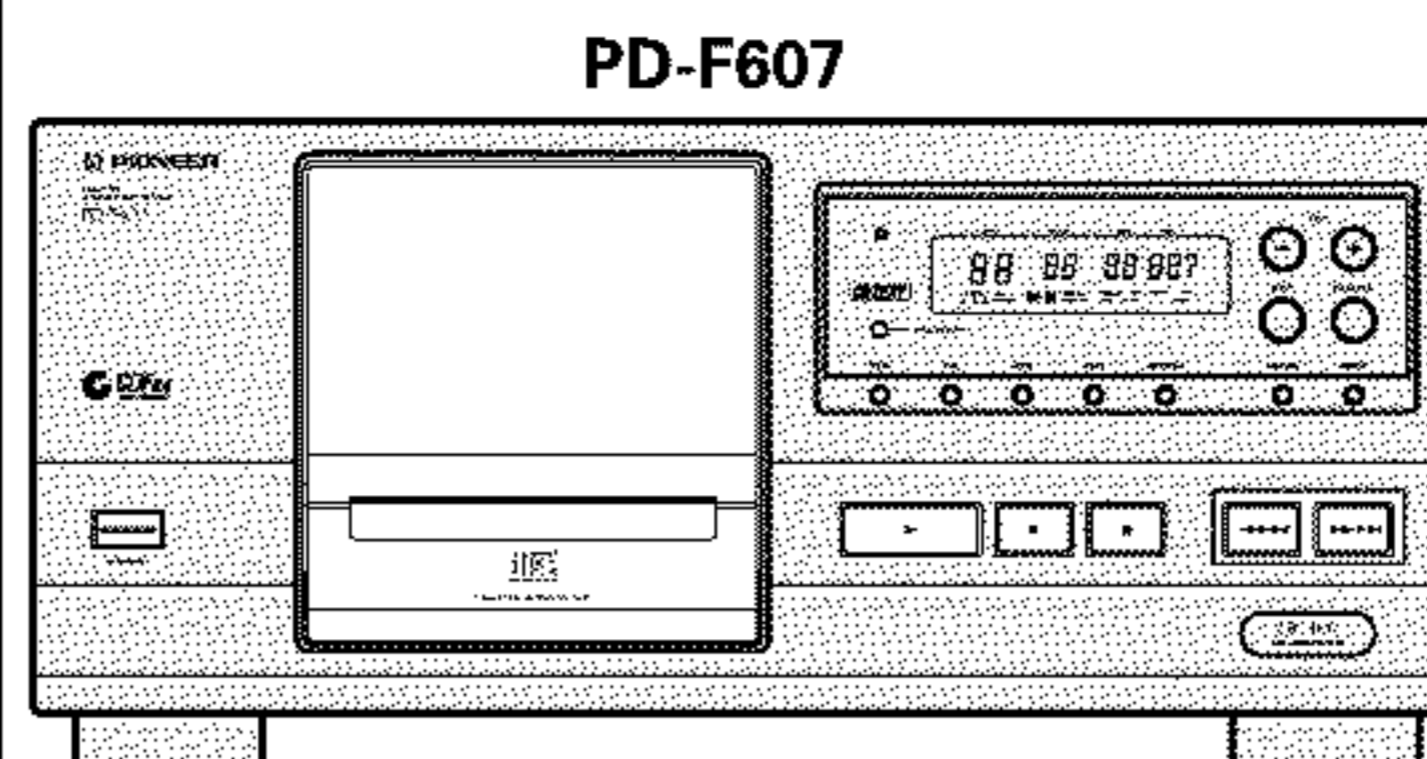


Service Manual

PIONEER
The Art of Entertainment



ORDER NO.
RRV1877

FILE-TYPE CD PLAYER

PD-F607

PD-F507

PD-F407

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

Type	Model			Power Requirement	Remarks
	PD-F607	PD-F507	PD-F407		
KUXJ	○	○	○	AC120V	
KCXJ	○	○	○	AC120V	

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T-ZZE DEC. 1997 Printed in Belgium

1. SAFETY INFORMATION

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

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

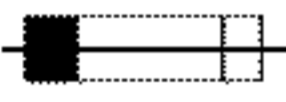
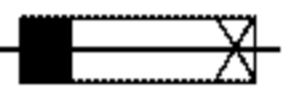
WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

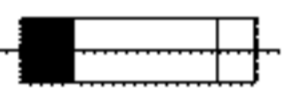
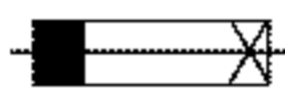
NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

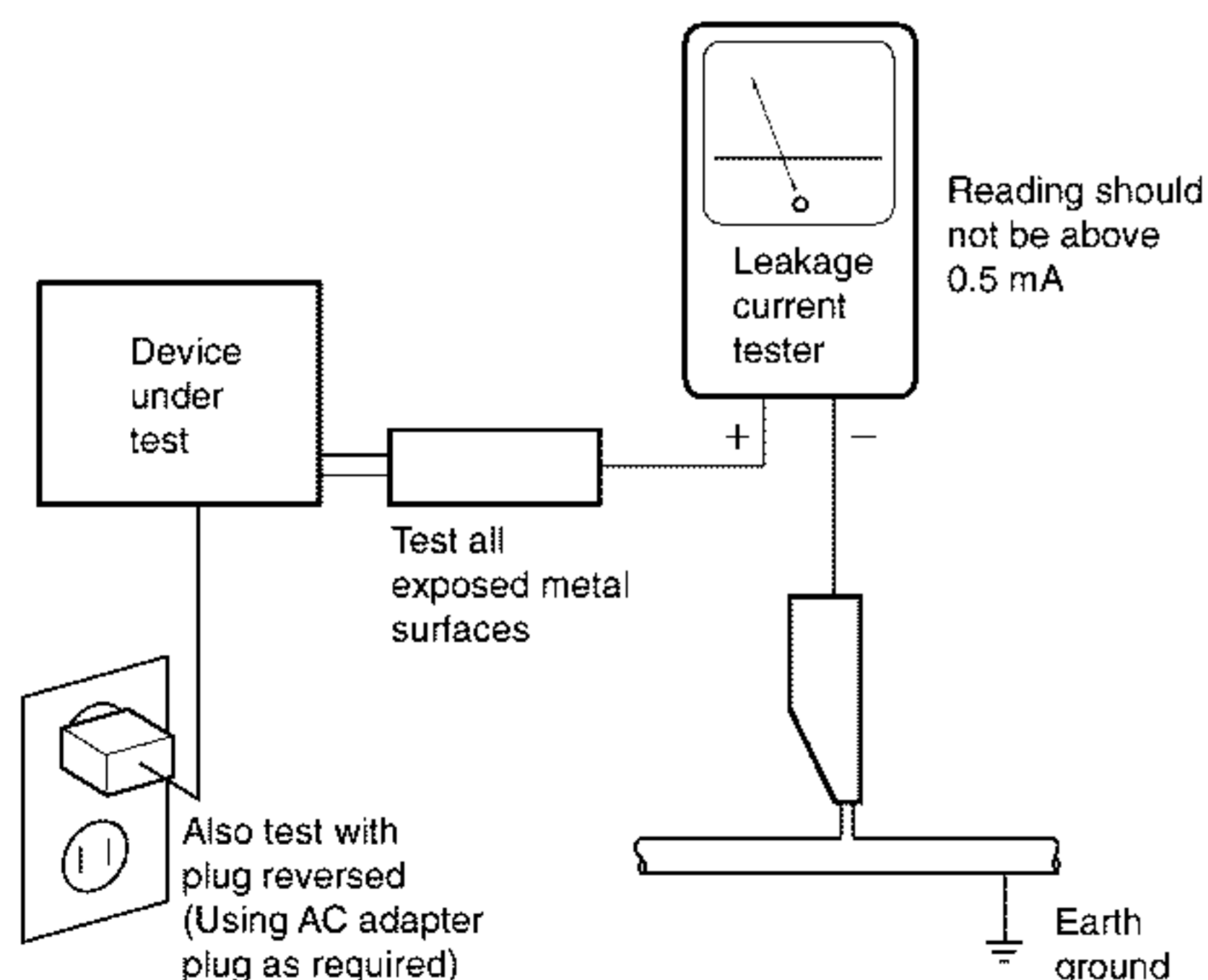
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a  on the schematics and on the parts list in this Service Manual.

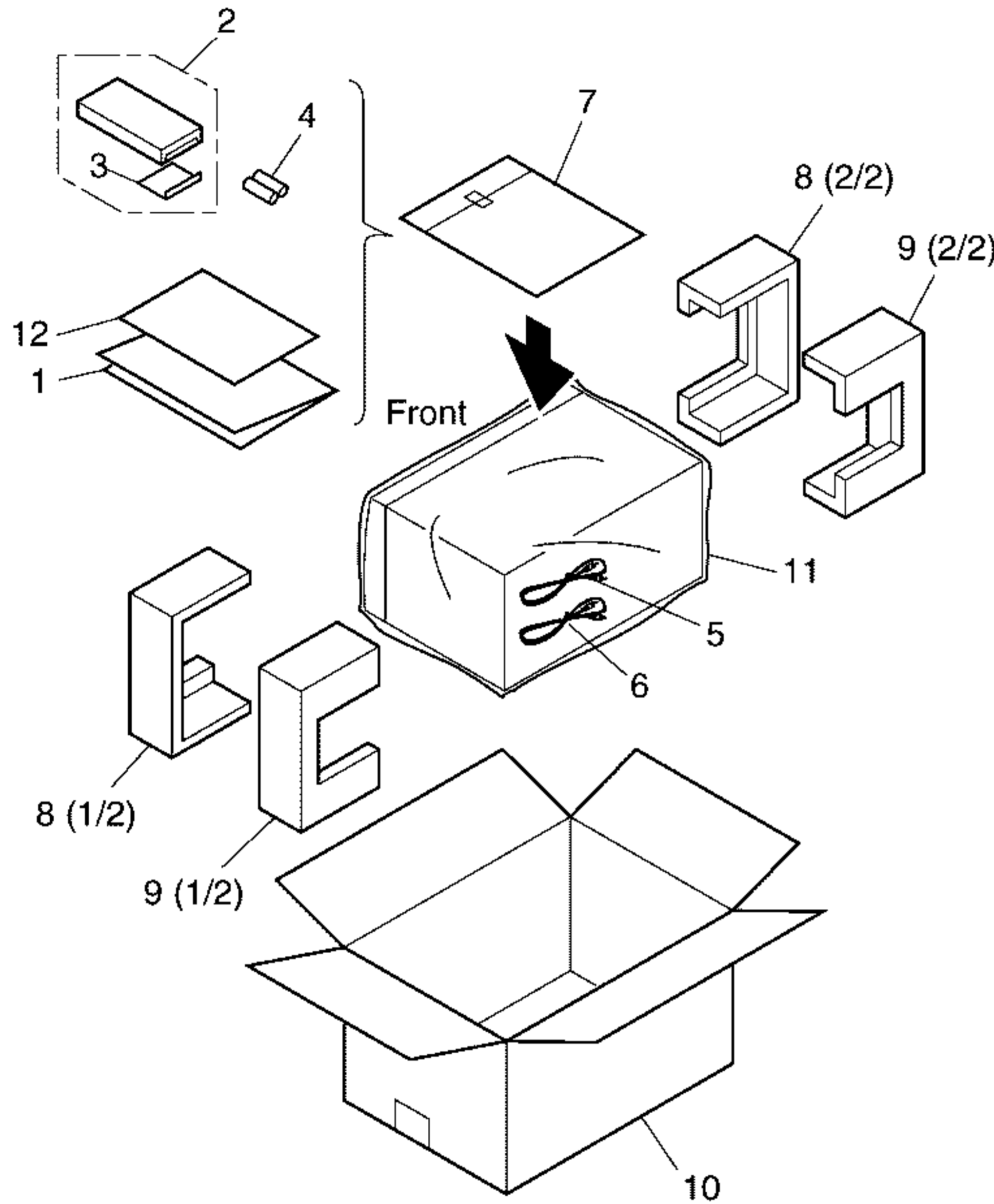
The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

2. EXPLODED VIEWS AND PARTS LIST

- NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 ● The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 ● Screws adjacent to ∞ mark on product are used for disassembly.

2.1 PACKING



(1)PACKING PARTS LIST

Mark	No.	Description	Parts No.
	1	Operating Instructions (English)	See Contrast table (2)
	2	Remote Control Unit	See Contrast table (2)
	3	Battery Cover	See Contrast table (2)
NSP	4	Battery (R6P, AA)	See Contrast table (2)
	5	Control Cable (L=1.0m)	PDE1247
	6	Output Cable (L=1.0m)	PDE1248
	7	Polyethylene Bag (230x340x0.03)	See Contrast table (2)
	8	Protector F	PHA1323
	9	Protector R	PHA1324
	10	Packing Case	See Contrast table (2)
NSP	11	Packing Sheet	AHG7010
	12	Warranty Card	See Contrast table (2)

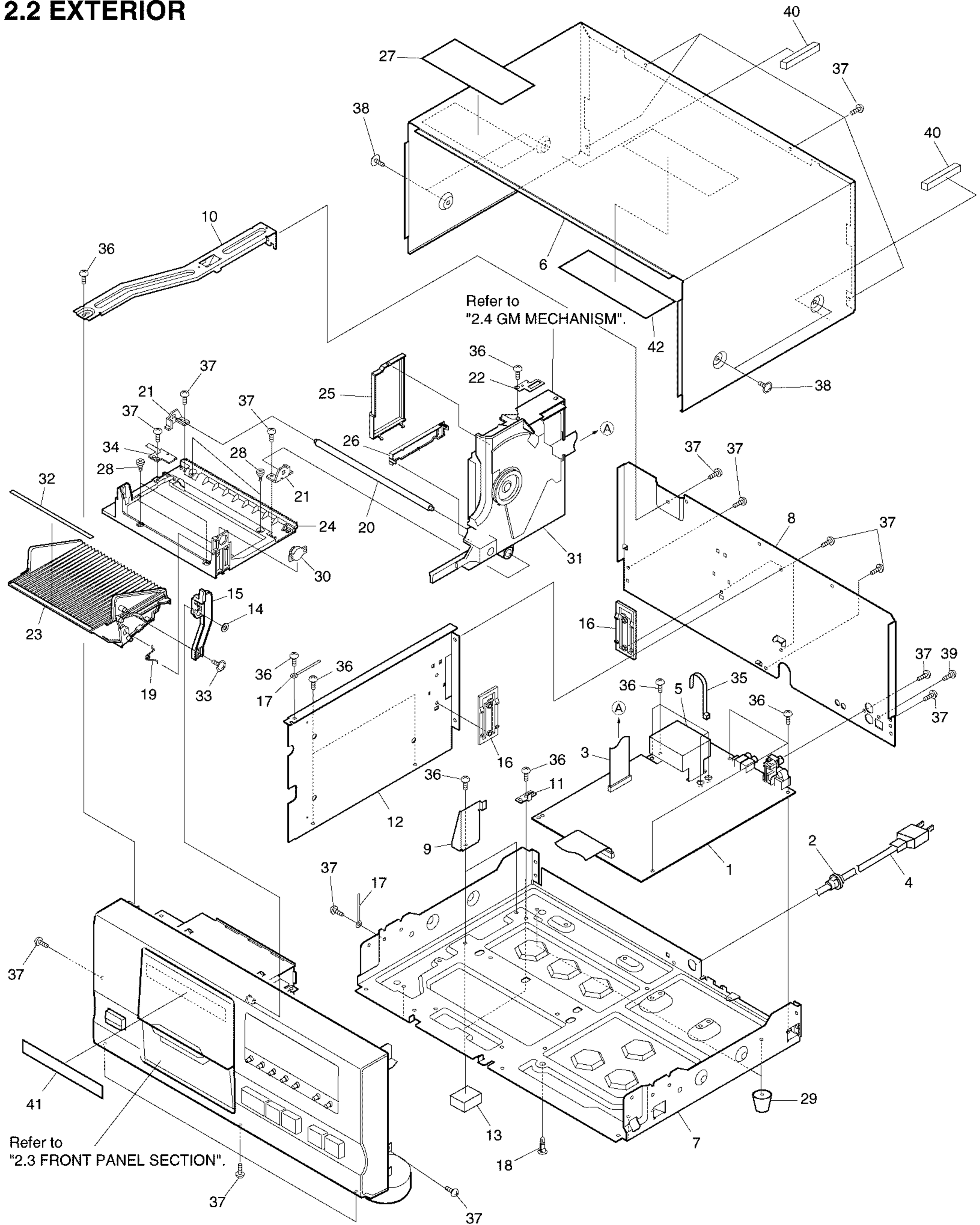
(2) CONTRAST TABLE

PD-F607/KUXJ,KCXJ,PD-F507/KUXJ,KCXJ,PD-F407/ KUXJ and KCXJ are constructed same except for the following:

Mark	No.	Description	Part No.						Remarks
			PD-F607		PD-F507		PD-F407		
			KUXJ	KCXJ	KUXJ	KCXJ	KUXJ	KCXJ	
	1	Operating Instructions (English)	PRB1262	Not used	PRB1265	Not used	PRB1265	Not used	
	1	Operating Instructions (English/French)	Not used	PRE1265	Not used	PRE1266	Not used	PRE1266	
	2	Remote Control Unit(CU-PD091)	PWW1131	PWW1131	Not used	Not used	Not used	Not used	
	2	Remote Control Unit(CU-PD090)	Not used	Not used	PWW1132	PWW1132	Not used	Not used	
	3	Battery Cover	AZA7204	AZA7204	AZA7204	AZA7204	Not used	Not used	
NSP	4	Battery (R6P, AA)	AEX-010	AEX-010	AEX-010	AEX-010	Not used	Not used	
	7	Polyethylene Bag (230x340x0.03)	Z21-038	Z21-038	Z21-038	Z21-038	Not used	Not used	
	10	Packing Case	PHG2282	PHG2297	PHG2301	PHG2302	PHG2293	PHG2294	
NSP	12	Warranty Card	ARY1051	ARY1075	ARY1051	ARY1075	ARY1051	ARY1075	

PD-F607, PD-F507, PD-F407

2.2 EXTERIOR



(1) EXTERIOR PARTS LIST

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
⚠	1	MOTHER BOARD ASSY	See Contrast table (2)		21	Shaft Holder	ANB7021
⚠	2	Cord Stopper	CM-22C		22	Assist Angle 2	ANB7065
	3	25P F.F.C./30V	PDD1184		23	Disc Rack	ANW7069
⚠	4	AC Power Cord	PDG1015		24	Rack Base S	ANW7070
⚠	5	Power Transformer	PTT1237		25	Servo Cover	ANW7073
	6	Bonnet	PYY1225		26	Nice Cover	ANW7074
NSP	7	Under Base	PNA2249		27	Caution Label 25	PRW1423
	8	Rear Base	See Contrast table (2)		28	Screw C	PBA1106
	9	F. B Stopper	PNB1565		29	Foot	REC1263
	10	Home Lock Angle 56	PNB1573		30	Damper Assy 80	PXA1584
	11	Home Lock Angle 2	PNB1549	NSP	31	GM Mechanism	PXA1590
	12	Barrier	PNB1550		32	Disc Rack Panel	AAK7251
	13	Disc Guard	REC1305		33	Screw	IBZ30P080FMC
	14	Link Spacer	PEB1292	NSP	34	HOME SW ASSY	PWZ3627
	15	Link	PNW2614		35	Binder	ZCA-SKB90BK
	16	FFC Holder	PNW2615		36	Screw	BBZ30P060FMC
	17	Cord Clamper	RNH-184		37	Screw	BBZ30P080FZK
	18	Locking Card Spacer	VEC1596		38	Screw	FBT40P080FZK
	19	Rack Spring	ABH7057		39	Screw	See Contrast table (2)
	20	Guide Shaft-25	ALA7007		40	FFC Spacer	PEB1291
					41	Getter Label U607	See Contrast table (2)
					42	65 Label	See Contrast table (2)

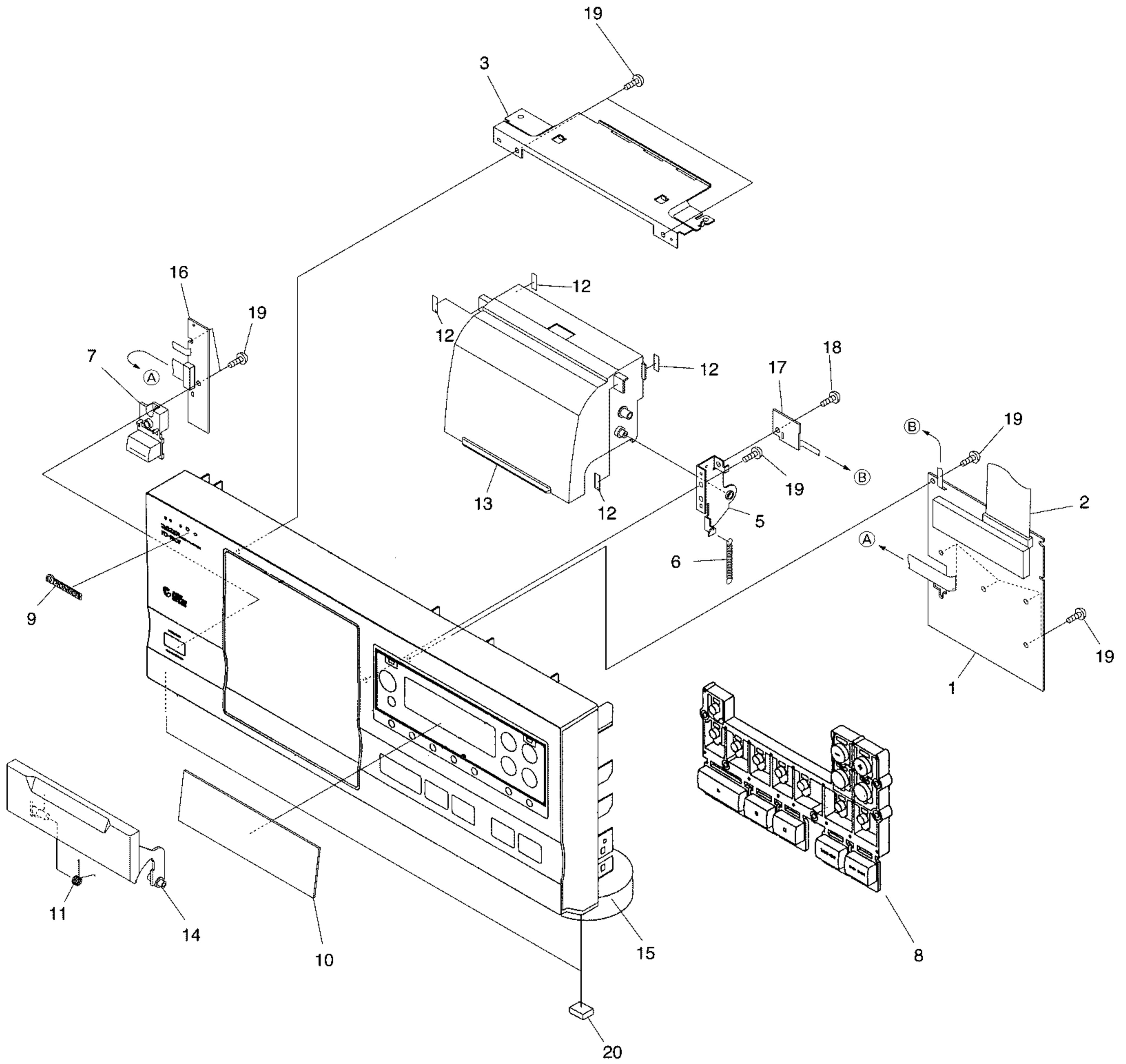
(2) CONTRAST TABLE

PD-F607/KUXJ,KCXJ,PD-F507/KUXJ,KCXJ,PD-F407/ KUXJ and KCXJ are constructed same except for the following:

Mark	No.	Description	Part No.						Remarks
			PD-F607		PD-F507		PD-F407		
			KUXJ	KCXJ	KUXJ	KCXJ	KUXJ	KCXJ	
⚠	1	MOTHER BOARD ASSY	PWM2199	PWM2199	PWM2193	PWM2193	PWM2189	PWM2189	
	8	Rear Base	PNA2386	PNA2386	PNA2401	PNA2401	PNA2395	PNA2395	
	39	Screw	BBZ30P080FZK	BBZ30P080FZK	BBZ30P080FZK	BBZ30P080FZK	Not used	Not used	
	41	Getter Label U607	PRW1487	PRW1487	PRW1475	PRW1475	PRW1475	PRW1475	
	42	65 Label	ORW1069	Not used	ORW1069	Not used	ORW1069	Not used	

PD-F607, PD-F507, PD-F407

2.3 FRONT PANEL SECTION



(1) FRONT PANEL SECTION PARTS LIST

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	DISPLAY ASSY	See Contrast table (2)		11	Door Spring	PBH1216
	2	38P F.F.C./30V	See Contrast table (2)	NSP	12	Cushion (ART. SUEDE)	PED1016
	3	Panel Angle	PNB1545		13	Hood	PNW2759
	4	•••••			14	Door	PNW2758
	5	Hood Angle R	PNB1547		15	Control Panel	See Contrast table (2)
	6	Link Spring	PBH1215	NSP	16	POWER SW ASSY	PWZ3622
	7	Power Button	PAC1869	NSP	17	HOOD SW ASSY	PWZ3629
	8	Operate Button	See Contrast table (2)		18	Screw	BBZ30P080FZK
	9	Name Plate	PAM1755		19	Screw	PPZ30P080FMC
	10	Display Window	See Contrast table (2)		20	Rubber Sheet	AEB1111

