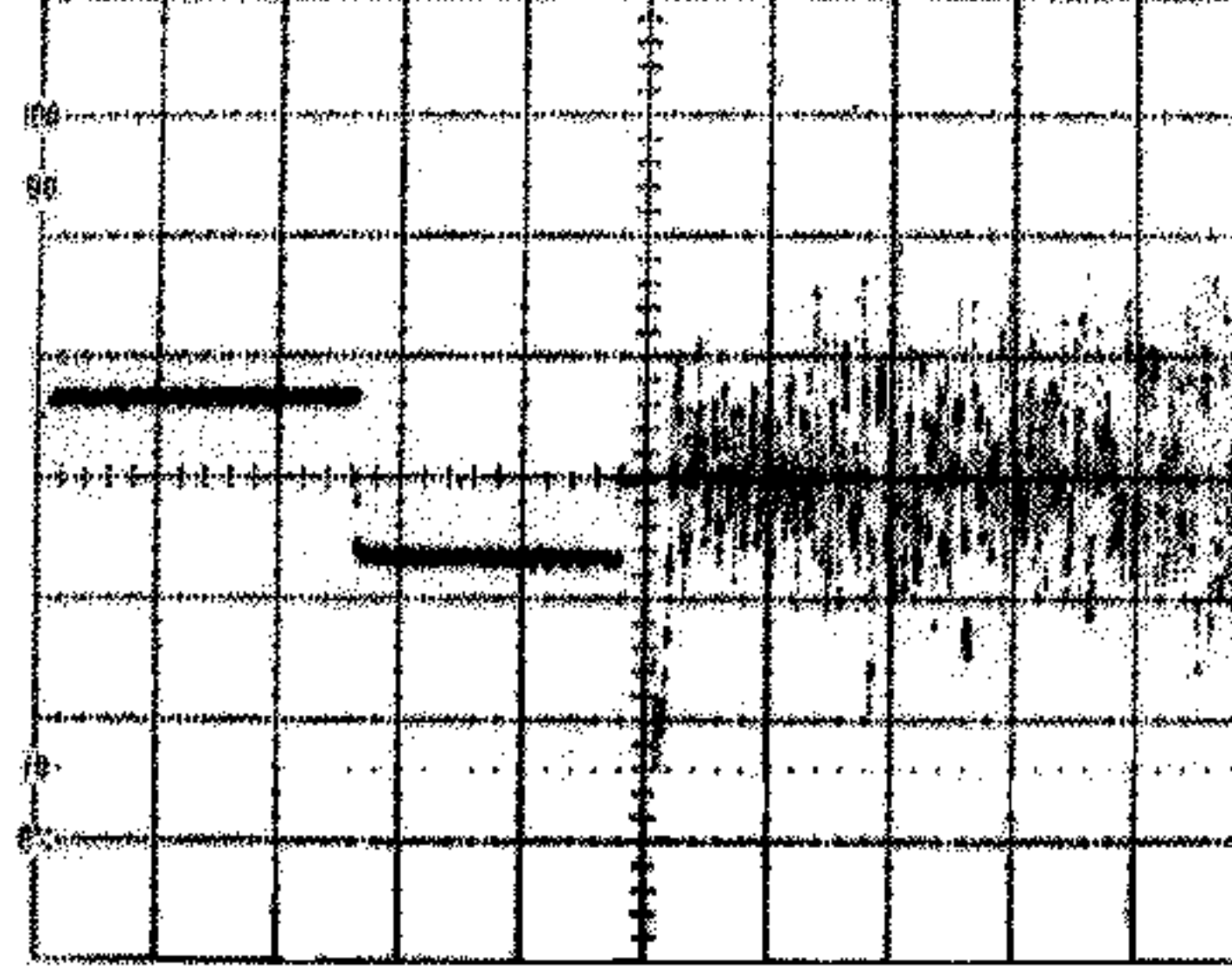
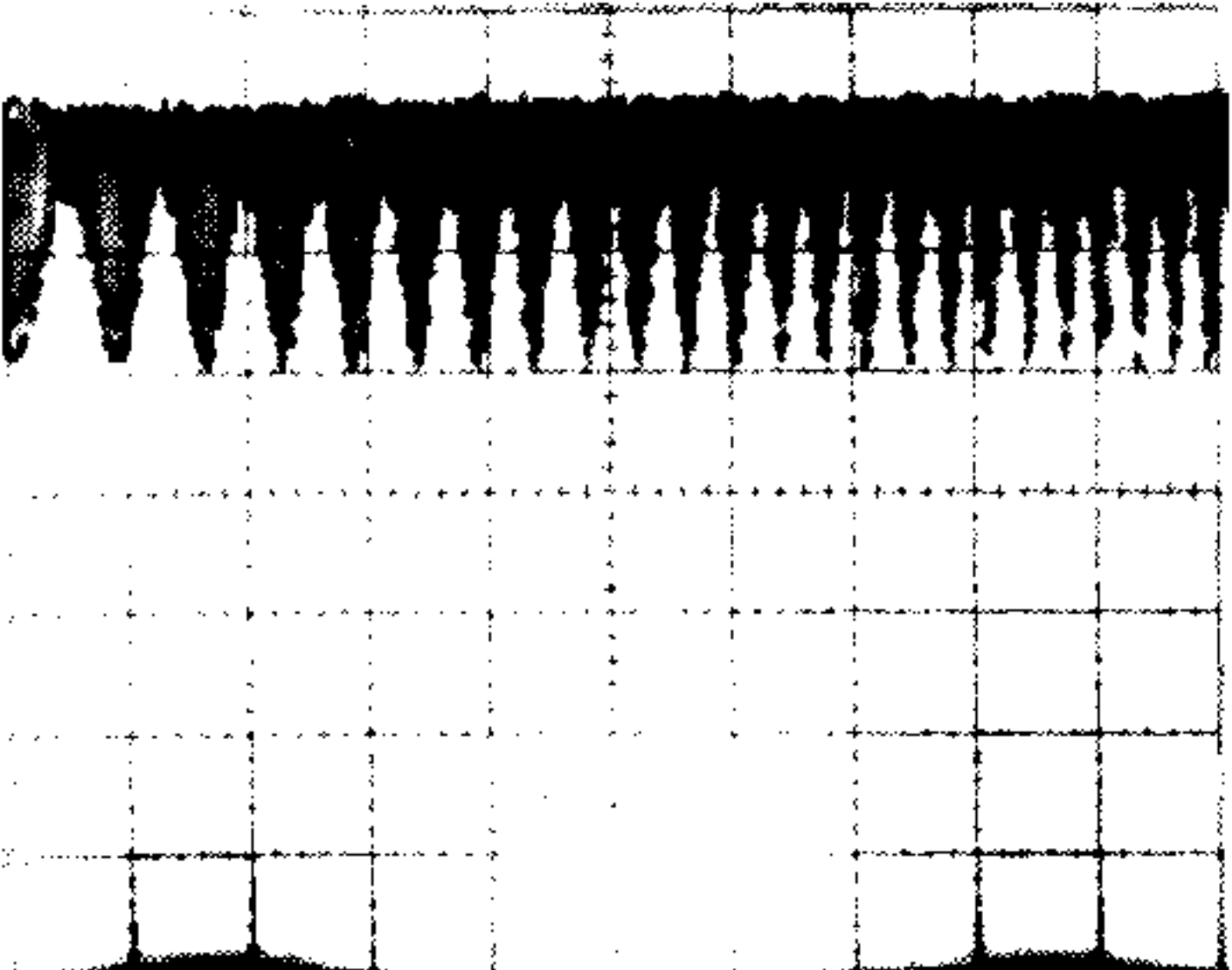
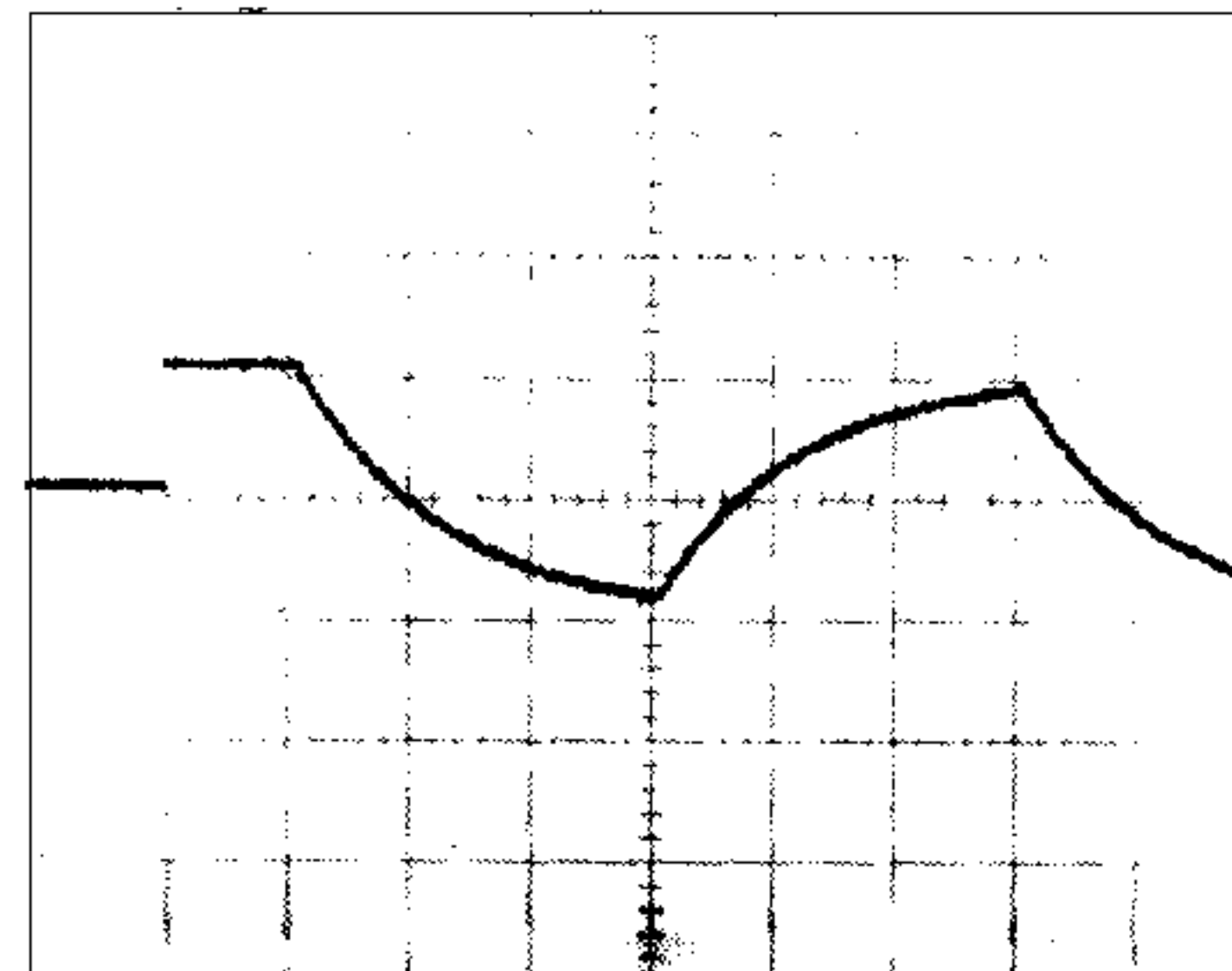
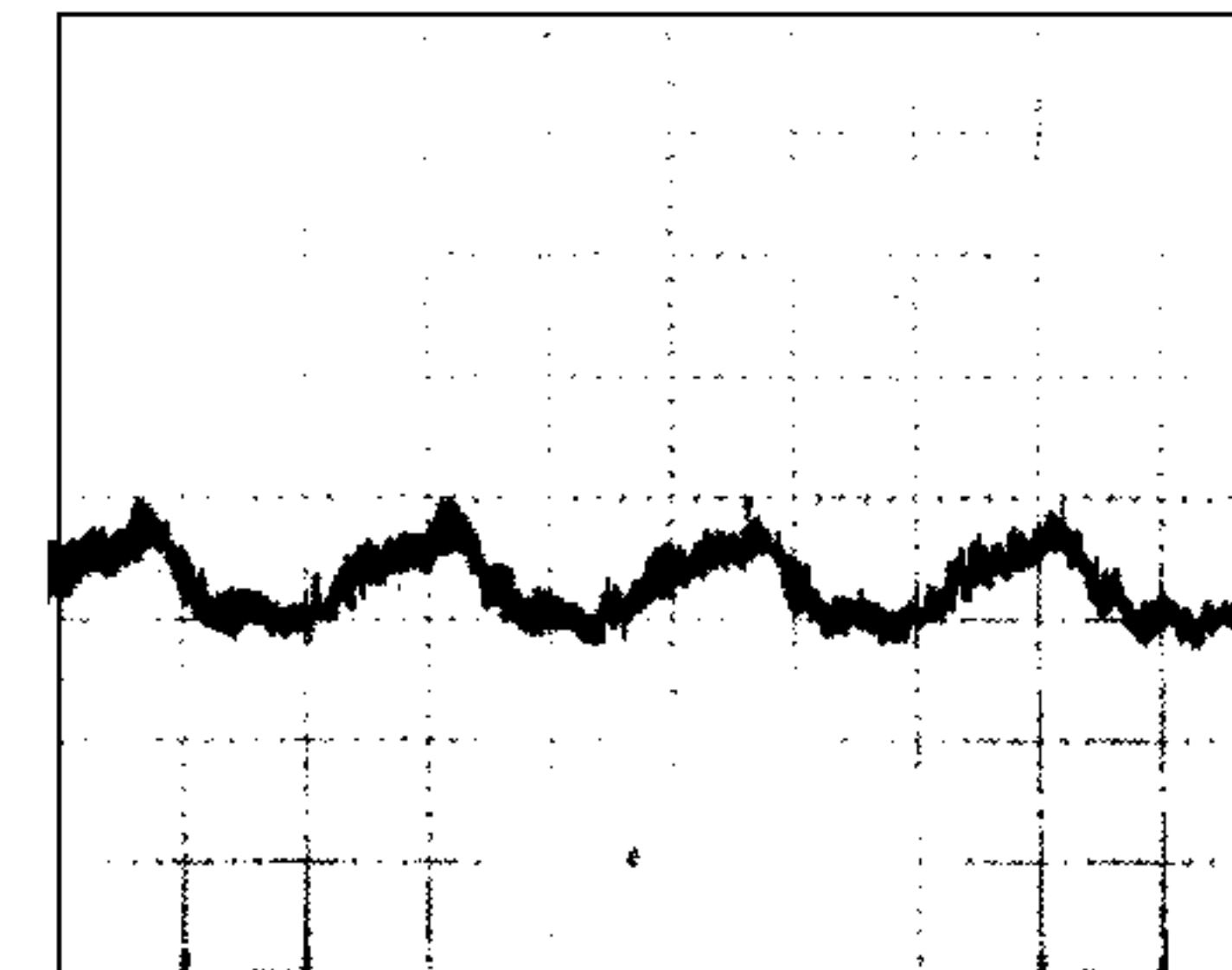
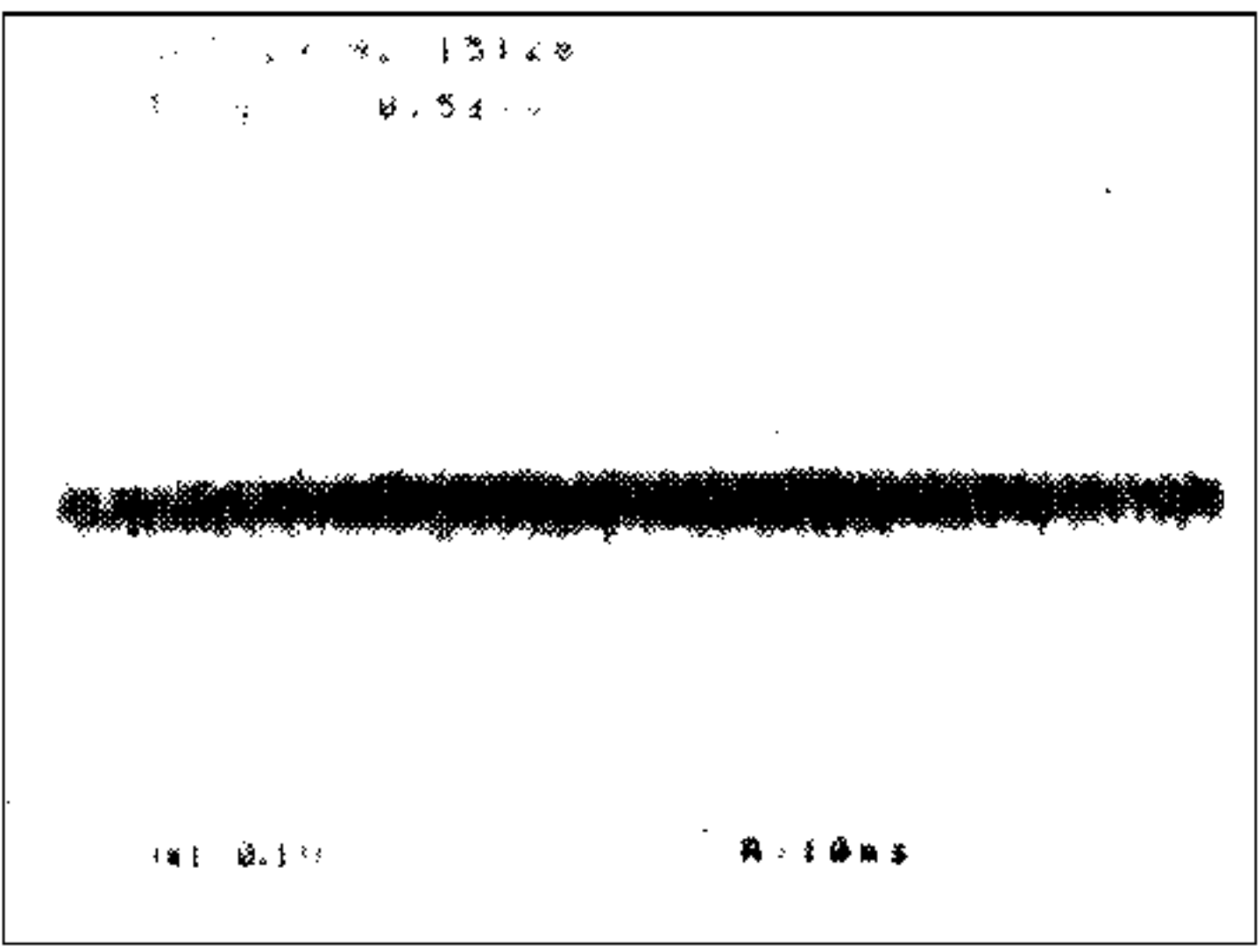
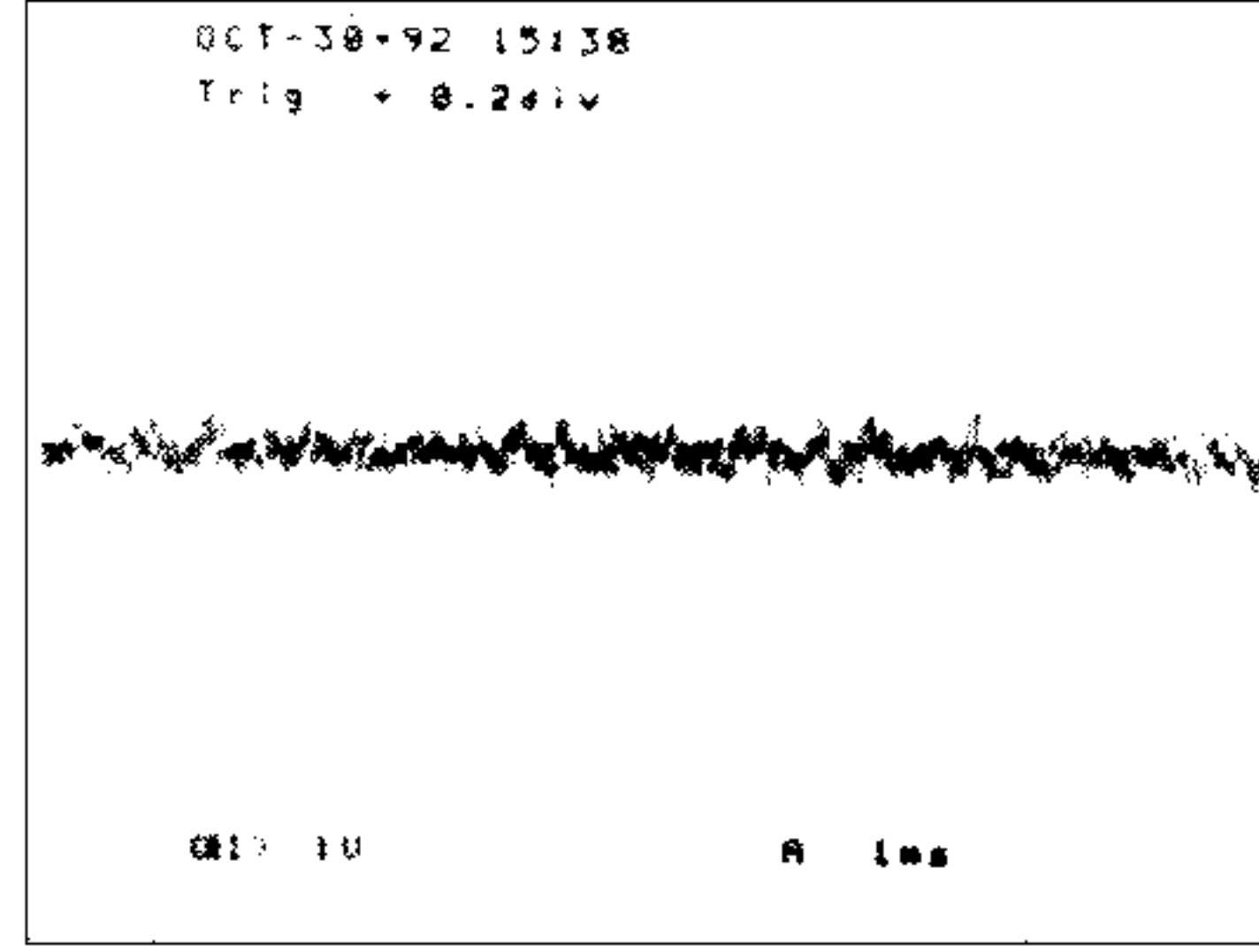
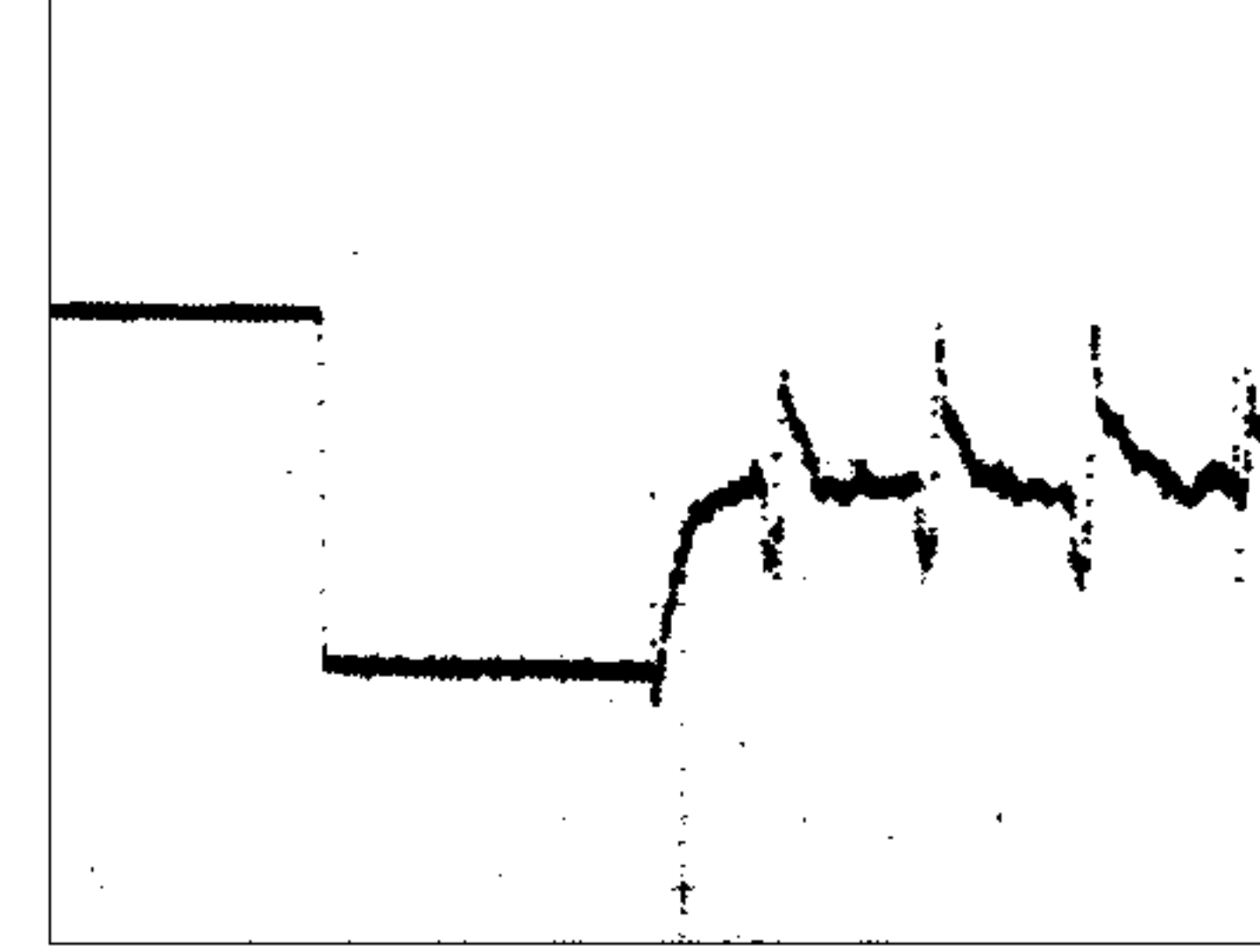
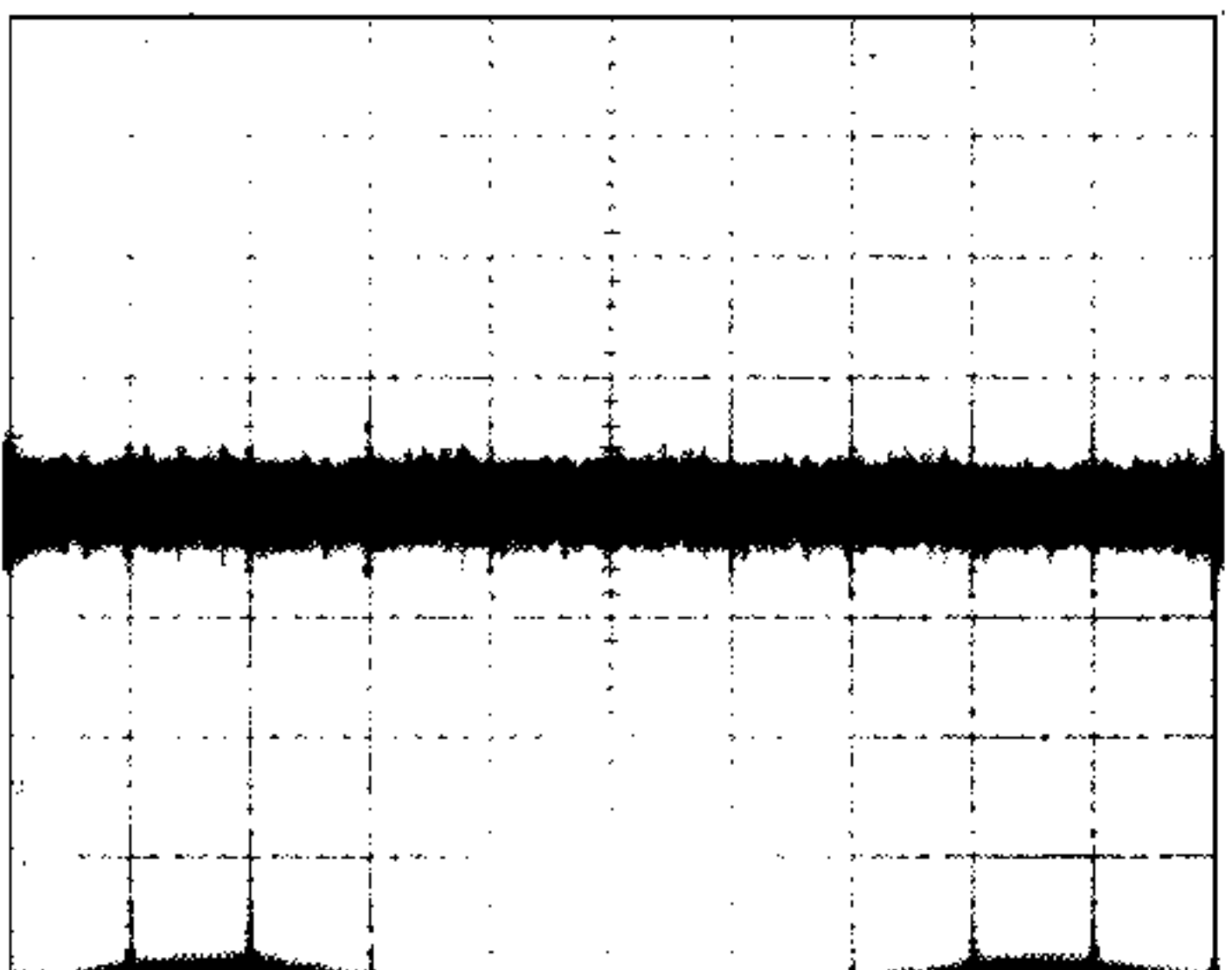
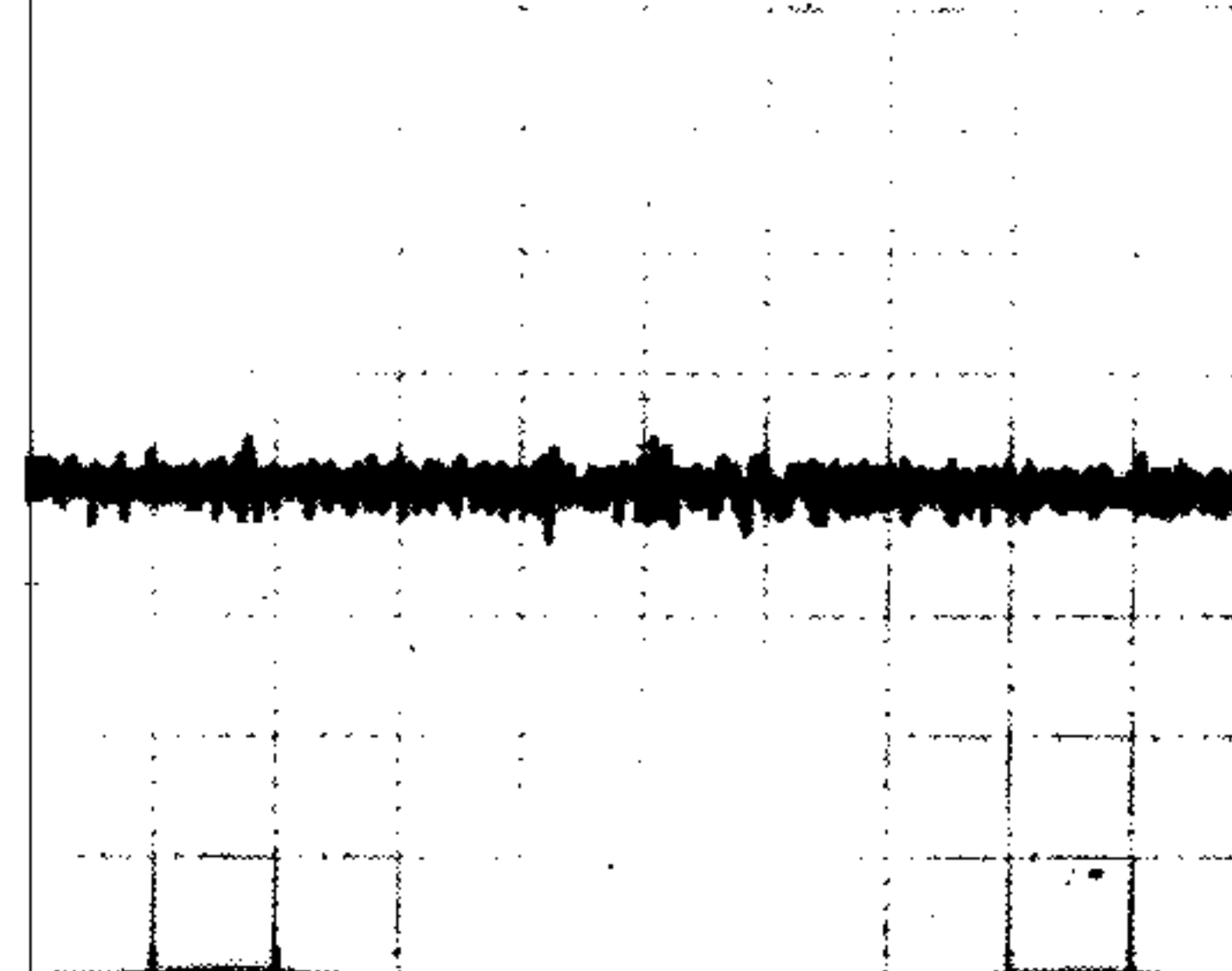
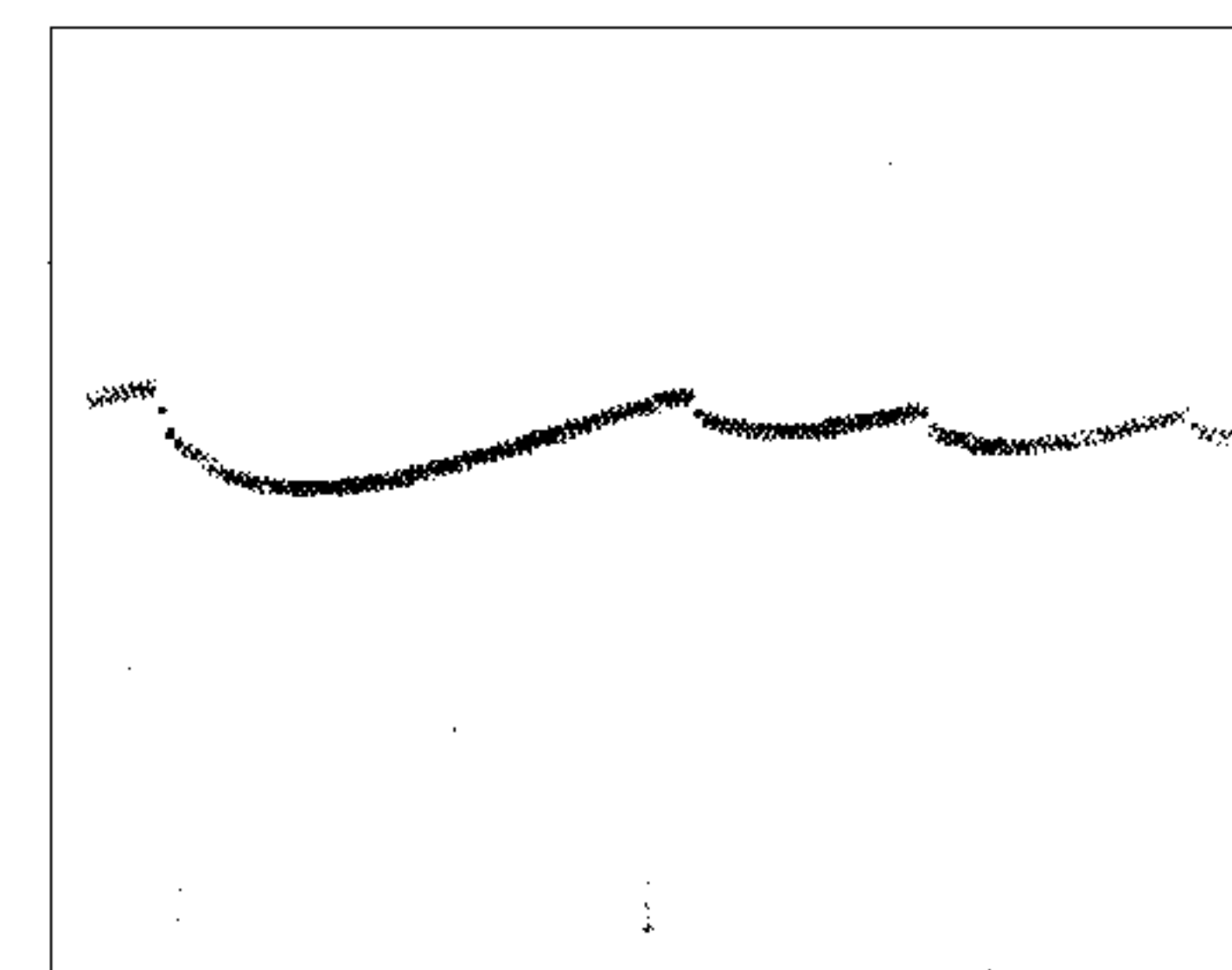


