

Service Manual

Pioneer



ORDER NO.
RRV2165

MD/CD COMPONENT SYSTEM

X-MDX707 XR-C2MD

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

Type	Model	Power Requirement	Remarks
	XR-C2MD		
LBWXJ	○	AC110V	
NLWXJ/HK	○	AC220V	

- X-MDX707 is combination of the following components.
- For speaker system S-C2-LR, refer to the service manual RRV2156.

Component	Model	Service manual	Remarks
	X-MDX707		
STEREO MD/CD CASSETTE DECK RECEIVER	XR-C2MD	RRV2165	This manual.
SPEAKER SYSTEM	S-C2-LR	RRV2156	

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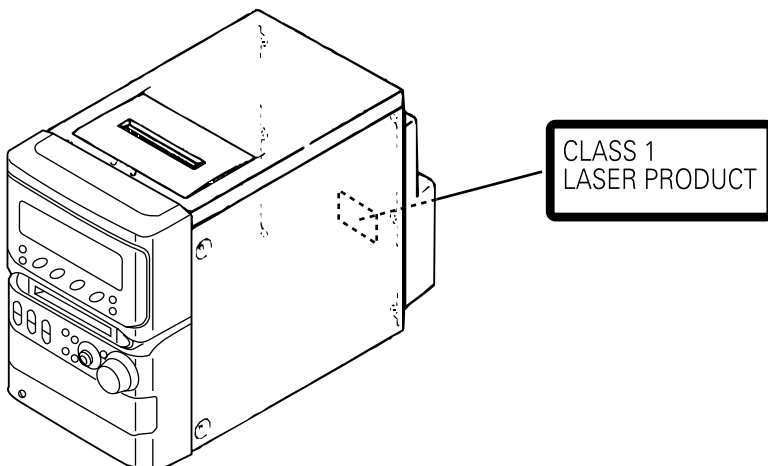
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1. SAFETY INFORMATION

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.

LABEL CHECK



————— 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 —————
OF CD PLAYER
MAXIMUM OUTPUT POWER: 5 mW
WAVELENGTH: 760 - 800 nm

————— LASER DIODE CHARACTERISTICS —————
OF MD RECORDER
MAXIMUM OUTPUT POWER: 40 mW
WAVELENGTH: 775 - 800 nm

————— Additional Laser Caution ————— of CD PLAYER

1. Laser Interlock Mechanism

The position of the switch for detecting loading state is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch is pressed physically.

Thus, the interlock will no longer function if the switch is released physically and deliberately.

Laser diode oscillation will continue, if pin 33 of CXA1782BQ (IC803) on the CD UNIT is connected to GND, or else the terminals of Q802 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.

————— Additional Laser Caution ————— of MD RECORDER

Control method of the current through a laser diode.

The resistor R166 on the MD MOUNT ASSY (For MD mechanism assembly) are for the limiting of current through a laser diode.

Control method of the laser output power

The laser pick-up assembly provide the photo-diodes and APC (Auto Power Control) circuit.

The photo-diode detect output of the laser diode then IC201 control the APC circuit according to the signal voltage of the photo-diode via IC101.

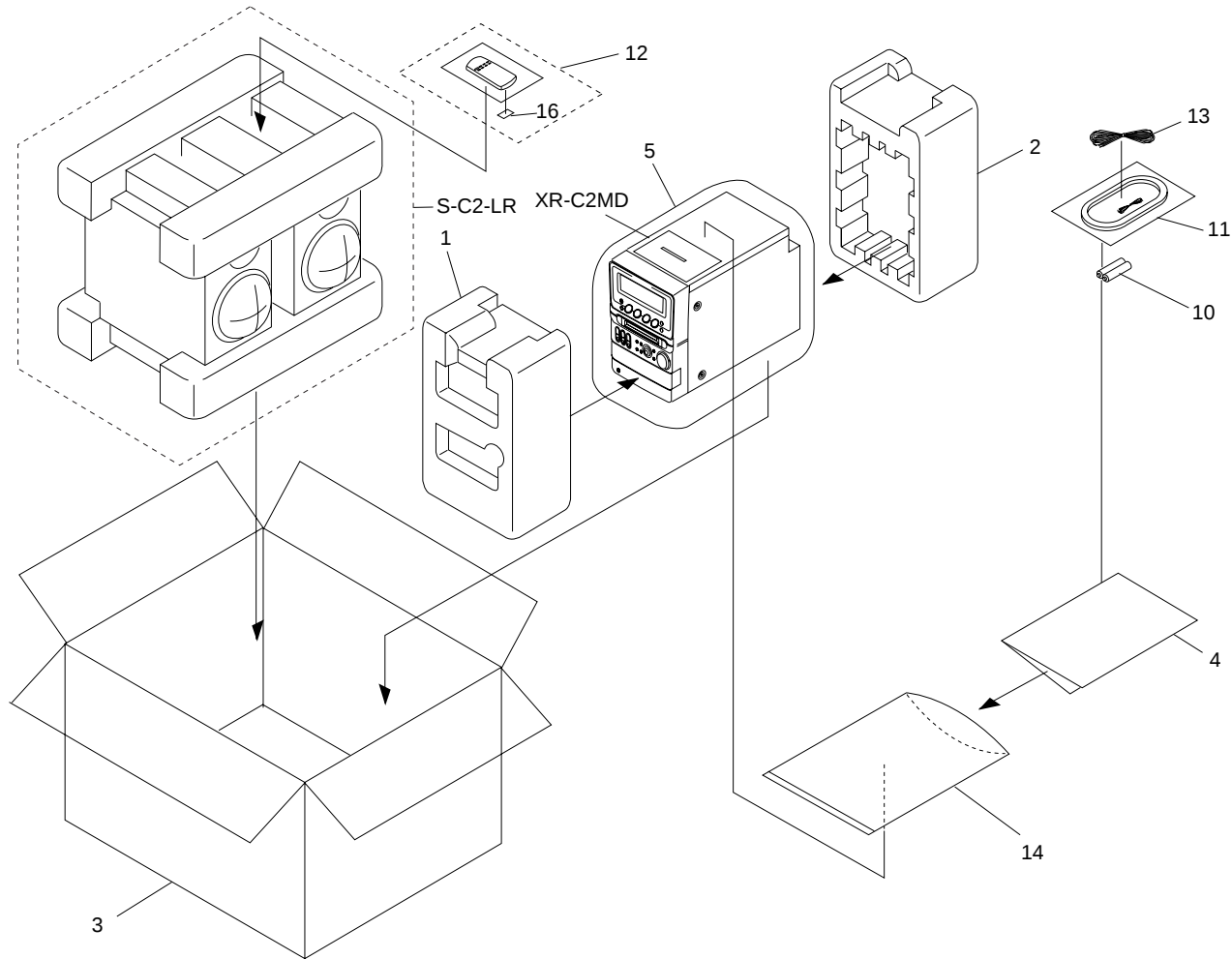
Laser Interlock Switch

The loading position detect switch is set to " LOAD ON " position, IC201 get the " LOAD " signal, and hand the laser " LDON " signal to APC (Auto Power Control) circuit of the Laser pick-up assembly. Then a laser diode can be lighted when the " LOAD "signal is " LOAD ON " position.

2. EXPLODED VIEWS AND PARTS LIST

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

2.1 PACKING



(1) PACKING PARTS LIST

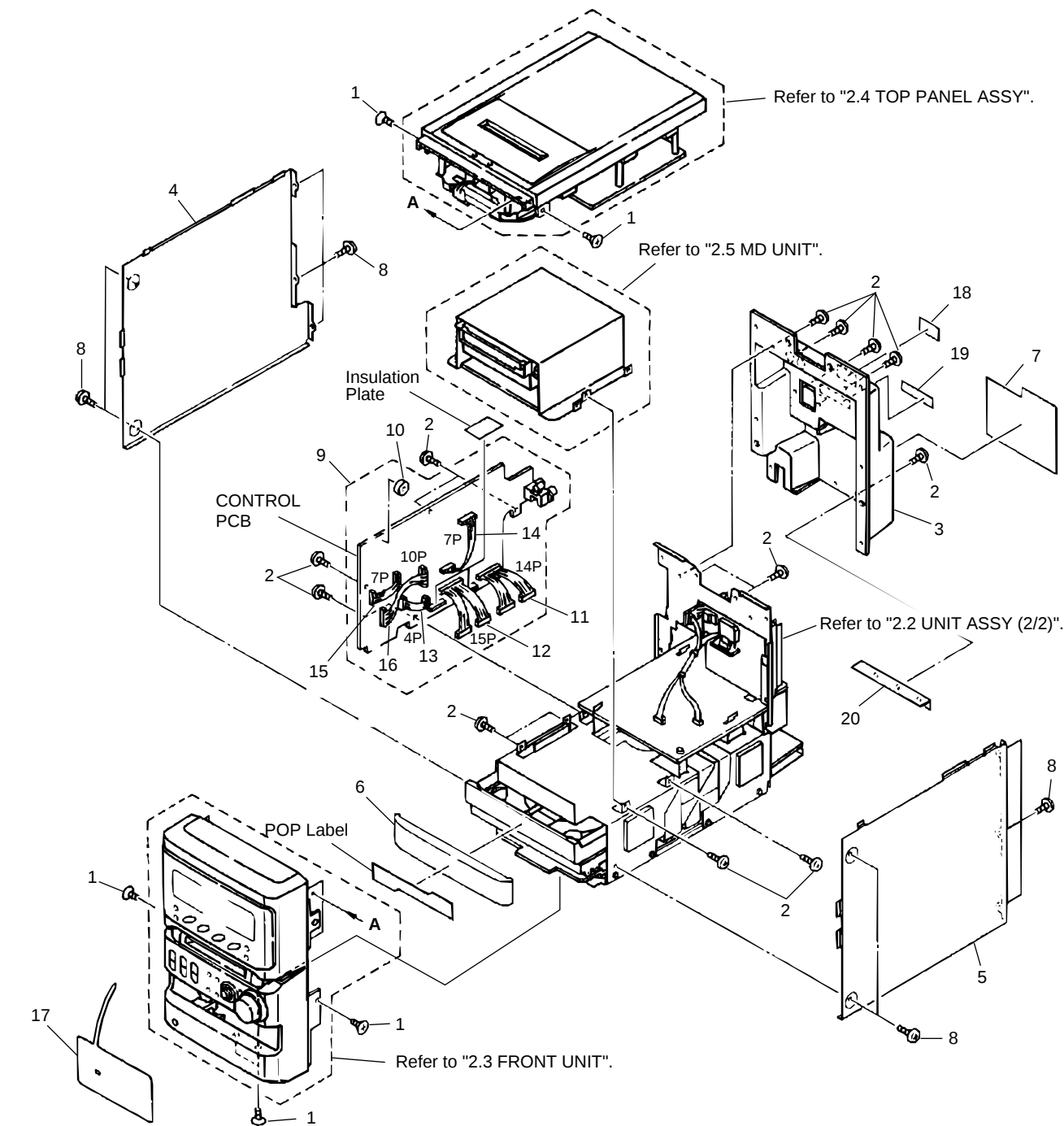
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Styloform F	4707900000	NSP	10	AA batteries (R6P)	VEM-013
	2	Styloform R	4707901000		11	AM loop antenna	004690500013
	3	Gift box	See Contrast table (2)		12	Remote control unit (CU-XR043)	0088041001
	4	Operating Instructions (English/Chinese)	4707920003		13	FM T-type antenna	004783500013
	5	Mirror Mat	4700915000	NSP	14	Polyethylene Bag	AHG7030
	6	.....			15	.....	
	7	.....			16	Battery Cover	AZA7331
	8	.....					
	9	.....					

(2) CONTRAST TABLE

X-MDX707/LBWXJ and NLWXJ/HK are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			X-MDX707 /LBWXJ	X-MDX707 /NLWXJ/HK	
	3	Gift box	4707911003	4707911002	

2.2 UNIT ASSY (1/2)



(1) UNIT ASSY (1/2) PARTS LIST

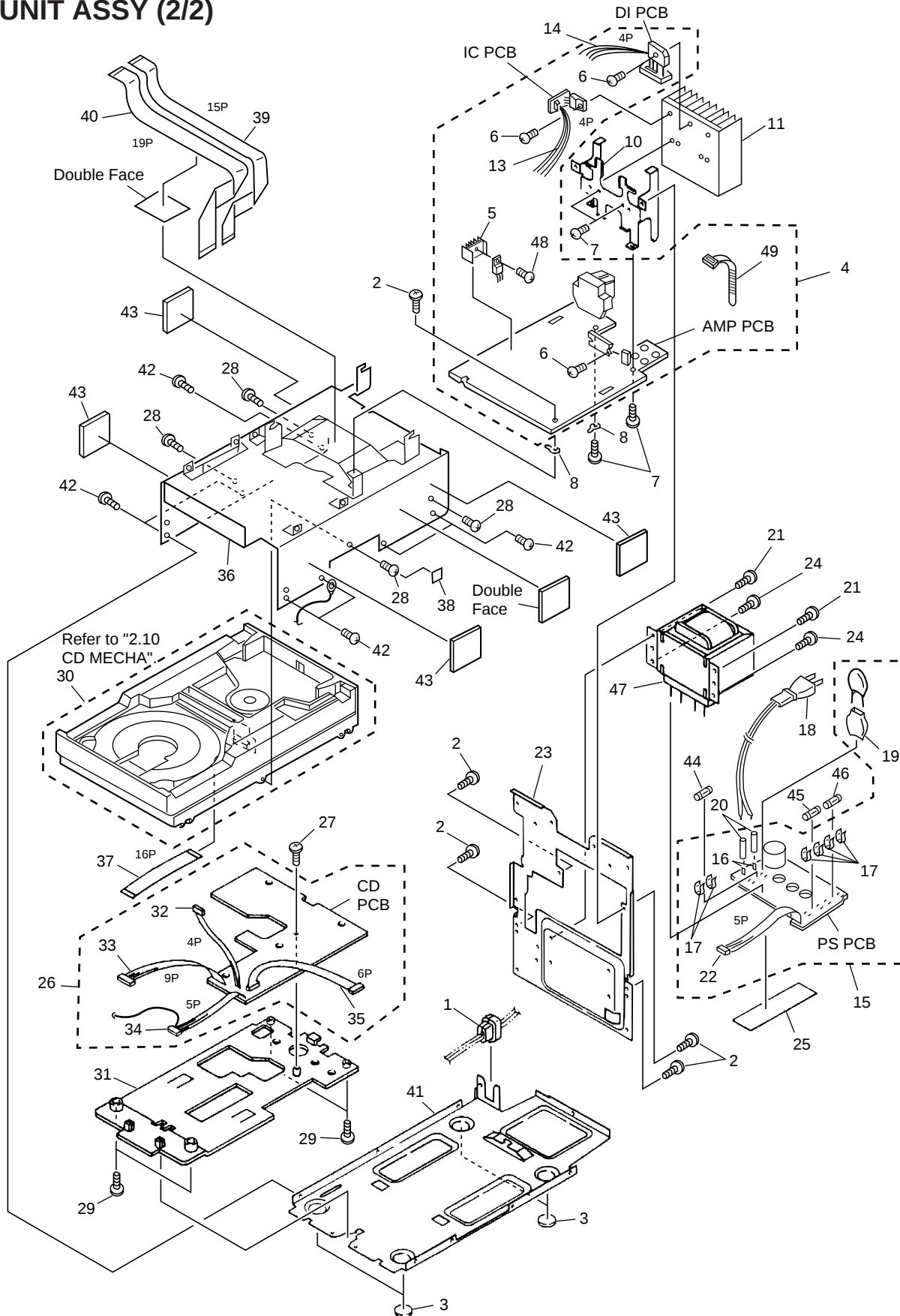
Mark	No.	Description	Part No.
	1	Screw	CCZ30P060FMC
	2	Screw	BBZ30P080FZK
	3	Rear Panel	4707810001
	4	Side Panel L	4707814001
	5	Side Panel R	4707815001
NSP	6	Tray Panel	4707807001
	7	Rear Label	See Contrast table (2)
	8	Screw	BBT30P080FNI
	9	CONTROL Unit	4707006000
	10	Speaker Piezo CB13PA	002384700013
	11	Wire Connector 14P (CN454)	4707561000
	12	Wire Connector 15P (CN455)	4707562000
	13	Flat Cable 4P	4707571000
	14	Flat Cable 7P	4707573000
	15	Wire Connector 7P	4707572000
	16	Wire Connector 10P	4707574000
	17	CD Label	4701855002
	18	ANT Caution Label	4707854002
	19	SP Caution Label	4707855002
	20	Spacer	4707882000

(2) CONTRAST TABLE

XR-C2MD/LBWXJ and NLWXJ/HK are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			XR-C2MD /LBWXJ	XR-C2MD /NLWXJ/HK	
NSP	7	Rear Label	4707850003	4707850002	

2.3 UNIT ASSY (2/2)



(1) UNIT ASSY (2/2) PARTS LIST

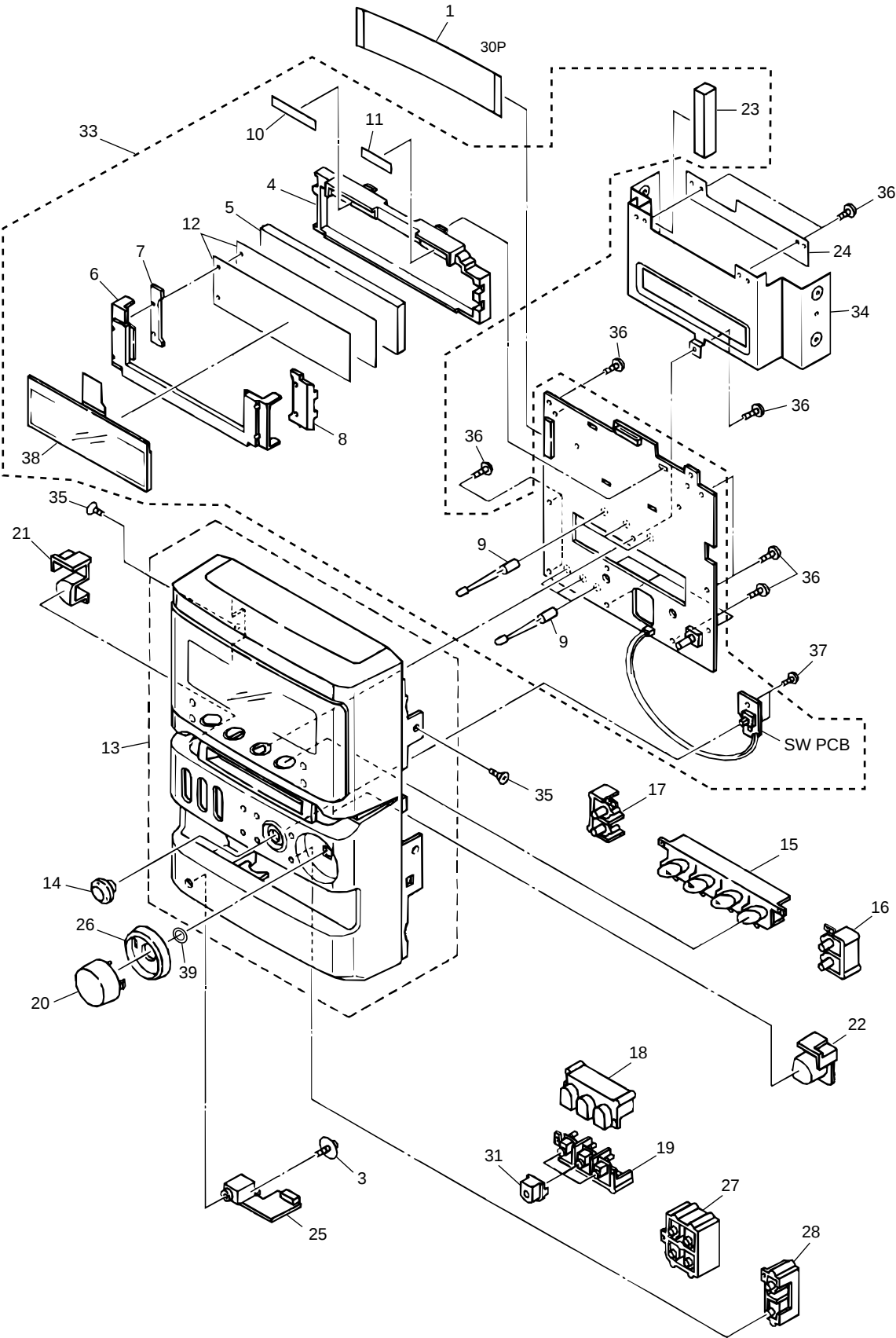
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Cord Bushing	0064695000		26	CD Unit	4707030000
	2	Screw	BBZ30P080FZK		27	PT Screw P2006SK	0972920065
	3	Rubber Foot	4701881000		28	Screw	BPZ26P100FMC
	4	AMP Unit	4707001000		29	Screw	BPZ30P120FMC
	5	Heat Sink	4707720000		30	CD Mecha,CMCF0210	4707150000
	6	Screw	IPZ30P120FMC		31	CD Mecha Chassis	4701270000
	7	Screw	BBZ30P080FZK		32	Wire Connector 4P (CN805)	4707563000
	8	WL030140040B1	0987100600		33	Wire Connector 9P (CN806)	4707564000
	9	.....			34	Wire Connector 5P (CN807)	4701568000
	10	H.S Bracket	4701273100		35	Wire Connector 6P (CN804)	4701571000
	11	Heat Sink	4701720100		36	CD Mecha Cover	4701819100
	12	.....			37	FFC 16P (CD-CD Mecha)	4701553000
	13	Wire Connector 4P (WC401)	4701576000		38	Himelon	4701895000
	14	Wire Connector 4P (WC403)	4701576000		39	FFC 15P (CD-CONT)	4701552000
	15	PS Unit	See Contrast table (2)		40	FFC 19P (CD-CONTROL)	4701554000
	16	Pin Terminal	0034473000		41	Bottom Chassis	4701814000
	17	Fuse Holder,TP00351-	0045522000		42	ST Screw B2605SBK	0972726053
△	18	AC Cord With Plug	See Contrast table (2)		43	Cushion	4701897000
	19	Cover,Spark Killer	0064644000	△	44	Fuse (F601)	See Contrast table (2)
	20	PT6AWG03T20	0950103020	△	45	Fuse (F602/T5A)	0045049041
	21	Screw	BSZ40P060FMC	△	46	Fuse (F603/T2.5A)	0045023041
	22	Wire Connector 5P	4701565000	△	47	Power Trans (T601)	See Contrast table (2)
	23	Rear Chassis	4701817000		48	Screw	BBZ30P080FNC
	24	Screw	FBT40P060FZK	NSP	49	Binder (BK-1)	ZCA-BK1
	25	Himelon	4701898100		50	Fuse Label	See Contrast table (2)
					51	Fuse Label (T2.5A/L250V)	0074005174
					52	Fuse Label (T5A/L250V)	0074005175

(2) CONTRAST TABLE

XR-C2MD/LBWXJ and NLWXJ/HK are constructed the same except for the following :

Mark	No.	Symbol and Description	Part No.		Remarks
			XR-C2MD /LBWXJ	XR-C2MD /NLWXJ/HK	
△	15	PS Unit	4707014000	4707012000	
△	18	AC Cord With Plug	004701800005	004744300003	
△	44	Fuse (F601/T1.6A)	0045017041	Not used	
△	44	Fuse (F601/T800mA)	Not used	0045013041	
△	47	Power Trans (T601) (110V)	001950000005	Not used	
△	47	Power Trans (T601) (220V)	Not used	001947100005	
	50	Fuse Label (T1.6A/L250V)	0074005165	Not used	
	50	Fuse Label (T800mA/L250V)	Not used	0074005176	

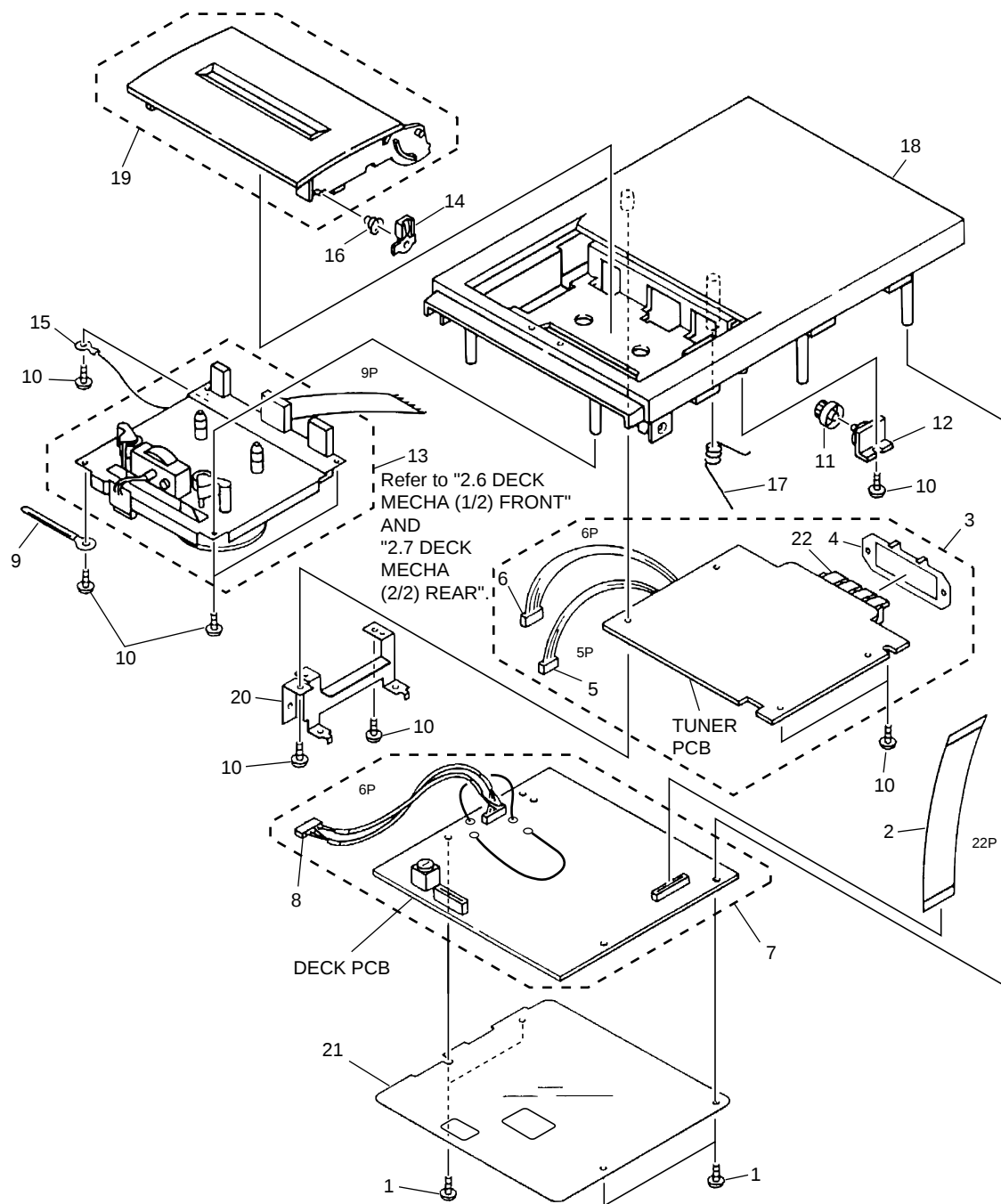
2.4 FRONT UNIT



• FRONT UNIT PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	FFC 30P (FRONT-CONT)	4707550000		21	Power Knob	4707863001
	2	•••••			22	MD Eject Knob	4707864001
	3	Screw	0979914200		23	Cushion	4701896000
	4	LCD Holder	4707270000		24	Shield Plate	4707816000
	5	Diffusion Plate	4707274000	NSP	25	HP PCB	
	6	LCD Lens	4707271000		26	Volume Knob Ring	4707876001
	7	Reflector L	4707877000		27	Tact Knob A	4707866001
	8	Reflector R	4707878000		28	Tact Knob B	4707867001
	9	LED Spacer	4707880000		29	•••••	
NSP	10	Double Face A	4701887000		30	•••••	
NSP	11	Double Face B	4701888000		31	Knob Cover	4707870001
	12	Diffusion Sheet	4707890000		32	•••••	
	13	Front Panel Set	4707800001		33	FRONT Unit	4707035000
	14	Enter Knob	4707879001		34	Front Chassis	4707812000
	15	Function Knob Set	4707859001		35	Screw	CCZ30P060FMC
	16	Stop Knob	4707862001		36	Screw	BPZ26P100FMC
	17	AUX Knob	4707861001		37	Screw TP2x6-SBK-C	BPZ20P060FZK
	18	CD Eject Knob	4707868001		38	LCD PANEL LMG172C1-F	004044100021
	19	CD Select Knob	4707869001		39	Stop Ring	4707401000
	20	Volume Knob	4707865001				

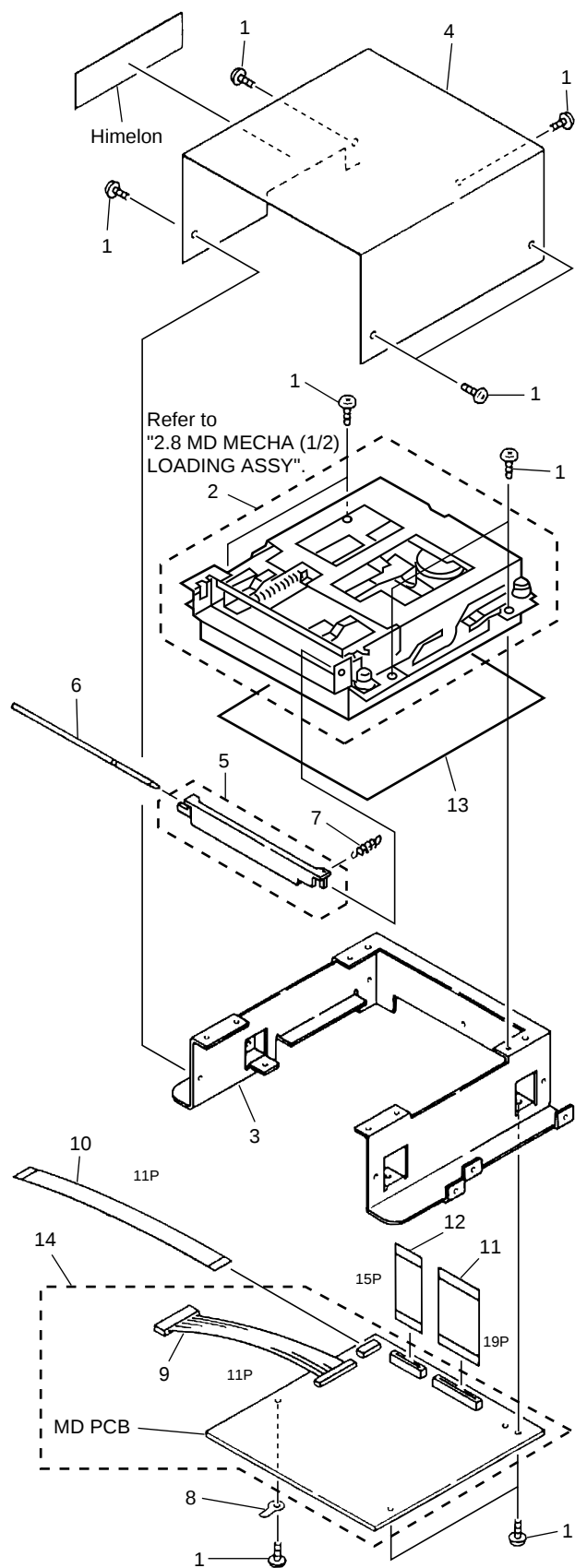
2.5 TOP PANEL ASSY



• TOP PANEL ASSY PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Screw	BBZ30P080FZK		11	Gear	2401872000
	2	FFC 22P (DECK-CONT)	4701556000		12	Gear Holder	2401873000
	3	TUNER Unit	4707021000		13	Mecha Set,CRH34-07	4700100000
	4	Connector Plate SP	1600779000		14	Lock Lever	4700281000
	5	Wire Connector 5P	4701569000		15	Lug Washer W/Wire	4701561000
	6	Wire Connector 6P	4701570000		16	COM Spring	4700400000
	7	DECK Unit	4707015000		17	Up Case Spring	4701401000
	8	Wire Connector 6P	4701563000		18	Top Panel	4707803001
	9	Lead Wire Clamper	0065375000		19	Up Case Set	4707804001
	10	Screw	BPZ30P120FMC		20	Deck Bracket	4701818000
					21	Insulation Sheet	4701891000
					22	Antenna Terminal 4P	003402900013

2.6 MD UNIT

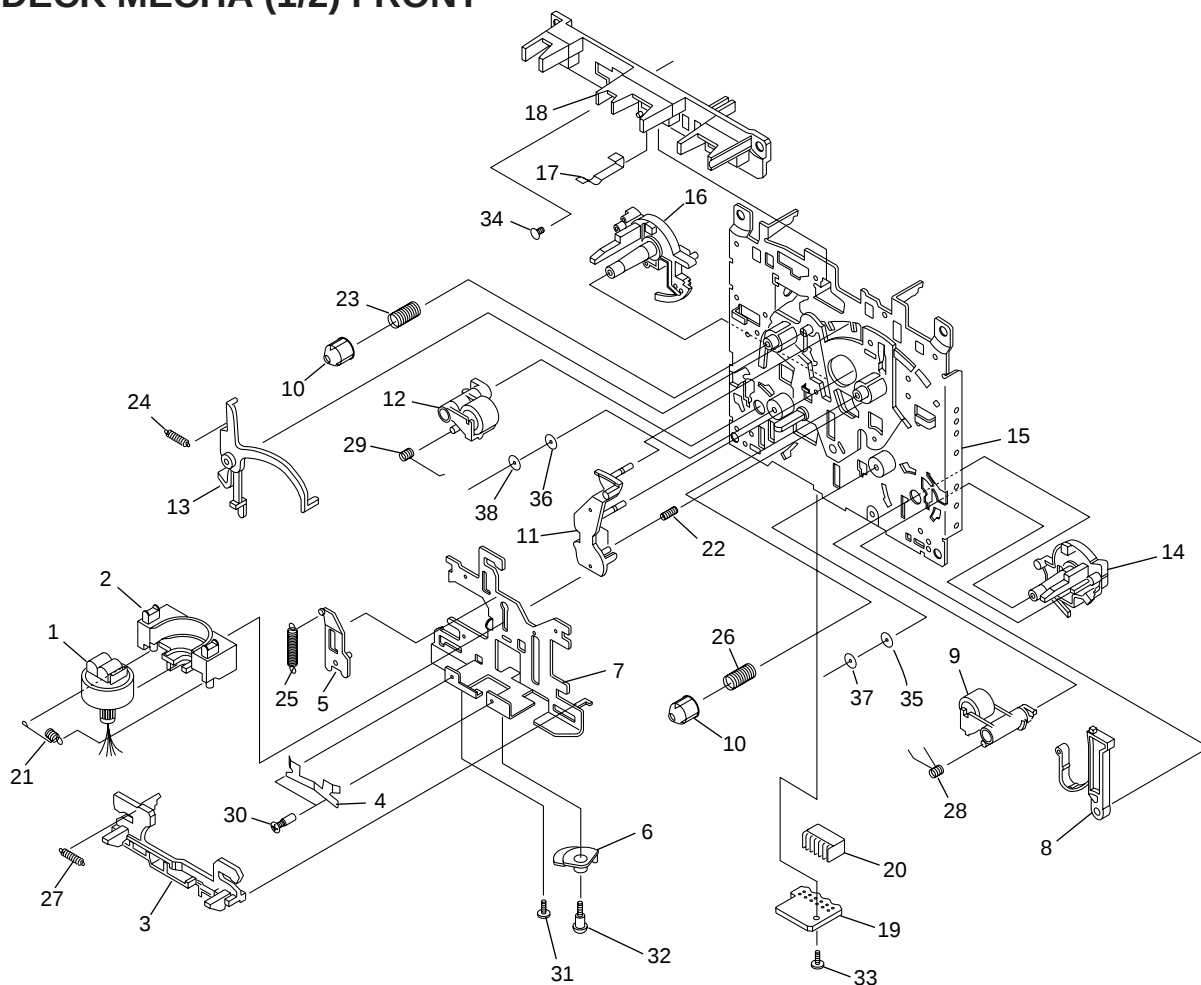


• MD UNIT PARTS LIST

Mark	No.	Description	Part No.
	1	ST Screw B2605SBK	0972726053
	2	MD Mecha, KMK-260AAB	GXX1155
	3	MD Mecha Chassis	4707813000
	4	MD Mecha Chassis	4701827000
	5	MD Door Set	4750308004
	6	Shaft	4750306000
	7	EXT Spring	4750307000
	8	WL030140040B1	0987100600
	9	Wire Connector 11P	4701572000
	10	FFC 11P (MD-CONT)	4701551000
	11	FFC 19P (MD-MD Mecha)	4701555000
	12	FFC 19P (MD-MD Mecha)	4701559000
	13	Shield Plate	4750735000
	14	MD Unit	4707025000

* GXX1155 is MD mechanism for service by which resistance (R123, R213, R142) is removed from KMK-260AAB.

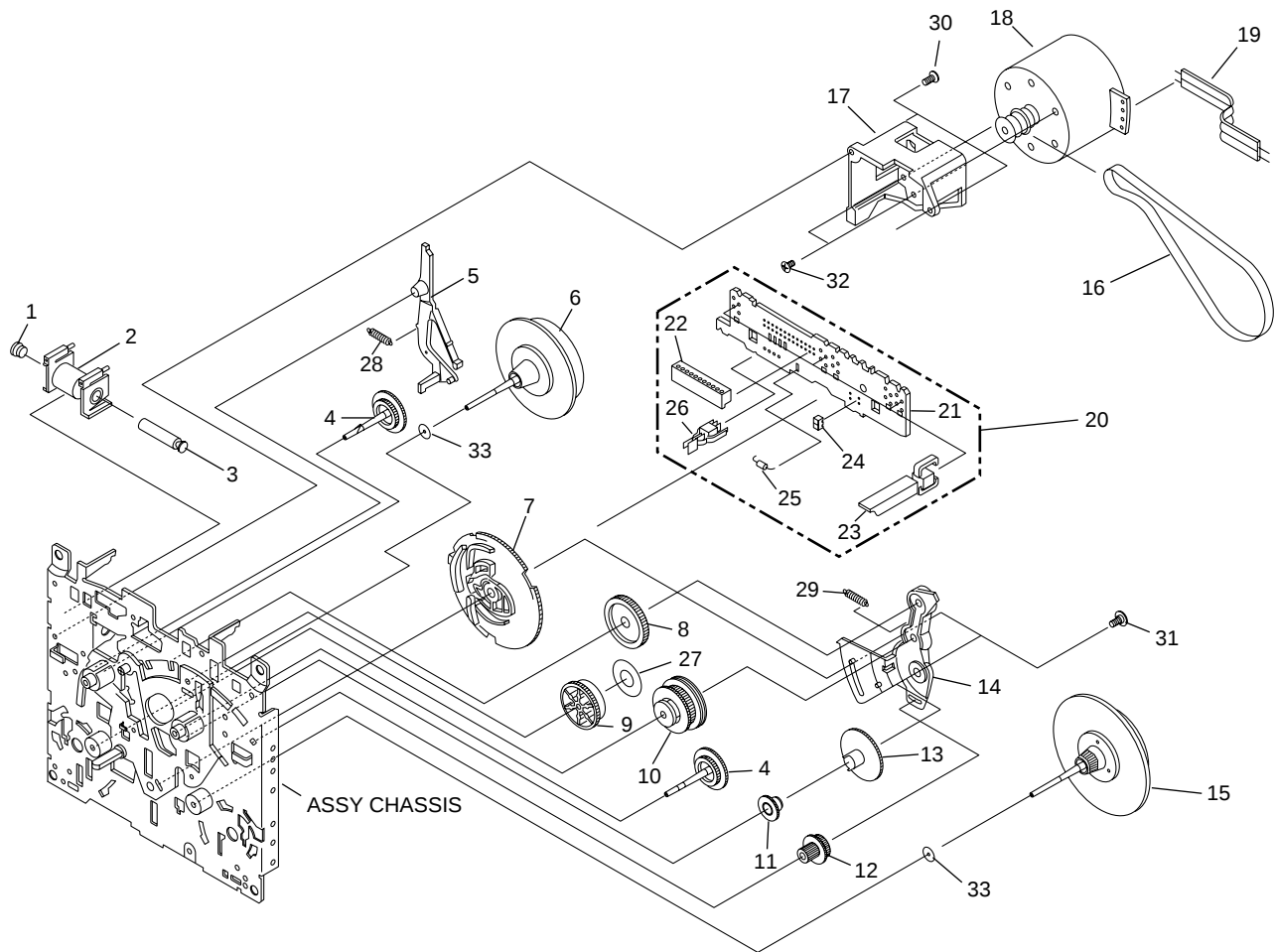
2.7 DECK MECHA (1/2) FRONT



• DECK MECHA (1/2) FRONT PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Assy Holder Head	330934098		21	Spring	010804535
	2	Frame Head	332193023		22	Spring	010814483
	3	Lever Head	332593015		23	Spring	010814493
	4	Spring Azimuth	161604032		24	Spring	010804482
	5	Assy Lever Assist	330934055		25	Spring	010804489
	6	Gear Arm Head	222394020		26	Spring	010814492
	7	Chassis Head B	331123030		27	Spring	010804479
	8	Eject Lock	332394024		28	Spring	010824485
	9	Assy Arm Pinch R	330934060		29	Spring	010824486
	10	Cap Reel	182283231		30	Screw	033004056
	11	Arm UD	332393012	NSP	31	Screw	GSL20A2008
	12	Assy Arm Pinch L	330934059		32	Screw	033004043
	13	Arm Brake	332393014		33	Screw	GSE10A2004
	14	Frame B	332113019		34	Screw	GSD20A2005
	15	Assy Chassis	330933056		35	Washer	GWN13X050040
	16	Frame C	332112020		36	Washer	GWN13X060040
	17	Spring Cassette	331604031		37	Washer	GWN16X040050
	18	Frame D	332112021		38	Washer	GWN15S040050
	19	P.C.B Head	330704061				
	20	Housing	S5BEH				