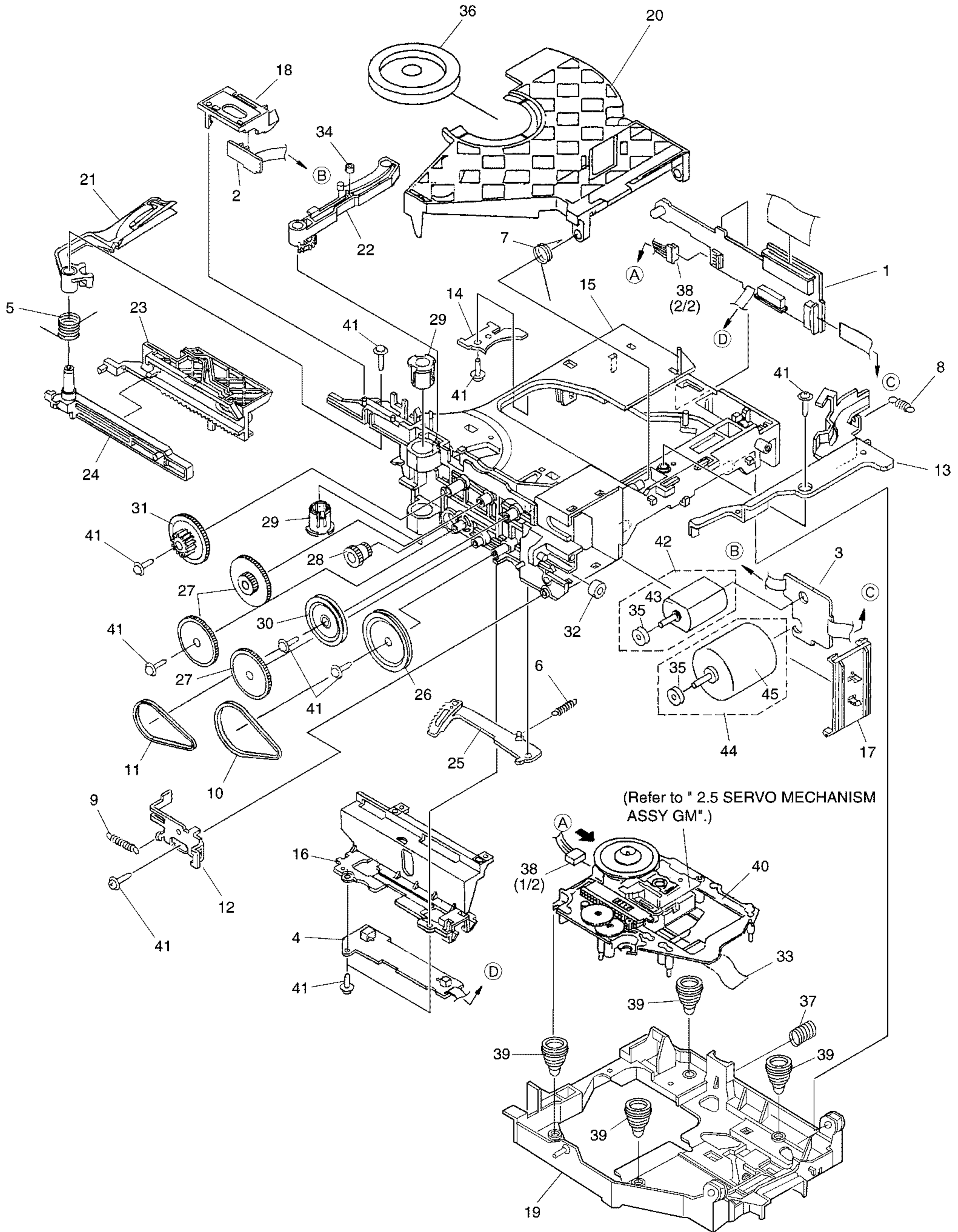
(2) CONTRAST TABLE

PD-F607/KUXJ,KCXJ,PD-F507/KUXJ,KCXJ,PD-F407/ KUXJ and KCXJ have the same construction except for the following:

Mark	No.	Description	Part No.						Remarks
			PD-F607		PD-F507		PD-F407		
			KUXJ	KCXJ	KUXJ	KCXJ	KUXJ	KCXJ	
	1	DISPLAY ASSY	PWZ3612	PWZ3612	PWZ3610	PWZ3610	PWZ3607	PWZ3607	
	2	38P F.F.C./30V	PDD1169	PDD1169	Not used	Not used	Not used	Not used	
	2	34P F.F.C./30V	Not used	Not used	PDD1168	PDD1168	Not used	Not used	
	2	32P F.F.C./30V	Not used	Not used	Not used	Not used	PDD1167	PDD1167	
	8	Operate Button	PAC1858	PAC1858	PAC1857	PAC1857	PAC1857	PAC1857	
	10	Display Window	PAM1740	PAM1740	PAM1747	PAM1747	PAM1746	PAM1746	
	15	Control Panel	PNW2756	PNW2756	PNW2783	PNW2783	PNW2778	PNW2778	

PD-F607, PD-F507, PD-F407

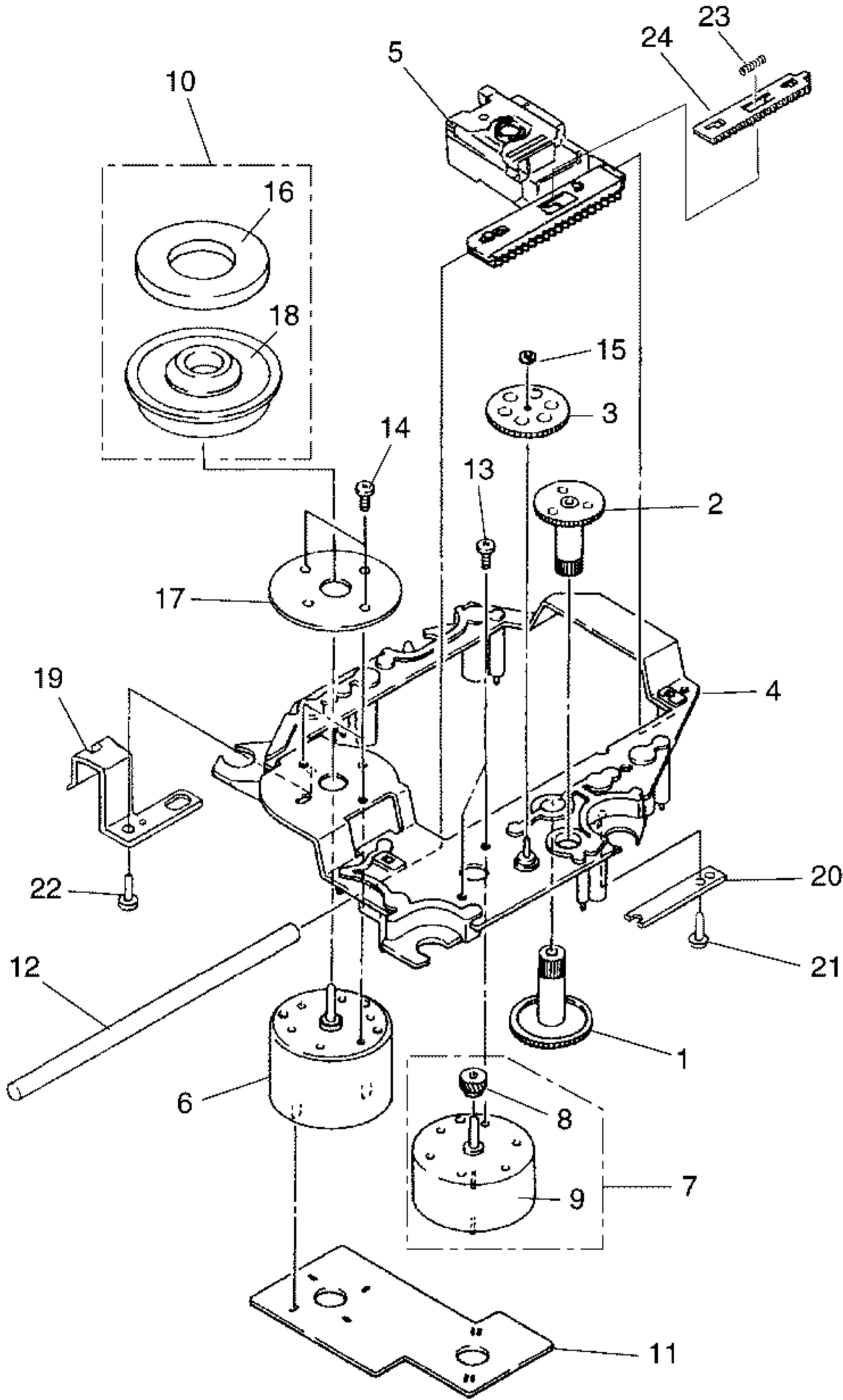
2.4 GM MECHANISM



GM MECHANISM PARTS LIST

Mark	No.	Description	Parts No.
NSP	1	MECHA PCB ASSY	PWZ3395
NSP	2	SENSOR PCB ASSY	PWZ3397
NSP	3	MOTOR PCB ASSY	PWZ3398
NSP	4	SW PCB ASSY	PWZ3399
	5	Arm A Spring 2	ABH7124
	6	Gear Plate Spring	ABH7051
	7	Clamp Spring	ABH7107
	8	Lock Lever Spring B	ABH7142
	9	Lockangle Spring 2	ABH7123
	10	Loading Belt	AEB7029
	11	Belt	AEB7030
NSP	12	Lock Angle	ANB7027
NSP	13	Lock Lever P	ANB7042
NSP	14	Servo Stopper S	ANB7047
	15	Loading Base	ANW7086
	16	Cam Cover	ANW7052
	17	Motor Holder	ANW7053
	18	Sensor Holder	ANW7054
	19	Float Base	PNW2700
	20	Clamper Holder	ANW7117
	21	Arm (A)	ANW7057
	22	Arm (B)	ANW7058
	23	Drive Plate	ANW7059
	24	Arm Plate	ANW7060
	25	Gear Plate	ANW7082
	26	Gear Pulley (B)	ANW7062
	27	Gear A	ANW7063
	28	Drive Gear	ANW7064
	29	Bearing	ANW7065
	30	Gear Pulley (A)	ANW7066
	31	Select Gear	ANW7067
	32	Roller	ANW7068
	33	16P F.F.C/30V	PDD1182
	34	Roller B	ANW7075
	35	Motor Pulley	PNW1634
	36	Clamper	PNW2744
	37	Float Spring	ABH7049
	38	Connector Assy (4P)	ADE7006
	39	Float Rubber	AEB7059
NSP	40	Servo Mechanism Assy GM	PXA1591
	41	Screw	IPZ20P080FMC
	42	Motor Assy	AEA7005
NSP	43	Motor	PXM1002
	44	Motor Assy	AEA7006
	45	Loading Motor	VXM1034
		Froil (for service)	GYA1001
		Ha Narl (for service)	GEM1016

2.5 SERVO MECHANISM ASSY GM

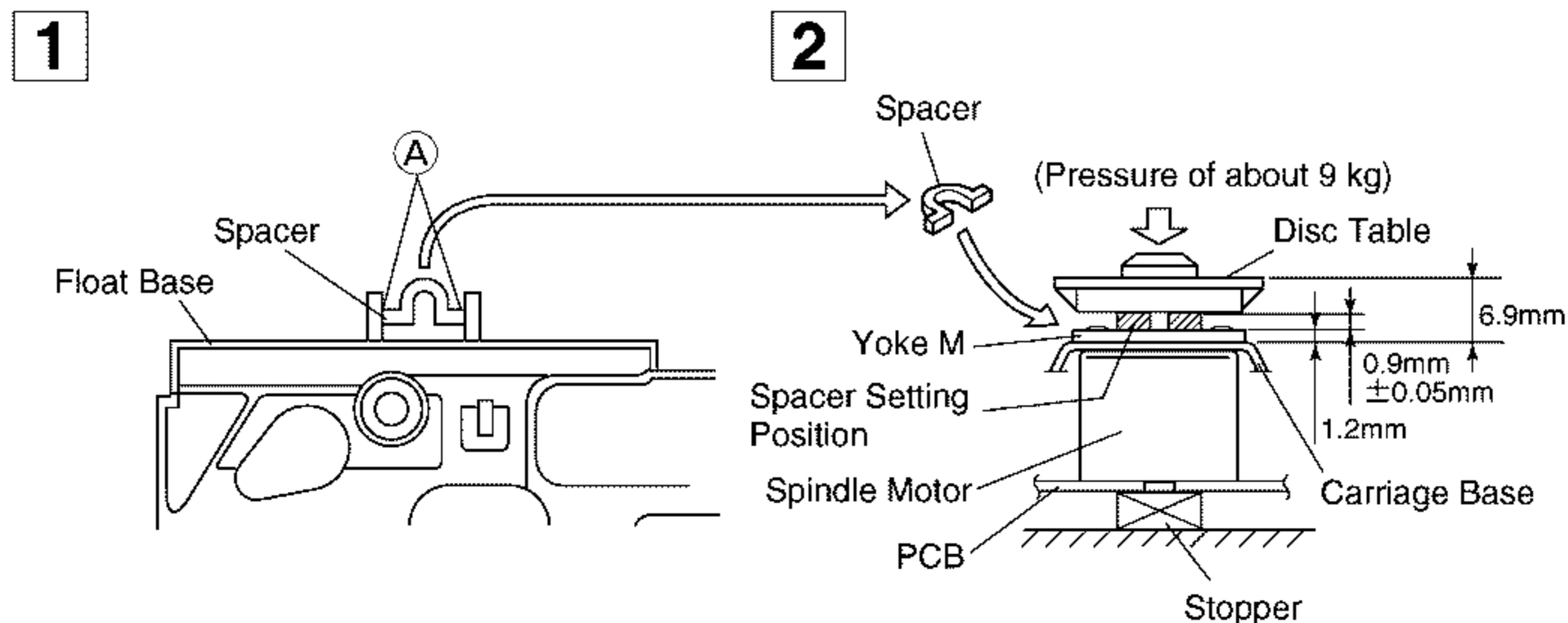


SERVO MECHANISM ASSY GM PARTS LIST

Mark	No.	Description	Parts No.
	1	Gear 1	PNW2052
	2	Gear 2	PNW2053
	3	Gear 3	PNW2054
	4	Carriage Base	PNW2699
	5	Pickup Assy-S	PEA1335
	6	D. C. Motor Assy (Spindle)	PEA1235
	7	Carriage DC Motor Assy	PEA1246
	8	Pinion Gear	PNW2055
	9	Carriage DC Motor/0.3W	PXM1027
	10	Disc Table Assy	PEA1314
NSP	11	Mechanism Board Assy	PWX1192
	12	Guide Bar	PLA1094
	13	Screw	JFZ17P025FZK
	14	Screw	JFZ20P040FMC
	15	Washer	WT12D032D025
	16	Clamp Magnet	PMF1014
	17	Yoke M	PNB1312
NSP	18	Disc Table	PNW2410
NSP	19	Float Angle	ANB7020
	20	Gear Stopper	PNB1303
	21	Screw	BPZ20P060FMC
	22	Screw	BPZ26P100FMC
	23	PU Rack Spring	ABH7077
	24	Rack Holder	PNW2056
		Froil (for service)	GYA1001
		Ha Narl (for service)	GEM1016

● How to Install the Disc Table

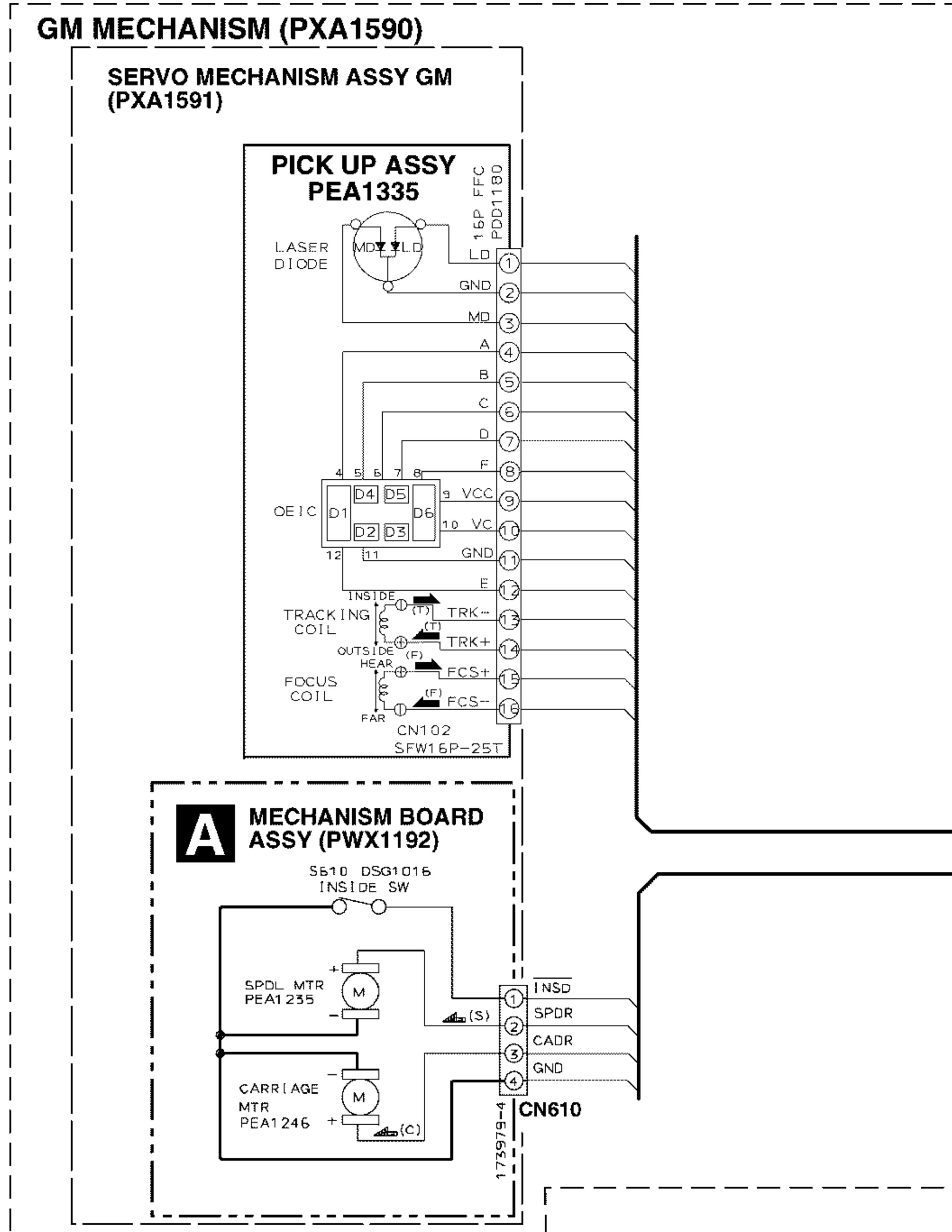
- 1 Use nipper or other tool to cut the two sections marked (A) figure 1.
- 2 While supporting the spindle motor shaft with the stopper, put spacer on top of the yoke M, and stick the disc table on top (takes about 9kg pressure). Take off the spacer.



3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTIONS, MECHANISM BOARD, DISPLAY, POWER SW, HOME SW, HOOD SW, MECHA PCB, SENSOR PCB, MOTOR PCB AND SW PCB ASSEMBLIES

A



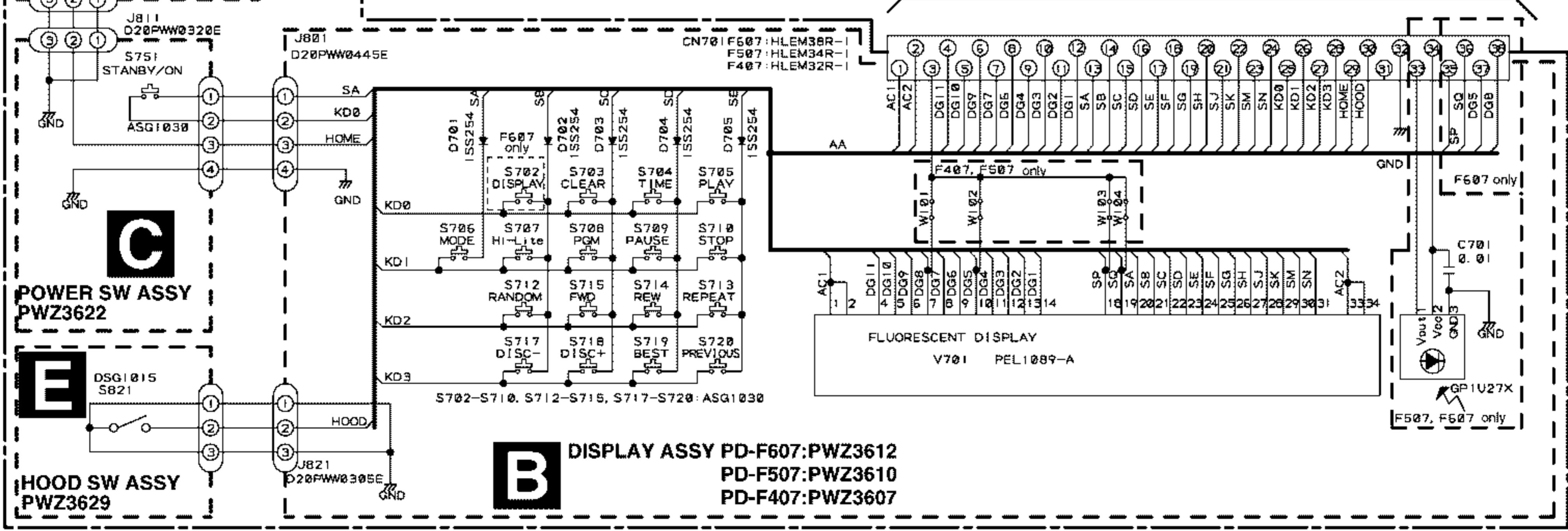
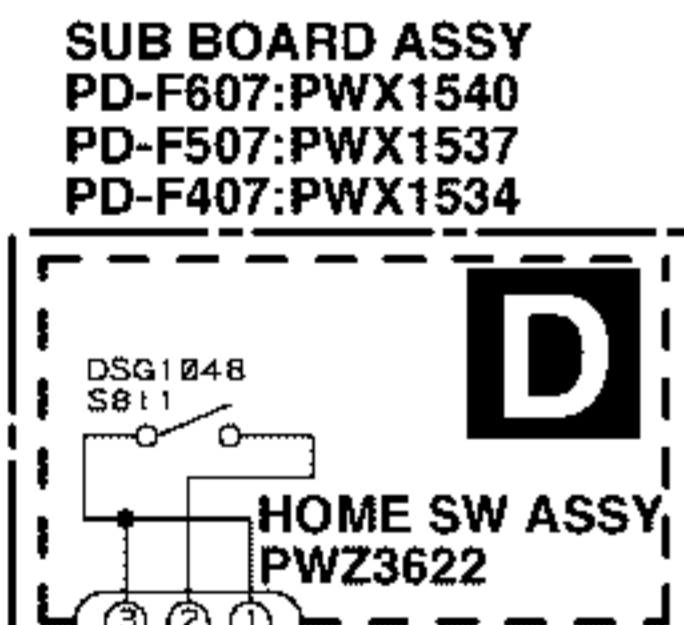
B

SIGNAL ROUTE

- (F) : FOCUS SERVO LOOP LINE
- (T) : TRACKING SERVO LOOP LINE
- (L) : LOADING MOTOR ROUTE
- (S) : SPINDLE MOTOR ROUTE
- (C) : CARRIAGE MOTOR ROUTE

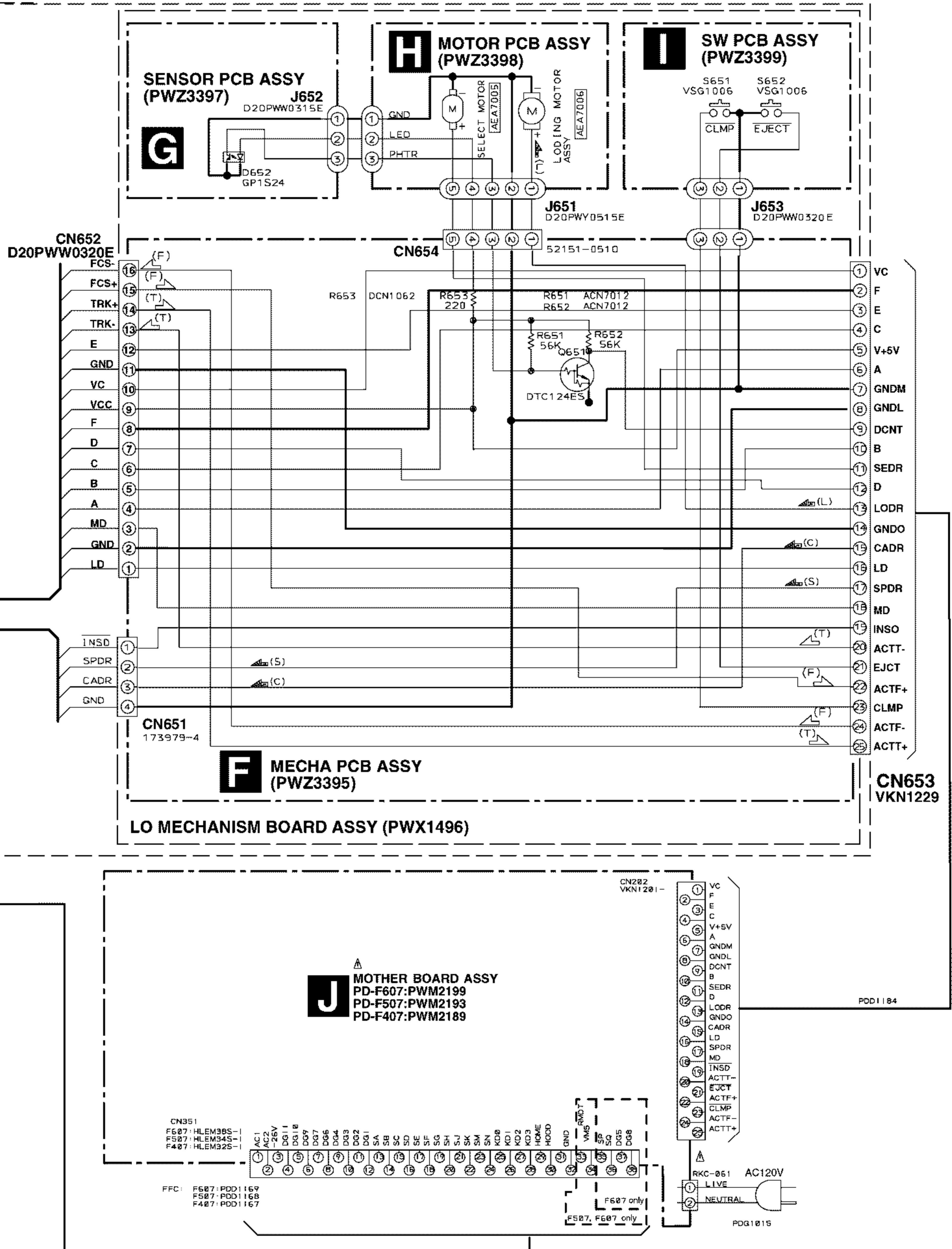
- DISPLAY ASSY
 S702 : TITLE DISPLAY
 S703 : CLEAR
 S704 : TIME
 S705 : ▶ PLAY
 S706 : MODE
 S707 : HI-LITE
 S708 : PROGRAM
 S709 : || PAUSE
 S710 : ■ STOP
 S712 : RANDOM
 S713 : REPEAT
 S714 : ◀◀◀ REV
 S715 : ▶▶▶ FWD
 S717 : DISC -
 S718 : DISC +
 S719 : BEST
 S720 : PREVIOUS