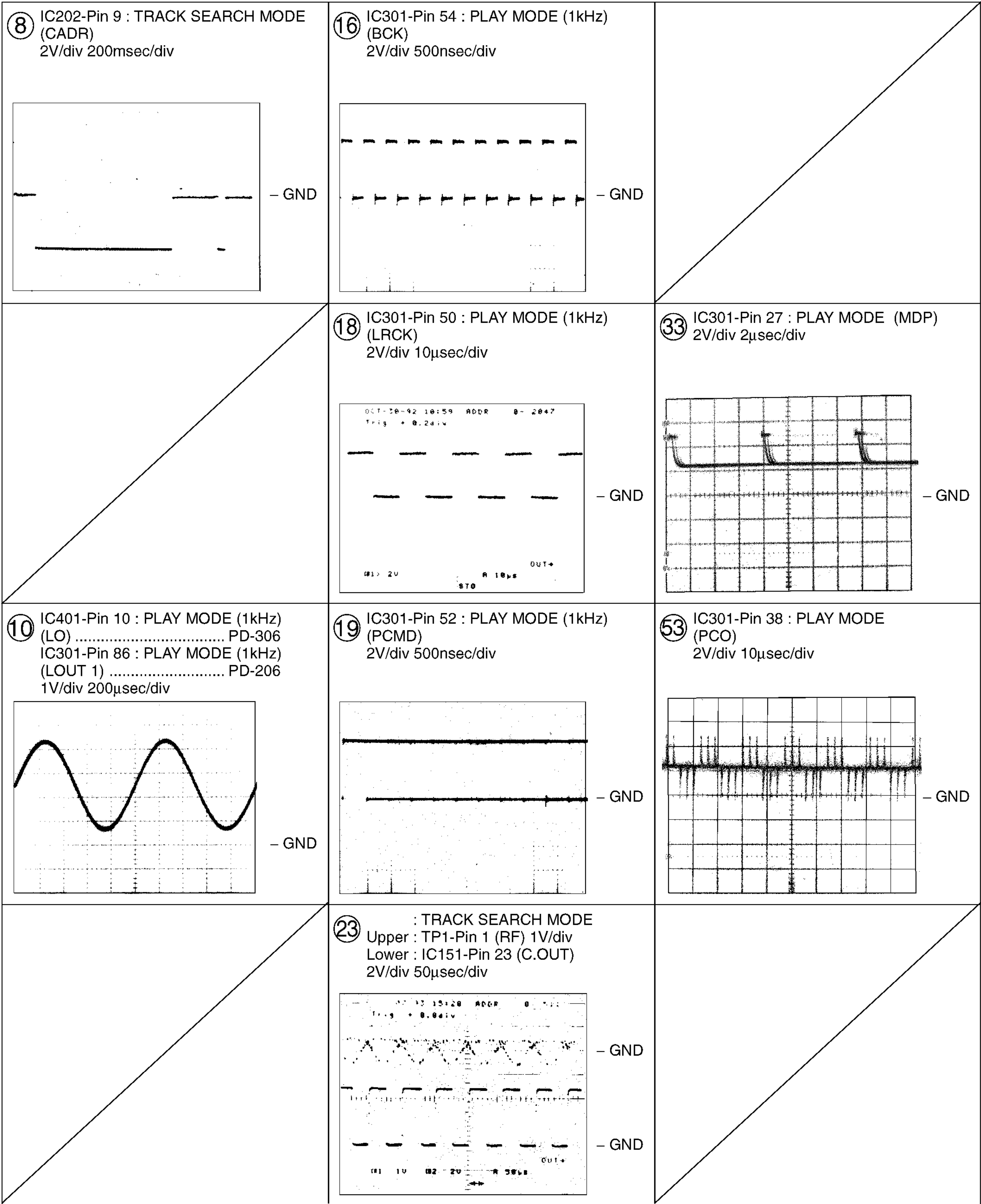
PD-306, PD-206

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.

