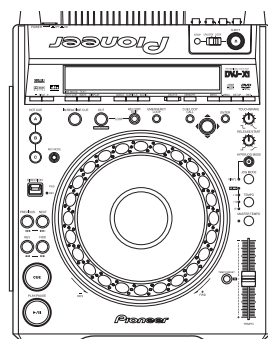


Service Manual



DVJ-X1

ORDER NO.
RRV2878

DVD PLAYER

DVJ-X1

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

Model	Type	Power Requirement	Region No.	Remarks
DVJ-X1	KUC	AC120V	1	



For details, refer to "Important symbols for good services"

1234

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

NOTICE
(FOR CANADIAN MODEL ONLY)

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

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)

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

C

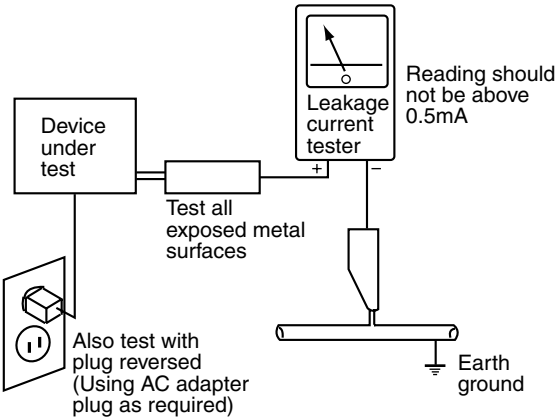
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

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



AC Leakage Test

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

2. PRODUCT SAFETY NOTICE

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

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

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

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

[Important symbols for good services]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety

You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments

To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning

For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws

To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts

Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

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Specifications

1. General

Type of Unit	DVD video, CD
Power	AC 120 V, 50/60 Hz
Power consumption	47 W
Operating environment temperature	+5 °C – +35 °C (+41 °F – +95 °F)
Operating environment humidity	5-85% (RH) without condensation
Weight	7.3 kg (16.1 lb)
External dimensions	348 (W) x 451 (D) x 128 (H) mm 13-11/16 (W) x 17-3/4 (D) x 5-1/6 (H) in

2. Video output section

Composite output (2)	
Output level	1 Vp-p (75Ω)
Output connector sets	RCA (1), BNC (1)
S- video output	
Y output level	1 Vp-p (75Ω)
C output level	286m Vp-p (75Ω)
Output connector	S type
Component video output (Y, C _B /P _B , C _R /P _R)	
Y output level	1 Vp-p (75Ω)
C _B /P _B , C _R /P _R	0.7 Vp-p (75Ω)
Output connector	BNC type

3. Preview video output section

Composite output	
Output level	1 Vp-p (75Ω)
Output connector	RCA type
S- video output	
Y output level	1 Vp-p (75Ω)
C output level	286 mVp-p (75Ω)
Output connector	S type

4. Audio output section

Audio output (2-channel)	
Audio output level	2.0 V rms (1 kHz, 0 dB)
Channels	2
Output connectors	RCA type
Digital audio output response	
Frequency response (CD)	4 Hz - 20 kHz
Frequency response (DVD [96 kHz])	4 Hz - 44 kHz
S/N ratio	115 dB or above (JEITA)
Total harmonic distortion	0.006% (JEITA)
Digital output	
Coaxial digital output	RCA connector

5. Other connectors

Control connector	Minijack (3.5 ø)
Sync input connector	BNC type

6. Accessories

SD memory card	1
Audio cable	1
Video cable	1
Control cord	1
Power cord	1
Forcible eject pin (mounted on unit's bottom panel)	1
Operating Instructions	1
Warranty card	1

All specifications and descriptions are subject to change without notice.

Accessories

Audio Cable
(VDE1064) L=1.5m



Video Cable
(VDE1065) L=1.5m



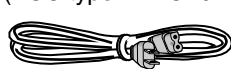
Forced Eject Pin
(DEX1013)



Control Cord
(PDE-319) L=1 m



Power Cord
(KUC type : ADG7021)



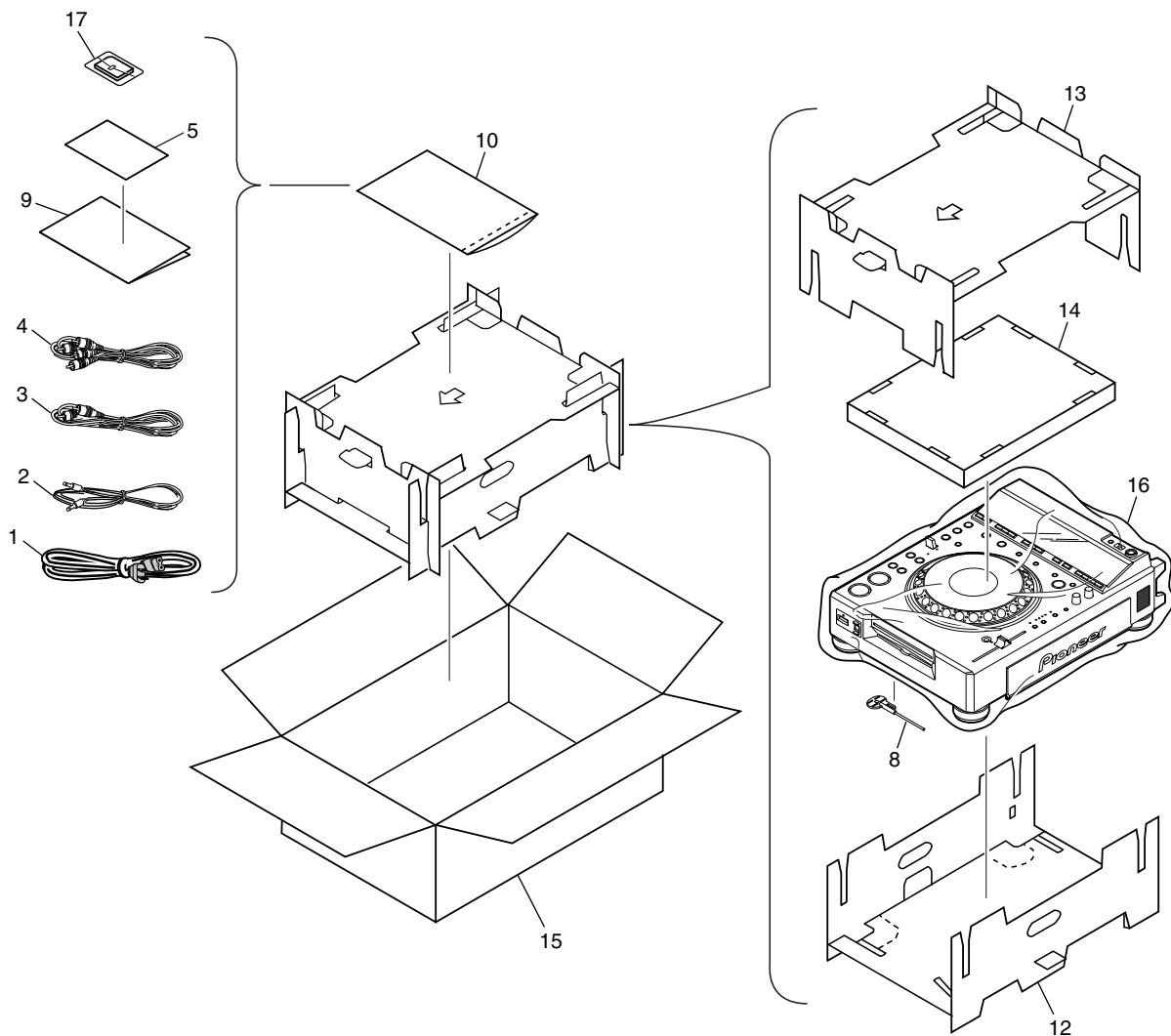
SD Memory Card
(DWX2369)



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.
● For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

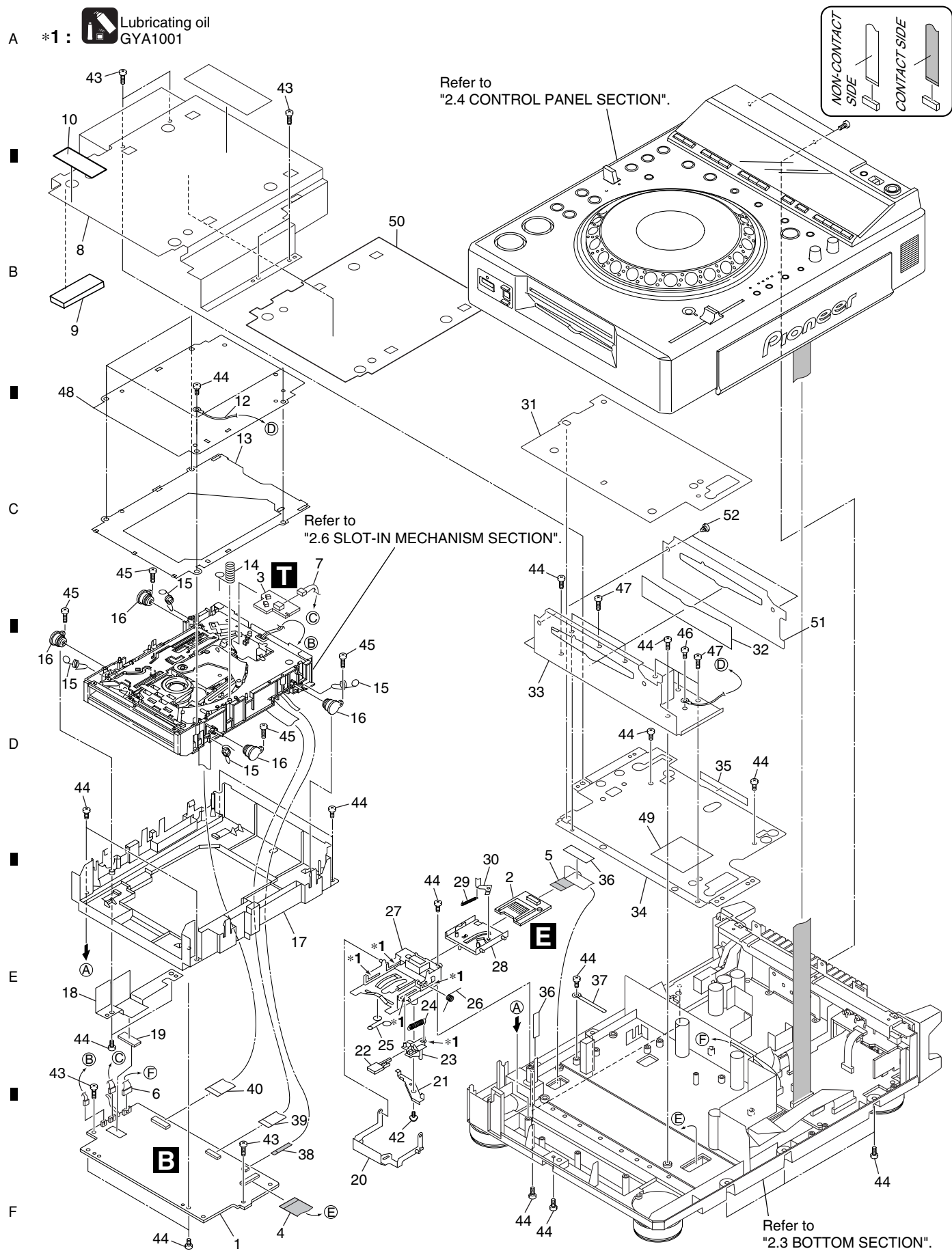
2.1 PACKING



PACKING Parts List

<u>Mark</u>	<u>No.</u>	<u>Description</u>	<u>Part No.</u>
⚠	1	Power Cord	ADG7021
	2	Control Cord (L= 1m)	PDE-319
	3	Audio Cable (L= 1.5m)	VDE1064
	4	Video Cable (L=1.5m)	VDE1065
NSP	5	Warranty Card	ARY7043
	6		
	7		
	8	Forced Eject Pin	DEX1013
	9	Operating Instructions(English)	DRB1358
NSP	10	Polyethylene Bag (230 x 340 x 0.05)	VHL-014
	11		
	12	Pad (A)	DHA1596
	13	Pad (B)	DHA1597
	14	Pad (C)	DHA1598
	15	Packing Case	DHG2425
	16	Mirror mat Sheet	VHL1012
	17	SD Memory Card	DWX2369

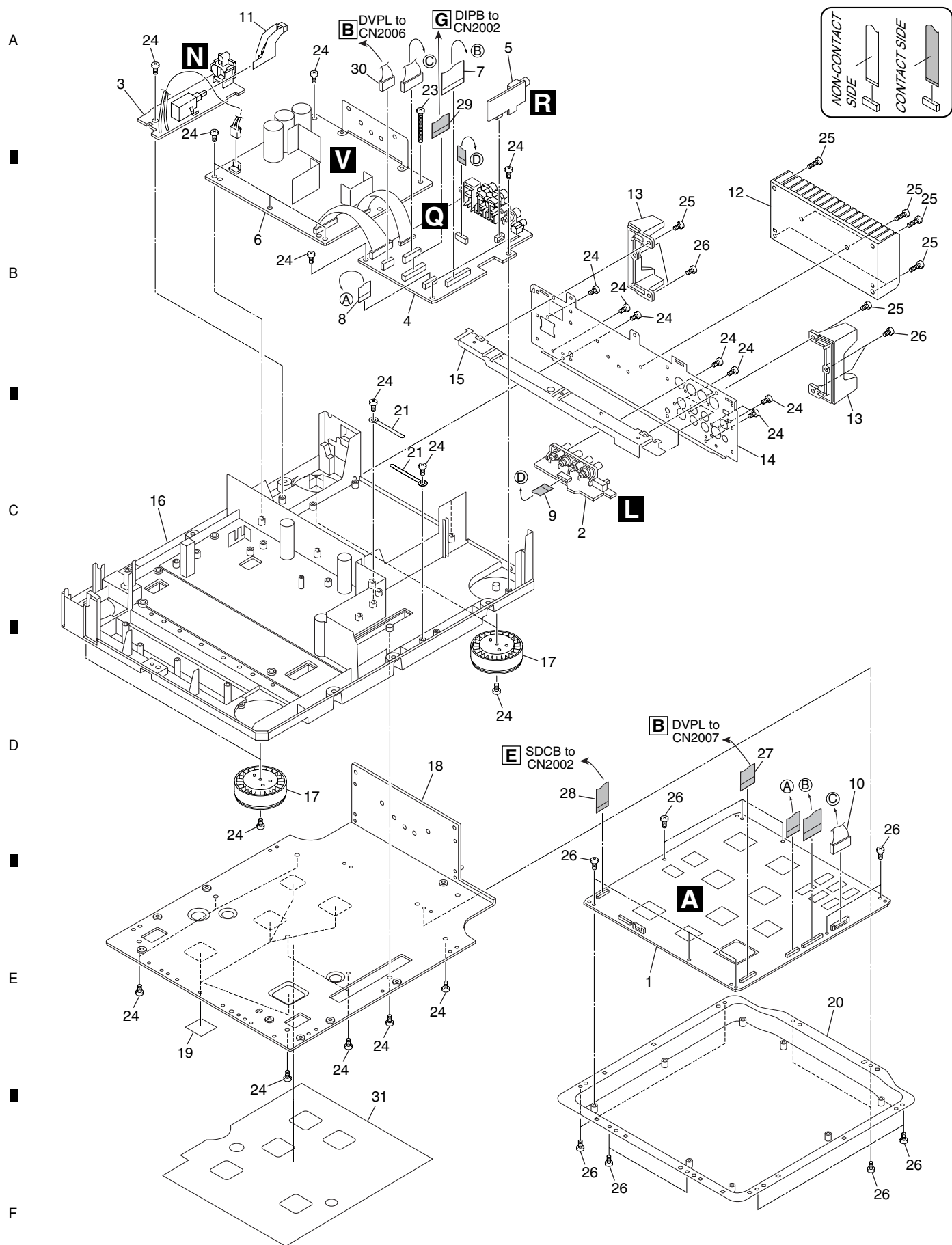
2.2 EXTERIOR SECTION



EXTERIOR SECTION Parts List

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	DVPL Assy	DWX2341	52	Plastic Rivet	DEC1704	
	2	SDCB Assy	DWX2344				A
	3	SLMB Assy	DWS1344				
	4	40P Flexible Cable/60V	DDD1252				
	5	13P Flexible Cable/60V	DDD1253				
	6	Connector Assy	PF04EE-D40				
	7	Connector Assy	PF03PP-B30				
NSP	8	Earth Plate (CU)	DNE2587				
	9	Gascket 9 x 3L40	DEC2688				
	10	Gascket 7 x 1L40	DEC2689				
	11	Sheet C	DEC2695				B
	12	Earth Lead Unit/300V	DDF1010				
	13	Mechanism Holder Plate	DNH2339				
	14	Earth Spring	DBH1398				
	15	Float Spring (G11)	DBH1526				
	16	Damper	CNV6011				
	17	Mechanism Base	DNK4240				
	18	Driver Heatsink Plate	DNH2586				
NSP	19	Silicone Rubber D5L	DEB1456				
	20	Card Flap	DNK3998				
	21	Eject Arm	DNH2617				C
	22	Card Ejector	DNK4241				
	23	Eject Lever	DNK3999				
	24	Lever Spring	DBH1498				
	25	Carriage Spring	DBH1497				
	26	Flap Spring	DBH1499				
	27	Base Holder	DNK3996				
	28	Carriage Base	DNK3997				
	29	Hook Spring	DBH1496				
	30	Lock Hook Assy	DXB1764				D
	31	Insulation Sheet	DEC2616				
	32	EMI Sheet A	DEC2672				
NSP	33	Front Plate	DNH2590				
NSP	34	Shield Plate	DNH2591				
	35	Gascket 9 x 3L85	DEC2674				
	36	Lead Tape R4	DEB1529				
	37	Cord Clamper	RNH-184				
	38	4P Flexible Cable/60V	DDD1258				
	39	26P Flexible Cable/60V	DDD1257				
	40	13P Flexible Cable/60V	DDD1256				E
	41						
	42	Screw	PBA1062				
	43	Screw	BBZ30P120FMC				
	44	Screw	BPZ30P080FZK				
	45	Screw	BPZ30P140FMC				
	46	Screw	BBZ30P060FMC				
	47	Screw	BBZ30P080FNI				
	48	EMI Sheet B	DEC2673				
	49	Sheet B	DEC2693				F
	50	Sheet C	DEC2695				
	51	Front Cover	DEC2678				

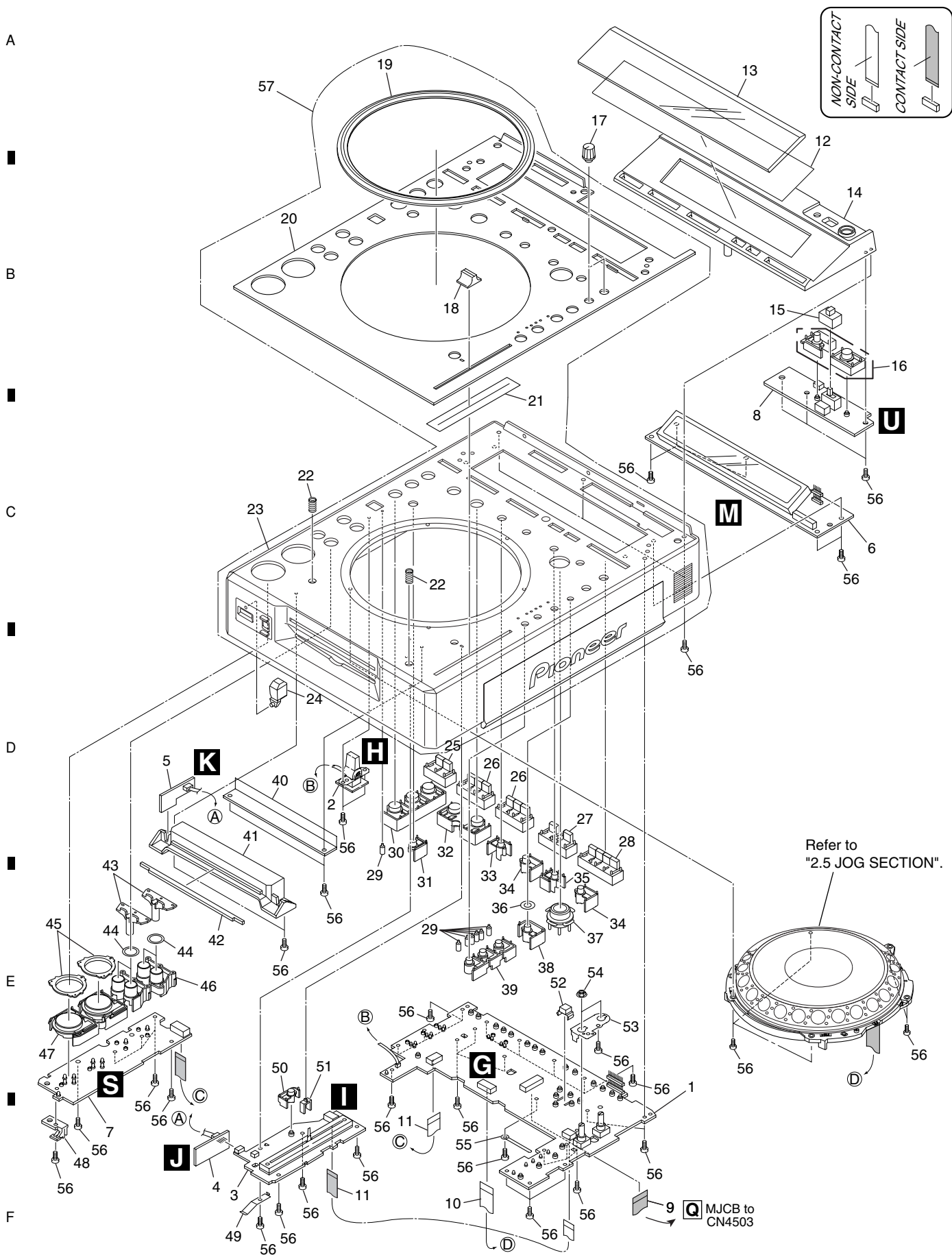
2.3 BOTTOM SECTION



BOTTOM SECTION Parts List

Mark No.	Description	Part No.	
⚠ 1	MAIN Assy	DWG1570	A
2	CMPB Assy	DWG1577	
3	PSWB Assy	DWS1345	
4	MJCB Assy	DWG1573	
5	DOUT Assy	DWG1574	
⚠ 6	SW POWER SUPPLY Assy	DWR1378	
7	30P Flexible Cable	DDD1248	
8	17P Flexible Cable	DDD1249	
9	12P Flexible Cable	DDD1250	
10	Connector Assy	PF10PP-D12	
11	Power Knob	DNK4238	B
12	Heatsink	DNG1088	
13	Rear Protector	DNK4242	
14	Rear Panel (KUC)	DNC1668	
15	Rear Stay	DNH2603	
NSP 16	Chassis	DNK4239	
17	Insulator	DNK4248	
18	Heatsink Plate Assy	DXB1803	
19	Sheet	DEC2694	
20	Bottom Case Assy (KUC)	DXB1794	
21	Cord Clamper	RNH-184	C
22	•••••		
23	Screw	BBZ30P200FMC	
24	Screw	BPZ30P080FZK	
25	Screw	BBZ30P120FMC	
26	Screw	BBZ30P060FMC	
27	40P Flexible Cable	DDD1252	
28	13P Flexible Cable	DDD1253	
29	22P Flexible Cable	DDD1251	
30	4P Flexible Cable	PF04EE-D040	
31	Sheet	DEC2691	D

2.4 CONTROL PANEL SECTION



CONTROL PANEL SECTION Parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	DIPB Assy	DWG1575	51	LED Lens	DNK4255	
2	RSWB Assy	DWS1346	52	Cross Key Holder	DNK4262	A
3	SLDB Assy	DWS1347	53	VR Stay	DNF1663	
4	LED 1 Assy	DWG1578	54	Flange Nut M9	DBN1004	
5	LED 2 Assy	DWG1579	55	Cord Clamper (steel)	RNH-184	
6	MFLB Assy	DWG1576	56	Screw	BPZ30P080FZK	
7	KSWB Assy	DWS1343	57	Control Panel Assy-S	DXX2548	
8	EJTB Assy	DWS1348				
9	22P Flexible Cable	DDD1251				
10	13P Flexible Cable	DDD1255				
11	9P Flexible Cable	DDD1254				B
12	Main FL Filter (PC)	DEC2609				
13	Display Panel (PMMA)	DAH2265				
14	Top Panel (ABS)	DNK4246				
15	SW Knob B	DAC2012				
16	Eject Knob	DAC2170				
17	Rotary Knob	DAA1163				
18	Slide Knob	DNK2936				
19	JOG Ring	DNB1130				
20	Top Panel (AL)	DNB1127				
21	Slide VR Packin	DED1172				C
22	Earth coil Spring	DBH1527				
23	Control Panel Assy	DXB1801				
24	Card Lens	DNK4254				
25	Set Knob 1	DAC2161				
26	Set Knob 2	DAC2162				
27	Set Knob 3	DAC2163				
28	Set Knob 4	DAC2164				
29	Tempo Lens	DNK4256				
30	Set Knob (H.C)	DAC2155				D
31	REC Knob	DAC2158				
32	Set Knob (Loop)	DAC2166				
33	Reloop Knob	DAC2167				
34	Enntrer Knob	DAC2169				
35	CALL Knob	DAC2168				
36	Sheet 1	DED1169				
37	Cross Key 2	DAC2171				
38	Change Knob	DAC2172				
39	Set Knob (TEMPO)	DAC2160				
40	Reinforcement Plate	DNH2602				E
41	Reflector	DNK4249				
42	Front Lens	DNK4251				
43	Ring Lens (SEARCH)	DNK4253				
44	Sheet 2	DED1170				
45	Ring Lens	DNK4252				
46	Set Knob (SEARCH)	DAC2157				
47	Set Knob (PLAY) Assy	DXB1799				
48	Card Stopper	DNK4250				
49	Earth Plate (CU)	DBK1224				F
50	Reset knob	DAC2159				

2.5 JOG SECTION

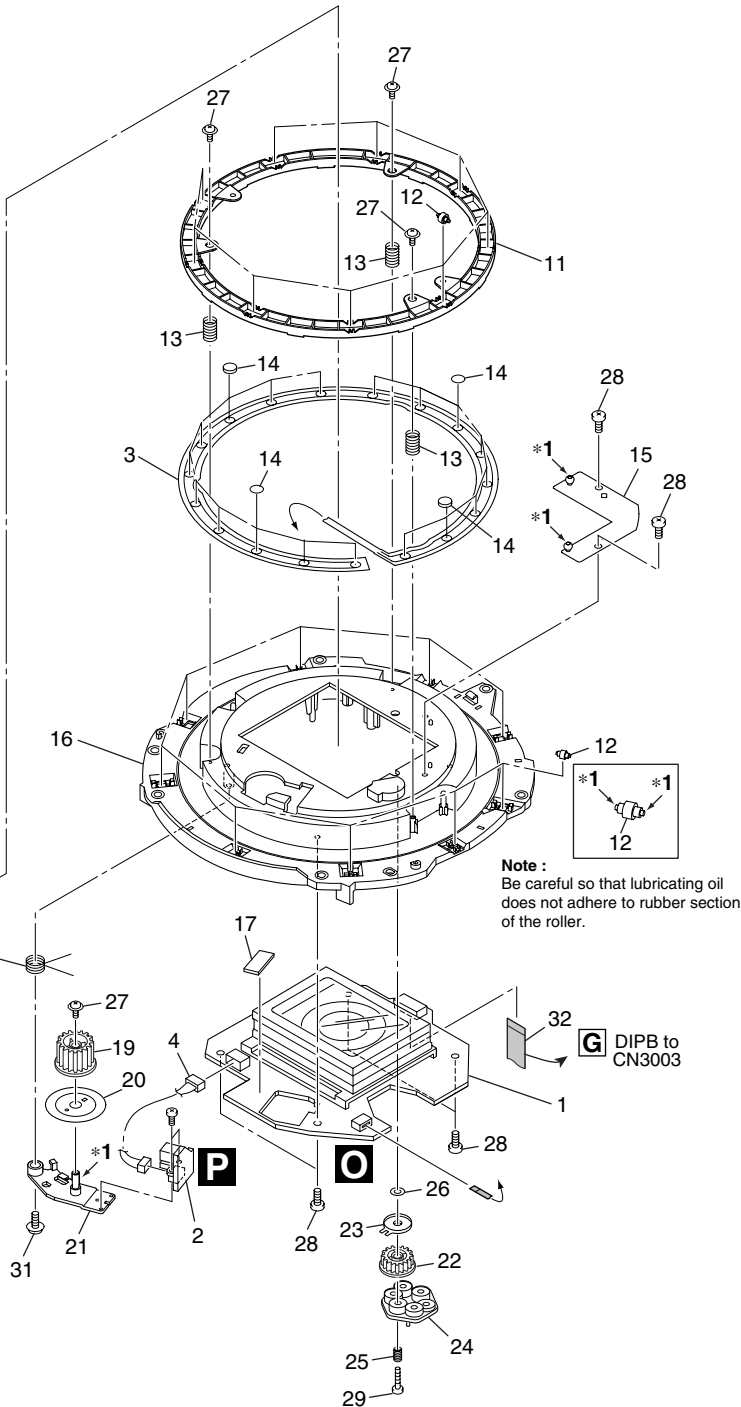
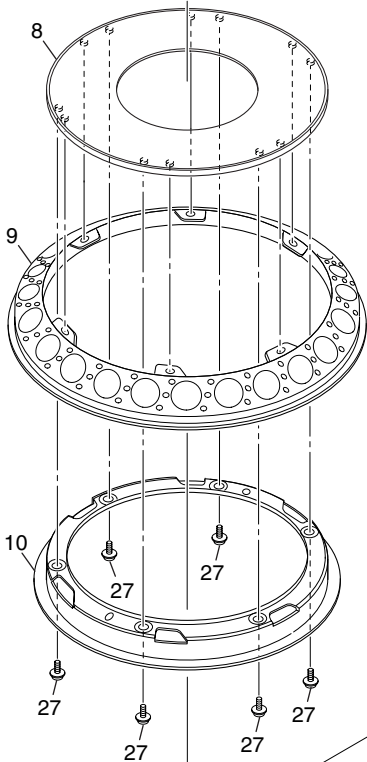
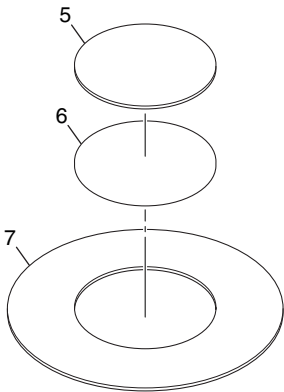
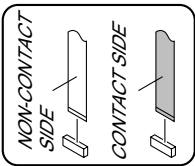
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2

3

4

A *1 :  Lubricating oil GYA1001



1

2

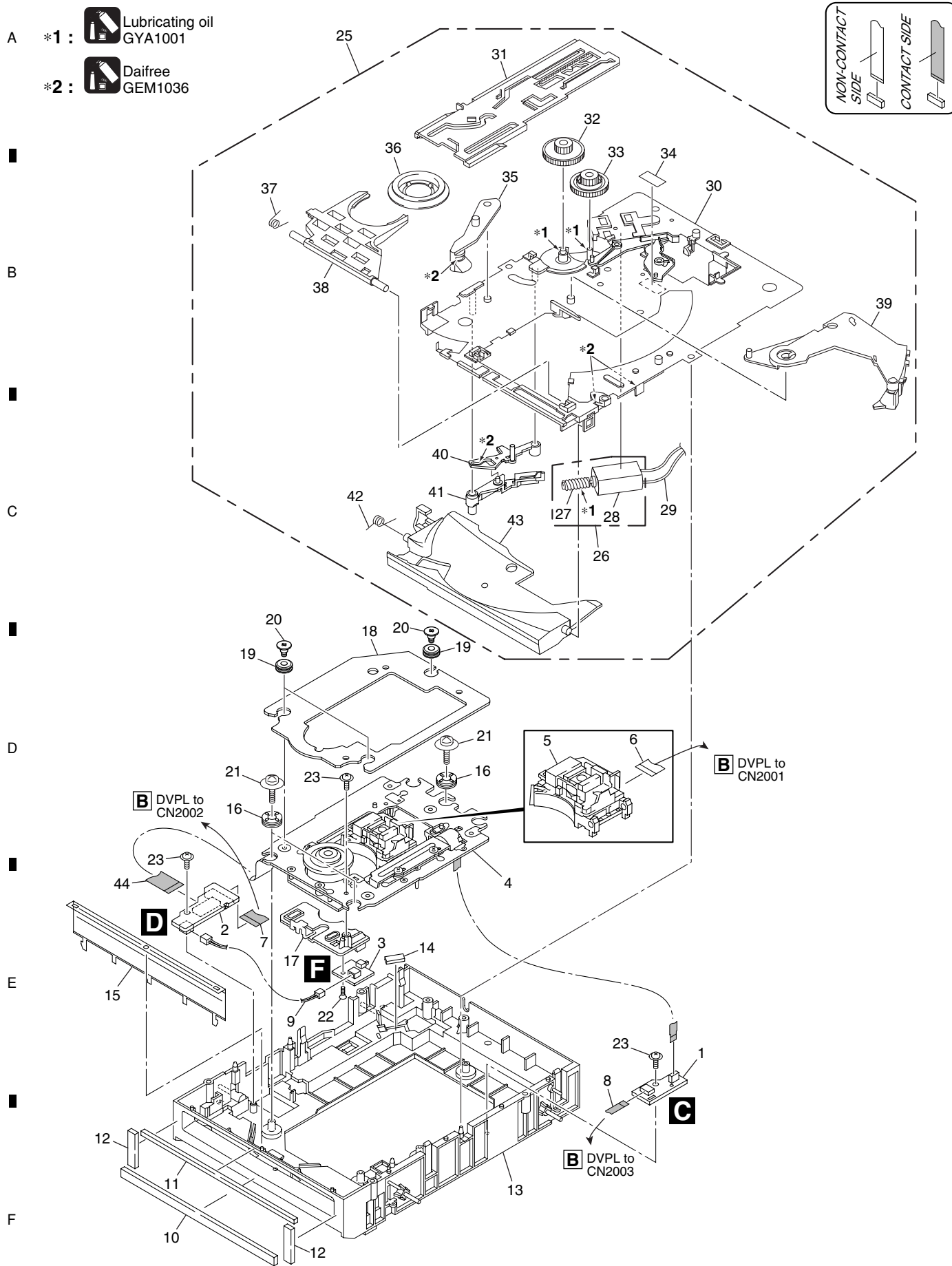
3

4

JOG SECTION Parts List

Mark No.	Description	Part No.	
1	JFLB Assy	DWG1571	
2	JOGB Assy	DWG1572	A
3	Sheet SW	DSX1060	
4	Connector Assy	PF04PP-B07	
5	Jog Panel (PMMA)	DAH2264	
6	JOG FL Filter (PC)	DEC2608	
7	JOG Plate	DNB1126	
8	JOG A	DNK4243	
9	JOG B	DNK4244	
10	JOG C	DNK4174	
11	SW Ring	DNK4070	B
12	Roller A Assy	DXB1825	
13	SW Spring 31	DBH1528	
14	SW Cushion HH48/2	DEC2538	
15	JOG Stay Assy	DXB1780	
16	JOG Holder 2	DNK4175	
17	Spacer	DEC2554	
18	Arm Spring	DBH1503	
19	Deceleration Gear	DNK4066	
20	ENC Plate	DEC2498	
21	Gear Arm	DNK4065	C
22	Gear	DNK4176	
23	Smoother	DNK4177	
24	Adjust Plate	DNK4178	
25	Gear Spring 200	DBH1525	
26	Washer	WA42D080D050	
27	Screw	PBA1062	
28	Screw	BPZ30P080FZK	
29	Screw	BPZ20P100FMC	
30	Screw	BPZ20P060FMC	D
31	Screw	IPZ30P100FMC	
32	13P Fiexible Cable	52492-1320	

2.6 SLOT-IN MECHANISM SECTION



SLOT-IN MECHANISM SECTION Parts List

Mark No.	Description	Part No.
1	STCN Assy	DWX2342
2	SPCN Assy	DWX2343
3	INSW Assy	DWS1342
4	Traverse Mechanism G11 Assy-S	DXX2541
NSP 5	Pickup Assy	OWY8037
6	26P Flexible Cable	DDD1257
7	13P Flexible Cable	DDD1256
8	4P Flexible Cable	DDD1258
9	Connector Assy	DKP3667
10	Vessel Cushion A	DEC2633
11	Vessel Cushion B	DEC2634
12	Vessel Cushion C	DEC2635
13	Float Base (G11) Assy	DXB1793
14	Spacer POR (T3)	DEB1566
15	Front Sheet	DED1132
16	Float Rubber D3	DEB1404
17	Inside SW Base	DNK4236
18	Weight G11	DNH2583
NSP 19	DRA Rubber G5	DEB1454
NSP 20	DRA Screw R (G7)	DBA1151
21	Float Fastener	DBA1139
22	Screw	VBA1062
23	Screw	IPZ20P060FMC
24	• • • • •	
NSP 25	Slot-in Mechanism G5 assy	DXA1906
26	Loading Motor Assy-S	DEA1008
NSP 27	Worm Gear	DNK3910
NSP 28	DC Motor	DXM1093
29	Connector Assy	PF02PY-B32
30	Loading Base Assy-S	DEA1022
31	Main Cam	DNK3407
32	Driver Gear	DNK3912
33	Loading Gear	DNK3911
34	SW Lever Spacer	DEC2420
35	Loading Lever	DNK3406
36	Clamper D4 Assy	DXA1881
37	Clamper Spring	DBH1374
38	Clamper Arm	DNK3576
39	Eject Lever	DNK3684
40	Lever A	DNK3564
41	Lever B	DNK3558
42	Guide Spring	DBH1375
43	Disc Guide	DNK3914
NSP 44	13P Spindole Flexibl Cable	

A

B

C

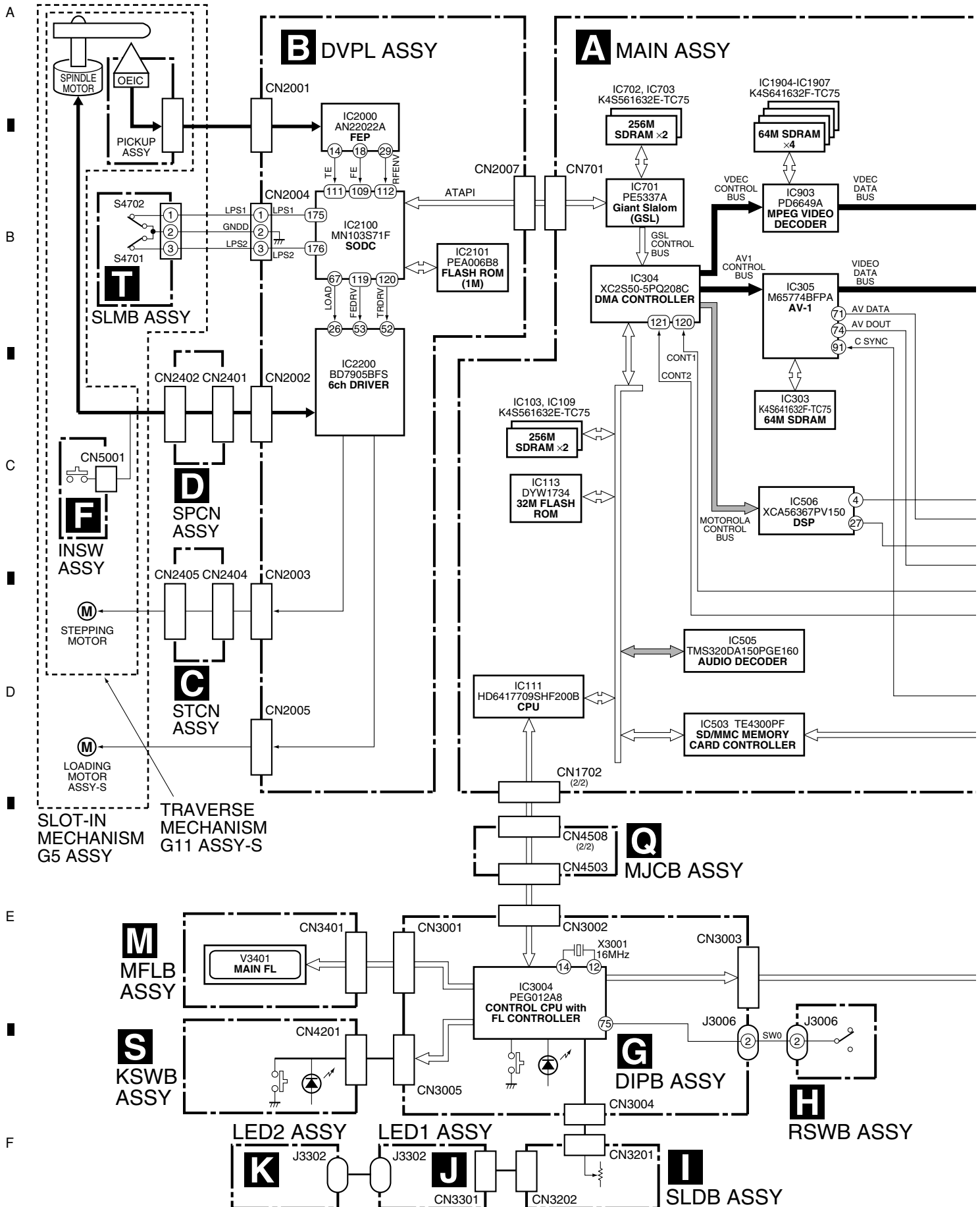
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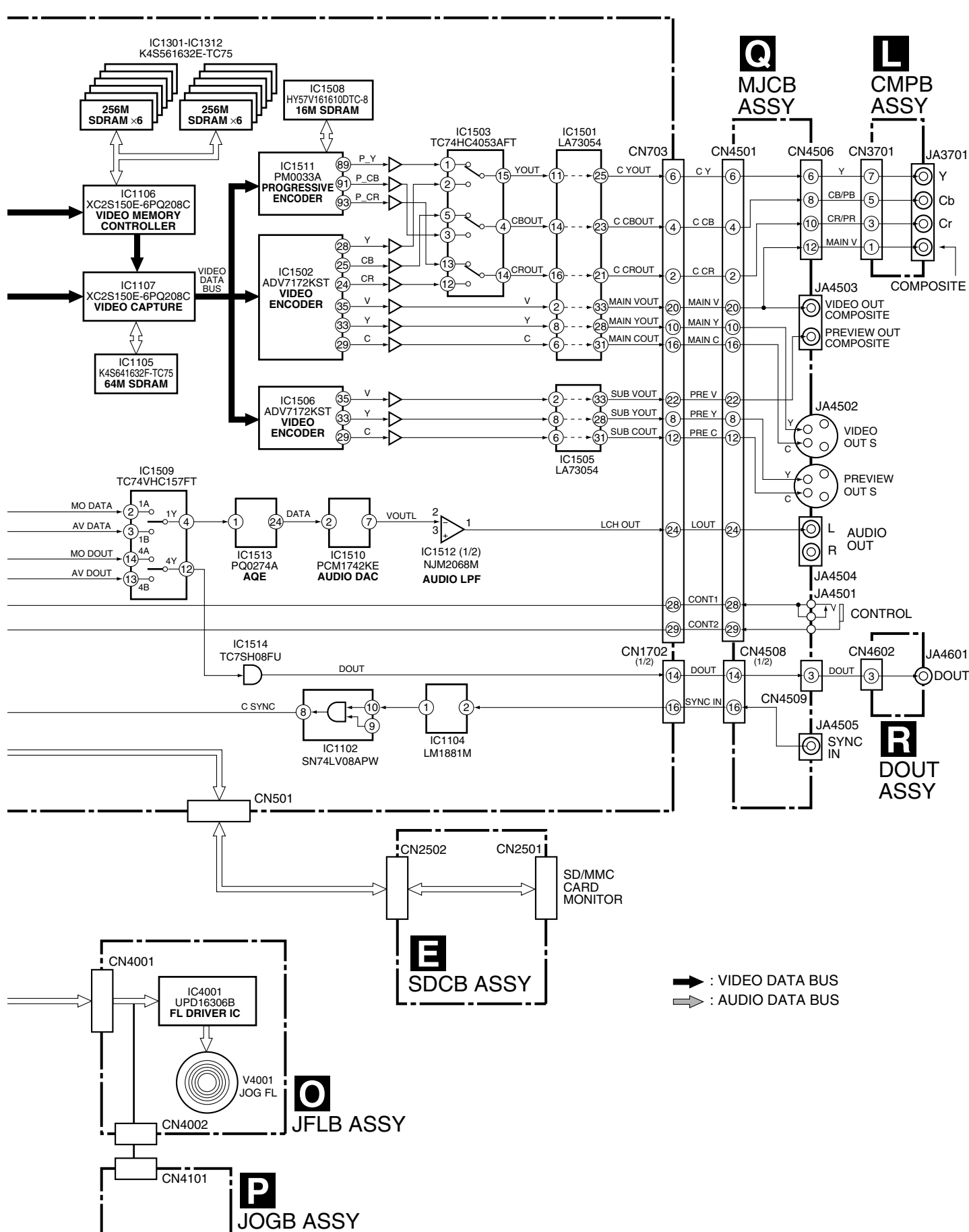
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F

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

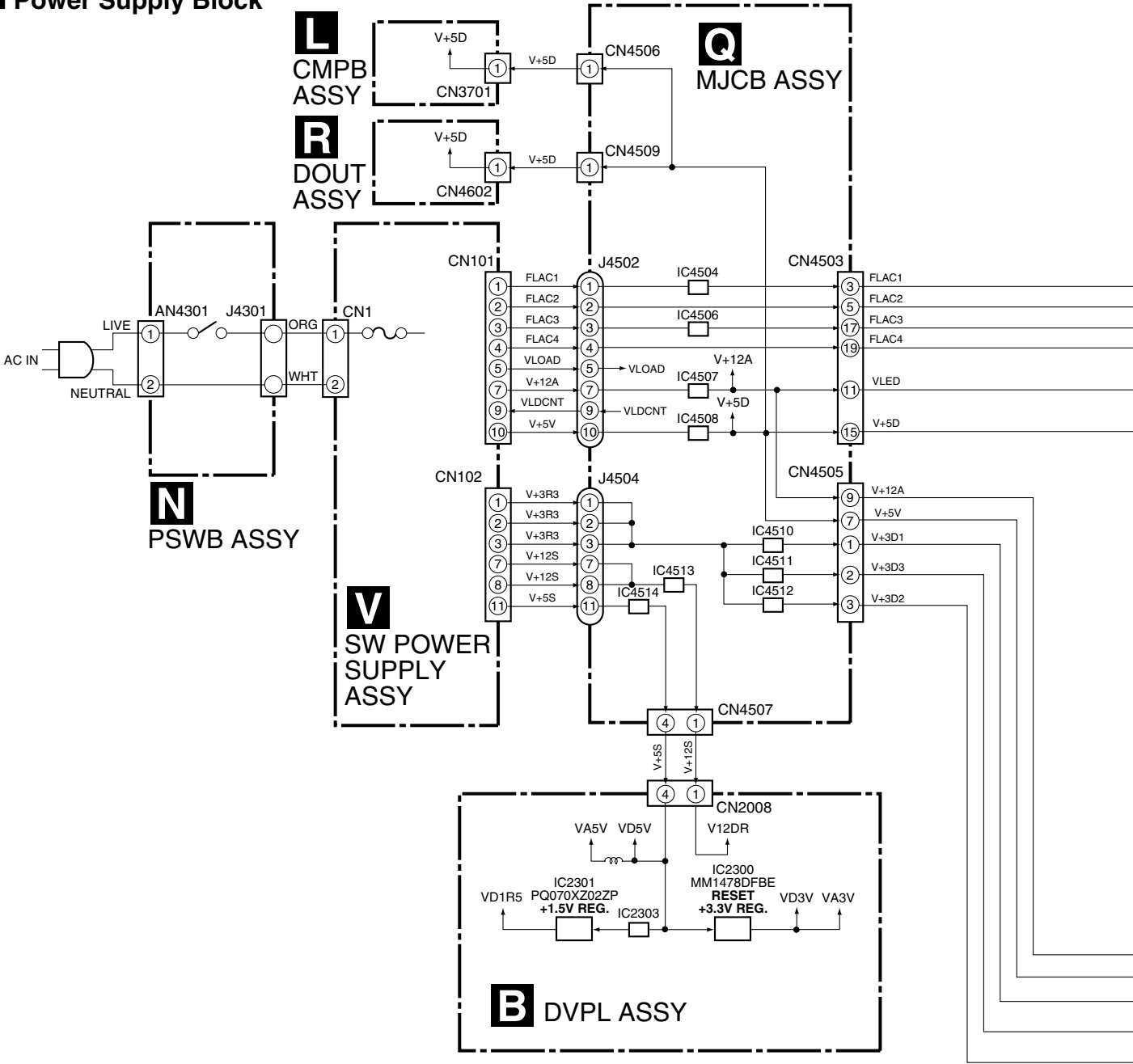
3.1 BLOCK DIAGRAM (1/2)