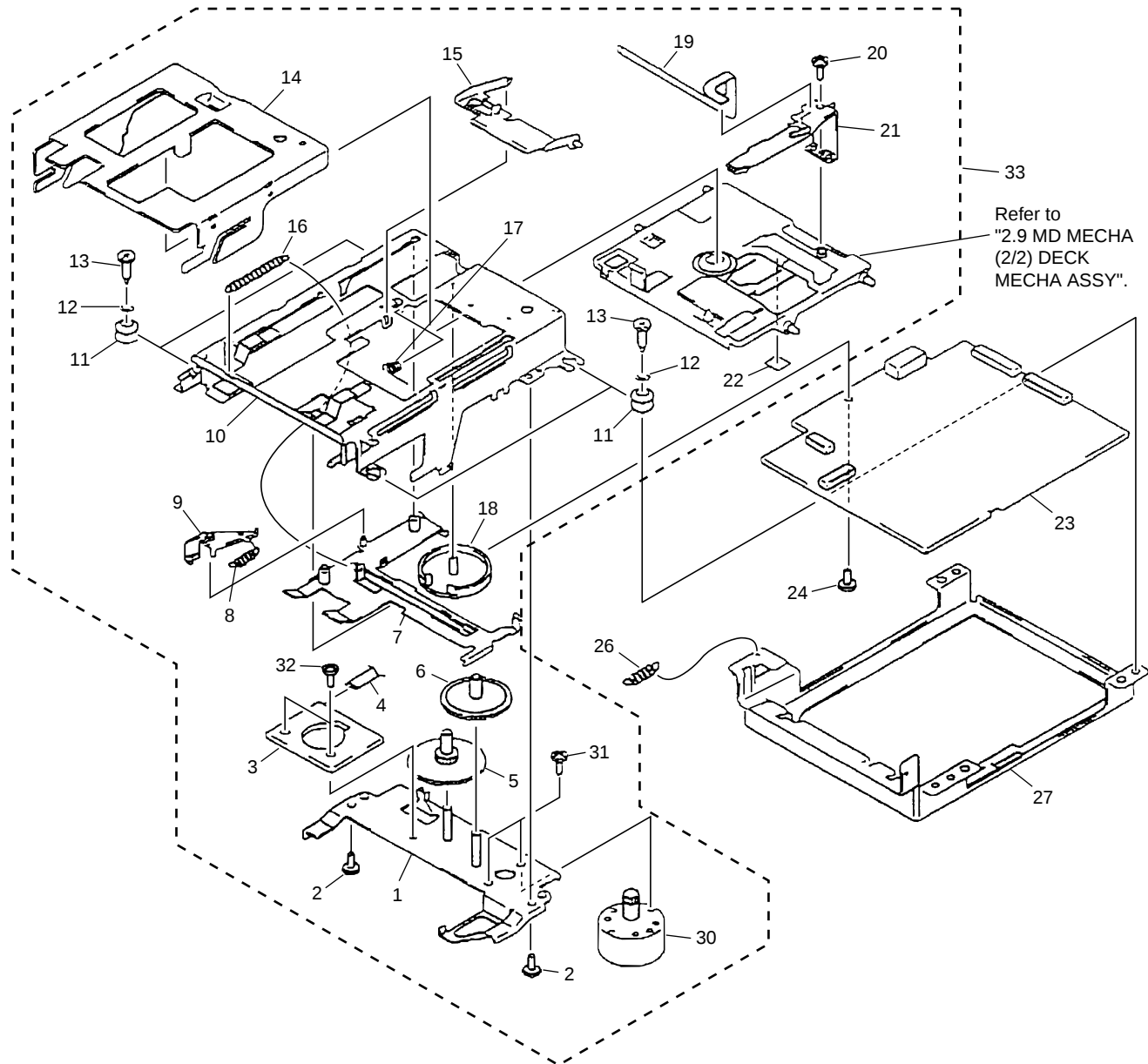
2.8 DECK MECHA (2/2) REAR



• DECK MECHA (2/2) REAR PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	K Plunger	033194259		21	P.C.Board	330703035
	2	Assy Coil	330934051	NSP	22	9P Housing	HBRK9R - 2
	3	Plunger	033004338		23	Switch (Leaf)	MTS10041MVLO
	4	Gear Reel	332224009		24	Photo Sensor	SG105BC
	5	Arm Trigger	332683013		25	Resistor	ERDS2TJ681
	6	Assy Flywheel L	330934050		26	Mode Switch	MSW1722NCV
	7	Gear Cam	332212010		27	Reflector	330004140
	8	Gear IDL	332224008		28	Spring	010804480
	9	Gear REF	332224164		29	Spring	010804543
	10	Assy Clutch	330933045		30	Screw	GSD20A2005
	11	Gear P	332224002		31	Screw	033004344
	12	Gear A	332224001		32	Screw	GSP11A2605
	13	Gear FR	332224003		33	Washer	GWP18X060050
	14	Arm FR	332393011				
	15	Assy Flywheel R	330934048				
	16	Belt	020844146				
	17	Bracket MM	332193025				
	18	Assy Motor	330934104				
	19	Wire	160724055				
	20	Assy P.C.B	330933147				

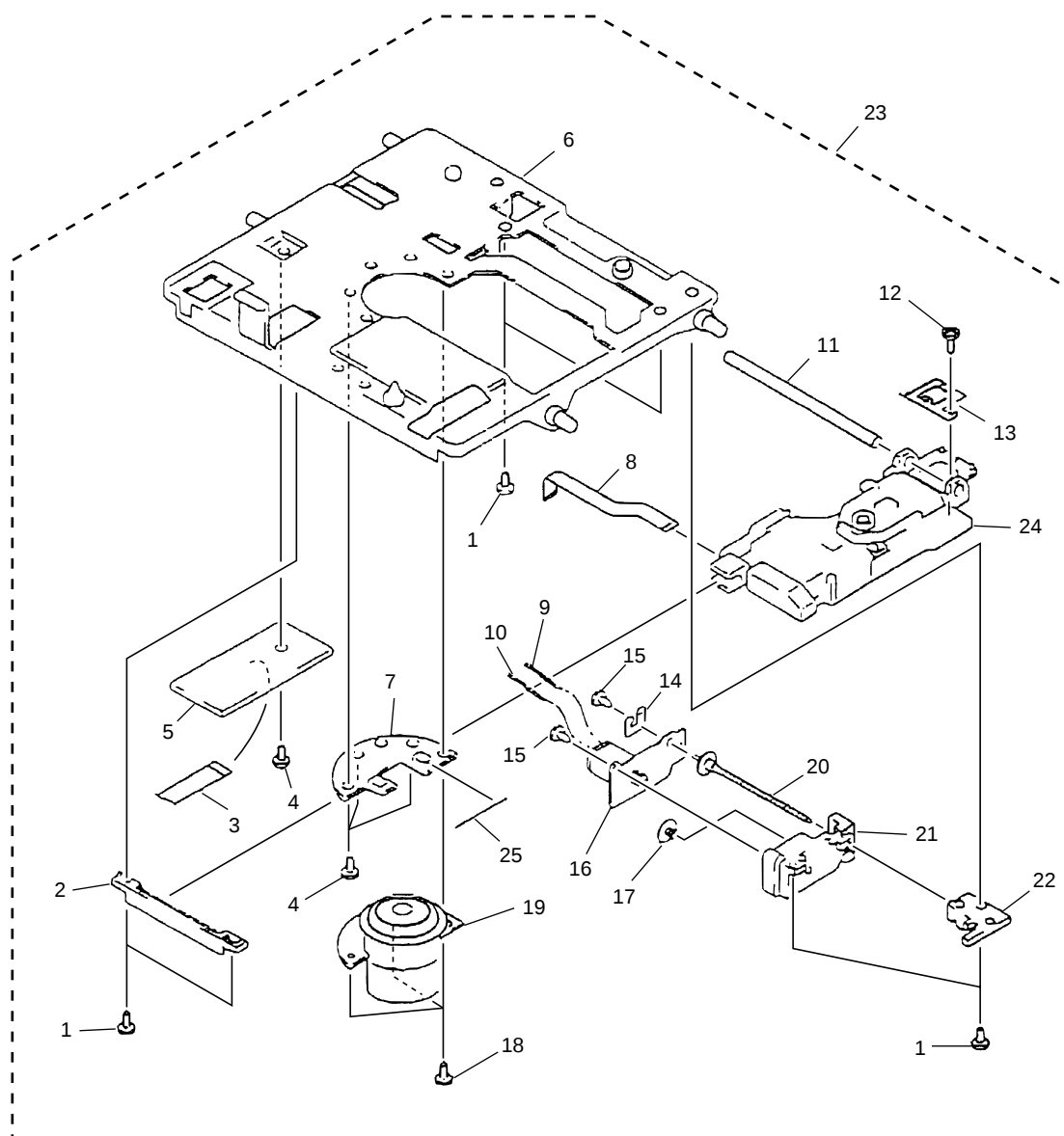
2.10 MD MECHA (1/2) LOADING ASSY



• MD MECHA (1/2) LOADING ASSY PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
NSP	1	Motor Plate Assy	X-2646-247-1		19	PWB Head Flexible	1-669-181-11
	2	Screw +P2.6×4.5 TYPE3	7-627-854-28		20	Grip +P1.7×2.5TYPE2	2-627-529-01
	3	L-SW Mount Board	1-668-261-11		21	Over Write Head	1-550-518-12
	4	Wire Flat Type (6p)	1-783-386-11	NSP	22	Sheet Double-Fase	2-646-549-02
	5	Gear (Relay B)	2-646-555-02	NSP	23	MD MOUNT	A-4917-020-A
	6	Gear (Relay A)	2-646-554-01		24	Screw Toothed Lock	2-643-228-01
	7	Slot Frame Assy	X-2646-249-2		25	.....	
	8	Spring (Slot Arm)	2-646-563-01		26	Spring (Door Arm) Tension	2-646-545-01
	9	Arm Slot	2-646-556-01	NSP	27	Flame Main	2-646-547-02
NSP	10	Road Frame Assy	X-2646-248-2		28	.....	
	11	Insulator	2-646-548-01		29	.....	
	12	Screw	7-688-002-11		30	Loading Motor Assy	X-2626-328-1
	13	Screw Step	4-628-167-01		31	Screw +P1.7×1.8TYP.3	7-627-852-38
NSP	14	Frame Slide	2-646-557-01		32	Screw +P2×3 TYP.3	7-627-553-37
	15	Arm Head	2-646-559-01	NSP	33	Loading Assy	A-4912-117-A
	16	Spring Tension Coil (Slot Frame)	2-646-562-01				
	17	Spring SP Tension (Arm Head)	2-646-561-01				
	18	Cam Mode	2-646-560-01				

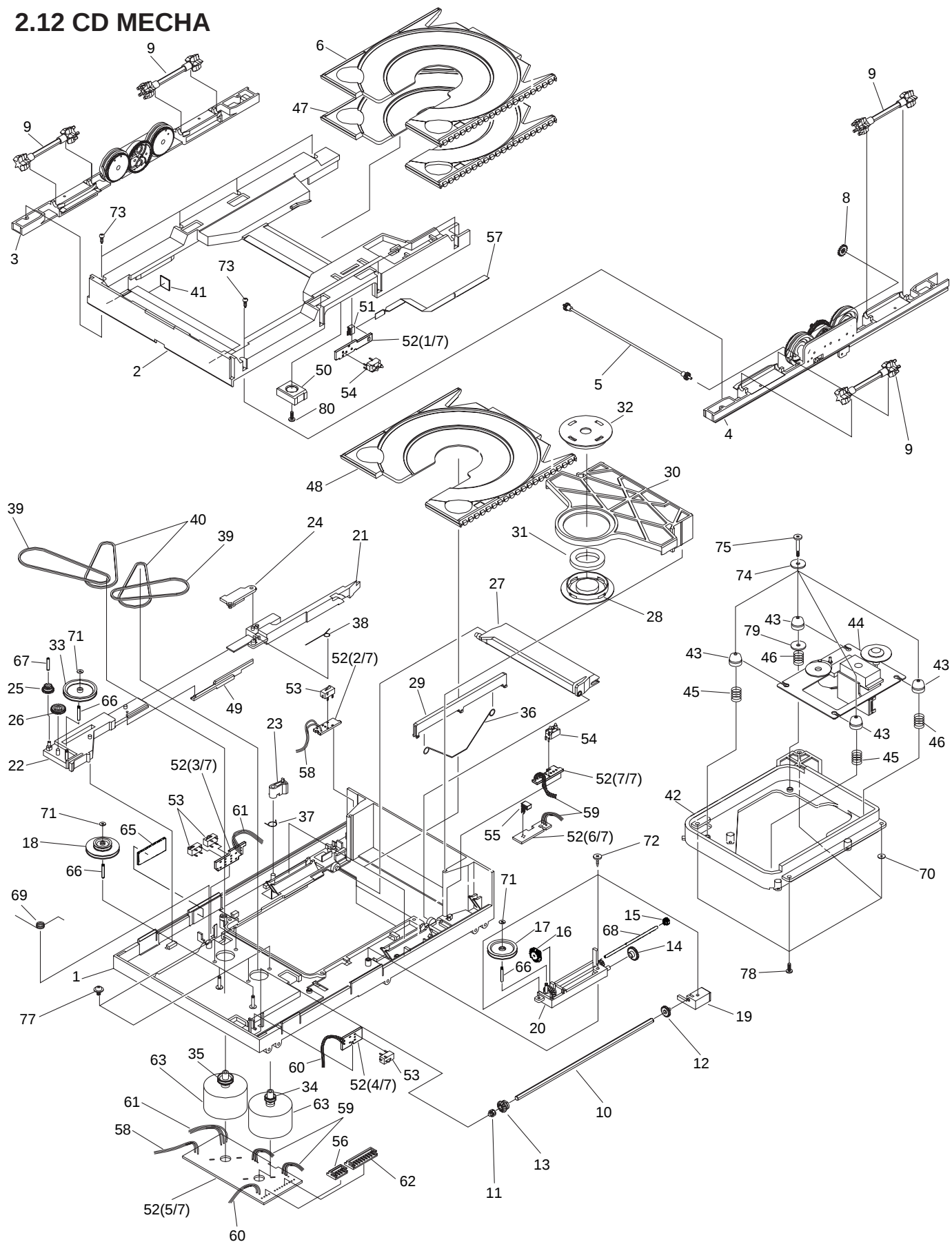
2.11 MD MECHA (2/2) DECK MECHA ASSY



• MD MECHA (2/2) DECK MECHA ASSY PARTS LIST

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Grip +P1.4×3.5TYPE3	2-627-404-01		16	SL Motor Assy	X-2626-329-1
	2	Guide Sub	2-646-453-01		17	Gear (MD)	2-646-571-01
	3	Wire Flat Type (7P)	1-783-387-11		18	Screw +P1.7×4 TYPE3	7-627-852-18
	4	Screw+P1.4×1.8TYPE3	7-627-850-79		19	SP Motor Assy	X-2626-327-1
	5	D-SW MOUNT BOARD	1-668-262-11		20	Lead Screw Assy	X-2626-330-1
NSP	6	Shassis Mechanical	2-646-575-01		21	Lead Holder Assy	X-2626-331-1
	7	Bracket SP Motor	2-646-566-01		22	Holder (B) Lead	2-646-573-01
	8	PWB OP Flexible	1-669-180-11	NSP	23	Deck Mecha Assy	A-4912-118-A
NSP	9	Wire SL Motor Lead	1-783-318-11		24	Devise, Mini Disc	KMS-260A
NSP	10	Wire SL Motor Lead	1-783-318-21		25	Spring SP Tension	2-646-564-01
	11	Shaft Guide	2-646-452-01				
	12	Grip +P1.4×1.4TYPE2	2-627-530-01				
	13	Rack (Inserter)	4-963-914-02				
	14	Plate Pre Road	2-646-567-01				
	15	Screw (1.2×3.3)	2-627-431-01				

2.12 CD MECHA



• CD MECHA PARTS LIST

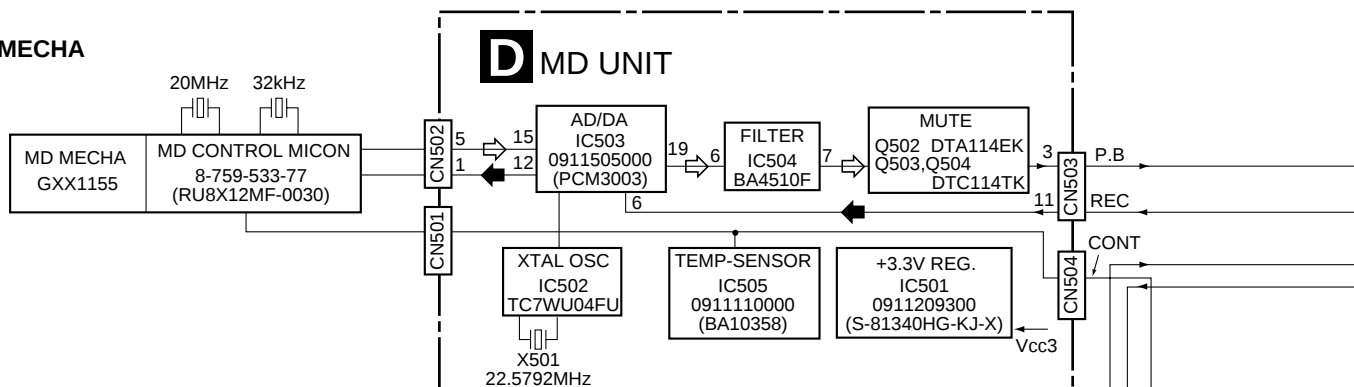
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Chassis	45-210-2317		41	Cushion	45-063-4136
	2	Drawer	45-264-2004		42	Frame S	45-211-3072
	3	Assy Holder L	45-093-4088		43	Rubber Cushion SO	45-063-4072
	4	Assy Holder R3	45-264-3278		44	Pick-up Unit	KSM213CCM
	5	Assy Gear Drive	45-093-4075		45	Spring	01-081-4561
	6	Assy Carriage 100	45-093-4189		46	Spring	01-081-4562
	7	•••••			47	Assy Carriage 200	45-093-4190
	8	Bevel Gear 4	45-222-4214		48	Assy Carriage 300	45-093-4191
	9	Assy Gear Star	45-093-4084		49	Plate E	45-219-4107
	10	Shaft	45-300-4018		50	Spacer SW	45-219-4127
	11	Cap	45-262-4019		51	Connector	04FM-1.0SP
	12	Gear Spring	45-222-4021		52	PC Board	45-070-3074
	13	Bevel Gear 1	45-222-4059		53	Switch	MPU10101MMB0
	14	Gear Idler 1	45-222-4026		54	Switch	MPU20273BLB0
	15	Gear Idler 3	45-222-4067		55	Connector	04FM-1.0ST
	16	Bevel Gear 3	45-222-4061		56	Connector	S4BEH
	17	Pulley C	45-222-4058		57	Card Wire	45-072-4077
	18	Pulley B	45-229-4053		58	Wire	45-070-4080
	19	Holder 2	45-219-4062		59	Wire	45-072-4078
	20	Holder 1	45-219-3055		60	Wire	45-070-4081
	21	Slider 1	45-259-2031		61	Wire	45-072-4079
	22	Slider 2	45-259-3066		62	Connector	S9BEH
	23	Arm Stopper A2	45-239-4279		63	Motor	RF500TB14415
	24	Arm Stopper B	45-239-4065		64	•••••	
	25	Gear Idler A	45-222-4049		65	Rubber Cushion	45-063-4115
	26	Gear Idler C	45-222-4051		66	Shaft	03-300-4404
	27	Lever	45-259-3008		67	Shaft	03-300-4403
	28	Clamper A	45-229-3024		68	Shaft	03-300-4409
	29	Lifter	45-259-3025		69	Spring	01-082-4577
	30	Arm	45-239-1037		70	Washer	GWP23X055025
	31	Magnet	36-067-4928		71	Washer	GWP15X045025S
	32	Clamper B	45-229-3069		72	Screw	GSL20A2010
	33	Pulley A	45-222-4052		73	Screw	GSL10B2006
	34	Pulley Motor	23-226-4031		74	Washer	GSN31X120050
	35	Pulley Motor	23-226-4096		75	Screw	03-300-4366
	36	Spring	01-000-4541		76	•••••	
	37	Spring	01-082-4558		77	Screw	GSP14A2604
	38	Spring	01-082-4559		78	Screw	GSL20A2610
	39	Belt	02-083-4157		79	Washer	03-000-4427
	40	Belt	02-083-4152		80	Screw	GSL15A2005

3.BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

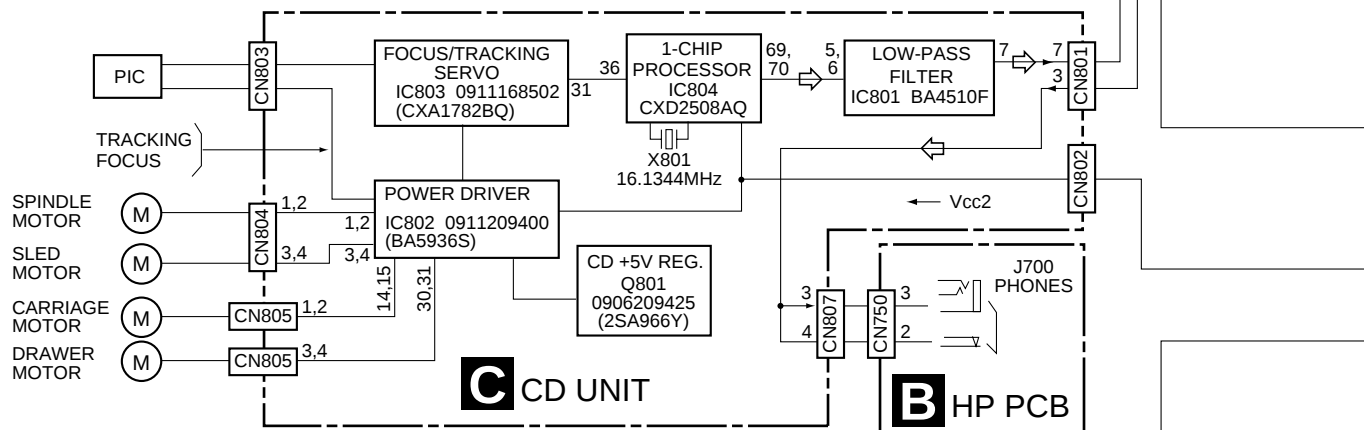
A

• MD MECHA

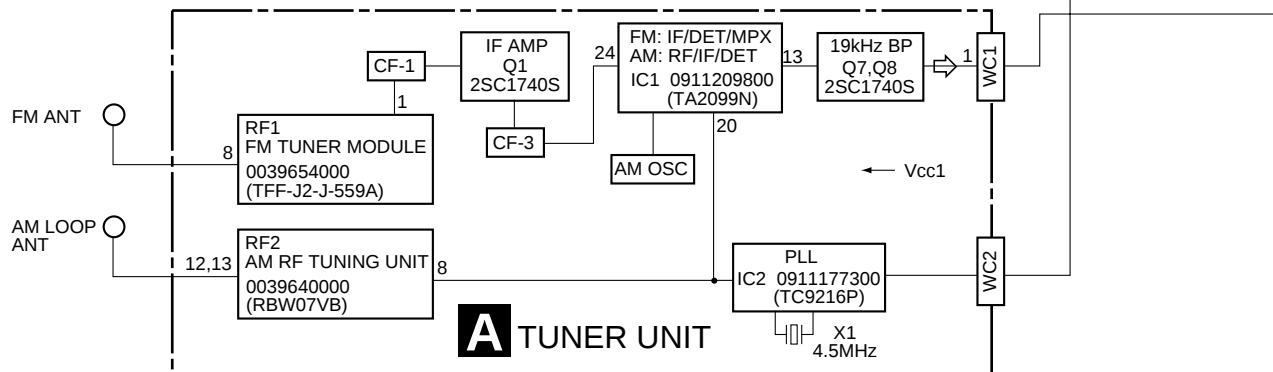


B

• CD MECHA

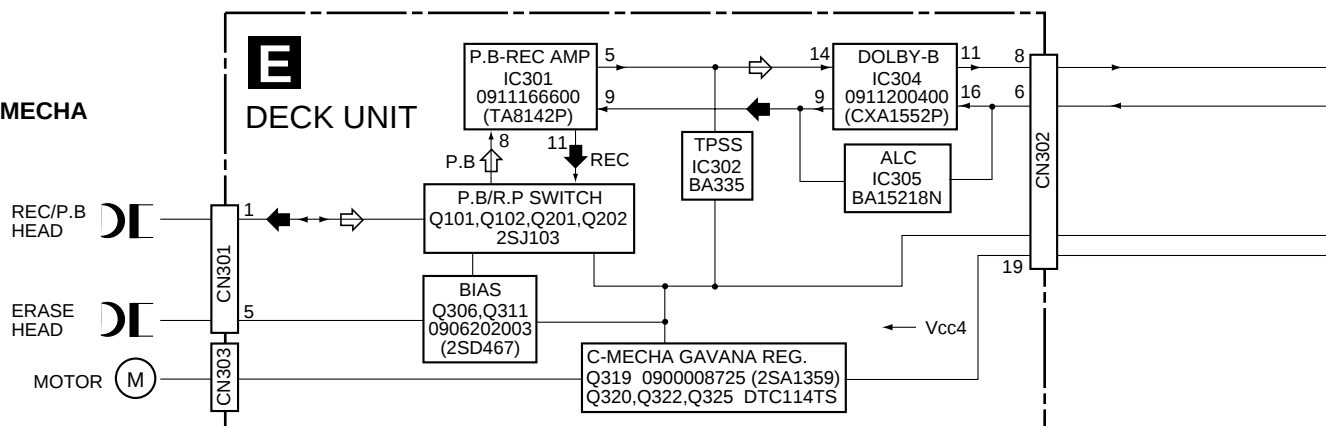


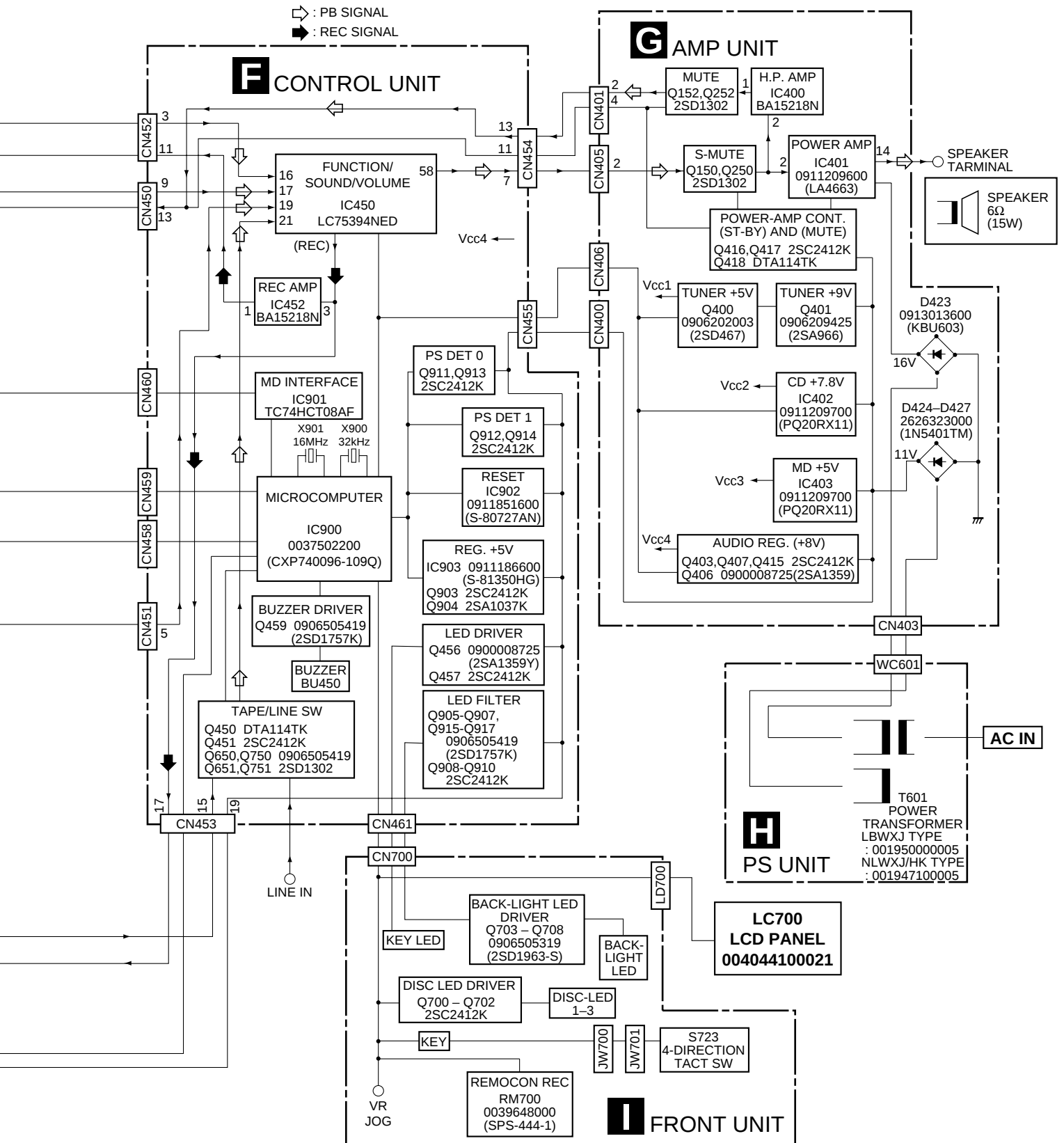
C



D

• DECK MECHA





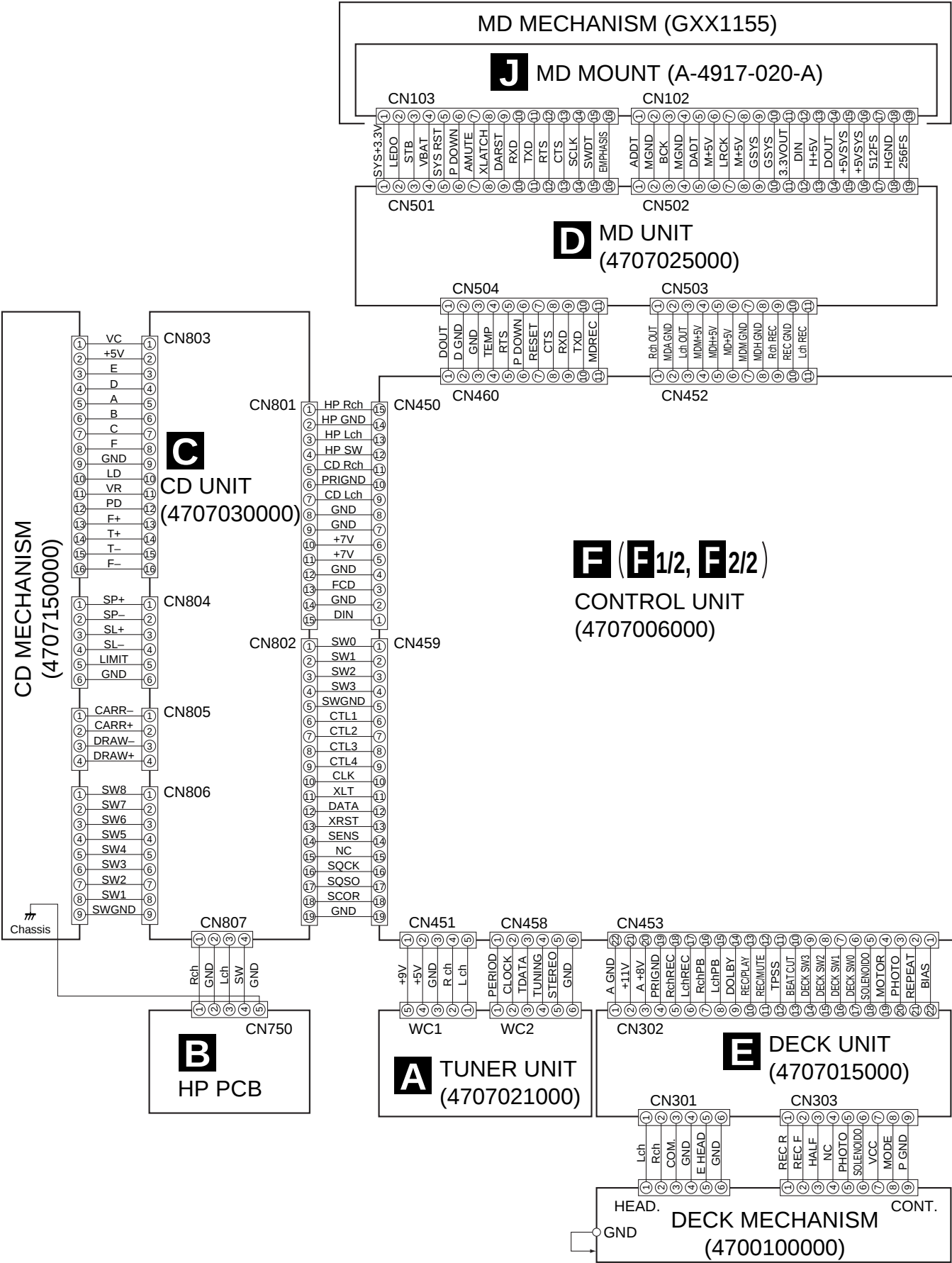
A

B

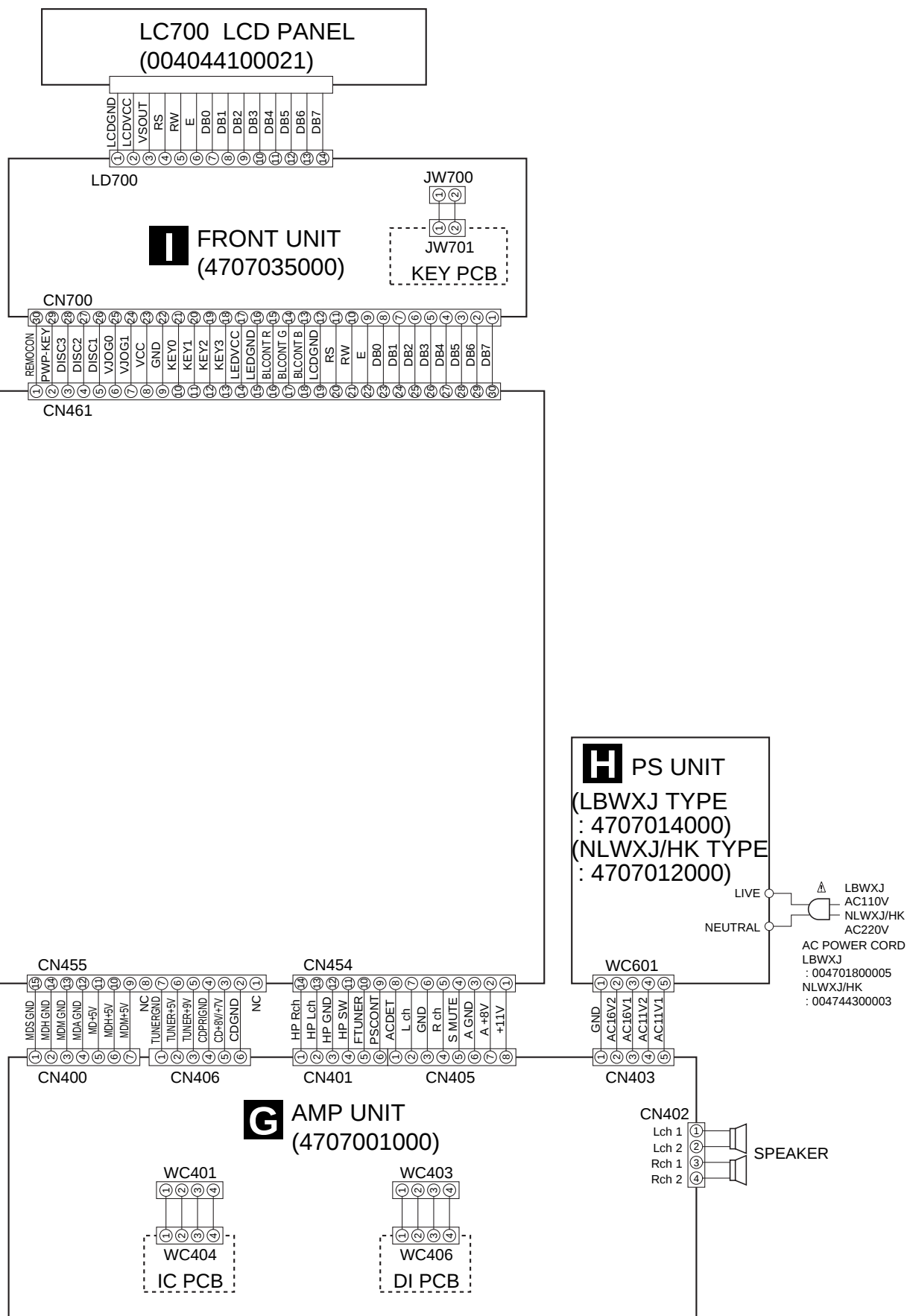
C

D

3.2 OVERALL CONNECTION DIAGRAM

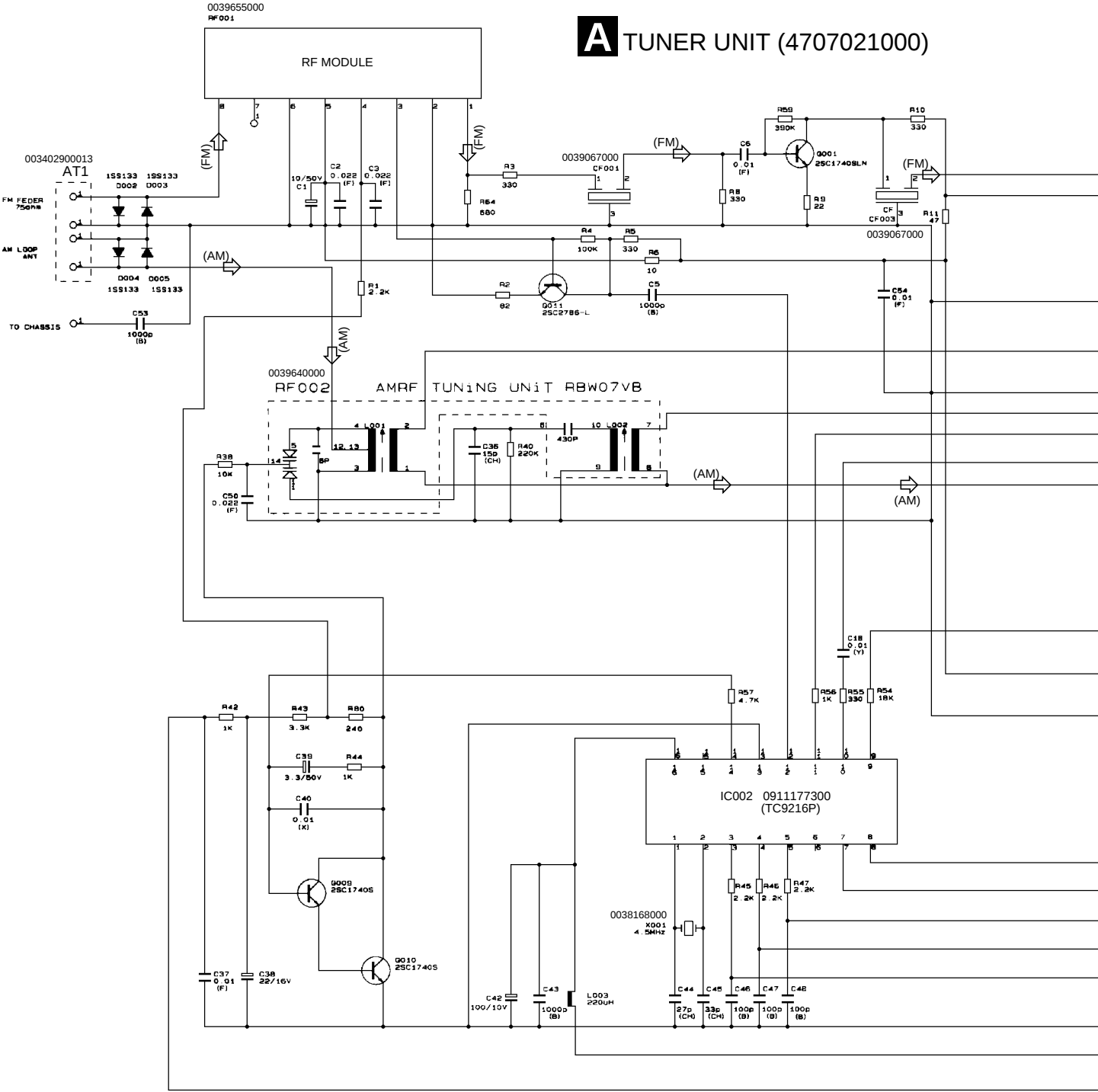


Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST"



3.3 TUNER UNIT

A TUNER UNIT (4707021000)

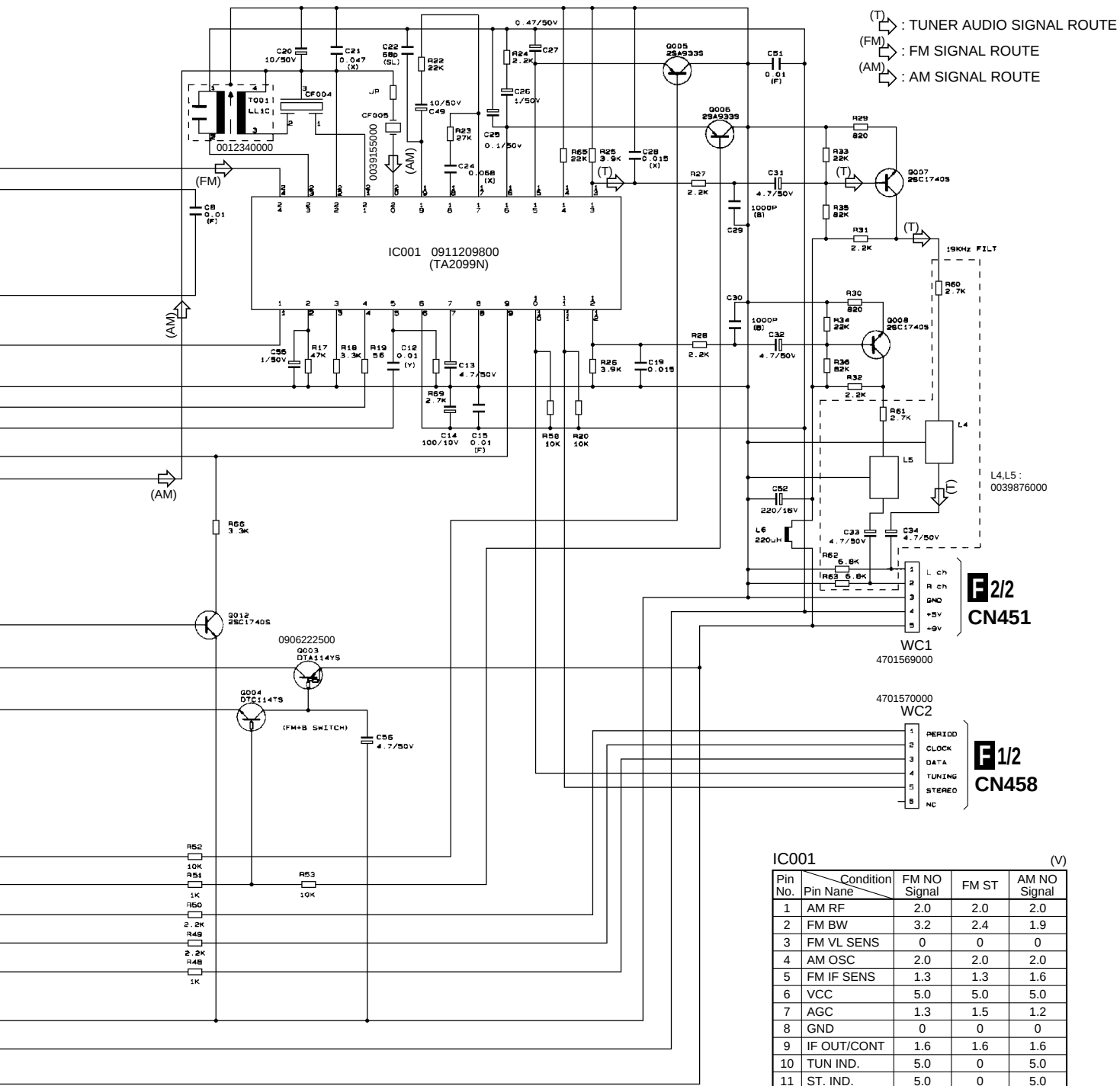


RF001 (V)