C



D

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



3.2 MOTHER BOARD ASSY

A

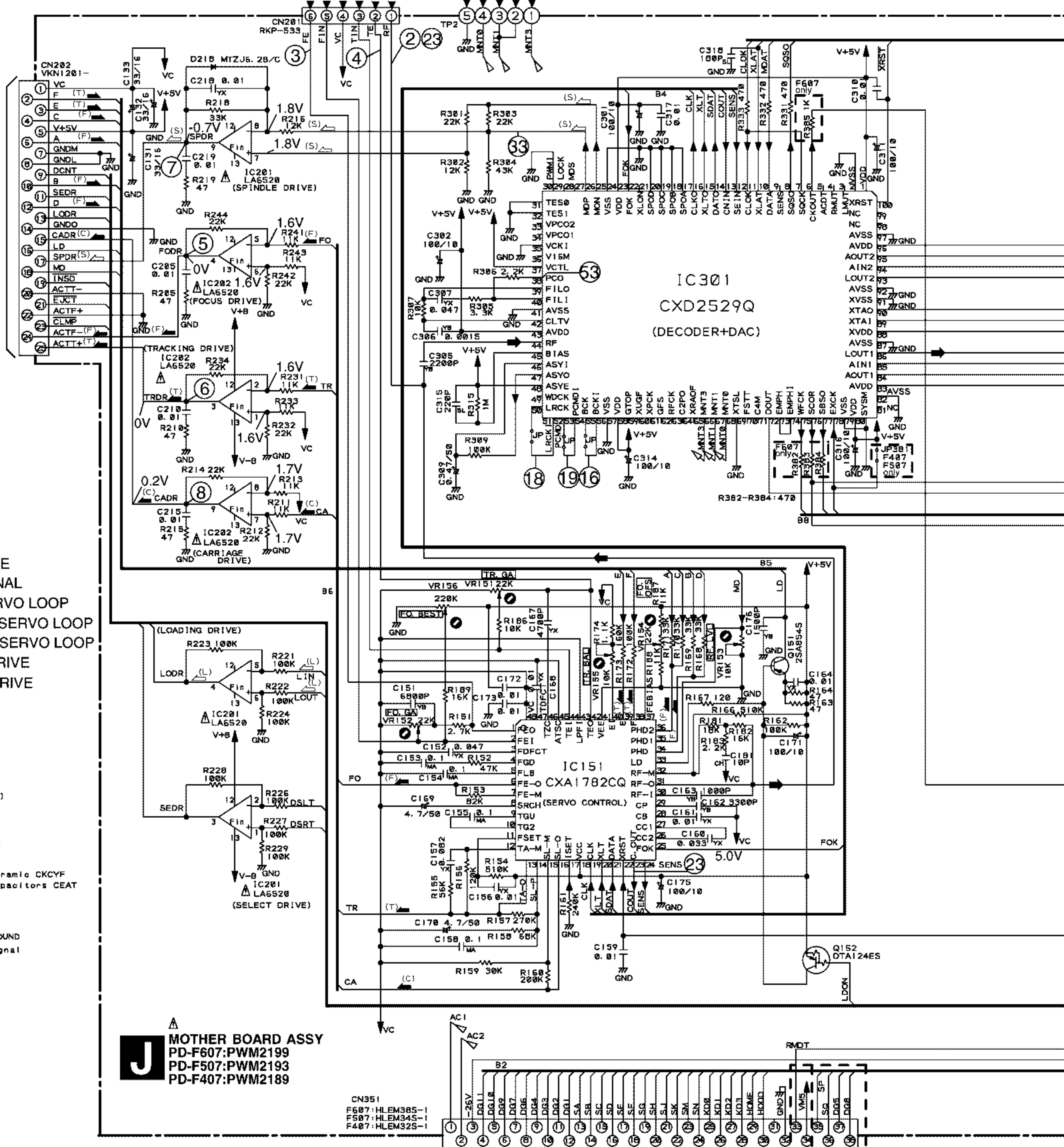
B

C

D

F CN653

B CN701



- SIGNAL ROUTE**
- ➔ : AUDIO SIGNAL
 - (F) : FOCUS SERVO LOOP
 - (T) : TRACKING SERVO LOOP
 - (C) : CARRIAGE SERVO LOOP
 - (S) : SPINDLE DRIVE
 - (L) : LOADING DRIVE

NOTE

RESISTORS (unit:Ω)
 1/4W Type

CAPACITORS (unit:μF)
 (1)MA:Mylar CQMA
 (2)TX:Film CFTXA
 (3)CH:Ceramic CCCCH
 (4)YX:Ceramic CQCYX
 (5)SL:Ceramic CCCSL
 (6)YB:Ceramic CKCYB
 (7)Unmarked type:Ceramic CKCYF
 (8)Electrolytic Capacitors CEAT

INDUCTORS
 Axial:Type LAU

OTHERS
 //GND:CHASSIS GROUND
 ABC:Low Active Signal

J MOTHER BOARD ASSY
 PD-F607:PWM2199
 PD-F507:PWM2193
 PD-F407:PWM2189

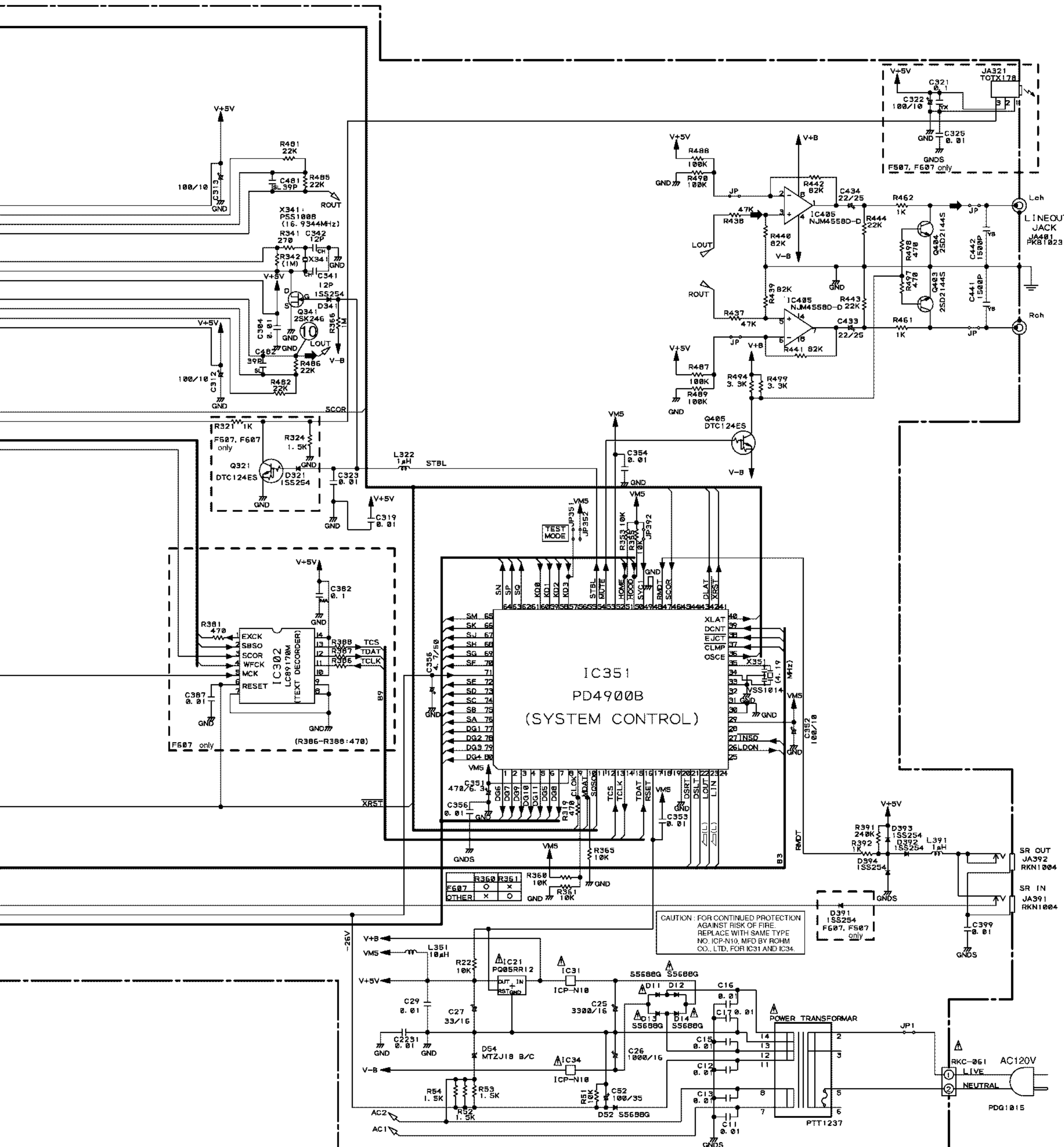
IC301 (CXD2529Q)

PIN No.	1	2to4	7	8	9	10	11	12	13	14	16	17	23	24	25	26	27	38	39	40	41	42	43
Voltage(V)	5	0	4.7	1.2-1.4	1.2-1.4	4.4	5	4.7	4.7	0.05	5	4.7	5	5	0	5	2.6-2.7	2.5	3.1	2.5	0	3.1	5

PIN No.	44	45	46	47	48	50to55	56	57	61	71	75	78	79	82	83	84to86	87	88	89,90	91,92	93to95	96	97	100
Voltage(V)	2.5	0.9	2.5	2.5	5	2.5	0	5	5	2.5	0	0	5	0	5	2.5	0	5	2.5	0	2.5	5	0	5

J

PD-F607, PD-F507, PD-F407



CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE WITH SAME TYPE NO. ICP-N10, MFD BY ROHM CO., LTD. FOR IC31 AND IC34.



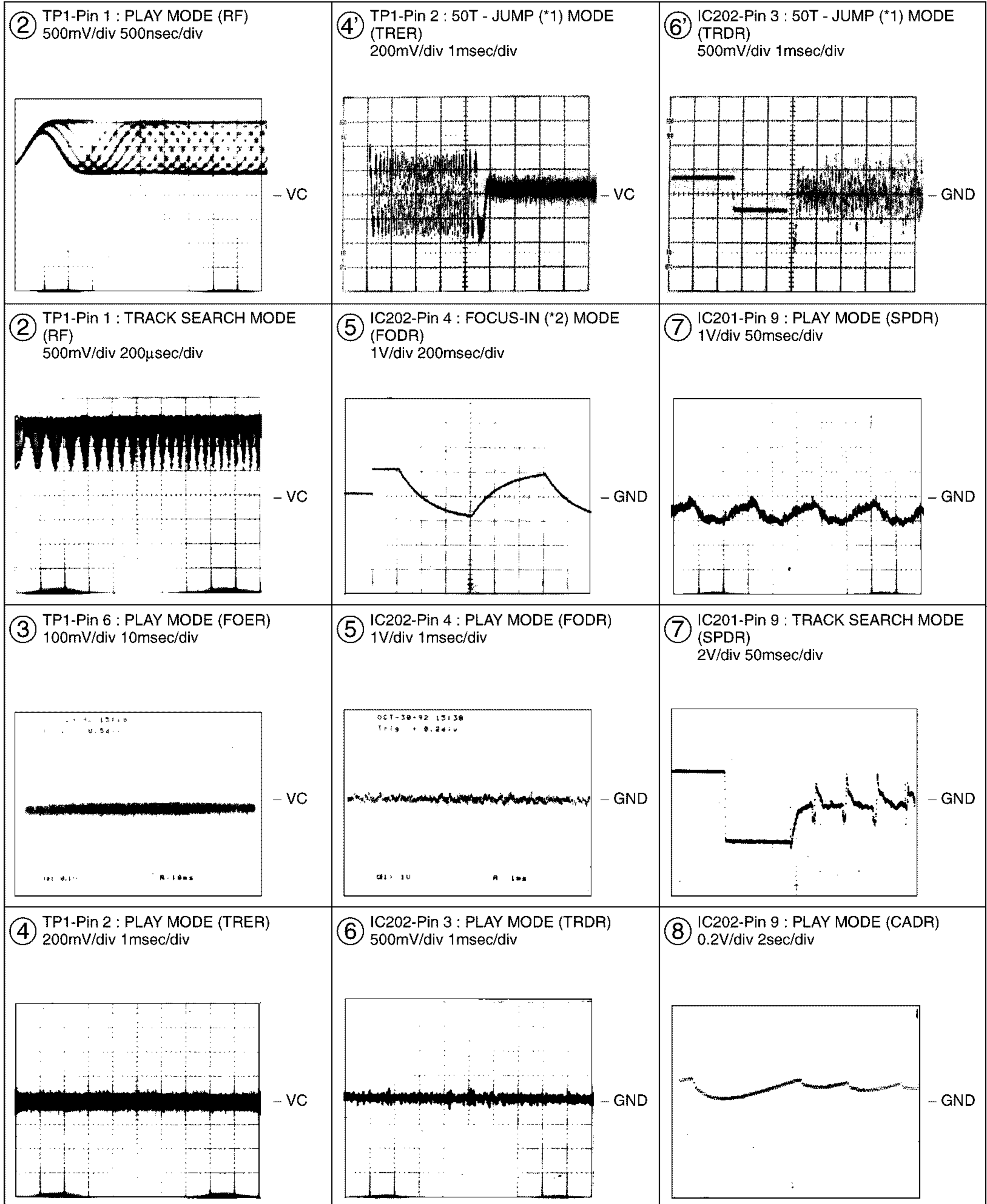
PD-F607, PD-F507, PD-F407

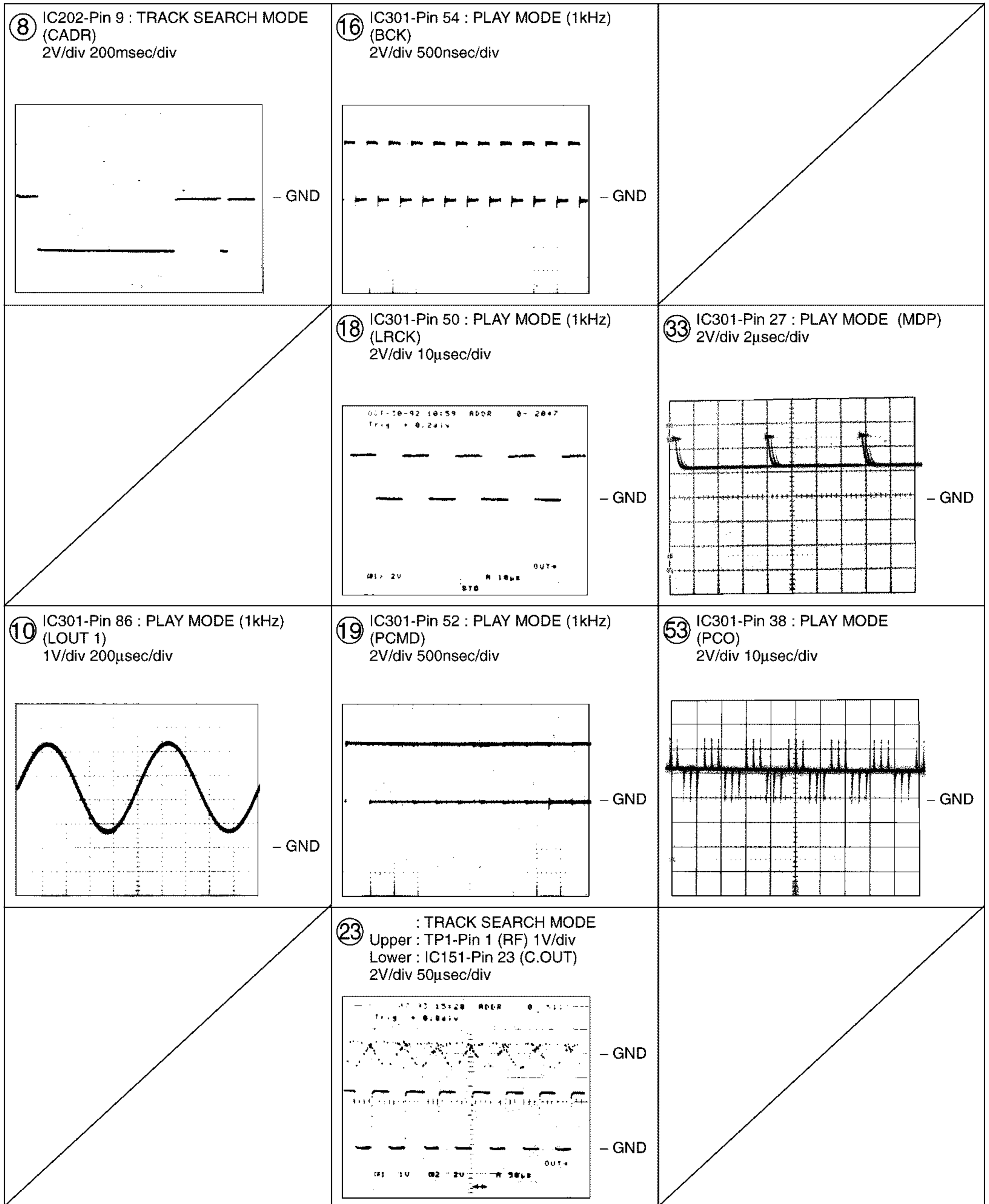
Waveforms

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

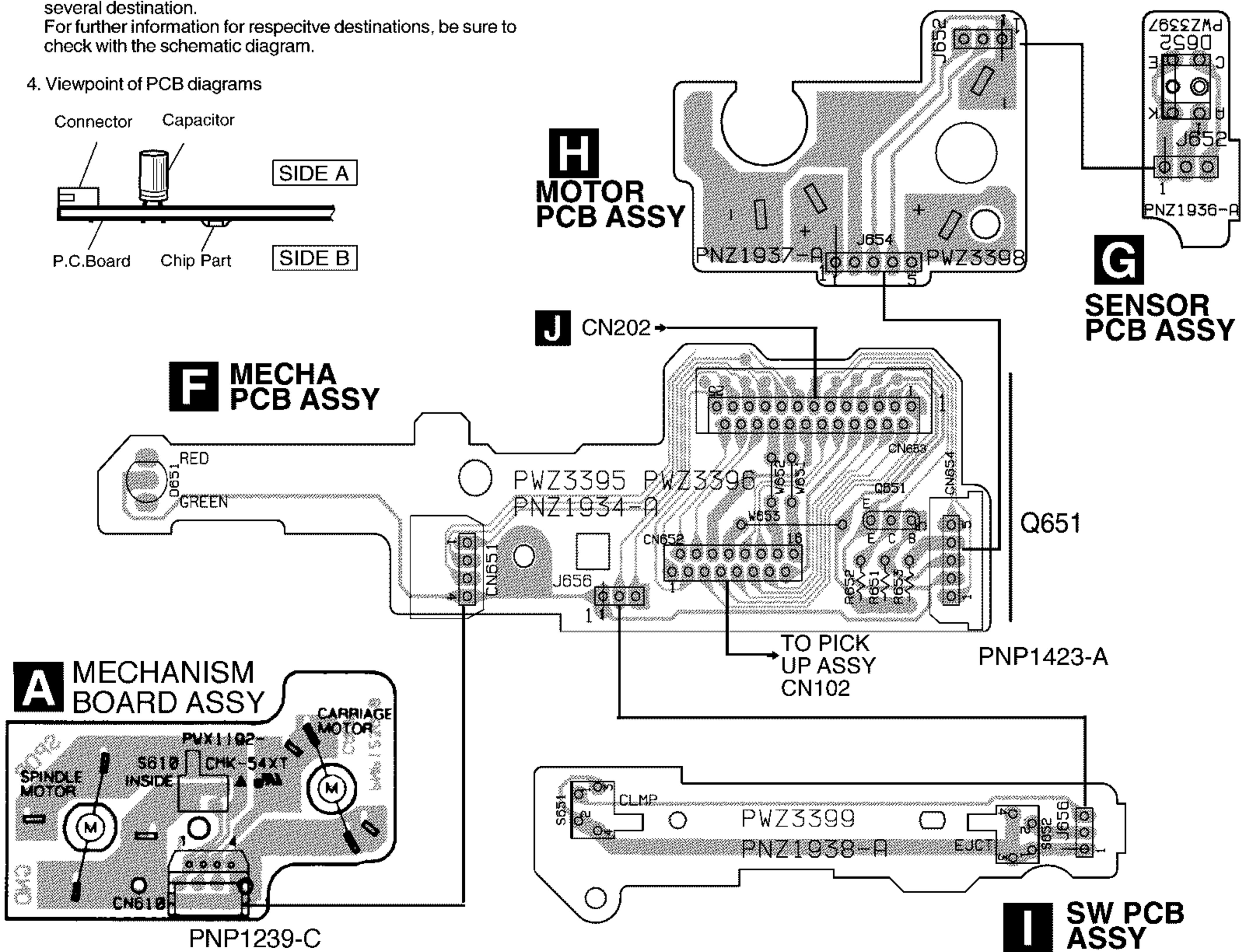
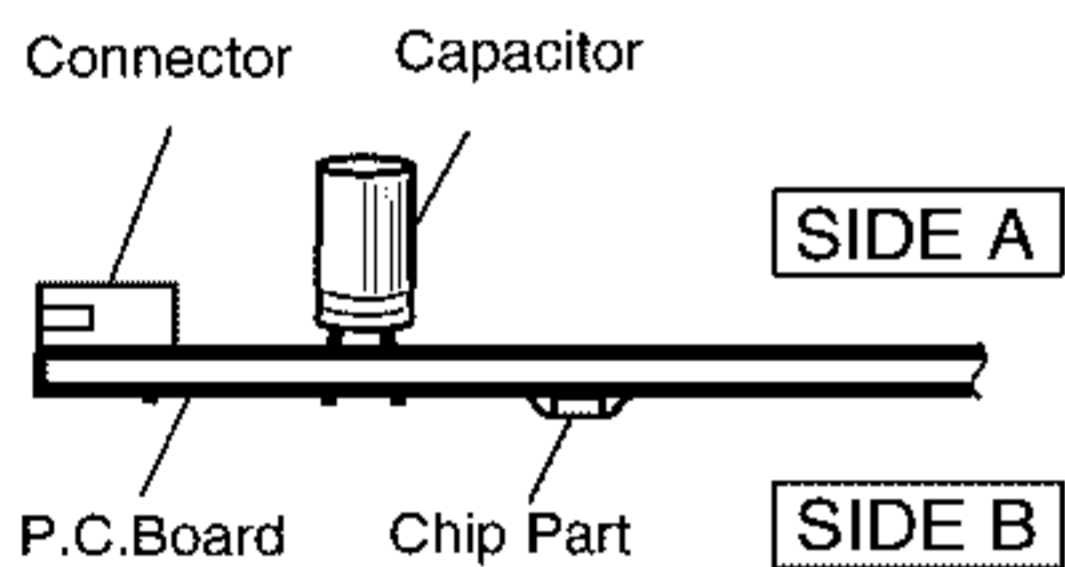
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

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

4.1 MECHANISM BOARD, MECHA PCB, SENSOR PCB, MOTOR PCB AND SW PCB ASSEMBLIES

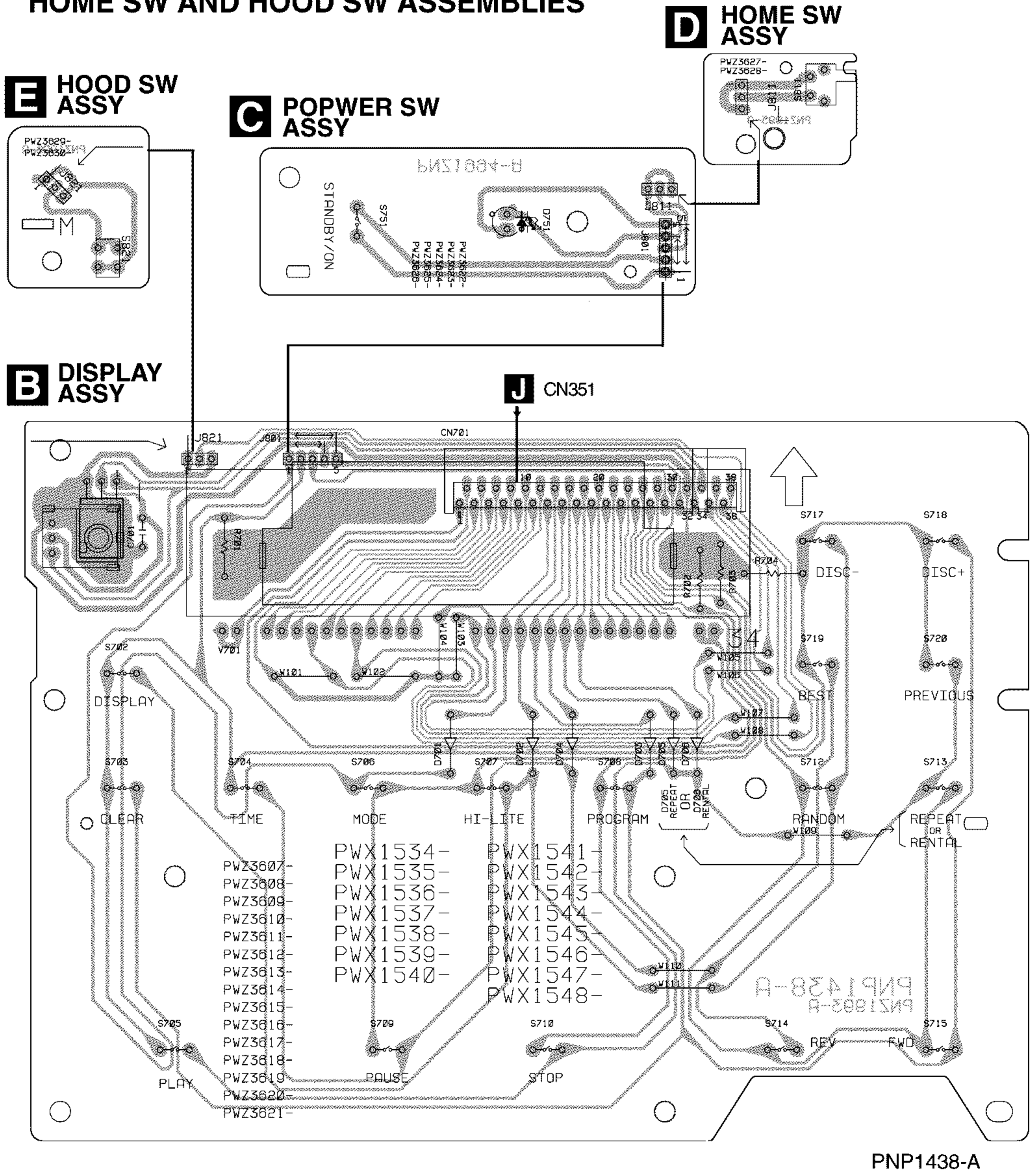
3. The parts mounted on this PCB include all necessary parts for several destination.
For further information for respective destinations, be sure to check with the schematic diagram.

