PIONEER®
The Art of Entertainment

Service Manual

ORDER NO.
RRV1831

COMPACT DISC PLAYER
CDJ-500II

- **Refer to the service manual RRV1087 for CDJ-500G/KUC and CDJ-500/SELM.**

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

Type	Model	Power Requirement	The voltage can be converted by the following method.
	CDJ-500II		
SL	○	AC110V/120V/220-230V/240V	With the voltage selector

- **The schematic diagrams and PCB connection diagrams are all mentioned in this manual.**

CONTENTS

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1. EXPLODED VIEWS AND PARTS LIST

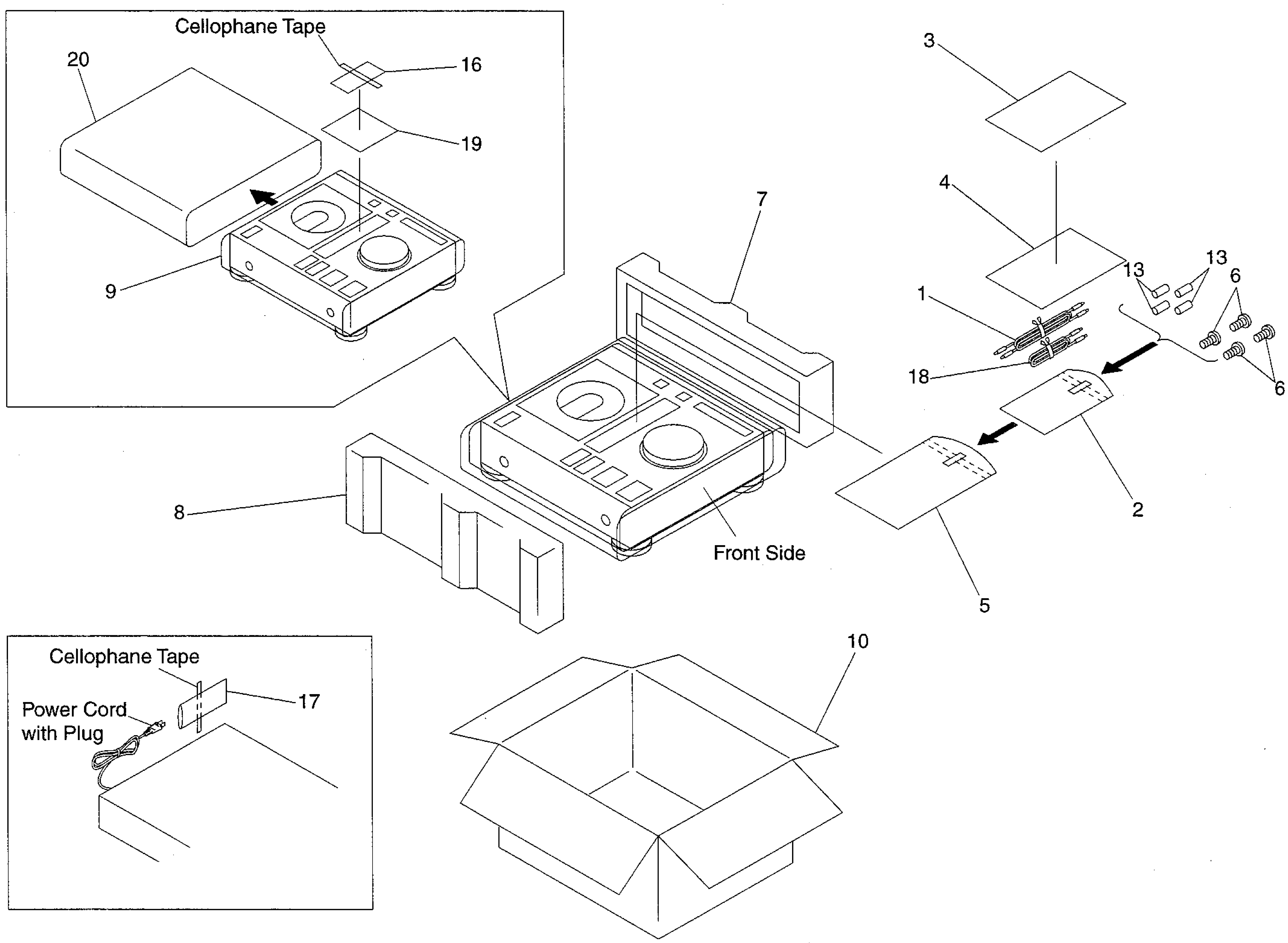
NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Ref. No.: Numbers following P and hyphen (–) indicate the page (S) and location number (S) in the RRV1087 service manual, respectively.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

Note) Regular inspection/Cleaning

When performing regular inspections, pay particularly careful attention to inspect and clean the parts with the part No. in □ in the parts list and following parts.

- The sliding sections of the switch holder A assy and the hook drive levrt.
- The lens in the PICKUP ASSY (Cleaning).

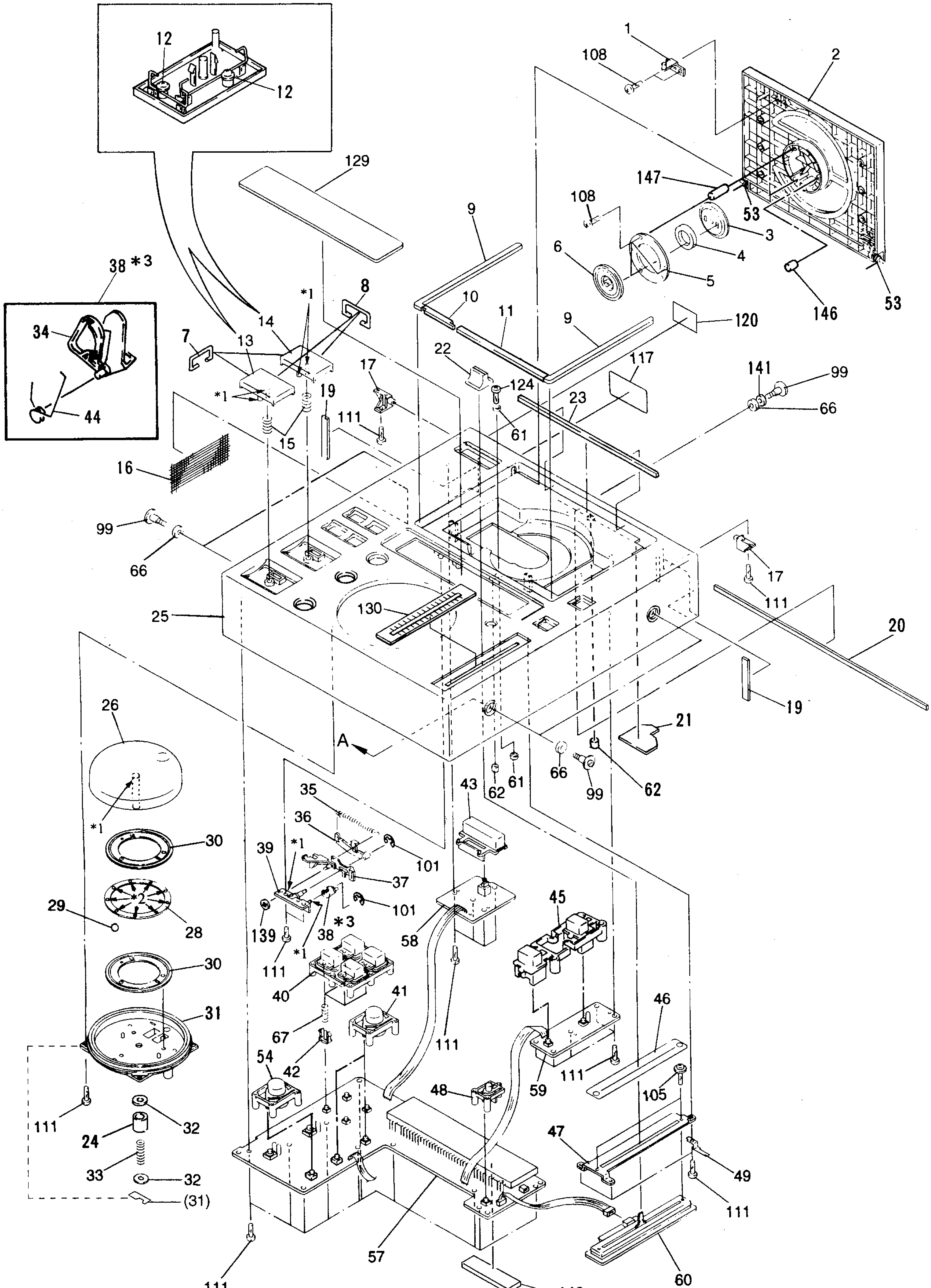
1.1 PACKING



Parts List

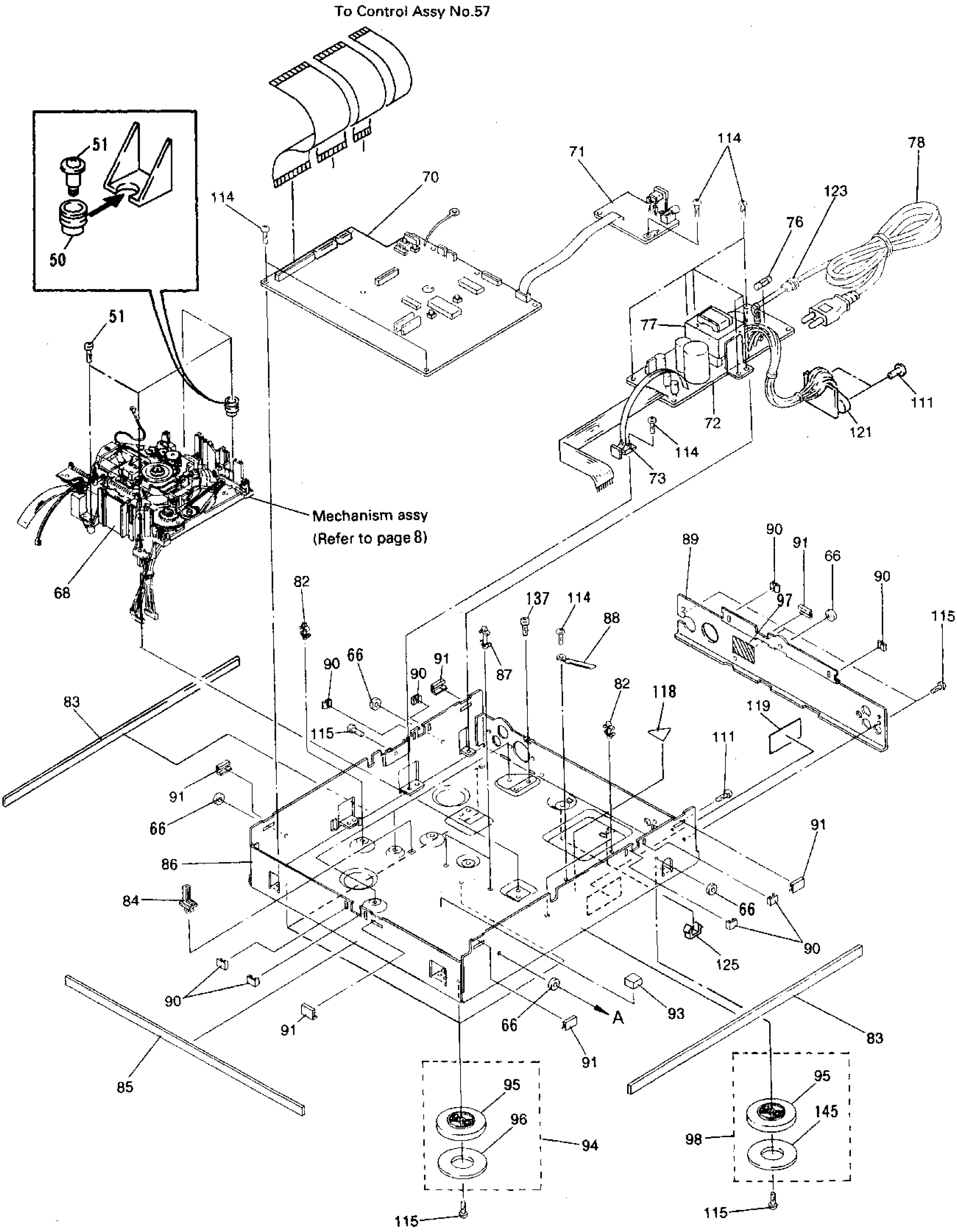
Mark	No.	Description	Part No.
	1	Output Cable (L=1.5m)	VDE1033
NSP	2	Vinyl bag (80 x 145 x 0.03)	REG-013
NSP	3	Caution label 220V	ARR7003
	4	Operating Instructions (English/French/German/Italian/Dutch/ Swedish/Spanish/Chinese)	DRB1219
	5	Vinyl bag (230 x 340 x 0.03)	Z21-038
	6	Screws for Rack Mounting	IBZ30P180FMC
	7	Pad L	DHA1290
	8	Pad R	DHA1291
	9	Sheet	RHX1006
	10	Packing Case	DHG1792
	11	••••••	
	12	••••••	
	13	Spacers for Rack Mounting	DLA1637
	14	••••••	
	15	••••••	
NSP	16	Caution SG	DRM1199
NSP	17	Cord Sheet	VEG-012
	18	Control Cable (L = 1m)	PDE1247
NSP	19	Silica Gel	AEN7001
	20	Poly Bag	DHL1105

1.2 EXTERIOR SECTION



*1: Froil (G-397)

*2: Froil (G-478B)


To Control Assy No.57
51
50
51
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114
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123
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72
111
121
114
73
Mechanism assy
(Refer to page 8)
68
82
89
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66
97
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115
137
114
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118
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84
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A
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145
115
115

Parts List

Mark	No.	Description	Part No.
	$\boxed{1}$	Roller Holder Assy	DXB1626
	2	Door Assy	DXA1805
	3	Yoke	PNB1216
	4	Clamp Magnet	PMF1014
	5	Clamper Holder	DNH1920
	6	Clamper (under)	DNK1791
	7	Synchronous Shaft A	DLA1717
	8	Synchronous Shaft B	DLA1718
	9	Air Seal A	DEC1892
	10	Door Cushion B-L	DEC2157
	11	Air Seal B-R	DEC2158
	12	Screw	PBA1062
	13	Play Knob	DAC1837
	14	Cue Knob	DAC1838
	15	Spring	DBH1253
	16	Net	DED1087
	17	Door Holder	DNK2952
	18	••••••	
	19	Cushion C	DEC1781
	20	Cushion D	DEC1782
	21	Brind Sheet	DEC1897
	22	Slide Knob	DNK2936
	23	Door Cushion E	DEC1950
	24	Bush	DLA1725
	25	Control Panel	DNK3454
	26	Jog Dial	DNK3189
	27	••••••	
	28	Retainer	DNK1849
	29	Steel Ball	VNX1006
	30	Thrust Stay B	DNH1925
	31	Jog Holder	DNK3190
	$\boxed{32}$	Smoother	DNK2933
	33	Spring J	DBH1321
	34	Push Up Hook	DNK3192
	35	Lever Spring	DBH1254
	$\boxed{36}$	Lever	DNK3210
	$\boxed{37}$	Hook Drive Lever	DNK2945
	$\boxed{38}$	Hook Assy	DXB1509
	39	Switch Holder A Assy	DXB1510
	40	Konb A	DNK2931
	41	Loop Knob	DNK2943
	42	Limiter	DNK2949
	43	Power Knob	DNK2942
	44	Fook Spring A	DBH1354
	45	Collective Knob B	DAC1839
	46	VR Packing	DEB1303
	47	VR Plate	DNF1485
	48	Time Mode Knob	DNK2944
	49	VR Spring	DBK1088
	50	Mechanism Float Rubber	DEB1321
	51	Mechanism Base Screw	DBA1091
	52	••••••	
	53	Door Spring	DBH1355
	54	Reloop Knob	DNK3200
	55	••••••	

Mark	No.	Description	Part No.
	56	••••••	
	57	CONTROL ASSY	DWG1462
NSP	58	POWER SW ASSY	DWS1247
NSP	59	EJECT SW ASSY	DWS1248
	$\boxed{60}$	SLIDER ASSY-S	DXX2225
	$\boxed{61}$	Rubber Spacer B	DEB1272
	$\boxed{62}$	Rubber Cap	DEB1273
	63	••••••	
	64	••••••	
	65	••••••	
	66	Float Rubber B	DEB1270
	67	Knob Spring	DBH1256
NSP	68	Mechanism Assy	DXA1771
	69	••••••	
	70	MAIN BOARD ASSY	DWX1794
	71	AUDIO OUT ASSY	DWX1587
	72	TRANSFORMER BOARD ASSY	DWR1223
NSP	73	REGULATOR UNIT	DWX1607
	74	••••••	
	75	••••••	
⚠	76	Fuse (T250mA)	AEK1048
⚠	77	Power Transformer (110, 120, 220-230, 240V)	DTT1125
⚠	78	Power Cord With Plug	PDG1003
	79	••••••	
	80	••••••	
	81	••••••	
NSP	82	PCB Support	VEC1508
	83	Cushion A	DEC1775
	84	Holder	PNW2343
	85	Cushion B	DEC1776
NSP	86	Chassis	DNA1195
	87	PCB Support	DEC1773
NSP	88	Cord Clamper	ZCB-069Z
NSP	89	Rear Panel	DNC1465
	90	Rubber Spacer C	DEB1276
	$\boxed{91}$	Rubber Spacer A	DEB1271
	92	••••••	
	93	Cushion	DEB1279
	94	Insulator Assy	DXA1729
NSP	95	Insulator	VNK1353
NSP	96	Cushion	DEC1827
NSP	97	Fuse Caution Label	VRW-548
	98	Insulator Assy	VXA1454
	99	SH Screw	PBA1033
	100	••••••	
	101	E Ring	YE12FUC
	102	••••••	
	103	••••••	
	104	••••••	
	105	Screw	AMZ30P040FMC
	106	••••••	
	107	••••••	
	108	Screw	BPZ26P060FNI
	109	••••••	
	110	••••••	

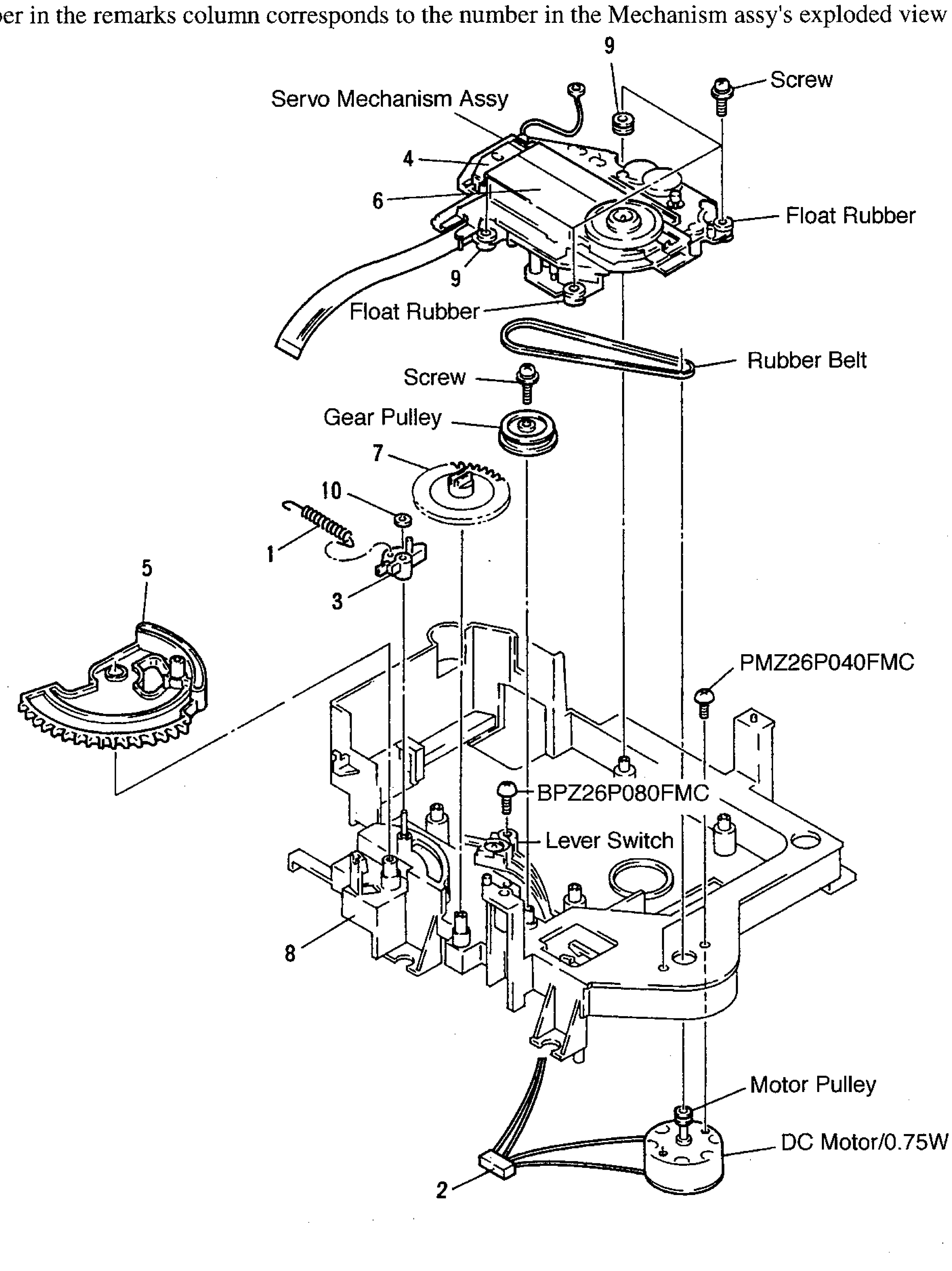
Mark	No.	Description	Part No.
	111	Screw	BPZ30P080FMC
	112	••••••	
	113	••••••	
	114	Screw	BBZ30P060FMC
	115	Screw	BBZ30P080FZK
	116	••••••	
NSP	117	Caution Label (F)	VRW-328
	118	Caution Label (G)	VRW-329
	119	Caution Label	PRW1018
NSP	120	SISIR REGISTRATION	DRW1878
NSP	121	VOLTAGE SELECTOR BOARD ASSY	DWS1256
	122	••••••	
	123	Strain Relief	CM-22B
	124	Screw	DBA1079
	125	Screw Cap	DNK2959
	126	••••••	
	127	••••••	
	128	••••••	
	129	Panel	DAH1750
	130	Slide Sheet	DAH1751
	131	••••••	
	132	••••••	
	133	••••••	
	134	••••••	
	135	••••••	
	136	••••••	
	137	Screw	BMZ40P060FMC
	138	••••••	
	139	Stopper Ring	YS20FBT
	140	••••••	
	141	Washer	WA52D080D025
	142	••••••	
	143	••••••	
	144	••••••	
NSP	145	Cushion	VEC1224
	146	Short-Collar	DLA1788
	147	Long-Collar	DLA1789
	148	Damper	VEB1172

