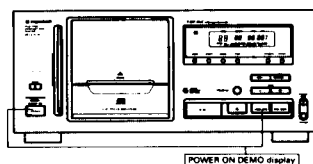


Service Manual



ORDER NO.
RRV 1522

FILE-TYPE CD PLAYER

PD-F705

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

Type	Model PD-F705	Power Requirement	The voltage can be converted by the following method.
KUXJ	O	AC120V	_____
KCXJ	O	AC120V	_____
WPWXJ	O	AC220 - 240V	_____
WYXJ	O	AC220 - 240V	_____
RDXJ	O	AC110 - 127V/220 - 240V	With the voltage selector

- For the circuit and mechanism descriptions, refer to the service guide RRV1469 for PD-F705.

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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.

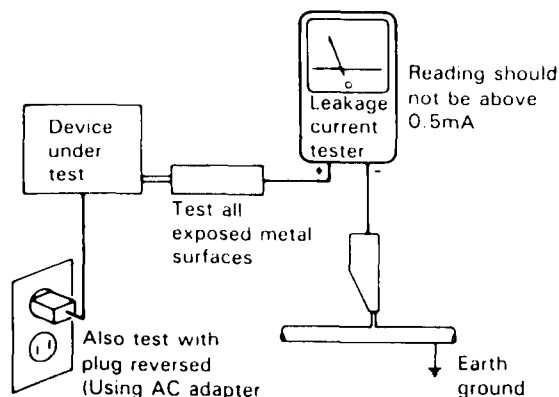
(FOR USA MODEL ONLY)

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 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.



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 Δ 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.

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

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE 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(for WPWXJ and WYXJ types)

WPWXJ type only

WPWXJ, WYXJ types only

CAUTION
INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM

CLASS 1 LASER PRODUCT
VRW-328

WPWXJ, WYXJ types only

REAR

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

ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING!
UNSICHTBARE LASER-STRÅLUNG TRITZT AUS, WENN DECKEL GEÖFFNET IST. NICHT DEM STRAHLE AUSGESETZT!
VRW1004

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 1 of M51593FP (IC101) on the PRE-AMP BOARD ASSY mounted on the Pickup assembly is connected to GND, or pin 19 is connected to low level (ON), or else the terminals of Q101 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.

WYXJ type only

WYXJ type only

* : Refer to page 28.

2. DISASSEMBLY

■ REMOVE THE FRONT PANEL

- ① Remove the bonnet.
- ② - ④ Remove the screws and parts.

Note: Remove the screw in step ④ with the hood closed.

- ④ Remove the screw and link in step ④ from the disc rack boss, then remove the hook from panel angle.

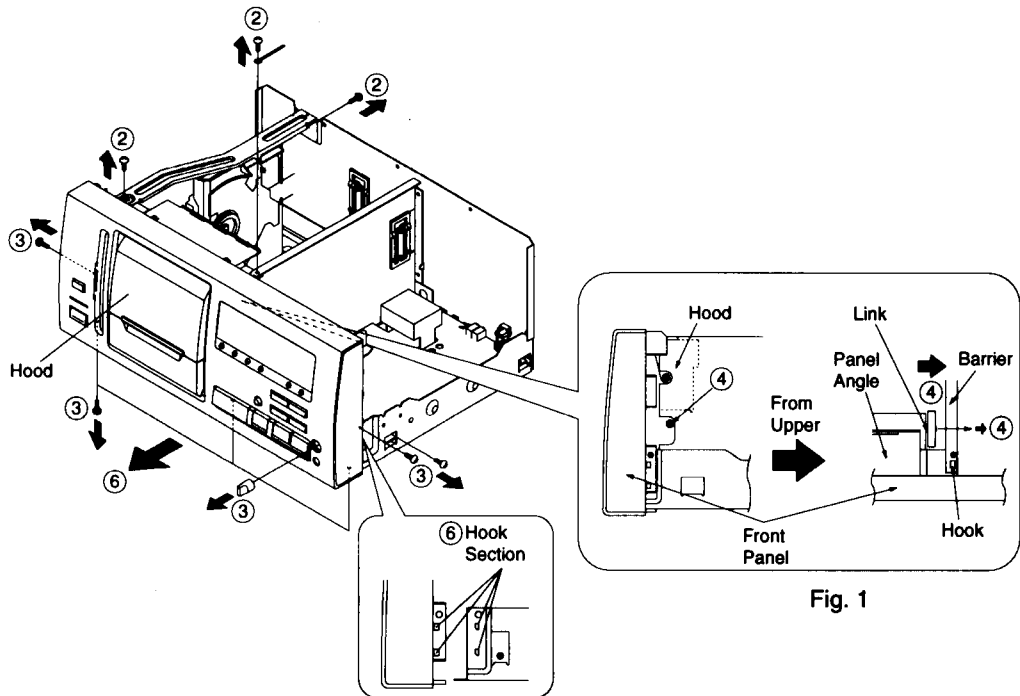


Fig. 2

- ⑤ Remove each wire.

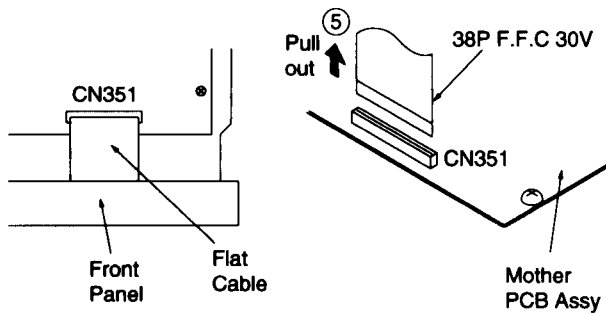


Fig. 3

- ⑥ Remove the front panel, then shift the front panel slightly toward you while paying attention to the right and left hooks on the chassis. (Fig.2)

3. PACKING AND 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.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

■ CONTRAST OF KUXJ, KCXJ, WPWXJ, WYXJ AND RDXJ TYPES

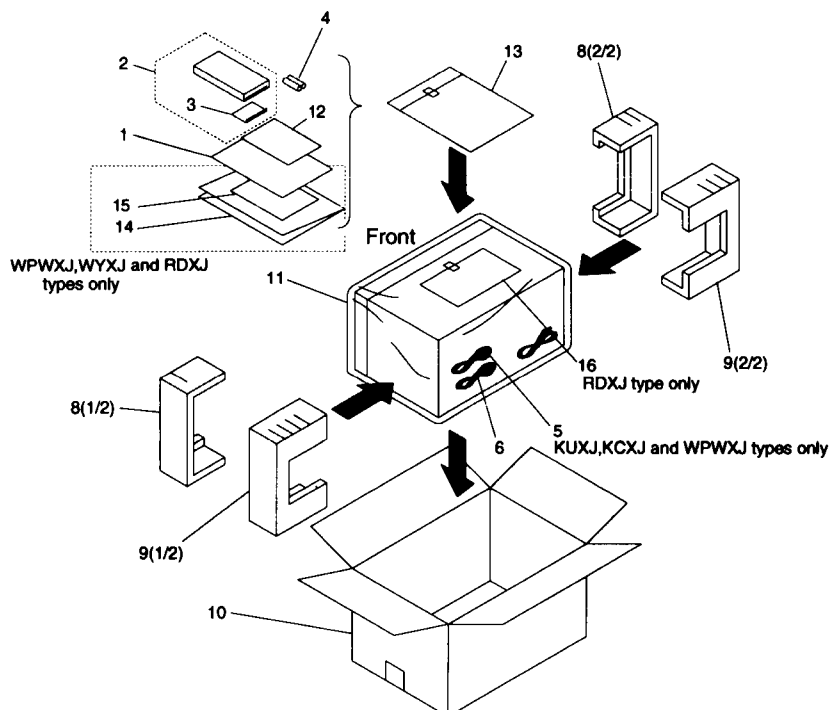
PD-F705/KUXJ, KCXJ, WPWXJ, WYXJ and RDXJ have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			KUXJ TYPE	KCXJ TYPE	WPWXJ TYPE	WYXJ TYPE	RDXJ TYPE	
NSP	1	Operating Instructions(English)	PRB1236	Not used	PRB1236	PRB1236	Not used	
	1	Operating Instructions (English/French)	Not used	PRE1227	Not used	Not used	Not used	
	1	Operating Instructions (English/Spanish/Chinese)	Not used	Not used	Not used	Not used	PRE1228	
	1	Operating Instructions (French/German/Italian/Dutch/Swedish/Spanish/Portuguese)	Not used	Not used	Not used	PRD1007	Not used	
	5	Cord with Mini Plug	PDE1247	PDE1247	PDE1247	Not used	Not used	
	10	Packing Case	PHG2161	PHG2168	PHG2195	PHG2194	PHG2195	
	12	Warranty Card	ARY1051	ARY1075	PRY1003	ARY7009	Not used	
	14	Liner Notes File 25	Not used	Not used	PHN1051	PHN1051	PHN1051	
	15	Index Label 25	Not used	Not used	PRW1422	PRW1422	PRW1422	
	16	CAUTION 220V LABEL	Not used	Not used	Not used	Not used	ARR1003	

■ PARTS LIST FOR PD-F705/KUXJ

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	Operating Instructions (English)	PRB1236	NSP	11	Packing Sheet	AHG7010
	2	Remote Control Unit	PWW1108		12	Warranty Card	ARY1051
	3	Battery Cover	AZN2249		13	Polyethylene Bag	Z21 - 038
	4	Battery (R6P, AA)	AEX - 010		14	.....	
	5	Cord with Mini Plug	PDE1247		15	.....	
	6	Cord with Plug	PDE1248		16	.....	
	7	.....					
	8	Protector F	PHA1299				
	9	Protector R	PHA1300				
	10	Packing Case	PHG2161				

PACKING



4. EXPLODED VIEWS AND 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.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

4.1 EXTERIOR

■ CONTRAST OF KUXJ, KCXJ, WPWXJ, WYXJ and RDXJ TYPES

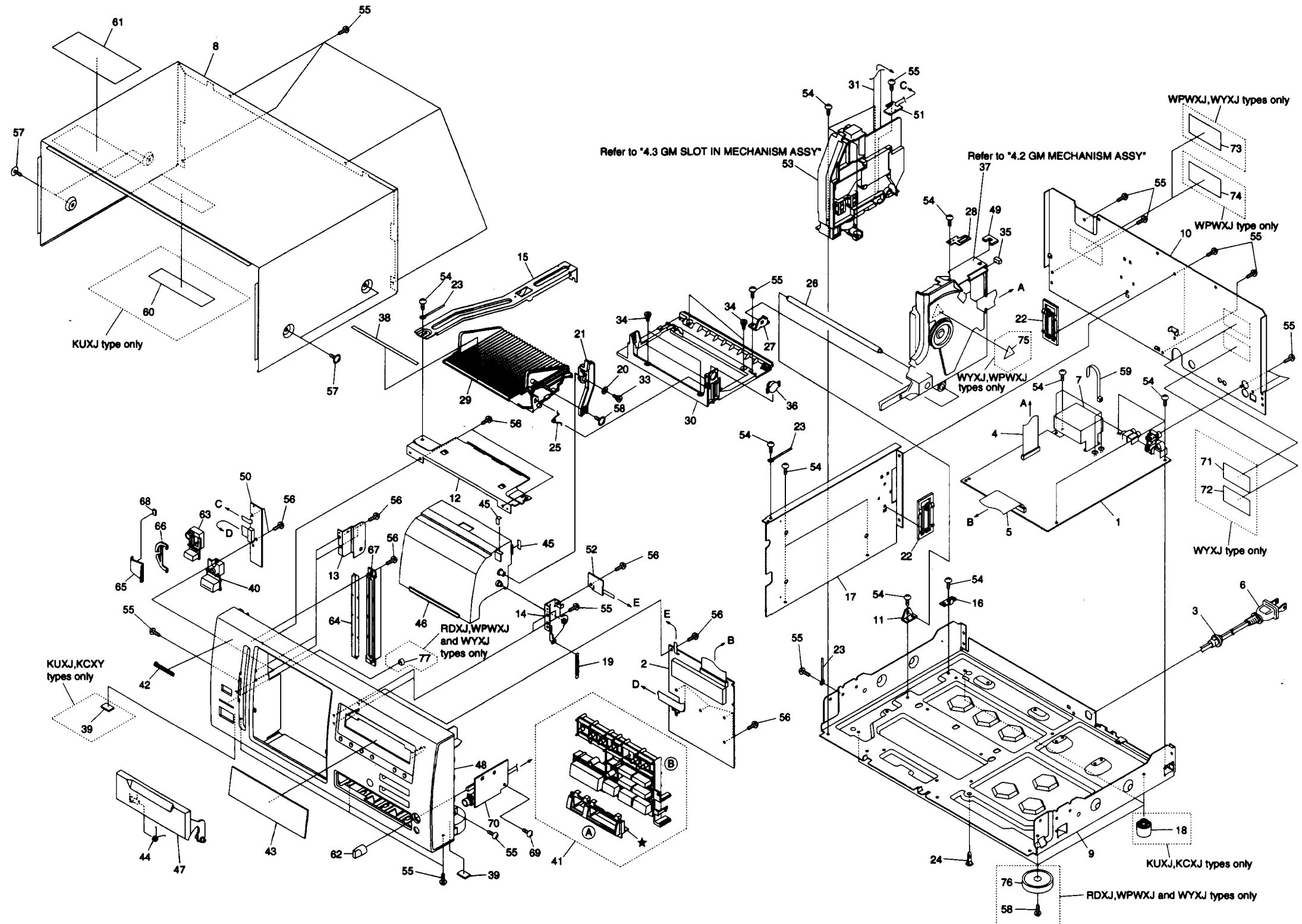
PD-F705/KUXJ, KCXJ, WPWXJ, WYXJ and RDXJ have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			KUXJ TYPE	KCXJ TYPE	WPWXJ TYPE	WYXJ TYPE	RDXJ TYPE	
Δ	1	Mother PCB ASSY	PWM2000	PWM2000	PWM2003	PWM2001	PWM2004	
	2	Function PCB ASSY	PWZ3153	PWZ3153	Not used	Not used	Not used	
	2	Function PCB ASSY	Not used	Not used	PWZ3154	PWZ3154	PWZ3154	
	3	Cord Stopper	CM – 22C	CM – 22C	CM – 22B	CM – 22B	CM – 22B	
	6	AC Power Cord	PDG1015	PDG1015	ADG1123	PDG1003	PDG1056	
	7	Power Transformer (AC120V)	PTT1237	PTT1237	Not used	Not used	Not used	
Δ	7	Power Transformer (AC220 – 240V)	Not used	Not used	PTT1236	PTT1236	Not used	
	7	Power Transformer (AC110 – 127V/220 – 240V)	Not used	Not used	Not used	Not used	PTT1238	
	10	Rear Base	PNA2256	PNA2256	PNA2293	PNA2292	PNA2294	
	18	Foot ASSY	AEC1531	AEC1531	Not used	Not used	Not used	
	39	Rubber Sheet	AEB1111	AEB1111	Not used	Not used	Not used	
	43	Display Window	PAM1702	PAM1702	PAM1702	PAM1714	PAM1702	
NSP	48	Panel	PNW2637	PNW2637	PNW2657	PNW2657	PNW2657	
	50	Power SW PCB ASSY	PWZ3159	PWZ3159	PWZ3160	PWZ3160	PWZ3160	
	60	65 Label	ORW1069	Not used	Not used	Not used	Not used	
	71	Caution Label	Not used	Not used	Not used	VRW1094	Not used	
	72	Caution Label HE	Not used	Not used	Not used	PRW1233	Not used	
	73	Caution Label (F)	Not used	Not used	VRW – 328	VRW – 328	Not used	
NSP	74	Caution Label	Not used	Not used	PRW1018	Not used	Not used	
	75	Caution Label (G)	Not used	Not used	VRW – 329	VRW – 329	Not used	
	76	Insulator	Not used	Not used	PNW1912	PNW1912	PNW1912	
	77	LED Lens	Not used	Not used	PNW2019	PNW2019	PNW2019	

