

Service Manual

Pioneer

ORDER NO.
RRV2171

MINI DISC RECORDER

MJ-HX55

MJ-HX33

MJ-HX77

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

Type	Model No.			Power Requirement	Remarks
	MJ-HX55	MJ-HX33	MJ-HX77		
ZLXCN	○	○	○	DC power supplied from other system component	

- This service manual should be used together with the following manual(s):

Model No.	Order No.	Remarks
MJ-HX700/ZVYXCN	RRV2134	

- These products are component of systems.
- This product does not operate normally by itself. Please connect it to the CD RECEIVER SYSTEM, for adjustment and operation inspection. Otherwise damage may result.

● System Component Table

Component	Model No.			Remarks
	X-HX55	X-HX33	X-HX77	
CD RECEIVER AMPLIFIER	XC-HX55	XC-HX33	XC-HX77	
SPEAKER SYSTEM(L ch, R ch)	S-HX55-LR	S-HX33-L, -R	S-HX77-LR	
MD RECORDER	MJ-HX55	MJ-HX33	MJ-HX77	This manual

■ CONTRAST OF MISCELLANEOUS PARTS

- NOTES :
- Parts marked by “ NSP ” are generally unavailable because they are not in our Master Spare Parts List.
 - The $\triangle$ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
 - Screw adjacent to ▼ mark on the product are used for disassembly.
 - Reference Nos. indicate the pages and Nos. in the service manual for the base model.

■ CONTRAST TABLE

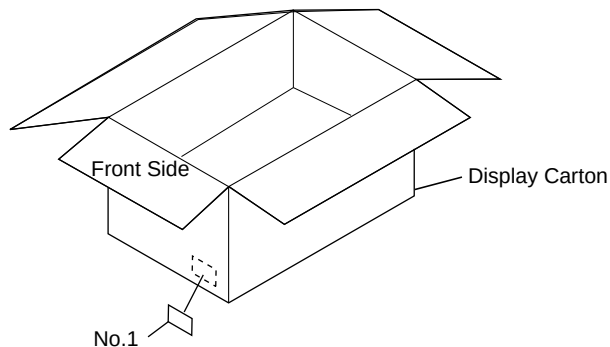
MJ-HX55/ZLXC�, MJ-HX33/ZLXC�, MJ-HX77/ZLXC� and MJ-HX700/ZVYXC� are constructed the same except for the following :

Ref. No.	Mark	Symbol and Description	Part No.				Remarks
			MJ-HX700	MJ-HX55	MJ-HX33	MJ-HX77	
			/ZVYXC�	/ZLXC�	/ZLXC�	/ZLXC�	
P3-3		PACKING					
P3-6		Display Carton	66679-70	66679-55L	66679-33L	66679-77L	
		Sound Scape MD	AFB7011	AFB7005	AFB7003	AFB7011	
		POS Code Seal	66668-M70	66668-M55	66668-M33	66668-M77	No.1
		EXTERIOR					
P5-1	NSP	Front Cover (A)	66714-K7M	66714-05M	Not used	66714-K7M	
		Front Cover (B)	Not used	Not used	66715-03M	Not used	
P5-2	NSP	Front Door (A)	66708-K7M	66708-05M	Not used	66708-K7M	
		Front Door (B)	Not used	Not used	66709-03M	Not used	
P5-3		Button B (MD)	66717-K7M	66717-05M	66717-03M	66717-K7M	
P5-10		MD Front Case	66702-K7	66702-05	66702-03	66702-K7	
P5-11		Button D (REC)	66719-K7R	66719-05R	66719-03R	66719-K7R	
P5-19		Eject Button	66721-K7	66721-05	66721-03	66721-K7	
P5-20		Button C (MD EDIT)	66718-K7ME	66718-05ME	66718-03ME	66718-K7ME	
P5-24		Inner Panel (MD)	66711-K7M	66711-05M	66711-03M	66711-K7M	
P5-36		Leg Rubber (A)	66758-01	66758-01	Not used	66758-01	
		Leg Rubber (B)	Not used	Not used	66759-02	Not used	
P5-37		Foot (A)	66722-K7	66722-05	Not used	66722-K7	
		Foot (B)	Not used	Not used	66723-03	Not used	
P5-38		MD Rear Case	66704-K7	66704-05	66704-03	66704-K7	
P5-46		Back Plate (MD)	66762-70	66762-MJ55	66762-MJ33	66762-MJ77	
P5-47		Front Door A Assy (MD)	10000-K7M	10000-05M	Not used	10000-K7M	
		Front Door B Assy (MD)	Not used	Not used	10100-03M	Not used	

Note : • The numbers in the remarks column correspond to the numbers on the exploded diagram. Refer to “EXPLDED VIEWS”

■ EXPLDED VIEWS

● PACKING SECTION



Service Manual

Pioneer



ORDER NO.
RRV2134

MINI DISC RECORDER

MJ-HX5000

MJ-HX3000

MJ-HX2000

MJ-HX700

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

Type	Model				Power Requirement	Remarks
	MJ-HX5000	MJ-HX3000	MJ-HX2000	MJ-HX700		
ZUCXCN	○	○	○	—	DC power supplied from other system component	
ZUCXCN1	○	○	○	—	DC power supplied from other system component	
ZVYXCN	—	—	—	○	DC power supplied from other system component	

- ZUCXCN type and ZUCXCN1 type are constructed the same.
- These products are component of systems.
- This product does not operate normally by itself. Please connect it to the CD RECEIVER SYSTEM, for adjustment and operation inspection. Otherwise damage may result.

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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

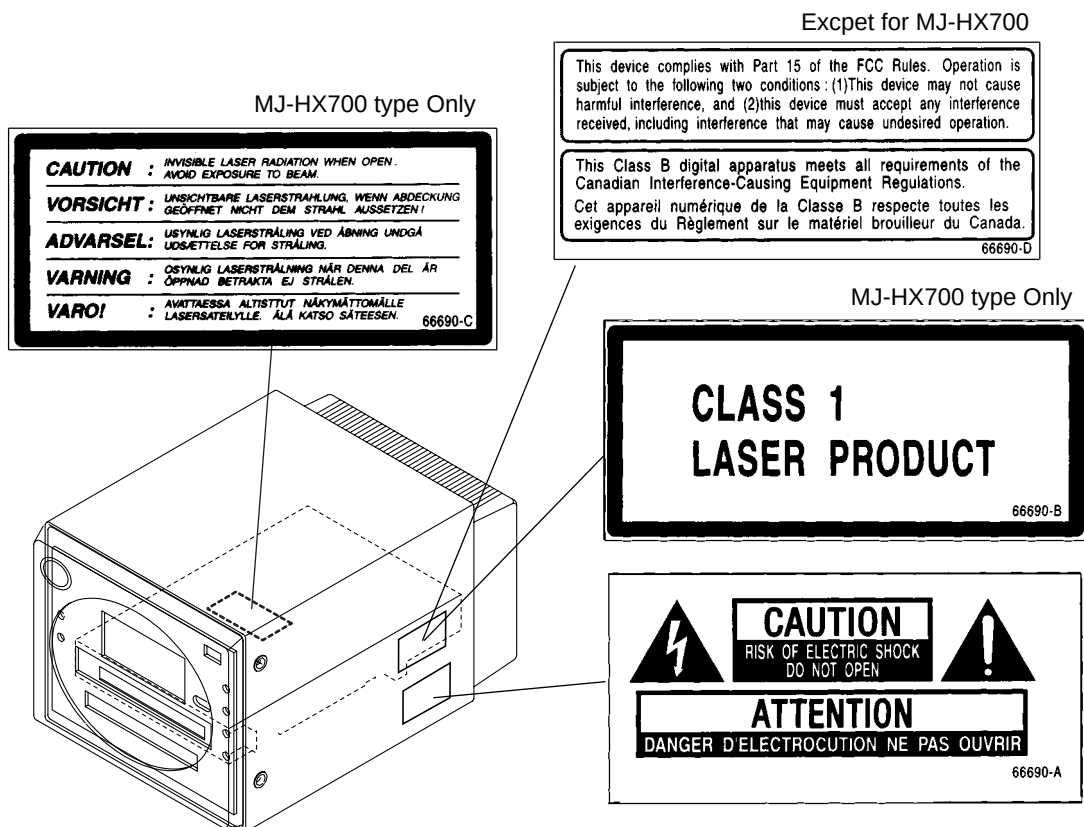
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

— 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

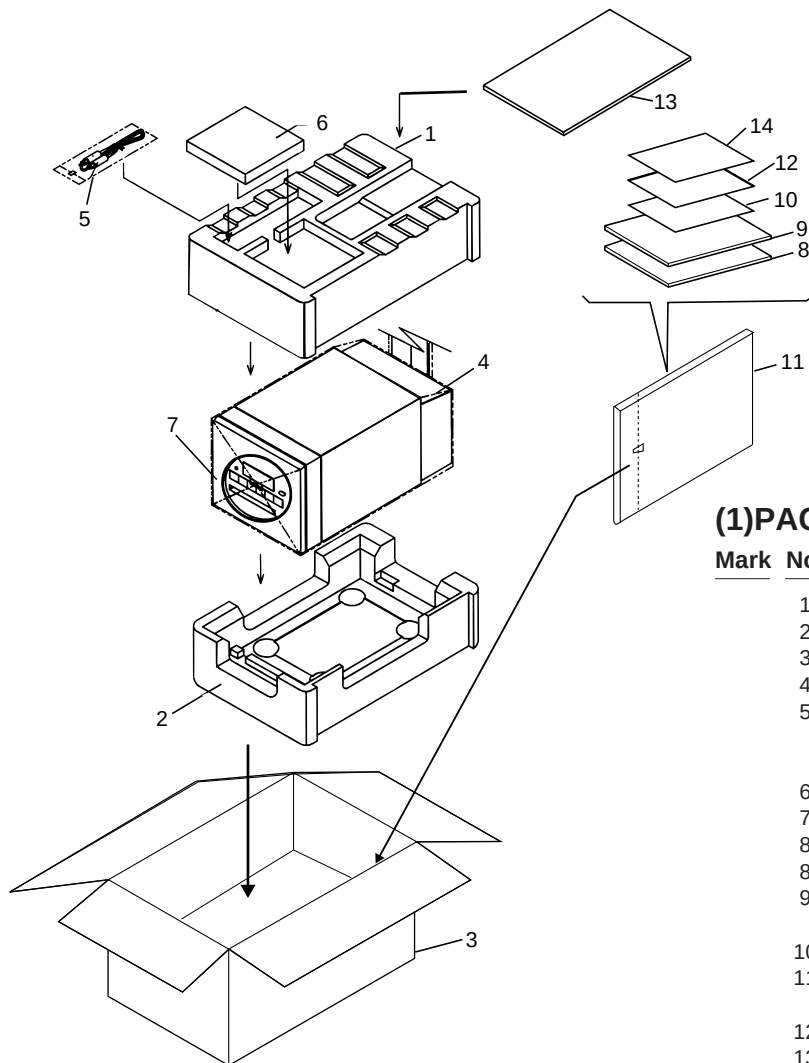
LABEL CHECK



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.
 ● Screw adjacent to ▼ mark on the product are used for disassembly.

2.1 PACKING



(1)PACKING PARTS LIST

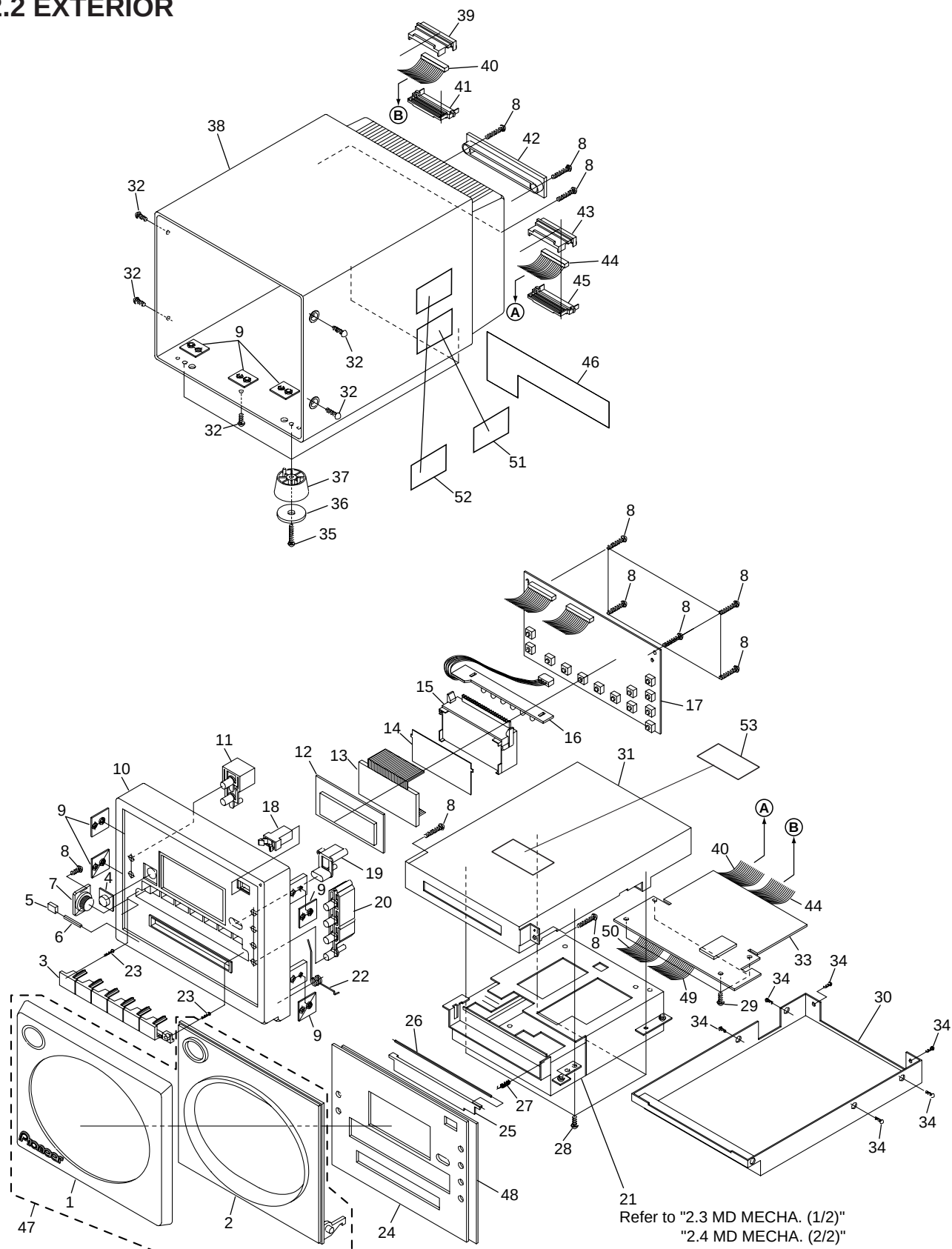
Mark	No.	Description	Parts No.
	1	Polyfoam (TOP)	66680
	2	Polyfoam (BOTTOM)	66681
	3	Display Carton	See Contrast table (2)
	4	Mirormat Mat(380x300x0.5)	66694
	5	Exclusive use CD-MD Cable (L=1.0 m)	60233
	6	Sound Scape MD	AFB7011-A
	7	MD RECORDER	See Contrast table (2)
	8	Operating Instructions (English)	66780-MDU
	8	Operating Instructions (French)	66780-MDF
	9	Operating Instructions	See Contrast table (2)
	10	Guarantee Card	See Contrast table (2)
	11	Polyethylene Bag (0.03 × 200 × 300)	53117
	12	Initial Instruction Manual	66783
	13	Carton Sheet C	66669
	14	Safety Directions	See Contrast table (2)

(2) CONTRAST TABLE

MJ-HX5000, MJ-HX3000, MJ-HX2000 and MJ-HX700 are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.				Remarks
			MJ-HX5000	MJ-HX3000	MJ-HX2000	MJ-HX700	
NSP	3	Display Carton	66679-50U	66679-30U	66679-20U	66679-70	
	7	MD RECORDER	MJ-HX5000 /ZUCXCN	MJ-HX3000 /ZUCXCN	MJ-HX2000 /ZUCXCN	MJ-HX700 /ZVYXCN	
	9	Operating Instructions (German)	Not used	Not used	Not used	66780-MDG	
	10	Guarantee Card	66688-U	66688-U	66688-U	66688-Y/N	
	14	Safety Directions	66784-50U	66784-30U	66784-20U	66784-70V	