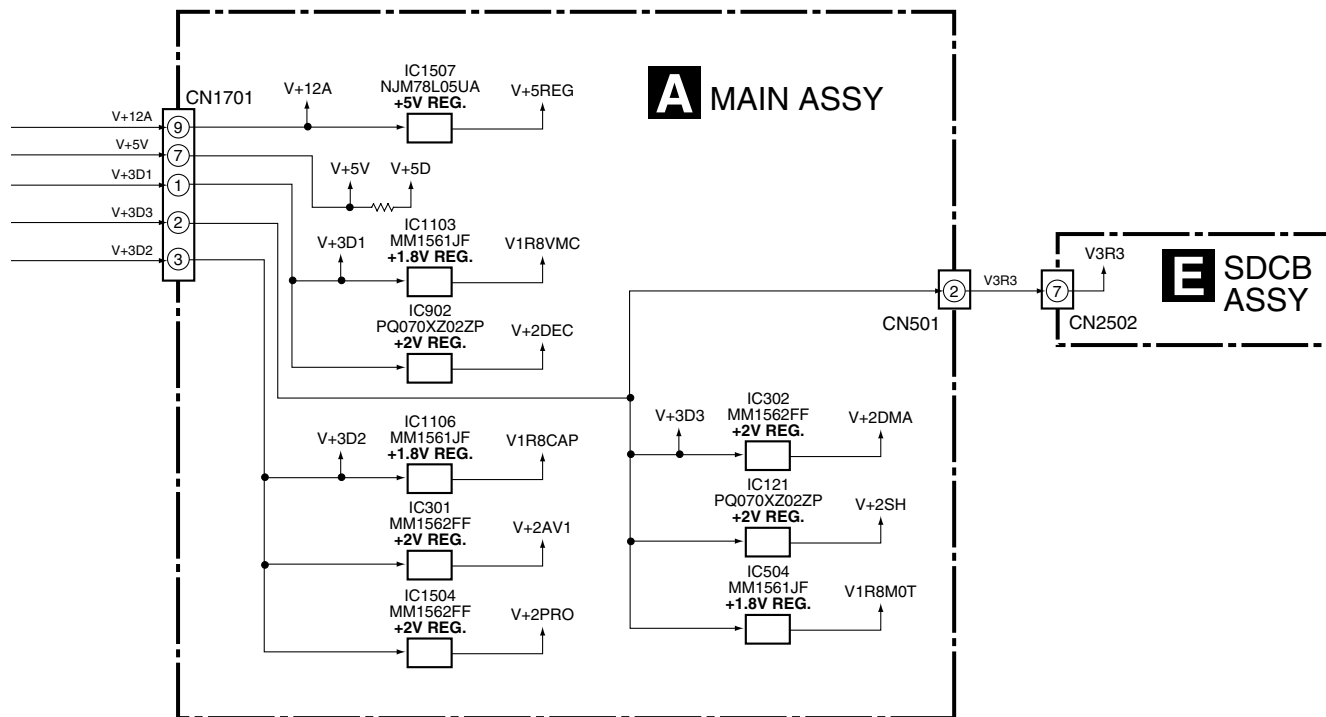
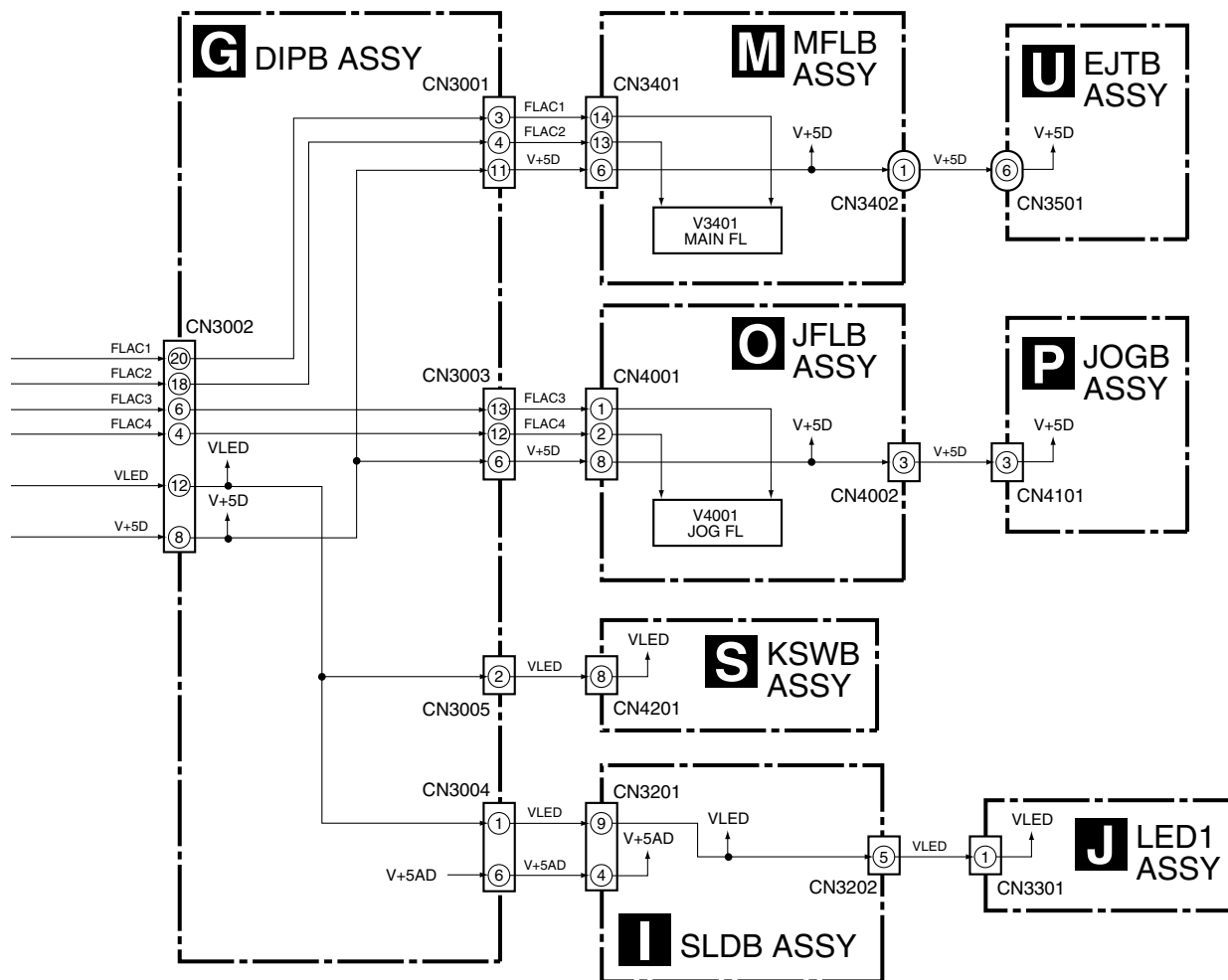




3.2 BLOCK DIAGRAM (2/2)

Power Supply Block

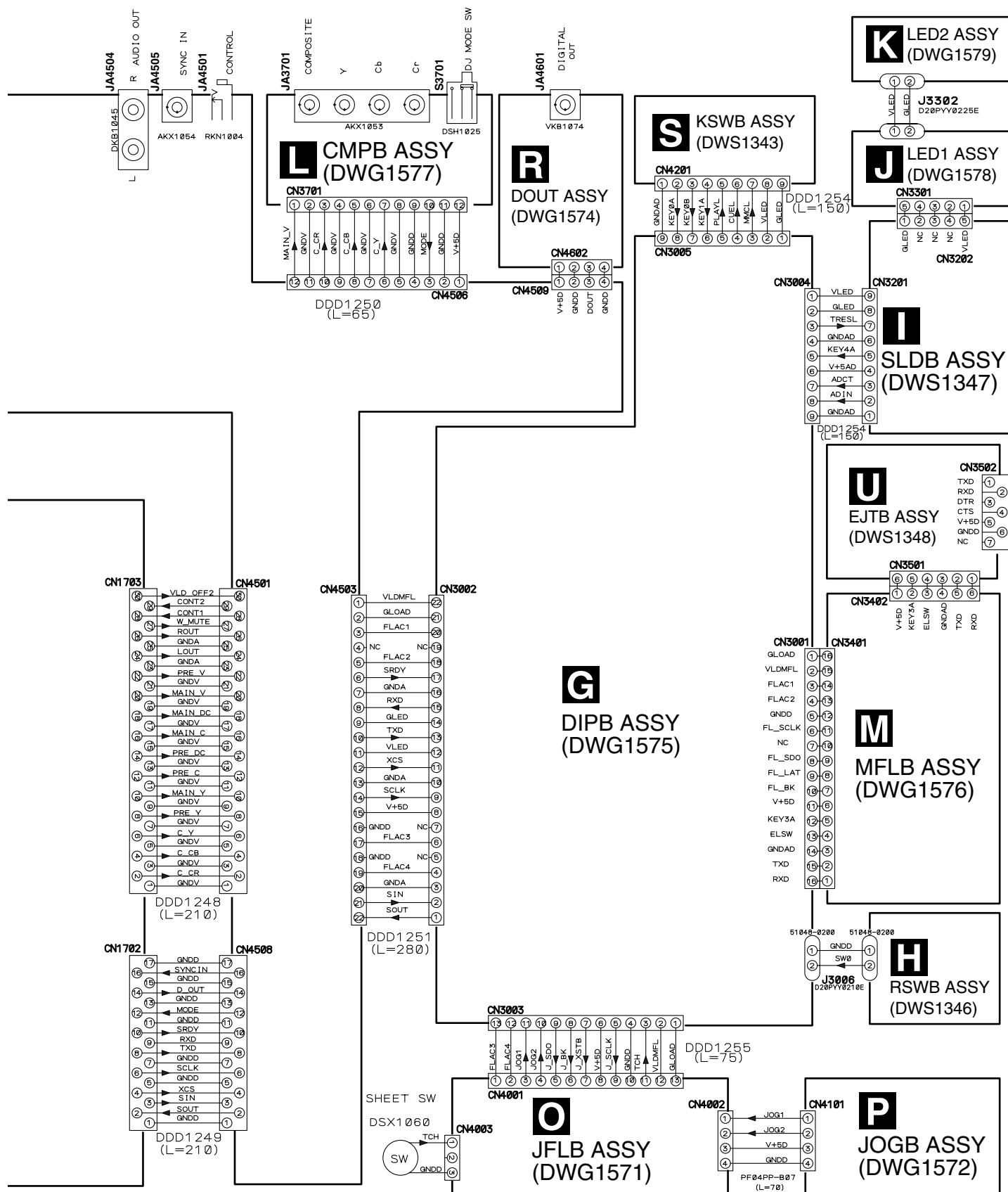




△



- When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB 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.
-  : The power supply is shown with the marked box.



A 1/10 MAIN ASSY (DWG1570)



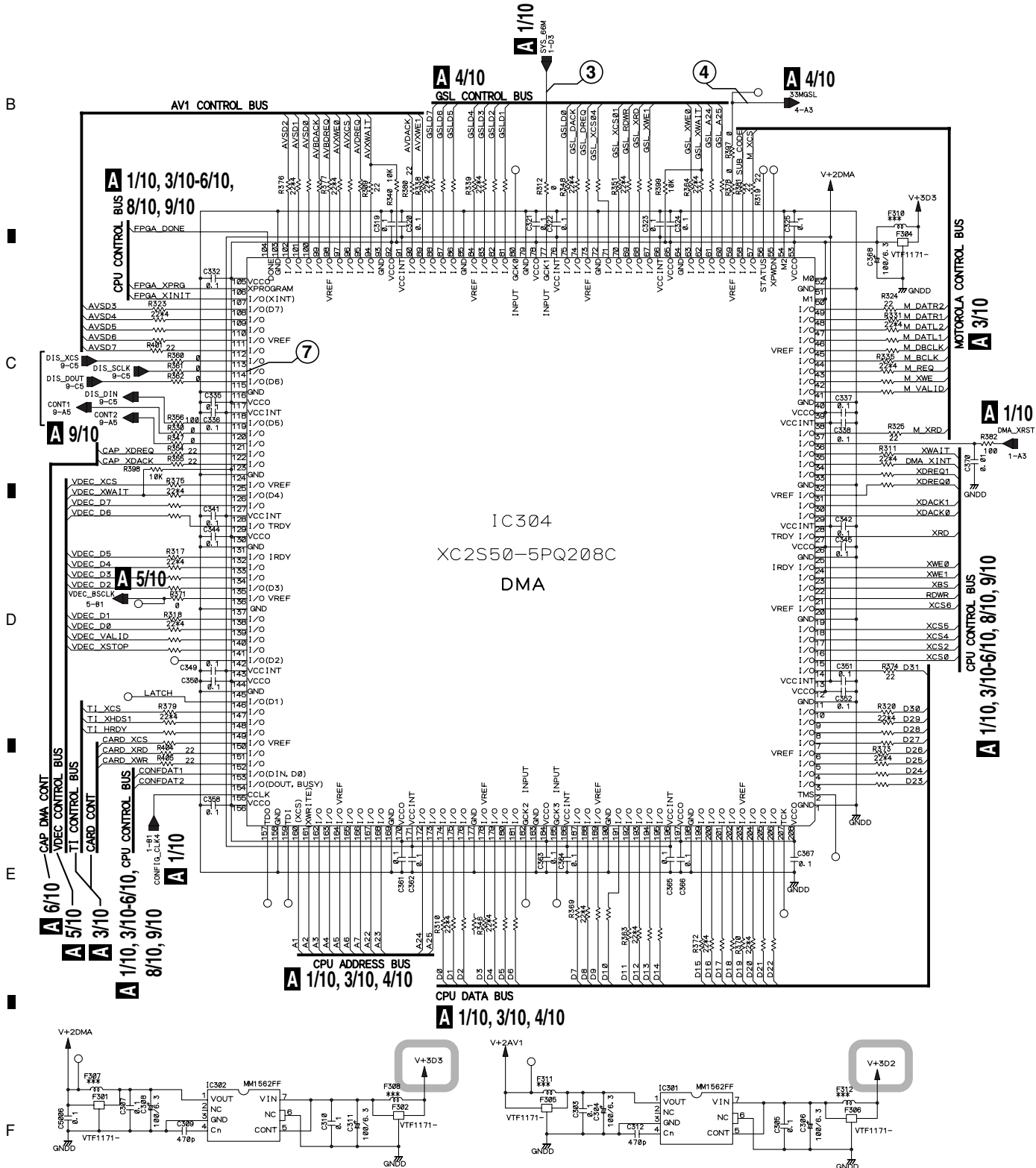


A 1/10

DVJ-X1

3.5 MAIN ASSY (2/10)

A 2/10 MAIN ASSY (DWG1570)



A 2/10



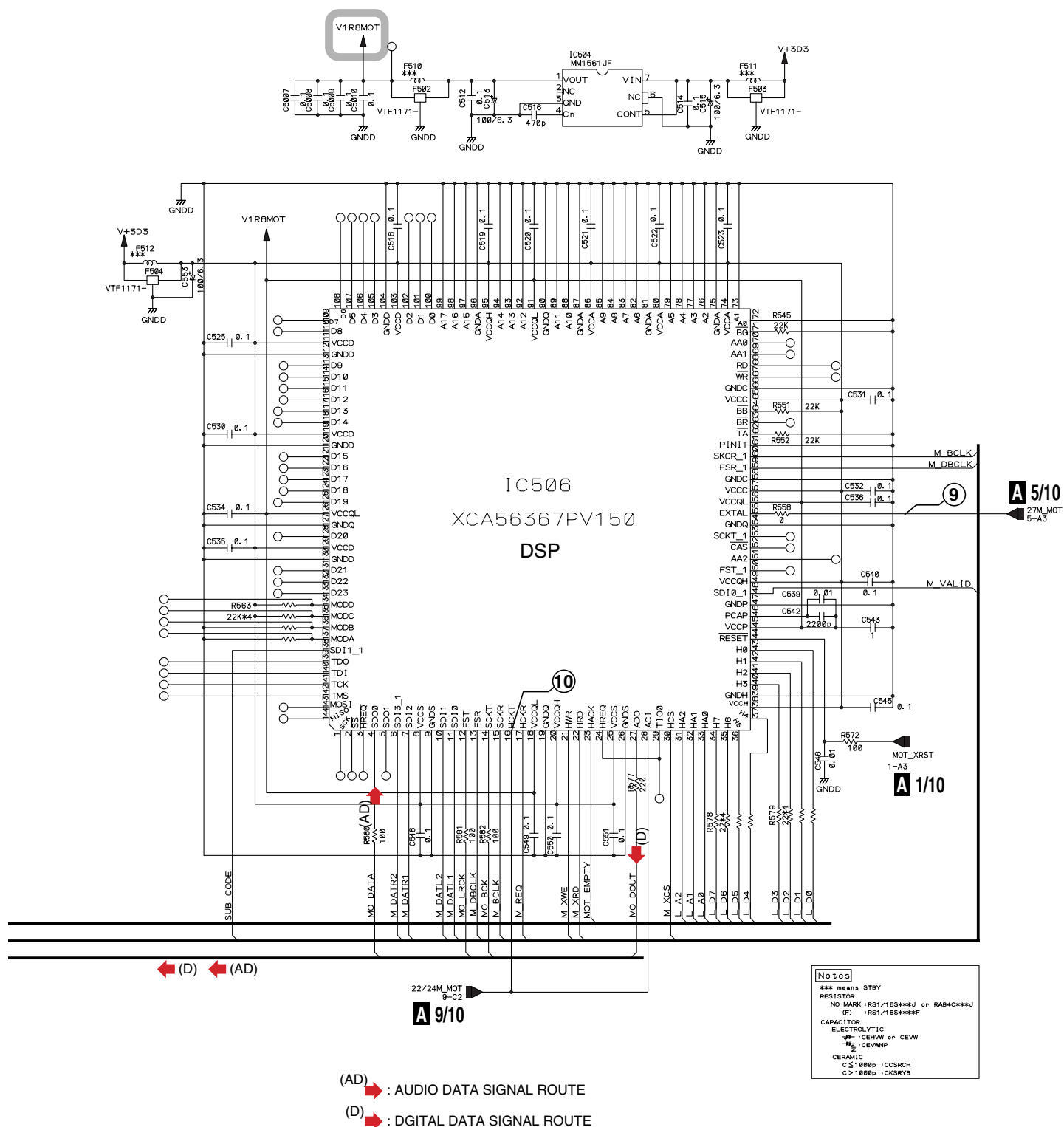
(D) : DIGITAL OUT SIGNAL ROUTE

27

△

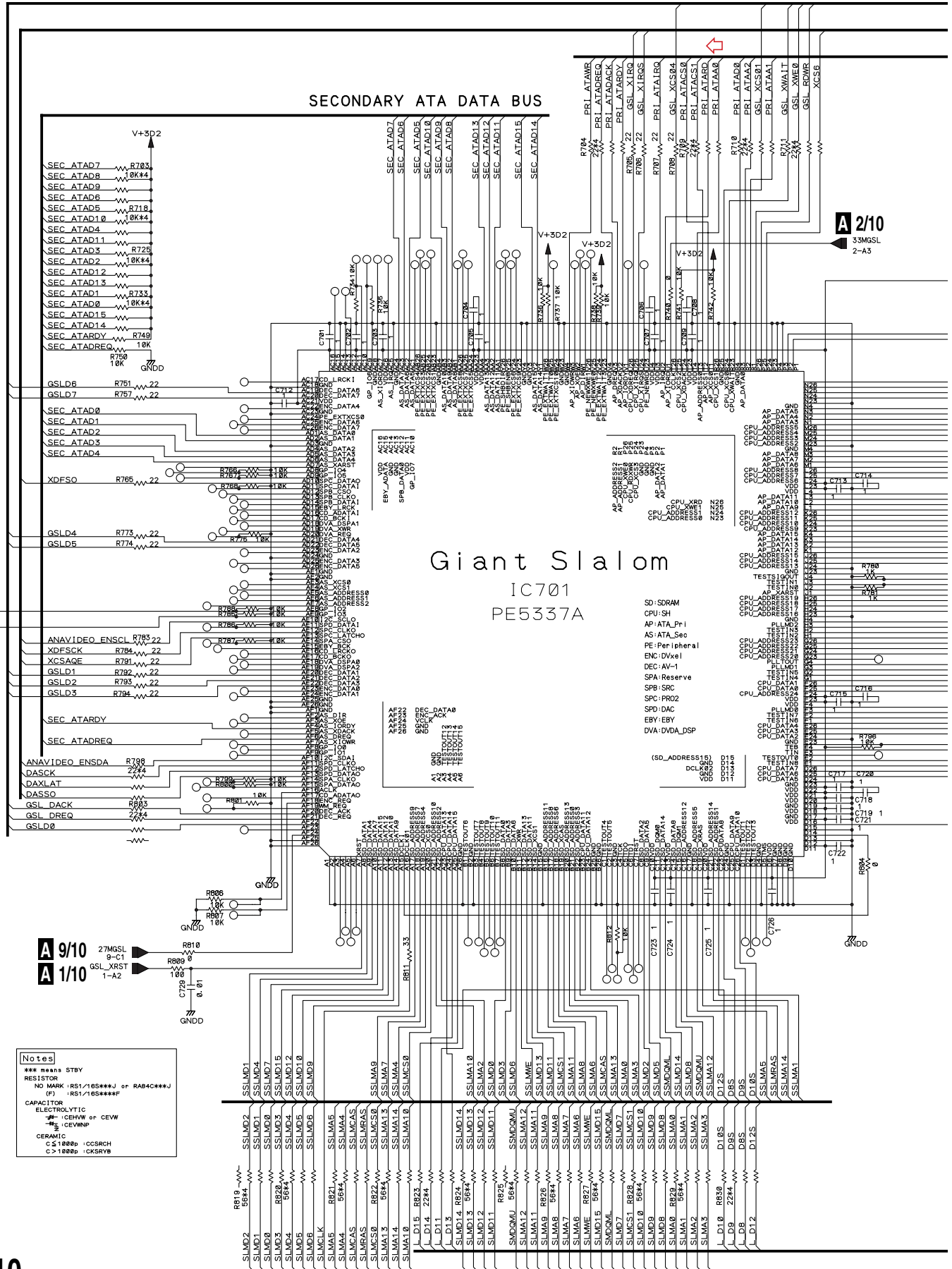
A





3.7 MAIN ASSY (4/10)

A 4/10 MAIN ASSY (DWG1570)



A 8/10
SQUEEZE
8-B5
LETTER
8-B5

A 9/10
A 1/10
27MGS
9-C1
GSL_XRST
1-A2

Notes
*** means SBY
RESISTOR
NO MARK (RS1/16S****J or RAB4C****J)
(F) (RS1/16S****F)
CAPACITOR
ELECTROLYTIC
-/- CEHWP or CEWM
-/- CEVWNP
CERAMIC
C<1000p CCSRCR
C>1000p CKSRYB

A 4/10



3.8 MAIN ASSY (5/10)

A 5/10 MAIN ASSY (DWG1570)

A 1/10-4/10, 6/10, 8/10, 9/10 CPU CONTROL BUS

A 6/10 BSLATCH 6-04

A 2/10

VDEC CONTROL BUS

A 2/10

VDEC_BSCCLK 2-C1

A 1/10

VDEC_XRST 1-A3

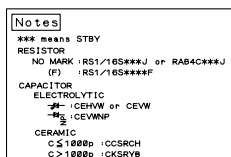
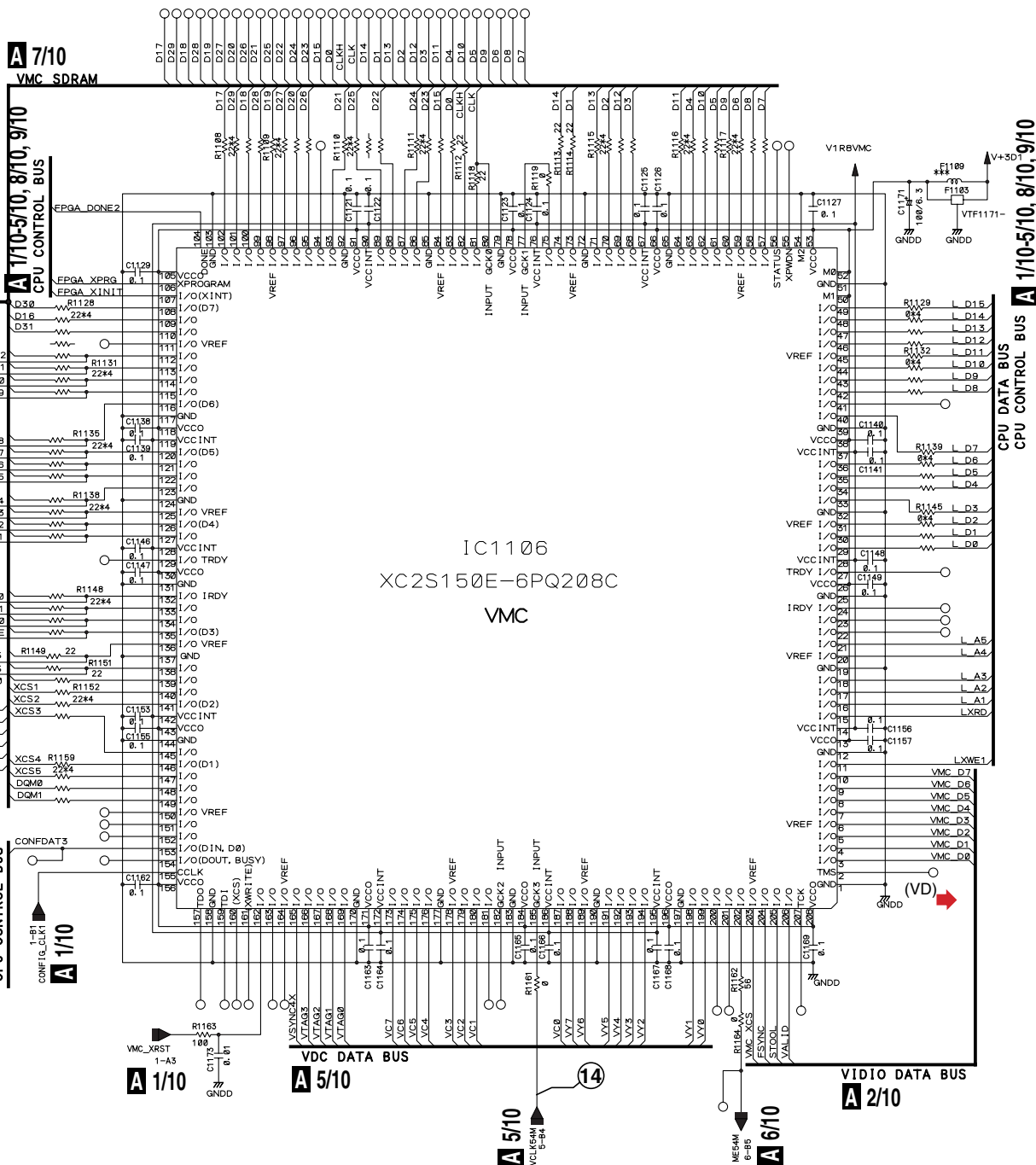
IC903
PD6449A
VDEC

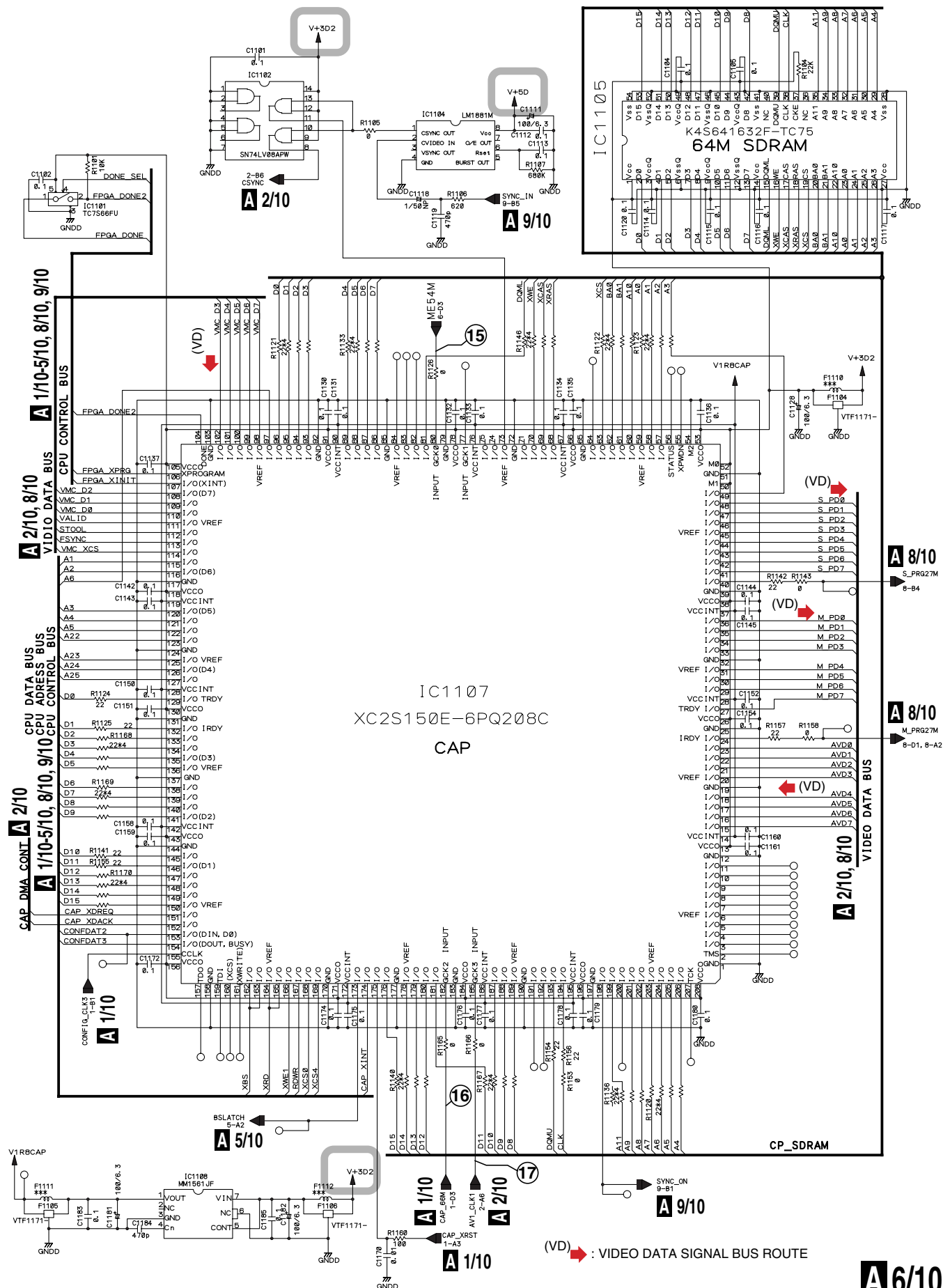
Notes

*** means STBY
RESISTOR
NO MARK /R51/16S***J or RAB4C***J
(P) /R51/16S***F
CAPACITOR
ELECTROLYTIC
-CERW/ CEVW
-CERWMP
CERAMIC
C51000P /C5SRCH
C>1000P /C5SYB



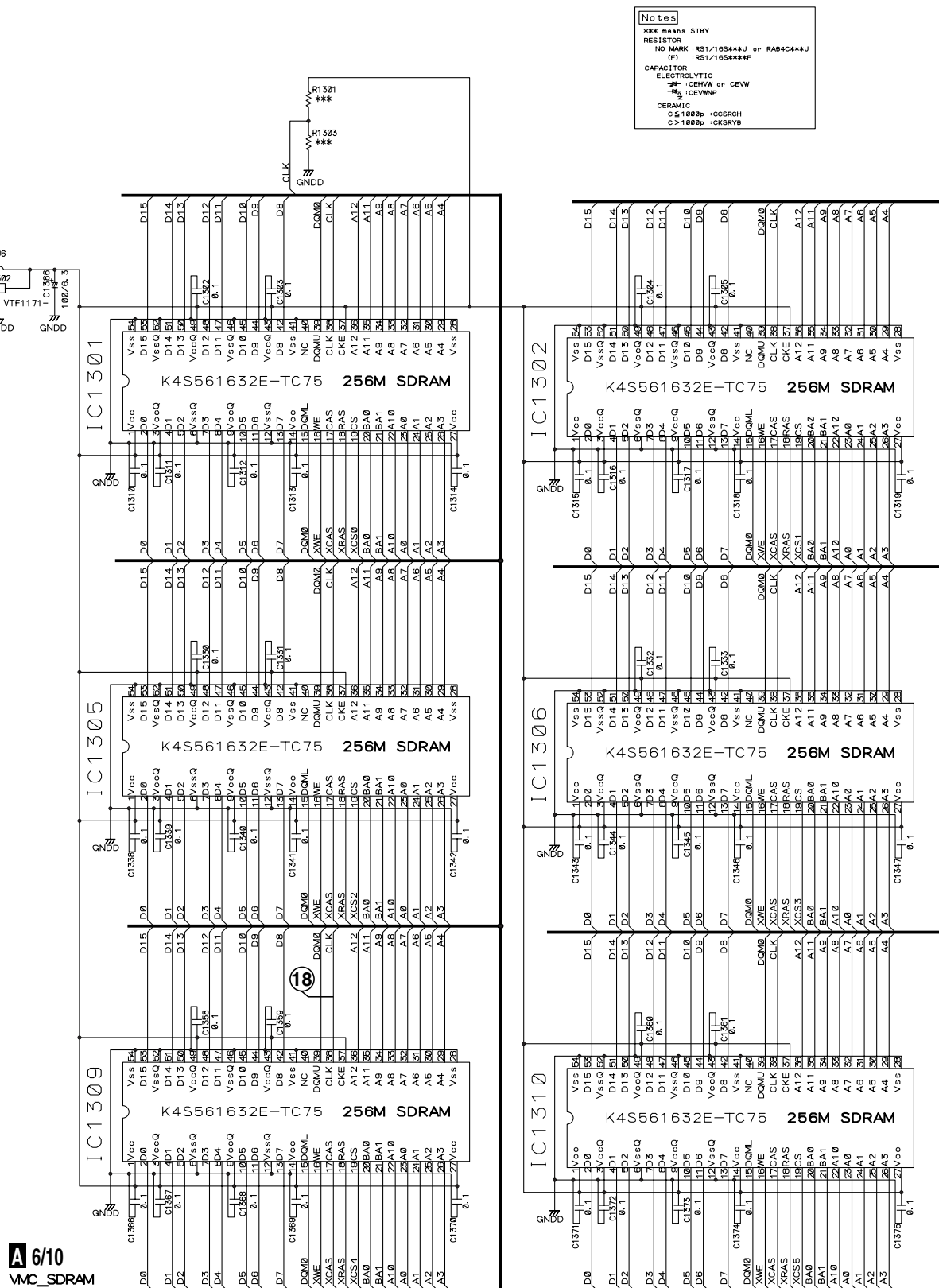
A 6/10 MAIN ASSY (DWG1570)

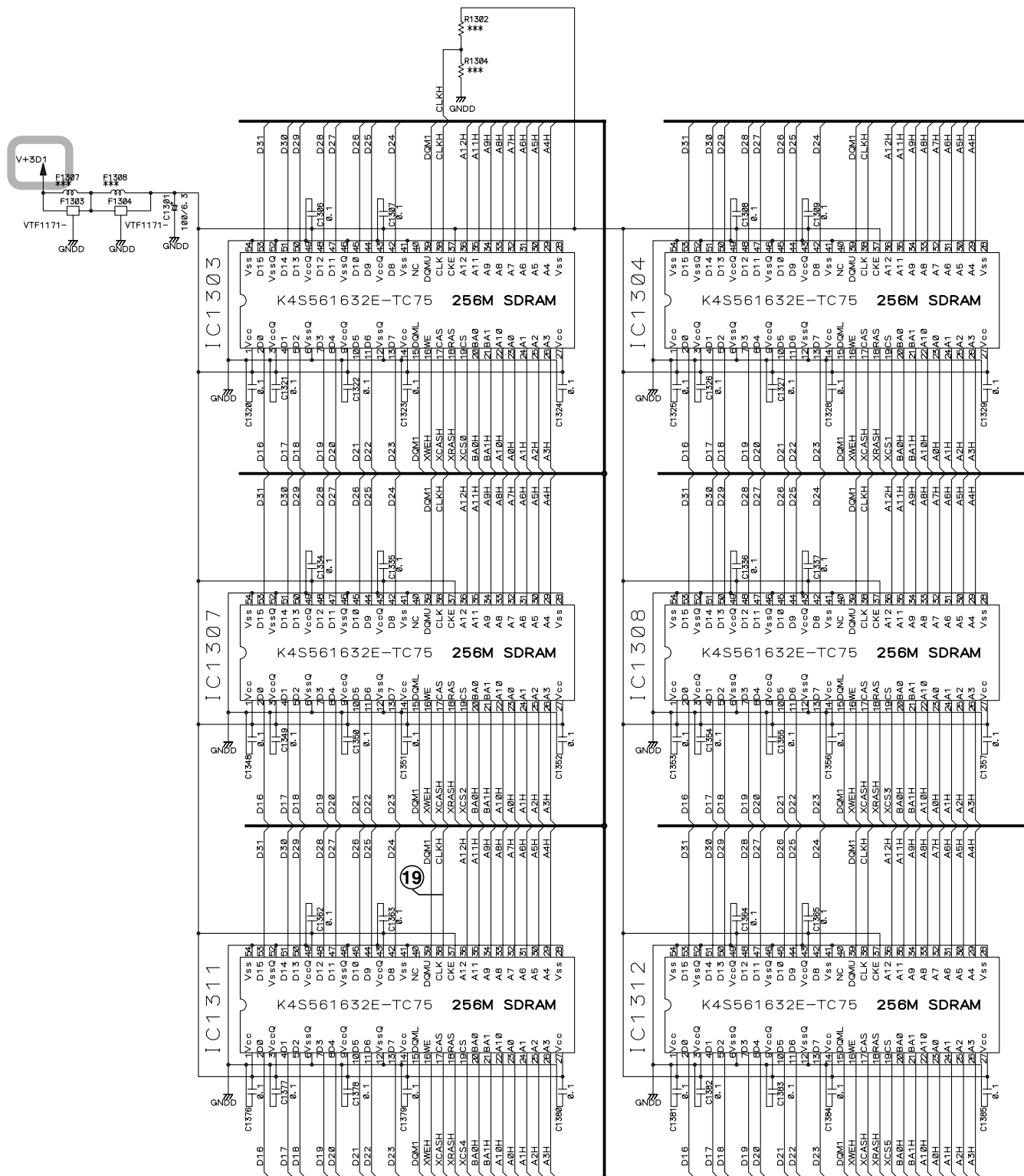




A
B
C
D
E
F

A 7/10 MAIN ASSY (DWG1570)

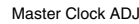


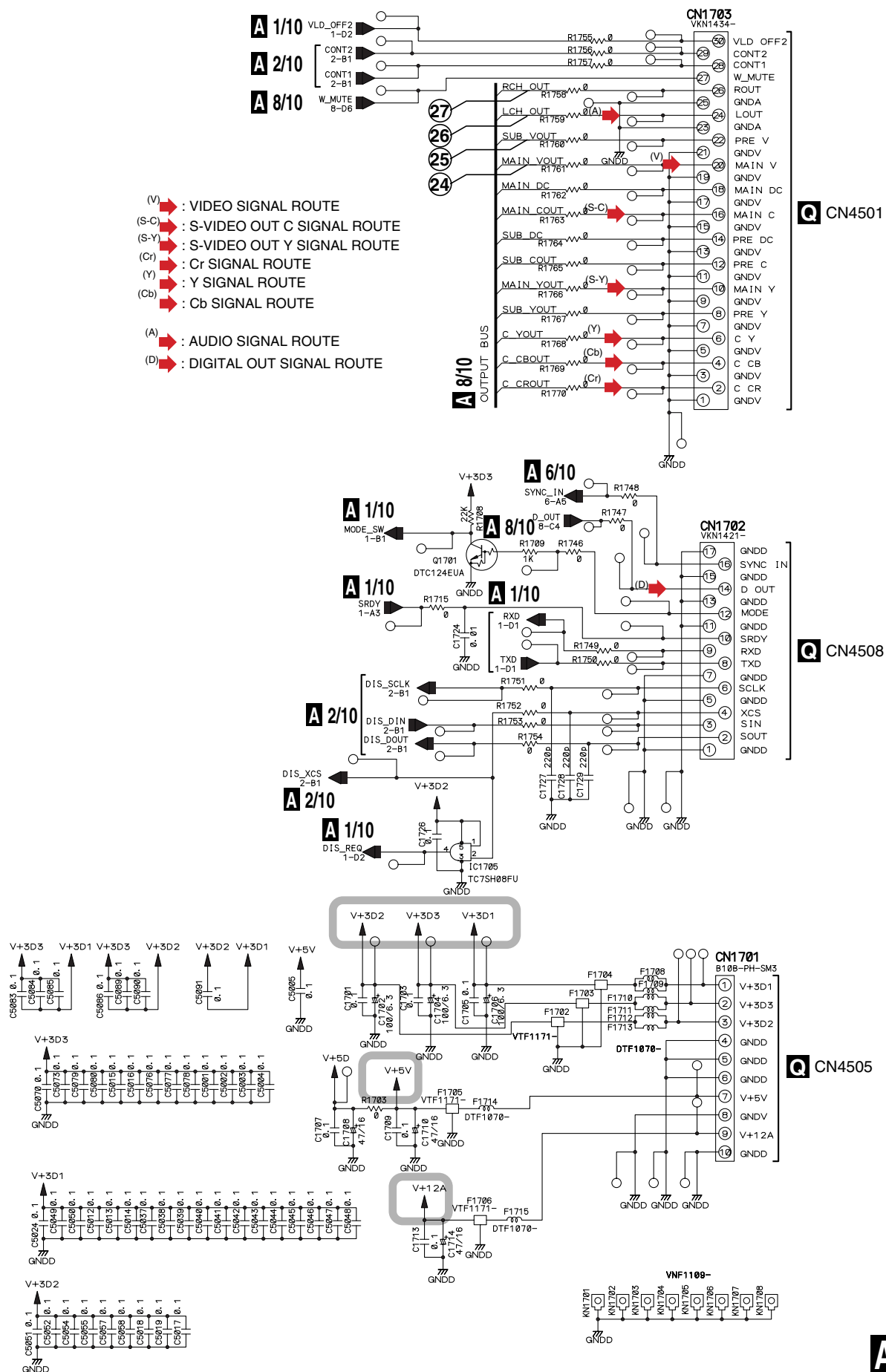




4

A

F



3.13 MAIN ASSY (10/10)

A 10/10 MAIN ASSY (DWG1570)

A

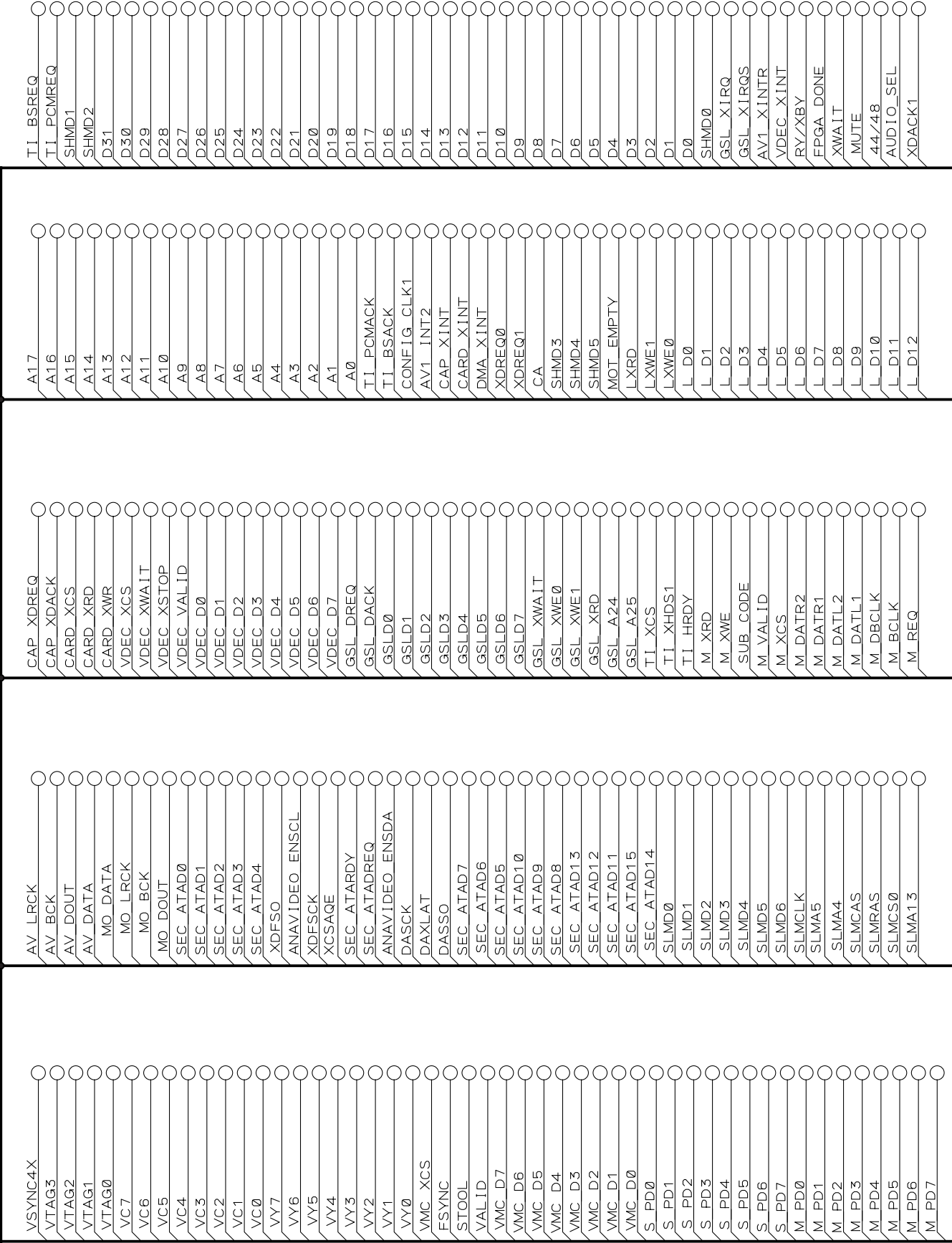
B

C

D

E

F



A 10/10

A

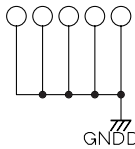
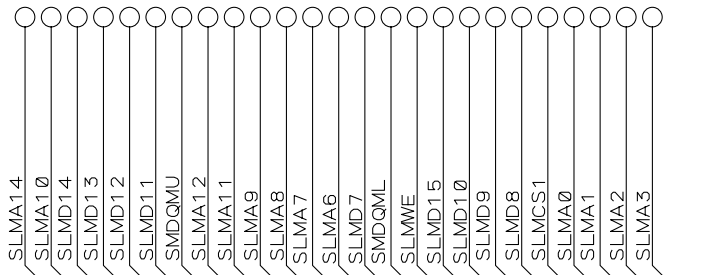
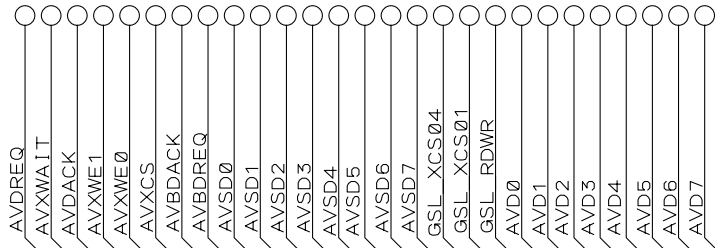
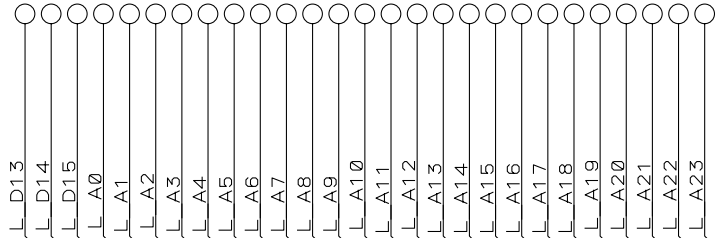
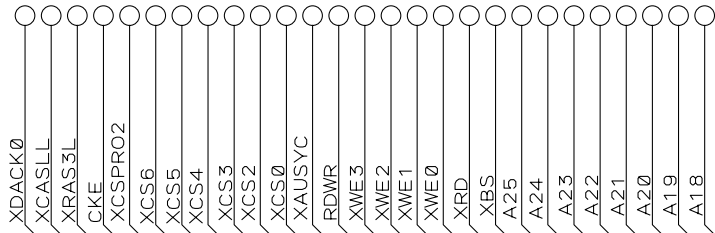
B