4. Viewpoint of PCB diagrams



4.2 DISPLAY, POWER SW, HOME SW AND HOOD SW ASSEMBLIES

SIDE A



B C D E

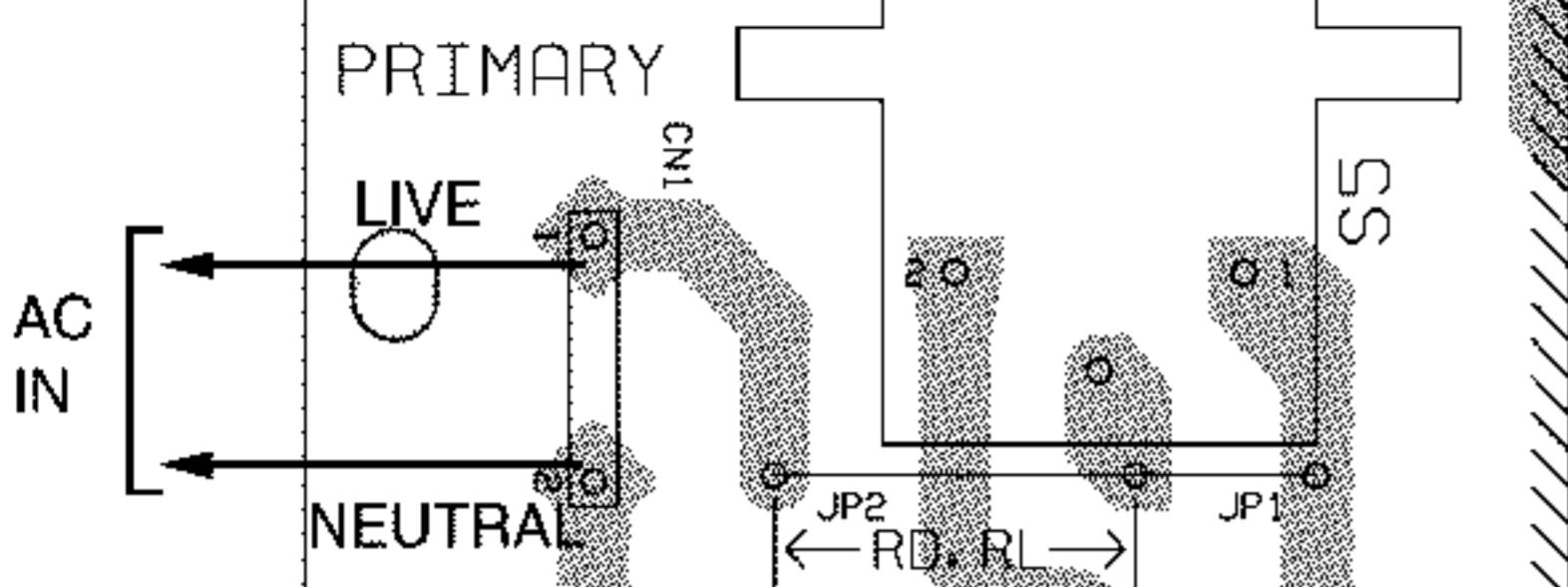
1 2 3 4

PD-F607, PD-F507, PD-F407 4.3 MOTOR BOARD ASSY

SIDE A

J MOTHER BOARD ASSY

A



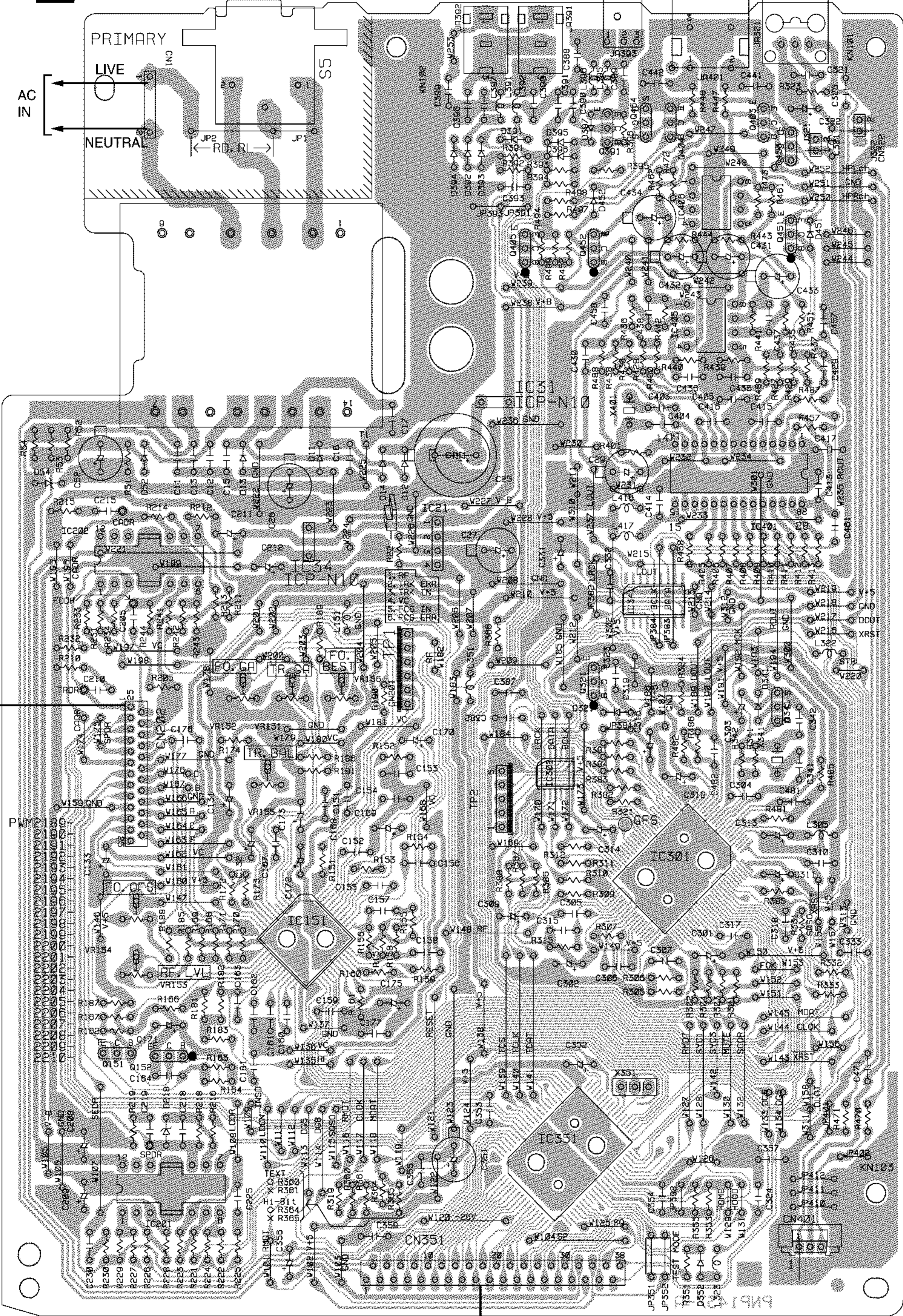
B

C

D

F
CN653

B
CN701



- Q454
- Q403
- Q391
- Q453
- IC406
- Q405
- Q452
- IC405
- IC31
- IC21
- IC401
- IC202
- IC34
- IC341
- VR156
- VR151
- VR152
- VR155
- IC302
- IC301
- IC151
- VR154
- VR153
- Q151
- Q152
- IC351
- IC201

PNP1437-A

5. PCB PARTS LIST

- NOTES:
- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
 - The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	→	56×10^1	→	561	RD1/4PU561J
$47k\Omega$	→	47×10^3	→	473	RD1/4PU473J
0.5Ω	→	R50			RN2H R50K
1Ω	→	1R0			RS1P 1R0K

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

$5.62k\Omega$	→	562×10^1	→	5621	RN1/4PC5621F
---------------	---	-------------------	---	------------	--------------

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol and Description	Part No.			Remarks
		PD-F607	PD-F507	PD-F407	
		KUXJ,KCXJ	KUXJ,KCXJ	KUXJ,KCXJ	
Δ	MOTHER BOARD ASSY	PWM2199	PWM2193	PWM2189	
NSP	SUB BOARD ASSY	PWX1540	PWX1537	PWX1534	
	├ DISPLAY ASSY	PWZ3612	PWZ3610	PWZ3607	
NSP	├ POWER SW ASSY	PWZ3622	PWZ3622	PWZ3622	
NSP	├ HOME SW ASSY	PWZ3627	PWZ3627	PWZ3627	
NSP	└ HOOD SW ASSY	PWZ3629	PWZ3629	PWZ3629	
NSP	GM MECHANISM	PXA1590	PXA1590	PXA1590	
NSP	├ LO MECHANISM BOARD ASSY	PWX1496	PWX1496	PWX1496	
NSP	├ └ MECHA PCB ASSY	PWZ3395	PWZ3395	PWZ3395	
NSP	├ └ SENSOR PCB ASSY	PWZ3397	PWZ3397	PWZ3397	
NSP	├ └ MOTOR PCB ASSY	PWZ3398	PWZ3398	PWZ3398	
NSP	├ └ SW PCB ASSY	PWZ3399	PWZ3399	PWZ3399	
NSP	└ SERVO MECHANISM ASSY GM	PXA1591	PXA1591	PXA1591	
NSP	└ └ MECHANISM BOARD ASSY	PWX1192	PWX1192	PWX1192	

■ CONTRAST OF PCB ASSEMBLIES

MOTHER BOARD ASSY

PWM2199, PWM2193 and PWM2189 are constructed the same except for the following:

Mark	Symbol and Description	Part No.			Remarks
		PWM2199	PWM2193	PWM2189	
	IC302	LC89170M	Not used	Not used	
	Q321	DTC124ES	DTC124ES	Not used	
	D321,D391	1SS254	1SS254	Not used	
	C321	CGCYX104K25	CGCYX104K25	Not used	
	C322	CEAT101M10	CEAT101M10	Not used	
	C325	CKCYF103Z50	CKCYF103Z50	Not used	
	C382	CQMA104J50	Not used	Not used	
	C387	CKCYF103Z50	Not used	Not used	
	R321	RD1/4PU102J	RD1/4PU102J	Not used	
	R324	RD1/4PU152J	RD1/4PU152J	Not used	

PD-F607, PD-F507, PD-F407

Mark	Symbol and Description	Part No.			Remarks
		PWM2199	PWM2193	PWM2189	
	R360	RD1/4PU103J	Not used	Not used	
	R361	Not used	RD1/4PU103J	RD1/4PU103J	
	R381-R384,386-R388	RD1/4PU471J	Not used	Not used	
	R385	RD1/4PU102J	Not used	Not used	
	CN351	HLEM38S-1	HLEM34S-1	HLEM32S-1	
	JA321	TOTX178	TOTX178	Not used	

DISPLAY ASSY

PWZ3612, PWZ3610 and PWZ3607 are constructed the same except for the following:

Mark	Symbol and Description	Part No.			Remarks
		PWZ3612	PWZ3610	PWZ3607	
	C701	CKCYF103Z50	CKCYF103Z50	Not used	
	CN701	HLEM38R-1	HLEM34R-1	HLEM32R-1	
	S702	RSG1030	Not used	Not used	
		GP1U27X	GP1U27X	Not used	

PCB PARTS LIST FOR PD-607/KUXJ

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
------	-----	-------------	-----------	------	-----	-------------	-----------

J MOTHER BOARD ASSY

SEMICONDUCTORS

IC151	CXA1782CQ
IC301	CXD2529Q
IC31,IC34	ICP-N10
IC201,IC202	LA6520
IC302	LC89170M
IC405	NJM4558D-D
IC351	PD4900B
IC21	PQ05RR12
Q151	2SA854S
Q403,Q404	2SD2144S
Q341	2SK246
Q152	DTA124ES
Q321,Q405	DTC124ES
D321,D341,D391-D394	1SS254
D54	MTZJ18B
D218	MTZJ6.2B
D11-D14,D52	S5688G

COILS

L351	LAU100J
L322,L391	LAU1R0J

CAPACITORS

C181	CCCCH100D50
C341,C342	CCCCH120J50
C318	CCCCL181J50
C315	CCCCL221J50
C481,C482	CCCCL390J50
C171,C175,C301,C302	CEAT101M10
C311-C314,C316,C322,C352	CEAT101M10
C52	CEAT101M35
C26	CEAT102M16
C433,C434	CEAT220M25
C131-C133,C27	CEAT330M16
C25	CEAT332M16
C351	CEAT471M6R3
C169,C170,C356	CEAT4R7M50
C309	CEATR47M50
C156,C161,C164,C168,C218	CGCYX103K25
C321	CGCYX104K25
C160	CGCYX333K25
C167	CGCYX472K25
C152,C307	CGCYX473K25



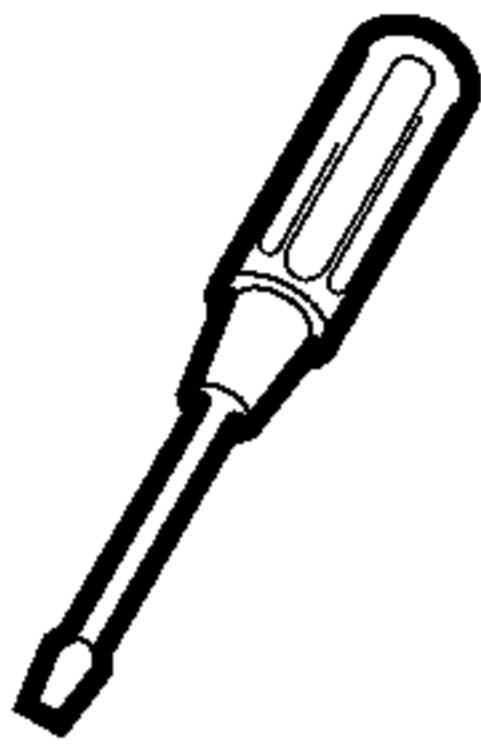
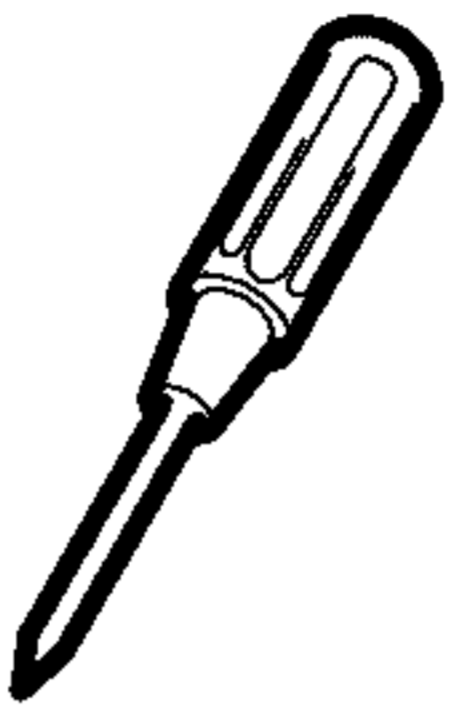
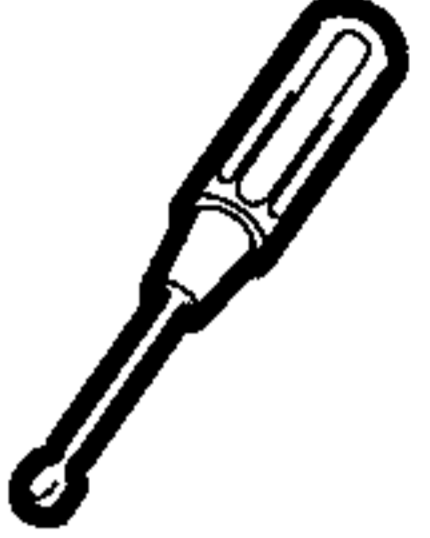
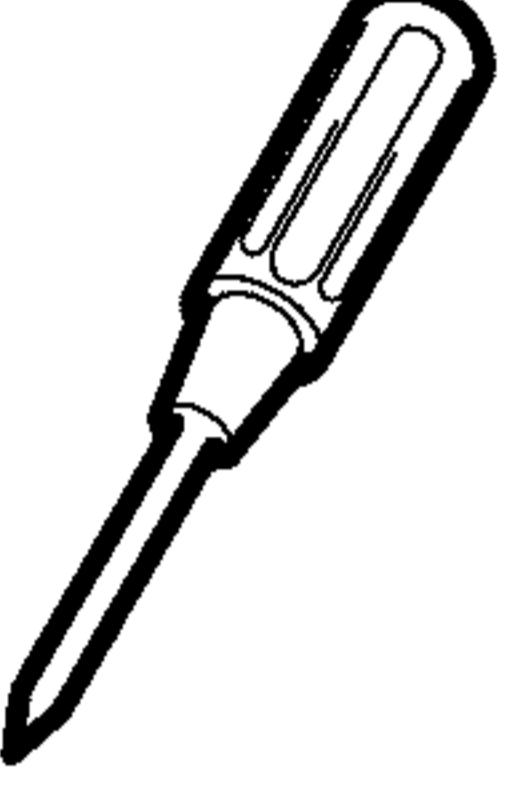
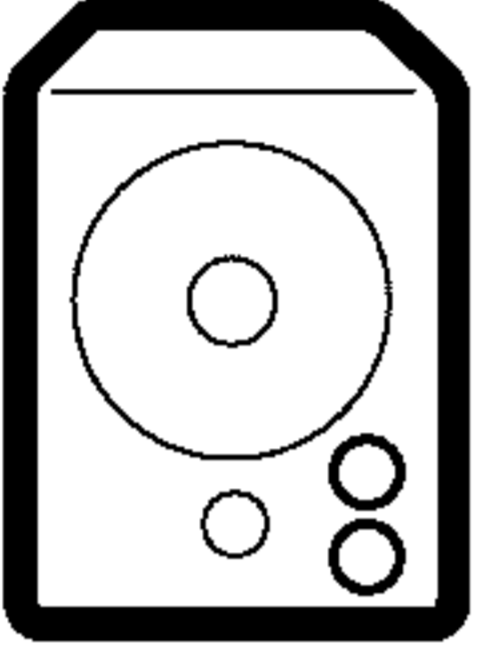
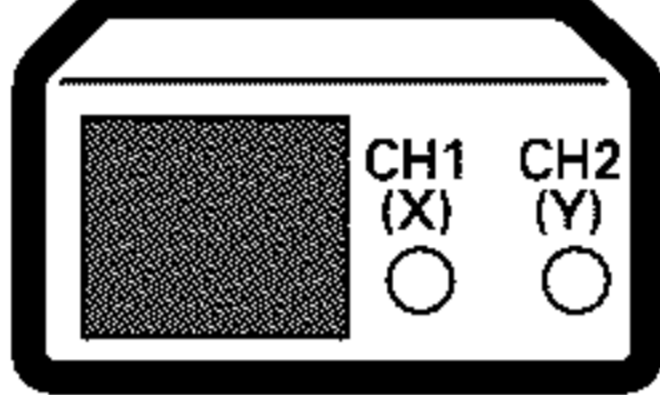
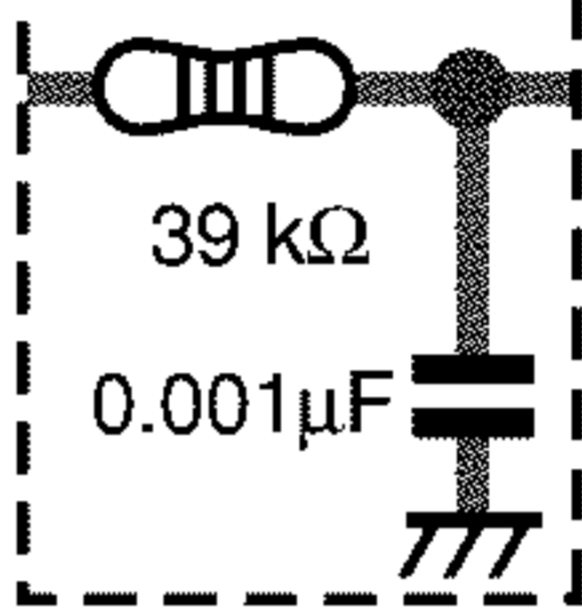
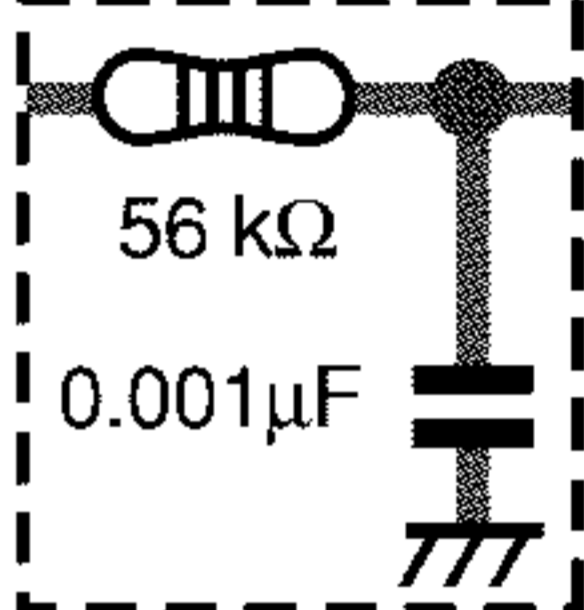
Mark	No.	Description	Parts No.
	C163		CKCYB102K50
	C176,C306,C441,C442		CKCYB152K50
	C305		CKCYB222K50
	C162		CKCYB332K50
	C151		CKCYB682K50
	C11-C13,C15,C159		CKCYF103Z50
	C16,C17,C172,C173,C205		CKCYF103Z50
	C210,C215,C219,C2231,C29		CKCYF103Z50
	C304,C310,C317,C323,C325		CKCYF103Z50
	C353,C354,C357,C387,C399		CKCYF103Z50
	C153-C155,C158,C382		CQMA104J50
	C157		CQMA823J50
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			
	CN351	CONNECTOR	HLEM38S-1
	JA401	JACK	PKB1023
	X341	JACK	PSS1008
		TERMANAL	RKC-061
	JA391,JA392	JACK	RKN1004
	CN201	CONNECTOR 6P	RKP-533
	JA321	OPTICAL OUTPUT JACK	TOTX178
	CN202	CONNECTOR	VKN1201
	X351	CERAMIC RESONATOR(4.194MHz)	VSS1014
SUB BOARD ASSY			
OTHERS			
		PC BOARD	PNP1438
B DISPLAY ASSY			
SEMICONDUCTORS			
	D701-D705		1SS254
SWITCHES			
	S702-S710,S712-S715		RSG1030
	S717-S720		RSG1030
CAPACITOR			
	C701		CKCYF103Z50
OTHERS			
	CN701	REMOTE SENSOR CONNECTOR	GP1U27X
	V701	FL INDICATOR TUBE	HLEM38R-1 PEL1089
C POWER SW ASSY			
SWITCH			
	S751		RSG1030
D HOME SW ASSY			
SWITCH			
	S811		DSG1048

Mark	No.	Description	Parts No.
E HOOD SW ASSY			
SWITCH			
	S821		DSG1015
OTHERS			
	J821		D20PWW0310E
A MECHANISM BOARD ASSY			
SWITCH			
	S610		DSG1016
OTHERS			
	CN610	MT CONNECTOR	173979-4
LO MECHANISM BOARD ASSY			
OTHERS			
		PC BOARD	PNP1423
F MECHA PCB ASSY			
SEMICONDUCTOR			
	Q651		DTC124ES
RESISTORS			
	R651,R652	56kΩ	ACN7012
	R653	220Ω	DCN1062
OTHERS			
	CN652	CONNECTOR	16FMZ-ST
	CN651	MT CONNECTOR	173979-4
	CN653	CONNECTOR	VKN1229
G SENSOR PCB ASSY			
SEMICONDUCTOR			
	D652		GP1S24
OTHERS			
	J652		D20PWW0315E
H MOTOR PCB ASSY			
OTHERS			
		LOADING MOTOR	VXM1034
I SW PCB ASSY			
SWITCHES			
	S651,S652		VSG1006
OTHERS			
	J656		D20PWW0315E