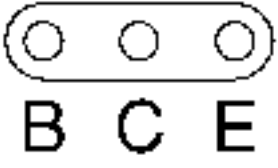
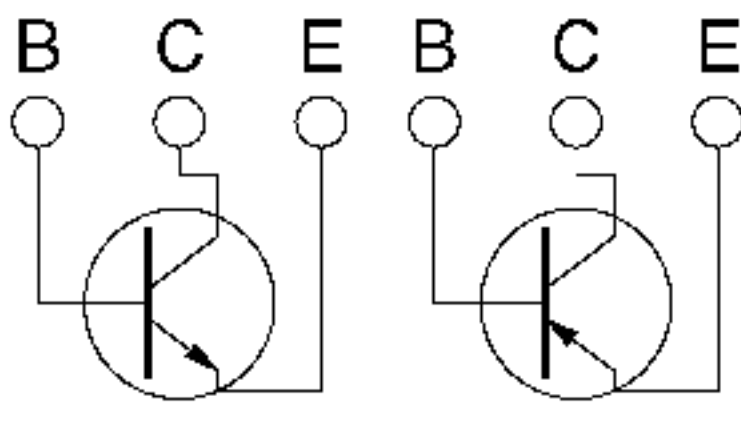
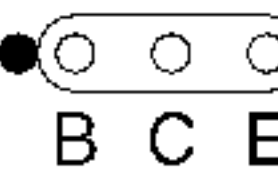
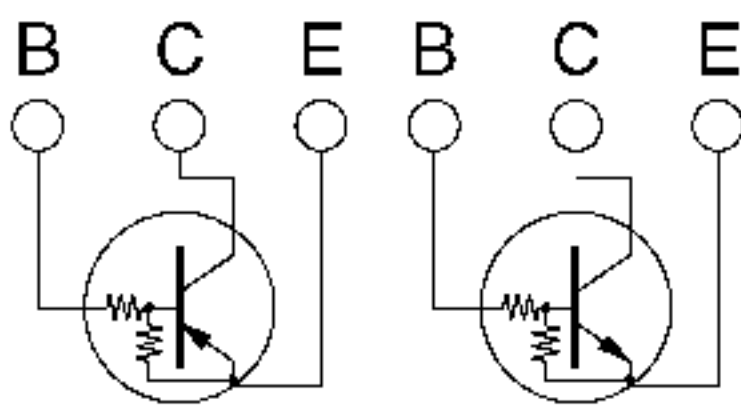
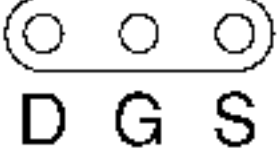
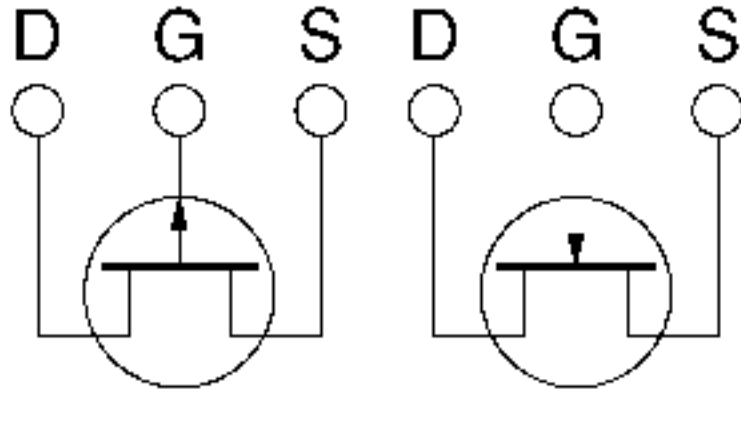
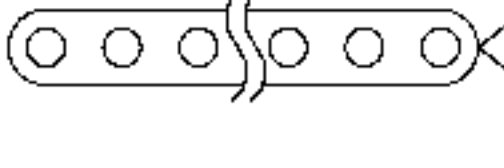
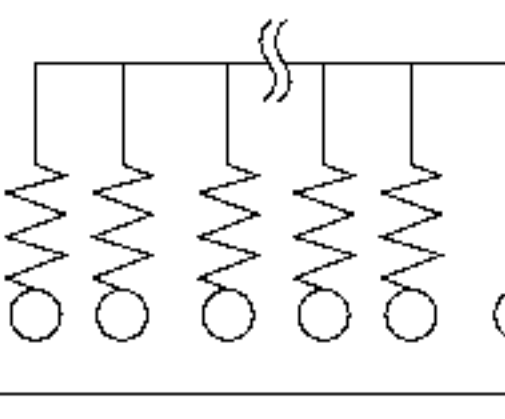
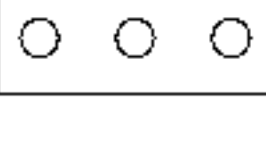
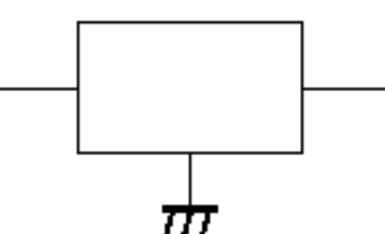
② TP1-Pin 1 : PLAY MODE (RF) 500mV/div 500nsec/div  - VC	④' TP1-Pin 2 : 50T - JUMP (*1) MODE (TRER) 200mV/div 1msec/div  - VC	⑥' IC202-Pin 3 : 50T - JUMP (*1) MODE (TRDR) 500mV/div 1msec/div  - GND
② TP1-Pin 1 : TRACK SEARCH MODE (RF) 500mV/div 200μsec/div  - VC	⑤ IC202-Pin 4 : FOCUS-IN (*2) MODE (FODR) 1V/div 200msec/div  - GND	⑦ IC201-Pin 9 : PLAY MODE (SPDR) 1V/div 50msec/div  - GND
③ TP1-Pin 6 : PLAY MODE (FOER) 100mV/div 10msec/div 001-38-92 15138 Trig + 0.24div  - VC	⑤ IC202-Pin 4 : PLAY MODE (FODR) 1V/div 1msec/div 001-38-92 15138 Trig + 0.24div  - GND	⑦ IC201-Pin 9 : TRACK SEARCH MODE (SPDR) 2V/div 50msec/div  - GND
④ TP1-Pin 2 : PLAY MODE (TRER) 200mV/div 1msec/div  - VC	⑥ IC202-Pin 3 : PLAY MODE (TRDR) 500mV/div 1msec/div  - GND	⑧ IC202-Pin 9 : PLAY MODE (CADR) 0.2V/div 2sec/div  - GND



4. PCB CONNECTION DIAGRAM

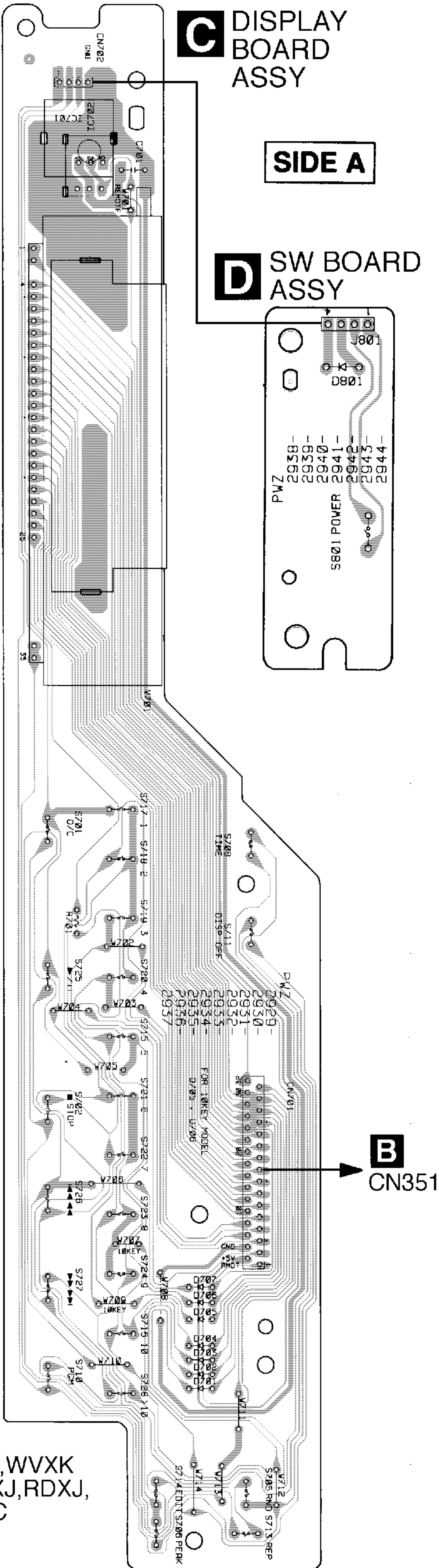
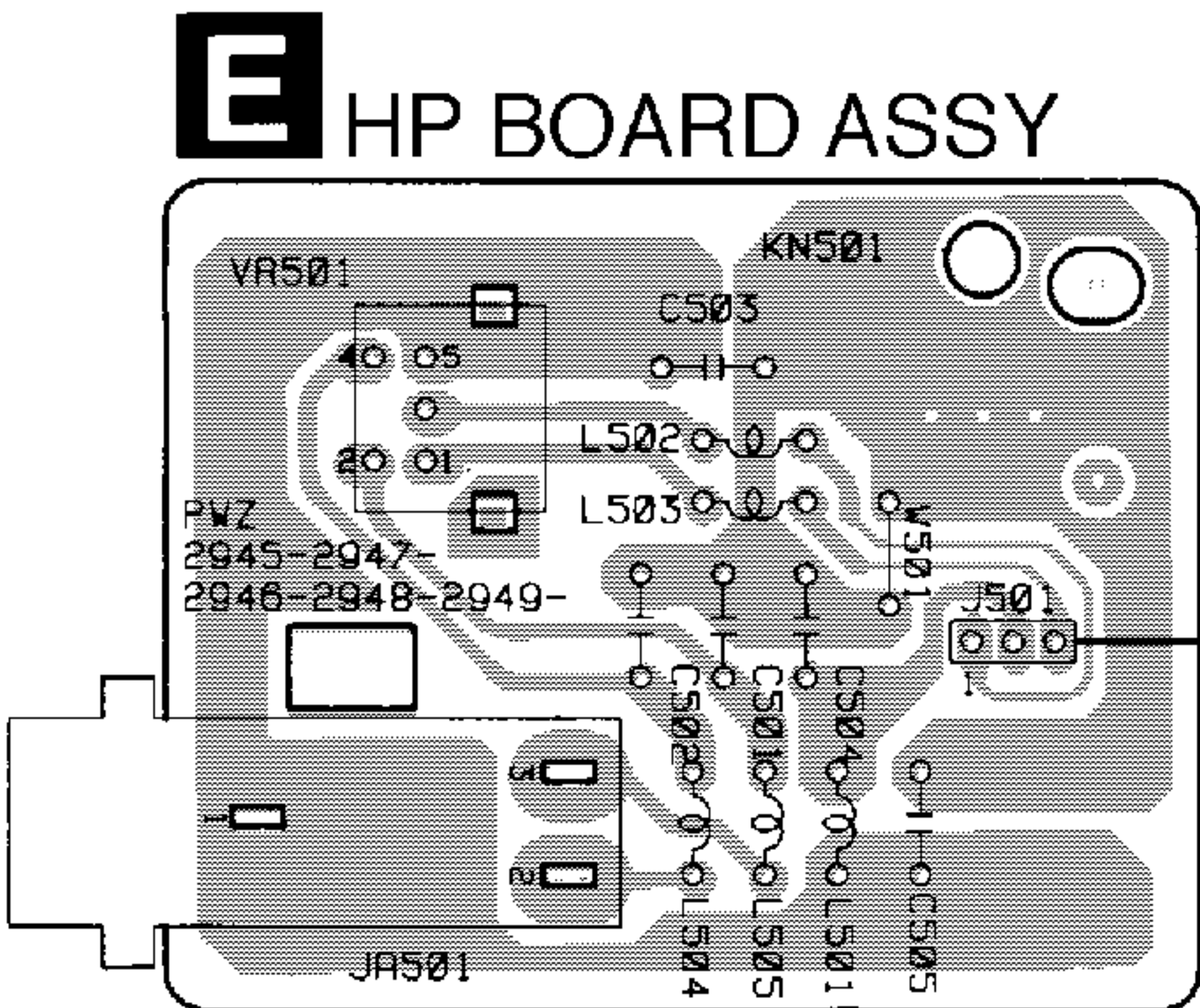
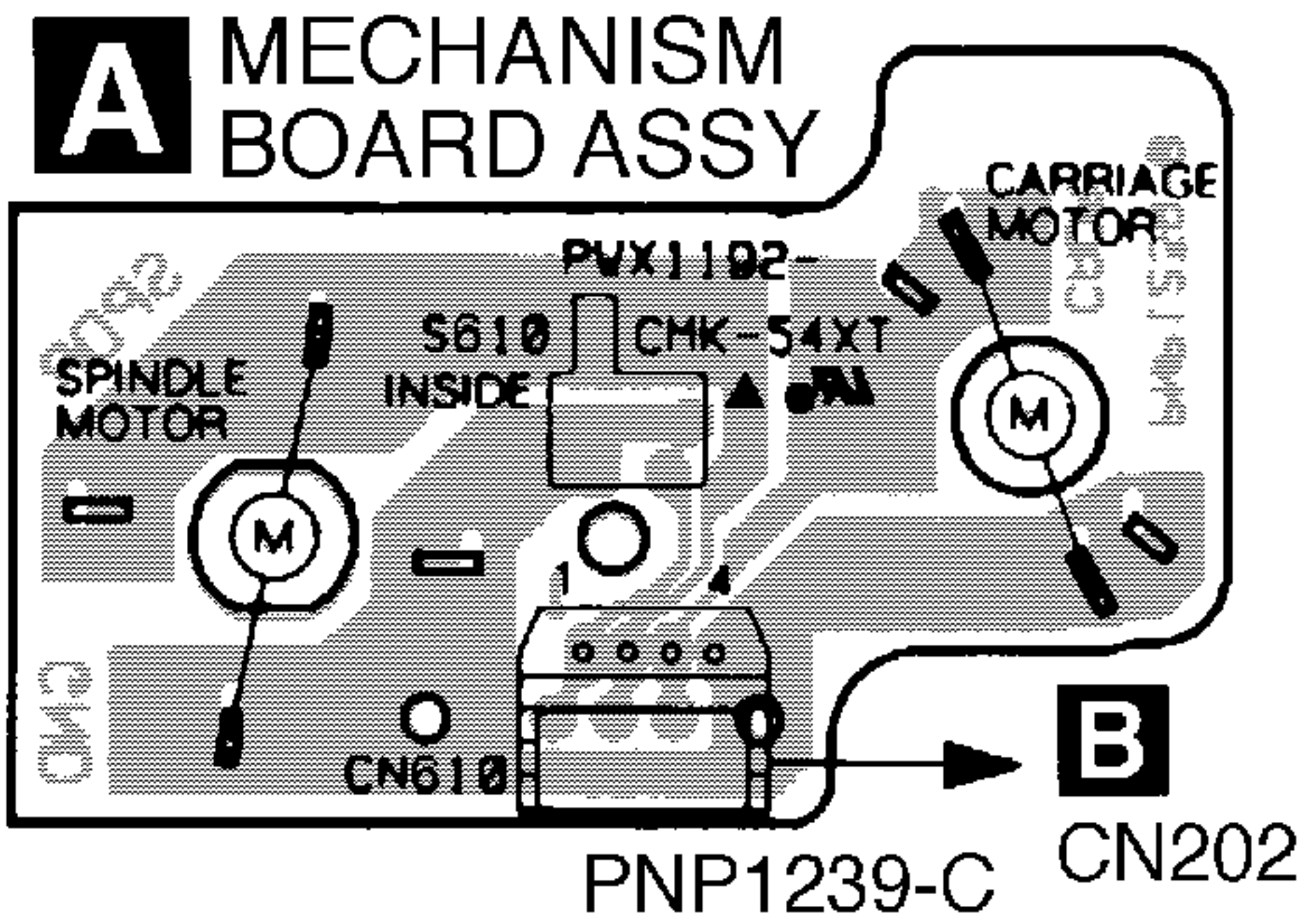
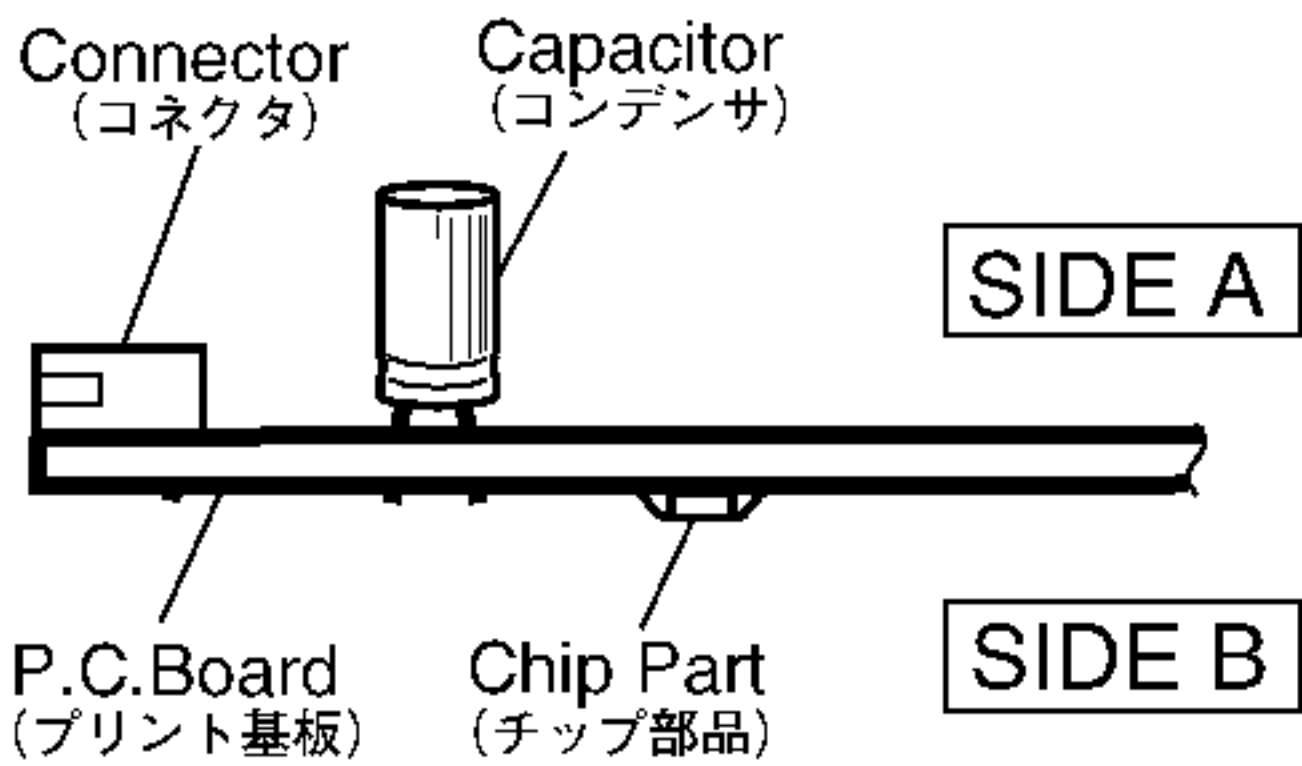
NOTE FOR PCB DIAGRAMS