■ PARTS LIST FOR PD-F705/KUXJ

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
Δ	1	Mother PCB ASSY	PWM2000	16	Home Lock Angle 2	PNB1549	
	2	Function PCB ASSY	PWZ3153	17	Barrier	PNB1550	
	3	Cord Stopper	CM – 22C	18	Foot ASSY	AEC1531	
	4	22P F.F.C/30V	PDD1170	19	Link Spring	PBH1215	
	5	38P F.F.C/30V	PDD1169	20	Link Spacer	PEB1292	
Δ	6	AC Power Cord	PDG1015	21	Link	PNW2614	
	7	Power Transformer	PTT1237	22	FFC Holder	PNW2615	
	8	Bonnet	PYY1187	23	Cord Clamper	RNH – 184	
	9	Under Base	PNA2249	24	Locking Card Spacer	VEC1596	
	10	Rear Base	PNA2256	25	Rack Spring	ABH7057	
NSP	11	Shaft Holder S	ANB7024	26	Guide Shaft S	ALA7008	
	12	Panel Angle	PNB1545	27	Shaft Holder	ANB7021	
	13	Hood Angle L	PNB1546	28	Assist Angle 2	ANB7065	
	14	Hood Angle R	PNB1547	29	Disc Rack	ANW7069	
	15	Home Lock Angle 1	PNB1548	30	Rack Base S	ANW7070	

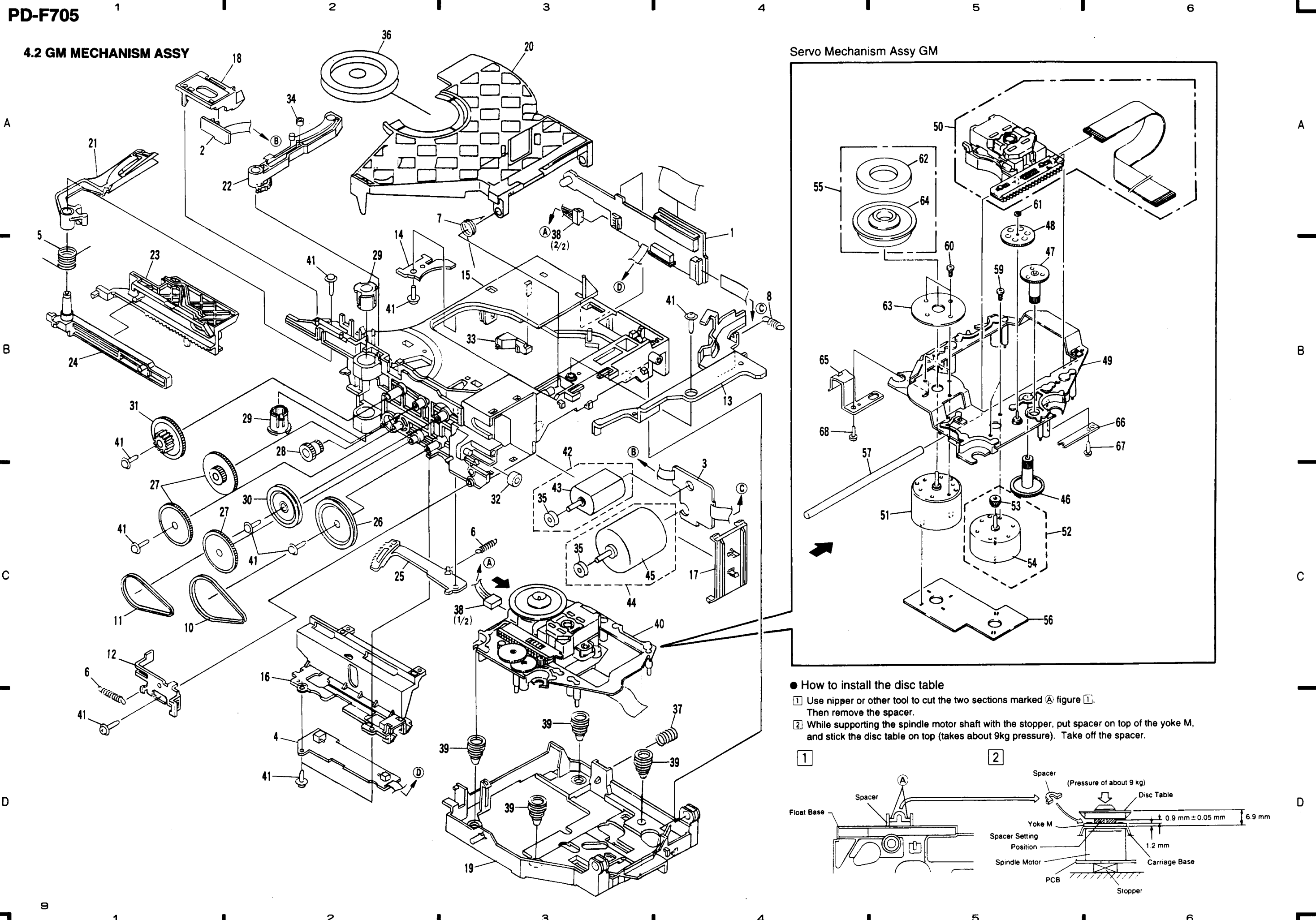
Mark	No.	Description	Parts No.
A	NSP 31	Jumper Wire (6P)	D20PYY0650E
	32	.....	
	33	Screw P	PBA1105
	34	Screw C	PBA1106
	NSP 35	C.H Spacer	PEB1295
NSP	36	Damper ASSY 80	PXA1584
	37	GM Mechanism ASSY	AXA7026
	38	Disc Rack Panel	AAK7251
	39	Rubber Sheet	AEB1111
	40	Power Button	PAC1815
NSP	41	Operate Button	PAC1816
	42	Name Plate	PAM1608
	43	Display Window	PAM1702
	44	Door Spring	PBH1216
	45	Cushion (ART.SVEDE)	PED1016
NSP	46	Hood	PNW2613
	47	Door	PNW2616
	48	Panel U7	PNW2637
	49	Assist Spacer	PNM1295
	50	Power SW PCB ASSY	PWZ3159
NSP	51	Home SW PCB ASSY	PWZ3149
NSP	52	Hood SW PCB ASSY	PWZ3151
NSP	53	GM Slot In Mechanism ASSY	AXA7027
	54	Screw	BBZ30P060FMC
	55	Screw	BBZ30P080FZK
	56	Screw	PPZ30P080FMC
	57	Screw	FBT40P080FZK
	58	Screw	IBZ30P080FMC
	59	Binder	ZCA - SKB90BK
	60	65 Label	ORW1069
C	61	Caution Level Plus 1E	PRW1425
	62	Knob	PAC1707
	63	Ejection Button	PAC1820
	64	Blind Felt	PNM1286
	65	Lens 1	PNW2624
NSP	66	Lens 2	PNW2625
	67	Felt Holder	PNW2631
	68	Lens Spacer	PEB1293
	69	Screw	IPZ30P060FMC
	70	Headphone PCB ASSY	PWX1457
	71	.....	
	72	.....	
	73	.....	
	74	.....	
	75	.....	
	76	.....	
	77	.....	
	78	.....	



NOTE : Screws adjacent to ▼ mark on product are used for disassembly.

NOTE : Parts marked ★ are used separately from the OPERATE BUTTON (PAC1816).

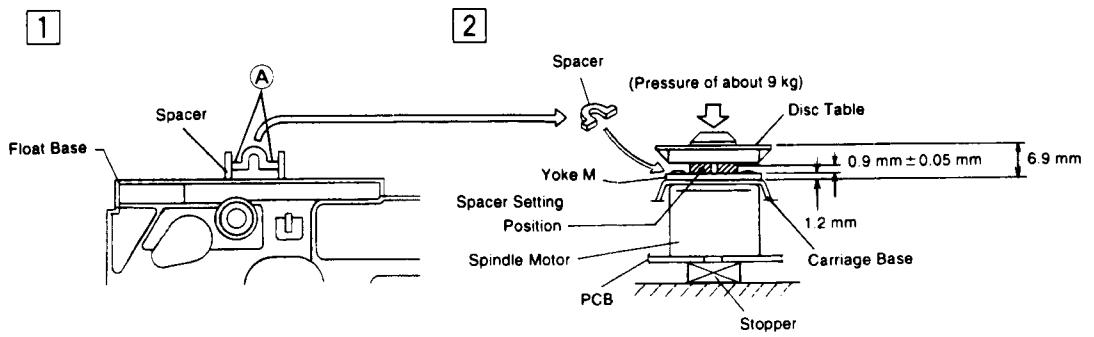
4.2 GM MECHANISM ASSY



Servo Mechanism Assy GM

● How to install the disc table

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

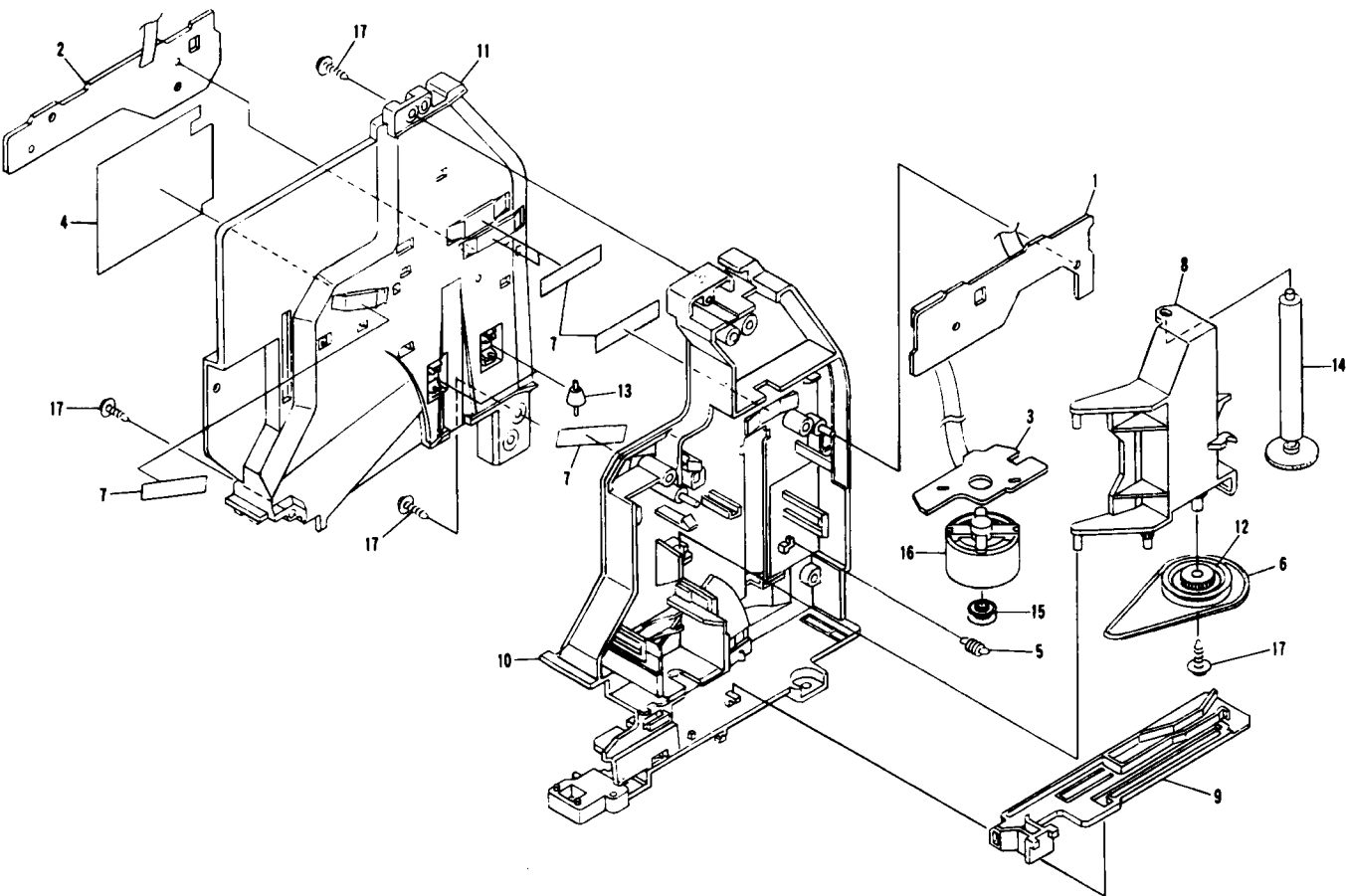


Parts List

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	Mecha PCB Assy	AWZ7835		51	D.C. Motor Assy (SPDL)	PEA1235
NSP	2	Sensor PCB Assy	AWZ7836		52	Carriage DC Motor Assy	PEA1246
NSP	3	Motor PCB Assy	AWZ7837		53	Pinion Gear	PNW2055
NSP	4	SW PCB Assy	AWZ7838	NSP	54	Carriage DC Motor/0.3W	PXM1027
	5	Arm A Spring 2	ABH7124		55	Disc Table Assy	PEA1314
	6	Gear Plate Spring	ABH7051	NSP	56	Mechanism Board Assy	PWX1192
	7	Clamp Spring	ABH7107		57	Guide Bar	PLA1094
	8	Lock Lever Spring	ABH7120		58	.....	
	9	.....			59	Screw	JFZ17P025FZK
	10	Loading Belt	AEB7029		60	Screw	JFZ20P040FMC
	11	Belt	AEB7030		61	Washer	WT12D032D025
NSP	12	Lock Angle	ANB7027		62	Clamp Magnet	PMF1014
NSP	13	Lock Lever P	ANB7042		63	Yoke M	PNB1312
NSP	14	Servo Stopper S	ANB7047	NSP	64	Disc Table	PNW2410
	15	Loading Base	ANW7051	NSP	65	Float Angle	ANB7020
	16	Cam Cover	ANW7052		66	Gear Stopper	PNB1303
	17	Motor Holder	ANW7053		67	Screw	BPZ20P060FMC
	18	Sensor Holder	ANW7054		68	Screw	BPZ26P100FMC
	19	Float Base	ANW7055				
	20	Clamper Holder	ANW7084				
	21	Arm (A)	ANW7057			Froil (for Service)	GYA1001
	22	Arm (B)	ANW7058			Ha Narl (for Service)	GEM1016
	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	LED Lens	ANW7072				
	34	Roller B	ANW7075				
	35	Motor Pulley	PNW1634				
	36	Clamper	ANW7085				
	37	Float Spring	ABH7049				
	38	Connector Assy (4P)	ADE7006				
	39	Float Rubber	AEB7059				
NSP	40	Servo Mechanism Assy GM	AXA7028				
	41	Screw	IPZ20P080FMC				
	42	Motor Assy (SELECT)	AEA7005				
NSP	43	Motor	PXM1002				
	44	Motor Assy	AEA7006				
	45	Loading Motor	VXM1034				
	46	Gear 1	PNW2052				
	47	Gear 2	PNW2053				
	48	Gear 3	PNW2054				
	49	Carriage Base	PNW2445				
	50	Pickup Assy	AEA7004				