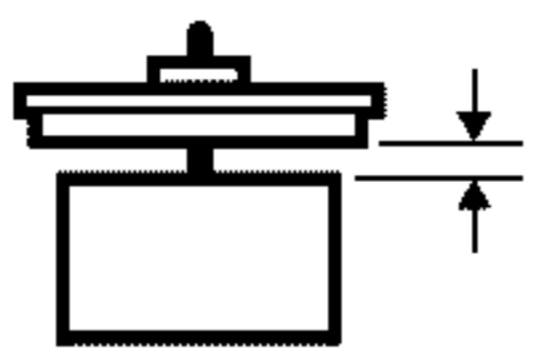
6. ADJUSTMENT

6.1 PREPARATIONS

6.1.1 Jigs and Measuring Instruments

 <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^① (39 kΩ + 0.001μF)</p>	 <p>Low pass filter^② (56 kΩ + 0.001μF)</p>

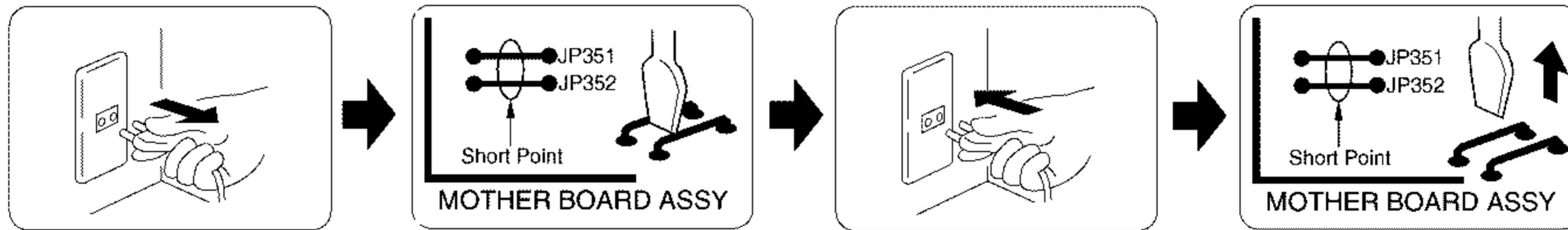
6.1.2 Necessary Adjustment Points

When	Adjustment points
Exchange PICKUP	1.2.3.4.5.6.7. 8.9.10.11.12. → Page 26~31
Exchange MOTHER BOARD ASSY	1.3.5.6.7.8. 9.10.11.12. → Page 26~31
Exchange SERVO MECH ASSY	1.2.3.4.5.6.7. 8.9.10.11.12. → Page 26~31
Exchange SPINDLE MOTOR	 ADJ → Page 10

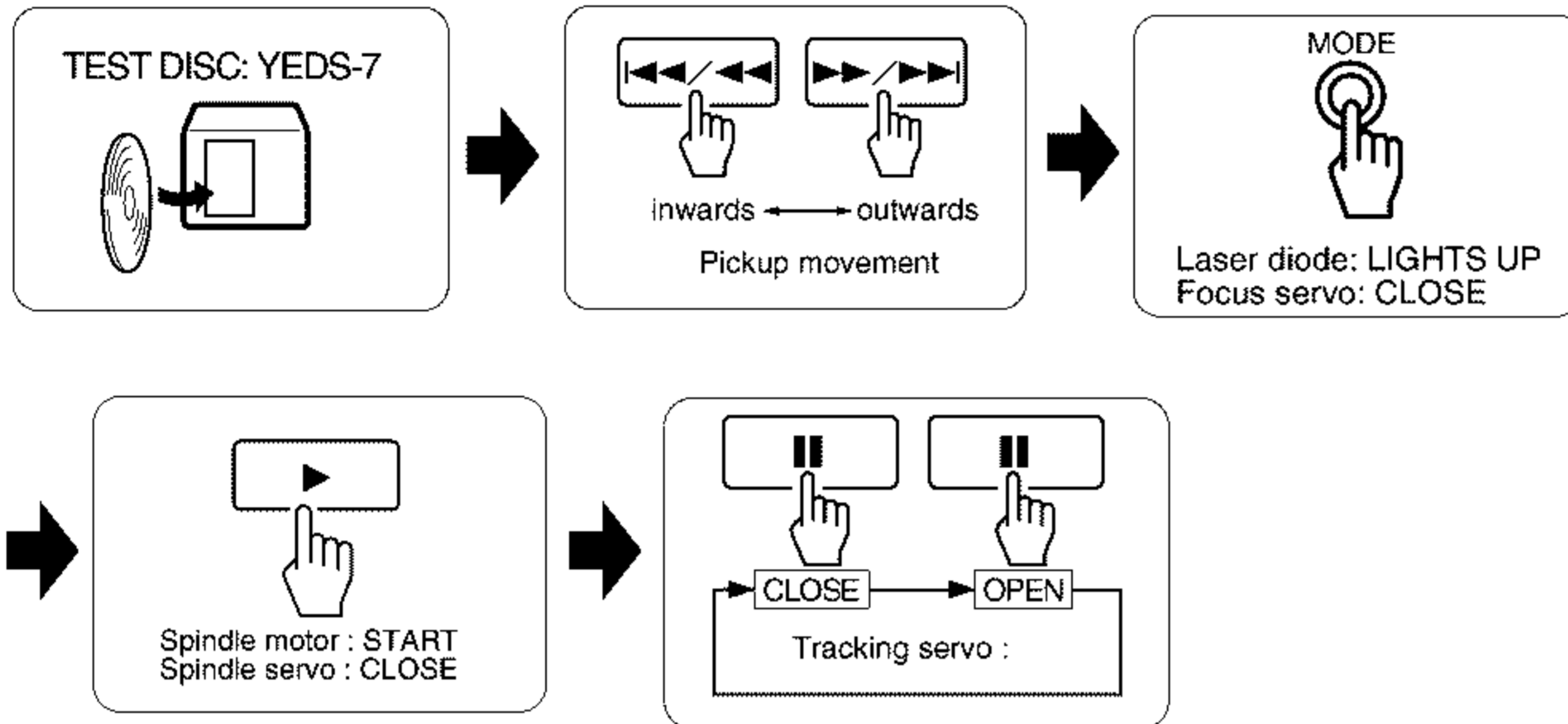
6.2 ADJUSTMENT

1 How to Start/Cancel Test Mode

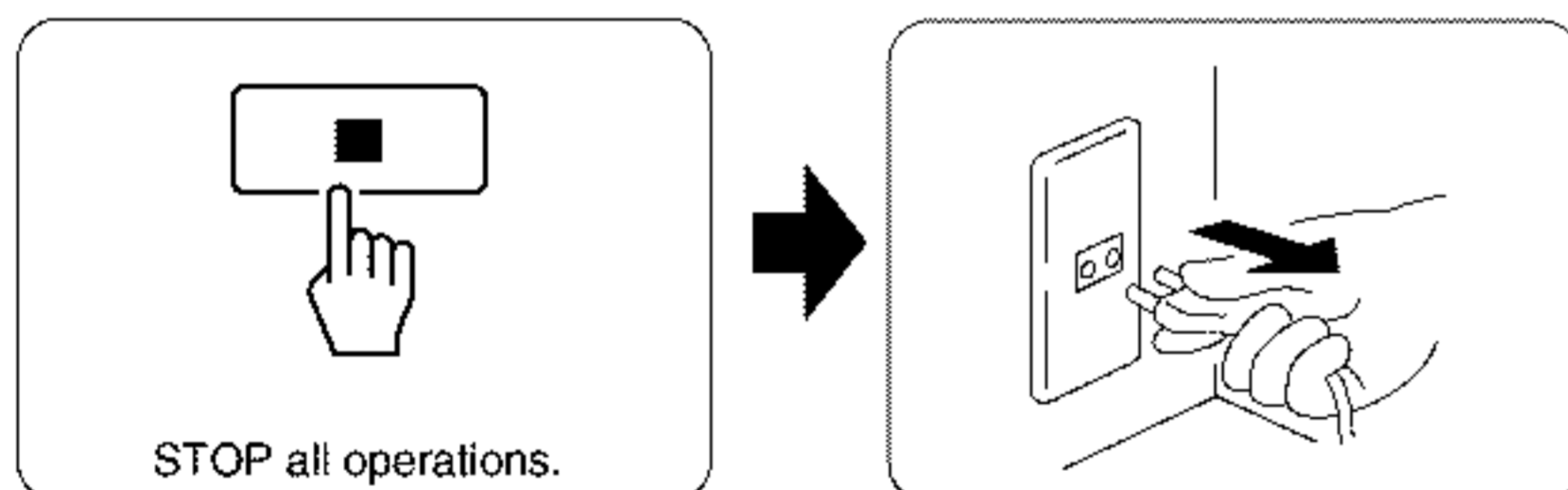
TEST MODE: ON



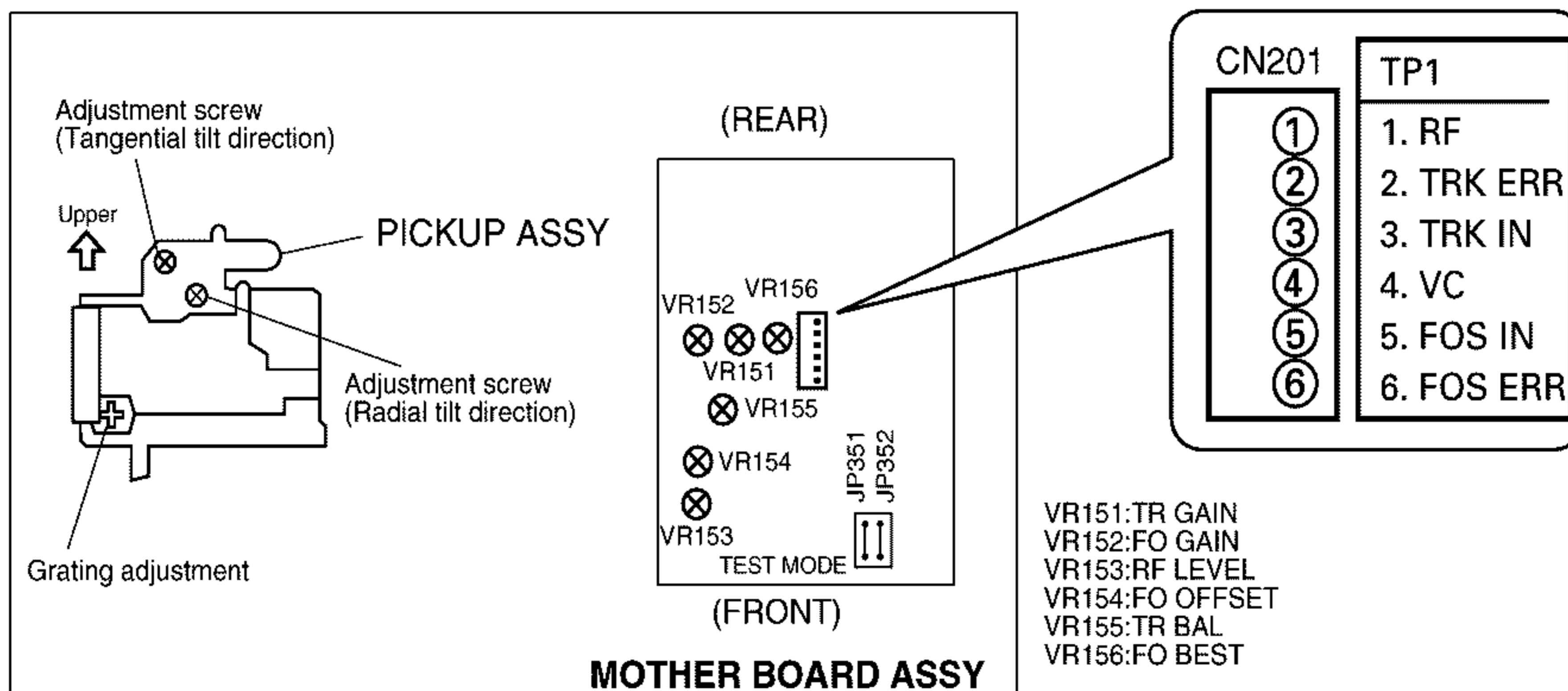
TEST MODE: PLAY



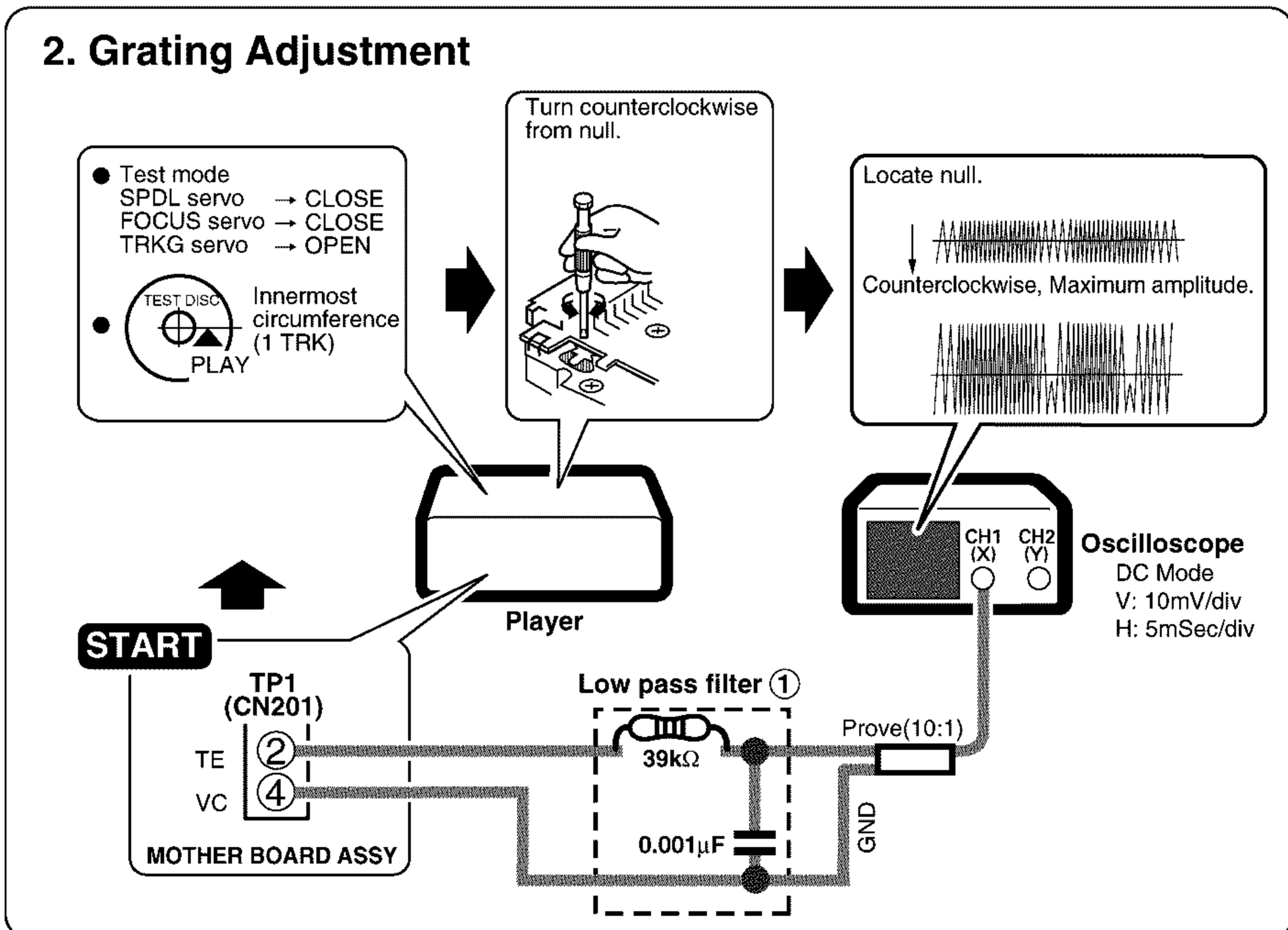
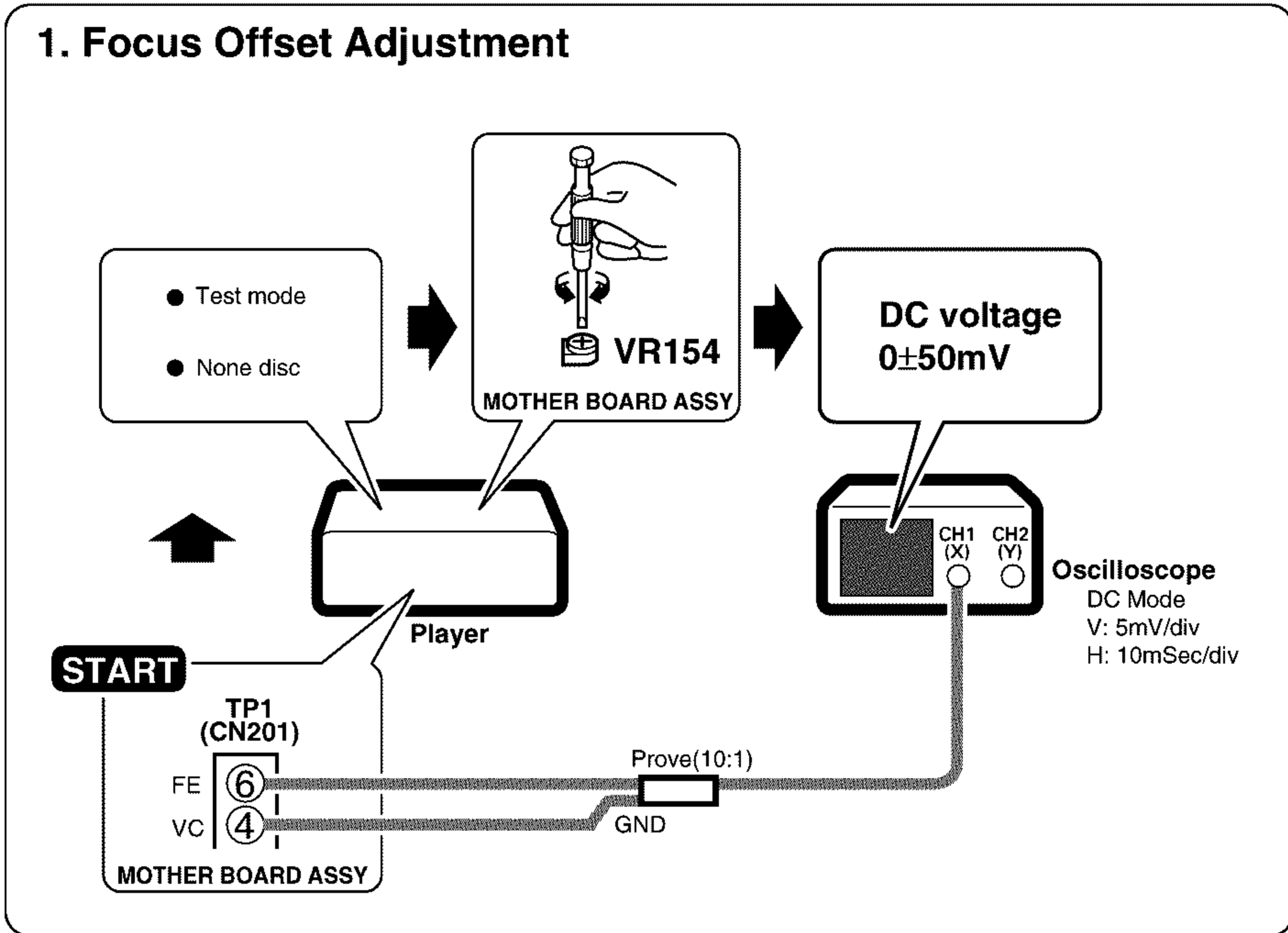
TEST MODE: STOP → CANCEL