C

D

E

F



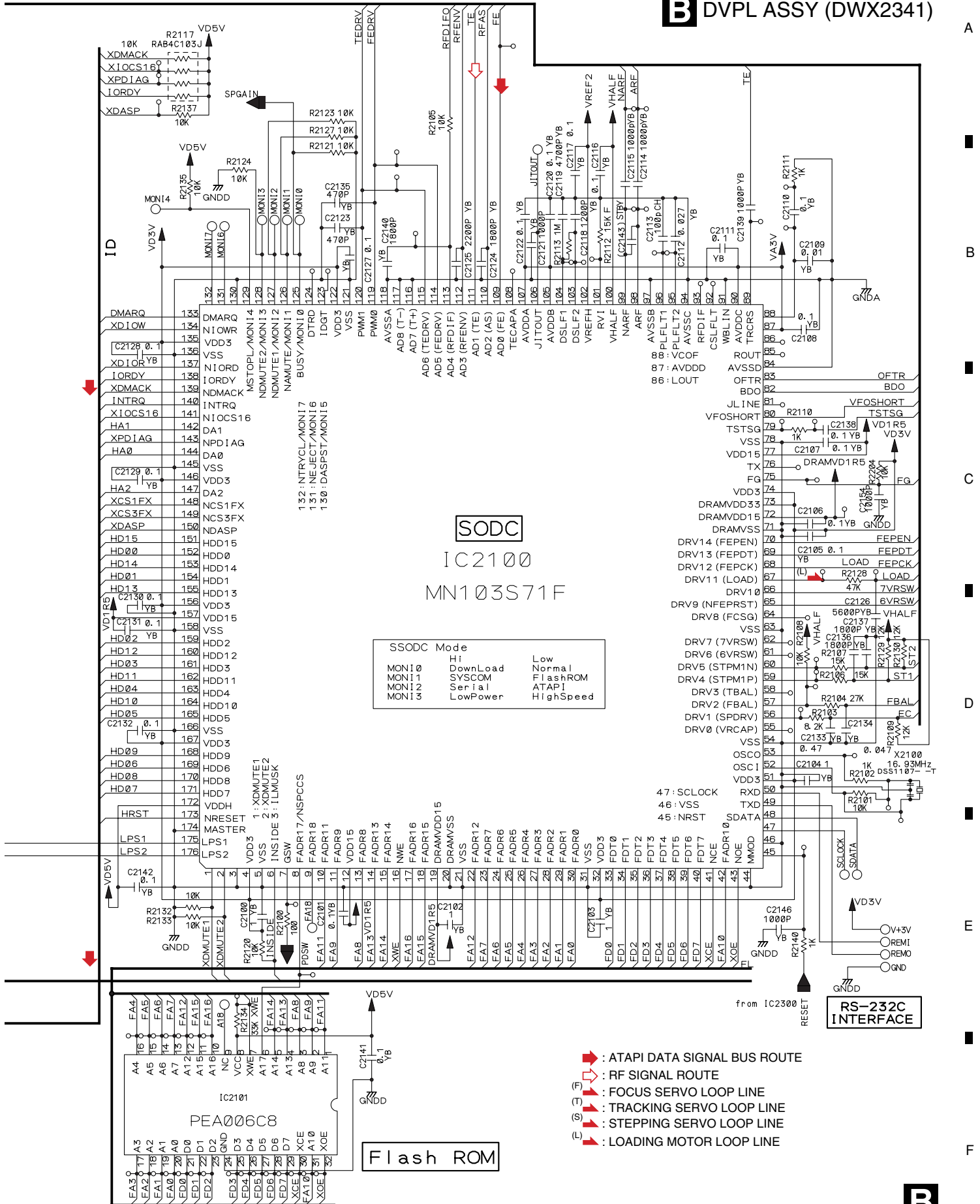
Notes	
*** means STBY	
RESISTOR	
NO MARK	RS1/16S***J or RAB4C***J
(F)	RS1/16S***F
CAPACITOR	
ELECTROLYTIC	
CEHVW	CEHVW or CEVW
CEVWNP	CEVWNP
CERAMIC	
C<1000p	CCSRCH
C>1000p	CKSRVB

△



44

B DVPL ASSY (DWX2341)

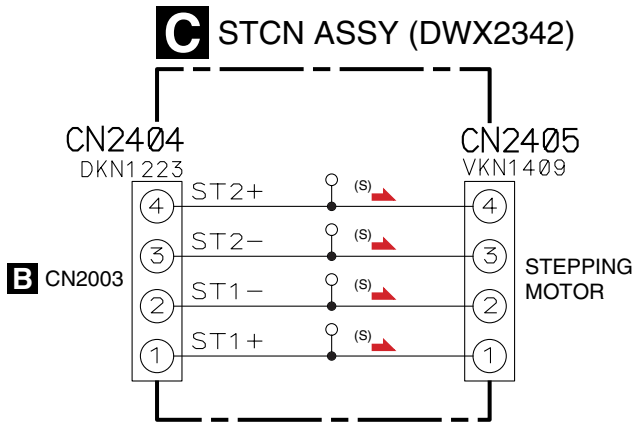


1 2 3 4

3.15 STCN, SPCN, SDCB and INSW ASSYS

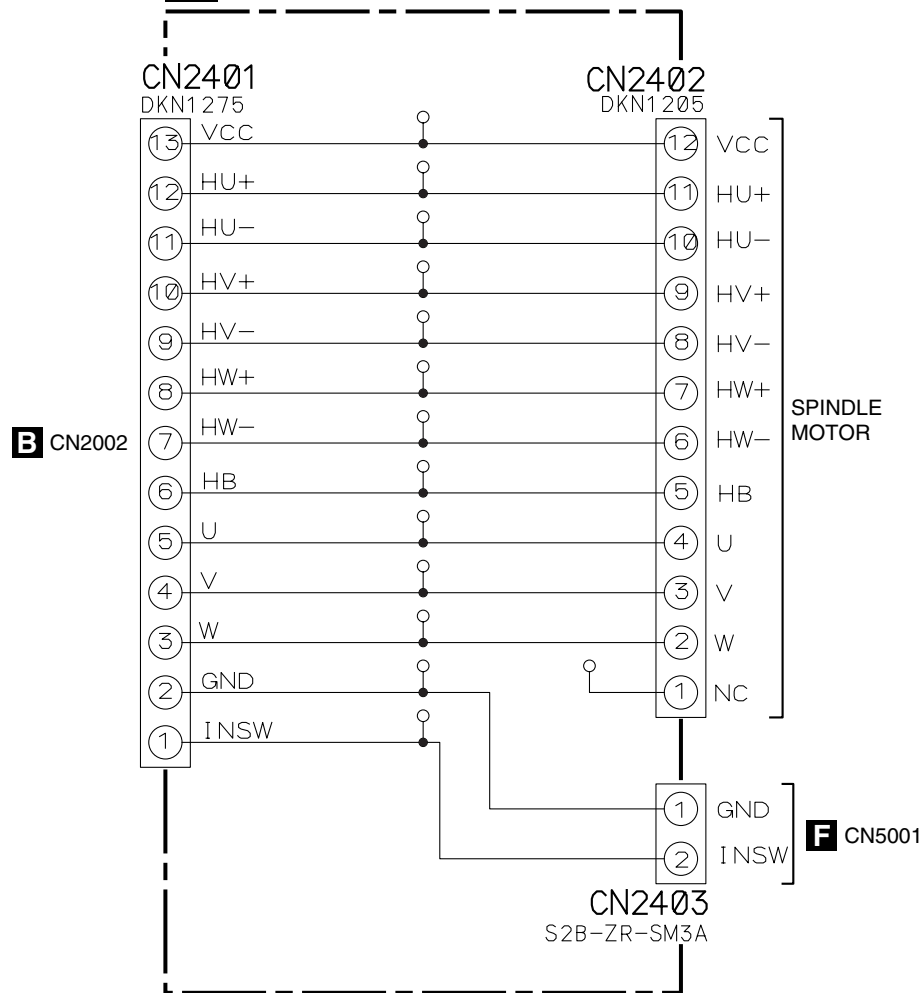
A

B



C

D SPCN ASSY (DWX2343)

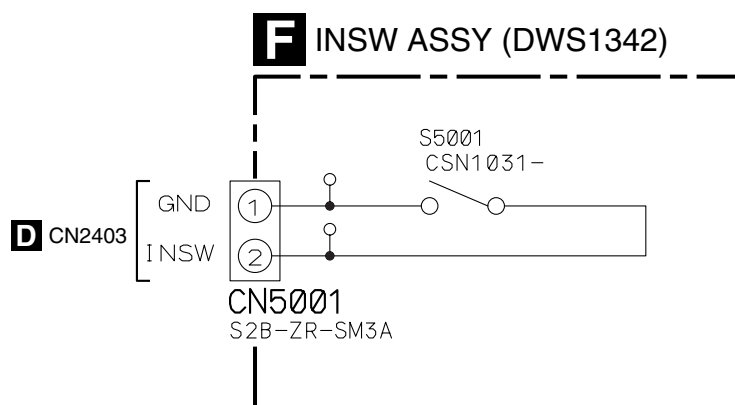
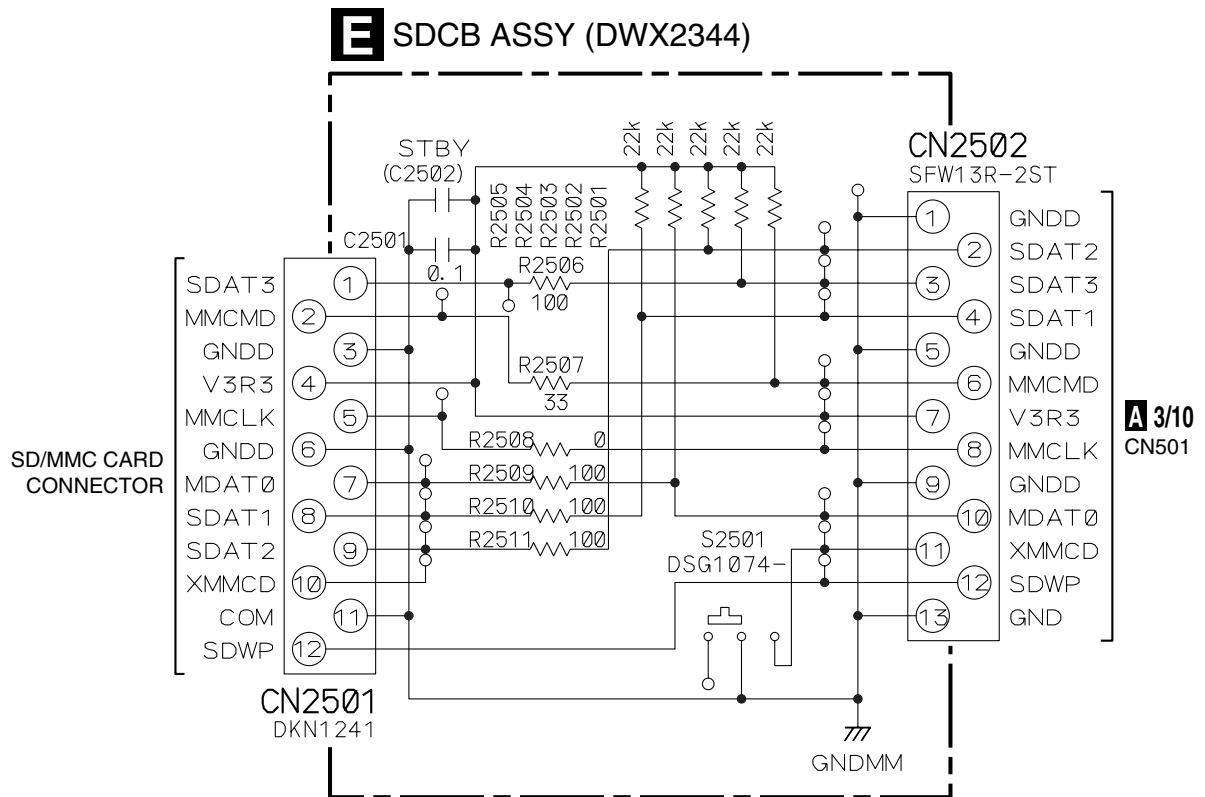


D

E

F

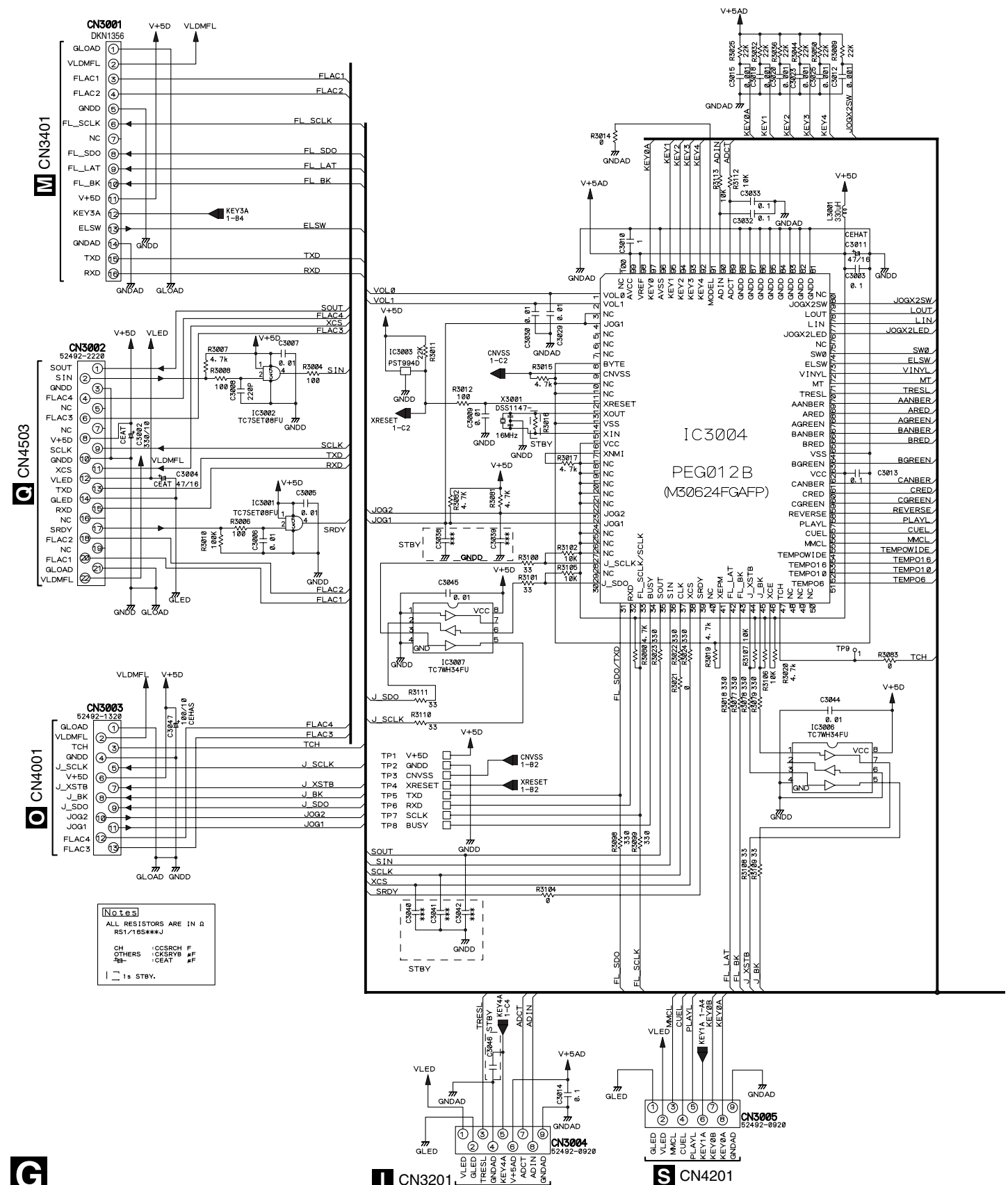
C **D**

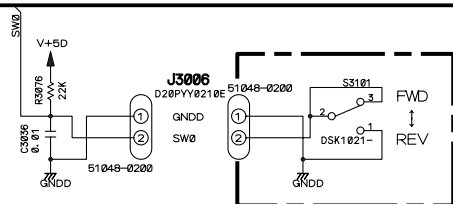
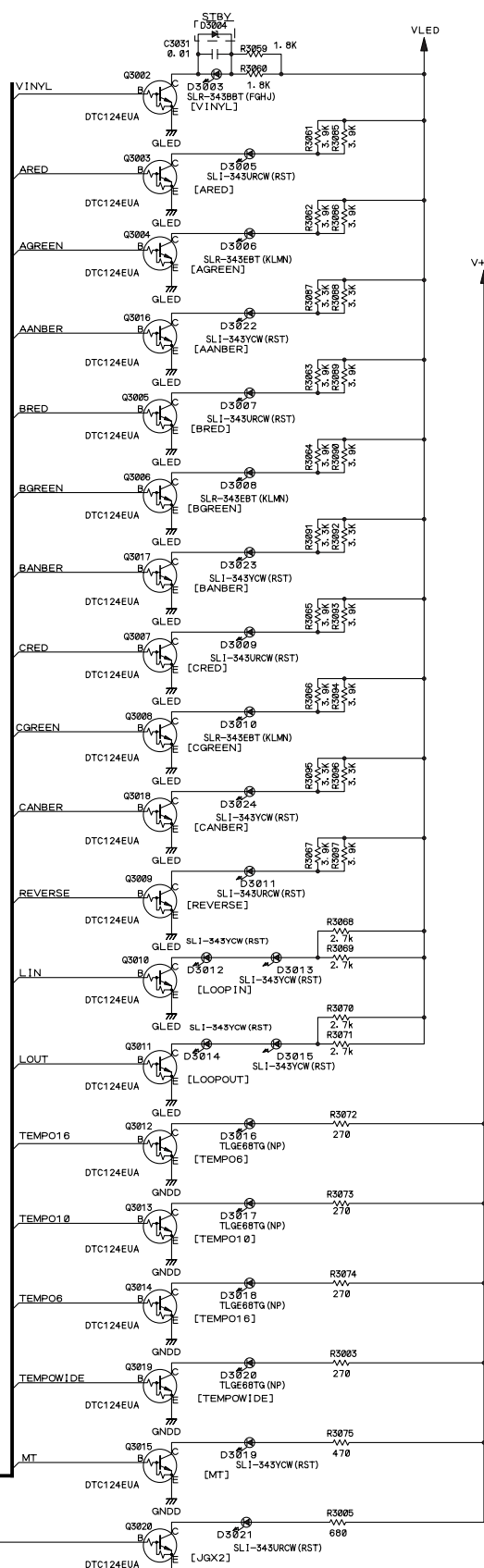


Notes

ALL RESISTOR ARE IN Ω .
ALL CAPACITOR ARE IN μF .
() AT PARTS REFERENCE No.
SHOWS STANDBY PARTS.

G DIPB ASSY (DWG1575)

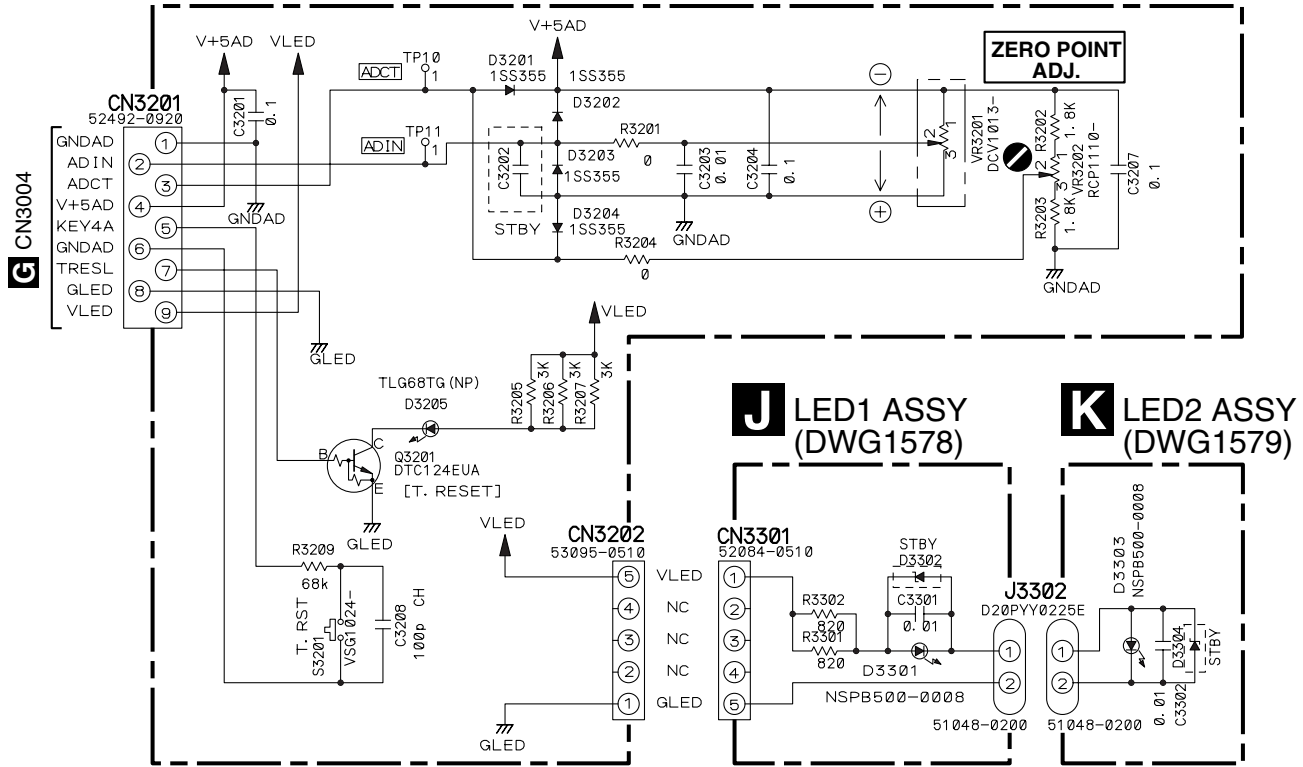




H RSWB ASSY
(DWS1346)

3.17 SLDB, LED1, LED2, CMPB, MFLB and PSWB ASSYS

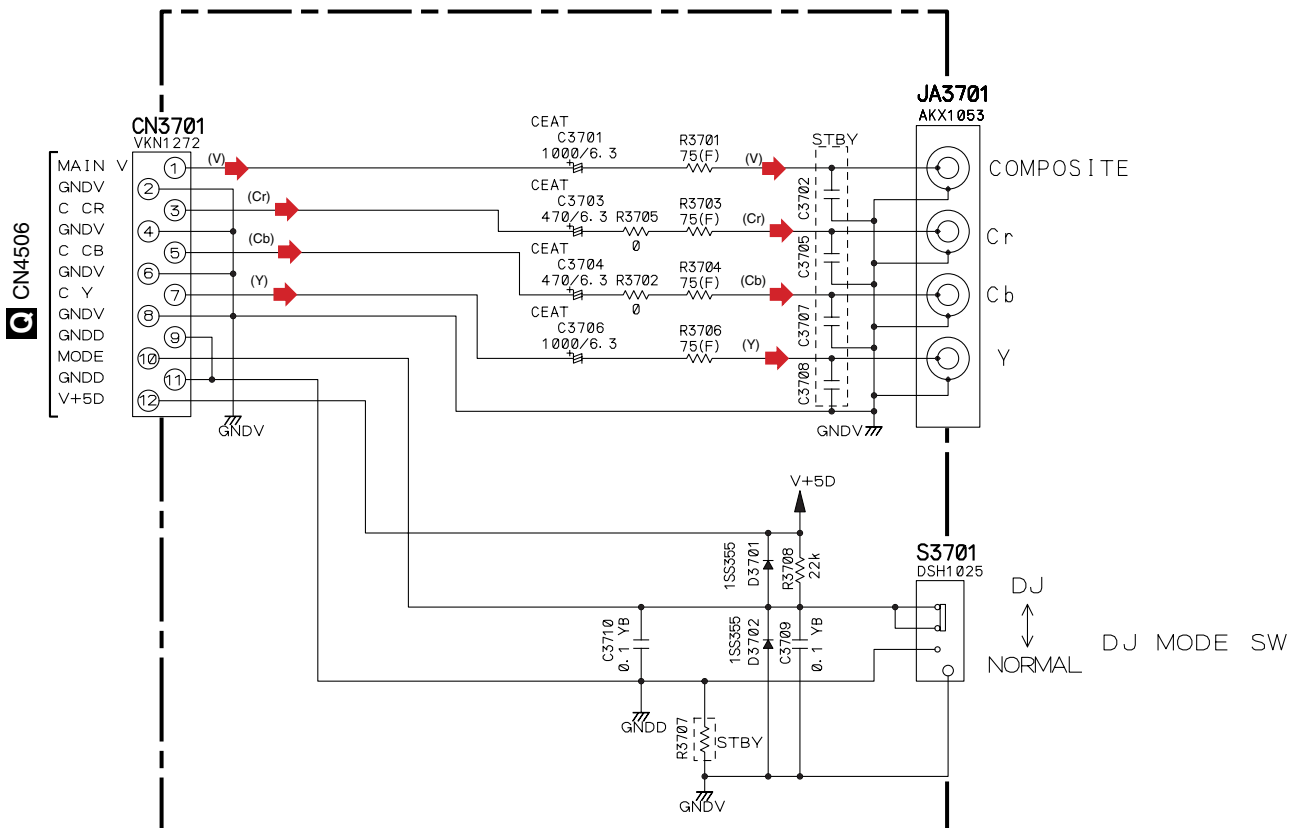
I SLDB ASSY (DWS1347)



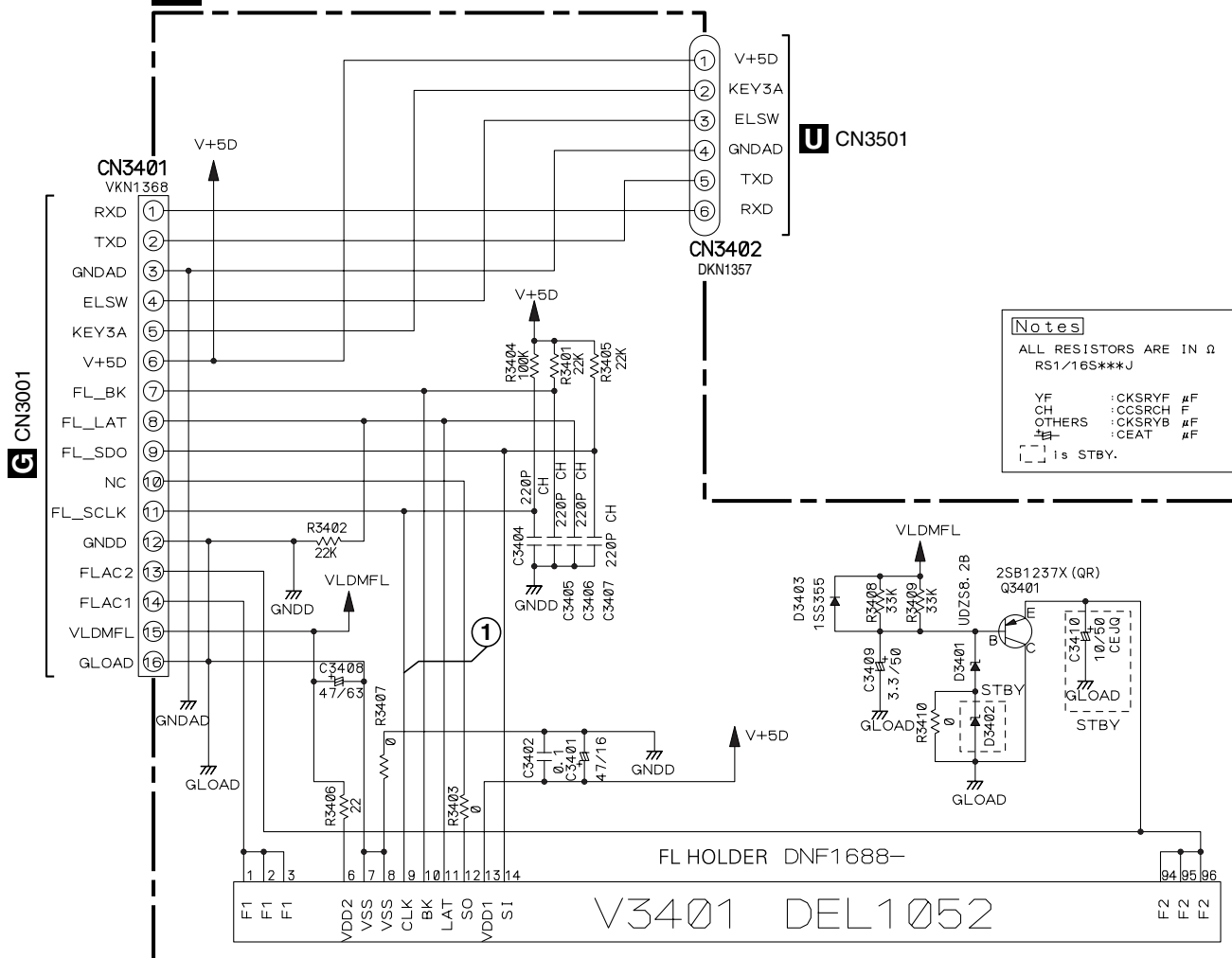
J LED1 ASSY (DWG1578)

K LED2 ASSY (DWG1579)

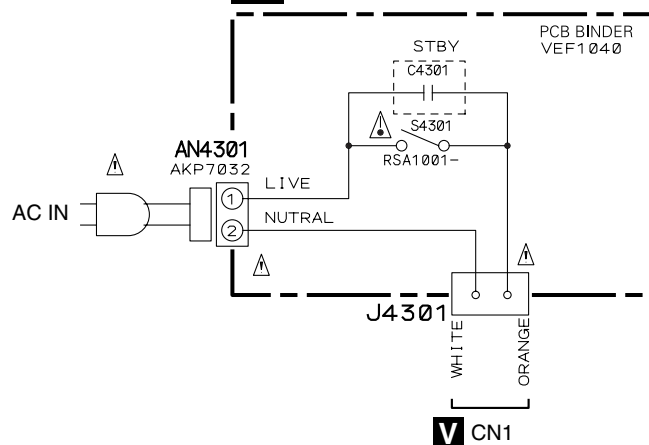
L CMPB ASSY (DWG1577)



M MFLB ASSY (DWG1576)



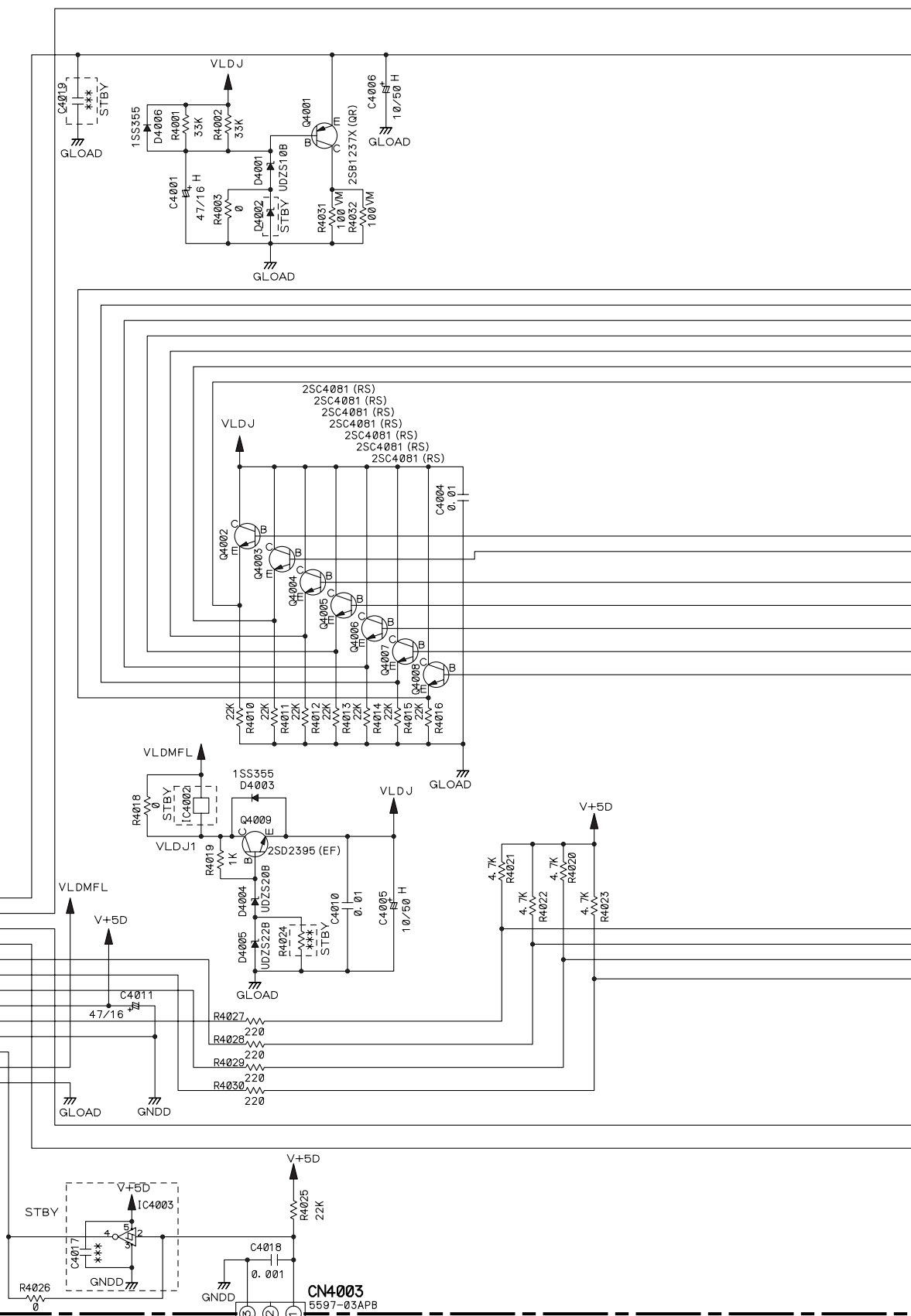
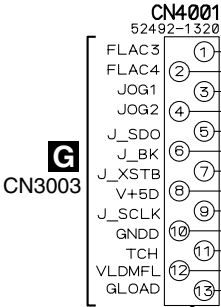
N PSWB ASSY (DWS1345)



1 2 3 4

3.18 JFLB and JOGB ASSYS

O JFLB ASSY (DWG1571)



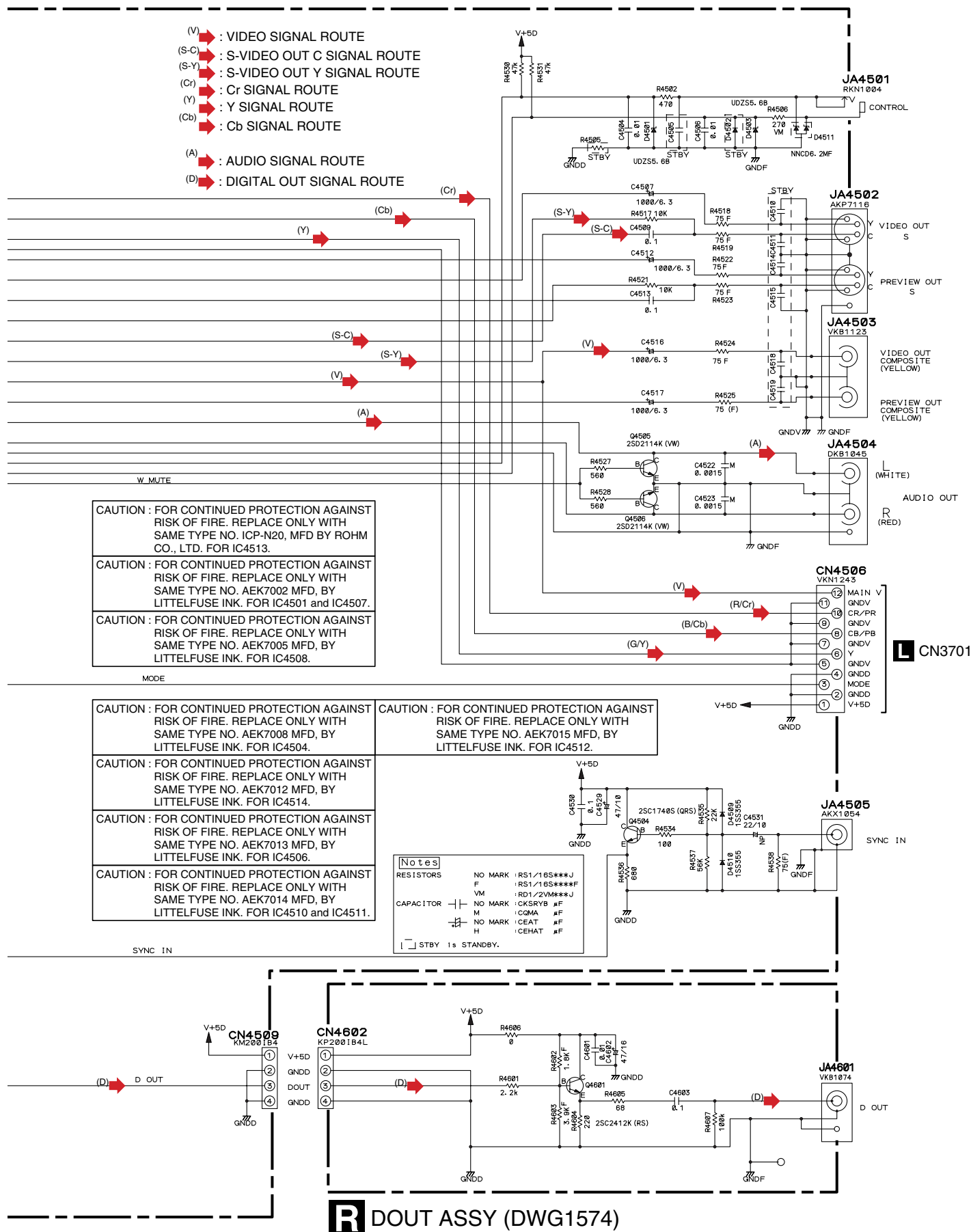
SHEET SW

DVJ-X1



4





R DOUT ASSY (DWG1574)

△

S



T



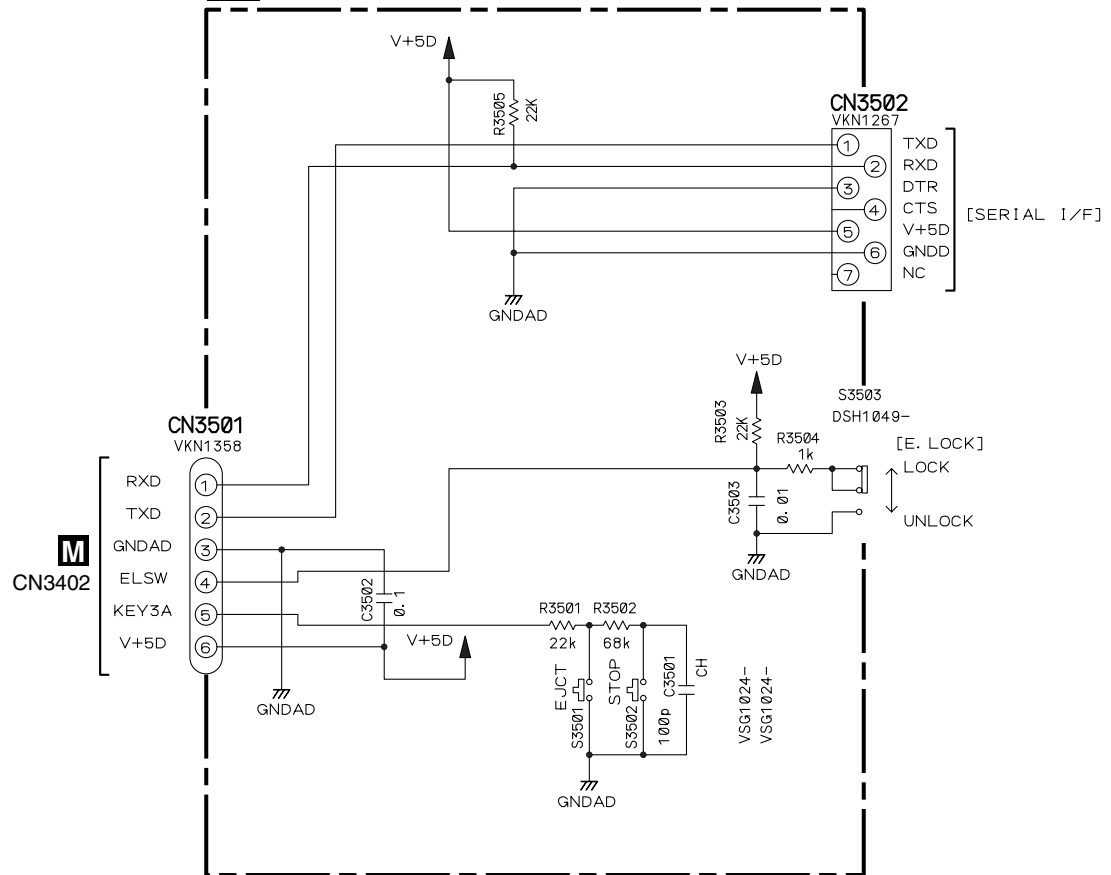
Notes

RESISTORS

CAPACITOR

STBY is STANDBY.

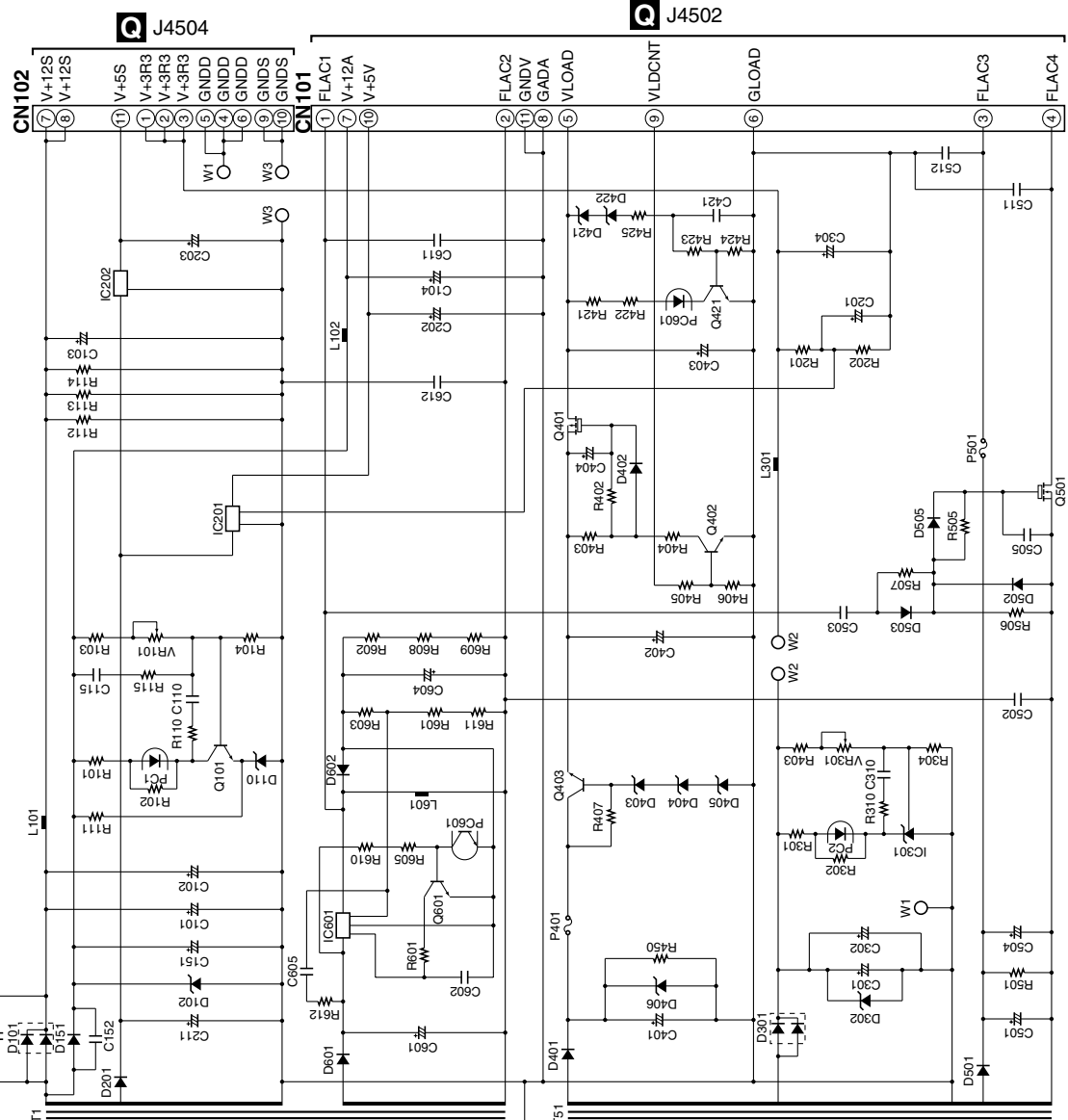
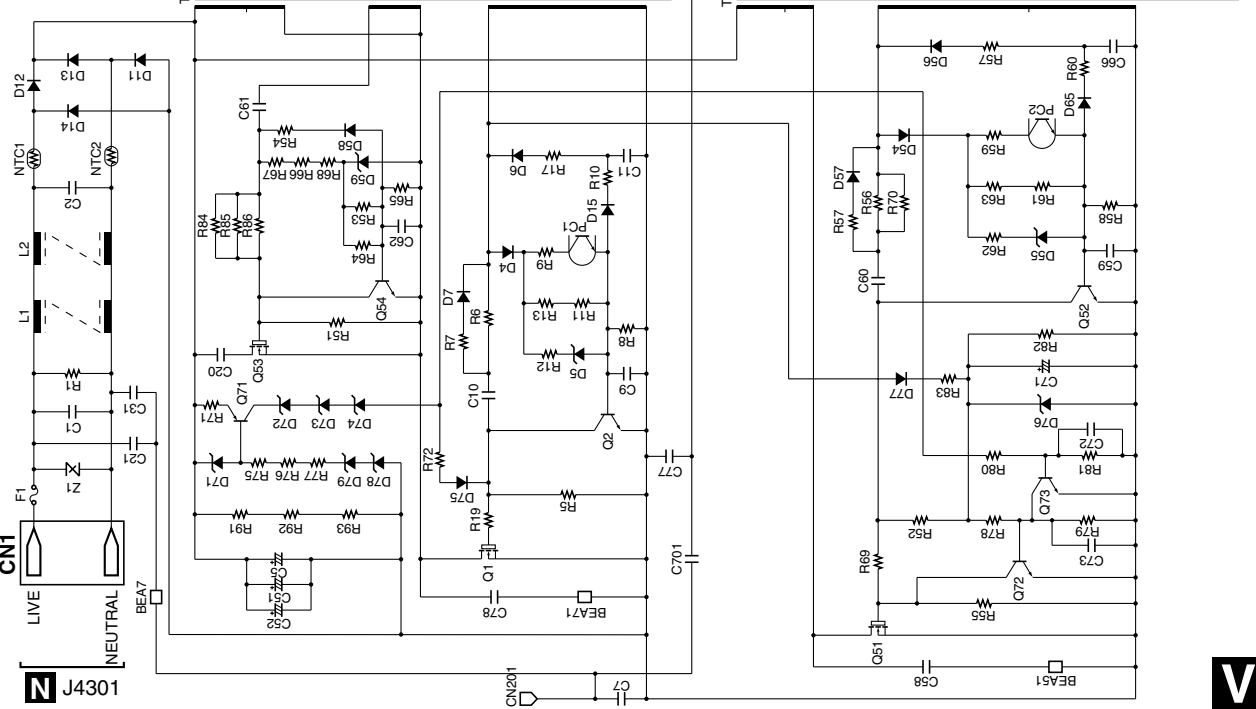
U EJTB ASSY (DWS1348)



3.21 SW POWER SUPPLY ASSY

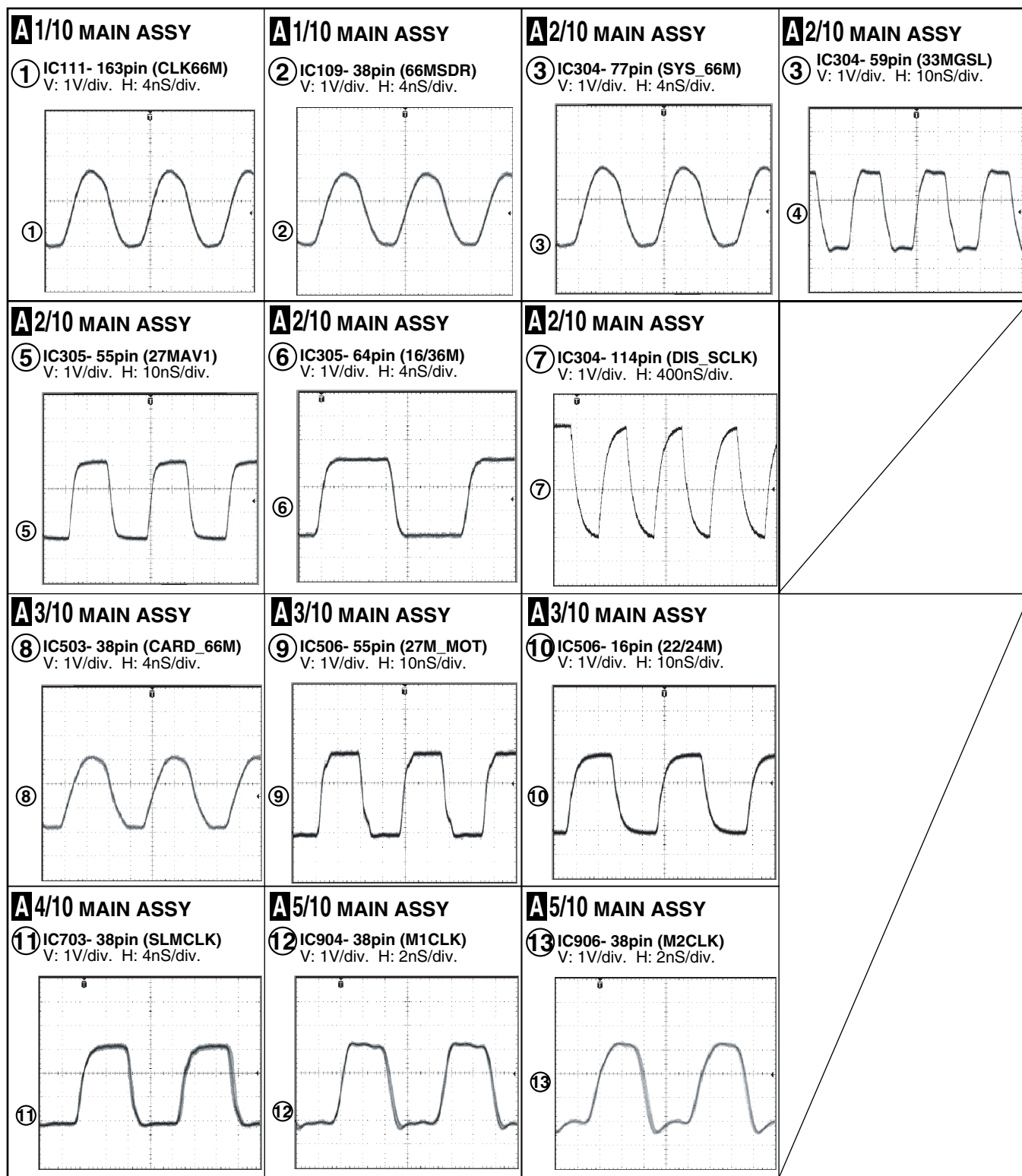
SW POWER SUPPLY ASSY (DWR1378)

NOTE FOR FUSE REPLACEMENT
CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS OF FUSE.