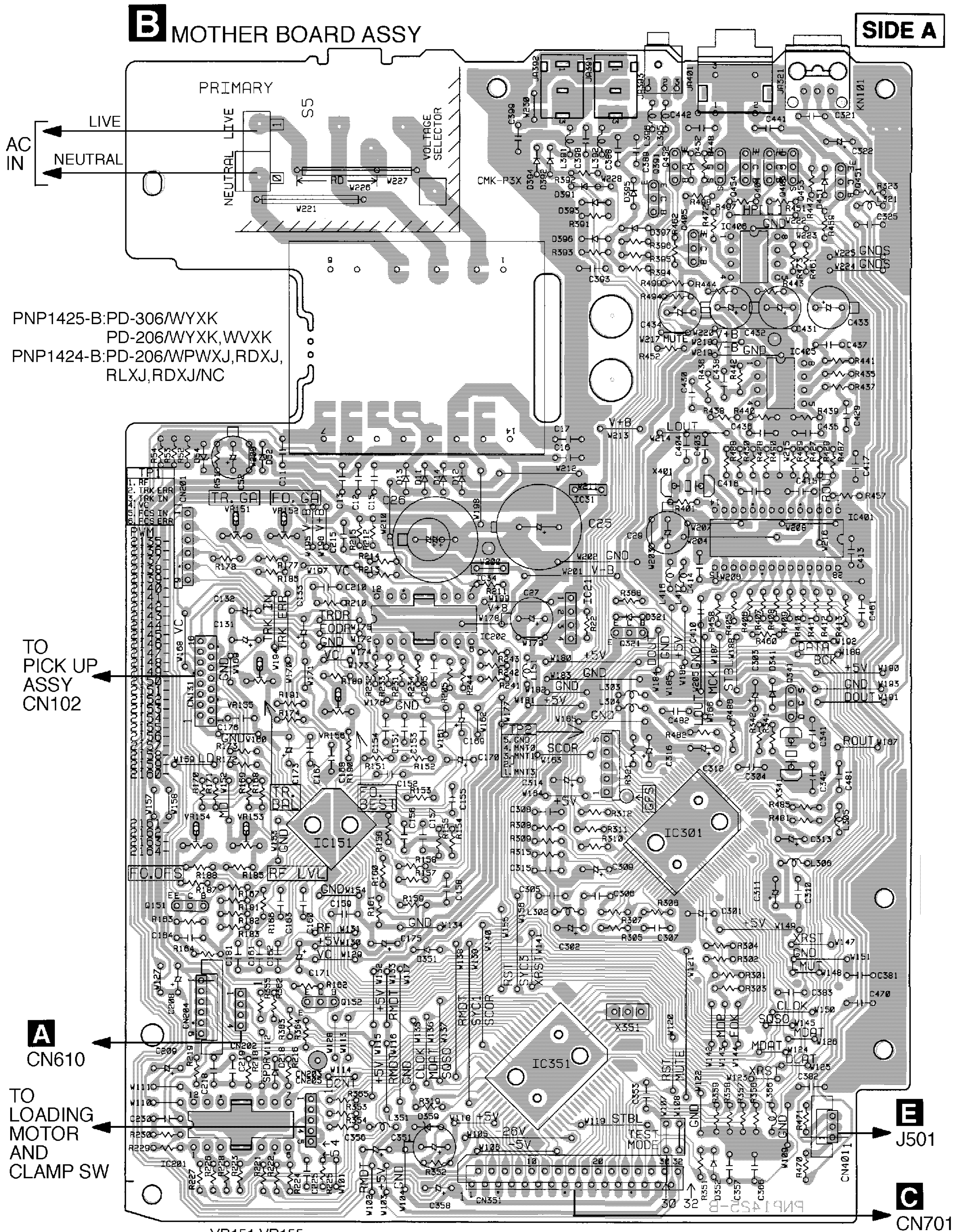
- 1. Part numbers in PCB diagrams match those in the schematic diagrams.
- 2. A comparison between the main parts of PCB and schematic diagrams is shown below.

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





5. PCB PARTS LIST

NOTES: • Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
• The $\triangle$ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
• When ordering resistors, first convert resistance values into code form as shown in the following examples.
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).
 $560\Omega \rightarrow 56 \times 10^1 \rightarrow 561 \dots\dots\dots RD1/4PU\boxed{5}\boxed{6}\boxed{1}J$
 $47k\Omega \rightarrow 47 \times 10^3 \rightarrow 473 \dots\dots\dots RD1/4PU\boxed{4}\boxed{7}\boxed{3}J$
 $0.5\Omega \rightarrow R50 \dots\dots\dots RN2H\boxed{R}\boxed{5}\boxed{0}K$
 $1\Omega \rightarrow 1R0 \dots\dots\dots RS1P\boxed{1}\boxed{R}\boxed{0}K$
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
 $5.62k\Omega \rightarrow 562 \times 10^1 \rightarrow 5621 \dots\dots\dots RN1/4PC\boxed{5}\boxed{6}\boxed{2}\boxed{1}F$

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.							Remarks
		PD-306 /WYXK	PD-206 /WYXK	PD-206 /WVXK	PD-206 /WPWXJ	PD-206 /RDXJ	PD-206 /RLXJ	PD-206 /RDXJ/NC	
$\triangle$	MOTHER BOARD ASSY	PWM2141	PWM2138	PWM2138	PWM2140	PWM2139	PWM2139	PWM2139	
$\triangle$ NSP	SUB BOARD ASSY	PWX1399	PWX1399	PWX1399	PWX1400	PWX1400	PWX1400	PWX1400	
NSP	└ DISPLAY BOARD ASSY	PWZ2936	PWZ2936	PWZ2936	PWZ2937	PWZ2937	PWZ2937	PWZ2937	*1
NSP	└ SW BOARD ASSY	PWZ2941	PWZ2941	PWZ2941	PWZ2942	PWZ2942	PWZ2942	PWZ2942	*2
NSP	└ HP BOARD ASSY	PWZ2945	PWZ2945	PWZ2945	PWZ2949	PWZ2949	PWZ2949	PWZ2949	*3
NSP	SINGLE MECHANISM ASSY	PXA1593	PXA1593	PXA1593	PXA1593	PXA1593	PXA1593	PXA1593	
NSP	└ SERVO MECHANISM ASSY	PXA1596	PXA1596	PXA1596	PXA1596	PXA1596	PXA1596	PXA1596	
NSP	└ MECHANISM BOARD ASSY	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	

Note *1 : Although PWZ2936 and PWZ2937 are different in part number, they consist of the same components.
*2 : Although PWZ2941 and PWZ2942 are different in part number, they consist of the same components.
*3 : Although PWZ2945 and PWZ2949 are different in part number, they consist of the same components.

■ CONTRAST OF PCB ASSEMBLIES

MOTHER BOARD ASSY

PWM2138, PWM2140, PWM2139 and PWM2141 have the same construction except for the following:

Mark	Symbol and Description	Part No.				Remarks
		PWM2141	PWM2138	PWM2140	PWM2139	
	IC401	PD2029A (L)	Not used	Not used	Not used	
	IC405	NJM4565D – D	NJM4558D – D	NJM4558D – D	NJM4558D – D	
	Q321, Q451, Q452	DTC124ES	Not used	Not used	Not used	
	Q341	Not used	2SK246	2SK246	2SK246	
	Q453, Q454	2SJ103	Not used	Not used	Not used	
	D341	Not used	1SS254	1SS254	1SS254	
	D451, D452	1SS254	Not used	Not used	Not used	
	L416	LAU1R0J	Not used	Not used	Not used	
	C173	CKCYF103Z50	CKCYF103Z50	CKCYF103Z50	Not used	
	C301	CKCYF103Z50	CEAS101M10	CEAS101M10	CEAS101M10	
	C312, C313	Not used	CEAS101M10	CEAS101M10	CEAS101M10	
	C321	CGCYX104K25	Not used	Not used	Not used	
	C322	CEAS101M10	Not used	Not used	Not used	
	C325, C461	CKCYF103Z50	Not used	Not used	Not used	
	C341, C342	Not used	CCCCH120J50	CCCCH120J50	CCCCH120J50	

Mark	Symbol and Description	Part No.				Remarks
		PWM2141	PWM2138	PWM2140	PWM2139	
⚠	C383	Not used	CCCSL181J50	CCCSL181J50	CCCSL181J50	
	C403	CCCCH120J50	Not used	Not used	Not used	
	C404	CCCCH220J50	Not used	Not used	Not used	
	C413 – C416	CFTXA104J50	Not used	Not used	Not used	
	C429, C430, C435 - C438	CCCSL390J50	Not used	Not used	Not used	
	C433, C434	PCH1107 (220pF/25V)	CEAS220M25	CEAS220M25	CEAS220M25	
	C481, C482	Not used	CCCSL390J50	CCCSL390J50	CCCSL390J50	
	C901	CKCYF103Z50	CKCYF103Z50	Not used	Not used	
	C5321	Not used	CKCYF103Z50	CKCYF103Z50	Not used	
	R310 – R312, R411 – R413	RD1/4PU221J	Not used	Not used	Not used	
	R321, R401, R457, R458	RD1/4PU102J	Not used	Not used	Not used	
	R323	RD1/4PU152J	Not used	Not used	Not used	
	R341	Not used	RD1/4PU271J	RD1/4PU271J	RD1/4PU271J	
	R342, R366	Not used	RD1/4PU105J	RD1/4PU105J	RD1/4PU105J	
	R405 – R410	RD1/4PU471J	Not used	Not used	Not used	
⚠	R427 – R430	RD1/4PU223J	Not used	Not used	Not used	
	R435, R436	RD1/4PU163J	Not used	Not used	Not used	
	R437, R438	RD1/4PU163J	RD1/4PU473J	RD1/4PU473J	RD1/4PU473J	
	R439 – R442	RD1/4PU433J	RD1/4PU823J	RD1/4PU823J	RD1/4PU823J	
	R451, R452	RD1/4PU103J	Not used	Not used	Not used	
	R481, R482, R485, R486	Not used	RD1/4PU223J	RD1/4PU223J	RD1/4PU223J	
	R487 – R490	Not used	RD1/4PU104J	RD1/4PU104J	RD1/4PU104J	
	JA321	TOTX178	Not used	Not used	Not used	
	S5 Voltage Selector	Not used	Not used	Not used	PSB1006	
	X341 (16.9344MHz)	Not used	PSS1008	PSS1008	PSS1008	
	X401 (16.9344MHz)	PSS1008	Not used	Not used	Not used	

■ PCB PARTS LIST FOR PD-306/WYXK

Mark	No.	Description	Parts No.
B MOTHER BOARD ASSY			
SEMICONDUCTORS			
	IC406	BA15218	
	IC151	CXA1782CQ	
	IC301	CXD2519Q	
⚠	IC31, IC34	ICP – N10	
⚠	IC201, IC202	LA6520	
	IC405	NJM4565D – D	
	IC401	PD2029A(L)	
	IC351	PD4835A	
⚠	IC21	PQ05RR12	
	Q151	2SA854S	
	Q391	2SC1740S	
	Q403, Q404	2SD2144S	
	Q453, Q454	2SJ103	
	Q152	DTA124ES	
	Q321, Q405, Q451, Q452	DTC124ES	
	D351, D352, D395 – D397	1SS254	
	D451, D452	1SS254	
	D54	MTZJ18B/C	
	D359	MTZJ5.1B/C	
	D218	MTZJ6.2B/C	
⚠	D11 – D14, D52	S5688G	

Mark	No.	Description	Parts No.
COILS AND FILTERS			
	L351		LAU100J
⚠	L395, L396		LAU1R0J
	L416		LAU1R0J
CAPACITORS			
	C181		CCCCH100D50
	C403		CCCCH120J50
	C404		CCCCH220J50
	C315		CCCSL221J50
	C429, C430, C435 – C438		CCCSL390J50
	C171, C175, C302, C311, C314		CEAS101M10
	C316, C322		CEAS101M10
	C52		CEAS101M35
	C26		CEAS102M16
	C131 – C133, C27, C431, C432		CEAS330M16
	C25		CEAS332M16
	C351		CEAS471M6R3
	C169, C170, C356		CEAS4R7M50
	C309		CEASR47M50
	C413 – C416		CFTXA104J50
	C156, C161, C164, C168, C218		CGCYX103K25
	C321		CGCYX104K25
	C160		CGCYX333K25
	C167		CGCYX472K25
	C152, C307		CGCYX473K25

PD-306, PD-206

Mark	No.	Description	Parts No.
	C157		CGCYX823K25
	C163		CKCYB102K50
	C176, C306, C441, C442		CKCYB152K50
	C305		CKCYB222K50
	C162		CKCYB332K50
	C151		CKCYB682K50
⚠	C11, C13, C15		CKCYF103Z50
	C159		CKCYF103Z50
⚠	C16, C17		CKCYF103Z50
	C173, C205, C210, C215, C219		CKCYF103Z50
	C29, C301, C304, C310, C325		CKCYF103Z50
	C353, C357, C382, C461, C470		CKCYF103Z50
	C901		CKCYF103Z50
	C153 – C155, C158		CQMA104J50
	C433, C434 (220pF/25V)		PCH1107
RESISTORS			
	VR153, VR155 (10kΩ/0.1W)		RCP1045
	VR151, VR152, VR154 (22kΩ/0.1W)		RCP1046
	VR156 (220kΩ/0.1W)		RCP1049
	Other Resistors		RD1/4PU□□□J
OTHERS			
	CN202	MT 4P CONNECTOR	173981 – 4
	CN205	MT 5P CONNECTOR	173981 – 5
	CN401	3P JUMPER CONNECTOR	52147 – 0310
	CN351	CONNECTOR	HLEM32S – 1
	JA401	JACK	PKB1023
	JA393	JACK	PKN1005
	X401	XTAL RES (OSC) (16.9344MHz)	PSS1008
⚠		TERMINAL	RKC – 061
	CN201	CONNECTOR 6P	RKP – 533
	CN131	CONNECTOR	SLW16S – 1C7
	JA321	OPTICAL OUTPUT JACK	TOTX178
	X351	CERAMIC RESONATOR (4.19MHz)	VSS1014
C DISPLAY BOARD ASSY			
SEMICONDUCTORS			
	D701 – D707		1SS254
CAPACITORS			
	C701		CKCYF103Z50
SWITCHES AND RELAYS			
	S701, S702, S705, S706, S708		PSG1006
	S710, S711, S713 – S728		PSG1006
OTHERS			
	CN702	4P JUMPER CONNECTOR	52147 – 0410
	CN701	CONNECTOR	HLEM32R – 1
	V701	FL INDICATOR TUBE	PEL1085
		REMOTE SENSOR	SBX1976 – 51