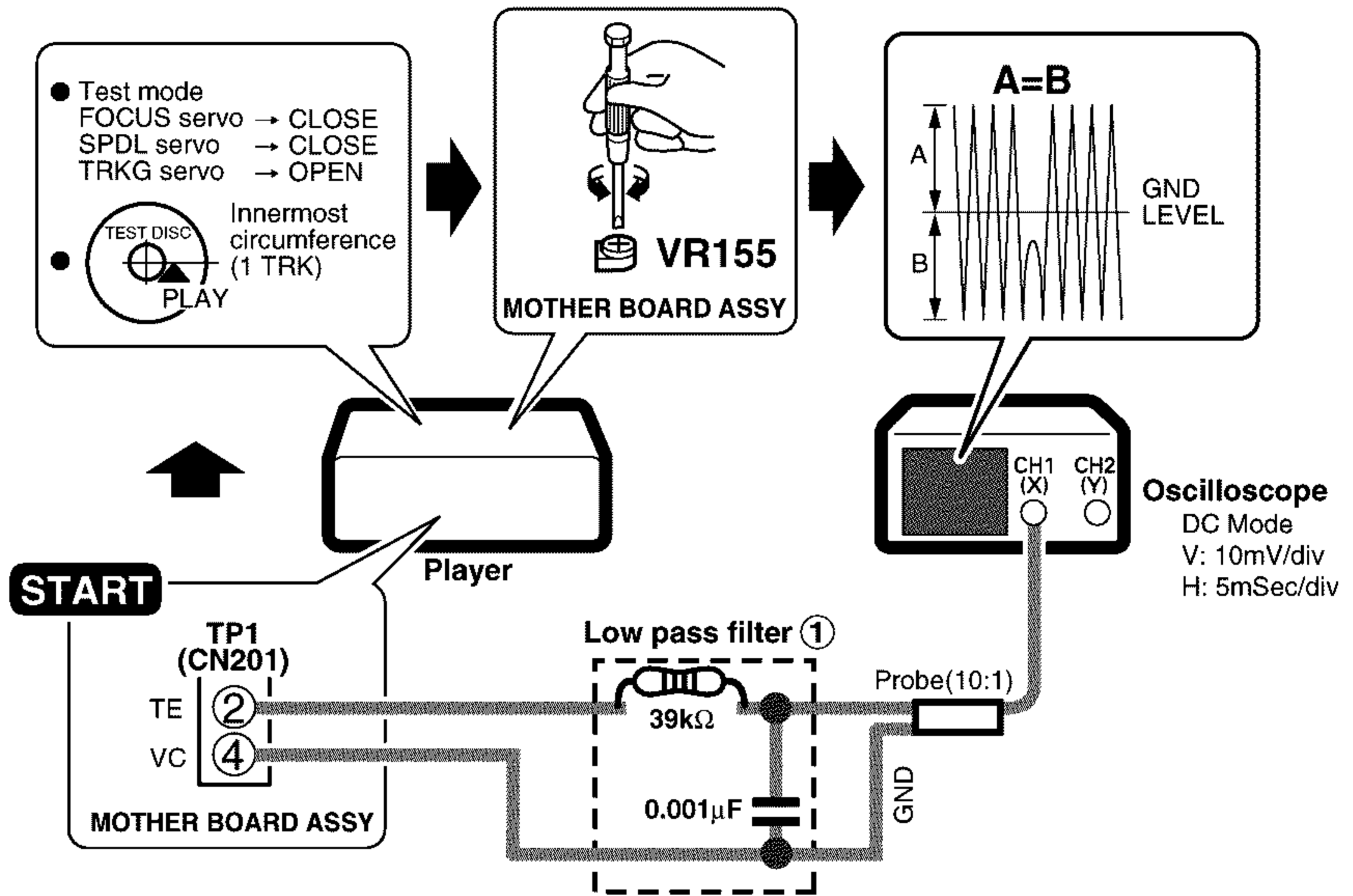
2 Adjustment Locations



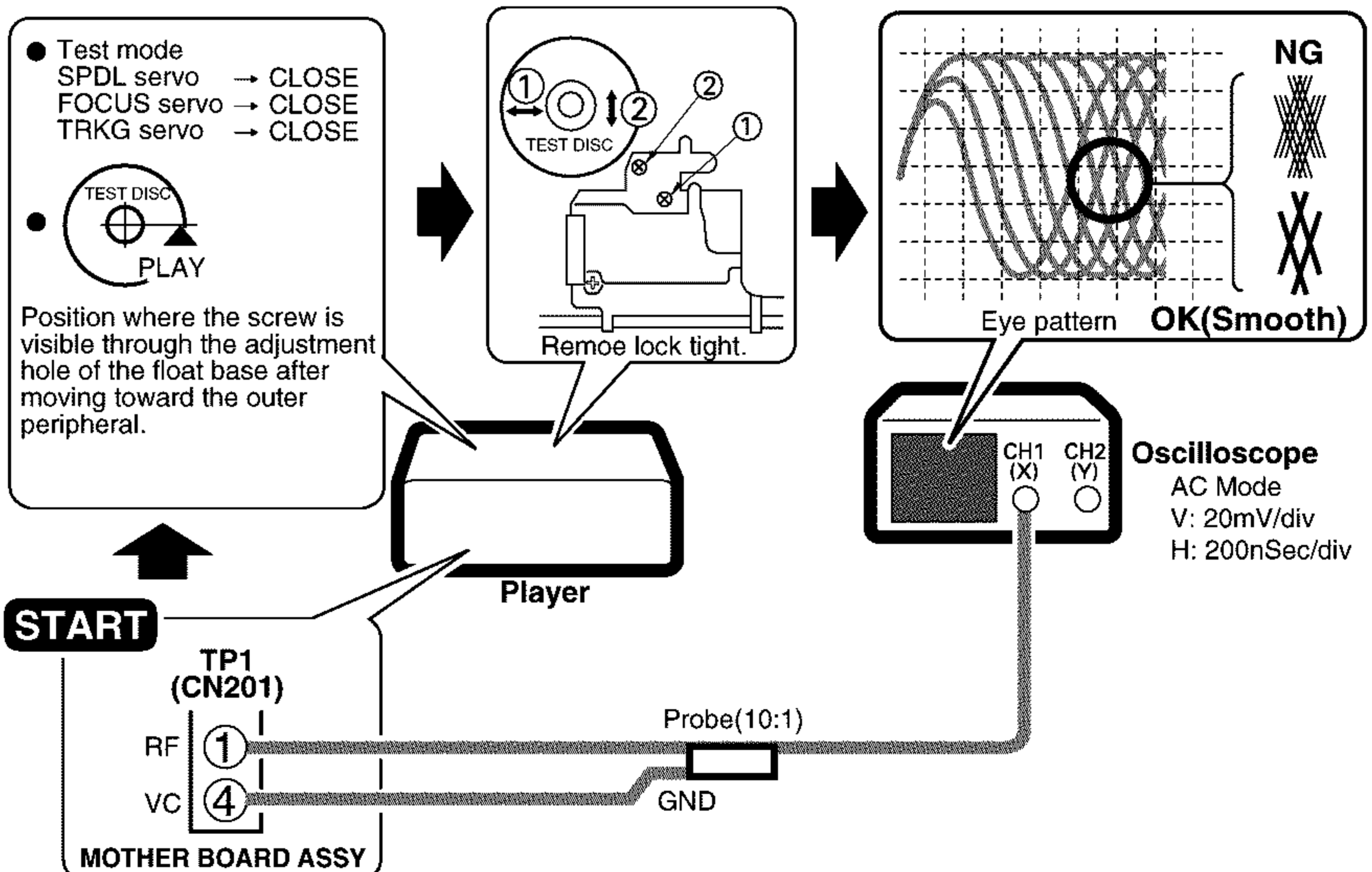
6.3 CHECK AND ADJUSTMENT



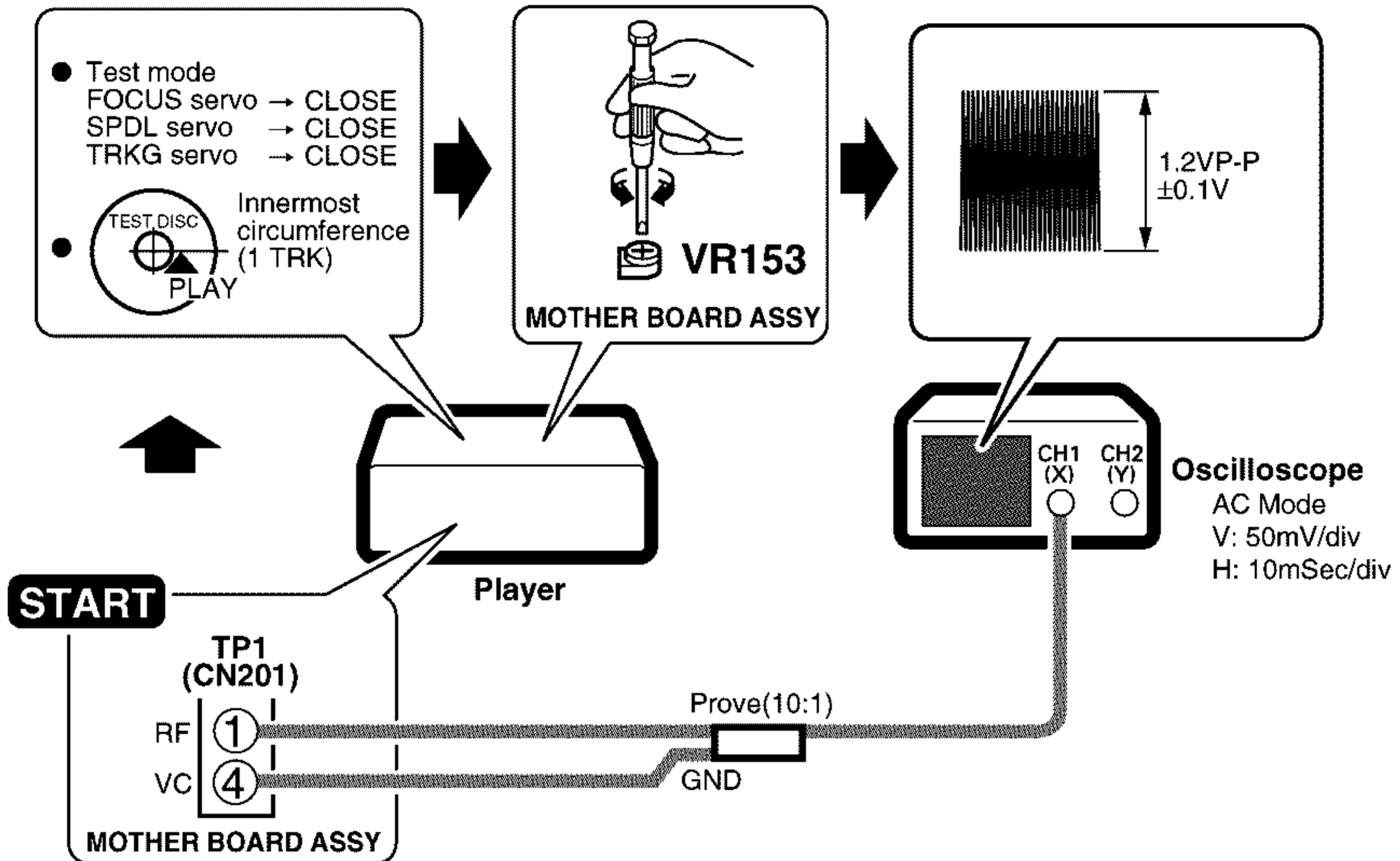
3. Tracking Error Barance Adjustment



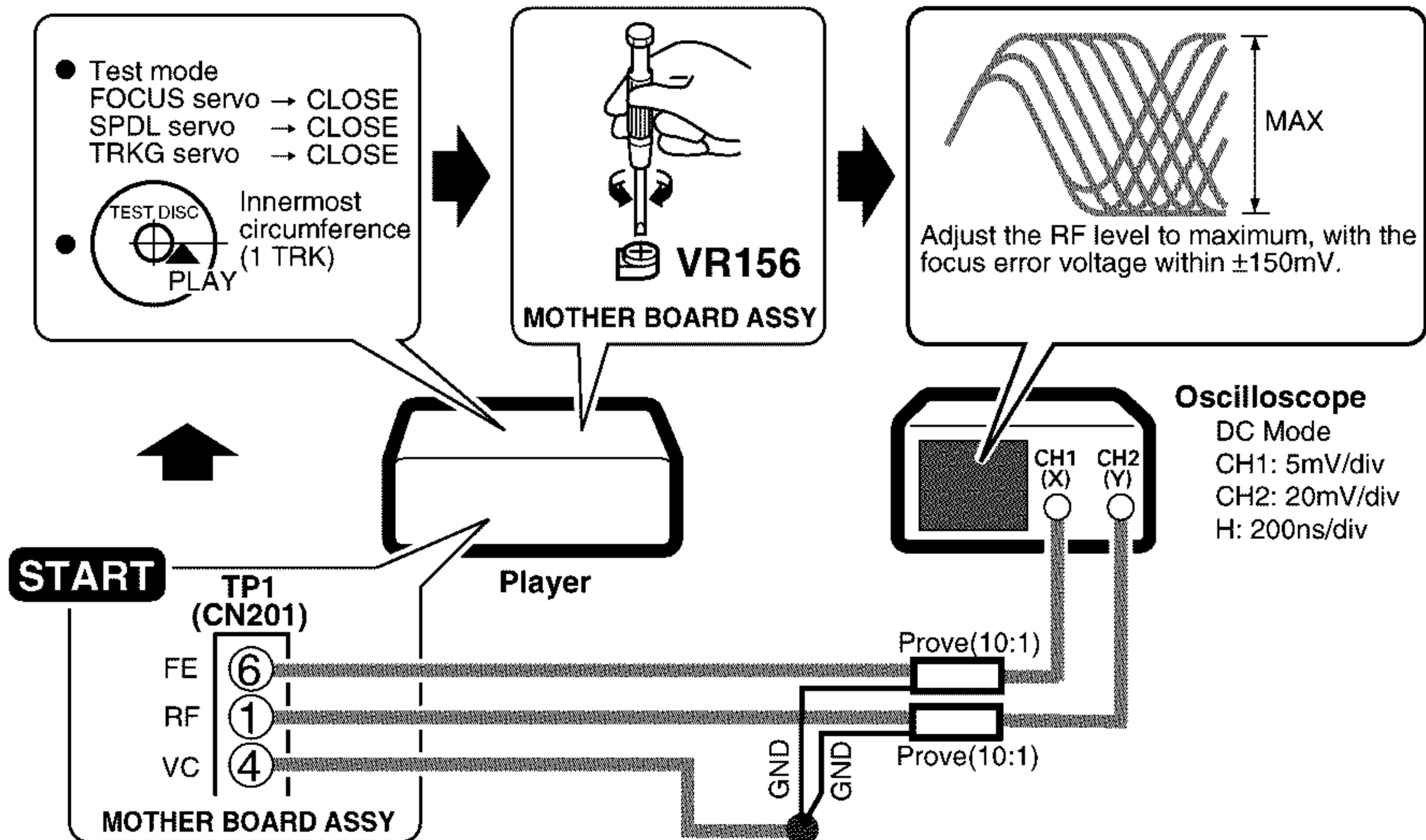
4. PICKUP ① RADIAL / ② TANGENTIAL DIRECTION TILT ADJUSTMENT

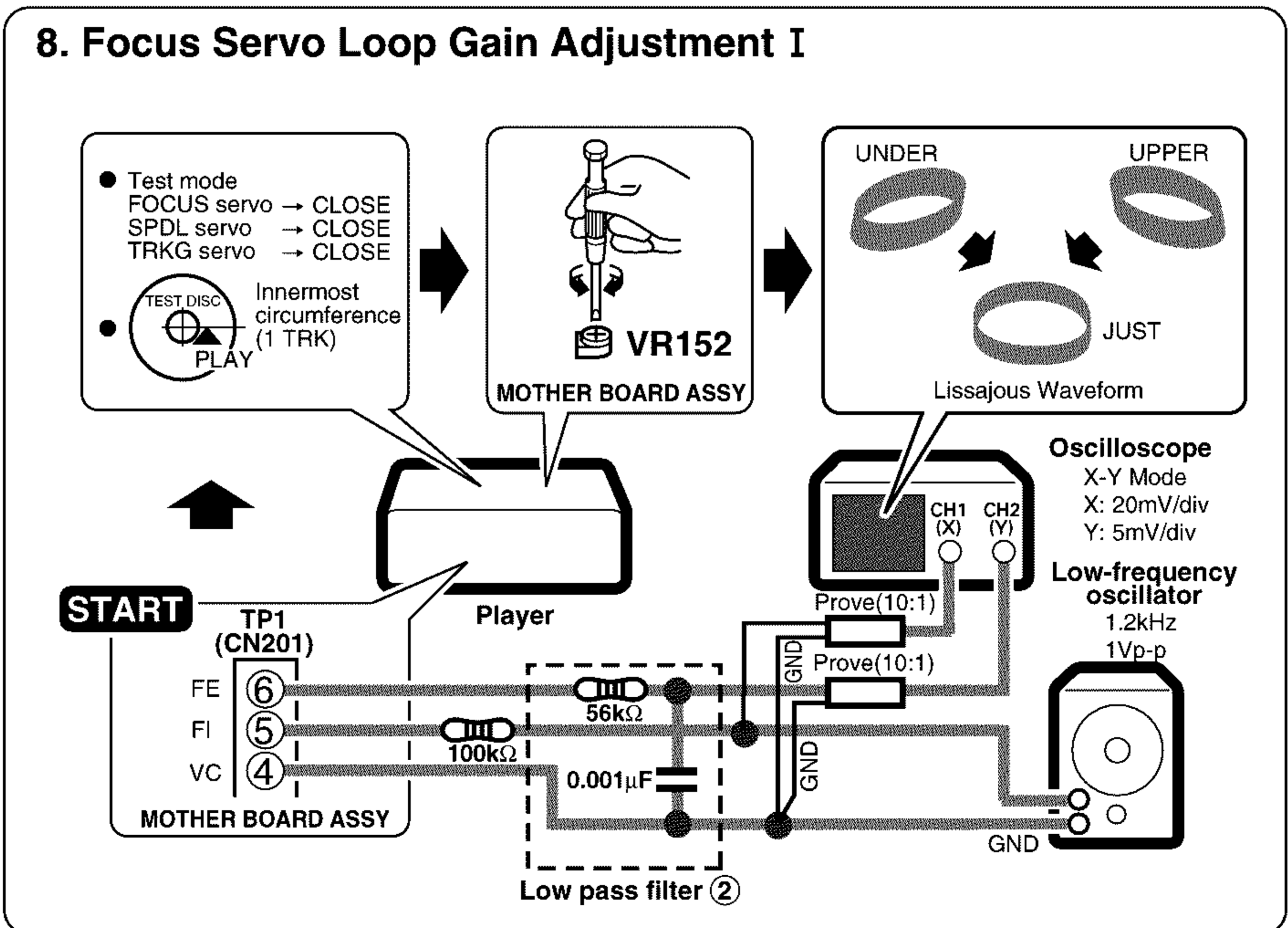
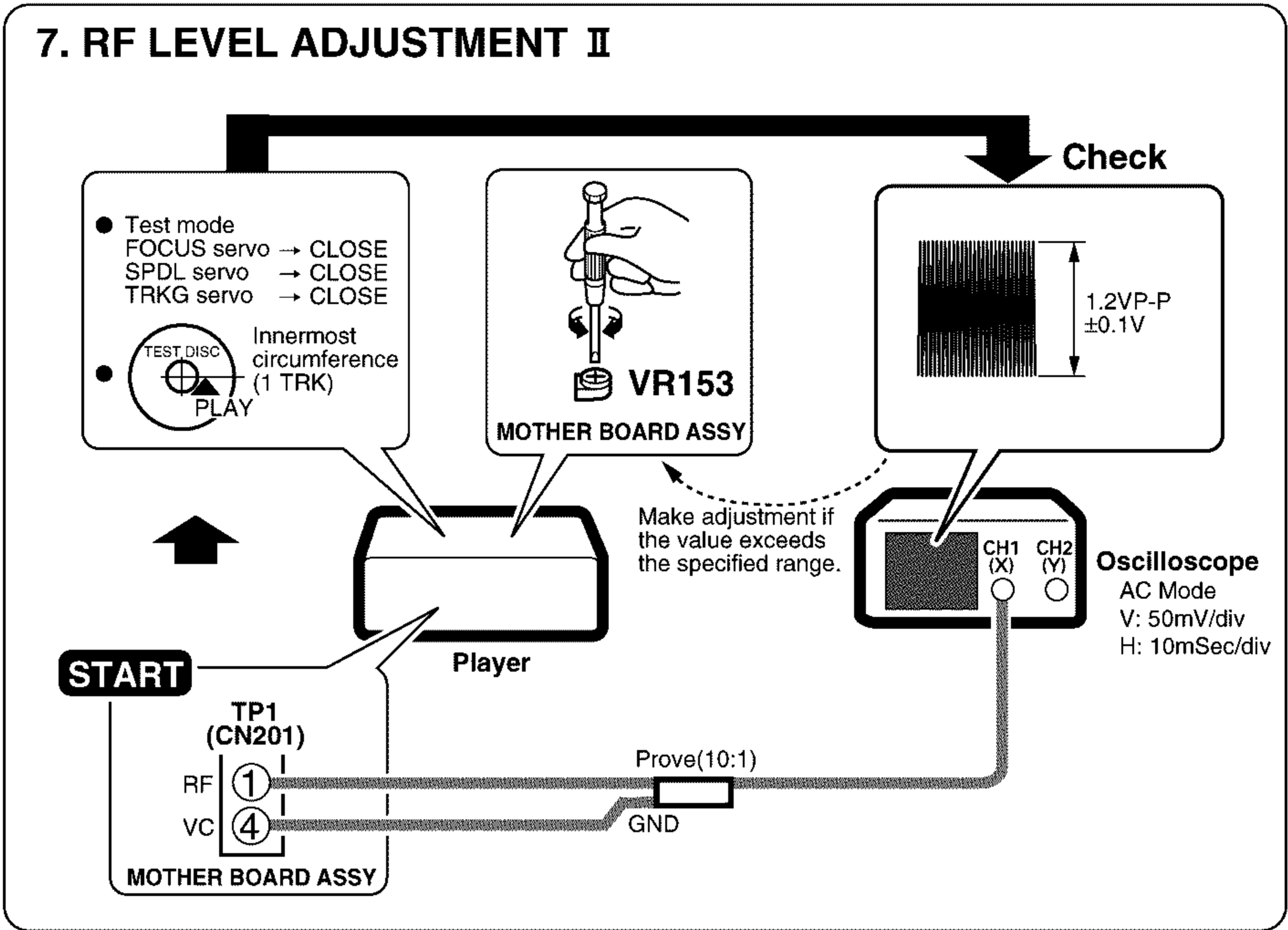