2.2 EXTERIOR



MJ-HX5000, MJ-HX3000, MJ-HX2000, MJ-HX700

(1) EXTERIOR PARTS LIST

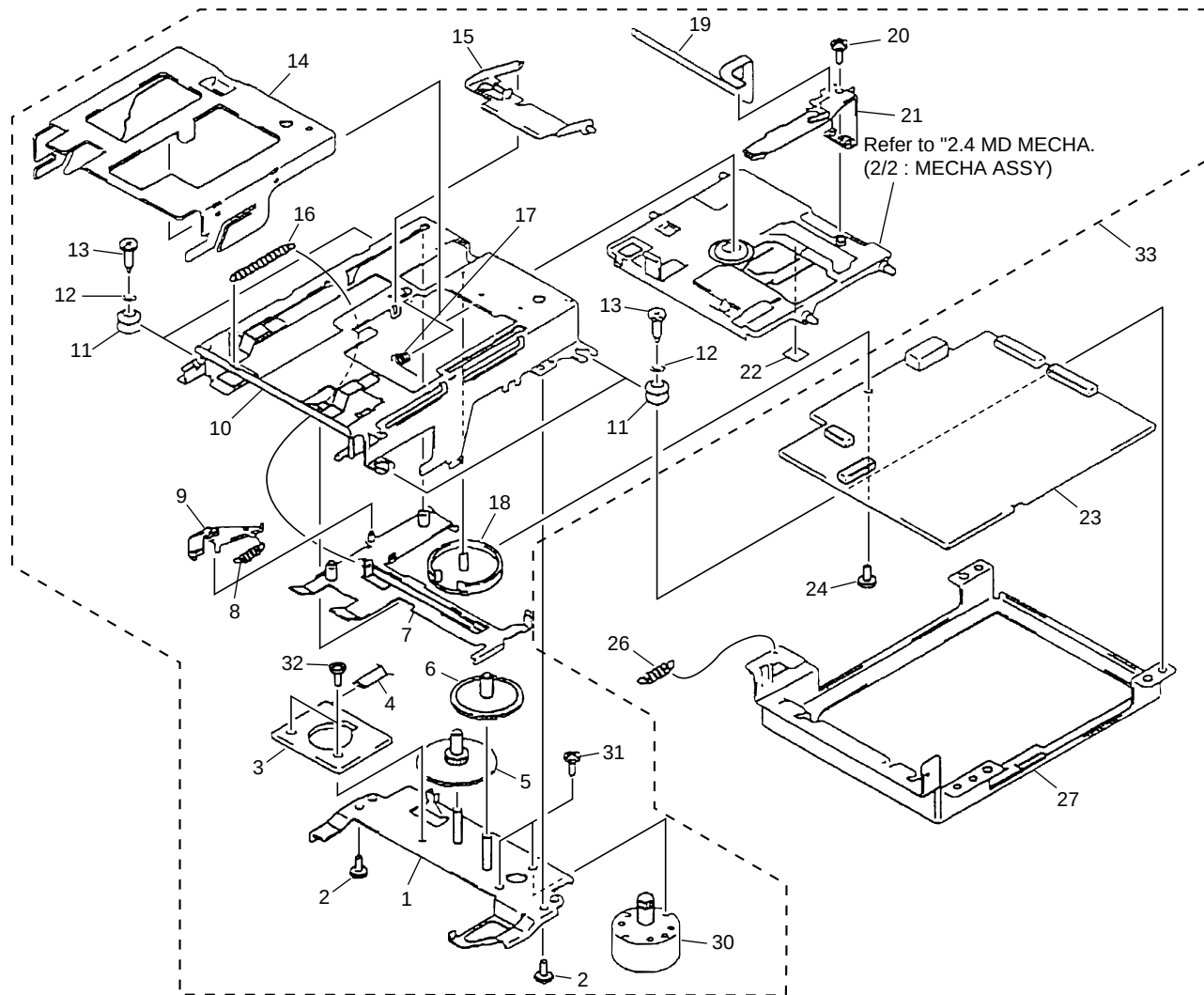
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
NSP	1	Front Cover A, B (MD)	See Contrast table (2)		26	MD Door Shaft	66750
NSP	2	Front Door A, B (MD)	See Contrast table (2)		27	MD Door Spring	66751
	3	Button B (MD)	See Contrast table (2)		28	Screw PAN M3x6	PMZ30P060FZK
	4	Lens	66734-MD		29	Screw BIND TAPP. M3x6	BMZ30P060FZK
	5	Cushion A	66795		30	Shield Case (Bottom)	66739
	6	Door Shaft A	66746		31	Shield Case (Up)	66738
	7	Dumper Gear	60227		32	Screw PLAT M3x6	CMZ30P060FNI
	8	Screw PAN TAPP. T3x10	PMZ30P100FNI		33	MD COMBI PCB Assy (AD/DA PCB)	66785B
	9	Plate Nut	66741		34	Screw PAN M2x4	PMZ20P040FZK
	10	MD Front Case	See Contrast table (2)		35	Screw PAN M3x10	PBZ30P100FMC
	11	Button D (REC)	See Contrast table (2)		36	Leg Rubber (A, B)	See Contrast table (2)
	12	LCD Window	66735		37	Foot (A, B)	See Contrast table (2)
	13	LCD Assy	52715		38	MD Rear Case	See Contrast table (2)
	14	LCD Sheet	66756		39	12P Connector Holder A	66728
	15	LCD Holder	66727	NSP	40	12P Connector Assy	66763
	16	MD COMBI PCB Assy (LED PCB)	66785C		41	12P Connector Holder B	66729
	17	MD COMBI PCB Assy (FRONT PCB)	66785A		42	Wire Clamper	66726
	18	Push Door Lock	60226		43	10P Connector Holder A	66730
	19	Eject Button	See Contrast table (2)	NSP	44	10P Connector Assy	66778
	20	Button C (MD EDIT)	See Contrast table (2)		45	10P Connector Holder B	66731
	21	MD Mechanism Assy	61416		46	Back Plate (MD)	See Contrast table (2)
	22	Front Door Spring	66748		47	Front Door Assy A,B (MD)	See Contrast table (2)
	23	Screw PAN TAPP. T2x8	PBZ20P080FMC		48	Panel Tape B	66761
	24	Inner Panel (MD)	See Contrast table (2)		49	16P FFC (SUMI Card)	66775
	25	MD Door	66732		50	19P FFC (SUMI Card)	66776
					51	Label Plate (CAUTION)	66690I
					52	Label Plate	See Contrast table (2)
					53	Label Plate (MD Caution A)	See Contrast table (2)

(2) CONTRAST TABLE

MJ-HX5000, MJ-HX3000, MJ-HX2000 and MJ-HX700 are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.				Remarks
			MJ-HX5000	MJ-HX3000	MJ-HX2000	MJ-HX700	
NSP	1	Front Cover (A, B)	66714-05M	66715-03M	66714-02M	66714-K7M	
NSP	2	Front Door (A, B)	66708-05M	66709-03M	66708-02M	66708-K7M	
	3	Button B (MD)	66717-05M	66717-03M	66717-02M	66717-K7M	
	10	MD Front Case	66702-05	66702-03	66702-02	66702-K7	
	11	Button D (REC)	66719-05R	66719-03R	66719-02R	66719-K7R	
	19	Eject Button	66721-05	66721-03	66721-02	66721-K7	
	20	Button C (MD EDIT)	66718-05ME	66718-03ME	66718-02ME	66718-K7ME	
	24	Inner Panel (MD)	66711-05M	66711-03M	66711-02M	66711-K7M	
	36	Leg Rubber (A, B)	66758-01	66758-02	66758-02	66758-01	
	37	Foot (A, B)	66722-05	66723-03	66723-02	66722-K7	
	38	MD Rear Case	66704-05	66704-03	66704-02	66704-K7	
	46	Back Plate (MD)	66762-50U	66762-30U	66762-20U	66762-70	
	47	Front Door Assy (MD)	10000-05M	10000-03M	10000-02M	10000-K7M	
	52	Label Plate	66690B	66690B	66690B	66690E	
	53	Label Plate (MD Caution A)	Not used	Not used	Not used	66690A	

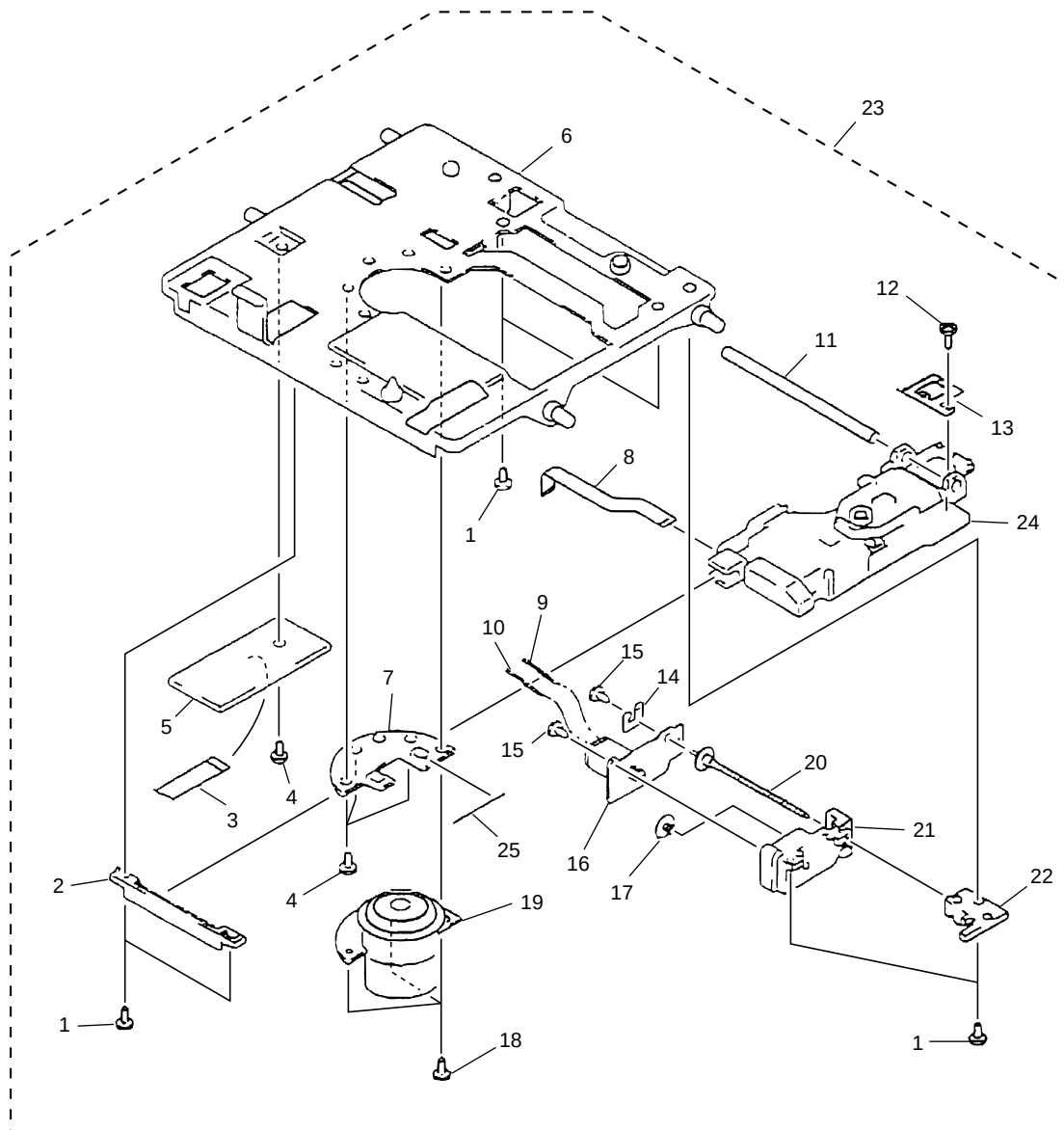
2.3 MD MECHA. (1/2 : LOADING ASSY)



● MD MECHA. (1/2:LOADING ASSY) PARTS LIST

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Motor Plate Assy	X-2646-247-1		18	Mode Cam	2-646-560-01
	2	Screw +P2.6x4.5 TYPE3	7-627-854-28		19	Head F.Wire Connection	1-669-181-11
	3	L-SW Wire Connection Board	1-668-261-11		20	Screw +P1.7x2.5TYPE2	2-627-529-01
	4	Connector Wire (6P)	1-783-386-11		21	MD Head	1-500-518-12
	5	Gear (AW B)	2-646-555-02		22	Sheet	2-646-549-02
	6	Gear (AW A)	2-646-554-01		23	MD MOUNT ASSY	A-4917-020-A
	7	Slot Frame Assy	X-2646-249-2		24	Screw	2-643-228-01
	8	Lifter Spring (Slot Arm)	2-646-563-01		25		
	9	Slot Arm	2-646-556-01		26	Lifter Spring (Door Arm)	2-646-545-01
	10	Load Frame Assy	X-2646-248-2		27	Main Frame	2-646-547-02
	11	Insulator	2-646-548-01		28		
	12	W2.6,MIDDLE	7-688-002-11		29		
	13	Screw	4-628-167-01		30	Loading Motor Assy	X-2626-328-1
	14	Slid Frame	2-646-557-01		31	Screw +P1.7x1.8TYP.3	7-627-852-38
	15	Head Arm	2-646-559-01		32	Screw +P2x3 TYP.3	7-627-853-37
	16	Lifter Spring (Slot Frame)	2-646-562-01		33	Loading Assy	A-4912-117-A
	17	Coil Spring (Head Arm)	2-646-561-01				