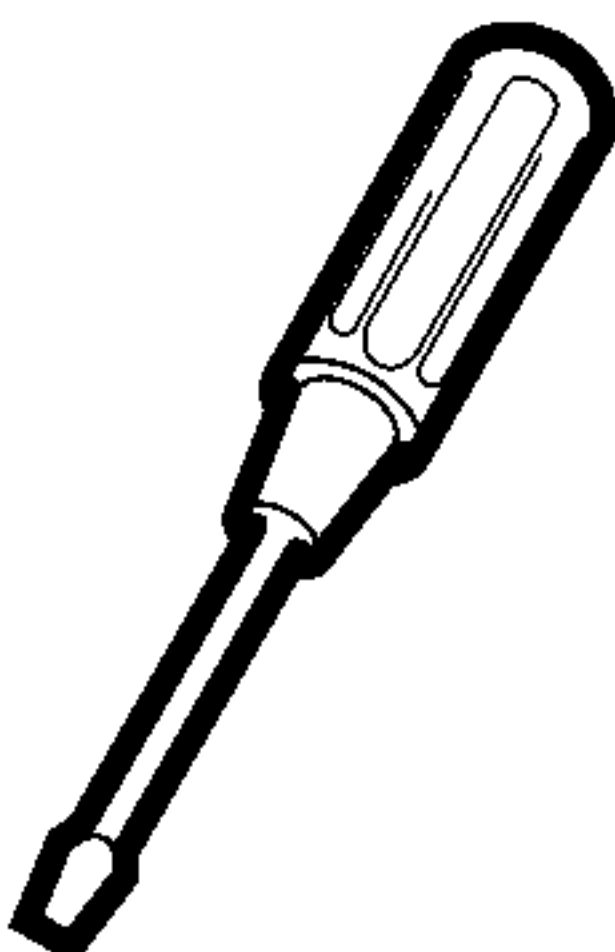
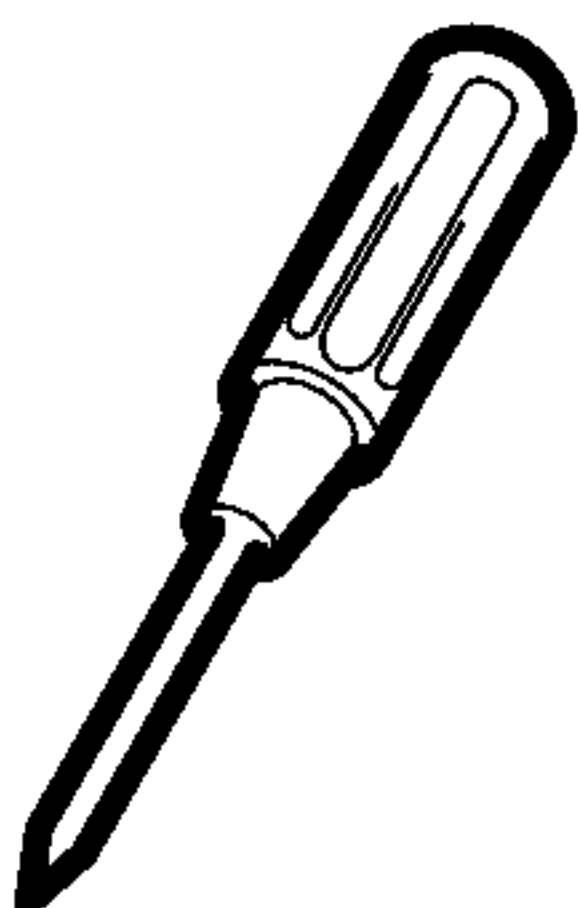
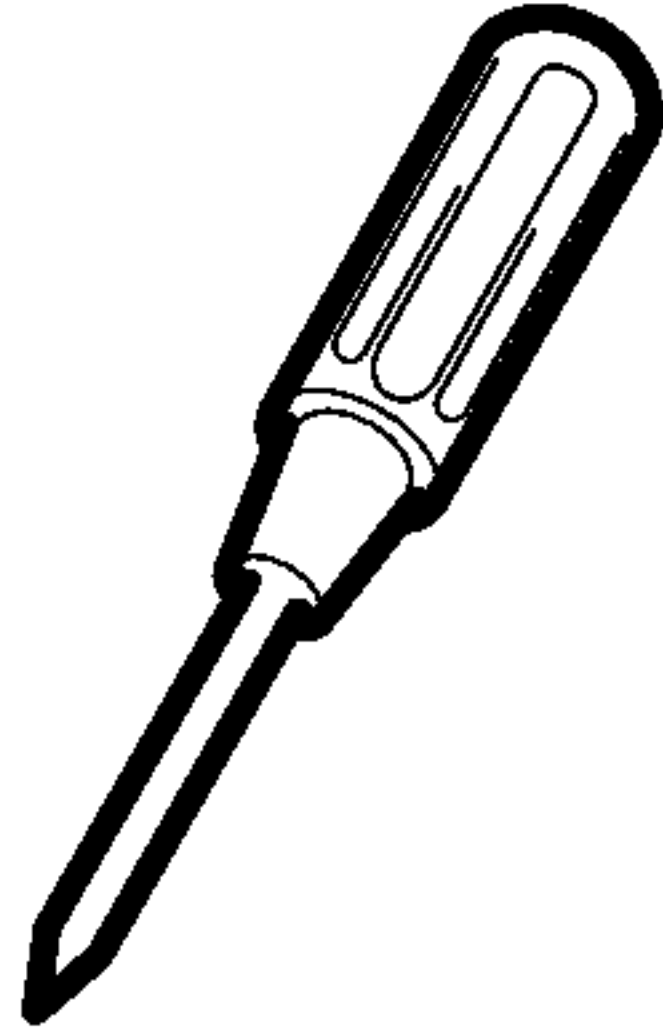
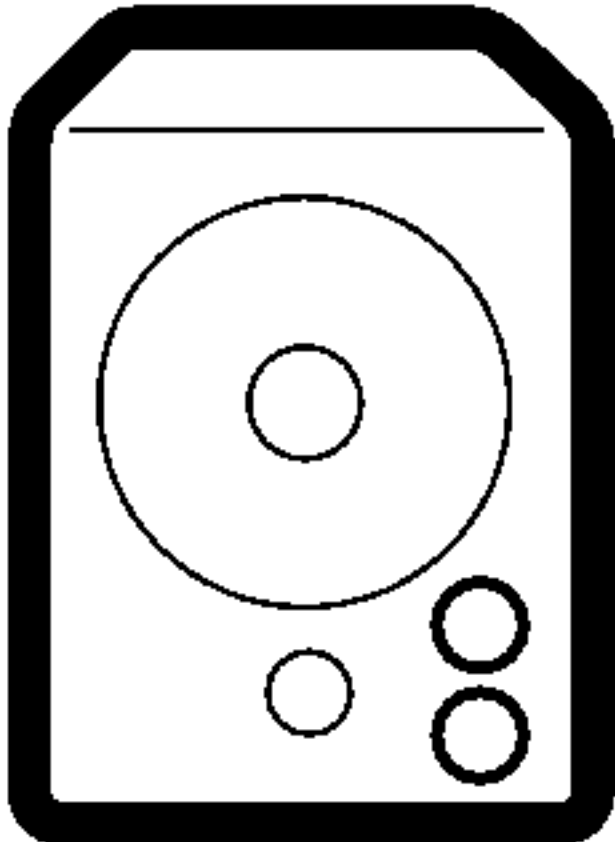
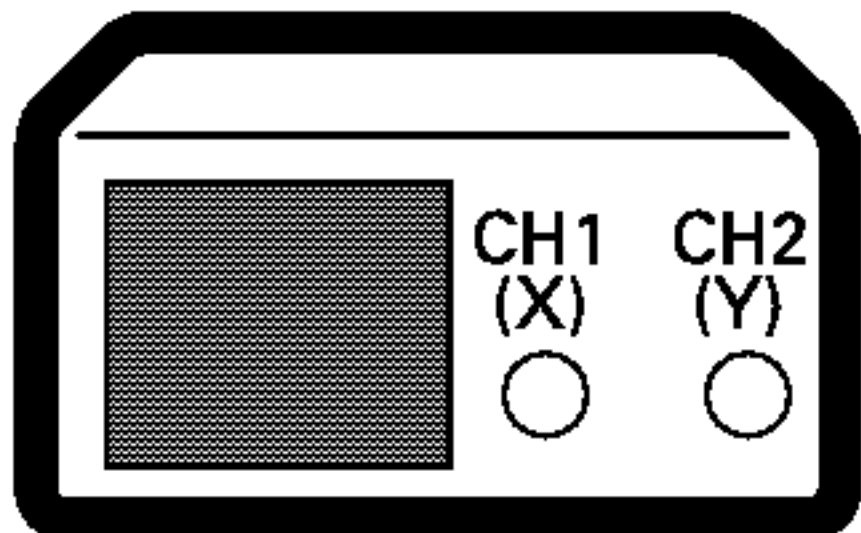
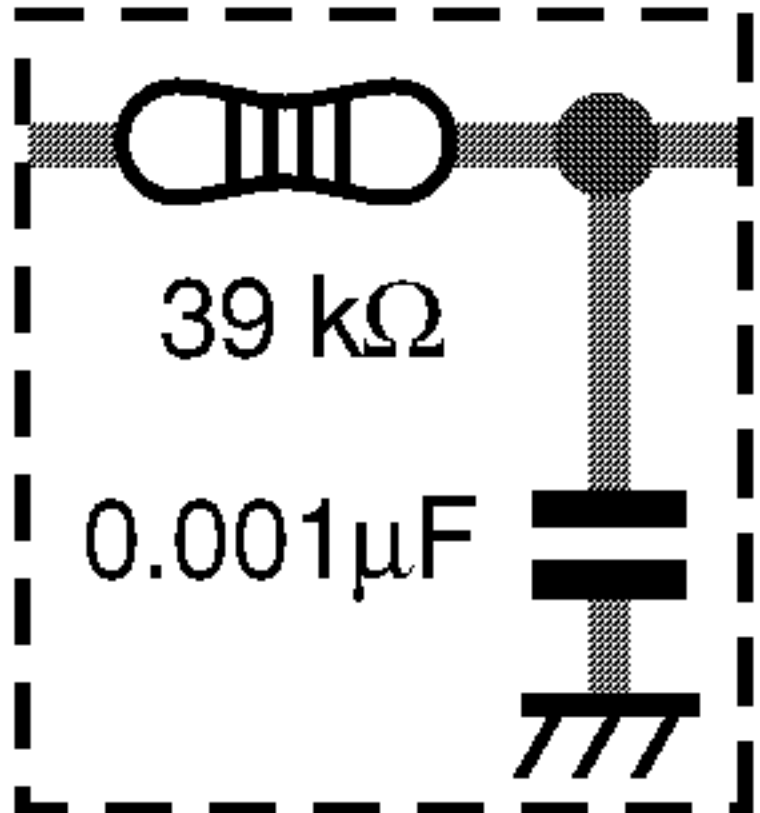
Mark	No.	Description	Parts No.
D SW BOARD ASSY			
SEMICONDUCTORS			
	D801		PCX1019
SWITCHES AND RELAYS			
	S801		PSG1006
E HP BOARD ASSY			
COILS AND FILTERS			
	L501, L504, L505		LAU1R0J
CAPACITORS			
⚠	C501, C502		CKCYF223Z50
⚠	C504		CKCYF473Z50
RESISTORS			
	VR501 (5kΩ – B)		PCS1003
OTHERS			
	JA501	JACK	RKN1002
A MECHANISM BOARD ASSY			
SWITCHES AND RELAYS			
	S610		DSG1016
OTHERS			
	CN610	MT 4P CONNECTOR	173979 – 4

6. ADJUSTMENT

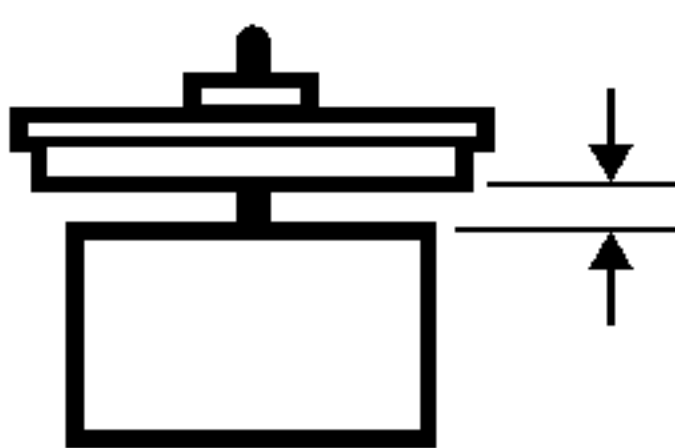
6.1 ELECTRIC ADJUSTMENTS (電気系調整)

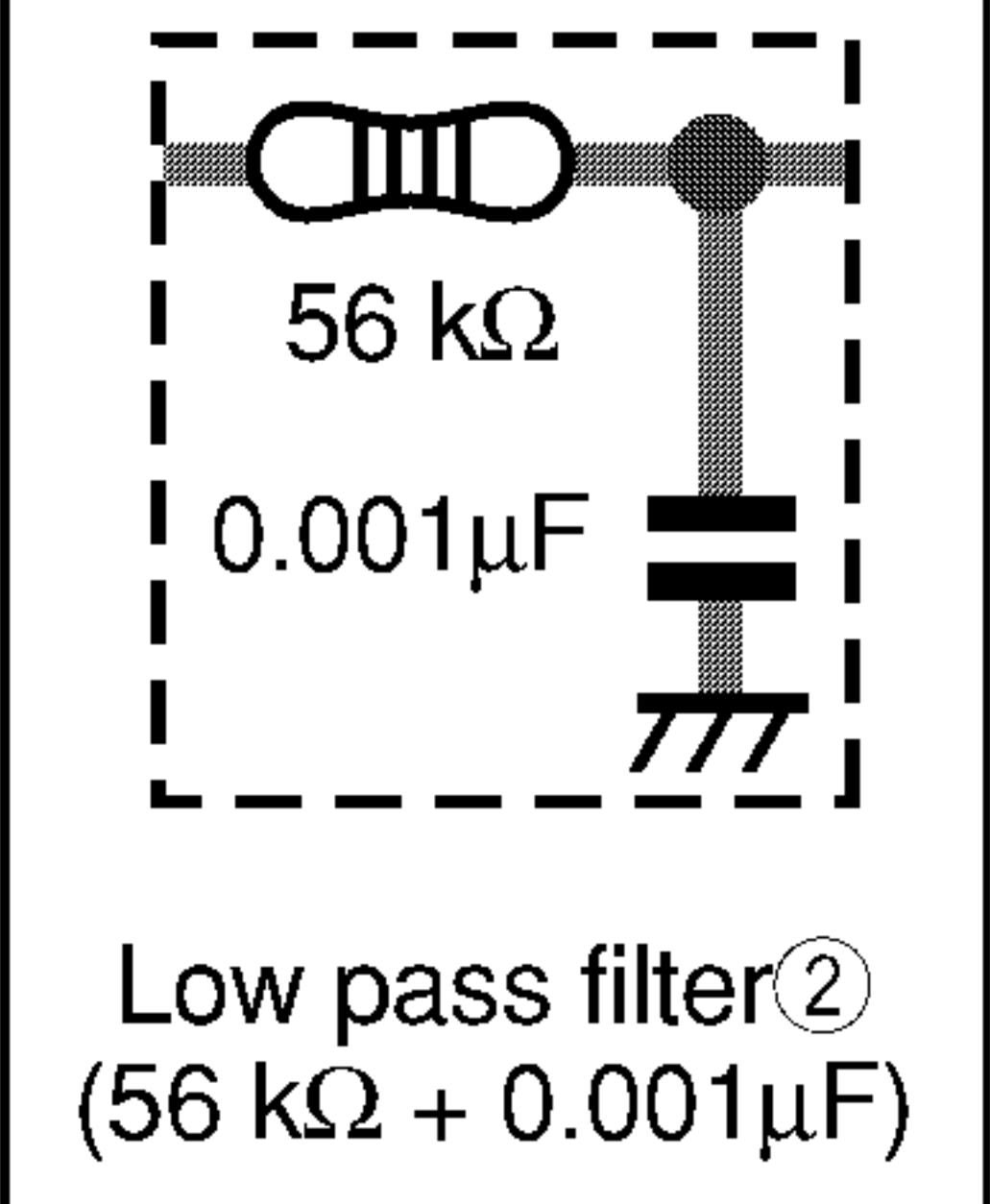
6.1.1 PREPARATIONS (準備)

1.1 Jigs and Measuring Instruments (使用測定器/治工具類)

 8-cm DISC (With at least about 20 minutes recording) (20分程度信号の 入ったディスク)	 CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)
 Ball point hexagon wrench (size: 1.5mm) GGK1002 ボールポイント付 六角 ドライバー(対辺 1.5mm)	 ⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter① (39 kΩ + 0.001μF)

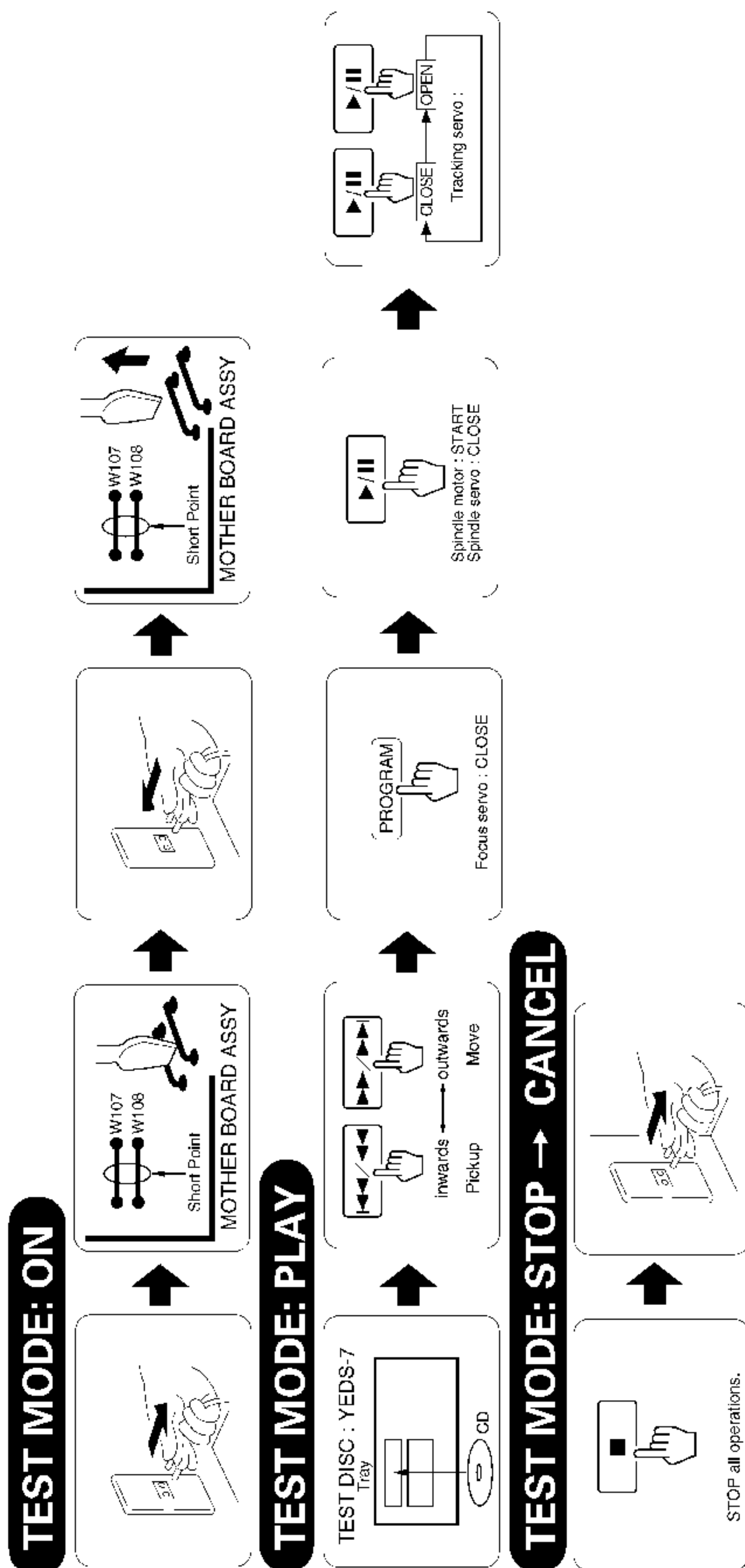
1.2 Necessary Adjustment Points (調整に必要な項目)

When (このような時)	Adjustment points
Exchange PICKUP (ピックアップを交換した時)	1.2.3.4.5.6.7. 8.9.10.11.12. → Page 21~26
Exchange MOTHER BOARD ASSY (MOTHER BOARD ASSYを交換した時)	1.3.5.6.7.8. 9.10.11.12. → Page 21~26
Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時)	1.2.3.4.5.6.7. 8.9.10.11.12. → Page 21~26
Exchange SPINDLE MOTOR (スピンドルモーターを交換した時)	 ADJ → Page 8