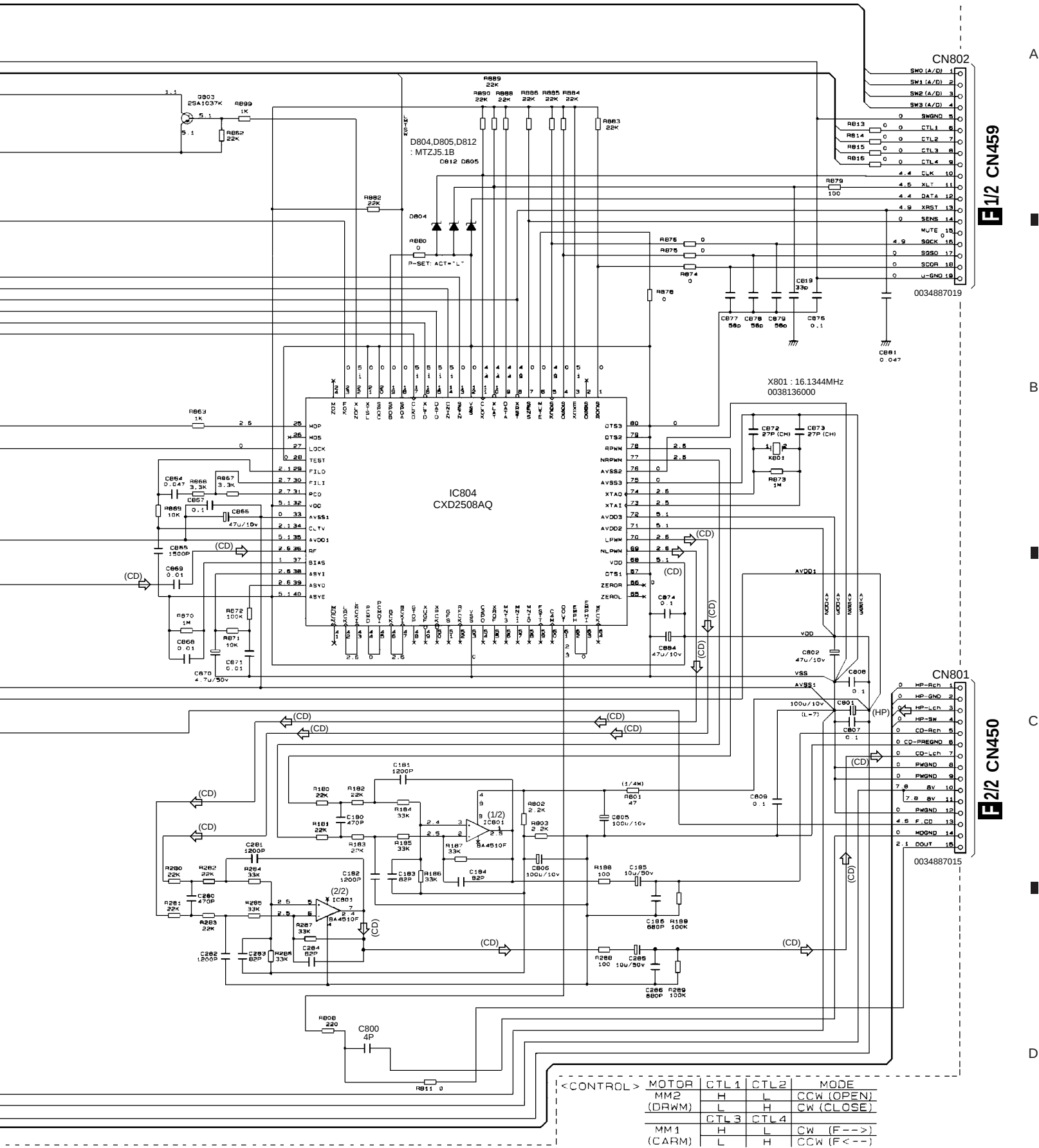
Pin No.	Pin Name	Condition	FM NO Signal	FM ST	AM NO Signal
1	IF OUT	0	0	0	0
2	GND	0	0	0	0
3	F OUT	1.1	1.1	0	0
4	VT	1.1	—	7.1	0
5	VCC	7.6	7.6	0	0
6	GND	0	0	0	0
7	ANT	0	0	0	0
8	—	—	—	—	—

IC002 (V)

Pin No.	Pin Name	Condition	FM NO Signal	FM ST	AM NO Signal	Pin No.	Pin Name	Condition	FM NO Signal	FM ST	AM NO Signal
1	XT	2.3	2.3	2.3	2.3	9	IF CONT	0	0	0	0
2	XT	2.4	2.4	2.4	2.4	10	IF IN	2.5	2.5	2.5	2.5
3	DATA	4.6	4.6	4.6	4.6	11	AM IN	0	0	2.5	2.5
4	CLOCK	4.6	4.6	4.6	4.6	12	FM IN	2.2	2.2	0	0
5	PERIOD	4.6	4.6	4.6	4.6	13	GND	0	0	0	0
6	—	0	0	0	0	14	DO1	1.1	1.1	1.1	1.1
7	AM/FM (H-FM)	4.8	4.8	0	0	15	DO2	0	0	4.9	4.9
8	FM ST. VCO STOP (H-ST)	4.8	4.8	0	0	16	VCC	4.9	4.9	4.9	4.9

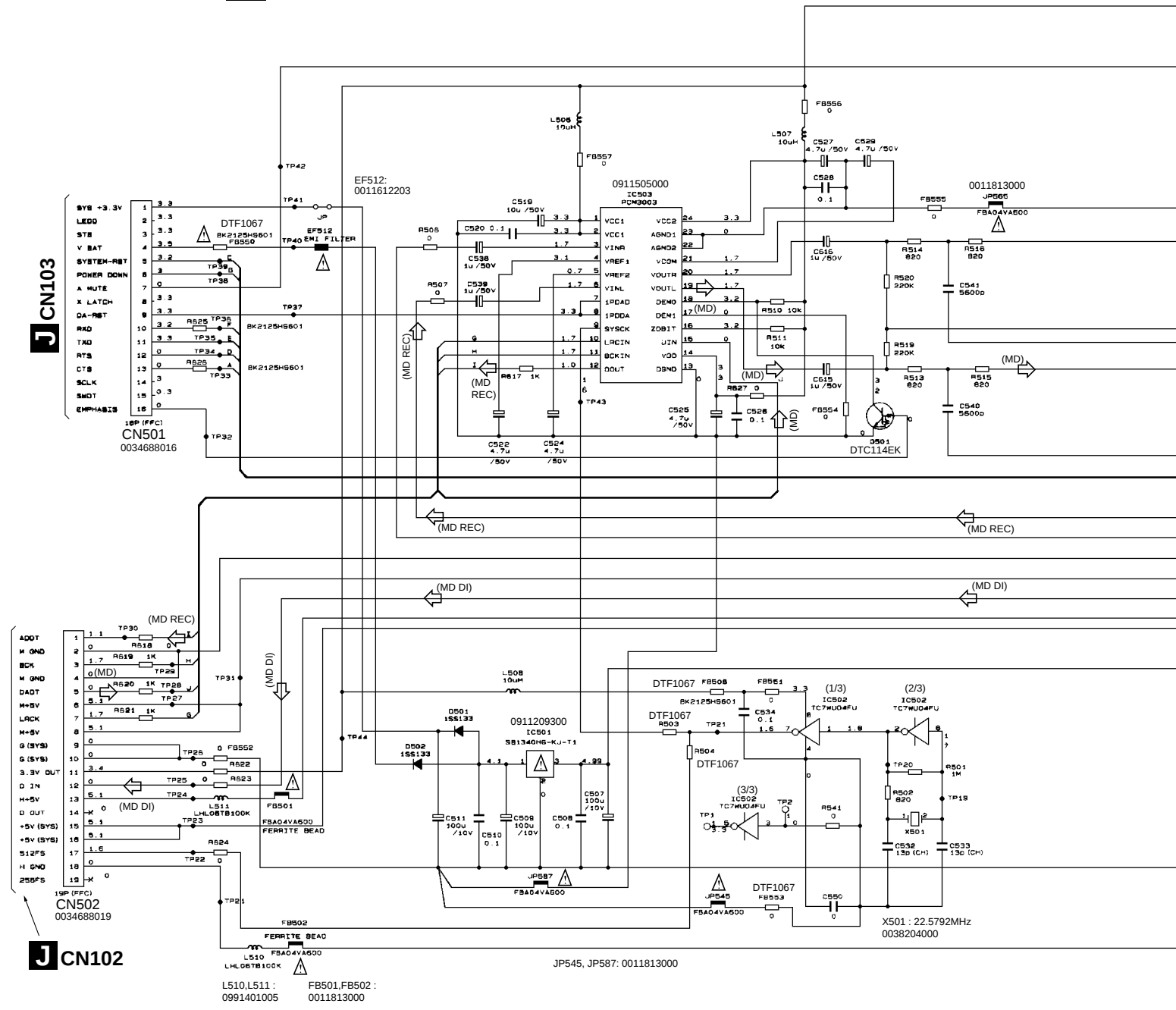


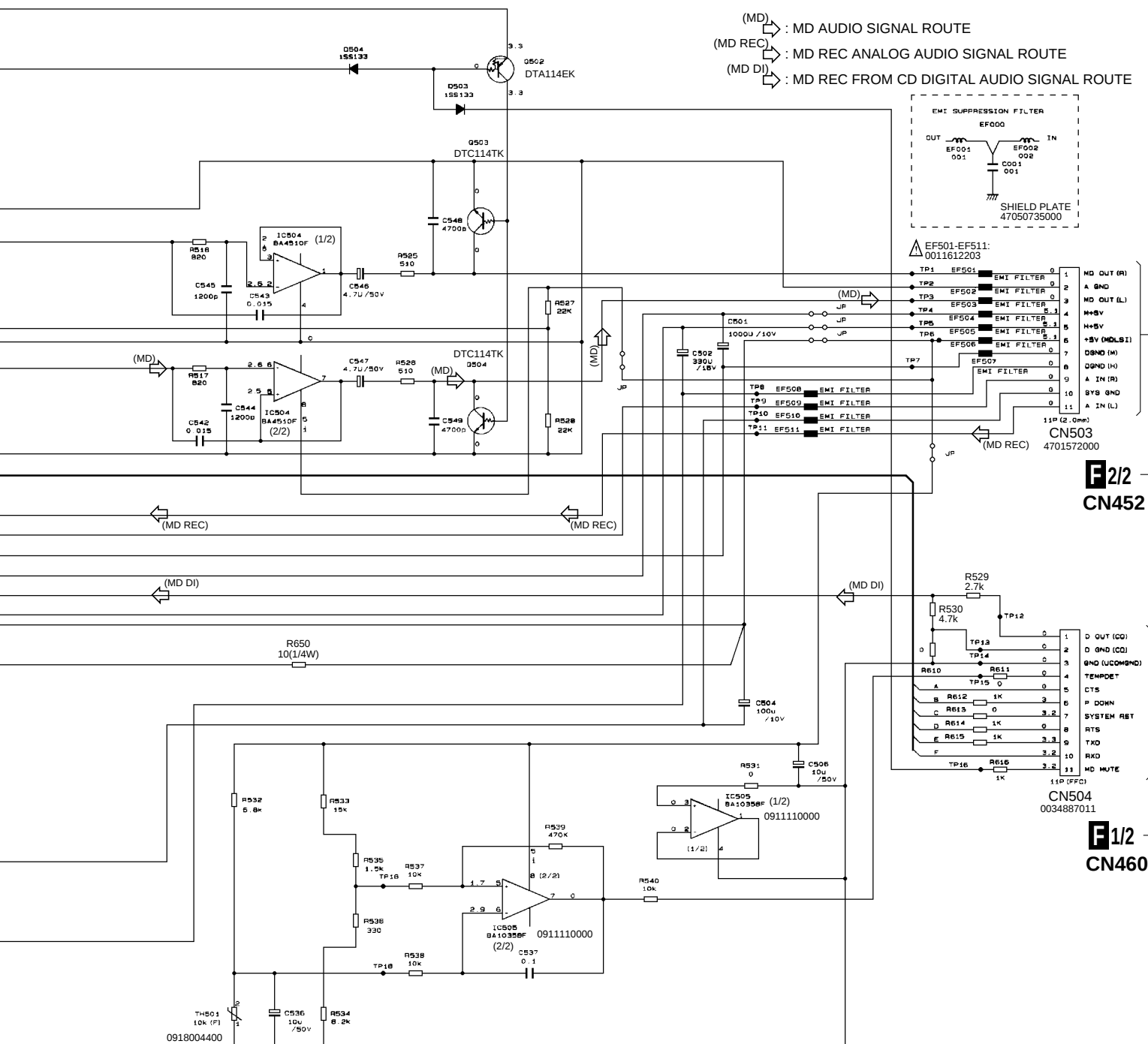
(CD) : CD AUDIO SIGNAL ROUTE
(HP) : HP AUDIO SIGNAL ROUTE



3.5 MD UNIT

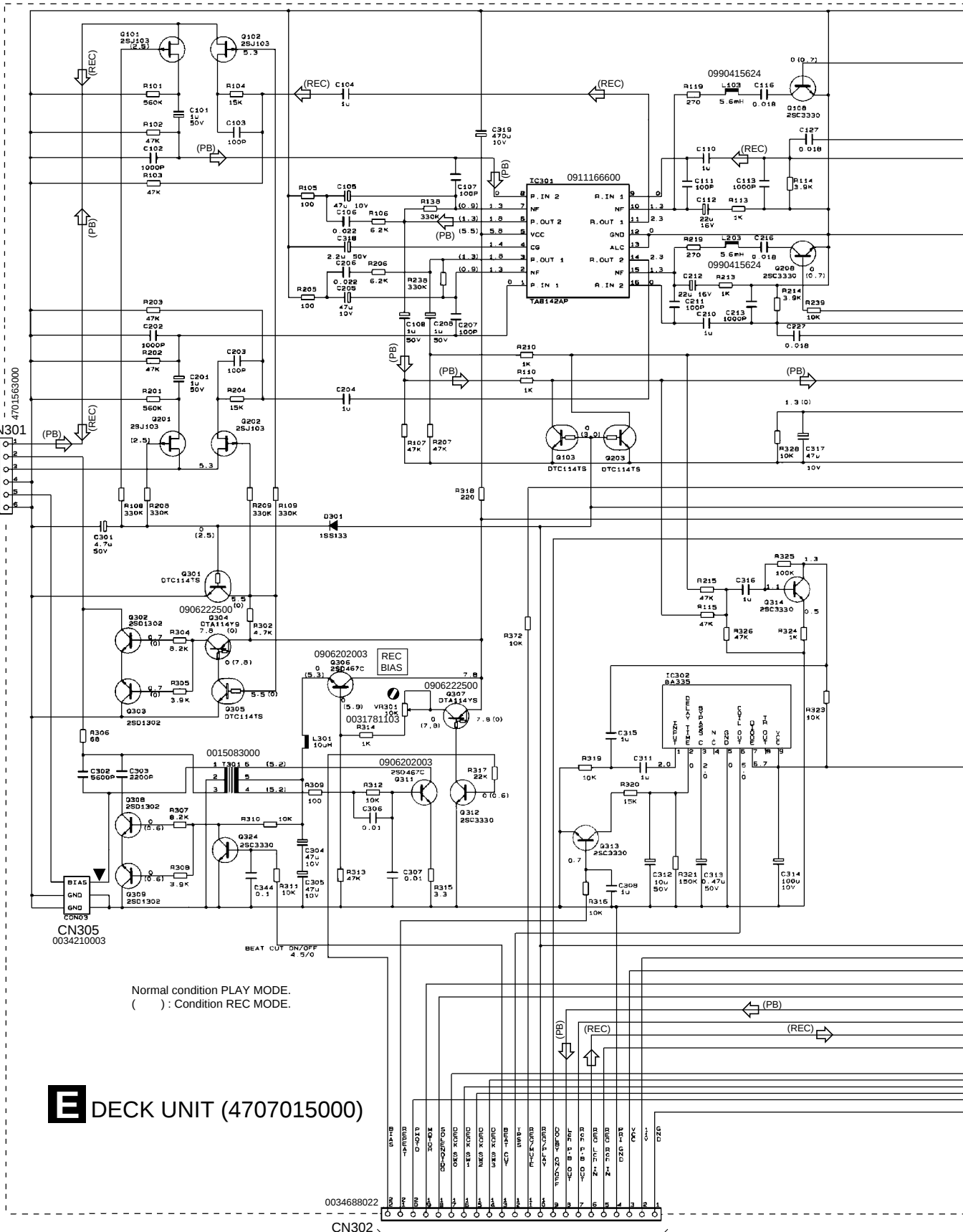
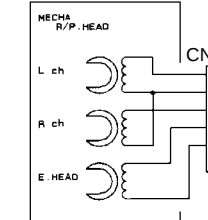
D MD UNIT (4707025000)

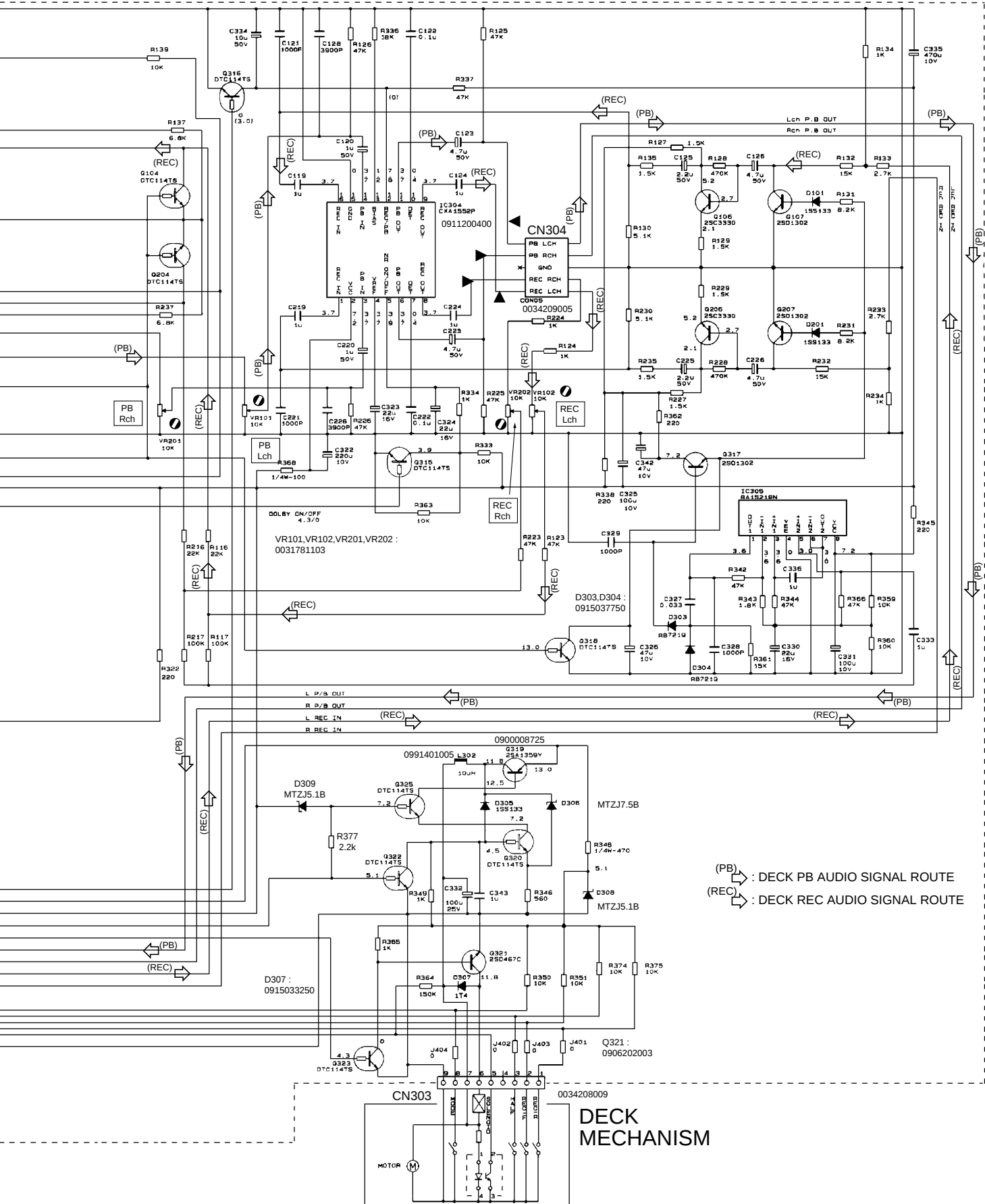




3.6 DECK UNIT

DECK MECHANISM







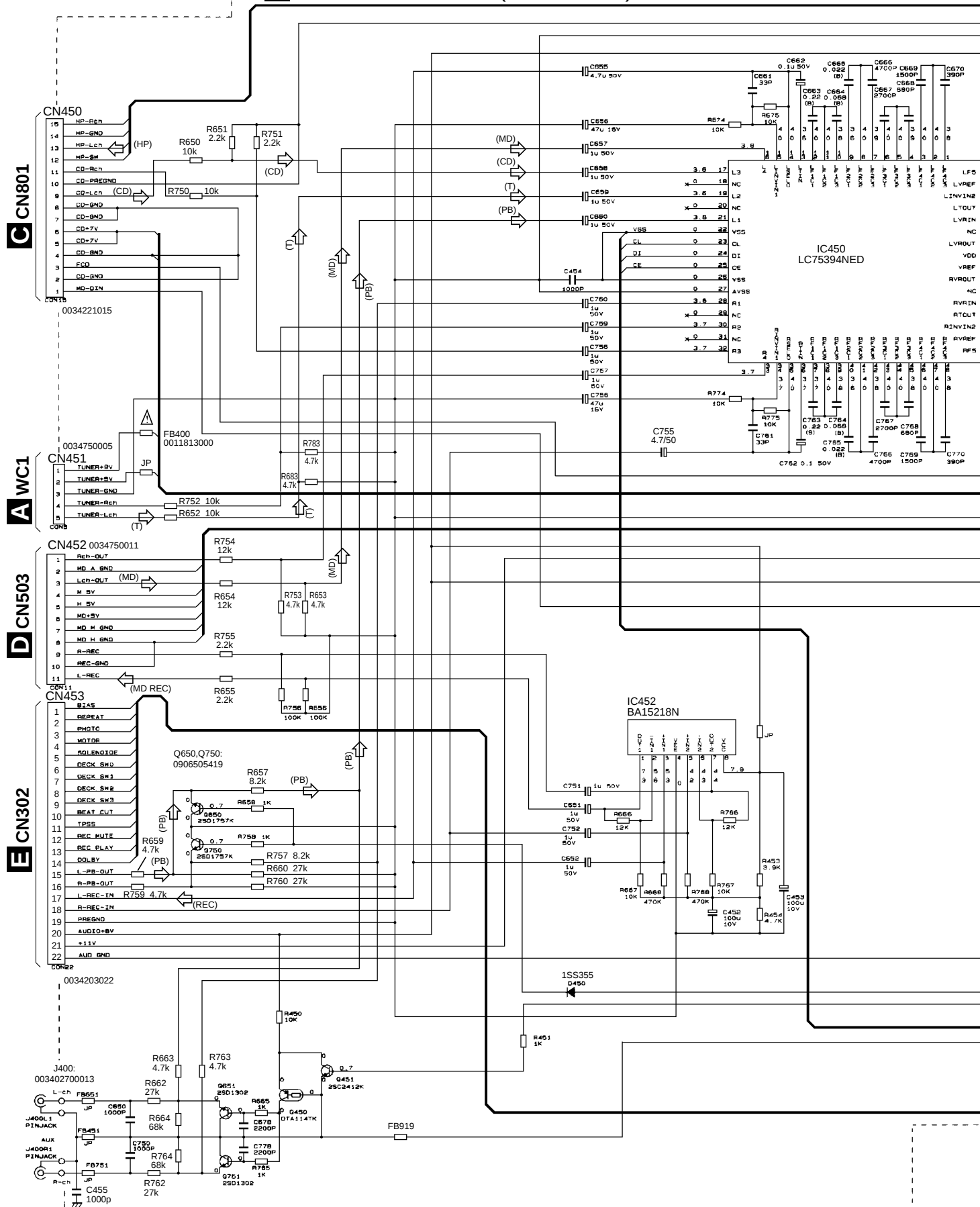
C

F 2/2

D

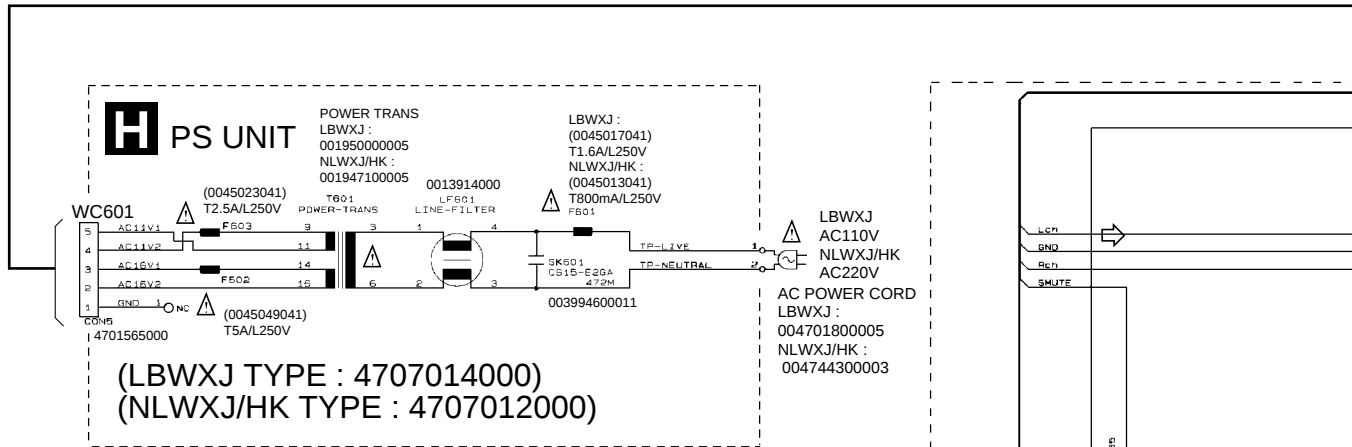
3.8 CONTROL UNIT (2/2)

F 2/2 CONTROL UNIT (4707006000)



3.9 AMP, PS UNIT

A

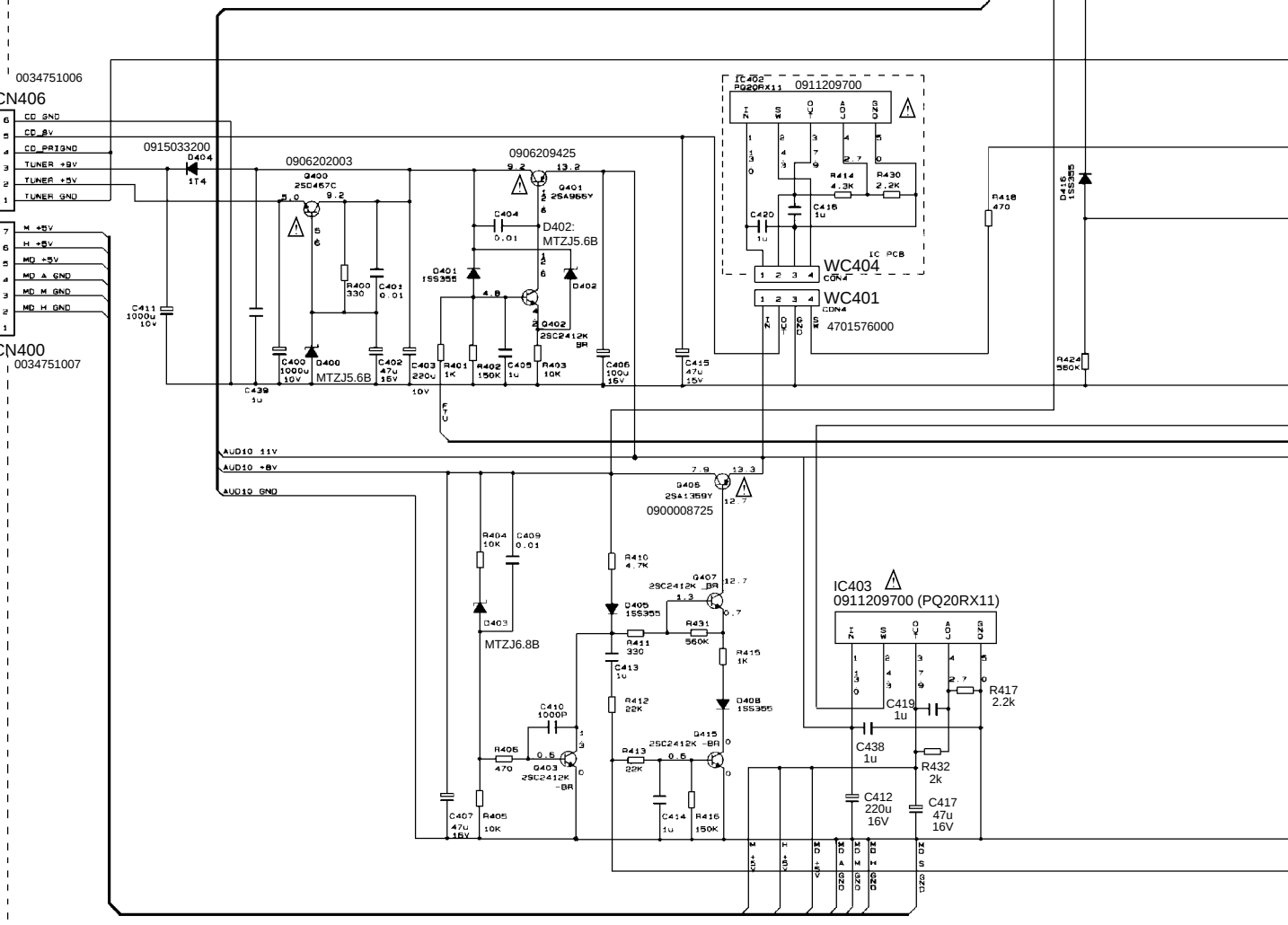


B

G AMP UNIT (4707001000)

E 2/2
CN455

C





3.10 FRONT UNIT

A

B

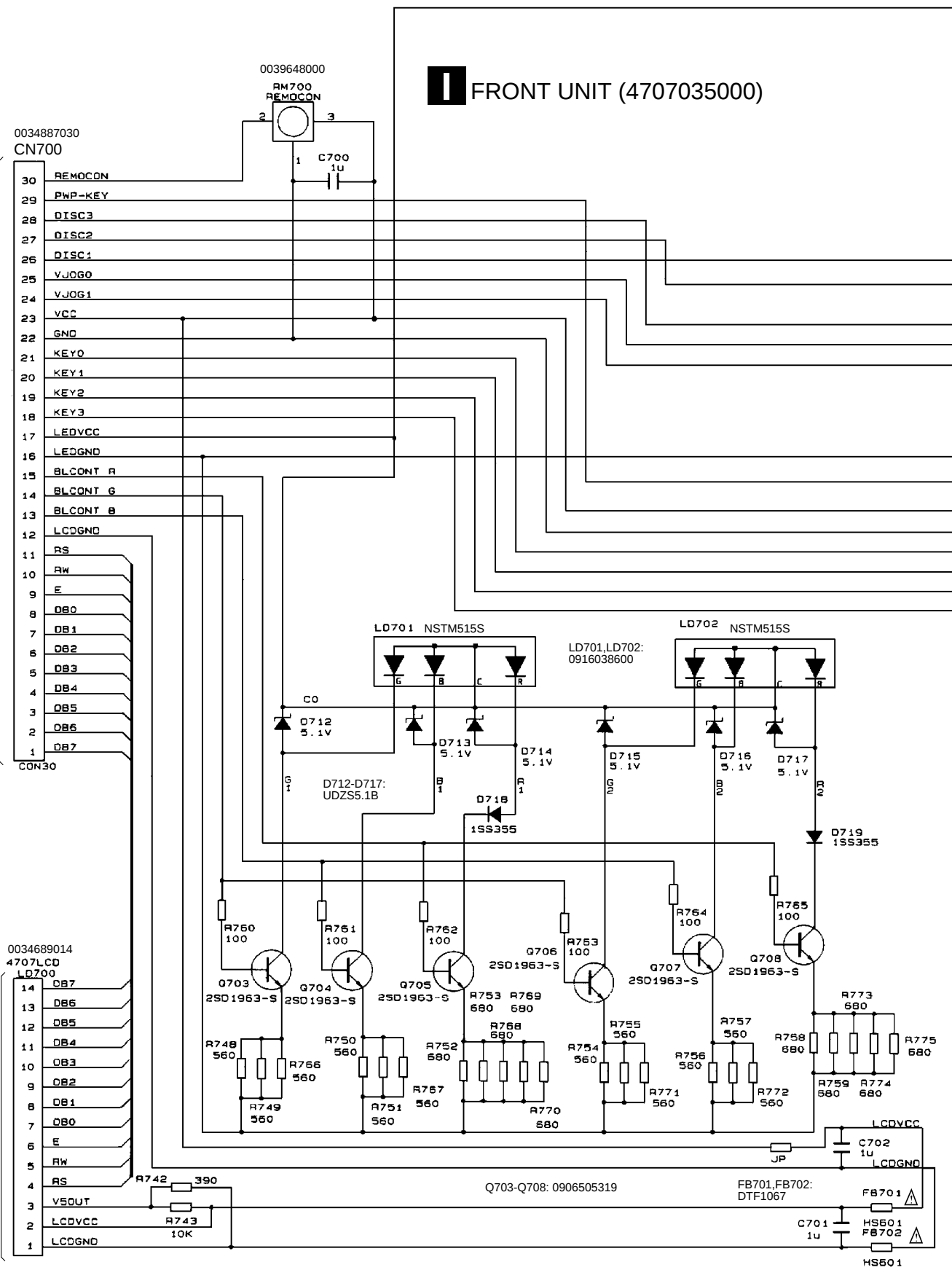
C

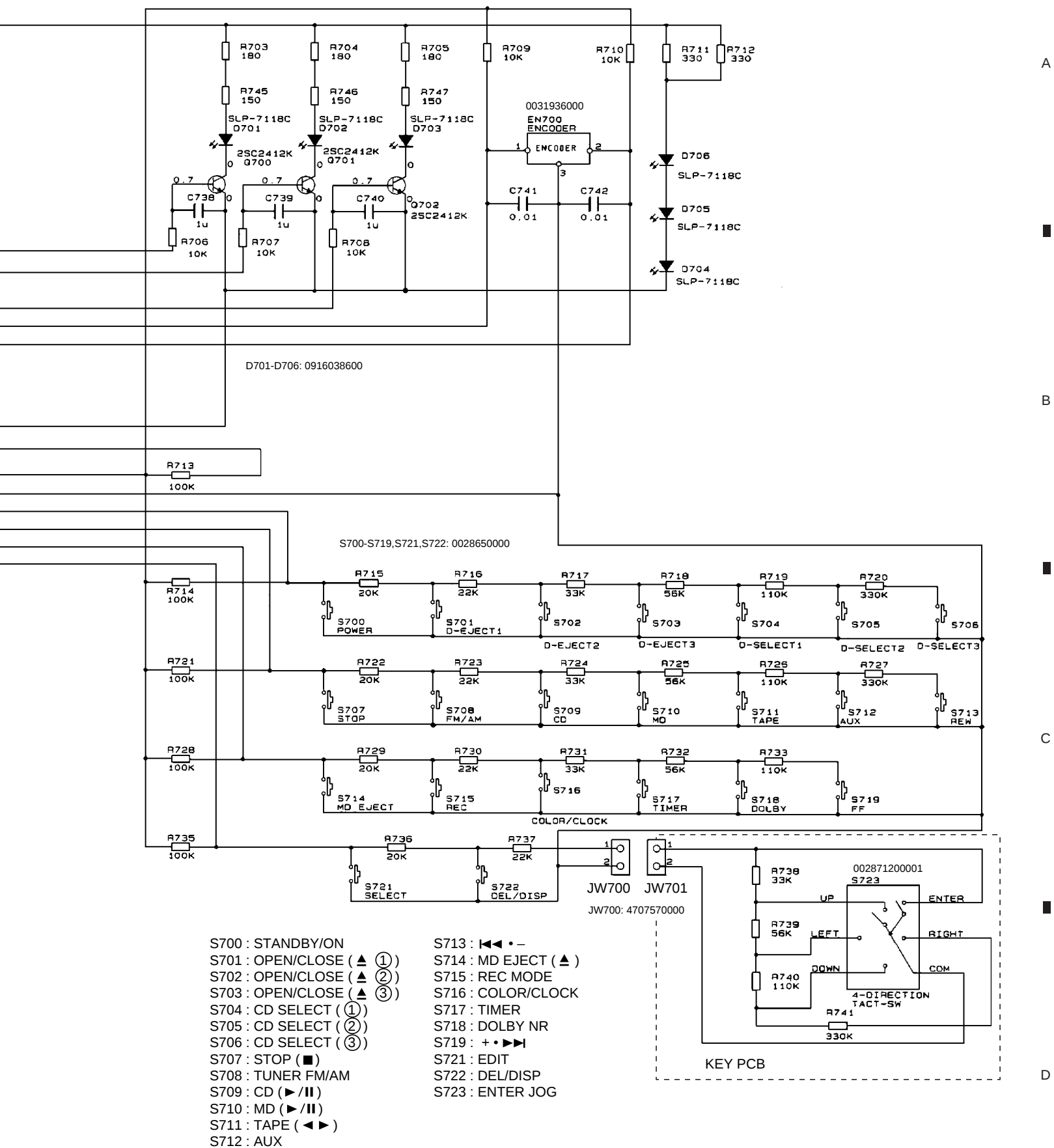
D

FRONT UNIT (4707035000)