WAVEFORMS

DJ MODE : PLAY, VINAL, SD IN, MASTAR TEMPO:OFF, SRIDER:0%, HOT CUE:OFF
DISK : DVD-REF-Z1 TITLE35-01



A MAIN ASSY

A

B

C

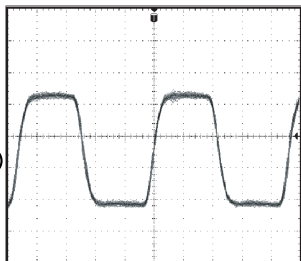
D

E

F

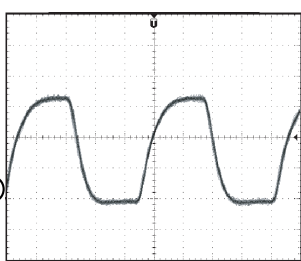
A6/10 MAIN ASSY

⑭ IC1106 - pin 185 [VCLK54M]
V: 1V/div. H: 4nsec/div.



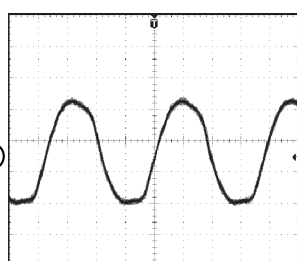
A6/10 MAIN ASSY

⑮ IC1107 - pin 80 [ME54M]
V: 1V/div. H: 4nsec/div.



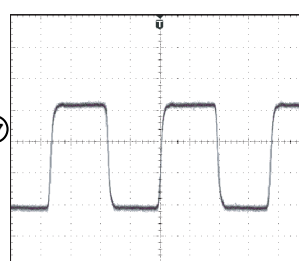
A6/10 MAIN ASSY

⑯ IC1107 - pin 182 [CAP_66M]
V: 1V/div. H: 4nsec/div.



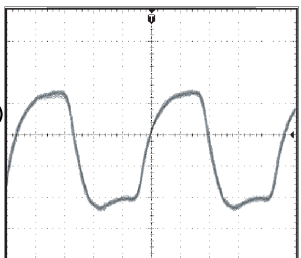
A6/10 MAIN ASSY

⑰ IC1107 - pin 185 [AV1_CLK]
V: 1V/div. H: 10nsec/div.



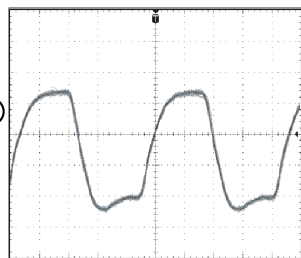
A7/10 MAIN ASSY

⑱ IC1309 - pin 38 [CLK]
V: 1V/div. H: 4nsec/div.



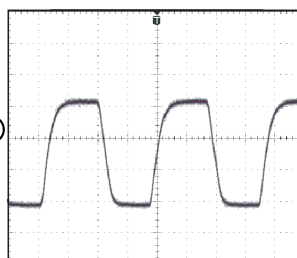
A7/10 MAIN ASSY

⑲ IC1311 - pin 38[CLKH]
V: 1V/div. H: 4nsec/div.



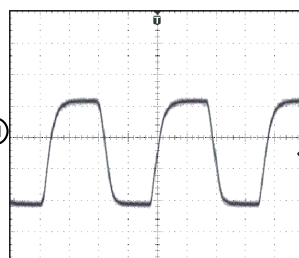
A8/10 MAIN ASSY

⑳ IC1502 - pin 48 [M_PRG27M]
V: 1V/div. H: 10nsec/div.



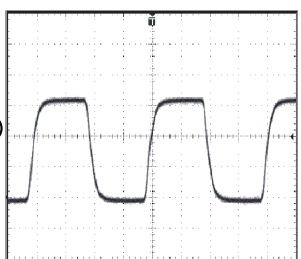
A8/10 MAIN ASSY

㉑ IC1506 - pin 48 [S_PRG27M]
V: 1V/div. H: 10nsec/div.



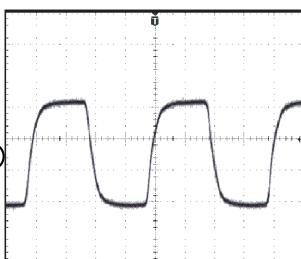
A8/10 MAIN ASSY

㉒ IC1510 - pin 16 [22/24M_DAC]
V: 1V/div. H: 10nsec/div.



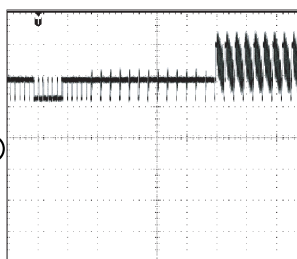
A8/10 MAIN ASSY

㉓ IC1513 - pin 6 [22/24M_AQE]
V: 1V/div. H: 10nsec/div.



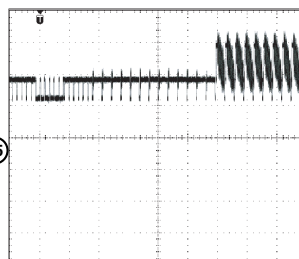
A9/10 MAIN ASSY

㉔ CN1703 - pin 20 [MAIN_V]
V: 1V/div. H: 200μsec/div.



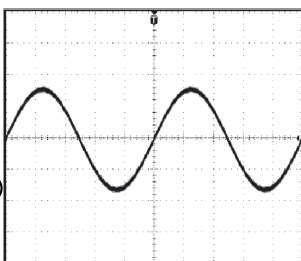
A9/10 MAIN ASSY

㉕ CN1703 - pin 22 [PRE V]
V: 1V/div. H: 200μsec/div.



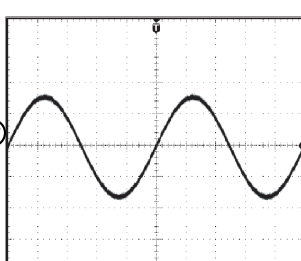
A9/10 MAIN ASSY

㉖ CN1703 - pin 24 [LOUT]
V: 2V/div. H: 200μsec/div.



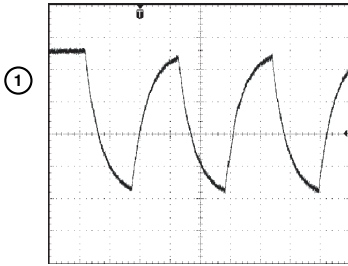
A9/10 MAIN ASSY

㉗ CN1703 - pin 26 [ROUT]
V: 2V/div. H: 200μsec/div.

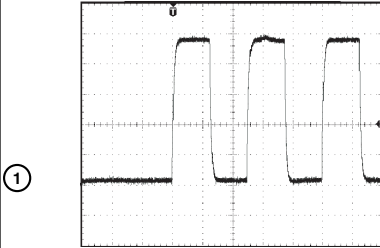


M MFLB ASSY**O** JFLB ASSY**M** MFLB ASSY

① IC3401 - pin 11 [FL-SCLK]
V: 1V/div. H: 200nsec/div.

**O** JFLB ASSY

① IC4001 - pin 38 [/SCK2]
V: 1V/div. H: 1usec/div.



A

B

C

D

E

F

VOLTAGES

Voltage measurement mode

DJ MODE: PLAY , VINALL , SD IN , MASTER TEMPO: OFF , SRIDER: 0%, HOT CUE: OFF

A 1/10 MAIN ASSY

IC121(PQ070XZ02ZP)

Pin No.	Voltage(V)
1	3.3
2	3.3
3	2.0
4	1.3
5	0

FPGA Configuration
signal

IC111(HD6417709S)

Pin No.	Voltage(V)
125	3.3
129	3.1
193	3.3

Reset signal
output

IC101(TC74VHC04FT)

Pin No.	Voltage(V)
2	3.3
4	3.3
6	3.3
8	3.3
10	3.3
12	3.3

Reset signal
output

IC102(TC74VHC04FT)

Pin No.	Voltage(V)
2	3.3
4	3.3
6	3.3
8	3.3
10	3.3

FPGA Configuration
signal

IC105(TC7SH08FU)

Pin No.	Voltage(V)
4	3.3

A 2/10 MAIN ASSY

IC301(MN1562FF)

Pin No.	Voltage(V)
1	2.5
2	0
3	0
4	1.2
5	3.3
6	0
7	3.3

IC302(MN1562FF)

Pin No.	Voltage(V)
1	2.5
2	0
3	0
4	1.2
5	3.3
6	0
7	3.3

A 3/10 MAIN ASSY

IC504(MN1561JF)

Pin No.	Voltage(V)
1	1.8
2	0
3	0
4	0.5
5	3.3
6	0
7	3.3

IC507(TK11116CS)

Pin No.	Voltage(V)
1	3.3
2	0
3	1.3
4	1.6
5	3.3

A 5/10 MAIN ASSY

IC902(PQ070XZ02ZP)

Pin No.	Voltage(V)
1	3.3
2	3.3
3	2.5
4	1.3
5	0.0

A 6/10 MAIN ASSY

IC1103(MN1561JF)

Pin No.	Voltage(V)
1	1.8
2	0
3	0
4	0.6
5	3.3
6	0
7	3.3

IC1108(MN1561JF)

Pin No.	Voltage(V)
1	1.8
2	—
3	0
4	0.6
5	3.3
6	0
7	3.3

A 8/10 MAIN ASSY**IC1504(MN1562FF)**

Pin No.	Voltage(V)
1	2.5
2	0
3	0
4	1.2
5	3.3
6	0
7	3.3

IC1507(NJM78L05UA)

Pin No.	Voltage(V)
1	5.0
2	0
3	12.0

A 9/10 MAIN ASSY**IC1708(MN1561JF)**

Pin No.	Voltage(V)
1	1.8
2	0
3	0
4	0.6
5	3.3
6	0
7	3.3

CN1701(B10B-PH-SM3)

to MJCB ASSY

Pin No.	Voltage(V)
1	3.4
2	3.4
3	3.4
4	0
5	0
6	0
7	4.8
8	0
9	12.0
10	0

Q MJCB ASSY**J4502(51048-1100)**
to POWER ASSY

Pin No.	Voltage(V)
1	8.7
2	8.7
3	10.8
4	9.1
5	44.3
6	0
7	12.2
8	0
9	4.8
10	5.0
11	0

J4504(DKP3864)

to POWER ASSY

Pin No.	Voltage(V)
1	3.5
2	3.5
3	3.5
4	0
5	0
6	0
7	12.3
8	12.3
9	0
10	0
11	5.1

CN4507(B4B-EH)

to DVPL ASSY

Pin No.	Voltage(V)
1	12.2
2	0
3	0
4	5.0

CN4505(B10B-PH)

to MAIN ASSY

Pin No.	Voltage(V)
1	3.4
2	3.4
3	3.4
4	0
5	0
6	0
7	4.8
8	0
9	12.1
10	0

G DIPB ASSYOnly IC power supply
/ GND terminal**IC3004(PEG012A)**

Pin No.	Voltage(V)
8	0
9	0
10	0
11	0
12	4.6
14	0
16	4.6
18	4.6
19	4.6
20	4.6
21	4.6
22	4.6
25	4.6
26	4.6
27	4.6
62	4.6
64	0
81	0
82	0
83	0
84	0
85	0
86	0
87	0
88	0
96	0
98	4.6
99	4.6

M

MFLB ASSY

Only IC power supply
/ GND terminal

V3401(DEL1052)

Pin No.	Voltage(V)
1	8.7
2	8.7
3	8.7
6	44
7	0
8	0
13	4.8
94	8.7
95	8.7
96	8.7

O

JFLB ASSY

Only IC power supply
/ GND terminal

IC4001(UPD16306B)

Pin No.	Voltage(V)
1	0
2	42
3	0
4	0
5	0
6	0
7	0
31	42
32	0
33	0
34	0
35	0
41	4.8
42	4.8
46	0
47	0
48	0
49	0
50	42
74	0
75	0
76	0
77	0
78	0
79	42
80	0
81	0
100	0

VOLTAGES

Voltage measurement mode

DJ MODE: PLAY , VINAL , SD IN , MASTER TEMPO: OFF , SRIDER: 0% , HOT CUE: OFF

B

DVPL ASSY

IC2000 (AN22022A)	
Pin No.	Voltage (V)
1	2.2
2	0.18
3	3.9
4	0.18
5	4.3
6	0.05
7	1.6
8	3.3
9	0
10	3.3
11	0
12	0
13	1.65
14	1.65
15	0
16	2
17	1.65
18	1.65
19	0
20	1.56
21	2.23
22	2.2
23	1.9
24	1.9
25	1.7
26	0.35
27	0
28	0
29	1.62
30	1.98
31	1.55
32	1.69
33	2.12
34	2.25
35	2.25
36	2.2
37	2.2
38	4.83
39	2.2
40	2.2
41	3.3
42	2.2
43	2.35
44	2.34
45	4.83
46	2.35
47	2.35
48	2.2

B

DVPL ASSY

IC2200 (BD7905BFS)	
Pin No.	Voltage(V)
1	3.1
2	3.1
3	3.1
4	3.1
5	3.1
6	3.1
7	1.3
8	0
9	5.8
10	12
11	5.8
12	0
13	0
14	0
15	0
16	0
17	0
18	5.8
19	12
20	12
21	1.46
22	3.3
23	3.3
24	1.75
25	0
26	1.65
27	1.65
28	1.65±0.5
29	1.65±0.5
30	12
31	12
32	12
33	0.83
34	7—12
35	7—12
36	7—12
37	7—12
38	0
39	0
40	0
41	0
42	0
43	0
44	4.9
45	2.43
46	2.43
47	2.5
48	2.37
49	5.6
50	5.6
51	12
52	1.65
53	1.65
54	4.9

B

DVPL ASSY

IC2101 (PEA006B8)	
Pin No.	Voltage (V)
1	1.3
2	2.2
3	1.85
4	0.88
5	0.86
6	0
7	3.3
8	4.9
9	0
10	0.23
11	2.2
12	0.69
13	2.3
14	1.65
15	1.65
16	1.65
17	1.67
18	1.65
19	1.9
20	1.75
21	2.5
22	3.1
23	2.8
24	0
25	3.2
26	2.85
27	2.65
28	2.6
29	2.85
30	0.36
31	1.2
32	1.45

B

DVPL ASSY

IC2300 (MM1478DFBE)	
Pin No.	Voltage (V)
1	0
2	3.3
3	4.9
4	4.9
5	3.3
6	0
7	0
8	4.85

IC2301 (PQ070XZ02ZP)	
Pin No.	Voltage (V)
1	4.27
2	4.27
3	1.5
4	1.25
5	0

VOLTAGES

Voltage measurement mode

DJ MODE: PLAY , VINAL , SD IN , MASTER TEMPO: OFF , SRIDER: 0%, HOT CUE: OFF

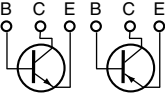
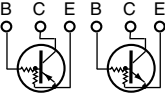
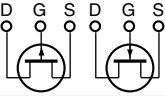
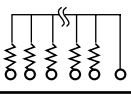
B DVPL ASSY

IC2100 (MN103S71F)		IC2100 (MN103S71F)		IC2100 (MN103S71F)	
Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	3.3	61	0.2	121	0
2	3.3	62	0.3	122	3.3
3	0	63	0	123	0
4	3.3	64	0	124	3.3
5	0	65	3.3	125	0
6	3.3	66	0	126	0
7	0	67	1.67	127	0
8	0	68	0	128	0
9	0	69	0	129	4.9
10	1.3	70	3.3	130	0
11	2.2	71	0	131	3.3
12	1.5	72	1.65	132	3.3
13	1.85	73	0	133	2.1
14	0.88	74	0	134	4.75
15	0.86	75	1.46	135	3.3
16	3.3	76	0	136	0
17	0.23	77	1.5	137	3.3
18	2.2	78	0	138	4.77
19	1.65	79	0.33	139	1.75
20	0	80	0.45	140	0
21	0	81	1.65	141	4.9
22	0.69	82	0	142	1
23	2.3	83	0	143	4.9
24	1.65	84	0	144	0.7
25	1.65	85	1.65	145	0
26	1.65	86	1.65	146	3.3
27	1.67	87	3.3	147	0.9
28	1.65	88	0.77	148	4.75
29	1.9	89	1.64	149	4.75
30	1.75	90	3.3	150	4.9
31	0	91	0	151	3.5
32	3.3	92	1.65	152	3.5
33	2.5	93	1.65	153	3.5
34	3.1	94	0	154	3.7
35	2.8	95	1.5	155	3.7
36	3.2	96	1.5	156	3.3
37	2.85	97	0	157	1.5
38	2.65	98	1.63	158	0
39	2.6	99	1.63	159	3.6
40	2.85	100	1.65	160	3.6
41	0.36	101	1.5	161	3.6
42	1.2	102	2.2	162	3.6
43	1.45	103	1.5	163	3.6
44	0	104	1.65	164	3.6
45	3.3	105	3.3	165	3.6
46	0	106	1.95	166	0
47	3.3	107	3.3	167	3.3
48	3.3	108	0.3	168	3.5
49	3.3	109	1.65	169	3.5
50	3.3	110	2	170	3.5
51	3.3	111	1.65	171	3.5
52	1.6	112	1.62	172	4.9
53	1.63	113	1.56	173	4.8
54	0	114	1.65	174	0
55	1.65	115	1.61	175	3.3
56	1.84	116	0	176	0
57	1.45	117	0		
58	0.3	118	0		
59	0—3.3	119	1.65		
60	0—3.3	120	1.61		

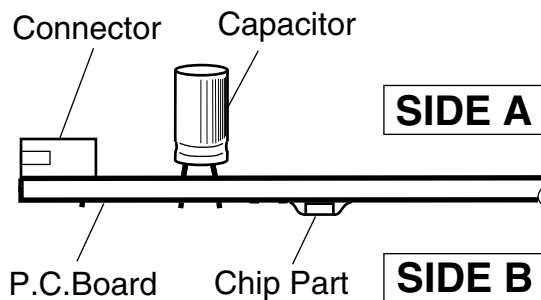
4. PCB CONNECTION DIAGRAM

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.

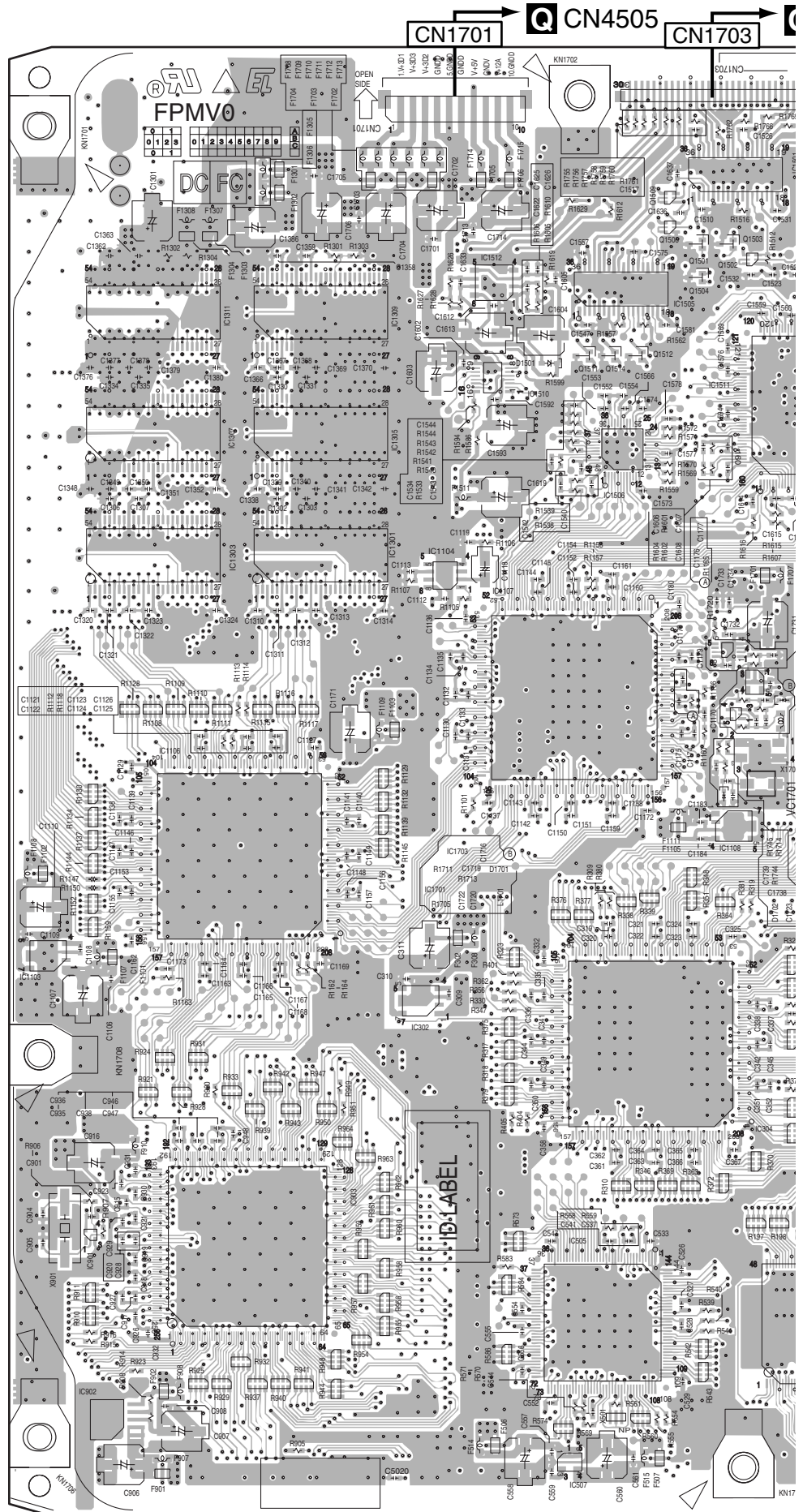


4.1 MAIN ASSY

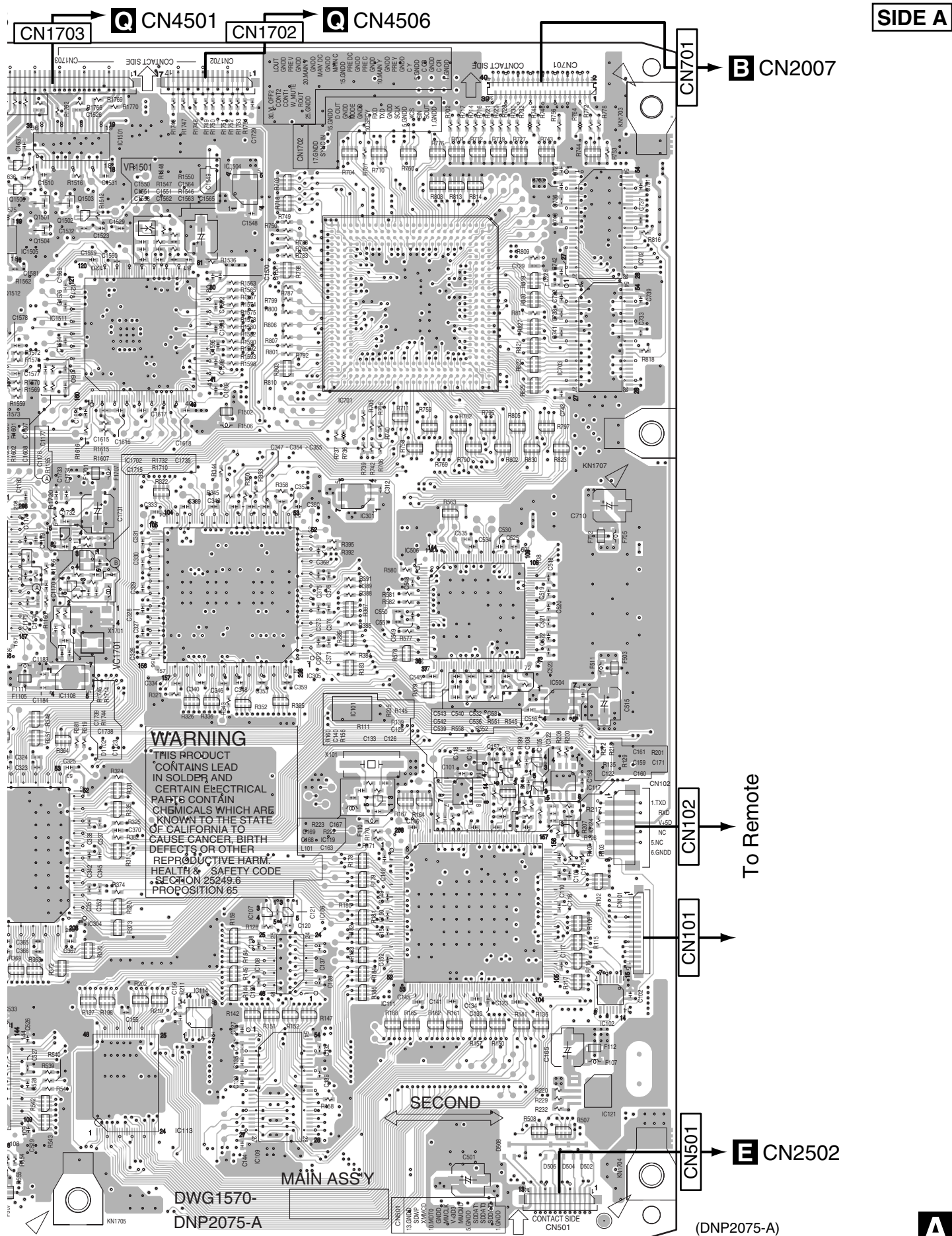
SIDE A

A MAIN ASSY

IC1501
Q1509 IC1504
Q1506 Q1503
Q1501 Q1512
Q1504 Q1502
IC1505
IC1311 IC702
IC1309
Q1512
Q1511 Q1514
IC1510 IC1511
IC1307 IC1305 IC703
IC701
IC1506
IC1301 IC1104
IC1702
IC1303
IC1107
IC301
IC506
IC1106
IC305 IC504
IC1703 IC1108
IC101
IC1701
IC105 IC122
IC118 IC116
IC117
IC1103
IC124
IC302 IC119
IC107 IC106
IC304
IC108
IC903 IC114
IC111
IC505
IC102
IC901
IC121
IC902 IC113
IC109
IC507



DVJ-X1



A

B

C

D

E

F

SIDE B

A MAIN ASSY

CN1701 CN4505

IC1705
Q1508 Q1505 Q1507
Q1516

Q1515
Q1521 Q1518
Q1519 IC1503
Q1517 Q1523
Q1510

Q1513

IC1312
IC1310
IC1508

IC1308

IC1502 IC1513 IC1507 IC1306

IC1514
IC1509
IC1706 IC1707
IC1302 IC1304

IC307
IC1102
IC306

IC303
IC1105
IC1101
IC1708
IC1704

Q1701
IC120 IC907
IC123

IC906
IC104 IC112 IC110
IC115
IC908
IC103

IC904
IC905

IC503

B CN2007

CN701

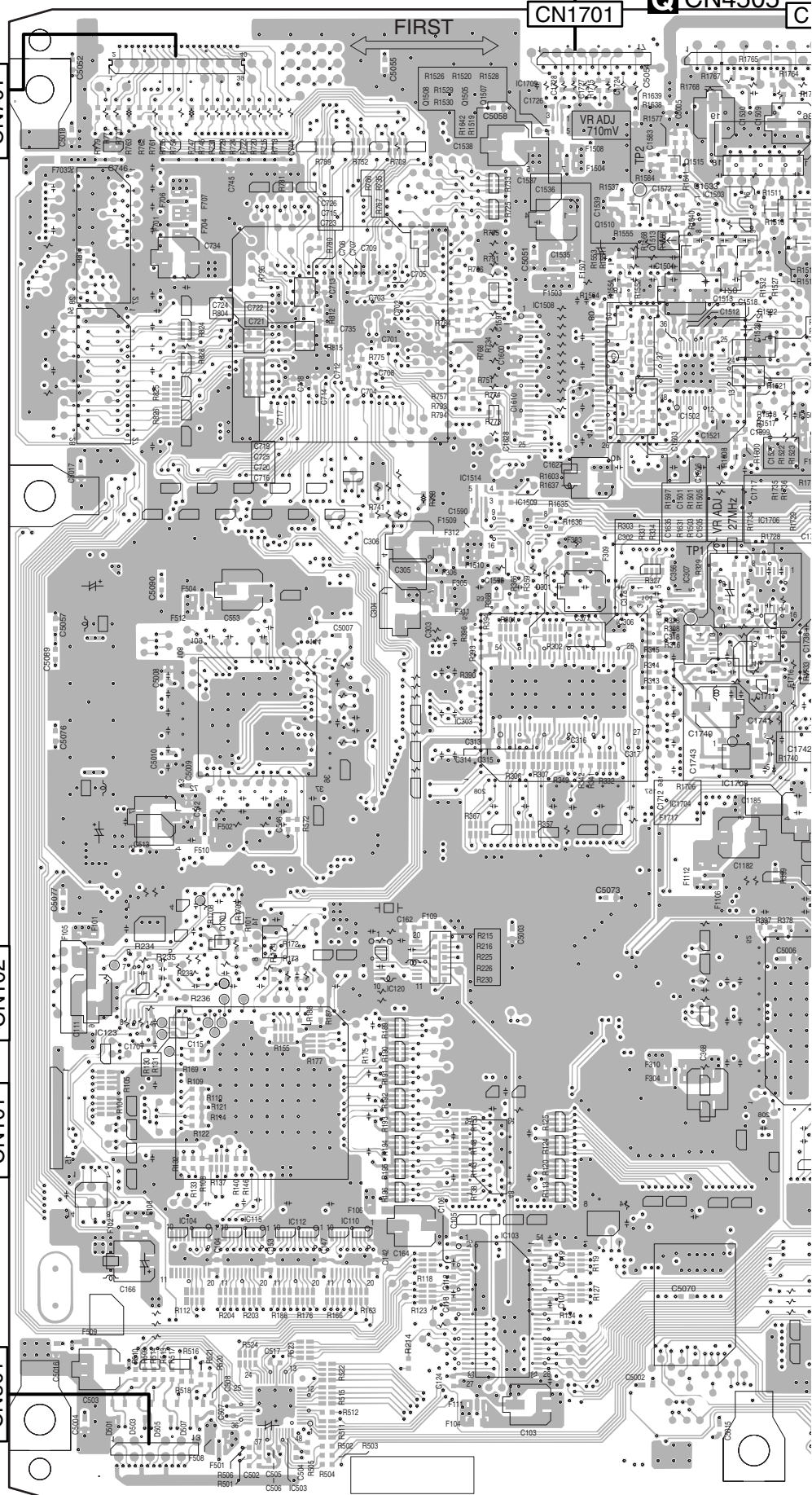
CN102

CN101

E CN2502

CN501

FIRST



F



4.2 DVPL ASSY

SIDE A

SIDE A

B DVPL ASSY

A CN701

C CN2404

CN2003

To Pickup Assy

CN2001

D CN2401

CN2002

To Loading Motor

CN2005

Q CN4507

CN2008

T CN4701

CN2004

(DNP2076)

CAUTION
REPLACE WITH SAME
TYPE NO.466-725 MFD.
BY Litefuse Inc
FOR IC2303

DC FC

DWX2341

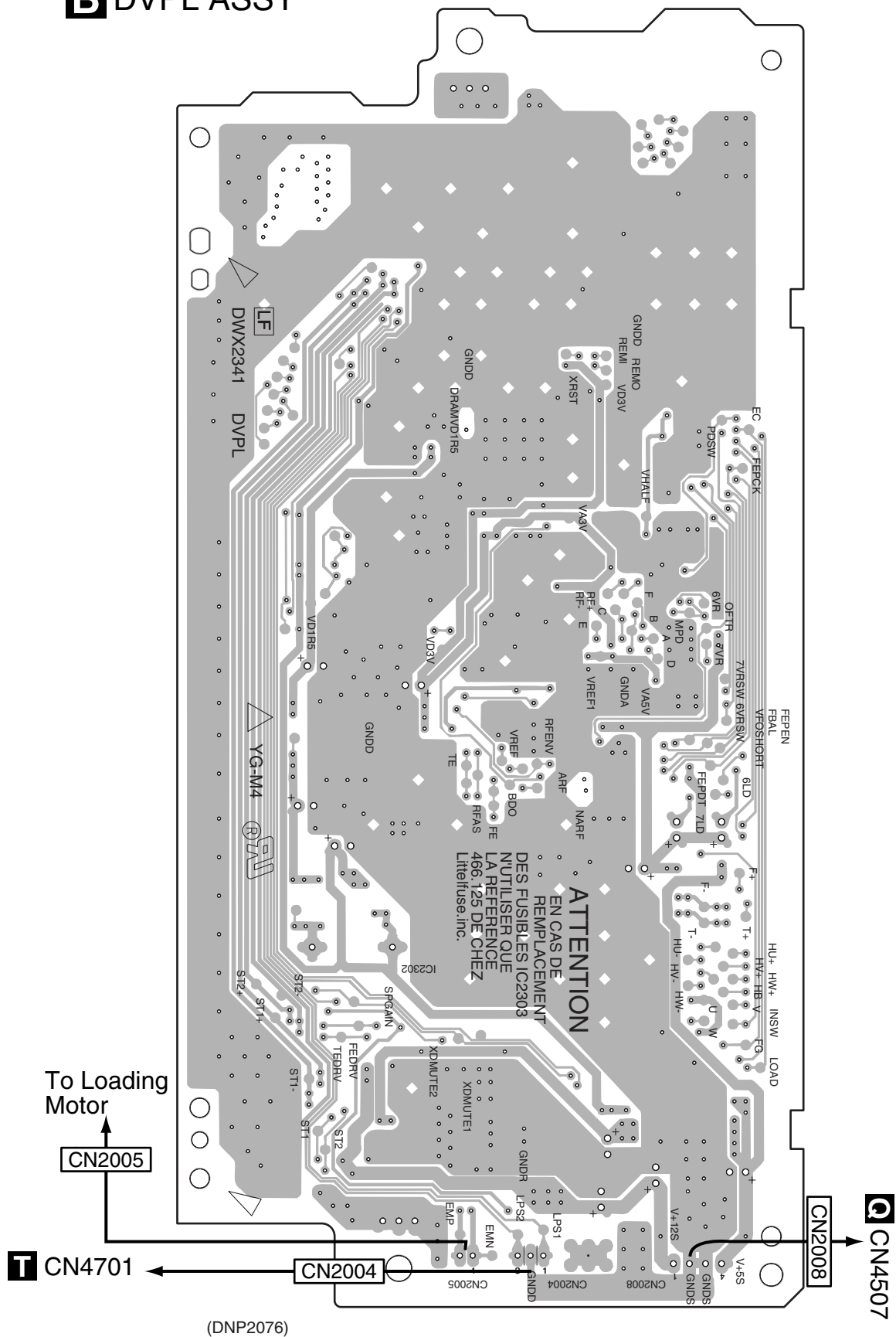
DVPL

DVJ-X1

SIDE B

SIDE B

B DVPL ASSY



B

B

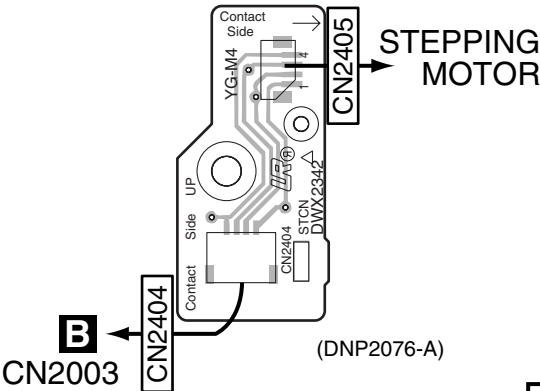
DVJ-X1

4.3 SPCN, STCN, INSW, SLMB and SDCB ASSYS

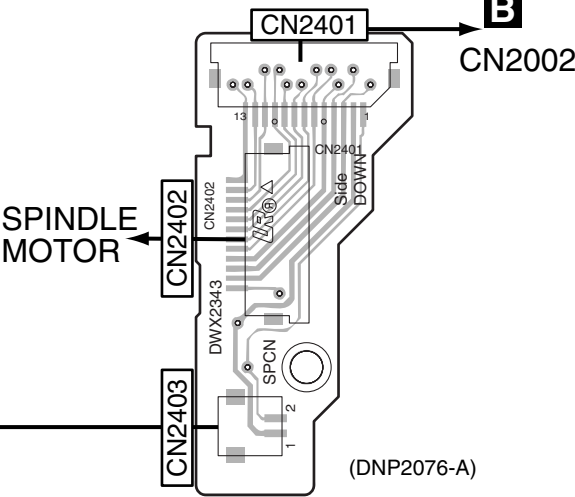
SIDE A

SIDE A

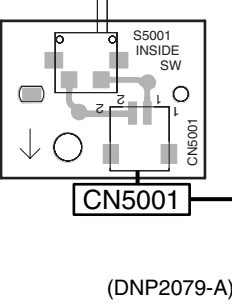
C STCN ASSY



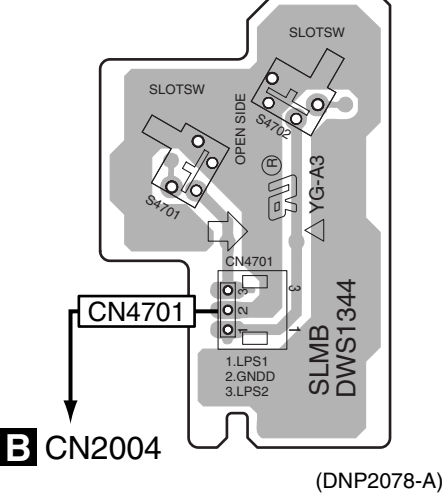
D SPCN ASSY



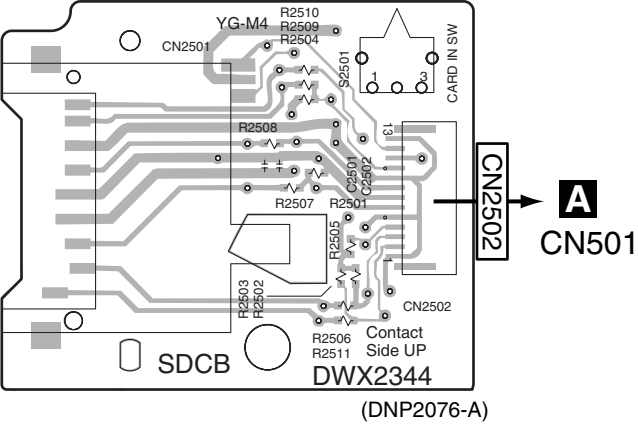
F INSW ASSY



T SLMB ASSY



E SDCB ASSY



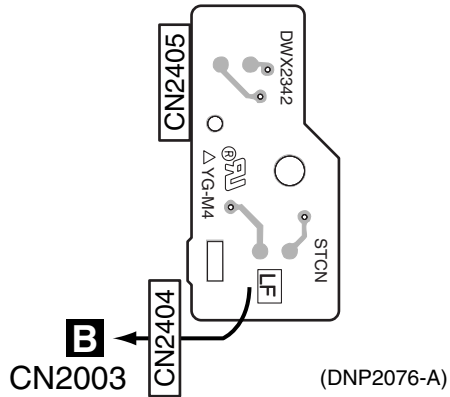
C D E F T

C D E F T

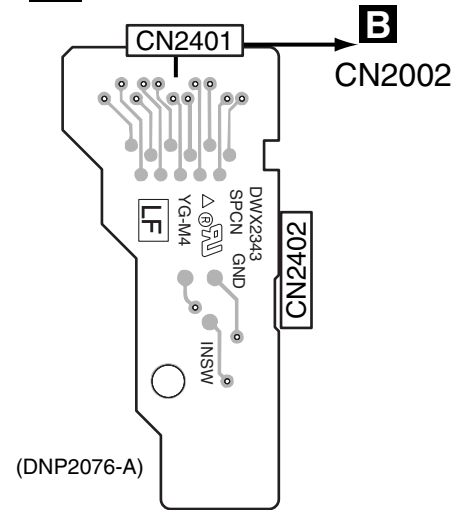
SIDE B

SIDE B

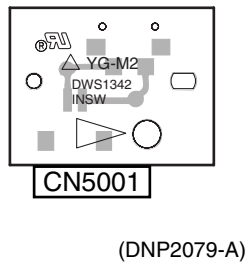
C STCN ASSY



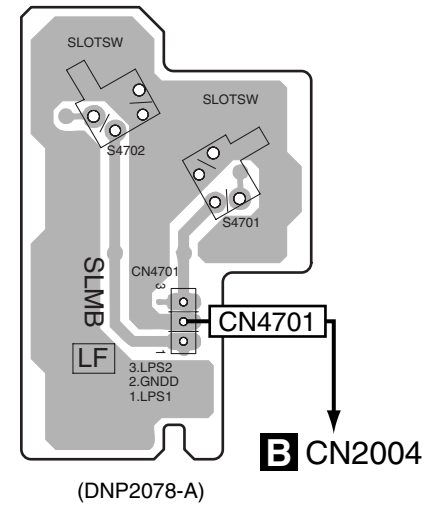
D SPCN ASSY



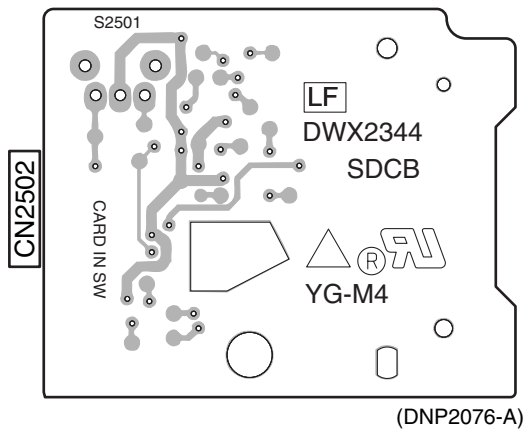
F INSW ASSY



T SLMB ASSY



E SDCB ASSY



C D E F T

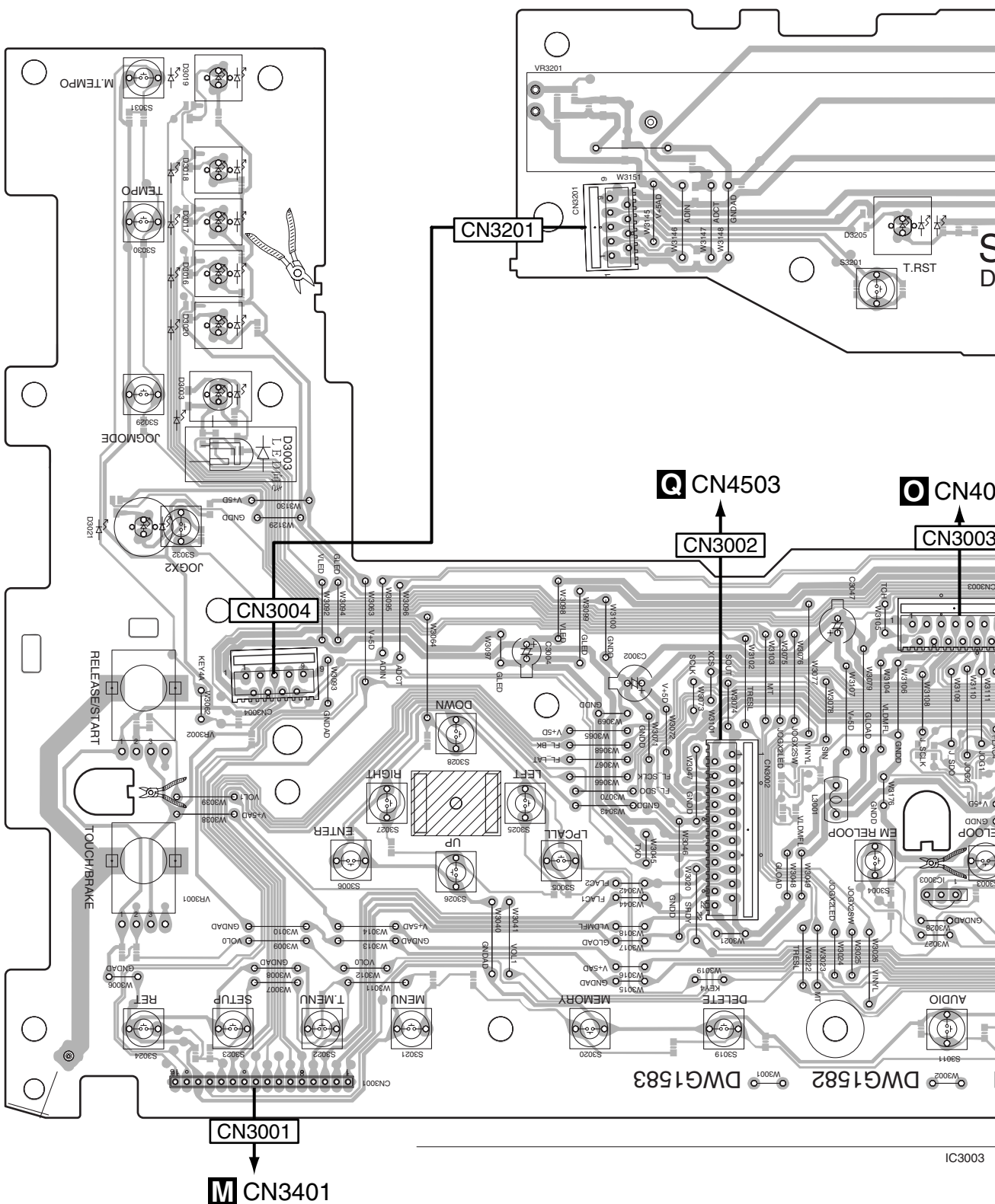
C D E F T

4.4 DIPB, SLDB, RSWB, LED1 and LED2 ASSYS

SIDE A

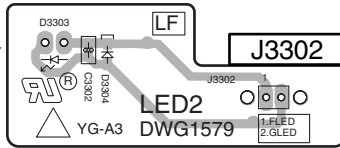
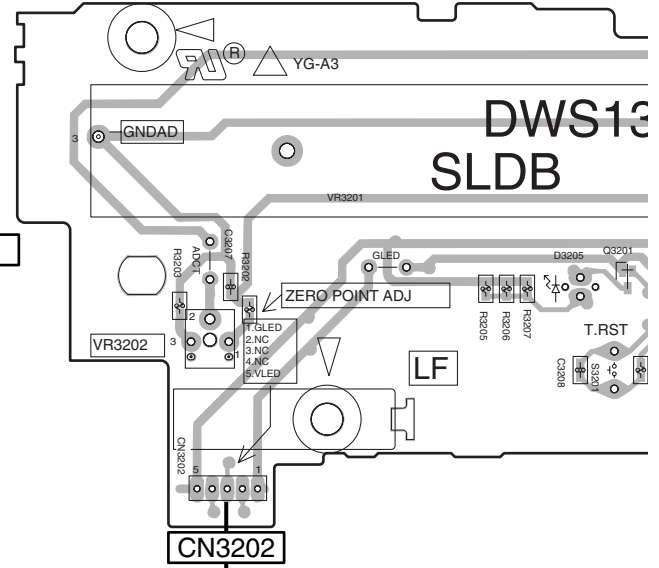
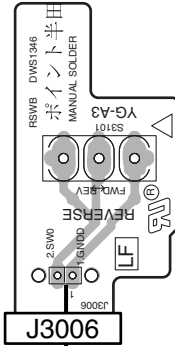
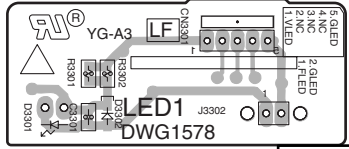
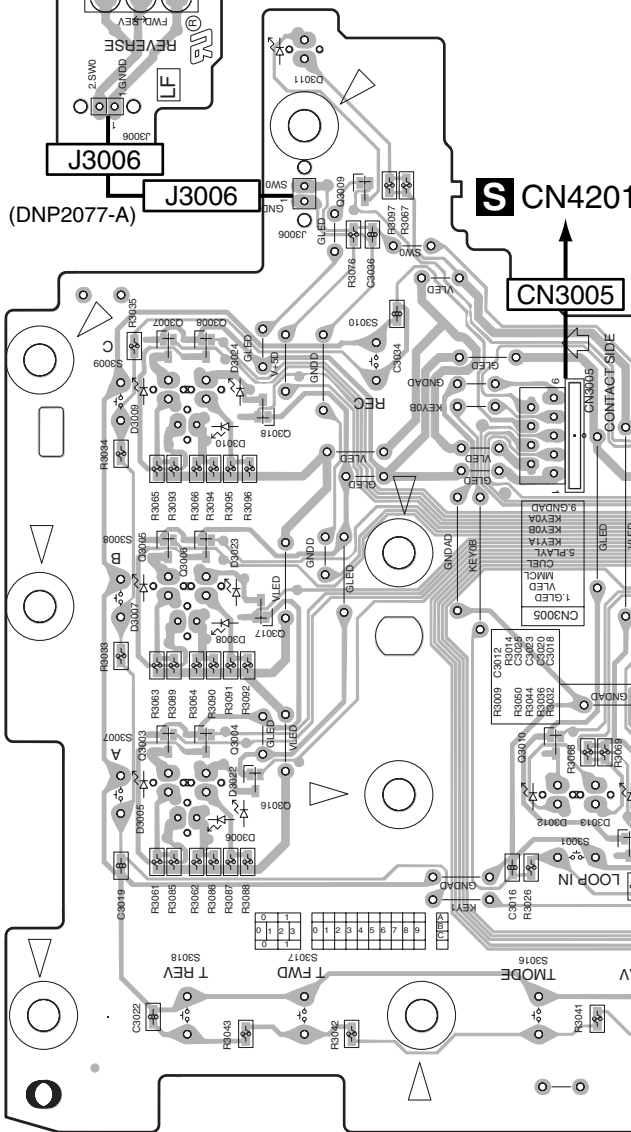
G DIPB ASSY