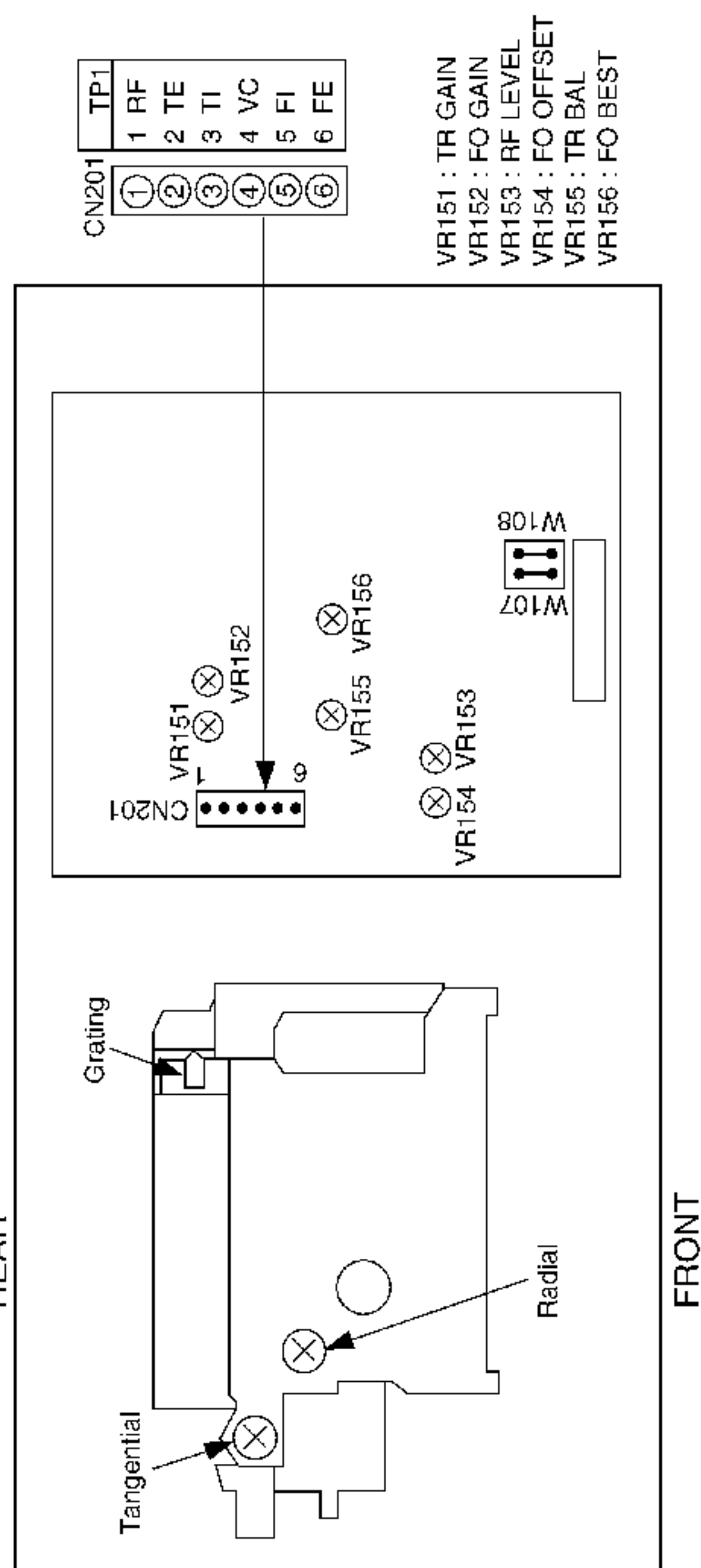


6.1.2 ADJUSTMENT (調整)

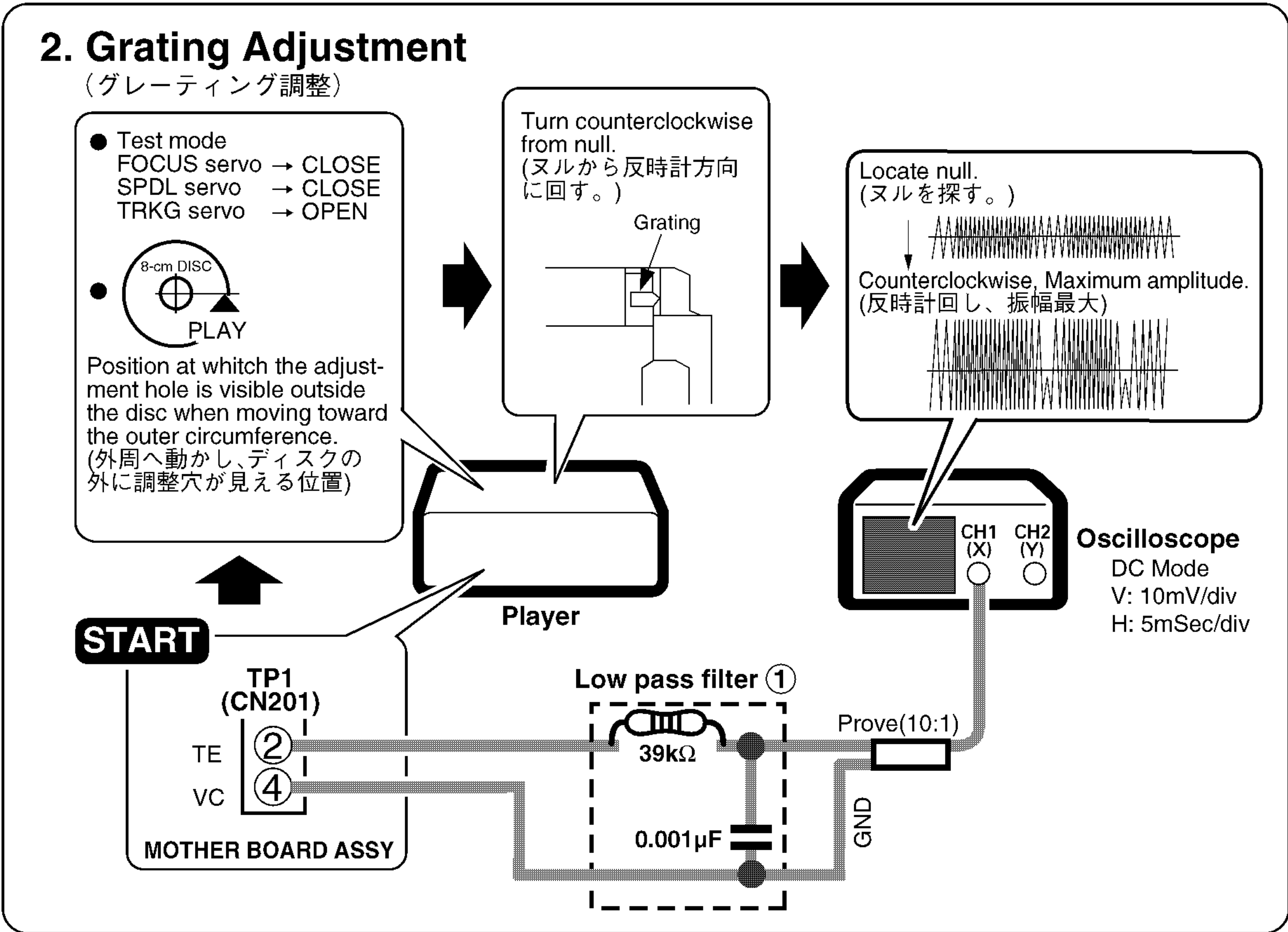
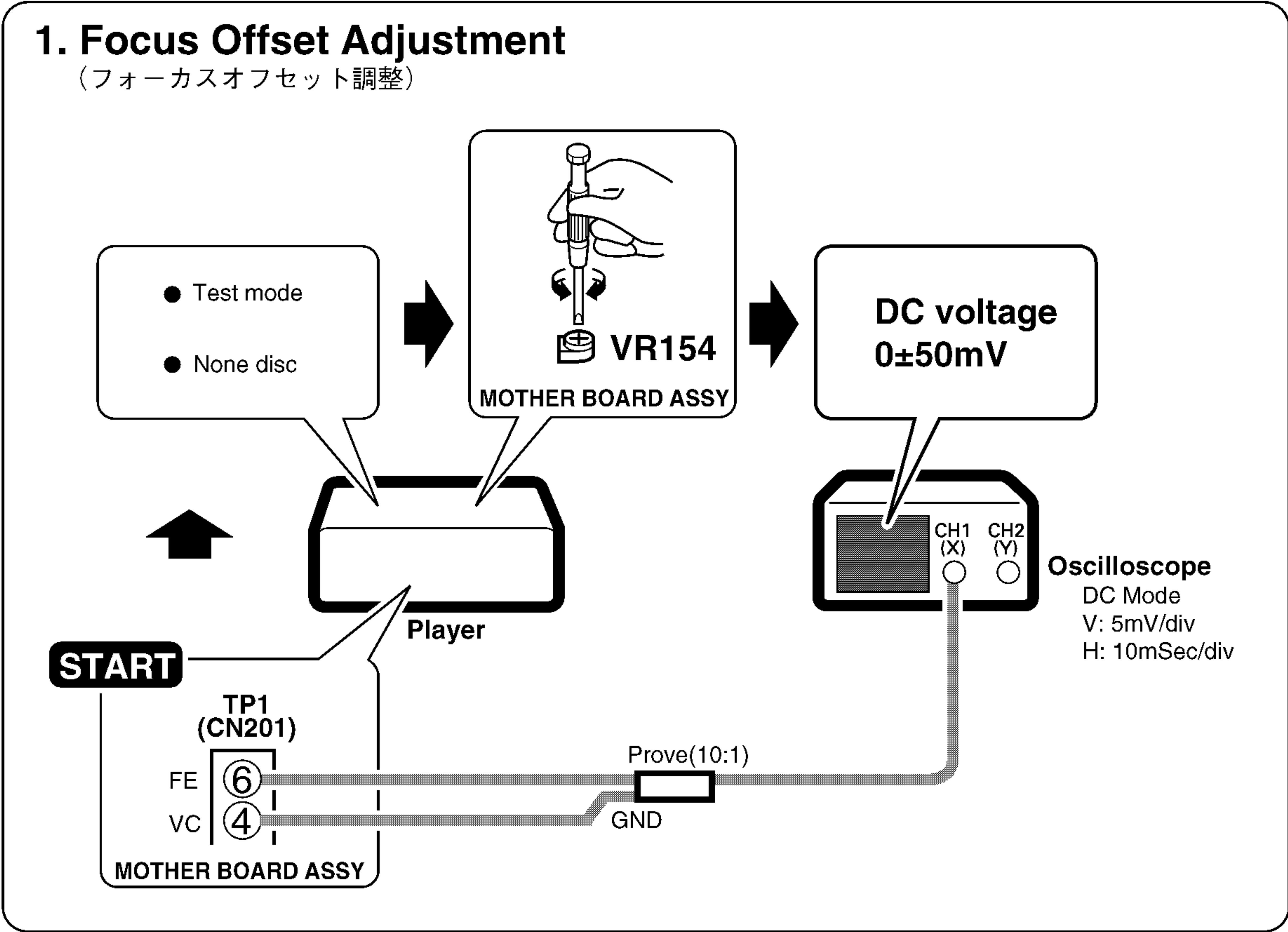
11 How to Start/Cancel Test Mode (テストモードの設定/解除)



2 Adjustment Locations (テストポイントと調整用VRの位置)

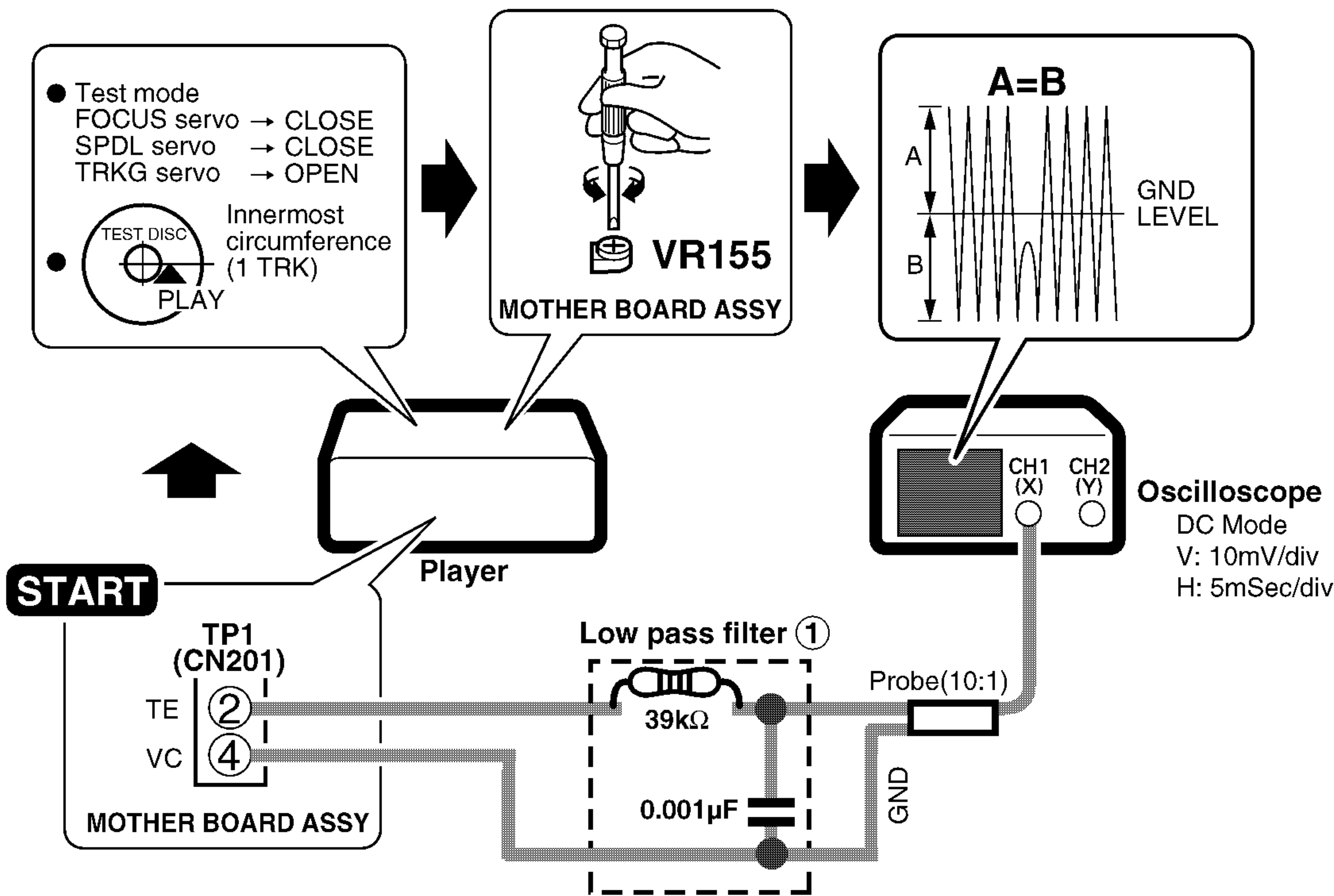


6.2 Check and Adjustment (確認、調整)



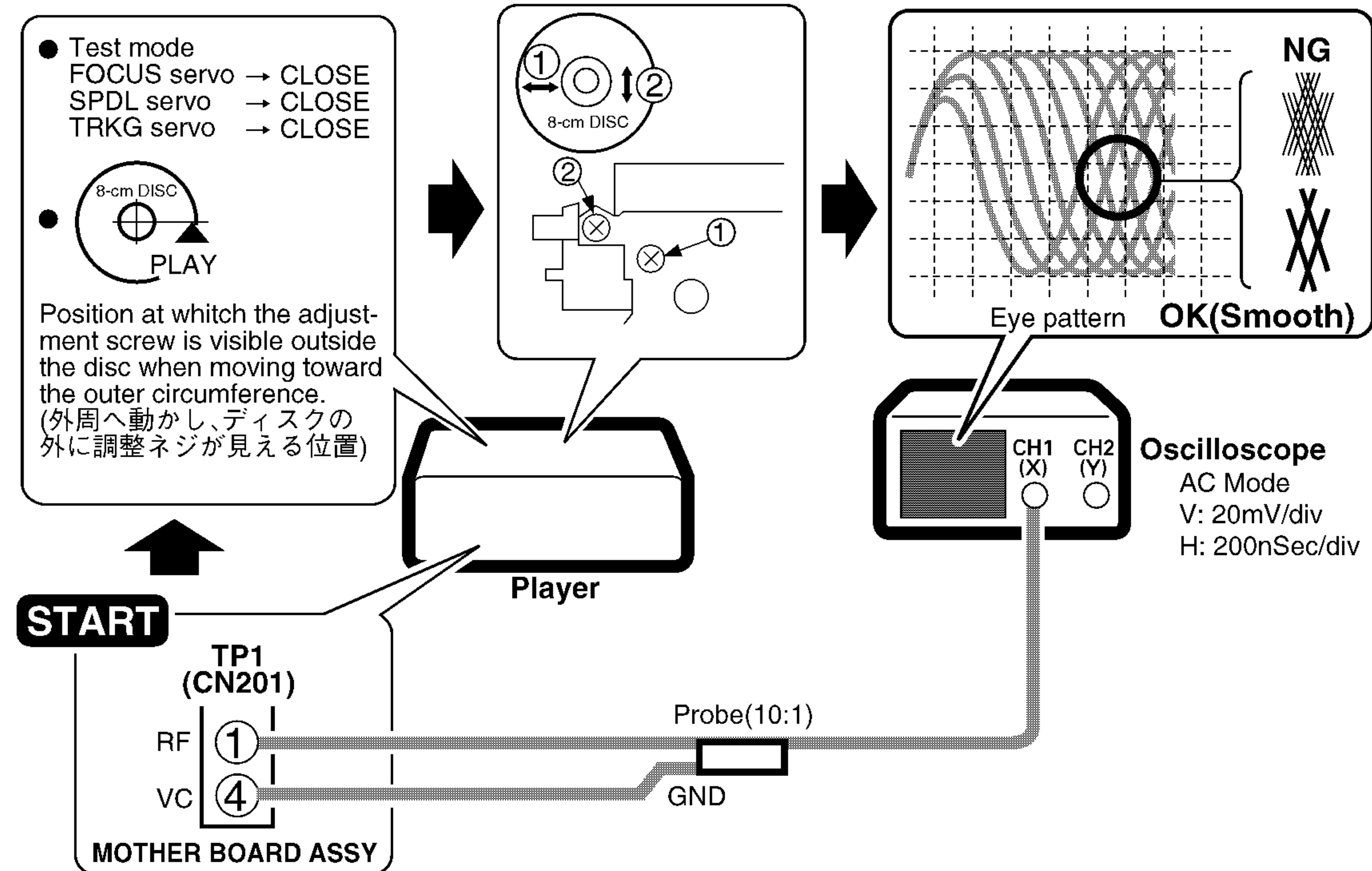
3. Tracking Error Barance Adjustment

(トラッキングエラーバランス調整)



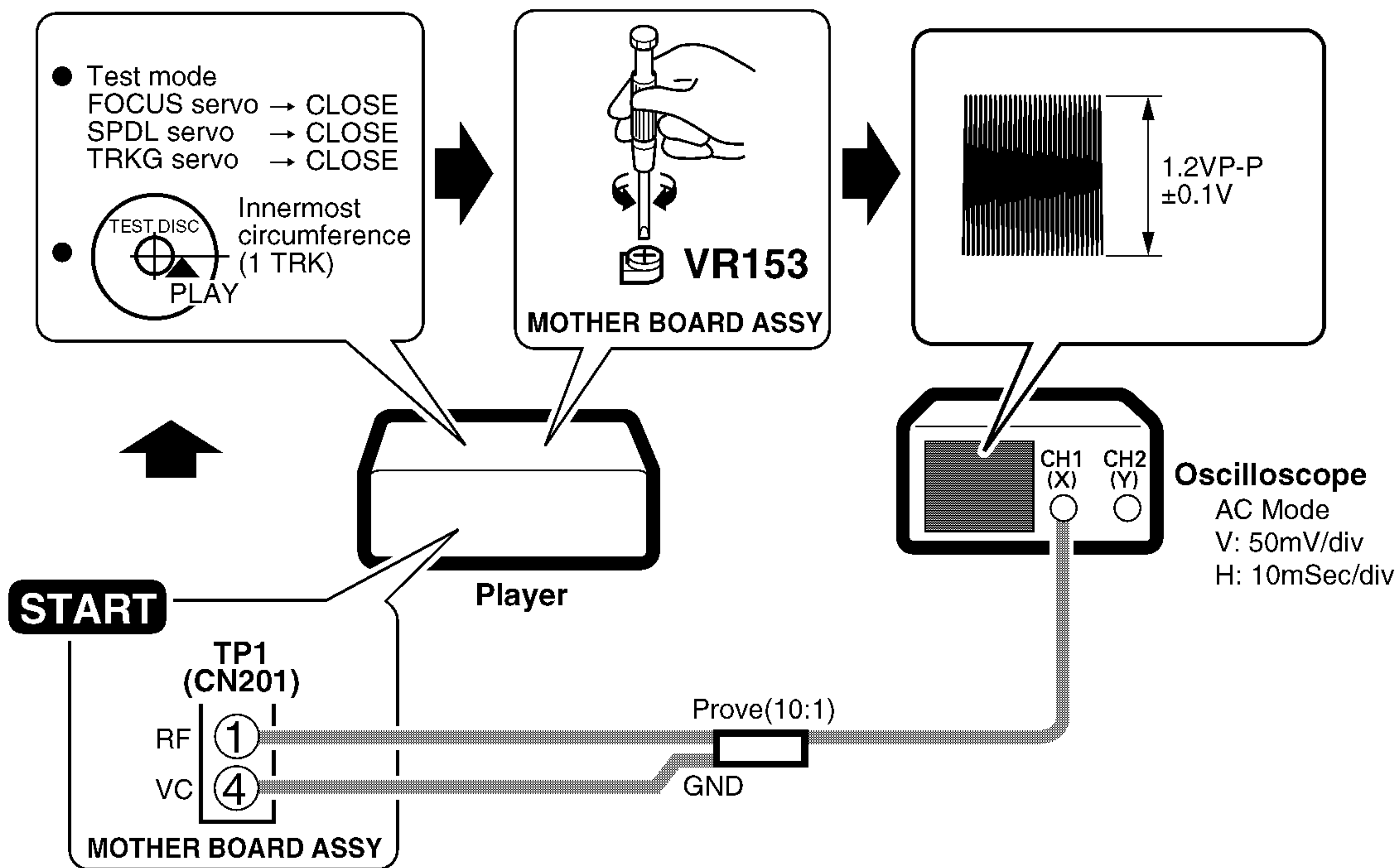
4. PICKUP ① RADIAL / ② TANGENTIAL DIRECTION TILT ADJUSTMENT

(ピックアップ ① ラジアル方向 ② タンジェンシャル方向の傾き調整)