2.4 MD MECHA. (2/2 : MECHA ASSY)

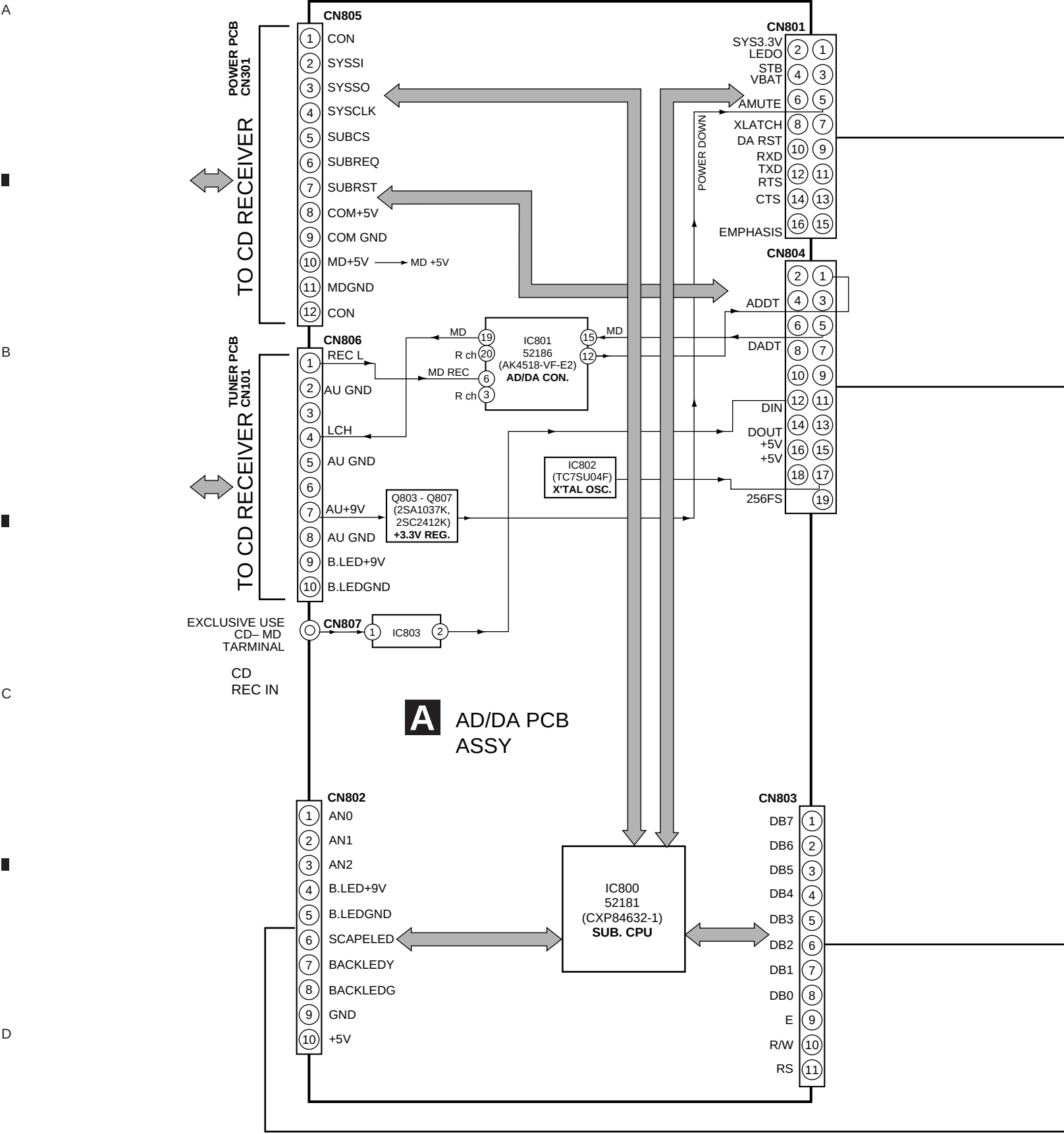


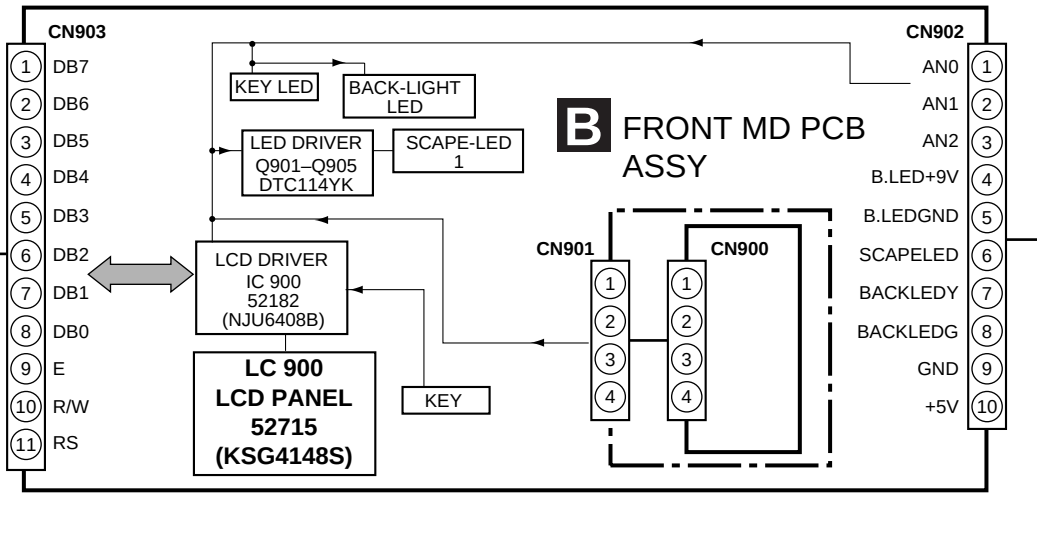
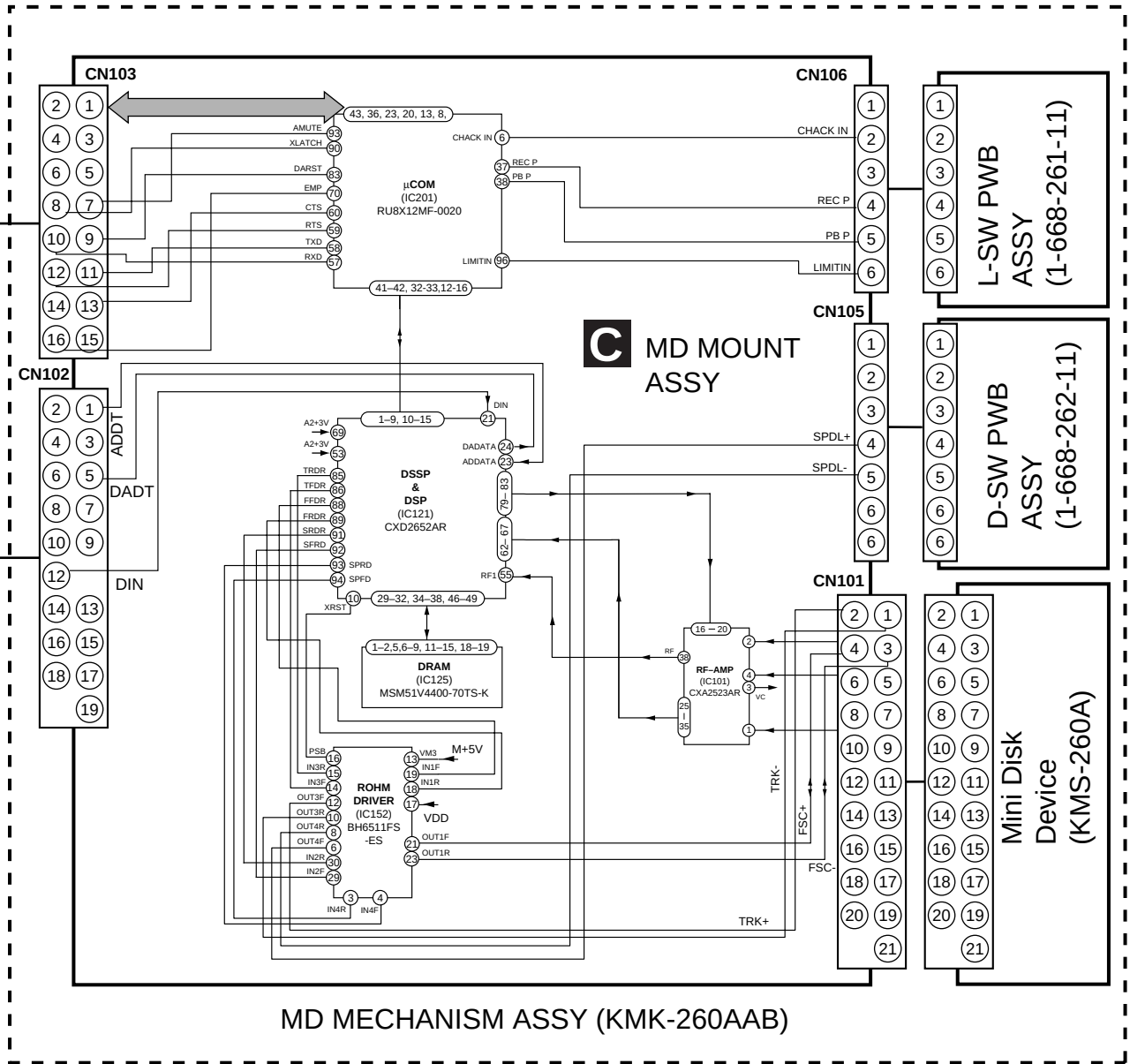
● MD MECHA. (2/2:MECHA ASSY) PARTS LIST

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Screw +P1.4x3.5 TYPE3	2-627-404-01		16	SL Motor Assy	X-2626-329-1
	2	Guide	2-646-453-01		17	Gear (MD)	2-646-571-01
	3	Connecton Wire (7P)	1-783-387-11		18	Screw +P1.7x4 TYPE3	7-627-852-18
	4	Screw +P1.4x1.8TYPE3	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
	6	Servo Base	2-646-575-01		21	Lead Holder Assy	X-2626-331-1
	7	SP Motor Holder	2-646-566-01		22	Lead Holder (B)	2-646-573-01
	8	OP Lead Wire	1-669-180-11		23	Deck Mechanism Assy	A-4912-118-A
	9	SL Motor Lead Wire	1-783-318-11		24	MD MECHANISM ASSY (KMS-260A)	KMS-260A
	10	SL Motor Lead Wire	1-783-318-21		25	SP Tension Spring	2-646-564-01
	11	Guide Shaft	2-646-452-01				
	12	Screw +P1.4x1.4TYPE2	2-627-530-D1				
	13	Rack (Insater)	4-963-914-02				
	14	Pulley Load plate	2-646-567-01				
	15	N0.0 Cross Screw	2-627-431-01				

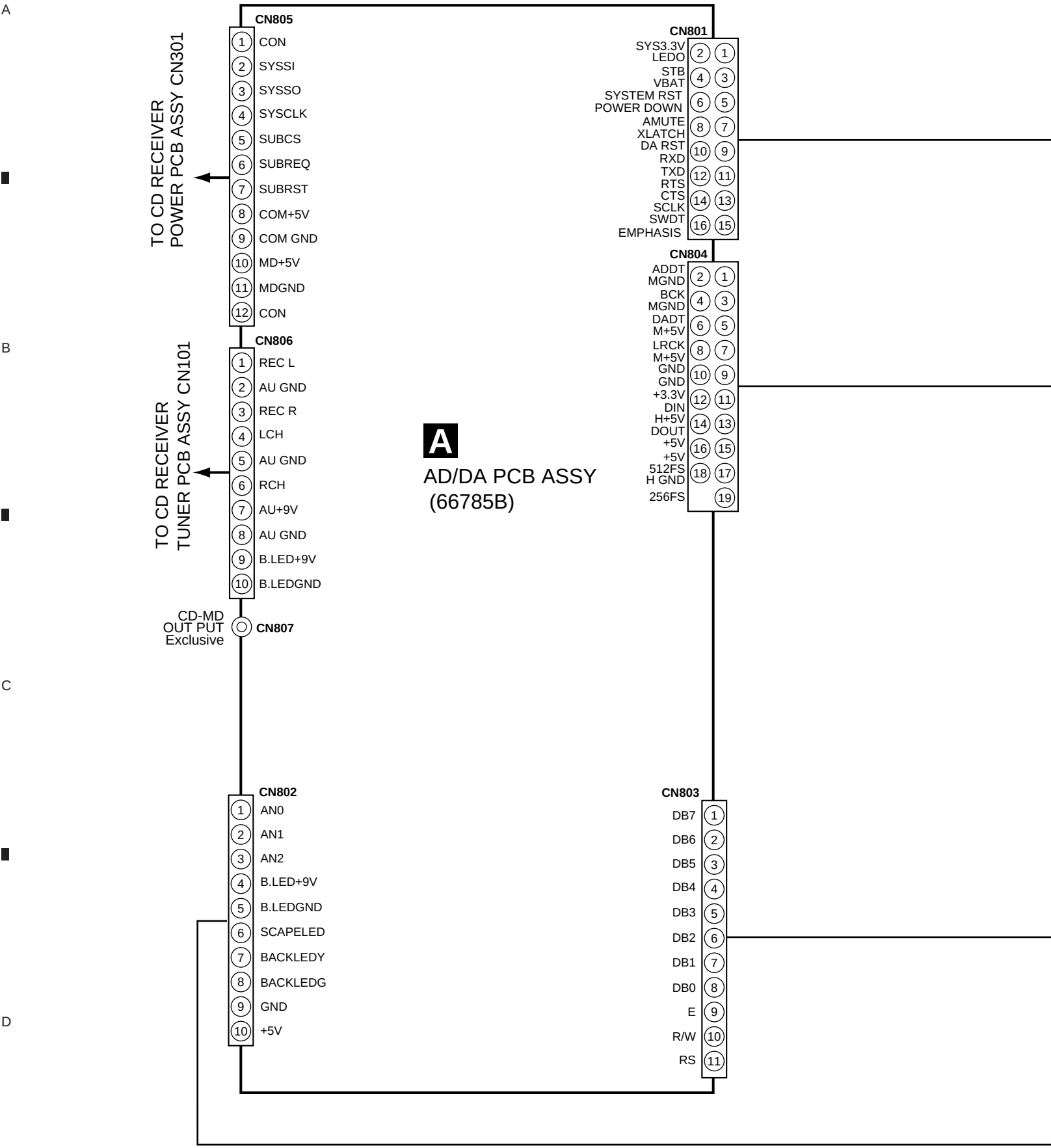
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

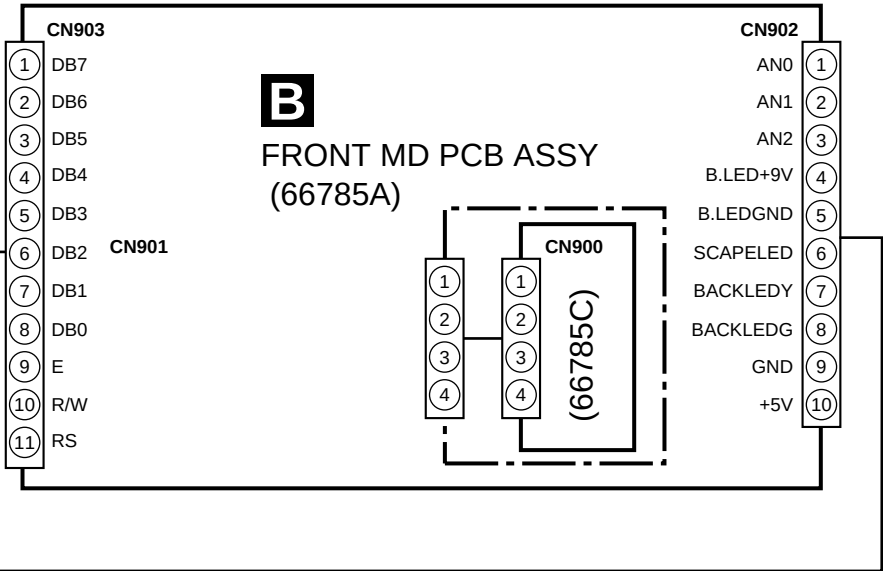
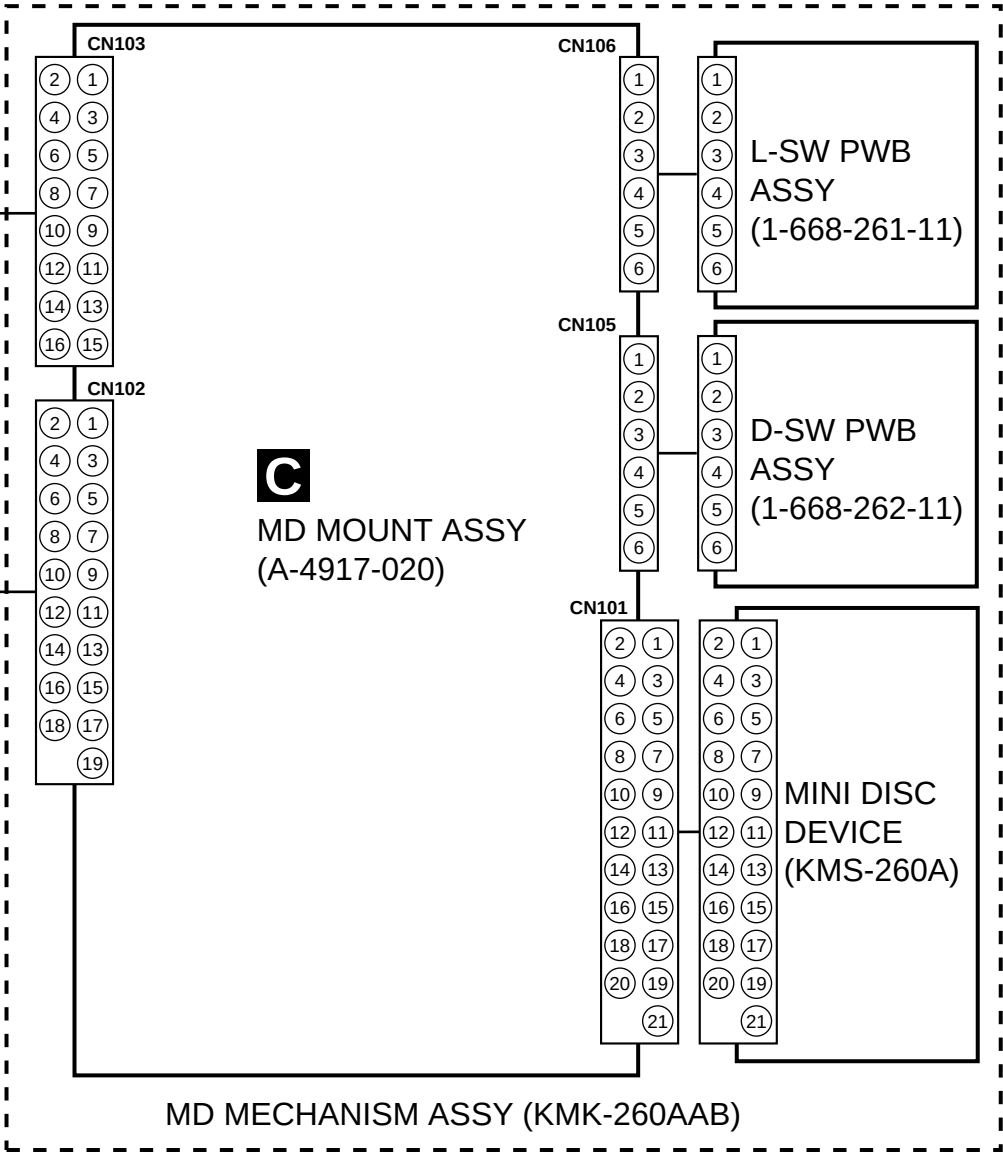