I SLDB ASSY



SIDE B

A

K LED2
ASSY**I** SLDB ASSY**H** RSWB
ASSY**J** LED1 ASSY**G** DIPB ASSY**S** CN4201

CN3005

J CN3301**O** CN4001

CN3000

B

C

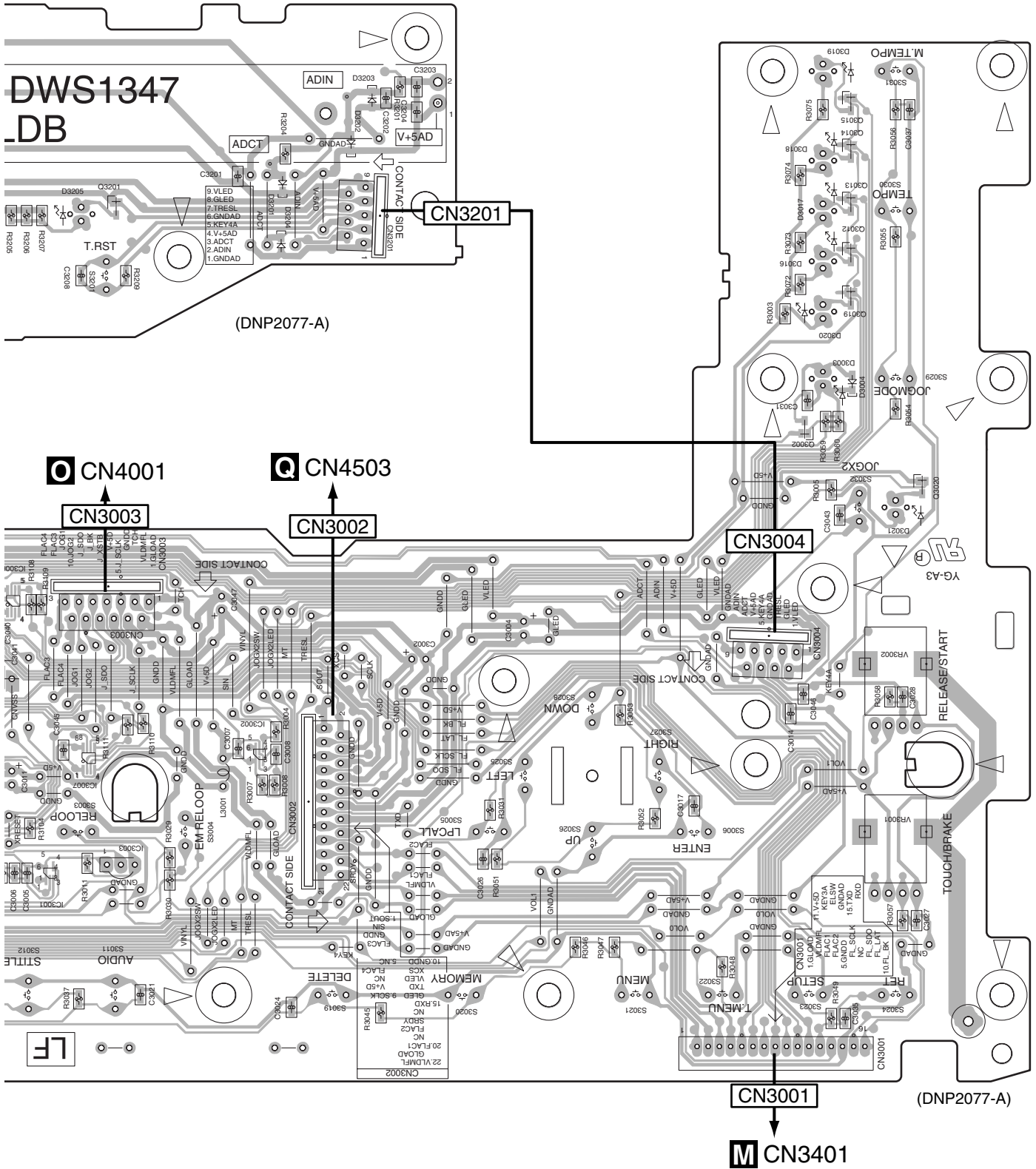
D

E

F

G H I J K

SIDE B



4

A

B



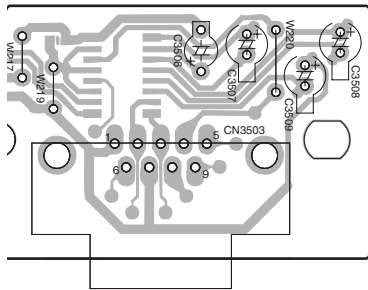
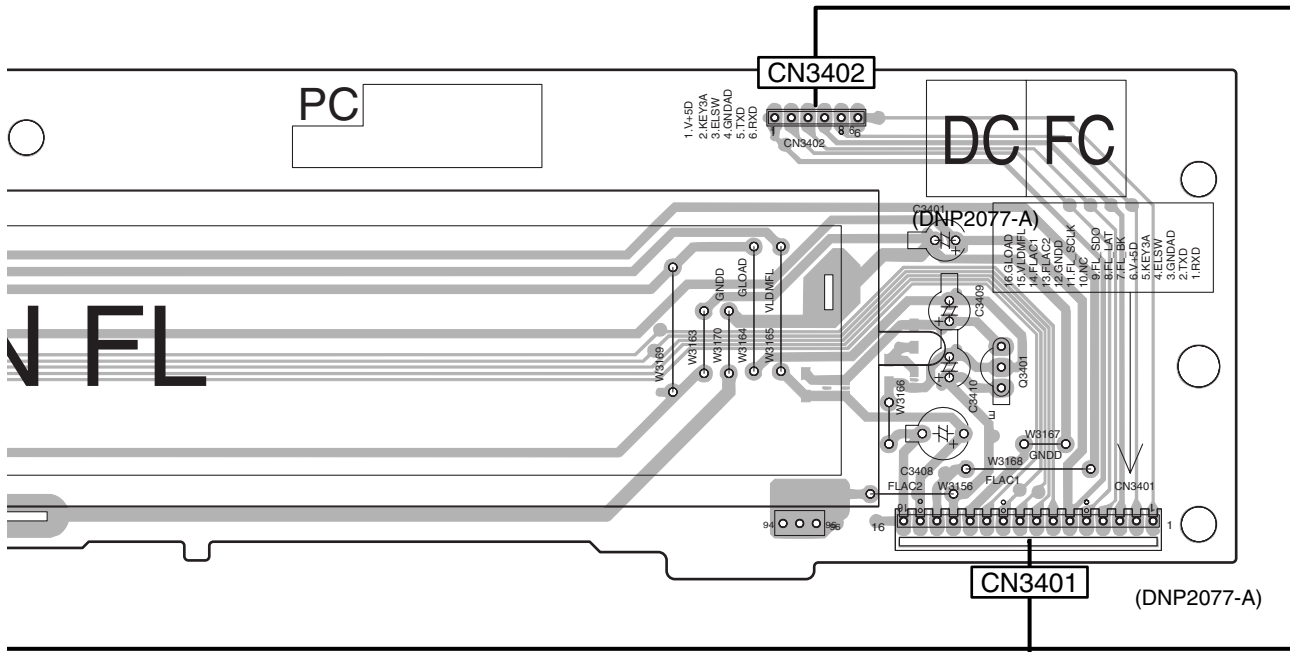
D



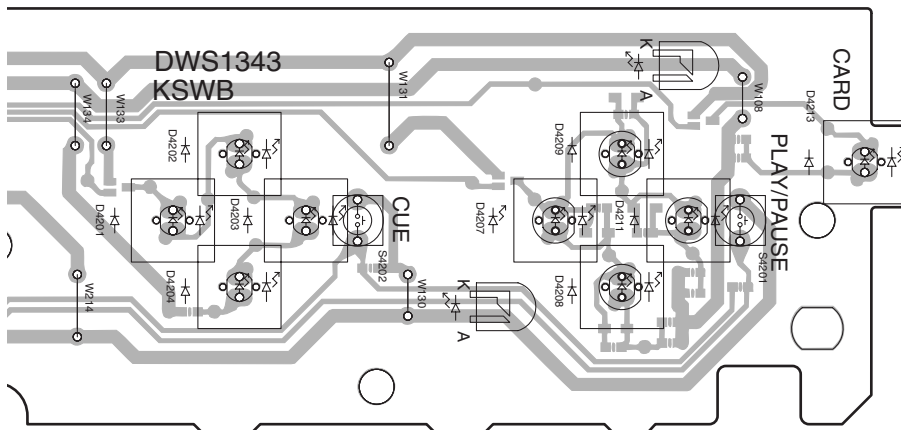
F

80

4

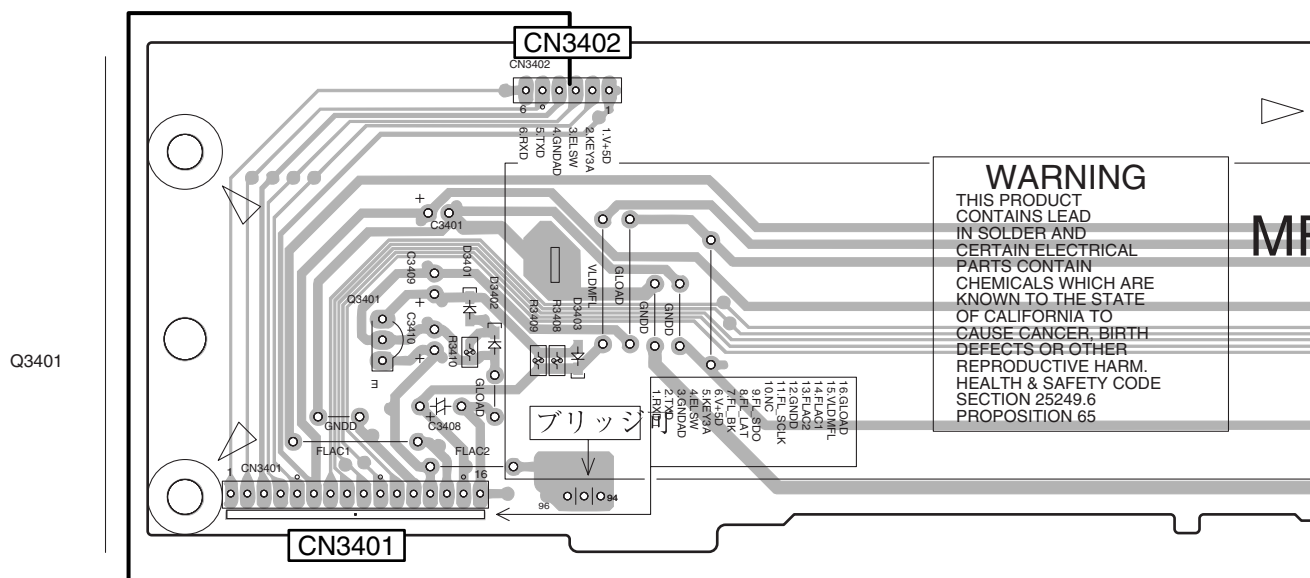


(DNP2078-A)



(DNP2078-A)

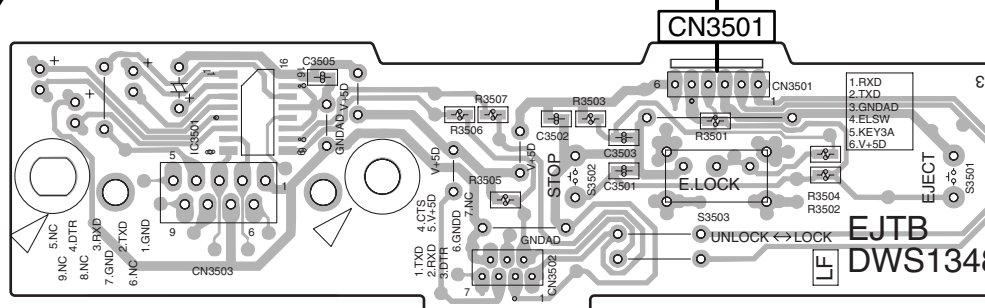
M MFLB ASSY



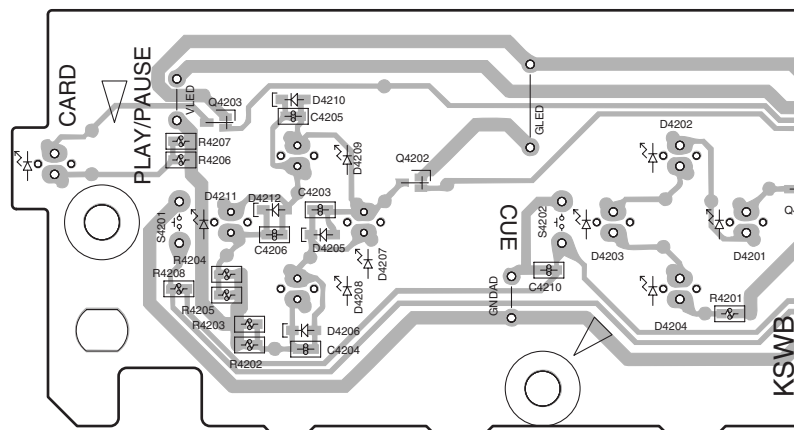
WARNING
THIS PRODUCT
CONTAINS LEAD
IN SOLDER AND
CERTAIN ELECTRICAL
PARTS CONTAIN
CHEMICALS WHICH ARE
KNOWN TO THE STATE
OF CALIFORNIA TO
CAUSE CANCER, BIRTH
DEFECTS OR OTHER
REPRODUCTIVE HARM.
HEALTH & SAFETY CODE
SECTION 25249.6
PROPOSITION 65

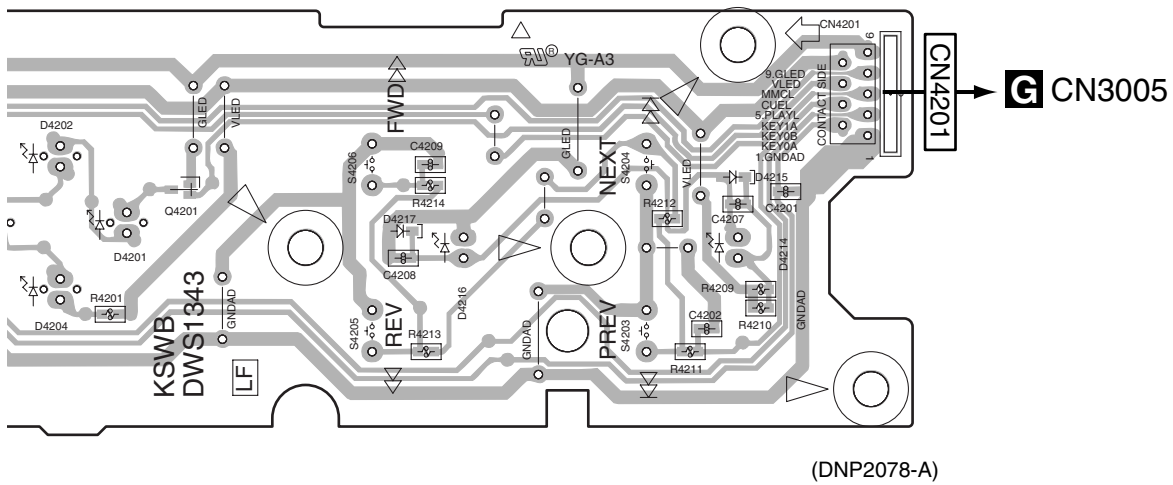
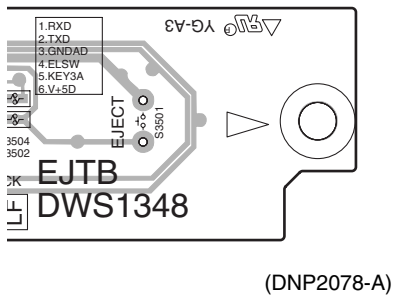
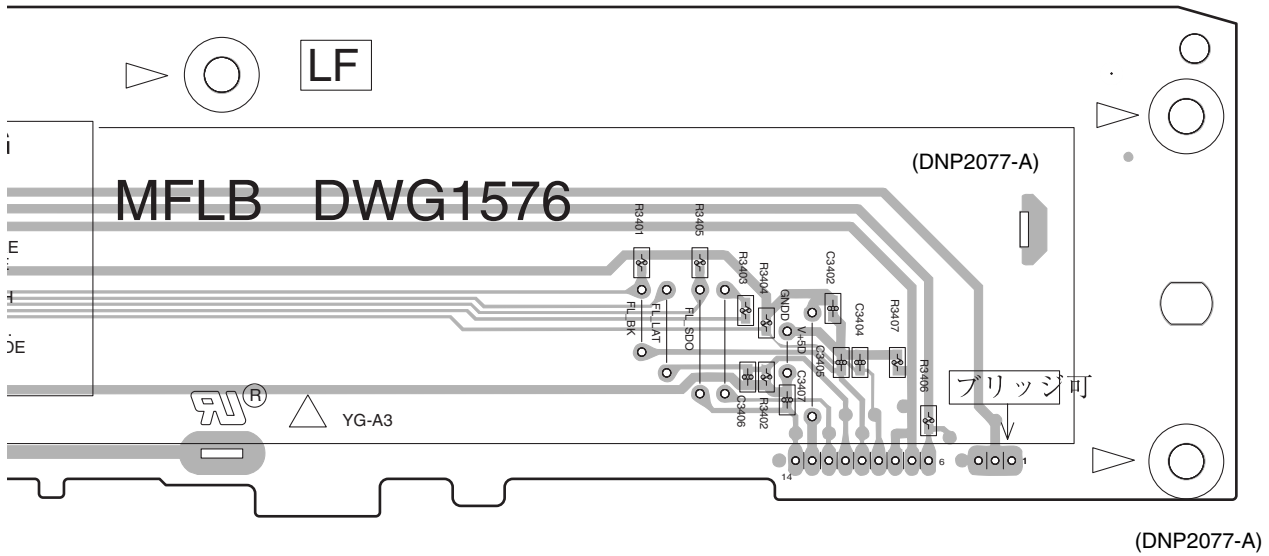
MP

U EJTB ASSY



S KSWB ASSY

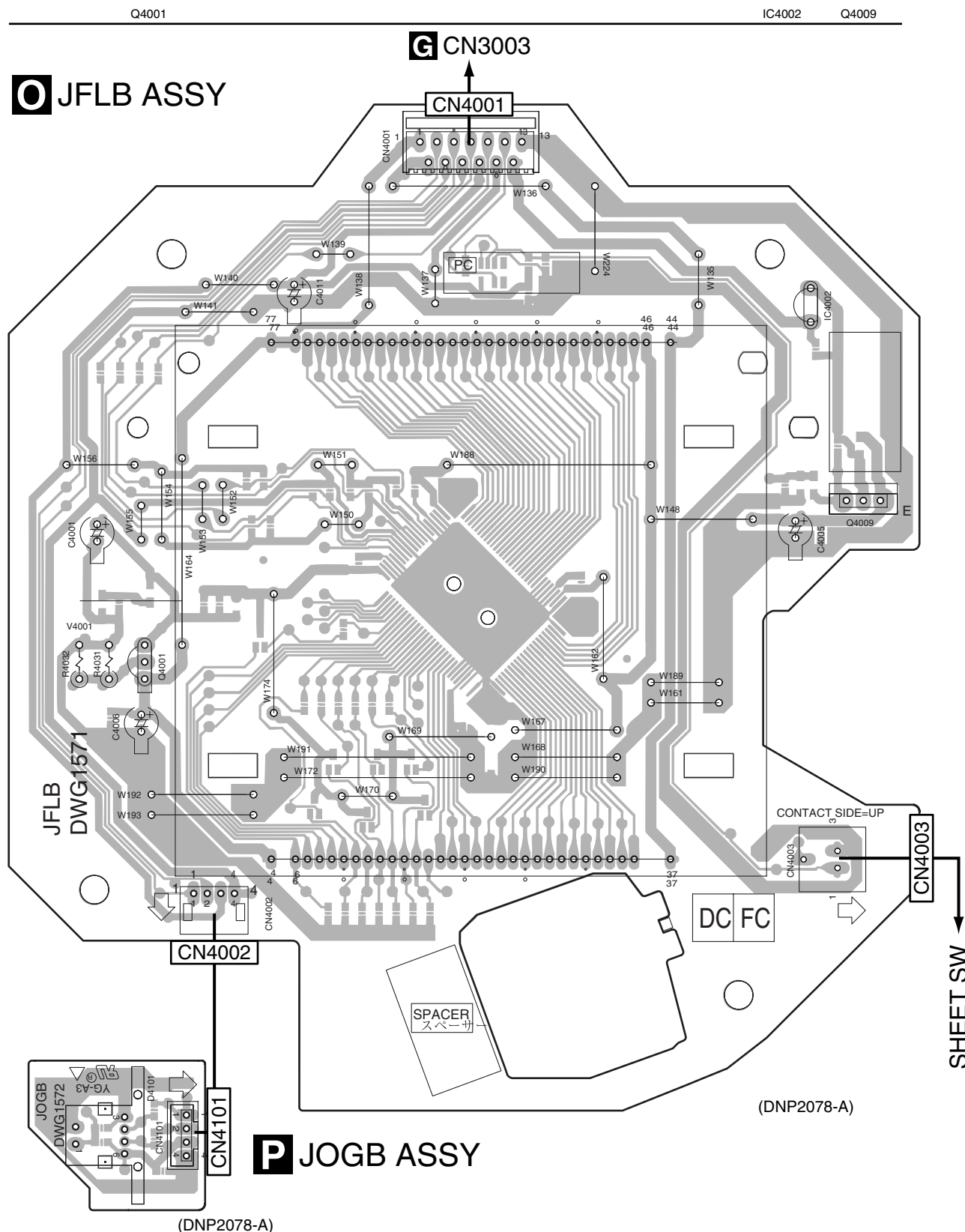




4.6 JFLB and JOGB ASSYS

SIDE A

SIDE A



OP

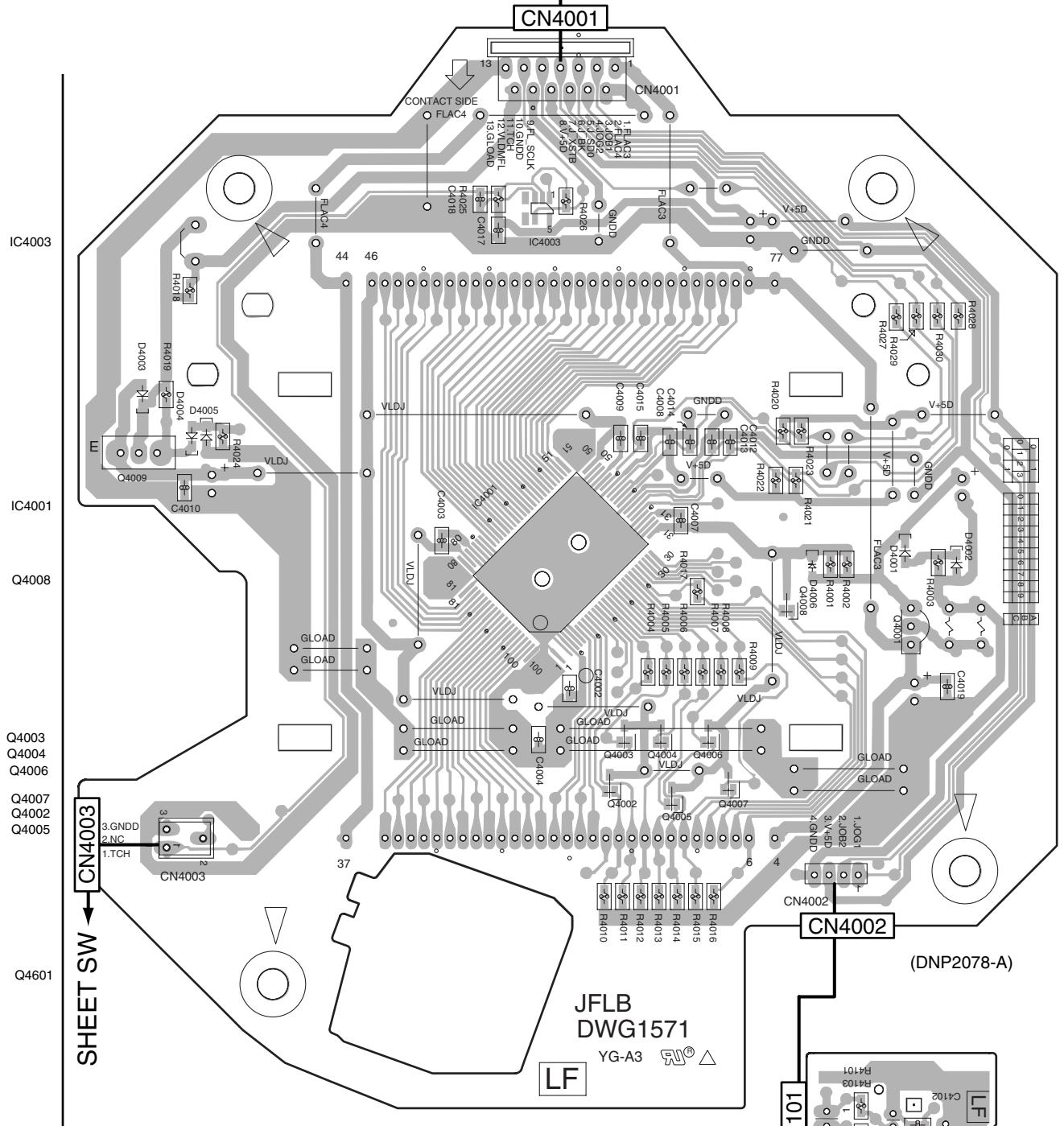
OP

SIDE B

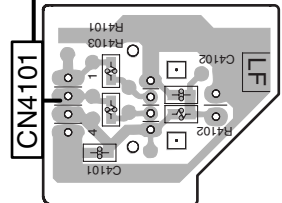
SIDE B

O JFLB ASSY

G CN3003



P JOGB ASSY



O P

O P

DVJ-X1

4

4



SIDE B**SIDE B**

A

1

C

[

E

1

L CMPB ASSY

R DOUT ASSY

Q MJCB ASSY

A CN701

A CN703

A CN702

G CN3002

L Q R

L Q R

B CN2006 **V** CN102 **V** CN101

Q4506
Q4505
Q4504

IC4515
IC4503
Q4503

IC4504
IC4507
IC4506
IC4508

IC4511
IC4510

IC4514

(DNP2077-A)

(DNP2078-A)

DVJ-X1

4

SIDE A

A



C



CN102

F

N V

1234

5. 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 x 10¹ → 561 RD1/4PU567J
47k Ω → 47 x 10³ → 473 RD1/4PU473J
0.5 Ω → R50 RN2H50K
1 Ω → 1R0 RS1P1R0K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 x 10¹ → 5621 RN1/4PC5621F

LIST OF PCB ASSEMBLIES

Mark	Symbol and Description	DVJ-X1 /KUC
NSP	1..MAIN ASSY	DWG1570
	1..DVPB ASSY	DWM2175
	2..DVPL ASSY	DWX2341
	2..STCN ASSY	DWX2342
	2..SPCN ASSY	DWX2343
NSP	2..SDCB ASSY	DWX2344
	1..SUB1 ASSY	DWM2176
	2..DIPB ASSY	DWG1575
	2..MFLB ASSY	DWG1576
	2..CMPB ASSY	DWG1577
	2..LED1 ASSY	DWG1578
	2..LED2 ASSY	DWG1579
	2..PSWB ASSY	DWS1345
	2..RSWB ASSY	DWS1346
	2..SLDB ASSY	DWS1347
NSP	1..SUB2 ASSY	DWM2181
	2..JFLB ASSY	DWG1571
	2..JOGB ASSY	DWG1572
	2..MJCB ASSY	DWG1573
	2..DOUT ASSY	DWG1574
	2..KSWB ASSY	DWS1343
	2..SLMB ASSY	DWS1344
	2..EJTB ASSY	DWS1348
⚠	1..INSW ASSY	DWS1342
	1..SW POWER SUPPLY ASSY	DWR1378

PARTS LIST OF DVJ-X1/ KUC

Mark No.	Description	Part No.	Mark No.	Description	Part No.
A	MAIN ASSY		IC117		M51957BFP
	SEMICONDUCTORS		IC305		M65774BFPA
	IC1502,IC1506	ADV7172KST	IC1103,IC1108,IC1708,IC504		MM1561JF
	IC1707	BU2288FV	IC1504,IC301,IC302		MM1562FF
	IC113	DYW1734	IC1512		NJM2068M
	IC111	HD6417709SHF200B	IC1507		NJM78L05UA
	IC1508	HY57V161610DTC-8	IC1703		NJU7013F
	IC103,IC109,IC1301-IC1312	K4S561632E-TC75	IC1510		PCM1742KE
	IC702,IC703	K4S561632E-TC75	IC1513		PD0274A
	IC1105,IC303,IC904-IC907	K4S641632F-TC75	IC903		PD6449A
F	IC1501,IC1505	LA73054	IC701		PE5337A
	IC1104	LM1881M	IC1511		PM0033A

5			6			7			8		
Mark No.	Description	Part No.	Mark No.	Description	Part No.	Mark No.	Description	Part No.	Mark No.	Description	Part No.
IC121,IC902		PQ070XZ02ZP	C1108,C1119,C115,C1184,C1548		CCSRCH471J50						
IC1102		SN74LV08APW	C1743,C309,C312,C516		CCSRCH471J50						
IC1702		TC4W53FU	C1723		CCSRCH4R0C50						
			C167,C168		CCSRCH7R0D50						
IC1503		TC74HC4053AFT	C103,C1107,C111,C1110,C1111		CEHVV101M6R3						
IC108		TC74LCX16245AFT	C1128,C1171,C1181,C1182,C1301		CEHVV101M6R3						
IC114		TC74LCX32FT	C1386,C1504,C1536,C1538,C1541		CEHVV101M6R3						
IC104,IC110,IC112,IC115,IC120		TC74LCX541FT	C1549,C1593,C1619,C1627		CEHVV101M6R3						
IC101,IC102		TC74VHC04FT	C164-C166,C1702,C1704,C1706		CEHVV101M6R3						
IC123		TC74VHC125FT									
IC1509		TC74VHC157FT	C1731,C1740,C304,C306,C308		CEHVV101M6R3						
IC1101		TC7S66FU	C311,C368,C377,C501,C503		CEHVV101M6R3						
IC122,IC1704		TC7SH04FU	C513,C515,C524,C553,C558		CEHVV101M6R3						
IC105,IC116,IC118,IC124,IC1514		TC7SH08FU	C560,C710,C734,C906,C907		CEHVV101M6R3						
			C916,C979,C986,C987		CEHVV101M6R3						
IC1705		TC7SH08FU									
IC1701,IC901		TC7SHU04FU	C1509,C1530,C1546,C1580		CEHVV470M10						
IC106,IC107		TC7SZ08FU	C1586,C1588,C1603,C1604,C1613		CEVW470M16						
IC306,IC307		TC7SZ126FU	C1620,C1632,C1708,C1710,C1714		CEVW470M16						
IC119		TC7SZU04FU	C1118		CEVWNP1R0M50						
			C1623,C1634		CEVWNP220M16						
IC908		TC7WH125FU									
IC1706		TC7WH34FU	C1170,C1173,C125,C140,C1501		CKSRYB103K50						
IC503		TE4300PF	C1534,C1599,C1606,C1629,C1635		CKSRYB103K50						
IC507		TK11116CS	C1724,C1725,C318,C370,C502		CKSRYB103K50						
IC505		TMS320DA150PGE160	C538,C539,C546,C729,C909		CKSRYB103K50						
			C101,C102,C104-C108		CKSRYB104K16						
IC1106,IC1107		XC2S150E-6PQ208C									
IC304		XC2S50-5PQ208C	C1101,C1102,C1104-C1106,C1109		CKSRYB104K16						
IC506		XCA56367PV150	C1112-C1117,C112,C1120-C1127		CKSRYB104K16						
Q1501,Q1503-Q1505,Q1507,Q1508		2SA1576A	C1129,C113,C1130-C1139,C114		CKSRYB104K16						
Q1510-Q1515,Q1517		2SA1576A	C1140-C1159,C116,C1160-C1169		CKSRYB104K16						
			C117,C1172,C1174-C1179,C118		CKSRYB104K16						
Q1518,Q1519,Q1521		2SD2114K									
Q1516,Q1523		DTC114YK	C1180,C1183,C1185,C119-C124		CKSRYB104K16						
Q1701		DTC124EUA	C126-C130,C1302-C1309,C131		CKSRYB104K16						
Q1502,Q1506,Q1509		RN4982	C1310-C1319,C132,C1320-C1329		CKSRYB104K16						
D502,D504,D506,D508		DAN202K	C133,C1330-C1339,C134		CKSRYB104K16						
			C1340-C1349,C135,C1350-C1359		CKSRYB104K16						
D501,D503,D505,D507		DAP202K									
D1701		KV1837K	C136,C1360-C1369,C137		CKSRYB104K16						
D1501		UDZS6.2B	C1370-C1379,C138,C1380-C1385		CKSRYB104K16						
			C139,C141,C142,C144-C150		CKSRYB104K16						
			C1503,C1506,C1507,C151		CKSRYB104K16						
			C1511-C1513,C1515,C1516		CKSRYB104K16						
COILS AND FILTERS											
F106,F109,F110,F1509-F1511		DTF1069	C1518,C1519,C152,C1520-C1522		CKSRYB104K16						
CHIP BEAD			C1524,C1525,C1527,C1528,C153		CKSRYB104K16						
F1716,F1717,F509,F703,F906		DTF1069	C1533,C1535,C1537,C154,C1540		CKSRYB104K16						
CHIP BEAD			C1543,C1544,C155,C1550-C1556		CKSRYB104K16						
F910 CHIP BEAD		DTF1069	C1558,C1559,C156,C1560-C1566		CKSRYB104K16						
F1708-F1715 CHIP BEAD		DTF1070									
L101		LCYA1R5J2520	C1568,C1569,C157,C1570,C1571		CKSRYB104K16						
L1701		LCYA2R2J2520	C1573,C1574,C1576-C1578,C158		CKSRYB104K16						
F101,F102,F1101-F1106 EMI FILTER		VTF1171	C1582,C1584,C1585,C1587,C1589		CKSRYB104K16						
F111,F112,F1301-F1304 EMI FILTER		VTF1171	C159,C1590,C1592,C1594-C1598		CKSRYB104K16						
			C160,C1600-C1602,C1605		CKSRYB104K16						
F1501-F1504,F1701-F1706 EMI FILTER		VTF1171									
F301-F306,F501-F507 EMI FILTER		VTF1171	C1607-C1609,C161,C1610-C1612		CKSRYB104K16						
F701,F702,F706,F901-F905 EMI FILTER		VTF1171	C1614-C1618,C1625,C1626,C1628		CKSRYB104K16						
			C1630,C1631,C1636,C1637,C170		CKSRYB104K16						
			C1701,C1703,C1705,C1707,C1709		CKSRYB104K16						
			C171,C1711-C1713,C1715-C1717		CKSRYB104K16						
CAPACITORS											
C905		CCSRCH100D50	C1719,C1726,C1732-C1734,C1736		CKSRYB104K16						
C1622,C1633		CCSRCH101J50	C1741,C1742,C301-C303,C305		CKSRYB104K16						
C169		CCSRCH102J50	C307,C310,C313-C317		CKSRYB104K16						
C904		CCSRCH120J50	C319-C367,C369,C371-C376		CKSRYB104K16						
C1727-C1729		CCSRCH221J50	C378,C5001-C5020,C5024		CKSRYB104K16						
C1720		CCSRCH330J50	C5037-C5052,C5054,C5055		CKSRYB104K16						

Mark No. Description**Part No.****Mark No. Description****Part No.**

C5057,C5058,C5070,C5073
C5076-C5079,C508,C5080
C5083-C5086,C5089-C5091,C512
C514,C518-C523,C525-C537

CKSRYB104K16
CKSRYB104K16
CKSRYB104K16
CKSRYB104K16

R950,R954-R964
R1519,R1527,R1529

RAB4C560J
RS1/16S1000F

C540,C541,C544,C545
C547-C552,C554-C557,C559
C561
C1510,C1517,C1526,C1531
C109,C110,C1547,C1557,C1575

CKSRYB104K16
CKSRYB104K16
CKSRYB104K16
CKSRYB105K10
CKSRYB105K6R3

R232,R908,R914
R1550
R1504,R1513,R1515,R1549,R1561
R1573,R1740,R1741
R1605,R1627

RS1/16S1001F
RS1/16S1201F
RS1/16S1500F
RS1/16S1500F
RS1/16S1502F

C1581,C162,C163,C1721
C504-C507,C517,C543
C701-C709,C712-C728
C730-C733,C736-C746
C901-C903,C908,C910-C915

CKSRYB105K6R3
CKSRYB105K6R3
CKSRYB105K6R3
CKSRYB105K6R3
CKSRYB105K6R3

R1606,R1628
R229
R1546
R220
R1638,R1640,R1743

RS1/16S2201F
RS1/16S2700F
RS1/16S3001F
RS1/16S3300F
RS1/16S3301F

C917-C978,C980-C985
C1621,C1624
C542
C1735
C1737

CKSRYB105K6R3
CKSRYB152K50
CKSRYB222K50
CKSRYB332K50
CKSRYB472K50

R1510,R1525,R1544,R1572
R1639,R1641
R1555,R1568,R1584
R1509,R1524,R1543,R1571
R1604

RS1/16S4701F
RS1/16S5601F
RS1/16S56R0F
RS1/16S6800F
RS1/16S75R0F

VC1701 (20pF)

VCM1012

R1609,R1625
VR1501
Other Resistors

RS1/16S8201F
CCP1436
RS1/16S###J

RESISTORS

R1129,R1132,R1139,R1145,R511
R921,R924,R928,R931,R933
R701,R712,R719,R727
R743,R744,R808,R813,R814
R102,R104-R106,R113,R120

RAB4C0R0J
RAB4C101J
RAB4C102J
RAB4C102J
RAB4C103J

R124,R125,R145,R155,R164
R167,R177,R189-R196,R703
R718,R725,R733,R967
R1108-R1111,R1115-R1117
R1120-R1123,R1128,R1130,R1131

RAB4C103J
RAB4C103J
RAB4C103J
RAB4C220J
RAB4C220J

R1133-R1138,R1140,R1144,R1146
R1148,R115,R1152,R1159,R116
R1167-R1169,R117,R1170
R118,R119,R123,R127
R136-R138,R141-R144

RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J

R147-R154,R157,R159
R161-R163,R165,R166,R168
R176,R178-R186,R197,R198
R202,R210,R301,R302
R306,R307,R310,R311

RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J

R317,R318,R320,R322,R323
R326,R327,R331,R332
R335,R336,R338,R339,R346
R348,R349,R351,R352,R357
R363-R365,R367,R369,R370

RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J

R372,R373,R375-R377,R379
R383,R385,R387,R542,R543
R560,R578,R579,R704
R709-R711,R752,R758-R760
R769,R776,R782,R789,R790

RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J
RAB4C220J

R795,R797,R798,R802,R803
R805,R823,R830,R910,R911
R507,R508,R563
R515,R522-R524
R573,R574,R584,R586

RAB4C220J
RAB4C220J
RAB4C223J
RAB4C330J
RAB4C472J

R112,R203,R204,R819-R822
R824-R829,R925,R929,R932
R937,R939-R944,R947,R948

RAB4C560J
RAB4C560J
RAB4C560J

OTHERS

X501 CERAMIC OSCILLATOR
X101 CRYSTAL RESONATOR
(65.975MHz)
X1701 CRYSTAL RESONATOR
(27.000MHz)

CSS1616
DSS1144
VSS1146

X901 CRYSTAL RESONATOR
(27.000MHz)
CN1701 PH CONNECTOR
CN102 PH CONNECTOR
CN501 13P FFC CONNECTOR

VSS1159
B10B-PH-SM3
B6B-PH-SM3
VKN1417

CN1702 17P FFC CONNECTOR
CN1703 30P FFC CONNECTOR
CN701 40P FFC CONNECTOR
KN1701-KN1708
EARTH METAL FITTING

VKN1421
VKN1434
VKN1794
VNF1109

**BDVPL ASSY
SEMICONDUCTORS**

IC2000
IC2200
⚠ IC2303 FUSE (0.125A)
IC2300
IC2100

AN22022A
BD7905BFS
DEK1086
MM1478DFBE
MN103S71F

IC2101
IC2301
Q2001, Q2002
Q2202
Q2201

PEA006B8
PQ070XZ02ZP
2SA1577
2SJ599-Z
DTC124EK

Q2003

UM5K1N

COILS AND FILTERS

L2300 CHIP COIL
L2101-L2116 CHIP BEAD

OTL1009
VTL1075

CAPACITORS

C2113
C2016, C2204, C2205
C2308, C2310
C2207, C2303, C2305

CCSRCH101J50
CCSRCH151J50
CEHAR100M16
CEHAR101M10

Mark No. **Description** **Part No.**

OTHERS

X3001 CERAMIC RESONATOR DSS1147
 0 2P CABLE HOLDER 51048-0200
 CN3004, CN3005 52492-0920
 FFC CONNECTOR 9P
 CN3003 FFC CONNECTOR 13P 52492-1320

 CN3002 FFC CONNECTOR 22P 52492-2220
 CN3001 B TO B CONNECTOR 16P DKN1286
 J3006 JUMPER WIRE 2P D20PYY0210E
 J3302 JUMPER WIRE 2P D20PYY0225E

HRSWB ASSY SWITCHES AND RELAYS

S3101 DSK1021

OTHERS

0 2P CABLE HOLDER 51048-0200

ISLDB ASSY SEMICONDUCTORS

Q3201 DTC124EUA
 D3201-D3204 1SS355
 D3205 TLGE68TG

SWITCHES AND RELAYS

S3201 VSG1024

CAPACITORS

C3208 CCSRCH101J50
 C3203 CKSRYB103K50
 C3201, C3204, C3207 CKSRYB104K16

RESISTORS

VR3201 DCV1013
 VR3202 (1 kohm) RCP1110
 Other Resistors RS1/16S###J

OTHERS

CN3201 FFC CONNECTOR 9P 52492-0920
 CN3202 BOTTOM CONNECTOR 53095-0510

JLED1 ASSY SEMICONDUCTORS

D3301 NSPB500-0008

CAPACITORS

C3301 CKSRYB103K50

RESISTORS

All Resistors RS1/16S###J

OTHERS

0 2P CABLE HOLDER 51048-0200
 CN3301 BOTTOM CONNECTOR 52084-0510

KLED2 ASSY SEMICONDUCTORS

D3303 NSPB500-0008

CAPACITORS

Mark No. **Description** **Part No.**

C3302

CKSRYB103K50

OTHERS

0 2P CABLE HOLDER 51048-0200

LCMPB ASSY SEMICONDUCTORS

D3701, D3702 1SS355

SWITCHES AND RELAYS

S3701 DSH1025

CAPACITORS

C3701, C3706 CEAT102M6R3
 C3703, C3704 CEAT471M6R3
 C3709, C3710 CKSRYB104K16

RESISTORS

R3701, R3703, R3704, R3706 RS1/16S75R0F
 Other Resistors RS1/16S###J

OTHERS

JA3701 BNC SOCKET 4P AKX1053
 CN3701 12P FFC CONNECTOR VKN1272

MMFLB ASSY SEMICONDUCTORS

Q3401 2SB1237X
 D3403 1SS355
 D3401 UDZS8.2B

CAPACITORS

C3404-C3407 CCSRCH221J50
 C3401, C3409 CEAT470M16
 C3408 CEAT470M63
 C3402 CKSRYB104K16

RESISTORS

All Resistors RS1/16S###J

OTHERS

V3401 FL TUBE DEL1052
 CN3402 B TO B CONNECTOR 6P DKN1287
 0 FL HOLDER DNF1688
 CN3401 B TO B CONNECTOR 16P VKN1368

NPSWB ASSY SWITCHES AND RELAYS

⚠ S4301 RSA1001

OTHERS

⚠ AN4301 1P AC INLET AKP7032
 ⚠ J4301 CONNECTOR ASSY DKP3566
 0 PCB BINDER VEF1040

OJFLB ASSY SEMICONDUCTORS

IC4001 UPD16306B
 Q4001 2SB1237X
 Q4002-Q4008 2SC4081
 Q4009 2SD2395

5			6			7			8		
Mark No.	Description	Part No.	Mark No.	Description	Part No.	Mark No.	Description	Part No.	Mark No.	Description	Part No.
	D4003, D4006	1SS355					C4529	CEAT470M10			
	D4001	UDZS10B					C4504, C4506	CKSRYB103K50			
	D4004	UDZS20B					C4508, C4509, C4513, C4530	CKSRYB104K16			A
	D4005	UDZS22B					C4522, C4523	CQMA152J50			
CAPACITORS			RESISTORS			RESISTORS					
	C4012-C4015	CCSRCH181J50					R4506	RD1/2VM271J			
	C4011	CEAT470M16					R4511	RD1/2VM470J			
	C4005, C4006	CEHAT100M50					R4553-R4562	RS1/10S0R0J			
	C4001	CEHAT470M16					R4518, R4519, R4522-R4525, R4538	RS1/16S75R0F			
	C4018	CKSRYB102K50					Other Resistors	RS1/16S###J			
	C4002-C4004, C4007-C4010	CKSRYB103K50				OTHERS					
RESISTORS							0 11P CABLE HOLDER	51048-1100			
	R4031, R4032	RD1/2VM101J					JA4502 4P MINI DIN SOCKET	AKP7116			B
	Other Resistors	RS1/16S###J					4505 BNC SOCKET	AKX1054			
OTHERS							CN4505 KR CONNECTOR	B10B-PH-K			
	CN4001 FFC CONNECTOR 13P	52492-1320					CN4507 4P TOP POST	B4B-EH			
	CN4003 FLEXIBLE CONNECTOR	5597-03APB					J4502 JUMPER WIRE 11P	D20PYY1110E			
	V4001 FL TUBE	DEL1053					JA4504 2P PIN JACK	DKB1045			
	0 FL HOLDER	DNK3959					J4504 CONNECTOR ASSY 11P	DKP3664			
	CN4002 KR CONNECTOR	S4B-PH-K					CN4503 FFC CONNECTOR 22P	HLEM22S-1			
PJOGB ASSY SEMICONDUCTORS							CN4509 4P PLUG	KM200IB4			
	D4101	GP1A038RBK					JA4501 REMOTE CONTROL JACK	RKN1004			
							JA4503 2P PIN JACK	VKB1123			
							CN4506 12P FFC CONNECTOR	VKN1243			C
							CN4508 17P FFC CONNECTOR	VKN1248			
							CN4501 30P FFC CONNECTOR	VKN1261			
CAPACITORS						ROUT ASSY SEMICONDUCTORS					
	C4101, C4102	CKSRYB104K16					Q4601	2SC2412K			
RESISTORS						CAPACITORS					
	All Resistors	RS1/16S###J					C4602	CEAT470M16			
OTHERS							C4601	CKSRYB103K50			D
	CN4101 KR CONNECTOR	B4B-PH-K					C4603	CKSRYB104K16			
QMJC B ASSY SEMICONDUCTORS						RESISTORS					
	⚠ IC4501, IC4507 (250mA)	AEK7002					R4602	RS1/16S1801F			
	⚠ IC4508 (500mA)	AEK7005					R4603	RS1/16S3901F			
	⚠ IC4504 (800mA)	AEK7008					Other Resistors	RS1/16S###J			
	⚠ IC4514 (1.6A)	AEK7012				OTHERS					
	⚠ IC4506 (2A)	AEK7013					CN4602 4P SOCKET	KP200IB4L			
	⚠ IC4510, IC4511 (2.5A)	AEK7014					JA4601 1P PIN JACK (AU, BLK)	VKB1074			
	⚠ IC4512 (3A)	AEK7015				SKSWB ASSY SEMICONDUCTORS					
	⚠ IC4513	ICP-N20					Q4201-Q4203	DTC124EUA			E
	IC4503	TC7SET04FU					D4214, D4216	NSPB500-0008			
	IC4515	TC7SET08FU					D4213	SLI-343URCW			
	Q4504	2SC1740S					D4201-D4204	SLI-343YCW			
	Q4503	2SD1859X					D4207-D4209, D4211	SLR-343BBT			
	Q4505, Q4506	1SS355				SWITCHES AND RELAYS					
	D4509, D4510	NNCD6.2MF					S4201, S4202	DSG1079			
	D4511	UDZS5.6B					S4203-S4206	VSG1024			
	D4501, D4503					CAPACITORS					
CAPACITORS							C4209	CCSRCH101J50			F
	C4531	CEANP220M10					C4203-C4208	CKSRYB103K50			
	C4507, C4512, C4516, C4517	CEAT102M6R3									
	C4521	CEAT221M10									
	C4520	CEAT221M25									

Mark No.	Description	Part No.
<u>RESISTORS</u>		
	All Resistors	RS1/16S###J

A

<u>OTHERS</u>		
	CN4201 FFC CONNECTOR 9P	52492-0920

■

<u>T</u>SLMB ASSY		
<u>SWITCHES AND RELAYS</u>		
	S4701, S4702	DSG1017

<u>OTHERS</u>		
	CN4701 KR CONNECTOR	S3B-PH-K

B

<u>U</u>EJTB ASSY		
<u>SWITCHES AND RELAYS</u>		
	S3503	DSH1049
	S3501, S3502	VSG1024

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<u>CAPACITORS</u>		
	C3501	CCSRCH101J50
	C3503	CKSRYB103K50
	C3502	CKSRYB104K16

C

<u>RESISTORS</u>		
	All Resistors	RS1/16S###J
<u>OTHERS</u>		
	CN3502 7P FFC CONNECTOR	VKN1267
	CN3501 B TOB CONNECTOR 6P	VKN1358

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6. ADJUSTMENT

6.1 SLDB ZERO POINT ADJUSTMENT



1. SLDB Assy Adjustment

Slider Zero Point Adjustment

Adjustment Condition	Open the control panel and the player is the normal operation state. Set the TEMPO range to $\pm 6\%$.
Adjustment point	VR3202
Measurement point	TEMPO indication
Measuring Instrument	None
Adjustment Value	Visual inspection
Procedures	① Set the slide-knob position of TEMPO VR (VR3201) to "0" on the panel-scale position indication. ② Adjust VR3202 (ZERO POINT ADJ) so that the value of TEMPO indication becomes 0.00%.
Symptom of an adjustment error	The position of the slide knob corresponding to TEMPO 0.00% on the FL display does not match "0" printed on the panel.