5. RF LEVEL ADJUSTMENT I

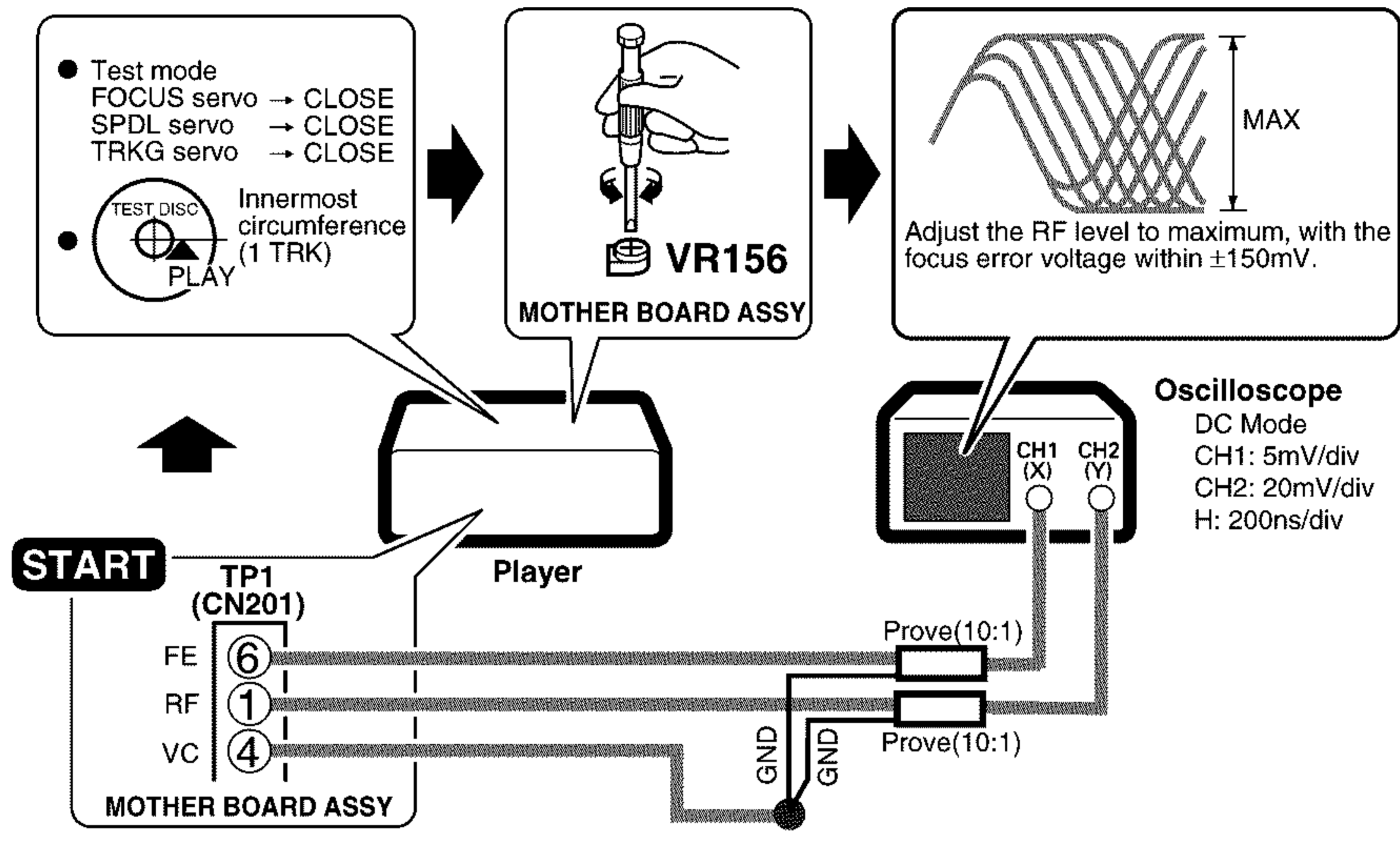


6. Focus Best Adjustment I

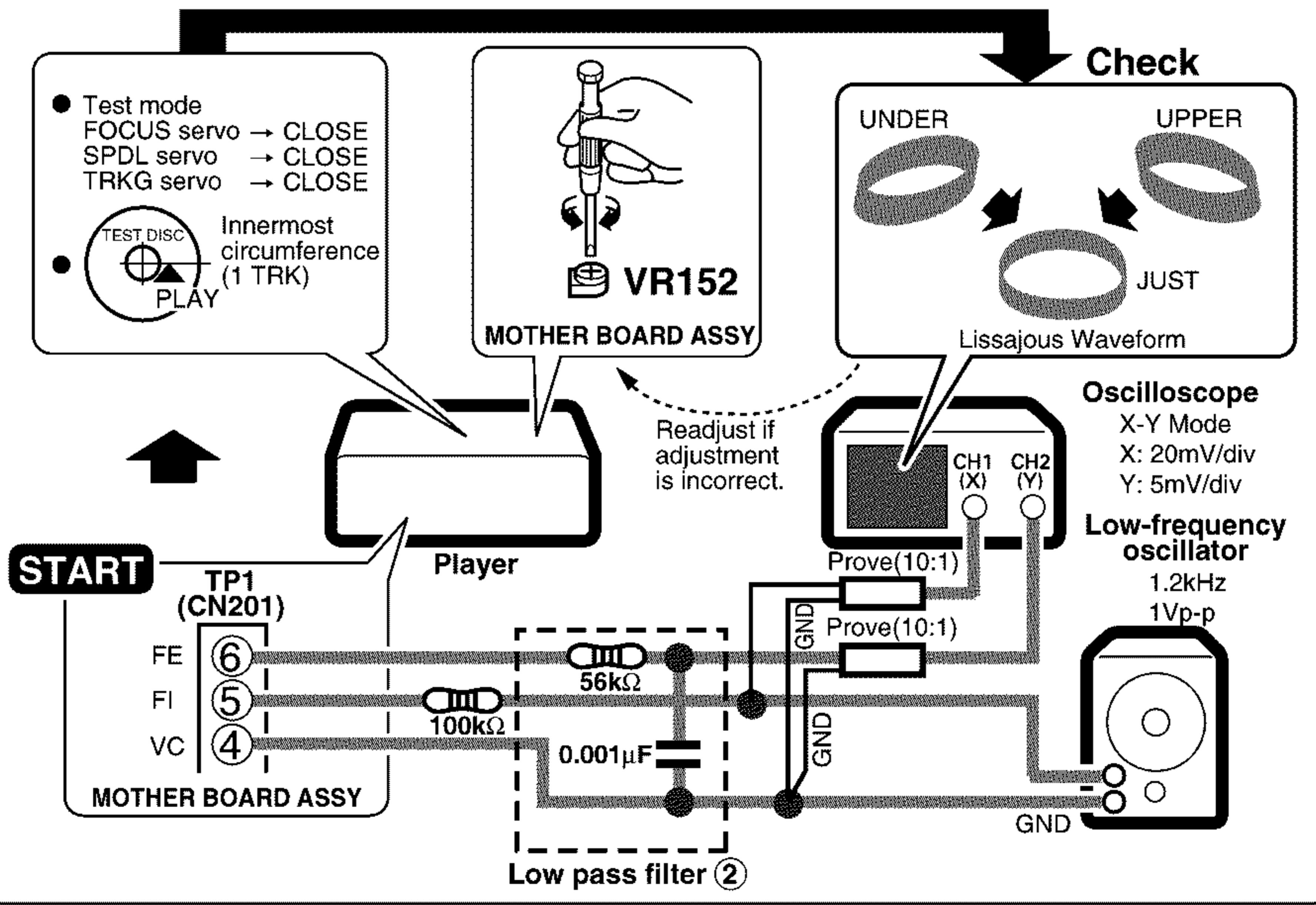




9. Focus Best Adjustment II

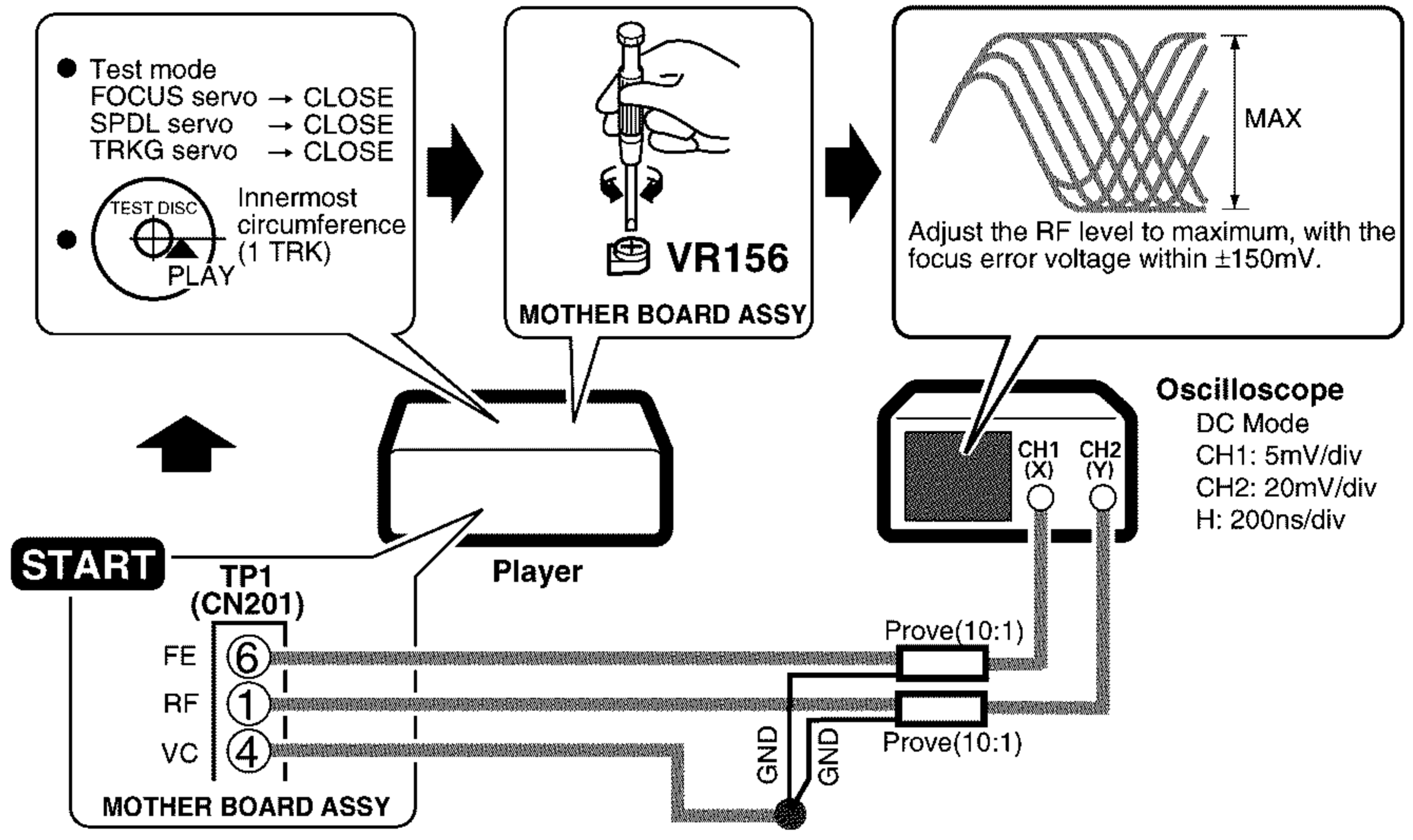


10. Focus Servo Loop Gain Adjustment II

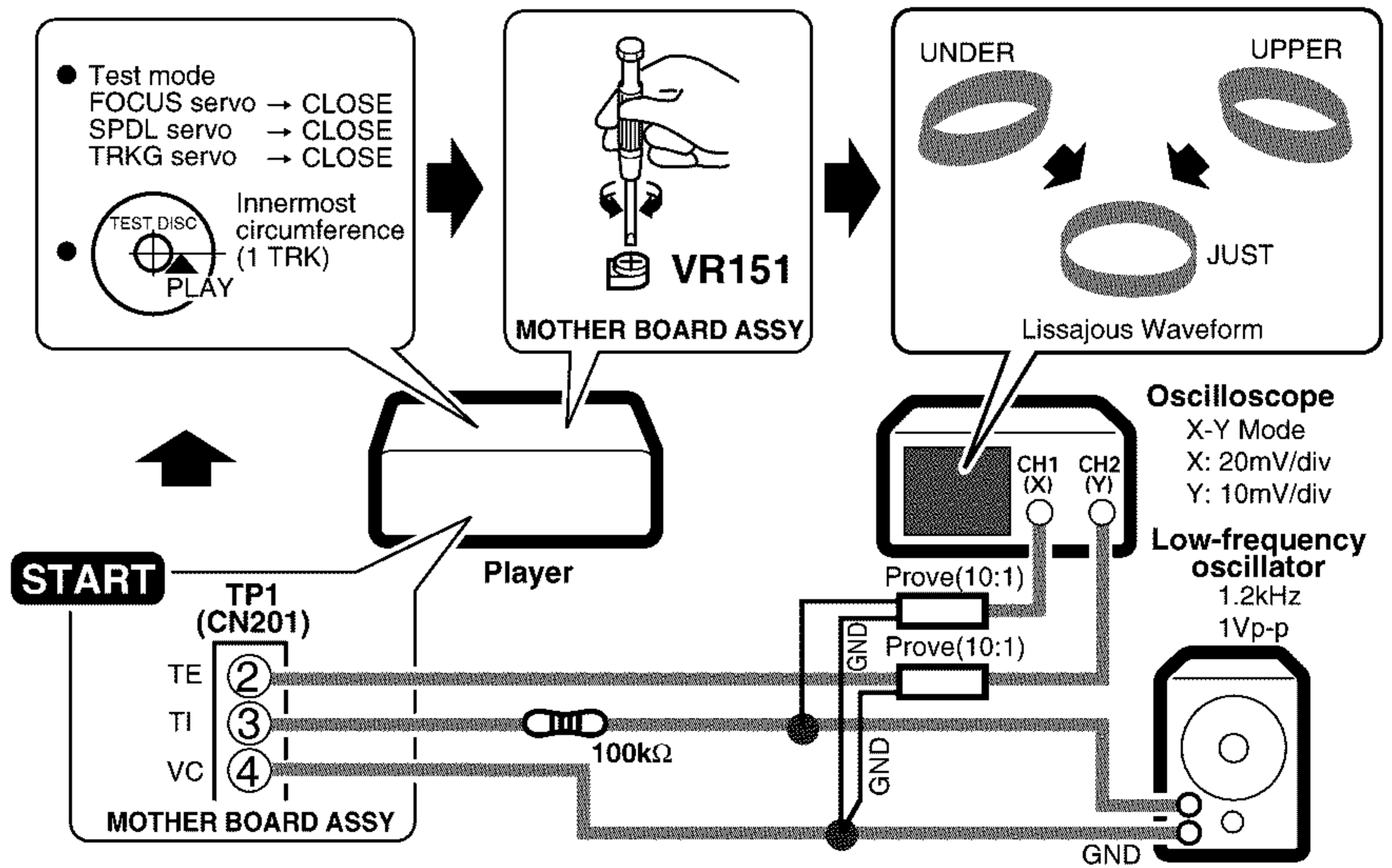


11. Focus Best Adjustment III

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



12. Tracking Servo Loop Gain Adjustment



7. GENERAL INFORMATION

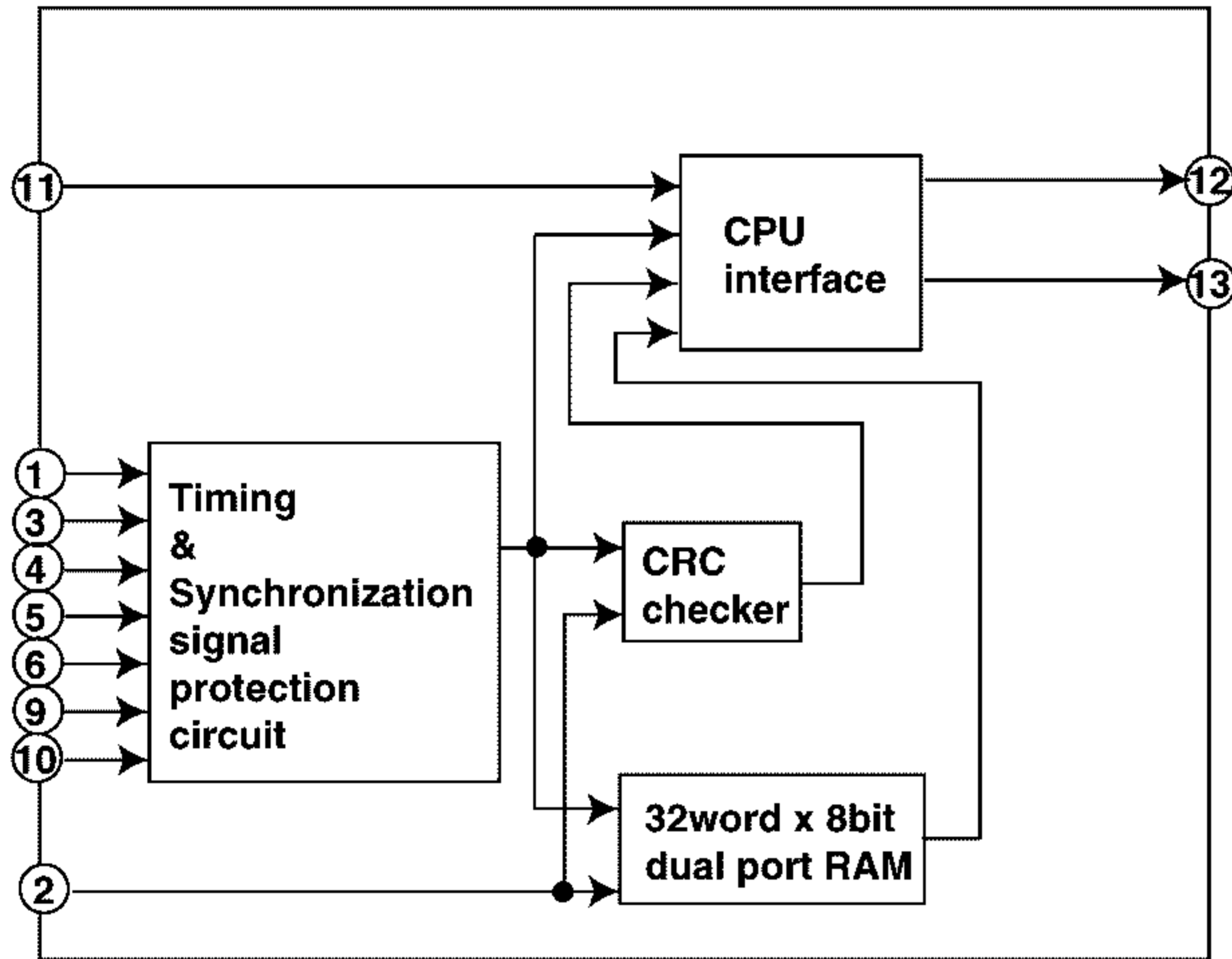
7.1 IC

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

■ LC89170M(IC302 : MOTHER BOARD ASSY)

● CD-TEXT DECODER IC

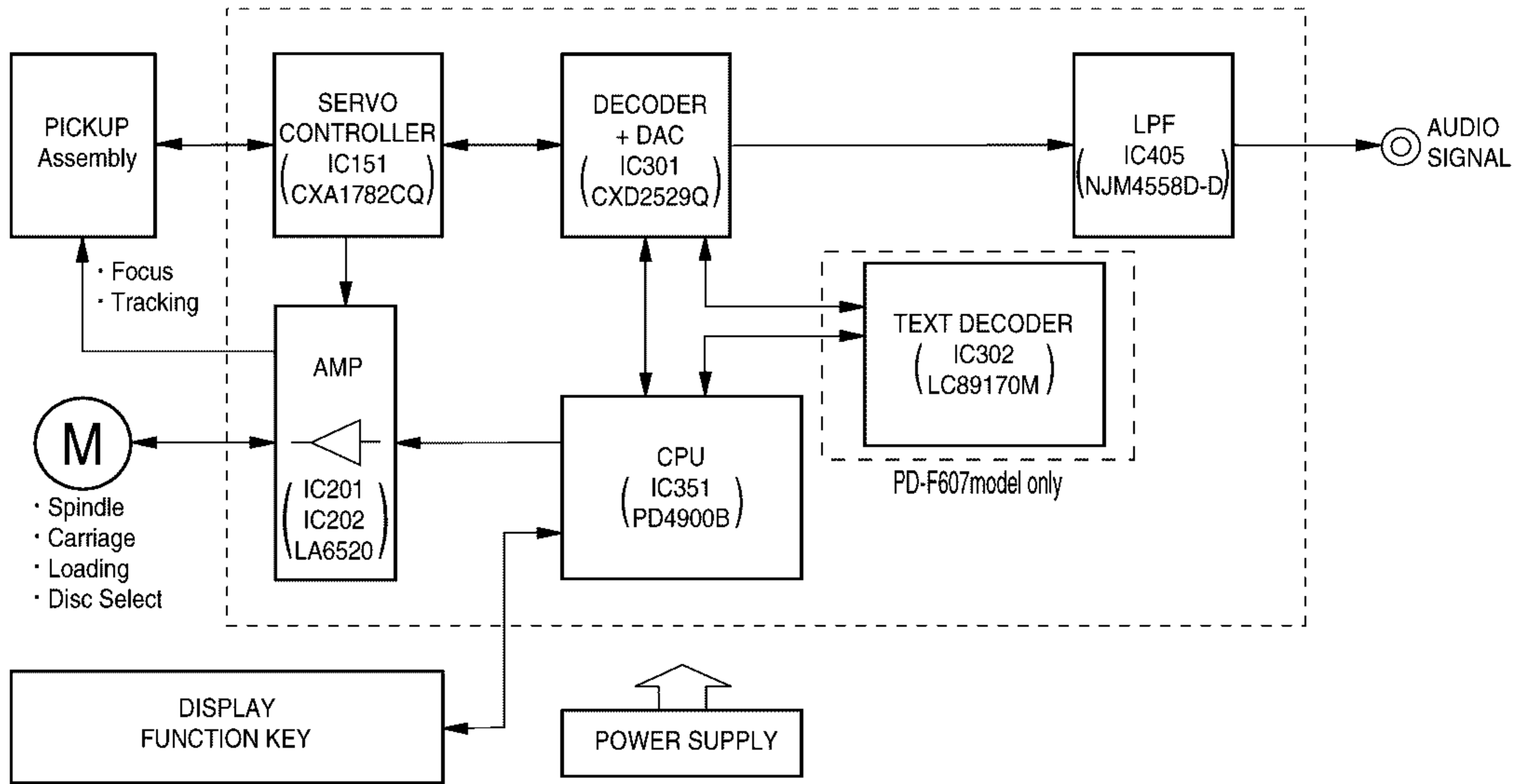
● Block Diagram



● Pin Function

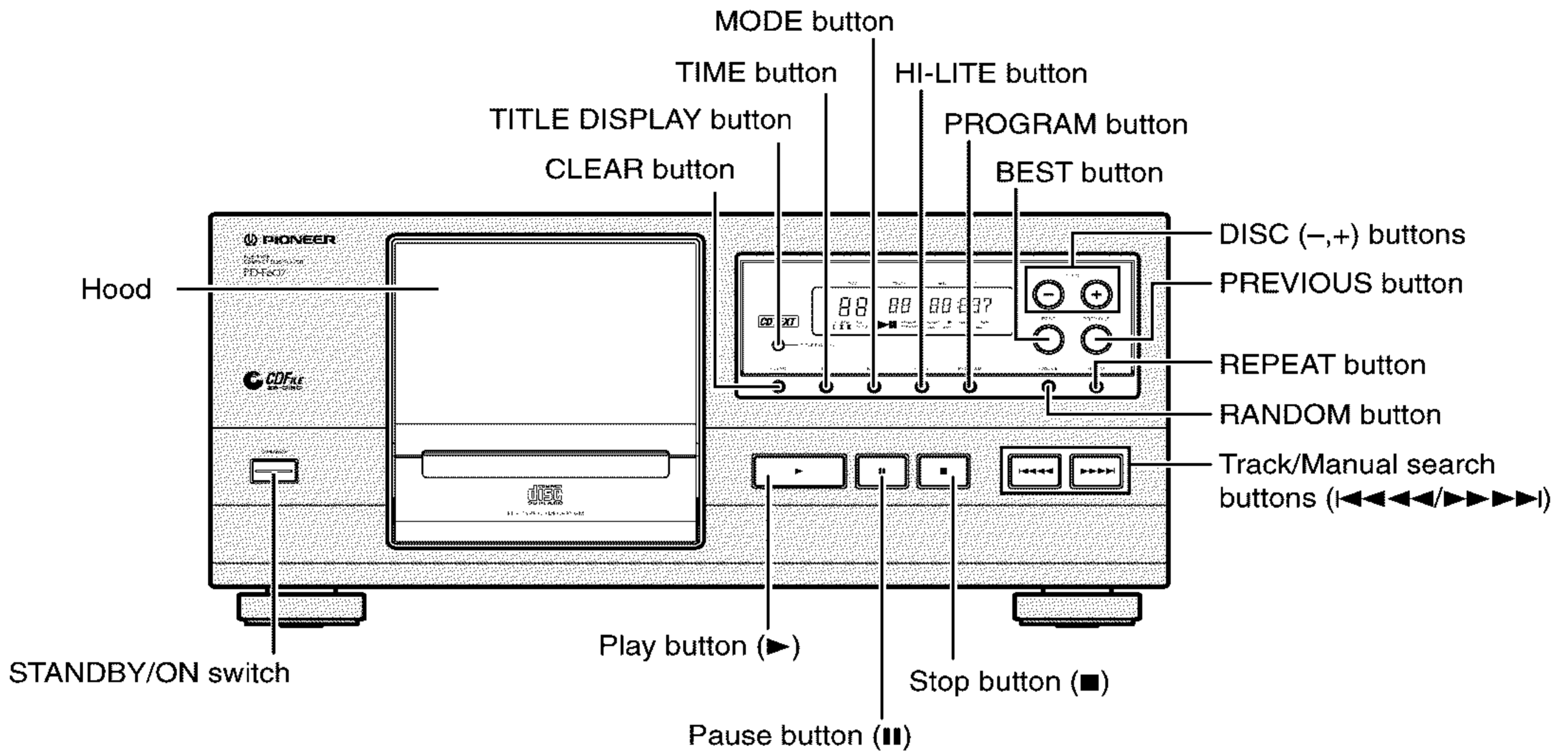
No.	Port Name	I/O	Description
1	EXCK	I/O	Sub code IF/shift clock I/O terminal
2	XBSO	I	Sub code IF/data input terminal
3	SCOR	I	Sub code IF/block sync input terminal
4	WFCK	I	Sub code IF/frame sync input terminal
5	MCK	I	Clock input terminal (16.9344MHz)
6	XMODE	I	System reset & power down mode setting input terminal
7	GND	-	GND
8	TEST	I	Test terminal (grounded)
9	SW1	I	"EXCK" input/output setting terminal("L": Clock output, "H": Clock input)
10	SW2	I	"EXCK" clock output pulse width selection("L": X2 speed, "H": Normal speed)
11	SCLK	I	Microcomputer IF/sShift clock input terminal
12	SRDT	O	Microcomputer IF/data output terminal
13	DQSY	O	Microcomputer IF/read-out permission output terminal
14	VDD	-	Power supply

7.2 BLOCK DIAGRAM

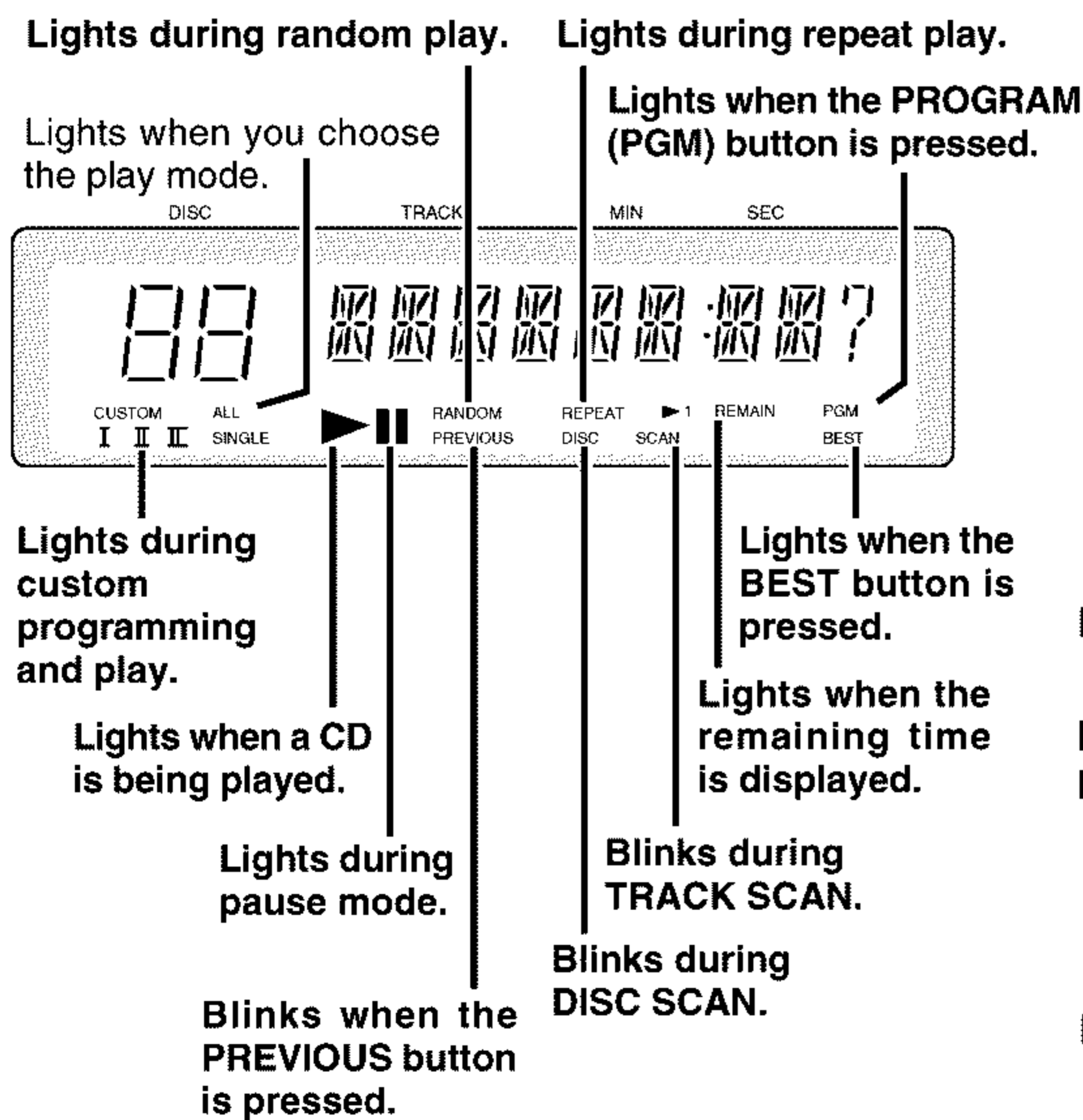


8. PANEL FACILITIES AND SPECIFICATIONS(PD-F607 only)

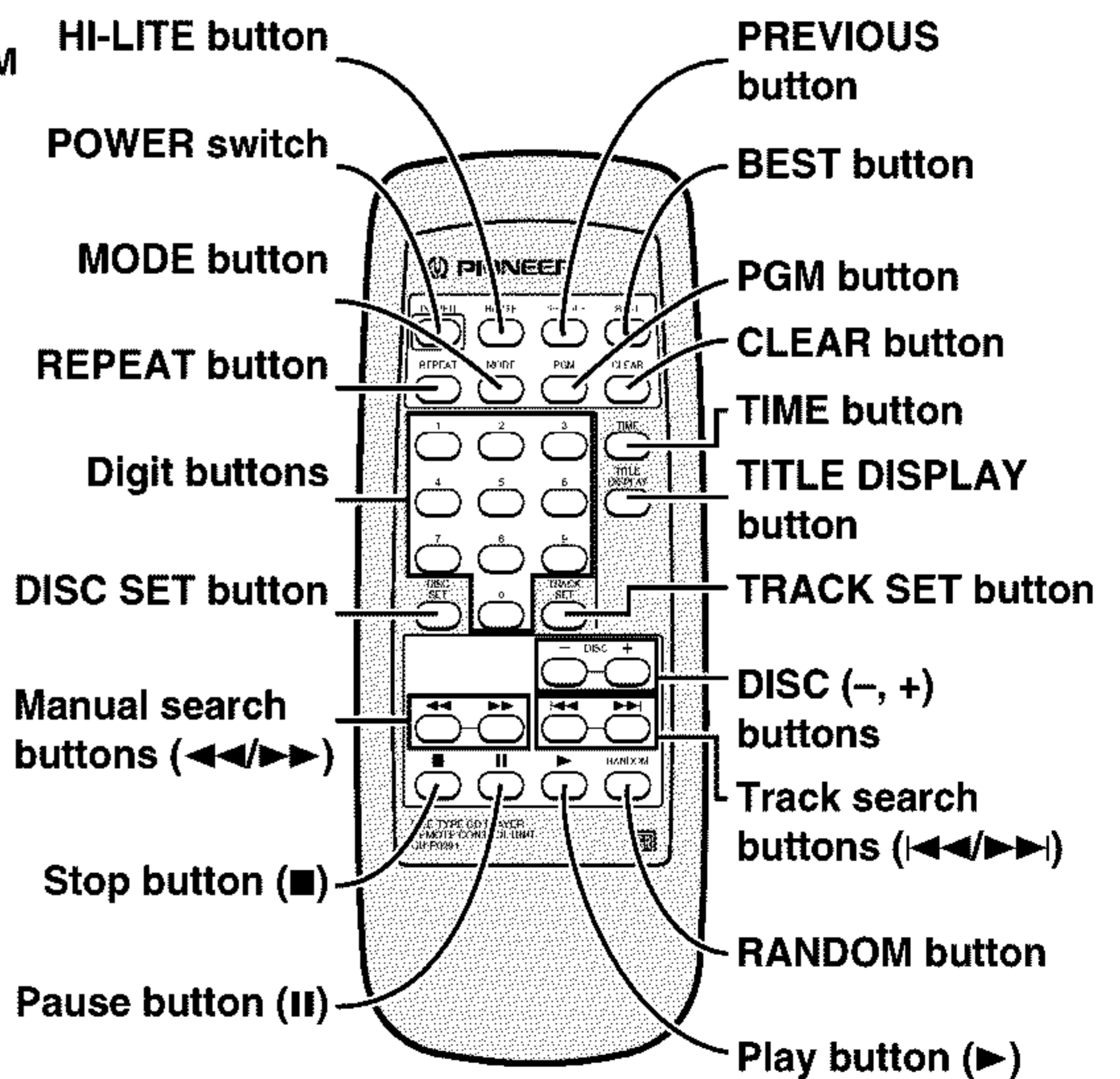
FRONT PANEL



DISPLAY



Rwremote Control Unit



■ SPECIFICATIONS

1. General

Type	Compact disc digital audio system
Power requirements	AC 120V, 60 Hz
Power consumption	11W
Operating temperature	+5°C - +35°C (+41°F - +95°F)
Weight (without package)	4.8 kg (10 lb 9 oz.)
External dimensions	420(W) x 312(D) x 193(H) mm 16-9/16(W) x 12-5/16(D) x 7-1/2(H) in.