3.2 OVERALL SCHEMATIC DIAGRAM



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



3.3 AD/DA PCB ASSY

A

B

C

D

A AD/DA PCB ASSY

- (MD) : MD AUDIO SIGNAL ROUTE
- (MD REC) : MD REC ANALOG AUDIO SIGNAL ROUTE
- (MD DI) : MD REC FROM CD DIGITAL AUDIO SIGNAL ROUTE

C CN103

VKN1192
CN801
1 +3V
2 LEDO
3 STB
4 VBAT
5 SYSTEM RST
6 POWER DOWN
7 AMUTE
8 XLATCH
9 DA RST
10 RXD
11 TXD
12 CTS
13 SCLK
14 SWDT
15 EMPHASIS
16

B CN902

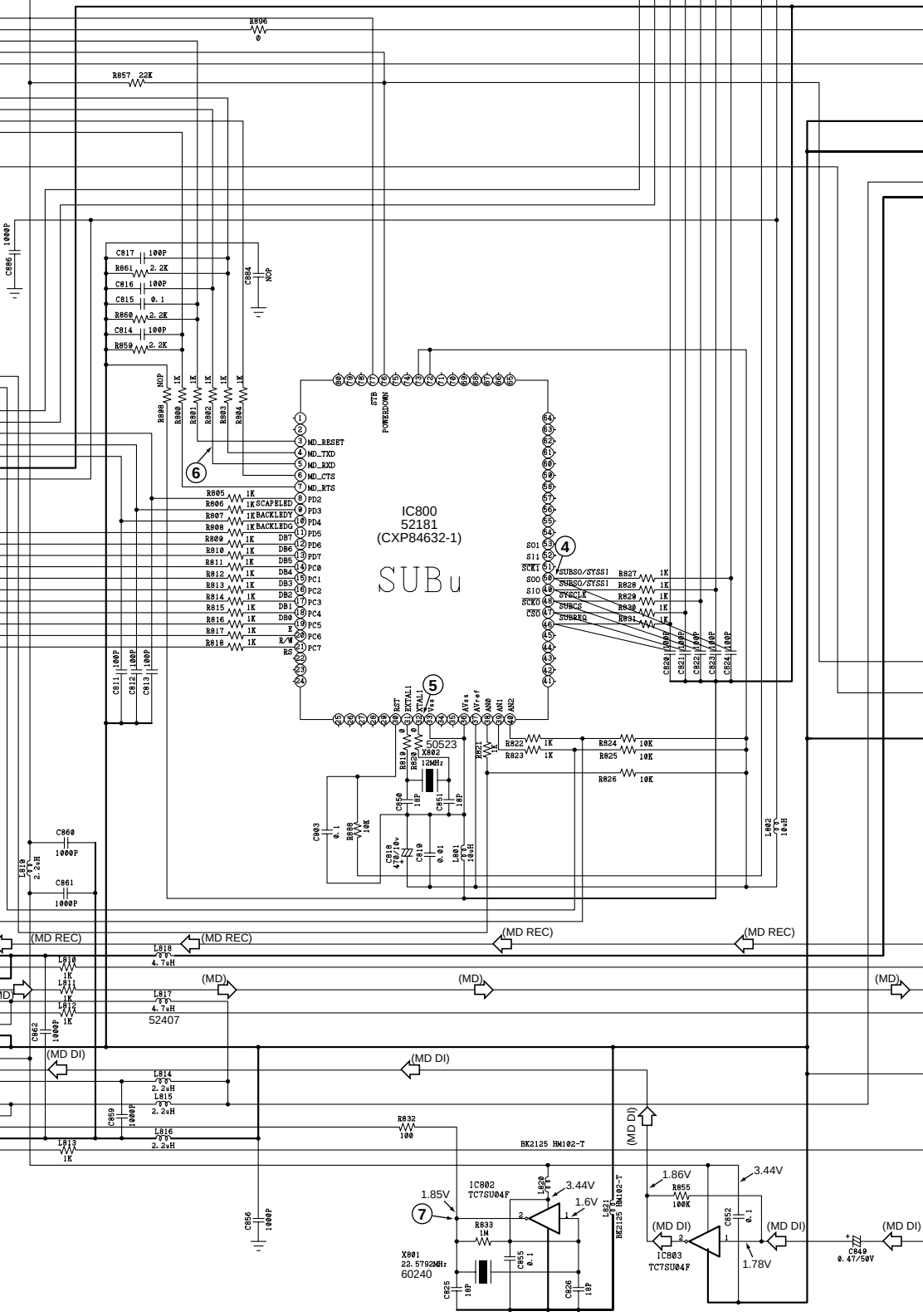
60237
CN802
1 AN0
2 AN1
3 AN2
4 B. LED+5V
5 B. LEDGND
6 SCAPLED
7 BACKLEDY
8 BACKLEDG
9 GND
10 +5V

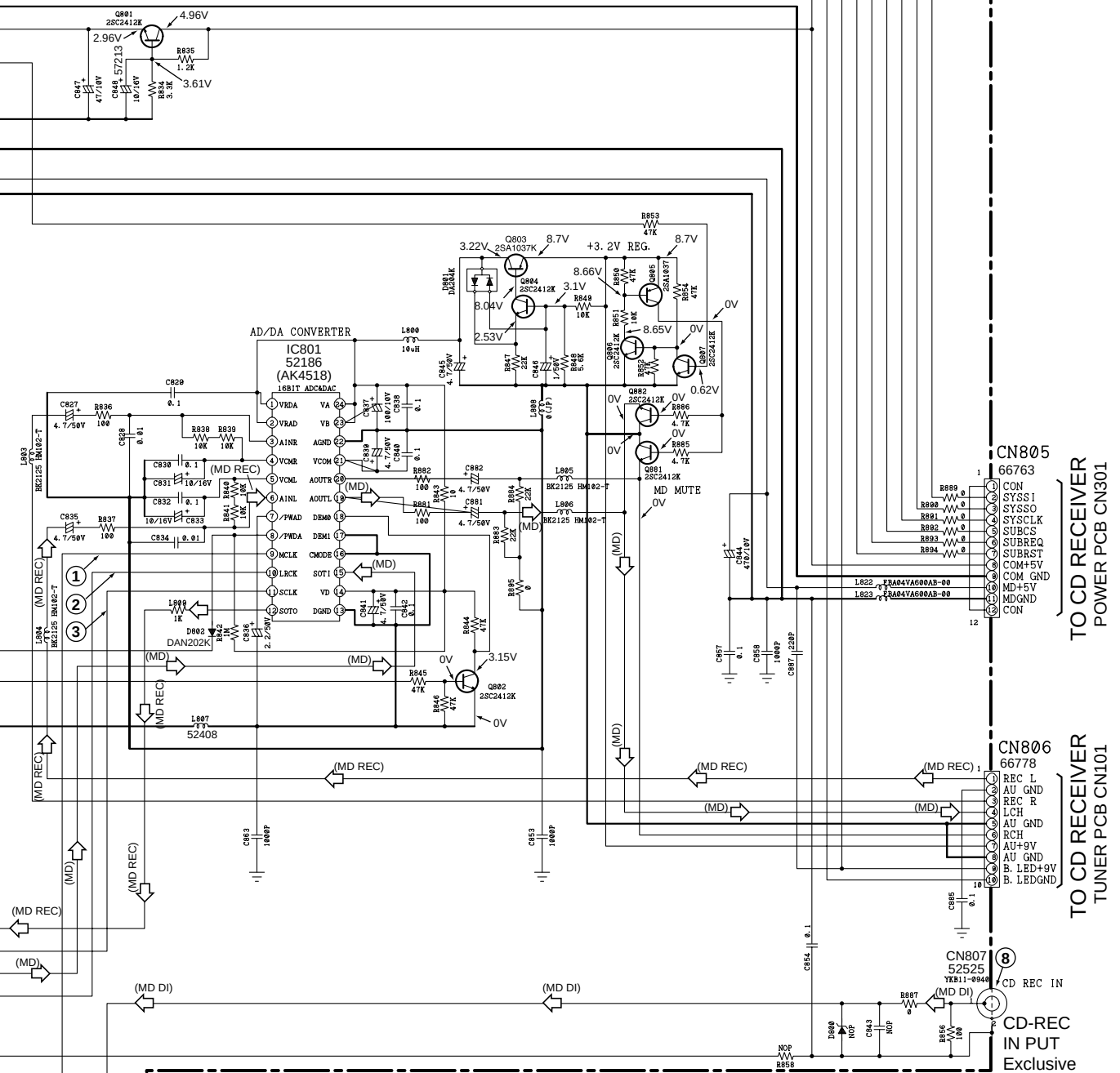
B CN903

60239
CN803
1 DB7
2 DB6
3 DB5
4 DB4
5 DB3
6 DB2
7 DB1
8 DB0
9 R/W
10 RS

C CN102

VKN1195
CN804
1 ADDT
2 MGNB
3 BCK
4 MGNB
5 DADT
6 M+5V
7 LRCK
8 M+5V
9 GND
10
11 +3.3V
12 DIN
13 H+5V
14 DOUT
15 +5V
16
17 512FS
18 H GND
19 256FS

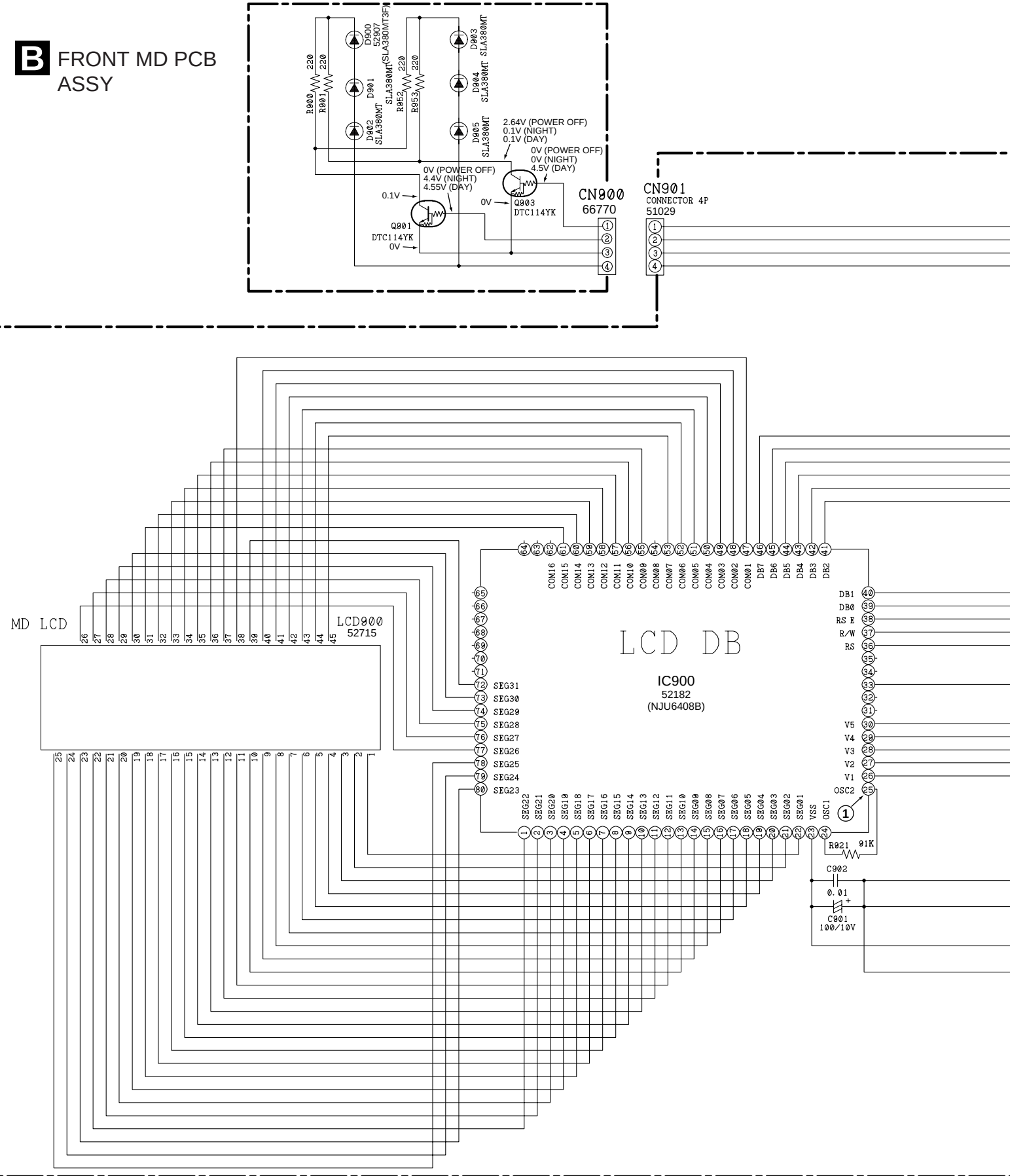




IC801				IC800			
Pin	Voltage (V)	Pin	Voltage (V)	Pin	Voltage (V)	Pin	Voltage (V)
1	3.21	13	0	1	0.07	25	0
2	3.21	14	3.17	2	0.08	26	0
3	1.44	15	0.93	3	0.13	27	0
4	1.44	16	0	4	4.48	28	0
5	1.44	17	0	5	3.4	29	0
6	1.44	18	3.15	6	0	30	4.83
7	2.87	19	1.41	7	0	31	1.63
8	2.87	20	1.41	8	4.78	32	4.96
9	1.75	21	1.44	9	4.82	33	0
10	1.75	22	0	10	4.82	34	2.49
11	1.8	23	3.21	11	0.16	35	0.98
12	0.9	24	3.21	12	0.11	36	0
						37	4.97
						38	4.96
						39	4.96
						40	4.96
						41	0
						42	0
						43	0
						44	0
						45	0
						46	4.97
						47	0
						48	0
						49	4.95
						50	4.96
						51	0
						52	0
						53	0
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						70	0
						71	0
						72	-
						73	-
						74	0
						75	0
						76	-
						77	0
						78	0
						79	0
						80	0