Adjustment Point

Value of TEMPO indication

2. MAIN Assy Adjustment



■ Master Clock Free-running Adjustment

Adjustment Condition	SYNC signal is no input. No disc
Adjustment point	VC1701
Measurement point	TP1
Measuring Instrument	Frequency counter
Adjustment Value	27MHz $\pm$ 20Hz
Procedures	Adjust VC1701 so that the frequency of TP1 becomes 27MHz $\pm$ 20Hz.
Symptom of an adjustment error	Displays are disrupted, not correct, or stop.

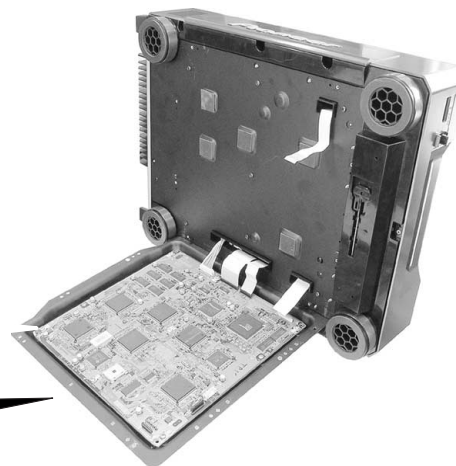
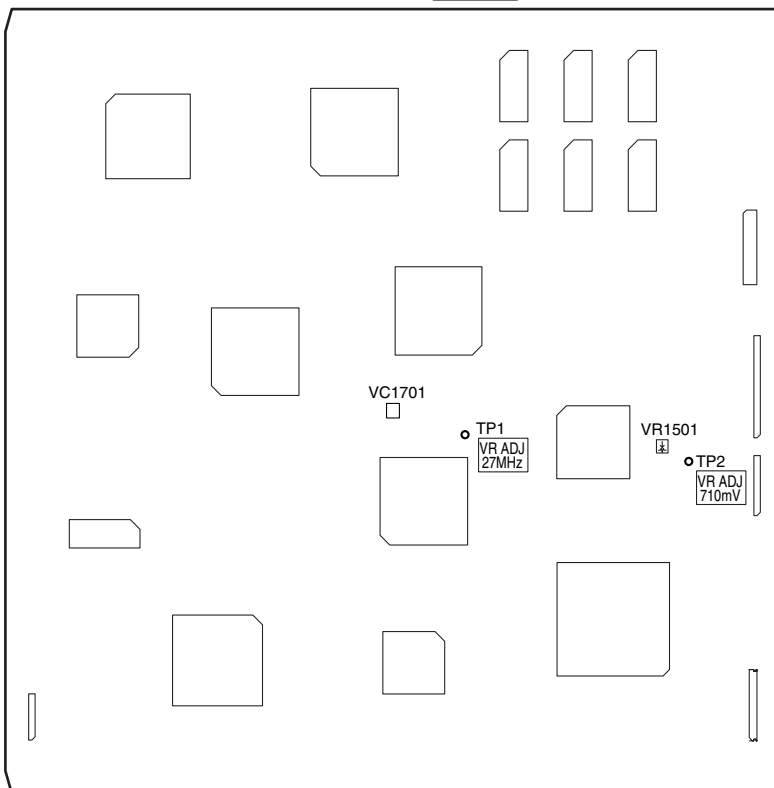
■ Color Difference System Y-level Adjustment

Adjustment Condition	In progressive output selection, FCC composite (T2-C1) playback (between a sink tip and white)
Adjustment point	VR1501
Measurement point	TP2
Measuring Instrument	Oscilloscope
Adjustment Value	710mVp-p $\pm$ 2%
Procedures	Adjust VR1501 so that the value of TP2 becomes 710mVp-p $\pm$ 2%.
Symptom of an adjustment error	Displays too dark or bright. Improper color.

Adjustment Point

MAIN ASSY

SIDE A



7. GENERAL INFORMATION

7.1 DIAGNOSIS

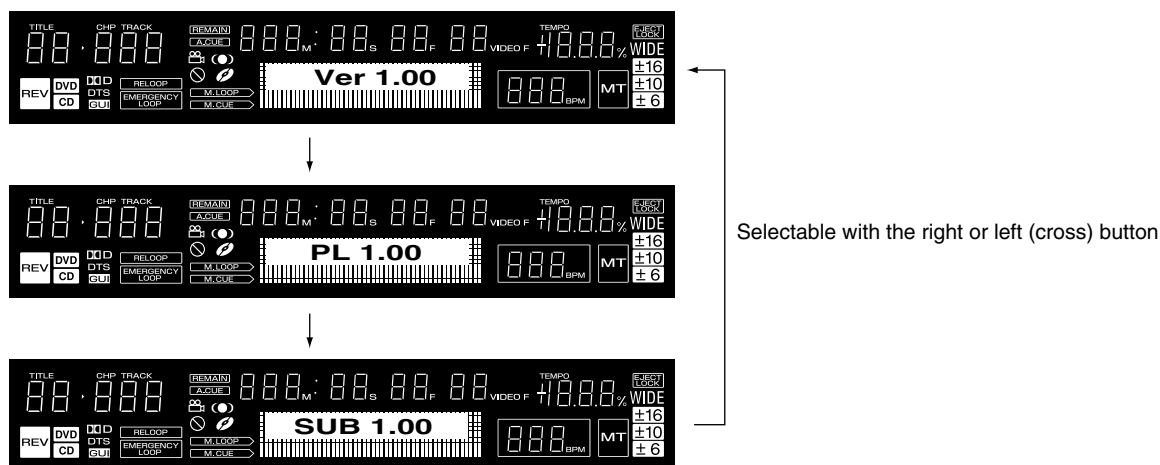
7.1.1 SERVICE MODE

1. Check mode for the version and error log

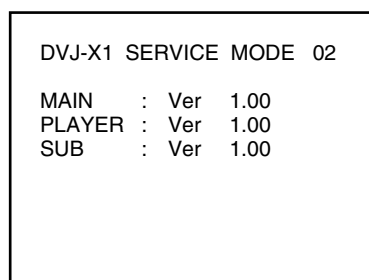
The version and error log can be checked on the screens displayed in Service mode.

How to enter Service mode

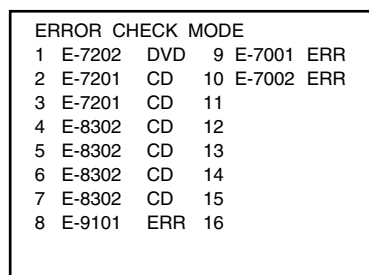
- In Service mode there are two screens: one for displaying the version of each software item, and another for displaying the error log.
- Hold the MASTER TEMPO button pressed for about 10 seconds to display the version of each software item.
- The version of each software item is also displayed on the dot-matrix display of the FL display.
- The version of the software for the MAIN, player section, and operation section can be selected one by one by pressing the right or left (cross) button repeatedly.



In the screen of the each software version, shows the region number on the top right of screen.



When the HYPER JOG MODE button is pressed while displaying the version indication screen, switch to the error log screen. The screen shows the error log and the disc type selected when an error was generated. Up to 16 errors are displayed, with No. 1 error the latest.



How to quit Service mode

Press the MASTER TEMPO button to quit Service mode.

List of error codes

When an error is detected, one of the following error codes is displayed on the FL display.

Error code	Description		Checkpoint
E-7001	ATAPI system (drive) error	Unrecoverable: Turn the power off. The error indication will be cleared.	Check the connection with the player section.
E-7002	DMA FPGA device error		Displayed when a device error is reported by the CPU during communication upon initialization. Check the connection, power voltage, and clock waveform of the device in failure.
E-7003	CAP FPGA device error		
E-7004	CAP FPGA memory error		
E-7005	VMC FPGA device error		
E-7006	VMC FPGA memory error		
E-7007	AV1 device error		
E-7008	GSL device error		
E-7009	GSL memory error		
E-7010	TI DSP device error		
E-7011	MOT DSP device error		
E-7012	TE4300 device error		
E-7013	VDEC device error		
E-7014	VDEC memory error		
E-7017	AV1 memory error		
E-7015	FPGA download error	Unrecoverable: Turn the power off. The error indication will be cleared.	Check the device and the serial-communication system.
E-7016	"No ID number" input error		Input the ID number.
E-7202	Incompatible region number	The error indication is cleared when the EJECT process is finished.	A disc having an incompatible region number was loaded.
E-7201	TOC not readable		Apart from abnormality of the player section, defectiveness of the disc may be the cause.
E-8301	Error during startup	The error indication is cleared when the EJECT process is finished or startup is completed successfully.	
E-8302	Error during playback		
E-8303	Other error of the player section		
E-9101	Error in mechanical operations	The error indication is cleared when the EJECT process is finished or LOAD IN is completed.	Check the slot mechanical system.

Warning indications

The following warning indications are displayed on the FL display.

Warning display	Description
ROM ERROR	This is displayed when any abnormality is detected in the program area of the flash memory.
DRIVE ERR	This is displayed when any abnormality is detected in the player section during initialization.
NOT VIDEO FORMAT	This is displayed when a DVD other than video-formatted DVDs (VR format, DVD-A, etc.) is loaded.
DISABLE DJ MODE	This is displayed during DVD playback in DJ mode, while the areas that cannot be controlled in DJ mode are being played back.

2. Mode for checking buttons and their indications, as well as the load on the JOG dial

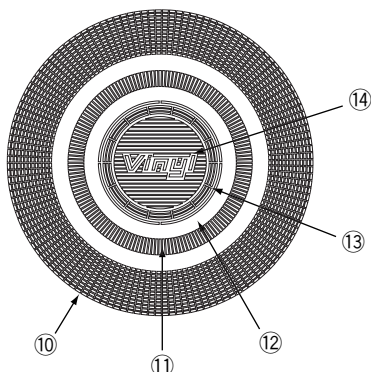
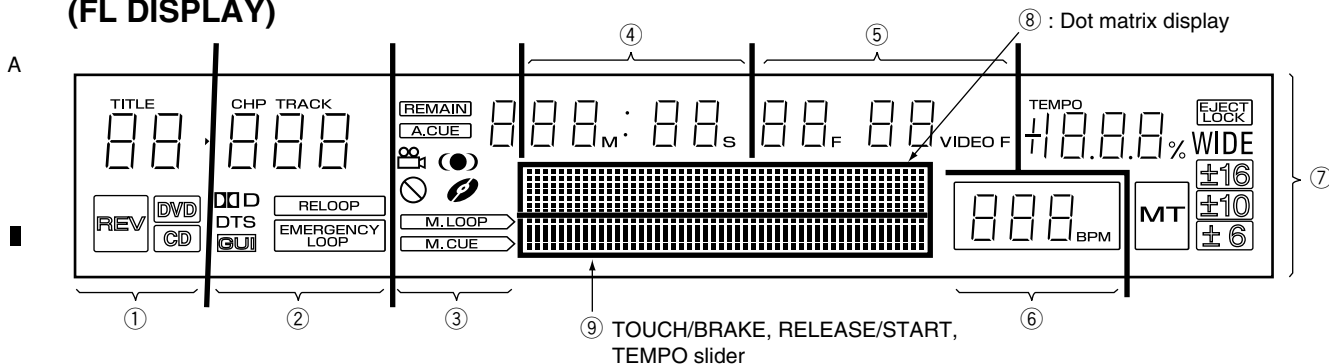
- To enter this mode, while holding the TEMPO and RET. buttons pressed, turn on the power.
- When this mode is entered, "SERVICE" is displayed on the dot matrix section of the FL display.

■ Mode for checking buttons and their indications

- When the EJECT LOCK switch is unlocked, the mode is for checking buttons and their indications, and when the EJECT LOCK switch is locked, the mode is for checking the load on the JOG dial.
- In this mode, when any button is pressed, the corresponding indication is displayed on the FL display, and the corresponding LED lights up.

Controls	Dot FL display	Other part of the FL display	LED lit
PLAY/PAUSE	PLAY		PLAY/PAUSE
CUE	CUE		CUE
IN/REALTIME CUE	IN		IN/REALTIME CUE
OUT/OUT ADJUST	OUT		OUT/OUT ADJUST
RELOOP/EXIT	RELOOP	③	
EMERGENCY LOOP	All dots lit on FL	All dots lit on FL	All dots lit on LED
CUE/LOOP CALL	CALL	⑥	
ENTER	ENTER	⑦	
HOT CUE (A)	HOTCUE A		HOT CUE(A) red
HOT CUE (B)	HOTCUE B		HOT CUE(B) red
HOT CUE (C)	HOTCUE C		HOT CUE(C) red
REC MODE	REC MODE		HOT CUE(A), (B), (C) red
PREVIOUS (◀◀)	PREVIOUS	⑩	
NEXT (▶▶)	NEXT	⑪	
REV (◀◀)	REV ◀◀		CARD
FWD (▶▶)	FWD ▶▶	⑫	
AUDIO	AUDIO		HOT CUE(C) amber
SUB.TITLE	SUBTITLE		HOT CUE(B) amber
ANGLE	ANGLE		HOT CUE(A) amber
DISPLAY	DISPLAY		HOT CUE(C) green
TEXT/WAVE	TEXTWAVE		HOT CUE(B) green
TIME MODE/AUTO CUE	TIMEACUE		HOT CUE(A) green
TITLE +	TITLE +	②	
TITLE -	TITLE -	①	
DELETE	DELETE	④	
MEMORY	MEMORY	⑤	CARD
MENU	MENU		TEMPO WIDE
T.MENU	T.MENU		TEMPO ±16%
SETUP	SETUP		TEMPO ±10%
RET.	RET.		TEMPO ±6%
EJECT	EJECT		
STOP	STOP		
Cross button for left (◀)	LEFT	Direction is also displayed in Area ⑩	
Cross button for up (▲)	UP	Direction is also displayed in Area ⑩	
Cross button for right (▶)	RIGHT	Direction is also displayed in Area ⑩	
Cross button for down (▼)	DOWN	Direction is also displayed in Area ⑩	
JOG MODE	JOG MODE	⑭	VINYL
TEMPO	TEMPO		TEMPO ±6%, ±10%, ±16%, WIDE
MASTER TEMPO	MT		MASTER TEMPO
TEMPO RESET	T.RESET		TEMPO RESET
HYPERJOG MODE	HYPERJOG		HYPER JOG
TOUCH SENSOR	TOUCH SW	⑬	
While the JOG dial is rotated in the forward direction	JOG ▶		
While the JOG dial is rotated in the reverse direction	◀ JOG		
When DIRECTION is switched to reverse		REV indication	REV
When EJECT LOCK is locked	*Mode for checking the load on the JOG dial	EJECT LOCK indication	

(FL DISPLAY)



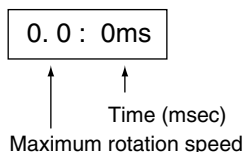
C Indications of read-in values for the TOUCH/BRAKE and RELEASE/START controls and TEMPO slider

The read-in values for the TOUCH/BRAKE and RELEASE/START controls and TEMPO slider are displayed as a bar in Area ⑨ of the FL display:

- Area "mloop" : As the TOUCH/BRAKE control is turned clockwise, the number of dots on the display increases.
- Area "mcue" : As the RELEASE/START control is turned clockwise, the number of dots on the display increases.
- Area "play ad" : As the TEMPO slider is moved toward the + side, the number of dots on the display increases.

Mode for checking the load on the JOG dial

This mode is entered when the EJECT LOCK switch is locked. In this mode, the maximum rotation speed of the JOG dial and the time required for changing rotation speeds are displayed.

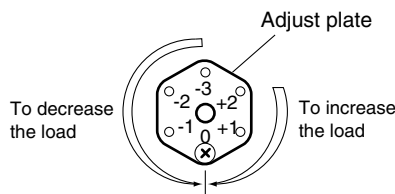


Measurement method

- After locking the EJECT LOCK switch, rotate the JOG dial with full force, either clockwise or counterclockwise. Then the number is displayed.
- If the maximum rotation speed is 7.0 times or more, the time required for rotation speeds decreasing from 3.0 times to 1.5 times is displayed.
- For the second measurement and afterwards, the average value of the measurement results is displayed.

Management value

Jog management value: 170 ± 25 (msec)



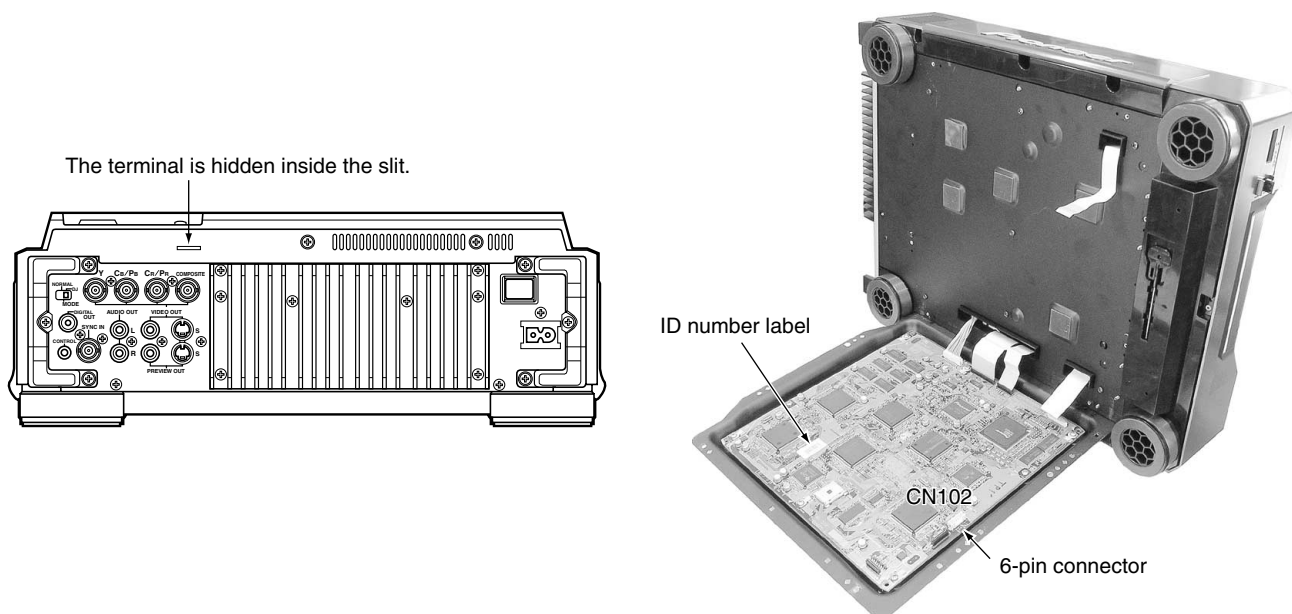
Load adjustment method

Remove the screw fixing the adjust plate, then screw it into the hole corresponding to the value (-1, -2, -3, +1, or +2) for a load to be added:

- 1, -2, -3 : To decrease the load
- +1, +2 : To increase the load

3. Serial control terminals

- The serial control terminals for checking the ID number and the player section are provided inside the rear panel (hidden inside the slit of the rear panel) and inside the main unit (6-pin connector).
- To use the terminals, a PC with an RS-232C serial communications terminal, and either of the special device for level conversion dedicated for the hidden connector inside the slit of the rear panel or a special device for downloading, such as the CDJ-1000, are required.
- Do NOT use both terminals simultaneously, because these terminals are internally connected.



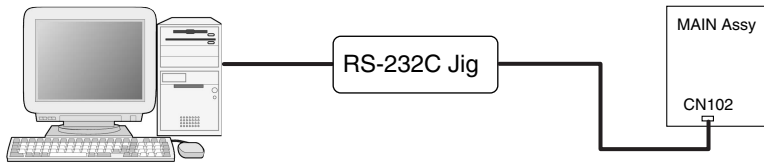
4. How to input the ID number

- If error E-7016 is displayed, the ID number must be input.
- For inputting the ID number, a PC with an RS-232C serial communications terminal, the special device for level conversion, and the ID data disc (a special DVD disc on which the ID-number data) are written are required. This product is a player, please use a disc for recorder as ID data disc.

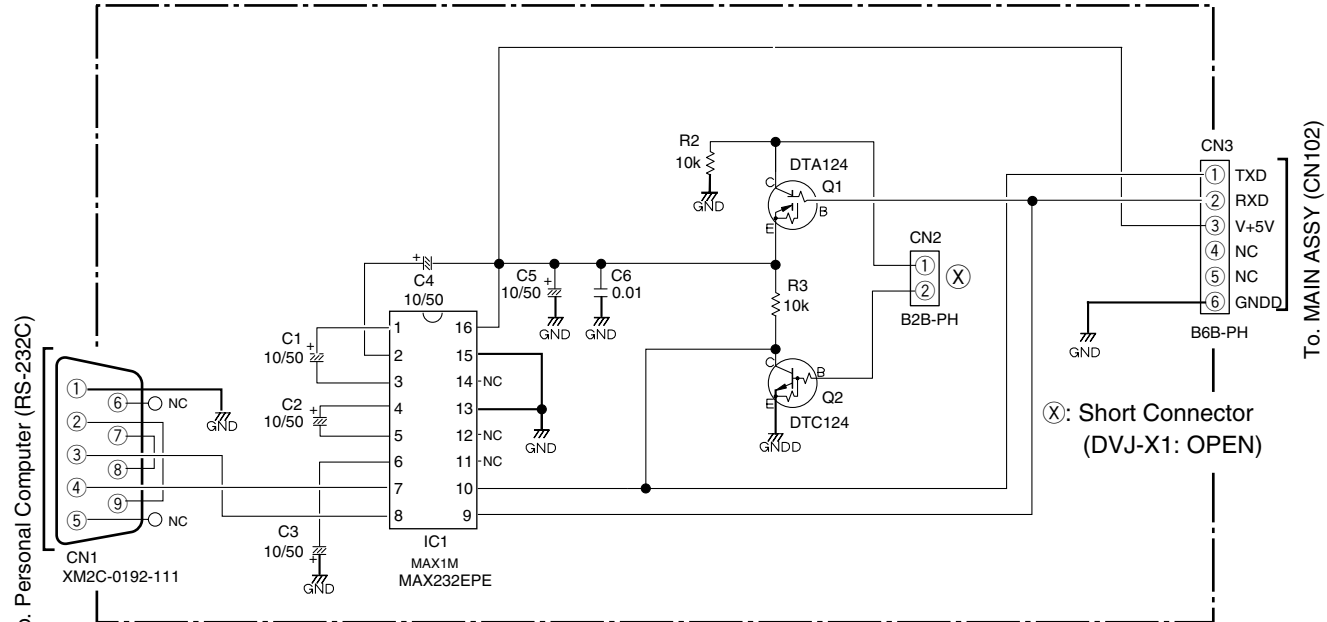
Procedures

- ① Check the ID number. The 9-digit ID number is written on the label attached to the bottom of the main unit.
- ② Connect the RS-232C terminal of the PC and the DVJ-X1 using a special device. (See next page.)
 - When the special device for level conversion is used, connect the card cable to the hidden connector inside the slit of the rear panel.
 - When a special device for downloading, such as the CDJ-1000, is used, open the bottom plate of the main unit to reveal the 6-pin connector and connect the special device with the connector.
 - As the hidden connector inside the rear panel and the 6-pin connector inside the main unit are internally connected, they must not be connected simultaneously.
- ③ Start up the terminal software of the PC (communication speed: 4800 bps, parity: none, STOP bit: 1).
- ④ Turn on the power of the DVJ-X1.
 - If error E-7016 is displayed, press the ENTER key on the PC several times to confirm that "R" is returned.
- ⑤ Enter "2MC" to confirm that "R" is returned. Use uppercase alphabets for input.
- ⑥ Enter the 9-digit ID code then "ID" and confirm that "R" is returned.
 - If you type a wrong number for the ID code, type the correct numbers again.
- ⑦ Load the special DVD disc into the player.
 - Wait for the unit to start up then enter "IW" to confirm that "R" is returned.
 - If error E11 is returned, wait a few moments then enter "IW" again.
- ⑧ Enter "EJ" to eject the disc, then turn off the power of the DVJ-X1 then turn it back on. Check that no error is displayed.

[Connection Diagram]



■ RS-232C Jig Schematic Diagram



Parts List

SEMICONDUCTORS

IC1	: MAX232EPE
Q1	: DTA124
Q2	: DTC124

CAPACITORS

C1, C2, C3, C4, C5	: CEAT100M50
C6	: CKSQYF103Z50

RESISTORS

R2, R3	: RD1/2VM103J
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OTHERS

CN1 (RS-232C CONNECTOR)	: XM2C-0192-111
CN2 (2P CONNECTOR)	: B2B-PH
CN3 (6P CONNECTOR)	: B6B-PH

5. Player test mode

- To use Player Test mode, a PC with an RS-232C serial communications terminal and the special device for level conversion are required.
- Start up the terminal software of the PC and set as follows: Communication speed: 4800 bps, parity: none, STOP bit: 1.
- Turn on the power of the DVJ-X1 and wait until the "POWER ON" indication disappears. Then press the ENTER key on the PC several times to confirm that "R" is returned.
- Then enter "1MC" to confirm that "R" is returned.
- Use uppercase alphabetic for input.
- Load the special DVD disc into the player then press the STOP button so that the player enters Stop mode.

Then, the commands indicated in the list below can be received by the player.

The commands described here are for testing the mechanical and servo systems, and no audio or video output is available. In the following list of commands, ○○ indicates a decimal number.

Command	Name	Description
BK	Address Block	During CD playback, address mode is set to block. During DVD playback, address mode is fixed at block.
TR	Address Track	During CD playback, address mode is set to track.
IX	Address Index	During CD playback, address mode is set to index.
TM	Address Time	During CD playback, address mode is set to time.
SA	Start Up	After turning on all the servos, the unit enters Pause mode on the innermost track.
○○PL	Play	The unit traces the signals on the disc (but not audio or video playback) until it reaches the designated address, then enters Pause mode. (○○ indicates an address, and if the address is not designated, the unit will not operate. Without address input, the unit will hang.)
PA	Pause	The unit enters Pause mode immediately.
○○SE	Search	After searching for the designated location, the unit enters Pause mode.
RJ	Reject	After turning off all servos, the unit stops rotation of the disc.
OP	Open	The unit opens the disc tray and disables any further operation.
○○EC	Error Count	The error rate is calculated.
?A	Address Request	During CD playback, the address (TNO:INDEX:AMIN:ASEC:AFRAME) is returned.
?B	Block Number Request	During CD playback, the block number (AMIN:ASEC:AFRAME) is returned. During DVD playback, the block number is returned.
?I	Index Number Request	During CD playback, the index number (TNO:INDEX) is returned.
?R	Track Number Request	During CD playback, the track number (TNO) is returned.
?T	Time Code Request	During CD playback, the time code (AMIN:ASEC) is returned.
?Q	TOC Information Request	During CD playback, the TOC information (FTNO:ETNO:AMIN:ASEC:AFRAME) is returned. During DVD playback, the total capacity obtained from the lead-in is returned. (With 0?Q, the total capacity of the lower layer of a dual disc is returned.)
?E	Error Rate Request	The error rate is returned.
0TM	All Servo Off	All the servos are turned off.
1TM	LD On/Off	The output of the laser diode is toggled (ON/OFF) when this command is issued repeatedly.
2TM	Focus Servo On/Off	The focus servo is toggled (ON/OFF) when this command is issued repeatedly.
3TM	Spindle On/Off	The spindle servo is toggled (ON/OFF) when this command is issued repeatedly.
4TM	Tracking Servo On/Off	The tracking servo is toggled (ON/OFF) when this command is issued repeatedly.
6TM	Address Read	Periodic operation starts, and reading of the address data starts.
9TM	Disc Search	Data on disc detection and disc data necessary for the focus servo are collected.
10TM	CD Select	CD is selected.
11TM	DVD Select	DVD is selected.
12TM	Focus Position Adjust	Focus-position adjustment is performed.
13TM	Tracking Balance Adjust	Tracking-balance adjustment is performed.
15TM	Focus Gain Adjust	Focus-gain adjustment is performed.
16TM	Tracking Gain Adjust	Tracking gain adjustment is performed.
18TM	Focus Jump Up	Focus jump to the upper layer of the disc is performed.
19TM	Focus Jump Down	Focus jump to the lower layer of the disc is performed.
○SP	Spindle Set	The step among the four preliminarily determined steps of the rotation speeds is set (0-3).
○○RP	RPM Set	The rotation speed of the spindle (rpm) is designated.
?W	Rotation Speed Request	With ?W, "highest rotation speed/goal rotation speed" is returned, and with ?WO, "current playback-speed rate/current rotation speed" is returned.
?L	Layer Number Request	During DVD playback, the number of the current layer is returned.
?D	Disc Type Request	The disc type is returned: bit 0: with adaptor for 8-cm disc, bit 1: 8-cm disc, bit 2: opposite, bit 3: dual, bit 4: multi-session, bit 5: RW, bit 6: WO, bit 7: DVD, bit 8: RVD + RW.
?V	Version Number Request	The version number is returned.
○○MF	Multi Jump Fwd	The unit jumps by the designated number of tracks toward the outermost track.
○○MR	Multi Jump Rev	The unit jumps by the designated number of tracks toward the innermost track.
NF	Slider Move Fwd	The slider is moved by about 11.1875 μm toward the outermost track.
NR	Slider Move Rev	The slider is moved by about 11.1875 μm toward the innermost track.

Note: This command moves a built-in player directly. Operation may become abnormal when executed this command during normal playback. Please execute this command after setting to the STOP state by all means.

<Supplements>

● How to designate an address for a search

A There are the following four ways of designating an address for a search:

Address Block

When the BK command is issued, the address mode is set to block (During CD playback: absolute time [AMIN:ASEC: AFRAME], during DVD playback: sector).

Example: During CD playback: For searching 2 min 3 sec 4 frame, designate BK20304SE

During DVD playback: For searching 250000 sector, designate BK250000SE.

As the sector for the innermost track of a DVD is 196608 (30000 h = 0 LBA), a number less than this cannot be designated.

Address Track

When the TR command is issued, the address mode is set to track. This command is available only for a CD.

Example: For searching the 5th piece of music, designate TR5SE.

B **Address Index**

When the IX command is issued, the address mode is set to index (TNO:INDEX). This command is available only for a CD.

Example: For searching Index 3 of the 2nd piece of music, designate IX203SE.

Address Time

When the TM command is issued, the address mode is set to time (absolute time, AMIN:ASEC). This command is available only for a CD.

Example: For searching 2 min 3 sec, designate TM203SE.

Once the address mode is set, it will be retained until it is changed the next time.

● How to calculate the error rate (Error count)

The error rate between the current point and the designated address is calculated.

C Example: To calculate the error rate between 20 min 0 sec 0 frame and 21 min 0 sec 0 frame and to display the result during CD playback: BK200000SE210000EC?E

To calculate the error rate between 40000H and 41000H and to display the result during DVD playback: 262144SE266240EC?E (designated in decimal)

● How to start up the servos manually

Servo operations can be controlled manually in detail.

Note that incorrect use of test-operation commands may damage the player.

To start up the servos manually, the following commands must be executed in the order shown here:

D 10TM : For starting CD, select CD.
 11TM : For starting DVD, select DVD. } Select one or the other.
 1TM : To turn on the laser diode (CD)
 9TM : To detect installation of a disc
 3TM : To turn on the spindle (2000 rpm)
 9TM : Disc-search
 2TM : To turn on the focus servo
 12TM : For rough focus-position adjustment
 13TM : For tracking-balance adjustment
 4TM : To turn on the tracking servo
 12TM : For focus-position adjustment
 15TM : For focus-gain adjustment
 16TM : For tracking-gain adjustment
 6TM : To start reading at an address
 0TM : To turn off the servos

● Description of other commands

TOC Information Request

TOC information regarding a CD is in the following format:

Example: In case of 0116704307: Starting track No. = 01, Ending track No. = 16, Recorded time: 70:43:07

Multi Jump Fwd/Rev

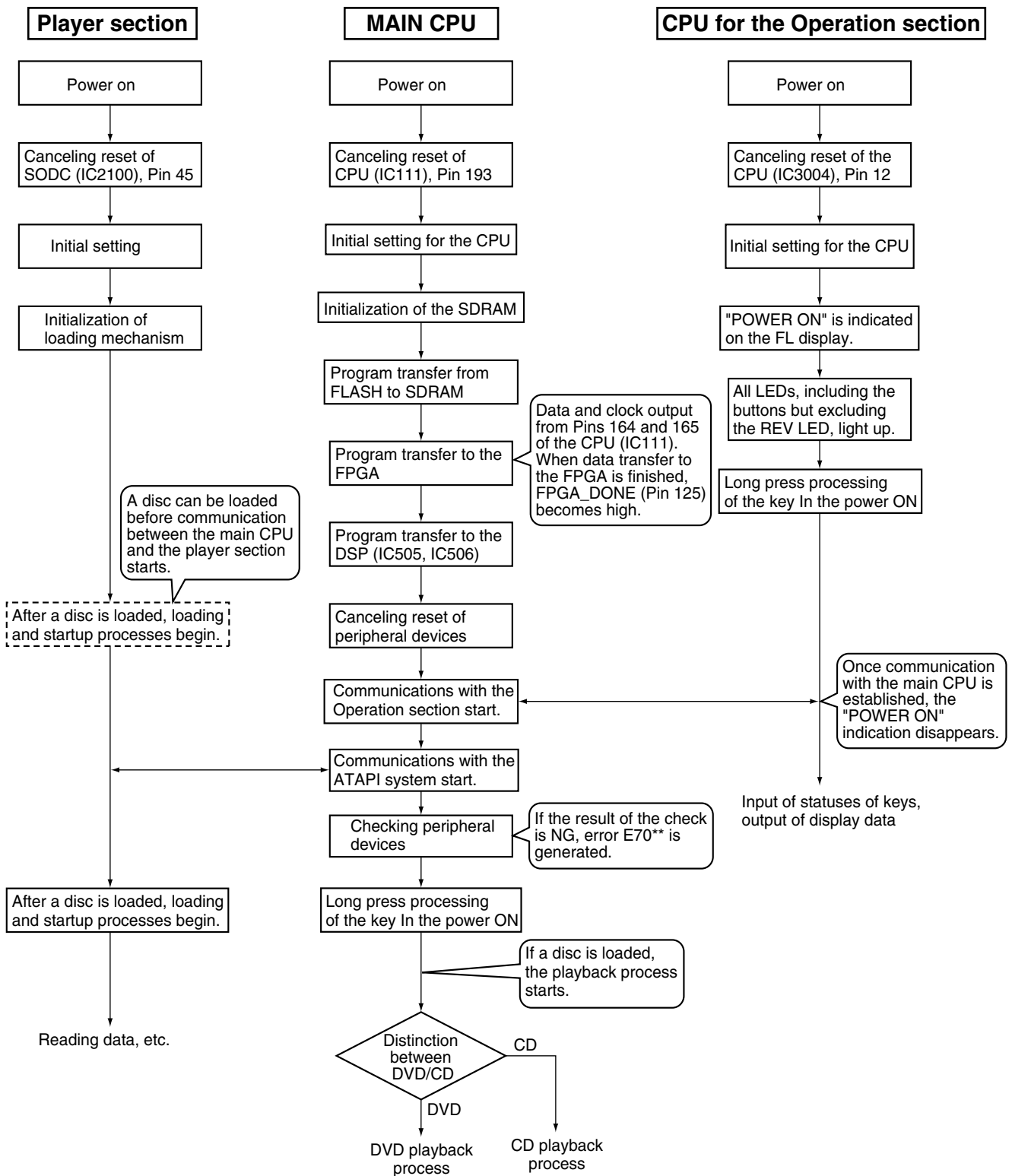
The address is jumped by the designated number of tracks toward the innermost/outmost track of the disc (physical track, not number of pieces of music).

Example: To jump by 100 tracks from the current point toward outmost track: 100MF

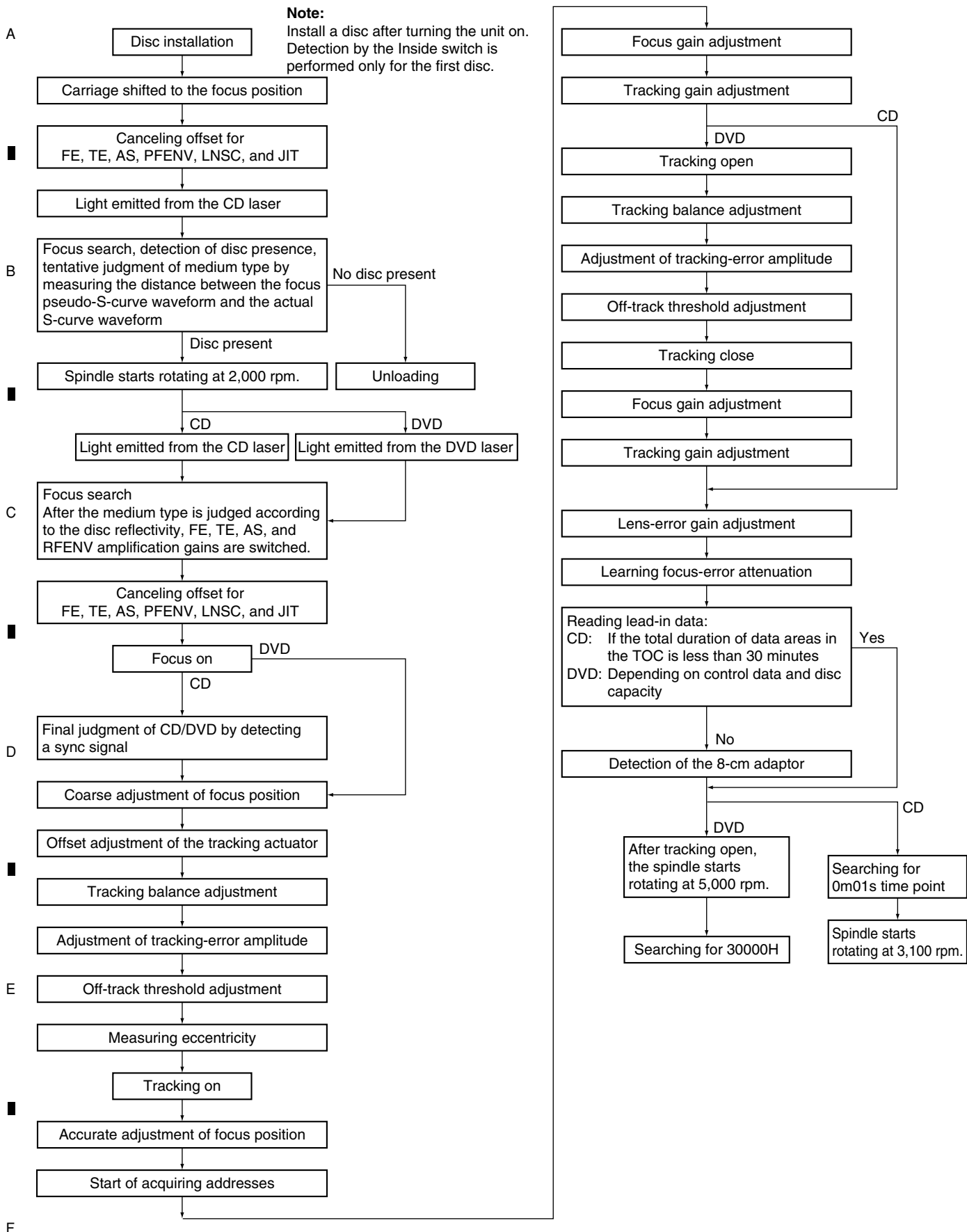
Slider Move Fwd/Rev

F The slider is moved by about 11.1875 μ m toward the outmost/innermost track. You can move the slider to your desired position by executing this command repeatedly.