4.3 GM SLOT IN MECHANISM ASSY
Parts List

Mark	No.	Description	Parts No.
NSP	1	Sensor Board Assy	AWZ7839
NSP	2	LED Board Assy	AWZ7840
NSP	3	Motor Board Assy	AWZ7841
	4	Blind	AAK7219
	5	Roller Spring	ABH7063
	6	Belt	AEB7033
	7	Ecsaine	AED7004
	8	Gear Holder	ANW7047
	9	Slide Plate	ANW7048
	10	Case (M)	ANW7049
	11	Case (S)	ANW7077
	12	Gear Pulley A	ANW7066
	13	Guide Roller	ANW7076
	14	Roller Assy	AXA7029
	15	Motor Pulley	PNW1634
	16	DC Motor /0.75W	PXM1010
	17	Screw	IPZ20P080FMC



A



16

5. SCHEMATIC AND PCB CONNTCTION DIAGRAMS

5.1 GM MECHANISM ASSY AND GM SLOT IN MECHANISM ASSY

NOTE FOR SCHEMATIC DIAGRAMS (Type 4A)

1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

3. RESISTORS:
Unit: k Ω , M Ω , or Ω unless otherwise noted.
Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
Tolerance: (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ or $\pm 5\%$ unless otherwise noted.

4. CAPACITORS:
Unit: pF or μ F unless otherwise noted.
Ratings: capacitor (μ F/voltage(V)) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.

5. COILS:
Unit: mH or μ H unless otherwise noted.

6. VOLTAGE AND CURRENT:
□ or $\leftarrow$ V:
DC voltage (V) in PLAY mode unless otherwise noted.
mA or $\leftarrow$ mA:
DC current in PLAY mode unless otherwise noted.
Value in () is DC current in STOP mode.

7. OTHERS:
• $\odot$ or $\odot$: Adjusting point.
• Δ : Measurement point.
• The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

8. SCH-□ ON THE SCHEMATIC DIAGRAM:
• SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

9. SWITCHES (Underline indicates switch position):

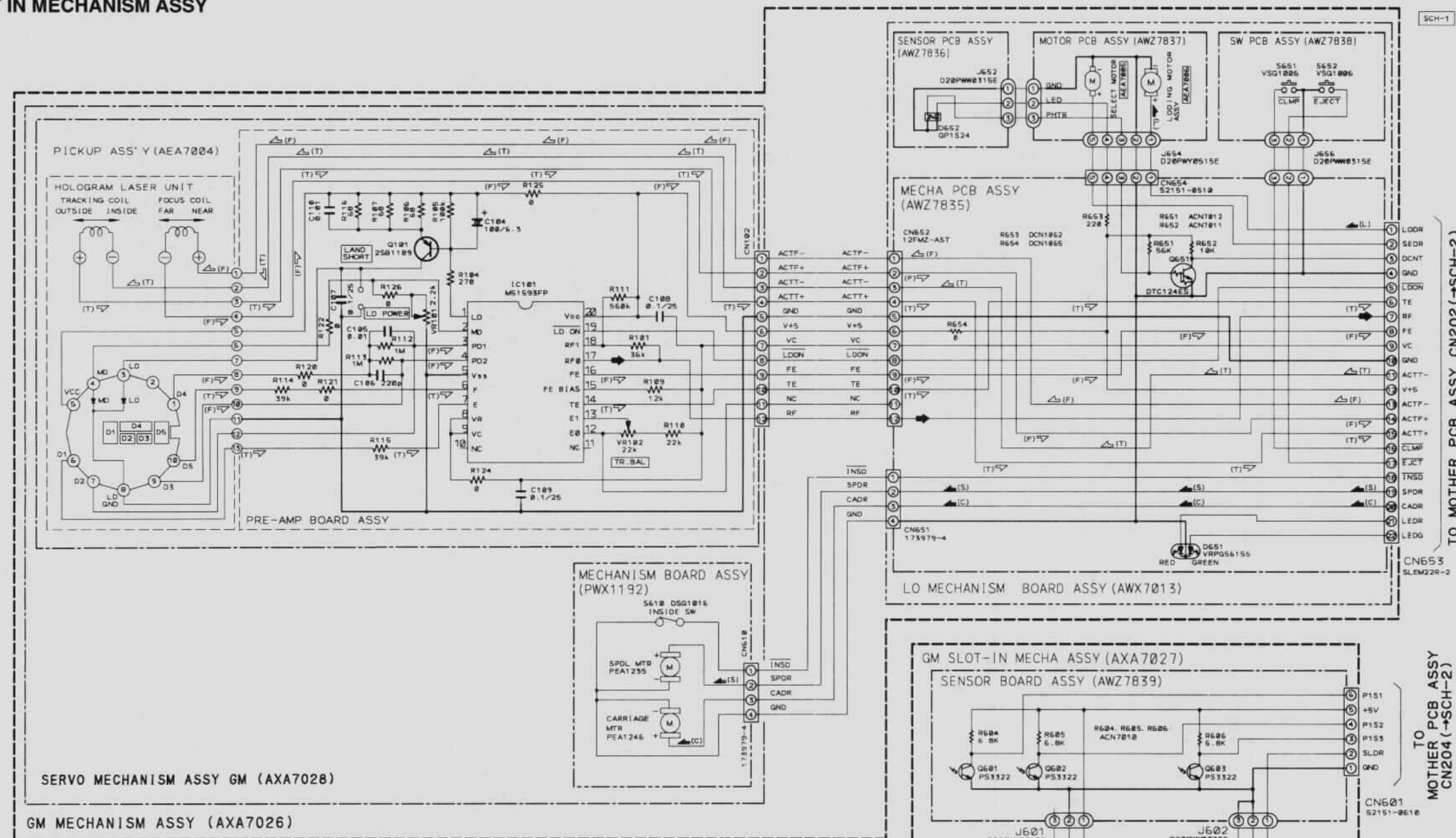
FUNCTION PCB ASSY
S701: MODE
S702: CLEAR
S703: $\blacksquare$
S704: $\blacktriangleleft\blacktriangleright$
S705: $\blacktriangleleft\blacktriangleright$
S706: TIME
S707: HILITE
S708: PGM
S709: $\blacktriangleright/\blacksquare$
S710: BEST
S711: DISC (-)
S712: DISC (+)
S713: RANDOM
S714: REPEAT
S715: PREVIOUS

POWER SW PCB ASSY
S751: EJECT
S752: POWER STANDBY/ON

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



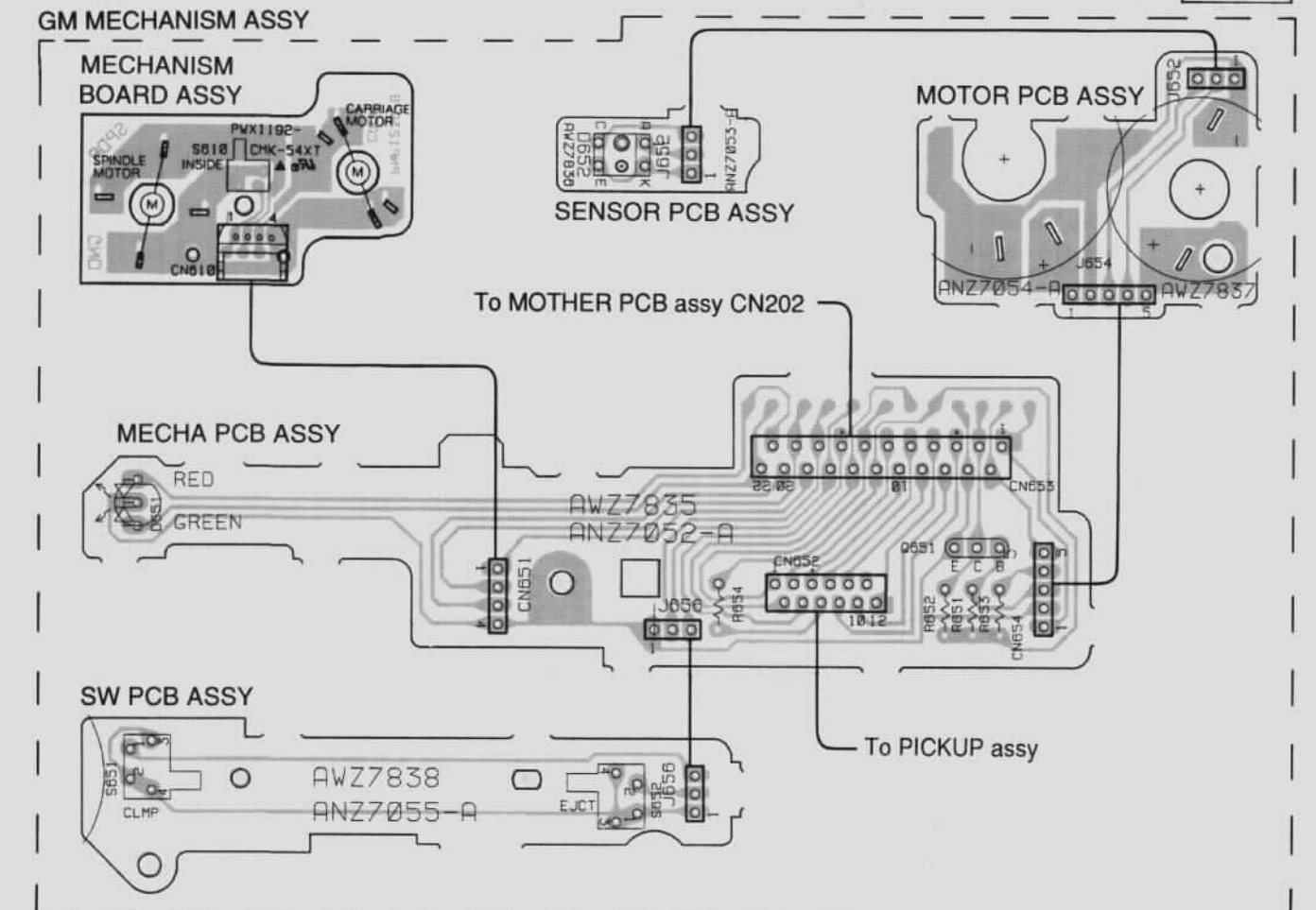
SIGNAL ROUTE
(F) FOCUS SERVO LOOP LINE
(T) TRACKING SERVO LOOP LINE
(L) LOADING MOTOR ROUTE
(S) SPINDLE MOTOR ROUTE
(C) CARRIAGE MOTOR ROUTE
+ AUDIO SIGNAL

SCH-1

GM MECHANISM ASSY,
GM SLOT IN MECHANISM ASSY

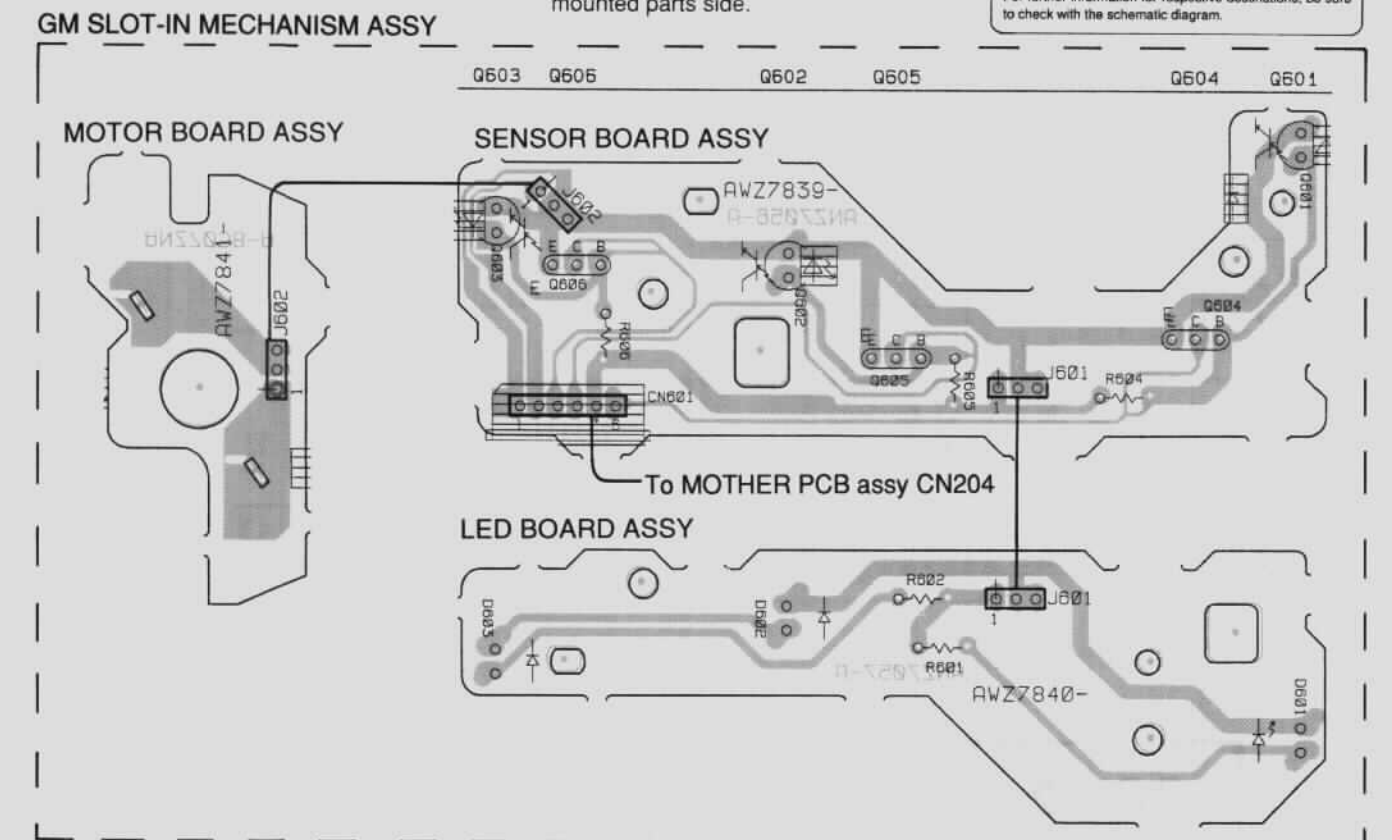
GM MECHANISM ASSY,
GM SLOT IN MECHANISM ASSY

SCH-1



• This diagram is viewed from the mounted parts side.