MECHANISM ASSY

DXA1771 and DXA1684 are constructed the same except for the following:

Ref. No.	Mark	Symbol and Description	Part No.		Remarks
			DXA1684	DXA1771	
P37-4		Float Base	PNW2032	Not used	
P37-5		Clamp Cam	DNK3029	Not used	
P37-8		Drive Gear 2	PNW2369	Not used	
P37-15		Loading Base	DNK3030	Not used	
P37-46		2MM Pich Connector Assy 4P	DDE1083	Not used	
P37-47		2MM Pich Connector Assy 4P	DKP2863	PG04 MM-G20	
		Release Lever Spring	Not used	DBH1258	No. 1
	NSP	2MM Pich Connector Assy 5P	Not used	DDE1106	No. 2
		Release lever	Not used	DNK2938	No. 3
		PU Cover	Not used	DNK3188	No. 4
		Drive Gear A	Not used	DNK3191	No. 5
		Shutter	Not used	DNK3193	No. 6
		Drive Gear B	Not used	DNK3199	No. 7
		Mechanism Base Assy	Not used	DXB1568	No. 8
		Float Rubber	Not used	PEB1014	No. 9
		Washer	Not used	WT16D032D025	No. 10

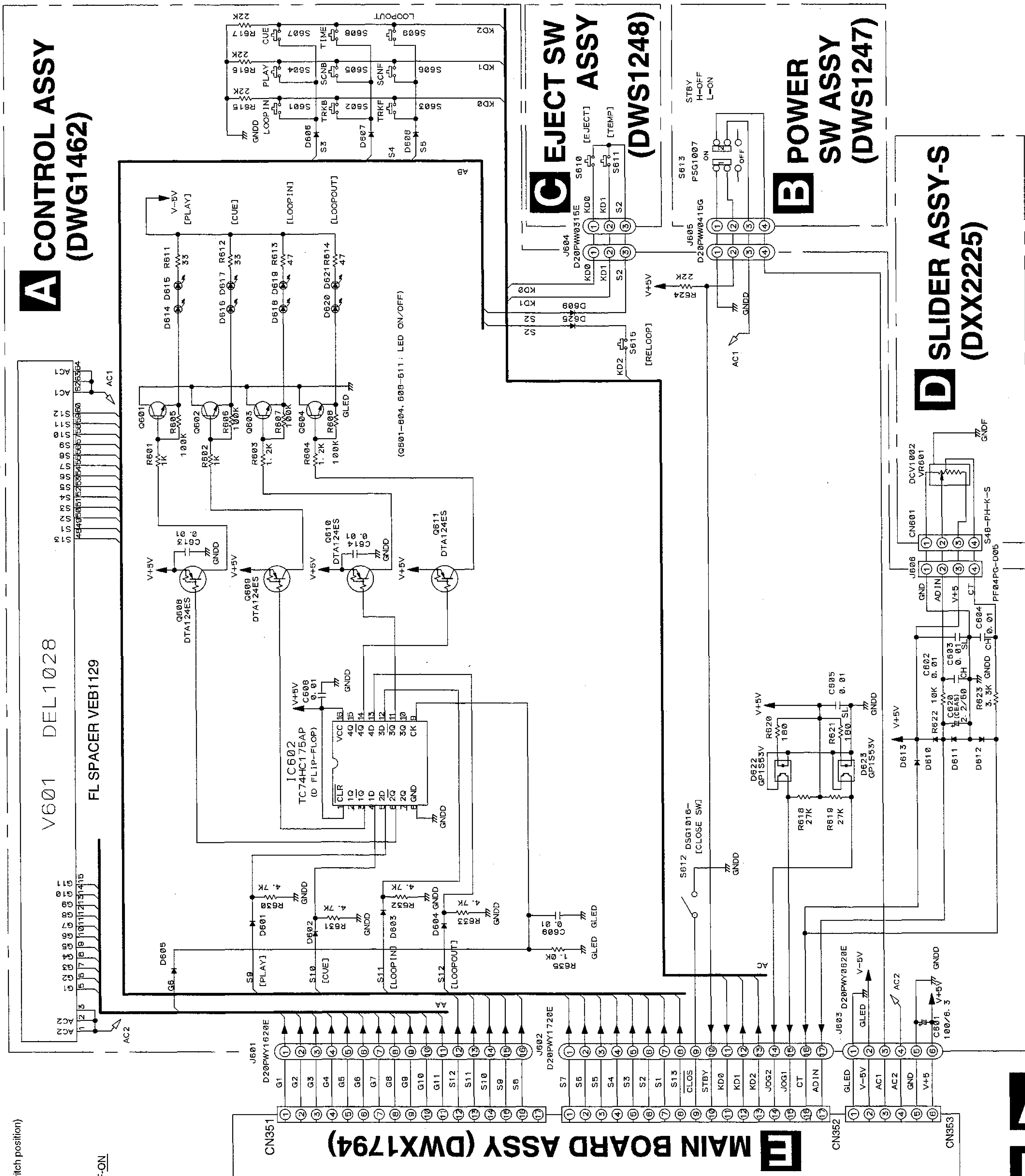
Note: The number in the remarks column corresponds to the number in the Mechanism assy's exploded view below.



2. SCHEMATIC DIAGRAM

2.1 CONTROL ASSY, POWER SW ASSY, EJECT SW ASSY AND SLIDER ASSY-S

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



SWITCHES (Underline indicates switch position)

EJECT SW ASSY
S610 : EJECT
S611 : TEMPO

POWER SW ASSY
S613 : POWER STANDBY/ON OFF-<u>ON</u>

CONTROL ASSY
S601 : LOOP IN
S602 : TRACK SEARCH (⏮)
S603 : TRACK SEARCH (⏭)
S604 : PLAY/PAUSE
S605 : SEARCH (◀◀)
S606 : SEARCH (▶▶)
S607 : CUE
S608 : TIME MODE
S609 : LOOP OUT
S612 : CLOSE SW
S615 : RELOOP

NOTE:

DIODES
D614,D615 GL5EG8
D616,D617 GL5HY8
D618-D621 GL3HY43
Indicated in diode 1SS254 unless otherwise noted.

SWITCHES
S608,S610, S611 PSG1006

S601,S609, S615 DSG1056

S602,S603, S605,S606 ASG1034

S604,S607 DSG1046

TRANSISTORS
Q601-Q604 2SC2458 (GR/Y)

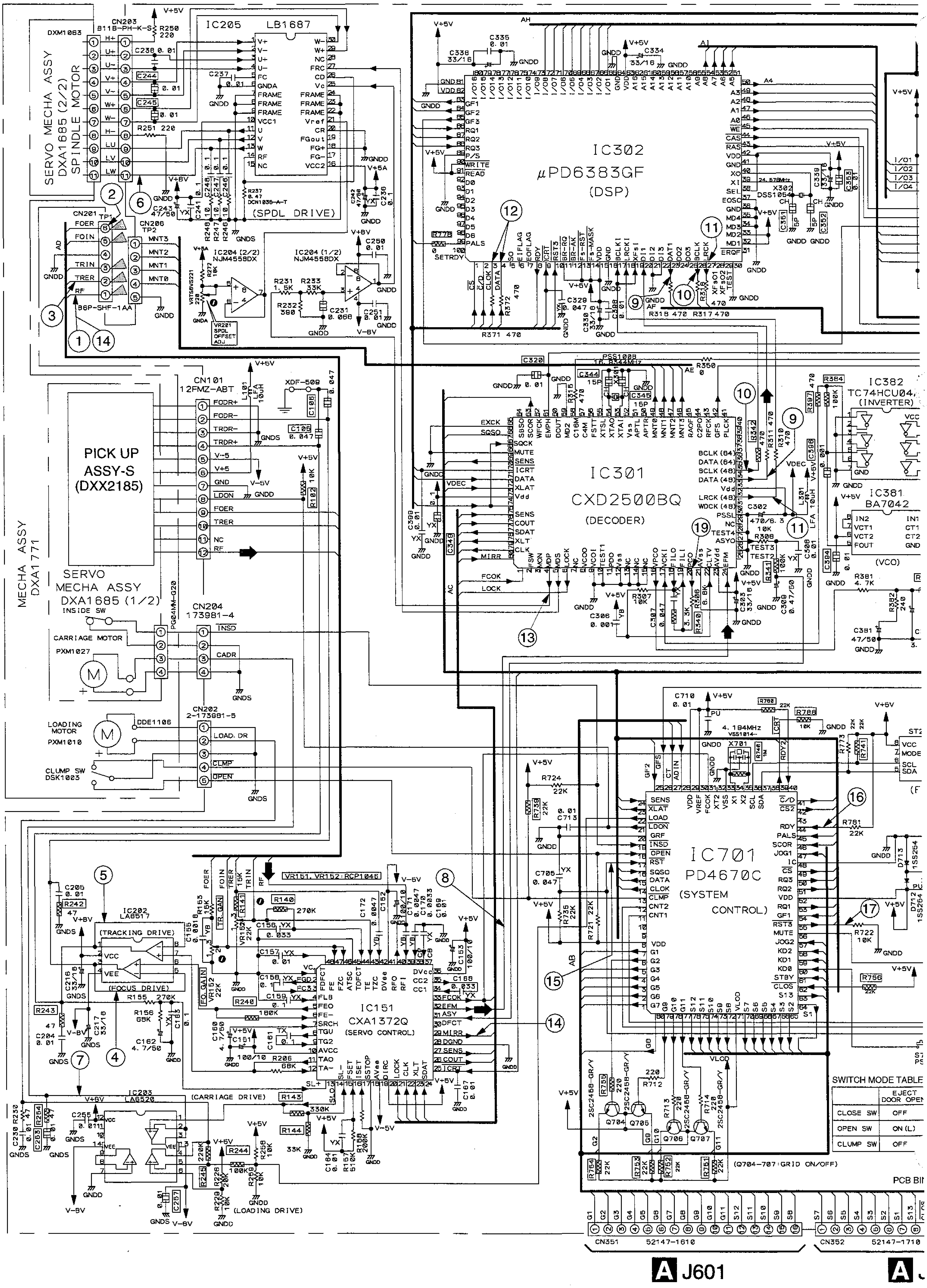
Q608-Q611 DTA124ES

CAPACITORS
Indicated in capacitor CKCYF unless otherwise noted.
Indicated in electrolytic capacitor CEAL unless othewise noted.

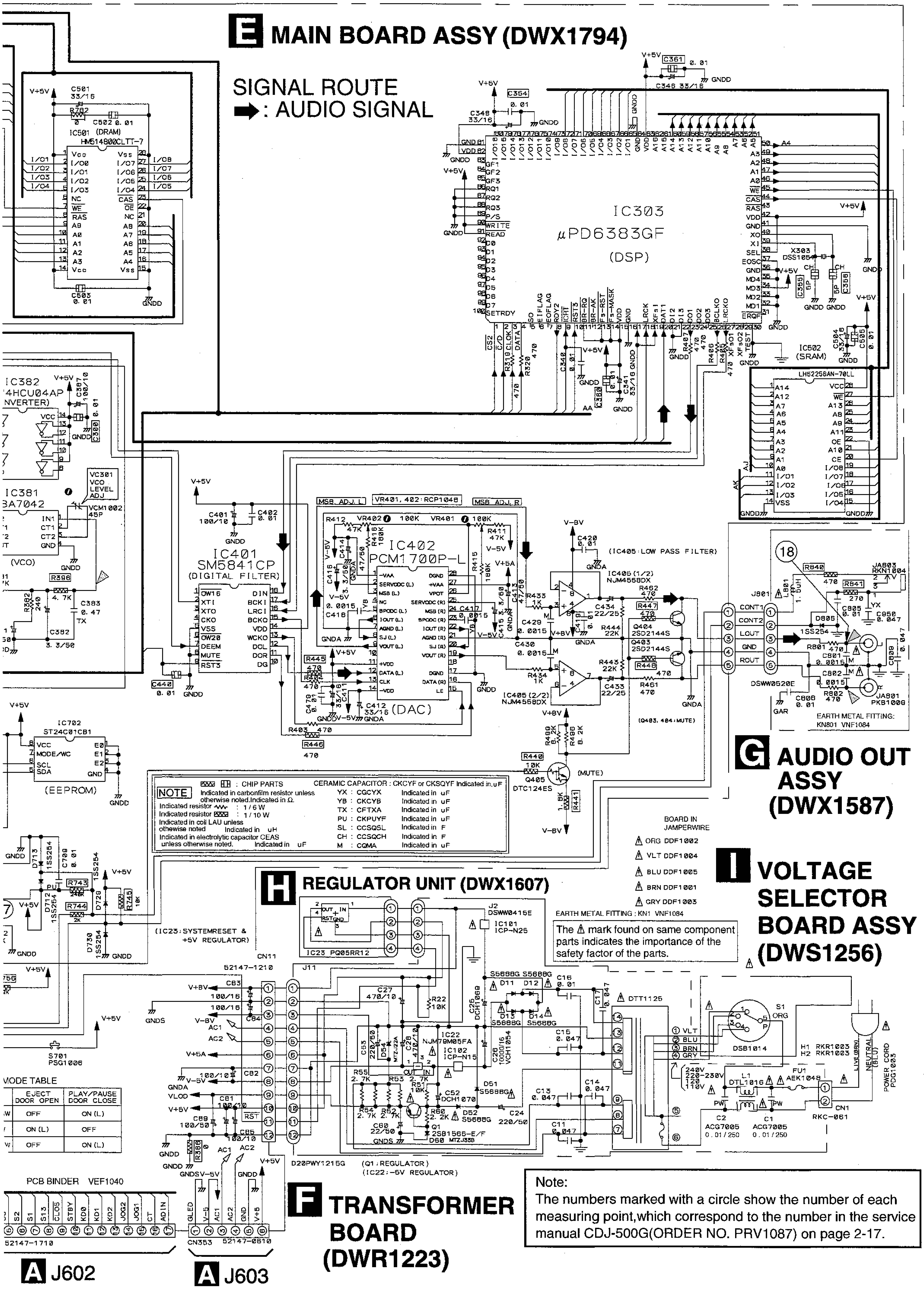
RESISTORS
Indicated in carbonfilm resistor unless otherwise noted.
Unspacified onse are of 1/6W and Ω.

A
B
C
D

3.2 MAIN BOARD ASSY, TRANSFORMER BOARD ASSY, AUDIO OUT ASSY, REGULATOR UNIT AND VOLTAGE SELECTOR BOARD ASSY



E


E MAIN BOARD ASSY (DWX1794)
SIGNAL ROUTE
➡: AUDIO SIGNAL
IC501 (DRAM) HM514800CLTT-7
IC303
μPD6383GF
(DSP)
IC502 (SRAM) LH52256AN-70LL
IC382 74HCU04AP (INVERTER)
IC381 BA7042 (VCO)
VC301 VCO LEVEL ADJ
IC401 SM5841CP (DIGITAL FILTER)
IC402 PCM1700P-L (DAC)
VR401, 402 : RCP1048
MSB ADJ. L
MSB ADJ. R
IC405 (1/2) NJM4558DX
IC405 (2/2) NJM4558DX
(IC405 : LOW PASS FILTER)
Q405 DTC124ES (MUTE)
(Q403, 404 : MUTE)
IC702 ST24C01CB1 (EEPROM)
G AUDIO OUT ASSY (DWX1587)
JA801 PKB1008
JA803 RKN1004
EARTH METAL FITTING: KN801 VNF1084
NOTE
CHIP PARTS
Indicated in carbonfilm resistor unless otherwise noted.Indicated in Ω.
Indicated resistor : 1/6 W
Indicated resistor : 1/10 W
Indicated in coil LAU unless otherwise noted Indicated in uH
Indicated in electrolytic capacitor CEAS unless otherwise noted. Indicated in uF
CERAMIC CAPACITOR : CKCYF or CKSQYF Indicated in uF
YX : CGCYX Indicated in uF
YB : CKCYB Indicated in uF
TX : CFTXA Indicated in uF
PU : CKPUYF Indicated in uF
SL : CCSQSL Indicated in F
CH : CCSQCH Indicated in F
M : CQMA Indicated in uF
H REGULATOR UNIT (DWX1607)
IC23 PQ05RR12
(IC23 : SYSTEMRESET & +5V REGULATOR)
IC22 NJM79M05FA
IC102 ICP-N15
IC101 ICP-N25
(Q1 : REGULATOR)
(IC22 : -5V REGULATOR)
BOARD IN JAMPERWIRE
ORG DDF1002
VLT DDF1004
BLU DDF1005
BRN DDF1001
GRY DDF1003
EARTH METAL FITTING : KN1 VNF1084
The ⚠ mark found on same component parts indicates the importance of the safety factor of the parts.
I VOLTAGE SELECTOR BOARD ASSY (DWS1256)
DSB1014
H1 RKR1003
H2 RKR1003
POWER CORD PDG1003
F TRANSFORMER BOARD (DWR1223)
MODE TABLE
EJECT DOOR OPEN
PLAY/PAUSE DOOR CLOSE
PCB BINDER VEF1040
A J602
A J603
Note:
The numbers marked with a circle show the number of each measuring point,which correspond to the number in the service manual CDJ-500G(ORDER NO. PRV1087) on page 2-17.