F1/2 CN461

LCD PANEL





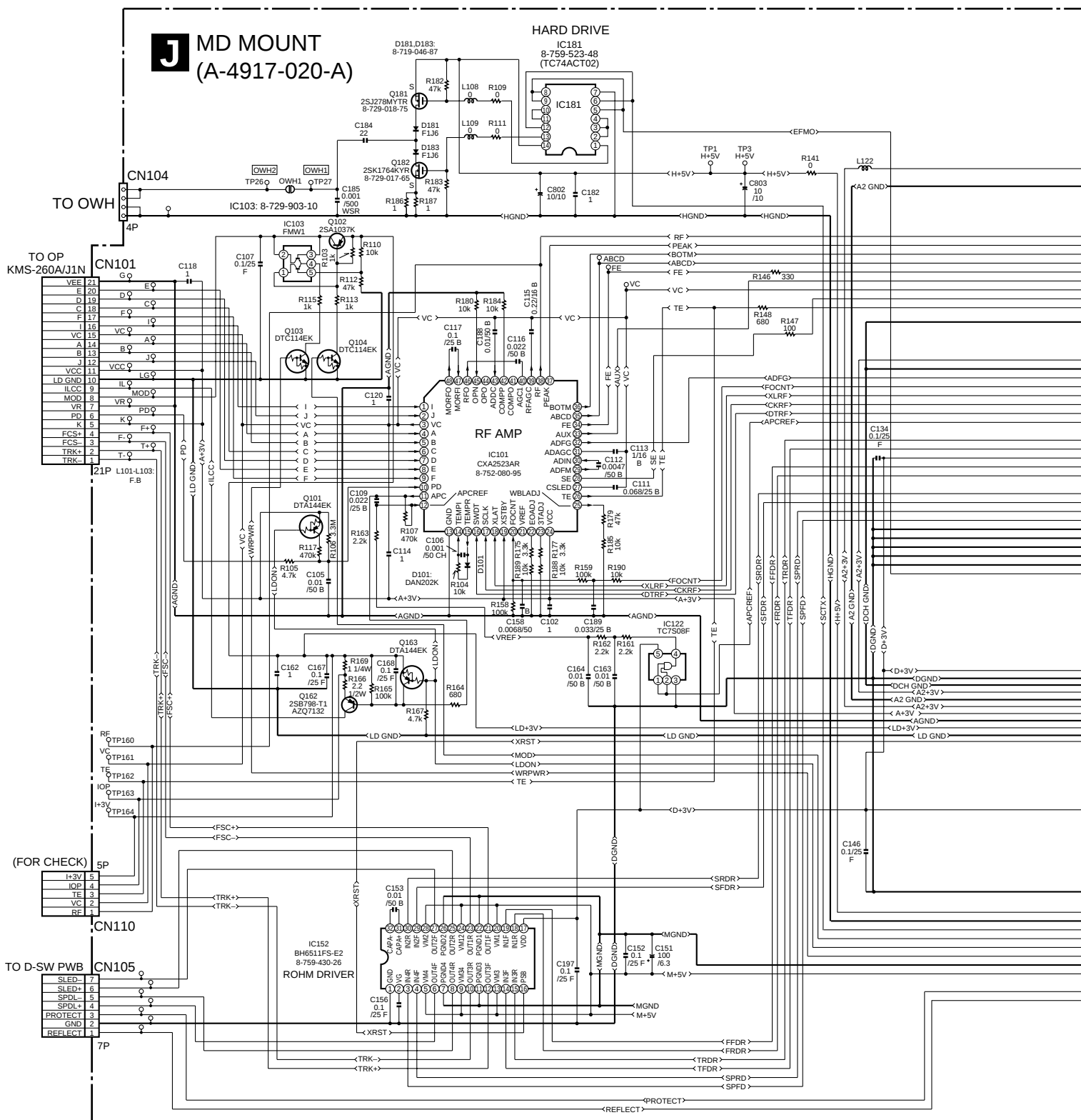
3.11 MD MOUNT

A

B

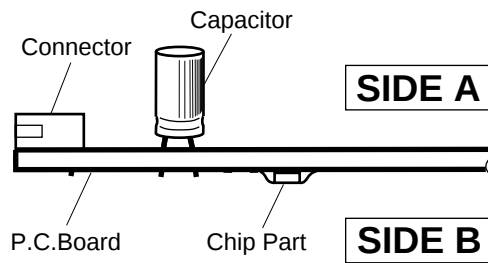
C

D



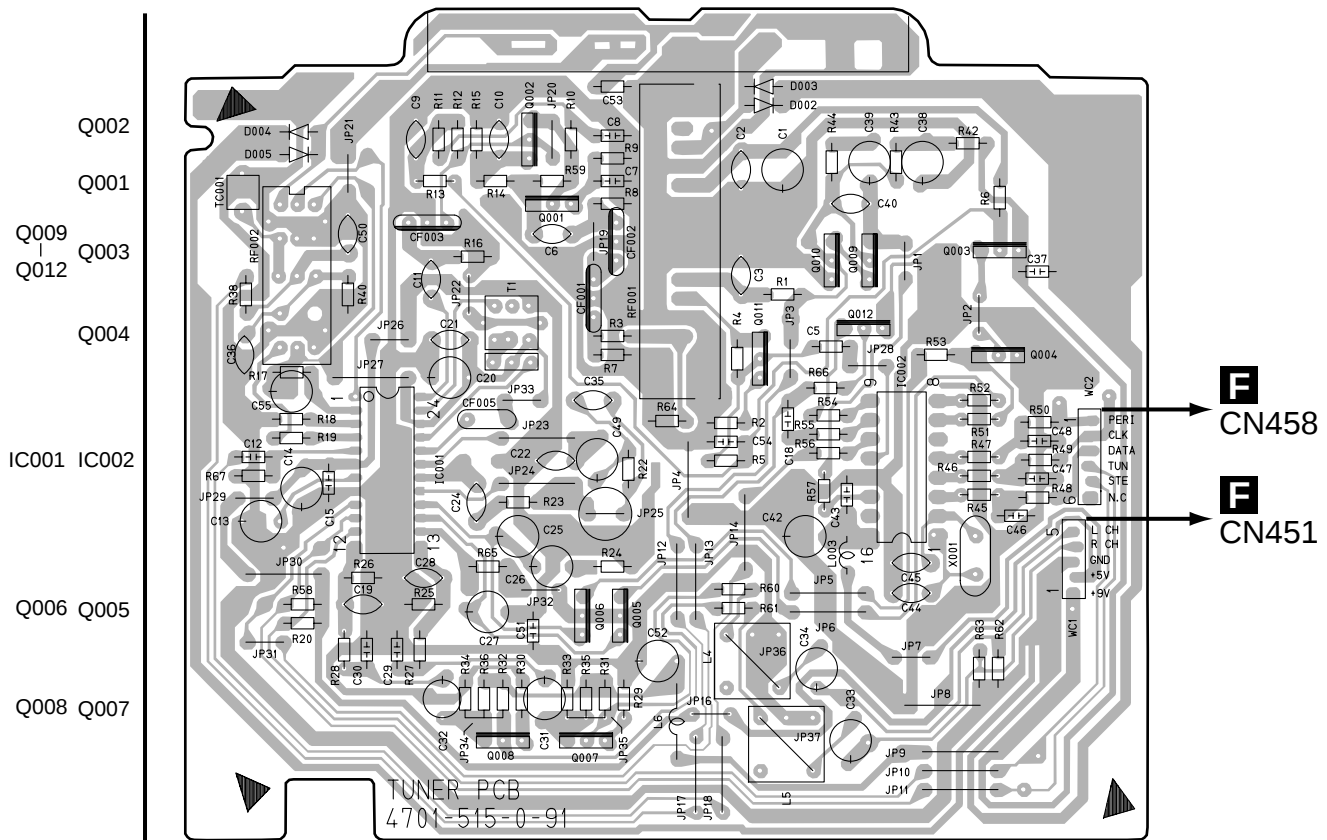
4. PCB CONNECTION DIAGRAM

Viewpoint of PCB diagrams



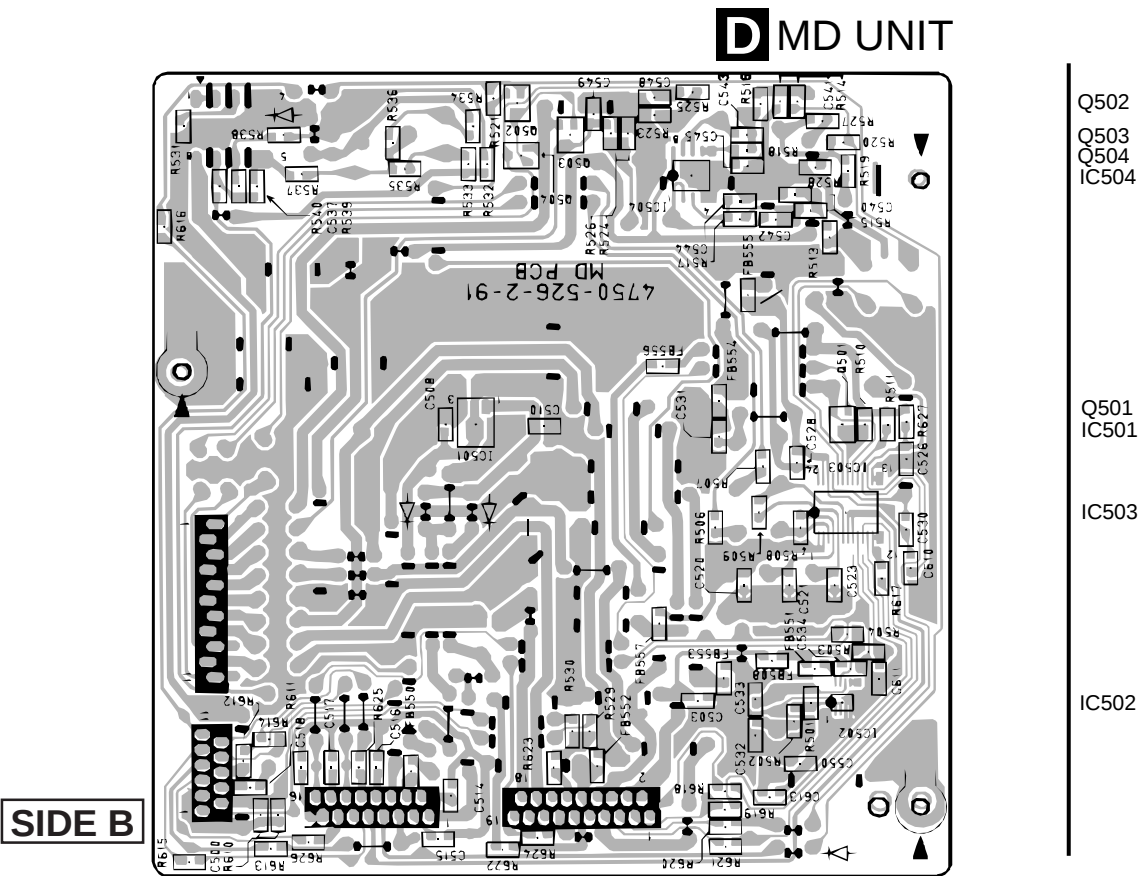
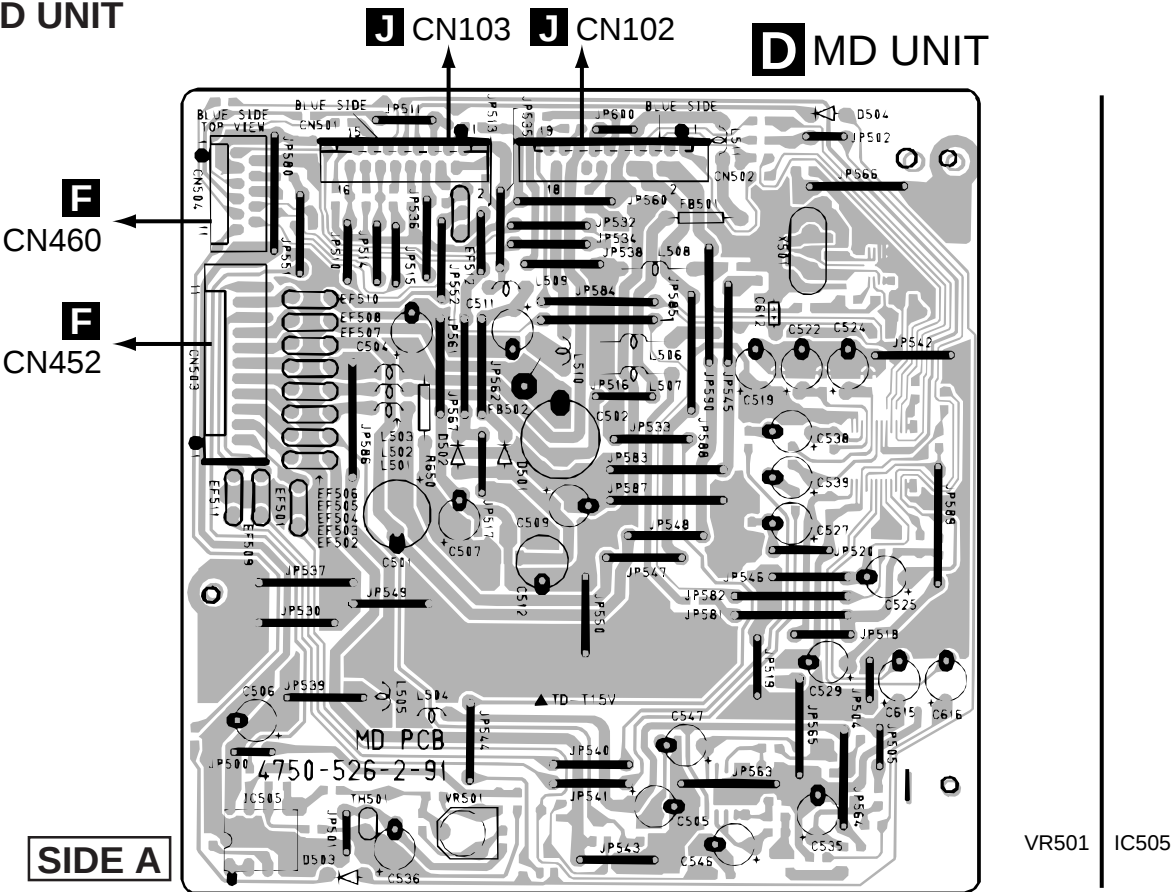
4.1 TUNER UNIT

A TUNER UNIT

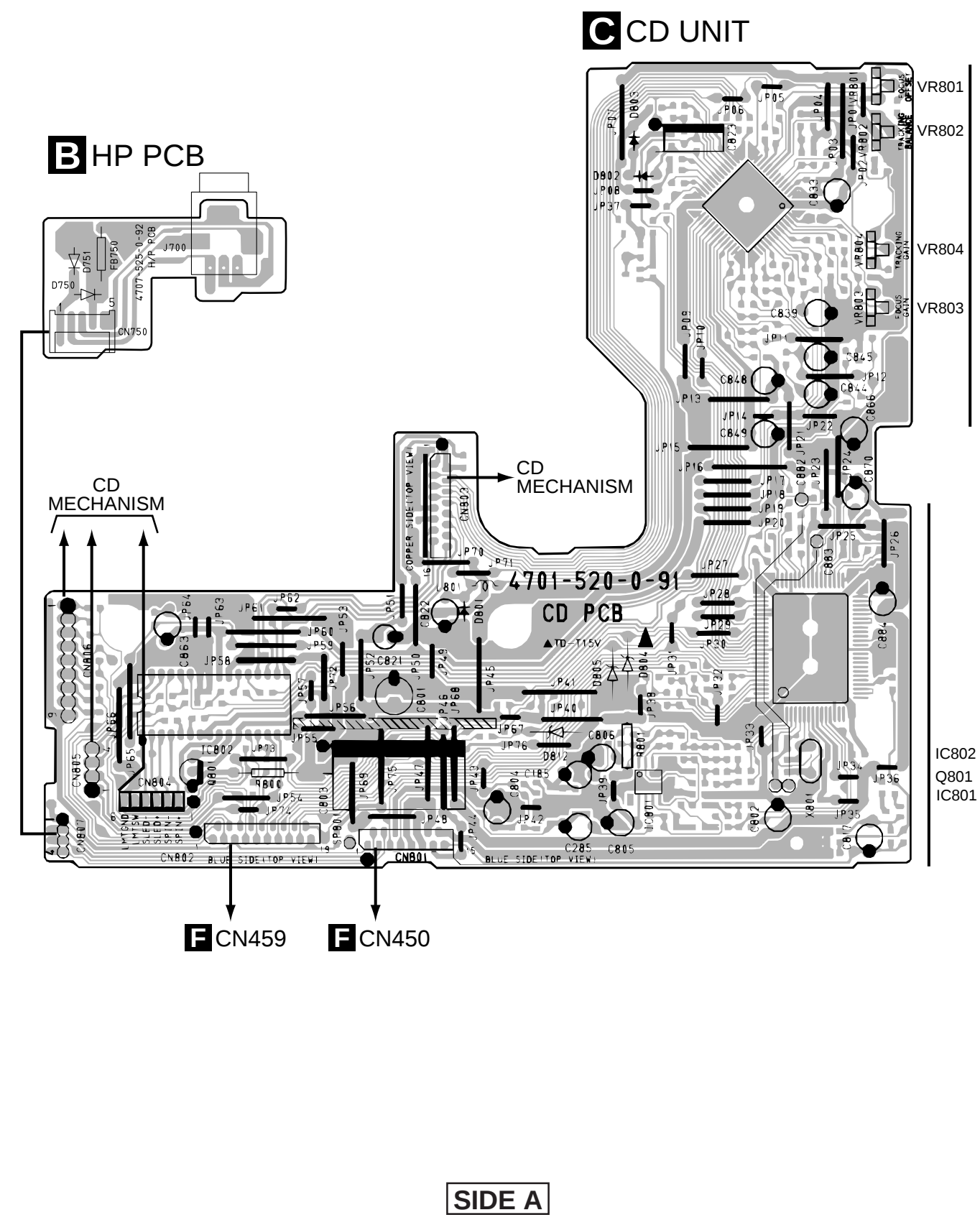


SIDE A

4.2 MD UNIT

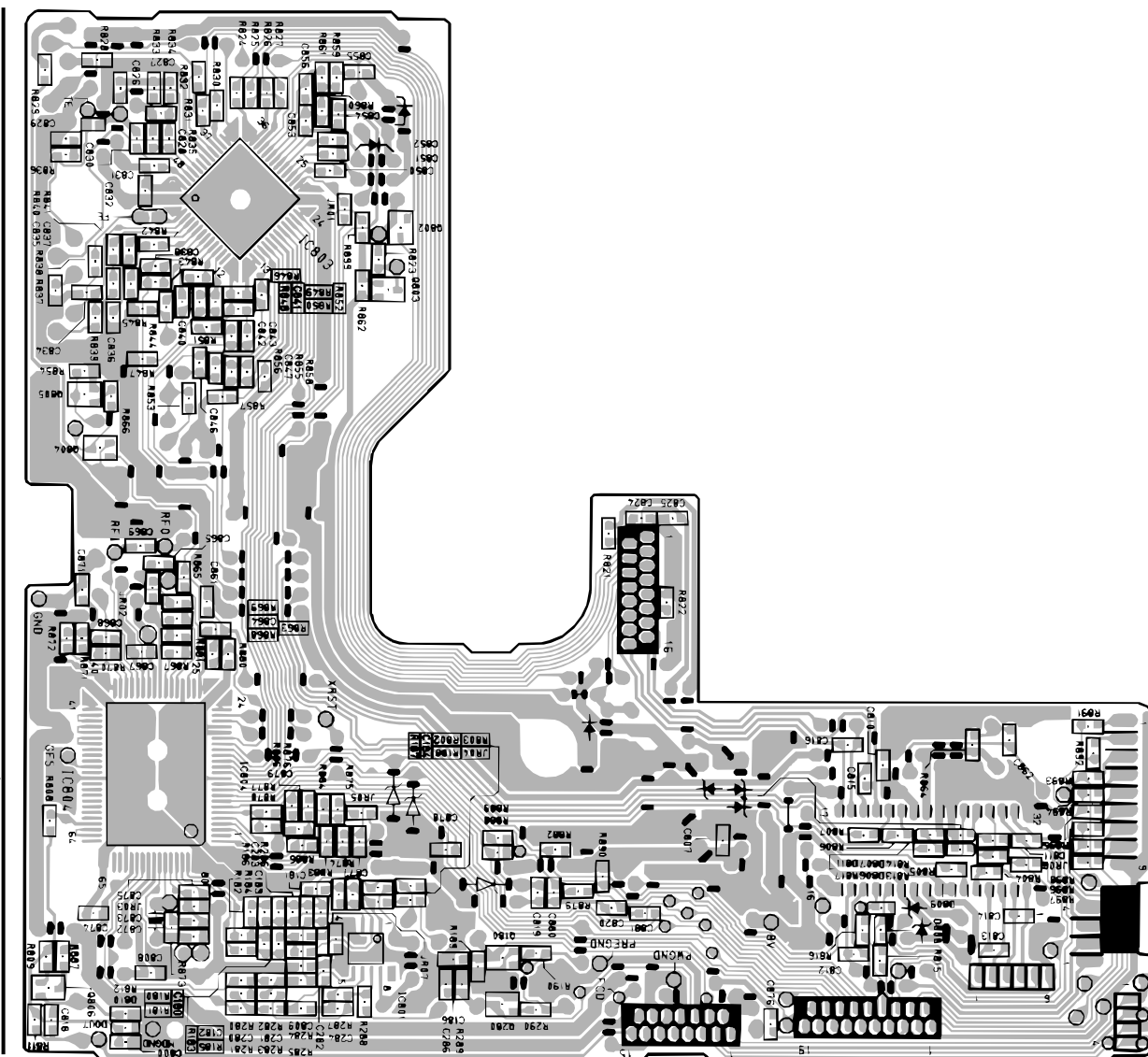


4.3 HP PCB, CD UNIT



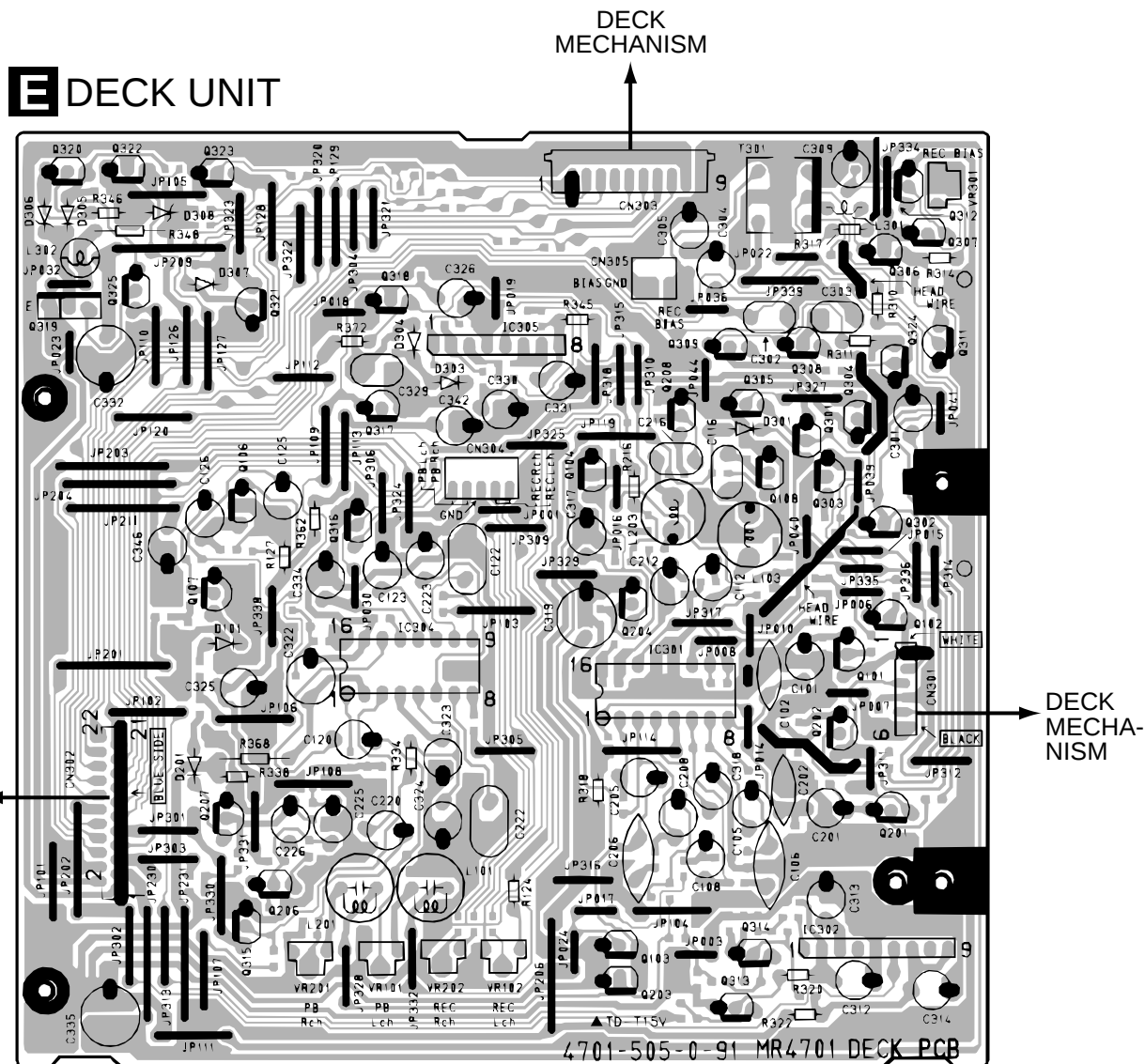
C CD UNIT

IC803
Q802
Q803
Q805
Q804
IC804
Q180
IC801
Q280
Q806



SIDE B

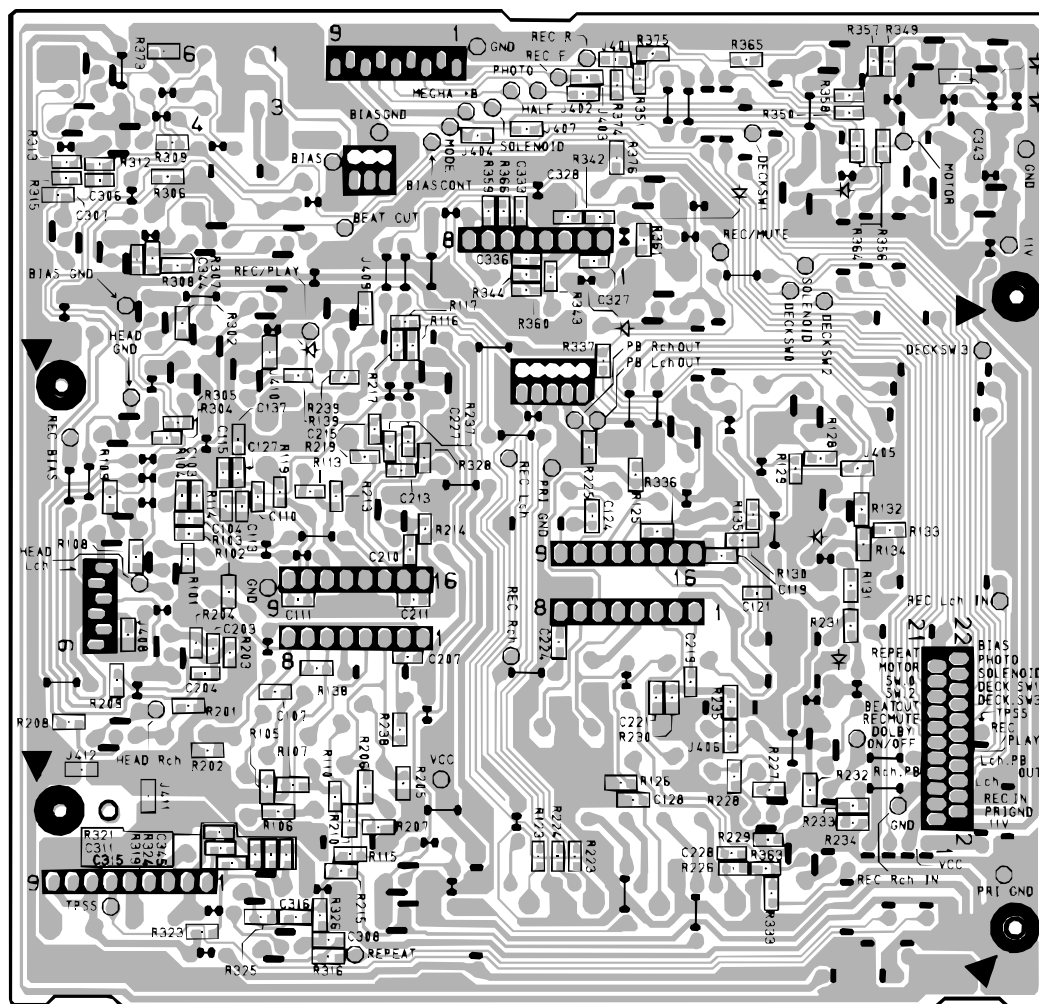
4.4 DECK UNIT



VR201 VR101 VR202 VR102				VR301			
Q320	Q322	Q323		Q309	Q308	Q306	Q312
Q319	Q325	Q321	Q318	Q208	Q305		Q307
	Q106		Q317		Q301	Q304	Q324
Q107			Q316	Q108	Q303		Q302
	Q207			Q103	Q314	Q101	Q102
	Q315	Q206	IC304	Q203	Q313	Q202	Q201
							IC302

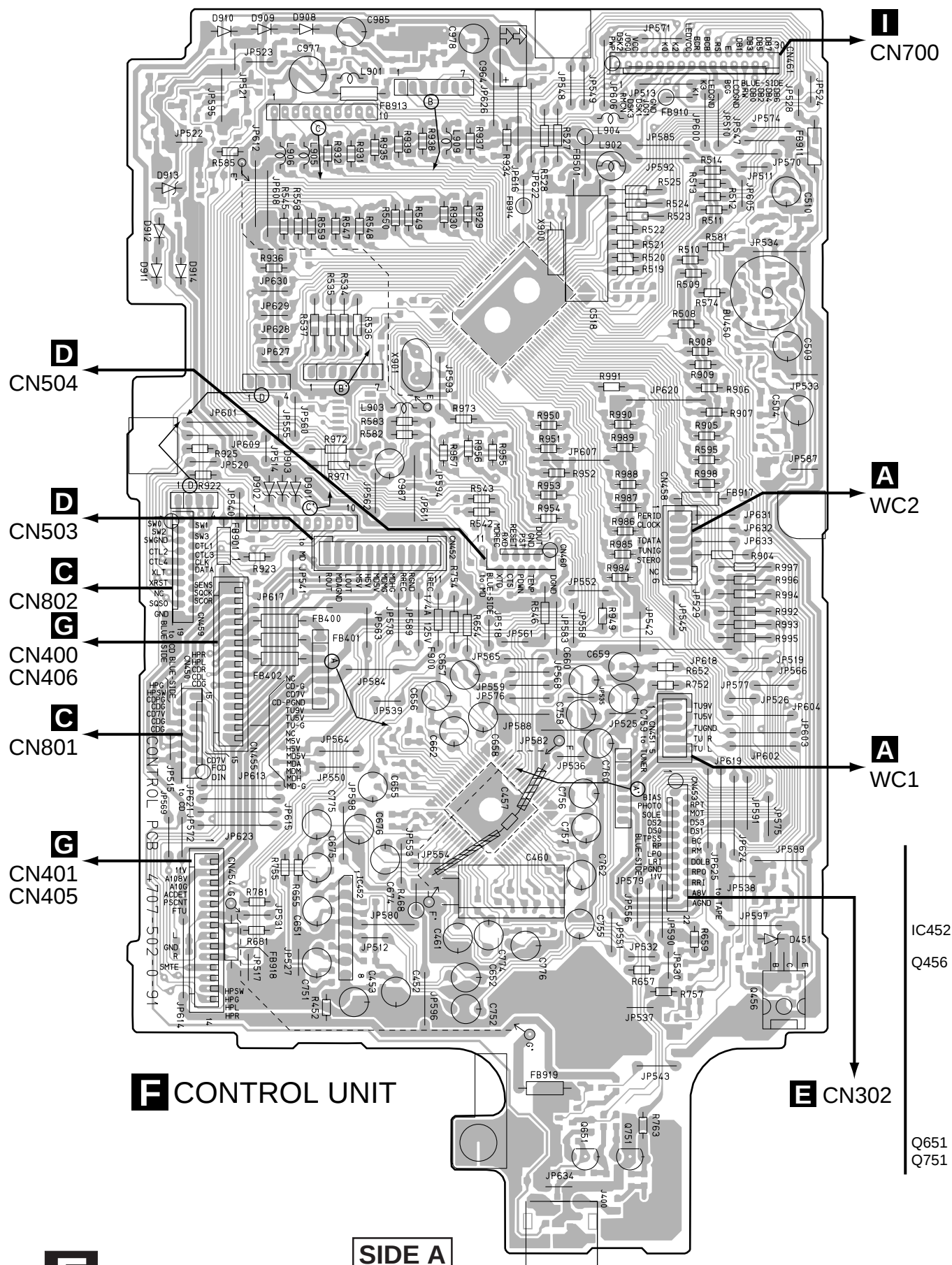
SIDE A

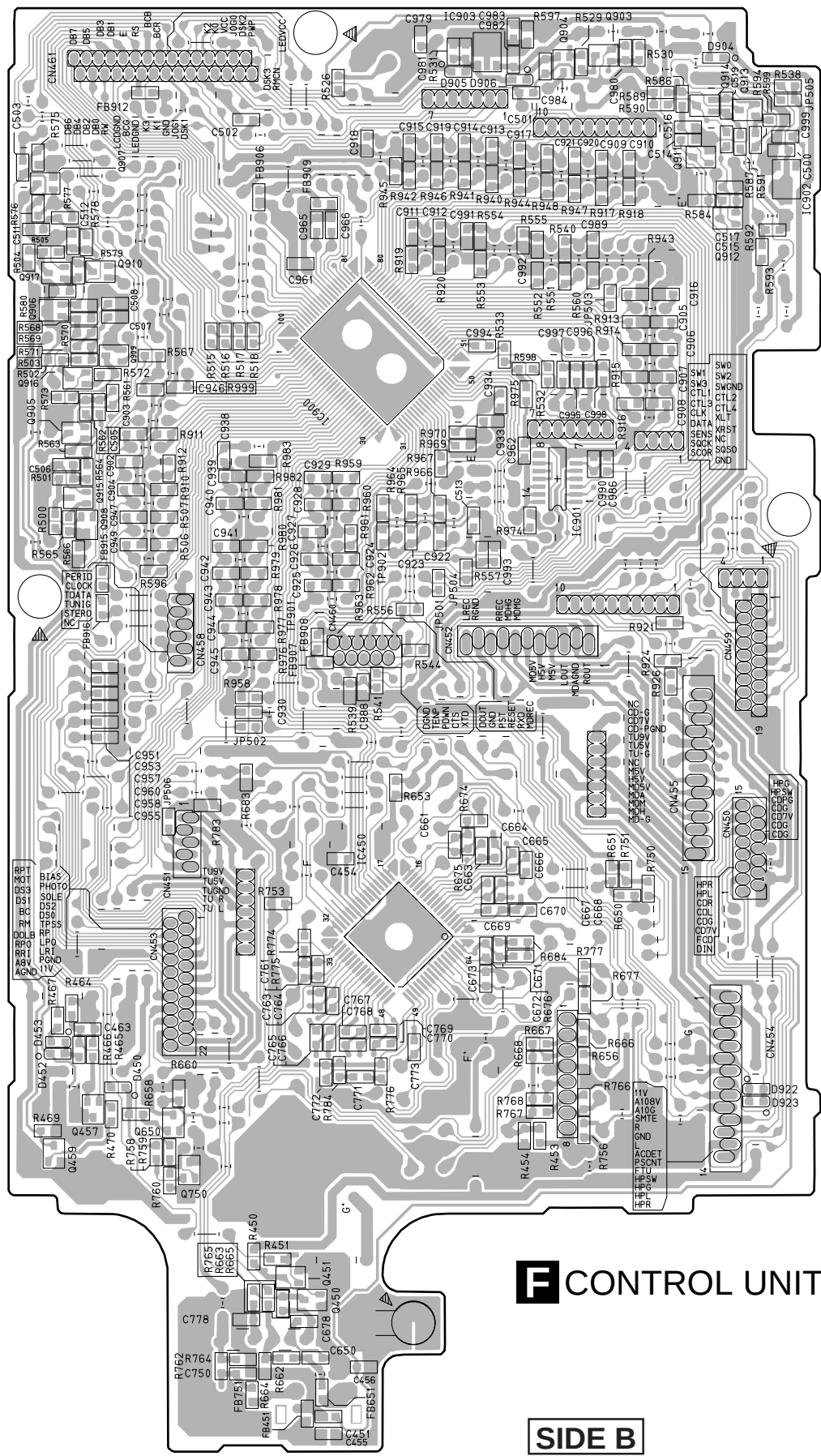
E DECK UNIT



SIDE B

4.5 CONTROL UNIT





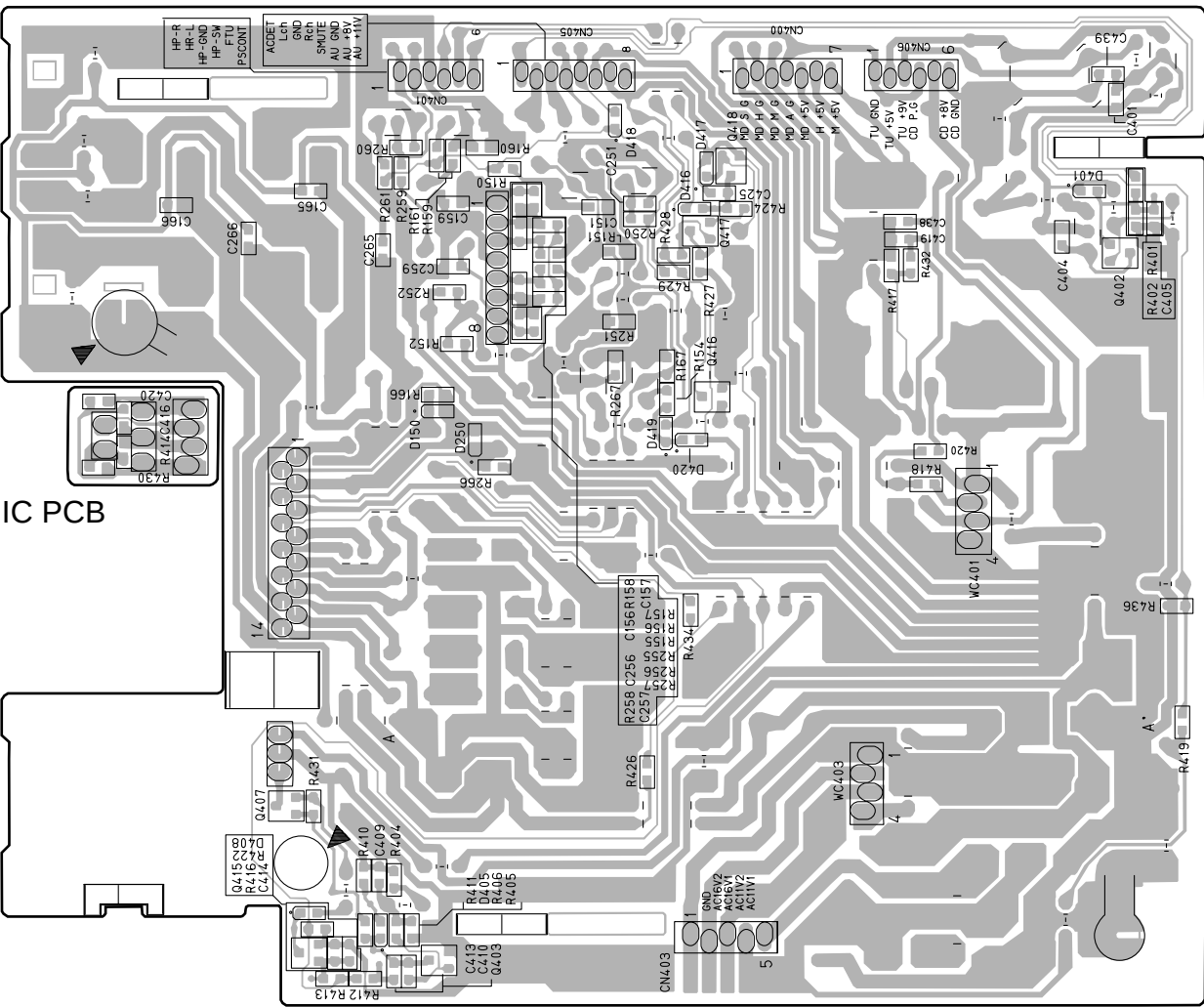
- IC903 Q903
- Q914
- Q913
- Q907 Q911
- IC902
- Q912
- Q917
- Q910
- Q906
- Q909
- Q916
- IC900
- Q905
- IC901
- Q915
- Q908
- IC450
- Q457
- Q459
- Q650
- Q750
- Q451
- Q450

F CONTROL UNIT

SIDE B

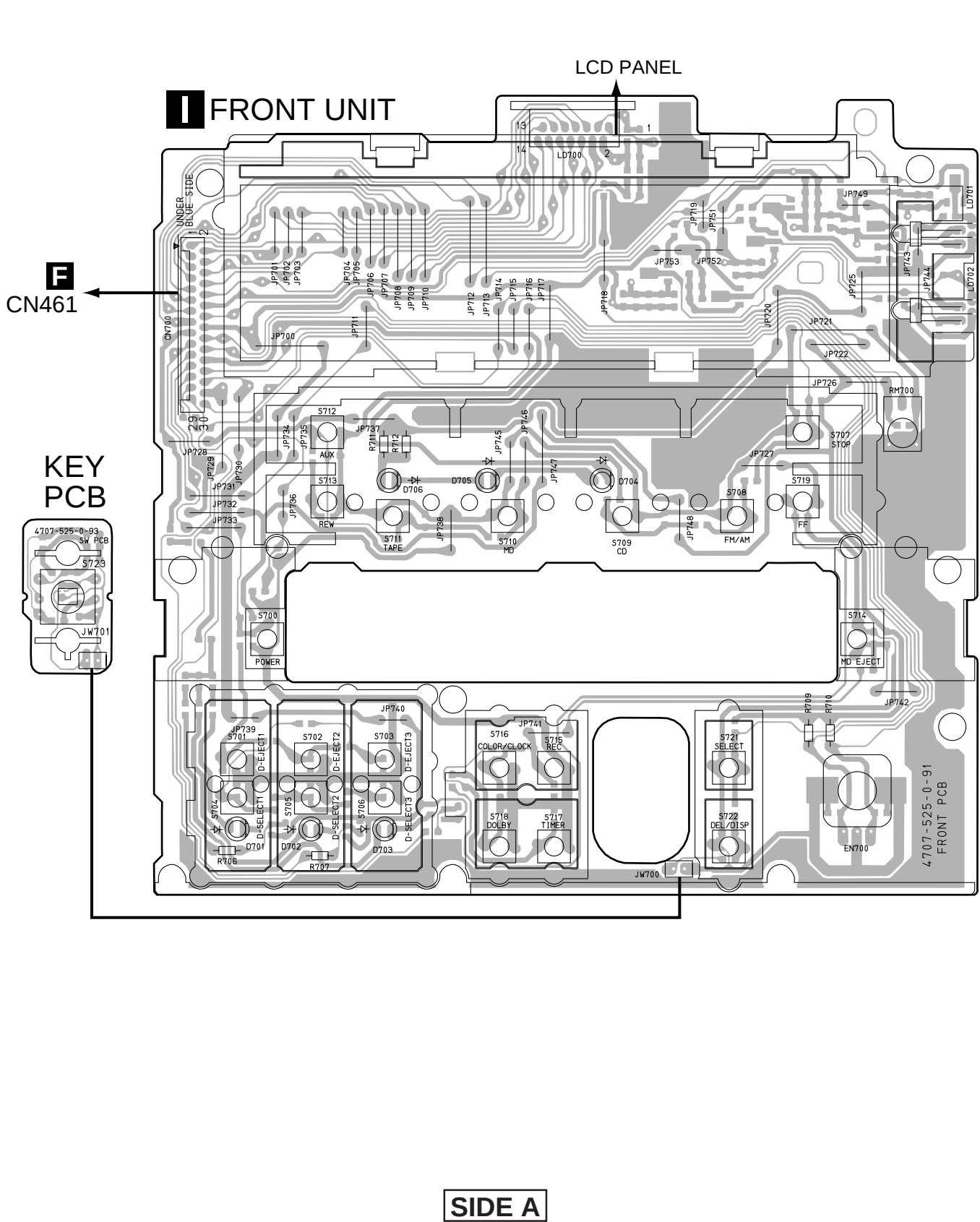


G AMP UNIT

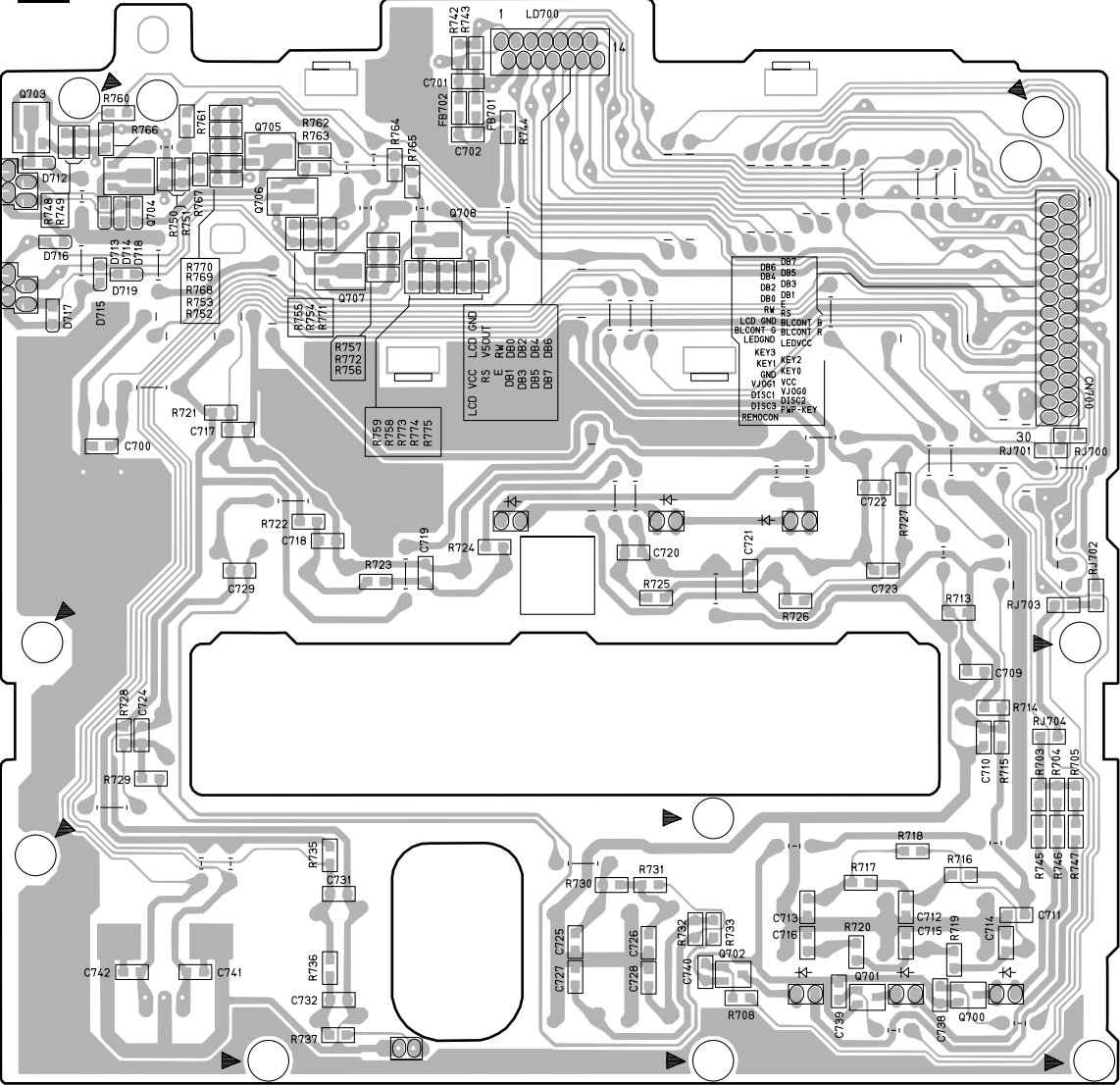


SIDE B

4.7 FRONT UNIT



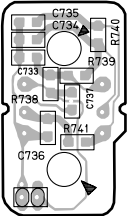
FRONT UNIT



Q703 Q705
Q704 Q706

Q708
Q707

KEY PCB



Q702
Q701 Q700

SIDE B

J MD MOUNT

IC101
Q101

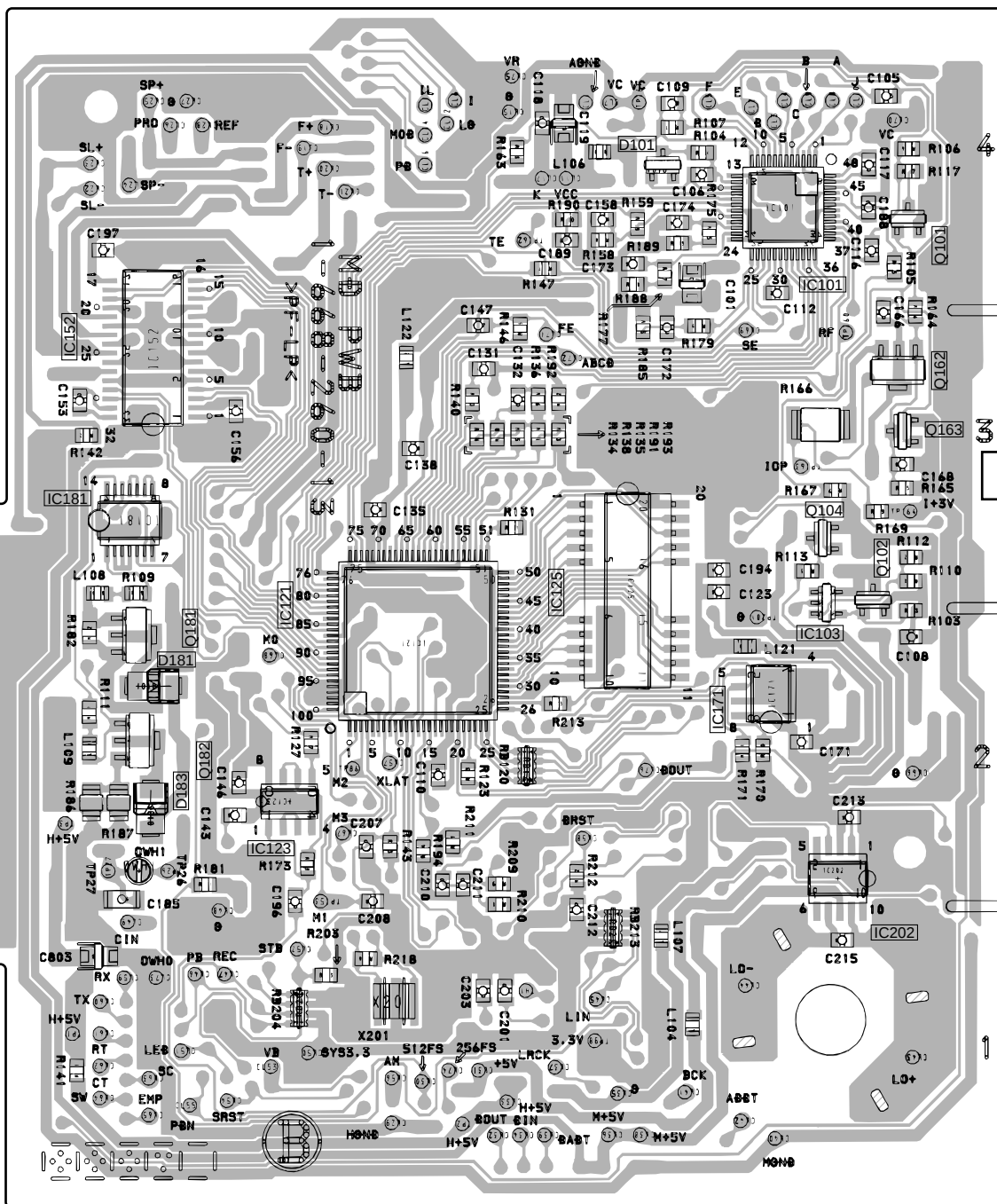
IC152
Q162
Q163

IC181
IC125
Q104
Q102
IC103

IC121
Q181
IC171
Q182

IC123

IC202



R142

R123

R213

SIDE B

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%).