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.

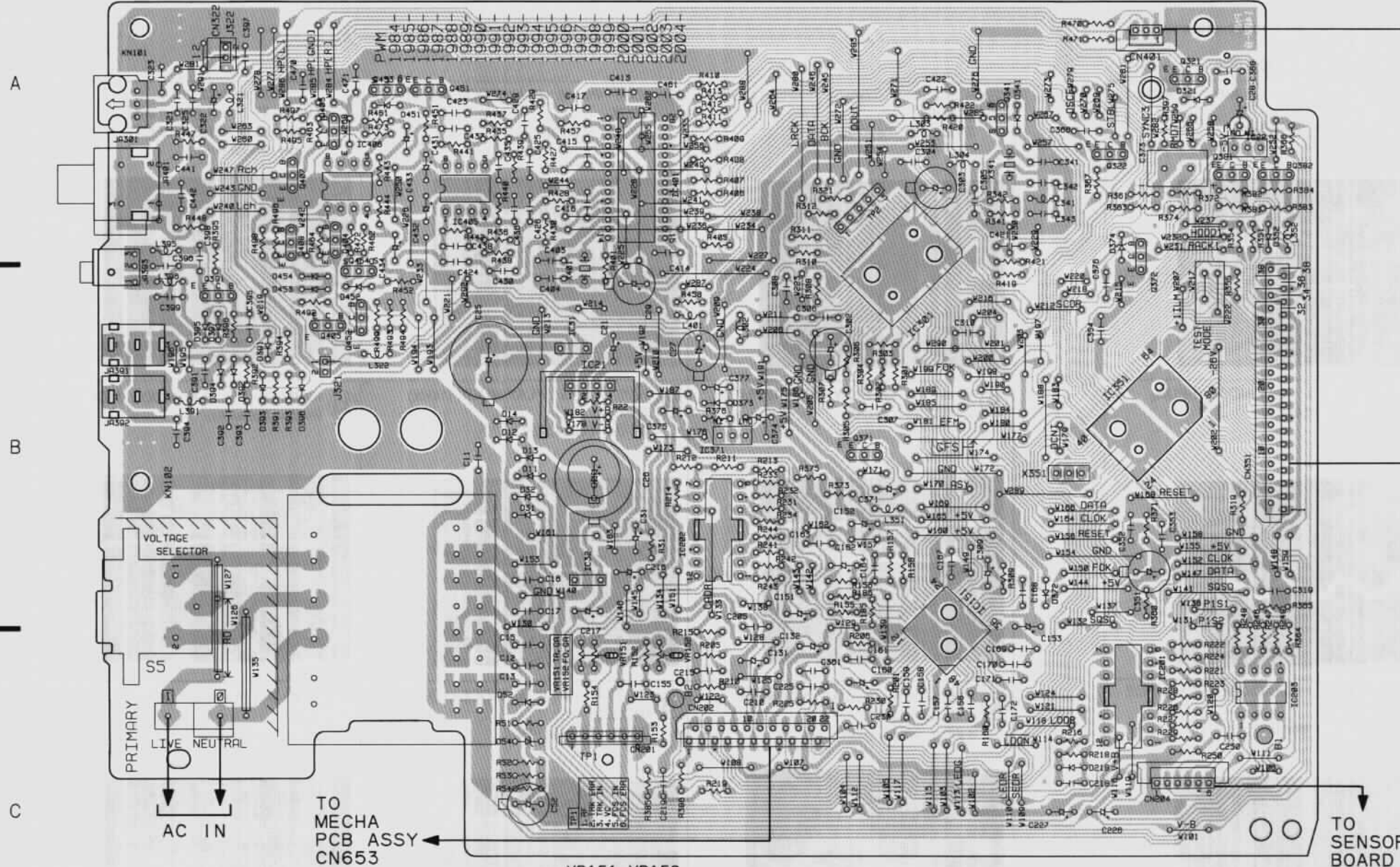


• This diagram is viewed from the mounted parts side.

• 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.

MOTHER PCB ASSY



Q391 Q407 Q403 Q453 Q451
Q408 IC406 IC405
Q405 Q404
Q454
Q452

VR151 VR152

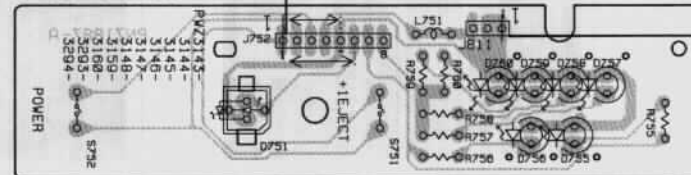
IC31 IC401 IC371
IC21 IC202
IC32

Q371 IC301 Q341
IC151

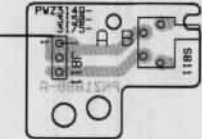
Q322 Q321 IC22 Q382
Q372 Q381 IC203
IC351
IC201

PNP1400-B

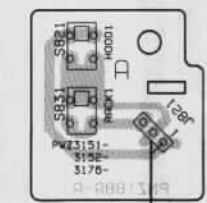
POWER SW PCB ASSY



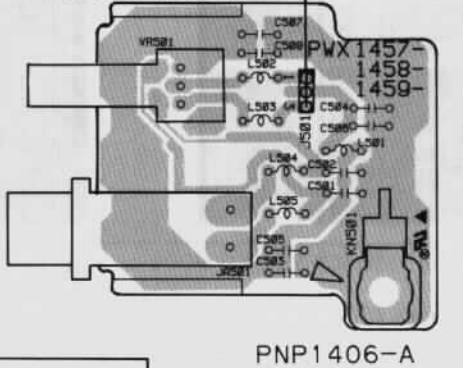
HOME SW PCB ASSY



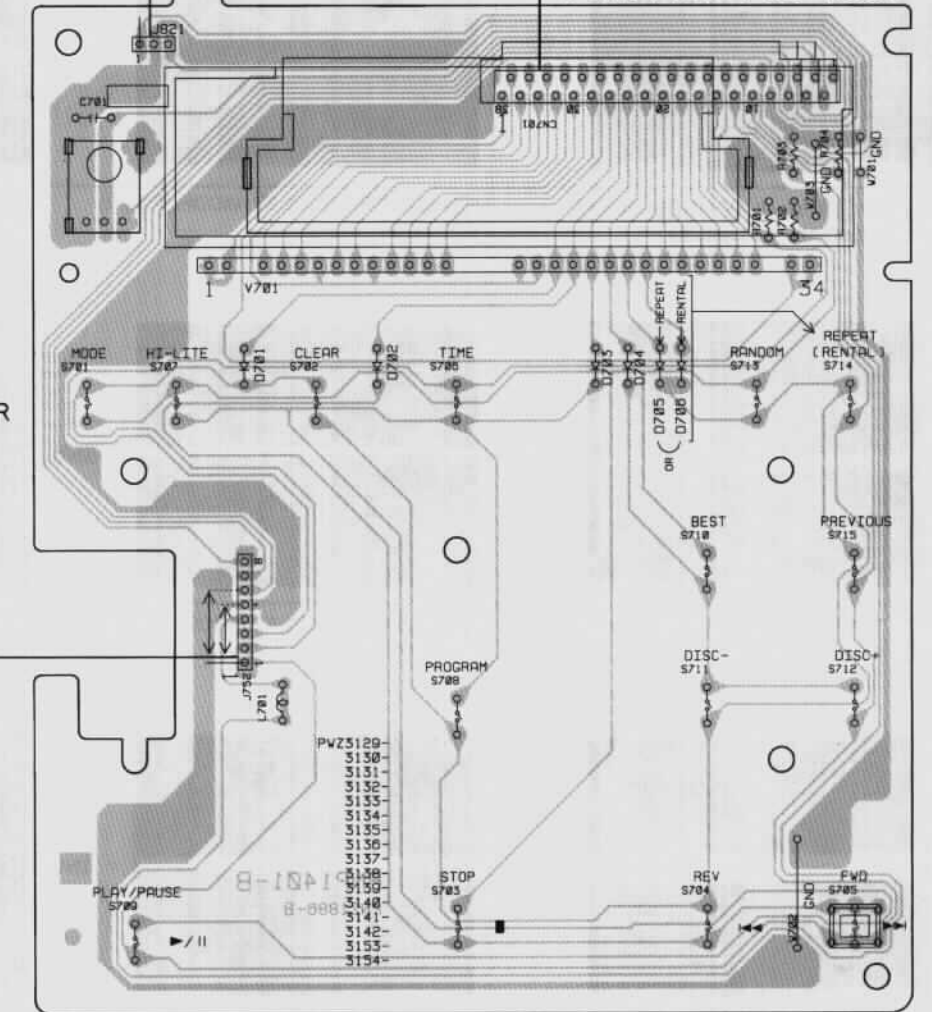
HOOD SW PCB ASSY



HEADPHONE PCB ASSY



FUNCTION PCB ASSY



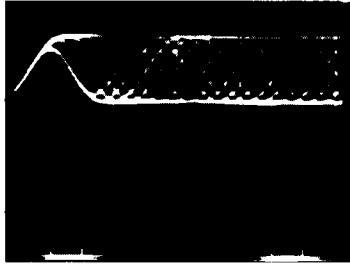
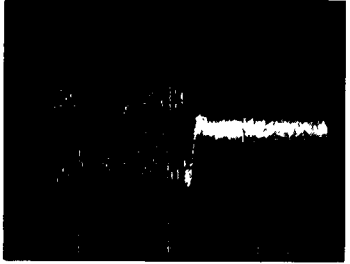
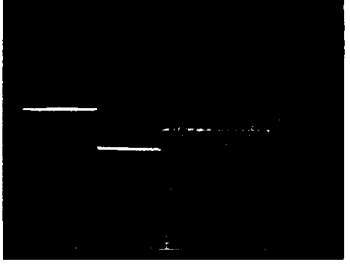
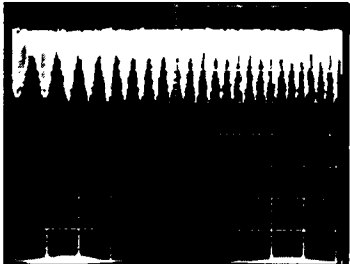
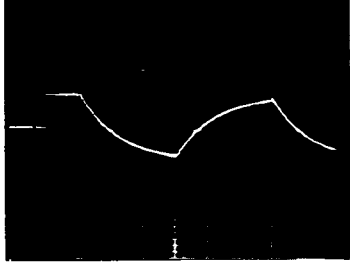
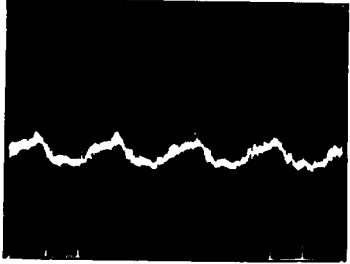
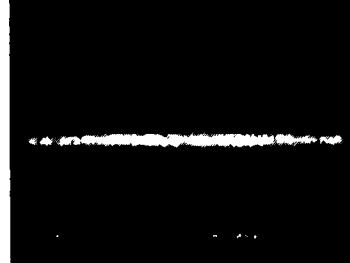
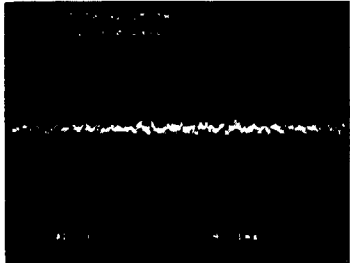
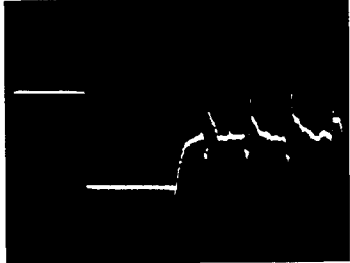
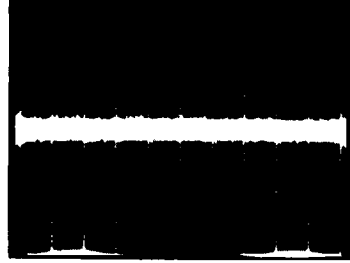
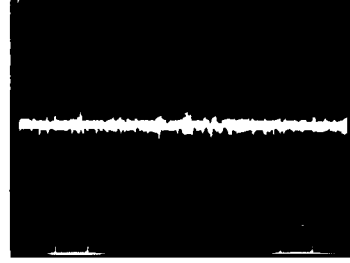
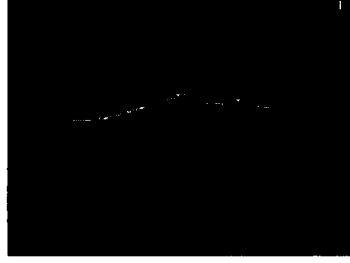
PNP1401-B