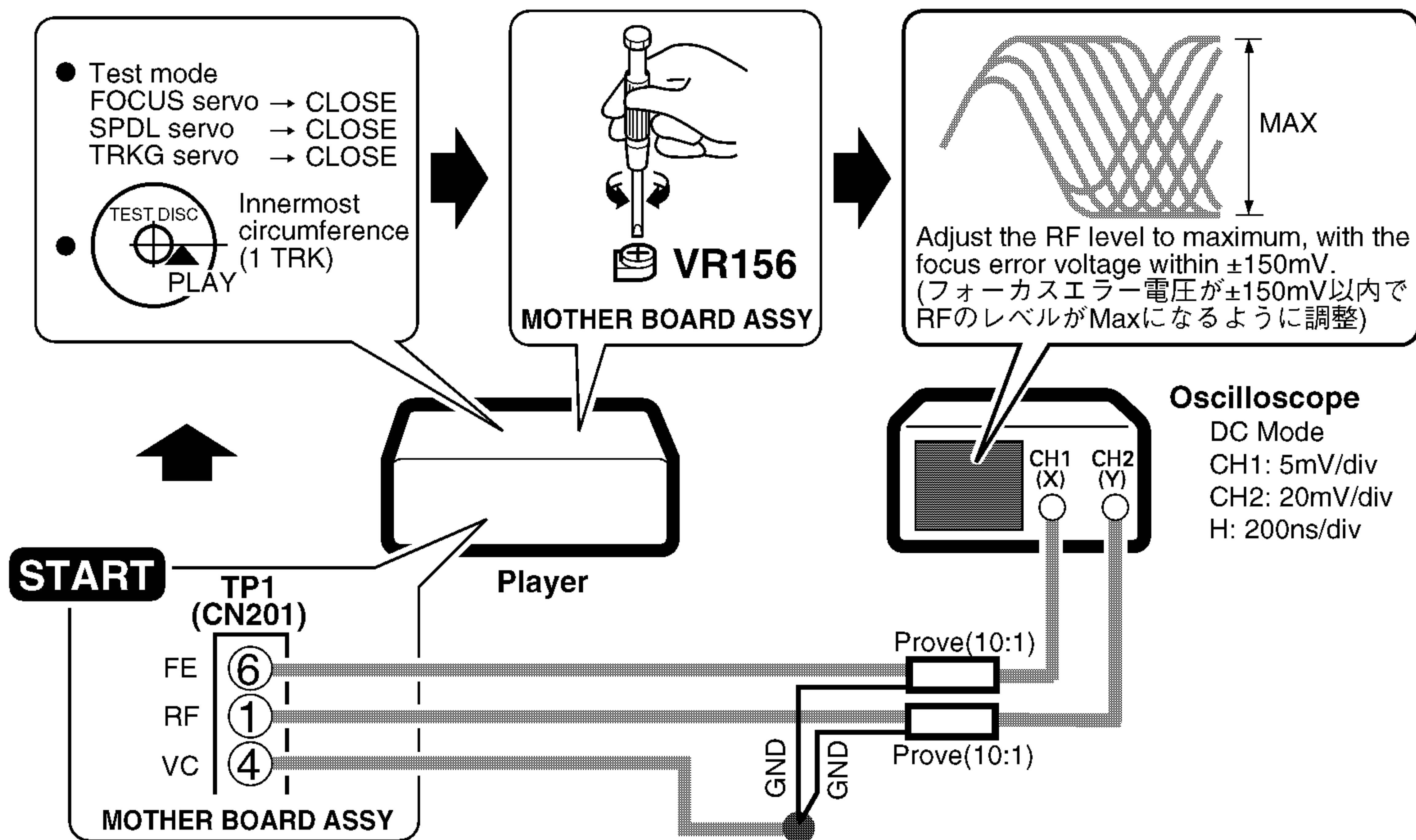
5. RF LEVEL ADJUSTMENT I

(RFレベル調整 1)



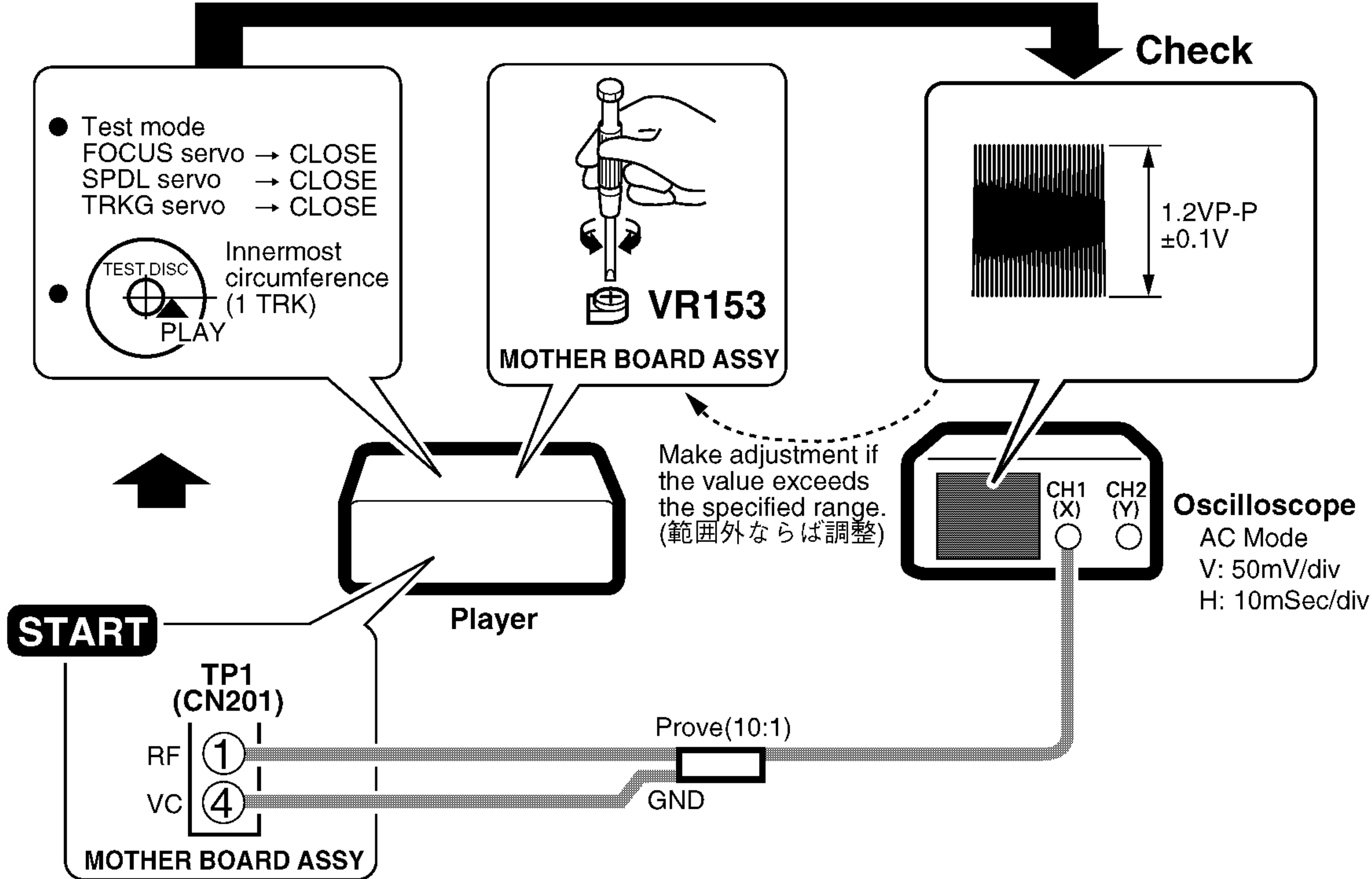
6. Focus Best Adjustment I

(フォーカスベスト調整 1)



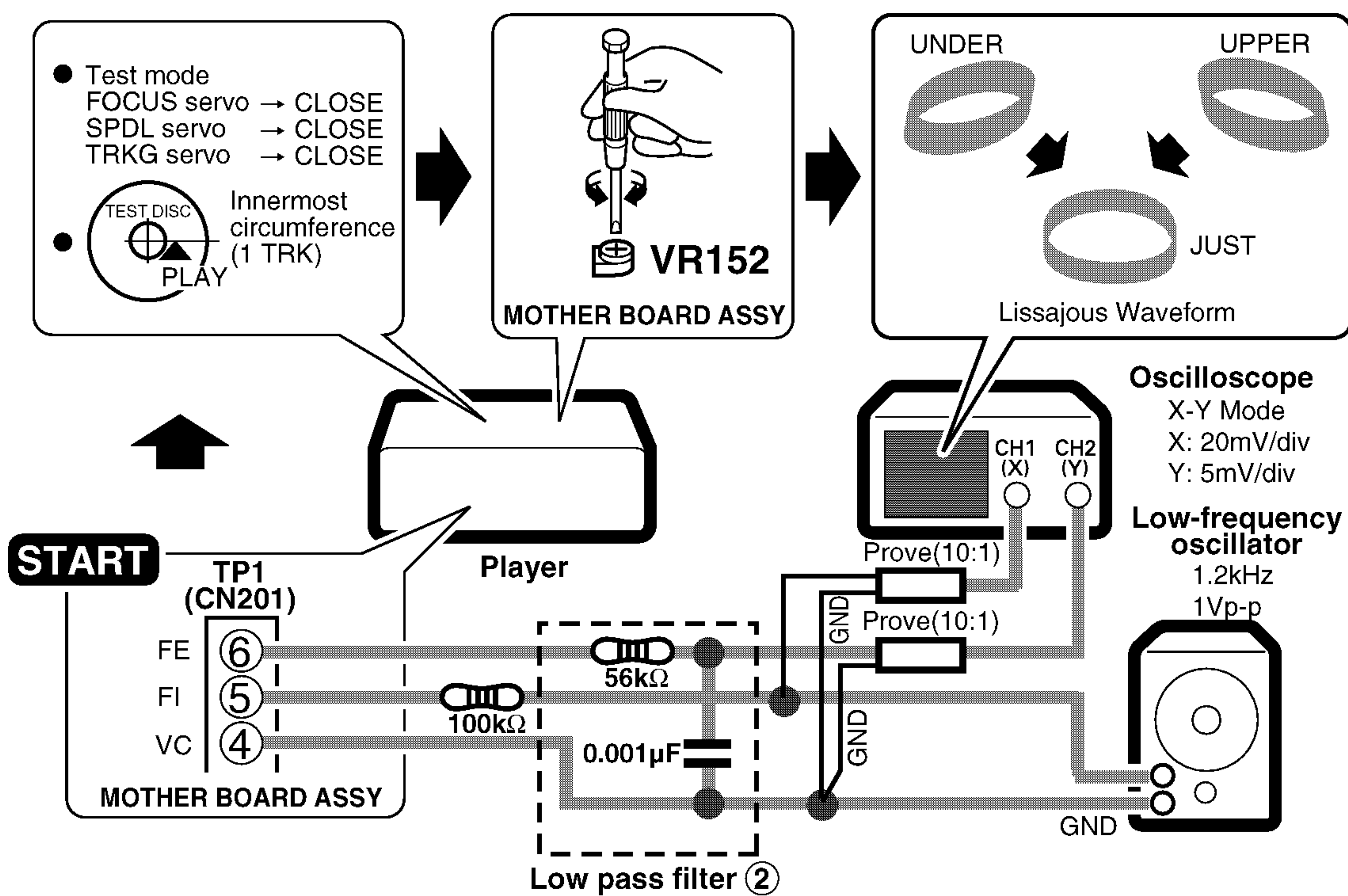
7. RF LEVEL ADJUSTMENT II

(RFレベル調整 2)



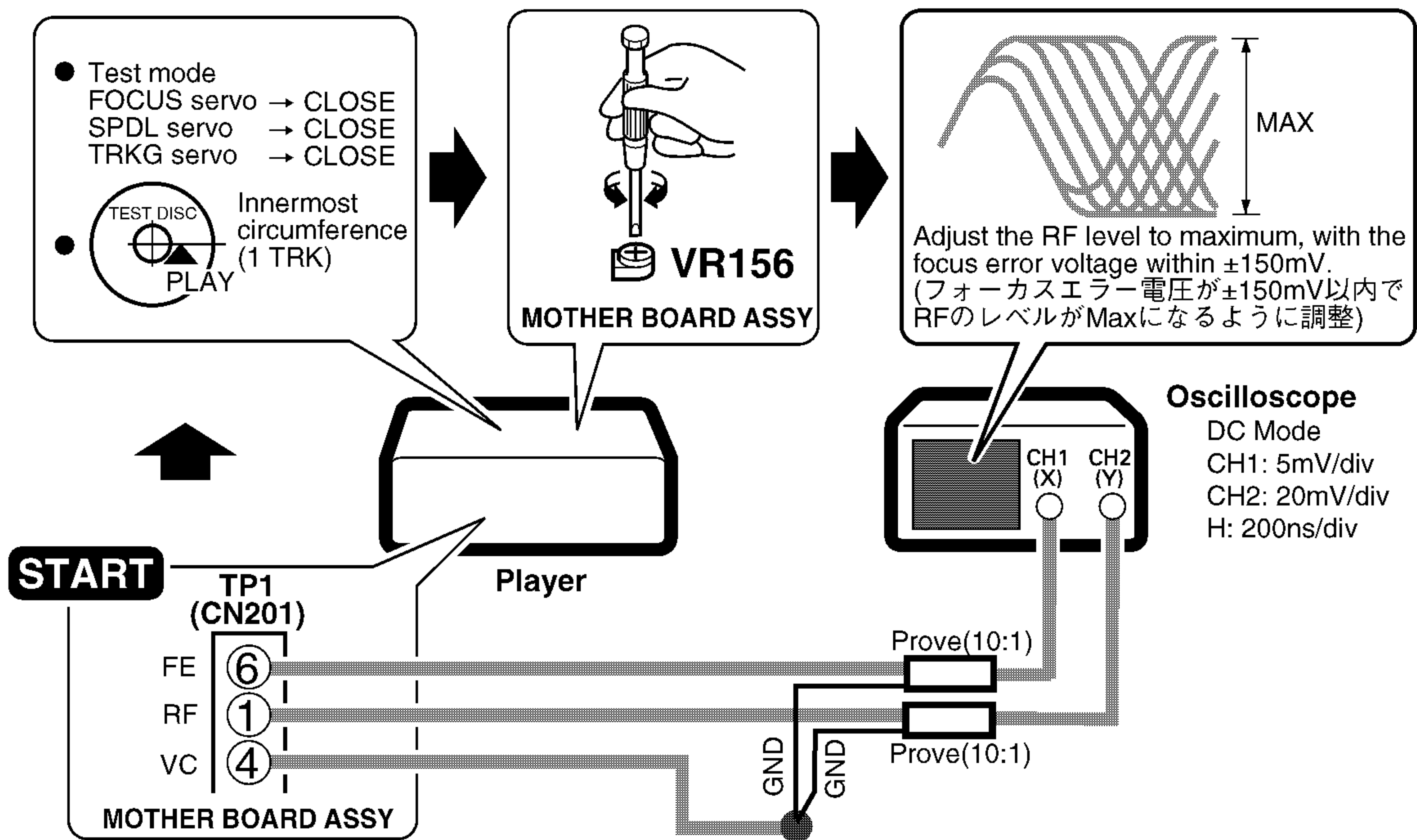
8. Focus Servo Loop Gain Adjustment I

(フォーカスサーボループゲイン調整 1)



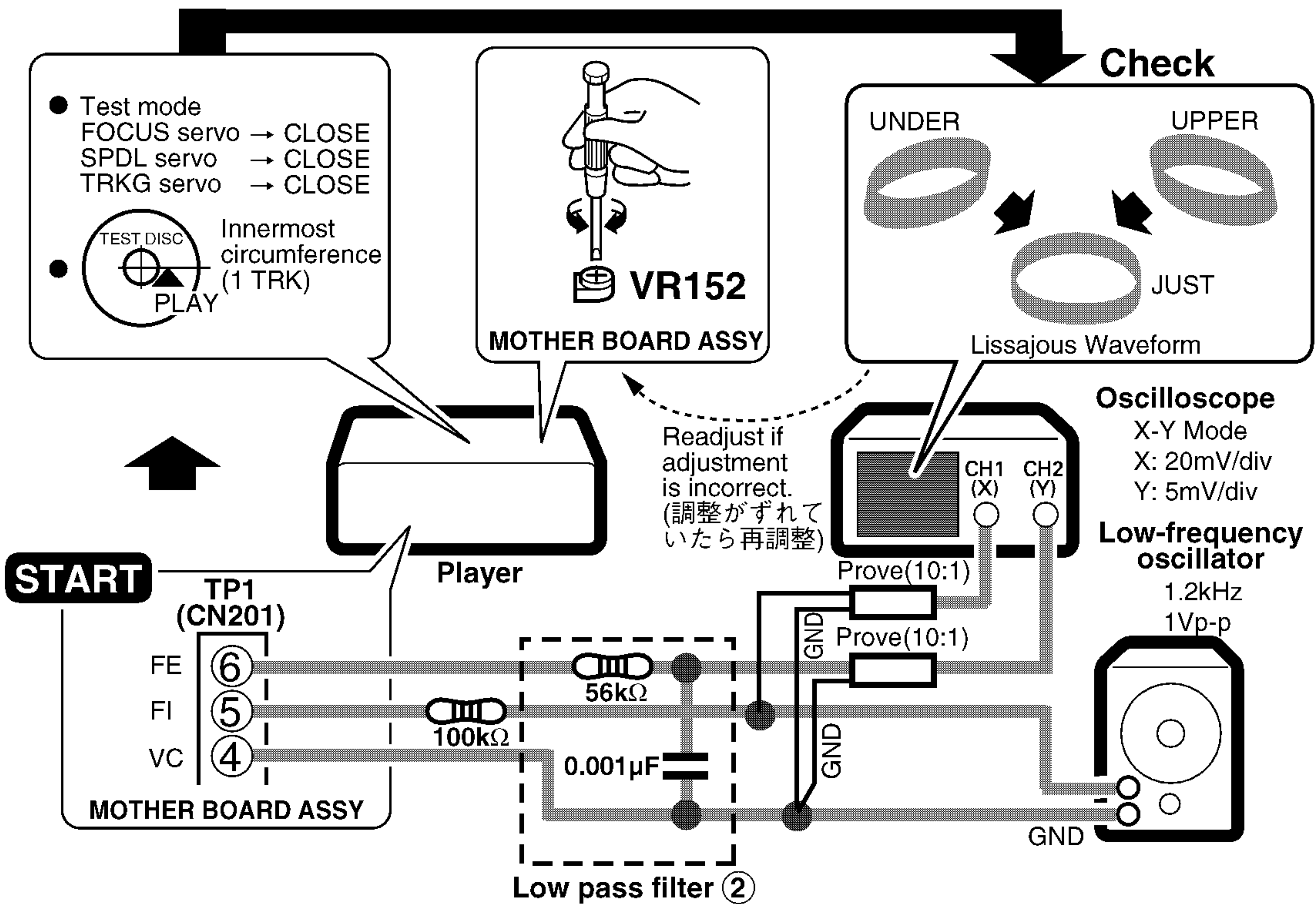
9. Focus Best Adjustment II

(フォーカスベスト調整 2)



10. Focus Servo Loop Gain Adjustment II

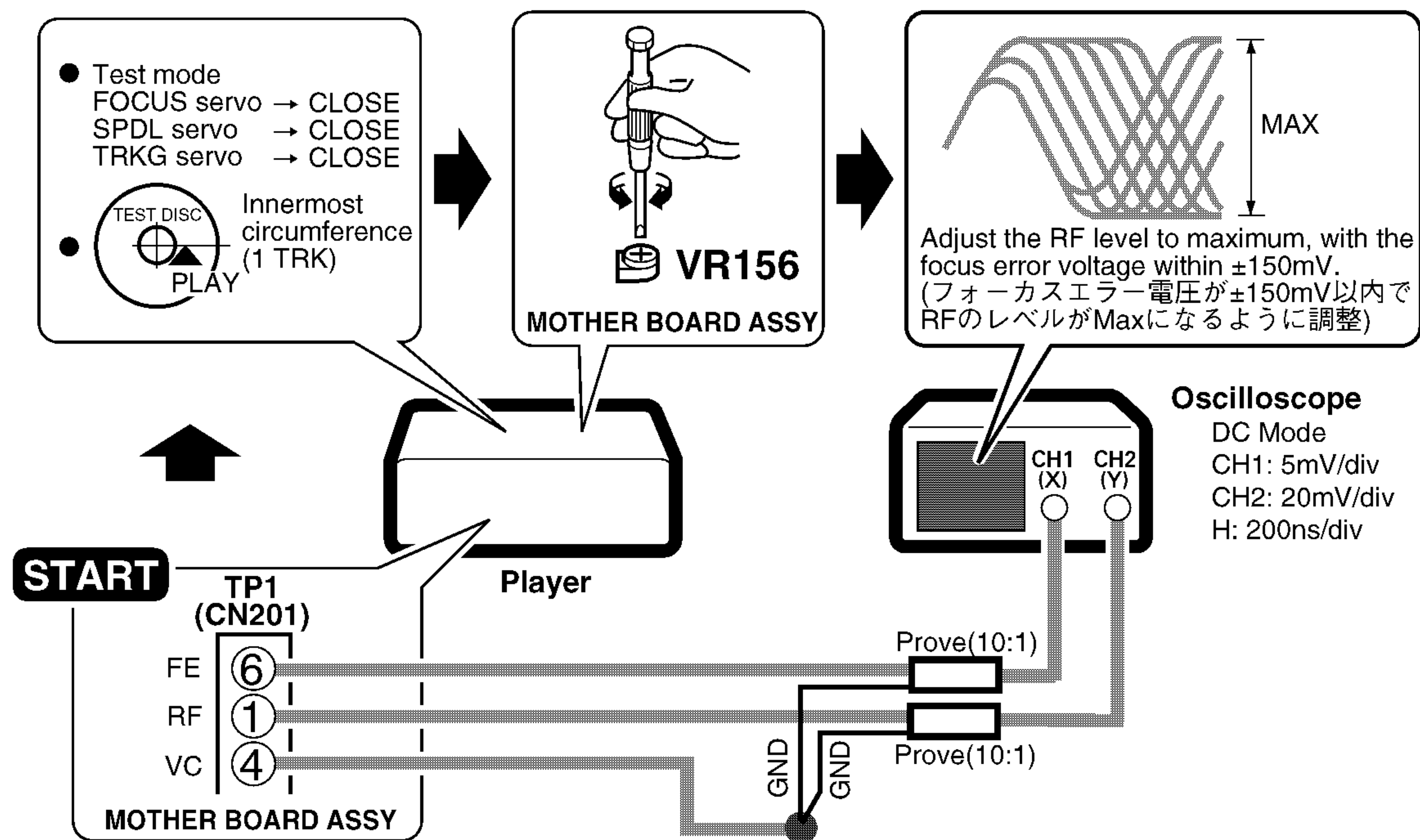
(フォーカスサーボループゲイン調整 2)