E F G H I

VOLTAGE(V) OF MAIN BORD ASSY

Note) Operation mode : PLAY

IC151(CXA1372Q)

Pin No.	Voltage (V)
1	0
2	0.1
3	0
4	0
5	0.4
6	0
7	0.3
8	0
9	0
10	5
11	0
12	0
13	0.1
14	0 to 0.3
15	0
16	– 4
17	1.3
18	0
19	– 5
20	5
21	0 to 5
22	0 to 5
23	0 to 5
24	0 to 5
25	4.9
26	0 to 5
27	0 to 5
28	0
29	0 to 5
30	– 4.8
31	2.5
32	1 to 4
33	4.9
34	– 1.7
35	– 1.9
36	5
37	– 0.9
38	– 2.1
39	0
40	1
41	– 5
42	0
43	0
44	0
45	0
46	0.1
47	0.1
48	0

IC205(LB1687)

Pin No.	Voltage (V)
1	2.5
2	2.5
3	2.5
4	2.5
5	0.7
6	0
7	0
8	0
9	0
10	2.5
11	3.5 to 3.9
12	3.5 to 3.9
13	3.5 to 3.9
14	0
15	0
16	5
17	0.5
18	0
19	0.7
20	0
21	0
22	0
23	0
24	0
25	0.1
26	0
27	4.9
28	0
29	2.5
30	2.5

IC301(CXD2500BQ)

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	4.9	41	1
2	0	42	5
3	5	43	2.5
4	0.5 to 0.6	44	0
5	4.9	45	5
6	0 to 5	46	4.4
7	0	47	0
8	5	48	0
9	0	49	0
10	0	50	1.2
11	0	51	1.2
12	0	52	0
13	0	53	0.4 to 4
14	0	54	0 to 5
15	0	55	0
16	3.2	56	2.9
17	2.7	57	1
18	2.2	58	0 to4.6
19	2.3	59	0
20	2.3	60	0
21	0	61	0
22	2.2	62	2.5
23	5	63	0 to 5
24	1 to 4	64	0.2
25	0	65	0
26	0	66	0 to 5
27	2.5	67	5
28	0	68	0
29	0	69	0 to 5
30	0	70	4.9
31	2.5	71	0 to 5
32	0 to 5	72	0 to 5
33	5	73	5
34	0 to 5	74	5
35	0 to 5	75	0 to 5
36	2.4	76	0 to 5
37	1.8	77	0 to 5
38	2.5	78	0 to 5
39	0	79	0 to 5
40	5	80	0 to 5

IC302(μPD6383GF)

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	5	51	0 to 5
2	4.9	52	0 to 5
3	4.6	53	0 to 5
4	0 to 5	54	0 to 5
5	0	55	0 to 5
6	0	56	0 to 5
7	5	57	0 to 5
8	5	58	0 to 5
9	4.9	59	0 to 5
10	4.9	60	0 to 5
11	5	61	0 to 5
12	5	62	5
13	5	63	5
14	5	64	0
15	5	65	0 to 5
16	0	66	0 to 5
17	0 to 5	67	0 to 5
18	0 to 5	68	0 to 5
19	0 to 5	69	0 to 5
20	0 to 5	70	0 to 5
21	0	71	0 to 5
22	0	72	0 to 5
23	0 to 5	73	0 to 5
24	0 to 5	74	0 to 5
25	0 to 5	75	0 to 5
26	0 to 5	76	0 to 5
27	0 to 5	77	0 to 5
28	0	78	0 to 5
29	0	79	0 to 5
30	0	80	0 to 5
31	5	81	0
32	5	82	5
33	5	83	0
34	0	84	0
35	0	85	4.9
36	0	86	0
37	0	87	0
38	5	88	5
39	1.6 to 3.7	89	0
40	1.2 to 3.8	90	5
41	0	91	5
42	5	92	5
43	0 to 5	93	5
44	4.8	94	5
45	0 to 5	95	5
46	0 to 5	96	5
47	0 to 5	97	5
48	0 to 5	98	5
49	0 to 5	99	5
50	0 to 5	100	0 to 5

IC303(μPD6383GF)

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	5	51	0 to 5
2	4.9	52	0 to 5
3	4.6	53	0 to 5
4	0 to 5	54	0 to 5
5	0	55	0 to 5
6	0	56	0 to 5
7	0	57	0 to 5
8	5	58	0 to 5
9	4.9	59	0 to 5
10	4.9	60	0 to 5
11	5	61	0 to 5
12	5	62	0 to 5
13	5	63	5
14	5	64	0
15	5	65	0 to 5
16	0	66	0 to 5
17	0 to 5	67	0 to 5
18	0 to 5	68	0 to 5
19	0 to 5	69	0 to 5
20	0 to 5	70	0 to 5
21	0	71	0 to 5
22	0	72	0 to 5
23	0 to 5	73	0 to 5
24	0 to 5	74	0 to 5
25	0 to 5	75	0 to 5
26	0 to 5	76	0 to 5
27	0 to 5	77	0 to 5
28	0	78	0 to 5
29	0	79	0 to 5
30	0	80	0
31	5	81	0
32	0	82	5
33	0	83	0
34	0	84	0
35	0	85	0
36	0	86	0
37	0	87	0
38	5	88	0
39	1.6 to 3.7	89	0
40	1.2 to 3.8	90	5
41	0	91	5
42	5	92	5
43	0 to 5	93	5
44	0 to 5	94	5
45	0 to 5	95	5
46	0 to 5	96	5
47	0 to 5	97	0
48	0 to 5	98	5
49	0 to 5	99	0
50	0 to 5	100	0 to 5

IC402(PCM1700P-L)

Pin No.	Voltage (V)
1	– 4.9
2	– 1.5
3	– 4.5
4	0
5	3.2
6	0
7	0
8	0
9	– 2.5 to 2.5
10	0
11	5
12	0 to 5
13	0 to 5
14	– 4.9
15	3.7
16	0 to 5
17	0
18	0
19	– 2.5 to 2.5
20	0
21	0
22	0
23	3.2
24	– 4.4
25	– 1.5
26	– 4.1
27	5
28	0

IC701(PD4670C)

Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	– 28.3 to – 27.9	41	4.9
2	– 28.3 to – 27.8	42	5
3	– 28.3 to – 27.8	43	5
4	– 28.3 to – 27.9	44	5
5	– 28.3 to – 27.9	45	5
6	– 28.6 to – 28.2	46	0 to 5
7	– 28.4 to – 28.0	47	0 to 5
8	5	48	0
9	0	49	5
10	0	50	5
11	5	51	0
12	5	52	5
13	0	53	0
14	0 to 5	54	0
15	0 to 5	55	5
16	0 to 5	56	4.9
17	5	57	0 to 5
18	5	58	0
19	5	59	0
20	0	60	0
21	0	61	0
22	2.5	62	0
23	0 to 5	63	– 28.1 to – 27.7
24	0 to 5	64	– 24.6 to – 0.5
25	0	65	– 21.1 to 0
26	5	66	– 17.2 to 0.1
27	2.5	67	– 23.8 to 0.1
28	2.5	68	– 27.1 to – 8.7
29	5	69	– 27.8 to 1.9
30	5	70	– 30.9 to – 3.4
31	4.9	71	– 31.2
32	0	72	– 18.1 to – 14.2
33	0	73	– 21.1 to – 14.3
34	0 to 4.4	74	– 27.7 to – 8.4
35	– 0.4 to 5.2	75	– 20.8 to – 11.8
36	5	76	– 18.3 to – 18.1
37	5	77	– 28.7 to – 28.2
38	5	78	– 28.6 to – 28.2
39	4.9	79	– 28.6 to – 28.3
40	5	80	– 28.4 to – 28.0

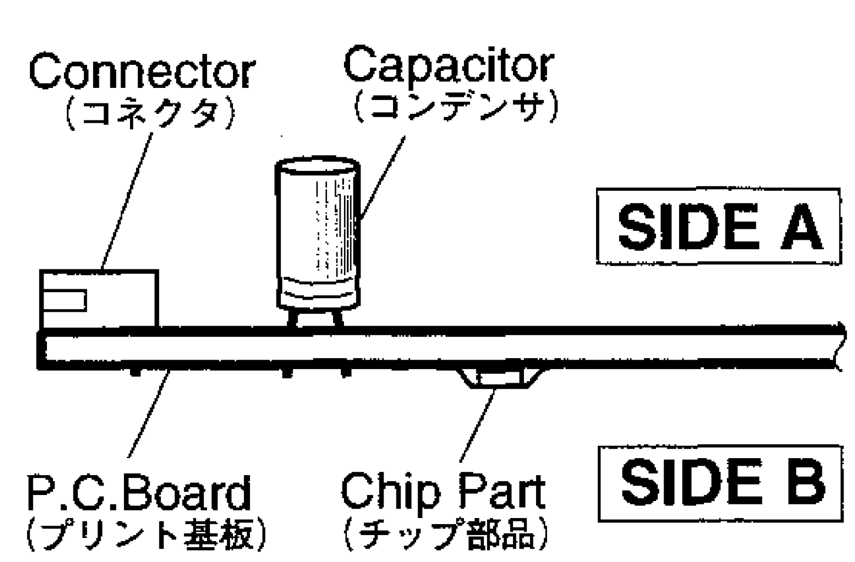
3. PCB CONNECTION DIAGRAM

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.

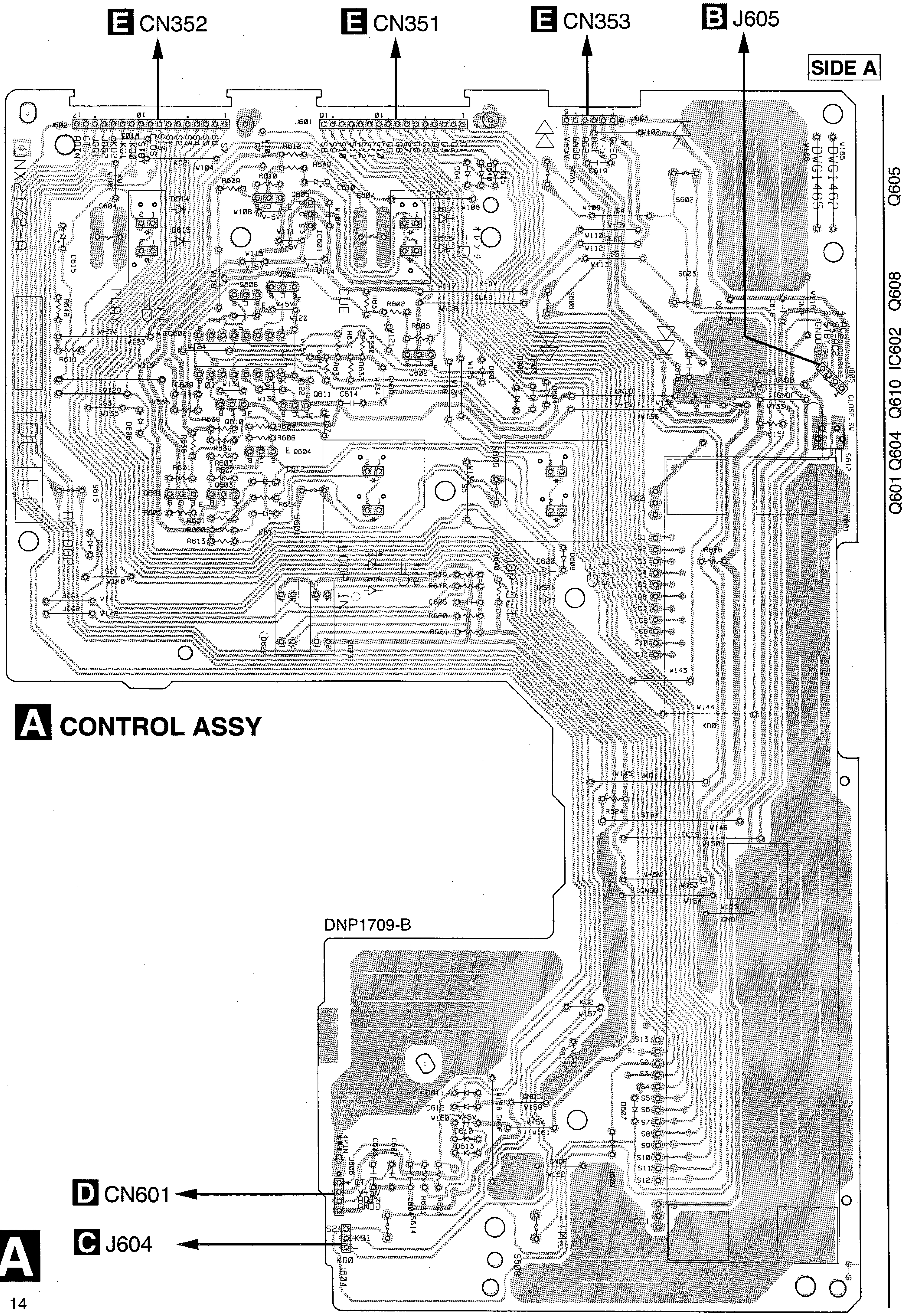
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