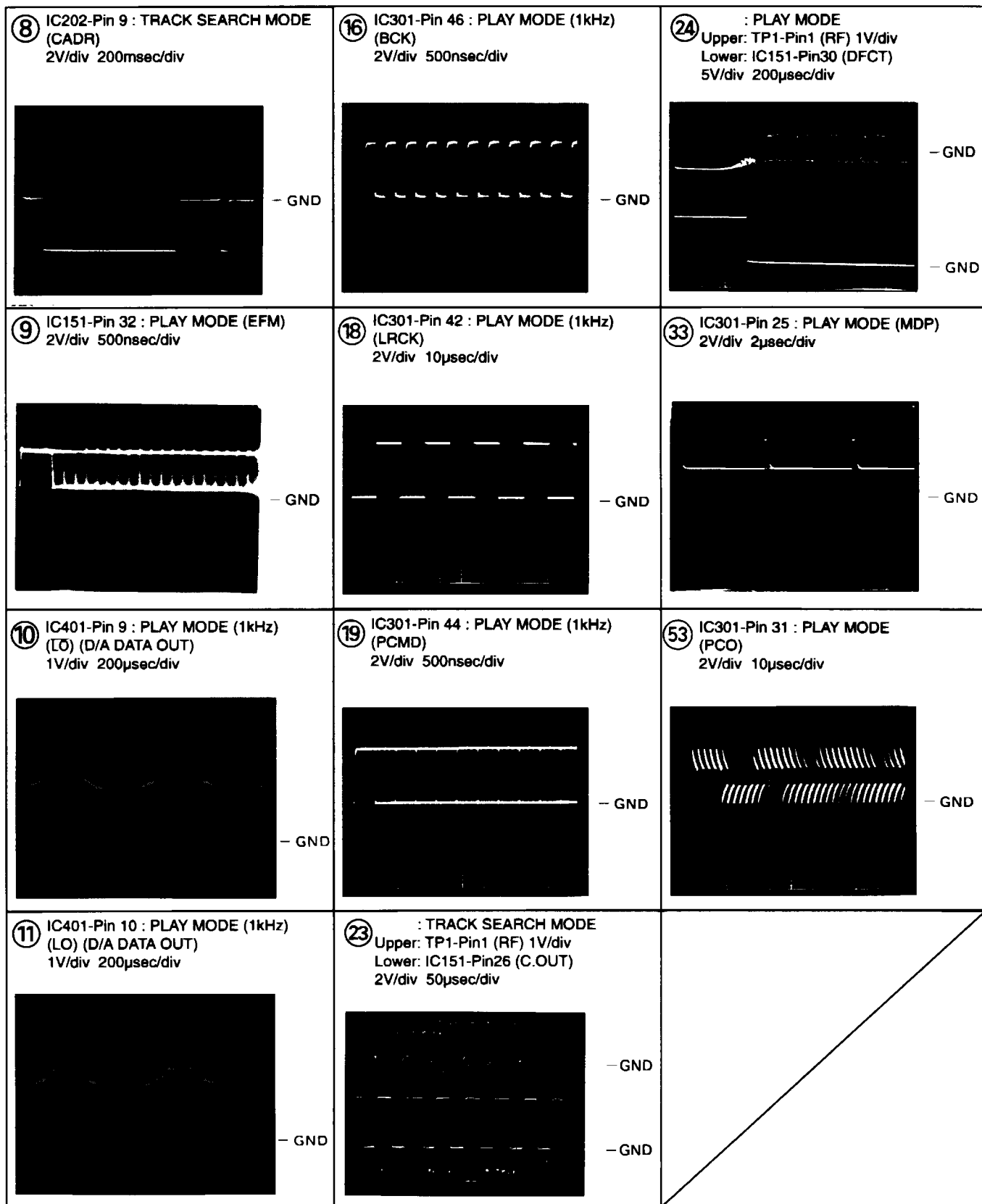
Waveforms

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) 1V/div 1msec/div  - GND	⑥ IC202-Pin 4 : 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 3 : 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  - VC	⑤ IC202-Pin 3 : PLAY MODE (FODR) 1V/div 1msec/div  - GND	⑦ IC201-Pin 9 : TRACK SEARCH MODE (SPDR) 2V/div 50msec/div  - GND
④ TP1-Pin 2 : PLAY MODE (TRER) 1V/div 1msec/div  - VC	⑥ IC202-Pin 4 : PLAY MODE (TRDR) 500mV/div 1msec/div  - GND	⑧ IC202-Pin 9 : PLAY MODE (CADR) 0.2V/div 2sec/div  - GND



6. 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.
- Parts marked by "●" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- When ordering resistors, first convert resistance values into code form as shown in the following examples.

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

560 Ω	$\rightarrow$	56 $\times$ 10 ¹	$\rightarrow$	561	RD1/4PU561J
47k Ω	$\rightarrow$	47 $\times$ 10 ³	$\rightarrow$	473	RD1/4PU473J
0.5 Ω	$\rightarrow$	0R5			RN2H0R5K
1 Ω	$\rightarrow$	1R0			RS1P1R0K

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

5.62k Ω	$\rightarrow$	562 $\times$ 10 ¹	$\rightarrow$	5621	RN1/4PC5621F
----------------	---------------	------------------------------	---------------	------------	--------------

■ LIST OF WHOLE PCB ASSEMBLIES

Mark	Symbol & Description	Part No.					Remarks
		KUXJ TYPE	KCXJ TYPE	WPWXJ TYPE	WYXJ TYPE	RDXJ TYPE	
Δ	MOTHER PCB ASSY	PWM2000	PWM2000	PWM2003	PWM2001	PWM2004	*1
NSP	SUB PCB ASSY	PWX1443	PWX1443	PWX1444	PWX1444	PWX1444	
NSP	└─HOME SW PCB ASSY	PWZ3149	PWZ3149	PWZ3149	PWZ3149	PWZ3149	
NSP	└─HOOD SW PCB ASSY	PWZ3151	PWZ3151	PWZ3151	PWZ3151	PWZ3151	
	└─FUNCTION PCB ASSY	PWZ3153	PWZ3153	Not used	Not used	Not used	
NSP	└─FUNCTION PCB ASSY	Not used	Not used	PWZ3154	PWZ3154	PWZ3154	
NSP	└─POWER SW PCB ASSY	PWZ3159	PWZ3159	PWZ3160	PWZ3160	PWZ3160	
NSP	HEADPHONE PCB ASSY	PWX1457	PWX1457	PWX1457	PWX1457	PWX1457	
NSP	GM MECHANISM ASSY	AXA7026	AXA7026	AXA7026	AXA7026	AXA7026	
NSP	└─LO MECHANISM BOARD ASSY	AWX7013	AWX7013	AWX7013	AWX7013	AWX7013	
NSP	└─└─MECHA PCB ASSY	AWZ7835	AWZ7835	AWZ7835	AWZ7835	AWZ7835	
NSP	└─└─SENSOR PCB ASSY	AWZ7836	AWZ7836	AWZ7836	AWZ7836	AWZ7836	
NSP	└─└─MOTOR PCB ASSY	AWZ7837	AWZ7837	AWZ7837	AWZ7837	AWZ7837	
NSP	└─└─SW PCB ASSY	AWZ7838	AWZ7838	AWZ7838	AWZ7838	AWZ7838	
NSP	└─SERVO MECHANISM ASSY	AXA7028	AXA7028	AXA7028	AXA7028	AXA7028	
NSP	└─└─MECHANISM BOARD ASSY	PWX1192	PWX1192	PWX1192	PWX1192	PWX1192	
NSP	GM SLOT IN MECHANISM ASSY	AXA7027	AXA7027	AXA7027	AXA7027	AXA7027	
NSP	└─SLOT IN MECHA BOARD ASSY	AWX7014	AWX7014	AWX7014	AWX7014	AWX7014	
NSP	└─└─SENSOR BOARD ASSY	AWZ7839	AWZ7839	AWZ7839	AWZ7839	AWZ7839	
NSP	└─└─LED BOARD ASSY	AWZ7840	AWZ7840	AWZ7840	AWZ7840	AWZ7840	
NSP	└─└─MOTOR BOARD ASSY	AWZ7841	AWZ7841	AWZ7841	AWZ7841	AWZ7841	

Notes >

*1 : Although PWZ3154 and PWZ3153 are different in port number. They consist of the same component.

■ CONTRAST OF PCB ASSEMBLIES

MOTHER PCB ASSY

PWM2003, PWM2001, PWM2004 and PWM2000 have the same construction except for the following:

Mark	Symbol & Description	Part No.				Remarks
		PWM2000	PWM2003	PWM2001	PWM2004	
	C132 C302, C304 C303 C310 C341	Not used CGCYX473K25 CFTYA104J50 CKCYF103Z50 CCCCH100D50	Not used Not used CEAS471M6R3 Not used Not used	CEAS100M16 Not used CEAS471M6R3 Not used Not used	Not used Not used CEAS471M6R3 Not used Not used	
	C342 C343 C368 C393 C403	CKCYB102K50 CCCCH220J50 Not used CCCSL101J50 Not used	Not used Not used CKCYB102K50 CCCSL101J50 CCCCH120J50	Not used Not used CKCYB102K50 Not used CCCCH120J50	Not used Not used CKCYB102K50 Not used CCCCH120J50	
	C404 C413 – C416 C417 C421, C422 C423 – C426	Not used Not used Not used CKCYB471K50 CCCSL181J50	CCCCH220J50 CFTYA104J50 CGCYX104K25 Not used Not used	CCCCH220J50 CFTYA104J50 CGCYX104K25 Not used Not used	CCCCH220J50 CFTYA104J50 CGCYX104K25 Not used Not used	
	C429, C430 C432 C433, C434 C435 – C438 C441, C442 (1500pF)	Not used Not used CEANP220M10 CCCSL101J50 CKCYB152K50	CCCCH390J50 CEAS470M25 CEAS220M25 CCCCH390J50 PCL1030	CCCCH390J50 CEAS470M25 CEAS220M25 CCCCH390J50 PCL1030	CCCCH390J50 CEAS470M25 CEAS220M25 CCCCH390J50 PCL1030	
△	C461 D321, D341 D391 – D394	Not used 1SS254 1SS254	CKCYF103Z50 Not used 1SS254	CKCYF103Z50 Not used Not used	CKCYF103Z50 Not used Not used	
△	IC31 IC401	Not used Not used	ICP – N10 PD2026B(L)	ICP – N10 PD2026B(L)	ICP – N10 PD2026B(L)	
	JA391, JA392 L302, L303 L341 L372 L391	RKN1004 LAU010J LAUIR2J Not used LAU010J	RKN1004 Not used Not used LAUR47J LAU010J	Not used Not used Not used LAUR47J Not used	Not used Not used Not used LAUR47J Not used	
△	Q322 Q341 R310 – R312, R405 – R410 R341 R342, R366	Not used 2SK246 Not used RD1/4PU511J RD1/4PU105J	DTC124ES Not used RD1/4PU471J Not used Not used	DTC124ES Not used RD1/4PU471J Not used Not used	DTC124ES Not used RD1/4PU471J Not used Not used	
	R351 R364, R367 R365 R391 R392	Not used Not used RD1/4PU103J RD1/4PU244J RD1/4PU102J	RD1/4PU221J RD1/4PU103J Not used RD1/4PU244J RD1/4PU102J	RD1/4PU221J RD1/4PU103J Not used Not used Not used	RD1/4PU221J RD1/4PU103J Not used Not used Not used	
	R401 R419 – R422 R427 – R430 R435 – R438 R439 – R442	Not used RD1/4PU562J RD1/4PU153J RD1/4PU333J RD1/4PU563J	RD1/4PU102J Not used RD1/4PU223J RD1/4PU163J RD1/4PU433J	RD1/4PU102J Not used RD1/4PU223J RD1/4PU163J RD1/4PU433J	RD1/4PU102J Not used RD1/4PU223J RD1/4PU163J RD1/4PU433J	
△	S5 X341 (4.19MHz) X401 (16.9344MHz)	Not used ASS7000 Not used	Not used Not used PSS1008	Not used Not used PSS1008	PSB1006 Not used PSS1008	

POWER SW PCB ASSY

PWZ3160 and PWZ3159 have the same construction except for the following:

Mark	Symbol & Description	Part No.		Remarks
		PWZ3159	PWZ3160	
	D751	Not used	PCX1019	

■ PCB PARTS LIST FOR PD-F705/KUXJ

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
MOTHER PCB ASSY							
SEMICONDUCTORS							
△		IC406	BA15218			C170	CKCYB332K50
		IC151	CXA1372Q			C421, C422	CKCYB471K50
		IC301	CXD2508AQ			C172	CKCYB472K50
△		IC203	LA6517	△		C155	CKCYB561K50
△		IC201, IC202	LA6520			C11, C13, C15, C16	CKCYF103Z50
		IC405	NJM4558D – D			C17, C167, C205, C210, C215	CKCYF103Z50
△		IC22	NJM79L05A			C219, C250, C310, C325, C353	CKCYF103Z50
		IC351	PD4674B			C354, C361	CKCYF103Z50
△		IC21	PQ05RR12			C25 (6800μF/16V)	VCH1060
		Q381, Q382, Q391	2SC1740S	RESISTORS			
		Q403, Q404	2SD2144S			VR151, VR152 (22kΩ, 0.1W)	RCP1046
		Q341	2SK246			Other Resistors	RD1/4PU□□□□
		Q321, Q405	DTC124ES	OTHERS			
		D218, D321, D341, D391 – D397	1SS254			CN401	3P JUMPER CONNECTOR
		D54	MTZJ18B			CN204	6P JUMPER CONNECTOR
△		D11 – D14, D52	S5688G			X341	XTAL RES (OSC)
COILS AND FILTERS							(33.8688MHz)
		L302, L303, L321, L391	LAU010J			CN202	CONNECTOR
△		L395, L396	LAU010J			CN351	CONNECTOR
		L351	LAU100J			JA401	JACK
		L341	LAU1R2J			JA393	JACK
CAPACITORS				△		JA391, JA392	TERMINAL
		C341	CCCCH100D50				JACK
		C343	CCCCH220J50			CN201	CONNECTOR 6P
		C393, C435 – C438	CCCSL101J50			JA301	OPTICAL OUTPUT JACK
		C423 – C426	CCCSL181J50			X351	CERAMIC RESONATOR
		C433, C434	CEANP220M10				(4.19MHz)
		C52	CEAS101M35	HOME SW PCB ASSY			
		C322	CEAS101M6R3	SWITCHES AND RELAYS			
		C28	CEAS220M16			S811	DSG1048
		C26	CEAS222M16	HOOD SW PCB ASSY			
		C27	CEAS330M16	SWITCHES AND RELAYS			
		C351	CEAS471M6R3			S821	DSG1015
		C160, C162	CEAS4R7M50	OTHERS			
		C309	CEASR47M50			J821	3P JUMPER WIRE
		C303	CFTYA104J50				D20PWW0305E
		C157, C164, C169, C218	CGCYX103K25	FUNCTION PCB ASSY			
		C158, C159, C161, C163, C321	CGCYX104K25	SEMICONDUCTORS			
		C156, C168	CGCYX333K25			D701 – D705	1SS254
		C302, C304, C307	CGCYX473K25	SWITCHES AND RELAYS			
		C171, C342	CKCYB102K50			S701 – S715	PSG1006
		C306, C441, C442	CKCYB152K50				