560 $\rightarrow$ $56 \times 10^1 \rightarrow$ 561 RD1/4PU $\overline{5} \overline{6} \overline{1} J$
 47k $\rightarrow$ $47 \times 10^3 \rightarrow$ 473 RD1/4PU $\overline{4} \overline{7} \overline{3} J$
 0.5 $\rightarrow$ R50 RN2H $\overline{R} \overline{5} \overline{0} K$
 1 $\rightarrow$ 1R0 RS1P $\overline{1} \overline{R} \overline{0} K$

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

5.62k $\rightarrow$ $562 \times 10^1 \rightarrow$ 5621 RN1/4PC $\overline{5} \overline{6} \overline{2} \overline{1} F$

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
LIST OF ASSEMBLIES				TRANSFORMER			
		TUNER UNIT	4707021000			T1 AM IFT-PCFAZH-AC015	0012340000
		CD UNIT	4707030000	CAPACITORS			
		MD UNIT	4707025000		C36		CCCCH150J50
		DECK UNIT	4707015000		C44		CCCCH270J50
		CONTROL UNIT	4707006000		C45		CCCCH330J50
		AMP UNIT	4707001000		C22		CCCSL680J50
NSP		└ IC PCB			C25		CEATR10M50
NSP		└ DI PCB			C1, C20, C49		CEAT100M50
		(Please order AMP UNIT for the necessity IC PCB and DI PCB ASSEMBLIES.)			C14, C42		CEAT101M10
		PS UNIT (LBWXJ TYPE)	4707014000		C26, C55		CEAT1R0M50
		PS UNIT (NLWXJ/HK TYPE)	4707012000		C38		CEAT220M25
		FRONT UNIT	4707035000		C52		CEAT221M16
NSP		└ SW PCB			C39		CEAT3R3M50
NSP		└ HP PCB			C31-C34, C13, C56		CEAT4R7M50
		(Please order FRONT UNIT for the necessity SW PCB and HP PCB ASSEMBLIES.)			C27		CEATR47M50
		MD MOUNT	A-4917-020-A		C40		CGCYX103K25
		└ PMS L-SW	1-668-261-11		C19, C28		CGCYX153K25
		└ D-SW MOUNT BOARD	1-668-262-11		C21		CGCYX473K25
					C24		CGCYX683K25
					C6		CKCYF103Z50
					C2, C3, C50		CKCYF223Z50
					C46-C48		CKPUYB101K50
					C5, C29, C30, C43, C53		CKPUYB102K50
					C8, C15, C37, C51, C54		CKPUYF103Z25
					C12, C18		CKPUYY103M16
SEMICONDUCTORS				RESISTORS			
		IC2 (TC9216P)	0911177300		All Resistors		RD1/4PU $\square \square \square J$
		IC1 (TA2099N)	0911209800	OTHERS			
		Q3 TRANSISTOR	0906222500		AT1 ANTENNA TERMINAL 4P		003402900013
		Q5, Q6	2SA933S		CF5 C FILTER, CDA10.7MG82		0039155000
		Q7-Q10, Q12	2SC1740S		RF2 AM RF TUNING UNIT		0039640000
		Q1 (2SC1740SLN)	0906205318		RF1 RF MODULE, TFFJ4E		0039655000
		Q11	2SC2786		WC1 WIRE CONNECTOR 5P		4701569000
		Q4	DTC114TS		WC2 WIRE CONNECTOR 6P		4701570000
		D2-D5	1SS133		304 CONNECTOR PLATE SP		1600779000
COILS AND FILTERS					X1 CRYSTAL(4.5MHz)		0038168000
		CF1, CF3 CERAMIC FILTER	0039067000				
		L4, L5 MPX FILTER	0039876000				
		L3 INDUCTOR LHL06TB221K	0991402215				
		L6 AXIAL INDUCTOR	LAU221J				

Mark	No.	Description	Part No.
------	-----	-------------	----------

**HP PCB**

HP PCB is included to FRONT UNIT.

SEMICONDUCTORS

D750, D751	1SS133
------------	--------

OTHERS

CN750 CONNECTOR PIN,5PIN	0034751005
J700 MINI JACK 3.5	003352100001
H/P PCB	4707525092

**CD UNIT****SEMICONDUCTORS**

IC803 (CXA1782BQ)	0911168502
IC802 (BA5936S)	0911209400
IC801	BA4510F
IC804	CXD2508AQ
Q801 (2SA966-Y)	0906209425

Q802-Q804	2SA1037K
Q805	2SC2412K
D801-D803	1SS133
D804, D805, D812	MTZJ5.1B

COIL

L801	LAU100J
------	---------

CAPACITORS

C803 ELECT. CAPACITOR	0938913326
C800 CERAMIC CAPACITOR	9320240400
C838	CCSQCH101J50
C855	CCSQCH220J50
C872, C873	CCSQCH270J50

C819	CCSQCH330J50
C180, C280	CCSQCH471J50
C877-C879	CCSQCH560J50
C186, C286	CCSQCH681J50
C183, C184, C283, C284	CCSQCH820J50

C185, C285	CEAT100M50
C805, C806, C823	CEAT101M10
C822	CEAT1R0M50
C844	CEAT220M25
C802, C833, C848, C849, C866, C884	CEAT470M10

C839, C870	CEAT4R7M50
C845	CEATR10M50
C821	CEJA100M16
C801	CEJA101M10
C841, C847, C851, C853, C861, C868	CKSQYB103K50

C869, C871	CKSQYB103K50
C831, C835, C837	CKSQYB104K25
C181, C182, C281, C282	CKSQYB122K50
C829, C865	CKSQYB152K50
C834	CKSQYB222K50

Mark	No.	Description	Part No.
------	-----	-------------	----------

C830	CKSQYB223K50
C836, C840, C850, C852	CKSQYB333K50
C832, C864, C881	CKSQYB473K50
C807-C810, C824, C825, C854, C867	CKSQYF104Z25
C874, C876	CKSQYF104Z25

RESISTORS

VR803 SEMI-FIXED VOLUME(10kΩ)	0031781103
VR801, VR804	0031781203
SEMI-FIXED VOLUME(20kΩ)	
VR802 SEMI-FIXED VOLUME(50kΩ)	0031781503
R801	RD1/4PM470J

R857 CHIP RESISTER	9281572242
Other Resistors	RS1/10S□□□J

OTHERS

WIRE CLAMPER 30	0034475000
CN801 CONNECTOR PIN,15PIN	0034887015
CN802 CONNECTOR PIN,19PIN	0034887019
CN803 CONNECTOR PIN,16PIN	0034887016
CN804 WIRE CONNECTOR 6P	4701571000

CN805 WIRE CONNECTOR 4P	4707563000
CN806 WIRE CONNECTOR 9P	4707564000
CN807 WIRE CONNECTOR 4P	4701568000
X801 CRYSTAL(16.1344MHz)	0038136000

**MD UNIT****SEMICONDUCTORS**

IC505 (BA10358)	0911110000
△ IC501 (S-81340HG-KJ-X)	0911209300
IC503 (PCM3003E-T2)	0911505000
IC504	BA4510F
IC502	TC7WU04FU

Q502	DTA114EK
Q501	DTC114EK
Q503, Q504	DTC114TK
D501-D504	1SS133

COILS

L510, L511 INDUCTOR	0991401005
L506-L508	LAU100J

CAPACITORS

C532, C533	CCSQCH130J50
C506, C519, C536	CEAT100M50
C504, C507, C509, C511	CEAT101M10
C501	CEAT102M10
C538, C539, C615, C616	CEAT1R0M50

C502	CEAT331M16
C522, C524, C525, C527, C529, C546	CEAT4R7M50
C547	CEAT4R7M50
C508, C510, C520, C526, C528, C534	CKSQYB104K25
C537	CKSQYB104K25

C544, C545, C548, C549	CKSQYB122K50
C542, C543	CKSQYB153K50
C540, C541	CKSQYB562K50

X-MDX707, XR-C2MD

Mark	No.	Description	Part No.
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RESISTORS

R650			RD1/4PM100J
Other Resistors			RS1/10S□□□J

OTHERS

	CN501 CONNECTOR 16P	0034688016
	CN502 CONNECTOR 19P	0034688019
	CN503 WIRE CONNECTOR 11P	4701572000
	CN504 CONNECTOR PIN 11PIN	0034887011
△	EF501-EF512	0011612203
	FMIFIL,DSS306-93B101M100	
△	FB501, FB502, JP545, JP587, JP565	0011813000
	FERRITE BEAD	
△	FB550, FB553, FB508 CHIP BEAD	DTF1067
△	R503, R504, R625, R626 CHIP BEAD	DTF1067
	WL030140040B1(WASHER)	0987100600
	TH501 THERMISTOR	0918004400
	X501 CRYSTAL 22.5792MHz	0038204000
	SHIELD PLATE	4750735000

E DECK UNIT SEMICONDUCTORS

IC301 (TA8142AP)	0911166600
IC304 (CXA1552P)	0911200400
IC305	BA15218N
IC302	BA335
Q319 (2SA1359)	0900008725
Q306, Q311, Q321 (2SD467)	0906202003
Q304, Q307 (DTA114YS)	0906222500
Q106, Q206, Q108, Q208, Q312, Q313	2SC3330
Q314, Q324	2SC3330
Q107, Q207, Q302, Q303, Q308, Q309	2SD1302
Q317	2SD1302
Q101, Q102, Q201, Q202	2SJ103
Q103, Q104, Q203, Q204, Q301, Q305	DTC114TS
Q315, Q316, Q318, Q320, Q322, Q323	DTC114TS
Q325	DTC114TS
D307 (DRA-1T4)	0915033250
D303, D304 (DRA-RB721Q)	0915037750
D101, D201, D301, D305	1SS133
D308, D309	MTZJ5.1B
D306	MTZJ7.5B

COILS

L103, L203 INDUCTOR 9P562J-R	0990415624
L301	LAU100J
L302 INDUCTOR	0991401005

TRANSFORMER

T301 OSC TRANS-10	0015083000
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Mark	No.	Description	Part No.
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CAPACITORS

C103, C107, C111, C203, C207, C211	CCSQCH101J50
C312, C334	CEAT100M50
C314, C325, C331	CEAT101M10
C332	CEAT101M25
C101, C108, C120, C201, C208, C220	CEAT1R0M50
C112, C212, C323, C324, C330	CEAT220M25
C322	CEAT221M10
C125, C225, C318	CEAT2R2M50
C105, C205, C317, C326, C342, C304	CEAT470M10
C305	CEAT470M10
C319, C335	CEAT471M10
C126, C226, C301, C123, C223	CEAT4R7M50
C313	CEATR47M50
C102, C202	CGCYX102K25
C106, C206	CGCYX223K25
C113, C121, C213, C221, C328	CKSQYB102K50
C306, C307	CKSQYB103K50
C344	CKSQYB104K50
C127, C227	CKSQYB183K50
C327	CKSQYB333K50
C128, C228	CKSQYB392K50
C104, C110, C119, C124, C204, C210	CKSQYF105Z16
C219, C224, C308, C311, C315, C316	CKSQYF105Z16
C333, C336, C343	CKSQYF105Z16
C329	CQMA102J50
C122, C222	CQMA104J50
C116, C216	CQMA183J50
C303	CQMA222J50
C302	CQMA562J50

RESISTORS

VR101, VR102, VR201, VR202, VR301	0031781103
SEMI-FIXED VOLUME(10KΩ)	
R368	RD1/4PM101J
R348	RD1/4PM471J
R124, R314, R334	RD1/4PU102J
R377	RD1/4PU222J
R124, R314, R334	RD1/4PU102J
R311, R372, R310	RD1/4PU103J
R127	RD1/4PU152J
R320	RD1/4PU153J
R318, R322, R338, R345, R362	RD1/4PU221J
R216, R317	RD1/4PU223J
R346	RD1/4PU561J
Other Resistors	RS1/10S□□□J

OTHERS

CN301 WIRE CONNECTOR 6P	4701563000
CN302 CONNECTOR 22P	0034688022
CN303 CONNECTOR 9P, SBRK	0034208009
CN304 CONNECTOR 5P, BTMK	0034209005
CN305 CONNECTOR 3P, IMSA-91	0034210003

Mark	No.	Description	Part No.
F	CONTROL UNIT		
SEMICONDUCTORS			
		IC900 (CXP740096-109Q)	0037502200
		IC903 (S-81350HG-KD-T1)	0911186600
△		IC902 (S-80727AN-DQ-T1)	0911851600
		IC452	BA15218N
		IC450	LC75394NED
		IC901	TC74HCT08AF
△		Q456 (2SA1359Y)	0900008725
		Q459, Q650, Q750, Q905-Q907	0906505419
		Q915-Q917 (2SD1757K)	0906505419
		Q904	2SA1037K
		Q451, Q457, Q903, Q908-Q914	2SC2412K
		Q651, Q751	2SD1302
		Q450	DTA114TK
		D908-D912 (DRA-1T4)	0915033250
		D450, D452, D453, D904-D906, D922	1SS355
		D923	1SS355
		D901-D903, D914	MTZJ5.1B
		D451	MTZJ5.6B
COILS			
		L901, L903-L906, L909	LAU100J
		L902 INDUCTOR	0991401005
CAPACITORS			
		C964 (DX-5R5V224 0.22μF/5.5V)	0939932500
		C514, C515, C673, C773, C905-C908	CCSQCH101J50
		C913, C995-C998	CCSQCH101J50
		C933, C934	CCSQCH150J50
		C965, C966	CCSQCH270J50
		C661, C761	CCSQCH330J50
		C660, C662, C760,C762	CEATR10M50
		C674, C774	CEAT100M50
		C452, C453, C461, C676, C776	CEAT101M10
		C652, C657-C659,C752, C757-C759	CEAT1R0M50
		C518	CEAT102M6R3
		C460	CEAT222M10
		C656, C756, C985, C987	CEAT470M16
		C675, C775, C655, C755	CEAT4R7M50
		C651, C751	CEJA1R0M50
		C504, C509, C510	CEJA220M16
		C977, C978	CEJA221M6R3
		C457	CKPUYF104Z50
		C454, C650, C750, C982, C455	CKSQYB102K50
		C962, C981	CKSQYB104K16
		C463, C500, C502, C503, C505-C508	CKSQYB105K10
		C511, C512, C961, C979, C980, C983	CKSQYB105K10
		C984, C993, C994, C999, C519	CKSQYB105K10
		C669, C769	CKSQYB152K50
		C663, C763	CKSQYB224K16

Mark	No.	Description	Part No.
	C671, C678, C771, C778		CKSQYB222K50
	C665, C765		CKSQYB223K50
	C667, C767		CKSQYB272K50
	C670, C770		CKSQYB391K50
	C666, C766		CKSQYB472K50
	C668, C768		CKSQYB681K50
	C664, C764		CKSQYB683K25
RESISTORS			
	R508-R514, R527, R528, R534-R537		RD1/4PU102J
	R545, R550, R558, R574, R581, R583		RD1/4PU102J
	R595, R929, R930-R935, R937-R939		RD1/4PU102J
	R949-R951, R953, R955, R957, R971		RD1/4PU102J
	R972, R985-R998		RD1/4PU102J
	R652, R752		RD1/4PU103J
	R582, R585, R973		RD1/4PU104J
	R547-R549, R559		RD1/4PU332J
	R905-R909, R519-R525, R659, R763		RD1/4PU472J
	R654, R754		RD1/4PU123J
	R681, R781		RD1/4PU132J
	R657, R757		RD1/4PU822J
	R655, R755		RD1/4PU222J
	Other Resistors		RS1/10S□□□J
OTHERS			
	CN450 CONNECTOR 15P		0034221015
	CN451 CONNECTOR PIN,5PIN		0034750005
	CN452 CONNECTOR PIN,11PIN		0034750011
	CN453 CONNECTOR 22P		0034203022
	CN454 WIRE CONNECTOR 14P		4707561000
	CN455 WIRE CONNECTOR 15P		4707562000
	CN458 CONNECTOR PIN,6PIN		0034750006
	CN459 CONNECTOR 19P		0034203019
	CN460 CONNECTOR 11P		0034221011
	CN461 CONNECTOR 30P		0034203030
	X900 CRYSTAL 32.768kHz		0038201000
	X901 CRYSTAL 16.00MHz		0038202000
△	R468, FB400, FB901, FB910, FB911		0011813000
△	FB501, FB914, FB917-FB919		0011813000
	FERRITE BEAD		
△	FB906-FB908, FB915, FB916		DTF1067
	EMI BEAD BK2125HS601		
	BU450 SPEAKER PIEZO CB13PA		002384700013
	J400 PIN JACK 2P		003402700013
	WIRE CONNECTOR 4P		4707571000
	WIRE CONNECTOR 7P		4707572000
	WIRE CONNECTOR 7P		4707573000
	WIRE CONNECTOR 10P		4707574000
△	F900 FUSE PI-251.250		004560704102
	CONTROL PCB		4707502091

X-MDX707, XR-C2MD

Mark	No.	Description	Part No.
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G AMP UNIT

SEMICONDUCTORS

△	IC401 (LA4663)	0911209600
△	IC402, IC403 (PQ20RX11)	0911209700
	IC400	BA15218N
△	Q406 (2SA1359)	0900008725
△	Q400 (2SD467)	0906202003
△	Q401 (2SA966)	0906209425
	Q402, Q403, Q407, Q415-Q417	2SC2412K
	Q150, Q152, Q250, Q252	2SD1302
	Q418	DTA114TK
△	D423 DR KBU603	0913013600
	D404, D422 (DRA-1T4)	0915033250
△	D424-D427 (1N5401TM)	2626323000
	D401, D405, D408, D416-D418	1SS355
	D421	MTZJ4.7B
	D406	MTZJ5.1B
	D400, D402	MTZJ5.6B
	D403	MTZJ6.8B

CAPACITORS

C432, C433, C436, C437 CAPACITOR	0939934300
C157, C257	CCSQCH100D50
C435	CEAT100M50
C252	CEAT101M10
C406	CEAT101M16
C400, C411	CEAT102M10
C154, C254, C426, C440	CEAT1R0M50
C152, 158, C258, C424, C403	CEAT221M10
C412	CEAT221M16
C167, C168, C267, C268	CEAT222M25
C402, C415, C417	CEAT470M16
C428, C434	CEAT472M16
C429	CEAT472M25
C155, C255, C431	CEAT4R7M50
C407, C427	CEHAT470M16
C160-C163, C260-C263	CFTYA274J50
C156, 159, C256, C259, C410	CKSQYB102K50
C401, C404, C409	CKSQYB103K50
C405, C413, C414, C416, C419, C425	CKSQYB105K10
C151, C251, C439	CKSQYB105K10
C420, C438	CKSQYF105Z16

RESISTORS

R162, R163, R262, R263	RD1/4PM2R2J
R415	RD1/4PU102J
R164, R165, R264, R265, R403, R425	RD1/4PU103J
R433	RD1/4PU103J
R400	RD1/4PU331J
R153, R253	RD1/4PU472J
R168, R268, R437	RD1/4PU473J
Other Resistors	RS1/10S□□□J

Mark	No.	Description	Part No.
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OTHERS

CN401, CN406	0034751006
CONNECTOR PIN 6PIN	
CN400 CONNECTOR PIN 7PIN	0034751007
CN405 CONNECTOR PIN 8PIN	0034751008
CN402 SPEAKER TERMINAL 4P	003402600013
CN403 CONNECTOR PIN 5PIN	0034888005
BAR LOCK CABLE TIE	0064631050
HEAT SINK	4707720000
GI-HG3E1.0*5	0955201005
SCREW P3*10-SN	0971030101
WC401, WC403	4701576000
WIRE CONNECTOR 4P	
IC PCB	4707500092
DI PCB	4707500093

H PS UNIT

Although 4707014000 and 4707012000 are different in part number, they have the same service parts.

FILTER

LF601 LINE FILTER COIL LF2	0013914000
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CAPACITORS

SK601 SPARK KILLER	003994600011
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OTHERS

PIN TERMINAL	0034473000
FUSE HOLDER	0045522000
COVER, SPARK KILLER	0064644000
PT6AWG03T20	0950103020
WC601 WIRE CONNECTOR 5P	4701565000
PS PCB	4707510091

I FRONT UNIT

SEMICONDUCTORS

Q700-Q702	2SC2412K
Q703-Q708 (2SD1963-S)	0906505319
D701-D706 LD SLP-7118C-51H-S	0916038600
LD701, LD702 LD NSTM515S	0916039600
D718, D719	1SS355
D712-D717	UDZS5.1B

SWITCHES

S700-S719, S721, S722	0028650000
TACT SWITCH	
S723 TACT SWITCH	002871200001

CAPACITORS

C741, C742	CKSQYB103K50
C700-C702, C738-C740	CKSQYB105K10

Mark	No.	Description	Part No.
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RESISTORS

R748-R751, R754-R757, R766, R767	9281575612
R771, R772	9281575612
R752, R753, R758, R759, R768-R770	9281576812
R773-R775	9281576812
R706, R707, R709, R710	RD1/4PU103J

R711, R712	RD1/4PU331J
Other Resistors	RS1/10S□□□J

OTHERS

△ FB701, FB702 CHIP BEAD	DTF1067
CN700 CONNECTOR PIN 30P	0034887030
LD700 CONNECTOR 14P	0034689014
EN700 ROTARY ENCODER EC12E24	0031936000
RM700 REMOCON REC,SPS-444-1	0039648000
LC700 LCD PANEL LMG172C1-MFPT	004044100021
LCD HOLDER	4707270000
LCD LENS	4707271000
DIFFUSION PLATE	4707274000
JW700 WIRE CONNECTOR 2P	4707570000
REFLECTOR L	4707877000
REFLECTOR R	4707878000
DOUBLE FACE A	4701887000
DOUBLE FACE B	4701888000
CUSHION(FRONT)	4701896000
DIFFUSION SHEET	4707890000
FRONT PCB	4707525091
SW PCB	4707525093

**MD MOUNT (Reference Information)****SEMICONDUCTORS**

IC122	TC7S08F
IC123	TC7WU04F
IC101 (CXA2523AR)	8-752-080-95
IC121 (CXD2652AR)	8-752-384-47
IC202 (LB1638MTE-L)	8-759-823-87
IC125 (MSM51V4400-70TSK)	8-759-498-44
IC152 (BH6511FS-E2)	8-759-430-26
IC171 (BR24C01AF-E2)	8-759-484-73
IC181 (TC74ACT540FT(EL))	8-759-523-48
IC201 (RU8X12MF-0023)	8-759-533-77

Q101,Q163	DTA144EK
Q103,Q104	DTC114EK
Q102	2SA1037K
Q182 (2SK1764KYR)	8-729-017-65

Q181 (2SJ278MYTR)	8-729-018-75
Q162 (2SB798-T1DK)	AZQ7132
IC103 (FMW1-T-148)	8-729-903-10
D181,D183 (F1J6TP)	8-719-046-87
D101 CHIP DIODE ARRAY	DAN202K

COILS

L101 FERRITE BEED INDUCTOR	1-414-233-21
L FERRITE BEED INDUCTOR	1-414-235-11
L CHIP CONDUCTOR(2012)	AZC7283

Mark	No.	Description	Part No.
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CAPACITORS

C142	CCSQCH101J50
C106	CCSQCH102J50
C205	CCSQCH150J50
C105	CKSQYB103K50
C117	CKSQYB104K25

C131	CKSQYB153K50
C116	CKSQYB223K50
C115	CKSQYB224K16
C189	CKSQYB333K25
C112	CKSQYB472K50

C132	CKSQYB474K16
C158	CKSQYB682K50
C111	CKSQYB683K25
C107	CKSQYF104Z25
C113	CKSYB105K16

C	CKSYB152K50
C CHIP TANTALUM ELECT	1-104-851-11
C184 CHIP ELECT 22mF	1-107-836-11
C151 CHIP ELECT 100mF	1-126-206-11

RESISTORS

R169 SQUARE CHIP 1W	1-217-806-11
R163 METAL FILM 1.0W	1-219-724-11
R213 CHIP NETWORK 10KW	1-236-908-11
R120 CHIP NETWORK 100W	1-233-576-11
R204 NETWORK 100KW	1-233-810-21

R166 SQA TYPE CHIP 2.2W	1-240-032-11
Other Resistors	RS1/10S□□□J

OTHERS

CN101 FFC/FPC CONNECTOR 21P	1-691-385-21
CN106 FFC/FPC CONNECTOR 6P	1-766-336-21
CN103 FFC/FPC CONNECTOR 16P	1-770-425-11
CN110 CONNECTOR PIN 5P	1-774-731-21
CN104 FFC/FPC CONNECTOR 4P	1-778-283-11

CN102 FFC/FPC CONNECTOR 19P	1-778-460-11
CN105 FFC/FPC CONNECTOR 7P	1-779-345-11
X202 CERAMIC RESONATOR (32.768kHz)	1-760-174-31
X201 XTAL RESONATOR (12MHz)	1-760-872-11

L-SW MOUNT BOARD**OTHERS**

FFC/FPC CONNECTOR 6P	1-766-336-21
PUSH SWITCH(1KEY)	1-771-092-21
PUSH REVER SW(1KEY)	1-771-326-11

D-SW MOUNT BOARD**OTHERS**

2PIN PUSH SW(2KEY)	1-771-327-11
FFC/FPC CONNECTOR 7P	1-779-345-11

6. ADJUSTMENT
6.1 CASSETTE DECK SECTION

- Adjustment points and test points are shown in Fig.4 and Fig.6.

■ Adjustment

- The test tape is played. And, for the shape of waves of the test point (CN304 PB Lch and PB Rch) to become, for part A to become the maximum, and to minimize part B, the adjustment screw for azimuth is adjusted.
Both FORWARD and REVERS are adjusted. Do the screw lock to two places after the adjustment ends.

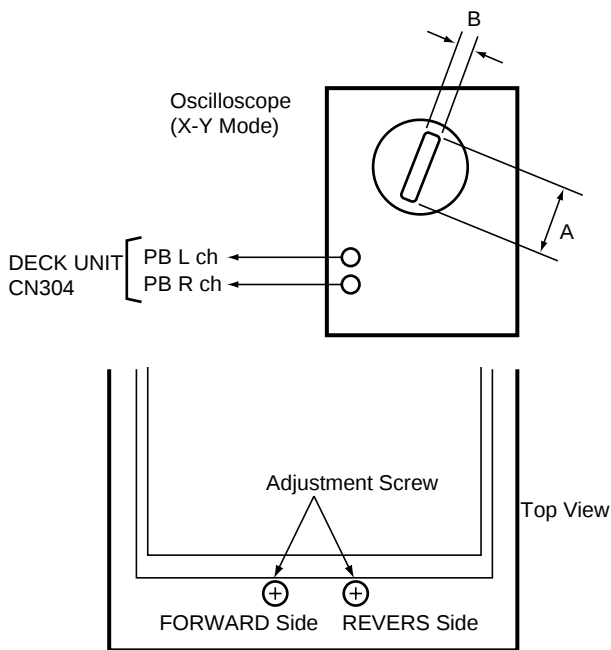


Fig. 1 Adjustment Points

■ Mechanical Adjustment

- Test tape: NCT-111 (3kHz, 30min).
- Tape Speed Adjustment

No.	Mode	Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	NCT-111 (Playback: 3 kHz)	adjustment screw	JA501 Head Phone Jack	3000 Hz $\pm$ 90Hz	

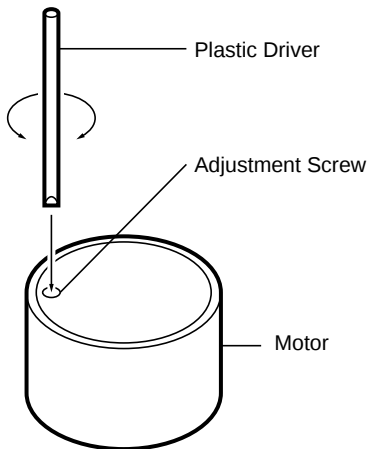


Fig. 2

Electrical Adjustment

Check the following before starting.

- (1) Confirm that the tape speed adjustment has been completed.
- (2) Clean the heads and demagnetize them using a head eraser.
- (3) Set the measurement level to 0 dBV = 1 Vrms.
- (4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
STD-331E : For playback check
STD-632 : Normal blank tape
- (5) Provide yourself with the following measuring devices:
 - AC millivoltmeter
 - Low-frequency oscillator
 - Attenuator
 - Oscilloscope
- (6) Adjust both right and left channels unless otherwise specified.
- (7) Turn the DOLBY NR switch off unless otherwise specified.
- (8) Warm up the unit for several minutes before adjustment.
In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
- (9) Always follow the indicated adjustment order.
Otherwise, a complete adjustment may not be achieved.

Playback Adjustment

- (1) Head Azimuth Adjustment
- (2) Playback Level Adjustment

Recording Adjustment

- (1) Recording Bias Adjustment
- (2) Recording Level Adjustment.
- (3) ALC Operation Check

* When the tape is played with both of side panel L and R removed (state that reception front is floating from ground). when adjusting, the noise might be superimposed.
In this case, the front chassis must short circuit to the CD mechanism cover in the lead wire.

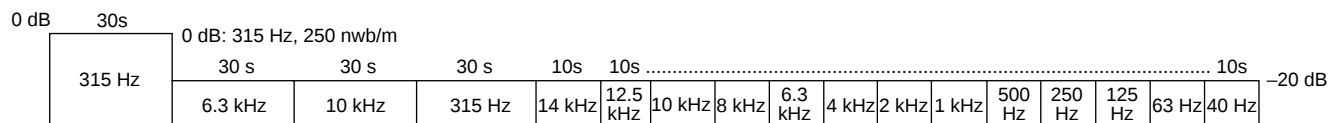
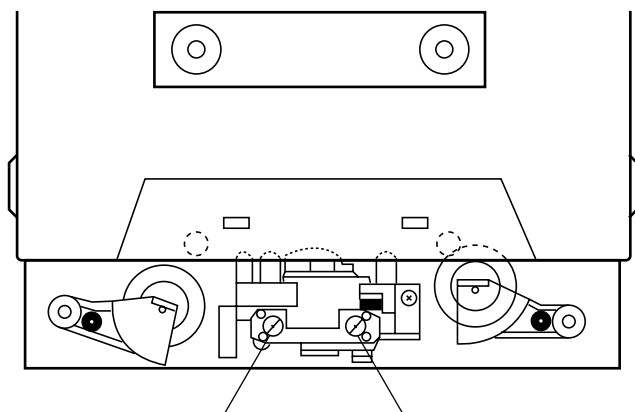


Fig. 3 NCT-132X Test Tape

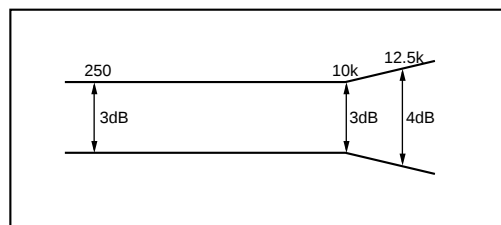
Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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FWD Azimuth Adjustment Screw REV Azimuth Adjustment Screw

Fig. 4 Head Azimuth Adjustment

PLAY BACK



RECORDING

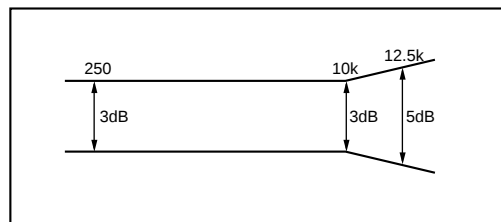


Fig. 5 Frequency Characteristics

■ Playback Adjustment

(1) Head Azimuth Adjustment

- Do not switch between forward and reverse operation with the screwdriver inserted.

Step	Mode	Input Signal/ Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	NCT-132X test tape (Playback: 10kHz, -20dB)	Head azimuth adjustment screw (Fig. 4)	CN304 PB L ch PB R ch	Max. playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.

(2) Playback Level Adjustment

- Since this adjustment determines playback Dolby NR level, perform it carefully.

Step	Mode	Input Signal/ Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	NCT-132X test tape (Playback: 315Hz, 0dB)	L ch VR101 R ch VR201	CN304 PB L ch PB R ch	-8.2 dBV	

■ Recording Adjustment

(1) Recording Bias Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	REC	Load the STD-632 test tape and set the recording mode.	VR301	CN305 REC BIAS	13.5V ± 0.5V	

- Since this adjustment affects recording bias, prevent distortion from increasing due to underbias.

(2) Recording Level Adjustment

Step	Mode	Input Signal/ Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1	REC	Input a 400Hz signal to the AUX terminal and set the input selector to AUX.	125mV is input.	CN304 REC L ch REC R ch PB L ch PB R ch	-22.5 ± 1dB -18.4 ± 1dB	
2	REC→ PLAY	Load the STD-632 test tape and record/playback the 400Hz signal.	L ch VR102 R ch VR202	CN304 PB L ch PB R ch	Repeat recording, playback and adjustment until playback level of the 400Hz signal becomes -18.4dBV ± 1.0dB.	

(3) ALC Operation Check

Step	Mode	Input Signal/ Test Tape	Adjusting Points	Measurement Points	Adjustment Value	Remarks
1			400mV is input.		-12.2 ± 1.0dBV	
2	REC	Load the STD-632 test tape and input a 315Hz signal to the AUX terminal and set the input selector to AUX.	The input level of procedure 1 is set and the level is set to 1.25V.	CN304 REC L ch REC R ch	-9.7 ± 1.5dBV	

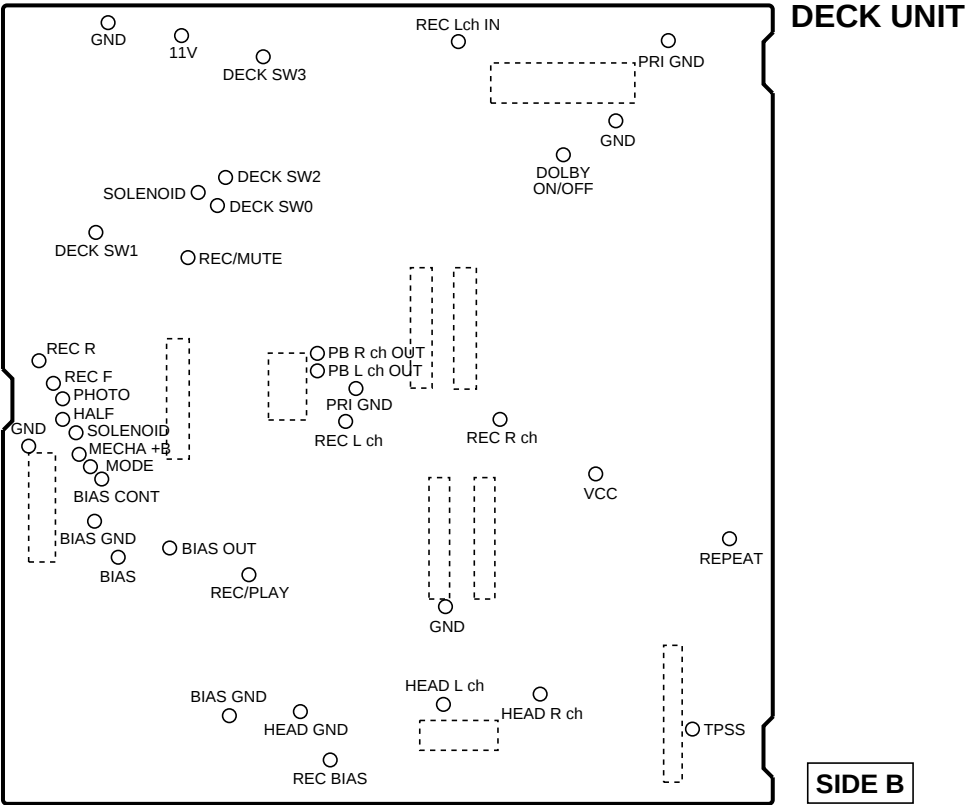
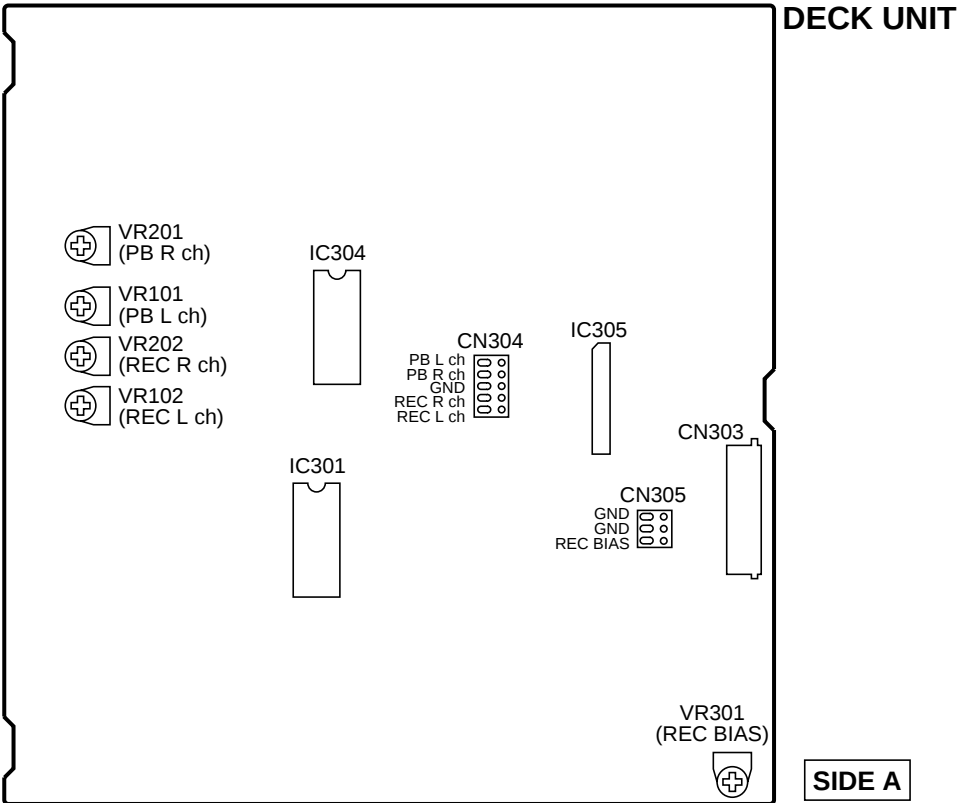


Fig. 6 Adjustment Points

6.2 MD SECTION

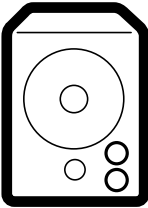
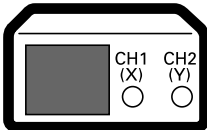
Because material was not able to be acquired when the service manual is made, the adjustment of MD is not published.

6.3 CD SECTION

CD UNIT is taken out according to the procedure of DISASSEMBLY. And, please adjust the part CD after connecting connectors.