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



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

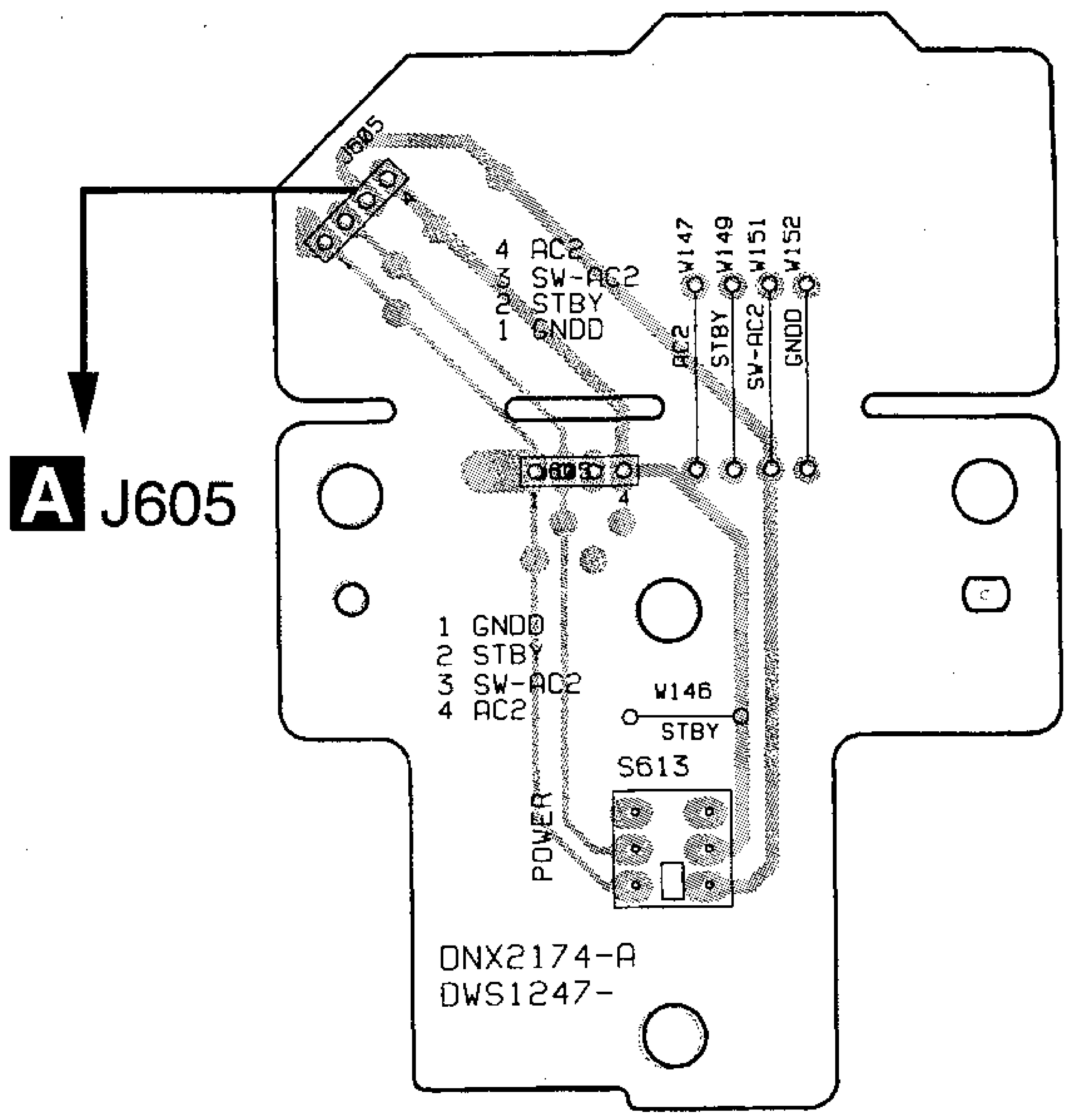
3.1 CONTROL ASSY



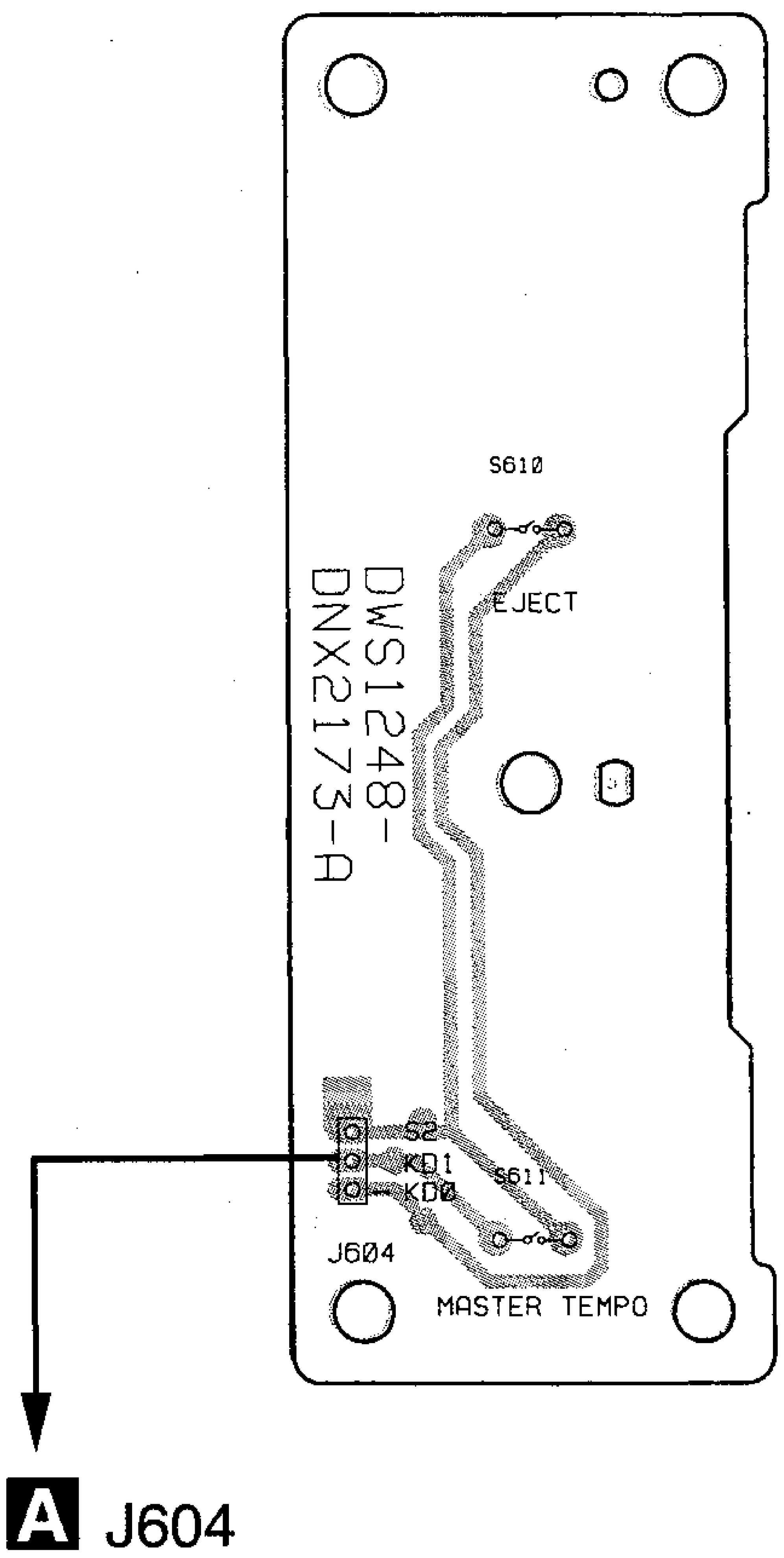
3.2 POWER SW ASSY, EJECT SW ASSY AND SLIDER ASSY-S

SIDE A

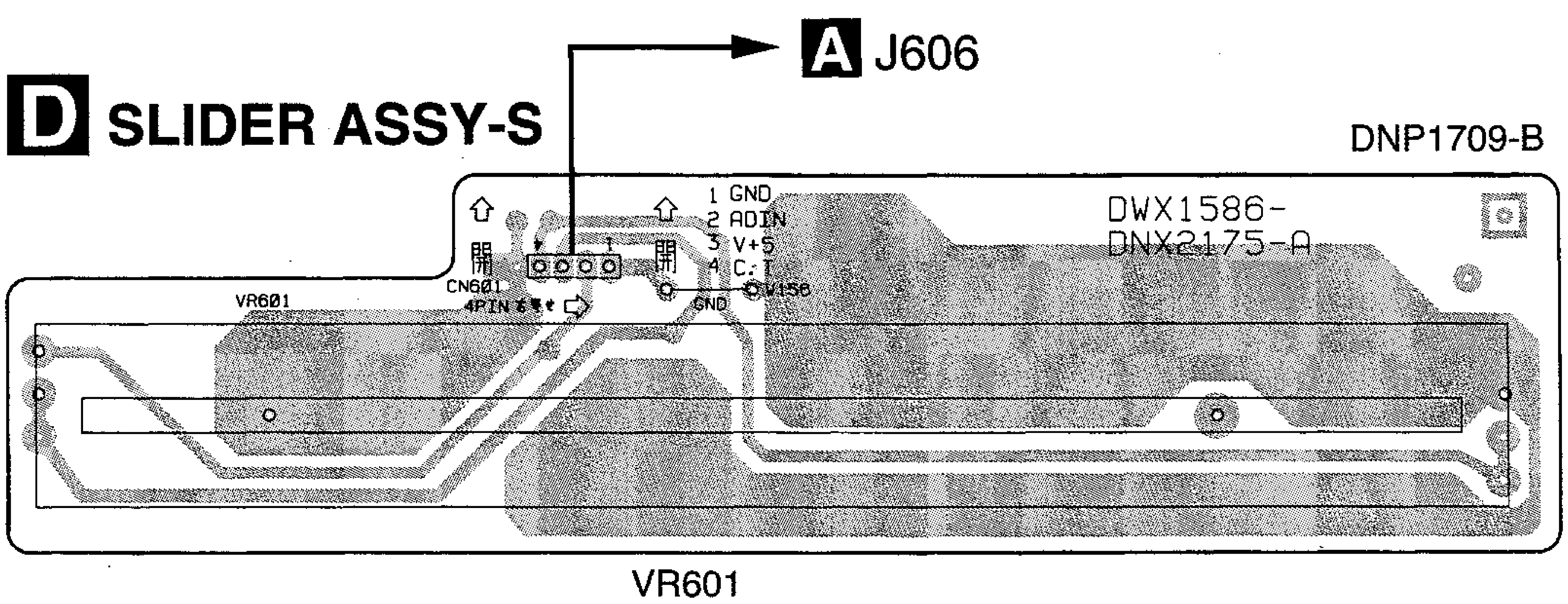
B POWER SW ASSY



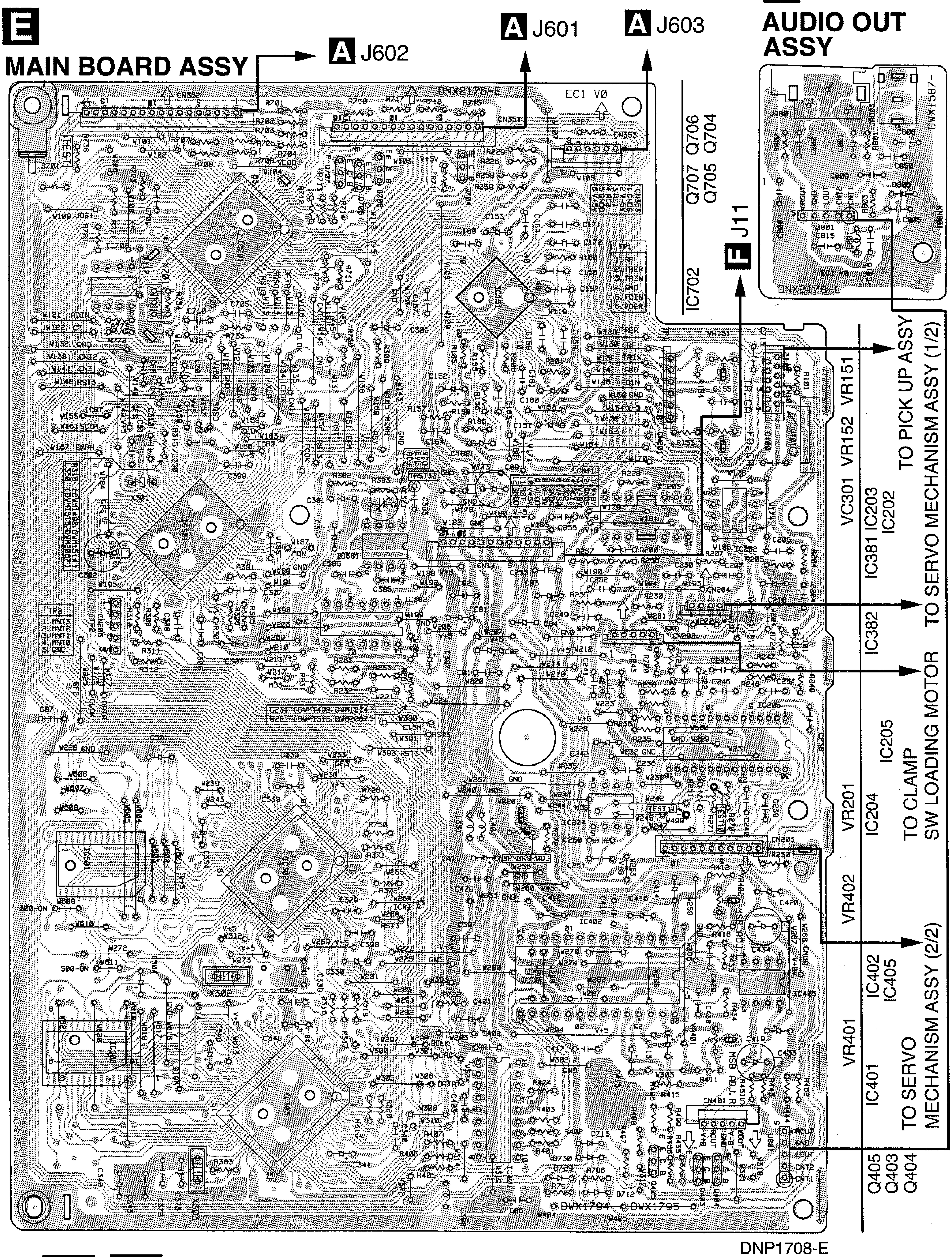
C EJECT SW ASSY



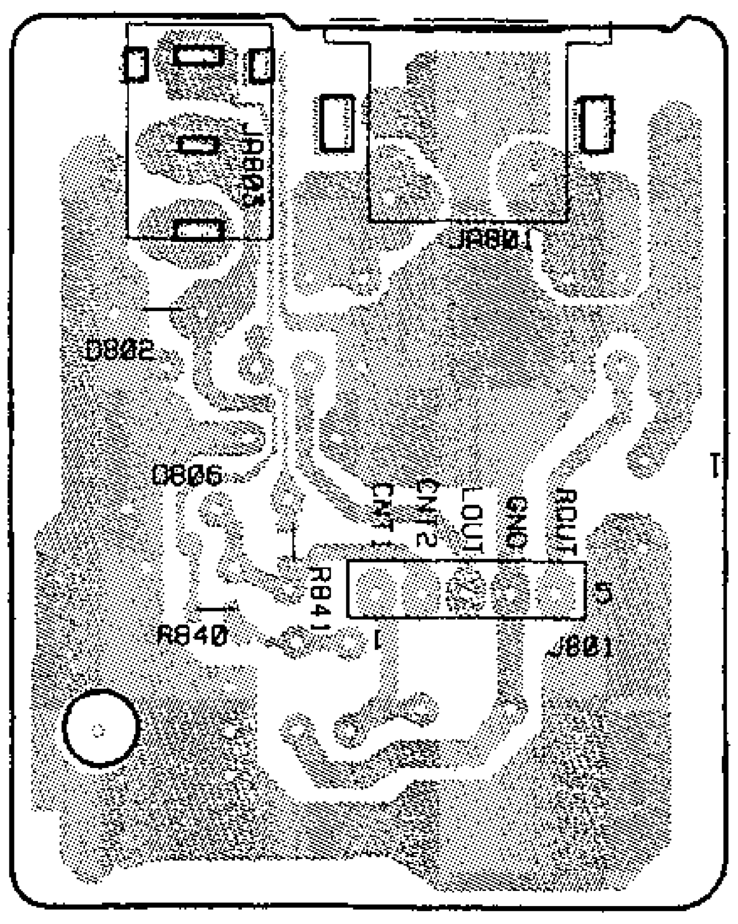
D SLIDER ASSY-S



3.3 MAIN BOARD ASSY AND AUDIO OUT ASSY

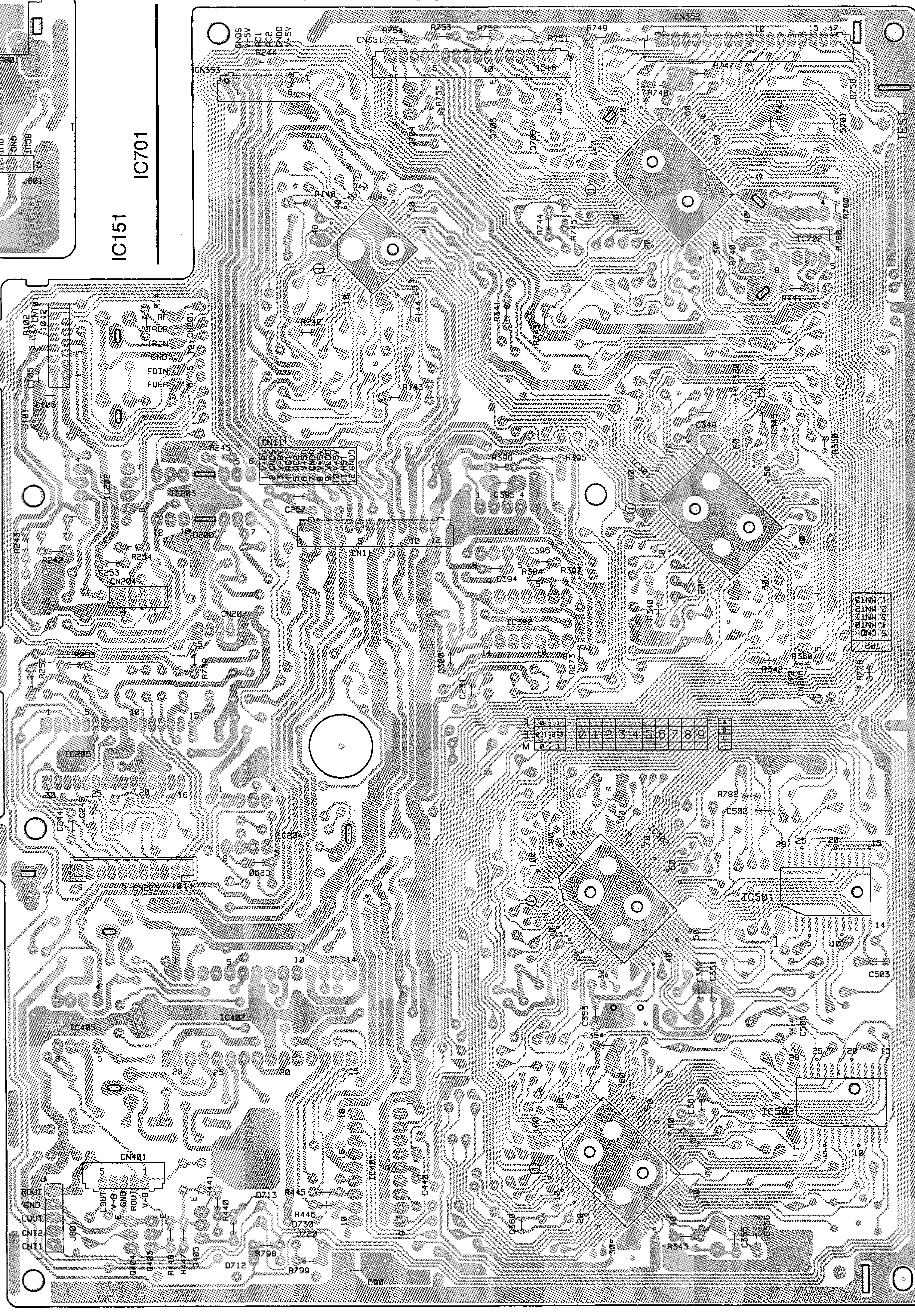


G
AUDIO OUT ASSY

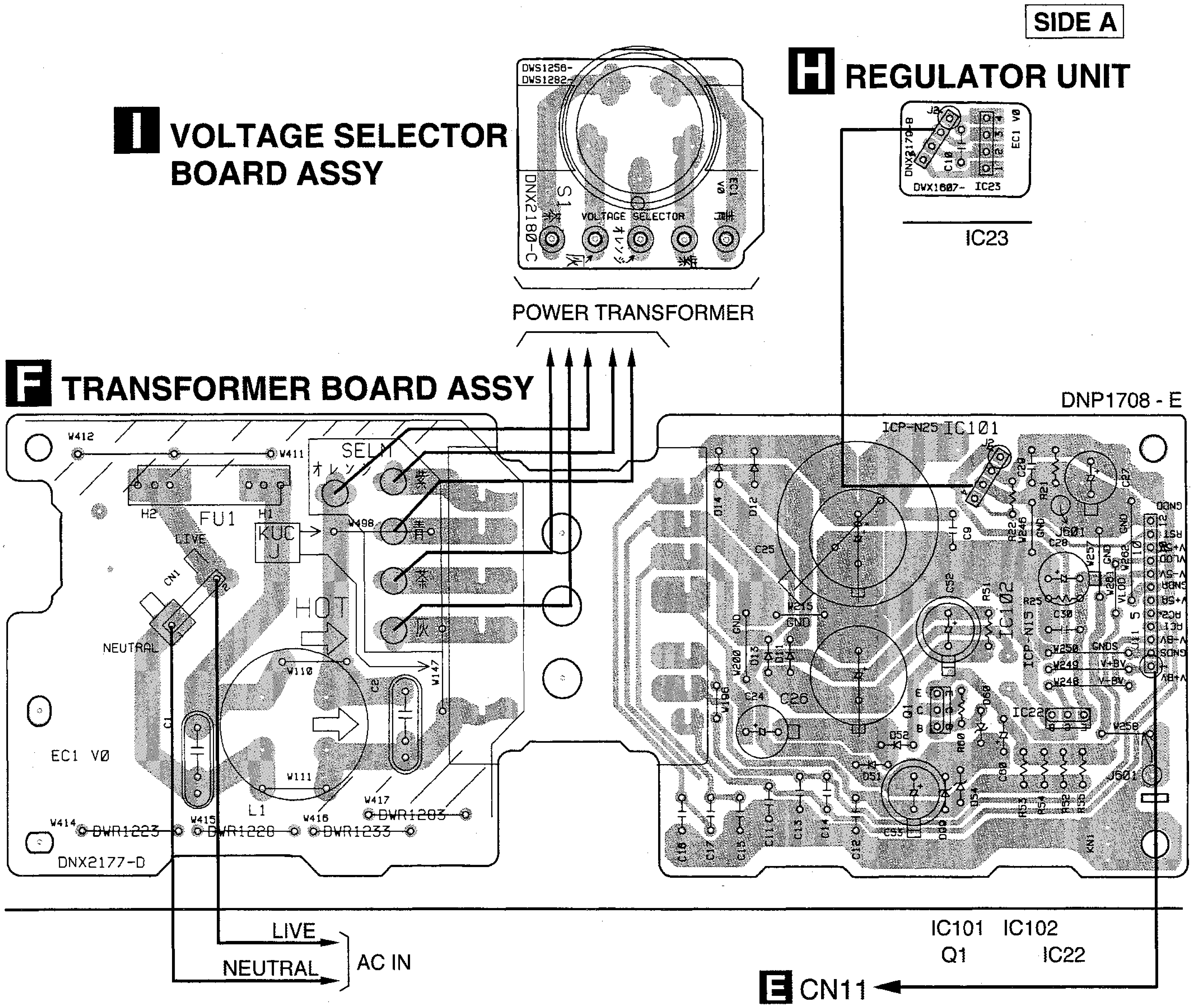


E
MAIN BOARD ASSY

SIDE B

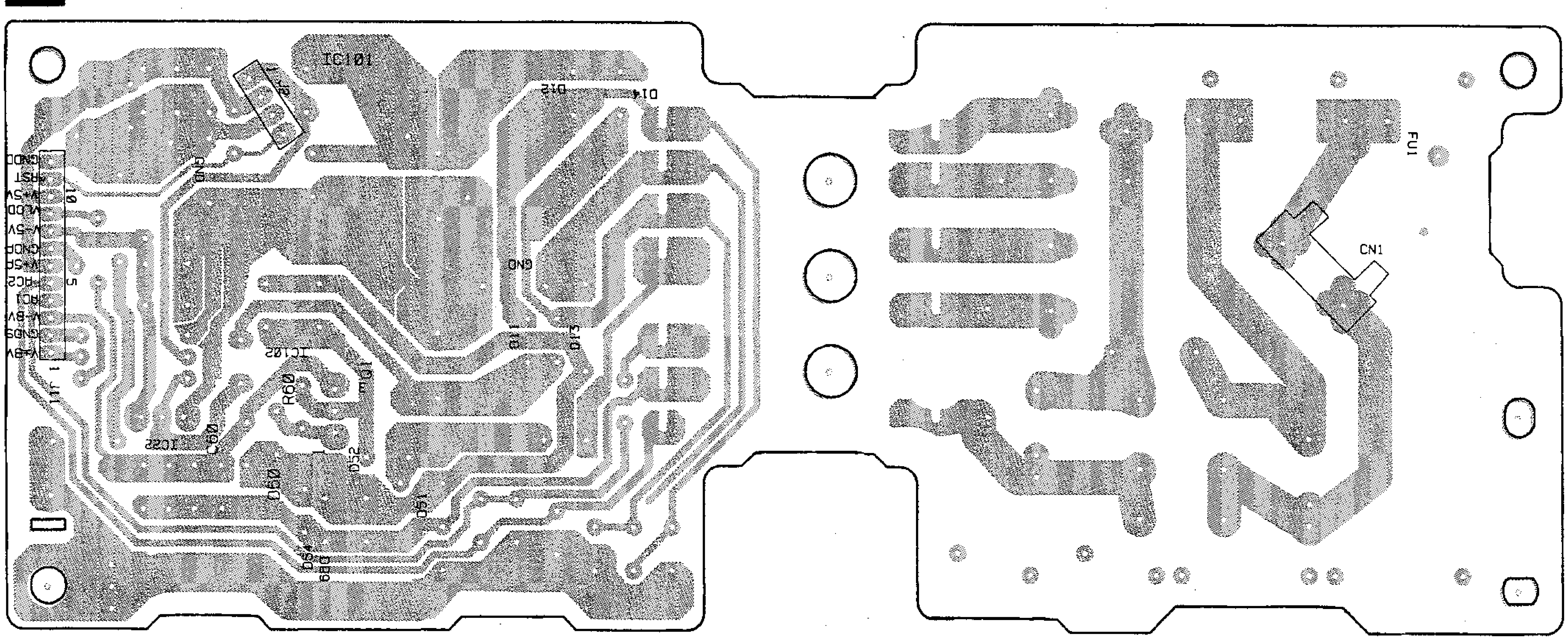


3.4 TRANSFORMER BOARD ASSY, REGULATOR UNIT AND VOLTAGE SELECTOR BOARD ASSY



F TRANSFORMER BOARD ASSY

SIDE B



4. PCB 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.*
• *When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω → 56 × 10¹ → 561 .... RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 473 .... RD1/4PU 4 7 3 J
0.5 Ω → R50 .... RN2H R 5 0 K
1 Ω → 1R0 .... RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 × 10¹ → 5621 .... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

Mark	No.	Description	Part No.
NSP		MOTHER BOARD ASSY	DWM1492
		├ TRANSFORMER BOARD ASSY	DWR1223
		├ AUDIO OUT ASSY	DWX1587
		├ MAIN BOARD ASSY	DWX1794
NSP		├ REGULATOR UNIT	DWX1607
NSP		└ VOLTAGE SELECTOR BOARD ASSY	DWS1256
NSP		SUB BOARD ASSY	DWX1585
		├ CONTROL ASSY	DWG1462
NSP		├ POWER SW ASSY	DWS1247
NSP		├ EJECT SW ASSY	DWS1248
		└ SLIDER ASSY-S	DXX2225

F TRANSFORMER BOARD ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC102		ICP-N15
⚠	IC101		ICP-N25
⚠	IC22		NJM79M05FA
⚠	Q1		2SB1566
	D54		MTZJ22A
	D60		MTZJ33B
⚠	D11-D14, D51, D52		S5688G

COILS AND FILTERS

Mark	No.	Description	Part No.
⚠	L1		DTL1016

CAPACITORS

Mark	No.	Description	Part No.
⚠	C1, C2 (0.01μF/250V)		ACG7005
	C60		CEAS220M50
	C24, C53		CEAS221M50
	C27, C28		CEAS471M10
	C11, C13-C17		CKCYF473Z50
	C25 (18000μF/16V)		DCH1069
	C52 (100μF/100V)		DCH1070
	C26 (10000μF/16V)		VCH1054

RESISTORS

Mark	No.	Description	Part No.
	All Resistors		RD1/4PU□□□J

OTHERS

Mark	No.	Description	Part No.
⚠		LEAD WIRE UNIT (BRN)	DDF1001
⚠		LEAD WIRE UNIT (ORG)	DDF1002
⚠		LEAD WIRE UNIT (GRY)	DDF1003
⚠		LEAD WIRE UNIT (VLT)	DDF1004
⚠		LEAD WIRE UNIT (BLU)	DDF1005
		TERMINAL	RKC-061
	H1, H2	FUSE HOLDER	RKR1003
	KN1	EARTH METAL FITTING	VNF1084

G AUDIO OUT ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	D806		1SS254

COILS AND FILTERS

Mark	No.	Description	Part No.
⚠	L801		LAU1R5J

CAPACITORS

Mark	No.	Description	Part No.
	C950		CGCYX473M25
	C805, C808		CKCYF103Z50
	C809		CKCYF473Z50
⚠	C801, C802		CQMA152J50

RESISTORS

Mark	No.	Description	Part No.
	R801, R802		RD1/4PU471J
	Other Resistors		RS1/10S□□□J

OTHERS

Mark	No.	Description	Part No.
	JA801	2P PIN JACK	PKB1009
	JA803	REMOTE CONTROL JACK	RKN1004
	KN801	EARTH METAL FITTING	VNF1084

E MAIN BOARD ASSY

SEMICONDUCTORS

Mark	No.	Description	Part No.
	IC381		BA7042
	IC151		CXA1372Q
	IC301		CXD2500BQ
	IC501		HM514800CLTT-7
	IC202		LA6517
	IC203		LA6520

Mark	No.	Description	Part No.
	IC205		LB1687
	IC502		LH52256AN-70LL
	IC204, IC405		NJM4558DX
	IC402		PCM1700P-L
	IC701		PD4670C
	IC401		SM5841CP
	IC702		ST24C01CB1
	IC382		TC74HCU04AP
	IC302, IC303		UPD6383GF
	Q704-Q707		2SC2458
	Q403, Q404		2SD2144S
	Q405		DTC124ES
	D712, D713, D729, D730		1SS254

COILS AND FILTERS

Mark	No.	Description	Part No.
	L101		LFA100J
	L301		LFA100K

SWITCHES AND RELAYS

Mark	No.	Description	Part No.
	S701		PSG1006

CAPACITORS

Mark	No.	Description	Part No.
	C344, C345		CCSQCH150J50
	C351, C352, C355, C356		CCSQCH5R0C50
	C151-C153, C387, C401		CEAS101M10
	C81, C82, C85		CEAS101M10
	C83, C84		CEAS101M16
	C89		CEAS101M50
	C433, C434		CEAS220M25
	C216, C217, C303, C330, C334		CEAS330M16
	C338, C339, C341, C346, C348		CEAS330M16
	C411, C412, C501, C504		CEAS330M16
	C382, C415, C416		CEAS3R3M50
	C242, C243, C381, C413, C414		CEAS470M50
	C302		CEAS471M6R3
	C160, C162		CEAS4R7M50
	C309		CEASR47M50
	C161		CFTXA104J50
	C383		CFTXA474J50
	C157, C164, C169, C308, C399		CGCYX103K25
	C158, C159, C163, C236, C241		CGCYX104K25
	C246-C248		CGCYX104K25
	C156, C168		CGCYX333K25
	C307, C329, C705		CGCYX473K25
	C306, C417, C418		CKCYB152K50
	C155		CKCYB182K50
	C170		CKCYB332K50
	C171, C172		CKCYB472K50
	C167, C204, C205, C230		CKCYF103Z50
	C237, C238, C250, C251, C255		CKCYF103Z50
	C335, C340, C398, C402		CKCYF103Z50
	C419, C420, C479, C713		CKCYF103Z50
	C709, C710		CKPUYF103Z25
	C231		CKSQYB683K25
	C396		CKSQYF102Z50
	C244, C245, C253, C257, C300		CKSQYF103Z50
	C320, C353, C354, C360, C361		CKSQYF103Z50
	C394, C440, C502, C503, C505		CKSQYF103Z50
	C349		CKSQYF104Z50
	C105, C106		CKSQYF473Z50
	C429, C430		CQMA152J50
	VC301		VCM1002

RESISTORS

Mark	No.	Description	Part No.
	R237 (0.47Ω)		DCN1035
	R350, R368, R778, R782		RS1/10S0R0J
	R102, R440, R745, R788		RS1/10S103J
	R244, R341, R384		RS1/10S104J
	R740		RS1/10S105J
	R141		RS1/10S153J
	R441		RS1/10S182J
	R240		RS1/10S184J
	R744		RS1/10S202J
	R755		RS1/10S221J
	R739, R741, R751-R754, R756		RS1/10S223J
	R780		RS1/10S223J
	R245		RS1/10S224J
	R743		RS1/10S244J
	R140		RS1/10S274J
	R340		RS1/10S332J
	R144		RS1/10S333J
	R143		RS1/10S334J
	R242, R243, R254		RS1/10S470J
	R342, R397, R445-R448		RS1/10S471J
	R396		RS1/10S472J
	VR151, VR152 (22 kΩ)		RCP1046
	VR401, VR402 (100 kΩ)		RCP1048
	VR201		VRTS6VS221
	Other Resistors		RD1/4PU□□□J

OTHERS

Mark	No.	Description	Part No.
	CN101	FPC CONNECTOR	12FMZ-ABT
	CN204	MT CONNECTOR 4P	173981-4
	CN353	6P JUMPER CONNECTOR	52147-0610
	CN11	12P JUMPER CONNECTOR	52147-1210
	CN352	17P JUMPER CONNECTOR	52147-1710
	CN201	6P TOP POST	B6P-SHF-1AA
	X302, X303	CERAMIC RESONATOR (24.576 MHz)	DSS1054
	X301	CRYSTAL RESONATOR (16.9344 MHz)	PSS1008
		PCB BINDER	VEF1040
	X701	CERAMIC RESONATOR (4.19 MHz)	VSS1014

H REGULATOR UNIT

SEMICONDUCTORS

Mark	No.	Description	Part No.
⚠	IC23		PQ05RR12

I VOLTAGE SELECTOR BOARD ASSY

OTHERS

Mark	No.	Description	Part No.
⚠		VOLTAGE SELECTOR SWITCH	DSB1014

Mark	No.	Description	Part No.