7.1.2 POWER ON SEQUENCE



Sequence of Starting Up the Drive



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A

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B

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C

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D

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E

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F

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6

DVJ-X1

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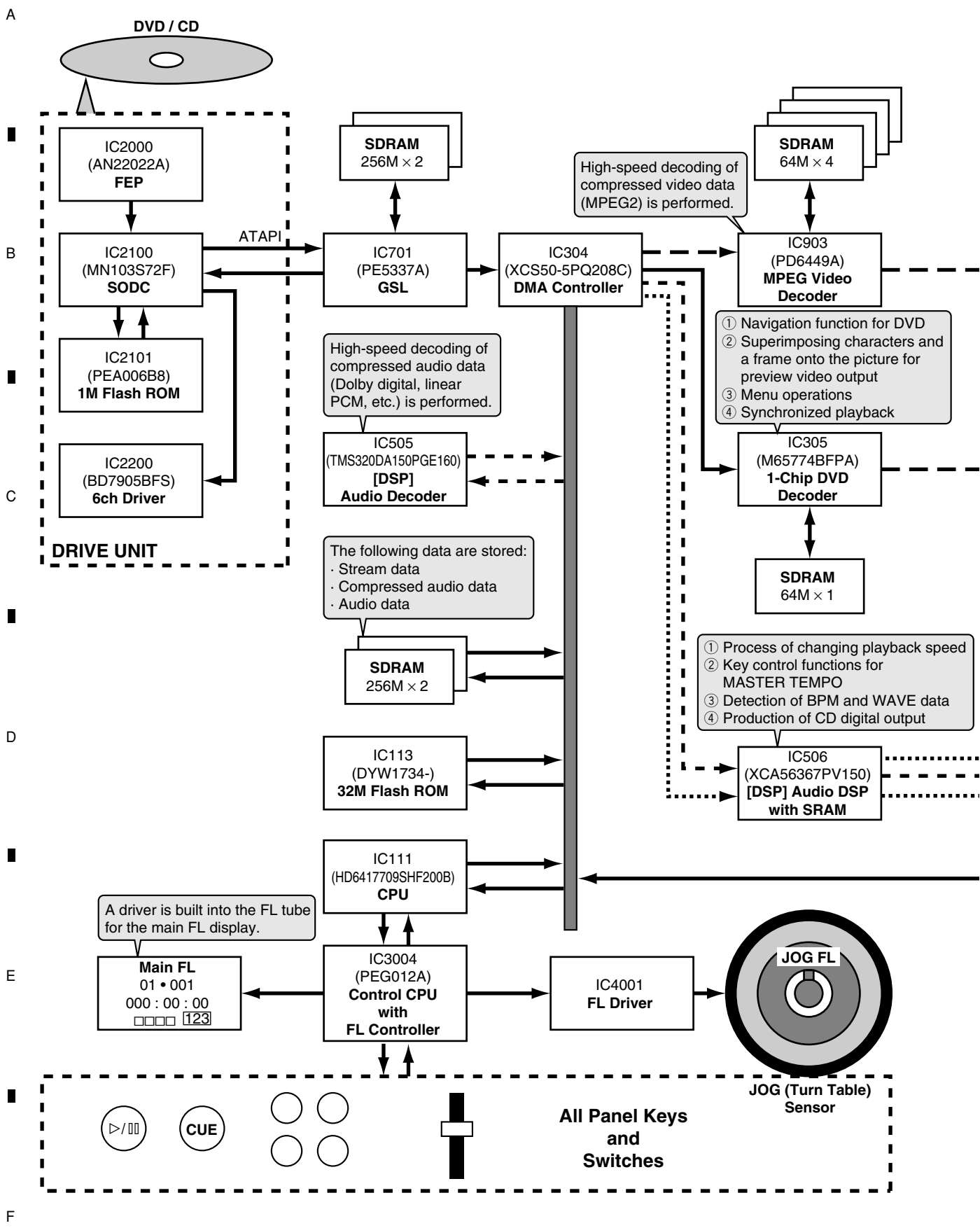
7

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8

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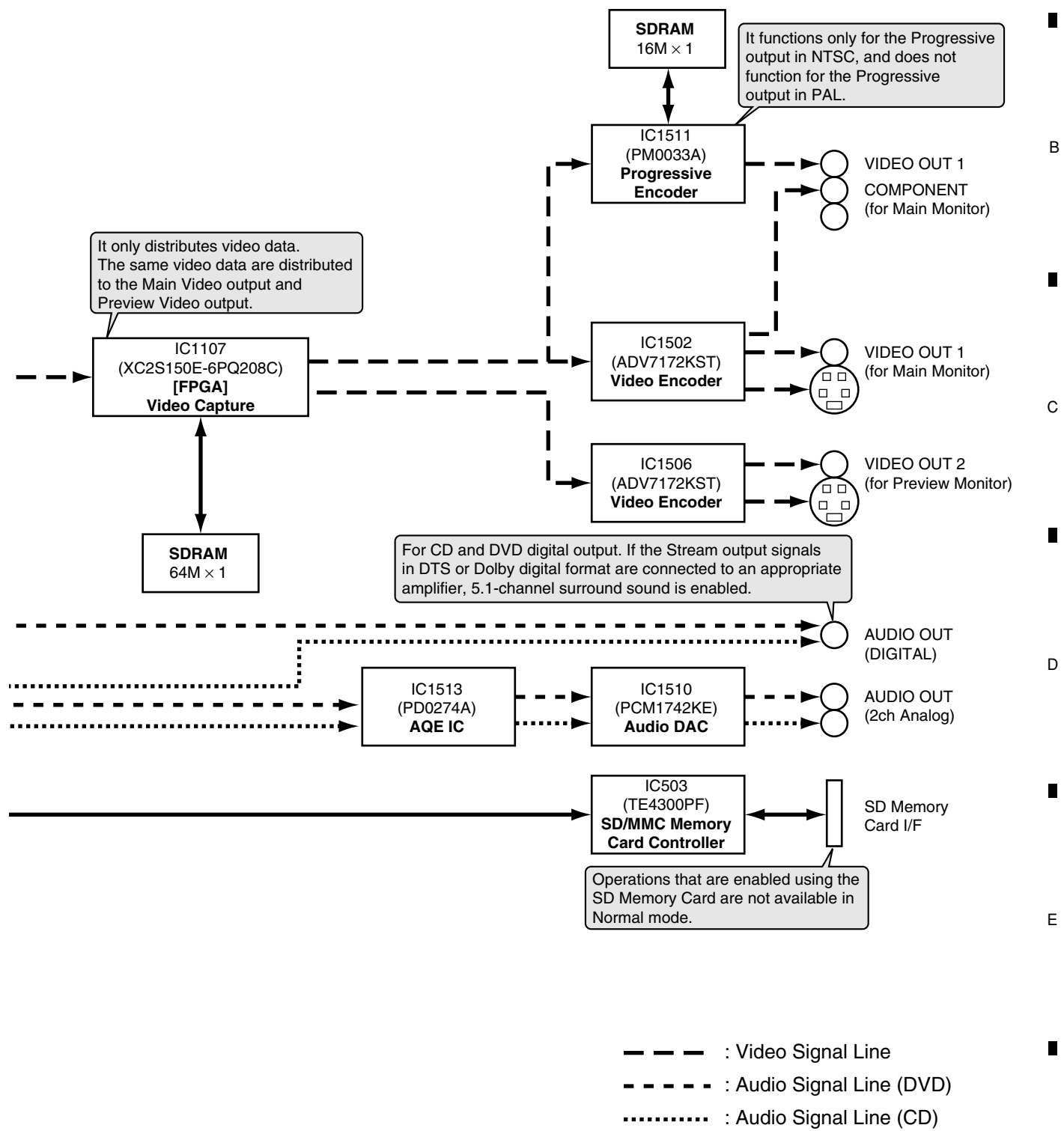
7.1.3 DVJ-X1 BLOCK CHART(DJ MODE)





△



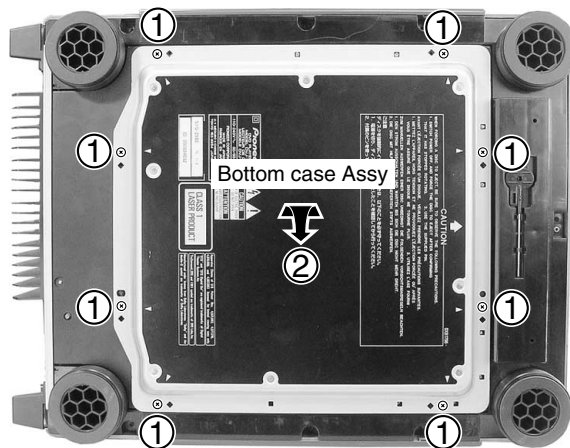


7.1.5 DISASSEMBLY

Diagnosis of the MAIN Assy

① Remove the eight screws.

② Open the bottom case Assy slightly with the MAIN Assy attached so that it can swing open hinged at the bottom.
(As the flexible cable to be removed in Step ③ below is not very long, be careful not to open the bottom case Assy too far.)

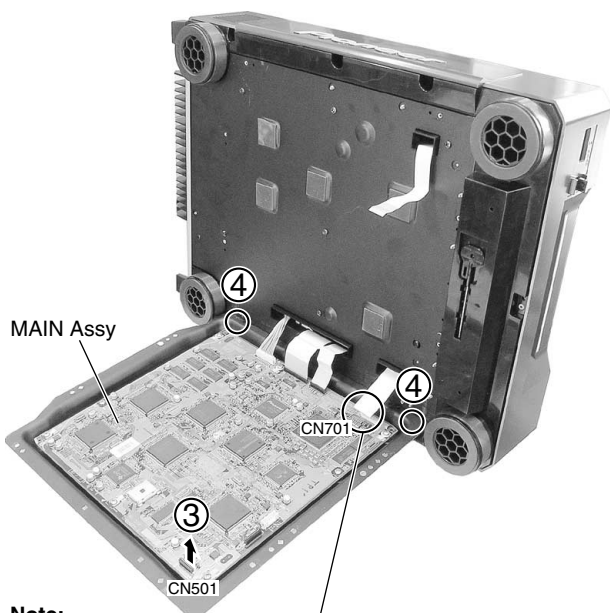


● Bottom view

→ Front side

③ Disconnect the flexible cable.

④ Hook the bottom case Assy onto the chassis, as shown in the photo below.



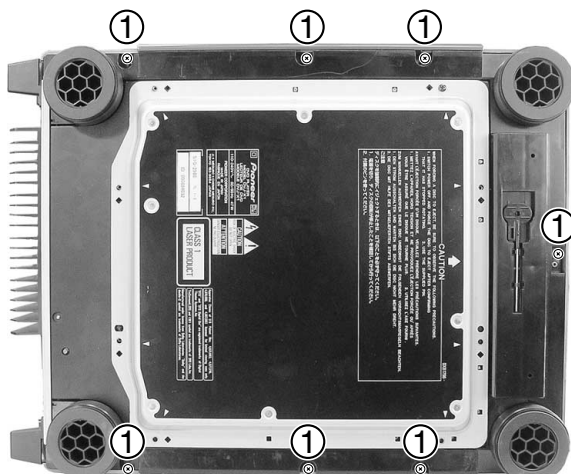
Note:

To reconnect the 40-pin flexible cable to the connector (CN701), hold the flexible cable with both hands and push it straight in.

Diagnosis

1 Diagnosis of the control panel section

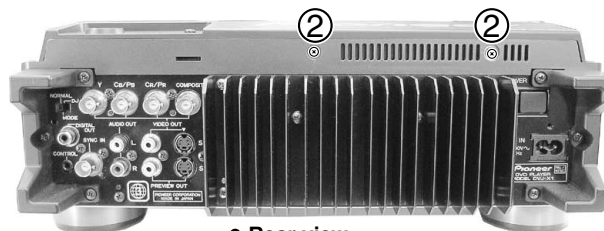
① Remove the seven screws.



● Bottom view

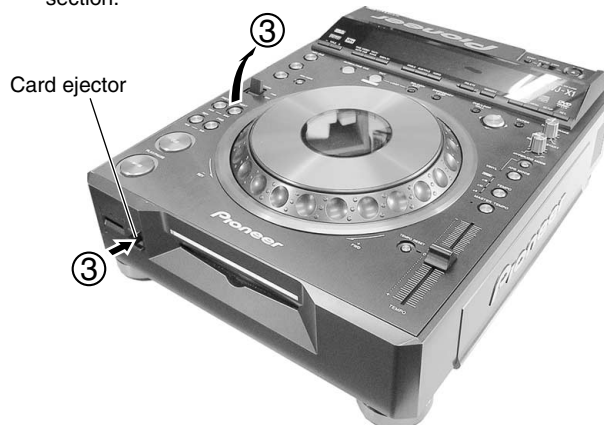
→ Front side

② Remove the two screws.

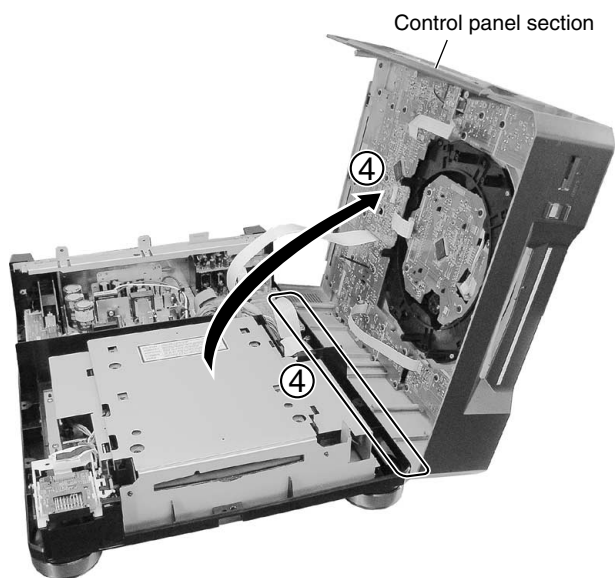


● Rear view

③ While holding card ejector pressed, detach the control panel section.

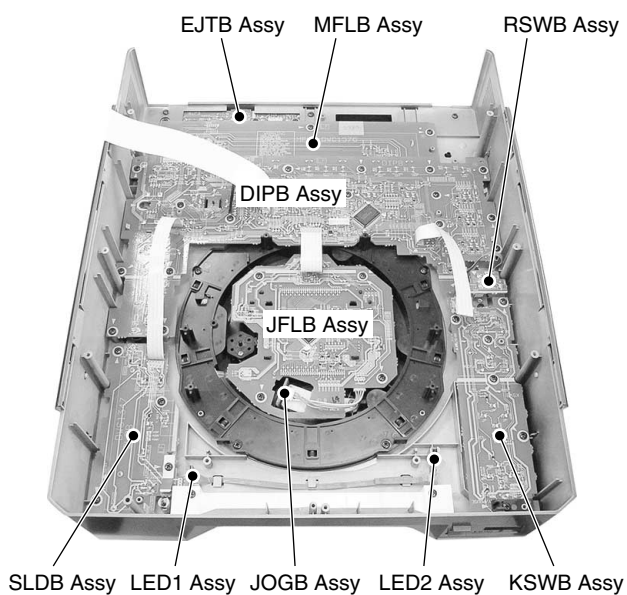


- ④ Hook the control panel section onto the chassis, as shown in the photo below.



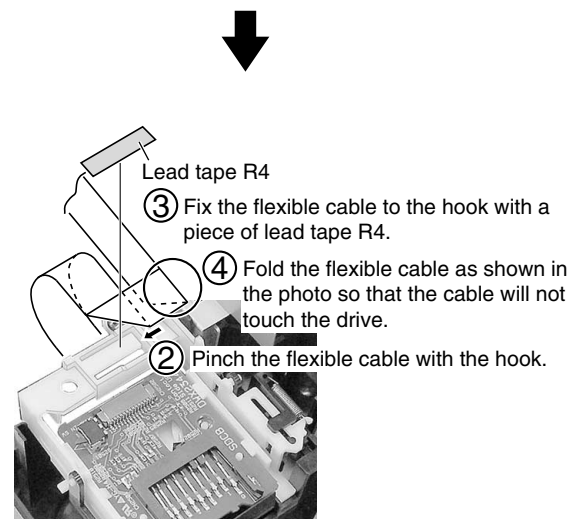
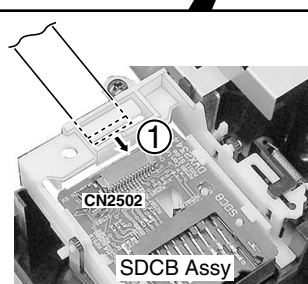
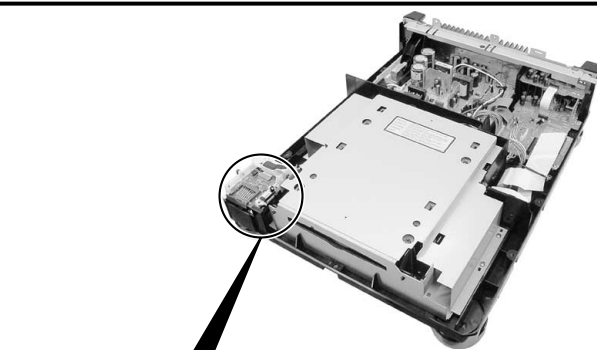
Diagnosis

• PCB location of the control panel section



• Bottom view

Styling the flexible cable of the SDCB Assy



Lead tape R4

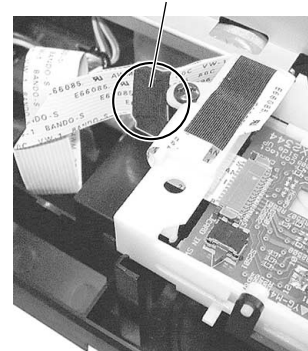
- ③ Fix the flexible cable to the hook with a piece of lead tape R4.

- ④ Fold the flexible cable as shown in the photo so that the cable will not touch the drive.

- ② Pinch the flexible cable with the hook.

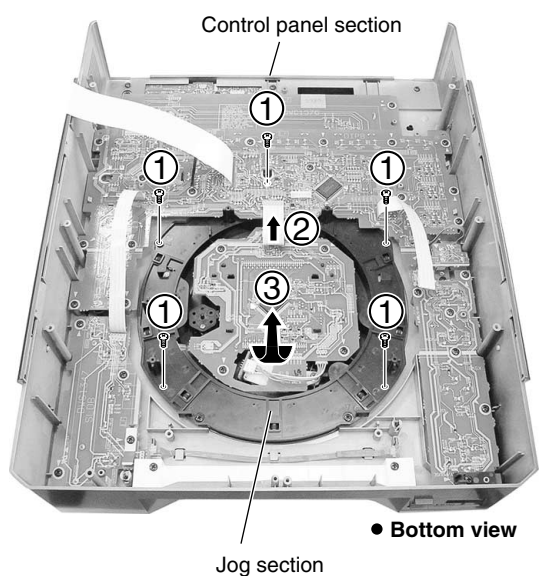
- ⑤ Fix the flexible cable to the lib section with a piece of lead tape R4.

Lead tape R4

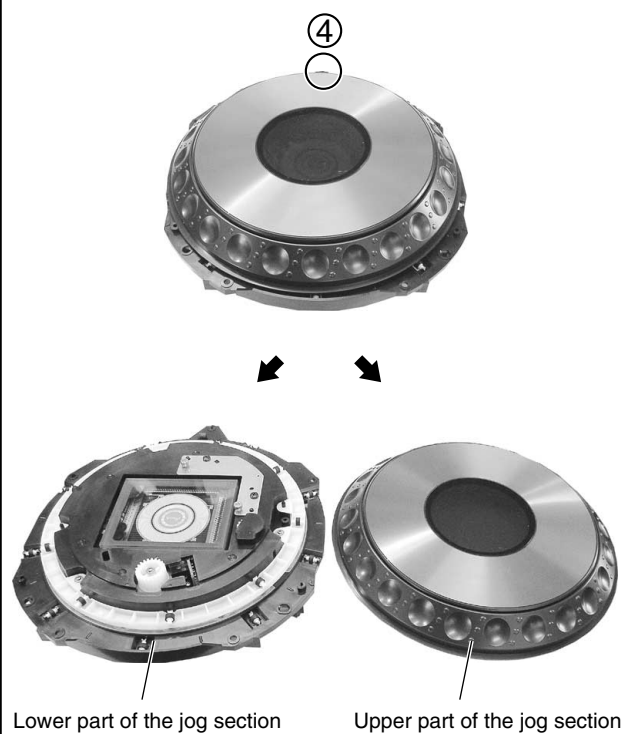


2 Jog section

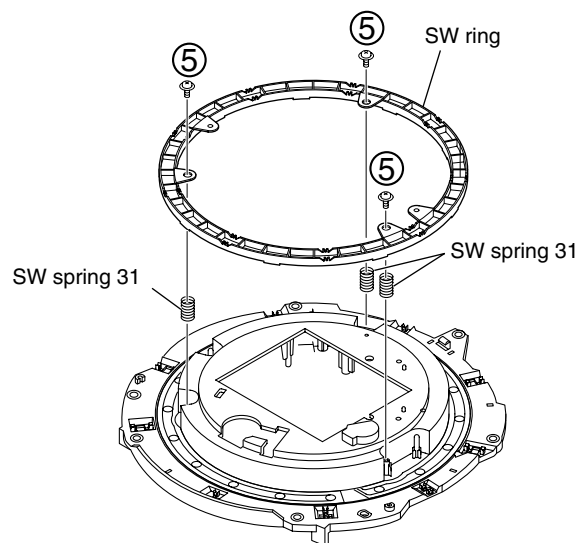
- ① Remove the five screws.
- ② Disconnect the flexible cable.
- ③ Remove the jog section by pulling it out toward front.



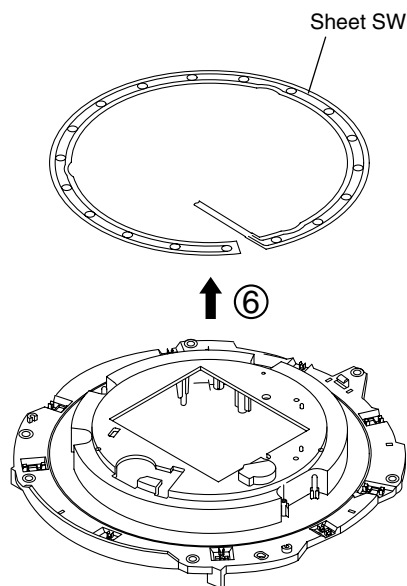
- ④ Unhook the upper part of the jog section.



- ⑤ Remove the SW ring by removing the three screws.



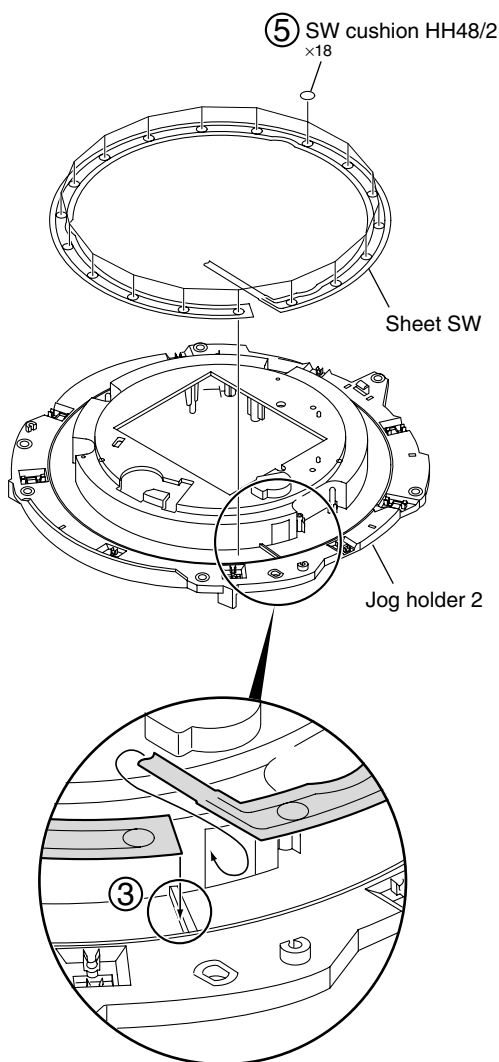
- ⑥ Peel the sheet SW off.



Exchange

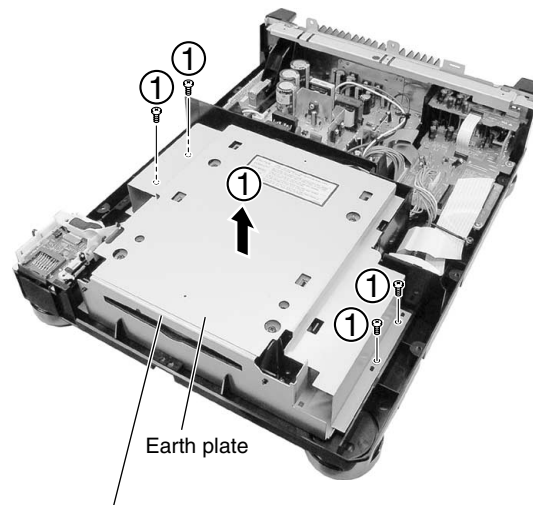
• Notes for replacing the sheet SW

- ① Do NOT warp the sheet SW.
- ② No dirt or foreign object must be attached to the adhering surface of jog holder 2. If glue remains on the adhering surface, remove it completely using alcohol.
- ③ When gluing on a new sheet SW, properly position it so that it will not ride on the rib of jog holder 2.
- ④ Evenly adhere the whole gluing face of the sheet SW, including the contact, to jog holder 2, taking care that there are no air bubbles in the glue. If there are air bubbles, leaving dry spots on the sheet SW, replace the sheet SW with a new one. Do NOT reuse the sheet SW.
- ⑤ Adhere the SW Cushion HH48/2 to their appointed positions.
- ⑥ Before plugging the flexible cable back into the connector of the sheet SW, be sure to release the lock of the connector of the JFLB Assy then lock it again after reconnection.



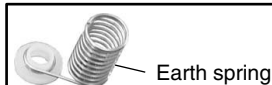
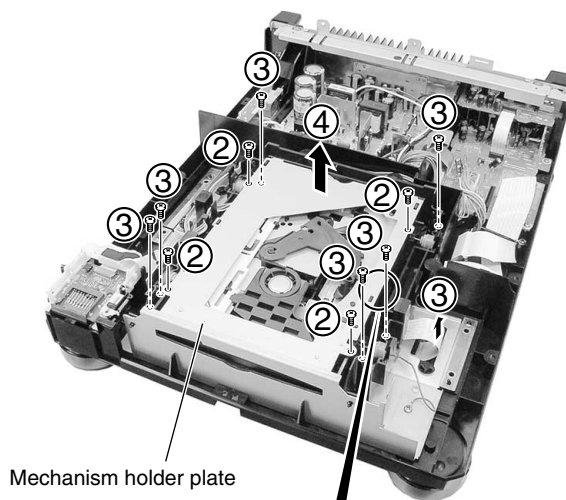
3 Player Section

- ① Remove the earth plate by removing the four screws.



As the earth plate for grounding is hooked to the front plate, be careful not to bump it against the front plate when removing it.

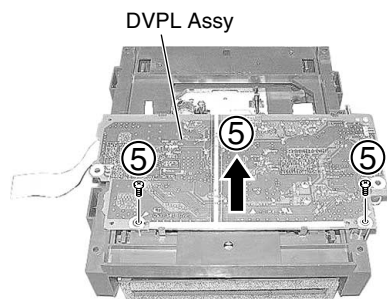
- ② Remove the mechanism holder plate by removing the four screws.
- ③ Remove the six screws and one flexible cable.
- ④ Remove the player section.



A earth spring is attached between the mechanism holder plate and the slot-in mechanism section. Be sure not to lose it.

A

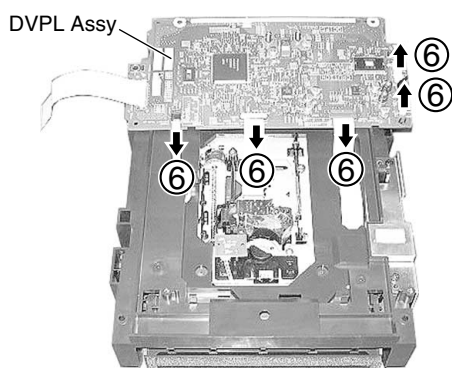
- ⑤ Remove the DVPL Assy by removing the two screws.



• Bottom view

B

- ⑥ Disconnect the two connectors and three flexible cables.



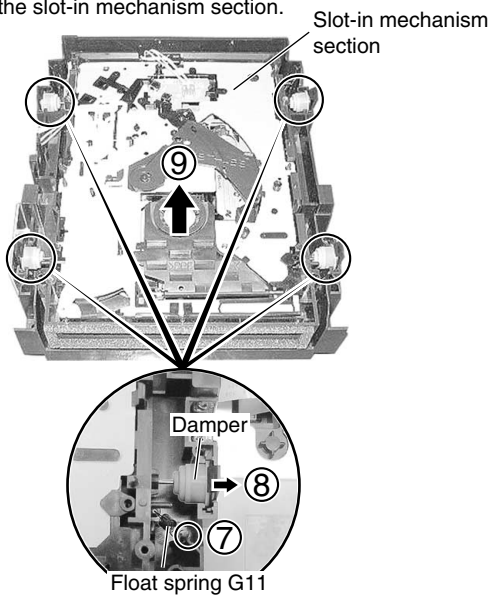
• Bottom view

C

- ⑦ Remove the four float spring G11s.

- ⑧ Remove the four dampers.

- ⑨ Remove the slot-in mechanism section.



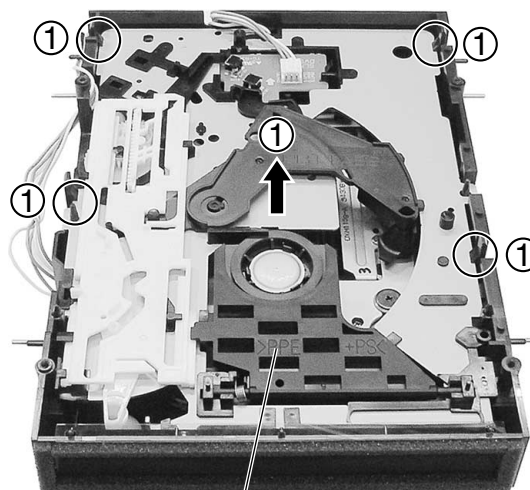
D

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4 Traverse mechanism G11 Assy-S

- ① Remove the slot-in mechanism G5 Assy by unhooking the four hooks.



Slot-in mechanism G5 Assy

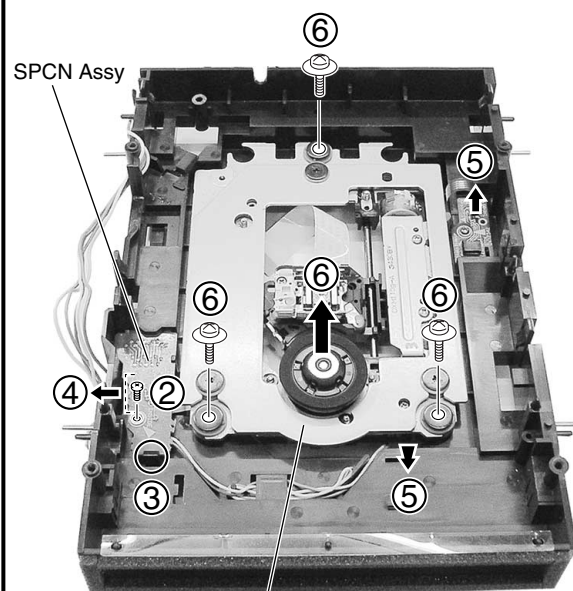
- ② Remove the screw.

- ③ Remove the SPCN Assy by unhooking the hook.

- ④ Disconnect the spindle motor flexible cable.

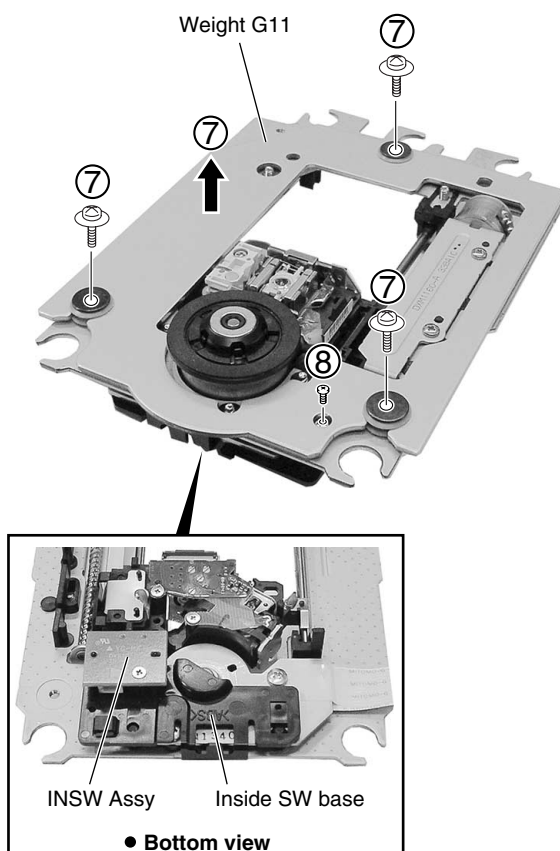
- ⑤ Disconnect the connector and the flexible cable.

- ⑥ Remove the traverse mechanism G11 Assy-S by removing the three screws.



Traverse mechanism G11 Assy-S

- ⑦ Remove the Weight G11 by removing the three screws.
- ⑧ Remove the INSW Assy and inside SW base by removing the screw.



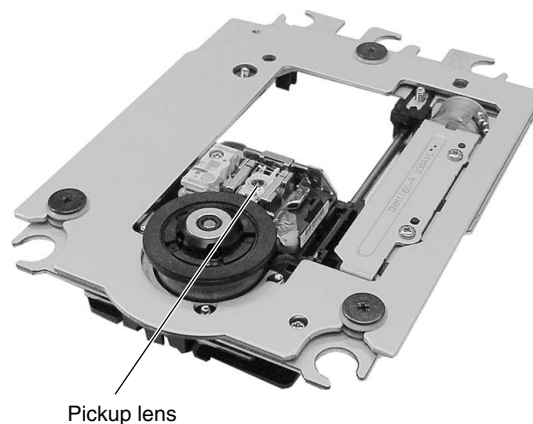
Exchange

● Cleaning the pickup lens



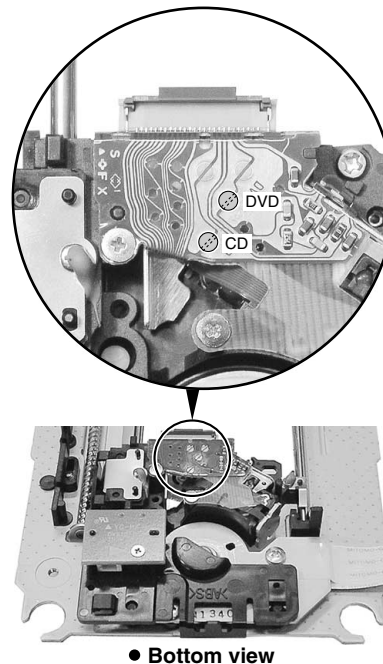
Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools :

Cleaning liquid : GEM1004
Cleaning paper : GED-008



● Short-circuited points on the pickup

On the service part of the traverse mechanism G11 Assy-S, the two points shown in the photo below are short-circuited by soldering to prevent current overload. After replacing the traverse mechanism G11 Assy-S with a new one, be sure to finish wiring of the pickup flexible cable then open those circuits by removing the solder.



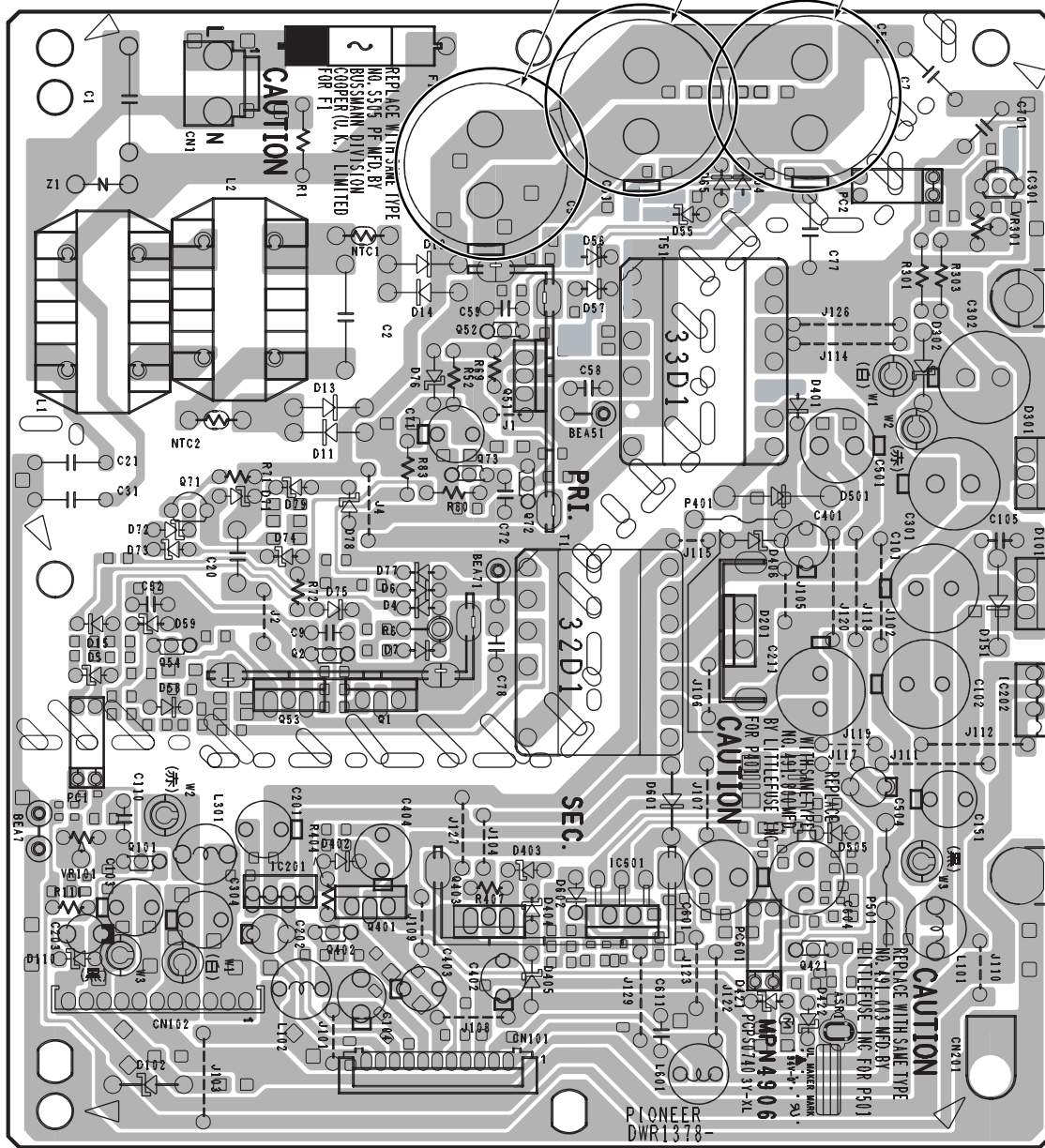
7.1.6 On Discharge of the Capacitor

If the power voltage of the capacitor (C52,C51,C5) in the SW POWER SUPPLY Assy is high (about 11 V) even one minute after the power is turned off.

The voltage will be no danger of electric shock.

V SW POWER SUPPLY ASSY

SIDE A



7.1.7 CLEANING



Before shipping out the product, be sure to clean the following positions by using the prescribed cleaning tools:

Position to be cleaned	Cleaning tools
Pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

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.

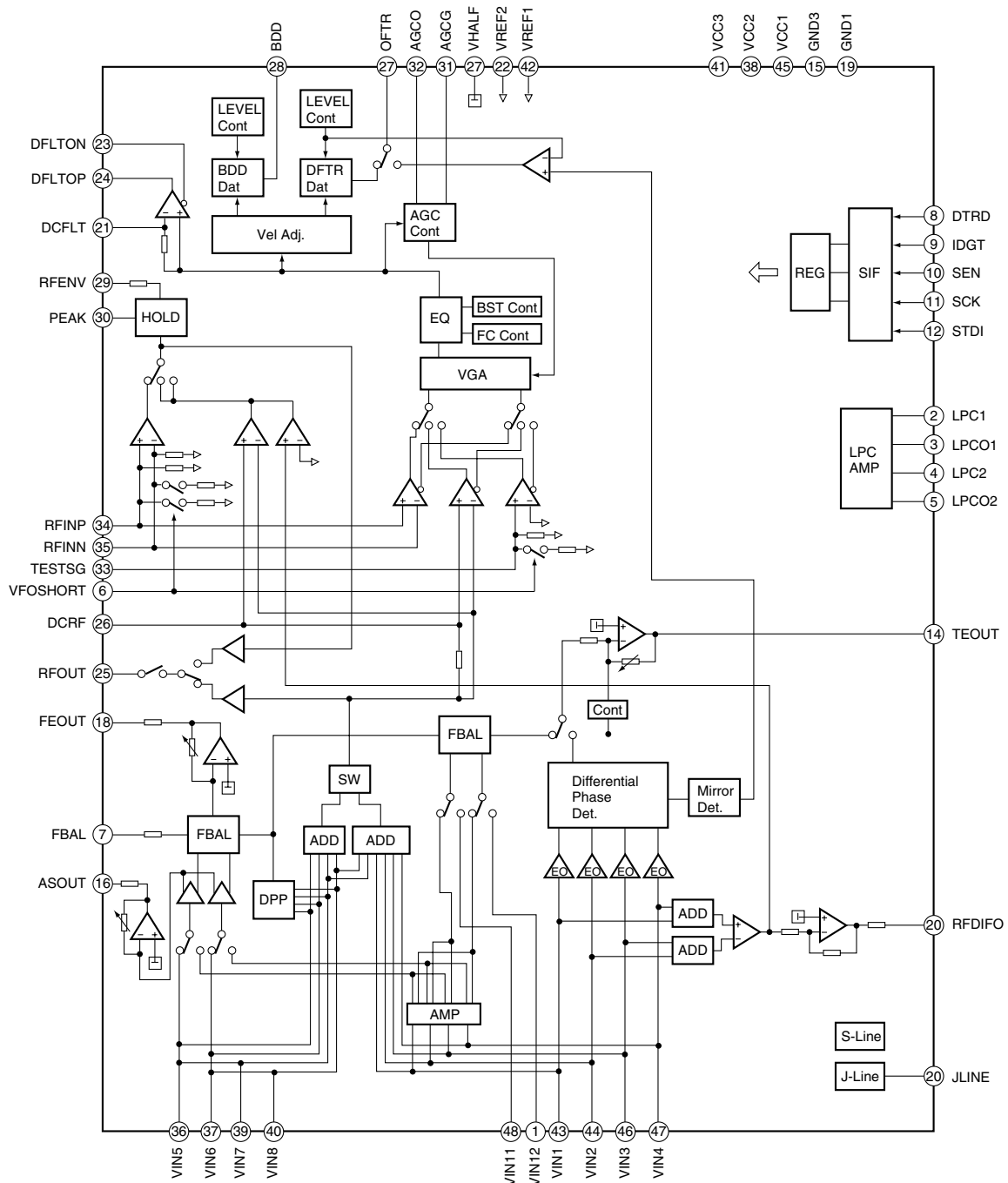
• List of IC

AN22022A, PEG012A, MN103S71F, HD6417709SHF200B

■ AN22022A (DVPL ASSY : IC2000)

- FEP

• Block Diagram



● Pin Function

No.	Pin Name	Pin Function
1	VIN12	3-beam sub (CD) input 2
2	LPC1	Laser pin input (DVD head)
3	LPCO1	Laser drive output (DVD head)
4	LPC2	Laser pin input (CD head)
5	LPCO2	Laser drive output (CD head)
6	VFOSHORT	VFOSHORT control
7	FBAL	Focus balance control
8	DTRD	Data read signal input of data slice (for RAM)
9	IDGT	Gate signal input of data slice-address block (for RAM)
10	SEN	Serial enable input
11	SCK	Serial clock input
12	STDI	Serial data input/output
13	JLINE	JLINE current setting
14	TEOUT	Tracking error signal output
15	GND3	Ground 3
16	ASOUT	All addition signal output
17	VHALF	VHALF voltage output
18	FEOUT	Focus error signal output
19	GND1	Ground 1
20	RFDIFO	Radial differential output
21	DCFLT	Capacitor connection pin for filter output
22	VREF2	VREF 2 voltage output
23	DFLTON	Filter amplifier inverting output
24	DFLTOP	Filter amplifier non-inverting output
25	RFOUT	RF all addition amplifier output
26	DCRF	Filter pin for DC cut of RF addition amplifier
27	OFTR	OFTR output
28	BDO	BDO output
29	RFENV	RF envelope output
30	PEAK	Peak envelope detecting filter
31	AGCG	AGC amplifier gain control
32	AGCO	AGC amplifier level control
33	TESTSG	TEST signal input
34	RFINP	RF signal non-inverting input
35	RFINN	RF signal inverting input
36	VIN5	RF input pin 1 of inside division into 4 (CD)
37	VIN6	RF input pin 2 of inside division into 4 (CD)
38	VCC2	Power supply pin 2 (5V)
39	VIN7	RF input pin 3 of inside division into 4 (CD)
40	VIN8	RF input pin 4 of inside division into 4 (CD)
41	VCC3	Power supply pin 3 (3.3V)
42	VREF1	VREF1 voltage output
43	VIN1	RF input pin 1 of inside division into 4 (DVD)
44	VIN2	RF input pin 2 of inside division into 4 (DVD)
45	VCC1	Power supply pin 1 (5V)
46	VIN3	RF input pin 3 of inside division into 4 (DVD)
47	VIN4	RF input pin 4 of inside division into 4 (DVD)
48	VIN1	3-beam sub (CD) input 1

■ PEG012A (DIPB ASSY : IC3004)

- Control CPU with FL Controller

● Pin Function

No.	Mark	Pin Name	I/O	Pin Function
1	P96 /ANEX1 /SOUT4	VOL0	I/O	VINYL SPEED ADJUST input TOUCH/BRAKE AD port
2	P95 /ANEX0 /CLK4	VOL1	I/O	VINYL SPEED ADJUST input RELEASE/START AD port
3	P94 /DA1 /TB4IN	JOG1	I/O	Not used (connect to JOG1)
4	P93 /DA0 /TB3IN	JOG1	I/O	Pulse period measurement processing
5	P92 /TB2IN /SOUT3		I/O	
6	P91 /TB1IN /SIN3		I/O	
7	P90 /TB0IN /CLK3		I/O	
8	BYTE	BYTE	I	Connect to Vss when does not use external data bus.
9	CNVss		–	Processor mode switch Single chip mode: connect to Vss (pull_down)
10	P87 /XCIN		I/O	Not used (connect to GND)
11	P86 /XCOUT		I/O	Not used (connect to GND)
12	XRESET		I	Reset input
13	Xout		O	Oscillator output (16MHz)
14	Vss		–	GND
15	Xin		I	Oscillator input (16MHz)
16	Vcc		–	+5V
17	P85 /XNMI		I	Not used (external pull-up resistor)
18	P84 /XINT2		I/O	Not used (connect to Vcc)
19	P83 /XINT1		I/O	Not used (connect to Vcc)
20	P82 /XINT0		I/O	Not used (connect to Vcc)
21	P81 /TA4IN /XU		I/O	Not used (connect to Vcc)
22	P80 /TA4OUT /U		I/O	Not used (connect to Vcc)
23	P77 /TA3IN	JOG2	I/O	Two-phase pulse signal input
24	P76 /TA3OUT	JOG1	I/O	Two-phase pulse signal input Up count (clockwise), down count (counterclockwise) at falling edge
25	P75 /TA2IN /XW		I/O	Not used (connect to Vcc)
26	P74 /TA2OUT /W		I/O	Not used (connect to Vcc)
27	P73 /XCTS2 /XRTS2/TA1IN/XV		I/O	Not used (connect to Vcc)
28	P72 /CLK2 /TA1OUT/V	J_SCLK	I/O	Serial clock signal (about 400kHz) for JOGFL
29	P71 /RxD2 /SCL/TA0IN/TB5IN		I/O	Not used (set the Low to output for NC), N ch open-drain output port
30	P70 /TXD2 /SDA/TA0OUT	J_SDO	I/O	Serial data signal for JOG FL N ch open-drain output port
31	P67 /TXD1	FL_SDO	I/O	Serial data signal for operating FL
32	P66 /RxD1		I/O	Not used
33	P65 /CLK1	FL_SCLK	I/O	Serial clock signal for operating FL (about 1.6MHz)
34	P64 /XCTS1 /XRTS1/XCLKS1		I/O	Not used
35	P63 /TXD0	SDO	I/O	Communication with main MPU
36	P62 /RxD0	SDI	I/O	Communication with main MPU External pull-up resistor (Insert it before buffer)
37	P61 /CLK0	CLK	I/O	Communication with main MPU (about 1MHz)
38	P60 /XCTS0 /XRTS0	XCS	I/O	Communication with main MPU
39	P57 /XRDY /CLKOUT	SRDY	I/O	Communication with main MPU External pull-down resistor (Insert it before buffer)
40	P56 /ALE		I/O	Not used (set the Low to output for NC)
41	P55 /XHOLD		I/O	Not used External pull-down resistor
42	P54 /XHLDA	FL_LAT	I/O	Latch signal for operating FL External pull-down resistor
43	P53 /BCLK	FL_BK	I/O	Blank signal for operating FL External pull-up resistor
44	P52 /XRD	J_XSTB	I/O	Strobe signal for JOG FL External pull-up resistor
45	P51 /XWRH /XBHE	J_BLK	I/O	Blank signal for JOG FL External pull-up resistor
46	P50 /XWRL	/XWR	I/O	Not used External pull-up resistor
47	P47 /XCS3	TCH	I/O	JOG touch sensor
48	P46 /XCS2		I/O	Not used
49	P45 /XCS1		I/O	Not used