PD-F705

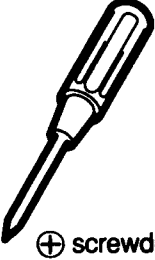
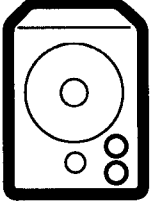
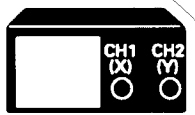
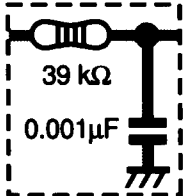
Mark	No.	Description	Parts No.
CAPACITORS			
	C701		CKCYF103Z50
RESISTORS			
		All Resistors	RD1/4PU□□□J
OTHERS			
	CN701	CONNECTOR	HLEM38R – 1
	V701	FL INDICATOR TUBE	PEL1089
		REMOTE SENSOR	SBX1785 – 51
POWER SW PCB ASSY			
SEMICONDUCTORS			
	D755, D756	LED(RED)	SLR – 342VCT31
	D757 – D760	LED(YELLOW)	SLR – 342YCT31
SWITCHES AND RELAYS			
	S751, S752		PSG1006
RESISTORS			
		All Resistors	RD1/4PU□□□J
HEADPHONE PCB ASSY			
COILS AND FILTERS			
	△ L501, L504, L505		LAU010J
CAPACITORS			
	C501, C502, C504, C506		CKPUYF223Z25
RESISTORS			
	VR501	(500Ω – B)	PCS1015
OTHERS			
	JA501	JACK	RKN1002
MECHA PCB ASSY			
SEMICONDUCTORS			
	Q651		DTC124ES
	D651		VRPG5615S
RESISTORS			
	R652	(10kΩ)	ACN7011
	R651	(56kΩ)	ACN7012
	R653	(220Ω, 1/6W)	DCN1062
	R654	(0Ω)	DCN1065
OTHERS			
	CN652	CONNECTOR	12FMZ – AST
	CN651	MT CONNECTOR 4P	173979 – 4
	CN653	CONNECTOR	SLEM22R – 2
SENSOR PCB ASSY			
SEMICONDUCTORS			
	D652		GP1S24
OTHERS			
	J652	3P JUMPER WIRE	D20PWW0315E

Mark	No.	Description	Parts No.
MOTOR PCB ASSY			
OTHERS			
		LOADING MOTOR	VXM1034
SW PCB ASSY			
SWITCHES AND RELAYS			
	S651, S652		VSG1006
OTHERS			
	J656	3P JUMPER WIRE	D20PWW0315E
MECHANISM BOARD ASSY			
SWITCHES AND RELAYS			
	S610		DSG1016
OTHERS			
	CN610	MT CONNECTOR 4P	173979 – 4
SENSOR BOARD ASSY			
SEMICONDUCTORS			
	Q601 – Q603		PS3322
RESISTORS			
	R604 – R606	(6.8kΩ)	ACN7010
OTHERS			
	CN601	6PJUMPER CONNECTOR	52151 – 0610
LED BOARD ASSY			
SEMICONDUCTORS			
	D601 – D603		AN329
RESISTORS			
	R602	(390Ω)	ACN7007
	R601	(560Ω)	ACN7009
OTHERS			
	J601	3P JUMPER WIRE	D20PWW0315E
MOTOR BOARD ASSY			
OTHERS			
	J602	3P JUMPER WIRE	D20PWW0305E

7. ADJUSTMENTS (調整方法)

7.1 PREPARATIONS (準備)

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

 CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)
 ⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	 Low pass filter (39 kΩ + 0.001 μF)

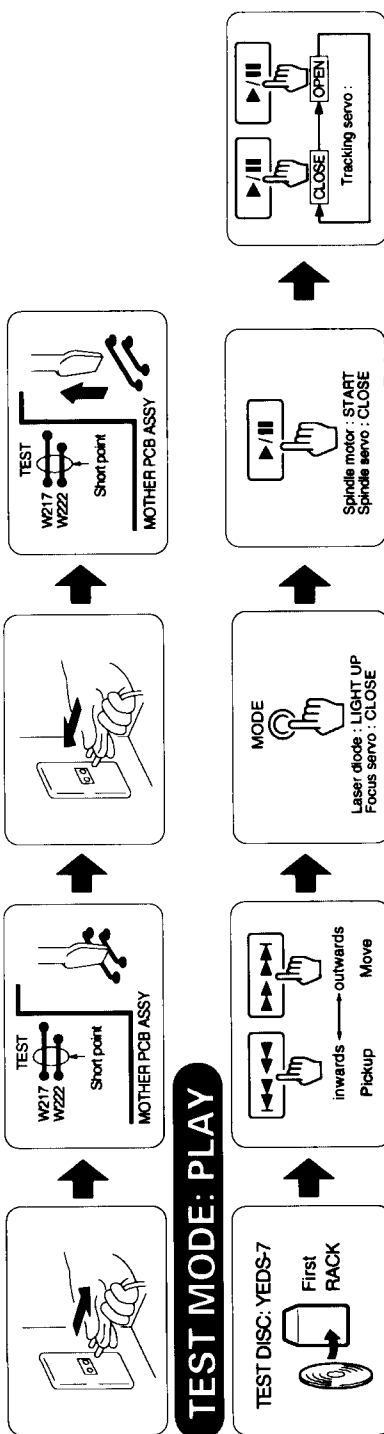
1.2 Necessary Adjustment Points (調整に必要な項目)

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. → Page 29～31
Exchange CD ASSY (CD ASSYを交換した時)	1.2.3.4.5.6. → Page 29～31
Exchange SERVO MECH ASSY (サーボメカ ASSYを交換した時)	1.2.3.4.5.6. → Page 29～31
Exchange SPINDLE MOTOR (スピンドルモーターを交換した時)	 ADJ → Page 10

7.2 ADJUSTMENT (調整)

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

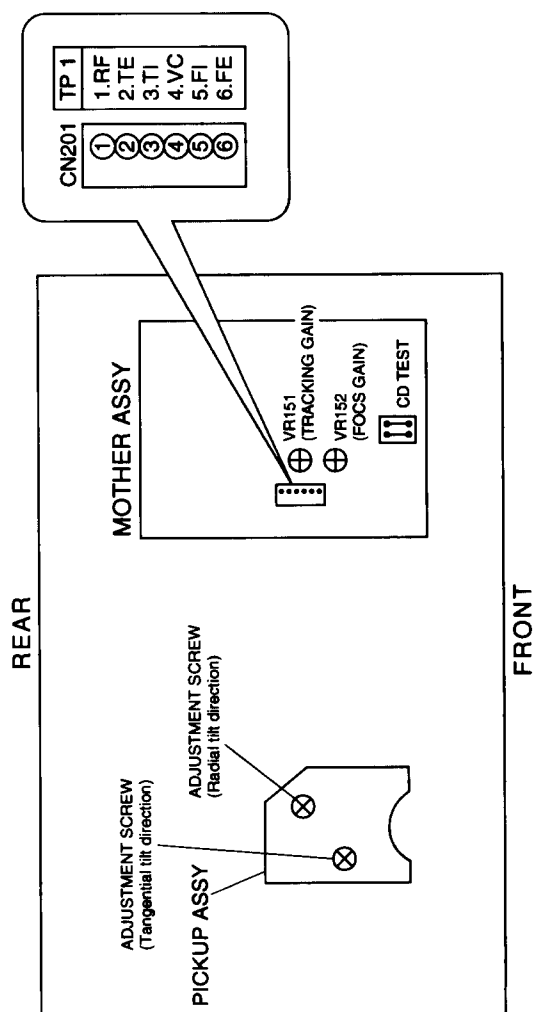
TEST MODE: ON



TEST MODE: STOP → CANCEL



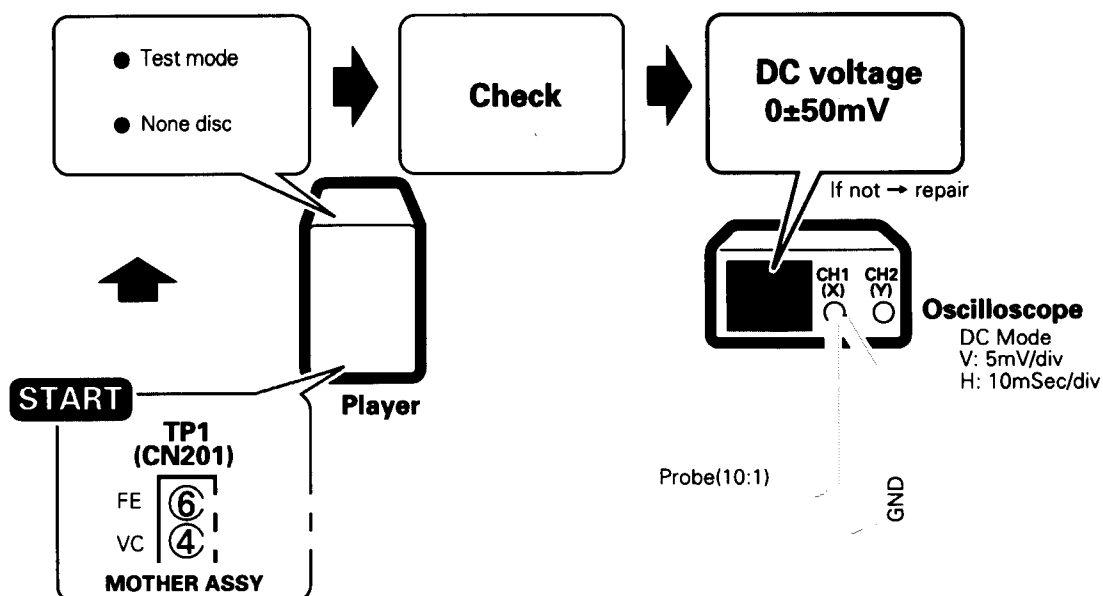
2 Adjustment Locations (テストポイントと調整用VVRの位置)



7.3 Check and Adjustment (確認、調整)

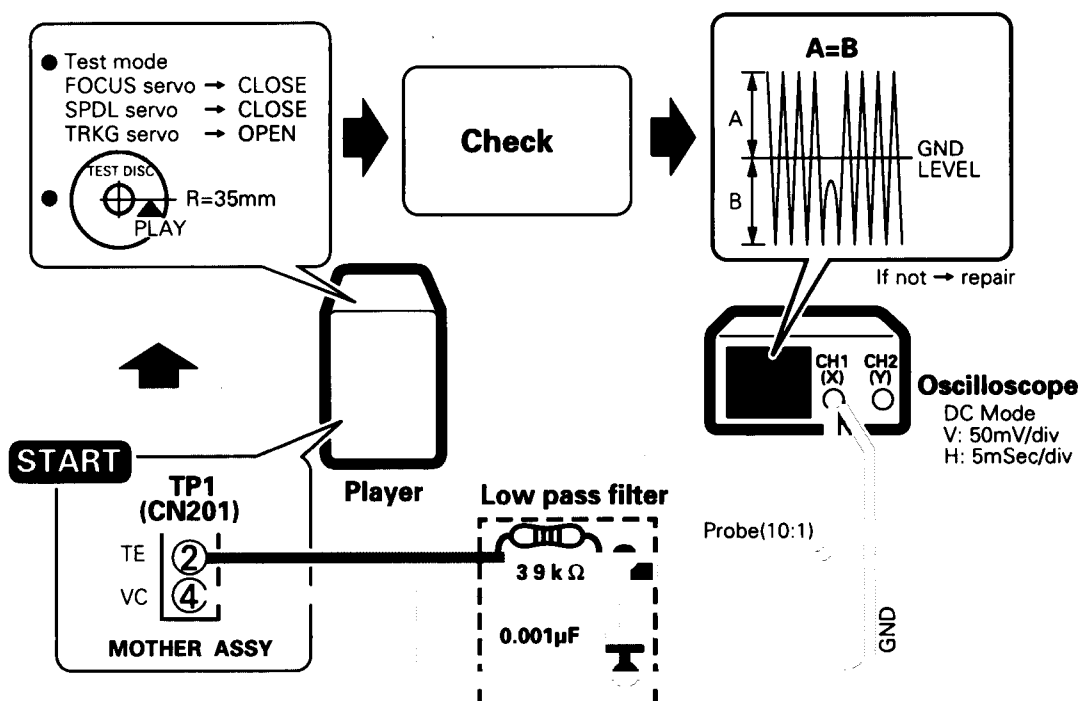
1. Focus Offset Check

(フォーカスオフセット確認)



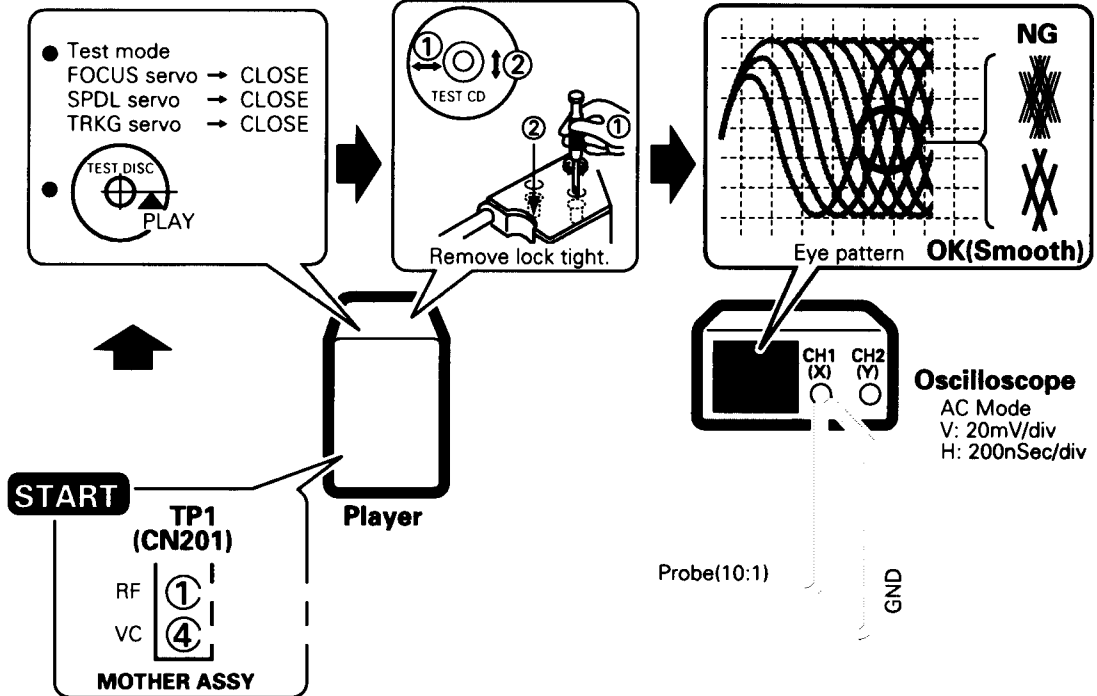
2. Tracking Error Balance Check

(トラッキングエラーバランス確認)