3.4 FRONT MD PCB ASSY

B FRONT MD PCB ASSY

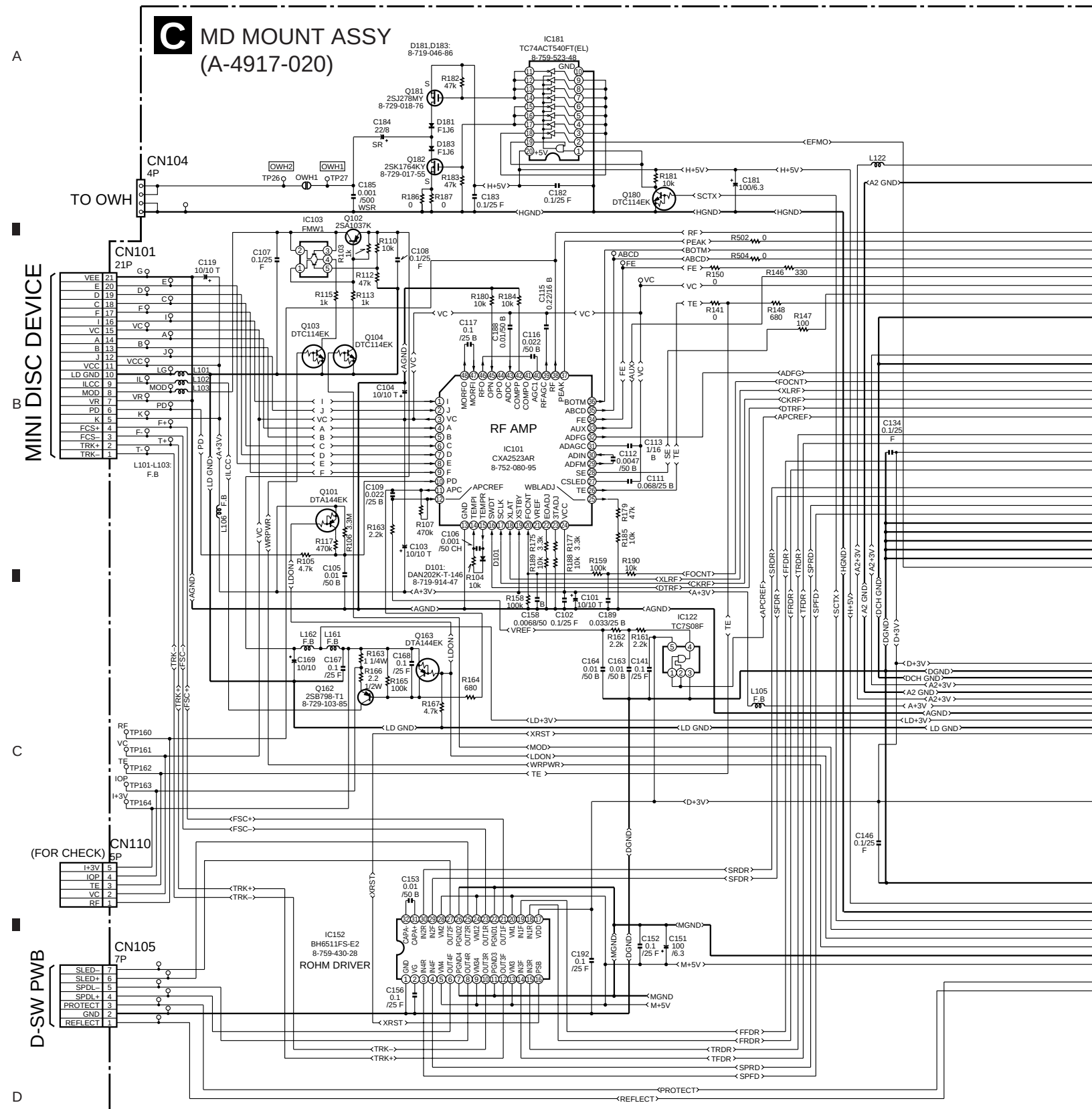


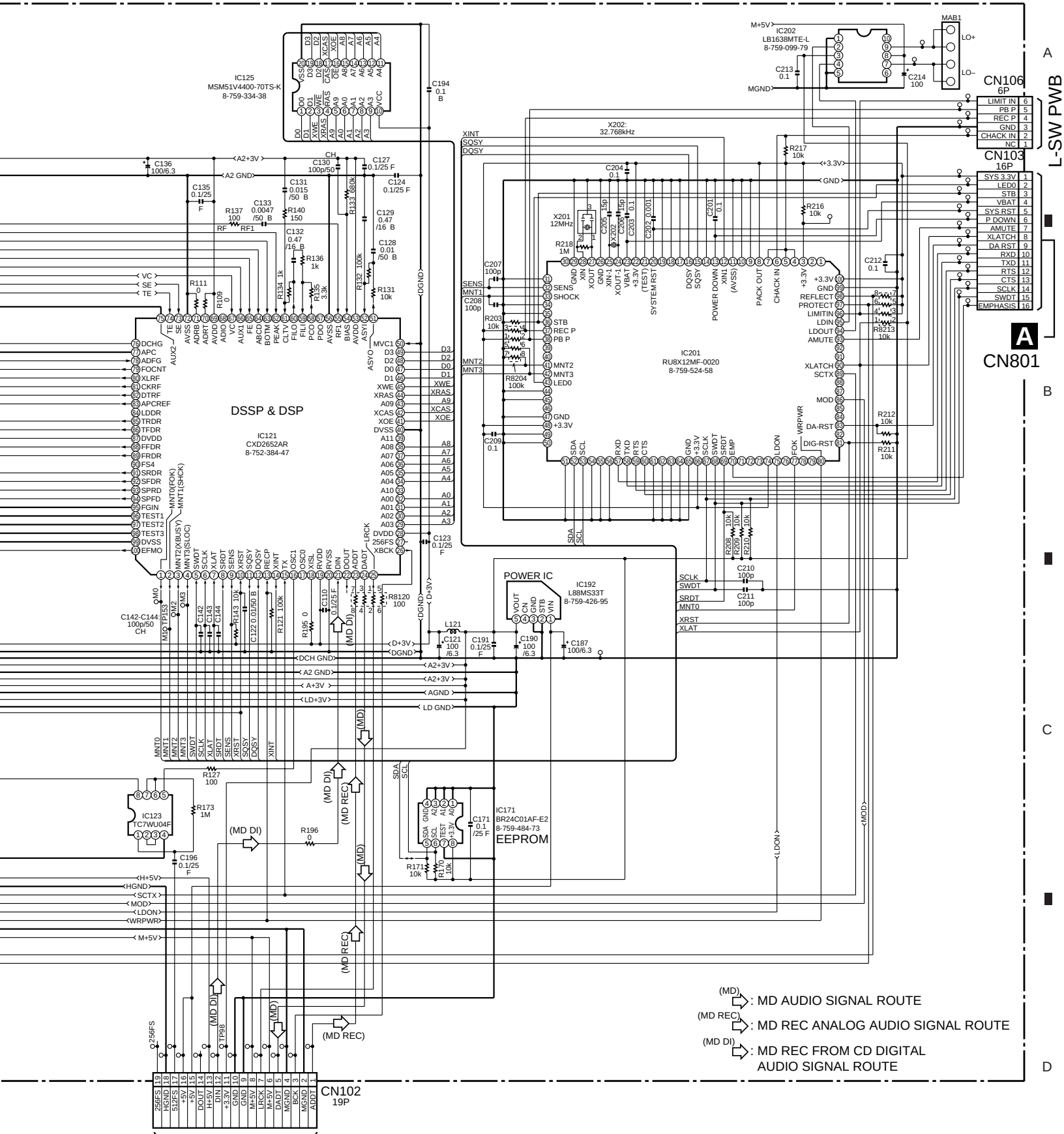


C

C900													
Pin	Voltage (V)	Pin	Voltage (V)	Pin	Voltage (V)	Pin	Voltage (V)	Pin	Voltage (V)	Pin	Voltage (V)	Pin	Voltage (V)
1	2.5	13	2.5	25	2.54	37	0.4	49	2.5	61	2.5	73	2.5
2	2.5	14	2.5	26	3.97	38	0.38	50	2.5	62	2.5	74	2.5
3	2.5	15	2.5	27	2.99	39	0.31	51	2.5	63	2.5	75	2.5
4	2.5	16	2.5	28	1.99	40	4.5	52	2.5	64	2.5	76	2.5
5	2.5	17	2.5	29	1.01	41	4.5	53	2.5	65	2.5	77	2.5
6	2.5	18	2.5	30	0	42	0.27	54	2.5	66	2.5	78	2.5
7	2.5	19	2.5	31	0	43	0.28	55	2.5	67	2.5	79	2.5
8	2.5	20	2.5	32	2.93	44	0.26	56	2.5	68	2.5	80	2.5
9	2.5	21	2.5	33	4.99	45	0.2	57	2.5	69	2.5		
10	2.5	22	2.5	34	2.53	46	0.3	58	2.5	70	2.5		
11	2.5	23	0	35	1.36	47	2.5	59	2.5	71	2.5		
12	2.5	24	2.32	36	0.37	48	2.5	60	2.5	72	2.5		

3.5 MD MOUNT ASSY





CN801

CN103

CN106

CN102

CN804

CN107

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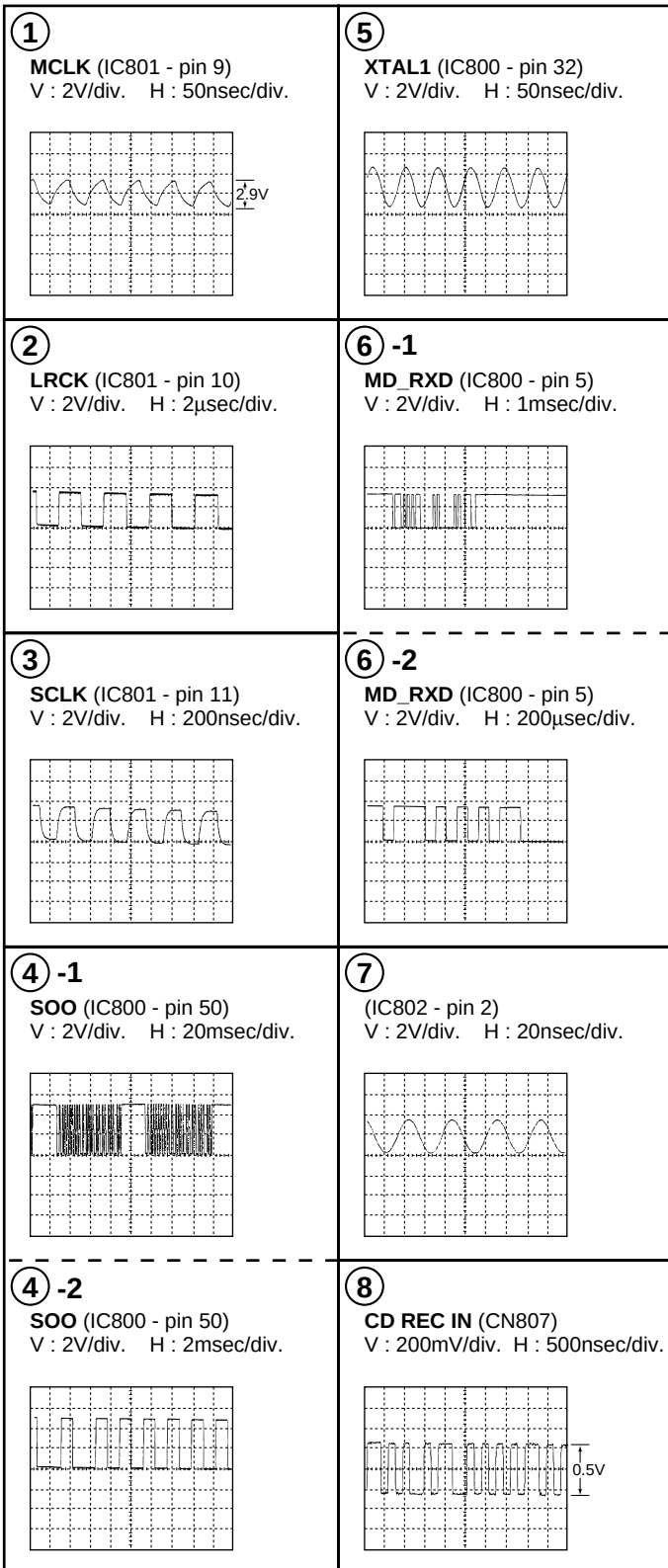
CN358

CN359

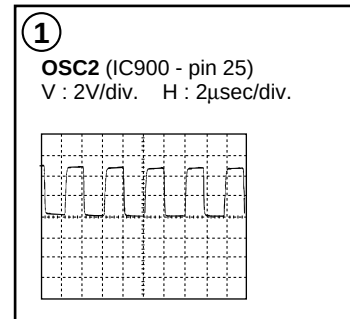
Waveforms

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

A AD/DA PCB ASSY



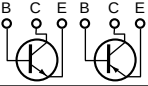
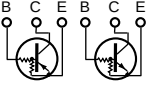
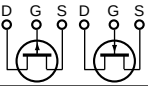
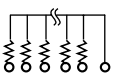
B FRONT MD PCB ASSY



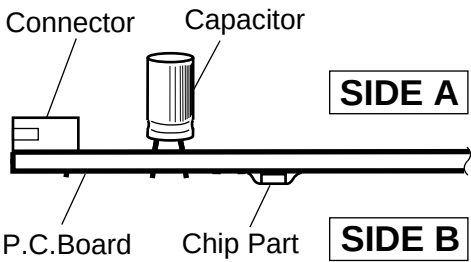
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

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

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

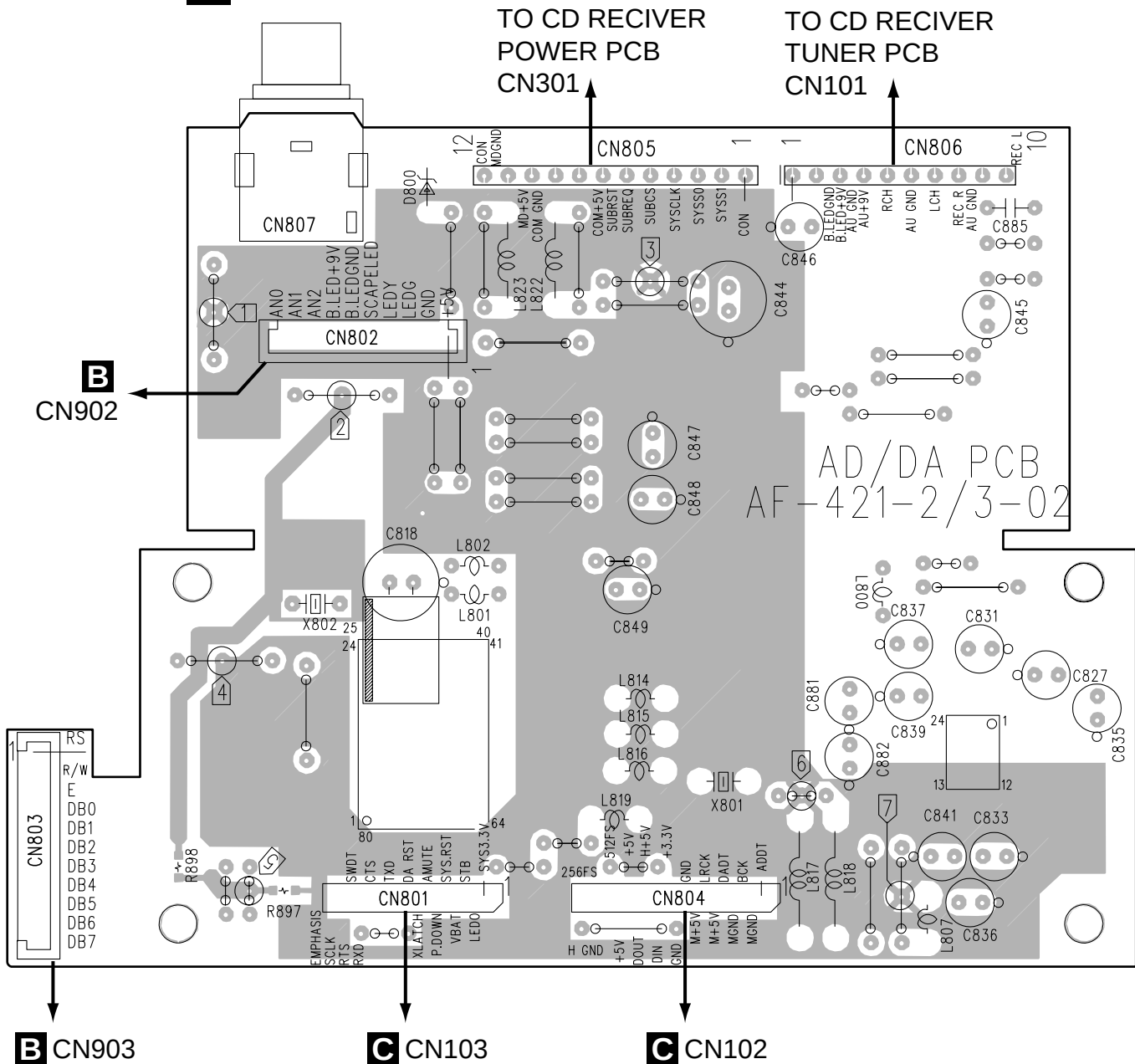
- 3. The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.
- 4. View point of PCB diagrams.