2. Audio section

Frequency response	2 Hz - 20 kHz
Level difference between channels	1.0 dB or less (EIAJ)
Output voltage	2 ± 0.3 Vrms (EIAJ)
Wow and flutter	less than ±0.001 % (W.PEAK) (below measurable level) (EIAJ)
Channels	2-channel (stereo)

3. Output terminal

Audio line output
Control input/output jacks
Optical digital output jack(PD-F607,F507 only)

4. Accessories

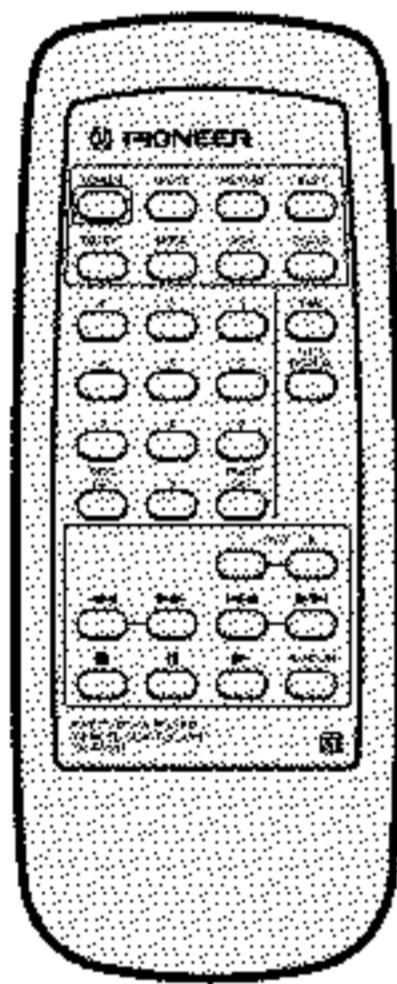
Remote control unit(PD-F607,F507 only)	1
Size AA/R6P dry cell batteries(PD-F607,F507 only)	2
Output cable	1
Control cable	1
Operating instructions	1

NOTE:

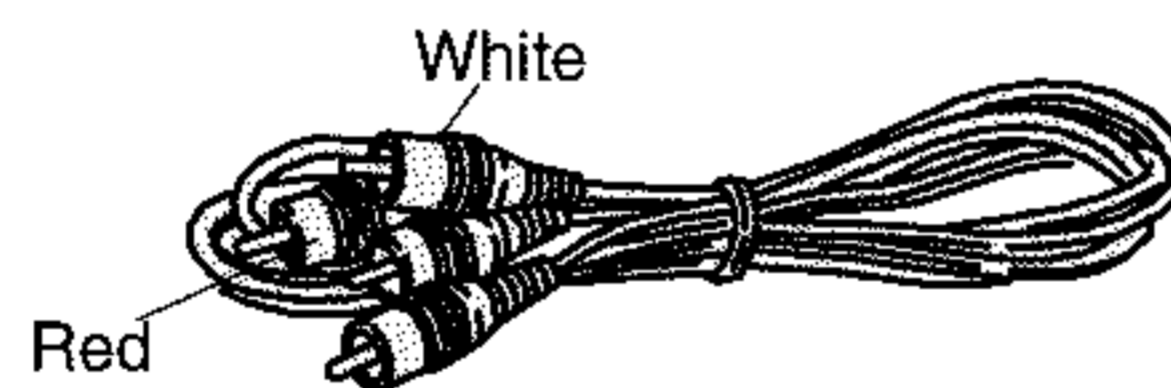
Specifications and design subject to possible modification without notice, due to improvements.

■ ACCESSORIES

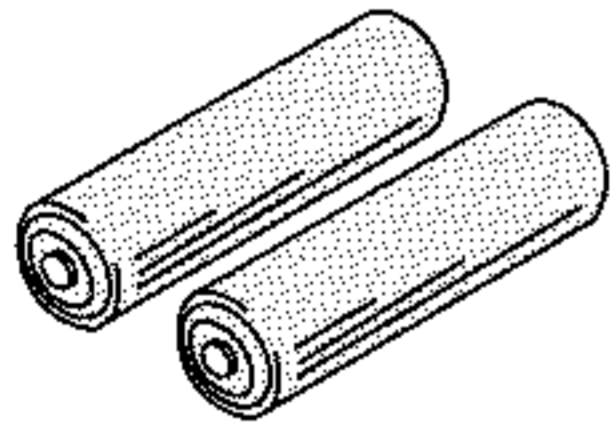
Remote control unit x 1
PWW1131(PD-F607)CU-PD091
PWW1132(PD-F507)CU-PD090



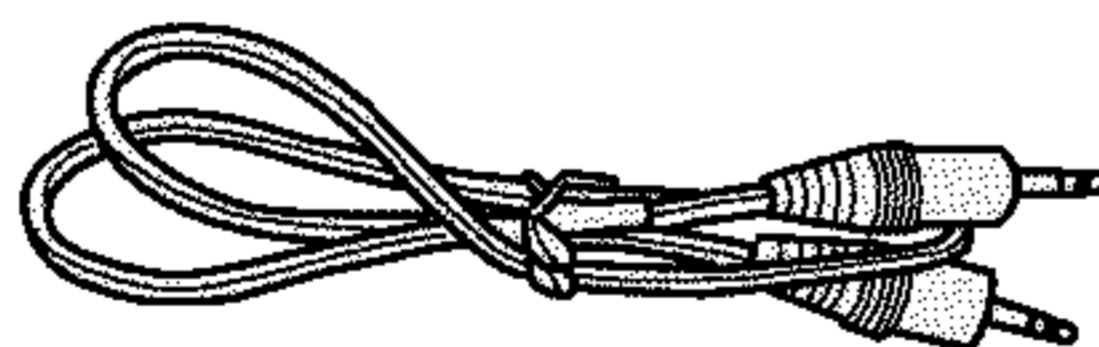
Output cable x 1
(L=1.0m)
PDE1248



SizeAA/R6P dry cell
batteries x 2
(PD-F607,F507 only)



Control cable x 1
(L=1.0m)
PDE1247



Service Manual

 **PIONEER®**
The Art of Entertainment

ORDER NO.
RRV1952

FILE-TYPE CD PLAYER **PD-F407**

● Refer to the service manual RRV1877 for PD-F407/KUXJ.

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-F407		
RDXJ	O	AC110-127V/220-240V	With the voltage selector
WPWXJ	O	AC220-240V	—

CONTENTS

1. SAFETY INFORMATION	2
2. CONTRAST OF MISCELLANEOUS PARTS	3
3. SCHEMATIC DIAGRAMS	6

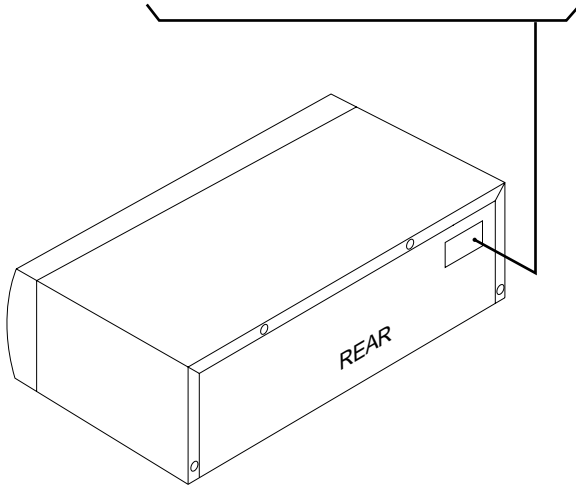
1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

— IMPORTANT —
THIS PIONNER 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 For (PD-F407/WPWXJ only)



— 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 26 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 25. on the service manual RRV1877.

2. CONTRAST OF MISCELLANEOUS PARTS

NOTES : ● Parts marked by “ NSP ” are generally unavailable because they are not in our Master Spare Parts List.

- The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Reference Nos. indicate the pages and Nos. in the service manual for the base model.
- Screw adjacent to \blacktriangledown mark on the product are used for disassembly.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex. 1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by $J = 5\%$, and $K = 10\%$).

560 $\Omega \rightarrow 56 \times 10^1 \rightarrow 561$ RD1/4PU $\begin{matrix} 5 & 6 & 1 \\ \hline & & J \end{matrix}$

47k $\Omega \rightarrow 47 \times 10^3 \rightarrow 473$ RD1/4PU $\begin{matrix} 4 & 7 & 3 \\ \hline & & J \end{matrix}$

0.5 $\Omega \rightarrow R50$ RN2H $\begin{matrix} R & 5 & 0 \\ \hline & & K \end{matrix}$

1 $\Omega \rightarrow 1R0$ RSIP $\begin{matrix} 1 & R & 0 \\ \hline & & K \end{matrix}$

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

5.62k $\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$ RN1/4PC $\begin{matrix} 5 & 6 & 2 & 1 \\ \hline & & & F \end{matrix}$

■ CONTRAST TABLE

RDXJ,WPWXJ and KUXJ are constructed the same except for the following :

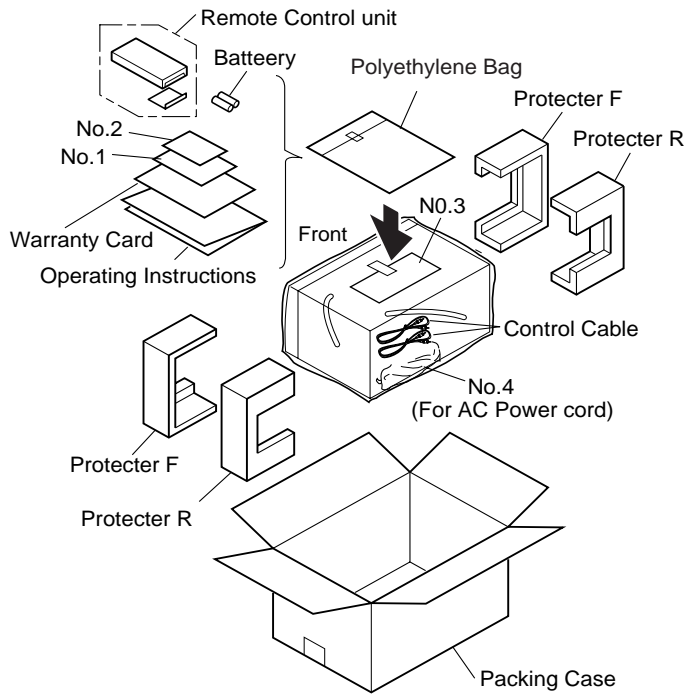
Ref. No.	Mark	Symbol and Description	Part No.			Remarks
			PD-F407			
			KUXJ	RDXJ	WPWXJ	
ASSEMBLIES						
P5-1	\triangle NSP	MOTHER BOARD ASSY	PWM2189	PWM2190	PWM2191	
P7-1	NSP	SUB BOARD ASSY	PWX1534	PWX1535	PWX1535	
P7-16		DISPLAY BOARD ASSY	PWZ3610	PWZ3607	PWZ3607	
		POWER SW BOARD ASSY	PWZ3622	PWZ3623	PWZ3623	
PACKING						
P3-1	NSP	Operating Instructions (English)	PRB1265	Not used	PRB1265	
P3-1		Operating Instructions (English/Spanish/Chinese)	Not used	PRE1267	Not used	
P3-10		Packing Case	PHG2293	PHG2295	PHG2295	
P3-12		Warranty Card	ARY1051	Not used	PRY1003	
		CD Liner Notes File	Not used	PHN1051	PHN1051	No.1
	Index Label Sheet (25)	Not used	PRW1422	PRW1422	No.2	
	Caution 220V Label	Not used	ARR1003	Not used	No.3	
	Polyethylene Bag (230 x 340 x 0.03)	Not used	Z21-038	Z21-038	No.4	
EXTERIOR						
P5-2	\triangle	Cord Stopper	CM-22C	CM-22B	CM-22B	
P5-4	\triangle	AC Power Cord	PDG1015	PDG1056	ADG1123	
P5-5	\triangle	Power Transformer (AC120V)	PTT1237	Not used	Not used	
P5-5	\triangle	Power Transformer (AC220-240V)	Not used	Not used	PTT1236	
P5-5	\triangle	Power Transformer (AC110-127V/220-240V)	Not used	PTT1238	Not used	
P5-8		Rear Base	PNA2395	PNA2396	PNA2397	
P5-42		65 Label	ORW1069	Not used	Not used	
		Insulator (Front Side)	Not used	PNW2766	PNW2766	No.5
		Caution Label	Not used	Not used	PRW1018	No.6
FRONT PANEL SECTION						
P7-15		Control Panel	PNW2778	PNW2780	PNW2780	
P7-20		Rubber Sheet	AEB1111	Not used	Not used	
		LED Lens	Not used	PNW2019	PNW2019	No.7

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

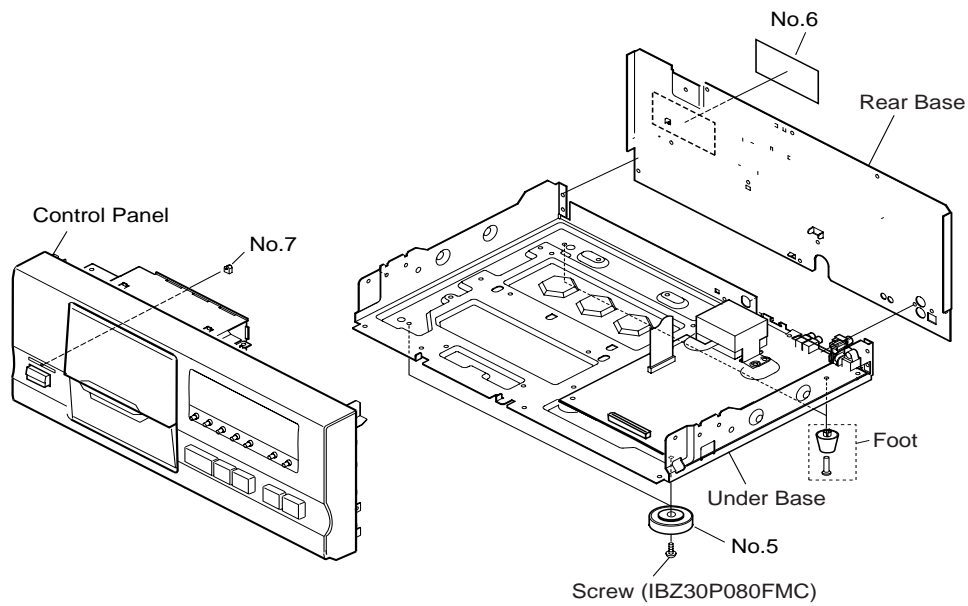
● For ASSEMBLIES, Refer to “ ■ CONTRAST OF PCB ASSEMBLIES ” and “ 3. SCHEMATIC DIAGRAMS ”.

■ EXPLODED VIEWS

● PACKING SECTION



● EXTERIOR and FRONT PANEL SECTION



■ CONTRAST OF PCB ASSEMBLIES

JF MOTHER BOARD ASSY

PWM2190, PWM2191 and PWM2189 are constructed the same except for the following :

Mark	Symbol and Description	Part No.			Remarks
		PWM2189	PWM2190	PWM2191	
⚠	D352 C319 C324, C431, C432 R351 S5	Not used CKCYF103Z50 Not used Not used Not used	1SS254 CKCYF103Z50 CKCYF103Z50 RD1/4PU151J PSB1006	1SS254 Not used Not used RD1/4PU151J Not used	

B DISPLAY BOARD ASSY

PWZ3607 and PWZ3610 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		PWZ3610	PWZ3607	
	C701 CN701 CONNECTOR REMOTO SENSOR	CKCYF103Z50 HLEM34R-1 GP1U27X	Not used HLEM32R-1 Not used	

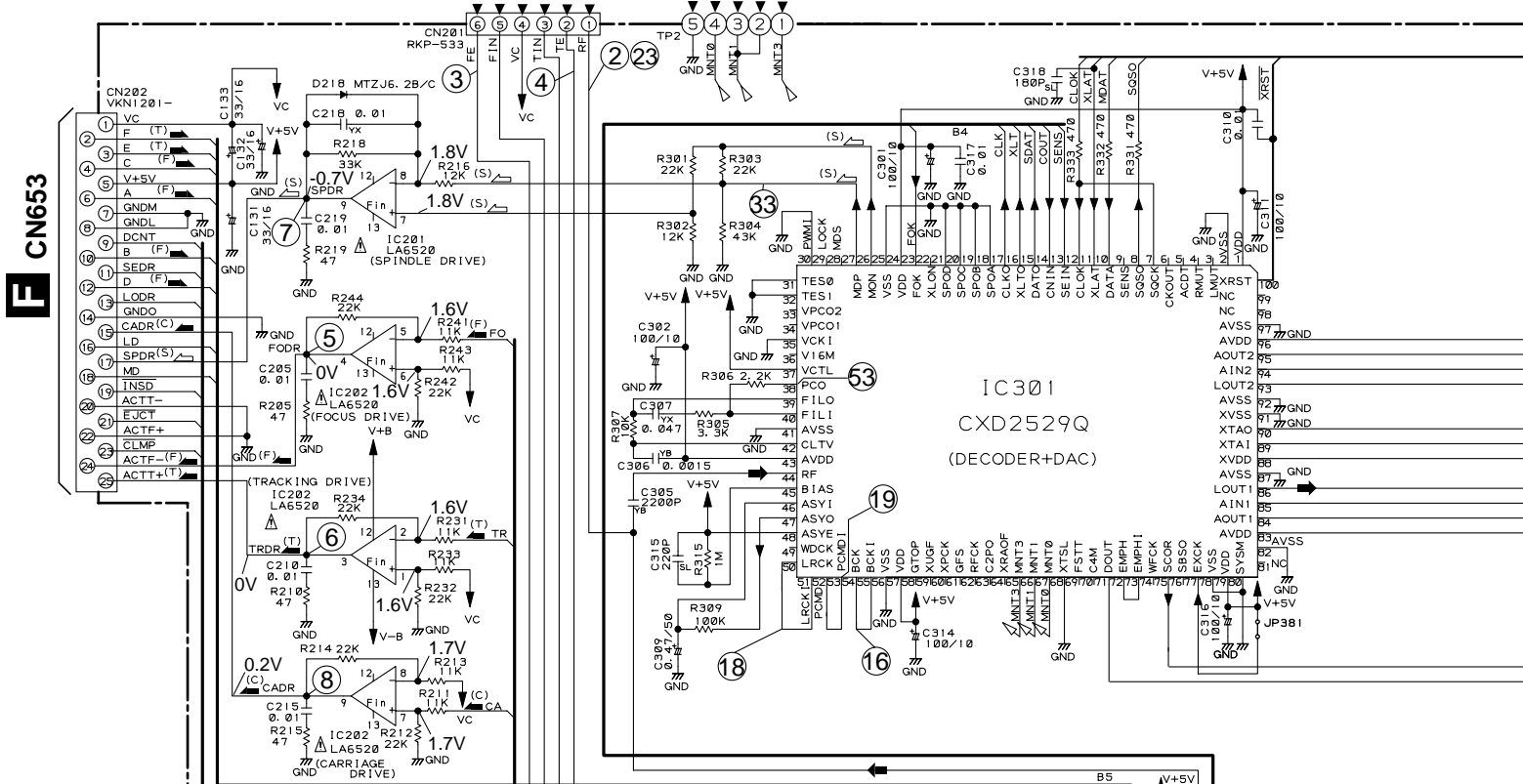
CF POWER SW BOARD ASSY

PWZ3623 and PWZ3622 are constructed the same except for the following :

Mark	Symbol and Description	Part No.		Remarks
		PWZ3622	PWZ3623	
	D751 J801 5P JUMPER WIRE	Not used J20PWW0445E	SLR-342VCT31 J20PWW0545E	

3.SCHEMATIC DIAGRAMS

A

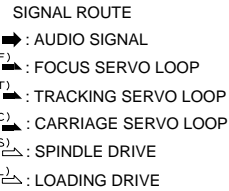


B

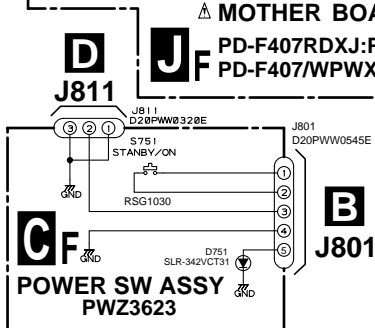
C

NOTE

- RESISTORS (unit:Ω)
- 1/4W Type
- CAPACITORS (unit:μF)
- (1)MA:Mylar CQMA
- (2)TX:Film CFTXA
- (3)CH: Ceramic CCCC
- (4)YX: Ceramic CGCYX
- (5)SL: Ceramic CCCL
- (6)YB: Ceramic CKCYB
- (7)Unmarked type: Ceramic CKCYF
- (8)Electrolytic Capacitors CEAT
- INDUCTORS
- Axial: Type LAU
- OTHERS
- ⚡GND: CHASSIS GROUND
- ABC: Low Active Signal



D



NOTE: The numbers marked with a circle show the number of each measuring point, which correspond to the number in the service manual PD-F407 (ORDER NO. RRV1877) on page 16-17.

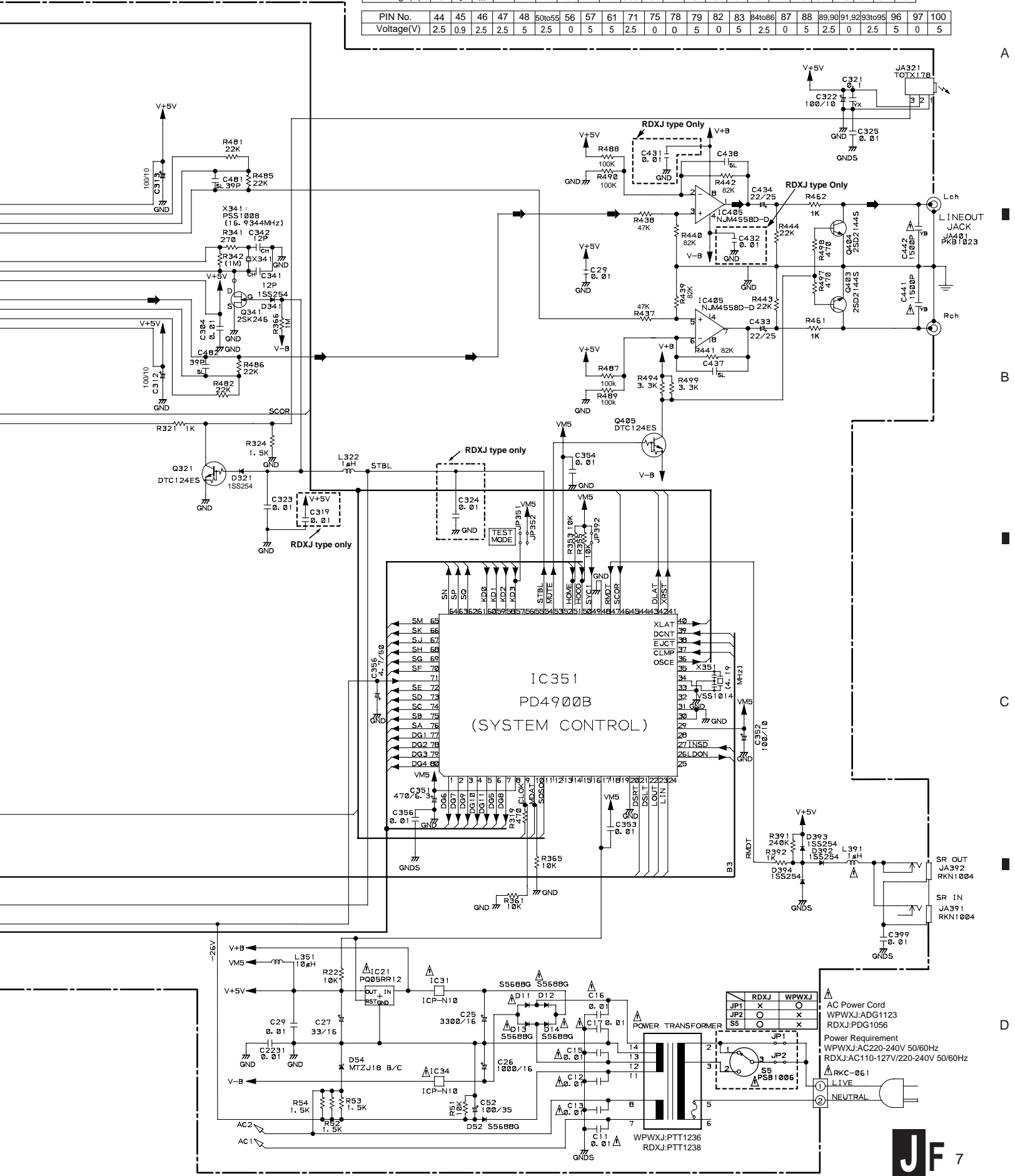
NOTE: When ordering service parts, be sure to refer to
 "PARTS LIST of EXPLODED VIEWS" or "PCBPARTS LIST".

PD-F407

IC301 (CXD2529Q)

PIN No.	1	2to4	7	8	9	10	11	12	13	14	16	17	23	24	25	26	27	38	39	40	41	42	43
Voltage(V)	5	0	4.7	1.2-1.4	1.2-1.4	4.4	5	4.7	4.7	0.05	5	4.7	5	5	0	5	2.6-2.7	2.5	3.1	2.5	0	3.1	5

PIN No.	44	45	46	47	48	50to55	56	57	61	71	75	78	79	82	83	84to86	87	88	89,90	91,92	93to95	96	97	100
Voltage(V)	2.5	0.9	2.5	2.5	5	2.5	0	5	5	2.5	0	0	5	0	5	2.5	0	5	2.5	0	2.5	5	0	5



A

B

C

D