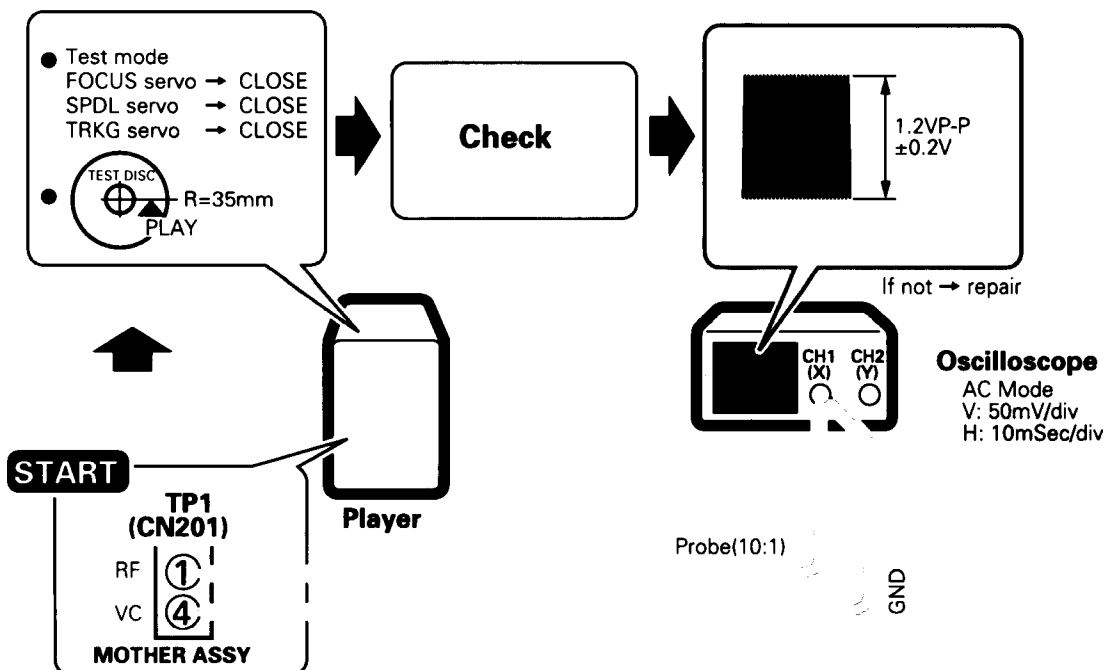
3. PICKUP ①RADIAL / ②TANGENTIAL DIRECTION TILT ADJUSTMENT

(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)



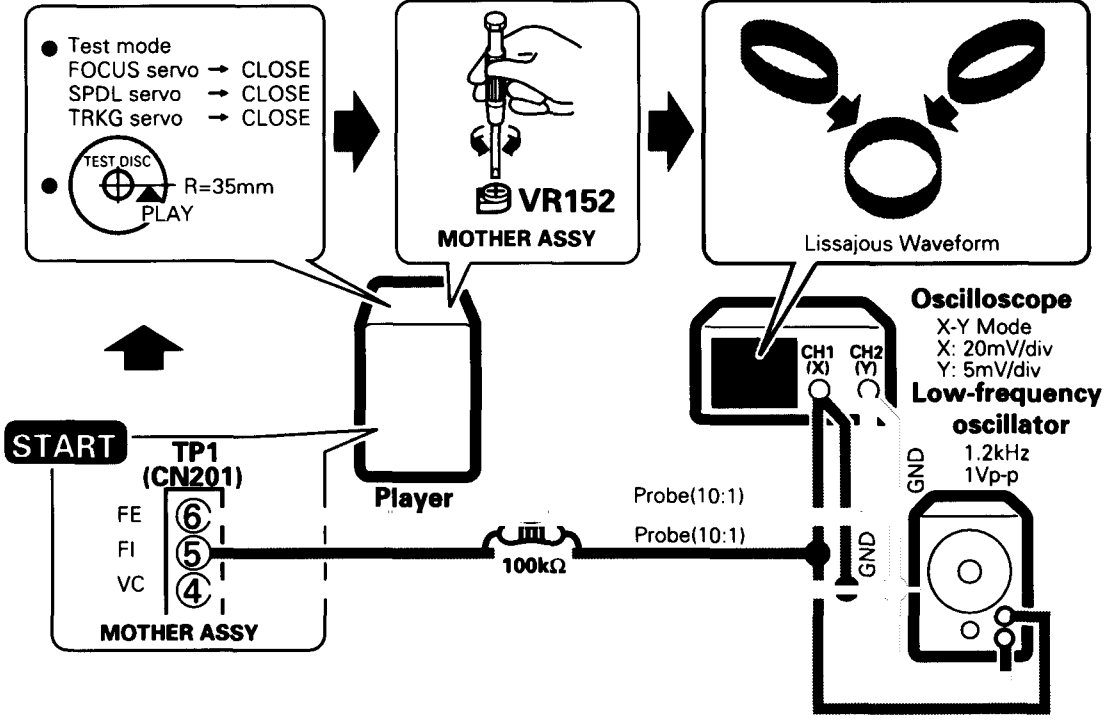
4. RF LEVEL CHECK

(RFレベル確認)



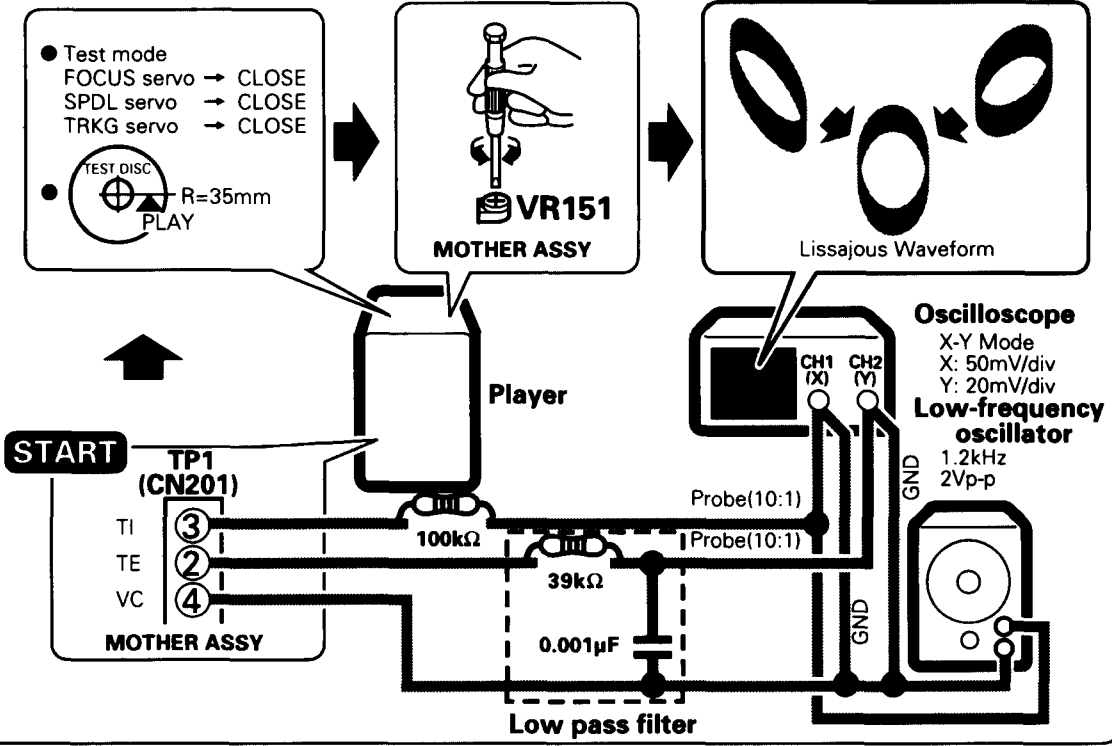
5. Focus Servo Loop Gain Adjustment

(フォーカサーボループゲイン調整)



6. Tracking Servo Loop Gain Adjustment

(トラッキングサーボループゲイン調整)

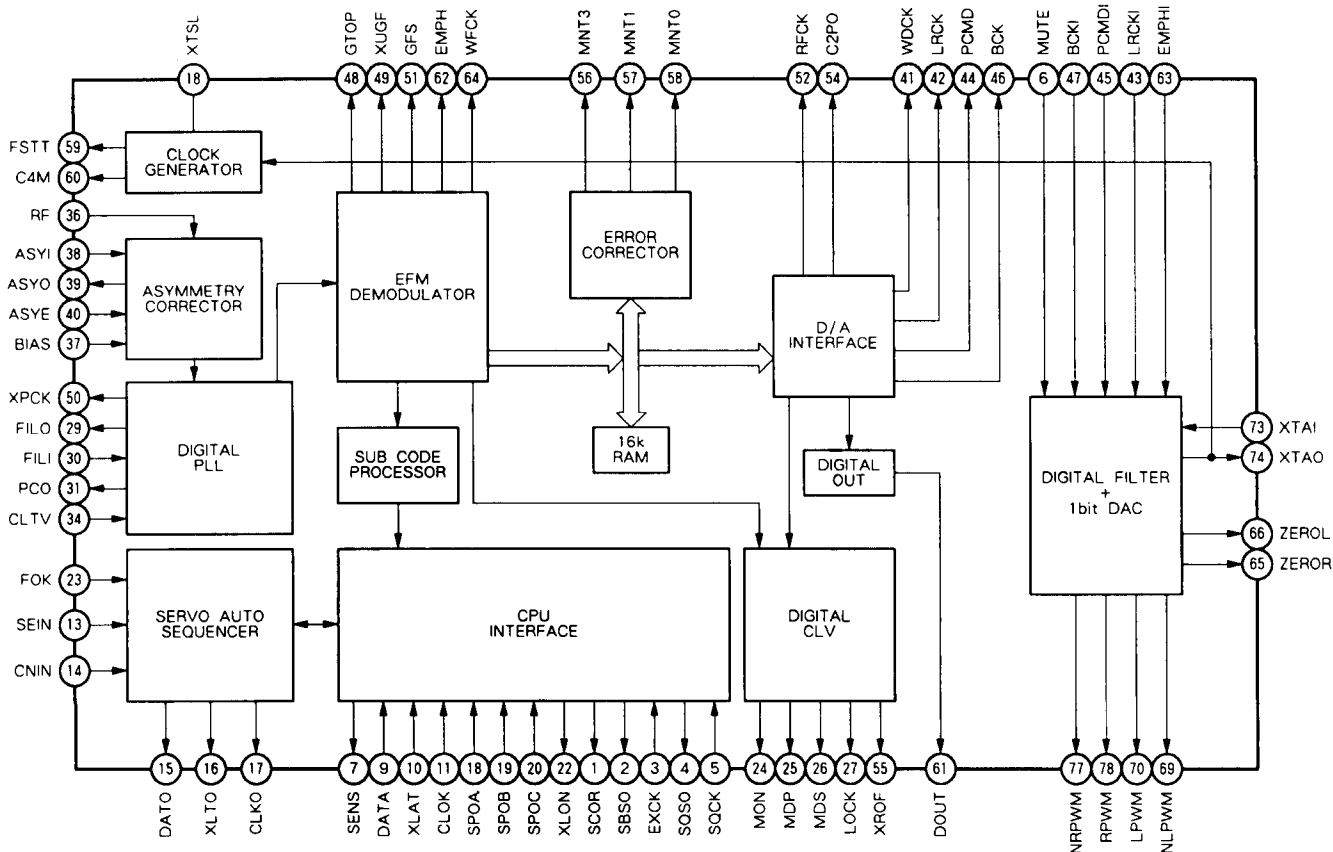


8. IC INFORMATION

- The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.
- CXD2508AQ (IC301 : MOTHER PCB ASSY)
- Digital signal processor for CD
- Pin Arrangement



• Block Diagram



● Pin Function

No.	Pin Name	I/O	Function
1	SCOR	O	H when detecting subcode sync. either S0 or S1.
2	SBSO	O	Serial output of SUBP – W.
3	EXCK	I	Clock input for SBSO lead out.
4	SQSO	O	Serial output of SUBQ 80 bit.
5	SQCK	I	Clock input for SQSO lead out.
6	MUTE	I	Mute for H and release for L (DAC section).
7	SENS	O	SENS output to CPU.
8	XRST	I	System reset. Reset for L.
9	DATA	I	Serial data input from CPU.
10	XLAT	I	Latch input from CPU and latch the serial data at falling edge.
11	CLOK	I	Serial data transferring clock input from CPU.
12	VSS	—	GND.
13	SEIN	I	Sens input from SSP.
14	CNIN	I	Count signal input of track jump.
15	DATO	O	Serial data output to SSP.
16	XLTO	O	Serial data latch output to SSP and latch at falling edge.
17	CLKO	O	Serial data transferring clock output to SSP.
18	SPOA	I	Microcomputer expansion interface. (Input A)
19	SPOB	I	Microcomputer expansion interface. (Input B)
20	SPOC	I	Microcomputer expansion interface. (Input C)
21	XTSL	I	Xtal selection input pin, L when Xtal is 16.9344MHz and H when Xtal is 33.8688MHz.
22	XLON	O	Microcomputer expansion interface. (Output)
23	FOK	I	Focus OK input pin. Use for SENS output and servo auto sequencer.
24	MON	O	ON/OFF control output of spindle motor.
25	MDP	O	Servo control of spindle motor.
26	MDS	O	Servo control of spindle motor.
27	LOCK	O	Sample the GFS with 460Hz. H output when GFS is H and L output when GFS is L for series of eight times.
28	TEST	I	TEST pin. GND at normal use.
29	FILO	O	Filter output for master PLL (sleave=digital PLL).
30	FILI	I	Filter input for master PLL.
31	PCO	O	Charge pump output for master PLL.
32	VDD	—	Digital power supply for DSP.
33	AVSS1	—	Analog GND for DSP.
34	CLTV	I	VCO control voltage input for master PLL.
35	AVDD1	—	Analog power supply for DSP.
36	RF	I	EFM signal input.
37	BIAS	I	Constant-current input of the asymmetry correction circuit.
38	ASYI	I	Comparison voltage input of the asymmetry correction circuit.
39	ASYO	O	EFM full swing output. (L=VSS, H=VDD).
40	ASYE	I	L : Asymmetry correction OFF, H : Asymmetry correction ON.
41	WDCK	O	D/A interface for 48 bit slot and word clock (2FS) .
42	LRCK	O	D/A interface for 48 bit slot and LR clock (FS).
43	LRCKI	I	LR clock input to DAC (48 bit slot).

No.	Pin Name	I/O	Function
44	PCMD	O	D/A interface and serial data (2'SCOMP, MSB fast)
45	PCMDI	I	Audio data input to DAC (48 bit slot).
46	BCK	O	D/A interface and bit clock.
47	BCKI	I	Bit clock input to DAC (48 bit slot).
48	GTOP	O	GTOP output.
49	XUGF	O	XUGF output.
50	XPCK	O	XPLCK output.
51	GFS	O	GFS output.
52	RFCK	O	RFCK output.
53	VSS	—	GND.
54	C2PO	O	C2PO output.
55	XROF	O	XROF output.
56	MNT3	O	MNT3 output.
57	MNT1	O	MNT1 output.
58	MNT0	O	MNT0 output.
59	FSTT	O	2 divided 3 frequency output of pins 73 and 74.
60	C4M	O	4.2336MHz output.
61	DOUT	O	Digital Out output pin.
62	EMPH	O	H when emphasis of playback disc is present and L for absent.
63	EMPHI	I	Deemphasis ON/OFF of DAC. (H : ON, L : OFF)
64	WFCK	O	WFCK(WRITE FRAME CLOCK) output.
65	ZEROL	O	Blank sound data detecting output. "H"(Lch) when detecting blank sound data.
66	ZEROR	O	Blank sound data detecting output. "H" (Rch) when detecting blank sound data.
67	DTS1	I	Test pin 1 for DAC. Normally L.
68	VDD	—	Digital power supply for DAC.
69	NLPWM	O	Lch PWM output. (Negative phase)
70	LPWM	O	Lch PWM output. (Positive phase)
71	AVDD2	—	Power supply for Lch PWM driver.
72	AVDD3	—	Power supply for Xtal.
73	XTAI	I	Xtal oscillation circuit input of 33.8688MHz
74	XTAO	O	Xtal oscillation circuit output of 33.8688MHz
75	AVSS3	—	GND for Xtal.
76	AVSS2	—	GND for PWM driver.
77	NRPWM	O	Rch PWM output. (Negative phase)
78	RPWM	O	Rch PWM output. (Positive phase)
79	DTS2	I	Test pin 2 for DAC. Normally L.
80	DTS3	I	Test pin 3 for DAC. Normally L.