SIDE A

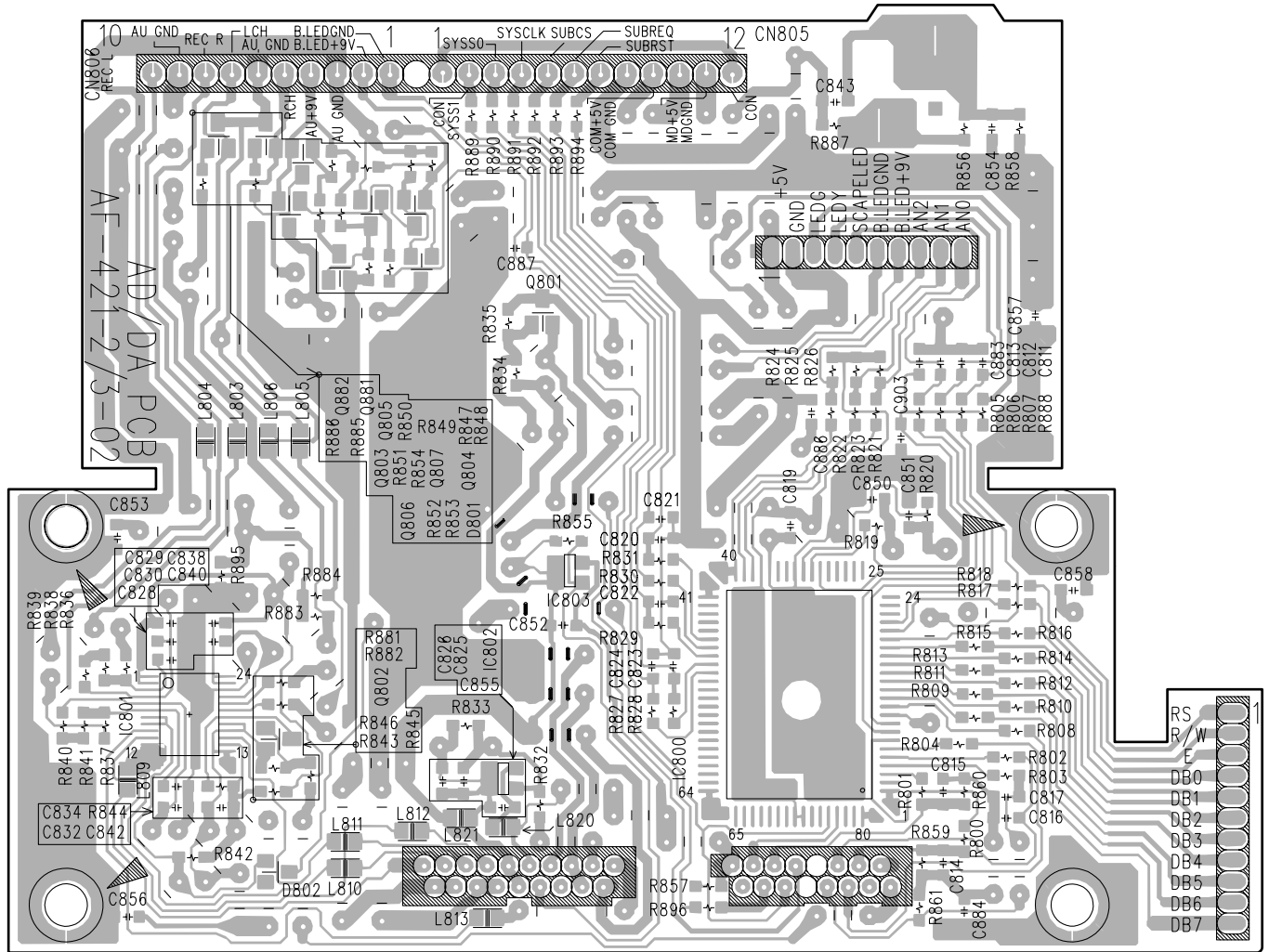
4.1 AD/DA PCB ASSY

A AD/DA PCB ASSY



SIDE B

A AD/DA PCB ASSY

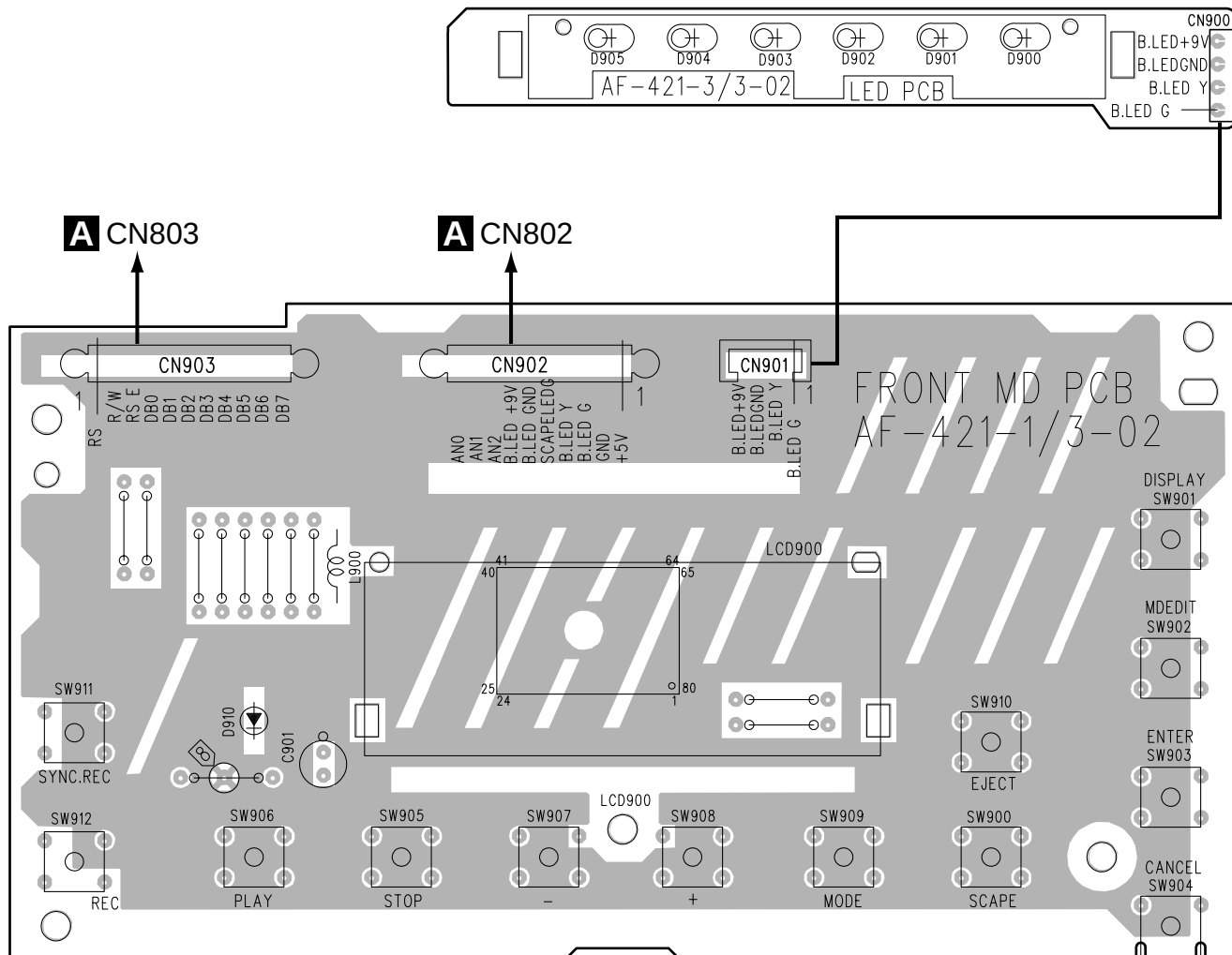


Q882 Q881 Q805
Q803 Q807 Q804
Q806 Q801
IC801 Q802 IC802 IC800

4.2 FRONT MD PCB ASSY

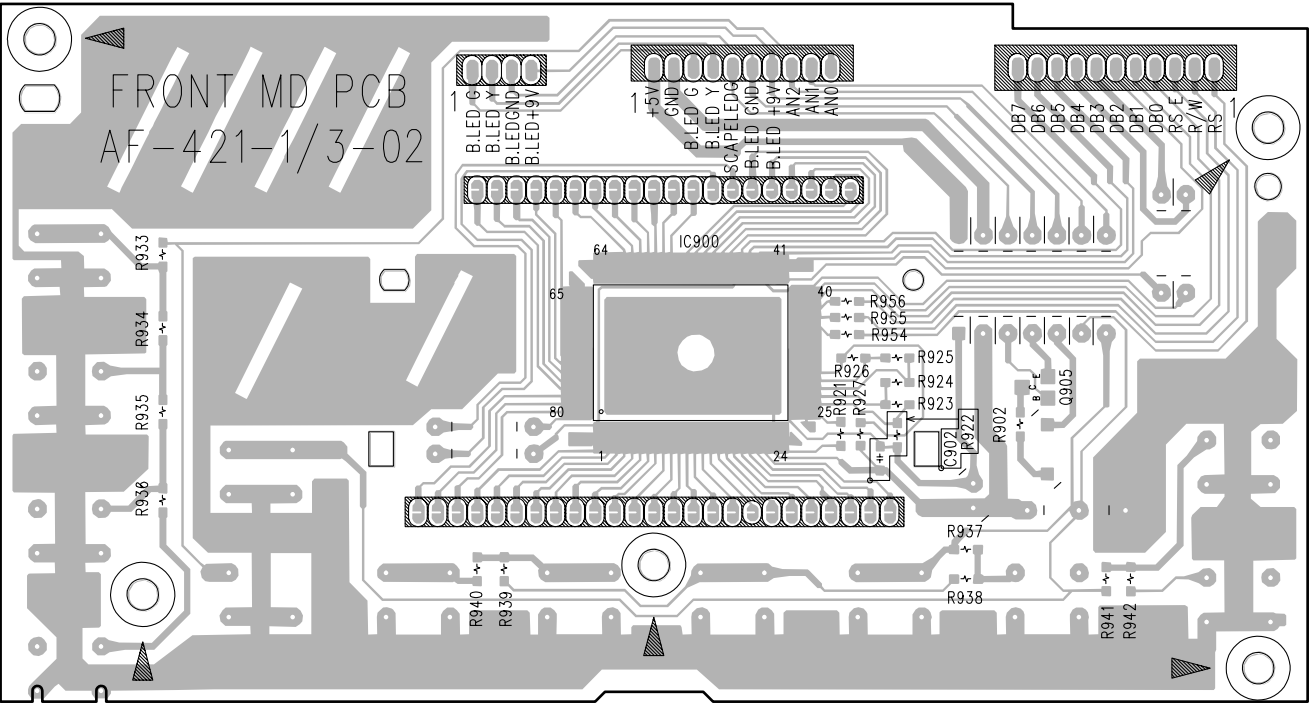
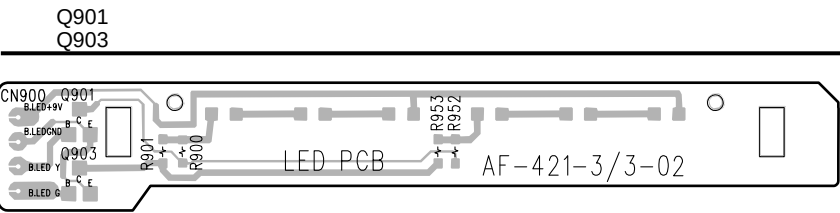
SIDE A