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No.	Mark	Pin Name	I/O	Pin Function
50	P44 /XCS0		I/O	Not used
51	P43 /A19	TEMPO6	I/O	TEMPO 0 LED 1: Lighting/0: Lights out
52	P42 /A18	TEMPO10	I/O	TEMPO 1 LED 1: Lighting/0: Lights out
53	P41 /A17	TEMPO16	I/O	TEMPO 2 LED 1: Lighting/0: Lights out
54	P40 /A16	TEMPOWIDE	I/O	TEMPO 3 LED 1: Lighting/0: Lights out
55	P37 /A15	MMCL	I/O	CADE LED 1: Lighting/0: Lights out
56	P36 /A14	CUEL	I/O	CUE LED 1: Lighting/0: Lights out
57	P35 /A13	PLAYL	I/O	PLAY/PAUSE LED 1: Lighting/0: Lights out
58	P34 /A12	REVERSE	I/O	DIRECTION REV LED 1: Lighting/0: Lights out
59	P33 /A11	CGREEN	I/O	HOT CUE (C) green LED 1: Lighting/0: Lights out
60	P32 /A10	CRED	I/O	HOT CUE (C) red LED 1: Lighting/0: Lights out
61	P31 /A9	CANBER	I/O	HOT CUE (C) amber LED 1: Lighting/0: Lights out
62	Vcc	+V5	–	Power supply
63	P30 /A8(/-/D7)	BGREEN	I/O	HOT CUE (B) green LED 1: Lighting/0: Lights out
64	Vss	GND	–	GND
65	P27 /A7(/D7/D6)	BRED	I/O	HOT CUE (B) red LED 1: Lighting/0: Lights out
66	P26 /A6(/D6/D5)	BANBER	I/O	HOT CUE (B) amber LED 1: Lighting/0: Lights out
67	P25 /A5(/D5/D4)	AGREEN	I/O	HOT CUE (A) green LED 1: Lighting/0: Lights out
68	P24 /A4(/D4/D3)	ARED	I/O	HOT CUE (A) red LED 1: Lighting/0: Lights out
69	P23 /A3(/D3/D2)	AANBER	I/O	HOT CUE (A) amber LED 1: Lighting/0: Lights out
70	P22 /A2(/D2/D1)	TRESL	I/O	TEMPO RESET LED 1: Lighting/0: Lights out
71	P21 /A1(/D1/D0)	MT	I/O	MASTER TEMPO LED 1: Lighting/0: Lights out
72	P20 /A0(/D0/-)	VINYL	I/O	JOG MODE(VINYL) LED 1: Lighting/0: Lights out
73	P17 /D15 /XINT5	LOCK	I/O	EJECT LOCK SW
74	P16 /D14 /XINT4	XREV	I/O	DIRECTION SW
75	P15 /D13 /XINT3		I/O	Not used
76	P14 /D12	JOGX2LED	I/O	HYPER JOG LED 1: Lighting/0: Lights out
77	P13 /D11	LIN	I/O	IN/REALTIME CUE LED 1: Lighting/0: Lights out
78	P12 /D10	LOUT	I/O	OUT/OUT ADJUST LED 1: Lighting/0: Lights out
79	P11 /D9	JOGX2SW	I/O	HYPER JOG SW
80	P10 /D8		I/O	Not used
81	P07 /D7		I/O	Not used (connect to GND)
82	P06 /D6		I/O	Not used (connect to GND)
83	P05 /D5		I/O	Not used (connect to GND)
84	P04 /D4		I/O	Not used (connect to GND)
85	P03 /D3		I/O	Not used (connect to GND)
86	P02 /D2		I/O	Not used (connect to GND)
87	P01 /D1		I/O	Not used (connect to GND)
88	P00 /D0		I/O	Not used (connect to GND)
89	P107 /AN7 /XKI3	ADCT	I/O	Tempo slider input AD port
90	P106 /AN6 /XKI2	ADIN	I/O	Tempo slider input AD port
91	P105 /AN5 /XKI1	MODEL	I/O	Destination setting AD port
92	P104 /AN4 /XKI0	KEY4	I/O	Key input AD port
93	P103 /AN3	KEY3	I/O	Key input AD port
94	P102 /AN2	KEY2	I/O	Key input AD port
95	P101 /AN1	KEY1	I/O	Key input AD port
96	AVSS GND		–	GND for A_D converter
97	P100 /AN0	KEY0	I/O	Key input AD port
98	VREF	+5V	–	Reference voltage input for A_D converter
99	AVcc	+5V	–	Power supply input for A_D converter
100	P97 /XADTRG /SIN4		I/O	Not used (set the Low to output for NC)

MN103S71F (DVPL ASSY : IC2100)

• SODC

● Pin Function

No.	Mark	Pin Name	I/O	Pin Function
1	P2	XDMUTE1	O	Driver IC mute control
2	P3	XDMUTE2	O	Driver IC mute control
3	P4/EXCNT0	ILMUSK	I	Connect to VSS
4	VDD3	VDD3	–	Power supply (VD3V)
5	VSS	VSS	–	GNDD
6	P5/EXCNT1	INSIDE	I	Inside SW input of servo mechanism (L: ON)
7	P6/NSPCCS	GSW	O	PU LD lighting selection (L: DVD H: CD)
8	P7/FADR17	FADR17/NSP	O	Address output to FLASH ROM
9	P8/FADR18	P8/FADR18	O	Address output to FLASH ROM
10	FADR11	FADR11	O	Address output to FLASH ROM
11	FADR9	FADR9	O	Address output to FLASH ROM
12	VDD15	VDD15	–	Power supply (VD1R5)
13	FADR8	FADR8	O	Address output to FLASH ROM
14	FADR13	FADR13	O	Address output to FLASH ROM
15	FADR14	FADR14	O	Address output to FLASH ROM
16	NWE	NWE	O	Write enable output to FLASH ROM
17	FADR16	FADR16	O	Address output to FLASH ROM
18	FADR15	FADR15	O	Address output to FLASH ROM
19	DRAMVDD15	DRAMVDD15	–	DRAM power supply (DRAMD1R5)
20	DRAMVSS	DRAMVSS	–	GND for DRAM
21	VSS	VSS	–	GNDD
22	FADR12	FADR12	O	Address output to FLASH ROM
23	FADR7	FADR7	O	Address output to FLASH ROM
24	FADR6	FADR6	O	Address output to FLASH ROM
25	FADR5	FADR5	O	Address output to FLASH ROM
26	FADR4	FADR4	O	Address output to FLASH ROM
27	FADR3	FADR3	O	Address output to FLASH ROM
28	FADR2	FADR2	O	Address output to FLASH ROM
29	FADR1	FADR1	O	Address output to FLASH ROM
30	FADR0	FADR0	O	Address output to FLASH ROM
31	VSS	VSS	–	GNDD
32	VDD3	VDD3	–	Power supply (VD3V)
33	FDT0	FDT0	I/O	Data input/output to FLASH ROM
34	FDT1	FDT1	I/O	Data input/output to FLASH ROM
35	FDT2	FDT2	I/O	Data input/output to FLASH ROM
36	FDT3	FDT3	I/O	Data input/output to FLASH ROM
37	FDT4	FDT4	I/O	Data input/output to FLASH ROM
38	FDT5	FDT5	I/O	Data input/output to FLASH ROM
39	FDT6	FDT6	I/O	Data input/output to FLASH ROM
40	FDT7	FDT7	I/O	Data input/output to FLASH ROM
41	NCE	NCE	O	Chip enable output to FLASH ROM
42	FADR10	FADR10	O	Address output to FLASH ROM
43	NOE	NOE	O	Output enable to FLASH ROM
44	MMOD	MMOD	I	Connect to VSS
45	NRST	NRST	I	Hardware reset input
46	VSS	VSS	–	GNDD
47	SCLOCK	SCLOCK	I/O	NC
48	SDATA	SDATA	I/O	NC
49	TxD/EXTRG0/MDATA	TXD	I/O	NC

A

B

C

D

E

F

No.	Mark	Pin Name	I/O	Pin Function
50	RxD/EXTRG1/MCLOCK	RXD	I/O	NC
51	VDD3	VDD3	–	Power supply (VD3V)
52	OSCI	OSCI	I	Oscillator input
53	OSCO	OSCO	O	Oscillator output (16.93MHz)
54	VSS	VSS	–	GNDD
55	DRV0	DRV0(VRCAP)	O	NC
56	DRV1	DRV1(SPDRV)	O	Spindle motor control
57	DRV2	DRV2(FBAL)	O	Focus balance control
58	DRV3	DRV3(TBAL)	O	NC
59	DRV4	DRV4(STPM1P)	O	Stepping motor control
60	DRV5	DRV5(STPM1N)	O	Stepping motor control
61	DRV6	DRV6	O	NC
62	DRV7	DRV7	O	NC
63	VSS	VSS	–	GNDD
64	DRV8	DRV8(FCSG)	O	NC
65	DRV9	DRV9	O	PU monitor current DVD selection (H: ON, L: OFF)
66	DRV10	DRV10	O	PU monitor current CD selection (H: ON, L: OFF)
67	DRV11	DRV11(LOAD)	O	Loading motor control
68	DRV12	DRV12(FEPCCK)	O	Clock output to FEP
69	DRV13	DRV13(FEPDT)	I/O	Data input/output to FEP
70	DRV14	DRV14(FEPEN)	O	Enable output to FEP
71	DRAMVSS	DRAMVSS	–	GND for DRAM
72	DRAMVDD15	DRAMVDD15	–	DRAM power supply (DRAMD1R5)
73	DRAMVDD33	DRAMVDD33	–	Power supply (VD3V)
74	VDD3	VDD3	–	Power supply (VD3V)
75	FG	FG	I	Spindle motor FG input
76	TX	TX	O	NC
77	VDD15	VDD15	–	Power supply (VD1R5)
78	VSS	VSS	–	GNDD
79	TSTSG	TSTSG	O	EQ calibration signal to FEP
80	VFOSHORT	VFOSHORT	O	VFO short control
81	JLINE	JLINE	O	NC
82	BDO	BDO	I	BDO (black dot out) input
83	OFTR	OFTR	I	OFTR (off track) input
84	AVSSD	AVSSD	–	GNDA
85	ROUT	ROUT	O	NC
86	LOUT	LOUT	O	NC
87	AVDDD	AVDDD	–	Power supply (VA3V)
88	VCOF	VCOF	I	VCO control voltage
89	TRCRS	TRCRS	I	Input for TRCRS (track cross) generation
90	AVDDC	AVDDC	–	Power supply (VA3V)
91	WBLIN	WBLIN	I	Connect to VSS
92	CSLFLT	CSLFLT	I	NC
93	RFDIF	RFDIF	I	NC
94	AVSSC	AVSSC	–	GNDA
95	PLFLT2	PLFLT2	I	Connect a capacitor for PLL
96	PLFLT1	PLFLT1	I	Connect a capacitor for PLL
97	AVSSB	AVSSB	–	GNDA
98	ARF	ARF	I	RF+ input
99	NARF	NARF	I	RF- input
100	VHALF	VHALF	I	Reference voltage (1.65V) input

No.	Mark	Pin Name	I/O	Pin Function
101	RVI	RVI	I	VREFH reference voltage/current control
102	VREFH	VREFH	I	Reference voltage (2.2V) input
103	DSLIF2	DSLIF2	I	Connect a capacitor for DSL (data slicer)
104	DSLIF1	DSLIF1	I	Connect a capacitor for DSL (data slicer)
105	AVDDDB	AVDDDB	–	Power supply (VA3V)
106	JITOUT	JITOUT	O	Jitter monitor output
107	AVDDA	AVDDA	–	Power supply (VA3V)
108	TECAPA	TECAPA	I	NC
109	AD0	AD0(FE)	I	Focus error input
110	AD2	AD2(AS)	I	RFAS input
111	AD1	AD(TE)	I	Tracking error input
112	AD3	AD3(RFENV)	I	RF envelope input
113	AD4	AD4(RFDIF)	I	Radial differential input
114	AD5	AD5(FEDRV)	I	Focus drive input
115	AD6	AD6(TEDRV)	I	Tracking drive input
116	AD7	AD7(T+)	I	Connect to VSS
117	AD8	AD8(T-)	I	Connect to VSS
118	AVSSA	AVSSA	–	GNDA
119	PWM0	PWM0	O	Focus drive control
120	PWM1	PWM1	O	Tracking drive control
121	VSS	VSS	–	GNDD
122	VDD3	VDD3	–	Power supply (VD3V)
123	IDGT	IDGT	O	NC
124	DTR	DTR	O	NC
125	MONI0/P9	BUSY/MONI0	I/O	Monitor output
126	MONI1/P10	NAMUTE/MONI1	I/O	Monitor output
127	MONI2/P11	NDMUTE1/MONI2	I/O	Monitor output
128	MONI3/P12	NDMUTE2/MONI3	I/O	Monitor output
129	MSTPOL/MONI4	MSTPOL/MONI4	I	
130	DASPST/MONI5	DASPST/MONI5	I	Connect to VSS
131	NEJECT/MONI6	NEJECT/MONI6	O	NC
132	NTRYCL/MONI7	NTRYCL/MONI7	O	NC
133	DMARQ	DMARQ	O	DMA request output to the host
134	NIOWR	NIOWR	I	Host write input
135	VDD3	VDD3	–	Power supply (VD3V)
136	VSS	VSS	–	GNDD
137	NIORD	NIORD	I	Host read input
138	IODRY	IODRY	O	Ready output to the host
139	NDMACK	NDMACK	I	Host DMA acknowledge input
140	INTRQ	INTRQ	O	Interruption output to the host
141	NIOCS16	NIOCS16	O	Data bus width selection
142	DA1	DA1	I	Address input
143	NPDIAG	NPDIAG	I/O	
144	DA0	DA0	I	Address input
145	VSS	VSS	–	GNDD
146	VDD3	VDD3	–	Power supply (VD3V)
147	DA2	DA2	I	Address input
148	NCS1FX	NCS1FX	I	Chip select input
149	NCS3FX	NCS3FX	I	Chip select input
150	NDASP	NDASP	I/O	
151	HDD15	HDD15	I/O	Data input/output

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No.	Mark	Pin Name	I/O	Pin Function
152	HDD0	HDD0	I/O	Data input/output
153	HDD14	HDD14	I/O	Data input/output
154	HDD1	HDD1	I/O	Data input/output
155	HDD13	HDD13	I/O	Data input/output
156	VDD3	VDD3	–	Power supply (VD3V)
157	VDD15	VDD15	–	Power supply (VD1R5)
158	VSS	VSS	–	GNDD
159	HDD2	HDD2	I/O	Data input/output
160	HDD12	HDD12	I/O	Data input/output
161	HDD3	HDD3	I/O	Data input/output
162	HDD11	HDD11	I/O	Data input/output
163	HDD4	HDD4	I/O	Data input/output
164	HDD10	HDD10	I/O	Data input/output
165	HDD5	HDD5	I/O	Data input/output
166	VSS	VSS	–	GNDD
167	VDD3	VDD3	–	Power supply (VD3V)
168	HDD9	HDD9	I/O	Data input/output
169	HDD6	HDD6	I/O	Data input/output
170	HDD8	HDD8	I/O	Data input/output
171	HDD7	HDD7	I/O	Data input/output
172	VDDH	VDDH	–	Power supply (VD5V)
173	NRESET	NRESET	I	Reset input from the host
174	MASTER	MASTER	I	Connect to VSS
175	P0/SERIAL	LPS1	I	Loading mecha SW input
176	P1/SERIAL	LPS2	I	Loading mecha SW input

D

E

F

HD6417709SHF200B (MAIN ASSY : IC111)

• CPU

Pin Function

No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
1	MD1	I	Clock mode setting	48	D4	I/O	Data bus
2	MD2	I	Clock mode setting	49	D3	I/O	Data bus
3	Vcc-RTC	–	Power supply for RTC (2.0V)	50	D2	I/O	Data bus
4	XTAL2	O	NC	51	D1	I/O	Data bus
5	EXTAL2	I	Vcc	52	D0	I/O	Data bus
6	Vss-RTC	–	Power supply for RTC (0V)*1	53	A0	I/O	Address bus
7	NMI	I	pull down	54	A1	I/O	Address bus
8	TI_BSREQ	I	Input data request of TI DSP	55	A2	I/O	Address bus
9	TI_PCMREQ	I	Output data request of TI DSP	56	A3	I/O	Address bus
10	–	I	pull-up	57	VssQ	–	Power supply for input/output (0V)
11	–	I	pull-up	58	A4	I/O	Address bus
12	DIS_REQ	I	Reception completion interrupt of operation block data	59	VccQ	–	Power supply for input/output (3.3V)
13	D31	I/O	Data bus	60	A5	I/O	Address bus
14	D30	I/O	Data bus	61	A6	I/O	Address bus
15	D29	I/O	Data bus	62	A7	I/O	Address bus
16	D28	I/O	Data bus	63	A8	I/O	Address bus
17	D27	I/O	Data bus	64	A9	I/O	Address bus
18	D26	I/O	Data bus	65	A10	I/O	Address bus
19	VssQ	–	Power supply for input/output (0V)	66	A11	I/O	Address bus
20	D25	I/O	Data bus	67	A12	I/O	Address bus
21	VccQ	–	Power supply for input/output (3.3V)	68	A13	I/O	Address bus
22	D24	I/O	Data bus	69	VssQ	–	Power supply for input/output (0V)
23	D23	I/O	Data bus	70	A14	I/O	Address bus
24	D22	I/O	Data bus	71	VccQ	–	Power supply for input/output (3.3V)
25	D21	I/O	Data bus	72	A15	I/O	Address bus
26	D20	I/O	Data bus	73	A16	I/O	Address bus
27	Vss	–	Power supply (0V)	74	A17	I/O	Address bus
28	D19	I/O	Data bus	75	A18	I/O	Address bus
29	Vcc	–	Power supply (2.0V)	76	A19	I/O	Address bus
30	D18	I/O	Data bus	77	A20	I/O	Address bus
31	D17	I/O	Data bus	78	A21	I/O	Address bus
32	D16	I/O	Data bus	79	–	–	–
33	VssQ	–	Power supply for input/output (0V)	80	A22	I/O	Address bus
34	D15	I/O	Data bus	81	–	–	–
35	VccQ	–	Power supply for input/output (3.3V)	82	A23	I/O	Address bus
36	D14	I/O	Data bus	83	VssQ	–	Power supply for input/output (0V)
37	D13	I/O	Data bus	84	A24	I/O	Address bus
38	D12	I/O	Data bus	85	VccQ	–	Power supply for input/output (3.3V)
39	D11	I/O	Data bus	86	A25	I/O	Address bus
40	D10	I/O	Data bus	87	XBS	–	Bus cycle start signal
41	D9	I/O	Data bus	88	RD	–	Read strobe
42	D8	I/O	Data bus	89	XWE0/DQMLL	–	Write strobe
43	D7	I/O	Data bus	90	XWE1/DQMLU	–	Write strobe
44	D6	I/O	Data bus	91	XWE2/DQMUL	–	Write strobe
45	VssQ	–	Power supply for input/output (0V)	92	XWE3/DQMUU	–	Write strobe
46	D5	I/O	Data bus	93	RDWR	–	Read/Write
47	VccQ	–	Power supply for input/output (3.3V)	94	AUDSYNC	–	Use with JTAG pin

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No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
95	VssQ-	–	Power supply for input/output (0V)	142	GSL_XIRQS	I	GSL XIRQS interruption
96	XCS0	O	Chip select 0	143	GSL_XIRQ	I	GSL XIRQ interruption
97	VccQ	–	Power supply for input/output (3.3V)	144	SHMD0	–	Clock mode setting
98	XCS2	O	Chip select 2	145	Vcc-PLL1	–	Power supply for PLL1 (2.0V)
99	XCS3	O	Chip select 3	146	CAP1	–	External capacitor pin for PLL1
100	XCS4	O	Chip select 4	147	Vss-PLL1	–	Power supply for PLL1 (0V)*2
101	XCS5	O	Chip select 5	148	Vss-PLL2	–	Power supply for PLL2 (0V)*2
102	XCS6	O	Chip select 6	149	CAP2	–	External capacitor pin for PLL2
103	P_XI	O	Progressive/interlace switch	150	Vcc-PLL2	–	Power supply for PLL2 (2.0V)
104	XCSPRO2	O	Chip select output for PM0033A	151	AUDCK	–	Use with JTAG terminal
105	CKE	O	CKE(SDRAM)	152	Vss	–	Power supply (0V)
106	XRAS3L	O	RAS3L(SDRAM)	153	Vss	–	Power supply (0V)
107	AV1_RST	O	AV-1 reset (H: reset)	154	Vcc	–	Power supply (2.0V)
108	CASL	O	CASL(SDRAM)	155	XTAL	–	XTAL connection pin
109	VssQ	–	Power supply for input/output (0V)	156	EXTAL	–	XTAL connection pin GND connection
110	MOT_RST	O	Reset output for Motorola DSP (H: reset)	157	TI_PCMACK	O	TI DSP output data acknowledge
111	VccQ	–	Power supply for input/output (3.3V)	158	TI_BSACK	O	TI DSP input data acknowledge
112	TI_RST	O	Reset output for TI DSP (H: reset)	159	FPGA_PRG	O	PRG for FPGA configuration
113	VDEC_RST	O	Reset output for MPEG decoder (H: reset)	160	XIRQOUT	O	–
114	XDACK0	O	DMA acknowledge 0	161	VssQ	–	Power supply for input/output (0V)
115	XDACK1	O	DMA acknowledge 1	162	CKIO	I	Clock input (66MHz)
116	AQE_RST	O	PD0274A reset (H: reset)	163	VccQ	–	Power supply for input/output (3.3V)
117	AUDIO_SEL	O	DJ, normal CD mode/X normal DVD (AV-1) mode switch	164	TxD0	O	Serial data output for FPGA configuration/PM0033A
118	44/48	O	44.1/X48K selection	165	SCK0	O	Serial clock output for FPGA configuration/PM0033A
119	MUTE	O	Audio output stage mute (H: mute on)	166	–	–	–
120	TDO	–	Use with JTAG terminal	167	–	–	–
121	BACK	O	NC	168	TXD2	O	RS-232C communication output
122	BREQ	I	pull up	169	–	–	–
123	XWAIT	I	Hardware wait request	170	–	–	–
124	RESETM	I	pull up	171	MODE_SW	I	Normal mode/XDJ mode switching SW
125	FPGA_DONE	I	DONE for FPGA configuration	172	–	–	–
126	RY/XBY	I	Connect to flash ROM	173	Vss	–	Power supply (0V)
127	ASEMD0	–	Use with JTAG terminal	174	RxD2	I	RS-232C communication input
128	ASEBRKAK	–	Use with JTAG terminal	175	Vcc	–	Power supply (2.0V)
129	FPGA_XINIT	I	INIT for FPGA configuration	176	AV1_XINT2	I	AV-1 INT2 interruption
130	AUDATA[3]	–	Use with JTAG terminal	177	VQE_RST	O	Reset of PM0033A and ADV7172 (H: reset)
131	AUDATA[2]	–	Use with JTAG terminal	178	DMA_RST	O	Reset output for DMA FPGA (H: reset)
132	Vss	–	Power supply (0V)	179	CAP_RST	O	Reset output for capture FPGA (H: reset)
133	AUDATA[1]	–	Use with JTAG terminal	180	VMC_RST	O	Reset output for VMC FPGA (H: reset)
134	Vcc	–	Power supply (2.0V)	181	VssQ	–	Power supply for input/output (0V)
135	AUDATA[0]	–	Use with JTAG terminal	182	CARD_RST	–	TE4300 reset (H: reset)
136	XTRST	–	Use with JTAG terminal	183	VccQ	–	Power supply for input/output (3.3V)
137	TMS	–	Use with JTAG terminal	184	–	O	–
138	TDI	–	Use with JTAG terminal	185	CAP_XINT	I	Capture FPGA interruption
139	TCK	–	Use with JTAG terminal	186	CARD_XINT	I	TE4300 interruption
140	VDEC_XINT	I	MPEG2 decoder interruption	187	DMA_XINT	I	DMA FPGA interruption
141	AV1_XINTR	I	AV-1 INTR interruption	188	DONE_SEL	I	DONE signal selection (1: all, 0: DMA FPGA only)

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No.	Pin Name	I/O	Pin Function	No.	Pin Name	I/O	Pin Function
189	GSL_RST	O	GSL reset (H: reset)	199	MOT_EMPTY	I	Motorola FIFO empty signal input(EMPTY: High)
190	–	–	–	200	–	I	–
191	XDREQ0	I	DMA request 0	201	–	I	–
192	XDREQ1	I	DMA request 1	202	–	I	–
193	XRESET	I	Reset input	203	–	I	–
194	CA	–	Chip active/hardware standby request	204	–	I	–
195	MD3	–	Bus width setting for area zero	205	AVcc(3.3V)	–	Power supply for analog (3.3V)
196	MD4	–	Bus width setting for area zero	206	–	I	–
197	MD5	–	Endian setting	207	XTEST	I	pull-up
198	AVss	–	Power supply for analog (0V)	208	AVss	–	Power supply for analog (0V)

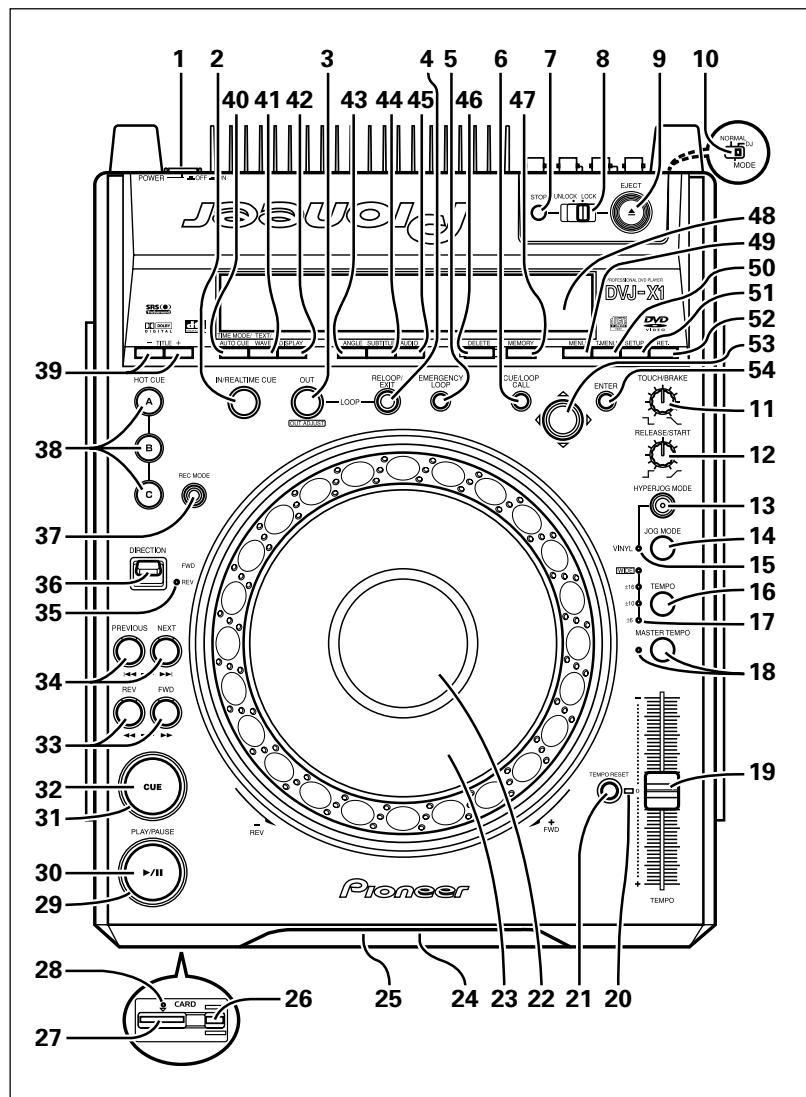
GSL expansion I/O

Pin	Port Name	Initial setting	Function with DVJ
AF8	–	–	–
AF9	–	–	–
AE8	SQUEEZ	OUT	At squeeze: High (external pull-down)
AE9	LETTER	OUT	At letter: High (external pull-down)
AD8	–	–	–
AD9	–	–	–
AC8	–	–	–
AC9	–	–	–

8. PANEL FACILITIES

Operation panel

Buttons and controls with the **DJ** mark are disabled when the mode select switch is set to **NORMAL**.
Buttons and controls with the **NORMAL** mark are disabled when the mode select switch is set to **DJ**.



1. POWER OFF (■)/ON (▲) switch

Located on the rear panel.

2. LOOP IN/REALTIME CUE button/indicator **DJ**

Real time cue
Loop-in point input

3. LOOP OUT/OUT ADJUST button/indicator **DJ**

Loop-out point input
Loop-out point adjust

4. RELOOP/EXIT button **DJ**

5. EMERGENCY LOOP button **DJ**

When this button is pressed, the current point is set as a loop-in point; a loop-out point is set automatically and loop play begins between the two points.

6. CUE/LOOP CALL button **DJ**

Press to turn cue point navigation mode ON/OFF.

7. STOP button

Stops disc playback. When the eject/stop mode select switch is set to **LOCK**, playback will not stop unless the **PAUSE** mode is set first.

8. Eject/stop mode select switch (UNLOCK/LOCK)

UNLOCK: If the **EJECT** (▲) button is pressed during playback, the disc stops and is ejected. If the **STOP** button is pressed during playback, the disc playback stops.

LOCK: If the **EJECT** (▲) button is pressed during playback, the disc will not be ejected. To eject the disc, set the unit to pause, then press the **EJECT** (▲) button. Likewise, playback will not stop if the **STOP** button is pressed during playback; to stop disc playback, set the unit to pause, then press the **STOP** button.

9. EJECT (▲) button

When this button is pressed, disc rotation stops and the disc is ejected from the loading slot. If the eject/stop mode select switch is set to the **LOCK** position, the disc will not be ejected unless the unit is set to pause before pressing the **EJECT** (▲) button

10. Mode select switch (MODE NORMAL/DJ)

Located on the rear panel.

11. TOUCH/BRAKE response dial **DJ**

Adjusts the disc deceleration speed (time to playback stop) when the jog dial's top surface is touched with jog mode set to **VINYL ON**. Rotate the dial counterclockwise to stop playback quickly, and rotate dial clockwise to cause slower deceleration.

12. RELEASE/START response dial **DJ**

Adjusts the disc acceleration speed (playback startup time) when the jog dial's top surface is released with jog mode set to **VINYL ON**. Rotate the dial counterclockwise to restart playback quickly, and rotate dial clockwise to cause slower acceleration.

13. HYPERJOG MODE button/indicator **DJ**

When hyper jog mode is set to **ON** with jog mode set to **VINYL ON**, turning the jog dial causes the rate of change of image and sound to increase to 2x the rate of change normally produced (when the hyper jog mode is **OFF**).

14. JOG MODE select button **DJ**

Each time pressed, sets **VINYL** mode alternately **ON/OFF**.

VINYL mode ON: If surface of jog dial is touched during playback, playback stops, and if the dial is then rotated, image and sound are output in response to the amount of rotation. (if the angled surface of the jog dial is rotated without touching the top, pitch bend operation is enabled.)

The current jog mode is memorized even when power is turned off.

VINYL mode OFF: The above operations are disabled even when the jog dial's surface is touched.

15. VINYL mode indicator **DJ**

Lights when the jog mode is set to **VINYL** mode.

16. TEMPO control range select button **DJ**

Each time this button is pressed, the **TEMPO** control slider's variable range changes ($\pm 6\%$, $\pm 10\%$, $\pm 16\%$, **WIDE**).

When **WIDE** is selected, the variable range is $+70$ to -100% for DVD playback, and $\pm 100\%$ for CD playback.

17. TEMPO control range indicator (± 6 , ± 10 , ± 16 , WIDE)

When control range is set to $\pm 6\%$, the ± 6 indicator lights.
 When control range is set to $\pm 10\%$, the ± 6 and ± 10 indicators light.
 When control range is set to $\pm 16\%$, the ± 6 , ± 10 and ± 16 indicators light.
 When control range is set to WIDE, the ± 6 , ± 10 , ± 16 and WIDE indicators light.

18. MASTER TEMPO button/indicator

Each time this button is pressed, the master tempo function turns alternately ON/OFF.

19. TEMPO control slider

When pulled forward (+), playback tempo is accelerated, and when pushed away (-), tempo is slowed.

20. TEMPO RESET indicator

When lighted, indicates that the playback tempo is set to normal tempo "0", regardless of the position of the TEMPO control slider.

21. TEMPO RESET button

Pressing this button instantly resets the playback tempo to "0" (normal tempo), regardless of the current position of the TEMPO control slider. Press the button once again to cancel the reset.

22. Jog dial display

23. Jog dial (FWD+/REV-)

24. Disc loading slot

25. Forced eject hole

26. Memory card eject button

Press to remove memory card.

Do not press when the memory card indicator is lighted.

27. Memory card slot

28. Memory CARD indicator

Lights when unit is accessing the memory card.

Do not remove memory card or turn off power when this indicator is lighted.

29. PLAY/PAUSE indicator

Lights during playback, and flashes during pause mode.

30. PLAY/PAUSE (▶/⏸) button

31. CUE indicator

Lights to indicate a cue point has been set, except during search mode. Flashes during pause mode.

32. CUE button

Cue point setting

Back cue

Cue point sampler

33. Manual search buttons (REV◀◀, FWD▶▶)

34. Track search buttons

(PREVIOUS◀◀, NEXT▶▶)

Use to return or advance play (unit of movement is by tracks when playing CDs, and by chapters when playing DVDs).

During DVD playback, use to return to menu page or change page.

35. REV indicator

Lights when direction select switch is set to reverse.

36. DIRECTION FWD/REV select switch

Set to REV position for reverse playback.

37. HOT CUE REC MODE button

Press to select the HOT CUE button's function (record/call).

Defaults to call mode when power is switched on.

38. HOT CUE (A, B, C) buttons/indicators

A, B, or C indicator lights red to indicate hot cue point record mode. A, B, or C indicator lights green for hot cue point, and orange for hot cue point; when an indicator is lighted, call mode is enabled for that point; pressing the button initiates playback from the hot cue point. When indicator is not lighted, no hot cue point is recorded.

39. Title search buttons (TITLE +/-)

During DVD playback, titles are forwarded or reversed in the direction corresponding to the button pressed.

40. TIME MODE/AUTO CUE button

TIME MODE:

Each time the button is pressed, the time display switches alternately between playback elapsed time and remaining time (REMAIN).

● The time mode remains set in memory even when power is turned off.

AUTO CUE:

Hold depressed for one second or more to set/release the auto cue function.

Hold depressed for five seconds or more to switch the auto cue level.

● The auto cue ON/OFF setting and auto cue level remains set in memory even when power is turned off.

41. TEXT/WAVE select button

When pressed in DJ mode, the display alternates between WAVE display and CD-TEXT display (disc title / track title).

When pressed in NORMAL mode, alternates between CD-TEXT disc title / track title display.

42. DISPLAY button

When pressed in DJ mode, turns the hot cue, cue point, and playback time guide display ON/OFF on the monitor connected to the preview video output connector.

When pressed in NORMAL mode, turns the disc information guide display ON/OFF.

● When power is switched ON, the display function defaults to ON when the unit is in the DJ mode, and OFF (no display) in the NORMAL mode.

43. ANGLE button

Press to change the viewing angle during DVD playback (on supported discs only).

● In DJ mode, when the angle is changed both video and audio playback temporarily stop (due to writing to buffer memory).

44. SUBTITLE button

During DVD playback, press to alternately turn subtitle display ON/OFF (on supported discs only).

This function is disabled in DJ mode.

45. AUDIO button

During DVD playback, press this button to change language or audio channel (on supported discs only).

● In DJ mode, when the language/audio channel is changed, both video and audio playback temporarily stop (due to writing to buffer memory).

46. DELETE button

Press to delete cue points and loop points recorded in SD memory card.

47. MEMORY button

Press to store cue points or loop points in SD memory card.

48. Display

49. MENU button

Press to display DVD menu.

50. Top menu (T.MENU) button

Press to display a DVD's top menu level.

51. SETUP button

Press to display the setup menu.

52. Return (RET.) button

When setup or other menus are displayed, press this button to return to the previous menu or item.

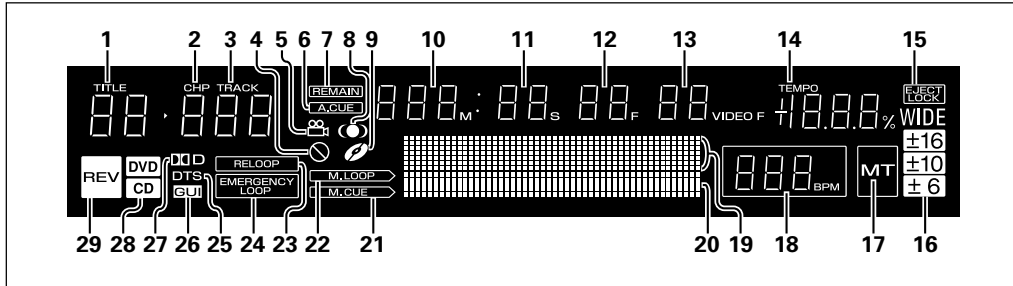
53. Cursor button (◀/▶/▲/▼)

Press to select cue points navigation and DVD menu settings.

54. ENTER button

Press to confirm cue point navigation and various DVD input settings.

Display



1. Title number (TITLE 00-99)

Indicates the DVD title number.
Not displayed during CD playback.

2. Chapter number (CHP 000-999)

Indicates the DVD chapter number.
"CHP" is not displayed during CD playback.

3. Track number (TRACK 00-99)

Indicates CD track number.
"TRACK" is not displayed during DVD playback.

4. Prohibited indicator (⊘)

Some DVD discs or players do not support certain functions or operations; if an effort is made to perform such operations, this indicator appears for about 2 seconds.

5. Angle indicator (⊞)

During DVD playback, this mark appears to indicate a scene with variable angle.

6. Auto cue (A.CUE) indicator

Lights when auto cue is ON. Does not light during NORMAL mode.

7. Remaining time (REMAIN) indicator

Indicates that the current numerical display is of a track's remaining time.

8. SRS indicator (⦿)

Lights when TruSurround function is selected. This function is disabled in DJ mode.

9. Disc indicator (⦶)

Lights during display of a CD TEXT disc title.

10. Minutes display (000-999 M)

11. Seconds display (00-59 S)

12. Frame display (00-74 F)

Display audio frame numbers. 75 frames are equivalent to one second of normal play. Not displayed in NORMAL mode.

13. Video frame display (00-29 VIDEO F)

Lights during DVD playback in DJ mode. 30 frames are equivalent to one second. Video frame display does not appear during CD playback and in NORMAL mode.

Since this unit controls video frames (1/30 second) based on the audio frame (1/75 second), combining the two will result in a maximum deviation of 1 frame.

14. TEMPO indicator

Displays tempo variation produced when TEMPO control slider is operated.

15. EJECT LOCK indicator

Lights when eject/stop mode select switch is set to LOCK position. If the EJECT (▲) button or STOP button is pressed when this indicator is lighted, the indicator will flash for about 2 seconds.

16. Tempo control range display (±6, ±10, ±16, WIDE)

Lights to indicate the TEMPO control slider's variable range as selected with the tempo control range select button. Does not light in NORMAL mode.

17. Master tempo indicator (MT)

Lights when master tempo function is ON.
Does not light in NORMAL mode.

18. BPM counter display

Lights to indicate the beats per minute (BPM) of the currently playing track. Some tracks may not be measurable with the automatic BPM counter.

Does not light in NORMAL mode.

19. Dot matrix display (50x7 dots)

Used to display CD TEXT, WAVE display, guide messages and other data. In the case of CD TEXT, the maximum number of alpha-numeric characters that can be displayed is 72 for disc titles and 48 for track titles (when a display exceeds 9 characters in length, the display will scroll). In the case of WAVE display, the varying volume levels of the currently playing track are displayed, with the track sized to fit into the entire 50-dot display width.

For guide messages, "Dot Matrix Guide Display Messages".

20. Play address display

Displays a bar graph to allow an immediate visual grasp of the elapsed and remaining playing time of the currently playing track. The full scale bar length indicates the full track length.

The bar graph is off at the beginning of the track, and lights from left to right.

The bar graph is lighted at the beginning of the track, and goes out from left to right.

When the remaining playing time falls below 30 seconds, the bar graph flashes slowly; when less than 15 seconds are left, the bar graph flashes quickly.

21. Cue memory indicator (M.CUE)

The selected chapter or track's cue memory position is indicated by the indicators beneath the play address display. Even if multiple memory points are located within the same block, only a single indicator lights. Does not light in NORMAL mode.

22. Loop memory indicator (M.LOOP)

Displays the loop memory position for the selected track immediately above the playback address display. Even if multiple memory points are located within the same block, only a single indicator lights. Does not light in NORMAL mode.

23. RELOOP indicator

Lights when loop-in points and loop-out points have been recorded and loop playback is possible, as well as during loop play operation itself.

Does not light in NORMAL mode.

24. EMERGENCY LOOP indicator

Lights during loop operation in emergency loop mode.

Does not light in NORMAL mode.

25. DTS indicator

Lights during playback when DTS audio has been selected.

Not supported in DJ mode.

26. GUI indicator

Lights when setup menu, image adjust, disc information and other onscreen menus are displayed.

27. Dolby Digital indicator (D)

Lights during playback when Dolby Digital audio has been selected.

28. Disc type indicator (DVD/CD)

Lights to indicate the type of disc being played.

29. Reverse indicator (REV)

Lights to indicate the Direction select switch is set to reverse (REV) position.

Does not light in NORMAL mode.

Jog dial display

30. Operation display

Displays play position, with one revolution equivalent to 135 frames. The display rotates during playback, and stops during pause.

31. Cue point position display

Displays the position of cue points.

32. Audio/video memory status display

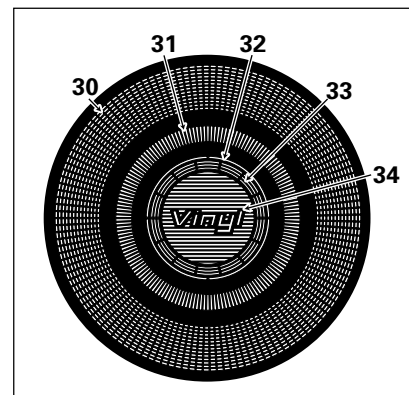
Flashes during writing to the audio/video memory; lights steadily when writing is completed. While indicator is flashing, it may not be possible to record real time cue points or hot cue points.

33. Jog touch detector indicator

When VINYL mode is set to ON, this indicator lights when the top panel of the jog dial is touched.

34. VINYL mode indicator (Vinyl)

Lights when VINYL mode is set to ON.



Playing images from the DVJ-X1 on a television set

The example shown here is an illustration meant to depict the general display contents, and may differ somewhat from actual monitor appearance.

This unit is equipped with both main video output (**VIDEO OUT**) and preview video output (**PREVIEW OUT**) connectors.

In NORMAL mode, both **VIDEO OUT** and **PREVIEW OUT** produce the same video signals.

In DJ mode, the outputs of the two connectors are different, as indicated below. Even in DJ mode, however, if a non-supported DJ operation is attempted, the outputs will be the same as in NORMAL mode.

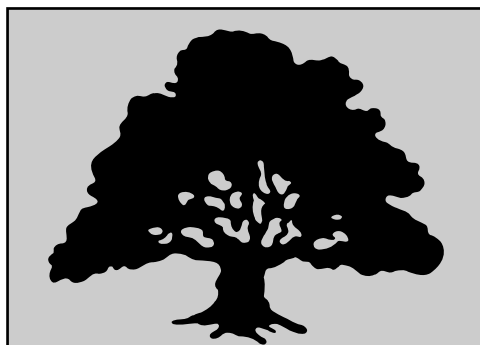
VIDEO OUT

This outputs only the DVD playback image; it should be connected to the main publicly viewed monitor.

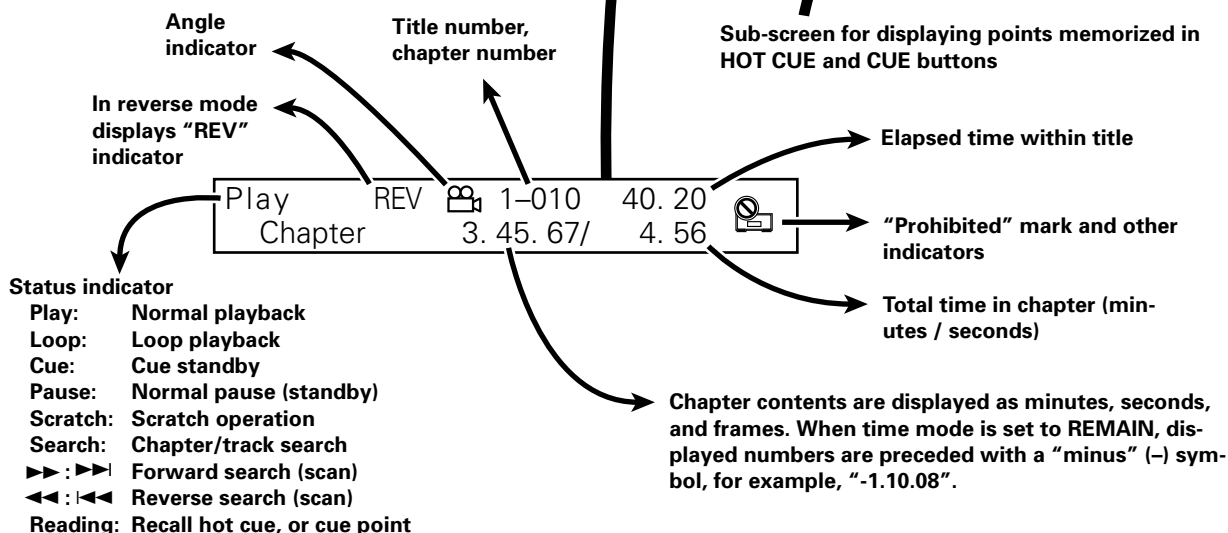
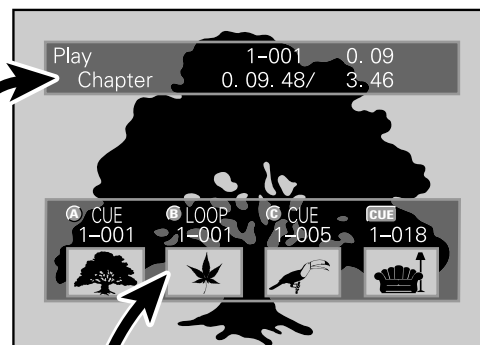
PREVIEW OUT

This outputs the images used by the DJ when operating the unit, and includes various additional guide messages and menus.

Main monitor image



Preview monitor image



Discs Usable with This Unit

Types of discs playable on this unit

This unit is designed to support NTSC video format; discs or their packaging should include messages indicating that they are compatible with the NTSC format.

The following marks and logos are displayed on disc labels, packaging, or jackets.

Types and Logos of playable discs			
DVD video  			
DVD-R (Note 1) 		DVD-RW (Note 2) 	
CD	CD-TEXT (Note 3)	CD-R (Note 4)	CD-RW (Note 4)
			

Note 1) About DVD-R disc playback:

This player can play back DVD-R discs recorded in "DVD video" format.

Note 2) About DVD-RW disc playback:

This player can play back DVD-RW discs recorded in "DVD video" format.

When playing a disc that has been edited on a DVD recorder, portions of the recording including links between tracks may appear as a momentary still image.

When playing a disc that has been recorded or edited on a DVD recorder, the locations of edited portions may shift somewhat.

* For details, consult the Operating Instructions for your recorder.

Note 3) Regarding CD-TEXT display:

The number of characters that can be displayed is up to 72 for disc title, and 48 for track titles. When a display exceeds 8 characters in length, the display will scroll. Only alpha-numerics and a limited number of symbols can be displayed.

Note 4) CD-R/CD-RW discs:

This player can play CD-R/CD-RW discs recorded in audio CD format.

* For details, consult the Operating Instructions for your recorder.

When playing 8cm CDs, always use an 8cm CD adapter

This unit cannot play 8cm DVDs.

The following discs cannot be played on this unit:

DVD video discs not marketed for region "1" or "All"
 DVD-RW discs recorded in VR format
 DVD audio discs
 DVD-ROM
 DVD-RAM
 Video CDs
 CD-ROMs (MP3, etc.)
 Photo CD
 DTS-CD, etc.

Regarding copy-control CDs

This unit is designed to conform with audio CD standards. Operation is not guaranteed when playing CDs produced outside the normal CD standards.

Notes:

Some DVD-R/DVD-RW and CD-R/CD-RW discs recorded on standalone recorders or computer drives may not be playable back on this player, due to a variety of reasons, including disc characteristics, scratches, dirt, player lens dirt or condensation, etc.

Some discs recorded on computer drives may not be playable on this player, depending on the recording application used, its settings, and operating environment. Be sure to use the correct formatting for the discs used. For details, consult the application author.

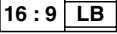
This unit cannot play DVD-R or DVD-RW discs recorded in video format unless they have been finalized.

This unit cannot play DVD-RW discs recorded in VR format. This unit cannot play partially recorded CD-R or CD-RW discs that have not been finalized.

For detailed information regarding the handling of DVD-R/DVD-RW and CD-R/CD-RW discs, consult the handling precautions supplied with each disc.

Marks displayed on DVD

The following symbols and marks may be displayed on DVD labels or packaging:

Mark	Meaning
	Number of recorded audio tracks
	Number of recorded subtitles
	Number of recorded angles
	Recorded aspect ratio
	Region number. This player can play discs marked with region "1" or "ALL".