6.3.1 PREPARATIONS

(1) Jigs and Measuring Instruments

 CD TEST DISC (YEDS-7)	 ⊖ Precise screwdriver	 ⊖ screwdriver (small)	 ⊕ screwdriver (medium)
 ⊕ screwdriver (large)	 Low-frequency oscillator	 Dual-trace oscilloscope (10 : 1 probe)	

(2) Necessary Adjustment Points

When	Adjustment Points
Exchange PICKUP	1.2.3.4 → Page66-67
Exchange CD UNIT	1.2.3.4 → Page66-67
Exchange SERVO MECH ASSY	1.2.3.4 → Page66-67

6.3.2 Adjustment

(1) Adjustment Locations

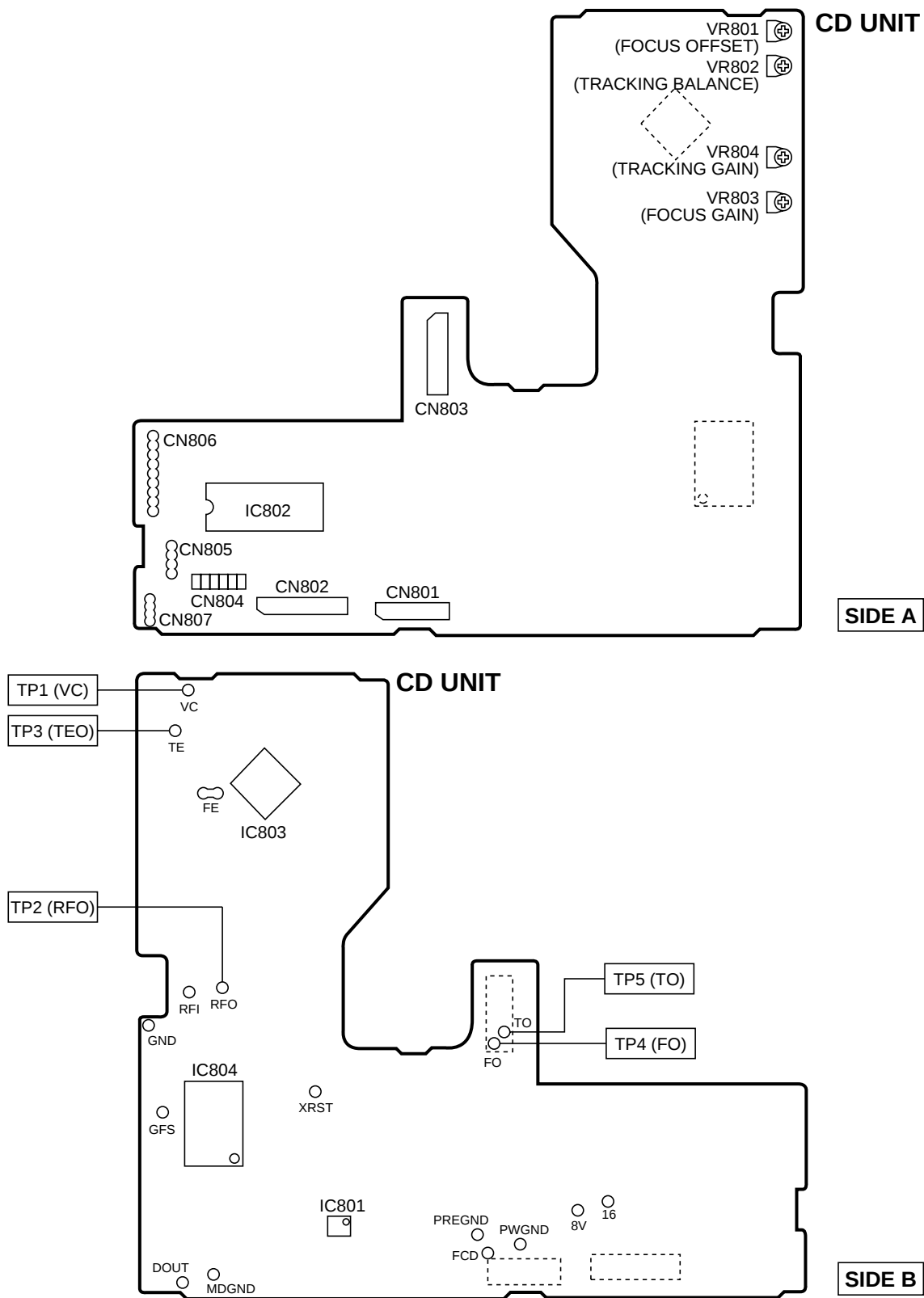
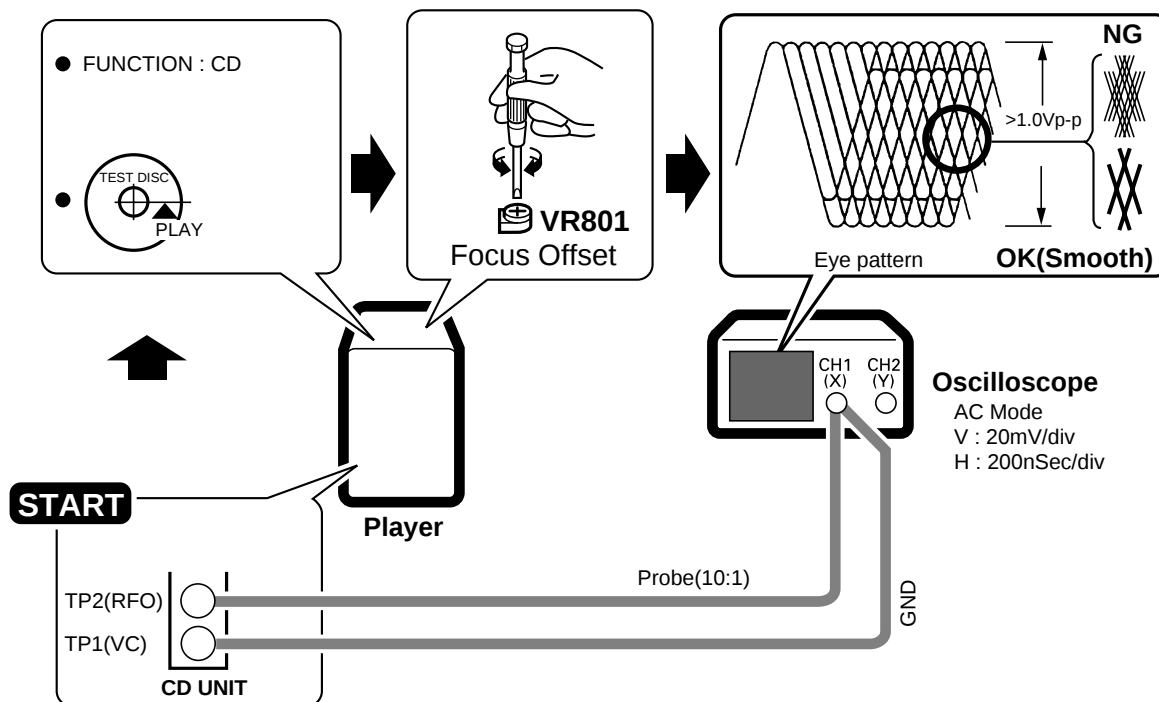


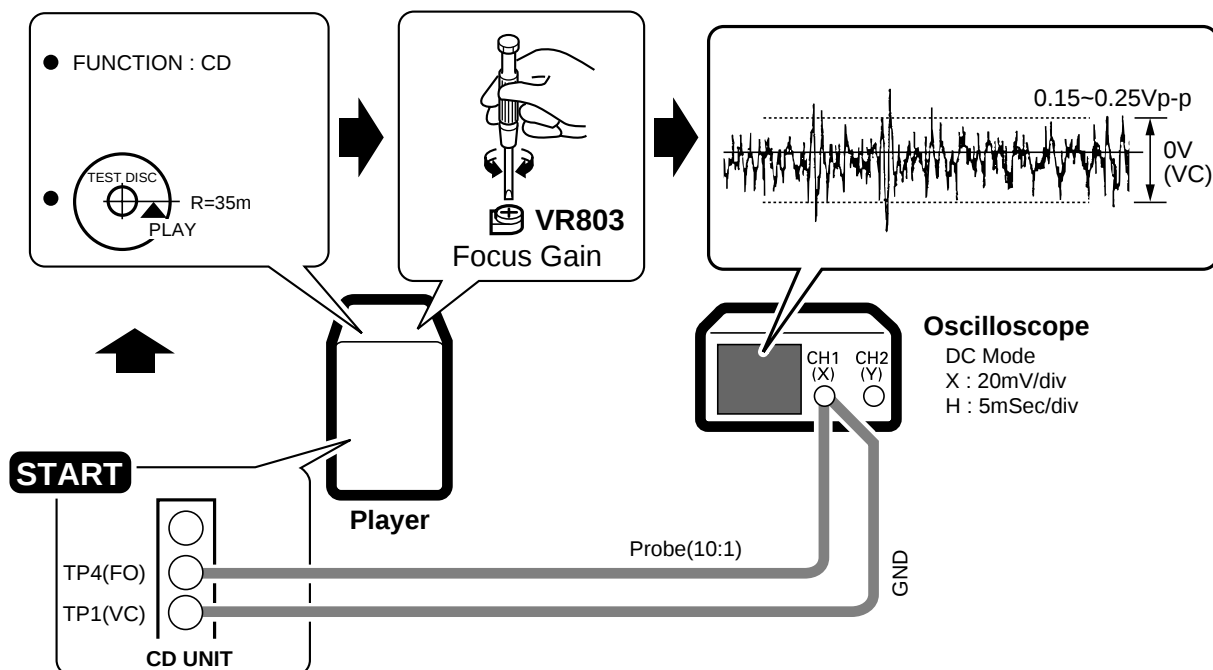
Fig. 7 Adjustment Locations

(2) Check and Adjustment

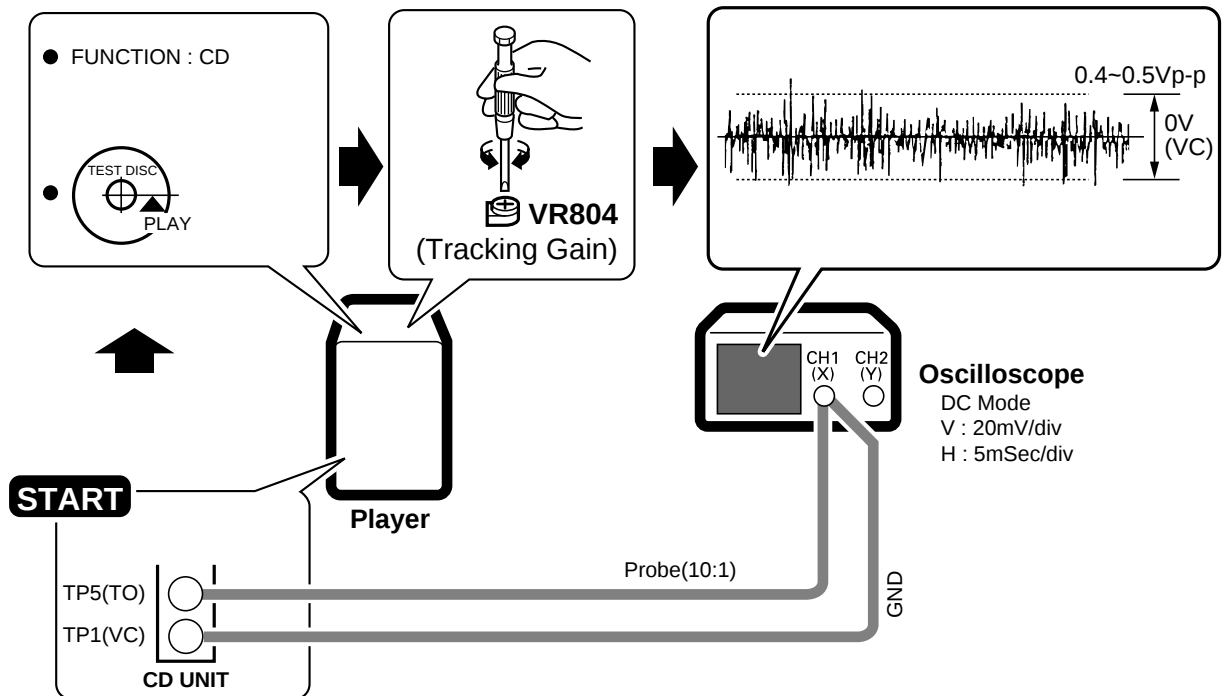
1. Focus Offset Adjustment



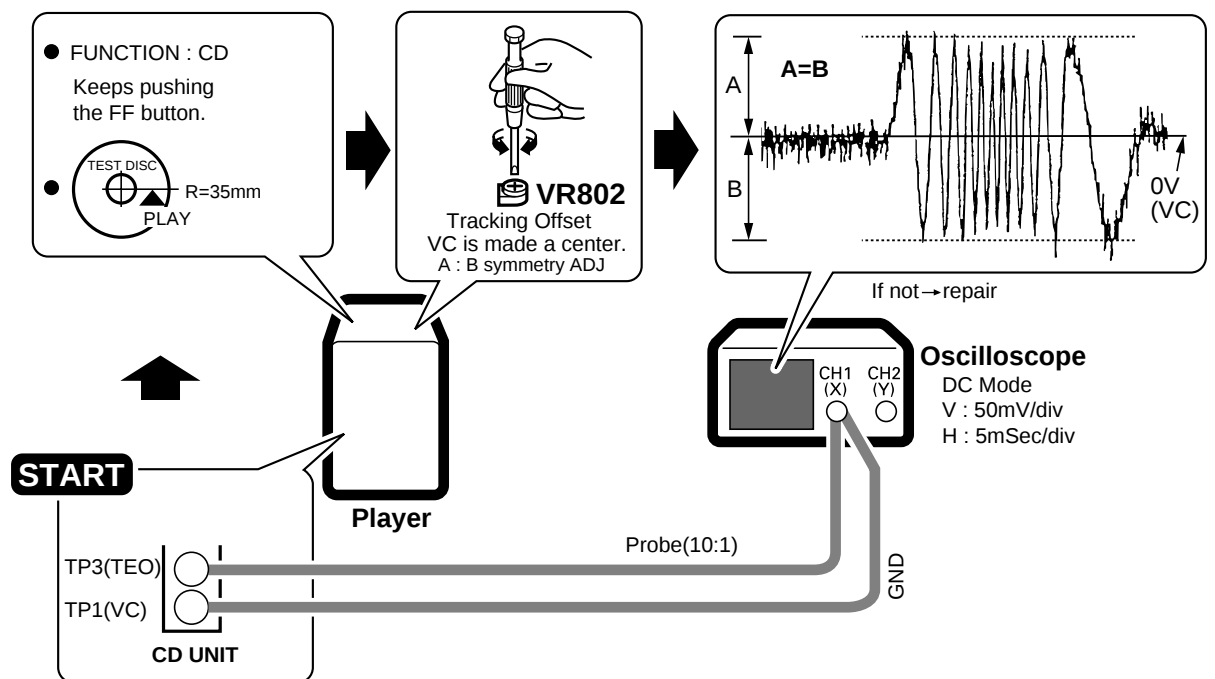
2. Focus Gain Adjustment



3. Tracking Gain Adjustment



4. Tracking Error Balance Adjustment

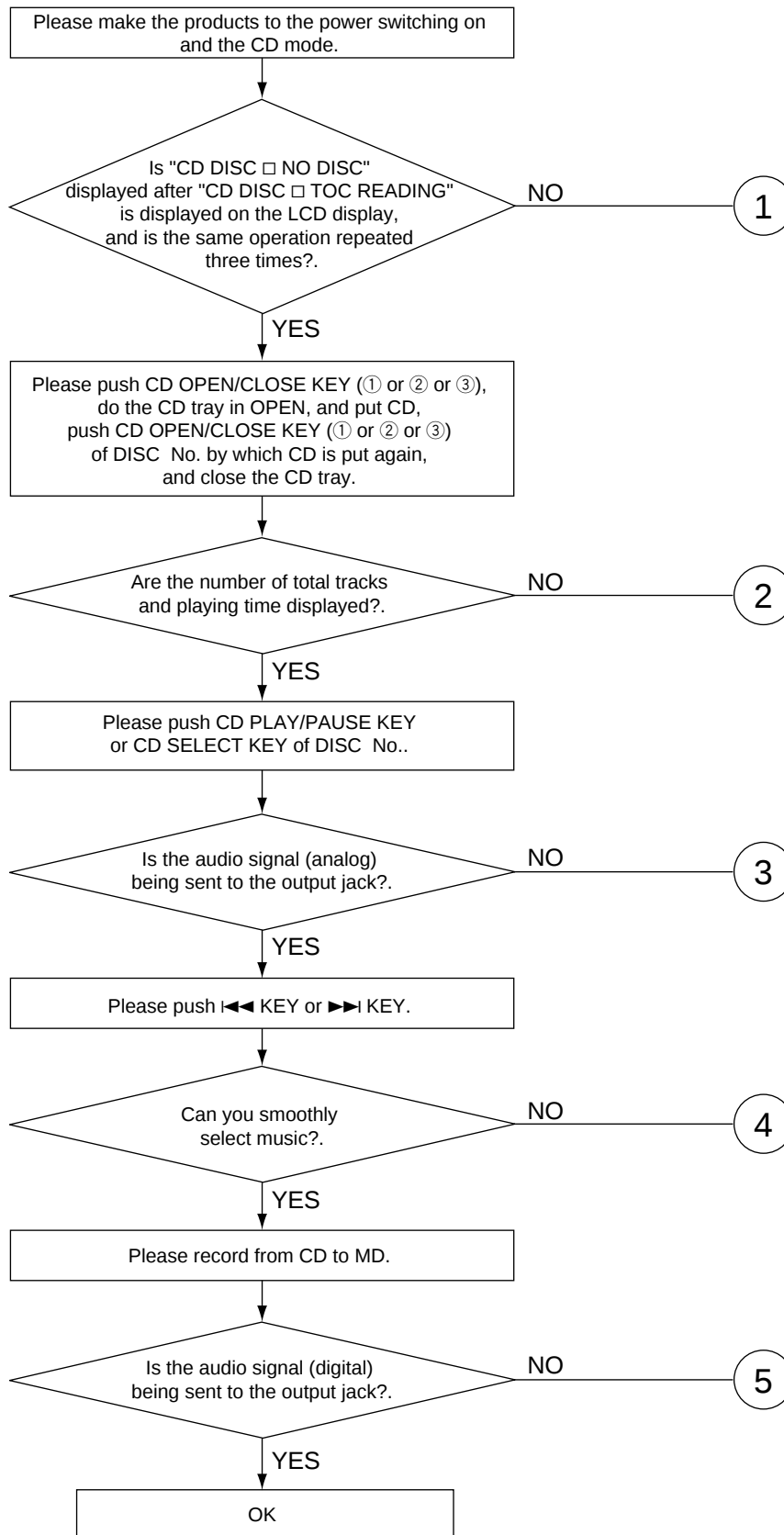


7. GENERAL INFORMATION

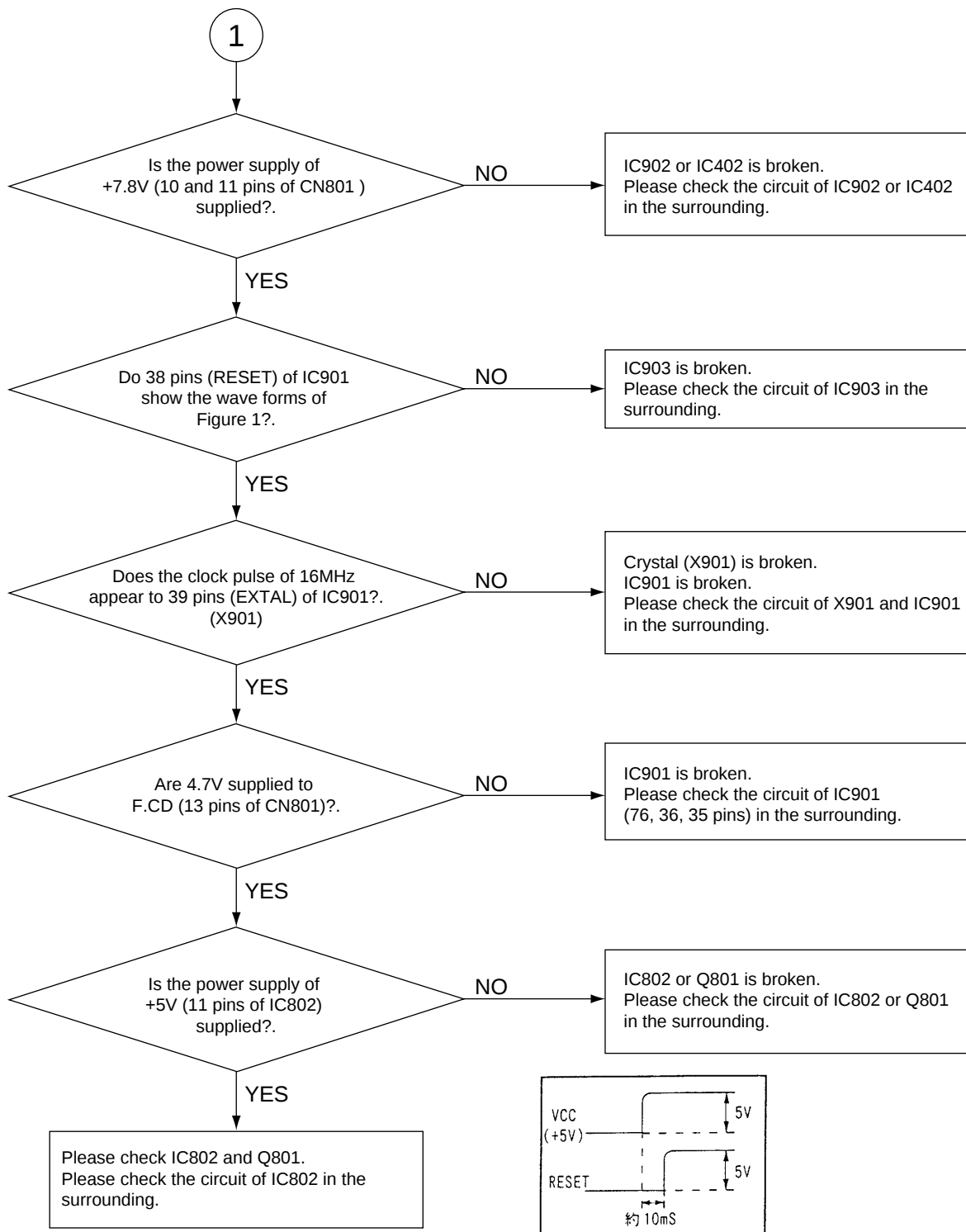
7.1 DIAGNOSIS

7.1.1 TROUBLESHOOTING

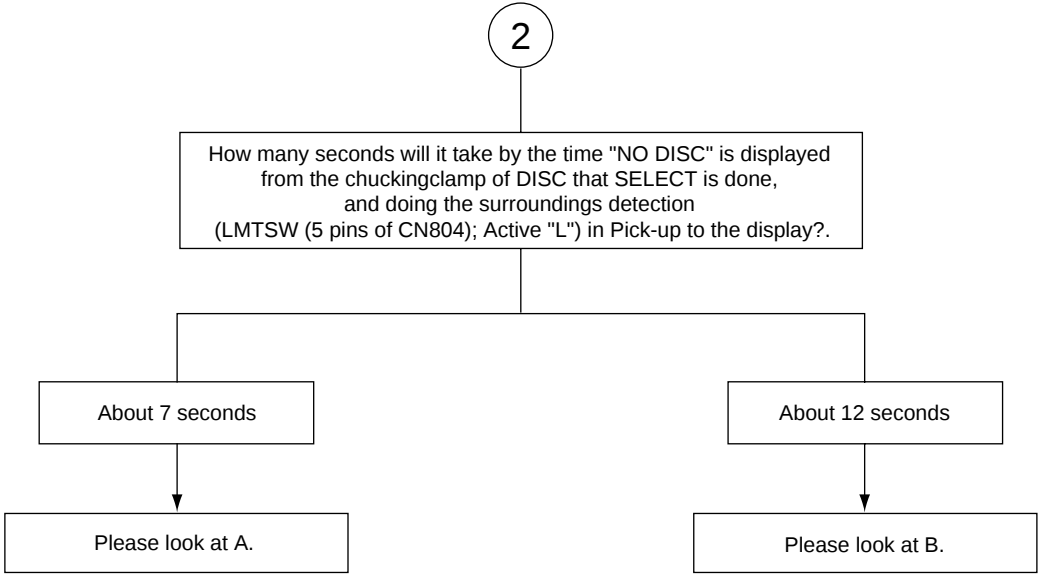
CD troubleshooting



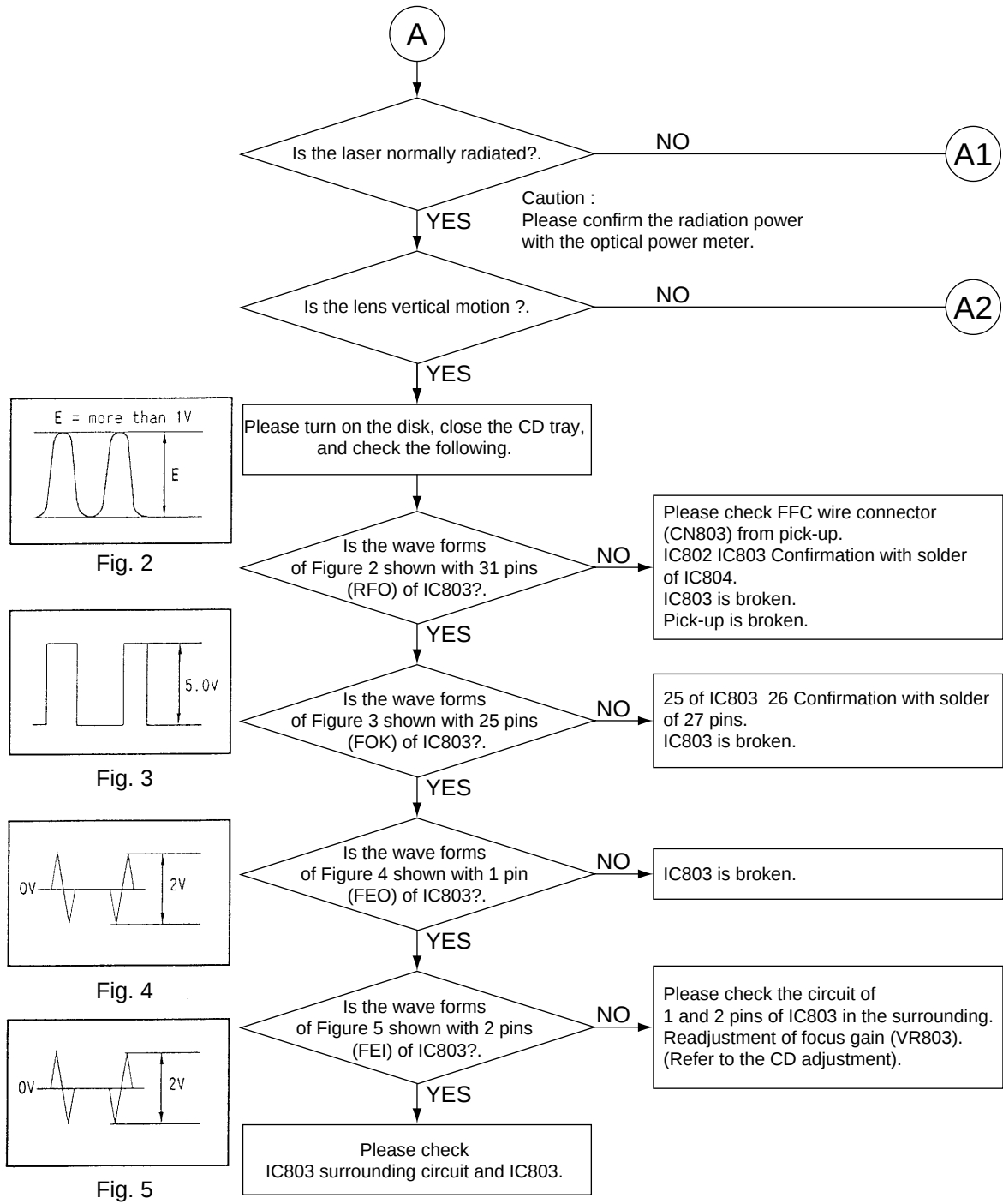
1. "CD DISC □ NO DISC" is displayed after "CD DISC □ TOC READING" is displayed on the LCD display and when the same operation do not repeat three times.



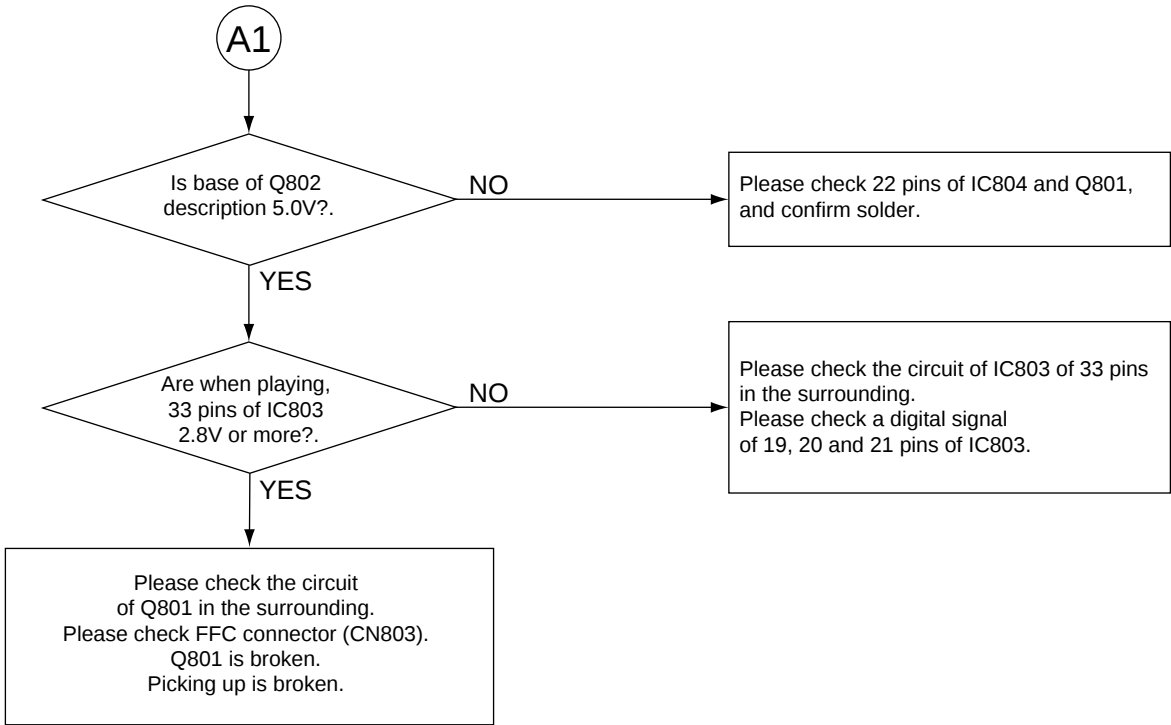
2. When neither the number of total tracks nor the playing time are displayed.



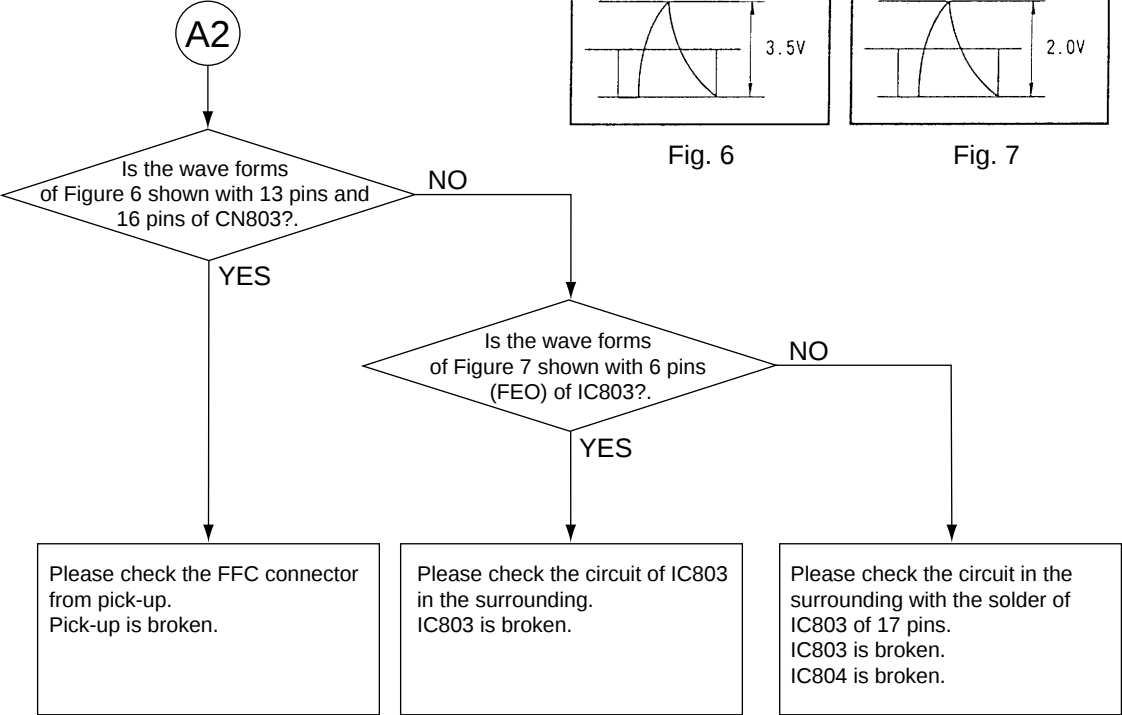
2-A



2-A1. (The laser does not radiate.)



2-A2. (Is the lens vertical motion.)



2-B

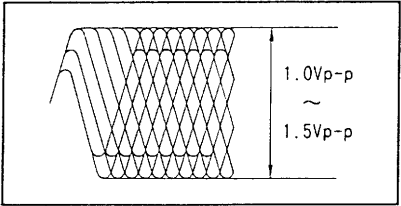
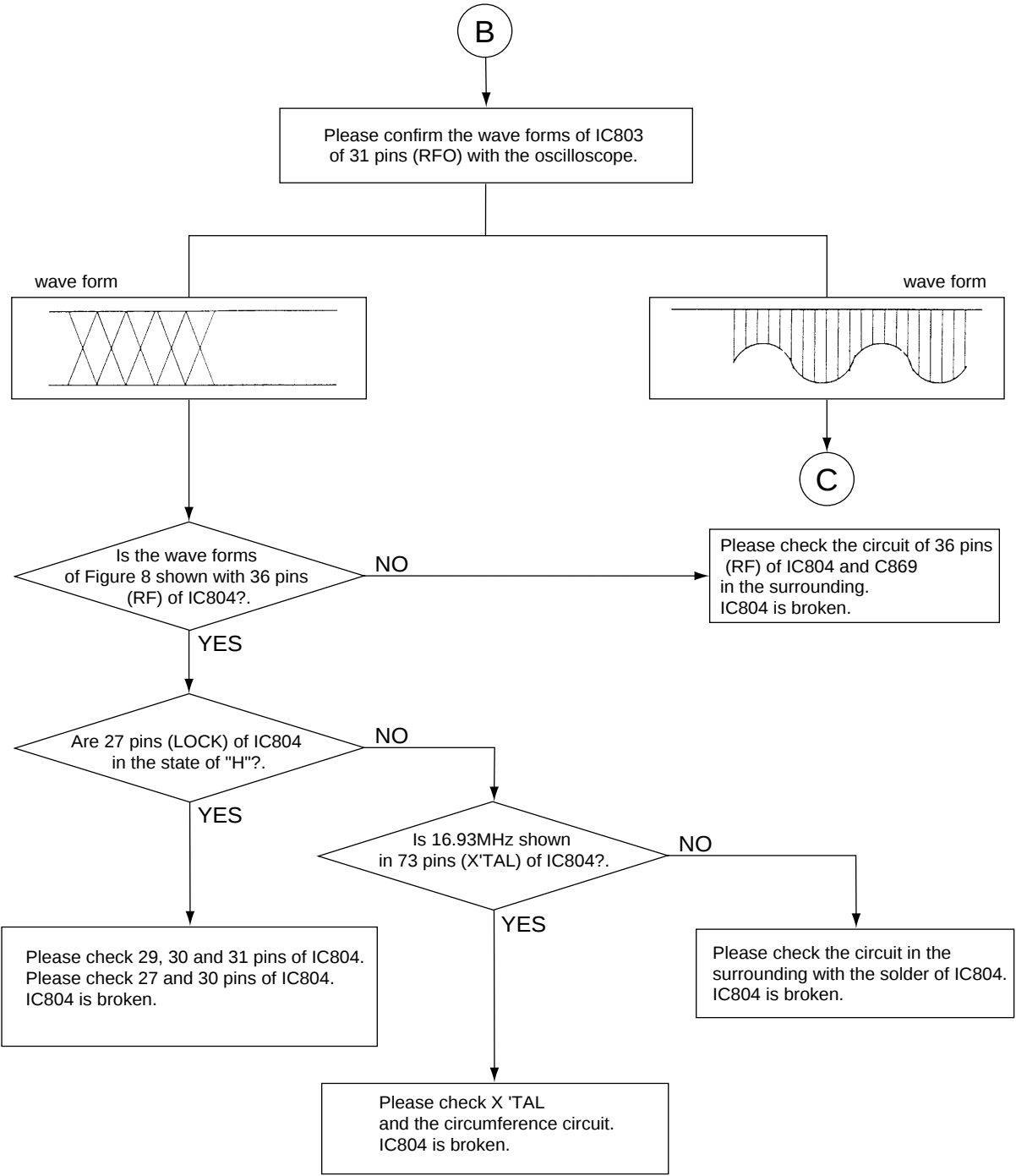


Fig. 8

2-C

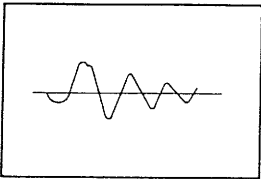
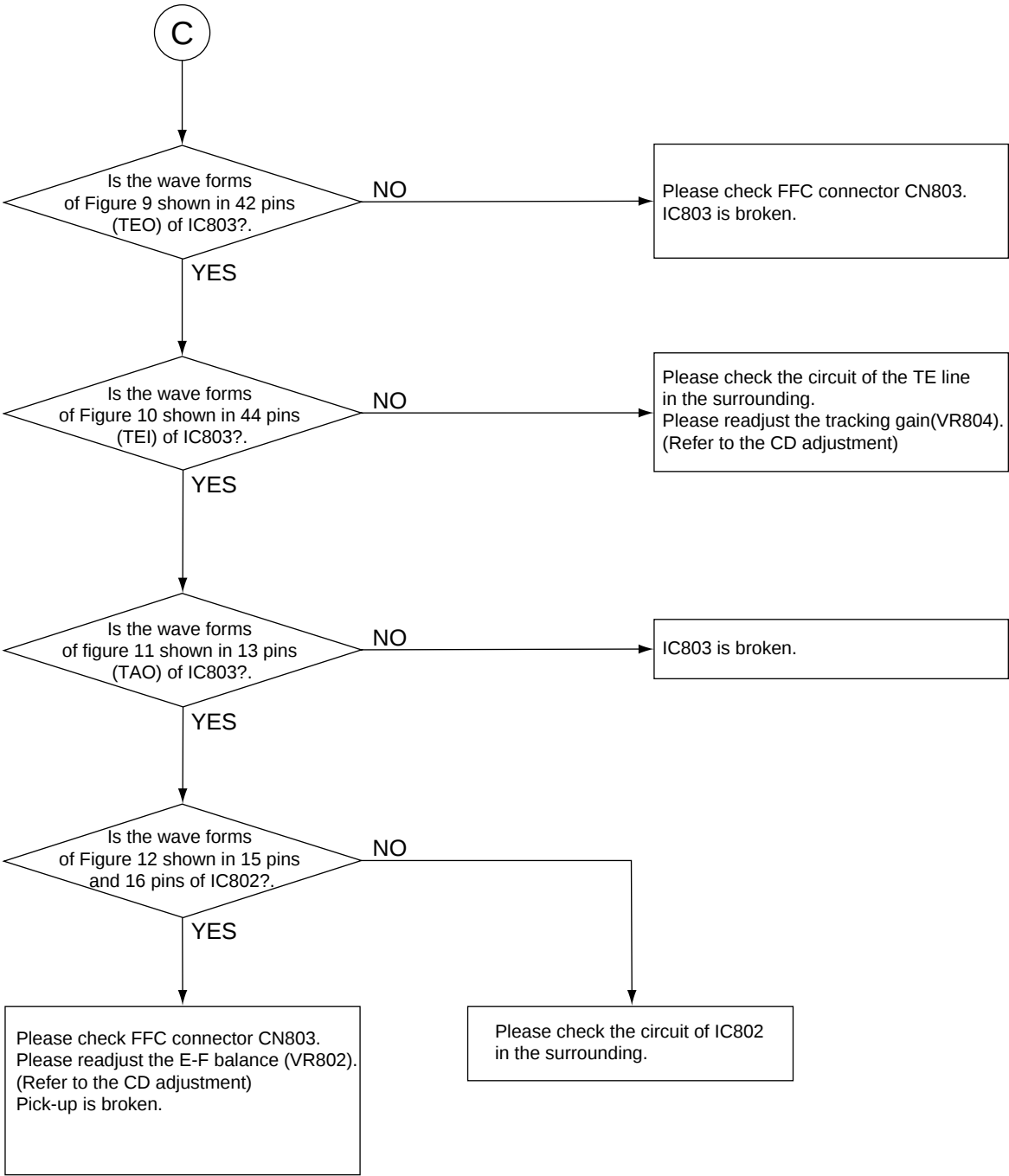


Fig. 9

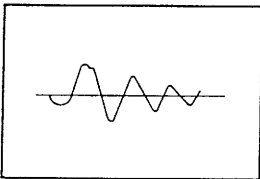


Fig. 10

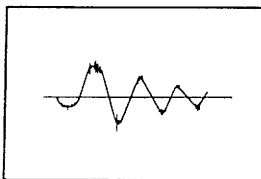


Fig. 11

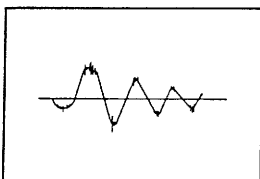
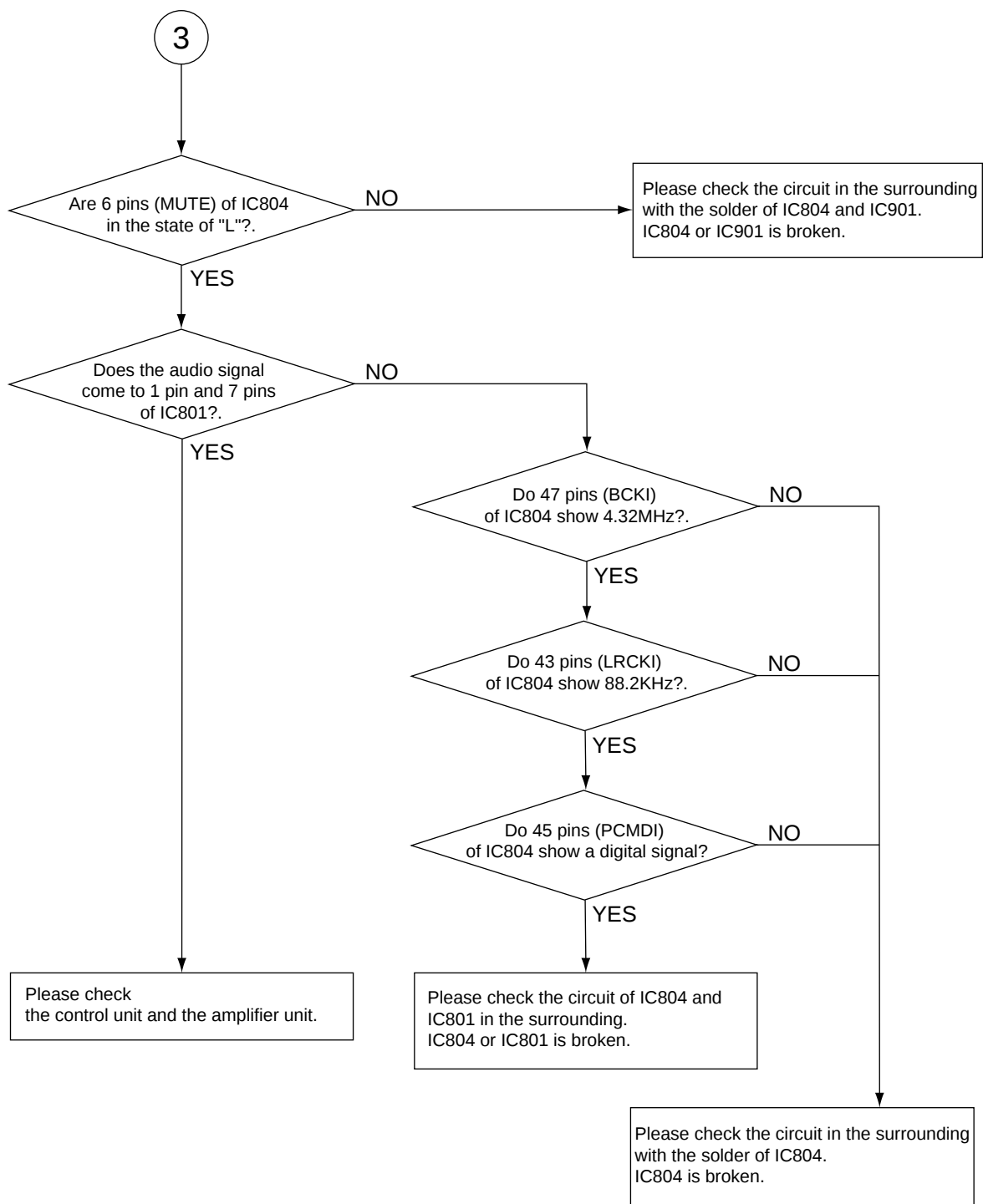