FRONT MD PCB ASSY



SIDE B

B FRONT MD PCB ASSY



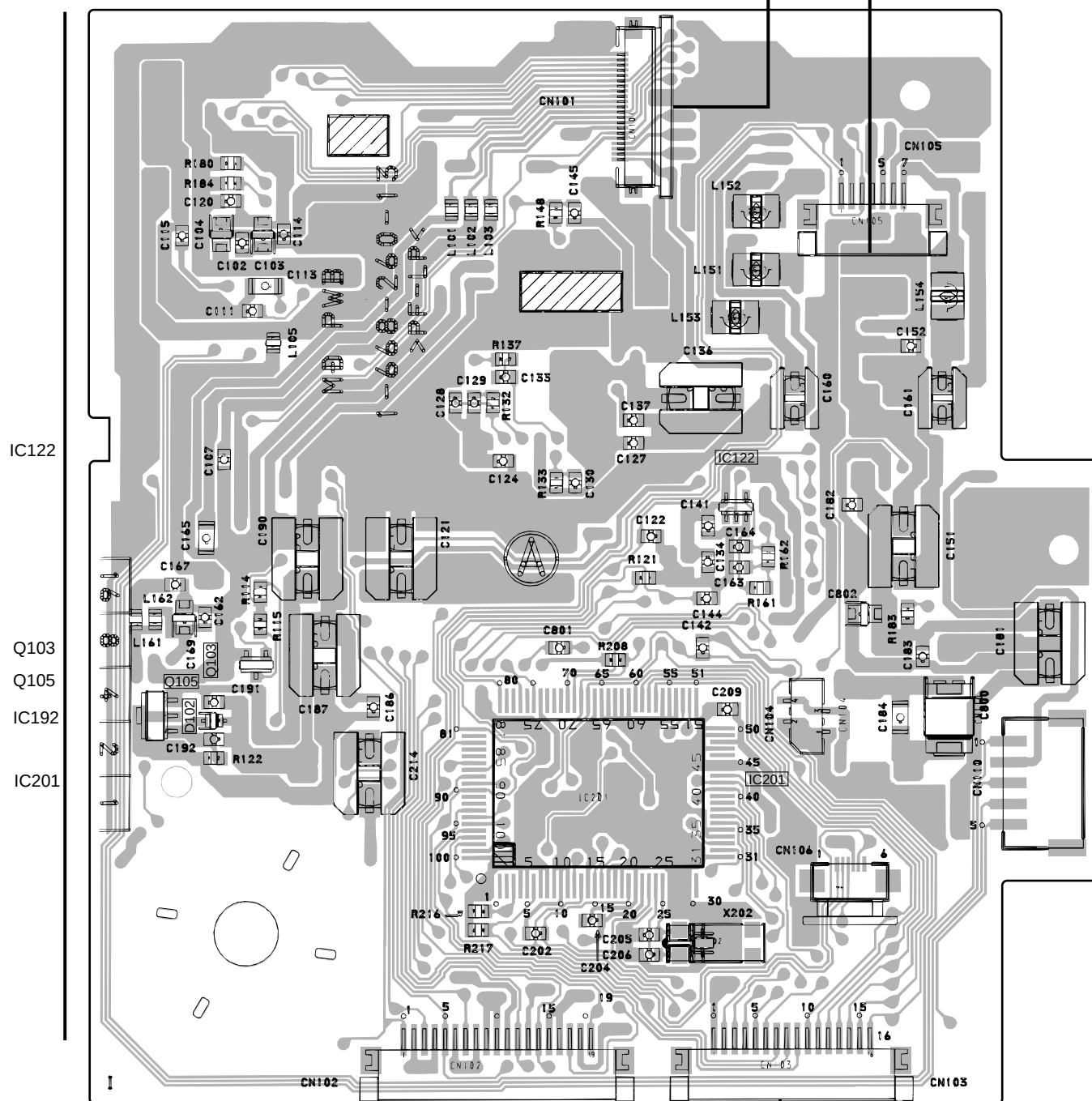
Q905

4.3 MD MOUNT ASSY

SIDE A

CM MD MOUNT ASSY

MD MECHANISM



A CN804

A CN801

SIDE B

C MD MOUNT ASSY

IC101
Q101

IC152
Q162
Q163

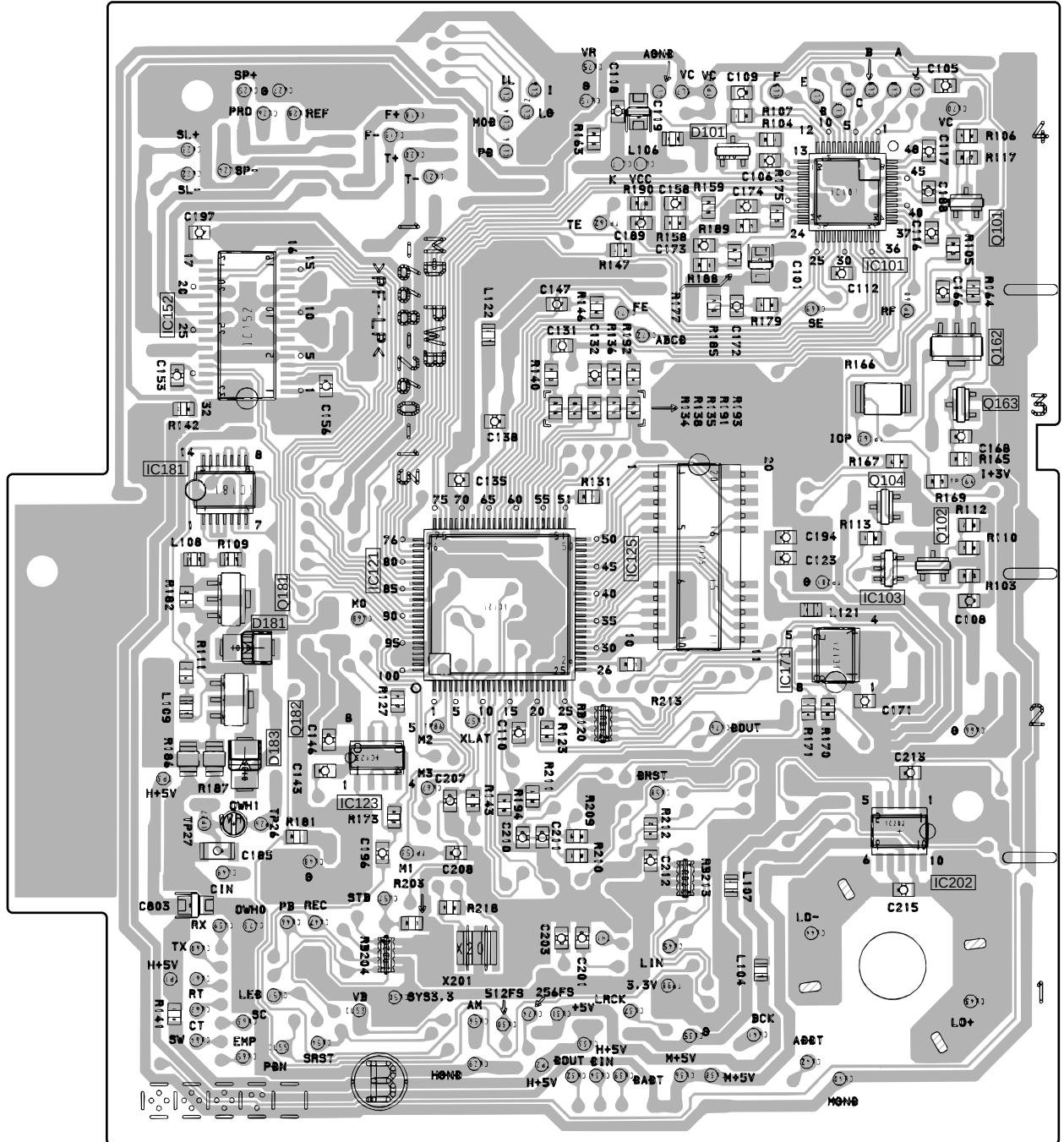
IC181
IC125
Q104
Q102
IC103

IC121
Q181
IC171

Q182

IC123

IC202



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 $\Omega \rightarrow 56 \times 10^1 \rightarrow 561$ RD1/4PU $\begin{bmatrix} 5 \\ 6 \end{bmatrix} \begin{bmatrix} 1 \\ J \end{bmatrix}$
47k $\Omega \rightarrow 47 \times 10^3 \rightarrow 473$ RD1/4PU $\begin{bmatrix} 4 \\ 7 \end{bmatrix} \begin{bmatrix} 3 \\ J \end{bmatrix}$
0.5 $\Omega \rightarrow R50$ RN2H $\begin{bmatrix} R \\ 5 \end{bmatrix} \begin{bmatrix} 0 \\ K \end{bmatrix}$
1 $\Omega \rightarrow 1R0$ RS1P $\begin{bmatrix} 1 \\ R \end{bmatrix} \begin{bmatrix} 0 \\ K \end{bmatrix}$
Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k $\Omega \rightarrow 562 \times 10^1 \rightarrow 5621$ RN1/4PC $\begin{bmatrix} 5 \\ 6 \end{bmatrix} \begin{bmatrix} 2 \\ 1 \end{bmatrix} F$

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
LIST OF PCB ASSEMBLIES							
NSP	MD COMBI PCB ASSY	AD/DA PCB ASSY	66785	NSP		C818, C844	CEAT471M10
							CEAT4R7M50
NSP	FRONT MD PCB ASSY					C827, C835, C839,C841, C845	CEAT4R7M50
							CEATR47M50
	MD MECHANISM ASSY	MD MOUNT ASSY	KMK-260AAB			C849	CKPUYF104Z50
			A-4917-020				CKPUYF104Z50
	L-SW PWB ASSY	D-SW PWB ASSY	1-668-261-11			C815, C829, C830, C832, C840	CKSQYB102K50
			1-668-262-11				CKSQYB103K50
						C842, C852, C854, C855, C857	CKPUYK102K50
							CKPUYF104Z50
						C885, C903	CKSQYB102K50
							CKSQYB103K50
						C853, C856, C858, C886	CKPUYK102K50
							CKPUYK102K50
						C819, C828, C834, C902	CKPUYK102K50
							CKPUYK102K50
						C859- C863	CKPUYK102K50
							CKPUYK102K50

A B MD COMBI PCB ASSY

SEMICONDUCTORS

IC800 (CXP84632-128Q)	52181
IC900 (NJU6408BFC-01A)	52182
IC801 (AK4518-VF-E2)	52186
IC802, IC803	TC7SU04F-T5L
Q803, Q805	2SA1037K
Q801, Q802, Q804, Q806, Q807	2SC2412K
Q881, Q882	2SC2412K
Q901, Q903, Q905	DTC114YK
D900- D905 (SLA380MT3F)	52907
D801	DA204K
D910	SLR-342MCTC7
D802	DAN202K

COILS AND FILTERS

L817, L818 INDUCTOR (LAL04KB4R7K)	52407
L803- L806, L820, L821 CHIP BEAD	DTF1069
L800- L802	LAU100J
L807, L814- L816, L819	52408
L822, L823	FBA04UA600AB

SWITCHES

SW900- SW912 (SOA-111H)	53426
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CAPACITORS

C831, C833, C848 (10 μ F/16V)	57213
C811- C814, C816, C817, C820- C824	CCSQSL101J50
C825, C826, C850, C851	CCSQSL180J50
C837, C901	CEAT101M10
C846	CEAT1R0M50
C836	CEAT2R2M50
C847	CEAT470M10

RESISTORS

Other Resistors	RS1/10S□□□J
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OTHERS

X802 RESONATOR CSA12.0MTz	50523
10P CABLE HOLDER	51048-1000
11P CABLE HOLDER	51048-1100
CN807 1P PIN JACK YKB11-09	52525
LCD900 LCD KSG4148S(STN)	52715
CN801 16P FFC CONNECTOR	VKN1192
CN804 19P FFC CONNECTOR	VKN1195
CN802 WIRE TRAP 10P	60237
CN803 WIRE TRAP 11P	60239
X801 CRYSTAL HC49US (22.5792MHz)	60240
FERRITE BEAD FBA04	60241
LCD HOLDER	66727
LCD SHEET	66756
11P FLAT CABLE	66773
10P FLAT CABLE	66774
MD COMBI PCB	66785
FRONT MD PCB	66785A
AD/DA PCB	66785B
LED PCB	66785C
CN901 CONNECTOR 53253-0410	51029
CN805 12P CONNECTOR ASSY	66763
CN900 4P CONNECTOR ASSY	66770
CN806 10P CONNECTOR ASSY	66778

Mark	No.	Description	Parts No.
C	MD MOUNT ASSY		
	SEMICONDUCTORS		
	IC122		TC7S08F
	IC123		TC7WU04F
	IC101 (CXA2523AR)		8-752-080-95
	IC121 (CXD2652AR)		8-752-384-47
	IC202 LB1638MTE-L		8-759-099-79
	IC125 (MSM51V4400-70TS-K)		8-759-334-38
	IC192 (L88MS33T-TL)		8-759-426-95
	IC152 (BH6511FS-E2)		8-759-430-28
	IC171 (BR24C01AF-E2)		8-759-484-73
	IC181 (TC74ACT540FT)		8-759-523-48
	IC201 (RU8X12MF-0020)		8-759-524-58
	Q101		DTA144EK
	Q103		DTC114EK
	Q102		2SA1037K
	Q182 (2SK1764KY)		8-729-017-55
	Q181 (2SJ278MYT)		8-729-018-76
	Q162 (2SB798-T1)		8-729-103-85
	IC103 (FMW1-T-14)		8-729-803-11
	D181 (F1J6TP)		8-719-046-86
	D101 (DAN202K-T-146)		8-719-914-47
	COILS AND FILTERS		
	L101 FERRITE BEED INDUCTOR		1-414-235-21
	CAPACITORS		
	C142		CCSQCH101J50
	C106		CCSQCH102J50
	C105		CKSQYB103K50
	C117		CKSQYB104K25
	C131		CKSQYB153K50
	C116		CKSQYB223K50
	C115		CKSQYB224K16
	C189		CKSQYB333K25
	C112		CKSQYB472K50
	C158		CKSQYB682K50
	C111		CKSQYB683K25
	C107		CKSQYF104Z25
	RESISTORS		
	R SQA TYPE CHIP CONDUCTOR		1-216-295-91
	R SQA TYPE CHIP RESISTOR		1-217-806-91
	(1Ω, 1/8W)		
	R163 METAL COATING RESISTOR		1-219-724-91
	(1Ω, 1/4W)		
	R213 CHIP NETWORK RESISTOR		1-233-415-21
	(10kΩ x4)		
	R120 CHIP NETWORK RESISTOR		1-233-575-21
	(100Ω x4)		
	R204 NETWORK RESISTOR		1-233-810-21
	(100kΩ x4)		
	R166 SQA TYPE CHIP RESISTOR		1-240-032-91
	(2.2Ω, 1/2W)		
	Other Resistors		RS1/10S□□□J

Mark	No.	Description	Parts No.
	OTHERS		
	CN101 FFC/FPC CONNECTOR 21P		1-691-385-21
	CN106 FFC/FPC CONNECTOR 6P		1-768-338-21
	CN103 FFC/FPC CONNECTOR 16P		1-770-425-11
	CN110 CONNECTOR PIN 5P		1-774-731-21
	CN104 FFC/FPC CONNECTOR 4P		1-778-289-11
	CN102 FFC/FPC CONNECTOR 19P		1-778-460-11
	CN105 FFC/FPC CONNECTOR 7P		1-779-345-11
	X202 CERAMIC RESONATOR		1-760-174-41
	(32.768kHz)		
	X201 X" TAL RESONATOR (12MHz)		1-780-872-21
	L-SW PWB ASSY		
	OTHERS		
	FFC/FPC CONNECTOR 6P		1-768-338-21
	PUSH SWITCH(1KEY)		1-771-082-21
	PUSH LEVER SW(1KEY)		1-771-326-11
	D-SW PWB ASSY		
	OTHERS		
	2PIN PUSH SW(2KEY)		1-771-327-11
	FFC/FPC CONNECTOR 7P		1-779-345-11

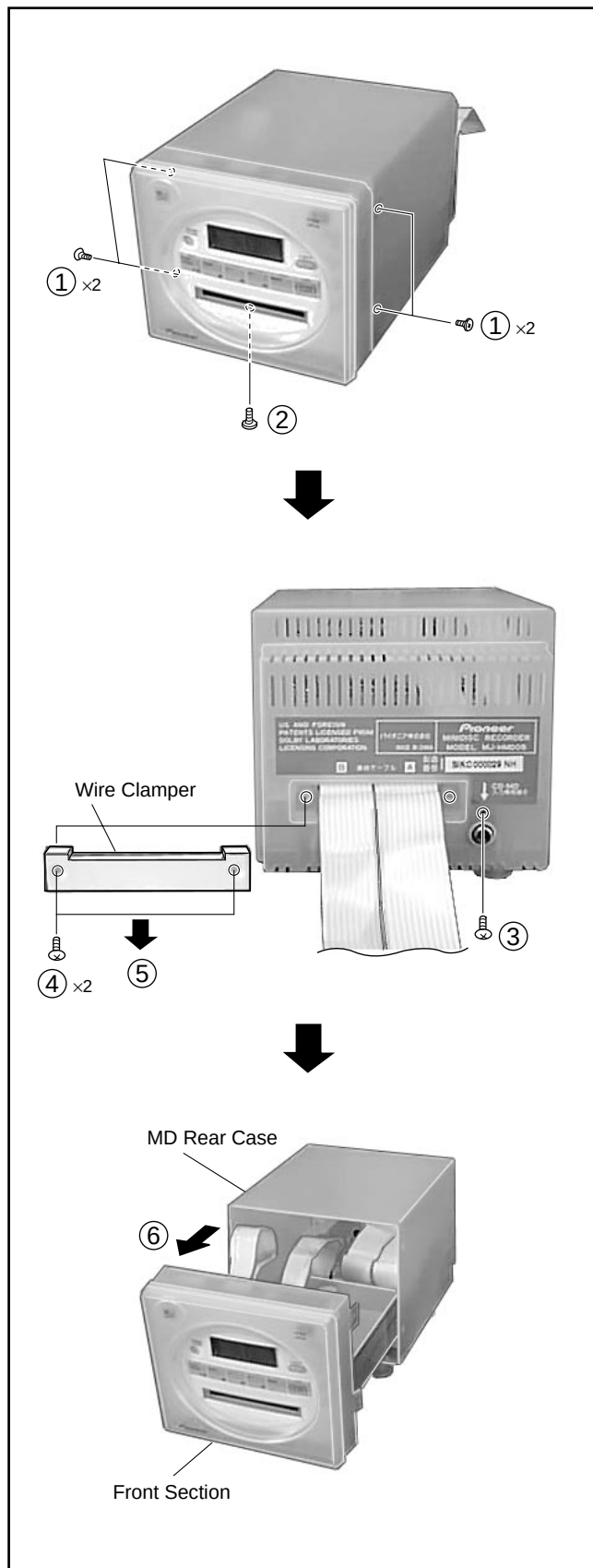
6. ADJUSTMENT

Note : There is no information to be shown in this MD adjustment.