A CONTROL ASSY

SEMICONDUCTORS

	IC602		TC74HC175AP
	Q601-Q604		2SC2458
	Q608-Q611		DTA124ES
	D601-D613, D625		1SS254
	D618-D621		GL3HY43
	D614, D615		GL5EG8
	D616, D617		GL5HY8
	D622, D623		GP1S53V

SWITCHES AND RELAYS

	S602, S603, S605, S606		ASG1034
	S612		DSG1016
	S604, S607		DSG1046
	S601, S609, S615		DSG1056
	S608		PSG1006

CAPACITORS

	C601		CEAL101M6R3
	C620		CEAS2R2M50
	C602-C605, C608, C609		CKCYF103Z50
	C613, C614		CKCYF103Z50

RESISTORS

	All Resistors		RD1/4PU□□□J

OTHERS

	J604	3P JUMPER WIRE	D20PWW0315E
	J605	4P JUMPER WIRE	D20PWW0415G
	V601	FL INDICATOR TUBE	DEL1028
	J606	CONNECTOR	PF04PG-D05
		FL SPACER	VEB1129

B POWER SW ASSY

SWITCHES AND RELAYS

	S613		PSG1007

C EJECT SW ASSY

SWITCHES AND RELAYS

	S610, S611		PSG1006

D SLIDER ASSY-S

OTHERS

	CN601	KR CONNECTOR	S4B-PH-K-S

5. ADJUSTMENT

CDJ-500II/SL and CDJ-500G/KUC have the same construction except for the following:

● Test Point and Adjustment Variable Resistor Positions

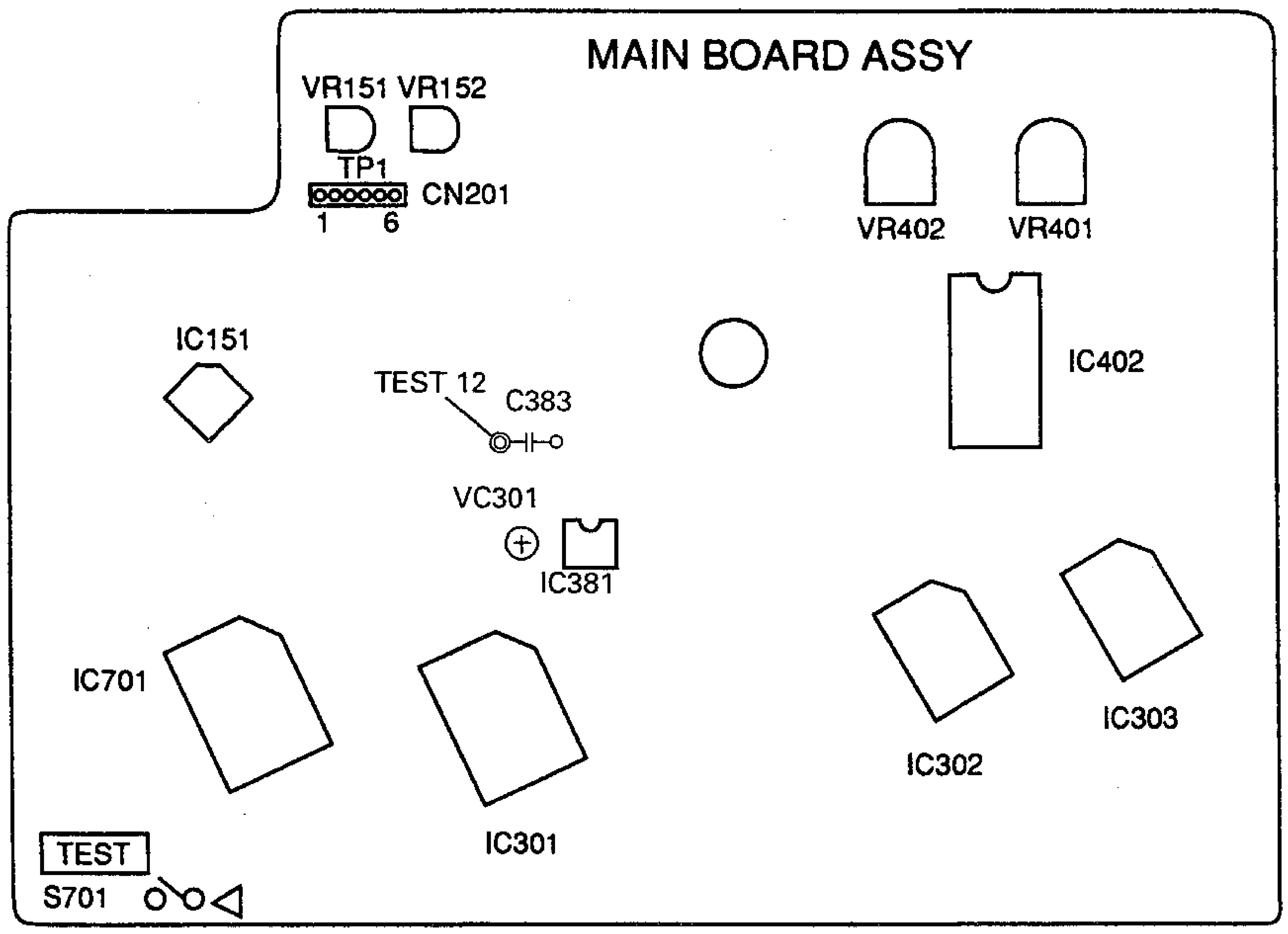


Figure 1. Adjustment Locations

● Notes

1.Use a 10:1 probe for the oscilloscope.
2.All the knob positions (settings) for the oscilloscope in the adjustment procedures are for when a 10:1 probe is used.

● Test Mode

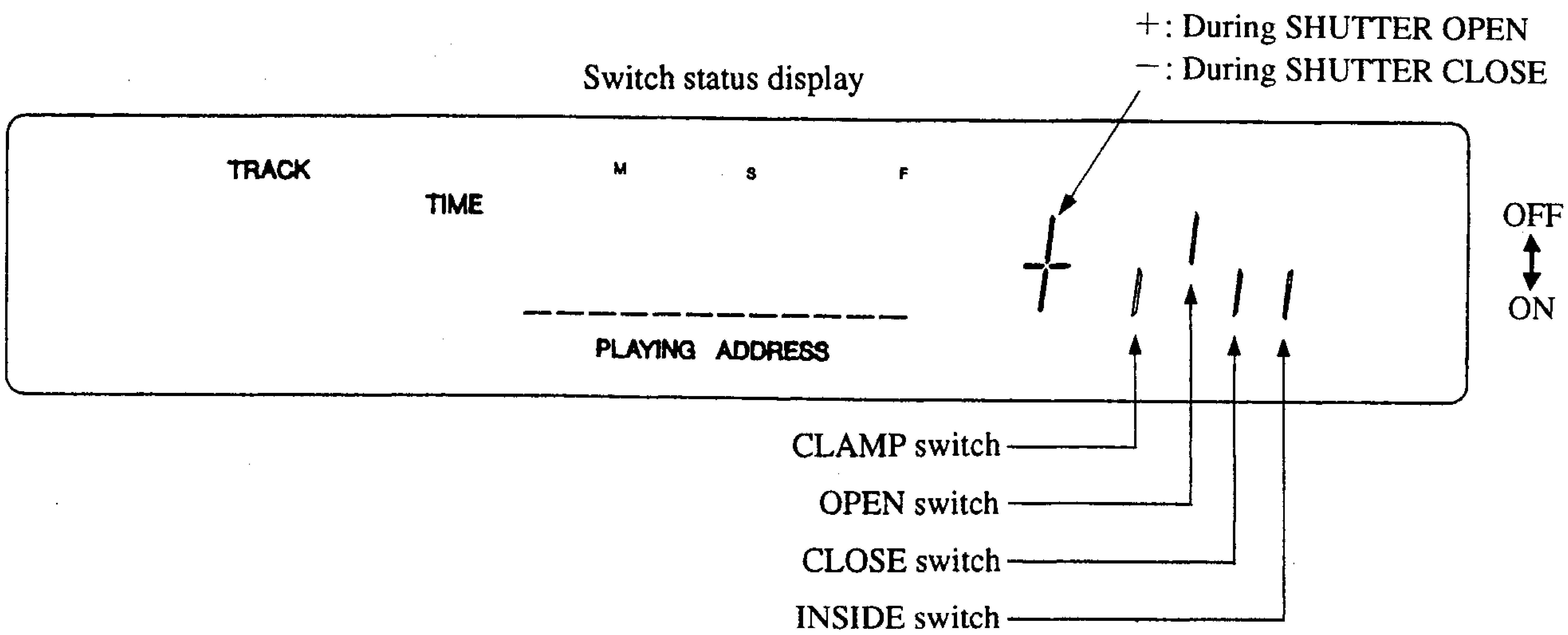
This model has a test mode so that the adjustments and checks required for service can be carried out easily. When this model is in test mode, the keys on the control panel work differently from normal. Adjustments and checks can be carried out by operating these keys with the correct procedure. For this model,all adjustments are carried out in test mode.

[Setting these models to test mode]

How to set this model into test mode.
1.Turn off the power switch.
2.Close the door while pressing the test mode switch (S701) on the MAIN BOARD ASSY. (See figure 1.)
3.Turn on the power switch.

When the test mode is set correctly, the display is different from what it usually is when the power is turned on.If the display is still the same as usual, test mode has not been set correctly, so repeat Steps 1-3.

The display (FL indicator) is as follows when the test mode is entered.
The TEMPO display is as follows. Switches flipped down are ON, and switches flipped up are OFF. The switches are arranged from left to right: CLAMP switch, OPEN switch, CLOSE switch and INSIDE switch. When the SHUTTER switch is OPEN, "+" is displayed. When the SHUTTER switch is CLOSE, "−" is displayed.



[Release from test mode]

Here is the procedure for releasing the test mode:

1.Press the CUE key to stop all operations. But the pick-up will not return to INSIDE.

2.Turn off the power switch

● VCO Adjustment

Mode	Adjusting Points	Measurement Points	Adjustment Value	Remarks
Power ON (STOP)	VC301	TEST 12 (C383) or IC381-Pin 1	2.5 ± 0.2 V (DC Voltage)	

6. GENERAL INFORMATION

6.1 PARTS

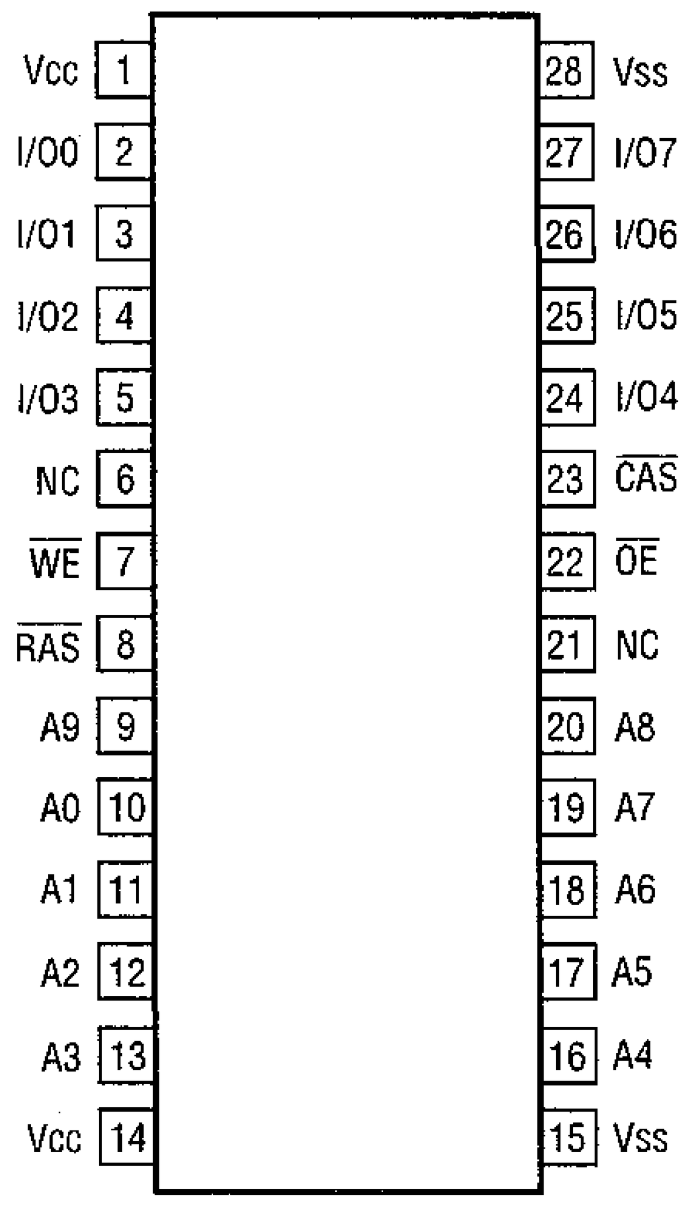
6.1.1 IC

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

■ HM514800CLTT-7 (MAIN BOARD ASSY : IC501)

• 524288-word x 8-bit CMOS Dynamic RAM

• Pin Arrangement



(Top view)

• Pin Function

Pin Name	Function	Pin Name	Function
A0 to A9	Address input (Row/refresh A0 to A9) (Column A0 to A8)	$\overline{WE}$	Read/write enable
I/O0 to I/O7	Data input/output	$\overline{OE}$	Output enable
$\overline{RAS}$	Row address strobe	Vcc	Power supply
$\overline{CAS}$	Column address strobe	Vss	GND

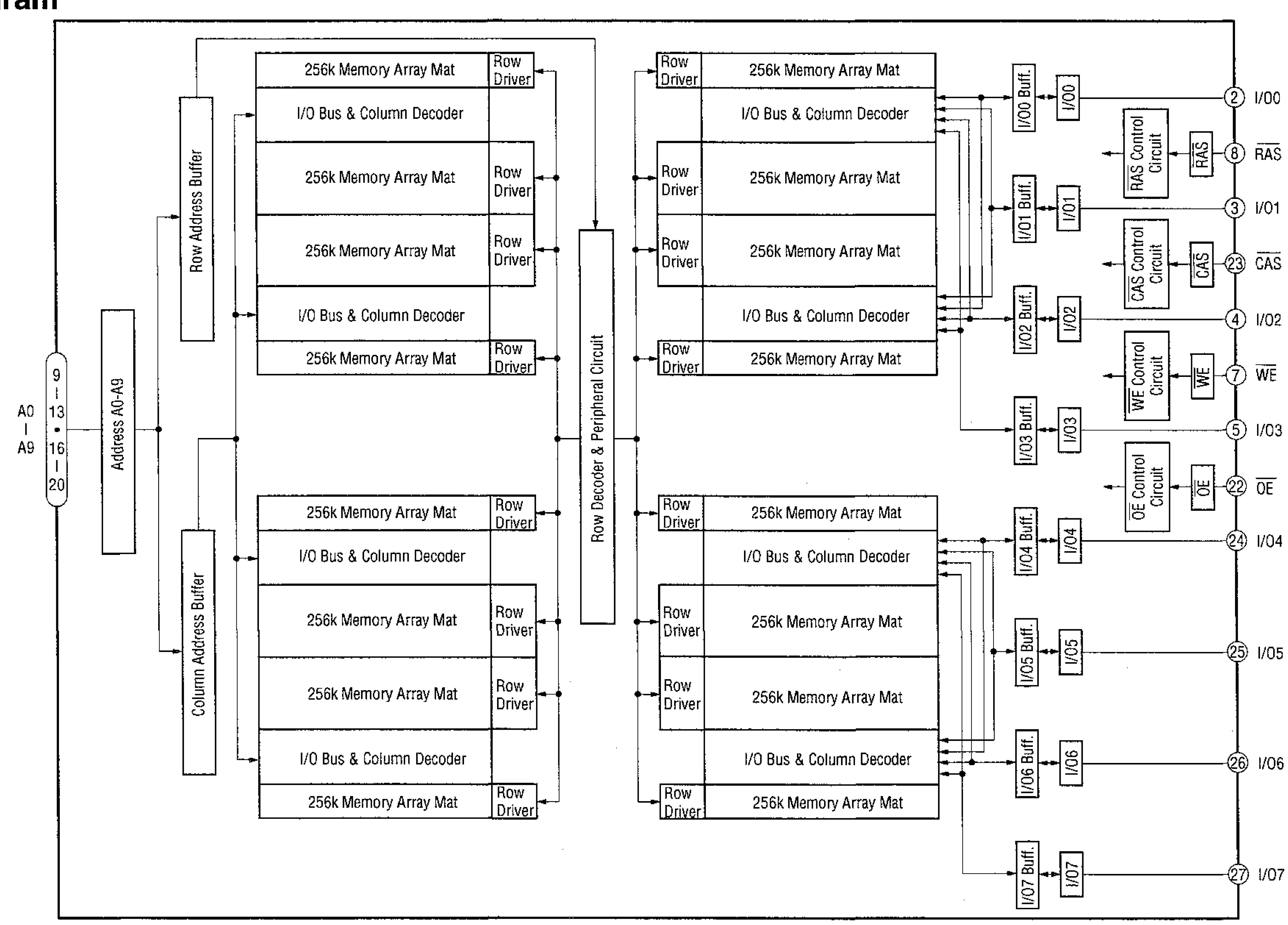
• Operation Mode

Input				Output	Operation Mode
$\overline{RAS}$	$\overline{CAS}$	$\overline{WE}$	$\overline{OE}$		
H	H	D	D	Open	Standby
H	L	H	L	Valid	Standby
L	L	H	L	Valid	Read cycle
L	L	L*2	D	Open	Early write cycle
L	L	L*2	H	Undefined	Delayed write cycle
L	L	H to L	H to L	Valid	Read modify write cycle
L	H	D	D	Open	$\overline{RAS}$ only refresh cycle
H to L	L	D	D	Open	$\overline{CAS}$ before $\overline{RAS}$ refresh cycle
L	H to L	H	L	Valid	High-speed page mode read cycle
L	H to L	L*2	D	Open	High-speed page mode early write cycle
L	H to L	L*2	H	Undefined	High-speed page mode delayed write cycle
L	H to L	H to L	L to L	Valid	High-speed page mode read modify write cycle
L	L	H	H	Open	Read cycle (output disable)