Fig. 12

3. When the audio signal (analog) is not sent to the output jack.



4. When you cannot smoothly select music.

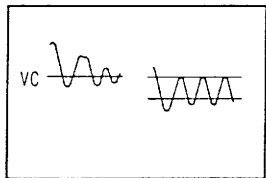
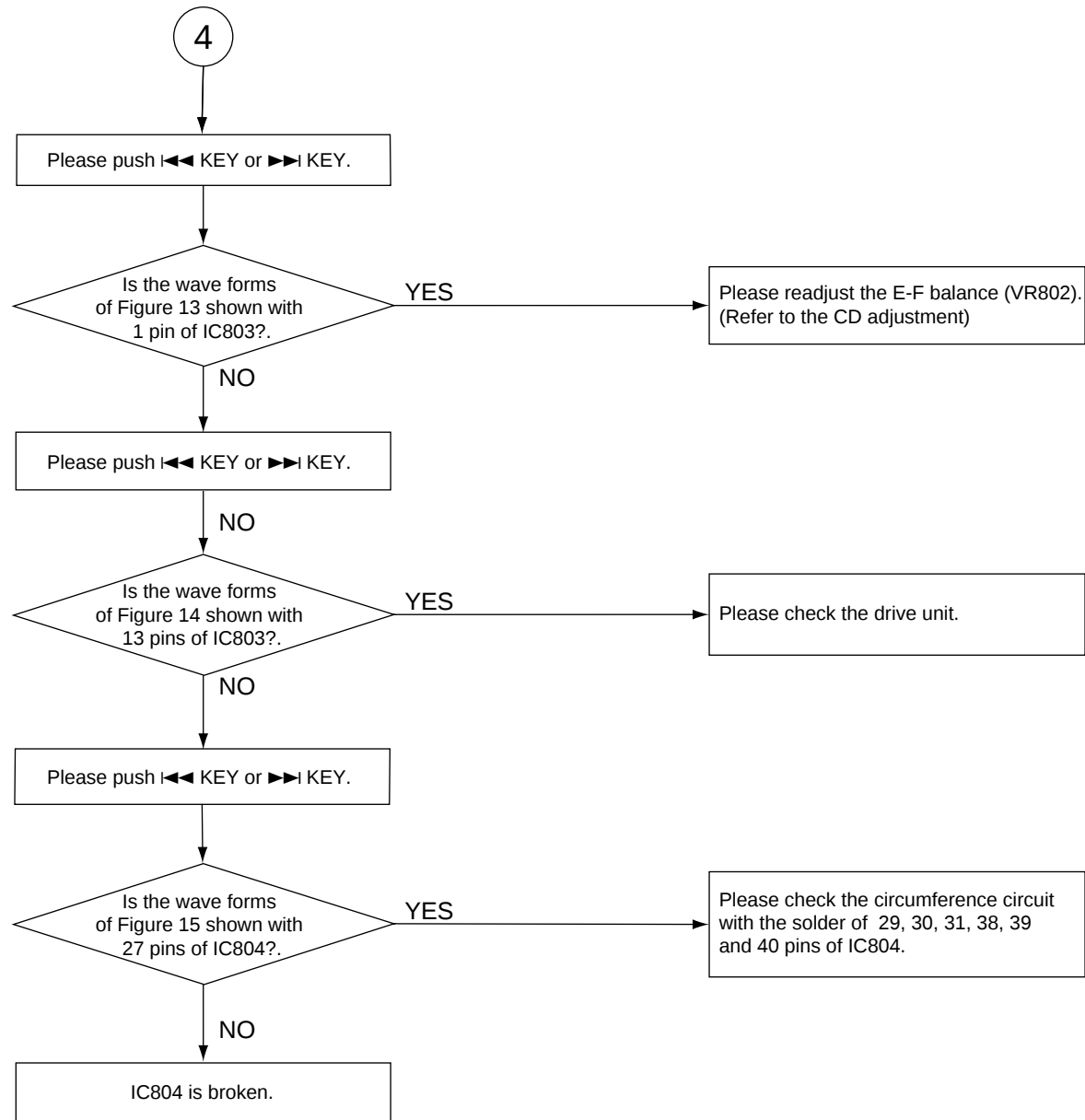


Fig. 13

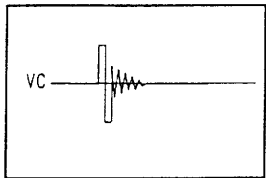


Fig. 14

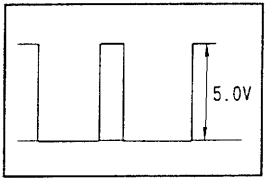
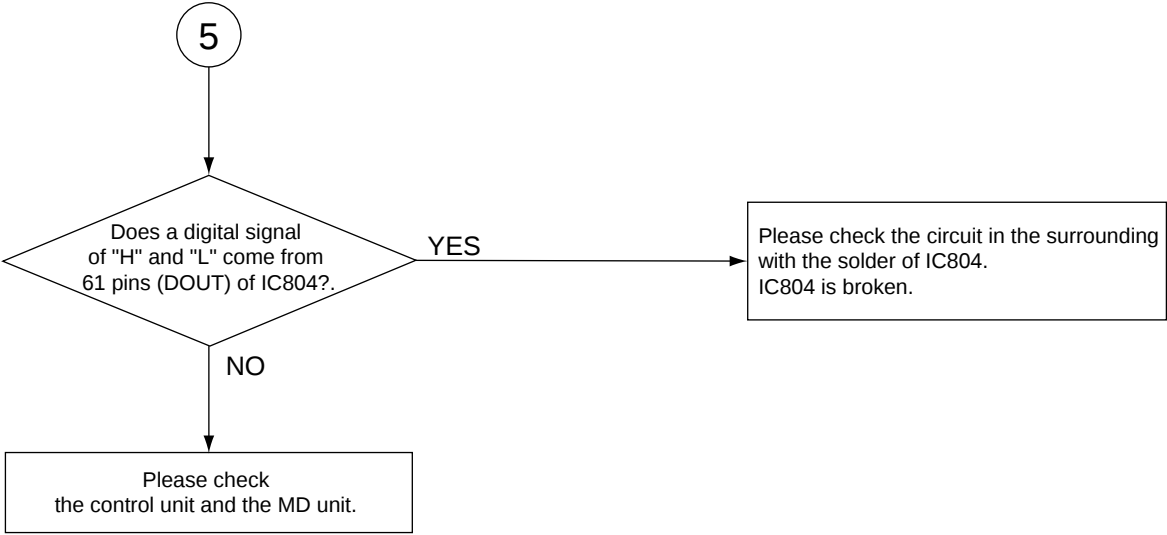


Fig. 15

5. When the audio signal (digital) is not sent to the output jack.

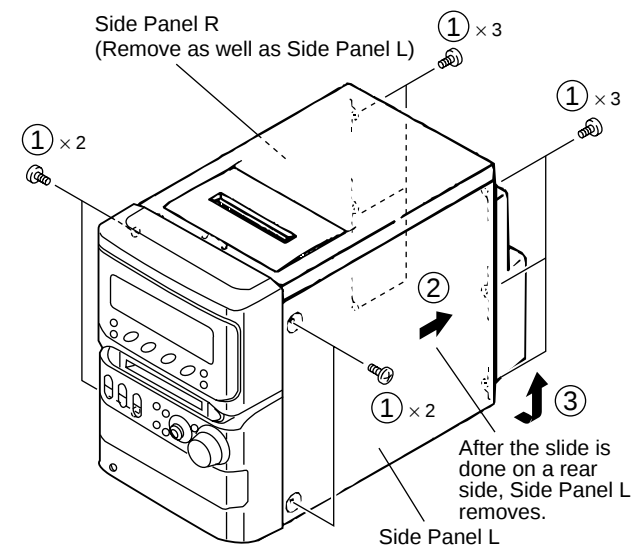


7.1.2 DISASSEMBLY/ASSEMBLY

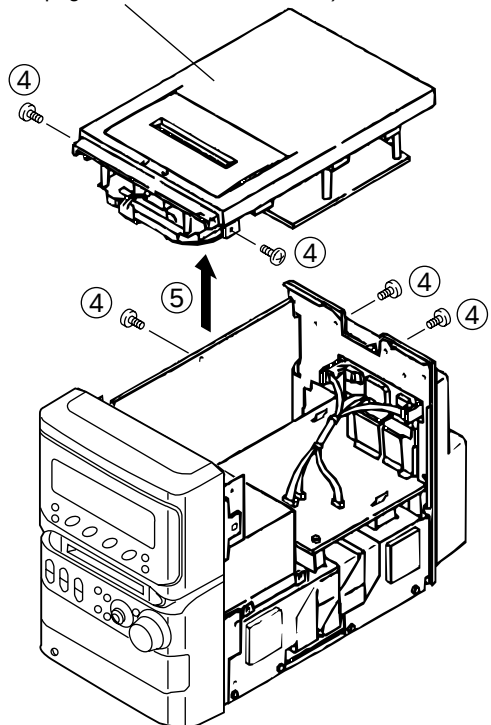
CAUTION

- Please note static electricity at the FRONT Unit(LD701, LD702) repair.

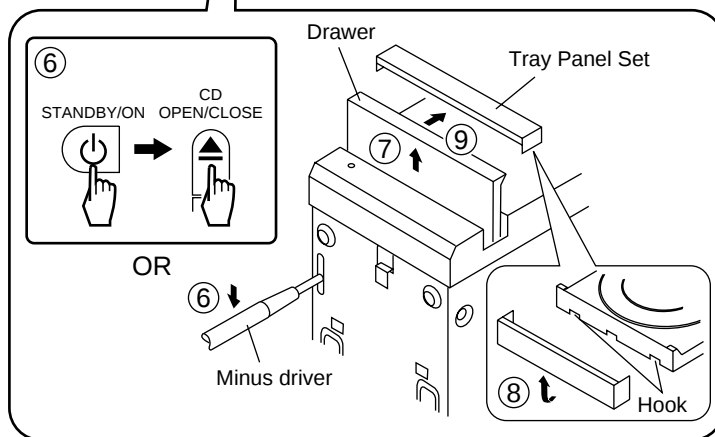
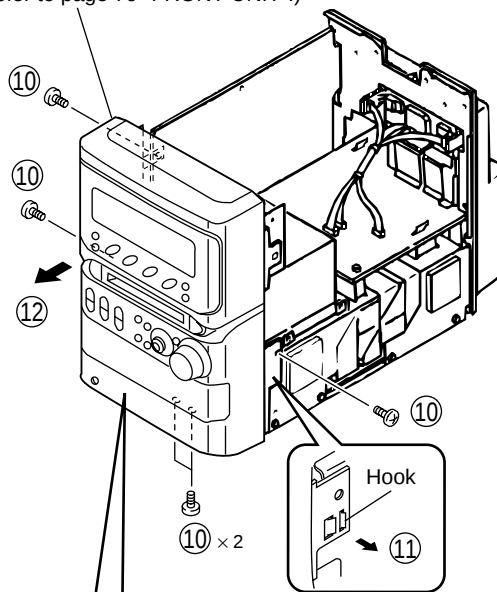
(1)The main body



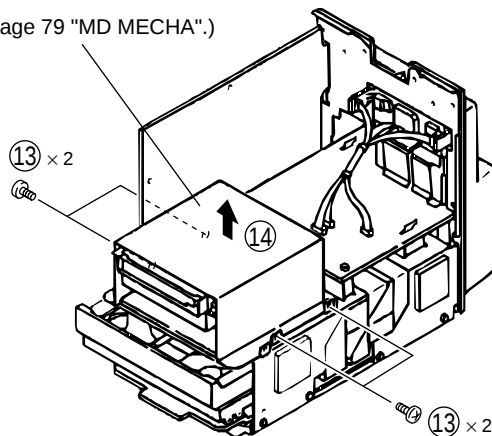
Top Panel Assy
(Refer to page 79 "TOP PANEL ASSY".)

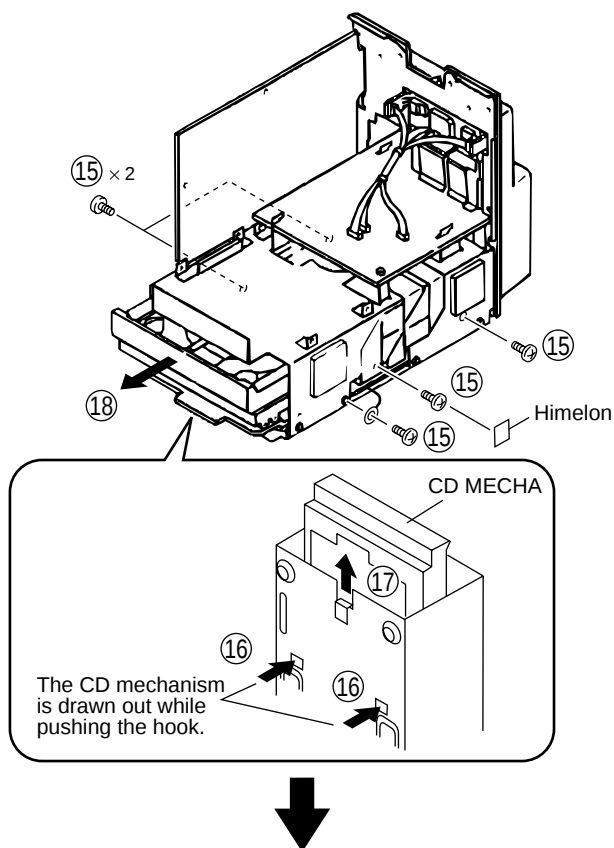


Front Unit
(Refer to page 79 "FRONT UNIT".)



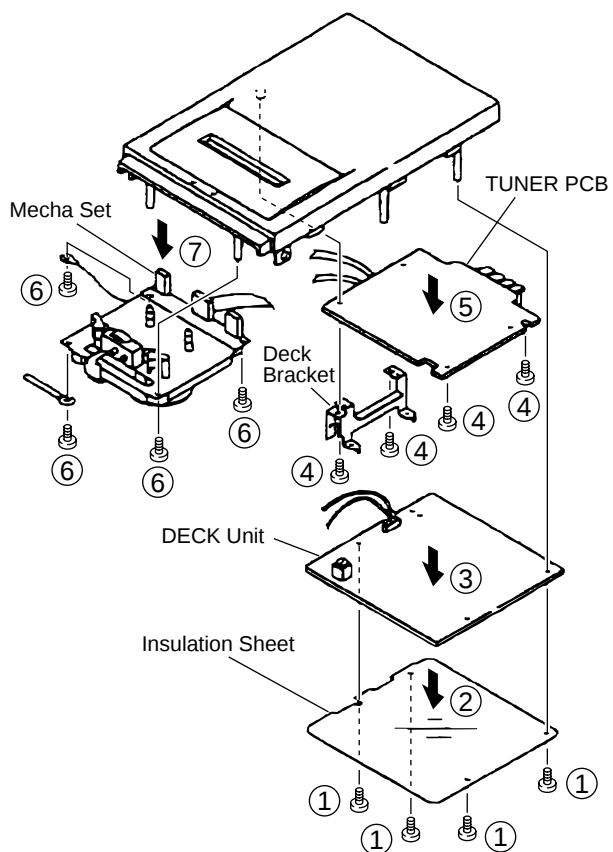
MD Unit
(Refer to page 79 "MD MECHA".)



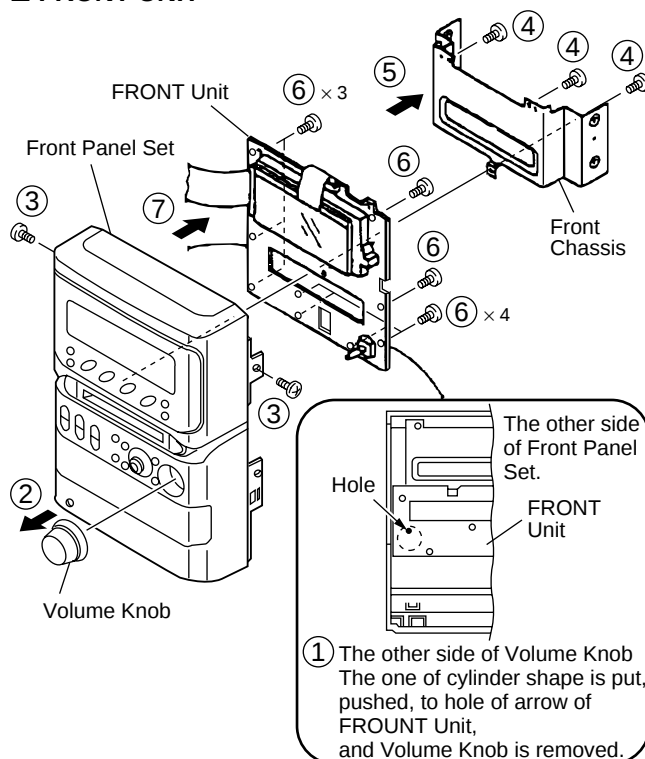


(Refer to page 80 "CD MECHA".)

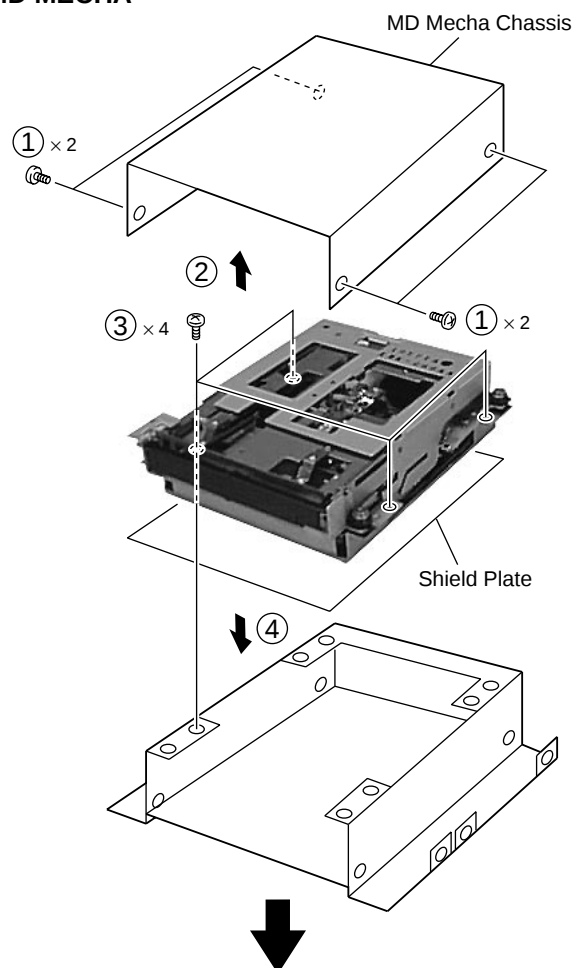
■ TOP PANEL ASSY

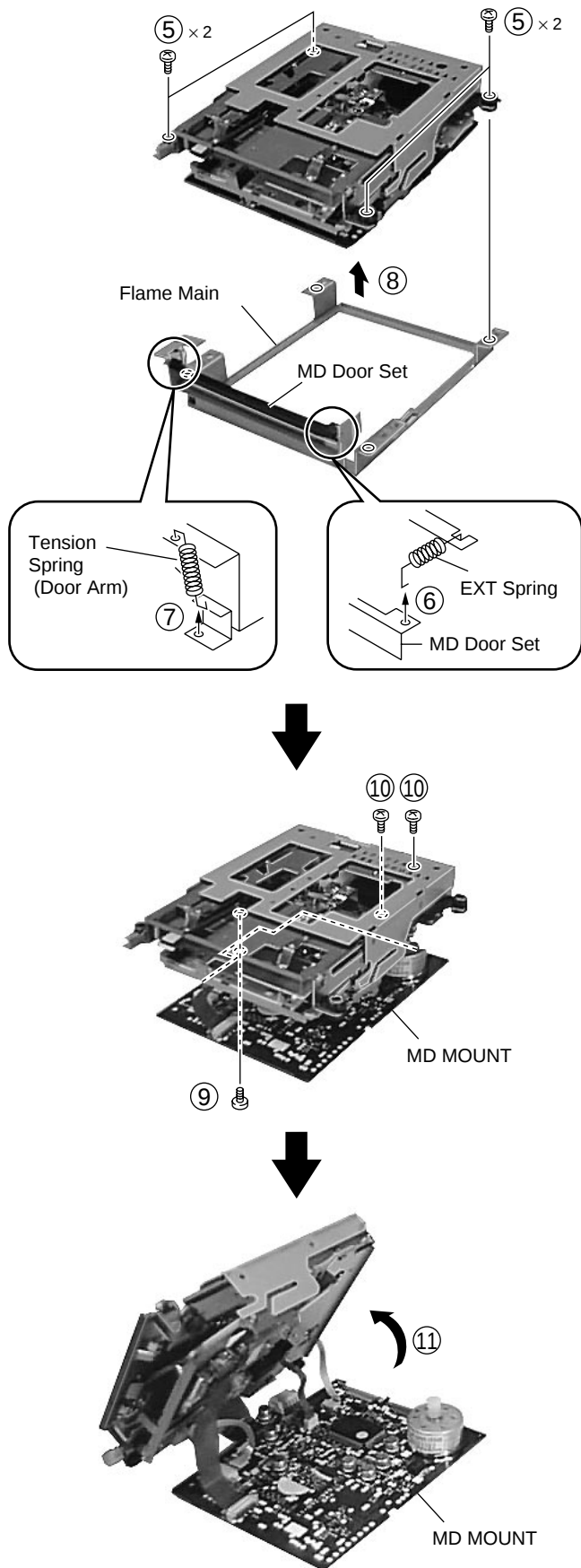


■ FRONT UNIT



■ MD MECHA



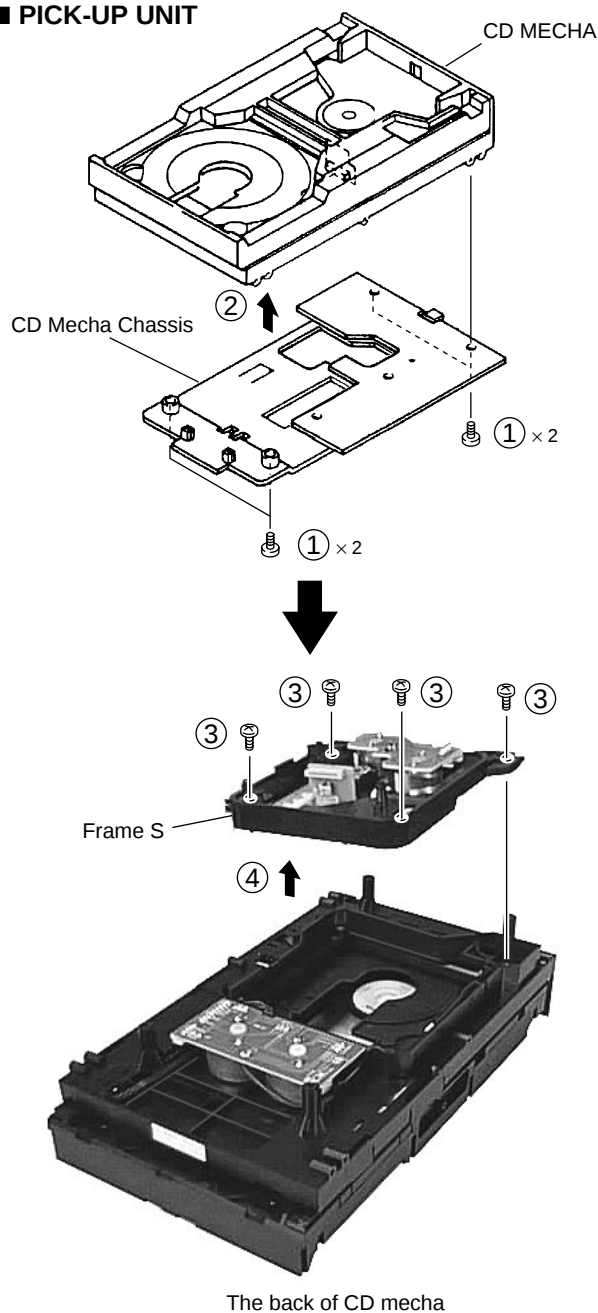


(2) CD MECHA

CAUTION

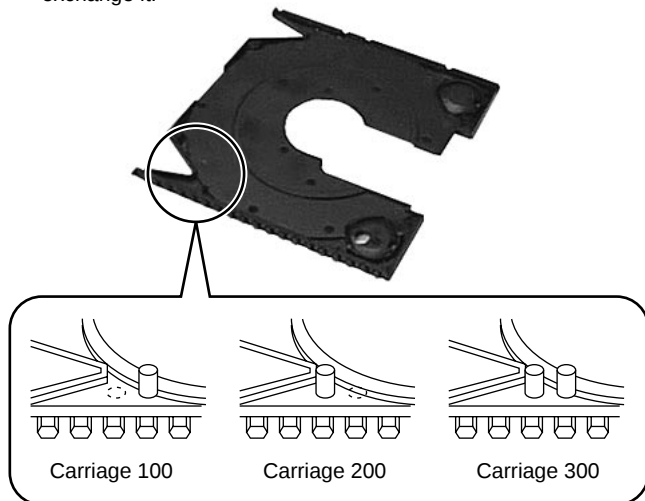
- The CD mechanism should not disassemble when repairing and exchanging Pick-up Unit.
- When the exchange of Carriage 100, 200, 300, and the part Clamper and something wrong with the loading operations is repaired, it is necessary to disassemble the CD mechanism. Please disassemble and repair according to the following procedures.
- If Tray Panel Set is not detached when the CD mechanism is repaired, the CD mechanism cannot be removed from the main body of the product.
- When Drawer was not able to open and shut by some something wrong's (The power supply does not enter, etc.) occurring, and remove Tray Panel Set, Slider 2 of the CD mechanism is moved from the ditch of the chassis on the bottom side of the product with a minus driver and Drawer is drawn out. Afterwards, please remove Front Unit after removing Tray Panel Set.

■ PICK-UP UNIT

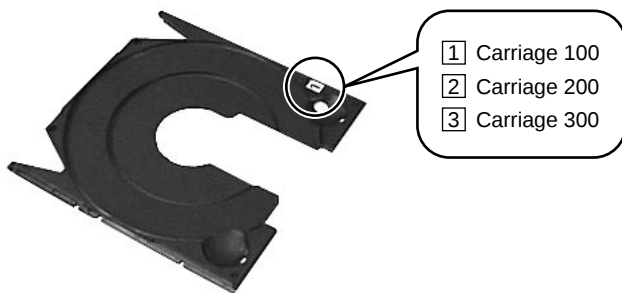


CAUTION FOR DISASSEMBLY/ASSEMBLY OF CD MECHA

1. As for the distinction method of Carriage100, 200, and 300, Switch distinguishes the shape of the projection part on its back. Please confirm the number seal pasted to the surface of Carriage and the projection shape of the figure below when you exchange it.

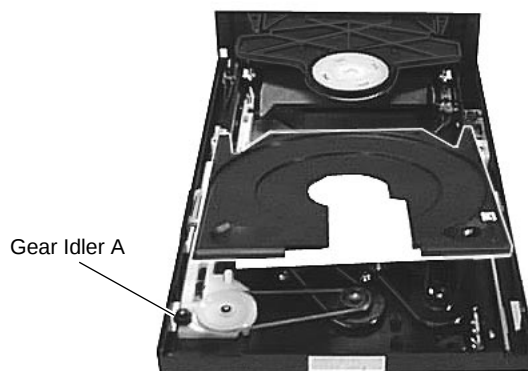
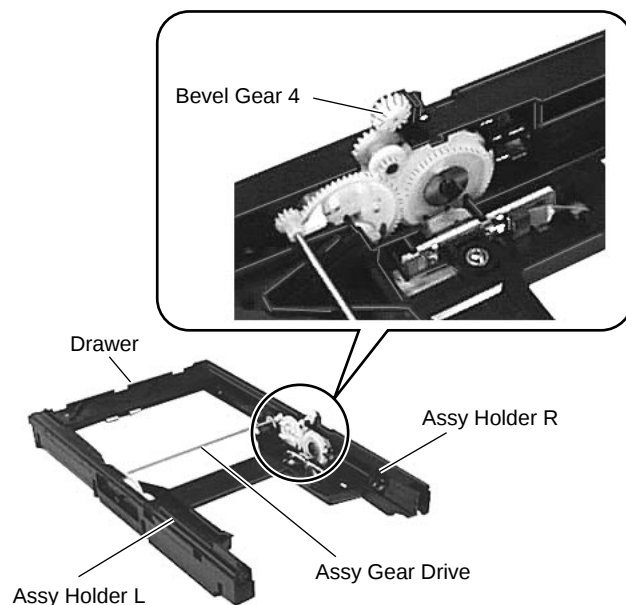


Method of distinguishing the back of Carriage.

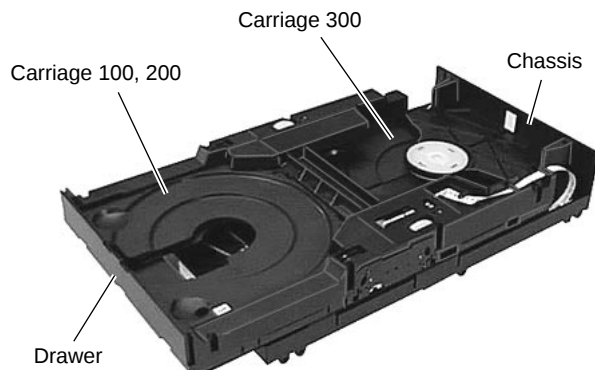


Method of distinguishing surface of Carriage.

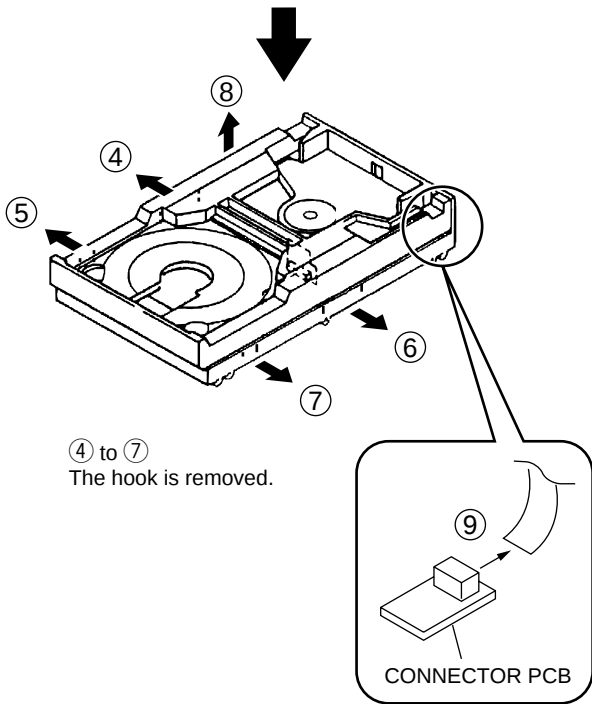
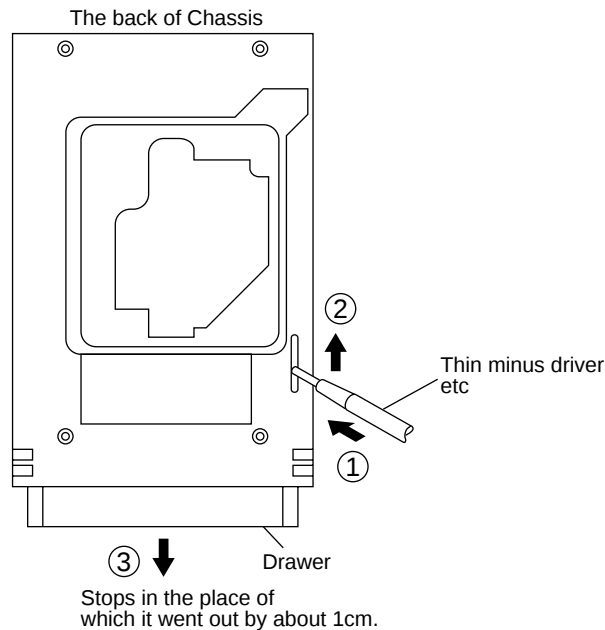
2. Please do not disassemble Assy Holder L, R and the inside of and Drawer, and do not disassemble Assy Gear Drive which connects Assy Holder L with R. (The position match of each gear is necessary)
3. Please do not lose the gear (Bevel Gear 4 and Gear Idler A) not fixed while put in the axis.



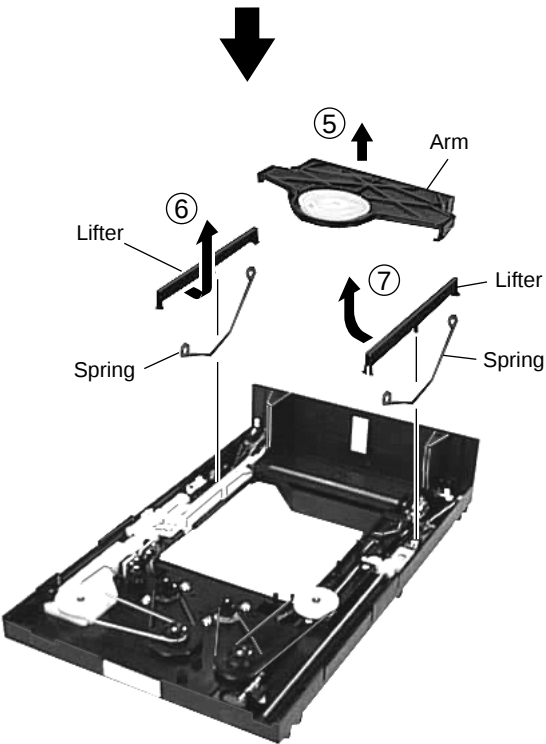
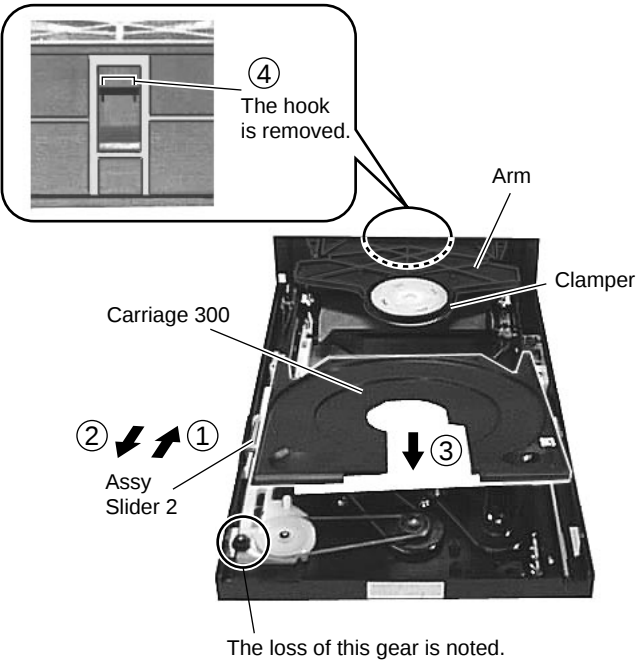
4. Carriage 300 is put in the Chassis side, and please put in the Drawer side without fail in order of Carriage 100 and 200.



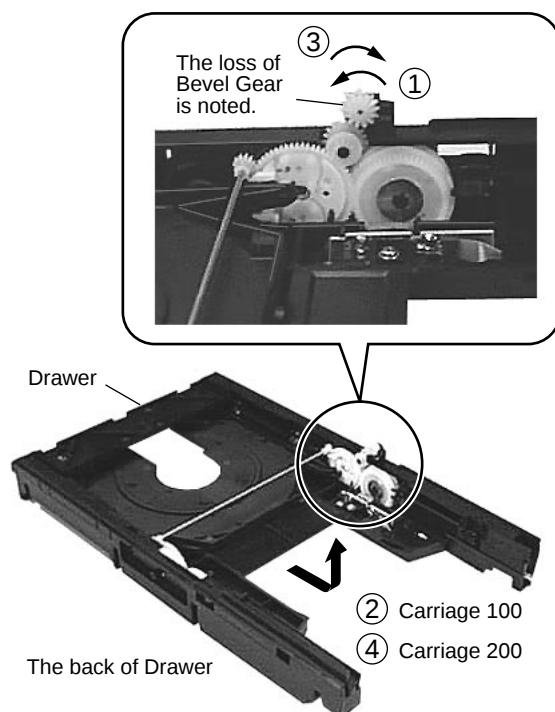
■ DRAWER



■ CHASSIS

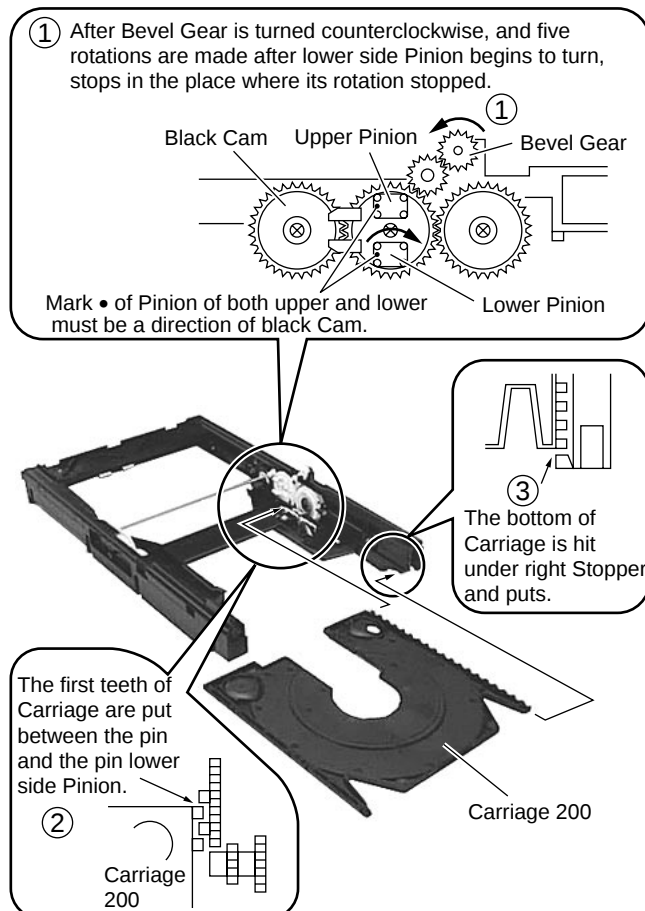


DISASSEMBLY OF CARRIAGE 100, 200

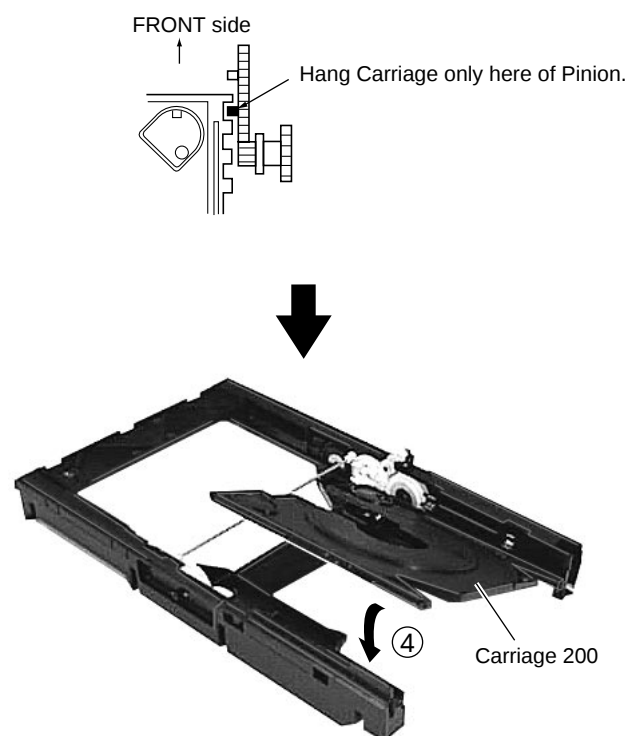


ASSEMBLY OF CARRIAGE 100, 200

(Carriage 100 is No.1 carriage. Carriage 200 is No.2 carriage.)



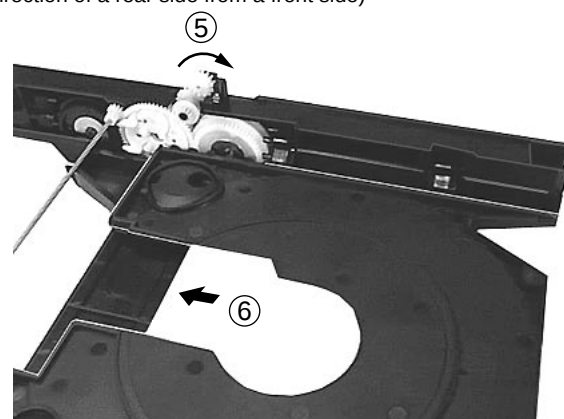
• Notes of procedure ③.



④-1 The other side of the side applied by ③ of Carriage is lightly pushed.

④-2 Puts Carriage 100 on Carriage 200 which applies by ④-1. Be careful about notes by ③ at this time.

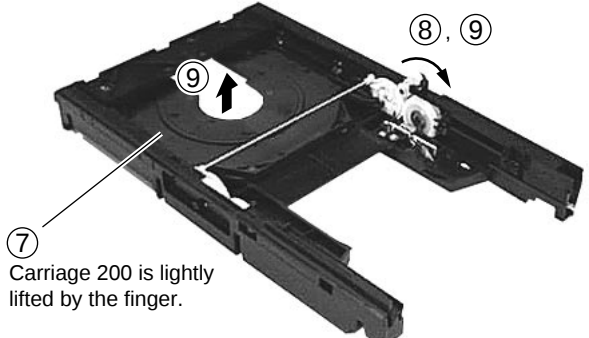
⑤ Bevel Gear is turned clockwise.
(direction of a rear side from a front side)



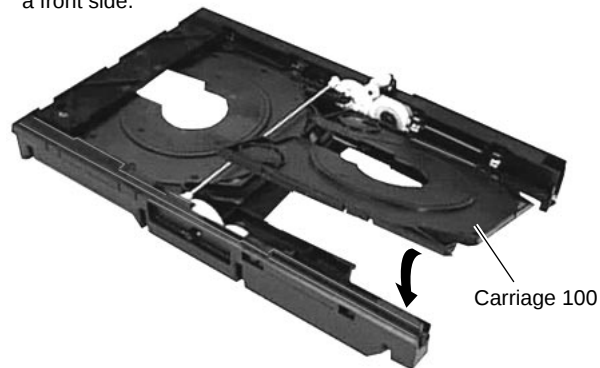
⑥-1 Carriage 200 moves to a front side.

⑥-2 Bevel Gear is turned as it is clockwise.
(direction of a rear side from a front side)

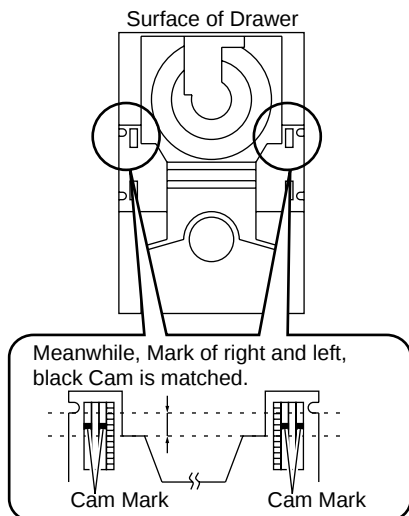
⑥-3 Carriage 100 drops below.

- 
- ⑦ Carriage 200 is lightly lifted by the finger.
- ⑦ When Carriage 100 drops below, Carriage 200 is lightly lifted by the finger.
Note : Lift it horizontally when you lift Carriage. Carriage inclines when it is not the horizontal, and mechanism locks.
- ⑧ Bevel Gear is turned clockwise (direction of a rear side from a front side) like the state of ⑦.
- ⑨ Carriage 200 lifts up. And, when the movement is started Carriage 100 to the direction of a front side, separates the hand which lifted Carriage 200.

- ⑩ Keeps turning Bevel Gear clockwise (direction of a rear side from a front side) until Carriage 100 bumps to the wall on a front side.



- ⑪ The position of a right and left, black cam is matched while confirming it from the table side of Drawer.



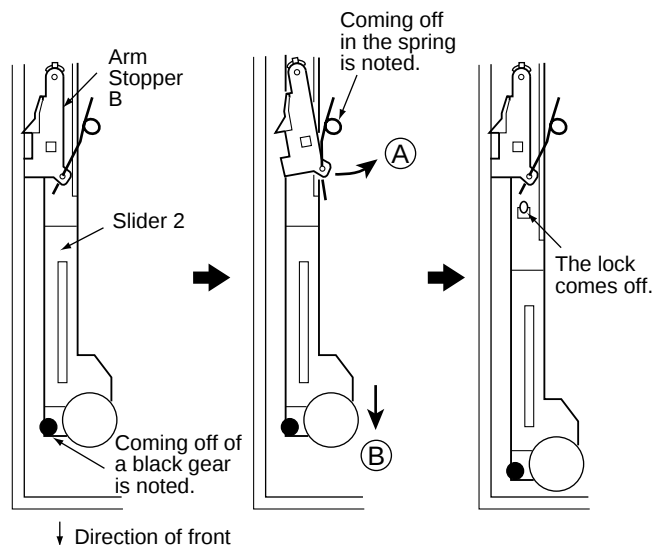
■ ASSEMBLY OF DRAWER AND CHASSIS

The following work is done before Drawer is put on Chassis.