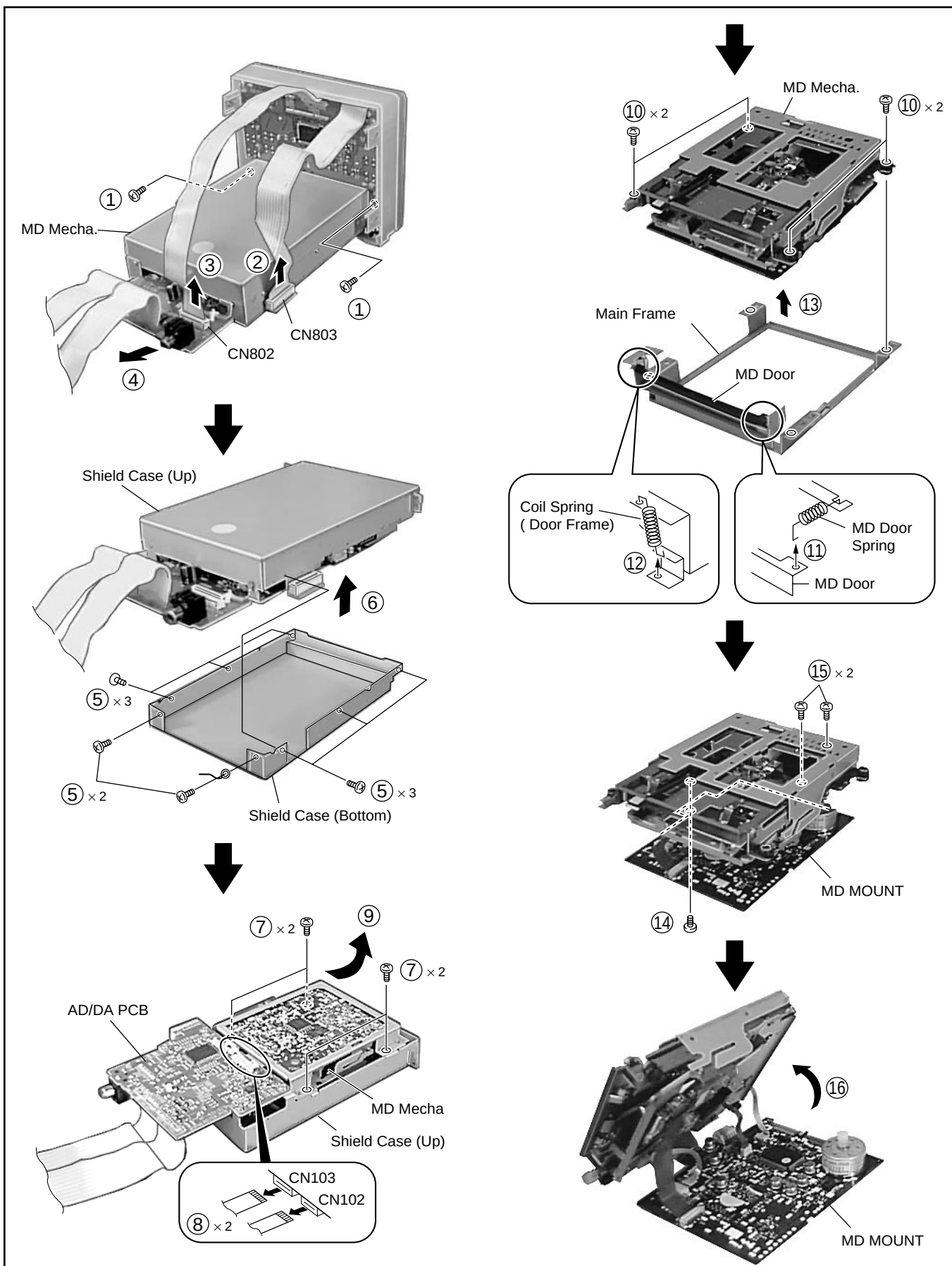
7. GENERAL INFORMATION

7.1 DIAGNOSIS

■ MD REAR CASE



■ MD MECHANISM ASSY



7.2 PARTS

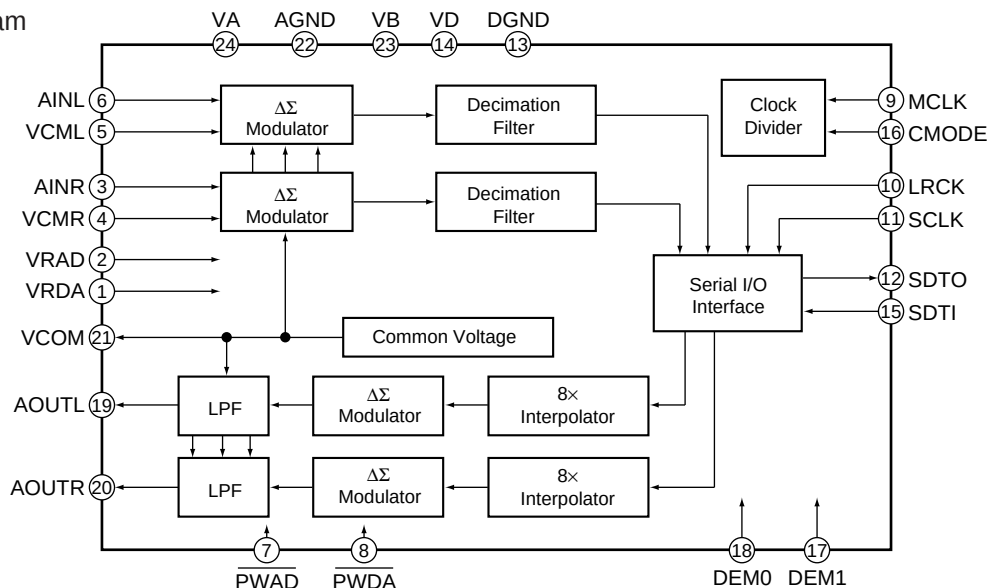
7.2.1 IC

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

■ 52186 (AK4518-VF-E2) (AD/DA PCB ASSY : IC801)

■ AD/DA Converter IC

● Block Diagram



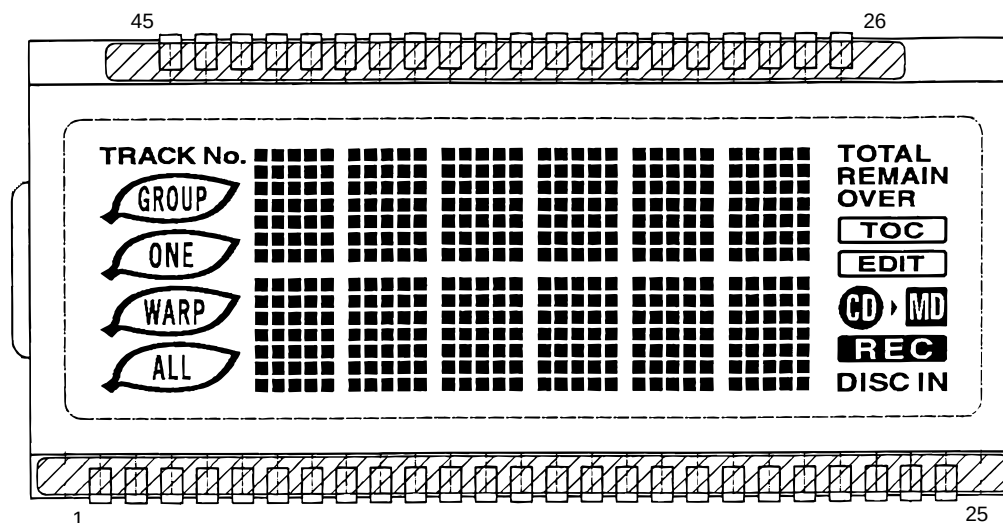
● Pin Arrangement

No.	Pin Name	I/O	Function
1	VRDA	I	Reference voltage input for DAC and VA
2	VRAD	I	Reference voltage input for ADC and VA
3	AINR	I	R ch analog input
4	VCMR	O	R ch common voltage output , $0.45 \times VA$ Connect an electrolytic capacitor (about 4.7 μ F) and a ceramic capacitor (0.1 μ F) between this pin and AGND.
5	VCML	O	L ch common voltage output , $0.45 \times VA$ Connect an electrolytic capacitor (about 4.7 μ F) and a ceramic capacitor (0.1 μ F) between this pin and AGND.
6	AINL	I	L ch analog input
7	PWAD	I	ADC power down mode L: power down
8	PWDA	I	DAC power down mode L: power down
9	MCLK	I	Master clock input
10	LRCK	I	Input/output channel clock pin
11	SCLK	I	Audio serial data clock pin
12	SDTO	O	Audio serial data output
13	DGND	–	Digital ground
14	VD	–	Digital power supply
15	SDTI	I	Audio serial data input
16	CMODE	I	Master clock selection "H": 384fs or 512fs, "L": 256fs
17	DEM1	I	Deemphasis frequency selection
18	DEM0		
19	AOUTL	O	L ch analog output
20	AOUTR	O	R ch analog output
21	VCOM	O	Common voltage output , $0.45 \times VA$ Connect an electrolytic capacitor (about 4.7 μ F) and a ceramic capacitor (0.1 μ F) between this pin and AGND.
22	AGND	–	Analog ground pin
23	VB	–	Substraight pin
24	VA	–	Analog power supply

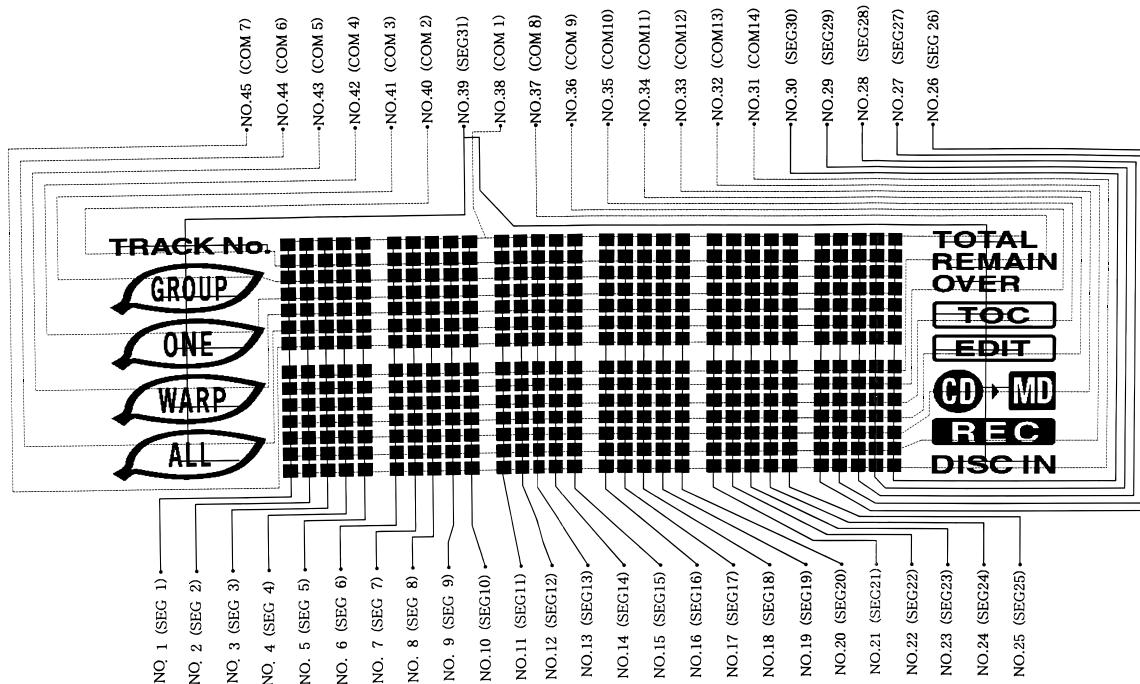
7.2.2 DISPLAY

■ 52715 (KSG4148) (FRONT MD PCB ASSY : LCD900)

- LCD

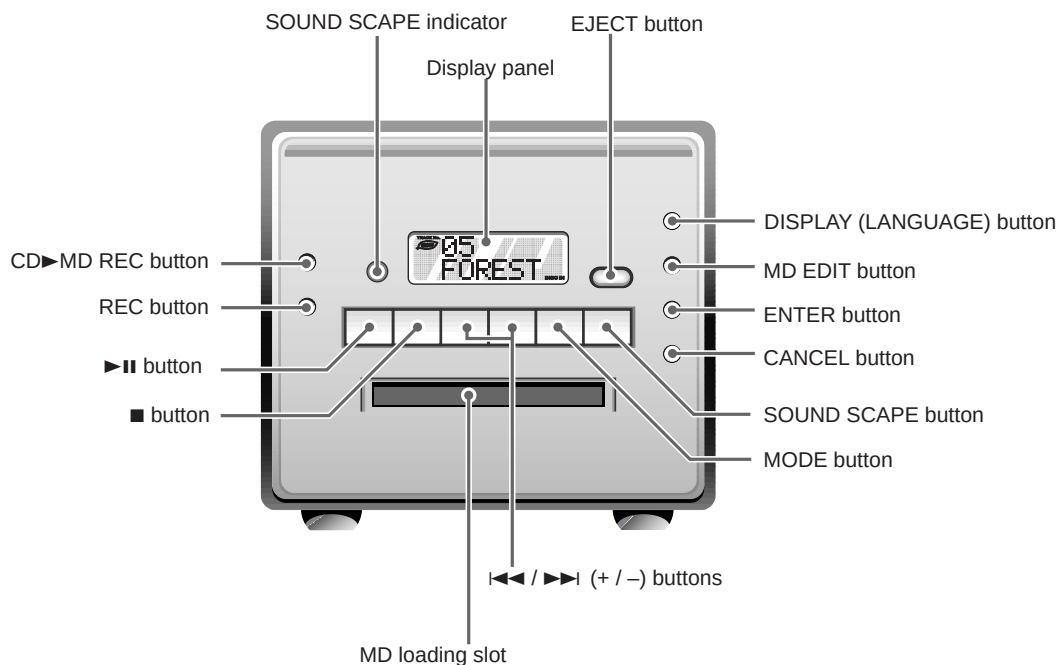


- Pin Connection

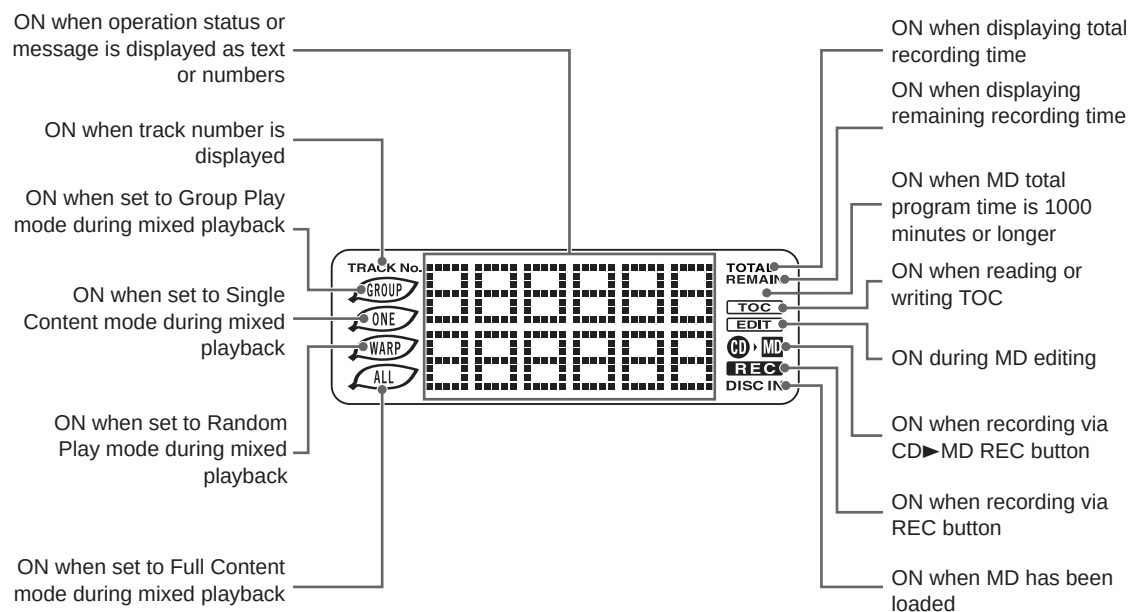


8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES



Display Panel



8.2 SPECIFICATIONS

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

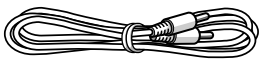
■ MD RECORDER

Type	Mini disc digital audio system
Medium	Mini disc (MD)
Frequency characteristics	20 Hz to 20 kHz (+/- 3 dB)
Error correction method	Advanced Cross Interleave Code (ACIRC) Solomon code
Coding	Adaptive Transform Acoustic Coding (ATRAC)
Power supply voltage	DC 5 V, 230 mA
	DC 9 V, 14 mA
External dimensions	145 (W) × 137 (H) × 235 (D) mm
	(5 3/4 × 5 1/2 × 9 3/8 inches)
Weight	1.4 kg (3.3 lb)

■ ACCESSORIES



Sound Scape Disc
(60234-01, 60234-03)



CD/MD Cable
(60233)