[Note] 1. H : High (inactive), L : Low (active), D : H or L

2. twcs ≧ 0 ns : Early write cycle, twcs < 0 ns : Delayed write cycle

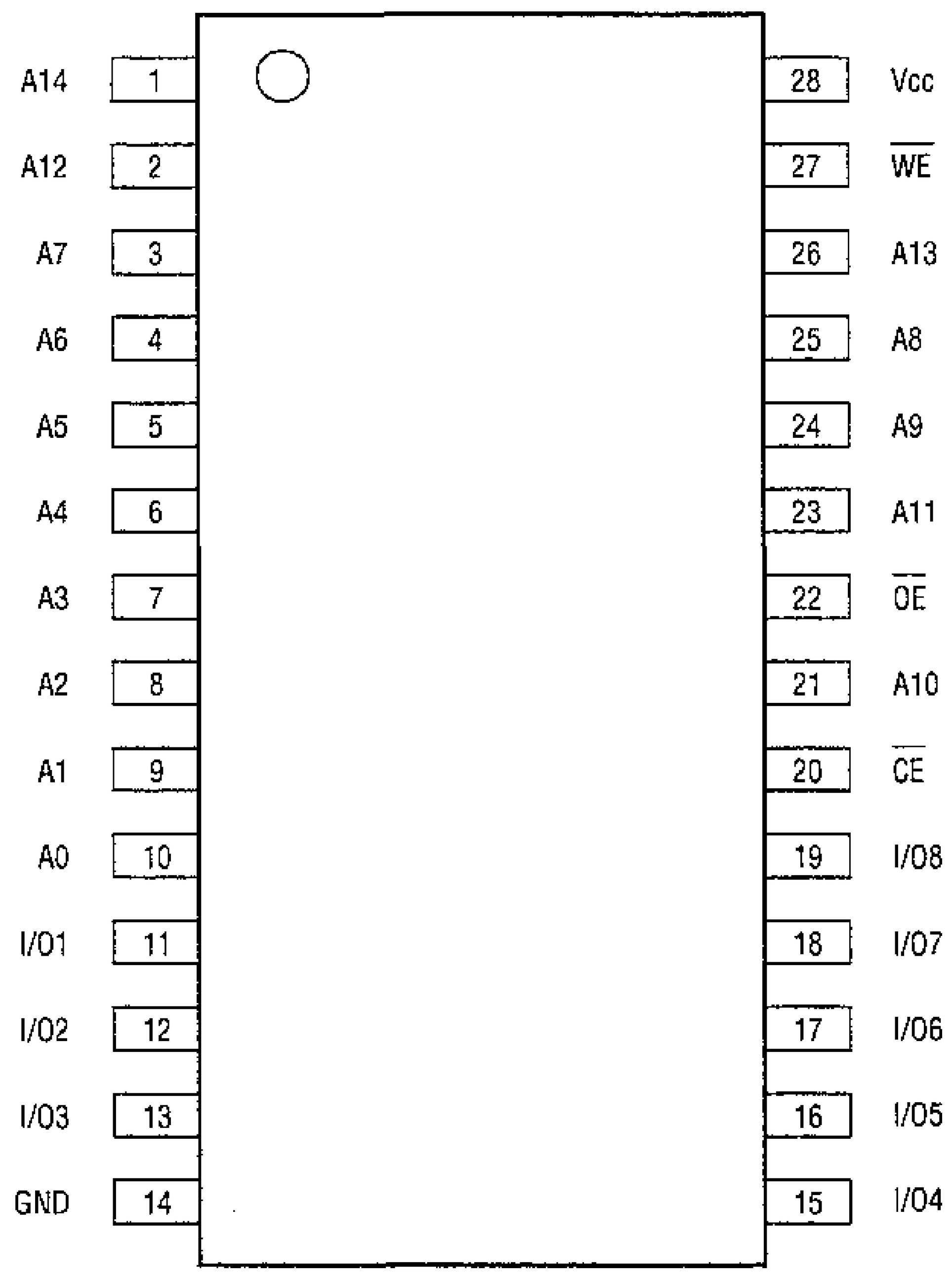
• Block Diagram



■ LH52256AN-70LL (MAIN BOARD ASSY : IC502)

• Pin Arrangement

(Top View)



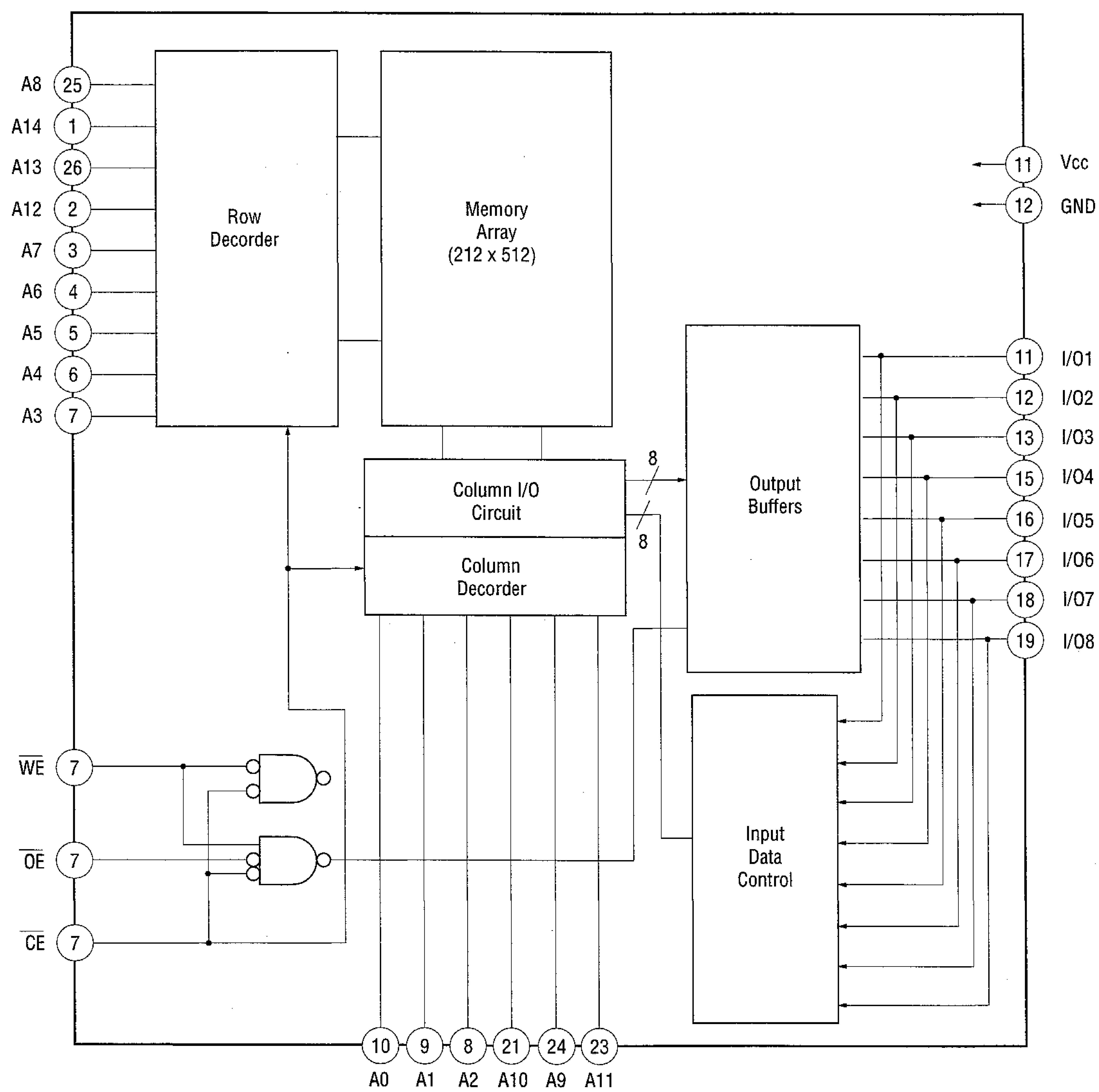
• Pin Function

Pin Name	Function
A0 to A14	Address Inputs
WE	Write Enable Input
CS	Chip Select
OE	Output Enable Lnput
I/O1 to I/O8	Data input/Output
Vcc	Power
Vss	Groud

• Operation Mode

$\overline{CE}$	$\overline{WE}$	$\overline{OE}$	Mode	I/O1 to I/O8	Power supply current
H	*	*	Standby	High impedance	Standby(I_{SB})
L	L	*	Write	Data input	Operation(I_{CC})
L	H	L	Read	Data output	Operation(I_{CC})
L	H	H	Output disable	High impedance	Operation(I_{CC})

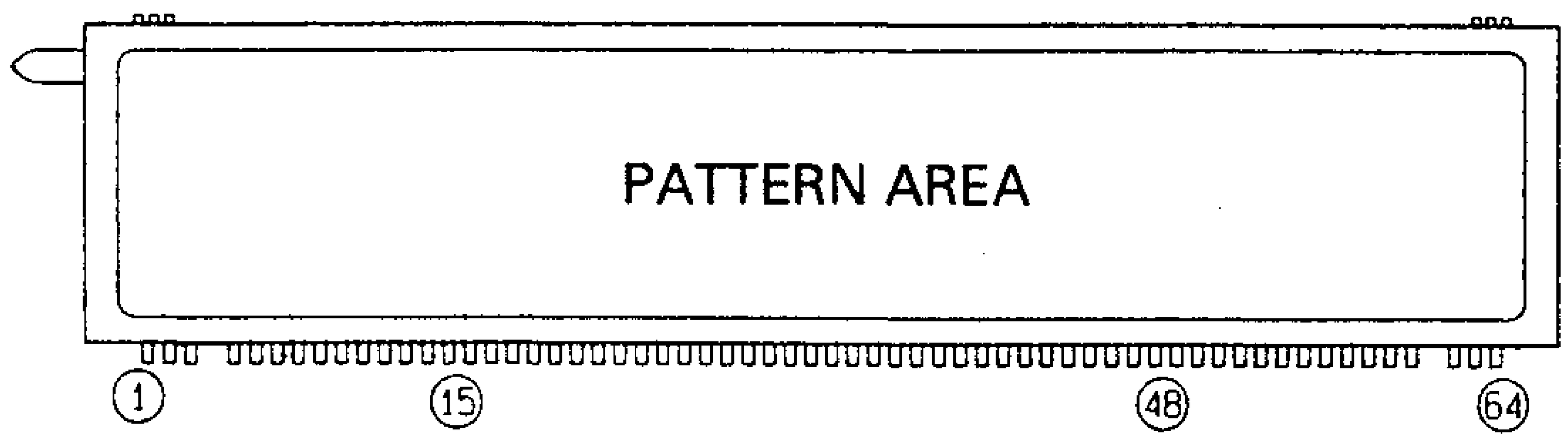
• Block Diagram



6.1.2 DISPLAY

■ DEL1028 (V601 : CONTROL ASSY)

● Outline Diagram



● Pin Assignment

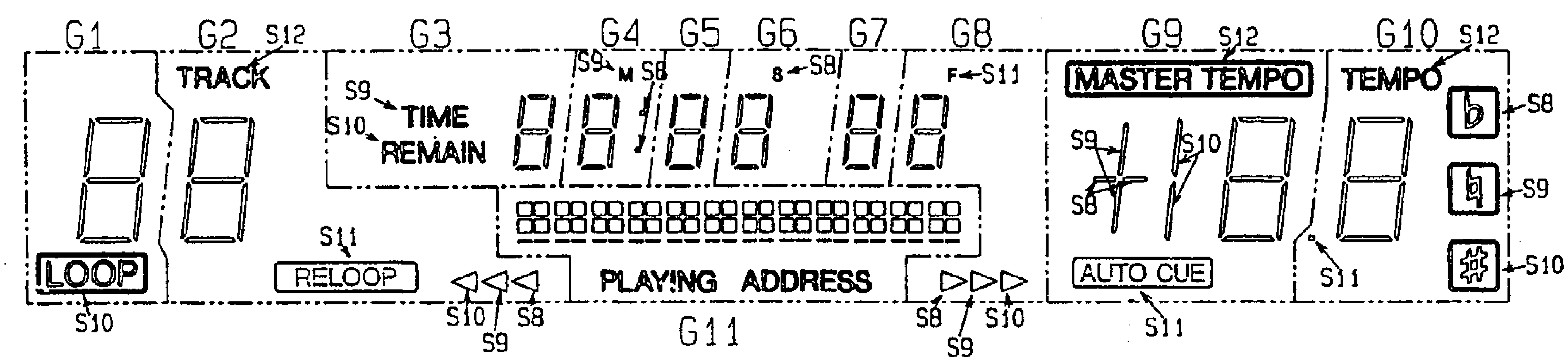
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Assignment	F	F	F	NP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10

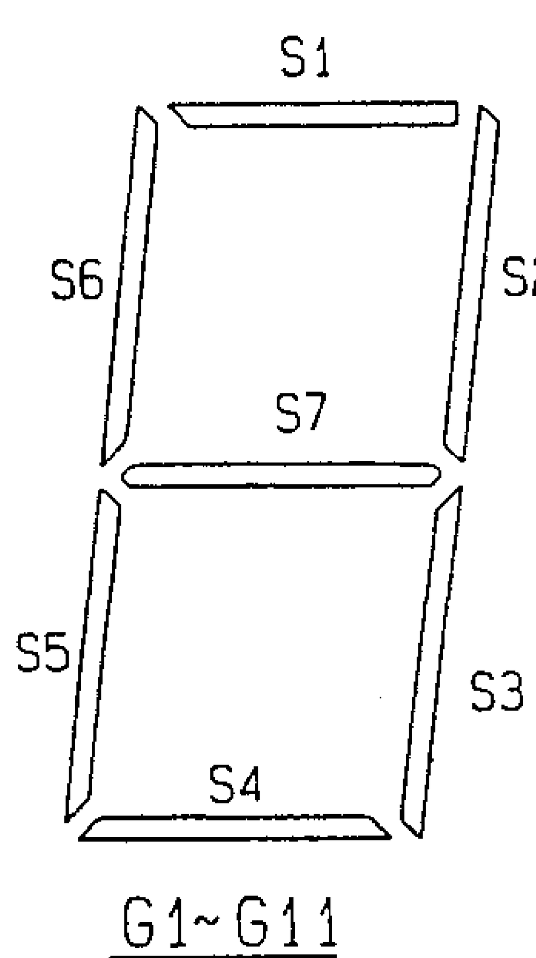
Pin No.	15	16 ~ 47	48	49	50	51	52	53	54	55	56	57	58
Assignment	G11	NP	S13	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10

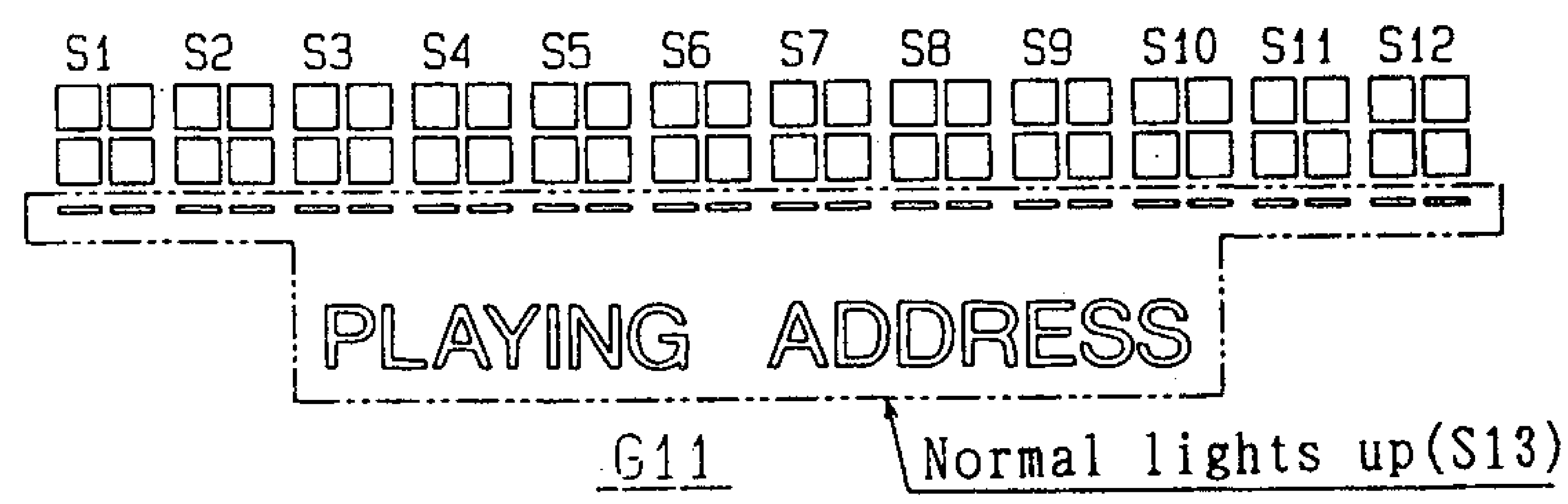
Pin No.	59	60	61	62	63	64
Assignment	S11	S12	NP	F	F	F

F:Filament G1~G11:Grid S1~S13:Anode NP:No pin

● Anode Grid Assignment







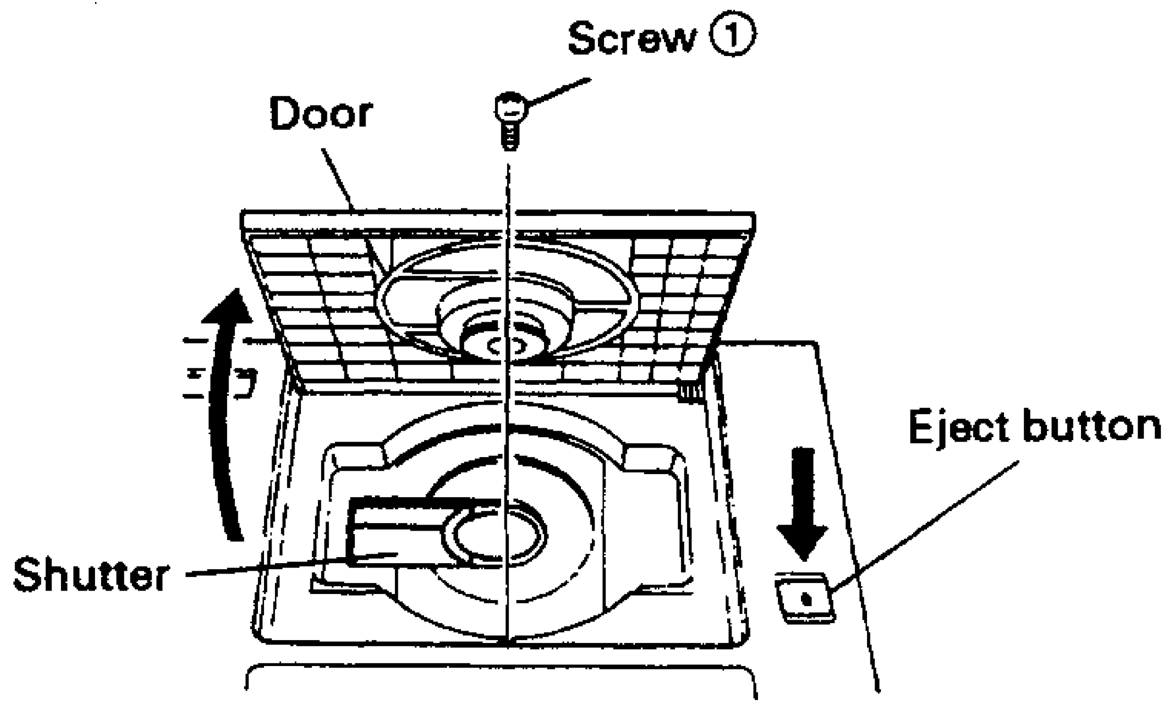
● Anode Grid Assignment and Pin Assignment

	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	G11
S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	S1	⊞
S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	S2	⊞
S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	S3	⊞
S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	S4	⊞
S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	S5	⊞
S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	S6	⊞
S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	S7	⊞
S8		◁		:		s		▷		♭	⊞
S9		◁	TIME	M				▷		♮	⊞
S10	LOOP	◁	REMAIN					▷	/	#	⊞
S11		RELOOP						F	AUTO CUE	.	⊞
S12		TRACK							MASTER TEMPO	TEMPO	⊞
S13											PLAYING ADDRESS