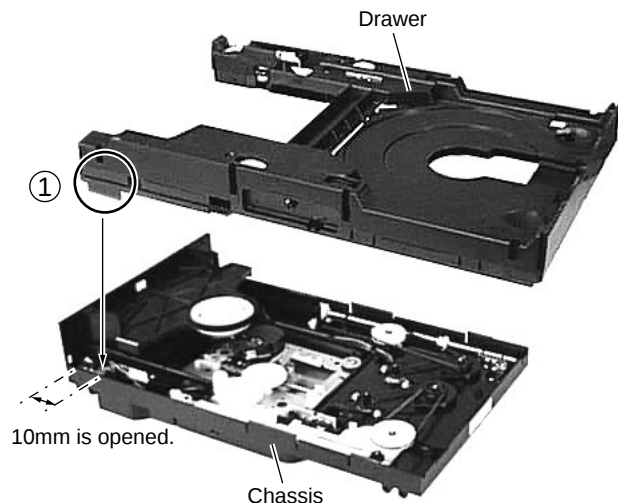
- (1) It is confirmed that Carriage 300 is clamped, and Clamper has fallen.
- (2) It is confirmed to Drawer to be built in neatly in order of Carriage 200 and 100.
- (3) Arm Stopper B is moved horizontally (inside) as shown in the figure below. (A)
- (4) Pulls Slider 2 until the lock comes off to the direction of ta front side. (B)

Note : Do not lift Arm Stopper B for above when you move Arm Stopper B.

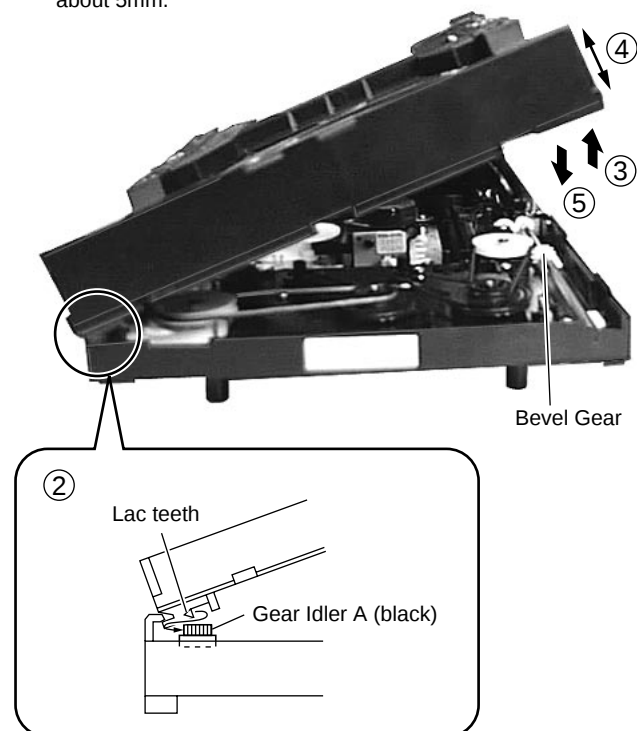
There is a possibility to bend the spring when Arm Stopper B is lifted, and the spring bends. And, when Arm Stopper B becomes floatage feeling, Drawer is caught.



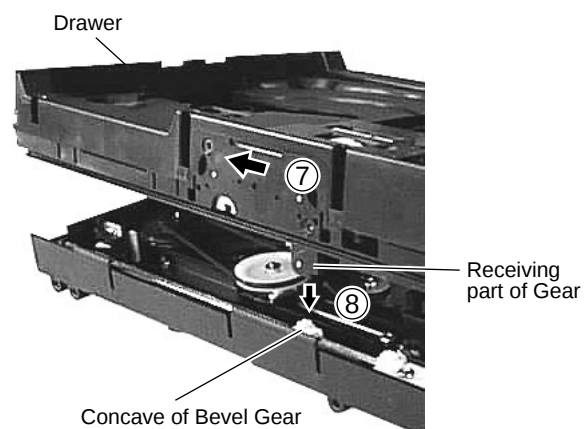
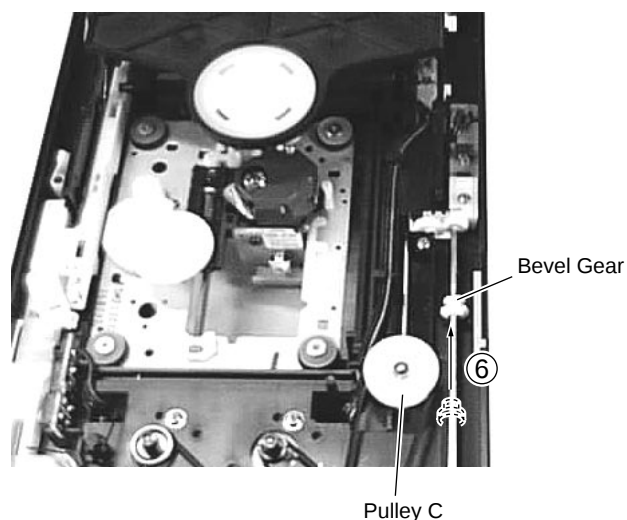
- ① This ○ part of Drawer is put on Chassis like the arrow.



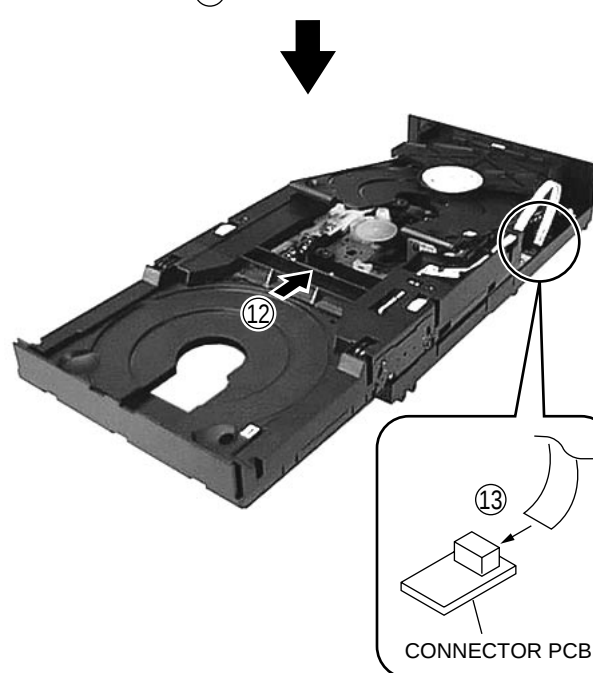
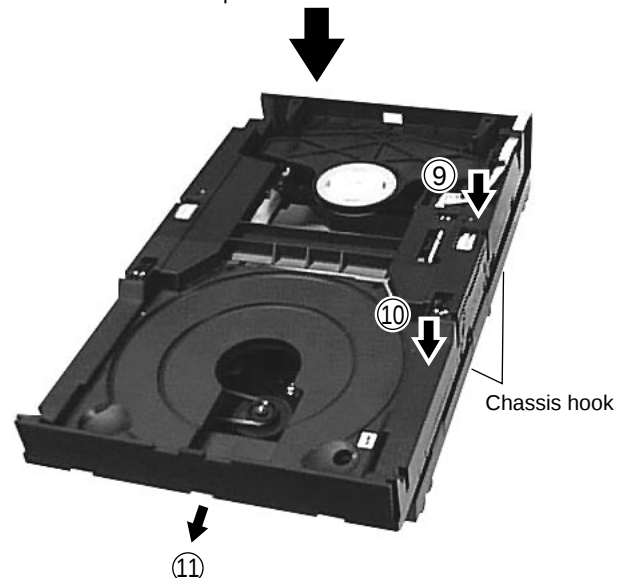
- ② The lac teeth and Gear Idler A are matched, and it is pressed under the diagonal lightly.
- ③ Right this side of Drawer is lifted.
- ④ Drawer is moved back and forth, and stops Drawer with the point which it enters left.
- ⑤ Its right side is slowly lowered up to the angle by which Bevel Gear can do in the slide while doing Drawer back and forth by about 5mm.



- ⑥ Bevel Gear is done in the slide in the middle of Pulley C and Carriage 300.



- ⑧ When peeps from the inside of Drawer when the receiving part of Gear is fixed into the concave part of Bevel Gear, the place where it is fixed is comprehensible.



7.2 PARTS

7.2.1 IC

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

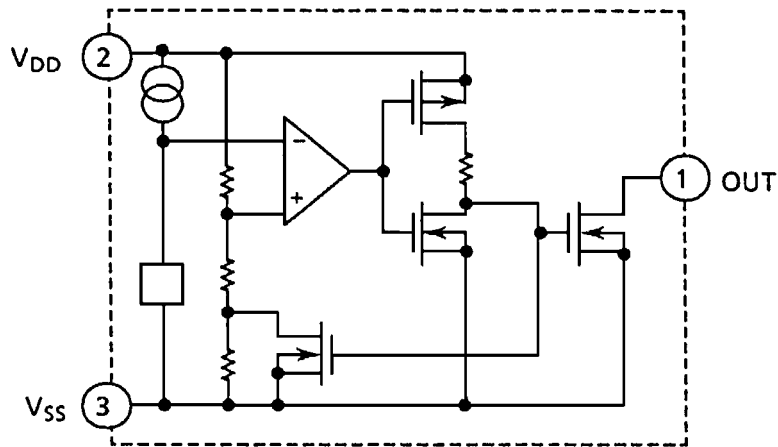
• List of IC

0911851600 (S-8072AN-DQ-T1) , 0037502200 (CXP740096-109Q)

■ 0911851600 (S-80727AN-DQ-T1) (CONTROL UNIT : IC902)

• High Accuracy Voltage Detector

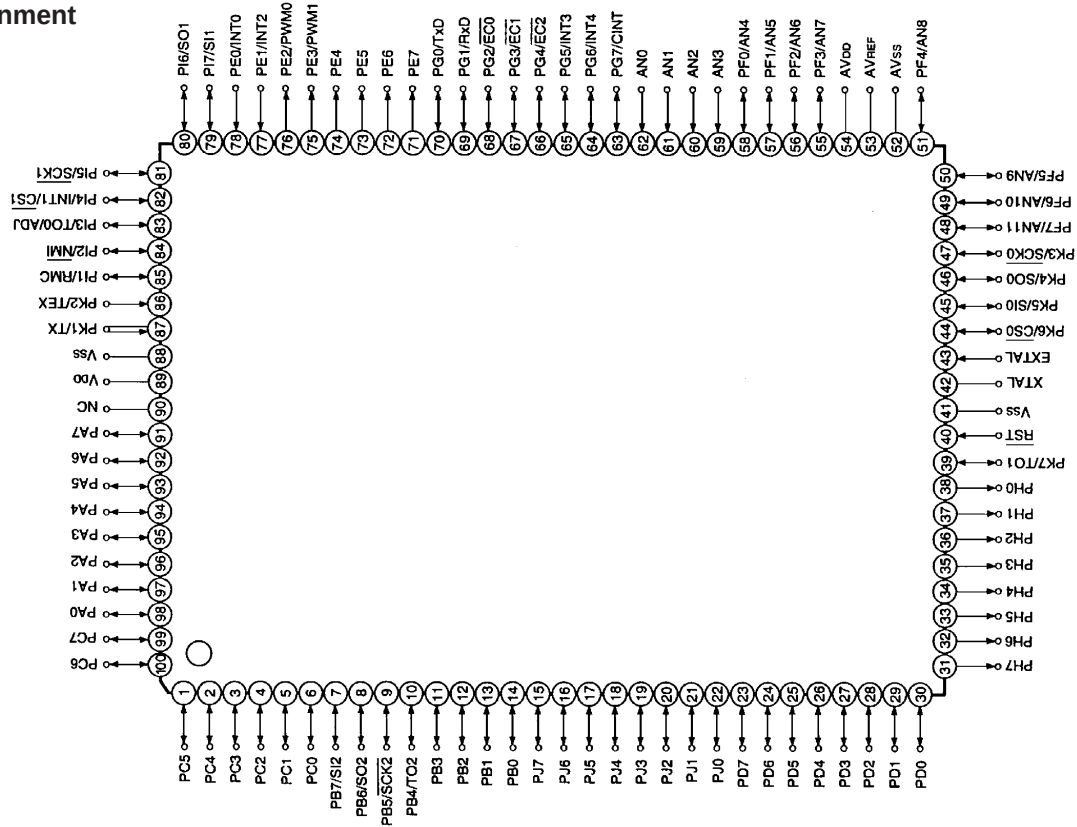
• Block Diagram



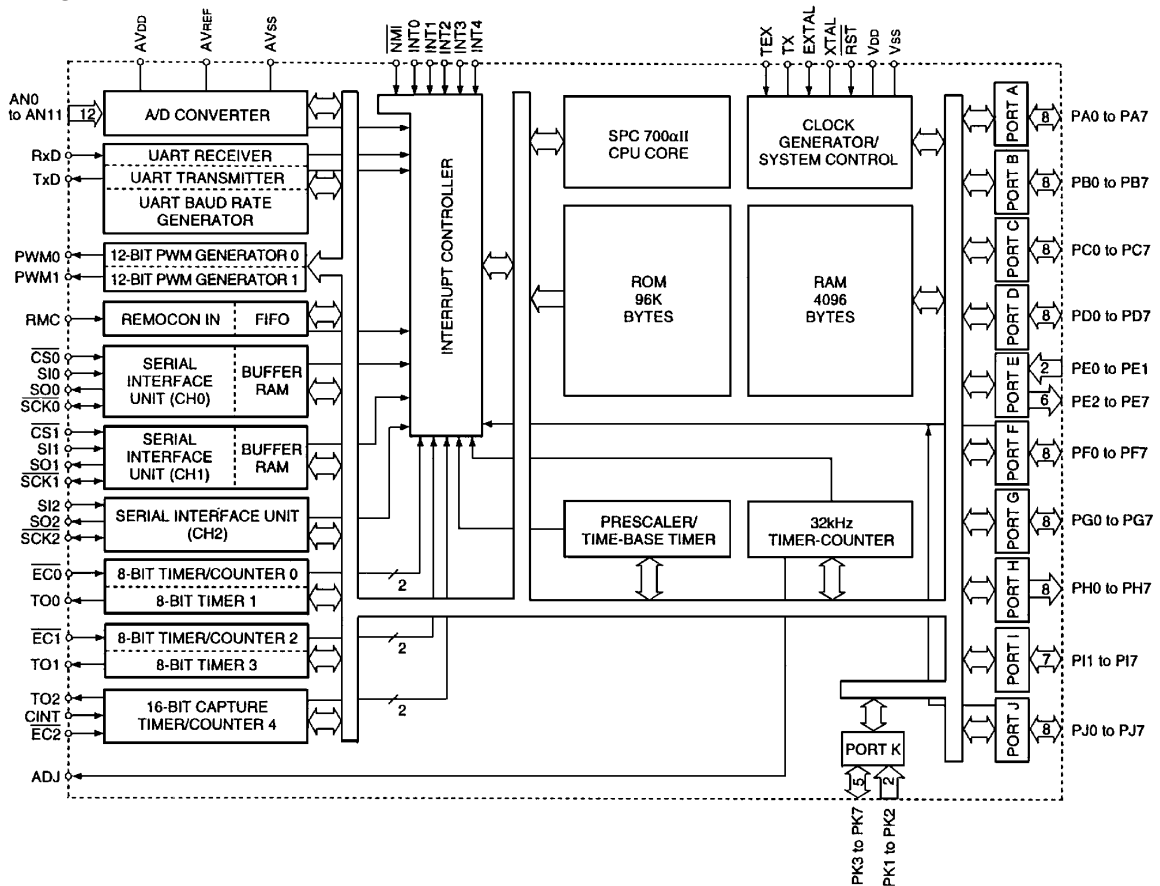
0037502200 (CXP740096-109Q) (CONTROL UNIT : IC900)

• Main Control IC

• Pin Assignment



• Block Diagram



X-MDX707, XR-C2MD

● Pin Function

No.	Mark & In/Out	Pin Name	I/O	Function
1	PC5(I/O)	LCD_RW	O	Read-Write select Signal output for LCD
2	PC4(I/O)	ELCONT	O	KEY_LIGHT Control Signal output
3	PC3(I/O)	DISCSEL3	O	DISCSEL3 LED Control Signal output
4	PC2(I/O)	DISCSEL2	O	DISCSEL2 LED Control Signal output
5	PC1(I/O)	DISCSEL1	O	DISCSEL1 LED Control Signal output
6	PC0(I/O)	-	O	NO CONNECT
7	PB7(I/O) / SI2(I)	BLCONT2 B	O	BACK-LIGHT CONTROL2 Signal output (BLUE)
8	PB6(I/O) / SO2(I)	BLCONT1 G	O	BACK-LIGHT CONTROL1 Signal output (GREEN)
9	PB5(I/O) / SCK2(Z)(I/O)	BLCONT0 R	O	BACK-LIGHT CONTROL0 Signal output (RED)
10	PB4(I/O) / TO2(O)	TUNING	I	TUNING Signal input for TUNER
11	PB3(I/O)	STEREO	I	STEREO Signal input for TUNER
12	PB2(I/O)	T_CLOCK	O	Serial clock Signal output for TUNER
13	PB1(I/O)	T_DATA	I/O	Serial data Signal input and output for TUNER
14	PB0(I/O)	PERIOD	O	Serial latch Signal output for TUNER
15	PJ7(I/O)	RECMUTE	O	RECMUTE Control Signal output
16	PJ6(I/O)	REC_BIAS	O	RECBIAS Control Signal output
17	PJ5(I/O)	TPSS	I	MUSIC_SPACE Detection Signal input
18	PJ4(I/O)	PHOTO	I	Photo detector Signal output
19	PJ3(I/O)	DECKSW3	I	DECK_SW3 input (From HALF SW)
20	PJ2(I/O)	DECKSW2	I	DECK_SW2 input (From REC-R SW)
21	PJ1(I/O)	DECKSW1	I	DECK_SW1 input (From REC-F SW)
22	PJ0(I/O)	DECKSW0	I	DECK_SW0 input (From MODE SW)
23	PD7(I/O)	REPEAT	O	MUSIC_SCAN Signal output
24	PD6(I/O)	SOLENOID	O	SOLENOID Control Signal output
25	PD5(I/O)	REC/PLAY	O	REC/PLAY Control Signal output
26	PD4(I/O)	D_MUTE	O	DECK_MUTE Control output
27	PD3(I/O)	BEATCUT	O	BEATCUT Control Signal output
28	PD2(I/O)	DOLBY	O	DOLBY Control Signal output
29	PD1(I/O)	MOTOR	O	MOTOR Control Signal output
30	PD0(I/O)	PSCONT	O	Power supply Control Signal output
31	PH7(O)	SOUND_CE	O	SOUND Control Signal output
32	PH6(O)	SPUND_DI	O	SOUND Control Signal output
33	PH5(O)	SOUND_CL	O	SOUND Control Signal output
34	PH4(O)	S_MUTE	O	SYSTEM_MUTE Control output
35	PH3(O)	F_CD	O	CD_FUNCTION Control Signal output
36	PH2(O)	F_MD	O	MD_FUNCTION Control Signal output
37	PH1(O)	F_TUNER	O	TUNER_FUNCTION Control Signal output
38	PH0(O)	F_TAPE	O	TAPE_FUNCTION Control Signal output
39	PK7(I/O) / TO1(I)	F_AUX	O	AUX_FUNCTION Control Signal output
40	RST(Z) (I)	RESET	I	System RESET Signal input
41	Vss	Vss	-	Connect Vss
42	XTAL	XTAL	-	X'TAL for MAIN (16MHz)
43	EXTAL(I)	EXTAL	-	X'TAL for MAIN (16MHz)
44	PK6(I/O) / COS(Z)(I)	CLKSFT	O	CLOCK_SHIFT Control Signal output
45	PK5(I/O) / SI0(I)	PSDET1	I	POWER_DOWN Detection Signal input for DECK
46	PK4(I/O) / SO0(O)	-	I	Not used
47	PK3(I/O) / SCK0(Z)(I/O)	BEEP.	O	BEEP Signal output (Freq.= 4kHz, Duty= 50%)
48	PF7(I/O) / AN11(I)	PSDET0	I	POWER (AC) Detection Signal input
49	PF6(I/O) / AN10(I)	TUNESL	I(A/D)	TUNER Area Select A/D input
50	PF5(I/O) / AN9(I)	VJOG1	I	Volume Encoder Signal input

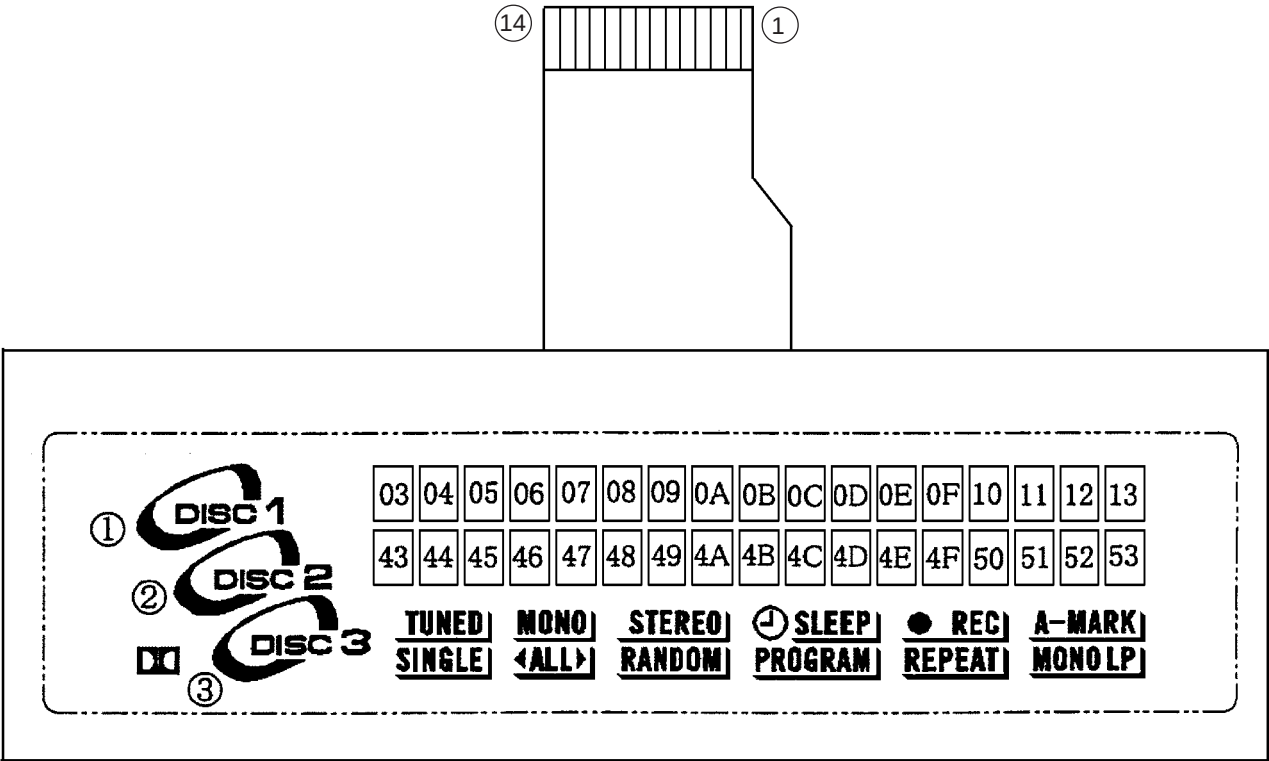
No.	Mark & In/Out	Pin name	I/O	Function
51	PF4(I/O) / AN8(I)	VJOG0	I	Volume Encoder Signal input
52	AVss	AVss	-	Connect Vss (Vss for A/D converter)
53	AVref	AVref	-	Connect Vdd (Reference voltage for A/D converter)
54	AVdd	AVdd	-	Connect Vdd (Vdd for A/D converter)
55	PF3(I/O) / AN7(I)	KEY3	I(A/D)	KEY-SW A/D input
56	PF2(I/O) / AN6(I)	KEY2		
57	PF1(I/O) / AN5(I)	KEY1		
58	PF0(I/O) / AN4(I)	KEY0		
59	AN3(I)	TRAYSW3	I(A/D)	TRAY-SW A/D input
60	AN2(I)	TRAYSW2		
61	AN1(I)	TRAYSW1		
62	AN0(I)	TRAYSW0		
63	PG7(I/O) / CINT(I)	CD_MUTE	O	MUTE Control Signal output for CD
64	PG6(I/O) / INT4(I)	TEMPDET	I	MD_TEMP detector input
65	PG5(I/O) / INT3(I)	MD_CTS	I	Transfer request Signal input for MD
66	PG4(I/O) / EC2(I)	MD_REC	O	MD_RECMUTE Control Signal output
67	PG3(I/O) / EC1(I)	MD_RST	O	MD_RESET Signal output for MD
68	PG2(I/O) / EC0(I)	MD_RTS	O	Transfer request Signal output for MD
69	PG1(I/O) / RxD(O)	MD_RxD	I	MDControl DATA input
70	PG0(I/O) / TxD(I)	MD_TxD	O	MD Control DATA output
71	PE7(O)	CD_CTL4	O	Driver Control Signal output
72	PE6(O)	CD_CTL3		
73	PE5(O)	CD_CTL2		
74	PE4(O)	CD_CTL1		
75	PE3(O) / PWM1(O)	CD_XLT	O	Serial latch Signal output for CD
76	PE2(O) / PWM0(O)	CD_CLK	O	Serial clock Signal output for CD
77	PE1(I) / INT2(I)	CD_SENS	I	SENS Signal input for CD
78	PE0(I) / INT0(I)	CS_SCOR	I	SUB-CODE SYNC Signal input for CD
79	PI7(I/O) / SI1(I)	CD_SQSO	I	SUBQ Serial data Signal input for CD
80	PI6(I/O) / SO1(O)	CD_DATA	O	Serial data Signal input for CD
81	PI5(I/O) / SCK1(Z)(I/O)	CD_SQCK	O	SUBQ Serial clock Signal input for CD
82	PI4(I/O) / INT1(O) / CS1(Z)(I)	CD_XRST	O	Reset Control Signal output for CD
83	PI3(I/O) / TD0(O) / ADJ(O)	ADJ	O	SUB-CLOCK PRESCALLER output (16.384kHz)
84	PI2(I/O) / NMI(Z)(I)	-	I	No use
85	PI1(I/O) / RMC(I/O)	REMOTE	I	Remote control Signal input
86	PK2(I) / TEX(I)	TEX	-	X'tal for SUB (32.768kHz)
87	PK1(I) / TX(I)	TX	-	
88	Vss	Vss	-	Connect Vss
89	Vdd	Vdd	-	Connect Vdd
90	NC	NC	-	NO CONNECT
91	PA7(I/O)	LCD_DB7	I/O	Parallel data Signal input output for LCD for LCD
92	PA6(I/O)	LCD_DB6		
93	PA5(I/O)	LCD_DB5		
94	PA4(I/O)	LCD_DB4		
95	PA3(I/O)	LCD_DB3		
96	PA2(I/O)	LCD_DB2		
97	PA1(I/O)	LCD_DB1		
98	PA0(I/O)	LCD_DB0		
99	PC7(I/O)	LCD_E	O	Read-Write start Signal output for LCD
100	PC6(I/O)	LCD_RS	O	Resistor select Signal output for LCD

7.2.2 DISPLAY

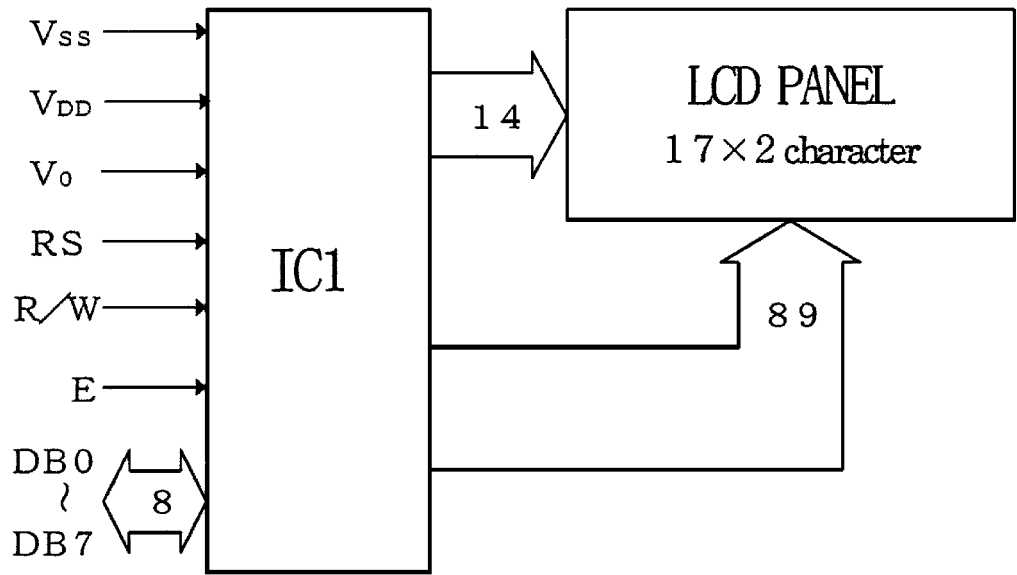
■ 004044100021 (FRONT UNIT : LC700)

• LCD PANEL

• Grid Assignment



• Block Diagram



● PICT Address

DDRAM ADDRESS	40				
CGRAM ADDRESS	CGRAM DATA				
2 1 0 LOWER BIT →	4	3	2	1	0 ← UPPER BIT LOWER BIT →
0 0 0					
0 0 1		^③ 	^② 	^① 	
0 1 0		DISC 3	DISC 2	DISC 1	
0 1 1		<u>TUNED</u>	<u>MONO</u>	<u>STEREO</u>	
1 0 0		<u>SINGLE</u>	<u>◀ALL▶</u>	<u>RANDOM</u>	
1 0 1	<u>MONO LP</u>	<u>REPEAT</u>	<u>PROGRAM</u>		
1 1 0	<u>A-MARK</u>	<u>REC</u>		<u>SLEEP</u>	

● Interface Pin Connection

Pin No.	Symbol	Function	Level
1	VSS	Power supply (GND)	
2	VDD	Power supply for logic (+5V)	
3	Vo	Power supply for LCD	
4	RS	Signal to select the register • H : Data register (R/W=L, R/W=H) • L : Instruction register (R/W=L) Busy flag, address counter (R/W=H)	H/L
5	R/W	Signal to select between reading and writing • H : Reading (MPU←Module) • L : Writing (MPU→Module)	H/L
6	E	Enable Signal	H, H→L
7	DB0	Data bus Note) In case of 4 bit interface data, data are transferred by using only 4 buses of DB4~DB7. DB0~DB3 are not used. Data transfer is completed after 4 bit data are transferred twice. Data of the higher order 4 bits (the contents of DB4~DB7 When interface data are 8 bit long) are transferred first, and then the lower order 4bits (the contents of DB0~DB3 When interface data are 8 bit long) are transferred.	H/L
8	DB1		H/L
9	DB2		H/L
10	DB3		H/L
11	DB4		H/L
12	DB5		H/L
13	DB6		H/L
14	DB7		H/L

※Pin assignment refer to drawing of dimensional outline.

※Recommended connector : Framatome Connector Japan Ltd.

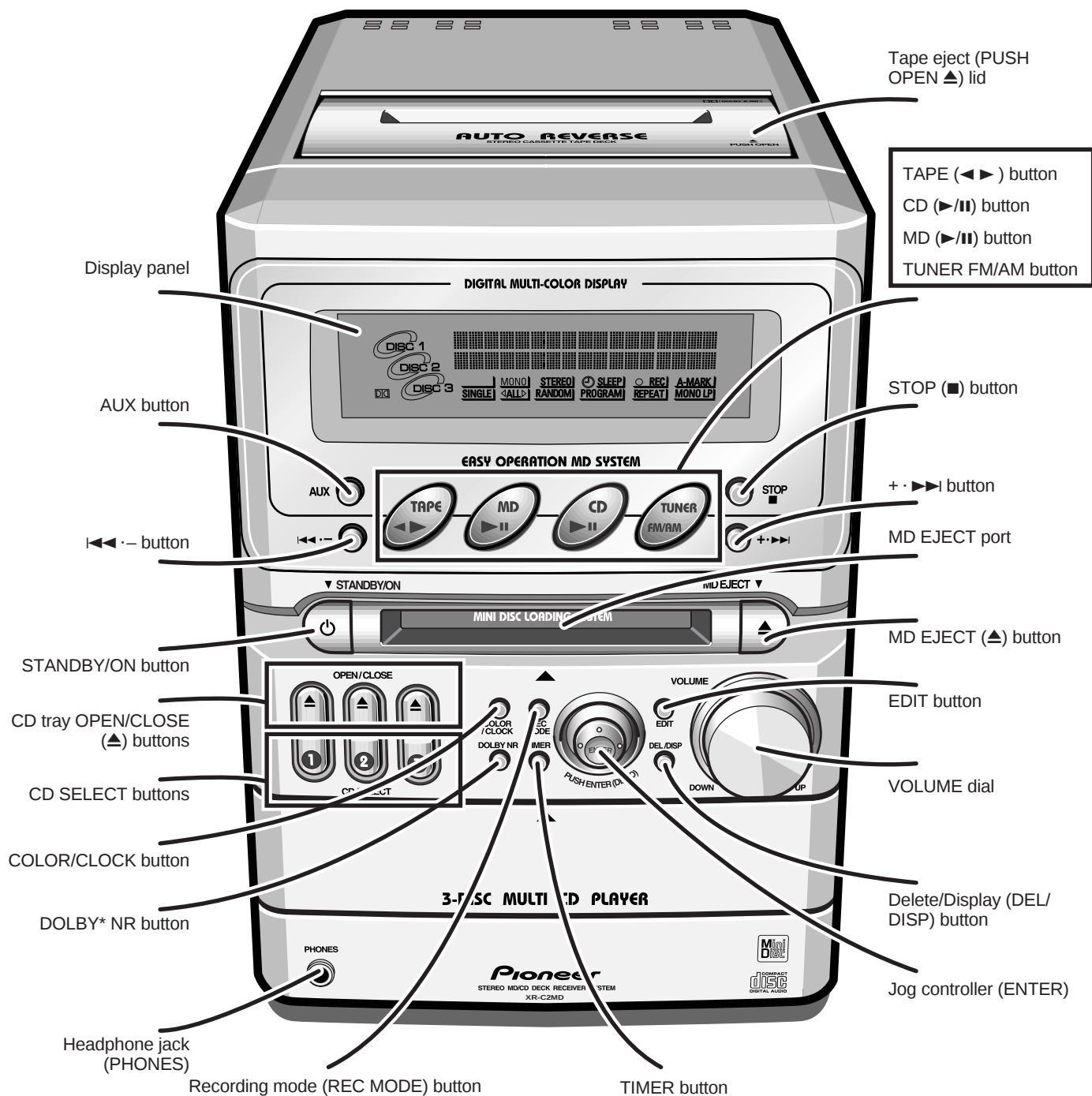
SFW14R-5STE1 (downside contact)

SFW14R-6STE1 (upside contact)

8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

Main Unit



● Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

● "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

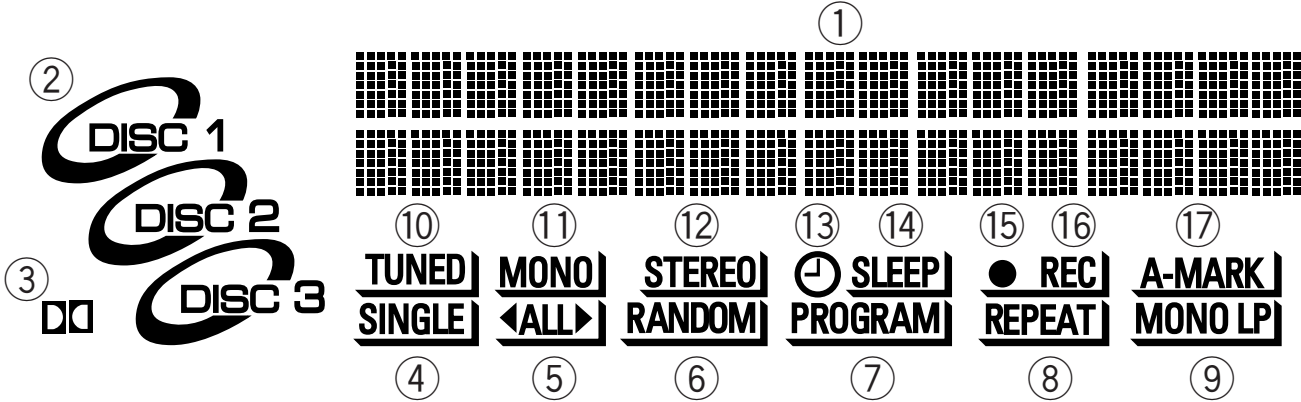
Common Operation Buttons

Function of common operation buttons (the function of each button changes in accordance with the source selected)

BUTTON \ SOURCE	MiniDisc	Tape	Tuner	CD
 	Fast Forward button Track Select button	Fast Forward (Rewind) button Track Select button	Station Select button	Fast Forward button Track Select button
 	Fast Reverse button Track Select button	Rewind (Fast Forward) button Track Select button	Station Select button	Fast Reverse button Track Select button
 	STOP button	STOP button	Auto-Tuning STOP button	STOP button

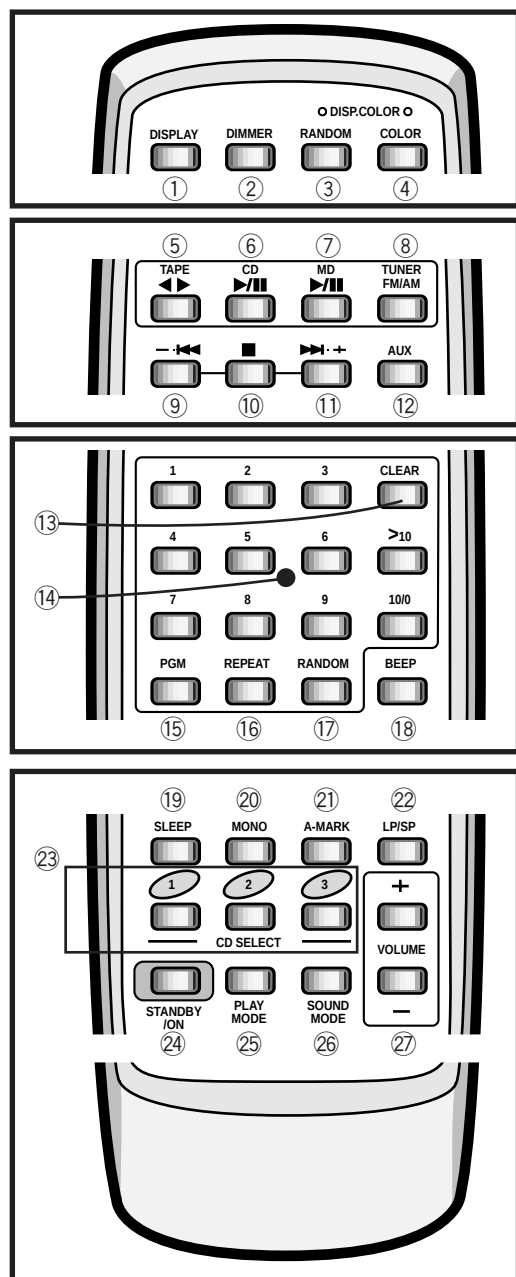
 indicates a button on the main unit;  indicates a button on the remote control unit)

Display Panel



- ① Alphanumeric characters display various information.
- ② Indicates CD status
When a disc is loaded, the disc number lights.
During pause mode: The number of the paused CD flashes.
- ③ Lights when Dolby NR is selected.
- ④ Lights during CD single disc play (SINGLE) mode.
- ⑤ Lights during CD all disc play (ALL) mode.
- ⑥ Lights during random play mode.
- ⑦ Lights when setting programmed contents, and during programmed playback.
- ⑧ Flashes during 1-track repeat playback, and lights during all-track repeat playback.
- ⑨ Lights when MiniDisc monaural (long play) recording mode is selected.
- ⑩ Lights during AM/FM reception.
- ⑪ Lights when remote control unit's MONO button is pressed.
- ⑫ Lights during reception of stereo broadcast.
- ⑬ Lights when wakeup timer is set.
Flashes when wakeup timer operates.
- ⑭ Lights when sleep timer is set.
- ⑮ Lights when recording timer is set.
Flashes when recording timer operates.
- ⑯ Lights during recording.
- ⑰ Lights when Auto Mark is set.

Remote Control Unit



Display Operation Buttons

- ① DISPLAY button Change display contents for CD and MiniDisc.
- ② DIMMER button Change brightness of display.
- ③ RANDOM COLOR button Change color of display in random order.
- ④ COLOR button Change color of display.

Function Select Buttons

- ⑤ TAPE (◀▶) button Play cassette tape or change play direction.
- ⑥ CD (▶/||) button Play CD or pause playback.
- ⑦ MD (▶/||) button Play MiniDisc or pause playback.
- ⑧ TUNER FM/AM button Play radio broadcast or change reception band.
- ⑨ -◀▶ button
- ⑩ Stop (■) button
- ⑪ ▶▶+ button
- ⑫ AUX button Select external auxiliary component.

Source Operation Buttons

- ⑬ CLEAR button Erase program play contents
- ⑭ Number buttons Select tracks and input programming information.
- ⑮ PGM (program) button For program playback.
- ⑯ REPEAT button For repeat playback.
- ⑰ RANDOM button For random playback.
- ⑱ BEEP button Set operation sound ON/OFF.
- ⑲ SLEEP button Set/cancel sleep timer.
- ⑳ MONO button Set FM broadcast to stereo/monaural.
- ㉑ A-MARK (Auto Mark) button . Set Auto Mark function ON/OFF.
- ㉒ LP/SP button Set MiniDisc recording mode.
- ㉓ CD SELECT buttons Use to select one of 3 CDs for playback.
- ㉔ STANDBY/ON button Turn power STANDBY/ON.
- ㉕ PLAY MODE button Select play mode for CD, cassette tape.
- ㉖ SOUND MODE button Adjust tone.
- ㉗ VOLUME buttons Adjust volume.

8.2 SPECIFICATIONS

■ Receiver Section

Amplifier

Continuous Power Output (RMS)

1 kHz, 10%, 6 Ω 15 W + 15 W

FM Tuner

Reception frequency 87.5 - 108 MHz

Antenna 75 Ω unbalanced type

AM Tuner

Reception frequency

..... 531 kHz - 1,602 kHz (9 kHz step)

..... 530 kHz - 1,700 kHz (10 kHz step)

Antenna Loop antenna (furnished accessory)

■ Compact Disc Player

Type Compact Disc audio system

Usable discs Compact Discs

Channels 2 (stereo)

■ Cassette Tape Deck

Track type 4-track, 2-channel stereo

Recording/playback heads 1

Erase head 1

S/N ratio 50 dB

(Peak recording level, audio compensation)

With DOLBY B Type Noise Reduction 10 dB

improvement at 5 kHz

■ MiniDisc Deck

Recording method .. Magnetic-field modulation overwrite

type

Playback method Non-contact optical

Sampling frequency 44.1 kHz

Frequency response 20 Hz - 20 kHz

■ Power Section, Misc.

Power requirements

TAIWAN model AC 110 V, 60 Hz

Hongkong model AC 220 V, 50 Hz

Power consumption

TAIWAN model 100 W

Hongkong model 50 W

Standby power consumption 3 W

External dimensions 160 (W) $\times$ 237 (H) $\times$ 350 (D) mm

Weight (main unit) 6.5 kg

■ Speakers

Type Bass-reflex shelf speakers

Speaker elements (2-way type)

Woofer 10 cm cone type

Tweeter 2 cm piezoelectric type

Nominal impedance 6 Ω

Frequency range 55 - 20,000 Hz

Maximum input 20 W (EIAJ)

External dimensions 130 (W) $\times$ 234 (H) $\times$ 226 (D) mm

Weight 1.9 kg

■ Accessories

Operating Instructions 1

FM T-type antenna 1

AM loop antenna 1

Remote control unit 1

AA batteries (R6P) 2

● Specifications and appearance are subject to change without notice.

■ Accessories

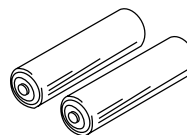
- Remote control unit (CU-XR043/0088041001)



- AM loop antenna (illustration shows assembled unit) (004690500013)



- AA/R6P batteries



- FM T-type antenna (004783500013)