11. Focus Best Adjustment Ⅲ

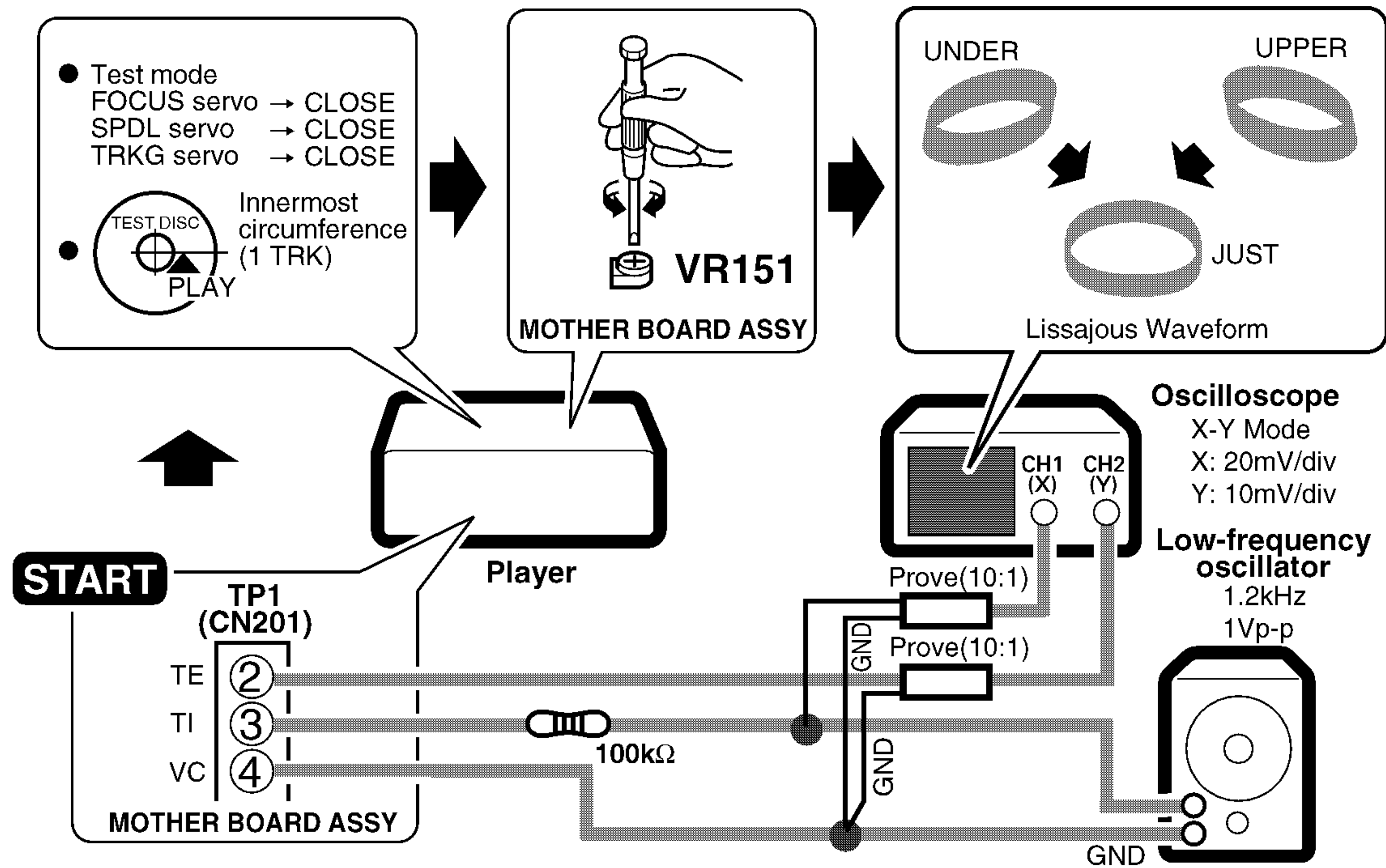
(フォーカスベスト調整 3)

Adjust this point only if adjustment was made in item 10.
(10の調整をおこなった時のみ調整を行なう)



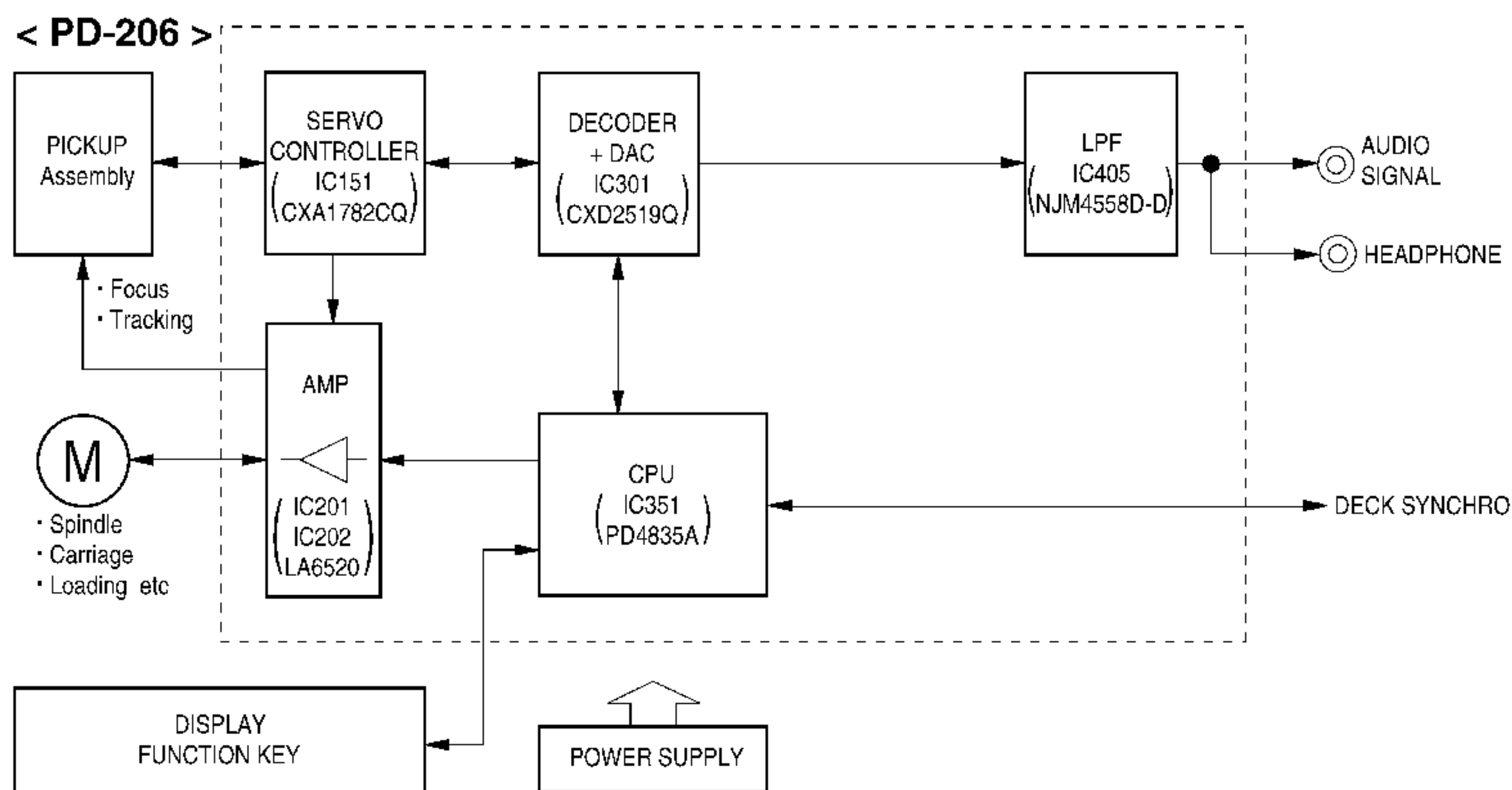
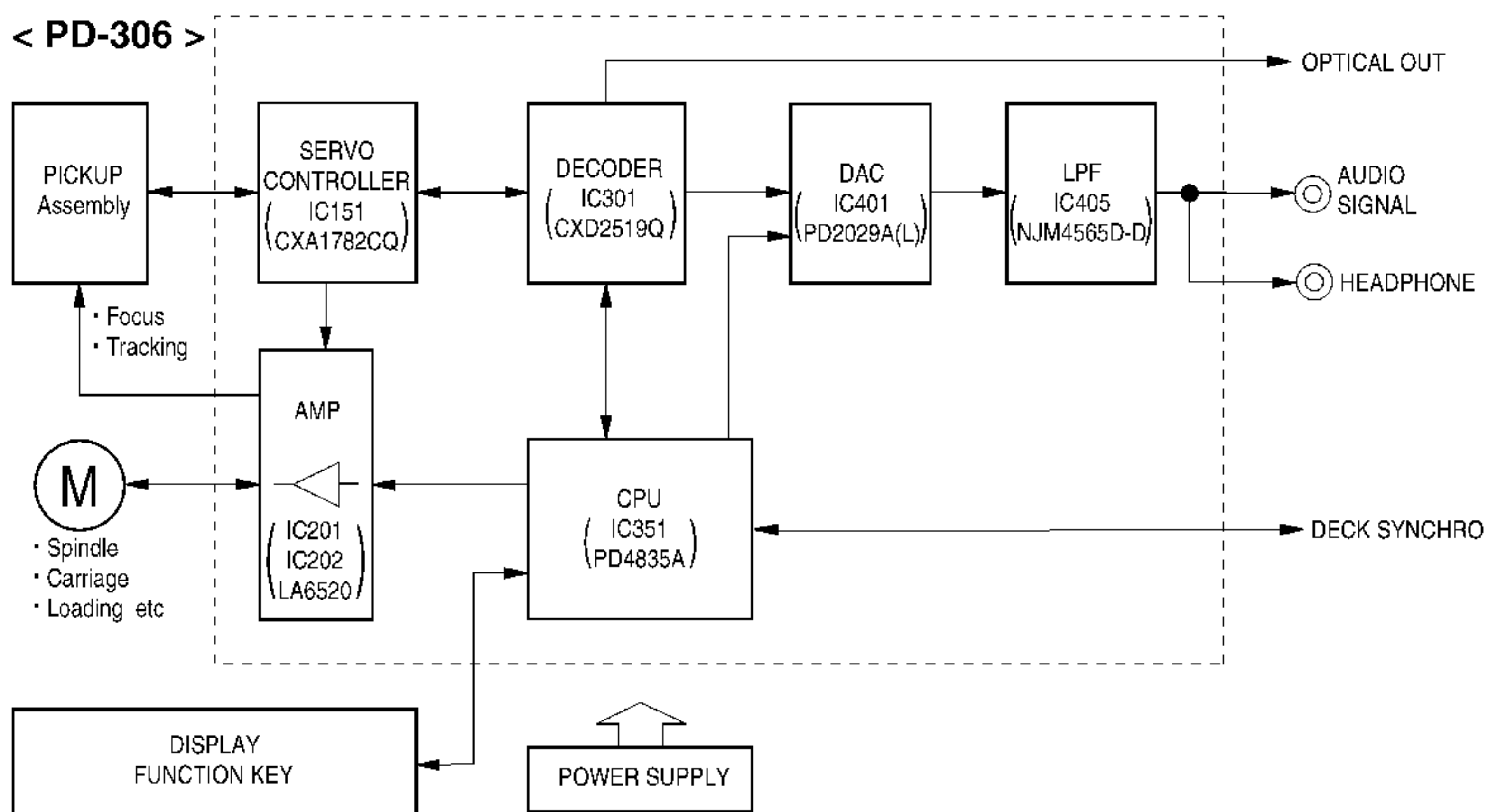
12. Tracking Servo Loop Gain Adjustment

(トラッキングサーボループゲイン調整)

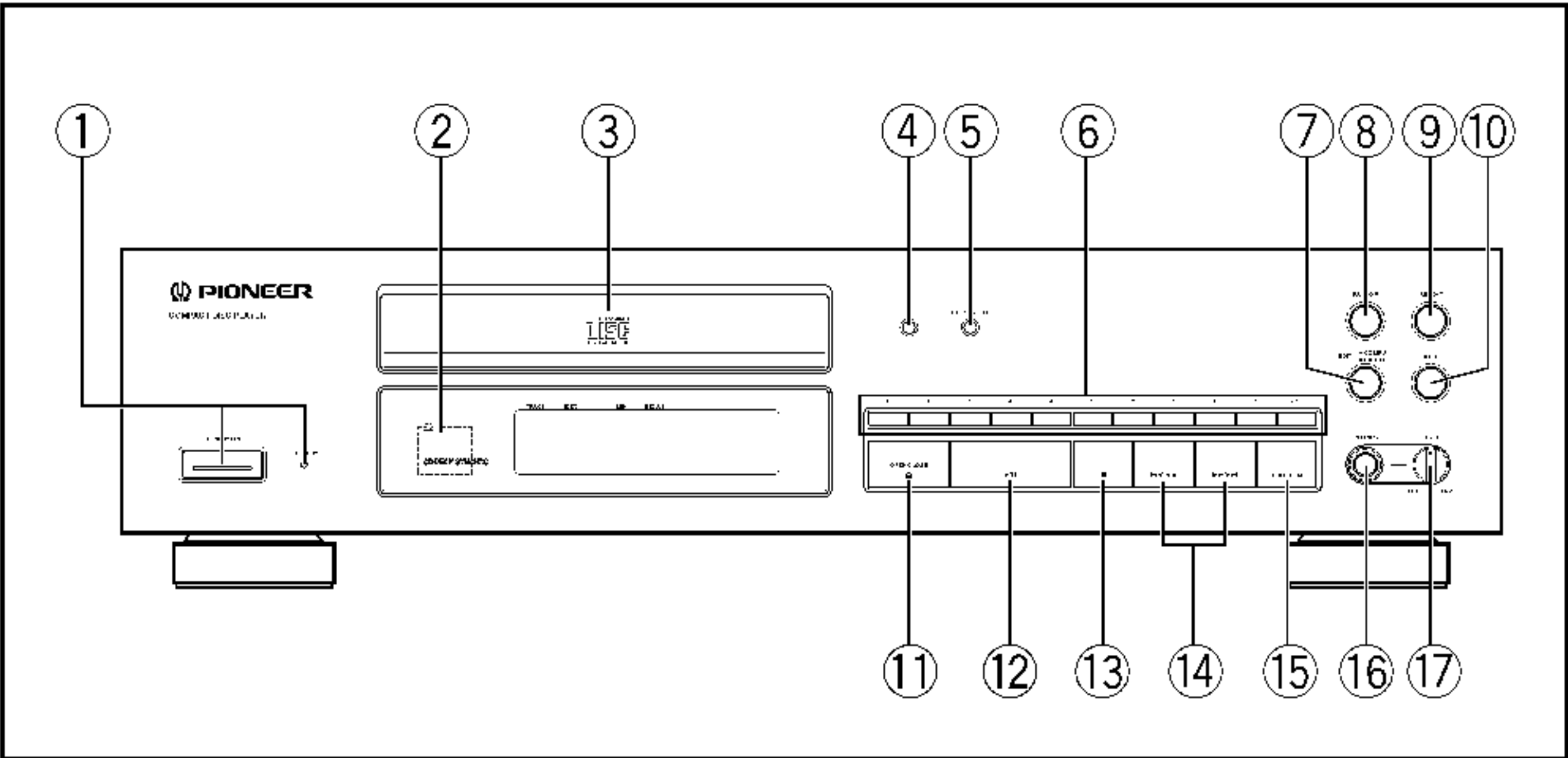


7. GENERAL INFORMATION

7.1 BLOCK DIAGRAM



8. PANEL FACILITIES AND SPECIFICATIONS



FRONT PANEL

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

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-306
Frequency response 2 Hz - 20 kHz
S/N ratio 105 dB or more (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)

PD-206
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)

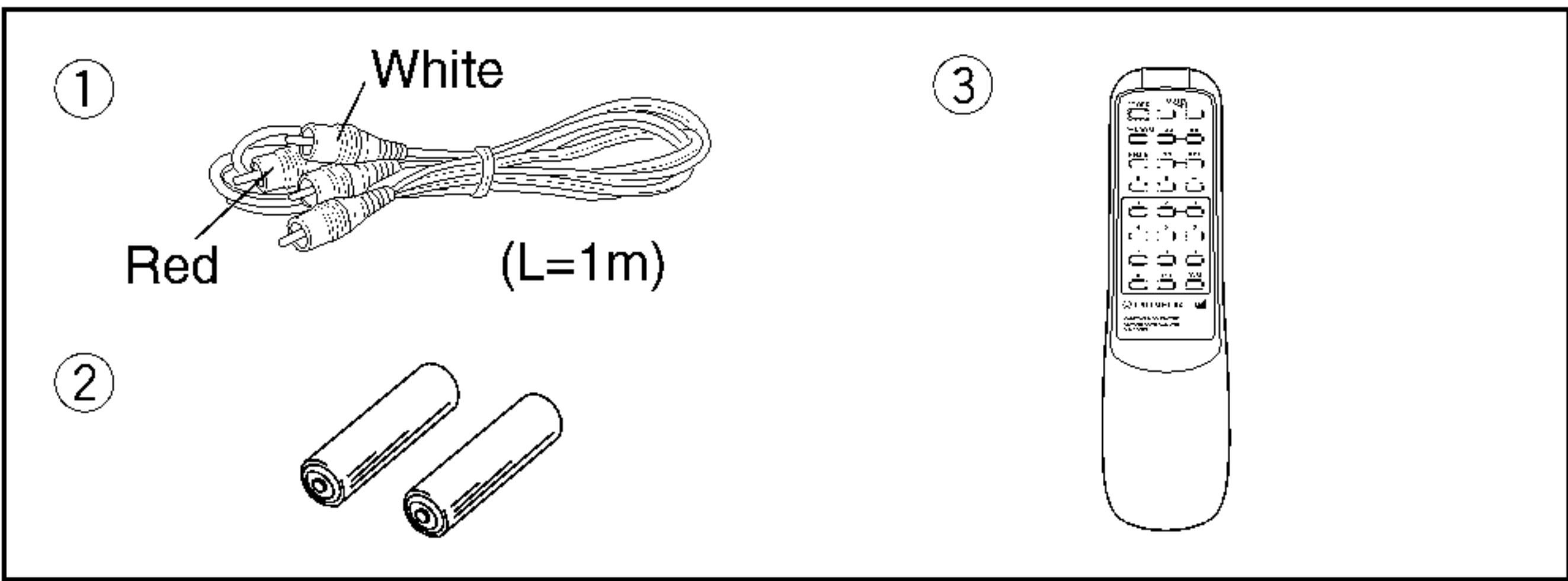
3. Output terminal

Audio line output jacks
CD-DECK SYNCHRO jack
Headphones jack (with volume control)
Optical digital output jack (PD-306 only)

4. Accessories

- Remote control unit 1
- AA/R6P dry cell batteries 2
- Output cable 1
- Operating instructions 1
- Warranty Card 1

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



- ① Output cable x 1
- ② AA/R6P dry cell batteries x 2
- ③ Remote control unit x 1