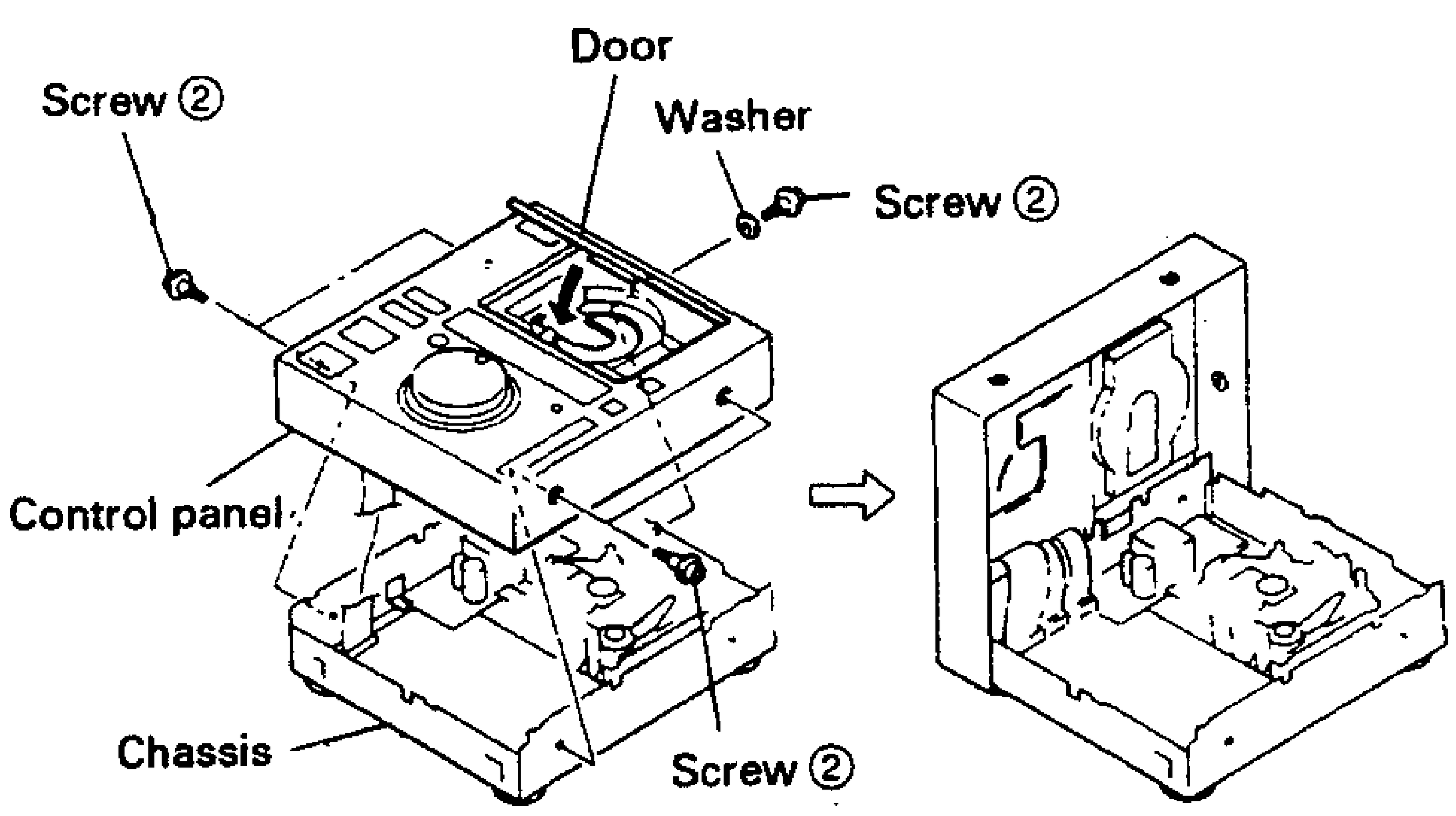
6.2 DISASSEMBLY

■ Removing the Control Panel

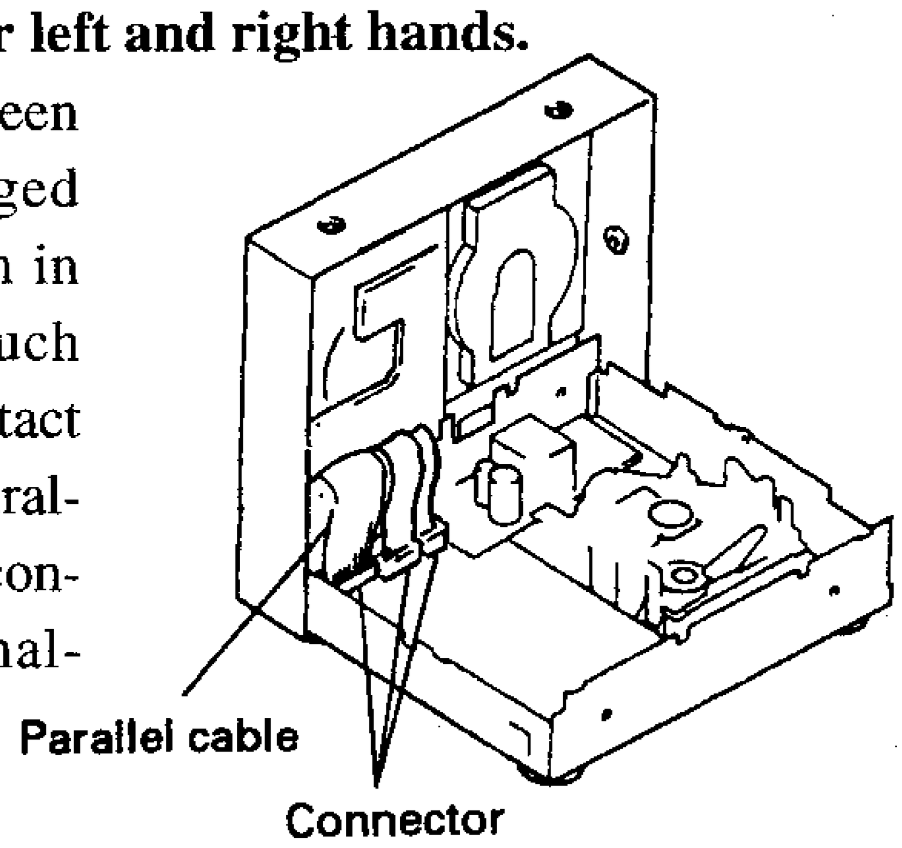
1. Turn on the power supply, and open the door using the eject button. (Note 1)
2. Pull out the power plug from the outlet.
3. Remove one screw ① at the bottom of the door.



4. Remove the five screws ② at the side of the control panel. (Note 2)
5. Check that the shutter closes, and remove the control panel from the chassis.
6. Insert the control panel into the bottom of the chassis, and fix it.



7. **When pulling out the parallel cable from the connector during maintenance, etc., be sure to disconnect the power plug from the outlet and pull the parallel cable straight out from the two sides using your left and right hands.**
(Even if the power has been turned off, some charged voltage will still remain in the capacitor, etc. If such cases, the accidental contact of the electrode of the parallel cable and that of the connector will result in malfunction.)

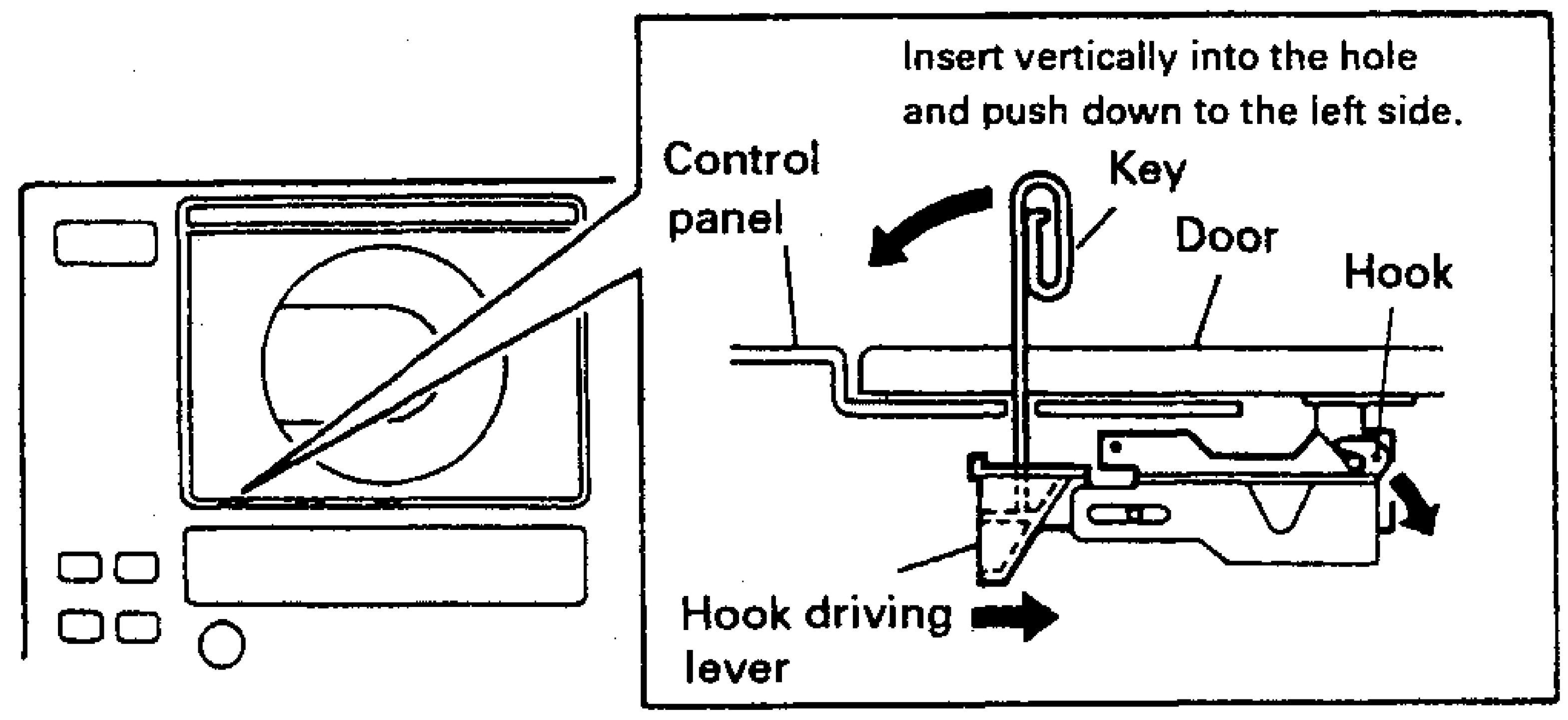


(Note 1) Important

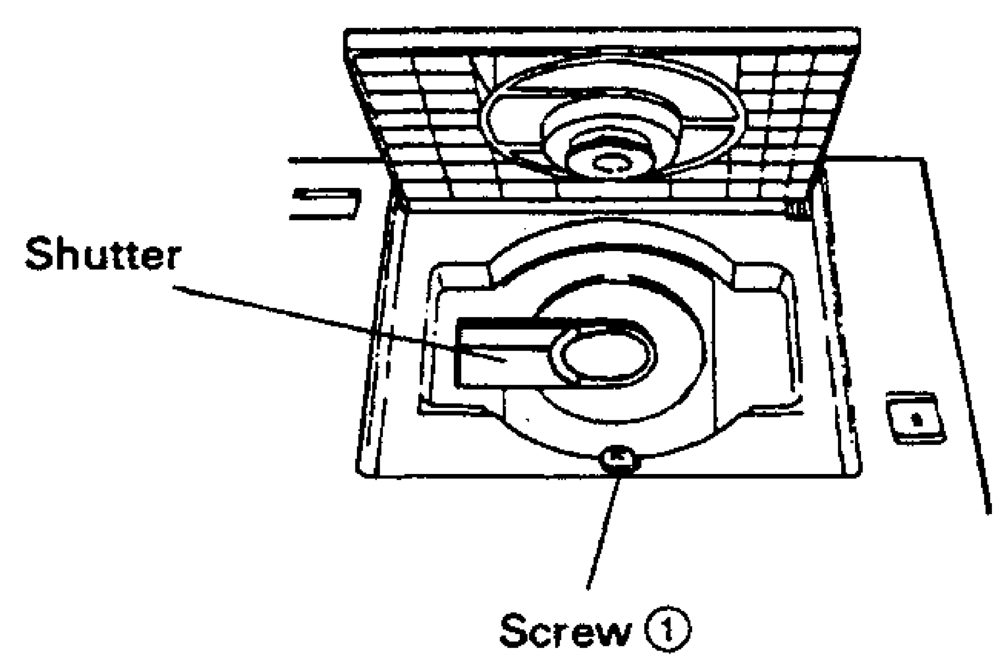
Opening the Door and Removing the Control Panel in Emergencies

This unit is equipped with a mechanism for opening the door manually when the door does not open by pressing the eject button due to some reason.

1. Pull out the power plug from the outlet.
2. Use a clip, etc. to form a key. (a metal stick with a diameter of 1 mm and length of 50 mm.)



3. Insert the key vertically into the above hole and push down to the left side. This will move the hook driving lever and open the door.
4. Check that the shutter closes.
If the shutter is not closed. (Note 2)



5. Remove the screw ① at the bottom of the door.
6. The chassis can be disassembled by removing all the screws ② of the control panel.

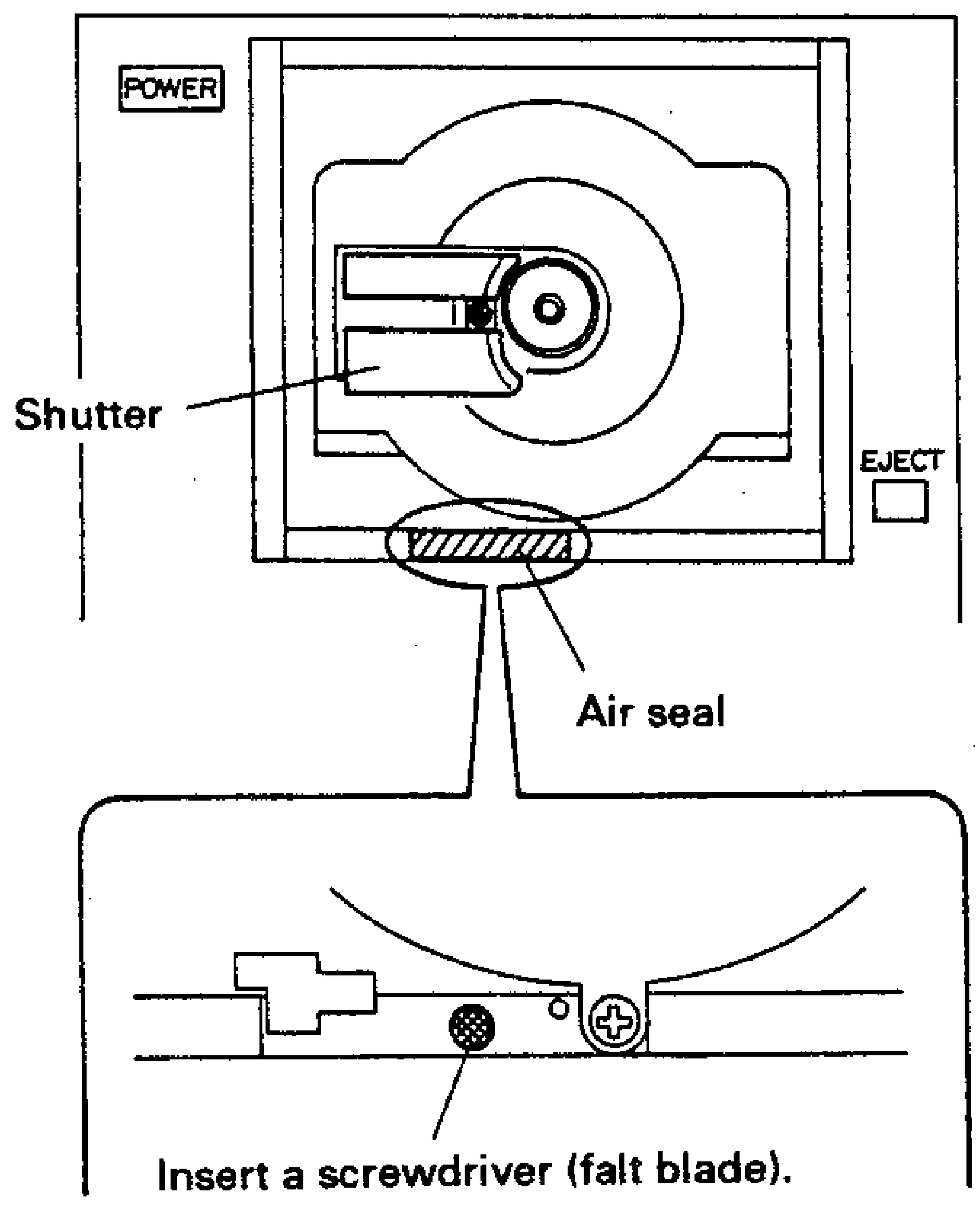
● Error Display

Displays the error number on the FL when player operation errors occur during normal use.

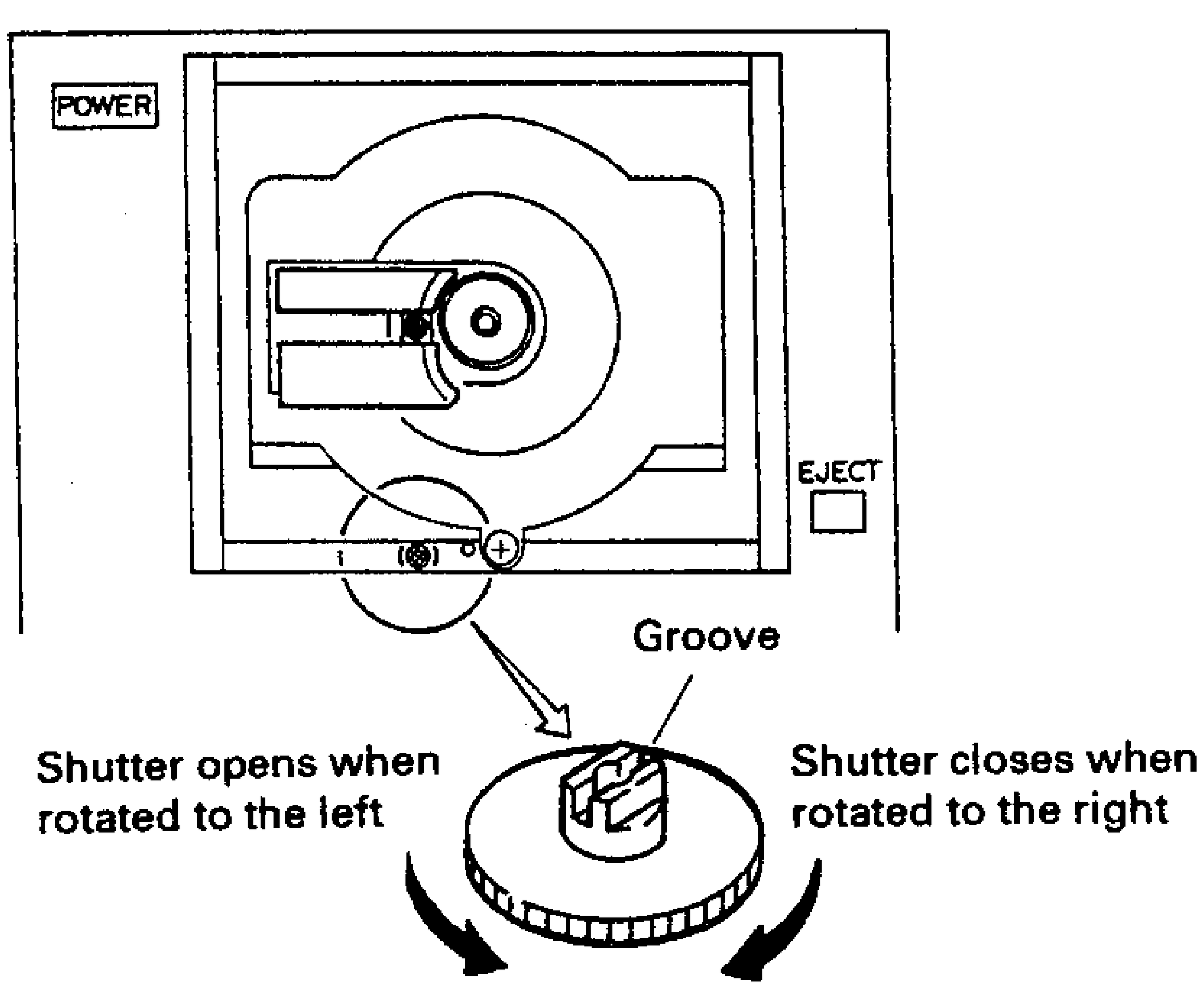
Displayed error code number	Type of error	Error contents	Cause → Remedy
E-72 01	TOC READ ERROR	TOC data on the disc cannot be read even after 20 seconds have passed.	A disc is dusty or dirty. → Clean the disc. A disc is cracked. → Replace the disc.
E-83 01	PLAYER ERROR	A disc cannot be played normally. (GFS NG) 2 sec x 3 times	
E-83 02	PLAYER ERROR	A disc cannot be played normally. (FOCUS NG) 0.1 sec x 3 times	
E-91 01	MECHANICAL TIME OUT	Mechanism operation is not completed within the specified time. (CLAMP) 4 sec	Foreign object is in the disc compartment. → Remove it. • There is something on the door. • The door open/close mechanism is faulty.
E-91 02	MECHANICAL TIME OUT	Mechanism operation is not completed within the specified time. (OPEN) 4 sec	
E-91 03	MECHANICAL TIME OUT	Mechanism operation is not completed within the specified time. (INSIDE) 5 sec	

(Note 2)Important
Operating the Shutter in the Power Off State (When the shutter is not closed)

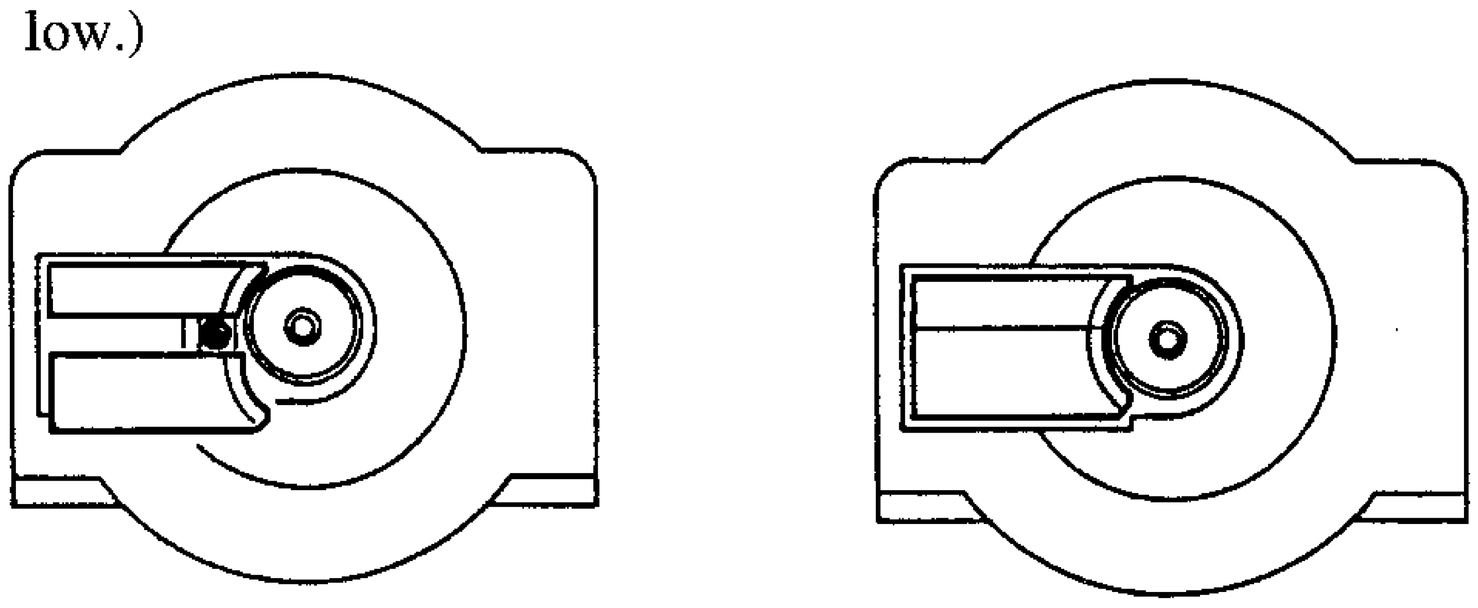
1. Remove the air seal in the panel (shaded portion).
2. Insert a small slotted screwdriver in the hole near the center of the part where the air seal was removed.