Note:

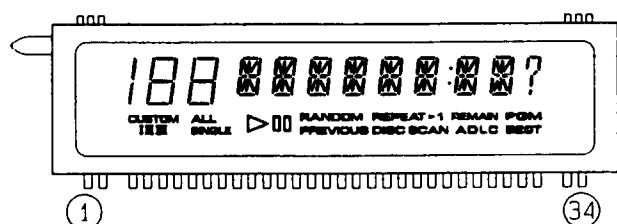
- PCMD is 2'S complement output of MSB fast.
- GTOP is monitored the protection state of Frame sync. (H : Open the sync. protection window)
- XUGF is frame sync. which is obtained from the EFM signal, is the negative pulse. This signal is former sync. protection.
- XPLCK is made PLL to agree the change point of the clock inversion of EFM PLL, falling edge and EFM signal.
- GFS signal will be H when agreeing with the frame sync. and internal insertion protection timing.
- RFCK is 136 μ period signal which is obtained by Xtal precision.
- C2PO is the signal which indicating the data error state.
- XRAOF signal is generated when 16K RAM is overed the jitter margin of $\pm 4F$

9. FL INFORMATION

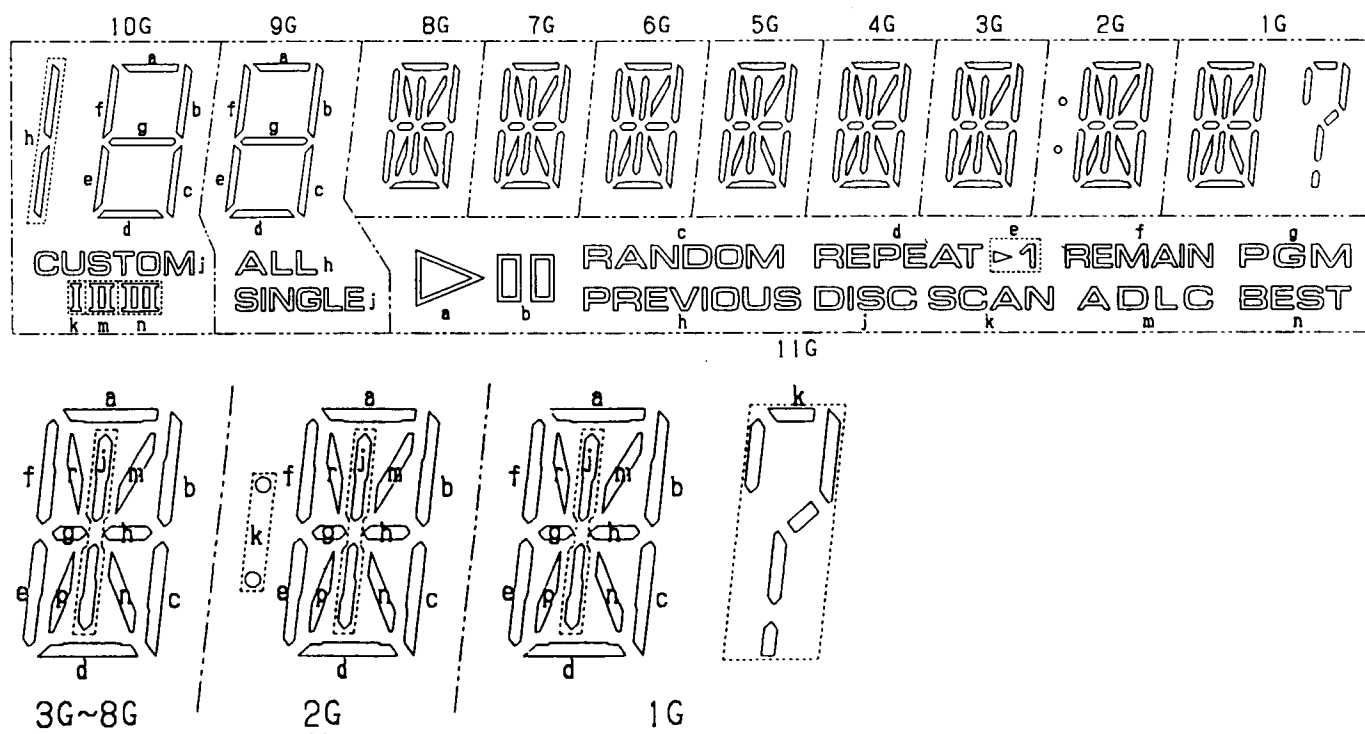
■ PEL1089 (V701 : FUNCTION PCB ASSY)

● FL TUBE

PIN LOCATION



ANODE GRID ASSIGNMENT



PIN ASSIGNMENT

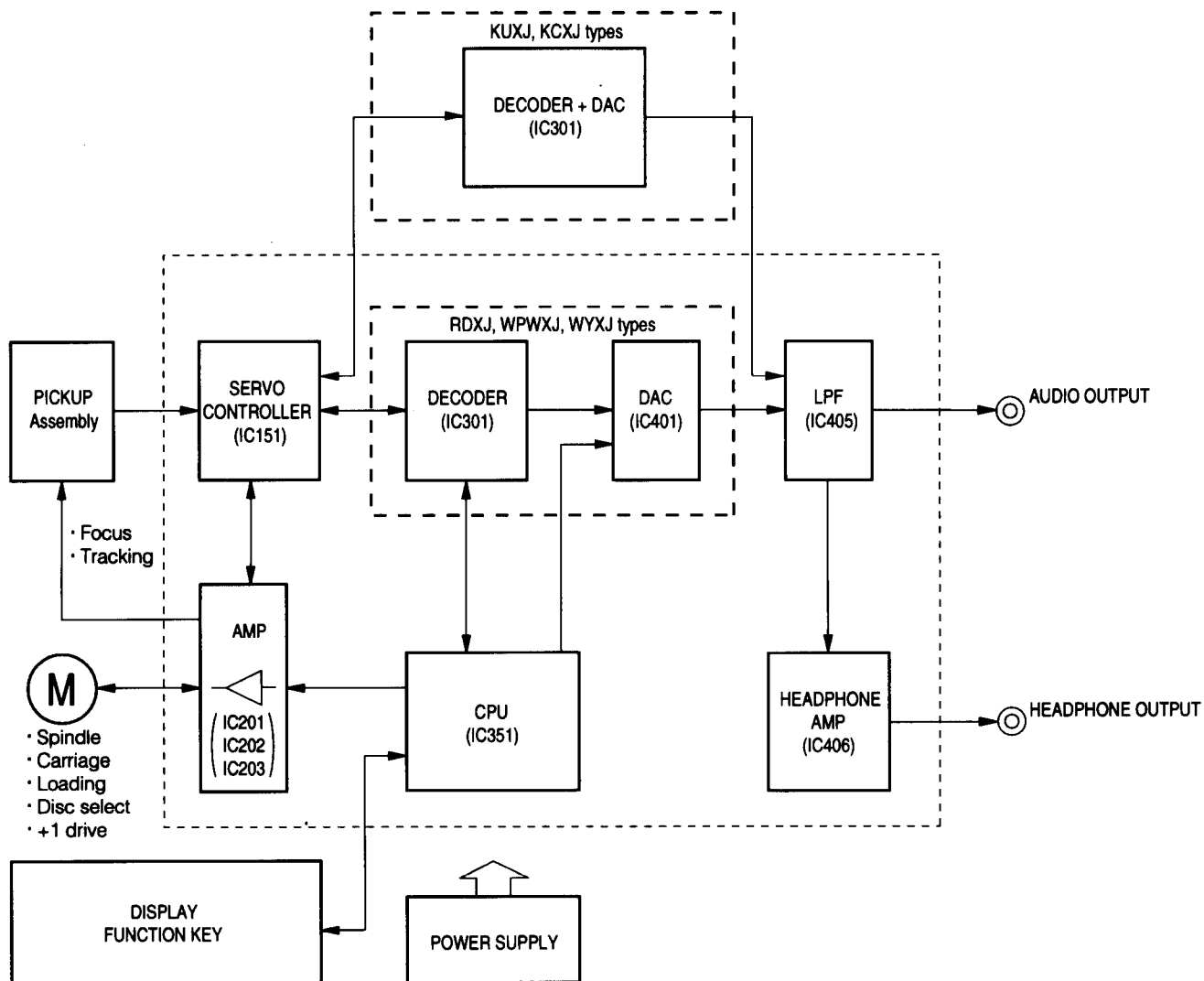
PIN ASSIGNMENT

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Assignment	F	F	NP	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NL	NL	NL	p	r	a

Pin No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34
Assignment	b	c	d	e	f	g	h	j	k	m	n	NP	F	F

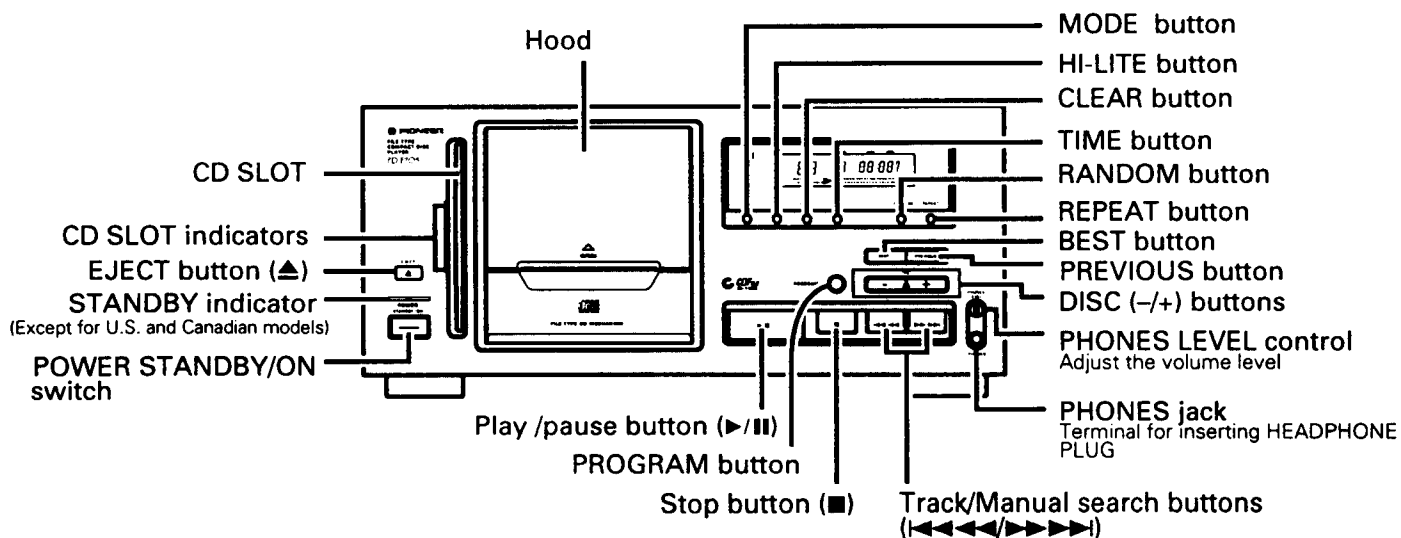
F:Filament 1G~11G:Grid a~h, j, k, m, n, p, r:Anode NP:No Pin NL:No Lead

10. BLOCK DIAGRAM

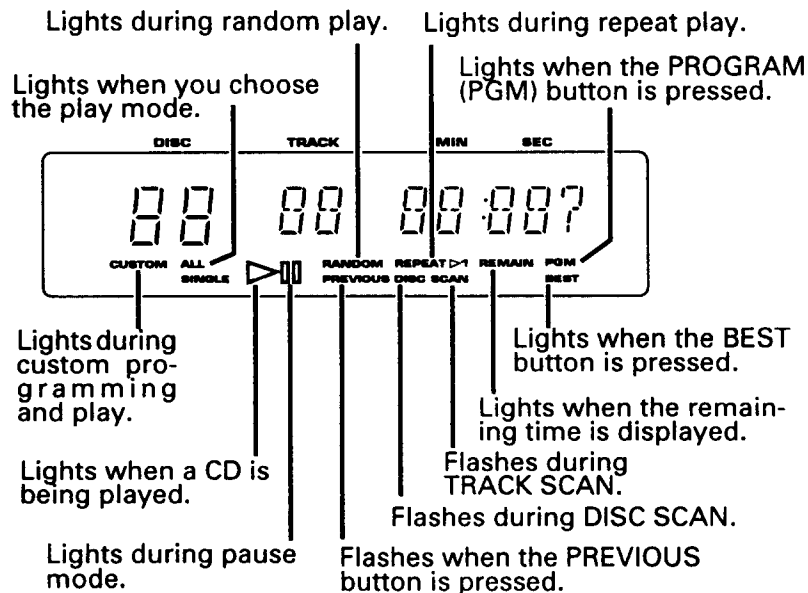


11. PANEL FACILITIES

FRONT PANEL



DISPLAY



12. SPECIFICATIONS

• The following dimensions are for PD-F705/KUXJ.

1. General

Type	Compact disc digital audio system
Power requirements	
U.S. and Canadian models	AC 120V, 60 Hz
European model	AC 220 - 240V, 50/60 Hz
Australian model	AC 240V, 50/60 Hz
Power consumption	
U.S. and Canadian models	13W
European model	14W
Australian model	14W
Operating temperature	+5°C - +35°C (+41°F - +95°F)
Weight (without package)	5.0 kg (11 lb)
External dimensions	420(W) X 316(D) X 190(H) mm 16-9/16(W) X 12-7/16(D) X 7-1/2(H) in.

2. Audio section

Frequency response	2 Hz - 20 Hz
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 (U.S., Canadian, Australian and New Zealand models only)
CD-DECK SYNCHRO jack
Optical digital output jack

4. Accessories

● Remote control unit	1
● Size AA/R6P dry cell batteries	2
● Output cable	1
● Control cable (U.S., Canadian, Australian and New Zealand models only)	1
● CD liner notes file (Except for U.S. and Canadian models)	1
● Index label sheet (Except for U.S. and Canadian models)	1
● Operating instructions	1

NOTE:

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