3. Fit the slotted screwdriver into the groove of driving gear B (DNK3199). When the driver is rotated, the shutter moves. As the inside cannot be seen through the hole easily, insert the screwdriver slowly and fit into the groove properly.



4. Rotate the driving gear until the shutter closes. (See figure below.)



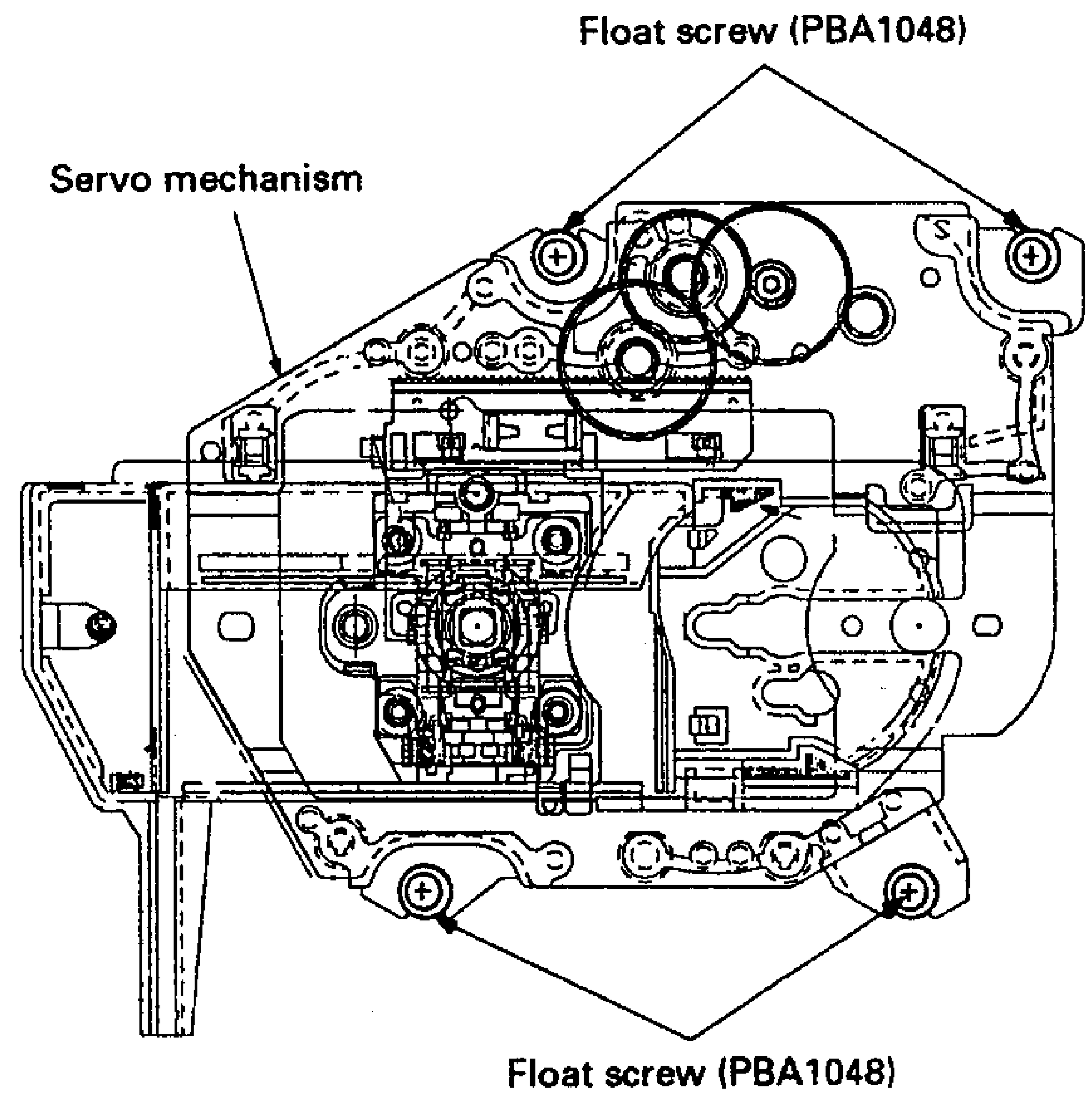
Shutter open

Shutter close

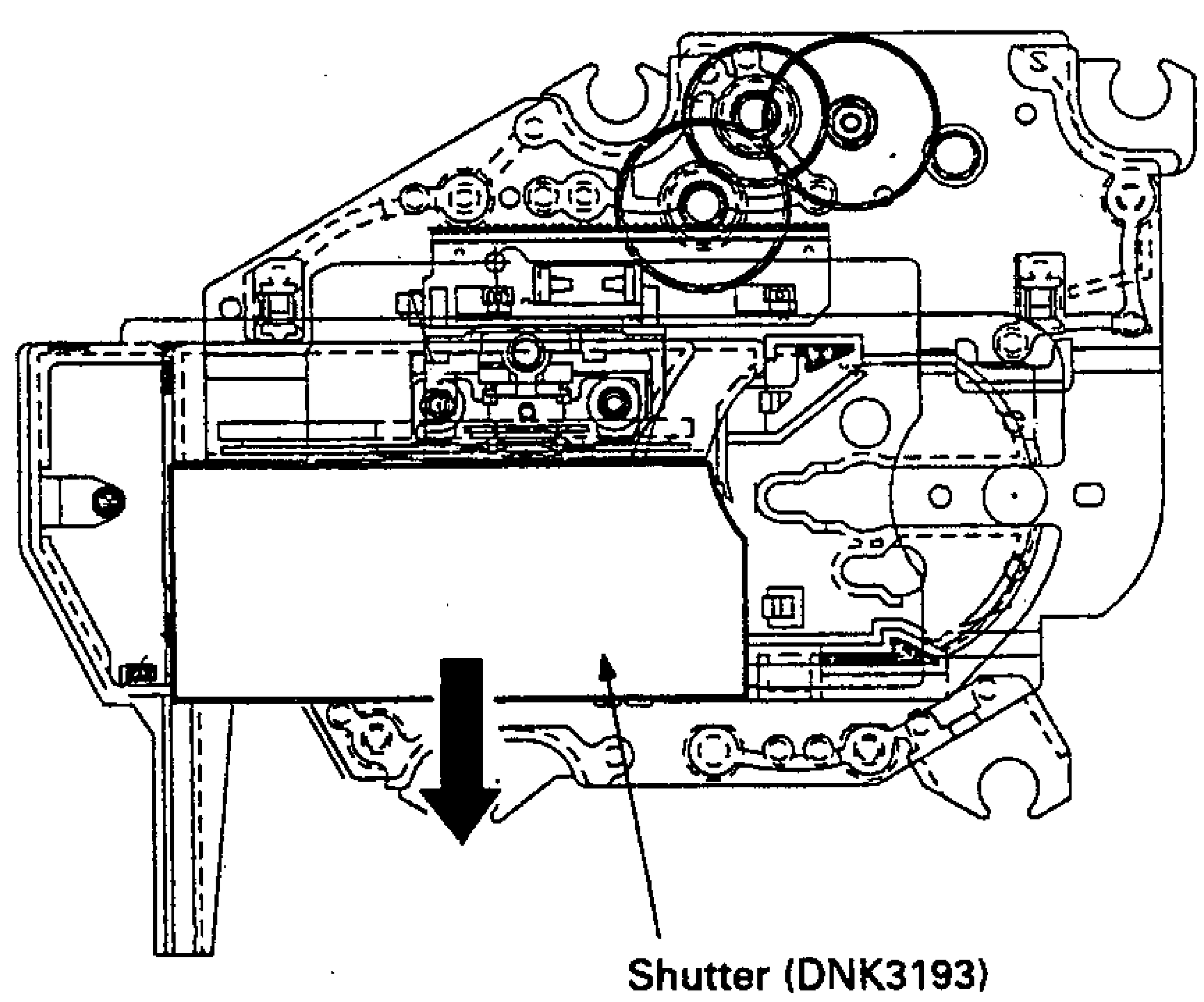
5. For the rest, followed by removing the screw ① as usual.

■ Replacement of pick-up assy-S (DXX2185)

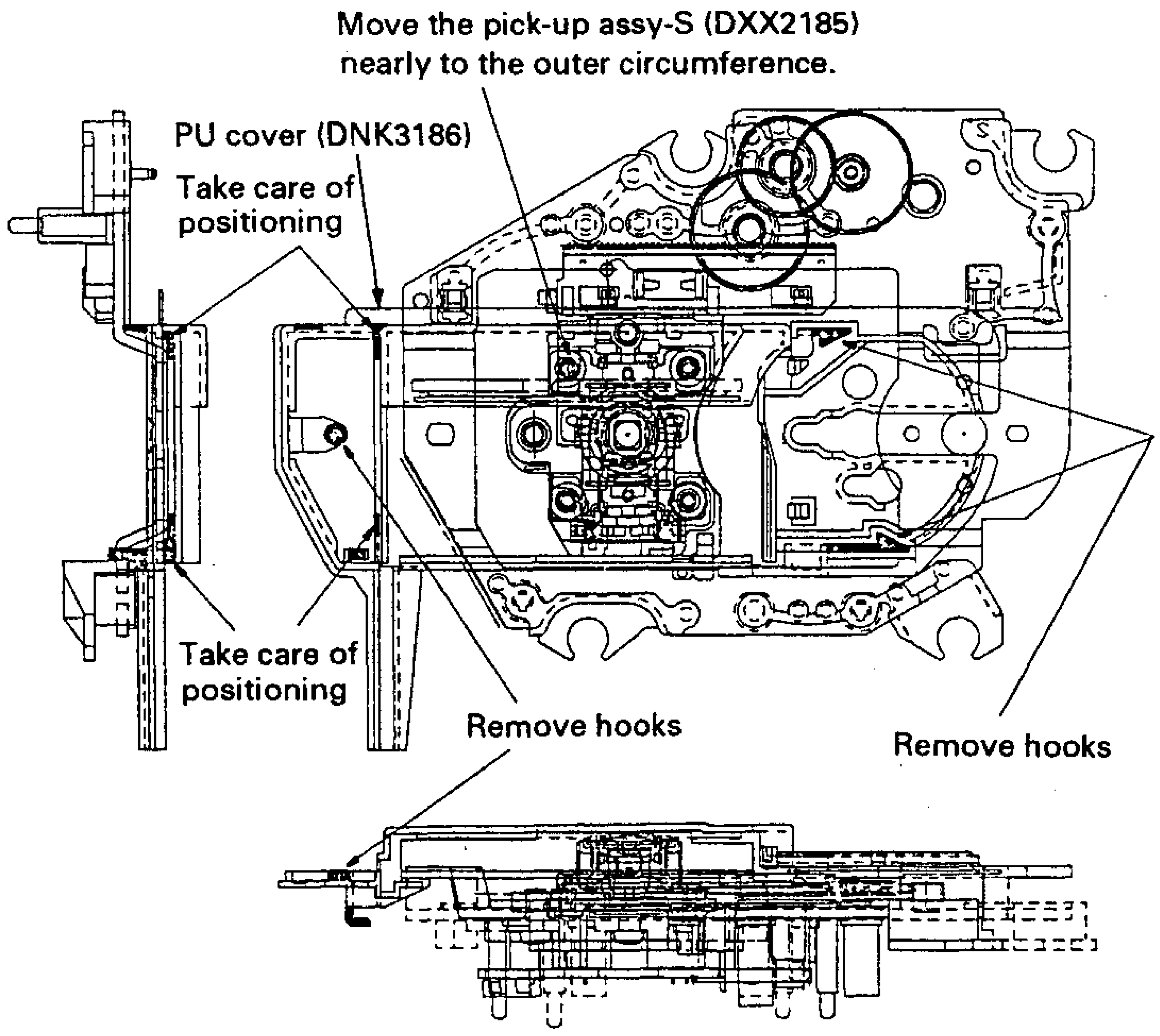
1. Remove the mechanism assy from the unit.
2. Remove the four float screws (PBA1048) fixing the servo mechanism assy from the mechanism assy.



3. Let the servo mechanism assy be single.
4. Remove the shutter (DNK3193) in the arrow direction.



5. Move the pick-up assy-S (DXX2185) nearly to the outer circumference and remove the PU cover (DNK3188).

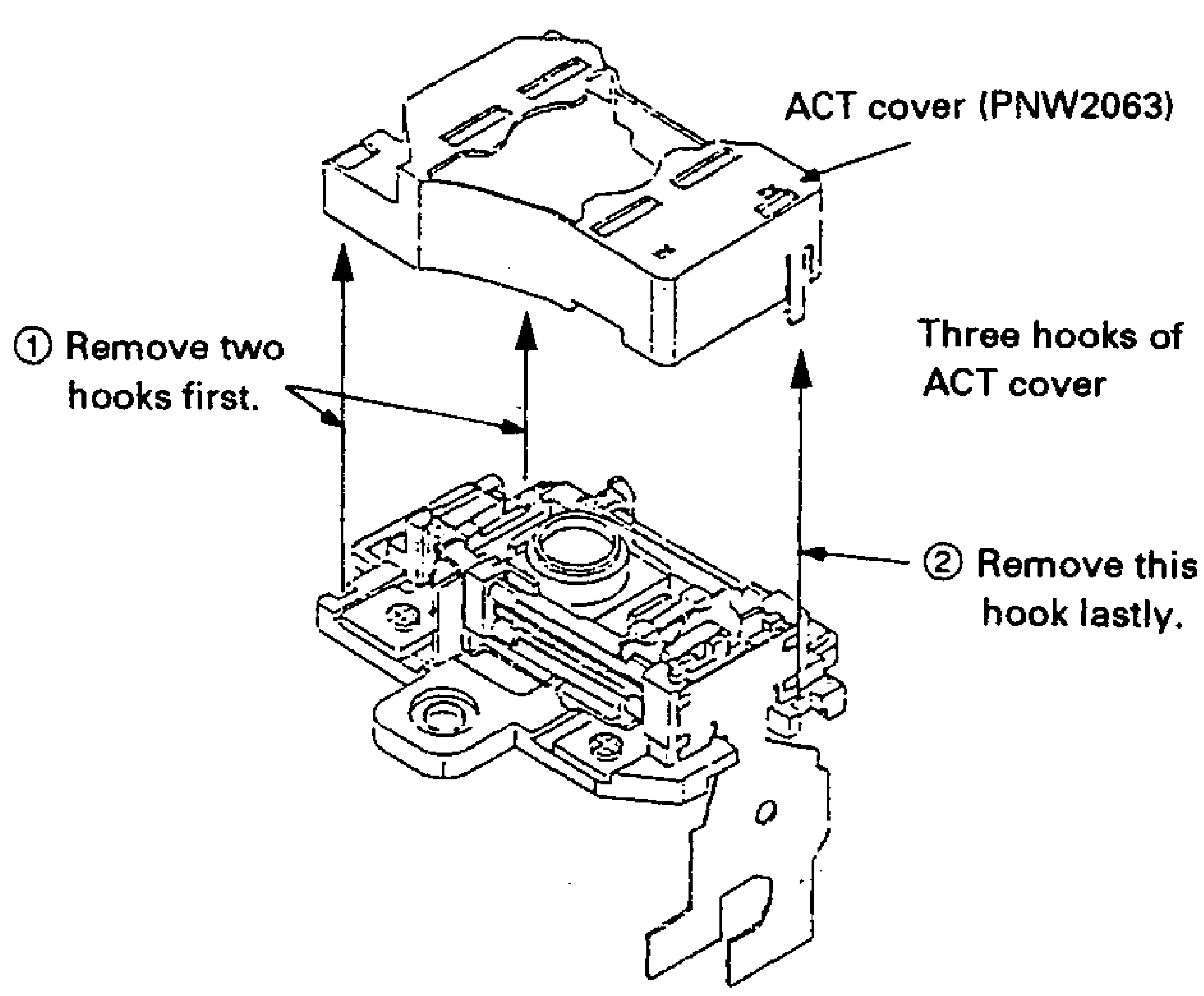


6. Remove the pick-up assy-S (DXX2185) from the servo mechanism assy.
7. Replace to the new pick-up assy.

Note 1: The new pick-up is attached with an ACT cover. Remove the ACT cover. Remove the ACT cover as follows then the new pick-up assy.

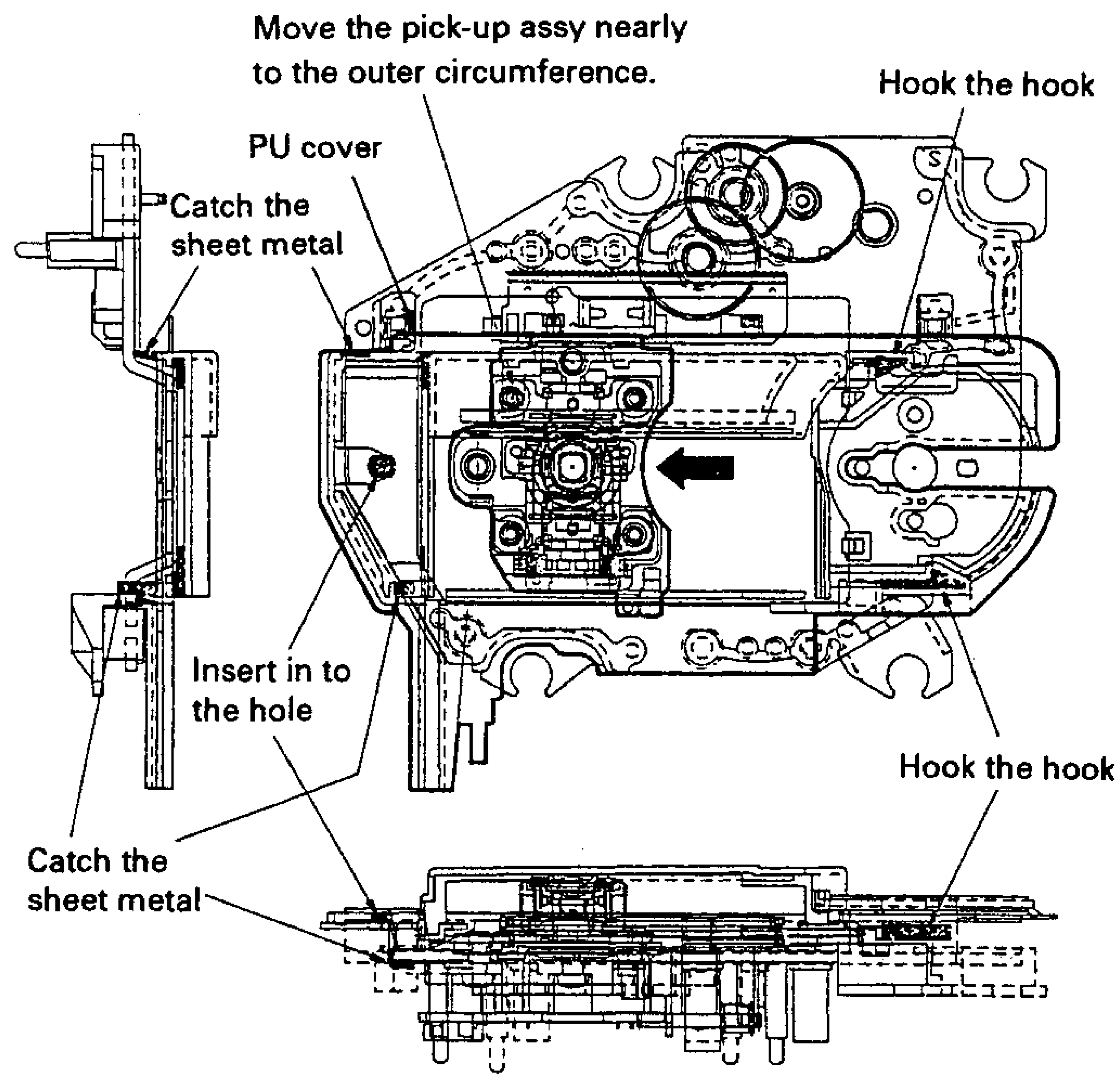
① Release the two hooks of the ACT cover using a pair of tweezers or screw driver.

② Release the remaining one hook.



Note 2: Precaution on removal of ACT cover
- Do not bend the four suspension wires. Do not scratch the lens, and protect the lens from dust.

8. Attachment and assembly of the PU cover
- Move the pick-up assy nearly to the outer circumference.
- Hook the PU cover hook onto the sheet metal under the disc table and insert the guide into the hole at the same time.



9. Attach the shutter in the reverse order of procedure 4.

Precaution on attachment of PU cover and shutter
- Do not bend the four suspension wires. Do not scratch the lens, and protect the lens from dust.

6.3 BLOCK DIAGRAM